1999 GEOLOGICAL and GEOCHEMICAL ASSESSMENT REPORT ON THE HARLAN PROPERTY

Quartz Claims

Cam 001 - 008
Harlan 001 - 331

Apr. 10, 2000

094106

Mayo Mining District
N.T.S. 105O/3, 4

Latitude: 63° 14' North
Longitude: 131° 40' West

Owner: NovaGold Resources Inc.

Author: Carl M. Schulze

Date of work: August, September, 1999

This report has been examined by the Geological Evaluation Unit under Section 53 (4) Yukon Quartz Mining Act and is allowed as representation work in the amount of $ 7800.00.

M. B.

for Regional Manager, Exploration and Geological Services for Commissioner of Yukon Territory.

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SUMMARY

The Harlan Property, consisting of the Cam 1-8 and Harlan 1-331 claims, is located in Central Yukon on NTS Sheets 105O/3 and 105O/4. The property was originally staked in 1997 by Viceroy Exploration (Canada). NovaGold Resources Inc acquired a 100% interest in the property in 1999.

The Harlan property is located within the Selwyn Basin which consists of a broad package of Paleozoic sediments extending ESE from north-west of Dawson City to the Yukon-NWT border north of the major NW-SE trending Tintina Fault Zone. This stratigraphy consists of shallow shelf to off-shelf marine clastic and chemical sediments, as well as basinal clastic sediments derived from the Ancient North American Platform to the north-east. Age of deposition ranges from Late Precambrian to Permian. The Mid-Cretaceous Tombstone-Tungsten Intrusive Suite (95-89Ma), has been emplaced across the Selwyn Basin. Tombstone Suite intrusives, predominantly monzonites and quartz monzonites, control much of the economic gold mineralization within the Selwyn Basin. Extensive thrust faulting across the Selwyn Basin began during Late Jurassic time, resulting in creation of a compressional regime. Most thrust faults are oriented roughly ESE, subparallel to the overall ESE trend of stratigraphy. This regional lineation has been overprinted by a slightly less pronounced NE-SW lineation, marked by high angle orthogonal faults suggesting the compressional regime was followed by an extensional tectonic regime.

The Harlan Property occurs within a broad deformation belt called the "Gold River Fold Belt", south of the Hess River. The property is underlain by broad units of Earn Group chert-pebble conglomerate unconformably separated by large thrust faulted units of Road River Group chert and graphitic argillite. A suite of east-west trending altered limonitic quartz-monzonite dykes extends across north-central areas, proximal to an inferred upper level feldspar porphyritic monzonite stock.

Two major kilometric-scale exploration targets occur within the Harlan Property: the "Vortex Zone", within north-central areas; and the "West Porphyry Zone", extending up to three kilometres west of the Vortex Zone. The Vortex Zone was first discovered from soil sample results of 1997 reconnaissance exploration program. Follow-up sampling on the Vortex Zone has identified a northwest trending gold-bismuth-arsenic-antimony anomaly measuring 1600 metres by 700 metres that averages over 500 ppb gold in soils. Rock samples collected from this area returned values up to 6.5 gpt gold. Geological mapping suggests that the Vortex Zone is a thick tabular Earn Group chert pebble conglomerate member overlain by the imbricated graphitic argillite. Within the overall Vortex Zone is an intensely brecciated and clay altered core zone called the "Vortex Breccia Zone" measuring 500 m by 300 m that contains gold in soil values up to 10.4 gpt Au and averages over 1000 ppb in soil. This core zone is highly anomalous in gold, arsenic, and mercury, and consists of an auriferous heterolithic explosive breccia post-dating dyke emplacement.

The West Porphyry Zone consists of a series of east-southeast trending, steeply south-southwest dipping altered quartz-monzonite dykes. Rock chip sampling returned values to 0.86 gpt Au/ 20.8m. Anomalous values to 1.26 gpt Au were returned from dykes across 2.5 square kilometres. Silt sampling to the ESE, along projected strike extensions of the auriferous dykes, returned consistently strongly anomalous gold values to 230 ppb Au. The projected strike extension of this dyke set extends through the area of anomalous gold-in-silt values to the ESE.

The dyke hosted mineralization and Vortex Zone mineralization are believed to have a common source, possibly along a major ESE trending paleolineament. Anomalous geochemical values occur across roughly ten square kilometres, suggesting the Harlan Property has the potential to host a "world class" gold deposit.

Exploration expenditures for 1999 total $

A two-stage exploration program is envisioned for the year 2000 field season. The first stage exploration program will consist of detailed geologic and structural mapping and additional surface sampling over areas of open high-level soil anomalies to define potential drill targets. Final drill targets would be prioritized based on integration of the detailed geologic and structural mapping, and surface geochemistry. Based on available funding, the highest-priority drill targets could be tested by drilling a fence of 5-8 NQ core drill holes totalling ~1000 m (3000 ft) across the highest-priority targets.

CHAPTER 1: INTRODUCTION

1.1 Introductory Statement

The Harlan Property consists of 339 contiguous quartz mining claims (Cam 1-8, Harlan 1-331Claims) within NTS Sheets 105 O/3 and O4,in the Mayo Mining District (Figure 2).

The 1999 exploration program involved geological mapping and rock geochemical sampling.

1.2 Location and Access

The Harlan property is located 150 kilometres north-northeast of Ross River, Yukon, and 60 kilometres northwest of the Canol Road (Yukon Highway #6). It is centered at 63 ° 14' North latitude, 131 ° 40' West longitude on NTS Map Sheets 105 O/3 and O/4. (Figure 1). Access is by helicopter from the North Canol Road. A winter road extending to the Plata property to the northwest extends within ten kilometres of the north property boundary.

1.3 Physiography and Vegetation

The property covers fairly rugged terrain, with elevations to 6,600 feet at the summit of Dall Mountain. Much of the southern property, and small portions of northern areas are inaccessible to exploration. Typical northern boreal spruce forest covers lower elevations, grading to subalpine fir forests towards the tree line. Higher elevations are covered by typical tundra vegetation, with sizable barren zones.

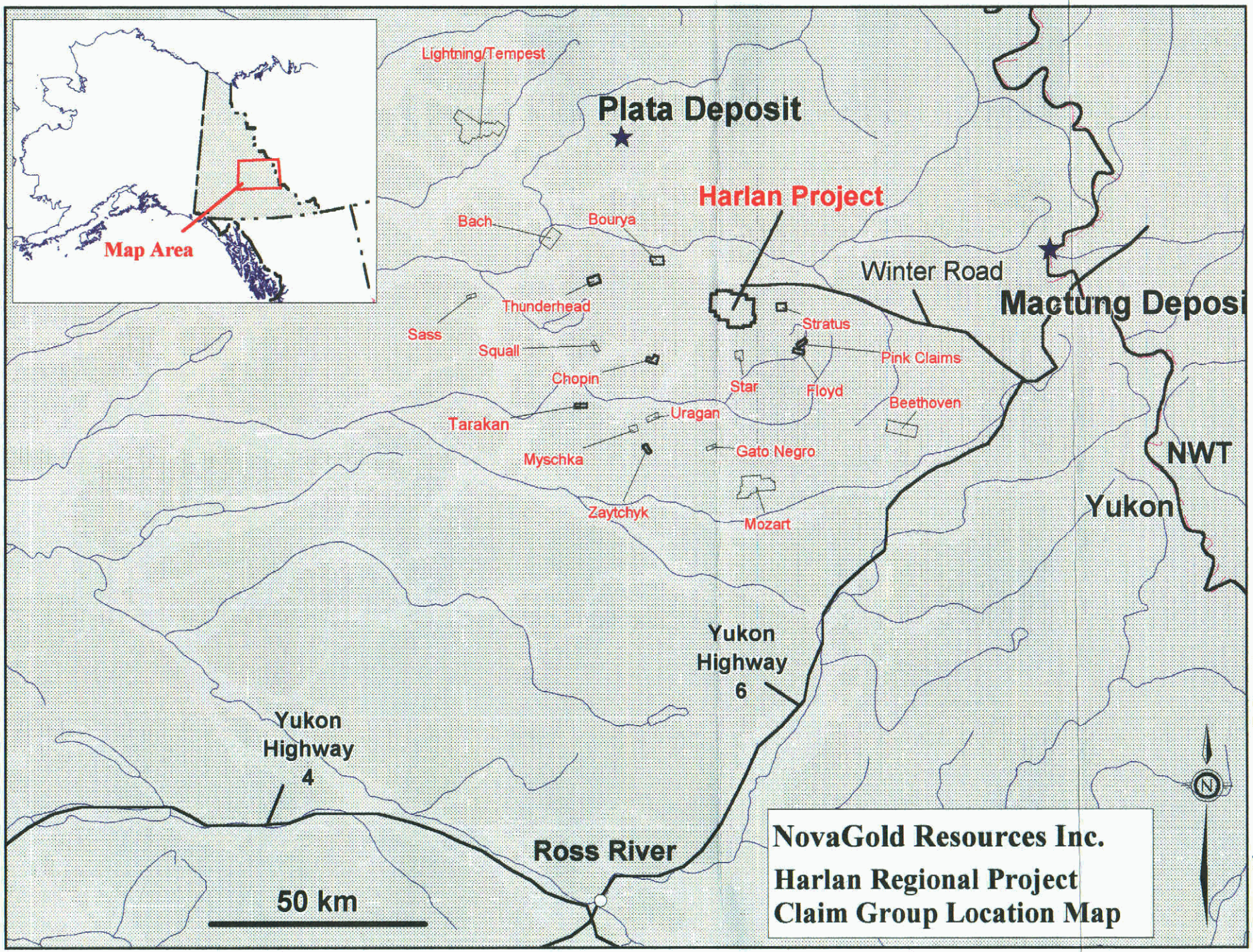
1.4 Regional Exploration History and Competitor Activity

Limited exploration has occurred in the immediate Harlan property vicinity. The JET Claims held by the Archer-Cathro Group located roughly thirty kilometres north-west overlie barite occurrences within Earn Group sediments. Several claim blocks overlie Tombstone Suite stocks and associated gold mineralization and gold in silt anomalies. These include the YZ, NID, EM and CYP Claims, held by Alliance Pacific Gold Ltd., which added the WEAS Claims to the CYP Claims in 1997; and the NUG Claims held by Mr. B. Kreft. The PLATA lead-zinc-silver prospect is located roughly eighty kilometres to the north-west. The TOM and JASON lead-zinc-silver Sedex style deposits, held by Cominco, occur roughly forty kilometres to the north-east. The BRICK-NEVE Claims, held by Cameco, located roughly thirty kilometres to the north, overlie sediment and dyke hosted gold mineralization.

1.5 Property Exploration History

No evidence of significant past exploration activity exists across the present Harlan property. The Cam 1-8 and Harlan 1-331 claims were staked in 1997 by Viceroy Exploration (Canada) Inc. (Viceroy) to cover kilometric-scale gold-in-soil anomalies associated with multi-gram gold values from rock sampling across Earn and Road River Group sediments intruded by quartz-monzonite dykes. The original target was selected due to a combination of coincident gold-arsenic-mercury-antimony anomalies from RGS silt sampling and favorable stratigraphic and structural settings. The 1998 program delineated two major kilometric-scale exploration targets.

In 1999, NovaGold purchased a 100% interest in the property from Viceroy Resources Inc. NovaGold Resources Inc. subsequently completed additional geological mapping and rock sampling in 1999 on the property.


Map Area
Lightning/Tempest
Plata Deposit
Harlan Project
Bach
Bourya
Winter Road
Mactung Deposi
Thunderhead
Sass
Squall
Stratus
Pink Claims
Chopin
Star
Floyd
Beethoven
Uragan
Tarakan
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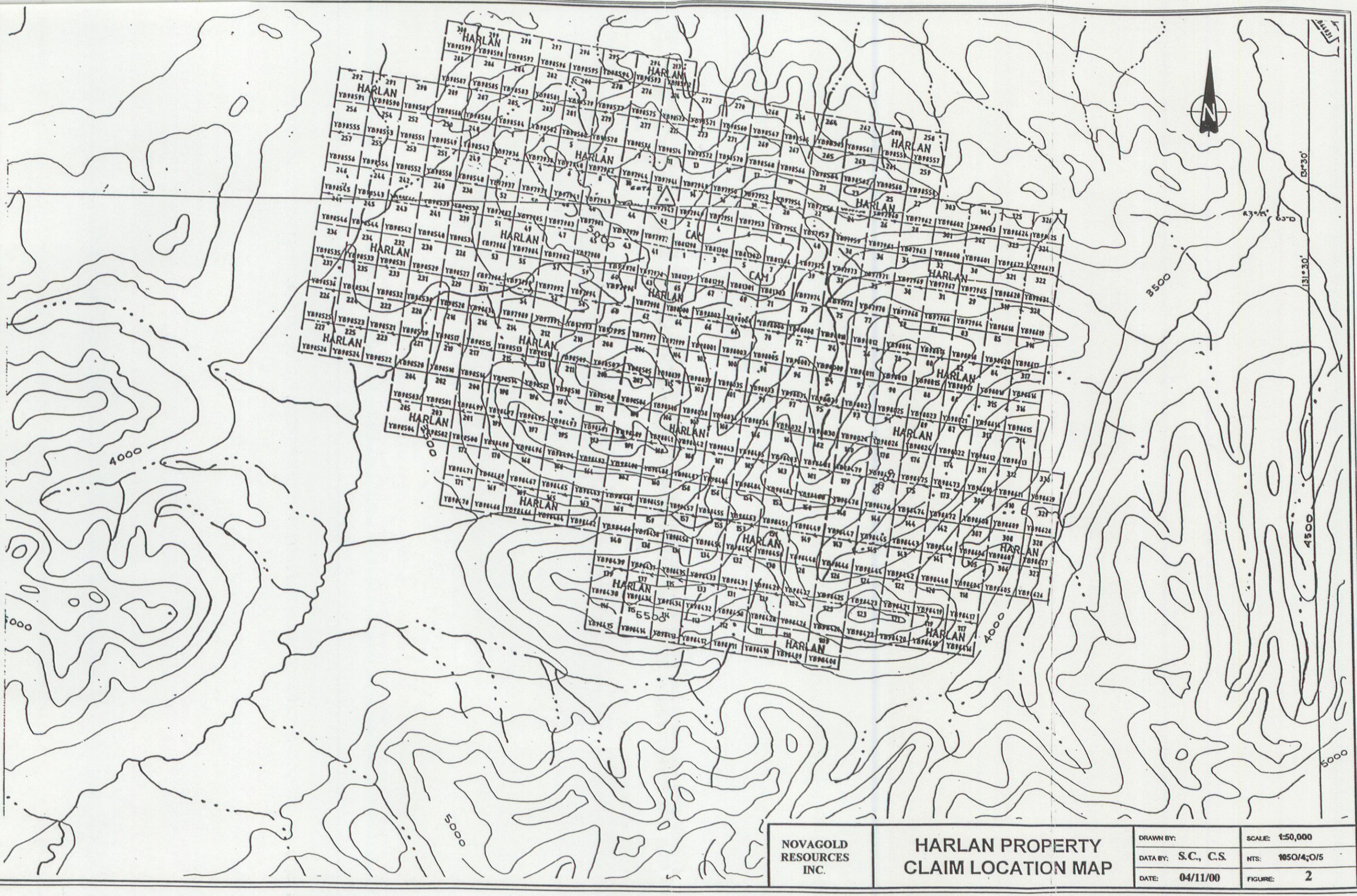
NovaGold Resources Inc.
Harlan Regional Project
Claim Group Location Map

094106



NOVAGOLD RESOURCES INC.	HARLAN PROPERTY CLAIM LOCATION MAP	DRAWN BY:	SCALE: 1:50,000
		DATA BY: S.C., C.S.	NTS: 105O/4;O/5
		DATE: 04/11/00	FIGURE: 2

Table 1 lists detailed claim status, including assessment status and expiry dates following the 1999 filing.

1.6 Work Program

Several reconnaissance traverses involving geological mapping and evaluation and rock sampling were conducted across the "Vortex Zone", within the north-central area, and the West Porphyry Zone within the western area in 1999. A total of 47 rock samples were obtained.

1.6.1 Sample Preparation and Assay Procedure

Samples taken in 1999 were sent to NAL Laboratories of Whitehorse for gold fire assay analysis, then sent to IPL Laboratories in Vancouver for 30-element ICP analysis. At NAL, samples were pulverized to –100 mesh, then subject to 30 gram fire assay analysis with AA (atomic absorption) finish.

All rock, soil and silt sampling was quantifiably recorded in the field to ensure a high degree of quality control, and entered into standardized spreadsheet programs. Criteria for each sample included: sample type, width of chip sampling, lithology, alteration and mineralization, and "UTM" location. All sample locations have been tied into UTM co-ordinates and have been plotted.

1.6.2 Personnel

All applicable assessment work was done by NovaGold personnel: Rick Van Nieuwenhuyse, President, Greg Johnson, Regional Exploration Manager, and Carl Schulze, Project Manager.

Fireweed Helicopters of Dawson City, Yukon provided helicopter services.

Table 1: Status of Harlan Property claims after 1999 filing

Claim Name	Grant Number	Owner	New Expiry Date	Work Completed By
HARLAN 109-140, 167-172,196-205	YB 98408-39,98466-71,98495-504	NovaGold	17-Oct-2000	Viceroy Exploration
HARLAN 222-227,233,235,237	YB98521-26,532,534,536	Resources Inc.	17-Oct-2000	(Canada), Inc.
HARLAN 322, 331	YB98621, 98630		17-Oct-2000	
HARLAN 001-016,029, 031,033	YB97936-951, 964, 966, 968		17-Oct-2001	
HARLAN 035-038, 044, 046	YB97970-973, 979, 981		17-Oct-2001	
HARLAN 048-055, 058, 060, 062	YB97983-990, 993, 995, 997		17-Oct-2001	
HARLAN 064, 066, 068, 070, 072	YB97999, 98001, 003, 005, 007		17-Oct-2001	
HARLAN 074-108	YB98009-YB98043		17-Oct-2001	
HARLAN 141-166, 173-195, 206-211	YB98440-65,472-494,505-510		17-Oct-2001	
HARLAN 212-221, 229, 231	YB98511-520,528, 530		17-Oct-2001	NovaGold
HARLAN, 228,230,232,234,236,238-257	YB98527,29,31,33,35,37-56		17-Oct-2001	Viceroy
HARLAN 258-272, 301-304, 323-326	YB98557-71,98600-03,622-625		17-Oct-2001	NovaGold
HARLAN 273-300, 305-320, 327-331	YB98572-599,98604-619, 626-629		17-Oct-2001	Viceroy
CAM 001-008	YB81297-81304		17-Oct-2002	NovaGold
HARLAN 017-028, 030, 032, 034	YB97952-963, 965, 967, 969		17-Oct-2002	NovaGold
HARLAN 039-043, 045, 047, 056, 057	YB97974-978, 980, 982, 991, 992		17-Oct-2002	NovaGold
HARLAN 059, 061, 063, 065, 067	YB97994, 996, 998, 98000, 98002		17-Oct-2002	NovaGold
HARLAN 069, 071, 073	YB98004, 006, 008		17-Oct-2002	NovaGold
HARLAN 321	YB98620		17-Oct-2002	NovaGold

CHAPTER 2: GEOLOGY

2.1 Regional Geology

The Harlan property is located within the Selwyn Basin which consists of a broad package of Paleozoic sediments extending ESE from north-west of Dawson City to the Yukon-NWT border north of the major NW-SE trending Tintina Fault Zone. This stratigraphy consists of shallow shelf to off-shelf marine clastic and chemical sediments, as well as basinal clastic sediments derived from the Ancient North American Platform to the north-east. Age of deposition ranges from Late Precambrian to Permian. At least two major episodes of rifting have occurred: the first during deposition of the Late Precambrian Hyland Group sediments, and the second during deposition of the Devono-Mississippian Earn Group sediments (Table 2, Figure 3). These major rift zones often host poorly sorted coarse clastic sediments, such as debris flows or turbidite horizons. Several episodes of continental uplift have led to periods of increased erosion and resulting continental margin or miogeosynclinal deposition, resulting in the creation of sequences of comparatively high energy, shallow water sediments, often coarsely grained and variably calcareous. These are separated by strata formed under deeper, quieter water conditions, resulting in formation of fine clastic sediments and chert. The Mid-Cretaceous Tombstone-Tungsten Intrusive Suite (95-89Ma) consisting primarily of monzonitic to quartz-monzonitic intrusive structures, has been emplaced within the Selwyn Basin. Members of this suite occur along an ESE trending belt extending for over 500 kilometres from north-west of Dawson City to the Yukon-NWT border. Tombstone Suite intrusives are believed to control much of the economic gold mineralization within the Selwyn Basin.

Extensive thrust faulting along the entire extent of the Selwyn Basin began during Late Jurassic time, resulting in creation of a compressional regime. Most thrust faults are oriented roughly ESE, and dip to the south-west, subparallel to the overall ESE trend of stratigraphy. Several major regional thrust faults were formed including the Dawson Thrust, Tombstone Thrust, and Robert Service Thrust. This regional lineation has been overprinted by a slightly less pronounced NE-SW lineation, marked by high angle orthogonal faults suggesting the compressional regime was followed by an extensional tectonic regime. The latter lineation is strongly pronounced within the Harlan property area.

The Harlan property occurs within a broad deformation belt unofficially called the "Gold River Fold Belt" extending along the south side of the Hess River. Several WNW trending thrust faults, re-activated as strike-slip faults associated with fairly intense folding, extend across this belt. Tombstone Suite intrusives occur within the belt, particularly along the north and south flanks, and are common in the Harlan property area.

2.2 Property Geology

The Harlan Property is underlain by a thick sequence of Earn Group chert pebble conglomerate, sandstone and greywacke, with lesser shale to siltstone members (Figure 4). Several roughly east-southeast trending units of Road River Group shale to siltstone, and graphitic argillite units extend across the property. A large unit of Road River Group graphitic argillite and shale underlies much of the central area. Contacts are indicated by ESE trending, moderately south dipping thrust faults causing imbrication of Earn and Road River Group stratigraphy within a compressional regime. This has been overprinted by a NNE-SSW trending lineation manifested by drainages across the property, as well as a third N-S trending lineation.

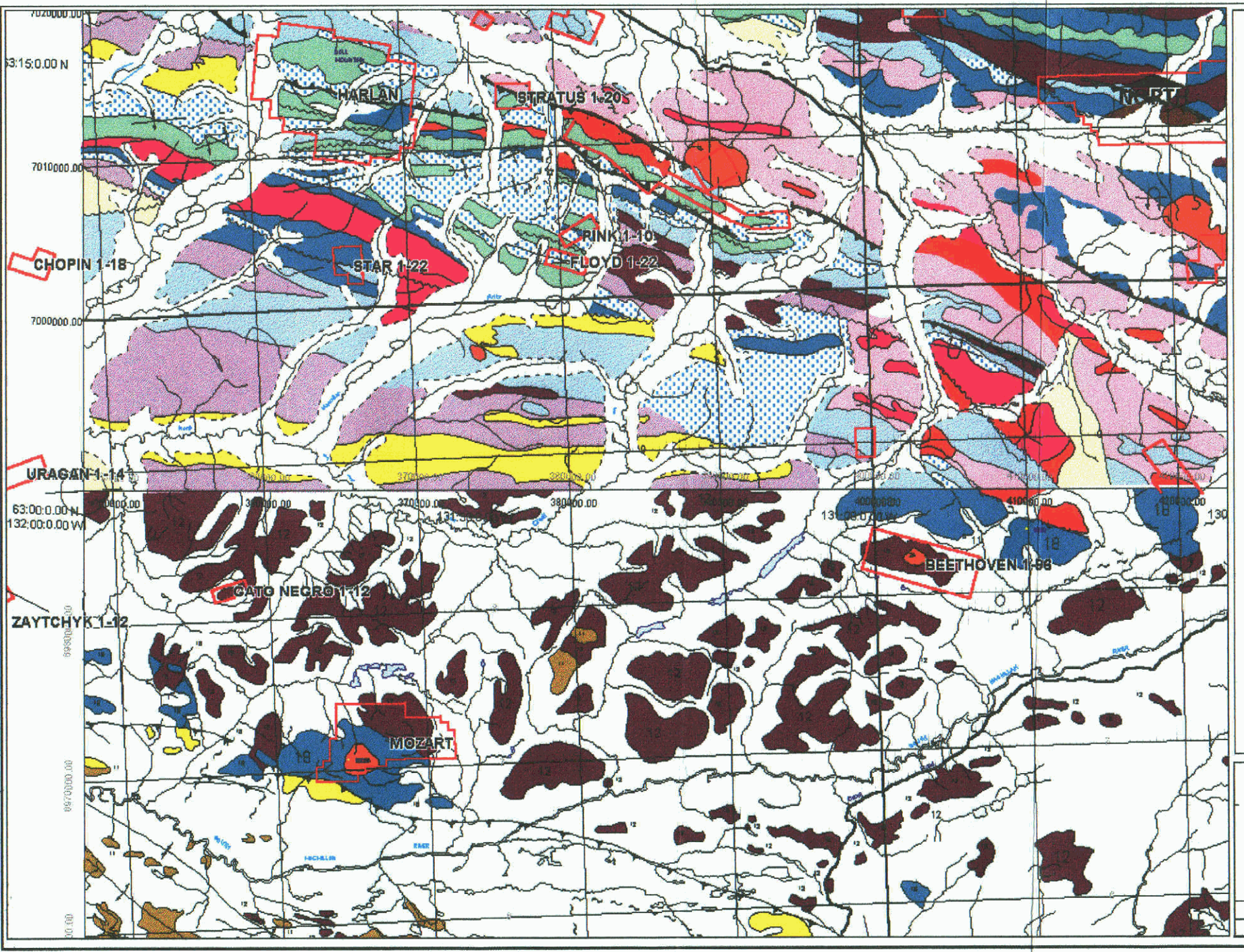
The central area of the Harlan Property is underlain by a sequence of Road River Group graphitic argillite thrust against a thick package of strongly altered and mineralized Earn Group chert pebble conglomerate with lesser greywacke and sandstone, called the "Vortex Zone". The NW-SE trending, SW dipping thrust fault contact overlies the conglomerate. Within the Vortex Zone, the Earn Group sediments have undergone strong argillic alteration and silicification, and display multiple episodic fine quartz veining and

stockwork development, and interstitial and replacement style quartz-arsenopyrite mineralization. Elsewhere, similar unaltered chert pebble conglomerate has a strongly calcareous matrix, suggesting an originally calcareous matrix for the conglomerates in the Vortex Zone. A feldspar porphyritic stock, perhaps the heat source for the alteration, occurs roughly 300 metres to the south. A suite of late-stage Cretaceous altered quartz-monzonite dikes at variable orientations extends across Earn and Road River Group sediments. These dikes are particularly abundant west of the Vortex Zone and within the West Porphyry Zone, located one to three kilometres to the west, where localized "dike swarms" occur.

In the West Porphyry area, the WNW trending dykes occur within the northern portion of the broad graphitic argillite unit, somewhat south of the east-west trending contact with chert pebble conglomerate to the north. The dykes trend roughly 110 to 120 degrees, dipping steeply to the south-southwest, indicating they are not extensions of east-west trending dykes just west of the Vortex zone.

TABLE 2: HARLAN AREA STRATIGRAPHIC COLUMN

Age	Group	Formation (Lithology)	Geology Map Designation	Rock Code	Description
Mid-Cretaceous	Tombstone - Tungsten Plutonic Suite	Monzonite, Quartz Monzonite	Kqm, Kg	QM, QFP, QPM	Felsic to intermediate quartz monzonitic, monzonitic, to quartz dioritic intrusives. The name "Selwyn Suite" often applies to eastern portion of the suite. Anvil Intrusives and coeval South Fork Volcanics now considered part of Tombstone Suite; varying phases due to different fractionation states rather than a separate major intrusive event. Quartz-monzonite dikes within Harlan are argillically altered and limonitic.
Devonian - Mississippian	Earn Group	Prevost Formation	DMp (Dme)	CH, ARG ARGG	Brown weathering shale, grey to grey-brown weathering chert-pebble conglomerate, dark grey-black chert-quartz sandstone.
Devonian - Mississippian	Earn Group	Prevost Formation	Dme	CPC	Chert Pebble Conglomerate: pebble to cobble sized clasts in silicified or calcareous matrix, local breccia fragments; lesser coarse to fine sandstone members. Host for major sediment-hosted mineralization within Harlan Property.
Devonian	Earn Group	Portrait Lake Formation	Dp (Dme)	CH, ARG, ARGG	Argillite, chert, minor sandstone and conglomerate. Black siliceous argillite form lower member. May contain minor greywacke, siltstone and baritic horizons.
Ordovician-Early Devonian	Road River Group	Steel Formation	(OSDr)	SS	Weakly to moderately calcareous brange weathering mudstone to siltstone, often bioturbated reflecting oxygenated bottom water conditions. Baritic horizons often form distinctive upper members near top of formation.
Ordovician-Early Devonian	Road River Group	Duo Lake Formation	Osd (OSDr)	CH, SLT, ARG	Black argillite and massive to thick bedded chert, weathers bluish white, local tan limonitic weathering.



GEOLOGICAL LEGEND

MESOZOIC

Cretaceous

24 Granite, quartz monzonite, syenite

Triassic

JONES LAKE FORMATION: calcareous sandstone, siltstone, shale,slate, minor limestone

PALEOZOIC

Permian

MOUNT CHRISTIE FORMATION: Argillite siltstone, sandstone and dolostone

Carboniferous to Permian

20 Thin bedded limestone, black shale, chert chert pebble conglomerate

Mississippian

19 Keno Hill quartzite: Massive quartzite, slate phyllite, argillaceous quartzite.

Devonian to Mississippian

18 EARN GROUP, Prevost Formation: slate phyllite, calcareous silstone, sandstone

17 Prevost Formation chert pebble conglomerate interbedded greywacke, slate

EARN GROUP, Portrait Lake Formation: siltstone, shale and chert.

16 Felsic metavolcanics, quartz porphyry

Ordovician to Early Devonian

ROAD RIVER GROUP, Steel Formation: dolomitic mudstone to siltstone

ROAD RIVER GROUP; Duo Formation: chert, and black shale

RABBITKETTLE FORMATION

Basalt, tuff, tuff breccia

11 Limestone and dolomite

Early to Mid-Cambrian

GULL LAKE FORMATION: siliceous siltstone

SEKWI FORMATION: Limestone, silty limestone, siltstone and black shale

PROTEROZOIC

Late Hadrynian to Early Cambrian

HYLAND GROUP, Narchilla Formation: Argillite, shale, limestone, chert pebble cong grit

Late Hadrynian

YUSEZYU FORMATION: limestone, quartzite, calcareous quartzite

YUSEZYU FORMATION: Argillite, quartzite, calcareous quartzite, argillaceous limestone

0 5 10

Kilometres

NOVAGOLD RESOURCES INC.

Harlan Project

REGIONAL GEOLOGY AND CLAIMS

	DATE: Mar. 00	NTS: 105J/15
	SCALE:	FIGURE NO.

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CHAPTER 3: MINERALIZATION

3.1 Property Mineralization

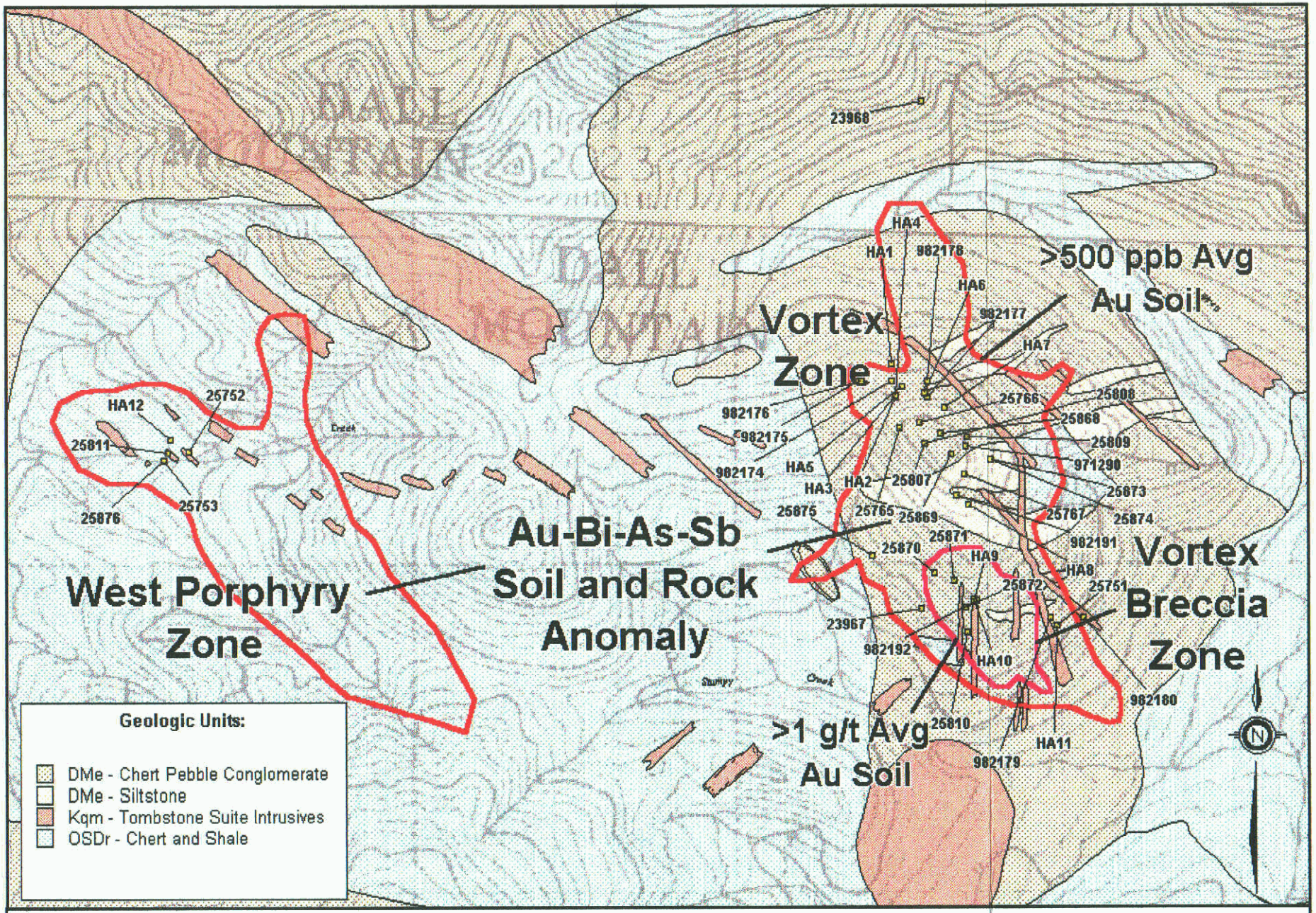
Two major kilometric-scale exploration targets occur within the Harlan Property: the "Vortex Zone", within north-central areas; and the "West Porphyry Zone", extending from one to three kilometres west of the Vortex Zone (Figure 4). Geological mapping suggests that the Vortex Zone is a tabular Earn Group chert pebble conglomerate member overlain by the imbricated graphitic argillite. The base consists of a ESE trending, SW dipping strongly foliated monzonitic dyke along a thrust fault. A value of 655 ppb Au/ 1.2m from silicified conglomerate associated with fine disseminated pyrite, was returned from this material, suggesting mineralization extends into the footwall. A "window" of Earn Group sediments, associated with anomalous gold in soil values west of the upper thrust contact, and an occurrence of Vortex-style float within graphitic argillite 600 metres to the west of the zone, suggests that the Vortex Zone extends considerably to the west beneath the overlying argillites.

The Vortex Zone was first discovered after a 1997 reconnaissance soil traverse returned a value of 771 ppb Au/ 1,400 metres, open to the south-east. Follow-up sampling on the Vortex Zone has since identified a northwest trending gold-bismuth-arsenic-antimony anomaly measuring 1600 metres by 700 metres that averages over 500 ppb gold in soils. Rock samples collected from this area have returned values up to 4.4 and 6.5 gpt gold. Detailed silt sampling has also returned strongly anomalous values to 195 ppb Au. Results of exploration in 1999, indicate that the occurrence of silicified conglomerate beneath the Vortex Zone footwall is part of a continuous mineralized unit at least ten metres thick consisting of fine disseminated pyrite within a silicified hydrothermal breccia. The "Vortex Breccia Zone" is an area of intense brecciation and argillic alteration that averages over 1000 ppb Au in soils and includes values up to 7.4 gpt and 10.4 gpt Au in soil. The Vortex Breccia Zone, contains angular argillite fragments and altered dyke clasts indicating an explosive event post-dating dyke emplacement. A sample of arsenopyrite breccia north of the Vortex Breccia zone returned 6.5 gpt Au. Sampling of altered dyke rubblecrop in 1999 roughly 300 metres east of the Vortex Breccia returned a value of 877 ppb Au/ 3.0 metres, extending the boundaries of known mineralization.

The West Porphyry Zone consists of a series of east-southeast trending, steeply south-southwest dipping altered quartz-monzonite dykes. Gold mineralization tends to increase progressively towards the west, with highest values within westernmost dykes. Rock chip sampling across the West Porphyry Zone at the 1.26 gpt Au anomaly returned 0.86 gpt Au/ 20.8m, with values of 0.56 gpt Au/ 4.2m and 0.48 gpt Au/ 3.5m returned from nearby sampling. Anomalous values to 1.16 gpt Au were returned from similar dykes across 2.5 square kilometres. Silt sampling to the east-southeast, along projected strike extensions of the auriferous dykes, returned consistently strongly anomalous gold values to 230 ppb Au, commonly exceeding 200 ppb Au.

Exploration in 1999 identified a dyke roughly 100 metres east of the main dyke returning 0.86 gpt Au/ 20.8 metres. Sampling returned values to 1.08 gpt Au/ 1.5 metres, with composite grab sampling returning values to 1.3 gpt Au. Further geologic mapping has revealed that strong silicification and moderate argillic alteration within this nearly massive dyke contrasts markedly to the advanced argillic and strong phyllic alteration of the main dyke to the west. A "kill zone" identified in 1999 extends across part of the projected strike extension to the southeast associated with the anomalous gold-in-silt values.

A series of soil profiles were conducted across the Vortex Zone. Surface rock grab sampling to determine mineralized lithologies was accompanied by sampling of soil or talus fines at depths from 10 to 60 centimetres. In each case, rubblecrop was found to overlie C-horizon soil or talus fine material, suggesting rock material was derived from an uphill source. Also, results of underlying fine material were consistently higher, with values to 1.170 ppb Au, than from overlying rocks. This suggests that the rubble-crop material may represent resistive, possibly less mineralized members of the zone and that the abundant fine material is more representative of the altered and mineralized material within the overall Vortex zone.



NovaGold Resources Inc. - Harlan Project

1999 Property Geology and Rock Sample Location Map

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CHAPTER 4: CONCLUSIONS

The Harlan property is located within the Selwyn Basin which consists of a broad package of Paleozoic sediments extending ESE from north-west of Dawson City to the Yukon-NWT border north of the major NW-SE trending Tintina Fault Zone. This stratigraphy consists of shallow shelf to off-shelf marine clastic and chemical sediments, as well as basinal clastic sediments derived from the Ancient North American Platform to the north-east. Several episodes of continental uplift have led to periods of increased erosion and resulting continental margin or miogeosynclinal deposition, resulting in the creation of sequences of comparatively high energy, shallow water sediments, often variably calcareous. These are separated by strata formed under deeper, quieter water conditions, resulting in formation of fine clastic sediments and chert. The Mid-Cretaceous Tombstone-Tungsten Intrusive Suite (95-89Ma), consisting primarily of monzonitic to quartz monzonitic intrusive structures extending from the Alaskan border to the Yukon-NWT border, has been emplaced within the Selwyn Basin. Tombstone Suite intrusives are believed to control much of the economic gold mineralization within the Selwyn Basin.

Extensive thrust faulting along the entire extent of the Selwyn Basin began during Late Jurassic time, resulting in creation of a compressional regime. Most thrust faults are oriented roughly ESE, and dip to the south-west, subparallel to the overall ESE trend of stratigraphy. This regional lineation has been overprinted by a pronounced NE-SW lineation, marked by high angle orthogonal faults suggesting the compressional regime was followed by an extensional tectonic regime.

The Harlan property is underlain by broad units of Earn Group chert-pebble conglomerate unconformably separated by large thrust faulted units of Road River Group chert and graphitic argillite. A suite of east-west trending argillically altered limonitic quartz-monzonite dykes extends across north-central areas, proximal to an inferred upper level feldspar porphyritic monzonite stock.

Two major kilometric-scale exploration targets occur within the Harlan Property: the "Vortex Zone", within north-central areas; and the "West Porphyry Zone", extending from one to three kilometres west of the Vortex Zone. The Vortex Zone is a northwest trending gold-bismuth-arsenic-antimony anomaly measuring 1600 metres by 700 metres that averages over 500 ppb gold in soil. Rock samples collected from this area returned values up to 6.5 gpt gold. Within this area is an intensely brecciated and clay altered core zone measuring 500 m by 300 m that contains gold in soil values up to 10.4 gpt Au and averages over 1000 ppb in soil. This core zone is highly anomalous in gold, arsenic, and mercury.

Mineralization within the Vortex Zone is associated with intense argillic and advanced argillic alteration and silicification with multi-episodic quartz stockwork veining and brecciation of Earn Group chert pebble conglomerate member overlain by the imbricated graphitic argillite. This sedimentary sequence has been intruded by the 90-110 million year old Tombstone Plutonic Suite, consisting of altered quartz-monzonitic to granitic rocks. Numerous north-south, northwest, and northeast oriented structural zones are evident within the sedimentary sequence. These structures appear to have controlled emplacement of small dikes and sills as well as subsequent gold mineralization.

The 1500 metre by 500 metre West Porphyry Zone consists of a broad surface geochemical anomaly containing values to 2.5 gpt Au over 2.0 m from rock channel sampling, and up to 230 ppb Au from silt sampling. Abundant mineralized northwest trending Tombstone Suite quartz porphyritic monzonite dikes returned values of 0.86 gpt Au over 20.8 meters from channel sampling. Due to the wide-spaced nature of the traverse sampling all of the anomalous zones are open and expandable.

The dyke hosted mineralization and Vortex Zone mineralization are believed to have a common source, possibly along a major ESE trending paleolineament. Anomalous geochemical values occur across roughly ten square kilometres, suggesting the Harlan Property has the potential to host a "world class" gold deposit.

CHAPTER 5: RECOMMENDATIONS

The 2000 exploration program will consist of an early phase of detailed surface exploration aimed at delineation of drill targets for testing later in the 2000 field season. This program shall include detailed geological mapping, prospecting and systematic B-horizon soil sampling using grid control along the Vortex and West Porphyry Zones. The Vortex Breccia Zone and newly discovered mineralized areas outside of the previously defined Vortex Zone will also be targeted. Systematic channel sampling across known dyke occurrences within the West Porphyry Zone will be done, as well as detailed soil and rock sampling across the area of anomalous gold-in-silt values.

Several contour soil profile traverses combined with geological mapping and rock chip sampling are recommended for outlying areas, particularly to the east and south of the major zones.

Based on the results of the detailed surface exploration, final drill targets would be prioritized through integration of the detailed geologic and structural mapping, and surface geochemistry. Based on available funding, the highest-priority drill targets could be tested by drilling a fence of 5-8 NQ core drill holes totalling ~1000 m (3000 ft) across the highest-priority targets.

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STATEMENT OF QUALIFICATIONS

I, Carl Schulze, of the City of Whitehorse, Yukon Territory, Canada, do hereby certify that:

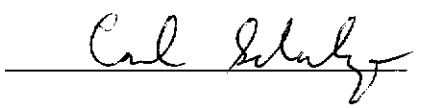
1) I held the position of Project manager with NovaGold Resources Inc. during the exploration program described in this report, and currently act as agent for NovaGold Resources Inc through Wolf Star Resources.

2) I graduated from Lakehead University with a Bachelor of Science Degree in Geology in 1984.

3) I have been continually active in mineral exploration since 1984.

4) I supervised the exploration program and performed part of the work described in this report.

5) I am the immediate past president of the Yukon Chamber of Mines and a member of the Yukon Prospectors' Association.



Carl M. Schulze
Consulting Geologist
Wolf Star Resources

APPENDIX 1

APPLICABLE EXPENDITURES FOR ASSESSMENT CREDITS

Harlan Property Expenditures	
Description	**Expenditure**
Labor	$ 3,400
Helicopter support (up to 25%)	1,950
Geochemical Analyses	893
Pre-project compilation, preparation	407
Compilation, Report Writing	1,150
Total	***$7,800***

APPENDIX 2: ROCK SAMPLE GEOCHEMICAL RESULTS

2a) ROCK SAMPLE DESCRIPTION SHEET

Sample No.	Easting	Northing	Zone	Sample Type	Width (m)	Sample Descr.	Form.	Lithology	Modifier	Colour	Carb. Presence	Silicification	Argillic Alt.	Potassic Alt.	Phyllic Alt.	Limonite	Mineral #1	Amount %	Mineral #2	Amt %	Other Mineral	Amt %	Date	Sampler	Comments
23966	366450	7015570	9	CG		Rc	DMe	CPC	bxwk	tan		S1	A2			mod	scor	tr					17/8/99	C.S.	Strong Py boxwork (20%)
23967	366780	7015410	9	C	0.9	Oc	DMe	CPC	brecc	lt gry		S3	A2										17/8/99	C.S.	Close to small shear, possible "pebble dyke"
23968	365577	7014840	9	G		Ta	DMe?	mst	brecc	buff		S2	A2			wk	Py	<1					17/8/99	C.S.	Possible explosive breccia, dissem. py.
23969	364250	7018360	9	C	1.3	Oc	Kqm	aplite	frac	yel		S2	A2		Ph1	wk	Py	tr					17/8/99	C.S.	Jointed, approx. 80m upstream of main dyke
25751	365990	7014802	9	CG		Rc	Kqm	QFMon		tan		S1	A2		Ph1	mod	Py	3					3/9/99	C.S.	Abnt. o/crop, altered QFPorphyry
25752	364318	7015339	9	CG		Oc	OSDr	Blk. sh	brecc	blk/yel			A1			wk							3/9/99	C.S.	Dyke material along fractures
25751	364240	7015310	9	CG		Oc	Kqm	aplite	jtcd	buff		S2	A2		Ph2	wk	Py	tr					3/9/99	C.S.	Approx. 8m east of newly discovered dyke.
25765	365507	7015406	9	G		Rc	DMe	CPC	vned	blk?		S2											7/9/99	G.S.	GOLDFIELDS: multiple episodes of qz veining
25766	365565	7015425	9	G		Rc	DMe	CPC	stwk							wk							7/9/99	G.S.	GOLDFIELDS: Cm. scale lim. bxwk, v. fine qtl veins
25767	365704	7015267	9	G		Float	DMe	CPC	brecc	buff		S2											7/9/99	G.S.	GOLDFIELDS: 10-15 cm brecc vein flt, matrix sup.
25807	366581	7015360	9	CG		Rc	DMe	CPC	stwk	lt gry		S2	A2										17/8/99	GSJ	WFM Zone; hairline qz stringers
25808	366581	7015360	9				DMe	CPC	bxwk				A3										17/8/99	GSJ	WFM Zone; vuggy, boxwork after py
25809	366715	7015377	9				DMe	CPC	brecc			S2					Py	5% ?					17/8/99	GSJ	Dissem sulphides + x-cutting sulph veinlets
25810	366713	7014784	9																				17/8/99	GSJ	WFM
25811	364253	7015335	9	CG			OSDr	arg	brecc	dk gy													17/8/99	GSJ	Chert clasts, poss. ferricrete?
25868	366633	7015390	9	CG		Ta	DMe	CPC	Vned	white			A3				scor	5	Ba	10			7/9/99	C.S.	Ba-As vein, strong arg. alt, Py boxwork
25869	366664	7015327	9	CG		Rc/Oc	DMe	CPC	frac	blk		S1	A1			tr	Py	tr					7/9/99	C.S.	Abnt. float + outcrop; greywacke
25870	366612	7014967	9	CG		Rc	OSDr	Sh	frac	gry		S1	A2				As	4	Py	1			7/9/99	C.S.	As. along fractures
25871	366673	7014941	9	CG		Rc	Kqm	QMon	wk. fol	yel		S2	A1		Ph3	str	Py	7					7/9/99	C.S.	Dissem, nodular Py
25872	366710	7014860	9	CG		Rc	DMe	Ss	brecc	buff		S3	A2			tr	As	tr	Py	tr			7/9/99	C.S.	As (?) along fractures
25873	366785	7015310	9	CG		Ta	DMe	CPC	brecc	lt gry		S3	A1			mod	Py	4					17/9/99	C.S.	Abnt boulders, sim. to "655 ppb" sample
25874	366785	7015310	9	CG		Ta	DMe	CPC	Vn brecc	gry							As	25	Ba	65	Py	5	17/9/99	C.S.	Brecc. As. in barite veins
25875	366420	7015020	9	CG		Ta	Kqm	QMon	bxwk	buff		S1	A1		Ph3	wk							17/9/99	C.S.	20% Pyrite boxwork
25876	364240	7015310	9	C	0.2	Oc	Kqm	QFMon	gouge	yel			A3		Ph2		Py	tr					17/9/99	C.S.	Gouge in Qz Por. Monzonite dyke
971290	366710	7015350	9	S.Gr		Ta	Dme	CPC	stwk	buff		S2					Py	1	As	1			3/9/99	H.F.	PLACER DOME: Qz-sulphide veins to 3mm
982174	366480	7015550	9	SCG		Ta	DMe	CPC	vned			S2			Ph2	wk	As	2	Scor	mod			3/9/99	D.M.	PLACER DOME: Sel. Gr of talus flt, vb cont. alt
982175	366380	7015550	9				DMe	CPC									Py	2					3/9/99	D.M.	PLACER DOME: Comp. grab?
982176	366388	7015550	9				DMe	CPC	vned				A2		Ph2		Py	tr	Scor	wk			3/9/99	D.M.	PLACER DOME: quartz stringers
982177	366590	7015500	9	C-Gr		Ta	DMe	CPC?					A3		Ph3	str	scor	wk					3/9/99	D.M.	PLACER DOME: 80m chip-grab rep
982178	366590	7015550	9	G		Float	DMe		vned	grn		S1					scor	str					3/9/99	D.M.	PLACER DOME: abnt. quartz veining
982179	366970	7014830	9				DMe	CPC	brecc							str	As	tr	Scor	mod	Goeth	mod	3/9/99	D.M.	PLACER DOME: Sed. brecc. repl. by scor, goethite
982180	367070	7014830	9	C	3	Oc	Kqm?		frac			S2			Ph2	wk	Py?	tr					3/9/99	D.M.	PLACER DOME: 100m E of 982179 - (Dyke?)
982191	366680	7015201	9	C	1.5	Oc	Dme	CPC				S3				wk	Py	tr					3/9/99	H.F.	PLACER DOME
982192	366740	7014880	9	S. Gr		Ta	OSDr	Ch?	Wk vned			S2					Py	tr					3/9/99	H.F.	PLACER DOME: at 10,420 ppb soil
982193	364150	7018150	9	C	8	Oc	Kqm	Mon	fol	yel			A2			wk	Py	tr					3/9/99	H.F.	PLACER DOME, main West Porphyry dyke
HA1	366482	7015602	9	G		Rc	DMe	CPC	Vned	blk		S1	A1				As	1	Scor	tr			3/9/99	C.S.	Pyrite boxwork and As veining
HA2	366494	7015501	9	G		Ta	DMe	CPC	Vned	dk gy		S1	A1				Py	5	As	1			3/9/99	C.S.	Dissem. Py, veined As
HA3	366494	7015503	9	G		Ta	DMe	Sst	bed	lt gry		S1	A2										3/9/99	C.S.	Select. arg. alt. of fspar clasts - Same vein as HA2
HA4	366495	7015504	9	G		Ta	OSDr	Shale	fol	lt gry		S1	A2										3/9/99	C.S.	Typical altered shale; Same loc. as HA2
HA5	366516	7015533	9	G		Rc	DMe	CPC	brecc	lt gry		S3	A2			tr	scor	tr					3/9/99	C.S.	Strongly brecciated + Qz Vned CPC
HA6	366582	7015512	9	G		Ta	DMe	CPC	Vned	grn-wh		S2	A2				As	1	scor	wk			3/9/99	C.S.	Qz vein in CPC
HA7	366645	7015466	9	G		Rc	DMe	CPC	frac	lt gry		S2	A2				scor	tr					3/9/99	C.S.	Argillically (illite?) altered fspar clasts
HA8	366717	7015174	9	G		Oc	DMe	CPC	brecc	lt grn		S3	A1				scor	mod					3/9/99	C.S.	Strongly brecciated
HA9	366733	7014879	9	G		Rc	DMe	CPC	brecc	gry		S1	A2				scor	tr					3/9/99	C.S.	Explosive breccia
HA10	366733	7014884	9	G		Oc	Kqm	QPMon	frac	yel		S2	A2		Ph1	str	Py	2					3/9/99	C.S.	Narrow dykes near "vortex"
HA11	366990	7014802	9	G		Rc	OSDr	Slt	brecc	brn		S1	A2			str							3/9/99	C.S.	Slt (sh?) breccia, Road River?
HA12	364260	7015376	9	G		Oc	Kqm	QPMon	brecc	yel		S1	A2		Ph3	mod							3/9/99	C.S.	West Porphyry, brecciated dyke

2b) ROCK SAMPLE GEOCHEMICAL RESULTS

Sample No.	Au	Ag	Cu	Pb	Zn	As	Sb	Hg	Mo	Tl	Bi	Cd	Co	Ni	Ba	W	Cr	V	Mn	La	Sr	Zr	Sc	Ti	Al	Ca	Fe	Mg	K	Na	P
	ppb	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	%	%	%	%	%	%	%
23966	127	6.2	29	176	373	542	115	<3	5	<10	53	<0.1	1	9	158	45	134	21	48	3	13	7	1	<0.01	0.23	0.01	1.5	0.02	0.11	0.02	0.02
23967	430	0.6	10	5	6	159	9	<3	2	<10	<2	<0.1	1	4	1143	45	184	12	24	5	11	3	1	<0.01	0.15	0.01	0.45	0.01	0.08	0.02	0.01
23968	16	0.8	18	28	11	815	11	<3	3	<10	4	<0.1	3	7	365	45	130	28	21	6	4	7	3	<0.01	0.19	<0.01	0.99	0.01	0.15	0.02	0.06
23969	1060	0.6	8	11	9	90	5	<3	1	<10	<2	<0.1	<3	1	607	45	33	10	15	2	24	9	<1	<0.01	0.28	0.01	0.49	<0.01	0.2	0.02	0.02
25751	6	0.6	28	14	47	109	6	<3	2	<10	<2	<0.1	1	7	187	45	36	8	53	15	14	8	1	<0.01	0.43	0.03	1.47	0.04	0.24	0.03	0.05
25752	25	0.8	67	12	18	55	4	<3	19	<10	<2	<0.1	<1	7	36	45	61	131	12	6	643	3	2	0.01	0.36	0.03	6.66	0.02	0.66	0.03	0.5
25753	1017	0.9	2	15	9	114	<5	<3	2	<10	<2	<0.1	<1	<1	525	45	43	5	19	2	34	7	<1	<0.01	0.32	0.01	0.46	<0.01	0.26	0.02	0.04
25755	32	1	8	35	6	65	17	<3	3	<10	11	<0.1	1	3	165	45	151	18	31	14	2	7	1	<0.01	0.25	0.01	0.8	0.03	0.16	0.02	<0.01
25756	17	1	8	25	4	92	8	<3	3	<10	8	<0.1	1	2	144	45	64	9	18	<2	4	5	<1	<0.01	0.11	<0.01	0.72	0.01	0.16	0.02	0.01
25757	7	0.5	5	17	3	328	6	<3	3	<10	<2	<0.1	<1	2	157	<5	125	8	20	2	5	5	2	<0.01	0.11	<0.01	0.59	0.01	0.1	0.02	0.05
25807	15	1	7	64	4	227	8	<3	1	<10	6	<0.1	<1	4	177	<5	118	8	19	3	3	4	<1	<0.01	0.11	0.01	0.48	0.01	0.1	0.02	0.01
25808	43	1.1	6	21	6	346	6	<3	2	<10	6	<0.1	<1	2	158	<5	104	12	17	3	4	4	1	<0.01	0.15	0.01	0.55	0.02	0.12	0.02	0.01
25809	160	1.2	177	20	10	1546	13	<3	2	<10	<2	<0.1	3	12	50	<5	148	8	22	3	4	3	1	<0.01	0.09	<0.01	1.11	0.01	0.07	0.02	0.03
25810	704	5.7	11	76	4	1428	73	<3	4	<10	5	<0.1	<1	4	247	<5	95	19	23	4	15	<1	1	<0.01	0.09	<0.01	1.06	<0.01	0.08	0.02	0.37
25811	38	3.3	87	33	52	689	<5	<3	25	<10	<2	<0.1	2	27	59	7	136	595	66	2	432	4	52	0.01	0.42	0.03	15.31	0.02	0.6	0.03	1.78
25868	3237	3.9	121	137	19	21977	88	<3	9	<10	188	<0.1	1	2	71	<5	66	40	10	5	36	1	20	0.03	0.24	<0.01	3.25	0.01	0.25	0.02	0.18
25869	131	1	8	16	4	309	10	<3	4	<10	<2	<0.1	1	4	1015	<5	178	13	27	6	9	4	1	<0.01	0.16	<0.01	0.53	0.01	0.09	0.02	0.02
25870	603	333.3	110	564	10	13560	197	<3	5	<10	4	<0.1	1	11	268	<5	71	24	10	5	6	4	5	0.01	0.24	<0.01	2.05	0.01	0.17	0.02	0.19
25871	13	2	40	14	99	540	25	<3	3	<10	<2	<0.1	2	2	23	<5	36	4	9	7	3	19	1	<0.01	0.36	<0.01	3.3	0.03	0.32	0.03	0.01
25872	31	8.5	15	201	4	1256	85	<3	6	<10	16	<0.1	1	2	124	45	184	17	20	3	16	7	2	0.01	0.11	0.01	0.99	0.01	0.15	0.02	0.07
25873	245	0.9	30	218	11	803	6	<3	3	<10	<2	<0.1	1	8	80	45	92	5	19	<2	6	8	2	<0.01	0.05	0.01	0.88	0.01	0.07	0.02	0.04
25874	8501	18.1	648	24	15	68000	32	<3	5	<10	<2	<0.1	18	21	<2	45	48	19	13	<2	4	5	6	<0.01	0.06	<0.01	6.9	<0.01	0.06	0.02	0.18
25875	168	0.4	36	123	47	2037	149	<3	7	<10	10	<0.1	1	1	402	45	85	86	17	2	21	8	1	0.01	0.2	0.01	4.41	0.02	0.14	0.02	0.05
25876	1253	2	5	20	9	196	6	<3	3	<10	<2	<0.1	1	<1	265	45	45	16	20	2	106	4	1	<0.01	0.3	0.01	1.38	0.01	0.07	0.02	0.14
971290	21	0.3	6	23	3	245	7	<3	2	<10	3	<0.1	1	2	331	45	87	8	12	6	3	5	1	<0.01	0.12	<0.01	0.39	0.01	0.1	0.02	0.03
982174	3777	268.1	570	8128	223	102279	5198	<3	4	<10	1900	26.4	2	10	<2	45	100	28	25	2	6	6	0	<0.01	0.2	0.01	9.33	0.01	0.08	0.02	0.1
982175	45	1.9	28	86	31	638	30	<3	2	<10	14	<0.1	1	9	124	45	131	17	27	4	14	8	2	<0.01	0.13	<0.01	1.58	0.02	0.08	0.02	0.04
982176	44	2	8	35	6	1001	35	<3	3	<10	13	<0.1	<1	4	244	45	107	8	16	2	3	8	2	<0.01	0.12	<0.01	0.73	0.01	0.09	0.02	0.04
982177	62	1.9	30	56	5	1071	37	<3	4	<10	34	<0.1	1	3	341	45	77	14	11	3	2	10	2	0.01	0.16	<0.01	0.88	0.01	0.16	0.02	0.02
982178	516	4.8	102	26	16	40853	87	<3	5	<10	106	<0.1	18	9	38	45	123	16	20	<2	3	11	6	0.01	0.09	<0.01	4.09	0.01	0.12	0.02	0.07
982179	158	4.9	73	228	155	12906	823	<3	150	<10	<2	<0.1	8	13	83	45	105	578	28	8	395	10	4	<0.01	0.29	0.03	27.04	<0.01	0.73	0.02	0.03
982180	877	1.5	120	61	32	2778	189	<3	31	<10	<2	<0.1	<1	3	234	<5	72	151	20	3	65	4	1	<0.01	0.31	0.01	5.98	<0.01	0.27	0.02	0.13
982191	96	4.8	9	79	4	1483	98	<3	6	<10	3	<0.1	1	2	249	<5	59	34	10	10	42	3	1	<0.01	0.15	0.01	1.38	0.01	0.14	0.02	0.12
982192	97	1.6	3	58	2	612	43	5	4	<10	6	<0.1	<1	1	295	<5	45	10	9	11	11	7	1	0.01	0.18	<0.01	1.12	0.01	0.26	0.02	0.04
982193	599	0.3	6	18	5	68	5	<3	3	<10	<2	<0.1	1	3	359	<5	39	14	31	27	54	5	<1	<0.01	0.3	0.03	0.92	0.01	0.25	0.02	0.05
HA1	515	49.6	12	540	18	9130	486	1	7	<10.00	298	<0.50	<1.0	6	520	<10.00	154	25	15	<10	5		4	<0.03	0.22	0.01	1.39	0.02	0.14	<0.01	660
HA2	245	1.88	4.8	10	6	118	17.9	0.43	3.4	0.06	5.46	0.02	2	4	390	0.25	116	15	10	<10	2		<1	<0.01	0.17	<0.01	1.09	0.01	0.08	<0.01	10
HA3	45	0.84	1.8	10	<2	47.8	7.5	0.01	2.4	0.14	5.37	<0.02	0.2	1	630	0.35	50	34	<5	10	2		<1	<0.01	0.71	<0.01	0.19	0.03	0.39	<0.01	30
HA4	5	0.04	1	10	<2	42.2	9.4	0.16	1	0.14	7.6	<0.02	<0.2	<1	630	0.35	53	22	<5	<10	3		<1	<0.01	0.42	<0.01	0.14	0.02	0.28	<0.01	40
HA5	35	1.4	2.6	24	2	503	7.1	0.19	2.6	0.08	4.15	0.02	0.2	1	250	0.4	79	8	5	<10	1		2	<0.01	0.14	<0.01	0.47	0.01	0.11	<0.01	570
HA6	130	4.6	31	40	8	9970	52	<1.00	4	<10.00	94	<0.50	1	5	690	<10.00	154	11	5	<10	6		4	0.01	0.3	<0.01	1.98	0.01	0.19	<0.01	670
HA7	210	2.56	31	28	<2	931	19.8	0.96	2.8	0.06	6.91	0.06	0.2	1	220	0.15	80	7	5	<10	4		<1	<0.01	0.13	<0.01	0.18	0.01	0.08	<0.01	100
HA8	20	0.8	17	154	4	>10000	74	<1.00	9	<10.00	6	<0.50	<1.0	4	410	<10.00	154	17	5	<10	7		23	<0.01	0.19	<0.01	3.58	0.02	0.2	<0.01	6400
HA9	1185	2.5	3	36	<2	834	24.1	1.62	1.4	0.1	2.45	0.04	<0.2	<1	150	0.15	31	8	<5	26	9		<1	<0.01	0.22	<0.01	0.27	0.01	0.13	<0.01	180
HA10	285	2.4	15.4	68	8	1045	58.9	24	5.4	0.68	3.36	0.22	0.2	<1	610	0.25	44	5	5	10	35		1	<0.01	0.48	<0.01	3.11	0.04	0.59	<0.01	510
HA11	10	2.86	76	22	42	3520	187	1.84	17.2	0.38	4.14	1	0.6	<1	150	0.45	56	90	15	<10	98		3	0.03	0.13	0.01	7.65	0.01	0.19	<0.01	2150
HA12	280	0.96	8.2	26	8	107	11.1	0.87	7	1.16	0.59	0.02	0.2	<1	580	0.25	25	25	10	30	409		<1	<0.01	0.52	0.01	3.64	0.01	0.59	<0.01	1110