

**Ministry of Energy, Mines & Petroleum Resources**  
Mining & Minerals Division  
BC Geological Survey

**Assessment Report  
Title Page and Summary**

**TYPE OF REPORT [type of survey(s)]:** Geological

**TOTAL COST:** \$ 18,077.80

**AUTHOR(S):** Laurence Sookochoff, PEng

**SIGNATURE(S):**

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Date: 2015.06.02 22:54:46 -07'00'

**NOTICE OF WORK PERMIT NUMBER(S)/DATE(S):** \_\_\_\_\_

**YEAR OF WORK:** 2014

**STATEMENT OF WORK - CASH PAYMENTS EVENT NUMBER(S)/DATE(S):** 5514977 July 29, 2014 5514982 July 29, 2014

**PROPERTY NAME:** Keithley Creek Placer

**CLAIM NAME(S) (on which the work was done):** 337015 337016

**COMMODITIES SOUGHT:** Gold

**MINERAL INVENTORY MINFILE NUMBER(S), IF KNOWN:** 093A224 093A225

**MINING DIVISION:** Cariboo

**NTS/BCGS:** 093A.083

**LATITUDE:** 52 ° 48 ' 40.9 " **LONGITUDE:** 121 ° 27 ' 56.74 " (at centre of work)

**OWNER(S):**

1) Noble Group Metal Incorporated

2) \_\_\_\_\_

**MAILING ADDRESS:**

1873 Spall Road

Kelowna BC Canada V1Y 4R2

**OPERATOR(S) [who paid for the work]:**

1) Noble Group Metal Incorporated

2) \_\_\_\_\_

**MAILING ADDRESS:**

1873 Spall Road

Kelowna BC Canada V1Y 4R2

**PROPERTY GEOLOGY KEYWORDS (lithology, age, stratigraphy, structure, alteration, mineralization, size and attitude):**

Covers Upper Proterozoic to Paleozoic quartzites and metamorphic rocks of the Snowshoe Group. Drill holes, in proximity to fault structure intersections, intersected quartzites and phyllites of the Snowshoe Group intruded by dioritic dikes and sills and altered ultramafic sections. Placer gold is most likely sourced from the gold vein deposits hosted in quartzites of the Snowshoe Group.

**REFERENCES TO PREVIOUS ASSESSMENT WORK AND ASSESSMENT REPORT NUMBERS:** 26659, 28425, 29259, 30435, 31109, 34884

TYPE OF WORK IN THIS REPORT	EXTENT OF WORK (IN METRIC UNITS)	ON WHICH CLAIMS	PROJECT COSTS APPORTIONED (incl. support)
<b>GEOLOGICAL (scale, area)</b>			
Ground, mapping			
Photo interpretation			
<b>GEOPHYSICAL (line-kilometres)</b>			
<b>Ground</b>			
Magnetic	48 line kilometres	337015 337016	\$ 9,038.90
Electromagnetic	48 line kilometres	337015 337016	\$ 9,038.90
Induced Polarization			
Radiometric			
Seismic			
Other			
<b>Airborne</b>			
<b>GEOCHEMICAL (number of samples analysed for...)</b>			
Soil			
Silt			
Rock			
Other			
<b>DRILLING (total metres; number of holes, size)</b>			
Core			
Non-core			
<b>RELATED TECHNICAL</b>			
Sampling/assaying			
Petrographic			
Mineralographic			
Metallurgic			
<b>PROSPECTING (scale, area)</b>			
<b>PREPARATORY / PHYSICAL</b>			
Line/grid (kilometres)			
Topographic/Photogrammetric (scale, area)			
Legal surveys (scale, area)			
Road, local access (kilometres)/trail			
Trench (metres)			
Underground dev. (metres)			
Other			
<b>TOTAL COST:</b>			<b>\$ 18,077.80</b>

# **Noble Metal Group Incorporated**

*(Owner & Operator)*

## **GEOPHYSICAL ASSESSMENT REPORT**

on the

### **KEITHLEY CREEK PLACER PROPERTY**

*(Event 5514977 & 5514982)*

**BCGS Map 093A.083  
Cariboo Mining Division**

**BC Geological Survey  
Assessment Report  
34884**

*Work Done on Tenures*

**337015 & 337016**

from

**July 6, 2014 to July 14, 2014**

*Centre of Work*

**Zone 10U (NAD 83) 603,408E 5,852,389N**

*Author and Consultant*

**Laurence Sookochoff PEng.  
Sookochoff Consultants Inc.**

*Amended Report Submitted*

**June 2, 2015**

**TABLE of CONTENTS**

	Page
Summary -----	4.
Introduction -----	5.
Accessibility, Climate, Local Resources, Infrastructure and Physiography --	5.
History: Keithley Creek Placer Property Area -----	6.
093A 004 – Keithley Creek -----	7.
093A 024 – French Snowshoe Creek -----	8.
093A 225 – JI -----	8.
093A 229 – Weaver Creek -----	9.
093A 231 – Frank Creek -----	9.
History: Keithley Creek Placer Property -----	9.
093A 224 – NMG -----	9.
Geology: Regional -----	10.
Geology: Keithley Creek Placer Property Area -----	11.
093A 004 – Keithley Creek -----	11.
093A 024 – French Snowshoe Creek -----	11.
093A 225 – JI -----	11.
093A 229 – Weaver Creek -----	11.
093A 231 – Frank Creek -----	12.
Geology: Keithley Creek Placer Property -----	12.
093A 224 – NMG -----	12.
Mineralization: Keithley Creek Placer Property Area -----	12.
093A 004 – Keithley Creek -----	12.
093A 024 – French Snowshoe Creek -----	13.
093A 225 – JI -----	13.
093A 229 – Weaver Creek -----	13.
093A 231 – Frank Creek -----	13.
Mineralization: Keithley Creek Placer Property -----	13.
093A 224 – NMG -----	13.
VLF-EM & Magnetometer Surveys -----	14.
Interpretation & Conclusions -----	19.
Recommendations -----	19.
Selected References -----	20.
Statement of Costs -----	21.
Certificate -----	22.

**TABLE of CONTENTS** (*cont'd*)

**TABLES**

Table I Tenures of the Keithley Creek Property ----- 5.  
Table II Approximate UTM locations of Figure 7 magnetometer high  
Anomalous points ----- 15.

**ILLUSTRATIONS**

Figure 1. Location Map ----- 6.  
Figure 2. Claim Location Map ----- 7.  
Figure 3. Claim Map ----- 8.  
Figure 4. Geology, Claim, & Minfile ----- 10.  
Figure 5. Index Map ----- 11.  
Figure 6. Indicated Major Structures and/or Buried River Channels ----- 17.  
Figure 7. Anomalous Magnetic High Areas ----- 18.

**APPENDICES**

**Appendix I** Geophysical Maps

Figure 8. Magnetometer Survey: Raw Data  
Figure 9. Magnetometer Survey: Coloured & Contoured Data  
Figure 10 VLF-EM Survey: Fraser Filtered Anomalies  
Figure 11 VLF-EM Survey: Text & Contoured Data  
Figure 12 VLF-EM Survey: Fraser-Filtered Coloured & Contoured

**Appendix II** Geophysical Data

## **SUMMARY**

The Keithley Creek Placer Property is comprised of four contiguous claims covering an area of 139 hectares 420 kilometres northeast of Vancouver and 29 kilometres south of Barkerville in the Cariboo region of central British Columbia.

The Cariboo region of British Columbia is notable for the gold rush that began in 1860, which has continued to some degree to the present day. Placer gold was discovered in Keithley, Snowshoe, Little Snowshoe and French Snowshoe Creeks around the same time. Prospecting for hard rock deposits started shortly after the Cariboo gold rush began with production in the Wells- Barkerville area beginning in 1935.

Noble Metal Group Incorporated and its predecessor company Cascadia Mines and Resources Ltd. Have been carrying out intermittent exploration for lode deposits since 1979. Various work programs have been carried out in several areas of the property including soil geochemical surveys, magnetic and electromagnetic surveys, Induced Polarization surveys, trenching and diamond drilling..

Much of the historical production from and peripheral to the Keithley Creek Placer Property was minor and limited to mineralized quartz veins and placer gold. More recent and current production on a much larger scale is from gold bearing quartz veins and placer gold from buried river channels.

The Keithley Creek Placer Property is underlain by Lower Snowshoe Group siltstones, phyllites, greywackes, quartzites, limestones and dirty quartzites, cut by quartz and quartz carbonate veins and veinlets. Alteration products are commonly limonite and chlorite. Disseminations, stringers and fracture coatings of pyrite are common.

The source of the placer gold on the producing Keithley Creek Placer Property (Minfile 093A 004) and the Cariboo mining district indicate that supergene leaching of gold dispersed within massive sulphides by Tertiary deep weathering followed by Cenozoic erosion is the most likely explanation for the occurrence of coarse gold nuggets in Quaternary sediments"

The 2014 VLF-EM and magnetometer survey on the Keithley Creek Property resulted in the correlative VLF-EM and magnetometer anomalies indicative of potential placer gold-bearing buried river channels. The VLF-EM anomalies are interpreted as buried river channels with the correlative localized magnetometer high anomalies interpreted as accumulations of potential placer gold associated with magnetite within the river channel.

An exploration program of detailed magnetometer surveys, test pitting, and panning within the five Figure 7 indicated magnetometer high areas is recommended.

The procedure at each location, beginning with location 1, should be to initially perform the detailed magnetometer survey followed by the digging of a pit to determine the cause of the anomaly. Should potential placer gold bearing gravels be located, selected favorable material from the pit should be panned to determine the gold content.

## INTRODUCTION

During July of 2014 Noble Metals Group Incorporated caused the completion of 48 line kilometres of VLF-EM and magnetometer surveys on Tenures 33705 & 33706 of the four claim Keithley Creek Placer Property (“Property”). The purpose of the survey was to delineate any potential mineral controlling structure that may host or provide geological mineral indicators to potentially economic gold-quartz veins or any other type of a potentially economic resource.

## KEITHLEY CREEK PLACER PROPERTY

### Description

The Keithley Creek Placer Property is comprised of four contiguous placer claims totalling 139.0866 hectares. Particulars are reported on in Table I following:

*Table I. Tenures of the Keithley Creek Placer Property*

<u>Tenure Number</u>	<u>Type</u>	<u>Claim Name</u>	<u>Good Until*</u>	<u>Area (ha)</u>
<a href="#">337015</a>	Placer	LOU 1	20180530	50
<a href="#">337016</a>	Placer	LOU 2	20180530	50
<a href="#">1022193</a>	Placer	LOU 2 FR	20180530	19.5432
<a href="#">1025674</a>	Placer	LOU 2 FR SW	20180530	19.5434

Total Area: 139.0866 ha

\*On the approval of Event No’s 5514977 & 5514982.

### Location

The Keithley Creek Placer Property is located 420 kilometres northeast of Vancouver, 71 kilometres southeast of Quesnel, and 29 kilometres south of Barkerville within BCGS Map 093A.083 of the Cariboo Mining Division.

## ACCESSIBILITY, CLIMATE, LOCAL RESOURCES, INFRASTRUCTURE AND PHYSIOGRAPHY

### Access

Access to the Property from Highway 97/Cariboo Highway is provided by a paved, an all-weather, and a good gravel logging road for a distance of 116 kilometres. A network of logging and skid roads provide good access to all areas of the Property.

From	Direction	Via	To	kilometres
150 Mile House	North	Highway 97	Junction	1
Junction	North	Likely Road	Likely	83
Likely	Northeast	8400 Road	Keithley Creek	25
Keithley Creek	North	Barkerville Road	Property	7

## Accessibility, Climate, Local Resources, Infrastructure and Physiography (cont'd)

### Climate

The area receives significant precipitation throughout the year occurring from both rain and snow. Accumulations of snow may reach three meters or more during the winter months. Temperatures can vary from  $-25^{\circ}$  in winter to  $+30^{\circ}$  in summer.

### Local Resources and Infrastructure

Provisions and accommodation would be available at 150 Mile House. Minimal resources are available at Likely.

### Physiography

The topography on the Keithley Creek Placer Property is of selectively logged forested slopes. Relief is in the order of 215 metres with elevations ranging from 1,150 metres at the southwest corner to 1,365 metres at the northeast corner.

Figure 1: Location Map



## HISTORY: KEITHLEY CREEK PLACER PROPERTY AREA

The history on some of the more significant mineral MINFILE reported occurrences, prospects, and past producers peripheral to the Keithley Creek Placer Property are as follows.

### History: Keithley Creek Placer Property Area (cont'd)

**KEITHLEY CREEK** producer (Surficial placers, Buried-channel placers)



## MINFILE 093A 004

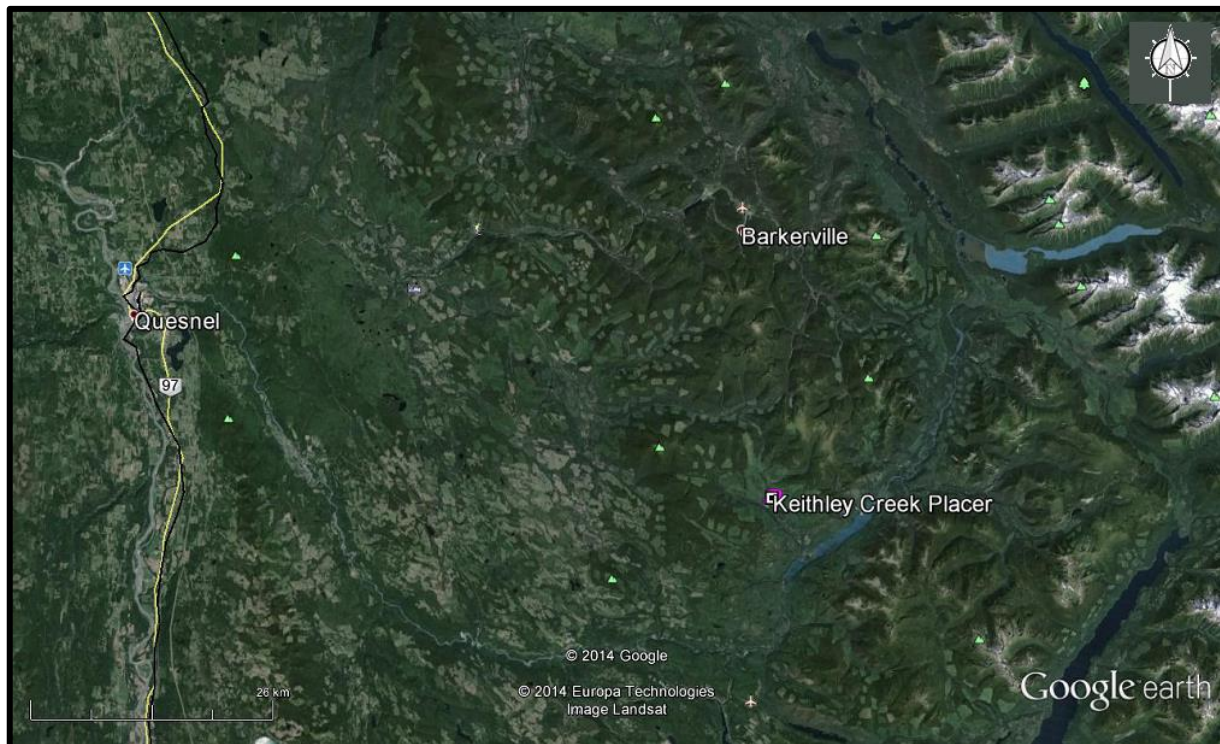
Four kilometres south-southeast

*Placer gold was first found near the mouth of Keithley Creek in July, 1860, by W.R. (Doc) Keithley, who, in October of that year, recorded a claim on his discovery of placer gold on the Cariboo River (then called the North Fork of the Quesnel River) about 12 miles upstream from Quesnel Forks.*

*In October 1860, thirty to forty men were working on Keithley Creek (it is recorded in a letter to the Colonial Secretary from P.H. Nind, the Gold Commissioner at Williams Lake, that from 100 to 150 men had been at work on the creek earlier in the autumn), and George W. Weaver, William Haseltine, and four partners, calling themselves the Slide Company, were mining on their discovery claims just above Sebastopol Point. The tremendous new discoveries of placer on Antler, Cunningham, Williams, Lightning, and other creeks in 1861 and 1862 drew men away from Keithley Creek. The early placer activity on Keithley subsided rapidly and was overshadowed by the discoveries on other creeks to the north (see Bulletin 28 for a continued detailed history).*

*For the period 1874 to 1945 there is a recorded production of 1,100,891 grams of gold. In 1987, Placer Lease 29 was put into production on a joint venture basis and approximately 7600 cubic yards (5811 cubic metres) of pay gravels were washed to produce 118 ounces (3670 grams) of 800-900 fine raw gold (Assessment Report 21523). Noble Metal Group Inc. processed gravels in 1997 and 1998. In 1998, processing of 8994 cubic yards yielded 18,018 grams of gold (GCNL #212 (Nov.4), 1998).*

Figure 2. CLAIM LOCATION MAP



**History: Keithley Creek Placer Property Area** (cont'd)**FRENCH SNOWSHOE CREEK** past producer (Surficial placers, Buried-channel placers)

MINFILE 093A 024

Four kilometres northeast

The first placer mining in the Quesnel mining district was along the Quesnel River and on Horsefly River in 1859. In 1860, new discoveries were rapidly made - Keithley, Snowshoe, and Harvey creeks were discovered and a large amount of gold was produced before the earliest production was recorded in 1874.

Fully one-third of the total production of the Quesnel district is believed to have been mined between 1860 and 1873 (Bulletin 28). Recorded production from French Snowshoe Creek for the intermittent period 1876 to 1895 amounted to 12,751 grams gold.

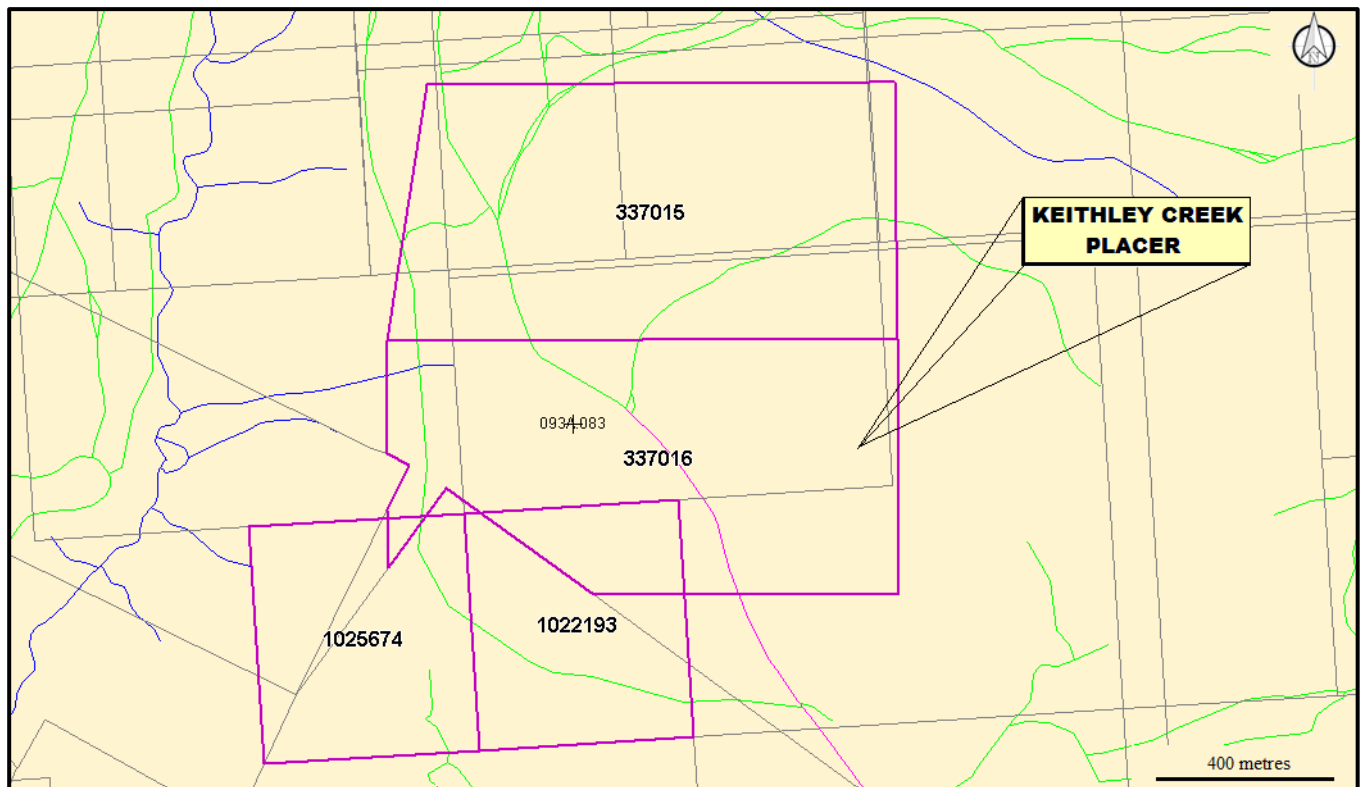
**J1** showing (Au quartz veins)

MINFILE 093A 225

500 metres south

During June, 1996 an induced polarization and resistivity survey was carried out over part of the J1 and NMG claims on behalf of Noble Metal Group Incorporated. Several anomalous induced polarization zones were delineated, as well as numerous crosscutting faults. The 1996 diamond drill program consisted of 4 thin wall BQ drillholes totalling 923 metres.

Figure 3. CLAIM MAP



**History: Keithley Creek Placer Property Area** (cont'd)**WEAVER CREEK** past producer (Surficial placers)

MINFILE 093A 229

Two kilometres south

*The first placer mining in the Quesnel mining district was along the Quesnel River, and on Horsefly River in 1859. In 1860, new discoveries were rapidly made - Keithley, Snowshoe, and Harvey creeks were discovered and a large amount of gold was produced before the earliest production was recorded in 1874. Fully one-third of the total production of the Quesnel district is believed to have been mined between 1860 and 1873 (Bulletin 28).*

*Placer gold was historically mined in Weaver Creek, about 21 kilometres north of Likely. Intermittent production from 1921 to 1945 totalled 10,729 grams gold.*

**FRANK CREEK** past producer (Surficial placers)

MINFILE 093A 231

Eight kilometres southeast

*The first placer mining in the Quesnel mining district was along the Quesnel River, and on Horsefly River in 1859. In 1860, new discoveries were rapidly made - Keithley, Snowshoe, and Harvey creeks were discovered and a large amount of gold was produced before the earliest production was recorded in 1874.*

*Fully one-third of the total production of the Quesnel district is believed to have been mined between 1860 and 1873 (Bulletin 28).*

*Placer gold was historically mined in Frank (Goose) Creek which empties into Cariboo Lake on its eastern shore, about 20 kilometres north of Likely. Production from 1891 to 1910 totalled 8894 grams gold.*

**HISTORY: KEITHLEY CREEK PLACER PROPERTY****NMG** showing (Tholeiitic intrusion-hosted Ni-Cu)

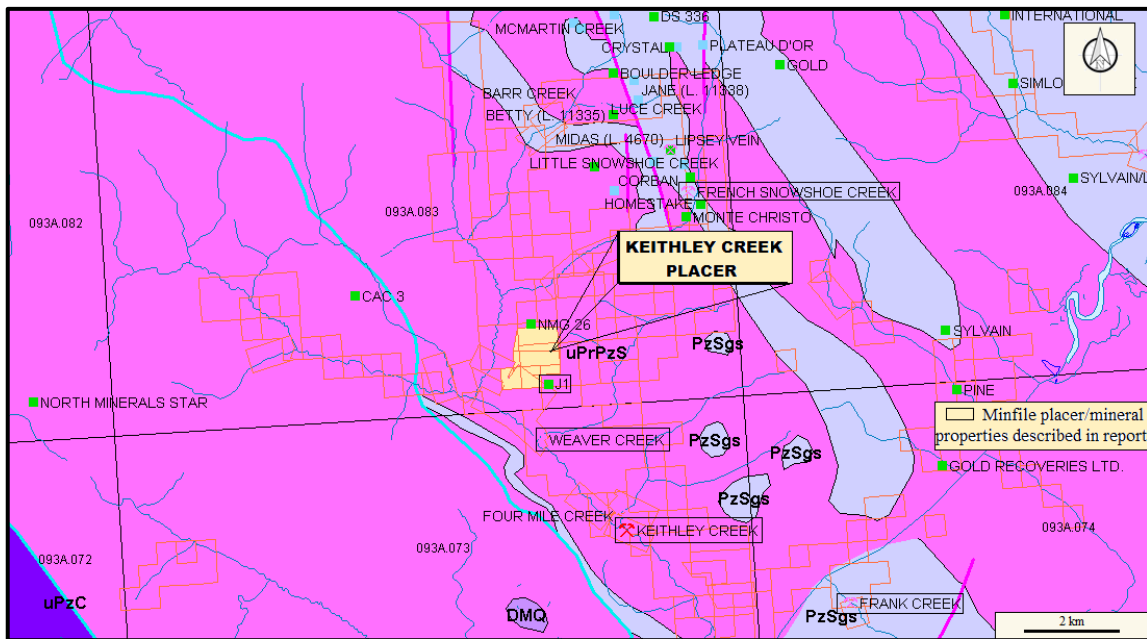
MINFILE 093A 224

Within Tenure 337015

*The NMG 26 showing is located east of Snowshoe Creek and south of French Snowshoe Creek, about 23 kilometres north of Likely. Access to the property is via the all-weather, two-wheel drive Keithley Creek logging road from Likely. At the old settlement of Keithley Creek, a logging road on the east side of Keithley Creek leads to the property.*

*Noble Metal Group Incorporated and its predecessor company Cascadia Mines and Resources Ltd. have been carrying out exploration for both placer and lode gold deposits since 1979. The work carried out on the hardrock claims includes grid preparation, soil geochemical surveying, magnetic and electromagnetic surveying, induced polarization (IP) surveying and diamond drilling. In 2000, a diamond drill program totalling 805.4 metres in two holes was carried out to test anomalous coincident IP and magnetic zones in areas of fault intersections.*

Figure 4: GEOLOGY, CLAIM, & MINFILE



### GEOLOGY MAP LEGEND

**Mississippian**

- Mdr
- Unnamed dioritic intrusive rocks

**Devonian to Mississippian**

- DMQ
- Quesnel Lake Gneiss
- orthogneiss, metamorphic rocks

**Paleozoic**

- PzSgs
- Snowshoe Group
- Greenstone, greenschist, metamorphic rocks

**Upper Proterozoic to Paleozoic**

- uPrPzs
- Snowshoe Group
- Metamorphic rocks, undivided

**GEOLOGY REGIONAL**

The Cariboo mining district is divided into four tectonically and stratigraphically unique terrains.

The rocks of the four terrains range in age from Proterozoic to Jurassic and were deposited into an ocean environment. From east to west, the terrains are Cariboo (continental shelf clastics and carbonates) Barkerville (continental shelf and slope clastics, carbonates and volcanoclastics), Slide Mountain (rift floor pillowed basalt and chert) and Quesnel (island arc volcanoclastics and fine grained clastics).

The Cariboo Terrain is of Precambrian and Permo Triassic age and is in fault contact with the western margin of Precambrian North American Crater along the Rocky Mountain Trench. It can be divided into two successions, one Cambrian and older and the other Ordovician to Permo-Triassic. The older succession consists of grit, limestone, sandstone, shale and is unconformably overlain by the younger succession of basinal shale, dolostone, wacke, limestone, and basalt.

**Geology Regional (cont'd)**

The Barkerville Terrain consists of Precambrian and Palaeozoic rocks ranging in composition from grit, quartzite, and black pelite to lesser limestone and volcanoclastics rocks. The contact between the Barkerville and Cariboo terrains in the northwest trending, east dipping Pleasant Valley Thrust.

The Barkerville and Cariboo terrains are over thrust (Pundata Thrust) by the Slide Mountain Terrain. The Slide Mountain Terrain consists of Mississippian to Permian basalt in part pillowed, and chert pelitic sequences intruded by diorite, gabbro, and minor ultramafic rocks. The Quesnel Terrain lies west of the Slide Mountain Terrains and consists of Upper Triassic and Lower Jurassic black shale and volcanoclastics greenstone.

**GEOLOGY: KEITHLEY CREEK PLACER PROPERTY AREA**

The geology on some of the more significant mineral MINFILE reported occurrences, prospects, and past producers peripheral to the Keithley Creek Placer Property are as follows.

**KEITHLEY CREEK** producer (Surficial placers, Buried-channel placers)

MINFILE 093A 004

Four kilometres south-southeast

*Placer gold workings have been situated at a number of sites along Keithley Creek for 8 kilometres from its mouth. One of the main areas of activity was on the Kitchener claim located about two kilometres upstream from the mouth of the creek. A considerable amount of underground work was carried out on a bench situated over 30 metres above the creek. The creek drains an area that is mainly underlain by Upper Proterozoic-Paleozoic Snowshoe Group metasedimentary rocks.*

**FRENCH SNOWSHOE CREEK** past producer (Surficial placers, Buried-channel placers)

MINFILE 093A 024

Four kilometres northeast

*Placer mining operations were fairly extensive on French Snowshoe Creek for a distance of over 800 metres downstream from the mouth of Dutchman Creek. Small, shallow hand-diggings also extend upstream from Dutchman Creek for about 2.3 kilometres. More recent hydraulic mining operations apparently also took place about 2.0 kilometres upstream from Dutchman Creek. Bedrock geology comprises quartzite of the Upper Proterozoic-Paleozoic Snowshoe Group.*

**J1** showing (Au quartz veins)

MINFILE 093A 225

500 metres south

*Four drillholes (96-1 to 96-4) were drilled to test highly anomalous induced polarization values with lower than normal resistivity. All four drillholes intersected variable thicknesses of interbedded quartzites and green to black phyllites intruded by occasional dioritic dikes, quartz feldspar porphyry and altered ultramafic sections.*

**WEAVER CREEK** past producer (Surficial placers)

MINFILE 093A 229

Two kilometres south

*The source of the placer gold is most likely the gold vein deposits hosted in quartzites of the Upper Proterozoic-Paleozoic Snowshoe Group.*

**Geology: Keithley Creek Placer Property Area (cont'd)****FRANK CREEK** past producer (Surficial placers)

MINFILE 093A 231

Eight kilometres southeast

*The source of the placer gold is most likely the gold vein deposits hosted in quartzites of the Upper Proterozoic-Paleozoic Snowshoe Group.*

**GEOLOGY: KEITHLEY CREEK PLACER PROPERTY****NMG** showing (Tholeiitic intrusion-hosted Ni-Cu)

MINFILE 093A 224

Within Tenure 337015

*Diamond drilling in 2000 tested highly anomalous induced polarization values with low resistivity, with, or on the flank of strong magnetic anomalies and in proximity to fault structure intersections. Both drillholes intersected variable thicknesses of interbedded quartzites and green to black phyllites of the Upper Proterozoic to Paleozoic Snowshoe Group intruded by dioritic dikes and sills and altered ultramafic sections.*

**(From Timmins, 2013)**

The mineral claims are underlain by the rocks of the Ramos succession of which interbedded quartzite and phyllite are the most abundant. The age of the Ramos succession is believed to be Hadrynian. The quartzite is olive to grey on fresh surfaces, it is poorly sorted and generally medium to coarse grained. The quartz clasts are predominately glass clear and grey with minor blue. The quartzite is usually micaceous and sericite, epidote, muscovite, chlorite, and biotite occur along foliations. Some sections of the quartzite are weakly calcareous.

The phyllite varies from olive gray to black with chlorite, graphite and accessory pyrite, and pyrrhotite. There is often rhythmic banding within the phyllite and contacts between the quartzite and phyllite are usually sharp. The local area is underlain by the rocks of the Ramos succession containing phyllite, schist, calc-silicate rocks, and quartzite. Volcanogenic rock has also been identified. The main structure in the area is the Keithley Creek Thrust Fault that runs from Shoal's Bay on the Quesnel Lake northwest up Keithley Creek and along the lower portion of Rabbit Creek carrying onto the northwest across Fontaine Creek. The dominant geological strike in the survey area is northwest however may be displaced by northeasterly trending faults.

**MINERALIZATION: KEITHLEY CREEK PLACER PROPERTY AREA**

The mineralization on some of the more significant mineral MINFILE reported occurrences, prospects, and past producers peripheral to the Keithley Creek Placer Property are as follows.

**KEITHLEY CREEK** producer (Surficial placers, Buried-channel placers)

MINFILE 093A 004

Four kilometres south-southeast

*"Data from the Cariboo mining district indicate that supergene leaching of gold dispersed within massive sulphides by Tertiary deep weathering followed by Cenozoic erosion is the most likely explanation for the occurrence of coarse gold nuggets in Quaternary sediments" (Exploration in British Columbia 1989, page 147).*

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**Mineralization: Keithley Creek Placer Property Area (cont'd)****FRENCH SNOWSHOE CREEK** past producer (Surficial placers, Buried-channel placers)

MINFILE 093A 024

Four kilometres northeast

*The source of the placer gold is most likely the gold vein deposits hosted by the Snowshoe Group metasedimentary rocks. Supergene leaching of gold, dispersed by Tertiary deep weathering and followed by Cenozoic erosion, is the likely explanation for the occurrence of coarse gold nuggets in Quaternary sediments (Exploration in British Columbia 1989, page 147).*

**J1** showing (Au quartz veins)

MINFILE 093A 225

500 metres south

*Numerous intersections of weak to strong sulphide enrichment were intersected throughout the drill core. Sulphides consist of pyrrhotite and pyrite on chloritic and graphitic lamella and shear planes, and disseminations. Pyrite-filled microfractures crosscut the quartzites and phyllites in many sections of the core. Sulphides also occur in quartz veins and veinlets. Sections of altered ultramafic rocks were intersected in holes 1 to 4 with thicknesses varying from approximately 0.5 to 7 metres. Anomalous chromium, nickel, strontium and vanadium assay values were present as well as trace to anomalous platinum group elements. The altered ultramafics for the most part have been completely metamorphosed to an apple green, fine-grained matrix with black augen-like ellipsoidal fine grained black phenocrysts at varying aligned orientations becoming mylonatized in parts.*

**WEAVER CREEK** past producer (Surficial placers)

MINFILE 093A 229

Two kilometres south

*"Data from the Cariboo mining district indicate that supergene leaching of gold dispersed within massive sulphides by Tertiary deep weathering followed by Cenozoic erosion is the most likely explanation for the occurrence of coarse gold nuggets in Quaternary sediments" (Exploration in British Columbia 1989, page 147).*

**FRANK CREEK** past producer (Surficial placers)

MINFILE 093A 231

Eight kilometres southeast

*"Data from the Cariboo mining district indicate that supergene leaching of gold dispersed within massive sulphides by Tertiary deep weathering followed by Cenozoic erosion is the most likely explanation for the occurrence of coarse gold nuggets in Quaternary sediments" (Exploration in British Columbia 1989, page 147).*

**MINERALIZATION: KEITHLEY CREEK PLACER PROPERTY****NMG** showing (Tholeiitic intrusion-hosted Ni-Cu)

MINFILE 093A 224

Within Tenure 337015

*Numerous intersections of weak to very strong sulphide enrichment up to 15 per cent was intersected throughout the drill core.*

**Mineralization: Keithley Creek Placer Property (cont'd)****NMG (cont'd)**

Sulphides consist of pyrrhotite and pyrite on chloritic and graphitic lamella and shear planes, and disseminations. Pyrite-filled microfractures crosscut the quartzites and phyllites in many sections of the core. Sulphides also occur in quartz veins and veinlets. The sections of altered ultramafic rocks varied from approximately 0.5 to 5.0 metres thick. Anomalous chromium, nickel, strontium and vanadium assay values are present. One sample from an ultramafic section yielded up to 0.1 per cent nickel and 0.15 per cent chromium from drillhole 00-1 (Assessment Report 26659).

(From Timmins, 2013)

Past geophysical surveys and diamond drill data reveals variable thicknesses of interbedded quartzite and green to black or grey phyllite intruded by dioritic dikes, quartz-feldspar porphyry and altered ultramafic sill-like sections as well as volcanic flows.

Sulphide enrichment consisting of pyrite and pyrrhotite occurs on chloritic and graphitic lamella and shear planes, quartz carbonate veins and veinlets and as disseminations and filling micro fractures. Significant iron oxide has been observed in minimal outcrop exposure west of Weaver Creek, quartz veins, quartz stringers, quartz stockworks and pyritic sulphides are also present.

**VLF-EM & MAGNETOMETER SURVEYS****Introduction**

From July 6, 2014 to July 14, 2014 Noble Metals Group Incorporated caused a completion of localized VLF-EM and Magnetometer Surveys on Tenures 337015 & 337016 of the four claim Keithley Creek Placer Property. The purpose of the geophysical surveys was to locate any indicated mineral controlling structures or buried river channels that may be the source of, or host placer gold.

**VLF-EM Survey****a) Instrumentation**

The VLF EM unit was an EM16 (serial #54) using the Seattle (Washington) station.

**b) Theory**

In all electromagnetic prospecting, a transmitter induces an alternating magnetic field (called the primary field) by having a strong alternating current move through a coil of wire.

This primary field travels through any medium and if a conductive mass such as a sulphide body is present, the primary field induces a secondary alternating current in the conductor, and this current in turn induces a secondary magnetic field. The receiver picks up the primary field and, if a conductor is present, the secondary field distorts the primary field. The fields are expressed as a vector, which has two components, the "in-phase" (or real) component and the "out-of-phase" (or quadrature) component.

For the VLF-EM receiver, the tilt angle in degrees of the distorted electromagnetic field with a conductor is measured from that which it would have been if the field was not distorted with a conductor. Since the fields lose strength proportionally with the distance they travel, a distant conductor has less of an effect than a close conductor. Also, the lower the frequency of the primary field, the further the field can travel and therefore the greater the depth penetration.



## VLF-EM &amp; Magnetometer Surveys (cont'd)

Figure 5. Index Map

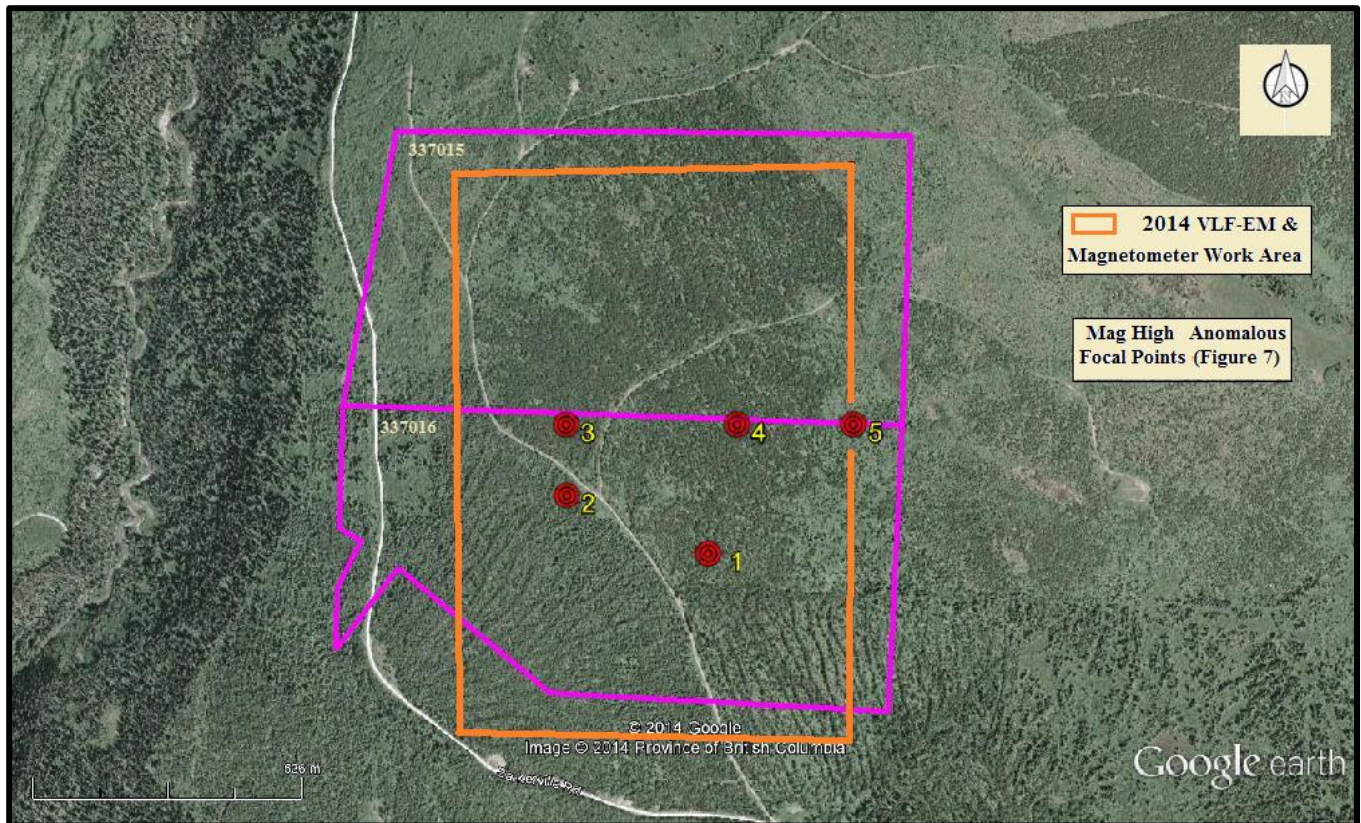


Table II. **Approximate UTM locations of Figure 7 magnetometer high anomalous points**  
(Base map from Google Earth)

Location	UTM East	UTM North
1	603,650	5,852,125
2	603,400	5,852,225
3	603,400	5,852,350
4	603,700	5,852,350
5	603,900	5,852,350

## VLF-EM Survey (cont'd)

## Theory (cont'd)

The VLF-EM uses a frequency range from 13 to 30 kHz, whereas most EM instruments use frequencies ranging from a few hundred to a few thousand Hz. Because of its relatively high frequency, the VLF-EM can pick up bodies of a much lower conductivity and therefore is more susceptible to clay beds, electrolyte-filled fault or shear zones and porous horizons, graphite, carbonaceous sediments, lithological contacts as well as sulphide bodies of too low a conductivity for other EM methods to pick up.

**VLF-EM & Magnetometer Surveys (cont'd)****VLF-EM Survey (cont'd)**

Consequently, the VLF-EM has additional uses in mapping structure and in picking up sulphide bodies of low conductivity for conventional EM methods and too small for induced polarization. (In places it can be used instead of IP). However, its susceptibility to lower conductive bodies results in a number of anomalies, many of them difficult to explain and, thus, VLF-EM preferably should not be interpreted without a good geological knowledge of the property and/or other geophysical and geochemical surveys.

**c) Survey Procedure**

The VLF EM Grid was established from a baseline originating at UTM 5,851,800N, 603,200E northward for 1,000 metres to UTM 5,582,800N with 42 stations marked at 50 metre intervals for the proposed easterly grid-lines. VLF-EM and magnetometer readings were taken at 25 metre intervals along the grid-lines with specific locations established by GPS readings. Each location was marked, with the grid station and the reading at the station recorded in a field book. Forty line kilometres were completed. The field data is reported in Appendix II.

**d) Compilation of Field Data**

The field results were initially input to an Exel spreadsheet whereupon a MapInfo-Discover 211 program was utilized to create maps from the data results. The maps form part of the report included within Appendix I.

**e) Results**

An indicated buried river channel may be indicated as a VLF-EM anomaly structure in the VLF-EM survey. A central zone of a central north-northeasterly and a south-southeasterly open-ended anomaly to the east were indicated diverging from a central anomaly open-ended to the west as indicated on Figure 6.

**Magnetometer Survey****a) Instrumentation**

The magnetometer used was a Geotronics Proton Magnetometer (model G-816/826 Serial #6341). Diurnal variation was corrected by using repeated readings at a base point throughout the day.

**b) Theory**

Only two commonly occurring minerals are strongly magnetic, magnetite and pyrrhotite; magnetic surveys are therefore used to detect the presence of these minerals in varying concentrations. Magnetics is also useful is a reconnaissance tool for mapping geologic lithology and structure since different rock types have different background amounts of magnetite and/or pyrrhotite.

**c) Survey Procedure**

The same grid stations as established in the VLF-EM Survey were used for the Magnetometer Survey. Forty-eight line kilometres were completed. The field data is reported herein in Appendix II.

**d) Data Reduction**

The field results were initially input to an Exel spreadsheet whereupon a MapInfo-Discover 211 program was utilized to create maps from the data results. The maps are included within Appendix I.

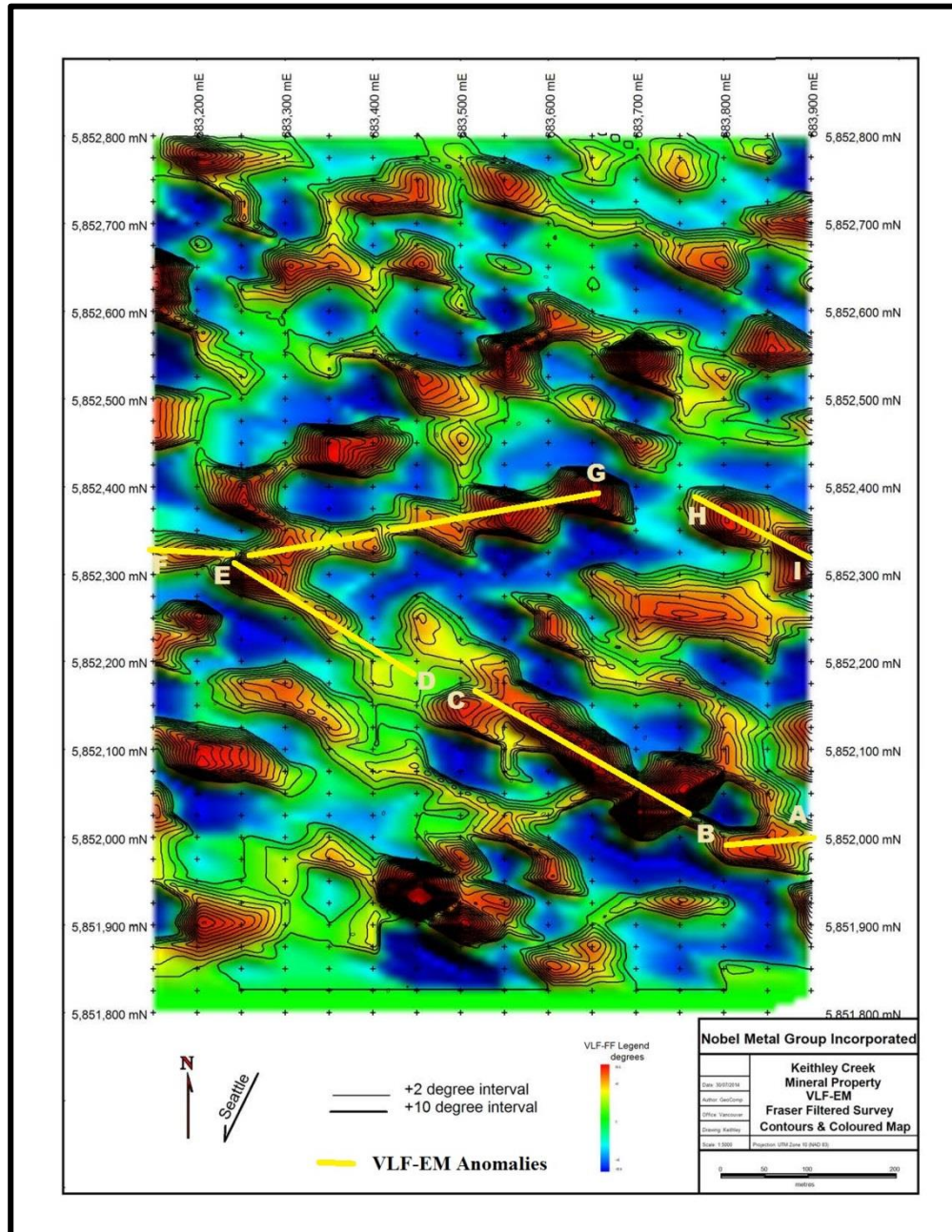
**VLF-EM & Magnetometer Surveys (cont'd)**

**VLF-EM Survey (cont'd)**

**e) Results**

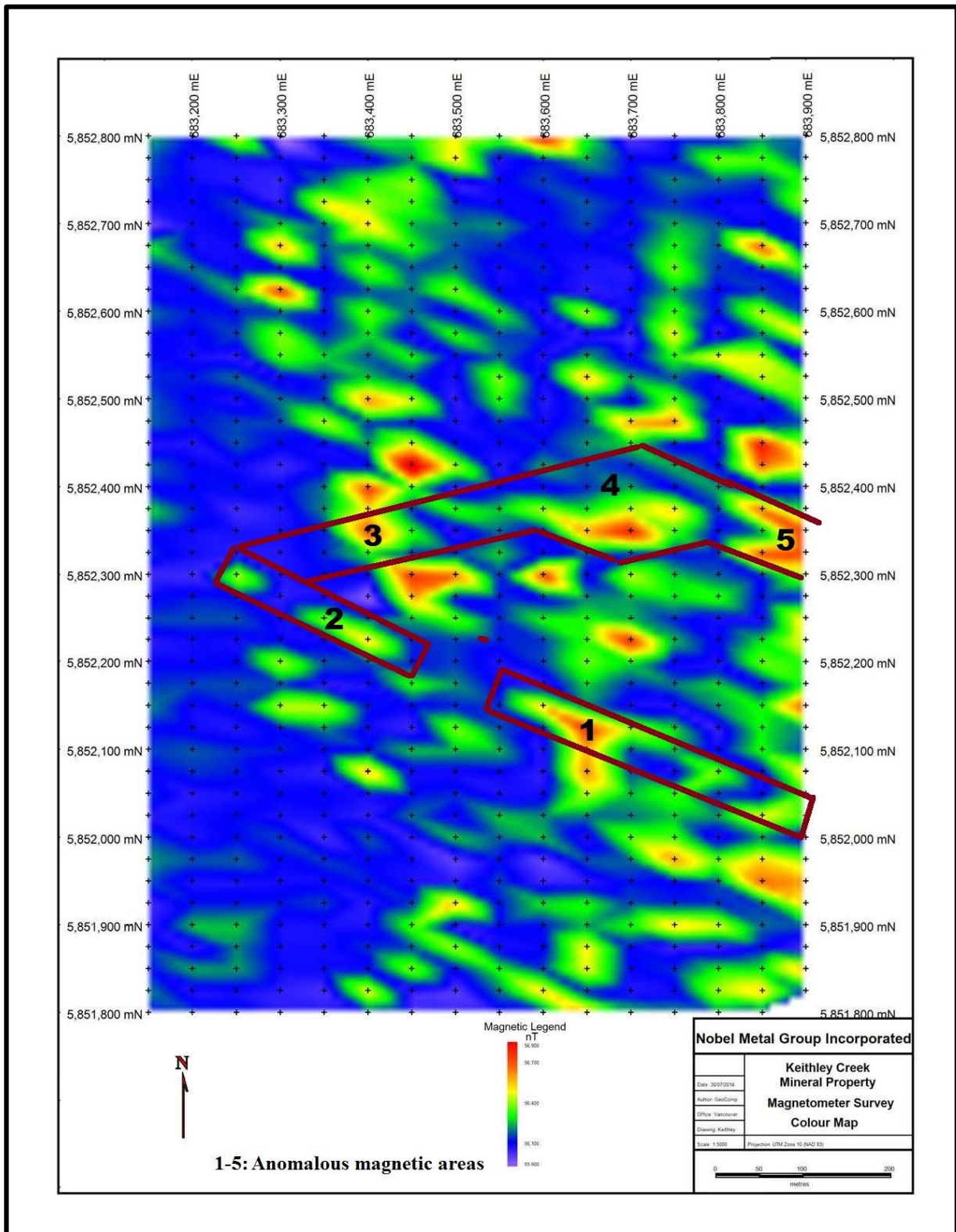
Based on the VLF-EM anomalies indicating a structure related placer gold-bearing buried river channel, the magnetometer high anomalous area designated as areas 1 to 5 on Figure 7 are generally correlative with the VLF-EM anomalies designated as A to I on Figure 6.

*Figure 6. Indicated Major Structures and/or Buried River Channels on Contoured Fraser Filtered VLF-EM\* Data*



\*Additional VLF-EM survey maps in Appendix I

Figure 7. Anomalous magnetic high areas indicating potential buried river channels with magnetite and possibly placer gold.



\*Additional magnetometer survey maps in Appendix I

## **INTERPRETATION and CONCLUSIONS**

The correlative VLF-EM and magnetometer anomalies indicated two potential placer gold-bearing buried river channels. The VLF-EM anomalies are interpreted as buried river channels with the correlative localized magnetometer high anomalies interpreted as accumulations of potential placer gold with associated magnetite within the river channel.

## **RECOMMENDATIONS**

An exploration program of detailed magnetometer surveys, test pitting, and panning within the five Figure 7 indicated magnetometer high areas is recommended.

The procedure at each location, beginning with location 1, should be to initially do the detailed magnetometer survey followed by the digging of a pit to determine the cause of the anomaly. Should potential placer gold bearing gravels be located, selected favorable material from the pit should be panned to determine the gold content.

**Respectfully submitted,**

**Sookochoff Consultants Inc.**



**Laurence Sookochoff, PEng.**

**SELECTED REFERENCES**

**Garrow, Terry D.** (1989): The 1989 Geological Exploration Report on the Cariboo Gold Property Prepared for Noble Metal Group Incorporated.

**Johnston, W.A. and Uglow, W.L.** 1926. Placer and Vein Gold Deposits of Barkerville, Cariboo District, British Columbia; Geological Survey of Canada, Memoir 149.

**Levson, V.M. and Giles, T.R.** 1993. Geology of Tertiary and Quaternary Gold-Bearing Placers in the Cariboo Region, British Columbia (93A, B, G, H); British Columbia Ministry of Energy, Mines and Petroleum Resources, Bulletin 89.

MapPlace Downloads

**Shearer, J.T.** - Diamond Drilling Assessment Report on the Cariboo Gold Property Keithley Creek Area for Noble Metal Group Incorporated. June 28, 1991. AR 21,523.

**Struik, L.C.** 1988. Structural Geology of the Cariboo Gold Mining District, East-Central British Columbia; Geological Survey of Canada, Memoir 421. (O.F 1109 Outcrop Lithology Maps)

**Timmins, W.G.** Diamond Drilling Report on the NMG 26 Mineral Claim for Noble Metal Group Incorporated. September 28, 2001. AR 26,659.

**Timmins, W.G.** Assessment Report on Geochemical Grid and Sample Collection Keithley Creek Area for Noble Metal Group Incorporated. August 13, 2007. AR 29,259.

**Timmins, W.G.** Report on the 2007-2008 Geochemical Soil Survey Keithley Creek Area for Noble Metal Group Incorporated. December 17, 2007. AR 30,435.

**Timmins, W.G.** VLF-Electro Magnetic and Magnetometer Surveys on the Cariboo Gold Property for Noble Metal Group Incorporated. December 5, 2013.

**STATEMENT OF COSTS:**

Date of Work July 06 – July 14, 2014

**MOB AND DEMOB**

Engineer Truck Mileage – Kelowna- Property/ Return 1,362km @ \$0.65/km\$	885.30
Crew Supervisor- Vancouver – Property / Return 1450 km. @ \$0.65	\$ 942.50
Crew Supervisor 2 Travel Days @ \$250.00 Per Day	\$ 500.00

**WORK PROGRAM:**

Engineer : 3 Days @ \$600.00 per day	\$ 1,800.00
Field Survey Crew 3 Men 09 Days @ \$250.00 Per Man Day	\$ 6,750.00
Instrument Rentals	\$ 1,200.00
One Truck 9 Days @ \$50.00 Per Truck/ Per Day	\$ 450.00
Chain Saw Rental 9 Days @ \$50.00 Per Day	\$ 450.00
Room and Board 31 Man Days @ \$100.00 Per Day	\$ 3,100.00
VLF-EM Interpretation, Maps and Report	<u>\$ 2,000.00</u>
<b>TOTAL:</b>	<b>\$ 18,077.80</b>

## **CERTIFICATE**

I, Laurence Sookochoff, of the City of Vancouver, in the Province of British Columbia, do hereby certify:

That I am a Consulting Geologist and principal of Sookochoff Consultants Inc. with an address at 120 125A-1030 Denman Street, Vancouver, BC V6G 2M6.

I, Laurence Sookochoff, further certify that:

- 1) I am a graduate of the University of British Columbia (1966) and hold a B.Sc. degree in Geology.
- 2) I have been practicing my profession for the past forty-eight years
- 3) I am registered and in good standing with the Association of Professional Engineers and Geoscientists of British Columbia.
- 4) The information for this report is based on information as itemized in the Selected Reference section of this report and from the results derived from a geophysical survey completed on the Keithley Creek Placer Property by Emil Leimanis and his field crew from July 06 to July 14, 2014.
- 5) I have no interest in the Property as described herein.



Laurence Sookochoff, P. Eng.



*Appendix I*

**Geophysical Maps**

Figure 8. Magnetometer Survey: Raw Data

Figure 9. Magnetometer Survey: Colour & Contoured Data

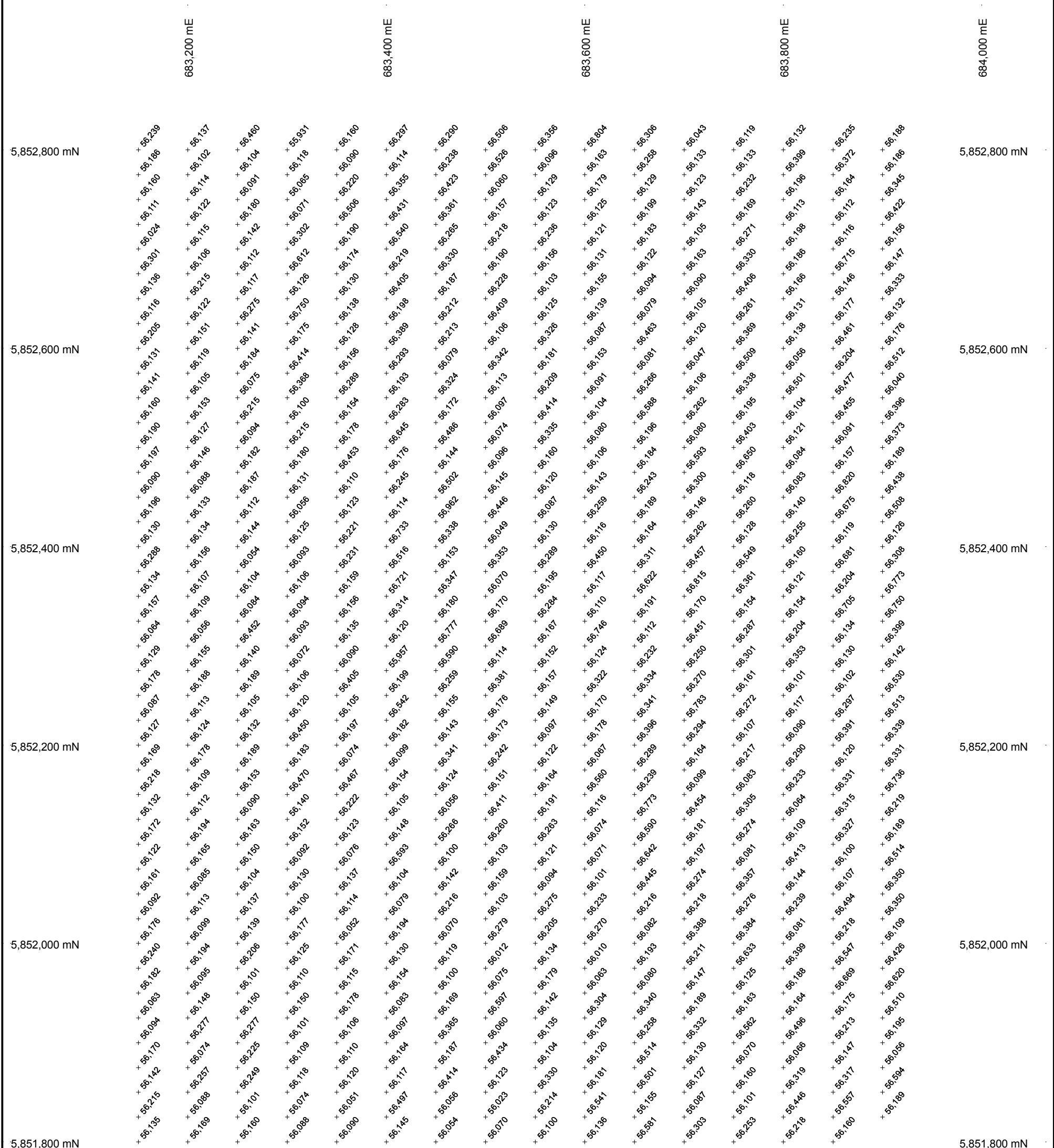
Figure 10 VLF-EM Survey: Fraser Filtered Anomalies

Figure 11 VLF-EM Survey: Text & Contoured Data

Figure 12 VLF-EM Survey: Fraser-Filtered Coloured & Contoured

*Figure 8.*

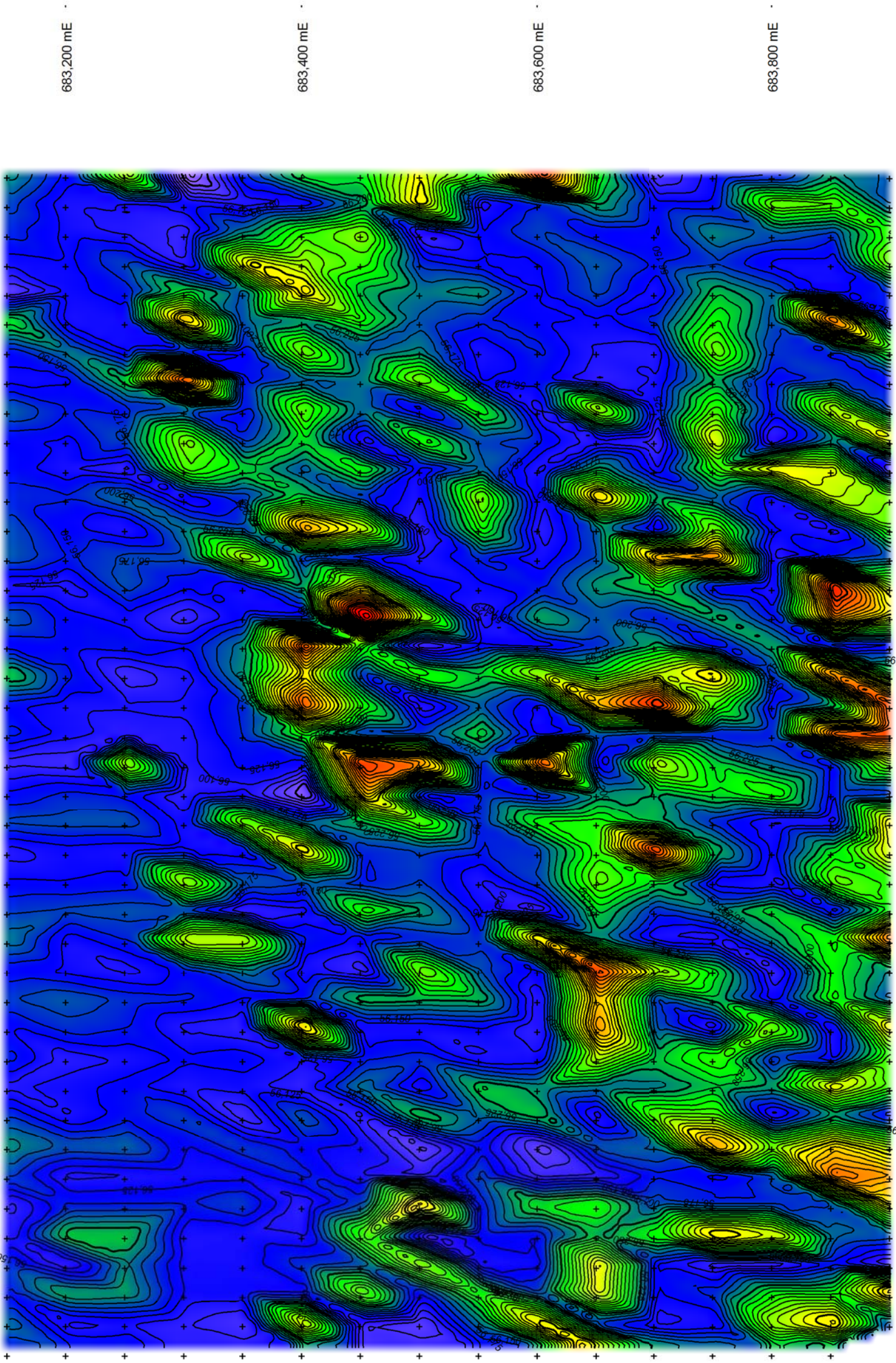
**Magnetometer Survey: Raw Data**



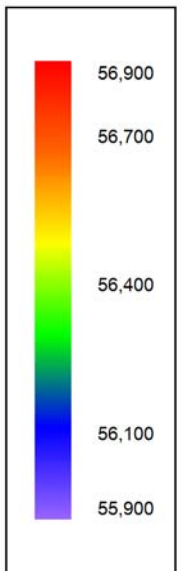
<b>Noble Metal Group Incorporated</b>	
<b>Keithley Creek Mineral Property Magnetic Survey Values (nT)</b>	
Date: 6/17/2015	
Author: ga	
Office:	
Drawing:	
Scale: 1:4000	Projection: UTM Zone 10 (NAD 83)

*Figure 9.*

**Magnetometer Survey: Coloured & Contoured Data**



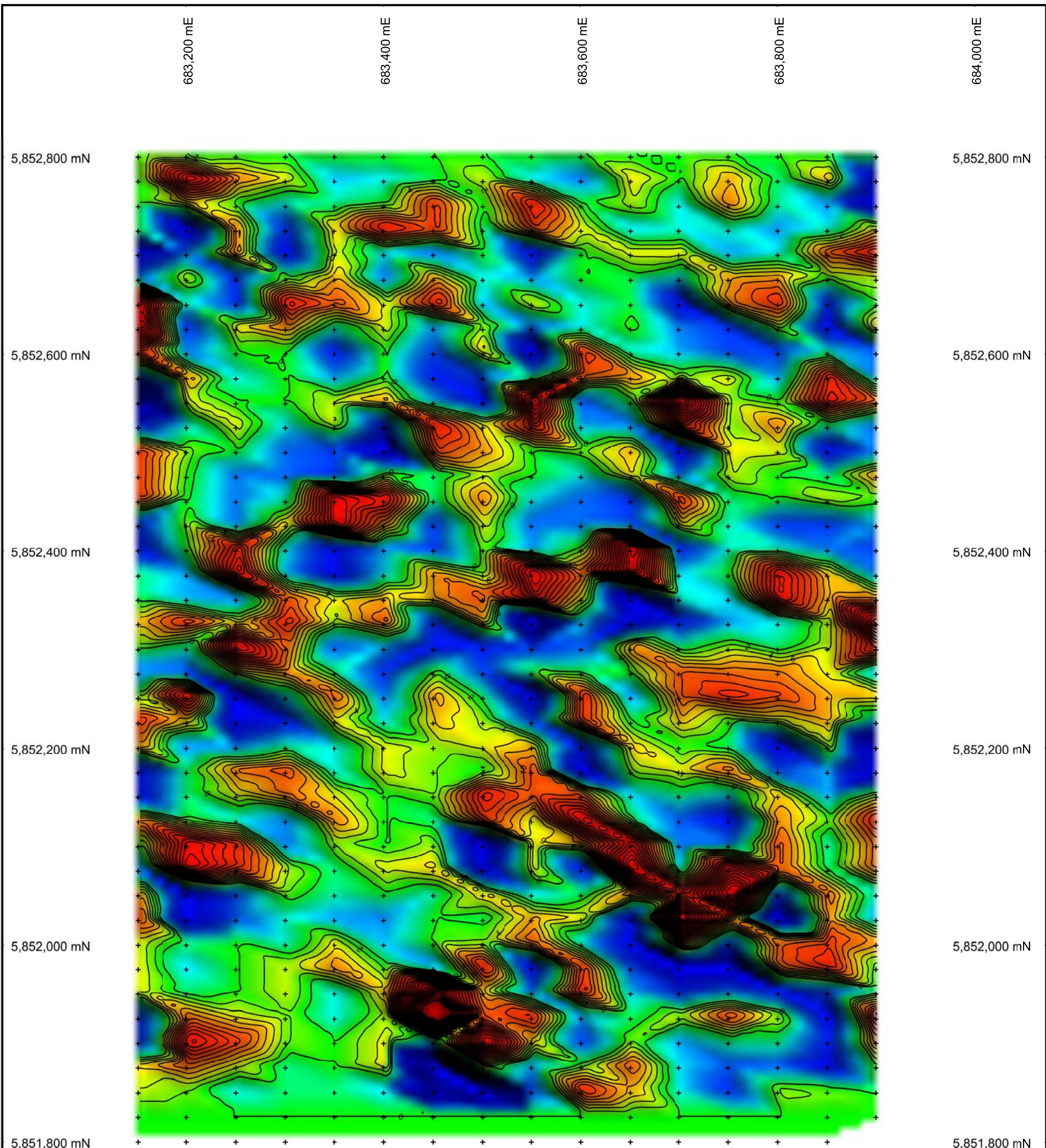
Legend (nT)



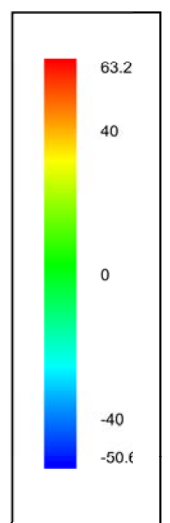
<b>Noble Metal Group Incorporated</b>	
Date: 6/17/2015	<b>Keithley Creek Mineral Property Magnetic Survey Values (nT)</b>
Author: ga	
Office:	
Drawing:	
Scale: 1:4000	Projection: UTM Zone 10 (NAD 83)

*Figure 10.*

**VLF-EM Survey:  
Fraser Filtered Anomalies**



**Legend (degrees)**

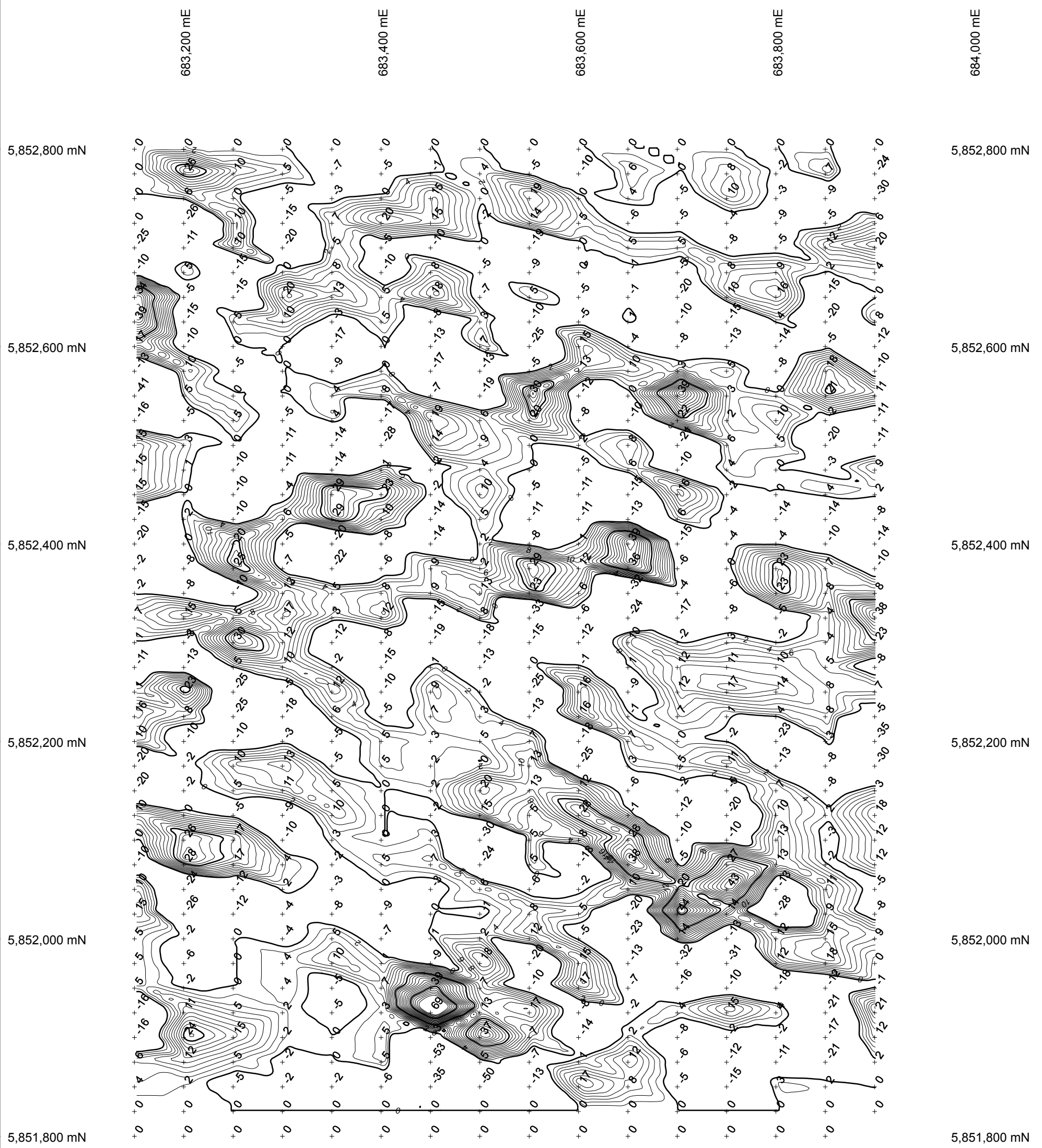


<b>Noble Metal Group Incorporated</b>	
Date: 6/17/2015	<b>Keithley Creek Mineral Property VLF-EM Fraser Filtered Data Units in degrees</b>
Author: gs	
Office:	
Drawing:	
Scale: 1:4000	Projection: UTM Zone 10 (NAD 83)

*Figure 11.*

**VLf-EM Survey  
Text & Contoured Data**





**Legend (degrees)**

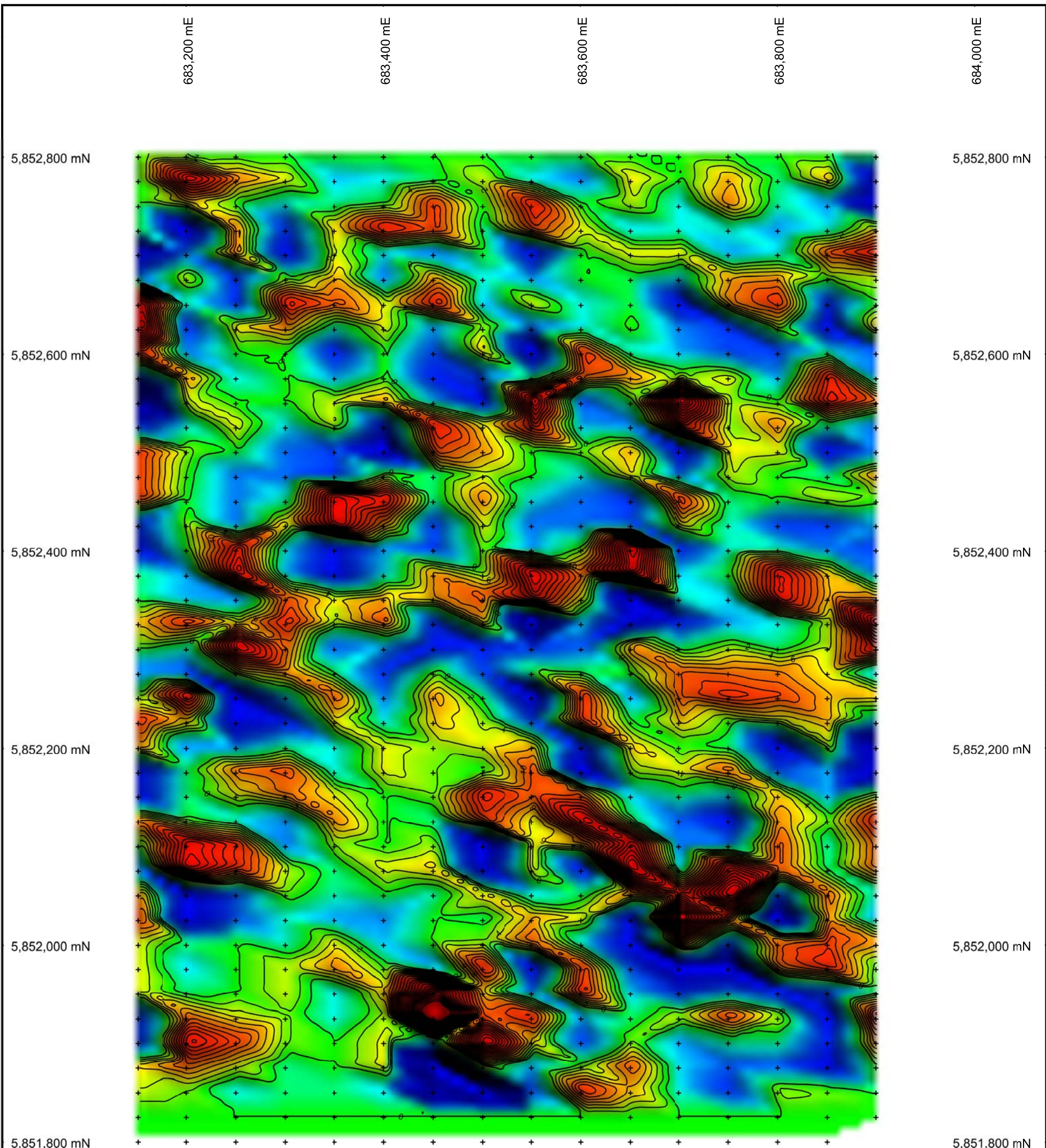
— 0  
 — +2 interval



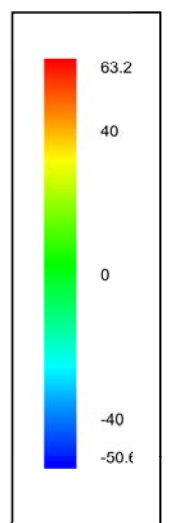
<b>Noble Metal Group Incorporated</b>	
Date: 6/17/2015	<b>Keithley Creek          Mineral Property          VLF-EM          Fraser Filtered Data          Contoured Data          Units in degrees</b>
Author: gs	
Office:	
Drawing:	
Scale: 1:4000	
Projection: UTM Zone 10 (NAD 83)	

*Figure 12.*

**VLf-EM Survey  
Fraser Filtered Coloured & Contoured Data**



**Legend (degrees)**



<b>Noble Metal Group Incorporated</b>	
Date: 6/17/2015	<b>Keithley Creek Mineral Property VLF-EM Fraser Filtered Data Units in degrees</b>
Author: gs	
Office:	
Drawing:	
Scale: 1:4000	Projection: UTM Zone 10 (NAD 83)

*Appendix II*

**Geophysical Raw Data**

603900

Station	Mag	VLF	Quad
5851800			
5851825	56189	15	0
5851850	56594	5	0
5851875	56056	10	0
5851900	56195	8	0
5851925	56510	-5	0
5851950	56620	2	0
5851975	56426	2	0
5852000	56109	-5	0
5852025	56350	0	0
5852050	56350	5	0
5852075	56514	-5	0
5852100	56189	-2	0
5852125	56219	-10	0
5852150	56736	-15	0
5852175	56331	0	0
5852200	56339	5	0
5852225	56513	15	0
5852250	56530	-5	0
5852275	56142	18	0
5852300	56399	0	0
5852325	56750	-10	0
5852350	56773	-10	0
5852375	56308	-8	0
5852400	56126	-2	0
5852425	56508	-2	0
5852450	56438	0	0
5852475	56189	-6	0
5852500	56373	-5	0
5852525	56396	10	0
5852550	56040	-10	0
5852575	56512	4	0
5852600	56176	6	0
5852625	56132	0	0
5852650	56333	2	0
5852675	56147	4	0
5852700	56156	-6	0
5852725	56422	-8	0
5852750	56345	0	0
5852775	56186	16	0
5852800	56188	0	0

603850

Station	Mag	VLF	Quad
5851800	56160	5	0
5851825	56557	-4	0
5851850	56317	-6	0
5851875	56147	5	0
5851900	56213	6	0
5851925	56175	10	0
5851950	56669	22	0
5851975	56547	6	0
5852000	56218	8	0
5852025	56494	5	0
5852050	56107	0	0
5852075	56100	2	0
5852100	56327	5	0
5852125	56315	0	0
5852150	56331	5	0
5852175	56120	8	0
5852200	56391	5	0
5852225	56297	5	0
5852250	56102	0	0
5852275	56130	2	0
5852300	56134	-2	0
5852325	56705	0	0
5852350	56204	-4	0
5852375	56681	-6	0
5852400	56119	-5	0
5852425	56675	5	0
5852450	56820	-2	0
5852475	56157	-2	0
5852500	56091	8	0
5852525	56455	8	0
5852550	56477	0	0
5852575	56204	-5	0
5852600	56461	-5	0
5852625	56177	5	0
5852650	56146	5	0
5852675	56715	10	0
5852700	56116	-2	0
5852725	56112	5	0
5852750	56164	8	0
5852775	56372	4	0
5852800	56235	2	0

603800

Station	Mag	VLF	Quad
5851800	56218	0	0
5851825	56446	5	0
5851850	56319	0	0
5851875	56066	2	0
5851900	56496	14	0
5851925	56164	-10	0
5851950	56188	22	0
5851975	56399	0	0
5852000	56081	0	0
5852025	56239	10	0
5852050	56144	18	0
5852075	56413	5	0
5852100	56109	10	0
5852125	56064	0	0
5852150	56233	5	0
5852175	56290	-2	0
5852200	56090	20	0
5852225	56117	6	0
5852250	56101	8	0
5852275	56353	4	0
5852300	56204	0	0
5852325	56154	14	0
5852350	56121	-5	0
5852375	56160	-4	0
5852400	56255	-10	0
5852425	56140	5	0
5852450	56083	-5	0
5852475	56084	0	0
5852500	56121	0	0
5852525	56104	-10	0
5852550	56501	0	0
5852575	56056	-10	0
5852600	56138	8	0
5852625	56131	-4	0
5852650	56166	-2	0
5852675	56186	-10	0
5852700	56198	-5	0
5852725	56113	-2	0
5852750	56196	-4	0
5852775	56399	0	0
5852800	56132	-4	0

603750

Station	Mag	VLF	Quad
5851800	56253	-2	0
5851825	56101	0	0
5851850	56160	8	0
5851875	56070	5	0
5851900	56562	15	0
5851925	56163	0	0
5851950	56125	5	0
5851975	56633	20	0
5852000	56384	16	0
5852025	56276	22	0
5852050	56357	0	0
5852075	56081	-5	0
5852100	56274	0	0
5852125	56305	5	0
5852150	56083	10	0
5852175	56217	0	0
5852200	56107	4	0
5852225	56272	8	0
5852250	56161	-5	0
5852275	56301	0	0
5852300	56287	-8	0
5852325	56154	0	0
5852350	56361	0	0
5852375	56549	-2	0
5852400	56128	2	0
5852425	56260	0	0
5852450	56118	4	0
5852475	56650	0	0
5852500	56403	0	0
5852525	56195	-2	0
5852550	56338	0	0
5852575	56509	-5	0
5852600	56369	-2	0
5852625	56261	10	0
5852650	56406	-2	0
5852675	56330	0	0
5852700	56271	0	0
5852725	56169	6	0
5852750	56232	-2	0
5852775	56133	-2	0
5852800	56119	-2	0



603700

Station	Mag	VLF	Quad
5851800	56303	-5	0
5851825	56087	0	0
5851850	56127	0	0
5851875	56130	0	0
5851900	56332	6	0
5851925	56189	2	0
5851950	56147	0	0
5851975	56211	24	0
5852000	56388	10	0
5852025	56218	0	0
5852050	56274	-10	0
5852075	56197	0	0
5852100	56181	-5	0
5852125	56454	5	0
5852150	56099	2	0
5852175	56164	0	0
5852200	56294	2	0
5852225	56783	0	0
5852250	56270	-5	0
5852275	56250	-5	0
5852300	56451	-12	0
5852325	56170	4	0
5852350	56815	-4	0
5852375	56457	0	0
5852400	56262	6	0
5852425	56146	5	0
5852450	56300	-5	0
5852475	56593	0	0
5852500	56080	10	0
5852525	56262	6	0
5852550	56106	-18	0
5852575	56047	-5	0
5852600	56120	-10	0
5852625	56105	-5	0
5852650	56090	0	0
5852675	56163	5	0
5852700	56105	-5	0
5852725	56143	5	0
5852750	56123	0	0
5852775	56133	5	0
5852800	56043	0	0

603650

Station	Mag	VLF	Quad
5851800	56581	0	0
5851825	56155	10	0
5851850	56501	2	0
5851875	5614	0	0
5851900	56258	0	0
5851925	56340	0	0
5851950	56080	2	0
5851975	56193	5	0
5852000	56082	10	0
5852025	56216	20	0
5852050	56445	15	0
5852075	56642	5	0
5852100	56590	-8	0
5852125	56773	0	0
5852150	56239	-2	0
5852175	56289	0	0
5852200	56396	-5	0
5852225	56341	-4	0
5852250	56334	0	0
5852275	56232	0	0
5852300	56112	-5	0
5852325	56191	-5	0
5852350	56622	24	0
5852375	56311	-2	0
5852400	56164	-15	0
5852425	56189	-2	0
5852450	56243	-2	0
5852475	56184	0	0
5852500	56196	-10	0
5852525	56588	0	0
5852550	56266	0	0
5852575	56081	-10	0
5852600	56463	0	0
5852625	56079	-6	0
5852650	56094	-5	0
5852675	56122	0	0
5852700	56183	-10	0
5852725	56199	0	0
5852750	56129	-4	0
5852775	56258	-10	0
5852800	56306	0	0

603600

Statiton	Mag	VLF	Quad
5851800	56136	10	0
5851825	56541	5	0
5851850	56181	-2	0
5851875	56120	0	0
5851900	56129	2	0
5851925	56304	10	0
5851950	56063	0	0
5851975	56010	-5	0
5852000	56270	0	0
5852025	56233	0	0
5852050	56101	-10	0
5852075	56071	12	0
5852100	56074	-4	0
5852125	56116	-2	0
5852150	56560	-18	0
5852175	56067	0	0
5852200	56178	5	0
5852225	56170	-5	0
5852250	56322	-6	0
5852275	56124	-10	0
5852300	56746	0	0
5852325	56110	-4	0
5852350	56117	0	0
5852375	56450	-10	0
5852400	56116	-6	0
5852425	56259	-5	0
5852450	56143	0	0
5852475	56106	0	0
5852500	56080	0	0
5852525	56104	-2	0
5852550	56091	10	0
5852575	56153	0	0
5852600	56087	-5	0
5852625	56139	0	0
5852650	56155	0	0
5852675	56131	0	0
5852700	56121	0	0
5852725	56125	0	0
5852750	56179	-5	0
5852775	56163	5	0
5852800	56804	0	0

603550

Station	Mag	VLF	Quad
5851800	56100	-10	0
5851825	56214	0	0
5851850	56330	-2	0
5851875	56104	5	0
5851900	56135	0	0
5851925	56142	-4	0
5851950	56179	-8	0
5851975	56134	14	0
5852000	56205	-6	0
5852025	56275	0	0
5852050	56094	0	0
5852075	56121	0	0
5852100	56263	-5	0
5852125	56191	0	0
5852150	56164	-10	0
5852175	56122	-8	0
5852200	56097	-15	0
5852225	56149	-10	0
5852250	56157	0	0
5852275	56152	0	0
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5852325	56284	25	0
5852350	56195	-2	0
5852375	56289	-6	0
5852400	56130	0	0
5852425	56087	0	0
5852450	56120	5	0
5852475	56160	0	0
5852500	56335	5	0
5852525	56414	0	0
5852550	56209	-15	0
5852575	56181	-10	0
5852600	56326	0	0
5852625	56125	0	0
5852650	56103	0	0
5852675	56156	-5	0
5852700	56236	14	0
5852725	56123	0	0
5852750	56129	-5	0
5852775	56096	0	0
5852800	56356	0	0

603500

Station	Mag	VLF	Quad
5851800	56070	-8	0
5851825	56023	0	0
5851850	56123	26	0
5851875	56434	16	0
5851900	56060	5	0
5851925	56597	0	0
5851950	56075	8	0
5851975	56012	-10	0
5852000	56279	0	0
5852025	56103	-4	0
5852050	56159	-5	0
5852075	56103	-5	0
5852100	56260	20	0
5852125	56411	0	0
5852150	56151	0	0
5852175	56242	0	0
5852200	56173	0	0
5852225	56176	-5	0
5852250	56381	2	0
5852275	56114	-5	0
5852300	56689	15	0
5852325	56170	0	0
5852350	56070	2	0
5852375	56353	0	0
5852400	56049	0	0
5852425	56446	0	0
5852450	56145	-5	0
5852475	56096	-5	0
5852500	56074	-4	0
5852525	56097	-15	0
5852550	56113	0	0
5852575	56342	0	0
5852600	56106	-2	0
5852625	56409	-5	0
5852650	56228	0	0
5852675	56190	0	0
5852700	56218	0	0
5852725	56157	0	0
5852750	56060	2	0
5852775	56526	-2	0
5852800	56506	0	0

603450

Station	Mag	VLF	Quad
5851800	56054	2	0
5851825	56056	0	0
5851850	56414	12	0
5851875	56187	25	0
5851900	56365	40	0
5851925	56169	0	0
5851950	56100	-4	0
5851975	56119	5	0
5852000	56070	0	0
5852025	56216	0	0
5852050	56142	5	0
5852075	56100	-2	0
5852100	56266	0	0
5852125	56056	0	0
5852150	56124	0	0
5852175	56341	-2	0
5852200	56143	0	0
5852225	56155	-5	0
5852250	56259	-4	0
5852275	56590	-10	0
5852300	56777	0	0
5852325	56180	5	0
5852350	56347	0	0
5852375	56153	-4	0
5852400	56338	0	0
5852425	56962	10	0
5852450	56502	0	0
5852475	56144	12	0
5852500	56486	0	0
5852525	56172	-2	0
5852550	56324	-5	0
5852575	56079	10	0
5852600	56213	0	0
5852625	56212	18	0
5852650	56187	0	0
5852675	56330	0	0
5852700	56265	10	0
5852725	56361	0	0
5852750	56423	-5	0
5852775	56238	0	0
5852800	56290	-4	0

603400

Station	Mag	VLF	Quad
5851800	56145	-6	0
5851825	56497	0	0
5851850	56117	0	0
5851875	56164	0	0
5851900	56097	-5	0
5851925	56083	0	0
5851950	56154	-8	0
5851975	56130	-4	0
5852000	56194	-5	0
5852025	56079	0	0
5852050	56104	0	0
5852075	56593	-5	0
5852100	56148	0	0
5852125	56105	-5	0
5852150	56154	0	0
5852175	56099	-5	0
5852200	56182	-5	0
5852225	56542	-5	0
5852250	56199	0	0
5852275	55957	0	0
5852300	56120	10	0
5852325	56314	-2	0
5852350	56721	0	0
5852375	56516	0	0
5852400	56733	4	0
5852425	56114	4	0
5852450	56245	-10	0
5852475	56176	-5	0
5852500	56645	-2	0
5852525	56283	15	0
5852550	56193	-5	0
5852575	56293	10	0
5852600	56389	0	0
5852625	56198	5	0
5852650	56405	0	0
5852675	56219	0	0
5852700	56540	15	0
5852725	56431	-10	0
5852750	56355	5	0
5852775	56114	0	0
5852800	56297	0	0

603350

Station	Mag	VLF	Quad
5851800	56090	-2	0
5851825	56051	0	0
5851850	56120	0	0
5851875	56110	0	0
5851900	56106	0	0
5851925	56178	0	0
5851950	56115	5	0
5851975	56171	0	0
5852000	56052	-5	0
5852025	56114	5	0
5852050	56137	-2	0
5852075	56076	5	0
5852100	56123	0	0
5852125	56222	0	0
5852150	56467	-5	0
5852175	56074	0	0
5852200	56197	0	0
5852225	56105	0	0
5852250	56405	-6	0
5852275	56090	-6	0
5852300	56135	2	0
5852325	56156	-2	0
5852350	56159	-5	0
5852375	56231	0	0
5852400	56221	15	0
5852425	56123	0	0
5852450	56110	-14	0
5852475	56453	0	0
5852500	56178	0	0
5852525	56154	0	0
5852550	56289	-4	0
5852575	56156	0	0
5852600	56128	5	0
5852625	56138	8	0
5852650	56130	0	0
5852675	56174	0	0
5852700	56190	0	0
5852725	56506	-5	0
5852750	56220	-2	0
5852775	56090	0	0
5852800	56160	0	0



603300

Station	Mag	VLF	Quad
5851800	56088	0	0
5851825	56074	0	0
5851850	56118	0	0
5851875	56109	2	0
5851900	56101	0	0
5851925	56150	0	0
5851950	56110	0	0
5851975	56125	-4	0
5852000	56177	0	0
5852025	56100	0	0
5852050	56130	0	0
5852075	56092	-2	0
5852100	56152	-2	0
5852125	56140	10	0
5852150	56470	-5	0
5852175	56183	2	0
5852200	56450	-10	0
5852225	56120	10	0
5852250	56106	0	0
5852275	56072	5	0
5852300	56093	-5	0
5852325	56094	-2	0
5852350	56106	-15	0
5852375	56093	-5	0
5852400	56125	-5	0
5852425	56056	-10	0
5852450	56131	-6	0
5852475	56180	-5	0
5852500	56215	0	0
5852525	56100	0	0
5852550	56368	0	0
5852575	56414	0	0
5852600	56175	0	0
5852625	56750	0	0
5852650	56126	-10	0
5852675	56612	-10	0
5852700	56302	0	0
5852725	56071	0	0
5852750	56065	5	0
5852775	56118	0	0
5852800	55931	0	0

603250

	Mag	VLF	Quad
5851800	56160	10	0
5851825	56101	0	0
5851850	56249	10	0
5851875	5625	5	0
5851900	56277	0	0
5851925	56150	0	0
5851950	56101	0	0
5851975	56206	0	0
5852000	56139	0	0
5852025	56137	0	0
5852050	56104	12	0
5852075	56150	0	0
5852100	56163	-5	0
5852125	56090	0	0
5852150	56153	0	0
5852175	56189	-10	0
5852200	56132	0	0
5852225	56105	0	0
5852250	56189	15	0
5852275	56140	10	0
5852300	56452	0	0
5852325	56084	-5	0
5852350	56104	10	0
5852375	56054	-5	0
5852400	56144	-15	0
5852425	56112	0	0
5852450	56187	-10	0
5852475	56182	5	0
5852500	56094	-5	0
5852525	56215	0	0
5852550	56075	-5	0
5852575	56184	0	0
5852600	56141	0	0
5852625	56275	-5	0
5852650	56117	0	0
5852675	56112	10	0
5852700	56142	0	0
5852725	56180	0	0
5852750	56091	0	0
5852775	56104	0	0
5852800	56460	-10	0

603200

Station	Mag	VLF	Quad
5851800	56169	20	0
5851825	56088	2	0
5851850	56257	15	0
5851875	56074	5	0
5851900	56277	0	0
5851925	56148	-4	0
5851950	56095	-2	0
5851975	56194	0	0
5852000	56099	0	0
5852025	56113	0	0
5852050	56085	26	0
5852075	56165	-2	0
5852100	56194	0	0
5852125	56112	-2	0
5852150	56109	0	0
5852175	56178	0	0
5852200	56124	0	0
5852225	56113	10	0
5852250	56188	-18	0
5852275	56155	5	0
5852300	56056	0	0
5852325	56109	-10	0
5852350	56107	0	0
5852375	56156	-2	0
5852400	56134	0	0
5852425	56133	-2	0
5852450	56088	-2	0
5852475	56146	0	0
5852500	56127	-5	0
5852525	56153	0	0
5852550	56105	0	0
5852575	56119	-10	0
5852600	56151	0	0
5852625	56122	0	0
5852650	56215	5	0
5852675	56106	0	0
5852700	56115	0	0
5852725	56122	16	0
5852750	56114	10	0
5852775	56102	0	0
5852800	56137	0	0

603150

Station	Mag	VLF	Quad
5851800	56135	-2	0
5851825	56215	0	0
5851850	56142	0	0
5851875	56170	-6	0
5851900	56094	0	0
5851925	56063	10	0
5851950	56182	0	0
5851975	56240	5	0
5852000	56176	0	0
5852025	56092	0	0
5852050	56161	-10	0
5852075	56122	0	0
5852100	56172	0	0
5852125	56132	-10	0
5852150	56218	0	0
5852175	56169	10	0
5852200	56127	0	0
5852225	56087	0	0
5852250	56178	-6	0
5852275	56129	5	0
5852300	56064	0	0
5852325	56157	-2	0
5852350	56134	0	0
5852375	56288	0	0
5852400	56130	0	0
5852425	56196	20	0
5852450	56090	-5	0
5852475	56197	10	0
5852500	56190	-10	0
5852525	56160	0	0
5852550	56141	16	0
5852575	56131	15	0
5852600	56205	14	0
5852625	56116	0	0
5852650	56136	-10	0
5852675	56301	-10	0
5852700	56024	10	0
5852725	56111	-5	0
5852750	56160	5	0
5852775	56186	0	0
5852800	56239	0	0