ASSESSMENT REPORT on YEAR-2011

Preliminary Reconnaissance Geological Mapping and Ground Magnetometer Surveys

on the

MAG PROPERTY

MAG claims 1-32, MAG 43-92

NTS Sheet 105C/05

Latitude 60°26'00"N; Longitude 133°36'50"W

100% Owner/Operator: Sourdough Resources Inc.

in

Yukon, Canada

August, 2012

Prepared by: Kevin Brewer, P. Geo, MBA, B.Sc (Hons)
President, Sourdough Resources Inc.
Office:
3151 C 3rd Ave
Whitehorse, Yukon Y I A 3M5
Tel: 867-633-4260
Fax: 867-668-7127
Business:
6 Carnelian Court
Whitehorse, YT
Y1A 6A3

kbrewer 80@hotmail.com

Table of Contents

1.0 INTRODUCTION

This brief assessment report summarizes the work program completed in 2011 on the MAG property in south-central, Yukon by Sourdough Resources Inc. (Figure 1). The continguous portion of the MAG property to the south and northwest is composed of 82 claims that are located immediately adjacent to the Alaska Highway approximately 85 km south-east of Whitehorse, YT. Other MAG claims located east of Squanga Lake have not been evaluated and are therefore not a part of this assessment report.

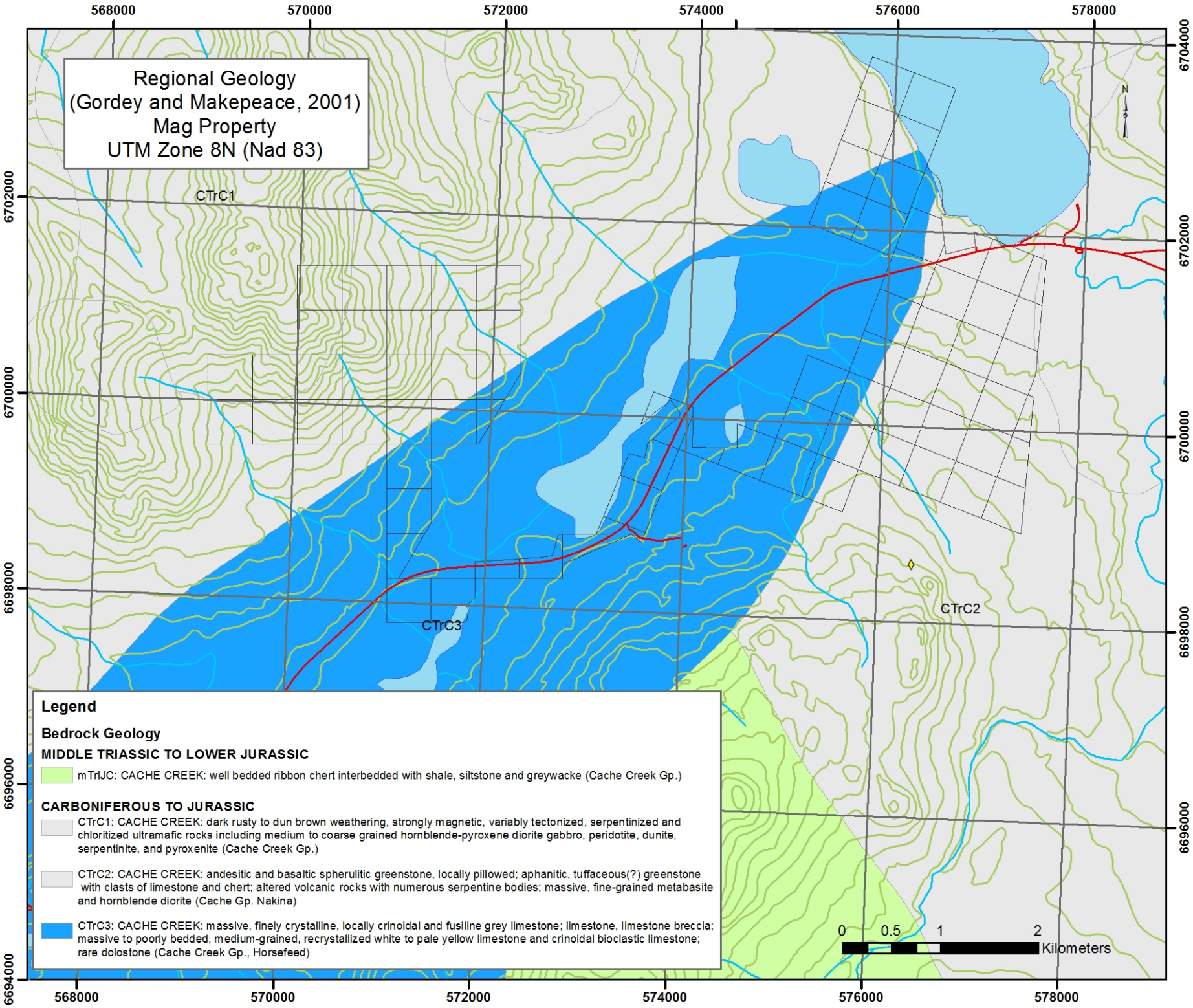
The claims are underlain by rocks of the Cache Creek Terrane and are considered prospective for quartz vein/shear zone hosted gold mineralization similar to the Atlin, BC area, and the Mother-lode district of California. Located 700 m south of the southern end of the MAG property boundary is the historic TOG showing. The TOG showing was found to contain gold in a massive quartz vein hosted in sheared, listwanite (qtz-talc-carbonate-Cr muscovite) altered ultramafic rocks associated with graphite.
Work in 2011 comprised of:

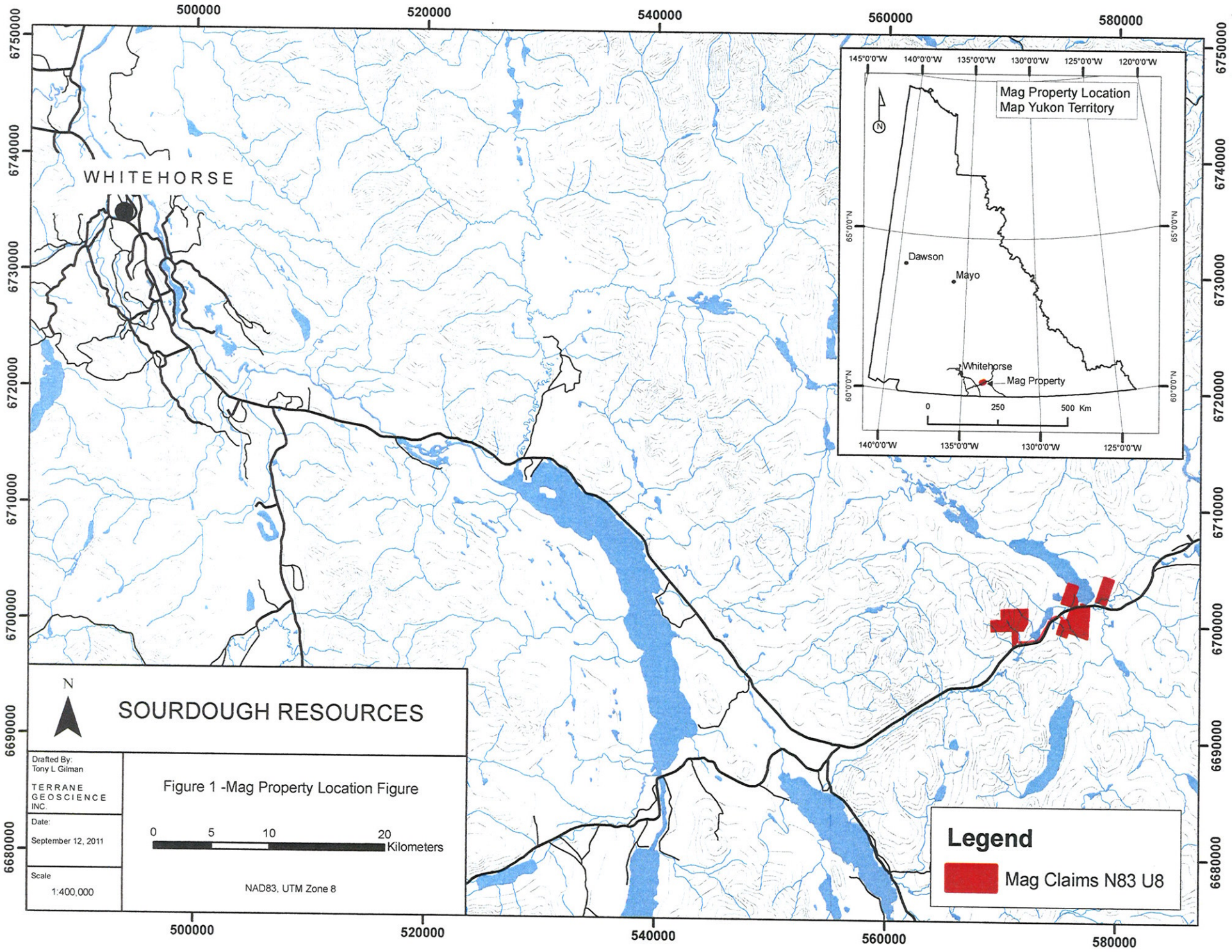
- A ground magnetometer survey of the southern portion of the property completed by McKeown Exploration Services of St. John's, Newfoundland;
- An interpretation report completed by geophysicists Dr. C. J. Hale and John Gilliatt of Intelligent Exploration, Campbellford, Ontario;
- A reconnaissance mapping program completed by Terrane Geoscience Inc. of Victoria, British Columbia; and,
- Additional research completed by Sourdough Resources Inc.

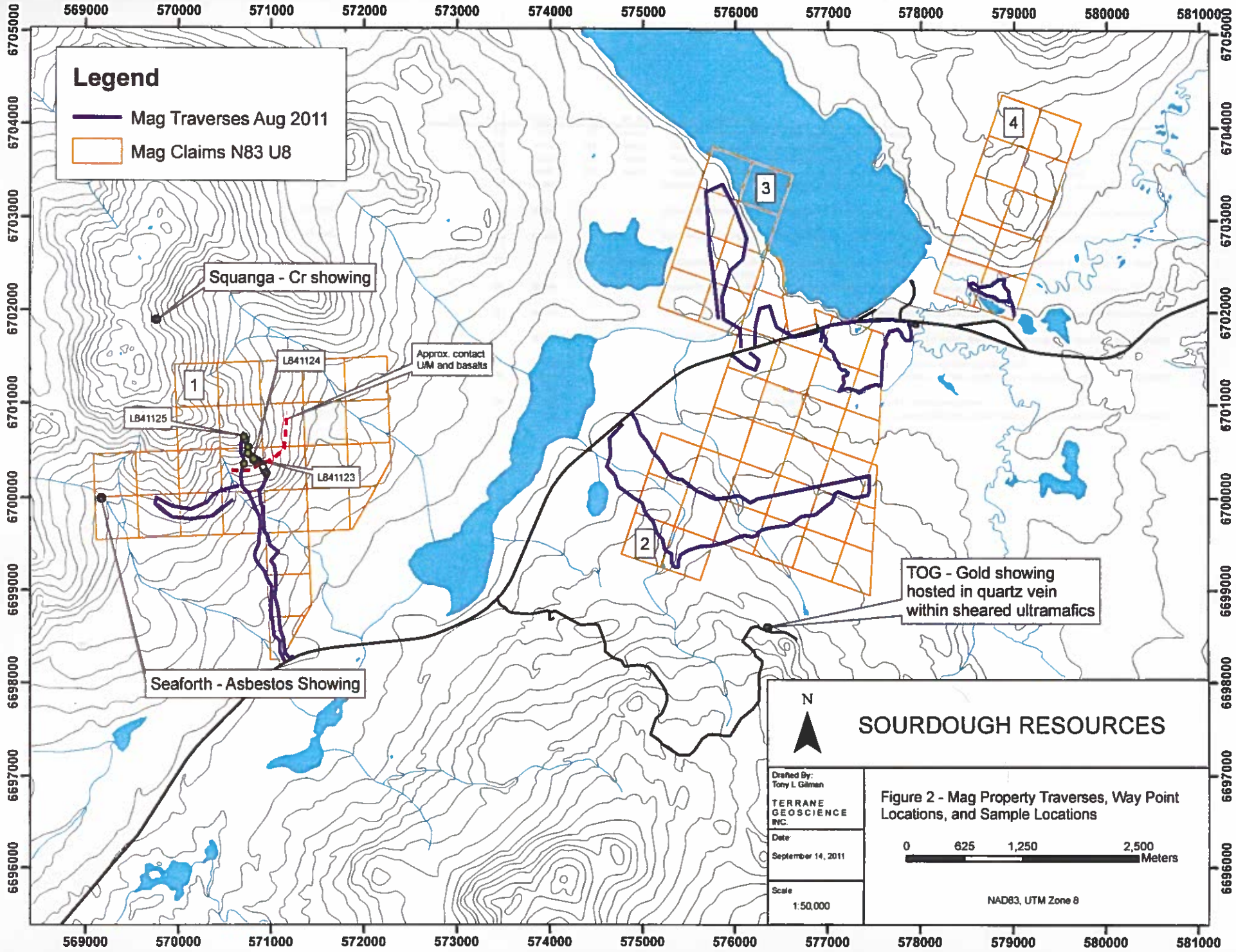
The work program in 2011 was assisted through the Yukon Mining Incentive Program (YMIP) and we would like to acknowledge the efforts of Derek Torgerson, Manager of YMIP for his efforts in assisting us. The work was conducted during the months of August 2011 to January 2012.

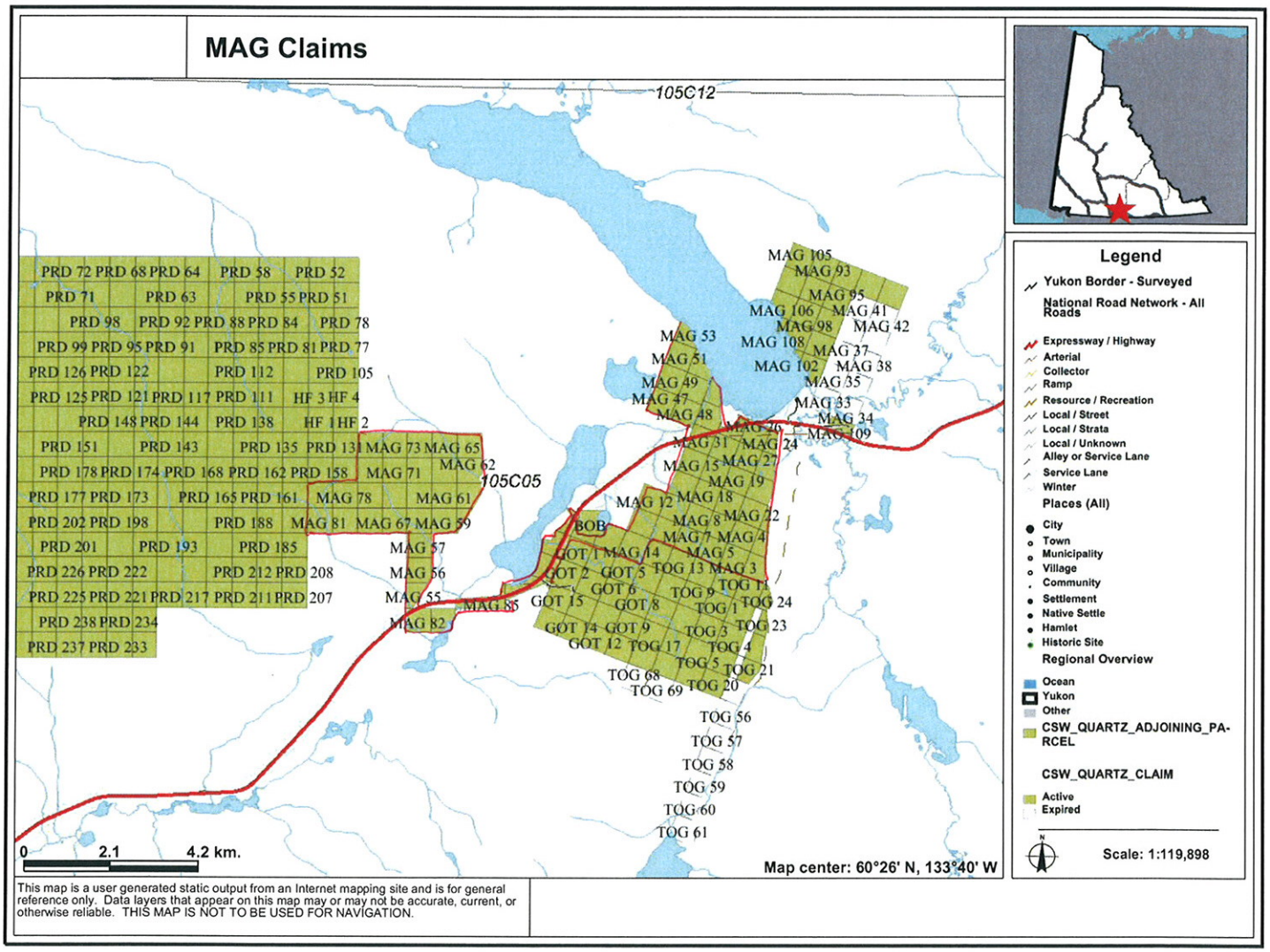
2.0 REGIONAL GEOLOGY

The MAG property is underlain by oceanic Carboniferous to Jurassic rocks of the Cache Creek Terrane. The Cache Creek Terrane is composed of shale, siltstone, chert, carbonates, and ultramafic rocks. These units are overlain by and in fault contact with mixed clastic and carbonate rocks of the Aksala group of Upper Triassic age. The property contains two major parallel to sub-parallel north-east trending faults that are likely related to the larger northwest trending terrane boundary located to the east of the claims. The area is considered prospective for quartz-vein hosted gold mineralization and Cr, PGM mineralization.


Regional Geology
(Gordey and Makepeace, 2001)
Mag Property
UTM Zone 8N (Nad 83)
CTrC1
CTrC2
CTrC3
568000
570000
572000
574000
576000
578000
6704000
6702000
6700000
6698000
6696000
6694000
N
Legend
Bedrock Geology
MIDDLE TRIASSIC TO LOWER JURASSIC
mTrlJC: CACHE CREEK: well bedded ribbon chert interbedded with shale, siltstone and greywacke (Cache Creek Gp.)
CARBONIFEROUS TO JURASSIC
CTrC1: CACHE CREEK: dark rusty to dun brown weathering, strongly magnetic, variably tectonized, serpentinized and chloritized ultramafic rocks including medium to coarse grained hornblende-pyroxene diorite gabbro, peridotite, dunite, serpentinite, and pyroxenite (Cache Creek Gp.)
CTrC2: CACHE CREEK: andesitic and basaltic spherulitic greenstone, locally pillowed; aphanitic, tuffaceous(?) greenstone with clasts of limestone and chert; altered volcanic rocks with numerous serpentine bodies; massive, fine-grained metabasite and hornblende diorite (Cache Gp. Nakina)
CTrC3: CACHE CREEK: massive, finely crystalline, locally crinoidal and fusiline grey limestone; limestone, limestone breccia; massive to poorly bedded, medium-grained, recrystallized white to pale yellow limestone and crinoidal bioclastic limestone; rare dolostone (Cache Creek Gp., Horsefeed)
0
0.5
1
2
Kilometers


500000
520000
540000
560000
580000
6750000
6740000
6730000
6720000
6710000
6700000
6690000
6680000
WHITEHORSE
Mag Property Location
Map Yukon Territory
145°0'0"W
140°0'0"W
135°0'0"W
130°0'0"W
125°0'0"W
120°0'0"W
60°0'0"N
Dawson
Mayo
Whitehorse
Mag Property
0
250
500 Km
N
SOURDOUGH RESOURCES
Drafted By:
Tony L Gilman
TERRANE GEOSCIENCE INC.
Date:
September 12, 2011
Scale
1:400,000
Figure 1 -Mag Property Location Figure
0
5
10
20
Kilometers
NAD83, UTM Zone 8
Legend
Mag Claims N83 U8


Legend
Mag Traverses Aug 2011
Mag Claims N83 U8
Squanga - Cr showing
Approx. contact U/M and basalts
L841124
L841125
L841123
1
2
3
4
Seaforth - Asbestos Showing
TOG - Gold showing hosted in quartz vein within sheared ultramafics
N
SOURDOUGH RESOURCES
Drafted By: Tony L Gilman
TERRANE GEOSCIENCE INC.
Date: September 14, 2011
Scale: 1:50,000
Figure 2 - Mag Property Traverses, Way Point Locations, and Sample Locations
0 625 1,250 2,500 Meters
NAD83, UTM Zone 8
569000 570000 571000 572000 573000 574000 575000 576000 577000 578000 579000 580000 581000
6705000 6704000 6703000 6702000 6701000 6700000 6699000 6698000 6697000 6696000



This map is a user generated static output from an Internet mapping site and is for general reference only. Data layers that appear on this map may or may not be accurate, current, or otherwise reliable. THIS MAP IS NOT TO BE USED FOR NAVIGATION.

District	Grant No.	RegType	Name	No.	Claim Owner	Recording	Staking	Expiry	Status	NTS MapNumber
Whitehorse	YE41593	Quartz	MAG	1	Sourdough Resources Inc. - 100%	3/1/2011	2/24/2011	3/1/2015	Active	105C05
Whitehorse	YE41594	Quartz	MAG	2	Sourdough Resources Inc. - 100%	3/1/2011	2/24/2011	3/1/2015	Active	105C05
Whitehorse	YE41595	Quartz	MAG	3	Sourdough Resources Inc. - 100%	3/1/2011	2/24/2011	3/1/2015	Active	105C05
Whitehorse	YE41596	Quartz	MAG	4	Sourdough Resources Inc. - 100%	3/1/2011	2/24/2011	3/1/2015	Active	105C05
Whitehorse	YE41597	Quartz	MAG	5	Sourdough Resources Inc. - 100%	3/1/2011	2/24/2011	3/1/2015	Active	105C05
Whitehorse	YE41598	Quartz	MAG	6	Sourdough Resources Inc. - 100%	3/1/2011	2/24/2011	3/1/2015	Active	105C05
Whitehorse	YE41599	Quartz	MAG	7	Sourdough Resources Inc. - 100%	3/1/2011	2/24/2011	3/1/2015	Active	105C05
Whitehorse	YE41600	Quartz	MAG	8	Sourdough Resources Inc. - 100%	3/1/2011	2/24/2011	3/1/2015	Active	105C05
Whitehorse	YE41601	Quartz	MAG	9	Sourdough Resources Inc. - 100%	3/1/2011	2/24/2011	3/1/2015	Active	105C05
Whitehorse	YE41602	Quartz	MAG	10	Sourdough Resources Inc. - 100%	3/1/2011	2/24/2011	3/1/2015	Active	105C05
Whitehorse	YE41603	Quartz	MAG	11	Sourdough Resources Inc. - 100%	3/1/2011	2/24/2011	3/1/2015	Active	105C05
Whitehorse	YE41604	Quartz	MAG	12	Sourdough Resources Inc. - 100%	3/1/2011	2/24/2011	3/1/2015	Active	105C05
Whitehorse	YE41605	Quartz	MAG	13	Sourdough Resources Inc. - 100%	3/1/2011	2/24/2011	3/1/2015	Active	105C05
Whitehorse	YE41606	Quartz	MAG	14	Sourdough Resources Inc. - 100%	3/1/2011	2/24/2011	3/1/2015	Active	105C05
Whitehorse	YE41607	Quartz	MAG	15	Sourdough Resources Inc. - 100%	3/1/2011	2/22/2011	3/1/2015	Active	105C05
Whitehorse	YE41608	Quartz	MAG	16	Sourdough Resources Inc. - 100%	3/1/2011	2/22/2011	3/1/2015	Active	105C05
Whitehorse	YE41609	Quartz	MAG	17	Sourdough Resources Inc. - 100%	3/1/2011	2/22/2011	3/1/2015	Active	105C05
Whitehorse	YE41610	Quartz	MAG	18	Sourdough Resources Inc. - 100%	3/1/2011	2/22/2011	3/1/2015	Active	105C05
Whitehorse	YE41611	Quartz	MAG	19	Sourdough Resources Inc. - 100%	3/1/2011	2/22/2011	3/1/2015	Active	105C05
Whitehorse	YE41612	Quartz	MAG	20	Sourdough Resources Inc. - 100%	3/1/2011	2/22/2011	3/1/2015	Active	105C05
Whitehorse	YE41613	Quartz	MAG	21	Sourdough Resources Inc. - 100%	3/1/2011	2/22/2011	3/1/2015	Active	105C05
Whitehorse	YE41614	Quartz	MAG	22	Sourdough Resources Inc. - 100%	3/1/2011	2/22/2011	3/1/2015	Active	105C05
Whitehorse	YE41615	Quartz	MAG	23	Sourdough Resources Inc. - 100%	3/1/2011	2/22/2011	3/1/2015	Active	105C05
Whitehorse	YE41616	Quartz	MAG	24	Sourdough Resources Inc. - 100%	3/1/2011	2/22/2011	3/1/2015	Active	105C05
Whitehorse	YE41617	Quartz	MAG	25	Sourdough Resources Inc. - 100%	3/1/2011	2/22/2011	3/1/2015	Active	105C05
Whitehorse	YE41618	Quartz	MAG	26	Sourdough Resources Inc. - 100%	3/1/2011	2/22/2011	3/1/2015	Active	105C05
Whitehorse	YE41619	Quartz	MAG	27	Sourdough Resources Inc. - 100%	3/1/2011	2/22/2011	3/1/2015	Active	105C05
Whitehorse	YE41620	Quartz	MAG	28	Sourdough Resources Inc. - 100%	3/1/2011	2/22/2011	3/1/2015	Active	105C05
Whitehorse	YE41621	Quartz	MAG	29	Sourdough Resources Inc. - 100%	3/1/2011	2/22/2011	3/1/2015	Active	105C05
Whitehorse	YE41622	Quartz	MAG	30	Sourdough Resources Inc. - 100%	3/1/2011	2/22/2011	3/1/2015	Active	105C05
Whitehorse	YE41623	Quartz	MAG	31	Sourdough Resources Inc. - 100%	3/1/2011	2/22/2011	3/1/2015	Active	105C05
Whitehorse	YE41624	Quartz	MAG	32	Sourdough Resources Inc. - 100%	3/1/2011	2/22/2011	3/1/2015	Active	105C05
Whitehorse	YE62505	Quartz	MAG	47	Sourdough Resources Inc. - 100%	6/3/2011	5/26/2011	6/3/2015	Active	105C05
Whitehorse	YE62506	Quartz	MAG	48	Sourdough Resources Inc. - 100%	6/3/2011	5/26/2011	6/3/2015	Active	105C05
Whitehorse	YE62507	Quartz	MAG	49	Sourdough Resources Inc. - 100%	6/3/2011	5/26/2011	6/3/2015	Active	105C05
Whitehorse	YE62508	Quartz	MAG	50	Sourdough Resources Inc. - 100%	6/3/2011	5/26/2011	6/3/2015	Active	105C05
Whitehorse	YE62509	Quartz	MAG	51	Sourdough Resources Inc. - 100%	6/3/2011	5/26/2011	6/3/2015	Active	105C05
Whitehorse	YE62510	Quartz	MAG	52	Sourdough Resources Inc. - 100%	6/3/2011	5/26/2011	6/3/2015	Active	105C05
Whitehorse	YE62511	Quartz	MAG	53	Sourdough Resources Inc. - 100%	6/3/2011	5/26/2011	6/3/2015	Active	105C05
Whitehorse	YE62512	Quartz	MAG	54	Sourdough Resources Inc. - 100%	6/3/2011	5/26/2011	6/3/2015	Active	105C05
Whitehorse	YE62513	Quartz	MAG	55	Sourdough Resources Inc. - 100%	6/3/2011	5/28/2011	6/3/2015	Active	105C05
Whitehorse	YE62514	Quartz	MAG	56	Sourdough Resources Inc. - 100%	6/3/2011	5/28/2011	6/3/2015	Active	105C05
Whitehorse	YE62515	Quartz	MAG	57	Sourdough Resources Inc. - 100%	6/3/2011	5/28/2011	6/3/2015	Active	105C05
Whitehorse	YE62516	Quartz	MAG	58	Sourdough Resources Inc. - 100%	6/3/2011	5/28/2011	6/3/2015	Active	105C05
Whitehorse	YE62517	Quartz	MAG	59	Sourdough Resources Inc. - 100%	6/3/2011	5/28/2011	6/3/2015	Active	105C05
Whitehorse	YE62518	Quartz	MAG	60	Sourdough Resources Inc. - 100%	6/3/2011	5/28/2011	6/3/2015	Active	105C05
Whitehorse	YE62519	Quartz	MAG	61	Sourdough Resources Inc. - 100%	6/3/2011	5/28/2011	6/3/2015	Active	105C05
Whitehorse	YE62520	Quartz	MAG	62	Sourdough Resources Inc. - 100%	6/3/2011	5/28/2011	6/3/2015	Active	105C05
Whitehorse	YE62521	Quartz	MAG	63	Sourdough Resources Inc. - 100%	6/3/2011	5/28/2011	6/3/2015	Active	105C05
Whitehorse	YE62522	Quartz	MAG	64	Sourdough Resources Inc. - 100%	6/3/2011	5/28/2011	6/3/2015	Active	105C05
Whitehorse	YE62523	Quartz	MAG	65	Sourdough Resources Inc. - 100%	6/3/2011	5/28/2011	6/3/2015	Active	105C05
Whitehorse	YE62524	Quartz	MAG	66	Sourdough Resources Inc. - 100%	6/3/2011	5/28/2011	6/3/2015	Active	105C05
Whitehorse	YE62525	Quartz	MAG	67	Sourdough Resources Inc. - 100%	6/3/2011	5/28/2011	6/3/2015	Active	105C05
Whitehorse	YE62526	Quartz	MAG	68	Sourdough Resources Inc. - 100%	6/3/2011	5/28/2011	6/3/2015	Active	105C05
Whitehorse	YE62527	Quartz	MAG	69	Sourdough Resources Inc. - 100%	6/3/2011	5/28/2011	6/3/2015	Active	105C05
Whitehorse	YE62528	Quartz	MAG	70	Sourdough Resources Inc. - 100%	6/3/2011	5/28/2011	6/3/2015	Active	105C05
Whitehorse	YE62529	Quartz	MAG	71	Sourdough Resources Inc. - 100%	6/3/2011	5/28/2011	6/3/2015	Active	105C05
Whitehorse	YE62530	Quartz	MAG	72	Sourdough Resources Inc. - 100%	6/3/2011	5/28/2011	6/3/2015	Active	105C05
Whitehorse	YE62531	Quartz	MAG	73	Sourdough Resources Inc. - 100%	6/3/2011	5/28/2011	6/3/2015	Active	105C05
Whitehorse	YE62532	Quartz	MAG	74	Sourdough Resources Inc. - 100%	6/3/2011	5/30/2011	6/3/2015	Active	105C05
Whitehorse	YE62533	Quartz	MAG	75	Sourdough Resources Inc. - 100%	6/3/2011	5/30/2011	6/3/2015	Active	105C05
Whitehorse	YE62534	Quartz	MAG	76	Sourdough Resources Inc. - 100%	6/3/2011	5/30/2011	6/3/2015	Active	105C05
Whitehorse	YE62535	Quartz	MAG	77	Sourdough Resources Inc. - 100%	6/3/2011	5/30/2011	6/3/2015	Active	105C05
Whitehorse	YE62536	Quartz	MAG	78	Sourdough Resources Inc. - 100%	6/3/2011	5/30/2011	6/3/2015	Active	105C05
Whitehorse	YE62537	Quartz	MAG	79	Sourdough Resources Inc. - 100%	6/3/2011	5/30/2011	6/3/2015	Active	105C05
Whitehorse	YE62538	Quartz	MAG	80	Sourdough Resources Inc. - 100%	6/3/2011	5/30/2011	6/3/2015	Active	105C05
Whitehorse	YE62539	Quartz	MAG	81	Sourdough Resources Inc. - 100%	6/3/2011	5/30/2011	6/3/2015	Active	105C05

3.0 2011 RECONNAISSANCE FIELD WORK

On August 27 through August 29, 2011 three days of reconnaissance field work was conducted on the MAG property. Figure 2 displays the location of traverses completed on the property. The primary aim of these traverses was to confirm government mapping and look for any TOG style mineralization on blocks 2, 3, and 4 (Figure 2) and confirm government mapping and sample ultramafics for potential Cr, PGM mineralization on block 1.
On the southern claim blocks (2, 3, and 4) no out-crop was discovered as part of this geological reconnaissance field visit. This area varies from open pine forests, to thick tree and alder covered regions, with swampy low lying portions. Block 4 was inaccessible because of a 2 - 3 m wide river that flows out of Squanga Lake to the west.

On the northwestern claim block (1) which is considered prospective for Cr, PGM mineralization one day was spent traversing up the hill to the north of the Alaska Highway. Immediately north of this claim block is the Squanga massive chromite showing, assayed at 33.5% Cr2O3, with 145 ppb Pt. The entire area remains virtually unexplored for Cr, PGM mineralization.

The first 2 km of this traverse was heavily forested below the 1050 m contour, above which topographic relief increases and outcrop becomes abundant. The main units encountered while mapping on this claim block were basalts, serpentinized ultramafics (Plate 1), and one boulder of listwanite altered ultramafics with a narrow (~1 cm) quartz veins (Plate 2). The regional geologic mapping was validated by this reconnaissance visit and is generally accurate. However, the contact between the ultramafics and the basalt is further east (~500 m) then mapped (Figure 2). A database of waypoints visited with lithology descriptions is provided in Appendix A. Figure 2 displays the locations of all out-crop stations visited as part of the mapping program.

Three samples were collected as part of the field work conducted on the MAG property. The samples collected were submitted to ALS Chemex Laboratories, Whitehorse, YT for analysis. The samples did not have any anomalous values.

3.1 TOG

As part of the reconnaissance field visit one morning was spent at the TOG showing (Plate 3). The TOG showing is a massive (~1.5 m wide) milky quartz vein hosted within graphitic, sheared and listwanite altered ultramafic rocks. The Yukon MINFILE indicates that the highest gold values occur along graphitic shears localized at the contact between the quartz vein and the ultramafic. The quartz vein is segmented by several local meter scale faults that contain graphite in the shear plane. The showing is registered 100% to Dunvegan Exploration Ltd. and has seen two rounds of drilling that confirmed the down dip and across strike continuity of mineralization. Additionally, it is important to point out that a combination of magnetic and electromagmetic

(EM) geophysical methods proved useful in delineating the ultramafic and graphitic shear zones respectively.

4.0 GROUND MAGNETOMETER SURVEY

As previously noted, a 53.7 line kilometer ground magnetometer survey was completed on the southern portion of the property area during September 11-14th, 2011. In addition a 5.9 line-km of north-south tie-line data was also recorded for a total of 59.6 line kilometers. Work methodologies, approach, instrumentation details, and data transfer and processing details are noted in the McKeown Logistics Report Ref#11P112 (see attached).

In addition, Intelligent Exploration (IE) completed an interpretation of the ground magnetometer survey results (see attached report). The report includes documentation of previous exploration work, restates the geophysical survey procedures, and data processing.

4.1 RESULTS OF THE GEOPHYSICAL SURVEY

Results of the survey indicated that the magnetic field in the areas was generally strongest along the western, southern and eastern boundaries of the southern property area. The survey identified a well-defined north-south striking magnetic high trend in the southeast portion of the property with a magnetic relief of 2500-3000nT. It was interpreted by IE that this could be consistent with the presence of free magnetite in serpentinized ultramafic rocks. Areas with lower magnetic relief in the central part of the southern property were interpreted as overthrust Permian mafic volcanic and carbonate oceanic sequences previously described by Hart (1996). Most of the magnetic highs were found to be of limited extent and were interpreted to reflect west-southwest shallowly dipping units or a unit with limited vertical extent evidenced from the pronounced magnetic lows adjacent to the high magnetic responses. This was noted to be consistent with the TOG showing that was hosted in shallowly dipping, strongly magnetic, altered and sheared ultramafic rocks. Overall the magnetic trends on the property have been interpreted to reflect the northeastern margin of a Permian seafloor sequence thrust from the southwest over the Stikinian basement. IE projected the approximate location of the thrust fault in plate 3 of their report (see attached).

5.0 CONCLUSION

This property represents an intriguing, underexplored grass-roots play in an area with similar geological and demonstrated mineralogical characteristics (e.g TOG) to one of the largest gold producing regions in the Cordillera (i.e the Mother-lode and Allegheny gold districts of California). Additionally, given that the mineralization is associated with magnetic ultramafic rocks and conductive graphite zones this region makes for an attractive geophysical target. To unlock the full potential of the whole area this exploration target should be district wide and include several of the ultramafic and metabasalts located within 75 km of the MAG property.

6.0 RECOMENDATIONS

- Analysis of final sample results should be undertaken to look for any mineralization (Au, PGE) in the sampled outcrop.
- An electromagnetic (EM) survey should be conducted on claim block 2 to accompany the magnetics survey.
- A district wide GIS compilation of available government, and academic data should be gathered to make a series of maps to guide possible further staking and exploration in the area.
- To make this a larger district wide play, several of the ultramafics and metabasalts (greenstones) in the region should be explored. This could be accomplished by;
    1. Performing a large magnetic and electromagnetic airborne survey over several of the mapped ultramafics and metabasalts in the region.
    2. Investigating any conductors identified by the airborne survey.
    3. Possible trenching and drilling if results are favorable.

096040

TERRANE GEOSCIENCE INC.

P3 – 1061 Fort Street

Victoria, BC, V8V-5A1

TO: Kevin Brewer (Sourdough Resources Inc.)

FROM: Tony Gilman, M.Sc., P.Eng (Terrane Geoscience Inc.)

DATE: September 13, 2011

RE: MAG Property 2011 Geology and Sampling Program Review and Recommendations

INTRODUCTION

This brief memo summarizes the results of three days of reconnaissance field work conducted on the Mag property in south-central, Yukon in August 2011 for Sourdough Resources Inc. (Figure 1). The Mag property is composed of three non-contiguous blocks located adjacent to the Alaska Highway approximately 85 km south-east of Whitehorse, YT. The claims are underlain by rocks of the Cache Creek terrane and are considered prospective for quartz vein/shear zone hosted gold mineralization similar to the Atlin, BC area, and the Mother-lode district of California. Located 700 m south of the southern end of the Mag property boundary is the historic TOG showing. The TOG showing contains gold in a massive quartz vein hosted in sheared, listwanite (qtz-talc-carbonate-Cr muscovite) altered ultramafic rocks associated with graphite.

REGIONAL GEOLOGY

The Mag property is underlain by oceanic Carboniferous to Jurassic rocks of the Cache Creek terrane. The Cache Creek terrane is composed of shale, siltstone, chert, carbonates, and ultramafic rocks. These units are overlain by and in fault contact with mixed clastic and carbonate rocks of the Aksala group of Upper Triassic age. The property contains two major parallel to sub-parallel north-east trending faults that are likely related to the larger northwest trending terrane boundary located to the east of the claims. The area is considered prospective for quartz-vein hosted gold mineralization and Cr, PGM mineralization.

2011 RECONNAISSANCE FIELD WORK

On August 27 through August 29, 2011 three days of reconnaissance field work was conducted on the Mag property. Figure 2 displays the location of traverses completed on the property. The primary aim of these traverses was to confirm government mapping and look for any TOG style mineralization on blocks 2, 3, and 4 (Figure 2) and confirm government mapping and sample ultramafics for potential Cr, PGM mineralization on block 1.

On the eastern claim blocks (2, 3, and 4) no out-crop was discovered as part of this geological reconnaissance field visit. This area varies from open pine forests, to thick tree and alder covered regions,

with swampy low lying portions. Block 4 was inaccessible because of a 2 - 3 m wide river that flows out of Squanga Lake to the west.

On the western claim block (1) which is considered prospective for Cr, PGM mineralization one day was spent traversing up the hill to the north of the Alaska Highway. Immediately north of this claim block is the Squanga massive chromite showing, assayed at 33.5% Cr_2O_3, with 145 ppb Pt. The entire area remains virtually unexplored for Cr, PGM mineralization.

The first 2 km of this traverse was heavily forested below the 1050 m contour, above which topographic relief increases and outcrop becomes abundant. The main units encountered while mapping on this claim block were basalts, serpentinized ultramafics (Plate 1), and one boulder of listwanite altered ultramafics with a narrow (~1 cm) quartz veins (Plate 2). The regional geologic mapping was validated by this reconnaissance visit and is generally accurate. However, the contact between the ultramafics and the basalt is further east (~500 m) then mapped (Figure 2). A database of waypoints visited with lithology descriptions is provided in Appendix A. Figure 2 displays the locations of all out-crop stations visited as part of the mapping program.

Three samples were collected as part of the field work conducted on the Mag property. The samples collected were submitted to ALS Chemex Laboratories, Whitehorse, YT for analysis. As of the writing of this memo assay results are still pending.

TOG

As part of this reconnaissance field visit one morning was spent at the TOG showing (Plate 3). The TOG showing is a massive (~1.5 m wide) milky quartz vein hosted within graphitic, sheared and listwanite altered ultramafic rocks. The Yukon MINFILE indicates that the highest gold values occur along graphitic shears localized at the contact between the quartz vein and the ultramafic. The quartz vein is segmented by several local meter scale faults that contain graphite in the shear plane. The showing is registered 100% to Dunvegan Exploration Ltd. and has seen two rounds of drilling that confirmed the down dip and across strike continuity of mineralization. Additionally, it is important to point out that a combination of magnetic and electromagmetic (EM) geophysical methods proved useful in delineating the ultramafic and graphitic shear zones respectively.

CONCLUSIONS

This property represents an intriguing, underexplored grass-roots play in an area with similar geological and demonstrated mineralogical characteristics (e.g TOG) to one of the largest gold producing regions in the Cordillera (i.e the Mother-lode and Allegheny gold districts of California). Additionally, given that the mineralization is associated with magnetic ultramafic rocks and conductive graphite zones this region makes for an attractive geophysical target. To unlock the full potential of the whole area this exploration target should be district wide and include several of the ultramafic and metabasalts located within 75 km of the Mag property.

RECCOMENDATIONS

- Analysis of final sample results should be undertaken to look for any mineralization (Au, PGE) in the sampled outcrop.
- A Magnetic geophysical survey should be carried out and processed to produce a vertical gradient map to allow for a better structural interpretation. At the time of writing this memo this survey is already underway on claim block 2.
- An electromagnetic (EM) survey should be conducted on claim block 2 to accompany the magnetics survey.
- A district wide GIS compilation of available government, and academic data should be gathered to make a series of maps to guide possible further staking and exploration in the area.
- To make this a larger district wide play, several of the ultramafics and metabasalts (greenstones) in the region should be explored. This could be accomplished by;
    1. Performing a large magnetic and electromagnetic airborne survey over several of the mapped ultramafics and metabasalts in the region
    2. Investigating any conductors identified by the airborne survey.
    3. Possible trenching and drilling if results are favourable.

Plate 1 - Sample L841123 - Serpentinized ultramafic

Plate 2 - Sample L841124 - Listwanite altered ultramafic cut by narrow quartz vein

Plate 3 - TOG Massive quartz vein bounded by graphitic sheared ultramafics with listwanite alteration

Mag Property
August 2011 Field Mapping and Sampling
Tony Gilman - Terrane Geoscience Inc.

WyPt	Date	UTM	Datum	x	y	Sample_No	Strike	Dip	OC_SC	Magnetic	Alteration	Alt_Int	Rx_Code	Description
163	29-Aug-11	8	N83	570955	6700263				OC	mod	chl	weak	Basalt	Greyish green; very fine grained; pervasive, moderate, chlorite alteration; Basalt to Metabasalt
164	29-Aug-11	8	N83	570942	6700275				OC	mod	chl	weak	Basalt	Greyish green; very fine grained; pervasive, moderate, chlorite alteration; Basalt to Metabasalt
165	29-Aug-11	8	N83	570928	6700296				OC	mod	chl	weak	Basalt	Greyish green; very fine grained; pervasive, moderate, chlorite alteration; Basalt to Metabasalt
166	29-Aug-11	8	N83	570920	6700320				OC	mod	chl	weak	Basalt	Greyish green; very fine grained; pervasive, moderate, chlorite alteration; Basalt to Metabasalt
167	29-Aug-11	8	N83	570866	6700387				OC	strong			Ultramafic	Green to black; fine grained; well developed to sheared foliation, locally massive; magnetic; serpentinized ultramafic
168	29-Aug-11	8	N83	570846	6700382	L841123			OC	strong			Ultramafic	Green to black; fine grained; well developed to sheared foliation, locally massive; magnetic; serpentinized ultramafic
169	29-Aug-11	8	N83	570831	6700382		245	65	OC	strong			Ultramafic	Green to black; fine grained; well developed to sheared foliation, locally massive; magnetic; serpentinized ultramafic
170	29-Aug-11	8	N83	570817	6700399	L841124	240	66	SC		carb, sil, Fe	strong	ered Ultrama	Orange with black; fine to medium grained; well rounded; graphite bearing; cut by narrow (5 mm) qtz vein; Rusty Altered Ultramafic.
171	29-Aug-11	8	N83	570819	6700411				OC	strong			Ultramafic	Green to black; fine grained; well developed to sheared foliation, locally massive; magnetic; serpentinized ultramafic
172	29-Aug-11	8	N83	570762	6700456				OC	strong			Ultramafic	Green to black; fine grained; well developed to sheared foliation, locally massive; magnetic; serpentinized ultramafic
173	29-Aug-11	8	N83	570753	6700465				OC	strong			Ultramafic	Green to black; fine grained; well developed to sheared foliation, locally massive; magnetic; serpentinized ultramafic
174	29-Aug-11	8	N83	570757	6700533				OC	strong			Ultramafic	Black; med grained; massive to locally sheared; magnetic; pyroxenite/ ultramafic
176	29-Aug-11	8	N83	570735	6700608				OC	strong			Ultramafic	Green to black; fine grained; well developed to sheared foliation, locally massive; magnetic; serpentinized ultramafic
177	29-Aug-11	8	N83	570713	6700641	L841125			OC	strong	sil	weak	Ultramafic	Green to black; fine grained; weakly sil; cut by 0.5 cm qtz vein; ultramafic
178	29-Aug-11	8	N83	570713	6700353				OC	strong			Ultramafic	Green to black; fine grained; well developed to sheared foliation, locally massive; magnetic; serpentinized ultramafic

LOGISTICS REPORT

GROUND MAGNETOMETER SURVEY

FOR

SOURDOUGH RESOURCES

MAG PROJECT, YUKON TERRITORY

CANADA

SEPTEMBER 2011 **REF # 11P112**

MCKEOWN EXPLORATION SERVICES
53 PINE BUD AVENUE ST JOHN'S NEWFOUNDLAND AND LABRADOR A1B 1M8
CANADA
+1.709.753.8818 PHONE +1.709.753.3936 FAX
ROB.MCKEOWN@GMAIL.COM

TABLE OF CONTENTS

APPENDICES

McKeown Exploration Services
53 Pine Bud Avenue St John's Newfoundland and Labrador A1B 1M8
CANADA
+1.709.753.8818 Phone +1.709.753.3936 Fax
Rob.mckeown@gmail.com

1. INTRODUCTION

On behalf of Sourdough Resources of Whitehorse, Yukon, a ground based magnetometer survey was carried out on the company's MAG property near Squanga Lake, 107km south-east of Whitehorse, Yukon Territory, Canada, by McKeown Exploration Services of St John's, NL.

Between September 11th and September 14th, 2011, 53.7 line kilometers of ground magnetic data were collected on an east-west virtual grid, station spacing was a nominal 100m, in addition 5.9 line-km of north-south tie-line data were also recorded, for a total of 59.6 line-km.

2. SURVEY LOCATION AND LOGISTICS

- *PROJECT ID* — MAG Project
  (MES Reference: 11P112)
- *CLIENT* — Sourdough Resources Inc.
  3151C-3rd Avenue
  Whitehorse YT Y1A 1G1
- *REPRESENTATIVE* — Mr. Kevin Brewer
- *SURVEY TYPE* — Ground Based Magnetometer Survey, with Integrated GPS

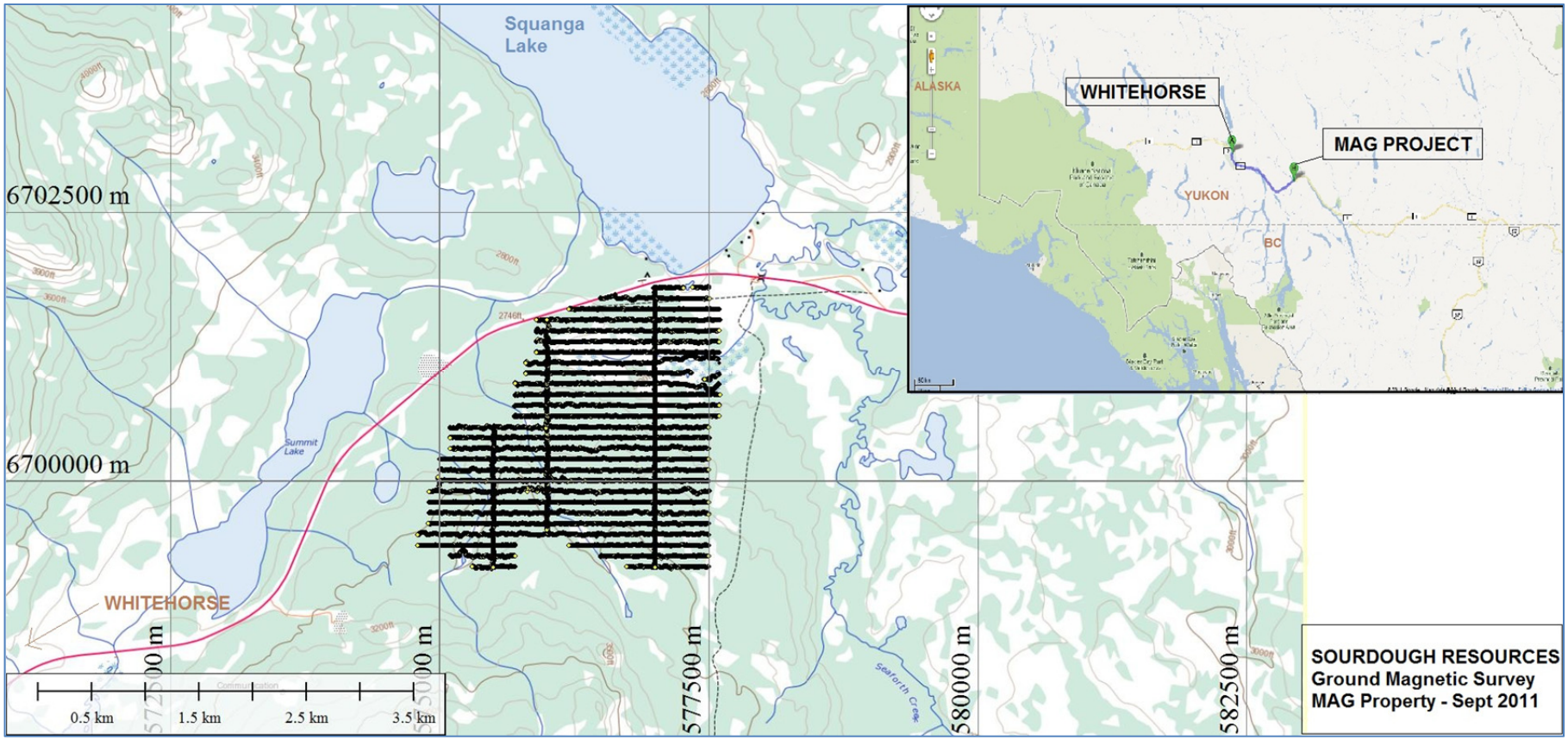


Figure 1 – MAG Project Ground Magnetic Survey Location Map

- ❑ *LOCATION*
  - *Δ* Yukon Territory, Canada
  - *Δ* Grid Centre 60° 26.0'N, 133°36.5'W
  - *Δ* UTM, WGS84/NAD83, Zone 8N
  - *Δ* NTS map sheets: 105C/05

- ❑ *NEAREST MAJOR SETTLEMENTS*
  - *Δ 107* KM SE of Whitehorse, Yukon on HWY 1
  - *Δ* 20 KM W of Johnson's Crossing, Yukon on HWY 1

- ❑ *ACCESS & ACCOMMODATION*
  - *Δ* by truck from Whitehorse, 107km drive south-east on HWY 1
  - *Δ* access to grid on foot
  - *Δ* crew stayed in motel in Whitehorse and drove daily to grid by truck

- ❑ *CULTURAL FEATURES*
  - Δ HWY 1 bounds grid to north (see figure 1)
  - *Δ* minor forest access roads/trails
  - Δ no power lines observed on/near survey grid.

- ❑ *MINING LAND TENURE*
  - *Δ* the claims encompassed in the present survey are owned and/or licensed by Sourdough Resources/K.Brewer
  - *Δ* claim numbers: see map Appendix B

- ❑ *COORDINATE SYSTEM*
  - *Δ* projection: UTM
  - *Δ* zone: 08N
  - *Δ* datum: WGS84/NAD83

- ❑ *SURVEY GRIDS*
  - *Δ* 100m spaced lines running east-west (see Figure 1.), totalling 53.7 line-km
  - *Δ* three tie lines running north-south, 5.9 line-km
  - *Δ* total surveyed 59.6 line-km

- ❑ *TERRAIN*
  - *Δ* between Dawson and Pelly ranges, ~800m-900m MSL.
  - *Δ* boreal cordillera; sparsely treed boreal forest, spruce with wetland shrub and sedge, with krummholz and arctic alpine flora above tree-line.

❑ *PERSONNEL*	Rob McKeown, P.Geo	QC, Processing, Report
	Dave Bruce	Geophysicist, Crew Chief
	Rowan Laver	Geophysical Technician

❑ *SURVEY COVERAGE* 59.6 line-km

❑ *DATA ACQUISITION* September 11th- 14th, 2011
(see Appendix A for production summary)

3. SURVEY EQUIPMENT AND PROCEDURE

❑ *FIELD MAGNETOMETERS*

Two GEM Systems GSM-19W, V7 (s/n 9083347, 9063313)
Proton precession magnetometers with overhauser effect

Resolution:	0.01 nT
Absolute accuracy:	0.2 nT
Gradient tolerance:	>10 000 nT/m
GPS accuracy:	<1.5m (WAAS)
Read Frequency:	2Hz (2 readings per second)
Sensor Height:	1.9 m above ground level

(see Appendix C for detailed specifications)

❑ *BASE MAGNETOMETER*

One GEM Systems GSM-19GW, V6 (s/n 1101114)
Proton precession magnetometer with overhauser effect

Resolution:	0.01 nT
Absolute accuracy:	0.2 nT
Gradient tolerance:	>10 000 nT/m
Read frequency:	0.2Hz (1 reading every 5 seconds)
Base Field:	58,000 nT
Sensor Height:	1.65 m above ground level
Base Location:	574449E, 6700191N, Z08N

(see Appendix C for detailed specifications)

❑ *SOFTWARE*

- Δ Geosoft Oasis Montaj 7.2 mapping, processing, and visualisation software
- Δ Gem Systems GemLink 5.2 data transfer software
- Δ Global Mapper v13 GIS software

❑ *SURVEY PROCEDURE*
DATA ACQUISITION

- Δ base magnetometer time synced via GPS, field mags in-turn synced by sync-cable
- Δ base tune field 58,000nT
- Δ base location 574449E, 6700191N, Z08N
- Δ two roving field units employed, operators walked even UTM northing (east-west lines) on a 'virtual' grid collecting magnetometer data at an interval of two readings per second in "walk mag" mode
- Δ GPS data observed at even one second intervals , position interpolated internally within magnetometer to match sample interval
- Δ operators "demagnetised" each morning
- Δ client-supplied labourer carried radio, lunches, water, etc, while walking in between two magnetometer operators
- Δ average production of 7.5km/day per magnetometer

Figure 2 - Mag Base Station setup

4. DATA TRANSFER, PROCESSING, AND DELIVERABLES

- ❑ *DATA TRANSFER*

  Δ base and field magnetometer data were transferred to the field computer from the GSM19 base station via USB cable at the end of the day using Gem Systems Gemlink data transfer software

- ❑ *DATA PROCESSING*

  Δ diurnal correction performed by Gemlink software
  Δ diurnal correction linearly interpolated from 5 second base sample rate to 0.5 second rate to match 2Hz survey data
  Δ preliminary and final data processing performed in Geosoft Oasis Montaj 7.2.
  Δ mag dropouts removed (lack of sensor lock typically caused by minimum coupling of sensor with local magnetic field, caused by operator stumbling and/or bending over while climbing or descending hills)
  Δ GPS dropouts removed (lack of GPS data due to low number of satellites or high PDOP, typically occurs in steep walled canyons or while under thick forest canopy)

- ❑ HEADING ERROR

  Δ east-west heading error test was performed with each instrument on a 100m section of the grid, and the means were compared, instrument “A” (s/n 9083347) read an average of 1.4nT lower when reading in the westerly direction, and instrument “B” (s/n 9063313) read an average of 3.2nT lower when reading in the westerly direction. On average, instrument “A” read 5.6nT lower than instrument ”B”
  Δ overall data range of the dataset: min 55937nT, max 59821nT, (range 3884nT), mean 57076nT, standard deviation 616nT, number of records 170828, average station spacing ~0.8m
  Δ as max heading error (5.6nT) represents approx 0.15% of total range of data, a heading error correction was not performed on the dataset and tie lines were not used to level the dataset

❑ MAPS

MAP	*DESCRIPTION*	*SCALE*
1	Total Magnetic Field – random gridded (25m cell size) colour shaded image of total field data and topography, unfiltered	1:20000
2	Survey Coverage Plot with Topography	1:20000
3	Claim Boundary Map (from www.yukonminingrecorder.ca)	1:50000

❑ *DIGITAL DATA CD*

Δ Included data CD contains raw ASCII data as well as all Montaj databases and relevant grid files, a pdf of this report, PDF files of attached maps, and manufacturers equipment specifications sheets as pdf files

Respectfully Submitted,
Robert L McKeown
Consulting Geophysicist
2011/11/15

APPENDIX A

PRODUCTION SUMMARY

Ground Magnetics Survey for Sourdough Resources

JOB # 11P112

MAG Project, Yukon
MES GEOPHYSICS

Date	Crew 1 Walk Mag D.Bruce							Crew 2 Walk Mag R.Laver							Summary							Notes
2011	Line	St From	St To	Coverag Metres	Repeat Metres	Total Metres	Billable Production	Line	St From	St To	Coverag Metres	Repeat Metres	Total Metres	Billable Production	Total New Metres	Total Repeat	Total Metres	Billable Standby	Non Billable S/B	Production # Days	Production # Man Days	
110909																			1.0			-RL and DB demobe from Castillian camp late afternoon
110910																			1.0			-day off in Whitehorse
																						-picked up truck in afternoon
110911	**6701700**	576500	577500	1000	0	1000		**6701800**	577000	577500	500	0	500		1500	0	1500			1.0	2.0	-scouted grid access
	6701500	575900	577600	1700	0	1700		**6701600**	576200	577600	1400	0	1400		3100	0	3100					-setup base
	6701300	575900	577600	1700	0	1700		**6701400**	575900	577600	1700	0	1700		3400	0	3400					-gap in line 6701800 due to lak
	6701100	575800	577600	1800	0	1800		**6701200**	575900	577600	1700	0	1700		3500	0	3500					-skirted around lake at east end of line 670110(
						6200	**6200**						5300	**5300**	11500	0	11500					
110912	**6700900**	575700	577600	1900	0	1900		**6701000**	575800	577600	1800	0	1800		3700	0	3700			1.0	2.0	-walk in to grid from highwa
	6700700	575700	577600	1900	0	1900		**6700800**	575700	577600	1900	0	1900		3800	0	3800					-skirting ponds and gap on line 670100(
	6700500	575100	577500	2400	0	2400		**6700600**	575700	577600	1900	0	1900		4300	0	4300					-skirting ponds on line 670090(
	6700300	575100	577500	2400	0	2400		**6700400**	575100	577500	2400	0	2400		4800	0	4800					
						8600	**8600**						8000	**8000**	16600	0	16600					
110913	**6700100**	575000	577500	2500	0	2500		**6700200**	575000	577500	2500	0	2500		5000	0	5000			1.0	2.0	-walked in to grid from highwa
	6699900	574900	577500	2600	0	2600		**6700000**	575000	577500	2500	0	2500		5100	0	5100					
	6699700	574900	577500	2600	0	2600		**6699800**	574900	577500	2600	0	2600		5200	0	5200					
	6699500	574800	577500	2700	0	2700		**6699600**	574900	577500	2600	0	2600		5300	0	5300					
						10400	**10400**						10200	**10200**	20600	0	20600					
110914	**6699300**	575100	575700	600	0	600		**6699400**	574800	575700	900	0	900		1500	0	1500			1.0	2.0	-heading error test 6701700 576650 - 576750 (100m)
	6699200	575300	575700	400	0	400		**6699400**	576200	577500	1300	0	1300		1700	0	1700					576700 6701600 - 6701700 (100m)
	575500	6699200	6700500	1300	0	1300		**6699300**	576500	577500	1000	0	1000		2300	0	2300					-three NS tie lines done: 575500E, 576000, 57700(
	576000	6699500	6701500	2000	0	2000		**6699200**	576700	577500	800	0	800		2800	0	2800					-survey complete
								577000	6699200	6701800	2600	0	2600		2600	0	2600					-packed up equipment for shippin
						4300	**4300**						6600	**6600**	10900	0	10900					
110915																			1.0			-D.Bruce demobe to St John's
																						-R.Laver demobe to Nanaimo
SUM					**D.Bruce**	**29500**						**R.Laver**	**30100**		59600	0	59600	0.0	3.0	4.0	8.0	

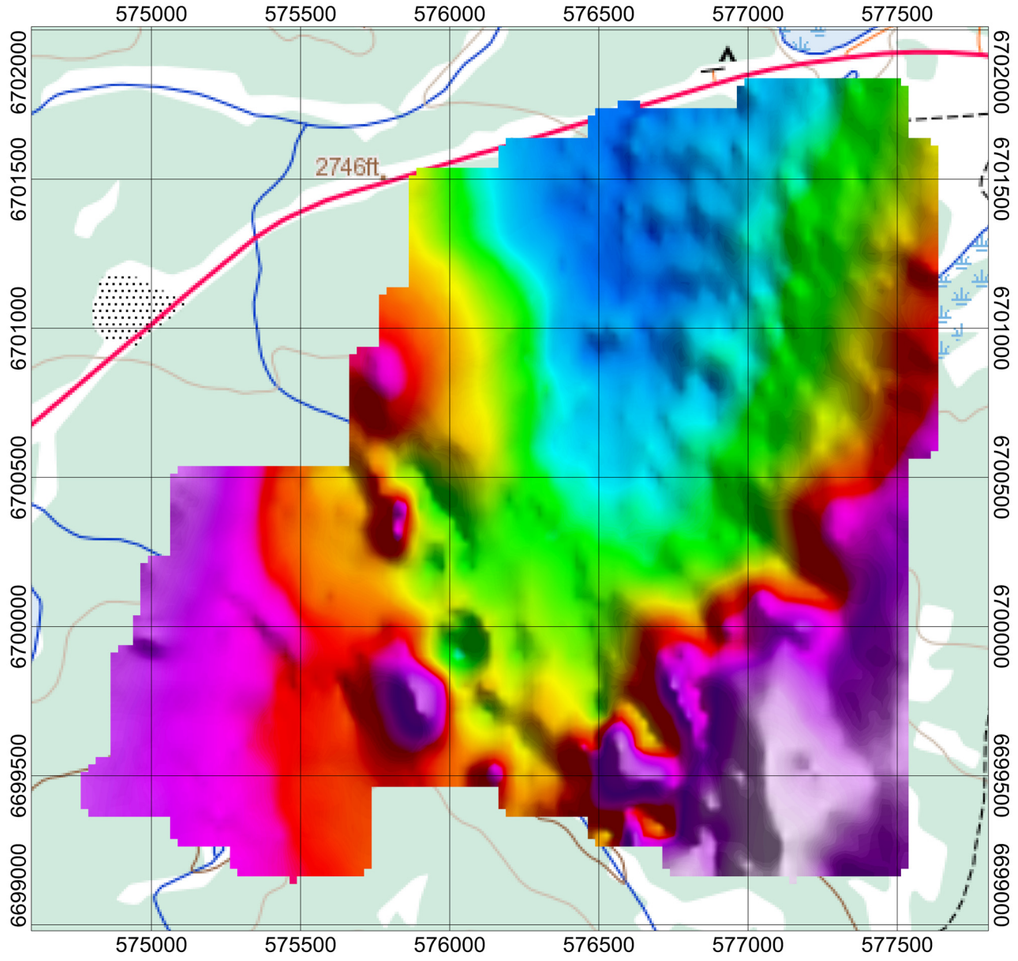
SUMMARY STATS

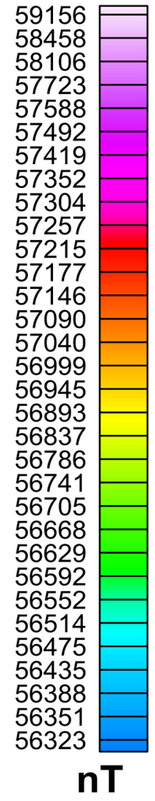
Survey Total KM	**59.6**
Surveyed KM	**59.6**
Percent Complete	**100.0**
Production Man Days	**8.0**
Average Daily Production / km/mar	**7.5**
Man Days Remaining	**0.0**
Production Days Remaining	**0.0**

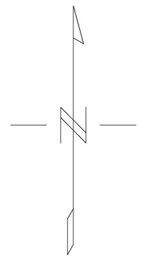
**(includes 5.9km of NS tielines, 53.7km EW grid lines)

APPENDIX B

MAPS







Scale 1:20000

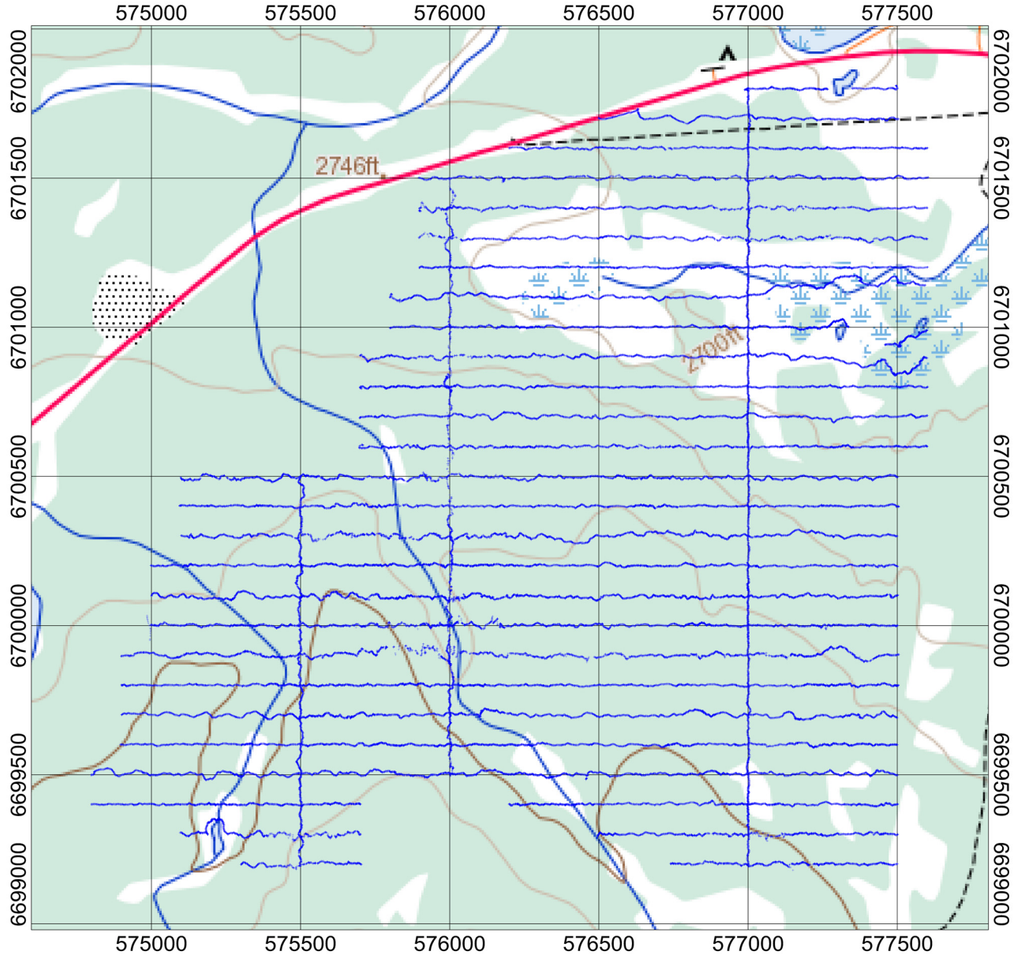
250 0 250 500 750 1000

(meters)

NAD83 / UTM zone 8N

MES GEOPHYSICS

Sourdough Resources
Colour Shaded Total Magnetic Field **MAG Project - September 2011** **Yukon Territory, Canada**
GEM GSM19W V7 Base Field 58,000 nT Diurnally Corrected, UNFILTERED Grid Cell Size 25m
NTS 105C/05



Scale 1:20000

250 0 250 500 750 1000

(meters)

NAD83 / UTM zone 8N

MES GEOPHYSICS

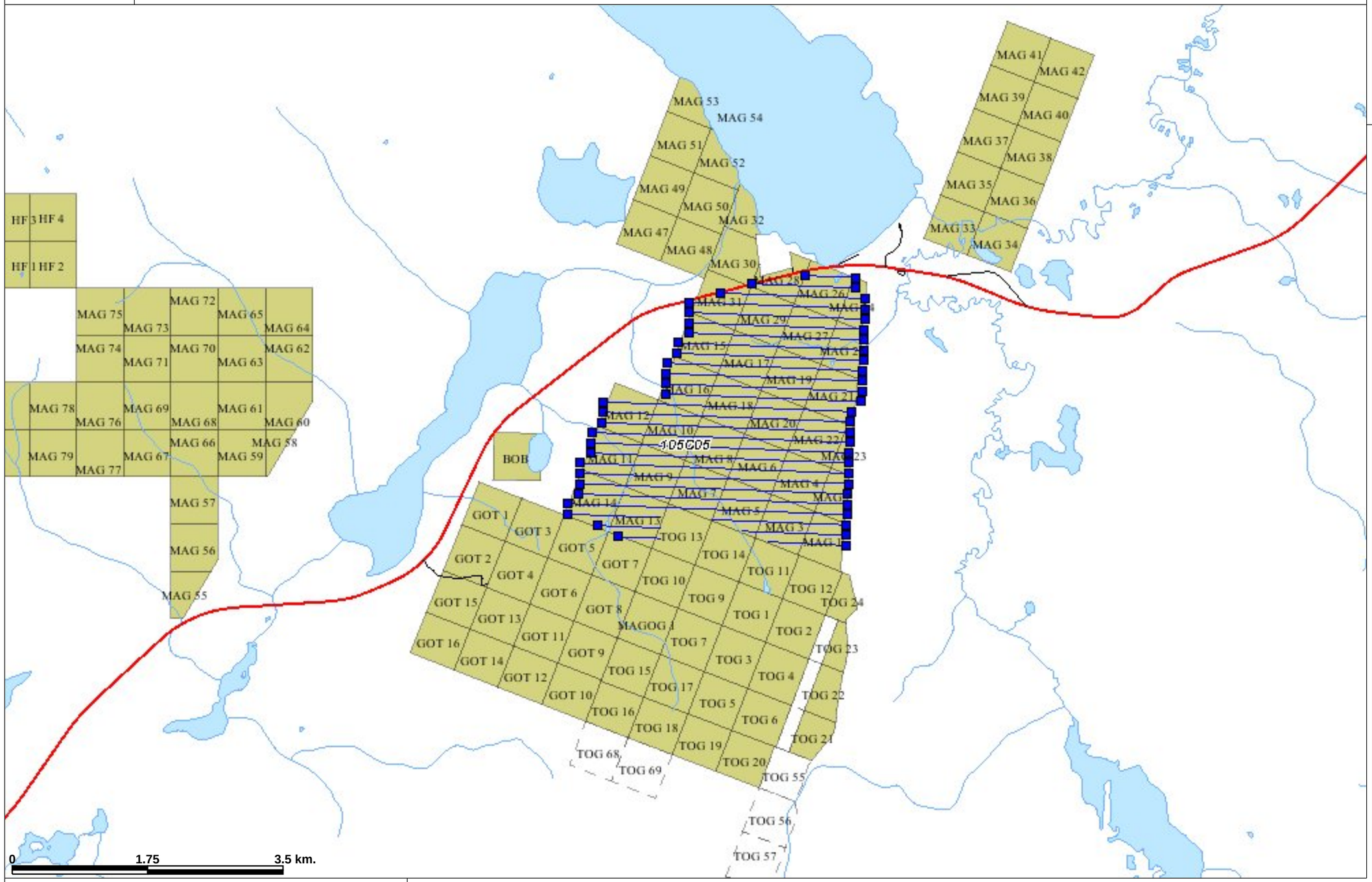
Sourdough Resources

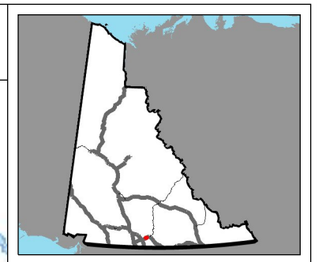
Survey Coverage
MAG Project - September 2011
Yukon Territory, Canada

NTS 105C/05

Yukon
Energy, Mines and Resources

MAG Project - Ground Magnetic Survey





Legend

Yukon Border - Surveyed

National Road Network - All Roads

- Expressway / Highway
- Arterial
- Collector
- Ramp
- Resource / Recreation
- Local / Street
- Local / Strata
- Local / Unknown
- Alley or Service Lane
- Service Lane
- Winter

Waterbodies (50k)

- Dry river bed
- Navigable canal
- Sand
- Water disturbance
- Waterbody
- Waterbody

Places (All)

- City
- Town
- Municipality
- Village
- Community
- Settlement
- Native Settle
- Hamlet
- Historic Site

CSW_QUARTZ_ADJOINING_PARCEL

CSW_QUARTZ_CLAIM

- Active
- Expired

N

Scale: 1:50,000

Date Printed: 15-Nov-2011 9:42:48 AM

Notes: Ground Magnetic Survey - Ideal Line Locations

APPENDIX C

EQUIPMENT SPECIFICATIONS

Overhauser

Magnetometer / Gradiometer / VLF (GSM-19 v7.0)

Version 7.0

Our World is **Magnetic.**

GEM's unique Overhauser system combines data quality, survey efficiency and options into an instrument that takes the leading place in the industry.

And the latest v7.0 technology upgrades provide even more value:

Data export in standard XYZ (i.e. line-oriented) format for easy use in standard commercial software programs

Programmable export format for full control over output

GPS elevation values provide input for geophysical modeling
Enhanced GPS positioning resolution

Standard GPS:
<1.5m SBAS (WAAS, EGNOS, MSAS)
High resolution CDGPS Option:
<0.6m SBAS (WAAS, EGNOS, MSAS)
<0.6m CDGPS (Canada, USA, Mexico)
<0.7m OmniStar VBS2

Multi-sensor capability for advanced surveys to resolve target geometry

Picket and line marking / annotation for capturing related surveying information on-the-go

And all of these technologies come complete with the most attractive savings and warranty in the business!

Overhauser (GSM-19) console with sensor and cable. Can also be configured with additional sensor for gradiometer (simultaneous) readings.

The GSM-19 v7.0 Overhauser instrument is the total field magnetometer / gradiometer of choice in today's earth science environment -- representing a unique blend of physics, data quality, operational efficiency, system design and options that clearly differentiate it from other quantum magnetometers.

With data quality exceeding standard proton precession and comparable to costlier optically pumped cesium units, the GSM-19 is a standard (or emerging standard) in many fields, including:

- **Mineral exploration** (ground and airborne base station)
- **Environmental and engineering**
- **Pipeline mapping**
- **Unexploded Ordnance Detection**
- **Archeology**
- **Magnetic observatory measurements**
- **Volcanology and earthquake prediction**

Taking Advantage of the Overhauser Effect

Overhauser effect magnetometers are essentially proton precession devices - except that they produce an order-of magnitude greater sensitivity.

These "supercharged" quantum mag-netometers also deliver high absolute accuracy, rapid cycling (up to 5 readings / second), and exceptionally low power consumption.

The Overhauser effect occurs when a special liquid (with unpaired electrons) is combined with hydrogen atoms and then exposed to secondary polarization from a radio frequency (RF) magnetic field.

The unpaired electrons transfer their stronger polarization to hydrogen atoms, thereby generating a strong precession signal -- that is ideal for very highsensitivity total field measurements.

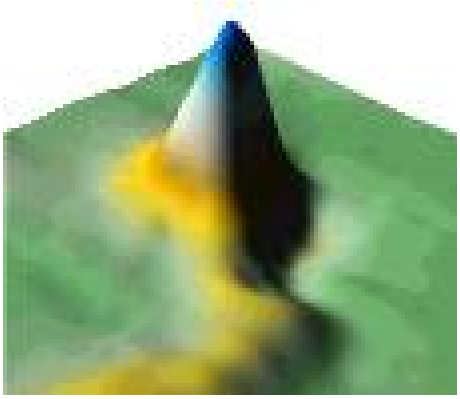
In comparison with proton precession methods, RF signal generation also keeps power consumption to an absolute minimum and eliminates noise (i.e. generating RF frequencies are well out of the bandwidth of the precession signal).

In addition, polarization and signal measurement can occur simultaneously - which enables faster, sequential measurements. This, in turn, facilitates advanced statistical averaging over the sampling period and/or increased cycling rates (i.e. sampling speeds).

Other advantages are described in the section called, "GEM's Commercial Overhauser System" that appears later in this brochure.

Maximizing Your Data Quality with the GSM-19

Data quality is a function of five key parameters that GEM has taken into consideration carefully in the design of the GSM-19. These include sensitivity, resolution, absolute accuracy, sampling rates and gradient tolerance.



Data from Kalahari Desert kimberlites. Courtesy of MPH Consulting (project managers), IGS c. c. (geophysical contractor) and Aegis Instruments (Pty) Ltd., Botswana.

Sensitivity is a measure of the signal-to-noise ratio of the measuring device and reflects both the underlying physics and electronic design. The physics of the Over-hauser effect improves sensitivity by an order of magnitude over conventional proton precession devices. Electronic enhancements, such as high-precision precession frequency counters (see the v6.0 & v7.0 - New Milestones section) enhance sensitivity by 25% or more.

The result is high quality data with sensitivities of 0.02 nT / √Hz. This sensitivity is virtually the same as the sensitivity of costlier optically-pumped cesium systems.

Resolution is the minimum step of the counter used to measure precession frequency and its conversion into magnetic field. It is generally higher than the sensiti-vity to avoid a contribution of the counter to overall system noise. The GSM-19 has unmatched resolution (0.01 nT).

This level of resolution translates into well-defined, characteristic anomalies; impro-ved visual display; and enhanced numeri-cal data for processing and modeling.

Absolute accuracy defines maximum deviation from the true value of the measu-

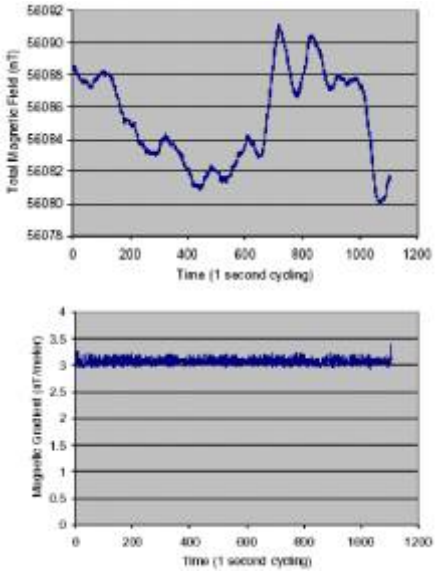
knows the true value of the field, absolute accuracy is determined by considering factors involved in determining the field value and their accuracy, including the gyromagnetic constant, maximum offset of the time base frequency, etc.

With an absolute accuracy of +/- 0.1 nT, the GSM-19 is ideal for total field work and gradient measurements maintain the same high standard of quality. Both configurations are also specially designed to minimize overall system noise, so you can be sure that results truly reflect the geologic signal that is of most interest to you.

Sampling rates are defined as the fastest speed at which the system can acquire da-ta. This is a particularly important parame-ter because high sampling rates ensure accurate spatial resolution of anomalies and increase survey efficiency.

GEM's Overhauser system has 3"measurement modes" or maximum sampling rates - "Standard" (3 sec. / reading), "Walking" (0.5 sec. / reading) and "Fast" (0.2 sec. / reading). These rates make the GSM-19 a versatile system for all ground uses (including vehicle-borne applications).

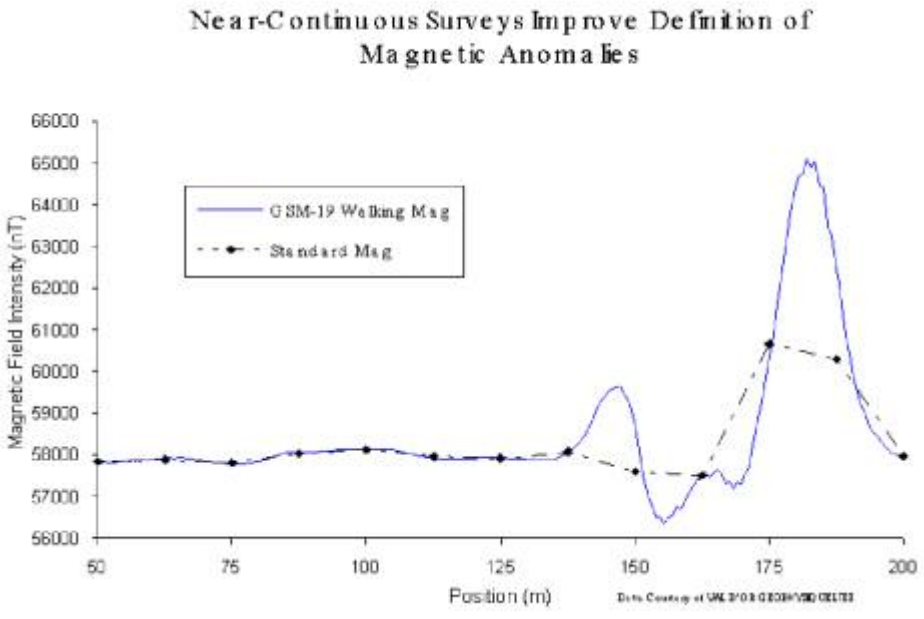
Gradient tolerance is the ability to obtain reliable measurements in the presence of extreme field variations. GSM-19 tolerance is maintained through internal



Total Field and Stationary Vertical Gradient showing the gradient largely unaffected by diurnal variation. Absolute accuracy is also shown to be very high (0.2 nT/meter).

signal counting algorithms, sensor design and Overhauser physics. For example, the Overhauser effect produces high amplitude, long-duration signals that facilitate measurement in high gradients.

The system's tolerance (10,000 nT/m) makes it ideal for many challenging environments, such as highly magnetic rocks in mineral exploration or near cultural objects in environmental, UXO or archeological applications.



Much like an airborne acquisition system, the GSM-19 "Walking" magnetometer option delivers very highly-sampled, high sensitivity results that enable very accurate target location and / or earth science decision-making.

Increasing Your Operational Efficiency

Many organizations have standardized their magnetic geophysical acquisition on the GSM-19. This reflects enhancements such as memory capacity; light weight; GPS and navigation; no warm-up time; no dead zones or heading errors; easy dumping and processing.

Memory capacity controls the efficient daily acquisition of data, acquisition of positioning results from GPS and the ability to acquire high volumes of data to meet daily survey objectives.

V7.0 upgrades have established the GSM-19 as the commercial standard for memory with over 838,000 readings (based on a basic configuration of memory, a survey with time, coordinate and field values).

Optional increments of memory to over 2 million readings making the GSM-19 an ideal system for acquisition of data with integrated GPS readings (when required).

Portability characteristics (ruggedness, light weight and power consumption) are essential for operator productivity in both normal and extreme field conditions.

GEM's Overhauser magnetometer is established globally as a robust scientific instru-ment capable of withstanding temperatu-re, humidity and terrain extremes. It has the reputation as the lightest and lowest power system available, reflecting Overhau-ser effect and RF polarization advantages.

In comparison with other systems, the GSM-19 is the choice of operators as an easy-to-use and robust instrument

GPS and navigation options are very important for earth science professionals. GPS technologies are revolutionizing data acquisition, productivity, increasing spatial resolution and providing a new level of data quality for informed decision-making.

GEM has made GPS a cornerstone of its magnetic R&D program. Real time GPS and DGPS options are now available in different survey resolutions. For more details, see the GPS and DGPS section.

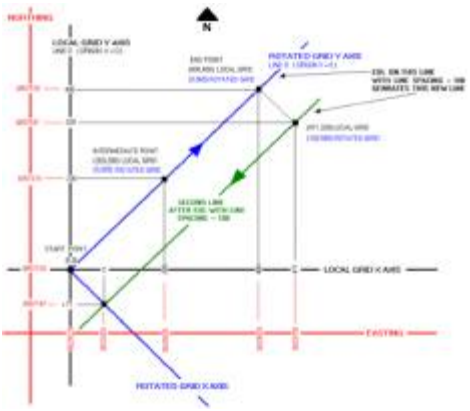
GEM has also developed a GPS Navigation feature with real-time coordinate transformation to UTM, local X-Y coordinate rotations, automatic end-of-line flag, guidance to the next line, and survey "lane" guidance with cross-track display and audio indicator.

Other enhancements include way point preprogramming of up to 1000 points. Professionals can define a complete survey on PC and download points to the magnetometer via RS-232 before leaving for the field.

The operator performs the survey using the way points as a survey guide. This capability decreases survey errors, improves efficiency and ensures more rapid survey completion.

Dumping and processing effectiveness is also critical consideration. Historically, up to 60% of an operator's "free" time can be spent on data dumping. Data dumping times are significantly reduced through GEM's implementation of high-speed, digital data links (up to 115 kBaud).

This functionality is facilitated through a new RISC processor and GEM's proprietary GEMLinkW acquisition/display software. This software serves as a bi-directional RS-232 terminal. It also has integrated processing functionality to streamline key processing steps, including diurnal data reduction. GEMLinkW is provided free to all GSM-19 customers. Regular updates are



Navigation and Lane Guidance

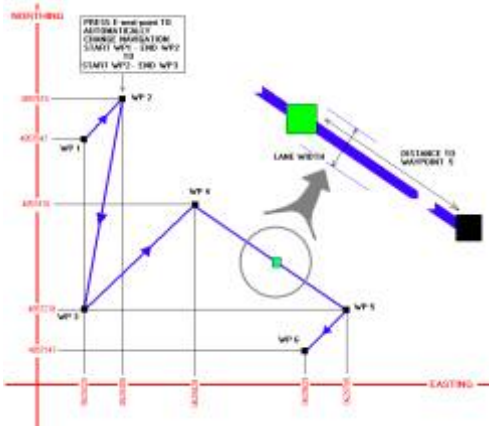
The figure above shows the Automatic Grid (UTM, Local Grid, and Rotated Grid). With the Rotated Grid, you can apply an arbitrary origin of your own definition. Then, the coordinates are always in reference to axes parallel to the grid. In short, your grid determines the map, and not the NS direction.

The Local Grid is a scaled down, local version of the UTM system, and is based on your own defined origin. It allows you to use smaller numbers or ones that are most relevant to your survey.

The figure below shows how programmable waypoints can be used to plan surveys on a point-by-point basis.

Initially, you define waypoints and enter them via PC in the office or via PC in the field or office. When you perform your survey, the unit guides you to each point.

While walking between waypoints, lane guidance keeps you within a lane of pre-defined width using arrows (< - or - >) to indicate left or right. The display also shows the distance (in meters) to the next waypoint.



Adding Value through Options

When evaluating the GSM-19 as a solution for your geophysical application we recommend considering the complete range of options offered by GEM. These options can be added at time of original purchase or later to expand capabilities as your needs change or grow.

GEM's approach with options is to provide you with an expandable set of building blocks:

o Gradiometer
o Walking Magnetometer / Gradiometer
o Fast Magnetometer / Gradiometer
o VLF (3 channel)
o GPS (built-in or external)

GSM-19G Gradiometer Option

The GSM-19 gradiometer is a versatile, entry level system that can be upgraded to a full-featured "Walking" unit (model GSM-19GW) in future. The GSM-19G configuration comprises 2 sensors and a "Standard" console that reads data to a maximum of 1 reading every 3 seconds.

An important GEM's design feature allows gradiometer sensors measure the 2 magnetic fields concurrently to avoid any temporal variations that could distort gradiometer readings. Other features, such as single-button data recording, are included for operator ease-of-use.

GSM-19W / GW "Walking" Magnetometer / Gradiometer Option

GEM Systems pioneered the innovative "Walking" option that enables the acquisi-tion of nearly continuous data on survey lines. Since introduction, the GSM-19W and GSM-19GW have become one of the most popular magnetic instruments in the world.

Similar to an airborne survey in principle, the system records data at discrete time intervals (up to 5 readings per second) as the instrument is carried along the line.

At each survey picket (fiducial), the operator touches a designated key. The system automatically assigns a picket coordinate to the reading and linearly interpolates the coordinates of all intervening readings (following survey completion during post-processing). A main benefit is that the high sample den-sity improves definition of ge-ologic struc-tures and other targets (UXO, archeological relics, drums, etc.).

It also increases survey efficiency because the operator can record data almost continuously. Another productivity feature is the instantaneous recording of data at pickets. This is a basic difference between the "Walking" version and the GSM-19 / GSM-19G (the "Standard" mode version which requires 3 sec. to obtain a reading each time the measurement key is pressed).

GSM-19W / GW Magnetometer

The GSM-19 reads up to 5 readings per sec. (sensors and console are the same as other models.) This system is ideal for vehicle-borne surveys, such as UXO, archaeological or some mineral exploration applications, where high productivity is required.

GSM-19 "Hands-Free" Backpack Option

The "Walking" Magnetometer and Gradiometer can be configured with an optional backpack-supported sensor. The backpack is uniquely constructed - permitting measurement of total field or gradient with free hands.

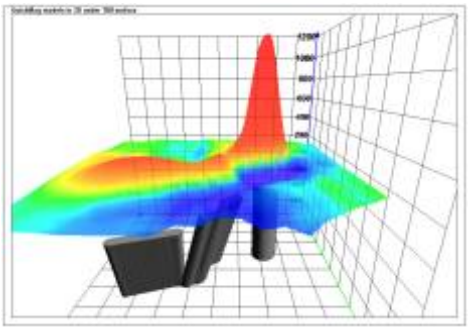
This option provides greater versatility and flexibility, which is particularly valuable for high-productivity surveys or in rough terrain.

GSM-19V / GV "VLF" Option

With GEM's omnidirectional VLF option, up to 3 stations of VLF data can be acquired without orienting. Moreover, the operator is able to record both magnetic and VLF data with a single stroke on the keypad.

3rd Party Software - A One-Stop Solution for Your Potential Field Needs

Now it's even easier to take data from the field and quality control stage through to final map preparation and modeling.



GEM-VIS provides links to fast 3D modeling via Encom's professional QuickPro software.

GEM provides very comprehensive solution available for working with magnetometer data:

o Free GEMLinkW Transfer and Internet Upgrade software
o Optional, low-cost GEM-VIS Quality Control, Visualization and Analysis
o Optional Data Processing
o Optional QuickMag Pro Automated Modeling and Inversion

V7.0 and V6.0 - Technology Developments

One of the main differences between GEM and other manufacturers is GEM's 30 years consistent focus on developing leading-edge magnetic technologies.

This commitment has led to many innovations in sensor technology; signal counting; firmware and software; and hardware and console design, culminating in the release of v7.0.

v7.0 and the previous release (v6.0) of the GSM-19 system provides many examples of the ways in which GEM continues to advance magnetics technologies for its customers.

Enhanced data quality:

o 25% improvement in sensitivity (new frequency counting algorithm)
o new intelligent spike-free algorithm (in contrast to other manufacturers, GEM does not apply smoothing or filtering to achieve high data quality)

Improved operational efficiency:

o Enhanced positioning (GPS engine with optional integrated / external GPS and real-time navigation)
o 16 times increase in memory to 32 Mbytes standard
o 1000 times improvement in processing and display speed (RISC microprocessor with 32-bit data bus)
2 times faster digital data link (115 kBaud through RS-232)

Innovative technologies:

o Battery conservation and survey flexibility (base station scheduling option with 3 modes - daily, flexible and immediate start)
o Survey pre-planning (up to 1000 programmable waypoints that can be entered directly or downloaded from PC for greater efficiency)
o Efficient GPS synchronization of field and base units to Universal Time (UTC)
o Cost saving with firmware upgrades

GEM's Proven Overhauser System

In a standard Proton magnetometer, current is passed through a coil wound around a sensor containing a hydrogen-rich fluid. The auxiliary field created by the coil (>100 Gauss) polarizes the protons in the liquid to a higher thermal equilibrium.

When the current, and hence the field, is terminated, polarized protons precess in the Earth's field and decay exponentially until they return to steady state. This process generates precession signals that can be measured as described below. Overhauser magnetometers use a more efficient method that combines electron-proton coupling and an electron-rich liquid (containing unbound electrons in a solvent con-taining a free radical). An RF magnetic field that corresponds to a specific energy level transition, stimulates the unbound electrons.

Instead of releasing this energy as emitted radiation, the unbound electrons transfer it to the protons in the solvent. The resulting polarization is much larger, leading to stronger precession signals.

Overhauser and proton precession, measure the scalar value of the magnetic field based on the proportionality of precession frequency and magnetic flux density (which is linear and known to a high degree of ac-curacy). Measurement quality is calculated using signal amplitude and its decay cha-racteristics. Values are averaged over the sampling

As the world's experienced manufacturer of commercial Overhauser systems, GEM's technical focus on the GSM-19 has resulted in a superior magnetic measuring device with high sensitivity, high cycling speed, low noise, and very low power consumption over a wide temperature range.

With minor software modifications (i.e. addition of a small auxiliary magnetic flux density while polarizing), it can be easily configured for high sensitivity readings in low magnetic fields (for equatorial work).

GPS - Positioning You for Effective Decision Making

The use of GPS technology is increasing in earth science disciplines due to the ability to make better decisions in locating anomalies, and in improving survey cost effectiveness and time management.

Examples of applications include:

o Surveying in remote locations with no grid system (Arctic for diamond exploration)

o High resolution exploration mapping

o High productivity ferrous ordnance (UXO) detection

o Ground portable magnetic and gradient surveying for environmental and engineering applications

o Base station monitoring for observing diurnal magnetic activity and disturbances with integrated GPS time

GEM addresses requests for GPS and high-resolution Differential GPS (DGPS) through internal and external options. Customer units can also be integrated. GPS surveys return a variety of real data to the user, including Time, Latitude and Longi-tude, UTM, Elevation and # of Satellites. This data is available to be applied in various ways by the user. The table below shows GPS modes, ranges and services.

Description	Range	Services
GPS Option A		Time reception only
GPS Option B	<1.5m	DGPS*
GPS Option C	<0.6m	DGPS*, OmniStar
GPS Option D	<0.6m <0.6m <0.7m	CDGPS, DGPS*, OmniStar
Output		
Time, Lat / Long, UTM, Elevation and number of Satellites		
***DGPS with SBAS (WAAS / EGNOS / MSAS)**		

Key System Components

Key components that differentiate the GSM-19 from other systems on the market include the sensor and data acquisition console. Specifications for components are provided on the right side of this page.

Sensor Technology

GEM's sensors represent a proprietary innovation that combines advances in electronics design and quantum magnetometer chemistry.

Electronically, the detection assembly includes dual pick-up coils connected in series opposition to suppress far-source electrical interference, such as atmospheric noise. Chemically, the sensor head houses a proprietary hydrogen-rich liquid solvent with free electrons (free radicals) added to increase the signal intensity under RF polarization.

From a physical perspective, the sensor is a small size, light-weight assembly that houses the Overhauser detection system and fluid. A rugged plastic housing protects the internal components during operation and transport.

All sensor components are designed from carefully screened non-magnetic materials to assist in maximization of signal-tonoise. Heading errors are also minimized by ensuring that there are no magnetic inclusions or other defects that could result in variable readings for different orientations of the sensor.

Optional omni-directional sensors are available for operating in regions where the magnetic field is near-horizontal (i.e. equatorial regions). These sensors maximize signal strength regardless of field direction.

Data Acquisition / Console Technology

Console technology comprises an external keypad / display interface with internal firmware for frequency counting, system control and data storage / retrieval. For operator convenience, the display provides both monochrome text as well as real-time profile data with an easyto-use interactive menu for performing all survey functions.

The firmware provides the convenience of upgrades over the Internet via the GEMLinkW software. The benefit is that instrumentation can be enhanced with the latest technology without returning the system to GEM -- resulting in both timely implementation of updates and reduced shipping / servicing costs.

Specifications

Performance

Sensitivity:	0.022 nT / √Hz
Resolution:	0.01 nT
Absolute Accuracy:	+/- 0.1 nT
Range:	20,000 to 120,000 nT
Gradient Tolerance:	< 10,000 nT/m
Samples at:	60+, 5, 3, 2, 1, 0.5, 0.2 sec
Operating Temperature:	-40C to +50C

Operating Modes

Manual: Coordinates, time, date and reading stored automatically at minimum 3 second interval.
Base Station: Time, date and reading stored at 1 to 60 second intervals.
Remote Control: Optional remote control using RS-232 interface.
Input / Output: RS-232 or analog (optional) output using 6-pin weatherproof connector.

Storage - 32 MB (# of Readings)

Mobile:	1,465,623
Base Station:	5,373,951
Gradiometer:	1,240,142
Walking Mag:	2,686,975

Dimensions

Console:	223 x 69 x 240 mm
Sensor:	175 x 75mm diameter cylinder

Weights

Console with Belt:	2.1 kg
Sensor and Staff Assembly:	1.0 kg

Standard Components

GSM-19 console, GEMLinkW software, batteries, harness, charger, sensor with cable, RS-232 cable and USB adapter, staff, instruction manual and shipping case.

Optional VLF

Frequency Range: Up to 3 stations between 15 to 30.0 kHz. Parameters: Vertical in-phase and out-of-phase components as % of total field. 2 components of horizontal field amplitude and total field strength in pT.

Resolution:	0.1% of total field

Our World is Magnetic.

About GEM Advanced Magnetometers

GEM Systems, Inc. delivers the world's only magnetometers and gradiometers with built-in GPS for accurately positioned ground, airborne and stationary data acquisition. The company serves customers in many fields including mineral exploration, hydrocarbon exploration, environmental and engineering, Unexploded Ordnance Detection, archeology, earthquake hazard prediction and observatory research.

Key products include the Proton Precession, Overhauser and Optically-Pumped Potassium instruments.

Each system offers unique benefits in terms of sensitivity, sampling, and acquisition of high-quality data. These core benefits are complemented by GPS technologies that provide metre to sub-metre positioning.

With customers in more than 50 countries globally and more than 25 years of continuous technology R&D, GEM is known as the only geophysical instrument manufacturer that focuses exclusively on magnetic technology advancement.

GEM SYSTEMS
ADVANCED MAGNETOMETERS

GEM Systems, Inc.
135 Spy Court Markham, ON Canada L3R 5H6
Phone: 905 752 2202 • Fax: 905 752 2205
Email: info@gemsys.ca • Web: www.gemsys.ca

03/09/2008

APPENDIX D

STATEMENT OF QUALIFICATIONS

STATEMENT OF QUALIFICATIONS

I , ROBERT L MCKEOWN, OF 53 PINE BUD AVENUE, ST JOHN'S, NEWFOUNDLAND AND LABRADOR, DO HEREBY DECLARE:

1) I am a Registered Professional Geoscientist (P.Geo.), licensed by the Professional Engineers and Geoscientists of Newfoundland and Labrador, and the Association of Professional Geoscientists of Ontario.

2) That I have been actively practicing my profession as geophysicist full time since 1995

3) I graduated from McMaster University in Hamilton, Ontario with a BSc (Geology) in 1995.

4) I hold no interest, direct or indirect, neither in the claims that are subject of this report nor in the securities of Sourdough Resources.

Signed in the City of St John's on this day, 15th November, 2011

Robert L McKeown
Consulting Geophysicist

Expenditure Summary - MAG Property

Assessment report 2011

ITEM		Dates Worked	Person days				
PERSONNEL COSTS							
Geological Mapping/Reporting							
	Terrane Geosciences - Field	Aug 12,26-30	11				
	Terrane Geosciences - Reporting	Sept 2, 12-14	1.3				
	K. Brewer	Aug 27,28	2				
Geophysics							
	McKeown Geophysics		8				
	- D. Bruce	Sept 11-14					
	- Field asst	Sept 11-14					
	- Field Asst - E. Hays		1				
	- Field Asst - S. Gauley		2				
	- R. Mckeown processing/reporting	Oct					
	Intelligent Exploration		7				
Geochemical Survey/Prospecting							
	E. Petroutsas	Nov 29-Dec4	6				
	Sylvain	Nov 29-Dec3	5				
Project Management/Reporting							
	K. Brewer	August-Oct	5				
Assays							
	ALS Minerals						
PROJECT EXPENDITURES							
Other							
	Claim Staking - Fees				invoice	$	663.50
	Claim Staking - Personnel costs				invoice	$	5,250.00
	Other						
Equipment Rental							
	Geophysical equipment			0		$	-
	ATV			5.5	$40	$	220.00
	Snowmobile			7	$50	$	350.00
	Transport trailer			5.5	$16	$	88.00
	Rental Truck within Yukon						
	- Terrane Geosciences				invoice	$	958.78
	- McKeown Geophysics				invoice	$	757.28
	Personal truck usage by crew etc,.		9 round trips	9	$0.61/km	$	1,207.80
	Daily field expenses		48.3		$100/day/person	$	4,830.00
	Report Materials - Terrane				invoice		
	Report Materials - Intelligent				invoice	$	290.40
SUBTOTAL						**$**	**14,615.76**

Total Expenditures - MAG Property by Contractor

Mckeown Exploration Services			
	Invoice 2011-34		$ 9,023.06
	Invoice 2011-39		$ 1,695.00
Intelligent Exploration Services			
	Invoice 75		$ 4,283.15
Terrane Geosciences Inc.			
	Invoice 112		$ 3,955.00
	Invoice 113		$ 2,536.27
	Invoice 127		$ 1,028.30
Petra Ltd.			
	Invoice Dec 3		$ 5,830.00
	Invoice 06-11		$ 5,637.00
Yukon Inn			$ 343.35
Best Value Inn		Sep-15	$ 478.80
		Aug-30	$ 1,056.00
ALS	Invoice 2400855		$ 148.07
	Invoice		$ 1,862.63
Yukon Mining Recorder			
		Dec-09	$ 276.50
	deposit of FN B Claims		$ 900.00
39627 Yukon Inc.			
	Invoice #1		$ 16,718.10
SUBTOTAL			$ 39,053.13
TOTAL			$ 55,771.23