

2011 Diamond Drilling, Geological, and Geochemical Report

for the

Justin Property

Volume I - Report

Justin 1-4 (YB59913 – YB59916), Justin 5-25 (YB70809 - YB70829), SP 1-50 (YC73232 – YC73281),

SP51-55 (YD65452 – YD65456)

Watson Lake Mining District, Southeastern Yukon Territory

Map sheet 105-H-09

Latitude 61° 42' N, Longitude 128°10'W

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SUMMARY

The Justin Property is located approximately 175 kilometers north of Watson Lake in the southeast Yukon Territory. The property consists of 80 Quartz Claims (Justin 1-25, SP 1 - 55) within the Watson Lake mining district. The claims are owned 100% by Aben Resources Ltd., with an underlying 1% NSR held by Bernie Kreft of Whitehorse, Yukon.

The regional geology of the southeast Yukon is represented by the basement rocks of the Selwyn Basin, dominated by the late Precambrian to early Cambrian Hyland Group sediments. Most of the mineralization in the region is controlled by the mid-Cretaceous Tombstone-Tungsten Suite of intrusive stocks, typically quartz monzonite, which extends from southwestern Alaska through the Fairbanks and Dawson areas to the Yukon – British Columbia border. The Justin Property is underlain primarily by sedimentary rocks assigned to the Yusezyu Formation of the Hyland Group, and by sedimentary rocks assigned to the stratigraphically younger Cambro-Ordovician Rabbit Kettle Formation in northeastern property areas.

Gold mineralization on the property appears to be related to two separate phases of faulting which created dilational zones acting as conduits for gold bearing hydrothermal fluid movement. Three mineralogical settings were identified by past operator Viceroy Resource Corporation (Schulze, 1997): 1) fracture controlled quartz-arsenopyrite mineralization, including dike hosted mineralization; 2) skarn mineralization within limestone members; and 3) coarse clastic sediment hosted mineralization.

Chip sampling of coarse clastic hosted mineralization in the Confluence Zone by Viceroy returned values up to 4.24 gpt gold (Au) over 4.5 meters. Viceroy also sampled skarn hosted mineralization in the Main Skarn and Kangas Zones, which returned values to 2.38 gpt Au over 22.5 meters and 1.6 gpt Au over 1.5 meters respectively.

In 2010 exploration efforts by Eagle Plains Resources Ltd confirmed historical results from the Main, Kangas and Confluence Zones and identified a “new” mineral occurrence within the northwestern quadrant of the property, along with a previously unknown intrusive stock. The new occurrence, named the POW Zone, exhibits mineralization similar to both the Main Skarn Zone and Confluence Zones. Results include 0.5 g/t Au over 3.00 m in a chip sample, and grab samples from different locations returning up to 2.4 g/t Au in skarn mineralization and 3.0 g/t Au in quartz-calcite veins.

The 2011 exploration program consisted of 58 field days with a crew ranging from 2 to 9 workers. The primary focus of the program was to drill-test mineral occurrences outlined in previous exploration programs. Four zones of interest were explored during the 2011 program: the Main Skarn Zone, Kangas Zone, Confluence Zone, and the POW Zone. The latter three of these zones were drill tested for the first time.

A small component of mapping, prospecting, and soil sampling occurred concurrently with diamond drilling activities to follow up on the POW Zone discovery. A total of 2,020 meters of NQ-size core was drilled over a period of 34 days. A total of 1,374 drill core samples, 52 rock samples, 1 silt sample, and 63 soil samples were collected over the duration of the program. All samples were shipped to ALS Minerals in Whitehorse, YT, Canada for preparation and then transported to ALS Minerals in Vancouver, BC, Canada for analysis.

The 2011 exploration program was successful in confirming gold+/-silver mineralization at all four zones. Of importance was the significant discovery of gold-bearing skarn and stockwork veining within the POW Zone, highlighted in diamond drill holes JN11009 and JN11010. Highlights from the POW Zone include 60.00 meters of 1.19 g/t Au (JN11009) and 11.30 meters of 2.70 g/t Au, 29 g/t Ag (JN11010). The POW Zone holds the greatest potential to host an economic deposit on the Justin property.

Results from the Main Skarn Zone, the Kangas Zone, and the Confluence Zone were encouraging as they prove that gold mineralization extends below their respective surface expressions. Highlights from the Kangas Zone include 1.07m of 1.11 g/t Au with 7,320 g/t silver (Ag) and 3.52 % copper (Cu). Highlights from the Confluence Zone include 4.60 m of 1.15 g/t Au. Highlights from the Main Zone include 0.25 m of 5.37 g/t Au. Although economic potential of these zones appears limited at this time, results do prove that precious metals occur in all three zones, representing a large anomalous area. The widespread mineralization is thought to be indicative of zonation generated within one system.

The surficial geochemical program, focusing on mapping, prospecting and sampling of the POW Zone returned several samples containing gold+/-silver mineralization. Highlights from the POW Zone include grab samples returning values up to 8.97 g/t gold and 84.1 g/t silver (MMJNR034) from quartz-calcite veining, and chip samples returning up to 0.86 g/t gold and 18.4 g/t silver over 1.2 meters from a breccia zone (MMJNR029). Reconnaissance mapping, prospecting, sampling and one soil line were conducted south and west of the Confluence Zone. No significant results were obtained from these regions during the two days spent on the ground. Further exploration is recommended for the southeast quadrant of the property to follow up on anomalous geochemical and geophysical targets defined in 2010.

The Justin property has the potential to host one or more economic gold-silver+/-copper deposits. Further exploration drilling is recommended to evaluate this potential.

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INTRODUCTION

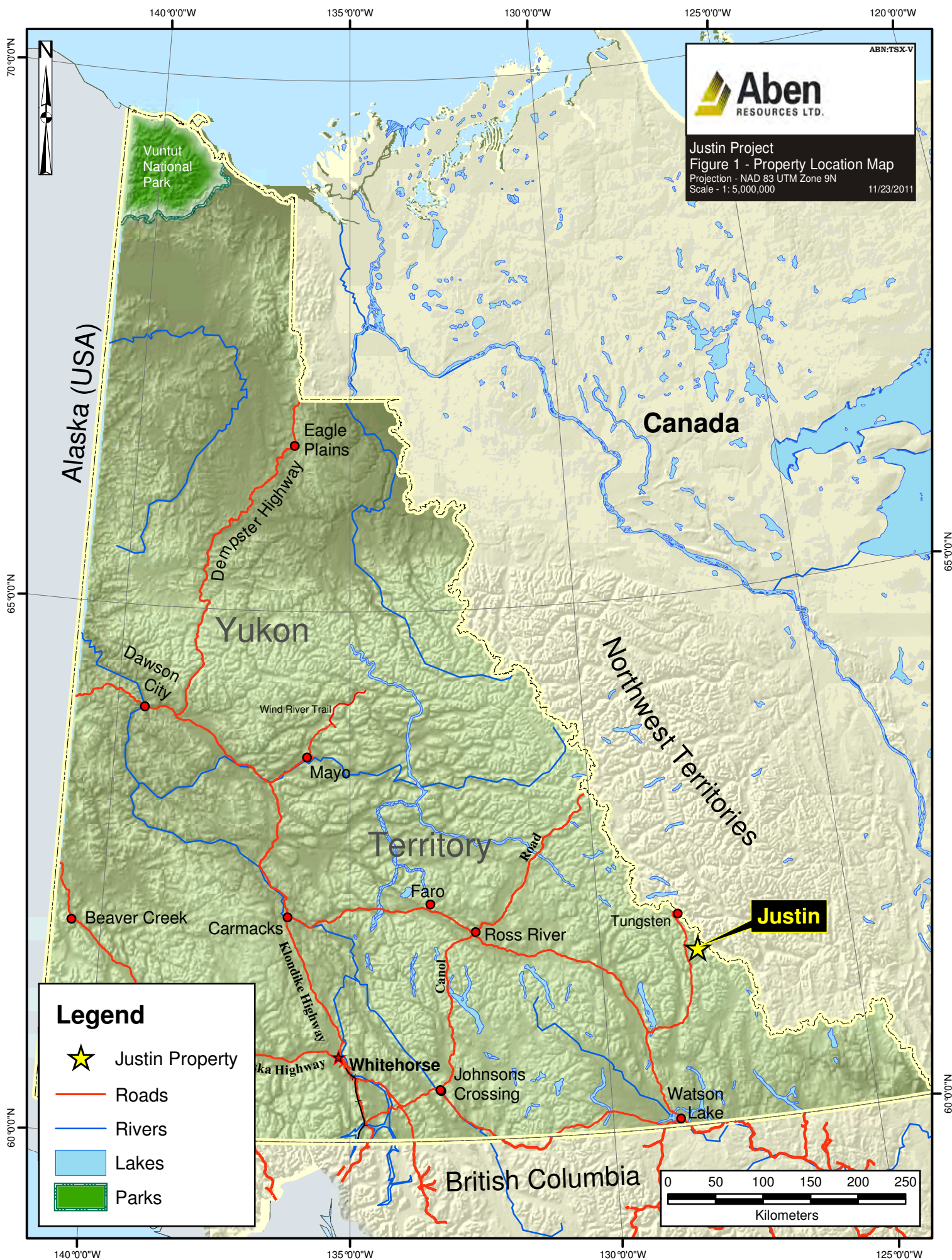
Location and Access

The Justin property (Justin 1-25 claims, SP Claims 1-55) is located in the east-central Yukon Territory on Map sheet 105-H-09 approximately 175 kilometers north of Watson Lake. The claims are centered at approximately Latitude 61° 42' N / Longitude 128° 10' W; NTS Nad 83 Zone 9N 6841036 N / 543970 E. The Nahanni Range Road extends approximately 11 km west of the property. The road was rehabilitated in 2002 with the re-opening of the Cantung tungsten mine and provides all-weather access for staging onto the property.

Helicopter access to the property is equidistant from bases in Watson Lake or Ross River. Equipment and personnel can be mobilized from either the Hyland airstrip, approximately 20 kilometers south of the property, or from a gravel pit on the Nahanni Range Road near Piggott Creek.

The property covers rugged glaciated terrain typical of the Logan Mountains with elevations ranging from 1,300 to 2,000 meters. A prominent east-west trending ridge extends through the property, with steep south facing slopes and somewhat more moderate north facing talus slopes at the base of 100-200 meter cliff exposures. The property is crossed with several north-south trending valleys with deep west-northwest trending U-shaped glacial valleys along the northern and southern property boundaries. The Sprogge Creek valley located in the northwestern quadrant of the property provides the best flight access into the property, and would provide the best road access to the property.

Much of the property is covered by talus and rubble crop. Outcrop exposure is greatest at higher elevations; lower elevations typically have a thin to moderate alpine glacial till blanket covering most of the bedrock with the exception of some of the lower creek gulleys. Higher elevations are generally covered by alpine tundra type vegetation, extending into thick buckbrush and scrub vegetation at mid-elevations on south facing slopes; lower elevations typically support subalpine spruce and fir forests.



Tenure

The property consists of 80 Quartz claims totaling 1,665.30 ha located on Map sheet 105 H 09 within the Watson Lake Mining District. The claims are owned 100% by Aben Resources Ltd, with an underlying 1% NSR carried by Bernie Kreft of Whitehorse, Yukon. The company staked an additional 32 claims (SP 56-88), totaling 552.06 ha on September 22th, 2011, and an additional 119 claims (SP 89-207), totaling 2,273.71 ha on November 7th, 2011. The total number of claims held by Aben Resources Ltd on the Justin property is 232 totaling 4,491.07 ha.

Table 1: Tenure Summary for Justin Property

Quartz Claim ID	Claim Name	Claim Number	Ownership	Recorded Date	Expiry Date
YB59913	JUSTIN	1	ABN	6/1/1995	10/24/2015
YB59914	JUSTIN	2	ABN	6/1/1995	10/24/2015
YB59915	JUSTIN	3	ABN	6/1/1995	10/24/2015
YB59916	JUSTIN	4	ABN	6/1/1995	10/24/2015
YB70809	JUSTIN	5	ABN	10/24/1995	10/24/2015
YB70810	JUSTIN	6	ABN	10/24/1995	10/24/2015
YB70811	JUSTIN	7	ABN	10/24/1995	10/24/2015
YB70812	JUSTIN	8	ABN	10/24/1995	10/24/2015
YB70813	JUSTIN	9	ABN	10/24/1995	10/24/2015
YB70814	JUSTIN	10	ABN	10/24/1995	10/24/2015
YB70815	JUSTIN	11	ABN	10/24/1995	10/24/2015
YB70816	JUSTIN	12	ABN	10/24/1995	10/24/2015
YB70817	JUSTIN	13	ABN	10/24/1995	10/24/2015
YB70818	JUSTIN	14	ABN	10/24/1995	10/24/2015
YB70819	JUSTIN	15	ABN	10/24/1995	10/24/2015
YB70820	JUSTIN	16	ABN	10/24/1995	10/24/2015
YB70821	JUSTIN	17	ABN	10/24/1995	10/24/2015
YB70822	JUSTIN	18	ABN	10/24/1995	10/24/2015
YB70823	JUSTIN	19	ABN	10/24/1995	10/24/2015
YB70824	JUSTIN	20	ABN	10/24/1995	10/24/2015
YB70825	JUSTIN	21	ABN	10/24/1995	10/24/2015
YB70826	JUSTIN	22	ABN	10/24/1995	10/24/2015
YB70827	JUSTIN	23	ABN	10/24/1995	10/24/2015
YB70828	JUSTIN	24	ABN	10/24/1995	10/24/2015
YB70829	JUSTIN	25	ABN	10/24/1995	10/24/2015
YC73232	SP	1	ABN	4/11/2008	10/11/2015
YC73233	SP	2	ABN	4/11/2008	10/11/2015
YC73234	SP	3	ABN	4/11/2008	10/11/2015
YC73235	SP	4	ABN	4/11/2008	10/11/2015
YC73236	SP	5	ABN	4/11/2008	10/11/2015
YC73237	SP	6	ABN	4/11/2008	10/11/2015
YC73238	SP	7	ABN	4/11/2008	10/11/2015
YC73239	SP	8	ABN	4/11/2008	10/11/2015
YC73240	SP	9	ABN	4/11/2008	10/11/2015
YC73241	SP	10	ABN	4/11/2008	10/11/2015
YC73242	SP	11	ABN	4/11/2008	10/11/2015
YC73243	SP	12	ABN	4/11/2008	10/11/2015

Quartz Claim ID	Claim Name	Claim Number	Ownership	Recorded Date	Expiry Date
YC73244	SP	13	ABN	4/11/2008	10/11/2015
YC73245	SP	14	ABN	4/11/2008	10/11/2015
YC73246	SP	15	ABN	4/11/2008	10/11/2015
YC73247	SP	16	ABN	4/11/2008	10/11/2015
YC73248	SP	17	ABN	4/11/2008	10/11/2015
YC73249	SP	18	ABN	4/11/2008	10/11/2015
YC73250	SP	19	ABN	4/11/2008	10/11/2015
YC73251	SP	20	ABN	4/11/2008	10/11/2015
YC73252	SP	21	ABN	4/11/2008	10/11/2015
YC73253	SP	22	ABN	4/11/2008	10/11/2015
YC73254	SP	23	ABN	4/11/2008	10/11/2015
YC73255	SP	24	ABN	4/11/2008	10/11/2015
YC73256	SP	25	ABN	4/11/2008	10/11/2015
YC73257	SP	26	ABN	4/11/2008	10/11/2015
YC73258	SP	27	ABN	4/11/2008	10/11/2015
YC73259	SP	28	ABN	4/11/2008	10/11/2015
YC73260	SP	29	ABN	4/11/2008	10/11/2015
YC73261	SP	30	ABN	4/11/2008	10/11/2015
YC73262	SP	31	ABN	4/11/2008	10/11/2015
YC73263	SP	32	ABN	4/11/2008	10/11/2015
YC73264	SP	33	ABN	4/11/2008	10/11/2015
YC73265	SP	34	ABN	4/11/2008	10/11/2015
YC73266	SP	35	ABN	4/11/2008	10/11/2015
YC73267	SP	36	ABN	4/11/2008	10/11/2015
YC73268	SP	37	ABN	4/11/2008	10/11/2015
YC73269	SP	38	ABN	4/11/2008	10/11/2015
YC73270	SP	39	ABN	4/11/2008	10/11/2015
YC73271	SP	40	ABN	4/11/2008	10/11/2015
YC73272	SP	41	ABN	4/11/2008	10/11/2015
YC73273	SP	42	ABN	4/11/2008	10/11/2015
YC73274	SP	43	ABN	4/11/2008	10/11/2015
YC73275	SP	44	ABN	4/11/2008	10/11/2015
YC73276	SP	45	ABN	4/11/2008	10/11/2015
YC73277	SP	46	ABN	4/11/2008	10/11/2015
YC73278	SP	47	ABN	4/11/2008	10/11/2015
YC73279	SP	48	ABN	4/11/2008	10/11/2015
YC73280	SP	49	ABN	4/11/2008	10/11/2015
YC73281	SP	50	ABN	4/11/2008	10/11/2015
YD65452	SP	51	ABN	8/27/2010	10/11/2015
YD65453	SP	52	ABN	8/27/2010	10/11/2015
YD65454	SP	53	ABN	8/27/2010	10/11/2015
YD65455	SP	54	ABN	8/27/2010	10/11/2015
YD65456	SP	55	ABN	8/27/2010	10/11/2015

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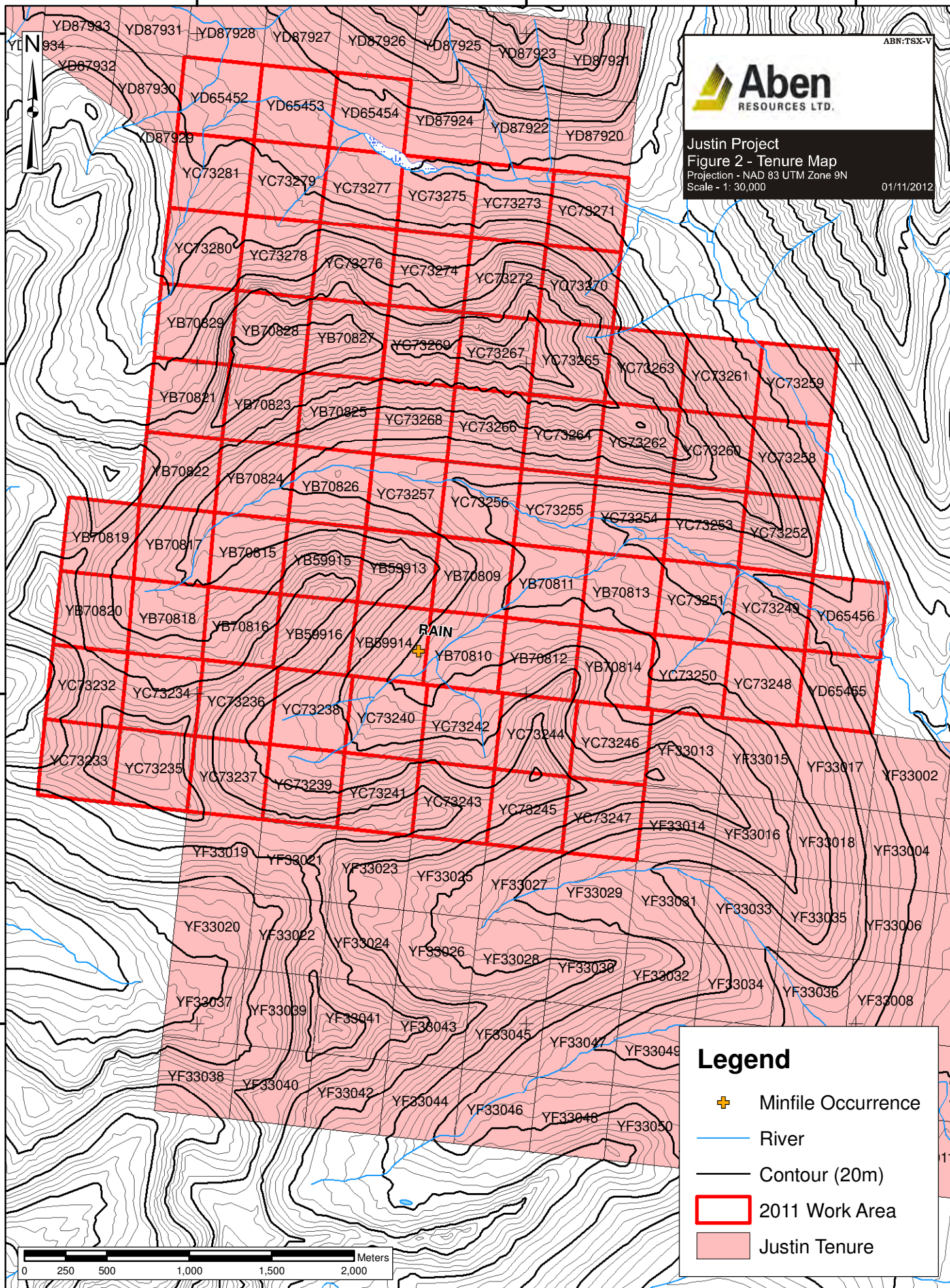
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History and Previous Work

The Justin Property area was first explored in 1964, when Norquest JV staked the RAIN Claim to cover skarn and replacement style pyrite, pyrrhotite and chalcopyrite mineralization. The JV carried out geological mapping and a surface magnetic survey in 1965. The area was restaked as the BJ claim in 1975 by B. Corrigan, and again in 1980 by Majestic Mg. Corporation as the SUN Claim Group. Majestic optioned the claims to Vancliffe Resource Corporation. In 1981, Waterloo Energy Corp tied on the Lightning Claims to the south and staked a separate block two kilometers south of the SUN Claims. Vista Resources tied on two more SUN Claims in 1987. A 1987 joint venture between Vista, Vancliffe, and Conquest drilled four holes across the “Main Skarn Zone” to test for copper-gold mineralization. Noranda Exploration tied on the PTAR Claims along the north side in 1988, and E.G. Sykes staked two additional SUN Claims in 1990. The claims all lapsed in the early 1990s.

In June 1995 Bernie Kreft of Whitehorse staked the JUSTIN 1-4 claims to cover the central “Main Skarn Zone” area and carried out limited prospecting to the southeast. The claims were optioned by Hemlo Gold Mines Inc in 1995, which staked the JUSTIN 5-25 claims to the east, west and south of the Justin Property in October 1995.

In 1996, Hemlo carried out reconnaissance exploration in the area that led to the staking of the SPROGGE 1-74 Claims southwest of the Justin Property. The entire claim group was consolidated as the Sprogge Property under a 1997 option agreement with Viceroy Exploration, which conducted geologic mapping, prospecting, soil sampling, and limited hand trenching. The option was transferred to NovaGold Resources in 1999 as part of an underlying deal. NovaGold dropped their option on the JUSTIN 1-25 Claims in 2000. The claims were optioned by Eagle Plains Resources Ltd. from property owner Bernie Kreft in 2001.

In 2010 Eagle Plains Resources Ltd conducted a 16 day field program with a crew of 5 workers, and a 207 line km airborne geophysical survey. The focus of the program was to evaluate and re-sample the known mineralization occurrences and locate further mineralization on the property. The purpose of the airborne geophysical survey was to locate any buried intrusions and major structural features that could be controlling and influencing mineralization on the property. A total of 135 rock samples, 61 silt samples and 209 soil samples were taken over the course of the program.

The 2010 exploration program on the property was successful in outlining an abundance of mineralized occurrences returning greater than 1 g/t Au. Channel sampling from the Confluence and Main Zone and chip sampling from the Kangas zone confirmed and expanded on the historical results. The Main Zone returned results as high as 11.0 m grading 1.4 g/t Au, 3 g/t Ag and 0.18 % Cu, including 3.0 m grading 3.04 g/t Au, 4 g/t Ag and 0.22% Cu as well as 7 m at 2.07 g/t Au, including 3 m at 3.15 g/t Au. The Confluence Zone returned results including 1.6 g/t Au, 2.4 g/t Ag over 4.0 m while the Kangas Zone returned 1.5 m at 2.85 g/t Au, 4.2 g/t Ag.

A “new” mineral occurrence was discovered in the northwestern quadrant of the property, along with a previously unknown intrusive stock. The new mineral occurrence has been named the POW Zone. It exhibits mineralization similar to both the Main and Confluence Zones. Results include 0.5 g/t Au over 3.0 m in a chip sample; grab samples from different locations returned up to 2.4 g/t Au in skarn mineralization and 3.0 g/t Au in mineralized quartz-calcite veins.

The airborne geophysical survey over the property was successful in outlining potential target areas of coincident magnetic and electromagnetic anomalies.

GEOLOGY

Regional Geology

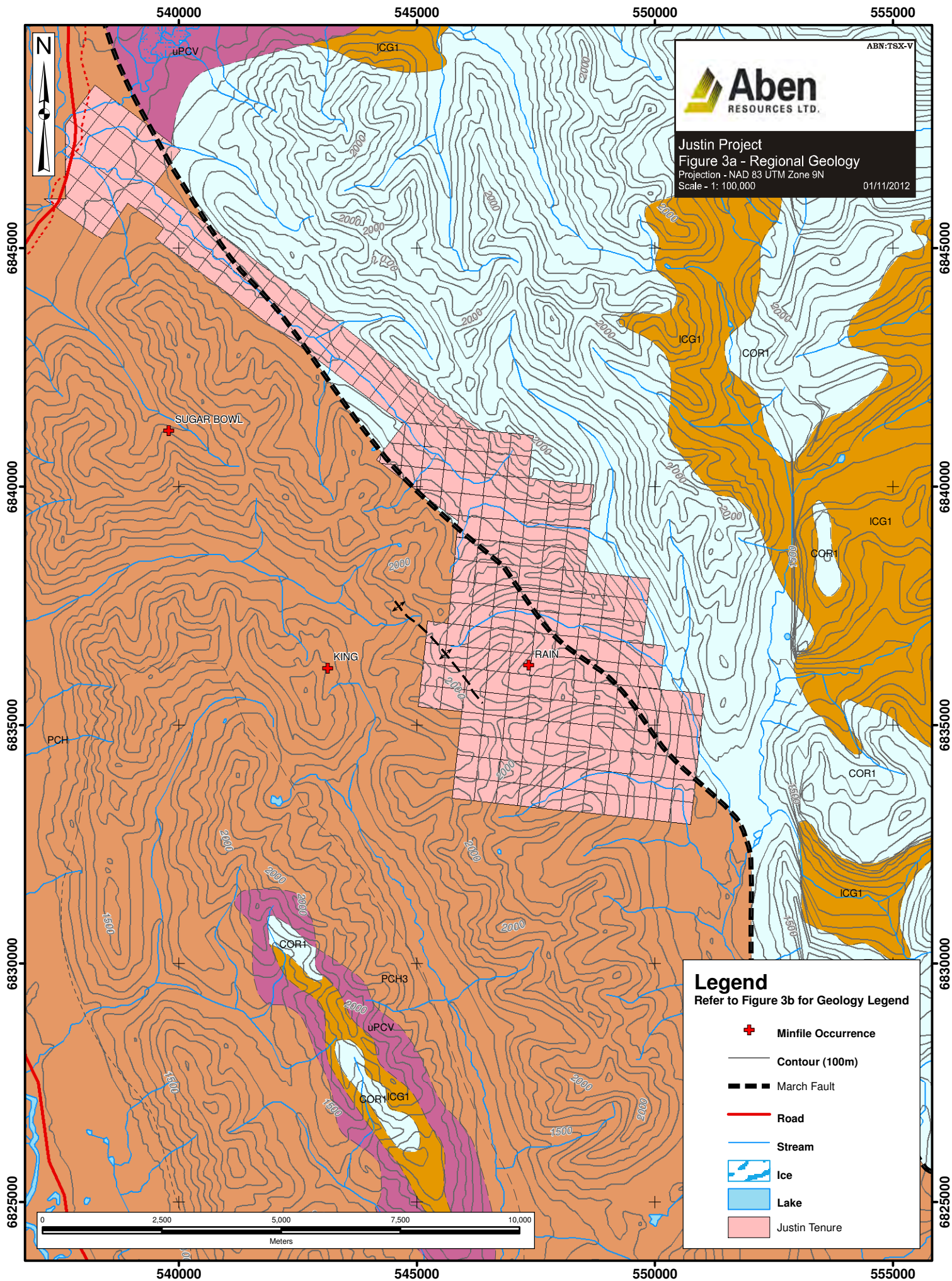
The Justin property lies within the Selwyn Mountains and is underlain by a sequence of Selwyn Basin stratigraphy at least 1.5 kilometres thick, composed primarily of shallow marine shelf and off-shelf sedimentary rock derived from the ancient North American Platform. Strata were deposited from late Precambrian to Permian time, with accelerated deposition coinciding with periods of continental uplift, and creating specific stratigraphic “Groups”.

The Justin area is underlain primarily by Late Precambrian to Early Cambrian Hyland Group stratigraphy, consisting primarily of phyllite, calcareous phyllite and coarse clastic sediments, with lesser limestone. The fine sediments represent a shallow marine depositional environment, typical of a back-arc basin, although the coarse clastics may represent regions of deltaic or possibly submarine channel emplacement. Tectonic deformation and faulting has resulted in a pronounced NW-SE structural fabric which begins to “bend” southward near the NWT Border. The Hyland Group sequence is separated from younger Cambrian to Ordovician Rabbitkettle Formation thin to medium bedded limestone to the north by a pronounced

transcurrent NW-SE trending fault, which may represent a significant tectonic event

The Justin claims occur near the eastern limit of a suite of alkaline intrusive rocks known as the Tombstone-Tungsten Plutonic Suite. This intrusive belt consists of a broad suite of mid-Cretaceous (+/- 91Ma) quartz monzonite stocks and plutons extending more than 400 kilometres ESE from just east of the Alaskan border to just beyond the NWT border. The intrusives often occur as dikes and apophyses, associated with broad zones of hornfels. Several Tombstone-Tungsten Suite stocks have been emplaced locally to the north of the Justin claims. These control most of the known mineralization in the area, most notably the Cantung tungsten skarn deposit 30 km to the north, and similar sub-economic mineralization underlying the Tuna Property located 10 km north. A suite of felsite dikes, commonly NNW trending, occurs within the bounds of the Justin property.

The Justin claims occur where Selwyn Basin stratigraphy and the NW-SE structural fabric begins to curve southwards. Emplacement of the Tombstone-Tungsten Suite occurred after the regional faulting. Major linear fault- controlled drainages, primarily the Hyland and Little Hyland Rivers, show that major "linears" extend nearly N-S.



MID-CRETACEOUS

MKS

Selwyn Suite - Resistant, blocky, fine to coarse grained equigranular to porphyritic (K-feldspar) biotite quartz monzonite and granodiorite and minor quartz diorite; minor leuco-quartz monzonite and syenite

UPPER CAMBRIAN AND ORDOVICIAN

COR₁

Rabbitkettle - thin bedded, wavy banded, silty limestone and grey lustrous calcareous phyllite; limestone intraclast breccia and conglomerate; massive to laminated, grey quartzose siltstone and chert and rare black slate; local mafic flows, breccia, and tuff

LOWER CAMBRIAN

ICG₁

Gull Lake - shale, siltstone and mudstone, locally bioturbated, with minor quartz sandstone; rare green-grey chert; local basal limestone and limestone conglomerate; phyllite to quartz-muscovite-biotite schist

UPPER PROTEROZOIC TO LOWER CAMBRIAN

PCH

Hyland Group - (PCH1) limestone; (PCH2) fine clastics typified by maroon and green shale; (PCH3) consists of coarse turbiditic clastics

uPCV

Vampire - dark brown weathering, thin-bedded, argillaceous fine-grained sandstone and siltstone, minor interbedded medium- to coarse grained white to light grey orthoquartzite; phyllite, slate, and argillite

Property Geology

(after Schulze, 1997; Gallagher, 2002, McCuaig, 2011)

The property is underlain by a broad package of WNW trending NNE dipping Hyland Group sediments consisting of thick units of coarse clastic sediments inter-bedded with fine-grained phyllitic units, and locally thin to thick bedded calcareous siltstones and limestones. The extreme northeastern areas are underlain by a thick package of Rabbitkettle Formation thin-bedded, tan-buff weathering limestone. Hyland Group stratigraphy has been intruded by a suite of NNW trending structurally controlled Tombstone-Tungsten Suite quartz monzonite and quartz-biotite monzonite dikes. The NW-SE trending March Creek Fault extending along the north boundary of the property separates the two groups to the east of the original SPROGGE 1-74 claims. West of this, the contact fault splays slightly to the NW of the pronounced lineation controlling the Sprogge Creek drainage.

Three distinct styles of mineralization are documented on the property. The styles are thought to be the direct reflection of a long lived, widespread mesothermal-epithermal mineralizing event occurring within permeable structures controlled by geology, and polyphase brittle and brittle – ductile shearing.

Detailed geologic mapping has been completed across gridded areas of the Justin block and limited reconnaissance mapping and prospecting has occurred elsewhere. The following is a brief description of lithologic map units present.

Lithologic Map Units

Intrusive Rocks

Cretaceous Tombstone-Tungsten Suite

A variety of porphyritic felsite dykes interpreted to be associated with Mid-Cretaceous Tombstone-Tungsten Suite magmatism occur on the property. Emplacement of the porphyritic dikes occurred in a broad NNW trending structural fault zone extending across the Justin Property (Fig. 4). Similar NNW trending faults have proved to be important structural features, hosting significant precious metal mineralization.

Petrographic thin section analysis has been completed on a total of four igneous rock samples (refer to Appendix VI for detailed petrographic descriptions of the samples). Dike material underlying the Justin claims has undergone moderate to intense white mica-quartz-clay-chlorite alteration. Pale-green porphyritic felsite and texturally similar grey-white porphyritic felsites have undergone variable argillic alteration resulting nearly complete replacement of biotite with sericite. Some dikes appear to grade from a quartz biotite felsite to a quartz monzonite, consistent with multiple intrusive events either from a single evolving magma source or multiple magma sources. The intense alteration masks the original composition of the rock, hence the use of the generic term “felsites”. Further petrographic analysis will be required to determine if there is a genetic relationship between the hypabyssal igneous dikes and the granodiorite stock located at the POW Zone. A quartz diorite dike extends across the western Justin claims (Fig. 4).

Sedimentary Rocks

Sedimentary rocks of the Justin claims are comprised of two major formations: the Rabbitkettle Formation (COR), and the Yusezyu Formation of the Hyland Group (PCH). The only unit recognized within the Rabbitkettle Formation is a thin to medium bedded white to buff weathering limestone (LST). This has been mapped in the extreme NE areas of the map area - north of the March Creek Fault (Fig. 4). The following lithologic units have been identified within the Yusezyu Formation of the Hyland Group: Limestone (LST); Silty limestone (SLST); Phyllite (PHY); Argillite (ARG); Siltstone (SLT); Shale (SH); Sandstone (SS); Greywacke (GW); Quartz Pebble Conglomerate (QPC) and Quartz Feldspar Pebble Conglomerate (QFPC).

The stratigraphy of the Yusezyu Formation can be divided into three members. These include: the structurally lowest coarse clastic member (QPC, QFPC, lesser GW, SS); the middle fine-grained member (PHY, ARG, SLT, SH); and an upper limestone member (LST, SLST). Portions of the SLST, LST may belong to the lower and middle members.

Upper Limestone Member

The limestone member (LST) consists of thin to moderate sized, somewhat discontinuous units of impure thin to medium bedded limestone, often inter-bedded with, or grading into, fine-grained calcareous sediments. Limestone underlying the Justin claims has commonly undergone strong calc-silicate alteration and/or silicification, and hosts much of the economic mineralization on the claims. The silty limestone (SLST) is impure limestone with a significant fine clastic component, or a finely inter-bedded sequence of limy and silty beds.

Middle Fine-Grained Member

This member is comprised primarily of a weakly silicified calcareous package of phyllite (PHY) with small sub-units of argillite (ARG) within it. The phyllite consists of thick sequences of monotonous, fairly uniform fissile thin-bedded, fine-grained sediments. Weakly silicified calcareous phyllite, displaying some calc-silicate alteration underlies the central portion of the Justin claims. The argillitic rocks tend to be fine grained and fissile, with a slightly higher graphite content than the phyllite. The siltstone (SLT) unit is also interbedded within the broad phyllite unit and represents slightly more coarsely grained beds. The two units can be difficult to discern and are sometimes mapped as siltstone. The fine-grained fissile shale (SH) occurs as a laterally-extensive fairly thin unit displaying strong deep green chloritic alteration. The unit's distinct colour makes it an excellent marker horizon across parts of the property.

Lower Clastic Member

The quartz pebble conglomerate (QPC) occurs as thick, poorly sorted, largely undifferentiated units across the property. The framework of the rock consists of 10 - 30% euhedral to subhedral feldspar and 25 - 60% rounded to subrounded quartz grains ranging in size from fine-grained to 20 mm in diameter. Minor mafic lithic fragments occur locally. The matrix consists of very fine grained quartz and minor feldspar within a calcareous cement, which has commonly been silicified following decalcification locally resulting in a chalcedonic texture. Across the property, variable amounts of silicification and selective argillic alteration of feldspar grains has occurred. This unit was originally mapped as an altered intrusive assemblage. The quartz feldspar pebble conglomerate (QFPC) unit is similar to QPC except that it contains a higher concentration of feldspar clasts. Sandstone (SS) represents a more finely grained variant of the QPC, and is often calcareous. This may represent a more distal submarine fan or stream sediment depositional setting to that forming the QPC (Gordey and Anderson, 1996). Finally, the greywacke (GW) unit consists of poorly sorted medium to coarse-grained clastic sediments, possibly with a higher lithic fragment component. It may represent a locally turbiditic environment, possibly along submarine channel walls.

Structural Geology

Stratigraphy underlying the Justin claims generally strikes at about 290° and is nearly flat lying to weakly south dipping. However, at the POW Zone, bedding measurements range from 260°-290°, dipping moderately to the north northwest. The variance in orientation of the beds at the POW Zone may reflect deformation in proximity to the March Creek Fault, and/or deformation related to the emplacement of the granodiorite stock. Foliation directions are variable, commonly striking roughly N-S with a sub-vertical dip near dikes or structurally disrupted areas. Near the March Creek Fault, bedding and foliation directions become strongly disrupted, with an overall NW-SE trending fabric extending to the fault line. These observations were gathered from the fault contact exposed east of the Kangas Zone.

Although no major folding events have been documented on the property, shear zones and minor structures on the property are consistent with two major regional shearing events. Minor structures include three prominent jointing directions: a NNW-SSE trending, steeply dipping set; a set dipping moderately to the NW; and a roughly E-W striking sub-vertical set. Structural analysis of the data set has established a mid-Cretaceous NW-SE trending dextral strike-slip faulting event followed by development of the younger conjugate set trending to the NE-SW and E-W. The NNW trending set is the most prominent of the conjugate set, and is sub-parallel to the structurally controlled dikes and other prominent features.

Mid-Cretaceous Dextral Strike-Slip Faulting

A NW-SE trending transcurrent fault zone (March Creek Fault), characterized by a pronounced NW trending lineament, extends along the northern property boundary (Fig.4). The inferred sub-parallel Dayo Creek Fault extends to the south of the property. The March Creek Fault forms the contact between Hyland Group and Rabbitkettle Formation stratigraphy; from a point just east of the Justin claims the contact splays slightly to the NW west of this point (Fig.4). A well developed set of coeval extensional faults, trending at 325°-345°, are documented between the strike-slip faults across the entire property. The orientation of these coeval faults, with respect to the strike-slip fault system, is consistent with dextral displacement along the strike-slip system. Development of these NNW trending dilational structures provided planes of weakness for emplacement of Cretaceous dikes and veins. Other NNW trending structural features, including the prominent jointing direction and foliation along major strike-slip fault structures, are also interpreted to result from this extensional regime. These NNW trending structural features are most prominent in the central areas of the Justin claims.

Conjugate Shear Fabric

A conjugate shear set, less obvious than extensional faulting, that trends NE-SW and E-W, underlies the property west of the Justin claims. The NE-SW trending structures are typically brittle faults while the coeval E-W trending structures are typically brittle-ductile shear zones. The NE-SW trending fault set controls many of the minor drainages, as well as the NE trending joint set. NE trending minor faults are observed cross-cutting NNW trending dikes that intrude extensional zones

associated with strike-slip deformation. This is consistent with the development of conjugate shear fabrics post-dating major mid-Cretaceous strike-slip motion.

Two major shearing events have resulted in three planes of structural fabric permeable to fluid migration. Intersection zones of major shear fabrics are considered favorable settings for economic gold-silver mineralization.

Mineralization

(after Schulze, 1997; Gallagher, 2002; McCuaig 2011)

Three major styles of gold mineralization have been recognized on the Justin Claims. These varying styles are thought to reflect one widespread, long lived, yet multi-phased, mesothermal to epithermal mineralization event occurring under different structural settings on the property. The different styles of mineralization include:

- 1) fracture controlled vein, vein breccia, stockwork and extensional fault controlled mineralization;
- 2) skarn replacement style mineralization;
- 3) a composite mineralization style, resulting in pervasive mineralization within coarse clastic sediments;

Where mineralization is structurally controlled, it appears to be controlled by the extensional fault system associated with mid-Cretaceous dextral strike-slip shear. These NNW trending dilatational structures host Type 1 (fracture controlled) mineralization and the skarn occurrences (Type 2) with the exception of the Kangas Zone skarn (See below). No significant mineralization has been noted in the associated major NW trending dextral strike-slip faults, although ferricrete occurs within the western boundary of the POW Zone, on the south flank of the March Creek Fault. North-east trending structures, along with local East – West shear zones, associated with later conjugate shear, also control some high-grade vein mineralization. Comparable gold values have been returned from both structurally controlled mineralization regimes; thus, no temporal gold zonation with respect to structurally controlled mineralization has been determined. Alteration associated with these mineralized settings is a reflection of the physical and chemical characteristics of the original host rock. The major factors in controlling mineralization are the permeability and reactivity of the host rock, and proximity to faults and structural corridors which act as conduits for mineralized fluids. The coarse clastic and calcareous members of the Yusezyu Formation provide favorable settings for pervasive alteration and mineralization. Fine sediments underlying the Justin claims are more calcareous; thus potential exists for replacement style mineralization.

All three types of mineralization are, at the oldest, mid-Cretaceous in age. Skarn type replacement mineralization, is interpreted to be penecontemporaneous with, or slightly post-dating, intrusion of mid-Cretaceous dykes into extensional fault systems. Vein mineralization is interpreted to be controlled primarily by mid-Cretaceous extensional faults although some vein mineralization is also clearly controlled by the younger conjugate shear system, suggesting that this style of mineralization may post date intrusion of mid-Cretaceous dikes and skarn development.

Mineralization Styles

Fracture Controlled

Quartz+/-calcite veining, breccia zones, and fracture controlled mineralization occur within several areas of the property. Typically, veins contain from 0.5 – 5.0% arsenopyrite, commonly concentrated along fractures within the veins, and have strongly anomalous antimony, bismuth, tungsten, molybdenite signatures, and, rarely, weakly elevated mercury values. Quartz+/-calcite veining occurs within all lithologies, exhibiting varying textural characteristics depending on the host lithology. Within the coarse clastic units, veins tend to be narrow and fault controlled; however, mineralization extends somewhat into the silicified host rock.

A large stockwork system in the POW Zone consists of centimeter to decimeter scale quartz+/-calcite veining occurring in densities of up to 20 veins/metre which exploit a structural fabric within calc-silicate altered Hyland Group calcareous sediments. A prominent bleached argillic alteration halo is observed enveloping the stockwork vein system.

Veins tend to be structurally controlled along all of the major lineation directions, suggesting vein development post-dated major structural development. Narrow fault controlled veining returning up to 1.6 gpt Au occurs within phyllite and limestone units. One exception is a 20cm wide quartz-galena-arsenopyrite vein returning 15.8 gpt Au, located roughly 1.0 km E of the Main Skarn.

Dikes within the Justin claims have undergone weak argillic alteration and silicification, and locally contain fine quartz stockwork mineralization, largely along contact zones where fine brittle fracturing has occurred. The felsite dike along the west boundary of the Main Skarn within the central Justin claims has undergone brittle fracturing and subsequent chalcedonic veining. Sampling has returned values to 5.7 gpt Au/1.0 m underlying the western part of Trench SN97-2, which returned 2.38 gpt Au/22.5m. Thus, these dikes have potential to host significant mineralization. However, sampling

of dike material elsewhere has returned weakly anomalous to background gold values.

Skarn

The flat-lying limestone and silty limestone units (Upper Limestone Member) underlying the Justin claims have undergone typical skarn type mineral development, consisting of decalcification, silicification, calc-silicate, and sulphide-oxide mineral development. Recent exploration efforts in 2010 and 2011 have identified a new skarn zone, which has been named the POW Zone.

Three major skarn zones occur within the Justin claims: the Main Skarn, the Kangas Zone, and the POW Zone (Fig. 4); several smaller zones occur along the north flank of the central ridge. Replacement style massive pyrrhotite, pyrite, and arsenopyrite, disseminated chalcopyrite and vein arsenopyrite typify the skarn assemblage of the Kangas Zone. Calc-silicate minerals include fine-grained diopside, actinolite, and minor chlorite. With the exception of the western extreme of the Main Skarn, gold is associated most strongly with bismuth and arsenopyrite; only moderately anomalous values were returned from chalcopyrite enriched samples, and pyrrhotitic zones returned near background values. The POW Zone skarn is an exoskarn, characterized by prograde coarse grained hydrogrossular garnet- clinopyroxene-quartz which has been overprinted by retrograde actinolite and epidote. Replacement style massive magnetite, with lesser disseminated pyrrhotite, chalcopyrite, pyrite, molybdenite +/- scheelite +/- bismuth +/- gold characterize the POW Zone skarn. Veining within the skarn hosts arsenopyrite, pyrrhotite, pyrite, hematite, chalcopyrite, bismuth, jamesonite, sphalerite, molybdenite, scheelite, gold +/- silver in a quartz-calcite gangue. The veining observed at the POW Zone is interpreted to represent a later phase of mineralization within the system. Gold mineralization is developed in both the skarn replacement and vein styles of mineralization. Gold grades are highest where elevated values of Ag and/or Bi occur. Refer to appendix VI for petrographic descriptions of mineralized samples collected from the POW Zone drill core.

With the exception of the Kangas Zone, all skarn occurrences appear to be associated with NNW trending dikes, although it is surprising such narrow dike emplacement could cause such extensive mineralization. Mineralization also is associated with a well developed NNW trending lineation, including jointing and foliation. The POW Zone occurs within the contact aureole of a granodiorite stock identified during the 2010 program. Several NNW trending porphyritic dikes also outcrop within the boundaries of the POW Zone and one was intercepted in drill core. Further investigation of this area will provide the evidence needed to determine the source of the fluids responsible for the skarn alteration and mineralization.

Composite

The coarse clastic sediments provide an excellent setting for hydrothermal mineralization. These thick, uniform units are permeable due to coarse fragment size, fairly reactive due to the calcareous nature of much of the original matrix cement, and prone to semi-brittle fracturing, shown by the presence of several fault and quartz stockwork zones, particularly along lithologic contacts. These broad mineralized zones have potential to host bulk tonnage gold deposits within the property.

Weak to moderate pervasive silicification, but very limited argillic alteration has occurred in the Confluence Zone area. A broad zone of chalcedonic veining within coarse clastic sediments is centered at the confluence of Sun and South Sun Creeks within the eastern part of the Justin claims (Fig. 4). The veined interval occurs at a thrust fault contact between coarse clastic sediments and fine grained, thin bedded limestone. These fracture controlled veins range in size from nearly microscopic to 2.0m in width, and return gold values from 0.42 gpt Au to 7.0 gpt Au/1.0 m with a value of 4.24 gpt Au/4.5m returned from Trench SN97-3 (Schulze, 1997). These veins overprint localized quartz-pyrite veining and appear to be the primary gold host. Gold values from JN11007 and JN11008 have an association with As and Sb. Mineralization was observed as multi-phase quartz veining, where pyrite is partially replaced by a later phase of fine grained arsenopyrite +/- sphalerite +/- galena. Although most veining appears to be sulphide-poor, strongly pyritic float has returned up to 0.52 gpt Au. Rock sampling of a similar zone occurring just north of the NW boundary of the Justin claims has returned up to 0.45 gpt Au; RGS silt sampling of a local stream returned 45 ppb Au. Drilling in 2011 has confirmed and repeated results collected from trenches in the Confluence Zone. Refer to table 3 for a complete list of drilling highlights.

Characteristics of Mineralized Zones

The four zones of significant mineralization in order of importance are: 1) POW Zone 2) Main Skarn, 3) Confluence Zone, and 4) Kangas Zone.

POW Zone

The POW zone, located in the northwestern quadrant of the claim group was discovered during the 2010 exploration program. Two holes drilled in 2011 testing a mineralized breccia zone led to the discovery of significant gold +/- silver mineralization resulting in the addition of 207 mineral claims to the Justin property.

The POW Zone geology is characterized by interbedded sequences of west – south west striking, moderately north- north west dipping fine to coarse grained siliciclastics and calc-silicate altered sandy limestones of the Hyland Group. The

northern margin of the POW Zone is bound by the March Creek Fault, a regional structure interpreted as a deep seated strike-slip thrust fault. The fault is observed on the property and separates the Proterozoic (Haydrinian)-Cambrian Hyland Group from the Cambrian-Ordovician Rabbitkettle Formation. The southern extent of the POW zone is underlain by a granodiorite stock, and cross-cut by felsite dikes, interpreted to be part of the Cretaceous Tombstone-Tungsten Suite. The newly discovered POW Zone lies within the contact aureole of the granodiorite stock, and is cross cut by at least three northerly trending quartz-monzonite dikes measuring 10.0 – 25.0 meters in thickness. The dikes are emplaced in a series of NNW trending lineaments that represent a structural corridor extending from at least the Main Zone through to the intersection with the March Creek Fault. Mineralization within the zone is observed as massive skarn-style replacement of silty limestone beds, and quartz-calcite stock work veining. The stock work veining observed within the POW Zone parallels the NNW trending structural zone, suggesting that it played an important part in focusing hydrothermal fluids derived from the intrusion.

To date, work on the POW Zone has outlined a mineralized trend approximately 400 meters long (E-W orientation), and to a depth of 140 meters below surface coincident with the northern margin of the intrusive stock. (Fig. 6b) The POW Zone is open in all directions, and warrants further exploration.

Replacement-style exoskarn, characterized by prograde coarse grained hydrogrossular garnet- clinopyroxene-quartz is interpreted to represent contact metasomatism from the granodiorite stock. Subsequent fracture controlled retrograde alteration has manifested actinolite, chlorite, and epidote, and is typically associated with quartz-calcite-pyrite+/-hematite veining. The prograde skarn is host to magnetite, pyrrhotite, chalcocopyrite, molybdenite+/-scheelite+/-bismuth+/-gold. In places the skarn is host to 10-35 % magnetite, which occurs as massive bands of very fine grained disseminations parallel to the primary lithologic fabric. Skarn style mineralization intersected in JN11009 returned values to 5.12 g/t Au across 5.85 metres.

Veining within skarn mineralization hosts arsenopyrite, pyrrhotite, pyrite, hematite, chalcocopyrite, secondary bismuth carbonate (?), jamesonite, sphalerite, molybdenite, scheelite, +/- gold +/- silver in a quartz-calcite gangue. Cross-cutting relationships observed at the POW Zone, and geochemical analysis indicate the stockwork veining represents a later phase of mineralization within the system. Highlights from the stockwork zone include a value of 11.30 meters of 2.70 g/t Au and 29 g/t Ag.

Main Skarn

The Main Skarn, located in the central Justin claims was the only significant zone recognized prior to exploration by Bernie Kreft. Four holes drilled to test copper-gold skarn mineralization yielded only weakly anomalous values resulting in the original Sun claims being allowed to lapse. However, in 1995 exploration by Hemlo showed that a fractured, resiliified and auriferous quartz monzonite dike bounds the zone to the west. Successive exploration programs showed that a significantly mineralized zone extends east from roughly 6.0 metres within the dike into strongly pyritic and pyrrhotitic limestone and calcareous phyllite. Calc-silicate mineralization consists of fine grained pervasive to fracture controlled actinolite and diopside, with minor chlorite. Trench SN97-2 extending across this zone returned 2.38gpt Au/22.5m, and anomalous values continued to the east into the previously tested mineralization (Schulze, 1997). This intersection has not been tested by previous drilling. It appears that most of the Main Zone consists of this low grade peripheral mineralization, and that a significant mineralized zone occurs along the western margin and may extend northward along the dike. Schulze, 1997 concluded that mineralization was emplaced from fluids traveling from the structural corridor controlling the dike into decalcified strata within the flat lying limestone.

Trench SN97- 1, excavated roughly 20metres south of SN97-2, returned low gold values within strongly pyritic and pyrrhotitic skarn mineralization. Its spatial relationship to SN97-2 remains unknown; Sun Creek, which flows between the two trenches, may occupy a structural corridor.

Confluence Zone

The Confluence Zone is a broad zone measuring at least 600m x 250m in area, and consists of coarse clastic material with considerable fracture controlled chalcidonic veining. It is centered at the confluence of Sun and South Sun Creeks (Fig. 3a-c, 4a-c). Veins are typically sulphide poor, and range in size from nearly microscopic to up to 2.0m in width. Rock values range from 0.42 to 7.0 gpt Au over 1.5 metres (Schulze, 1997). Trench SN97-3 returned 4.24 gpt Au over 4.5 metres, and is open to the west; continuous channel sampling east of this intersection returned elevated values to 0.64 gpt Au. Significant gold values were returned from sampling throughout the occurrence, including proximal glacial float from the western end of known mineralization. This suggests the source rock occurs up-ice further west, expanding the potential size of the showing. Fracture controlled and disseminated pyrite is abundant in surrounding wallrock. Most elevated gold values are associated with chalcidonic veining, which locally crosscut quartz-pyrite veining. This suggests mineralization resulted from late phases of hydrothermal activity.

Kangas Zone

The Kangas Zone is a N-S extending zone of skarn and replacement style mineralization within siltstone, calcareous siltstone, and minor limestone located along the north flank of the central ridge of the Justin claims. Mineralization consists of fracture controlled and replacement style semi-massive pyrrhotite and local pyrite, with minor disseminated chalcopyrite, along with fine grained diopside and actinolite.

Replacement style arsenopyrite is abundant, as well as fracture-controlled arsenopyrite and quartz-arsenopyrite veining. Values to 1.6 gpt Au / 1.5 meter and 1.2 gpt Au / 1.0 metres were returned from replacement style arsenopyrite horizons (Schulze, 1997). Quartz-arsenopyrite veining returned elevated gold values, although pyrrhotitic horizons returned low values. Host stratigraphy strikes roughly ESE, and dips gently to the south although this may become disrupted near the March Creek Fault.

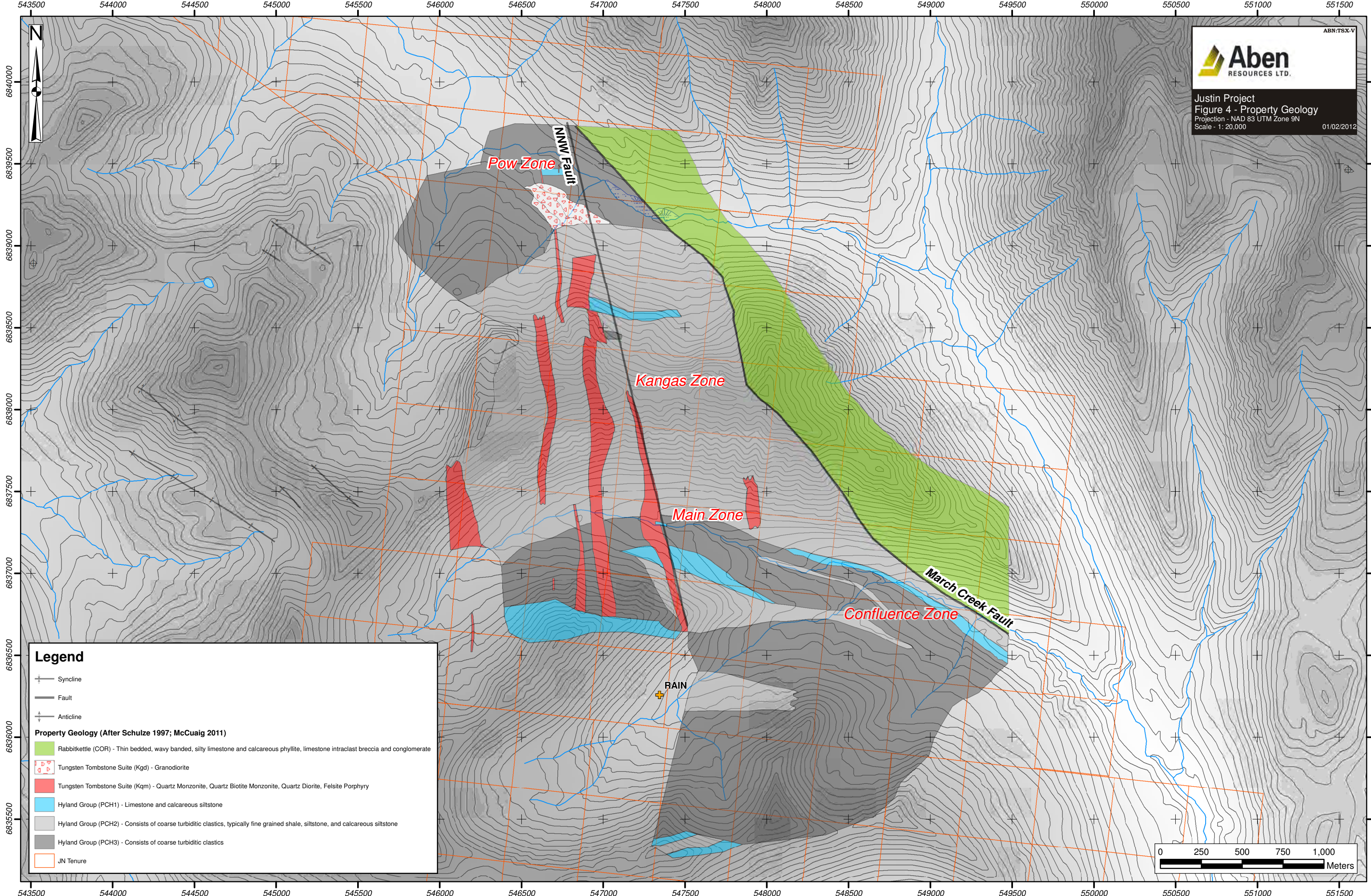
Mineralization has been traced along a 400 meter x 75 meter N-S extending zone, grading into altered weakly calcareous phyllite to the east. The west, north, and south boundaries cannot be determined due to talus cover, although it does not extend south to the ridge line. Elevated soil (talus fine) values to 805 ppb extend along strike uphill to the south. An occurrence of similar skarn mineralization returning 1.26 gpt Au over 1.5m outcrops nearby to the west, suggesting the zone may be wider than 75 meters.

The Kangas Zone is roughly along strike of the NNW trending lineation controlling Main Skarn mineralization. The Kangas Zone may be quite thick, with somewhat discontinuous mineralization occurring across at least 150m of true width. It stratigraphically overlies an interpreted northward extension of stratigraphy hosting the Main Skarn. However, it is close enough that similarly reactive stratigraphy within both zones may be affected by a single mineralizing event. The two zones may represent exposures of a significant thick zone of skarn and replacement style mineralization controlled by the NNW trending lineament, within the broad N-S structural zone outlined on Fig.4.

Drilling in 2011 on the Kangas Zone provided insight into the true extent and nature of the mineralization. Three holes were drilled into the Kangas Zone. All three of the holes intersected calc-silicate altered siltstone, and thin bedded limestone within the top 20 meters of drilling.

Of particular significance was the discovery of high grade Ag-Cu mineralization in JN11003 which intercepted 1.07 meters of 7,320 g/t (235 oz/t) Ag, 1.11 g/t Au, and 3.52 % Cu. The sample represents the highest grade Au-Cu mineralization discovered on the property to date. Values were obtained from strongly fractured, silicified, and oxidized, calc-silicate and fine grained silty limestone. Very poor recoveries were obtained from JN11003 which reflect the friable nature of the fault zone hosting the high grade mineralization. Anomalous values of Ag, As, Au, Bi, Cu, Sb, and W occur across the 7.0 meter interval immediately overlying the high grade zone.

Below the horizon of calc-silicate alteration occurring in JN11001 and JN11002, an interval of core loss, and a significant change in rock type, occurs. No calc-silicate replacement alteration was encountered, and a generally uniform sequence of unaltered, fine grained, thin bedded siltstone occurs. The lack of correlation between surface exposure and the drill core samples suggests that the surface exposure may not be in place, or that a significant fault zone is present displacing strata. When examining local topographic features, it seems plausible that the rocks observed at the Kangas Zone have slumped down from the top of the ridge, either through faulting (along an E-W trending break) or mass wasting, and now forms the top of a large talus slope conforming to the angle of repose which reaches the valley bottom. A topographic low observable from a distance as a saddle along the ridgeline is located directly upslope of the Kangas Zone, which occurs approximately 200 meters down slope. Previous mapping and anomalies outlined by soil geochemical surveys suggest that an extension of Kangas Zone mineralization can be found on the ridgeline. Further investigation of this zone should focus on the ridgeline and cliffs to the east where bedrock exposure is excellent.



2011 EXPLORATION PROGRAM

The 2011 exploration program consisted of 58 field days with a crew of 2 to 9 workers. The crew mobilized to a camp on the Nahanni Range Road, ~15 km to the west of the property. Access to the property was helicopter supported.

APEX Diamond Drilling of Smithers, BC was contracted to drill 2,020 meters of NQ sized core using a heli-portable Hydrocore 2000 Drill. Access to the property was helicopter supported. Fireweed Helicopters of Whitehorse, YT was contracted to provide a Bell Long Ranger 3 which mobilized the drill crew, field crews, and all supplies into and out of the property. All core logging activities were done on the Justin Property at a base camp located at the Main Zone. All drill core samples have been stored on site at the Main Zone base camp location (Nad 83 Zone 9N E 547415, N 6837340).

The primary objective of the program was to determine the tenor of base and precious metal mineralization by drill-testing the Kangas Zone, Main Zone, Confluence Zone, and the POW Zone. The program included a small component of field geochemical surveying occurred in parallel with diamond drilling activities. Rock chip and grab samples were taken from the POW Zone during prospecting and geological mapping surveys. One soil sample line (JNL012) was completed along the southern flank of the existing soil geochemical grid (Fig. 7a).

Total expenditures on the Justin property in 2011 was \$1,005,000.00.

2011 EXPLORATION RESULTS

Geology

A series of mineral occurrences was discovered in the POW Zone during the 2011 program. The zone consists of a range of mineralization styles including a calc-silicate skarn system, as well as stockwork quartz-calcite veining with arsenopyrite, pyrite, molybdenite, sphalerite, galena, bismuth, jamesonite, and pyrrhotite. The southern margin of the POW Zone is flanked by a granodiorite stock. It is the first surficial expression of an intrusive stock documented on the Justin Property.

Exploration of the northern portion of the property, undertaken as follow-up to an airborne geophysical magnetic high anomaly, resulted in the discovery of skarn and quartz-arsenopyrite vein mineralization in 2011. Mapping at the POW Zone area has revealed that the zone is underlain by sediments of the Yusezyu Formation of the Hyland Group. Quartz pebble conglomerate (QPC), siltstone grading into sandstone (SS), limestone (LST), granodiorite comprising the stock, and felsite (quartz monzonite) dikes are the primary lithologies occurring here. Limestone beds have undergone calc-silicate skarn alteration hosting magnetite, pyrite, pyrrhotite, molybdenite, chalcopryrite, hematite, +/- arsenopyrite mineralization. There are also zones of chalcedonic veining in QPC and some massive to semi-massive arsenopyrite quartz-calcite veins and vein-breccia systems. The veining and intrusive dykes in the area continue to follow the NNW-SSE structural trend that dominates mineralization on the property. A zone of intense argillic alteration, silicification, and ferricrete was identified 450 meters west of the original 2010 discovery, and is interpreted to be the westernmost extension of the POW zone discovered to date.

Geochemistry

Rock Sampling

Most of the rock sampling during the 2011 program was focused on follow-up of known mineralized occurrences, primarily the POW Zone. Sampling was also done during mapping and prospecting traverses. A total of 52 rock samples were taken during the 2011 exploration program (Refer to Figure 6). A summary of the rock sample highlights are as follows:

POW Zone:

•Chip Samples:

- MMJNR020: 0.4 m grading 0.37 g/t Au, 20.1 g/t Ag, 0.16 % Pb, 0.58 % Zn.
- MMJNR029 - MMJNR030: 2.0 m grading 0.56 g/t Au, 14.22 g/t Ag

•Grab Samples:

- MMJNR013: 0.79 g/t Au
- MMJNR016: 0.47 g/t Au, 22.5 g/t Ag
- MMJNR017: 0.43 g/t Au
- MMJNR034: 8.97 g/t Au, 84.1 g/t Ag

The rock samples collected outboard of the mineralized zones discovered in 2010 expand on the documented historic results. There are a total of seven samples that assay more than 0.3 g/t Au, in a variety of mineralization styles, including skarn replacement, quartz-arsenopyrite stockwork veining, and shear zone hosted mineralization. The widespread and consistent mineralization suggests that the POW Zone has the potential to host an economic deposit.

Soil and Silt Samples

One silt sample was collected during the 2011 program (Refer to Figure 7a). The sample was collected as part of a soil traverse line south of the confluence zone. A total of 63 conventional soil samples were collected along one line south of the confluence zone (JNL012). The goal was to infill the soil grid to the south and east, extending to the current property boundary. As diamond drilling activities took priority over geochemical surveys, soil sample production was restricted to two days with one two-man crew. A “Super-Trace Gold” (0.1 ppb Au) detection analytical package was selected to provide higher resolution gold-in-soil values. A zone of elevated Au in soil (11 – 25 ppb) was outlined across 300 meters at the eastern extent of JNL012 (Refer to Figure 7b). Although the values range from 11-25 ppb Au, and are very low in concentration they correlate with anomalous gold in soil values from historic geochemical soil surveys. The historic soil and silt samples define a zone extending south and east of the Confluence Zone which is geochemically anomalous in Ag, As, Au, Pb, Sb, and Zn. Further prospecting and sampling is warranted to follow up on the anomalies defined by the surveys. A note of interest is that both South Sun Creek and the creek located 700 meters east of south sun creek have well developed ferricrete zones.

A total of four post-field man-days were spent digitizing historic soil geochemical surveys indicated in Assessment Report AR# 093959 within the current Justin Property. The historic data has been incorporated into the Justin Property geochemical model and will be used to refine targets in future exploration programs.

Diamond Drilling Program

A total of 2,020 meters of NQ core was drilled in 10 holes during the 2011 exploration program. Four areas were targeted during the drilling program: Kangas Zone (3 holes totalling 494.18 meters); Main Zone (3 holes totalling 520.28 meters); Confluence Zone (2 holes totalling 460.84 meters); and the POW Zone (2 holes totalling 546.17 meters). Table 2 highlights drill hole collar information.

Table 2 – Diamond Drill Hole Collar Information

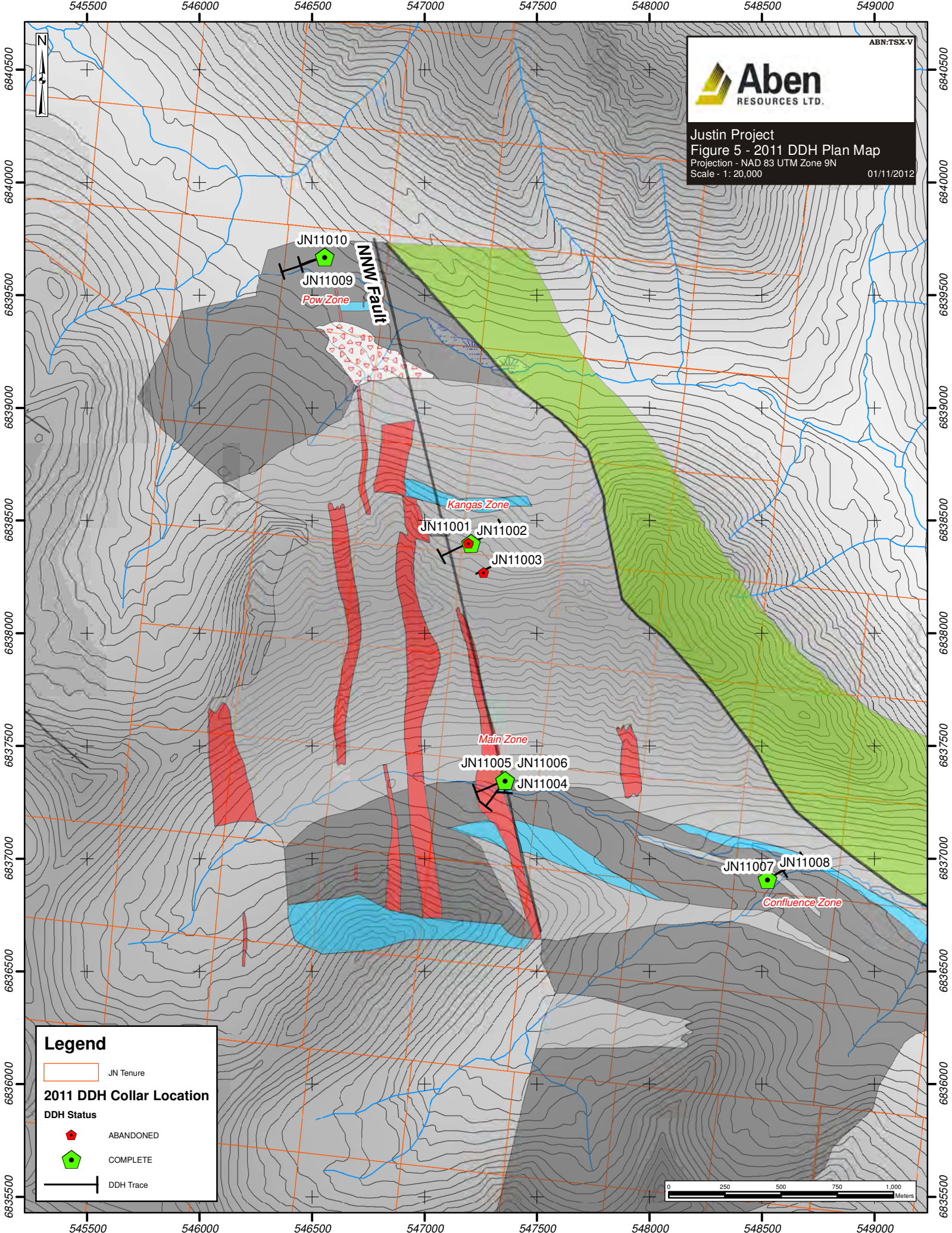
Zone	Hole Number	Length(m)	Azimuth	Dip	Easting	Northing	Accuracy(m)	Elevation(m)	Hole Status	Start Date	Finish Date
Kangas	JN11001	239.57	64°	-45°	547206	6838398	5	1732	COMPLETE	8/15/2011	8/21/2011
Kangas	JN11002	211.23	245°	-45°	547196	6838400	5	1732	ABANDONED	8/21/2011	8/24/2011
Kangas	JN11003	43.38	335°	-70°	547263	6838270	5	1750	ABANDONED	8/24/2011	8/26/2011
Main	JN11004	208.48	215°	-45°	547358	6837349	6	1545	COMPLETE	8/26/2011	8/28/2011
Main	JN11005	206.04	245°	-45°	547358	6837349	6	1545	COMPLETE	8/28/2011	8/30/2011
Main	JN11006	105.76	180°	-55°	547358	6837349	6	1545	COMPLETE	8/30/2011	9/1/2011
Confluence	JN11007	177.08	60°	-60°	548525	6836909	6	1440	ABANDONED	9/1/2011	9/4/2011
Confluence	JN11008	283.76	60°	-45°	548525	6836909	6	1440	COMPLETE	9/4/2011	9/7/2011
POW	JN11009	291.67	250°	-45°	546557	6839670	6	1450	COMPLETE	9/7/2011	9/11/2011
POW	JN11010	254.50	250°	-60°	546557	6839670	6	1450	COMPLETE	9/11/2011	9/14/2011



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RESOURCES LTD.

Justin Project
Figure 5 - 2011 DDH Plan Map
Projection - NAD 83 UTM Zone 9N
Scale - 1: 20,000
01/11/2012



Legend

JN Tenure

2011 DDH Collar Location

DDH Status

■ ABANDONED

■ COMPLETE

DDH Trace

Drill hole collar locations were surveyed using a hand held GPS with 5 – 6 meter accuracy. Down-hole survey measurements were completed using a Flexit survey tool. All pertinent geological drill hole data was collected using an integrated digital core logging system database designed by TerraLogic Exploration Inc.

Diamond Drilling Results

In all, a total of 1,374 drill core samples were shipped to ALS Chemex for laboratory analysis. Sample intervals were selected during the core logging procedure to encompass zones of favourable alteration, mineralization, and veining. Refer to Appendix III for a detailed description of core logging, sampling, and analytical procedures. Table 3 provides a summary of significant intercepts.

Drill hole summaries and cross-sections are provided below, and are presented in the same order as outlined in Table 3.

Table 3 – 2011 Diamond Drilling Significant Intersections

Drill Hole	From(m)	To(m)	Interval (m)	Au (g/t)	Ag (g/t)	Cu (%)
JN11002	25.00	26.00	1.00		31	
JN11003	39.42	43.30	3.88	0.56	475	1
including	41.23	43.30	2.07	0.67	3830	1.88
also including	42.23	43.30	1.07	1.11	7320	3.52
JN11004	151.30	152.00	0.70	0.61		
JN11004	168.00	169.00	1.00	0.52		
JN11005	22.00	23.00	1.00	0.71		0.21
JN11005	102.85	103.40	0.55	1.14		
JN11005	149.20	149.40	0.20	0.83		
JN11006	9.70	11.85	2.15	0.65		
including	11.60	11.85	0.25	5.37	7	
JN11007	166.60	176.00	9.40	0.76		
including	166.60	168.00	1.40	2.46	7	
JN11008	53.20	58.80	5.60	0.76		
including	53.20	53.40	0.20	1.94		
JN11008	62.70	63.00	0.30	0.81	15	
JN11008	132.00	135.00	3.00	0.46		
JN11008	154.00	175.50	21.50	0.38		
including	154.00	158.60	4.60	1.15		
also including	154.00	155.58	1.58	2.53		
JN11008	253.00	253.90	0.90	0.64	19	
JN11009	158.00	218.00	60.00	1.19		
JN11009	158.00	179.00	21.00	0.70		
including	158.00	163.00	5.00	1.79		
also including	159.05	159.55	0.50	9.77		
JN11009	184.00	205.00	21.00	2.47		
including	198.00	203.85	5.85	5.12		
also including	202.00	203.85	1.85	9.24		
JN11010	44.40	47.00	2.60	0.38	11	
including	45.20	46.00	0.80	0.61	14	
JN11010	149.00	172.00	23.00	1.58	16	
including	158.00	169.30	11.30	2.70	29	
also including	167.00	169.30	2.30	3.73	59	
JN11010	176.65	178.00	1.35	0.43	6	
JN11010	194.00	206.00	12.00	0.44		
including	195.00	196.00	1.00	1.06		
and	199.00	206.00	7.00	0.52		

Diamond Drill Hole Summaries

Kangas Zone

Section A – JN11001 and JN11002 (Figure 8)

JN11001: Azimuth 64°, Inclination – 45°, EOH – 239.57 meters

The hole was designed to test skarn and vein hosted mineralization which returned 1.5 meters of 2.85 g/t Au and 4.20 g/t Ag from year-2010 surface chip sampling. The vein hosted mineralization is structurally controlled, and follows the property wide NNW trend. The azimuth was designed to drill to this structure. JN11001 was collared in fine grained calc-silicate altered calcareous siltstone. Pyrite, pyrrhotite and arsenopyrite mineralization was observed as discreet, discontinuous blebs throughout the calc-silicate skarn. The skarn-hosted mineralization was weakly anomalous with one sample (JN11001-003 11.69 – 13.26 meters) returning 0.25 g/t Au, 6.9 g/t Ag, and 0.26 % Cu. Recoveries throughout the skarn interval are generally poor at < 50%; the base of the interval is truncated by a strongly oxidized fault where only 9 % of the core was recovered over a 3.00 meter interval. Below the fault the lithology consisted of a grey-beige, fine grained, thin to medium bedded siltstone. This unit extended to the end of the hole. Widely spaced quartz veins which host trace amounts of pyrite, pyrrhotite and arsenopyrite were intercepted, most notably from 190.40 – 200.45 meters. No significant results were returned from the quartz stockwork veining.

JN11002: Azimuth 245°, Inclination – 45°, EOH – 211.23 meters

The hole was designed to test skarn hosted mineralization, and to determine the potential for economic mineralization at the contact between the porphyritic felsite dike and adjacent sediments at the western margin of the Kangas Zone. The azimuth was set to drill perpendicularly to the strike extension of the porphyritic felsite dike (Fig. 5). JN11002 was collared in the same fine grained calc-silicate altered calcareous siltstone unit as JN11001. Trace to 0.5 % disseminated pyrite occurs within calc-silicate altered siltstone, but did not return significant results. One sample, JN11002-027, from 25.00-26.00 meters, returned 31 g/t Ag from strongly oxidized fault gouge material. The oxidized fault zone separates the calcareous siltstone unit from the underlying thin-medium bedded siltstone unit, a similar setting to that seen in JN11001. The siltstone unit extends to the end of the hole. Widely spaced quartz-arsenopyrite veins and veinlets were intersected, and are enveloped by weak to moderate argillic alteration. No significant results were returned from the quartz vein intervals. Two major faults were intersected in JN11002, one at 49.00 – 51.00 meters and the second one at the end of the hole at 211.23 meters. These faults are characterized by a light-dark grey clay-rich gouge material. The lower fault created ground conditions that exceeded the capabilities of the drill; therefore the hole was terminated before reaching the desired target.

Section B – JN11003 (Figure 9)

JN11003 Azimuth 335° Inclination – 70° EOH – 43.38 meters

The hole was designed to test skarn hosted mineralization, and to determine if the skarn altered limestone member of the Hyland Group observed at the Main Zone could be intercepted at depth below the Kangas Zone. The azimuth and inclination were set to drill perpendicularly to stratigraphy. JN11003 was collared in strongly oxidized fine grained, thin bedded calcareous siltstone. Moderate to intense calc-silicate alteration of the unit occurs as fine grained actinolite and pervasive silicification. 1-5 % fine grained pyrrhotite, pyrite, and arsenopyrite occur within discreet quartz veins and disseminations within the altered sediments. JN11003 was terminated at a depth of 43.38 meters due to very poor ground conditions which inhibited drilling efforts. Of particular significance was the discovery of high grade Ag-Cu mineralization in JN11003 which intercepted 1.07 meters of 7,320 g/t (235 oz/t) Ag, 1.11 g/t Au, and 3.52 % Cu in sample JN11003-018. The sample represents the highest grade Au-Cu mineralization discovered on the property to date. Values were obtained from strongly fractured, silicified, oxidized calc-silicate altered and fine grained silty limestone. Very poor recoveries were obtained from JN11003 which reflect the friable nature of the fault zone hosting the high grade mineralization. Anomalous values of Ag, As, Au, Bi, Cu, Sb, and W occur within the fault zone across 7.0 meters, immediately overlying the high grade mineralization.

Main Zone**Section C – JN11004 (Figure 10)**JN11004: Azimuth 215°, Inclination – 45°, EOH – 208.48 meters

The hole was designed to test skarn hosted mineralization, and intrusion-hosted mineralization identified in chip samples during the 2010 exploration program. JN11004 specifically targeted the strike extension of BWSPR040-046 returning 7.00 meters of 2.07 g/t Au, 1.47 g/t Ag, 0.06% Cu. The hole was drilled to a depth of 208.48 meters in an attempt to drill through the dike bounding the western margin of the Main Zone to determine if there is similar mineralization at depth. JN11004 was collared in calc-silicate altered limestone referred to as the Main Zone skarn. Fine to coarse grained pyroxene, quartz, and actinolite are the primary calc-silicate minerals. Approximately 0.1 % fine grained disseminated chalcopyrite and up to 5.0 % disseminated arsenopyrite mineralization occurs within the skarn-altered limestone. Samples JN11004-001 to JN11004-004, 10.34 – 14.00 meters returned 0.31% Cu. The skarn altered limestone, and underlying thin bedded siltstone have a true thickness of 5.19 meters. An abrupt discordant contact separates the metasediments from a porphyritic felsite dike, interpreted to be part of the Tombstone-Tungsten suite. The dike extends to the end of the hole and varies in composition, including: highly altered fine grained felsite, quartz biotite monzonite, and mica-quartz-clay-chlorite altered quartz biotite monzonite. Rare rafts of altered siltstone occur within the dike. Also cross-cutting the dike are 0.5 to 2.0-metre wide vein and vein breccias systems consisting of 1 – 20 mm thick quartz-calcite veins. Trace – 5 % fine to very fine-grained pyrite and trace – 0.5 % very fine grained arsenopyrite mineralization typically occur within the quartz-calcite veins. Anomalous Mo and W were returned from the quartz veins from 146.00 – 152.80 meters, with values of 190 ppm and 268 ppm respectively. Anomalous gold values were returned from the following intervals: 373 ppb Au from 44.00-45.00 meters; 304 ppb Au from 103.60-104.60 meters; 611 ppb Au from 151.30-152.00 meters; 334 ppb Au from 166.00-167.00 meters; and 515 ppb Au from 168.00 – 169.00 meters. Although no significant results were returned from JN11004, drilling did reveal that the porphyritic dike outcropping at the Main Zone is substantially thicker than previously interpreted, suggesting that it may arise from a large intrusive stock.

Section D – JN11005 (Figure 11)JN11005: Azimuth 245°, Inclination – 45°, EOH – 206.04 meters

This hole was designed to test skarn hosted mineralization, and intrusion-hosted mineralization identified in chip samples during the 2010 exploration program. JN11005 specifically targeted the strike extension of BWSPR040-046, which returned 7.00 meters of 2.07 g/t Au with 1.47 g/t Ag and 0.06% Cu. The hole was extended to a depth of 206.04 meters in an attempt to drill through the dike bounding the western margin of the Main Zone to determine if there is economic mineralization at depth. The azimuth was set 30° towards the west from JN11004 to test stratigraphy directly underlying the 2010 trench, and to drill at a shallower oblique angle in an attempt to extend through the porphyritic felsite dike. The geology of JN11005 was the same as that in JN11004. This hole was collared in an interval of skarn altered limestone and calcareous siltstone measuring 6.21 meters in vertical thickness. Mineralization from JN11005 17.00-23.00 meters returned values to 0.10% Cu, and was of similar tenor to that observed in JN11004. The transition into the porphyritic dike was observed as a sharp discordant contact. JN11004 remained in the dike for the remainder of the hole. Quartz-calcite veining as described in JN11004 was also present in JN11005. Discreet zones of quartz vein breccia returned anomalous Au values associated with fine grained pyrite and arsenopyrite mineralization. Anomalous gold values were returned from the following intervals in JN11005: 1,135 ppb Au from 102.85-103.40 meters; 329 ppb Au from 144.45-145.25 meters; 330 ppb Au from 146.20-146.50 meters; and 832 ppb Au from 149.20-149.40 meters.

Section E – JN11006 (Figure 12)JN11006: Azimuth 180°, Inclination – 50°, EOH – 105.76 meters

This hole was designed to test skarn hosted mineralization, vein hosted mineralization particularly from year-2010 chip sample BWSPR010-020 returning 11.00 meters of 1.4 g/t Au, 3 g/t Ag, and 0.18% Cu, and to determine the potential for the continuation of this mineralization along strike of the porphyritic felsite dike contact zone. JN11006 was collared in the skarn which displayed similar characteristics to the intervals observed in JN11004 and JN11005. The skarn returned the highest gold value from the 2011 drilling of the Main Zone, with one sample, JN11006-005, returning a value of 5.37 g/t Au across 0.25 meters. Below the skarn altered limestone, interbedded fine-medium grained siliciclastics extend to a depth of 60.00 meters. The thin-medium bedded siltstone and sandstone units have been moderately silicified, and in places are chloritic. No significant results were returned from the interval. At 60.00 meters JN11006 intersected the porphyritic felsite dike and continued in the dike until a termination depth of 105.76 meters. No significant results were returned from the interval.

Confluence Zone**Section F – JN11007 and JN11008 (Figure 13)****JN11007: Azimuth 60°, Inclination – 60°, EOH – 177.08 meters**

This hole was designed to test the down dip extension of vein hosted mineralization discovered in trench SN97-3 which returned values of 4.24 g/t Au over 4.50 meters, as well 2010 sample values of 1.6 g/t Au and 2.4 g/t Ag over 4.00 meters (AHSPR010-013). JN11007 was collared in siliclastic sediments of the Hyland Group, namely siltstone interbedded with quartz+/- feldspar pebble conglomerate. A distinct structural unconformity occurred at 168.10 meters where a thin bedded limestone member of the Rabbitkettle Formation was intercepted. The limestone unit was separated from the coarse grained conglomerate by a significant fault zone, interpreted at the time of writing to be part of the March Creek Fault Zone. The limestone unit continued to the end of the hole. Moderate to intense silicification and lesser sericitization commonly envelops chalcedonic veining, particularly from 27.33- 33.06 meters, and vein breccia systems, particularly from 166.60 – 177.00 meters. Partial replacement of feldspar by white clay occurs within quartz feldspar pebble conglomerate beds, and was coupled with intense silicification. Mineralization within JN11007 occurs in the chalcedonic veins and vein breccia systems. Pyrite is the most common sulphide mineral. Galena, sphalerite, and arsenopyrite occur as a secondary phase associated with hydrofracturing and subsequent silica flooding, and commonly envelope fractured pyrite grains. The down-dip extension of Trench S97-3 was intersected at a depth of 50.00 meters. Anomalous gold values were returned from chalcedonic veins hosted within an intensely silicified and clay altered quartz-feldspar pebble conglomerate bed. One sample, JN11007-046, returned a value of 400 ppb or 0.40 g/t Au over 1.00 meters. The faulted vein breccia system occurring from 166.60 – 177.00 meters returned 0.76 g/t Au, including 1.40 meters of 2.46 g/t Au from 166.60 – 168.00 meters. Elevated values of As, Pb, and Sb occur within the anomalous Au interval. The hole was terminated due to very poor ground conditions associated with the faulted interval.

JN11008: Azimuth 60°, Inclination – 45°, EOH – 283.76 meters

The hole was designed to test the down dip extension of vein hosted mineralization discovered in Trench SN97-3 which returned values of 4.24 g/t Au over 4.50 meters, as well 2010 sample values of 1.6 g/t Au and 2.4 g/t Ag over 4.00 meters (AHSPR010-013). Hole JN11008 repeated the sequence of stratigraphy observed within Hole JN11007. Drilling JN11008 at an inclination of – 45° improved core recoveries and ground penetration, allowing for the hole to core through the fault zone that terminated JN11007. The March Creek Fault Zone was intercepted at a depth of 166.00 meters, a structural unconformity separating the Hyland and Rabbitkettle groups. A thick sequence of light grey-black, thin and wavy bedded limestone, limestone intraclast breccia, and limestone conglomerate was intersected from 166.00 meters to 255.10 meters, and is interpreted to be part of the Rabbitkettle Formation. JN11008 was the first drill hole on the property to successfully penetrate through the March Creek Fault, and returned a significant stratigraphic interval of the Rabbitkettle Formation. Siltstone and calcareous sandstone were intersected from 255.10 – 283.76 meters, and are also interpreted to be part of the Rabbitkettle Formation as the contact between the upper limestone members of the unit and the fine grained siltstone is conformable to bedding. Alteration within the Hyland Group sediments was of similar character to that observed in JN11007. Moderate to intense silicification and clay alteration in the coarse grained quartz-feldspar pebble conglomerate beds is associated with chalcedonic veining, and hydrothermal vein-breccia systems. Finer grained siltstones within the Hyland Group typically display moderate argillic alteration, and rare discrete quartz veining. Alteration within the Rabbitkettle limestone member was restricted to the interval beginning at the fault contact to a depth of approximately 180.00 meters. De-calcification and silicification are common through the fault contact interval, with the highest intensity occurring at the contact, then decreasing down hole. The fine grained siltstone of the Rabbitkettle Formation is moderately to intensely argillically altered and silicified in zones of quartz-calcite stockwork veining. The sandstone member was partially de-calcified and silicified in intervals hosting quartz veining. Mineralization is structurally controlled, indicated by chalcedonic vein and hydrothermal vein-breccia systems exploiting lithologic contacts between pebble conglomerate beds and fine grained siliciclastics and as fault controlled vein-breccia systems. The down dip intercept of Trench SN97-3 returned 5.60 meters of 0.76g/t Au from 53.20 – 58.80 meters. The best results returned from JN11008 occur above the structural unconformity observed at 166.00 meters. Vein-breccia systems hosted within a pebble conglomerate bed returned 4.60 meters of 1.15 g/t Au from 154.0-158.60 meters. This interval occurs within a broad interval of anomalous gold mineralization which returned 21.50 meters of 0.38 g/t Au from 154.00-175.50 meters. The anomalous interval spans the March Creek Fault Zone, suggesting that it was at minimum a partial control for focusing of the auriferous hydrothermal fluids. This setting is consistent with the intersection from the base of JN11007.

POW Zone

Section G – JN11009 and JN11010 (Figure 14)

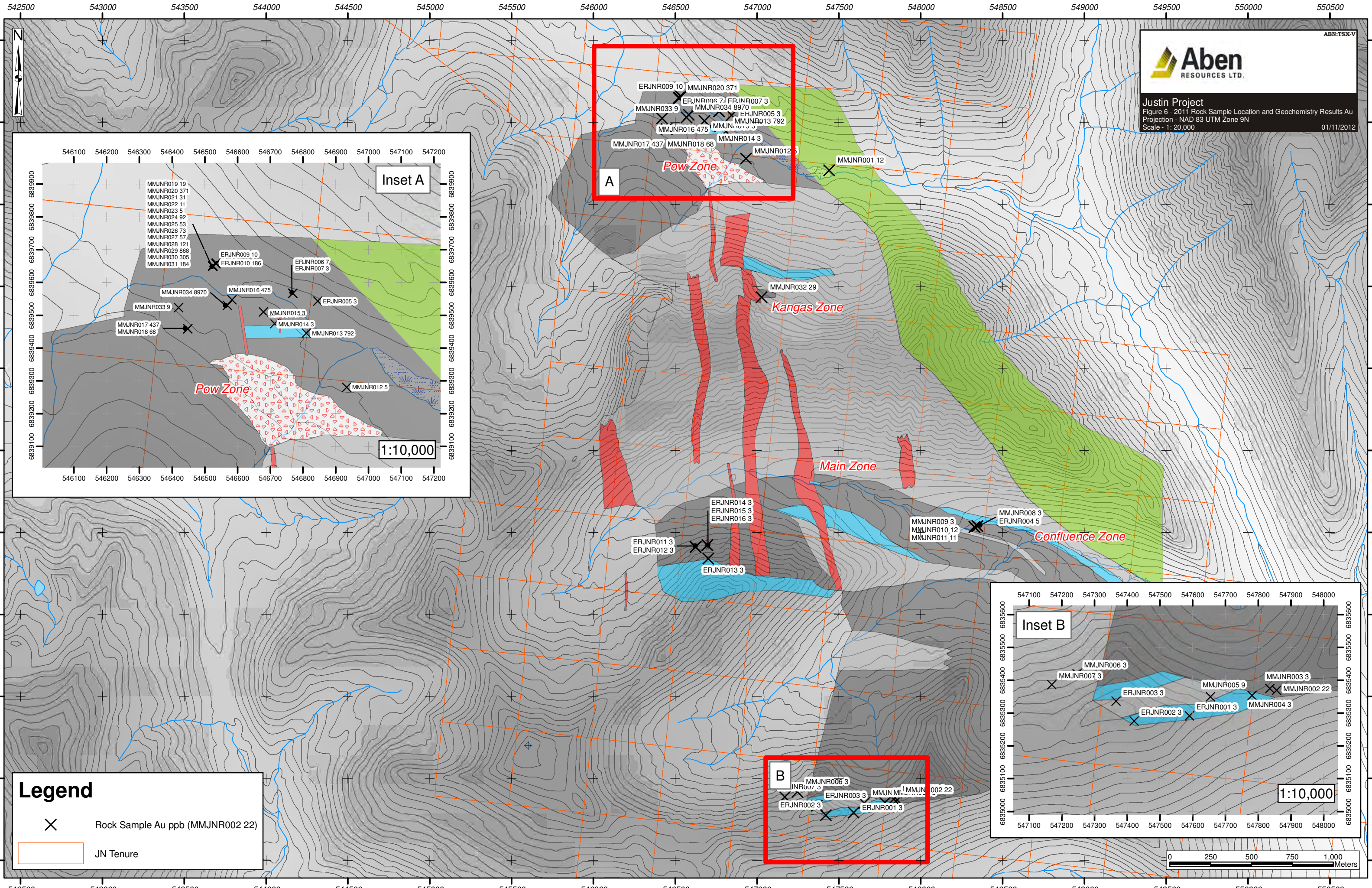
JN11009: Azimuth 250°, Inclination – 45°, EOH – 291.67 meters

The POW Zone is a mineral showing that was discovered during the 2010 field season. Year-2010 chip sampling for the POW Zone 400 meters east of JN11009 yielded results of 3.0 metres of 0.5 g/t Au; four grab samples from the POW Zone returned values of 1.05 g/t Au, 2.90 g/t Au, 1.22 g/t Au and 2.40 g/t Au. The gold values from the 2010 program were obtained from skarn-style replacement of limestone and quartz-calcite veining. Hole JN11009 was drilled as an addition to the 2011 Justin project, following discovery of two “new” mineral occurrences displaying favourable gold indicator minerals during follow-up mapping and prospecting of the POW Zone. JN11009 was collared in a sequence of interbedded pebble conglomerate and fine grained siltstone of the Hyland Group which extends to a depth of 145.95 meters. From 145.95-239.85 meters a sequence of thin to thick bedded, intensely altered limestone unit occurs. From 239.85-291.67 meters interbedded and intensely altered fine grained siltstone and sandstone occur. Alteration within JN11009 is strongly controlled by the primary composition of the lithologies. Hydrothermal alteration occurs as vein-halo envelopes, contact metamorphic calc-silicate skarn, and as pervasive crystalline replacement associated with contact metamorphism. Hydrothermal stockwork veining and vein-breccia systems are enveloped by pervasive silicification and argillic alteration. The pebble conglomerate beds are receptive to the hydrothermal fluids and are commonly partially recrystallized within zones of intense brecciation and veining. Silica, biotite, chlorite +/- epidote +/- white clay alteration is common within the pebble conglomerate, and occurs as matrix replacement. Adjacent to calc-silicate altered limestone members, the pebble conglomerate matrix is also partially replaced by medium-coarse grained calc-silicate minerals such as pyroxene, epidote, and actinolite. Finer grained sediments such as siltstone and sandstone beds generally do not display the same degree of silicification, but are locally pervasively altered to sericite and/or biotite. Limestone and associated calcareous sediments are pervasively altered to a fine to coarse grained prograde exoskarn consisting of clinopyroxene, quartz, and hydrogrossular garnet. Retrograde alteration of the skarn occurs in areas of brittle fracturing and quartz-calcite veining. The alteration occurs as fine grained actinolite, chlorite, epidote +/- hematite. A secondary phase of intense clay and limonite alteration overprints the calc-silicate skarn, yielding a bleached beige-white color. The alteration is associated with quartz stock work veining, and occurs as an envelope with distinct solution-front boundaries. Below the well defined calc-silicate zone, skarn alteration intensity increases, with partial or complete recrystallization of coarse grained siliclastic sediments, and intense sericite alteration of fine grained siliclastics. The increase in alteration intensity is interpreted to reflect the spatial proximity to the intrusive sock identified in 2010. Hole JN11009 returned the most significant results of the 2011 drilling program. Mineralization occurs in two distinct settings: 1) Structurally controlled vein and vein-breccia hosted pyrite + pyrrhotite +/- unknown bismuth mineral +/- chalcopyrite +/- arsenopyrite +/- molybdenite +/- sphalerite +/- galena +/- scheelite +/- jamesonite; 2) Lithologically controlled skarn replacement hosted magnetite +/- pyrrhotite +/- chalcopyrite +/- unknown bismuth mineral +/- hematite +/- pyrite. Highlights from stock work veining include a 5.00 metre interval of 1.79 g/t Au from 158.00-163.00 meters, including 0.50 meters of 9.77 g/t Au from 159.05-159.55 meters. Highlights from intervals of skarn/ replacement mineralization include 5.85 meters of 5.12 g/t Au from 198.00-203.85 meters. For a comprehensive summary of significant results, refer to Table 3. Gold values returned from vein hosted mineralization have an excellent correlation with elevated values of Bi, and a moderate correlation with elevated values of Cu. Gold values returned from skarn hosted mineralization have a moderate correlation with both Bi and Cu. The interval of 21.00 meters of 2.47 g/t Au from 184.00-205.00 meters is characterized by elevated values of Bi, Cu, Fe, Mo, and W. An interesting observation is that both the skarn replacement and vein hosted mineralization are most highly developed within the limestone unit suggesting that the skarn alteration is an important precursor for ground preparation for the structurally controlled stock work veining. A pronounced magnetic anomaly was detected by the down hole survey tool magnetic susceptibility meter at a depth of 92.00 meters. The anomaly is interpreted to represent the influence of the magnetite rich skarn on the survey tool.

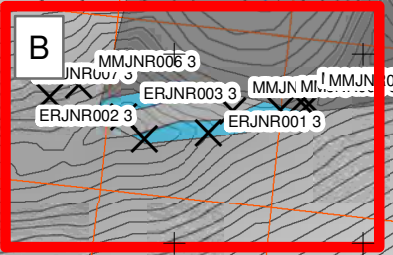
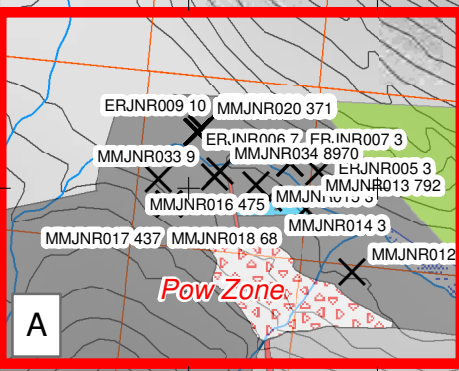
JN11010: Azimuth 250°, Inclination – 60°, EOH – 254.50 meters

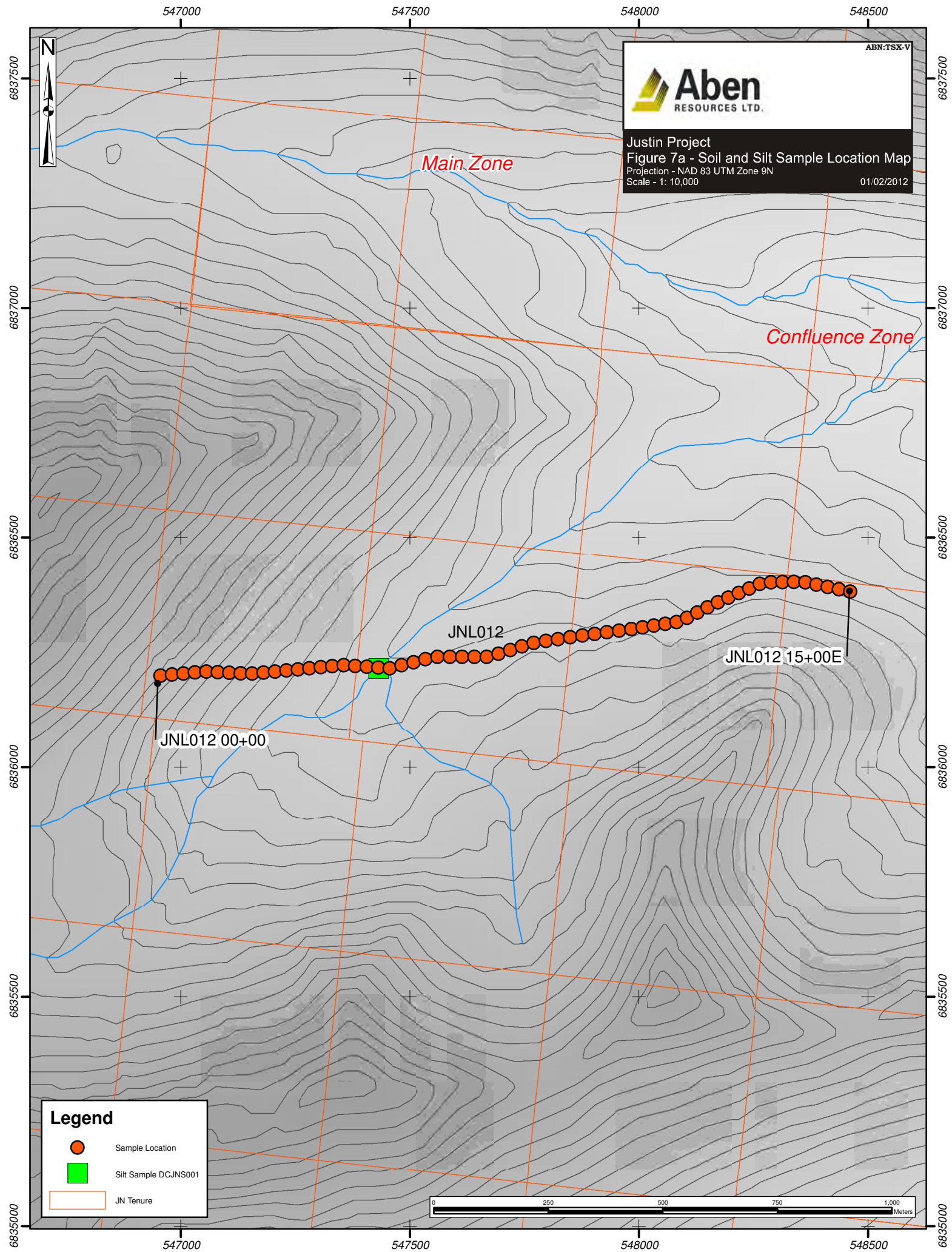
Drill hole JN11010 was added to the 2011 Justin project after significant vein and skarn hosted mineralization was discovered in Hole JN11009. It was designed to test the down dip expression of the intersection obtained from JN11009. The geological setting observed within JN11009 and JN11010 correlates very well between drill holes, and with the surface exposure mapped in 2010 and 2011. Major differences in the geology observed within JN11010 compared to Hole JN11009 are as follows: 1) The calc-silicate skarn interval has been overprinted by extensive hydrothermal potassic alteration associated with post-skarn quartz-calcite stockwork veining. The increase in density of quartz-calcite veining and associated alteration in JN11010 within the calc-silicate skarn is interpreted to represent the intersection of a structurally controlled zone of hydrothermal fluid flow. The same style of veining and alteration was observed in JN11009 from 150.00-174.00 meters. The increase in intensity across this zone from JN11009 to JN11010 is interpreted to reflect the proximity to a property scale NNW trending structural zone focusing hydrothermal fluids. 2) The intersection of a porphyritic felsite dike from 210.90-217.40 meters. 3) Change in the geochemical signature of the mineralized quartz stock work system. In Hole JN11009, the mineralized vein interval from 158.00-163.00 meters was characterized by Au associated with Bi, whereas in JN11010 the vein stockwork interval from 149.00-172.00 meters was characterized by Au associated with Ag, As, Bi, and Sb. Another stark difference is that replacement-style gold skarn mineralization has been leached from altered skarn in JN11010. An anomalous value of 0.44 g/t Au was returned from 194.00-206.00 meters in JN11010 which is interpreted to represent the Au skarn intercepted in JN11009 from 184.00-205.00 meters. It is plausible that the hydrothermal activity responsible for the emplacement of the quartz stockwork veining may have acted as a leaching mechanism for gold from the original skarn, yielding a lower grade intersection across the same zone. 4) Intense silicification and argillic alteration occurs from 217.40 meters to the end of the hole at 254.50 meters. Pebble conglomerate beds have been partially to completely replaced by crystalline silica and calc-silicate minerals, and feldspar clasts have been replaced by white clay. Fine-medium grained molybdenite occurs as disseminations within the intensely altered sediments. The increase in alteration at depth within the hole, coupled with the presence of disseminated molybdenite within the sediments and quartz veins, suggests that JN11010 is in close proximity to an intrusive stock.

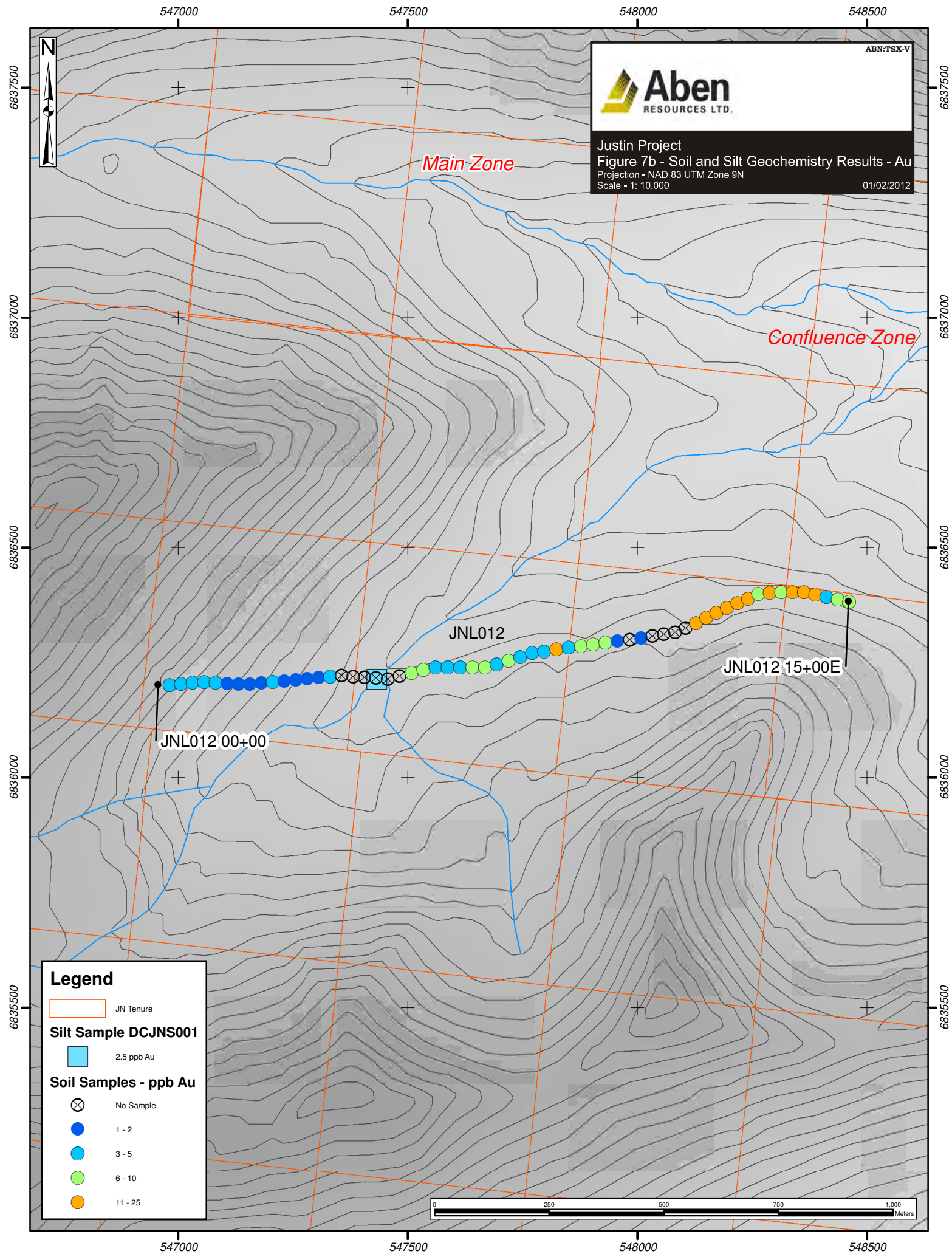
An interval of anomalous tungsten mineralization intercepted from 195.00-206.00 meters returned a value of 702 ppm W, including 3.00 meters of 1,363 ppm W from 195.00-198.00 meters.

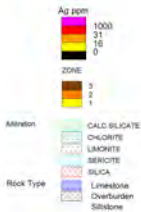
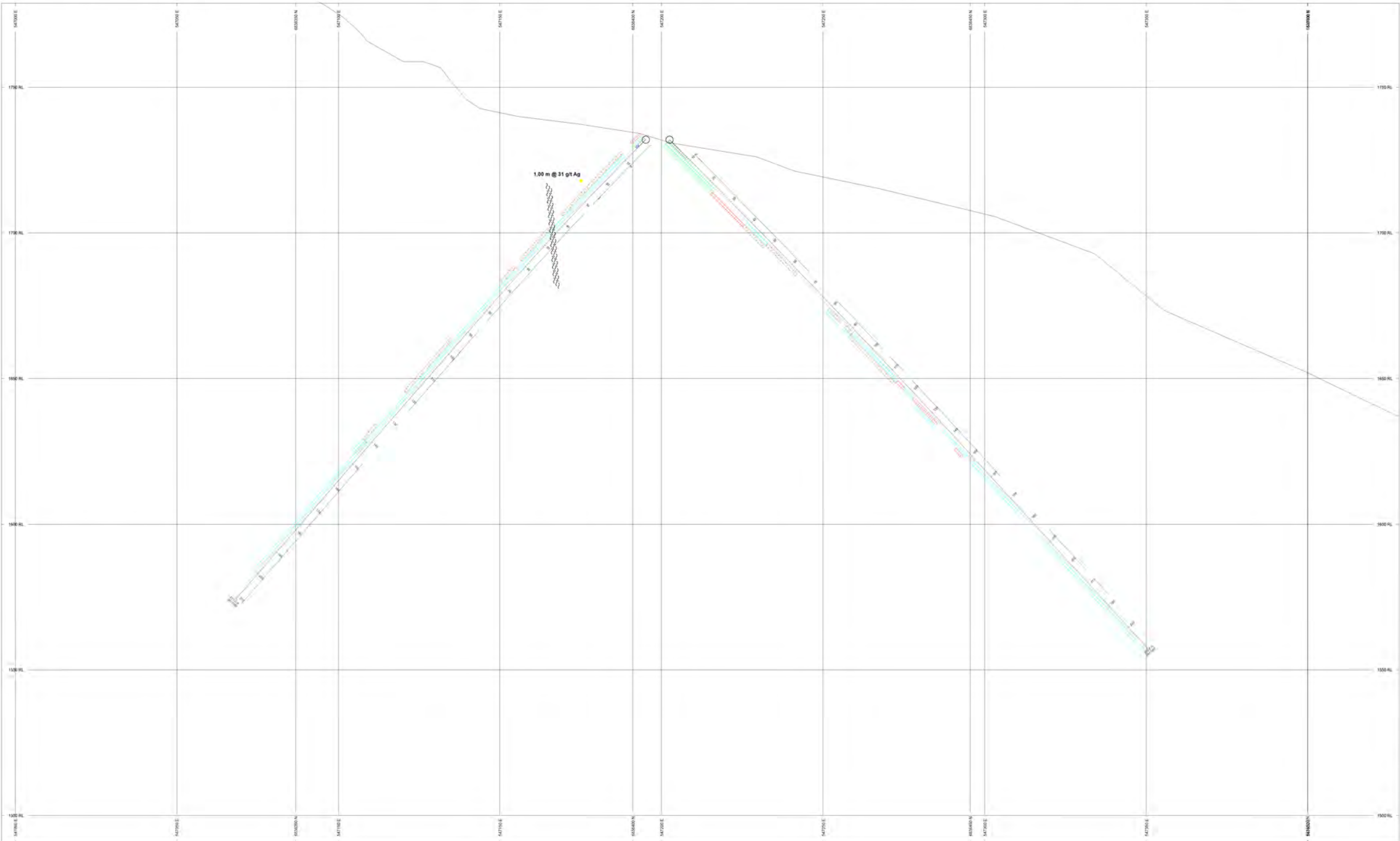
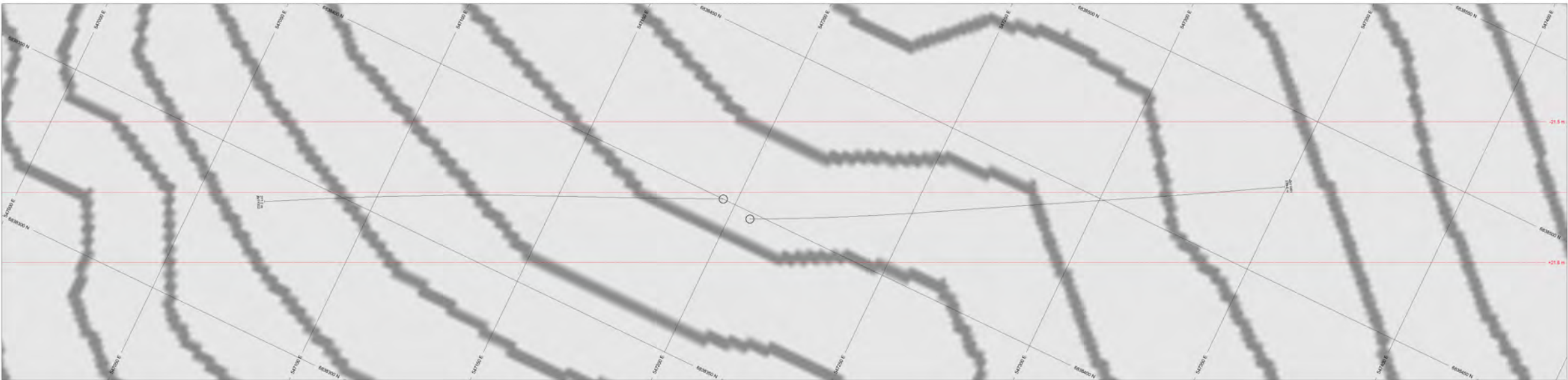


Justin Project
Figure 6 - 2011 Rock Sample Location and Geochemistry Results Au
Projection - NAD 83 UTM Zone 9N
Scale - 1: 20,000
01/11/2012









SECTION SPECS:

REF. PT. E, N 547212 m 6838410 m

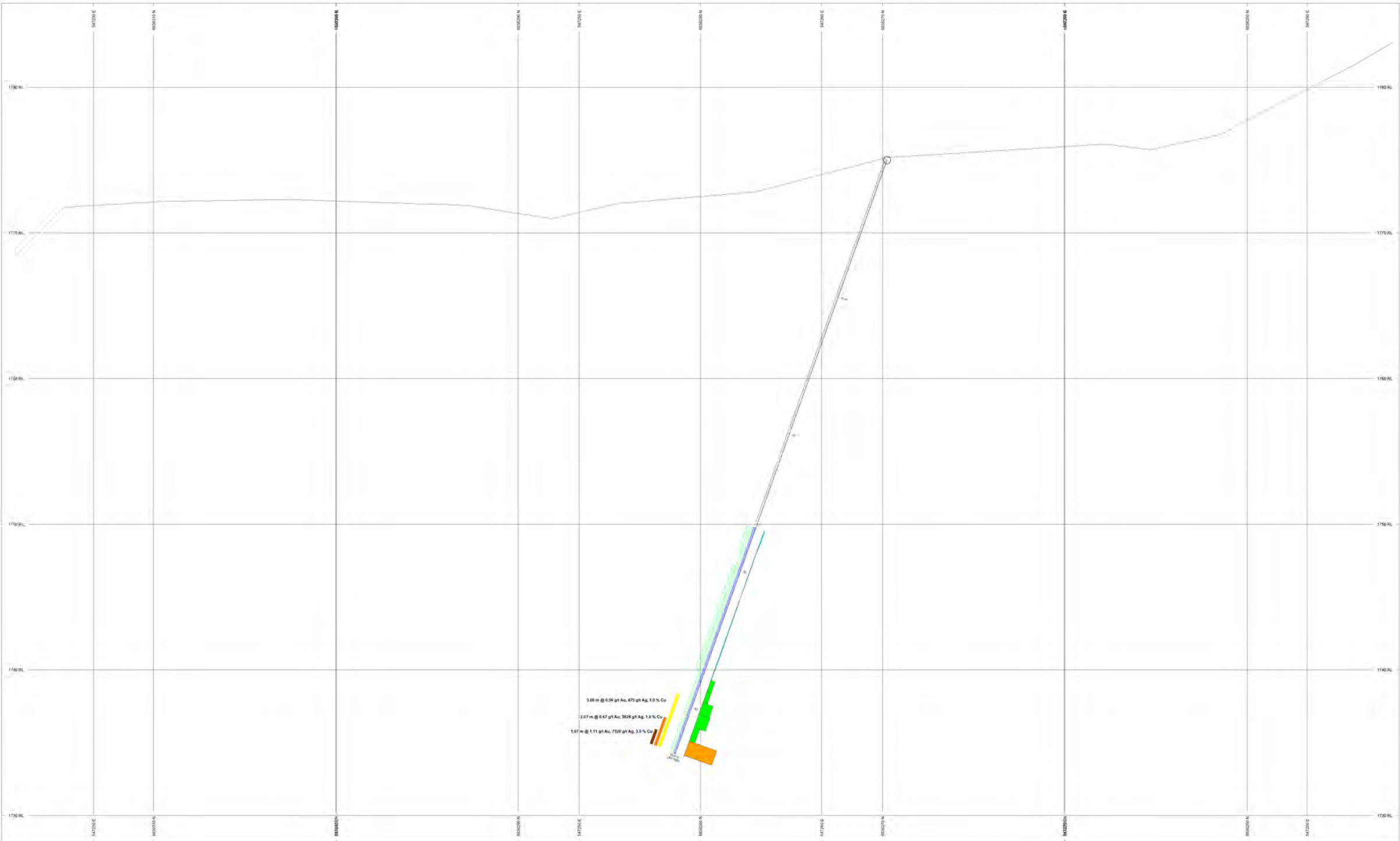
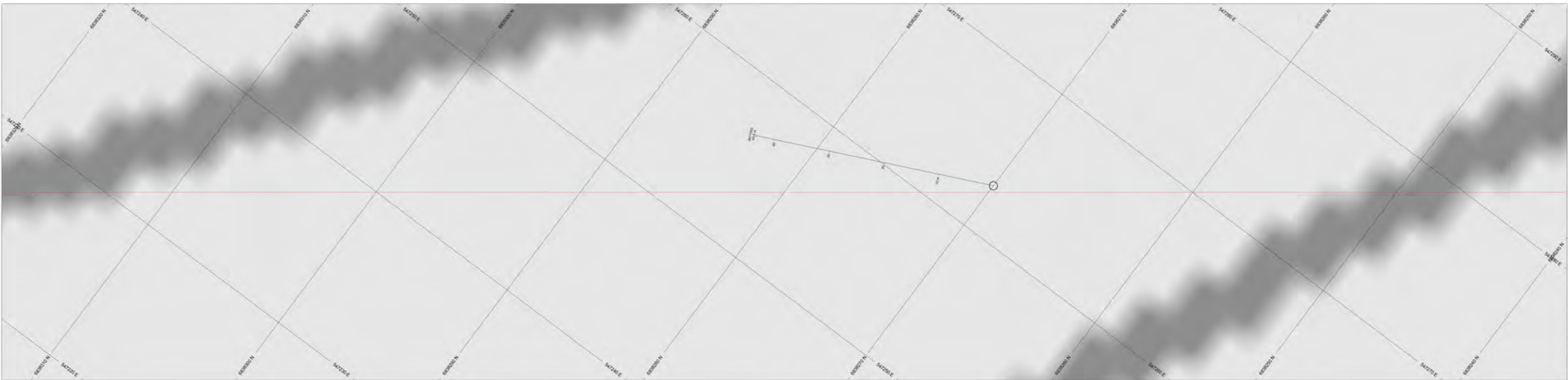
EXTENTS 479.5 m 288.3 m

SECTION TOP, BOT 1779 m 1491 m

TOLERANCE +/- 21.55 m



Aben Resources Ltd.
Justin
Kangas Zone Section
JN11001, JN11002



Au (ppb)

DOL. RANGE

ZONE

Lithology

SECTION SPECS:

REF. PT. E, N	547255 m	6838280 m
EXTENTS	95.9 m	57.65 m
SECTION TOP, BOT	1786 m	1728 m
TOLERANCE +/-	15.7 m	

SCALE 1 : 100

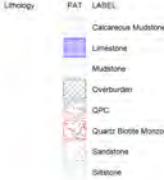
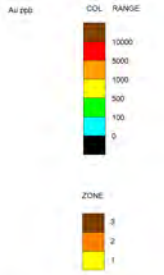
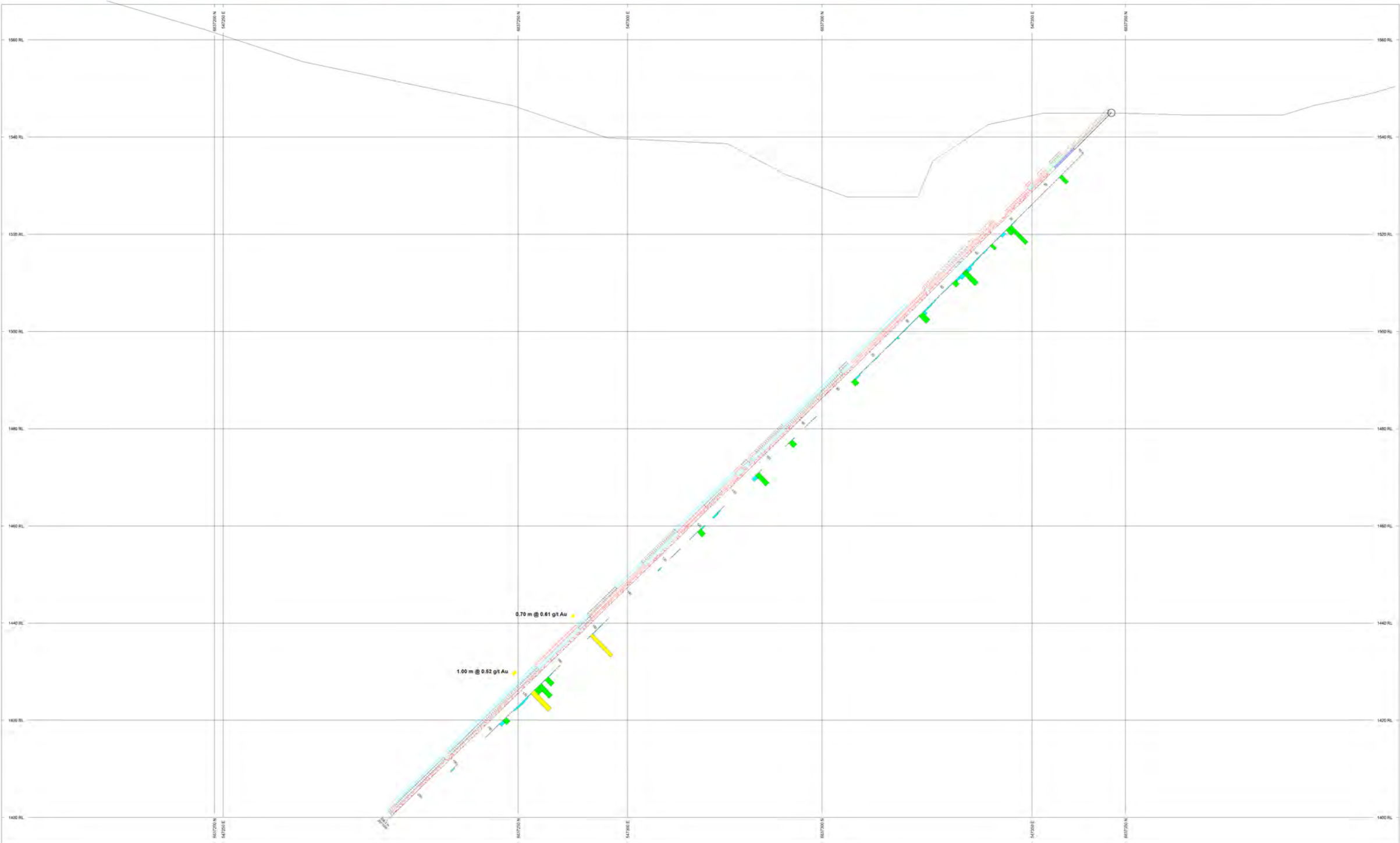
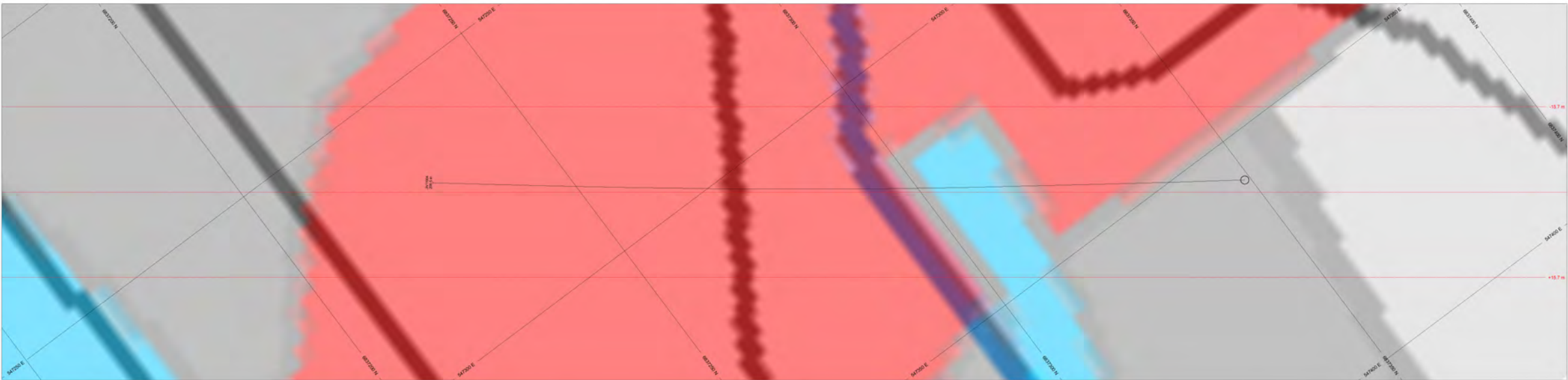
ADDITIONAL = 143 1"

Aben Resources Ltd.

Justin

Kangas Zone Section

JN11003



SECTION SPECS:

REF. PT. E, N 547309 m 6837280 m

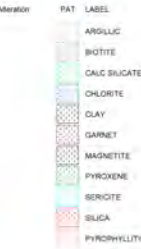
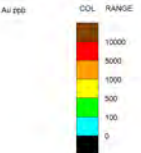
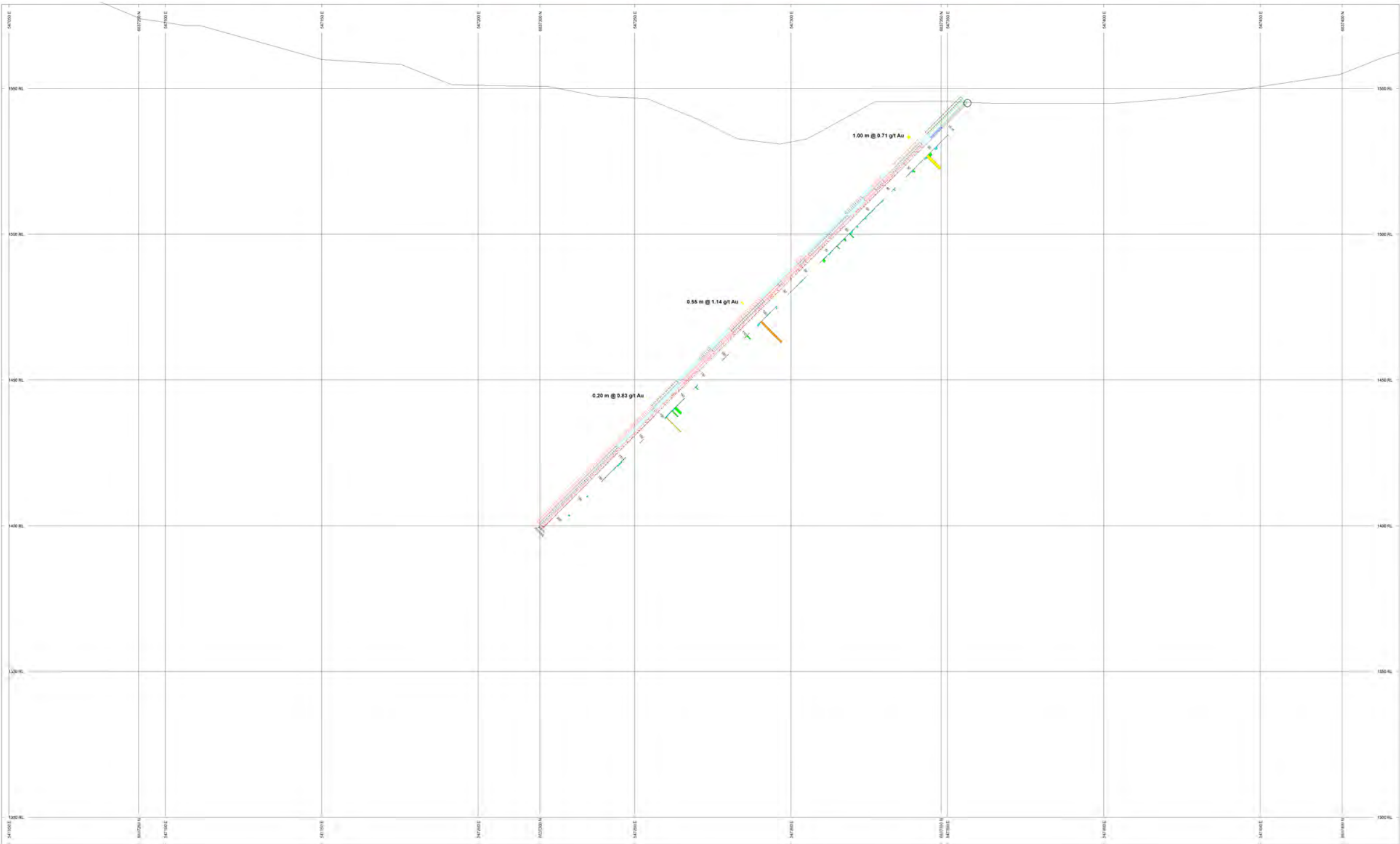
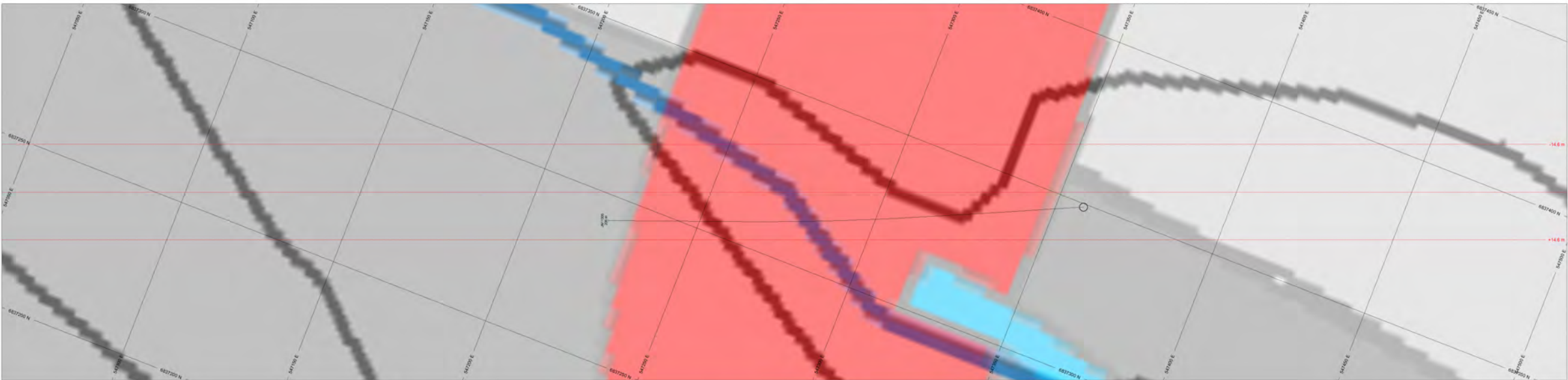
EXTENTS 287.7 m 173 m

SECTION TOP, BOT 1567 m 1394 m

TOLERANCE +/- 15.7 m



Aben Resources Ltd.
Justin
Main Zone Section
JN11004



SECTION SPECS:

REF. PT. E. N 547271 m 6837320 m

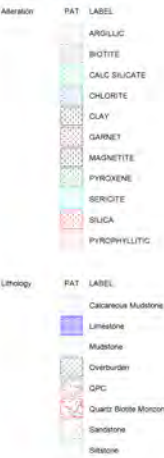
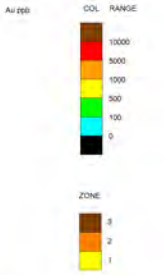
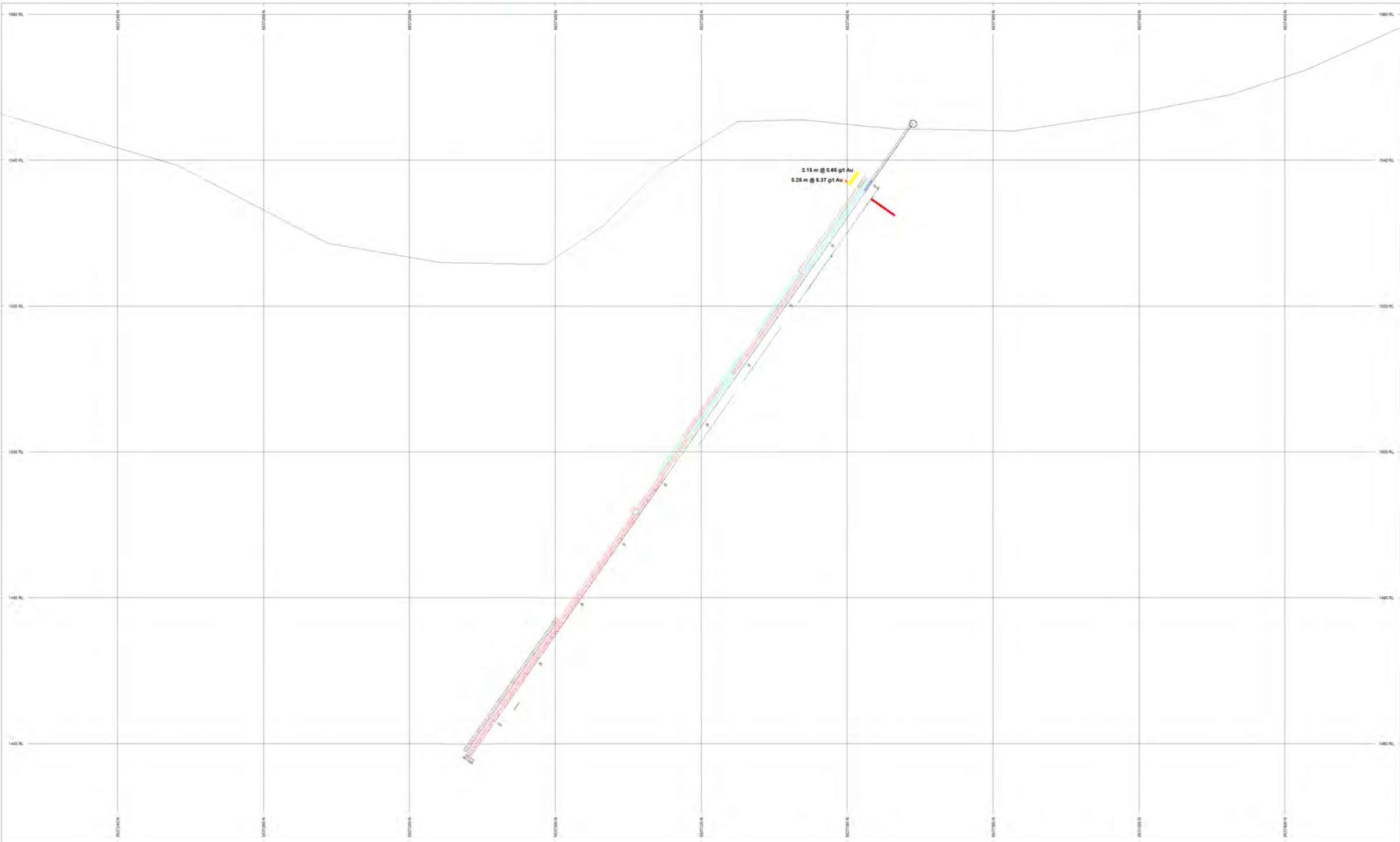
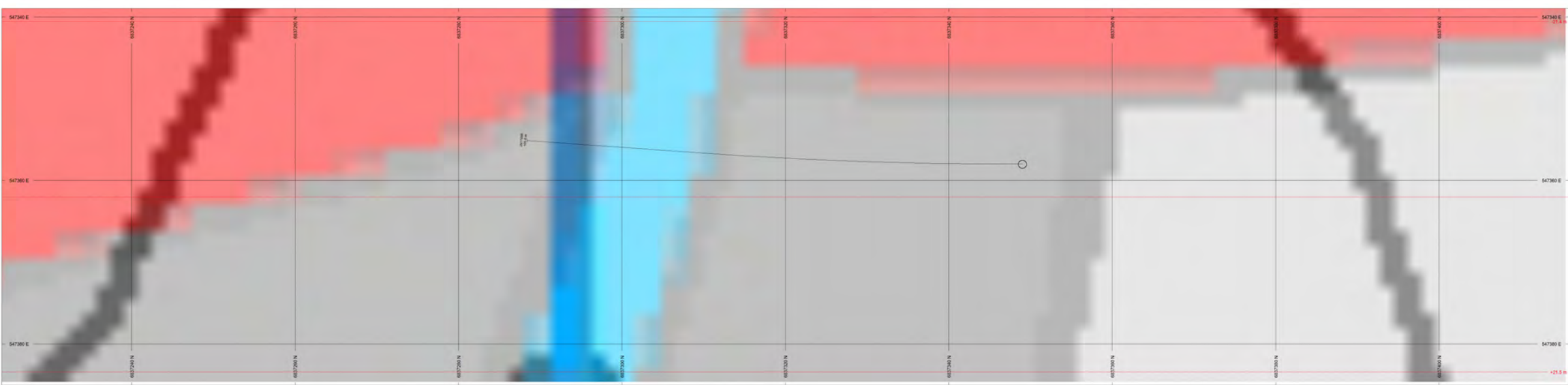
EXTENTS 479.5 m 288.3 m

SECTION TOP, BOT 1579 m 1291 m

TOLERANCE +/- 14.6 m

SCALE 1 : 500





SECTION SPECS:

REF. PT. E, N 547362 m 6837320 m

EXTENTS 191.8 m 115.3 m

SECTION TOP, BOT 1562 m 1446 m

TOLERANCE +/- 21.45 m



Aben Resources Ltd.
Justin
Main Zone Section
JN11006

JN11009, JN11010

CONCLUSIONS

The Justin property, located approximately 175 kilometers north of Watson Lake in the southeast Yukon Territory, has the potential to host significant deposits of gold, silver and copper. The property hosts Au-Cu skarns and sheeted gold-silver +/- copper-bearing quartz and quartz-calcite veins and vein-breccia systems. The property is underlain by sedimentary rocks assigned to the Yusezyu Formation, the older of the two formations comprising the Upper Proterozoic to Lower Cambrian Hyland Group, and by sedimentary rocks assigned to the Cambrian-Ordovician Rabbitkettle Formation. These sediments are intruded by a mid-Cretaceous intrusive stock and a suite of related dikes.

The 2011 exploration program consisted of 58 field days with a crew of 2 to 9 workers. The primary objective of the program was to drill test the Kangas Zone, Main Zone, Confluence Zone, and conduct follow-up mapping and prospecting of the POW Zone. Discovery of alteration and favorable gold indicator minerals 400 meters east of the original POW Zone showing during the early stages of the 2011 program provided the impetus for drill testing the POW Zone. A total of 2,021 meters of NQ core was drilled in 10 holes from five different drill pads during the 2011 program. A total of 1,374 drill core samples were sent in for analysis. A total of 52 rock samples, 1 silt sample, and 63 soil samples were taken over the course of the program and sent in for analysis.

The total expenditures on the Justin Property for 2011 were \$1,005,000.00.

The 2011 program on the Justin Property was very successful in identifying gold +/- silver +/- copper mineralization. Highlights from the diamond drilling program are as follows: 1. the discovery of high grade Ag-Cu mineralization at the Kangas Zone which returned 1.07 meters of 1.11 g/t Au, 7,320 g/t (234 oz/t) Ag, and 3.52 % Cu in JN11003; and: 2. the discovery of significant Au+/-Ag mineralization returning up to 60.00 meters of 1.19 g/t Au in JN11009, and 23.00 meters of 1.57 g/t Au and 16 g/t Ag in JN11010, within the contact aureole of an intrusive stock at the POW Zone.

Drilling at the Confluence Zone successfully intercepted gold bearing chalcedonic quartz veins representing the down-dip extension of the zone exposed in Trench SN97-3. Drill core analysis returned values to 5.60 meters of 0.76 g/t Au in JN11008. A gold-bearing vein-breccia system within the March Creek Fault Zone was also intercepted in both JN11007 and JN11008. The fault-controlled zone returned 9.40 meters of 0.76 g/t Au in JN11007, and 21.50 meters of 0.38 g/t Au, including 4.60 meters of 1.15 g/t Au in JN11008. This was the first drill program testing this regional structure; results indicate that it may be an important control for gold mineralization on the Justin Property.

Drilling efforts at the Main Zone returned anomalous gold and copper values from calc-silicate skarn, and quartz-sulphide veinlets. Although no significant values were returned from the three holes, the geologic information provides valuable insight into the evolution of the geological setting of property. Significant intersections of porphyritic felsite and quartz biotite monzonite dike material were intercepted in all three holes. The overall true thickness of the dike swarm is not understood but drilling to date indicates it is greater than 100 meters. As dikes are derived from a parent magmatic source, the size of the porphyritic dikes and their wide spatial distribution suggests that a substantial igneous stock lies beneath the Justin Property.

Mapping and prospecting of the POW Zone led to the expansion of its known dimensions at least 400 meters east of the original 2010 discovery. Grab samples obtained from the POW Zone returned values to 8.97 g/t Au and 84 g/t (2.7 oz/t) Ag (Sample MMJNR034); chip samples returned values to 0.56 g/t Au and 14 g/t (0.4 oz/t) Ag over 2.0 meters (Samples MMJNR029-MMJNR030).

Soil sampling outlined a 300-metre zone of elevated Au values in soil (11 – 25 ppb) at the eastern extent of JNL012. Although the values are only weakly elevated in the 11-25 ppb range, they correlate with anomalous gold in soil values from historic geochemical soil surveys. The historic soil and silt samples define a zone extending south and east of the Confluence Zone to the inferred contact of the March Creek Fault. The zone is geochemically anomalous in Ag, As, Au, Pb, Sb, and Zn. Further prospecting and mapping is required to follow up on this geochemical anomaly.

In summary the Justin Property has several key features which highlight its potential to host an economic deposit:

- Multi-phase precious metal mineralization, and mineral zonation is indicative of an evolved hydrothermal system
- The mineralized zones display geochemical signatures which support an intrusion related model
- Significant precious and base metal mineralization occurs within the contact aureole of a newly discovered intrusive stock
- Structurally controlled high grade precious and base metal mineralization occur in the Kangas Zone
- Significant hornfels alteration of sediments across the Justin Property suggest that the intrusive stock underlying the

property is multi-kilometric in size

- Significant hypabyssal igneous activity suggests that a volumetrically large igneous body is present underlying the Justin Property
- Convergence of two major structural features at the POW Zone: The March Creek Fault, and the property-scale NNW fault provide excellent structural ground preparation for the propagation of hydrothermal fluids from the intrusive stock.

The Justin property has the potential to host one or more economic gold-silver+/-copper deposits. Further exploration is strongly recommended.

RECOMMENDATIONS

Further exploration work is strongly recommended on the Justin property with a primary focus on the POW Zone, and should include the following items:

- Phase I

- Obtaining Class 3 Permit (5-year temporal scope)
- Data compilation of all historic data, geologic modeling
- Exploration camp construction

- Phase II

- 4,000 meters of diamond drilling focusing on the POW and Kangas Zones
- Ground based geophysics survey of the POW Zone

- Phase III

- Property scale geologic mapping and prospecting
- Geochemical silt and soil surveys to expand current ground coverage

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2011 Diamond Drilling, Geological, and Geochemical Report

for the

Justin Property

Volume II

Appendix I – Statement of Qualifications

Appendix II – Statement of Expenditures

Appendix III – Geochemical Protocol

Appendix IV – Diamond Drill Logs

Justin 1-4 (YB59913 – YB59916), Justin 5-25 (YB70809 - YB70829), SP 1-50 (YC73232 – YC73281),

SP51-55 (YD65452 – YD65456)

Watson Lake Mining District, Southeastern Yukon Territory

Map sheet 105-H-09

Latitude 61° 42' N, Longitude 128°10'W

Prepared for:

Aben Resources Ltd.

Suite 2230 – 885 West Georgia Street

Vancouver, BC, Canada

V6C 3E8

By

Mike McCuaig, B.Sc (Geol)

TerraLogic Exploration Inc.

Suite 200, 44-12th Ave S.

Cranbrook, B.C., Canada

V1C 2R7

January 27th, 2012

APPENDIX I

STATEMENT OF QUALIFICATIONS

I, Michael A. McCuaig, B. Sc. Do hereby certify that:

I am currently employed as a Geologist, with TerraLogic Exploration Inc. with business address: Suite 200, 44-12th Avenue South, Cranbrook, BC, V1C 2R7.

I graduated with a Bachelor of Science Degree from St. Francis Xavier University in 2003.

I have worked as a geologist for five years since my graduation from university.

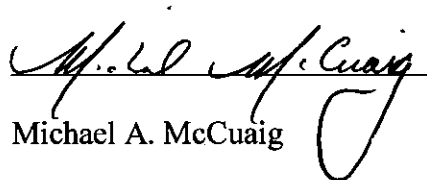
I supervised the 2011 diamond drilling program on the Justin property.

This report is supported by diamond drill data and samples collected during fieldwork on the Justin property in the Watson Lake Mining District, YK, NTS 105H09 and, during the period August 8th, 2011 to September 23rd, 2011.

I have authored this assessment report titled "2011 Diamond Drilling, Geological, and Geochemical Report on the Dragon Lake Property" and dated November 15th, 2011 to the exploration program conducted by Aben Resources Ltd.

I am a full time employee with TerraLogic Exploration Inc. since June 1st, 2011 and currently hold no shares of Aben Resources Ltd.

Dated this 27th day of January 2012, in Cranbrook, British Columbia.



Michael A. McCuaig

APPENDIX II

Statement of Expenditures

Justin Project 2011					
Diamond Drilling, Geochemical Surveys					
Personnel (Name) / Position	Field Days	Days	Rate	Subtotal	
Michael McCuaig / Geologist	June 26; August 5th - September 22nd	49.64	\$525.00	\$26,061.00	
Evan Redburn / Jr. Geologist	August 7th - September 6th	32.00	\$450.00	\$14,400.00	
Ryan Schmidt / Geotech	August 14th - September 22nd	42.50	\$350.00	\$14,875.00	
Drew Crawford / Geotech	August 10th - August 28th	19.00	\$350.00	\$6,650.00	
Aaron Higgs / Geologist	June 26th	1.00	\$625.00	\$625.00	
				\$62,611.00	\$62,611.00
Office Studies	Personnel	Days	Rate	Subtotal	
Project Management	Jesse Campbell	3.37	\$725.00	\$2,443.25	
Project Management	Chuck Downie	1.80	\$800.00	\$1,440.00	
Project Management	Mike McCuaig	5.83	\$525.00	\$3,060.75	
Project Planning	Mike McCuaig	3.30	\$430.00	\$1,419.00	
Project Planning	Aaron Higgs	0.20	\$625.00	\$125.00	
Project Planning	Fiona Katay	12.00	\$525.00	\$6,300.00	
Project Preparation	Andreas Unterberger	0.40	\$375.00	\$150.00	
Project Preparation	Nathan Taylor	1.02	\$360.00	\$367.20	
Project Preparation	Nathan Taylor	0.80	\$395.00	\$316.00	
Project Preparation	Jason Kolcun	0.40	\$425.00	\$170.00	
Database management and logistics	Brad Robison	8.75	\$525.00	\$4,593.75	
Data Compilation	Ryan Schmidt	4.27	\$350.00	\$1,494.50	
Database compilation	Chris Gallagher	1.61	\$725.00	\$1,167.25	
Report preparation	Mike McCuaig	30.00	\$525.00	\$15,750.00	
				\$38,796.70	\$38,796.70
Contractors and Subcontractors				Subtotal	
Geological	All-Terrane Mineral Exploration Services			\$5,503.33	
Other	MinConsult - Drill Pad Construction			\$24,858.64	
				\$30,361.97	\$30,361.97
Geochemical Surveying	Number of Samples	No.	Rate	Subtotal	
Drill Core - ALS Minerals	1374 Drill Core Samples	1374	\$31.30	\$43,009.65	
Soil and Stream Sediment - ALS Minerals	61 Soil Samples, 1 Silt Sample	62	\$20.39	\$1,264.08	
Rock - ALS Minerals	52 Rock Samples	52	\$27.66	\$1,438.20	
Rock - ACME Labs	13 Rock Samples	13	\$20.70	\$269.15	
Petrology - Vancouver Petrographics	15 Drill Core Samples	15	\$250.33	\$3,755.00	
				\$49,736.08	\$49,736.08
Drilling	No. of Holes, Size of Core and Metres	No.	Rate	Subtotal	
Diamond	10 Holes, NQ, 2021.47 metres	2121.47	\$139.24	\$295,388.00	
Fuel				\$10,137.20	
Core Boxes				\$1,050.00	
				\$306,575.20	\$306,575.20
Transportation		No.	Rate	Subtotal	
Airfare				\$19,411.52	
Taxi				\$58.05	
Fuel for Trucks				\$1,508.95	
Helicopter (Fireweed Helicopters L3)		163.57	\$1,250.00	\$204,462.00	
Helicopter (Heli Dynamics L3)		0.60	\$1,450.00	\$870.00	
Fuel (Jet A)				\$42,028.28	
Charter Aircraft				\$10,835.75	
Repair and Maintenance				\$207.50	
Other				\$288.17	
				\$279,670.22	\$279,670.22
Accommodation & Food	Rates per day			Subtotal	
Hotel				\$1,699.93	
Meals				\$1,402.21	
Camp Supplies				\$6,796.88	
Camp (Including Meals)	\$150.00 per man day			\$51,600.00	
				\$61,499.02	\$61,499.02
Geological and Geochemical				Subtotal	
Geological Supplies			\$0.00	\$36.96	
Geological Maps	Property Maps, DDH Sections, DDH Plan Maps, Strip Logs			\$301.60	
Sampling Consumables			\$0.00	\$1,889.59	
Permitting				\$225.00	
				\$2,453.15	\$2,453.15
Equipment Rentals		Months	Per Month	Subtotal	
Field Gear	Pack with cruiser vest, rock hammer, GPS, hip chain, hand lense, map scale, personal first aid kit, helicopter flag, hand held magnet, hardness pen.	4.20	\$600.00	\$2,520.00	
Trailer	Enclosed Trailer for Gear and Sample Storage	1.42	\$2,000.00	\$2,840.00	
Satellite Internet		1.40	\$1,100.00	\$1,540.00	
Sat Phone		1.40	\$250.00	\$350.00	
Hand Held Radios		4.20	\$100.00	\$420.00	
Chainsaw		1.40	\$150.00	\$210.00	
Core Splitter		1.40	\$350.00	\$490.00	
Core Splitter	Rented from third party			\$711.00	
Computer with Printer		2.80	\$220.00	\$616.00	
Digital Camera		1.40	\$100.00	\$140.00	
Survival Kit		1.40	\$100.00	\$140.00	
Generator		1.40	\$1,350.00	\$1,890.00	
Core Orientation - CorientR				\$4,837.20	
Barrel Pump		2.80	\$25.00	\$70.00	
Diesel Stove		2.80	\$350.00	\$980.00	
InfoSat				\$561.56	
Truck Rental		1.5	\$2,500.00	\$3,800.00	
Mileage		5602.0	\$0.30	\$1,680.60	
Wall Tent		4.2	\$600.00	\$2,520.00	
Spill Kit Small		2.8	\$110.00	\$308.00	
Spill Kit Large		1.4	\$266.00	\$372.40	
UV Lamp		1.40	\$100.00	\$140.00	
First Aid Kit		1.40	\$100.00	\$140.00	
				\$27,276.76	\$27,276.76
Freight and Expediting				Subtotal	
				\$28,248.25	
				\$28,248.25	\$28,248.25
TerraLogic Exploration Handling and Administration Fees				Subtotal	
				\$117,765.50	
				\$117,765.50	\$117,765.50
TOTAL Expenditures					\$1,004,993.85

APPENDIX III

Geochemical Protocol

Appendix 3.1 – Geochemistry – DDH Sampling Techniques

Core Logging: Daily visits to the drill occurred at shift change, 7:00 am and 7:00 pm respectively. This was done to ensure that the drill core and footage markers were being placed in the box correctly, and that the drill core was free from grease and other drill additives.

1. Core boxes were loaded into a metal basket for storage immediately after being filled on the drill platform. At each cross-shift the core boxes were secured with wooden lids, rubber bands, and ratchet straps. It was then flown to the Justin base camp located at the main zone mineral occurrence.
2. TerraLogic crew members received the basket of core from the helicopter. Each box was taken from the basket and placed on wooden skids in sequence. The lowest box number was placed on the skids first, and then the rest follow in order. The rubber bands and core box lids were then loaded back into the basket, secured with the ratchet strap and returned to the property.
3. Once all of the boxes are laid out, the core boxes and blocks are checked making sure that everything has been properly recorded, and that nothing is missing.
4. A summary log is taken for the following geologic features: Alteration, Lithology, and Mineralization. The information is used to provide quick daily updates of drilling activities.
5. The core boxes remain on the wooden skids until they are transferred into the core shack for logging and sampling.
6. The core logging tent could accommodate a total of 8, four foot core boxes at any one time for logging. The boxes were placed on wooden saw horses which were constructed on site. The boxes were ordered such that the lowest box number was on the tent side of the left most saw horse. The rest of the boxes followed in sequence, ordered such that the core is read like pages in a book, left to right moving down hole.
7. Once the core was laid out on the saw horses geotechnical procedures began. In summary these procedures include:
 - Cleaning the core of any unwanted dirt, grease, or other drill additives.
 - Converting footage markers to metric, each footage marker had the corresponding meterage written on the flip side of the marker. Brackets were drawn on either side of the block, on the margin of the box so that if the block was accidentally moved it could be placed back in its original position.
 - Using the converted measurements on the blocks one-meter intervals were marked on the drill core using a grease pencil. During this process the “start” and “finish” meterage was written at the top left and bottom right of each box using a permanent marker and/or a carpenter’s pencil.
 - Core recovery intervals are calculated for each run of core. This process involves measuring of the drill core. Beginning at the start of the run the geotechnician measures each piece of core moving down the hole until the end of the run. This cumulative measurement is recorded in a palm pilot. The recovery percentage is then calculated in the palm pilot. The recovered drill core is expressed as the percentage of core recovered with respect to the length of the interval stated between the meterage blocks. Each run has the recovery written on the margin of the box above the end block for the run.

- A metal tag was affixed to the left hand end of each box. The hole number, box number, and meterage interval was written on each tag (eg. JN11-001 Box 1 3.05 m – 7.90 m). All of this information was recorded by hand in a notebook, and kept as a reference guide for organizing core photographs.
8. Upon completion of the geotechnical procedure sample layout and core logging was initiated. In summary these procedures include:
- Sample layout was completed by the project geologist. The entire drill hole was sampled from collar to the end of the hole. Sample intervals were marked on the core using a red grease pencil. Sample intervals were marked out at one meter intervals, the corresponding meterage written at the beginning of each interval in red grease pencil. Modification of sample intervals from the one meter standard was necessary to allow for changes in lithology, alteration, veining, and mineralization. Sample intervals did not exceed 1.40 meters. Above the beginning of each sample interval a metal sample tag was affixed to the box. The left hand edge of every sample tag was aligned with the beginning of the sample interval. On each sample tag the sample number, and sample interval meterage was written as follows (JN11001-001 1.00 m – 2.00 m). The sample tag number, and sample interval from/to meterage was recorded digitally in the palm pilot. The total recovered length of each sample interval was measured, and digitally recorded in the palm pilot.
 - Core logging was completed by a geology student, under the supervision of the project geologist. All core logging was recorded into an Access Database designed by TerraLogic Exploration Inc. All aspects of geological information are recorded into the data base under the following table headings: alteration, brecciation, lithology, mineralization, structure, shearing, veining, and vein intervals.
9. Upon completion of sample layout and core logging the drill core was taken out of the core shack and stacked in order. The core was then photographed two boxes at a time, in order down hole. Core remained stacked outside the logging tent awaiting sampling.

Core Sampling: Sampling/core splitting was carried out using a conventional manual hand splitter. The sampling geotechnician began sampling at the beginning of the hole, and continued sequentially until the bottom of the hole. The core sampling procedure is as follows:

1. Upon bringing the core box inside the core logging/splitting tent, the geotech writes out seven sample tags on orange flagging tape, and labels seven plastic poly sample bags on both sides with the sample number. The tech then places each sample flagging tag in the corresponding sample poly bag. The bags are then organized sequentially and placed next to the core splitting station.
2. The geotech was instructed to split each sample in half such that the rock sample in the bag, and the box shared equal representation of mineralization. This was done based on visual inspection of the core, and estimating the best split of mineral distribution.
3. The core is then placed into the rock splitter such that the blade splits the rock in half along the line of sight selected by the geotech.
4. Once broken half of the sample is placed in the sample bag, and the other piece is returned to the box in the correct order and orientation.
5. After splitting the entire interval the core splitter is brushed clean. All of the fine material created during the splitting process is collected in trays below the core splitter and placed in the sample bag.
6. The sample bag is then sealed using orange flagging tape, and placed into a white rice bag. The sample number, sample date, and rice bag number are then recorded by hand in a sample log. These written documents are kept to update sample shipment records.
7. The above procedure is repeated seven times. Upon completion of the seventh sample the geotech double checks that all samples in the rice bag match the correct sample intervals outlined in the boxes. In addition the geotech double checks that each sample in the bag corresponds to the information written in the sample log. If all samples and documentation pass the quality control check then the rice bag is sealed with a plastic zip tie.
8. The above procedure was repeated for all sampling of Justin 2011 drill core.
9. As each rice bag is completed they are lined up in order, beginning with bag # 1 awaiting shipment.
10. QAQC samples were inserted into the sample sequence by the project geologist. Standard gold-silver reference ores were included in the sample sequence every 20th sample. Blank reference material was included in the sample sequence every 40th sample. Standard samples have the following nomenclature JN11001-020S, JN11001-040S, etc. Blank samples have the following nomenclature: JN11001-040B, JN11001-080B, etc. Both standard and blank samples were packaged in the same fashion as drill core samples.

Appendix 3.2 – Geochemistry – Field Sampling Techniques

Field Sampling Techniques

Rock samples were collected in the field by placing 1-2 kg of material in heavy grade plastic sample bag with the sample number written on both sides in permanent marker. Each sample bag was then sealed with a plastic cable tie and samples were transported back to camp at the end of each day. A representative piece of each sample was often collected and returned to camp for further examination in the event of an interesting or exceptional analytical result.

Conventional soil samples were collected from the B-horizon wherever possible. Silt samples were collected from active creeks whenever possible. Both soil and silt samples were placed and sealed into brown paper kraft bags. Samples were dried in the field daily, weather permitting. Relevant details pertaining to the soil and silt samples such as location parameters, depth, horizon, quality, were recorded by the sampler in the field.

Sample sites were marked in the field with orange arctic-grade flagging tape and an aluminum tag. Both the flagging and the tag have been marked with the appropriate sample number. Sample locations were determined by hand-held GPS set to report locations in UTM coordinates using the North American datum established in 1983 (NAD 83).

All surface geochemical samples were collected by company geologists or sampling technician employees trained by TerraLogic Exploration staff geologists. At the end of each day samples were organized, and catalogued and then placed in poly woven “rice” bags. The samples were maintained as a single group before being taken and dropped off at the ALS Minerals Prep lab in Whitehorse.

Appendix 3.3 – Geochemistry – Analytical Techniques

GEOCHEMISTRY – ANALYTICAL TECHNIQUES

All samples were sent to ALS Minerals Laboratories after ALS merged with Stewart Group Labs. The ALS samples were processed by their lab in Vancouver, British Columbia, Canada. All samples were collected, handled, cataloged and prepared for shipment by TerraLogic Exploration staff. Descriptions of analytical techniques are described below.



Sample Preparation Package – PREP-31

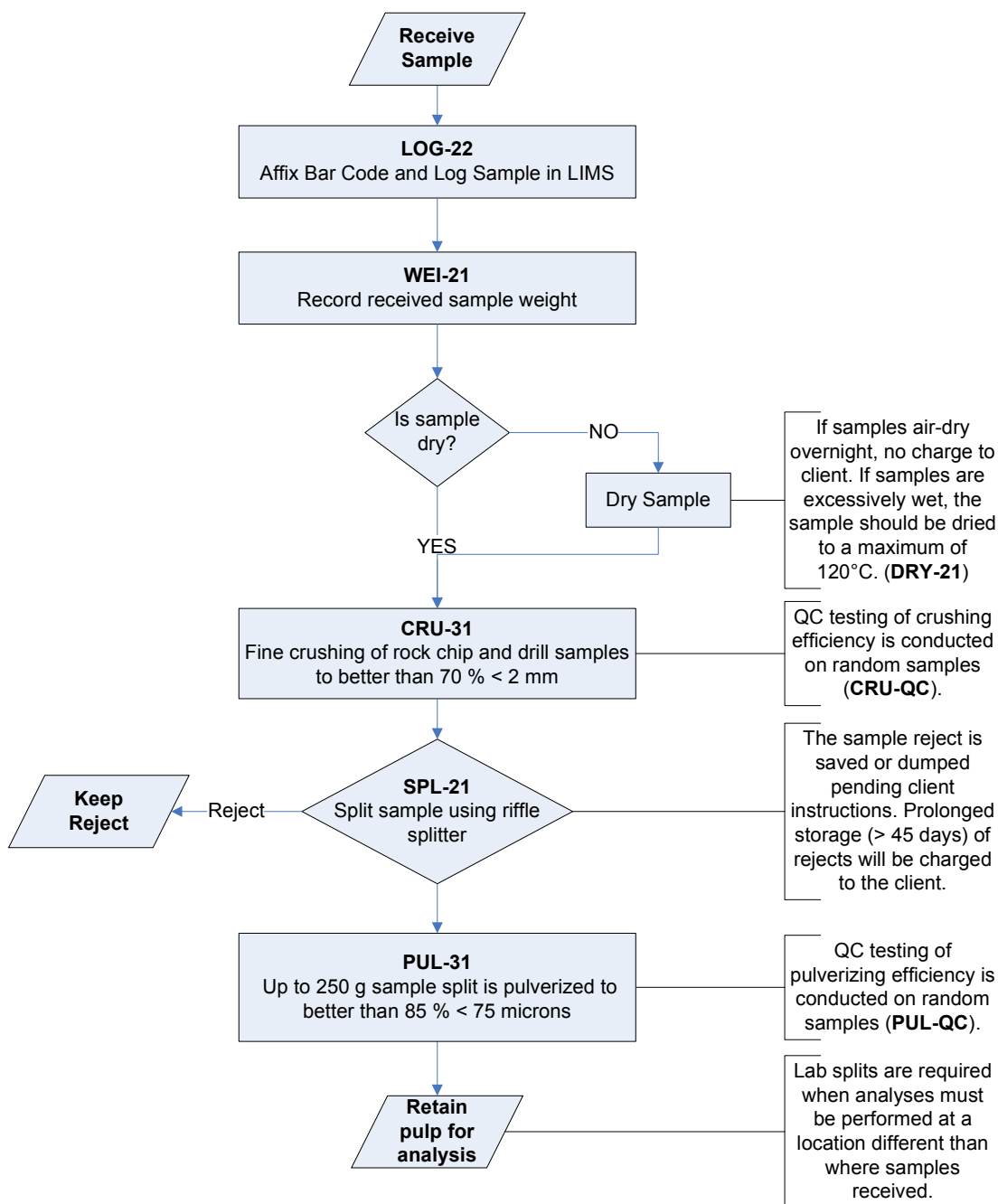
Standard Sample Preparation: Dry, Crush, Split and Pulverize

Sample preparation is the most critical step in the entire laboratory operation. The purpose of preparation is to produce a homogeneous analytical sub-sample that is fully representative of the material submitted to the laboratory.

The sample is logged in the tracking system, weighed, dried and finely crushed to better than 70 % passing a 2 mm (Tyler 9 mesh, US Std. No.10) screen. A split of up to 250 g is taken and pulverized to better than 85 % passing a 75 micron (Tyler 200 mesh, US Std. No. 200) screen. This method is appropriate for rock chip or drill samples.

Method Code	Description
LOG-22	Sample is logged in tracking system and a bar code label is attached.
CRU-31	Fine crushing of rock chip and drill samples to better than 70 % of the sample passing 2 mm.
SPL-21	Split sample using riffle splitter.
PUL-31	A sample split of up to 250 g is pulverized to better than 85 % of the sample passing 75 microns.

Flow Chart - Sample Preparation Package – PREP-31
Standard Sample Preparation: Dry, Crush, Split and Pulverize





Sample Preparation Procedure

Logging Samples Received as Pulps

All pulp samples received at ALS Chemex are furnished with a bar code label attached to the original sample bag. The system will also accept client supplied bar coded labels that are attached to sampling bags in the field. The label is scanned and the weight of the sample is recorded together with additional information such as date, time, equipment used and operator name. The scanning procedure is used for each subsequent activity involving the sample from preparation to analysis, through to storage or disposal of the pulp.

At least one out of every 50 samples is selected at random for routine pulp QC tests (LOG-QC). For routine pulps, the specification is 85 % passing a 75 micron screen. Other specifications may be checked as per client requirements.

Method Code	Specifications	Description
LOG-23	85 % < 75 $\square$ m	Log received sample pulp in tracking system (Sample pulps received with bar code labels attached).
LOG-24	85 % < 75 $\square$ m	Log received sample pulp in tracking system (Sample pulps received without bar code labels attached).
LOG-25	95 % < 106 $\square$ m	Log received sample pulp in tracking system (Sample pulps received with bar code labels attached).
LOG-26	95 % < 106 $\square$ m	Log received sample pulp in tracking system (Sample pulps received without bar code labels attached).
LOG-QC	See method specifications	Testing Procedure for samples received as pulp.

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Geochemical Procedure - ME-ICP41

Trace Level Methods Using Conventional ICP-AES Analysis

Sample Decomposition: Nitric Aqua Regia Digestion (GEO-AR01)
Analytical Method: Inductively Coupled Plasma - Atomic Emission Spectroscopy (ICP - AES)

A prepared sample is digested with aqua regia in a graphite heating block. After cooling, the resulting solution is diluted to 12.5 mL with deionized water, mixed and analyzed by inductively coupled plasma-atomic emission spectrometry. The analytical results are corrected for inter-element spectral interferences.

NOTE: In the majority of geological matrices, data reported from an aqua regia leach should be considered as representing only the leachable portion of the particular analyte.

Element	Symbol	Units	Lower Limit	Upper Limit	Default Overlimit Method
Silver	Ag	ppm	0.2	100	Ag-OG46
Aluminum	Al	%	0.01	25	
Arsenic	As	ppm	2	10000	
Boron	B	ppm	10	10000	
Barium	Ba	ppm	10	10000	
Beryllium	Be	ppm	0.5	1000	
Bismuth	Bi	ppm	2	10000	
Calcium	Ca	%	0.01	25	
Cadmium	Cd	ppm	0.5	1000	
Cobalt	Co	ppm	1	10000	
Chromium	Cr	ppm	1	10000	
Copper	Cu	ppm	1	10000	Cu-OG46
Iron	Fe	%	0.01	50	



Element	Symbol	Units	Lower Limit	Upper Limit	Default Overlimit Method
Gallium	Ga	ppm	10	10000	
Mercury	Hg	ppm	1	10000	
Potassium	K	%	0.01	10	
Lanthanum	La	ppm	10	10000	
Magnesium	Mg	%	0.01	25	
Manganese	Mn	ppm	5	50000	
Molybdenum	Mo	ppm	1	10000	
Sodium	Na	%	0.01	10	
Nickel	Ni	ppm	1	10000	
Phosphorus	P	ppm	10	10000	
Lead	Pb	ppm	2	10000	Pb-OG46
Sulfur	S	%	0.01	10	
Antimony	Sb	ppm	2	10000	
Scandium	Sc	ppm	1	10000	
Strontium	Sr	ppm	1	10000	
Thorium	Th	ppm	20	10000	
Titanium	Ti	%	0.01	10	
Thallium	Tl	ppm	10	10000	
Uranium	U	ppm	10	10000	
Vanadium	V	ppm	1	10000	
Tungsten	W	ppm	10	10000	
Zinc	Zn	ppm	2	10000	Zn-OG46



Elements listed below are available upon request

Element	Symbol	Units	Lower Limit	Upper Limit	Default Overlimit Method
Cerium	Ce	ppm	10	10000	
Hafnium	Hf	ppm	10	10000	
Indium	In	ppm	10	10000	
Lithium	Li	ppm	10	10000	
Niobium	Nb	ppm	10	10000	
Rubidium	Rb	ppm	10	10000	
Selenium	Se	ppm	10	10000	
Silicon	Si	ppm	10	10000	
Tin	Sn	ppm	10	10000	
Tantalum	Ta	ppm	10	10000	
Tellurium	Te	ppm	10	10000	
Yttrium	Y	ppm	10	10000	
Zirconium	Zr	ppm	5	10000	



Assay Procedure

ME-OG46

Ore Grade Elements by Aqua Regia Digestion Using Conventional ICP-AES Analysis

Sample Decomposition:

HNO₃-HCl Digestion (ASY-AR01)

Analytical Method:

Inductively Coupled Plasma - Atomic Emission Spectroscopy (ICP - AES)*

Assays for the evaluation of ores and high-grade materials are optimized for accuracy and precision at high concentrations. Ultra high concentration samples (> 15 -20%) may require the use of methods such as titrimetric and gravimetric analysis, in order to achieve maximum accuracy.

A prepared sample (0.4 g) is digested with concentrated nitric acid for 90 minutes in a graphite heating block. The resulting solution is diluted with concentrated hydrochloric acid before cooling to room temperature. The samples are diluted in a volumetric flask (100 or 250) mL with demineralized water and analysed using atomic absorption spectrometry.

***NOTE:** ICP-AES is the default finish technique for ME-OG46. However, under some conditions and at the discretion of the laboratory an AA finish may be substituted.

Element	Symbol	Units	Lower Limit	Upper Limit
Silver	Ag	ppm	1	1500
Arsenic	As	%	0.01	30
Cadmium	Cd	%	0.001	10
Cobalt	Co	%	0.001	20
Copper	Cu	%	0.001	40
Iron	Fe	%	0.01	100
Manganese	Mn	%	0.01	50
Molybdenum	Mo	%	0.001	10
Nickel	Ni	%	0.001	10
Lead	Pb	%	0.001	20
Zinc	Zn	%	0.001	30

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Oct 06, 2011

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Fire Assay Procedure

Au- AA23 & Au- AA24 Fire Assay Fusion, AAS Finish

Sample Decomposition:

Fire Assay Fusion (FA- FUS01 & FA- FUS02)

Analytical Method:

Atomic Absorption Spectroscopy (AAS)

A prepared sample is fused with a mixture of lead oxide, sodium carbonate, borax, silica and other reagents as required, inquarted with 6 mg of gold- free silver and then cupelled to yield a precious metal bead.

The bead is digested in 0.5 mL dilute nitric acid in the microwave oven, 0.5 mL concentrated hydrochloric acid is then added and the bead is further digested in the microwave at a lower power setting. The digested solution is cooled, diluted to a total volume of 4 mL with de- mineralized water, and analyzed by atomic absorption spectroscopy against matrix- matched standards.

Method Code	Element	Symbol	Units	Sample Weight (g)	Lower Limit	Upper Limit	Default Overlimit Method
Au- AA23	Gold	Au	ppm	30	0.005	10.0	Au- GRA21
Au- AA24	Gold	Au	ppm	50	0.005	10.0	Au- GRA22

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**Fire Assay Procedure – Ag-GRA21, Ag-GRA22, Au-GRA21 and
Au-GRA22
Precious Metals Gravimetric Analysis Methods**

Sample Decomposition: Fire Assay Fusion (FA-FUSAG1, FA-FUSAG2, FA-FUSGV1 and FA-FUSGV2)
Analytical Method: Gravimetric

A prepared sample is fused with a mixture of lead oxide, sodium carbonate, borax, silica and other reagents in order to produce a lead button. The lead button containing the precious metals is cupelled to remove the lead. The remaining gold and silver bead is parted in dilute nitric acid, annealed and weighed as gold. Silver, if requested, is then determined by the difference in weights.

Method Code	Element	Symbol	Units	Sample Weight (g)	Detection Limit	Upper Limit
Ag-GRA21	Silver	Ag	ppm	30	5	10,000
Ag-GRA22	Silver	Ag	ppm	50	5	10,000
Au-GRA21	Gold	Au	ppm	30	0.05	1000
Au-GRA22	Gold	Au	ppm	50	0.05	1000



Sample Preparation Package – PREP-41
**Standard Preparation: Dry sample and dry-sieve to –180
micron**

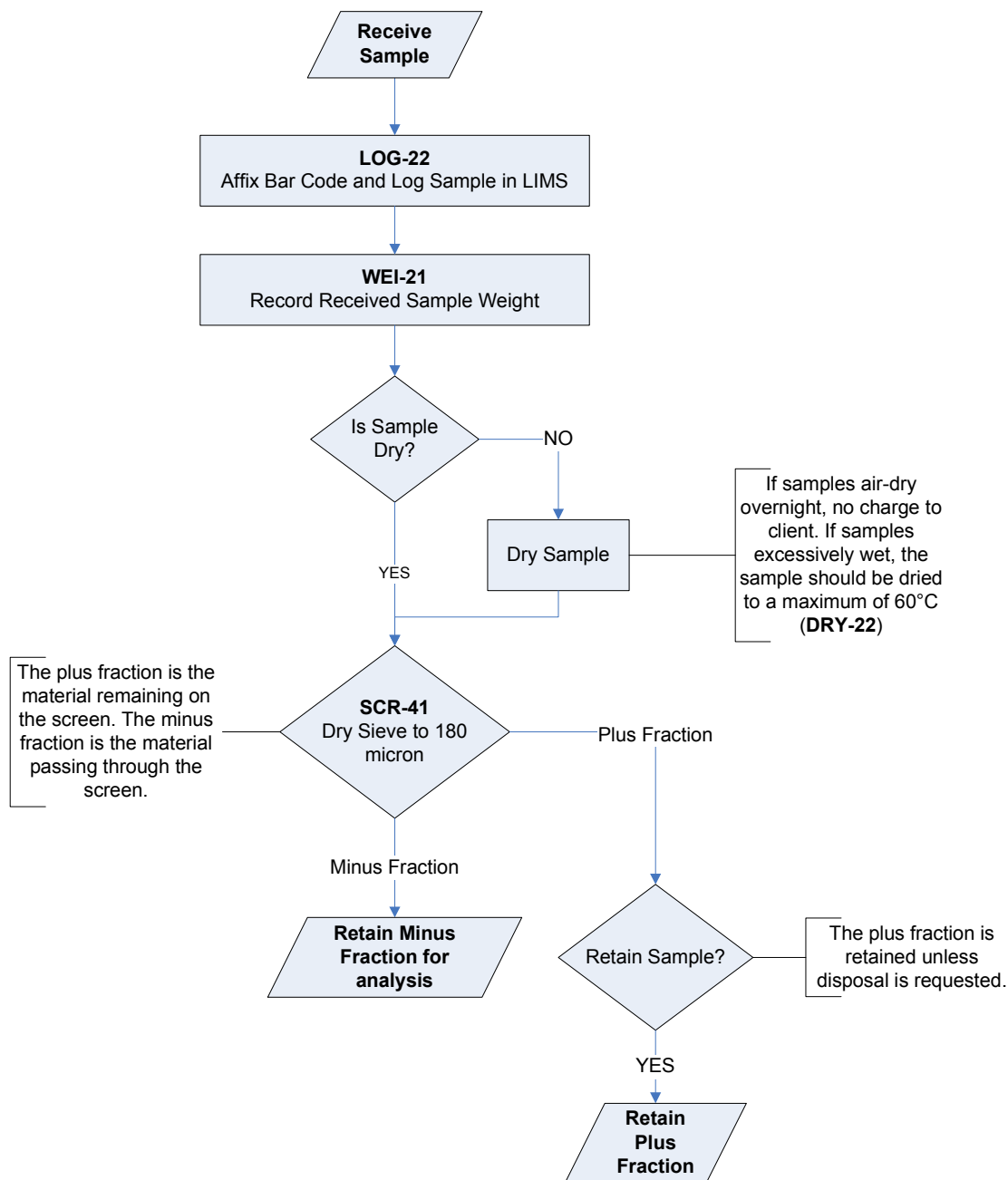
Sample preparation is the most critical step in the entire laboratory operation. The purpose of preparation is to produce a homogeneous analytical sub-sample that is fully representative of the material submitted to the laboratory.

An entire sample is dried and then dry-sieved using a 180 micron (Tyler 80 mesh) screen. The plus fraction is retained unless disposal is requested. This method is appropriate for soil or sediment samples up to 1 kg in weight.

Method Code	Description
LOG-22	Sample is logged in tracking system and a bar code label is attached.
SCR-41	Sample is dry-sieved to – 180 micron and both the plus and minus fractions are retained.



Sample Preparation Flowchart Package –PREP-41





Fire Assay Procedure

Au- SCR21 Precious Metals Analysis – Screen Metallics Gold, Double Minus

Sample Decomposition:

Fire Assay Fusion

Analytical Method:

Gravimetric

1000 g of the final prepared pulp is passed through a 100 micron (Tyler 150 mesh) stainless steel screen to separate the oversize fractions. Any +100 micron material remaining on the screen is retained and analyzed in its entirety by fire assay with gravimetric finish and reported as the Au(+)fraction result. The -100 micron fraction is homogenized and two sub-samples are analyzed by fire assay with AAS finish (Au-AA25 and Au-AA25D). The average of the two AAS results is taken and reported as the Au (-) fraction result. All three values are used in calculating the combined gold content of the plus and minus fractions.

In the fire assay procedure, the sample is fused with a mixture of lead oxide, sodium carbonate, borax, silica and other reagents as required in order to produce a lead button. The lead button, containing the precious metals, is cupelled to remove the lead and the resulting precious metal bead is parted in dilute nitric acid, annealed and weighed to determine gold content.

The gold values for both the +100 and -100 micron fractions are reported together with the weight of each fraction as well as the calculated total gold content of the sample.

Calculations:

$$Au^{-}avg = \frac{Au^{-}(1) + Au^{-}(2)}{2}$$

$$AuTotal(g/t) = \frac{(Au^{-}avg(g/t) \times Wt.Minus(g) \times 10^{-6} t/g) + (Weight\ Au\ in\ Plus(mg) \times 10^{-3} g/mg)}{(Wt.Minus(g) + Wt.Plus(g)) \times 10^{-6} t/g}$$

Jul 30, 2004

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Fire Assay Procedure

Fire Assay

Procedure – Au- SCR21

Precious Metals Analysis – Screen Metallica Gold, Double Minus cont'd

Determination Reported	Description	Detection Limit	Upper Limit	Units
Au Total (+)(-) Combined	Total gold content of sample as determined by metallica calculation above.	0.05	1000	ppm
Au (+) Fraction	Gold content of plus fraction determined by Au-GRA21.	0.05	100,000	ppm
Au (-) Fraction	Gold content of minus fraction. Reported as average of two subsamples.	0.05	1000	ppm
Au-AA25	Gold content of first minus fraction subsample.	0.05	1000	ppm
Au-AA25D	Gold content of second minus fraction subsample.	0.05	1000	ppm
Au (+) mg	Weight of gold in plus fraction.	0.001	1000	mg
WT. (+) Fraction Entire	Weight of plus fraction.	0.01	1000	g
WT. (-) Fraction Entire	Weight of minus fraction.	0.1	10,000	g

Jul 30, 2004

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Appendix 3.4 – Software

The following software was used to compile the information provided in the 2011 Assessment Report for the Kiwi Property:

- Microsoft Office 2010
- ArcGIS v.9.3.1
- Geosoft Target v.7.2.1
- Adobe Acrobat X Standard
- Corel Graphics Suite 11
- Open Office.org 3.0
- Pendragon Forms

APPENDIX IV

DDH Logs, Strip Logs, and Samples

Appendix 4.1.1 - Alteration

Thursday, November 24, 2011

Hole Number	From(m)	To(m)	Alteration Assemblage	Alteration Type 1	Alteration Degree (0-5)	Alteration Type 2	Alteration Degree (0-5)	Alteration Type 3	Alteration Degree (0-5)	Notes
JN11001	0	23.16	Skarn	CALC SILICATE	3	CALC SILICATE	3	EPIDOTE	1	Varying degrees throughoutu section. Compositional banding visible going from biotite/carbonate to diopside, actinolite. Disseminated blebbs of epidote.
JN11001	23.16	38.86		HEMATITE	3	SILICA	1			Variable throughout interval, caused by skarn leached meteoric waters. Weak silica alteration from 24.2 to 35.3 meters.
JN11001	38.86	49		SERICITE	4	LIMONITE	2	PYROLUSITE	1	Variable can range from 2 to 5 intensity. Non sericitized parts are purplish black while sericitized are greyish white. The alteration has occurred in between cleavage plans leaving a compositional banding.
JN11001	49	63.7		LIMONITE	3					Concentric alteration bands, rusty brown to red in colour. Probably formed from pyrite, arsenopyrite or other iron minerals mixed with meteoric waters and travelling down fractures in shear zone.
JN11001	79.82	86		LIMONITE	2	SERICITE	3			Variable, seems to form concentrically from fractures, the iron staining lessening the further away from the fracture. 83 to 88.15 is sericite altered.
JN11001	88.1	91.5		LIMONITE	1	SERICITE	2			
JN11001	91.5	94		SERICITE	3	LIMONITE	4			91.5 to 93.4m is limonite altered.
JN11001	94	114		SERICITE	3	LIMONITE	1	SILICA	2	99.3 to 101.56 is limonite altered, 109 to 111.43 is silica altered.
JN11001	114	117.6		SILICA	1					
JN11001	117.6	122.15	Sericite	SERICITE	3					
JN11001	122.15	123.75	Silica	SILICA	1					
JN11001	123.75	124.86	Silica	SILICA	4	CARBONATE	2	EPIDOTE	1	Causing brecciation.
JN11001	124.86	134.05	Silica	SILICA	2	SERICITE	3			Varying degrees associated with fracturing/veining and alteration halos. 126.5 to 126.8m and 127.2 to 127.5m are sericite altered. Where there are no veinlets close by there seems to be no alteration.

Hole Number	From(m)	To(m)	Alteration Assemblage	Alteration Type 1	Alteration Degree (0-5)	Alteration Type 2	Alteration Degree (0-5)	Alteration Type 3	Alteration Degree (0-5)	Notes
JN11001	137.5	138.15	Sericite	SERICITE	1					Altered around specific fractures.
JN11001	139	139.24	Sericite	SERICITE	2					
JN11001	140.1	140.63		SERICITE	1					Pinkish colour may be due to modelling of original colour mixed with white/grey of sericite.
JN11001	140.63	144		SERICITE	3					
JN11001	144.59	148.13		SERICITE	2	SILICA	1			Alteration halos around veins. Silica 145.08 to 148.13m.
JN11001	148.13	151		SERICITE	4					
JN11001	151	151.5		SERICITE	2					
JN11001	151.5	154.23		SERICITE	4					
JN11001	154.23	155.4		SERICITE	2					
JN11001	155.4	159.6		SERICITE	4					
JN11001	159.6	161		SERICITE	2					
JN11001	161	175.05		SERICITE	1					
JN11001	176.25	176.56		SERICITE	3					
JN11001	187.06	189		SERICITE	2					
JN11001	189	192.31		SERICITE	1					
JN11001	192.31	198.28		SERICITE	4	CALCITE	2	EPIDOTE	1	Associated with qtz veined interval. Clasts in veins are especially altered.
JN11001	198.28	202		SERICITE	2					
JN11001	202	204.67		SERICITE	4					
JN11001	204.67	210.53		SERICITE	1					
JN11001	210.53	215.54		SERICITE	4	CALCITE	1			
JN11001	215.54	225.44		SERICITE	1					
JN11001	225.44	228.4		SERICITE	4	CALCITE	1			
JN11001	228.4	235.9		SERICITE	1	CALCITE	1	EPIDOTE	1	
JN11001	235.9	237.26		SERICITE	3					
JN11001	237.26	237.94		SERICITE	1					
JN11001	237.94	238.8		SERICITE	3					
JN11001	238.8	239.57		SERICITE	1					

Hole Number	From(m)	To(m)	Alteration Assemblage	Alteration Type 1	Alteration Degree (0-5)	Alteration Type 2	Alteration Degree (0-5)	Alteration Type 3	Alteration Degree (0-5)	Notes
JN11002	0	4.41	Skarn	CALC SILICATE	3	SILICA	3	GARNET	2	Actinolite Intensity 1.
JN11002	8.87	31.39		SERICITE	3	LIMONITE	2	CALCITE	1	Limonite forming in fractures (26 to 31.39)
JN11002	31.39	38.7		SERICITE	3	LIMONITE	1	CALCITE	1	
JN11002	38.7	42.25		SERICITE	1					
JN11002	42.25	43.75		SERICITE	4					
JN11002	43.9	44.23		LIMONITE	1					
JN11002	45	59.5		SERICITE	4	LIMONITE	3			Limonite variable from 1-5 over interval.
JN11002	59.5	62.53		SERICITE	1	CALCITE	1			
JN11002	62.53	69.5		SERICITE	4	LIMONITE	1	CALCITE	1	Occasional calcite veins.
JN11002	69.5	71.65		SERICITE	2					
JN11002	71.65	72.86		SERICITE	4	CALCITE	1			
JN11002	72.86	83.21		SERICITE	3					
JN11002	83.21	87.6		SERICITE	1					
JN11002	87.6	88.55		SERICITE	4	CALCITE	1			
JN11002	88.55	95.45		SERICITE	1					
JN11002	95.45	119.6		SERICITE	4	LIMONITE	1			Fine grain black mineral (hardness of 7 or so) is present.
JN11002	119.6	134.4		SERICITE	2	CALCITE	1			Calcite veins present.
JN11002	134.4	141.3		SERICITE	4	LIMONITE	1			Limonite interval from 131.08 to 135.03m.
JN11002	141.3	146.9		CHLORITE	3	SERICITE	2			Chlorite forming in light green bands in increase quantities.
JN11002	146.9	149.3		SERICITE	4	CALCITE	1			
JN11002	149.3	155.25		SERICITE	1					
JN11002	155.25	157.86		SERICITE	3	CALCITE	1			
JN11002	157.86	159.7		SERICITE	1					
JN11002	159.7	162.46		SERICITE	2					
JN11002	162.46	164.06		SERICITE	3					
JN11002	164.06	167.3		SERICITE	4	CALCITE	4			
JN11002	167.3	170		SERICITE	1					

Hole Number	From(m)	To(m)	Alteration Assemblage	Alteration Type 1	Alteration Degree (0-5)	Alteration Type 2	Alteration Degree (0-5)	Alteration Type 3	Alteration Degree (0-5)	Notes
JN11002	170	174.1		SERICITE	3					
JN11002	174.1	175.2		SERICITE	1					
JN11002	175.2	177.56		SERICITE	4					
JN11002	177.56	178.4		SERICITE	2					
JN11002	178.4	200		SERICITE	4					
JN11003	26.9	28.54	Skarn	CALC SILICATE	2	CALC SILICATE	1			
JN11003	28.54	28.77	Skarn	CALC SILICATE	4	CALC SILICATE	2			
JN11003	28.77	29.73	Skarn	CALC SILICATE	1					
JN11003	29.73	30.51	Skarn	CALC SILICATE	3	CALC SILICATE	3			
JN11003	30.51	33.07	Skarn	CALC SILICATE	2	CALC SILICATE	1			
JN11003	33.07	37.46	Skarn	CALC SILICATE	2	CALC SILICATE	2			
JN11003	37.46	43.38	Skarn	CALC SILICATE	2					
JN11004	0	13.31		LIMONITE	5					
JN11004	13.31	16.25	Skarn	CALC SILICATE	4	GARNET	3	ACTINOLITE	2	
JN11004	16.25	18	Skarn	CALC SILICATE	1					Occurs in veinlets/veins.
JN11004	18	19.74		SILICA	2	LIMONITE	1	CALCITE	1	
JN11004	19.74	21.9		SILICA	3	CALCITE	1			
JN11004	21.9	23.23		SERICITE	2	SILICA	2	CALCITE	1	
JN11004	23.23	29.7		SILICA	2	CALCITE	1			
JN11004	29.7	30		SILICA	1	CALCITE	1			
JN11004	32.97	36.4		SILICA	1	LIMONITE	2	CALCITE	1	
JN11004	36.4	38.38		SILICA	2	CALCITE	1			
JN11004	38.38	42.24		SILICA	2	LIMONITE	1	CALCITE	1	Limonite in vugs.
JN11004	42.24	46		SILICA	4	LIMONITE	2	CALCITE	1	Limonite in vugs.
JN11004	46	47		SILICA	3	LIMONITE	2	CALCITE	1	
JN11004	47	52.15		SILICA	4	LIMONITE	2	CALCITE	1	
JN11004	52.15	53		SERICITE	2	SILICA	2	CALCITE	1	

Hole Number	From(m)	To(m)	Alteration Assemblage	Alteration Type 1	Alteration Degree (0-5)	Alteration Type 2	Alteration Degree (0-5)	Alteration Type 3	Alteration Degree (0-5)	Notes
JN11004	53	56.54		SILICA	2	CALCITE	1			
JN11004	56.54	57.6		SILICA	3	CALCITE	1			
JN11004	57.6	74		SILICA	2	SERICITE	1	CALCITE	1	
JN11004	74.76	77		SERICITE	3	CLAY	2			
JN11004	77	93.38		CLAY	3	SERICITE	1			
JN11004	93.38	101.12		SERICITE	4	CLAY	1	SILICA	1	
JN11004	101.12	102.95		SERICITE	2	SILICA	1			
JN11004	102.95	103.61		SILICA	3					
JN11004	103.61	105		SERICITE	3	CLAY	1	SILICA	1	
JN11004	105	105.41		SILICA	3					
JN11004	105.41	107.2		SERICITE	2	SILICA				
JN11004	107.2	111.82		SILICA	4	SERICITE	1	CLAY	1	
JN11004	111.82	116.39		CLAY	3	SERICITE	2	SILICA	1	
JN11004	116.39	124.23		SILICA	3	SERICITE	2			
JN11004	124.23	133.73		SERICITE	3	CLAY	2	SILICA	1	Calcite veinlets.
JN11004	133.73	141.23		SILICA	4	SERICITE	2			
JN11004	141.23	149.28		SILICA	3	CLAY	3	SERICITE	2	
JN11004	149.28	152.53		CLAY	3	SERICITE	2			
JN11004	152.53	162.87		SERICITE	3	SILICA	3			
JN11004	162.87	164.35		SERICITE	4	SILICA	1			
JN11004	164.35	190.02		CLAY	3	SERICITE	2	SILICA	2	
JN11004	190.02	191		EPIDOTE	2					Silica rich late stage intrusion, epidote in fractures.
JN11004	191	207		CLAY	2	SERICITE	2	SILICA	2	
JN11005	0	17.33	Skarn	CALC SILICATE	80	GARNET	15	EPIDOTE	5	
JN11005	17.33	21		SERICITE	3					
JN11005	21	32.6		CLAY	3	LIMONITE	2	SERICITE	1	
JN11005	32.6	35.3		CLAY	3					

Hole Number	From(m)	To(m)	Alteration Assemblage	Alteration Type 1	Alteration Degree (0-5)	Alteration Type 2	Alteration Degree (0-5)	Alteration Type 3	Alteration Degree (0-5)	Notes
JN11005	35.3	36.3		SILICA	4					
JN11005	36.3	39.18		SILICA	3	SERICITE	2	CLAY	2	
JN11005	39.18	43.39		CLAY	1	SILICA	1	LIMONITE	1	
JN11005	43.39	48.49		SILICA	2	SERICITE	2	CLAY	1	Vuggy.
JN11005	48.49	56.38		SERICITE	3	CLAY	2	SILICA	2	
JN11005	56.38	68.37		CLAY	2	SERICITE	2	SILICA	1	
JN11005	68.37	75.3		CLAY	3	SERICITE	2	SILICA	1	
JN11005	75.3	77.4		SILICA	3	SERICITE	2			
JN11005	77.4	80.13		CLAY	3	SILICA	2	SERICITE	1	
JN11005	80.13	88.41		SILICA	3	SERICITE	2	CLAY	1	
JN11005	88.41	90		CLAY	2	SERICITE	2	SILICA	1	
JN11005	90	97.45		SILICA	3	SERICITE	2			
JN11005	97.45	104.65		CLAY	2	SILICA	2	SERICITE	1	
JN11005	104.65	112.6		CLAY	3	SILICA	2	SERICITE	1	
JN11005	112.6	117.82		SILICA	3	SERICITE	3	CLAY	1	
JN11005	117.82	121.91		CLAY	3	SERICITE	2	SILICA	1	
JN11005	121.91	127.05		SILICA	2	CLAY	2	SERICITE	2	Potassic alteration in areas.
JN11005	127.05	138		SILICA	3	SERICITE	2	CLAY	1	
JN11005	138	150.07		SERICITE	2	CLAY	2	SERICITE	1	
JN11005	150.07	151.1		CLAY	2	SILICA	1			
JN11005	151.1	168.36		SERICITE	2	SILICA	2	CLAY	1	
JN11005	168.36	187.75		CLAY	2	SILICA	2	SERICITE	2	
JN11005	187.75	206.09		CLAY	2	SILICA	2	LIMONITE	1	
JN11006	9.7	11.27	Skarn	CALC SILICATE	5	GARNET	3			
JN11006	11.27	25.56		SERICITE	3	LIMONITE	2			
JN11006	25.56	35.75		SILICA	4	SERICITE	2			
JN11006	35.75	37.09		SILICA	2					
JN11006	37.09	39.22		SILICA	3					

Hole Number	From(m)	To(m)	Alteration Assemblage	Alteration Type 1	Alteration Degree (0-5)	Alteration Type 2	Alteration Degree (0-5)	Alteration Type 3	Alteration Degree (0-5)	Notes
JN11006	39.22	40.97		SILICA	1	CALC SILICATE	1			
JN11006	40.97	42.18		SILICA	2	SERICITE	1			
JN11006	42.18	44.13		CALC SILICATE	1	SERICITE	1			
JN11006	44.13	50		SERICITE	3	SILICA	1			
JN11006	50	53.15		CALC SILICATE	3	SILICA	2			
JN11006	53.15	59.45		SILICA	2	CALC SILICATE	1			
JN11006	59.45	64.97		SILICA	4					
JN11006	64.97	65.83		SERICITE	3	SILICA	3			
JN11006	65.83	83.52		SILICA	4					
JN11006	83.52	105.76		SILICA	2	CLAY	1	SERICITE	1	
JN11007	0	13.41		SILICA	4	LIMONITE	1			
JN11007	13.41	18.31		SILICA	4	LIMONITE	2			
JN11007	18.31	23.96		SILICA	3	LIMONITE	3			
JN11007	23.96	34.55		SILICA	4	LIMONITE	1			
JN11007	34.55	36.7		SILICA	2	LIMONITE	2			
JN11007	36.7	37.9		SILICA	2	LIMONITE	2			
JN11007	37.9	39.32		SILICA	3	LIMONITE	2			
JN11007	39.32	40.85		SILICA	3	LIMONITE	3			
JN11007	40.85	46.02		SILICA	4	LIMONITE	2			
JN11007	46.02	50.31		SILICA	3	LIMONITE	2	CLAY	2	Clay is chalky white.
JN11007	50.31	55.48		SILICA	4	SERICITE	2			Sericite is green.
JN11007	55.48	58.21		LIMONITE	4	SILICA	2	SERICITE	2	
JN11007	58.21	70.4		SERICITE	5					
JN11007	70.4	75		SERICITE	4					
JN11007	75	87.28		SERICITE	3	CALC SILICATE	2			Banded.
JN11007	87.28	93		SERICITE	3					
JN11007	93	119.4		SERICITE	3	CALC SILICATE	1			
JN11007	119.4	120.7		CHLORITE	2	SERICITE	2			

Hole Number	From(m)	To(m)	Alteration Assemblage	Alteration Type 1	Alteration Degree (0-5)	Alteration Type 2	Alteration Degree (0-5)	Alteration Type 3	Alteration Degree (0-5)	Notes
JN11007	120.7	122.75		CLAY	2	LIMONITE	1			
JN11007	122.75	125.65		SILICA	3	CLAY	2	LIMONITE	1	
JN11007	125.65	129.85		SILICA	4	CHLORITE	1			
JN11007	129.85	131.31		CHLORITE	3	SILICA	3			
JN11007	131.31	134.7		SILICA	4					
JN11007	134.7	143.72		SILICA	3	CHLORITE	2			
JN11007	143.72	148.64		SERICITE	4	CALC SILICATE	1			
JN11007	148.64	148.86		SILICA	3	CHLORITE	2			
JN11007	148.86	150.17		SERICITE	4					
JN11007	150.17	152		SILICA	4	CHLORITE	2			
JN11007	152	152.7		SERICITE	3					
JN11007	152.7	153.7		SILICA	5					
JN11007	153.7	155.16		SILICA	4	CHLORITE	1			
JN11007	155.16	158.3		SILICA	3					
JN11007	158.3	168.1		SILICA	4	SERICITE	1	DOLOMITE	1	
JN11007	168.1	173.56		SILICA	2	DOLOMITE	1			
JN11008	12.19	43.7		SILICA	4	SERICITE	4	LIMONITE	2	Silica alteration is pervasive, at greatest intensity enveloping quartz veins. Sericite alteration is preferential to feldspar clasts. Feldspars clastsare powdery white clay in intensely altered beds. Limonite occurs as staining enveloping quartz veins and within the conglomerate matrix.
JN11008	43.7	53		SILICA	4	SERICITE	2	LIMONITE	2	Silica alteration is pervasive. Sericite intensity decreases with increase in quartz content of conglomerate. Limonite as above, decrease in intensity.
JN11008	53	66.1		SILICA	5	SERICITE	3	CARBONATE	2	Silica alteration is pervasive through out the coarse grained pebble conglomerate. Sericite and clay alteration of feldspar clasts, yellow-green in color. Fe-Carbonate alteration occurs within the conglomerate matrix.

Hole Number	From(m)	To(m)	Alteration Assemblage	Alteration Type 1	Alteration Degree (0-5)	Alteration Type 2	Alteration Degree (0-5)	Alteration Type 3	Alteration Degree (0-5)	Notes
JN11008	66.1	74.68		SERICITE	4	SILICA	3			Sericite alteration is pervasive, and uniform across the interval. Silica alteration is moderate, occuring as an envelope around quartz veinlets and veins.
JN11008	74.68	81.13		SERICITE	2	SILICA	1			Sericite and Silica alteration are patchy throughout the interval, and is associated with quartz veinlets.
JN11008	81.13	90.9		SERICITE	4					Sericite alteration is preferential to calcareous mudstone. The interval has a mottled appearance from selective alteration of interbedded sediments.
JN11008	90.9	120.1		SERICITE	4	SILICA	2			Sericite alteration is generally uniform, and pervasive through out the mudstone. Silica alteration is observed in association with quartz veins and veinlets.
JN11008	120.1	127.7		SERICITE	2	LIMONITE	2			Sericite alteration is patchy, weakly mottling the interval. Limonite alteration of pyritic fractures stains the surface of the core.
JN11008	127.7	130.4		SERICITE	4	CHLORITE	3	LIMONITE	3	Sericite alteration is intense and patchy, mottling the interval. Chlorite alteration is selective to beds throughout the section. Limonite occurs as described above, the staining is more pronounced than the previous interval.
JN11008	130.4	144.4		SILICA	4	CLAY	3	LIMONITE	3	Silicification of QPC is pervasive, in places texture destructive. Argillic alteration of feldspar clasts is common in coarse grained conglomerate beds. Limonitic fractures occur through the interval as previously described. From 130.4 - 131.4 meters intense alteration has created a vuggy QFCP, after leaching of the argillic altered feldspar clasts.
JN11008	144.4	145.1		SILICA	2					Silicification envelopes a 1.0 cm chalcedonic quartz vein.
JN11008	145.1	155.1		SERICITE	3	HORNFELS	3	SILICA	2	Sericite and Hornfels alteration are pervasive and uniform through the interval. Silicification is rare, but uniform.

Hole Number	From(m)	To(m)	Alteration Assemblage	Alteration Type 1	Alteration Degree (0-5)	Alteration Type 2	Alteration Degree (0-5)	Alteration Type 3	Alteration Degree (0-5)	Notes
JN11008	155.1	166		SILICA	5	SERICITE	4	LIMONITE	3	Silicification is pervasive throughout the QPC, sericite alteration is observed along microfractures in the QPC, and selective to feldspar clasts within the QPC. Limonite alteration occurs as a halo around mineralized chalcedonic quartz veins.
JN11008	166	167.94		SILICA	3					Decalcification - moderate silicification of vuggy limestone.
JN11008	167.94	179.8		SILICA	3					Weak-moderate silicification associated with quartz-calcite stockwork veining.
JN11008	206	208.6		SILICA	4	SERICITE	3			Moderate silicification and sericitization of calcareous mudstone, interbedded with limestone. Pyrite mineralization occurs within the silicified sediment. Sericite alteration is light to dark olive green. The interval has a banded appearance.
JN11008	251.8	254.9		SERICITE	4	SILICA	3			Sericitization of brecciated Mudstone. Silicification of Mudstone and Limestone enveloping Quartz-Carbonate Breccia.
JN11008	254.9	265.6		SERICITE	4					Sericitization of sediments is intense, and generally uniform. Patches of the mudstone are mottled, generally in the very thin bedded units.
JN11008	265.6	283.76		SERICITE	3	SILICA	3			Sericitization and Silicification of the Sandstone is uniform, associated with the quartz-dolomite veinlets x-cutting the interval. Weak clay alteration of feldspar grains within the sandstone.
JN11009	4.5	18.6		SILICA	4	CALC SILICATE	4	BIOTITE	4	Silicification and Biotitization is intense within QPC beds, the biotite alteration yields a dark brownish purple color, with ghostly white quartz pebble clasts. Calc-silicate alteration is also intense, restricted to a transitional zone between cg QPC and finer grained sandstones. Calc-silicate alteration is patchy, where as silicification and biotitization are relatively uniform and pervasive.
JN11009	18.6	21.1		SILICA	5	CLAY	4			Silicification is associated with quartz veining through the interval. Clay alteration partially replaces feldspar pebbles in intensely altered QPC.

Hole Number	From(m)	To(m)	Alteration Assemblage	Alteration Type 1	Alteration Degree (0-5)	Alteration Type 2	Alteration Degree (0-5)	Alteration Type 3	Alteration Degree (0-5)	Notes
JN11009	21.1	24		SILICA	5	BIOTITE	4			Silicification and biotitization occur within brecciated mudstone. The silica alteration has recrystallized the rock, destroying all primary textures. Biotite occurs as breccia matrix, and comprises > 30 % of the bx matrix.
JN11009	24	42.5		SERICITE	4	SILICA	3	BIOTITE	3	Sericitization occurs through out the interval yielding a mottled beige-grey mudstone. Silicification and biotitization occur enveloping, and infilling fractures/veinlets through out the interval.
JN11009	42.5	48.2		BIOTITE	3	SERICITE	2			Biotitization occurs as fine laminations parallel to bedding planes. Rare sericite alteration occurs along fractures through the interval.
JN11009	48.2	57.1		SILICA	5	CALC SILICATE	4	BIOTITE	3	Silicification is pervasive through the interval, recrystallizing the sandstone. Calc-silicate alteration of sandstone matrix - fg light-dark green xls scattered through out the interval. Biotitization of rare siltstone beds - rosy grey in color.
JN11009	57.1	60.55		SERICITE	4	ARGILLIC	4			Sericitization and Argillic alteration have bleached the rock grey-creamy beige. Core loss has occurred in intense argillic alteration zones. Silicification occurs enveloping mineralized quartz veins.
JN11009	60.55	62.48		ARGILLIC	5					Argillic alteration has altered the rock to a buff yellow-white-beige clay paste, significant core loss over the interval.Silicification occurs enveloping mineralized quartz veins.
JN11009	62.48	63.55	Skarn	CALC SILICATE	5	ARGILLIC	5			Skarn alteration - very hard rosy red garnet-diopside+/-calcite, overprinted by argillic alteration reducing patches of the skarn to beige clay.
JN11009	63.55	67.7		ARGILLIC	5	CALC SILICATE	4	SILICA	4	Argillic alteration is pervasive, mottling the interval beige-white, and reducing the rock to a friable clay. Patchy remnant skarn (chlorite? - diopside?) overprinted by argillic alteration. Silicification envelopes mineralized veins through the interval.
JN11009	67.7	77.7		SILICA	4	BIOTITE	3	CHLORITE	2	Silicification is generally pervasive, and uniform. Biotitization of sediments, rosy grey in color. Chlorite alteration occurs within fracture fill quartz veinlets.

Hole Number	From(m)	To(m)	Alteration Assemblage	Alteration Type 1	Alteration Degree (0-5)	Alteration Type 2	Alteration Degree (0-5)	Alteration Type 3	Alteration Degree (0-5)	Notes
JN11009	77.7	87.8	Skarn	PYROXENE	4	GARNET	3	EPIDOTE	3	Skarn altered beds range in thickness from 1.0 - 27.0 cm. Epidote occurs as retrograde alteration of Skarn beds. The interbedded siltstone has the same alteration as the previous interval, with a slight increase in silicification.
JN11009	87.8	92.65		ARGILLIC	5	CHLORITE	2	SERICITE	5	The argillic alteration, and sericitic alteration are pervasive, generally reducing the rock to friable clay. The alteration is texture destructive. Chlorite weakly mottles the interval.
JN11009	92.65	95.3		SILICA	5	BIOTITE	3			Silicification of the mineralized breccia is pervasive. Biotite alteration occurs within the breccia matrix - dark red to brown in color. Patchy Fe-Carbonate alteration occurs through the interval.
JN11009	95.3	99.1		SILICA	5	SERICITE	4			Silicification of mudstone and QPC is pervasive. The Mudstone is also pervasively altered by sericite.
JN11009	99.1	122.8		SILICA	4	SERICITE	3	ARGILLIC	4	Silicification and sericitization of QPC is generally uniform, and pervasive. Feldspar clasts within the QPC are variably argillic altered.
JN11009	122.8	135.75		SILICA	5	SERICITE	4	ARGILLIC	4	Silicification, sericitization and argillic alteration envelope mineralized veins through the interval. The alteration is pervasive, and in patches it texture destructive.
JN11009	135.75	145.95	Skarn	PYROXENE	4	CHLORITE	4	GARNET	3	Skarn alteration occurs within calcareous mudstone beds. Skarnification is patchy, mottling the interval.
JN11009	145.95	150.87	Skarn	PYROXENE	5	CHLORITE	5	GARNET	4	Skarn alteration is pervasive through the interval. Pyroxene and Chlorite are the principal skarn assemblage, with patchy fg-mg pink garnet. Late epidote alteration occurs as vein envelope (quartz-calcite veins). Black powdery chlorite occurs along fractures.
JN11009	150.87	174.25		ARGILLIC	5	SILICA	4	LIMONITE	2	Pervasive argillic alteration is texture destructive. Silicification envelopes quartz stockwork veining through out the interval. Limonite is patchy, occurring along microfractures.

Hole Number	From(m)	To(m)	Alteration Assemblage	Alteration Type 1	Alteration Degree (0-5)	Alteration Type 2	Alteration Degree (0-5)	Alteration Type 3	Alteration Degree (0-5)	Notes
JN11009	174.25	181.25	Skarn	PYROXENE	5	CHLORITE	5	GARNET	3	Skarn alteration is pervasive. Black chlorite +/- epidote occur as retrograde skarn assemblage overprinting pyroxene-diopside-garnet prograde skarn.
JN11009	181.25	181.5	Skarn	EPIDOTE	5	ARGILLIC	4	CHLORITE	4	Epidote alteration overprinting original skarn replacement. Interval is altered to a soft clay gouge. Black chloritic fractures x-cut the interval.
JN11009	181.5	183.5	Skarn	PYROXENE	5	CHLORITE	5	GARNET	3	Black chlorite gouge occurs @ contacts of quartz veins through the interval.
JN11009	183.5	211.65	Skarn	PYROXENE	5	GARNET	4	MAGNETITE	5	Skarn is of multiple generations. It appears as though coarse grained reddish-pink garnet, and pyroxene were the original prograde skarn. Overprinted by massive magnetite mineralization, and chlorite alteration. The relative timing between the two remains unclear. A final phase of alteration x-cuts all skarn assemblages, mottling the interval, and as fracture fill veinlets. Light green in color, fine grained.
JN11009	211.65	222.65		ARGILLIC	5	SERICITE	4	SILICA	4	Argillic alteration has pervasively altered skarn? Or siltstone ? Texture destructive - associated with quartz stockwork veining. Sericite alteration is observed @ vein contacts, often associated with Pyrite-Molybdenite mineralization. Silica occurs as vein envelope.
JN11009	222.65	225	Skarn	PYROXENE	5	MAGNETITE	5	GARNET	3	Pyroxene-Garnet skarn assemblage is overprinted by massive magnetite skarn, and later by black chlorite along fractures.
JN11009	225	226.8		ARGILLIC	5	SILICA	3			Argillic alteration overprinting skarn. Silicification envelopes quartz veins. Relic garnet is observed within the intensely altered interval. Epidote alteration occurs along fractures.
JN11009	226.8	233	Skarn	PYROXENE	5	GARNET	2	CHLORITE	2	Pyroxene (?) occurs as fg-mg xls and is the primary skarn mineral. Pink - reddish garnet are scattered through the interval, and are generally rare. Black chlorite occurs along hairline fractures through the interval.
JN11009	233	234.5		ARGILLIC	5					Enveloping quartz-stockwork veins - bleaches the interval beige-white.
JN11009	234.5	237.6	Skarn	PYROXENE	5	CHLORITE	4			Skarn as described above.

Hole Number	From(m)	To(m)	Alteration Assemblage	Alteration Type 1	Alteration Degree (0-5)	Alteration Type 2	Alteration Degree (0-5)	Alteration Type 3	Alteration Degree (0-5)	Notes
JN11009	237.6	240.4		ARGILLIC	4					Argillic alteration occurs as envelope to scattered quartz stockwork veins. It is incomplete, mottling the interval. The alteration overprints Skarn as described above.
JN11009	240.4	245.7		SILICA	4	SERICITE	3			Silicification is generally uniform, enveloping quartz stockwork veinlets < 5 mm wide. Sericite alteration occurs as patchy vein envelope.
JN11009	245.7	277		SILICA	5	BIOTITE	4	CALC SILICATE	4	Silicification is pervasive, recrystallizing silica rich sandstone beds. Biotitization is common, dark - light rosy grey. Calc-silicate alteration is selective to thin calcareous siltstone beds, rare through the interval. Dark green chlorite alteration mottles calc-silicate beds.
JN11009	277	289.9		SILICA	4	SERICITE	4	CLAY	1	Silicification of fg-mg quartz-feldspar rich sandstone. Sericite alteration occurs within thin bedded siltstone. Weak clay alteration of feldspar grains.
JN11009	289.9	291.67		SILICA	4	BIOTITE	3			Silicification and biotitization are pervasive. Silica recrystallized the quartz rich sandstone. Clotty chlorite occurs within the altered sandstone.
JN11010	2.2	16.2		SILICA	4	BIOTITE	3	CHLORITE	3	Silicification, Biotitization and Chloritization are pervasive within QPC beds. Black-reddish brown biotite occurs as matrix, clotty chlorite occurs in some QPC beds. Siltstones are moderately honrnfels altered.
JN11010	16.2	18.95		SILICA	5					Silicification is pervasive, as envelope to bull white quartz vein.
JN11010	18.95	22.4		SERICITE	4	SILICA	3			Sericite alteration mottles siltstone, moderate silicification associated with bull white quartz veins.
JN11010	22.4	25.25		SILICA	4	SERICITE	4	BIOTITE	4	Silicification and Sericitization of QPC, sericitizatoin is selective to feldspar clasts. Brownish black biotite occurs as fg-cg xls within fractures - retrograde skarn infilling fractures.
JN11010	25.25	44.4		SERICITE	3					Sericite alteration is moderate, mottling the siltstone. Sericite alteration envelopes mineralized fractures.

Hole Number	From(m)	To(m)	Alteration Assemblage	Alteration Type 1	Alteration Degree (0-5)	Alteration Type 2	Alteration Degree (0-5)	Alteration Type 3	Alteration Degree (0-5)	Notes
JN11010	44.4	48.1		SILICA	5	BIOTITE	4	SERICITE	4	Silicification is pervasive, recrystallizing the sandstone @ peak intensity. Biotite occurs along fractures as fg-cg xls, retrograde skarn alteration. Sericite bleaching occurs through the interval, mottling sediments that were not completely recrystallized to silica.
JN11010	48.1	51.8		ARGILLIC	5	SILICA	4	SERICITE	4	Argillic alteration is intense through the interval, @ base of interval the alteration has reduced the rock to a chaulk-clay gouge. Silicification is patchy, generally as envelope to fracture fill veinlets.
JN11010	51.8	56.2		SERICITE	4	CALC SILICATE	4	SILICA	3	Sericite alteration mottles the interval, enveloping quartz-calcite crackle veinlets. Calc-silicate alteration of calcareous mudstone beds. Silicification is generally moderate over the interval, enveloping crackle veins.
JN11010	56.2	60.3	Skarn	CHLORITE	5	GARNET	4	EPIDOTE	3	Dark-light green chlorite? Overprinting prograde garnet skarn, garnets are pinkish-orange in color, range from fg-cg xl masses. Pyrite-Chalcopyrite+/- Arsenopyrite mineralization overprints garnet skarn. Late epidote alteration is clotty, and irregular.
JN11010	60.3	77		CHLORITE	3	SERICITE	2			Chlorite occurs as fracture fill alteration. Sercite alteration weakly mottles the interval, in association with quartz-calcite veinlets.
JN11010	77	88.05	Skarn	CALC SILICATE	5	GARNET	4	BIOTITE	4	Calc-silicate/chert repacing calcareous mudstone. Pink-orange garnet fg-cg, occurs within light green, fine grained diopside (?) skarn. Biotite alteration is intense within siltstone layers. Skarn is in filling fractures through the unit, possibly a sedimentary breccia that has undergone intense skarn alteration. Dark green-black pyroxene occurs within fractures through the skarn. The interval has a mottled appearance.
JN11010	88.05	89.9		ARGILLIC	5	CHLORITE	3	TALC	4	Intense argillic alteration of mudstone. Moderate chlorite alteration along microfractures. Talc alteration occurs along fracture surfaces.

Hole Number	From(m)	To(m)	Alteration Assemblage	Alteration Type 1	Alteration Degree (0-5)	Alteration Type 2	Alteration Degree (0-5)	Alteration Type 3	Alteration Degree (0-5)	Notes
JN11010	89.9	97.25		SILICA	5	ARGILLIC	4			Silicification of QPC is pervasive, in places tecture destructive. Feldspar clasts are moderately to intensely altered through the interval, ie: 95.60-96.50 meters.
JN11010	97.25	101.33		CHLORITE	5	SILICA	5			Chlorite occurs as alteration to QPC matrix, and as fracture fill veinlets, imparting a light green - dark green color on the interval. Silicification is intense, pervasive and uniform.
JN11010	101.33	108.81		SILICA	5	CALC SILICATE	4	BIOTITE	4	Silicification is pervasive, as light green chert in thin bedded cacareous mudstone. Patchy Calc-silicate min occurs within fine-medium grained intervals and occurs as matrix replacement. Biotite is generally uniform, imparting a rosy dark grey color to the rock, overprinted by calc-silicate alteration. Trace amphibole alteration observed within fracture fill veinlets < 1 mm thick.
JN11010	108.81	134.77	Skarn	SILICA	5	PYROXENE	5	EPIDOTE	3	Silicification has partially and/or competely recrystallized the QPC beds. Pyroxene alteration occurs as fracture fill, and as matrix replacement within QPC and Sandstone beds. Biotite is overprinted by chlorite and lesser epidote alteration. Both chorite and epidote alteration occur as fracture fill min. Amphibole occurs along <1 mm fracture fill veinlets through out the interval - appear to infill cm - dm scale cleavage planes.
JN11010	134.77	144	Skarn	SILICA	5	CALC SILICATE	4	HORNFELS	5	Silicification is pervasive, as light green chert in calcareous mudstone. Pink-orange garnets are intergrown with chert through out the interval, generally as anhedral clots. Hornfels is intense within siltstones, coupled with 0.5 % disseminated vfg pyrrhotite. Fine-medium grained Pyroxene-Amphibole (?) skarn occurs as 10-20 cm beds scattered though the interva, and is dark green in color.
JN11010	144	144.8		ARGILLIC	5	SILICA	2			Argillic alteration is intense, replacng skarn altered limestone, and strongly fractured siltstone. Silica occurs as vein envelope.
JN11010	144.8	146.8	Skarn	PYROXENE	5	CHLORITE	4	EPIDOTE	3	Skarn is overprinted in part by light beige-yellow argillic alteration. Chlorite occurs as fracture fill min through the interval, epidote is clotty, lime green in color.

Hole Number	From(m)	To(m)	Alteration Assemblage	Alteration Type 1	Alteration Degree (0-5)	Alteration Type 2	Alteration Degree (0-5)	Alteration Type 3	Alteration Degree (0-5)	Notes
JN11010	146.8	151.15		ARGILLIC	5	PYROPHYLLITIC	5	SILICA	3	Argillic and pyrophyllitic alteration are intense - it is thought that the alteration is overprinting skarn, but is so intense that identification of lithology is very difficult to determine. The alteration is beige-white-yellow in color. The host rock becomes very friable because of the alteration. Generally the hardness of the rock is 1-2, although weak silicification is observed enveloping quartz stockwork veinlets.
JN11010	151.15	198		ARGILLIC	5	PYROPHYLLITIC	4	SILICA	4	Argillic alteration has altered the interval to a beige-yellow color, which is mottled by white blebby clots of pyrophyllitic alteration 0.5-1.5 cm in diameter. This may be a clue to determining the primary lithology. Silicification is intense, and pervasive enveloping quartz stockwork veining. In places the core has a pitted appearance where the pyrophyllitic alteration has been washed from the core.
JN11010	198	200.85	Skarn	PYROXENE	4	SILICA	4	CHLORITE	4	
JN11010	200.85	210.9		ARGILLIC	5	PYROPHYLLITIC	4	SILICA	4	Pervasive alteration is related to quartz stockwork veining. Again the skarn @ upper contact is bleached a light beige yellow color, this continues down through the stockwork zone. Pyrophyllitic alteration is weaker than the stockwork zone above.
JN11010	210.9	217.4		ARGILLIC	5	SERICITE	4	KSPAR	3	The feldspathic groundmass of the Kqm is argillic altered, soft friable white clay. Sericite alteration is observed @ vein contacts and within fractures the x-cut the interval. K-spar alteration is discreet, alteration of Biotite. Silicification envelopes quartz stockwork veinlets through the interval.
JN11010	217.4	222		ARGILLIC	5	PYROPHYLLITIC	3	SILICA	2	Argillic alteration has bleached the interval beige. Pyrophyllitic alteration is generally restricted to net-textured fractures through the interval. Silicification envelopes quartz-crackle veins.
JN11010	222	227.15		SILICA	4	BIOTITE	4	SERICITE	2	Silicification is uniform. Biotitization regional (?) Sericitization enveloping net-textured fractures.

Hole Number	From(m)	To(m)	Alteration Assemblage	Alteration Type 1	Alteration Degree (0-5)	Alteration Type 2	Alteration Degree (0-5)	Alteration Type 3	Alteration Degree (0-5)	Notes
JN11010	227.15	235.85		SILICA	5	SERICITE	4	BIOTITE	3	Silicification is pervasive, in places recrystallizing the sandstone. Remnant regional Biotite (?) occurs through strongly silicified beds. Rosy grey thin bedded siltstones are strongly biotite altered. Beige-grey sericite mottles the interval, enveloping net-textured veinlets.
JN11010	235.85	244.5		SERICITE	5	SILICA	4			Sericitization of silty mudstones is intense, light olive green to beige in color, mottling over rosy grey biotitization. Silicification is common within sandstone beds. Sericite has also altered the matrix of the sandstone beds. Silicification envelopes quartz veins.
JN11010	244.5	254.5		SILICA	5	BIOTITE	5	KSPAR	3	Silicification of QPC or Sandstone has recrystallized the beds, very very very hard. Siltstone beds are strongly biotitized, rosy brown in color, appears to be related to same alteration source as the intense silicification. Possible that the biotite is retrograde skarn. Light pink K-spar occurs disseminated through the silicified sediments < 1 mm in size.

Appendix 4.1.2 - Lithology

Thursday, November 24, 2011

Hole Number	From(m)	To(m)	Unit	Rock Type	Minor Rock Type	Pri Colour	Sec Colour	Grain Size	Pri Texture	Notes
JN11001	9	38.86	PCH	Siltstone	Limestone	black	green	fine	banded	Very fine grained. Hard to see specific minerals.
JN11001	38.86	239.57	PCH1	Siltstone	Hornfels	greyish	purple	fine	altered	Fine grained with bands/lenses of hornfels. Foliation on order of 1mm partings. Unaltered phyllite is purple black and the altered phyllite is greyish. Chlorite overprinted in altered zones. There is visible in a compositional banding that is near perpendicular to the cleavage of the phyllite. The chlorite composition varies from 5 to 25%.
JN11002	3.05	4.41	PCH	Limestone		green	white	fine	altered	Skarn
JN11002	4.41	212.23	PCH1	Siltstone	Hornfels	black	grey	fine	platy	The odd quartz grain is mixed probably from original deposition. This does not occur after about 50m. Also spotty chlorite makes an appears every once in a while, not in some areas but showing abundance in others.
JN11003	0	26.9		Overburden						
JN11003	26.9	43.38	PCH	Limestone	Hornfels	grey	black	fine	altered	
JN11004	10.66	16.26	PCH	Limestone		green	red	fine	altered	Varying degrees of garnet, epidote, diopside within interval.
JN11004	16.26	18	PCH1	Siltstone	Hornfels	purple	grey	fine	veinlets	Carbonate banding.
JN11004	18	105.41	Kqm	Quartz Monzonite		white	black	medium	veined	Feldspars have altered a light green colouring in areas. Some areas have much increase biotite up to 70%.Sub-interval of fine grained veins coming in. Faster cooling, late stage intrusive. Mainly Qtz+Fsp. (77.8 to 78.11m, 78.58 to, 79.33m, 82.1 to 82.33m, 82.9 to 82.98m, 87.6 to 88.32m, 91.3 to 91.47m.
JN11004	105.41	105.74	PCH1	Siltstone	Hornfels	purple	grey	fine	veinlets	Altered rafts of hornfels.
JN11004	105.74	108.84	Kqm	Quartz Monzonite		white	black	medium	veined	Feldspars have altered a light green colouring in areas. Some areas have much increase biotite up to 70%.Sub-interval of fine grained veins coming in. Faster cooling, late stage intrusive. Mainly Qtz+Fsp. (77.8 to 78.11m, 78.58 to, 79.33m, 82.1 to 82.33m, 82.9 to 82.98m, 87.6 to 88.32m, 91.3 to 91.47m.
JN11004	108.84	109.69	PCH1	Siltstone	Hornfels	purple	grey	fine	veinlets	Altered rafts of hornfels.
JN11004	109.69	118.67	Kqm	Quartz Monzonite		white	black	medium	veined	Feldspars have altered a light green colouring in areas. Some areas have much increase biotite up to 70%.Sub-interval of fine grained veins coming in. Faster cooling, late stage intrusive. Mainly Qtz+Fsp. (77.8 to 78.11m, 78.58 to, 79.33m, 82.1 to 82.33m, 82.9 to 82.98m, 87.6 to 88.32m, 91.3 to 91.47m.
JN11004	118.67	119.3	PCH1	Siltstone	Hornfels	purple	grey	fine	veinlets	Altered rafts of hornfels.
JN11004	119.3	207	Kqm	Quartz Monzonite		white	black	medium	veined	Feldspars have altered a light green colouring in areas. Some areas have much increase biotite up to 70%.Sub-interval of fine grained veins coming in. Faster cooling, late stage intrusive. Mainly Qtz+Fsp. (77.8 to 78.11m, 78.58 to, 79.33m, 82.1 to 82.33m, 82.9 to 82.98m, 87.6 to 88.32m, 91.3 to 91.47m). Later stage intrusive mainly QTZ + epidote? (190.14m to 191m).
JN11005	12.19	17.33	PCH	Limestone		green	red	fine	fractured	Altered 80%.

Hole Number	From(m)	To(m)	Unit	Rock Type	Minor Rock Type	Pri Colour	Sec Colour	Grain Size	Pri Texture	Notes
JN11005	17.33	21	PCH1	Siltstone	Hornfels	grey	white	fine	gouge	
JN11005	21	206.09	Kqm	Quartz Monzonite		white	grey	medium	fractured	Later intrusion @ (29.58 to 31.18m, 73.85 to 74.15m) felsic vein.
JN11006	0	9.7		Overburden						
JN11006	9.7	11.27	PCH	Limestone		green	red	fine	fractured	Altered to skarn.
JN11006	11.27	23.7	PCH1	Siltstone	Hornfels	grey	purple	fine	fractured	
JN11006	23.7	35.75	PCH2	Sandstone		grey	beige	sand	altered	
JN11006	35.75	37.08	PCH1	Siltstone	Hornfels	grey	purple	fine	fractured	
JN11006	37.08	39.22	PCH2	Sandstone		grey	beige	sand	altered	
JN11006	39.22	40.97	PCH1	Siltstone	Hornfels	grey	purple	fine	fractured	
JN11006	40.97	42.18	PCH2	Sandstone		grey	beige	sand	altered	
JN11006	42.18	50	PCH1	Siltstone	Hornfels	grey	purple	fine	fractured	
JN11006	50	53.15	PCH2	Sandstone		grey	beige	sand	altered	
JN11006	53.15	59.45	PCH1	Siltstone		grey	purple	fine	fractured	
JN11006	59.45	105.76	Kqm	Quartz Monzonite		white	grey	medium	fractured	
JN11007	12.19	20.45	PCH2	QPC		grey	white	coarse	interbedded	Altered.
JN11007	20.45	22.02	PCH2	QPC		grey	white	fine-medium	interbedded	Altered.
JN11007	22.02	25.85	PCH2	QPC		grey	white	medium	interbedded	Altered.
JN11007	25.85	27.87	PCH2	QPC		grey	white	fine	interbedded	Altered.
JN11007	27.87	30.46	PCH2	QPC		grey	white	coarse	interbedded	Altered.
JN11007	30.46	33.58	PCH2	QPC		grey	white	fine	interbedded	Altered.
JN11007	33.58	37.9	PCH2	QPC		grey	white	medium-coarse	interbedded	Altered.
JN11007	37.9	39.35	PCH2	QPC		grey	white	fine	interbedded	Altered.
JN11007	39.35	40.88	PCH2	QPC		grey	white	fine-medium	interbedded	Altered.
JN11007	40.88	44.25	PCH2	QPC		grey	white	fine	interbedded	Altered.
JN11007	44.25	47.08	PCH2	QFPC		grey	white	medium-coarse	interbedded	Altered.
JN11007	47.08	50.31	PCH2	QFPC		grey	white	coarse	interbedded	Altered.

Hole Number	From(m)	To(m)	Unit	Rock Type	Minor Rock Type	Pri Colour	Sec Colour	Grain Size	Pri Texture	Notes
JN11007	50.31	52.4	PCH2	QFPC		grey	white	fine-medium	interbedded	
JN11007	52.4	56.7	PCH2	QPC		grey	white	fine	interbedded	Altered.
JN11007	56.7	58.21	PCH1	Mudstone	QPC	grey	white	fine-medium	interbedded	
JN11007	58.21	119.4	PCH1	Mudstone		grey	black	fine	altered	Calcite veinlets w/similar orientation to banding.
JN11007	119.4	121.1	PCH2	QPC	Mudstone	grey	green	medium	interbedded	
JN11007	121.1	123.81	PCH2	QPC		grey	white	fine-medium	interbedded	Altered.
JN11007	123.81	131.31	PCH2	QPC		grey	white	medium	interbedded	Altered.
JN11007	131.31	134.41	PCH2	QPC		grey	white	fine	interbedded	Altered.
JN11007	134.41	135.65	PCH2	QPC		grey	white	coarse	interbedded	Altered.
JN11007	135.65	142.5	PCH2	QPC		grey	white	coarse	interbedded	Altered, A few small patches of finer grain.
JN11007	142.5	150.17	PCH1	Mudstone	Siltstone	grey	black	fine	altered	Calcite veinlets w/similar orientation to banding.
JN11007	150.17	152	PCH2	QPC		grey	white	Medium	interbedded	Altered.
JN11007	152	152.7	PCH1	Mudstone	Siltstone	grey	black	fine	altered	Calcite veinlets w/similar orientation to banding.
JN11007	152.7	155.75	PCH2	QPC		grey	white	fine	interbedded	Altered.
JN11007	155.75	158.14	PCH2	QFPC		grey	white	fine-medium	interbedded	Several gradational stretches from fine to coarse. Back to fine then to coarse.
JN11007	158.14	161	PCH2	QPC		grey	white	medium	interbedded	Several gradational stretches from fine to coarse. Back to fine then to coarse.
JN11007	161	161.84	PCH2	QPC		grey	white	fine	interbedded	Altered.
JN11007	161.84	162.4	PCH2	QPC		grey	white	coarse	interbedded	Altered.
JN11007	162.4	168.1	PCH2	QPC		grey	white	fine	interbedded	Altered.
JN11007	168.1	177	PCH	Limestone	Gouge	black		fine	brecciated	Brecciated by qtz veins, decalcified sandy carbonate. Chalcedonic quartz.
JN11001	0	9		Overburden						
JN11002	0	3.05		Overburden						
JN11004	0	10.66		Overburden						
JN11005	0	12.19		Overburden						
JN11007	0	12.19		Overburden						
JN11008	0	12.19		Overburden						

Hole Number	From(m)	To(m)	Unit	Rock Type	Minor Rock Type	Pri Colour	Sec Colour	Grain Size	Pri Texture	Notes
JN11008	12.19	66	PCH2	QPC	Sandstone	grey	white	fine-coarse	altered	Thin to thick bedded, graded bedding fining-up, fine to coarse grained, subrounded - rounded pebble conglomerate. Interbeds of quartz rich sandstone - quartz aernite are fg-mg. Coarse grained pebble conglomerate dominates lower 15 meters of the section. Angular - sub-angular mudstone rip-up clasts occur within the conglomerate, and are 10 - 50 mm in size. Depositional fining up sequences are approximately 10 - 15 meters thick, bedding contacts are gradational, and distinct. Calcite occurs as fg matrix within the conglomerates, it is weaklyreactive - overprinted by silica alteration.
JN11008	66	84.05	PCH1	Mudstone	Siltstone	grey	beige	very fine-fine	bedded	Very thin, thin and medium beds of Mudstone and lesser Siltstone. Bedding planes are sharp and tabular.
JN11008	84.05	90.9	PCH	Limestone	Mudstone	black	grey	fine-medium	veined	Very thin to thin interbedded sandy limestone and calcareous mudstone. Bedding planes are sharp and wavy.
JN11008	90.9	130.04	PCH1	Mudstone		grey	beige	very fine-fine	bedded	Thin bedded mudstone. Variable sericite altered, and weakly silicified. Bedding planes are tabular, and distinct.
JN11008	130.04	144.4	PCH2	QPC	Sandstone	grey	white	fine-coarse	altered	Medium and thick beds of Quartz Pebble Conglomerate interbedded with medium to thick beds of sandstone. Lithological contacts are gradational, but distinct. Rare rip up clasts of beige mudstone occur within basal coarse grained conglomerate beds.
JN11008	144.4	155.1	PCH1	Mudstone	Hornfels	greenish	black	very fine-fine	bedded	Very thin and thin bedded hornfles Mudstone. Bedding planes are sharp, tabular and distinct.
JN11008	155.1	166	PCH2	QPC	Mudstone	white	grey	fine-coarse	brecciated	Medium to coarse grained Quartz+/-Feldspar Pebble Conglomerate interbedded with rare, thin beds of fine grained Mudstone. The interval has been brecciated, veined, and fractured.
JN11008	166	255.1		Limestone		grey	white	fine	soft sediment deformation	Very thin to thin bedded limestone. Strong soft sediment deformation occurs across the interval, load casts, folded bedding, flame structures, abundant rip-up clasts. From 194.8-200.1 meters - debris flow - strong flow fabric @ 48 degrees TCA. Sub-angular, pyritic black mudstone clasts 2 - 80 mm occur through the debris flow, the fabric wraps around the clasts. The matrix of the debris flow reacts strongly to dilute HCl.
JN11008	255.1	265.6	PCH1	Mudstone	Hornfels	greenish	beige	very fine-fine	wavy bedded	Very thin, and thin bedded Mudstone. Weak hornfles alteration occurs through the unit. Wavy bedding is common, bedding contacts are distinct, and in places tabular and sharp.
JN11008	265.6	283.76	PCH2	Sandstone	Siltstone	beige	grey	fine-medium	graded (normal)	Medium to thick bedded sandstone with rare 30 - 40 cm intervals of thin bedded siltstone. Medium grained quartz rich beds grade up into fine grained quartz-feldspar sandstone. The matrix of the sandstone is weakly calcareous. 283.76 meters - EOH.
JN11009	0	4.5		Overburden						
JN11009	4.5	21.1	PCH2	QPC	Sandstone	grey	purpleish	fine-coarse	altered	Quartz pebble conglomerate is mg-cg, rounded clasts, purplish brown biotite matrix within cg beds. Interbedded with siltstone to sandstone beds, light grey-beige-dark grey, laminated to indistinct. Siltstone can have ghostly quartz pebble clasts observed in intensely altered beds. Silification and calc-silicate alteration are pervasive through the interval. The interval is strongly fractured.

Hole Number	From(m)	To(m)	Unit	Rock Type	Minor Rock Type	Pri Colour	Sec Colour	Grain Size	Pri Texture	Notes
JN11009	21.1	42.1	PCH1	Siltstone		grey	beige	very fine-fine	altered	Silty mudstone - mudstone, very thin to thin bedded, fractured and brecciated, mottled by sericite alteration, and patchy silicification. Grain size increases toward the bottom of the interval.
JN11009	42.1	57.1	PCH2	Sandstone	Siltstone	greenish	grey	fine-medium	altered	Intensely altered sandstone, medium to thick beds with rare thin-medium beds of silicified siltstone. The majority of the sand grains have been recrystallized, yielding a dark grey blue matrix speckled by fg calc-silicate. Patchy biotite alteration is rosy grey in color. Siltstones are dark grey-brown, and strongly silicified.
JN11009	57.1	67.7	PCH	Calcareous Mudstone		beige	green	very fine-medium	altered	Intensely altered, and veined calcareous mudstone. The rock changes in character due to varying degrees of alteration, from silicified brown-grey mudstone, to beige - green clay altered skarn with andradite garnets. Significant core loss has occurred through the interval.
JN11009	67.7	77.7	PCH1	Siltstone		grey	purplish	fine	altered	Dark grey to purple, fine grained, thin and medium bedded siltstone. The interval is strongly silicified, and weakly brecciated.
JN11009	77.7	91.7	PCH	Siltstone	Calcareous Siltstone	black	purplish	fine	altered	Dark rosy grey to black thin bedded siltstone, interbedded with thin and medium beds of skarn altered calcareous siltstone. Pyroxene and Garnet are the principal skarn assemblage.
JN11009	91.7	92.65	PCH1	Mudstone		beige	greenish	fine	altered	Mudstone is intensely argillic altered, texture destructive. Clay gouge is common through the interval. Chlorite alteration mottles the mudstone. Grey patches of very fine grained Pyrite occur through the interval.
JN11009	92.65	135.75	PCH2	QPC	Sandstone	white	beige	medium-coarse	altered	Quartz-feldspar pebble conglomerate ranges from a medium grained quartz-feldspar member to a coarse grained quartz dominant member with scattered, clay altered feldspar clasts. Rare beds of fine-medium grained sandstone occur through the interval, and very rare beds of altered mudstone occur through the interval.
JN11009	135.75	145.95	PCH1	Calcareous Mudstone	Siltstone	grey	greenish	fine-coarse	altered	Light - dark rosy grey, thin bedded, hornfels siltstone interbedded with light green - pinkish fine-coarse grained, thin bedded calc-silicate skarn. Patchy garnet alteration occurs within the calc-silicate.
JN11009	145.95	150.9	PCH	Limestone		green	black	fine-coarse	altered	Dark green - black - pinkish, fine-coarse grained, skarn altered limestone. Pyroxene and Chlorite are the dominant Skarn phases, patchy pinkish garnet alteration occurs scattered through the interval.
JN11009	150.9	174.25	PCH1	Siltstone		beige	yellow	fine	altered	Beige-yellow siltstone. Original textures have been completely destroyed by intense argillic alteration.
JN11009	174.25	211.65	PCH	Limestone		green	black	fine-coarse	altered	Dark green - black - pinkish, fine-coarse grained, skarn altered limestone. Pyroxene and Chlorite are the dominant Skarn phases, patchy pinkish garnet alteration occurs scattered through the interval. Host to massive magnetite mineralization 40-60% by vol, patchy throughout the interval. Chlorite is retrograde skarn, observed along fractures through out the interval (dark green-black) and enveloping pink-red garnets (grossular?)
JN11009	211.65	222.65	PCH1	Siltstone		beige	white	fine	altered	Beige-white siltstone (?). Original textures have been destroyed by intense argillic alteration. Friable clay gouge occurs through the interval, core is moderately fractured.

Hole Number	From(m)	To(m)	Unit	Rock Type	Minor Rock Type	Pri Colour	Sec Colour	Grain Size	Pri Texture	Notes
JN11009	222.65	239.85	PCH	Limestone		green	beige	fine-medium	altered	Dark-light green, black - pinkish, fine-medium grained skarn altered limestone. Light green Pyroxene (?) is the dominant skarn phase, and is generally fine grained. Lesser black chlorite occurs in association with semi-massive magnetite mineralization (retrograde). Pink garnet is common at the top of the interval, and decreases toward the bottom of the interval.
JN11009	239.85	245.75	PCH1	Siltstone		grey	bluish	fine	bedded	Dark rosy grey to light bluish grey, very thin and thin bedded siltstone. Bedding planes are sharp, and tabular.
JN11009	245.75	276	PCH1	Siltstone	Sandstone	grey	white	fine-medium	bedded	Dark rosy grey to light bluish grey, very thin and thin bedded, fine grained siltstone, interbedded with light grey - rosy white, thin and medium bedded, fine-medium grained sandstone.
JN11009	276	291.67	PCH1	Sandstone	Siltstone	white	grey	fine-medium	bedded	Light grey - white, fine and medium grained quartz-feldspar rich sandstone interbedded with dark rosy grey - beige thin bedded, fine grained siltstone. EOH - 291.67 meters.
JN11010	0	2.2		Overburden						
JN11010	2.2	16.2	PCH2	QPC	Siltstone	grey	white	fine-coarse	fining up	Interbedded QPC and Siltstone. Medium thick bedded QPC, fining up from coarse grained to medium grained pebble conglomerate. Dark brown to rosy grey biotitic matrix is common within the conglomerate. Siltstone is thin bedded, fine grained, contacts with QPC are sharp, and wavy.
JN11010	16.2	22.54	PCH2	Siltstone		beige	grey	fine	altered	Thin bedded siltstone, variably silicified and weakly hornfels. Beige color from partial sericitization, rosy grey from regional metamorphic biotite.
JN11010	22.54	25.25	PCH2	QPC		white	grey	medium-coarse	altered	Massive conglomerate bed, strongly altered. HW and FW contacts are marked by 5 cm of clay gouge, contacts are sharp.
JN11010	25.25	44.4	PCH2	Siltstone		beige	grey	fine	altered	Thin and medium bedded, weakly altered light beige to dark grey siltstone.
JN11010	44.4	51.8	PCH2	Sandstone		white	grey	fine-medium	altered	Bedding textures have been destroyed by pervasive silicification, and argillic alteration. The interval is strongly fractured and veined.
JN11010	51.8	56.27	PCH1	Siltstone	Calcareous Mudstone	brownish	greenish	fine	altered	Very thin, thin and rare medium beds of light beige grey to dark rosy grey siltstone interbedded with thin beds of light green chlorite altered calcareous mudstone.
JN11010	56.27	60.29	PCH	Limestone		greenish	pinkish	fine-medium	altered	Skarn altered sandy limestone. Dark-light green chlorite (?) as primary groundmass. Fine-medium grained subhedral masses of pinkish - orange garnet occur in irregular clots through the skarn. Late epidote occurs as alteration envelope to quartz-calcite veinlets. Skarn occurs as alteration to calcareous matrix within fine-medium grained sandy limestone.
JN11010	60.29	77	PCH1	Siltstone	Calcareous Mudstone	grey	brownish	fine	altered	Very thin and thin bedded, light bluish grey - dark rosy grey siltstone interbedded with thin beds of skarn altered calcareous mudstone. Pinkish-orange garnets are scattered through the skarn altered beds. Epidote occurs as fracture fill min within skarn beds. Biotite occurs as fracture fill min - retrograde skarn alteration within siltstone beds.

Hole Number	From(m)	To(m)	Unit	Rock Type	Minor Rock Type	Pri Colour	Sec Colour	Grain Size	Pri Texture	Notes
JN11010	77	88.05	PCH	Calcareous Mudstone	Siltstone	green	brownish	fine-medium	altered	Interbedded calcareous mudstone and siltstone. Very thin-thin bedded siltstone is dark rosy grey to grey blue in color, bedding planes are generally sharp and planar. Calcareous mudstone? Thin and medium beds which have undergone intense skarn alteration. The skarn overprints the interval, possible that the biotite rich siltstone is retrograde skarn within siltstone, and the epidote-garnet skarn is overprinting the calcareous mudstone. Dark black pyroxene occurs in calcite veinlets within skarn altered beds, and epidote occurs in veinlets but is rare. It appears as though the siltstone/calcareous mudstone is some sort of soft sediment slump sheet. The skarn has a brecciated character, it is suspected that it is a sedimentary breccia that has been selectively altered post lification.
JN11010	88.05	89.91	PCH1	Mudstone		white	greenish	fine	altered	Light grey-greenish white, vfg-fg, thin bedded mudstone. Intense argillic alteration has reduced the interval to a friable clay gouge, the core still maintains integrity, but is intensely fractured > 100/meter.
JN11010	89.91	101.3	PCH2	QPC	Sandstone	white	green	fine-coarse	altered	White-green, fine-coarse grained, medium-thick bedded quartz pebble conglomerate, interbedded with medium-thick beds of beige-green, fg-mg sandstone. Interval is intensely altered, in places recrystallizing the QPC. Coarse grained units have acted as fluid flow pathways, channeling mineralization and related alteration throughout the interval.
JN11010	101.3	108.81	PCH1	Siltstone	Calcareous Mudstone	grey	bluish	fine	altered	Dark rosy grey-bluish grey, fg, thin bedded siltstone, interbedded with rare thin beds of greenish-grey, fine grained calcareous mudstone.
JN11010	108.81	134.77	PCH2	QPC	Sandstone	white	greenish	fine-coarse	altered	Light white-grey to green to brownish grey interbedded QPC and Sandstone. The interval is strongly altered, recrystallizing some quartz rich beds, generally texture destructive. The matrix of both the QPC and Sandstone is strongy skarn altered. 1 mm veinlets of amphibole occur through the interval, generally restricted to the Sandstone beds. Rosy grey biotite is common through out the matrix, and as clotty, wispy xls within strongly silicified beds.
JN11010	134.77	144.75	PCH1	Siltstone	Calcareous Mudstone	grey	green	fine-medium	altered	Dark rosy grey - grey beige - green, thin and medium bedded Siltstone interbedded with thin and medium beds of skarn altered calcareous mudstone. The mudstone beds are altered to light green chert, spotted with pinkish garnets, and have chlorite occur as fracture fill veinlets. The siltstone is variably hornfles altered. Vfg Pyrrhotite is disseminated through out the hornfels.
JN11010	144.75	146.8	PCH	Limestone		green	reddish	fine-coarse	altered	Dark-light green, reddish, lime green skarn altered limestone. Chlorite and Pyroxene are the dominant skarn phases, overprinted by lime green epidote and blood red realgar (?) cuprite (?). Contacts are sharp, and wavy - it is had to determine if the rocks below the skarn interval are of the same rock type because of intense alteration.
JN11010	146.8	198	PCH	Mudstone		beige	white	fine	altered	Rock type is unknown. It is possibe that the interval is all the same rock type, or possibly more than one rock type. It is intensely argillic altered, texture destructive. Generally the rock is a friable clay like gouge, but is strongy silicified in regions of pervasive quartz-stockwork veining. Patchy massive magnetite occurs through the interval, this is suspicious as there is no massive magnetite skarn in JN11010. It is possible that the quartz-stockwork zone has an alteration halo that repaces the limestone with the intense argillic alteration.

Hole Number	From(m)	To(m)	Unit	Rock Type	Minor Rock Type	Pri Colour	Sec Colour	Grain Size	Pri Texture	Notes
JN11010	198	200.45	PCH	Limestone		green	white	fine-medium	altered	Dark green - olive green, skarn altered sandy limestone. The interval is strongly slicified, mottling the skarn a whitish-grey color. Lower contact becomes bleached by argillic-pyrophyllitic alteration as noted in the skarn above the large breccia zone.
JN11010	200.45	210.9	PCH2	Sandstone	Siltstone	beige	white	fine-medium	altered	The sandstone/siltstone is highly altered, however some primary features such as grain size and composition can be distinguished to a degree. The interval is 65 % quartz stockwork veins. Often the altered sediments are observed as framework clasts within the veins.
JN11010	210.9	217.4	Kqm	Quartz Biotite Monzonite		white	greyish	fine-medium	porphyritic	Quartz-Biotite Monzonite: Quartz occurs as phenocrysts 1-7 mm in diameter, generally a feldspathic matrix, with plagioclase phenocrysts, which are now weakly sericitized. Intense veining of the intrusive body. Contacts with sediments are sharp, and planar.
JN11010	217.4	222	PCH2	Mudstone	Sandstone	beige	greyish	fine	altered	Interbedded mudstone and sandstone. Thin and medium beds of sandstone, fg-mg, strongly silicified. Mudstone is thin bedded, fg, and strongly argillic altered. Interval is sheared and veined.
JN11010	222	236.6	PCH2	Siltstone	Sandstone	purplish	beige	fine-medium	altered	Interbedded siltstone and sandstone (60/40). Thin and medium bedded siltstone is dark rosy grey to purplish in color, often bleached light olive green - greyish green along hairline fractures (sericite alt halo).Where visible bedding planes are sharp and planar. Sandstone is fg-mg, quartz rich, sericitized and intensely silicified. Difficult to determine bedding thickness, medium to thick beds (?) based on alteration. The interval has a mottled texture, and is host to disseminated Pyrrhotite and trace Molybdenite.
JN11010	236.6	244.5	PCH2	Mudstone	Sandstone	beige	greyish	very fine-medium	altered	Interbedded mudstone and sandstone (50/50). Very thin to thin bedded mudstone is light creamy beige, and is moderately folded over the interval, thin tabular to acicular translucent white xls observed within the sediments, possibly wollastonite alteration, or selenite from lithification process. Medium to thick beds of sandstone are fine-medium grained, light beige - greyish in color, sericite altered. Contacts b/w the two lithologies are sharp and tabular - where folding is absent.
JN11010	244.5	254.5	PCH2	Siltstone	Sandstone	grey	purplish	fine-crystalline	altered	Interbedded siltstone and sandstone (?). Beds are intensely altered, sandstones (?) or QPC (?) are now crystalline silica host to clotty biotite and chlorite. Siltstones are generally a purplish grey, and mottled from sericitic crackle veinlets. Trace Molybdenite is observed within the crystalline sandstone. EOH - 254.50 meters.

Appendix 4.1.3 - Mineralization

Thursday, November 24, 2011

DDH ID	From(m)	To(m)	Min Type	Min Desc	Oxidation
JN11001	10.6	11.3	FRACTURES	5% FRACTURES fine grained Pyrrhotite	1
JN11001	11.56	11.69	BLEBBY	5% FRACTURES fine grained Pyrrhotite, 3% BLEBBY fine grained Arsenopyrite, 0.5% DISSEMINATED fine grained Chalcopyrite	1
JN11001	11.69	13.26	FRACTURES	0.5% FRACTURES fine grained Pyrrhotite	1
JN11001	13.26	14.24	FRACTURES	5% FRACTURES fine grained Pyrrhotite, 1% BLEBBY fine grained Arsenopyrite	1
JN11001	14.24	21.12	FRACTURES	0.1% BLEBBY fine grained Pyrite, 1.5% FRACTURES fine grained Pyrrhotite, 0.1% DISSEMINATED fine grained Chalcopyrite, 0.1% DISSEMINATED fine grained Arsenopyrite	1
JN11001	38.4	49	FRACTURES	1% BLEBBY fine grained Pyrrhotite, 0.1% DISSEMINATED fine grained Chalcopyrite	2
JN11001	49	63.7	FRACTURES	1% FRACTURES fine grained Pyrite, 0.1% DISSEMINATED fine grained Arsenopyrite, 0.1% DISSEMINATED fine grained Chalcopyrite	2
JN11001	63.7	86.05	FRACTURES	0.5% DISSEMINATED fine grained Pyrite, 0.1% DISSEMINATED fine grained Arsenopyrite	1
JN11001	86.05	94.9	FRACTURES	1% FRACTURES fine grained Pyrite, 0.1% DISSEMINATED fine grained Arsenopyrite	1
JN11001	94.9	95.2	FRACTURES	0.5% DISSEMINATED fine grained Arsenopyrite, 5% FRACTURES fine grained Pyrite	1
JN11001	102	106.1	FRACTURES	0.1% DISSEMINATED fine grained Pyrite	1
JN11001	106.1	109	FRACTURES	0.5% DISSEMINATED fine grained Pyrite	1
JN11001	109	112	FRACTURES	1% DISSEMINATED fine grained Pyrite, 0.1% DISSEMINATED fine grained Chalcopyrite, 0.1% DISSEMINATED fine grained Arsenopyrite	1
JN11001	112	117.6	FRACTURES	0.5% DISSEMINATED fine grained Pyrite	1
JN11001	117.6	122	FRACTURES	1% DISSEMINATED fine grained Pyrite	1
JN11001	122	124.9	BLEBBY	5% BLEBBY fine grained Pyrite	1
JN11001	124.86	130.6	VEINED	2% BLEBBY FINE grained Pyrrhotite, 2% BLEBBY fine grained Pyrite	1

DDH ID	From(m)	To(m)	Min Type	Min Desc	Oxidation
JN11001	130.63	132.3	VEINED	2% BLEBBY fine grained Arsenopyrite, 1% BLEBBY fine grained Pyrrhotite, 1% BLEBBY fine grained Pyrite	1
JN11001	132.28	134.1	FRACTURES	1% FRACTURES fine grained Pyrite	1
JN11001	134.06	140.6	FRACTURES	0.5% DISSEMINATED fine grained Pyrite	1
JN11001	140.63	144	FRACTURES	0.5% DISSEMINATED fine grained Pyrite, 0.3% BLEBBY fine grained Pyrrhotite	1
JN11001	144	151	FRACTURES	1% DISSEMINATED fine grained Pyrite, 0.1% DISSEMINATED fine grained Arsenopyrite	1
JN11001	151	155.4	FRACTURES	2% FRACTURES fine grained Pyrite	2
JN11001	155.4	161	FRACTURES	1% DISSEMINATED fine grained Pyrite	2
JN11001	161	190.4	FRACTURES	0.5% DISSEMINATED fine grained Pyrite, 0.1% DISSEMINATED fine grained Pyrrhotite, 0.5% DISSEMINATED fine grained Pyrite	2
JN11001	190.4	200.5	FRACTURES	1% BLEBBY fine grained Pyrrhotite, 5% BLEBBY fine grained Pyrite	2
JN11001	200.45	203	FRACTURES	1% FRACTURES fine grained Pyrite	2
JN11001	203	204.7	FRACTURES	2% FRACTURES fine grained Pyrite	2
JN11001	204.67	211	FRACTURES	0.5% DISSEMINATED fine grained Pyrite	2
JN11001	215.5	228.4	FRACTURES	0.5% FRACTURES fine grained Pyrite	2
JN11001	228.4	231.2	FRACTURES	2% FRACTURES fine grained Pyrite, 1% BLEBBY fine grained Pyrrhotite	1
JN11001	231.16	235.9	FRACTURES	0.5% DISSEMINATED fine grained Pyrite	1
JN11001	235.9	239.6	FRACTURES	1% DISSEMINATED fine grained Pyrite	1
JN11002	8.87	14.33	FRACTURES	0.5% DISSEMINATED fine grained Pyrite	2
JN11002	34	37	FRACTURES	1% DISSEMINATED fine grained Pyrite	2
JN11002	37	39	FRACTURES	5% FRACTURES fine grained pyrite, 0.01% FRACTURES fine grained Pyrite	2
JN11002	39	42	FRACTURES	1% DISSEMINATED fine grained Pyrite	2

DDH ID	From(m)	To(m)	Min Type	Min Desc	Oxidation
JN11002	42	43	FRACTURES	2% FRACTURES fine grained Pyrite	2
JN11002	43	43.72	FRACTURES	0.1% DISSEMINATED fine grained Molybdenite, 2% FRACTURES fine grained Pyrite, 0.2% DISSEMINATED fine grained Pyrrhotite	2
JN11002	43.72	59.5	FRACTURES	3% FRACTURES fine grained Pyrite	2
JN11002	59.5	62.5	FRACTURES	1% FRACTURES fine grained pyrite	2
JN11002	62.5	69.5	FRACTURES	5% FRACTURES fine grained Pyrite	2
JN11002	69.5	76.4	FRACTURES	2% FRACTURES fine grained Pyrite	2
JN11002	76.4	77.11	SEMIMASSIVE	3% DISSEMINATED fine grained Pyrite, 30% BRECCIATED fine grained Arsenopyrite	2
JN11002	77.11	78.6	FRACTURES	2% FRACTURES FINE grained Pyrite	2
JN11002	78.6	78.9	FRACTURES	2% FRACTURES fine grained Pyrite, 10% FRACTURES fine grained Arsenopyrite	2
JN11002	78.9	83.21	FRACTURES	3% FRACTURES fine grained Pyrite	2
JN11002	83.21	87	FRACTURES	0.5% DISSEMINATED fine grained Pyrite	2
JN11002	87	88.51	FRACTURES	0.5% DISSEMINATED fine grained Sphalerite, 3% FRACTURES fine grained Pyrite	2
JN11002	88.51	94.4	FRACTURES	1% FRACTURES fine grained Pyrite	2
JN11002	94.4	116.7	FRACTURES	3% FRACTURES fine grained Pyrite, 0.1% BLEBBY fine grained Arsenopyrite	2
JN11002	116.74	124	FRACTURES	2% FRACTURES fine grained Pyrite	2
JN11002	148.14	164.1	VEINED	1% FRACTURES fine grained Pyrite, 0.1% DISSEMINATED fine grained Sphalerite	2
JN11002	164.06	175.2	FRACTURES	2% FRACTURES fine grained Pyrite, 0.1% DISSEMINATED fine grained Arsenopyrite, 0.1% DISSEMINATED fine grained Sphalerite	2
JN11002	175.2	176	VEINED	2% FRACTURES fine grained Pyrite, 0.5% FRACTURES fine grained Arsenopyrite	2
JN11002	176	177.6	FRACTURES	2% FRACTURES fine grained Pyrite	2
JN11002	177.55	178.4	FRACTURES	0.5% DISSEMINATED fine grained Pyrite	2

DDH ID	From(m)	To(m)	Min Type	Min Desc	Oxidation
JN11002	178.4	184	FRACTURES	3% FRACTURES fine grained Pyrite	2
JN11002	184	188.3	FRACTURES	5% FRACTURES fine grained Pyrite, 0.1% DISSEMINATED fine grained Chalcopyrite, 0.1% DISSEMINATED fine grained Arsenopyrite	2
JN11002	188.25	192.1	FRACTURES	2% FRACTURES fine grained Pyrite	2
JN11002	192.14	192.4	FRACTURES	5% VEINLETS fine grained Arsenopyrite, 0.2% DISSEMINATED fine grained Chalcopyrite, 2% FRACTURES fine grained Pyrite	2
JN11002	192.4	194.1	FRACTURES	1% VEINLETS fine grained Pyrite	2
JN11002	194.13	194.4	FRACTURES	3% FRACTURES fine grained Pyrite, 5% FRACTURES fine grained Arsenopyrite	2
JN11002	194.4	195.2	FRACTURES	3% FRACTURES fine grained Pyrite, 0.1% DISSEMINATED fine grained Arsenopyrite	2
JN11002	195.2	196.1	FRACTURES	0.5% DISSEMINATED grained Pyrite	2
JN11002	199.11	201	FRACTURES	2% fine grained Pyrite	2
JN11002	201	201.5	FRACTURES	5% FRACTURES fine grained Pyrite, 0.5% DISSEMINATED fine grained Pyrite	2
JN11002	201.52	204.8	FRACTURES	2% FRACTURES fine grained Pyrite	2
JN11002	204.83	205.4	STOCKWORK	10% STOCKWORK fine grained Pyrite	2
JN11002	205.35	211.2	FRACTURES	2% FRACTURES fine grained Pyrite	2
JN11003	26.9	33	FRACTURES	1% BLEBBY fine grained Pyrrhotite, 1% FRACTURES fine grained Pyrite	2
JN11003	33	33.86	BLEBBY	5% BLEBBY fine grained Pyrrhotite, 2% FRACTURES fine grained Pyrite	1
JN11003	33.86	43.38	FRACTURES	1% BLEBBY fine grained Pyrrhotite, 3% FRACTURES fine grained Pyrite	2
JN11004	0	13.31	BLEBBY	0.1% DISSEMINATED fine grained Chalcopyrite, 5% BLEBBY fine grained Arsenopyrite, 1% BLEBBY fine grained Pyrite, 3% FRACTURES fine grained Pyrite, 2% FRACTURES fine grained Pyrrhotite	2
JN11004	13.31	18	FRACTURES	0.5% BLEBBY fine grained Pyrite	2

DDH ID	From(m)	To(m)	Min Type	Min Desc	Oxidation
JN11004	18	29.7	VEINLETS	0.2% DISSEMINATED fine grained Molybdenite, 2% DISSEMINATED fine grained Pyrite	1
JN11004	29.7	32.44	VEINED	3% BLEBBY fine grained Arsenopyrite, 5% VEINED fine grained Pyrite	2
JN11004	32.44	38.5	VEINED	3% FRACTURES fine grained Pyrite, 1% BLEBBY fine grained Arsenopyrite	2
JN11004	38.5	42.13	BLEBBY	3% BLEBBY fine grained Pyrite, 0.1% DISSEMINATED fine grained Arsenopyrite	2
JN11004	42.13	46	BLEBBY	5% BLEBBY fine-medium grained Pyrite, 1% BLEBBY fine grained Arsenopyrite	2
JN11004	46	47	DISSEMINATED	1% DISSEMINATED fine grained Pyrite	2
JN11004	47	47.48	BLEBBY	5% FRACTURES fine grained Pyrite, 1% BLEBBY fine grained Arsenopyrite	2
JN11004	47.48	50	VEINED	1% BLEBBY fine grained Arsenopyrite, 5% FRACTURES fine grained Pyrite	2
JN11004	50	56.44	FRACTURES	3% FRACTURES fine grained Pyrite, 0.5% DISSEMINATED fine grained Arsenopyrite	2
JN11004	56.44	57.6	BRECCIATED	5% BRECCIATED fine grained Arsenopyrite, 5% BRECCIATED fine grained Pyrite	2
JN11004	57.6	63.63	FRACTURES	0.5% BLEBBY fine grained Pyrite, 1% FRACTURES fine grained Arsenopyrite	2
JN11004	63.63	64	VEINED	10% VEINED fine grained Arsenopyrite	2
JN11004	64	74.76	FRACTURES	1% FRACTURES fine grained Pyrite	2
JN11004	74.76	77	VEINED	4% VEINED fine grained Pyrite	2
JN11004	77	93.38	FRACTURES	0.5% FRACTURES fine grained Pyrite, 0.1% DISSEMINATED fine grained Molybdenite, 0.1% DISSEMINATED very fine-fine grained Pyrrhotite, 0.05% DISSEMINATED fine grained Pyrite, 0.01% TRACE fine grained Molybdenite	2
JN11004	93.38	105.4	VEINED	0.5% BLEBBY fine grained Pyrite, 0.1% DISSEMINATED fine grained Molybdenite	2
JN11004	105.41	136.4	VEINED	0.1% DISSEMINATED fine grained Molybdenite, 0.5% BLEBBY fine grained Pyrite	2
JN11004	136.38	146	DISSEMINATED	0.2% DISSEMINATED fine grained Pyrite	2
JN11004	146	152.8	VEINED	0.5% DISSEMINATED fine grained Molybdenite, 1% FRACTURES fine grained Pyrite	2
JN11004	152.8	160.6	FRACTURES	0.5% DISSEMINATED fine grained Pyrite	2

DDH ID	From(m)	To(m)	Min Type	Min Desc	Oxidation
JN11004	160.6	164.4	FRACTURES	1% BLEBBY fine grained Pyrite	1
JN11004	164.35	170.0	VEINED	5% FRACTURES fine grained Pyrite, 0.5% DISSEMINATED fine grained Arsenopyrite	1
JN11004	170.02	181.1	FRACTURES	0.3% DISSEMINATED fine grained Arsenopyrite, 2% FRACTURES fine grained Pyrite, 0.1% BLEBBY fine-medium grained Marcasite	1
JN11004	181.05	190.0	FRACTURES	0.5% BLEBBY fine grained Pyrite, 0.1% DISSEMINATED fine grained Molybdenite	2
JN11004	190.01	191	DISSEMINATED	0.2% DISSEMINATED fine grained Molybdenite	1
JN11004	191	201	FRACTURES	0.5% DISSEMINATED fine grained pyrite, 0.1% DISSEMINATED fine grained Molybdenite	1
JN11004	201	207	FRACTURES	5% FRACTURES FINE grained Pyrite, 0.5% DISSEMINATED fine grained Pyrite	1
JN11005	0	17.33	VEINED	0.1% DISSEMINATED fine grained Chalcopyrite, 5% BLEBBY fine grained Arsenopyrite, 1% BLEBBY fine grained Pyrite, 3% FRACTURES fine grained pyrite, 2% FRACTURES fine grained Pyrrhotite	1
JN11005	17.33	21.12	DISSEMINATED	0.2% DISSEMINATED fine grained Pyrite	0
JN11005	21.12	21.76	DISSEMINATED	5% DISSEMINATED fine grained Pyrite	1
JN11005	21.76	23.5	SEMIMASSIVE	30% SEMIMASSIVE fine grained Pyrite	2
JN11005	23.5	32.6	FRACTURES	5% FRACTURES fine grained Pyrite	3
JN11005	32.6	38.7	DISSEMINATED	0.3% DISSEMINATED fine grained Pyrite	2
JN11005	38.7	39.18	BRECCIATED	5% BRECCIATED fine grained Pyrite	2
JN11005	39.18	43.39	DISSEMINATED	0.3% DISSEMINATED fine grained Pyrite	2
JN11005	43.39	46.56	FRACTURES	2% FRACTURES fine grained Pyrite	2
JN11005	46.56	49.13	DISSEMINATED	0.3% DISSEMINATED fine grained Pyrite	2
JN11005	49.13	60.5	FRACTURES	3% FRACTURES fine grained Pyrite, 0.5% FRACTURES fine grained Arsenopyrite	1
JN11005	60.5	60.8	BRECCIATED	20% BRECCIATED fine grained Pyrite, 2% FRACTURES fine grained Arsenopyrite	1

DDH ID	From(m)	To(m)	Min Type	Min Desc	Oxidation
JN11005	60.8	62.79	VEINED	5% VEINED fine grained Pyrite	1
JN11005	62.79	72.66	FRACTURES	0.1% DISSEMINATED fine grained Galena, 0.1% DISSEMINATED fine grained Sphalerite, 0.1% DISSEMINATED fine grained Molybdenite, 2% FRACTURES fine grained Pyrite	2
JN11005	72.66	74	BRECCIATED	35% BRECCIATED fine grained Pyrite, 0.5% VEINLETS FINE grained Molybdenite	2
JN11005	74	87	FRACTURES	0.5% BLEBBY fine grained Pyrite, 0.2% DISSEMINATED fine grained Pyrite, 0.5% VEINED fine grained Pyrite	1
JN11005	92.15	99.4	VEINED	0.1% DISSEMINATED fine grained Arsenopyrite, 0.1% DISSEMINATED fine grained Pyrite	1
JN11005	99.4	102.9	FRACTURES	1% BLEBBY fine grained Pyrite	2
JN11005	102.89	103.2	VEINED	2% VUG FILL fine-medium grained Millerite, 3% FRACTURES fine grained Pyrite	1
JN11005	103.2	109.9	FRACTURES	0.5% DISSEMINATED fine grained Pyrite	1
JN11005	109.87	110.1	VEINED	20% SEMIMASSIVE fine grained Pyrite, 4% VUG FILL fine-medium grained Millerite	2
JN11005	110.13	114.2	FRACTURES	0.5% DISSEMINATED fine grained Pyrite	1
JN11005	114.21	119.3	DISSEMINATED	0.1% DISSEMINATED fine grained Pyrite	1
JN11005	119.25	121.4	VEINED	3% VEINED fine grained Pyrite	1
JN11005	121.35	139	FRACTURES	0.5% DISSEMINATED fine grained Pyrite	1
JN11005	138.98	149.7	FRACTURES	5% FRACTURES fine grained Pyrite	1
JN11005	149.65	160.9	DISSEMINATED	0.2% DISSEMINATED fine grained Pyrite	1
JN11005	160.91	172.2	FRACTURES	1% FRACTURES fine grained Pyrite	1
JN11005	172.22	206.1	FRACTURES	3% FRACTURES fine grained Pyrite	2
JN11006	9.7	11.27	BLEBBY	5% BLEBBY fine grained Pyrrhotite	1
JN11006	11.27	11.6	FRACTURES	10% FRACTURES fine grained Pyrite	1
JN11006	11.6	11.85	SEMIMASSIVE	50% SEMIMASSIVE fine grained Arsenopyrite	1

DDH ID	From(m)	To(m)	Min Type	Min Desc	Oxidation
JN11006	11.85	17.37	FRACTURES	1% BLEBBY fine grained Pyrite	1
JN11006	17.37	20.4	DISSEMINATED	0.3% DISSEMINATED fine grained Pyrite	2
JN11006	20.4	25	FRACTURES	1% FRACTURES fine grained Pyrite	1
JN11006	25	29.2	VEINED	3% VEINED fine grained Pyrite, 0.1% DISSEMINATED fine grained Molybdenite	1
JN11006	29.2	32	DISSEMINATED	0.5% DISSEMINATED fine grained Pyrite	1
JN11006	32	44.8	DISSEMINATED	0.3% DISSEMINATED fine grained Pyrite, 0.1% DISSEMINATED fine grained Molybdenite	1
JN11006	44.8	59.45	FRACTURES	0.5% DISSEMINATED fine grained Pyrite, 0.2% BLEBBY fine grained Pyrrhotite, 0.1% DISSEMINATED fine grained Molybdenite	1
JN11006	64.97	65.83	DISSEMINATED	1% DISSEMINATED fine grained Pyrite	1
JN11006	83.52	105.8	DISSEMINATED	0.5% DISSEMINATED fine grained Pyrite, 0.1% DISSEMINATED fine grained Molybdenite	1
JN11007	9.48	13.05	VEINED	3% FRACTURES fine grained Pyrite, 3% BLEBBY fine grained Pyrrhotite	2
JN11007	13.05	22.7	DISSEMINATED	0.1% DISSEMINATED fine grained Pyrite	1
JN11007	22.7	24.81	FRACTURES	0.5% DISSEMINATED fine grained Pyrite	1
JN11007	24.81	27.33	FRACTURES	3% FRACTURES fine grained Pyrite, 0.2% BLEBBY fine grained Arsenopyrite	2
JN11007	27.33	43.53	VEINED	0.3% BLEBBY fine grained Arsenopyrite, 3% FRACTURES fine grained Pyrite	2
JN11007	43.53	46.02	FRACTURES	0.5% BLEBBY fine grained Pyrite, 0.1% DISSEMINATED fine grained Arsenopyrite	2
JN11007	46.02	58.21	BLEBBY	3% BLEBBY fine grained Pyrite, 0.1% DISSEMINATED fine grained Arsenopyrite	2
JN11007	58.21	64.31	DISSEMINATED	0.1% DISSEMINATED fine grained Pyrite	1
JN11007	64.31	79.55	FRACTURES	0.1% BLEBBY fine grained Pyrite	2
JN11007	79.55	85.7	VEINED	2% BLEBBY fine grained Pyrite	2
JN11007	85.7	90	FRACTURES	0.1% BLEBBY fine grained Pyrite	2

DDH ID	From(m)	To(m)	Min Type	Min Desc	Oxidation
JN11007	90	90.7	VEINED	5% BLEBBY fine grained Pyrrhotite, 2% BLEBBY fine grained Pyrite	1
JN11007	90.7	93	VEINED	0.2% BLEBBY fine grained Pyrrhotite, 0.1% DISSEMINATED fine grained Pyrite	1
JN11007	93	110	FRACTURES	0.1% FRACTURES fine grained Pyrite	1
JN11007	110	114	BLEBBY	0.1% BLEBBY fine grained Pyrrhotite, 0.1% FRACTURES fine grained Pyrite	1
JN11007	114	124.5	FRACTURES	0.5% DISSEMINATED fine grained pyrite, 0.1% DISSEMINATED fine grained Pyrite	1
JN11007	124.48	127.5	FRACTURES	0.1% DISSEMINATED fine grained Arsenopyrite, 5% FRACTURES fine grained Pyrite, 0.1% DISSEMINATED fine grained Chalcopyrite	1
JN11007	127.5	130	DISSEMINATED	0.1% DISSEMINATED fine grained Arsenopyrite, 0.1% DISSEMINATED fine grained Pyrrhotite, 0.5% BLEBBY fine grained Pyrite	1
JN11007	134.6	142.5	BLEBBY	2% BLEBBY fine grained Pyrite, 3% BLEBBY fine grained Pyrrhotite	1
JN11007	142.5	150.2	DISSEMINATED	0.1% DISSEMINATED fine grained Pyrite, 2% DISSEMINATED fine-coarse grained Pyrite	1
JN11007	150.17	152	BLEBBY	0.5% DISSEMINATED fine grained Pyrite, 1% DISSEMINATED fine grained Pyrrhotite	1
JN11007	152.7	161	BLEBBY	2% DISSEMINATED fine grained Pyrrhotite, 0.1% DISSEMINATED fine grained Chalcopyrite, 1% DISSEMINATED fine grained Pyrite	1
JN11007	161	162.4	DISSEMINATED	0.5% DISSEMINATED fine grained Pyrite, 0.1% DISSEMINATED fine grained Pyrrhotite, 0.5% DISSEMINATED fine grained Pyrite	1
JN11007	162.38	166.6	FRACTURES	1% DISSEMINATED fine grained Galena, 0.1% DISSEMINATED fine grained Sphalerite, 0.3% DISSEMINATED fine grained Arsenopyrite, 5% BLEBBY fine grained Pyrite	1
JN11007	166.6	168.3	BRECCIATED	1% DISSEMINATED fine grained Arsenopyrite, 10% BRECCIATED fine grained Pyrite, 0.1% DISSEMINATED fine grained Galena	1
JN11007	168.25	177	DISSEMINATED	3% BLEBBY fine grained Pyrite	2
JN11008	12.9	13.4	VEINED	1% BLEBBY fine-medium grained Pyrite	1
JN11008	14	14.5	VEINED	0.05% BLEBBY fine grained Chalcopyrite, 2% BLEBBY coarse grained Pyrrhotite	1

DDH ID	From(m)	To(m)	Min Type	Min Desc	Oxidation
JN11008	14.5	19.48	DISSEMINATED	0.1% DISSEMINATED fine-medium grained Pyrite	1
JN11008	19.48	21.5	DISSEMINATED	0.5% DISSEMINATED very fine - fine grained Pyrite	1
JN11008	21.5	23.5	DISSEMINATED	0.1% DISSEMINATED fine-medium grained Pyrite	1
JN11008	25.5	28.6	BLEBBY	0.5% BLEBBY fine-medium grained Pyrite	1
JN11008	28.6	29.05	DISSEMINATED	1% DISSEMINATED very fine grained Pyrite, 0.05% DISSEMINATED very fine grained Arsenopyrite	1
JN11008	30.07	30.4	BLEBBY	3% BLEBBY medium-coarse grained Pyrite	1
JN11008	31.77	35.2	VEINED	5% VEINED very fine grained Pyrite	1
JN11008	35.2	40.1	DISSEMINATED	1% DISSEMINATED fine-medium grained Pyrite	1
JN11008	40.1	41.2	TRACE	0.01% TRACE fine grained Pyrite	1
JN11008	41.2	43.9	TRACE	0.1% DISSEMINATED fine-medium grained Pyrite	1
JN11008	43.9	45.33	VEINED	0.5% VEINED very fine grained Pyrite	1
JN11008	48.3	52.4	VEINED	0.5% VEINED fine grained Pyrite	1
JN11008	52.4	62.7	DISSEMINATED	0.01% DISSEMINATED fine grained Galena, 1% DISSEMINATED fine-medium grained Pyrite	1
JN11008	62.7	63	VEINED	0.1% DISSEMINATED fine-medium grained Arsenopyrite, 0.2% VEINED fine grained Galena, 3% VEINED fine grained Pyrite	1
JN11008	63	66.1	DISSEMINATED	0.2% DISSEMINATED fine grained Pyrite	1
JN11008	66.1	67.8	VEINED	1% VEINED fine grained Pyrite	1
JN11008	67.8	69.1	BRECCIA	0.1% DISSEMINATED fine grained Millerite, 3% DISSEMINATED fine-coarse grained Pyrite, 0.2% BLEBBY fine-medium grained Sphalerite, 0.05% BLEBBY fine grained Galena	1
JN11008	69.1	73.75	VEINED	0.01% BLEBBY fine grained Sphalerite, 1% VEINED fine grained Pyrite	1
JN11008	73.75	74	VEINED	5% SEMIMASSIVE fine-coarse grained Pyrite	1

DDH ID	From(m)	To(m)	Min Type	Min Desc	Oxidation
JN11008	74	79.3	VEINED	0.5% BLEBBY fine grained pyrite, 0.2% DISSEMINATED fine grained Pyrite, 0.5% VEINED fine grained Pyrite	1
JN11008	81.8	91.89	VEINED	1% VEINED fine grained Pyrite	1
JN11008	91.89	99	VEINED	0.1% BLEBBY coarse grained Pyrrhotite, 0.05% TRACE fine grained Sphalerite, 1% VEINED fine grained Pyrite	1
JN11008	113.6	114	BRECCIA	0.01% TRACE fine grained Sphalerite, 5% BRECCIA fine grained Pyrite, 0.1% BRECCIA fine grained Galena	1
JN11008	114	131.4	TRACE	0.5% DISSEMINATED fine grained pyrite, 0.1% DISSEMINATED fine grained Pyrite	1
JN11008	131.4	136.8	DISSEMINATED	0.5% DISSEMINATED fine-medium grained Pyrite	1
JN11008	136.8	137.5	BRECCIA	0.1% BRECCIA fine grained Galena, 1% BRECCIA fine-medium grained Pyrite	1
JN11008	137.5	142.5	DISSEMINATED	0.2% DISSEMINATED fine-medium grained Pyrite	1
JN11008	142.5	143.6	DISSEMINATED	0.1% DISSEMINATED fine grained Pyrite, 2% DISSEMINATED fine-coarse grained Pyrite	1
JN11008	143.6	152	FRACTURES	0.1% FRACTURES fine grained Pyrite	1
JN11008	152	154.2	DISSEMINATED	2% DISSEMINATED fine grained Pyrite	1
JN11008	154.15	156	VEINED	2% DISSEMINATED fine grained Pyrite, 0.1% DISSEMINATED very fine grained Arsenopyrite	1
JN11008	156	157.6	DISSEMINATED	2% DISSEMINATED fine-medium grained Pyrite	1
JN11008	157.6	158.6	BRECCIA	0.05% DISSEMINATED very fine grained Arsenopyrite, 3% DISSEMINATED fine grained Pyrite	1
JN11008	158.6	166	DISSEMINATED	0.1% DISSEMINATED fine grained Pyrite	1
JN11008	166	176.5	TRACE	0.05% DISSEMINATED fine grained Pyrite, 20% DISSEMINATED fine-coarse grained Pyrite, 2% DISSEMINATED fine-coarse grained Arsenopyrite, 0.05% DISSEMINATED fine-medium grained Sphalerite, 0.05% DISSEMINATED fine grained Chalcopyrite	1
JN11008	176.5	177.3	BRECCIA	5% BRECCIA medium-coarse grained Pyrite	1
JN11008	177.25	179.8	SEMIMASSIVE	1% VUG FILL medium-coarse grained Millerite, 40% SEMIMASSIVE coarse grained Pyrite	1

DDH ID	From(m)	To(m)	Min Type	Min Desc	Oxidation
JN11008	179.8	206	TRACE	0.1% DISSEMINATED fine grained Pyrite	1
JN11008	206	208.6	DISSEMINATED	2% DISSEMINATED fine grained Pyrite	1
JN11008	208.55	251.8	DISSEMINATED	0.1% DISSEMINATED fine grained Pyrite	1
JN11008	251.8	254.9	FRACTURES	0.1% FRACTURES fine-medium grained Galena, 0.1% BLEBBY fine-medium grained Sphalerite, 5% FRACTURES fine-coarse grained Pyrite	1
JN11008	259.4	265.7	FRACTURES	2% FRACTURES fine grained Pyrite, 0.05% VEINED fine-coarse grained Sphalerite, 0.05% VEINED fine-medium grained Galena	1
JN11008	265.7	270.4	VEINED	0.05% TRACE fine-medium grained Pyrrhotite, 0.5% VEINED fine grained Pyrite	1
JN11008	270.4	273.1	VEINED	3% VEINED medium grained Pyrite, 1% DISSEMINATED fine grained Pyrite, 0.1% BLEBBY fine-medium grained Sphalerite, 0.1% DISSEMINATED fine grained Galena	1
JN11008	273.05	276.2	VEINED	2% DISSEMINATED very fine-fine grained Pyrite, 0.05% DISSEMINATED very fine grained Arsenopyrite, 0.01% DISSEMINATED very fine grained Sphalerite	1
JN11008	276.2	283.8	VEINED	1% DISSEMINATED fine grained Pyrite, 0.05% TRACE fine grained Pyrrhotite	1
JN11009	4.5	10.8	TRACE	0.05% TRACE fine grained Pyrrhotite, 0.05% TRACE fine grained Pyrite	1
JN11009	10.8	11.5	BRECCIA	0.2% BRECCIA fine-medium grained Arsenopyrite, 0.4% BRECCIA fine grained Pyrite	1
JN11009	20	28.3	FRACTURES	2% FRACTURES fine-medium grained Pyrite	1
JN11009	28.3	28.5	VEINED	0.5% VEINED medium-coarse grained Arsenopyrite	1
JN11009	28.5	31.47	FRACTURES	0.5% FRACTURES fine grained Pyrite, 0.01% TRACE fine grained Arsenopyrite	1
JN11009	31.47	32.25	BRECCIA	3% BRECCIA fine-medium grained Pyrite, 0.1% BRECCIA fine-medium grained Arsenopyrite	1
JN11009	32.25	34.7	VEINED	0.5% VEINED fine-coarse grained Arsenopyrite, 1% VEINED fine-medium grained Pyrite	1
JN11009	34.7	37	FRACTURES	0.2% FRACTURES fine grained Pyrite	1
JN11009	37	48.2	TRACE	5% FRACTURES fine grained Pyrite, 0.01% FRACTURES fine grained Pyrite	1

DDH ID	From(m)	To(m)	Min Type	Min Desc	Oxidation
JN11009	48.2	50.5	DISSEMINATED	0.1% DISSEMINATED fine grained Pyrrhotite, 1% DISSEMINATED fine grained Pyrite	1
JN11009	50.5	51.35	VEINED	0.5% VEINED fine-medium grained Arsenopyrite, 0.3% VEINED fine grained Pyrite	1
JN11009	57.1	60.1	VEINED	0.5% VEINED fine-medium grained Pyrite	1
JN11009	60.1	60.3	BRECCIA	0.05% DISSEMINATED fine grained Chalcopyrite, 5% BRECCIA fine-coarse grained Arsenopyrite, 3% BRECCIA fine-coarse grained Pyrite, 0.05% TRACE fine grained Pyrite, 0.05% TRACE fine grained Pyrrhotite	1
JN11009	60.3	67.7	VEINED	0.3% VEINED fine-medium grained Pyrite, 0.01% TRACE fine grained Molybdenite	1
JN11009	67.7	87.8	FRACTURES	0.1% FRACTURES fine grained Pyrite, 0.1% DISSEMINATED fine-medium grained Pyrrhotite, 0.01% DISSEMINATED Fine grained Chalcopyrite	1
JN11009	87.8	91.75	DISSEMINATED	0.1% DISSEMINATED fine grained Pyrite, 0.01% TRACE fine grained Molybdenite	1
JN11009	91.75	92.65	VEINED	0.5% VEINED fine grained Pyrite, 0.05% VEINED fine grained Arsenopyrite, 0.01% TRACE fine grained Molybdenite	1
JN11009	92.65	93.4	BRECCIA	0.5% BRECCIA fine-coarse grained Arsenopyrite, 0.5% BRECCIA fine-medium grained Pyrite, 0.1% BRECCIA fine-medium grained Sphalerite	1
JN11009	93.4	95.3	FRACTURES	2% FRACTURES fine-coarse grained Pyrite, 0.1% FRACTURES fine-medium grained Arsenopyrite	1
JN11009	95.3	100	TRACE	0.05% DISSEMINATED fine grained Pyrite, 0.05% FRACTURES fine grained Arsenopyrite, 0.01% TRACE fine grained Molybdenite	1
JN11009	100	122.8	DISSEMINATED	0.02% TRACE very fine grained Pyrite, 0.02% TRACE very fine grained Molybdenite	1
JN11009	122.8	137	VEINED	0.05% VEINED fine grained Molybdenite, 0.3% VEINED fine-coarse grained Arsenopyrite, 0.2% VEINED fine-coarse grained Sphalerite, 0.2% VEINED fine-coarse grained Pyrite, 0.05% DISSEMINATED fine-medium grained Galena	1
JN11009	137	146	VEINED	0.1% DISSEMINATED fine grained Pyrite, 0.05% VEINED fine-medium grained Molybdenite	1

DDH ID	From(m)	To(m)	Min Type	Min Desc	Oxidation
JN11009	145.95	150.9	VEINED	1% VEINED fine-coarse grained Pyrite, 0.02% DISSEMINATED very fine-fine grained Molybdenite, 0.01% TRACE very fine-fine grained Arsenopyrite, 0.1% DISSEMINATED fine grained Pyrrhotite, 0.01% DISSEMINATED very fine-fine grained Hematite	1
JN11009	150.87	151.9	SEMIMASSIVE	20% SEMIMASSIVE fine-medium grained Pyrite, 0.01% TRACE fine grained Molybdenite, 0.01% TRACE fine grained Hematite	1
JN11009	151.9	156.6	DISSEMINATED	0.01% TRACE fine grained Molybdenite, 0.5% DISSEMINATED fine grained Pyrite, 0.05% DISSEMINATED fine grained Arsenopyrite	1
JN11009	156.6	157.3	VEINED	10% BRECCIATED fine-coarse grained Pyrite, 0.05% DISSEMINATED fine grained Chalcopyrite	1
JN11009	157.25	159.1	DISSEMINATED	0.2% DISSEMINATED fine grained Pyrite	1
JN11009	159.05	159.6	VEINED	0.1% DISSEMINATED very fine grained Arsenopyrite, 0.05% DISSEMINATED fine grained Molybdenite, 0.05% DISSEMINATED fine grained Bismuthinite	1
JN11009	159.55	160.2	VEINED	0.5% FRACTURES fine-medium grained Pyrite, 0.2% DISSEMINATED very fine grained Arsenopyrite, 0.01% TRACE fine grained Molybdenite	1
JN11009	160.2	162.2	VEINED	0.1% DISSEMINATED fine grained Pyrite, 0.01% TRACE very fine grained Molybdenite	1
JN11009	162.2	170.2	DISSEMINATED	5% DISSEMINATED very fine-medium grained Pyrite, 0.01% TRACE fine grained Bismuthinite, 0.05% DISSEMINATED fine grained Molybdenite, 0.05% DISSEMINATED very fine grained Arsenopyrite, 3% DISSEMINATED fine grained Magnetite	1
JN11009	170.15	174.3	VEINED	0.5% VEINED fine-medium grained Pyrite, 0.01% DISSEMINATED fine grained Molybdenite	1
JN11009	174.25	187	VEINED	30% REPLACEMENT fine-coarse grained Magnetite, 1% VEINED fine-coarse grained Pyrite, 0.1% VEINED fine-medium grained Hematite, 0.05% VEINED fine grained Molybdenite	1
JN11009	187	187.9	MASSIVE	55% MASSIVE fine-coarse grained Magnetite, 0.1% DISSEMINATED fine grained Pyrrhotite	1
JN11009	187.9	197	VEINED	0.05% VEINED fine-medium grained Molybdenite, 0.01% TRACE fine grained Hematite, 0.1% VEINED fine grained Pyrite, 15% REPLACEMENT fine-coarse grained Magnetite	1
JN11009	197	197.8	DISSEMINATED	1% DISSEMINATED fine grained Pyrrhotite, 0.05% DISSEMINATED fine grained Chalcopyrite, 10% REPLACEMENT fine grained Magnetite	1

DDH ID	From(m)	To(m)	Min Type	Min Desc	Oxidation
JN11009	197.8	198	VEINED	40% REPLACEMENT fine-coarse grained Magnetite, 0.5% FRACTURES fine-medium grained Pyrrhotite, 0.05% DISSEMINATED fine grained Chalcopyrite, 0.01% DISSEMINATED fine-medium grained Molybdenite, 5% VEINED fine grained Pyrite	1
JN11009	197.8	202.8	DISSEMINATED	40% REPLACEMENT fine-coarse grained Magnetite, 0.5% FRACTURES fine-medium grained Pyrrhotite, 0.05% DISSEMINATED fine grained Chalcopyrite, 0.01% DISSEMINATED fine-medium grained Molybdenite, 5% VEINED fine grained Pyrite	1
JN11009	202.8	203.6	VEINED	0.5% DISSEMINATED fine-medium grained Pyrrhotite, 0.01% TRACE fine grained Chalcopyrite, 0.05% DISSEMINATED fine-medium grained Molybdenite	1
JN11009	203.6	204.9	MASSIVE	0.5% FRACTURES fine grained Pyrrhotite, 0.05% DISSEMINATED fine grained Chalcopyrite, 40% MASSIVE fine-coarse grained Magnetite	1
JN11009	204.9	205.7	VEINED	2% VEINED fine-medium grained Pyrite, 2% VEINED fine grained Pyrrhotite, 0.05% DISSEMINATED fine-medium grained Molybdenite	1
JN11009	205.7	211.7	DISSEMINATED	0.1% DISSEMINATED fine grained Pyrite, 0.01% TRACE fine grained Molybdenite, 0.01% TRACE fine grained Hematite, 0.1% DISSEMINATED fine grained Pyrrhotite, 0.01% TRACE fine grained Chalcopyrite	1
JN11009	211.65	212.4	SEMIMASSIVE	20% SEMIMASSIVE fine-coarse grained Pyrite, 0.05% DISSEMINATED fine grained Molybdenite, 0.5% DISSEMINATED fine-coarse grained Arsenopyrite, 0.1% DISSEMINATED fine grained Chalcopyrite	1
JN11009	212.4	213.6	DISSEMINATED	1% DISSEMINATED fine grained Pyrite	1
JN11009	213.6	214.2	VEINED	5% DISSEMINATED fine grained Pyrite, 0.01% DISSEMINATED fine grained Molybdenite, 0.1% DISSEMINATED fine-medium grained Bismuthinite	1
JN11009	214.2	216	DISSEMINATED	0.1% DISSEMINATED fine grained Pyrite	1
JN11009	216	222.7	VEINED	1% DISSEMINATED very fine-fine grained Pyrite, 0.05% DISSEMINATED very fine grained Arsenopyrite, 0.05% DISSEMINATED fine grained Chalcopyrite	1
JN11009	222.65	225.8	REPLACEMENT	1% DISSEMINATED fine grained Pyrrhotite, 0.05% DISSEMINATED fine grained Chalcopyrite, 35% REPLACEMENT fine-coarse grained Magnetite	1

DDH ID	From(m)	To(m)	Min Type	Min Desc	Oxidation
JN11009	225.8	233.5	VEINED	2% VEINED fine-medium grained Pyrite, 0.01% TRACE fine grained Chalcopyrite, 0.05% DISSEMINATED fine grained Molybdenite, 0.02% TRACE fine grained Hematite, 0.1% DISSEMINATED fine grained Pyrrhotite	1
JN11009	233.45	234.5	VEINED	0.01% TRACE fine grained Molybdenite, 0.02% DISSEMINATED fine grained Hematite	1
JN11009	234.5	240.8	VEINED	0.1% DISSEMINATED fine grained Pyrite, 0.01% TRACE fine grained Molybdenite, 0.01% TRACE fine grained Chalcopyrite	1
JN11009	245.85	247.6	TRACE	0.01% TRACE very fine grained Bismuthinite, 0.01% TRACE fine grained Molybdenite	1
JN11010	23	24.4	FRACTURES	0.05% FRACTURES fine grained Pyrite	1
JN11010	24.4	25.25	FRACTURES	0.02% FRACTURES very fine-fine grained Sphalerite, 0.1% DISSEMINATED fine grained Pyrite, 0.5% FRACTURES fine-medium grained Arsenopyrite	1
JN11010	25.25	44.4	FRACTURES	0.5% FRACTURES fine grained Pyrite, 0.02% FRACTURES fine grained Sphalerite, 0.1% FRACTURES fine grained Pyrrhotite, 0.02% FRACTURES fine grained Galena	1
JN11010	44.4	48.1	VEINED	0.2% VEINED fine-medium grained Arsenopyrite, 0.5% VEINED fine-medium grained Pyrite, 0.05% VEINED fine grained Sphalerite	1
JN11010	48.1	51.8	FRACTURES	0.1% FRACTURES very fine grained Pyrite	1
JN11010	54.1	56.25	VEINED	0.2% VEINED very fine-fine grained Pyrite	1
JN11010	56.25	59.7	DISSEMINATED	0.1% DISSEMINATED fine-medium grained Arsenopyrite, 25% DISSEMINATED fine-coarse grained Pyrite, 0.05% DISSEMINATED fine grained Chalcopyrite	1
JN11010	59.7	60.1	VEINED	0.5% VEINED fine-medium grained Pyrite, 0.1% VEINED fine-medium grained Arsenopyrite, 0.02% VEINED fine grained Chalcopyrite	1
JN11010	60.1	77	TRACE	0.05% DISSEMINATED fine grained Chalcopyrite, 5% BRECCIA fine-coarse grained Arsenopyrite, 3% BRECCIA fine-coarse grained Pyrite, 0.05% TRACE fine grained Pyrite, 0.05% TRACE fine grained Pyrrhotite	1
JN11010	77	88.05	TRACE	0.5% FRACTURES fine grained Pyrite, 0.1% DISSEMINATED fine grained Molybdenite, 0.1% DISSEMINATED very fine-fine grained Pyrrhotite, 0.05% DISSEMINATED fine grained Pyrite, 0.01% TRACE fine grained Molybdenite	1

DDH ID	From(m)	To(m)	Min Type	Min Desc	Oxidation
JN11010	89.9	92.45	FRACTURES	0.05% DISSEMINATED fine grained Chalcopyrite, 1% DISSEMINATED fine-medium grained Pyrite, 0.2% DISSEMINATED fine grained Pyrrhotite	1
JN11010	92.45	93.2	BRECCIA	0.05% DISSEMINATED fine grained Sphalerite, 0.05% DISSEMINATED fine grained Chalcopyrite, 0.5% DISSEMINATED very fine-fine grained Arsenopyrite, 1% DISSEMINATED fine grained Pyrite	1
JN11010	93.2	96.75	FRACTURES	2% FRACTURES fine grained Pyrite, 0.1% DISSEMINATED fine grained Arsenopyrite, 0.1% DISSEMINATED fine grained Pyrrhotite	1
JN11010	96.75	100.9	VEINED	0.1% VEINED fine-medium grained Pyrrhotite, 0.1% VEINED fine grained Pyrite, 0.01% TRACE fine grained Chacopyrite	1
JN11010	100.85	144.8	DISSEMINATED	0.1% DISSEMINATED fine grained Pyrite, 0.1% DISSEMINATED fine grained Pyrrhotite	1
JN11010	144.75	146.8	DISSEMINATED	0.1% DISSEMINATED fine-medium grained Pyrite, 0.05% DISSEMINATED fine grained Chalcopyrite, 0.1% DISSEMINATED fine-medium grained Hematite	1
JN11010	146.8	152.8	VEINED	0.05% VEINED fine grained Molybdenite, 0.5% DISSEMINATED very fine grained Pyrite	1
JN11010	152.75	153.8	VEINED	1% FRACTURES fine-coarse grained Pyrite, 0.05% DISSEMINATED fine grained Molybdenite, 0.05% DISSEMINATED fine grained Chalcopyrite, 0.01% DISSEMINATED fine grained Jamesonite	1
JN11010	153.75	161.9	DISSEMINATED	2% DISSEMINATED very fine-fine grained Pyrite, 1% DISSEMINATED fine grained Magnetite, 0.02% VEINED fine grained Molybdenite, 0.1% DISSEMINATED very fine grained Arsenopyrite	1
JN11010	161.85	166	VEINED	0.5% FRACTURES fine-coarse grained Arsenopyrite, 0.02% TRACE fine grained Molybdenite, 0.05% DISSEMINATED fine grained Chalcopyrite, 0.05% DISSEMINATED fine-medium grained Sphalerite, 2% DISSEMINATED fine-medium grained Pyrite	1
JN11010	166	170	BRECCIA	0.05% DISSEMINATED fine grained Pyrite, 20% DISSEMINATED fine-coarse grained Pyrite, 2% DISSEMINATED fine-coarse grained Arsenopyrite, 0.05% DISSEMINATED fine-medium grained Sphalerite, 0.05% DISSEMINATED fine grained Chalcopyrite	1
JN11010	170	172.9	BRECCIA	5% DISSEMINATED very fine-fine grained Pyrite, 0.1% DISSEMINATED fine grained Arsenopyrite, 0.05% DISSEMINATED fine grained Chalcopyrite	1

DDH ID	From(m)	To(m)	Min Type	Min Desc	Oxidation
JN11010	172.9	176.7	BRECCIA	1% DISSEMINATED fine grained Pyrite, 0.05% DISSEMINATED fine grained Chalcopyrite, 0.02% DISSEMINATED fine grained Molybdenite	1
JN11010	176.65	179.2	VEINED	10% DISSEMINATED fine-coarse grained Pyrite, 0.5% DISSEMINATED fine-medium grained Pyrrhotite, 0.05% DISSEMINATED fine grained Chalcopyrite	1
JN11010	179.2	191.9	VEINED	3% DISSEMINATED fine-medium grained Pyrite, 0.05% DISSEMINATED fine grained Chalcopyrite, 0.02% DISSEMINATED fine grained Jamesonite, 0.01% TRACE fine grained Molybdenite	1
JN11010	191.85	210.9	VEINED	0.5% DISSEMINATED fine grained Pyrite, 0.05% DISSEMINATED fine-medium grained Molybdenite	1
JN11010	210.9	211.1	VEINED	0.05% DISSEMINATED fine grained Jamesonite, 0.5% DISSEMINATED fine-medium grained Arsenopyrite	1
JN11010	211.1	217	VEINED	0.01% DISSEMINATED fine grained Arsenopyrite, 0.1% DISSEMINATED fine grained Pyrite, 0.05% DISSEMINATED fine grained Molybdenite	1
JN11010	217	217.4	VEINED	0.1% DISSEMINATED fine-medium grained Sphalerite, 0.1% DISSEMINATED fine grained Pyrite, 0.1% DISSEMINATED fine grained Arsenopyrite	1
JN11010	217.4	221	TRACE	0.01% DISSEMINATED fine grained Molybdenite	1
JN11010	227.8	230.8	VEINED	0.05% DISSEMINATED fine grained Molybdenite	1
JN11010	234.9	235.9	BRECCIA	0.1% DISSEMINATED fine-medium grained Pyrite, 0.01% TRACE fine grained Molybdenite	1
JN11010	239.6	241.9	VEINED	0.05% DISSEMINATED fine grained Molybdenite, 0.05% DISSEMINATED fine-medium grained Sphalerite, 0.1% DISSEMINATED fine-medium grained Pyrite	1
JN11010	241.9	254.5	TRACE	0.01% DISSEMINATED fine grained Molybdenite	1

Appendix 4.1.4 - Structure

Friday, November 25, 2011

DDH_ID	Depth of Structure (m)	Structure	Angle TCA (alpha)	Angle (beta)	Notes:
JN11001	40	Bedding	53		To CA.
JN11001	43.5	Cleavage	5		Phyllite cleavage to Core Axis (CA).
JN11001	83	Vein	58		Pyrite arsenopyrite vein (to CA).
JN11001	91.05	Vein	54		Quartz vein, angle to core axis.
JN11001	94.1	Veinlet	55		Fine grained mica? Veinlet, 125 to core axis.
JN11001	99.7	Veinlet	51		Pyrite, Arsenopyrite fracture fill veinlet.
JN11001	101	Veinlet	29		(To CA) Calcite veinlet, many more of similar orientation.
JN11001	116.88	Veinlet	55		Calcite (To CA).
JN11001	118.9	Veinlet	16		Calcite (To CA).
JN11001	132.2	Vein	21		Quartz w/arsenopyrite (to CA).
JN11001	133.2	Veinlet	34		Quartz w/ arsenopyrite (to CA).
JN11001	139.16	Vein	45		Quartz(To CA).
JN11001	141	Veinlet	39		Quartz veinlet with Fe-Oxide alteration halo (to CA).
JN11001	149.7	Veinlet	46		Quartz (To CA) surrounding alteration halo.
JN11001	156.4	Veinlet	23		Dark fine grain mineral (To CA).
JN11001	174.95	Veinlet	47		Alteration halo of sericite. Black fine grained mineral. (to CA).

DDH_ID	Depth of Structure (m)	Structure	Angle TCA (alpha)	Angle (beta)	Notes:
JN11001	177.65	Cleavage	8		(To CA).
JN11001	178.69	Fracture	50		Small Calcite fracture fill (to CA).
JN11001	189.1	Veinlet	43		Fine grained black fracture fill (Biotite?) (to CA).
JN11001	198.35	Vein	43		Quartz (to CA).
JN11001	211.38	Vein	23		Calcite n sercite altered (to CA).
JN11001	223.28	Venlet	31		Quartz ven hosting pyrite mineralization.
JN11001	226.5	Cleavage	9		(To CA).
JN11001	233.15	Veinlet	17		(To CA).
JN11001	239.5	Cleavage	5		(To CA).
JN11002	7.94	Cleavage	10		(To CA).
JN11002	9	Bedding	44		Mainy of the orientation exist (to CA).
JN11002	17.17	Bedding	29		Fracture (many of this orientation exist).
JN11002	28.5	Veinlet	54		Qtz (to CA).
JN11002	34.54	Bedding	51		(To CA).
JN11002	38.8	Veinlet	14		(To CA) QTZ.
JN11002	41.05	Bedding	47		(To CA).
JN11002	42.3	Fracture	17		(To CA).
JN11002	72.45	Bedding	55		(To CA).
JN11002	72.46	Fracture	44		(To CA) QTZ fill.

DDH_ID	Depth of Structure (m)	Structure	Angle TCA (alpha)	Angle (beta)	Notes:
JN11002	79.8	Veinlet	17		(To CA) Pyrite fill.
JN11002	79.83	Vein	25		(To CA) Quartz.
JN11002	83.4	Bedding	44		(To CA).
JN11002	87.6	Bedding	57		(To CA).
JN11002	87.65	Veinlet	37		(To CA) Calcite
JN11002	88	Vein	22		QTZ vein pyrite overprint (to CA).
JN11002	95.49	Fracture	28		Fine grain black mineral (to CA).
JN11002	101.49	Fracture	41		Fine grained black mineral (to CA).
JN11002	111.7	Fracture	5		(To CA).
JN11002	120	Fracture	13		Fine grain black mineral veinlet (to CA).
JN11002	122.68	Banding	58		Fine grained dark with purplish hue (biotite?) to CA.
JN11002	125.28	Fracture	5		Quartz veinlet (to CA).
JN11002	125.29	Veinlet	32		Fine grain black mineral veinlet (to CA).
JN11002	127.7	Vein	74		Fine grained vein with quartz BT and Diopside (see notes).
JN11002	131.98	Fracture	62		
JN11002	137.3	Fracture	5		Offset by other fracture set, qtz infill.
JN11002	144.17	Banding	63		Chlorite banding (avg of 4 measurments).
JN11002	148.15	Banding	66		Sericite.
JN11002	150.6	Vein	24		Fine grain black mineral w/qtz.

DDH_ID	Depth of Structure (m)	Structure	Angle TCA (alpha)	Angle (beta)	Notes:
JN11002	155.55	Vein	48		QTZ vein w/ pyrite.
JN11002	157.16	Vein	44		QTZ vein with sphalerite, diopside, pyrite.
JN11002	171.6	Fracture	29		Quartz pyrite.
JN11002	171.61	Fracture	30		Quartz pyrite.
JN11002	174.23	Vein	63		Diopside vein w/ qtz.
JN11002	188.85	Veinlet	51		Pyrite.
JN11002	188.86	Veinlet	24		Qtz.
JN11002	192.6	Veinlet	40		Pyrite, qtz.
JN11002	194.25	Veinlet	38		Arsenopyrite.
JN11002	199.15	Veinlet	12		Pyrite, qtz.
JN11002	199.45	Veinlet	25		Pyrite.
JN11002	200.35	Fracture	16		
JN11002	200.9	Fracture	16		
JN11002	202.92	Veinlet	68		Pyrite.
JN11002	203.78	Veinlet	47		Pyrite.
JN11002	207.7	Banding	63		QTZ, Dark fine grain mineral.
JN11004	15	Vein	1		Calcite vein in skarn.
JN11004	18.1	Vein	72		Quartz vein in granodiorite.
JN11004	19	Veinlet	34		Calcite veinlet in granodiorite.

DDH_ID	Depth of Structure (m)	Structure	Angle TCA (alpha)	Angle (beta)	Notes:
JN11004	19.8	Vein	64		Quartz Vein.
JN11004	21.1	Veinlet	50		Pyrite veinlet.
JN11004	21.4	Vein	57		Qtz.
JN11004	23.66	Fracture	25		Calcite.
JN11004	35.16	Fracture	34		
JN11004	36.62	Vein	37		Qtz.
JN11004	38.9	Veinlet	37		Calcite.
JN11004	42.36	Veinlet	70		Pyrite.
JN11004	47	Vein	5		Pyrite, qtz.
JN11004	49.5	Fracture	7		
JN11004	53	Veinlet	59		Pyrite.
JN11004	58.3	Vein	38		Calcitic (carbonate, dolomite?) Dark fine grained grey.
JN11004	62	Fracture	25		Fracture (conjugate).
JN11004	63.63	Vein	5		Arsenopyrite vein.
JN11004	76.65	Vein	58		Pyrite.
JN11004	79.9	Vein	54		Fine grained silica/feldspar rich vein. Perhaps a late intrusive formation, cooling faster.
JN11004	80.96	Fracture	54		
JN11004	82.1	Vein	17		Fine grained silica/feldspar rich vein. Perhaps a late intrusive formation, cooling faster.

DDH_ID	Depth of Structure (m)	Structure	Angle TCA (alpha)	Angle (beta)	Notes:
JN11004	84.46	Fracture	23		Pyrite.
JN11004	90.3	Vein	2		Quartz.
JN11004	94.7	Vein	55		Quartz.
JN11004	97.5	Vein	22		Quartz. Sericite altered on edges.
JN11004	101.56	Veinlet	35		Qtz.
JN11004	104.45	Vein	12		Qtz.
JN11004	104.8	Vein	15		Qtz.
JN11004	105.41	Contact - lithologic	45		Hornfels lens contact with intrusive.
JN11004	107	Vein	25		Qtz.
JN11004	113.7	Vein	33		Pyrite.
JN11004	118.5	Veinlet	27		Qtz.
JN11004	119.1	Vein	34		Qtz in hornfels.
JN11004	125	Veinlet	31		Qtz.
JN11004	128.65	Vein	29		Calcite.
JN11004	131.9	Veinlet	22		Pyrite
JN11004	135.47	Veinlet	24		Calcite.
JN11004	149.5	Vein	21		Qtz.
JN11004	151.1	Vein	13		Qtz w/moly.
JN11004	151.6	Vein	31		Qtz w/moly.

DDH_ID	Depth of Structure (m)	Structure	Angle TCA (alpha)	Angle (beta)	Notes:
JN11004	157.58	Veinlet	23		Calcite.
JN11004	159.6	Fracture	36		
JN11004	159.86	Vein	25		Qtz.
JN11004	161.41	Vein	39		Qtz / ASPY / PY.
JN11004	161.42	Fracture	36		
JN11004	170.7	Fracture	15		
JN11004	171.38	Vein	41		Qtz offset by fracture.
JN11004	171.39	Fracture	3		
JN11004	178.66	Vein	42		Calcite w/ PY + ASPY.
JN11004	182.83	Vein	44		Calcite.
JN11004	190	Vein	15		Qtz w/moly.
JN11004	190.14	Contact - lithologic	17		Highly fractionated felsic intrusive (silica rich) w/ epidote looking green mineral forming in fractures.
JN11004	197.2	Veinlet	45		Calcite.
JN11004	200.9	Vein	53		Qtz.
JN11004	205.86	Fracture	24		
JN11005	12.82	Veinlet	66		Calcite.
JN11005	17	Vein	12		Carbonate.
JN11005	24.9	Vug	16		Limonite / pyrite.
JN11005	25.9	Fracture	34		Conjugate fracture @ 50.

DDH_ID	Depth of Structure (m)	Structure	Angle TCA (alpha)	Angle (beta)	Notes:
JN11005	36.3	Fracture	29		
JN11005	38.7	Vein	41		Vein / brecciated; pyrite.
JN11005	41.7	Fracture	34		
JN11005	42.6	Vein	28		Pyrite, limonite.
JN11005	55.5	Veinlet	74		(To CA).
JN11005	59.93	Veinlet	63		Pyrite.
JN11005	65.83	Fracture	34	220	
JN11005	71.93	Vein	29	112	Pyrite (now using orientend core.)
JN11005	72.68	Breccia	49	20	
JN11005	74.3	Veinlet	39	248	Calcite.
JN11005	74.4	Veinlet	32	10	Calcite.
JN11005	77.4	Fracture	16	182	
JN11005	87	Veinlet	25	30	Calcite.
JN11005	95.9	Veinlet	34	26	Qtz, aspy, py.
JN11005	103.3	Vein	41		Quartz + pyrite, millerite, fine grained black mineral.
JN11005	108.4	Veinlet	34	106	Calcite.
JN11005	114.6	Vein	41	10	Quatrz + py.
JN11005	117.3	Veinlet	50	151	Calcite.
JN11005	117.65	Vein	31	26	Qtz + py.

DDH_ID	Depth of Structure (m)	Structure	Angle TCA (alpha)	Angle (beta)	Notes:
JN11005	125.55	Fracture	19	0	
JN11005	125.56	Vein	31	266	Qtz, offset by above fracture by 45mm.
JN11005	125.93	Vein	41	236	Qtz + py.
JN11005	138.9	Fracture	28	356	
JN11005	139.2	Vein	41	168	Qtz.
JN11005	142.4	Veinlet	63	194	
JN11005	153.8	Veinlet	16	96	Calcite.
JN11005	169.1	Vein	25	20	Late phase intrusive fine grained felsic, lined with pyrite.
JN11005	169.4	Vein	45	14	Pyrite + calcite.
JN11005	175.56	Veinlet	52	32	Py.
JN11005	184.6	Fracture	47	302	Calcite.
JN11005	187.7	Vein	44	190	Qtz.
JN11005	194.9	Veinlet	28	62	Pyrite.
JN11005	204.3	Veinlet	23	240	
JN11006	26.51	Veinlet	32	328	Pyrite veinlet in larger qtz vein.
JN11006	26.66	Vein	25	318	Quartz vein + Pyrite.
JN11006	47.79	Banding	53	200	
JN11006	63	Veinlet	44	180	Calcite.
JN11006	63.23	Banding	40	182	Calcite.

DDH_ID	Depth of Structure (m)	Structure	Angle TCA (alpha)	Angle (beta)	Notes:
JN11006	65.19	Banding	39	72	Sercite alteration band, perhaps bedding.
JN11006	69	Fracture	80	167	Calcite.
JN11006	72.23	Veinlet	31	170	Calcite.
JN11006	78.33	Veinlet	20	153	Calcite.
JN11006	81.38	Veinlet	69	72	Calcite.
JN11006	81.41	Fracture	13	336	
JN11006	87.34	Vein	4	46	Qtz.
JN11006	90.42	Veinlet	4	87	PY, QTZ.
JN11006	93.57	Veinlet	10	22	Calcite.
JN11006	99.66	Veinlet	8	52	Calcite.
JN11007	25	Bedding	78	23	Very thin clay layer.
JN11007	27.7	Veinlet	5	2	QTZ, LIMONITE, VUGGY.
JN11007	30.7	Veinlet	4	67	Calcite / qtz.
JN11007	39.5	Veinlet	74	292	Calcite.
JN11007	46	Vein	56	126	Quartz.
JN11007	46.05	Fracture	4	46	
JN11007	50.07	Veinlet	17	27	
JN11007	67.46	Banding	80	276	Calcite.
JN11007	73.23	Vein	30	0	Calcite + py.

DDH_ID	Depth of Structure (m)	Structure	Angle TCA (alpha)	Angle (beta)	Notes:
JN11007	76.5	Bedding	77	0	
JN11007	85.49	fold axis	65	140	Fold axis drawn from a round lookin vein in core.
JN11007	85.6	Banding	60	167	Alteratrion band w/ Gt + Py +Qtz + Diopside + BT.
JN11007	85.95	Fold axis	18	344	Vein / fold axis on vein.
JN11007	91.44	Bedding	83	359	
JN11007	160	Veinlet	29		
JN11008	13.08	Bedding	65		Graded bedding - QPC to Sandstone.
JN11008	27.85	Bedding	69		Siltstone - QPC contact, sharp.
JN11008	31.8	Mineralized veinlet	22		5 mm wide pyrite veinlet.
JN11008	35.5	Bedding	85		Graded bedding within QPC.
JN11008	44.65	Bedding	66		Thinly laminated mudstone.
JN11008	45.33	Breccia	36		Lower contact of quartz-breccia zone.
JN11008	51.6	Cleavage	48		Thin hairline cleavage planes are weakly limonitic, decimeter frequency distribution.
JN11008	56.88	Quartz Vein	70		Chalcedonic quartz vein.
JN11008	62.7	Mineralized Vein	62		Quartz+Py+PbS+Aspy
JN11008	66.1	Contact lithologic	30		Discordant contact between QPC and Mudstone.
JN11008	69.7	Brittle fracture	10		Calcite occurs along fracture surface.
JN11008	70	Brittle fracture	10		Calcite occurs within clay gouge.
JN11008	71	Mineralized Vein	23		Quartz-Calcite-Pyrite vein 1.0 cm thick.

DDH_ID	Depth of Structure (m)	Structure	Angle TCA (alpha)	Angle (beta)	Notes:
JN11008	75.3	Bedding	76		Thin bedding within Mudstone.
JN11008	77.53	Fracture	72		Talcosed fracture parallel to bedding.
JN11008	82.85	Bedding	54		Thin bedded calcareous mudstone.
JN11008	86.3	Quartz Vein	44		HW contact.
JN11008	88.14	Bedding	82		Limestone.
JN11008	93.2	Quartz Vein	20		Quartz-Calcite vein is sheared, Sphalerite observed within FW contact.
JN11008	95.9	Bedding	58		Thin bedded mudstone.
JN11008	96.95	Quartz Vein	43		Quartz-Calcite vein is mineralized by Pyrite.
JN11008	102.2	Cleavage	68		
JN11008	108	Bedding	47		
JN11008	108.01	Cleavage	62		
JN11008	108.7	calcite vein	90		Calcite-Quartz vein.
JN11008	112.3	Bedding	60		
JN11008	117.7	Bedding	78		Thin bedded Calcareous Mudstone.
JN11008	119.5	Broken ground			Broken ground for next 5.0 meters. Highly fractured Mudstone.
JN11008	128.34	Bedding	60		
JN11008	134.35	Brittle fractures	5		Brittle fractures to 136.60 meters, calcite-clay gouge occurs along the fractures.

DDH_ID	Depth of Structure (m)	Structure	Angle TCA (alpha)	Angle (beta)	Notes:
JN11008	136.6	Mineralized breccia	35		Upper and lower contacts are strongly fractured, it is difficult to determine if 35 degrees is the true orientation of the breccia.
JN11008	138.85	Mineral lineation	6		Sericite lineations occur in silicified QCP.
JN11008	139.7	Quartz Vein	10		Bull white quartz vein.
JN11008	143.1	Quartz Vein	36		Chalcedonic quartz vein.
JN11008	144.66	Bedding	68		
JN11008	148.12	Bedding	88		
JN11008	154.88	Bedding	82		
JN11008	155.93	Mineralized quartz vein	33		Chalcedonic quartz vein, hosting vfg Arsenopyrite mineralization.
JN11008	160.6	Brittle fractures	0		Blocky, angular core, fractured sub-parallel TCA.
JN11008	176.6	Breccia	27		HW contact of breccia. FW contact destroyed - bad ground conditions.
JN11008	186.3	Bedding	76		Thin bedded Limestone.
JN11008	195.05	Flow banding	74		Flow banding within sedimentary fragmental breccia.
JN11008	198.17	calcite vein	56		30 cm calcite vein.
JN11008	201.57	Bedding	68		Thin bedded Limestone.
JN11008	206.3	Bedding	70		Bedding.
JN11008	206.49	Bedding	53		Thin bedded Calcareous Mudstone.

DDH_ID	Depth of Structure (m)	Structure	Angle TCA (alpha)	Angle (beta)	Notes:
JN11008	207.46	Bedding	12		Bedding rotated - HW to breccia zone @ 207.82 meters.
JN11008	207.82	Breccia	52		HW contact.
JN11008	216.2	Bedding	65		Very thin laminated Limestone.
JN11008	219.6	Bedding	20		Folded Limestone beds for next 0.8 meters.
JN11008	220.65	Bedding	80		Wavy bedding, lower limb of soft sediment deformation folding.
JN11008	231.5	Bedding	76		Very thin laminated Limestone.
JN11008	234.47	Quartz-calcite vein	40		Coarse crystalline calcite-quartz vein, lower contact is brecciated, Trace Pyrite mineralization occurs within Limestone selvage and framework clasts @ FW contact.
JN11008	238.3	Chalcedonic quartz vein	45		Grey-blue quartz vein, weakly mineralized with Pyrite.
JN11008	239.25	Bedding	76		Thinly laminated Limestone.
JN11008	240.4	Chalcedonic quartz vein	36		White-grey quartz vein, weakly mineralized with Pyrite.
JN11008	247.29	Quartz stockwork veining	19		White-grey quartz, vein density of 15/meter.
JN11008	250.4	Bedding	62		Thin bedded Limestone.
JN11008	251.1	Bedding	24		Rotation of bedding - HW of bx zone - thin bedded Mudstone.
JN11008	252.8	Breccia	68		

DDH_ID	Depth of Structure (m)	Structure	Angle TCA (alpha)	Angle (beta)	Notes:
JN11008	253.2	Mineralized quartz vein	8		Quartz vein cross-cutting mineralized breccia. Pyrite, Sphalerite and Galena occur @ vein contacts, within Breccia matrix. Smokey grey - white quartz.
JN11008	254.3	Quartz Vein	19		Lower vein of quartz-stockwork - breccia zone. Angular clots of Py-ZnS-PbS occur within grey-white quartz.
JN11008	255.5	Bedding	42		Chalcedonic veining x-cuts bedding 90 degrees to strike of beds, veins are 40 TCA.
JN11008	256.65	Quartz-dolomite vein	6		Mineralized with Pyrite, and trace Sphalerite and Galena.
JN11008	258.86	Bedding	43		Thin bedded Mudstone.
JN11008	259.65	Dolomite vein	27		2.0 cm dolomite vein host to coarse grained Pyrite and Black Jack Sphalerite.
JN11008	260.95	Bedding	56		
JN11008	267.3	Quartz-dolomite veinlet	23		3 mm veinlet is host to pyrite mineralization.
JN11008	270.43	Mineralized quartz-carbonate vein	44		2.0 cm quartz-carbonate vein host to Py-PbS-ZnS min.
JN11008	271.7	Mineralized quartz-carbonate vein	48		2.0 cm vein, host to Py min. Cross-cut by Chalcedonic quartz vein @ 18 TCA.
JN11008	273.05	Mineralized chalcedonic vein	19		HW contact of dark grey-blue vein, the vein is folded - from 19 TCA to 170 TCA then back to 25 TCA.
JN11008	274.95	Chalcedonic veinlet	28		2 mm wide veinlet is mineralized with Pyrite.
JN11008	275.9	Mineralized quartz vein	20		Smokey grey quartz is host to Py-Aspy min.

DDH_ID	Depth of Structure (m)	Structure	Angle TCA (alpha)	Angle (beta)	Notes:
JN11008	277.27	Dolomite vein	24		Beige dolomite vein x-cutting a grey-white quartz vein, displaces the quartz vein 2.0 cm. VQ orientation is 47 TCA.
JN11008	282.1	Bedding	53		Thin bedded mudstone.
JN11009	5.37	Quartz Vein	83		7.0 cm quartz vein.
JN11009	6.6	Compositional layering	37		Thin bedded sandstone.
JN11009	9.8	Cleavage	28		Cleavage
JN11009	10.25	Mineralized veinlet	28		Quartz-pyrite vein.
JN11009	11.3	Mineralized breccia	30		Quartz-Biotite-Arsenopyrite-Pyrite veinlet.
JN11009	13	Cleavage	46		
JN11009	18.05	Fracture	5		Brittle fracture in medium grained sandstone.
JN11009	21.1	Breccia contact	45		Sharp, abrupt contact.
JN11009	24	Breccia contact	68		Sharp, abrupt contact.
JN11009	25.23	Mineralized fracture	74		Pyrite-biotite fracture.
JN11009	28.5	Mineralized Vein	41		Quartz-Biotite-Arsenopyrite vein.
JN11009	28.6	Compositional layering	26		
JN11009	31.5	Breccia contact	41		Py-Aspy min @ bx contact.
JN11009	34.1	Mineralized quartz vein	41		Aspy-Qtz vein.

DDH_ID	Depth of Structure (m)	Structure	Angle TCA (alpha)	Angle (beta)	Notes:
JN11009	34.58	Mineralized quartz vein	50		Aspy-Qtz vein.
JN11009	36.08	Cleavage	48		
JN11009	38.15	Compositional layering	19		Thin bedded mudstone.
JN11009	41.9	Fracture	62		Host to trace Py min.
JN11009	42.3	Brittle fractures	30		
JN11009	50.5	Mineralized quartz vein	22		Arsenopyrite-Quartz vein.
JN11009	51.3	Mineralized quartz vein	18		
JN11009	57.45	Compositional layering	34		Cleavage cuts compositional layering sub-parallel TCA.
JN11009	59.65	Quartz Vein	33		Parallel to compositional layering, moderately folded and brecciated contacts.
JN11009	60.1	Mineralized breccia	33		Aspy+Py Breccia.
JN11009	60.4	Mineralized quartz vein	24		Pyrite-Quartz vein.
JN11009	63.75	Mineralized quartz vein	24		Pyrite-Quartz vein.
JN11009	69.85	Compositional layering	36		Thin bedded, silicified siltstone.
JN11009	71.83	Quartz Vein	44		Bull quartz-stockwork zone.

DDH_ID	Depth of Structure (m)	Structure	Angle TCA (alpha)	Angle (beta)	Notes:
JN11009	72.7	Quartz Vein	10		Bull quartz.
JN11009	76.5	Compositional layering	34		
JN11009	77	Shear plane	34		5 cm of calcareous clay gouge with angular fragments of siltstone.
JN11009	80.13	Compositional layering	38		
JN11009	82.62	Pyrite veinlets	35		Pyrite veinlets occurs within 10 cm band of skarn alteration. Explotiting cleavage which is 90 degrees to bedding.
JN11009	84	Compositional layering	38		
JN11009	85.66	Cleavage	45		Coarse grained chloritic skarn infilling cleavage. 70 degrees TCA.
JN11009	86.68	Compositional layering	38		Compositional layering is x-cut by chloritic cleavage planes which are 148 degrees wrt CA. Beta angle between bedding and cleavage is 140 degrees looking down hole.
JN11009	87.8	Shear plane	39		Parallel to bedding @ contact b/w siltstone and argillic altered mudstone.
JN11009	91.5	Shear plane	25		FW contact to 30 cm of rubble/gouge.
JN11009	91.9	Mineralized quartz vein	35		Quartz-Pyrite-Arsenopyrite-Molybdenite vein. 1.0 cm thick.
JN11009	92.7	Shear plane	43		HW contact of mineralized breccia.
JN11009	93.2	Mineralized breccia	56		

DDH_ID	Depth of Structure (m)	Structure	Angle TCA (alpha)	Angle (beta)	Notes:
JN11009	94.15	Pyrite vein	43		2 mm pyrite vein in silicified breccia zone.
JN11009	98.17	Shear plane	44		10 cm rubble gouge in argillic altered mudstone.
JN11009	99.05	Fracture	10		brittle fracture zone, offsets mineralized quartz veins.
JN11009	101.5	Quartz Vein	39		Mm scale quartz veins occur through the interval @ 39-45 degrees TCA.
JN11009	108.1	Fracture	15		Brittle fracture set.
JN11009	119	Cleavage	47		QPC host.
JN11009	122.5	Mineralized quartz vein	52		Quartz-Arsenopyrite vein.
JN11009	123.9	Arsenopyrite vein	11		Arsenopyrite-Sphalerite vein.
JN11009	127.6	Pyrite-Sphalerite vein	5		Pyrite-Sphalerite-Arsenopyrite vein.
JN11009	128.15	Arsenopyrite vein	53		Arsenopyrite-Sphalerite vein.
JN11009	128.2	Arsenopyrite vein	20		Arsenopyrite-Sphalerite vein - Stockwork system has three dominant fracture sets, 5-12 degrees, 50-55 degrees, and 150-160 degrees.
JN11009	128.8	Quartz-Moly vein	38		White-grey quartz vein with trace Molybdenite.
JN11009	130.62	Arsenopyrite vein	50		Arsenopyrite-Sphalerite vein.
JN11009	132.72	Arsenopyrite vein	24		Arsenopyrite-Sphalerite vein.
JN11009	134.35	Pyrite vein	28		Pyrite vein.
JN11009	136.2	Pyrite-Pyrrhotite-Sphalerite vein	10		Boudinaged/sheared parallel to vein contacts.

DDH_ID	Depth of Structure (m)	Structure	Angle TCA (alpha)	Angle (beta)	Notes:
JN11009	137.8	Arsenopyrite vein	54		Arsenopyrite-Pyrite vein.
JN11009	139.75	Quartz-Molybdenite vein	46		2 mm vein, common orientation for these veins over the next 4 - 5 meters.
JN11009	139.85	Compositional layering	34		compositional layering x-cut by quartz-molybdenite vein. Difference in strike from composition layering to quartz-moly vein is 144 degrees looking downhole.
JN11009	140.15	Cleavage	34		
JN11009	142.7	Quartz-Molybdenite vein	58		Vein is cross-cutting compositional layering. The layering dips @ 158 degrees TCA, and has a difference in strike looking downhole of 130 degrees.
JN11009	145.1	Compositional layering	38		
JN11009	146.2	Quartz-Molybdenite vein	42		Smokey grey-white quartz vein.
JN11009	146.25	Fracture	50		Fracture within skarn, infilled with black chlorite.
JN11009	146.4	Quartz-Molybdenite vein	59		Smokey grey-white quartz vein.
JN11009	146.8	Quartz-Molybdenite vein	42		Smokey grey-white quartz vein.
JN11009	149.16	Quartz-calcite vein	62		
JN11009	149.36	Quartz Vein	54		
JN11009	150.87	Lithologic contact	37		Skarn/Argillic alteration zone contact
JN11009	151.5	Pyrite vein	20		

DDH_ID	Depth of Structure (m)	Structure	Angle TCA (alpha)	Angle (beta)	Notes:
JN11009	153.2	Cleavage	48		
JN11009	156.42	Quartz Vein	53		
JN11009	157.25	Pyrite vein	61		FW contact of vein.
JN11009	159.1	Quartz-Molybdenite vein	38		
JN11009	159.55	Quartz Stockwork veining	39		
JN11009	161.6	Quartz Stockwork veining	38		
JN11009	161.85	Quartz Stockwork veining	19		
JN11009	163.28	Quartz Stockwork veining	23		
JN11009	164.66	Quartz Stockwork veining	36		
JN11009	165.45	Quartz Stockwork veining	42		
JN11009	165.9	Quartz Stockwork veining	38		
JN11009	166.55	Quartz Stockwork veining	43		
JN11009	167.42	Quartz Stockwork veining	28		

DDH_ID	Depth of Structure (m)	Structure	Angle TCA (alpha)	Angle (beta)	Notes:
JN11009	169.9	Quartz Stockwork veining	30		Conjugate vein set @ 146 TCA.
JN11009	171.15	Quartz Stockwork veining	30		
JN11009	171.65	Quartz Stockwork veining	18		
JN11009	172.2	Quartz Stockwork veining	18		
JN11009	172.7	Quartz Stockwork veining	26		
JN11009	172.9	Quartz Stockwork veining	32		
JN11009	175.26	Quartz Stockwork vein	24		Pyrite + Hematite occur @ vein contacts.
JN11009	176.2	Quartz Stockwork vein	18		
JN11009	178.35	Brittle fracture	36		Infilled with black chlorite.
JN11009	178.4	Brittle fracture	56		Infiled with black chlorite.
JN11009	179.2	Quartz Vein	18		Pyrite + Hematite occur @ vein contacts.
JN11009	179.4	Brittle fracture	12		1.5 cm wide, infilled with black chlorite gouge. Conjugate fractures 46 TCA.
JN11009	181.8	Quartz Vein	22		
JN11009	181.88	Quartz Vein	28		

DDH_ID	Depth of Structure (m)	Structure	Angle TCA (alpha)	Angle (beta)	Notes:
JN11009	182	Gouge	58		10 cm of angular grit-pebble sized framework clasts in black chloritic gouge.
JN11009	182.42	Fracture	20		soft green chloritic gouge @ quartz vein contacts.
JN11009	182.65	Quartz Vein	21		Pyrite + Hematite @ vein contacts.
JN11009	184.9	Fracture	47		
JN11009	185.6	Quartz Vein	20		FW contact.
JN11009	186.3	Quartz Vein	21		
JN11009	187.36	Magnetite banding	31		
JN11009	189.55	Fracture	37		Fractures overprint skarn and magnetite mineralization - light green mineral.
JN11009	189.66	Quartz Vein	22		
JN11009	191.63	Quartz Vein	28		
JN11009	192.33	Quartz Vein	30		
JN11009	194.5	Fracture	4		
JN11009	194.92	Fracture	26		
JN11009	197.7	Fracture	38		2 mm pyrrhotite veinlet.
JN11009	199.66	Quartz Vein	17		
JN11009	201.4	Fracture	21		Black chloritic fracture with chalcopyrite smeared on fracture surface.
JN11009	202.8	Quartz Vein	17		Quartz-pyrite-molybdenite vein.
JN11009	204.95	Quartz Vein	33		Quartz-pyrite-molybdenite vein.

DDH_ID	Depth of Structure (m)	Structure	Angle TCA (alpha)	Angle (beta)	Notes:
JN11009	205.35	Quartz Vein	52		Quartz-pyrite-molybdenite vein.
JN11010	25.9	Compositional layering	49		
JN11010	26.65	Fracture	58		Mineralized 2 mm fracture.
JN11010	27.67	quartz veinlet	26		Mineralized 3 mm quartz vein.
JN11010	27.9	Compositional layering	39		
JN11010	29.2	Quartz Vein	26		4 cm wide boudinaged quartz vein.
JN11010	31.7	Mineralized fracture	23		
JN11010	33	Fracture	16		
JN11010	33.65	Fracture	10		
JN11010	36.2	Compositional layering	24		
JN11010	38.5	Compositional layering	40		
JN11010	42.55	Pyrite veinlet	21		
JN11010	43.25	Fracture	23		
JN11010	44.4	Lithologic contact	33		Siltstone/Sandstone contact @ HW of mineralized zone.
JN11010	45.42	Arsenopyrite vein	32		2 mm wide arsenopyrite vein.
JN11010	45.45	Arsenopyrite vein	0		2 mm wide arsenopyrite vein.

DDH_ID	Depth of Structure (m)	Structure	Angle TCA (alpha)	Angle (beta)	Notes:
JN11010	47	Arsenopyrite vein	24		1 mm wide arsenopyrite vein.
JN11010	48.1	Fractures	28		FW contact of mineralized zone, biotite-sphalerite-arsenopyrite occur along fractures adjacent to fracture orientation.
JN11010	50.05	Fracture	41		
JN11010	51.1	Fracture	51		
JN11010	53.17	Compositional layering	62		
JN11010	53.21	pyrrhotite band	57		0.5 cm wide pyrrhotite band.
JN11010	53.65	Fracture	54		10 cm clay gouge
JN11010	54	Fracture	46		
JN11010	54.4	Quartz-calcite vein	13		
JN11010	55.75	Quartz-calcite vein	19		
JN11010	58.2	Quartz-calcite-pyrite vein	19		
JN11010	59.54	Pyrite vein	7		
JN11010	60.02	Fracture	59		
JN11010	60.7	Compositional layering	53		
JN11010	61.4	Compositional layering	44		
JN11010	66.3	Micro breccia	32		

DDH_ID	Depth of Structure (m)	Structure	Angle TCA (alpha)	Angle (beta)	Notes:
JN11010	69.03	Compositional layering	48		
JN11010	76.8	Compositional layering	43		
JN11010	77.9	Fracture	8		Infilled with epidote.
JN11010	78.16	Compositional layering	65		
JN11010	82.8	Fracture	34		Orientation of Skarn alteration filled fractures.
JN11010	84.75	Veinlet	58		Infilled with pyroxene.
JN11010	85.83	Compositional layering	52		
JN11010	87.82	Compositional layering	46		
JN11010	91	Mineralized fracture	35		
JN11010	92.45	Mineralized breccia	28		
JN11010	95.5	Fracture	10		
JN11010	95.7	Fracture	0		
JN11010	98.4	Mineralized Vein	39		Pyrite-Pyrrhotite vein - 2 mm wide.
JN11010	100.85	Mineralized Vein	20		Pyrite-Pyrrhotite vein - 3 mm wide.
JN11010	101.7	Fracture	33		

DDH_ID	Depth of Structure (m)	Structure	Angle TCA (alpha)	Angle (beta)	Notes:
JN11010	103.1	Compositional layering	44		
JN11010	103.4	Cleavage	30		
JN11010	108.26	Compositional layering	38		
JN11010	110.5	Fracture	3		
JN11010	111.32	Fracture	45		
JN11010	112.05	Fracture	31		
JN11010	113.2	Fracture	15		
JN11010	113.6	Fracture	18		
JN11010	116.35	Fracture	29		
JN11010	116.4	Fracture	48		
JN11010	116.5	Fracture	37		
JN11010	118.52	Compositional layering	28		Observed as change from silicified QPC to skarn altered sandy limestone.
JN11010	120.46	Fracture	40		
JN11010	122.35	Cleavage	17		Cm-dm scale cleavage - amphibole min occurs along cleavage planes.
JN11010	123.23	Fracture	58		
JN11010	126.3	Cleavage	31		
JN11010	128.6	Fracture	27		

DDH_ID	Depth of Structure (m)	Structure	Angle TCA (alpha)	Angle (beta)	Notes:
JN11010	134.47	Lithologic contact	27		QPC-Siltstone contact.
JN11010	136.8	Compositional layering	42		
JN11010	141.47	Compositional layering	44		
JN11010	143.7	Gouge	43		
JN11010	144.78	Alteration front	0		Argillic alteration overprinting skarn - wavy contact which varies from 0-20 TCA.
JN11010	144.92	Chloritic fracture	36		
JN11010	146.2	Quartz-pyrite vein	16		
JN11010	146.8	Gouge	20		FW contact of skarn.
JN11010	148.39	Quartz Vein	53		Trace Molybdenite.
JN11010	149.65	Quartz Vein	18		Trace Molybdenite.
JN11010	151.31	Fracture	23		
JN11010	152.75	Quartz Vein	31		HW contact.
JN11010	153.68	Quartz Vein	23		FW contact.
JN11010	158.08	Quartz Vein	18		Molybdenite+Chalcopyrite
JN11010	159.13	Quartz veinlet	61		
JN11010	160.25	Quartz veinlet	28		
JN11010	162.5	Arsenopyrite vein	40		Within large quartz stockwork zone.
JN11010	165	Breccia	3		Late-stage x-cutting breccia.

DDH_ID	Depth of Structure (m)	Structure	Angle TCA (alpha)	Angle (beta)	Notes:
JN11010	167.4	Mineralized breccia	12		
JN11010	168.3	Mineralized breccia	18		
JN11010	169	Mineralized breccia	7		Massive Arsenopyrite-Pyrite min.
JN11010	170.05	Mineralized breccia	29		
JN11010	170.7	Mineralized breccia	18		
JN11010	170.92	Mineralized breccia	53		
JN11010	171.23	Mineralized breccia	51		
JN11010	171.86	Mineralized breccia	30		
JN11010	171.9	Mineralized breccia	60		
JN11010	173.25	Mineralized breccia	21		
JN11010	173.35	Mineralized breccia	48		
JN11010	173.5	Mineralized breccia	16		
JN11010	173.98	Mineralized breccia	18		
JN11010	174.14	Mineralized breccia	18		
JN11010	176.5	Quartz Vein	46		
JN11010	176.78	Mineralized quartz vein	86		
JN11010	177.15	Massive py	15		
JN11010	178.4	Mineralized quartz vein	18		

DDH_ID	Depth of Structure (m)	Structure	Angle TCA (alpha)	Angle (beta)	Notes:
JN11010	179.15	Shear plane	2		At contact with mineralized quartz vein.
JN11010	180.09	Mineralized quartz vein	43		
JN11010	183.05	Mineralized quartz vein	12		
JN11010	183.7	Mineralized quartz vein	18		
JN11010	188.45	Mineralized quartz vein	19		
JN11010	190.1	Mineralized quartz vein	20		Host to fg Jamesonite.
JN11010	190.95	Mineralized quartz vein	18		Host to fg Jamesonite.
JN11010	196.57	quartz veinlet	15		
JN11010	198.12	quartz veinlet	21		
JN11010	200.6	Quartz Vein	7		HW contact of Quartz-Molybdenite vein.
JN11010	202.75	Fracture	6		
JN11010	204.3	Quartz Vein	14		
JN11010	205.95	Quartz Vein	22		
JN11010	206.33	Quartz Vein	23		
JN11010	206.6	Quartz Vein	52		
JN11010	208.4	Quartz Vein	18		

DDH_ID	Depth of Structure (m)	Structure	Angle TCA (alpha)	Angle (beta)	Notes:
JN11010	208.41	Quartz Vein	32		
JN11010	209.23	Quartz Vein	31		
JN11010	211.04	Mineralized quartz vein	21		Quartz+Arsenopyrite+Jamesonite vein @ HW contact of Kqm.
JN11010	212.6	Quartz stockwork vein	28		
JN11010	213	Bedding	8		
JN11010	213.2	Bedding	0		
JN11010	213.5	Bedding	26		
JN11010	213.8	Bedding	28		
JN11010	215.05	Quartz stockwork vein	15		
JN11010	217.2	Mineralized quartz vein	22		Quartz+Sphalerite+Arsenopyrite vein @ FW contact of Kqm. Difference in strike from beds is 150 degrees looking down hole.
JN11010	217.4	Lithologic contact	31		Kqm/PCH2 difference in strike looking down hole from Kqm to PCH is 90 degrees.
JN11010	218.15	Compositional layering	49		
JN11010	219.65	Fracture	18		
JN11010	221.02	Compositional layering	47		
JN11010	223.5	Fracture	29		

DDH_ID	Depth of Structure (m)	Structure	Angle TCA (alpha)	Angle (beta)	Notes:
JN11010	232.95	Compositional layering	42		
JN11010	233	Cleavage	38		
JN11010	235	Fracture	10		Cm - dm frequency, infilled with silica.
JN11010	235.5	Breccia	7		
JN11010	236.16	Compositional layering	41		
JN11010	239.5	Compositional layering	40		At contact b/w mudstone and sandstone en-echelon tension fractures occur @ 2 TCA, cm scale frequency. Suggesting dextral strike slip b/w the beds.
JN11010	240.8	Quartz Vein	16		
JN11010	242.31	Bedding	36		
JN11010	242.8	Bedding	58		
JN11010	244.3	Gouge	32		10 cm gouge @ contact b/w siltstone and sandstone.
JN11010	244.65	Compositional layering	38		
JN11010	246	Gouge	33		10 cm gouge - powdery white in color.
JN11010	248.95	Fracture	17		5 mm clay gouge.
JN11010	249.9	Compositional layering	40		2-5 mm shear planes parallel to compositional layering over 20 cm.
JN11010	253.8	Cleavage	61		
JN11009	207.2	Quartz Vein	21		Quartz-calcite vein.

DDH_ID	Depth of Structure (m)	Structure	Angle TCA (alpha)	Angle (beta)	Notes:
JN11009	211.1	alteration front	54		Skarn-Argillic alteration transition - sharp, but irregular.
JN11009	211.65	Mineralized breccia	67		HW contact of Pyrite-Arsenopyrite-Pyrrhotite-Chalcopyrite-Molybdenite Bx.
JN11009	212.4	Mineralized breccia	32		FW contact of Pyrite-Arsenopyrite-Pyrrhotite-Chalcopyrite-Molybdenite Bx.
JN11009	213.6	Quartz Vein	24		HW contact of quartz-pyrite-molybdenite vein.
JN11009	216.35	Pyrite vein	41		
JN11009	217.34	Quartz Vein	12		Quartz stockwork veining @ 168 tca and 31 TCA.
JN11009	218.2	Pyrite veinlet	53		
JN11009	220.3	Compositional layering	21		Within strongly sheared/altered interval.
JN11009	222.65	Gouge	87		Clay gouge/fractured pyrite vein - @ contact with skarn.
JN11009	222.75	Fracture	40		
JN11009	223.45	Pyrite vein	90		1.5 cm thick band of massive pyrite.
JN11009	224.14	Fracture	3		Black chloritic fractures @ 21 and 177 degrees TCA.
JN11009	224.5	Fracture	25		Black chloritic fracture.
JN11009	226.5	Quartz Vein	38		5 cm wide quartz-pyrite vein.
JN11009	227.23	Fracture	40		Black chloritic fracture.
JN11009	229.46	Fracture	14		Black chloritic fracture.

DDH_ID	Depth of Structure (m)	Structure	Angle TCA (alpha)	Angle (beta)	Notes:
JN11009	230.8	Quartz Vein	24		HW contact of quartz-pyrite vein.
JN11009	233	Alteration front	88		Skarn/Argillic alteration front - contact is sharp but irregular.
JN11009	233.5	Quartz stockwork veining	42		
JN11009	237.87	Pyrite veinlet	29		
JN11009	239.3	Quartz Vein	47		
JN11009	240.78	Compositional layering	33		Quartz-molybdenite vein x-cuts compositional layering @ 34 degrees tca. Difference in strike of vein - compositional layering is 36 degrees.
JN11009	244.94	Compositional layering	46		
JN11009	246.1	Quartz-calcite vein	49		Quartz-Moly-Bismuthinite vein.
JN11009	248.2	Cleavage	60		
JN11009	249.6	Compositional layering	43		
JN11009	252.63	Compositional layering	28		
JN11009	257.75	Compositional layering	24		
JN11009	266.33	Compositional layering	24		
JN11009	270	Cleavage	43		

DDH_ID	Depth of Structure (m)	Structure	Angle TCA (alpha)	Angle (beta)	Notes:
JN11009	273.7	Brittle fractures	56		Fracture density > 20/m over 3.0 meter interval. Infilled with Calcite.
JN11009	276.03	Fracture	29		Sharp, planar, infilled with calcite.
JN11009	278.2	Fracture	59		
JN11009	279	Fracture	26		Fracture density > 30/meter within sandstone.
JN11009	279.9	Quartz Vein	27		Off-set by calcite fracture @ 73 degrees.
JN11009	280	Fractures	47		Brittle fractures > 30/m. Orientation changes from 40-70 TCA. Blocky, rubble over 5.0 meters.
JN11009	287.4	Compositional layering	20		
JN11009	290.04	Compositional layering	18		
JN11009	290.95	Fracture	44		Brittle fracture - infilled with sericite and calcite.
JN11009	291.55	Fracture	41		Brittle fracture - infilled with sericite and calcite.
JN11009	291.6	Fracture	23		Brittle fracture - infilled with sericite and calcite.
JN11010	7.8	Bedding	56		Contact b/w QPC and Siltstone.
JN11010	11.3	Fracture	8		
JN11010	17.45	Fracture	7		Infilled with calcite.
JN11010	18.2	Quartz Vein	36		HW contact of 45 cm bull white quartz vein.
JN11010	19.87	Quartz Vein	64		0.5 cm bull white quartz vein.

DDH_ID	Depth of Structure (m)	Structure	Angle TCA (alpha)	Angle (beta)	Notes:
JN11010	22.2	Compositional layering	21		
JN11010	22.6	Gouge	42		Clay gouge @ contact b/w siltstone and QPC.
JN11010	23.73	Fracture	10		Fracture within QPC is host to Pyrite min.
JN11010	24.45	Slickenside	14		Slickenside @ HW contact of mineralized fracture zone.
JN11010	25.23	Fracture	53		Fracture is FW contact of mineralized fracture zone. 2 - 4 mm of brownish clay gouge is present on the fracture.

Appendix 4.1.5 - Veining Intervals

Thursday, November 24, 2011

DDH ID	From(m)	To(m)	Density(/m)	Width(cm)	Angle	Colour	Grain Size	Texture	Mineralogy	Mineralogy2	Mineralogy3	Alt1 Type	Alt2 Type	Alt Setting:	Note:
JN11001	98.25	101.8	15	1	28	white	fine	CRYSTALLINE	Calcite						Occur throughout unit just especially numerous in this interval
JN11001	120.63	120.7	0	5		white	fine	CRYSTALLINE	Quartz						One fairly thick quartz vein with pyrite mineralization
JN11001	130.03	133	4	5	45	white	fine	CRYSTALLINE	Quartz	Calcite					Hosting aspy + po + py
JN11001	190.4	200.45	2	30	31	white	fine	STOCKWORK	Quartz	Sericite	Fe Carbonate				Sections of phyllite intermitant with veins, highly sericite altered. Biotite fracture fills throughout spotty epidote. Pyrite in fractures, blebby Po in up to 1cm, mainly 2.5mm in size.
JN11002	107.2	108.4	10	1	43	greyish	fine	STOCKWORK	Pyrite	Quartz					Mainly pyrite overprinting what looks to have been quartz veinlets. Not quite breccia but close.
JN11002	148.14	164	1	20	4	white	fine	FRACTURED	Quartz	Pyrite	Diopside				Sphalerite pickish hue with mettalic silver sheen at parts. Also some of the green mineral diopside looks more like actinolite.
JN11004	16.26	18	5	10	67	grey	fine	MASSIVE	Carbonate			Skarn			
JN11004	18	23.7	4	10	58	white	fine	FRACTURED	Quartz	Calcite					Moly + Py
JN11004	30.9	38.5	3	25	18	white	fine	FRACTURED	Quartz	Pyrite	Arsenopyrite				
JN11004	77.8	96	1	200	54	white	fine	MASSIVE	Quartz	Feldspar					
JN11005	97.15	103.4	2	15	34	white	fine	FRACTURED	Quartz	Pyrite					Not all veins mineralized but there this very fine grained black semi-mettalic mineral in all of them. (bismuthenite?) Seems too hard but it is a possibility
JN11007	9.48	13.05	1	25	14	white	fne	FRACTURED	Quartz						Pyrite, pyrrhotite
JN11007	27.33	33.06	1	15	29	white	fine	FRACTURED	Quartz						Pyrite

DDH ID	From(m)	To(m)	Density(/m)	Width(cm)	Angle	Colour	Grain Size	Texture	Mineralogy	Mineralogy2	Mineralogy3	Alt1 Type	Alt2 Type	Alt Setting:	Note:
JN11007	79.69	85.08	4	15	35	white	fine	BOUDINAGE	Quartz	Calcite	Pyrite	Calc Silicate			Py + Po. Vein size and orientation varies.
JN11008	12.9	13.35	1	1.5	10	white	fine-medium	FRACTURED	Quartz	Dolomite		Limonite		Envelope	Fine to medium grained Pyrite occurs @ vein contacts. Limonite alteration partially replaces Pyrite as an envelope.
JN11008	14	14.5	1	1	25	white	fine-medium	FRACTURED	Quartz	Chlorite	Dolomite	Limonite		Fractures	Medium to coarse grained Pyrrhotite and Chalcopyrite occur as clots through out the vein.
JN11008	19.45	21.8	3	5	12	white	very fine-fine	MULTISTAGE	Quartz	Dolomite		Limonite		Fractures	The veins are multi-stage, milky quartz is cross-cut by grey-blue chalcedony veinlets. Very fine to fine grained pyrite is disseminated through out the quartz.
JN11008	23.52	24.65	2	2.5	18	white	fine-medium	STOCKWORK	Quartz	Dolomite		Limonite		Fractures	The veins are weakly boudinaged, contacts are strongly silicified.
JN11008	24.9	27.1	3	1	10	grey	very fine-fine	STOCKWORK	Quartz	Dolomite		Limonite		Envelope	The interval is a multi-stage vein stockwork zone. White fine-medium grained quartz veins are cross-cut by grey-blue chalcedony quartz veinlets 1 - 5 mm wide.
JN11008	28.6	29.05	6	0.3	58	grey	very fine	STOCKWORK	Quartz			Limonite		Envelope	The quartz veins are unaltered, the adjacent QPC is strongly altered.
JN11008	30.07	30.4	1	1.5	16	white	fine	VUGGED	Quartz						Vugs measure 2 - 15 mm in size. Coarse grained Pyrite envelopes vugs.
JN11008	40.5	40.8	1	3	12	white	fine-medium	FRACTURED	Quartz	Dolomite		Limonite		Fractures	
JN11008	43.9	44.3	1	1.5	6	white	fine	FRACTURED	Quartz						Fine grained pyrite mineralization occurs through out the quartz vein.
JN11008	48.3	62.7	2	0.5	65	grey	very fine-fine	STOCKWORK	Quartz						Quartz vein stockwork zone, chalcedonic veining is grey-blue-white in color. Average vein orientation is 65 degrees, but also occur at 10-50 TCA. The vein set is weakly mineralized with Pyrite. The host rock is strongly silicified.
JN11008	62.7	63	1	25	55	grey	fine	MULTISTAGE	Quartz	Calcite					White-grey chalcedonic quartz vein overprinting a milky white-grey quartz vein. Calcite occurs along microfractures and is poorly developed.
JN11008	63.35	66	1	2	45	grey	fine	CHALCEDONIC	Quartz						White-grey quartz veins. Contacts are strongly silicified.

DDH ID	From(m)	To(m)	Density(/m)	Width(cm)	Angle	Colour	Grain Size	Texture	Mineralogy	Mineralogy2	Mineralogy3	Alt1 Type	Alt2 Type	Alt Setting:	Note:
JN11008	66	80.7	5	0.2	33	grey	fine-medium	STOCKWORK	Pyrite	Calcite	Quartz				Grey-white Pyrite-Calcite-Quartz stringer veins 1 - 5 mm in size, anastomosing net-textured veinlets.
JN11008	73.75	74	1	2	15	grey	fine-coarse	MASSIVE	Pyrite	Carbonate	Quartz				Semi-massive pyrite occurs within quartz-carbonate vein.
JN11008	81.9	82	1	10	27	white	fine	BULL	Quartz						The quartz vein is weakly mineralized by pyrite @ vein contacts. The surrounding wall rock is strongly sericite bleached.
JN11008	84.8	89.85	2	5	70	white	fine-medium	STOCKWORK	Quartz	Calcite					Quartz-Calcite stockwork veining is host to Pyrite mineralization. 70 degrees is an average vein angle, but the veins cut c/a @ 90 degrees, 45 degrees, 10 degrees, 0 degrees. Veins are boudinaged, and weakly folded.
JN11008	89.85	98.85	1	2	40	white	fine	STOCKWORK	Calcite	Quartz					Quartz-Calcite stockwork veining is part of the same system as described in the previous interval. The veins decrease in size within the mudstone host, compared to limestone in the previous interval.
JN11008	108.7	114.9	2	0.5	25	white	fine	CRACKLE	Calcite	Rhodocrosite	Quartz				The veins are weakly mineralizad. Crackle veins are related to localized shear zones.
JN11008	130.4	131	1	1	5	white	fine	VUGGED	Quartz	Fe-Carbonate		Limonite		Vug fill	White bull quartz, Fe-Carbonate leached from vein, replaced by limonite after trace pyrite.
JN11008	131.75	132	1	1	20	white	fine	VUGGED	Quartz	Fe-Carbonate		Limonite		Vug fill	As above.
JN11008	135.5	135.52	1	2	90	grey	fine	FRACTURED	Quartz	Calcite	Pyrite				Smokey grey quartz vein with 2 mm wide ribbons of Pyrite parallel to vein contacts. Vein is strongly fractured.
JN11008	139	140.1	2	1.5	14	white	fine	BULL	Quartz	Fe-Carbonate					
JN11008	142.8	143.6	4	2	36	grey	fine	CHALCEDONIC	Quartz	Carbonate					The chalcedonic veins cross cut intensely silicified QPC. Pyrite occurs as fine grained disseminations within the veins.

DDH ID	From(m)	To(m)	Density(/m)	Width(cm)	Angle	Colour	Grain Size	Texture	Mineralogy	Mineralogy2	Mineralogy3	Alt1 Type	Alt2 Type	Alt Setting:	Note:
JN11008	154.15	157.6	3	1	25	grey	fine	STOCKWORK	Quartz	Dolomite		Limonite		Envelope	Grey blue to white chalcedonic quartz, and white beige quartz-dolomite veins occur as a net-textured stockwork through the interval, vein orientations change from 0 - 35 degrees TCA. Fine grained euhedral Arsenopyrite occurs within and adjacent to the quartz veins. Drusy vugs occur within the chalcedonic quartz veins.
JN11008	168.33	176.5	8	7	70	white	fine	STOCKWORK	Quartz	Calcite					The true thickness of this zone is unknown due to poor core recoveries. The chalcedonic quartz veins are white-grey blue in color, and occur at high angles TCA (60-90 degrees). The calcite crackle veins cross-cut the chalcedonic quartz veins. Trace Pyrite mineralization occurs within the veins.
JN11008	179.8	194.8	3	0.5	60	white	fine-medium	CRACKLE	Calcite						Calcite crackle veins for net-textured vein swarms that cross-cut the thin bedded limestone. Weak pyrite mineralizaiton is associated with the veins,
JN11008	197.85	198.2	1	30	44	white	fine-medium	FRACTURED	Calcite						Angular fragments of limestone occur through out the vein.
JN11008	198.5	207.8	5	3	30	white	fine-coarse	STOCKWORK	Calcite						White, crystalline calcite veinlets cross-cut bedding, and occur bedding parallel, scattered through out the interval. Weak Pyrite mineralization occurs @ vein contacts.
JN11008	213.65	221.15	4	1	65	white	fine-medium	STOCKWORK	Calcite	Quartz					White-blue, crystalline calcite-quartz veins. The vein set ranges in thickness from 0.5 cm to 5.0 cm, vein density ranges from 3 - 6 veins/meter. Limestone selvages occur as fine partings parallel to vein contacts. Veins are host to trace Pyrite mineralization.
JN11008	221.16	224.75	12	1	53	white	fine-medium	STOCKWORK	Calcite	Quartz					As described in the previous interval. Veins are boudinaged.
JN11008	224.76	232.8	2	1	35	white	fine-coarse	STOCKWORK	Calcite	Quartz					As described above. Veins range in thickness from 0.5 - 10.0 cm, and are widely scattered through out the interval. Veins occur @ 0 TCA, 30 TCA, 70 TCA and 90 TCA.
JN11008	234.42	235.56	1	114	54	white	coarse	VUGGED	Calcite	Quartz					Coarse crystalline calcite +/- quartz vein, lower contact is brecciated, and vugged. Trace Pyrite mineralization occurs at FW contact within Limestone vein selvage.

DDH ID	From(m)	To(m)	Density(/m)	Width(cm)	Angle	Colour	Grain Size	Texture	Mineralogy	Mineralogy2	Mineralogy3	Alt1 Type	Alt2 Type	Alt Setting:	Note:
JN11008	239	241.55	2	5	50	grey	fine	CHALCEDONI C	Quartz						Grey-Blue chalcedonic quartz veins range in size from 0.5 - 10.0 cm, and average 3 veins/meter. Trace Pyrite mineralization observed within the veins @ contacts with Limestone.
JN11008	244.1	248	5	1.5	60	grey	fine	CHALCEDONI C	Quartz						Grey-White quartz. The quartz-stockwork veining is barren, no visible mineralization within quartz or wallrock. In places the veins are vugged.
JN11008	251.85	252.5	4	1.5	25	white	fine-coarse	STOCKWORK	Calcite	Quartz					The crackle veins are weakly mineralized with Pyrite, Sphalerite and Galena.
JN11008	253.25	255.62	4	3	12	grey	fine-coarse	STOCKWORK	Quartz	Calcite					The quartz veins range in thickness from 1 - 20 cm in true thickness. Vein orientation changes from 12 - 70 degrees TCA across the interval. Grey-blue quartz is chalcedonic.
JN11008	256.31	257.1	1	0.5	8	white	fine- medium	SHEARED	Quartz	Calcite	Pyrite				Pyrite and Calcite are the primary vein matrix.
JN11008	258	260.75	2	1	35	white	fine-coarse	STOCKWORK	Quartz	Dolomite	Pyrite				Dolomite-Quartz veins are scattered through the interval. Often the veins host angular framework clasts of Mudstone. Pyrite, Sphalerite, and Galena are hosted by the dolomite-quartz gangue.
JN11008	260.76	265.6	10	0.2	45	grey	fine	FRACTURES	Pyrite	Quartz					Net-textured, anastomosing Pyritic fractures occur through out the Mudstone. Pyrite is weakly disseminated through Mudstone @ contacts with Pyrite veinlets.
JN11008	265.61	270.4	5	0.2	30	grey	fine- medium	FRACTURES	Quartz	Dolomite	Pyrite				Fracture fill veinlets x-cut the interval and are host to Pyrite, and trace Sphalerite-Galena mineralization. 30 TCA is an average of orientations which vary from 10 - 50 TCA. Veins are responsible for strong silicification and moderate sericitization of the interval.
JN11008	270.4	273.05	3	1.5	46	white	fine	STOCKWORK	Quartz			Silica		Envelope	Pearly white quartz is host to Pyrite+/-PbS+/-ZnS mineralization. Veins cut c/a @ 28, 36, 46, and 50 degrees. Veins are sheared in places, with local offsets of 1-3 cm.

DDH ID	From(m)	To(m)	Density(/m)	Width(cm)	Angle	Colour	Grain Size	Texture	Mineralogy	Mineralogy2	Mineralogy3	Alt1 Type	Alt2 Type	Alt Setting:	Note:
JN11008	273.05	273.7	2	5	19	grey	very fine	CHALCEDONI C	Quartz			Silica		Envelope	Dark grey-blue chalcedonic quartz is host to Pyrite-Arsenopyrite mineralization. The vein has been folded - Z-structure. Angular framework clasts of silicified sandstone occur within the quartz vein.
JN11008	273.71	275.6	3	0.5	29	grey	very fine	CHALCEDONI C	Quartz			Silica		Envelope	Dark grey-blue chalcedonic quartz as above. Host to Pyrite mineralization. Veinlets occurs as microbreccias < 5 mm wide, and vary in orientations from 29 TCA to 72 TCA.
JN11008	275.61	276.2	2	2	21	grey	very fine- fine	MULTISTAGE	Quartz			Silica		Envelope	Dark grey chalcedonic quartz x-cutting pearly white quartz. Both veins are of the same orientation. The HW contact is crackle brecciated. Pyrite and Arsenopyrite mineralization occur within the grey phase of the quartz vein, Pyrite occurs in the white phase.
JN11008	276.21	283.36	2	0.3	30	white	fine	FRACTURES	Quartz	Dolomite		Silica		Envelope	White-beige 0.1-0.5 mm crackle veins/veinlets x-cut the interval @ 20, 33, and 42 degrees. The veinlets are mineralized with Pyrite.
JN11009	5.37	5.42	1	5	71	white	fine	BULL	Quartz						
JN11009	8.5	8.95	1	10	22	white	fine	SHEARED	Quartz						Trace Pyrite/Pyrrhotite occur within the vein.
JN11009	11.5	13	3	2	28	white	fine	FRACTURED	Quartz	Dolomite					Trace Pyrite mineralization.
JN11009	19	20.45	3	5	59	white	fine	STOCKWORK	Quartz			Silica	Clay	Envelope	Partial clay alteration of feldsar within gritty sandstone.
JN11009	24	28.3	10	0.2	70	grey	fine	CRACKLE	Pyrite	Biotite	Quartz	Sericite		Envelope	Net-textured pyritic stockwork fractures, vein orientations vary from 30 - 80 degrees, average approximately 70 degrees.
JN11009	28.31	28.42	1	11	35	grey	fine- medium	NONE	Quartz	Biotite	Arsenopyrite	Silica		Envelope	Biotite-Quartz vein is dark grey-brown in color. Aspy - Py mineralization occurs @ FW contact.

DDH ID	From(m)	To(m)	Density(/m)	Width(cm)	Angle	Colour	Grain Size	Texture	Mineralogy	Mineralogy2	Mineralogy3	Alt1 Type	Alt2 Type	Alt Setting:	Note:
JN11009	33.85	34.7	2	2	41	white	fine	SHEARED	Quartz	Biotite	Arsenopyrite	Silica		Envelope	Quartz+/-biotite+/-coarse grained Aspy veins occur through the interval @ 41 degrees and 50 degrees. The veins are cross-cut by pyritic-biotite veinlets @ 70-80 degrees TCA. The veins were sheared while being intruded into the sediments, angular-subangular framework clasts occur within the veins.
JN11009	50.5	51.3	3	0.5	21	grey	fine-medium	FRACTURED	Quartz	Arsenopyrite		Silica	Sericite	Envelope	Quartz+Arsenopyrite veins, 19-22 degrees TCA. 2 - 15 mm in thickness. Sericite alteration envelopes veins, light-dark olive green-grey in color.
JN11009	59.2	67.7	2	1	33	grey	fine-medium	STOCKWORK	Quartz	Dolomite	Biotite	Silica	Sericite	Envelope	Quartz veins occur from 24-33 degreesTCA, and range in thickness from 1 - 15 cm, with an average of 2.0 cm. White-smokey grey quartz is host to Pyrite-Arsenopyrite-Molybdenite mineralization. Angular to subangular framework clasts of mudstone occur within the veins. Intense argillic-phyllic alteration of wallrock occurs as vein envelope. The lower 3.0 meters of the interval is strongly fractured.
JN11009	71.9	75.5	6	0.2	45	white	fine	BULL	Quartz			Silica	Biotite	Envelope	Bull white quartz vein stockwork, contacts are silicified, and biotite altered. Biotite occurs as selvege within veins. Trace Pyrite observed within chloritic veins.
JN11009	87.8	92.65	2	0.5	36	grey	fine-medium	SHEARED	Quartz			Sericite	Clay	Envelope	Quartz+Pyrite+Arsenopyrite+/-Molybdenite veinlets are both planar and strongly sheared across the interval. Wallrock is intensely, and pervasively altered.
JN11009	94	96	10	0.2	70	grey	fine-medium	STOCKWORK	Pyrite	Quartz		Silica			Pyrite fracture fill veins occur as stockwork zone within strongly silicified QPC. Pyrite is also disseminated through out the matrix of the QPC.
JN11009	96	105.15	5	0.2	35	white	fine	STOCKWORK	Quartz			Silica		Envelope	Quartz veins occur through out the interval and range in thickness from 1-10 mm. Trace Pyrite and Molybdenite occur within the veins.
JN11009	105.15	122.8	1	0.3	30	white	fine	CRACKLE	Quartz			Silica		Envelope	Quartz veins are scattered through the interval, rare pyrite and molybdenite mineralization occur within the veins.

DDH ID	From(m)	To(m)	Density(/m)	Width(cm)	Angle	Colour	Grain Size	Texture	Mineralogy	Mineralogy2	Mineralogy3	Alt1 Type	Alt2 Type	Alt Setting:	Note:
JN11009	122.8	136.6	3	0.3	50	grey	fine-coarse	STOCKWORK	Arsenopyrite	Sphalerite	Pyrite	Silica	Sericite	Envelope	Arsenopyrite-Sphalerite-Pyrite-Galena+/- Quartz occur as stockwork veins and veinlets. Refer to structure log for vein set measurements. Rare Quartz veins < 1.0 cm occur through the interval and are host to Molybdenite. The sulphide veinlets are drusy in places, with minor silica infilling the vugs.
JN11009	139.5	145.85	7	0.2	58	white	fine-medium	STOCKWORK	Quartz	Calcite	Chlorite	Silica	Biotite	Envelope	Quartz stockwork veining is host to trace Molybdenite mineralization.
JN11009	145.86	150.9	3	1	40	grey	fine	STOCKWORK	Quartz	Calcite		Silica	Sericite	Envelope	Quartz veins occur through the interval from 39-54 degrees TCA. Quartz is dark smokey grey - white in color. Very fine grained Molybdenite occurs disseminated through quartz @ vein contacts. Rare epidote occurs as vein envelope. Quartz-calcite-Pyrite veins occur @ 0-10 degrees TCA, cross-cutting quartz veining.
JN11009	151.4	151.9	1	35	20	grey	fine-medium	MULTISTAGE	Pyrite	Quartz		Argillic		Envelope	Pyrite occurs as fg-mg disseminations and veinlets within quartz vein - quartz is grey to pearly white. Multiple generation of mineralization within the vein - pyrite and pyrite+molybdenite.
JN11009	151.9	156.6	2	0.5	53	white	fine	STOCKWORK	Quartz	Pyrite		Argillic	Silica	Envelope	Quartz veins are scattered through the alteration zone. Grey-white quartz, weakly mineralized with pyrite and molybdenite.
JN11009	156.6	157.25	1	65	61	grey	fine-coarse	MULTISTAGE	Pyrite	Quartz		Argillic	Silica	Envelope	Pyrite occurs as matrix to brecciated quartz vein. Fe-carbonate crackle veinlets x-cut the brecciated quartz vein.
JN11009	159.05	159.55	1	50	38	white	fine-medium	STOCKWORK	Quartz			Argillic	Silica	Envelope	Quartz is pearly white to grey in color. Fine-medium grained Molybdenite and Bismuthinite. Occur as irregular xl clots through out the vein.
JN11009	159.55	174.25	10	0.5	25	grey	fine	STOCKWORK	Quartz			Argillic	Silica	Envelope	Quartz stockwork veining occurs as enechelon tension fractures, and anastomosing vein sets. The interval is intensely altered and veined. Vein densities reach 40-50 per meter in places. Vein orientation range from 18 degrees to 42 degrees, between 24 and 32 is the dominant fracture set. In places the veins display angle wing boiling textures ie: 168.9-169.1 meters.

DDH ID	From(m)	To(m)	Density(/m)	Width(cm)	Angle	Colour	Grain Size	Texture	Mineralogy	Mineralogy2	Mineralogy3	Alt1 Type	Alt2 Type	Alt Setting:	Note:
JN11009	174.25	194.7	3	4	20	grey	fine	STOCKWORK	Quartz	Calcite		Epidote	Silica	Envelope	Quartz stockwork veining occurs as anastomosing vein sets. Orientations vary from 5-30 degrees. Calcite occurs within veins, but in general is rare. Chlorite occurs as dark green clots, and vein selvage through the interval. Epidote alteration occurs as vein envelope, and is rare through the interval.
JN11010	10.48	12	3	1	52	white	fine	BRECCIATED	Quartz	Calcite		Silica		Envelope	Bull white-grey quartz veins, brecciated with framework clasts of silicified QPC and Siltstone clasts within quartz. Quartz veins are x-cut by 1-5 mm calcite+/-pyrite crackle veins that are sub-parallel TCA. Quartz vein thickness ranges from 0.5 - 3.0 cm.
JN11010	18.2	18.6	1	35	30	white	fine	BULL	Quartz	Chlorite	Biotite	Silica		Envelope	Bull white quartz vein. Angular-wispy fragments of chlorite and biotite altered siltstone occur within the vein.
JN11010	19.85	20.1	4	0.5	64	white	fine	BULL	Quartz			Silica	Sericite	Envelope	Quartz is host to trace Pyrrhotite mineralization. Sericite mottles the wallrock, silicification is moderate and uniform.
JN11010	22.93	23.3	3	1	16	white	fine	BULL	Quartz						Quartz veins are 16-50 TCA.
JN11010	25.25	29	1	0.3	26	grey	fine	FRACTURED	Quartz	Biotite		Sericite		Fractures	Quartz veins are host to trace Py-ZnS mineralization. Veins are x-cut by < 1 mm mineralized fractures - net-textured.
JN11010	29.1	29.4	1	4	26	grey	fine	BOUDINAGE	Quartz	Biotite	Calcite	Sericite		Fractures	Quartz is white-grey, host to wispy selvage of siltstone. Trace Py mineralization occurs within the quartz vein. Thin clots and ribbons of calcite occur within the vein @ contacts.
JN11010	29.4	44.4	1	0.3	23	grey	fine	FRACTURES	Quartz	Biotite	Calcite	Silica	Sericite	Envelope	Quartz-Calcite-Biotite veins are host to trace Py-ZnS mineralization. Vein orientations range b/w 20-30 TCA.
JN11010	44.4	48.1	10	0.2	25	grey	fine	FRACTURES	Biotite	Arsenopyrite	Pyrite	Silica	Sericite	Envelope	Biotite+/Arsenopyrite+/-Pyrite+/-Chalcopyrite+/-Sphalerite crackle veinlets. Vein orientation occur from 0 - 32 degrees TCA, and are net-textured.
JN11010	48.1	51.8	2	0.5	20	white	fine	FRACTURED	Quartz	Calcite	Pyrite	Silica	Sericite	Envelope	Quartz veins occur through the interval, and range in size from 0.2 - 0.5 cm. Disseminated pyrite gives the otherwise white quartz a dirty dusty grey color.

DDH ID	From(m)	To(m)	Density(/m)	Width(cm)	Angle	Colour	Grain Size	Texture	Mineralogy	Mineralogy2	Mineralogy3	Alt1 Type	Alt2 Type	Alt Setting:	Note:
JN11010	54.3	56.2	5	0.2	18	white	fine	FRACTURED	Calcite	Quartz		Sericite	Silica	Envelope	The veins occur as crackle veins, strongly fractured siltstone. Pyrite and Pyrrhotite occur within the veins.
JN11010	56.2	61.7	1	0.5	15	grey	fine-coarse	MASSIVE	Pyrite	Quartz					Pyrite-Quartz+/-Arsenopyrite+/-Chalcopyrite veins x-cut skarn @ 7 - 15 TCA.
JN11010	89.9	96.75	15	0.05	30	grey	very fine	STOCKWORK	Quartz	Pyrite		Silica		Envelope	Quartz-Pyrite+/-Arsenopyrite micro veinlets occur through out QPC, exploit grain boundaries, and occur as net-textured veinlets @ 0 - 90 TCA. General trend of the veinlets is 25-30 TCA.
JN11010	96.75	100.85	1	0.2	25	grey	fine	FRACTURED	Quartz	Pyrite	Pyrrhotite	Silica		Envelope	2-4 mm veins. Smokey grey quartz. Pyrite and Pyrrhotite are clotty xls within the veins.
JN11010	144.7	146.8	1	0.2	16	grey	fine-medium	STOCKWORK	Quartz	Amphibole					Quartz-Amphibole veins x-cut skarn interval. Pyrite, Chalcopyrite and Hematite occur within and disseminated adjacent to veins.
JN11010	147.5	152.75	1	0.5	18	white	fine	FRACTURED	Quartz			Silica		Envelope	White-grey quartz occur within argillic-pyrophyllitic alteration zone. Pyrite and trace Molybdenite occur within the veins.
JN11010	152.75	153.75	1	60	31	grey	fine	VUGGED	Quartz			Silica		Envelope	Grey-pearly white quartz vein, strongly fractured, and vugged. Pyrite and Jamesonite occur within the quartz vein as irregular clots and fracture fill.
JN11010	153.75	161.85	4	0.5	15	grey	fine	STOCKWORK	Quartz			Silica		Envelope	White-grey quartz stockwork veins and veinlets ranging from < 1 mm to 20 mm in size. The veins are host to Pyrite-Chalcopyrite-Molybdenite mineralization. Veins occur @ 15, 61, 27 degrees TCA, net-textured @ multiple orientations TCA. Vein density increases to 7/meter @ base of interval.
JN11010	161.85	165	1	1	40	white	fine-medium	MULTISTAGE	Quartz	Pyrite	Arsenopyrite				Pearly white-grey quartz vein. Interval has been faulted, and reduced to rubble. Quartz veining appears to be multistage as pulses of sulphide mineralization overprint the quartz. Arsenopyrite veins occur @ 40 TCA within some fragments of core. Veining is host to Pyrite-Arsenopyrite-Sphalerite-Chalcopyrite-Pyrrhotite mineralization. It is impossible to determin if there is one massive vein here, or a stockwork zone. Up to 10 cm sections of the vein are massive Pyrite-Pyrrhotite+/-Arsenopyrite+/-Sphalerite.

DDH ID	From(m)	To(m)	Density(/m)	Width(cm)	Angle	Colour	Grain Size	Texture	Mineralogy	Mineralogy2	Mineralogy3	Alt1 Type	Alt2 Type	Alt Setting:	Note:
JN11010	174.15	191.85	1	5	18	grey	fine-medium	STOCKWORK	Quartz	Pyrite		Argillic	Silica	Envelope	Grey-white quartz veins occur through the interval. Vein density ranges from 1-5/meter, vein orientation ranges from 7 - 52 degrees: avg 18, vein thickness ranges from 1.0 cm - 40.0 cm. Quartz+Pyrite+/-Chalcopyrite occurs as primary vein composition, later veining exploits existing stockwork zone. These veins are pearly white-grey in color and are host to trace amounts of Molybdenite and Jamesonite (?). The veins are often observed @ the contacts of earlier generation of veining.
JN11010	191.85	188.1	2	0.3	20	white	fine	STOCKWORK	Quartz			Argillic	Silica	Envelope	White quartz stockwork veining is host to trace Molybdenite mineralization. Veins range in thickness from 0.2 - 1.5 cm.
JN11010	200.6	205.95	3	5	10	white	fine-medium	STOCKWORK	Quartz			Silica		Envelope	Milky white-grey quartz. Host to fg-mg radiating xl masses of Molybdenite < 10 mm in diameter. Weak Fe-Carbonate alteration @ vein contacts. Stockwork veinlets are common through the interval paralleling main white quartz veins as anastomosing vein sets, generally 0.2-0.5 cm wide.
JN11010	205.95	209.2	5	3	20	white	fine	STOCKWORK	Quartz			Silica		Envelope	White-grey quartz stockwork zone. Veins occur @ 18, 23, 35, 148, 55, 22 degrees TCA. Vein thickness ranges from 0.5 - 30.0 cm. Vein contacts are sharp. Trace Molybdenite mineralization occurs within the veins.
JN11010	209.2	211.05	3	10	31	white	fine	BRECCIATED	Quartz	Biotite		Silica		Envelope	Reddish brown biotite occurs as breccia matrix, infilling 1-10 mm fractures within pearly white quartz vein. Pyrite mineralization occurs disseminated within Biotitic matrix.
JN11010	211.05	211.1	1	5	21	black	fine-medium	MULTISTAGE	Quartz	Biotite	Arsenopyrite	Silica		Envelope	Black-brown biotite +/-quartz @ vein contacts, pearly white-grey quartz forms core of vein. Fine-medium grained arsenopyrite occurs within the pearly white quartz. Jamesonite mineralization occurs @ contact b/w quartz and biotite.
JN11010	211.1	217	3	5	20	white	fine	STOCKWORK	Quartz			Silica	Sericite	Envelope	White-grey quartz veins are host to Molybdenite+/-Pyrite+/-Arsenopyrite mineralization. Vein thickness ranges from 0.5 - 15.0 cm. Vein orientations range from 18-41 degrees TCA.

DDH ID	From(m)	To(m)	Density(/m)	Width(cm)	Angle	Colour	Grain Size	Texture	Mineralogy	Mineralogy2	Mineralogy3	Alt1 Type	Alt2 Type	Alt Setting:	Note:
JN11010	217	217.4	1	1	22	grey	fine	VUGGED	Quartz	Biotite		Silica		Envelope	Grey-white-brownish black quartz-biotite vein. Vugs range from 2-5 mm. Jamesonite, Arsenopyrite, Pyrite occur within the vein.
JN11010	217.4	222	1	2	31	white	fine	FRACTURED	Quartz						White-grey quartz, host to trace Molybdenite mineralization.
JN11010	227.8	230.76	1	2	28	white	fine	STOCKWORK	Quartz			Silica		Envelope	White quartz veins are host to trace Molybdenite mineralization.
JN11010	240.8	241.4	1	5	16	white	fine	STOCKWORK	Quartz	Biotite		Silica	Sericite	Envelope	Clots of Molybdenite and Pyrite occur within the grey-white quartz vein. Black-brown biotite occurs as fracture fill @ FW contact of the vein.

Appendix 4.1.6 - Major Shear Zones

Friday, November 25, 2011

Hole Number	From(m)	To(m)	Width(m)	Angle (to CA)	Ductility	Gouge	Mineralized	Note
JN11001	21.12	45	23.88	0	Brittle	5	☐	Rubble, assumably the same lithology as up hole rock.
JN11001	49.56	52	2.44	0	Brittle	5	☐	Limonite stained Rubble. Phyllite.
JN11001	52	53.73	1.73	0	Transitional	4	☐	Fault Gouge
JN11001	53.73	61.65	7.92	0	Brittle	5	☐	Limonite stained Rubble. Phyllite.
JN11001	91.24	93.7	2.46	0	Brittle	3	☐	Limonite Stain, rubbly, fault.
JN11001	121.4	122.2	0.8	0	Transitional	3	☒	Gougey soft not rubbly, grey
JN11001	123.75	124	0.25	0	Brittle	3	☒	Gougey rubbly soft, grey
JN11001	142	144	2	0	Brittle	5	☒	Rubbly soft grey, gouge
JN11001	158.23	158.4	0.13	0	Brittle	2	☒	Some pyrite rubbly, relativley hard.
JN11002	4.46	5.76	1.3	0	Brittle	5	☐	
JN11002	7.24	8.87	1.63	0	Brittle	3	☐	
JN11002	9.77	11.61	1.84	0	Brittle	5	☒	
JN11002	14.33	31.65	17.32	0	Brittle	5	☐	
JN11002	43	44.23	1.23	0	Brittle	2	☐	
JN11002	46.63	49.33	2.7	0	Brittle	3	☒	
JN11002	50.86	58.68	7.82	0	Brittle	3	☒	Varying gouge, limonite stained.
JN11002	63.3	64.92	1.62	0	Brittle	2	☒	Minimal limonite.
JN11002	67.25	68.4	1.15		Brittle	4	☒	
JN11002	71.64	72.34	0.7	0	Brittle	3	☒	Sericite altered.

Hole Number	From(m)	To(m)	Width(m)	Angle (to CA)	Ductility	Gouge	Mineralized	Note
JN11002	96	118.7	22.7	0	Brittle	4	✓	Varying degrees of hardness and gouge. Interval has many veinlets of pyrite and fine grain black mineral as well as some calcite and quartz veins.
JN11002	178.4	178.6	0.2	0	Brittle	4	✓	
JN11002	179	179.3	0.3	0	Brittle	3	✓	
JN11002	186	187.5	1.5	0	Brittle	2	✓	
JN11002	188.24	189.9	1.65	0	Brittle	2	✓	
JN11002	190.51	190.8	0.26	0	Brittle	2	✓	
JN11002	194.25	194.4	0.15	0	Brittle	3	✓	Arsenopyrite, pyrite, chalcopyrite.
JN11002	195.24	196.2	0.93	0	Brittle	2	☐	
JN11002	196.27	199.0	2.76	0	Brittle	2	✓	Pyrite.
JN11002	200.43	211.2	10.8	0	Brittle	0	☐	
JN11003	37.78	43.38	5.6	0	Brittle	5	✓	Pyrite.
JN11004	42.13	43.5	1.37	37	Transitional	1	✓	Brecciated.
JN11004	43.5	51.48	7.98	0	Ductile	3	✓	Limonite altered, calcite.
JN11004	57.6	58	0.4	0	Brittle	3	✓	
JN11005	17.33	20.85	3.52	0	Brittle	4	✓	Pyrite, chalcopyrite.
JN11005	190	192.2	2.2	0	Transitional	4	☐	
JN11006	10.1	10.4	0.3	0	Brittle	5	✓	Pyrrhotite.
JN11007	17.56	18.47	0.91	0	Transitional	4	✓	Pyrite.
JN11007	91.84	94.05	2.21	0	Brittle	2	☐	Phyllite on of many localized shear zones.
JN11007	103.1	104.8	1.67	0	Brittle	3	✓	

Hole Number	From(m)	To(m)	Width(m)	Angle (to CA)	Ductility	Gouge	Mineralized	Note
JN11007	104.77	110.0	5.26	0	Brittle	3	☐	
JN11007	120.7	122.4	1.7	0	Brittle	3	☒	Pyrite.
JN11007	144	144.5	0.45	0	Transitional	4	☐	
JN11007	146.6	149.7	3.05	0	Brittle	2	☐	
JN11007	153.2	153.4	0.2	0	Brittle	1	☒	
JN11007	153.93	154.1	0.12	0	Brittle	5	☒	
JN11007	156.14	158.3	2.2	0	Brittle	3	☒	
JN11007	158.56	159	0.44	0	Brittle	3	☒	
JN11007	164	164.9	0.89	0	Brittle	3	☒	Py + galena + aspy.
JN11007	171.8	173	1.2	0	Brittle	3	☒	Py.
JN11007	174	177	3	0	Brittle	5	☒	Py.
JN11008	97.25	97.5	0.25	90	Brittle	0	☐	Calcite-clay gouge occurs over the 25 cm interval. The shear zone overprints quartz-calcite veining.
JN11008	104.8	106.3	1.45	53	Brittle	0	☐	Calcite-clay gouge occurs @ HW and FW contacts of zone for 10 cm.
JN11008	110.9	111.4	0.5	12	Brittle	0	☐	Calcite-clay gouge occurs along a 1.0 cm shear zone.
JN11008	152	154	2	0	Brittle	0	☐	60 % core loss.
JN11008	161.84	166	4.16	0	Brittle	0	☐	Large fault between QPC and Limestone, 92 % core loss over 6.10 meters
JN11008	168.55	179.8	11.25	0	Brittle	0	☐	Large fault within veined and brecciated limestone.
JN11009	57.1	59.2	2.1	55	Brittle	4	☐	Shear zone within Argillic alteration zone. Soft clay gouge.

Hole Number	From(m)	To(m)	Width(m)	Angle (to CA)	Ductility	Gouge	Mineralized	Note
JN11009	62	63	1	20	Brittle	3	☐	Shear zone within Argillic alteration zone. Soft clay gouge.
JN11009	65	67.7	2.7	62	Brittle	4	☐	Shear zone within Argillic alteration zone. Sofy clay gouge.
JN11009	73	77.5	4.5	0	Brittle	2	☐	Shear zone within silicified siltstone. Strongly fractured and blocky interval.
JN11009	87.8	92.65	4.85	36	Brittle	4	☐	Shear zone within Argillic altered mudstone.
JN11009	105.15	114.5	9.35	38	Brittle	4	☐	Strongly fractured QPC, lower 1.0 meter of the interval is calcareous clay gouge with grit - pebble sized angular framework clasts of QPC.
JN11009	116.9	117.5	0.6	44	Brittle	3	☐	Fractured QPC, lower 30 cm of interval is strongly fractured QPC, and sandy gouge.
JN11009	214.55	222.7	8.1	42	Brittle	3	☐	Strongly fractured argillic alteration zone. Clay gouge is common through the interval. Gouge is likley a result of brittle deformation of a incompetent interval of intense alteration.
JN11010	48.4	51.8	3.4	47	Brittle	4	☐	Argillic alteration zone/shear zone? Strongly fractured and altered rock. Lower contact has been destroyed by drilling.
JN11010	88.05	89.9	1.85	58	Brittle	4	☐	Argillic alteration zone - strongly fractured, core loss from washing of clay material.
JN11010	137.8	138	0.2	31	Brittle	5	☐	Friable calcareous clay gouge. Grit sized subangular clasts (locally derived from siltstone) within gouge.

Hole Number	From(m)	To(m)	Width(m)	Angle (to CA)	Ductility	Gouge	Mineralized	Note
JN11010	143.3	144.7	1.4	37	Brittle	4	☐	Shear zone is located @ upper contact of skarn. The siltstone is strongly fractured. Shearing has reduced the siltstone to friable clay gouge, which is calcareous. 37 degrees is the dominant fracture set, however multiple fracture sets occur @ 25, 58, 90 degrees.
JN11010	146.8	147.5	0.7	18	Brittle	5	☐	Shear zone is located @ lower contact of skarn. As described in previous interval.
JN11010	161.85	166	4.15	0	Brittle	5	☒	Shear zone occurs within mineralized quartz-stock work zone. Post-dating mineralization, observed slickensides smearing sulphide mineralization. It is very difficult to determin shear direction/orientation. Caving of the interval resulted in > 50 % core loss. Core is generally ground to rubble.
JN11010	179.2	179.4	0.2	37	Brittle	4	☐	Shear zone occurs within mineralized quartz stockwork veining. Beige-grey soft (<1) gouge.
JN11010	188.05	198	9.95	18	Brittle	3	☐	Generally blocky core over the interval. Dominant frcture set is form 18-25 degrees. Clay gouge occurs through the interval.
JN11010	205.6	209	3.4	50	Brittle	3	☐	The interval is moderately fractured. Gouge occurs in pyrophyllitic altereation zones, localized shearing between quartz stockwork veining.
JN11010	221.69	222.1	0.41	8	Brittle	3	☐	Powdery white clay gouge.
JN11010	234.25	234.6	0.35	41	Brittle	3	☐	Two 10 cm zones of gouge occur over the interval, calcareous, grit-pebble sized rock fragments occur within the gouge and are angular.

Hole Number	From(m)	To(m)	Width(m)	Angle (to CA)	Ductility	Gouge	Mineralized	Note
JN11010	237.7	238.2	0.5	47	Brittle	4	☐	Shearing is parallel to compositional layering within very thin bedded siltstone. The gouge is powdery white, and calcareous.

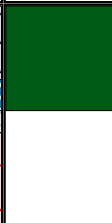
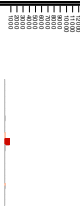
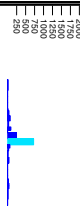
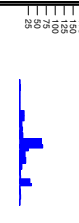
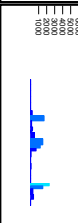
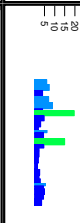
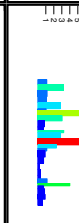
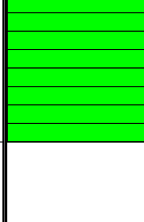
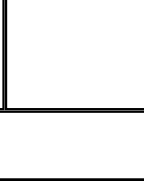
Appendix 4.1.7 - Drill Hole Locations

Friday, November 25, 2011

Hole Number	Length(m)	Azimuth(Deg)	Dip(Deg)	Easting	Northing	Accuracy(m)	Elevation(m)	Location Method	Located By	Location Date	Hole Status	Start Date	Finish Date
JN11001	239.57	64	-45	547206	6838398	5.0	1732	GPS	Mike McCuaig	8/15/2011	COMPLETE	8/15/2011	8/21/2011
JN11002	211.23	245	-45	547196	6838400	5.0	1732	GPS	Mike McCuaig	8/20/2011	COMPLETE	8/21/2011	8/24/2011
JN11003	43.38	335	-70	547263	6838270	5.0	1430	GPS	Mike McCuaig	8/31/2011	ABANDONED	8/24/2011	8/26/2011
JN11004	208.48	215	-45	547358	6837349	6.0	1545	GPS	Mike McCuaig	9/20/2011	COMPLETE	8/26/2011	8/28/2011
JN11005	206.04	245	-45	547358	6837349	6.0	1545	GPS	Mike McCuaig	9/20/2011	COMPLETE	8/28/2011	8/30/2011
JN11006	105.76	180	-55	547358	6837349	6.0	1545	GPS	Mike McCuaig	9/20/2011	COMPLETE	8/30/2011	9/1/2011
JN11007	177.08	60	-60	548525	6836909	6.0	1440	GPS	Mike McCuaig	9/20/2011	ABANDONED	9/1/2011	9/4/2011
JN11008	283.76	60	-45	548525	6836909	6.0	1440	GPS	Mike McCuaig	9/20/2011	COMPLETE	9/4/2011	9/7/2011
JN11009	291.67	250	-45	546557	6839670	6.0	1450	GPS	Mike McCuaig	9/7/2011	COMPLETE	9/7/2011	9/11/2011
JN11010	254.5	250	-60	546557	6839670	6.0	1450	GPS	Mike McCuaig	9/7/2011	COMPLETE	9/11/2011	9/14/2011

JN DDH Legends			
Legend - JN Geology		Legend - Global - Alteration Type	
	Calcareous Mudstone		ALBITE
	Limestone		ANKERITE
	Mudstone		ARGILLIC
	Overburden		BIOTITE
	QFPC		BLEACHED
	QPC		CALC SILICATE
	Quartz Biotite Monzonite		CALCITE
	Quartz Monzonite		CARBONATE
Legend - Skarn			CHLORITE
	Skarn		CLAY
Legend - JN - Au ppb			DOLOMITE
	[0 , 100]		EPIDOTE
	[100 , 200]		FE STAINING
	[200 , 500]		GARNET
	[500 , 1000]		HEMATITE
	[1000 , 5000]		HORNFELS
	[5000 , 10000]		KSPAR
	[10000 , 100000]		LIMONITE
Globabl - Recovery %			MAGNETITE
	[0.0 , 70.0]		PYRITE
	[70.0 , 90.0]		PYROLUSITE
	[90.0 , 105.0]		PYROPHYLLITIC
	[105 , 10000]		PYROXENE
			SERICITE
			SILICA
			TALC
			TOURMALINE

Company: Aben Resources Ltd.				Project: Justin				Start Date: 8/24/2011					End Date: 8/26/2011					
DDH: JN11003				Total Length: 43.38 m				Azimuth: 335 degrees					Inclination: - 70 degrees					
Easting: 547263				Northing: 6838270				Elevation: 1750 m					Nad83 Zone 9N					
Geologist: Mike McCuaig				Core Size: NQ				Drill Type: Diamond					Apex Diamond Drilling Ltd.					
Depth At	Recovery (%)	Rock Type	DDH Skarn	Alt 1 Degree	Alt 2 Degree	Au_ppb	Bi_ppm	Cu_ppm	W_ppm	Mo_ppm	Sb_ppm	Ag_ppm	Pb_ppm	Zn_ppm	As_ppm	Fe_%	S_%	Elevation
10.00		Overburden																1740.60
20.00																		1731.21
30.00		Limestone		2	1													1721.81
			3	5														
			2	1														
			2	2														
40.00				2														1712.41
50.00																	1703.02	
60.00																	1693.62	
70.00																	1684.22	
80.00																	1674.82	
90.00																	1665.43	
Scale 1:500				11/30/11								11:46:21						

Company: Aben Resources Ltd.			Project: Justin					Start Date: 8/28/2011					End Date: 8/30/2011						
DDH: JN11005			Total Length: 206.04 m					Azimuth: 245 degrees					Inclination: - 45 degrees						
Easting: 547358			Northing: 6837349					Elevation: 1545 m					Nad83 Zone 9N						
Geologist: Mike McCuaig			Core Size: NQ					Drill Type: Diamond					Apex Diamond Drilling Ltd.						
Depth At	Recovery (%)	Rock Type	DDH Skarn	Alt 1 Degree	Alt 2 Degree	Au_ppb	Bi_ppm	Cu_ppm	W_ppm	Mo_ppm	Sb_ppm	Ag_ppm	Pb_ppm	Zn_ppm	As_ppm	Fe_%	S_%	Elevation	
-25.00		Overburden																1527.32	
		Limestone		3	2														
		Siltstone		3	2														
		+		3	2														
		+		3	2														
		+		3	2														
		+		3	2														
		+		3	2														
		+		3	2														
		+		3	2														
-50.00		+		3	2														1509.64
		+		3	2														
		+		3	2														
		+		3	2														
		+		3	2														
		+		3	2														
		+		3	2														
		+		3	2														
		+		3	2														
		+		3	2														
-75.00		+		3	2														1491.97
		+		3	2														
		+		3	2														
		+		3	2														
		+		3	2														
		+		3	2														
		+		3	2														
		+		3	2														
		+		3	2														
		+		3	2														
-100.00		+		3	2														1474.29
		+		3	2														
		+		3	2														
		+		3	2														
		+		3	2														
		+		3	2														
		+		3	2														
		+		3	2														
		+		3	2														
		+		3	2														
-125.00		+		3	2														1456.61
		+		3	2														
		+		3	2														
		+		3	2														
		+		3	2														
		+		3	2														
		+		3	2														
		+		3	2														
		+		3	2														
		+		3	2														
-150.00		+		3	2														1438.93
		+		3	2														
		+		3	2														
		+		3	2														
		+		3	2														
		+		3	2														
		+		3	2														
		+		3	2														
		+		3	2														
		+		3	2														
-175.00		+		3	2														1421.26
		+		3	2														
		+		3	2														
		+		3	2														
		+		3	2														
		+		3	2														
		+		3	2														
		+		3	2														
		+		3	2														
		+		3	2														
-200.00		+		3	2														1403.58
		+		3	2														
		+		3	2														
		+		3	2														
		+		3	2														
		+		3	2														
		+		3	2														
		+		3	2														
		+		3	2														
		+		3	2														
-225.00		+		3	2														1385.90
		+		3	2														
		+		3	2														
		+		3	2														
		+		3	2														
		+		3	2														
		+		3	2														
		+		3	2														
		+		3	2														
		+		3	2														
Scale 1:1250				11/30/11								14:28:31							

Company: Aben Resources Ltd.			Project: Justin					Start Date: 8/30/2011					End Date: 9/01/2011					
DDH: JN11006			Total Length: 105.76 m					Azimuth: 180 degrees					Inclination: - 55 degrees					
Easting: 547358			Northing: 6837349					Elevation: 1545 m					Nad83 Zone 9N					
Geologist: Mike McCuaig			Core Size: NQ					Drill Type: Diamond					Apex Diamond Drilling Ltd.					
Depth At	Recovery (%)	Rock Type	DDH Skarn	Alt 1 Degree	Alt 2 Degree	Au_ppb	Bi_ppm	Cu_ppm	W_ppm	Mo_ppm	Sb_ppm	Ag_ppm	Pb_ppm	Zn_ppm	As_ppm	Fe_%	S_%	Elevation
-10.00		Overburden																1536.81
		Limestone		5	3													
-20.00		Siltstone		3	2													1528.62
-30.00		Sandstone		4	2													1520.43
-40.00		Siltstone		2														1512.23
		Sandstone		3	1													
		Siltstone		1														
-50.00		Siltstone		3	1													1504.04
		Sandstone		3	2													
		Siltstone		2	1													
-60.00				2	1													1495.85
				4														
-70.00				3	3													1487.66
-80.00				4														1479.47
		Quartz Monzonite																
-90.00																		1471.28
				2	1													
-100.00																		1463.08
-110.00																		1454.89
-120.00																		1446.70
-130.00																		1438.51
-140.00																		1430.32
Scale 1:750				11/30/11								11:42:29						

Company: Aben Resources Ltd.				Project: Justin				Start Date: 9/7/2011						End Date: 9/11/2011				
DDH: JN11009				Total Length: 291.67 m				Azimuth: 250 degrees						Inclination: - 45 degrees				
Easting: 546557				Northing: 6839670				Elevation: 1450 m						Nad83 Zone 9N				
Geologist: Mike McCuaig				Core Size: NQ				Drill Type: Diamond						Apex Diamond Drilling Ltd.				
Depth At	Recovery (%)	Rock Type	DDH Skarn	Alt 1 Degree	Alt 2 Degree	Au_ppb	Bi_ppm	Cu_ppm	W_ppm	Mo_ppm	Sb_ppm	Ag_ppm	Pb_ppm	Zn_ppm	As_ppm	Fe_%	S_%	Elevation
50.00		Overburden		4	4													1414.64
		QPC		5	4													
		Siltstone		4	3													
		Sandstone		3	2													
		Calcareous Mudstone		5	4													
		Siltstone		4	3													
		Siltstone		4	3													
		Mudstone		5	2													
		QPC		4	3													
		Calcareous Mudstone		5	4													
		Limestone		4	5													
		Limestone		5	4													
100.00		Limestone		5	4													1379.29
		Limestone		5	4													
		Limestone		5	4													
		Limestone		5	4													
		Limestone		5	4													
		Siltstone		5	4													
		Limestone		5	2													
		Siltstone		4	3													
150.00		Siltstone		5	4													1343.93
		Siltstone		5	4													
		Limestone		5	4													
		Siltstone		4	3													
200.00		Siltstone		5	4													1308.58
		Siltstone		5	4													
		Siltstone		5	4													
		Siltstone		5	4													
250.00		Siltstone		5	4													1273.22
		Siltstone		5	4													
		Siltstone		5	4													
		Siltstone		5	4													
300.00		Sandstone		4	4													1237.87
		Sandstone		4	3													
Scale 1:1750				11/30/11								14:36:49						

Company: Aben Resources Ltd.			Project: Justin					Start Date: 9/11/2011					End Date: 9/14/2011					
DDH: JN11010			Total Length: 254.50 m					Azimuth: 250 degrees					Inclination: - 60 degrees					
Easting: 546557			Northing: 6839670					Elevation: 1450 m					Nad83 Zone 9N					
Geologist: Mike McCuaig			Core Size: NQ					Drill Type: Diamond					Apex Diamond Drilling Ltd.					
Depth At	Recovery (%)	Rock Type	DDH Skarn	Alt 1 Degree	Alt 2 Degree	Au_ppb	Bi_ppm	Cu_ppm	W_ppm	Mo_ppm	Sb_ppm	Ag_ppm	Pb_ppm	Zn_ppm	As_ppm	Fe_%	S_%	Elevation
-50.00		Limestone		4	3													1406.70
		QPC		5	4													
		Siltstone		4	4													
		QPC		3														
		Siltstone		3														
		Sandstone		5	4													
		Siltstone		4	4													
		Limestone		5	4													
		Siltstone		3	2													
		Calcareous Mudstone		5	4													
-100.00		Mudstone		5	3													1363.40
		QPC		5	4													
		Siltstone		5	5													
		QPC		5	4													
-150.00		QPC		5	5													1320.10
		Siltstone		5	4													
		Limestone		5	2													
		Limestone		5	5													
		Limestone		5	4													
		Limestone		5	4													
-200.00		Limestone		4	4													1276.79
		Sandstone		5	4													
		Quartz Monzonite		5	4													
		Mudstone		5	3													
		Siltstone		4	4													
		Mudstone		5	4													
-250.00		Siltstone		5	5													1233.49
		Siltstone		5	5													
-300.00																		1190.19
Scale 1:1600				11/30/11								11:07:09						

Appendix 4.3 - Sample Log

Friday, November 25, 2011

DDH	Sample Number	From(m)	To(m)	Interval Length(m)	Recovered Length(m)	Sample Method
JN11001	JN11001-001	10.66	11.56	0.9	0.83	SPLIT
JN11001	JN11001-002	11.56	11.69	0.13	0.11	SPLIT
JN11001	JN11001-003	11.69	13.26	1.57	0.69	SPLIT
JN11001	JN11001-004	13.26	13.41	0.15	0.14	SPLIT
JN11001	JN11001-005	13.41	14.5	1.09	1.03	SPLIT
JN11001	JN11001-006	14.5	15.5	1	0.36	SPLIT
JN11001	JN11001-007	15.5	16.5	1	0.32	SPLIT
JN11001	JN11001-008	16.5	17.5	1	0.99	SPLIT
JN11001	JN11001-009	17.5	18.5	1	0.17	SPLIT
JN11001	JN11001-010	18.5	19.5	1	0.2	SPLIT
JN11001	JN11001-011	19.5	20	0.5	0.5	SPLIT
JN11001	JN11001-012	20	21.12	1.11	1.11	SPLIT
JN11001	JN11001-013	21.12	22.12	1	0.49	SPLIT
JN11001	JN11001-014	22.12	23.16	1.04	0.56	SPLIT
JN11001	JN11001-015	23.16	24	0.84	0.48	SPLIT
JN11001	JN11001-016	24	25	1	0.76	SPLIT
JN11001	JN11001-017	25	26	1	0.51	SPLIT
JN11001	JN11001-018	26	27	1	0.49	SPLIT
JN11001	JN11001-019	27	28	1	0.73	SPLIT
JN11001	JN11001-020	28	29	1	0.49	SPLIT
JN11001	JN11001-021	29	30	1	0.4	SPLIT
JN11001	JN11001-022	30	31	1	0.21	SPLIT
JN11001	JN11001-023	31	32	1	0.48	SPLIT
JN11001	JN11001-024	32	32.31	0.31	0.07	SPLIT
JN11001	JN11001-025	32.31	33.32	1.01	0.06	SPLIT
JN11001	JN11001-026	33.32	34.34	1.02	0.09	SPLIT

DDH	Sample Number	From(m)	To(m)	Interval Length(m)	Recovered Length(m)	Sample Method
JN11001	JN11001-027	34.34	35.35	1.01	0.11	SPLIT
JN11001	JN11001-028	35.35	36.3	0.95	0.44	SPLIT
JN11001	JN11001-029	36.3	37.25	0.95	0.41	SPLIT
JN11001	JN11001-030	37.25	38	0.75	0.7	SPLIT
JN11001	JN11001-031	38	39	1	0.79	SPLIT
JN11001	JN11001-032	39	40	1	0.79	SPLIT
JN11001	JN11001-033	40	41	1	0.81	SPLIT
JN11001	JN11001-034	41	42	1	0.85	SPLIT
JN11001	JN11001-035	42	43	1	0.91	SPLIT
JN11001	JN11001-036	43	44	1	0.88	SPLIT
JN11001	JN11001-037	44	45	1	0.92	SPLIT
JN11001	JN11001-038	45	46	1	0.94	SPLIT
JN11001	JN11001-039	46	47	1	0.95	SPLIT
JN11001	JN11001-040	47	48	1	0.97	SPLIT
JN11001	JN11001-041	48	49	1	0.98	SPLIT
JN11001	JN11001-042	49	50	1	0.97	SPLIT
JN11001	JN11001-043	50	51	1	1	SPLIT
JN11001	JN11001-044	51	52	1	0.62	SPLIT
JN11001	JN11001-045	52	53	1	1	SPLIT
JN11001	JN11001-046	53	54	1	0.92	SPLIT
JN11001	JN11001-047	54	55	1	0.86	SPLIT
JN11001	JN11001-048	55	56	1	0.85	SPLIT
JN11001	JN11001-049	56	57	1	0.66	SPLIT
JN11001	JN11001-050	57	58	1	0.97	SPLIT
JN11001	JN11001-051	58	59	1	0.64	SPLIT
JN11001	JN11001-052	59	60	1	0.83	SPLIT
JN11001	JN11001-053	60	61	1	0.71	SPLIT

DDH	Sample Number	From(m)	To(m)	Interval Length(m)	Recovered Length(m)	Sample Method
JN11001	JN11001-054	61	62	1	0.72	SPLIT
JN11001	JN11001-055	62	63	1	1	SPLIT
JN11001	JN11001-056	63	63.7	0.7	0.64	SPLIT
JN11001	JN11001-057	63.7	65	1.3	1.29	SPLIT
JN11001	JN11001-058	65	66	1	0.94	SPLIT
JN11001	JN11001-059	79.5	80	0.5	0.5	SPLIT
JN11001	JN11001-060	80	81	1	0.93	SPLIT
JN11001	JN11001-061	81	82	1	0.97	SPLIT
JN11001	JN11001-062	82	83	1	0.98	SPLIT
JN11001	JN11001-063	83	84	1	1	SPLIT
JN11001	JN11001-064	84	85	1	1	SPLIT
JN11001	JN11001-065	85	86	1	0.99	SPLIT
JN11001	JN11001-066	86	87	1	0.87	SPLIT
JN11001	JN11001-067	87	88	1	1	SPLIT
JN11001	JN11001-068	88	89	1	1	SPLIT
JN11001	JN11001-069	89	90	1	0.9	SPLIT
JN11001	JN11001-070	90	91	1	0.96	SPLIT
JN11001	JN11001-071	91	92	1	0.95	SPLIT
JN11001	JN11001-072	92	93	1	0.99	SPLIT
JN11001	JN11001-073	93	94	1	0.99	SPLIT
JN11001	JN11001-074	94	94.9	0.9	0.88	SPLIT
JN11001	JN11001-075	94.9	95.2	0.3	0.29	SPLIT
JN11001	JN11001-076	95.2	96	0.8	0.79	SPLIT
JN11001	JN11001-077	96	97	1	1	SPLIT
JN11001	JN11001-078	97	98	1	1	SPLIT
JN11001	JN11001-079	98	99	1	1	SPLIT
JN11001	JN11001-080	99	99.7	0.7	0.7	SPLIT

DDH	Sample Number	From(m)	To(m)	Interval Length(m)	Recovered Length(m)	Sample Method
JN11001	JN11001-081	99.7	100	0.3	0.28	SPLIT
JN11001	JN11001-082	100	101	1	0.96	SPLIT
JN11001	JN11001-083	101	102	1	0.91	SPLIT
JN11001	JN11001-084	102	103	1	1	SPLIT
JN11001	JN11001-085	106.1	107	0.9	0.9	SPLIT
JN11001	JN11001-086	107	108	1	1	SPLIT
JN11001	JN11001-087	108	109	1	1	SPLIT
JN11001	JN11001-088	109	110	1	0.97	SPLIT
JN11001	JN11001-089	110	111	1	0.81	SPLIT
JN11001	JN11001-090	111	112	1	0.97	SPLIT
JN11001	JN11001-091	112	113	1	1	SPLIT
JN11001	JN11001-092	117	118	1	0.99	SPLIT
JN11001	JN11001-093	118	119	1	0.94	SPLIT
JN11001	JN11001-094	119	120	1	0.98	SPLIT
JN11001	JN11001-095	120	120.63	0.63	0.58	SPLIT
JN11001	JN11001-096	120.63	120.7	0.07	0.06	SPLIT
JN11001	JN11001-097	120.7	122	1.3	1.26	SPLIT
JN11001	JN11001-098	122	123	1	0.96	SPLIT
JN11001	JN11001-099	123	123.52	0.52	0.51	SPLIT
JN11001	JN11001-100	123.52	124	0.48	0.45	SPLIT
JN11001	JN11001-101	124	124.86	0.86	0.66	SPLIT
JN11001	JN11001-102	124.86	126	1.14	1.08	SPLIT
JN11001	JN11001-103	126	127	1	0.98	SPLIT
JN11001	JN11001-104	127	128	1	1	SPLIT
JN11001	JN11001-105	128	129	1	1	SPLIT
JN11001	JN11001-106	129	130	1	0.94	SPLIT
JN11001	JN11001-107	130	131	1	0.99	SPLIT

DDH	Sample Number	From(m)	To(m)	Interval Length(m)	Recovered Length(m)	Sample Method
JN11001	JN11001-108	131	132	1	0.98	SPLIT
JN11001	JN11001-109	132	133	1	0.9	SPLIT
JN11001	JN11001-110	133	134.05	1.05	1.03	SPLIT
JN11001	JN11001-111	134.05	135	0.95	0.93	SPLIT
JN11001	JN11001-112	135	136	1	1	SPLIT
JN11001	JN11001-113	136	137	1	1	SPLIT
JN11001	JN11001-114	137	138	1	1	SPLIT
JN11001	JN11001-115	138	139	1	1	SPLIT
JN11001	JN11001-116	139	140	1	1	SPLIT
JN11001	JN11001-117	140	141	1	0.99	SPLIT
JN11001	JN11001-118	141	142	1	0.96	SPLIT
JN11001	JN11001-119	142	143	1	0.64	SPLIT
JN11001	JN11001-120	143	144	1	0.52	SPLIT
JN11001	JN11001-121	144	145	1	0.99	SPLIT
JN11001	JN11001-122	145	146	1	0.85	SPLIT
JN11001	JN11001-123	146	147	1	0.9	SPLIT
JN11001	JN11001-124	147	148	1	0.98	SPLIT
JN11001	JN11001-125	148	149	1	0.88	SPLIT
JN11001	JN11001-126	149	150	1	1	SPLIT
JN11001	JN11001-127	150	151	1	0.98	SPLIT
JN11001	JN11001-128	151	152	1	0.99	SPLIT
JN11001	JN11001-129	152	153	1	1	SPLIT
JN11001	JN11001-130	153	154	1	0.82	SPLIT
JN11001	JN11001-131	154	155	1	1	SPLIT
JN11001	JN11001-132	155	156	1	1	SPLIT
JN11001	JN11001-133	156	157	1	1	SPLIT
JN11001	JN11001-134	157	158	1	0.99	SPLIT

DDH	Sample Number	From(m)	To(m)	Interval Length(m)	Recovered Length(m)	Sample Method
JN11001	JN11001-135	158	159	1	0.96	SPLIT
JN11001	JN11001-136	159	160	1	1	SPLIT
JN11001	JN11001-137	160	161	1	1	SPLIT
JN11001	JN11001-138	161	162	1	1	SPLIT
JN11001	JN11001-139	169.51	170.02	0.51	0.5	SPLIT
JN11001	JN11001-140	187.06	188	0.94	0.93	SPLIT
JN11001	JN11001-141	188	189	1	1	SPLIT
JN11001	JN11001-142	189	190	1	0.97	SPLIT
JN11001	JN11001-143	190	190.4	0.4	0.4	SPLIT
JN11001	JN11001-144	190.4	190.55	0.15	0.14	SPLIT
JN11001	JN11001-145	190.55	190.73	0.18	0.18	SPLIT
JN11001	JN11001-146	190.73	191.1	0.37	0.37	SPLIT
JN11001	JN11001-147	191.1	191.93	0.83	0.83	SPLIT
JN11001	JN11001-148	191.93	192.7	0.77	0.75	SPLIT
JN11001	JN11001-149	192.7	193.85	1.15	0.97	SPLIT
JN11001	JN11001-150	193.85	194.15	0.3	0.3	SPLIT
JN11001	JN11001-151	194.15	195.15	1	1	SPLIT
JN11001	JN11001-152	195.15	195.9	0.75	0.65	SPLIT
JN11001	JN11001-153	195.9	196.5	0.6	0.55	SPLIT
JN11001	JN11001-154	196.5	197.25	0.75	0.72	SPLIT
JN11001	JN11001-155	197.25	197.65	0.4	0.38	SPLIT
JN11001	JN11001-156	197.65	198.35	0.7	0.69	SPLIT
JN11001	JN11001-157	198.35	199.55	1.2	1.2	SPLIT
JN11001	JN11001-158	199.55	200.45	0.9	0.87	SPLIT
JN11001	JN11001-159	200.45	201	0.55	0.55	SPLIT
JN11001	JN11001-160	201	202	1	1	SPLIT
JN11001	JN11001-161	202	203	1	0.95	SPLIT

DDH	Sample Number	From(m)	To(m)	Interval Length(m)	Recovered Length(m)	Sample Method
JN11001	JN11001-162	203	204	1	0.96	SPLIT
JN11001	JN11001-163	204	204.67	0.67	0.63	SPLIT
JN11001	JN11001-164	204.67	206	1.33	1.32	SPLIT
JN11001	JN11001-165	210.53	211	0.47	0.46	SPLIT
JN11001	JN11001-166	211	212	1	0.99	SPLIT
JN11001	JN11001-167	212	213	1	0.99	SPLIT
JN11001	JN11001-168	213	214	1	0.99	SPLIT
JN11001	JN11001-169	214	215	1	0.98	SPLIT
JN11001	JN11001-170	215	216	1	1	SPLIT
JN11001	JN11001-171	216	217	1	1	SPLIT
JN11002	JN11002-001	0.01	1.22	1.21	0.15	SPLIT
JN11002	JN11002-002	1.22	2.44	1.22	0.16	SPLIT
JN11002	JN11002-003	2.44	3.68	1.24	0.17	SPLIT
JN11002	JN11002-004	3.68	4.41	0.73	0.67	SPLIT
JN11002	JN11002-005	4.41	5.76	1.35	0.56	SPLIT
JN11002	JN11002-006	5.76	6	0.24	0.24	SPLIT
JN11002	JN11002-007	6	7	1	0.94	SPLIT
JN11002	JN11002-008	7	7.94	0.94	0.75	SPLIT
JN11002	JN11002-009	7.94	8.87	0.93	0.39	SPLIT
JN11002	JN11002-010	8.87	9.8	0.93	0.93	SPLIT
JN11002	JN11002-011	9.8	10.83	1.03	0.51	SPLIT
JN11002	JN11002-012	10.83	11.61	0.78	0.18	SPLIT
JN11002	JN11002-013	11.61	12	0.39	0.36	SPLIT
JN11002	JN11002-014	12	13	1	0.94	SPLIT
JN11002	JN11002-015	13	13.7	0.7	0.69	SPLIT
JN11002	JN11002-016	13.7	14.33	0.63	0.56	SPLIT
JN11002	JN11002-017	14.33	15.68	1.35	0.15	SPLIT

DDH	Sample Number	From(m)	To(m)	Interval Length(m)	Recovered Length(m)	Sample Method
JN11002	JN11002-018	15.68	16	0.32	0.15	SPLIT
JN11002	JN11002-019	16	17.17	1.17	0.5	SPLIT
JN11002	JN11002-020	17.17	18.18	1.01	0.49	SPLIT
JN11002	JN11002-021	18.18	19.2	1.02	0.3	SPLIT
JN11002	JN11002-022	19.2	21.5	2.3	0.22	SPLIT
JN11002	JN11002-023	21.5	22.25	0.75	0.34	SPLIT
JN11002	JN11002-024	22.25	22.6	0.35	0.35	SPLIT
JN11002	JN11002-025	22.6	24	1.4	0.39	SPLIT
JN11002	JN11002-026	24	25	1	0.31	SPLIT
JN11002	JN11002-027	25	26	1	0.4	SPLIT
JN11002	JN11002-028	26	27	1	0.32	SPLIT
JN11002	JN11002-029	27	28	1	0.48	SPLIT
JN11002	JN11002-030	28	28.5	0.5	0.5	SPLIT
JN11002	JN11002-031	33	34	1	0.99	SPLIT
JN11002	JN11002-032	34	35	1	0.98	SPLIT
JN11002	JN11002-033	35	36	1	0.8	SPLIT
JN11002	JN11002-034	36	37	1	1	SPLIT
JN11002	JN11002-035	37	38	1	1	SPLIT
JN11002	JN11002-036	38	39	1	0.98	SPLIT
JN11002	JN11002-037	39	40	1	0.97	SPLIT
JN11002	JN11002-038	40	41	1	0.66	SPLIT
JN11002	JN11002-039	41	42	1	0.98	SPLIT
JN11002	JN11002-040	42	43	1	1	SPLIT
JN11002	JN11002-041	43	43.9	0.9	0.89	SPLIT
JN11002	JN11002-042	43.9	44.23	0.33	0.3	SPLIT
JN11002	JN11002-043	44.23	45	0.77	0.69	SPLIT
JN11002	JN11002-044	45	46	1	0.96	SPLIT

DDH	Sample Number	From(m)	To(m)	Interval Length(m)	Recovered Length(m)	Sample Method
JN11002	JN11002-045	46	47.98	1.98	1.26	SPLIT
JN11002	JN11002-046	47.98	49.33	1.35	0.83	SPLIT
JN11002	JN11002-047	49.33	50	0.67	0.67	SPLIT
JN11002	JN11002-048	50	51	1	0.9	SPLIT
JN11002	JN11002-049	51	52	1	0.84	SPLIT
JN11002	JN11002-050	52	53	1	0.7	SPLIT
JN11002	JN11002-051	53	54.3	1.3	0.9	SPLIT
JN11002	JN11002-052	54.3	55	0.7	0.5	SPLIT
JN11002	JN11002-053	55	56	1	0.87	SPLIT
JN11002	JN11002-054	56	57	1	0.95	SPLIT
JN11002	JN11002-055	57	58	1	0.72	SPLIT
JN11002	JN11002-056	58	59	1	0.73	SPLIT
JN11002	JN11002-057	59	60	1	1	SPLIT
JN11002	JN11002-058	60	61	1	1	SPLIT
JN11002	JN11002-059	61	62	1	0.98	SPLIT
JN11002	JN11002-060	62	62.53	0.53	0.529	SPLIT
JN11002	JN11002-061	62.53	63.3	0.77	0.76	SPLIT
JN11002	JN11002-062	63.3	64.3	1	0.69	SPLIT
JN11002	JN11002-063	64.3	65	0.7	0.7	SPLIT
JN11002	JN11002-064	65	66	1	1	SPLIT
JN11002	JN11002-065	66	67	1	1	SPLIT
JN11002	JN11002-066	67	68.4	1.4	0.88	SPLIT
JN11002	JN11002-067	68.4	69	0.6	0.59	SPLIT
JN11002	JN11002-068	69	70	1	1	SPLIT
JN11002	JN11002-069	70	71	1	1	SPLIT
JN11002	JN11002-070	71	71.65	0.65	0.62	SPLIT
JN11002	JN11002-071	71.65	72.64	0.99	0.79	SPLIT

DDH	Sample Number	From(m)	To(m)	Interval Length(m)	Recovered Length(m)	Sample Method
JN11002	JN11002-072	72.64	73	0.36	0.34	SPLIT
JN11002	JN11002-073	73	74	1	0.98	SPLIT
JN11002	JN11002-074	74	75	1	1	SPLIT
JN11002	JN11002-075	75	76.4	1.4	1.39	SPLIT
JN11002	JN11002-076	76.4	77.11	0.71	0.37	SPLIT
JN11002	JN11002-077	77.11	78	0.89	0.89	SPLIT
JN11002	JN11002-078	78	78.6	0.6	0.59	SPLIT
JN11002	JN11002-079	78.6	78.9	0.3	0.3	SPLIT
JN11002	JN11002-080	78.9	80	1.1	1.08	SPLIT
JN11002	JN11002-081	80	81.3	1.3	1.299	SPLIT
JN11002	JN11002-082	81.3	82	0.7	0.7	SPLIT
JN11002	JN11002-083	82	83	1	1	SPLIT
JN11002	JN11002-084	87	88	1	0.99	SPLIT
JN11002	JN11002-085	88	89	1	1	SPLIT
JN11002	JN11002-086	89	90	1	0.94	SPLIT
JN11002	JN11002-087	90	91	1	0.94	SPLIT
JN11002	JN11002-088	91	92	1	1	SPLIT
JN11002	JN11002-089	92	93	1	0.99	SPLIT
JN11002	JN11002-090	93	94	1	0.99	SPLIT
JN11002	JN11002-091	94	95	1	1	SPLIT
JN11002	JN11002-092	95	96	1	1	SPLIT
JN11002	JN11002-093	96	97.12	1.12	0.32	SPLIT
JN11002	JN11002-094	97.12	98.23	1.11	0.27	SPLIT
JN11002	JN11002-095	98.23	99	0.77	0.77	SPLIT
JN11002	JN11002-096	99	100	1	1	SPLIT
JN11002	JN11002-097	100	101	1	0.71	SPLIT
JN11002	JN11002-098	101	102	1	0.92	SPLIT

DDH	Sample Number	From(m)	To(m)	Interval Length(m)	Recovered Length(m)	Sample Method
JN11002	JN11002-099	102	103	1	1	SPLIT
JN11002	JN11002-100	103	104	1	0.88	SPLIT
JN11002	JN11002-101	104	105	1	1	SPLIT
JN11002	JN11002-102	105	106	1	0.38	SPLIT
JN11002	JN11002-103	106	107	1	0.99	SPLIT
JN11002	JN11002-104	107	108	1	1	SPLIT
JN11002	JN11002-105	108	108.62	0.62	0.62	SPLIT
JN11002	JN11002-106	108.62	109.63	1.01	0.3	SPLIT
JN11002	JN11002-107	109.63	110.64	1.01	0.36	SPLIT
JN11002	JN11002-108	110.64	111	0.36	0.359	SPLIT
JN11002	JN11002-109	111	112	1	1	SPLIT
JN11002	JN11002-110	112	113	1	0.99	SPLIT
JN11002	JN11002-111	113	114	1	0.85	SPLIT
JN11002	JN11002-112	114	115	1	0.93	SPLIT
JN11002	JN11002-113	115	116	1	0.87	SPLIT
JN11002	JN11002-114	116	117	1	0.92	SPLIT
JN11002	JN11002-115	117	118	1	1	SPLIT
JN11002	JN11002-116	118	119	1	0.89	SPLIT
JN11002	JN11002-117	119	120	1	0.95	SPLIT
JN11002	JN11002-118	120	121	1	0.98	SPLIT
JN11002	JN11002-119	121	122	1	0.92	SPLIT
JN11002	JN11002-120	122	123	1	0.95	SPLIT
JN11002	JN11002-121	123	124	1	0.97	SPLIT
JN11002	JN11002-122	147.8	149	1.2	1.09	SPLIT
JN11002	JN11002-123	149	150	1	0.97	SPLIT
JN11002	JN11002-124	150	151	1	0.93	SPLIT
JN11002	JN11002-125	151	152	1	1	SPLIT

DDH	Sample Number	From(m)	To(m)	Interval Length(m)	Recovered Length(m)	Sample Method
JN11002	JN11002-126	152	153	1	0.8	SPLIT
JN11002	JN11002-127	153	154	1	1	SPLIT
JN11002	JN11002-128	154	155.25	1.25	1.21	SPLIT
JN11002	JN11002-129	155.25	156	0.75	0.71	SPLIT
JN11002	JN11002-130	156	157	1	0.98	SPLIT
JN11002	JN11002-131	157	158	1	0.91	SPLIT
JN11002	JN11002-132	158	159	1	0.99	SPLIT
JN11002	JN11002-133	159	160	1	1	SPLIT
JN11002	JN11002-134	160	161	1	1	SPLIT
JN11002	JN11002-135	161	162	1	1	SPLIT
JN11002	JN11002-136	162	163	1	1	SPLIT
JN11002	JN11002-137	163	164.06	1.06	1.05	SPLIT
JN11002	JN11002-138	164.06	165	0.94	0.939	SPLIT
JN11002	JN11002-139	165	166	1	0.95	SPLIT
JN11002	JN11002-140	166	167	1	0.97	SPLIT
JN11002	JN11002-141	167	168	1	1	SPLIT
JN11002	JN11002-142	168	169	1	1	SPLIT
JN11002	JN11002-143	169	170	1	1	SPLIT
JN11002	JN11002-144	170	171	1	0.98	SPLIT
JN11002	JN11002-145	171	172	1	0.94	SPLIT
JN11002	JN11002-146	172	173	1	0.98	SPLIT
JN11002	JN11002-147	173	174	1	1	SPLIT
JN11002	JN11002-148	174	175.2	1.2	1.199	SPLIT
JN11002	JN11002-149	175.2	175.63	0.43	0.42	SPLIT
JN11002	JN11002-150	175.63	176	0.37	0.37	SPLIT
JN11002	JN11002-151	176	177	1	0.67	SPLIT
JN11002	JN11002-152	177	178	1	0.86	SPLIT

DDH	Sample Number	From(m)	To(m)	Interval Length(m)	Recovered Length(m)	Sample Method
JN11002	JN11002-153	178	179	1	0.97	SPLIT
JN11002	JN11002-154	179	180	1	0.99	SPLIT
JN11002	JN11002-155	180	181	1	0.99	SPLIT
JN11002	JN11002-156	181	182	1	1	SPLIT
JN11002	JN11002-157	182	183	1	0.91	SPLIT
JN11002	JN11002-158	183	184	1	1	SPLIT
JN11002	JN11002-159	184	185	1	0.97	SPLIT
JN11002	JN11002-160	185	186	1	0.91	SPLIT
JN11002	JN11002-161	186	187	1	0.94	SPLIT
JN11002	JN11002-162	187	188	1	1	SPLIT
JN11002	JN11002-163	188	189	1	0.92	SPLIT
JN11002	JN11002-164	189	190	1	0.74	SPLIT
JN11002	JN11002-165	190	191	1	0.98	SPLIT
JN11002	JN11002-166	191	192	1	0.97	SPLIT
JN11002	JN11002-167	192	192.4	0.4	0.39	SPLIT
JN11002	JN11002-168	192.4	193.4	1	1	SPLIT
JN11002	JN11002-169	193.4	194.25	0.85	0.849	SPLIT
JN11002	JN11002-170	194.25	194.4	0.15	0.15	SPLIT
JN11002	JN11002-171	194.4	196	1.6	1.59	SPLIT
JN11002	JN11002-172	196	197	1	0.79	SPLIT
JN11002	JN11002-173	197	198	1	0.52	SPLIT
JN11002	JN11002-174	198	199	1	1	SPLIT
JN11002	JN11002-175	199	200	1	1	SPLIT
JN11002	JN11002-176	200	201	1	1	SPLIT
JN11002	JN11002-177	201	202	1	0.8	SPLIT
JN11002	JN11002-178	202	203	1	1	SPLIT
JN11002	JN11002-179	203	204	1	0.96	SPLIT

DDH	Sample Number	From(m)	To(m)	Interval Length(m)	Recovered Length(m)	Sample Method
JN11002	JN11002-180	204	204.95	0.95	0.47	SPLIT
JN11002	JN11002-181	204.95	205.35	0.4	0.38	SPLIT
JN11002	JN11002-182	205.35	206	0.65	0.32	SPLIT
JN11002	JN11002-183	206	207	1	0.67	SPLIT
JN11002	JN11002-184	207	208	1	0.99	SPLIT
JN11002	JN11002-185	208	208.5	0.5	0.31	SPLIT
JN11002	JN11002-186	208.5	209.7	1.2	0.37	SPLIT
JN11002	JN11002-187	209.7	210.25	0.55	0.54	SPLIT
JN11002	JN11002-188	210.25	211.23	0.98	0.91	SPLIT
JN11003	JN11003-001	26.9	28	1.1	1.07	SPLIT
JN11003	JN11003-002	28	28.54	0.54	0.539	SPLIT
JN11003	JN11003-003	28.54	29	0.46	0.44	SPLIT
JN11003	JN11003-004	29	30	1	0.96	SPLIT
JN11003	JN11003-005	30	31	1	0.64	SPLIT
JN11003	JN11003-006	31	32	1	1	SPLIT
JN11003	JN11003-007	32	33	1	0.93	SPLIT
JN11003	JN11003-008	33	34	1	0.98	SPLIT
JN11003	JN11003-009	34	35	1	1	SPLIT
JN11003	JN11003-010	35	36	1	0.89	SPLIT
JN11003	JN11003-011	36	37	1	0.99	SPLIT
JN11003	JN11003-012	37	37.78	0.78	0.72	SPLIT
JN11003	JN11003-013	37.78	38.6	0.82	0.4	SPLIT
JN11003	JN11003-014	38.6	39.42	0.82	0.6	SPLIT
JN11003	JN11003-015	39.42	40.25	0.83	0.41	SPLIT
JN11003	JN11003-016	40.25	41.23	0.98	0.17	SPLIT
JN11003	JN11003-017	41.23	42.23	1	0.19	SPLIT
JN11003	JN11003-018	42.23	43.28	1.05	0.07	SPLIT

DDH	Sample Number	From(m)	To(m)	Interval Length(m)	Recovered Length(m)	Sample Method
JN11003	JN11003-019	43.28	43.38	0.1	0.08	SPLIT
JN11004	JN11004-001	10.34	11.38	1.04	0.53	SPLIT
JN11004	JN11004-002	11.38	12.4	1.02	0.38	SPLIT
JN11004	JN11004-003	12.4	13.41	1.01	0.5	SPLIT
JN11004	JN11004-004	13.41	14	0.59	0.59	SPLIT
JN11004	JN11004-005	14	15	1	0.67	SPLIT
JN11004	JN11004-006	15	16.26	1.26	1.26	SPLIT
JN11004	JN11004-007	16.26	17	0.74	0.48	SPLIT
JN11004	JN11004-008	17	18	1	1	SPLIT
JN11004	JN11004-009	18	19	1	1	SPLIT
JN11004	JN11004-010	19	20	1	0.95	SPLIT
JN11004	JN11004-011	20	21	1	0.98	SPLIT
JN11004	JN11004-012	21	22	1	1	SPLIT
JN11004	JN11004-013	22	23	1	1	SPLIT
JN11004	JN11004-014	23	24	1	1	SPLIT
JN11004	JN11004-015	24	25	1	0.94	SPLIT
JN11004	JN11004-016	25	26	1	0.96	SPLIT
JN11004	JN11004-017	26	27	1	0.95	SPLIT
JN11004	JN11004-018	27	28	1	0.95	SPLIT
JN11004	JN11004-019	28	29	1	1	SPLIT
JN11004	JN11004-020	29	29.7	0.7	0.68	SPLIT
JN11004	JN11004-021	29.7	30.9	1.2	1.14	SPLIT
JN11004	JN11004-022	30.9	31.67	0.77	0.77	SPLIT
JN11004	JN11004-023	31.67	32.44	0.77	0.72	SPLIT
JN11004	JN11004-024	32.44	33	0.56	0.55	SPLIT
JN11004	JN11004-025	33	34	1	0.97	SPLIT
JN11004	JN11004-026	34	35.14	1.14	1.14	SPLIT

DDH	Sample Number	From(m)	To(m)	Interval Length(m)	Recovered Length(m)	Sample Method
JN11004	JN11004-027	35.14	36.4	1.26	1.04	SPLIT
JN11004	JN11004-028	36.4	37	0.6	0.59	SPLIT
JN11004	JN11004-029	37	38	1	1	SPLIT
JN11004	JN11004-030	38	39	1	1	SPLIT
JN11004	JN11004-031	39	40	1	0.98	SPLIT
JN11004	JN11004-032	40	40.95	1	0.95	SPLIT
JN11004	JN11004-033	41	42	1	1	SPLIT
JN11004	JN11004-034	42	43	1	1	SPLIT
JN11004	JN11004-035	43	44	1	0.86	SPLIT
JN11004	JN11004-036	44	45	1	0.89	SPLIT
JN11004	JN11004-037	45	46	1	0.45	SPLIT
JN11004	JN11004-038	46	47	1	0.83	SPLIT
JN11004	JN11004-039	47	48	1	1	SPLIT
JN11004	JN11004-040	48	49	1	0.95	SPLIT
JN11004	JN11004-041	49	50	1	1	SPLIT
JN11004	JN11004-042	50	51	1	0.89	SPLIT
JN11004	JN11004-043	51	52	1	0.88	SPLIT
JN11004	JN11004-044	52	53	1	0.98	SPLIT
JN11004	JN11004-045	53	54	1	1	SPLIT
JN11004	JN11004-046	54	55	1	1	SPLIT
JN11004	JN11004-047	55	56	1	1	SPLIT
JN11004	JN11004-048	56	56.44	0.44	0.51	SPLIT
JN11004	JN11004-049	56.44	57.6	1.16	1.1	SPLIT
JN11004	JN11004-050	57.6	58	0.4	0.36	SPLIT
JN11004	JN11004-051	58	59	1	0.93	SPLIT
JN11004	JN11004-052	59	60	1	1	SPLIT
JN11004	JN11004-053	60	61	1	1	SPLIT

DDH	Sample Number	From(m)	To(m)	Interval Length(m)	Recovered Length(m)	Sample Method
JN11004	JN11004-054	61	62	1	1	SPLIT
JN11004	JN11004-055	62	63	1	1	SPLIT
JN11004	JN11004-056	63	63.63	0.63	63	SPLIT
JN11004	JN11004-057	63.63	64	0.37	0.37	SPLIT
JN11004	JN11004-058	64	65	1	0.77	SPLIT
JN11004	JN11004-059	65	66	1	0.98	SPLIT
JN11004	JN11004-060	66	67	1	0.97	SPLIT
JN11004	JN11004-061	67	68	1	1	SPLIT
JN11004	JN11004-062	68	69	1	1	SPLIT
JN11004	JN11004-063	69	70	1	0.84	SPLIT
JN11004	JN11004-064	70	71	1	1	SPLIT
JN11004	JN11004-065	71	72	1	1	SPLIT
JN11004	JN11004-066	72	73	1	1	SPLIT
JN11004	JN11004-067	73	74	1	1	SPLIT
JN11004	JN11004-068	74	74.7	0.7	0.7	SPLIT
JN11004	JN11004-069	74.7	76	1.3	1.05	SPLIT
JN11004	JN11004-070	76	77	1	1	SPLIT
JN11004	JN11004-071	87.04	88	0.96	0.96	SPLIT
JN11004	JN11004-072	88	89	1	0.98	SPLIT
JN11004	JN11004-073	89	90	1	0.95	SPLIT
JN11004	JN11004-074	90	90.5	0.5	0.5	SPLIT
JN11004	JN11004-075	93.38	94	0.62	0.6	SPLIT
JN11004	JN11004-076	94	95	1	0.96	SPLIT
JN11004	JN11004-077	95	96	1	0.89	SPLIT
JN11004	JN11004-078	102.6	103.6	1	0.97	SPLIT
JN11004	JN11004-079	103.6	104.6	1	0.8	SPLIT
JN11004	JN11004-080	104.6	105.6	1	1	SPLIT

DDH	Sample Number	From(m)	To(m)	Interval Length(m)	Recovered Length(m)	Sample Method
JN11004	JN11004-081	113.5	114.7	1.2	1.17	SPLIT
JN11004	JN11004-082	114.7	115.6	0.9	0.89	SPLIT
JN11004	JN11004-083	115.6	116.9	1.3	1.2	SPLIT
JN11004	JN11004-084	119.27	120.27	1	0.92	SPLIT
JN11004	JN11004-085	120.27	121.27	1	0.94	SPLIT
JN11004	JN11004-086	121.27	122.27	1	0.98	SPLIT
JN11004	JN11004-087	122.27	123.5	1.23	1.18	SPLIT
JN11004	JN11004-088	126.18	127	0.82	0.72	SPLIT
JN11004	JN11004-089	127	128	1	0.87	SPLIT
JN11004	JN11004-090	128	129	1	1	SPLIT
JN11004	JN11004-091	131.7	132.6	0.9	0.9	SPLIT
JN11004	JN11004-092	146.52	147.52	1	0.98	SPLIT
JN11004	JN11004-093	147.52	148.52	1	0.96	SPLIT
JN11004	JN11004-094	148.52	149.52	1	0.91	SPLIT
JN11004	JN11004-095	149.52	150.52	1	0.98	SPLIT
JN11004	JN11004-096	150.52	151.3	0.78	0.78	SPLIT
JN11004	JN11004-097	151.3	152	0.7	0.69	SPLIT
JN11004	JN11004-098	152	152.8	0.8	0.8	SPLIT
JN11004	JN11004-099	160.6	161.3	0.7	0.45	SPLIT
JN11004	JN11004-100	161.3	162	0.7	0.69	SPLIT
JN11004	JN11004-101	162	163	1	0.92	SPLIT
JN11004	JN11004-102	163	164	1	0.85	SPLIT
JN11004	JN11004-103	164	165	1	0.92	SPLIT
JN11004	JN11004-104	165	166	1	1	SPLIT
JN11004	JN11004-105	166	167	1	1	SPLIT
JN11004	JN11004-106	167	168	1	0.97	SPLIT
JN11004	JN11004-107	168	169	1	0.93	SPLIT

DDH	Sample Number	From(m)	To(m)	Interval Length(m)	Recovered Length(m)	Sample Method
JN11004	JN11004-108	169	170	1	1	SPLIT
JN11004	JN11004-109	170	171	1	0.96	SPLIT
JN11004	JN11004-110	171	172	1	1	SPLIT
JN11004	JN11004-111	172	173	1	0.98	SPLIT
JN11004	JN11004-112	173	174	1	1	SPLIT
JN11004	JN11004-113	174	175	1	0.92	SPLIT
JN11004	JN11004-114	175	176	1	0.94	SPLIT
JN11004	JN11004-115	176	177	1	0.97	SPLIT
JN11004	JN11004-116	177	178	1	0.98	SPLIT
JN11004	JN11004-117	178	179	1	1	SPLIT
JN11004	JN11004-118	179	180	1	1	SPLIT
JN11004	JN11004-119	180	181	1	0.82	SPLIT
JN11004	JN11004-120	181	182	1	0.95	SPLIT
JN11004	JN11004-121	189.9	191	1.1	1.09	SPLIT
JN11004	JN11004-122	191	192.1	1.1	1.06	SPLIT
JN11005	JN11005-001	12.21	13	0.79	0.79	SPLIT
JN11005	JN11005-002	13	14	1	0.97	SPLIT
JN11005	JN11005-003	14	15	1	0.98	SPLIT
JN11005	JN11005-004	15	16	1	0.94	SPLIT
JN11005	JN11005-005	16	17	1	0.87	SPLIT
JN11005	JN11005-006	17	17.33	0.33	0.33	SPLIT
JN11005	JN11005-007	17.33	18.17	0.84	0.55	SPLIT
JN11005	JN11005-008	18.17	19.01	0.84	0.84	SPLIT
JN11005	JN11005-009	19.01	20.02	1.01	0.35	SPLIT
JN11005	JN11005-010	20.02	20.55	0.53	0.38	SPLIT
JN11005	JN11005-011	20.55	21	0.45	0.4	SPLIT
JN11005	JN11005-012	21	22	1	1	SPLIT

DDH	Sample Number	From(m)	To(m)	Interval Length(m)	Recovered Length(m)	Sample Method
JN11005	JN11005-013	22	23	1	0.96	SPLIT
JN11005	JN11005-014	23	23.5	0.5	0.5	SPLIT
JN11005	JN11005-015	23.5	24	0.5	0.47	SPLIT
JN11005	JN11005-016	24	25	1	0.83	SPLIT
JN11005	JN11005-017	25	26	1	0.98	SPLIT
JN11005	JN11005-018	26	27	1	0.96	SPLIT
JN11005	JN11005-019	27	28	1	0.85	SPLIT
JN11005	JN11005-020	28	28.6	0.6	0.5	SPLIT
JN11005	JN11005-021	28.6	29.35	0.75	0.73	SPLIT
JN11005	JN11005-022	29.35	29.75	0.4	0.35	SPLIT
JN11005	JN11005-023	29.75	30.25	0.5	0.5	SPLIT
JN11005	JN11005-024	30.25	31.18	0.93	0.89	SPLIT
JN11005	JN11005-025	31.18	32	0.82	0.8	SPLIT
JN11005	JN11005-026	32	33	1	0.98	SPLIT
JN11005	JN11005-027	38	38.68	0.68	0.68	SPLIT
JN11005	JN11005-028	38.68	39	0.32	0.29	SPLIT
JN11005	JN11005-029	39	40	1	0.95	SPLIT
JN11005	JN11005-030	43.29	44	0.71	0.7	SPLIT
JN11005	JN11005-031	44	45	1	0.98	SPLIT
JN11005	JN11005-032	45	46	1	0.97	SPLIT
JN11005	JN11005-033	46	47	1	0.8	SPLIT
JN11005	JN11005-034	47	48	1	1	SPLIT
JN11005	JN11005-035	48	49	1	0.93	SPLIT
JN11005	JN11005-036	49	50	1	0.98	SPLIT
JN11005	JN11005-037	50	50.68	0.68	0.68	SPLIT
JN11005	JN11005-038	50.68	51.15	0.47	0.47	SPLIT
JN11005	JN11005-039	51.15	51.7	0.55	0.55	SPLIT

DDH	Sample Number	From(m)	To(m)	Interval Length(m)	Recovered Length(m)	Sample Method
JN11005	JN11005-040	51.7	52.38	0.68	0.59	SPLIT
JN11005	JN11005-041	52.38	52.94	0.56	0.56	SPLIT
JN11005	JN11005-042	52.94	53.66	0.72	0.72	SPLIT
JN11005	JN11005-043	53.66	54.67	1.01	1	SPLIT
JN11005	JN11005-044	54.67	55.47	0.8	0.78	SPLIT
JN11005	JN11005-045	55.47	56.5	1.03	0.84	SPLIT
JN11005	JN11005-046	56.5	57.1	0.6	0.6	SPLIT
JN11005	JN11005-047	57.1	58	0.9	0.88	SPLIT
JN11005	JN11005-048	58	59	1	0.86	SPLIT
JN11005	JN11005-049	59	60.15	1.15	1.12	SPLIT
JN11005	JN11005-050	60.15	60.4	0.25	0.24	SPLIT
JN11005	JN11005-051	60.4	61	0.6	0.59	SPLIT
JN11005	JN11005-052	61	62	1	0.99	SPLIT
JN11005	JN11005-053	62	62.5	0.5	0.4	SPLIT
JN11005	JN11005-054	62.5	62.79	0.29	0.28	SPLIT
JN11005	JN11005-055	62.79	63.14	0.35	0.34	SPLIT
JN11005	JN11005-056	63.14	64	0.86	0.85	SPLIT
JN11005	JN11005-057	64	65	1	0.98	SPLIT
JN11005	JN11005-058	65	65.85	0.85	0.82	SPLIT
JN11005	JN11005-059	65.85	66.3	0.45	0.45	SPLIT
JN11005	JN11005-060	66.3	66.5	0.2	0.2	SPLIT
JN11005	JN11005-061	66.5	67.5	1	1	SPLIT
JN11005	JN11005-062	67.5	68.5	1	0.96	SPLIT
JN11005	JN11005-063	68.5	69.5	1	0.97	SPLIT
JN11005	JN11005-064	69.5	70.5	1	0.89	SPLIT
JN11005	JN11005-065	70.5	71.5	1	0.95	SPLIT
JN11005	JN11005-066	71.5	72.68	1.18	1.16	SPLIT

DDH	Sample Number	From(m)	To(m)	Interval Length(m)	Recovered Length(m)	Sample Method
JN11005	JN11005-067	72.68	73.51	0.83	0.83	SPLIT
JN11005	JN11005-068	73.51	73.85	0.34	0.33	SPLIT
JN11005	JN11005-069	73.85	74.1	0.25	0.25	SPLIT
JN11005	JN11005-070	74.1	75	0.9	0.88	SPLIT
JN11005	JN11005-071	80.7	81.9	1.2	1.2	SPLIT
JN11005	JN11005-072	81.9	82.95	1.05	1.05	SPLIT
JN11005	JN11005-073	82.95	84.1	1.15	1.06	SPLIT
JN11005	JN11005-074	84.1	85.3	1.2	1.2	SPLIT
JN11005	JN11005-075	85.3	86.3	1	0.97	SPLIT
JN11005	JN11005-076	86.3	87.3	1	1	SPLIT
JN11005	JN11005-077	87.3	88.3	1	0.75	SPLIT
JN11005	JN11005-078	88.3	89.3	1	1	SPLIT
JN11005	JN11005-079	89.3	90.3	1	0.98	SPLIT
JN11005	JN11005-080	95.7	96.2	0.5	0.5	SPLIT
JN11005	JN11005-081	96.2	97.2	1	0.97	SPLIT
JN11005	JN11005-082	97.2	97.42	0.22	0.22	SPLIT
JN11005	JN11005-083	97.42	98.52	1.1	1	SPLIT
JN11005	JN11005-084	98.52	99	0.48	0.47	SPLIT
JN11005	JN11005-085	99	99.75	0.75	0.75	SPLIT
JN11005	JN11005-086	99.75	100.65	0.9	0.89	SPLIT
JN11005	JN11005-087	100.65	100.85	0.2	0.2	SPLIT
JN11005	JN11005-088	100.85	101.85	1	0.98	SPLIT
JN11005	JN11005-089	101.85	102.85	1	0.74	SPLIT
JN11005	JN11005-090	102.85	103.4	0.55	0.53	SPLIT
JN11005	JN11005-091	103.4	104.05	0.65	0.63	SPLIT
JN11005	JN11005-092	104.05	105.05	1	0.98	SPLIT
JN11005	JN11005-093	108.8	109.8	1	1	SPLIT

DDH	Sample Number	From(m)	To(m)	Interval Length(m)	Recovered Length(m)	Sample Method
JN11005	JN11005-094	109.8	110.15	0.35	0.35	SPLIT
JN11005	JN11005-095	110.15	111.15	1	0.87	SPLIT
JN11005	JN11005-096	119	119.7	0.7	0.66	SPLIT
JN11005	JN11005-097	119.7	120.9	1.2	1.07	SPLIT
JN11005	JN11005-098	120.9	121.35	0.45	0.44	SPLIT
JN11005	JN11005-099	121.35	122.35	1	0.95	SPLIT
JN11005	JN11005-100	133.85	134.74	0.79	0.8	SPLIT
JN11005	JN11005-101	134.74	135	0.26	0.24	SPLIT
JN11005	JN11005-102	135	136	1	1	SPLIT
JN11005	JN11005-103	140.3	141	0.7	0.65	SPLIT
JN11005	JN11005-104	141	142	1	0.96	SPLIT
JN11005	JN11005-105	142	143	1	0.81	SPLIT
JN11005	JN11005-106	143	143.85	0.85	0.85	SPLIT
JN11005	JN11005-107	143.85	144.45	0.6	0.6	SPLIT
JN11005	JN11005-108	144.45	145.25	0.8	0.73	SPLIT
JN11005	JN11005-109	145.25	146.2	0.95	0.95	SPLIT
JN11005	JN11005-110	146.2	146.5	0.3	0.3	SPLIT
JN11005	JN11005-111	146.5	147.7	1.2	1.05	SPLIT
JN11005	JN11005-112	147.7	148.7	1	0.94	SPLIT
JN11005	JN11005-113	148.7	149.2	0.5	0.5	SPLIT
JN11005	JN11005-114	149.2	149.4	0.2	0.2	SPLIT
JN11005	JN11005-115	149.4	150	0.6	0.58	SPLIT
JN11005	JN11005-116	160	160.9	0.9	0.9	SPLIT
JN11005	JN11005-117	160.9	161.45	0.55	0.55	SPLIT
JN11005	JN11005-118	161.45	162	0.55	0.55	SPLIT
JN11005	JN11005-119	169	170	1	1	SPLIT
JN11005	JN11005-120	170	171	1	1	SPLIT

DDH	Sample Number	From(m)	To(m)	Interval Length(m)	Recovered Length(m)	Sample Method
JN11005	JN11005-121	171	172	1	0.9	SPLIT
JN11005	JN11005-122	172	173	1	1	SPLIT
JN11005	JN11005-123	173	174	1	0.98	SPLIT
JN11005	JN11005-124	174	175	1	1	SPLIT
JN11005	JN11005-125	175	175.5	0.5	0.5	SPLIT
JN11005	JN11005-126	175.5	176.5	1	0.97	SPLIT
JN11005	JN11005-127	176.5	177.5	1	0.97	SPLIT
JN11005	JN11005-128	177.5	178.65	1.15	1.05	SPLIT
JN11005	JN11005-129	178.65	179.65	1	0.98	SPLIT
JN11005	JN11005-130	179.65	180.65	1	1	SPLIT
JN11005	JN11005-131	187.5	188	0.5	0.49	SPLIT
JN11005	JN11005-132	196.47	197	0.53	0.54	SPLIT
JN11006	JN11006-001	9.7	10.15	0.45	0.43	SPLIT
JN11006	JN11006-002	10.15	10.4	0.25	0.2	SPLIT
JN11006	JN11006-003	10.4	11.27	0.87	0.8	SPLIT
JN11006	JN11006-004	11.27	11.6	0.33	0.18	SPLIT
JN11006	JN11006-005	11.6	11.85	0.25	0.23	SPLIT
JN11006	JN11006-006	11.85	12.6	0.75	0.6	SPLIT
JN11006	JN11006-007	12.6	13.6	1	0.36	SPLIT
JN11006	JN11006-008	13.6	14.6	1	0.93	SPLIT
JN11006	JN11006-009	14.6	15.6	1	0.9	SPLIT
JN11006	JN11006-010	15.6	17	1.4	0.8	SPLIT
JN11006	JN11006-011	17	18	1	0.9	SPLIT
JN11006	JN11006-012	18	19	1	0.9	SPLIT
JN11006	JN11006-013	19	20	1	0.56	SPLIT
JN11006	JN11006-014	20	21.15	1.15	1.08	SPLIT
JN11006	JN11006-015	21.15	21.4	0.25	0.19	SPLIT

DDH	Sample Number	From(m)	To(m)	Interval Length(m)	Recovered Length(m)	Sample Method
JN11006	JN11006-016	21.4	22	0.6	0.56	SPLIT
JN11006	JN11006-017	22	23	1	0.95	SPLIT
JN11006	JN11006-018	23	23.7	0.7	0.5	SPLIT
JN11006	JN11006-019	23.7	25	1.3	0.97	SPLIT
JN11006	JN11006-020	25	25.6	0.6	0.58	SPLIT
JN11006	JN11006-021	25.6	26	0.4	0.38	SPLIT
JN11006	JN11006-022	26	26.8	0.8	0.76	SPLIT
JN11006	JN11006-023	26.8	27.6	0.8	0.75	SPLIT
JN11006	JN11006-024	27.6	28.6	1	0.98	SPLIT
JN11006	JN11006-025	28.6	29.2	0.6	0.48	SPLIT
JN11006	JN11006-026	33.1	33.8	0.7	0.68	SPLIT
JN11006	JN11006-027	33.8	34.5	0.7	0.7	SPLIT
JN11006	JN11006-028	34.5	35.5	1	0.78	SPLIT
JN11006	JN11006-029	35.5	36.5	1	0.99	SPLIT
JN11006	JN11006-030	36.5	37.5	1	0.86	SPLIT
JN11006	JN11006-031	37.5	38.5	1	0.93	SPLIT
JN11006	JN11006-032	38.5	39.2	0.7	0.68	SPLIT
JN11006	JN11006-033	39.2	40.2	1	0.72	SPLIT
JN11006	JN11006-034	40.2	41	0.8	0.75	SPLIT
JN11006	JN11006-035	41	42.4	1.4	1.3	SPLIT
JN11006	JN11006-036	44.3	45.3	1	1	SPLIT
JN11006	JN11006-037	45.3	46.3	1	1	SPLIT
JN11006	JN11006-038	46.3	47.3	1	0.94	SPLIT
JN11006	JN11006-039	47.3	48.1	0.8	0.66	SPLIT
JN11006	JN11006-040	48.1	49.1	1	1	SPLIT
JN11006	JN11006-041	49.1	49.85	0.75	0.75	SPLIT
JN11006	JN11006-042	49.85	50.85	1	0.85	SPLIT

DDH	Sample Number	From(m)	To(m)	Interval Length(m)	Recovered Length(m)	Sample Method
JN11006	JN11006-043	50.85	52	1.15	1.06	SPLIT
JN11006	JN11006-044	52	53.1	1.1	1.1	SPLIT
JN11006	JN11006-045	96	97.2	1.2	1.15	SPLIT
JN11007	JN11007-001	8.45	9.45	1	0.92	SPLIT
JN11007	JN11007-002	9.45	10.75	1.3	1.3	SPLIT
JN11007	JN11007-003	10.75	11.15	0.4	0.4	SPLIT
JN11007	JN11007-004	11.15	12.55	1.4	1.35	SPLIT
JN11007	JN11007-005	12.55	13.05	0.5	0.5	SPLIT
JN11007	JN11007-006	13.05	14	0.95	0.93	SPLIT
JN11007	JN11007-007	14	15	1	0.98	SPLIT
JN11007	JN11007-008	15	16	1	0.98	SPLIT
JN11007	JN11007-009	16	17	1	0.9	SPLIT
JN11007	JN11007-010	17	18	1	0.33	SPLIT
JN11007	JN11007-011	18	19	1	0.88	SPLIT
JN11007	JN11007-012	19	20	1	0.76	SPLIT
JN11007	JN11007-013	20	21	1	0.72	SPLIT
JN11007	JN11007-014	21	22	1	0.93	SPLIT
JN11007	JN11007-015	22	23.1	1.1	1.08	SPLIT
JN11007	JN11007-016	23.1	23.35	0.25	0.25	SPLIT
JN11007	JN11007-017	23.35	24.1	0.75	0.6	SPLIT
JN11007	JN11007-018	24.1	25	0.9	0.76	SPLIT
JN11007	JN11007-019	25	25.98	0.98	0.9	SPLIT
JN11007	JN11007-020	25.98	26.6	0.62	0.61	SPLIT
JN11007	JN11007-021	26.6	27.3	0.7	0.69	SPLIT
JN11007	JN11007-022	27.3	27.8	0.5	0.47	SPLIT
JN11007	JN11007-023	27.8	28.95	1.15	1.13	SPLIT
JN11007	JN11007-024	28.95	29.9	0.95	0.71	SPLIT

DDH	Sample Number	From(m)	To(m)	Interval Length(m)	Recovered Length(m)	Sample Method
JN11007	JN11007-025	29.9	30.5	0.6	0.58	SPLIT
JN11007	JN11007-026	30.5	31.7	1.2	1.15	SPLIT
JN11007	JN11007-027	31.7	32.23	0.53	0.53	SPLIT
JN11007	JN11007-028	32.23	33	0.77	0.76	SPLIT
JN11007	JN11007-029	33	34.21	1.21	1.02	SPLIT
JN11007	JN11007-030	34.21	34.6	0.39	0.39	SPLIT
JN11007	JN11007-031	34.6	35.35	0.75	0.72	SPLIT
JN11007	JN11007-032	35.35	36.6	1.25	1.17	SPLIT
JN11007	JN11007-033	36.6	37.85	1.25	1.25	SPLIT
JN11007	JN11007-034	37.85	38.85	1	0.81	SPLIT
JN11007	JN11007-035	38.85	39.8	0.95	0.83	SPLIT
JN11007	JN11007-036	39.8	41	1.2	1.18	SPLIT
JN11007	JN11007-037	41	41.65	0.65	0.63	SPLIT
JN11007	JN11007-038	41.65	43	1.35	1.13	SPLIT
JN11007	JN11007-039	43	44	1	0.97	SPLIT
JN11007	JN11007-040	44	45	1	0.92	SPLIT
JN11007	JN11007-041	45	46	1	0.87	SPLIT
JN11007	JN11007-042	46	47	1	0.96	SPLIT
JN11007	JN11007-043	47	48	1	1	SPLIT
JN11007	JN11007-044	48	49	1	0.92	SPLIT
JN11007	JN11007-045	49	50	1	1	SPLIT
JN11007	JN11007-046	50	51	1	1	SPLIT
JN11007	JN11007-047	51	52	1	0.85	SPLIT
JN11007	JN11007-048	52	53	1	1	SPLIT
JN11007	JN11007-049	53	54	1	0.9	SPLIT
JN11007	JN11007-050	54	55	1	0.96	SPLIT
JN11007	JN11007-051	55	56	1	1	SPLIT

DDH	Sample Number	From(m)	To(m)	Interval Length(m)	Recovered Length(m)	Sample Method
JN11007	JN11007-052	56	56.8	0.8	0.78	SPLIT
JN11007	JN11007-053	56.8	57.3	0.5	0.48	SPLIT
JN11007	JN11007-054	57.3	58.15	0.85	0.7	SPLIT
JN11007	JN11007-055	58.15	59.15	1	0.92	SPLIT
JN11007	JN11007-056	70.3	71.35	1.05	1	SPLIT
JN11007	JN11007-057	71.35	71.7	0.35	0.35	SPLIT
JN11007	JN11007-058	71.7	72.7	1	0.97	SPLIT
JN11007	JN11007-059	72.7	73	0.3	0.3	SPLIT
JN11007	JN11007-060	73	73.9	0.9	0.88	SPLIT
JN11007	JN11007-061	79.6	80.6	1	1	SPLIT
JN11007	JN11007-062	80.6	81.6	1	1	SPLIT
JN11007	JN11007-063	81.6	82.6	1	0.95	SPLIT
JN11007	JN11007-064	82.6	83.85	1.25	1.25	SPLIT
JN11007	JN11007-065	83.85	84.7	0.85	0.85	SPLIT
JN11007	JN11007-066	84.7	85.7	1	0.91	SPLIT
JN11007	JN11007-067	85.7	86.8	1.1	1.01	SPLIT
JN11007	JN11007-068	86.8	87.65	0.85	0.83	SPLIT
JN11007	JN11007-069	87.65	88.65	1	1	SPLIT
JN11007	JN11007-070	88.65	90.15	1.5	1.35	SPLIT
JN11007	JN11007-071	90.15	90.44	0.29	0.28	SPLIT
JN11007	JN11007-072	90.44	90.74	0.3	0.29	SPLIT
JN11007	JN11007-073	90.74	91.48	0.74	0.72	SPLIT
JN11007	JN11007-074	91.48	92.5	1.02	0.99	SPLIT
JN11007	JN11007-075	92.5	93.35	0.85	0.84	SPLIT
JN11007	JN11007-076	93.35	93.55	0.2	0.2	SPLIT
JN11007	JN11007-077	93.55	94.55	1	0.98	SPLIT
JN11007	JN11007-078	123.15	123.95	0.8	0.7	SPLIT

DDH	Sample Number	From(m)	To(m)	Interval Length(m)	Recovered Length(m)	Sample Method
JN11007	JN11007-079	123.95	125.27	1.32	0.84	SPLIT
JN11007	JN11007-080	125.27	125.9	0.63	0.6	SPLIT
JN11007	JN11007-081	125.9	127.45	1.55	1.1	SPLIT
JN11007	JN11007-082	127.45	128.2	0.75	0.73	SPLIT
JN11007	JN11007-083	128.2	128.65	0.45	0.4	SPLIT
JN11007	JN11007-084	128.65	129.15	0.5	0.5	SPLIT
JN11007	JN11007-085	129.15	129.77	0.62	0.62	SPLIT
JN11007	JN11007-086	129.77	130.9	1.13	0.95	SPLIT
JN11007	JN11007-087	130.9	131.93	1.03	0.99	SPLIT
JN11007	JN11007-088	131.93	132.55	0.62	0.6	SPLIT
JN11007	JN11007-089	132.55	133.35	0.8	0.73	SPLIT
JN11007	JN11007-090	133.35	134.35	1	0.95	SPLIT
JN11007	JN11007-091	134.35	135	0.65	0.62	SPLIT
JN11007	JN11007-092	135	135.65	0.65	0.65	SPLIT
JN11007	JN11007-093	135.65	136.2	0.55	0.55	SPLIT
JN11007	JN11007-094	136.2	137.5	1.3	1.1	SPLIT
JN11007	JN11007-095	137.5	138.5	1	0.97	SPLIT
JN11007	JN11007-096	138.5	139.17	0.67	0.6	SPLIT
JN11007	JN11007-097	139.17	139.52	0.35	0.32	SPLIT
JN11007	JN11007-098	139.52	140.4	0.88	0.72	SPLIT
JN11007	JN11007-099	140.4	140.85	0.45	0.41	SPLIT
JN11007	JN11007-100	140.85	141.5	0.65	0.63	SPLIT
JN11007	JN11007-101	141.5	142.5	1	1	SPLIT
JN11007	JN11007-102	142.5	142.95	0.45	0.44	SPLIT
JN11007	JN11007-103	142.95	143.3	0.35	0.25	SPLIT
JN11007	JN11007-104	143.3	143.92	0.62	0.6	SPLIT
JN11007	JN11007-105	150.14	151.14	1	1	SPLIT

DDH	Sample Number	From(m)	To(m)	Interval Length(m)	Recovered Length(m)	Sample Method
JN11007	JN11007-106	151.14	151.7	0.56	0.52	SPLIT
JN11007	JN11007-107	151.7	152.6	0.9	0.66	SPLIT
JN11007	JN11007-108	152.6	153.6	1	0.87	SPLIT
JN11007	JN11007-109	153.6	154.1	0.5	0.45	SPLIT
JN11007	JN11007-110	154.1	155.1	1	0.87	SPLIT
JN11007	JN11007-111	155.1	156.1	1	0.87	SPLIT
JN11007	JN11007-112	156.1	157.1	1	0.95	SPLIT
JN11007	JN11007-113	157.1	158	0.9	0.5	SPLIT
JN11007	JN11007-114	158	159	1	0.77	SPLIT
JN11007	JN11007-115	159	160	1	0.95	SPLIT
JN11007	JN11007-116	160	161	1	0.35	SPLIT
JN11007	JN11007-117	161	161.75	0.75	0.68	SPLIT
JN11007	JN11007-118	161.75	162.45	0.7	0.69	SPLIT
JN11007	JN11007-119	162.45	163.5	1.05	0.62	SPLIT
JN11007	JN11007-120	163.5	164	0.5	0.5	SPLIT
JN11007	JN11007-121	164	164.4	0.4	0.38	SPLIT
JN11007	JN11007-122	164.4	165.1	0.7	0.6	SPLIT
JN11007	JN11007-123	165.1	166	0.9	0.84	SPLIT
JN11007	JN11007-124	166	166.6	0.6	0.45	SPLIT
JN11007	JN11007-125	166.6	168	1.4	1.33	SPLIT
JN11007	JN11007-126	168	168.25	0.25	0.25	SPLIT
JN11007	JN11007-127	168.25	169.25	1	0.97	SPLIT
JN11007	JN11007-128	169.25	169.75	0.5	0.46	SPLIT
JN11007	JN11007-129	169.75	170.7	0.95	0.46	SPLIT
JN11007	JN11007-130	170.7	172	1.3	0.76	SPLIT
JN11007	JN11007-131	172	173	1	0.45	SPLIT
JN11007	JN11007-132	173	173.65	0.65	0.45	SPLIT

DDH	Sample Number	From(m)	To(m)	Interval Length(m)	Recovered Length(m)	Sample Method
JN11007	JN11007-133	173.65	174	0.35	0.35	SPLIT
JN11007	JN11007-134	174	175	1	0.28	SPLIT
JN11007	JN11007-135	175	176	1	0.3	SPLIT
JN11007	JN11007-136	176	177.08	1	0.3	SPLIT
JN11008	JN11008-001	12.9	13.4	0.5	0.48	SPLIT
JN11008	JN11008-002	13.4	14	0.6	0.55	SPLIT
JN11008	JN11008-003	14	14.5	0.5	0.48	SPLIT
JN11008	JN11008-004	14.5	15.5	1	0.92	SPLIT
JN11008	JN11008-005	15.5	16.5	1	0.98	SPLIT
JN11008	JN11008-006	16.5	17.5	1	0.98	SPLIT
JN11008	JN11008-007	17.5	18.5	1	0.88	SPLIT
JN11008	JN11008-008	18.5	19.48	0.98	0.93	SPLIT
JN11008	JN11008-009	19.48	20.45	0.97	0.9	SPLIT
JN11008	JN11008-010	20.45	21.8	1.35	1.32	SPLIT
JN11008	JN11008-011	21.8	22.8	1	1	SPLIT
JN11008	JN11008-012	22.8	23.5	0.7	0.65	SPLIT
JN11008	JN11008-013	23.5	24.65	1.15	0.95	SPLIT
JN11008	JN11008-014	24.65	25.5	0.85	0.85	SPLIT
JN11008	JN11008-015	25.5	26.1	0.6	0.6	SPLIT
JN11008	JN11008-016	26.1	27.1	1	0.7	SPLIT
JN11008	JN11008-017	27.1	28	0.9	0.85	SPLIT
JN11008	JN11008-018	28	28.6	0.6	0.56	SPLIT
JN11008	JN11008-019	28.6	29.05	0.45	0.44	SPLIT
JN11008	JN11008-020	29.05	30	0.95	0.61	SPLIT
JN11008	JN11008-021	30	31	1	1	SPLIT
JN11008	JN11008-022	31	31.75	0.75	0.75	SPLIT
JN11008	JN11008-023	31.75	32.1	0.35	0.35	SPLIT

DDH	Sample Number	From(m)	To(m)	Interval Length(m)	Recovered Length(m)	Sample Method
JN11008	JN11008-024	32.1	32.9	0.8	0.66	SPLIT
JN11008	JN11008-025	32.9	34.1	1.2	1.16	SPLIT
JN11008	JN11008-026	34.1	35.1	1	0.98	SPLIT
JN11008	JN11008-027	35.1	35.2	0.1	0.1	SPLIT
JN11008	JN11008-028	35.2	36.2	1	1	SPLIT
JN11008	JN11008-029	36.2	37.2	1	0.85	SPLIT
JN11008	JN11008-030	37.2	38.45	1.25	1.25	SPLIT
JN11008	JN11008-031	38.45	39	0.55	0.54	SPLIT
JN11008	JN11008-032	39	40.1	1.1	0.9	SPLIT
JN11008	JN11008-033	40.1	41.2	1.1	1.06	SPLIT
JN11008	JN11008-034	41.2	42.1	0.9	0.85	SPLIT
JN11008	JN11008-035	42.1	42.75	0.65	0.65	SPLIT
JN11008	JN11008-036	42.75	43.7	0.95	0.9	SPLIT
JN11008	JN11008-037	43.7	44.3	0.6	0.6	SPLIT
JN11008	JN11008-038	44.3	44.75	0.45	0.45	SPLIT
JN11008	JN11008-039	44.75	45.53	0.78	0.78	SPLIT
JN11008	JN11008-040	45.53	46.4	0.87	0.82	SPLIT
JN11008	JN11008-041	46.4	47.4	1		SPLIT
JN11008	JN11008-042	47.4	48.3	0.9	0.87	SPLIT
JN11008	JN11008-043	48.3	49	0.7	0.68	SPLIT
JN11008	JN11008-044	49	50	1	0.89	SPLIT
JN11008	JN11008-045	50	51	1	1	SPLIT
JN11008	JN11008-046	51	52	1	1	SPLIT
JN11008	JN11008-047	52	52.4	0.4	0.3	SPLIT
JN11008	JN11008-048	52.4	53.2	0.8	0.78	SPLIT
JN11008	JN11008-049	53.2	53.4	0.2	0.18	SPLIT
JN11008	JN11008-050	53.4	54.4	1	0.95	SPLIT

DDH	Sample Number	From(m)	To(m)	Interval Length(m)	Recovered Length(m)	Sample Method
JN11008	JN11008-051	54.4	55.4	1	0.83	SPLIT
JN11008	JN11008-052	55.4	56.4	1	1	SPLIT
JN11008	JN11008-053	56.4	57.1	0.7	0.7	SPLIT
JN11008	JN11008-054	57.1	57.92	0.82	0.82	SPLIT
JN11008	JN11008-055	57.92	58.8	0.88	0.86	SPLIT
JN11008	JN11008-056	58.8	59.8	1	0.97	SPLIT
JN11008	JN11008-057	59.8	61	1.2	1	SPLIT
JN11008	JN11008-058	61	61.7	0.7	0.7	SPLIT
JN11008	JN11008-059	61.7	62.7	1	0.94	SPLIT
JN11008	JN11008-060	62.7	63	0.3	0.3	SPLIT
JN11008	JN11008-061	63	64	1	0.9	SPLIT
JN11008	JN11008-062	64	65.4	1.4	1.36	SPLIT
JN11008	JN11008-063	65.4	66.1	0.7	0.68	SPLIT
JN11008	JN11008-064	66.1	67.1	1	0.75	SPLIT
JN11008	JN11008-065	67.1	68.1	1	0.86	SPLIT
JN11008	JN11008-066	68.1	69	0.9	0.6	SPLIT
JN11008	JN11008-067	69	70	1	0.8	SPLIT
JN11008	JN11008-068	70	71.1	1.1	0.93	SPLIT
JN11008	JN11008-069	71.1	72	0.9	0.76	SPLIT
JN11008	JN11008-070	72	73	1	1	SPLIT
JN11008	JN11008-071	73	74	1	0.9	SPLIT
JN11008	JN11008-072	74	75	1	1	SPLIT
JN11008	JN11008-073	75	76	1	0.95	SPLIT
JN11008	JN11008-074	76	77	1	1	SPLIT
JN11008	JN11008-075	77	78	1	1	SPLIT
JN11008	JN11008-076	78	79	1	0.92	SPLIT
JN11008	JN11008-077	79	80	1	0.98	SPLIT

DDH	Sample Number	From(m)	To(m)	Interval Length(m)	Recovered Length(m)	Sample Method
JN11008	JN11008-078	80	81	1	0.92	SPLIT
JN11008	JN11008-079	81	81.8	0.8	0.8	SPLIT
JN11008	JN11008-080	81.8	82.1	0.3	0.3	SPLIT
JN11008	JN11008-081	82.1	83.1	1	0.97	SPLIT
JN11008	JN11008-082	83.1	84.05	0.95	0.62	SPLIT
JN11008	JN11008-083	84.05	85	0.95	0.66	SPLIT
JN11008	JN11008-084	85	86	1	0.77	SPLIT
JN11008	JN11008-085	86	87	1	0.97	SPLIT
JN11008	JN11008-086	87	88.2	1.2	1.14	SPLIT
JN11008	JN11008-087	88.2	89	0.8	0.64	SPLIT
JN11008	JN11008-088	89	89.85	0.85	0.77	SPLIT
JN11008	JN11008-089	89.85	91	1.15	1.13	SPLIT
JN11008	JN11008-090	91	92	1	0.96	SPLIT
JN11008	JN11008-091	92	93	1	1	SPLIT
JN11008	JN11008-092	93	94	1	1	SPLIT
JN11008	JN11008-093	94	95	1	0.89	SPLIT
JN11008	JN11008-094	95	96	1	0.96	SPLIT
JN11008	JN11008-095	96	97	1	0.95	SPLIT
JN11008	JN11008-096	97	98.15	1.15	1.15	SPLIT
JN11008	JN11008-097	98.15	99	0.85	0.84	SPLIT
JN11008	JN11008-098	108.7	110	1.3	1.22	SPLIT
JN11008	JN11008-099	110	111	1	0.97	SPLIT
JN11008	JN11008-100	111	112	1	0.78	SPLIT
JN11008	JN11008-101	112	113	1	0.98	SPLIT
JN11008	JN11008-102	113	113.6	0.6	0.59	SPLIT
JN11008	JN11008-103	113.6	114	0.4	0.33	SPLIT
JN11008	JN11008-104	114	115	1	0.95	SPLIT

DDH	Sample Number	From(m)	To(m)	Interval Length(m)	Recovered Length(m)	Sample Method
JN11008	JN11008-105	115	116	1	0.84	SPLIT
JN11008	JN11008-106	116	117	1	1	SPLIT
JN11008	JN11008-107	129	130	1	0.95	SPLIT
JN11008	JN11008-108	130	131	1	0.93	SPLIT
JN11008	JN11008-109	131	132	1	0.88	SPLIT
JN11008	JN11008-110	132	133	1	0.8	SPLIT
JN11008	JN11008-111	133	134	1	1	SPLIT
JN11008	JN11008-112	134	135	1	0.82	SPLIT
JN11008	JN11008-113	135	136	1	0.9	SPLIT
JN11008	JN11008-114	136	136.8	0.8	0.68	SPLIT
JN11008	JN11008-115	136.8	137.45	0.65	0.61	SPLIT
JN11008	JN11008-116	137.45	138	0.55	0.27	SPLIT
JN11008	JN11008-117	138	139	1	0.9	SPLIT
JN11008	JN11008-118	139	140	1	0.96	SPLIT
JN11008	JN11008-119	140	141	1	0.94	SPLIT
JN11008	JN11008-120	141	142	1	0.98	SPLIT
JN11008	JN11008-121	142	142.5	0.5	0.48	SPLIT
JN11008	JN11008-122	142.5	143.4	0.9	0.9	SPLIT
JN11008	JN11008-123	143.4	144	0.6	0.59	SPLIT
JN11008	JN11008-124	144	144.4	0.4	0.28	SPLIT
JN11008	JN11008-125	144.4	144.8	0.4	0.4	SPLIT
JN11008	JN11008-126	144.8	145.05	0.25	0.22	SPLIT
JN11008	JN11008-127	145.05	146	0.95	0.6	SPLIT
JN11008	JN11008-128	146	147	1	0.97	SPLIT
JN11008	JN11008-129	147	148	1	1	SPLIT
JN11008	JN11008-130	148	149	1	0.92	SPLIT
JN11008	JN11008-131	149	150	1	0.94	SPLIT

DDH	Sample Number	From(m)	To(m)	Interval Length(m)	Recovered Length(m)	Sample Method
JN11008	JN11008-132	150	152	2	0.52	SPLIT
JN11008	JN11008-133	152	154	2	0.41	SPLIT
JN11008	JN11008-134	154	155.08	1.08	0.82	SPLIT
JN11008	JN11008-135	155.08	155.58	0.5	0.43	SPLIT
JN11008	JN11008-136	155.58	156.6	1.02	0.98	SPLIT
JN11008	JN11008-137	156.6	157.6	1	0.92	SPLIT
JN11008	JN11008-138	157.6	158.6	1	0.65	SPLIT
JN11008	JN11008-139	158.6	159.6	1	0.38	SPLIT
JN11008	JN11008-140	159.6	160.6	1	0.18	SPLIT
JN11008	JN11008-141	160.6	161.6	1	0.3	SPLIT
JN11008	JN11008-142	161.6	165	3.4	0.2	SPLIT
JN11008	JN11008-143	165	166	1	0.4	SPLIT
JN11008	JN11008-144	166	167	1	0.85	SPLIT
JN11008	JN11008-145	167	168	1	1	SPLIT
JN11008	JN11008-146	168	168.55	0.55	0.47	SPLIT
JN11008	JN11008-147	168.55	171	2.45	0.4	SPLIT
JN11008	JN11008-148	171	172	1	0.35	SPLIT
JN11008	JN11008-149	172	173	1	0.65	SPLIT
JN11008	JN11008-150	173	174.25	1.25	1.03	SPLIT
JN11008	JN11008-151	174.25	175.5	1.25	0.7	SPLIT
JN11008	JN11008-152	175.5	176.5	1	0.35	SPLIT
JN11008	JN11008-153	176.5	177.25	0.75	0.64	SPLIT
JN11008	JN11008-154	177.25	178.25	1	0.28	SPLIT
JN11008	JN11008-155	178.25	179.8	1.55	0.35	SPLIT
JN11008	JN11008-156	179.8	181	1.2	1.16	SPLIT
JN11008	JN11008-157	204	205.35	1.35	1.35	SPLIT
JN11008	JN11008-158	205.35	206	0.65	0.65	SPLIT

DDH	Sample Number	From(m)	To(m)	Interval Length(m)	Recovered Length(m)	Sample Method
JN11008	JN11008-159	206	207	1	0.89	SPLIT
JN11008	JN11008-160	207	207.82	0.82	0.81	SPLIT
JN11008	JN11008-161	207.82	208.25	0.43	0.43	SPLIT
JN11008	JN11008-162	208.25	209.25	1	0.96	SPLIT
JN11008	JN11008-163	237.25	238.1	0.85	0.8	SPLIT
JN11008	JN11008-164	238.1	239.2	1.1	1.04	SPLIT
JN11008	JN11008-165	239.2	239.7	0.5	0.5	SPLIT
JN11008	JN11008-166	239.7	240.5	0.8	0.7	SPLIT
JN11008	JN11008-167	240.5	241.7	1.2	1	SPLIT
JN11008	JN11008-168	251	251.8	0.8	0.8	SPLIT
JN11008	JN11008-169	251.8	252.5	0.7	0.7	SPLIT
JN11008	JN11008-170	252.5	253	0.5	0.42	SPLIT
JN11008	JN11008-171	253	253.9	0.9	0.81	SPLIT
JN11008	JN11008-172	253.9	254.9	1	0.97	SPLIT
JN11008	JN11008-173	254.9	256	1.1	1.08	SPLIT
JN11008	JN11008-174	256	257.1	1.1	1.1	SPLIT
JN11008	JN11008-175	257.1	258	0.9	0.9	SPLIT
JN11008	JN11008-176	258	259	1	1	SPLIT
JN11008	JN11008-177	259	260	1	1	SPLIT
JN11008	JN11008-178	260	261	1	1	SPLIT
JN11008	JN11008-179	261	262	1	1	SPLIT
JN11008	JN11008-180	262	263	1	1	SPLIT
JN11008	JN11008-181	263	264	1	1	SPLIT
JN11008	JN11008-182	264	265	1	1	SPLIT
JN11008	JN11008-183	265	266	1	0.97	SPLIT
JN11008	JN11008-184	266	267	1	1	SPLIT
JN11008	JN11008-185	267	268	1	1	SPLIT

DDH	Sample Number	From(m)	To(m)	Interval Length(m)	Recovered Length(m)	Sample Method
JN11008	JN11008-186	268	269	1	1	SPLIT
JN11008	JN11008-187	269	270	1		SPLIT
JN11008	JN11008-188	270	271	1	0.83	SPLIT
JN11008	JN11008-189	271	272	1	1	SPLIT
JN11008	JN11008-190	272	273.05	1.05	1.05	SPLIT
JN11008	JN11008-191	273.05	273.7	0.65	0.65	SPLIT
JN11008	JN11008-192	273.7	274.7	1	0.9	SPLIT
JN11008	JN11008-193	274.7	275.6	0.9	0.9	SPLIT
JN11008	JN11008-194	275.6	276.2	0.6	0.5	SPLIT
JN11008	JN11008-195	276.2	277	0.8	0.8	SPLIT
JN11008	JN11008-196	277	278	1	1	SPLIT
JN11008	JN11008-197	278	279	1	1	SPLIT
JN11008	JN11008-198	279	280	1	0.97	SPLIT
JN11008	JN11008-199	280	281	1	1	SPLIT
JN11008	JN11008-200	281	282	1	1	SPLIT
JN11008	JN11008-201	282	283	1	0.99	SPLIT
JN11008	JN11008-202	283	283.76	0.76	0.75	SPLIT
JN11009	JN11009-001	4.5	5.3	0.8	0.64	SPLIT
JN11009	JN11009-002	5.3	6	0.7	0.64	SPLIT
JN11009	JN11009-003	6	7	1	0.73	SPLIT
JN11009	JN11009-004	7	8	1	0.8	SPLIT
JN11009	JN11009-005	8	8.5	0.5	0.44	SPLIT
JN11009	JN11009-006	8.5	8.95	0.45	0.44	SPLIT
JN11009	JN11009-007	8.95	10	1.05	1	SPLIT
JN11009	JN11009-008	10	10.8	0.8	0.73	SPLIT
JN11009	JN11009-009	10.8	11.5	0.7	0.66	SPLIT
JN11009	JN11009-010	11.5	12	0.5	0.45	SPLIT

DDH	Sample Number	From(m)	To(m)	Interval Length(m)	Recovered Length(m)	Sample Method
JN11009	JN11009-011	12	13	1	0.55	SPLIT
JN11009	JN11009-012	13	14	1	0.9	SPLIT
JN11009	JN11009-013	18	19	1	0.84	SPLIT
JN11009	JN11009-014	19	20	1	0.96	SPLIT
JN11009	JN11009-015	20	20.45	0.45	0.4	SPLIT
JN11009	JN11009-016	20.45	21.1	0.65	0.6	SPLIT
JN11009	JN11009-017	21.1	21.65	0.55	0.35	SPLIT
JN11009	JN11009-018	21.65	22.4	0.75	0.65	SPLIT
JN11009	JN11009-019	22.4	23.15	0.75	0.7	SPLIT
JN11009	JN11009-020	23.15	24	0.85	0.7	SPLIT
JN11009	JN11009-021	24	25.05	1.05	1	SPLIT
JN11009	JN11009-022	25.05	25.9	0.85	0.8	SPLIT
JN11009	JN11009-023	25.9	26.4	0.5	0.5	SPLIT
JN11009	JN11009-024	26.4	27.24	0.84	0.79	SPLIT
JN11009	JN11009-025	27.24	28.3	1.06	0.89	SPLIT
JN11009	JN11009-026	28.3	28.5	0.2	0.2	SPLIT
JN11009	JN11009-027	28.5	29.45	0.95	0.91	SPLIT
JN11009	JN11009-028	29.45	30.45	1	0.95	SPLIT
JN11009	JN11009-029	30.45	31.47	1.02	0.75	SPLIT
JN11009	JN11009-030	31.47	32.25	0.78	0.72	SPLIT
JN11009	JN11009-031	32.25	33.25	1	0.76	SPLIT
JN11009	JN11009-032	33.25	34	0.75	0.75	SPLIT
JN11009	JN11009-033	34	34.7	0.7	0.68	SPLIT
JN11009	JN11009-034	34.7	35	0.3	0.3	SPLIT
JN11009	JN11009-035	35	36	1	0.92	SPLIT
JN11009	JN11009-036	36	37	1	0.98	SPLIT
JN11009	JN11009-037	37	38	1	0.82	SPLIT

DDH	Sample Number	From(m)	To(m)	Interval Length(m)	Recovered Length(m)	Sample Method
JN11009	JN11009-038	38	39	1	0.95	SPLIT
JN11009	JN11009-039	48	49.2	1.2	1.12	SPLIT
JN11009	JN11009-040	49.2	50.5	1.3	1.2	SPLIT
JN11009	JN11009-041	50.5	51.35	0.85	0.85	SPLIT
JN11009	JN11009-042	51.35	52.35	1	0.63	SPLIT
JN11009	JN11009-043	57.1	59.2	2.1	0.85	SPLIT
JN11009	JN11009-044	59.2	59.65	0.45	0.42	SPLIT
JN11009	JN11009-045	59.65	60.1	0.45	0.4	SPLIT
JN11009	JN11009-046	60.1	60.3	0.2	0.19	SPLIT
JN11009	JN11009-047	60.3	60.7	0.4	0.36	SPLIT
JN11009	JN11009-048	60.7	62.5	1.8	0.48	SPLIT
JN11009	JN11009-049	62.5	63	0.5	0.48	SPLIT
JN11009	JN11009-050	63	63.7	0.7	0.7	SPLIT
JN11009	JN11009-051	63.7	64	0.3	0.3	SPLIT
JN11009	JN11009-052	64	65	1	0.96	SPLIT
JN11009	JN11009-053	65	66	1	0.65	SPLIT
JN11009	JN11009-054	66	67	1	0.44	SPLIT
JN11009	JN11009-055	67	68	1	0.52	SPLIT
JN11009	JN11009-056	83	84	1	0.89	SPLIT
JN11009	JN11009-057	84	85	1	1	SPLIT
JN11009	JN11009-058	85	86	1	0.97	SPLIT
JN11009	JN11009-059	86	87	1	0.92	SPLIT
JN11009	JN11009-060	87	87.8	0.8	0.79	SPLIT
JN11009	JN11009-061	87.8	88.8	1	0.62	SPLIT
JN11009	JN11009-062	88.8	89.5	0.7	0.65	SPLIT
JN11009	JN11009-063	89.5	90.2	0.7	0.7	SPLIT
JN11009	JN11009-064	90.2	91.1	0.9	0.9	SPLIT

DDH	Sample Number	From(m)	To(m)	Interval Length(m)	Recovered Length(m)	Sample Method
JN11009	JN11009-065	91.1	91.95	0.85	0.75	SPLIT
JN11009	JN11009-066	91.95	92.65	0.7	0.7	SPLIT
JN11009	JN11009-067	92.65	93.4	0.75	0.7	SPLIT
JN11009	JN11009-068	93.4	94	0.6	0.58	SPLIT
JN11009	JN11009-069	94	94.65	0.65	0.65	SPLIT
JN11009	JN11009-070	94.65	95.3	0.65	0.56	SPLIT
JN11009	JN11009-071	95.3	96	0.7	0.5	SPLIT
JN11009	JN11009-072	96	97	1	0.65	SPLIT
JN11009	JN11009-073	97	98	1	0.62	SPLIT
JN11009	JN11009-074	98	99	1	0.97	SPLIT
JN11009	JN11009-075	99	100	1	1	SPLIT
JN11009	JN11009-076	100	101	1	1	SPLIT
JN11009	JN11009-077	111	112	1	0.91	SPLIT
JN11009	JN11009-078	112	113	1	0.76	SPLIT
JN11009	JN11009-079	113	114	1	0.95	SPLIT
JN11009	JN11009-080	114	115	1	1	SPLIT
JN11009	JN11009-081	115	116	1	0.83	SPLIT
JN11009	JN11009-082	116	117	1	0.92	SPLIT
JN11009	JN11009-083	117	118	1	0.96	SPLIT
JN11009	JN11009-084	118	119	1	0.81	SPLIT
JN11009	JN11009-085	119	119.8	0.8	0.42	SPLIT
JN11009	JN11009-086	119.8	120.8	1	1	SPLIT
JN11009	JN11009-087	120.8	121.45	0.65	0.65	SPLIT
JN11009	JN11009-088	121.45	122.3	0.85	0.84	SPLIT
JN11009	JN11009-089	122.3	122.65	0.35	0.35	SPLIT
JN11009	JN11009-090	122.65	123.5	0.85	0.79	SPLIT
JN11009	JN11009-091	123.5	124.6	1.1	1.09	SPLIT

DDH	Sample Number	From(m)	To(m)	Interval Length(m)	Recovered Length(m)	Sample Method
JN11009	JN11009-092	124.6	125.6	1	0.91	SPLIT
JN11009	JN11009-093	125.6	126.5	0.9	0.9	SPLIT
JN11009	JN11009-094	126.5	127	0.5	0.38	SPLIT
JN11009	JN11009-095	127	128	1	0.96	SPLIT
JN11009	JN11009-096	128	129.2	1.2	1.19	SPLIT
JN11009	JN11009-097	129.2	130	0.8	0.78	SPLIT
JN11009	JN11009-098	130	130.5	0.5	0.39	SPLIT
JN11009	JN11009-099	130.5	131	0.5	0.48	SPLIT
JN11009	JN11009-100	131	132	1	0.95	SPLIT
JN11009	JN11009-101	132	133	1	0.95	SPLIT
JN11009	JN11009-102	133	134	1	0.92	SPLIT
JN11009	JN11009-103	134	135	1	0.97	SPLIT
JN11009	JN11009-104	135	136	1	0.82	SPLIT
JN11009	JN11009-105	136	137	1	0.86	SPLIT
JN11009	JN11009-106	137	138	1	0.49	SPLIT
JN11009	JN11009-107	138	139	1	1	SPLIT
JN11009	JN11009-108	139	140	1	1	SPLIT
JN11009	JN11009-109	140	141	1	0.89	SPLIT
JN11009	JN11009-110	141	142	1	0.85	SPLIT
JN11009	JN11009-111	142	143	1	1	SPLIT
JN11009	JN11009-112	143	144	1	0.98	SPLIT
JN11009	JN11009-113	144	145	1	0.96	SPLIT
JN11009	JN11009-114	145	145.95	0.95	0.63	SPLIT
JN11009	JN11009-115	145.95	147	1.05	1.04	SPLIT
JN11009	JN11009-116	147	148	1	0.95	SPLIT
JN11009	JN11009-117	148	149	1	0.95	SPLIT
JN11009	JN11009-118	149	150	1	0.87	SPLIT

DDH	Sample Number	From(m)	To(m)	Interval Length(m)	Recovered Length(m)	Sample Method
JN11009	JN11009-119	150	150.9	0.9		SPLIT
JN11009	JN11009-120	150.9	151.9	1	0.86	SPLIT
JN11009	JN11009-121	151.9	153	1.1	1	SPLIT
JN11009	JN11009-122	153	154	1	0.82	SPLIT
JN11009	JN11009-123	154	155	1	0.74	SPLIT
JN11009	JN11009-124	155	156	1	0.36	SPLIT
JN11009	JN11009-125	156	156.6	0.6	0.4	SPLIT
JN11009	JN11009-126	156.6	157.25	0.65	0.55	SPLIT
JN11009	JN11009-127	157.25	158	0.75	0.65	SPLIT
JN11009	JN11009-128	158	159.05	1.05	0.6	SPLIT
JN11009	JN11009-129	159.05	159.55	0.5	0.45	SPLIT
JN11009	JN11009-130	159.55	160.2	0.65	0.53	SPLIT
JN11009	JN11009-131	160.2	161.2	1	0.77	SPLIT
JN11009	JN11009-132	161.2	162.2	1	1	SPLIT
JN11009	JN11009-133	162.2	163	0.8	0.8	SPLIT
JN11009	JN11009-134	163	164.1	1.1	1.07	SPLIT
JN11009	JN11009-135	164.1	165.1	1	1	SPLIT
JN11009	JN11009-136	165.1	165.6	0.5	0.47	SPLIT
JN11009	JN11009-137	165.6	166	0.4	0.34	SPLIT
JN11009	JN11009-138	166	167	1	1	SPLIT
JN11009	JN11009-139	167	168	1	0.97	SPLIT
JN11009	JN11009-140	168	169.1	1.1	0.94	SPLIT
JN11009	JN11009-141	169.1	170.16	1.06	1.05	SPLIT
JN11009	JN11009-142	170.16	171	0.84	0.82	SPLIT
JN11009	JN11009-143	171	172.2	1.2	1.06	SPLIT
JN11009	JN11009-144	172.2	173	0.8	0.73	SPLIT
JN11009	JN11009-145	173	174.2	1.2	1.03	SPLIT

DDH	Sample Number	From(m)	To(m)	Interval Length(m)	Recovered Length(m)	Sample Method
JN11009	JN11009-146	174.2	175	0.8	0.77	SPLIT
JN11009	JN11009-147	175	176	1	1	SPLIT
JN11009	JN11009-148	176	177	1	1	SPLIT
JN11009	JN11009-149	177	178	1	1	SPLIT
JN11009	JN11009-150	178	179	1	0.96	SPLIT
JN11009	JN11009-151	179	180	1	0.98	SPLIT
JN11009	JN11009-152	180	181.1	1.1	0.88	SPLIT
JN11009	JN11009-153	181.1	182.2	1.1	1	SPLIT
JN11009	JN11009-154	182.2	183	0.8	0.78	SPLIT
JN11009	JN11009-155	183	184	1	0.92	SPLIT
JN11009	JN11009-156	184	185.05	1.05	1.05	SPLIT
JN11009	JN11009-157	185.05	186	0.95	0.95	SPLIT
JN11009	JN11009-158	186	187	1	0.93	SPLIT
JN11009	JN11009-159	187	187.9	0.9	0.9	SPLIT
JN11009	JN11009-160	187.9	189	1.1	1	SPLIT
JN11009	JN11009-161	189	190	1	1	SPLIT
JN11009	JN11009-162	190	191	1	1	SPLIT
JN11009	JN11009-163	191	192	1	1	SPLIT
JN11009	JN11009-164	192	193	1	1	SPLIT
JN11009	JN11009-165	193	194	1	1	SPLIT
JN11009	JN11009-166	194	195	1	1	SPLIT
JN11009	JN11009-167	195	196	1	1	SPLIT
JN11009	JN11009-168	196	197	1	1	SPLIT
JN11009	JN11009-169	197	198	1	1	SPLIT
JN11009	JN11009-170	198	199	1	1	SPLIT
JN11009	JN11009-171	199	200	1	1	SPLIT
JN11009	JN11009-172	200	201	1	1	SPLIT

DDH	Sample Number	From(m)	To(m)	Interval Length(m)	Recovered Length(m)	Sample Method
JN11009	JN11009-173	201	202	1	1	SPLIT
JN11009	JN11009-174	202	202.8	0.8	0.8	SPLIT
JN11009	JN11009-175	202.8	203.85	1.05	1.05	SPLIT
JN11009	JN11009-176	203.85	204.9	1.05	1.02	SPLIT
JN11009	JN11009-177	204.9	205.7	0.8	0.8	SPLIT
JN11009	JN11009-178	205.7	206.7	1	0.98	SPLIT
JN11009	JN11009-179	206.7	207.7	1	1	SPLIT
JN11009	JN11009-180	207.7	208.7	1	1	SPLIT
JN11009	JN11009-181	208.7	209.7	1	1	SPLIT
JN11009	JN11009-182	209.7	210.7	1	1	SPLIT
JN11009	JN11009-183	210.7	211.65	0.95	0.82	SPLIT
JN11009	JN11009-184	211.65	212.4	0.75	0.75	SPLIT
JN11009	JN11009-185	212.4	213.6	1.2	0.81	SPLIT
JN11009	JN11009-186	213.6	214.2	0.6	0.55	SPLIT
JN11009	JN11009-187	214.2	215	0.8	0.65	SPLIT
JN11009	JN11009-188	215	216	1	0.52	SPLIT
JN11009	JN11009-189	216	217	1	0.62	SPLIT
JN11009	JN11009-190	217	218	1	0.88	SPLIT
JN11009	JN11009-191	218	219	1	1	SPLIT
JN11009	JN11009-192	219	220	1	0.98	SPLIT
JN11009	JN11009-193	220	221	1	0.8	SPLIT
JN11009	JN11009-194	221	221.6	0.6	0.59	SPLIT
JN11009	JN11009-195	221.6	222.65	1.05	0.6	SPLIT
JN11009	JN11009-196	222.65	223.9	1.25	1.23	SPLIT
JN11009	JN11009-197	223.9	225	1.1	1.02	SPLIT
JN11009	JN11009-198	225	225.8	0.8	0.78	SPLIT
JN11009	JN11009-199	225.8	226.8	1	0.97	SPLIT

DDH	Sample Number	From(m)	To(m)	Interval Length(m)	Recovered Length(m)	Sample Method
JN11009	JN11009-200	226.8	228	1.2	1.1	SPLIT
JN11009	JN11009-201	228	229	1	0.98	SPLIT
JN11009	JN11009-202	229	230	1	0.91	SPLIT
JN11009	JN11009-203	230	231	1	1	SPLIT
JN11009	JN11009-204	231	232	1	1	SPLIT
JN11009	JN11009-205	232	233	1	0.85	SPLIT
JN11009	JN11009-206	233	233.75	0.75	0.75	SPLIT
JN11009	JN11009-207	233.75	234.5	0.75	0.47	SPLIT
JN11009	JN11009-208	234.5	235	0.5	0.46	SPLIT
JN11009	JN11009-209	235	236	1	1	SPLIT
JN11009	JN11009-210	236	237	1	1	SPLIT
JN11009	JN11009-211	237	238.2	1.2	1.14	SPLIT
JN11009	JN11009-212	238.2	239	0.8	0.68	SPLIT
JN11009	JN11009-213	239	240	1	0.9	SPLIT
JN11009	JN11009-214	240	241	1	0.96	SPLIT
JN11009	JN11009-215	241	242	1	0.92	SPLIT
JN11009	JN11009-216	245.75	246.75	1	1	SPLIT
JN11009	JN11009-217	246.75	247.75	1	1	SPLIT
JN11010	JN11010-001	22.4	23.4	1	0.8	SPLIT
JN11010	JN11010-002	23.4	24.4	1	0.93	SPLIT
JN11010	JN11010-003	24.4	25.25	0.85	0.43	SPLIT
JN11010	JN11010-004	25.25	26.25	1	0.92	SPLIT
JN11010	JN11010-005	26.25	27.25	1	0.98	SPLIT
JN11010	JN11010-006	27.25	28.25	1	1	SPLIT
JN11010	JN11010-007	28.25	29	0.75	0.61	SPLIT
JN11010	JN11010-008	29	29.5	0.5	0.5	SPLIT
JN11010	JN11010-009	29.5	30.5	1	1	SPLIT

DDH	Sample Number	From(m)	To(m)	Interval Length(m)	Recovered Length(m)	Sample Method
JN11010	JN11010-010	30.5	31.5	1	1	SPLIT
JN11010	JN11010-011	31.5	32.5	1	0.93	SPLIT
JN11010	JN11010-012	32.5	33.5	1	0.98	SPLIT
JN11010	JN11010-013	33.5	34.5	1	0.79	SPLIT
JN11010	JN11010-014	34.5	35.5	1	0.78	SPLIT
JN11010	JN11010-015	35.5	36.5	1	1	SPLIT
JN11010	JN11010-016	36.5	37.5	1		SAW
JN11010	JN11010-017	37.5	38.5	1	0.94	SPLIT
JN11010	JN11010-018	38.5	39.5	1	0.81	SPLIT
JN11010	JN11010-019	39.5	40.5	1	0.68	SPLIT
JN11010	JN11010-020	40.5	41.5	1	0.81	SPLIT
JN11010	JN11010-021	41.5	42.5	1	0.98	SPLIT
JN11010	JN11010-022	42.5	43.5	1	0.92	SPLIT
JN11010	JN11010-023	43.5	44.4	0.9	0.51	SPLIT
JN11010	JN11010-024	44.4	45.2	0.8	0.63	SPLIT
JN11010	JN11010-025	45.2	46	0.8	0.57	SPLIT
JN11010	JN11010-026	46	47	1	0.67	SPLIT
JN11010	JN11010-027	47	48.1	1.1	0.95	SPLIT
JN11010	JN11010-028	48.1	49	0.9	0.85	SPLIT
JN11010	JN11010-029	49	50	1	0.74	SPLIT
JN11010	JN11010-030	50	51	1	0.55	SPLIT
JN11010	JN11010-031	51	51.8	0.8	0.47	SPLIT
JN11010	JN11010-032	51.8	53	1.2	0.98	SPLIT
JN11010	JN11010-033	53	54	1	0.87	SPLIT
JN11010	JN11010-034	54	55	1	0.81	SPLIT
JN11010	JN11010-035	55	56	1	0.96	SPLIT
JN11010	JN11010-036	56	57	1	0.98	SPLIT

DDH	Sample Number	From(m)	To(m)	Interval Length(m)	Recovered Length(m)	Sample Method
JN11010	JN11010-037	57	58.1	1.1	0.98	SPLIT
JN11010	JN11010-038	58.1	58.8	0.7	0.57	SPLIT
JN11010	JN11010-039	58.8	60	1	1.2	SPLIT
JN11010	JN11010-040	60	61	1	0.98	SPLIT
JN11010	JN11010-041	61	62	1	0.81	SPLIT
JN11010	JN11010-042	88.05	89	0.95	0.9	SPLIT
JN11010	JN11010-043	89	90	1	0.45	SPLIT
JN11010	JN11010-044	90	91	1	0.43	SPLIT
JN11010	JN11010-045	91	92	1	0.55	SPLIT
JN11010	JN11010-046	92	92.45	0.45	0.43	SPLIT
JN11010	JN11010-047	92.45	93.2	0.75	0.52	SPLIT
JN11010	JN11010-048	93.2	94	0.8	0.72	SPLIT
JN11010	JN11010-049	94	95	1	0.88	SPLIT
JN11010	JN11010-050	95	96	1	1	SPLIT
JN11010	JN11010-051	96	96.75	0.75	0.64	SPLIT
JN11010	JN11010-052	96.75	98	1.25	0.98	SPLIT
JN11010	JN11010-053	98	99	1	1	SPLIT
JN11010	JN11010-054	99	100	1	0.98	SPLIT
JN11010	JN11010-055	100	101	1	0.98	SPLIT
JN11010	JN11010-056	142.7	143.7	1	0.97	SPLIT
JN11010	JN11010-057	143.7	144.7	1	1	SPLIT
JN11010	JN11010-058	144.7	146	1.3	1.25	SPLIT
JN11010	JN11010-059	146	146.8	0.8	0.8	SPLIT
JN11010	JN11010-060	146.8	148	1.2	1.02	SPLIT
JN11010	JN11010-061	148	149	1	0.95	SPLIT
JN11010	JN11010-062	149	150	1	0.88	SPLIT
JN11010	JN11010-063	150	151	1	0.93	SPLIT

DDH	Sample Number	From(m)	To(m)	Interval Length(m)	Recovered Length(m)	Sample Method
JN11010	JN11010-064	151	152	1	0.72	SPLIT
JN11010	JN11010-065	152	152.75	0.75	0.68	SPLIT
JN11010	JN11010-066	152.75	153.75	1	0.71	SPLIT
JN11010	JN11010-067	153.75	155	1.25	1	SPLIT
JN11010	JN11010-068	155	156	1	0.48	SPLIT
JN11010	JN11010-069	156	157	1	0.41	SPLIT
JN11010	JN11010-070	157	158	1	0.71	SPLIT
JN11010	JN11010-071	158	159	1	0.86	SPLIT
JN11010	JN11010-072	159	160	1	0.8	SPLIT
JN11010	JN11010-073	160	161	1	0.75	SPLIT
JN11010	JN11010-074	161	161.85	0.85	0.8	SPLIT
JN11010	JN11010-075	161.85	163	1.15	0.72	SPLIT
JN11010	JN11010-076	163	164	1	0.46	SPLIT
JN11010	JN11010-077	164	165	1	0.33	SPLIT
JN11010	JN11010-078	165	166	1	0.85	SPLIT
JN11010	JN11010-079	166	167	1	0.6	SPLIT
JN11010	JN11010-080	167	168	1	0.92	SPLIT
JN11010	JN11010-081	168	168.5	0.5	0.48	SPLIT
JN11010	JN11010-082	168.5	169.3	0.8	0.8	SPLIT
JN11010	JN11010-083	169.3	170	0.7	0.63	SPLIT
JN11010	JN11010-084	170	171.1	1.1	1.05	SPLIT
JN11010	JN11010-085	171.1	172	0.9	0.85	SPLIT
JN11010	JN11010-086	172	173	1	0.92	SPLIT
JN11010	JN11010-087	173	174	1	1	SPLIT
JN11010	JN11010-088	174	175	1	0.97	SPLIT
JN11010	JN11010-089	175	175.7	0.7	0.7	SPLIT
JN11010	JN11010-090	175.7	176.65	0.95	0.9	SPLIT

DDH	Sample Number	From(m)	To(m)	Interval Length(m)	Recovered Length(m)	Sample Method
JN11010	JN11010-091	176.65	178	1.35	1.15	SPLIT
JN11010	JN11010-092	178	179.25	1.25	1.1	SPLIT
JN11010	JN11010-093	179.25	180	0.75	0.45	SPLIT
JN11010	JN11010-094	180	181	1	0.65	SPLIT
JN11010	JN11010-095	181	182	1	1	SPLIT
JN11010	JN11010-096	182	182.9	0.9	0.9	SPLIT
JN11010	JN11010-097	182.9	184.1	1.2	1.05	SPLIT
JN11010	JN11010-098	184.1	185	0.9	0.9	SPLIT
JN11010	JN11010-099	185	186.2	1.2	1.2	SPLIT
JN11010	JN11010-100	186.2	187.4	1.2	1.2	SPLIT
JN11010	JN11010-101	187.4	188.05	0.65	0.65	SPLIT
JN11010	JN11010-102	188.05	189	0.95	0.65	SPLIT
JN11010	JN11010-103	189	189.9	0.9	0.4	SPLIT
JN11010	JN11010-104	189.9	190.9	1	0.79	SPLIT
JN11010	JN11010-105	190.9	191.5	0.6	0.6	SPLIT
JN11010	JN11010-106	191.5	192	0.5	0.48	SPLIT
JN11010	JN11010-107	192	193	1	0.63	SPLIT
JN11010	JN11010-108	193	194	1	0.33	SPLIT
JN11010	JN11010-109	194	195	1	0.27	SPLIT
JN11010	JN11010-110	195	196	1	0.26	SPLIT
JN11010	JN11010-111	196	197	1	0.68	SPLIT
JN11010	JN11010-112	197	198	1	0.5	SPLIT
JN11010	JN11010-113	198	199	1	0.95	SPLIT
JN11010	JN11010-114	199	200	1	0.89	SPLIT
JN11010	JN11010-115	200	200.6	0.6	0.55	SPLIT
JN11010	JN11010-116	200.6	201.6	1	0.8	SPLIT
JN11010	JN11010-117	201.6	202.6	1	0.82	SPLIT

DDH	Sample Number	From(m)	To(m)	Interval Length(m)	Recovered Length(m)	Sample Method
JN11010	JN11010-118	202.6	203.6	1	0.97	SPLIT
JN11010	JN11010-119	203.6	204.8	1.2	0.97	SPLIT
JN11010	JN11010-120	204.8	206	1.2	1.14	SPLIT
JN11010	JN11010-121	206	207	1	0.95	SPLIT
JN11010	JN11010-122	207	208	1	0.93	SPLIT
JN11010	JN11010-123	208	209	1	0.72	SPLIT
JN11010	JN11010-124	209	210	1	0.94	SPLIT
JN11010	JN11010-125	210	211	1	0.97	SPLIT
JN11010	JN11010-126	211	212	1	1	SPLIT
JN11010	JN11010-127	212	213	1	0.97	SPLIT
JN11010	JN11010-128	213	214	1	0.92	SPLIT
JN11010	JN11010-129	214	215	1	0.7	SPLIT
JN11010	JN11010-130	215	216	1	0.98	SPLIT
JN11010	JN11010-131	216	217	1	0.91	SPLIT
JN11010	JN11010-132	217	217.4	0.4	0.4	SPLIT
JN11010	JN11010-133	217.4	218.4	1	0.96	SPLIT
JN11010	JN11010-134	218.4	219.4	1	0.72	SPLIT
JN11010	JN11010-135	219.4	220	0.6	0.58	SPLIT
JN11010	JN11010-136	220	221	1	0.84	SPLIT
JN11010	JN11010-137	227.8	229	1.2	1.2	SPLIT
JN11010	JN11010-138	229	230	1	1	SPLIT
JN11010	JN11010-139	234.8	236	1.2	1.2	SPLIT
JN11010	JN11010-140	239.5	240.5	1	1	SPLIT
JN11010	JN11010-141	240.5	241.5	1	1	SPLIT
JN11010	JN11010-142	241.5	242.5	1	0.95	SPLIT

Appendix 4.4 - Petrographic Sample Log

Friday, November 25, 2011

DDH	Sample Number:	Sample Depth (m)	Note:
JN11004	5	71	Petrographic Sample - Porphyry + Alteration
JN11005	14	78.15	Petrographic Sample - Porphyry + Sulphides
JN11005	6	134	Petrographic Sample - Porphyry + Alteration
JN11007	3	168	Petrographic Sample - Breccia + Sulphides
JN11008	4	62.8	Petrographic Sample - Breccia + Sulphides
JN11009	2	214.2	Petrographic Sample - Quartz Vein + Sulphides
JN11009	1	205.3	Petrographic Sample - Skarn + Sulphides
JN11009	15	179	Petrographic Sample - Skarn + Veining
JN11009	9	212	Petrographic Sample - Sulphides + Oxide
JN11009	11	210.7	Petrographic Sample - Skarn + Oxides
JN11010	13	146	Petrographic Sample - Skarn + Oxides
JN11010	12	168.5	Petrographic Sample - Sulphides + Alteration
JN11010	10	151.5	Petrographic Sample - Altered Skarn (?) + Sulphides
JN11010	8	168.4	Petrographic Sample - Breccia + Sulphides
JN11010	7	212	Petrographic Sample - Porphyry + Veining and Sulphides

2011 Diamond Drilling, Geological, and Geochemical Report

for the

Justin Property

Volume III

Appendix V – Analytical Certificates

Justin 1-4 (YB59913 – YB59916), Justin 5-25 (YB70809 - YB70829), SP 1-50 (YC73232 – YC73281),

SP51-55 (YD65452 – YD65456)

Watson Lake Mining District, Southeastern Yukon Territory

Map sheet 105-H-09

Latitude 61° 42' N, Longitude 128°10'W

Prepared for:

Aben Resources Ltd.

Suite 2230 – 885 West Georgia Street

Vancouver, BC, Canada

V6C 3E8

By

Mike McCuaig, B.Sc (Geol)

TerraLogic Exploration Inc.

Suite 200, 44-12th Ave S.

Cranbrook, B.C., Canada

V1C 2R7

January 27th, 2012

APPENDIX V

Analytical Certificates



Minerals

ALS Canada Ltd.

2103 Dollarton Hwy

North Vancouver BC V7H 0A7

Phone: 604 984 0221 Fax: 604 984 0218 www.alsglobal.com

To: TERRALOGIC EXPLORATION SERVICES INC.

44 - 12TH AVENUE SOUTH

SUITE 200

CRANBROOK BC V1C 2R7

Page: 1

Finalized Date: 16- NOV- 2011

Account: TELOEX

CERTIFICATE WH11189669

Project:

P.O. No.: JN11- 011

This report is for 52 Rock samples submitted to our lab in Whitehorse, YT, Canada on 19- SEP- 2011.

The following have access to data associated with this certificate:

JESSE CAMPBELL

CHRIS GALLAGHER

SAMPLE PREPARATION

ALS CODE	DESCRIPTION
WEI- 21	Received Sample Weight
LOG- 22	Sample login - Rcd w/o BarCode
BAG- 01	Bulk Master for Storage
LOG- 24	Pulp Login - Rcd w/o Barcode
CRU- QC	Crushing QC Test
PUL- QC	Pulverizing QC Test
CRU- 31	Fine crushing - 70% < 2mm
SPL- 21	Split sample - riffle splitter
PUL- 32m	Pulverize 500g - 85% < 75um

ANALYTICAL PROCEDURES

ALS CODE	DESCRIPTION	INSTRUMENT
Au- AA23	Au 30g FA- AA finish	AA5
ME- ICP41	35 Element Aqua Regia ICP- AES	ICP- AES

To: TERRALOGIC EXPLORATION SERVICES INC.

ATTN: CHRIS GALLAGHER

44 - 12TH AVENUE SOUTH

SUITE 200

CRANBROOK BC V1C 2R7

This is the Final Report and supersedes any preliminary report with this certificate number. Results apply to samples as submitted. All pages of this report have been checked and approved for release.

Signature:

Colin Ramshaw, Vancouver Laboratory Manager



ALS Canada Ltd.
2103 Dollarton Hwy
North Vancouver BC V7H 0A7
Phone: 604 984 0221 Fax: 604 984 0218 www.alsglobal.com

To: TERRALOGIC EXPLORATION SERVICES INC.
44 - 12TH AVENUE SOUTH
SUITE 200
CRANBROOK BC V1C 2R7

Page: 2 - A
Total # Pages: 3 (A - C)
Finalized Date: 16- NOV- 2011
Account: TELOEX

CERTIFICATE OF ANALYSIS WH11189669

Sample Description	Method Analyte Units LOR	WEI- 21 Recvd Wt. kg	Au- AA23 Au ppm	ME- ICP41 Ag ppm	ME- ICP41 Al %	ME- ICP41 As ppm	ME- ICP41 B ppm	ME- ICP41 Ba ppm	ME- ICP41 Be ppm	ME- ICP41 Bi ppm	ME- ICP41 Ca %	ME- ICP41 Cd ppm	ME- ICP41 Co ppm	ME- ICP41 Cr ppm	ME- ICP41 Cu ppm	ME- ICP41 Fe %
		0.02	0.005	0.2	0.01	2	10	10	0.5	2	0.01	0.5	1	1	1	0.01
ERJNR001		0.76	<0.005	<0.2	0.23	3	<10	20	<0.5	<2	0.83	<0.5	10	7	26	1.28
ERJNR002		0.55	<0.005	<0.2	0.88	3	<10	10	<0.5	<2	1.38	<0.5	5	9	297	2.47
ERJNR003		0.51	<0.005	<0.2	0.04	2	<10	<10	<0.5	<2	7.7	<0.5	2	3	4	0.51
ERJNR004		1.23	0.005	0.2	0.56	26	<10	30	<0.5	<2	0.06	<0.5	6	10	19	2.61
ERJNR005		1.14	<0.005	<0.2	1.75	<2	<10	20	0.6	<2	1.86	<0.5	7	20	16	1.58
ERJNR006		1.21	0.007	<0.2	0.80	27	<10	10	<0.5	22	0.49	<0.5	3	21	23	1.46
ERJNR007		0.73	<0.005	<0.2	0.21	<2	<10	10	<0.5	<2	0.23	<0.5	3	10	1	0.82
ERJNR008		1.29	<0.005	<0.2	0.71	<2	<10	30	<0.5	<2	0.25	<0.5	4	25	6	1.55
ERJNR009		0.90	0.010	2.9	0.35	2060	10	30	<0.5	22	<0.01	<0.5	2	8	8	1.08
ERJNR010		1.78	0.186	2.3	0.24	>10000	20	30	<0.5	22	<0.01	0.9	14	9	47	2.97
ERJNR011		2.45	<0.005	<0.2	1.92	52	<10	20	<0.5	<2	1.10	<0.5	6	12	16	4.06
ERJNR012		0.95	<0.005	0.2	0.59	53	<10	40	<0.5	<2	1.47	<0.5	8	11	78	2.33
ERJNR013		1.47	<0.005	1.7	0.39	5	<10	20	<0.5	<2	17.6	<0.5	2	5	6	1.39
ERJNR014		1.31	<0.005	0.6	0.93	93	10	50	0.8	4	0.59	<0.5	3	2	50	2.50
ERJNR015		2.33	<0.005	0.5	0.83	22	10	40	0.6	<2	2.00	2.7	3	1	40	2.37
ERJNR016		2.07	<0.005	0.2	0.67	87	10	60	0.6	<2	1.76	<0.5	4	3	19	2.04
MMJNR001		1.50	0.012	0.9	3.87	206	<10	10	1.1	3	2.44	<0.5	78	22	1670	12.65
MMJNR002		0.93	0.022	0.4	0.28	159	<10	20	<0.5	<2	0.01	<0.5	2	13	30	2.71
MMJNR003		0.85	<0.005	<0.2	0.85	43	<10	10	<0.5	<2	0.01	<0.5	2	10	12	3.16
MMJNR004		0.75	<0.005	0.2	0.22	8	<10	10	<0.5	<2	3.71	<0.5	1	9	1	1.12
MMJNR005		0.71	0.009	0.9	0.66	<2	<10	20	<0.5	<2	9.5	<0.5	3	10	4	1.65
MMJNR006		0.97	<0.005	0.3	0.04	<2	<10	10	<0.5	<2	2.70	<0.5	1	10	9	1.15
MMJNR007		0.91	<0.005	0.5	0.23	<2	<10	10	<0.5	<2	2.79	0.5	2	11	132	1.07
MMJNR008		1.07	<0.005	<0.2	0.51	7	<10	10	<0.5	<2	0.16	<0.5	1	13	11	0.97
MMJNR009		1.01	<0.005	<0.2	0.30	6	<10	10	<0.5	<2	0.40	<0.5	1	21	66	0.91
MMJNR010		0.92	0.012	1.2	0.26	34	<10	20	<0.5	<2	0.68	3.8	2	12	73	2.13
MMJNR011		1.28	0.011	0.2	0.32	13	<10	10	<0.5	<2	0.05	<0.5	1	11	15	1.36
MMJNR012		0.63	0.005	0.2	0.18	23	<10	20	0.7	<2	1.06	<0.5	2	2	1	2.35
MMJNR013		0.92	0.792	0.5	0.02	12	<10	<10	<0.5	882	0.04	<0.5	<1	16	45	1.68
MMJNR014		1.10	<0.005	<0.2	0.54	4	<10	20	<0.5	6	0.11	<0.5	1	25	18	1.35
MMJNR015		0.88	<0.005	<0.2	0.37	<2	<10	10	<0.5	2	0.38	<0.5	1	33	1	0.78
MMJNR016		1.35	0.475	22.5	0.08	270	<10	10	<0.5	1190	0.19	1.8	2	18	23	1.52
MMJNR017		0.98	0.437	0.6	0.19	18	<10	10	<0.5	9	0.01	<0.5	<1	14	2	2.32
MMJNR018		1.14	0.068	0.2	0.17	6	<10	10	<0.5	2	0.04	<0.5	1	28	2	2.48
MMJNR019		1.01	0.019	1.9	0.33	3740	<10	30	<0.5	5	<0.01	1.1	<1	10	14	2.47
MMJNR020		1.01	0.371	20.1	0.40	>10000	<10	30	<0.5	58	0.02	63.3	4	10	113	5.79
MMJNR020S		0.05	1.460	32.8	0.36	500	<10	250	<0.5	2	1.29	<0.5	8	29	3040	2.54
MMJNR020B		0.05	0.007	0.2	0.94	14	<10	180	<0.5	<2	0.37	<0.5	3	9	50	1.90
MMJNR021		1.25	0.031	1.7	0.34	2990	20	30	<0.5	5	0.01	0.8	1	13	11	1.34
MMJNR022		1.81	0.011	0.8	0.44	4220	10	30	<0.5	3	<0.01	<0.5	2	13	8	1.50



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Sample Description	Method Analyte Units LOR	ME- ICP41 Ga ppm 10	ME- ICP41 Hg ppm 1	ME- ICP41 K % 0.01	ME- ICP41 La ppm 10	ME- ICP41 Mg % 0.01	ME- ICP41 Mn ppm 5	ME- ICP41 Mo ppm 1	ME- ICP41 Na % 0.01	ME- ICP41 Ni ppm 1	ME- ICP41 P ppm 10	ME- ICP41 Pb ppm 2	ME- ICP41 S % 0.01	ME- ICP41 Sb ppm 2	ME- ICP41 Sc ppm 1	ME- ICP41 Sr ppm 1
ERJNR001		<10	<1	0.04	10	0.07	593	<1	0.02	10	80	59	0.01	<2	1	64
ERJNR002		<10	<1	0.03	<10	0.36	331	<1	0.03	11	80	<2	0.02	<2	1	107
ERJNR003		<10	<1	0.01	10	0.04	322	<1	0.03	<1	70	2	0.01	<2	1	488
ERJNR004		<10	1	0.23	10	0.03	265	<1	0.02	8	90	6	0.85	3	1	7
ERJNR005		<10	<1	0.08	10	0.13	189	<1	0.27	18	190	15	0.35	<2	2	91
ERJNR006		<10	<1	0.18	10	0.27	178	<1	0.05	7	340	<2	0.02	2	2	13
ERJNR007		<10	1	0.08	10	0.09	101	<1	0.03	4	350	<2	<0.01	2	1	8
ERJNR008		<10	<1	0.26	20	0.30	164	4	0.07	11	250	<2	0.02	<2	2	9
ERJNR009		<10	<1	0.23	10	0.04	51	54	0.02	<1	50	154	0.05	5	<1	3
ERJNR010		<10	<1	0.16	10	0.02	83	<1	0.03	3	100	145	0.58	31	<1	4
ERJNR011		10	1	0.09	20	0.83	402	<1	0.03	23	290	7	0.13	<2	1	93
ERJNR012		<10	<1	0.22	10	0.17	338	1	0.04	68	130	18	0.78	<2	1	67
ERJNR013		<10	<1	0.08	10	0.26	1465	<1	0.01	6	130	20	0.15	<2	4	2400
ERJNR014		<10	<1	0.38	20	0.11	206	<1	0.02	1	420	14	0.39	<2	1	27
ERJNR015		<10	<1	0.44	10	0.07	699	<1	0.01	<1	460	58	1.17	<2	1	91
ERJNR016		<10	<1	0.39	20	0.06	716	<1	0.03	1	430	21	0.57	<2	1	40
MMJNR001		10	1	0.04	20	0.17	110	<1	0.37	82	280	10	7.58	<2	2	123
MMJNR002		<10	<1	0.09	20	0.02	159	<1	<0.01	4	80	35	0.04	<2	<1	2
MMJNR003		<10	<1	0.06	<10	0.34	233	<1	<0.01	11	120	2	0.04	<2	1	2
MMJNR004		<10	<1	0.07	10	0.05	566	<1	0.01	3	120	3	<0.01	<2	1	309
MMJNR005		<10	<1	0.07	10	0.29	1285	<1	0.01	6	120	104	0.01	<2	3	1185
MMJNR006		<10	<1	0.01	<10	0.02	376	<1	<0.01	3	70	10	<0.01	<2	1	345
MMJNR007		<10	<1	0.06	10	0.08	175	<1	<0.01	4	80	4	0.02	<2	1	186
MMJNR008		<10	<1	0.07	10	0.02	170	<1	<0.01	3	150	3	0.02	<2	1	10
MMJNR009		<10	<1	0.03	10	0.11	132	<1	0.06	6	140	2	0.01	<2	1	17
MMJNR010		<10	<1	0.16	10	0.11	1180	<1	<0.01	6	140	157	0.72	2	1	16
MMJNR011		<10	<1	0.04	<10	0.01	114	<1	<0.01	2	100	2	0.16	9	1	4
MMJNR012		<10	<1	0.02	<10	0.06	896	104	0.01	1	140	<2	<0.01	<2	<1	4
MMJNR013		<10	<1	0.01	<10	<0.01	100	23	<0.01	1	30	<2	0.05	9	<1	1
MMJNR014		<10	<1	0.15	10	0.18	229	66	0.04	5	90	3	0.01	<2	1	11
MMJNR015		<10	<1	0.04	10	0.12	169	10	0.07	3	90	<2	<0.01	<2	1	19
MMJNR016		<10	<1	0.03	<10	0.01	237	18	<0.01	2	30	721	0.05	66	<1	8
MMJNR017		<10	1	0.01	<10	<0.01	86	40	<0.01	1	20	<2	0.67	57	<1	1
MMJNR018		<10	<1	0.01	<10	0.01	800	11	<0.01	1	30	<2	0.23	11	1	1
MMJNR019		<10	<1	0.21	10	0.04	74	<1	<0.01	2	90	149	0.21	7	<1	2
MMJNR020		<10	1	0.26	10	0.04	101	<1	<0.01	3	140	1600	2.71	67	<1	2
MMJNR020S		<10	4	0.15	10	0.14	412	354	0.04	17	380	57	1.06	75	1	256
MMJNR020B		<10	1	0.31	10	0.31	478	1	0.16	2	230	3	<0.01	<2	4	49
MMJNR021		<10	<1	0.20	10	0.03	76	<1	<0.01	1	90	114	0.10	7	<1	2
MMJNR022		<10	<1	0.22	10	0.04	98	<1	<0.01	1	70	115	0.06	5	<1	4



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Sample Description	Method Analyte Units LOR	ME- ICP41 Th ppm 20	ME- ICP41 Ti % 0.01	ME- ICP41 Ti ppm 10	ME- ICP41 U ppm 10	ME- ICP41 V ppm 1	ME- ICP41 W ppm 10	ME- ICP41 Zn ppm 2
ERJNR001		<20	<0.01	<10	<10	2	<10	83
ERJNR002		<20	<0.01	<10	<10	5	<10	56
ERJNR003		<20	<0.01	<10	<10	1	<10	3
ERJNR004		<20	<0.01	<10	<10	6	<10	28
ERJNR005		<20	0.08	<10	<10	11	<10	20
ERJNR006		<20	0.01	<10	<10	10	60	12
ERJNR007		<20	<0.01	<10	<10	4	<10	5
ERJNR008		<20	0.03	<10	<10	17	<10	13
ERJNR009		<20	<0.01	<10	<10	3	<10	56
ERJNR010		<20	<0.01	<10	<10	2	<10	62
ERJNR011		<20	<0.01	<10	<10	12	<10	106
ERJNR012		20	<0.01	<10	<10	5	<10	93
ERJNR013		<20	<0.01	<10	<10	4	<10	39
ERJNR014		<20	<0.01	<10	<10	5	<10	20
ERJNR015		<20	<0.01	<10	<10	3	<10	454
ERJNR016		<20	<0.01	<10	<10	4	<10	33
MMJNR001		<20	0.08	<10	<10	17	<10	21
MMJNR002		<20	<0.01	<10	<10	3	<10	32
MMJNR003		<20	<0.01	<10	<10	6	<10	43
MMJNR004		<20	<0.01	<10	<10	1	<10	9
MMJNR005		<20	<0.01	<10	<10	5	<10	39
MMJNR006		<20	<0.01	<10	<10	1	<10	9
MMJNR007		<20	<0.01	<10	<10	2	<10	185
MMJNR008		<20	<0.01	<10	<10	4	<10	7
MMJNR009		<20	0.02	<10	<10	12	<10	11
MMJNR010		<20	<0.01	<10	<10	3	<10	491
MMJNR011		<20	<0.01	<10	<10	3	<10	14
MMJNR012		<20	0.01	<10	<10	1	10	24
MMJNR013		<20	<0.01	<10	<10	1	270	2
MMJNR014		<20	0.02	<10	<10	13	<10	8
MMJNR015		<20	0.07	<10	<10	11	<10	9
MMJNR016		<20	<0.01	<10	<10	1	60	65
MMJNR017		<20	<0.01	<10	<10	2	<10	5
MMJNR018		<20	<0.01	<10	<10	3	<10	14
MMJNR019		<20	<0.01	<10	<10	3	<10	180
MMJNR020		<20	<0.01	<10	<10	3	<10	5830
MMJNR020S		<20	0.01	<10	<10	16	<10	117
MMJNR020B		<20	0.10	<10	<10	27	<10	32
MMJNR021		<20	<0.01	<10	<10	3	<10	103
MMJNR022		<20	<0.01	<10	<10	3	<10	62



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Sample Description	Method Analyte Units LOR	WEI- 21 Recvd Wt. kg 0.02	Au- AA23 Au ppm 0.005	ME- ICP41 Ag ppm 0.2	ME- ICP41 Al % 0.01	ME- ICP41 As ppm 2	ME- ICP41 B ppm 10	ME- ICP41 Ba ppm 10	ME- ICP41 Be ppm 0.5	ME- ICP41 Bi ppm 2	ME- ICP41 Ca % 0.01	ME- ICP41 Cd ppm 0.5	ME- ICP41 Co ppm 1	ME- ICP41 Cr ppm 1	ME- ICP41 Cu ppm 1	ME- ICP41 Fe % 0.01
MMJNR023		1.77	0.005	1.1	0.43	1045	10	30	<0.5	2	<0.01	<0.5	<1	11	12	1.07
MMJNR024		2.58	0.092	8.6	0.29	>10000	10	30	<0.5	27	<0.01	<0.5	2	12	11	2.59
MMJNR025		1.74	0.053	3.2	0.38	8540	<10	40	<0.5	11	0.01	0.5	<1	13	17	1.74
MMJNR026		2.10	0.073	4.0	0.40	>10000	<10	40	<0.5	18	0.01	<0.5	3	12	12	2.48
MMJNR027		2.53	0.057	2.1	0.38	9160	<10	30	<0.5	9	0.01	0.9	2	14	16	2.07
MMJNR028		1.09	0.121	3.4	0.07	>10000	80	<10	<0.5	34	0.01	<0.5	5	13	3	4.15
MMJNR029		1.27	0.888	18.4	0.08	>10000	20	10	<0.5	170	<0.01	3.1	28	12	28	5.16
MMJNR030		1.53	0.305	10.7	0.31	>10000	<10	40	<0.5	57	0.02	1.7	4	15	25	2.92
MMJNR031		0.81	0.184	9.6	0.32	>10000	10	20	<0.5	31	0.02	15.8	1	13	48	4.88
MMJNR032		1.77	0.029	4.9	0.59	7080	<10	20	<0.5	17	1.08	1.4	16	16	1315	3.80
MMJNR033		0.72	0.009	0.2	0.22	280	<10	10	<0.5	3	0.02	<0.5	<1	10	16	0.98
MMJNR034		0.90	8.97	84.1	0.01	>10000	<10	<10	<0.5	8090	0.01	4.7	10	13	139	4.16



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CERTIFICATE OF ANALYSIS WH11189669

Sample Description	Method Analyte Units LOR	ME- ICP41 Ga ppm 10	ME- ICP41 Hg ppm 1	ME- ICP41 K % 0.01	ME- ICP41 La ppm 10	ME- ICP41 Mg % 0.01	ME- ICP41 Mn ppm 5	ME- ICP41 Mo ppm 1	ME- ICP41 Na % 0.01	ME- ICP41 Ni ppm 1	ME- ICP41 P ppm 10	ME- ICP41 Pb ppm 2	ME- ICP41 S % 0.01	ME- ICP41 Sb ppm 2	ME- ICP41 Sc ppm 1	ME- ICP41 Sr ppm 1
MMJNR023		<10	<1	0.27	10	0.05	60	<1	<0.01	4	70	83	0.04	3	<1	3
MMJNR024		<10	<1	0.17	10	0.03	100	1	<0.01	1	110	633	0.32	25	<1	2
MMJNR025		<10	<1	0.24	10	0.05	77	<1	<0.01	1	70	239	0.25	14	<1	3
MMJNR026		<10	<1	0.25	10	0.04	109	<1	<0.01	2	100	202	0.38	19	<1	2
MMJNR027		<10	<1	0.23	10	0.04	89	<1	<0.01	2	90	104	0.28	16	<1	4
MMJNR028		<10	<1	0.01	<10	0.01	73	1	<0.01	1	200	319	0.66	125	<1	2
MMJNR029		<10	1	0.05	<10	0.01	84	<1	<0.01	4	100	1010	1.71	348	<1	2
MMJNR030		<10	1	0.21	10	0.04	92	<1	0.01	4	70	556	0.48	67	<1	6
MMJNR031		<10	1	0.20	10	0.03	84	<1	0.01	5	90	789	2.83	60	<1	4
MMJNR032		<10	<1	0.12	10	0.30	581	<1	0.03	15	1000	51	0.85	3	1	38
MMJNR033		<10	<1	0.12	<10	0.02	65	249	0.01	1	80	9	0.08	5	1	3
MMJNR034		<10	<1	0.01	<10	<0.01	116	6	0.01	2	10	5190	1.62	484	<1	2



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CERTIFICATE OF ANALYSIS WH11189669

Sample Description	Method Analyte Units LOR	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41
		Th	Ti	Ti	U	V	W	Zn
		ppm 20	% 0.01	ppm 10	ppm 10	ppm 1	ppm 10	ppm 2
MMJNR023		<20	<0.01	<10	<10	4	<10	52
MMJNR024		<20	<0.01	<10	<10	2	<10	25
MMJNR025		<20	<0.01	<10	<10	3	<10	37
MMJNR026		<20	<0.01	<10	<10	3	<10	27
MMJNR027		<20	<0.01	<10	<10	3	<10	59
MMJNR028		<20	<0.01	<10	<10	1	<10	19
MMJNR029		<20	<0.01	<10	<10	1	<10	210
MMJNR030		<20	<0.01	<10	<10	3	<10	134
MMJNR031		<20	<0.01	<10	<10	2	<10	1575
MMJNR032		<20	<0.01	<10	<10	7	<10	255
MMJNR033		<20	<0.01	<10	<10	3	<10	8
MMJNR034		<20	<0.01	<10	<10	1	150	3



Minerals

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QC CERTIFICATE WH11189669

Project:

P.O. No.: JN11- 011

This report is for 52 Rock samples submitted to our lab in Whitehorse, YT, Canada on 19- SEP- 2011.

The following have access to data associated with this certificate:

JESSE CAMPBELL

CHRIS GALLAGHER

SAMPLE PREPARATION

ALS CODE	DESCRIPTION
WEI- 21	Received Sample Weight
LOG- 22	Sample login - Rcd w/o BarCode
BAG- 01	Bulk Master for Storage
LOG- 24	Pulp Login - Rcd w/o Barcode
CRU- QC	Crushing QC Test
PUL- QC	Pulverizing QC Test
CRU- 31	Fine crushing - 70% <2mm
SPL- 21	Split sample - riffle splitter
PUL- 32m	Pulverize 500g - 85%<75um

ANALYTICAL PROCEDURES

ALS CODE	DESCRIPTION	INSTRUMENT
Au- AA23	Au 30g FA- AA finish	AAS
ME- ICP41	35 Element Aqua Regia ICP- AES	ICP- AES

To: TERRALOGIC EXPLORATION SERVICES INC.

ATTN: CHRIS GALLAGHER

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Signature:

Colin Ramshaw, Vancouver Laboratory Manager

This is the Final Report and supersedes any preliminary report with this certificate number. Results apply to samples as submitted. All pages of this report have been checked and approved for release.



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QC CERTIFICATE OF ANALYSIS WH11189669

Sample Description	Method Analyte Units LOR	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41
		Ti	Ti	U	V	W	Zn
		%	ppm	ppm	ppm	ppm	ppm
		0.01	10	10	1	10	2
STANDARDS							
GBM908- 10		0.30	<10	<10	45	<10	982
GBM908- 10		0.31	<10	<10	47	<10	955
GBM908- 10		0.32	<10	<10	47	<10	941
GBM908- 5		0.17	<10	<10	28	<10	233
MRGeo08		0.38	<10	<10	100	<10	799
MRGeo08		0.39	<10	<10	102	<10	795
MRGeo08		0.38	<10	<10	100	<10	751
OGGeo08		0.30	<10	<10	77	<10	6680
OREAS 65a							
OREAS- 16b							
OREAS- 16b							
OxC88							
OxC88							
OxL78							



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Sample Description	Method Analyte Units LOR	ME- ICP41 Ti %	ME- ICP41 Ti ppm	ME- ICP41 U ppm	ME- ICP41 V ppm	ME- ICP41 W ppm	ME- ICP41 Zn ppm
		0.01	10	10	1	10	2
BLANKS							
BLANK							
BLANK							
BLANK							
BLANK		<0.01	<10	<10	<1	<10	<2
BLANK		<0.01	<10	<10	<1	<10	<2
BLANK		<0.01	<10	<10	<1	<10	<2
BLANK		<0.01	<10	<10	<1	<10	<2
DUPLICATES							
ORIGINAL							
DUP							
ORIGINAL		<0.01	<10	<10	2	30	43
DUP		<0.01	<10	<10	2	30	45
ORIGINAL							
DUP							
ORIGINAL							
DUP							
ORIGINAL							
DUP							



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QC CERTIFICATE OF ANALYSIS WH11189669

Sample Description	Method Analyte Units LOR	Au- AA23 Au ppm 0.005	ME- ICP41 Ag ppm 0.2	ME- ICP41 Al % 0.01	ME- ICP41 As ppm 2	ME- ICP41 B ppm 10	ME- ICP41 Ba ppm 10	ME- ICP41 Be ppm 0.5	ME- ICP41 Bi ppm 2	ME- ICP41 Ca % 0.01	ME- ICP41 Cd ppm 0.5	ME- ICP41 Co ppm 1	ME- ICP41 Cr ppm 1	ME- ICP41 Cu ppm 1	ME- ICP41 Fe % 0.01	ME- ICP41 Ga ppm 10
DUPLICATES																
ORIGINAL		0.086														
DUP		0.084														
ORIGINAL		0.028														
DUP		0.026														
ORIGINAL			0.3	1.36	13	<10	130	<0.5	<2	0.25	0.5	8	30	13	1.64	<10
DUP			0.5	1.31	14	<10	120	<0.5	<2	0.24	0.6	8	29	13	1.59	<10
ERJNR006		0.007														
DUP		0.007														
MMJNR005			0.9	0.66	<2	<10	20	<0.5	<2	9.5	<0.5	3	10	4	1.65	<10
DUP			0.8	0.65	22	<10	20	<0.5	<2	9.30	<0.5	3	11	4	1.62	<10
MMJNR010		0.012														
DUP		0.009														
MMJNR028		0.121														
DUP		0.124														
ORIGINAL			0.3	2.95	5	<10	80	<0.5	<2	1.89	<0.5	13	29	11	4.40	10
DUP			0.2	2.81	4	<10	70	<0.5	<2	1.81	<0.5	13	28	10	4.25	10



ALS Minerals

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QC CERTIFICATE OF ANALYSIS WH11189669

Sample Description	Method Analyte Units LOR	ME- ICP41 Hg ppm 1	ME- ICP41 K % 0.01	ME- ICP41 La ppm 10	ME- ICP41 Mg % 0.01	ME- ICP41 Mn ppm 5	ME- ICP41 Mo ppm 1	ME- ICP41 Na % 0.01	ME- ICP41 Ni ppm 1	ME- ICP41 P ppm 10	ME- ICP41 Pb ppm 2	ME- ICP41 S % 0.01	ME- ICP41 Sb ppm 2	ME- ICP41 Sc ppm 1	ME- ICP41 Sr ppm 1	ME- ICP41 Th ppm 20
ORIGINAL DUP		DUPLICATES														
ORIGINAL DUP																
ORIGINAL DUP		<1 <1	0.05 0.05	<10 <10	0.28 0.27	840 815	<1 <1	0.03 0.02	33 33	1250 1200	17 16	0.04 0.04	2 <2	2 2	16 15	<20 <20
ERJNR006 DUP																
MMJNR005 DUP		<1 <1	0.07 0.07	10 10	0.29 0.28	1285 1265	<1 <1	0.01 0.01	6 7	120 110	104 104	0.01 0.01	<2 <2	3 3	1185 1180	<20 <20
MMJNR010 DUP																
MMJNR028 DUP																
ORIGINAL DUP		1 1	0.17 0.16	10 10	1.56 1.49	678 651	1 1	0.28 0.27	4 4	1220 1180	4 4	0.13 0.13	<2 <2	8 8	118 112	<20 <20



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QC CERTIFICATE OF ANALYSIS WH11189669

Sample Description	Method Analyte Units LOR	ME- ICP41 TI %	ME- ICP41 TI ppm	ME- ICP41 U ppm	ME- ICP41 V ppm	ME- ICP41 W ppm	ME- ICP41 Zn ppm
ORIGINAL DUP		0.01	10	10	1	10	2
DUPLICATES							
ORIGINAL DUP							
ORIGINAL DUP		0.07	<10	<10	31	<10	64
		0.07	<10	<10	30	<10	62
ERJNR006 DUP							
MMJNR005 DUP		<0.01	<10	<10	5	<10	39
		<0.01	<10	<10	5	<10	39
MMJNR010 DUP							
MMJNR028 DUP							
ORIGINAL DUP		0.30	<10	<10	94	<10	85
		0.28	<10	<10	91	<10	82



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CERTIFICATE WH11191147

Project: Justin

P.O. No.: JN11- 001

This report is for 183 Drill Core samples submitted to our lab in Whitehorse, YT, Canada on 19- SEP- 2011.

The following have access to data associated with this certificate:

JESSE CAMPBELL

CHRIS GALLAGHER

SAMPLE PREPARATION

ALS CODE	DESCRIPTION
WEI- 21	Received Sample Weight
LOG- 22	Sample login - Rcd w/o BarCode
SPL- 22Y	Split Sample - Boyd Rotary Splitter
LOG- 24	Pulp Login - Rcd w/o Barcode
BAG- 01	Bulk Master for Storage
CRU- QC	Crushing QC Test
PUL- 32m	Pulverize 500g - 85% < 75um
PUL- QC	Pulverizing QC Test
CRU- 31	Fine crushing - 70% < 2mm

ANALYTICAL PROCEDURES

ALS CODE	DESCRIPTION	INSTRUMENT
Au- AA23	Au 30g FA- AA finish	AAS
ME- ICP41	35 Element Aqua Regia ICP- AES	ICP- AES

To: TERRALOGIC EXPLORATION SERVICES INC.
ATTN: CHRIS GALLAGHER
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This is the Final Report and supersedes any preliminary report with this certificate number. Results apply to samples as submitted. All pages of this report have been checked and approved for release.

Signature:

Colin Ramshaw, Vancouver Laboratory Manager



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Account: TELOEX

Project: Justin

CERTIFICATE OF ANALYSIS WH11191147

Sample Description	Method Analyte Units LOR	WEI- 21 Recvd Wt. kg 0.02	Au- AA23 Au ppm 0.005	ME- ICP41 Ag ppm 0.2	ME- ICP41 Al % 0.01	ME- ICP41 As ppm 2	ME- ICP41 B ppm 10	ME- ICP41 Ba ppm 10	ME- ICP41 Be ppm 0.5	ME- ICP41 Bi ppm 2	ME- ICP41 Ca % 0.01	ME- ICP41 Cd ppm 0.5	ME- ICP41 Co ppm 1	ME- ICP41 Cr ppm 1	ME- ICP41 Cu ppm 1	ME- ICP41 Fe % 0.01
JN11011-001		2.14	0.010	0.5	3.33	260	20	50	1.0	28	4.05	<0.5	17	40	388	6.88
JN11011-002		1.71	0.057	4.9	2.92	>10000	<10	30	0.9	79	3.38	0.6	60	42	2220	4.83
JN11011-003		0.36	0.259	6.9	2.30	1030	10	10	1.3	859	2.58	1.4	37	44	2850	6.91
JN11011-004		2.74	0.027	0.9	2.50	663	<10	10	1.5	14	3.28	<0.5	6	33	449	4.73
JN11011-005		0.71	<0.005	0.2	2.78	69	10	20	0.8	5	3.57	<0.5	6	39	114	4.14
JN11011-006		0.66	<0.005	<0.2	2.85	9	10	10	0.8	<2	3.54	<0.5	4	31	41	4.81
JN11011-007		0.90	0.012	0.4	3.94	5160	<10	40	1.3	18	3.78	<0.5	21	41	362	4.13
JN11011-008		2.22	<0.005	0.2	2.92	41	<10	30	1.1	8	2.60	<0.5	19	31	404	4.98
JN11011-009		0.51	<0.005	0.3	4.39	16	<10	40	1.5	10	3.09	<0.5	14	51	242	3.72
JN11011-010		0.47	<0.005	0.3	3.80	7	<10	50	1.3	4	2.67	<0.5	9	47	195	2.73
JN11011-011		1.09	0.007	0.6	4.21	5	<10	50	1.4	<2	3.49	<0.5	21	37	632	5.61
JN11011-012		2.47	0.019	0.5	2.10	489	<10	40	0.7	30	1.67	<0.5	9	43	62	2.11
JN11011-013		1.39	0.025	0.4	2.22	308	<10	40	0.8	29	1.90	<0.5	11	41	105	1.87
JN11011-014		1.18	0.012	0.2	3.71	149	10	80	1.3	57	2.80	<0.5	11	51	85	2.99
JN11011-015		1.12	0.042	0.5	2.72	359	10	60	1.2	177	1.51	<0.5	12	36	68	2.75
JN11011-016		1.83	0.011	0.2	1.61	285	10	60	1.1	43	1.15	<0.5	11	20	32	2.60
JN11011-017		1.30	0.051	0.2	1.96	84	<10	60	0.7	94	0.71	<0.5	9	33	20	2.65
JN11011-018		1.12	<0.005	<0.2	1.93	94	<10	80	0.7	<2	0.23	<0.5	8	30	14	2.79
JN11011-019		1.65	0.006	<0.2	2.17	74	<10	80	0.8	7	0.51	<0.5	6	37	18	2.60
JN11011-020		1.21	0.006	<0.2	2.17	19	<10	100	0.8	3	0.82	<0.5	7	35	20	3.31
JN11011-020S		0.03	3.38	75.7	1.30	97	<10	80	<0.5	8	1.99	<0.5	9	18	762	3.20
JN11011-021		1.11	0.035	<0.2	0.87	35	<10	80	0.7	16	0.56	<0.5	8	13	20	2.59
JN11011-022		0.81	0.023	<0.2	1.23	36	10	70	0.7	31	0.69	<0.5	6	21	23	2.14
JN11011-023		0.92	0.016	<0.2	1.12	68	10	60	0.7	19	0.58	<0.5	8	16	37	2.58
JN11011-024		0.22	<0.005	<0.2	1.22	14	20	80	0.7	3	0.30	<0.5	7	17	18	2.47
JN11011-025		0.24	<0.005	0.2	1.10	124	20	50	0.6	11	0.84	<0.5	11	16	16	1.52
JN11011-026		0.10	<0.005	<0.2	2.41	24	30	130	0.9	4	0.32	<0.5	7	32	17	1.88
JN11011-027		0.29	<0.005	<0.2	1.14	31	10	60	0.7	13	1.08	<0.5	8	17	17	1.89
JN11011-028		0.99	<0.005	0.3	0.97	27	10	60	0.8	75	0.52	<0.5	9	15	12	2.78
JN11011-029		0.93	<0.005	0.4	0.60	20	10	40	0.8	11	0.84	<0.5	7	10	23	2.64
JN11011-030		1.66	<0.005	<0.2	0.83	21	10	60	0.9	10	0.88	<0.5	8	13	13	2.94
JN11011-031		2.24	<0.005	<0.2	0.63	12	10	40	0.7	15	1.75	0.7	4	7	11	1.69
JN11011-032		1.78	<0.005	0.3	1.02	53	20	60	0.9	26	1.11	<0.5	14	12	30	2.01
JN11011-033		2.07	<0.005	<0.2	0.75	24	20	40	0.8	53	1.45	<0.5	8	9	28	2.18
JN11011-034		1.92	<0.005	0.4	1.25	11	10	70	0.8	3	0.90	<0.5	7	26	19	2.10
JN11011-035		2.28	<0.005	<0.2	0.70	16	10	40	0.8	2	1.47	<0.5	7	13	42	1.99
JN11011-036		2.87	<0.005	<0.2	1.05	10	10	60	0.7	<2	1.09	<0.5	8	19	20	2.69
JN11011-037		2.64	<0.005	<0.2	0.59	24	20	40	0.7	4	1.52	<0.5	10	8	27	2.07
JN11011-038		2.32	<0.005	<0.2	1.26	113	40	60	0.9	30	1.80	<0.5	26	14	15	1.50
JN11011-039		2.29	<0.005	<0.2	0.64	6	10	50	0.9	8	0.58	<0.5	10	15	64	3.50

***** See Appendix Page for comments regarding this certificate *****



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Project: Justin

CERTIFICATE OF ANALYSIS WH11191147

Sample Description	Method Analyte Units LOR	ME- ICP41 Ga ppm 10	ME- ICP41 Hg ppm 1	ME- ICP41 K % 0.01	ME- ICP41 La ppm 10	ME- ICP41 Mg % 0.01	ME- ICP41 Mn ppm 5	ME- ICP41 Mo ppm 1	ME- ICP41 Na % 0.01	ME- ICP41 Ni ppm 1	ME- ICP41 P ppm 10	ME- ICP41 Pb ppm 2	ME- ICP41 S % 0.01	ME- ICP41 Sb ppm 2	ME- ICP41 Sc ppm 1	ME- ICP41 Sr ppm 1
JN11011-001		10	<1	0.59	20	0.75	791	<1	0.24	28	540	9	2.97	<2	6	133
JN11011-002		10	<1	0.49	20	0.96	322	<1	0.20	44	3800	6	2.01	5	6	105
JN11011-003		10	<1	0.20	40	1.08	405	<1	0.20	61	170	27	4.08	12	7	59
JN11011-004		10	<1	0.28	30	0.76	454	<1	0.27	21	930	5	1.99	<2	5	113
JN11011-005		10	<1	0.16	30	0.50	554	<1	0.27	22	240	4	0.73	2	4	147
JN11011-006		10	<1	0.20	20	0.53	714	<1	0.27	17	180	4	0.54	<2	4	124
JN11011-007		10	<1	0.34	30	0.66	337	<1	0.41	50	210	8	1.83	<2	6	182
JN11011-008		10	<1	0.20	20	0.38	327	<1	0.31	29	600	7	2.30	<2	4	166
JN11011-009		20	<1	0.32	30	0.63	265	<1	0.50	37	210	13	1.63	<2	6	209
JN11011-010		10	<1	0.22	30	0.57	239	<1	0.45	31	200	12	0.89	<2	5	175
JN11011-011		10	<1	0.21	30	0.46	352	<1	0.51	45	880	11	2.96	<2	5	227
JN11011-012		10	<1	0.60	30	0.75	238	<1	0.17	28	190	8	0.38	<2	6	65
JN11011-013		10	<1	0.68	40	0.78	216	<1	0.18	34	240	6	0.18	<2	6	66
JN11011-014		10	<1	0.75	50	0.92	260	<1	0.30	32	220	6	0.47	<2	8	111
JN11011-015		10	<1	0.54	40	0.57	209	<1	0.22	38	2340	13	0.11	2	6	96
JN11011-016		<10	<1	0.55	40	0.30	334	<1	0.07	32	300	11	0.04	2	4	42
JN11011-017		10	<1	0.70	30	0.63	219	<1	0.11	32	180	5	0.05	<2	4	39
JN11011-018		10	<1	0.80	30	0.61	190	<1	0.07	32	150	3	0.02	<2	3	24
JN11011-019		10	<1	0.73	40	0.65	270	<1	0.11	27	180	6	0.02	<2	5	38
JN11011-020		10	<1	0.83	30	0.66	432	<1	0.06	27	320	8	0.02	<2	4	34
JN11011-0205		<10	<1	0.15	<10	0.85	861	671	0.04	9	690	38	0.22	51	2	91
JN11011-021		<10	<1	0.41	20	0.18	363	1	0.04	24	160	7	0.13	<2	2	26
JN11011-022		<10	<1	0.52	30	0.24	202	<1	0.06	22	160	6	0.04	7	3	26
JN11011-023		<10	<1	0.41	30	0.24	230	1	0.05	27	180	8	0.05	10	4	35
JN11011-024		<10	<1	0.55	30	0.07	142	<1	0.05	30	130	3	0.04	8	3	15
JN11011-025		<10	1	0.48	40	0.14	98	<1	0.07	29	160	4	<0.01	8	3	22
JN11011-026		10	1	1.06	30	0.30	123	<1	0.17	32	180	3	<0.01	2	5	29
JN11011-027		<10	<1	0.53	40	0.19	125	<1	0.04	29	190	6	<0.01	6	3	24
JN11011-028		<10	1	0.46	40	0.13	188	<1	0.03	32	140	4	<0.01	2	3	24
JN11011-029		<10	<1	0.29	30	0.08	231	<1	0.02	27	110	5	0.01	9	3	29
JN11011-030		<10	1	0.40	30	0.26	203	<1	0.03	30	110	3	0.10	9	3	63
JN11011-031		<10	<1	0.31	30	0.31	186	<1	0.02	15	170	7	0.01	11	4	93
JN11011-032		<10	1	0.49	30	0.38	270	34	0.02	27	150	46	0.13	13	3	88
JN11011-033		<10	<1	0.35	20	0.52	180	3	0.01	24	100	14	0.05	13	3	130
JN11011-034		<10	<1	0.54	40	0.61	180	<1	0.09	21	160	5	0.06	2	4	78
JN11011-035		<10	1	0.37	30	0.58	145	<1	0.04	22	150	4	0.05	<2	3	98
JN11011-036		<10	<1	0.50	30	0.69	192	<1	0.06	25	180	3	0.06	<2	3	73
JN11011-037		<10	<1	0.30	30	0.65	159	<1	0.04	23	100	5	0.05	2	4	159
JN11011-038		<10	<1	0.48	30	0.67	139	<1	0.07	41	90	7	0.05	8	6	191
JN11011-039		<10	<1	0.33	30	0.70	256	<1	0.03	32	130	6	0.13	<2	3	44

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Project: Justin

CERTIFICATE OF ANALYSIS WH11191147

Sample Description	Method Analyte Units LOR	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41
		Th	Ti	Ti	U	V	W	Zn
		ppm 20	% 0.01	ppm 10	ppm 10	ppm 1	ppm 10	ppm 2
JN11011-001		<20	0.12	<10	<10	44	<10	40
JN11011-002		<20	0.07	<10	<10	46	20	91
JN11011-003		20	0.15	<10	<10	64	<10	143
JN11011-004		20	0.09	<10	<10	39	<10	40
JN11011-005		20	0.15	<10	<10	35	<10	29
JN11011-006		<20	0.13	<10	<10	34	<10	30
JN11011-007		20	0.10	<10	<10	43	<10	39
JN11011-008		<20	0.11	<10	<10	30	<10	29
JN11011-009		20	0.17	<10	<10	50	<10	35
JN11011-010		20	0.17	<10	<10	43	<10	32
JN11011-011		20	0.15	<10	<10	36	<10	41
JN11011-012		20	0.08	<10	<10	45	<10	22
JN11011-013		20	0.06	<10	<10	43	<10	20
JN11011-014		20	0.06	<10	<10	59	10	32
JN11011-015		20	0.03	<10	<10	40	10	37
JN11011-016		20	0.01	<10	<10	23	<10	37
JN11011-017		20	0.05	<10	<10	33	<10	35
JN11011-018		20	0.06	<10	<10	30	<10	38
JN11011-019		20	0.05	<10	<10	38	<10	41
JN11011-020		20	0.09	<10	<10	36	<10	62
JN11011-020S		<20	0.09	<10	<10	31	<10	97
JN11011-021		<20	0.01	<10	<10	13	<10	32
JN11011-022		20	0.02	<10	<10	19	<10	27
JN11011-023		20	0.01	<10	<10	17	<10	43
JN11011-024		20	0.01	<10	<10	14	<10	33
JN11011-025		20	0.01	<10	<10	15	<10	18
JN11011-026		20	0.03	<10	<10	32	<10	21
JN11011-027		20	0.01	<10	<10	16	<10	34
JN11011-028		20	0.01	<10	<10	15	<10	32
JN11011-029		20	<0.01	<10	<10	10	<10	31
JN11011-030		20	<0.01	<10	<10	14	<10	32
JN11011-031		20	<0.01	<10	<10	8	<10	50
JN11011-032		20	<0.01	<10	<10	11	<10	128
JN11011-033		20	<0.01	<10	<10	10	<10	26
JN11011-034		20	0.02	<10	<10	26	<10	23
JN11011-035		20	<0.01	<10	<10	13	<10	20
JN11011-036		20	0.01	<10	<10	19	<10	23
JN11011-037		20	<0.01	<10	<10	9	<10	25
JN11011-038		20	<0.01	<10	<10	16	<10	18
JN11011-039		<20	0.01	<10	<10	14	<10	45

***** See Appendix Page for comments regarding this certificate *****



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To: TERRALOGIC EXPLORATION SERVICES INC.
44 - 12TH AVENUE SOUTH
SUITE 200
CRANBROOK BC V1C 2R7

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Account: TELOEX

Project: Justin

CERTIFICATE OF ANALYSIS WH11191147

Sample Description	Method Analyte Units LOR	WEI- 21 Recvd Wt. kg 0.02	Au- AA23 Au ppm 0.005	ME- ICP41 Ag ppm 0.2	ME- ICP41 Al % 0.01	ME- ICP41 As ppm 2	ME- ICP41 B ppm 10	ME- ICP41 Ba ppm 10	ME- ICP41 Be ppm 0.5	ME- ICP41 Bi ppm 2	ME- ICP41 Ca % 0.01	ME- ICP41 Cd ppm 0.5	ME- ICP41 Co ppm 1	ME- ICP41 Cr ppm 1	ME- ICP41 Cu ppm 1	ME- ICP41 Fe % 0.01
JN11011-040		2.71	<0.005	<0.2	1.40	4	20	90	0.9	<2	0.95	<0.5	9	24	42	3.86
JN11011-040S		0.04	0.005	<0.2	0.54	<2	<10	180	<0.5	<2	0.14	<0.5	2	9	4	1.53
JN11011-040B		0.04	1.410	33.7	0.39	25	<10	240	<0.5	2	1.29	<0.5	8	30	3190	2.59
JN11011-041		2.42	<0.005	<0.2	1.00	14	10	60	0.9	<2	2.12	<0.5	13	14	48	4.09
JN11011-042		3.00	<0.005	<0.2	1.11	171	20	70	0.7	<2	0.63	<0.5	10	13	33	3.08
JN11011-043		2.62	<0.005	0.3	1.10	52	20	60	0.7	<2	0.34	<0.5	11	14	39	3.71
JN11011-044		1.66	<0.005	0.2	0.90	31	30	70	0.8	<2	0.62	<0.5	10	11	27	3.47
JN11011-045		2.35	0.005	<0.2	0.45	55	10	40	0.5	<2	1.35	<0.5	8	6	27	2.75
JN11011-046		2.21	0.018	<0.2	0.71	241	20	50	0.6	<2	1.86	<0.5	9	7	28	3.08
JN11011-047		2.44	0.005	<0.2	0.53	589	10	40	0.6	3	1.20	<0.5	10	6	46	2.60
JN11011-048		2.02	<0.005	0.2	0.90	58	10	60	0.8	3	0.61	<0.5	9	10	26	3.35
JN11011-049		1.77	0.007	<0.2	0.64	160	10	80	0.6	<2	0.16	<0.5	11	8	36	3.18
JN11011-050		2.11	0.009	0.5	0.65	127	10	50	0.7	30	0.21	<0.5	11	8	37	3.13
JN11011-051		1.00	0.006	0.2	0.50	313	10	40	<0.5	5	0.06	<0.5	7	6	40	3.53
JN11011-052		2.10	<0.005	<0.2	0.95	56	10	70	1.0	2	0.12	<0.5	12	15	68	3.83
JN11011-053		1.76	<0.005	0.2	0.81	108	10	60	0.9	25	0.14	<0.5	28	13	85	3.99
JN11011-054		2.21	<0.005	0.2	1.18	17	10	70	0.9	2	0.23	<0.5	15	19	86	4.11
JN11011-055		2.40	<0.005	<0.2	1.10	<2	<10	80	0.6	<2	0.73	<0.5	12	19	48	3.86
JN11011-056		1.70	<0.005	<0.2	0.97	4	<10	60	0.7	<2	1.02	<0.5	10	16	45	2.86
JN11011-057		3.46	<0.005	0.2	1.47	25	<10	60	0.7	2	0.89	<0.5	17	22	163	3.54
JN11011-058		2.77	<0.005	<0.2	2.70	4	<10	110	0.8	<2	0.96	<0.5	8	41	35	4.37
JN11011-059		2.31	<0.005	<0.2	2.20	4	<10	100	0.8	2	1.13	<0.5	13	35	36	4.33
JN11011-060		1.68	0.007	<0.2	2.02	8	<10	90	0.9	7	1.13	<0.5	16	31	56	4.06
JN11011-060S		0.04	3.47	72.0	1.26	87	<10	70	<0.5	7	1.95	<0.5	9	17	707	3.12
JN11011-061		2.50	<0.005	<0.2	1.29	7	<10	60	0.7	2	1.54	<0.5	14	24	24	3.62
JN11011-062		2.39	<0.005	<0.2	1.77	17	<10	90	0.7	2	0.63	<0.5	14	31	42	3.64
JN11011-063		2.81	<0.005	<0.2	0.80	82	10	50	0.7	<2	0.67	<0.5	11	13	35	3.76
JN11011-064		2.12	<0.005	<0.2	0.67	3	10	50	0.6	2	0.53	<0.5	14	9	29	3.86
JN11011-065		2.50	<0.005	<0.2	0.72	3	<10	50	0.7	<2	0.57	<0.5	10	12	20	3.67
JN11011-066		2.06	<0.005	<0.2	0.74	5	10	50	0.7	<2	0.83	<0.5	15	12	41	4.21
JN11011-067		2.32	<0.005	<0.2	0.34	8	<10	30	0.6	3	0.54	<0.5	15	9	32	3.73
JN11011-068		2.58	<0.005	<0.2	1.19	8	<10	70	0.7	<2	0.75	<0.5	13	20	38	3.43
JN11011-069		2.40	<0.005	<0.2	1.28	32	<10	60	0.7	<2	1.25	<0.5	11	25	50	3.64
JN11011-070		2.35	<0.005	<0.2	1.08	443	10	60	0.7	3	2.18	<0.5	10	15	50	2.82
JN11011-071		1.82	<0.005	0.3	1.10	132	10	70	0.7	2	1.73	<0.5	11	14	93	2.91
JN11011-072		2.71	<0.005	<0.2	1.19	44	<10	60	1.0	<2	0.75	<0.5	15	17	24	4.29
JN11011-073		2.59	<0.005	<0.2	0.54	13	<10	40	0.7	2	0.58	<0.5	12	10	34	3.53
JN11011-074		2.10	<0.005	0.2	1.55	13	<10	70	0.7	<2	0.75	<0.5	12	24	23	3.80
JN11011-075		0.82	0.015	1.5	0.87	2320	20	50	0.6	7	1.13	0.9	22	10	332	4.12
JN11011-076		1.78	<0.005	<0.2	1.95	13	<10	70	0.7	<2	0.80	<0.5	12	28	29	4.43

***** See Appendix Page for comments regarding this certificate *****



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44 - 12TH AVENUE SOUTH
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Project: Justin

CERTIFICATE OF ANALYSIS WH11191147

Sample Description	Method Analyte Units LOR	ME- ICP41 Ga ppm 10	ME- ICP41 Hg ppm 1	ME- ICP41 K % 0.01	ME- ICP41 La ppm 10	ME- ICP41 Mg % 0.01	ME- ICP41 Mn ppm 5	ME- ICP41 Mo ppm 1	ME- ICP41 Na % 0.01	ME- ICP41 Ni ppm 1	ME- ICP41 P ppm 10	ME- ICP41 Pb ppm 2	ME- ICP41 S % 0.01	ME- ICP41 Sb ppm 2	ME- ICP41 Sc ppm 1	ME- ICP41 Sr ppm 1
JN11011-040		10	<1	0.60	30	0.94	260	<1	0.07	28	190	4	0.26	<2	5	93
JN11011-040S		<10	<1	0.33	10	0.22	343	<1	0.08	<1	190	4	<0.01	<2	4	9
JN11011-040B		<10	4	0.15	10	0.14	428	356	0.04	18	400	59	1.07	76	1	267
JN11011-041		<10	<1	0.43	20	0.76	501	<1	0.02	27	7770	6	0.50	10	3	155
JN11011-042		<10	<1	0.48	20	0.49	560	<1	0.03	24	130	8	0.34	18	3	74
JN11011-043		<10	1	0.45	30	0.16	415	1	0.04	27	120	7	0.12	13	3	41
JN11011-044		<10	<1	0.44	30	0.32	508	<1	0.01	25	120	4	0.03	15	4	80
JN11011-045		<10	1	0.24	10	0.42	539	<1	0.01	22	90	9	0.10	21	3	134
JN11011-046		<10	<1	0.38	10	0.56	579	<1	0.01	20	190	9	0.21	15	3	163
JN11011-047		<10	1	0.33	20	0.51	563	<1	0.01	21	150	9	0.31	14	2	118
JN11011-048		<10	1	0.41	20	0.36	542	<1	0.01	25	130	11	0.51	8	2	46
JN11011-049		<10	<1	0.37	30	0.08	562	1	0.01	25	60	9	0.09	15	2	27
JN11011-050		<10	<1	0.36	20	0.05	808	1	0.01	29	120	58	0.04	22	2	28
JN11011-051		<10	1	0.30	30	0.04	184	1	<0.01	24	90	36	0.07	31	1	23
JN11011-052		<10	<1	0.41	30	0.21	428	<1	0.02	31	120	12	0.09	11	4	19
JN11011-053		<10	<1	0.37	20	0.22	506	2	0.03	41	120	22	0.26	6	3	17
JN11011-054		<10	<1	0.50	20	0.33	274	2	0.03	32	420	7	0.44	5	4	20
JN11011-055		<10	<1	0.48	20	0.79	321	1	0.03	32	110	3	0.35	<2	3	58
JN11011-056		<10	<1	0.40	30	0.66	256	2	0.06	28	120	3	0.30	<2	3	59
JN11011-057		<10	<1	0.55	20	0.75	493	1	0.03	33	120	5	0.67	<2	2	33
JN11011-058		10	<1	0.86	20	1.03	516	2	0.05	28	1990	6	0.21	<2	5	59
JN11011-059		10	<1	0.71	20	1.00	665	2	0.06	32	160	9	0.40	<2	5	54
JN11011-060		10	<1	0.64	20	0.86	534	1	0.07	34	140	7	0.27	<2	5	58
JN11011-060S		<10	<1	0.14	<10	0.85	794	623	0.04	8	650	40	0.22	55	1	90
JN11011-061		<10	<1	0.43	10	0.86	500	2	0.03	27	2150	6	0.23	<2	4	93
JN11011-062		10	<1	0.69	20	0.87	476	2	0.05	30	150	5	0.23	<2	4	49
JN11011-063		<10	<1	0.35	20	0.76	424	1	0.03	29	140	5	0.18	2	3	51
JN11011-064		<10	<1	0.33	20	0.67	371	1	0.02	31	130	5	0.12	9	3	42
JN11011-065		<10	<1	0.34	30	0.73	452	1	0.03	26	130	5	0.10	<2	2	58
JN11011-066		<10	<1	0.35	20	0.82	556	1	0.03	32	220	4	0.57	<2	3	77
JN11011-067		<10	<1	0.16	10	0.59	385	1	0.02	33	120	4	0.32	<2	2	44
JN11011-068		<10	<1	0.48	20	0.76	540	1	0.05	31	130	5	0.33	<2	3	72
JN11011-069		<10	<1	0.49	10	0.86	440	1	0.04	28	1440	4	0.46	<2	4	80
JN11011-070		<10	<1	0.45	20	0.69	337	2	0.06	30	2560	10	0.64	<2	3	144
JN11011-071		<10	<1	0.45	20	0.35	644	2	0.03	25	5740	15	0.16	<2	3	119
JN11011-072		<10	<1	0.44	20	0.62	634	1	0.03	36	150	7	0.37	<2	4	51
JN11011-073		<10	<1	0.23	10	0.49	519	2	0.02	28	150	4	0.33	<2	2	38
JN11011-074		<10	<1	0.45	20	0.81	605	1	0.03	32	150	2	0.36	<2	3	43
JN11011-075		<10	<1	0.39	10	0.54	732	1	0.03	38	200	65	1.89	2	1	77
JN11011-076		10	<1	0.50	10	0.92	764	1	0.04	34	180	5	0.92	<2	3	46



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To: TERRALOGIC EXPLORATION SERVICES INC.
44 - 12TH AVENUE SOUTH
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CRANBROOK BC V1C 2R7

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Project: Justin

CERTIFICATE OF ANALYSIS WH11191147

Sample Description	Method Analyte Units LOR	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41
		Th	Ti	Ti	U	V	W	Zn
		ppm 20	% 0.01	ppm 10	ppm 10	ppm 1	ppm 10	ppm 2
JN11011-040		20	0.02	<10	<10	25	<10	51
JN11011-040S		<20	0.10	<10	<10	17	<10	19
JN11011-040B		<20	0.01	<10	<10	17	<10	48
JN11011-041		<20	0.01	<10	<10	15	<10	68
JN11011-042		<20	0.01	<10	<10	12	<10	78
JN11011-043		<20	0.01	<10	<10	14	<10	65
JN11011-044		<20	<0.01	<10	<10	13	<10	52
JN11011-045		<20	<0.01	<10	<10	8	<10	55
JN11011-046		<20	<0.01	<10	<10	10	<10	44
JN11011-047		<20	<0.01	<10	<10	6	<10	24
JN11011-048		<20	<0.01	<10	<10	12	<10	51
JN11011-049		<20	<0.01	<10	<10	8	<10	83
JN11011-050		<20	<0.01	<10	<10	9	<10	73
JN11011-051		<20	<0.01	<10	<10	7	<10	80
JN11011-052		<20	0.01	<10	<10	16	<10	74
JN11011-053		<20	<0.01	<10	<10	14	<10	92
JN11011-054		<20	0.01	<10	<10	19	<10	54
JN11011-055		<20	0.03	<10	<10	20	<10	43
JN11011-056		20	0.01	<10	<10	18	<10	22
JN11011-057		20	0.03	<10	<10	22	<10	46
JN11011-058		<20	0.08	<10	<10	45	<10	62
JN11011-059		<20	0.07	<10	<10	40	<10	60
JN11011-060		20	0.04	<10	<10	34	<10	53
JN11011-060S		<20	0.09	<10	<10	28	<10	89
JN11011-061		<20	0.04	<10	<10	26	<10	48
JN11011-062		<20	0.06	<10	<10	32	<10	48
JN11011-063		<20	0.01	<10	<10	14	<10	58
JN11011-064		<20	<0.01	<10	<10	11	<10	69
JN11011-065		<20	<0.01	<10	<10	13	<10	59
JN11011-066		<20	<0.01	<10	<10	13	<10	51
JN11011-067		<20	<0.01	<10	<10	10	<10	61
JN11011-068		<20	0.02	<10	<10	21	<10	66
JN11011-069		20	0.04	<10	<10	27	<10	43
JN11011-070		20	0.01	<10	<10	16	<10	39
JN11011-071		20	0.01	<10	<10	15	<10	56
JN11011-072		<20	0.01	<10	<10	19	<10	86
JN11011-073		<20	<0.01	<10	<10	10	<10	77
JN11011-074		<20	0.02	<10	<10	23	<10	74
JN11011-075		20	<0.01	<10	<10	10	<10	251
JN11011-076		<20	0.02	<10	<10	26	<10	76

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To: TERRALOGIC EXPLORATION SERVICES INC.

44 - 12TH AVENUE SOUTH

SUITE 200

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Project: Justin

CERTIFICATE OF ANALYSIS WH11191147

Sample Description	Method Analyte Units LOR	WEI- 21 Recvd Wt. kg	Au- AA23 Au ppm	ME- ICP41 Ag ppm	ME- ICP41 Al %	ME- ICP41 As ppm	ME- ICP41 B ppm	ME- ICP41 Ba ppm	ME- ICP41 Be ppm	ME- ICP41 Bi ppm	ME- ICP41 Ca %	ME- ICP41 Cd ppm	ME- ICP41 Co ppm	ME- ICP41 Cr ppm	ME- ICP41 Cu ppm	ME- ICP41 Fe %
JN11011-077		2.41	<0.005	<0.2	1.41	5	<10	60	0.7	<2	0.85	<0.5	13	27	32	3.82
JN11011-078		2.17	<0.005	<0.2	1.98	7	<10	80	0.9	<2	0.73	<0.5	13	32	30	4.06
JN11011-079		2.63	<0.005	<0.2	1.88	18	<10	80	0.9	<2	1.76	<0.5	13	30	27	3.29
JN11011-080		1.64	<0.005	<0.2	2.27	198	<10	50	1.0	2	3.81	<0.5	13	29	72	1.84
JN11011-0805		0.05	1.355	31.5	0.34	22	<10	270	<0.5	2	1.20	<0.5	7	27	2940	2.39
JN11011-0808		0.04	<0.005	<0.2	0.56	<2	<10	180	<0.5	<2	0.14	<0.5	3	8	8	1.47
JN11011-081		0.68	<0.005	0.6	0.91	2280	<10	40	1.3	8	2.77	<0.5	11	12	152	4.06
JN11011-082		2.36	<0.005	<0.2	1.37	39	<10	50	0.9	<2	2.12	<0.5	5	29	10	1.86
JN11011-083		2.22	<0.005	<0.2	1.69	17	<10	80	1.0	<2	1.66	<0.5	10	34	18	3.29
JN11011-084		2.53	<0.005	<0.2	1.98	13	<10	100	0.8	8	0.95	<0.5	14	37	18	3.47
JN11011-085		2.32	<0.005	<0.2	1.48	8	<10	50	0.5	2	1.27	<0.5	12	28	39	3.21
JN11011-086		3.16	<0.005	<0.2	2.21	28	<10	110	0.8	<2	0.95	<0.5	12	44	29	3.53
JN11011-087		2.59	<0.005	0.2	1.97	89	<10	80	0.7	2	1.02	<0.5	8	41	19	2.94
JN11011-088		2.42	<0.005	0.9	0.90	565	<10	40	0.5	11	2.01	<0.5	10	23	248	1.21
JN11011-089		2.18	<0.005	<0.2	1.24	832	<10	50	0.6	2	2.07	<0.5	12	28	23	2.08
JN11011-090		2.55	<0.005	<0.2	1.58	38	<10	70	0.8	<2	1.68	<0.5	9	32	12	2.48
JN11011-091		2.37	<0.005	<0.2	1.33	27	<10	50	0.8	2	0.69	<0.5	12	30	23	3.99
JN11011-092		2.57	<0.005	0.2	1.35	18	<10	60	1.0	<2	1.74	<0.5	9	23	20	2.94
JN11011-093		2.48	<0.005	0.2	0.81	14	<10	40	0.9	<2	2.46	<0.5	3	14	13	2.28
JN11011-094		2.43	<0.005	<0.2	0.81	41	<10	40	0.7	<2	2.94	<0.5	1	11	18	1.36
JN11011-095		1.22	<0.005	0.3	1.01	4	<10	30	0.9	4	3.76	<0.5	1	15	61	1.99
JN11011-096		0.37	<0.005	0.3	0.36	<2	<10	20	0.5	<2	19.6	<0.5	1	3	29	1.26
JN11011-097		3.09	<0.005	0.3	1.13	37	<10	50	1.1	<2	2.34	<0.5	2	12	44	2.23
JN11011-098		2.41	<0.005	0.2	1.03	25	<10	40	0.7	<2	1.33	<0.5	8	26	13	1.24
JN11011-099		1.27	<0.005	0.3	1.72	56	<10	50	0.6	<2	1.57	<0.5	8	49	164	1.48
JN11011-100		1.30	<0.005	0.3	1.02	20	<10	40	0.7	<2	2.57	<0.5	4	37	10	1.17
JN11011-1005		0.05	3.27	79.5	1.29	93	<10	90	<0.5	6	2.05	<0.5	9	18	766	3.24
JN11011-101		1.50	<0.005	0.2	0.81	6	<10	50	0.5	<2	1.64	<0.5	4	39	53	1.45
JN11011-102		2.64	<0.005	<0.2	1.80	15	<10	50	0.6	<2	1.11	<0.5	6	53	47	1.89
JN11011-103		2.19	<0.005	0.2	1.77	25	<10	60	0.6	<2	1.80	<0.5	13	36	78	2.42
JN11011-104		2.57	<0.005	<0.2	1.95	47	<10	80	0.7	<2	1.19	<0.5	13	43	32	3.03
JN11011-105		2.84	<0.005	<0.2	2.20	46	<10	80	0.6	<2	0.84	<0.5	13	47	66	3.19
JN11011-106		2.15	<0.005	0.2	2.16	68	<10	50	0.5	<2	0.98	<0.5	17	50	93	3.15
JN11011-107		2.60	0.005	<0.2	2.10	3190	<10	60	0.6	2	1.29	<0.5	20	56	44	2.05
JN11011-108		2.52	0.005	0.2	1.74	5590	<10	50	<0.5	<2	0.96	<0.5	46	50	11	1.92
JN11011-109		2.38	<0.005	<0.2	2.35	439	<10	100	0.7	<2	2.21	<0.5	15	48	34	3.18
JN11011-110		2.86	<0.005	<0.2	2.91	16	<10	90	0.7	<2	1.52	<0.5	11	59	44	2.45
JN11011-111		2.45	<0.005	<0.2	2.85	15	<10	140	0.9	<2	0.46	<0.5	13	51	30	4.44
JN11011-112		2.32	<0.005	<0.2	2.70	10	<10	120	1.1	2	0.64	<0.5	19	44	33	3.97
JN11011-113		2.53	<0.005	<0.2	2.32	11	<10	110	0.9	<2	0.52	<0.5	16	42	39	3.93

***** See Appendix Page for comments regarding this certificate *****



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To: TERRALOGIC EXPLORATION SERVICES INC.
44 - 12TH AVENUE SOUTH
SUITE 200
CRANBROOK BC V1C 2R7

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Project: Justin

CERTIFICATE OF ANALYSIS WH11191147

Sample Description	Method Analyte Units LOR	ME- ICP41 Ga ppm 10	ME- ICP41 Hg ppm 1	ME- ICP41 K % 0.01	ME- ICP41 La ppm 10	ME- ICP41 Mg % 0.01	ME- ICP41 Mn ppm 5	ME- ICP41 Mo ppm 1	ME- ICP41 Na % 0.01	ME- ICP41 Ni ppm 1	ME- ICP41 P ppm 10	ME- ICP41 Pb ppm 2	ME- ICP41 S % 0.01	ME- ICP41 Sb ppm 2	ME- ICP41 Sc ppm 1	ME- ICP41 Sr ppm 1
JN11011-077		<10	<1	0.43	10	0.80	519	1	0.03	31	130	3	0.37	<2	3	53
JN11011-078		10	<1	0.63	10	0.83	501	1	0.03	32	130	4	0.29	<2	3	38
JN11011-079		10	<1	0.72	20	0.61	458	1	0.03	31	3210	3	0.19	<2	4	92
JN11011-080		10	<1	0.50	20	0.34	331	1	0.02	37	>10000	4	0.24	<2	4	219
JN11011-080S		<10	4	0.14	10	0.13	382	319	0.04	17	360	81	1.00	72	1	246
JN11011-080B		<10	<1	0.33	10	0.23	323	2	0.09	1	180	3	0.01	<2	4	10
JN11011-081		<10	<1	0.31	30	0.39	674	2	0.02	28	640	9	0.83	<2	3	55
JN11011-082		<10	<1	0.53	30	0.60	292	1	0.06	25	200	3	0.04	2	5	63
JN11011-083		10	<1	0.68	20	0.86	540	1	0.05	31	440	3	0.20	<2	6	74
JN11011-084		10	<1	0.78	20	0.77	530	1	0.05	31	130	4	0.10	<2	4	48
JN11011-085		10	<1	0.46	10	0.76	385	1	0.03	28	120	3	0.49	<2	3	53
JN11011-086		10	<1	0.90	20	0.91	345	<1	0.06	37	180	5	0.22	<2	5	46
JN11011-087		10	<1	0.73	30	0.89	221	<1	0.08	29	160	4	0.19	<2	4	49
JN11011-088		<10	<1	0.25	20	0.49	149	<1	0.05	18	180	14	0.19	3	3	65
JN11011-089		<10	<1	0.40	30	0.62	256	<1	0.05	29	170	5	0.31	2	3	61
JN11011-090		<10	<1	0.54	30	0.64	297	<1	0.07	30	190	3	0.15	<2	4	50
JN11011-091		<10	<1	0.42	20	0.70	407	<1	0.01	34	140	2	0.32	<2	3	23
JN11011-092		<10	<1	0.41	20	0.81	375	<1	0.04	35	190	4	0.31	<2	5	95
JN11011-093		<10	<1	0.21	30	0.75	425	<1	0.03	27	200	5	0.11	2	4	153
JN11011-094		<10	<1	0.31	40	0.60	546	<1	0.06	15	200	3	0.09	<2	3	154
JN11011-095		<10	<1	0.29	30	0.40	538	<1	0.06	28	200	9	0.34	<2	4	141
JN11011-096		<10	<1	0.12	20	0.10	1340	<1	0.01	14	90	4	0.24	2	2	414
JN11011-097		<10	<1	0.27	20	0.28	371	<1	0.03	30	220	11	0.44	2	4	91
JN11011-098		<10	<1	0.41	30	0.44	150	<1	0.03	33	200	2	0.08	<2	6	66
JN11011-099		10	<1	0.66	30	0.88	133	<1	0.15	43	190	6	0.17	<2	8	83
JN11011-100		<10	<1	0.25	30	0.46	180	<1	0.11	21	480	10	0.05	2	7	85
JN11011-100S		<10	1	0.16	<10	0.84	851	648	0.03	9	690	40	0.22	57	2	95
JN11011-101		<10	<1	0.21	40	0.44	187	1	0.07	31	220	15	0.35	<2	7	64
JN11011-102		10	<1	0.72	30	0.99	110	<1	0.16	35	200	7	0.30	<2	7	85
JN11011-103		10	<1	0.68	40	0.80	132	<1	0.09	37	200	8	0.58	<2	4	80
JN11011-104		10	<1	0.88	30	0.94	198	<1	0.07	35	210	4	0.22	<2	5	56
JN11011-105		10	<1	1.00	30	1.05	128	<1	0.14	45	190	5	0.79	<2	6	66
JN11011-106		10	<1	0.79	20	1.09	105	<1	0.13	41	200	4	0.75	<2	6	80
JN11011-107		10	<1	0.70	30	1.05	116	<1	0.19	44	230	5	0.42	<2	6	92
JN11011-108		10	<1	0.69	50	1.07	96	<1	0.12	33	400	4	0.33	3	6	67
JN11011-109		10	<1	1.01	30	1.08	177	<1	0.09	33	6770	3	0.36	<2	5	149
JN11011-110		10	<1	1.06	30	1.28	146	<1	0.26	39	1640	9	0.45	<2	9	121
JN11011-111		10	<1	1.15	20	1.12	242	<1	0.06	38	240	<2	0.36	3	5	55
JN11011-112		10	<1	0.89	20	0.88	290	<1	0.05	33	190	<2	0.40	2	5	45
JN11011-113		10	<1	0.79	20	0.91	242	<1	0.04	36	200	3	0.40	2	4	36

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44 - 12TH AVENUE SOUTH
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Project: Justin

CERTIFICATE OF ANALYSIS WH11191147

Sample Description	Method Analyte Units LOR	ME- ICP41 Th ppm 20	ME- ICP41 Ti % 0.01	ME- ICP41 Ti ppm 10	ME- ICP41 U ppm 10	ME- ICP41 V ppm 1	ME- ICP41 W ppm 10	ME- ICP41 Zn ppm 2
JN11011-077		<20	0.04	<10	<10	26	<10	53
JN11011-078		<20	0.06	<10	<10	32	<10	57
JN11011-079		<20	0.05	<10	<10	35	<10	37
JN11011-080		20	0.02	<10	<10	34	<10	27
JN11011-080S		<20	0.01	<10	<10	16	<10	62
JN11011-080B		<20	0.10	<10	<10	16	<10	16
JN11011-081		20	<0.01	<10	<10	15	<10	38
JN11011-082		20	0.03	<10	<10	36	<10	17
JN11011-083		20	0.06	<10	<10	41	<10	43
JN11011-084		20	0.09	<10	<10	38	<10	51
JN11011-085		<20	0.06	<10	<10	27	<10	27
JN11011-086		20	0.11	<10	<10	45	<10	52
JN11011-087		20	0.08	<10	<10	43	<10	38
JN11011-088		20	0.01	<10	<10	26	<10	26
JN11011-089		20	0.02	<10	<10	29	<10	30
JN11011-090		20	0.03	<10	<10	35	<10	28
JN11011-091		<20	0.03	<10	<10	32	<10	43
JN11011-092		20	0.01	<10	<10	32	<10	35
JN11011-093		20	<0.01	<10	<10	22	<10	22
JN11011-094		20	<0.01	<10	<10	13	<10	17
JN11011-095		20	<0.01	<10	<10	22	<10	17
JN11011-096		20	<0.01	<10	<10	4	<10	4
JN11011-097		20	<0.01	<10	<10	20	<10	42
JN11011-098		20	0.03	<10	<10	34	<10	25
JN11011-099		20	0.06	<10	<10	59	<10	25
JN11011-100		20	0.04	<10	<10	45	<10	27
JN11011-100S		<20	0.09	<10	<10	30	<10	97
JN11011-101		20	0.06	<10	<10	44	<10	33
JN11011-102		20	0.08	<10	<10	59	<10	21
JN11011-103		20	0.05	<10	<10	38	<10	17
JN11011-104		20	0.08	<10	<10	48	<10	33
JN11011-105		20	0.09	<10	<10	52	<10	22
JN11011-106		20	0.08	<10	<10	55	<10	17
JN11011-107		20	0.05	<10	<10	82	<10	17
JN11011-108		20	0.06	<10	<10	60	<10	17
JN11011-109		20	0.09	<10	<10	54	<10	31
JN11011-110		20	0.10	<10	<10	71	<10	31
JN11011-111		<20	0.18	<10	<10	56	<10	52
JN11011-112		20	0.12	<10	<10	48	<10	49
JN11011-113		<20	0.12	<10	<10	44	<10	47

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Project: Justin

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Sample Description	Method Analyte Units LOR	WEI- 21 Recvd Wt. kg	Au- AA23 Au ppm	ME- ICP41 Ag ppm	ME- ICP41 Al %	ME- ICP41 As ppm	ME- ICP41 B ppm	ME- ICP41 Ba ppm	ME- ICP41 Be ppm	ME- ICP41 Bi ppm	ME- ICP41 Ca %	ME- ICP41 Cd ppm	ME- ICP41 Co ppm	ME- ICP41 Cr ppm	ME- ICP41 Cu ppm	ME- ICP41 Fe %
JN11011-114		2.49	<0.005	<0.2	2.44	35	<10	100	0.9	<2	0.86	<0.5	19	41	89	3.70
JN11011-115		2.57	<0.005	<0.2	2.49	16	<10	130	0.9	<2	0.56	<0.5	17	44	27	4.03
JN11011-116		2.52	<0.005	<0.2	1.66	10	<10	70	0.8	<2	0.98	<0.5	11	33	26	3.20
JN11011-117		2.28	<0.005	<0.2	1.90	14	<10	80	1.1	<2	0.72	<0.5	16	33	24	4.14
JN11011-118		2.14	<0.005	<0.2	0.82	65	<10	30	0.6	<2	1.10	<0.5	18	14	48	2.26
JN11011-119		1.41	<0.005	0.2	0.87	28	<10	40	1.4	<2	1.71	<0.5	9	17	45	4.11
JN11011-120		1.56	<0.005	0.2	1.21	21	<10	80	0.8	<2	3.99	<0.5	7	23	17	2.14
JN11011-120S		0.03	1.490	32.2	0.37	25	<10	250	<0.5	<2	1.28	<0.5	8	30	3150	2.55
JN11011-120B		0.04	0.009	<0.2	0.54	<2	<10	190	<0.5	<2	0.14	<0.5	2	8	7	1.50
JN11011-121		2.63	<0.005	<0.2	2.23	19	<10	100	1.0	<2	0.79	<0.5	15	40	28	3.84
JN11011-122		2.36	<0.005	<0.2	1.66	38	<10	50	0.7	<2	1.72	<0.5	9	36	13	1.45
JN11011-123		2.11	<0.005	<0.2	1.38	50	<10	50	0.5	<2	1.21	<0.5	8	42	24	1.10
JN11011-124		2.76	<0.005	<0.2	1.05	34	<10	40	0.5	<2	1.82	<0.5	7	29	38	1.05
JN11011-125		1.86	<0.005	<0.2	1.12	20	<10	50	1.1	<2	2.01	<0.5	6	23	27	2.53
JN11011-126		2.44	<0.005	<0.2	1.13	22	<10	50	0.8	3	0.55	<0.5	12	19	26	1.42
JN11011-127		2.59	<0.005	0.2	0.90	21	<10	50	0.7	2	2.16	<0.5	8	15	22	1.54
JN11011-128		2.50	<0.005	<0.2	1.51	18	<10	90	1.2	<2	1.48	<0.5	13	35	26	3.29
JN11011-129		2.17	<0.005	<0.2	0.98	19	<10	70	1.2	<2	0.85	<0.5	16	20	19	2.85
JN11011-130		1.98	<0.005	<0.2	1.43	21	<10	80	1.5	<2	3.17	<0.5	19	23	29	4.56
JN11011-131		2.49	<0.005	<0.2	1.29	5	<10	90	1.0	<2	0.64	<0.5	13	29	25	3.45
JN11011-132		2.64	<0.005	<0.2	1.14	14	<10	70	1.0	<2	0.51	<0.5	17	25	30	3.89
JN11011-133		2.32	<0.005	<0.2	1.02	13	<10	70	0.8	<2	0.63	<0.5	20	19	42	4.04
JN11011-134		2.36	<0.005	<0.2	0.66	14	<10	60	0.7	<2	0.66	<0.5	17	11	35	4.80
JN11011-135		2.52	<0.005	<0.2	1.31	6	<10	80	0.8	2	0.86	<0.5	15	24	33	4.25
JN11011-136		2.95	<0.005	<0.2	1.39	3	<10	60	0.8	<2	0.70	<0.5	13	27	20	4.14
JN11011-137		2.90	0.005	0.2	1.86	24	<10	100	0.8	<2	0.57	<0.5	17	32	81	4.28
JN11011-138		2.74	<0.005	<0.2	2.08	7	<10	110	0.8	<2	0.89	<0.5	13	41	25	4.00
JN11011-139		1.35	<0.005	<0.2	1.77	18	<10	60	0.8	<2	2.20	<0.5	11	31	16	3.27
JN11011-140		2.71	<0.005	<0.2	2.04	5	<10	80	0.8	<2	0.44	<0.5	17	35	29	4.40
JN11011-140S		0.04	3.40	78.5	1.36	101	<10	90	<0.5	6	2.11	<0.5	10	19	779	3.34
JN11011-141		2.61	<0.005	0.2	3.11	11	<10	130	1.0	<2	2.62	<0.5	14	49	41	4.50
JN11011-142		2.88	<0.005	<0.2	2.48	7	<10	140	0.9	<2	0.51	<0.5	17	55	25	4.27
JN11011-143		0.89	<0.005	<0.2	2.47	10	<10	130	1.0	<2	0.23	<0.5	23	46	28	4.65
JN11011-144		0.40	<0.005	<0.2	1.85	16	<10	80	0.7	<2	0.86	<0.5	22	38	61	3.82
JN11011-145		0.76	<0.005	<0.2	2.52	9	<10	100	0.8	<2	1.16	<0.5	8	47	7	2.87
JN11011-146		0.88	<0.005	<0.2	1.28	9	<10	60	0.6	<2	1.18	<0.5	12	34	79	2.56
JN11011-147		2.55	<0.005	<0.2	1.56	22	<10	60	0.8	<2	0.97	<0.5	16	27	17	3.64
JN11011-148		1.69	<0.005	<0.2	2.47	50	10	100	1.0	<2	2.97	<0.5	20	37	19	4.60
JN11011-149		2.37	<0.005	0.2	0.75	14	<10	40	0.5	<2	1.49	<0.5	23	20	115	3.34
JN11011-150		0.80	<0.005	<0.2	1.65	25	<10	90	1.2	<2	1.21	<0.5	16	28	10	3.66



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Sample Description	Method Analyte Units LOR	ME- ICP41 Ca ppm 10	ME- ICP41 Hg ppm 1	ME- ICP41 K % 0.01	ME- ICP41 La ppm 10	ME- ICP41 Mg % 0.01	ME- ICP41 Mn ppm 5	ME- ICP41 Mo ppm 1	ME- ICP41 Na % 0.01	ME- ICP41 Ni ppm 1	ME- ICP41 P ppm 10	ME- ICP41 Pb ppm 2	ME- ICP41 S % 0.01	ME- ICP41 Sb ppm 2	ME- ICP41 Sc ppm 1	ME- ICP41 Sr ppm 1
JN11011-114		10	1	0.78	30	0.98	276	<1	0.08	49	190	3	0.39	<2	4	42
JN11011-115		10	<1	0.98	20	0.99	309	<1	0.05	38	210	3	0.18	<2	5	34
JN11011-116		10	<1	0.48	20	0.77	324	<1	0.02	29	190	2	0.15	<2	3	37
JN11011-117		10	<1	0.51	20	0.74	338	<1	0.03	38	400	3	0.45	<2	3	38
JN11011-118		<10	<1	0.14	20	0.38	171	<1	<0.01	46	230	4	0.55	<2	2	40
JN11011-119		<10	<1	0.27	40	0.46	423	<1	0.02	32	230	4	0.27	<2	3	68
JN11011-120		<10	<1	0.38	30	0.50	328	1	0.03	28	200	4	0.33	5	4	94
JN11011-120S		<10	4	0.15	10	0.14	416	377	0.04	23	380	82	1.07	73	1	260
JN11011-120B		<10	<1	0.34	10	0.22	334	1	0.09	1	190	4	0.01	<2	4	10
JN11011-121		10	<1	0.74	20	0.95	258	<1	0.05	39	220	4	0.48	<2	4	49
JN11011-122		10	1	0.46	30	0.74	114	<1	0.11	33	230	5	0.15	<2	4	81
JN11011-123		<10	<1	0.53	40	0.82	88	<1	0.11	45	200	5	0.12	<2	6	60
JN11011-124		<10	<1	0.34	40	0.68	112	<1	0.08	37	200	7	0.25	<2	4	81
JN11011-125		<10	<1	0.32	30	0.64	215	<1	0.03	29	190	5	0.41	<2	4	94
JN11011-126		<10	<1	0.40	30	0.30	87	<1	0.04	34	210	5	0.47	<2	3	46
JN11011-127		<10	<1	0.34	30	0.32	288	<1	0.04	27	200	3	0.38	2	2	85
JN11011-128		10	<1	0.61	20	0.68	285	<1	0.02	30	180	4	0.27	<2	5	68
JN11011-129		<10	<1	0.36	20	0.36	339	<1	0.03	30	260	2	0.29	<2	3	54
JN11011-130		<10	<1	0.41	20	0.47	485	<1	0.03	35	>10000	4	0.85	<2	3	188
JN11011-131		<10	<1	0.46	20	0.50	374	<1	0.04	34	170	6	0.59	<2	3	39
JN11011-132		<10	<1	0.36	10	0.52	423	<1	0.03	41	170	5	0.77	<2	3	31
JN11011-133		<10	<1	0.33	10	0.55	513	<1	0.03	36	200	4	0.70	<2	2	47
JN11011-134		<10	<1	0.31	10	0.68	598	<1	0.03	39	180	6	1.38	2	2	58
JN11011-135		<10	1	0.45	20	0.91	636	<1	0.04	32	200	7	0.27	<2	3	91
JN11011-136		<10	<1	0.30	20	0.85	508	<1	0.03	34	190	3	0.16	<2	3	50
JN11011-137		10	<1	0.55	20	0.81	439	<1	0.04	29	180	3	0.79	<2	3	37
JN11011-138		10	<1	0.66	20	0.93	459	<1	0.04	34	210	3	0.29	<2	4	48
JN11011-139		<10	<1	0.37	10	0.94	927	<1	0.04	30	200	8	0.51	<2	3	97
JN11011-140		10	<1	0.44	10	0.98	460	<1	0.03	36	160	15	0.57	<2	3	23
JN11011-140S		<10	<1	0.16	<10	0.90	890	691	0.05	10	710	41	0.24	54	2	100
JN11011-141		10	<1	0.75	40	1.23	523	<1	0.13	38	8210	8	0.18	<2	7	180
JN11011-142		10	1	0.81	10	1.14	487	<1	0.07	36	180	4	0.25	<2	6	38
JN11011-143		10	<1	0.78	10	1.01	358	<1	0.04	41	230	2	0.36	<2	4	24
JN11011-144		10	<1	0.52	20	0.86	237	<1	0.08	52	230	5	0.70	<2	5	58
JN11011-145		10	<1	0.73	30	1.08	179	<1	0.20	35	180	4	0.10	<2	6	94
JN11011-146		10	<1	0.34	20	0.86	202	<1	0.03	62	180	21	0.38	<2	5	41
JN11011-147		<10	<1	0.39	20	0.91	226	<1	0.02	38	180	4	0.49	<2	3	55
JN11011-148		10	<1	0.73	30	1.34	266	<1	0.08	46	8580	3	0.21	<2	5	209
JN11011-149		<10	<1	0.20	10	0.80	321	1	0.02	41	580	7	1.41	<2	4	90
JN11011-150		<10	1	0.45	30	1.08	215	<1	0.03	43	110	3	0.11	<2	4	118

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Project: Justin

CERTIFICATE OF ANALYSIS WH11191147

Sample Description	Method Analyte Units LOR	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41
		Th	Ti	Ti	U	V	W	Zn
		ppm 20	% 0.01	ppm 10	ppm 10	ppm 1	ppm 10	ppm 2
JN11011-114		20	0.08	<10	<10	41	<10	47
JN11011-115		<20	0.13	<10	<10	45	<10	60
JN11011-116		<20	0.07	<10	<10	31	<10	52
JN11011-117		<20	0.04	<10	<10	34	<10	49
JN11011-118		20	<0.01	<10	<10	15	<10	25
JN11011-119		20	<0.01	<10	<10	21	<10	17
JN11011-120		20	0.01	<10	<10	25	<10	31
JN11011-120S		<20	0.01	<10	<10	17	<10	52
JN11011-120B		<20	0.10	<10	<10	16	<10	20
JN11011-121		<20	0.06	<10	<10	39	<10	56
JN11011-122		20	0.01	<10	<10	34	<10	26
JN11011-123		20	0.03	<10	<10	40	<10	17
JN11011-124		20	0.01	<10	<10	26	<10	18
JN11011-125		20	<0.01	<10	<10	22	<10	20
JN11011-126		20	0.01	<10	<10	20	<10	15
JN11011-127		20	<0.01	<10	<10	15	<10	13
JN11011-128		20	0.04	<10	<10	37	<10	40
JN11011-129		20	0.01	<10	<10	22	<10	43
JN11011-130		20	0.01	<10	<10	25	<10	58
JN11011-131		20	0.02	<10	<10	29	<10	54
JN11011-132		<20	0.01	<10	<10	25	<10	85
JN11011-133		<20	0.01	<10	<10	19	<10	97
JN11011-134		<20	<0.01	<10	<10	11	<10	105
JN11011-135		<20	0.02	<10	<10	23	<10	86
JN11011-136		<20	0.02	<10	<10	24	<10	69
JN11011-137		20	0.04	<10	<10	28	<10	49
JN11011-138		<20	0.09	<10	<10	40	<10	55
JN11011-139		<20	0.02	<10	<10	24	<10	47
JN11011-140		<20	0.05	<10	<10	31	<10	101
JN11011-140S		<20	0.10	<10	<10	32	<10	101
JN11011-141		20	0.08	<10	<10	53	<10	85
JN11011-142		<20	0.12	<10	<10	54	<10	61
JN11011-143		<20	0.11	<10	<10	44	<10	80
JN11011-144		<20	0.04	<10	<10	34	<10	28
JN11011-145		20	0.06	<10	<10	45	<10	24
JN11011-146		<20	0.01	<10	<10	33	<10	40
JN11011-147		20	0.01	<10	<10	23	<10	56
JN11011-148		20	0.04	<10	<10	37	<10	50
JN11011-149		<20	<0.01	<10	<10	15	<10	52
JN11011-150		20	0.01	<10	<10	21	<10	57

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Project: Justin

CERTIFICATE OF ANALYSIS WH11191147

Sample Description	Method Analyte Units LOR	WEI- 21 Recvd Wt. kg 0.02	Au- AA23 Au ppm 0.005	ME- ICP41 Ag ppm 0.2	ME- ICP41 Al % 0.01	ME- ICP41 As ppm 2	ME- ICP41 B ppm 10	ME- ICP41 Ba ppm 10	ME- ICP41 Be ppm 0.5	ME- ICP41 Bi ppm 2	ME- ICP41 Ca % 0.01	ME- ICP41 Cd ppm 0.5	ME- ICP41 Co ppm 1	ME- ICP41 Cr ppm 1	ME- ICP41 Cu ppm 1	ME- ICP41 Fe % 0.01
JN11011- 151		2.50	<0.005	<0.2	0.60	14	<10	40	0.5	<2	1.83	<0.5	6	14	11	1.43
JN11011- 152		1.48	<0.005	<0.2	0.83	80	<10	50	0.7	<2	2.76	<0.5	7	16	16	1.17
JN11011- 153		1.58	<0.005	0.2	0.97	62	<10	30	0.7	<2	3.04	<0.5	7	26	28	1.46
JN11011- 154		2.04	<0.005	0.2	1.19	199	<10	30	0.7	2	2.44	<0.5	8	22	20	1.28
JN11011- 155		0.78	<0.005	0.5	0.54	244	<10	30	0.9	2	3.67	<0.5	22	17	305	4.29
JN11011- 156		2.01	<0.005	<0.2	1.54	125	<10	80	0.8	2	0.74	<0.5	17	31	42	3.12
JN11011- 157		3.18	<0.005	<0.2	1.50	38	<10	70	0.9	2	0.64	<0.5	17	31	34	4.00
JN11011- 158		1.92	<0.005	0.2	1.00	27	<10	30	<0.5	<2	1.22	<0.5	12	28	68	2.85
JN11011- 159		1.68	<0.005	<0.2	1.88	16	<10	80	0.9	<2	0.30	<0.5	11	30	13	4.11
JN11011- 160		2.54	<0.005	<0.2	1.84	12	<10	70	0.8	<2	0.49	<0.5	11	36	19	3.88
JN11011- 160S		0.04	1.445	33.6	0.40	25	<10	230	<0.5	3	1.30	<0.5	8	29	3100	2.57
JN11011- 160B		0.04	NSS	<0.2	0.55	2	<10	180	<0.5	2	0.13	<0.5	3	9	7	1.45
JN11011- 161		2.52	<0.005	<0.2	1.44	14	<10	50	0.8	<2	0.72	<0.5	9	32	18	2.82
JN11011- 162		3.08	<0.005	<0.2	1.73	24	<10	70	0.7	3	0.66	<0.5	13	32	35	3.51
JN11011- 163		1.72	<0.005	<0.2	1.30	11	<10	50	0.6	3	1.75	<0.5	11	20	31	3.68
JN11011- 164		3.29	<0.005	<0.2	2.76	10	<10	140	0.9	2	0.80	<0.5	14	49	25	4.80
JN11011- 165		1.22	<0.005	<0.2	1.61	7	<10	60	0.8	4	0.66	<0.5	16	31	45	3.87
JN11011- 166		2.22	<0.005	<0.2	0.75	23	<10	60	0.9	<2	2.00	<0.5	14	12	22	4.05
JN11011- 167		2.89	<0.005	<0.2	0.60	18	<10	50	0.7	2	1.08	<0.5	16	11	29	3.99
JN11011- 168		2.68	<0.005	<0.2	1.69	9	<10	110	1.0	2	0.80	<0.5	16	30	27	3.92
JN11011- 169		2.62	<0.005	<0.2	0.78	22	<10	70	0.8	<2	1.18	<0.5	15	16	28	3.05
JN11011- 170		2.94	<0.005	<0.2	1.81	12	<10	170	0.9	3	0.81	<0.5	17	29	43	3.99
JN11011- 171		2.01	<0.005	<0.2	2.44	<2	<10	190	0.8	2	0.83	<0.5	13	37	8	4.01



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Project: Justin

CERTIFICATE OF ANALYSIS WH11191147

Sample Description	Method Analyte Units LOR	ME- ICP41 Ga ppm 10	ME- ICP41 Hg ppm 1	ME- ICP41 K % 0.01	ME- ICP41 La ppm 10	ME- ICP41 Mg % 0.01	ME- ICP41 Mn ppm 5	ME- ICP41 Mo ppm 1	ME- ICP41 Na % 0.01	ME- ICP41 Ni ppm 1	ME- ICP41 P ppm 10	ME- ICP41 Pb ppm 2	ME- ICP41 S % 0.01	ME- ICP41 Sb ppm 2	ME- ICP41 Sc ppm 1	ME- ICP41 Sr ppm 1
JN11011-151		<10	<1	0.24	30	0.73	216	<1	0.05	23	120	5	0.04	<2	4	97
JN11011-152		<10	<1	0.37	30	0.61	343	<1	0.03	30	160	6	0.03	<2	4	140
JN11011-153		<10	<1	0.25	10	0.55	522	<1	0.03	19	360	9	0.22	<2	10	173
JN11011-154		<10	<1	0.32	30	0.47	237	2	0.04	29	130	11	0.25	<2	5	147
JN11011-155		<10	<1	0.26	40	0.70	315	6	0.02	42	70	9	1.35	<2	2	114
JN11011-156		<10	<1	0.63	20	0.66	182	4	0.03	34	210	6	0.38	<2	3	43
JN11011-157		<10	<1	0.43	20	0.78	285	2	0.04	41	160	4	0.56	<2	3	47
JN11011-158		<10	<1	0.18	10	0.71	220	3	0.02	19	190	5	0.54	<2	2	48
JN11011-159		10	<1	0.42	20	0.89	316	2	0.02	33	110	7	0.33	<2	2	31
JN11011-160		10	<1	0.39	20	0.89	425	1	0.03	30	110	9	0.19	<2	3	38
JN11011-160S		<10	4	0.15	10	0.14	403	362	0.04	18	380	59	1.06	77	1	272
JN11011-160B		<10	<1	0.33	10	0.22	320	2	0.08	1	180	3	0.01	<2	4	10
JN11011-161		<10	<1	0.31	20	0.79	241	1	0.04	28	120	3	0.22	<2	3	46
JN11011-162		10	<1	0.48	20	0.89	379	1	0.04	37	110	5	0.73	<2	3	36
JN11011-163		<10	<1	0.27	10	0.85	997	1	0.02	28	200	14	0.84	<2	2	73
JN11011-164		10	<1	0.77	20	1.13	572	1	0.03	35	110	9	0.11	<2	5	45
JN11011-165		10	<1	0.35	10	0.83	443	2	0.02	33	100	7	0.32	<2	3	40
JN11011-166		<10	<1	0.29	10	0.91	741	1	0.02	29	120	10	0.67	2	2	159
JN11011-167		<10	<1	0.27	10	0.84	618	1	0.02	31	180	5	0.83	<2	2	111
JN11011-168		<10	<1	0.60	20	0.77	437	2	0.03	30	130	3	0.46	<2	4	53
JN11011-169		<10	<1	0.28	10	0.33	646	1	0.02	33	110	4	0.70	<2	2	74
JN11011-170		10	<1	0.58	10	0.66	400	1	0.04	32	180	2	0.59	<2	3	54
JN11011-171		10	<1	0.59	10	0.79	288	1	0.06	31	220	2	0.14	<2	3	62

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CERTIFICATE OF ANALYSIS WH11191147

Sample Description	Method Analyte Units LOR	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41
		Th	Ti	Ti	U	V	W	Zn
		ppm 20	% 0.01	ppm 10	ppm 10	ppm 1	ppm 10	ppm 2
JN11011- 151		20	<0.01	<10	<10	13	<10	37
JN11011- 152		20	<0.01	<10	<10	17	<10	32
JN11011- 153		20	<0.01	<10	<10	44	<10	27
JN11011- 154		20	<0.01	<10	<10	25	<10	35
JN11011- 155		20	<0.01	<10	<10	12	<10	24
JN11011- 156		20	0.03	<10	<10	24	<10	45
JN11011- 157		20	0.03	<10	<10	24	<10	42
JN11011- 158		<20	<0.01	<10	<10	17	<10	39
JN11011- 159		20	0.03	<10	<10	23	<10	87
JN11011- 160		<20	0.04	<10	<10	29	<10	70
JN11011- 160S		<20	0.01	<10	<10	17	<10	46
JN11011- 160B		<20	0.10	<10	<10	16	<10	16
JN11011- 161		<20	0.04	<10	<10	26	<10	44
JN11011- 162		<20	0.03	<10	<10	24	<10	57
JN11011- 163		<20	0.01	<10	<10	16	<10	131
JN11011- 164		<20	0.10	<10	<10	43	<10	95
JN11011- 165		<20	0.05	<10	<10	28	<10	69
JN11011- 166		<20	<0.01	<10	<10	12	<10	62
JN11011- 167		<20	<0.01	<10	<10	12	<10	52
JN11011- 168		<20	0.05	<10	<10	31	<10	51
JN11011- 169		<20	0.01	<10	<10	16	<10	49
JN11011- 170		<20	0.06	<10	<10	28	<10	57
JN11011- 171		<20	0.10	<10	<10	33	<10	65

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CERTIFICATE OF ANALYSIS WH11191147

Method	CERTIFICATE COMMENTS
ALL METHODS	NSS is non- sufficient sample.



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QC CERTIFICATE WH11191147

Project: Justin
P.O. No.: JN11- 001
This report is for 183 Drill Core samples submitted to our lab in Whitehorse, YT,
Canada on 19- SEP- 2011.

The following have access to data associated with this certificate:

JESSE CAMPBELL

CHRIS GALLAGHER

SAMPLE PREPARATION

ALS CODE	DESCRIPTION
WEI- 21	Received Sample Weight
LOG- 22	Sample login - Rcd w/o BarCode
SPL- 22Y	Split Sample - Boyd Rotary Splitter
LOG- 24	Pulp Login - Rcd w/o Barcode
BAG- 01	Bulk Master for Storage
CRU- QC	Crushing QC Test
PUL- 32m	Pulverize 500g - 85% < 75um
PUL- QC	Pulverizing QC Test
CRU- 31	Fine crushing - 70% < 2mm

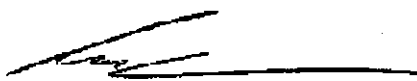
ANALYTICAL PROCEDURES

ALS CODE	DESCRIPTION	INSTRUMENT
Au- AA23	Au 30g FA- AA finish	AAS
ME- ICP41	35 Element Aqua Regia ICP- AES	ICP- AES

To: TERRALOGIC EXPLORATION SERVICES INC.
ATTN: CHRIS GALLAGHER
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This is the Final Report and supersedes any preliminary report with this certificate number. Results apply to samples as submitted. All pages of this report have been checked and approved for release.

Signature:


Colin Ramshaw, Vancouver Laboratory Manager



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To: TERRALOGIC EXPLORATION SERVICES INC.
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Project: Justin

QC CERTIFICATE OF ANALYSIS WH11191147

Sample Description	Method Analyte Units LOR	Au- AA23 Au ppm 0.005	ME- ICP41 Ag ppm 0.2	ME- ICP41 Al % 0.01	ME- ICP41 As ppm 2	ME- ICP41 B ppm 10	ME- ICP41 Ba ppm 10	ME- ICP41 Be ppm 0.5	ME- ICP41 Bi ppm 2	ME- ICP41 Ca % 0.01	ME- ICP41 Cd ppm 0.5	ME- ICP41 Co ppm 1	ME- ICP41 Cr ppm 1	ME- ICP41 Cu ppm 1	ME- ICP41 Fe % 0.01	ME- ICP41 Ga ppm 10
STANDARDS																
GBM908- 10			3.1	1.01	59	<10	110	<0.5	<2	0.71	1.7	14	24	3730	2.88	<10
GBM908- 10			3.3	0.98	58	<10	110	<0.5	2	0.71	1.8	14	23	3630	2.80	<10
GBM908- 10			3.1	1.00	55	<10	100	<0.5	3	0.72	1.7	14	23	3560	2.75	<10
GBM908- 10			2.8	0.98	59	<10	110	<0.5	<2	0.69	1.6	13	23	3540	2.72	<10
GBM908- 10			2.7	0.92	57	<10	100	<0.5	<2	0.64	1.6	14	21	3500	2.63	<10
Target Range - Lower Bound			2.5	0.91	48	<10	70	<0.5	<2	0.82	0.7	12	20	3270	2.38	<10
Upper Bound			3.8	1.13	83	20	130	1.0	8	0.78	2.9	18	26	3980	2.91	20
GBM908- 5			58.5	1.14	3	<10	190	<0.5	<2	0.72	<0.5	10	18	484	2.37	<10
GBM908- 5			59.8	1.15	7	<10	190	<0.5	2	0.72	<0.5	9	18	481	2.40	<10
GBM908- 5			61.6	1.19	8	<10	210	<0.5	2	0.78	<0.5	10	20	510	2.49	<10
Target Range - Lower Bound			51.8	1.02	3	<10	150	<0.5	<2	0.63	<0.5	8	15	447	2.13	<10
Upper Bound			83.8	1.26	11	30	230	1.4	8	0.78	1.5	13	20	549	2.82	30
MRGeo08			4.4	2.71	32	<10	430	0.8	<2	1.10	2.0	18	93	632	3.62	10
MRGeo08			4.8	2.87	38	<10	430	0.8	<2	1.11	2.1	18	94	634	3.87	10
MRGeo08			4.6	2.76	32	<10	430	0.8	2	1.09	2.2	17	91	614	3.66	10
MRGeo08			4.3	2.64	33	<10	430	0.7	<2	1.08	1.9	17	89	603	3.55	10
MRGeo08			4.5	2.74	32	<10	430	0.8	<2	1.05	1.9	18	91	623	3.53	10
Target Range - Lower Bound			3.7	2.53	27	<10	360	<0.5	<2	1.00	1.1	17	84	587	3.38	<10
Upper Bound			6.0	3.11	38	30	510	1.8	8	1.24	3.4	22	104	895	4.15	30
OGGeo08			20.6	2.34	122	<10	60	0.7	<2	0.94	19.2	93	83	8380	5.07	<10
OGGeo08			20.0	2.28	119	<10	60	0.7	7	0.90	18.2	90	81	8090	5.01	<10
OGGeo08			20.7	2.35	127	<10	60	0.7	13	0.95	19.3	95	86	8860	5.30	<10
Target Range - Lower Bound			18.0	2.10	107	<10	50	<0.5	6	0.82	17.0	89	75	7650	4.81	<10
Upper Bound			22.4	2.59	135	30	110	1.8	16	1.02	21.8	111	93	9230	5.91	30
OREAS 65a		0.541														
OREAS 65a		0.528														
Target Range - Lower Bound		0.484														
Upper Bound		0.556														
OREAS- 16b		2.33														
OREAS- 16b		2.14														
Target Range - Lower Bound		2.07														
Upper Bound		2.35														
OxC88		0.210														
OxC88		0.209														
OxC88		0.204														
Target Range - Lower Bound		0.186														
Upper Bound		0.220														
OxL78		5.93														



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Sample Description	Method Analyte Units LOR	ME- ICP41 Hg ppm	ME- ICP41 K %	ME- ICP41 La ppm	ME- ICP41 Mg %	ME- ICP41 Mn ppm	ME- ICP41 Mo ppm	ME- ICP41 Na %	ME- ICP41 Ni ppm	ME- ICP41 P ppm	ME- ICP41 Pb ppm	ME- ICP41 S %	ME- ICP41 Sb ppm	ME- ICP41 Sc ppm	ME- ICP41 Sr ppm	ME- ICP41 Th ppm
		1	0.01	10	0.01	5	1	0.01	1	10	2	0.01	2	1	1	20
STANDARDS																
GBM908- 10		<1	0.43	50	0.55	318	66	0.13	2320	920	2080	0.39	<2	2	36	20
GBM908- 10		<1	0.43	50	0.53	307	69	0.12	2260	890	2010	0.39	4	2	35	<20
GBM908- 10		<1	0.42	40	0.54	292	69	0.13	2190	840	1970	0.38	2	2	38	20
GBM908- 10		<1	0.42	40	0.52	291	62	0.12	2210	850	2020	0.38	3	2	37	20
GBM908- 10		<1	0.40	40	0.50	288	69	0.12	2220	850	2010	0.35	2	2	34	20
Target Range - Lower Bound		<1	0.35	20	0.44	266	57	0.11	2030	740	1880	0.37	<2	<1	34	<20
Upper Bound		2	0.45	60	0.58	336	72	0.17	2480	920	2280	0.47	6	4	44	60
GBM908- 5		<1	0.79	100	0.76	346	57	0.04	422	1270	366	0.17	<2	1	59	40
GBM908- 5		<1	0.80	100	0.79	344	53	0.03	400	1260	365	0.17	<2	1	53	40
GBM908- 5		<1	0.85	100	0.80	371	54	0.04	433	1320	376	0.17	<2	2	59	40
Target Range - Lower Bound		<1	0.73	80	0.68	315	49	<0.01	375	1140	338	0.14	<2	<1	49	<20
Upper Bound		3	0.91	130	0.86	396	62	0.05	461	1410	416	0.20	6	4	62	80
MRGeo08		1	1.26	30	1.13	429	13	0.34	678	1050	1010	0.30	2	7	84	20
MRGeo08		<1	1.26	30	1.14	424	14	0.34	678	1030	1000	0.31	7	7	83	20
MRGeo08		<1	1.22	30	1.16	412	15	0.34	664	990	1015	0.31	4	7	84	20
MRGeo08		1	1.20	30	1.10	402	12	0.33	665	1010	1020	0.31	7	7	80	30
MRGeo08		1	1.24	30	1.12	411	14	0.34	686	1030	1025	0.30	4	7	84	30
Target Range - Lower Bound		<1	1.17	<10	1.09	388	12	0.31	617	870	934	0.29	<2	6	75	<20
Upper Bound		3	1.45	60	1.36	488	17	0.40	757	1090	1145	0.37	7	10	93	60
OGGeo08		1	1.04	30	0.98	401	945	0.31	8730	820	7070	2.88	23	6	71	20
OGGeo08		<1	1.01	30	0.98	384	899	0.29	8290	780	6840	2.78	27	6	67	20
OGGeo08		1	1.08	30	1.00	415	948	0.30	8580	840	7170	2.95	21	6	68	<20
Target Range - Lower Bound		<1	0.97	<10	0.91	369	841	0.28	7820	700	6270	2.58	15	4	61	<20
Upper Bound		3	1.21	50	1.14	483	1030	0.38	9310	880	7670	3.18	28	9	77	60
OREAS 65a																
OREAS 65a																
Target Range - Lower Bound																
Upper Bound																
OREAS- 16b																
OREAS- 16b																
Target Range - Lower Bound																
Upper Bound																
OxC88																
OxC88																
OxC88																
Target Range - Lower Bound																
Upper Bound																
OxL78																



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		Ti %	Ti ppm	U ppm	V ppm	W ppm	Zn ppm
		0.01	10	10	1	10	2
STANDARDS							
GBM908- 10		0.32	<10	<10	50	<10	1025
GBM908- 10		0.32	<10	<10	49	<10	1020
GBM908- 10		0.32	<10	<10	48	<10	997
GBM908- 10		0.32	<10	<10	48	10	980
GBM908- 10		0.30	<10	<10	47	<10	985
Target Range - Lower Bound		0.28	<10	<10	41	<10	939
Upper Bound		0.36	20	20	53	20	1155
GBM908- 5		0.17	<10	<10	26	<10	228
GBM908- 5		0.15	<10	<10	26	<10	227
GBM908- 5		0.18	<10	<10	28	<10	242
Target Range - Lower Bound		0.14	<10	<10	22	<10	207
Upper Bound		0.20	30	30	30	30	257
MRGeo08		0.38	<10	<10	103	<10	801
MRGeo08		0.39	<10	<10	105	<10	825
MRGeo08		0.38	<10	<10	101	<10	782
MRGeo08		0.38	<10	<10	99	10	773
MRGeo08		0.37	<10	<10	100	<10	782
Target Range - Lower Bound		0.35	<10	<10	93	<10	701
Upper Bound		0.44	30	30	115	30	661
OGGeo08		0.31	<10	<10	80	<10	6780
OGGeo08		0.30	<10	<10	79	<10	6770
OGGeo08		0.33	<10	<10	84	<10	6850
Target Range - Lower Bound		0.28	<10	<10	73	<10	6390
Upper Bound		0.37	20	30	92	20	7820
OREAS 65a							
OREAS 65a							
Target Range - Lower Bound							
Upper Bound							
OREAS- 16b							
OREAS- 16b							
Target Range - Lower Bound							
Upper Bound							
OxC88							
OxC88							
OxC88							
Target Range - Lower Bound							
Upper Bound							
OxL78							



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Sample Description	Method Analyte Units LOR	Au- AA23 Au ppm	ME- ICP41 Ag ppm	ME- ICP41 Al %	ME- ICP41 As ppm	ME- ICP41 B ppm	ME- ICP41 Ba ppm	ME- ICP41 Be ppm	ME- ICP41 Bi ppm	ME- ICP41 Ca %	ME- ICP41 Cd ppm	ME- ICP41 Co ppm	ME- ICP41 Cr ppm	ME- ICP41 Cu ppm	ME- ICP41 Fe %	ME- ICP41 Ga ppm
		0.005	0.2	0.01	2	10	10	0.5	2	0.01	0.5	1	1	1	0.01	10
STANDARDS																
OxL78		5.96														
Target Range - Lower Bound		5.82														
Upper Bound		6.23														
BLANKS																
BLANK		<0.005														
BLANK		<0.005														
BLANK		<0.005														
BLANK		<0.005														
BLANK		<0.005														
Target Range - Lower Bound		<0.005														
Upper Bound		0.010														
BLANK			<0.2	<0.01	<2	<10	<10	<0.5	<2	<0.01	<0.5	<1	<1	2	<0.01	<10
BLANK			<0.2	<0.01	<2	<10	<10	<0.5	<2	<0.01	<0.5	<1	<1	<1	<0.01	<10
BLANK			<0.2	0.02	<2	<10	<10	<0.5	<2	<0.01	<0.5	<1	<1	<1	<0.01	<10
BLANK			<0.2	<0.01	<2	<10	10	<0.5	<2	<0.01	<0.5	<1	<1	<1	<0.01	<10
BLANK			<0.2	<0.01	<2	<10	10	<0.5	<2	<0.01	<0.5	<1	<1	<1	<0.01	<10
BLANK			<0.2	0.02	<2	<10	<10	<0.5	<2	<0.01	<0.5	<1	<1	<1	<0.01	<10
BLANK			<0.2	<0.01	<2	<10	10	<0.5	<2	<0.01	<0.5	<1	<1	<1	<0.01	<10
BLANK			<0.2	<0.01	<2	<10	10	<0.5	<2	<0.01	<0.5	<1	<1	<1	<0.01	<10
Target Range - Lower Bound		<0.2	<0.01	<2	<10	<10	<10	<0.5	<2	<0.01	<0.5	<1	<1	<1	<0.01	<10
Upper Bound		0.4	0.02	4	20	20	20	1.0	4	0.02	1.0	2	2	2	0.02	20
DUPLICATES																
ORIGINAL		0.241														
DUP		0.231														
Target Range - Lower Bound		0.219														
Upper Bound		0.253														



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Sample Description	Method Analyte Units LOR	ME- ICP41 Hg ppm 1	ME- ICP41 K % 0.01	ME- ICP41 La ppm 10	ME- ICP41 Mg % 0.01	ME- ICP41 Mn ppm 5	ME- ICP41 Mo ppm 1	ME- ICP41 Na % 0.01	ME- ICP41 Ni ppm 1	ME- ICP41 P ppm 10	ME- ICP41 Pb ppm 2	ME- ICP41 S % 0.01	ME- ICP41 Sb ppm 2	ME- ICP41 Sc ppm 1	ME- ICP41 Sr ppm 1	ME- ICP41 Th ppm 20
STANDARDS																
OxL78																
Target Range - Lower Bound																
Upper Bound																
BLANKS																
BLANK																
BLANK																
BLANK																
BLANK																
Target Range - Lower Bound																
Upper Bound																
BLANK		<1	<0.01	<10	<0.01	<5	<1	<0.01	2	<10	<2	<0.01	<2	<1	2	<20
BLANK		<1	<0.01	<10	<0.01	<5	<1	<0.01	<1	<10	<2	<0.01	<2	<1	<1	<20
BLANK		<1	<0.01	<10	<0.01	<5	1	<0.01	<1	<10	<2	<0.01	<2	<1	<1	<20
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BLANK		<1	<0.01	<10	<0.01	<5	<1	<0.01	<1	<10	<2	<0.01	<2	<1	<1	<20
BLANK		<1	<0.01	<10	<0.01	<5	<1	<0.01	<1	<10	<2	<0.01	<2	<1	1	<20
Target Range - Lower Bound		<1	<0.01	<10	<0.01	<5	<1	<0.01	<1	<10	<2	<0.01	<2	<1	<1	<20
Upper Bound		2	0.02	20	0.02	10	2	0.02	2	20	4	0.02	4	2	2	40
DUPLICATES																
ORIGINAL																
DUP																
Target Range - Lower Bound																
Upper Bound																



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Sample Description	Method Analyte Units LOR	ME- ICP41 Ti %	ME- ICP41 Ti ppm	ME- ICP41 U ppm	ME- ICP41 V ppm	ME- ICP41 W ppm	ME- ICP41 Zn ppm
		0.01	10	10	1	10	2
STANDARDS							
OxL78							
Target Range -	Lower Bound						
	Upper Bound						
BLANKS							
BLANK							
BLANK							
BLANK							
BLANK							
Target Range -	Lower Bound						
	Upper Bound						
BLANK		<0.01	<10	<10	<1	<10	2
BLANK		<0.01	<10	<10	<1	<10	<2
BLANK		<0.01	<10	<10	<1	<10	<2
BLANK		<0.01	<10	<10	<1	<10	<2
BLANK		<0.01	<10	<10	<1	<10	<2
BLANK		<0.01	<10	<10	<1	<10	<2
BLANK		<0.01	<10	<10	<1	<10	<2
BLANK		<0.01	<10	<10	<1	<10	<2
Target Range -	Lower Bound	<0.01	<10	<10	<1	<10	<2
	Upper Bound	0.02	20	20	2	20	4
DUPLICATES							
ORIGINAL							
DUP							
Target Range -	Lower Bound						
	Upper Bound						



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DUPLICATES																
ORIGINAL		<0.005														
DUP		<0.005														
Target Range - Lower Bound		<0.005														
Upper Bound		0.010														
ORIGINAL		<0.005														
DUP		<0.005														
Target Range - Lower Bound		<0.005														
Upper Bound		0.010														
ORIGINAL		<0.005														
DUP		<0.005														
Target Range - Lower Bound		<0.005														
Upper Bound		0.010														
ORIGINAL		<0.005														
DUP		0.006														
Target Range - Lower Bound		<0.005														
Upper Bound		0.010														
ORIGINAL			0.3	1.14	<2	<10	1060	<0.5	<2	1.76	<0.5	5	10	728	2.05	<10
DUP			0.3	1.14	<2	<10	930	<0.5	<2	1.75	<0.5	5	10	732	2.04	10
Target Range - Lower Bound			<0.2	1.07	<2	<10	910	<0.5	<2	1.66	<0.5	4	9	693	1.93	<10
Upper Bound			0.4	1.21	4	20	1080	1.0	4	1.86	1.0	6	12	788	2.18	20
ORIGINAL			19.8	1.75	40	<10	30	<0.5	45	2.56	<0.5	14	106	4010	9.75	10
DUP			20.4	1.83	37	<10	30	0.5	47	2.66	<0.5	15	112	4200	10.15	10
Target Range - Lower Bound			18.9	1.69	35	<10	20	<0.5	42	2.47	<0.5	13	103	3900	9.44	<10
Upper Bound			21.3	1.89	42	20	40	1.0	50	2.75	1.0	16	115	4310	10.45	20
ORIGINAL		0.426														
DUP		0.422														
Target Range - Lower Bound		0.398														
Upper Bound		0.450														

***** See Appendix Page for comments regarding this certificate *****



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Sample Description	Method Analyte Units LOR	ME- ICP41 Hg ppm 1	ME- ICP41 K % 0.01	ME- ICP41 La ppm 10	ME- ICP41 Mg % 0.01	ME- ICP41 Mn ppm 5	ME- ICP41 Mo ppm 1	ME- ICP41 Na % 0.01	ME- ICP41 Ni ppm 1	ME- ICP41 P ppm 10	ME- ICP41 Pb ppm 2	ME- ICP41 S % 0.01	ME- ICP41 Sb ppm 2	ME- ICP41 Sc ppm 1	ME- ICP41 Sr ppm 1	ME- ICP41 Th ppm 20
ORIGINAL DUP Target Range - Lower Bound Upper Bound		DUPLICATES														
ORIGINAL DUP Target Range - Lower Bound Upper Bound																
ORIGINAL DUP Target Range - Lower Bound Upper Bound																
ORIGINAL DUP Target Range - Lower Bound Upper Bound																
ORIGINAL DUP Target Range - Lower Bound Upper Bound																
ORIGINAL DUP Target Range - Lower Bound Upper Bound		<1	0.23	<10	0.93	476	61	0.04	8	1100	3	0.31	<2	3	88	<20
ORIGINAL DUP Target Range - Lower Bound Upper Bound		<1	0.23	<10	0.93	475	64	0.04	9	1100	<2	0.31	<2	3	85	<20
ORIGINAL DUP Target Range - Lower Bound Upper Bound		<1	0.21	<10	0.87	447	58	0.03	7	1040	<2	0.28	<2	2	81	<20
ORIGINAL DUP Target Range - Lower Bound Upper Bound		2	0.25	20	0.99	504	87	0.05	10	1170	4	0.34	4	4	92	40
ORIGINAL DUP Target Range - Lower Bound Upper Bound		<1	0.32	10	1.34	1010	17	0.02	29	1720	23	9.34	3	6	96	<20
ORIGINAL DUP Target Range - Lower Bound Upper Bound		1	0.34	10	1.40	1050	18	0.02	31	1800	22	9.77	5	7	99	<20
ORIGINAL DUP Target Range - Lower Bound Upper Bound		<1	0.30	<10	1.29	974	16	<0.01	28	1660	19	9.07	<2	5	92	<20
ORIGINAL DUP Target Range - Lower Bound Upper Bound		2	0.38	20	1.45	1085	19	0.03	33	1880	26	10.00	6	8	103	40
ORIGINAL DUP Target Range - Lower Bound Upper Bound																



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Sample Description	Method Analyte Units LOR	ME- ICP41 Ti %	ME- ICP41 Ti ppm	ME- ICP41 U ppm	ME- ICP41 V ppm	ME- ICP41 W ppm	ME- ICP41 Zn ppm
		0.01	10	10	1	10	2
ORIGINAL DUP Target Range - Lower Bound Upper Bound		DUPLICATES					
ORIGINAL DUP Target Range - Lower Bound Upper Bound							
ORIGINAL DUP Target Range - Lower Bound Upper Bound							
ORIGINAL DUP Target Range - Lower Bound Upper Bound							
ORIGINAL DUP Target Range - Lower Bound Upper Bound							
ORIGINAL DUP Target Range - Lower Bound Upper Bound		<0.01 <0.01 <0.01 0.02	<10 <10 <10 20	<10 <10 <10 20	130 130 123 138	<10 <10 <10 20	29 28 25 32
ORIGINAL DUP Target Range - Lower Bound Upper Bound		0.01 0.01 <0.01 0.02	<10 <10 <10 20	<10 <10 <10 20	232 247 227 252	<10 <10 <10 20	66 63 69 70
ORIGINAL DUP Target Range - Lower Bound Upper Bound							

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Sample Description	Method Analyte Units LOR	Au- AA23 Au ppm 0.005	ME- ICP41 Ag ppm 0.2	ME- ICP41 Al % 0.01	ME- ICP41 As ppm 2	ME- ICP41 B ppm 10	ME- ICP41 Ba ppm 10	ME- ICP41 Be ppm 0.5	ME- ICP41 Bi ppm 2	ME- ICP41 Ca % 0.01	ME- ICP41 Cd ppm 0.5	ME- ICP41 Co ppm 1	ME- ICP41 Cr ppm 1	ME- ICP41 Cu ppm 1	ME- ICP41 Fe % 0.01	ME- ICP41 Ga ppm 10
JN11011- 002 DUP Target Range - Lower Bound Upper Bound		0.057 0.056 0.049 0.064	DUPLICATES													
JN11011- 028 DUP Target Range - Lower Bound Upper Bound		0.3 0.3 0.2 0.4	0.97 0.97 0.91 1.03	27 25 23 29	10 10 10 20	60 80 50 70	0.8 0.8 0.5 1.0	75 72 68 79	0.52 0.50 0.47 0.55	<0.5 0.5 0.5 1.0	9 8 7 10	15 15 13 17	12 12 10 14	2.78 2.68 2.58 2.88	<10 10 10 20	
JN11011- 039 DUP Target Range - Lower Bound Upper Bound		<0.005 0.005 0.005 0.010														
JN11011- 057 DUP Target Range - Lower Bound Upper Bound		<0.005 0.005 0.005 0.010														
JN11011- 061 DUP Target Range - Lower Bound Upper Bound		<0.2 0.2 0.2 0.4	1.29 1.31 1.23 1.38	7 7 5 9	<10 10 10 20	60 70 50 80	0.7 0.7 0.5 1.0	2 3 2 4	1.54 1.55 1.46 1.63	<0.5 0.5 0.5 1.0	14 12 11 15	24 25 22 27	24 22 21 25	3.62 3.63 3.43 3.82	<10 10 10 20	
JN11011- 076 DUP Target Range - Lower Bound Upper Bound		<0.005 0.005 0.005 0.010														
JN11011- 095 DUP Target Range - Lower Bound Upper Bound		0.3 0.4 0.2 0.4	1.01 1.07 0.98 1.10	4 2 2 4	<10 10 10 20	30 30 20 40	0.9 0.9 0.5 1.0	4 4 2 6	3.76 3.82 3.59 3.99	<0.5 0.5 0.5 1.0	1 1 1 2	15 16 14 17	61 62 57 66	1.99 2.02 1.89 2.12	<10 10 10 20	
JN11011- 114 DUP Target Range - Lower Bound Upper Bound		<0.005 0.005 0.005 0.010														



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Sample Description	Method Analyte Units LOR	ME- ICP41 Hg ppm 1	ME- ICP41 K % 0.01	ME- ICP41 La ppm 10	ME- ICP41 Mg % 0.01	ME- ICP41 Mn ppm 5	ME- ICP41 Mo ppm 1	ME- ICP41 Na % 0.01	ME- ICP41 Ni ppm 1	ME- ICP41 P ppm 10	ME- ICP41 Pb ppm 2	ME- ICP41 S % 0.01	ME- ICP41 Sb ppm 2	ME- ICP41 Sc ppm 1	ME- ICP41 Sr ppm 1	ME- ICP41 Th ppm 20
JN11011-002 DUP Target Range - Lower Bound Upper Bound		DUPLICATES														
JN11011-028 DUP Target Range - Lower Bound Upper Bound		1 <1 2	0.46 0.46 0.43 0.49	40 40 30 50	0.13 0.13 0.11 0.15	188 181 170 199	<1 <1 2	0.03 0.03 0.02 0.04	32 30 28 34	140 140 120 180	4 4 2 6	<0.01 <0.01 0.01 0.02	2 <2 2 4	3 2 1 4	24 24 22 26	20 20 20 40
JN11011-039 DUP Target Range - Lower Bound Upper Bound																
JN11011-057 DUP Target Range - Lower Bound Upper Bound																
JN11011-061 DUP Target Range - Lower Bound Upper Bound		<1 <1 2	0.43 0.44 0.40 0.47	10 10 10 20	0.86 0.86 0.81 0.91	500 502 471 531	2 1 2	0.03 0.03 0.02 0.04	27 27 25 29	2150 2140 2030 2260	6 7 4 9	0.23 0.24 0.21 0.26	<2 2 2 4	4 4 3 5	93 94 88 99	<20 20 20 40
JN11011-076 DUP Target Range - Lower Bound Upper Bound																
JN11011-095 DUP Target Range - Lower Bound Upper Bound		<1 <1 2	0.29 0.30 0.27 0.32	30 30 20 40	0.40 0.40 0.37 0.43	538 546 510 574	<1 <1 2	0.06 0.07 0.05 0.08	28 28 28 30	200 210 180 230	9 7 8 10	0.34 0.35 0.32 0.37	<2 2 2 4	4 4 3 5	141 145 135 151	20 20 20 40
JN11011-114 DUP Target Range - Lower Bound Upper Bound																



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Sample Description	Method Analyte Units LOR	ME- ICP41 Ti %	ME- ICP41 Ti ppm	ME- ICP41 U ppm	ME- ICP41 V ppm	ME- ICP41 W ppm	ME- ICP41 Zn ppm
JN11011- 002 DUP Target Range - Lower Bound Upper Bound		0.01	10	10	1	10	2
DUPLICATES							
JN11011- 028 DUP Target Range - Lower Bound Upper Bound		0.01 0.01 <0.01 0.02	<10 <10 <10 20	<10 <10 <10 20	15 15 13 17	<10 <10 <10 20	32 30 27 35
JN11011- 039 DUP Target Range - Lower Bound Upper Bound							
JN11011- 057 DUP Target Range - Lower Bound Upper Bound							
JN11011- 061 DUP Target Range - Lower Bound Upper Bound		0.04 0.04 0.03 0.05	<10 <10 <10 20	<10 <10 <10 20	26 26 24 28	<10 <10 <10 20	48 49 44 53
JN11011- 076 DUP Target Range - Lower Bound Upper Bound							
JN11011- 095 DUP Target Range - Lower Bound Upper Bound		<0.01 <0.01 <0.01 0.02	<10 <10 <10 20	<10 <10 <10 20	22 23 20 25	<10 <10 <10 20	17 17 14 20
JN11011- 114 DUP Target Range - Lower Bound Upper Bound							

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Sample Description	Method Analyte Units LOR	Au- AA23 Au ppm 0.005	ME- ICP41 Ag ppm 0.2	ME- ICP41 Al % 0.01	ME- ICP41 As ppm 2	ME- ICP41 B ppm 10	ME- ICP41 Ba ppm 10	ME- ICP41 Be ppm 0.5	ME- ICP41 Bi ppm 2	ME- ICP41 Ca % 0.01	ME- ICP41 Cd ppm 0.5	ME- ICP41 Co ppm 1	ME- ICP41 Cr ppm 1	ME- ICP41 Cu ppm 1	ME- ICP41 Fe % 0.01	ME- ICP41 Ga ppm 10
DUPLICATES																
JN11011- 128			<0.2	1.51	16	<10	90	1.2	<2	1.46	<0.5	13	35	26	3.29	10
DUP			<0.2	1.51	14	<10	90	1.2	<2	1.45	<0.5	12	35	25	3.28	10
Target Range - Lower Bound			<0.2	1.42	12	<10	70	0.6	<2	1.37	<0.5	11	32	23	3.11	<10
Upper Bound			0.4	1.60	18	20	110	1.8	4	1.54	1.0	14	38	28	3.48	20
JN11011- 149		<0.005														
DUP		<0.005														
Target Range - Lower Bound		<0.005														
Upper Bound		0.010														
JN11011- 161			<0.2	1.44	14	<10	50	0.6	<2	0.72	<0.5	9	32	18	2.82	<10
DUP			<0.2	1.42	12	<10	50	0.6	2	0.70	<0.5	9	31	19	2.77	<10
Target Range - Lower Bound			<0.2	1.35	10	<10	40	<0.5	<2	0.66	<0.5	8	29	17	2.65	<10
Upper Bound			0.4	1.51	16	20	60	1.0	4	0.78	1.0	10	34	20	2.94	20
JN11011- 167		<0.005														
DUP		<0.005														
Target Range - Lower Bound		<0.005														
Upper Bound		0.010														
ORIGINAL			<0.2	2.78	11	<10	40	<0.5	<2	1.42	<0.5	15	42	13	4.23	10
DUP			<0.2	2.88	9	<10	50	<0.5	<2	1.50	<0.5	15	43	13	4.32	10
Target Range - Lower Bound			<0.2	2.67	8	<10	30	<0.5	<2	1.38	<0.5	13	39	11	4.05	<10
Upper Bound			0.4	2.97	13	20	60	1.0	4	1.54	1.0	17	46	15	4.50	20
PREP DUPLICATES																
JN11011- 051		0.006	0.2	0.50	313	10	40	<0.5	5	0.06	<0.5	7	6	40	3.53	<10
JN11011- 051 PREP DUP		0.007	0.2	0.75	291	10	60	0.5	5	0.06	<0.5	7	8	36	3.42	<10
JN11011- 101		<0.005	0.2	0.81	6	<10	50	0.5	<2	1.64	<0.5	4	39	53	1.45	<10
JN11011- 101 PREP DUP		<0.005	0.2	1.08	7	<10	60	0.6	2	1.77	<0.5	5	45	54	1.53	<10
JN11011- 151		<0.005	<0.2	0.60	14	<10	40	0.5	<2	1.83	<0.5	6	14	11	1.43	<10
JN11011- 151 PREP DUP		<0.005	<0.2	0.51	13	<10	20	0.5	3	1.78	<0.5	5	12	9	1.30	<10



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Sample Description	Method Analyte Units LOR	ME- ICP41 Hg ppm 1	ME- ICP41 K % 0.01	ME- ICP41 La ppm 10	ME- ICP41 Mg % 0.01	ME- ICP41 Mn ppm 5	ME- ICP41 Mo ppm 1	ME- ICP41 Na % 0.01	ME- ICP41 Ni ppm 1	ME- ICP41 P ppm 10	ME- ICP41 Pb ppm 2	ME- ICP41 S % 0.01	ME- ICP41 Sb ppm 2	ME- ICP41 Sc ppm 1	ME- ICP41 Sr ppm 1	ME- ICP41 Th ppm 20
DUPLICATES																
JN11011-128		<1	0.61	20	0.68	285	<1	0.02	30	180	4	0.27	<2	5	68	20
DUP		<1	0.61	30	0.68	285	<1	0.03	29	180	4	0.27	<2	5	68	20
Target Range - Lower Bound		<1	0.57	<10	0.64	268	<1	<0.01	27	160	<2	0.26	<2	4	64	<20
Upper Bound		2	0.65	40	0.72	304	2	0.04	32	200	8	0.28	4	6	72	40
JN11011-149																
DUP																
Target Range - Lower Bound																
Upper Bound																
JN11011-161		<1	0.31	20	0.79	241	1	0.04	26	120	3	0.22	<2	3	46	<20
DUP		<1	0.31	20	0.77	235	1	0.04	25	120	3	0.22	<2	3	45	<20
Target Range - Lower Bound		<1	0.28	<10	0.73	221	<1	0.03	23	100	<2	0.20	<2	2	42	<20
Upper Bound		2	0.34	30	0.83	285	2	0.05	28	140	4	0.24	4	4	49	40
JN11011-167																
DUP																
Target Range - Lower Bound																
Upper Bound																
ORIGINAL		<1	0.06	10	1.76	799	<1	0.12	6	1200	3	1.23	<2	6	64	<20
DUP		<1	0.06	10	1.81	817	<1	0.13	7	1230	4	1.26	2	6	65	<20
Target Range - Lower Bound		<1	0.05	<10	1.69	763	<1	0.11	5	1140	<2	1.17	<2	5	60	<20
Upper Bound		2	0.07	20	1.88	853	2	0.14	8	1290	4	1.32	4	7	68	40
PREP DUPLICATES																
JN11011-051		1	0.30	30	0.04	164	1	<0.01	24	90	36	0.07	31	1	23	<20
JN11011-051 PREP DUP		<1	0.39	30	0.05	155	3	0.01	23	90	33	0.08	30	2	25	<20
JN11011-101		<1	0.21	40	0.44	187	1	0.07	31	220	15	0.35	<2	7	64	20
JN11011-101 PREP DUP		<1	0.29	40	0.49	195	2	0.12	29	220	17	0.35	<2	8	81	20
JN11011-151		<1	0.24	30	0.73	216	<1	0.05	23	120	5	0.04	<2	4	97	20
JN11011-151 PREP DUP		<1	0.18	20	0.71	199	2	0.03	21	120	4	0.04	<2	4	98	20



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Sample Description	Method Analyte Units LOR	ME- ICP41 Ti %	ME- ICP41 Ti ppm	ME- ICP41 U ppm	ME- ICP41 V ppm	ME- ICP41 W ppm	ME- ICP41 Zn ppm
		0.01	10	10	1	10	2
DUPLICATES							
JN11011- 128		0.04	<10	<10	37	<10	40
DUP		0.04	<10	<10	37	<10	39
Target Range - Lower Bound		0.03	<10	<10	34	<10	36
Upper Bound		0.05	20	20	40	20	43
JN11011- 149							
DUP							
Target Range - Lower Bound							
Upper Bound							
JN11011- 161		0.04	<10	<10	26	<10	44
DUP		0.04	<10	<10	25	<10	42
Target Range - Lower Bound		0.03	<10	<10	23	<10	39
Upper Bound		0.05	20	20	28	20	47
JN11011- 167							
DUP							
Target Range - Lower Bound							
Upper Bound							
ORIGINAL		0.21	<10	<10	58	<10	107
DUP		0.22	<10	<10	57	<10	107
Target Range - Lower Bound		0.19	<10	<10	53	<10	100
Upper Bound		0.24	20	20	60	20	114
PREP DUPLICATES							
JN11011- 051		<0.01	<10	<10	7	<10	80
JN11011- 051 PREP DUP		<0.01	<10	<10	8	<10	74
JN11011- 101		0.06	<10	<10	44	<10	33
JN11011- 101 PREP DUP		0.08	<10	<10	49	<10	36
JN11011- 151		<0.01	<10	<10	13	<10	37
JN11011- 151 PREP DUP		<0.01	<10	<10	12	<10	29



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Method	CERTIFICATE COMMENTS
ALL METHODS	NSS is non- sufficient sample.



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CERTIFICATE WH11191146

Project:

P.O. No.: JN11- 002

This report is for 201 Drill Core samples submitted to our lab in Whitehorse, YT, Canada on 19- SEP- 2011.

The following have access to data associated with this certificate:

JESSE CAMPBELL

CHRIS GALLAGHER

SAMPLE PREPARATION

ALS CODE	DESCRIPTION
WEI- 21	Received Sample Weight
LOG- 22	Sample login - Rcd w/o BarCode
SPL- 22Y	Split Sample - Boyd Rotary Splitter
BAG- 01	Bulk Master for Storage
LOG- 24	Pulp Login - Rcd w/o Barcode
CRU- QC	Crushing QC Test
PUL- QC	Pulverizing QC Test
CRU- 31	Fine crushing - 70% < 2mm
PUL- 32m	Pulverize 500g - 85% < 75um

ANALYTICAL PROCEDURES

ALS CODE	DESCRIPTION	INSTRUMENT
Au- AA23	Au 30g FA- AA finish	AAS
ME- ICP41	35 Element Aqua Regia ICP- AES	ICP- AES

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This is the Final Report and supersedes any preliminary report with this certificate number. Results apply to samples as submitted. All pages of this report have been checked and approved for release.

Signature:

Colin Ramshaw, Vancouver Laboratory Manager



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Sample Description	Method Analyte Units LOR	WEI- 21 Recvd Wt. kg	Au- AA23 Au ppm	ME- ICP41 Ag ppm	ME- ICP41 Al %	ME- ICP41 As ppm	ME- ICP41 B ppm	ME- ICP41 Ba ppm	ME- ICP41 Be ppm	ME- ICP41 Bi ppm	ME- ICP41 Ca %	ME- ICP41 Cd ppm	ME- ICP41 Co ppm	ME- ICP41 Cr ppm	ME- ICP41 Cu ppm	ME- ICP41 Fe %
JN11002-001		0.25	<0.005	0.4	2.46	19	<10	100	0.9	2	0.37	<0.5	7	37	47	2.64
JN11002-002		0.59	<0.005	<0.2	2.82	12	<10	60	0.9	2	1.59	<0.5	4	38	10	1.49
JN11002-003		0.29	<0.005	<0.2	3.61	11	20	80	1.0	2	2.65	<0.5	7	30	59	1.73
JN11002-004		1.94	<0.005	<0.2	5.14	11	10	30	1.5	4	4.20	<0.5	6	22	80	1.92
JN11002-005		1.15	<0.005	<0.2	3.16	13	<10	50	1.0	13	1.51	<0.5	10	38	48	2.79
JN11002-006		0.65	<0.005	<0.2	2.45	4	<10	90	0.8	2	0.67	<0.5	8	35	15	2.92
JN11002-007		2.74	<0.005	<0.2	2.31	<2	<10	80	0.8	<2	0.30	<0.5	7	34	20	3.39
JN11002-008		1.98	<0.005	<0.2	2.52	<2	<10	90	0.8	<2	0.35	<0.5	8	36	20	3.23
JN11002-009		0.92	<0.005	<0.2	2.21	3	<10	90	0.8	2	0.44	<0.5	7	33	13	2.80
JN11002-010		2.15	<0.005	<0.2	1.07	5	10	60	0.8	2	0.84	<0.5	10	16	21	3.13
JN11002-011		1.57	<0.005	<0.2	2.08	15	<10	60	0.7	2	0.72	<0.5	10	34	22	2.79
JN11002-012		0.28	<0.005	<0.2	2.09	15	10	70	0.7	2	0.53	<0.5	8	29	20	3.02
JN11002-013		0.92	<0.005	<0.2	1.89	24	<10	80	0.7	2	0.73	<0.5	10	31	15	2.80
JN11002-014		2.93	<0.005	<0.2	1.57	4	10	70	0.6	2	0.61	<0.5	9	21	19	3.30
JN11002-015		2.15	<0.005	<0.2	1.14	25	20	50	0.8	2	0.75	<0.5	9	20	29	2.35
JN11002-016		1.32	<0.005	0.6	0.60	71	20	30	0.6	2	1.08	0.5	4	9	274	1.51
JN11002-017		0.29	<0.005	<0.2	1.25	4	10	50	0.7	2	0.94	<0.5	6	18	17	2.48
JN11002-018		0.46	<0.005	0.5	0.78	40	70	50	0.5	2	0.66	<0.5	4	13	59	1.44
JN11002-019		1.24	<0.005	<0.2	1.88	37	10	80	0.8	<2	0.54	<0.5	10	35	49	3.02
JN11002-020		1.00	<0.005	<0.2	1.36	7	10	70	0.7	2	0.76	<0.5	9	22	17	3.15
JN11002-020S		0.03	3.47	75.7	1.32	84	<10	70	<0.5	8	1.94	<0.5	10	17	777	3.14
JN11002-021		0.83	0.018	<0.2	2.46	17	10	70	1.0	18	1.46	<0.5	16	26	26	3.16
JN11002-022		0.48	0.011	<0.2	1.08	48	10	60	0.8	5	2.13	<0.5	9	20	56	3.38
JN11002-023		0.69	0.015	<0.2	1.74	453	20	70	0.9	8	2.77	<0.5	9	21	70	3.15
JN11002-024		1.30	<0.005	<0.2	1.07	32	30	50	0.6	7	1.76	0.6	5	10	19	1.95
JN11002-025		0.98	0.013	0.7	0.81	327	20	70	0.7	11	0.11	0.8	6	8	25	2.10
JN11002-026		0.50	0.012	1.1	0.74	372	20	70	0.6	5	0.06	0.6	8	7	33	2.48
JN11002-027		0.94	0.007	31.0	1.12	193	10	880	0.7	7	0.63	<0.5	8	22	77	2.93
JN11002-028		0.91	<0.005	0.3	0.91	61	10	70	0.6	3	0.37	<0.5	5	10	26	2.18
JN11002-029		1.12	<0.005	1.1	0.78	43	10	60	0.5	4	0.54	0.7	4	8	37	2.16
JN11002-030		1.36	0.006	0.4	1.09	9	10	50	0.6	13	1.41	<0.5	5	15	25	2.17
JN11002-031		2.96	0.026	<0.2	1.68	30	<10	70	0.6	35	0.82	<0.5	7	29	21	2.78
JN11002-032		2.91	0.019	<0.2	2.00	27	10	80	0.6	30	1.29	<0.5	10	34	35	2.62
JN11002-033		2.22	0.011	<0.2	1.82	24	<10	70	0.6	25	0.68	<0.5	14	35	38	2.44
JN11002-034		2.59	0.026	<0.2	2.05	15	<10	60	0.6	6	0.76	<0.5	8	44	35	1.88
JN11002-035		2.58	0.012	0.5	1.34	17	10	50	0.7	8	1.38	<0.5	6	23	32	1.55
JN11002-036		2.34	0.040	0.8	1.86	28	10	70	0.7	40	0.79	<0.5	12	29	40	3.14
JN11002-037		3.04	<0.005	0.7	2.08	29	10	100	1.0	7	0.35	<0.5	10	30	69	3.18
JN11002-038		1.68	0.096	<0.2	2.23	17	<10	90	0.9	23	0.84	<0.5	11	34	21	3.55
JN11002-039		3.18	<0.005	0.3	2.10	16	<10	80	0.9	2	0.89	<0.5	10	31	46	3.36



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44 - 12TH AVENUE SOUTH
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Sample Description	Method Analyte Units LOR	ME- ICP41 Ga ppm 10	ME- ICP41 Hg ppm 1	ME- ICP41 K % 0.01	ME- ICP41 La ppm 10	ME- ICP41 Mg % 0.01	ME- ICP41 Mn ppm 5	ME- ICP41 Mo ppm 1	ME- ICP41 Na % 0.01	ME- ICP41 Ni ppm 1	ME- ICP41 P ppm 10	ME- ICP41 Pb ppm 2	ME- ICP41 S % 0.01	ME- ICP41 Sb ppm 2	ME- ICP41 Sc ppm 1	ME- ICP41 Sr ppm 1
JN11002-001		10	<1	0.65	30	0.73	169	<1	0.12	24	240	7	0.04	2	3	42
JN11002-002		10	<1	0.54	20	0.69	184	1	0.28	20	180	6	0.04	<2	4	110
JN11002-003		10	<1	0.38	20	0.33	339	1	0.30	18	250	6	0.18	<2	3	209
JN11002-004		10	1	0.13	20	0.17	451	1	0.42	12	420	4	0.32	<2	2	326
JN11002-005		10	<1	0.41	20	0.67	199	1	0.26	25	160	6	0.33	<2	4	121
JN11002-006		10	<1	0.73	30	0.79	149	1	0.12	25	130	5	0.02	<2	4	41
JN11002-007		10	<1	0.67	30	0.81	170	<1	0.06	25	130	3	0.01	<2	3	21
JN11002-008		10	<1	0.95	20	0.83	144	<1	0.08	28	130	3	0.02	<2	4	28
JN11002-009		10	1	0.83	20	0.72	141	<1	0.07	24	150	4	0.02	<2	3	28
JN11002-010		<10	<1	0.44	20	0.55	374	<1	0.04	22	120	5	0.24	<2	3	51
JN11002-011		10	<1	0.63	20	0.76	169	1	0.08	28	350	38	0.04	<2	3	29
JN11002-012		10	<1	0.61	20	0.68	189	1	0.06	21	130	53	0.13	<2	3	25
JN11002-013		10	<1	0.68	20	0.70	187	1	0.09	30	140	5	0.43	2	3	41
JN11002-014		10	<1	0.49	10	0.59	359	<1	0.05	23	140	5	0.55	<2	2	31
JN11002-015		<10	<1	0.50	20	0.41	285	<1	0.05	25	160	11	0.18	<2	3	33
JN11002-016		<10	<1	0.35	30	0.29	421	<1	0.04	20	170	34	0.29	8	2	54
JN11002-017		<10	<1	0.53	50	0.44	294	<1	0.07	22	140	8	0.11	3	4	53
JN11002-018		<10	<1	0.39	10	0.31	266	1	0.05	9	150	39	0.12	2	2	33
JN11002-019		10	<1	0.92	30	0.76	284	1	0.08	33	150	2	0.09	<2	5	36
JN11002-020		<10	<1	0.61	20	0.70	387	1	0.06	24	140	3	0.13	<2	3	50
JN11002-020S		10	<1	0.15	<10	0.86	802	585	0.06	9	650	38	0.23	56	1	92
JN11002-021		10	<1	0.62	20	0.72	295	1	0.18	30	260	7	0.32	<2	4	119
JN11002-022		<10	<1	0.38	20	0.20	891	5	0.03	22	330	28	0.14	10	4	65
JN11002-023		10	<1	0.31	20	0.22	533	7	0.13	19	330	14	0.25	9	4	108
JN11002-024		<10	<1	0.40	20	0.47	280	<1	0.04	26	130	18	0.27	15	3	135
JN11002-025		<10	<1	0.37	30	0.06	1900	1	0.01	32	170	49	0.02	33	3	29
JN11002-026		<10	<1	0.39	30	0.06	1540	1	0.01	22	100	92	0.03	20	2	17
JN11002-027		<10	<1	0.41	20	0.31	949	2	0.05	26	210	121	0.18	16	3	49
JN11002-028		<10	<1	0.46	20	0.10	374	<1	0.02	17	190	16	0.48	5	2	25
JN11002-029		<10	<1	0.44	10	0.16	628	<1	0.02	20	100	68	0.69	4	1	27
JN11002-030		<10	<1	0.39	20	0.29	775	1	0.05	19	150	32	0.35	3	2	49
JN11002-031		10	<1	0.73	30	0.76	270	<1	0.05	25	120	3	0.21	2	3	45
JN11002-032		10	<1	0.87	30	0.95	220	1	0.13	27	220	2	0.32	<2	5	101
JN11002-033		10	<1	0.81	20	0.79	181	1	0.09	34	130	3	0.27	<2	4	33
JN11002-034		10	<1	0.89	30	0.96	142	1	0.15	29	150	4	0.23	<2	5	47
JN11002-035		10	1	0.57	20	0.55	781	1	0.06	22	150	52	0.46	<2	3	57
JN11002-036		10	<1	0.71	20	0.85	912	1	0.04	39	110	58	0.62	3	3	38
JN11002-037		10	<1	0.98	20	0.78	477	<1	0.04	34	160	56	0.70	2	3	17
JN11002-038		10	<1	0.93	30	0.86	377	<1	0.04	28	130	3	0.14	<2	3	25
JN11002-039		10	<1	0.70	20	0.85	1015	<1	0.04	28	700	15	0.37	<2	3	36



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CERTIFICATE OF ANALYSIS WH11191146

Sample Description	Method Analyte Units LOR	ME- ICP41 Th ppm 20	ME- ICP41 Ti % 0.01	ME- ICP41 Ti ppm 10	ME- ICP41 U ppm 10	ME- ICP41 V ppm 1	ME- ICP41 W ppm 10	ME- ICP41 Zn ppm 2
JN11002-001		20	0.08	<10	<10	26	<10	48
JN11002-002		20	0.09	<10	<10	38	<10	25
JN11002-003		20	0.11	<10	<10	26	<10	33
JN11002-004		20	0.11	<10	<10	21	<10	23
JN11002-005		20	0.11	<10	<10	36	<10	40
JN11002-006		20	0.08	<10	<10	37	<10	39
JN11002-007		20	0.10	<10	<10	35	<10	50
JN11002-008		20	0.14	<10	<10	38	<10	49
JN11002-009		20	0.12	<10	<10	30	<10	42
JN11002-010		20	0.02	<10	<10	16	<10	53
JN11002-011		20	0.07	<10	<10	31	<10	65
JN11002-012		<20	0.04	<10	<10	27	<10	71
JN11002-013		20	0.06	<10	<10	31	<10	26
JN11002-014		<20	0.03	<10	<10	21	<10	44
JN11002-015		20	0.03	<10	<10	19	<10	47
JN11002-016		20	<0.01	<10	<10	9	<10	98
JN11002-017		20	0.02	<10	<10	19	<10	34
JN11002-018		<20	0.02	<10	<10	11	<10	42
JN11002-019		20	0.08	<10	<10	37	<10	24
JN11002-020		20	0.03	<10	<10	22	<10	45
JN11002-020S		<20	0.08	<10	<10	29	<10	97
JN11002-021		20	0.05	<10	<10	26	<10	32
JN11002-022		<20	0.01	<10	<10	16	<10	82
JN11002-023		<20	0.02	<10	<10	18	<10	61
JN11002-024		<20	0.01	<10	<10	9	<10	62
JN11002-025		20	<0.01	<10	<10	9	<10	197
JN11002-026		20	<0.01	<10	<10	7	<10	281
JN11002-027		20	0.02	<10	<10	14	70	564
JN11002-028		<20	<0.01	<10	<10	9	<10	99
JN11002-029		<20	<0.01	<10	<10	7	<10	177
JN11002-030		20	0.01	<10	<10	15	<10	89
JN11002-031		20	0.05	<10	<10	29	<10	25
JN11002-032		20	0.07	<10	<10	38	<10	20
JN11002-033		20	0.08	<10	<10	35	<10	24
JN11002-034		20	0.07	<10	<10	47	<10	20
JN11002-035		20	0.02	<10	<10	25	<10	43
JN11002-036		20	0.05	<10	<10	29	<10	81
JN11002-037		20	0.08	<10	<10	31	<10	28
JN11002-038		20	0.10	<10	<10	34	<10	46
JN11002-039		20	0.07	<10	<10	30	<10	65



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Sample Description	Method Analyte Units LOR	WEI- 21 Recvd Wt. kg	Au- AA23 Au ppm	ME- ICP41 Ag ppm	ME- ICP41 Al %	ME- ICP41 As ppm	ME- ICP41 B ppm	ME- ICP41 Ba ppm	ME- ICP41 Be ppm	ME- ICP41 Bi ppm	ME- ICP41 Ca %	ME- ICP41 Cd ppm	ME- ICP41 Co ppm	ME- ICP41 Cr ppm	ME- ICP41 Cu ppm	ME- ICP41 Fe %
JN11002- 040		3.03	<0.005	<0.2	1.85	14	<10	70	0.9	2	0.51	<0.5	10	27	26	3.46
JN11002- 040S		0.03	1.480	33.9	0.37	25	<10	260	<0.5	3	1.29	<0.5	8	29	3160	2.58
JN11002- 040B		0.03	0.005	<0.2	0.55	<2	<10	180	<0.5	<2	0.14	<0.5	2	8	7	1.48
JN11002- 041		2.74	<0.005	2.4	1.59	28	<10	60	0.7	12	2.73	0.6	13	19	49	2.13
JN11002- 042		0.82	<0.005	<0.2	1.79	5	<10	70	0.6	<2	1.38	<0.5	4	35	7	1.79
JN11002- 043		1.78	0.007	<0.2	5.07	70	<10	130	0.6	9	2.92	<0.5	20	160	20	3.72
JN11002- 044		2.48	0.015	1.5	2.31	69	<10	50	0.9	31	3.58	<0.5	21	122	24	4.90
JN11002- 045		3.16	0.007	0.4	0.98	61	20	60	0.7	9	2.24	<0.5	10	12	41	2.50
JN11002- 046		2.25	<0.005	<0.2	1.01	4	<10	60	0.8	<2	0.37	<0.5	13	18	28	3.78
JN11002- 047		1.68	<0.005	<0.2	0.78	10	<10	50	0.7	<2	0.44	<0.5	16	12	29	3.58
JN11002- 048		2.58	<0.005	<0.2	0.73	15	<10	60	0.7	<2	0.36	<0.5	11	11	30	3.76
JN11002- 049		2.09	0.022	0.3	0.55	30	<10	50	0.6	<2	0.14	<0.5	9	6	24	3.54
JN11002- 050		1.75	0.013	0.4	0.61	39	10	50	0.6	6	1.17	<0.5	8	7	16	2.55
JN11002- 051		2.20	0.008	0.5	0.66	13	10	40	0.6	5	1.80	<0.5	3	9	2	1.16
JN11002- 052		1.39	0.017	1.6	0.74	12	<10	50	0.6	30	0.63	0.5	8	11	37	2.68
JN11002- 053		2.23	0.021	0.4	0.71	20	<10	50	0.6	8	1.01	<0.5	9	10	29	2.49
JN11002- 054		2.37	<0.005	0.2	0.76	7	<10	60	0.6	<2	1.10	<0.5	9	8	38	2.69
JN11002- 055		2.02	0.006	0.3	0.91	13	10	60	0.6	4	0.99	<0.5	11	10	40	3.53
JN11002- 056		1.62	0.005	<0.2	0.93	8	10	60	0.7	3	0.54	<0.5	8	13	25	3.30
JN11002- 057		2.27	<0.005	<0.2	1.66	11	<10	80	0.9	2	1.10	<0.5	14	26	37	3.37
JN11002- 058		2.54	0.005	<0.2	2.42	9	<10	110	1.0	<2	1.03	<0.5	11	41	26	3.86
JN11002- 059		2.89	0.007	<0.2	2.19	4	<10	110	1.0	4	0.60	<0.5	9	36	20	3.79
JN11002- 060		1.10	0.009	<0.2	2.00	<2	<10	110	1.3	3	0.19	<0.5	7	33	19	3.04
JN11002- 060S		0.03	3.31	74.6	1.30	86	<10	80	<0.5	8	1.98	<0.5	9	18	757	3.14
JN11002- 061		1.93	<0.005	<0.2	1.02	5	<10	50	1.0	2	0.23	<0.5	14	20	38	3.12
JN11002- 062		1.67	0.008	<0.2	0.82	11	<10	50	0.9	15	0.51	<0.5	12	16	53	3.73
JN11002- 063		1.69	<0.005	<0.2	1.12	9	<10	50	0.7	<2	1.28	<0.5	13	16	61	3.93
JN11002- 064		2.62	<0.005	<0.2	1.08	4	<10	60	1.0	<2	0.52	0.6	12	14	39	4.85
JN11002- 065		2.47	<0.005	<0.2	1.05	11	<10	60	1.0	4	0.27	<0.5	11	16	72	4.01
JN11002- 066		2.05	0.012	<0.2	1.15	10	<10	50	0.9	11	0.37	<0.5	21	20	149	3.99
JN11002- 067		1.41	<0.005	<0.2	0.83	9	<10	60	0.6	<2	0.68	<0.5	10	10	56	3.51
JN11002- 068		2.38	<0.005	<0.2	1.22	10	<10	70	0.9	<2	0.61	<0.5	13	19	24	3.25
JN11002- 069		2.82	<0.005	<0.2	2.11	2	<10	110	1.1	<2	0.77	<0.5	10	33	19	3.98
JN11002- 070		1.92	<0.005	<0.2	2.00	5	10	120	1.0	<2	0.68	<0.5	14	32	36	4.56
JN11002- 071		1.38	<0.005	<0.2	0.85	6	20	70	0.9	<2	0.53	<0.5	14	12	22	3.87
JN11002- 072		1.03	<0.005	<0.2	1.28	4	20	80	1.0	<2	0.31	<0.5	15	18	29	3.97
JN11002- 073		2.33	<0.005	<0.2	1.15	3	10	80	0.9	<2	0.48	<0.5	12	21	26	3.86
JN11002- 074		2.73	<0.005	<0.2	1.67	5	10	100	1.0	<2	0.71	<0.5	14	28	27	4.32
JN11002- 075		3.66	0.012	0.2	1.66	20	<10	70	1.0	2	0.43	<0.5	14	25	36	3.92
JN11002- 076		0.66	0.124	1.0	0.96	>10000	40	80	0.7	12	1.62	<0.5	407	12	39	5.41



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44 - 12TH AVENUE SOUTH
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Sample Description	Method Analyte Units LOR	ME- ICP41 Ga ppm 10	ME- ICP41 Hg ppm 1	ME- ICP41 K % 0.01	ME- ICP41 La ppm 10	ME- ICP41 Mg % 0.01	ME- ICP41 Mn ppm 5	ME- ICP41 Mo ppm 1	ME- ICP41 Na % 0.01	ME- ICP41 Ni ppm 1	ME- ICP41 P ppm 10	ME- ICP41 Pb ppm 2	ME- ICP41 S % 0.01	ME- ICP41 Sb ppm 2	ME- ICP41 Sc ppm 1	ME- ICP41 Sr ppm 1
JN11002- 040		10	<1	0.68	20	0.78	711	<1	0.03	30	140	18	0.77	<2	2	19
JN11002- 040S		<10	3	0.16	10	0.14	416	347	0.04	18	380	61	1.07	77	1	259
JN11002- 040B		<10	<1	0.36	10	0.22	330	1	0.09	1	190	3	0.01	<2	4	10
JN11002- 041		<10	<1	0.58	20	0.67	2740	<1	0.04	31	180	226	0.55	<2	3	109
JN11002- 042		10	<1	0.71	30	0.79	460	<1	0.10	18	140	9	0.04	<2	5	50
JN11002- 043		10	<1	1.55	10	2.43	541	<1	0.47	75	370	9	0.13	<2	10	161
JN11002- 044		<10	<1	0.45	10	1.40	2510	<1	0.05	81	280	100	0.42	2	13	101
JN11002- 045		<10	<1	0.42	20	0.70	1100	<1	0.01	31	1510	33	0.40	8	3	125
JN11002- 046		<10	<1	0.43	30	0.79	636	<1	0.02	32	140	4	0.53	<2	3	21
JN11002- 047		<10	<1	0.39	20	0.71	572	<1	0.03	32	110	3	0.91	<2	2	43
JN11002- 048		<10	<1	0.37	20	0.59	521	<1	0.02	29	100	3	0.64	4	2	37
JN11002- 049		<10	<1	0.32	10	0.06	340	<1	0.01	22	90	6	0.72	18	2	37
JN11002- 050		<10	<1	0.35	30	0.13	1010	<1	0.01	23	110	30	0.15	14	3	53
JN11002- 051		<10	<1	0.34	30	0.45	1620	<1	0.01	12	160	26	0.06	4	3	91
JN11002- 052		<10	<1	0.39	20	0.57	1090	<1	0.02	25	150	63	0.94	4	2	34
JN11002- 053		<10	<1	0.38	20	0.57	1670	<1	0.01	26	150	15	0.80	3	2	54
JN11002- 054		<10	<1	0.43	20	0.56	1885	<1	0.02	27	140	13	1.14	<2	2	57
JN11002- 055		<10	<1	0.47	20	0.72	1055	<1	0.03	32	160	10	1.43	<2	2	88
JN11002- 056		<10	<1	0.46	20	0.61	758	<1	0.03	28	140	12	0.99	3	2	40
JN11002- 057		<10	<1	0.85	30	0.73	401	<1	0.06	31	420	3	0.23	<2	4	43
JN11002- 058		10	1	1.05	30	0.94	406	<1	0.07	33	1100	3	0.20	<2	5	43
JN11002- 059		10	1	0.89	30	0.85	390	<1	0.04	32	170	<2	0.22	<2	4	23
JN11002- 060		10	<1	0.77	30	0.55	499	<1	0.02	27	160	4	0.10	<2	4	15
JN11002- 060S		<10	<1	0.17	<10	0.85	837	604	0.06	9	680	40	0.23	52	1	90
JN11002- 061		<10	<1	0.28	20	0.26	675	1	0.01	36	170	3	0.32	<2	3	13
JN11002- 062		<10	<1	0.27	20	0.63	587	<1	0.01	31	150	4	0.22	<2	3	31
JN11002- 063		<10	<1	0.39	10	0.85	705	<1	0.01	28	100	6	1.30	3	3	45
JN11002- 064		<10	<1	0.38	10	0.76	728	<1	0.01	30	140	19	1.20	<2	3	32
JN11002- 065		<10	<1	0.37	20	0.43	678	<1	0.02	26	130	5	0.49	<2	3	14
JN11002- 066		<10	<1	0.35	20	0.39	631	<1	0.01	38	130	16	0.76	<2	4	16
JN11002- 067		<10	<1	0.39	20	0.61	764	<1	0.02	27	130	8	1.02	<2	2	39
JN11002- 068		<10	<1	0.53	30	0.66	398	<1	0.03	26	210	7	0.18	<2	3	30
JN11002- 069		10	1	0.81	20	0.78	537	<1	0.05	26	1260	23	0.09	<2	4	46
JN11002- 070		10	<1	0.70	20	0.89	636	<1	0.05	38	120	9	0.45	<2	5	38
JN11002- 071		<10	1	0.36	20	0.72	579	<1	0.02	30	130	7	0.24	7	3	63
JN11002- 072		<10	<1	0.43	20	0.80	515	<1	0.04	33	140	11	0.10	4	3	33
JN11002- 073		<10	<1	0.45	20	0.82	482	<1	0.04	33	130	6	0.11	<2	3	36
JN11002- 074		10	<1	0.58	20	0.88	680	<1	0.05	34	1420	4	0.27	<2	4	44
JN11002- 075		10	1	0.51	20	0.71	544	<1	0.04	32	160	6	0.58	<2	3	27
JN11002- 076		<10	<1	0.48	20	0.57	1605	<1	0.02	45	210	52	2.61	25	1	70



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CERTIFICATE OF ANALYSIS WH11191146

Sample Description	Method Analyte Units LOR	ME- ICP41 Th ppm 20	ME- ICP41 Ti % 0.01	ME- ICP41 Ti ppm 10	ME- ICP41 U ppm 10	ME- ICP41 V ppm 1	ME- ICP41 W ppm 10	ME- ICP41 Zn ppm 2
JN11002-040		20	0.05	<10	<10	26	<10	73
JN11002-040S		<20	0.01	<10	<10	17	<10	48
JN11002-040B		<20	0.09	<10	<10	17	<10	19
JN11002-041		20	0.01	<10	<10	20	<10	187
JN11002-042		20	0.06	<10	<10	40	<10	43
JN11002-043		<20	0.18	<10	<10	112	<10	37
JN11002-044		<20	0.02	<10	<10	74	<10	126
JN11002-045		20	<0.01	<10	<10	13	<10	73
JN11002-046		20	0.01	<10	<10	20	<10	54
JN11002-047		<20	<0.01	<10	<10	13	<10	55
JN11002-048		<20	<0.01	<10	<10	12	<10	51
JN11002-049		<20	<0.01	<10	<10	7	<10	55
JN11002-050		20	<0.01	<10	<10	7	<10	63
JN11002-051		20	<0.01	<10	<10	8	<10	19
JN11002-052		20	<0.01	<10	<10	11	<10	87
JN11002-053		20	0.01	<10	<10	11	<10	36
JN11002-054		20	<0.01	<10	<10	9	<10	25
JN11002-055		<20	<0.01	<10	<10	11	<10	43
JN11002-056		<20	0.01	<10	<10	14	<10	60
JN11002-057		20	0.04	<10	<10	30	<10	50
JN11002-058		20	0.09	<10	<10	45	<10	54
JN11002-059		20	0.10	<10	<10	35	<10	58
JN11002-060		20	0.08	<10	<10	38	<10	71
JN11002-060S		<20	0.09	<10	<10	30	<10	96
JN11002-061		20	0.01	<10	<10	26	<10	50
JN11002-062		<20	<0.01	<10	<10	23	<10	41
JN11002-063		<20	<0.01	<10	<10	20	<10	39
JN11002-064		<20	<0.01	<10	<10	16	<10	139
JN11002-065		20	<0.01	<10	<10	19	<10	51
JN11002-066		20	<0.01	<10	<10	21	<10	53
JN11002-067		20	<0.01	<10	<10	10	<10	51
JN11002-068		20	0.02	<10	<10	21	<10	54
JN11002-069		20	0.05	<10	<10	36	<10	75
JN11002-070		20	0.04	<10	<10	36	<10	88
JN11002-071		20	<0.01	<10	<10	14	<10	74
JN11002-072		20	0.01	<10	<10	21	<10	84
JN11002-073		20	0.02	<10	<10	24	<10	63
JN11002-074		20	0.03	<10	<10	32	<10	85
JN11002-075		<20	0.02	<10	<10	26	<10	87
JN11002-076		<20	<0.01	<10	<10	9	<10	50



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Sample Description	Method Analyte Units LOR	WEI- 21 Recvd Wt. kg	Au- AA23 Au ppm	ME- ICP41 Ag ppm	ME- ICP41 Al %	ME- ICP41 As ppm	ME- ICP41 B ppm	ME- ICP41 Ba ppm	ME- ICP41 Be ppm	ME- ICP41 Bi ppm	ME- ICP41 Ca %	ME- ICP41 Cd ppm	ME- ICP41 Co ppm	ME- ICP41 Cr ppm	ME- ICP41 Cu ppm	ME- ICP41 Fe %
JN11002- 077		2.68	<0.005	<0.2	1.74	203	10	90	0.8	<2	0.86	<0.5	15	24	29	4.00
JN11002- 078		2.93	0.016	0.7	1.93	1860	10	100	0.8	3	1.03	<0.5	26	23	68	4.36
JN11002- 079		1.19	0.208	0.5	1.99	391	10	100	0.9	26	0.80	<0.5	17	32	43	4.10
JN11002- 080		0.92	0.015	0.7	1.95	7890	10	110	0.7	4	0.60	<0.5	29	21	66	4.28
JN11002- 080S		0.06	1.445	33.3	0.39	33	<10	200	<0.5	<2	1.33	<0.5	8	30	3180	2.67
JN11002- 080B		0.05	0.005	<0.2	0.52	2	<10	190	<0.5	<2	0.13	<0.5	3	7	7	1.44
JN11002- 081		3.77	<0.005	0.2	1.98	129	10	100	0.8	<2	0.61	<0.5	12	25	44	3.96
JN11002- 082		1.98	<0.005	0.3	2.13	38	10	90	0.8	<2	0.67	<0.5	14	32	29	3.86
JN11002- 083		2.41	<0.005	<0.2	2.06	29	10	100	0.9	<2	0.95	<0.5	12	29	35	3.64
JN11002- 084		2.56	<0.005	<0.2	1.84	33	20	110	0.8	<2	1.46	<0.5	14	31	27	3.20
JN11002- 085		2.57	<0.005	<0.2	2.02	21	10	90	0.9	<2	1.45	<0.5	15	31	28	3.63
JN11002- 086		2.28	<0.005	<0.2	2.36	24	10	120	0.8	<2	0.86	<0.5	15	42	18	3.40
JN11002- 087		2.35	<0.005	<0.2	1.84	19	<10	100	0.8	<2	0.56	<0.5	14	33	22	3.29
JN11002- 088		2.76	<0.005	<0.2	2.06	31	10	120	0.7	<2	1.28	<0.5	14	36	42	3.30
JN11002- 089		2.79	<0.005	<0.2	2.15	18	<10	110	0.9	<2	0.82	<0.5	15	38	22	3.84
JN11002- 090		2.57	<0.005	<0.2	2.64	8	<10	140	0.9	<2	0.61	<0.5	16	44	65	4.14
JN11002- 091		2.80	<0.005	<0.2	2.46	17	10	130	1.1	<2	0.89	<0.5	15	38	31	4.05
JN11002- 092		2.72	<0.005	<0.2	1.96	14	10	110	0.9	<2	0.27	<0.5	15	29	40	4.08
JN11002- 093		0.81	0.056	2.4	0.93	249	20	60	0.5	9	0.12	<0.5	11	18	187	3.13
JN11002- 094		0.74	0.023	6.7	0.61	159	160	40	0.5	15	0.13	1.5	5	9	120	1.55
JN11002- 095		1.58	<0.005	1.6	0.70	248	70	40	0.5	17	1.10	0.7	14	6	28	1.34
JN11002- 096		2.08	<0.005	3.2	0.71	102	60	50	0.5	38	0.62	0.6	15	6	40	1.19
JN11002- 097		1.42	<0.005	6.9	0.94	197	100	50	0.5	23	0.15	2.8	5	12	103	1.67
JN11002- 098		2.06	0.021	3.8	1.19	2470	20	40	0.5	17	0.13	1.5	27	13	85	2.89
JN11002- 099		2.26	<0.005	0.7	1.16	97	10	50	0.6	3	0.18	<0.5	11	18	40	2.63
JN11002- 100		1.73	<0.005	1.1	1.43	62	20	70	0.6	4	0.13	<0.5	12	18	76	2.84
JN11002- 100S		0.04	3.49	77.9	1.33	94	<10	90	<0.5	6	2.05	<0.5	9	18	756	3.20
JN11002- 101		2.51	0.012	1.0	2.11	90	50	90	0.7	6	0.39	<0.5	9	22	151	2.13
JN11002- 102		0.62	<0.005	0.2	2.18	34	10	30	0.9	<2	0.24	<0.5	7	26	7	1.20
JN11002- 103		2.12	<0.005	<0.2	1.09	45	<10	30	0.6	<2	0.18	<0.5	11	19	23	2.34
JN11002- 104		3.09	<0.005	1.4	1.42	30	10	50	0.5	6	0.11	7.7	10	17	113	3.36
JN11002- 105		1.53	<0.005	1.3	0.98	27	<10	40	0.5	4	0.11	4.1	11	14	57	3.17
JN11002- 106		0.59	<0.005	0.3	1.47	34	10	50	0.6	2	0.10	0.9	10	14	20	2.25
JN11002- 107		0.62	<0.005	0.2	0.64	34	20	20	<0.5	<2	0.07	<0.5	10	5	17	1.19
JN11002- 108		1.29	<0.005	1.9	1.33	42	20	50	0.8	2	0.58	<0.5	12	16	31	4.40
JN11002- 109		2.19	0.008	0.2	1.00	52	50	50	0.7	<2	0.25	<0.5	11	8	14	2.28
JN11002- 110		2.51	<0.005	0.4	0.94	30	20	60	0.6	3	0.09	0.6	10	12	71	3.43
JN11002- 111		2.18	0.021	4.5	0.89	4360	80	40	0.6	15	0.07	0.9	22	11	198	2.53
JN11002- 112		2.02	<0.005	0.4	0.90	50	10	50	0.5	<2	0.08	<0.5	10	13	52	3.02
JN11002- 113		1.98	0.007	0.3	1.28	82	20	80	0.7	2	0.10	<0.5	12	18	45	3.45



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Sample Description	Method Analyte Units LOR	ME- ICP41 Ca ppm 10	ME- ICP41 Hg ppm 1	ME- ICP41 K % 0.01	ME- ICP41 La ppm 10	ME- ICP41 Mg % 0.01	ME- ICP41 Mn ppm 5	ME- ICP41 Mo ppm 1	ME- ICP41 Na % 0.01	ME- ICP41 Ni ppm 1	ME- ICP41 P ppm 10	ME- ICP41 Pb ppm 2	ME- ICP41 S % 0.01	ME- ICP41 Sb ppm 2	ME- ICP41 Sc ppm 1	ME- ICP41 Sr ppm 1
JN11002-077		10	<1	0.68	20	0.85	581	<1	0.04	35	410	4	0.86	4	3	49
JN11002-078		10	<1	0.78	20	0.80	1165	<1	0.04	36	200	34	1.59	2	3	25
JN11002-079		10	<1	0.78	20	0.88	696	1	0.04	34	210	17	0.68	2	4	32
JN11002-080		10	1	0.82	20	0.74	1190	<1	0.04	39	220	44	1.72	8	3	22
JN11002-080S		<10	4	0.16	10	0.15	435	335	0.05	21	400	61	1.11	73	1	276
JN11002-080B		<10	<1	0.33	10	0.22	331	1	0.09	1	180	4	0.01	<2	4	10
JN11002-081		10	<1	0.74	20	0.79	915	<1	0.03	35	160	26	1.17	2	3	24
JN11002-082		10	1	0.86	20	0.96	870	<1	0.03	38	180	26	0.69	<2	3	26
JN11002-083		10	<1	0.80	20	0.82	857	<1	0.03	34	650	15	0.85	<2	3	31
JN11002-084		10	<1	0.92	20	0.84	840	<1	0.06	36	220	24	0.52	<2	4	48
JN11002-085		10	<1	0.80	20	0.81	760	<1	0.04	33	3260	10	0.57	<2	3	65
JN11002-086		10	<1	0.94	20	0.90	550	<1	0.07	36	160	5	0.29	<2	5	32
JN11002-087		10	<1	0.89	20	0.76	576	<1	0.04	37	190	6	0.41	<2	4	25
JN11002-088		10	<1	1.08	20	0.84	692	<1	0.05	32	2960	6	0.45	<2	4	59
JN11002-089		10	<1	0.95	20	0.90	615	<1	0.04	35	170	5	0.29	<2	4	29
JN11002-090		10	1	0.99	20	0.91	808	<1	0.05	36	170	5	0.35	<2	5	29
JN11002-091		10	<1	1.05	20	0.90	721	<1	0.05	38	230	5	0.41	<2	4	39
JN11002-092		10	<1	0.88	20	0.79	851	<1	0.05	35	180	7	0.69	<2	4	27
JN11002-093		<10	<1	0.42	20	0.33	1030	1	0.02	27	170	96	1.02	45	3	14
JN11002-094		<10	<1	0.29	40	0.06	190	1	0.02	19	510	308	1.23	101	1	28
JN11002-095		<10	<1	0.35	30	0.37	835	<1	0.01	37	150	60	0.49	18	2	114
JN11002-096		<10	<1	0.39	40	0.18	339	<1	0.01	82	1070	122	0.64	10	2	70
JN11002-097		<10	<1	0.40	30	0.12	428	<1	0.02	26	560	352	1.00	5	2	18
JN11002-098		<10	<1	0.35	40	0.29	1415	1	0.01	52	240	201	1.00	4	4	11
JN11002-099		<10	<1	0.45	40	0.43	992	1	0.01	40	280	45	0.67	<2	4	13
JN11002-100		<10	<1	0.67	40	0.50	997	<1	0.02	34	210	46	0.85	<2	3	11
JN11002-100S		<10	<1	0.16	<10	0.90	873	808	0.05	9	700	44	0.24	55	2	98
JN11002-101		10	<1	0.96	40	0.43	476	2	0.02	48	200	26	0.98	<2	4	27
JN11002-102		<10	1	0.32	50	0.26	493	<1	0.01	42	300	11	0.22	<2	5	14
JN11002-103		<10	<1	0.22	40	0.29	1150	<1	<0.01	43	230	8	0.14	<2	5	10
JN11002-104		<10	<1	0.51	30	0.33	1210	<1	0.01	34	200	112	1.31	2	4	7
JN11002-105		<10	<1	0.41	30	0.37	1385	<1	<0.01	31	210	94	1.06	<2	3	7
JN11002-106		<10	<1	0.52	40	0.31	1220	1	0.01	35	180	40	0.36	2	4	8
JN11002-107		<10	<1	0.21	40	0.13	448	<1	<0.01	34	170	51	0.53	2	1	6
JN11002-108		<10	<1	0.50	20	0.54	1950	<1	0.01	31	2260	14	0.38	<2	5	46
JN11002-109		<10	<1	0.50	20	0.19	1460	<1	<0.01	24	840	32	0.26	7	4	56
JN11002-110		<10	<1	0.52	20	0.51	1300	<1	0.01	27	210	21	0.54	2	3	20
JN11002-111		<10	<1	0.43	20	0.15	834	<1	0.01	28	170	308	1.52	10	2	12
JN11002-112		<10	<1	0.46	30	0.37	1110	<1	<0.01	28	150	31	1.05	<2	3	7
JN11002-113		<10	<1	0.60	30	0.49	1265	<1	0.01	30	140	26	0.95	2	3	10



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44 - 12TH AVENUE SOUTH
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CERTIFICATE OF ANALYSIS WH11191146

Sample Description	Method Analyte Units LOR	ME- ICP41 Th ppm 20	ME- ICP41 Ti % 0.01	ME- ICP41 Ti ppm 10	ME- ICP41 U ppm 10	ME- ICP41 V ppm 1	ME- ICP41 W ppm 10	ME- ICP41 Zn ppm 2
JN11002- 077		20	0.03	<10	<10	24	<10	48
JN11002- 078		20	0.03	<10	<10	23	<10	76
JN11002- 079		20	0.06	<10	<10	31	<10	56
JN11002- 080		20	0.01	<10	<10	22	<10	61
JN11002- 080S		<20	0.01	<10	<10	18	<10	52
JN11002- 080B		<20	0.10	<10	<10	16	<10	19
JN11002- 081		20	0.03	<10	<10	25	<10	140
JN11002- 082		20	0.06	<10	<10	32	<10	99
JN11002- 083		20	0.05	<10	<10	26	<10	63
JN11002- 084		20	0.08	<10	<10	29	<10	94
JN11002- 085		20	0.07	<10	<10	30	<10	54
JN11002- 086		20	0.11	<10	<10	41	<10	59
JN11002- 087		20	0.08	<10	<10	33	<10	81
JN11002- 088		20	0.10	<10	<10	38	<10	49
JN11002- 089		20	0.10	<10	<10	37	<10	65
JN11002- 090		20	0.11	<10	<10	44	<10	84
JN11002- 091		20	0.08	<10	<10	37	<10	71
JN11002- 092		20	0.04	<10	<10	29	<10	64
JN11002- 093		<20	0.02	<10	<10	17	<10	128
JN11002- 094		20	<0.01	<10	<10	5	<10	235
JN11002- 095		20	<0.01	<10	<10	6	<10	124
JN11002- 096		20	<0.01	<10	<10	6	<10	109
JN11002- 097		20	<0.01	<10	<10	8	<10	442
JN11002- 098		20	<0.01	<10	<10	14	<10	299
JN11002- 099		20	0.01	<10	<10	20	<10	134
JN11002- 100		20	0.02	<10	<10	19	<10	110
JN11002- 100S		<20	0.10	<10	<10	31	<10	99
JN11002- 101		20	0.01	<10	<10	24	<10	72
JN11002- 102		30	<0.01	<10	<10	27	<10	17
JN11002- 103		20	<0.01	<10	<10	23	<10	18
JN11002- 104		20	0.01	<10	<10	21	<10	1100
JN11002- 105		20	0.01	<10	<10	16	<10	587
JN11002- 106		20	0.01	<10	<10	16	<10	173
JN11002- 107		20	<0.01	<10	<10	5	<10	87
JN11002- 108		20	0.01	<10	<10	21	10	43
JN11002- 109		20	<0.01	<10	<10	11	<10	85
JN11002- 110		<20	0.01	<10	<10	12	<10	133
JN11002- 111		20	0.01	<10	<10	8	<10	166
JN11002- 112		20	0.01	<10	<10	14	<10	103
JN11002- 113		20	0.01	<10	<10	18	<10	56



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Sample Description	Method Analyte Units LOR	WEI- 21 Recvd Wt. kg	Au- AA23 Au ppm	ME- ICP41 Ag ppm	ME- ICP41 Al %	ME- ICP41 As ppm	ME- ICP41 B ppm	ME- ICP41 Ba ppm	ME- ICP41 Be ppm	ME- ICP41 Bi ppm	ME- ICP41 Ca %	ME- ICP41 Cd ppm	ME- ICP41 Co ppm	ME- ICP41 Cr ppm	ME- ICP41 Cu ppm	ME- ICP41 Fe %
JN11002- 114		2.34	<0.005	0.2	0.80	20	<10	50	0.6	2	0.11	<0.5	12	16	36	2.85
JN11002- 115		2.77	<0.005	0.2	0.93	118	10	40	0.6	<2	0.31	<0.5	9	17	34	3.26
JN11002- 116		2.31	<0.005	0.3	1.09	44	<10	70	0.6	<2	0.15	<0.5	13	20	60	3.26
JN11002- 117		2.27	<0.005	<0.2	1.36	89	<10	80	0.6	3	0.24	<0.5	10	24	43	2.91
JN11002- 118		2.63	<0.005	<0.2	1.03	19	<10	80	0.8	2	0.64	<0.5	12	16	27	2.97
JN11002- 119		2.54	<0.005	<0.2	1.57	10	<10	130	1.0	2	0.27	<0.5	13	28	40	3.69
JN11002- 120		2.56	<0.005	<0.2	1.66	13	<10	140	0.9	<2	0.40	<0.5	14	30	48	3.98
JN11002- 120S		0.05	1.485	33.1	0.38	23	<10	250	<0.5	3	1.26	<0.5	8	29	3110	2.49
JN11002- 120B		0.04	<0.005	<0.2	0.54	2	<10	180	<0.5	<2	0.13	<0.5	2	7	11	1.46
JN11002- 121		2.30	<0.005	<0.2	1.69	16	<10	160	0.9	<2	0.54	<0.5	14	31	78	3.87
JN11002- 122		2.76	<0.005	<0.2	1.09	6	<10	60	0.6	<2	0.27	<0.5	8	22	29	2.75
JN11002- 123		2.97	<0.005	<0.2	2.28	21	<10	130	1.0	2	0.36	<0.5	12	44	20	3.83
JN11002- 124		2.37	<0.005	0.2	1.80	21	10	110	0.8	2	0.30	<0.5	10	34	75	3.16
JN11002- 125		2.57	<0.005	<0.2	1.85	24	10	100	0.7	2	0.30	<0.5	8	45	39	2.73
JN11002- 126		2.16	<0.005	<0.2	2.14	26	10	150	0.8	2	0.36	<0.5	10	38	32	3.04
JN11002- 127		2.45	<0.005	<0.2	2.32	18	<10	130	0.8	<2	0.31	<0.5	14	52	22	3.33
JN11002- 128		3.36	<0.005	<0.2	1.70	23	<10	110	0.8	<2	0.28	<0.5	11	35	26	3.11
JN11002- 129		1.83	<0.005	<0.2	1.13	16	<10	80	1.0	<2	0.31	<0.5	16	22	35	4.12
JN11002- 130		2.30	<0.005	<0.2	1.48	24	<10	90	0.8	<2	0.36	<0.5	15	28	24	2.62
JN11002- 131		2.22	<0.005	0.3	1.47	13	<10	90	0.7	<2	0.86	<0.5	9	35	10	3.09
JN11002- 132		1.92	<0.005	<0.2	2.53	9	<10	160	0.9	2	0.18	<0.5	14	60	17	3.84
JN11002- 133		2.81	<0.005	<0.2	1.86	12	<10	140	0.8	2	0.44	<0.5	13	40	19	3.44
JN11002- 134		2.53	<0.005	0.2	1.67	15	10	130	0.7	2	1.57	0.6	10	24	22	3.18
JN11002- 135		2.68	<0.005	0.2	1.97	13	<10	140	0.9	2	0.71	0.7	11	40	17	3.71
JN11002- 136		1.99	<0.005	<0.2	1.79	8	<10	90	0.8	<2	0.57	<0.5	9	39	17	3.38
JN11002- 137		2.77	<0.005	0.2	1.21	9	<10	60	0.7	<2	0.74	<0.5	7	32	16	2.93
JN11002- 138		2.54	<0.005	<0.2	1.46	21	<10	70	0.6	<2	0.69	<0.5	6	44	10	2.49
JN11002- 139		2.49	<0.005	0.7	1.15	23	10	50	0.6	<2	1.19	2.9	5	28	21	2.59
JN11002- 140		2.77	<0.005	0.4	1.40	56	10	70	0.8	<2	1.03	<0.5	14	25	38	3.37
JN11002- 140S		0.04	3.39	80.2	1.29	96	<10	80	<0.5	7	2.04	<0.5	10	18	763	3.21
JN11002- 141		2.74	<0.005	0.4	1.67	11	<10	70	0.9	<2	0.46	<0.5	10	33	21	3.40
JN11002- 142		2.46	<0.005	<0.2	2.82	9	10	120	1.0	<2	0.56	<0.5	10	56	10	3.40
JN11002- 143		2.67	<0.005	0.4	1.98	12	<10	90	0.8	<2	0.42	<0.5	12	45	20	3.01
JN11002- 144		2.91	<0.005	0.9	1.22	16	10	70	0.6	<2	0.51	2.4	10	13	45	3.01
JN11002- 145		2.50	<0.005	0.5	1.13	20	10	70	0.7	<2	0.91	0.8	11	15	40	3.41
JN11002- 146		2.39	<0.005	0.4	1.77	261	<10	90	0.8	2	0.52	<0.5	13	39	26	3.53
JN11002- 147		2.85	<0.005	0.2	1.42	20	<10	120	0.9	<2	1.09	<0.5	13	25	18	2.96
JN11002- 148		2.91	<0.005	0.2	1.95	19	<10	130	0.9	<2	0.34	<0.5	11	42	24	3.35
JN11002- 149		0.50	<0.005	0.7	1.11	343	<10	90	0.7	<2	0.50	1.6	13	12	71	4.28
JN11002- 150		1.08	0.009	1.3	1.56	4180	10	130	0.7	3	0.10	1.5	21	22	46	3.34



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Sample Description	Method Analyte Units LOR	ME- ICP41 Ga ppm 10	ME- ICP41 Hg ppm 1	ME- ICP41 K % 0.01	ME- ICP41 La ppm 10	ME- ICP41 Mg % 0.01	ME- ICP41 Mn ppm 5	ME- ICP41 Mo ppm 1	ME- ICP41 Na % 0.01	ME- ICP41 Ni ppm 1	ME- ICP41 P ppm 10	ME- ICP41 Pb ppm 2	ME- ICP41 S % 0.01	ME- ICP41 Sb ppm 2	ME- ICP41 Sc ppm 1	ME- ICP41 Sr ppm 1
JN11002-114		<10	<1	0.34	20	0.39	917	<1	<0.01	27	120	11	0.48	<2	2	9
JN11002-115		<10	<1	0.35	20	0.39	1100	1	<0.01	28	930	15	0.70	2	3	14
JN11002-116		<10	<1	0.38	20	0.40	1350	<1	0.01	28	120	7	0.29	<2	3	9
JN11002-117		<10	<1	0.60	20	0.50	887	<1	0.01	26	140	10	0.27	<2	3	19
JN11002-118		<10	<1	0.52	20	0.47	877	<1	0.02	28	190	10	0.39	<2	2	34
JN11002-119		<10	<1	0.66	20	0.52	563	<1	0.03	30	170	4	0.32	<2	3	18
JN11002-120		<10	<1	0.72	20	0.62	659	<1	0.03	33	180	4	0.63	<2	3	18
JN11002-120S		<10	4	0.15	10	0.14	405	316	0.04	17	370	60	1.05	72	1	256
JN11002-120B		<10	<1	0.35	10	0.22	323	1	0.09	1	190	3	0.01	<2	4	9
JN11002-121		10	<1	0.76	20	0.57	615	<1	0.03	30	150	4	0.73	<2	4	20
JN11002-122		<10	<1	0.41	20	0.27	641	4	0.01	27	450	13	0.40	<2	3	11
JN11002-123		10	<1	1.24	20	0.81	525	1	0.05	36	450	5	0.26	<2	5	16
JN11002-124		10	<1	1.08	30	0.69	623	<1	0.04	36	190	16	0.63	<2	3	15
JN11002-125		10	<1	1.13	30	0.80	578	<1	0.06	33	180	5	0.41	<2	5	15
JN11002-126		10	1	1.27	20	0.78	607	<1	0.05	32	880	4	0.38	<2	4	17
JN11002-127		10	<1	1.29	20	0.93	675	5	0.06	38	120	17	0.40	<2	6	14
JN11002-128		<10	<1	0.94	20	0.68	640	<1	0.04	34	150	11	0.56	<2	3	15
JN11002-129		<10	<1	0.43	20	0.37	778	<1	0.02	39	120	2	0.58	<2	3	14
JN11002-130		<10	<1	0.67	20	0.46	640	<1	0.04	37	160	9	0.43	<2	3	18
JN11002-131		<10	<1	0.76	20	0.57	464	<1	0.03	31	2900	23	0.10	<2	4	32
JN11002-132		10	1	1.36	20	0.85	427	<1	0.07	38	160	3	0.10	<2	6	13
JN11002-133		10	<1	1.02	20	0.73	644	<1	0.05	35	170	22	0.42	<2	4	19
JN11002-134		<10	<1	0.84	10	0.74	1915	<1	0.05	32	2330	105	0.83	<2	3	61
JN11002-135		10	<1	1.07	20	0.84	1115	<1	0.06	35	180	70	0.69	<2	5	32
JN11002-136		10	<1	0.97	20	0.81	916	<1	0.06	34	190	14	0.64	<2	5	25
JN11002-137		<10	<1	0.66	10	0.89	719	2	0.06	34	160	19	0.40	<2	5	37
JN11002-138		10	<1	0.88	20	0.94	629	<1	0.09	36	150	7	0.24	<2	6	35
JN11002-139		<10	<1	0.63	10	0.70	1460	1	0.05	29	1390	211	0.92	2	3	39
JN11002-140		<10	<1	0.58	10	0.66	1590	3	0.04	41	430	76	0.97	<2	4	44
JN11002-140S		<10	1	0.16	<10	0.86	853	604	0.07	8	680	39	0.24	59	1	97
JN11002-141		10	<1	0.66	20	0.58	1145	1	0.05	36	140	39	0.87	2	5	20
JN11002-142		10	1	1.34	30	0.99	702	<1	0.16	36	160	14	0.23	2	8	31
JN11002-143		10	<1	1.01	20	0.78	724	<1	0.08	35	160	38	0.49	<2	5	20
JN11002-144		<10	<1	0.58	20	0.37	1685	<1	0.03	36	300	258	1.53	2	2	12
JN11002-145		<10	<1	0.57	10	0.65	2070	<1	0.04	38	270	106	1.33	2	3	39
JN11002-146		10	<1	0.92	20	0.78	1060	2	0.07	38	120	43	0.70	<2	5	22
JN11002-147		<10	<1	0.56	20	0.68	821	1	0.04	36	1720	11	0.27	<2	5	70
JN11002-148		10	<1	1.06	20	0.79	658	<1	0.07	34	170	7	0.31	<2	4	18
JN11002-149		<10	<1	0.57	10	0.54	1435	<1	0.03	37	130	89	1.84	2	2	21
JN11002-150		<10	<1	0.74	20	0.27	875	1	0.03	33	170	346	1.53	6	2	8



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Sample Description	Method Analyte Units LOR	ME- ICP41 Th ppm 20	ME- ICP41 Ti % 0.01	ME- ICP41 Tl ppm 10	ME- ICP41 U ppm 10	ME- ICP41 V ppm 1	ME- ICP41 W ppm 10	ME- ICP41 Zn ppm 2
JN11002- 114		20	0.01	<10	<10	17	<10	31
JN11002- 115		20	0.01	<10	<10	20	<10	38
JN11002- 116		<20	0.01	<10	<10	22	<10	23
JN11002- 117		<20	0.03	<10	<10	25	<10	25
JN11002- 118		<20	0.02	<10	<10	17	<10	42
JN11002- 119		<20	0.04	<10	<10	28	<10	45
JN11002- 120		<20	0.05	<10	<10	31	<10	28
JN11002- 120S		<20	0.01	<10	<10	17	<10	48
JN11002- 120B		<20	0.09	<10	<10	18	<10	19
JN11002- 121		<20	0.06	<10	<10	33	<10	35
JN11002- 122		<20	0.01	<10	<10	17	<10	27
JN11002- 123		20	0.10	<10	<10	44	<10	34
JN11002- 124		20	0.07	<10	<10	33	<10	22
JN11002- 125		<20	0.09	<10	<10	46	<10	32
JN11002- 126		20	0.08	<10	<10	38	<10	27
JN11002- 127		<20	0.11	<10	<10	55	<10	51
JN11002- 128		<20	0.05	<10	<10	30	<10	74
JN11002- 129		<20	0.01	<10	<10	24	<10	31
JN11002- 130		<20	0.03	<10	<10	30	<10	40
JN11002- 131		<20	0.05	<10	<10	34	<10	33
JN11002- 132		<20	0.12	<10	<10	62	<10	48
JN11002- 133		<20	0.06	<10	<10	40	<10	50
JN11002- 134		<20	0.02	<10	<10	24	<10	186
JN11002- 135		<20	0.05	<10	<10	42	<10	185
JN11002- 136		<20	0.05	<10	<10	41	<10	49
JN11002- 137		<20	0.03	<10	<10	35	<10	57
JN11002- 138		<20	0.06	<10	<10	48	<10	41
JN11002- 139		<20	0.02	<10	<10	26	<10	563
JN11002- 140		<20	0.01	<10	<10	27	<10	127
JN11002- 140S		<20	0.09	<10	<10	31	<10	103
JN11002- 141		<20	0.02	<10	<10	37	<10	95
JN11002- 142		20	0.10	<10	<10	63	<10	54
JN11002- 143		<20	0.06	<10	<10	48	<10	66
JN11002- 144		<20	<0.01	<10	<10	13	<10	462
JN11002- 145		<20	0.01	<10	<10	18	<10	191
JN11002- 146		<20	0.05	<10	<10	44	<10	85
JN11002- 147		<20	0.01	<10	<10	31	<10	39
JN11002- 148		<20	0.06	<10	<10	45	<10	44
JN11002- 149		<20	0.01	<10	<10	13	<10	238
JN11002- 150		<20	0.01	<10	<10	19	<10	296



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Account: TELOEX

CERTIFICATE OF ANALYSIS WH11191146

Sample Description	Method Analyte Units LOR	WEI- 21 Recvd Wt kg	Au- AA23 Au ppm	ME- ICP41 Ag ppm	ME- ICP41 Al %	ME- ICP41 As ppm	ME- ICP41 B ppm	ME- ICP41 Ba ppm	ME- ICP41 Be ppm	ME- ICP41 Bi ppm	ME- ICP41 Ca %	ME- ICP41 Cd ppm	ME- ICP41 Co ppm	ME- ICP41 Cr ppm	ME- ICP41 Cu ppm	ME- ICP41 Fe %
JN11002- 151		1.54	<0.005	0.3	1.21	48	<10	60	0.8	<2	0.26	<0.5	15	28	18	4.70
JN11002- 152		1.74	<0.005	0.2	1.82	13	<10	90	0.9	<2	0.34	<0.5	10	37	17	3.29
JN11002- 153		2.38	<0.005	0.4	1.18	17	<10	80	0.8	<2	0.37	0.5	15	19	35	3.61
JN11002- 154		2.37	<0.005	0.2	2.49	16	10	150	0.9	<2	0.13	<0.5	15	28	31	3.08
JN11002- 155		2.51	<0.005	0.5	1.31	38	<10	90	0.8	<2	0.14	2.1	11	20	30	2.95
JN11002- 156		2.56	<0.005	0.2	1.70	68	<10	130	0.8	<2	0.16	0.5	13	21	22	3.30
JN11002- 157		2.49	0.061	0.8	1.34	35	<10	120	0.7	<2	0.43	0.7	14	16	39	3.80
JN11002- 158		3.10	<0.005	0.5	1.50	68	10	140	0.7	<2	0.10	0.9	12	15	51	3.15
JN11002- 159		2.13	<0.005	0.2	1.52	105	<10	140	0.9	<2	0.15	0.5	13	20	32	3.21
JN11002- 160		1.72	<0.005	0.2	1.82	19	<10	140	1.0	<2	0.17	<0.5	17	22	31	3.19
JN11002- 160S		0.04	3.30	78.2	1.35	96	<10	80	<0.5	7	2.08	<0.5	9	18	779	3.27
JN11002- 160B		0.03	<0.005	<0.2	0.53	<2	<10	180	<0.5	<2	0.13	<0.5	2	8	4	1.47
JN11002- 161		1.93	0.019	1.1	1.12	16	<10	80	0.6	2	0.11	<0.5	9	15	136	4.12
JN11002- 162		2.56	<0.005	3.0	1.60	9	10	120	0.7	5	0.14	0.9	9	15	253	4.61
JN11002- 163		1.75	<0.005	0.2	1.20	7	<10	130	0.9	<2	0.22	<0.5	11	15	48	3.61
JN11002- 164		1.86	<0.005	0.8	1.45	9	<10	140	0.8	<2	0.19	<0.5	16	18	157	3.66
JN11002- 165		2.63	<0.005	0.5	1.34	7	<10	140	0.8	<2	0.40	0.9	12	18	58	4.03
JN11002- 166		2.35	<0.005	1.1	1.67	12	10	160	0.9	5	0.17	<0.5	12	19	324	4.40
JN11002- 167		1.12	0.013	2.6	1.69	6250	10	150	0.8	25	0.98	<0.5	11	18	601	4.80
JN11002- 168		2.07	<0.005	0.3	1.67	222	<10	140	0.9	<2	0.18	<0.5	12	27	70	3.85
JN11002- 169		2.37	<0.005	0.2	1.49	17	<10	130	0.9	<2	0.14	<0.5	15	23	71	3.39
JN11002- 170		0.40	0.021	3.1	1.34	5240	<10	40	0.6	52	0.11	<0.5	10	20	582	3.51
JN11002- 171		2.91	<0.005	0.2	1.21	17	<10	90	0.7	3	0.16	<0.5	12	21	22	3.94
JN11002- 172		1.48	0.017	0.3	1.40	1930	<10	60	0.8	6	0.12	<0.5	13	24	65	3.16
JN11002- 173		1.01	<0.005	<0.2	1.42	446	<10	50	0.9	3	0.19	<0.5	13	22	9	3.68
JN11002- 174		2.23	0.014	0.2	1.49	20	<10	90	0.8	<2	0.33	<0.5	12	19	25	3.90
JN11002- 175		2.48	<0.005	0.2	1.16	9	<10	70	0.7	2	0.14	<0.5	11	18	32	3.31
JN11002- 176		2.36	<0.005	<0.2	1.81	11	<10	100	0.9	2	0.15	<0.5	15	30	23	3.70
JN11002- 177		1.79	0.069	0.2	1.25	62	<10	100	0.6	2	0.37	<0.5	16	16	27	3.58
JN11002- 178		2.61	0.035	0.2	1.60	11	<10	110	0.7	<2	0.05	1.1	14	18	39	2.74
JN11002- 179		2.22	<0.005	<0.2	1.94	11	<10	120	1.0	<2	0.11	<0.5	11	25	23	3.80
JN11002- 180		1.32	0.011	0.3	1.10	131	<10	100	0.8	3	0.12	0.9	13	19	44	4.57
JN11002- 180S		0.03	3.51	80.8	1.36	99	<10	80	<0.5	8	2.02	<0.5	9	18	788	3.26
JN11002- 181		0.98	0.039	0.5	0.94	89	20	30	0.6	16	0.10	<0.5	5	6	32	5.94
JN11002- 182		0.71	0.012	<0.2	0.77	14	10	30	0.6	74	0.11	<0.5	7	11	16	2.65
JN11002- 183		1.47	0.018	<0.2	0.88	12	10	50	0.6	38	0.11	<0.5	9	11	27	3.27
JN11002- 184		2.42	<0.005	<0.2	1.09	15	10	60	0.7	2	0.09	<0.5	11	16	30	4.05
JN11002- 185		0.99	<0.005	<0.2	1.82	14	10	130	0.8	<2	0.34	<0.5	17	20	69	4.16
JN11002- 186		0.86	<0.005	<0.2	0.92	11	10	50	0.6	<2	0.39	<0.5	14	15	77	3.55
JN11002- 187		1.44	<0.005	<0.2	1.04	12	10	60	0.7	<2	0.11	<0.5	10	13	32	3.45



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CERTIFICATE OF ANALYSIS WH11191146

Sample Description	Method Analyte Units LOR	ME- ICP41 Ga ppm 10	ME- ICP41 Hg ppm 1	ME- ICP41 K % 0.01	ME- ICP41 La ppm 10	ME- ICP41 Mg % 0.01	ME- ICP41 Mn ppm 5	ME- ICP41 Mo ppm 1	ME- ICP41 Na % 0.01	ME- ICP41 Ni ppm 1	ME- ICP41 P ppm 10	ME- ICP41 Pb ppm 2	ME- ICP41 S % 0.01	ME- ICP41 Sb ppm 2	ME- ICP41 Sc ppm 1	ME- ICP41 Sr ppm 1
JN11002- 151		<10	<1	0.36	20	0.39	1600	<1	0.03	44	170	7	0.28	<2	5	12
JN11002- 152		10	<1	0.73	20	0.55	888	2	0.05	36	160	20	0.38	<2	5	17
JN11002- 153		<10	<1	0.52	10	0.40	1075	1	0.03	42	850	80	1.09	<2	3	12
JN11002- 154		10	<1	0.79	20	0.31	948	2	0.04	38	160	22	0.91	2	4	10
JN11002- 155		<10	<1	0.48	20	0.29	1025	1	0.03	36	200	83	0.67	<2	3	10
JN11002- 156		<10	<1	0.53	20	0.32	1025	<1	0.04	39	160	19	0.72	<2	4	10
JN11002- 157		<10	<1	0.55	10	0.47	1215	<1	0.04	35	1560	59	1.25	7	3	19
JN11002- 158		<10	<1	0.76	20	0.35	1005	<1	0.04	35	200	88	1.07	2	2	10
JN11002- 159		<10	<1	0.56	20	0.24	1060	<1	0.04	32	200	25	0.53	<2	3	14
JN11002- 160		<10	<1	0.60	20	0.27	1085	<1	0.04	36	250	34	0.51	<2	3	14
JN11002- 160S		<10	<1	0.16	<10	0.88	870	645	0.07	9	690	40	0.24	59	1	102
JN11002- 160B		<10	<1	0.33	10	0.22	324	1	0.11	<1	180	3	0.01	<2	4	11
JN11002- 161		<10	<1	0.53	10	0.30	915	2	0.03	34	170	94	2.21	4	2	9
JN11002- 162		<10	<1	0.80	30	0.25	1080	29	0.04	36	260	208	2.82	2	2	10
JN11002- 163		<10	<1	0.50	20	0.20	1170	<1	0.04	29	230	6	0.53	3	2	16
JN11002- 164		<10	<1	0.56	20	0.20	960	1	0.04	36	310	24	1.09	2	2	14
JN11002- 165		<10	<1	0.55	20	0.18	1080	<1	0.04	34	1230	55	1.29	<2	2	25
JN11002- 166		<10	<1	0.75	20	0.29	1135	<1	0.04	41	180	24	1.75	<2	2	16
JN11002- 167		<10	<1	0.75	20	0.29	816	<1	0.04	40	4060	24	2.21	5	2	33
JN11002- 168		<10	<1	0.64	20	0.38	1015	<1	0.04	35	140	5	0.49	<2	3	15
JN11002- 169		<10	<1	0.51	20	0.33	856	<1	0.03	39	190	5	0.57	2	3	14
JN11002- 170		<10	<1	0.35	20	0.29	673	2	0.02	35	140	45	0.84	6	3	7
JN11002- 171		<10	<1	0.39	20	0.36	1105	<1	0.02	40	160	6	0.73	<2	4	10
JN11002- 172		<10	<1	0.41	20	0.29	607	3	0.02	37	210	14	0.89	3	4	11
JN11002- 173		<10	<1	0.36	30	0.38	880	<1	0.02	49	200	5	0.13	2	5	20
JN11002- 174		10	<1	0.48	20	0.39	846	<1	0.02	44	1050	37	1.19	4	4	14
JN11002- 175		<10	<1	0.36	20	0.28	827	<1	0.02	31	280	30	0.95	<2	3	12
JN11002- 176		10	<1	0.47	20	0.36	1275	<1	0.02	41	150	29	0.22	2	5	11
JN11002- 177		10	<1	0.45	10	0.17	726	<1	0.02	39	1550	35	2.55	23	3	14
JN11002- 178		10	<1	0.56	20	0.15	524	<1	0.02	34	130	76	2.12	15	3	7
JN11002- 179		10	<1	0.56	20	0.41	1540	<1	0.02	34	150	13	1.10	4	4	10
JN11002- 180		<10	<1	0.46	10	0.42	1135	<1	0.02	43	240	40	1.85	5	3	16
JN11002- 180S		<10	1	0.16	<10	0.89	848	827	0.05	9	710	40	0.25	58	1	95
JN11002- 181		<10	1	0.25	10	0.11	196	4	0.02	14	300	20	5.48	10	2	37
JN11002- 182		<10	<1	0.30	20	0.23	488	5	0.01	24	250	5	0.13	2	5	21
JN11002- 183		<10	<1	0.38	20	0.38	504	5	0.02	27	210	6	0.27	<2	4	26
JN11002- 184		<10	<1	0.45	10	0.80	497	<1	0.02	35	120	13	0.67	2	4	14
JN11002- 185		10	<1	0.69	20	0.62	417	<1	0.03	49	1310	10	0.90	<2	4	15
JN11002- 186		<10	<1	0.35	20	0.39	553	1	0.02	37	1440	9	0.66	2	5	29
JN11002- 187		<10	<1	0.45	20	0.48	443	<1	0.02	32	190	5	0.48	<2	4	11



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CERTIFICATE OF ANALYSIS WH11191146

Sample Description	Method Analyte Units LOR	ME- ICP41 Th ppm 20	ME- ICP41 Ti % 0.01	ME- ICP41 Ti ppm 10	ME- ICP41 U ppm 10	ME- ICP41 V ppm 1	ME- ICP41 W ppm 10	ME- ICP41 Zn ppm 2
JN11002- 151		<20	<0.01	<10	<10	36	<10	45
JN11002- 152		<20	0.03	<10	<10	42	<10	56
JN11002- 153		<20	0.01	<10	<10	21	<10	139
JN11002- 154		<20	0.01	<10	<10	32	<10	58
JN11002- 155		<20	<0.01	<10	<10	24	<10	338
JN11002- 156		<20	0.01	<10	<10	27	<10	108
JN11002- 157		<20	0.01	<10	<10	18	<10	140
JN11002- 158		<20	0.01	<10	<10	16	<10	174
JN11002- 159		<20	0.01	<10	<10	25	<10	104
JN11002- 160		<20	0.01	<10	<10	26	<10	70
JN11002- 160S		<20	0.10	<10	<10	32	<10	103
JN11002- 160B		<20	0.09	<10	<10	16	<10	21
JN11002- 161		<20	0.01	<10	<10	17	<10	68
JN11002- 162		<20	0.01	<10	<10	16	<10	138
JN11002- 163		<20	0.01	<10	<10	17	<10	52
JN11002- 164		<20	0.01	<10	<10	17	<10	51
JN11002- 165		<20	0.01	<10	<10	18	<10	183
JN11002- 166		<20	0.01	<10	<10	22	<10	46
JN11002- 167		<20	0.01	<10	<10	21	<10	49
JN11002- 168		<20	0.01	<10	<10	31	<10	48
JN11002- 169		<20	0.01	<10	<10	28	<10	49
JN11002- 170		<20	<0.01	<10	<10	21	<10	61
JN11002- 171		<20	<0.01	<10	<10	29	<10	53
JN11002- 172		<20	<0.01	<10	<10	32	<10	49
JN11002- 173		20	<0.01	<10	<10	32	<10	48
JN11002- 174		<20	<0.01	<10	<10	25	<10	101
JN11002- 175		<20	<0.01	<10	<10	27	<10	63
JN11002- 176		<20	<0.01	<10	<10	38	<10	86
JN11002- 177		<20	<0.01	<10	<10	20	<10	83
JN11002- 178		<20	<0.01	<10	<10	22	<10	178
JN11002- 179		<20	<0.01	<10	<10	31	<10	63
JN11002- 180		<20	<0.01	<10	<10	24	<10	179
JN11002- 180S		<20	0.09	<10	<10	30	<10	100
JN11002- 181		<20	<0.01	<10	<10	8	<10	32
JN11002- 182		<20	<0.01	<10	<10	10	<10	29
JN11002- 183		<20	<0.01	<10	<10	12	<10	40
JN11002- 184		<20	<0.01	<10	<10	17	<10	68
JN11002- 185		<20	0.01	<10	<10	20	<10	48
JN11002- 186		<20	<0.01	<10	<10	16	<10	62
JN11002- 187		<20	<0.01	<10	<10	14	<10	48



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CERTIFICATE OF ANALYSIS WH11191146

Sample Description	Method Analyte Units LOR	WEI- 21 Recvd Wt. kg 0.02	Au- AA23 Au ppm 0.005	ME- ICP41 Ag ppm 0.2	ME- ICP41 Al % 0.01	ME- ICP41 As ppm 2	ME- ICP41 B ppm 10	ME- ICP41 Ba ppm 10	ME- ICP41 Be ppm 0.5	ME- ICP41 Bi ppm 2	ME- ICP41 Ca % 0.01	ME- ICP41 Cd ppm 0.5	ME- ICP41 Co ppm 1	ME- ICP41 Cr ppm 1	ME- ICP41 Cu ppm 1	ME- ICP41 Fe % 0.01
JN11002- 188		2.28	<0.005	<0.2	0.95	13	<10	40	0.6	2	0.17	<0.5	11	11	15	2.24



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CERTIFICATE OF ANALYSIS WH11191146

Sample Description	Method Analyte Units LOR	ME- ICP41 Ga ppm 10	ME- ICP41 Hg ppm 1	ME- ICP41 K % 0.01	ME- ICP41 La ppm 10	ME- ICP41 Mg % 0.01	ME- ICP41 Mn ppm 5	ME- ICP41 Mo ppm 1	ME- ICP41 Na % 0.01	ME- ICP41 Ni ppm 1	ME- ICP41 P ppm 10	ME- ICP41 Pb ppm 2	ME- ICP41 S % 0.01	ME- ICP41 Sb ppm 2	ME- ICP41 Sc ppm 1	ME- ICP41 Sr ppm 1
JN11002- 188		<10	<1	0.35	30	0.19	575	<1	0.01	33	550	4	0.07	<2	5	11



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CERTIFICATE OF ANALYSIS WH11191146

Sample Description	Method Analyte Units LOR	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41
		Th	Ti	Ti	U	V	W	Zn
		ppm	%	ppm	ppm	ppm	ppm	ppm
		20	0.01	10	10	1	10	2
JN11002- 188		20	<0.01	<10	<10	12	<10	33



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QC CERTIFICATE WH11191146

Project:

P.O. No.: JN11- 002

This report is for 201 Drill Core samples submitted to our lab in Whitehorse, YT, Canada on 19- SEP- 2011.

The following have access to data associated with this certificate:

JESSE CAMPBELL

CHRIS GALLAGHER

SAMPLE PREPARATION

ALS CODE	DESCRIPTION
WEI- 21	Received Sample Weight
LOG- 22	Sample login - Rcd w/o BarCode
SPL- 22Y	Split Sample - Boyd Rotary Splitter
BAG- 01	Bulk Master for Storage
LOG- 24	Pulp Login - Rcd w/o Barcode
CRU- QC	Crushing QC Test
PUL- QC	Pulverizing QC Test
CRU- 31	Fine crushing - 70% <2mm
PUL- 32m	Pulverize 500g - 85%<75um

ANALYTICAL PROCEDURES

ALS CODE	DESCRIPTION	INSTRUMENT
Au- AA23	Au 30g FA- AA finish	AAS
ME- ICP41	35 Element Aqua Regia ICP- AES	ICP- AES

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SUITE 200
CRANBROOK BC V1C 2R7

This is the Final Report and supersedes any preliminary report with this certificate number. Results apply to samples as submitted. All pages of this report have been checked and approved for release.

Signature:

Colin Ramshaw, Vancouver Laboratory Manager



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To: TERRALOGIC EXPLORATION SERVICES INC.

44 - 12TH AVENUE SOUTH

SUITE 200

CRANBROOK BC V1C 2R7

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Finalized Date: 7- DEC- 2011

Account: TELOEX

QC CERTIFICATE OF ANALYSIS WH11191146

Sample Description	Method Analyte Units LOR	Au- AA23 Au ppm 0.005	ME- ICP41 Ag ppm 0.2	ME- ICP41 Al % 0.01	ME- ICP41 As ppm 2	ME- ICP41 B ppm 10	ME- ICP41 Ba ppm 10	ME- ICP41 Be ppm 0.5	ME- ICP41 Bi ppm 2	ME- ICP41 Ca % 0.01	ME- ICP41 Cd ppm 0.5	ME- ICP41 Co ppm 1	ME- ICP41 Cr ppm 1	ME- ICP41 Cu ppm 1	ME- ICP41 Fe % 0.01	ME- ICP41 Ga ppm 10
STANDARDS																
GBM908- 10			2.8	0.93	51	<10	100	<0.5	<2	0.64	1.5	14	21	3660	2.65	<10
GBM908- 10			3.2	0.96	62	<10	100	<0.5	<2	0.70	1.7	14	24	3620	2.77	<10
GBM908- 10			3.1	1.03	61	<10	120	<0.5	<2	0.73	1.4	13	24	3730	2.86	<10
GBM908- 10			3.0	0.92	58	<10	100	<0.5	2	0.64	1.6	14	22	3530	2.80	<10
GBM908- 10			2.6	0.91	56	<10	70	<0.5	<2	0.63	1.4	14	21	3520	2.52	<10
GBM908- 10			2.9	0.98	53	<10	100	<0.5	<2	0.69	1.6	13	22	3410	2.64	<10
GBM908- 10			3.0	1.00	60	<10	110	<0.5	<2	0.73	1.7	13	23	3700	2.82	<10
Target Range - Lower Bound			2.5	0.91	48	<10	70	<0.5	<2	0.62	0.7	12	20	3270	2.36	<10
Upper Bound			3.6	1.13	83	20	130	1.0	6	0.78	2.9	18	26	3990	2.91	20
GBM908- 5			60.6	1.16	5	<10	200	<0.5	2	0.71	<0.5	11	19	526	2.42	<10
GBM908- 5			60.4	1.18	10	<10	200	<0.5	3	0.75	<0.5	9	19	515	2.47	<10
GBM908- 5			59.5	1.12	9	<10	190	<0.5	<2	0.69	<0.5	9	18	496	2.43	<10
GBM908- 5			61.8	1.20	9	<10	190	<0.5	<2	0.74	<0.5	10	19	518	2.48	10
GBM908- 5			61.3	1.20	5	<10	210	<0.5	<2	0.75	<0.5	9	19	504	2.51	10
Target Range - Lower Bound			51.8	0.98	3	<10	150	<0.5	<2	0.63	<0.5	8	15	447	2.13	<10
Upper Bound			63.8	1.22	11	30	230	1.4	8	0.79	1.5	13	20	549	2.82	30
MRGeo08			4.3	2.72	29	<10	410	0.7	2	1.07	2.0	17	88	634	3.56	10
MRGeo08			4.9	2.71	35	<10	430	0.8	2	1.13	2.2	18	93	629	3.63	10
MRGeo08			4.5	2.72	34	<10	450	0.8	<2	1.12	1.7	18	94	632	3.63	10
MRGeo08			4.5	2.64	34	<10	420	0.7	2	1.03	2.0	17	89	623	3.53	10
MRGeo08			4.3	2.74	30	<10	390	0.8	<2	1.06	1.8	17	89	633	3.57	10
MRGeo08			4.4	2.86	34	<10	420	0.8	<2	1.11	2.1	17	89	598	3.50	10
MRGeo08			4.4	2.76	36	<10	430	0.8	<2	1.14	2.1	18	93	635	3.56	10
Target Range - Lower Bound			3.7	2.53	27	<10	380	<0.5	<2	1.00	1.1	17	84	587	3.38	<10
Upper Bound			5.0	3.11	38	30	510	1.8	6	1.24	3.4	22	104	895	4.15	30
OGGeo08			21.5	2.26	128	<10	100	0.7	<2	0.91	20.1	101	88	9110	5.24	<10
OGGeo08			20.3	2.32	120	<10	150	0.7	4	0.95	19.0	94	84	8470	5.25	<10
OGGeo08			20.0	2.27	120	<10	170	0.7	12	0.93	18.5	91	83	8350	5.13	<10
OGGeo08			20.5	2.38	125	<10	70	0.7	6	0.90	19.0	93	82	8670	5.18	10
OGGeo08			20.6	2.29	125	<10	70	0.7	2	0.93	18.7	95	85	8720	5.15	10
Target Range - Lower Bound			18.0	2.10	107	<10	50	<0.5	6	0.82	17.0	89	75	7550	4.81	<10
Upper Bound			22.4	2.59	135	30	110	1.8	18	1.02	21.8	111	93	9230	5.91	30



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QC CERTIFICATE OF ANALYSIS WH11191146

Sample Description	Method Analyte Units LOR	ME- ICP41 Hg ppm 1	ME- ICP41 K % 0.01	ME- ICP41 La ppm 10	ME- ICP41 Mg % 0.01	ME- ICP41 Mn ppm 5	ME- ICP41 Mo ppm 1	ME- ICP41 Na % 0.01	ME- ICP41 Ni ppm 1	ME- ICP41 P ppm 10	ME- ICP41 Pb ppm 2	ME- ICP41 S % 0.01	ME- ICP41 Sb ppm 2	ME- ICP41 Sc ppm 1	ME- ICP41 Sr ppm 1	ME- ICP41 Th ppm 20
STANDARDS																
GBM908- 10		<1	0.41	40	0.51	287	66	0.12	2170	820	1970	0.38	<2	2	34	20
GBM908- 10		<1	0.41	40	0.54	307	60	0.14	2200	870	2030	0.41	3	2	37	20
GBM908- 10		<1	0.44	50	0.56	315	70	0.14	2380	900	2080	0.40	2	2	38	20
GBM908- 10		<1	0.40	40	0.51	280	63	0.12	2130	850	1970	0.38	<2	2	34	20
GBM908- 10		<1	0.40	40	0.49	268	61	0.11	2090	790	1850	0.39	2	2	34	20
GBM908- 10		<1	0.41	40	0.53	294	63	0.12	2100	810	1925	0.38	3	2	36	20
GBM908- 10		<1	0.44	40	0.55	308	70	0.13	2210	780	2040	0.39	<2	2	40	20
Target Range - Lower Bound		<1	0.35	20	0.44	266	57	0.11	2030	740	1880	0.37	<2	<1	34	<20
Upper Bound		2	0.45	60	0.56	336	72	0.17	2480	920	2280	0.47	6	4	44	60
GBM908- 5		<1	0.84	100	0.78	359	54	0.04	411	1300	386	0.19	<2	1	56	40
GBM908- 5		<1	0.86	100	0.79	367	54	0.03	425	1320	376	0.18	<2	1	57	40
GBM908- 5		<1	0.85	100	0.77	353	52	0.03	392	1280	365	0.17	<2	1	49	40
GBM908- 5		<1	0.85	100	0.80	366	56	0.04	440	1330	372	0.19	2	1	56	40
GBM908- 5		1	0.86	100	0.82	373	55	0.04	417	1330	377	0.19	<2	1	59	40
Target Range - Lower Bound		<1	0.73	80	0.88	316	49	<0.01	376	1140	338	0.14	<2	<1	49	<20
Upper Bound		3	0.91	130	0.86	386	62	0.05	481	1410	418	0.20	8	4	62	80
MRGeo08		<1	1.22	30	1.12	401	14	0.33	653	990	894	0.32	4	7	85	20
MRGeo08		<1	1.24	30	1.16	424	14	0.37	668	1020	1020	0.33	5	7	90	20
MRGeo08		1	1.30	30	1.20	438	14	0.35	688	1050	1040	0.33	4	7	85	20
MRGeo08		1	1.21	30	1.14	399	14	0.32	653	1020	999	0.32	2	7	82	20
MRGeo08		1	1.23	30	1.14	402	13	0.34	639	990	998	0.34	4	7	87	20
MRGeo08		<1	1.22	30	1.16	412	13	0.34	643	960	988	0.32	4	7	84	20
MRGeo08		<1	1.29	30	1.16	422	13	0.36	664	980	1010	0.31	2	7	89	20
Target Range - Lower Bound		<1	1.17	<10	1.09	398	12	0.31	617	870	934	0.29	<2	6	75	<20
Upper Bound		3	1.45	60	1.36	498	17	0.40	757	1080	1145	0.37	7	10	93	60
OGGeo08		1	1.07	30	0.96	416	986	0.31	9200	850	7630	3.11	27	6	68	20
OGGeo08		1	1.07	30	0.98	411	923	0.30	8100	830	7090	2.90	23	6	67	<20
OGGeo08		1	1.06	30	0.96	404	896	0.29	7790	800	6890	2.83	21	6	66	<20
OGGeo08		1	1.07	30	0.97	401	920	0.30	8370	840	6940	2.96	24	6	67	20
OGGeo08		2	1.11	30	1.01	414	935	0.31	8650	850	7120	2.95	23	6	68	20
Target Range - Lower Bound		<1	0.97	<10	0.91	369	841	0.28	7820	700	8270	2.58	15	4	61	<20
Upper Bound		3	1.21	50	1.14	463	1030	0.36	9310	880	7670	3.18	28	9	77	60



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QC CERTIFICATE OF ANALYSIS WH11191146

Sample Description	Method Analyte Units LOR	ME- ICP41 Ti %	ME- ICP41 Ti ppm	ME- ICP41 U ppm	ME- ICP41 V ppm	ME- ICP41 W ppm	ME- ICP41 Zn ppm
STANDARDS							
GBM908- 10		0.30	<10	<10	46	<10	1030
GBM908- 10		0.31	<10	<10	49	<10	1050
GBM908- 10		0.33	<10	<10	50	<10	1060
GBM908- 10		0.30	<10	<10	45	<10	964
GBM908- 10		0.30	<10	<10	47	<10	975
GBM908- 10		0.31	<10	<10	48	<10	980
GBM908- 10		0.32	<10	<10	50	10	1030
Target Range - Lower Bound		0.28	<10	<10	41	<10	939
Upper Bound		0.38	20	20	53	20	1155
GBM908- 5		0.17	<10	<10	27	<10	241
GBM908- 5		0.17	<10	<10	28	<10	240
GBM908- 5		0.16	<10	<10	26	<10	229
GBM908- 5		0.17	<10	<10	27	<10	242
GBM908- 5		0.17	<10	<10	28	<10	239
Target Range - Lower Bound		0.14	<10	<10	22	<10	207
Upper Bound		0.20	30	30	30	30	257
MRGeo08		0.38	<10	<10	98	<10	763
MRGeo08		0.38	<10	<10	103	<10	821
MRGeo08		0.39	<10	<10	104	<10	810
MRGeo08		0.37	<10	<10	99	<10	774
MRGeo08		0.38	<10	<10	100	10	778
MRGeo08		0.38	<10	<10	100	<10	773
MRGeo08		0.38	<10	<10	105	<10	810
Target Range - Lower Bound		0.35	<10	<10	93	<10	701
Upper Bound		0.44	30	30	115	30	881
OGGeo08		0.33	<10	<10	86	<10	7700
OGGeo08		0.31	<10	<10	83	<10	6840
OGGeo08		0.31	<10	<10	82	<10	6670
OGGeo08		0.32	<10	<10	81	10	6640
OGGeo08		0.32	<10	<10	85	10	7160
Target Range - Lower Bound		0.28	<10	<10	73	<10	6390
Upper Bound		0.37	20	30	92	20	7820

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QC CERTIFICATE OF ANALYSIS WH11191146

Sample Description	Method Analyte Units LOR	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41
		Ti	Ti	U	V	W	Zn
		%	ppm	ppm	ppm	ppm	ppm
		0.01	10	10	1	10	2
STANDARDS							
OREAS 65a							
Target Range - Lower Bound							
Upper Bound							
OREAS- 16b							
OREAS- 16b							
OREAS- 16b							
OREAS- 16b							
OREAS- 16b							
OREAS- 16b							
Target Range - Lower Bound							
Upper Bound							
OxC88							
OxC88							
OxC88							
OxC88							
OxC88							
OxC88							
OxC88							
Target Range - Lower Bound							
Upper Bound							
OxL78							
Target Range - Lower Bound							
Upper Bound							
BLANKS							
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Target Range - Lower Bound							
Upper Bound							

	Method Analyte Units LOR	Au- AA23 Au ppm 0.005	ME- ICP41 Ag ppm 0.2	ME- ICP41 Al % 0.01	ME- ICP41 As ppm 2	ME- ICP41 B ppm 10	ME- ICP41 Ba ppm 10	ME- ICP41 Be ppm 0.5	ME- ICP41 Bi ppm 2	ME- ICP41 Ca % 0.01	ME- ICP41 Cd ppm 0.5	ME- ICP41 Co ppm 1	ME- ICP41 Cr ppm 1	ME- ICP41 Cu ppm 1	ME- ICP41 Fe % 0.01	ME- ICP41 Ga ppm 10
Sample Description																
		BLANKS														
BLANK			<0.2	<0.01	<2	<10	<10	<0.5	2	<0.01	<0.5	<1	<1	<1	<0.01	<10
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BLANK			<0.2	<0.01	<2	<10	<10	<0.5	<2	<0.01	<0.5	<1	<1	<1	<0.01	<10
BLANK			<0.2	<0.01	<2	<10	<10	<0.5	<2	<0.01	<0.5	<1	<1	<1	<0.01	<10
BLANK			<0.2	<0.01	<2	<10	<10	<0.5	<2	<0.01	<0.5	<1	<1	<1	<0.01	<10
BLANK			<0.2	<0.01	<2	<10	<10	<0.5	<2	<0.01	<0.5	<1	<1	<1	<0.01	<10
BLANK			<0.2	<0.01	<2	<10	<10	<0.5	<2	<0.01	<0.5	<1	<1	<1	<0.01	<10
Target Range - Lower Bound			<0.2	<0.01	<2	<10	<10	<0.5	<2	<0.01	<0.5	<1	<1	<1	<0.01	<10
Upper Bound			0.4	0.02	4	20	20	1.0	4	0.02	1.0	2	2	2	0.02	20
		DUPLICATES														
ORIGINAL		<0.005														
DUP		<0.005														
Target Range - Lower Bound		<0.005														
Upper Bound		0.010														
ORIGINAL		0.051														
DUP		0.050														
Target Range - Lower Bound		0.043														
Upper Bound		0.058														
ORIGINAL		0.015														
DUP		0.019														
Target Range - Lower Bound		0.011														
Upper Bound		0.023														
ORIGINAL		0.020														
DUP		0.020														
Target Range - Lower Bound		0.014														
Upper Bound		0.026														



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Sample Description	Method Analyte Units LOR	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41
		Ti	Ti	U	V	W	Zn
		%	ppm	ppm	ppm	ppm	ppm
		0.01	10	10	1	10	2
BLANKS							
BLANK		<0.01	<10	<10	<1	<10	<2
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BLANK		<0.01	<10	<10	<1	<10	<2
BLANK		<0.01	<10	<10	<1	<10	<2
Target Range - Lower Bound		<0.01	<10	<10	<1	<10	<2
Upper Bound		0.02	20	20	2	20	4
DUPLICATES							
ORIGINAL							
DUP							
Target Range - Lower Bound							
Upper Bound							
ORIGINAL							
DUP							
Target Range - Lower Bound							
Upper Bound							
ORIGINAL							
DUP							
Target Range - Lower Bound							
Upper Bound							



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Sample Description	Method Analyte Units LOR	ME- ICP41 Ti %	ME- ICP41 Ti ppm	ME- ICP41 U ppm	ME- ICP41 V ppm	ME- ICP41 W ppm	ME- ICP41 Zn ppm
		0.01	10	10	1	10	2
DUPLICATES							
ORIGINAL		0.07	<10	<10	31	<10	92
DUP		0.07	<10	<10	30	<10	89
Target Range - Lower Bound		0.08	<10	<10	28	<10	84
Upper Bound		0.08	20	20	33	20	97
ORIGINAL							
DUP							
Target Range - Lower Bound							
Upper Bound							
ORIGINAL							
DUP							
Target Range - Lower Bound							
Upper Bound							
ORIGINAL							
DUP							
Target Range - Lower Bound							
Upper Bound							
ORIGINAL							
DUP							
Target Range - Lower Bound							
Upper Bound							
ORIGINAL		<0.01	<10	<10	12	<10	55
DUP		0.01	<10	<10	12	<10	55
Target Range - Lower Bound		<0.01	<10	<10	10	<10	50
Upper Bound		0.02	20	20	14	20	60
JN11002- 011		0.07	<10	<10	31	<10	65
DUP		0.07	<10	<10	32	<10	68
Target Range - Lower Bound		0.08	<10	<10	29	<10	81
Upper Bound		0.08	20	20	34	20	72
JN11002- 023							
DUP							
Target Range - Lower Bound							
Upper Bound							



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Sample Description	Method Analyte Units LOR	ME- ICP41 Hg ppm 1	ME- ICP41 K % 0.01	ME- ICP41 La ppm 10	ME- ICP41 Mg % 0.01	ME- ICP41 Mn ppm 5	ME- ICP41 Mo ppm 1	ME- ICP41 Na % 0.01	ME- ICP41 Ni ppm 1	ME- ICP41 P ppm 10	ME- ICP41 Pb ppm 2	ME- ICP41 S % 0.01	ME- ICP41 Sb ppm 2	ME- ICP41 Sc ppm 1	ME- ICP41 Sr ppm 1	ME- ICP41 Th ppm 20
JN11002- 041 DUP Target Range - Lower Bound Upper Bound		DUPLICATES														
JN11002- 044 DUP Target Range - Lower Bound Upper Bound		<1 <1 <1 2	0.45 0.43 0.41 0.47	10 10 10 20	1.40 1.39 1.32 1.47	2510 2490 2370 2630	<1 <1 <1 2	0.05 0.05 0.04 0.08	81 82 76 87	280 280 280 300	100 100 93 107	0.42 0.42 0.39 0.45	2 2 2 4	13 13 11 15	101 99 94 106	<20 <20 40 40
JN11002- 052 DUP Target Range - Lower Bound Upper Bound		<1 <1 <1 2	0.39 0.49 0.41 0.47	20 20 10 30	0.57 0.59 0.54 0.62	1090 1670 1305 1466	<1 <1 <1 2	0.02 0.03 0.01 0.04	25 27 24 28	150 160 140 170	63 18 36 45	0.94 0.93 0.88 0.99	4 2 2 4	2 2 1 3	34 59 43 60	20 20 20 40
JN11002- 074 DUP Target Range - Lower Bound Upper Bound		<1 <1 <1 2	0.58 0.58 0.64 0.62	20 20 10 30	0.88 0.87 0.82 0.93	680 671 637 714	<1 <1 <1 2	0.05 0.05 0.04 0.06	34 33 31 36	1420 1400 1330 1490	4 5 2 7	0.27 0.26 0.24 0.29	<2 2 2 4	4 4 3 5	44 44 41 47	20 20 20 40
JN11002- 096 DUP Target Range - Lower Bound Upper Bound																
JN11002- 112 DUP Target Range - Lower Bound Upper Bound		<1 <1 <1 2	0.46 0.49 0.44 0.61	30 30 20 40	0.37 0.39 0.36 0.41	1110 1135 1080 1185	<1 <1 <1 2	<0.01 0.01 0.01 0.02	28 28 28 30	150 150 130 170	31 33 28 36	1.05 1.07 1.00 1.12	<2 2 2 4	3 3 2 4	7 7 6 8	20 20 20 40
JN11002- 115 DUP Target Range - Lower Bound Upper Bound																
JN11002- 133 DUP Target Range - Lower Bound Upper Bound																



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QC CERTIFICATE OF ANALYSIS WH11191146

Sample Description	Method Analyte Units LOR	ME- ICP41 Ti %	ME- ICP41 Ti ppm	ME- ICP41 U ppm	ME- ICP41 V ppm	ME- ICP41 W ppm	ME- ICP41 Zn ppm
		0.01	10	10	1	10	2
JN11002- 041 DUP Target Range - Lower Bound Upper Bound		DUPLICATES					
JN11002- 044 DUP Target Range - Lower Bound Upper Bound		0.02 0.02 <0.01 0.03	<10 <10 <10 20	<10 <10 <10 20	74 73 89 78	<10 <10 <10 20	128 125 117 134
JN11002- 052 DUP Target Range - Lower Bound Upper Bound		<0.01 0.01 <0.01 0.02	<10 <10 <10 20	<10 <10 <10 20	11 14 11 14	<10 <10 <10 20	87 42 59 70
JN11002- 074 DUP Target Range - Lower Bound Upper Bound		0.03 0.03 0.02 0.04	<10 <10 <10 20	<10 <10 <10 20	32 32 29 35	<10 <10 <10 20	85 84 78 91
JN11002- 096 DUP Target Range - Lower Bound Upper Bound							
JN11002- 112 DUP Target Range - Lower Bound Upper Bound		0.01 0.01 <0.01 0.02	<10 <10 <10 20	<10 <10 <10 20	14 14 12 16	<10 <10 <10 20	103 102 95 110
JN11002- 115 DUP Target Range - Lower Bound Upper Bound							
JN11002- 133 DUP Target Range - Lower Bound Upper Bound							



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Sample Description	Method Analyte Units LOR	Au- AA23 Au ppm	ME- ICP41 Ag ppm	ME- ICP41 Al %	ME- ICP41 As ppm	ME- ICP41 B ppm	ME- ICP41 Ba ppm	ME- ICP41 Be ppm	ME- ICP41 Bi ppm	ME- ICP41 Ca %	ME- ICP41 Cd ppm	ME- ICP41 Co ppm	ME- ICP41 Cr ppm	ME- ICP41 Cu ppm	ME- ICP41 Fe %	ME- ICP41 Ga ppm
		0.005	0.2	0.01	2	10	10	0.5	2	0.01	0.5	1	1	1	0.01	10
DUPLICATES																
JN11002- 145			0.5	1.13	20	10	70	0.7	<2	0.91	0.8	11	15	40	3.41	<10
DUP			0.4	1.05	20	<10	60	0.7	<2	0.88	0.8	10	15	38	3.33	<10
Target Range - Lower Bound			<0.2	1.03	17	<10	50	<0.8	<2	0.84	<0.5	9	13	38	3.19	<10
Upper Bound			0.7	1.15	23	20	80	1.0	4	0.95	1.0	12	17	42	3.55	20
JN11002- 168		<0.005														
DUP		<0.005														
Target Range - Lower Bound		<0.005														
Upper Bound		0.010														
JN11002- 179		<0.005	<0.2	1.94	11	<10	120	1.0	<2	0.11	<0.5	11	25	23	3.80	10
DUP		0.006	<0.2	1.88	10	<10	110	0.9	2	0.11	<0.5	12	25	23	3.74	10
Target Range - Lower Bound		<0.005	<0.2	1.80	8	<10	100	<0.5	<2	0.09	<0.5	10	23	21	3.57	<10
Upper Bound		0.010	0.4	2.02	13	20	130	1.0	4	0.13	1.0	13	27	25	3.97	20
JN11002- 188		<0.005														
DUP		<0.005														
Target Range - Lower Bound		<0.005														
Upper Bound		0.010														
ORIGINAL		0.019														
DUP		0.016														
Target Range - Lower Bound		0.012														
Upper Bound		0.023														
ORIGINAL		<0.2	0.58	7	<10	740	0.9	<2	2.06	<0.5	1	9	3	3.05	<10	
DUP		<0.2	0.58	5	<10	760	0.9	<2	2.01	<0.5	1	8	4	2.97	<10	
Target Range - Lower Bound		<0.2	0.54	4	<10	680	<0.5	<2	1.82	<0.5	<1	7	2	2.85	<10	
Upper Bound		0.4	0.62	8	20	820	1.0	4	2.15	1.0	2	10	5	3.17	20	
ORIGINAL		0.4	0.67	13	10	40	0.6	4	1.80	<0.5	3	9	3	1.12	<10	
DUP		0.4	0.66	13	10	40	0.6	5	1.78	<0.5	3	9	3	1.12	<10	
Target Range - Lower Bound		<0.2	0.62	10	<10	30	<0.5	<2	1.89	<0.5	2	8	2	1.05	<10	
Upper Bound		0.8	0.71	16	20	50	1.0	7	1.89	1.0	4	10	4	1.19	20	
ORIGINAL		<0.005	0.2	0.65	12	<10	50	0.5	2	1.01	<0.5	11	7	41	3.39	<10
DUP		<0.005	0.2	0.62	13	<10	50	0.5	2	0.99	<0.5	11	7	40	3.34	<10
Target Range - Lower Bound		<0.005	<0.2	0.59	10	<10	40	<0.5	<2	0.84	<0.5	9	6	37	3.19	<10
Upper Bound		0.010	0.4	0.68	15	20	80	1.0	4	1.06	1.0	13	8	44	3.54	20



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Sample Description	Method Analyte Units LOR	ME- ICP41 Hg ppm 1	ME- ICP41 K % 0.01	ME- ICP41 La ppm 10	ME- ICP41 Mg % 0.01	ME- ICP41 Mn ppm 5	ME- ICP41 Mo ppm 1	ME- ICP41 Na % 0.01	ME- ICP41 Ni ppm 1	ME- ICP41 P ppm 10	ME- ICP41 Pb ppm 2	ME- ICP41 S % 0.01	ME- ICP41 Sb ppm 2	ME- ICP41 Sc ppm 1	ME- ICP41 Sr ppm 1	ME- ICP41 Th ppm 20
DUPLICATES																
JN11002- 145		<1	0.57	10	0.65	2070	<1	0.04	38	270	106	1.33	2	3	39	<20
DUP		<1	0.54	10	0.63	2030	<1	0.04	37	270	106	1.28	2	3	37	<20
Target Range - Lower Bound		<1	0.52	<10	0.60	1945	<1	0.03	35	250	99	1.23	<2	2	35	<20
Upper Bound		2	0.59	20	0.68	2180	2	0.05	40	290	113	1.39	4	4	41	40
JN11002- 168																
DUP																
Target Range - Lower Bound																
Upper Bound																
JN11002- 179		<1	0.56	20	0.41	1540	<1	0.02	34	150	13	1.10	4	4	10	<20
DUP		<1	0.54	20	0.41	1515	<1	0.02	35	150	12	1.08	4	4	10	<20
Target Range - Lower Bound		<1	0.51	<10	0.38	1445	<1	<0.01	32	130	10	1.03	<2	3	9	<20
Upper Bound		2	0.59	30	0.44	1610	2	0.03	37	170	15	1.15	6	5	12	40
JN11002- 188																
DUP																
Target Range - Lower Bound																
Upper Bound																
ORIGINAL																
DUP																
Target Range - Lower Bound																
Upper Bound																
ORIGINAL		1	0.25	20	0.89	318	12	0.04	2	720	4	0.29	<2	5	215	<20
DUP		<1	0.25	20	0.87	311	12	0.04	2	700	4	0.28	<2	5	211	<20
Target Range - Lower Bound		<1	0.23	<10	0.83	294	10	0.03	<1	660	<2	0.26	<2	4	201	<20
Upper Bound		2	0.27	30	0.93	335	14	0.05	3	760	6	0.31	4	6	225	40
ORIGINAL		<1	0.34	30	0.45	1610	<1	0.01	11	170	25	0.07	4	3	91	20
DUP		<1	0.34	30	0.45	1570	<1	0.01	11	170	25	0.07	4	3	90	20
Target Range - Lower Bound		<1	0.31	20	0.42	1505	<1	<0.01	9	150	22	0.06	<2	2	85	<20
Upper Bound		2	0.37	40	0.48	1675	2	0.02	13	190	28	0.06	6	4	96	40
ORIGINAL		<1	0.38	20	0.72	1045	<1	0.03	30	140	9	1.33	2	2	91	<20
DUP		<1	0.37	20	0.70	1020	<1	0.02	29	140	8	1.31	3	2	88	<20
Target Range - Lower Bound		<1	0.35	<10	0.66	978	<1	<0.01	27	120	6	1.24	<2	<1	84	<20
Upper Bound		2	0.40	30	0.76	1090	2	0.04	32	160	11	1.40	4	3	95	40



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Sample Description	Method Analyte Units LOR	ME- ICP41 Ti %	ME- ICP41 Ti ppm	ME- ICP41 U ppm	ME- ICP41 V ppm	ME- ICP41 W ppm	ME- ICP41 Zn ppm
		0.01	10	10	1	10	2
DUPLICATES							
JN11002- 145		0.01	<10	<10	18	<10	191
DUP		0.01	<10	<10	17	<10	186
Target Range - Lower Bound		<0.01	<10	<10	16	<10	177
Upper Bound		0.02	20	20	19	20	200
JN11002- 168							
DUP							
Target Range - Lower Bound							
Upper Bound							
JN11002- 179		<0.01	<10	<10	31	<10	63
DUP		<0.01	<10	<10	31	<10	62
Target Range - Lower Bound		<0.01	<10	<10	28	<10	57
Upper Bound		0.02	20	20	34	20	68
JN11002- 188							
DUP							
Target Range - Lower Bound							
Upper Bound							
ORIGINAL							
DUP							
Target Range - Lower Bound							
Upper Bound							
ORIGINAL		<0.01	<10	<10	25	<10	26
DUP		<0.01	<10	<10	25	<10	21
Target Range - Lower Bound		<0.01	<10	<10	23	<10	20
Upper Bound		0.02	20	20	27	20	27
ORIGINAL		<0.01	<10	<10	8	<10	19
DUP		<0.01	<10	<10	7	<10	19
Target Range - Lower Bound		<0.01	<10	<10	6	<10	18
Upper Bound		0.02	20	20	9	20	22
ORIGINAL		<0.01	<10	<10	8	<10	43
DUP		<0.01	<10	<10	8	<10	42
Target Range - Lower Bound		<0.01	<10	<10	7	<10	38
Upper Bound		0.02	20	20	9	20	47



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Sample Description	Method Analyte Units LOR	Au- AA23 Au ppm	ME- ICP41 Ag ppm	ME- ICP41 Al %	ME- ICP41 As ppm	ME- ICP41 B ppm	ME- ICP41 Ba ppm	ME- ICP41 Be ppm	ME- ICP41 Bi ppm	ME- ICP41 Ca %	ME- ICP41 Cd ppm	ME- ICP41 Co ppm	ME- ICP41 Cr ppm	ME- ICP41 Cu ppm	ME- ICP41 Fe %	ME- ICP41 Ga ppm
		0.005	0.2	0.01	2	10	10	0.5	2	0.01	0.5	1	1	1	0.01	10
DUPLICATES																
ORIGINAL		2.66														
DUP		2.54														
Target Range - Lower Bound		2.47														
Upper Bound		2.74														
ORIGINAL		0.032														
DUP		0.031														
Target Range - Lower Bound		0.026														
Upper Bound		0.038														
ORIGINAL		0.006														
DUP		<0.005														
Target Range - Lower Bound		<0.005														
Upper Bound		0.010														
PREP DUPLICATES																
JN11002- 051		0.008	0.5	0.66	13	10	40	0.6	5	1.80	<0.5	3	9	2	1.16	<10
JN11002- 051 PREP DUP		<0.005	0.2	0.84	14	30	20	0.6	3	1.76	<0.5	3	10	3	1.26	<10
JN11002- 101		0.012	1.0	2.11	90	50	90	0.7	6	0.39	<0.5	9	22	151	2.13	10
JN11002- 101 PREP DUP		<0.005	1.0	1.17	90	20	40	0.5	11	0.37	0.5	9	16	160	1.97	<10
JN11002- 151		<0.005	0.3	1.21	46	<10	60	0.8	<2	0.26	<0.5	15	28	18	4.70	<10
JN11002- 151 PREP DUP		<0.005	<0.2	1.51	44	<10	70	0.9	3	0.26	<0.5	14	30	18	4.89	<10



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Sample Description	Method Analyte Units LOR	ME- ICP41 Hg ppm 1	ME- ICP41 K % 0.01	ME- ICP41 La ppm 10	ME- ICP41 Mg % 0.01	ME- ICP41 Mn ppm 5	ME- ICP41 Mo ppm 1	ME- ICP41 Na % 0.01	ME- ICP41 Ni ppm 1	ME- ICP41 P ppm 10	ME- ICP41 Pb ppm 2	ME- ICP41 S % 0.01	ME- ICP41 Sb ppm 2	ME- ICP41 Sc ppm 1	ME- ICP41 Sr ppm 1	ME- ICP41 Th ppm 20
ORIGINAL DUP Target Range - Lower Bound Upper Bound		DUPLICATES														
ORIGINAL DUP Target Range - Lower Bound Upper Bound																
ORIGINAL DUP Target Range - Lower Bound Upper Bound																
		PREP DUPLICATES														
JN11002- 051		<1	0.34	30	0.45	1620	<1	0.01	12	180	26	0.06	4	3	91	20
JN11002- 051 PREP DUP		<1	0.37	30	0.45	1550	<1	0.02	12	170	24	0.07	5	3	94	20
JN11002- 101		<1	0.96	40	0.43	478	2	0.02	48	200	26	0.98	<2	4	27	20
JN11002- 101 PREP DUP		<1	0.52	40	0.36	461	<1	0.02	47	200	26	1.02	3	3	23	20
JN11002- 151		<1	0.36	20	0.39	1600	<1	0.03	44	170	7	0.28	<2	5	12	<20
JN11002- 151 PREP DUP		<1	0.41	20	0.41	1675	<1	0.02	45	170	9	0.27	2	5	12	<20



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Sample Description	Method Analyte Units LOR	ME- ICP41 Ti %	ME- ICP41 Ti ppm	ME- ICP41 U ppm	ME- ICP41 V ppm	ME- ICP41 W ppm	ME- ICP41 Zn ppm
		0.01	10	10	1	10	2
ORIGINAL DUP Target Range - Lower Bound Upper Bound		DUPLICATES					
ORIGINAL DUP Target Range - Lower Bound Upper Bound							
ORIGINAL DUP Target Range - Lower Bound Upper Bound							
		PREP DUPLICATES					
JN11002- 051		<0.01	<10	<10	8	<10	19
JN11002- 051 PREP DUP		<0.01	<10	<10	9	<10	21
JN11002- 101		0.01	<10	<10	24	<10	72
JN11002- 101 PREP DUP		0.01	<10	<10	16	<10	82
JN11002- 151		<0.01	<10	<10	38	<10	45
JN11002- 151 PREP DUP		<0.01	<10	<10	37	<10	45



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Project:

P.O. No.: JN11- 003

This report is for 21 Drill Core samples submitted to our lab in Whitehorse, YT, Canada on 19- SEP- 2011.

The following have access to data associated with this certificate:

JESSE CAMPBELL

CHRIS GALLAGHER

SAMPLE PREPARATION

ALS CODE	DESCRIPTION
WEI- 21	Received Sample Weight
LOG- 22	Sample login - Rcd w/o BarCode
BAG- 01	Bulk Master for Storage
LOG- 24	Pulp Login - Rcd w/o Barcode
CRU- QC	Crushing QC Test
PUL- QC	Pulverizing QC Test
CRU- 31	Fine crushing - 70% < 2mm
SPL- 21	Split sample - riffle splitter
PUL- 32m	Pulverize 500g - 85% < 75um

ANALYTICAL PROCEDURES

ALS CODE	DESCRIPTION	INSTRUMENT
ME- OG46	Ore Grade Elements - AquaRegia	ICP- AES
Ag- GRA21	Ag 30g FA- GRAV finish	WST- SIM
Cu- OG46	Ore Grade Cu - Aqua Regia	VARIABLE
Au- AA23	Au 30g FA- AA finish	AAS
Au- GRA21	Au 30g FA- GRAV finish	WST- SIM
ME- ICP41	35 Element Aqua Regia ICP- AES	ICP- AES
Ag- OG46	Ore Grade Ag - Aqua Regia	VARIABLE

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This is the Final Report and supersedes any preliminary report with this certificate number. Results apply to samples as submitted. All pages of this report have been checked and approved for release.

Signature:

Colin Ramshaw, Vancouver Laboratory Manager



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Sample Description	Method Analyte Units LOR	WEI- 21 Recvd Wt. kg 0.02	Au- AA23 Au ppm 0.005	Au- GRA21 Au ppm 0.05	ME- ICP41 Ag ppm 0.2	ME- ICP41 Al % 0.01	ME- ICP41 As ppm 2	ME- ICP41 B ppm 10	ME- ICP41 Ba ppm 10	ME- ICP41 Be ppm 0.5	ME- ICP41 Bi ppm 2	ME- ICP41 Ca % 0.01	ME- ICP41 Cd ppm 0.5	ME- ICP41 Co ppm 1	ME- ICP41 Cr ppm 1	ME- ICP41 Cu ppm 1
JN11003- 001		2.43	0.032		<0.2	1.58	9	10	40	0.7	10	2.43	<0.5	11	22	123
JN11003- 002		1.27	0.015		0.6	1.49	9	<10	30	0.8	26	2.62	<0.5	19	17	425
JN11003- 003		1.18	0.008		0.2	1.86	4	10	20	0.9	65	4.22	<0.5	8	21	283
JN11003- 004		2.32	0.010		<0.2	2.61	36	10	10	1.1	38	5.88	<0.5	9	22	250
JN11003- 005		1.78	0.013		<0.2	3.31	8	10	20	1.0	40	3.98	<0.5	11	31	289
JN11003- 006		2.25	<0.005		0.3	1.82	4	10	30	0.9	15	4.19	<0.5	11	24	344
JN11003- 007		2.18	0.013		<0.2	2.13	6	10	40	0.9	151	3.89	<0.5	13	32	294
JN11003- 008		2.86	0.017		<0.2	5.34	2	10	20	1.2	72	5.13	<0.5	10	24	92
JN11003- 009		2.44	0.019		<0.2	4.96	82	10	20	1.7	51	6.19	<0.5	13	38	123
JN11003- 010		2.47	0.024		0.3	3.96	15	10	20	1.5	65	5.99	<0.5	10	32	79
JN11003- 011		2.60	0.022		0.4	4.02	4	10	10	1.0	40	6.55	<0.5	8	23	74
JN11003- 012		1.80	0.013		0.4	3.95	6	10	40	1.5	16	5.15	<0.5	7	28	145
JN11003- 013		1.17	0.168		6.2	1.20	4950	10	50	0.6	155	1.52	1.2	45	25	165
JN11003- 014		1.56	0.173		4.6	2.36	741	<10	40	0.5	189	1.24	<0.5	33	144	35
JN11003- 015		1.29	0.410		18.5	1.47	449	<10	30	<0.5	236	1.24	1.9	14	132	84
JN11003- 016		0.43	0.449		4.2	0.69	352	40	30	<0.5	250	0.50	0.9	9	27	104
JN11003- 017		0.42	0.224		>100	0.81	5420	<10	30	<0.5	567	0.25	1.3	44	34	1480
JN11003- 018		0.26		1.11	>100	0.95	246	<10	20	<0.5	626	0.35	1.0	549	72	>10000
JN11003- 019		0.27	0.005		4.8	2.15	79	10	60	0.6	16	0.60	<0.5	4	60	36
JN11003- 020S		0.02	1.465		34.1	0.37	25	<10	240	<0.5	2	1.28	<0.5	8	30	3170
JN11003- 020B		0.02	0.007		<0.2	0.56	<2	<10	180	<0.5	<2	0.14	<0.5	3	9	7

Comments: Gold assay(s) on sample JN11003- 018 is (are) reported by fire assay gravimetric method due to high silver content in sample(s) that may cause incomplete gold dissolution in aqua- regia solution



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CERTIFICATE OF ANALYSIS WH11191149

Sample Description	Method Analyte Units LOR	ME- ICP41 Fe % 0.01	ME- ICP41 Ga ppm 10	ME- ICP41 Hg ppm 1	ME- ICP41 K % 0.01	ME- ICP41 La ppm 10	ME- ICP41 Mg % 0.01	ME- ICP41 Mn ppm 5	ME- ICP41 Mo ppm 1	ME- ICP41 Na % 0.01	ME- ICP41 Ni ppm 1	ME- ICP41 P ppm 10	ME- ICP41 Pb ppm 2	ME- ICP41 S % 0.01	ME- ICP41 Sb ppm 2	ME- ICP41 Sc ppm 1
JN11003- 001		3.37	<10	<1	0.53	20	0.55	492	<1	0.07	27	160	8	1.51	<2	4
JN11003- 002		9.88	10	1	0.41	10	0.41	1035	<1	0.04	21	320	18	5.23	2	3
JN11003- 003		8.26	10	<1	0.42	10	0.31	1300	<1	0.11	14	1050	12	3.10	<2	3
JN11003- 004		8.00	10	<1	0.32	20	0.38	1605	<1	0.14	16	730	8	2.90	<2	3
JN11003- 005		7.49	10	<1	0.31	20	0.47	951	<1	0.26	20	230	6	2.88	<2	4
JN11003- 006		7.08	<10	<1	0.49	20	0.59	918	<1	0.08	30	430	13	4.35	<2	4
JN11003- 007		5.37	10	<1	0.58	30	0.63	562	1	0.11	29	230	10	3.08	<2	5
JN11003- 008		6.33	20	<1	0.35	30	0.32	952	<1	0.39	11	1030	4	0.72	<2	4
JN11003- 009		6.81	20	<1	0.39	30	0.52	1100	<1	0.31	21	390	4	1.46	<2	6
JN11003- 010		8.71	20	<1	0.43	30	0.38	1390	<1	0.31	15	250	4	1.68	2	5
JN11003- 011		7.27	10	<1	0.28	20	0.27	1640	<1	0.23	9	880	4	1.22	3	3
JN11003- 012		4.29	10	<1	0.30	30	0.37	930	<1	0.35	21	270	9	1.35	2	4
JN11003- 013		2.39	10	<1	0.65	40	0.54	975	<1	0.03	41	230	392	0.50	37	5
JN11003- 014		2.37	10	1	1.93	60	2.36	434	<1	0.06	75	560	71	0.07	15	12
JN11003- 015		1.74	10	<1	1.05	20	1.13	817	9	0.04	41	200	348	0.04	29	6
JN11003- 016		1.91	<10	<1	0.34	30	0.23	533	9	0.02	19	510	187	0.32	14	2
JN11003- 017		3.24	<10	<1	0.33	20	0.26	239	1	0.05	17	220	343	0.29	42	2
JN11003- 018		6.45	<10	<1	0.31	10	0.26	567	3	0.11	27	420	192	0.06	27	2
JN11003- 019		1.80	10	1	0.67	40	0.79	158	1	0.24	23	220	12	0.01	<2	6
JN11003- 020S		2.55	<10	4	0.15	10	0.14	406	355	0.04	18	380	57	1.09	81	1
JN11003- 020B		1.47	<10	<1	0.34	10	0.22	329	1	0.10	1	190	3	0.01	<2	4

Comments: Gold assay(s) on sample JN11003- 018 is (are) reported by fire assay gravimetric method due to high silver content in sample(s) that may cause incomplete gold dissolution in aqua- regia solution



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CERTIFICATE OF ANALYSIS WH11191149

Sample Description	Method Analyte Units LOR	ME- ICP41 Sr ppm 1	ME- ICP41 Th ppm 20	ME- ICP41 Ti % 0.01	ME- ICP41 Tl ppm 10	ME- ICP41 U ppm 10	ME- ICP41 V ppm 1	ME- ICP41 W ppm 10	ME- ICP41 Zn ppm 2	Ag- OG46 Ag ppm 1	Ag- GRA21 Ag ppm 5	Cu- OG46 Cu % 0.001
JN11003- 001		123	<20	0.03	<10	<10	22	<10	36			
JN11003- 002		83	<20	0.02	10	<10	17	<10	42			
JN11003- 003		105	<20	0.03	<10	<10	22	<10	41			
JN11003- 004		159	<20	0.05	<10	<10	24	<10	41			
JN11003- 005		130	20	0.10	<10	<10	32	<10	35			
JN11003- 006		124	20	0.02	<10	<10	25	<10	32			
JN11003- 007		108	20	0.04	<10	<10	34	<10	29			
JN11003- 008		283	<20	0.11	<10	<10	27	<10	39			
JN11003- 009		268	20	0.10	<10	<10	40	<10	43			
JN11003- 010		162	<20	0.09	<10	<10	32	<10	50			
JN11003- 011		99	<20	0.10	<10	<10	23	<10	48			
JN11003- 012		215	20	0.08	<10	<10	30	<10	45			
JN11003- 013		64	20	0.02	<10	<10	26	<10	288			
JN11003- 014		58	20	0.11	<10	<10	63	50	111			
JN11003- 015		42	<20	0.04	<10	<10	53	230	260			
JN11003- 016		23	<20	0.02	<10	<10	13	<10	193			
JN11003- 017		34	<20	0.01	<10	<10	13	2560	385	242		
JN11003- 018		31	<20	0.01	<10	<10	15	730	7100	>1500	7320	3.52
JN11003- 019		65	20	0.07	<10	<10	56	60	41			
JN11003- 020S		268	<20	0.01	<10	<10	17	<10	50			
JN11003- 020B		10	<20	0.10	<10	<10	17	<10	20			

Comments: Gold assay(s) on sample JN11003- 018 is (are) reported by fire assay gravimetric method due to high silver content in sample(s) that may cause incomplete gold dissolution in aqua- regia solution



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Project:

P.O. No.: JN11- 003

This report is for 21 Drill Core samples submitted to our lab in Whitehorse, YT, Canada on 19- SEP- 2011.

The following have access to data associated with this certificate:

JESSE CAMPBELL

CHRIS GALLAGHER

SAMPLE PREPARATION

ALS CODE	DESCRIPTION
WEI- 21	Received Sample Weight
LOG- 22	Sample login - Rcd w/o BarCode
BAG- 01	Bulk Master for Storage
LOG- 24	Pulp Login - Rcd w/o Barcode
CRU- QC	Crushing QC Test
PUL- QC	Pulverizing QC Test
CRU- 31	Fine crushing - 70% < 2mm
SPL- 21	Split sample - riffle splitter
PUL- 32m	Pulverize 500g - 85% < 75um

ANALYTICAL PROCEDURES

ALS CODE	DESCRIPTION	INSTRUMENT
ME- OG46	Ore Grade Elements - AquaRegia	ICP- AES
Ag- GRA21	Ag 30g FA- GRAV finish	WST- SIM
Cu- OG46	Ore Grade Cu - Aqua Regia	VARIABLE
Au- AA23	Au 30g FA- AA finish	AAS
Au- GRA21	Au 30g FA- GRAV finish	WST- SIM
ME- ICP41	3S Element Aqua Regia ICP- AES	ICP- AES
Ag- OG46	Ore Grade Ag - Aqua Regia	VARIABLE

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This is the Final Report and supersedes any preliminary report with this certificate number. Results apply to samples as submitted. All pages of this report have been checked and approved for release.

Signature:

Colin Ramshaw, Vancouver Laboratory Manager



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QC CERTIFICATE OF ANALYSIS WH11191149

Sample Description	Method Analyte Units LOR	Au- AA23	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41
		Au	Ag	Al	As	B	Ba	Be	Bi	Ca	Cd	Co	Cr	Cu	Fe	Ga
		ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	%	ppm
		0.005	0.2	0.01	2	10	10	0.5	2	0.01	0.5	1	1	1	0.01	10
STANDARDS																
GBM908- 10			2.9	0.98	59	<10	90	<0.5	<2	0.68	1.6	15	23	3660	2.67	<10
GBM908- 10			3.1	0.92	56	<10	100	<0.5	<2	0.66	1.6	14	22	3460	2.67	<10
GBM908- 10			3.3	0.98	56	<10	110	<0.5	<2	0.71	1.7	14	23	3640	2.79	<10
GBM908- 10			3.1	1.03	61	<10	120	<0.5	<2	0.73	1.4	13	24	3730	2.86	<10
MP- 1b																
MRGeo08			4.3	2.93	35	<10	440	0.8	<2	1.15	2.2	18	95	652	3.66	10
MRGeo08			4.8	2.64	33	<10	430	0.8	<2	1.08	2.1	17	92	617	3.60	10
MRGeo08			4.6	2.75	31	<10	420	0.8	<2	1.10	2.1	17	91	620	3.51	10
MRGeo08			4.5	2.72	34	<10	450	0.8	<2	1.12	1.7	18	94	632	3.63	10
OGGeo08																
OREAS- 16b		2.18														
OREAS- 16b		2.26														
OREAS- 16b		2.26														
OREAS- 67a																
OxC88		0.203														
OxC88		0.203														
OxC88		0.204														
OXQ70																
SP27																

Comments: Gold assay(s) on sample JN11003- 018 is (are) reported by fire assay gravimetric method due to high silver content in sample(s) that may cause incomplete gold dissolution in aqua- regia solution



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QC CERTIFICATE OF ANALYSIS WH11191149

Sample Description	Method Analyte Units LOR	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41
		Hg ppm	K %	La ppm	Mg %	Mn ppm	Mo ppm	Na %	Ni ppm	P ppm	Pb ppm	S %	Sb ppm	Sc ppm	Th ppm
		1	0.01	10	0.01	5	1	0.01	1	10	2	0.01	2	1	20
STANDARDS															
GBM908- 10		<1	0.42	40	0.53	302	59	0.12	2190	880	2000	0.39	<2	2	<20
GBM908- 10		<1	0.40	40	0.51	294	65	0.13	2050	820	1950	0.37	<2	2	20
GBM908- 10		<1	0.42	40	0.54	301	70	0.13	2240	880	1995	0.40	2	2	20
GBM908- 10		<1	0.44	50	0.56	315	70	0.14	2380	900	2080	0.40	2	2	20
MP- 1b															
MRGeo08		1	1.30	30	1.19	438	14	0.37	656	1060	1065	0.35	3	7	20
MRGeo08		<1	1.24	30	1.13	420	14	0.34	617	1010	1010	0.30	5	7	20
MRGeo08		<1	1.22	30	1.14	411	13	0.36	656	1010	992	0.32	4	7	20
MRGeo08		1	1.30	30	1.20	438	14	0.35	688	1050	1040	0.33	4	7	20
OGGeo08															
OREAS- 16b															
OREAS- 16b															
OREAS- 16b															
OREAS- 67a															
OxC88															
OxC88															
OxC88															
OXQ70															
SP27															

Comments: Gold assay(s) on sample JN11003- 018 is (are) reported by fire assay gravimetric method due to high silver content in sample(s) that may cause incomplete gold dissolution in aqua-regia solution



Minerals

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QC CERTIFICATE OF ANALYSIS WH11191149

Sample Description	Method Analyte Units LOR	ME- ICP41 Ti %	ME- ICP41 Ti ppm	ME- ICP41 U ppm	ME- ICP41 V ppm	ME- ICP41 W ppm	ME- ICP41 Zn ppm	Ag- OG46 Ag ppm	Ag- GRA21 Ag ppm	Cu- OG46 Cu %
		0.01	10	10	1	10	2	1	5	0.001
STANDARDS										
GBM908- 10		0.32	<10	<10	49	<10	1040			
GBM908- 10		0.31	<10	<10	46	<10	962			
GBM908- 10		0.32	<10	<10	49	<10	985			
GBM908- 10		0.33	<10	<10	50	<10	1080			
MP- 1b								46		3.03
MRGeo08		0.39	<10	<10	105	<10	809			
MRGeo08		0.38	<10	<10	100	<10	772			
MRGeo08		0.37	<10	<10	100	<10	796			
MRGeo08		0.39	<10	<10	104	<10	810			
OGGeo08								19		0.829
OREAS- 16b										
OREAS- 16b										
OREAS- 16b										
OREAS- 67a									32	
OxC88										
OxC88										
OxC88										
OXQ70									146	
SP27									56	

Comments: Gold assay(s) on sample JN11003- 018 is (are) reported by fire assay gravimetric method due to high silver content in sample(s) that may cause incomplete gold dissolution in aqua- regia solution



Account: TELOEX

[illegible]

Comments: Gold assay(s) on sample JN11003- 018 is (are) reported by fire assay gravimetric method due to high silver content in sample(s) that may cause incomplete gold dissolution in aqua- regia solution



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QC CERTIFICATE OF ANALYSIS WH11191149

Sample Description	Method Analyte Units LOR	Au-AA23 Au ppm 0.005	ME-ICP41 Ag ppm 0.2	ME-ICP41 Al % 0.01	ME-ICP41 As ppm 2	ME-ICP41 B ppm 10	ME-ICP41 Ba ppm 10	ME-ICP41 Be ppm 0.5	ME-ICP41 Bi ppm 2	ME-ICP41 Ca % 0.01	ME-ICP41 Cd ppm 0.5	ME-ICP41 Co ppm 1	ME-ICP41 Cr ppm 1	ME-ICP41 Cu ppm 1	ME-ICP41 Fe % 0.01	ME-ICP41 Ga ppm 10
ORIGINAL DUP		DUPLICATES														
ORIGINAL DUP																
ORIGINAL DUP		<0.005 0.005														
ORIGINAL DUP			0.8 0.7	0.86 0.85	12 16	<10 <10	810 630	0.6 0.6	<2 <2	1.90 1.91	13.8 13.8	4 4	6 5	21 21	3.06 3.07	<10 <10
ORIGINAL DUP		3.66 3.67														
JN11002-074 DUP			<0.2 <0.2	1.67 1.66	5 5	10 20	100 100	1.0 1.0	<2 <2	0.71 0.71	<0.5 <0.5	14 14	28 27	27 27	4.32 4.27	10 10
JN11003-002 DUP		0.015 0.020														
JN11003-020B DUP			<0.2 0.5	0.56 0.56	<2 4	<10 <10	180 180	<0.5 <0.5	<2 <2	0.14 0.27	<0.5 <0.5	3 3	9 8	7 9	1.47 1.44	<10 <10

Comments: Gold assay(s) on sample JN11003-018 is (are) reported by fire assay gravimetric method due to high silver content in sample(s) that may cause incomplete gold dissolution in aqua- regia solution



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QC CERTIFICATE OF ANALYSIS WH11191149

Sample Description	Method Analyte Units LOR	ME- ICP41 Hg ppm	ME- ICP41 K %	ME- ICP41 La ppm	ME- ICP41 Mg %	ME- ICP41 Mn ppm	ME- ICP41 Mo ppm	ME- ICP41 Na %	ME- ICP41 Ni ppm	ME- ICP41 P ppm	ME- ICP41 Pb ppm	ME- ICP41 S %	ME- ICP41 Sb ppm	ME- ICP41 Sc ppm	ME- ICP41 Sr ppm	ME- ICP41 Th ppm
		1	0.01	10	0.01	5	1	0.01	1	10	2	0.01	2	1	1	20
ORIGINAL DUP		DUPLICATES														
ORIGINAL DUP																
ORIGINAL DUP																
ORIGINAL DUP		<1	0.29	10	0.67	1195	1	0.02	1	550	188	0.40	<2	6	72	<20
		<1	0.29	10	0.67	1205	1	0.02	1	560	191	0.41	<2	6	72	<20
JN11002- 074 DUP		<1	0.58	20	0.88	680	<1	0.05	34	1420	4	0.27	<2	4	44	20
		<1	0.58	20	0.87	671	<1	0.05	33	1400	5	0.26	2	4	44	20
JN11003- 002 DUP																
JN11003- 020B DUP		<1	0.34	10	0.22	329	1	0.10	1	190	3	0.01	<2	4	10	<20
		<1	0.34	10	0.22	322	1	0.10	1	190	5	0.01	<2	4	11	<20

Comments: Gold assay(s) on sample JN11003- 018 is (are) reported by fire assay gravimetric method due to high silver content in sample(s) that may cause incomplete gold dissolution in aqua-regia solution



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QC CERTIFICATE OF ANALYSIS WH11191149

Sample Description	Method Analyte Units LOR	ME- ICP41 Ti %	ME- ICP41 Ti ppm	ME- ICP41 U ppm	ME- ICP41 V ppm	ME- ICP41 W ppm	ME- ICP41 Zn ppm	Ag- OG46 Ag ppm	Ag- GRA21 Ag ppm	Cu- OG46 Cu %
		0.01	10	10	1	10	2	1	5	0.001
ORIGINAL DUP		DUPLICATES								
							713 599			0.136
ORIGINAL DUP								58 81		
ORIGINAL DUP										
ORIGINAL DUP		<0.01 <0.01	<10 <10	<10 <10	27 27	<10 <10	944 935			
ORIGINAL DUP										
JN11002- 074 DUP		0.03 0.03	<10 <10	<10 <10	32 32	<10 <10	85 84			
JN11003- 002 DUP										
JN11003- 020B DUP		0.10 0.09	<10 <10	<10 <10	17 16	<10 <10	20 109			

Comments: Gold assay(s) on sample JN11003- 018 is (are) reported by fire assay gravimetric method due to high silver content in sample(s) that may cause incomplete gold dissolution in aqua- regia solution

QC CERTIFICATE OF ANALYSIS WH11191149

Sample Description	Method Analyte Units LOR	Au- AA23 Au ppm 0.005	ME- ICP41 Ag ppm 0.2	ME- ICP41 Al % 0.01	ME- ICP41 As ppm 2	ME- ICP41 B ppm 10	ME- ICP41 Ba ppm 10	ME- ICP41 Be ppm 0.5	ME- ICP41 Bi ppm 2	ME- ICP41 Ca % 0.01	ME- ICP41 Cd ppm 0.5	ME- ICP41 Co ppm 1	ME- ICP41 Cr ppm 1	ME- ICP41 Cu ppm 1	ME- ICP41 Fe % 0.01	ME- ICP41 Ga ppm 10
ORIGINAL DUP		0.047 0.050	DUPLICATES													
ORIGINAL DUP			0.2 <0.2	1.02 1.01	<2 <2	<10 <10	350 340	<0.5 <0.5	<2 <2	0.48 0.48	<0.5 <0.5	5 4	8 7	7 7	2.56 2.53	<10 <10
ORIGINAL DUP		2.66 2.54														
ORIGINAL DUP		<0.005 <0.005														
ORIGINAL DUP		0.007 0.005														

Comments: Gold assay(s) on sample JN11003- 018 is (are) reported by fire assay gravimetric method due to high silver content in sample(s) that may cause incomplete gold dissolution in aqua- regia solution



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QC CERTIFICATE OF ANALYSIS WH11191149

Sample Description	Method Analyte Units LOR	ME- ICP41 Hg ppm 1	ME- ICP41 K % 0.01	ME- ICP41 La ppm 10	ME- ICP41 Mg % 0.01	ME- ICP41 Mn ppm 5	ME- ICP41 Mo ppm 1	ME- ICP41 Na % 0.01	ME- ICP41 Ni ppm 1	ME- ICP41 P ppm 10	ME- ICP41 Pb ppm 2	ME- ICP41 S % 0.01	ME- ICP41 Sb ppm 2	ME- ICP41 Sc ppm 1	ME- ICP41 Sr ppm 1	ME- ICP41 Th ppm 20
ORIGINAL DUP		DUPLICATES														
ORIGINAL DUP		<1	0.70	40	0.48	681	1	0.13	2	690	3	0.01	<2	3	27	20
		<1	0.69	40	0.48	674	1	0.12	2	690	4	0.01	<2	3	27	20
ORIGINAL DUP																
ORIGINAL DUP																
ORIGINAL DUP																

Comments: Gold assay(s) on sample JN11003- 018 is (are) reported by fire assay gravimetric method due to high silver content in sample(s) that may cause incomplete gold dissolution in aqua- regia solution



Minerals

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QC CERTIFICATE OF ANALYSIS WH11191149

Sample Description	Method Analyte Units LOR	ME- ICP41 Ti %	ME- ICP41 Ti ppm	ME- ICP41 U ppm	ME- ICP41 V ppm	ME- ICP41 W ppm	ME- ICP41 Zn ppm	Ag- OG46 Ag ppm	Ag- GRA21 Ag ppm	Cu- OG46 Cu %
		0.01	10	10	1	10	2	1	5	0.001
ORIGINAL DUP		DUPLICATES								
ORIGINAL DUP		0.19	<10	<10	34	<10	51			
		0.19	<10	<10	33	<10	50			
ORIGINAL DUP										
ORIGINAL DUP										
ORIGINAL DUP										

Comments: Gold assay(s) on sample JN11003- 018 is (are) reported by fire assay gravimetric method due to high silver content in sample(s) that may cause incomplete gold dissolution in aqua- regia solution



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CERTIFICATE WH11191145

Project:

P.O. No.: JN11-004

This report is for 131 Drill Core samples submitted to our lab in Whitehorse, YT, Canada on 19- SEP- 2011.

The following have access to data associated with this certificate:

JESSE CAMPBELL

CHRIS GALLAGHER

SAMPLE PREPARATION

ALS CODE	DESCRIPTION
WEI- 21	Received Sample Weight
LOG- 22	Sample login - Rcd w/o BarCode
SPL- 22Y	Split Sample - Boyd Rotary Splitter
BAG- 01	Bulk Master for Storage
LOG- 24	Pulp Login - Rcd w/o Barcode
CRU- QC	Crushing QC Test
PUL- QC	Pulverizing QC Test
CRU- 31	Fine crushing - 70% < 2mm
PUL- 32m	Pulverize 500g - 85% < 75um

ANALYTICAL PROCEDURES

ALS CODE	DESCRIPTION	INSTRUMENT
Au- AA23	Au 30g FA- AA finish	AAS
ME- ICP41	35 Element Aqua Regia ICP- AES	ICP- AES

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This is the Final Report and supersedes any preliminary report with this certificate number. Results apply to samples as submitted. All pages of this report have been checked and approved for release.

Signature:

Colin Ramshaw, Vancouver Laboratory Manager



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CERTIFICATE OF ANALYSIS WH11191145

Sample Description	Method Analyte Units LOR	WEI- 21 Recvd Wt. kg 0.02	Au- AA23 Au ppm 0.005	ME- ICP41 Ag ppm 0.2	ME- ICP41 Al % 0.01	ME- ICP41 As ppm 2	ME- ICP41 B ppm 10	ME- ICP41 Ba ppm 10	ME- ICP41 Be ppm 0.5	ME- ICP41 Bi ppm 2	ME- ICP41 Ca % 0.01	ME- ICP41 Cd ppm 0.5	ME- ICP41 Co ppm 1	ME- ICP41 Cr ppm 1	ME- ICP41 Cu ppm 1	ME- ICP41 Fe % 0.01
JN11004- 001		1.07	<0.005	1.7	1.31	1355	<10	50	4.0	<2	0.51	<0.5	3	43	6030	18.0
JN11004- 002		0.76	<0.005	<0.2	0.65	636	<10	20	1.8	8	0.72	<0.5	7	26	1805	21.3
JN11004- 003		0.96	<0.005	<0.2	0.75	207	<10	30	1.8	3	6.18	<0.5	4	17	2600	20.0
JN11004- 004		2.07	<0.005	<0.2	1.09	123	50	10	0.8	<2	15.6	<0.5	2	13	1495	13.20
JN11004- 005		1.67	<0.005	<0.2	1.38	10	<10	10	0.6	<2	12.2	<0.5	5	15	54	8.73
JN11004- 006		3.90	<0.005	<0.2	1.49	5	<10	20	1.2	2	7.0	<0.5	5	12	39	4.88
JN11004- 007		1.35	0.199	<0.2	1.67	>10000	10	70	2.2	176	2.35	<0.5	113	24	552	8.90
JN11004- 008		2.35	<0.005	<0.2	1.78	43	<10	100	0.6	<2	1.57	<0.5	14	42	46	3.11
JN11004- 009		2.68	<0.005	<0.2	0.56	42	<10	50	0.6	<2	1.18	<0.5	5	12	49	2.32
JN11004- 010		2.51	<0.005	<0.2	0.67	3	<10	70	0.6	<2	1.47	<0.5	6	11	16	2.86
JN11004- 011		2.42	<0.005	<0.2	1.65	4	<10	130	0.5	<2	1.44	<0.5	9	20	32	3.22
JN11004- 012		2.43	<0.005	<0.2	1.00	4	<10	70	0.7	2	1.90	<0.5	8	9	23	3.13
JN11004- 013		2.24	<0.005	<0.2	0.68	2	<10	50	0.7	<2	2.00	<0.5	7	8	20	2.76
JN11004- 014		2.38	<0.005	<0.2	0.60	7	<10	40	0.6	<2	1.79	<0.5	6	9	16	2.49
JN11004- 015		2.30	<0.005	<0.2	0.59	15	<10	60	0.6	<2	1.66	<0.5	6	9	10	2.40
JN11004- 016		2.29	0.007	<0.2	0.53	365	<10	40	0.7	<2	2.16	<0.5	11	9	19	2.46
JN11004- 017		2.26	<0.005	<0.2	0.48	6	20	40	0.9	<2	1.92	<0.5	6	11	18	2.75
JN11004- 018		2.24	<0.005	0.4	0.62	6	10	40	0.8	20	1.98	<0.5	7	12	36	3.08
JN11004- 019		2.17	<0.005	<0.2	0.41	8	<10	40	0.7	<2	1.78	<0.5	5	9	94	2.42
JN11004- 020		1.55	<0.005	<0.2	0.63	5	10	50	0.8	<2	1.70	<0.5	5	10	21	2.31
JN11004- 020S		0.04	1.415	31.9	0.36	26	<10	190	<0.5	2	1.27	<0.5	8	29	3070	2.53
JN11004- 021		3.17	0.010	1.4	0.59	95	10	40	0.5	42	1.31	<0.5	5	7	73	2.49
JN11004- 022		1.55	0.497	15.9	0.62	10000	20	40	0.5	556	0.50	3.3	151	6	176	4.72
JN11004- 023		1.41	0.151	11.8	0.61	1820	<10	20	<0.5	420	0.98	1.2	35	6	87	2.90
JN11004- 024		1.30	<0.005	<0.2	0.62	30	<10	10	0.5	4	0.26	<0.5	5	5	240	2.93
JN11004- 025		2.39	0.055	1.4	0.49	1145	<10	20	<0.5	16	0.71	1.3	37	8	77	2.61
JN11004- 026		2.76	0.011	0.6	0.51	48	20	30	<0.5	3	0.31	<0.5	4	12	162	1.58
JN11004- 027		2.51	<0.005	0.2	0.58	15	10	30	<0.5	12	0.77	<0.5	5	10	78	2.42
JN11004- 028		1.32	0.128	6.7	0.58	29	<10	40	<0.5	251	1.88	2.6	5	8	90	2.43
JN11004- 029		2.21	0.008	1.5	0.59	21	<10	40	<0.5	4	2.81	4.2	4	8	58	2.20
JN11004- 030		2.59	0.021	0.4	0.62	36	20	40	<0.5	4	2.24	1.8	5	11	32	2.60
JN11004- 031		2.27	0.009	0.3	0.42	26	10	30	<0.5	<2	1.69	0.7	4	9	56	2.23
JN11004- 032		2.00	0.018	0.9	0.59	95	10	40	<0.5	10	0.21	2.3	5	10	339	2.29
JN11004- 033		2.11	0.019	0.6	0.65	88	<10	40	<0.5	18	0.96	<0.5	4	9	228	2.43
JN11004- 034		2.57	0.036	1.6	0.56	67	<10	40	<0.5	29	0.26	1.2	5	7	93	2.15
JN11004- 035		1.90	0.072	5.3	0.29	114	10	20	<0.5	143	0.05	<0.5	7	20	61	0.81
JN11004- 036		2.29	0.373	65.6	0.19	1110	10	10	<0.5	1805	0.02	1.0	682	20	138	1.69
JN11004- 037		1.38	0.088	5.8	0.40	103	10	30	<0.5	163	0.06	<0.5	8	12	92	1.44
JN11004- 038		2.54	0.045	1.8	0.54	91	20	40	<0.5	36	0.10	<0.5	16	9	82	2.05
JN11004- 039		2.69	0.114	2.3	0.42	101	10	30	<0.5	33	0.29	<0.5	8	11	97	2.67



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CERTIFICATE OF ANALYSIS WH11191145

Sample Description	Method Analyte Units LOR	ME- ICP41 Ga ppm 10	ME- ICP41 Hg ppm 1	ME- ICP41 K % 0.01	ME- ICP41 La ppm 10	ME- ICP41 Mg % 0.01	ME- ICP41 Mn ppm 5	ME- ICP41 Mo ppm 1	ME- ICP41 Na % 0.01	ME- ICP41 Ni ppm 1	ME- ICP41 P ppm 10	ME- ICP41 Pb ppm 2	ME- ICP41 S % 0.01	ME- ICP41 Sb ppm 2	ME- ICP41 Sc ppm 1	ME- ICP41 Sr ppm 1
JN11004-001		20	1	0.02	<10	0.15	2040	4	0.01	1	1020	6	4.88	6	19	26
JN11004-002		20	1	0.08	<10	0.19	1950	6	0.01	5	560	12	>10.0	33	13	15
JN11004-003		20	2	0.01	<10	0.33	3620	7	0.01	<1	210	3	4.95	8	9	15
JN11004-004		10	1	0.01	<10	0.06	2070	6	0.01	<1	110	2	0.10	<2	2	11
JN11004-005		10	1	0.02	10	0.09	1900	2	0.01	<1	130	<2	0.54	3	2	13
JN11004-006		10	1	0.05	10	0.10	1790	9	0.03	<1	270	<2	0.23	2	1	37
JN11004-007		10	1	0.32	10	0.41	1150	99	0.09	24	260	8	5.47	134	6	53
JN11004-008		10	1	0.75	30	0.91	524	6	0.08	30	1480	2	0.31	<2	8	43
JN11004-009		<10	<1	0.24	20	0.27	424	14	0.04	6	670	6	0.16	<2	3	60
JN11004-010		<10	1	0.32	20	0.44	363	23	0.09	2	450	4	0.17	<2	4	81
JN11004-011		10	1	0.67	20	0.82	387	67	0.16	5	480	2	0.29	<2	7	68
JN11004-012		<10	<1	0.38	20	0.52	456	47	0.09	2	490	5	0.32	<2	5	88
JN11004-013		<10	1	0.25	20	0.42	370	3	0.07	2	560	2	0.22	<2	2	77
JN11004-014		<10	<1	0.24	20	0.33	381	5	0.05	1	480	6	0.28	2	3	75
JN11004-015		<10	<1	0.26	20	0.37	455	6	0.04	2	450	5	0.26	<2	4	89
JN11004-016		<10	<1	0.29	10	0.33	664	8	0.03	2	430	7	0.62	3	2	97
JN11004-017		<10	<1	0.23	20	0.51	441	4	0.02	3	430	8	0.40	2	5	137
JN11004-018		<10	<1	0.29	20	0.59	492	4	0.02	3	420	24	0.56	3	4	125
JN11004-019		<10	<1	0.23	20	0.27	438	5	0.02	1	390	7	0.59	2	2	101
JN11004-020		<10	<1	0.31	20	0.27	354	4	0.05	1	400	6	0.39	<2	3	97
JN11004-020S		<10	4	0.15	10	0.14	405	359	0.03	17	370	55	1.05	69	1	256
JN11004-021		<10	<1	0.26	20	0.22	585	6	0.01	1	390	52	0.82	5	2	57
JN11004-022		<10	1	0.27	10	0.10	422	12	<0.01	3	320	700	3.42	40	1	20
JN11004-023		<10	1	0.21	10	0.21	688	7	<0.01	2	390	515	0.83	33	2	46
JN11004-024		<10	<1	0.13	20	0.12	710	4	<0.01	1	470	28	0.44	3	3	11
JN11004-025		<10	1	0.18	10	0.14	644	5	<0.01	4	360	75	1.06	14	2	32
JN11004-026		<10	1	0.28	20	0.06	192	9	<0.01	3	310	30	0.78	13	2	16
JN11004-027		<10	<1	0.22	20	0.19	595	6	<0.01	2	420	22	0.44	4	3	37
JN11004-028		<10	1	0.30	10	0.09	710	6	<0.01	1	370	229	1.29	20	1	64
JN11004-029		<10	1	0.32	10	0.08	1130	8	<0.01	1	420	78	1.41	6	1	139
JN11004-030		<10	<1	0.37	10	0.19	811	9	<0.01	3	410	29	1.39	12	2	123
JN11004-031		<10	<1	0.23	10	0.23	766	6	<0.01	1	460	16	0.63	5	2	81
JN11004-032		<10	1	0.31	10	0.07	479	6	<0.01	2	420	70	1.02	5	2	19
JN11004-033		<10	1	0.31	10	0.12	812	8	<0.01	1	360	44	0.81	8	1	34
JN11004-034		<10	<1	0.34	10	0.06	338	5	<0.01	1	280	136	1.35	16	1	8
JN11004-035		<10	1	0.15	10	0.01	72	6	<0.01	2	160	177	0.32	48	1	8
JN11004-036		<10	<1	0.07	<10	0.01	50	8	<0.01	11	90	1150	1.01	388	1	5
JN11004-037		<10	<1	0.26	10	0.03	111	10	<0.01	1	200	154	0.66	40	1	5
JN11004-038		<10	<1	0.34	10	0.02	86	5	<0.01	1	300	46	1.48	20	1	9
JN11004-039		<10	<1	0.28	10	0.06	210	8	<0.01	3	390	44	2.21	29	1	16



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Sample Description	Method Analyte Units LOR	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41
		Th	Ti	Ti	U	V	W
		ppm 20	% 0.01	ppm 10	ppm 10	ppm 1	ppm 10
JN11004- 001		<20	<0.01	<10	10	65	10
JN11004- 002		<20	<0.01	<10	<10	30	20
JN11004- 003		<20	0.01	<10	<10	22	10
JN11004- 004		<20	0.03	<10	<10	17	10
JN11004- 005		<20	0.06	<10	<10	18	<10
JN11004- 006		<20	0.05	<10	<10	13	40
JN11004- 007		<20	0.01	<10	<10	33	20
JN11004- 008		<20	0.10	<10	<10	53	<10
JN11004- 009		<20	0.01	<10	<10	10	10
JN11004- 010		<20	0.02	<10	<10	17	10
JN11004- 011		<20	0.12	<10	<10	51	10
JN11004- 012		<20	0.03	<10	<10	27	10
JN11004- 013		<20	0.01	<10	<10	10	<10
JN11004- 014		<20	0.01	<10	<10	10	20
JN11004- 015		<20	0.02	<10	<10	12	<10
JN11004- 016		<20	<0.01	<10	<10	5	<10
JN11004- 017		<20	<0.01	<10	<10	9	<10
JN11004- 018		<20	<0.01	<10	<10	8	<10
JN11004- 019		<20	<0.01	<10	<10	4	<10
JN11004- 020		<20	<0.01	<10	<10	5	<10
JN11004- 020S		<20	0.01	<10	<10	16	<10
JN11004- 021		<20	<0.01	<10	<10	4	<10
JN11004- 022		<20	<0.01	<10	<10	2	<10
JN11004- 023		<20	<0.01	<10	<10	3	10
JN11004- 024		<20	<0.01	<10	<10	6	<10
JN11004- 025		<20	<0.01	<10	<10	2	<10
JN11004- 026		<20	<0.01	<10	<10	3	<10
JN11004- 027		<20	<0.01	<10	<10	3	<10
JN11004- 028		<20	<0.01	<10	<10	2	<10
JN11004- 029		<20	<0.01	<10	<10	2	<10
JN11004- 030		<20	<0.01	<10	<10	3	<10
JN11004- 031		<20	<0.01	<10	<10	2	<10
JN11004- 032		<20	<0.01	<10	<10	3	<10
JN11004- 033		<20	<0.01	<10	<10	3	<10
JN11004- 034		<20	<0.01	<10	<10	3	<10
JN11004- 035		<20	<0.01	<10	<10	1	<10
JN11004- 036		<20	<0.01	<10	<10	2	<10
JN11004- 037		<20	<0.01	<10	<10	2	<10
JN11004- 038		<20	<0.01	<10	<10	3	<10
JN11004- 039		<20	<0.01	<10	<10	2	<10



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CERTIFICATE OF ANALYSIS WH11191145

Sample Description	Method Analyte Units LOR	WEI- 21 Recvd Wt. kg 0.02	Au- AA23 Au ppm 0.005	ME- ICP41 Ag ppm 0.2	ME- ICP41 Al % 0.01	ME- ICP41 As ppm 2	ME- ICP41 B ppm 10	ME- ICP41 Ba ppm 10	ME- ICP41 Be ppm 0.5	ME- ICP41 Bi ppm 2	ME- ICP41 Ca % 0.01	ME- ICP41 Cd ppm 0.5	ME- ICP41 Co ppm 1	ME- ICP41 Cr ppm 1	ME- ICP41 Cu ppm 1	ME- ICP41 Fe % 0.01
JN11004- 040		2.21	0.010	<0.2	0.58	33	20	40	<0.5	<2	0.49	<0.5	5	10	243	1.73
JN11004- 040S		0.04	3.60	74.9	1.28	93	<10	80	<0.5	7	2.02	<0.5	10	18	754	3.13
JN11004- 040B		0.03	<0.005	<0.2	0.51	2	<10	170	<0.5	<2	0.13	<0.5	3	7	4	1.44
JN11004- 041		2.36	0.010	<0.2	0.48	27	10	30	<0.5	<2	0.48	<0.5	4	9	175	2.07
JN11004- 042		1.95	0.008	<0.2	0.57	117	10	40	0.5	11	0.16	<0.5	2	8	72	1.01
JN11004- 043		2.15	<0.005	<0.2	0.45	90	10	30	<0.5	4	0.63	<0.5	2	11	337	1.21
JN11004- 044		2.48	0.011	0.2	0.58	34	<10	40	0.5	11	1.42	<0.5	4	8	159	2.19
JN11004- 045		2.45	0.018	<0.2	0.37	26	<10	30	<0.5	5	0.34	<0.5	2	8	82	1.43
JN11004- 046		2.40	0.027	0.2	0.42	39	10	30	<0.5	6	0.58	<0.5	3	7	265	2.27
JN11004- 047		2.86	0.027	<0.2	0.40	44	10	30	<0.5	4	1.14	<0.5	3	8	56	1.81
JN11004- 048		1.07	0.082	0.2	0.44	130	10	30	<0.5	4	1.06	<0.5	2	6	12	2.25
JN11004- 049		3.10	0.216	0.5	0.31	205	<10	20	<0.5	26	0.24	<0.5	3	7	277	4.78
JN11004- 050		0.90	0.006	<0.2	0.38	10	20	30	<0.5	5	1.05	<0.5	3	5	43	1.40
JN11004- 051		2.28	0.011	<0.2	0.28	12	10	20	<0.5	3	1.12	<0.5	3	7	43	1.79
JN11004- 052		2.33	0.006	<0.2	0.44	8	10	20	<0.5	3	0.96	<0.5	3	8	16	2.28
JN11004- 053		2.40	0.009	<0.2	0.42	13	<10	20	<0.5	4	0.67	<0.5	4	8	73	2.33
JN11004- 054		2.92	0.016	<0.2	0.41	21	<10	30	<0.5	4	1.18	<0.5	3	7	19	2.28
JN11004- 055		2.60	0.005	<0.2	0.40	7	10	20	0.5	3	0.65	<0.5	3	9	20	2.07
JN11004- 056		1.63	0.007	<0.2	0.47	35	<10	30	0.5	4	0.60	<0.5	4	10	696	2.72
JN11004- 057		0.88	0.050	0.2	0.32	51	<10	20	<0.5	16	0.39	<0.5	6	10	1410	4.95
JN11004- 058		2.08	0.012	<0.2	0.43	43	<10	30	<0.5	4	1.42	<0.5	4	7	23	3.24
JN11004- 059		2.55	0.010	<0.2	0.40	13	<10	20	<0.5	3	0.87	<0.5	3	7	10	2.46
JN11004- 060		2.55	0.007	<0.2	0.43	17	<10	30	<0.5	4	0.93	<0.5	2	9	72	1.88
JN11004- 060S		0.05	1.435	32.7	0.36	24	<10	250	<0.5	5	1.30	<0.5	7	29	3130	2.57
JN11004- 061		2.37	<0.005	<0.2	0.48	8	<10	30	<0.5	3	1.01	<0.5	3	8	17	2.27
JN11004- 062		2.49	<0.005	<0.2	0.57	5	<10	30	<0.5	4	0.73	<0.5	3	8	14	2.30
JN11004- 063		2.14	0.013	<0.2	0.57	19	<10	30	<0.5	4	0.51	<0.5	4	9	12	2.28
JN11004- 064		2.62	0.012	<0.2	0.48	15	<10	30	<0.5	8	0.95	<0.5	3	8	33	1.95
JN11004- 065		2.56	<0.005	<0.2	0.56	7	<10	20	<0.5	4	0.66	<0.5	3	5	78	1.99
JN11004- 066		2.12	0.010	0.4	0.56	18	<10	40	<0.5	13	1.23	<0.5	4	8	53	2.07
JN11004- 067		2.50	<0.005	<0.2	0.51	6	<10	30	<0.5	7	0.89	<0.5	3	9	51	2.21
JN11004- 068		1.87	0.007	<0.2	0.51	10	<10	30	<0.5	4	0.94	<0.5	3	9	3	2.05
JN11004- 069		2.82	0.029	0.5	0.39	40	<10	20	<0.5	13	0.99	<0.5	3	8	31	2.17
JN11004- 070		2.63	0.123	<0.2	0.38	173	<10	20	<0.5	5	0.57	<0.5	3	7	6	4.54
JN11004- 071		2.35	0.007	<0.2	0.40	13	<10	30	<0.5	5	1.93	<0.5	4	8	3	2.37
JN11004- 072		2.46	<0.005	<0.2	0.58	8	<10	30	0.5	4	1.42	<0.5	3	9	2	2.68
JN11004- 073		2.46	<0.005	<0.2	0.51	4	<10	30	<0.5	6	0.91	<0.5	3	9	4	2.31
JN11004- 074		1.11	<0.005	<0.2	0.81	5	<10	40	0.5	6	0.98	<0.5	3	9	1	2.51
JN11004- 075		1.60	0.008	<0.2	0.46	15	10	30	<0.5	5	1.00	<0.5	2	6	11	2.01
JN11004- 076		2.34	0.135	<0.2	0.44	138	10	30	<0.5	4	1.02	<0.5	3	10	4	2.21



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CERTIFICATE OF ANALYSIS WH11191145

Sample Description	Method Analyte Units LOR	ME- ICP41 Ga ppm 10	ME- ICP41 Hg ppm 1	ME- ICP41 K % 0.01	ME- ICP41 La ppm 10	ME- ICP41 Mg % 0.01	ME- ICP41 Mn ppm 5	ME- ICP41 Mo ppm 1	ME- ICP41 Na % 0.01	ME- ICP41 Ni ppm 1	ME- ICP41 P ppm 10	ME- ICP41 Pb ppm 2	ME- ICP41 S % 0.01	ME- ICP41 Sb ppm 2	ME- ICP41 Sc ppm 1	ME- ICP41 Sr ppm 1
JN11004-040		<10	<1	0.34	20	0.10	494	7	<0.01	4	440	13	0.29	7	3	20
JN11004-040S		<10	1	0.16	<10	0.85	841	896	0.04	8	670	40	0.23	51	2	95
JN11004-040B		<10	1	0.32	10	0.22	324	3	0.08	<1	180	2	0.01	<2	4	9
JN11004-041		<10	<1	0.24	20	0.12	470	5	<0.01	2	410	12	0.39	7	3	22
JN11004-042		<10	<1	0.28	20	0.04	94	8	<0.01	5	290	19	0.18	9	2	14
JN11004-043		<10	<1	0.25	10	0.10	327	4	<0.01	3	430	8	0.13	9	2	31
JN11004-044		<10	<1	0.29	10	0.28	515	4	<0.01	2	480	12	0.42	9	2	61
JN11004-045		<10	<1	0.22	10	0.07	151	30	<0.01	2	350	6	0.89	10	1	18
JN11004-046		<10	<1	0.25	10	0.12	325	8	<0.01	2	410	8	1.35	18	2	27
JN11004-047		<10	<1	0.26	10	0.22	458	5	<0.01	1	410	11	0.64	8	2	52
JN11004-048		<10	<1	0.29	10	0.22	627	2	<0.01	1	370	10	1.29	15	2	41
JN11004-049		<10	<1	0.21	10	0.05	148	3	<0.01	5	300	18	4.71	50	1	13
JN11004-050		<10	<1	0.24	20	0.20	485	12	<0.01	1	430	14	0.20	7	3	55
JN11004-051		<10	<1	0.19	10	0.25	449	5	<0.01	2	390	12	0.27	6	3	60
JN11004-052		<10	<1	0.18	20	0.25	473	3	<0.01	1	410	12	0.12	5	3	52
JN11004-053		<10	<1	0.15	20	0.20	492	10	<0.01	3	440	13	0.22	4	4	34
JN11004-054		<10	<1	0.20	10	0.27	380	2	<0.01	4	420	13	0.50	9	3	65
JN11004-055		<10	<1	0.17	20	0.24	377	3	<0.01	1	440	11	0.19	5	3	52
JN11004-056		<10	<1	0.19	20	0.17	355	4	<0.01	6	450	17	1.10	9	4	36
JN11004-057		<10	<1	0.15	10	0.07	176	21	<0.01	21	310	32	4.55	42	2	28
JN11004-058		<10	<1	0.21	10	0.30	440	53	<0.01	4	410	10	1.52	14	3	70
JN11004-059		<10	<1	0.15	10	0.23	443	3	<0.01	3	370	13	0.71	9	3	46
JN11004-060		<10	1	0.22	10	0.20	382	3	<0.01	3	360	9	0.42	5	2	48
JN11004-060S		<10	4	0.15	10	0.14	403	358	0.04	18	380	59	1.07	73	1	264
JN11004-061		<10	<1	0.18	20	0.28	414	4	<0.01	2	410	11	0.12	2	4	63
JN11004-062		<10	<1	0.16	20	0.23	453	3	<0.01	1	410	14	0.09	<2	4	45
JN11004-063		<10	1	0.15	20	0.18	415	7	<0.01	1	450	12	0.53	<2	3	29
JN11004-064		<10	<1	0.20	20	0.22	348	5	<0.01	1	380	13	0.27	<2	2	53
JN11004-065		<10	<1	0.13	20	0.19	452	5	<0.01	1	450	12	0.09	<2	3	37
JN11004-066		<10	<1	0.26	20	0.26	425	11	<0.01	1	410	18	0.25	4	2	66
JN11004-067		<10	<1	0.17	20	0.25	432	6	<0.01	1	410	14	0.06	2	3	60
JN11004-068		<10	<1	0.20	20	0.25	427	2	<0.01	2	400	16	0.09	4	3	53
JN11004-069		<10	<1	0.21	10	0.18	325	8	<0.01	1	370	21	1.37	19	2	44
JN11004-070		<10	<1	0.20	10	0.14	244	4	<0.01	5	350	11	3.84	23	2	26
JN11004-071		<10	<1	0.19	10	0.40	533	35	<0.01	1	410	8	0.16	5	3	83
JN11004-072		<10	<1	0.20	20	0.40	599	6	<0.01	1	460	7	0.12	3	4	85
JN11004-073		<10	<1	0.16	20	0.25	475	11	<0.01	2	450	18	0.08	3	4	73
JN11004-074		<10	<1	0.25	30	0.29	485	1	<0.01	1	460	17	0.07	3	4	59
JN11004-075		<10	<1	0.24	20	0.24	305	5	<0.01	2	360	16	0.35	5	3	59
JN11004-076		<10	<1	0.28	10	0.21	329	3	<0.01	2	360	9	1.04	8	3	51



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CERTIFICATE OF ANALYSIS WH11191145

Sample Description	Method Analyte Units LOR	ME- ICP41 Th ppm 20	ME- ICP41 Ti % 0.01	ME- ICP41 Ti ppm 10	ME- ICP41 U ppm 10	ME- ICP41 V ppm 1	ME- ICP41 W ppm 10	ME- ICP41 Zn ppm 2
JN11004- 040		<20	<0.01	<10	<10	4	<10	25
JN11004- 040S		<20	0.10	<10	<10	30	<10	95
JN11004- 040B		<20	0.10	<10	<10	16	<10	19
JN11004- 041		<20	<0.01	<10	<10	3	<10	17
JN11004- 042		20	<0.01	<10	<10	4	<10	9
JN11004- 043		<20	<0.01	<10	<10	4	<10	11
JN11004- 044		<20	<0.01	<10	<10	3	<10	18
JN11004- 045		<20	<0.01	<10	<10	2	<10	6
JN11004- 046		<20	<0.01	<10	<10	3	<10	10
JN11004- 047		<20	<0.01	<10	<10	3	<10	14
JN11004- 048		<20	<0.01	<10	<10	2	<10	11
JN11004- 049		<20	<0.01	<10	<10	2	<10	9
JN11004- 050		<20	<0.01	<10	<10	2	<10	24
JN11004- 051		<20	<0.01	<10	<10	3	<10	20
JN11004- 052		<20	<0.01	<10	<10	4	<10	19
JN11004- 053		<20	<0.01	<10	<10	6	<10	23
JN11004- 054		<20	<0.01	<10	<10	3	<10	18
JN11004- 055		<20	<0.01	<10	<10	4	<10	20
JN11004- 056		<20	<0.01	<10	<10	5	<10	25
JN11004- 057		<20	<0.01	<10	<10	4	<10	21
JN11004- 058		<20	<0.01	<10	<10	3	<10	20
JN11004- 059		<20	<0.01	<10	<10	5	<10	54
JN11004- 060		<20	<0.01	<10	<10	3	<10	13
JN11004- 060S		<20	0.01	<10	<10	17	<10	47
JN11004- 061		<20	<0.01	<10	<10	8	<10	23
JN11004- 062		<20	<0.01	<10	<10	6	<10	23
JN11004- 063		<20	<0.01	<10	<10	7	<10	19
JN11004- 064		<20	<0.01	<10	<10	3	<10	14
JN11004- 065		<20	<0.01	<10	<10	7	<10	18
JN11004- 066		<20	<0.01	<10	<10	3	<10	14
JN11004- 067		<20	<0.01	<10	<10	5	<10	13
JN11004- 068		<20	<0.01	<10	<10	4	<10	25
JN11004- 069		<20	<0.01	<10	<10	2	<10	25
JN11004- 070		<20	<0.01	<10	<10	3	<10	19
JN11004- 071		<20	<0.01	<10	<10	4	<10	20
JN11004- 072		<20	<0.01	<10	<10	9	<10	23
JN11004- 073		<20	<0.01	<10	<10	6	<10	25
JN11004- 074		<20	<0.01	<10	<10	5	<10	12
JN11004- 075		<20	<0.01	<10	<10	3	<10	21
JN11004- 076		<20	<0.01	<10	<10	3	<10	18

***** See Appendix Page for comments regarding this certificate *****



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Sample Description	Method Analyte Units LOR	WEI- 21 Recvd Wt. kg 0.02	Au- AA23 Au ppm 0.005	ME- ICP41 Ag ppm 0.2	ME- ICP41 Al % 0.01	ME- ICP41 As ppm 2	ME- ICP41 B ppm 10	ME- ICP41 Ba ppm 10	ME- ICP41 Be ppm 0.5	ME- ICP41 Bi ppm 2	ME- ICP41 Ca % 0.01	ME- ICP41 Cd ppm 0.5	ME- ICP41 Co ppm 1	ME- ICP41 Cr ppm 1	ME- ICP41 Cu ppm 1	ME- ICP41 Fe % 0.01
JN11004- 077		2.27	<0.005	<0.2	0.42	4	20	40	0.5	<2	1.51	<0.5	3	13	2	1.79
JN11004- 078		2.33	<0.005	<0.2	0.64	2	<10	80	0.6	3	0.99	<0.5	3	18	2	1.94
JN11004- 079		2.35	0.304	0.7	0.25	7	<10	40	0.5	196	1.45	<0.5	2	10	2	1.37
JN11004- 080		3.33	0.073	0.2	0.52	7	<10	70	0.5	43	1.17	<0.5	3	12	3	1.94
JN11004- 080S		0.05	1.450	32.3	0.37	21	<10	260	<0.5	2	1.22	<0.5	7	29	3020	2.44
JN11004- 080B		0.04	0.005	<0.2	0.51	<2	<10	180	<0.5	2	0.13	<0.5	2	8	5	1.40
JN11004- 081		2.72	<0.005	0.2	0.38	4	10	50	0.6	4	1.68	<0.5	3	11	4	1.77
JN11004- 082		2.25	0.019	0.9	0.42	16	<10	70	0.5	10	1.98	<0.5	2	10	4	1.79
JN11004- 083		3.08	0.034	0.2	0.36	4	<10	50	0.5	27	1.33	<0.5	2	10	3	1.53
JN11004- 084		2.29	0.027	0.3	0.50	2	<10	50	0.5	30	1.30	<0.5	3	11	3	1.75
JN11004- 085		2.87	0.142	0.9	0.51	<2	<10	70	<0.5	158	0.89	<0.5	3	11	3	1.66
JN11004- 086		2.69	0.005	<0.2	0.71	2	<10	100	0.5	2	0.82	<0.5	3	11	1	1.85
JN11004- 087		2.85	0.006	<0.2	0.77	<2	<10	90	0.5	7	1.06	<0.5	2	17	2	1.85
JN11004- 088		1.92	0.006	0.6	0.53	5	10	60	0.7	14	1.48	<0.5	2	11	2	1.68
JN11004- 089		1.84	0.005	<0.2	0.40	6	10	50	0.7	2	1.64	<0.5	3	11	3	1.88
JN11004- 090		2.66	<0.005	<0.2	0.31	2	<10	50	0.8	3	1.56	<0.5	3	9	3	1.76
JN11004- 091		2.43	0.017	<0.2	0.34	8	10	50	0.6	20	1.63	<0.5	2	13	1	1.60
JN11004- 092		2.34	<0.005	<0.2	0.37	<2	<10	50	0.5	<2	1.43	<0.5	3	11	<1	1.64
JN11004- 093		2.64	<0.005	<0.2	0.32	3	10	40	0.5	2	1.71	<0.5	2	11	<1	1.61
JN11004- 094		2.17	0.008	<0.2	0.60	4	10	60	0.6	<2	1.40	<0.5	2	13	1	1.85
JN11004- 095		2.70	0.006	<0.2	0.45	7	10	50	0.5	2	1.69	<0.5	2	7	1	1.67
JN11004- 096		1.71	0.011	<0.2	0.66	19	20	50	<0.5	<2	0.96	<0.5	2	10	3	1.67
JN11004- 097		1.51	0.611	2.3	0.41	54	20	40	<0.5	488	0.86	<0.5	2	14	3	1.44
JN11004- 098		2.14	0.006	<0.2	0.54	6	10	50	0.5	<2	1.83	<0.5	3	9	<1	2.10
JN11004- 099		1.24	<0.005	0.5	0.39	7	10	50	0.5	9	1.15	<0.5	2	9	6	1.31
JN11004- 100		1.48	<0.005	<0.2	0.81	4	10	90	0.5	8	0.98	<0.5	3	12	4	1.85
JN11004- 100S		0.05	3.58	85.6	1.34	92	<10	90	<0.5	8	2.07	<0.5	9	19	770	3.29
JN11004- 101		2.49	0.005	<0.2	0.34	7	10	50	0.5	2	1.72	<0.5	2	10	6	1.68
JN11004- 102		2.19	0.013	<0.2	0.43	21	20	50	0.6	3	1.79	<0.5	2	8	3	1.39
JN11004- 103		2.11	0.181	0.3	0.38	115	20	40	0.7	141	2.03	<0.5	3	11	3	1.68
JN11004- 104		2.40	0.007	<0.2	0.49	11	10	60	0.6	5	1.58	<0.5	3	11	3	2.06
JN11004- 105		2.77	0.334	0.5	0.28	78	10	40	0.5	286	1.66	<0.5	3	15	4	1.62
JN11004- 106		2.45	0.132	<0.2	0.45	435	20	50	0.8	12	1.89	<0.5	3	9	4	1.92
JN11004- 107		2.29	0.515	<0.2	0.41	1620	20	40	0.8	47	1.95	<0.5	3	10	2	1.87
JN11004- 108		2.68	0.011	0.3	0.48	21	10	60	0.7	19	1.52	<0.5	3	9	1	1.83
JN11004- 109		2.39	0.030	<0.2	0.39	44	20	50	0.6	<2	1.94	<0.5	3	10	3	1.87
JN11004- 110		2.68	0.040	<0.2	0.35	43	20	20	0.6	<2	2.42	<0.5	2	8	19	2.08
JN11004- 111		2.84	0.037	0.5	0.41	132	20	30	0.6	<2	2.13	<0.5	2	8	3	1.91
JN11004- 112		2.25	0.027	<0.2	0.62	94	20	30	0.7	<2	1.44	<0.5	3	10	2	2.18
JN11004- 113		2.60	<0.005	0.2	0.35	8	20	10	0.7	<2	1.74	<0.5	3	8	2	2.03

***** See Appendix Page for comments regarding this certificate *****



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JN11004- 077		<10	<1	0.22	20	0.27	285	1	0.02	2	420	13	0.03	3	3	106
JN11004- 078		<10	<1	0.30	20	0.29	287	5	0.07	1	400	5	0.03	<2	4	69
JN11004- 079		<10	<1	0.15	20	0.21	215	60	0.03	<1	310	40	0.03	4	2	102
JN11004- 080		<10	<1	0.26	20	0.33	280	4	0.05	1	430	18	0.03	2	4	96
JN11004- 080S		<10	4	0.15	10	0.13	390	362	0.04	17	370	60	1.00	69	1	251
JN11004- 080B		<10	<1	0.33	10	0.21	315	<1	0.09	<1	180	2	<0.01	<2	4	9
JN11004- 081		<10	<1	0.23	20	0.27	347	1	0.04	1	390	19	0.05	<2	3	127
JN11004- 082		<10	1	0.24	20	0.28	419	1	0.03	1	350	55	0.23	<2	2	95
JN11004- 083		<10	<1	0.19	20	0.25	293	1	0.03	<1	370	17	0.09	<2	3	91
JN11004- 084		<10	<1	0.23	20	0.27	301	1	0.05	1	380	27	0.14	<2	3	83
JN11004- 085		<10	<1	0.20	20	0.31	244	2	0.03	1	390	69	0.08	3	4	52
JN11004- 086		<10	1	0.31	20	0.32	266	9	0.06	<1	400	4	0.05	<2	4	52
JN11004- 087		<10	<1	0.33	20	0.32	295	3	0.07	1	410	8	0.03	<2	4	62
JN11004- 088		<10	<1	0.31	20	0.24	284	2	0.05	1	410	17	0.06	<2	3	125
JN11004- 089		<10	<1	0.24	20	0.24	262	1	0.05	1	420	12	0.12	<2	3	160
JN11004- 090		<10	<1	0.19	20	0.26	249	4	0.04	1	420	11	0.05	<2	3	140
JN11004- 091		<10	<1	0.22	20	0.26	243	179	0.03	1	410	11	0.14	<2	3	128
JN11004- 092		<10	<1	0.19	20	0.24	262	142	0.03	1	360	8	0.02	<2	3	112
JN11004- 093		<10	<1	0.19	20	0.25	250	334	0.03	<1	370	9	0.04	2	3	132
JN11004- 094		<10	<1	0.25	20	0.24	286	58	0.04	1	380	8	0.07	2	3	108
JN11004- 095		<10	1	0.21	20	0.23	291	536	0.01	<1	410	12	0.21	3	2	104
JN11004- 096		<10	<1	0.29	20	0.18	312	125	0.01	1	370	8	0.31	4	2	55
JN11004- 097		<10	<1	0.24	10	0.16	266	39	0.01	1	290	106	0.34	49	1	55
JN11004- 098		<10	<1	0.25	20	0.33	393	1	0.02	1	440	13	0.02	2	3	108
JN11004- 099		<10	<1	0.25	20	0.18	245	15	0.03	1	390	17	0.06	7	2	73
JN11004- 100		<10	<1	0.33	30	0.25	243	3	0.08	1	360	7	0.06	3	4	89
JN11004- 100S		<10	1	0.16	<10	0.87	858	724	0.05	8	700	40	0.22	59	2	99
JN11004- 101		<10	<1	0.20	20	0.22	316	3	0.03	1	390	13	0.05	5	3	158
JN11004- 102		<10	<1	0.27	20	0.17	354	1	0.01	<1	310	17	0.17	10	2	160
JN11004- 103		<10	<1	0.24	20	0.23	362	9	0.02	<1	380	27	0.26	16	2	158
JN11004- 104		<10	<1	0.24	20	0.27	330	10	0.04	1	430	9	0.11	3	3	147
JN11004- 105		<10	1	0.20	20	0.24	318	4	0.02	1	380	34	0.05	19	2	105
JN11004- 106		<10	1	0.28	20	0.26	425	1	0.02	2	420	21	0.32	12	3	146
JN11004- 107		<10	<1	0.27	20	0.20	343	1	0.01	1	460	17	0.89	20	3	135
JN11004- 108		<10	<1	0.26	30	0.25	310	3	0.04	1	430	22	0.08	6	4	143
JN11004- 109		<10	1	0.26	20	0.27	450	1	0.01	1	450	16	0.22	10	3	150
JN11004- 110		<10	<1	0.24	20	0.33	481	3	0.02	17	420	34	0.35	10	3	205
JN11004- 111		<10	<1	0.21	20	0.26	452	5	0.03	2	420	33	0.34	14	3	187
JN11004- 112		<10	<1	0.26	20	0.29	344	2	0.04	1	430	10	0.32	4	3	122
JN11004- 113		<10	<1	0.22	20	0.32	343	3	0.03	1	440	16	0.06	6	3	144



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Sample Description	Method Analyte Units LOR	ME- ICP41 Th ppm 20	ME- ICP41 Ti % 0.01	ME- ICP41 Ti ppm 10	ME- ICP41 U ppm 10	ME- ICP41 V ppm 1	ME- ICP41 W ppm 10	ME- ICP41 Zn ppm 2
JN11004- 077		<20	<0.01	<10	<10	3	10	18
JN11004- 078		<20	0.03	<10	<10	14	10	18
JN11004- 079		<20	<0.01	<10	<10	2	10	12
JN11004- 080		<20	0.03	<10	<10	15	20	19
JN11004- 080S		<20	0.01	<10	<10	16	<10	49
JN11004- 080B		<20	0.09	<10	<10	16	<10	18
JN11004- 081		<20	<0.01	<10	<10	3	<10	35
JN11004- 082		<20	<0.01	<10	<10	2	<10	49
JN11004- 083		<20	0.01	<10	<10	8	10	38
JN11004- 084		<20	0.01	<10	<10	9	10	13
JN11004- 085		<20	0.03	<10	<10	15	10	15
JN11004- 086		<20	0.06	<10	<10	17	10	22
JN11004- 087		<20	0.05	<10	<10	17	50	15
JN11004- 088		<20	<0.01	<10	<10	3	<10	13
JN11004- 089		<20	<0.01	<10	<10	3	<10	17
JN11004- 090		<20	<0.01	<10	<10	4	20	16
JN11004- 091		<20	<0.01	<10	<10	3	10	14
JN11004- 092		<20	0.01	<10	<10	7	520	17
JN11004- 093		<20	<0.01	<10	<10	5	450	16
JN11004- 094		<20	0.01	<10	<10	9	90	18
JN11004- 095		<20	<0.01	<10	<10	2	620	18
JN11004- 096		<20	<0.01	<10	<10	2	10	12
JN11004- 097		<20	<0.01	<10	<10	2	<10	17
JN11004- 098		<20	<0.01	<10	<10	3	<10	25
JN11004- 099		<20	<0.01	<10	<10	2	<10	14
JN11004- 100		<20	0.03	<10	<10	13	100	15
JN11004- 100S		<20	0.10	<10	<10	32	<10	99
JN11004- 101		<20	<0.01	<10	<10	3	<10	17
JN11004- 102		<20	<0.01	<10	<10	2	<10	17
JN11004- 103		<20	<0.01	<10	<10	2	20	57
JN11004- 104		<20	0.01	<10	<10	8	20	18
JN11004- 105		<20	<0.01	<10	<10	2	40	25
JN11004- 106		<20	<0.01	<10	<10	2	<10	23
JN11004- 107		<20	<0.01	<10	<10	2	<10	18
JN11004- 108		<20	0.01	<10	<10	9	10	20
JN11004- 109		<20	<0.01	<10	<10	2	<10	23
JN11004- 110		<20	<0.01	<10	<10	2	<10	40
JN11004- 111		<20	<0.01	<10	<10	7	<10	27
JN11004- 112		<20	0.01	<10	<10	11	<10	23
JN11004- 113		<20	<0.01	<10	<10	3	<10	21



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Sample Description	Method Analyte Units LOR	WEI- 21 Recvd Wt. kg 0.02	Au- AA23 Au ppm 0.005	ME- ICP41 Ag ppm 0.2	ME- ICP41 Al % 0.01	ME- ICP41 As ppm 2	ME- ICP41 B ppm 10	ME- ICP41 Ba ppm 10	ME- ICP41 Be ppm 0.5	ME- ICP41 Bi ppm 2	ME- ICP41 Ca % 0.01	ME- ICP41 Cd ppm 0.5	ME- ICP41 Co ppm 1	ME- ICP41 Cr ppm 1	ME- ICP41 Cu ppm 1	ME- ICP41 Fe % 0.01
JN11004- 114		2.25	<0.005	<0.2	0.48	9	20	20	0.8	<2	1.87	<0.5	2	8	3	2.17
JN11004- 115		2.42	0.116	0.2	0.35	115	20	20	0.8	<2	1.88	1.7	3	6	7	2.15
JN11004- 116		2.52	0.066	3.1	0.42	139	20	20	0.6	7	2.66	2.1	3	7	9	2.27
JN11004- 117		2.76	0.007	0.2	0.29	16	10	10	0.6	<2	1.90	<0.5	3	11	2	1.99
JN11004- 118		2.53	<0.005	0.3	0.34	8	10	20	0.8	<2	2.23	<0.5	2	9	1	1.85
JN11004- 119		1.93	<0.005	0.2	0.31	8	10	10	0.6	<2	2.24	<0.5	3	10	1	1.95
JN11004- 120		1.97	<0.005	0.2	0.44	6	20	20	0.7	<2	2.05	<0.5	2	9	1	2.09
JN11004- 120S		0.05	1.405	32.5	0.36	25	<10	230	<0.5	<2	1.28	<0.5	7	29	3130	2.52
JN11004- 120B		0.05	NSS	<0.2	0.70	2	<10	110	<0.5	<2	0.28	<0.5	2	13	8	1.59
JN11004- 121		2.76	<0.005	0.7	0.23	4	10	<10	0.5	40	1.00	<0.5	1	15	2	0.55
JN11004- 122		2.65	0.018	1.1	0.40	10	20	20	0.6	34	1.72	<0.5	2	11	1	1.79



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CERTIFICATE OF ANALYSIS WH11191145

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JN11004- 114		<10	<1	0.25	20	0.32	391	2	0.03	1	410	36	0.10	17	3	139
JN11004- 115		<10	<1	0.25	10	0.31	509	1	0.02	<1	400	131	0.56	65	3	140
JN11004- 116		<10	<1	0.29	10	0.24	1095	2	0.02	1	390	853	0.86	141	2	208
JN11004- 117		<10	<1	0.21	20	0.27	434	2	0.03	<1	430	17	0.10	9	3	178
JN11004- 118		<10	<1	0.24	20	0.27	420	2	0.03	1	400	29	0.07	15	3	195
JN11004- 119		<10	<1	0.22	20	0.30	378	3	0.04	<1	420	23	0.09	10	3	185
JN11004- 120		<10	<1	0.27	20	0.32	384	5	0.03	<1	460	16	0.08	8	3	142
JN11004- 120S		<10	3	0.15	10	0.14	404	370	0.05	18	380	59	1.08	74	1	276
JN11004- 120B		<10	<1	0.30	10	0.21	353	2	0.13	2	180	6	0.03	<2	3	19
JN11004- 121		<10	<1	0.16	10	0.04	108	3	0.03	1	90	32	0.05	16	1	90
JN11004- 122		<10	<1	0.26	20	0.25	296	4	0.04	1	390	13	0.12	7	2	121



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Sample Description	Method Analyte Units LOR	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41
		Th	Ti	Ti	U	V	W	Zn
		ppm 20	% 0.01	ppm 10	ppm 10	ppm 1	ppm 10	ppm 2
JN11004-114		<20	<0.01	<10	<10	4	<10	48
JN11004-115		<20	<0.01	<10	<10	2	<10	358
JN11004-116		<20	<0.01	<10	<10	2	<10	412
JN11004-117		<20	<0.01	<10	<10	3	<10	28
JN11004-118		<20	<0.01	<10	<10	2	<10	23
JN11004-119		<20	<0.01	<10	<10	2	<10	22
JN11004-120		<20	<0.01	<10	<10	2	<10	23
JN11004-120S		<20	0.01	<10	<10	17	<10	50
JN11004-120B		<20	0.09	<10	<10	14	<10	25
JN11004-121		<20	<0.01	<10	<10	<1	<10	10
JN11004-122		<20	<0.01	<10	<10	2	<10	17



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Method	CERTIFICATE COMMENTS
ALL METHODS	NSS is non- sufficient sample.



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QC CERTIFICATE WH11191145

Project:

P.O. No.: JN11- 004

This report is for 131 Drill Core samples submitted to our lab in Whitehorse, YT, Canada on 19- SEP- 2011.

The following have access to data associated with this certificate:

JESSE CAMPBELL

CHRIS GALLAGHER

SAMPLE PREPARATION

ALS CODE	DESCRIPTION
WEI- 21	Received Sample Weight
LOG- 22	Sample login - Rcd w/o BarCode
SPL- 22Y	Split Sample - Boyd Rotary Splitter
BAG- 01	Bulk Master for Storage
LOG- 24	Pulp Login - Rcd w/o Barcode
CRU- QC	Crushing QC Test
PUL- QC	Pulverizing QC Test
CRU- 31	Fine crushing - 70% < 2mm
PUL- 32m	Pulverize 500g - 85% < 75um

ANALYTICAL PROCEDURES

ALS CODE	DESCRIPTION	INSTRUMENT
Au- AA23	Au 30g FA- AA finish	AAS
ME- ICP41	35 Element Aqua Regia ICP- AES	ICP- AES

To: TERRALOGIC EXPLORATION SERVICES INC.
ATTN: CHRIS GALLAGHER
44 - 12TH AVENUE SOUTH
SUITE 200
CRANBROOK BC V1C 2R7

This is the Final Report and supersedes any preliminary report with this certificate number. Results apply to samples as submitted. All pages of this report have been checked and approved for release.

Signature:

Colin Ramshaw, Vancouver Laboratory Manager



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Plus Appendix Pages

Finalized Date: 29- NOV- 2011

Account: TELOEX

QC CERTIFICATE OF ANALYSIS WH11191145

Sample Description	Method Analyte Units LOR	Au- AA23 Au ppm 0.005	ME- ICP41 Ag ppm 0.2	ME- ICP41 Al % 0.01	ME- ICP41 As ppm 2	ME- ICP41 B ppm 10	ME- ICP41 Ba ppm 10	ME- ICP41 Be ppm 0.5	ME- ICP41 Bi ppm 2	ME- ICP41 Ca % 0.01	ME- ICP41 Cd ppm 0.5	ME- ICP41 Co ppm 1	ME- ICP41 Cr ppm 1	ME- ICP41 Cu ppm 1	ME- ICP41 Fe % 0.01	ME- ICP41 Ga ppm 10
STANDARDS																
GBM908- 10		2.9	0.97	59	<10	100	<0.5	2	0.71	1.6	14	22	3530	2.74	<10	
GBM908- 10		3.1	1.02	60	<10	120	<0.5	<2	0.73	1.7	13	24	3680	2.86	10	
GBM908- 5		55.5	1.08	8	<10	180	<0.5	<2	0.68	<0.5	11	17	468	2.30	<10	
GBM908- 5		57.8	1.09	8	<10	190	<0.5	5	0.70	<0.5	9	18	486	2.38	<10	
GBM908- 5		60.3	1.14	6	<10	170	<0.5	<2	0.72	<0.5	9	19	501	2.43	<10	
MRGeo08		4.4	2.62	38	<10	420	0.7	3	1.10	2.0	17	91	620	3.57	10	
MRGeo08		4.5	2.85	38	<10	440	0.8	<2	1.08	2.0	17	92	613	3.56	10	
OGGeo08		18.9	2.21	119	<10	70	0.7	9	0.88	17.9	92	80	8120	4.85	10	
OGGeo08		20.0	2.19	117	<10	70	0.7	6	0.89	17.7	89	81	8260	5.04	<10	
OGGeo08		20.3	2.26	123	<10	70	0.7	10	0.91	19.0	90	83	8410	5.03	<10	
OREAS 65a	0.521															
OREAS- 16b	2.23															
OREAS- 16b	2.18															
OREAS- 16b	2.17															
OREAS- 16b	2.25															
OxC88	0.206															
OxC88	0.198															
OxC88	0.208															
OxC88	0.204															
OxL78	5.79															

***** See Appendix Page for comments regarding this certificate *****



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QC CERTIFICATE OF ANALYSIS WH11191145

Sample Description	Method Analyte Units LOR	ME- ICP41 Hg ppm	ME- ICP41 K %	ME- ICP41 La ppm	ME- ICP41 Mg %	ME- ICP41 Mn ppm	ME- ICP41 Mo ppm	ME- ICP41 Na %	ME- ICP41 Ni ppm	ME- ICP41 P ppm	ME- ICP41 Pb ppm	ME- ICP41 S %	ME- ICP41 Sb ppm	ME- ICP41 Sc ppm	ME- ICP41 Sr ppm	ME- ICP41 Th ppm
		1	0.01	10	0.01	5	1	0.01	1	10	2	0.01	2	1	1	20
STANDARDS																
GBM908- 10		<1	0.41	40	0.53	297	57	0.12	2180	850	1950	0.38	3	2	38	20
GBM908- 10		1	0.44	50	0.55	310	62	0.14	2320	890	2130	0.38	<2	2	38	20
GBM908- 5		<1	0.80	90	0.78	339	50	0.03	423	1230	354	0.16	<2	1	51	40
GBM908- 5		<1	0.80	90	0.78	339	51	0.03	409	1260	362	0.18	<2	1	50	40
GBM908- 5		<1	0.84	100	0.79	354	54	0.04	423	1290	389	0.19	<2	1	57	40
MRCGeo08		<1	1.21	30	1.16	422	15	0.32	654	1030	999	0.31	4	7	80	20
MRCGeo08		1	1.25	30	1.13	416	13	0.33	677	1010	1020	0.30	4	7	79	20
OGGeo08		1	1.02	30	0.95	384	903	0.29	8210	780	6830	2.78	24	6	64	20
OGGeo08		1	1.03	30	0.98	382	897	0.28	8280	780	6800	2.77	27	6	65	20
OGGeo08		<1	1.04	30	0.98	395	919	0.31	8280	810	6900	2.83	27	6	70	<20
OREAS 65a																
OREAS- 16b																
OREAS- 16b																
OREAS- 16b																
OREAS- 16b																
OxC88																
OxC88																
OxC88																
OxC88																
OxL78																



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QC CERTIFICATE OF ANALYSIS WH11191145

Sample Description	Method Analyte Units LOR	ME- ICP41 Ti %	ME- ICP41 Ti ppm	ME- ICP41 U ppm	ME- ICP41 V ppm	ME- ICP41 W ppm	ME- ICP41 Zn ppm
		0.01	10	10	1	10	2
STANDARDS							
GBM908- 10		0.31	<10	<10	47	<10	1020
GBM908- 10		0.33	<10	<10	50	<10	1045
GBM908- 5		0.16	<10	<10	25	<10	219
GBM908- 5		0.15	<10	<10	25	<10	228
GBM908- 5		0.17	<10	<10	26	<10	236
MRGeo08		0.38	<10	<10	100	<10	772
MRGeo08		0.38	<10	<10	100	<10	787
OGGeo08		0.30	<10	<10	78	10	6640
OGGeo08		0.31	<10	<10	79	<10	6540
OGGeo08		0.31	<10	<10	81	<10	6940
OREAS 65a							
OREAS- 16b							
OREAS- 16b							
OREAS- 16b							
OREAS- 16b							
OxC88							
OxC88							
OxC88							
OxC88							
OxL78							



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QC CERTIFICATE OF ANALYSIS WH11191145

Sample Description	Method Analyte Units LOR	ME- ICP41 Ti %	ME- ICP41 Ti ppm	ME- ICP41 U ppm	ME- ICP41 V ppm	ME- ICP41 W ppm	ME- ICP41 Zn ppm
		0.01	10	10	1	10	2
BLANK		BLANKS					
BLANK							
BLANK							
BLANK							
BLANK							
BLANK		<0.01	<10	<10	<1	<10	<2
BLANK		<0.01	<10	<10	<1	<10	<2
BLANK		<0.01	<10	<10	<1	<10	<2
BLANK		<0.01	<10	<10	<1	<10	<2
BLANK		<0.01	<10	<10	<1	<10	<2
ORIGINAL DUP		DUPLICATES					
ORIGINAL DUP		<0.01	<10	<10	4	<10	134
		<0.01	<10	<10	4	<10	133
ORIGINAL DUP							



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QC CERTIFICATE OF ANALYSIS WH11191145

Method Analyte Units LOR	Au- AA23 Au ppm 0.005	ME- ICP41 Ag ppm 0.2	ME- ICP41 Al % 0.01	ME- ICP41 As ppm 2	ME- ICP41 B ppm 10	ME- ICP41 Ba ppm 10	ME- ICP41 Be ppm 0.5	ME- ICP41 Bi ppm 2	ME- ICP41 Ca % 0.01	ME- ICP41 Cd ppm 0.5	ME- ICP41 Co ppm 1	ME- ICP41 Cr ppm 1	ME- ICP41 Cu ppm 1	ME- ICP41 Fe % 0.01	ME- ICP41 Ga ppm 10
Sample Description															
ORIGINAL DUP	0.037 0.038														
ORIGINAL DUP	0.189 0.172														
ORIGINAL DUP	<0.005 <0.005														
ORIGINAL DUP	<0.005 <0.005														
ORIGINAL DUP	0.075 0.073														
JN11005- 038 DUP	0.016 0.015														
JN11005- 056 DUP	0.018 0.019														
JN11004- 013 DUP	<0.005 <0.005														



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QC CERTIFICATE OF ANALYSIS WH11191145

Sample Description	Method Analyte Units LOR	ME- ICP41 Hg ppm 1	ME- ICP41 K % 0.01	ME- ICP41 La ppm 10	ME- ICP41 Mg % 0.01	ME- ICP41 Mn ppm 5	ME- ICP41 Mo ppm 1	ME- ICP41 Na % 0.01	ME- ICP41 Ni ppm 1	ME- ICP41 P ppm 10	ME- ICP41 Pb ppm 2	ME- ICP41 S % 0.01	ME- ICP41 Sb ppm 2	ME- ICP41 Sc ppm 1	ME- ICP41 Sr ppm 1	ME- ICP41 Th ppm 20
ORIGINAL DUP [REDACTED]		DUPLICATES														
ORIGINAL DUP [REDACTED]																
ORIGINAL DUP [REDACTED]																
ORIGINAL DUP [REDACTED]																
ORIGINAL DUP [REDACTED]																
ORIGINAL DUP [REDACTED]																
JN11005- 038 DUP [REDACTED]																
JN11005- 056 DUP [REDACTED]																
JN11004- 013 DUP [REDACTED]																



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QC CERTIFICATE OF ANALYSIS WH11191145

Sample Description	Method Analyte Units LOR	ME- ICP41 Ti %	ME- ICP41 Ti ppm	ME- ICP41 U ppm	ME- ICP41 V ppm	ME- ICP41 W ppm	ME- ICP41 Zn ppm
		0.01	10	10	1	10	2
ORIGINAL DUP [REDACTED]		DUPLICATES					
ORIGINAL DUP [REDACTED]							
ORIGINAL DUP [REDACTED]							
ORIGINAL DUP [REDACTED]							
ORIGINAL DUP [REDACTED]							
ORIGINAL DUP [REDACTED]							
JN11005- 038 DUP [REDACTED]							
JN11005- 056 DUP [REDACTED]							
JN11004- 013 DUP [REDACTED]							

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QC CERTIFICATE OF ANALYSIS WH11191145

Sample Description	Method Analyte Units LOR	Au- AA23 Au ppm 0.005	ME- ICP41 Ag ppm 0.2	ME- ICP41 Al % 0.01	ME- ICP41 As ppm 2	ME- ICP41 B ppm 10	ME- ICP41 Ba ppm 10	ME- ICP41 Be ppm 0.5	ME- ICP41 Bi ppm 2	ME- ICP41 Ca % 0.01	ME- ICP41 Cd ppm 0.5	ME- ICP41 Co ppm 1	ME- ICP41 Cr ppm 1	ME- ICP41 Cu ppm 1	ME- ICP41 Fe % 0.01	ME- ICP41 Ga ppm 10
DUPLICATES																
JN11004- 018 DUP			0.4 0.3	0.62 0.65	6 3	10 20	40 40	0.8 0.8	20 20	1.98 2.00	<0.5 <0.5	7 7	12 11	38 40	3.08 3.11	<10 <10
JN11004- 051 DUP			<0.2 <0.2	0.28 0.30	12 14	10 10	20 20	<0.5 <0.5	3 4	1.12 1.14	<0.5 <0.5	3 3	7 7	43 44	1.79 1.83	<10 <10
JN11004- 067 DUP		<0.005 <0.005														
JN11004- 084 DUP			0.3 0.3	0.50 0.48	2 3	<10 <10	50 50	0.5 0.5	30 29	1.30 1.27	<0.5 <0.5	3 3	11 9	3 2	1.75 1.71	<10 <10
JN11004- 085 DUP		0.142 0.148														
JN11004- 119 DUP			0.2 0.2	0.31 0.30	8 10	10 10	10 10	0.6 0.6	<2 <2	2.24 2.19	<0.5 <0.5	3 3	10 8	1 1	1.95 1.90	<10 <10
PREP DUPLICATES																
JN11004- 051 JN11004- 051 PREP DUP		0.011 0.009	<0.2 <0.2	0.28 0.38	12 10	10 20	20 10	<0.5 <0.5	3 <2	1.12 1.13	<0.5 <0.5	3 3	7 10	43 43	1.79 1.82	<10 <10
JN11004- 101 JN11004- 101 PREP DUP		0.005 <0.005	<0.2 <0.2	0.34 0.48	7 7	10 20	50 30	0.5 0.6	2 2	1.72 1.72	<0.5 <0.5	2 2	10 9	6 6	1.68 1.79	<10 <10



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QC CERTIFICATE OF ANALYSIS WH11191145

Sample Description	Method Analyte Units LOR	ME- ICP41 Hg ppm 1	ME- ICP41 K % 0.01	ME- ICP41 La ppm 10	ME- ICP41 Mg % 0.01	ME- ICP41 Mn ppm 5	ME- ICP41 Mo ppm 1	ME- ICP41 Na % 0.01	ME- ICP41 Ni ppm 1	ME- ICP41 P ppm 10	ME- ICP41 Pb ppm 2	ME- ICP41 S % 0.01	ME- ICP41 Sb ppm 2	ME- ICP41 Sc ppm 1	ME- ICP41 Sr ppm 1	ME- ICP41 Th ppm 20
DUPLICATES																
JN11004- 018		<1	0.29	20	0.59	492	4	0.02	3	420	24	0.56	3	4	125	<20
DUP		1	0.31	20	0.60	499	4	0.02	3	420	24	0.57	4	4	127	<20
JN11004- 051		<1	0.19	10	0.25	449	5	<0.01	2	390	12	0.27	6	3	60	<20
DUP		<1	0.20	20	0.26	457	4	<0.01	2	390	11	0.28	6	3	61	<20
JN11004- 067																
DUP																
JN11004- 084		<1	0.23	20	0.27	301	1	0.05	1	380	27	0.14	<2	3	83	<20
DUP		1	0.22	20	0.26	296	1	0.05	1	370	25	0.14	<2	3	82	<20
JN11004- 085																
DUP																
JN11004- 119		<1	0.22	20	0.30	378	3	0.04	<1	420	23	0.09	10	3	185	<20
DUP		<1	0.22	20	0.30	369	2	0.03	1	420	21	0.08	10	3	180	<20
PREP DUPLICATES																
JN11004- 051		<1	0.19	10	0.25	449	5	<0.01	2	390	12	0.27	6	3	60	<20
JN11004- 051 PREP DUP		<1	0.24	20	0.25	461	5	0.01	1	390	13	0.27	6	3	63	<20
JN11004- 101		<1	0.20	20	0.22	316	3	0.03	1	390	13	0.05	5	3	158	<20
JN11004- 101 PREP DUP		<1	0.26	20	0.22	317	2	0.05	1	380	12	0.08	6	3	170	<20



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QC CERTIFICATE OF ANALYSIS WH1191145

Sample Description	Method Analyte Units LOR	ME- ICP41 Ti %	ME- ICP41 Ti ppm	ME- ICP41 U ppm	ME- ICP41 V ppm	ME- ICP41 W ppm	ME- ICP41 Zn ppm
		0.01	10	10	1	10	2
DUPLICATES							
JN11004- 018		<0.01	<10	<10	8	<10	25
DUP		<0.01	<10	<10	8	<10	26
JN11004- 051		<0.01	<10	<10	3	<10	20
DUP		<0.01	<10	<10	3	<10	21
JN11004- 067							
DUP							
JN11004- 084		0.01	<10	<10	9	10	13
DUP		0.01	<10	<10	9	10	13
JN11004- 085							
DUP							
JN11004- 119		<0.01	<10	<10	2	<10	22
DUP		<0.01	<10	<10	2	<10	21
PREP DUPLICATES							
JN11004- 051		<0.01	<10	<10	3	<10	20
JN11004- 051 PREP DUP		<0.01	<10	<10	3	<10	20
JN11004- 101		<0.01	<10	<10	3	<10	17
JN11004- 101 PREP DUP		<0.01	<10	<10	4	<10	18



Minerals

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QC CERTIFICATE OF ANALYSIS WH11191145

Method	CERTIFICATE COMMENTS
ALL METHODS	NSS is non- sufficient sample.



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CERTIFICATE WH11191144

Project:

P.O. No.: JN11- 005

This report is for 141 Drill Core samples submitted to our lab in Whitehorse, YT, Canada on 19- SEP- 2011.

The following have access to data associated with this certificate:

JESSE CAMPBELL

CHRIS GALLAGHER

SAMPLE PREPARATION

ALS CODE	DESCRIPTION
WEI- 21	Received Sample Weight
LOG- 22	Sample login - Rcd w/o BarCode
SPL- 22Y	Split Sample - Boyd Rotary Splitter
LOG- 24	Pulp Login - Rcd w/o Barcode
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PUL- QC	Pulverizing QC Test
CRU- 31	Fine crushing - 70% <2mm

ANALYTICAL PROCEDURES

ALS CODE	DESCRIPTION	INSTRUMENT
Au- AA23	Au 30g FA- AA finish	AAS
ME- ICP41	35 Element Aqua Regia ICP- AES	ICP- AES

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Signature:

Colin Ramshaw, Vancouver Laboratory Manager



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CERTIFICATE OF ANALYSIS WH11191144

Sample Description	Method Analyte Units LOR	WEI- 21 Recvd Wt. kg 0.02	Au- AA23 Au ppm 0.005	ME- ICP41 Ag ppm 0.2	ME- ICP41 Al % 0.01	ME- ICP41 As ppm 2	ME- ICP41 B ppm 10	ME- ICP41 Ba ppm 10	ME- ICP41 Be ppm 0.5	ME- ICP41 Bi ppm 2	ME- ICP41 Ca % 0.01	ME- ICP41 Cd ppm 0.5	ME- ICP41 Co ppm 1	ME- ICP41 Cr ppm 1	ME- ICP41 Cu ppm 1	ME- ICP41 Fe % 0.01
JN11005- 001		2.51	0.008	<0.2	0.37	2	<10	<10	1.0	13	6.30	<0.5	4	4	83	6.05
JN11005- 002		3.02	0.005	<0.2	0.28	3	<10	<10	0.8	7	3.58	<0.5	9	4	281	7.41
JN11005- 003		3.20	<0.005	<0.2	0.31	<2	<10	<10	0.8	2	3.78	<0.5	5	4	67	4.07
JN11005- 004		2.83	<0.005	<0.2	1.20	<2	<10	10	1.0	3	8.6	<0.5	4	13	140	7.09
JN11005- 005		2.69	0.007	<0.2	1.62	3	<10	10	1.9	6	8.5	<0.5	10	12	230	8.95
JN11005- 006		1.10	<0.005	<0.2	2.23	4	<10	20	2.6	11	4.34	<0.5	7	6	71	4.03
JN11005- 007		1.61	0.018	0.3	1.01	224	<10	30	3.2	32	1.63	<0.5	22	32	2100	19.8
JN11005- 008		1.95	0.077	1.9	1.13	1685	10	40	0.9	70	0.28	<0.5	50	15	615	4.89
JN11005- 009		0.96	<0.005	<0.2	1.72	121	20	70	1.1	28	0.23	<0.5	7	25	538	3.04
JN11005- 010		1.07	<0.005	<0.2	1.20	253	10	50	0.8	92	0.41	<0.5	7	21	287	1.95
JN11005- 011		0.98	<0.005	0.4	1.77	178	<10	40	0.9	6	0.36	<0.5	17	32	925	6.25
JN11005- 012		2.21	0.112	1.5	0.76	483	10	30	0.7	240	0.49	<0.5	29	13	732	4.44
JN11005- 013		2.73	0.714	2.2	0.54	1505	10	20	0.9	727	0.27	<0.5	124	16	2050	15.1
JN11005- 014		1.24	0.068	1.6	0.38	1225	10	20	0.5	65	0.81	<0.5	36	7	811	4.67
JN11005- 015		1.21	0.038	1.1	0.56	690	20	30	0.5	27	0.04	<0.5	13	11	100	2.27
JN11005- 016		2.34	<0.005	<0.2	0.35	44	10	30	0.6	8	1.30	<0.5	4	7	165	2.30
JN11005- 017		2.06	0.014	<0.2	0.43	18	10	30	<0.5	37	0.92	<0.5	4	8	103	1.96
JN11005- 018		2.14	<0.005	<0.2	0.39	41	10	20	<0.5	6	0.55	<0.5	3	6	168	1.49
JN11005- 019		1.95	<0.005	<0.2	0.67	7	<10	20	<0.5	<2	0.39	<0.5	4	8	230	2.50
JN11005- 020		1.36	<0.005	<0.2	0.38	5	<10	20	<0.5	<2	0.75	<0.5	4	5	133	2.22
JN11005- 020S		0.04	3.47	74.0	1.29	88	<10	70	<0.5	6	1.95	<0.5	9	17	758	3.10
JN11005- 021		1.74	0.017	0.4	0.51	14	30	30	0.5	15	0.95	<0.5	10	9	125	2.93
JN11005- 022		0.79	0.109	0.7	0.44	2330	10	20	0.5	42	1.31	<0.5	55	6	130	5.40
JN11005- 023		1.31	0.053	0.6	0.65	1520	10	20	0.8	41	2.02	<0.5	28	13	95	4.46
JN11005- 024		2.24	0.008	<0.2	0.55	266	<10	20	0.7	10	1.45	<0.5	13	15	100	4.92
JN11005- 025		1.45	0.016	0.2	0.79	344	<10	10	0.7	12	0.29	<0.5	8	5	144	4.42
JN11005- 026		2.36	0.005	<0.2	0.48	14	10	20	0.6	4	0.28	<0.5	4	6	224	3.61
JN11005- 027		1.86	0.009	<0.2	0.47	9	10	30	<0.5	<2	1.37	<0.5	3	9	15	2.39
JN11005- 028		0.81	0.070	3.9	0.35	294	20	30	<0.5	30	0.49	<0.5	11	7	83	3.04
JN11005- 029		1.96	<0.005	<0.2	0.53	14	10	30	<0.5	<2	0.70	<0.5	3	8	9	2.71
JN11005- 030		1.60	<0.005	<0.2	0.41	8	10	20	<0.5	<2	1.20	<0.5	2	6	32	1.86
JN11005- 031		2.77	0.031	<0.2	0.53	30	10	30	<0.5	<2	0.93	<0.5	3	10	27	2.29
JN11005- 032		2.57	0.013	<0.2	0.43	21	10	30	<0.5	<2	1.09	<0.5	2	9	31	1.79
JN11005- 033		1.68	0.014	<0.2	0.49	17	20	30	<0.5	<2	1.07	<0.5	2	6	33	2.00
JN11005- 034		2.39	<0.005	<0.2	0.36	5	10	20	0.5	<2	1.25	<0.5	2	8	13	2.06
JN11005- 035		2.09	0.018	<0.2	0.46	28	20	30	<0.5	<2	1.45	<0.5	3	8	28	2.26
JN11005- 036		2.40	0.025	<0.2	0.34	21	10	20	<0.5	<2	1.26	<0.5	3	8	13	1.81
JN11005- 037		1.81	0.023	<0.2	0.45	16	20	30	<0.5	<2	1.31	<0.5	2	9	14	2.09
JN11005- 038		1.26	0.016	<0.2	0.29	18	20	30	<0.5	<2	1.18	<0.5	2	7	12	3.30
JN11005- 039		1.38	0.011	0.2	0.37	13	20	30	<0.5	<2	1.15	<0.5	3	6	13	2.04



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Sample Description	Method Analyte Units LOR	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	
		Ga	Hg	K	La	Mg	Mn	Mo	Na	Ni	P	Pb	S	Sb	Sc	Sr
		ppm 10	ppm 1	% 0.01	ppm 10	% 0.01	ppm 5	ppm 1	% 0.01	ppm 1	ppm 10	ppm 2	% 0.01	ppm 2	ppm 1	ppm 1
JN11005- 001		10	<1	0.07	<10	0.10	2350	<1	0.01	<1	50	5	1.14	<2	<1	18
JN11005- 002		10	<1	0.05	<10	0.13	1715	<1	0.01	1	60	7	3.20	2	<1	18
JN11005- 003		<10	<1	0.03	<10	0.07	1150	2	0.01	<1	60	3	1.16	<2	<1	11
JN11005- 004		10	<1	0.03	<10	0.11	1790	15	0.01	1	90	3	1.10	<2	1	15
JN11005- 005		10	<1	0.05	<10	0.18	2320	2	0.02	4	140	6	2.81	<2	2	45
JN11005- 006		10	<1	0.05	<10	0.16	1305	5	0.05	4	470	8	1.06	<2	1	79
JN11005- 007		10	<1	0.19	<10	0.29	5060	88	0.01	19	520	12	6.89	13	10	19
JN11005- 008		<10	<1	0.37	20	0.17	433	21	0.01	22	210	60	3.02	13	6	21
JN11005- 009		10	1	0.58	20	0.25	420	21	0.01	28	240	13	0.81	6	8	19
JN11005- 010		10	<1	0.43	10	0.13	164	55	0.01	19	1700	12	0.70	8	10	17
JN11005- 011		10	<1	0.25	10	0.24	596	24	<0.01	45	1180	18	3.22	7	9	28
JN11005- 012		<10	<1	0.25	10	0.10	358	12	0.01	12	1340	58	2.84	9	5	20
JN11005- 013		10	<1	0.25	20	0.20	356	12	0.01	24	210	18	>10.0	61	4	19
JN11005- 014		<10	<1	0.22	10	0.22	752	27	0.01	6	360	59	2.31	65	2	32
JN11005- 015		<10	<1	0.33	10	0.03	98	32	<0.01	3	110	14	1.13	24	2	7
JN11005- 016		<10	<1	0.22	10	0.28	518	41	0.01	2	390	9	0.94	15	3	47
JN11005- 017		<10	<1	0.25	10	0.19	416	31	0.01	4	400	17	0.72	17	3	36
JN11005- 018		<10	1	0.17	20	0.12	307	25	0.01	3	380	10	0.22	6	3	26
JN11005- 019		<10	<1	0.14	20	0.11	598	28	<0.01	2	460	8	0.32	2	4	18
JN11005- 020		<10	<1	0.13	20	0.19	598	18	0.01	1	450	10	0.31	3	4	29
JN11005- 020S		<10	<1	0.16	<10	0.88	804	560	0.05	9	670	39	0.22	54	1	90
JN11005- 021		<10	<1	0.26	20	0.25	436	14	0.01	2	400	26	1.17	29	3	51
JN11005- 022		<10	<1	0.26	10	0.38	376	3	0.01	16	370	42	4.00	33	4	93
JN11005- 023		<10	<1	0.19	10	0.81	625	1	0.01	10	480	33	0.74	<2	7	128
JN11005- 024		<10	<1	0.14	20	0.72	781	5	0.01	6	510	8	0.64	2	6	99
JN11005- 025		<10	<1	0.10	30	0.14	819	2	0.01	2	510	22	0.92	3	5	11
JN11005- 026		<10	<1	0.12	20	0.11	738	11	0.01	1	450	12	0.58	<2	3	10
JN11005- 027		<10	<1	0.19	20	0.26	525	1	0.01	1	380	21	0.17	9	2	72
JN11005- 028		<10	<1	0.22	10	0.08	224	4	0.01	1	360	46	2.48	54	1	23
JN11005- 029		<10	<1	0.17	20	0.21	567	2	0.01	1	440	18	0.12	<2	4	37
JN11005- 030		<10	<1	0.19	10	0.21	442	1	0.01	2	340	12	0.46	8	2	57
JN11005- 031		<10	<1	0.23	10	0.18	469	1	0.01	4	370	13	1.02	11	2	44
JN11005- 032		<10	<1	0.22	10	0.22	542	2	0.01	1	380	14	0.36	7	2	52
JN11005- 033		<10	<1	0.26	20	0.22	483	2	0.01	2	390	9	0.19	11	2	54
JN11005- 034		<10	<1	0.15	20	0.22	462	3	0.01	<1	390	18	0.16	11	3	91
JN11005- 035		<10	<1	0.23	10	0.25	528	1	0.01	1	380	19	0.28	14	2	72
JN11005- 036		<10	<1	0.19	10	0.23	460	1	0.01	1	370	10	0.75	9	2	57
JN11005- 037		<10	<1	0.27	10	0.24	475	<1	0.01	1	380	8	0.50	7	2	60
JN11005- 038		<10	<1	0.21	10	0.23	485	1	0.01	9	360	10	2.19	15	3	54
JN11005- 039		<10	<1	0.23	20	0.25	457	<1	0.01	3	390	14	0.18	6	3	62



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Sample Description	Method Analyte Units LOR	ME- ICP41 Th ppm 20	ME- ICP41 Ti % 0.01	ME- ICP41 Ti ppm 10	ME- ICP41 U ppm 10	ME- ICP41 V ppm 1	ME- ICP41 W ppm 10	ME- ICP41 Zn ppm 2
JN11005-001		<20	0.03	<10	<10	4	20	32
JN11005-002		<20	0.02	<10	<10	3	10	29
JN11005-003		<20	0.02	<10	<10	3	20	21
JN11005-004		<20	0.06	<10	<10	12	220	25
JN11005-005		<20	0.05	<10	<10	14	70	36
JN11005-006		<20	0.03	<10	<10	7	10	28
JN11005-007		<20	0.01	<10	<10	60	20	82
JN11005-008		<20	0.01	<10	<10	16	<10	25
JN11005-009		<20	0.02	<10	<10	21	<10	26
JN11005-010		20	0.01	<10	<10	16	<10	19
JN11005-011		<20	0.01	<10	<10	37	<10	22
JN11005-012		<20	0.01	<10	<10	9	10	19
JN11005-013		<20	0.01	<10	<10	10	90	36
JN11005-014		<20	0.01	<10	<10	3	<10	38
JN11005-015		<20	0.01	<10	<10	4	<10	10
JN11005-016		<20	0.01	<10	<10	4	<10	16
JN11005-017		<20	0.01	<10	<10	2	10	13
JN11005-018		<20	0.01	<10	<10	3	<10	14
JN11005-019		<20	0.01	<10	<10	8	<10	13
JN11005-020		<20	0.01	<10	<10	4	<10	12
JN11005-020S		<20	0.10	<10	<10	29	<10	96
JN11005-021		<20	0.01	<10	<10	3	<10	16
JN11005-022		<20	0.01	<10	<10	6	<10	21
JN11005-023		<20	<0.01	<10	<10	21	<10	30
JN11005-024		<20	<0.01	<10	<10	32	<10	44
JN11005-025		20	<0.01	<10	<10	10	<10	22
JN11005-026		<20	<0.01	<10	<10	7	<10	36
JN11005-027		<20	<0.01	<10	<10	3	<10	67
JN11005-028		<20	<0.01	<10	<10	1	<10	29
JN11005-029		<20	<0.01	<10	<10	5	<10	17
JN11005-030		<20	<0.01	<10	<10	2	<10	26
JN11005-031		<20	<0.01	<10	<10	2	<10	14
JN11005-032		<20	<0.01	<10	<10	2	<10	12
JN11005-033		<20	<0.01	<10	<10	2	<10	14
JN11005-034		<20	<0.01	<10	<10	3	<10	17
JN11005-035		<20	<0.01	<10	<10	2	<10	16
JN11005-036		<20	<0.01	<10	<10	2	<10	11
JN11005-037		<20	<0.01	<10	<10	2	<10	11
JN11005-038		<20	<0.01	<10	<10	2	<10	9
JN11005-039		<20	<0.01	<10	<10	2	<10	13



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Sample Description	Method Analyte Units LOR	WEI- 21 Recvd Wt. kg 0.02	Au- AA23 Au ppm 0.005	ME- ICP41 Ag ppm 0.2	ME- ICP41 Al % 0.01	ME- ICP41 As ppm 2	ME- ICP41 B ppm 10	ME- ICP41 Ba ppm 10	ME- ICP41 Be ppm 0.5	ME- ICP41 Bi ppm 2	ME- ICP41 Ca % 0.01	ME- ICP41 Cd ppm 0.5	ME- ICP41 Co ppm 1	ME- ICP41 Cr ppm 1	ME- ICP41 Cu ppm 1	ME- ICP41 Fe % 0.01
JN11005- 040		1.50	0.012	<0.2	0.25	14	20	20	<0.5	<2	0.87	<0.5	2	6	10	1.53
JN11005- 040S		0.04	1.480	32.4	0.35	23	<10	230	<0.5	<2	1.25	<0.5	8	29	3090	2.49
JN11005- 040B		0.05	0.005	<0.2	0.70	<2	<10	130	<0.5	<2	0.27	<0.5	2	12	6	1.62
JN11005- 041		1.27	0.059	0.3	0.42	46	20	30	<0.5	2	0.84	<0.5	3	8	14	3.54
JN11005- 042		1.99	0.022	<0.2	0.33	12	10	30	<0.5	<2	1.00	<0.5	2	7	9	1.73
JN11005- 043		2.15	0.007	<0.2	0.39	6	10	30	<0.5	3	1.02	<0.5	2	8	8	1.97
JN11005- 044		1.89	0.018	<0.2	0.33	14	20	30	<0.5	<2	1.09	<0.5	3	7	27	2.21
JN11005- 045		2.23	<0.005	<0.2	0.45	8	20	20	<0.5	<2	0.78	<0.5	2	9	38	2.20
JN11005- 046		1.19	0.058	0.2	0.32	37	20	30	<0.5	15	1.20	<0.5	2	8	8	2.17
JN11005- 047		2.63	<0.005	<0.2	0.56	3	10	20	<0.5	<2	0.64	<0.5	3	10	3	2.26
JN11005- 048		2.01	0.021	<0.2	0.37	16	10	20	<0.5	2	0.84	<0.5	3	9	13	1.89
JN11005- 049		2.93	0.057	<0.2	0.52	58	20	30	<0.5	<2	0.84	<0.5	3	9	18	2.26
JN11005- 050		0.79	0.242	0.7	0.19	133	10	10	<0.5	3	0.10	<0.5	1	10	17	12.70
JN11005- 051		1.37	0.005	<0.2	0.41	8	20	30	<0.5	<2	0.92	<0.5	3	9	12	1.96
JN11005- 052		2.56	<0.005	<0.2	0.41	5	10	20	<0.5	<2	1.10	<0.5	3	9	7	2.18
JN11005- 053		0.90	<0.005	<0.2	0.72	2	10	20	<0.5	<2	0.60	<0.5	3	10	10	2.25
JN11005- 054		0.88	0.074	<0.2	0.78	3	10	20	<0.5	<2	0.63	<0.5	3	11	10	2.37
JN11005- 055		0.62	0.115	2.7	0.22	33	100	10	<0.5	161	0.12	<0.5	3	13	21	1.80
JN11005- 056		2.03	0.018	0.4	0.40	32	10	30	<0.5	10	0.13	3.6	5	8	67	2.25
JN11005- 057		2.32	0.008	<0.2	0.57	12	10	30	<0.5	2	0.52	1.0	6	8	36	2.24
JN11005- 058		1.99	0.032	<0.2	0.38	29	10	20	<0.5	<2	0.77	<0.5	6	7	25	1.93
JN11005- 059		1.15	0.008	<0.2	0.50	11	10	30	<0.5	<2	0.96	<0.5	5	8	16	2.02
JN11005- 060		0.58	0.161	0.3	0.31	67	<10	20	<0.5	<2	0.32	<0.5	6	5	14	9.55
JN11005- 060S		0.04	3.84	80.9	1.31	96	<10	80	<0.5	7	2.01	0.5	11	17	751	3.30
JN11005- 061		2.39	0.005	<0.2	0.48	6	10	20	<0.5	<2	1.07	<0.5	5	9	14	2.17
JN11005- 062		2.08	0.007	<0.2	0.40	14	10	20	<0.5	<2	1.56	<0.5	5	6	7	2.11
JN11005- 063		2.71	0.022	<0.2	0.54	23	10	30	<0.5	7	0.94	<0.5	5	9	4	2.25
JN11005- 064		2.35	0.036	0.2	0.33	29	<10	30	<0.5	22	1.15	<0.5	6	8	8	2.32
JN11005- 065		2.35	<0.005	0.2	0.48	8	10	30	<0.5	<2	1.17	<0.5	5	10	2	2.31
JN11005- 066		2.84	0.020	0.2	0.38	19	10	30	<0.5	<2	1.22	<0.5	6	8	10	2.14
JN11005- 067		2.31	0.106	2.3	0.36	78	10	20	<0.5	41	0.26	<0.5	7	8	33	7.56
JN11005- 068		0.88	<0.005	0.3	0.40	4	<10	30	<0.5	2	1.27	<0.5	5	5	4	2.26
JN11005- 069		0.87	<0.005	<0.2	0.85	2	<10	10	0.5	<2	2.92	<0.5	5	9	4	1.64
JN11005- 070		1.56	<0.005	<0.2	0.44	7	<10	30	<0.5	10	1.50	<0.5	5	7	4	2.11
JN11005- 071		3.45	<0.005	<0.2	0.33	6	<10	30	0.6	5	1.86	<0.5	5	9	3	2.10
JN11005- 072		2.40	<0.005	<0.2	0.26	2	<10	30	0.6	<2	1.65	<0.5	5	8	3	1.86
JN11005- 073		2.80	0.023	<0.2	0.47	3	<10	50	0.6	29	1.35	<0.5	5	10	2	2.27
JN11005- 074		2.98	<0.005	<0.2	0.33	3	<10	40	0.8	<2	1.42	<0.5	5	10	1	1.94
JN11005- 075		2.30	0.012	0.3	0.36	7	<10	50	0.6	10	1.30	<0.5	5	10	1	2.16
JN11005- 076		2.51	<0.005	<0.2	0.44	2	<10	50	0.6	<2	1.27	<0.5	5	10	1	2.02



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44 - 12TH AVENUE SOUTH

SUITE 200

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Account: TELOEX

CERTIFICATE OF ANALYSIS WH11191144

Sample Description	Method Analyte Units LOR	ME- ICP41 Ga ppm 10	ME- ICP41 Hg ppm 1	ME- ICP41 K % 0.01	ME- ICP41 La ppm 10	ME- ICP41 Mg % 0.01	ME- ICP41 Mn ppm 5	ME- ICP41 Mo ppm 1	ME- ICP41 Na % 0.01	ME- ICP41 Ni ppm 1	ME- ICP41 P ppm 10	ME- ICP41 Pb ppm 2	ME- ICP41 S % 0.01	ME- ICP41 Sb ppm 2	ME- ICP41 Sc ppm 1	ME- ICP41 Sr ppm 1
JN11005-040		<10	<1	0.17	10	0.15	323	2	0.01	4	350	14	0.59	11	2	42
JN11005-040S		<10	4	0.14	10	0.14	407	318	0.04	18	370	56	1.03	73	1	258
JN11005-040B		<10	<1	0.29	10	0.21	357	1	0.13	1	180	4	0.01	<2	3	17
JN11005-041		<10	<1	0.26	10	0.15	389	<1	0.01	5	370	12	2.65	24	2	38
JN11005-042		<10	<1	0.19	10	0.19	382	<1	0.01	2	320	9	0.55	10	2	47
JN11005-043		<10	<1	0.20	10	0.21	353	1	0.01	4	350	13	0.52	8	2	53
JN11005-044		<10	<1	0.21	10	0.23	406	1	0.01	1	360	17	0.83	9	3	64
JN11005-045		<10	<1	0.19	20	0.20	433	1	0.01	2	380	17	0.27	2	3	41
JN11005-046		<10	<1	0.23	10	0.22	462	1	0.01	2	360	21	1.10	13	2	61
JN11005-047		<10	<1	0.14	20	0.19	573	1	0.01	2	410	20	0.09	<2	4	34
JN11005-048		<10	<1	0.15	20	0.21	412	1	0.01	2	390	20	0.23	7	3	45
JN11005-049		<10	1	0.24	10	0.19	448	1	0.01	3	360	14	0.66	7	2	38
JN11005-050		<10	1	0.11	<10	0.02	54	<1	0.01	19	100	11	>10.0	119	<1	8
JN11005-051		<10	<1	0.20	20	0.21	387	1	0.01	3	390	11	0.15	4	3	47
JN11005-052		<10	<1	0.17	20	0.28	506	1	0.01	1	420	12	0.13	<2	3	55
JN11005-053		<10	<1	0.12	20	0.18	508	<1	0.01	1	440	17	0.16	<2	3	29
JN11005-054		<10	<1	0.13	20	0.19	534	1	0.01	1	450	18	0.16	<2	4	31
JN11005-055		<10	<1	0.08	10	0.02	59	13	0.01	2	360	149	1.54	79	<1	7
JN11005-056		<10	<1	0.24	10	0.04	257	3	0.01	2	410	15	1.37	7	1	6
JN11005-057		<10	<1	0.26	10	0.12	395	5	0.01	4	440	12	0.82	5	2	24
JN11005-058		<10	<1	0.20	10	0.18	325	2	0.01	2	410	15	0.63	8	3	37
JN11005-059		<10	<1	0.23	10	0.20	337	3	0.01	2	390	14	0.48	7	3	46
JN11005-060		<10	<1	0.14	10	0.05	101	1	0.01	17	290	19	>10.0	83	1	18
JN11005-060S		<10	<1	0.15	<10	0.87	833	644	0.04	9	700	45	0.26	58	1	93
JN11005-061		<10	<1	0.16	20	0.27	399	3	0.01	1	390	16	0.16	6	3	66
JN11005-062		<10	<1	0.17	20	0.25	445	3	0.01	1	420	16	0.26	7	3	91
JN11005-063		<10	<1	0.18	20	0.24	394	5	0.01	3	400	15	0.22	7	3	61
JN11005-064		<10	<1	0.18	10	0.23	337	7	0.01	3	390	14	1.03	11	2	53
JN11005-065		<10	<1	0.20	20	0.28	417	20	0.01	2	430	11	0.11	5	3	66
JN11005-066		<10	<1	0.21	10	0.26	434	12	0.01	4	440	13	0.59	9	3	58
JN11005-067		<10	<1	0.21	10	0.05	128	69	0.01	16	300	53	7.99	65	1	18
JN11005-068		<10	<1	0.16	20	0.30	458	124	0.01	2	470	14	0.09	4	4	71
JN11005-069		<10	<1	0.08	30	0.10	555	469	0.01	2	490	13	0.13	3	3	42
JN11005-070		<10	<1	0.16	30	0.29	386	37	0.01	1	480	20	0.08	6	3	105
JN11005-071		<10	<1	0.18	20	0.29	361	2	0.03	<1	410	15	0.09	3	3	135
JN11005-072		<10	<1	0.14	20	0.28	289	7	0.03	1	420	13	0.06	2	3	147
JN11005-073		<10	<1	0.20	20	0.30	315	19	0.05	2	400	9	0.05	4	4	112
JN11005-074		<10	<1	0.15	20	0.28	310	5	0.03	1	430	9	0.04	<2	3	117
JN11005-075		<10	<1	0.16	20	0.29	304	4	0.04	1	400	9	0.16	2	4	113
JN11005-076		<10	<1	0.18	20	0.32	277	4	0.04	<1	420	6	0.04	<2	4	104



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CERTIFICATE OF ANALYSIS WH11191144

Sample Description	Method Analyte Units LOR	ME- ICP41 Th ppm 20	ME- ICP41 Ti % 0.01	ME- ICP41 Tl ppm 10	ME- ICP41 U ppm 10	ME- ICP41 V ppm 1	ME- ICP41 W ppm 10	ME- ICP41 Zn ppm 2
JN11005-040		<20	<0.01	<10	<10	2	<10	12
JN11005-0405		<20	0.01	<10	<10	16	<10	47
JN11005-0408		<20	0.08	<10	<10	14	10	24
JN11005-041		<20	<0.01	<10	<10	3	<10	9
JN11005-042		<20	<0.01	<10	<10	2	<10	11
JN11005-043		<20	<0.01	<10	<10	3	<10	16
JN11005-044		<20	<0.01	<10	<10	2	<10	19
JN11005-045		<20	<0.01	<10	<10	4	<10	25
JN11005-046		<20	<0.01	<10	<10	2	<10	13
JN11005-047		<20	<0.01	<10	<10	6	<10	28
JN11005-048		<20	<0.01	<10	<10	4	<10	17
JN11005-049		<20	<0.01	<10	<10	2	<10	15
JN11005-050		<20	<0.01	10	<10	1	<10	3
JN11005-051		<20	<0.01	<10	<10	3	<10	14
JN11005-052		<20	<0.01	<10	<10	3	<10	18
JN11005-053		<20	<0.01	<10	<10	6	<10	13
JN11005-054		<20	<0.01	<10	<10	7	<10	14
JN11005-055		<20	<0.01	<10	<10	1	<10	25
JN11005-056		<20	<0.01	<10	<10	2	<10	458
JN11005-057		<20	<0.01	<10	<10	3	<10	133
JN11005-058		<20	<0.01	<10	<10	3	<10	18
JN11005-059		<20	<0.01	<10	<10	3	<10	16
JN11005-060		<20	<0.01	10	<10	2	<10	14
JN11005-060S		<20	0.09	<10	<10	30	<10	96
JN11005-061		<20	<0.01	<10	<10	4	<10	19
JN11005-062		<20	<0.01	<10	<10	3	<10	27
JN11005-063		<20	<0.01	<10	<10	5	<10	23
JN11005-064		<20	<0.01	<10	<10	2	<10	18
JN11005-065		<20	<0.01	<10	<10	3	<10	25
JN11005-066		<20	<0.01	<10	<10	2	<10	22
JN11005-067		<20	<0.01	<10	<10	2	<10	53
JN11005-068		<20	<0.01	<10	<10	3	<10	38
JN11005-069		20	<0.01	<10	<10	9	<10	28
JN11005-070		<20	<0.01	<10	<10	4	<10	24
JN11005-071		<20	<0.01	<10	<10	3	<10	21
JN11005-072		<20	<0.01	<10	<10	4	<10	22
JN11005-073		<20	0.01	<10	<10	10	<10	21
JN11005-074		<20	0.01	<10	<10	8	<10	23
JN11005-075		<20	0.01	<10	<10	9	<10	21
JN11005-076		<20	0.02	<10	<10	12	<10	19



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CERTIFICATE OF ANALYSIS WH11191144

Sample Description	Method Analyte Units LOR	WEI- 21 Recvd Wt. kg 0.02	Au- AA23 Au ppm 0.005	ME- ICP41 Ag ppm 0.2	ME- ICP41 Al % 0.01	ME- ICP41 As ppm 2	ME- ICP41 B ppm 10	ME- ICP41 Ba ppm 10	ME- ICP41 Be ppm 0.5	ME- ICP41 Bi ppm 2	ME- ICP41 Ca % 0.01	ME- ICP41 Cd ppm 0.5	ME- ICP41 Co ppm 1	ME- ICP41 Cr ppm 1	ME- ICP41 Cu ppm 1	ME- ICP41 Fe % 0.01
JN11005- 077		1.68	<0.005	<0.2	0.48	2	<10	40	0.8	<2	1.70	<0.5	5	11	2	2.36
JN11005- 078		2.47	<0.005	0.2	0.39	5	<10	30	0.5	7	1.61	<0.5	5	8	2	1.92
JN11005- 079		2.56	<0.005	<0.2	0.54	6	<10	40	0.5	2	1.62	<0.5	5	10	3	2.43
JN11005- 080		1.28	0.091	0.4	0.43	84	<10	50	0.5	99	1.60	<0.5	4	7	3	2.01
JN11005- 080S		0.04	1.465	32.8	0.38	25	<10	200	<0.5	2	1.28	<0.5	10	29	3150	2.59
JN11005- 080B		0.04	<0.005	<0.2	0.73	3	<10	130	<0.5	<2	0.27	<0.5	4	13	8	1.62
JN11005- 081		2.37	<0.005	0.2	0.28	6	<10	30	0.5	2	1.90	<0.5	5	10	4	1.87
JN11005- 082		0.45	<0.005	0.2	0.34	10	<10	30	<0.5	8	1.57	<0.5	4	7	1	1.19
JN11005- 083		2.45	<0.005	<0.2	0.41	5	<10	30	0.5	2	2.02	<0.5	5	7	2	1.92
JN11005- 084		1.26	0.022	0.2	0.28	6	<10	30	<0.5	14	1.52	<0.5	4	11	2	1.16
JN11005- 085		1.99	0.014	0.6	0.56	71	10	30	<0.5	16	1.06	<0.5	4	10	7	1.99
JN11005- 086		2.45	0.015	0.2	0.41	22	<10	30	<0.5	5	1.17	<0.5	5	7	4	1.81
JN11005- 087		0.55	<0.005	<0.2	0.50	7	<10	30	<0.5	<2	1.36	<0.5	5	9	2	2.13
JN11005- 088		2.97	0.005	<0.2	0.41	8	<10	40	0.5	<2	1.85	<0.5	5	9	2	1.87
JN11005- 089		1.99	<0.005	<0.2	0.57	4	10	30	0.5	<2	1.87	<0.5	5	11	2	2.41
JN11005- 090		1.43	1.135	0.6	0.16	13	<10	10	<0.5	625	0.44	<0.5	4	20	5	1.04
JN11005- 091		1.71	0.012	0.3	0.59	4	10	40	<0.5	3	0.62	<0.5	5	11	9	2.35
JN11005- 092		2.70	0.055	<0.2	0.36	8	<10	30	<0.5	24	1.43	<0.5	5	9	2	1.92
JN11005- 093		2.14	0.005	<0.2	0.60	15	10	30	0.5	<2	1.78	<0.5	5	9	3	2.19
JN11005- 094		0.70	0.196	1.8	0.31	35	<10	30	<0.5	54	0.68	<0.5	5	7	4	7.08
JN11005- 095		2.20	0.007	0.2	0.61	35	10	30	0.5	3	1.85	<0.5	5	9	4	2.21
JN11005- 096		2.21	0.016	0.2	0.37	22	<10	30	<0.5	<2	1.29	<0.5	5	9	4	1.92
JN11005- 097		2.81	<0.005	<0.2	0.59	12	10	40	<0.5	2	1.30	<0.5	5	8	7	2.22
JN11005- 098		1.11	0.023	2.0	0.38	54	<10	30	<0.5	30	1.04	0.8	7	9	39	2.02
JN11005- 099		2.62	<0.005	<0.2	0.78	6	<10	60	0.6	7	1.62	<0.5	5	11	5	2.39
JN11005- 100		2.49	0.015	<0.2	0.36	13	<10	30	0.6	5	1.86	<0.5	5	8	4	1.85
JN11005- 100S		0.04	3.68	79.3	1.31	94	<10	80	<0.5	8	2.07	<0.5	12	18	752	3.38
JN11005- 101		0.67	0.146	0.2	0.40	3	<10	30	0.6	61	1.46	<0.5	5	8	4	1.91
JN11005- 102		2.24	<0.005	<0.2	0.46	4	<10	40	0.6	<2	1.33	<0.5	5	9	5	1.90
JN11005- 103		1.68	0.016	0.2	0.47	10	<10	40	0.7	2	2.38	<0.5	5	8	3	2.04
JN11005- 104		2.29	0.005	<0.2	0.34	5	<10	30	0.6	3	2.19	<0.5	5	7	4	1.78
JN11005- 105		2.06	0.005	<0.2	0.54	5	10	30	<0.5	2	1.83	<0.5	4	8	7	2.08
JN11005- 106		2.23	0.018	<0.2	0.36	33	10	30	<0.5	<2	1.22	<0.5	4	8	7	2.24
JN11005- 107		1.62	0.015	0.2	0.54	46	10	40	<0.5	<2	0.93	0.9	4	8	24	2.04
JN11005- 108		1.81	0.329	0.4	0.35	723	10	30	<0.5	<2	0.81	<0.5	4	8	7	3.19
JN11005- 109		2.23	0.040	<0.2	0.44	62	20	30	<0.5	<2	1.36	<0.5	5	9	3	2.16
JN11005- 110		0.88	0.330	<0.2	0.32	246	20	20	<0.5	<2	0.68	<0.5	5	6	2	3.52
JN11005- 111		2.40	0.019	0.2	0.48	30	20	30	<0.5	2	1.35	<0.5	5	8	1	2.21
JN11005- 112		2.32	0.016	<0.2	0.34	35	20	30	<0.5	<2	1.59	<0.5	5	7	1	2.05
JN11005- 113		1.29	0.042	<0.2	0.46	104	20	30	<0.5	<2	1.99	<0.5	6	8	2	2.18



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Sample Description	Method Analyte Units LOR	ME- ICP41 Ga ppm 10	ME- ICP41 Hg ppm 1	ME- ICP41 K % 0.01	ME- ICP41 La ppm 10	ME- ICP41 Mg % 0.01	ME- ICP41 Mn ppm 5	ME- ICP41 Mo ppm 1	ME- ICP41 Na % 0.01	ME- ICP41 Ni ppm 1	ME- ICP41 P ppm 10	ME- ICP41 Pb ppm 2	ME- ICP41 S % 0.01	ME- ICP41 Sb ppm 2	ME- ICP41 Sc ppm 1	ME- ICP41 Sr ppm 1
JN11005- 077		<10	<1	0.21	20	0.27	307	5	0.05	1	380	9	0.04	<2	4	139
JN11005- 078		<10	<1	0.18	20	0.29	308	3	0.02	1	430	18	0.06	2	3	107
JN11005- 079		<10	<1	0.20	30	0.30	404	2	0.02	1	440	14	0.06	2	3	109
JN11005- 080		<10	<1	0.18	20	0.33	252	2	0.03	1	450	30	0.06	4	4	111
JN11005- 080S		<10	4	0.15	10	0.14	406	349	0.05	18	390	57	1.07	73	1	266
JN11005- 080B		<10	<1	0.30	10	0.21	351	1	0.13	1	180	5	0.01	<2	3	19
JN11005- 081		<10	<1	0.17	20	0.26	268	1	0.03	1	390	11	0.06	3	3	139
JN11005- 082		<10	<1	0.22	20	0.19	281	17	0.02	1	370	11	0.04	3	2	91
JN11005- 083		<10	<1	0.19	20	0.27	330	1	0.01	2	410	14	0.03	3	3	104
JN11005- 084		<10	<1	0.17	20	0.20	310	16	0.01	1	360	11	0.06	3	2	72
JN11005- 085		<10	<1	0.20	20	0.25	519	3	0.01	1	410	28	0.34	6	3	59
JN11005- 086		<10	<1	0.18	10	0.25	429	16	0.01	1	420	15	0.52	4	3	54
JN11005- 087		<10	<1	0.19	20	0.25	422	2	0.01	2	390	18	0.08	<2	2	98
JN11005- 088		<10	<1	0.19	20	0.28	335	1	0.04	1	420	11	0.15	<2	3	123
JN11005- 089		<10	<1	0.19	20	0.30	398	1	0.02	1	430	17	0.07	6	3	112
JN11005- 090		<10	<1	0.11	10	0.09	189	95	<0.01	3	160	27	0.35	26	1	21
JN11005- 091		<10	<1	0.22	20	0.15	307	3	<0.01	4	400	14	0.78	16	3	29
JN11005- 092		<10	<1	0.16	20	0.25	326	70	0.02	1	410	13	0.09	4	3	128
JN11005- 093		<10	<1	0.21	20	0.28	503	3	0.01	2	420	14	0.17	5	3	118
JN11005- 094		<10	<1	0.19	10	0.14	282	3	0.01	1	260	57	7.58	50	1	31
JN11005- 095		<10	<1	0.21	20	0.26	573	3	0.01	1	430	29	0.22	6	3	116
JN11005- 096		<10	<1	0.18	20	0.26	393	1	<0.01	1	420	14	0.21	6	3	70
JN11005- 097		<10	<1	0.24	20	0.28	451	1	<0.01	1	440	13	0.09	5	3	69
JN11005- 098		<10	<1	0.20	10	0.21	465	2	<0.01	2	410	36	0.61	21	2	49
JN11005- 099		<10	<1	0.23	30	0.28	447	2	0.03	1	480	18	0.08	4	4	81
JN11005- 100		<10	<1	0.20	20	0.22	261	2	0.02	1	380	11	0.40	3	2	112
JN11005- 100S		<10	<1	0.15	<10	0.90	851	637	0.04	10	710	41	0.23	55	1	93
JN11005- 101		<10	<1	0.18	20	0.21	231	3	0.04	1	350	8	0.04	2	3	101
JN11005- 102		<10	<1	0.14	20	0.25	213	1	0.04	1	370	7	0.04	<2	3	94
JN11005- 103		<10	<1	0.21	20	0.23	259	1	0.02	1	370	14	0.28	4	3	129
JN11005- 104		<10	<1	0.17	20	0.22	246	1	0.02	<1	370	10	0.13	3	3	168
JN11005- 105		<10	<1	0.21	20	0.25	332	1	<0.01	1	390	14	0.09	5	2	105
JN11005- 106		<10	<1	0.21	10	0.22	385	1	<0.01	1	370	20	1.23	13	2	62
JN11005- 107		<10	<1	0.33	10	0.20	456	1	<0.01	2	430	32	0.72	18	2	43
JN11005- 108		<10	<1	0.24	10	0.15	361	1	0.01	1	350	22	2.61	22	2	37
JN11005- 109		<10	<1	0.28	10	0.27	388	5	<0.01	1	420	17	0.43	3	3	69
JN11005- 110		<10	<1	0.22	10	0.12	275	1	<0.01	2	320	18	3.08	35	2	36
JN11005- 111		<10	<1	0.29	10	0.25	347	1	0.01	1	400	16	0.73	8	2	68
JN11005- 112		<10	<1	0.23	20	0.26	358	1	<0.01	1	450	18	0.56	9	3	74
JN11005- 113		<10	<1	0.28	10	0.26	384	1	0.01	1	430	16	0.78	10	3	110



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CERTIFICATE OF ANALYSIS WH11191144

Sample Description	Method Analyte Units LOR	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41
		Th	Ti	Ti	U	V	W	Zn
		ppm 20	% 0.01	ppm 10	ppm 10	ppm 1	ppm 10	ppm 2
JN11005- 077		<20	<0.01	<10	<10	7	<10	18
JN11005- 078		<20	<0.01	<10	<10	5	<10	20
JN11005- 079		<20	<0.01	<10	<10	4	<10	21
JN11005- 080		<20	0.02	<10	<10	11	<10	15
JN11005- 080S		<20	0.01	<10	<10	16	<10	45
JN11005- 080B		<20	0.09	<10	<10	14	10	25
JN11005- 081		<20	<0.01	<10	<10	3	<10	15
JN11005- 082		<20	<0.01	<10	<10	1	<10	11
JN11005- 083		<20	<0.01	<10	<10	2	<10	16
JN11005- 084		<20	<0.01	<10	<10	1	<10	10
JN11005- 085		<20	<0.01	<10	<10	3	<10	27
JN11005- 086		<20	<0.01	<10	<10	2	<10	26
JN11005- 087		<20	<0.01	<10	<10	3	<10	24
JN11005- 088		<20	0.01	<10	<10	6	<10	25
JN11005- 089		<20	<0.01	<10	<10	4	<10	18
JN11005- 090		<20	<0.01	<10	<10	1	<10	11
JN11005- 091		<20	<0.01	<10	<10	3	<10	21
JN11005- 092		<20	<0.01	<10	<10	4	10	20
JN11005- 093		<20	<0.01	<10	<10	4	<10	20
JN11005- 094		<20	<0.01	<10	<10	1	20	20
JN11005- 095		<20	<0.01	<10	<10	3	<10	25
JN11005- 096		<20	<0.01	<10	<10	2	<10	22
JN11005- 097		<20	<0.01	<10	<10	3	<10	21
JN11005- 098		<20	<0.01	<10	<10	2	10	123
JN11005- 099		20	0.02	<10	<10	11	<10	27
JN11005- 100		<20	<0.01	<10	<10	3	<10	12
JN11005- 100S		<20	0.09	<10	<10	30	<10	98
JN11005- 101		<20	<0.01	<10	<10	6	<10	13
JN11005- 102		<20	0.01	<10	<10	11	<10	16
JN11005- 103		<20	<0.01	<10	<10	3	<10	15
JN11005- 104		<20	<0.01	<10	<10	3	<10	16
JN11005- 105		<20	<0.01	<10	<10	2	<10	21
JN11005- 106		<20	<0.01	<10	<10	2	<10	20
JN11005- 107		<20	<0.01	<10	<10	3	<10	128
JN11005- 108		<20	<0.01	<10	<10	2	<10	47
JN11005- 109		<20	<0.01	<10	<10	2	<10	20
JN11005- 110		<20	<0.01	<10	<10	1	<10	14
JN11005- 111		<20	<0.01	<10	<10	2	<10	19
JN11005- 112		<20	<0.01	<10	<10	2	<10	23
JN11005- 113		<20	<0.01	<10	<10	2	<10	23



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CERTIFICATE OF ANALYSIS WH11191144

Sample Description	Method Analyte Units LOR	WEI- 21 Recvd Wt. kg 0.02	Au- AA23 Au ppm 0.005	ME- ICP41 Ag ppm 0.2	ME- ICP41 Al % 0.01	ME- ICP41 As ppm 2	ME- ICP41 B ppm 10	ME- ICP41 Ba ppm 10	ME- ICP41 Be ppm 0.5	ME- ICP41 Bi ppm 2	ME- ICP41 Ca % 0.01	ME- ICP41 Cd ppm 0.5	ME- ICP41 Co ppm 1	ME- ICP41 Cr ppm 1	ME- ICP41 Cu ppm 1	ME- ICP41 Fe % 0.01
JN11005- 114		0.39	0.832	<0.2	0.36	1915	10	30	<0.5	<2	1.05	<0.5	5	6	4	2.31
JN11005- 115		1.74	0.039	<0.2	0.42	80	20	30	<0.5	<2	1.55	<0.5	5	8	2	2.14
JN11005- 116		2.05	<0.005	<0.2	0.30	7	<10	30	0.5	<2	1.90	<0.5	5	7	2	1.80
JN11005- 117		1.28	0.018	0.4	0.40	28	<10	30	0.9	<2	3.18	<0.5	5	5	3	1.77
JN11005- 118		1.47	<0.005	<0.2	0.32	8	<10	30	0.6	<2	1.93	<0.5	4	8	3	1.91
JN11005- 119		2.67	0.013	0.2	0.56	24	10	40	0.5	2	2.26	<0.5	5	8	4	2.27
JN11005- 120		2.29	0.014	<0.2	0.34	23	10	30	<0.5	<2	2.10	<0.5	5	9	4	1.84
JN11005- 120S		0.51	0.522	<0.2	1.96	2830	<10	120	<0.5	7	2.28	0.5	65	25	143	3.99
JN11005- 120B		0.21	<0.005	<0.2	0.71	7	<10	140	<0.5	<2	0.26	<0.5	5	14	8	1.77
JN11005- 121		1.95	0.045	<0.2	0.65	56	20	50	<0.5	<2	2.02	<0.5	5	9	2	2.34
JN11005- 122		2.35	0.049	<0.2	0.34	53	10	30	<0.5	<2	1.49	<0.5	5	8	1	1.97
JN11005- 123		2.78	0.009	<0.2	0.53	19	10	40	<0.5	<2	2.46	<0.5	3	8	2	2.28
JN11005- 124		2.55	0.025	<0.2	0.46	37	10	30	<0.5	2	2.11	<0.5	3	7	1	1.89
JN11005- 125		1.09	<0.005	<0.2	0.56	14	10	40	<0.5	2	1.89	<0.5	3	9	4	2.17
JN11005- 126		2.22	0.007	0.4	0.42	14	10	40	<0.5	2	1.68	0.6	2	7	7	1.67
JN11005- 127		2.76	0.007	<0.2	0.56	15	10	40	0.5	<2	2.78	<0.5	3	8	6	2.00
JN11005- 128		2.20	0.008	0.7	0.40	11	10	40	0.6	<2	3.60	<0.5	3	6	6	1.81
JN11005- 129		2.89	0.013	0.5	0.58	25	10	50	0.5	2	2.33	1.0	2	9	9	2.23
JN11005- 130		2.22	0.010	0.6	0.43	22	10	40	0.8	2	3.26	2.8	2	7	12	1.68
JN11005- 131		1.12	0.050	<0.2	0.43	74	20	30	<0.5	<2	2.02	<0.5	2	8	1	2.10
JN11005- 132		1.11	0.057	0.2	0.38	74	10	40	0.7	2	3.76	<0.5	4	7	<1	2.30



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CERTIFICATE OF ANALYSIS WH11191144

Sample Description	Method Analyte Units LOR	ME- ICP41 Ga ppm 10	ME- ICP41 Hg ppm 1	ME- ICP41 K % 0.01	ME- ICP41 La ppm 10	ME- ICP41 Mg % 0.01	ME- ICP41 Mn ppm 5	ME- ICP41 Mo ppm 1	ME- ICP41 Na % 0.01	ME- ICP41 Ni ppm 1	ME- ICP41 P ppm 10	ME- ICP41 Pb ppm 2	ME- ICP41 S % 0.01	ME- ICP41 Sb ppm 2	ME- ICP41 Sc ppm 1	ME- ICP41 Sr ppm 1
JN11005-114		<10	<1	0.25	10	0.20	323	1	0.01	<1	360	16	1.47	21	2	53
JN11005-115		<10	<1	0.28	10	0.29	376	1	<0.01	2	420	15	0.47	8	3	80
JN11005-116		<10	<1	0.19	20	0.30	300	1	0.02	<1	400	14	0.01	4	2	111
JN11005-117		<10	<1	0.20	10	0.26	372	1	0.01	1	360	28	0.50	7	2	102
JN11005-118		<10	<1	0.19	20	0.29	372	1	0.02	1	440	16	0.05	7	3	105
JN11005-119		<10	<1	0.25	10	0.34	451	1	0.01	2	420	31	0.26	14	2	105
JN11005-120		<10	<1	0.22	10	0.31	384	1	0.01	1	450	20	0.25	11	3	107
JN11005-120S		<10	<1	0.24	10	0.72	588	9	0.20	21	740	9	0.32	5	3	105
JN11005-120B		<10	<1	0.31	10	0.22	361	2	0.12	4	190	5	0.01	<2	3	18
JN11005-121		<10	<1	0.31	10	0.28	408	1	0.01	1	410	25	0.67	12	3	112
JN11005-122		<10	<1	0.21	10	0.26	319	1	0.01	2	420	15	0.58	8	3	82
JN11005-123		<10	<1	0.22	10	0.32	420	1	0.01	2	440	18	0.30	6	3	110
JN11005-124		<10	<1	0.21	10	0.29	357	1	0.01	1	420	14	0.39	5	3	97
JN11005-125		<10	<1	0.23	20	0.33	417	1	0.01	1	460	17	0.13	6	3	105
JN11005-126		<10	<1	0.23	10	0.29	611	1	0.01	<1	360	41	0.23	14	2	92
JN11005-127		<10	<1	0.24	20	0.29	392	1	0.01	1	410	13	0.17	6	2	123
JN11005-128		<10	<1	0.20	10	0.32	424	1	0.01	1	420	15	0.20	8	2	148
JN11005-129		<10	<1	0.28	10	0.30	500	1	0.02	1	440	55	0.45	14	2	115
JN11005-130		<10	<1	0.25	10	0.24	592	<1	0.01	<1	430	81	0.41	11	2	130
JN11005-131		<10	<1	0.24	10	0.26	505	1	<0.01	<1	360	57	0.56	23	2	106
JN11005-132		<10	<1	0.20	10	0.27	289	1	0.02	1	370	17	1.19	4	2	134



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CERTIFICATE OF ANALYSIS WH11191144

Sample Description	Method Analyte Units LOR	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41
		Th	Ti	Ti	U	V	W	Zn
		ppm	%	ppm	ppm	ppm	ppm	ppm
		20	0.01	10	10	1	10	2
JN11005-114		<20	<0.01	<10	<10	1	<10	19
JN11005-115		<20	<0.01	<10	<10	2	<10	17
JN11005-116		<20	<0.01	<10	<10	2	<10	19
JN11005-117		<20	<0.01	<10	<10	1	<10	31
JN11005-118		<20	<0.01	<10	<10	2	<10	22
JN11005-119		<20	<0.01	<10	<10	2	<10	40
JN11005-120		<20	<0.01	<10	<10	1	<10	23
JN11005-120S		<20	0.13	<10	<10	81	<10	60
JN11005-120B		<20	0.09	<10	<10	15	<10	25
JN11005-121		<20	<0.01	<10	<10	2	<10	81
JN11005-122		<20	<0.01	<10	<10	2	<10	22
JN11005-123		<20	<0.01	<10	<10	3	<10	31
JN11005-124		<20	<0.01	<10	<10	2	<10	26
JN11005-125		<20	<0.01	<10	<10	3	<10	27
JN11005-126		<20	<0.01	<10	<10	2	<10	131
JN11005-127		<20	<0.01	<10	<10	2	<10	23
JN11005-128		<20	<0.01	<10	<10	2	<10	21
JN11005-129		<20	<0.01	<10	<10	2	<10	189
JN11005-130		<20	<0.01	<10	<10	2	<10	444
JN11005-131		<20	<0.01	<10	<10	2	<10	47
JN11005-132		<20	<0.01	<10	<10	2	<10	18



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QC CERTIFICATE WH11191144

Project:

P.O. No.: JN11- 005

This report is for 141 Drill Core samples submitted to our lab in Whitehorse, YT,
Canada on 19- SEP- 2011.

The following have access to data associated with this certificate:

JESSE CAMPBELL

CHRIS GALLAGHER

SAMPLE PREPARATION

ALS CODE	DESCRIPTION
WEI- 21	Received Sample Weight
LOG- 22	Sample login - Rcd w/o BarCode
SPL- 22Y	Split Sample - Boyd Rotary Splitter
LOG- 24	Pulp Login - Rcd w/o Barcode
BAG- 01	Bulk Master for Storage
CRU- QC	Crushing QC Test
PUL- 32m	Pulverize 500g - 85%<75um
PUL- QC	Pulverizing QC Test
CRU- 31	Fine crushing - 70% <2mm

ANALYTICAL PROCEDURES

ALS CODE	DESCRIPTION	INSTRUMENT
Au- AA23	Au 30g FA- AA finish	AAS
ME- ICP41	3S Element Aqua Regia ICP- AES	ICP- AES

To: TERRALOGIC EXPLORATION SERVICES INC.
ATTN: CHRIS GALLAGHER
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This is the Final Report and supersedes any preliminary report with this certificate number. Results apply to samples as submitted. All pages of this report have been checked and approved for release.

Signature:

Colin Ramshaw, Vancouver Laboratory Manager



Account: TELOEX

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QC CERTIFICATE OF ANALYSIS WH11191144

[illegible]



Minerals

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QC CERTIFICATE OF ANALYSIS WH11191144

Sample Description	Method Analyte Units LOR	ME- ICP41 Ti %	ME- ICP41 Ti ppm	ME- ICP41 U ppm	ME- ICP41 V ppm	ME- ICP41 W ppm	ME- ICP41 Zn ppm
		0.01	10	10	1	10	2
STANDARDS							
GBM908- 10		0.31	<10	<10	47	<10	1020
GBM908- 10		0.32	<10	<10	48	<10	992
GBM908- 10		0.31	<10	<10	48	<10	997
GBM908- 5		0.17	<10	<10	26	<10	235
GBM908- 5		0.16	<10	<10	26	<10	242
MRGeo08		0.38	<10	<10	99	<10	769
MRGeo08		0.39	<10	<10	105	<10	817
MRGeo08		0.38	<10	<10	102	<10	792
OGGeo08		0.31	<10	<10	80	<10	6650
OGGeo08		0.31	<10	<10	80	<10	6870
OREAS 65a							
OREAS 65a							
OREAS- 16b							
OREAS- 16b							
OxC88							
OxC88							
OxC88							
OxC88							
OxL78							
OxL78							

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QC CERTIFICATE OF ANALYSIS WH11191144

Sample Description	Method Analyte Units LOR	ME- ICP41 Ti %	ME- ICP41 Ti ppm	ME- ICP41 U ppm	ME- ICP41 V ppm	ME- ICP41 W ppm	ME- ICP41 Zn ppm
		0.01	10	10	1	10	2
BLANKS							
BLANK							
BLANK							
BLANK							
BLANK							
BLANK							
BLANK							
BLANK		0.01	<10	<10	<1	<10	<2
BLANK		<0.01	<10	<10	<1	<10	<2
BLANK		<0.01	<10	<10	<1	<10	<2
BLANK		<0.01	<10	<10	<1	<10	<2
BLANK		<0.01	<10	<10	<1	<10	<2
BLANK							
BLANK							
DUPLICATES							
ORIGINAL							
DUP							
ORIGINAL							
DUP							
ORIGINAL							
DUP							
ORIGINAL							
DUP							



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To: TERRALOGIC EXPLORATION SERVICES INC.
44 - 12TH AVENUE SOUTH
SUITE 200
CRANBROOK BC V1C 2R7

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Account: TELOEX

QC CERTIFICATE OF ANALYSIS WH11191144

Sample Description	Method Analyte Units LOR	Au- AA23 Au ppm	ME- ICP41 Ag ppm	ME- ICP41 Al %	ME- ICP41 As ppm	ME- ICP41 B ppm	ME- ICP41 Ba ppm	ME- ICP41 Be ppm	ME- ICP41 Bi ppm	ME- ICP41 Ca %	ME- ICP41 Cd ppm	ME- ICP41 Co ppm	ME- ICP41 Cr ppm	ME- ICP41 Cu ppm	ME- ICP41 Fe %	ME- ICP41 Ga ppm
ORIGINAL DUP		0.005	0.2	0.01	2	10	10	0.5	2	0.01	0.5	1	1	1	0.01	10
DUPLICATES																
ORIGINAL DUP		0.614 0.567														
ORIGINAL DUP			<0.2 0.2	1.47 1.40	7 5	<10 10	380 370	0.5 0.5	<2 2	3.45 3.29	<0.5 0.5	13 13	14 14	452 444	3.30 3.19	10 10
ORIGINAL DUP		0.746 0.773														
ORIGINAL DUP		1.690 1.475														
JN11005- 032 DUP			<0.2 0.2	0.43 0.43	21 21	10 10	30 30	<0.5 0.5	<2 2	1.09 1.09	<0.5 0.5	2 2	9 8	31 31	1.79 1.79	<10 10
JN11005- 038 DUP		0.016 0.015														
JN11005- 056 DUP		0.018 0.019														
JN11005- 065 DUP			0.2 0.2	0.48 0.47	8 6	10 10	30 30	<0.5 0.5	<2 2	1.17 1.10	<0.5 0.5	5 5	10 8	2 2	2.31 2.18	<10 10



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QC CERTIFICATE OF ANALYSIS WH11191144

Sample Description	Method Analyte Units LOR	ME- ICP41 Hg ppm 1	ME- ICP41 K % 0.01	ME- ICP41 La ppm 10	ME- ICP41 Mg % 0.01	ME- ICP41 Mn ppm 5	ME- ICP41 Mo ppm 1	ME- ICP41 Na % 0.01	ME- ICP41 Ni ppm 1	ME- ICP41 P ppm 10	ME- ICP41 Pb ppm 2	ME- ICP41 S % 0.01	ME- ICP41 Sb ppm 2	ME- ICP41 Sc ppm 1	ME- ICP41 Sr ppm 1	ME- ICP41 Th ppm 20
ORIGINAL DUP		DUPLICATES														
ORIGINAL DUP		<1 <1	0.20 0.20	10 <10	1.58 1.49	417 402	8 7	0.05 0.05	11 11	1210 1160	3 3	0.34 0.33	<2 <2	12 12	120 114	<20 <20
ORIGINAL DUP																
ORIGINAL DUP																
JN11005- 032 DUP		<1 <1	0.22 0.21	10 10	0.22 0.22	542 542	2 2	0.01 0.01	1 1	380 380	14 12	0.36 0.39	7 7	2 2	52 52	<20 <20
JN11005- 038 DUP																
JN11005- 056 DUP																
JN11005- 065 DUP		<1 <1	0.20 0.19	20 20	0.28 0.26	417 384	20 21	0.01 0.01	2 1	430 400	11 10	0.11 0.09	5 3	3 3	66 65	<20 <20



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QC CERTIFICATE OF ANALYSIS WH11191144

Sample Description	Method Analyte Units LOR	ME- ICP41 Ti %	ME- ICP41 Ti ppm	ME- ICP41 U ppm	ME- ICP41 V ppm	ME- ICP41 W ppm	ME- ICP41 Zn ppm
		0.01	10	10	1	10	2
ORIGINAL DUP							
ORIGINAL DUP		0.13 0.13	<10 <10	<10 <10	118 114	10 <10	17 17
ORIGINAL DUP							
ORIGINAL DUP							
JN11005- 032 DUP		<0.01 <0.01	<10 <10	<10 <10	2 2	<10 <10	12 14
JN11005- 038 DUP							
JN11005- 056 DUP							
JN11005- 065 DUP		<0.01 <0.01	<10 <10	<10 <10	3 2	<10 <10	25 24

Sample Description	Method Analyte Units LOR	Au- AA23 Au ppm 0.005	ME- ICP41 Ag ppm 0.2	ME- ICP41 Al % 0.01	ME- ICP41 As ppm 2	ME- ICP41 B ppm 10	ME- ICP41 Ba ppm 10	ME- ICP41 Be ppm 0.5	ME- ICP41 Bi ppm 2	ME- ICP41 Ca % 0.01	ME- ICP41 Cd ppm 0.5	ME- ICP41 Co ppm 1	ME- ICP41 Cr ppm 1	ME- ICP41 Cu ppm 1	ME- ICP41 Fe % 0.01	ME- ICP41 Ga ppm 10
JN11005- 091 DUP	0.012 0.010	DUPLICATES														
JN11005- 099 DUP			<0.2 0.2	0.78 0.72	6 5	<10 <10	60 60	0.6 0.5	7 7	1.62 1.45	<0.5 <0.5	5 5	11 10	5 5	2.39 2.14	<10 <10
JN11005- 110 DUP	0.330 0.324															
JN11005- 128 DUP	0.008 0.009															
JN11005- 132 DUP			0.2 0.2	0.38 0.39	74 73	10 10	40 40	0.7 0.7	2 2	3.76 3.78	<0.5 <0.5	4 3	7 5	<1 <1	2.30 2.31	<10 <10
ORIGINAL DUP	0.017 0.017															
ORIGINAL DUP	0.218 0.186															
ORIGINAL DUP	0.021 0.031															



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QC CERTIFICATE OF ANALYSIS	WH11191144

Sample Description	Method Analyte Units LOR	ME- ICP41 Hg ppm 1	ME- ICP41 K % 0.01	ME- ICP41 La ppm 10	ME- ICP41 Mg % 0.01	ME- ICP41 Mn ppm 5	ME- ICP41 Mo ppm 1	ME- ICP41 Na % 0.01	ME- ICP41 Ni ppm 1	ME- ICP41 P ppm 10	ME- ICP41 Pb ppm 2	ME- ICP41 S % 0.01	ME- ICP41 Sb ppm 2	ME- ICP41 Sc ppm 1	ME- ICP41 Sr ppm 1	ME- ICP41 Th ppm 20
JN11005- 091 DUP		DUPLICATES														
JN11005- 099 DUP		<1	0.23	30	0.28	447	2	0.03	1	480	18	0.08	4	4	81	20
		<1	0.22	20	0.25	406	2	0.03	1	430	15	0.07	3	4	79	<20
JN11005- 110 DUP																
JN11005- 128 DUP																
JN11005- 132 DUP		<1	0.20	10	0.27	289	1	0.02	1	370	17	1.19	4	2	134	<20
		<1	0.20	10	0.27	291	<1	0.01	<1	370	14	1.18	4	2	135	<20
ORIGINAL DUP																
ORIGINAL DUP																
ORIGINAL DUP																



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QC CERTIFICATE OF ANALYSIS WH11191144

Sample Description	Method Analyte Units LOR	ME- ICP41 Ti %	ME- ICP41 Ti ppm	ME- ICP41 U ppm	ME- ICP41 V ppm	ME- ICP41 W ppm	ME- ICP41 Zn ppm
		0.01	10	10	1	10	2
JN11005- 091 DUP		DUPLICATES					
JN11005- 099 DUP		0.02 0.02	<10 <10	<10 <10	11 11	<10 <10	27 23
JN11005- 110 DUP							
JN11005- 128 DUP							
JN11005- 132 DUP		<0.01 <0.01	<10 <10	<10 <10	2 2	<10 <10	18 18
ORIGINAL DUP							
ORIGINAL DUP							
ORIGINAL DUP							

[illegible]

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QC CERTIFICATE OF ANALYSIS WH11191144

Sample Description	Method Analyte Units LOR	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41
		Hg	K	La	Mg	Mn	Mo	Na	Ni	P	Pb	S	Sb	Sc	Sr	Th
		ppm	%	ppm	%	ppm	ppm	%	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm
		1	0.01	10	0.01	5	1	0.01	1	10	2	0.01	2	1	1	20
		PREP DUPLICATES														
JN11005- 051		<1	0.20	20	0.21	387	1	0.01	3	390	11	0.15	4	3	47	<20
JN11005- 051 PREP DUP		<1	0.25	20	0.21	377	1	0.01	2	390	11	0.14	4	3	47	<20
JN11005- 101		<1	0.18	20	0.21	231	3	0.04	1	350	8	0.04	2	3	101	<20
JN11005- 101 PREP DUP		<1	0.34	30	0.21	220	2	0.09	1	340	8	0.05	<2	3	107	<20

Minerals

QC CERTIFICATE OF ANALYSIS WH11191144

	Method	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41
Sample Description	Analyte Units LOR	Ti % 0.01	Tl ppm 10	U ppm 10	V ppm 1	W ppm 10	Zn ppm 2
		PREP DUPLICATES					
JN11005- 051		<0.01	<10	<10	3	<10	14
JN11005- 051 PREP DUP		<0.01	<10	<10	4	<10	16
JN11005- 101		<0.01	<10	<10	6	<10	13
JN11005- 101 PREP DUP		<0.01	<10	<10	8	<10	12



Minerals

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Finalized Date: 29- NOV- 2011

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CERTIFICATE WH11191210

Project:

P.O. No.: JN11- 006

This report is for 48 Drill Core samples submitted to our lab in Whitehorse, YT, Canada on 19- SEP- 2011.

The following have access to data associated with this certificate:

JESSE CAMPBELL

CHRIS GALLAGHER

SAMPLE PREPARATION

ALS CODE	DESCRIPTION
WEI- 21	Received Sample Weight
LOG- 22	Sample login - Rcd w/o BarCode
LOG- 24	Pulp Login - Rcd w/o Barcode
BAG- 01	Bulk Master for Storage
CRU- QC	Crushing QC Test
PUL- QC	Pulverizing QC Test
CRU- 31	Fine crushing - 70% < 2mm
SPL- 21	Split sample - riffle splitter
PUL- 32m	Pulverize 500g - 85%<75um

ANALYTICAL PROCEDURES

ALS CODE	DESCRIPTION	INSTRUMENT
Au- AA23	Au 30g FA- AA finish	AA5
ME- ICP41	35 Element Aqua Regia ICP- AES	ICP- AES

To: TERRALOGIC EXPLORATION SERVICES INC.

ATTN: CHRIS GALLAGHER

44 - 12TH AVENUE SOUTH

SUITE 200

CRANBROOK BC V1C 2R7

This is the Final Report and supersedes any preliminary report with this certificate number. Results apply to samples as submitted. All pages of this report have been checked and approved for release.

Signature:

Colin Ramshaw, Vancouver Laboratory Manager



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CERTIFICATE OF ANALYSIS WH11191210

Sample Description	Method Analyte Units LOR	WEI- 21 Recvd Wt. kg 0.02	AU- AA23 Au ppm 0.005	ME- ICP41 Ag ppm 0.2	ME- ICP41 Al % 0.01	ME- ICP41 As ppm 2	ME- ICP41 B ppm 10	ME- ICP41 Ba ppm 10	ME- ICP41 Be ppm 0.5	ME- ICP41 Bi ppm 2	ME- ICP41 Ca % 0.01	ME- ICP41 Cd ppm 0.5	ME- ICP41 Co ppm 1	ME- ICP41 Cr ppm 1	ME- ICP41 Cu ppm 1	ME- ICP41 Fe % 0.01
JN11006- 001		1.48	0.049	0.7	0.27	9	<10	10	<0.5	177	4.20	<0.5	31	3	1345	9.96
JN11006- 002		0.79	0.023	0.4	1.15	249	<10	50	0.9	40	5.55	<0.5	15	15	693	8.41
JN11006- 003		2.84	0.006	<0.2	1.58	7	<10	10	0.7	35	6.7	<0.5	5	19	153	7.26
JN11006- 004		0.50	0.053	<0.2	1.03	223	40	200	1.3	8	1.98	<0.5	7	15	78	2.94
JN11006- 005		1.00	5.37	6.6	0.34	>10000	10	20	<0.5	747	0.51	<0.5	732	4	664	23.3
JN11006- 006		1.73	0.022	<0.2	0.99	435	30	90	0.8	2	1.91	<0.5	12	10	53	2.81
JN11006- 007		1.12	0.028	<0.2	0.79	455	30	80	0.6	4	1.04	<0.5	12	7	58	2.16
JN11006- 008		2.86	<0.005	<0.2	0.76	117	10	50	0.5	<2	1.09	<0.5	7	9	16	1.87
JN11006- 009		2.75	<0.005	<0.2	0.94	54	10	100	0.7	<2	0.98	<0.5	14	14	45	3.61
JN11006- 010		2.50	0.009	<0.2	1.24	2730	10	150	0.7	5	0.62	<0.5	17	20	36	4.17
JN11006- 011		3.00	<0.005	<0.2	0.86	42	<10	100	0.7	2	0.60	<0.5	17	27	73	4.95
JN11006- 012		2.91	<0.005	<0.2	1.31	49	10	130	0.7	3	0.83	<0.5	17	17	67	3.81
JN11006- 013		1.75	<0.005	<0.2	0.71	234	<10	60	0.8	<2	0.68	<0.5	16	14	71	3.89
JN11006- 014		2.67	<0.005	<0.2	0.95	34	10	100	0.6	<2	0.72	<0.5	10	15	91	3.79
JN11006- 015		0.82	0.203	0.4	0.60	7220	10	40	<0.5	25	1.05	0.6	76	9	53	4.79
JN11006- 016		1.23	0.005	<0.2	0.70	37	10	60	0.5	2	0.62	<0.5	6	7	13	1.70
JN11006- 017		2.63	0.015	1.6	0.94	32	10	60	0.7	108	0.38	<0.5	11	11	14	3.25
JN11006- 018		1.47	0.014	<0.2	0.69	49	20	40	0.7	15	0.87	<0.5	10	6	123	3.03
JN11006- 019		2.81	0.011	0.5	0.69	23	10	40	0.5	25	0.94	<0.5	10	9	53	3.88
JN11006- 020		1.35	0.012	0.5	0.53	5	<10	40	<0.5	27	0.83	<0.5	5	14	36	2.89
JN11006- 020S		0.05	1.445	34.5	0.37	24	<10	230	<0.5	3	1.30	<0.5	8	30	3100	2.56
JN11006- 021		0.80	0.019	0.9	0.35	9	<10	30	<0.5	30	0.60	<0.5	4	12	202	2.41
JN11006- 022		2.31	0.043	1.9	0.35	3	<10	30	<0.5	50	0.81	0.6	5	15	621	2.84
JN11006- 023		1.98	0.005	0.4	0.25	5	<10	20	<0.5	14	0.72	<0.5	4	14	62	1.80
JN11006- 024		2.41	<0.005	<0.2	0.33	5	<10	20	<0.5	6	0.78	<0.5	6	17	56	2.26
JN11006- 025		1.67	<0.005	<0.2	0.26	3	<10	20	<0.5	2	0.97	<0.5	4	17	9	1.82
JN11006- 026		1.58	<0.005	<0.2	0.65	<2	10	30	0.5	3	0.77	<0.5	8	16	17	3.21
JN11006- 027		2.02	<0.005	<0.2	0.49	11	10	30	0.5	2	0.57	<0.5	10	16	78	3.43
JN11006- 028		2.13	<0.005	<0.2	2.08	18	<10	140	1.0	3	0.67	<0.5	17	38	18	3.34
JN11006- 029		2.47	<0.005	<0.2	0.89	<2	<10	40	<0.5	2	0.97	<0.5	7	22	14	2.54
JN11006- 030		2.42	<0.005	<0.2	0.55	2	10	30	<0.5	<2	1.03	<0.5	4	24	18	2.53
JN11006- 031		2.41	<0.005	<0.2	0.29	2	<10	20	<0.5	<2	0.89	<0.5	4	20	10	1.77
JN11006- 032		2.44	<0.005	<0.2	0.37	<2	10	20	<0.5	<2	1.02	<0.5	4	21	3	2.01
JN11006- 033		2.01	<0.005	<0.2	0.92	<2	<10	20	<0.5	2	0.95	<0.5	3	27	12	1.60
JN11006- 034		1.89	<0.005	<0.2	0.86	<2	<10	40	<0.5	<2	0.73	<0.5	4	31	15	1.92
JN11006- 035		3.84	<0.005	<0.2	0.83	16	10	60	0.7	2	0.91	<0.5	13	19	22	2.90
JN11006- 036		2.61	<0.005	<0.2	1.15	11	<10	100	0.8	3	1.10	<0.5	17	26	30	4.62
JN11006- 037		2.61	<0.005	<0.2	1.33	9	<10	110	1.0	2	0.73	<0.5	16	29	29	3.74
JN11006- 038		2.31	<0.005	<0.2	1.20	9	<10	130	0.9	<2	0.60	<0.5	15	25	33	4.31
JN11006- 039		1.48	<0.005	<0.2	1.33	36	20	130	1.0	2	0.95	<0.5	18	20	46	4.71



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CERTIFICATE OF ANALYSIS WH11191210

Sample Description	Method Analyte Units LOR	ME- ICP41 Ga ppm 10	ME- ICP41 Hg ppm 1	ME- ICP41 K % 0.01	ME- ICP41 La ppm 10	ME- ICP41 Mg % 0.01	ME- ICP41 Mn ppm 5	ME- ICP41 Mo ppm 1	ME- ICP41 Na % 0.01	ME- ICP41 Ni ppm 1	ME- ICP41 P ppm 10	ME- ICP41 Pb ppm 2	ME- ICP41 S % 0.01	ME- ICP41 Sb ppm 2	ME- ICP41 Sc ppm 1	ME- ICP41 Sr ppm 1
JN11006-001		10	<1	0.03	<10	0.05	735	<1	0.01	2	130	3	3.85	<2	<1	7
JN11006-002		10	<1	0.24	10	0.35	1130	1	0.03	15	380	19	1.69	7	3	143
JN11006-003		10	<1	0.03	10	0.06	1590	3	0.01	1	140	2	0.91	<2	2	9
JN11006-004		<10	<1	0.53	30	0.55	456	324	0.01	20	320	7	1.37	48	12	124
JN11006-005		<10	<1	0.20	<10	0.13	128	7	0.01	24	80	38	>10.0	632	1	33
JN11006-006		<10	<1	0.53	20	0.68	391	9	0.01	32	550	9	0.54	43	4	123
JN11006-007		<10	<1	0.48	20	0.48	288	70	0.01	30	160	14	0.68	38	3	82
JN11006-008		<10	<1	0.39	20	0.62	344	10	0.01	24	200	15	0.08	11	2	98
JN11006-009		<10	<1	0.49	20	0.79	652	9	0.02	31	760	5	0.45	3	3	84
JN11006-010		<10	<1	0.60	20	0.83	617	5	0.02	37	820	2	0.44	<2	3	60
JN11006-011		<10	<1	0.40	20	0.81	942	2	0.02	36	240	4	0.30	<2	6	46
JN11006-012		<10	<1	0.61	20	0.82	453	4	0.02	38	1890	4	0.37	<2	4	65
JN11006-013		<10	<1	0.34	20	0.76	868	3	0.01	30	170	5	0.28	<2	5	57
JN11006-014		<10	<1	0.51	20	0.87	689	1	0.02	24	470	<2	0.15	5	4	65
JN11006-015		<10	<1	0.37	10	0.83	1100	9	0.01	31	130	23	1.46	14	3	104
JN11006-016		<10	<1	0.40	20	0.39	592	<1	0.01	23	140	4	0.21	10	2	74
JN11006-017		<10	<1	0.39	20	0.54	754	45	0.01	33	190	102	0.34	20	4	43
JN11006-018		<10	<1	0.34	20	0.34	698	22	0.01	32	140	21	1.48	13	3	71
JN11006-019		<10	<1	0.35	20	0.70	922	8	0.01	29	150	26	0.64	4	3	84
JN11006-020		<10	<1	0.25	10	0.47	623	7	0.01	14	60	24	0.62	3	2	76
JN11006-020S		<10	4	0.15	10	0.14	405	342	0.04	18	380	58	1.08	77	1	267
JN11006-021		<10	<1	0.20	30	0.33	531	3	0.01	10	80	24	0.69	2	2	59
JN11006-022		<10	<1	0.22	20	0.31	573	5	0.01	11	120	47	0.77	3	2	63
JN11006-023		<10	<1	0.14	10	0.21	359	1	0.02	5	60	14	0.39	<2	2	45
JN11006-024		<10	<1	0.19	10	0.30	443	15	0.03	13	80	9	0.34	4	3	53
JN11006-025		<10	<1	0.13	20	0.32	390	1	0.03	9	80	2	0.07	2	2	69
JN11006-026		<10	<1	0.16	20	0.23	521	10	0.01	11	1330	5	0.08	2	4	41
JN11006-027		<10	1	0.17	10	0.39	666	8	0.01	18	170	3	0.13	2	4	44
JN11006-028		10	<1	0.93	30	0.66	246	4	0.06	37	850	3	0.08	<2	6	46
JN11006-029		<10	<1	0.25	10	0.46	373	1	0.07	13	110	2	0.08	2	3	47
JN11006-030		<10	1	0.19	10	0.35	422	13	0.04	6	110	<2	0.19	5	2	52
JN11006-031		<10	<1	0.10	10	0.28	354	10	0.03	5	90	<2	0.08	2	2	50
JN11006-032		<10	<1	0.15	10	0.27	331	3	0.04	7	80	4	0.03	4	2	52
JN11006-033		<10	1	0.08	10	0.28	333	1	0.12	5	80	<2	0.06	<2	1	41
JN11006-034		<10	<1	0.19	10	0.36	303	2	0.09	7	90	<2	0.10	<2	2	33
JN11006-035		<10	<1	0.44	20	0.57	322	5	0.04	26	150	4	0.16	4	3	75
JN11006-036		<10	<1	0.46	20	0.41	897	<1	0.02	35	1140	10	0.13	<2	5	36
JN11006-037		<10	<1	0.47	20	0.28	648	<1	0.03	33	200	8	0.07	<2	5	19
JN11006-038		<10	<1	0.53	20	0.52	682	<1	0.03	37	720	3	0.11	2	5	30
JN11006-039		<10	<1	0.57	20	0.73	538	12	0.02	32	900	7	0.17	4	6	68



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Account: TELOEX

CERTIFICATE OF ANALYSIS WH11191210

Sample Description	Method Analyte Units LOR	ME- ICP41 Th ppm 20	ME- ICP41 Ti % 0.01	ME- ICP41 Ti ppm 10	ME- ICP41 U ppm 10	ME- ICP41 V ppm 1	ME- ICP41 W ppm 10	ME- ICP41 Zn ppm 2
JN11006- 001		<20	0.01	<10	<10	3	40	41
JN11006- 002		<20	0.02	<10	<10	13	10	85
JN11006- 003		<20	0.07	<10	<10	19	<10	19
JN11006- 004		20	<0.01	<10	<10	15	140	23
JN11006- 005		<20	<0.01	<10	<10	4	<10	55
JN11006- 006		<20	<0.01	<10	<10	10	<10	24
JN11006- 007		<20	<0.01	<10	<10	8	<10	22
JN11006- 008		<20	<0.01	<10	<10	8	<10	21
JN11006- 009		<20	<0.01	<10	<10	13	<10	44
JN11006- 010		<20	0.01	<10	<10	17	<10	49
JN11006- 011		<20	<0.01	<10	<10	26	<10	67
JN11006- 012		<20	0.01	<10	<10	17	<10	34
JN11006- 013		<20	<0.01	<10	<10	19	<10	50
JN11006- 014		<20	<0.01	<10	<10	15	<10	34
JN11006- 015		<20	<0.01	<10	<10	9	<10	147
JN11006- 016		<20	<0.01	<10	<10	7	<10	45
JN11006- 017		<20	<0.01	<10	<10	14	<10	45
JN11006- 018		<20	<0.01	<10	<10	7	<10	62
JN11006- 019		<20	<0.01	<10	<10	8	<10	39
JN11006- 020		<20	<0.01	<10	<10	6	10	17
JN11006- 020S		<20	0.01	<10	<10	17	<10	50
JN11006- 021		<20	<0.01	<10	<10	5	<10	20
JN11006- 022		<20	<0.01	<10	<10	4	50	85
JN11006- 023		<20	<0.01	<10	<10	4	<10	13
JN11006- 024		<20	0.01	<10	<10	8	10	17
JN11006- 025		<20	<0.01	<10	<10	5	<10	17
JN11006- 026		<20	<0.01	<10	<10	13	<10	27
JN11006- 027		<20	<0.01	<10	<10	11	<10	29
JN11006- 028		20	0.06	<10	<10	43	<10	38
JN11006- 029		<20	0.02	<10	<10	14	<10	22
JN11006- 030		<20	0.01	<10	<10	9	<10	14
JN11006- 031		<20	0.01	<10	<10	6	<10	13
JN11006- 032		<20	<0.01	<10	<10	5	<10	11
JN11006- 033		<20	0.05	<10	<10	10	<10	10
JN11006- 034		<20	0.05	<10	<10	15	<10	13
JN11006- 035		<20	0.01	<10	<10	13	<10	30
JN11006- 036		<20	<0.01	<10	<10	27	<10	76
JN11006- 037		<20	0.01	<10	<10	36	<10	64
JN11006- 038		<20	<0.01	<10	<10	26	<10	66
JN11006- 039		<20	0.01	<10	<10	20	<10	86



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CERTIFICATE OF ANALYSIS WH11191210

Sample Description	Method Analyte Units LOR	WEI- 21 Recvd Wt. kg	Au- AA23 Au ppm	ME- ICP41 Ag ppm	ME- ICP41 Al %	ME- ICP41 As ppm	ME- ICP41 B ppm	ME- ICP41 Ba ppm	ME- ICP41 Be ppm	ME- ICP41 Bi ppm	ME- ICP41 Ca %	ME- ICP41 Cd ppm	ME- ICP41 Co ppm	ME- ICP41 Cr ppm	ME- ICP41 Cu ppm	ME- ICP41 Fe %
		0.02	0.005	0.2	0.01	2	10	10	0.5	2	0.01	0.5	1	1	1	0.01
JN11006- 040		2.75	0.008	<0.2	0.76	37	10	90	1.0	2	2.19	<0.5	15	14	39	4.53
JN11006- 040S		0.05	3.45	73.3	1.17	82	<10	70	<0.5	7	1.81	<0.5	10	16	887	2.93
JN11006- 040B		0.05	<0.005	<0.2	0.69	<2	<10	130	<0.5	<2	0.26	<0.5	3	13	2	1.54
JN11006- 041		2.08	<0.005	<0.2	1.17	5	<10	80	1.6	2	3.17	<0.5	8	18	13	2.81
JN11006- 042		1.85	<0.005	<0.2	1.92	<2	<10	40	1.2	3	3.05	<0.5	6	19	5	1.37
JN11006- 043		2.81	<0.005	<0.2	1.80	<2	<10	40	<0.5	<2	1.28	<0.5	5	29	15	1.54
JN11006- 044		2.82	<0.005	<0.2	1.35	<2	<10	20	<0.5	3	1.75	<0.5	4	23	13	1.16
JN11006- 045		3.24	0.070	<0.2	0.47	67	10	50	0.8	2	2.82	<0.5	4	8	2	2.40



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CERTIFICATE OF ANALYSIS WH11191210

Sample Description	Method Analyte Units LOR	ME- ICP41 Ga ppm 10	ME- ICP41 Hg ppm 1	ME- ICP41 K % 0.01	ME- ICP41 La ppm 10	ME- ICP41 Mg % 0.01	ME- ICP41 Mn ppm 5	ME- ICP41 Mo ppm 1	ME- ICP41 Na % 0.01	ME- ICP41 Ni ppm 1	ME- ICP41 P ppm 10	ME- ICP41 Pb ppm 2	ME- ICP41 S % 0.01	ME- ICP41 Sb ppm 2	ME- ICP41 Sc ppm 1	ME- ICP41 Sr ppm 1
JN11006- 040		<10	<1	0.43	20	0.87	762	5	0.01	31	360	8	0.36	11	5	141
JN11006- 040S		<10	<1	0.14	<10	0.77	752	568	0.05	9	620	41	0.20	53	1	83
JN11006- 040B		<10	<1	0.30	10	0.20	341	1	0.13	2	180	3	<0.01	<2	3	17
JN11006- 041		<10	<1	0.30	20	0.40	923	3	0.02	19	150	6	0.06	9	5	92
JN11006- 042		10	1	0.17	20	0.16	481	5	0.06	11	480	<2	0.03	2	4	115
JN11006- 043		<10	<1	0.28	20	0.19	175	<1	0.09	12	120	<2	0.05	<2	3	82
JN11006- 044		<10	<1	0.08	10	0.12	277	<1	0.08	5	90	<2	0.07	<2	1	80
JN11006- 045		<10	1	0.24	10	0.23	455	1	0.03	2	390	10	0.59	5	2	228



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CERTIFICATE OF ANALYSIS WH11191210

Sample Description	Method Analyte Units LOR	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41
		Th	Ti	Ti	U	V	W	Zn
		ppm 20	% 0.01	ppm 10	ppm 10	ppm 1	ppm 10	ppm 2
JN11006- 040		<20	<0.01	<10	<10	12	<10	73
JN11006- 040S		<20	0.09	<10	<10	27	<10	87
JN11006- 040B		<20	0.08	<10	<10	14	<10	23
JN11006- 041		<20	0.01	<10	<10	19	<10	69
JN11006- 042		<20	0.04	<10	<10	18	<10	27
JN11006- 043		<20	0.06	<10	<10	18	<10	11
JN11006- 044		<20	0.02	<10	<10	7	10	11
JN11006- 045		<20	<0.01	<10	<10	2	<10	21



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QC CERTIFICATE WH11191210

Project:

P.O. No.: JN11- 006

This report is for 48 Drill Core samples submitted to our lab in Whitehorse, YT, Canada on 19- SEP- 2011.

The following have access to data associated with this certificate:

JESSE CAMPBELL

CHRIS GALLAGHER

SAMPLE PREPARATION

ALS CODE	DESCRIPTION
WEI- 21	Received Sample Weight
LOG- 22	Sample login - Rcd w/o BarCode
LOG- 24	Pulp Login - Rcd w/o Barcode
BAG- 01	Bulk Master for Storage
CRU- QC	Crushing QC Test
PUL- QC	Pulverizing QC Test
CRU- 31	Fine crushing - 70% <2mm
SPL- 21	Split sample - riffle splitter
PUL- 32m	Pulverize 500g - 85%< 75um

ANALYTICAL PROCEDURES

ALS CODE	DESCRIPTION	INSTRUMENT
Au- AA23	Au 30g FA- AA finish	AAS
ME- ICP41	35 Element Aqua Regia ICP- AES	ICP- AES

To: TERRALOGIC EXPLORATION SERVICES INC.

ATTN: CHRIS GALLAGHER

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This is the Final Report and supersedes any preliminary report with this certificate number. Results apply to samples as submitted. All pages of this report have been checked and approved for release.

Signature:

Colin Ramshaw, Vancouver Laboratory Manager

QC CERTIFICATE OF ANALYSIS WH11191210

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QC CERTIFICATE OF ANALYSIS WH11191210

Sample Description	Method Analyte Units LOR	ME- ICP41 Ti %	ME- ICP41 Ti ppm	ME- ICP41 U ppm	ME- ICP41 V ppm	ME- ICP41 W ppm	ME- ICP41 Zn ppm
		0.01	10	10	1	10	2
STANDARDS							
GBM908- 10		0.31	<10	<10	48	<10	997
GBM908- 5		0.18	<10	<10	27	<10	237
MRGeo08		0.38	<10	<10	102	<10	782
OGGeo08		0.32	<10	<10	82	10	6960
OREAS 65a							
OREAS- 16b							
OREAS- 16b							
OREAS- 16b							
OxC88							
OxC88							
OxC88							
OxL78							



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QC CERTIFICATE OF ANALYSIS WH11191210

Sample Description	Method Analyte Units LOR	ME- ICP41 Ti %	ME- ICP41 Ti ppm	ME- ICP41 U ppm	ME- ICP41 V ppm	ME- ICP41 W ppm	ME- ICP41 Zn ppm
		0.01	10	10	1	10	2
JN11005- 110 DUP		DUPLICATES					
JN11005- 128 DUP							
JN11005- 132 DUP		<0.01 <0.01	<10 <10	<10 <10	2 2	<10 <10	18 18
JN11006- 031 DUP							
JN11006- 033 DUP		0.05 0.04	<10 <10	<10 <10	10 10	<10 <10	10 10
ORIGINAL DUP							
ORIGINAL DUP							
ORIGINAL DUP							



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CERTIFICATE WH11189870

Project:

P.O. No.: JN11- 007

This report is for 145 Drill Core samples submitted to our lab in Whitehorse, YT, Canada on 19- SEP- 2011.

The following have access to data associated with this certificate:

JESSE CAMPBELL

CHRIS GALLAGHER

SAMPLE PREPARATION

ALS CODE	DESCRIPTION
WEI- 21	Received Sample Weight
LOG- 22	Sample login - Rcd w/o BarCode
SPL- 22Y	Split Sample - Boyd Rotary Splitter
BAG- 01	Bulk Master for Storage
LOG- 24	Pulp Login - Rcd w/o Barcode
CRU- QC	Crushing QC Test
PUL- QC	Pulverizing QC Test
CRU- 31	Fine crushing - 70% <2mm
PUL- 32m	Pulverize 500g - 85%<75um

ANALYTICAL PROCEDURES

ALS CODE	DESCRIPTION	INSTRUMENT
Au- AA23	Au 30g FA- AA finish	AAS
ME- ICP41	35 Element Aqua Regia ICP- AES	ICP- AES

To: TERRALOGIC EXPLORATION SERVICES INC.
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This is the Final Report and supersedes any preliminary report with this certificate number. Results apply to samples as submitted. All pages of this report have been checked and approved for release.

Signature:

Colin Ramshaw, Vancouver Laboratory Manager



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CERTIFICATE OF ANALYSIS WH11189870

Sample Description	Method Analyte Units LOR	WEI- 21 Recvd Wt. kg 0.02	Au- AA23 Au ppm 0.005	ME- ICP41 Ag ppm 0.2	ME- ICP41 Al % 0.01	ME- ICP41 As ppm 2	ME- ICP41 B ppm 10	ME- ICP41 Ba ppm 10	ME- ICP41 Be ppm 0.5	ME- ICP41 Bi ppm 2	ME- ICP41 Ca % 0.01	ME- ICP41 Cd ppm 0.5	ME- ICP41 Co ppm 1	ME- ICP41 Cr ppm 1	ME- ICP41 Cu ppm 1	ME- ICP41 Fe % 0.01
JN11007- 001		2.21	<0.005	<0.2	0.24	15	<10	30	<0.5	<2	1.14	<0.5	2	23	22	1.92
JN11007- 002		3.29	<0.005	<0.2	0.21	9	<10	20	<0.5	<2	1.40	<0.5	1	22	11	1.41
JN11007- 003		1.11	<0.005	<0.2	0.29	6	<10	20	<0.5	<2	0.90	<0.5	2	23	8	2.02
JN11007- 004		3.75	<0.005	0.3	0.26	23	<10	20	<0.5	<2	0.81	<0.5	3	29	8	1.50
JN11007- 005		1.18	<0.005	<0.2	0.19	21	<10	20	<0.5	<2	1.01	<0.5	3	20	20	2.00
JN11007- 006		1.95	<0.005	<0.2	0.28	37	<10	10	<0.5	<2	0.84	<0.5	3	25	8	1.26
JN11007- 007		2.72	<0.005	<0.2	0.36	13	<10	20	<0.5	<2	0.68	<0.5	2	29	8	1.87
JN11007- 008		3.03	<0.005	0.4	0.30	12	<10	30	<0.5	<2	0.51	<0.5	3	27	7	1.21
JN11007- 009		1.46	0.007	0.7	0.56	32	<10	70	<0.5	<2	0.44	<0.5	4	26	18	2.36
JN11007- 010		0.71	<0.005	4.2	0.59	20	<10	180	<0.5	<2	0.42	<0.5	4	27	37	2.41
JN11007- 011		2.00	0.012	1.2	0.44	24	<10	90	<0.5	<2	0.41	<0.5	6	26	60	3.06
JN11007- 012		2.13	<0.005	<0.2	0.27	22	<10	20	<0.5	<2	0.17	<0.5	3	21	15	1.57
JN11007- 013		2.03	<0.005	0.2	0.32	20	<10	20	<0.5	<2	0.16	<0.5	3	25	13	1.81
JN11007- 014		2.59	<0.005	<0.2	0.19	25	<10	20	<0.5	<2	0.04	<0.5	2	21	11	0.84
JN11007- 015		2.94	<0.005	<0.2	0.33	11	<10	20	<0.5	<2	0.38	<0.5	2	26	10	1.73
JN11007- 016		0.57	0.008	0.2	0.32	7	<10	20	<0.5	<2	0.80	<0.5	3	21	42	1.95
JN11007- 017		1.45	0.005	0.2	0.55	23	10	40	<0.5	<2	0.73	<0.5	9	22	25	2.95
JN11007- 018		1.91	0.055	0.4	0.42	69	<10	40	<0.5	<2	0.65	1.5	7	17	19	2.20
JN11007- 019		2.29	0.430	0.2	0.29	749	10	20	<0.5	<2	0.58	<0.5	3	22	9	1.86
JN11007- 020		1.45	0.005	0.2	0.27	10	<10	10	<0.5	<2	0.74	<0.5	3	20	57	1.95
JN11007- 020S		0.03	1.475	29.8	0.35	24	<10	240	<0.5	<2	1.21	<0.5	7	27	2950	2.47
JN11007- 021		2.11	0.015	0.2	0.28	16	<10	20	<0.5	<2	0.16	<0.5	4	22	21	1.23
JN11007- 022		0.93	0.055	<0.2	0.39	17	<10	20	<0.5	<2	0.04	<0.5	2	24	9	0.90
JN11007- 023		2.91	0.097	0.2	0.27	26	<10	20	<0.5	<2	0.36	<0.5	4	22	19	1.52
JN11007- 024		1.99	0.120	0.2	0.27	78	<10	20	<0.5	<2	0.27	<0.5	4	25	26	1.48
JN11007- 025		1.40	0.006	<0.2	0.14	10	<10	10	<0.5	<2	0.56	<0.5	4	17	26	1.39
JN11007- 026		3.06	0.023	<0.2	0.24	18	<10	20	<0.5	<2	0.34	<0.5	3	26	12	1.51
JN11007- 027		1.41	0.135	0.7	0.18	167	<10	20	<0.5	<2	0.52	<0.5	5	20	78	2.54
JN11007- 028		1.98	0.020	0.4	0.23	69	<10	20	<0.5	<2	0.92	<0.5	5	19	22	2.26
JN11007- 029		2.27	0.009	0.2	0.31	19	<10	20	<0.5	<2	0.73	<0.5	5	20	14	1.88
JN11007- 030		0.84	<0.005	0.2	0.30	9	<10	20	<0.5	<2	0.58	<0.5	4	19	15	1.61
JN11007- 031		1.84	0.005	<0.2	0.31	17	<10	10	<0.5	<2	0.10	<0.5	3	21	7	1.25
JN11007- 032		2.79	0.010	0.2	0.21	28	<10	10	<0.5	<2	0.33	<0.5	4	25	5	1.40
JN11007- 033		3.11	0.006	0.2	0.30	36	<10	10	<0.5	<2	0.14	<0.5	4	22	9	1.26
JN11007- 034		2.30	<0.005	0.2	0.25	30	<10	20	<0.5	<2	0.60	<0.5	5	19	18	1.83
JN11007- 035		2.50	0.008	<0.2	0.22	24	<10	20	<0.5	<2	0.33	<0.5	4	21	18	1.33
JN11007- 036		2.59	0.012	0.3	0.20	47	<10	10	<0.5	<2	0.26	<0.5	5	27	49	1.58
JN11007- 037		1.31	0.058	0.2	0.22	82	10	10	<0.5	<2	0.50	<0.5	4	18	32	1.41
JN11007- 038		2.93	0.015	0.2	0.26	55	<10	20	<0.5	<2	0.77	<0.5	4	22	23	1.45
JN11007- 039		2.40	<0.005	0.2	0.21	41	<10	10	<0.5	<2	0.96	<0.5	4	26	43	1.23



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44 - 12TH AVENUE SOUTH
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CERTIFICATE OF ANALYSIS WH11189870

Sample Description	Method Analyte Units LOR	ME- ICP41 Ga ppm 10	ME- ICP41 Hg ppm 1	ME- ICP41 K % 0.01	ME- ICP41 La ppm 10	ME- ICP41 Mg % 0.01	ME- ICP41 Mn ppm 5	ME- ICP41 Mo ppm 1	ME- ICP41 Na % 0.01	ME- ICP41 Ni ppm 1	ME- ICP41 P ppm 10	ME- ICP41 Pb ppm 2	ME- ICP41 S % 0.01	ME- ICP41 Sb ppm 2	ME- ICP41 Sc ppm 1	ME- ICP41 Sr ppm 1
JN11007-001		<10	<1	0.12	10	0.21	245	2	0.02	7	90	3	0.25	<2	1	43
JN11007-002		<10	<1	0.11	10	0.23	257	4	0.02	6	70	6	0.24	<2	1	64
JN11007-003		<10	<1	0.14	10	0.19	266	3	0.03	7	70	4	0.19	<2	1	48
JN11007-004		<10	<1	0.14	10	0.18	177	5	0.03	7	110	3	0.07	2	1	39
JN11007-005		<10	<1	0.11	10	0.23	260	4	0.03	8	90	3	0.26	<2	1	53
JN11007-006		<10	<1	0.13	10	0.15	199	4	0.02	6	100	5	0.14	2	1	37
JN11007-007		<10	<1	0.14	10	0.13	276	4	0.02	8	110	6	0.15	2	1	34
JN11007-008		<10	<1	0.12	10	0.11	211	5	0.02	6	140	4	0.08	2	1	28
JN11007-009		<10	<1	0.16	10	0.18	289	4	0.02	12	220	15	0.20	2	1	29
JN11007-010		<10	<1	0.17	10	0.16	314	6	0.02	11	160	13	0.58	<2	2	25
JN11007-011		<10	<1	0.15	10	0.15	433	4	0.02	14	160	27	0.89	4	1	25
JN11007-012		<10	<1	0.13	10	0.08	242	4	0.02	9	110	3	0.23	3	1	15
JN11007-013		<10	<1	0.14	10	0.06	331	4	0.02	8	80	5	0.08	<2	1	14
JN11007-014		<10	<1	0.10	10	0.01	112	4	0.01	5	70	6	0.11	2	1	11
JN11007-015		<10	<1	0.14	10	0.10	286	4	0.02	10	100	5	0.13	<2	1	20
JN11007-016		<10	<1	0.18	10	0.21	452	4	0.02	13	200	7	0.47	4	1	35
JN11007-017		<10	<1	0.26	10	0.37	476	3	0.02	18	160	7	0.34	7	2	40
JN11007-018		<10	<1	0.26	10	0.26	501	4	0.02	14	370	104	0.68	17	2	32
JN11007-019		<10	<1	0.17	10	0.16	274	4	0.02	9	80	2	0.69	8	1	26
JN11007-020		<10	<1	0.14	10	0.21	272	4	0.02	11	70	3	0.98	2	1	30
JN11007-020S		<10	3	0.14	10	0.13	383	311	0.05	17	350	53	1.00	71	1	246
JN11007-021		<10	<1	0.10	10	0.08	204	5	0.02	8	110	2	0.07	2	1	14
JN11007-022		<10	<1	0.11	20	0.02	107	4	0.02	7	90	2	0.05	2	1	9
JN11007-023		<10	<1	0.10	10	0.10	211	4	0.02	10	110	4	0.28	4	1	22
JN11007-024		<10	<1	0.13	10	0.07	234	4	0.02	10	140	6	0.24	5	1	18
JN11007-025		<10	<1	0.08	10	0.16	221	4	0.02	8	90	5	0.52	<2	1	31
JN11007-026		<10	<1	0.12	10	0.10	275	5	0.02	9	70	3	0.44	<2	1	21
JN11007-027		<10	<1	0.12	10	0.14	275	4	0.02	11	60	9	1.66	8	1	23
JN11007-028		<10	<1	0.16	10	0.23	587	2	0.01	13	70	23	1.25	9	1	43
JN11007-029		<10	<1	0.13	10	0.19	276	2	0.01	11	120	3	0.28	3	2	37
JN11007-030		<10	<1	0.13	10	0.14	235	2	0.01	9	400	2	0.33	2	1	37
JN11007-031		<10	<1	0.07	10	0.04	164	2	<0.01	6	100	2	0.12	<2	1	9
JN11007-032		<10	<1	0.08	10	0.09	190	3	0.01	7	80	<2	0.49	3	1	20
JN11007-033		<10	<1	0.05	20	0.03	203	2	<0.01	7	160	3	0.02	<2	1	13
JN11007-034		<10	<1	0.16	10	0.17	216	2	0.01	12	100	2	0.31	4	2	42
JN11007-035		<10	<1	0.11	10	0.08	202	2	0.01	9	80	2	0.42	3	1	17
JN11007-036		<10	<1	0.09	10	0.06	171	3	<0.01	10	90	<2	0.72	6	1	14
JN11007-037		<10	<1	0.12	10	0.12	204	2	0.01	7	90	<2	0.32	3	1	25
JN11007-038		<10	<1	0.12	10	0.16	193	2	0.01	9	80	4	0.20	3	1	37
JN11007-039		<10	<1	0.06	10	0.09	204	2	0.01	8	80	2	0.22	<2	2	22



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CERTIFICATE OF ANALYSIS WH11189870

Sample Description	Method Analyte Units LOR	ME- ICP41 Th ppm 20	ME- ICP41 Ti % 0.01	ME- ICP41 Ti ppm 10	ME- ICP41 U ppm 10	ME- ICP41 V ppm 1	ME- ICP41 W ppm 10	ME- ICP41 Zn ppm 2
JN11007- 001		<20	<0.01	<10	<10	4	<10	13
JN11007- 002		<20	<0.01	<10	<10	3	<10	5
JN11007- 003		<20	<0.01	<10	<10	4	<10	4
JN11007- 004		<20	<0.01	<10	<10	3	<10	2
JN11007- 005		<20	<0.01	<10	<10	3	<10	3
JN11007- 006		<20	<0.01	<10	<10	3	<10	2
JN11007- 007		<20	<0.01	<10	<10	3	<10	9
JN11007- 008		<20	<0.01	<10	<10	2	<10	4
JN11007- 009		<20	<0.01	<10	<10	6	<10	37
JN11007- 010		<20	<0.01	<10	<10	6	<10	37
JN11007- 011		<20	<0.01	<10	<10	5	<10	35
JN11007- 012		<20	<0.01	<10	<10	3	<10	14
JN11007- 013		<20	<0.01	<10	<10	3	<10	16
JN11007- 014		<20	<0.01	<10	<10	2	<10	16
JN11007- 015		<20	<0.01	<10	<10	3	<10	17
JN11007- 016		<20	<0.01	<10	<10	3	<10	8
JN11007- 017		<20	<0.01	<10	<10	6	<10	17
JN11007- 018		<20	<0.01	<10	<10	4	<10	162
JN11007- 019		<20	<0.01	<10	<10	2	<10	2
JN11007- 020		<20	<0.01	<10	<10	3	<10	9
JN11007- 020S		<20	0.01	<10	<10	16	<10	42
JN11007- 021		<20	<0.01	<10	<10	4	<10	3
JN11007- 022		<20	<0.01	<10	<10	4	<10	2
JN11007- 023		<20	<0.01	<10	<10	3	<10	8
JN11007- 024		<20	<0.01	<10	<10	2	<10	26
JN11007- 025		<20	<0.01	<10	<10	2	<10	7
JN11007- 026		<20	<0.01	<10	<10	2	<10	15
JN11007- 027		<20	<0.01	<10	<10	2	<10	11
JN11007- 028		<20	<0.01	<10	<10	2	<10	31
JN11007- 029		<20	<0.01	<10	<10	6	<10	12
JN11007- 030		<20	<0.01	<10	<10	4	<10	12
JN11007- 031		<20	<0.01	<10	<10	3	<10	8
JN11007- 032		<20	<0.01	<10	<10	3	<10	7
JN11007- 033		<20	<0.01	<10	<10	4	<10	13
JN11007- 034		<20	<0.01	<10	<10	2	<10	18
JN11007- 035		<20	<0.01	<10	<10	2	<10	12
JN11007- 036		<20	<0.01	<10	<10	2	<10	10
JN11007- 037		<20	<0.01	<10	<10	2	<10	12
JN11007- 038		<20	<0.01	<10	<10	4	<10	14
JN11007- 039		<20	<0.01	<10	<10	6	<10	13



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CERTIFICATE OF ANALYSIS WH11189870

Sample Description	Method Analyte Units LOR	WEI- 21 Recvd Wt. kg 0.02	Au- AA23 Au ppm 0.005	ME- ICP41 Ag ppm 0.2	ME- ICP41 Al % 0.01	ME- ICP41 As ppm 2	ME- ICP41 B ppm 10	ME- ICP41 Ba ppm 10	ME- ICP41 Be ppm 0.5	ME- ICP41 Bi ppm 2	ME- ICP41 Ca % 0.01	ME- ICP41 Cd ppm 0.5	ME- ICP41 Co ppm 1	ME- ICP41 Cr ppm 1	ME- ICP41 Cu ppm 1	ME- ICP41 Fe % 0.01
JN11007- 040		2.35	<0.005	0.2	0.20	20	<10	10	<0.5	<2	1.06	<0.5	2	23	17	1.24
JN11007- 040S		0.03	3.50	69.8	1.25	96	<10	70	<0.5	8	1.91	<0.5	9	18	738	3.06
JN11007- 040B		0.03	0.005	0.2	0.70	2	<10	130	<0.5	<2	0.26	<0.5	3	12	4	1.51
JN11007- 041		2.01	0.007	0.2	0.26	42	10	10	<0.5	<2	0.74	<0.5	4	22	17	1.42
JN11007- 042		2.61	0.021	0.3	0.20	54	10	10	<0.5	<2	0.49	<0.5	4	27	21	1.25
JN11007- 043		2.72	<0.005	0.3	0.24	30	<10	10	<0.5	<2	0.54	<0.5	3	23	41	1.73
JN11007- 044		2.35	0.006	0.2	0.19	32	<10	10	<0.5	<2	0.70	<0.5	3	26	37	1.35
JN11007- 045		2.41	0.014	0.2	0.10	38	<10	10	<0.5	<2	0.80	<0.5	3	22	26	1.04
JN11007- 046		2.57	0.400	0.4	0.26	684	10	20	<0.5	<2	0.89	<0.5	3	21	21	1.52
JN11007- 047		2.01	0.036	0.2	0.23	72	10	10	<0.5	<2	0.70	<0.5	3	18	4	1.44
JN11007- 048		2.63	0.091	0.6	0.17	72	<10	10	<0.5	<2	0.38	<0.5	2	26	35	1.43
JN11007- 049		2.17	0.053	0.3	0.33	88	10	20	<0.5	<2	0.52	<0.5	2	22	10	1.68
JN11007- 050		2.54	0.134	0.2	0.25	228	10	20	<0.5	<2	0.62	<0.5	3	22	6	1.33
JN11007- 051		2.47	<0.005	0.2	0.21	7	<10	20	<0.5	<2	0.50	<0.5	2	21	13	1.10
JN11007- 052		1.91	0.007	0.3	0.32	150	<10	20	<0.5	<2	0.60	<0.5	7	24	54	1.55
JN11007- 053		1.12	0.016	0.4	0.76	84	20	40	0.8	<2	0.15	2.1	13	12	134	1.81
JN11007- 054		1.64	0.034	0.4	0.50	33	10	20	0.7	2	0.28	0.9	10	20	178	2.92
JN11007- 055		2.13	<0.005	0.2	0.48	6	<10	50	0.5	<2	0.11	0.5	15	11	38	4.24
JN11007- 056		2.38	0.008	0.3	0.55	17	<10	50	0.6	<2	0.55	<0.5	18	13	45	4.48
JN11007- 057		0.88	0.112	4.9	0.62	25	<10	50	0.5	<2	2.53	33.2	9	9	60	5.28
JN11007- 058		2.38	0.006	0.5	0.92	11	<10	50	0.6	<2	1.16	<0.5	15	18	38	4.74
JN11007- 059		0.73	0.017	0.5	0.80	18	<10	80	<0.5	<2	0.63	<0.5	16	13	43	3.71
JN11007- 060		2.26	0.031	0.6	0.75	21	<10	40	<0.5	<2	0.48	<0.5	15	13	45	4.17
JN11007- 060S		0.03	1.445	31.6	0.37	23	<10	240	<0.5	<2	1.26	<0.5	9	30	3110	2.48
JN11007- 061		2.79	0.005	0.2	2.54	2	<10	120	1.1	<2	8.6	<0.5	9	33	38	3.58
JN11007- 062		2.75	<0.005	0.2	2.82	4	<10	80	0.9	<2	13.4	<0.5	9	37	29	2.95
JN11007- 063		2.55	<0.005	<0.2	2.53	7	<10	90	0.9	<2	10.9	<0.5	9	32	30	3.19
JN11007- 064		3.15	<0.005	0.2	0.49	4	<10	10	0.5	<2	19.7	<0.5	5	10	16	1.91
JN11007- 065		2.28	<0.005	0.2	0.47	9	<10	20	<0.5	<2	19.6	<0.5	6	9	19	1.88
JN11007- 066		2.02	<0.005	0.2	0.94	5	<10	30	0.6	<2	16.2	<0.5	6	16	23	2.31
JN11007- 067		2.87	<0.005	0.2	2.57	5	<10	80	0.9	<2	5.37	<0.5	13	31	54	3.90
JN11007- 068		1.97	0.005	<0.2	2.25	9	<10	60	1.0	2	1.66	<0.5	19	35	43	4.96
JN11007- 069		2.58	<0.005	<0.2	2.38	4	<10	80	1.0	<2	2.24	<0.5	13	38	36	4.26
JN11007- 070		3.29	<0.005	0.2	2.72	4	<10	70	0.9	4	0.97	<0.5	15	40	48	5.17
JN11007- 071		0.85	<0.005	0.2	2.85	4	<10	100	0.9	<2	0.49	<0.5	16	40	41	5.38
JN11007- 072		0.76	0.254	0.3	1.15	2	<10	40	0.6	4	1.01	<0.5	10	26	117	6.44
JN11007- 073		1.89	<0.005	0.2	2.92	3	<10	70	0.9	<2	0.73	<0.5	16	38	47	4.95
JN11007- 074		2.71	<0.005	0.2	3.30	4	<10	110	1.2	7	1.54	<0.5	16	41	57	5.52
JN11007- 075		2.14	<0.005	<0.2	2.60	3	<10	70	1.2	<2	2.21	<0.5	15	43	56	5.82
JN11007- 076		0.73	<0.005	<0.2	2.34	2	<10	90	1.0	<2	1.41	<0.5	12	35	27	4.26



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Sample Description	Method Analyte Units LOR	ME- ICP41 Ga ppm 10	ME- ICP41 Hg ppm 1	ME- ICP41 K % 0.01	ME- ICP41 La ppm 10	ME- ICP41 Mg % 0.01	ME- ICP41 Mn ppm 5	ME- ICP41 Mo ppm 1	ME- ICP41 Na % 0.01	ME- ICP41 Ni ppm 1	ME- ICP41 P ppm 10	ME- ICP41 Pb ppm 2	ME- ICP41 S % 0.01	ME- ICP41 Sb ppm 2	ME- ICP41 Sc ppm 1	ME- ICP41 Sr ppm 1
JN11007- 040		<10	<1	0.08	10	0.15	222	2	0.02	7	80	3	0.14	2	1	49
JN11007- 040S		<10	1	0.14	<10	0.83	798	614	0.04	10	680	38	0.21	55	1	88
JN11007- 040B		<10	<1	0.28	10	0.20	335	2	0.13	1	180	3	<0.01	<2	3	18
JN11007- 041		<10	<1	0.12	10	0.15	245	2	0.01	6	160	3	0.15	4	1	42
JN11007- 042		<10	<1	0.10	10	0.11	197	3	0.01	6	120	8	0.22	4	1	28
JN11007- 043		<10	<1	0.10	10	0.12	230	2	0.01	7	80	8	0.38	3	1	33
JN11007- 044		<10	<1	0.08	10	0.16	191	3	0.01	7	230	3	0.28	4	1	44
JN11007- 045		<10	<1	0.06	10	0.19	192	3	0.01	4	180	<2	0.43	4	1	41
JN11007- 046		<10	<1	0.16	10	0.20	350	2	0.01	10	530	3	0.51	10	1	44
JN11007- 047		<10	<1	0.15	10	0.17	222	2	0.01	6	110	2	0.13	3	1	38
JN11007- 048		<10	<1	0.10	10	0.10	212	3	0.01	13	90	3	0.62	8	1	18
JN11007- 049		<10	<1	0.20	10	0.14	414	2	0.01	6	80	10	0.47	5	1	23
JN11007- 050		<10	<1	0.17	10	0.16	219	2	0.01	8	80	3	0.38	4	1	28
JN11007- 051		<10	<1	0.11	10	0.14	184	2	0.01	7	70	7	0.24	<2	1	24
JN11007- 052		<10	<1	0.12	10	0.17	183	2	0.01	11	150	11	0.45	2	1	48
JN11007- 053		<10	<1	0.28	10	0.03	66	1	0.01	32	520	3	1.05	8	3	31
JN11007- 054		<10	<1	0.13	10	0.05	186	2	0.01	25	1070	5	1.57	6	2	32
JN11007- 055		<10	<1	0.25	20	0.74	415	<1	0.01	36	170	2	0.03	<2	2	16
JN11007- 056		<10	<1	0.23	10	0.42	378	1	0.02	44	620	9	0.77	3	2	33
JN11007- 057		<10	<1	0.31	10	1.14	1845	<1	0.02	31	110	1765	2.64	12	2	98
JN11007- 058		<10	<1	0.26	10	0.60	486	<1	0.02	38	3300	14	0.96	2	2	77
JN11007- 059		<10	<1	0.31	10	0.41	325	1	0.02	38	140	14	1.49	7	2	28
JN11007- 060		<10	<1	0.22	10	0.44	256	1	0.02	44	130	15	1.93	5	2	21
JN11007- 060S		<10	4	0.15	10	0.14	398	357	0.05	18	380	55	1.04	78	1	269
JN11007- 061		10	<1	0.34	20	0.61	259	2	0.17	29	550	10	1.78	<2	5	306
JN11007- 062		10	<1	0.25	10	0.61	286	<1	0.24	25	320	12	1.43	<2	5	485
JN11007- 063		10	<1	0.32	10	0.89	354	1	0.15	25	700	14	1.62	<2	4	311
JN11007- 064		<10	<1	0.15	10	0.30	242	<1	0.03	14	220	14	0.99	<2	4	539
JN11007- 065		<10	<1	0.21	10	0.30	210	<1	0.03	16	330	14	1.05	<2	3	720
JN11007- 066		<10	<1	0.26	10	0.46	355	<1	0.03	18	470	10	0.79	<2	3	537
JN11007- 067		10	<1	0.39	20	0.84	417	<1	0.11	34	400	10	0.86	<2	3	214
JN11007- 068		10	<1	0.31	30	1.05	281	<1	0.03	43	480	4	0.88	<2	3	49
JN11007- 069		10	<1	0.39	30	0.94	325	<1	0.06	49	550	3	0.45	<2	4	75
JN11007- 070		10	<1	0.32	40	1.15	239	<1	0.05	41	490	<2	0.43	<2	3	51
JN11007- 071		10	<1	0.40	40	1.14	296	<1	0.05	43	510	2	0.69	<2	3	47
JN11007- 072		<10	<1	0.17	20	0.55	269	<1	0.03	21	280	3	2.86	<2	3	31
JN11007- 073		10	<1	0.31	50	1.15	251	<1	0.08	47	850	6	0.24	<2	3	50
JN11007- 074		10	<1	0.41	40	1.10	378	<1	0.07	43	620	3	0.88	<2	4	93
JN11007- 075		10	<1	0.21	40	1.19	493	<1	0.04	42	520	4	0.78	<2	5	81
JN11007- 076		10	<1	0.38	50	0.93	285	<1	0.04	42	760	<2	0.15	<2	3	68



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CERTIFICATE OF ANALYSIS WH11189870

Sample Description	Method Analyte Units LOR	ME- ICP41 Th ppm 20	ME- ICP41 Ti % 0.01	ME- ICP41 Tl ppm 10	ME- ICP41 U ppm 10	ME- ICP41 V ppm 1	ME- ICP41 W ppm 10	ME- ICP41 Zn ppm 2
JN11007- 040		<20	<0.01	<10	<10	3	<10	12
JN11007- 040S		<20	0.08	<10	<10	27	<10	93
JN11007- 040B		<20	0.08	<10	<10	13	<10	24
JN11007- 041		<20	<0.01	<10	<10	2	<10	10
JN11007- 042		<20	<0.01	<10	<10	1	<10	19
JN11007- 043		<20	<0.01	<10	<10	1	<10	21
JN11007- 044		<20	<0.01	<10	<10	2	<10	9
JN11007- 045		<20	<0.01	<10	<10	2	<10	8
JN11007- 046		<20	<0.01	<10	<10	2	<10	12
JN11007- 047		<20	<0.01	<10	<10	1	<10	7
JN11007- 048		<20	<0.01	<10	<10	2	<10	13
JN11007- 049		<20	<0.01	<10	<10	2	<10	14
JN11007- 050		<20	<0.01	<10	<10	2	<10	10
JN11007- 051		<20	<0.01	<10	<10	2	<10	16
JN11007- 052		<20	<0.01	<10	<10	2	<10	30
JN11007- 053		<20	<0.01	<10	<10	7	<10	77
JN11007- 054		<20	<0.01	<10	<10	5	<10	89
JN11007- 055		<20	<0.01	<10	<10	9	<10	129
JN11007- 056		<20	<0.01	<10	<10	12	<10	88
JN11007- 057		<20	<0.01	<10	<10	9	<10	3860
JN11007- 058		<20	<0.01	<10	<10	16	<10	105
JN11007- 059		<20	<0.01	<10	<10	11	<10	94
JN11007- 060		<20	<0.01	<10	<10	10	<10	90
JN11007- 060S		<20	0.01	<10	<10	16	<10	46
JN11007- 061		<20	0.03	<10	<10	35	<10	52
JN11007- 062		<20	0.06	<10	<10	40	<10	77
JN11007- 063		<20	0.04	<10	<10	35	<10	69
JN11007- 064		<20	<0.01	<10	<10	12	<10	47
JN11007- 065		<20	0.01	<10	10	11	<10	40
JN11007- 066		<20	0.01	<10	<10	14	<10	38
JN11007- 067		<20	0.04	<10	<10	25	<10	96
JN11007- 068		<20	0.01	<10	<10	26	<10	74
JN11007- 069		<20	0.03	<10	<10	30	<10	85
JN11007- 070		20	0.03	<10	<10	25	<10	99
JN11007- 071		20	0.03	<10	<10	25	<10	107
JN11007- 072		<20	0.01	<10	<10	18	20	41
JN11007- 073		20	0.03	<10	<10	24	<10	127
JN11007- 074		20	0.04	<10	<10	30	<10	96
JN11007- 075		20	0.02	<10	<10	33	<10	79
JN11007- 076		20	0.03	<10	<10	22	<10	90



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CERTIFICATE OF ANALYSIS WH11189870

Sample Description	Method Analyte Units LOR	WEI- 21 Recvd Wt. kg 0.02	Au- AA23 Au ppm 0.005	ME- ICP41 Ag ppm 0.2	ME- ICP41 Al % 0.01	ME- ICP41 As ppm 2	ME- ICP41 B ppm 10	ME- ICP41 Ba ppm 10	ME- ICP41 Be ppm 0.5	ME- ICP41 Bi ppm 2	ME- ICP41 Ca % 0.01	ME- ICP41 Cd ppm 0.5	ME- ICP41 Co ppm 1	ME- ICP41 Cr ppm 1	ME- ICP41 Cu ppm 1	ME- ICP41 Fe % 0.01
JN11007- 077		2.31	<0.005	<0.2	2.54	4	<10	60	0.8	<2	1.33	<0.5	15	36	50	5.01
JN11007- 078		1.70	<0.005	<0.2	0.36	7	<10	10	<0.5	<2	1.35	<0.5	2	21	23	1.38
JN11007- 079		1.82	0.007	0.4	0.43	7	<10	10	<0.5	<2	1.17	<0.5	4	22	104	1.96
JN11007- 080		2.00	<0.005	0.2	0.28	6	<10	10	0.6	<2	1.71	<0.5	3	24	54	1.35
JN11007- 080S		0.03	3.42	73.6	1.39	97	<10	80	<0.5	8	2.13	<0.5	9	18	778	3.38
JN11007- 080B		0.03	0.008	0.2	0.79	<2	<10	140	<0.5	<2	0.30	<0.5	2	13	3	1.76
JN11007- 081		2.35	0.020	0.2	0.21	14	<10	<10	<0.5	<2	0.87	<0.5	3	23	15	1.82
JN11007- 082		1.86	<0.005	<0.2	0.45	4	<10	<10	<0.5	<2	1.13	<0.5	1	28	14	0.69
JN11007- 083		1.51	<0.005	<0.2	0.67	3	<10	10	<0.5	<2	1.78	<0.5	2	29	14	1.26
JN11007- 084		1.27	<0.005	<0.2	0.85	18	<10	10	<0.5	<2	0.75	<0.5	4	33	15	1.30
JN11007- 085		1.76	<0.005	<0.2	0.85	9	<10	10	<0.5	<2	0.99	<0.5	3	30	11	0.98
JN11007- 086		2.60	<0.005	<0.2	0.48	17	<10	10	<0.5	<2	0.93	<0.5	1	22	10	1.10
JN11007- 087		2.73	<0.005	<0.2	0.62	9	<10	10	<0.5	<2	1.19	<0.5	2	19	6	1.49
JN11007- 088		1.59	<0.005	<0.2	0.74	18	<10	10	<0.5	<2	1.09	<0.5	2	24	9	1.42
JN11007- 089		1.86	<0.005	<0.2	0.47	5	<10	10	<0.5	<2	0.86	<0.5	1	30	7	0.98
JN11007- 090		2.32	<0.005	<0.2	0.58	15	<10	20	<0.5	<2	1.51	<0.5	4	29	10	1.52
JN11007- 091		1.40	<0.005	<0.2	0.38	4	<10	10	<0.5	<2	0.95	<0.5	3	23	20	1.44
JN11007- 092		1.26	<0.005	<0.2	0.46	3	<10	10	<0.5	<2	0.49	<0.5	2	32	4	0.99
JN11007- 093		1.47	<0.005	<0.2	0.39	4	<10	<10	<0.5	<2	0.44	<0.5	3	23	41	1.36
JN11007- 094		2.69	<0.005	<0.2	0.47	2	<10	<10	<0.5	<2	0.62	<0.5	2	27	13	1.19
JN11007- 095		2.36	<0.005	<0.2	0.46	2	<10	10	<0.5	<2	0.61	<0.5	<1	24	3	0.45
JN11007- 096		1.58	<0.005	<0.2	0.51	4	<10	10	<0.5	<2	0.69	<0.5	2	36	5	1.30
JN11007- 097		0.82	<0.005	<0.2	0.36	6	<10	20	<0.5	<2	1.53	4.0	1	27	7	1.83
JN11007- 098		1.68	<0.005	<0.2	0.57	3	<10	10	<0.5	<2	1.31	<0.5	3	30	58	1.76
JN11007- 099		0.85	<0.005	<0.2	0.43	3	<10	30	<0.5	<2	1.14	0.6	2	21	15	1.95
JN11007- 100		1.88	0.011	<0.2	0.58	2	<10	10	<0.5	<2	1.03	<0.5	3	31	35	1.75
JN11007- 100S		0.03	1.490	34.0	0.38	26	<10	250	<0.5	3	1.35	<0.5	8	31	3200	2.65
JN11007- 101		2.70	0.008	<0.2	0.76	<2	20	10	<0.5	3	0.98	<0.5	5	28	71	2.95
JN11007- 102		1.27	<0.005	<0.2	0.59	7	<10	30	<0.5	<2	0.87	<0.5	16	23	57	3.41
JN11007- 103		0.51	<0.005	<0.2	1.03	9	<10	80	0.9	<2	1.34	<0.5	12	15	10	2.23
JN11007- 104		1.51	<0.005	<0.2	0.44	9	<10	20	0.5	<2	0.78	<0.5	4	38	12	1.54
JN11007- 105		2.36	<0.005	<0.2	0.61	3	<10	20	<0.5	<2	0.67	<0.5	3	33	31	1.68
JN11007- 106		1.49	<0.005	<0.2	0.50	4	<10	10	<0.5	<2	0.50	<0.5	2	38	27	1.46
JN11007- 107		1.52	<0.005	<0.2	1.17	4	<10	60	0.7	<2	0.67	<0.5	14	33	28	3.59
JN11007- 108		2.13	<0.005	<0.2	0.43	4	<10	20	<0.5	<2	1.34	<0.5	3	30	7	1.56
JN11007- 109		1.37	<0.005	<0.2	0.30	9	<10	20	<0.5	<2	1.93	<0.5	2	21	14	1.11
JN11007- 110		2.35	<0.005	<0.2	0.30	3	<10	10	<0.5	<2	0.69	<0.5	5	27	95	1.34
JN11007- 111		1.74	<0.005	<0.2	0.40	17	<10	30	<0.5	<2	1.23	<0.5	5	28	33	1.95
JN11007- 112		2.20	<0.005	<0.2	0.19	7	<10	10	<0.5	<2	1.22	<0.5	3	31	25	1.07
JN11007- 113		1.31	<0.005	<0.2	0.24	8	<10	10	<0.5	<2	0.76	<0.5	1	28	4	1.19



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CERTIFICATE OF ANALYSIS	WH11189870

Sample Description	Method Analyte Units LOR	ME- ICP41 Ga ppm 10	ME- ICP41 Hg ppm 1	ME- ICP41 K % 0.01	ME- ICP41 La ppm 10	ME- ICP41 Mg % 0.01	ME- ICP41 Mn ppm 5	ME- ICP41 Mo ppm 1	ME- ICP41 Na % 0.01	ME- ICP41 Ni ppm 1	ME- ICP41 P ppm 10	ME- ICP41 Pb ppm 2	ME- ICP41 S % 0.01	ME- ICP41 Sb ppm 2	ME- ICP41 Sc ppm 1	ME- ICP41 Sr ppm 1
JN11007- 077		10	<1	0.26	30	1.09	330	<1	0.03	46	700	3	0.32	<2	3	78
JN11007- 078		<10	<1	0.07	10	0.18	370	1	0.04	5	90	13	0.18	<2	1	30
JN11007- 079		<10	<1	0.11	10	0.22	489	1	0.03	8	90	18	0.61	4	1	41
JN11007- 080		<10	<1	0.07	10	0.11	433	2	0.03	6	90	26	0.08	2	1	33
JN11007- 080S		<10	<1	0.17	<10	0.90	873	734	0.08	8	690	38	0.24	54	1	99
JN11007- 080B		<10	<1	0.34	10	0.23	376	1	0.16	1	190	5	<0.01	<2	4	20
JN11007- 081		<10	<1	0.05	10	0.06	226	2	0.02	8	100	3	1.08	5	1	25
JN11007- 082		<10	<1	0.04	10	0.08	142	2	0.06	3	100	4	0.03	<2	<1	34
JN11007- 083		<10	<1	0.07	10	0.06	165	2	0.11	4	110	2	0.04	<2	<1	59
JN11007- 084		<10	<1	0.13	10	0.25	118	2	0.10	12	70	2	0.09	<2	1	36
JN11007- 085		<10	<1	0.11	10	0.14	129	2	0.09	8	120	2	0.05	<2	1	39
JN11007- 086		<10	<1	0.12	10	0.12	217	1	0.05	6	190	2	0.05	<2	1	22
JN11007- 087		<10	<1	0.12	10	0.15	303	1	0.06	6	280	4	0.04	<2	1	33
JN11007- 088		<10	<1	0.13	10	0.15	255	2	0.09	5	400	4	0.04	<2	1	52
JN11007- 089		<10	<1	0.07	10	0.12	129	2	0.05	7	80	2	0.03	<2	1	27
JN11007- 090		<10	<1	0.20	10	0.21	184	2	0.03	12	130	4	0.05	<2	2	37
JN11007- 091		<10	<1	0.09	10	0.16	125	1	0.03	8	160	2	0.17	<2	1	30
JN11007- 092		<10	<1	0.09	10	0.21	62	2	0.03	7	100	<2	0.03	<2	1	16
JN11007- 093		<10	<1	0.04	10	0.10	97	1	0.06	5	70	3	0.37	<2	<1	27
JN11007- 094		<10	<1	0.04	10	0.12	98	2	0.06	7	140	3	0.22	<2	<1	31
JN11007- 095		<10	<1	0.02	10	0.12	72	2	0.04	4	170	3	0.01	<2	<1	29
JN11007- 096		<10	<1	0.07	10	0.14	203	3	0.04	9	180	4	0.14	<2	1	33
JN11007- 097		<10	<1	0.16	10	0.22	562	2	0.01	7	90	50	0.41	<2	1	44
JN11007- 098		<10	<1	0.04	10	0.25	275	3	0.05	7	140	3	0.32	<2	1	44
JN11007- 099		<10	<1	0.20	10	0.19	354	1	0.01	9	90	71	0.16	<2	1	25
JN11007- 100		<10	<1	0.09	10	0.20	185	2	0.04	8	140	2	0.29	<2	1	37
JN11007- 100S		<10	4	0.16	10	0.15	420	381	0.05	19	400	61	1.11	79	1	270
JN11007- 101		<10	<1	0.05	<10	0.21	261	2	0.07	9	70	2	1.10	<2	1	48
JN11007- 102		<10	<1	0.15	10	0.29	287	2	0.04	23	230	2	1.28	<2	1	55
JN11007- 103		<10	<1	0.46	20	0.31	276	<1	0.03	23	410	2	0.55	<2	3	69
JN11007- 104		<10	<1	0.09	10	0.19	199	3	0.05	15	190	4	0.15	<2	1	32
JN11007- 105		<10	<1	0.06	10	0.17	151	2	0.06	9	100	6	0.53	<2	1	37
JN11007- 106		<10	<1	0.05	10	0.12	142	4	0.05	10	120	5	0.30	<2	1	32
JN11007- 107		<10	<1	0.32	20	0.55	373	1	0.03	40	260	3	0.21	<2	2	51
JN11007- 108		<10	<1	0.10	10	0.26	243	3	0.02	9	80	3	0.13	<2	2	50
JN11007- 109		<10	<1	0.10	10	0.25	238	2	0.02	6	130	4	0.08	<2	1	76
JN11007- 110		<10	<1	0.03	10	0.19	177	3	0.03	6	120	5	0.30	<2	1	24
JN11007- 111		<10	<1	0.15	10	0.25	307	2	0.01	15	90	4	0.17	<2	1	48
JN11007- 112		<10	<1	0.10	10	0.20	196	3	<0.01	8	80	2	0.14	<2	2	35
JN11007- 113		<10	<1	0.08	10	0.09	220	2	<0.01	5	90	<2	0.10	<2	1	20



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Account: TELOEX

CERTIFICATE OF ANALYSIS WH11189870

Sample Description	Method Analyte Units LOR	ME- ICP41 Th ppm 20	ME- ICP41 Ti % 0.01	ME- ICP41 Ti ppm 10	ME- ICP41 U ppm 10	ME- ICP41 V ppm 1	ME- ICP41 W ppm 10	ME- ICP41 Zn ppm 2
JN11007- 077		20	0.01	<10	<10	23	<10	119
JN11007- 078		<20	0.01	<10	<10	6	<10	24
JN11007- 079		<20	0.01	<10	<10	6	<10	35
JN11007- 080		<20	<0.01	<10	<10	7	<10	39
JN11007- 080S		<20	0.10	<10	<10	31	<10	103
JN11007- 080B		<20	0.09	<10	<10	15	<10	29
JN11007- 081		<20	<0.01	<10	<10	4	<10	16
JN11007- 082		<20	0.01	<10	<10	5	<10	11
JN11007- 083		<20	0.02	<10	<10	6	<10	9
JN11007- 084		<20	0.02	<10	<10	12	<10	13
JN11007- 085		<20	0.03	<10	<10	11	<10	14
JN11007- 086		<20	0.04	<10	<10	5	<10	14
JN11007- 087		<20	0.04	<10	<10	6	<10	17
JN11007- 088		<20	0.03	<10	<10	7	<10	23
JN11007- 089		<20	0.01	<10	<10	8	<10	10
JN11007- 090		<20	<0.01	<10	<10	9	<10	19
JN11007- 091		<20	<0.01	<10	<10	6	<10	11
JN11007- 092		<20	0.01	<10	<10	7	<10	10
JN11007- 093		<20	0.01	<10	<10	4	<10	11
JN11007- 094		<20	0.01	<10	<10	5	<10	9
JN11007- 095		<20	0.01	<10	<10	6	<10	12
JN11007- 096		<20	0.01	<10	<10	7	<10	15
JN11007- 097		<20	<0.01	<10	<10	6	<10	436
JN11007- 098		<20	0.01	<10	<10	6	<10	11
JN11007- 099		<20	<0.01	<10	<10	4	<10	71
JN11007- 100		<20	0.01	<10	<10	7	<10	12
JN11007- 100S		<20	0.01	<10	<10	17	<10	47
JN11007- 101		<20	0.01	<10	<10	7	<10	11
JN11007- 102		<20	0.01	<10	<10	6	<10	11
JN11007- 103		20	<0.01	<10	<10	11	<10	18
JN11007- 104		<20	0.02	<10	<10	7	<10	21
JN11007- 105		<20	0.02	<10	<10	7	<10	23
JN11007- 106		<20	0.02	<10	<10	5	<10	11
JN11007- 107		<20	0.01	<10	<10	15	<10	62
JN11007- 108		<20	<0.01	<10	<10	6	<10	33
JN11007- 109		<20	<0.01	<10	<10	5	<10	12
JN11007- 110		<20	0.01	<10	<10	5	<10	22
JN11007- 111		<20	<0.01	<10	<10	6	<10	63
JN11007- 112		<20	<0.01	<10	<10	4	<10	9
JN11007- 113		<20	<0.01	<10	<10	3	<10	8



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CERTIFICATE OF ANALYSIS WH11189870

Sample Description	Method Analyte Units LOR	WEI- 21 Recvd Wt. kg 0.02	Au- AA23 Au ppm 0.005	ME- ICP41 Ag ppm 0.2	ME- ICP41 Al % 0.01	ME- ICP41 As ppm 2	ME- ICP41 B ppm 10	ME- ICP41 Ba ppm 10	ME- ICP41 Be ppm 0.5	ME- ICP41 Bi ppm 2	ME- ICP41 Ca % 0.01	ME- ICP41 Cd ppm 0.5	ME- ICP41 Co ppm 1	ME- ICP41 Cr ppm 1	ME- ICP41 Cu ppm 1	ME- ICP41 Fe % 0.01
JN11007-114		2.09	<0.005	<0.2	0.30	8	<10	10	<0.5	<2	0.59	<0.5	3	25	25	1.00
JN11007-115		2.33	<0.005	<0.2	0.17	17	<10	10	<0.5	<2	1.31	<0.5	3	24	7	1.16
JN11007-116		1.18	<0.005	<0.2	0.19	18	<10	20	<0.5	<2	1.17	<0.5	2	26	11	1.33
JN11007-117		1.53	<0.005	<0.2	0.44	35	<10	30	<0.5	<2	1.26	<0.5	2	31	6	2.15
JN11007-118		1.80	<0.005	<0.2	0.20	11	<10	20	<0.5	<2	1.59	<0.5	2	27	13	1.16
JN11007-119		1.28	0.008	0.5	0.27	108	<10	20	<0.5	<2	1.52	<0.5	2	22	13	1.52
JN11007-120		1.21	0.038	1.3	0.21	281	<10	20	<0.5	<2	1.00	0.7	3	17	23	1.63
JN11007-120S		0.03	<0.005	<0.2	0.73	2	<10	140	<0.5	<2	0.29	<0.5	2	13	3	1.67
JN11007-120B		0.03	3.45	82.3	1.38	95	<10	80	<0.5	8	2.15	<0.5	10	19	802	3.42
JN11007-121		0.81	0.051	0.2	0.31	82	<10	20	<0.5	<2	0.59	<0.5	2	25	14	1.31
JN11007-122		1.74	0.050	2.0	0.23	101	<10	20	<0.5	<2	1.56	4.6	6	21	41	2.76
JN11007-123		2.32	0.015	0.8	0.27	46	<10	20	<0.5	<2	1.32	<0.5	5	24	52	2.62
JN11007-124		0.97	0.012	0.8	0.21	30	<10	20	<0.5	<2	0.72	<0.5	7	21	116	2.04
JN11007-125		3.41	2.46	7.6	0.15	1215	<10	10	<0.5	4	1.34	3.5	11	29	87	4.78
JN11007-126		0.62	0.894	3.1	0.13	492	<10	10	<0.5	<2	1.04	7.0	5	18	84	3.51
JN11007-127		2.11	0.517	0.5	0.09	272	<10	10	<0.5	<2	3.10	0.6	2	31	12	1.10
JN11007-128		1.05	0.153	0.5	0.20	221	<10	10	<0.5	<2	0.75	<0.5	2	18	10	1.53
JN11007-129		0.90	0.061	0.3	0.10	49	<10	10	<0.5	2	1.52	<0.5	2	28	6	1.81
JN11007-130		2.21	0.462	0.2	0.16	893	<10	10	<0.5	<2	1.66	<0.5	2	27	5	1.08
JN11007-131		1.08	0.609	0.4	0.15	1210	<10	10	<0.5	<2	1.03	<0.5	3	27	5	1.94
JN11007-132		1.18	0.458	0.4	0.10	1025	<10	<10	<0.5	<2	0.22	<0.5	5	20	5	1.60
JN11007-133		0.58	0.060	0.2	0.07	68	<10	<10	<0.5	<2	3.47	<0.5	3	21	7	1.63
JN11007-134		0.46	0.307	0.6	0.12	623	<10	<10	<0.5	<2	0.16	<0.5	11	14	10	4.60
JN11007-135		0.82	0.972	4.8	0.27	1365	<10	<10	<0.5	2	0.96	<0.5	4	22	22	2.04
JN11007-136		0.76	0.016	2.6	0.30	38	<10	90	<0.5	<2	0.49	<0.5	8	9	26	1.94



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Account: TELOEX

CERTIFICATE OF ANALYSIS	WH11189870

Sample Description	Method Analyte Units LOR	ME- ICP41 Ga ppm 10	ME- ICP41 Hg ppm 1	ME- ICP41 K % 0.01	ME- ICP41 La ppm 10	ME- ICP41 Mg % 0.01	ME- ICP41 Mn ppm 5	ME- ICP41 Mo ppm 1	ME- ICP41 Na % 0.01	ME- ICP41 Ni ppm 1	ME- ICP41 P ppm 10	ME- ICP41 Pb ppm 2	ME- ICP41 S % 0.01	ME- ICP41 Sb ppm 2	ME- ICP41 Sc ppm 1	ME- ICP41 Sr ppm 1
JN11007- 114		<10	<1	0.03	10	0.12	176	2	0.01	6	90	4	0.21	<2	1	18
JN11007- 115		<10	<1	0.09	10	0.26	193	2	<0.01	7	150	4	0.12	<2	1	46
JN11007- 116		<10	<1	0.12	10	0.25	196	2	<0.01	9	150	8	0.15	3	1	42
JN11007- 117		<10	<1	0.24	10	0.32	373	2	<0.01	11	80	22	0.32	3	1	59
JN11007- 118		<10	<1	0.13	10	0.27	279	3	0.01	6	200	7	0.13	<2	1	63
JN11007- 119		<10	<1	0.17	10	0.40	450	2	<0.01	8	70	333	0.22	4	2	68
JN11007- 120		<10	<1	0.15	10	0.27	588	1	<0.01	8	60	698	0.69	8	2	34
JN11007- 120S		<10	<1	0.31	10	0.22	389	1	0.12	3	190	5	<0.01	<2	4	20
JN11007- 120B		<10	<1	0.17	<10	0.94	883	760	0.05	10	710	41	0.24	61	2	101
JN11007- 121		<10	<1	0.19	10	0.15	388	3	<0.01	8	100	27	0.13	2	1	28
JN11007- 122		<10	<1	0.16	10	0.39	861	2	<0.01	7	60	721	1.79	28	2	62
JN11007- 123		<10	<1	0.18	10	0.36	700	2	<0.01	12	80	90	1.34	7	1	55
JN11007- 124		<10	<1	0.14	10	0.19	519	2	<0.01	13	160	12	1.18	4	1	33
JN11007- 125		<10	<1	0.10	<10	0.23	819	3	<0.01	14	320	979	4.33	206	2	32
JN11007- 126		<10	<1	0.09	10	0.14	445	2	<0.01	11	390	255	3.19	57	1	23
JN11007- 127		<10	<1	0.05	10	0.17	353	4	<0.01	5	270	33	0.52	21	1	40
JN11007- 128		<10	<1	0.10	<10	0.13	186	2	<0.01	10	230	15	0.93	7	1	15
JN11007- 129		<10	<1	0.06	<10	0.14	210	3	<0.01	7	140	15	1.07	4	1	29
JN11007- 130		<10	<1	0.08	<10	0.11	172	3	<0.01	5	120	3	0.52	19	1	19
JN11007- 131		<10	<1	0.08	<10	0.27	306	3	<0.01	9	170	7	0.89	26	1	24
JN11007- 132		<10	<1	0.06	10	0.01	82	2	<0.01	11	70	4	1.01	22	<1	12
JN11007- 133		<10	<1	0.03	<10	0.18	374	2	<0.01	7	340	4	0.60	2	1	48
JN11007- 134		<10	<1	0.05	10	0.02	65	1	<0.01	32	240	11	4.41	27	<1	8
JN11007- 135		<10	<1	0.09	10	0.24	220	3	<0.01	10	310	5	1.09	33	1	29
JN11007- 136		<10	<1	0.09	<10	0.13	157	2	<0.01	15	530	11	1.49	3	1	25



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CERTIFICATE OF ANALYSIS WH11189870

Sample Description	Method Analyte Units LOR	ME- ICP41 Th ppm 20	ME- ICP41 Ti % 0.01	ME- ICP41 Ti ppm 10	ME- ICP41 U ppm 10	ME- ICP41 V ppm 1	ME- ICP41 W ppm 10	ME- ICP41 Zn ppm 2
JN11007- 114		<20	0.01	<10	<10	7	<10	24
JN11007- 115		<20	<0.01	<10	<10	3	<10	15
JN11007- 116		<20	<0.01	<10	<10	2	<10	11
JN11007- 117		<20	<0.01	<10	<10	4	<10	37
JN11007- 118		<20	<0.01	<10	<10	3	<10	14
JN11007- 119		<20	<0.01	<10	<10	3	<10	33
JN11007- 120		<20	<0.01	<10	<10	2	<10	71
JN11007- 120S		<20	0.09	<10	<10	15	10	26
JN11007- 120B		<20	0.10	<10	<10	32	<10	107
JN11007- 121		<20	<0.01	<10	<10	3	<10	40
JN11007- 122		<20	<0.01	<10	<10	3	<10	490
JN11007- 123		<20	<0.01	<10	<10	3	<10	37
JN11007- 124		<20	<0.01	<10	<10	3	<10	18
JN11007- 125		<20	<0.01	<10	<10	2	<10	375
JN11007- 126		<20	<0.01	<10	<10	2	<10	1025
JN11007- 127		<20	<0.01	<10	<10	2	<10	198
JN11007- 128		<20	<0.01	<10	<10	3	<10	25
JN11007- 129		<20	<0.01	<10	<10	2	<10	22
JN11007- 130		<20	<0.01	<10	<10	2	<10	10
JN11007- 131		<20	<0.01	<10	<10	3	<10	27
JN11007- 132		<20	<0.01	<10	<10	1	<10	58
JN11007- 133		<20	<0.01	<10	<10	3	<10	59
JN11007- 134		<20	<0.01	<10	<10	2	<10	26
JN11007- 135		<20	<0.01	<10	<10	4	10	30
JN11007- 136		<20	<0.01	<10	<10	4	20	46



Minerals

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QC CERTIFICATE WH11189870

Project:

P.O. No.: JN11- 007

This report is for 145 Drill Core samples submitted to our lab in Whitehorse, YT, Canada on 19- SEP- 2011.

The following have access to data associated with this certificate:

JESSE CAMPBELL

CHRIS GALLAGHER

SAMPLE PREPARATION

ALS CODE	DESCRIPTION
WEI- 21	Received Sample Weight
LOG- 22	Sample login - Rcd w/o BarCode
SPL- 22Y	Split Sample - Boyd Rotary Splitter
BAG- 01	Bulk Master for Storage
LOG- 24	Pulp Login - Rcd w/o Barcode
CRU- QC	Crushing QC Test
PUL- QC	Pulverizing QC Test
CRU- 31	Fine crushing - 70% < 2mm
PUL- 32m	Pulverize 500g - 85% < 75um

ANALYTICAL PROCEDURES

ALS CODE	DESCRIPTION	INSTRUMENT
Au- AA23	Au 30g FA- AA finish	AAS
ME- ICP41	35 Element Aqua Regia ICP- AES	ICP- AES

To: TERRALOGIC EXPLORATION SERVICES INC.
ATTN: CHRIS GALLAGHER
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This is the Final Report and supersedes any preliminary report with this certificate number. Results apply to samples as submitted. All pages of this report have been checked and approved for release.

Signature:

Colin Ramshaw, Vancouver Laboratory Manager



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QC CERTIFICATE OF ANALYSIS WH11189870

Sample Description	Method Analyte Units LOR	ME- ICP41 Ti %	ME- ICP41 Ti ppm	ME- ICP41 U ppm	ME- ICP41 V ppm	ME- ICP41 W ppm	ME- ICP41 Zn ppm
		0.01	10	10	1	10	2
STANDARDS							
GBM908- 10		0.30	<10	<10	45	<10	962
GBM908- 10		0.33	<10	<10	49	<10	996
GBM908- 5		0.17	<10	<10	26	<10	222
GBM908- 5		0.16	<10	<10	26	<10	237
GBM908- 5		0.15	<10	<10	25	<10	236
GBM908- 5		0.16	<10	<10	28	<10	240
MRGeo08		0.37	<10	<10	99	<10	773
MRGeo08		0.39	<10	<10	106	<10	840
OGGeo08		0.30	<10	<10	77	<10	6670
OGGeo08		0.32	<10	<10	82	<10	6930
OGGeo08		0.31	<10	<10	79	<10	6670
OGGeo08		0.31	<10	<10	80	<10	6690
OREAS- 16b							
OREAS- 16b							
OREAS- 16b							
OxC88							
OxC88							
OxC88							
OxC88							



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QC CERTIFICATE OF ANALYSIS WH11189870

Sample Description	Method Analyte Units LOR	Au-AA23 Au ppm 0.005	ME-ICP41 Ag ppm 0.2	ME-ICP41 Al % 0.01	ME-ICP41 As ppm 2	ME-ICP41 B ppm 10	ME-ICP41 Ba ppm 10	ME-ICP41 Be ppm 0.5	ME-ICP41 Bi ppm 2	ME-ICP41 Ca % 0.01	ME-ICP41 Cd ppm 0.5	ME-ICP41 Co ppm 1	ME-ICP41 Cr ppm 1	ME-ICP41 Cu ppm 1	ME-ICP41 Fe % 0.01	ME-ICP41 Ga ppm 10
DUPLICATES																
JN11007- 002 DUP		<0.2 <0.2	0.21 0.21	9 6	<10 <10	20 20	<0.5 <0.5	<2 <2	1.40 1.38	<0.5 <0.5	1 2	22 22	11 11	1.41 1.40	<10 <10	
JN11007- 008 DUP		<0.005 0.005														
JN11007- 027 DUP		0.135 0.137														
JN11007- 037 DUP		0.2 0.2	0.22 0.22	82 79	10 10	10 10	<0.5 <0.5	<2 <2	0.50 0.51	<0.5 <0.5	4 3	18 20	32 38	1.41 1.45	<10 <10	
JN11007- 045 DUP		0.014 0.014														
JN11007- 070 DUP		0.2 <0.2	2.72 2.70	4 4	<10 <10	70 70	0.9 0.8	4 4	0.97 0.96	<0.5 <0.5	15 16	40 39	48 48	5.17 5.09	10 10	
JN11007- 100 DUP		0.011 0.011														
JN11007- 103 DUP		<0.2 <0.2	1.03 0.97	9 10	<10 <10	80 80	0.9 0.8	<2 <2	1.34 1.30	<0.5 <0.5	12 10	15 14	10 9	2.23 2.17	<10 <10	



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QC CERTIFICATE OF ANALYSIS WH11189870

Sample Description	Method Analyte Units LOR	ME- ICP41 Hg ppm 1	ME- ICP41 K % 0.01	ME- ICP41 La ppm 10	ME- ICP41 Mg % 0.01	ME- ICP41 Mn ppm 5	ME- ICP41 Mo ppm 1	ME- ICP41 Na % 0.01	ME- ICP41 Ni ppm 1	ME- ICP41 P ppm 10	ME- ICP41 Pb ppm 2	ME- ICP41 S % 0.01	ME- ICP41 Sb ppm 2	ME- ICP41 Sc ppm 1	ME- ICP41 Sr ppm 1	ME- ICP41 Th ppm 20
DUPLICATES																
JN11007- 002 DUP		<1 <1	0.11 0.11	10 10	0.23 0.22	257 255	4 4	0.02 0.02	8 6	70 70	6 3	0.24 0.24	<2 <2	1 1	64 63	<20 <20
JN11007- 008 DUP																
JN11007- 027 DUP																
JN11007- 037 DUP		<1 <1	0.12 0.12	10 10	0.12 0.12	204 209	2 2	0.01 0.01	7 8	90 90	<2 2	0.32 0.33	3 4	1 1	25 26	<20 <20
JN11007- 045 DUP																
JN11007- 070 DUP		<1 <1	0.32 0.32	40 40	1.15 1.12	239 235	<1 <1	0.05 0.05	41 40	490 490	<2 <2	0.43 0.42	<2 <2	3 3	51 51	20 20
JN11007- 100 DUP																
JN11007- 103 DUP		<1 <1	0.46 0.44	20 20	0.31 0.30	276 269	<1 <1	0.03 0.02	23 22	410 400	2 2	0.55 0.52	<2 <2	3 3	69 67	20 20



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QC CERTIFICATE OF ANALYSIS WH11189870

Sample Description	Method Analyte Units LOR	ME- ICP41 Ti %	ME- ICP41 Ti ppm	ME- ICP41 U ppm	ME- ICP41 V ppm	ME- ICP41 W ppm	ME- ICP41 Zn ppm
		0.01	10	10	1	10	2
DUPLICATES							
JN11007- 002 DUP		<0.01 <0.01	<10 <10	<10 <10	3 3	<10 <10	5 5
JN11007- 008 DUP							
JN11007- 027 DUP							
JN11007- 037 DUP		<0.01 <0.01	<10 <10	<10 <10	2 3	<10 <10	12 13
JN11007- 045 DUP							
JN11007- 070 DUP		0.03 0.03	<10 <10	<10 <10	25 25	<10 <10	99 97
JN11007- 100 DUP							
JN11007- 103 DUP		<0.01 <0.01	<10 <10	<10 <10	11 11	<10 <10	18 18



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QC CERTIFICATE OF ANALYSIS WH11189870

Sample Description	Method Analyte Units LOR	ME- ICP41 Hg ppm 1	ME- ICP41 K % 0.01	ME- ICP41 La ppm 10	ME- ICP41 Mg % 0.01	ME- ICP41 Mn ppm 5	ME- ICP41 Mo ppm 1	ME- ICP41 Na % 0.01	ME- ICP41 Ni ppm 1	ME- ICP41 P ppm 10	ME- ICP41 Pb ppm 2	ME- ICP41 S % 0.01	ME- ICP41 Sb ppm 2	ME- ICP41 Sc ppm 1	ME- ICP41 Sr ppm 1	ME- ICP41 Th ppm 20
JN11007-119 DUP		DUPLICATES														
JN11010-001 DUP		<1 1	0.18 0.18	10 10	0.36 0.37	411 417	1 1	<0.01 <0.01	26 26	330 330	10 9	0.26 0.26	<2 <2	3 3	19 19	<20 <20
JN11010-087 DUP																
ORIGINAL DUP																
ORIGINAL DUP																
JN11007-051 JN11007-051 PREP DUP		PREP DUPLICATES														
JN11007-101 JN11007-101 PREP DUP		<1 1	0.11 0.13	10 10	0.14 0.15	184 209	2 2	0.01 <0.01	7 6	70 70	7 7	0.24 0.26	<2 <2	1 1	24 24	<20 <20
		<1 1	0.05 0.05	<10 <10	0.21 0.21	261 253	2 2	0.07 0.05	9 7	70 70	2 2	1.10 1.10	<2 <2	1 1	46 47	<20 <20



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QC CERTIFICATE OF ANALYSIS WH11189870

Sample Description	Method Analyte Units LOR	ME- ICP41 Ti %	ME- ICP41 Tl ppm	ME- ICP41 U ppm	ME- ICP41 V ppm	ME- ICP41 W ppm	ME- ICP41 Zn ppm
JN11007- 119 DUP		0.01	10	10	1	10	2
DUPLICATES							
JN11010- 001 DUP		0.01 0.01	<10 <10	<10 <10	16 16	<10 <10	48 49
JN11010- 087 DUP							
ORIGINAL DUP							
ORIGINAL DUP							
PREP DUPLICATES							
JN11007- 051 JN11007- 051 PREP DUP		<0.01 <0.01	<10 <10	<10 <10	2 3	<10 <10	16 18
JN11007- 101 JN11007- 101 PREP DUP		0.01 0.01	<10 <10	<10 <10	7 7	<10 <10	11 13



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CERTIFICATE WH11191148

Project:

P.O. No.: JN11- 008

This report is for 217 Drill Core samples submitted to our lab in Whitehorse, YT, Canada on 19- SEP- 2011.

The following have access to data associated with this certificate:

JESSE CAMPBELL

CHRIS GALLAGHER

SAMPLE PREPARATION

ALS CODE	DESCRIPTION
WEI- 21	Received Sample Weight
LOG- 22	Sample login - Rcd w/o BarCode
LOG- 24	Pulp Login - Rcd w/o Barcode
SPL- 22Y	Split Sample - Boyd Rotary Splitter
BAG- 01	Bulk Master for Storage
CRU- QC	Crushing QC Test
PUL- QC	Pulverizing QC Test
CRU- 31	Fine crushing - 70% <2mm
PUL- 32m	Pulverize 500g - 85%<75um

ANALYTICAL PROCEDURES

ALS CODE	DESCRIPTION	INSTRUMENT
ME- OG46	Ore Grade Elements - AquaRegia	ICP- AES
Zn- OG46	Ore Grade Zn - Aqua Regia	VARIABLE
Au- AA23	Au 30g FA- AA finish	AAS
ME- ICP41	35 Element Aqua Regia ICP- AES	ICP- AES

To: TERRALOGIC EXPLORATION SERVICES INC.

ATTN: CHRIS GALLAGHER

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This is the Final Report and supersedes any preliminary report with this certificate number. Results apply to samples as submitted. All pages of this report have been checked and approved for release.

Signature:

Colin Ramshaw, Vancouver Laboratory Manager



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CERTIFICATE OF ANALYSIS WH11191148

Sample Description	Method Analyte Units LOR	WEI- 21 Recvd Wt. kg 0.02	Au- AA23 Au ppm 0.005	ME- ICP41 Ag ppm 0.2	ME- ICP41 Al % 0.01	ME- ICP41 As ppm 2	ME- ICP41 B ppm 10	ME- ICP41 Ba ppm 10	ME- ICP41 Be ppm 0.5	ME- ICP41 Bi ppm 2	ME- ICP41 Ca % 0.01	ME- ICP41 Cd ppm 0.5	ME- ICP41 Co ppm 1	ME- ICP41 Cr ppm 1	ME- ICP41 Cu ppm 1	ME- ICP41 Fe % 0.01
JN11008- 001		1.12	<0.005	0.5	0.52	12	<10	30	<0.5	<2	0.71	<0.5	4	25	82	2.25
JN11008- 002		1.59	<0.005	2.6	0.44	28	<10	20	<0.5	<2	1.38	<0.5	6	29	27	1.68
JN11008- 003		1.30	<0.005	<0.2	0.44	23	<10	20	<0.5	<2	0.85	<0.5	7	32	48	1.90
JN11008- 004		2.66	<0.005	0.5	0.42	15	<10	30	<0.5	<2	0.59	<0.5	6	31	11	1.61
JN11008- 005		2.60	0.011	<0.2	0.47	29	<10	30	<0.5	<2	0.84	<0.5	4	29	5	1.45
JN11008- 006		2.21	<0.005	0.2	0.42	22	<10	20	<0.5	<2	0.34	<0.5	6	33	10	1.51
JN11008- 007		1.95	0.012	<0.2	0.40	25	<10	20	<0.5	<2	0.55	<0.5	4	32	12	1.40
JN11008- 008		2.60	<0.005	0.2	0.34	10	<10	20	<0.5	<2	0.41	<0.5	5	31	5	1.22
JN11008- 009		2.11	<0.005	<0.2	0.32	25	<10	20	<0.5	<2	0.35	<0.5	5	33	18	1.52
JN11008- 010		3.11	0.243	0.5	0.25	248	<10	20	<0.5	<2	0.22	<0.5	4	32	18	1.21
JN11008- 011		2.97	0.020	0.5	0.29	27	<10	20	<0.5	<2	0.39	<0.5	3	28	23	1.33
JN11008- 012		1.51	0.061	0.4	0.31	98	<10	20	<0.5	<2	0.49	0.6	5	28	14	1.43
JN11008- 013		2.34	<0.005	0.5	0.27	24	<10	20	<0.5	<2	0.46	<0.5	4	34	21	1.53
JN11008- 014		2.24	0.008	<0.2	0.32	15	<10	30	<0.5	<2	0.32	<0.5	5	32	9	1.36
JN11008- 015		1.52	0.024	0.2	0.35	39	<10	20	<0.5	<2	0.05	<0.5	3	28	10	1.20
JN11008- 016		1.91	0.037	0.6	0.41	15	<10	20	<0.5	<2	0.14	<0.5	5	33	7	1.04
JN11008- 017		1.92	<0.005	<0.2	0.45	21	<10	20	<0.5	<2	0.26	<0.5	6	28	33	2.05
JN11008- 018		1.49	0.041	0.2	0.55	88	10	50	0.5	<2	0.13	<0.5	15	21	31	2.91
JN11008- 019		1.12	0.181	0.5	0.32	315	10	20	<0.5	<2	0.23	<0.5	7	22	68	2.37
JN11008- 020		1.52	0.009	0.2	0.31	44	10	30	<0.5	<2	0.03	<0.5	4	28	7	0.97
JN11008- 020S		0.05	1.435	31.1	0.37	24	<10	240	<0.5	<2	1.24	<0.5	9	28	2960	2.48
JN11008- 021		2.66	0.014	0.2	0.33	20	<10	20	<0.5	<2	0.41	<0.5	5	31	55	1.55
JN11008- 022		2.08	<0.005	<0.2	0.36	29	<10	20	<0.5	<2	0.44	<0.5	5	32	10	1.30
JN11008- 023		0.86	0.016	0.2	0.36	60	10	20	<0.5	<2	0.21	<0.5	5	25	7	1.61
JN11008- 024		1.48	<0.005	<0.2	0.52	45	10	30	<0.5	<2	0.82	<0.5	9	27	10	1.45
JN11008- 025		2.62	0.024	<0.2	0.39	45	10	20	<0.5	<2	0.73	<0.5	7	33	37	1.70
JN11008- 026		2.68	0.010	<0.2	0.34	23	10	20	<0.5	<2	0.75	<0.5	8	30	28	1.74
JN11008- 027		0.51	<0.005	<0.2	0.32	32	10	10	<0.5	<2	0.67	<0.5	7	22	6	1.66
JN11008- 028		2.28	<0.005	<0.2	0.34	22	10	20	<0.5	<2	0.78	<0.5	4	29	3	1.38
JN11008- 029		2.00	<0.005	<0.2	0.37	10	10	10	<0.5	<2	0.97	<0.5	4	35	12	1.57
JN11008- 030		3.27	0.007	<0.2	0.46	48	10	20	<0.5	<2	0.49	<0.5	6	31	17	1.80
JN11008- 031		1.67	<0.005	<0.2	0.52	20	10	20	<0.5	<2	0.38	<0.5	6	29	10	1.76
JN11008- 032		2.13	<0.005	<0.2	0.36	31	10	20	<0.5	<2	0.18	<0.5	5	26	7	1.37
JN11008- 033		2.66	0.017	<0.2	0.32	26	<10	20	<0.5	<2	0.13	<0.5	4	29	4	1.05
JN11008- 034		2.52	<0.005	<0.2	0.38	18	<10	20	<0.5	<2	0.44	<0.5	4	28	5	1.16
JN11008- 035		1.96	0.006	<0.2	0.21	12	<10	10	<0.5	<2	0.46	<0.5	4	31	4	1.03
JN11008- 036		2.36	0.007	<0.2	0.28	22	<10	10	<0.5	<2	0.26	<0.5	5	26	6	1.25
JN11008- 037		1.79	0.010	<0.2	0.44	22	<10	20	<0.5	<2	0.36	<0.5	6	25	11	1.88
JN11008- 038		1.04	0.158	0.6	0.69	118	<10	60	0.5	<2	0.80	<0.5	11	10	17	1.80
JN11008- 039		1.62	0.182	0.9	0.34	192	10	10	<0.5	<2	0.43	<0.5	3	19	13	1.58



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Sample Description	Method Analyte Units LOR	ME- ICP41 Ga ppm 10	ME- ICP41 Hg ppm 1	ME- ICP41 K % 0.01	ME- ICP41 La ppm 10	ME- ICP41 Mg % 0.01	ME- ICP41 Mn ppm 5	ME- ICP41 Mo ppm 1	ME- ICP41 Na % 0.01	ME- ICP41 Ni ppm 1	ME- ICP41 P ppm 10	ME- ICP41 Pb ppm 2	ME- ICP41 S % 0.01	ME- ICP41 Sb ppm 2	ME- ICP41 Sc ppm 1	ME- ICP41 Sr ppm 1
JN11008-001		<10	<1	0.20	10	0.22	258	2	0.02	8	120	4	0.81	2	1	31
JN11008-002		<10	<1	0.17	10	0.22	238	3	0.02	8	90	5	0.15	<2	1	48
JN11008-003		<10	1	0.12	10	0.17	220	4	0.03	24	90	11	0.38	<2	2	32
JN11008-004		<10	1	0.20	20	0.20	193	3	0.01	11	110	5	0.04	<2	1	28
JN11008-005		<10	<1	0.19	20	0.21	226	3	<0.01	7	110	5	0.05	3	2	47
JN11008-006		<10	1	0.17	10	0.12	232	4	<0.01	8	120	5	0.09	2	1	20
JN11008-007		<10	<1	0.17	10	0.14	198	3	<0.01	7	120	4	0.18	2	1	30
JN11008-008		<10	1	0.15	10	0.11	171	3	<0.01	7	100	4	0.35	4	1	27
JN11008-009		<10	1	0.15	10	0.09	196	3	<0.01	8	120	5	0.51	3	1	21
JN11008-010		<10	<1	0.11	10	0.08	181	3	<0.01	6	100	19	0.50	9	<1	12
JN11008-011		<10	<1	0.16	10	0.09	420	3	<0.01	5	130	31	0.46	4	1	17
JN11008-012		<10	<1	0.15	10	0.12	440	3	<0.01	10	150	47	0.38	7	1	24
JN11008-013		<10	<1	0.14	10	0.11	244	3	<0.01	7	170	8	0.43	4	2	26
JN11008-014		<10	1	0.16	10	0.09	177	3	<0.01	8	100	5	0.47	4	1	28
JN11008-015		<10	1	0.13	10	0.03	99	2	<0.01	5	80	7	0.23	4	1	13
JN11008-016		<10	<1	0.12	10	0.06	186	3	<0.01	6	80	4	0.08	2	1	11
JN11008-017		<10	1	0.20	10	0.10	358	2	<0.01	13	160	4	0.47	3	2	13
JN11008-018		<10	<1	0.29	10	0.09	417	2	<0.01	28	290	19	0.86	13	2	14
JN11008-019		<10	<1	0.18	10	0.06	220	2	<0.01	14	80	9	1.26	17	2	10
JN11008-020		<10	<1	0.17	10	0.01	110	3	<0.01	4	50	6	0.09	9	1	6
JN11008-020S		<10	4	0.15	10	0.14	397	356	0.03	19	390	58	1.09	73	1	251
JN11008-021		<10	1	0.18	10	0.10	193	4	<0.01	8	90	5	0.68	3	1	23
JN11008-022		<10	<1	0.15	10	0.11	188	3	<0.01	8	80	6	0.24	2	1	20
JN11008-023		<10	<1	0.19	10	0.07	151	2	<0.01	5	80	5	1.01	3	1	12
JN11008-024		<10	1	0.22	10	0.17	209	2	<0.01	11	1040	7	0.20	5	1	47
JN11008-025		<10	1	0.17	10	0.16	232	3	<0.01	10	200	36	0.59	11	1	38
JN11008-026		<10	1	0.16	10	0.16	221	3	<0.01	10	140	8	0.84	6	1	36
JN11008-027		<10	1	0.14	10	0.21	226	2	<0.01	9	290	4	0.53	4	1	41
JN11008-028		<10	<1	0.15	10	0.18	186	3	<0.01	6	90	4	0.05	3	1	38
JN11008-029		<10	<1	0.15	20	0.23	192	3	<0.01	7	70	5	0.18	5	1	49
JN11008-030		<10	1	0.19	10	0.20	251	3	<0.01	10	90	5	0.34	7	1	23
JN11008-031		<10	1	0.18	10	0.19	252	2	<0.01	12	100	4	0.23	4	2	27
JN11008-032		<10	<1	0.14	10	0.06	196	2	<0.01	8	130	5	0.09	8	1	16
JN11008-033		<10	1	0.12	10	0.04	143	3	<0.01	5	70	7	0.22	4	1	10
JN11008-034		<10	<1	0.12	10	0.11	212	3	<0.01	6	110	5	0.06	<2	1	23
JN11008-035		<10	<1	0.09	10	0.11	209	3	<0.01	5	130	4	0.17	4	1	28
JN11008-036		<10	<1	0.11	10	0.07	205	2	<0.01	7	180	5	0.30	4	1	15
JN11008-037		<10	<1	0.21	10	0.14	310	2	<0.01	14	140	3	0.85	5	1	16
JN11008-038		<10	<1	0.40	10	0.11	218	<1	0.01	13	2320	5	1.50	15	2	42
JN11008-039		<10	<1	0.21	10	0.11	374	1	0.01	7	90	69	0.89	26	1	19



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CERTIFICATE OF ANALYSIS WH11191148

Sample Description	Method Analyte Units LOR	ME- ICP41 Th ppm 20	ME- ICP41 Ti % 0.01	ME- ICP41 Ti ppm 10	ME- ICP41 U ppm 10	ME- ICP41 V ppm 1	ME- ICP41 W ppm 10	ME- ICP41 Zn ppm 2	Zn- OG46 Zn % 0.001
JN11008-001		<20	<0.01	<10	<10	6	10	15	
JN11008-002		<20	<0.01	<10	<10	4	50	14	
JN11008-003		<20	<0.01	<10	<10	8	<10	23	
JN11008-004		<20	<0.01	<10	<10	6	20	13	
JN11008-005		<20	<0.01	<10	<10	4	<10	11	
JN11008-006		<20	<0.01	<10	<10	4	10	14	
JN11008-007		<20	<0.01	<10	<10	3	<10	8	
JN11008-008		<20	<0.01	<10	<10	2	10	6	
JN11008-009		<20	<0.01	<10	<10	2	<10	9	
JN11008-010		<20	<0.01	<10	<10	2	10	28	
JN11008-011		<20	<0.01	<10	<10	2	<10	55	
JN11008-012		<20	<0.01	<10	<10	2	10	100	
JN11008-013		<20	<0.01	<10	<10	2	<10	20	
JN11008-014		<20	<0.01	<10	<10	2	10	15	
JN11008-015		<20	<0.01	<10	<10	3	<10	15	
JN11008-016		<20	<0.01	<10	<10	3	<10	18	
JN11008-017		<20	<0.01	<10	<10	5	<10	27	
JN11008-018		<20	<0.01	<10	<10	6	<10	96	
JN11008-019		<20	<0.01	<10	<10	3	<10	56	
JN11008-020		<20	<0.01	<10	<10	3	<10	27	
JN11008-020S		<20	0.01	<10	<10	16	<10	49	
JN11008-021		<20	<0.01	<10	<10	2	<10	14	
JN11008-022		<20	<0.01	<10	<10	3	<10	12	
JN11008-023		<20	<0.01	<10	<10	3	<10	11	
JN11008-024		<20	<0.01	<10	<10	5	<10	11	
JN11008-025		<20	<0.01	<10	<10	3	<10	12	
JN11008-026		<20	<0.01	<10	<10	3	<10	13	
JN11008-027		<20	<0.01	<10	<10	2	<10	10	
JN11008-028		<20	<0.01	<10	<10	3	<10	7	
JN11008-029		<20	<0.01	<10	<10	4	<10	8	
JN11008-030		<20	<0.01	<10	<10	5	<10	11	
JN11008-031		<20	<0.01	<10	<10	6	<10	12	
JN11008-032		<20	<0.01	<10	<10	4	<10	21	
JN11008-033		<20	<0.01	<10	<10	2	<10	9	
JN11008-034		<20	<0.01	<10	<10	3	<10	9	
JN11008-035		<20	<0.01	<10	<10	2	<10	8	
JN11008-036		<20	<0.01	<10	<10	3	<10	7	
JN11008-037		<20	<0.01	<10	<10	5	<10	14	
JN11008-038		<20	<0.01	<10	<10	6	<10	23	
JN11008-039		<20	<0.01	<10	<10	3	<10	35	



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CERTIFICATE OF ANALYSIS WH11191148

Sample Description	Method Analyte Units LOR	WEI- 21 Recvd Wt. kg 0.02	Au- AA23 Au ppm 0.005	ME- ICP41 Ag ppm 0.2	ME- ICP41 Al % 0.01	ME- ICP41 As ppm 2	ME- ICP41 B ppm 10	ME- ICP41 Ba ppm 10	ME- ICP41 Be ppm 0.5	ME- ICP41 Bi ppm 2	ME- ICP41 Ca % 0.01	ME- ICP41 Cd ppm 0.5	ME- ICP41 Co ppm 1	ME- ICP41 Cr ppm 1	ME- ICP41 Cu ppm 1	ME- ICP41 Fe % 0.01
JN11008- 040		2.49	0.014	0.2	0.31	36	<10	10	<0.5	<2	0.53	<0.5	2	22	7	1.27
JN11008- 040S		0.05	3.44	70.6	1.24	87	<10	60	<0.5	7	1.87	<0.5	8	16	717	2.99
JN11008- 040B		0.05	<0.005	<0.2	0.66	<2	<10	110	<0.5	<2	0.25	<0.5	2	12	2	1.46
JN11008- 041		2.41	<0.005	<0.2	0.28	8	<10	<10	<0.5	2	0.51	<0.5	2	30	11	1.52
JN11008- 042		2.10	<0.005	<0.2	0.31	12	10	10	<0.5	<2	0.68	<0.5	2	23	8	1.39
JN11008- 043		1.85	0.089	<0.2	0.27	68	<10	10	<0.5	<2	0.47	<0.5	2	25	7	1.50
JN11008- 044		2.43	0.028	<0.2	0.25	31	10	<10	<0.5	<2	0.78	<0.5	2	26	3	1.34
JN11008- 045		2.80	<0.005	<0.2	0.33	5	<10	<10	<0.5	2	0.51	<0.5	1	28	1	1.29
JN11008- 046		2.41	<0.005	<0.2	0.29	8	<10	<10	<0.5	<2	0.46	<0.5	3	25	8	1.61
JN11008- 047		1.21	0.007	<0.2	0.27	14	<10	<10	<0.5	<2	0.62	<0.5	2	24	3	1.47
JN11008- 048		1.94	0.024	<0.2	0.27	8	<10	<10	<0.5	<2	0.30	<0.5	2	27	5	1.35
JN11008- 049		0.44	1.940	0.4	0.35	138	<10	<10	<0.5	<2	0.28	<0.5	1	19	1	1.36
JN11008- 050		2.39	0.224	<0.2	0.24	39	<10	<10	<0.5	<2	0.40	<0.5	2	26	1	1.20
JN11008- 051		1.92	0.056	<0.2	0.24	27	<10	<10	<0.5	<2	0.59	<0.5	1	26	2	1.25
JN11008- 052		2.14	0.173	0.4	0.24	41	<10	<10	<0.5	<2	0.49	<0.5	2	27	5	1.08
JN11008- 053		1.91	0.094	0.2	0.23	38	<10	<10	<0.5	<2	0.49	<0.5	1	27	4	1.08
JN11008- 054		2.14	0.082	0.2	0.25	35	<10	<10	<0.5	<2	0.33	<0.5	2	24	6	1.25
JN11008- 055		1.99	3.74	1.3	0.24	84	<10	<10	<0.5	<2	0.13	<0.5	2	24	9	1.80
JN11008- 056		2.93	0.032	0.2	0.34	27	<10	10	<0.5	<2	0.39	<0.5	3	22	13	2.03
JN11008- 057		2.13	0.062	0.4	0.39	45	<10	20	<0.5	<2	0.26	<0.5	4	25	14	1.73
JN11008- 058		1.77	0.026	0.2	0.31	33	<10	<10	<0.5	<2	0.40	<0.5	2	25	10	1.60
JN11008- 059		2.79	0.035	0.4	0.46	40	<10	30	<0.5	<2	0.40	<0.5	7	17	12	1.57
JN11008- 060		0.78	0.807	14.9	0.24	4160	<10	<10	<0.5	2	0.23	27.6	4	15	155	4.08
JN11008- 060S		0.05	1.400	32.0	0.36	28	<10	240	<0.5	2	1.23	<0.5	7	29	3090	2.47
JN11008- 061		2.19	0.012	0.2	0.28	17	<10	<10	<0.5	<2	0.33	<0.5	2	26	10	1.40
JN11008- 062		3.71	0.030	0.2	0.34	24	<10	10	<0.5	<2	0.33	<0.5	3	26	10	1.29
JN11008- 063		1.83	0.109	1.1	0.39	126	<10	20	<0.5	<2	0.36	0.8	4	21	21	2.15
JN11008- 064		2.28	0.059	1.9	0.54	51	<10	40	<0.5	<2	0.58	2.3	15	10	59	4.12
JN11008- 065		2.44	0.047	1.0	0.62	32	10	50	<0.5	2	1.18	17.9	14	7	44	3.78
JN11008- 066		1.26	0.065	2.8	0.50	13	<10	40	<0.5	4	1.41	41.2	26	8	120	7.46
JN11008- 067		2.25	0.020	1.0	0.63	11	<10	50	<0.5	3	0.66	3.3	13	9	32	3.50
JN11008- 068		2.33	0.023	0.9	0.69	22	<10	50	0.5	2	0.28	8.7	15	10	62	3.78
JN11008- 069		2.11	0.008	0.2	0.51	12	<10	40	0.5	2	0.27	1.0	17	11	24	3.80
JN11008- 070		2.59	0.047	0.6	0.69	32	<10	60	<0.5	<2	0.47	<0.5	13	10	25	3.17
JN11008- 071		2.87	0.049	0.6	0.71	50	<10	50	0.5	<2	0.62	0.7	17	12	63	5.91
JN11008- 072		2.77	0.294	0.9	0.76	304	<10	60	<0.5	<2	0.44	0.5	15	11	32	3.26
JN11008- 073		2.69	0.013	0.3	0.74	25	<10	50	0.5	<2	0.39	<0.5	15	13	37	4.35
JN11008- 074		2.65	0.100	0.4	0.91	36	<10	70	0.5	<2	0.64	<0.5	12	15	37	4.06
JN11008- 075		2.59	0.141	1.0	0.74	107	<10	50	<0.5	<2	0.63	<0.5	14	12	36	4.37
JN11008- 076		2.48	0.011	0.2	0.92	21	<10	60	0.5	2	0.83	<0.5	14	16	33	4.73



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CERTIFICATE OF ANALYSIS WH11191148

Sample Description	Method Analyte Units LOR	ME- ICP41 Ga ppm 10	ME- ICP41 Hg ppm 1	ME- ICP41 K % 0.01	ME- ICP41 La ppm 10	ME- ICP41 Mg % 0.01	ME- ICP41 Mn ppm 5	ME- ICP41 Mo ppm 1	ME- ICP41 Na % 0.01	ME- ICP41 Ni ppm 1	ME- ICP41 P ppm 10	ME- ICP41 Pb ppm 2	ME- ICP41 S % 0.01	ME- ICP41 Sb ppm 2	ME- ICP41 Sc ppm 1	ME- ICP41 Sr ppm 1
JN11008-040		<10	<1	0.19	10	0.12	341	1	0.01	4	70	19	0.40	10	1	20
JN11008-040S		<10	<1	0.15	<10	0.83	775	595	0.05	6	640	37	0.21	53	1	86
JN11008-040B		<10	<1	0.29	10	0.20	325	1	0.12	<1	170	5	<0.01	<2	3	16
JN11008-041		<10	<1	0.13	10	0.12	227	2	0.01	6	70	4	0.58	4	2	20
JN11008-042		<10	<1	0.17	10	0.17	238	1	0.01	4	80	3	0.28	2	1	29
JN11008-043		<10	<1	0.14	10	0.11	235	2	0.01	4	70	4	0.57	8	1	24
JN11008-044		<10	<1	0.12	10	0.18	358	1	0.01	4	60	3	0.24	2	1	31
JN11008-045		<10	<1	0.11	10	0.13	267	2	<0.01	3	70	3	0.05	2	1	29
JN11008-046		<10	<1	0.10	10	0.13	267	1	0.01	6	70	3	0.36	4	1	27
JN11008-047		<10	<1	0.14	10	0.14	287	1	0.01	4	90	3	0.33	2	1	31
JN11008-048		<10	<1	0.12	10	0.07	166	2	0.01	4	110	2	0.58	5	1	17
JN11008-049		<10	<1	0.12	10	0.07	181	1	0.01	2	100	6	0.58	10	1	14
JN11008-050		<10	<1	0.12	10	0.10	185	2	0.01	3	140	4	0.43	5	1	20
JN11008-051		<10	<1	0.13	10	0.13	287	2	0.01	2	180	6	0.23	3	1	26
JN11008-052		<10	<1	0.10	10	0.11	323	2	0.01	3	200	13	0.27	5	1	22
JN11008-053		<10	<1	0.10	10	0.11	324	2	0.01	2	190	12	0.27	4	1	22
JN11008-054		<10	<1	0.11	10	0.08	276	1	0.01	3	230	16	0.38	3	1	17
JN11008-055		<10	<1	0.11	10	0.03	125	1	0.01	4	110	3	1.09	9	<1	11
JN11008-056		<10	<1	0.15	10	0.09	198	1	0.01	7	390	3	1.47	10	1	24
JN11008-057		<10	<1	0.18	10	0.07	174	2	0.01	11	310	5	1.03	10	1	24
JN11008-058		<10	<1	0.13	10	0.11	194	1	0.01	6	70	3	0.87	6	1	27
JN11008-059		<10	<1	0.27	10	0.12	202	1	0.01	12	120	31	0.95	8	1	34
JN11008-060		<10	<1	0.14	<10	0.06	261	<1	0.01	7	50	4310	3.69	67	<1	13
JN11008-060S		<10	4	0.15	10	0.14	393	367	0.04	16	370	60	1.03	73	1	252
JN11008-061		<10	<1	0.12	10	0.09	226	2	0.01	5	90	10	0.47	2	1	14
JN11008-062		<10	<1	0.15	10	0.09	198	2	0.01	5	100	18	0.52	4	1	14
JN11008-063		<10	<1	0.22	10	0.10	393	1	0.01	12	90	102	1.43	11	1	14
JN11008-064		<10	<1	0.32	10	0.21	805	<1	0.01	33	110	444	3.43	13	2	20
JN11008-065		<10	1	0.36	10	0.47	646	<1	0.02	28	150	99	3.06	13	3	95
JN11008-066		<10	<1	0.30	20	0.69	600	<1	0.02	44	70	219	8.04	17	2	67
JN11008-067		<10	<1	0.33	10	0.62	437	<1	0.02	29	640	273	0.89	4	2	41
JN11008-068		<10	<1	0.32	10	0.44	518	<1	0.02	33	160	177	1.37	6	3	24
JN11008-069		<10	<1	0.23	10	0.32	769	<1	0.01	37	170	19	0.78	5	2	14
JN11008-070		<10	<1	0.35	10	0.32	397	<1	0.02	30	150	11	1.59	7	2	21
JN11008-071		<10	1	0.35	10	0.34	528	<1	0.02	46	160	14	4.55	21	2	36
JN11008-072		<10	<1	0.37	10	0.28	489	<1	0.02	35	140	31	1.72	16	2	21
JN11008-073		<10	<1	0.36	10	0.35	465	<1	0.02	36	370	10	1.79	8	2	23
JN11008-074		<10	<1	0.43	10	0.44	553	<1	0.02	36	150	6	1.17	5	2	30
JN11008-075		<10	<1	0.36	10	0.43	557	<1	0.02	32	170	10	2.51	12	2	35
JN11008-076		<10	<1	0.42	10	0.61	667	<1	0.02	34	850	12	1.08	7	3	61



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CERTIFICATE OF ANALYSIS WH11191148

Sample Description	Method Analyte Units LOR	ME- ICP41 Th ppm 20	ME- ICP41 Ti % 0.01	ME- ICP41 Ti ppm 10	ME- ICP41 U ppm 10	ME- ICP41 V ppm 1	ME- ICP41 W ppm 10	ME- ICP41 Zn ppm 2	Zn- OG46 Zn % 0.001
JN11008-040		<20	<0.01	<10	<10	3	<10	22	
JN11008-040S		<20	0.09	<10	<10	28	<10	89	
JN11008-040B		<20	0.08	<10	<10	13	<10	22	
JN11008-041		<20	<0.01	<10	<10	3	<10	15	
JN11008-042		<20	<0.01	<10	<10	2	<10	12	
JN11008-043		<20	<0.01	<10	<10	2	<10	10	
JN11008-044		<20	<0.01	<10	<10	2	<10	8	
JN11008-045		<20	<0.01	<10	<10	4	<10	15	
JN11008-046		<20	<0.01	<10	<10	4	<10	20	
JN11008-047		<20	<0.01	<10	<10	3	<10	20	
JN11008-048		<20	<0.01	<10	<10	2	<10	10	
JN11008-049		<20	<0.01	<10	<10	2	<10	6	
JN11008-050		<20	<0.01	<10	<10	2	<10	7	
JN11008-051		<20	<0.01	<10	<10	2	<10	16	
JN11008-052		<20	<0.01	<10	<10	2	<10	28	
JN11008-053		<20	<0.01	<10	<10	2	<10	28	
JN11008-054		<20	<0.01	<10	<10	2	<10	45	
JN11008-055		<20	<0.01	<10	<10	2	<10	10	
JN11008-056		<20	<0.01	<10	<10	2	<10	9	
JN11008-057		<20	<0.01	<10	<10	3	<10	32	
JN11008-058		<20	<0.01	<10	<10	2	<10	7	
JN11008-059		<20	<0.01	<10	<10	4	<10	33	
JN11008-060		<20	<0.01	<10	<10	2	<10	3420	
JN11008-060S		<20	0.01	<10	<10	16	<10	51	
JN11008-061		<20	<0.01	<10	<10	2	<10	31	
JN11008-062		<20	<0.01	<10	<10	3	<10	26	
JN11008-063		<20	<0.01	<10	<10	4	<10	99	
JN11008-064		<20	<0.01	<10	<10	7	<10	334	
JN11008-065		<20	<0.01	<10	<10	8	<10	1960	
JN11008-066		<20	<0.01	<10	<10	8	<10	4440	
JN11008-067		<20	<0.01	<10	<10	9	<10	403	
JN11008-068		<20	<0.01	<10	<10	10	<10	1015	
JN11008-069		<20	<0.01	<10	<10	12	<10	235	
JN11008-070		<20	<0.01	<10	<10	9	<10	110	
JN11008-071		<20	<0.01	<10	<10	11	<10	185	
JN11008-072		<20	<0.01	<10	<10	11	<10	117	
JN11008-073		<20	<0.01	<10	<10	12	<10	84	
JN11008-074		<20	<0.01	<10	<10	13	<10	91	
JN11008-075		<20	<0.01	<10	<10	11	<10	82	
JN11008-076		<20	<0.01	<10	<10	15	<10	108	



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CERTIFICATE OF ANALYSIS WH11191148

Sample Description	Method Analyte Units LOR	WEI- 21 Recvd Wt. kg 0.02	Au- AA23 Au ppm 0.005	ME- ICP41 Ag ppm 0.2	ME- ICP41 Al % 0.01	ME- ICP41 As ppm 2	ME- ICP41 B ppm 10	ME- ICP41 Ba ppm 10	ME- ICP41 Be ppm 0.5	ME- ICP41 Bi ppm 2	ME- ICP41 Ca % 0.01	ME- ICP41 Cd ppm 0.5	ME- ICP41 Co ppm 1	ME- ICP41 Cr ppm 1	ME- ICP41 Cu ppm 1	ME- ICP41 Fe % 0.01
JN11008- 077		2.99	0.080	1.1	0.68	55	<10	50	<0.5	<2	0.94	<0.5	14	8	33	4.89
JN11008- 078		2.55	0.015	0.3	0.90	35	<10	70	0.5	<2	0.98	<0.5	14	13	32	4.34
JN11008- 079		2.41	0.023	<0.2	0.85	19	<10	50	0.6	2	0.76	<0.5	10	21	26	3.08
JN11008- 080		0.80	0.155	0.2	0.27	3	<10	<10	<0.5	46	2.17	<0.5	5	21	46	2.80
JN11008- 080S		0.05	3.45	76.0	1.35	93	<10	70	<0.5	7	2.04	<0.5	9	18	760	3.21
JN11008- 080B		0.05	<0.005	0.2	0.70	<2	<10	110	<0.5	<2	0.28	<0.5	2	13	1	1.51
JN11008- 081		2.83	<0.005	<0.2	1.11	25	<10	50	0.8	<2	1.44	<0.5	14	24	56	4.41
JN11008- 082		1.50	<0.005	<0.2	1.23	14	<10	50	0.7	2	1.68	<0.5	10	25	34	3.18
JN11008- 083		1.75	<0.005	<0.2	1.12	4	<10	<10	<0.5	2	11.0	<0.5	15	15	58	3.79
JN11008- 084		2.12	<0.005	<0.2	1.23	9	<10	10	0.5	3	4.53	<0.5	15	15	56	3.12
JN11008- 085		2.80	0.007	<0.2	0.89	10	<10	20	0.5	2	10.0	<0.5	8	17	28	2.22
JN11008- 086		2.88	0.006	<0.2	0.58	7	<10	10	<0.5	<2	12.6	<0.5	5	12	18	2.51
JN11008- 087		1.70	0.005	<0.2	0.55	9	<10	10	<0.5	2	20.8	<0.5	5	9	16	1.04
JN11008- 088		1.90	<0.005	<0.2	0.57	6	<10	20	<0.5	<2	17.7	<0.5	5	10	15	1.99
JN11008- 089		2.55	<0.005	<0.2	1.02	5	<10	60	0.8	<2	16.1	<0.5	8	15	29	3.52
JN11008- 090		2.93	<0.005	<0.2	0.93	4	<10	70	1.1	2	2.68	<0.5	11	19	29	3.92
JN11008- 091		2.85	<0.005	<0.2	1.05	<2	<10	70	1.0	2	2.59	<0.5	12	22	32	3.88
JN11008- 092		2.89	<0.005	<0.2	1.05	2	<10	70	1.0	<2	2.02	0.5	15	22	43	4.11
JN11008- 093		2.40	<0.005	<0.2	0.95	2	<10	60	0.8	<2	2.40	<0.5	17	19	49	4.99
JN11008- 094		2.74	0.062	0.2	0.84	36	<10	50	0.5	<2	0.95	<0.5	12	15	28	3.50
JN11008- 095		2.92	0.062	0.7	0.90	70	<10	60	0.5	<2	0.92	<0.5	15	14	38	4.29
JN11008- 096		2.87	0.309	0.9	0.82	439	10	50	0.5	2	2.33	<0.5	23	11	84	4.81
JN11008- 097		2.13	0.049	<0.2	1.02	66	10	80	0.6	<2	1.16	<0.5	12	13	50	3.80
JN11008- 098		3.42	0.005	<0.2	0.97	10	<10	70	0.9	2	1.85	<0.5	14	20	44	4.56
JN11008- 099		2.71	<0.005	<0.2	1.16	9	<10	70	0.8	2	1.66	<0.5	13	24	62	4.95
JN11008- 100		1.84	<0.005	<0.2	1.13	16	<10	60	0.7	<2	1.65	<0.5	12	27	58	5.10
JN11008- 100S		0.05	1.470	31.0	0.37	23	<10	230	<0.5	3	1.20	<0.5	7	28	3020	2.40
JN11008- 101		2.50	<0.005	<0.2	1.26	14	<10	90	1.0	2	1.15	<0.5	13	24	36	5.01
JN11008- 102		1.70	0.023	0.3	1.08	12	<10	70	0.7	2	1.10	<0.5	14	16	36	3.10
JN11008- 103		1.17	0.783	2.9	0.83	31	<10	50	0.5	2	5.23	11.2	14	9	154	5.46
JN11008- 104		2.72	<0.005	0.2	1.16	20	10	80	0.9	<2	1.51	<0.5	15	20	34	4.29
JN11008- 105		1.92	0.011	0.2	1.06	24	10	80	0.7	<2	2.92	<0.5	12	14	32	4.62
JN11008- 106		2.70	0.106	0.2	1.11	147	<10	90	0.8	<2	2.63	<0.5	13	16	34	5.00
JN11008- 107		2.67	<0.005	<0.2	1.50	79	10	50	1.2	<2	3.62	<0.5	13	23	9	1.83
JN11008- 108		2.24	0.032	0.3	0.81	181	10	40	0.6	20	1.59	<0.5	10	16	16	2.42
JN11008- 109		2.35	<0.005	0.3	0.59	18	<10	20	<0.5	<2	1.80	<0.5	3	22	13	2.43
JN11008- 110		2.12	0.568	<0.2	0.50	285	<10	20	0.5	<2	1.04	<0.5	2	19	32	1.64
JN11008- 111		2.75	0.069	<0.2	0.41	12	<10	20	<0.5	<2	1.98	<0.5	2	25	10	1.74
JN11008- 112		1.93	0.752	0.4	0.28	148	<10	20	<0.5	<2	0.76	<0.5	1	20	11	1.48
JN11008- 113		2.55	0.022	0.2	0.32	28	<10	20	<0.5	<2	0.89	0.5	1	27	13	1.89



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To: TERRALOGIC EXPLORATION SERVICES INC.

44 - 12TH AVENUE SOUTH

SUITE 200

CRANBROOK BC V1C 2R7

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CERTIFICATE OF ANALYSIS	WH11191148

Sample Description	Method Analyte Units LOR	ME- ICP41 Ga ppm 10	ME- ICP41 Hg ppm 1	ME- ICP41 K % 0.01	ME- ICP41 La ppm 10	ME- ICP41 Mg % 0.01	ME- ICP41 Mn ppm 5	ME- ICP41 Mo ppm 1	ME- ICP41 Na % 0.01	ME- ICP41 Ni ppm 1	ME- ICP41 P ppm 10	ME- ICP41 Pb ppm 2	ME- ICP41 S % 0.01	ME- ICP41 Sb ppm 2	ME- ICP41 Sc ppm 1	ME- ICP41 Sr ppm 1
JN11008-077		<10	<1	0.37	10	0.41	405	<1	0.02	32	140	10	4.38	18	2	56
JN11008-078		<10	1	0.45	10	0.48	446	<1	0.03	38	150	17	2.05	8	2	80
JN11008-079		<10	<1	0.33	20	0.22	483	<1	0.02	27	660	5	0.35	2	3	25
JN11008-080		<10	<1	0.04	10	0.17	500	1	0.02	10	50	17	0.56	3	1	25
JN11008-080S		<10	<1	0.17	<10	0.89	831	644	0.06	7	680	40	0.23	56	2	99
JN11008-080B		<10	<1	0.30	10	0.20	338	1	0.13	<1	170	5	<0.01	<2	3	18
JN11008-081		<10	1	0.36	30	0.30	530	<1	0.01	37	940	5	1.38	3	5	33
JN11008-082		<10	<1	0.38	30	0.15	366	1	0.01	27	270	5	0.95	<2	5	34
JN11008-083		<10	<1	0.12	20	0.11	481	1	0.01	34	510	8	3.35	2	4	332
JN11008-084		<10	<1	0.18	30	0.04	198	1	0.01	36	410	12	3.27	2	4	70
JN11008-085		<10	1	0.22	20	0.14	459	<1	0.01	25	380	9	1.08	3	5	201
JN11008-086		<10	<1	0.19	10	0.20	449	<1	0.01	12	250	11	1.81	6	4	270
JN11008-087		<10	<1	0.18	10	0.23	344	<1	0.01	15	160	15	0.82	3	4	471
JN11008-088		<10	<1	0.20	10	0.19	359	<1	0.02	12	260	14	1.40	3	3	504
JN11008-089		<10	<1	0.29	20	0.28	742	<1	0.02	20	420	11	1.12	2	4	463
JN11008-090		<10	<1	0.37	30	0.37	287	<1	0.02	45	420	5	0.32	<2	4	73
JN11008-091		<10	<1	0.38	20	0.36	348	<1	0.02	36	410	7	0.53	3	3	71
JN11008-092		<10	<1	0.41	20	0.29	362	<1	0.02	43	580	12	0.71	2	4	74
JN11008-093		<10	<1	0.39	20	0.60	454	<1	0.02	38	490	6	1.00	3	3	77
JN11008-094		<10	<1	0.33	20	0.50	430	<1	0.02	34	400	5	0.74	4	3	32
JN11008-095		<10	<1	0.40	20	0.49	530	<1	0.02	42	560	4	2.05	9	3	42
JN11008-096		<10	<1	0.40	10	0.81	448	<1	0.02	43	580	4	3.23	34	4	121
JN11008-097		<10	<1	0.47	20	0.54	265	<1	0.03	36	550	2	1.38	11	3	82
JN11008-098		<10	<1	0.42	30	0.77	696	<1	0.02	40	510	4	0.55	2	4	66
JN11008-099		<10	<1	0.43	30	0.61	845	<1	0.02	28	470	3	0.87	3	5	52
JN11008-100		<10	<1	0.42	30	0.79	1095	<1	0.02	30	680	16	0.63	3	5	46
JN11008-100S		<10	4	0.15	10	0.13	382	352	0.04	16	360	58	1.00	72	1	248
JN11008-101		<10	<1	0.48	30	0.85	621	<1	0.02	31	550	5	0.76	4	4	48
JN11008-102		<10	<1	0.45	30	0.46	356	<1	0.02	37	600	7	0.83	4	3	44
JN11008-103		<10	<1	0.43	10	1.39	2950	<1	0.02	29	420	1635	3.03	21	4	113
JN11008-104		<10	<1	0.47	40	0.55	659	<1	0.02	44	580	5	0.49	6	5	55
JN11008-105		<10	<1	0.50	20	0.95	693	<1	0.03	30	580	20	1.64	22	5	150
JN11008-106		<10	<1	0.45	20	0.57	681	<1	0.02	38	490	5	1.61	11	4	110
JN11008-107		<10	<1	0.38	40	0.52	402	<1	0.02	42	580	3	0.08	5	8	107
JN11008-108		<10	<1	0.28	20	0.47	346	<1	0.02	21	300	7	0.30	3	4	88
JN11008-109		<10	<1	0.13	10	0.32	675	2	0.02	7	120	7	0.40	2	2	77
JN11008-110		<10	<1	0.20	20	0.29	382	1	0.01	13	200	5	0.24	13	3	35
JN11008-111		<10	1	0.21	10	0.33	473	3	0.01	8	150	5	0.38	2	2	72
JN11008-112		<10	1	0.17	10	0.21	415	3	<0.01	3	80	38	0.47	10	1	24
JN11008-113		<10	<1	0.17	20	0.22	500	3	<0.01	8	80	48	0.67	5	2	36



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44 - 12TH AVENUE SOUTH
SUITE 200
CRANBROOK BC V1C 2R7

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CERTIFICATE OF ANALYSIS WH11191148

Sample Description	Method Analyte Units LOR	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	Zn- OG46
		Th	Ti	Ti	U	V	W	Zn	Zn
		ppm 20	% 0.01	ppm 10	ppm 10	ppm 1	ppm 10	ppm 2	% 0.001
JN11008- 077		<20	<0.01	<10	<10	8	<10	88	
JN11008- 078		<20	<0.01	<10	<10	12	<10	84	
JN11008- 079		<20	<0.01	<10	<10	17	<10	78	
JN11008- 080		<20	<0.01	<10	<10	6	<10	40	
JN11008- 080S		<20	0.10	<10	<10	32	<10	97	
JN11008- 080B		<20	0.09	<10	<10	14	<10	23	
JN11008- 081		20	<0.01	<10	<10	31	<10	85	
JN11008- 082		20	<0.01	<10	<10	33	<10	44	
JN11008- 083		<20	<0.01	<10	<10	19	<10	57	
JN11008- 084		20	<0.01	<10	<10	18	<10	62	
JN11008- 085		<20	<0.01	<10	<10	19	<10	50	
JN11008- 086		<20	<0.01	<10	<10	12	<10	34	
JN11008- 087		<20	<0.01	<10	<10	11	<10	25	
JN11008- 088		<20	<0.01	<10	<10	10	<10	52	
JN11008- 089		20	0.01	<10	<10	19	<10	52	
JN11008- 090		20	<0.01	<10	<10	20	<10	68	
JN11008- 091		20	<0.01	<10	<10	21	<10	62	
JN11008- 092		20	<0.01	<10	<10	19	<10	115	
JN11008- 093		<20	<0.01	<10	<10	19	<10	66	
JN11008- 094		<20	<0.01	<10	<10	15	<10	62	
JN11008- 095		<20	<0.01	<10	<10	12	<10	70	
JN11008- 096		<20	<0.01	<10	<10	10	<10	160	
JN11008- 097		<20	<0.01	<10	<10	12	<10	66	
JN11008- 098		20	<0.01	<10	<10	21	<10	27	
JN11008- 099		20	<0.01	<10	<10	30	<10	33	
JN11008- 100		20	<0.01	<10	<10	33	<10	44	
JN11008- 100S		<20	0.01	<10	<10	16	<10	45	
JN11008- 101		20	<0.01	<10	<10	25	<10	30	
JN11008- 102		20	<0.01	<10	<10	17	<10	40	
JN11008- 103		<20	<0.01	<10	<10	11	<10	1445	
JN11008- 104		20	<0.01	<10	<10	22	<10	31	
JN11008- 105		<20	<0.01	<10	<10	15	<10	53	
JN11008- 106		<20	<0.01	<10	<10	18	<10	65	
JN11008- 107		20	0.01	<10	<10	26	<10	39	
JN11008- 108		<20	<0.01	<10	<10	13	<10	48	
JN11008- 109		<20	0.01	<10	<10	8	<10	46	
JN11008- 110		<20	<0.01	<10	<10	8	<10	29	
JN11008- 111		<20	<0.01	<10	<10	6	<10	25	
JN11008- 112		<20	<0.01	<10	<10	4	<10	47	
JN11008- 113		<20	<0.01	<10	<10	5	<10	59	



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CERTIFICATE OF ANALYSIS WH11191148

Sample Description	Method Analyte Units LOR	WEI- 21 Recvd Wt. kg 0.02	Au- AA23 Au ppm 0.005	ME- ICP41 Ag ppm 0.2	ME- ICP41 Al % 0.01	ME- ICP41 As ppm 2	ME- ICP41 B ppm 10	ME- ICP41 Ba ppm 10	ME- ICP41 Be ppm 0.5	ME- ICP41 Bi ppm 2	ME- ICP41 Ca % 0.01	ME- ICP41 Cd ppm 0.5	ME- ICP41 Co ppm 1	ME- ICP41 Cr ppm 1	ME- ICP41 Cu ppm 1	ME- ICP41 Fe % 0.01
JN11008- 114		1.49	0.023	1.1	0.32	33	<10	20	<0.5	<2	1.22	1.2	1	24	11	1.42
JN11008- 115		1.57	0.073	1.1	0.36	2610	<10	20	<0.5	<2	0.99	17.7	3	20	31	1.54
JN11008- 116		0.60	0.015	<0.2	0.59	36	10	30	<0.5	<2	0.93	<0.5	2	19	8	1.43
JN11008- 117		2.05	0.022	<0.2	0.45	58	10	30	<0.5	<2	1.65	<0.5	3	21	14	1.55
JN11008- 118		2.68	0.008	<0.2	0.32	24	10	10	<0.5	<2	0.91	<0.5	3	26	12	1.48
JN11008- 119		2.40	0.013	<0.2	0.28	20	<10	10	<0.5	<2	0.35	<0.5	2	27	18	1.32
JN11008- 120		1.85	0.020	<0.2	0.31	13	<10	10	<0.5	<2	0.51	<0.5	1	30	9	1.53
JN11008- 120S		0.04	3.57	73.2	1.30	93	<10	70	<0.5	6	1.97	<0.5	9	18	768	3.12
JN11008- 120B		0.05	<0.005	<0.2	0.70	<2	<10	130	<0.5	<2	0.27	<0.5	2	13	3	1.55
JN11008- 121		1.26	<0.005	<0.2	0.36	9	<10	10	<0.5	<2	0.68	<0.5	2	25	14	1.25
JN11008- 122		2.53	0.614	1.9	0.37	210	<10	10	<0.5	<2	0.81	<0.5	1	22	4	2.18
JN11008- 123		1.45	0.078	<0.2	0.45	61	10	20	<0.5	<2	1.55	<0.5	3	20	11	2.04
JN11008- 124		1.11	<0.005	<0.2	0.34	35	10	10	<0.5	<2	1.80	<0.5	3	21	27	1.21
JN11008- 125		0.95	0.008	<0.2	1.15	28	10	90	0.7	<2	1.22	<0.5	18	12	38	3.07
JN11008- 126		0.59	0.136	0.5	0.64	112	<10	50	0.5	<2	1.91	<0.5	8	13	13	2.76
JN11008- 127		1.36	0.024	0.3	1.16	27	<10	70	0.7	<2	1.22	<0.5	16	12	41	4.87
JN11008- 128		2.69	<0.005	<0.2	1.29	12	<10	80	0.8	<2	0.69	<0.5	16	13	40	4.19
JN11008- 129		2.76	<0.005	<0.2	0.87	21	<10	80	0.8	<2	1.19	<0.5	15	13	38	4.14
JN11008- 130		2.21	<0.005	<0.2	0.84	14	<10	60	0.9	<2	1.26	<0.5	15	14	32	4.31
JN11008- 131		2.81	0.038	0.5	1.26	28	<10	80	0.8	<2	0.91	<0.5	16	14	42	4.39
JN11008- 132		1.24	<0.005	<0.2	1.08	12	<10	70	1.0	<2	0.70	<0.5	16	15	41	4.14
JN11008- 133		0.97	0.034	0.6	0.54	39	<10	30	0.9	<2	1.39	0.8	8	13	25	5.07
JN11008- 134		2.30	2.33	0.8	0.95	4630	10	60	0.6	<2	1.51	0.9	17	10	47	3.35
JN11008- 135		1.14	2.96	0.2	0.67	4970	10	40	0.6	<2	2.03	<0.5	4	16	16	2.39
JN11008- 136		2.36	0.359	<0.2	0.21	805	<10	10	<0.5	<2	1.84	<0.5	2	17	5	1.86
JN11008- 137		2.56	0.218	0.3	0.51	517	<10	30	<0.5	<2	1.08	<0.5	8	19	24	2.24
JN11008- 138		1.57	0.696	0.5	0.22	1110	<10	10	<0.5	<2	0.06	<0.5	2	18	6	1.24
JN11008- 139		0.72	0.136	0.8	0.20	29	<10	<10	<0.5	<2	0.05	<0.5	1	17	1	0.77
JN11008- 140		0.58	0.190	0.6	0.33	340	<10	10	<0.5	<2	0.05	<0.5	1	21	5	1.27
JN11008- 140S		0.05	1.420	32.5	0.38	26	<10	220	<0.5	<2	1.30	<0.5	8	29	3240	2.57
JN11008- 141		0.71	0.156	0.2	0.38	13	<10	20	<0.5	<2	0.03	<0.5	1	18	5	1.22
JN11008- 142		0.22	0.124	0.5	0.57	17	<10	40	0.5	<2	2.76	<0.5	1	12	2	0.68
JN11008- 143		0.47	<0.005	0.5	0.33	8	<10	20	<0.5	<2	0.16	<0.5	1	17	5	1.12
JN11008- 144		2.54	0.009	0.3	0.20	9	<10	10	0.5	<2	6.4	<0.5	2	11	8	0.85
JN11008- 145		2.40	0.014	<0.2	0.12	11	<10	10	<0.5	<2	7.2	<0.5	2	10	5	0.91
JN11008- 146		0.93	0.014	<0.2	0.23	22	<10	10	<0.5	<2	19.5	<0.5	2	7	6	1.22
JN11008- 147		0.66	0.239	4.9	0.81	328	10	60	0.9	<2	1.37	1.0	10	13	35	3.35
JN11008- 148		0.96	0.166	0.6	1.34	256	20	80	0.8	<2	0.81	1.0	15	15	33	3.38
JN11008- 149		1.74	0.530	<0.2	0.18	1145	<10	<10	<0.5	<2	1.01	<0.5	1	25	3	0.63
JN11008- 150		2.52	0.354	<0.2	0.22	783	<10	10	<0.5	<2	16.6	<0.5	2	7	4	0.75



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44 - 12TH AVENUE SOUTH
SUITE 200
CRANBROOK BC V1C 2R7

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CERTIFICATE OF ANALYSIS WH11191148

Sample Description	Method Analyte Units LOR	ME- ICP41 Ga ppm 10	ME- ICP41 Hg ppm 1	ME- ICP41 K % 0.01	ME- ICP41 La ppm 10	ME- ICP41 Mg % 0.01	ME- ICP41 Mn ppm 5	ME- ICP41 Mo ppm 1	ME- ICP41 Na % 0.01	ME- ICP41 Ni ppm 1	ME- ICP41 P ppm 10	ME- ICP41 Pb ppm 2	ME- ICP41 S % 0.01	ME- ICP41 Sb ppm 2	ME- ICP41 Sc ppm 1	ME- ICP41 Sr ppm 1
JN11008-114		<10	1	0.20	10	0.19	633	3	<0.01	4	60	87	0.47	6	2	33
JN11008-115		<10	<1	0.21	10	0.24	734	2	<0.01	6	80	346	0.56	22	2	36
JN11008-116		<10	<1	0.29	10	0.28	350	1	<0.01	8	130	15	0.19	6	3	34
JN11008-117		<10	<1	0.24	10	0.45	343	2	0.01	8	190	8	0.26	6	2	59
JN11008-118		<10	<1	0.13	10	0.22	261	2	<0.01	9	370	5	0.13	3	2	35
JN11008-119		<10	<1	0.12	10	0.09	166	2	<0.01	8	130	5	0.34	4	1	16
JN11008-120		<10	<1	0.11	10	0.14	243	3	<0.01	5	100	5	0.29	4	1	22
JN11008-120S		<10	1	0.15	<10	0.85	810	591	0.04	9	680	39	0.22	53	2	97
JN11008-1208		<10	<1	0.29	10	0.21	342	1	0.12	2	190	5	<0.01	<2	3	18
JN11008-121		<10	<1	0.11	20	0.14	267	2	<0.01	6	80	5	0.07	2	1	18
JN11008-122		<10	<1	0.16	10	0.24	286	2	<0.01	7	90	5	1.38	20	1	27
JN11008-123		<10	1	0.24	10	0.46	387	1	<0.01	10	70	11	0.94	12	2	70
JN11008-124		<10	<1	0.19	20	0.56	296	1	0.01	11	90	3	0.04	3	3	75
JN11008-125		<10	<1	0.60	10	0.59	323	<1	0.02	35	450	3	1.33	5	3	76
JN11008-126		<10	<1	0.35	10	0.60	330	<1	0.01	16	230	6	2.12	7	3	74
JN11008-127		<10	<1	0.56	10	0.65	357	<1	0.02	47	630	7	2.62	6	3	55
JN11008-128		<10	1	0.59	20	0.73	353	<1	0.03	41	540	4	0.56	3	3	35
JN11008-129		<10	<1	0.43	10	0.72	456	<1	0.02	44	440	4	1.02	4	4	56
JN11008-130		<10	<1	0.42	20	0.80	447	<1	0.02	39	510	3	0.48	8	4	57
JN11008-131		<10	<1	0.59	10	0.52	357	<1	0.02	46	410	4	2.18	6	3	35
JN11008-132		<10	<1	0.50	10	0.56	549	<1	0.02	41	440	6	0.80	4	3	32
JN11008-133		<10	1	0.30	10	0.45	889	<1	0.01	25	130	40	4.27	20	3	46
JN11008-134		<10	<1	0.49	10	0.45	369	<1	0.02	40	430	11	2.92	31	3	80
JN11008-135		<10	<1	0.36	10	0.80	430	1	0.01	14	90	3	0.91	35	4	103
JN11008-136		<10	<1	0.12	10	0.55	554	1	<0.01	3	60	3	0.71	10	2	68
JN11008-137		<10	<1	0.24	10	0.33	337	1	0.01	14	130	8	1.30	10	2	47
JN11008-138		<10	<1	0.11	<10	0.02	52	1	<0.01	5	50	12	0.72	21	<1	8
JN11008-139		<10	<1	0.08	<10	0.01	47	1	<0.01	2	10	4	0.30	3	<1	3
JN11008-140		<10	<1	0.14	10	0.02	111	1	<0.01	2	20	4	0.12	6	<1	4
JN11008-140S		<10	4	0.15	10	0.14	410	372	0.04	20	400	59	1.10	77	1	275
JN11008-141		<10	<1	0.18	10	0.02	98	1	<0.01	3	20	2	0.23	3	<1	4
JN11008-142		<10	<1	0.28	10	0.11	400	1	0.01	3	40	2	0.03	3	2	40
JN11008-143		<10	<1	0.17	10	0.03	124	1	0.01	5	30	2	0.13	<2	1	9
JN11008-144		<10	<1	0.09	10	0.11	313	1	0.01	4	290	7	0.34	2	2	94
JN11008-145		<10	<1	0.05	<10	0.12	262	1	0.01	5	250	4	0.39	2	1	142
JN11008-146		<10	<1	0.10	<10	4.52	833	<1	0.02	6	2710	3	0.39	4	2	634
JN11008-147		<10	<1	0.40	10	0.32	254	1	0.01	25	150	5	2.25	10	3	68
JN11008-148		<10	<1	0.58	10	0.16	88	<1	0.01	31	160	9	3.31	9	3	35
JN11008-149		<10	<1	0.07	<10	0.13	89	3	0.01	5	100	<2	0.18	17	<1	27
JN11008-150		<10	<1	0.09	<10	0.24	571	1	0.01	4	130	2	0.19	13	1	483



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44 - 12TH AVENUE SOUTH
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CERTIFICATE OF ANALYSIS WH11191148

Sample Description	Method Analyte Units LOR	ME- ICP41 Th ppm 20	ME- ICP41 Ti % 0.01	ME- ICP41 Ti ppm 10	ME- ICP41 U ppm 10	ME- ICP41 V ppm 1	ME- ICP41 W ppm 10	ME- ICP41 Zn ppm 2	Zn- OG46 Zn % 0.001
JN11008-114		<20	<0.01	<10	<10	5	<10	125	
JN11008-115		<20	<0.01	<10	<10	4	<10	1745	
JN11008-116		<20	<0.01	<10	<10	7	<10	29	
JN11008-117		<20	<0.01	<10	<10	5	<10	37	
JN11008-118		<20	<0.01	<10	<10	4	<10	15	
JN11008-119		<20	<0.01	<10	<10	3	<10	14	
JN11008-120		<20	<0.01	<10	<10	4	<10	18	
JN11008-120S		<20	0.09	<10	<10	30	<10	99	
JN11008-120B		<20	0.09	<10	<10	14	<10	25	
JN11008-121		<20	<0.01	<10	<10	6	<10	19	
JN11008-122		<20	<0.01	<10	<10	3	<10	13	
JN11008-123		<20	<0.01	<10	<10	5	<10	27	
JN11008-124		<20	<0.01	<10	<10	5	<10	14	
JN11008-125		<20	<0.01	<10	<10	10	<10	39	
JN11008-126		<20	<0.01	<10	<10	6	<10	16	
JN11008-127		<20	<0.01	<10	<10	12	<10	101	
JN11008-128		<20	<0.01	<10	<10	13	<10	74	
JN11008-129		<20	<0.01	<10	<10	13	<10	67	
JN11008-130		<20	<0.01	<10	<10	14	<10	67	
JN11008-131		<20	<0.01	<10	<10	14	<10	84	
JN11008-132		<20	<0.01	<10	<10	14	<10	93	
JN11008-133		<20	<0.01	<10	<10	8	<10	99	
JN11008-134		<20	<0.01	<10	<10	9	<10	82	
JN11008-135		<20	<0.01	<10	<10	7	<10	17	
JN11008-136		<20	<0.01	<10	<10	4	<10	13	
JN11008-137		<20	<0.01	<10	<10	5	<10	23	
JN11008-138		<20	<0.01	<10	<10	2	<10	7	
JN11008-139		<20	<0.01	<10	<10	2	<10	4	
JN11008-140		<20	<0.01	<10	<10	3	<10	5	
JN11008-140S		<20	0.01	<10	<10	17	<10	50	
JN11008-141		<20	<0.01	<10	<10	3	<10	4	
JN11008-142		<20	<0.01	<10	<10	6	<10	10	
JN11008-143		<20	<0.01	<10	<10	3	<10	7	
JN11008-144		<20	<0.01	<10	<10	4	<10	25	
JN11008-145		<20	<0.01	<10	<10	3	<10	10	
JN11008-146		<20	<0.01	<10	<10	10	<10	20	
JN11008-147		<20	<0.01	<10	<10	7	40	56	
JN11008-148		<20	<0.01	<10	<10	12	<10	89	
JN11008-149		<20	<0.01	<10	<10	1	<10	6	
JN11008-150		<20	<0.01	<10	<10	4	<10	20	



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Sample Description	Method Analyte Units LOR	WEI- 21 Recvd Wt. kg 0.02	Au- AA23 Au ppm 0.005	ME- ICP41 Ag ppm 0.2	ME- ICP41 Al % 0.01	ME- ICP41 As ppm 2	ME- ICP41 B ppm 10	ME- ICP41 Ba ppm 10	ME- ICP41 Be ppm 0.5	ME- ICP41 Bi ppm 2	ME- ICP41 Ca % 0.01	ME- ICP41 Cd ppm 0.5	ME- ICP41 Co ppm 1	ME- ICP41 Cr ppm 1	ME- ICP41 Cu ppm 1	ME- ICP41 Fe % 0.01
JN11008-151		1.56	0.224	0.2	0.34	432	<10	20	<0.5	<2	14.8	<0.5	2	8	8	0.66
JN11008-152		0.74	0.054	<0.2	0.48	119	<10	30	<0.5	<2	4.35	0.7	5	10	21	1.65
JN11008-153		1.44	0.079	0.2	0.48	191	<10	20	0.5	<2	9.9	0.6	2	17	10	1.81
JN11008-154		0.82	0.120	1.4	0.76	93	<10	20	0.6	<2	0.22	4.5	5	16	38	21.1
JN11008-155		0.30	0.017	0.2	0.98	33	<10	20	1.6	3	13.7	3.5	18	8	14	15.9
JN11008-156		3.01	0.007	<0.2	0.17	11	<10	20	<0.5	<2	>25.0	<0.5	1	3	4	0.41
JN11008-157		3.83	<0.005	0.2	0.88	10	10	30	0.5	<2	23.7	0.8	5	9	15	2.15
JN11008-158		3.02	<0.005	<0.2	0.63	5	10	40	0.5	<2	21.1	0.5	5	10	19	1.79
JN11008-159		2.29	<0.005	<0.2	0.93	8	10	60	0.8	2	12.0	0.6	9	12	32	2.50
JN11008-160		2.05	0.017	0.2	0.69	39	10	50	0.8	<2	6.00	1.2	12	13	41	3.34
JN11008-160S		0.05	3.38	76.0	1.24	94	<10	80	<0.5	7	1.97	1.0	10	18	727	3.10
JN11008-160B		0.05	0.006	<0.2	0.87	<2	<10	170	<0.5	<2	0.35	0.5	4	10	21	1.89
JN11008-161		1.11	0.111	0.2	0.57	311	10	40	0.6	<2	9.5	0.9	8	10	33	2.89
JN11008-162		2.13	<0.005	0.2	1.90	7	10	50	0.8	<2	12.2	0.7	8	23	28	2.52
JN11008-163		1.74	0.006	0.3	0.29	9	<10	10	<0.5	<2	17.0	<0.5	2	6	10	0.92
JN11008-164		2.18	0.010	0.2	0.39	12	<10	10	<0.5	<2	16.8	<0.5	2	14	6	0.63
JN11008-165		1.25	0.026	0.3	0.12	58	<10	<10	<0.5	<2	>25.0	<0.5	1	3	4	0.46
JN11008-166		1.20	0.014	0.5	0.18	37	<10	<10	<0.5	<2	15.7	<0.5	1	13	6	0.33
JN11008-167		3.08	0.011	0.3	0.10	16	<10	<10	<0.5	<2	>25.0	<0.5	1	4	3	0.29
JN11008-168		2.36	0.006	0.4	0.29	9	<10	30	<0.5	<2	24.5	<0.5	4	5	13	1.50
JN11008-169		1.92	0.017	1.1	0.81	47	10	100	0.6	<2	6.58	0.9	14	11	63	4.01
JN11008-170		1.28	0.008	4.4	0.69	27	<10	80	<0.5	<2	8.0	25.2	7	6	56	2.29
JN11008-171		1.99	0.644	18.9	0.55	1610	<10	50	<0.5	<2	7.8	96.0	10	7	228	6.70
JN11008-172		2.37	0.071	2.2	0.40	329	<10	30	<0.5	<2	9.9	6.2	4	12	31	1.96
JN11008-173		2.84	0.048	0.4	1.03	139	<10	110	0.5	<2	3.57	0.6	13	14	39	3.23
JN11008-174		3.17	0.019	0.3	1.27	60	10	120	0.8	<2	1.78	0.5	16	14	54	4.79
JN11008-175		2.35	0.006	<0.2	1.30	30	10	120	0.9	<2	0.65	<0.5	24	14	49	4.70
JN11008-176		3.01	0.011	0.5	0.91	26	<10	110	0.7	<2	0.56	0.5	10	9	48	3.68
JN11008-177		2.40	0.121	1.2	0.82	173	<10	80	0.6	<2	1.72	5.2	10	9	56	4.36
JN11008-178		2.59	0.079	0.4	1.22	388	<10	120	0.7	<2	0.67	<0.5	14	14	43	3.86
JN11008-179		2.61	0.040	0.5	1.11	151	<10	120	0.7	<2	0.21	<0.5	14	10	41	4.26
JN11008-180		2.74	0.055	0.6	1.23	176	10	100	0.5	<2	0.27	<0.5	11	9	54	3.63
JN11008-180S		0.05	1.440	32.4	0.37	24	<10	220	<0.5	2	1.25	<0.5	8	29	3140	2.51
JN11008-181		2.60	0.012	0.3	1.16	36	<10	120	0.7	<2	0.46	<0.5	18	12	46	4.59
JN11008-182		2.01	0.009	0.2	1.41	21	10	140	0.7	<2	0.37	<0.5	18	14	40	4.66
JN11008-183		2.88	0.017	<0.2	0.86	23	<10	90	0.6	<2	0.60	0.5	15	16	33	4.16
JN11008-184		2.65	<0.005	<0.2	0.55	10	<10	30	<0.5	<2	1.00	<0.5	3	26	59	2.13
JN11008-185		2.20	0.005	0.2	0.40	15	<10	40	<0.5	<2	0.63	<0.5	5	19	21	1.62
JN11008-186		2.72	0.013	0.2	0.43	31	<10	30	<0.5	<2	1.13	0.8	4	26	46	2.59
JN11008-187		2.21	<0.005	<0.2	0.35	6	<10	30	<0.5	<2	0.92	<0.5	3	22	18	1.31



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Sample Description	Method Analyte Units LOR	ME- ICP41 Ga ppm 10	ME- ICP41 Hg ppm 1	ME- ICP41 K % 0.01	ME- ICP41 La ppm 10	ME- ICP41 Mg % 0.01	ME- ICP41 Mn ppm 5	ME- ICP41 Mo ppm 1	ME- ICP41 Na % 0.01	ME- ICP41 Ni ppm 1	ME- ICP41 P ppm 10	ME- ICP41 Pb ppm 2	ME- ICP41 S % 0.01	ME- ICP41 Sb ppm 2	ME- ICP41 Sc ppm 1	ME- ICP41 Sr ppm 1
JN11008-151		<10	<1	0.14	<10	0.08	529	1	0.01	4	230	<2	0.44	9	2	408
JN11008-152		<10	<1	0.18	10	0.04	283	1	0.01	12	140	3	0.99	3	1	85
JN11008-153		<10	<1	0.16	<10	0.04	771	2	0.01	6	190	2	1.28	7	2	99
JN11008-154		<10	1	0.06	<10	0.01	228	1	0.01	38	220	<2	>10.0	143	3	19
JN11008-155		<10	1	0.12	10	1.61	1910	<1	0.02	28	340	<2	7.59	29	4	697
JN11008-156		<10	<1	0.06	<10	0.90	143	<1	0.02	2	450	2	0.36	2	1	2250
JN11008-157		<10	<1	0.22	10	0.67	270	<1	0.03	12	180	4	1.48	3	3	1470
JN11008-158		<10	1	0.20	10	1.05	250	1	0.02	17	160	5	1.25	8	4	1610
JN11008-159		<10	<1	0.36	20	0.95	172	<1	0.02	26	180	7	1.69	29	5	845
JN11008-160		<10	<1	0.37	10	1.42	143	1	0.02	29	180	7	2.46	31	5	583
JN11008-160S		<10	1	0.15	<10	0.85	816	562	0.05	11	670	37	0.22	57	1	88
JN11008-160B		<10	<1	0.31	10	0.32	416	1	0.15	4	230	5	0.01	<2	4	40
JN11008-161		<10	<1	0.28	<10	1.14	175	1	0.02	22	150	6	1.87	28	5	1080
JN11008-162		<10	1	0.27	10	0.95	241	1	0.12	21	180	13	1.80	5	5	704
JN11008-163		<10	<1	0.08	<10	1.29	924	1	0.01	6	210	7	0.62	<2	3	254
JN11008-164		<10	<1	0.13	<10	0.25	934	1	0.01	5	200	6	0.46	<2	1	529
JN11008-165		<10	<1	0.04	<10	0.37	2170	<1	0.01	3	140	4	0.42	<2	2	875
JN11008-166		<10	<1	0.06	<10	0.16	1335	1	0.01	2	80	74	0.17	<2	1	489
JN11008-167		<10	1	0.03	<10	0.37	3250	<1	0.01	2	140	23	0.22	<2	1	904
JN11008-168		<10	1	0.16	<10	0.30	692	<1	0.01	10	110	27	1.44	<2	2	1000
JN11008-169		<10	<1	0.46	<10	0.74	723	<1	0.02	33	110	77	3.36	22	4	329
JN11008-170		<10	<1	0.43	10	0.82	1450	<1	0.01	18	140	614	1.14	68	4	328
JN11008-171		<10	<1	0.33	<10	0.53	2150	<1	0.01	13	80	9810	8.28	247	2	223
JN11008-172		<10	1	0.22	10	0.31	1650	1	0.01	10	140	1150	1.51	11	2	269
JN11008-173		<10	<1	0.49	10	0.61	861	1	0.02	25	5410	35	1.96	3	3	102
JN11008-174		<10	<1	0.59	10	0.81	942	<1	0.03	37	240	52	2.16	<2	3	65
JN11008-175		<10	<1	0.57	10	0.58	588	1	0.03	44	320	13	2.09	<2	3	31
JN11008-176		<10	<1	0.44	10	0.63	1035	<1	0.02	37	190	135	1.26	<2	3	26
JN11008-177		<10	<1	0.42	10	0.83	1750	<1	0.02	31	170	367	2.68	2	3	77
JN11008-178		<10	<1	0.55	10	0.65	398	1	0.03	32	660	12	1.66	<2	3	38
JN11008-179		<10	<1	0.51	10	0.43	165	<1	0.03	38	200	13	2.19	<2	3	23
JN11008-180		<10	<1	0.61	10	0.39	240	<1	0.03	43	190	6	2.81	<2	2	29
JN11008-180S		<10	4	0.15	10	0.13	410	297	0.05	18	370	55	1.05	71	1	260
JN11008-181		<10	<1	0.54	10	0.85	756	1	0.04	41	800	24	1.40	<2	3	33
JN11008-182		<10	<1	0.65	10	0.94	398	<1	0.03	40	310	19	1.02	<2	3	35
JN11008-183		<10	<1	0.42	10	0.61	512	1	0.02	34	180	7	1.24	<2	3	29
JN11008-184		<10	<1	0.22	10	0.24	247	2	0.01	6	90	4	0.65	<2	2	30
JN11008-185		<10	<1	0.23	10	0.22	225	1	0.01	11	90	3	0.62	<2	1	26
JN11008-186		<10	<1	0.23	10	0.34	418	2	0.01	9	80	6	1.37	<2	2	48
JN11008-187		<10	<1	0.18	10	0.19	297	2	0.01	6	80	8	0.31	<2	1	28



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CERTIFICATE OF ANALYSIS WH11191148

Sample Description	Method Analyte Units LOR	ME- ICP41 Th ppm 20	ME- ICP41 Ti % 0.01	ME- ICP41 Ti ppm 10	ME- ICP41 U ppm 10	ME- ICP41 V ppm 1	ME- ICP41 W ppm 10	ME- ICP41 Zn ppm 2	Zn- OG46 Zn % 0.001
JN11008-151		<20	<0.01	<10	<10	5	<10	91	
JN11008-152		<20	<0.01	<10	<10	4	<10	38	
JN11008-153		<20	<0.01	<10	<10	5	<10	36	
JN11008-154		<20	<0.01	<10	<10	4	<10	33	
JN11008-155		<20	<0.01	<10	<10	9	<10	282	
JN11008-156		20	<0.01	<10	10	4	<10	8	
JN11008-157		20	<0.01	<10	<10	11	<10	57	
JN11008-158		20	<0.01	<10	<10	12	<10	39	
JN11008-159		20	<0.01	<10	<10	14	<10	42	
JN11008-160		<20	<0.01	<10	<10	16	<10	113	
JN11008-160S		<20	0.09	<10	<10	28	<10	95	
JN11008-160B		<20	0.11	<10	<10	29	<10	30	
JN11008-161		<20	<0.01	<10	<10	12	<10	86	
JN11008-162		<20	0.02	<10	<10	26	<10	58	
JN11008-163		<20	<0.01	<10	<10	6	<10	13	
JN11008-164		<20	<0.01	<10	<10	4	<10	8	
JN11008-165		<20	<0.01	<10	<10	1	<10	3	
JN11008-166		<20	<0.01	<10	<10	1	<10	9	
JN11008-167		<20	<0.01	<10	<10	1	<10	6	
JN11008-168		<20	<0.01	<10	<10	4	<10	35	
JN11008-169		<20	<0.01	<10	<10	13	<10	164	
JN11008-170		<20	<0.01	<10	<10	8	<10	2620	
JN11008-171		<20	<0.01	<10	<10	8	<10	>10000	1.240
JN11008-172		<20	<0.01	<10	<10	5	<10	811	
JN11008-173		<20	<0.01	<10	<10	10	<10	128	
JN11008-174		<20	<0.01	<10	<10	14	<10	142	
JN11008-175		<20	<0.01	<10	<10	15	<10	86	
JN11008-176		<20	<0.01	<10	<10	13	<10	117	
JN11008-177		<20	<0.01	<10	<10	11	<10	813	
JN11008-178		<20	<0.01	<10	<10	15	<10	87	
JN11008-179		<20	<0.01	<10	<10	15	<10	114	
JN11008-180		<20	<0.01	<10	<10	11	<10	93	
JN11008-180S		<20	0.01	<10	<10	17	<10	48	
JN11008-181		<20	<0.01	<10	<10	14	<10	98	
JN11008-182		<20	<0.01	<10	<10	15	<10	106	
JN11008-183		<20	<0.01	<10	<10	12	<10	109	
JN11008-184		<20	<0.01	<10	<10	8	<10	13	
JN11008-185		<20	<0.01	<10	<10	5	<10	14	
JN11008-186		<20	<0.01	<10	<10	4	<10	100	
JN11008-187		<20	<0.01	<10	<10	4	<10	21	



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Sample Description	Method Analyte Units LOR	WEI- 21 Recvd Wt. kg 0.02	Au- AA23 Au ppm 0.005	ME- ICP41 Ag ppm 0.2	ME- ICP41 Al % 0.01	ME- ICP41 As ppm 2	ME- ICP41 B ppm 10	ME- ICP41 Ba ppm 10	ME- ICP41 Be ppm 0.5	ME- ICP41 Bi ppm 2	ME- ICP41 Ca % 0.01	ME- ICP41 Cd ppm 0.5	ME- ICP41 Co ppm 1	ME- ICP41 Cr ppm 1	ME- ICP41 Cu ppm 1	ME- ICP41 Fe % 0.01
JN11008- 188		2.05	0.010	0.7	0.42	21	<10	20	<0.5	<2	0.97	5.3	3	29	70	2.42
JN11008- 189		2.67	0.026	0.3	0.33	150	<10	30	<0.5	<2	1.11	<0.5	3	22	43	1.82
JN11008- 190		2.70	0.013	0.9	0.48	46	<10	40	<0.5	<2	1.03	4.3	3	28	39	1.92
JN11008- 191		1.58	0.150	0.3	0.24	682	<10	20	<0.5	<2	0.52	<0.5	2	27	22	1.42
JN11008- 192		2.17	0.019	<0.2	0.37	59	10	20	<0.5	<2	0.75	<0.5	3	27	9	1.83
JN11008- 193		2.22	0.065	0.3	0.45	142	10	40	<0.5	<2	1.22	0.9	8	19	23	2.17
JN11008- 194		1.58	0.080	0.3	0.56	328	<10	60	<0.5	<2	1.61	<0.5	6	16	30	1.84
JN11008- 195		2.15	0.010	<0.2	0.44	33	<10	40	<0.5	<2	0.80	<0.5	4	20	18	1.70
JN11008- 196		2.76	0.009	<0.2	0.51	57	<10	30	<0.5	<2	1.12	<0.5	3	26	19	1.92
JN11008- 197		2.36	<0.005	0.3	0.38	17	<10	30	<0.5	<2	0.99	<0.5	4	20	12	1.79
JN11008- 198		2.23	0.026	0.2	0.37	62	<10	20	<0.5	<2	0.87	<0.5	3	25	18	2.07
JN11008- 199		2.48	0.006	0.2	0.29	24	<10	20	<0.5	<2	1.21	<0.5	3	24	10	1.70
JN11008- 200		2.67	0.007	0.3	0.56	24	<10	50	<0.5	<2	1.34	<0.5	8	21	34	2.79
JN11008- 200S		0.05	3.54	75.9	1.30	92	<10	80	<0.5	5	2.00	<0.5	9	18	763	3.23
JN11008- 200B		0.05	<0.005	<0.2	0.96	<2	<10	180	<0.5	<2	0.38	<0.5	3	9	21	1.92
JN11008- 201		2.47	0.010	0.3	0.64	39	<10	60	0.5	<2	1.39	<0.5	18	15	38	4.10
JN11008- 202		1.93	0.011	0.4	0.77	24	<10	60	0.7	<2	1.94	0.6	13	21	38	3.63



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Sample Description	Method Analyte Units LOR	ME- ICP41 Ga ppm 10	ME- ICP41 Hg ppm 1	ME- ICP41 K % 0.01	ME- ICP41 La ppm 10	ME- ICP41 Mg % 0.01	ME- ICP41 Mn ppm 5	ME- ICP41 Mo ppm 1	ME- ICP41 Na % 0.01	ME- ICP41 Ni ppm 1	ME- ICP41 P ppm 10	ME- ICP41 Pb ppm 2	ME- ICP41 S % 0.01	ME- ICP41 Sb ppm 2	ME- ICP41 Sc ppm 1	ME- ICP41 Sr ppm 1
JN11008-188		<10	<1	0.18	10	0.21	431	2	0.01	7	80	89	1.23	<2	2	25
JN11008-189		<10	<1	0.20	10	0.27	472	2	0.01	8	70	9	0.91	<2	1	44
JN11008-190		<10	<1	0.27	10	0.25	812	2	0.01	8	90	292	0.88	<2	2	36
JN11008-191		<10	<1	0.13	10	0.15	264	2	0.01	5	40	4	0.76	4	1	24
JN11008-192		<10	<1	0.20	10	0.23	289	2	0.01	7	70	3	0.79	<2	1	38
JN11008-193		<10	<1	0.26	10	0.36	529	1	0.01	17	150	17	1.40	2	2	63
JN11008-194		<10	<1	0.33	10	0.48	735	1	0.01	13	100	6	0.84	4	2	86
JN11008-195		<10	<1	0.25	10	0.22	288	1	0.01	11	100	4	0.86	<2	1	29
JN11008-196		<10	<1	0.22	10	0.28	334	2	0.01	9	80	4	0.48	<2	1	27
JN11008-197		<10	<1	0.20	10	0.29	291	1	0.01	9	70	7	0.67	<2	1	28
JN11008-198		<10	<1	0.19	10	0.28	307	2	0.01	9	70	4	0.76	<2	1	27
JN11008-199		<10	<1	0.14	10	0.31	313	2	0.01	7	70	4	0.44	<2	1	32
JN11008-200		<10	<1	0.30	10	0.48	514	2	0.01	16	110	7	0.82	<2	2	44
JN11008-200S		<10	1	0.16	<10	0.88	858	588	0.05	9	680	38	0.22	52	2	98
JN11008-200B		<10	<1	0.32	10	0.31	494	1	0.17	2	230	5	<0.01	<2	4	51
JN11008-201		<10	<1	0.35	10	0.74	805	1	0.02	31	320	20	1.52	<2	3	47
JN11008-202		<10	<1	0.35	10	0.51	991	1	0.02	23	180	153	1.58	<2	3	58



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CERTIFICATE OF ANALYSIS WH11191148

Sample Description	Method Analyte Units LOR	ME- ICP41 Th ppm 20	ME- ICP41 Ti % 0.01	ME- ICP41 Tl ppm 10	ME- ICP41 U ppm 10	ME- ICP41 V ppm 1	ME- ICP41 W ppm 10	ME- ICP41 Zn ppm 2	Zn- OG46 Zn % 0.001
JN11008- 188		<20	<0.01	<10	<10	6	<10	605	
JN11008- 189		<20	<0.01	<10	<10	3	<10	15	
JN11008- 190		<20	<0.01	<10	<10	5	<10	499	
JN11008- 191		<20	<0.01	<10	<10	2	<10	10	
JN11008- 192		<20	<0.01	<10	<10	3	<10	12	
JN11008- 193		<20	<0.01	<10	<10	4	<10	113	
JN11008- 194		<20	<0.01	<10	<10	6	<10	15	
JN11008- 195		<20	<0.01	<10	<10	4	<10	18	
JN11008- 196		<20	<0.01	<10	<10	6	<10	15	
JN11008- 197		<20	<0.01	<10	<10	4	<10	16	
JN11008- 198		<20	<0.01	<10	<10	5	<10	42	
JN11008- 199		<20	<0.01	<10	<10	7	<10	39	
JN11008- 200		<20	<0.01	<10	<10	7	<10	39	
JN11008- 200S		<20	0.10	<10	<10	31	<10	101	
JN11008- 200B		<20	0.11	<10	<10	28	<10	32	
JN11008- 201		<20	<0.01	<10	<10	10	<10	76	
JN11008- 202		<20	<0.01	<10	<10	12	<10	133	



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QC CERTIFICATE WH11191148

Project:

P.O. No.: JN11- 008

This report is for 217 Drill Core samples submitted to our lab in Whitehorse, YT, Canada on 19- SEP- 2011.

The following have access to data associated with this certificate:

JESSE CAMPBELL

CHRIS GALLAGHER

SAMPLE PREPARATION

ALS CODE	DESCRIPTION
WEI- 21	Received Sample Weight
LOG- 22	Sample login - Rcd w/o BarCode
LOG- 24	Pulp Login - Rcd w/o Barcode
SPL- 22Y	Split Sample - Boyd Rotary Splitter
BAG- 01	Bulk Master for Storage
CRU- QC	Crushing QC Test
PUL- QC	Pulverizing QC Test
CRU- 31	Fine crushing - 70% <2mm
PUL- 32m	Pulverize 500g - 85%< 75um

ANALYTICAL PROCEDURES

ALS CODE	DESCRIPTION	INSTRUMENT
ME- OG46	Ore Grade Elements - AquaRegia	ICP- AES
Zn- OG46	Ore Grade Zn - Aqua Regia	VARIABLE
Au- AA23	Au 30g FA- AA finish	AAS
ME- ICP41	35 Element Aqua Regia ICP- AES	ICP- AES

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This is the Final Report and supersedes any preliminary report with this certificate number. Results apply to samples as submitted. All pages of this report have been checked and approved for release.

Signature:

Colin Ramshaw, Vancouver Laboratory Manager



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Method	Au-AA23	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41
Analyte	Au	Ag	Al	As	B	Ba	Be	Bi	Ca	Cd	Co	Cr	Cu	Fe	Ga
Units	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	%	ppm
LOR	0.005	0.2	0.01	2	10	10	0.5	2	0.01	0.5	1	1	1	0.01	10
Sample Description	STANDARDS														
GBM908- 10	2.8	0.93	56	<10	100	<0.5	2	0.63	1.6	14	21	3440	2.62	<10	
GBM908- 10	2.9	0.91	57	<10	80	<0.5	<2	0.66	1.5	13	22	3530	2.62	<10	
GBM908- 10	3.3	0.98	56	<10	110	<0.5	<2	0.70	1.7	15	22	3500	2.67	<10	
GBM908- 10	2.9	0.98	60	<10	100	<0.5	<2	0.67	1.6	14	23	3620	2.67	<10	
GBM908- 10	3.1	0.91	58	<10	100	<0.5	<2	0.69	2.2	14	22	3490	2.71	<10	
GBM908- 10	3.1	1.01	56	<10	110	<0.5	2	0.72	1.7	15	24	3730	2.85	<10	
GBM908- 5	58.7	1.13	6	<10	190	<0.5	<2	0.72	<0.5	11	18	477	2.38	<10	
GBM908- 5	59.2	1.17	3	<10	170	<0.5	<2	0.74	<0.5	9	18	499	2.40	10	
GBM908- 5	58.2	1.15	7	<10	190	<0.5	<2	0.74	<0.5	10	18	493	2.40	<10	
MP- 1b	4.1	2.59	33	<10	400	0.7	2	1.01	1.9	17	85	595	3.46	10	
MRGeo08	4.1	2.56	33	<10	380	0.7	<2	1.05	1.9	16	86	594	3.44	10	
MRGeo08	4.7	2.64	33	<10	400	0.7	<2	1.05	2.1	18	87	598	3.49	10	
MRGeo08	4.2	2.64	34	<10	410	0.7	<2	1.06	1.9	17	91	634	3.47	10	
MRGeo08	4.5	2.62	32	<10	430	0.7	<2	1.07	2.8	17	92	601	3.50	10	
MRGeo08	4.6	2.69	33	<10	440	0.8	<2	1.11	2.2	18	93	627	3.68	10	
OGGeo08	19.9	2.24	121	<10	90	0.7	6	0.90	18.6	90	80	8050	4.93	<10	
OGGeo08	20.3	2.30	125	<10	160	0.7	14	0.93	18.6	94	83	8710	5.19	10	
OGGeo08	20.1	2.24	123	<10	70	0.7	12	0.93	18.6	92	81	8270	5.11	<10	



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QC CERTIFICATE OF ANALYSIS WH11191148

Sample Description	Method Analyte Units LOR	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	Zn- OG46
		Ti	Ti	U	V	W	Zn	Zn
		%	ppm	ppm	ppm	ppm	ppm	%
		0.01	10	10	1	10	2	0.001
STANDARDS								
GBM908- 10		0.30	<10	<10	45	<10	1000	
GBM908- 10		0.31	<10	<10	46	<10	977	
GBM908- 10		0.31	<10	<10	47	<10	1000	
GBM908- 10		0.31	<10	<10	47	<10	1030	
GBM908- 10		0.31	<10	<10	48	<10	1000	
GBM908- 10		0.33	<10	<10	51	<10	1045	
GBM908- 5		0.16	<10	<10	26	<10	227	
GBM908- 5		0.17	<10	<10	27	<10	233	
GBM908- 5		0.18	<10	<10	27	<10	236	
MP- 1b								16.60
MRGeo08		0.36	<10	<10	94	<10	738	
MRGeo08		0.37	<10	<10	96	<10	749	
MRGeo08		0.37	<10	<10	97	<10	766	
MRGeo08		0.38	<10	<10	101	<10	782	
MRGeo08		0.37	<10	<10	101	<10	765	
MRGeo08		0.39	<10	<10	105	<10	806	
OGGeo08		0.30	<10	<10	78	<10	6710	
OGGeo08		0.32	<10	<10	81	<10	7100	
OGGeo08		0.31	<10	<10	80	<10	6560	
OGGeo08								0.733



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WH11191148

[illegible]



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QC CERTIFICATE OF ANALYSIS WH11191148

Sample Description	Method Analyte Units LOR	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	Zn- OG46
		Ti	Ti	U	V	W	Zn	Zn
		%	ppm	ppm	ppm	ppm	ppm	%
		0.01	10	10	1	10	2	0.001
STANDARDS								
OREAS 65a								
OREAS 65a								
OREAS- 16b								
OREAS- 16b								
OREAS- 16b								
OREAS- 16b								
OxC88								
OxC88								
OxC88								
OxC88								
OxL78								
OxL78								
BLANKS								
BLANK								
BLANK								
BLANK								
BLANK								
BLANK								



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QC CERTIFICATE OF ANALYSIS WH11191148

Sample Description	Method Analyte Units LOR	Au- AA23 Au ppm	ME- ICP41 Ag ppm	ME- ICP41 Al %	ME- ICP41 As ppm	ME- ICP41 B ppm	ME- ICP41 Ba ppm	ME- ICP41 Be ppm	ME- ICP41 Bi ppm	ME- ICP41 Ca %	ME- ICP41 Cd ppm	ME- ICP41 Co ppm	ME- ICP41 Cr ppm	ME- ICP41 Cu ppm	ME- ICP41 Fe %	ME- ICP41 Ga ppm
		0.005	0.2	0.01	2	10	10	0.5	2	0.01	0.5	1	1	1	0.01	10
ORIGINAL DUP		0.444 0.330	DUPLICATES													
ORIGINAL DUP		0.011 0.012														
ORIGINAL DUP		<0.005 <0.005														
ORIGINAL DUP		<0.005 <0.005														
ORIGINAL DUP		0.514 0.520														
ORIGINAL DUP			<0.2 <0.2	3.82 3.77	8 6	<10 <10	40 40	<0.5 <0.5	<2 <2	2.20 2.14	<0.5 <0.5	16 15	36 36	25 25	5.14 5.01	10 10
JN11008- 009 DUP		<0.005 <0.005														
JN11008- 012 DUP			0.4 0.4	0.31 0.31	98 99	<10 <10	20 20	<0.5 <0.5	<2 <2	0.49 0.48	0.6 0.6	5 5	28 27	14 14	1.43 1.39	<10 <10



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QC CERTIFICATE OF ANALYSIS WH11191148

Sample Description	Method Analyte Units LOR	ME- ICP41 Hg ppm	ME- ICP41 K %	ME- ICP41 La ppm	ME- ICP41 Mg %	ME- ICP41 Mn ppm	ME- ICP41 Mo ppm	ME- ICP41 Na %	ME- ICP41 Ni ppm	ME- ICP41 P ppm	ME- ICP41 Pb ppm	ME- ICP41 S %	ME- ICP41 Sb ppm	ME- ICP41 Sc ppm	ME- ICP41 Sr ppm	ME- ICP41 Th ppm
		1	0.01	10	0.01	5	1	0.01	1	10	2	0.01	2	1	1	20
ORIGINAL DUP		DUPLICATES														
ORIGINAL DUP																
ORIGINAL DUP																
ORIGINAL DUP																
ORIGINAL DUP																
ORIGINAL DUP		<1	0.14	10	2.25	896	1	0.18	5	1120	9	0.48	<2	10	85	<20
		<1	0.14	10	2.19	872	<1	0.18	4	1090	8	0.48	<2	10	85	<20
JN11008- 009 DUP																
JN11008- 012 DUP		<1	0.15	10	0.12	440	3	<0.01	10	150	47	0.38	7	1	24	<20
		<1	0.14	10	0.12	431	3	<0.01	9	150	46	0.36	7	1	24	<20



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QC CERTIFICATE OF ANALYSIS WH11191148

Sample Description	Method Analyte Units LOR	ME- ICP41 Ti %	ME- ICP41 Ti ppm	ME- ICP41 U ppm	ME- ICP41 V ppm	ME- ICP41 W ppm	ME- ICP41 Zn ppm	Zn- OG46 Zn %
		0.01	10	10	1	10	2	0.001
ORIGINAL DUP		DUPLICATES						
ORIGINAL DUP								
ORIGINAL DUP								
ORIGINAL DUP								
ORIGINAL DUP								
ORIGINAL DUP								
ORIGINAL DUP		0.22 0.21	<10 <10	<10 <10	109 106	<10 <10	99 96	
JN11008- 009 DUP								
JN11008- 012 DUP		<0.01 <0.01	<10 <10	<10 <10	2 3	10 10	100 98	



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Sample Description	Method Analyte Units LOR	ME- ICP41 Ti %	ME- ICP41 Ti ppm	ME- ICP41 U ppm	ME- ICP41 V ppm	ME- ICP41 W ppm	ME- ICP41 Zn ppm	Zn- OG46 Zn %
		0.01	10	10	1	10	2	0.001
JN11008- 028 DUP		DUPLICATES						
JN11008- 045 DUP		<0.01 <0.01	<10 <10	<10 <10	4 4	<10 <10	15 14	
JN11008- 046 DUP								
JN11008- 055 DUP								
JN11008- 080 DUP		<0.01 <0.01	<10 <10	<10 <10	6 6	<10 <10	40 43	
JN11008- 081 DUP								
JN11008- 118 DUP		<0.01 <0.01	<10 <10	<10 <10	4 4	<10 <10	15 15	
JN11008- 120 DUP								



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QC CERTIFICATE OF ANALYSIS WH11191148

Sample Description	Method Analyte Units LOR	Au- AA23 Au ppm 0.005	ME- ICP41 Ag ppm 0.2	ME- ICP41 Al % 0.01	ME- ICP41 As ppm 2	ME- ICP41 B ppm 10	ME- ICP41 Ba ppm 10	ME- ICP41 Be ppm 0.5	ME- ICP41 Bi ppm 2	ME- ICP41 Ca % 0.01	ME- ICP41 Cd ppm 0.5	ME- ICP41 Co ppm 1	ME- ICP41 Cr ppm 1	ME- ICP41 Cu ppm 1	ME- ICP41 Fe % 0.01	ME- ICP41 Ga ppm 10
DUPLICATES																
JN11008- 172 DUP		2.2 2.1	0.40 0.42	329 342	<10 <10	30 30	<0.5 <0.5	<2 <2	9.9 10.10	6.2 6.3	4 4	12 11	31 31	1.96 1.99	<10 <10	
JN11008- 173 DUP		0.048 0.043														
JN11008- 192 DUP		0.019 0.018														
ORIGINAL DUP		0.9 0.9	1.22 1.15	27 24	<10 <10	530 500	1.0 1.0	<2 <2	2.24 2.12	8.7 8.2	6 5	7 7	20 18	3.17 3.02	<10 <10	
PREP DUPLICATES																
JN11008- 050 JN11008- 050 PREP DUP		0.224 0.107	<0.2 0.2	0.24 0.27	39 47	<10 <10	<10 20	<0.5 <0.5	<2 <2	0.40 0.43	<0.5 <0.5	2 3	26 28	1 3	1.20 1.13	<10 <10
JN11008- 100 JN11008- 100 PREP DUP		<0.005 <0.005	<0.2 0.2	1.13 1.33	16 15	<10 <10	60 80	0.7 0.8	<2 <2	1.65 1.66	<0.5 <0.5	12 12	27 28	58 60	5.10 5.19	<10 <10
JN11008- 150 JN11008- 150 PREP DUP		0.354 0.341	<0.2 0.2	0.22 0.26	783 796	<10 <10	10 10	<0.5 <0.5	<2 <2	16.6 16.3	<0.5 <0.5	2 2	7 9	4 4	0.75 0.72	<10 <10
JN11008- 200 JN11008- 200 PREP DUP		0.007 0.008	0.3 0.2	0.56 0.69	24 24	<10 <10	50 50	<0.5 <0.5	<2 <2	1.34 1.32	<0.5 <0.5	6 8	21 29	34 34	2.79 2.73	<10 <10



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QC CERTIFICATE OF ANALYSIS WH11191148

Sample Description	Method Analyte Units LOR	ME- ICP41 Hg ppm 1	ME- ICP41 K % 0.01	ME- ICP41 La ppm 10	ME- ICP41 Mg % 0.01	ME- ICP41 Mn ppm 5	ME- ICP41 Mo ppm 1	ME- ICP41 Na % 0.01	ME- ICP41 Ni ppm 1	ME- ICP41 P ppm 10	ME- ICP41 Pb ppm 2	ME- ICP41 S % 0.01	ME- ICP41 Sb ppm 2	ME- ICP41 Sc ppm 1	ME- ICP41 Sr ppm 1	ME- ICP41 Th ppm 20
DUPLICATES																
JN11008-172 DUP		1	0.22	10	0.31	1650	1	0.01	10	140	1150	1.51	11	2	269	<20
		<1	0.23	10	0.31	1675	1	0.01	10	140	1180	1.55	9	2	275	<20
JN11008-173 DUP																
JN11008-192 DUP																
ORIGINAL DUP		<1	0.41	20	0.73	1060	<1	0.02	4	760	372	0.29	<2	7	152	<20
		<1	0.38	20	0.70	1010	<1	0.02	4	720	353	0.27	<2	7	143	<20
PREP DUPLICATES																
JN11008-050 JN11008-050 PREP DUP		<1	0.12	10	0.10	185	2	0.01	3	140	4	0.43	5	1	20	<20
		<1	0.13	10	0.09	184	3	0.01	5	140	3	0.44	3	1	23	<20
JN11008-100 JN11008-100 PREP DUP		<1	0.42	30	0.79	1095	<1	0.02	30	680	16	0.63	3	5	46	20
		<1	0.46	30	0.80	1120	<1	0.02	32	650	15	0.60	<2	5	48	20
JN11008-150 JN11008-150 PREP DUP		<1	0.09	<10	0.24	571	1	0.01	4	130	2	0.19	13	1	463	<20
		<1	0.11	<10	0.23	588	1	0.01	3	130	3	0.19	10	2	468	<20
JN11008-200 JN11008-200 PREP DUP		<1	0.30	10	0.48	514	2	0.01	16	110	7	0.82	<2	2	44	<20
		<1	0.35	10	0.47	500	2	0.02	16	100	6	0.81	<2	2	44	<20



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QC CERTIFICATE OF ANALYSIS WH11191148

Sample Description	Method Analyte Units LOR	ME- ICP41 Ti %	ME- ICP41 Ti ppm	ME- ICP41 U ppm	ME- ICP41 V ppm	ME- ICP41 W ppm	ME- ICP41 Zn ppm	Zn- OG46 Zn %
		0.01	10	10	1	10	2	0.001
DUPLICATES								
JN11008- 172		<0.01	<10	<10	5	<10	811	
DUP		<0.01	<10	<10	5	<10	815	
JN11008- 173								
DUP								
JN11008- 192								
DUP								
ORIGINAL		<0.01	<10	<10	28	<10	619	
DUP		<0.01	<10	<10	28	<10	587	
PREP DUPLICATES								
JN11008- 050		<0.01	<10	<10	2	<10	7	
JN11008- 050 PREP DUP		<0.01	<10	<10	2	<10	9	
JN11008- 100		<0.01	<10	<10	33	<10	44	
JN11008- 100 PREP DUP		<0.01	<10	<10	35	<10	44	
JN11008- 150		<0.01	<10	<10	4	<10	20	
JN11008- 150 PREP DUP		<0.01	<10	<10	3	<10	20	
JN11008- 200		<0.01	<10	<10	7	<10	39	
JN11008- 200 PREP DUP		<0.01	<10	<10	8	<10	39	



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CERTIFICATE WH11176492

Project:

P.O. No.:

This report is for 232 Drill Core samples submitted to our lab in Whitehorse, YT, Canada on 19- SEP- 2011.

The following have access to data associated with this certificate:

JESSE CAMPBELL

CHRIS GALLAGHER

SAMPLE PREPARATION

ALS CODE	DESCRIPTION
WEI- 21	Received Sample Weight
LOG- 24	Pulp Login - Rcd w/o Barcode
LOG- 22	Sample login - Rcd w/o BarCode
CRU- QC	Crushing QC Test
PUL- QC	Pulverizing QC Test
SPL- 22Y	Split Sample - Boyd Rotary Splitter
CRU- 31	Fine crushing - 70% < 2mm
PUL- 32m	Pulverize 500g - 85% < 75um

ANALYTICAL PROCEDURES

ALS CODE	DESCRIPTION	INSTRUMENT
ME- OG46	Ore Grade Elements - AquaRegia	ICP- AES
Au- AA23	Au 30g FA- AA finish	AAS
Au- GRA21	Au 30g FA- GRAV finish	WST- SIM
ME- ICP41	35 Element Aqua Regia ICP- AES	ICP- AES
Ag- OG46	Ore Grade Ag - Aqua Regia	VARIABLE

To: TERRALOGIC EXPLORATION SERVICES INC.
ATTN: CHRIS GALLAGHER
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This is the Final Report and supersedes any preliminary report with this certificate number. Results apply to samples as submitted. All pages of this report have been checked and approved for release.

Signature:

Colin Ramshaw, Vancouver Laboratory Manager



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CERTIFICATE OF ANALYSIS WH11176492

Sample Description	Method Analyte Units LOR	WEI- 21 Recvd Wt. kg 0.02	Au- AA23 Au ppm 0.005	Au- GRA21 Au ppm 0.05	ME- ICP41 Ag ppm 0.2	ME- ICP41 Al % 0.01	ME- ICP41 As ppm 2	ME- ICP41 B ppm 10	ME- ICP41 Ba ppm 10	ME- ICP41 Be ppm 0.5	ME- ICP41 Bi ppm 2	ME- ICP41 Ca % 0.01	ME- ICP41 Cd ppm 0.5	ME- ICP41 Co ppm 1	ME- ICP41 Cr ppm 1	ME- ICP41 Cu ppm 1
JN11009- 001		4.66	<0.005		0.2	1.30	27	<10	50	0.5	<2	0.17	<0.5	7	25	17
JN11009- 002		1.72	<0.005		0.3	0.53	10	<10	20	<0.5	<2	0.36	<0.5	5	29	56
JN11009- 003		1.68	<0.005		<0.2	1.17	6	<10	50	<0.5	<2	0.51	<0.5	7	37	14
JN11009- 004		2.19	<0.005		<0.2	0.44	2	<10	20	<0.5	<2	0.45	<0.5	3	31	11
JN11009- 005		1.08	<0.005		0.3	0.31	<2	<10	10	<0.5	<2	0.74	<0.5	4	11	13
JN11009- 006		1.24	<0.005		0.2	0.51	<2	<10	20	<0.5	<2	0.64	<0.5	4	19	9
JN11009- 007		2.83	<0.005		0.2	0.96	10	<10	60	0.5	<2	0.50	<0.5	11	21	24
JN11009- 008		1.74	<0.005		1.0	0.88	23	10	70	<0.5	2	0.29	3.2	6	13	43
JN11009- 009		1.81	0.052		3.3	0.53	>10000	30	40	<0.5	9	0.08	8.0	29	12	43
JN11009- 010		1.46	<0.005		<0.2	0.45	31	<10	10	<0.5	<2	0.26	<0.5	3	17	11
JN11009- 011		1.41	<0.005		<0.2	0.61	15	<10	40	<0.5	<2	0.36	0.5	8	20	16
JN11009- 012		2.17	<0.005		<0.2	1.24	8	<10	50	<0.5	<2	0.41	<0.5	8	30	27
JN11009- 013		2.20	<0.005		<0.2	0.77	6	<10	30	<0.5	<2	0.29	<0.5	6	24	5
JN11009- 014		2.82	<0.005		<0.2	0.57	6	<10	20	<0.5	<2	0.29	<0.5	6	13	9
JN11009- 015		1.00	<0.005		<0.2	0.48	4	<10	10	<0.5	<2	0.23	<0.5	4	11	9
JN11009- 016		1.41	<0.005		0.7	0.58	15	10	20	<0.5	12	0.22	0.8	3	10	32
JN11009- 017		0.90	0.037		2.7	0.39	423	180	30	<0.5	41	0.14	12.7	4	9	130
JN11009- 018		1.95	0.054		2.4	0.81	634	120	60	<0.5	37	0.16	<0.5	3	11	138
JN11009- 019		1.98	0.008		0.6	0.90	44	20	60	<0.5	7	0.06	0.6	3	12	77
JN11009- 020		1.85	0.034		1.7	0.87	6760	70	50	0.5	18	0.11	1.5	10	12	113
JN11009- 020S		0.03	3.30		77.1	1.35	106	<10	80	<0.5	5	1.95	<0.5	9	17	743
JN11009- 021		2.83	<0.005		0.4	1.26	55	10	80	0.6	4	0.20	1.8	7	13	76
JN11009- 022		2.08	<0.005		<0.2	1.37	18	20	110	0.6	3	0.13	<0.5	14	19	75
JN11009- 023		1.08	<0.005		<0.2	1.17	16	<10	110	0.8	<2	0.19	<0.5	15	14	32
JN11009- 024		2.19	<0.005		0.2	1.14	26	<10	110	0.7	<2	0.22	1.0	17	13	68
JN11009- 025		2.85	0.005		<0.2	1.37	46	<10	110	0.8	<2	0.20	<0.5	18	19	54
JN11009- 026		0.59	0.128		1.9	0.74	>10000	50	70	<0.5	16	0.09	3.9	68	14	63
JN11009- 027		2.26	<0.005		0.2	1.33	86	10	130	0.6	2	0.16	1.0	11	16	62
JN11009- 028		2.85	<0.005		<0.2	1.01	52	10	100	0.5	<2	0.46	<0.5	8	14	50
JN11009- 029		2.25	0.009		0.6	1.10	65	20	100	0.5	7	0.08	2.2	13	11	83
JN11009- 030		1.74	0.108		5.3	0.68	5410	130	50	<0.5	73	2.36	1.0	28	11	129
JN11009- 031		2.05	0.007		0.7	0.98	69	30	90	<0.5	5	0.07	0.6	4	11	100
JN11009- 032		1.62	0.040		2.6	0.78	2020	30	70	<0.5	61	0.08	4.3	18	10	155
JN11009- 033		1.88	0.348		4.2	1.10	>10000	40	90	0.5	101	0.06	7.6	43	12	132
JN11009- 034		1.11	0.009		1.5	0.93	188	10	100	0.5	9	0.09	17.1	10	12	104
JN11009- 035		2.59	<0.005		<0.2	1.12	64	<10	90	0.6	2	0.21	1.6	12	23	35
JN11009- 036		2.25	<0.005		<0.2	1.01	11	<10	100	0.7	<2	0.31	0.7	12	17	41
JN11009- 037		2.30	0.015		0.7	1.22	1295	<10	110	0.6	10	0.65	6.0	15	12	94
JN11009- 038		2.43	<0.005		<0.2	1.23	16	<10	110	0.8	<2	0.47	<0.5	13	17	33
JN11009- 039		3.03	0.028		<0.2	0.86	15	<10	30	0.7	22	0.93	<0.5	5	20	59



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CERTIFICATE OF ANALYSIS WH11176492

Sample Description	Method Analyte Units LOR	ME-ICP41 Fe %	ME-ICP41 Ga ppm	ME-ICP41 Hg ppm	ME-ICP41 K %	ME-ICP41 La ppm	ME-ICP41 Mg %	ME-ICP41 Mn ppm	ME-ICP41 Mo ppm	ME-ICP41 Na %	ME-ICP41 Ni ppm	ME-ICP41 P ppm	ME-ICP41 Pb ppm	ME-ICP41 S %	ME-ICP41 Sb ppm	ME-ICP41 Sc ppm
JN11009-001		2.09	10	<1	0.41	10	0.45	206	<1	0.05	16	110	6	0.17	<2	2
JN11009-002		1.64	<10	<1	0.10	10	0.21	245	<1	0.07	9	90	8	0.15	<2	2
JN11009-003		1.93	<10	<1	0.41	20	0.42	225	<1	0.06	19	130	5	0.08	2	3
JN11009-004		1.37	<10	<1	0.06	10	0.15	235	<1	0.07	6	60	5	0.05	<2	1
JN11009-005		1.37	<10	<1	0.14	10	0.18	402	<1	0.02	7	110	33	0.28	<2	1
JN11009-006		1.92	<10	<1	0.17	10	0.24	393	<1	0.04	9	120	6	0.30	<2	2
JN11009-007		2.82	<10	<1	0.37	10	0.45	796	<1	0.02	23	190	12	0.64	<2	2
JN11009-008		2.64	<10	<1	0.45	10	0.26	664	<1	0.01	19	90	88	0.66	2	1
JN11009-009		2.50	<10	<1	0.30	10	0.08	186	<1	0.01	12	140	383	1.81	17	1
JN11009-010		2.03	<10	<1	0.14	10	0.15	574	2	0.02	12	110	13	0.21	<2	2
JN11009-011		1.44	<10	<1	0.24	20	0.19	327	<1	0.01	12	350	7	0.19	<2	2
JN11009-012		2.51	<10	<1	0.39	10	0.42	384	<1	0.04	19	140	6	0.36	<2	2
JN11009-013		1.93	<10	<1	0.31	20	0.26	251	2	0.04	13	70	4	0.09	<2	2
JN11009-014		1.46	<10	<1	0.12	20	0.14	217	<1	0.01	9	80	4	0.04	<2	2
JN11009-015		1.15	<10	<1	0.13	10	0.12	252	<1	<0.01	10	240	3	0.17	<2	1
JN11009-016		1.30	<10	<1	0.25	30	0.13	267	<1	<0.01	12	140	32	0.38	2	1
JN11009-017		2.17	<10	<1	0.15	10	0.06	168	<1	0.01	15	510	109	1.35	3	1
JN11009-018		3.34	<10	<1	0.40	10	0.09	202	<1	0.01	20	540	103	2.24	5	1
JN11009-019		2.25	<10	<1	0.51	20	0.17	226	1	0.01	24	180	29	1.27	4	1
JN11009-020		3.06	<10	<1	0.46	20	0.11	235	6	0.01	23	410	69	2.04	11	1
JN11009-020S		3.13	<10	1	0.16	<10	0.85	812	675	0.04	8	660	40	0.23	58	2
JN11009-021		3.24	<10	<1	0.62	20	0.29	594	1	0.01	30	700	20	1.68	4	3
JN11009-022		3.51	<10	<1	0.54	30	0.25	577	<1	0.02	39	170	9	1.45	2	3
JN11009-023		3.34	<10	<1	0.44	30	0.19	652	<1	0.02	35	190	4	0.44	<2	2
JN11009-024		3.42	<10	<1	0.50	20	0.23	735	<1	0.04	39	280	11	1.12	<2	2
JN11009-025		3.87	<10	<1	0.52	20	0.31	759	<1	0.04	36	140	6	0.90	<2	3
JN11009-026		3.67	<10	<1	0.34	10	0.18	397	1	0.03	39	150	92	1.62	8	2
JN11009-027		3.36	<10	<1	0.61	20	0.36	654	<1	0.04	33	130	12	1.31	<2	2
JN11009-028		3.20	<10	<1	0.49	10	0.42	523	<1	0.04	29	820	8	0.88	<2	2
JN11009-029		3.03	<10	<1	0.57	10	0.34	444	<1	0.03	32	150	30	1.11	6	2
JN11009-030		3.01	<10	<1	0.30	20	0.08	188	<1	0.04	22	>10000	253	2.12	19	1
JN11009-031		3.07	<10	<1	0.54	10	0.23	369	<1	0.03	24	150	37	1.42	5	1
JN11009-032		4.30	<10	<1	0.45	20	0.18	364	<1	0.04	29	180	74	2.93	9	1
JN11009-033		5.19	<10	<1	0.58	10	0.17	236	<1	0.04	28	140	135	3.22	23	1
JN11009-034		4.01	<10	<1	0.47	10	0.30	589	<1	0.02	25	130	76	1.98	3	2
JN11009-035		3.71	<10	<1	0.43	20	0.25	699	<1	0.04	31	140	8	0.67	<2	2
JN11009-036		3.23	<10	<1	0.41	10	0.22	568	<1	0.04	33	130	7	0.68	<2	1
JN11009-037		4.26	<10	<1	0.61	20	0.60	909	<1	0.04	41	160	51	1.91	2	2
JN11009-038		3.58	<10	<1	0.49	10	0.31	652	<1	0.04	33	1170	11	0.78	<2	2
JN11009-039		2.21	<10	<1	0.14	10	0.25	332	<1	0.09	7	70	2	0.39	<2	1



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CERTIFICATE OF ANALYSIS WH11176492

Sample Description	Method Analyte Units LOR	ME- ICP41 Sr ppm 1	ME- ICP41 Th ppm 20	ME- ICP41 Ti % 0.01	ME- ICP41 Ti ppm 10	ME- ICP41 U ppm 10	ME- ICP41 V ppm 1	ME- ICP41 W ppm 10	ME- ICP41 Zn ppm 2	Ag- OG46 Ag ppm 1
JN11009-001		11	<20	0.04	<10	<10	18	<10	41	
JN11009-002		19	<20	0.05	<10	<10	11	<10	28	
JN11009-003		26	<20	0.07	<10	<10	23	<10	32	
JN11009-004		17	<20	0.05	<10	<10	11	10	24	
JN11009-005		23	<20	<0.01	<10	<10	4	<10	65	
JN11009-006		23	<20	0.01	<10	<10	8	<10	32	
JN11009-007		21	<20	0.01	<10	<10	14	<10	65	
JN11009-008		12	<20	<0.01	<10	<10	7	<10	337	
JN11009-009		8	<20	<0.01	<10	<10	4	<10	776	
JN11009-010		10	<20	<0.01	<10	<10	7	<10	34	
JN11009-011		19	20	0.01	<10	<10	10	<10	92	
JN11009-012		21	<20	0.03	<10	<10	18	<10	51	
JN11009-013		12	<20	0.02	<10	<10	17	<10	32	
JN11009-014		17	<20	0.01	<10	<10	9	<10	24	
JN11009-015		10	<20	<0.01	<10	<10	5	<10	16	
JN11009-016		11	<20	<0.01	<10	<10	4	<10	90	
JN11009-017		11	20	0.01	<10	<10	4	<10	1220	
JN11009-018		8	<20	0.01	<10	<10	7	<10	42	
JN11009-019		6	<20	0.01	<10	<10	9	<10	72	
JN11009-020		6	<20	<0.01	<10	<10	8	<10	151	
JN11009-020S		98	<20	0.10	<10	<10	31	<10	96	
JN11009-021		10	20	0.01	<10	<10	14	<10	202	
JN11009-022		9	<20	0.01	<10	<10	22	<10	33	
JN11009-023		10	<20	<0.01	<10	<10	17	<10	71	
JN11009-024		8	<20	<0.01	<10	<10	16	<10	128	
JN11009-025		9	<20	0.01	<10	<10	24	<10	74	
JN11009-026		6	<20	<0.01	<10	<10	12	<10	380	
JN11009-027		9	<20	0.01	<10	<10	17	<10	114	
JN11009-028		20	<20	<0.01	<10	<10	15	<10	54	
JN11009-029		6	<20	<0.01	<10	<10	13	<10	227	
JN11009-030		99	<20	0.01	<10	<10	6	<10	92	
JN11009-031		7	<20	0.01	<10	<10	10	<10	63	
JN11009-032		6	<20	0.01	<10	<10	9	<10	383	
JN11009-033		5	<20	0.01	<10	<10	10	<10	685	
JN11009-034		6	<20	0.01	<10	<10	14	<10	1550	
JN11009-035		8	<20	<0.01	<10	<10	26	<10	186	
JN11009-036		12	<20	<0.01	<10	<10	19	<10	103	
JN11009-037		46	<20	0.01	<10	<10	16	<10	584	
JN11009-038		20	<20	<0.01	<10	<10	20	<10	72	
JN11009-039		27	<20	0.03	<10	<10	8	10	17	



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Sample Description	Method Analyte Units LOR	WEI- 21 Recvd Wt. kg 0.02	Au- AA23 Au ppm 0.005	Au- GRA21 Au ppm 0.05	ME- ICP41 Ag ppm 0.2	ME- ICP41 Al % 0.01	ME- ICP41 As ppm 2	ME- ICP41 B ppm 10	ME- ICP41 Ba ppm 10	ME- ICP41 Be ppm 0.5	ME- ICP41 Bi ppm 2	ME- ICP41 Ca % 0.01	ME- ICP41 Cd ppm 0.5	ME- ICP41 Co ppm 1	ME- ICP41 Cr ppm 1	ME- ICP41 Cu ppm 1
JN11009- 040		3.28	0.021		0.2	0.94	6	<10	10	0.5	28	1.43	<0.5	5	18	157
JN11009- 040S		0.03	1.440		32.0	0.35	23	<10	260	<0.5	<2	1.24	<0.5	9	28	2990
JN11009- 040B		0.03	<0.005		<0.2	0.93	2	<10	170	<0.5	<2	0.36	<0.5	4	8	26
JN11009- 041		2.50	0.017		0.2	1.21	4820	<10	70	0.8	15	1.13	<0.5	20	20	60
JN11009- 042		1.66	0.009		<0.2	0.38	17	<10	10	<0.5	10	0.65	<0.5	3	21	28
JN11009- 043		1.75	<0.005		<0.2	1.58	14	<10	30	1.2	<2	0.38	<0.5	19	27	109
JN11009- 044		0.74	0.010		0.5	0.99	36	<10	80	0.9	11	0.33	1.0	14	19	148
JN11009- 045		1.35	0.005		0.2	1.55	84	<10	90	1.0	4	0.23	0.8	13	16	141
JN11009- 046		0.54	1.150		>100	1.05	>10000	<10	40	1.0	2100	0.35	3.5	143	12	473
JN11009- 047		0.80	0.433		13.6	1.49	322	<10	30	2.2	377	1.26	<0.5	10	27	118
JN11009- 048		1.08	0.061		2.0	1.66	304	<10	20	2.1	76	1.02	<0.5	11	42	106
JN11009- 049		1.02	0.021		<0.2	1.96	8	<10	10	2.1	33	3.29	<0.5	4	24	15
JN11009- 050		2.16	0.051		<0.2	2.65	21	30	10	2.8	32	8.0	<0.5	6	18	94
JN11009- 051		0.80	0.434		6.6	0.85	12	<10	30	3.9	422	1.59	<0.5	17	12	650
JN11009- 052		2.25	0.014		<0.2	1.38	9	<10	20	3.2	13	1.53	<0.5	14	21	91
JN11009- 053		1.51	0.010		<0.2	1.10	11	<10	30	3.5	11	1.63	<0.5	12	15	174
JN11009- 054		1.07	0.010		0.3	1.42	31	<10	50	2.1	13	0.95	<0.5	16	20	243
JN11009- 055		1.32	<0.005		<0.2	2.00	9	<10	110	1.3	<2	0.44	<0.5	9	23	31
JN11009- 056		2.94	0.010		<0.2	6.63	10	<10	120	1.5	8	3.49	<0.5	13	67	68
JN11009- 057		2.77	0.015		<0.2	6.72	13	<10	70	1.6	13	4.46	<0.5	12	46	62
JN11009- 058		3.28	<0.005		<0.2	7.27	9	<10	90	1.6	<2	4.56	<0.5	13	58	59
JN11009- 059		2.57	<0.005		<0.2	6.17	11	<10	100	1.5	<2	3.60	<0.5	12	50	39
JN11009- 060		2.41	<0.005		<0.2	6.30	11	<10	120	1.6	<2	3.60	<0.5	14	53	54
JN11009- 060S		0.03	3.77		74.6	1.33	91	<10	70	<0.5	6	1.98	<0.5	11	18	733
JN11009- 61		1.62	0.005		0.3	1.70	7	<10	40	1.3	<2	1.14	<0.5	15	24	63
JN11009- 62		1.52	0.020		<0.2	1.67	4	<10	<10	1.9	15	0.80	<0.5	16	31	101
JN11009- 63		2.05	0.026		0.2	1.77	6	<10	10	1.7	23	0.75	<0.5	18	40	175
JN11009- 64		2.21	0.025		<0.2	1.88	4	<10	<10	1.4	24	0.72	<0.5	25	49	168
JN11009- 65		1.48	0.051		0.9	1.28	7	<10	60	1.2	26	0.53	<0.5	14	28	172
JN11009- 66		1.62	0.030		0.2	1.81	9	<10	10	2.1	33	1.24	<0.5	15	40	44
JN11009- 67		1.70	0.198		26.9	0.67	>10000	<10	30	0.6	154	0.10	16.6	25	13	171
JN11009- 68		1.57	0.106		1.0	0.70	77	10	30	<0.5	19	0.06	0.6	5	11	53
JN11009- 69		1.64	0.130		0.3	0.44	27	<10	<10	<0.5	2	0.07	<0.5	6	17	27
JN11009- 70		1.85	0.130		0.2	0.40	8	<10	<10	<0.5	<2	0.05	<0.5	8	15	37
JN11009- 71		1.40	0.008		<0.2	0.39	8	<10	<10	<0.5	3	0.17	<0.5	7	15	26
JN11009- 72		1.28	<0.005		<0.2	0.90	11	<10	20	0.6	<2	0.19	<0.5	8	17	20
JN11009- 73		1.39	0.093		0.3	1.18	9	<10	40	1.1	167	0.40	<0.5	13	21	26
JN11009- 74		2.05	0.008		<0.2	1.19	16	<10	40	1.0	11	0.39	<0.5	12	25	13
JN11009- 75		2.54	<0.005		<0.2	0.77	7	<10	10	<0.5	<2	0.15	<0.5	7	15	14
JN11009- 76		2.02	<0.005		<0.2	0.41	2	<10	<10	<0.5	<2	0.08	<0.5	4	12	31



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Sample Description	Method Analyte Units LOR	ME- ICP41 Fe %	ME- ICP41 Ga ppm	ME- ICP41 Hg ppm	ME- ICP41 K %	ME- ICP41 La ppm	ME- ICP41 Mg %	ME- ICP41 Mn ppm	ME- ICP41 Mo ppm	ME- ICP41 Na %	ME- ICP41 Ni ppm	ME- ICP41 P ppm	ME- ICP41 Pb ppm	ME- ICP41 S %	ME- ICP41 Sb ppm	ME- ICP41 Sc ppm
JN11009-040		3.37	<10	<1	0.05	10	0.26	480	<1	0.10	4	80	3	1.35	<2	<1
JN11009-040S		2.48	<10	3	0.15	10	0.13	392	329	0.08	17	370	54	1.02	73	1
JN11009-040B		1.92	<10	<1	0.31	10	0.30	480	1	0.18	1	220	4	<0.01	<2	4
JN11009-041		2.54	<10	<1	0.47	20	0.36	289	1	0.08	24	630	12	1.08	3	2
JN11009-042		1.24	<10	<1	0.03	10	0.11	226	<1	0.09	9	80	5	0.19	<2	1
JN11009-043		2.59	<10	<1	0.22	40	0.14	302	1	0.03	53	280	4	1.15	<2	6
JN11009-044		5.31	<10	<1	0.43	40	0.13	1080	3	0.03	57	290	23	2.58	<2	5
JN11009-045		3.98	<10	<1	0.57	30	0.16	477	3	0.04	44	270	18	2.28	2	3
JN11009-046		14.7	<10	<1	0.39	20	0.09	817	23	0.03	24	380	2310	>10.0	218	2
JN11009-047		14.0	10	<1	0.09	20	0.27	5540	2	0.03	15	1020	225	2.68	15	8
JN11009-048		13.05	10	<1	0.11	50	0.29	5190	4	0.03	24	510	82	2.08	2	11
JN11009-049		3.10	10	<1	0.01	70	0.20	786	2	0.03	3	320	3	0.05	<2	5
JN11009-050		7.94	10	<1	0.03	20	0.26	3010	8	0.08	4	750	4	0.53	<2	4
JN11009-051		19.2	10	<1	0.19	10	0.31	4830	5	0.04	12	380	77	6.12	<2	3
JN11009-052		14.40	10	<1	0.02	20	0.38	5780	6	0.04	14	330	6	0.88	<2	7
JN11009-053		19.9	10	<1	0.12	10	0.40	6580	<1	0.04	9	170	10	2.98	<2	4
JN11009-054		10.80	10	<1	0.27	30	0.21	2220	<1	0.04	30	1310	18	3.83	<2	5
JN11009-055		2.61	10	<1	0.63	40	0.47	380	<1	0.05	35	380	3	0.34	<2	4
JN11009-056		3.84	20	1	1.08	30	0.88	280	<1	0.38	38	430	4	0.51	<2	10
JN11009-057		2.90	20	<1	0.54	30	0.56	299	<1	0.31	35	460	4	0.38	<2	6
JN11009-058		3.17	20	<1	0.65	30	0.64	278	1	0.37	36	560	6	0.46	<2	8
JN11009-059		2.71	20	1	0.78	30	0.71	185	2	0.30	38	470	4	0.31	<2	7
JN11009-060		3.40	20	<1	0.81	30	0.83	265	1	0.31	40	500	6	0.47	<2	8
JN11009-060S		3.14	<10	1	0.16	<10	0.85	816	700	0.06	7	890	38	0.23	58	2
JN11009-61		3.10	<10	<1	0.35	50	0.20	650	4	0.03	45	600	8	1.03	2	7
JN11009-62		2.56	10	<1	0.04	50	0.13	791	21	0.02	24	700	4	0.47	<2	14
JN11009-63		6.78	10	<1	0.12	60	0.19	2030	25	0.02	27	550	15	1.74	<2	14
JN11009-64		8.24	10	<1	0.03	60	0.24	3210	5	0.02	52	620	6	0.80	<2	17
JN11009-65		6.94	10	<1	0.45	50	0.35	2080	24	0.03	26	700	45	1.50	7	8
JN11009-66		16.0	10	<1	0.08	50	0.56	6050	10	0.02	31	450	13	0.66	4	14
JN11009-67		6.25	<10	<1	0.31	20	0.12	476	40	0.02	12	140	1440	4.52	34	2
JN11009-68		9.98	<10	<1	0.26	10	0.04	125	2	0.02	28	60	38	>10.0	55	1
JN11009-69		4.86	<10	<1	0.10	10	0.04	351	<1	0.02	6	70	12	4.41	48	1
JN11009-70		4.91	<10	<1	0.07	20	0.01	96	<1	0.02	8	90	11	4.81	40	<1
JN11009-71		5.30	<10	<1	0.09	20	0.11	942	<1	0.02	17	90	10	2.58	7	2
JN11009-72		2.54	<10	<1	0.24	30	0.10	881	2	0.02	16	280	6	0.16	<2	4
JN11009-73		5.65	<10	<1	0.37	50	0.15	1905	46	0.02	35	420	21	0.86	2	7
JN11009-74		4.39	<10	<1	0.39	30	0.13	1160	6	0.02	32	520	9	0.47	2	7
JN11009-75		2.00	<10	<1	0.19	20	0.06	463	1	0.02	14	160	4	0.20	<2	3
JN11009-76		1.14	<10	<1	0.07	20	0.03	284	9	0.02	7	80	4	0.05	<2	2



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CERTIFICATE OF ANALYSIS WH11176492

Sample Description	Method Analyte Units LOR	ME- ICP41 Sr ppm 1	ME- ICP41 Th ppm 20	ME- ICP41 Ti % 0.01	ME- ICP41 Ti ppm 10	ME- ICP41 U ppm 10	ME- ICP41 V ppm 1	ME- ICP41 W ppm 10	ME- ICP41 Zn ppm 2	Ag- OG46 Ag ppm 1
JN11009- 040		45	<20	0.02	<10	<10	3	<10	18	
JN11009- 040S		260	<20	0.01	<10	<10	16	<10	47	
JN11009- 040B		50	<20	0.10	<10	<10	27	<10	29	
JN11009- 041		25	<20	0.01	<10	<10	15	<10	13	
JN11009- 042		18	<20	0.05	<10	<10	6	<10	12	
JN11009- 043		17	20	<0.01	<10	<10	39	<10	42	
JN11009- 044		9	20	<0.01	<10	<10	28	<10	128	
JN11009- 045		7	20	<0.01	<10	<10	21	<10	79	
JN11009- 046		4	<20	0.01	<10	<10	14	<10	30	122
JN11009- 047		16	<20	0.01	<10	<10	42	<10	96	
JN11009- 048		12	<20	0.01	<10	10	57	<10	85	
JN11009- 049		42	20	<0.01	<10	<10	23	20	22	
JN11009- 050		42	<20	0.06	<10	<10	22	<10	68	
JN11009- 051		17	<20	0.01	<10	10	18	20	110	
JN11009- 052		30	<20	<0.01	<10	<10	28	<10	101	
JN11009- 053		25	<20	0.01	<10	<10	22	<10	118	
JN11009- 054		19	20	<0.01	<10	<10	28	<10	63	
JN11009- 055		30	20	0.03	<10	<10	29	<10	54	
JN11009- 056		299	20	0.23	<10	<10	73	<10	59	
JN11009- 057		364	20	0.17	<10	<10	51	<10	43	
JN11009- 058		386	20	0.21	<10	<10	60	<10	46	
JN11009- 059		291	20	0.18	<10	<10	52	<10	40	
JN11009- 060		252	20	0.15	<10	<10	55	<10	48	
JN11009- 060S		95	<20	0.10	<10	<10	31	<10	96	
JN11009- 61		23	20	0.01	<10	<10	31	<10	65	
JN11009- 62		31	20	<0.01	<10	<10	47	<10	19	
JN11009- 63		24	20	<0.01	<10	<10	57	<10	37	
JN11009- 64		14	20	<0.01	<10	<10	81	<10	195	
JN11009- 65		13	20	<0.01	<10	<10	35	<10	82	
JN11009- 66		18	<20	<0.01	<10	<10	65	<10	205	
JN11009- 67		7	<20	<0.01	<10	<10	10	10	1840	
JN11009- 68		17	<20	<0.01	10	<10	6	<10	50	
JN11009- 69		4	<20	<0.01	<10	<10	4	<10	36	
JN11009- 70		4	<20	<0.01	<10	<10	3	<10	38	
JN11009- 71		5	<20	<0.01	<10	<10	9	<10	57	
JN11009- 72		8	<20	<0.01	<10	<10	19	<10	37	
JN11009- 73		10	20	<0.01	<10	<10	24	<10	69	
JN11009- 74		10	20	<0.01	<10	<10	29	<10	34	
JN11009- 75		5	<20	<0.01	<10	<10	13	<10	11	
JN11009- 76		4	<20	<0.01	<10	<10	7	<10	10	



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Sample Description	Method Analyte Units LOR	WEI- 21 Recvd Wt. kg 0.02	Au- AA23 Au ppm 0.005	Au- GRA21 Au ppm 0.05	ME- ICP41 Ag ppm 0.2	ME- ICP41 Al % 0.01	ME- ICP41 As ppm 2	ME- ICP41 B ppm 10	ME- ICP41 Ba ppm 10	ME- ICP41 Be ppm 0.5	ME- ICP41 Bi ppm 2	ME- ICP41 Ca % 0.01	ME- ICP41 Cd ppm 0.5	ME- ICP41 Co ppm 1	ME- ICP41 Cr ppm 1	ME- ICP41 Cu ppm 1
JN11009- 77		2.45	<0.005		0.2	0.48	<2	<10	<10	<0.5	5	0.08	<0.5	3	12	10
JN11009- 78		2.09	0.008		2.0	0.43	4	<10	<10	<0.5	14	0.14	<0.5	4	12	17
JN11009- 79		2.01	<0.005		0.2	0.43	2	<10	<10	<0.5	2	0.13	<0.5	4	11	14
JN11009- 80		2.93	<0.005		0.3	0.44	41	<10	<10	<0.5	9	1.18	<0.5	4	15	13
JN11009- 80S		0.03	1.515		32.9	0.38	26	<10	270	<0.5	<2	1.27	<0.5	10	29	3070
JN11009- 80B		0.03	<0.005		<0.2	1.01	<2	<10	180	<0.5	<2	0.39	<0.5	6	10	25
JN11009- 81		2.23	<0.005		<0.2	0.68	9	<10	30	0.5	<2	0.71	<0.5	7	20	17
JN11009- 82		2.36	0.015		0.7	0.86	100	<10	30	1.2	30	0.51	<0.5	14	19	34
JN11009- 83		2.32	0.007		<0.2	0.28	2	<10	<10	<0.5	2	0.44	<0.5	4	12	2
JN11009- 84		2.23	<0.005		<0.2	0.37	<2	<10	<10	<0.5	<2	1.24	<0.5	3	19	3
JN11009- 85		0.95	<0.005		<0.2	0.34	<2	<10	<10	<0.5	<2	0.17	<0.5	4	12	2
JN11009- 86		2.43	<0.005		<0.2	0.55	3	<10	<10	<0.5	<2	0.14	<0.5	4	13	5
JN11009- 87		1.83	<0.005		1.3	0.59	7	<10	10	<0.5	3	0.73	1.7	3	11	17
JN11009- 88		1.53	<0.005		<0.2	0.55	3	<10	<10	<0.5	<2	0.13	<0.5	3	14	3
JN11009- 89		1.00	0.220		9.6	0.36	5770	10	10	<0.5	153	0.09	2.2	9	12	17
JN11009- 90		2.10	0.021		2.6	0.40	574	<10	10	<0.5	10	0.42	1.1	4	15	20
JN11009- 91		2.45	0.331		23.8	0.54	>10000	<10	20	<0.5	61	0.36	53.8	22	14	46
JN11009- 92		2.41	0.010		0.8	0.57	94	<10	30	<0.5	7	1.14	0.5	2	14	21
JN11009- 93		2.71	0.029		2.8	0.62	964	10	30	<0.5	15	0.35	3.7	5	11	38
JN11009- 94		0.87	0.191		1.9	0.53	5770	<10	20	<0.5	51	0.37	2.0	4	12	19
JN11009- 95		2.06	0.127		3.4	0.39	7390	<10	10	<0.5	22	0.47	24.4	4	11	76
JN11009- 96		2.80	0.100		3.4	0.45	>10000	<10	20	<0.5	13	0.41	21.3	5	12	31
JN11009- 97		1.98	0.176		3.1	0.35	81	<10	20	0.5	72	0.58	2.7	3	15	59
JN11009- 98		1.05	0.019		0.4	0.43	53	<10	<10	<0.5	8	0.42	<0.5	5	13	20
JN11009- 99		1.11	0.078		5.2	0.44	8090	20	20	<0.5	19	0.23	2.2	6	12	23
JN11009- 100		2.26	0.053		0.3	0.36	6430	<10	10	<0.5	2	0.36	0.8	7	15	16
JN11009- 100S		0.03	3.47		77.1	1.37	111	<10	70	<0.5	6	2.04	<0.5	11	17	746
JN11009- 101		2.46	0.107		3.4	0.50	>10000	10	20	<0.5	12	0.34	1.3	20	14	13
JN11009- 102		2.21	0.013		<0.2	0.69	1965	<10	20	<0.5	2	0.45	0.8	8	15	13
JN11009- 103		2.90	0.029		0.3	0.63	190	<10	10	<0.5	3	0.17	<0.5	6	14	53
JN11009- 104		1.92	<0.005		0.2	1.04	44	<10	30	0.6	<2	0.57	0.6	13	15	77
JN11009- 105		2.24	0.029		13.5	1.24	90	10	60	1.1	63	1.42	28.0	13	12	293
JN11009- 106		1.22	0.011		<0.2	2.42	12	<10	50	1.0	2	2.78	<0.5	9	31	69
JN11009- 107		2.65	0.476		<0.2	5.27	11	<10	50	1.1	112	3.96	<0.5	9	37	67
JN11009- 108		3.02	0.519		<0.2	4.95	27	<10	10	1.2	80	4.23	<0.5	9	21	71
JN11009- 109		2.40	<0.005		<0.2	5.76	12	<10	50	1.2	<2	3.99	<0.5	10	45	58
JN11009- 110		2.75	<0.005		<0.2	3.30	7	<10	70	0.8	<2	1.43	<0.5	12	70	49
JN11009- 111		2.32	0.141		<0.2	2.30	5	<10	60	0.9	22	0.89	<0.5	11	50	49
JN11009- 112		2.12	<0.005		<0.2	1.88	7	<10	40	0.7	<2	1.00	<0.5	14	37	73
JN11009- 113		2.61	<0.005		<0.2	2.10	9	<10	60	1.2	<2	2.06	<0.5	14	20	66



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Sample Description	Method Analyte Units LOR	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	
		Fe	Ga	Hg	K	La	Mg	Mn	Mo	Na	Ni	P	Pb	S	Sb	Sc
		% 0.01	ppm 10	ppm 1	% 0.01	ppm 10	% 0.01	ppm 5	ppm 1	% 0.01	ppm 1	ppm 10	ppm 2	% 0.01	ppm 2	ppm 1
JN11009- 77		1.36	<10	<1	0.11	10	0.05	351	2	0.02	3	80	19	0.09	<2	1
JN11009- 78		2.09	<10	<1	0.09	10	0.07	641	1	0.02	3	100	132	0.21	<2	2
JN11009- 79		1.56	<10	<1	0.09	10	0.07	392	<1	0.02	4	130	14	0.16	<2	1
JN11009- 80		1.20	<10	<1	0.12	10	0.16	330	11	0.03	5	190	19	0.17	<2	1
JN11009- 80S		2.50	<10	3	0.15	10	0.14	404	377	0.06	18	390	61	1.08	74	1
JN11009- 80B		1.97	<10	<1	0.33	10	0.32	497	2	0.18	2	240	5	0.01	<2	4
JN11009- 81		1.42	<10	<1	0.26	10	0.23	283	2	0.04	14	210	6	0.31	<2	2
JN11009- 82		5.16	<10	<1	0.27	30	0.25	1875	1	0.03	25	280	36	0.69	<2	7
JN11009- 83		1.10	<10	<1	0.04	10	0.09	296	<1	0.03	5	70	5	0.02	<2	1
JN11009- 84		1.30	<10	<1	0.06	10	0.18	369	<1	0.05	3	90	5	0.04	<2	1
JN11009- 85		0.89	<10	<1	0.03	20	0.09	225	<1	0.02	4	110	5	0.03	<2	1
JN11009- 86		1.22	<10	<1	0.07	20	0.06	354	<1	0.02	5	90	6	0.06	<2	2
JN11009- 87		1.16	<10	<1	0.21	20	0.20	504	2	0.02	5	90	121	0.18	<2	1
JN11009- 88		1.12	<10	<1	0.04	20	0.08	317	2	0.02	4	130	8	0.03	<2	2
JN11009- 89		1.64	<10	<1	0.18	10	0.06	157	77	0.02	3	110	528	0.86	12	<1
JN11009- 90		1.47	<10	<1	0.19	10	0.15	361	36	0.02	4	100	178	0.38	<2	1
JN11009- 91		2.85	<10	<1	0.28	10	0.14	210	2	0.02	8	180	1930	1.82	33	1
JN11009- 92		1.46	<10	<1	0.29	10	0.30	614	3	0.01	11	90	64	0.22	2	1
JN11009- 93		1.37	<10	<1	0.32	10	0.13	268	2	0.02	11	80	175	0.78	3	1
JN11009- 94		1.40	<10	<1	0.29	10	0.13	238	4	0.02	3	70	88	0.51	8	1
JN11009- 95		2.63	<10	<1	0.22	10	0.15	275	14	0.02	2	60	239	1.69	12	1
JN11009- 96		2.20	<10	<1	0.25	10	0.11	309	41	0.02	3	70	228	1.01	19	1
JN11009- 97		3.37	<10	<1	0.15	10	0.20	597	2	0.01	5	50	172	1.14	<2	1
JN11009- 98		1.81	<10	<1	0.14	10	0.13	488	2	0.02	7	140	11	0.11	<2	2
JN11009- 99		2.07	<10	<1	0.24	10	0.10	172	1	0.02	4	60	334	1.14	12	1
JN11009- 100		1.44	<10	<1	0.20	10	0.10	206	2	0.02	3	50	21	0.52	9	1
JN11009- 100S		3.20	<10	<1	0.16	<10	0.86	833	707	0.06	8	690	41	0.23	57	2
JN11009- 101		2.14	<10	<1	0.26	10	0.11	230	1	0.02	4	60	201	0.93	22	1
JN11009- 102		1.25	<10	<1	0.21	20	0.14	296	12	0.02	8	100	21	0.16	3	1
JN11009- 103		1.71	<10	<1	0.19	10	0.08	307	1	0.02	6	60	12	0.59	2	1
JN11009- 104		3.27	<10	<1	0.27	20	0.17	848	1	0.02	27	680	22	1.03	2	3
JN11009- 105		8.41	<10	<1	0.65	20	0.48	1260	18	0.03	30	240	688	5.81	3	3
JN11009- 106		3.12	10	<1	0.41	30	0.58	508	94	0.11	27	200	11	0.96	<2	5
JN11009- 107		2.34	10	1	0.32	30	0.71	331	6	0.22	26	590	8	0.42	<2	4
JN11009- 108		2.02	10	<1	0.13	30	0.37	417	7	0.17	20	550	5	0.42	<2	2
JN11009- 109		2.88	20	<1	0.55	30	0.75	420	2	0.20	29	900	5	0.90	<2	4
JN11009- 110		3.60	10	1	1.13	20	1.23	434	5	0.14	38	370	5	0.81	<2	10
JN11009- 111		3.36	10	<1	0.92	20	0.96	408	16	0.11	33	160	7	0.92	<2	7
JN11009- 112		3.69	10	<1	0.64	20	0.79	506	16	0.09	36	120	9	1.86	<2	7
JN11009- 113		3.34	10	<1	0.45	20	0.43	542	3	0.11	33	1260	8	1.42	<2	3



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Sample Description	Method Analyte Units LOR	ME- ICP41 Sr ppm 1	ME- ICP41 Th ppm 20	ME- ICP41 Ti % 0.01	ME- ICP41 Ti ppm 10	ME- ICP41 U ppm 10	ME- ICP41 V ppm 1	ME- ICP41 W ppm 10	ME- ICP41 Zn ppm 2	Ag- OG46 Ag ppm 1
JN11009-77		4	<20	<0.01	<10	<10	5	<10	28	
JN11009-78		5	<20	<0.01	<10	<10	9	<10	44	
JN11009-79		6	<20	<0.01	<10	<10	6	<10	57	
JN11009-80		19	<20	0.01	<10	<10	7	<10	38	
JN11009-80S		262	<20	0.01	<10	<10	16	<10	48	
JN11009-80B		53	<20	0.11	<10	<10	29	<10	32	
JN11009-81		17	<20	0.02	<10	<10	13	<10	37	
JN11009-82		15	<20	0.01	<10	<10	21	<10	51	
JN11009-83		14	<20	0.03	<10	<10	7	<10	15	
JN11009-84		27	<20	0.04	<10	<10	7	<10	19	
JN11009-85		9	<20	0.01	<10	<10	6	<10	19	
JN11009-86		7	<20	<0.01	<10	<10	10	<10	13	
JN11009-87		27	20	<0.01	<10	<10	5	<10	240	
JN11009-88		8	<20	<0.01	<10	<10	10	<10	22	
JN11009-89		6	<20	<0.01	<10	<10	3	<10	283	
JN11009-90		19	<20	<0.01	<10	<10	5	<10	150	
JN11009-91		17	<20	<0.01	<10	<10	5	10	6050	
JN11009-92		49	<20	<0.01	<10	<10	5	<10	80	
JN11009-93		21	<20	<0.01	<10	<10	5	<10	441	
JN11009-94		17	<20	<0.01	<10	<10	4	<10	257	
JN11009-95		23	<20	<0.01	<10	<10	4	10	2670	
JN11009-96		18	<20	<0.01	<10	<10	4	10	2550	
JN11009-97		25	<20	<0.01	<10	<10	5	20	342	
JN11009-98		23	<20	<0.01	<10	<10	5	<10	29	
JN11009-99		12	<20	<0.01	<10	<10	3	<10	305	
JN11009-100		18	<20	<0.01	<10	<10	3	<10	101	
JN11009-100S		101	<20	0.10	<10	<10	32	<10	98	
JN11009-101		16	<20	<0.01	<10	<10	4	<10	204	
JN11009-102		21	<20	<0.01	<10	<10	6	<10	128	
JN11009-103		9	<20	<0.01	<10	<10	6	<10	36	
JN11009-104		27	<20	<0.01	<10	<10	14	<10	98	
JN11009-105		54	<20	0.01	<10	<10	14	10	3050	
JN11009-106		137	20	0.08	<10	<10	35	10	48	
JN11009-107		436	20	0.19	<10	<10	41	<10	30	
JN11009-108		662	20	0.14	<10	<10	25	10	32	
JN11009-109		424	20	0.22	<10	<10	55	<10	47	
JN11009-110		68	<20	0.19	<10	<10	90	<10	72	
JN11009-111		37	<20	0.10	<10	<10	60	10	60	
JN11009-112		31	<20	0.08	<10	<10	47	<10	38	
JN11009-113		169	20	0.06	<10	<10	25	10	37	



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CERTIFICATE OF ANALYSIS WH11176492

Sample Description	Method Analyte Units LOR	WEI- 21 Recvd Wt. kg 0.02	Au- AA23 Au ppm 0.005	Au- GRA21 Au ppm 0.05	ME- ICP41 Ag ppm 0.2	ME- ICP41 Al % 0.01	ME- ICP41 As ppm 2	ME- ICP41 B ppm 10	ME- ICP41 Ba ppm 10	ME- ICP41 Be ppm 0.5	ME- ICP41 Bi ppm 2	ME- ICP41 Ca % 0.01	ME- ICP41 Cd ppm 0.5	ME- ICP41 Co ppm 1	ME- ICP41 Cr ppm 1	ME- ICP41 Cu ppm 1
JN11009- 114		1.44	<0.005		<0.2	1.52	4	<10	70	1.0	<2	0.37	<0.5	18	19	100
JN11009- 115		3.77	0.554		0.3	0.80	5	<10	<10	1.8	111	2.34	<0.5	6	5	40
JN11009- 116		2.52	0.589		0.7	1.51	15	<10	30	4.7	93	6.29	<0.5	7	12	129
JN11009- 117		2.78	0.025		<0.2	0.98	5	<10	30	1.7	7	4.84	<0.5	4	9	58
JN11009- 118		2.97	0.035		<0.2	1.92	2	<10	10	1.5	3	4.92	<0.5	4	15	27
JN11009- 119		2.79	0.084		<0.2	1.94	3	<10	<10	1.1	11	4.11	<0.5	4	12	13
JN11009- 120		2.51	0.252		2.4	0.77	762	<10	20	3.8	99	3.31	<0.5	9	10	340
JN11009- 120S		0.03	1.435		32.4	0.38	25	<10	250	<0.5	2	1.23	<0.5	9	28	2970
JN11009- 120B		0.04	0.008		<0.2	0.97	<2	<10	170	<0.5	<2	0.37	<0.5	5	9	25
JN11009- 121		2.09	0.353		<0.2	1.16	8	<10	10	3.5	44	2.15	<0.5	9	20	11
JN11009- 122		1.92	0.047		0.2	1.02	2	<10	10	2.8	2	1.98	<0.5	4	18	3
JN11009- 123		1.44	0.089		<0.2	1.15	6	<10	10	2.3	5	1.58	<0.5	5	31	30
JN11009- 124		0.74	0.012		0.3	1.38	10	<10	<10	2.2	<2	1.52	<0.5	5	30	4
JN11009- 125		0.91	0.011		0.9	1.28	48	<10	10	1.9	2	1.03	<0.5	5	35	29
JN11009- 126		1.87	0.041		5.3	0.66	59	<10	<10	1.8	92	0.24	<0.5	43	6	1455
JN11009- 127		1.73	0.057		0.6	1.31	5	<10	10	3.3	4	2.09	<0.5	8	29	18
JN11009- 128		1.31	0.778		0.7	1.24	3	<10	<10	3.1	101	2.03	<0.5	7	25	8
JN11009- 129		1.41	9.77		1.6	0.22	27	<10	<10	1.0	1450	0.68	<0.5	3	10	41
JN11009- 130		1.33	0.135		0.6	0.22	7	<10	<10	2.8	20	1.99	<0.5	6	1	14
JN11009- 131		1.95	0.048		0.6	0.21	5	<10	<10	2.5	8	1.59	<0.5	6	1	25
JN11009- 132		2.56	0.319		0.2	0.27	<2	<10	<10	3.0	3	1.71	<0.5	7	4	8
JN11009- 133		2.43	3.48		3.2	0.31	59	<10	<10	5.1	446	2.30	<0.5	10	3	158
JN11009- 134		2.84	0.130		0.7	0.52	15	<10	<10	3.0	13	1.87	<0.5	7	7	21
JN11009- 135		2.56	0.143		0.6	0.76	7	<10	<10	3.8	3	2.20	<0.5	9	5	13
JN11009- 136		1.48	0.513		3.3	0.58	57	<10	<10	3.6	235	1.03	<0.5	13	11	177
JN11009- 137		0.96	0.253		1.0	0.49	15	<10	<10	3.0	30	1.86	<0.5	12	9	169
JN11009- 138		2.50	0.104		0.5	0.36	14	<10	20	4.1	42	2.14	<0.5	10	5	291
JN11009- 139		2.41	0.290		0.5	0.44	14	<10	<10	4.3	51	2.18	<0.5	6	4	125
JN11009- 140		2.58	0.981		0.8	0.52	37	<10	<10	2.6	119	1.57	<0.5	8	16	35
JN11009- 140S		0.03	3.25		74.5	1.26	83	<10	60	<0.5	5	1.96	<0.5	9	17	718
JN11009- 141		2.91	0.648		1.5	1.03	147	<10	<10	2.4	119	1.46	<0.5	9	19	60
JN11009- 142		1.88	0.383		0.6	0.66	<2	<10	<10	2.3	18	1.44	<0.5	7	8	22
JN11009- 143		2.61	0.300		0.7	0.57	5	<10	<10	2.8	8	1.74	<0.5	8	6	57
JN11009- 144		1.69	0.255		0.3	0.42	3	<10	<10	2.9	2	1.45	<0.5	6	7	54
JN11009- 145		2.38	0.401		0.9	0.63	10	<10	<10	3.6	8	2.28	<0.5	7	16	41
JN11009- 146		2.45	0.391		0.2	0.70	3	<10	<10	1.1	7	1.63	<0.5	3	10	2
JN11009- 147		2.92	0.091		0.2	0.91	2	<10	<10	1.4	<2	2.14	<0.5	3	9	49
JN11009- 148		3.59	0.826		<0.2	1.15	<2	<10	<10	1.5	39	2.54	<0.5	3	8	14
JN11009- 149		3.02	0.195		0.3	1.38	5	<10	<10	1.6	5	3.29	<0.5	3	13	22
JN11009- 150		3.43	0.187		0.8	1.55	3	<10	<10	1.9	17	2.20	<0.5	10	18	355



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CERTIFICATE OF ANALYSIS WH11176492

Sample Description	Method Analyte Units LOR	ME- ICP41 Fe %	ME- ICP41 Ga ppm	ME- ICP41 Hg ppm	ME- ICP41 K %	ME- ICP41 La ppm	ME- ICP41 Mg %	ME- ICP41 Mn ppm	ME- ICP41 Mo ppm	ME- ICP41 Na %	ME- ICP41 Ni ppm	ME- ICP41 P ppm	ME- ICP41 Pb ppm	ME- ICP41 S %	ME- ICP41 Sb ppm	ME- ICP41 Sc ppm
JN11009-114		3.68	<10	<1	0.61	20	0.51	345	11	0.06	44	120	12	1.90	<2	4
JN11009-115		3.95	10	<1	0.13	<10	0.11	1385	2	0.07	4	510	8	0.60	2	1
JN11009-116		9.81	20	<1	0.31	10	0.35	3310	27	0.04	7	100	33	4.85	<2	3
JN11009-117		6.23	10	<1	0.19	<10	0.22	2400	3	0.04	3	270	16	2.48	2	1
JN11009-118		5.87	10	<1	0.24	10	0.17	2180	18	0.11	2	110	8	1.13	2	2
JN11009-119		4.87	10	<1	0.13	10	0.16	1735	4	0.11	1	280	5	0.43	<2	2
JN11009-120		20.8	10	1	0.20	<10	0.23	5520	16	0.03	<1	270	98	9.41	4	2
JN11009-120S		2.45	<10	3	0.15	10	0.13	397	361	0.05	17	380	58	1.05	75	1
JN11009-120B		1.86	<10	<1	0.31	10	0.30	468	1	0.17	2	220	4	<0.01	<2	4
JN11009-121		26.8	20	<1	0.01	<10	0.81	8570	<1	0.03	<1	870	<2	0.15	<2	4
JN11009-122		25.4	10	<1	0.01	<10	0.63	9480	3	0.03	1	410	<2	0.50	<2	4
JN11009-123		21.8	10	<1	0.03	10	0.57	8650	1	0.03	<1	170	5	0.85	<2	8
JN11009-124		21.9	10	<1	0.03	10	0.49	8740	1	0.01	1	120	7	1.51	<2	7
JN11009-125		16.0	10	<1	0.17	30	0.81	6300	16	0.01	6	140	12	1.53	<2	12
JN11009-126		28.3	10	1	0.21	<10	0.16	1195	15	0.01	<1	90	68	>10.0	15	2
JN11009-127		29.7	10	<1	0.03	<10	0.75	11200	50	0.02	<1	210	8	0.29	<2	9
JN11009-128		27.4	10	<1	0.01	10	0.59	9880	16	0.01	<1	140	10	0.85	<2	7
JN11009-129		9.31	<10	<1	0.01	<10	0.18	3350	58	0.01	2	60	21	0.98	14	6
JN11009-130		28.7	<10	<1	<0.01	<10	0.69	10750	5	0.01	<1	210	8	1.63	<2	26
JN11009-131		23.9	10	<1	<0.01	<10	0.60	9180	13	0.01	<1	220	7	0.96	<2	8
JN11009-132		23.1	10	<1	<0.01	<10	0.57	9030	56	0.01	<1	320	5	0.37	<2	7
JN11009-133		33.0	10	1	0.01	<10	0.56	10550	38	0.02	1	280	64	4.42	3	22
JN11009-134		24.9	<10	<1	0.03	<10	0.53	9070	24	0.01	<1	200	10	3.04	<2	23
JN11009-135		29.3	10	1	<0.01	<10	0.80	10850	98	0.02	<1	140	10	2.26	<2	22
JN11009-136		19.7	10	1	0.08	10	0.40	4860	42	0.01	5	230	85	5.76	15	11
JN11009-137		30.6	10	<1	<0.01	<10	0.59	8880	25	0.02	4	600	11	7.49	4	20
JN11009-138		31.8	10	1	0.01	<10	0.72	10750	7	0.02	3	310	32	4.18	7	14
JN11009-139		31.1	10	<1	<0.01	<10	0.78	10250	8	0.02	<1	350	11	3.39	<2	26
JN11009-140		22.7	<10	1	<0.01	<10	0.43	8340	6	0.02	10	230	14	4.50	12	35
JN11009-140S		3.15	<10	<1	0.15	<10	0.84	842	622	0.06	8	660	39	0.23	52	2
JN11009-141		18.9	10	<1	0.04	<10	0.37	6650	27	0.02	3	150	24	2.67	4	17
JN11009-142		20.4	10	<1	<0.01	<10	0.52	8180	<1	0.02	<1	270	5	0.69	<2	9
JN11009-143		22.3	10	1	<0.01	<10	0.51	8510	20	0.02	<1	270	8	1.19	<2	9
JN11009-144		19.4	10	<1	<0.01	<10	0.55	7780	25	0.02	<1	340	5	0.58	<2	1
JN11009-145		15.0	10	1	0.08	<10	0.32	5790	2	0.02	1	240	5	0.86	<2	2
JN11009-146		6.43	10	<1	0.19	<10	0.09	1630	10	0.14	<1	360	3	0.05	<2	1
JN11009-147		6.73	10	<1	0.24	<10	0.06	1655	3	0.13	<1	170	6	1.06	<2	1
JN11009-148		9.29	10	<1	0.28	<10	0.08	1980	<1	0.18	1	220	4	0.18	<2	1
JN11009-149		8.13	10	<1	0.26	10	0.08	1975	39	0.16	3	80	4	0.73	<2	2
JN11009-150		9.70	10	<1	0.30	10	0.16	1445	4	0.15	4	370	7	2.67	<2	2



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CERTIFICATE OF ANALYSIS WH11176492

Sample Description	Method Analyte Units LOR	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	Ag- OG46
		Sr	Th	Ti	Ti	U	V	W	Zn	Ag
		ppm 1	ppm 20	% 0.01	ppm 10	ppm 10	ppm 1	ppm 10	ppm 2	ppm 1
JN11009-114		43	20	0.03	<10	<10	25	<10	63	
JN11009-115		28	<20	0.02	<10	<10	6	90	24	
JN11009-116		87	<20	0.01	<10	<10	18	610	32	
JN11009-117		75	<20	0.02	<10	<10	8	20	28	
JN11009-118		73	<20	0.07	<10	<10	18	30	33	
JN11009-119		36	<20	0.07	<10	<10	16	10	33	
JN11009-120		20	<20	0.01	<10	<10	12	160	53	
JN11009-120S		252	<20	0.01	<10	<10	18	<10	44	
JN11009-120B		50	<20	0.11	<10	<10	27	<10	30	
JN11009-121		18	<20	0.01	<10	<10	21	20	141	
JN11009-122		17	<20	0.01	<10	<10	26	10	111	
JN11009-123		14	<20	0.01	<10	<10	48	10	92	
JN11009-124		14	<20	0.01	<10	<10	40	10	88	
JN11009-125		12	<20	0.01	<10	<10	57	10	97	
JN11009-126		55	<20	<0.01	<10	<10	12	20	41	
JN11009-127		16	<20	0.01	<10	<10	44	10	126	
JN11009-128		16	<20	0.01	<10	<10	35	10	117	
JN11009-129		5	<20	<0.01	<10	<10	16	20	38	
JN11009-130		14	<20	<0.01	<10	<10	47	10	93	
JN11009-131		12	<20	<0.01	<10	<10	11	10	97	
JN11009-132		15	<20	<0.01	<10	<10	11	10	102	
JN11009-133		22	<20	0.01	<10	<10	54	10	89	
JN11009-134		18	<20	<0.01	<10	<10	57	10	95	
JN11009-135		18	<20	<0.01	<10	<10	47	10	93	
JN11009-136		10	<20	<0.01	<10	10	30	10	79	
JN11009-137		15	<20	<0.01	<10	<10	36	10	85	
JN11009-138		21	<20	<0.01	10	<10	25	10	117	
JN11009-139		21	<20	<0.01	<10	<10	52	10	87	
JN11009-140		14	<20	<0.01	<10	<10	106	10	63	
JN11009-140S		92	<20	0.08	<10	<10	29	<10	93	
JN11009-141		12	<20	0.01	<10	<10	54	10	76	
JN11009-142		12	<20	<0.01	<10	<10	20	10	96	
JN11009-143		14	<20	<0.01	<10	<10	25	10	98	
JN11009-144		10	<20	<0.01	<10	<10	10	10	105	
JN11009-145		13	<20	0.01	<10	<10	13	10	79	
JN11009-146		4	<20	0.04	<10	<10	8	<10	31	
JN11009-147		9	<20	0.03	<10	<10	7	<10	80	
JN11009-148		6	<20	0.05	<10	<10	10	10	40	
JN11009-149		10	<20	0.06	<10	<10	15	10	38	
JN11009-150		19	<20	0.06	<10	<10	22	10	36	



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CERTIFICATE OF ANALYSIS WH11176492

Sample Description	Method Analyte Units LOR	WEI- 21 Recvd Wt. kg 0.02	Au- AA23 Au ppm 0.005	Au- GRA21 Au ppm 0.05	ME- ICP41 Ag ppm 0.2	ME- ICP41 Al % 0.01	ME- ICP41 As ppm 2	ME- ICP41 B ppm 10	ME- ICP41 Ba ppm 10	ME- ICP41 Be ppm 0.5	ME- ICP41 Bi ppm 2	ME- ICP41 Ca % 0.01	ME- ICP41 Cd ppm 0.5	ME- ICP41 Co ppm 1	ME- ICP41 Cr ppm 1	ME- ICP41 Cu ppm 1
JN11009- 151		3.25	0.042		0.4	1.36	18	<10	<10	1.8	<2	3.46	<0.5	3	11	22
JN11009- 152		2.68	0.014		0.2	1.23	8	<10	<10	1.2	<2	2.87	2.7	2	13	50
JN11009- 153		2.87	0.028		0.2	1.52	2	<10	<10	2.6	<2	3.44	<0.5	3	14	3
JN11009- 154		2.13	0.067		0.4	1.08	<2	<10	<10	2.0	2	3.51	<0.5	3	9	27
JN11009- 155		2.78	0.159		0.3	1.37	2	<10	<10	2.4	2	3.81	<0.5	2	16	8
JN11009- 156		2.76	0.887		0.3	1.16	6	<10	<10	1.5	30	2.96	<0.5	1	10	6
JN11009- 157		2.97	4.76		0.3	0.51	5	<10	<10	0.9	128	1.80	<0.5	1	15	7
JN11009- 158		2.65	4.12		0.8	0.68	<2	<10	<10	0.9	369	1.74	<0.5	2	8	73
JN11009- 159		3.03	1.045		0.8	0.66	5	<10	<10	0.8	22	1.35	<0.5	<1	12	9
JN11009- 160		2.79	0.167		<0.2	1.06	3	10	<10	1.0	3	2.18	<0.5	1	6	6
JN11009- 160S		0.03	1.350		29.6	0.35	24	<10	230	<0.5	<2	1.23	<0.5	7	29	3090
JN11009- 160B		0.04	<0.005		<0.2	1.06	<2	<10	170	<0.5	<2	0.38	<0.5	3	8	22
JN11009- 161		3.41	0.150		<0.2	1.32	2	10	<10	0.7	<2	2.79	<0.5	1	5	1
JN11009- 162		3.47	1.415		<0.2	1.09	<2	<10	<10	0.8	53	1.97	<0.5	<1	9	24
JN11009- 163		3.29	1.560		<0.2	0.82	<2	<10	<10	1.1	17	1.88	<0.5	1	8	7
JN11009- 164		2.97	0.994		<0.2	1.18	<2	<10	<10	0.8	10	2.93	<0.5	1	7	1
JN11009- 165		2.77	0.494		<0.2	2.38	<2	<10	<10	1.1	11	3.23	<0.5	2	25	31
JN11009- 166		2.81	2.44		<0.2	1.83	<2	<10	<10	<0.5	95	7.4	<0.5	<1	15	7
JN11009- 167		2.89	1.235		<0.2	1.43	<2	<10	<10	0.8	37	3.72	<0.5	11	12	401
JN11009- 168		2.84	0.151		<0.2	0.91	<2	<10	<10	1.0	3	1.92	<0.5	<1	7	30
JN11009- 169		3.06	1.625		<0.2	1.15	<2	<10	<10	1.2	91	2.39	<0.5	3	8	193
JN11009- 170		2.38	3.09		<0.2	1.40	<2	<10	<10	1.1	459	2.88	<0.5	4	7	187
JN11009- 171		3.37	3.01		<0.2	0.97	3	<10	<10	1.4	356	2.17	<0.5	3	10	198
JN11009- 172		3.16	4.49		<0.2	1.06	<2	<10	<10	1.2	401	1.95	<0.5	3	9	301
JN11009- 173		2.99	2.31		<0.2	1.07	3	<10	<10	1.3	252	2.31	<0.5	2	9	197
JN11009- 174		2.87	5.04		<0.2	1.02	<2	<10	<10	1.1	390	1.89	<0.5	2	8	289
JN11009- 175		2.76	>10.0	12.45	1.3	0.92	5	<10	<10	2.9	1960	2.36	<0.5	4	10	166
JN11009- 176		3.30	2.15		0.4	0.75	<2	<10	<10	1.8	126	2.49	<0.5	12	8	550
JN11009- 177		2.20	0.713		1.9	1.07	<2	<10	<10	5.1	215	1.92	<0.5	25	15	473
JN11009- 178		3.20	0.087		<0.2	1.04	<2	<10	<10	2.0	24	2.98	<0.5	4	7	234
JN11009- 179		2.55	0.132		<0.2	1.96	<2	<10	<10	1.4	28	4.51	<0.5	2	6	15
JN11009- 180		3.09	0.037		<0.2	1.59	3	<10	<10	0.8	3	4.07	<0.5	1	9	10
JN11009- 180S		0.03	3.30		88.2	1.47	99	<10	70	<0.5	8	2.22	<0.5	10	19	826
JN11009- 181		3.01	0.749		<0.2	0.45	<2	<10	<10	1.3	94	1.76	<0.5	1	5	50
JN11009- 182		3.17	0.014		<0.2	1.52	<2	<10	<10	0.5	2	5.02	<0.5	2	10	169
JN11009- 183		2.71	0.113		<0.2	0.50	<2	<10	<10	2.8	114	3.34	<0.5	7	5	349
JN11009- 184		1.90	0.377		11.6	0.38	9200	<10	<10	1.2	397	0.46	<0.5	55	4	1495
JN11009- 185		2.15	0.210		<0.2	0.95	19	<10	<10	5.5	82	3.04	<0.5	11	17	192
JN11009- 186		1.27	1.340		11.5	0.71	67	<10	<10	1.4	1630	0.46	0.7	12	27	1040
JN11009- 187		2.18	0.015		<0.2	1.28	22	<10	<10	3.3	8	1.74	<0.5	14	42	127



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Sample Description	Method Analyte Units LOR	ME- ICP41 Fe %	ME- ICP41 Ga ppm	ME- ICP41 Hg ppm	ME- ICP41 K %	ME- ICP41 La ppm	ME- ICP41 Mg %	ME- ICP41 Mn ppm	ME- ICP41 Mo ppm	ME- ICP41 Na %	ME- ICP41 Ni ppm	ME- ICP41 P ppm	ME- ICP41 Pb ppm	ME- ICP41 S %	ME- ICP41 Sb ppm	ME- ICP41 Sc ppm
JN11009-151		9.55	10	<1	0.31	<10	0.11	2200	9	0.17	2	90	4	0.95	<2	1
JN11009-152		5.20	10	<1	0.23	<10	0.09	1500	89	0.13	2	90	5	0.89	<2	2
JN11009-153		7.50	10	<1	0.20	<10	0.10	2750	16	0.13	1	90	2	0.31	<2	2
JN11009-154		8.83	10	<1	0.29	<10	0.09	2230	65	0.16	<1	60	8	1.69	<2	1
JN11009-155		12.10	10	<1	0.24	<10	0.09	2750	6	0.16	<1	80	5	1.16	<2	2
JN11009-156		17.6	20	<1	0.18	<10	0.11	2060	17	0.13	<1	320	3	0.24	<2	1
JN11009-157		17.5	20	<1	0.11	<10	0.19	1490	2	0.10	<1	1420	3	0.16	<2	1
JN11009-158		18.5	10	<1	0.15	<10	0.06	1280	11	0.10	<1	280	5	0.51	<2	1
JN11009-159		27.8	20	<1	0.14	<10	0.08	1520	15	0.11	3	710	2	0.03	<2	1
JN11009-160		8.10	10	<1	0.16	<10	0.07	1155	33	0.15	2	310	2	0.06	<2	1
JN11009-160S		2.47	<10	3	0.14	10	0.13	406	335	0.04	18	370	56	1.02	73	1
JN11009-160B		1.91	<10	<1	0.35	10	0.31	491	1	0.21	2	220	5	<0.01	<2	4
JN11009-161		4.12	10	<1	0.20	<10	0.04	1165	6	0.14	<1	280	2	<0.01	<2	1
JN11009-162		24.3	30	<1	0.23	<10	0.06	1370	17	0.17	2	510	3	0.11	<2	1
JN11009-163		12.55	20	<1	0.15	<10	0.06	1125	59	0.11	2	290	<2	0.04	<2	1
JN11009-164		5.15	10	<1	0.24	<10	0.09	1320	25	0.17	<1	1940	<2	0.01	<2	1
JN11009-165		7.30	20	<1	0.39	10	0.17	1455	17	0.29	5	240	2	0.16	<2	3
JN11009-166		8.96	10	<1	0.12	<10	0.05	2660	<1	0.09	<1	230	<2	0.09	<2	2
JN11009-167		12.15	10	<1	0.25	<10	0.05	1685	2	0.15	1	340	7	2.93	<2	1
JN11009-168		19.2	30	<1	0.19	<10	0.07	1430	38	0.14	<1	320	<2	0.15	<2	1
JN11009-169		28.4	40	<1	0.24	<10	0.05	1480	15	0.18	<1	270	2	0.93	<2	1
JN11009-170		12.10	10	<1	0.29	<10	0.07	1435	3	0.21	<1	300	2	0.94	<2	1
JN11009-171		21.4	20	<1	0.24	<10	0.04	1245	3	0.16	<1	340	<2	0.86	<2	1
JN11009-172		35.2	40	<1	0.25	<10	0.05	1235	10	0.18	<1	240	2	1.61	<2	1
JN11009-173		24.9	30	<1	0.24	<10	0.05	1370	8	0.18	<1	330	3	0.93	<2	1
JN11009-174		34.6	30	<1	0.24	<10	0.05	1195	10	0.17	<1	240	3	1.54	<2	1
JN11009-175		6.00	20	<1	0.20	10	0.08	1205	241	0.14	2	400	<2	0.93	<2	1
JN11009-176		21.8	40	<1	0.17	<10	0.08	2060	1	0.12	<1	810	4	3.52	<2	1
JN11009-177		11.90	20	<1	0.22	20	0.15	1345	321	0.13	4	210	32	4.91	<2	2
JN11009-178		7.23	20	<1	0.23	<10	0.19	1380	37	0.17	1	450	2	1.30	<2	1
JN11009-179		5.71	20	<1	0.22	10	0.10	2010	14	0.16	<1	310	2	0.06	<2	2
JN11009-180		4.71	10	<1	0.18	10	0.07	1430	13	0.14	<1	130	<2	0.18	<2	1
JN11009-180S		3.49	<10	1	0.17	<10	0.97	941	697	0.06	10	770	45	0.25	63	2
JN11009-181		2.66	10	<1	0.12	10	0.05	808	84	0.07	<1	110	2	0.32	<2	<1
JN11009-182		8.64	20	<1	0.20	<10	0.03	1790	1	0.14	1	80	<2	0.72	<2	1
JN11009-183		11.05	10	<1	0.07	<10	0.21	3900	112	0.05	4	250	6	1.17	<2	1
JN11009-184		32.9	<10	<1	0.20	<10	0.21	1110	48	0.02	12	540	321	>10.0	37	2
JN11009-185		21.3	10	<1	0.05	10	0.44	7930	3	0.01	7	160	8	2.49	<2	5
JN11009-186		13.60	<10	<1	0.23	10	0.19	2080	67	0.02	13	90	312	8.18	26	4
JN11009-187		19.9	10	<1	0.09	20	0.47	8610	44	0.02	16	160	6	1.59	<2	12



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CERTIFICATE OF ANALYSIS WH11176492

Sample Description	Method Analyte Units LOR	ME- ICP41 Sr ppm 1	ME- ICP41 Th ppm 20	ME- ICP41 Ti % 0.01	ME- ICP41 Ti ppm 10	ME- ICP41 U ppm 10	ME- ICP41 V ppm 1	ME- ICP41 W ppm 10	ME- ICP41 Zn ppm 2	Ag- OG46 Ag ppm 1
JN11009-151		17	<20	0.05	<10	<10	13	10	41	
JN11009-152		29	<20	0.06	<10	<10	13	<10	304	
JN11009-153		23	<20	0.07	<10	<10	16	<10	44	
JN11009-154		38	<20	0.04	<10	<10	11	<10	41	
JN11009-155		28	<20	0.06	<10	<10	19	<10	53	
JN11009-156		18	<20	0.06	<10	<10	16	<10	49	
JN11009-157		12	<20	0.05	<10	<10	15	<10	37	
JN11009-158		10	<20	0.05	<10	<10	13	<10	39	
JN11009-159		4	<20	0.06	<10	<10	16	<10	53	
JN11009-160		11	<20	0.06	<10	<10	9	10	36	
JN11009-160S		253	<20	0.01	<10	<10	17	<10	49	
JN11009-160B		51	<20	0.10	<10	<10	27	<10	30	
JN11009-161		12	<20	0.05	<10	<10	9	10	28	
JN11009-162		3	<20	0.07	<10	<10	19	<10	54	
JN11009-163		11	<20	0.06	<10	<10	12	<10	38	
JN11009-164		10	<20	0.05	<10	<10	10	10	34	
JN11009-165		89	<20	0.12	<10	<10	28	<10	51	
JN11009-166		5	<20	0.06	<10	<10	16	20	28	
JN11009-167		2	<20	0.04	<10	10	13	30	36	
JN11009-168		3	<20	0.03	<10	<10	9	10	49	
JN11009-169		<1	<20	0.05	<10	<10	13	120	47	
JN11009-170		4	<20	0.04	<10	<10	9	180	43	
JN11009-171		1	<20	0.05	<10	<10	13	110	46	
JN11009-172		<1	<20	0.05	<10	10	14	400	47	
JN11009-173		1	<20	0.05	<10	10	14	120	47	
JN11009-174		<1	<20	0.05	<10	<10	14	370	44	
JN11009-175		9	<20	0.03	<10	10	9	1070	29	
JN11009-176		6	<20	0.03	<10	<10	10	10	45	
JN11009-177		2	<20	0.04	<10	<10	15	700	33	
JN11009-178		3	<20	0.03	<10	<10	7	380	36	
JN11009-179		4	<20	0.06	<10	<10	13	150	37	
JN11009-180		30	<20	0.05	<10	<10	11	100	26	
JN11009-180S		103	<20	0.10	<10	<10	34	<10	109	
JN11009-181		3	<20	0.03	<10	<10	4	510	18	
JN11009-182		1	<20	0.05	<10	10	13	40	31	
JN11009-183		12	<20	0.01	<10	<10	7	60	70	
JN11009-184		23	<20	<0.01	<10	<10	8	220	35	
JN11009-185		23	<20	0.01	<10	<10	28	20	101	
JN11009-186		5	<20	<0.01	<10	<10	24	90	56	
JN11009-187		17	<20	0.01	<10	<10	60	10	103	



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Sample Description	Method Analyte Units LOR	WEI- 21 Recvd Wt. kg 0.02	Au- AA23 Au ppm 0.005	Au- GRA21 Au ppm 0.05	ME- ICP41 Ag ppm 0.2	ME- ICP41 Al % 0.01	ME- ICP41 As ppm 2	ME- ICP41 B ppm 10	ME- ICP41 Ba ppm 10	ME- ICP41 Be ppm 0.5	ME- ICP41 Bi ppm 2	ME- ICP41 Ca % 0.01	ME- ICP41 Cd ppm 0.5	ME- ICP41 Co ppm 1	ME- ICP41 Cr ppm 1	ME- ICP41 Cu ppm 1
JN11009- 188		1.39	0.013		<0.2	0.72	8	<10	<10	4.2	3	2.07	<0.5	9	13	14
JN11009- 189		1.52	0.020		<0.2	0.88	5	<10	<10	4.1	3	2.14	<0.5	8	31	6
JN11009- 190		1.94	0.731		<0.2	2.28	<2	30	<10	0.9	100	5.58	<0.5	<1	21	5
JN11009- 191		1.90	0.025		<0.2	0.89	7	<10	<10	3.1	5	1.85	<0.5	14	48	157
JN11009- 192		2.36	<0.005		<0.2	1.50	2	<10	<10	2.7	<2	1.61	<0.5	9	55	5
JN11009- 193		1.81	0.041		0.4	1.07	6	<10	<10	2.1	32	1.20	<0.5	19	52	776
JN11009- 194		1.54	<0.005		<0.2	0.85	<2	<10	<10	3.9	<2	2.59	<0.5	11	23	58
JN11009- 195		1.89	0.019		0.4	0.63	6	<10	<10	5.1	27	2.16	<0.5	37	14	637
JN11009- 196		4.12	0.018		<0.2	1.71	3	<10	<10	1.0	7	4.02	<0.5	7	17	195
JN11009- 197		3.39	0.022		<0.2	1.31	3	<10	<10	0.9	3	2.64	<0.5	4	16	241
JN11009- 198		2.74	0.029		<0.2	1.24	<2	<10	<10	4.8	5	4.26	<0.5	8	14	274
JN11009- 199		2.49	<0.005		<0.2	1.17	<2	<10	<10	5.1	3	3.48	<0.5	11	30	179
JN11009- 200		3.14	0.009		<0.2	0.63	<2	<10	<10	1.0	5	1.58	<0.5	7	3	287
JN11009- 200S		0.03	1.420		34.9	0.41	27	<10	280	<0.5	<2	1.35	<0.5	7	30	3290
JN11009- 200B		0.03	<0.005		<0.2	1.03	<2	<10	170	<0.5	<2	0.39	<0.5	3	10	23
JN11009- 201		2.75	0.012		<0.2	1.78	2	10	<10	1.0	2	2.36	<0.5	2	14	16
JN11009- 202		2.95	0.008		<0.2	0.70	<2	<10	<10	1.5	<2	1.56	<0.5	3	8	64
JN11009- 203		2.88	0.186		2.7	0.90	64	<10	<10	3.9	101	1.61	<0.5	20	18	1530
JN11009- 204		2.82	0.363		<0.2	0.51	4	<10	<10	3.0	82	1.48	<0.5	12	12	615
JN11009- 205		3.03	0.235		<0.2	0.13	<2	<10	<10	1.4	22	1.29	<0.5	3	3	106
JN11009- 206		1.92	0.344		<0.2	0.13	3	<10	<10	7.7	26	9.7	<0.5	6	4	4
JN11009- 207		1.34	<0.005		<0.2	0.13	2	<10	<10	11.1	<2	5.54	<0.5	12	3	3
JN11009- 208		1.90	0.085		<0.2	0.22	<2	<10	<10	1.4	7	1.67	<0.5	3	2	59
JN11009- 209		3.26	0.074		<0.2	0.23	<2	<10	<10	1.8	10	1.74	<0.5	5	2	98
JN11009- 210		3.25	<0.005		<0.2	0.12	<2	<10	<10	0.9	<2	1.04	<0.5	1	1	1
JN11009- 211		3.45	<0.005		<0.2	0.12	<2	<10	<10	2.1	<2	1.87	<0.5	2	3	10
JN11009- 212		2.02	0.012		<0.2	0.12	<2	<10	<10	3.6	<2	1.62	<0.5	2	3	5
JN11009- 213		2.84	<0.005		<0.2	0.63	<2	<10	<10	5.4	<2	4.20	<0.5	5	10	14
JN11009- 214		2.83	0.009		<0.2	3.07	<2	10	10	2.1	3	3.29	<0.5	7	26	153
JN11009- 215		1.32	<0.005		<0.2	2.04	4	<10	50	0.9	<2	1.86	<0.5	7	41	14
JN11009- 216		2.24	0.022		<0.2	0.95	<2	<10	<10	0.5	50	1.43	<0.5	1	22	18
JN11009- 217		2.39	<0.005		<0.2	0.85	<2	<10	<10	0.5	2	1.33	<0.5	2	25	27



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JN11009-188		26.5	10	<1	0.05	<10	0.68	11850	<1	0.02	3	120	7	0.16	<2	4
JN11009-189		25.1	10	<1	0.02	<10	0.61	10850	21	0.02	2	460	6	0.79	<2	10
JN11009-190		8.89	10	<1	0.19	10	0.08	2100	96	0.14	1	260	2	0.03	<2	2
JN11009-191		18.4	10	<1	0.03	<10	0.40	7510	12	0.01	13	1020	8	2.33	5	15
JN11009-192		18.7	10	<1	0.03	20	0.54	7950	29	0.03	15	390	5	0.83	<2	15
JN11009-193		17.6	10	<1	0.04	30	0.31	5690	31	0.03	17	180	8	4.90	4	16
JN11009-194		27.4	10	<1	0.01	<10	0.62	11900	2	0.03	4	190	5	2.04	<2	18
JN11009-195		30.0	10	<1	0.01	<10	0.59	10300	2	0.03	7	340	7	6.98	<2	5
JN11009-196		7.78	20	<1	0.19	<10	0.09	2040	32	0.15	<1	210	5	1.33	<2	2
JN11009-197		27.0	30	<1	0.21	<10	0.08	1830	1	0.15	8	720	4	1.67	<2	2
JN11009-198		20.1	20	<1	0.19	<10	0.15	4140	12	0.13	8	160	3	1.83	<2	2
JN11009-199		19.3	10	1	0.11	50	0.33	6530	4	0.03	10	190	8	1.97	<2	6
JN11009-200		4.56	10	<1	0.08	<10	0.08	982	<1	0.06	3	120	2	1.35	<2	<1
JN11009-200S		2.64	<10	4	0.16	10	0.15	446	386	0.07	19	410	62	1.15	83	1
JN11009-200B		1.92	<10	<1	0.35	10	0.31	497	1	0.21	2	220	5	0.02	<2	4
JN11009-201		2.32	10	<1	0.09	10	0.12	789	23	0.15	5	120	4	0.11	<2	1
JN11009-202		3.05	10	<1	0.09	10	0.12	949	1	0.08	2	210	2	0.35	<2	1
JN11009-203		9.78	20	<1	0.13	10	0.14	1020	5	0.10	7	100	27	4.46	<2	2
JN11009-204		7.18	10	<1	0.09	10	0.13	1000	4	0.06	5	220	3	2.88	<2	1
JN11009-205		3.06	<10	<1	0.03	10	0.17	920	1	0.03	2	420	3	0.47	<2	<1
JN11009-206		12.55	<10	1	0.01	<10	0.20	6750	9	0.02	<1	450	3	0.04	<2	1
JN11009-207		24.2	10	<1	0.01	<10	0.34	11250	<1	0.02	1	280	3	0.05	<2	1
JN11009-208		2.58	10	<1	0.05	<10	0.10	951	2	0.03	1	230	2	0.33	<2	<1
JN11009-209		3.03	10	<1	0.08	10	0.08	983	2	0.04	2	140	2	0.61	<2	<1
JN11009-210		1.57	<10	<1	0.03	<10	0.12	713	<1	0.04	<1	160	<2	0.04	<2	<1
JN11009-211		3.25	<10	<1	0.03	<10	0.12	1505	<1	0.04	<1	140	<2	0.11	<2	<1
JN11009-212		3.27	<10	<1	0.03	<10	0.07	1610	<1	0.04	1	170	2	0.05	<2	<1
JN11009-213		5.56	<10	<1	0.04	20	0.20	2760	2	0.07	7	160	3	0.11	<2	1
JN11009-214		3.10	10	<1	0.33	30	0.46	631	21	0.23	18	430	2	0.68	<2	4
JN11009-215		2.84	10	<1	0.90	20	0.93	430	59	0.08	29	640	3	0.15	<2	7
JN11009-216		1.07	<10	<1	0.19	10	0.19	178	26	0.08	5	80	3	0.10	<2	2
JN11009-217		1.38	<10	<1	0.14	20	0.26	206	5	0.06	7	70	<2	0.14	<2	2



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 Total # Pages: 7 (A - C)
 Finalized Date: 25- OCT- 2011
 Account: TELOEX

CERTIFICATE OF ANALYSIS WH11176492

Sample Description	Method Analyte Units LOR	ME- ICP41 Sr ppm 1	ME- ICP41 Th ppm 20	ME- ICP41 Ti % 0.01	ME- ICP41 Ti ppm 10	ME- ICP41 U ppm 10	ME- ICP41 V ppm 1	ME- ICP41 W ppm 10	ME- ICP41 Zn ppm 2	Ag- OG46 Ag ppm 1
JN11009- 188		21	<20	<0.01	<10	<10	24	10	147	
JN11009- 189		16	<20	0.01	<10	<10	43	10	134	
JN11009- 190		28	<20	0.09	<10	<10	24	40	34	
JN11009- 191		15	<20	0.01	<10	<10	65	10	98	
JN11009- 192		12	<20	0.01	<10	<10	81	10	112	
JN11009- 193		10	<20	0.01	<10	<10	79	10	86	
JN11009- 194		16	<20	0.01	<10	<10	81	10	129	
JN11009- 195		23	<20	<0.01	<10	<10	21	10	154	
JN11009- 196		9	<20	0.07	<10	<10	18	60	47	
JN11009- 197		8	<20	0.08	<10	<10	19	30	59	
JN11009- 198		22	<20	0.05	<10	<10	20	80	74	
JN11009- 199		22	<20	0.02	<10	<10	36	50	98	
JN11009- 200		14	<20	0.03	<10	<10	4	20	27	
JN11009- 200S		277	<20	0.01	<10	<10	18	<10	51	
JN11009- 200B		52	<20	0.11	<10	<10	28	<10	32	
JN11009- 201		90	<20	0.10	<10	<10	16	10	22	
JN11009- 202		11	<20	0.06	<10	<10	8	60	24	
JN11009- 203		13	<20	0.08	<10	<10	15	80	52	
JN11009- 204		6	<20	0.03	<10	<10	8	20	25	
JN11009- 205		5	<20	0.01	<10	<10	1	10	16	
JN11009- 206		26	<20	0.01	<10	<10	4	100	114	
JN11009- 207		22	<20	0.01	<10	<10	6	20	183	
JN11009- 208		7	<20	0.01	<10	<10	1	280	38	
JN11009- 209		9	<20	0.01	<10	<10	1	310	19	
JN11009- 210		4	<20	0.01	<10	<10	1	10	18	
JN11009- 211		8	<20	0.01	<10	<10	2	10	24	
JN11009- 212		17	<20	0.02	<10	<10	4	10	27	
JN11009- 213		47	<20	0.03	<10	<10	10	40	52	
JN11009- 214		129	<20	0.12	<10	<10	32	110	29	
JN11009- 215		42	<20	0.11	<10	<10	48	10	34	
JN11009- 216		45	<20	0.03	<10	<10	11	170	11	
JN11009- 217		33	<20	0.02	<10	<10	14	60	9	



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QC CERTIFICATE WH11176492

Project:

P.O. No.:

This report is for 232 Drill Core samples submitted to our lab in Whitehorse, YT, Canada on 19- SEP- 2011.

The following have access to data associated with this certificate:

JESSE CAMPBELL

CHRIS GALLAGHER

SAMPLE PREPARATION

ALS CODE	DESCRIPTION
WEI- 21	Received Sample Weight
LOG- 24	Pulp Login - Rcd w/o Barcode
LOG- 22	Sample login - Rcd w/o BarCode
CRU- QC	Crushing QC Test
PUL- QC	Pulverizing QC Test
SPL- 22Y	Split Sample - Boyd Rotary Splitter
CRU- 31	Fine crushing - 70% <2mm
PUL- 32m	Pulverize 500g - 85%<75um

ANALYTICAL PROCEDURES

ALS CODE	DESCRIPTION	INSTRUMENT
ME- OG46	Ore Grade Elements - AquaRegia	ICP- AES
Au- AA23	Au 30g FA- AA finish	AAS
Au- GRA21	Au 30g FA- GRAV finish	WST- SIM
ME- ICP41	35 Element Aqua Regia ICP- AES	ICP- AES
Ag- OG46	Ore Grade Ag - Aqua Regia	VARIABLE

To: TERRALOGIC EXPLORATION SERVICES INC.
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This is the Final Report and supersedes any preliminary report with this certificate number. Results apply to samples as submitted. All pages of this report have been checked and approved for release.

Signature:

Colin Ramshaw, Vancouver Laboratory Manager



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QC CERTIFICATE OF ANALYSIS WH11176492

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QC CERTIFICATE OF ANALYSIS	WH11176492

Sample Description	Method Analyte Units LOR	ME- ICP41 Ga ppm 10	ME- ICP41 Hg ppm 1	ME- ICP41 K % 0.01	ME- ICP41 La ppm 10	ME- ICP41 Mg % 0.01	ME- ICP41 Mn ppm 5	ME- ICP41 Mo ppm 1	ME- ICP41 Na % 0.01	ME- ICP41 Ni ppm 1	ME- ICP41 P ppm 10	ME- ICP41 Pb ppm 2	ME- ICP41 S % 0.01	ME- ICP41 Sb ppm 2	ME- ICP41 Sc ppm 1	ME- ICP41 Sr ppm 1
ORIGINAL DUP		DUPLICATES														
ORIGINAL DUP																
ORIGINAL DUP		<10 <10	<1 <1	0.25 0.25	40 40	0.55 0.55	326 329	1 1	0.07 0.07	4 5	90 100	3 4	0.01 0.02	2 2	3 3	46 46
JN11009-013 DUP																
JN11009-033 DUP		<10 <10	<1 <1	0.58 0.57	10 10	0.17 0.16	236 233	<1 <1	0.04 0.04	28 29	140 140	135 131	3.22 3.19	23 21	1 1	5 6
JN11009-050 DUP																
JN11009-66 DUP		10 10	<1 <1	0.09 0.09	50 50	0.56 0.56	6050 6140	10 8	0.02 0.02	31 30	450 450	13 13	0.66 0.67	4 4	14 14	18 17
JN11009-85 DUP																



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QC CERTIFICATE OF ANALYSIS WH11176492

Sample Description	Method Analyte Units LOR	Au- AA23 Au ppm	Au- GRA21 Au ppm	ME- ICP41 Ag ppm	ME- ICP41 Al %	ME- ICP41 As ppm	ME- ICP41 B ppm	ME- ICP41 Ba ppm	ME- ICP41 Be ppm	ME- ICP41 Bi ppm	ME- ICP41 Ca %	ME- ICP41 Cd ppm	ME- ICP41 Co ppm	ME- ICP41 Cr ppm	ME- ICP41 Cu ppm	ME- ICP41 Fe %
		0.005	0.05	0.2	0.01	2	10	10	0.5	2	0.01	0.5	1	1	1	0.01
DUPLICATES																
JN11009- 193 DUP		0.041 0.039														
JN11009- 200S DUP				34.9 34.5	0.41 0.40	27 26	<10 <10	260 260	<0.5 <0.5	<2 <2	1.35 1.34	<0.5 <0.5	7 8	30 31	3290 3250	2.64 2.65
ORIGINAL DUP				<0.05 <0.05												
PREP DUPLICATES																
JN11009- 051 JN11009- 051 PREP DUP		0.434 0.402		6.6 6.0	0.85 0.96	12 5	<10 <10	30 10	3.9 4.2	422 421	1.59 1.65	<0.5 <0.5	17 16	12 16	650 696	19.2 20.0
JN11009- 101 JN11009- 101 PREP DUP		0.107 0.095		3.4 3.1	0.50 0.49	>10000 >10000	10 10	20 10	<0.5 <0.5	12 10	0.34 0.35	1.3 1.2	20 18	14 13	13 12	2.14 2.26
JN11009- 151 JN11009- 151 PREP DUP		0.042 0.042		0.4 <0.2	1.36 1.40	18 22	<10 10	<10 <10	1.8 1.8	<2 3	3.46 3.48	<0.5 <0.5	3 2	11 12	22 25	9.55 9.50
JN11009- 201 JN11009- 201 PREP DUP		0.012 0.011		<0.2 <0.2	1.78 1.90	2 40	10 10	<10 <10	1.0 1.0	2 2	2.36 2.46	<0.5 <0.5	2 1	14 15	16 15	2.32 2.42



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QC CERTIFICATE OF ANALYSIS WH11176492

Sample Description	Method Analyte Units LOR	ME- ICP41 Ga ppm 10	ME- ICP41 Hg ppm 1	ME- ICP41 K % 0.01	ME- ICP41 La ppm 10	ME- ICP41 Mg % 0.01	ME- ICP41 Mn ppm 5	ME- ICP41 Mo ppm 1	ME- ICP41 Na % 0.01	ME- ICP41 Ni ppm 1	ME- ICP41 P ppm 10	ME- ICP41 Pb ppm 2	ME- ICP41 S % 0.01	ME- ICP41 Sb ppm 2	ME- ICP41 Sc ppm 1	ME- ICP41 Sr ppm 1
JN11009- 193 DUP		DUPLICATES														
JN11009- 2005 DUP		<10	4	0.16	10	0.15	446	386	0.07	19	410	62	1.15	83	1	277
		<10	4	0.16	10	0.15	442	331	0.05	19	400	61	1.69	81	1	277
ORIGINAL DUP																
JN11009- 051 JN11009- 051 PREP DUP		PREP DUPLICATES														
		10	<1	0.19	10	0.31	4830	5	0.04	12	380	77	6.12	<2	3	17
		10	<1	0.20	10	0.33	5010	5	0.03	12	410	75	6.05	2	3	16
JN11009- 101 JN11009- 101 PREP DUP		<10	<1	0.26	10	0.11	230	1	0.02	4	60	201	0.93	22	1	16
		<10	<1	0.26	10	0.11	252	1	0.01	4	50	193	1.12	23	1	14
JN11009- 151 JN11009- 151 PREP DUP		10	<1	0.31	<10	0.11	2200	9	0.17	2	90	4	0.95	<2	1	17
		10	<1	0.29	<10	0.11	2300	10	0.18	4	90	5	1.10	<2	2	16
JN11009- 201 JN11009- 201 PREP DUP		10	<1	0.09	10	0.12	789	23	0.15	5	120	4	0.11	<2	1	90
		10	<1	0.11	10	0.13	820	22	0.16	5	130	6	0.28	<2	2	94



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QC CERTIFICATE OF ANALYSIS WH11176492

Sample Description	Method Analyte Units LOR	ME- ICP41 Th ppm 20	ME- ICP41 Ti % 0.01	ME- ICP41 Tl ppm 10	ME- ICP41 U ppm 10	ME- ICP41 V ppm 1	ME- ICP41 W ppm 10	ME- ICP41 Zn ppm 2	Ag- OG46 Ag ppm 1
JN11009-193 DUP		DUPLICATES							
JN11009-200S DUP		<20 20	0.01 0.01	<10 10	<10 10	18 17	<10 10	51 50	
ORIGINAL DUP									
JN11009-051 JN11009-051 PREP DUP		PREP DUPLICATES							
JN11009-101 JN11009-101 PREP DUP		<20 20	<0.01 0.01	<10 10	<10 10	4 4	<10 10	204 184	
JN11009-151 JN11009-151 PREP DUP		<20 20	0.05 0.05	<10 10	<10 10	13 14	10 10	41 42	
JN11009-201 JN11009-201 PREP DUP		<20 20	0.10 0.11	<10 10	<10 10	16 17	10 10	22 23	



Minerals

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CERTIFICATE WH11193080

Project:

P.O. No.: JN11- 010

This report is for 152 Drill Core samples submitted to our lab in Whitehorse, YT, Canada on 22- SEP- 2011.

The following have access to data associated with this certificate:

JESSE CAMPBELL

CHRIS GALLAGHER

SAMPLE PREPARATION

ALS CODE	DESCRIPTION
WEI- 21	Received Sample Weight
LOG- 24	Pulp Login - Rcd w/o Barcode
LOG- 22	Sample login - Rcd w/o BarCode
SPL- 22Y	Split Sample - Boyd Rotary Splitter
BAG- 01	Bulk Master for Storage
CRU- QC	Crushing QC Test
PUL- 32m	Pulverize 500g - 85%<75um
PUL- QC	Pulverizing QC Test
CRU- 31	Fine crushing - 70% <2mm

ANALYTICAL PROCEDURES

ALS CODE	DESCRIPTION	INSTRUMENT
Au- AA23	Au 30g FA- AA finish	AAS
ME- ICP41	35 Element Aqua Regia ICP- AES	ICP- AES

To: TERRALOGIC EXPLORATION SERVICES INC.

ATTN: CHRIS GALLAGHER

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This is the Final Report and supersedes any preliminary report with this certificate number. Results apply to samples as submitted. All pages of this report have been checked and approved for release.

Signature:

Colin Ramshaw, Vancouver Laboratory Manager



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CERTIFICATE OF ANALYSIS WH11193080

Sample Description	Method Analyte Units LOR	WEI- 21 Recvd Wt. kg 0.02	Au- AA23 Au ppm 0.005	ME- ICP41 Ag ppm 0.2	ME- ICP41 Al % 0.01	ME- ICP41 As ppm 2	ME- ICP41 B ppm 10	ME- ICP41 Ba ppm 10	ME- ICP41 Be ppm 0.5	ME- ICP41 Bi ppm 2	ME- ICP41 Ca % 0.01	ME- ICP41 Cd ppm 0.5	ME- ICP41 Co ppm 1	ME- ICP41 Cr ppm 1	ME- ICP41 Cu ppm 1	ME- ICP41 Fe % 0.01
JN11010- 001		2.64	<0.005	<0.2	0.51	43	<10	10	<0.5	<2	0.39	<0.5	8	27	15	2.43
JN11010- 002		2.52	0.032	0.4	0.16	58	<10	<10	<0.5	2	0.24	1.1	1	27	11	0.93
JN11010- 003		0.87	0.201	7.6	0.08	>10000	30	<10	<0.5	46	0.05	27.2	58	19	55	3.56
JN11010- 004		3.11	0.012	0.5	0.68	83	<10	60	<0.5	5	0.23	<0.5	11	14	81	3.68
JN11010- 005		2.43	<0.005	0.2	0.65	84	<10	60	0.5	3	0.29	1.1	11	15	83	3.76
JN11010- 006		2.30	<0.005	0.3	0.98	18	<10	60	0.8	2	0.41	0.5	10	13	59	3.53
JN11010- 007		1.80	<0.005	0.9	1.08	31	<10	70	0.6	18	0.45	0.6	13	18	87	3.90
JN11010- 008		1.38	<0.005	<0.2	1.41	13	<10	90	0.8	<2	0.50	<0.5	10	24	33	2.78
JN11010- 009		1.95	<0.005	<0.2	1.55	11	<10	90	0.7	<2	0.42	0.6	11	25	50	3.67
JN11010- 010		2.59	0.008	0.2	1.18	72	<10	70	0.6	3	0.64	<0.5	11	25	39	3.49
JN11010- 011		2.30	<0.005	0.5	0.62	19	<10	60	0.5	2	0.40	0.7	12	13	67	3.76
JN11010- 012		2.54	0.021	1.5	0.60	743	<10	60	0.5	36	0.31	<0.5	10	18	47	3.58
JN11010- 013		1.84	<0.005	0.6	0.52	17	<10	50	0.5	3	0.39	1.8	9	12	36	3.33
JN11010- 014		1.80	<0.005	0.5	0.60	31	<10	50	0.7	<2	0.48	0.8	11	17	59	4.26
JN11010- 015		2.64	<0.005	0.2	1.27	13	<10	60	0.8	<2	0.52	1.2	11	23	45	4.19
JN11010- 016		1.89	<0.005	0.7	0.57	13	<10	60	0.5	3	0.27	1.2	9	13	56	3.87
JN11010- 017		2.59	0.013	1.7	0.62	54	<10	60	0.5	5	0.47	22.7	13	13	123	4.75
JN11010- 018		1.98	0.013	1.3	0.57	49	10	40	0.5	4	0.29	4.7	14	18	101	5.12
JN11010- 019		1.95	0.005	<0.2	0.64	16	<10	60	0.8	2	0.19	<0.5	13	20	48	3.75
JN11010- 020		2.06	<0.005	0.2	0.75	13	<10	50	0.7	<2	0.67	<0.5	13	33	38	4.49
JN11010- 020S		0.03	3.49	68.5	1.30	93	<10	70	<0.5	7	2.03	<0.5	9	18	735	3.22
JN11010- 021		2.76	<0.005	0.2	0.88	6	<10	60	0.7	2	0.34	<0.5	11	33	28	4.70
JN11010- 022		2.79	<0.005	0.7	0.64	11	<10	80	0.6	7	0.16	7.8	9	15	97	4.54
JN11010- 023		1.46	0.005	0.2	0.53	37	<10	50	<0.5	3	0.22	4.2	10	14	75	3.08
JN11010- 024		1.68	0.244	9.5	0.13	>10000	10	10	<0.5	260	0.03	1.1	15	22	10	1.98
JN11010- 025		1.42	0.609	13.8	0.11	>10000	<10	10	<0.5	164	0.05	4.5	9	21	32	2.85
JN11010- 026		1.43	0.296	8.9	0.26	>10000	<10	20	<0.5	84	0.32	1.1	13	22	141	4.57
JN11010- 027		2.18	0.008	8.0	0.69	318	<10	40	0.6	24	0.37	14.8	5	20	282	6.09
JN11010- 028		2.49	0.006	0.4	0.17	113	<10	10	<0.5	3	0.21	<0.5	2	23	53	2.50
JN11010- 029		1.84	<0.005	<0.2	0.35	11	<10	10	<0.5	2	0.16	<0.5	4	23	28	1.95
JN11010- 030		1.81	0.005	0.2	0.42	15	<10	10	0.5	2	0.23	<0.5	7	21	39	2.30
JN11010- 031		1.03	0.005	<0.2	0.49	17	<10	20	<0.5	2	0.30	<0.5	7	17	19	1.63
JN11010- 032		2.49	<0.005	<0.2	2.97	13	<10	110	0.7	2	1.65	<0.5	14	42	72	3.31
JN11010- 033		2.76	0.007	<0.2	3.08	14	<10	70	1.0	3	3.85	<0.5	14	38	88	4.19
JN11010- 034		1.81	<0.005	<0.2	1.85	9	<10	70	1.1	4	3.13	<0.5	12	29	144	4.59
JN11010- 035		2.67	0.006	0.3	1.33	8	<10	60	1.1	5	5.00	1.0	11	23	215	5.11
JN11010- 036		2.81	0.111	0.3	2.57	3	<10	20	2.2	49	6.13	<0.5	7	24	316	7.47
JN11010- 037		3.09	0.195	0.6	3.00	8	10	10	2.3	166	4.99	<0.5	4	29	686	10.90
JN11010- 038		1.55	0.034	<0.2	2.70	4	20	10	1.7	6	4.91	<0.5	2	18	215	5.80
JN11010- 039		3.34	0.011	1.1	1.91	149	<10	10	2.7	24	2.46	<0.5	6	22	1320	18.4



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44 - 12TH AVENUE SOUTH
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CERTIFICATE OF ANALYSIS WH11193080

Sample Description	Method Analyte Units LOR	ME- ICP41 Ga ppm 10	ME- ICP41 Hg ppm 1	ME- ICP41 K % 0.01	ME- ICP41 La ppm 10	ME- ICP41 Mg % 0.01	ME- ICP41 Mn ppm 5	ME- ICP41 Mo ppm 1	ME- ICP41 Na % 0.01	ME- ICP41 Ni ppm 1	ME- ICP41 P ppm 10	ME- ICP41 Pb ppm 2	ME- ICP41 S % 0.01	ME- ICP41 Sb ppm 2	ME- ICP41 Sc ppm 1	ME- ICP41 Sr ppm 1
JN11010-001		<10	<1	0.18	10	0.36	411	1	<0.01	28	330	10	0.26	<2	3	19
JN11010-002		<10	<1	0.10	10	0.08	193	3	<0.01	9	80	27	0.14	<2	1	8
JN11010-003		<10	<1	0.03	10	0.02	90	1	<0.01	19	170	421	1.78	57	<1	2
JN11010-004		<10	<1	0.36	20	0.34	732	<1	<0.01	35	560	11	1.52	2	2	7
JN11010-005		<10	<1	0.32	20	0.25	805	<1	<0.01	36	140	10	1.30	<2	2	8
JN11010-006		<10	<1	0.36	10	0.45	885	2	<0.01	36	150	28	1.12	<2	1	8
JN11010-007		<10	<1	0.52	20	0.47	708	<1	<0.01	37	300	49	1.59	<2	1	9
JN11010-008		<10	<1	0.65	20	0.53	513	<1	0.01	31	150	<2	0.56	<2	3	15
JN11010-009		<10	1	0.65	20	0.67	537	<1	0.01	33	140	8	0.77	<2	2	12
JN11010-010		<10	<1	0.56	20	0.60	633	<1	<0.01	37	150	11	0.71	<2	3	21
JN11010-011		<10	<1	0.33	10	0.42	822	<1	<0.01	36	320	28	1.14	<2	1	17
JN11010-012		<10	<1	0.31	10	0.35	720	<1	<0.01	28	190	60	0.87	3	2	13
JN11010-013		<10	<1	0.27	10	0.33	840	<1	<0.01	29	130	51	0.82	<2	1	13
JN11010-014		<10	<1	0.28	20	0.36	994	<1	<0.01	36	140	25	1.00	<2	2	18
JN11010-015		<10	<1	0.30	10	0.58	683	<1	<0.01	35	150	8	0.43	<2	1	12
JN11010-016		<10	<1	0.31	10	0.44	750	<1	<0.01	35	130	47	0.93	<2	1	15
JN11010-017		<10	<1	0.31	10	0.29	598	<1	<0.01	37	1220	97	2.45	3	2	15
JN11010-018		<10	<1	0.27	10	0.27	665	<1	<0.01	35	780	88	2.04	2	2	6
JN11010-019		<10	<1	0.26	20	0.30	670	<1	<0.01	34	180	4	0.23	<2	2	11
JN11010-020		<10	<1	0.26	10	0.18	751	<1	<0.01	38	1750	4	0.27	<2	4	16
JN11010-020S		<10	<1	0.16	<10	0.86	830	680	0.04	8	670	37	0.23	54	1	94
JN11010-021		<10	<1	0.30	20	0.24	826	<1	<0.01	32	240	3	0.22	<2	3	10
JN11010-022		<10	<1	0.32	10	0.35	947	<1	<0.01	33	130	29	1.67	<2	1	8
JN11010-023		<10	<1	0.32	10	0.33	367	1	<0.01	31	180	8	1.18	3	1	13
JN11010-024		<10	<1	0.09	10	0.02	60	2	<0.01	9	70	383	0.87	63	<1	3
JN11010-025		<10	<1	0.07	<10	0.02	65	2	<0.01	11	100	638	1.59	37	<1	3
JN11010-026		<10	<1	0.15	10	0.12	426	6	0.01	13	650	447	2.46	22	1	7
JN11010-027		<10	<1	0.34	20	0.18	557	3	<0.01	31	1130	470	3.74	2	2	7
JN11010-028		<10	<1	0.05	10	0.06	699	2	<0.01	6	70	18	0.72	<2	1	5
JN11010-029		<10	<1	0.06	10	0.02	479	2	<0.01	12	330	6	0.28	<2	2	4
JN11010-030		<10	<1	0.06	20	0.06	603	2	<0.01	20	160	7	0.37	<2	4	7
JN11010-031		<10	<1	0.10	20	0.05	370	2	<0.01	18	220	4	0.12	<2	3	11
JN11010-032		10	<1	0.64	20	0.73	298	2	0.18	36	140	3	1.04	<2	4	82
JN11010-033		10	<1	0.48	30	0.80	544	1	0.12	42	510	6	1.66	<2	4	103
JN11010-034		<10	<1	0.42	40	0.61	881	2	0.02	44	670	10	2.24	<2	4	52
JN11010-035		<10	<1	0.45	50	0.43	1890	2	0.02	41	360	20	3.09	<2	4	75
JN11010-036		10	<1	0.12	10	0.30	1455	3	0.12	17	570	5	3.14	2	3	76
JN11010-037		10	<1	0.09	10	0.41	1500	<1	0.07	10	380	4	5.28	2	3	49
JN11010-038		10	<1	0.07	10	0.48	1225	<1	0.08	7	590	3	0.89	3	2	24
JN11010-039		10	<1	0.18	10	0.41	1495	<1	0.08	13	170	15	>10.0	<2	3	28



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CERTIFICATE OF ANALYSIS WH11193080

Sample Description	Method Analyte Units LOR	ME- ICP41 Th ppm 20	ME- ICP41 Ti % 0.01	ME- ICP41 Ti ppm 10	ME- ICP41 U ppm 10	ME- ICP41 V ppm 1	ME- ICP41 W ppm 10	ME- ICP41 Zn ppm 2
JN11010- 001		<20	0.01	<10	<10	16	<10	48
JN11010- 002		<20	<0.01	<10	<10	1	<10	109
JN11010- 003		<20	<0.01	<10	<10	1	<10	2580
JN11010- 004		<20	<0.01	<10	<10	15	<10	51
JN11010- 005		<20	<0.01	<10	<10	16	<10	138
JN11010- 006		<20	0.01	<10	<10	12	<10	86
JN11010- 007		<20	0.02	<10	<10	18	<10	87
JN11010- 008		<20	0.05	<10	<10	25	<10	32
JN11010- 009		<20	0.04	<10	<10	23	<10	105
JN11010- 010		<20	0.03	<10	<10	24	<10	41
JN11010- 011		<20	<0.01	<10	<10	13	<10	111
JN11010- 012		<20	<0.01	<10	<10	17	<10	45
JN11010- 013		<20	<0.01	<10	<10	12	<10	216
JN11010- 014		<20	<0.01	<10	<10	18	<10	124
JN11010- 015		<20	0.01	<10	<10	23	<10	178
JN11010- 016		<20	<0.01	<10	<10	11	<10	148
JN11010- 017		<20	<0.01	<10	<10	14	<10	2160
JN11010- 018		<20	<0.01	<10	<10	17	<10	477
JN11010- 019		<20	<0.01	<10	<10	23	<10	87
JN11010- 020		<20	<0.01	<10	<10	40	<10	119
JN11010- 020S		<20	0.09	<10	<10	30	<10	101
JN11010- 021		<20	<0.01	<10	<10	38	<10	78
JN11010- 022		<20	<0.01	<10	<10	15	<10	701
JN11010- 023		<20	<0.01	<10	<10	7	<10	389
JN11010- 024		<20	<0.01	<10	<10	1	<10	62
JN11010- 025		<20	<0.01	<10	<10	1	<10	405
JN11010- 026		<20	<0.01	<10	<10	5	<10	107
JN11010- 027		<20	<0.01	<10	<10	12	<10	1470
JN11010- 028		<20	<0.01	<10	<10	6	<10	43
JN11010- 029		<20	<0.01	<10	<10	10	<10	32
JN11010- 030		20	<0.01	<10	<10	18	<10	12
JN11010- 031		<20	<0.01	<10	<10	11	<10	17
JN11010- 032		<20	0.10	<10	<10	38	<10	36
JN11010- 033		20	0.04	<10	<10	39	<10	82
JN11010- 034		20	0.01	<10	<10	35	<10	30
JN11010- 035		20	0.01	<10	<10	28	<10	108
JN11010- 036		<20	0.04	<10	<10	26	10	40
JN11010- 037		<20	0.08	<10	<10	32	10	33
JN11010- 038		<20	0.06	<10	<10	18	<10	30
JN11010- 039		<20	0.04	<10	<10	25	40	43



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Sample Description	Method Analyte Units LOR	WEI- 21 Recvd Wt. kg 0.02	Au- AA23 Au ppm 0.005	ME- ICP41 Ag ppm 0.2	ME- ICP41 Al % 0.01	ME- ICP41 As ppm 2	ME- ICP41 B ppm 10	ME- ICP41 Ba ppm 10	ME- ICP41 Be ppm 0.5	ME- ICP41 Bi ppm 2	ME- ICP41 Ca % 0.01	ME- ICP41 Cd ppm 0.5	ME- ICP41 Co ppm 1	ME- ICP41 Cr ppm 1	ME- ICP41 Cu ppm 1	ME- ICP41 Fe % 0.01
JN11010- 040		2.34	0.014	0.5	1.13	888	<10	50	1.2	14	1.90	0.8	10	11	134	4.82
JN11010- 040S		0.03	1.475	35.6	0.39	29	<10	200	<0.5	3	1.38	<0.5	8	32	3390	2.65
JN11010- 040B		0.03	0.006	<0.2	1.00	<2	<10	190	<0.5	<2	0.39	<0.5	3	9	24	1.97
JN11010- 041		2.83	<0.005	<0.2	3.41	12	<10	130	1.3	3	2.27	1.2	12	29	100	4.44
JN11010- 042		2.38	<0.005	<0.2	1.22	4	<10	40	1.9	<2	1.70	<0.5	18	24	34	3.02
JN11010- 043		1.26	0.007	0.4	0.52	4	<10	10	0.7	5	0.40	<0.5	10	22	130	5.81
JN11010- 044		1.23	0.007	1.9	0.26	24	<10	10	0.5	17	0.35	<0.5	12	13	541	11.35
JN11010- 045		1.16	0.009	1.9	0.26	7	<10	10	<0.5	40	0.27	<0.5	4	24	189	5.90
JN11010- 046		0.83	<0.005	1.4	0.23	5	<10	10	<0.5	16	0.25	<0.5	6	20	211	6.03
JN11010- 047		1.72	0.058	7.3	0.25	>10000	10	10	0.6	82	0.35	4.8	15	21	416	11.50
JN11010- 048		1.92	0.020	4.2	0.18	1300	<10	10	<0.5	29	0.32	1.3	5	19	320	8.81
JN11010- 049		2.93	0.006	1.2	0.20	194	<10	10	0.5	8	0.32	<0.5	6	26	168	7.01
JN11010- 050		3.56	0.011	0.7	0.22	727	<10	10	0.9	7	0.57	<0.5	6	21	148	9.06
JN11010- 051		1.70	0.013	1.6	0.33	11	<10	10	1.2	30	0.76	0.8	6	26	172	11.10
JN11010- 052		3.13	0.007	<0.2	0.43	2	<10	<10	0.8	3	1.20	<0.5	5	25	20	3.52
JN11010- 053		2.70	0.144	0.7	0.51	14	<10	10	0.7	94	1.47	<0.5	5	25	182	4.00
JN11010- 054		2.39	0.005	<0.2	0.84	19	<10	<10	0.6	6	1.74	<0.5	2	23	68	2.66
JN11010- 055		2.39	0.041	<0.2	0.55	<2	<10	<10	0.5	20	1.14	<0.5	5	22	69	1.91
JN11010- 056		2.85	0.013	0.7	1.54	3	<10	50	1.1	33	3.20	1.2	11	20	188	3.13
JN11010- 057		3.04	<0.005	<0.2	0.60	3	<10	20	1.2	<2	2.25	<0.5	13	16	105	3.15
JN11010- 058		3.79	0.067	<0.2	0.48	<2	10	10	1.2	5	2.89	<0.5	4	7	46	6.29
JN11010- 059		2.41	0.018	0.2	1.38	92	<10	90	0.5	4	0.90	<0.5	9	26	37	4.20
JN11010- 060		3.15	0.010	0.3	0.45	8	<10	20	1.7	2	1.88	<0.5	12	18	125	7.81
JN11010- 060S		0.03	3.41	77.3	1.27	96	<10	70	<0.5	6	2.03	<0.5	9	18	744	3.20
JN11010- 061		1.90	0.084	0.6	0.95	7	<10	10	1.6	201	0.89	<0.5	8	38	81	9.19
JN11010- 062		2.47	0.505	0.3	0.44	5	<10	20	2.3	105	1.75	<0.5	2	22	4	22.0
JN11010- 063		2.62	0.023	0.4	0.75	15	<10	20	1.3	8	1.05	<0.5	4	42	109	16.7
JN11010- 064		2.26	0.046	0.4	0.48	7	<10	20	2.2	9	1.60	<0.5	5	20	95	25.0
JN11010- 065		1.47	0.118	0.6	0.30	16	<10	20	3.1	30	1.96	<0.5	7	13	317	30.4
JN11010- 066		1.55	3.80	11.6	0.13	20	<10	10	0.7	1620	0.33	0.7	15	22	1160	6.85
JN11010- 067		2.66	0.080	0.4	0.38	4	<10	20	3.4	22	2.15	<0.5	5	14	107	28.8
JN11010- 068		1.08	0.266	0.5	0.45	<2	<10	30	2.8	62	1.83	<0.5	5	13	34	31.6
JN11010- 069		1.08	0.111	0.4	0.80	<2	<10	30	2.5	6	2.36	<0.5	5	17	40	31.6
JN11010- 070		1.85	0.238	0.6	0.51	4	<10	30	3.1	37	2.17	<0.5	4	18	234	32.4
JN11010- 071		2.26	5.82	1.2	0.17	10	<10	20	3.7	1595	1.89	<0.5	5	7	419	27.6
JN11010- 072		2.33	3.21	0.2	0.13	22	<10	20	4.2	71	1.93	<0.5	5	10	446	26.4
JN11010- 073		2.57	3.10	0.8	0.15	20	<10	10	3.8	447	1.40	<0.5	8	9	592	23.0
JN11010- 074		2.61	0.778	0.6	0.17	4	<10	20	3.0	72	1.80	<0.5	2	9	150	29.1
JN11010- 075		2.32	3.06	67.8	0.06	>10000	<10	10	<0.5	2390	0.13	29.7	37	11	122	9.85
JN11010- 076		0.90	0.964	31.4	0.10	4260	<10	10	0.8	944	0.53	13.0	7	17	326	19.1



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CERTIFICATE OF ANALYSIS WH11193080

Sample Description	Method Analyte Units LOR	ME- ICP41 Ga ppm 10	ME- ICP41 Hg ppm 1	ME- ICP41 K % 0.01	ME- ICP41 La ppm 10	ME- ICP41 Mg % 0.01	ME- ICP41 Mn ppm 5	ME- ICP41 Mo ppm 1	ME- ICP41 Na % 0.01	ME- ICP41 Ni ppm 1	ME- ICP41 P ppm 10	ME- ICP41 Pb ppm 2	ME- ICP41 S % 0.01	ME- ICP41 Sb ppm 2	ME- ICP41 Sc ppm 1	ME- ICP41 Sr ppm 1
JN11010-040		<10	<1	0.38	30	0.33	959	1	0.03	28	280	24	1.92	2	2	42
JN11010-040S		<10	3	0.15	10	0.14	439	357	0.04	20	410	62	1.12	79	1	288
JN11010-040B		<10	<1	0.33	10	0.30	495	1	0.18	2	230	4	0.01	<2	4	53
JN11010-041		10	<1	0.63	20	0.78	643	<1	0.18	39	740	4	1.48	<2	4	147
JN11010-042		<10	<1	0.07	40	0.18	1185	2	0.01	43	670	5	0.38	<2	7	53
JN11010-043		<10	<1	0.11	30	0.11	1300	1	<0.01	16	160	10	1.93	2	3	9
JN11010-044		<10	<1	0.11	10	0.09	1000	1	<0.01	10	90	69	7.43	<2	1	5
JN11010-045		<10	<1	0.12	10	0.08	1035	3	<0.01	8	100	75	2.61	<2	1	4
JN11010-046		<10	<1	0.11	40	0.07	524	2	<0.01	6	120	43	3.55	<2	1	5
JN11010-047		<10	<1	0.12	10	0.09	669	2	<0.01	12	60	405	7.68	21	1	4
JN11010-048		<10	<1	0.10	10	0.07	799	19	<0.01	5	90	184	5.94	<2	1	4
JN11010-049		<10	<1	0.09	10	0.07	1440	2	<0.01	5	80	46	3.31	<2	1	4
JN11010-050		<10	<1	0.06	30	0.16	3340	15	0.01	5	180	32	2.63	<2	2	7
JN11010-051		<10	<1	0.09	20	0.21	4290	1	<0.01	6	150	58	2.83	<2	2	7
JN11010-052		<10	<1	0.01	10	0.10	1475	2	0.02	5	200	2	0.09	<2	1	28
JN11010-053		<10	<1	0.02	10	0.15	875	2	0.03	5	90	24	1.80	<2	1	31
JN11010-054		<10	<1	0.02	10	0.16	792	50	0.08	3	110	4	0.91	<2	<1	55
JN11010-055		<10	<1	0.01	10	0.12	505	3	0.05	5	100	2	0.44	<2	<1	31
JN11010-056		<10	<1	0.38	30	0.31	844	3	0.04	39	180	20	1.56	<2	3	116
JN11010-057		<10	<1	0.14	30	0.15	710	5	<0.01	40	300	7	1.21	<2	5	52
JN11010-058		10	<1	0.06	<10	0.18	2090	<1	0.02	4	320	<2	0.23	<2	1	24
JN11010-059		<10	<1	0.14	10	0.75	1020	5	0.07	19	470	6	0.21	<2	6	29
JN11010-060		<10	1	0.08	40	0.21	2520	27	0.01	31	200	7	0.75	<2	6	20
JN11010-060S		<10	1	0.15	<10	0.88	826	646	0.04	10	670	39	0.22	52	1	93
JN11010-061		<10	<1	0.07	70	0.27	3070	10	0.01	22	680	3	0.46	<2	14	13
JN11010-062		<10	<1	0.01	10	0.66	7920	22	0.01	11	610	9	0.88	7	17	19
JN11010-063		<10	<1	0.01	30	0.31	5790	<1	0.02	10	370	6	3.88	7	14	14
JN11010-064		<10	<1	0.01	40	0.63	8550	13	0.02	12	280	10	1.68	<2	10	17
JN11010-065		10	1	<0.01	<10	0.78	9550	<1	0.02	3	360	16	2.61	12	9	19
JN11010-066		<10	1	0.04	10	0.15	1220	63	0.01	4	30	271	2.53	22	2	4
JN11010-067		10	1	<0.01	<10	0.74	10200	37	0.02	3	350	12	0.88	5	7	22
JN11010-068		10	<1	<0.01	<10	0.78	10850	<1	0.02	<1	360	16	1.05	5	3	21
JN11010-069		10	1	0.02	10	0.61	10350	<1	0.02	<1	160	17	0.46	<2	4	26
JN11010-070		10	<1	<0.01	<10	0.83	10350	<1	0.02	1	230	17	1.21	5	4	21
JN11010-071		10	<1	<0.01	<10	0.76	9210	62	0.02	<1	300	11	2.12	4	5	18
JN11010-072		<10	<1	<0.01	<10	0.75	8700	4	0.02	<1	270	14	2.67	15	4	19
JN11010-073		<10	<1	<0.01	<10	0.76	7210	9	0.01	1	280	6	3.38	21	7	15
JN11010-074		<10	1	<0.01	<10	1.18	9520	5	0.01	<1	250	14	1.38	5	15	18
JN11010-075		<10	1	0.03	<10	0.09	524	24	0.01	3	70	1680	6.20	141	1	2
JN11010-076		<10	1	0.03	<10	0.33	2120	9	0.01	6	270	755	>10.0	93	2	9



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CERTIFICATE OF ANALYSIS WH11193080

Sample Description	Method Analyte Units LOR	ME- ICP41 Th ppm 20	ME- ICP41 Ti % 0.01	ME- ICP41 Ti ppm 10	ME- ICP41 U ppm 10	ME- ICP41 V ppm 1	ME- ICP41 W ppm 10	ME- ICP41 Zn ppm 2
JN11010- 040		20	0.01	<10	<10	11	<10	87
JN11010- 040S		<20	0.01	<10	<10	18	<10	51
JN11010- 040B		<20	0.11	<10	<10	28	<10	32
JN11010- 041		<20	0.08	<10	<10	30	<10	138
JN11010- 042		20	0.01	<10	<10	27	<10	71
JN11010- 043		<20	<0.01	<10	<10	15	<10	68
JN11010- 044		<20	<0.01	<10	<10	5	<10	18
JN11010- 045		<20	<0.01	<10	<10	5	<10	18
JN11010- 046		<20	<0.01	<10	<10	5	<10	17
JN11010- 047		<20	<0.01	<10	<10	4	<10	535
JN11010- 048		<20	<0.01	<10	<10	3	<10	151
JN11010- 049		<20	<0.01	<10	<10	6	<10	37
JN11010- 050		<20	<0.01	<10	<10	12	<10	78
JN11010- 051		<20	<0.01	<10	<10	11	<10	121
JN11010- 052		<20	0.02	<10	<10	7	<10	36
JN11010- 053		<20	0.01	<10	<10	4	30	31
JN11010- 054		<20	0.02	<10	<10	4	10	21
JN11010- 055		<20	0.01	<10	<10	3	10	15
JN11010- 056		20	0.03	<10	<10	22	<10	144
JN11010- 057		20	<0.01	<10	<10	21	<10	48
JN11010- 058		<20	0.02	<10	<10	7	<10	41
JN11010- 059		<20	0.13	<10	<10	56	<10	58
JN11010- 060		20	<0.01	<10	<10	33	<10	56
JN11010- 060S		<20	0.09	<10	<10	30	<10	93
JN11010- 061		20	<0.01	<10	<10	71	<10	76
JN11010- 062		<20	<0.01	<10	<10	57	10	98
JN11010- 063		<20	<0.01	<10	<10	73	10	46
JN11010- 064		<20	<0.01	<10	<10	38	10	88
JN11010- 065		<20	<0.01	<10	<10	26	10	134
JN11010- 066		<20	<0.01	<10	<10	6	80	87
JN11010- 067		<20	<0.01	<10	<10	24	10	114
JN11010- 068		<20	<0.01	<10	<10	18	20	120
JN11010- 069		<20	<0.01	<10	<10	25	10	112
JN11010- 070		<20	<0.01	<10	<10	23	10	156
JN11010- 071		<20	<0.01	<10	<10	13	20	98
JN11010- 072		<20	<0.01	<10	<10	10	10	86
JN11010- 073		<20	<0.01	<10	10	17	20	73
JN11010- 074		<20	<0.01	<10	<10	34	10	96
JN11010- 075		<20	<0.01	<10	<10	3	10	3030
JN11010- 076		<20	<0.01	<10	<10	11	10	1395



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Sample Description	Method Analyte Units LOR	WEI- 21 Recvd Wt. kg 0.02	Au- AA23 Au ppm 0.005	ME- ICP41 Ag ppm 0.2	ME- ICP41 Al % 0.01	ME- ICP41 As ppm 2	ME- ICP41 B ppm 10	ME- ICP41 Ba ppm 10	ME- ICP41 Be ppm 0.5	ME- ICP41 Bi ppm 2	ME- ICP41 Ca % 0.01	ME- ICP41 Cd ppm 0.5	ME- ICP41 Co ppm 1	ME- ICP41 Cr ppm 1	ME- ICP41 Cu ppm 1	ME- ICP41 Fe % 0.01
JN11010- 077		0.79	1.850	48.8	0.10	8360	<10	10	1.1	1810	0.83	1.9	7	18	281	18.7
JN11010- 078		2.37	2.14	11.5	0.12	738	<10	10	1.1	1210	0.83	3.1	25	19	730	16.6
JN11010- 079		1.68	0.885	20.5	0.32	9020	<10	20	1.2	662	0.59	2.4	12	21	195	13.50
JN11010- 080		2.53	1.650	57.4	0.17	>10000	<10	10	<0.5	1915	0.10	4.0	42	23	272	9.15
JN11010- 080S		0.03	1.460	33.7	0.39	83	<10	230	<0.5	4	1.31	<0.5	8	31	3160	2.61
JN11010- 080B		0.03	<0.005	<0.2	0.96	7	<10	180	<0.5	<2	0.38	<0.5	3	9	23	1.91
JN11010- 081		1.58	1.020	31.4	0.30	>10000	<10	20	0.5	1080	0.12	1.8	39	10	418	12.70
JN11010- 082		2.70	8.02	79.5	0.10	>10000	<10	10	<0.5	2110	0.07	1.3	276	10	137	18.0
JN11010- 083		1.85	0.456	33.0	0.27	8710	<10	20	0.6	1020	0.29	1.3	23	15	509	15.3
JN11010- 084		3.23	0.079	1.1	0.12	912	<10	20	1.9	29	1.34	<0.5	13	17	420	20.9
JN11010- 085		2.55	0.282	0.8	0.16	914	<10	20	1.8	31	1.41	<0.5	8	12	192	20.8
JN11010- 086		2.42	0.075	0.8	0.19	5000	<10	20	0.9	14	0.69	<0.5	11	21	284	12.00
JN11010- 087		2.45	0.011	0.4	0.09	38	<10	10	1.4	6	1.16	<0.5	2	14	98	17.4
JN11010- 088		2.23	0.027	0.7	0.13	198	<10	10	1.0	22	0.82	<0.5	3	15	155	15.1
JN11010- 089		1.79	0.092	3.4	0.34	1165	<10	30	0.8	106	0.44	<0.5	8	18	260	12.25
JN11010- 090		2.64	0.012	<0.2	0.41	28	<10	20	2.0	4	1.65	<0.5	1	24	62	23.5
JN11010- 091		4.00	0.434	5.7	0.24	51	<10	10	1.4	188	0.39	<0.5	31	11	818	25.5
JN11010- 092		2.49	0.024	4.3	0.29	34	<10	10	2.6	111	0.62	<0.5	42	13	1185	21.0
JN11010- 093		1.44	0.044	4.8	0.48	17	<10	20	3.3	237	0.93	<0.5	33	16	707	23.3
JN11010- 094		1.78	0.008	0.6	0.39	4	<10	20	4.0	13	1.94	<0.5	9	14	97	28.1
JN11010- 095		2.32	0.010	0.6	0.48	12	<10	20	3.6	14	1.51	<0.5	16	22	234	24.4
JN11010- 096		2.23	0.005	0.4	0.41	5	<10	10	2.6	6	1.00	<0.5	8	23	117	14.4
JN11010- 097		3.04	0.088	9.1	0.33	7	<10	10	3.6	359	0.84	<0.5	17	14	371	16.1
JN11010- 098		2.29	0.006	0.5	0.28	6	<10	20	3.8	10	1.57	<0.5	5	16	78	19.2
JN11010- 099		3.17	0.005	0.5	0.37	5	<10	10	3.1	9	1.21	<0.5	8	23	89	16.2
JN11010- 100		2.68	0.017	0.6	0.40	3	<10	20	3.0	23	1.56	<0.5	5	13	12	24.3
JN11010- 100S		0.03	3.60	72.5	1.29	88	<10	80	<0.5	9	1.87	<0.5	9	17	747	3.01
JN11010- 101		1.62	0.010	0.6	0.32	<2	<10	20	2.9	53	1.58	<0.5	8	9	28	22.8
JN11010- 102		1.88	0.275	1.6	0.26	7	<10	10	2.3	539	1.08	<0.5	14	21	388	19.4
JN11010- 103		1.79	0.041	0.6	0.41	5	<10	20	3.5	96	1.36	<0.5	19	24	578	21.3
JN11010- 104		2.44	0.491	1.0	0.25	9	<10	20	3.6	788	1.22	<0.5	14	15	473	19.2
JN11010- 105		1.70	0.203	9.5	0.12	9	<10	<10	<0.5	486	0.06	1.1	11	15	310	13.30
JN11010- 106		1.09	0.018	0.2	0.25	3	<10	10	1.7	9	0.71	<0.5	7	33	17	12.55
JN11010- 107		1.58	0.008	0.6	0.60	<2	<10	10	2.8	8	1.10	<0.5	9	50	46	18.6
JN11010- 108		0.69	0.104	0.5	0.43	5	<10	10	1.0	97	0.39	<0.5	9	29	223	6.20
JN11010- 109		0.28	0.351	0.7	0.80	<2	<10	20	3.9	73	1.76	<0.5	3	17	43	24.3
JN11010- 110		0.42	1.060	0.6	0.75	5	<10	20	2.7	418	1.45	<0.5	3	24	39	13.80
JN11010- 111		1.45	0.128	0.2	0.21	4	<10	10	1.4	7	0.71	<0.5	7	17	3	5.63
JN11010- 112		1.33	0.075	<0.2	0.25	4	<10	10	1.4	16	0.69	<0.5	6	21	1	4.52
JN11010- 113		2.01	0.053	<0.2	0.13	3	<10	<10	1.7	7	0.87	<0.5	1	15	11	2.15



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Sample Description	Method Analyte Units LOR	ME- ICP41 Ga ppm 10	ME- ICP41 Hg ppm 1	ME- ICP41 K % 0.01	ME- ICP41 La ppm 10	ME- ICP41 Mg % 0.01	ME- ICP41 Mn ppm 5	ME- ICP41 Mo ppm 1	ME- ICP41 Na % 0.01	ME- ICP41 Ni ppm 1	ME- ICP41 P ppm 10	ME- ICP41 Pb ppm 2	ME- ICP41 S % 0.01	ME- ICP41 Sb ppm 2	ME- ICP41 Sc ppm 1	ME- ICP41 Sr ppm 1
JN11010- 077		<10	1	0.03	<10	0.39	2890	21	0.01	7	180	1180	>10.0	91	2	9
JN11010- 078		<10	1	0.03	<10	0.46	2370	32	0.01	10	210	342	8.74	44	4	8
JN11010- 079		<10	1	0.11	30	0.47	2970	33	0.01	27	190	550	4.87	31	6	12
JN11010- 080		<10	1	0.11	10	0.13	702	84	0.01	13	50	1525	5.97	68	2	3
JN11010- 080S		<10	5	0.16	10	0.14	412	355	0.05	18	380	59	1.08	70	1	285
JN11010- 080B		<10	<1	0.31	10	0.31	473	<1	0.17	2	220	4	<0.01	<2	4	50
JN11010- 081		<10	1	0.19	10	0.18	720	29	0.01	18	60	832	10.00	53	2	4
JN11010- 082		<10	1	0.08	<10	0.08	364	20	0.01	5	20	1805	>10.0	305	1	3
JN11010- 083		<10	1	0.14	<10	0.24	1165	3	0.01	17	90	779	>10.0	82	1	6
JN11010- 084		<10	1	0.04	<10	0.78	5300	1	0.01	7	320	38	7.19	29	1	18
JN11010- 085		<10	1	0.04	<10	0.94	7070	<1	0.01	1	470	29	3.10	20	4	17
JN11010- 086		<10	1	0.08	<10	0.53	4500	1	0.01	4	150	24	2.19	22	3	8
JN11010- 087		<10	1	0.02	<10	0.87	7090	<1	0.01	<1	310	14	0.80	3	5	14
JN11010- 088		<10	1	0.07	<10	0.66	5510	5	0.01	2	360	26	2.54	6	4	10
JN11010- 089		<10	1	0.19	10	0.37	3170	22	0.01	6	150	95	5.10	7	5	6
JN11010- 090		<10	1	0.05	<10	1.15	8420	<1	0.01	<1	260	12	0.92	6	8	21
JN11010- 091		<10	1	0.09	<10	0.14	1615	<1	0.01	2	250	188	>10.0	108	1	8
JN11010- 092		<10	1	0.08	<10	0.18	3440	3	0.01	5	250	64	>10.0	5	1	8
JN11010- 093		10	<1	0.10	<10	0.23	5160	<1	0.02	3	330	80	9.26	3	2	9
JN11010- 094		<10	<1	0.02	<10	0.68	10550	<1	0.02	<1	270	<2	1.71	<2	6	13
JN11010- 095		10	<1	0.01	10	0.49	7610	<1	0.02	3	540	<2	3.70	<2	4	12
JN11010- 096		<10	<1	0.01	<10	0.28	5200	1	0.02	2	360	2	1.81	<2	3	9
JN11010- 097		<10	<1	0.04	<10	0.21	3850	1	0.01	3	360	227	5.12	3	2	6
JN11010- 098		<10	<1	<0.01	<10	0.43	7420	<1	0.02	<1	640	2	1.09	<2	7	14
JN11010- 099		<10	<1	0.03	<10	0.36	6430	<1	0.01	5	110	5	1.49	3	6	11
JN11010- 100		10	1	<0.01	<10	0.56	10100	<1	0.02	<1	260	<2	0.12	<2	4	14
JN11010- 100S		<10	1	0.16	<10	0.83	791	686	0.05	6	640	39	0.22	54	2	97
JN11010- 101		<10	<1	<0.01	<10	0.57	9430	1	0.02	2	480	<2	0.13	<2	2	14
JN11010- 102		<10	<1	<0.01	<10	0.45	6910	1	0.02	4	170	35	1.79	3	2	8
JN11010- 103		<10	<1	0.02	10	0.52	7670	<1	0.02	4	100	<2	2.30	<2	5	10
JN11010- 104		10	<1	0.01	<10	0.37	6980	8	0.02	4	150	12	1.87	7	2	11
JN11010- 105		<10	1	<0.01	<10	0.03	513	2	0.01	5	10	316	>10.0	27	<1	2
JN11010- 106		<10	1	0.01	<10	0.28	6040	1	0.01	3	370	3	3.01	<2	5	8
JN11010- 107		<10	1	0.02	10	0.59	8780	20	0.02	8	190	<2	0.33	<2	12	10
JN11010- 108		<10	<1	0.01	10	0.14	2210	20	0.01	8	90	5	0.78	4	3	3
JN11010- 109		10	1	0.02	10	0.60	9190	5	0.02	<1	150	<2	0.21	<2	5	13
JN11010- 110		10	<1	0.05	20	0.32	5150	19	0.02	<1	1650	2	0.14	<2	6	16
JN11010- 111		<10	<1	0.01	10	0.15	2240	28	0.01	3	530	3	0.12	2	3	6
JN11010- 112		<10	<1	0.02	20	0.12	1920	26	0.01	4	1040	2	0.04	<2	3	7
JN11010- 113		<10	<1	0.04	10	0.13	821	31	0.02	<1	250	<2	0.06	<2	1	5



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CERTIFICATE OF ANALYSIS WH11193080

Sample Description	Method Analyte Units LOR	ME- ICP41 Th ppm 20	ME- ICP41 Ti % 0.01	ME- ICP41 Ti ppm 10	ME- ICP41 U ppm 10	ME- ICP41 V ppm 1	ME- ICP41 W ppm 10	ME- ICP41 Zn ppm 2
JN11010- 077		<20	<0.01	<10	<10	11	30	52
JN11010- 078		<20	<0.01	<10	<10	19	20	303
JN11010- 079		<20	<0.01	<10	10	25	10	311
JN11010- 080		<20	<0.01	<10	<10	6	10	366
JN11010- 080S		<20	0.01	<10	<10	17	<10	52
JN11010- 080B		<20	0.11	<10	<10	28	<10	30
JN11010- 081		<20	<0.01	<10	10	7	10	41
JN11010- 082		<20	<0.01	<10	<10	4	10	7
JN11010- 083		<20	<0.01	<10	<10	9	10	78
JN11010- 084		<20	<0.01	<10	<10	12	10	74
JN11010- 085		<20	<0.01	<10	<10	19	10	64
JN11010- 086		<20	<0.01	<10	<10	12	<10	39
JN11010- 087		<20	<0.01	<10	<10	19	10	75
JN11010- 088		<20	<0.01	<10	<10	14	<10	53
JN11010- 089		<20	<0.01	<10	<10	18	<10	35
JN11010- 090		<20	<0.01	<10	<10	33	10	84
JN11010- 091		<20	<0.01	<10	<10	8	40	23
JN11010- 092		<20	<0.01	<10	<10	13	20	51
JN11010- 093		<20	<0.01	<10	<10	19	20	78
JN11010- 094		<20	<0.01	<10	<10	24	10	125
JN11010- 095		<20	<0.01	<10	<10	30	10	105
JN11010- 096		<20	<0.01	<10	<10	27	<10	58
JN11010- 097		<20	<0.01	<10	<10	20	20	44
JN11010- 098		<20	<0.01	<10	<10	30	<10	74
JN11010- 099		<20	<0.01	<10	<10	35	10	80
JN11010- 100		<20	<0.01	<10	<10	24	10	101
JN11010- 100S		<20	0.10	<10	<10	31	<10	90
JN11010- 101		<20	<0.01	<10	<10	19	10	114
JN11010- 102		<20	<0.01	<10	<10	19	80	85
JN11010- 103		<20	<0.01	<10	<10	36	20	97
JN11010- 104		<20	<0.01	<10	<10	13	240	80
JN11010- 105		<20	<0.01	<10	<10	5	220	146
JN11010- 106		<20	<0.01	<10	<10	28	10	64
JN11010- 107		<20	<0.01	<10	<10	72	10	137
JN11010- 108		<20	<0.01	<10	<10	18	40	42
JN11010- 109		<20	<0.01	<10	<10	36	100	126
JN11010- 110		<20	0.01	<10	<10	48	1700	83
JN11010- 111		<20	<0.01	<10	<10	40	1060	35
JN11010- 112		<20	<0.01	<10	<10	28	1330	23
JN11010- 113		<20	0.01	<10	<10	13	580	13



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CERTIFICATE OF ANALYSIS WH11193080

Sample Description	Method Analyte Units LOR	WEI- 21 Recvd Wt. kg 0.02	Au- AA23 Au ppm 0.005	ME- ICP41 Ag ppm 0.2	ME- ICP41 Al % 0.01	ME- ICP41 As ppm 2	ME- ICP41 B ppm 10	ME- ICP41 Ba ppm 10	ME- ICP41 Be ppm 0.5	ME- ICP41 Bi ppm 2	ME- ICP41 Ca % 0.01	ME- ICP41 Cd ppm 0.5	ME- ICP41 Co ppm 1	ME- ICP41 Cr ppm 1	ME- ICP41 Cu ppm 1	ME- ICP41 Fe % 0.01
JN11010-114		2.34	0.259	2.7	0.20	403	<10	<10	2.2	114	0.97	<0.5	2	18	38	2.14
JN11010-115		1.28	0.212	<0.2	0.26	7	<10	<10	3.0	34	1.14	<0.5	3	18	31	2.05
JN11010-116		1.75	0.327	0.8	0.02	5	<10	<10	0.5	75	0.34	<0.5	3	27	22	1.32
JN11010-117		2.07	0.580	1.9	0.12	3	<10	<10	0.9	172	0.35	<0.5	5	20	40	3.33
JN11010-118		2.64	0.391	5.8	0.17	3	<10	10	0.8	296	0.47	<0.5	3	31	51	3.68
JN11010-119		2.55	0.910	5.9	0.18	6	<10	10	1.8	485	0.48	0.5	7	26	121	7.42
JN11010-120		2.77	0.738	1.3	0.16	5	<10	<10	0.5	211	0.21	<0.5	4	34	56	3.31
JN11010-120S		0.03	1.440	31.5	0.39	24	<10	220	<0.5	4	1.19	<0.5	7	29	3130	2.44
JN11010-120B		0.03	<0.005	<0.2	0.96	3	<10	170	<0.5	<2	0.35	<0.5	3	9	29	1.60
JN11010-121		2.46	0.296	0.2	0.43	3	<10	10	<0.5	52	0.17	<0.5	3	27	8	2.06
JN11010-122		2.08	0.104	<0.2	0.76	5	<10	10	0.5	16	0.34	<0.5	11	33	17	2.38
JN11010-123		1.87	0.325	0.2	0.22	30	<10	10	<0.5	24	0.51	<0.5	2	20	5	1.22
JN11010-124		2.54	0.025	1.2	0.19	62	<10	10	<0.5	31	0.44	<0.5	1	28	8	1.15
JN11010-125		2.31	0.126	4.8	0.39	557	<10	20	<0.5	128	0.79	2.2	5	16	31	2.11
JN11010-126		1.70	0.207	20.4	0.49	2560	<10	20	<0.5	781	0.11	2.4	8	20	13	1.52
JN11010-127		2.20	0.039	0.7	0.42	226	<10	10	<0.5	23	0.11	<0.5	1	7	2	1.01
JN11010-128		1.76	0.038	<0.2	0.61	3	<10	10	<0.5	5	0.11	<0.5	2	9	2	1.34
JN11010-129		1.36	0.070	<0.2	0.35	9	<10	10	<0.5	14	0.07	<0.5	2	10	3	0.88
JN11010-130		2.10	0.013	0.3	0.46	4	<10	10	<0.5	8	0.14	<0.5	1	18	3	1.34
JN11010-131		1.66	0.040	<0.2	0.38	3	<10	10	<0.5	5	0.29	<0.5	1	5	2	1.10
JN11010-132		1.15	0.030	4.2	0.54	17	<10	20	<0.5	101	0.08	6.2	2	15	6	0.91
JN11010-133		2.14	0.014	<0.2	0.96	2	<10	20	0.6	<2	0.21	<0.5	11	32	29	3.75
JN11010-134		1.97	<0.005	<0.2	0.75	6	<10	20	0.5	<2	0.30	<0.5	5	32	15	4.84
JN11010-135		1.11	<0.005	<0.2	0.90	3	<10	10	0.7	<2	0.46	<0.5	7	36	15	4.77
JN11010-136		2.22	0.141	<0.2	0.75	4	<10	10	0.5	5	1.16	<0.5	6	32	9	2.43
JN11010-137		2.97	0.030	<0.2	0.33	3	<10	10	<0.5	2	1.38	<0.5	1	19	2	0.93
JN11010-138		2.32	0.005	<0.2	0.55	9	<10	30	0.6	<2	1.41	<0.5	2	31	3	1.24
JN11010-139		2.69	0.008	<0.2	0.58	20	10	40	0.7	3	1.24	1.0	6	20	21	2.21
JN11010-140		2.13	0.005	<0.2	0.66	5	<10	10	0.5	<2	0.48	1.3	13	30	23	3.39
JN11010-140S		0.04	3.69	75.4	1.34	92	<10	90	<0.5	7	2.03	<0.5	9	19	755	3.23
JN11010-141		2.20	0.132	1.3	0.42	11	<10	20	<0.5	28	0.55	<0.5	8	20	22	3.29
JN11010-142		1.84	0.016	<0.2	0.69	3	<10	10	0.5	<2	0.26	<0.5	7	31	17	2.85



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CERTIFICATE OF ANALYSIS WH11193080

Sample Description	Method Analyte Units LOR	ME- ICP41 Ga ppm 10	ME- ICP41 Hg ppm 1	ME- ICP41 K % 0.01	ME- ICP41 La ppm 10	ME- ICP41 Mg % 0.01	ME- ICP41 Mn ppm 5	ME- ICP41 Mo ppm 1	ME- ICP41 Na % 0.01	ME- ICP41 Ni ppm 1	ME- ICP41 P ppm 10	ME- ICP41 Pb ppm 2	ME- ICP41 S % 0.01	ME- ICP41 Sb ppm 2	ME- ICP41 Sc ppm 1	ME- ICP41 Sr ppm 1
JN11010-114		<10	<1	0.01	<10	0.20	615	18	0.01	2	110	52	0.46	3	1	5
JN11010-115		<10	<1	0.04	<10	0.25	557	55	0.03	3	60	2	0.17	3	1	9
JN11010-116		<10	<1	<0.01	<10	0.04	298	818	0.01	3	60	14	0.38	3	<1	3
JN11010-117		<10	<1	0.03	10	0.13	696	17	0.01	5	60	42	0.88	3	2	6
JN11010-118		<10	<1	0.06	10	0.21	584	54	0.01	6	120	137	1.05	7	3	8
JN11010-119		<10	<1	0.03	90	0.24	1590	5	0.01	14	320	140	2.46	11	6	7
JN11010-120		<10	<1	0.03	10	0.12	420	287	0.01	7	190	35	1.20	4	2	3
JN11010-120S		<10	4	0.18	10	0.14	393	370	0.05	18	370	56	1.05	73	1	267
JN11010-120B		<10	<1	0.33	10	0.30	458	1	0.17	2	210	5	<0.01	<2	4	51
JN11010-121		<10	<1	0.09	20	0.13	452	55	0.01	10	170	3	0.14	<2	4	8
JN11010-122		<10	<1	0.11	20	0.19	547	23	0.01	31	180	5	0.12	<2	5	18
JN11010-123		<10	<1	0.10	10	0.19	219	47	0.01	4	50	4	0.10	<2	1	32
JN11010-124		<10	<1	0.09	10	0.15	230	20	0.01	4	60	27	0.33	3	1	31
JN11010-125		<10	<1	0.21	10	0.24	462	39	<0.01	17	240	118	1.13	7	2	40
JN11010-126		<10	<1	0.16	10	0.04	182	11	0.01	4	190	599	0.34	35	1	7
JN11010-127		<10	<1	0.06	10	0.06	195	119	<0.01	1	240	28	0.07	<2	2	8
JN11010-128		<10	<1	0.08	20	0.08	210	68	<0.01	2	280	11	0.08	<2	2	10
JN11010-129		<10	<1	0.09	10	0.05	158	91	<0.01	4	170	12	0.13	<2	2	5
JN11010-130		<10	<1	0.08	10	0.05	195	109	<0.01	2	150	13	0.13	2	1	9
JN11010-131		<10	<1	0.08	10	0.09	226	28	<0.01	1	230	13	0.08	<2	2	17
JN11010-132		<10	<1	0.18	10	0.05	124	73	<0.01	5	250	119	0.16	3	1	7
JN11010-133		<10	<1	0.14	20	0.30	669	44	0.01	42	400	7	0.10	<2	8	14
JN11010-134		<10	<1	0.18	10	0.31	932	145	0.01	24	310	5	0.25	2	7	17
JN11010-135		<10	<1	0.11	30	0.17	963	9	0.01	39	540	5	0.06	<2	8	18
JN11010-136		<10	<1	0.10	20	0.20	404	6	0.01	27	770	3	0.07	<2	7	22
JN11010-137		<10	<1	0.13	20	0.26	171	54	0.03	7	100	2	0.03	<2	2	68
JN11010-138		<10	<1	0.16	20	0.27	230	15	0.06	11	130	<2	0.03	<2	3	75
JN11010-139		<10	<1	0.32	10	0.34	439	35	0.01	18	850	10	0.60	2	2	58
JN11010-140		<10	<1	0.13	10	0.31	543	6	<0.01	31	100	5	0.43	2	4	23
JN11010-140S		<10	<1	0.17	<10	0.87	856	674	0.07	9	680	39	0.23	58	2	94
JN11010-141		<10	<1	0.14	10	0.33	584	205	<0.01	18	70	29	0.59	2	3	28
JN11010-142		<10	<1	0.10	20	0.20	460	17	0.01	24	120	3	0.15	<2	5	11



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CERTIFICATE OF ANALYSIS WH11193080

Sample Description	Method Analyte Units LOR	ME- ICP41 Th ppm 20	ME- ICP41 Ti % 0.01	ME- ICP41 Tl ppm 10	ME- ICP41 U ppm 10	ME- ICP41 V ppm 1	ME- ICP41 W ppm 10	ME- ICP41 Zn ppm 2
JN11010- 114		<20	0.01	<10	<10	7	650	19
JN11010- 115		<20	0.02	<10	<10	8	590	16
JN11010- 116		<20	<0.01	<10	<10	4	280	23
JN11010- 117		<20	<0.01	<10	<10	14	390	66
JN11010- 118		<20	<0.01	<10	<10	14	420	77
JN11010- 119		<20	<0.01	<10	<10	34	290	100
JN11010- 120		<20	<0.01	<10	<10	12	510	15
JN11010- 120S		<20	0.01	<10	<10	17	10	47
JN11010- 120B		<20	0.11	<10	<10	26	<10	29
JN11010- 121		<20	<0.01	<10	<10	15	20	11
JN11010- 122		20	<0.01	<10	<10	23	10	34
JN11010- 123		<20	<0.01	<10	<10	3	30	7
JN11010- 124		<20	<0.01	<10	<10	3	10	50
JN11010- 125		<20	<0.01	<10	<10	5	10	248
JN11010- 126		<20	<0.01	<10	<10	2	<10	126
JN11010- 127		<20	<0.01	<10	<10	5	10	20
JN11010- 128		<20	<0.01	<10	<10	4	<10	8
JN11010- 129		<20	<0.01	<10	<10	4	<10	9
JN11010- 130		<20	<0.01	<10	<10	2	30	31
JN11010- 131		<20	<0.01	<10	<10	2	10	14
JN11010- 132		<20	<0.01	<10	<10	2	40	590
JN11010- 133		20	<0.01	<10	<10	35	10	38
JN11010- 134		<20	<0.01	<10	<10	29	30	53
JN11010- 135		20	<0.01	<10	<10	45	10	11
JN11010- 136		20	<0.01	<10	<10	30	10	14
JN11010- 137		<20	0.01	<10	<10	7	210	6
JN11010- 138		<20	0.01	<10	<10	11	160	7
JN11010- 139		<20	0.01	<10	<10	8	220	117
JN11010- 140		<20	<0.01	<10	<10	17	10	172
JN11010- 140S		<20	0.09	<10	<10	31	<10	98
JN11010- 141		<20	<0.01	<10	<10	13	10	35
JN11010- 142		<20	<0.01	<10	<10	22	<10	26



Minerals

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QC CERTIFICATE WH11193080

Project:

P.O. No.: JN11- 010

This report is for 152 Drill Core samples submitted to our lab in Whitehorse, YT, Canada on 22- SEP- 2011.

The following have access to data associated with this certificate:

JESSE CAMPBELL

CHRIS GALLAGHER

SAMPLE PREPARATION

ALS CODE	DESCRIPTION
WEI- 21	Received Sample Weight
LOG- 24	Pulp Login - Rcd w/o Barcode
LOG- 22	Sample login - Rcd w/o BarCode
SPL- 22Y	Split Sample - Boyd Rotary Splitter
BAG- 01	Bulk Master for Storage
CRU- QC	Crushing QC Test
PUL- 32m	Pulverize 500g - 85%<75um
PUL- QC	Pulverizing QC Test
CRU- 31	Fine crushing - 70% <2mm

ANALYTICAL PROCEDURES

ALS CODE	DESCRIPTION	INSTRUMENT
Au- AA23	Au 30g FA- AA finish	AAS
ME- ICP41	35 Element Aqua Regia ICP- AES	ICP- AES

To: TERRALOGIC EXPLORATION SERVICES INC.

ATTN: CHRIS GALLAGHER

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This is the Final Report and supersedes any preliminary report with this certificate number. Results apply to samples as submitted. All pages of this report have been checked and approved for release.

Signature:

Colin Ramshaw, Vancouver Laboratory Manager



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QC CERTIFICATE OF ANALYSIS WH11193080

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QC CERTIFICATE OF ANALYSIS WH11193080

Sample Description	Method Analyte Units LOR	ME- ICP41 Ti %	ME- ICP41 Ti ppm	ME- ICP41 U ppm	ME- ICP41 V ppm	ME- ICP41 W ppm	ME- ICP41 Zn ppm
		0.01	10	10	1	10	2
STANDARDS							
GBM908- 10		0.33	<10	<10	51	<10	1035
GBM908- 10		0.33	<10	<10	49	<10	969
GBM908- 5		0.15	<10	<10	25	<10	236
GBM908- 5		0.16	<10	<10	26	<10	227
GBM908- 5		0.17	<10	<10	27	<10	235
MRGeo08		0.43	<10	<10	113	<10	885
MRGeo08		0.37	<10	<10	97	<10	739
OGGeo08		0.31	<10	<10	79	<10	6670
OGGeo08		0.31	<10	<10	82	<10	7030
OGGeo08		0.31	<10	<10	82	<10	7050
OREAS 65a							
OREAS- 16b							
OREAS- 16b							
OREAS- 16b							
OREAS- 16b							
OREAS- 16b							
OxC88							
OxC88							
OxC88							
OxC88							
OxC88							
OxL78							



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QC CERTIFICATE OF ANALYSIS WH11193080

Sample Description	Method Analyte Units LOR	ME- ICP41 Ti %	ME- ICP41 Ti ppm	ME- ICP41 U ppm	ME- ICP41 V ppm	ME- ICP41 W ppm	ME- ICP41 Zn ppm
		0.01	10	10	1	10	2
BLANKS							
BLANK							
BLANK							
BLANK							
BLANK							
BLANK							
BLANK							
BLANK		<0.01	<10	<10	<1	<10	2
BLANK		<0.01	<10	<10	<1	<10	<2
BLANK		<0.01	<10	<10	<1	<10	<2
BLANK		<0.01	<10	<10	<1	<10	<2
BLANK		<0.01	<10	<10	<1	<10	<2
DUPLICATES							
ORIGINAL							
DUP							
ORIGINAL							
DUP							
ORIGINAL							
DUP							
ORIGINAL							
DUP							



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QC CERTIFICATE OF ANALYSIS WH11193080

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Sample Description	Method Analyte Units LOR	ME- ICP41 Ti %	ME- ICP41 Ti ppm	ME- ICP41 U ppm	ME- ICP41 V ppm	ME- ICP41 W ppm	ME- ICP41 Zn ppm
		0.01	10	10	1	10	2
ORIGINAL DUP		DUPLICATES					
ORIGINAL DUP							
JN11007- 100 DUP							
JN11007- 119 DUP							
JN11005- 038 DUP							
JN11005- 056 DUP							
JN11010- 001 DUP		0.01 0.01	<10 <10	<10 <10	16 16	<10 <10	48 49
JN11010- 017 DUP							



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Sample Description	Method Analyte Units LOR	ME- ICP41 Ti %	ME- ICP41 Ti ppm	ME- ICP41 U ppm	ME- ICP41 V ppm	ME- ICP41 W ppm	ME- ICP41 Zn ppm
		0.01	10	10	1	10	2
DUPLICATES							
JN11010- 034		0.01	<10	<10	35	<10	30
DUP		0.01	<10	<10	34	<10	32
JN11010- 036							
DUP							
JN11010- 054							
DUP							
JN11010- 067		<0.01	<10	<10	24	10	114
DUP		<0.01	<10	<10	23	10	110
JN11010- 087							
DUP							
JN11010- 100S		0.10	<10	<10	31	<10	90
DUP		0.10	<10	<10	31	<10	90
JN11010- 108							
DUP							
JN11010- 126							
DUP							



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QC CERTIFICATE OF ANALYSIS WH11193080

Sample Description	Method Analyte Units LOR	Au- AA23 Au ppm 0.005	ME- ICP41 Ag ppm 0.2	ME- ICP41 Al % 0.01	ME- ICP41 As ppm 2	ME- ICP41 B ppm 10	ME- ICP41 Ba ppm 10	ME- ICP41 Be ppm 0.5	ME- ICP41 Bi ppm 2	ME- ICP41 Ca % 0.01	ME- ICP41 Cd ppm 0.5	ME- ICP41 Co ppm 1	ME- ICP41 Cr ppm 1	ME- ICP41 Cu ppm 1	ME- ICP41 Fe % 0.01	ME- ICP41 Ga ppm 10
DUPLICATES																
JN11010- 134			<0.2	0.75	8	<10	20	0.5	<2	0.30	<0.5	5	32	15	4.84	<10
DUP			<0.2	0.74	8	<10	20	0.5	<2	0.29	<0.5	6	32	14	4.67	<10
PREP DUPLICATES																
JN11010- 051		0.013	1.8	0.33	11	<10	10	1.2	30	0.78	0.8	6	26	172	11.10	<10
JN11010- 051 PREP DUP		0.009	1.8	0.38	8	<10	20	1.2	29	0.73	0.6	6	26	163	10.85	<10
JN11010- 101		0.010	0.6	0.32	<2	<10	20	2.9	53	1.58	<0.5	8	9	28	22.8	<10
JN11010- 101 PREP DUP		0.009	0.4	0.41	2	<10	20	3.0	52	1.89	<0.5	7	11	23	23.4	10



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QC CERTIFICATE OF ANALYSIS WH11193080

Sample Description	Method Analyte Units LOR	ME- ICP41 Hg ppm 1	ME- ICP41 K % 0.01	ME- ICP41 La ppm 10	ME- ICP41 Mg % 0.01	ME- ICP41 Mn ppm 5	ME- ICP41 Mo ppm 1	ME- ICP41 Na % 0.01	ME- ICP41 Ni ppm 1	ME- ICP41 P ppm 10	ME- ICP41 Pb ppm 2	ME- ICP41 S % 0.01	ME- ICP41 Sb ppm 2	ME- ICP41 Sc ppm 1	ME- ICP41 Sr ppm 1	ME- ICP41 Th ppm 20
DUPLICATES																
JN11010- 134		<1	0.18	10	0.31	932	145	0.01	24	310	5	0.25	2	7	17	<20
DUP		<1	0.17	10	0.30	901	127	0.01	23	300	4	0.25	<2	7	17	<20
PREP DUPLICATES																
JN11010- 051		<1	0.09	20	0.21	4280	1	<0.01	6	150	56	2.83	<2	2	7	<20
JN11010- 051 PREP DUP		1	0.10	20	0.22	4080	2	0.01	5	130	56	2.90	5	2	6	<20
JN11010- 101		<1	<0.01	<10	0.57	9430	1	0.02	2	480	<2	0.13	<2	2	14	<20
JN11010- 101 PREP DUP		<1	0.01	<10	0.59	9730	<1	0.02	<1	500	6	0.13	<2	2	16	<20



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CERTIFICATE WH11193081

Project:

P.O. No.: JN11- 012

This report is for 62 Soil samples submitted to our lab in Whitehorse, YT, Canada on 23- SEP- 2011.

The following have access to data associated with this certificate:

JESSE CAMPBELL

CHRIS GALLAGHER

SAMPLE PREPARATION

ALS CODE	DESCRIPTION
WEI- 21	Received Sample Weight
LOG- 22	Sample login - Rcd w/o BarCode
SCR- 41	Screen to - 180um and save both

ANALYTICAL PROCEDURES

ALS CODE	DESCRIPTION	INSTRUMENT
Au- ST43	Super Trace Au - 25g AR	ICP- MS
ME- MS41	51 anal. aqua regia ICPMS	

To: TERRALOGIC EXPLORATION SERVICES INC.
ATTN: CHRIS GALLAGHER
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This is the Final Report and supersedes any preliminary report with this certificate number. Results apply to samples as submitted. All pages of this report have been checked and approved for release.

Signature:

Colin Ramshaw, Vancouver Laboratory Manager



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CERTIFICATE OF ANALYSIS WH11193081

Sample Description	Method Analyte Units LOR	WEI- 21 Recvd Wt. kg .02	Au- ST43 Au ppm 0.0001	ME- MS41 Ag ppm 0.01	ME- MS41 Al % 0.01	ME- MS41 As ppm 0.1	ME- MS41 Au ppm 0.2	ME- MS41 B ppm 10	ME- MS41 Ba ppm 10	ME- MS41 Be ppm 0.05	ME- MS41 Bi ppm 0.01	ME- MS41 Ca % 0.01	ME- MS41 Cd ppm 0.01	ME- MS41 Ce ppm 0.02	ME- MS41 Co ppm 0.1	ME- MS41 Cr ppm 1
JNL012 00+ 00E		0.54	0.0038	0.32	1.51	29.0	<0.2	<10	40	0.68	0.78	0.26	0.20	35.0	26.7	19
JNL012 00+ 25E		0.54	0.0023	0.25	1.11	16.1	<0.2	<10	40	0.65	0.77	0.30	0.09	23.7	23.1	15
JNL012 00+ 50E		0.50	0.0035	0.26	1.43	19.1	<0.2	<10	30	0.57	0.96	0.69	0.14	18.15	27.1	17
JNL012 00+ 75E		0.62	0.0025	0.20	1.44	21.9	<0.2	<10	30	0.62	0.75	0.28	0.12	28.1	16.9	17
JNL012 01+ 00E		0.56	0.0022	0.21	1.27	20.0	<0.2	<10	40	0.49	0.62	0.21	0.14	27.7	14.3	15
JNL012 01+ 25E		0.48	0.0022	0.26	1.10	24.7	<0.2	<10	30	0.49	0.76	0.35	0.31	22.8	12.6	13
JNL012 01+ 50E		0.48	0.0011	0.20	1.15	9.1	<0.2	<10	30	0.43	0.40	0.17	0.15	15.85	5.5	10
JNL012 01+ 75E		0.52	0.0009	0.36	0.81	12.1	<0.2	<10	30	0.30	0.38	0.08	0.30	18.30	8.9	10
JNL012 02+ 00E		0.56	0.0017	0.27	1.18	21.2	<0.2	<10	30	0.35	0.52	0.03	0.23	25.7	8.5	14
JNL012 02+ 25E		0.54	0.0020	0.22	1.39	18.5	<0.2	<10	30	0.67	0.54	0.24	0.15	28.8	14.5	17
JNL012 02+ 50E		0.64	0.0025	0.21	1.34	17.3	<0.2	<10	30	0.53	0.64	0.23	0.11	25.7	11.6	17
JNL012 02+ 75E		0.50	0.0016	0.21	1.32	18.4	<0.2	<10	30	0.52	0.59	0.18	0.12	21.4	11.1	16
JNL012 03+ 00E		0.44	0.0007	0.09	0.56	6.3	<0.2	<10	20	0.19	0.29	0.07	0.13	10.45	3.6	7
JNL012 03+ 25E		0.44	0.0020	0.21	1.21	15.5	<0.2	<10	30	0.46	0.80	0.78	0.19	16.85	9.9	12
JNL012 03+ 50E		0.46	0.0015	0.17	1.10	14.5	<0.2	<10	20	0.35	0.49	0.09	0.20	19.50	10.3	13
JNL012 03+ 75E		0.54	0.0021	0.22	1.19	16.3	<0.2	<10	20	0.57	0.64	0.52	0.24	21.6	8.7	14
JNL012 04+ 00E	Not Recvd															
JNL012 04+ 25E	Not Recvd															
JNL012 04+ 50E	Not Recvd															
JNL012 04+ 75E	Not Recvd															
JNL012 05+ 00E	Not Recvd															
JNL012 05+ 25E	Not Recvd															
JNL012 05+ 50E		0.76	0.0053	0.21	1.13	88.6	<0.2	<10	40	0.62	0.63	0.26	0.21	50.8	16.2	15
JNL012 05+ 75E		0.54	0.0068	0.23	0.97	100.5	<0.2	<10	30	0.61	0.61	0.42	0.14	37.9	14.3	12
JNL012 06+ 00E		0.60	0.0034	0.21	1.29	62.0	<0.2	<10	30	0.53	0.81	0.20	0.09	63.1	19.7	18
JNL012 06+ 25E		0.40	0.0029	0.14	1.34	51.9	<0.2	<10	50	0.54	0.49	0.65	0.24	23.9	10.3	14
JNL012 06+ 50E		0.54	0.0027	0.09	1.48	70.9	<0.2	<10	60	0.60	0.67	0.21	0.26	31.0	11.2	18
JNL012 06+ 75E		0.68	0.0074	0.20	1.42	97.7	<0.2	<10	40	0.51	0.68	0.15	0.13	42.8	11.7	17
JNL012 07+ 00E		0.40	0.0085	0.31	1.36	177.5	<0.2	<10	60	0.55	0.78	0.76	0.11	24.6	7.2	14
JNL012 07+ 25E		0.62	0.0041	0.12	1.53	104.0	<0.2	<10	40	0.50	0.67	0.02	0.15	39.9	8.8	17
JNL012 07+ 50E		0.72	0.0062	0.20	0.49	92.0	<0.2	<10	20	0.30	0.61	0.11	0.12	77.9	11.7	8
JNL012 07+ 75E		0.64	0.0032	0.08	0.66	89.9	<0.2	<10	20	0.28	0.47	0.01	0.11	46.6	8.1	8
JNL012 08+ 00E		0.64	0.0021	0.12	0.71	58.9	<0.2	<10	30	0.39	0.34	0.05	0.13	38.2	8.0	9
JNL012 08+ 25E		0.70	0.0039	0.17	0.53	127.5	<0.2	<10	30	0.22	0.70	0.02	0.09	51.3	6.9	6
JNL012 08+ 50E		0.54	0.0109	0.28	0.58	133.0	<0.2	<10	20	0.28	0.81	0.01	0.09	57.2	8.6	9
JNL012 08+ 75E		0.52	0.0027	0.04	0.43	34.4	<0.2	<10	20	0.14	0.26	0.02	0.06	37.0	3.1	5
JNL012 09+ 00E		0.72	0.0086	0.20	0.50	66.4	<0.2	<10	30	0.46	0.50	0.12	0.11	90.3	12.2	10
JNL012 09+ 25E		0.64	0.0054	0.27	0.33	69.3	<0.2	<10	20	0.23	0.96	0.03	0.14	54.7	8.2	6
JNL012 09+ 50E		0.62	0.0072	0.23	0.30	197.0	<0.2	<10	30	0.25	2.68	0.01	0.07	77.6	7.8	6
JNL012 09+ 75E		0.50	0.0012	0.10	0.21	30.7	<0.2	<10	10	<0.05	0.37	0.02	0.03	16.15	1.6	3



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Sample Description	Method Analyte Units LOR	ME- MS41 Cs ppm 0.05	ME- MS41 Cu ppm 0.2	ME- MS41 Fe % 0.01	ME- MS41 Ga ppm 0.05	ME- MS41 Ge ppm 0.05	ME- MS41 Hf ppm 0.02	ME- MS41 Hg ppm 0.01	ME- MS41 In ppm 0.005	ME- MS41 K % 0.01	ME- MS41 La ppm 0.2	ME- MS41 Li ppm 0.1	ME- MS41 Mg % 0.01	ME- MS41 Mn ppm 5	ME- MS41 Mo ppm 0.05	ME- MS41 Na % 0.01
JNL012 00+00E		2.04	43.7	4.87	4.20	0.07	0.06	0.02	0.036	0.06	18.3	48.5	0.59	813	0.42	0.01
JNL012 00+25E		2.25	38.7	4.89	2.89	0.05	0.07	0.02	0.030	0.04	11.9	33.7	0.43	527	0.38	0.01
JNL012 00+50E		2.42	38.8	4.38	3.98	0.05	0.17	0.02	0.035	0.05	9.3	45.9	0.57	871	0.41	0.01
JNL012 00+75E		1.50	32.1	4.27	3.98	0.06	0.08	0.01	0.033	0.03	14.5	47.8	0.54	812	0.38	0.01
JNL012 01+00E		2.38	26.1	3.70	3.47	0.06	0.11	0.01	0.029	0.03	14.0	34.9	0.44	509	0.38	0.01
JNL012 01+25E		2.63	22.7	3.57	3.01	0.05	0.12	0.01	0.028	0.05	12.1	29.4	0.39	400	0.36	0.01
JNL012 01+50E		1.13	12.1	2.20	3.29	<0.05	0.06	0.02	0.022	0.04	8.5	22.4	0.26	185	0.28	0.02
JNL012 01+75E		1.95	15.2	2.57	3.33	0.09	0.05	0.02	0.016	0.03	7.7	25.2	0.27	399	0.30	<0.01
JNL012 02+00E		2.04	21.7	3.66	3.99	0.10	0.09	0.02	0.022	0.03	12.1	37.4	0.43	254	0.37	<0.01
JNL012 02+25E		3.07	30.0	3.91	4.28	0.12	0.10	0.01	0.028	0.03	14.4	55.1	0.61	318	0.38	<0.01
JNL012 02+50E		4.12	30.6	3.69	4.22	0.10	0.14	0.02	0.029	0.03	12.6	51.6	0.55	340	0.41	<0.01
JNL012 02+75E		3.09	28.3	3.49	4.14	0.10	0.15	0.02	0.027	0.03	10.5	48.1	0.50	396	0.41	<0.01
JNL012 03+00E		1.29	10.4	1.58	3.06	<0.05	0.03	0.03	0.010	0.03	5.2	10.7	0.12	100	0.33	0.01
JNL012 03+25E		1.77	22.4	2.94	3.41	0.08	0.16	0.03	0.038	0.04	8.2	34.2	0.37	447	0.53	0.01
JNL012 03+50E		1.51	22.6	3.11	3.70	0.09	0.11	0.03	0.024	0.03	9.6	35.5	0.39	416	0.43	0.01
JNL012 03+75E		1.91	22.3	3.29	3.66	0.10	0.15	0.02	0.031	0.04	10.5	48.6	0.48	187	0.46	<0.01
JNL012 04+00E																
JNL012 04+25E																
JNL012 04+50E																
JNL012 04+75E																
JNL012 05+00E																
JNL012 05+25E																
JNL012 05+50E		0.79	33.3	4.22	3.64	0.12	0.07	0.03	0.033	0.04	24.3	29.8	0.41	608	0.27	<0.01
JNL012 05+75E		1.26	28.6	3.91	2.76	0.11	0.07	0.02	0.031	0.04	18.2	22.2	0.34	404	0.25	<0.01
JNL012 06+00E		1.76	38.9	4.03	4.08	0.16	0.14	0.02	0.021	0.07	32.2	35.9	0.55	328	0.25	<0.01
JNL012 06+25E		1.03	25.8	3.31	4.53	0.11	0.12	0.02	0.032	0.05	11.8	35.8	0.38	395	0.64	<0.01
JNL012 06+50E		1.45	18.2	3.91	4.55	0.09	0.08	0.02	0.037	0.05	15.0	43.0	0.44	437	0.55	<0.01
JNL012 06+75E		0.88	28.1	3.89	4.27	0.12	0.06	0.02	0.026	0.04	22.5	46.3	0.53	342	0.28	<0.01
JNL012 07+00E		1.87	18.9	2.97	3.71	0.10	0.15	0.03	0.027	0.05	14.0	28.7	0.31	275	0.51	<0.01
JNL012 07+25E		1.35	24.2	3.70	4.56	0.10	0.06	0.01	0.031	0.05	19.4	40.6	0.46	375	0.33	<0.01
JNL012 07+50E		1.53	23.4	2.70	1.95	0.14	0.05	0.01	0.019	0.05	38.3	9.4	0.17	408	0.24	<0.01
JNL012 07+75E		2.59	16.7	2.64	2.56	0.10	0.02	0.02	0.021	0.04	20.5	6.7	0.08	437	0.40	<0.01
JNL012 08+00E		1.54	13.9	2.44	2.80	0.10	0.03	0.03	0.022	0.04	16.6	11.4	0.19	626	0.27	<0.01
JNL012 08+25E		1.90	18.1	2.28	2.40	0.11	<0.02	0.02	0.017	0.05	24.7	5.1	0.08	281	0.38	<0.01
JNL012 08+50E		2.84	20.5	3.44	1.78	0.12	0.02	0.02	0.022	0.04	28.7	5.0	0.08	458	0.41	<0.01
JNL012 08+75E		2.48	10.7	1.49	3.07	0.09	<0.02	0.02	0.009	0.04	17.4	1.4	0.02	117	0.39	0.01
JNL012 09+00E		1.62	26.7	3.05	1.99	0.14	<0.02	0.01	0.020	0.04	43.6	8.5	0.13	376	0.23	<0.01
JNL012 09+25E		3.47	24.3	2.17	1.52	0.13	<0.02	0.03	0.019	0.05	27.2	2.6	0.03	310	0.46	<0.01
JNL012 09+50E		4.53	30.2	3.09	1.51	0.13	<0.02	0.01	0.027	0.06	38.6	1.6	0.01	213	0.48	<0.01
JNL012 09+75E		1.14	7.0	0.70	1.06	0.08	<0.02	0.02	0.006	0.03	8.1	0.5	0.01	37	0.19	0.02



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Sample Description	Method Analyte Units LOR	ME- MS41	ME- MS41	ME- MS41	ME- MS41	ME- MS41	ME- MS41	ME- MS41	ME- MS41	ME- MS41	ME- MS41	ME- MS41	ME- MS41	ME- MS41	ME- MS41
		Nb	Ni	P	Pb	Rb	Re	S	Sb	Sc	Se	Sn	Sr	Ta	Te
		ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm
		0.05	0.2	10	0.2	0.1	0.001	0.01	0.05	0.1	0.2	0.2	0.2	0.01	0.01
JNL012 00+ 00E		0.08	44.3	690	46.1	3.4	<0.001	0.02	2.82	3.4	0.6	0.2	32.4	<0.01	0.02
JNL012 00+ 25E		0.06	43.6	630	53.7	2.8	<0.001	0.03	1.81	3.4	0.5	0.2	31.9	<0.01	0.04
JNL012 00+ 50E		0.09	40.3	920	54.3	4.1	<0.001	0.07	2.16	3.5	0.6	0.2	56.1	<0.01	0.04
JNL012 00+ 75E		0.09	34.3	630	42.5	3.7	<0.001	0.02	2.03	2.4	0.4	0.2	29.9	<0.01	0.02
JNL012 01+ 00E		0.12	28.8	660	31.3	4.6	<0.001	0.03	2.15	1.6	0.5	0.2	23.2	<0.01	0.02
JNL012 01+ 25E		0.10	25.8	630	35.5	4.7	<0.001	0.06	2.43	1.8	0.5	0.3	34.5	<0.01	0.03
JNL012 01+ 50E		0.27	14.7	770	19.1	3.6	<0.001	0.05	1.04	0.7	0.6	0.2	15.0	0.01	0.01
JNL012 01+ 75E		0.18	17.9	740	20.2	3.7	<0.001	0.07	2.08	0.6	0.4	0.2	8.7	0.01	0.01
JNL012 02+ 00E		0.12	24.9	680	28.1	3.2	<0.001	0.06	2.14	1.0	0.4	0.2	6.7	<0.01	0.01
JNL012 02+ 25E		0.08	35.2	590	34.9	3.1	<0.001	0.05	1.78	2.4	0.6	0.2	30.0	<0.01	0.01
JNL012 02+ 50E		0.11	32.2	670	30.9	3.2	<0.001	0.04	1.88	2.4	0.6	0.2	23.5	0.01	0.03
JNL012 02+ 75E		0.14	25.6	850	29.4	4.9	<0.001	0.05	1.47	2.1	0.6	0.2	19.6	<0.01	0.03
JNL012 03+ 00E		0.25	8.3	790	14.6	3.0	<0.001	0.06	0.66	0.4	0.6	0.2	7.6	<0.01	0.03
JNL012 03+ 25E		0.24	21.5	1060	26.9	4.8	<0.001	0.10	1.60	1.7	1.0	0.2	80.5	0.01	0.04
JNL012 03+ 50E		0.16	22.1	790	25.9	4.2	<0.001	0.05	1.43	1.4	0.6	0.2	11.8	<0.01	0.03
JNL012 03+ 75E		0.11	28.9	770	33.6	5.2	<0.001	0.08	1.40	1.9	0.6	0.2	63.2	<0.01	0.01
JNL012 04+ 00E															
JNL012 04+ 25E															
JNL012 04+ 50E															
JNL012 04+ 75E															
JNL012 05+ 00E															
JNL012 05+ 25E															
JNL012 05+ 50E		<0.05	37.5	480	43.3	3.3	<0.001	0.04	1.43	2.7	0.6	0.2	29.3	<0.01	0.02
JNL012 05+ 75E		0.05	31.9	450	36.5	4.3	<0.001	0.05	1.50	2.7	0.6	0.2	31.5	<0.01	0.01
JNL012 06+ 00E		0.05	40.3	530	36.5	4.5	<0.001	0.05	0.93	2.0	0.5	0.2	26.3	<0.01	0.01
JNL012 06+ 25E		0.27	25.8	1330	28.2	7.8	<0.001	0.12	1.58	1.9	0.5	0.2	55.5	<0.01	0.02
JNL012 06+ 50E		0.29	24.5	590	27.8	7.9	0.001	0.05	1.80	1.7	0.4	0.3	21.3	<0.01	0.02
JNL012 06+ 75E		<0.05	31.1	240	32.3	4.9	<0.001	0.03	1.97	2.4	0.6	0.2	18.6	<0.01	0.01
JNL012 07+ 00E		0.22	20.1	1100	32.3	9.6	<0.001	0.11	1.59	1.6	0.7	0.3	61.0	<0.01	<0.01
JNL012 07+ 25E		0.19	24.2	640	26.9	7.9	<0.001	0.04	1.78	1.7	0.5	0.3	4.5	<0.01	0.02
JNL012 07+ 50E		<0.05	21.1	470	31.5	3.8	<0.001	0.06	1.29	1.5	0.5	0.2	19.0	<0.01	<0.01
JNL012 07+ 75E		0.13	13.9	640	33.0	6.9	<0.001	0.06	0.98	0.5	0.4	0.3	6.0	<0.01	<0.01
JNL012 08+ 00E		0.17	15.2	680	24.0	5.6	<0.001	0.06	0.56	1.7	0.4	0.2	8.0	<0.01	0.01
JNL012 08+ 25E		0.14	11.3	570	20.2	6.6	0.001	0.06	1.17	0.7	0.4	0.4	10.7	<0.01	<0.01
JNL012 08+ 50E		0.08	15.5	640	76.5	5.4	<0.001	0.06	1.51	0.7	0.4	0.3	12.5	<0.01	<0.01
JNL012 08+ 75E		0.19	6.7	480	8.9	7.4	<0.001	0.06	0.70	0.1	0.2	0.3	4.2	<0.01	0.01
JNL012 09+ 00E		<0.05	27.9	450	35.0	3.8	0.001	0.04	0.97	1.6	0.4	0.2	15.7	<0.01	0.01
JNL012 09+ 25E		0.15	15.8	550	36.7	5.3	<0.001	0.06	3.37	1.1	0.6	0.3	12.9	<0.01	0.03
JNL012 09+ 50E		0.08	17.2	580	51.9	6.2	<0.001	0.09	8.35	1.2	0.4	0.8	25.6	<0.01	0.02
JNL012 09+ 75E		0.16	3.7	270	9.5	2.5	<0.001	0.05	1.45	0.2	0.2	0.2	9.1	<0.01	<0.01



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Sample Description	Method Analyte Units LOR	ME- MS41 Ti %	ME- MS41 Ti ppm	ME- MS41 U ppm	ME- MS41 V ppm	ME- MS41 W ppm	ME- MS41 Y ppm	ME- MS41 Zn ppm	ME- MS41 Zr ppm
		0.005	0.02	0.05	1	0.05	0.05	2	0.5
JNL012 00+00E		<0.005	0.08	1.20	12	<0.05	11.85	134	1.8
JNL012 00+25E		<0.005	0.06	1.21	9	0.06	8.99	116	2.6
JNL012 00+50E		<0.005	0.05	1.28	10	<0.05	11.75	106	4.8
JNL012 00+75E		<0.005	0.05	1.03	9	<0.05	7.83	103	2.5
JNL012 01+00E		<0.005	0.05	1.15	9	<0.05	8.01	94	2.7
JNL012 01+25E		<0.005	0.05	1.12	8	<0.05	7.59	112	3.3
JNL012 01+50E		0.008	0.03	0.88	9	<0.05	4.89	87	1.7
JNL012 01+75E		0.005	0.03	0.89	8	<0.05	2.44	85	1.5
JNL012 02+00E		<0.005	0.05	0.81	9	<0.05	3.27	88	2.8
JNL012 02+25E		<0.005	0.03	1.42	9	<0.05	9.55	108	3.2
JNL012 02+50E		<0.005	0.04	1.92	9	0.05	9.17	98	3.9
JNL012 02+75E		<0.005	0.05	1.42	10	<0.05	6.99	89	3.9
JNL012 03+00E		0.007	0.04	0.88	7	0.05	2.13	33	0.7
JNL012 03+25E		0.005	0.04	3.28	8	<0.05	9.63	86	4.5
JNL012 03+50E		<0.005	0.04	1.14	9	<0.05	5.43	87	3.2
JNL012 03+75E		<0.005	0.03	1.28	9	<0.05	7.16	112	4.2
JNL012 04+00E									
JNL012 04+25E									
JNL012 04+50E									
JNL012 04+75E									
JNL012 05+00E									
JNL012 05+25E									
JNL012 05+50E		<0.005	0.03	1.14	10	<0.05	10.80	112	2.4
JNL012 05+75E		<0.005	0.04	1.04	8	<0.05	10.50	96	2.8
JNL012 06+00E		<0.005	0.04	1.04	10	<0.05	7.48	97	7.2
JNL012 06+25E		0.005	0.07	2.12	10	0.05	6.82	100	3.5
JNL012 06+50E		<0.005	0.06	0.92	12	0.07	4.32	113	2.2
JNL012 06+75E		<0.005	0.05	1.15	10	<0.05	7.69	103	1.8
JNL012 07+00E		<0.005	0.07	4.70	9	0.10	8.56	72	4.2
JNL012 07+25E		<0.005	0.07	0.76	12	0.05	4.17	95	1.8
JNL012 07+50E		<0.005	0.06	0.95	5	0.35	6.83	65	3.2
JNL012 07+75E		0.005	0.06	0.76	9	0.32	3.96	50	0.5
JNL012 08+00E		0.005	0.06	0.87	8	0.30	6.95	49	1.2
JNL012 08+25E		0.005	0.08	0.81	8	0.48	3.69	47	<0.5
JNL012 08+50E		<0.005	0.07	0.80	8	0.45	3.81	61	<0.5
JNL012 08+75E		0.007	0.06	0.40	13	0.13	1.75	29	<0.5
JNL012 09+00E		<0.005	0.05	1.12	7	0.15	9.27	84	<0.5
JNL012 09+25E		0.005	0.12	0.92	7	0.25	3.97	56	<0.5
JNL012 09+50E		<0.005	0.18	1.00	7	0.48	3.67	74	<0.5
JNL012 09+75E		0.010	0.07	0.30	7	0.10	0.77	14	<0.5



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Sample Description	Method Analyte Units LOR	WEI- 21 Recvd Wt. kg	Au- ST43 Au ppm	ME- MS41 Ag ppm	ME- MS41 Al %	ME- MS41 As ppm	ME- MS41 Au ppm	ME- MS41 B ppm	ME- MS41 Ba ppm	ME- MS41 Be ppm	ME- MS41 Bi ppm	ME- MS41 Ca %	ME- MS41 Cd ppm	ME- MS41 Ce ppm	ME- MS41 Co ppm	ME- MS41 Cr ppm
JNL012 10+ 00E		<0.02	NSS	NSS	NSS	NSS	NSS	NSS	NSS	NSS	NSS	NSS	NSS	NSS	NSS	NSS
JNL012 10+ 25E		0.50	0.0016	0.11	0.55	39.2	<0.2	<10	30	0.19	0.45	0.01	0.07	39.3	3.5	7
JNL012 10+ 50E		Not Recvd														
JNL012 10+ 75E		Not Recvd														
JNL012 11+ 00E		Not Recvd														
JNL012 11+ 25E		Not Recvd														
JNL012 11+ 50E		0.68	0.0166	0.55	0.21	174.0	<0.2	<10	30	0.08	0.51	0.01	0.09	76.0	1.2	8
JNL012 11+ 75E		0.80	0.0125	0.78	0.24	172.5	<0.2	<10	40	0.15	0.74	<0.01	0.12	97.1	2.2	8
JNL012 12+ 00E		0.74	0.0110	0.50	0.25	129.0	<0.2	<10	20	0.23	0.64	<0.01	0.26	86.0	5.0	9
JNL012 12+ 25E		0.70	0.0134	0.57	0.23	133.0	<0.2	<10	30	0.16	0.71	<0.01	0.12	82.8	2.8	10
JNL012 12+ 50E		0.66	0.0116	0.36	0.27	96.8	<0.2	<10	20	0.15	0.40	0.02	0.07	75.7	2.4	13
JNL012 12+ 75E		0.62	0.0174	0.48	0.27	119.5	<0.2	<10	30	0.16	0.47	0.01	0.07	86.8	2.1	8
JNL012 13+ 00E		0.64	0.0085	0.29	0.26	50.6	<0.2	<10	20	0.14	0.29	0.02	0.11	56.4	2.8	7
JNL012 13+ 25E		0.66	0.0122	0.33	0.24	83.4	<0.2	<10	30	0.31	0.73	0.01	0.29	76.1	8.3	12
JNL012 13+ 50E		0.84	0.0076	0.41	0.20	110.5	<0.2	<10	20	0.24	0.68	<0.01	0.17	79.2	4.9	9
JNL012 13+ 75E		0.70	0.0134	0.45	0.21	165.0	<0.2	<10	20	0.19	0.57	<0.01	0.22	82.2	3.5	10
JNL012 14+ 00E		0.72	0.0130	0.51	0.22	185.0	<0.2	<10	20	0.15	0.67	<0.01	0.17	85.2	1.8	10
JNL012 14+ 25E		0.66	0.0166	0.75	0.35	119.0	<0.2	<10	30	0.18	1.32	0.01	0.13	82.3	2.2	12
JNL012 14+ 50E		0.80	0.0023	0.45	0.25	51.8	<0.2	<10	30	0.25	0.63	0.01	0.52	76.3	4.3	18
JNL012 14+ 75E		0.74	0.0074	0.68	0.42	73.8	<0.2	<10	30	0.34	0.94	0.01	0.47	69.6	7.8	14
JNL012 15+ 00E		0.68	0.0074	0.81	0.36	100.5	<0.2	<10	20	0.34	0.94	0.03	0.99	56.9	12.6	26
DCJNS001		0.92	0.0026	0.21	1.20	14.3	<0.2	<10	30	0.41	0.46	0.50	0.23	26.1	14.7	20



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Sample Description	Method Analyte Units LOR	ME- MS41 Cs ppm 0.05	ME- MS41 Cu ppm 0.2	ME- MS41 Fe % 0.01	ME- MS41 Ga ppm 0.05	ME- MS41 Ge ppm 0.05	ME- MS41 Hf ppm 0.02	ME- MS41 Hg ppm 0.01	ME- MS41 In ppm 0.005	ME- MS41 K % 0.01	ME- MS41 La ppm 0.2	ME- MS41 Li ppm 0.1	ME- MS41 Mg % 0.01	ME- MS41 Mn ppm 5	ME- MS41 Mo ppm 0.05	ME- MS41 Na % 0.01
JNL012 10+00E		NSS	NSS	NSS	NSS	NSS	NSS	NSS	NSS	NSS	NSS	NSS	NSS	NSS	NSS	NSS
JNL012 10+25E		2.30	19.9	1.74	2.16	0.09	<0.02	0.04	0.020	0.05	19.3	2.6	0.04	81	0.54	<0.01
JNL012 10+50E																
JNL012 10+75E																
JNL012 11+00E																
JNL012 11+25E		2.89	13.1	1.80	1.88	0.14	<0.02	0.03	0.048	0.08	40.6	0.8	0.01	29	0.36	<0.01
JNL012 11+50E		3.15	19.1	2.14	2.14	0.15	0.05	0.06	0.079	0.08	50.3	1.0	0.01	36	0.36	<0.01
JNL012 11+75E		3.03	28.9	2.94	1.93	0.14	<0.02	0.04	0.138	0.06	43.4	0.9	0.01	112	0.36	<0.01
JNL012 12+00E		3.12	22.0	2.73	2.18	0.13	0.06	0.07	0.067	0.07	45.2	0.7	0.01	47	0.42	<0.01
JNL012 12+25E																
JNL012 12+50E		1.57	14.5	1.96	1.83	0.12	<0.02	0.04	0.029	0.06	39.5	1.2	0.02	58	1.09	<0.01
JNL012 12+75E		2.76	14.6	1.99	1.85	0.13	<0.02	0.03	0.039	0.07	44.0	1.3	0.01	45	0.43	<0.01
JNL012 13+00E		1.38	14.4	1.57	1.54	0.10	<0.02	0.03	0.023	0.04	27.0	0.8	0.01	60	0.38	<0.01
JNL012 13+25E		2.21	28.6	2.98	1.61	0.14	<0.02	0.04	0.080	0.06	41.8	1.0	0.01	160	0.43	<0.01
JNL012 13+50E		2.50	19.2	2.41	1.38	0.13	0.02	0.10	0.063	0.08	43.3	0.8	0.01	100	0.33	<0.01
JNL012 13+75E		3.44	19.0	2.11	1.56	0.14	<0.02	0.04	0.060	0.07	49.3	0.8	0.01	58	0.40	<0.01
JNL012 14+00E		3.76	18.0	1.94	1.59	0.14	0.06	0.04	0.094	0.07	48.5	0.9	0.01	28	0.38	<0.01
JNL012 14+25E		3.80	22.9	2.38	2.05	0.14	<0.02	0.08	0.400	0.06	49.0	1.4	0.01	39	0.47	<0.01
JNL012 14+50E		4.50	25.9	2.52	1.86	0.15	0.04	0.02	0.112	0.08	37.4	0.8	0.01	88	0.41	<0.01
JNL012 14+75E		2.86	24.2	2.81	1.95	0.14	<0.02	0.04	0.180	0.06	37.2	4.9	0.06	302	0.39	<0.01
JNL012 15+00E		1.31	28.3	2.90	2.00	0.12	<0.02	0.04	0.151	0.05	29.6	4.4	0.06	517	1.66	<0.01
DCJNS001		1.12	27.3	3.68	3.36	0.11	0.08	0.03	0.022	0.03	13.7	39.9	0.52	637	0.89	<0.01



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CERTIFICATE OF ANALYSIS WH11193081

Sample Description	Method Analyte Units LOR	ME- MS41	ME- MS41	ME- MS41	ME- MS41	ME- MS41	ME- MS41	ME- MS41	ME- MS41	ME- MS41	ME- MS41	ME- MS41	ME- MS41	ME- MS41	ME- MS41	
		Nb	Ni	P	Pb	Rb	Re	S	Sb	Sc	Se	Sn	Sr	Ta	Te	Th
		ppm 0.05	ppm 0.2	ppm 10	ppm 0.2	ppm 0.1	ppm 0.001	% 0.01	ppm 0.05	ppm 0.1	ppm 0.2	ppm 0.2	ppm 0.2	ppm 0.01	ppm 0.01	ppm 0.2
JNL012 10+ 00E	NSS	NSS	NSS	NSS	NSS	NSS	NSS	NSS	NSS	NSS	NSS	NSS	NSS	NSS	NSS	
JNL012 10+ 25E	0.20	8.9	810	27.1	7.8	<0.001	0.07	1.46	0.7	0.4	0.3	10.1	<0.01	0.02	1.7	
JNL012 10+ 50E																
JNL012 10+ 75E																
JNL012 11+ 00E																
JNL012 11+ 25E																
JNL012 11+ 50E	0.08	3.4	490	119.5	5.6	<0.001	0.08	4.88	1.2	0.4	1.0	15.7	<0.01	0.02	9.8	
JNL012 11+ 75E	<0.05	5.7	540	182.0	8.0	<0.001	0.11	5.88	1.8	0.5	2.1	23.7	<0.01	0.01	18.3	
JNL012 12+ 00E	<0.05	10.7	590	132.5	6.2	<0.001	0.08	6.89	1.8	0.5	0.7	15.3	<0.01	0.02	15.9	
JNL012 12+ 25E	<0.05	7.3	570	140.0	7.7	<0.001	0.10	7.07	1.7	0.3	1.2	20.9	<0.01	0.02	18.1	
JNL012 12+ 50E	0.11	9.3	530	72.8	5.4	0.001	0.08	4.84	0.9	0.4	0.6	11.8	<0.01	0.02	6.3	
JNL012 12+ 75E	0.09	5.0	520	92.8	6.8	<0.001	0.09	4.95	1.2	0.4	0.6	18.0	<0.01	0.02	12.0	
JNL012 13+ 00E	0.14	7.0	490	31.2	4.2	<0.001	0.06	2.70	0.7	0.3	0.3	8.6	<0.01	0.01	2.8	
JNL012 13+ 25E	0.08	19.2	590	87.3	5.9	<0.001	0.04	8.01	1.8	0.4	0.9	14.6	<0.01	0.02	12.4	
JNL012 13+ 50E	0.07	11.2	460	106.5	5.8	0.001	0.04	5.33	1.6	0.3	0.9	12.9	<0.01	0.04	16.0	
JNL012 13+ 75E	0.07	8.2	490	102.0	6.7	<0.001	0.06	6.07	1.4	0.2	0.8	16.3	<0.01	0.03	18.8	
JNL012 14+ 00E	0.07	5.4	510	148.0	7.3	<0.001	0.07	8.09	1.8	0.3	1.5	16.3	<0.01	0.04	20.5	
JNL012 14+ 25E	0.13	5.9	610	325	7.7	<0.001	0.06	9.59	1.9	0.2	2.0	18.8	<0.01	0.04	13.4	
JNL012 14+ 50E	0.08	12.7	800	155.5	5.5	<0.001	0.04	4.22	2.8	0.4	0.4	15.6	<0.01	0.02	20.2	
JNL012 14+ 75E	0.24	15.8	510	233	6.3	<0.001	0.04	4.44	2.1	0.3	1.3	6.9	<0.01	0.02	13.6	
JNL012 15+ 00E	0.12	33.9	630	223	4.4	<0.001	0.04	3.91	1.5	0.7	0.9	6.8	<0.01	0.02	8.0	
DCJNS001	0.11	33.0	630	36.8	3.0	0.001	0.05	1.91	1.8	1.0	0.2	51.4	<0.01	0.02	6.8	



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CERTIFICATE OF ANALYSIS WH11193081

Sample Description	Method Analyte Units LOR	ME- MS41 Ti %	ME- MS41 Ti ppm	ME- MS41 U ppm	ME- MS41 V ppm	ME- MS41 W ppm	ME- MS41 Y ppm	ME- MS41 Zn ppm	ME- MS41 Zr ppm
JNL012 10+00E JNL012 10+25E JNL012 10+50E JNL012 10+75E JNL012 11+00E		NSS 0.005	NSS 0.10	NSS 0.82	NSS 10	NSS 0.20	NSS 2.09	NSS 38	NSS <0.5
JNL012 11+25E JNL012 11+50E JNL012 11+75E JNL012 12+00E JNL012 12+25E		<0.005 <0.005 <0.005 <0.005	0.40 0.49 0.41 0.59	0.82 1.07 1.19 1.02	8 8 9 9	0.56 0.59 0.58 0.71	2.56 3.70 3.94 3.07	25 38 65 52	<0.5 2.0 <0.5 2.7
JNL012 12+50E JNL012 12+75E JNL012 13+00E JNL012 13+25E JNL012 13+50E		<0.005 <0.005 0.005 <0.005 <0.005	0.23 0.38 0.15 0.29 0.42	0.90 0.95 0.89 1.30 1.08	8 7 8 10 8	0.40 0.39 0.28 0.80 0.52	2.79 3.27 2.37 6.58 4.74	38 35 35 85 78	<0.5 <0.5 <0.5 <0.5 1.7
JNL012 13+75E JNL012 14+00E JNL012 14+25E JNL012 14+50E JNL012 14+75E		<0.005 <0.005 <0.005 <0.005 <0.005	0.34 0.46 0.67 0.38 0.42	1.10 1.17 1.20 1.63 1.25	8 10 13 12 12	0.58 0.73 0.79 0.53 0.42	4.25 3.69 4.82 7.52 8.12	42 37 47 58 124	1.4 3.3 <0.5 2.7 <0.5
JNL012 15+00E DCJNS001		<0.005 <0.005	0.33 0.03	1.11 1.38	10 8	0.33 <0.05	9.14 7.67	133 110	<0.5 3.0



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CERTIFICATE COMMENTS

Method

ALL METHODS
ME- MS41

NSS is non- sufficient sample.
Gold determinations by this method are semi- quantitative due to the small sample weight used (0.5g).



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QC CERTIFICATE WH11193081

Project:

P.O. No.: JN11- 012

This report is for 62 Soil samples submitted to our lab in Whitehorse, YT, Canada on 23- SEP- 2011.

The following have access to data associated with this certificate:

JESSE CAMPBELL

CHRIS GALLAGHER

SAMPLE PREPARATION

ALS CODE	DESCRIPTION
WEI- 21	Received Sample Weight
LOG- 22	Sample login - Rcd w/o BarCode
SCR- 41	Screen to - 180um and save both

ANALYTICAL PROCEDURES

ALS CODE	DESCRIPTION	INSTRUMENT
Au- ST43	Super Trace Au - 25g AR	ICP- MS
ME- MS41	51 anal. aqua regia ICPMS	

To: TERRALOGIC EXPLORATION SERVICES INC.
ATTN: CHRIS GALLAGHER
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This is the Final Report and supersedes any preliminary report with this certificate number. Results apply to samples as submitted. All pages of this report have been checked and approved for release.

Signature:

Colin Ramshaw, Vancouver Laboratory Manager



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Sample Description	Method Analyte Units LOR	Au- ST43 Au ppm 0.0001	ME- MS41 Ag ppm 0.01	ME- MS41 Al % 0.01	ME- MS41 As ppm 0.1	ME- MS41 Au ppm 0.2	ME- MS41 B ppm 10	ME- MS41 Ba ppm 10	ME- MS41 Be ppm 0.05	ME- MS41 Bi ppm 0.01	ME- MS41 Ca % 0.01	ME- MS41 Cd ppm 0.01	ME- MS41 Ce ppm 0.02	ME- MS41 Co ppm 0.1	ME- MS41 Cr ppm 1	ME- MS41 Cs ppm 0.05
STANDARDS																
GBM908- 10		2.84	0.91	56.5	0.4	<10	100	0.31	1.30	0.66	1.74	93.9	13.5	22	0.87	
GBM908- 5		59.3	1.13	5.9	<0.2	<10	190	0.38	0.90	0.75	0.14	183.0	10.0	19	1.05	
GBM908- 5		57.8	1.15	6.1	<0.2	<10	190	0.40	0.97	0.74	0.13	179.0	10.5	18	1.07	
GEOMS- 03		0.43	1.64	597	0.3	<10	1080	1.08	0.36	0.35	0.36	41.9	11.7	70	6.60	
GEOMS- 03		0.43	1.77	627	0.3	<10	1130	1.13	0.37	0.36	0.37	41.1	12.0	73	6.82	
GLG307- 4	0.0480															
GLG307- 4	0.0438															
GLG307- 4	0.0477															
MRGeo08		4.13	2.72	31.9	<0.2	<10	440	0.83	0.69	1.11	2.18	70.2	19.9	92	10.25	
MRGeo08		4.24	2.57	32.1	<0.2	<10	420	0.65	0.72	1.07	2.23	78.9	17.8	92	11.70	
OREAS- 151a	0.0337															
OREAS- 151a	0.0395															
OREAS- 151a	0.0417															
BLANKS																
BLANK	<0.0001															
BLANK	<0.0001															
BLANK	<0.0001															
BLANK		<0.01	<0.01	<0.1	<0.2	<10	<10	<0.05	0.02	<0.01	<0.01	<0.02	<0.1	<1	<0.05	
BLANK		<0.01	<0.01	0.2	<0.2	<10	<10	<0.05	0.01	<0.01	0.02	<0.02	<0.1	<1	<0.05	
BLANK		0.01	<0.01	<0.1	<0.2	<10	<10	<0.05	0.02	<0.01	<0.01	<0.02	<0.1	<1	<0.05	
BLANK		<0.01	<0.01	<0.1	<0.2	<10	<10	<0.05	0.02	<0.01	<0.01	<0.02	<0.1	<1	<0.05	



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QC CERTIFICATE OF ANALYSIS WH11193081

Sample Description	Method Analyte Units LOR	ME- MS41	ME- MS41	ME- MS41	ME- MS41	ME- MS41	ME- MS41	ME- MS41	ME- MS41	ME- MS41	ME- MS41	ME- MS41	ME- MS41	ME- MS41	ME- MS41
		Cu	Fe	Ga	Ge	Hf	Hg	In	K	La	Li	Mg	Mn	Mo	Na
		ppm	%	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	%	ppm	ppm	%
		0.2	0.01	0.05	0.05	0.02	0.01	0.005	0.01	0.2	0.1	0.01	5	0.05	0.01
STANDARDS															
GBM908- 10		3410	2.68	4.70	0.24	0.70	0.02	0.023	0.40	49.0	6.3	0.52	287	59.5	0.12
GBM908- 5		474	2.42	5.82	0.19	0.36	0.02	0.013	0.80	99.0	9.6	0.78	347	51.5	0.04
GBM908- 5		497	2.44	5.89	0.21	0.36	0.03	0.013	0.82	101.0	9.5	0.78	363	52.5	0.02
GEOMS- 03		125.5	4.01	5.97	0.22	0.11	0.64	0.042	0.33	23.9	16.1	0.43	514	3.04	0.03
GEOMS- 03		132.5	4.20	6.64	0.24	0.08	0.71	0.046	0.35	24.3	16.8	0.44	545	3.03	0.02
GLG307- 4															
GLG307- 4															
GLG307- 4															
MRGeo08		609	3.65	9.67	0.20	0.74	0.06	0.153	1.23	35.5	36.1	1.17	423	13.25	0.35
MRGeo08		595	3.56	10.30	0.21	0.77	0.06	0.161	1.19	38.5	33.0	1.13	403	14.20	0.33
OREAS- 151a															
OREAS- 151a															
OREAS- 151a															
BLANKS															
BLANK															
BLANK															
BLANK															
BLANK		<0.2	<0.01	<0.05	<0.05	<0.02	<0.01	<0.005	<0.01	<0.2	<0.1	<0.01	<5	<0.05	<0.01
BLANK		<0.2	<0.01	<0.05	0.06	<0.02	<0.01	<0.005	<0.01	<0.2	<0.1	<0.01	<5	<0.05	<0.01
BLANK		<0.2	<0.01	<0.05	0.07	<0.02	0.01	<0.005	<0.01	<0.2	<0.1	<0.01	<5	<0.05	<0.01
BLANK		0.3	<0.01	0.08	<0.05	<0.02	<0.01	<0.005	<0.01	<0.2	0.1	<0.01	<5	<0.05	<0.01



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Sample Description	Method Analyte Units LOR	ME- MS41	ME- MS41	ME- MS41	ME- MS41	ME- MS41	ME- MS41	ME- MS41	ME- MS41	ME- MS41	ME- MS41	ME- MS41	ME- MS41	ME- MS41	ME- MS41	ME- MS41
		Ni	P	Pb	Rb	Re	S	Sb	Sc	Se	Sn	Sr	Ta	Te	Th	Ti
		ppm 0.2	ppm 10	ppm 0.2	ppm 0.1	ppm 0.001	% 0.01	ppm 0.05	ppm 0.1	ppm 0.2	ppm 0.2	ppm 0.2	ppm 0.01	ppm 0.01	ppm 0.2	% 0.005
STANDARDS																
GBM908- 10		2200	850	1950	31.1	0.001	0.38	1.22	2.0	1.1	1.7	31.2	0.01	0.06	17.7	0.302
GBM908- 5		403	1270	382	55.6	0.001	0.17	0.18	1.6	1.0	1.6	53.3	0.01	0.03	37.9	0.170
GBM908- 5		395	1290	368	56.6	<0.001	0.16	0.14	1.5	0.7	1.6	50.8	0.01	0.05	40.7	0.170
GEOMS- 03		52.3	1000	5.6	25.4	0.001	0.03	12.20	9.8	2.5	1.5	99.8	<0.01	0.10	4.6	0.033
GEOMS- 03		53.0	1040	5.7	25.8	0.001	0.03	12.00	8.9	2.6	1.5	107.0	<0.01	0.08	4.8	0.035
GLG307- 4																
GLG307- 4																
GLG307- 4																
MRGeo08		673	1010	983	145.5	0.009	0.33	4.12	7.7	1.5	3.1	84.2	0.02	0.01	20.9	0.378
MRGeo08		659	1020	994	136.5	0.008	0.32	3.47	7.6	1.6	3.5	78.9	0.02	0.02	23.3	0.371
OREAS- 151a																
OREAS- 151a																
OREAS- 151a																
BLANKS																
BLANK																
BLANK																
BLANK																
BLANK		<0.2	<10	<0.2	<0.1	<0.001	<0.01	<0.05	<0.1	<0.2	<0.2	<0.2	<0.01	<0.01	<0.2	<0.005
BLANK		<0.2	<10	<0.2	<0.1	<0.001	0.02	<0.05	<0.1	<0.2	<0.2	<0.2	<0.01	<0.01	<0.2	<0.005
BLANK		<0.2	<10	<0.2	<0.1	<0.001	<0.01	<0.05	<0.1	<0.2	<0.2	<0.2	<0.01	<0.01	<0.2	<0.005
BLANK		<0.2	<10	0.3	<0.1	<0.001	0.01	<0.05	<0.1	<0.2	<0.2	<0.2	<0.01	<0.01	<0.2	<0.005



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Sample Description	Method Analyte Units LOR	ME- MS41	ME- MS41	ME- MS41	ME- MS41	ME- MS41	ME- MS41
		Ti	U	V	W	Y	Zn
		ppm	ppm	ppm	ppm	ppm	ppm
		0.02	0.05	1	0.05	0.05	2
							0.5
STANDARDS							
GBM908- 10		0.24	1.34	47	1.94	18.60	978
							27.7
GBM908- 5		0.38	2.84	29	2.15	27.8	237
GBM908- 5		0.41	2.79	26	2.09	26.0	233
							8.3
							8.9
GEOMS- 03		0.93	2.11	69	7.99	15.50	45
GEOMS- 03		0.91	2.03	72	8.10	15.40	46
							2.3
							2.6
GLG307- 4							
GLG307- 4							
GLG307- 4							
MRGeo08		0.75	5.23	103	3.01	18.95	793
MRGeo08		0.84	5.88	101	3.03	19.35	789
							20.7
							21.9
OREAS- 151a							
OREAS- 151a							
OREAS- 151a							
BLANKS							
BLANK							
BLANK							
BLANK							
BLANK		0.02	<0.05	<1	<0.05	<0.05	<2
BLANK		<0.02	<0.05	<1	<0.05	<0.05	<2
BLANK		<0.02	<0.05	<1	<0.05	<0.05	<2
BLANK		<0.02	<0.05	<1	<0.05	<0.05	<2



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Sample Description	Method Analyte Units LOR	Au- ST43 Au ppm 0.0001	ME- MS41 Ag ppm 0.01	ME- MS41 Al % 0.01	ME- MS41 As ppm 0.1	ME- MS41 Au ppm 0.2	ME- MS41 B ppm 10	ME- MS41 Ba ppm 10	ME- MS41 Be ppm 0.05	ME- MS41 Bi ppm 0.01	ME- MS41 Ca % 0.01	ME- MS41 Cd ppm 0.01	ME- MS41 Ce ppm 0.02	ME- MS41 Co ppm 0.1	ME- MS41 Cr ppm 1	ME- MS41 Cs ppm 0.05
DUPLICATES																
ORIGINAL		1.75	0.67	7.0	<0.2	<10	60	0.60	8.60	18.95	0.14	33.1	13.5	6	9.37	
DUP		1.46	0.69	7.0	<0.2	<10	80	0.62	6.87	19.35	0.14	31.9	14.2	6	9.42	
ORIGINAL		0.0019														
DUP		0.0018														
ORIGINAL		0.34	1.59	14.9	<0.2	<10	160	0.54	0.21	2.35	0.60	22.5	8.9	26	0.95	
DUP		0.42	1.54	15.0	<0.2	<10	160	0.59	0.21	2.27	0.63	24.3	9.1	25	0.96	
ORIGINAL		0.62	0.95	22.7	<0.2	<10	990	0.56	0.18	0.87	6.06	29.6	10.3	18	1.48	
DUP		0.96	0.99	22.8	<0.2	<10	1010	0.62	0.18	0.89	6.16	29.9	10.7	19	1.47	
JNL012 05+ 50E		0.21	1.13	88.6	<0.2	<10	40	0.62	0.63	0.26	0.21	50.8	16.2	15	0.79	
DUP		0.21	1.15	88.6	<0.2	<10	40	0.54	0.60	0.27	0.19	47.9	15.5	15	0.77	
JNL012 07+ 75E		0.0032														
DUP		0.0047														
ORIGINAL		0.0014														
DUP		0.0014														



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To: TERRALOGIC EXPLORATION SERVICES INC.
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SUITE 200
CRANBROOK BC V1C 2R7

Page: 3 - B
Total # Pages: 3 (A - D)
Plus Appendix Pages
Finalized Date: 2- NOV- 2011
Account: TELOEX

QC CERTIFICATE OF ANALYSIS WH11193081

Sample Description	Method Analyte Units LOR	ME- MS41 Cu ppm 0.2	ME- MS41 Fe % 0.01	ME- MS41 Ga ppm 0.05	ME- MS41 Ge ppm 0.05	ME- MS41 Hf ppm 0.02	ME- MS41 Hg ppm 0.01	ME- MS41 In ppm 0.005	ME- MS41 K % 0.01	ME- MS41 La ppm 0.2	ME- MS41 Li ppm 0.1	ME- MS41 Mg % 0.01	ME- MS41 Mn ppm 5	ME- MS41 Mo ppm 0.05	ME- MS41 Na % 0.01	ME- MS41 Nb ppm 0.05
DUPLICATES																
ORIGINAL		63.9	4.81	2.70	0.10	0.04	1.07	0.029	0.29	18.4	3.3	0.76	2010	3.71	0.02	0.06
DUP		64.6	4.88	2.93	0.11	0.04	1.13	0.030	0.30	15.7	3.7	0.76	2030	3.92	0.02	0.07
ORIGINAL																
DUP																
ORIGINAL		11.4	2.65	4.54	0.10	<0.02	0.11	0.034	0.06	11.7	13.2	1.09	621	1.08	<0.01	0.72
DUP		11.5	2.52	4.49	0.09	<0.02	0.11	0.032	0.05	11.9	13.5	1.05	614	1.13	<0.01	0.72
ORIGINAL																
DUP																
ORIGINAL		114.0	2.66	2.45	0.07	0.05	0.43	0.028	0.13	19.5	11.6	0.32	394	10.05	0.01	0.15
DUP		112.5	2.74	2.54	0.07	0.05	0.44	0.032	0.14	18.2	11.7	0.33	409	10.05	0.01	0.15
ORIGINAL																
DUP																
JNL012 05+50E		33.3	4.22	3.64	0.12	0.07	0.03	0.033	0.04	24.3	29.6	0.41	608	0.27	<0.01	<0.05
DUP		32.1	4.29	3.45	0.12	0.06	0.03	0.031	0.04	23.6	27.6	0.42	616	0.28	<0.01	<0.05
ORIGINAL																
DUP																
JNL012 07+75E																
ORIGINAL																
DUP																

QC CERTIFICATE OF ANALYSIS WH11193081

Sample Description	Method Analyte Units LOR	ME- MS41 Ni ppm 0.2	ME- MS41 P ppm 10	ME- MS41 Pb ppm 0.2	ME- MS41 Rb ppm 0.1	ME- MS41 Re ppm 0.001	ME- MS41 S % 0.01	ME- MS41 Sb ppm 0.05	ME- MS41 Sc ppm 0.1	ME- MS41 Se ppm 0.2	ME- MS41 Sn ppm 0.2	ME- MS41 Sr ppm 0.2	ME- MS41 Ta ppm 0.01	ME- MS41 Te ppm 0.01	ME- MS41 Th ppm 0.2	ME- MS41 Ti % 0.005
DUPLICATES																
ORIGINAL		5.7	610	181.5	18.2	0.001	0.11	0.34	5.0	1.1	0.2	116.5	0.01	0.70	2.4	0.006
DUP		6.9	800	143.0	19.4	<0.001	0.12	0.34	5.5	1.4	0.2	116.5	<0.01	0.70	2.3	0.006
ORIGINAL																
DUP																
ORIGINAL		19.7	3160	87.1	7.4	<0.001	0.07	3.12	2.4	0.6	0.5	20.3	<0.01	0.03	1.2	0.028
DUP		19.8	3060	85.0	7.3	0.001	0.07	3.59	2.4	0.5	0.6	20.7	<0.01	0.05	1.1	0.027
ORIGINAL		122.0	3480	14.5	11.8	0.005	0.07	4.37	3.1	3.2	0.3	183.5	<0.01	0.09	2.1	0.006
DUP		120.0	3540	14.5	12.0	0.004	0.07	4.35	3.0	2.8	0.3	189.5	<0.01	0.09	2.0	0.006
JNL012 05+ 50E		37.5	480	43.3	3.3	<0.001	0.04	1.43	2.7	0.6	0.2	29.3	<0.01	0.02	12.1	<0.005
DUP		35.9	470	37.9	3.3	<0.001	0.04	1.34	2.8	0.5	0.2	28.0	<0.01	0.02	11.5	<0.005
JNL012 07+ 75E																
DUP																
ORIGINAL																
DUP																



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QC CERTIFICATE OF ANALYSIS WH11193081

Sample Description	Method Analyte Units LOR	ME- MS41 TI ppm 0.02	ME- MS41 U ppm 0.05	ME- MS41 V ppm 1	ME- MS41 W ppm 0.05	ME- MS41 Y ppm 0.05	ME- MS41 Zn ppm 2	ME- MS41 Zr ppm 0.5
DUPLICATES								
ORIGINAL		0.10	1.11	63	0.46	15.30	62	0.8
DUP		0.11	1.06	65	0.47	15.30	56	0.8
ORIGINAL								
DUP								
ORIGINAL		0.12	2.11	57	0.28	8.13	133	0.9
DUP		0.10	2.05	55	0.26	8.21	128	0.9
ORIGINAL								
DUP								
ORIGINAL		0.33	5.44	87	0.10	16.40	805	1.7
DUP		0.33	5.51	91	0.10	16.35	812	1.7
JNL012 05+ 50E		0.03	1.14	10	<0.05	10.80	112	2.4
DUP		0.03	1.04	10	<0.05	10.10	113	2.1
JNL012 07+ 75E								
ORIGINAL								
DUP								



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Page: Appendix 1
Total # Appendix Pages: 1
Finalized Date: 2- NOV- 2011
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QC CERTIFICATE OF ANALYSIS WH11193081

Method	CERTIFICATE COMMENTS
ALL METHODS ME- MS41	NSS is non- sufficient sample. Gold determinations by this method are semi- quantitative due to the small sample weight used (0.5g).

2011 Diamond Drilling, Geological, and Geochemical Report

for the

Justin Property

Volume IV

Appendix VI – Petrographic Report

Appendix VII – Field Geochemistry and Sample Descriptions

Justin 1-4 (YB59913 – YB59916), Justin 5-25 (YB70809 - YB70829), SP 1-50 (YC73232 – YC73281),
SP51-55 (YD65452 – YD65456)

Watson Lake Mining District, Southeastern Yukon Territory

Map sheet 105-H-09

Latitude 61° 42' N, Longitude 128°10'W

Prepared for:

Aben Resources Ltd.

Suite 2230 – 885 West Georgia Street

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By

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Cranbrook, B.C., Canada

V1C 2R7

January 27th, 2012

APPENDIX VI

Petrographic Report



Vancouver Petrographics Ltd.

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Sent to: Mike McCuaig
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Report 111110

December 11, 2011

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Summary:

Fifteen (15) samples were submitted for petrographic analysis (see details in Table 1).

Table 1: List of samples and petrographic classification of the samples.

<i>Sample N.</i>	<i>Lithology</i>
1	Altered (quartz--epidote) hydrogrossular-clinopyroxene(?) granofels
2	Quartz-white mica-calcite-pyrite-pyrrhotite-chalcopyrite vein
3	Quartz-white mica-pyrite breccia
4	Quartz-pyrite-white mica-sphalerite breccia
5	Altered (white mica-quartz) porphyritic felsite
6	Altered (clay-kaolinite?-chlorite) porphyritic felsite
7	Altered (clay-white mica) porphyritic felsite Quartz-molybdenite-pyrite-vein
8	Altered (quartz-clay-white mica-kaolinite?) breccia
9	Pyrite-pyrrhotite-quartz-carbonate replacement zone
10	Clay-pyrite-quartz-calcite-arsenopyrite replacement zone
11	Quartz-hydrogrossular-diopside(?) granofels Actinolite-pyrrhotite infill
12	Arsenopyrite-pyrite-quartz replacement zone
13	Clinopyroxene-quartz granofels
14	Brecciated porphyritic felsite
15	Actinolite-clinopyroxene-hydrogrossular granofels Quartz-pyrite-albite-white mica-calcite replacement zone

The samples analyzed were subdivided into four different rock suites.

The first suite (Samples **1**, **11**, **13**, and **15**) consists of metamorphic rocks which are made up of clinopyroxene± hydrogrossular±quartz and later replacements of actinolite. This group of rocks indicates that a high temperature metamorphic event occurred and was responsible for the crystallization of hydrogrossular in equilibrium with clinopyroxene. Ore mineralization within this rock suite is associated with retrograde replacement which is coeval with the crystallization of actinolite and epidote. The amounts of ore minerals such as pyrrhotite, pyrite, chalcopyrite, sphalerite, possible hematite, and iron oxides are generally lesser than 1%; only within Sample 15 does pyrite reach 8%.

The second rock suite (Samples **5**, **6**, and **7**) is classified as porphyritic felsite. This suite is characterized by the presence of white mica-rich alteromorphs which replaced feldspar and host euhedral to subhedral quartz. The intense alteration which replaced the feldspar does not allow one to classify this hypabyssal rock with further accuracy. As suggested by Gillespie & Styles (1999) for all the cases in which a modal composition of the rock cannot be obtained, the generic term felsite is used to classify rocks which are fine-grained and mostly composed of felsic minerals. The presence of phenocrysts prompted the use of the textural modifier 'porphyritic'. All of the samples belonging to this group are strongly to intensely altered by white mica-quartz-clay-chlorite. A quartz-molybdenite-pyrite-vein crosscuts Sample 7. Also, Sample 14 can

be classified as a porphyritic felsite, however, the intense brecciation observed under the microscope required a microstructural classification for this sample.

The third suite (Samples **3**, **4**, **8**, and **14**) consists of brecciated rocks. The fragments observed within these samples could be tentatively ascribed to a porphyritic felsite only in the case of Samples 3 and 14, in the other two cases quartz-rich fragments indicate that the brecciation fragmented a possible quartz-rich infill and/or replacement zone. Microstructural evidence indicates that the deformation occurred as a consequence of hydraulic process (see the detailed microstructural description attached below). The deposition of ore minerals within the breccia matrix includes: pyrite±arsenopyrite±sphalerite±chalcopryite and three accessory minerals which were unresolved under the microscope, and that would require electron optic analysis in order to constrain their nature. This type of brecciation, as also confirmed by the presence of anomalous metal values, could represent an important pathway for the mineralizing fluids. Further analysis which aims to further constrain the brecciation processes, temperature and fluid conditions is highly recommended for this rock. Sample 8 shows partially-filled microstructures which are coated by fine-grained quartz. This type of infill (i.e., vuggy quartz) is generally regarded as the evidence of the circulation of acid fluids and vapours. The presence of this type of microstructure and the presence of kaolinite would indicate a high-sulphidation environment. The clay aggregate as distinguished under the microscope could be tentatively analyzed by NIR-spectroscopy, with the aim of positively recognizing the kaolinite, as this is an important mineral which indicates, in association with other evidence, a high-sulphidation epithermal system.

The fourth suite (Samples **2**, **9**, **10**, and **12**) consists of an heterogeneous group of rocks including veins and replacement zones (*sensu* Gillespie et al., 2011). As also indicated by the partial geochemical analysis kindly provided by the Company, this suite hosts anomalous values of metals and precious metals; namely gold, arsenic, and bismuth. Veining and replacement zones are closely associated within this group of rocks. The ore minerals recognized include pyrite-pyrrhotite-chalcopryite±arsenopyrite and rare amounts of two unresolved minerals. As already recommended for the previous suite, this last group also deserves further sampling and attention. Of particular importance, according to the author, is the understanding of the source of the vein material. Important pathfinder elements such as arsenic, bismuth, tungsten, molybdenum, can be used to better understand the possible genetic relationship between the brecciation, the veining and the replacement zones. Further sampling, mapping, and petrographic analysis would clarify the genetic relationships, the hydrothermal process and possibly the source of the mineralization.

A glossary of microstructural terms used in the descriptions, individual descriptions and photomicrographs are attached.

Respectfully submitted,
F. Colombo, Ph.D., P.Geo.

Glossary of microstructural and petrologic terms used in the text

a, b, c: symbols used to describe the crystallographic axes of the crystals.

Amoeboid: Crystal with strongly curved and lobate, interlocking grain boundaries; like an amoeba.

Anhedral: Describes irregular grains showing no crystal-face boundaries in an igneous rock. Synonym of allotriomorphic and xenomorphic. The equivalent term for metamorphic rocks is xenoblastic.

Comb microstructures: Groups of parallel or subparallel crystals oriented perpendicular to vein walls thus resembling the teeth of a comb.

Cryptocrystalline: Describes very fine-grained, crystalline material that is incompletely resolved by the microscope.

Euhedral: Mineral with crystal faces in an igneous rock. Synonym of idiomorphic and automorphic. The equivalent term for metamorphic rocks is idioblastic.

Intergrowth: Aggregate of two or more minerals, generally arranged in a regular manner, formed by simultaneous growth or exsolution.

Idioblastic: Term describing crystals with well-formed (low-energy) crystal faces in metamorphic rocks.

Interlobate: With irregular, lobate grain boundaries.

Matrix: Aggregate that is distinctly finer-grained than the porphyroblasts in a metamorphic rock. The usage is similar to that of groundmass in an igneous rock.

Relict (residual structure): Structure remaining after a deformation or metamorphic event, such as a porphyroclast in a mylonite, a phenocryst in a metamorphosed volcanic rock, or a partly replaced porphyroblast in a retrograde metamorphic rock. 'Relict' is sometimes used as an adjective for 'residual'.

Subhedral: Term describing a mineral with some crystal faces and some irregular boundaries in an igneous rock. Synonym of subidiomorphic. The equivalent term for a metamorphic rock is subidioblastic.

Undulose (undulatory) **extinction:** Wavy, non-uniform extinction in a single grain, owing to slight bending of the crystal. Patchy, irregular undulose extinction can be due to submicroscopic fractures, kinks and dislocation tangles.

Xenoblastic: Describes a structure of irregular grains showing no crystal-face boundaries in a metamorphic rock.

X, Y, Z: symbols used to describe the optical indicatrix of the crystals.

Selected Bibliography:

Gillespie, M.R., Styles, M.T., 1999, British Geological Survey scheme - Volume 1 - Classification of igneous rocks. British Geological Survey Research Report, (2nd Edition) RR 99/06, 52 pp.

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The offcuts and the polished thin sections

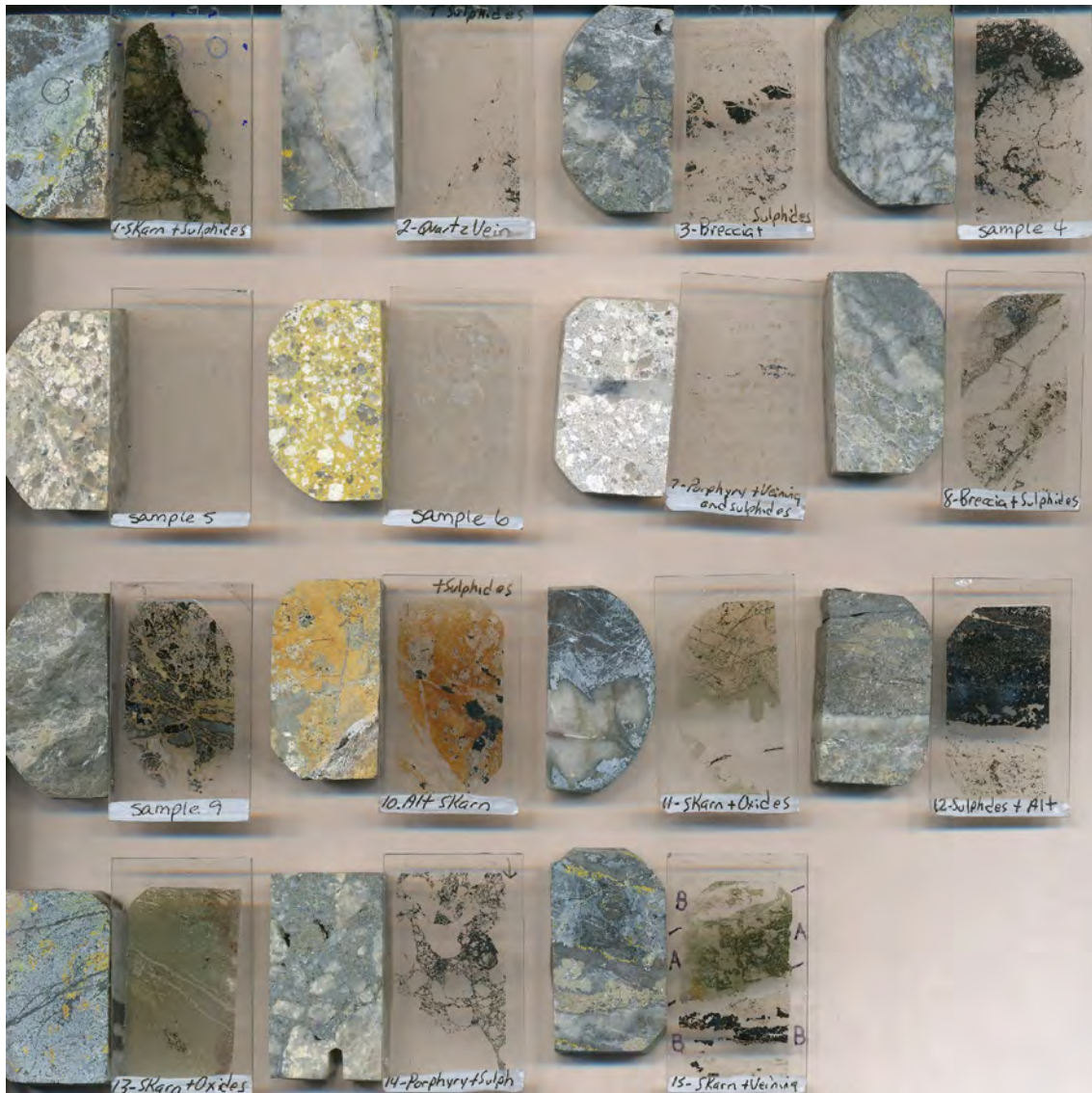


Figure 1: The offcuts and the polished thin sections.

Sample 1

Altered (quartz-actinolite-epidote) hydrogrossular-clinopyroxene(?) granofels

This polished thin section is characterized by an inequigranular xenoblastic microstructure and by an heterogeneous composition with irregular distribution of subidioblastic hydrogrossular and xenoblastic clinopyroxene(?) which are partially replaced by actinolite. An irregular quartz-rich domain filled in (probably contemporaneously with the actinolite crystallization) a portion of the polished thin section. Rare pyrrhotite is partially replaced by pyrite and is spatially associated with very rare chalcopyrite.

<i>Mineral</i>	<i>Modal %</i>	<i>Main size range (mm)</i>
quartz	33 - 35	up to 10
hydrogrossular	24 - 28	up to 3
actinolite	20 - 24	up to 1.5
epidote	15 - 17	up to 0.4
clinopyroxene(?)	4 - 5	up to 0.8
pyrrhotite	0.2 - 0.4	up to 0.25
pyrite	tr	up to 0.3
apatite	tr	up to 0.1
chalcopyrite	tr	up to 0.2
sphalerite	tr	up to 0.04

Quartz occurs as inequigranular interlobate crystals of up to 10 mm in size with a moderate to strong undulose extinction, and which form a quartz-rich domain. Lesser actinolite is hosted within the quartz-rich domain, and this association indicates a possible coeval crystallization of the two phases.

Hydrogrossular forms irregular domains in which the crystals show subidioblastic shapes and growth zoning. The refractive indexes are high and the crystals show the typical weak birefringence with a complex series of twins. Hydrogrossular is partially replaced by xenoblastic aggregates of epidote and actinolite.

Actinolite forms a selvage-like domain at the quartz-rich domain boundary, and partially replaces interstitial positions within the hydrogrossular-clinopyroxene domain. Actinolite occurs as inequigranular xenoblasts of up to 1.5 mm, with a strong pleochroism, deep brown tints and an extinction angle of 20°. Actinolite replacements form irregular vein-like domains within the sample and are in most of their occurrences associated with lesser and fine-grained quartz, further supporting the interpretation that these two minerals were precipitated during the same retrograde metamorphic event.

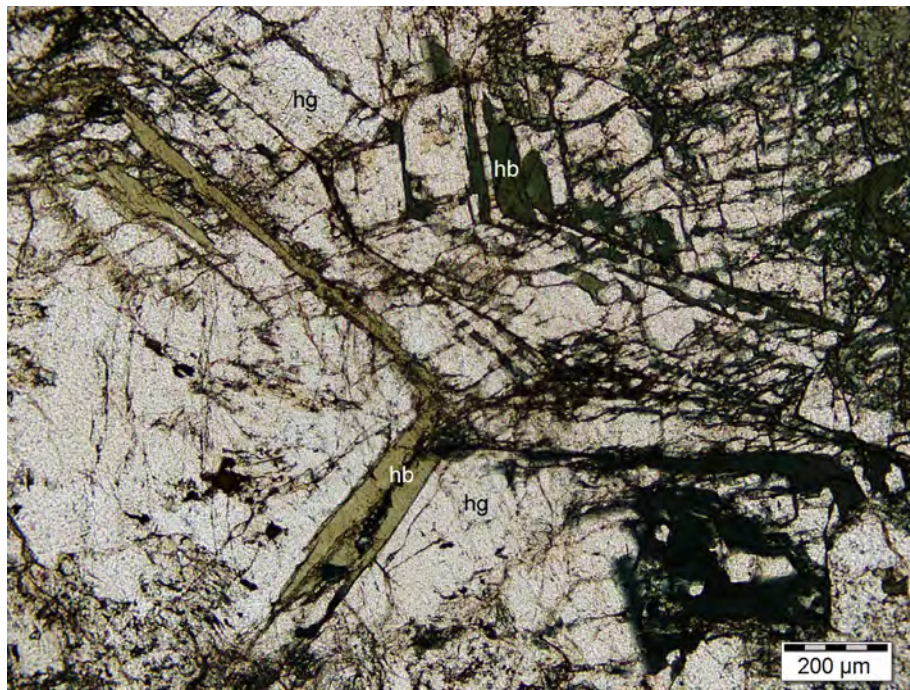
Epidote is xenoblastic, partially replaces the hydrogrossular, and is spatially associated with the actinolite within the replacement microstructures in which it shows the tendency to form epidote-rich irregular aggregates. Epidote shows a high relief, high birefringence and in some instances, a strong pleochroism with yellow and green tints.

Clinopyroxene (?) relicts were distinguished by their high birefringence and by their extinction angle of 40° which was measured on the well-developed cleavage. Clinopyroxene was observed as a partially replaced xenoblasts within the actinolite, and its nature should be ascertained by electron optic analysis. If its presence were to be confirmed, it would be interpreted as a relict phase (in association with the hydrogrossular) of the prograde contact metamorphism.

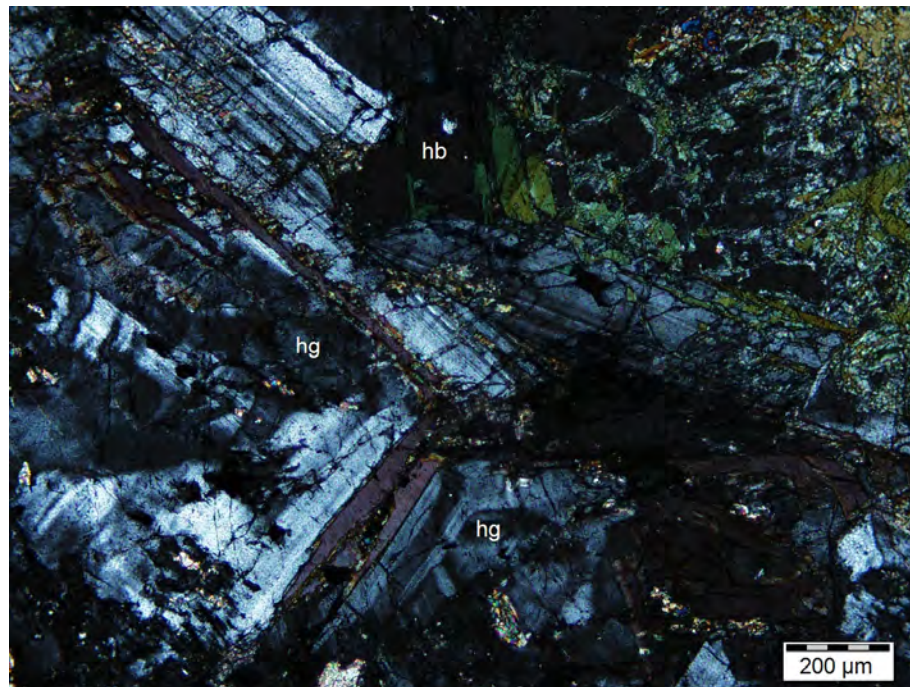
Rare xenoblastic **pyrrhotite** is heterogeneously distributed within the actinolite, and is partially replaced by **pyrite** within irregular quartz-rich veinlets which crosscut the contact between the quartz-rich domain and the rest of the sample. As a consequence of the crosscutting relationship shown by the pyrrhotite-pyrite hosting veinlets (0.2-0.3 mm wide), the sulfide deposition is interpreted as having occurred after the quartz-actinolite replacement of the prograde paragenesis (hydrogrossular-clinopyroxene).

Chalcopyrite is subordinate to pyrrhotite and pyrite, and forms xenoblastic crystals of up to 0.08 mm which are spatially associated with pyrrhotite and/or pyrite within the quartz-rich veinlets. Rare **sphalerite** forms xenoblastic and very fine-grained (0.04 mm) crystals which are spatially associated with pyrite and chalcopyrite.

Fluorescent crystals were detected with the aid of UV lamp and they are tentatively interpreted as **scheelite**; however, scheelite was not recognized under the microscope and is probably dispersed within the actinolite-rich replacement domains.



Photomicrograph 1a: Hydrogrossular (hg) shows subidioblastic shapes and is partially replaced by actinolite (hb). Plane polarized transmitted light.



Photomicrograph 1b: Same area as shown in the previous photomicrograph. Hydrogenation (hg) is distinguished by its typical weak birefringence and is partially replaced by actinolite (hb). Crossed nicols transmitted light.

Sample 2

Quartz-white mica-calcite-pyrite-pyrrhotite-chalcopyrite vein

This polished thin section is made up of abundant quartz and subordinate amounts of white mica, calcite, pyrite, chalcopyrite and pyrrhotite. The quartz forms two different types of domains: a fine- to medium-grained aggregate intergrown with white mica-calcite and lesser sulfides, and two quartz-rich domains in which the crystals are preferentially elongated, reach 3 mm in size and are associated with rare and very fine-grained sulfides.

<i>Mineral</i>	<i>Modal %</i>	<i>Main size range (mm)</i>
quartz	90 - 92	up to 3
white mica	5 - 6	up to 0.3
calcite	1 - 0.2	up to 0.8
pyrite	0.4 - 0.5	up to 1
pyrrhotite	0.1 - 0.1	up to 0.1
chalcopyrite	tr	up to 0.3
rutile?	tr	up to 0.02
Mineral X	tr	up to 0.25

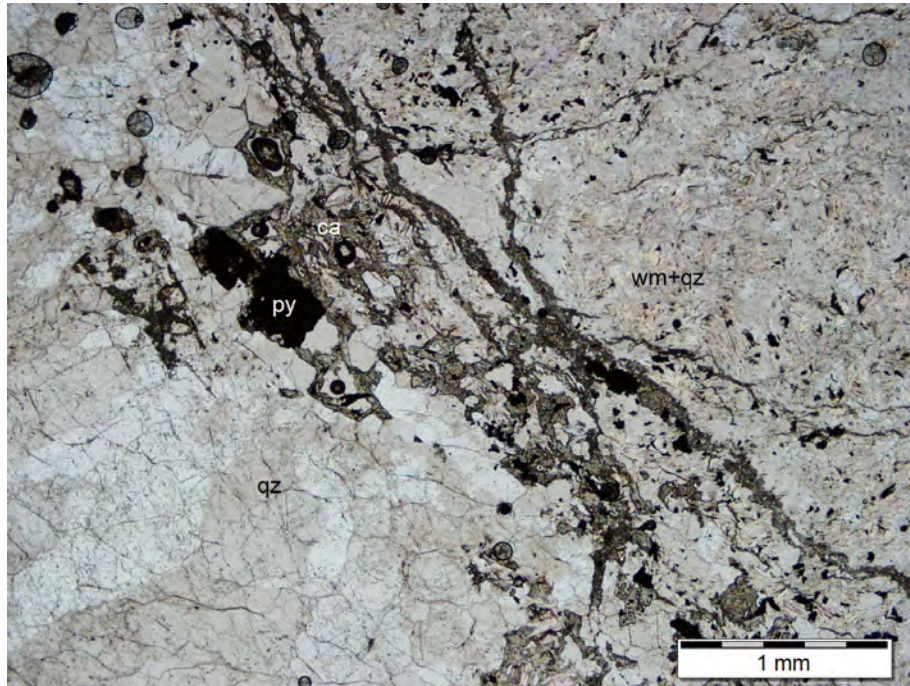
Quartz occurs as coarse (up to 3 mm) elongated crystals which show a preferential dimensional orientation and finer-grained interlobate crystals. These domains are characterized by moderate to strong undulose extinction and are interpreted as having crystallized as infill within dilational zones. The coarse-grained quartz domains host only rare amounts of sulfides and are tentatively interpreted to pre-date the more heterogeneous and finer-grained white mica-quartz-calcite-sulfide domains. Quartz also forms a fine- to medium-grained aggregate as inequigranular interlobate to amoeboid crystals which are finely intergrown with prevailing and randomly oriented **white mica** flakes and lesser and interstitial **calcite**. White mica and calcite occur as anhedral crystals, which in some instances are concentrated along fractures, joints and possible infills with clear crosscutting relationships with the coarse-grained quartz. Fine-grained crystals of calcite, white mica and in some instances pyrite, chalcopyrite and pyrrhotite further support the hypothesis that white mica-calcite and sulfides post-date the earlier quartz-rich infill.

Pyrite forms irregular replacement crystals and massive aggregates which in some instances replaced pyrrhotite. The fine- to very fine-grained crystals in many instances show euhedral crystals and the pyrite in general is preferentially associated within the white mica-quartz-calcite aggregate.

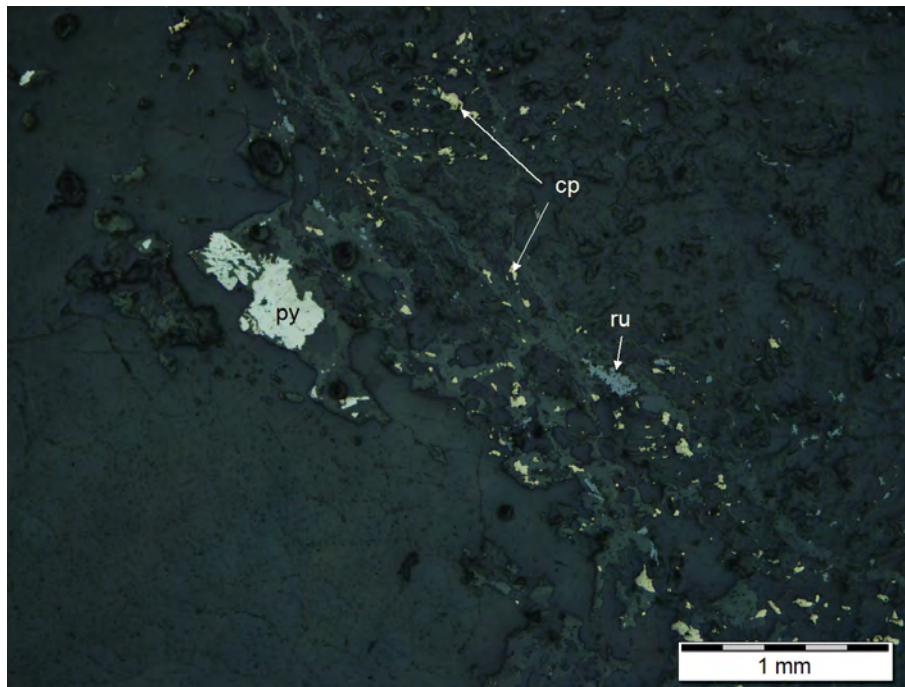
Pyrrhotite forms amoeboid to anhedral crystals which are partially replaced by pyrite, and in some rare instances show its typical 'bird's-eye' alteration microtexture which is possibly replaced by a very fine-grained aggregate of marcasite and pyrite.

Chalcopyrite is spatially associated with and subordinate to the pyrite and pyrrhotite and forms very fine- to fine-grained anhedral to amoeboid crystals of up to 0.3 mm.

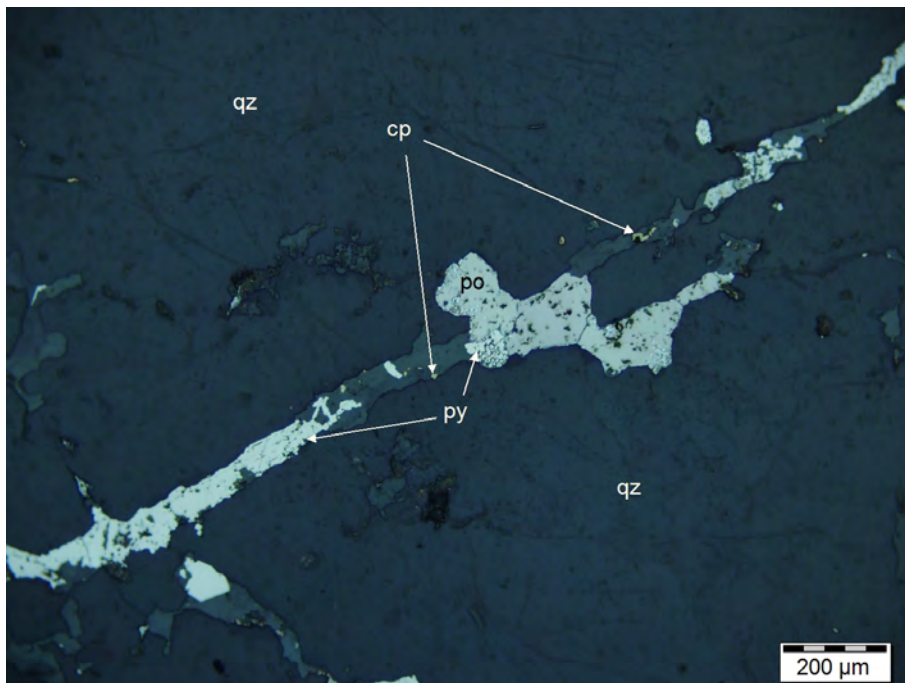
Rare anhedral fragments of an unresolved mineral (**Mineral X**, possible chalcocite?) rim and partially replace the chalcopyrite and reach a maximum size of 0.25 mm.



Photomicrograph 2a: A quartz-rich domain (qz in the lower right of the photomicrograph) is crosscut by a fine-grained white mica-quartz (wm+qz) domain and by calcite (ca) and pyrite (py) veinlets. Plane polarized transmitted light.



Photomicrograph 2b: Same area as shown in the previous photomicrograph with pyrite (py), a fine-grained chalcopyrite (cp) dispersion and lesser rutile (ru), which are preferentially deposited within the white mica-quartz aggregate. Plane polarized reflected light.



Photomicrograph 2c: A thin quartz-pyrite (py)-pyrrhotite (po)-chalcopyrite (cp) veinlet crosscuts the coarse-grained quartz vein (qz); note the partial replacement of pyrite after pyrrhotite. Plane polarized reflected light.

Sample 3

Quartz-white mica-pyrite breccia

This sample is characterized by inequigranular replacement textures defined by quartz, fragmented pyrite, arsenopyrite and very fine-grained white mica. Lesser amounts of bismuthinite (?), sphalerite and chalcopyrite complete the mineralogy of this replacement zone.

Mineral	Modal %	Main size range (mm)
quartz	75 - 78	up to 1
white mica (and clay?)	10 - 12	up to 0.04
pyrite	10 - 11	up to 7
arsenopyrite(?)	2 - 4	up to 0.1
Mineral X (bismuthinite?)	tr	up to 0.2, rare up to 0.65
sphalerite	tr	up to 0.4
chalcopyrite	tr	up to 0.12

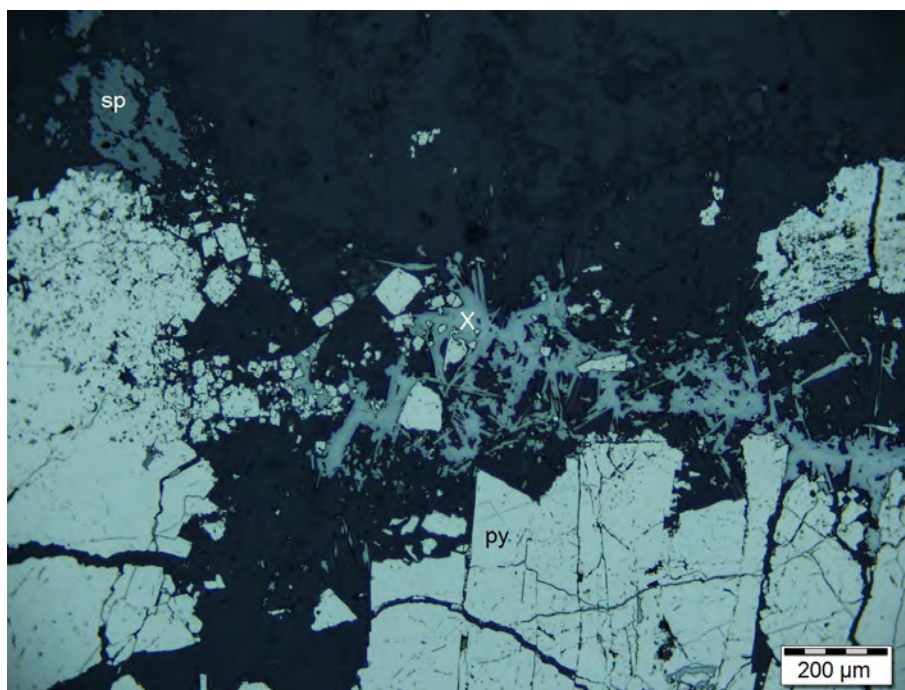
Quartz forms anhedral fragments and subhedral prisms of up to 1 mm which are irregularly dispersed within a very fine-grained (0.01 mm) and interlobate matrix. An irregular network of vein-like infills possibly crosscut the fine-grained matrix and consists of blocky to sub-prismoidal quartz crystals which in some instances form polygonal aggregates and are generally ranging from 0.05 mm up to 0.3 mm in size.

White mica (and possible clay?) forms a very fine-grained aggregate which is preferentially dispersed within the very fine-grained quartz matrix.

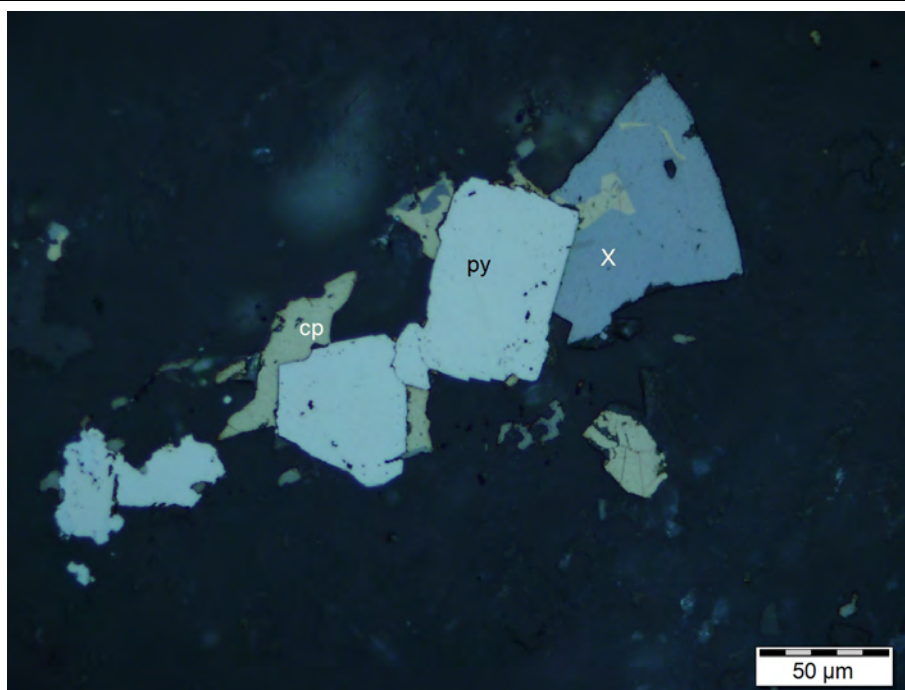
Pyrite forms subhedral to anhedral fractured crystals and crystal aggregates which in some cases are replaced and overprinted by **arsenopyrite**, which is distinguished by its anisotropy, (in some cases) its lozenge shapes, and subtle bluish tints if compared with the more yellowish-creamy pyrite.

In some more rare instances pyrite fractures are filled in by a soft, less reflective and anisotropic mineral (**Mineral X**). This mineral also rims the pyrite and in some instances shows a subtle bluish tint, elongate prisms to acicular crystals up to 0.65 mm long, and a very high aspect ratio (60:1 and higher). According to the optical features described above and the acicular habit of some of its crystals, this mineral is tentatively interpreted as **bismuthinite**.

Sphalerite is anhedral and is spatially associated with the pyrite in which it is in some rare cases enclosed. It hosts very fine-grained exsolutions of chalcopyrite and rare pyrite inclusions.



Photomicrograph 3a: Fractured pyrite (py) is rimmed by possible bismuthinite (X) and sphalerite (sp). Plane polarized reflected light.



Photomicrograph 3b: Euhedral pyrite (py) is rimmed by possible bismuthinite (X) and chalcopyrite (cp). Plane polarized reflected light.

Sample 4

Quartz-pyrite-white mica-sphalerite breccia

This sample consists of coarse-grained quartz fragments filled in by pyrite, white mica sphalerite and rare Mineral Y (possible argentite?) and chalcopyrite. Pyrite forms a massive domain within the upper portion of the polished thin section.

Mineral	Modal %	Main size range (mm)
quartz	68 - 72	up to 2.5
pyrite	20 - 24	0.3 to massive
white mica	5 - 6	up to 0.05
sphalerite	2 - 3	up to 1
Mineral Y (argentite?)	0.2 - 0.3	up to 1.5
chalcopyrite	0.1 - 0.2	up to 0.1
arsenopyrite	tr	up to 0.05
Mineral Z	tr	up to 0.03

Quartz occurs as irregular blocky to interlobate fragments of up to 2.5 mm in size which are fractured and show a strong undulose extinction. The quartz is abundant, and the same deformation event which caused the quartz strain and fracturing triggered the deposition of the infill which is made up of pyrite, white mica and lesser sulfides. In most of the polished thin section, the infill occupies the interstices between the quartz fragments and only within a limited portion of the sample forms a relatively homogeneous and massive aggregate.

Pyrite forms interstitial infills and a massive domain which contains sub-rounded quartz fragments. Pyrite crystals tend to show euhedral shapes within the narrow quartz interstices and in this case they reach 0.3 mm in size. The massive aggregates are rimmed and heterogeneously filled in by interstitial sphalerite and lesser Mineral Y (proustite?).

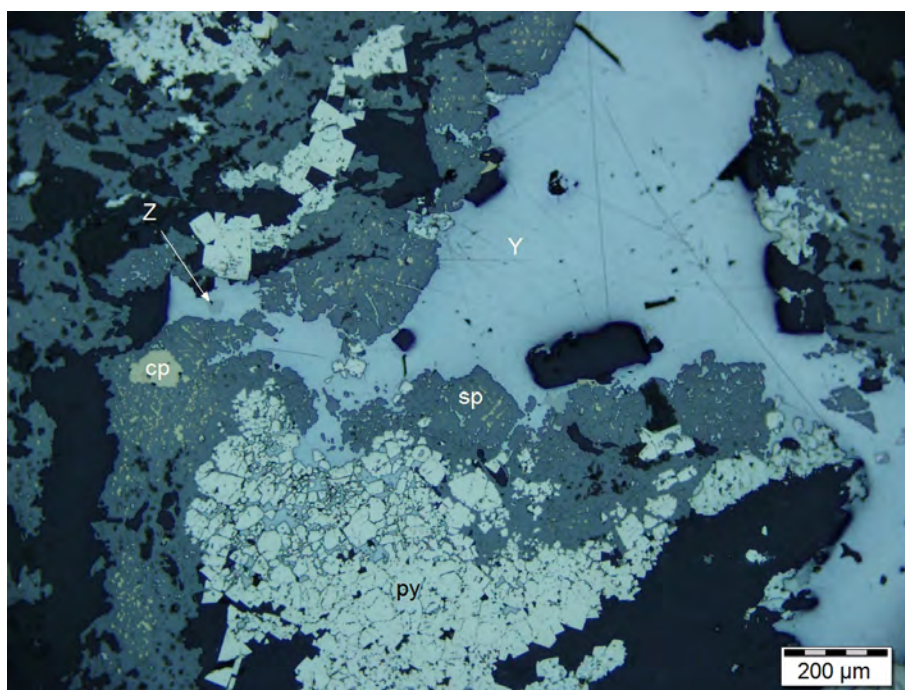
White mica is fine- to very fine-grained and forms irregular aggregates with randomly oriented flakes of up to 0.05 mm which preferentially filled in the interstices between the quartz fragments.

Sphalerite is anhedral and is intergrown with pyrite, which it includes and possibly partially replaces. Sphalerite (as well as pyrite) fills in the interstices between the quartz fragments and in many of its occurrences hosts very fine-grained **chalcopyrite** exsolution which only in rare occurrences reaches 0.1 mm in size and forms amoeboid crystals immersed within the sphalerite. Chalcopyrite forms rare anhedral crystals which are hosted and partially replace the pyrite aggregate.

An unresolved soft and medium reflectant (its reflectance is intermediate between sphalerite and pyrite) mineral (**Mineral Y**) forms anhedral to amoeboid crystals which are partially replacing the pyrite and are preferentially deposited in between the pyrite and the sphalerite. Mineral Y is tentatively interpreted as **argentite**.

Arsenopyrite shows a reflectivity slightly lower than that of pyrite, strong anisotropy and appears white with no creamy tint if compared with pyrite. It forms very fine-grained aggregates with subhedral lozenge-shaped crystals which rim the euhedral pyrite.

Another unresolved mineral (Mineral Z), shows a low reflectivity and brownish tints, and is hosted as inclusion within the possible argentite. Its nature should be ascertained by electron optic analysis.



Photomicrograph 4: Euhedral pyrite (py) is intergrown with sphalerite (sp), Mineral Y; chalcopyrite (cp) forms exsolutions within the sphalerite and rare fine-grained anhedral crystals. Plane polarized reflected light.

Sample 5

Altered (white mica-quartz) porphyritic felsite

Euhedral quartz phenocrysts and euhedral alteromorphs made up of white mica are immersed within a fine-grained inequigranular-interlobate aggregate of quartz and white mica. The alteromorphs are made up of calcite and/or white mica with lesser rutile replaced biotite. Thin (up to 0.2 mm wide) and discontinuous veinlets crosscut the polished thin section and are filled in by calcite and lesser pyrite, chalcopyrite and sphalerite.

<i>Mineral</i>	<i>Modal %</i>	<i>Main size range (mm)</i>
quartz	70 - 74	up to 0.1 within the groundmass, up to 3 as phenocryst
white mica	25 - 27	up to 1.5 as phenocryst, up to 0.1 within the groundmass
calcite	2 - 2.5	up to 0.2
rutile	tr	up to 0.1
pyrite	tr	up to 0.6
chalcopyrite	tr	up to 0.2
sphalerite	tr	up to 0.1

Quartz occurs within the prevailing groundmass as fine-grained (up to 0.1 mm) interlobate to polygonal crystals associated with randomly oriented white mica flakes. It forms subhedral to anhedral crystals with embayed shapes of up to 3 mm in size, and it replaces euhedral crystals of up to 3 mm in size with an interlobate grain aggregate which shows strong undulose extinction. These euhedral alteromorphs are interpreted as having replaced quartz crystals. Quartz finally forms irregular domains, in which it occurs as inequigranular interlobate crystals which are interpreted as having replaced or recrystallized an original quartz infill.

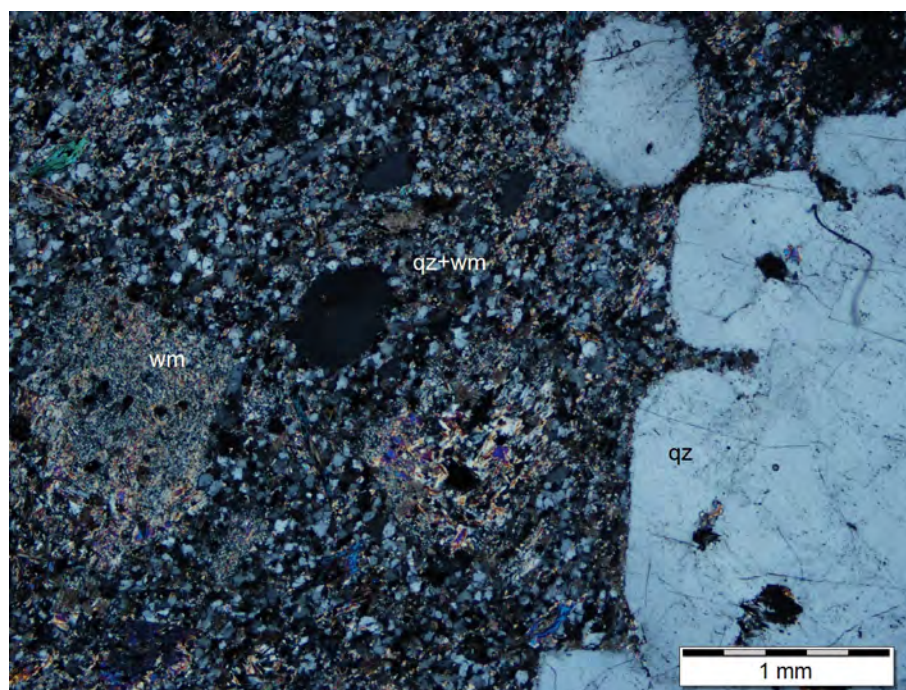
White mica is intergrown with quartz as fine-grained flakes, and epitaxially replaced the tabular prisms of possible biotite, as also indicated by the presence of acicular and anhedral rutile crystals. The alteromorphs after biotite are hosting **calcite** in some cases, which completely replaced the tabular-shaped alteromorphs in rare cases. White mica finally forms subhedral to euhedral alteromorphs after feldspar which reach 3 mm in size and are variably replaced by calcite.

Calcite filled in thin veinlets which host rare amounts of pyrite, chalcopyrite and sphalerite.

Rutile forms fine-grained acicular crystals and anhedral columnar grains which are preferentially associated with the white mica-rich alteromorphs.

Pyrite forms subhedral crystals which are mantled and partially replaced by **chalcopyrite**,

which is in turn intergrown with **sphalerite** and is hosted within the sphalerite as very fine-grained exsolutions.



Photomicrograph 5: Coarse-grained quartz (qz) shows well-developed embayments filled in by the groundmass, which is made up of fine-grained quartz and white mica (qz+wm). On the left of the photomicrograph, a white mica (wm) alteromorph replaced a feldspar mineral. Crossed nicols transmitted light.

Sample 6

Altered (clay-kaolinite?-chlorite) porphyritic felsite

This polished thin section is characterized by a porphyritic microstructure which is defined by euhedral alteromorphs which are made up of clay and calcite after feldspar, and subhedral quartz and equant to tabular alteromorphs after biotite which are made up of cryptocrystalline unresolved aggregate, chlorite and white mica. The phenocrysts are immersed within a fine-grained-interlobate aggregate of quartz, K-feldspar and albite. Quartz forms the coarsest phenocrysts; the ratio of groundmass:phenocrysts is about 1:1 to 3:2, and among the phenocrysts the recalculated modal percentage of quartz-(feldspar)-(biotite) is about 50-30-20%.

<i>Mineral</i>	<i>Modal %</i>	<i>Main size range (mm)</i>
quartz	54 - 58	up to 3.5
clay (including kaolinite)	14 - 16	up to 0.02
K-feldspar	10 - 12	up to 0.1
albite	10 - 12	up to 0.1
Fe-chlorite	3 - 4	up to 0.4
white mica	2 - 2.5	up to 0.2
rutile	tr	up to 0.05
pyrite	tr	up to 0.08

Quartz is the most abundant mineral among the quartzofeldspathic fine-grained (up to 0.1 mm) and interlobate aggregate which composes the groundmass of this sample. Quartz forms coarse-grained subhedral to anhedral crystals of up to 3.5 mm. Embayments are developed at the margin of the coarser quartz crystals, and indicate a disequilibrium between the phenocrysts and the groundmass, which possibly occurred during the final stages of crystallization of this hypabyssal intrusion. The quartz phenocrysts show moderate undulose extinction which is interpreted as the consequence of the strain generated by the groundmass solidification.

K-feldspar forms interlobate and fine-grained crystals which are intergrown with quartz and albite and are distinguished by their lowest refractive indexes among the quartzofeldspathic aggregate. The presence of K-feldspar is further confirmed by the yellow staining colour observed within the groundmass on the offcut. **Albite** is distinguished by its intermediate (if compared with quartz and K-feldspar) refractive indexes and the lath-shaped crystals which in some occurrences show albite twinning.

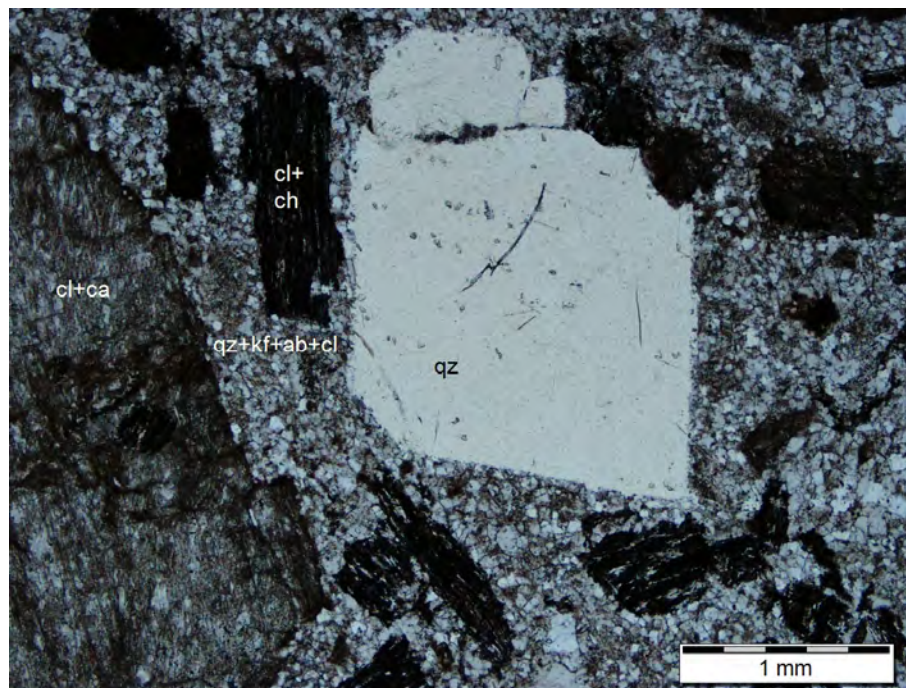
Clay forms a very fine-grained aggregate with equant 'books' of up to 0.02 mm with a low birefringence (kaolinite?) which compose most of the euhedral alteromorphs after the feldspar. In some portions of the polished thin section the clay forms an unresolved earthy

aggregate which should be further investigated by NIR spectroscopy. The alteromorphs after feldspar host irregular calcite patches and lesser fine-grained **white mica**. Clay is also distributed within the groundmass with a preferential association with the K-feldspar.

White mica forms epitaxial alteromorphs which, in association with abundant clay, lesser **chlorite** and **rutile**, replaced tabular to equant biotite crystals. The nature of the biotite is indicated by the subhedral tabular shape of some of the alteromorphs which generally do not exceed 1 mm, and are subordinate with respect to the feldspar and quartz phenocrysts.

Chlorite preferentially replaces the biotite epitaxially within the subhedral alteromorphs, and the flakes show a positive elongation sign, thus indicating a Fe-rich composition for the chlorite.

Pyrite is rare, smaller than 0.08 mm in size, anhedral, and is dispersed within the groundmass.



Photomicrograph 6: Coarse-grained quartz (qz) phenocrysts, coarse-grained euhedral alteromorphs made up of clay and calcite (cl+ca), and medium-grained tabular alteromorphs made up of clay and chlorite (cl+ch) are immersed within a fine-grained aggregate of quartz, K-feldspar, albite and clay (qz+kf+ab+cl). Plane polarized transmitted light.

Sample 7

Altered (clay-white mica) porphyritic felsite

Quartz-molybdenite-pyrite-vein

The microstructure of this polished thin section is characterized by subhedral to anhedral quartz phenocrysts and subhedral alteromorphs after feldspar which are made up of very fine-grained clay (kaolinite?) aggregates. White mica and clay forms equant to tabular alteromorphs after biotite. The phenocrysts are immersed within a fine-grained interlobate groundmass made up of quartz and clay. A planar vein (up to 4 mm wide) of quartz, molybdenite and lesser pyrite crosscuts the sample. The matrix:phenocrysts ratio ranges between 3:2 and 4:2, and the ratio between feldspar and quartz is 3:2.

<i>Mineral</i>	<i>Modal %</i>	<i>Main size range (mm)</i>
porphyritic felsic rock (92% of PTS)		
quartz	68 - 70	up to 2.5, rare >10
clay (including kaolinite)	20 - 24	up to 0.02
white mica	2 - 2.5	up to 0.1
pyrite	tr	up to 0.15
chalcopyrite	tr	up to 0.02
quartz-molybdenite-pyrite-vein (8% of PTS)		
quartz	7	up to 0.7
molybdenite	0.4	up to 1
pyrite	0.2	up to 0.15

Quartz forms the fine-grained-interlobate groundmass in association with very fine-grained clay, which possibly replaced a feldspar mineral. Quartz also occurs as coarse-grained phenocrysts which show anhedral to subhedral shapes, and in some cases display embayed boundaries. Quartz phenocrysts are subordinate to the clay-rich alteromorphs after feldspar, and their size ranges from 1 mm to 2.5 mm, with one occurrence of a crystal exceeding 10 mm. Finally quartz is the major component of a vein in which it occurs as inequigranular (up to 0.7 mm)-interlobate crystals which show moderate to strong undulose extinction.

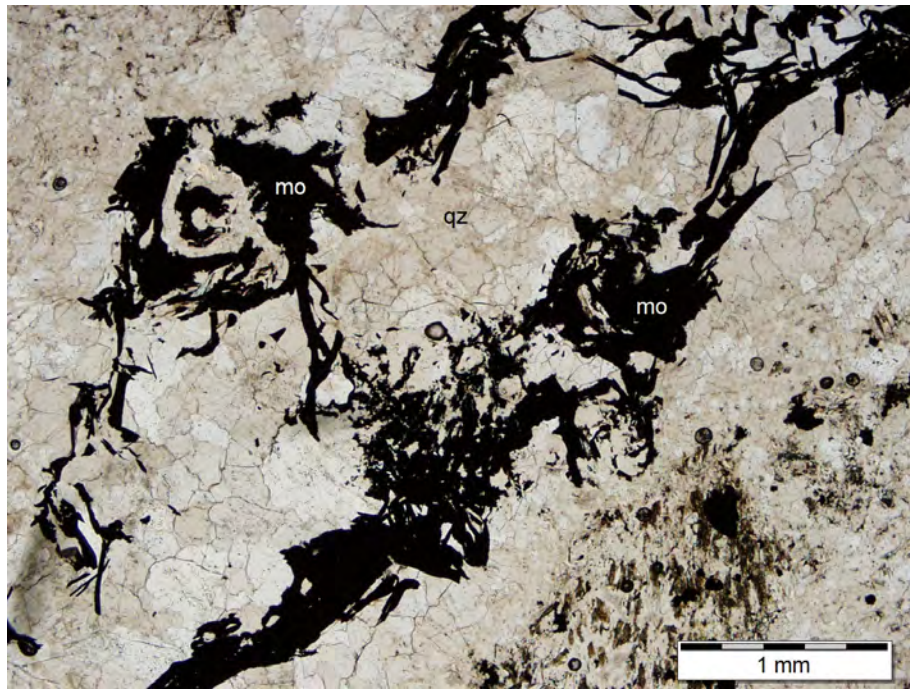
Clay completely replaced the euhedral phenocrysts (which were possibly feldspar). The size of the alteromorphs ranges between 1.5 mm and 2.5 mm with rare prismatic occurrences of up to 8 mm. Kaolinite is probably present within the alteromorphs, as well as unresolved earthy aggregates which form most of the groundmass and the alteration after the biotite.

White mica forms epitaxial alteromorphs after biotite in association with abundant cryptocrystalline clay, and is heterogeneously dispersed within the groundmass and within the

clay-rich alteromorphs after feldspar.

Molybdenite forms bent and convoluted flakes of up to 1 mm long which are immersed within the quartz vein.

Pyrite forms fine-grained subhedral crystals of up to 0.15 mm which are immersed within the quartz vein and are subordinate to molybdenite. Pyrite is also deposited within the host rock and is preferentially associated with rare and thin (less than 0.1 mm wide) joints filled in by white mica.



Photomicrograph 7: Molybdenite (mo) forms irregular and bent flakes which are immersed within the fine-grained quartz-rich vein (qz). Plane polarized transmitted light.

Sample 8

Altered (quartz-clay-white mica-kaolinite?) breccia

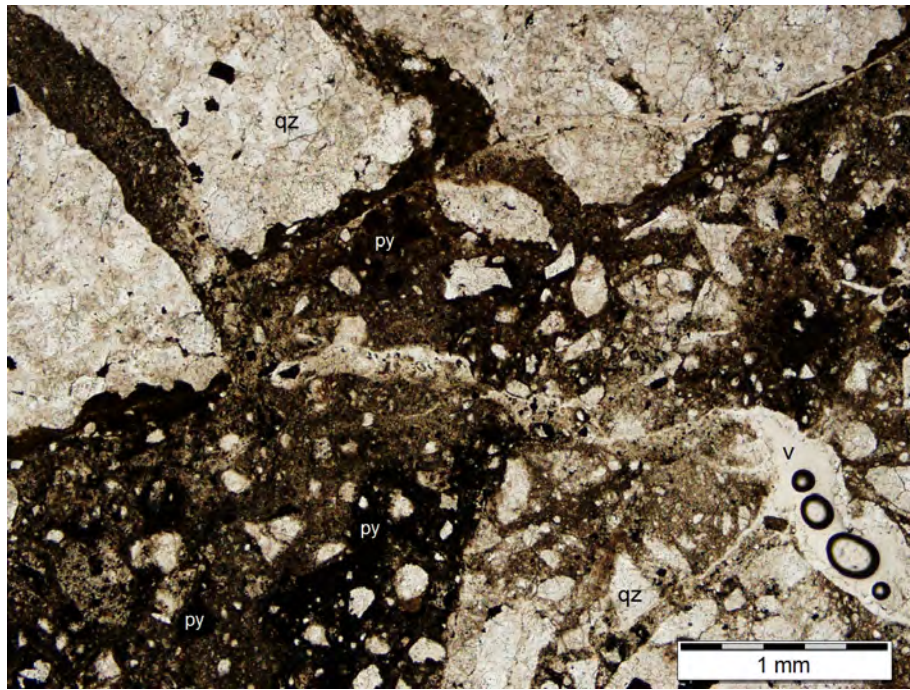
This sample shows a brecciated microstructure which is defined by fractured domains which are made up of fine-grained quartz and white mica. These domains are filled in by a very fine-grained matrix which is made up of fine-grained angular fragments which are immersed within the unresolved cryptocrystalline matrix, pyrite and limonite. The fragments and the matrix are crosscut by thin (up to 0.1 mm wide) quartz veinlets. The presence of some fragments with extremely angular shapes, the presence of 'clast supported' textures within some portion of the sample, and the relatively high percentage of clast compared to the matrix would suggest that a hydraulic mechanism was responsible for the brecciation of this sample.

<i>Mineral</i>	<i>Modal %</i>	<i>Main size range (mm)</i>
quartz	75 - 78	up to 0.8
cryptocrystalline aggregate (including clay, kaolinite(?) and limonite)	12 - 14	cryptocrystalline
pyrite	8 - 9	up to 0.3
white mica	2 - 4	up to 0.2
calcite?	tr	up to 0.5
rutile	tr	up to 0.05

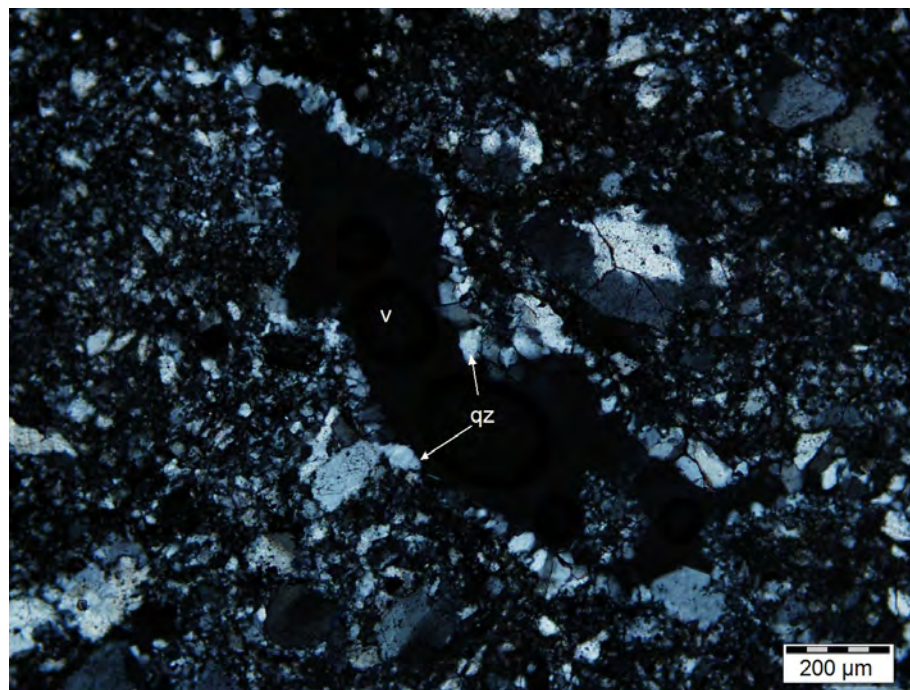
Quartz forms fractured domains in which it occurs as inequigranular-interlobate aggregates with moderate to strong undulose extinction. Quartz is heterogeneously associated with randomly oriented **white mica** flakes which overprint the fractured quartz. Quartz forms angular fragments of up to 0.1 mm which are immersed within the matrix. The matrix fills in the interstices of the fractured quartz-rich domains and prevails in the upper left portion of the polished thin section where it shares an irregular boundary with the quartz-rich fractured domain, and hosts quartz fragments and quartz aggregates which are locally in mutual contact and form a mosaic-like breccia. This microstructural evidence indicates the lack of a major grain size reduction and comminution, thus suggesting a hydraulic mechanism as the main process responsible for the brecciation. In the upper left portion of the samples some fragments are made up of previously brecciated lithic fragments. Some rare veinlets are characterized by the presence of cavities which are coated by blocky quartz (see Photomicrograph 8b). These microstructures (i.e., vuggy quartz), are generally interpreted as an evidence for fluids characterized by a low pH.

Most of the matrix is made up of a very fine-grained to cryptocrystalline aggregate which includes fine-grained **rutile**, **limonite** and **Fe-oxides**, and for the most part is unresolved.

Pyrite is heterogeneously dispersed within the matrix as inequigranular, anhedral and fractured crystals of up to 0.3 mm in size. Pyrite occurs as rare cubes (up to 0.1 mm) within the fractured quartz-rich domains and due to its preferred association with the matrix is interpreted as having been deposited during the brecciation event.



Photomicrograph 8a: Brecciated microstructure with angular quartz (qz) fragments which are filled in by a cryptocrystalline matrix (earthy appearance) which hosts lesser pyrite (py). On the lower right part of the photomicrograph, a partially filled cavity (v) was possibly generated after the brecciation as its infill crosscuts the fragments and the matrix of this breccia (see details in the next photomicrograph). Plane polarized transmitted light.



Photomicrograph 8b: Blocky quartz coats the internal walls of a partially-filled cavity (v). This type of microstructure is generally interpreted as vuggy quartz or vuggy silica and is evidence of fluids and vapours with low-pH. Crossed nicols transmitted light.

Sample 9

Pyrite-pyrrhotite-quartz-carbonate replacement zone

This sample is dominated by replacement microstructures which define a compositional layering and are weakly brecciated. Abundant pyrrhotite is intensely altered, rimmed and partially overprinted by pyrite, coarse subhedral arsenopyrite and lesser chalcopyrite. An unresolved highly birefringent carbonate preferentially rims the pyrite. Crustiform aggregates made up of white mica, carbonate, and unresolved cryptocrystalline aggregates occupy the interstices between the sulfide-rich domains. Patchy and interstitial domains of locally abundant quartz and irregular domains of very fine- to fine-grained clay(?) are intergrown with the sulfides.

<i>Mineral</i>	<i>Modal %</i>	<i>Main size range (mm)</i>
pyrite	35 - 38	up to 2
pyrrhotite	20 - 23	intensely altered massive domains of up to 8x5
quartz	17 - 19	up to 0.2
carbonate	12 - 14	up to 0.2
cryptocrystalline aggregate and limonite	7 - 8	cryptocrystalline
clay?	3 - 4	up to 0.02
arsenopyrite	2.5 - 3	up to 5
Mineral W	0.5 - 0.6	up to 0.25
chalcopyrite	0.2	up to 0.2
Mineral Z	tr	up to 0.1

Pyrite occurs as euhedral fractured crystals of up to 2 mm and fine-grained and massive aggregates which partially replaces and forms irregular coronas around the intensely altered pyrrhotite. **Pyrrhotite**, which does not show any sign of magnetic susceptibility if tested with the hand-held magnet, is distinguished by its typical 'bird's-eye' alteration textures. The presence of a strongly altered mineral is suspected (Mineral W). Mineral W shows optical features which are very similar to the intensely altered pyrrhotite, and appears to form intergrowths with the carbonate. The natures of the possible Mineral W, Mineral Z and the carbonate composition should be constrained by electron optic analysis.

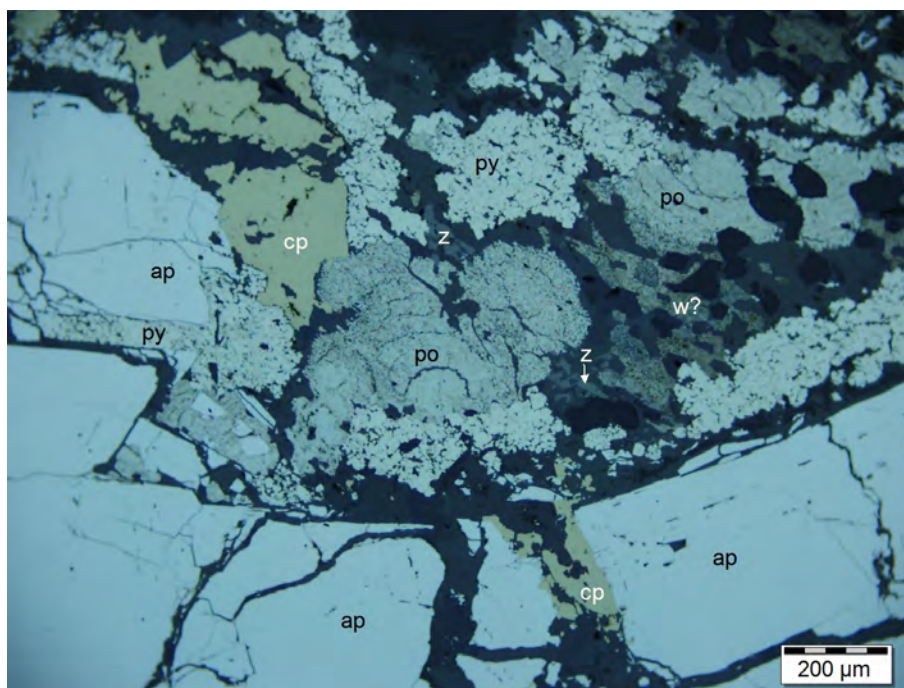
Arsenopyrite forms coarse (up to 5 mm) prisms and blades which are fractured and partially replaced by pyrite and chalcopyrite, and therefore arsenopyrite probably pre-dates their precipitation. The type of fracturing, the extreme angularity of most of the fragments, and the relatively small amount of rotation between the fragments of arsenopyrite and pyrite suggest that a hydraulic brecciation mechanism was responsible for the brecciation.

Quartz forms an inequigranular-interlobate aggregate which is heterogeneously distributed as

interstitial replacement patches and is intergrown with the sulfides.

Clay forms randomly oriented tabular lamellae with low refraction indexes, with a first order yellow birefringence colour. Clay and/or chlorite forms irregular aggregates which are interstitial with respect to the sulfide-rich domains, and are intergrown with the carbonate and the cryptocrystalline aggregate.

Chalcopyrite is anhedral and partially replaces the other sulfides; namely pyrrhotite, arsenopyrite and pyrite. Chalcopyrite is spatially associated with an anhedral opaque mineral with low reflectivity, a brownish colour, strong bireflectance (**Mineral Z**, similar to the mineral observed within Sample 4), and which forms fine-grained anhedral crystals which are intergrown within the carbonate.



Photomicrograph 9: Within the sulfide-rich portion of the sample, the intensely altered pyrrhotite (po) is partially replaced by fine-grained pyrite (py) which filled in the interstices between the arsenopyrite (ap). Chalcopyrite (cp) partially replaces pyrite and arsenopyrite. Unresolved minerals Z (z) and W (w?) are interstitial and intergrown with carbonate. Plane polarized reflected light.

Sample 10

Clay-pyrite-quartz-calcite-arsenopyrite replacement zone

This sample is dominated by the presence of abundant replacement consisting of very fine-grained to cryptocrystalline unresolved and probably limonitic material which hosts clay-rich domain, dispersions of euhedral pyrite, and irregular cavities which are partially coated with fine-grained quartz. The intensely altered sample is crosscut by multistage quartz±pyrite veins.

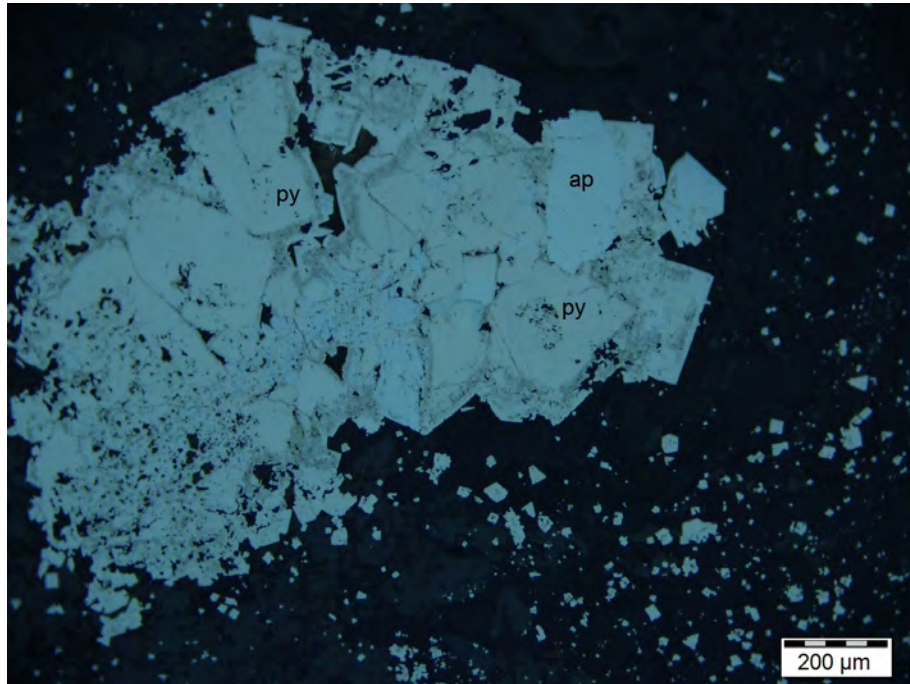
<i>Mineral</i>	<i>Modal %</i>	<i>Main size range (mm)</i>
cryptocrystalline ferruginous aggregate (including limonite?)	45 - 47	cryptocrystalline
clay (kaolinite?)	22 - 24	up to 0.02
pyrite	12 - 14	up to 0.4
quartz	10 - 11	up to 0.3
calcite	6 - 8	up to 0.2
arsenopyrite	0.2 - 0.3	up to 0.3

Most of the sample consists of a cryptocrystalline ferruginous aggregate which is unresolved under the microscope, and very fine-grained clay. The replacement appears to be porous and heterogeneous. Euhedral and inequigranular pyrite crystals are heterogeneously dispersed within the aggregate. Fine-grained quartz forms irregular to amoeboid crystals and crystal aggregates.

Pyrite forms fine- to medium-grained (up to 0.4 mm) euhedral crystals which in some cases form massive domains, and in some rare instances are intergrown and possibly overprint subhedral **arsenopyrite**. In some of its occurrences pyrite is characterized by growth zoning highlighted by solid inclusions which are more abundant toward the rim of the crystals and are absent within the cores of the coarsest crystals.

Quartz forms irregular to subhedral aggregates in which it occurs as fine-to very fine-grained aggregates which are characterized by a higher porosity, and probably include clays if compared with the ferruginous aggregate. In some cases these cavities are coated by fine-grained quartz. Quartz forms irregular veins which mostly consist of blocky to interlobate quartz and lesser cryptocrystalline material, possible clay and rare pyrite. Some of the latest quartz veins host irregular cavities which are coated by quartz.

Calcite was identified by its typical brisk reaction with cold dilute (10%) HCl on the outcrop, and forms irregular aggregates which are associated with the replacement and possibly with the quartz veining.



Photomicrograph 10: Rare arsenopyrite (ap) is intergrown with a quasi-massive pyrite (py) aggregate. Some of the shapes of the pyrite crystals are highlighted by very fine-grained inclusions. Plane polarized reflected light.

Sample 11

Quartz-hydrogrossular-diopside(?) granofels

Actinolite-pyrrhotite infill

This sample consists of idioblastic and very coarse-grained hydrogrossular which is surrounded by coarse-grained and coronitic clinopyroxene which divide the hydrogrossular from a quartz domain. The hydrogrossular is fractured and the fractures are filled in by clinopyroxene, actinolite and pyrrhotite.

Mineral	Modal %	Main size range (mm)
quartz	47 - 49	up to 6
hydrogrossular	40 - 41	>15
clinopyroxene (diopside?)	9 - 10	up to 8
actinolite	0.6 - 0.7	up to 1.5
pyrrhotite	0.1 - 0.2	massive infill of up to 4
pyrite	tr	up to 0.3

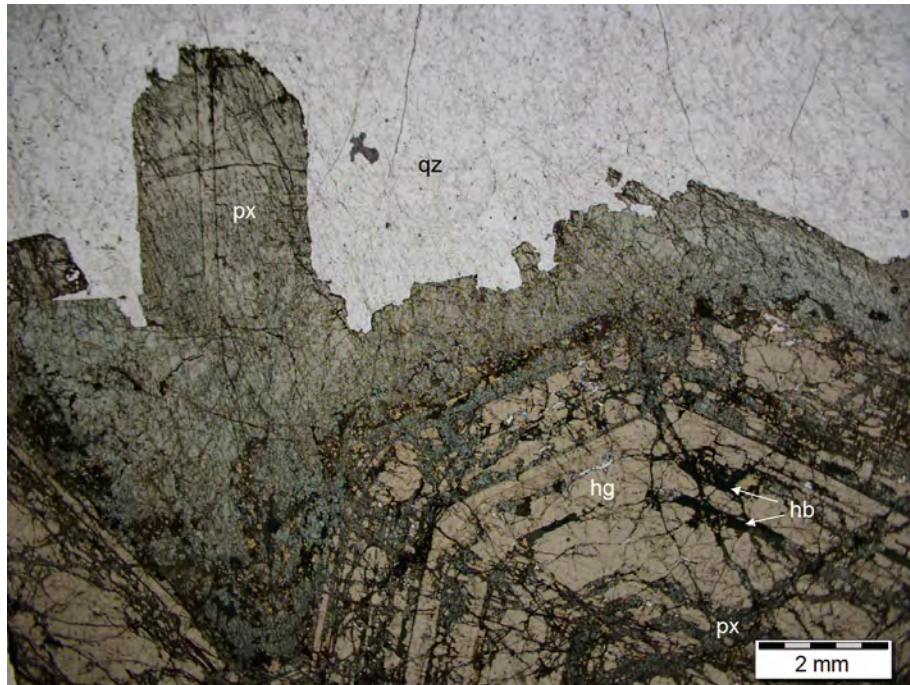
Quartz forms an inequigranular-interlobate domain with crystals of up to 6 mm which show moderate to strong undulose extinction. The quartz domain is crosscut by a vein which is filled in by strongly altered pyrrhotite and lesser pyrite. The quartz is in contact with the coronitic clinopyroxene.

Hydrogrossular forms idioblastic crystals which exceed 15 mm in size and host idioblastic growth zoning and fractures which are filled in by clinopyroxene and actinolite. Hydrogrossular is distinguished by its high refractive indexes, anomalous birefringence and sector twinning which set this garnet apart from the other member of this mineral series. The fractures are crosscutting the growth zoning and indicate that their infills (i.e. clinopyroxene, and pyrrhotite) post-dated (at least in part) the hydrogrossular crystallization.

Clinopyroxene forms idioblastic prisms of up to 8 mm in size with high birefringence, well-developed cleavages and an oblique extinction of 40°, which is not diagnostic for the diopside; however, due to the association with hydrogrossular, a diopsidic composition for the clinopyroxene is put forward as an educated guess in this case.

Actinolite forms xenoblastic and interstitial crystals of up to 1.5 mm in size and is recognized by its strong pleochroism with deep green tints. Actinolite occurs as fracture infill, and despite its presence as aligned crystals along the hydrogrossular's euhedrally shaped growth zoning, it is interpreted as post-dating the hydrogrossular crystallization. The apparently contradictory evidence can be alternatively interpreted as a later replacement along the growth zoning, which could have been more easily fractured and permeable to the retrograde metamorphic fluids.

Pyrrhotite filled in the subparallel joints which crosscut the quartz domain and the hydrogrossular-clinopyroxene aggregate, but does not crosscut the actinolite crystals in all of its occurrences, thus suggesting a possible coeval deposition of the pyrrhotite and actinolite. Pyrrhotite is strongly altered and is partially replaced by rare pyrite.



Photomicrograph 11: Idioblastic hydrogrossular (hg) is overgrown by coronitic and idioblastic clinopyroxene (px) which is projecting into the quartz (qz); pyroxene and lesser actinolite (hb) filled in fractures which crosscut the hydrogrossular. Plane polarized transmitted light.

Sample 12

Arsenopyrite-pyrite-quartz replacement zone

This sample consists of two domains which differ in composition. The first domain (A) is made up of prevailing quartz and subordinate pyrite, white mica and carbonate. Domain B consists of massive arsenopyrite which is interlayered with lesser pyrite and is brecciated.

<i>Mineral</i>	<i>Modal %</i>	<i>Main size range (mm)</i>
Domain A: quartz-pyrite-carbonate-white mica-clay replacement zone (24% of PTS)		
quartz	14 - 15	up to 0.2, up to 1.5 at the contact with Domain B
white mica	3.5 - 4	up to 0.2
carbonate (bismutite?)	3 - 3.5	up to 0.3
pyrite	2 - 2.5	up to 0.3
clay	0.7 - 0.8	up to 0.02
rutile	tr	up to 0.05
Domain B: arsenopyrite-pyrite-quartz-chalcopryite replacement zone (76% of PTS)		
arsenopyrite	50 - 53	massive up to 20x7
pyrite	11 - 13	up to 3
carbonate (bismutite?)	7 - 8	up to 1
quartz	6 - 7	up to 1
chalcopryite	tr	up to 0.2
Mineral Y	tr	

Quartz is the most abundant mineral within Domain A. It forms an inequigranular (up to 0.2 mm)-interlobate aggregate in which lesser amounts of pyrite, carbonate, white mica, and clay are dispersed. Quartz forms blocky to prismatic crystals at the contact with Domain B, and in this portion of the rock it reaches 1.5 mm in size with irregular prisms which are preferentially oriented at high angles with respect to the contact. Quartz is also dispersed as irregular and interlobate fragments within the sulfide-rich Domain B.

Arsenopyrite forms an abundant massive aggregate within Domain B. Arsenopyrite is distinguished by its high reflectance and white colour if compared to the yellowish-creamy colour shown by the pyrite. Arsenopyrite is massive in proximity to the contact with Domain A, hosts quartz and carbonate interstitial inclusions, and is moderately to intensely fractured. Within the strongly fractured portions, arsenopyrite is intergrown with subhedral pyrite.

Arsenopyrite finally occurs as angular and sub-rounded clasts and fine- to very fine-grained angular fragments which are immersed within a carbonate-dominated matrix. The most intensely deformed portion of Domain B is a sub-tabular domain 2 mm wide. Given the replacement of the matrix with the carbonate rather than a mechanically-ground matrix, this domain is interpreted as having been formed by hydraulic brecciation accompanied by carbonate infill.

Pyrite forms euhedral crystals which in most of their occurrences are hosted within a carbonate patch. Pyrite is inequigranular (0.1 mm up to 3 mm) to massive and occurs in domains which are aligned parallel to the contact and the brittle deformation zones within Domain B, and is heterogeneously dispersed as inequigranular (up to 0.3 mm) crystals and crystal aggregates which are spatially associated and rimmed by **carbonate** within Domain A.

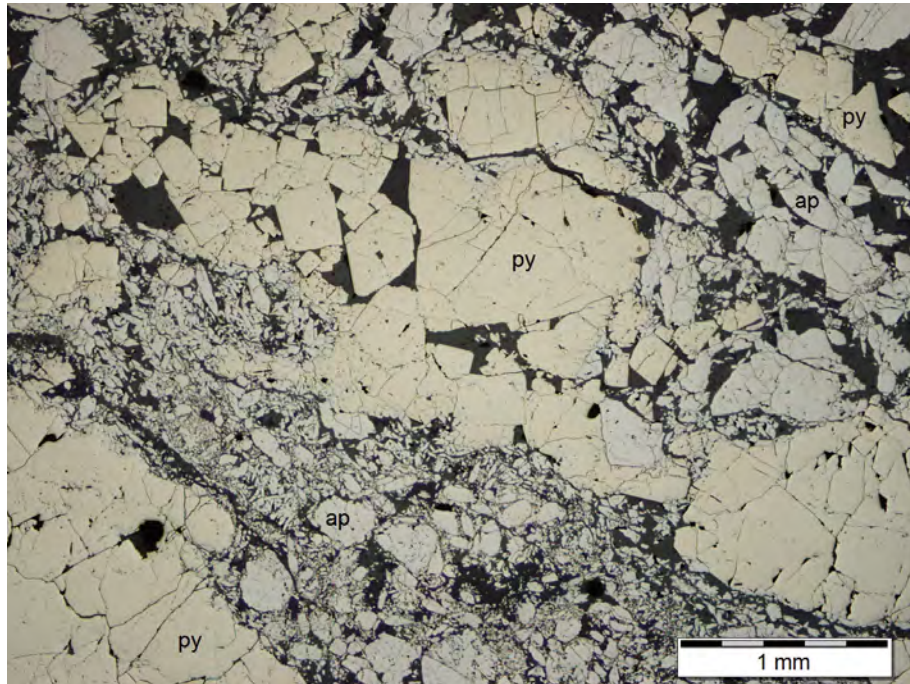
Carbonate is not resolved within this sample, as no evidence of reaction was found after the acid test (cold dilute 10% HCl) on the offcut. This result leads to the interpretation that this carbonate could possibly represent a non-reactive type of carbonate such as **bismutite?** $[\text{Bi}_2(\text{CO}_3)\text{O}_2]$. This hypothesis should be tested by electron optic analysis. Carbonate occurs as interstitial intergrowths within the arsenopyrite fractures, and in most cases hosts pyrite euhedral to subhedral crystals within Domain B and anhedral fine-grained crystal aggregates within Domain A.

White mica forms fine-grained aggregates which are heterogeneously dispersed within the quartz-rich Domain A.

A very fine-grained **clay** domain filled in joints and irregular interstices within Domain A.

Chalcopyrite is rare and forms fine-grained interstitial crystals within Domain B.

Fragments of an unresolved mineral (**Y**) are preferentially hosted within the arsenopyrite interstices and within the quartz inclusions, which are in turn hosted within the arsenopyrite in Domain B. Their reflectance is medium and the mineral is soft and anisotropic.



Photomicrograph 12: Subhedral pyrite (py) is intergrown with subhedral to sub-rounded arsenopyrite (ap). Plane polarized reflected light.

Sample 13

Clinopyroxene-quartz granofels

This sample consists of a fine-grained xenoblastic clinopyroxene, lesser and interstitial quartz, and rare K-feldspar. A subparallel set of veinlets is filled in by quartz $\pm$ chlorite $\pm$ epidote $\pm$ calcite.

Mineral	Modal %	Main size range (mm)
clinopyroxene	88 - 90	up to 0.25, rare up to 3
quartz	4 - 5	up to 0.5
epidote	3 - 4	up to 0.5
chlorite	1.5 - 3	up to 0.1
K-feldspar	1 - 2	up to 0.5
hematite	0.1 - 0.2	up to 0.1
calcite	tr	up to 0.1
Fe-oxides	tr	cryptocrystalline

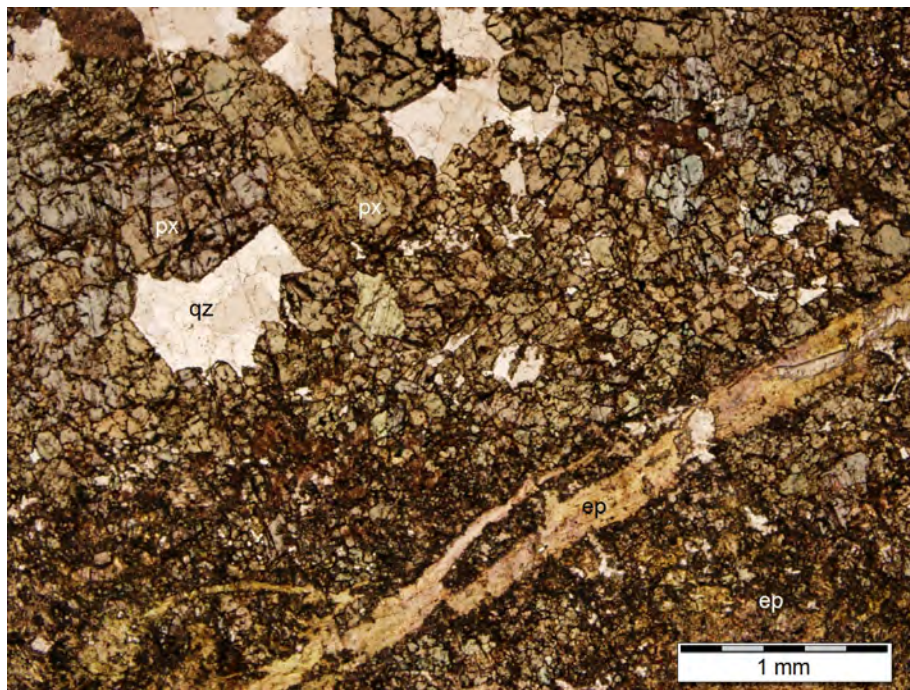
Clinopyroxene forms most of this polished thin section as inequigranular (up to 0.25 mm) xenoblastic aggregate, and in some instances forms subidioblastic crystals of up to 1.5 mm in size. The aggregate is isotropic and quartz fills in the interstices of the inequigranular aggregate. Clinopyroxene is generally fresh, with some portions with moderate to strong alteration and reduction of the crystals to a cryptocrystalline unresolved aggregate (epidote?).

Quartz occupies the interstices between the xenoblastic clinopyroxene, and is heterogeneously distributed within the sample. Quartz also fills in irregular and subparallel veinlets (up to 0.5 mm wide) in which quartz occurs as inequigranular-interlobate crystals with moderate undulose extinction.

Epidote occurs as infill within some of the veinlets and it forms irregular patches in which it forms xenoblastic crystals and very fine-grained aggregates which possibly replaced the clinopyroxene. Epidote is interpreted as having crystallized in association with quartz and chlorite.

Fe-chlorite forms some of the infill within the veinlets in association with quartz and epidote, and it shows a strong green pleochroism and a positive elongation sign, thus indicating its Fe-rich composition.

Hematite forms irregular replacement patches and fine-grained aggregates which are spatially associated with the unresolved alteration product after clinopyroxene, the epidote veinlets, and generally with the retrograde alteration of the rock. Fe-oxides coat some of the fractures and the veinlet walls, particularly the ones with abundant Fe-chlorite.



Photomicrograph 13: Xenoblastic aggregate of clinopyroxene (px) and quartz (qz) is crosscut by an epidote veinlet (ep) which dispersed very fine- to very fine-grained epidote at its selvages (ep). Plane polarized transmitted light.

Sample 14

Brecciated porphyritic felsite

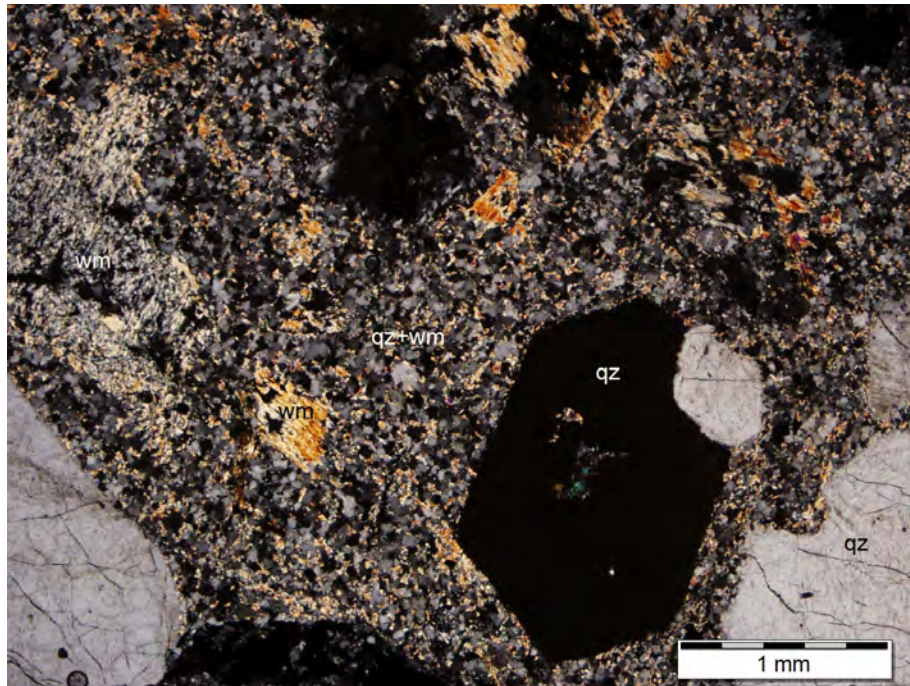
This polished thin section is made up of inequigranular sub-angular to angular lithic fragments immersed within a matrix which is made up of arsenopyrite and pyrite which are intergrown with a fine-grained aggregate which is made up of quartz-white mica and clay. The lithic fragments are made up of a single rock type which is a strongly altered porphyritic felsic rock. The lithic fragments are in mutual contact in some portions of the rock and they volumetrically prevail over the matrix. This microstructural evidence, together with the fragments' preferred angular shape, suggest that this breccia could have been produced by hydraulic fracturing.

<i>Mineral</i>	<i>Modal %</i>	<i>Main size range (mm)</i>
quartz	44 - 46	0.01-2, rare up to 4
white mica	25 - 27	0.01-0.4
arsenopyrite	24 - 26	up to 1
pyrite	4 - 6	up to 0.2
rutile	tr	up to 1

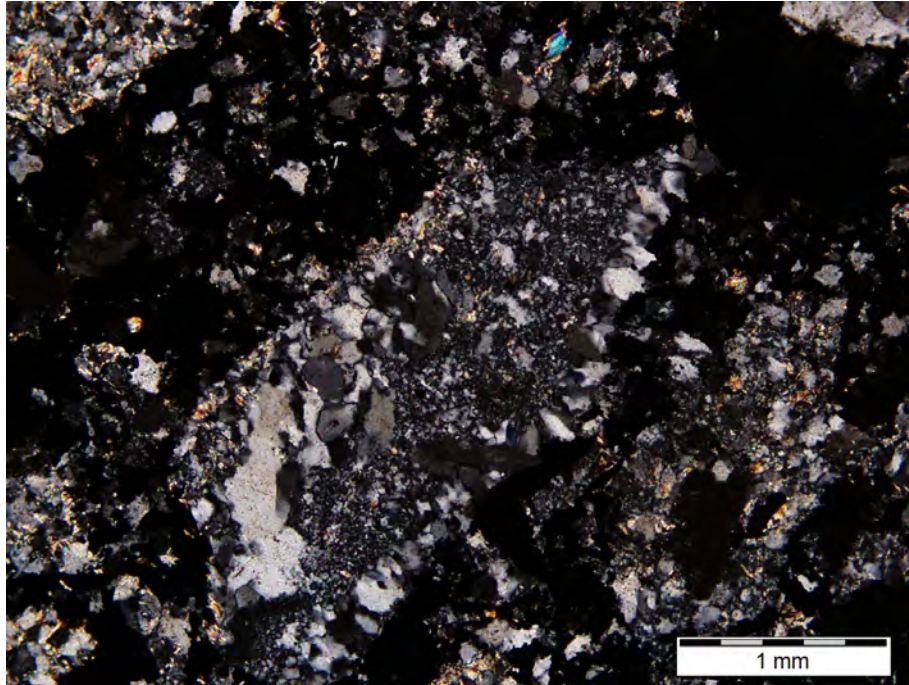
Quartz occurs as sub-angular, and in some instances subhedral phenocrysts (up to 2 mm, in very rare occurrences up to 4 mm) which in some rare cases show bipyramidal terminations, thus indicating a magmatic origin for the phenocrysts. Quartz forms most of the groundmass in which it occurs as fine-grained-interlobate crystals (up to 0.2 mm) and is intergrown with fine-to very fine-grained white mica. Quartz occurs as medium-grained fragments which are possibly disrupted and extracted from the porphyritic lithic fragments during the brecciation, and finally the quartz forms the fine-grained matrix which consists of fine- to very fine-grained interlobate quartz fragments and crystal aggregates, which are possibly derived from the comminution of the porphyritic fragments, patchy aggregates of clay and subordinate white mica. The quartz-rich aggregate is heterogeneously mantled by a fine-grained aggregate of arsenopyrite, pyrite and rare chalcopyrite. In some instances quartz forms very fine-grained interlobate aggregates which completely to partially replaced some of the lithic fragments. These quartz-rich aggregates are consequently interpreted as quartz-alteration which heterogeneously occurred before (and possibly during) the brecciation.

White mica is abundant within the porphyritic rock and occurs as fine- to very fine-grained dispersion within the groundmass, and it forms epitaxial replacements after a ferromagnesian mineral, which is interpreted as being biotite because of the tabular shapes of the alteromorphs and the very fine-grained dispersions of rutile, which indicate the presence of titanium within the primary mineral. Medium-grained alteromorphs made up of white mica and quartz are replacing subhedral to euhedral feldspar phenocrysts. White mica, as described in the case of quartz, is also hosted within the breccia matrix as the result of a probable comminution of some of the lithic fragments.

Arsenopyrite forms a fine-grained aggregate of acicular, elongated prisms and lozenges which are randomly oriented and range from 0.01 mm up to 1 mm in size. Arsenopyrite is white, strongly reflectant and anisotropic. The crystals are in most cases fractured and are intergrown with fine-grained to massive **pyrite**, which is distinguished by its isotropic nature and its yellowish tints if compared with arsenopyrite.



Photomicrograph 14a: Euhedral quartz phenocryst and subhedral crystals (qz) immersed within a quartz-white mica (qz+wm) groundmass, which also hosts white mica alteromorphs after biotite and feldspar (wm). Crossed nicols transmitted light.



Photomicrograph 14b: Some of the angular lithic fragments are completely replaced by inequigranular quartz (centre of the photomicrograph) and are immersed within a matrix consisting of sulfides (opaque) and a quartz-rich aggregate. Plane polarized transmitted light.

Sample 15

Actinolite-clinopyroxene-hydrogrossular granofels

Quartz-pyrite-albite-white mica-calcite replacement zone

This polished thin section is characterized by a compositional layering which is defined by two main compositional domains (see Fig. 1). The first domain (**A**) is made up of inequigranular and xenoblastic actinolite, clinopyroxene, and hydrogrossular. The second domain (**B**) consists of alternating and irregular domains which are made up of abundant quartz, a sub-planar layer which is made up of pyrite, and irregular and very fine-grained aggregates of albite-white mica-calcite which are, in some occurrences, associated with the albite-rich domains.

<i>Mineral</i>	<i>Modal %</i>	<i>Main size range (mm)</i>
Domain A: actinolite-clinopyroxene-hydrogrossular granofels (40 % of PTS)		
actinolite	20 - 22	up to 1
clinopyroxene (and orthopyroxene?)	12 - 15	up to 1.5
hydrogrossular	6 - 8	up to 1
epidote	1 - 2	up to 0.2
Domain B: Quartz-pyrite-albite-white mica-calcite replacement zone (60% of PTS)		
quartz	40 - 42	up to 4
pyrite	8 - 10	up to 3
albite	6 - 7	up to 0.25
white mica	2 - 3	up to 0.1
calcite	1 - 1.5	up to 1
chlorite	1 - 1.2	up to 0.1
pyrrhotite?	tr	up to 0.2
chalcopyrite	tr	up to 0.04

Quartz forms inequigranular-interlobate domains in which the crystals are fine- to medium-grained and which in some rare instances reach 4 mm. Quartz tends to form monomineralic aggregates which form vein-like subparallel layers which are alternated with pyrite-rich, albite-rich, and albite-white mica-calcite domains.

Domain A consists of an heterogeneous and inequigranular aggregate of **actinolite** which overprinted clinopyroxene and lesser hydrogrossular. The actinolite is characterized by a

strong pleochroism with dark green and brown tints, and extinction angles of up to 15° which are typical of actinolitic composition.

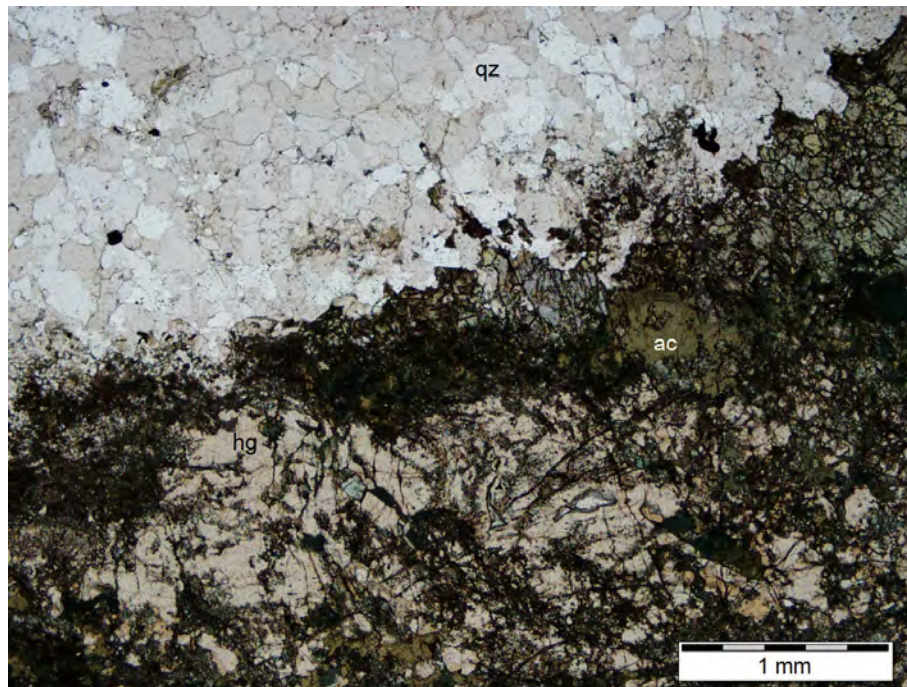
Clinopyroxene is distinguished by its high relief and well-developed cleavage systems which intersect at almost 90°. The oblique extinction angle reaches 44° and the birefringence is moderate. The presence of orthopyroxene is suspected, as some prismatic crystals show straight extinction. The nature and chemical composition of the pyroxene should be ascertained by electron optic analysis.

Hydrogrossular forms xenoblastic and fractured relicts which are recognized by their high relief, anomalous and very low birefringence, which indicates the garnet is a hydrogrossular. The garnet is partially replaced by a very fine-grained unresolved aggregate (possibly consisting of amphibole and/or epidote).

Pyrite occurs only within Domain B, in which it forms idiomorphic crystals of up to 3 mm in size which are aligned within an irregular vein-like domain (up to 4 mm wide). The crystals are moderately fractured, host quartz inclusions, are locally rimmed by chlorite and are crosscut by veinlets which are filled by calcite, chlorite, and lesser white mica.

Albite forms inequigranular-interlobate aggregates within Domain A. Albite reaches the maximum grain size of 0.25 mm, and this aggregate hosts xenoblastic to amoeboid fine-grained crystals of possible **pyrrhotite**.

Chalcopyrite occurs as very fine-grained dispersions which are preferentially associated with the albite-rich domain.



Photomicrograph 15: Hydrogrossular (hg) and clinopyroxene (px) are partially replaced by actinolite (ac) within the xenoblastic aggregate (Domain A in the lower part of the photomicrograph), and are in contact with the quartz-rich portion of Domain A (upper part). Plane polarized transmitted light.

APPENDIX VII

Field Geochemistry

Appendix 7.1.1 - Soil Sample Locations and Descriptions

<i>Sample Number</i>	<i>Sampler</i>	<i>Date (m/d/y)</i>	<i>UTM - East</i>	<i>UTM - North</i>	<i>Location Method:</i>
JNL012 00+00	DC	8/15/2011	546956	6836199	GPS
JNL012 00+25E	DC	8/15/2011	546980.97199	6836201.36577	GPS
JNL012 00+50E	DC	8/15/2011	547005.94397	6836203.73153	GPS
JNL012 00+75E	DC	8/15/2011	547030.91596	6836206.0973	GPS
JNL012 01+00E	DC	8/15/2011	547055.90358	6836207.75234	GPS
JNL012 01+25E	DC	8/15/2011	547080.95545	6836206.4871	GPS
JNL012 01+50E	DC	8/15/2011	547106.00731	6836205.22185	GPS
JNL012 01+75E	DC	8/15/2011	547131.05918	6836203.95661	GPS
JNL012 02+00E	DC	8/15/2011	547156.09469	6836203.54309	GPS
JNL012 02+25E	DC	8/15/2011	547181.07949	6836205.76946	GPS
JNL012 02+50E	DC	8/15/2011	547206.06429	6836207.99583	GPS
JNL012 02+75E	DC	8/15/2011	547231.04909	6836210.2222	GPS
JNL012 03+00E	DC	8/15/2011	547256.03018	6836212.48837	GPS
JNL012 03+25E	DC	8/15/2011	547280.99659	6836214.91229	GPS
JNL012 03+50E	DC	8/15/2011	547305.96299	6836217.33621	GPS
JNL012 03+75E	DC	8/15/2011	547330.92940	6836219.76014	GPS
JNL012 04+00E	DC	8/15/2011	547355.90025	6836221.86959	NO SAMPLE
JNL012 04+25E	DC	8/15/2011	547380.92519	6836220.15219	NO SAMPLE
JNL012 04+50E	DC	8/15/2011	547405.95013	6836218.4348	NO SAMPLE
JNL012 04+75E	DC	8/15/2011	547430.97506	6836216.7174	NO SAMPLE
JNL012 05+00E	DC	8/15/2011	547456	6836215	NO SAMPLE
JNL012 05+25E	DC	8/15/2011	547482.04569	6836221.5772	NO SAMPLE
JNL012 05+50E	DC	8/15/2011	547508.09139	6836228.15439	GPS
JNL012 05+75E	DC	8/15/2011	547534.13708	6836234.73159	GPS
JNL012 06+00E	DC	8/15/2011	547560.34547	6836240	GPS
JNL012 06+25E	DC	8/15/2011	547587.20879	6836240	GPS
JNL012 06+50E	DC	8/15/2011	547614.07210	6836240	GPS
JNL012 06+75E	DC	8/15/2011	547640.93542	6836240	GPS

Appendix 7.1.1 - Soil Sample Locations and Descriptions

<i>Sample Number</i>	<i>Sampler</i>	<i>Date (m/d/y)</i>	<i>UTM - East</i>	<i>UTM - North</i>	<i>Location Method:</i>
JNL012 07+00E	DC	8/15/2011	547667.79873	6836240	GPS
JNL012 07+25E	DC	8/15/2011	547693.64582	6836246.7102	GPS
JNL012 07+50E	DC	8/15/2011	547719.30451	6836254.6644	GPS
JNL012 07+75E	DC	8/15/2011	547744.96320	6836262.61859	GPS
JNL012 08+00E	DC	8/15/2011	547770.62189	6836270.57279	GPS
JNL012 08+25E	DC	8/15/2011	547797.15001	6836274.69853	GPS
JNL012 08+50E	DC	8/15/2011	547823.72748	6836278.60698	GPS
JNL012 08+75E	DC	8/15/2011	547850.30495	6836282.51543	GPS
JNL012 09+00E	DC	8/15/2011	547876.88755	6836286.38737	GPS
JNL012 09+25E	DC	8/17/2011	547903.51235	6836289.9591	GPS
JNL012 09+50E	DC	8/17/2011	547930.13716	6836293.53083	GPS
JNL012 09+75E	DC	8/17/2011	547956.76197	6836297.10256	GPS
JNL012 10+00E	DC	8/17/2011	547983.38678	6836300.6743	NO SAMPLE
JNL012 10+25E	DC	8/17/2011	548008.10103	6836304.49463	GPS
JNL012 10+50E	DC	8/17/2011	548032.81528	6836308.31496	NO SAMPLE
JNL012 10+75E	DC	8/17/2011	548057.52954	6836312.13529	NO SAMPLE
JNL012 11+00E	DC	8/17/2011	548082.24379	6836315.95562	NO SAMPLE
JNL012 11+25E	DC	8/17/2011	548105.21549	6836325.20094	NO SAMPLE
JNL012 11+50E	DC	8/17/2011	548127.53159	6836336.48724	GPS
JNL012 11+75E	DC	8/17/2011	548149.8477	6836347.77355	GPS
JNL012 12+00E	DC	8/17/2011	548172.16381	6836359.05986	GPS
JNL012 12+25E	DC	8/17/2011	548195.01370	6836369.20591	GPS
JNL012 12+50E	DC	8/17/2011	548217.97441	6836379.11527	GPS
JNL012 12+75E	DC	8/17/2011	548240.93511	6836389.02463	GPS
JNL012 13+00E	DC	8/17/2011	548263.89581	6836398.93398	GPS
JNL012 13+25E	DC	8/17/2011	548288.26555	6836402.40152	GPS
JNL012 13+50E	DC	7/17/2011	548313.26658	6836402.98294	GPS
JNL012 13+75E	DC	8/17/2011	548338.2676	6836403.56436	GPS

Appendix 7.1.1 - Soil Sample Locations and Descriptions

<i>Sample Number</i>	<i>Sampler</i>	<i>Date (m/d/y)</i>	<i>UTM - East</i>	<i>UTM - North</i>	<i>Location Method:</i>
JNL012 14+00E	DC	8/17/2011	548363.13457	6836402.7023	GPS
JNL012 14+25E	DC	8/17/2011	548387.60092	6836397.52673	GPS
JNL012 14+50E	DC	8/17/2011	548412.06728	6836392.35115	GPS
JNL012 14+75E	DC	8/17/2011	548436.53364	6836387.17558	GPS
JNL012 15+00E	DC	8/17/2011	548461	6836382	GPS

Appendix 7.1.2 - Silt Sample Locations and Descriptions

<i>Sample Number</i>	<i>Sampler</i>	<i>Date (m/d/y)</i>	<i>UTM - East</i>	<i>UTM - North</i>	<i>Turbidity</i>
DCJNS001	DC	8/15/2011	547432	6836215	MED

Appendix 7.2 - Rock Sample Locations and Descriptions

Tuesday, December 13, 2011

Sample Number	Sample Type	Easting	Northing	Channel Sample Interval (m)	Channel Sample Azimuth	Map Unit	Major Rock Type	Color Fresh	Texture:	Mineralization:	Mineralization Style:	Mineralization %:	Alteration:	Sample Description:
MMJNR001	FLOAT	547441	6839208	0		PCH	Limestone	grey	altered	pyrrhotite	BLEBBY	0.5	Skarn	Actinolite-Diopside skarn - strongly silicified
MMJNR002	GRAB	547857	6835370	0		PCH2	Quartz Vein	white	vuggy		TRACE	0.01	Carbonate	Bull white quartz, vuggy in patches where Fe-Carbonate alteration has been leached from the vein. Trace pyrite is observed disseminated through the quartz vein.
MMJNR003	GRAB	547836	6835375	0		PCH2	Quartz Vein	white	vuggy		TRACE	0.1	Carbonate	Quartz vein boulder. Grey-white quartz, vuggy in patches where Fe-Carbonate alteration has been leached from the vein. Epidote alteration occurs along fractures with in the vein and @ vein contacts. Phyllite is altered to sericite @ vein contacts. Rare marcasite occurs with in the vein.
MMJNR004	GRAB	547781	6835354	0		PCH2	Quartz Vein	white	drusy				Carbonate	Quartz vein stockwork zone. Vein density is 5-7/meter over a 20 meter interval. Veins range in thickness from 0.5 cm - 20 cm. Milky white drusy vein, weak sericite alteration along contacts. Strong carbonate alteration. Weak epidote alteration along contacts. Limonite psuedomorphs of pyrite are common through the vein, locally to 0.1 %. The vein set is an en echelon tension fracture zone.
MMJNR005	GRAB	547654	6835350	0		PCH	Quartz-Carbonate Vein	grey	boudinage		TRACE	0.01	Chlorite	Quartz-Carbonate vein 2 cm - 15 cm wide. Chloritized vein contacts. Phyllite vein selvage is weakly sericite altered. Trace 1 - 3 mm xls of galena occur with in quartz @ vein contacts.

Sample Number	Sample Type	Easting	Northing	Channel Sample Interval (m)	Channel Sample Azimuth	Map Unit	Major Rock Type	Color Fresh	Texture:	Mineralization:	Mineralization Style:	Mineralization %:	Alteration:	Sample Description:
MMJNR006	GRAB	547247	6835420	0		PCH	Quartz Vein	white	boudinage		TRACE	0.01	Carbonate	Quartz vein 10 cm - 30 cm. White crystalline quartz with Fe-Carbonate alteration along microfractures. Mg-cg xls of Calcite occur through out the vein. Chlorite altered phyllite occurs through the quartz vein as discontinuous fragments, and sericite altered ribbons. Limonite after sulphides - cubic rusty weathered clots through the vein.
MMJNR007	FLOAT	547170	6835387	0		PCH	Quartz Vein	grey		chalcopyrite	TRACE	0.01	Carbonate	Quartz vein - strong carbonate alteration. Phyllite ribbons through the vein. Trace Cpy, ZnS (ruby red - black jack) as vfg-mg euhedral xls.
MMJNR008	GRAB	548347	6837039	0		PCH	Conglomerate	rusty	silicified		TRACE	0.01		Quartz pebble conglomerate. Rusty orange on weathered surface. Silicified and weakly veined, ~ 1.0 cm vein / meter. Trace pyrite observed in the quartz vein.
MMJNR009	GRAB	548347	6837039	0		PCH	Quartz Vein	white	vitreous				Chlorite	Quartz vein, silicified quartz pebble conglomerate. White, vitreous quartz with weak chlorite alteration in fg patches.
MMJNR010	GRAB	548328	6837034	0		PCH	Quartz Vein	grey	silicified	pyrite	DISSEMINATED	1	Carbonate	Quartz vein, 5.0 cm wide. Smokey grey-white quartz with moderate Fe-Carbonate alteration along net-textured fractures. 1% euhedral pyrite with in the vein. Quartz feldspar pebble conglomerate is moderately oxidized, fracture sets parallel vein contacts.
MMJNR011	CHIP	548328	6837034	0		PCH	Quartz Vein	white	vitreous	pyrite	DISSEMINATED	1	Fe-Stain	Quartz vein, 60.0 cm wide. Rusty red-yellow on weathered surface, white to grey vitreous quartz.

Sample Number	Sample Type	Easting	Northing	Channel Sample Interval (m)	Channel Sample Azimuth	Map Unit	Major Rock Type	Color Fresh	Texture:	Mineralization:	Mineralization Style:	Mineralization %:	Alteration:	Sample Description:
MMJNR012	FLOAT	546933	6839281	0		PCH	Skarn	green	altered	Molybdenite	DISSEMINATED	0.05	Pyroxene	Diopside skarn. Angular boulder, vfg-fg blebs of galena scattered through the boulder, rare coarse grained xls to 10 mm.
MMJNR013	GRAB	546810	6839445	0		PCH	Skarn	white	vuggy	Molybdenite	TRACE	0.05	Fe-Carbonate	Quartz vein 3.0 cm wide. Parallel to bedding 180/86.
MMJNR014	CHIP	546713	6839474	0		PCH	Quartz Vein	white	crystalline	Molybdenite	TRACE	0.01		White quartz vein 10 to 30 cm wide with trace moly @ vein contacts.
MMJNR015	GRAB	546679	6839510	0		PCH	Conglomerate	grey	altered	Molybdenite	TRACE	0.01	Epidote	Silicified QPC, texture destructive alteration, only rare quartz pebbles remain. Crystalline quartz with sheeted fractures, host to coarse crystalline chlorite. Epidote alteration occurs as patchy clots < 1.0 cm. Trace Moly disseminated throughout.
MMJNR016	GRAB	546583	6839547	0		PCH	Conglomerate	grey	altered	Arsenopyrite	FRACTURES	0.1	Fe-Carbonate	Quartz vein 7.0 cm hosted in QPC, adjacent to QEP dike. Mineralization occurs as discreet blebs and fg-mg euhedral xls. Strike 012/86. QPC is strongly silicified, and Fe-Carbonate altered.
MMJNR017	GRAB	546448	6839459	0		PCH	Quartz Vein	white	altered	Pyrite	DISSEMINATED	0.5	Limonite	Altered breccia/quartz vein. Foot wall contact grab sample - leached boxwork zone in contact with 1.0 meter wide quartz vein, white crystalline quartz with vfg-fg disseminated pyrite, and trace disseminated molybdenite
MMJNR018	GRAB	546448	6839459	0		PCH	Quartz Vein	white	crystalline	Pyrite	DISSEMINATED	0.1		Quartz vein grab sample. White crystalline quartz hosting vfg disseminated pyrite, occurs as dark grey blemishes through out quartz.

Sample Number	Sample Type	Easting	Northing	Channel Sample Interval (m)	Channel Sample Azimuth	Map Unit	Major Rock Type	Color Fresh	Texture:	Mineralization:	Mineralization Style:	Mineralization %:	Alteration:	Sample Description:
MMJNR019	CHIP	546524	6839650	0.6	80	PCH2	Conglomerate	grey	brecciated	arsenopyrite	DISSEMINATED	0.05	Silica	Silicified quartz-feldspar pebble conglomerate. Weak scordite alteration with in silicified matrix. Arseonpyrite occurs within silicified matrix as very fine grained xls, lesser pyrite associated with the arsenopyrite. Scordite staining on weathered surfaces.
MMJNR020	CHIP	546524	6839650	0.4	80	PCH2	Conglomerate	grey	brecciated	arsenopyrite	BRECCIATED	0.01	Silica	Silicified quartz pebble conglomerate. Pack breccia with 1 - 10 mm anastomosing silica-sulphide veinlets pervasively fracturing host rock. Pyrite, Arsenopyrite, Galena, Sphalerite, Chalcopyrite and Pyrrhotite occur as vfg-fg xls within silicified matrix. Arsenopyrite is dominant sulphide phase. Chalcopyrite, Sphalerite, and Galena are all in trace - 0.05%.
MMJNR021	CHIP	546524	6839650	1	80	PCH2	Quartz Vein	white	crystalline	pyrite	DISSEMINATED	0.05	Silica	Quartz vein is in part vuggy from leaching of fg Fe-Carbonate. Weak scordite alteration occurs along fracture surfaces.
MMJNR022	CHIP	546524	6839650	1.5	80	PCH2	Quartz Vein	white	crystalline	pyrite	DISSEMINATED	0.05	Carbonate	Quartz vein is in part vuggy from leaching of fg Fe-Carbonate. Weak scordite alteration occurs along fracture surfaces.
MMJNR023	CHIP	546524	6839650	1.5	80	PCH2	Quartz Vein	white	crystalline	pyrite	DISSEMINATED	0.05	Carbonate	Quartz vein is in part vuggy from leaching of fg Fe-Carbonate. Weak scordite alteration occurs along fracture surfaces.

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MMJNR024	CHIP	546524	6839650	1.5	80	PCH2	Conglomerate	grey	fractured	pyrite	FRACTURES	0.05	Limonite	Silicified and veined quartz pebble conglomerate. Carbonate and limonite alteration of the interval is secondary to silicification, yeilding a rusty boxwork texture on weathered surfaces. The fractured controlled quartz veins are white-grey in color, sericite alteration is observed at vein contacts, coupled with carbonate alteration. Pyrite and arsenopyrite occur as 1 - 3 mm blebby xls within the conglomerate and as vfg xls within fracture controlled veins.
MMJNR025	CHIP	546524	6839650	1.5	80	PCH2	Conglomerate	grey	fractured	pyrite	FRACTURES	0.05	Limonite	Silicified and veined quartz pebble conglomerate. Carbonate and limonite alteration of the interval is secondary to silicification, yeilding a rusty boxwork texture on weathered surfaces. The fractured controlled quartz veins are white-grey in color, sericite alteration is observed at vein contacts, coupled with carbonate alteration. Pyrite and
MMJNR026	CHIP	546524	6839650	1.5	80	PCH2	Conglomerate	grey	fractured	pyrite	FRACTURES	0.05	Limonite	Same as previous sample - rubble crop
MMJNR027	CHIP	546524	6839650	1.5	80	PCH2	Conglomerate	grey	fractured	pyrite	FRACTURES	0.05	Carbonate	Silicified and veined quartz pebble conglomerate. Quartz-pyrite-arsenopyrite veinlets as described above. Continuation of channel sample - outcrop?

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MMJNR028	CHIP	546524	6839650	0.8	80	PCH2	Quartz Vein	grey	vuggy	arsenopyrite	FRACTURES	0.1	Scordite	Grey-white to pistachio green quartz vein. Scorodite and Fe-carbonate alteration moderate through out the vein. Fe-Carbonate has been partially leached from the vein, yeilding a vuggy boxwork texture on weathered surfaces. Arsenopyrite occurs as vfg xls in fracture controlled quartz veinlets, and as sulphide veinlets. Mg-cg xls of arseonpyrite are also disseminated through out the vein.
MMJNR029	CHIP	546524	6839650	1.2	80	PCH2	Quartz Vein	grey	brecciated	arsenopyrite	BRECCIATED	0.2	Scordite	Smokey grey white quartz with clotty scorodite alteration, and Fe-carbonate alteration as described in previous sample. The quartz vein has been brecciated - 1.0 - 3.0 cm quartz framework clasts are embayed by a dark brown, very hard matrix. 0.1-0.2% Aspy, Py occur within Bx cement.
MMJNR030	CHIP	546524	6839650	0.8	80	PCH2	Quartz Vein	grey	brecciated	arsenopyrite	BRECCIATED	0.1	Scordite	Smokey grey white quartz with clotty scorodite alteration, and Fe-carbonate alteration as described in previous sample. The quartz vein has been brecciated - 1.0 - 3.0 cm quartz framework clasts are embayed by a dark brown, very hard matrix. 0.1-0.2% Aspy, Py occur within Bx cement as 1-3 mm veinlets, min occurs as vfg xls < 1mm up to 5 mm euhedral xls.

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MMJNR031	GRAB	546524	6839650	0										High Grade Sample of MMJNR020 - Breccia - 1-40 mm framework clasts of rounded quartz grains in smokey grey siliceous matrix. 1% Aspy as vfg xls within silica matrix. Locally 5% coarse grained euhedral pyrite. 0.01-0.05% Galena and Sphalerite occur as clotty fg xl masses scattered through out the siliceous matrix. The sphalerite is red-brown in color.
MMJNR032	CHIP	547029	6838435	1.2	168	PCH2	Conglomerate	grey	altered	arsenopyrite	DISSEMINATED	0.1	Scordite	Silicified quartz pebble conglomerate, 1.2 meter thick bed bound by phyllite/hornfels. Fg-mg rounded quartz grains 1-3 mm, in matrix of epidote. Quartz vein occurs at upper contact, parallel to bedding. Disseminated sulphides: 0.05-0.1% Aspy, 0.2% Cpy/Malachite, 0.1% Po, 0.1% Py. Sample taken across true thickness of bed.
MMJNR033	GRAB	546420	6839524	0		PCH2	Conglomerate	grey	altered	pyrite	BLEBBY	0.1	Silica	Silicified QFPC. Representative sample of best mineralization from the o/c. Trace - 0.1 % Pyrite and Molybdenite as vfg-fg amorphous blebby xls.
MMJNR034	GRAB	546569	6839530	0		PCH2	Conglomerate	grey	veined	arsenopyrite	VEINED	0.5	Scordite	Silicified and Veined QPC. Quartz vein sub-crop, 1.5 meter x 1.0 meter boulder. Quartz is milky white to greenish grey. Scordite staining yields the greenish grey color, and is common on weathered surfaces. 1-5 mm net-textured aspy, py veinlets cross-cut the QPC. Arsenopyrite is bluish grey in color, and is very fine-medium grained.
ERJNR001	GRAB	547590	6835292	0						Galena				Mineralization of Galena.
ERJNR002	GRAB	547421	6835276	0						Pyrite				Mineralization of Pyrite.

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ERJNR003	GRAB	547366	6835336	0						Pyrite				Mineralization of Pyrite.
ERJNR004	GRAB	548328	6837034	0						Pyrite				Mineralization - Pyrite. Iron Staining from hydrothermal fluids degree of 3. Co-ordinates taken from MMJNR010 - Sample is downstream 10 meters. No co-ordinates recorded with sample.
ERJNR005	GRAB	546845	6839543	0		PCH	Limestone						Skarn	Skarn with visible pyrite and chalcopyrite.
ERJNR006	GRAB	546769	6839567	0		PCH2	Conglomerate							Quartz vein in QPC. Sample shows some Pyrolusite, Pyrite, Chalcopyrite and Pyrrhotite locally up to 1 % disseminated through the sample.
ERJNR007	GRAB	546769	6839567	0		PCH2	Vein							Pure Quartz Vein.
ERJNR008	GRAB			0		PCH2	Unknown							No sample description. Sample checked into Lab.
ERJNR009	GRAB	546534	6839657	0		PCH2	Vein							Quartz vein around 10 cm thick, with 1 cm veinlets. Molybdenite and Arsenopyrite mineralization.
ERJNR010	GRAB	546535	6839660	0		PCH2	Vein							Quartz veins with Arsenopyrite and Pyrite.
ERJNR011	GRAB	546626	6836914	0		PCH	Carbonate							Phyllite/Carbonate/Quartz vein contact. Trace Pyrite mineralization.
ERJNR012	GRAB	546626	6839914	0			Phyllite						Limonite	Phyllite limonite altered 4/5 seeing good amounts of pyrite and up to 4 % and chalcopyrite 0.5 %.
ERJNR013	GRAB	546626	6836914	0			Vein							Quartz vein around 15 cm pyrite and pyrolusite/epodite visible.
ERJNR014	GRAB	546697	6836923	0		Kqm	Rhyolite							Quartz/Plag Rhyolite dike. Severley altered, Fe-Oxide, pyrite visible up to 2% silverish in color, oxidized to grey.

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ERJNR015	GRAB	546697	6836923	0		PCH	Limestone							Rock type? Hosting garnets? Altered Limestone?
ERJNR016	GRAB	546703	6836842	0		PCH	Limestone							3 % pyrite+chalcopyrite in altered carbonate.