



ASSESSMENT REPORT TITLE PAGE AND SUMMARY

TITLE OF REPORT: **GEOLOGICAL AND GEOCHEMICAL WORK -
ASSESSMENT REPORT ON THE DOREEN PROJECT, CARIBOO MINING
DISTRICT, BRITISH COLUMBIA**

TOTAL COST: **\$14,084.84**

AUTHOR(S): **LOUIS E. DOYLE**

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STATEMENT OF WORK EVENT NUMBER(S)/DATE(S): **5416566 & 5434845
(JUNE 1, 2012 to OCTOBER 1, 2012)**

YEAR OF WORK: **2012**

PROPERTY NAME: **DOREEN**

CLAIM NAME(S) (on which work was done)

847427, 847435, 847437, 847438 & 847438

COMMODITIES SOUGHT: **GOLD, SILVER & COPPER**

MINERAL INVENTORY MINFILE NUMBER(S), IF KNOWN: **N/K**

MINING DIVISION: **CARIBOO**

BCGS: **093A/7W**

LATITUDE **52.30°**

LONGITUDE **120.94°**

UTM Zone **10N** EASTING **640755** NORTHING **5796975**

OWNER(S): **BARKER MINERALS LTD.**

MAILING ADDRESS: **8384 TOOMBS DRIVE PRINCE GEORGE BC, V2K 5A3**

OPERATOR(S) [who paid for the work]: **BARKER MINERALS LTD.**

MAILING ADDRESS: **8384 TOOMBS DRIVE PRINCE GEORGE BC, V2K 5A3**

REPORT KEYWORDS (lithology, age, stratigraphy, structure, alteration, mineralization,
size and attitude **do not use abbreviations or codes**)

**UPPER TRIASSIC, LOWER JURASSIC, ANDESITIC VOLCANICS, GOLD, SILVER
& COPPER**

REFERENCES TO PREVIOUS ASSESSMENT WORK AND ASSESSMENT REPORT
NUMBERS

BC Geological Survey
Assessment Report
33621

Geological & Geochemical Work Assessment Report on the Doreen Project

Horsefly Area, Cariboo Mining Division, British Columbia



for

Barker Minerals Ltd.
8384 Toombs Drive
Prince George, B.C.
V2K 5A3

Prepared by:

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February 28, 2013

TABLE OF CONTENTS

	Page
1.0 INTRODUCTION AND WORK COMPLETED	1
2.0 PROPERTY LOCATION	1
3.0 GEOGRAPHY AND PHYSIOGRAPHY	1
4.0 MINERAL DEPOSITS	4
5.0 HISTORY	6
5.1 In 1974 Newmont Mining and Dome Mines	6
5.2 In 1982 a government agrochemical release	6
5.3 1981–1983 Kern Holdings Ltd. and Eureka Resources Ltd.	6
5.4 1984 Noranda Exploration Co. Ltd.	7
5.5 1984–1985 Eureka Resources Inc.	7
5.6 1989 Gibraltar Mines Drilling	7
5.6.1 Objective	7
5.6.2 Results	7
5.7 Mineralization	10
5.8 Doreen Mineralization Model	10
5.9 Interpretation of 1989 Drill Program	11
5.10 Geological Survey of Canada Airborne Geophysical Survey Compilation	11
5.10.1 Likely Airborne Radiometric and Magnetic Survey	11
6.0 2012 WORK PROGRAM	12
6.1 Soil Collection and XRF Analysis Comparison Study	12
7.0 REGIONAL GEOLOGY	18
8.0 LOCAL GEOLOGY	18
8.1 Lithology	18
8.2 Structure	20
9.0 2012 EXPLORATION SUMMARY	20
9.1 Sampling Method and Approach	23
9.2 Sample Preparation and Analysis	23
10.0 CONCLUSIONS AND RECOMMENDATIONS	23
11.0 CERTIFICATE OF QUALIFICATIONS	24
12.0 BIBLIOGRAPHY	24

LIST OF PHOTOS

Photo No. 1.1	21
Photo No. 1.2	21
Photo No. 1.3	22
Photo No. 1.4	22

FIGURES

Figure No. 1	Property Location	2
Figure No. 2	Doreen Property Claim Map	3
Figure No. 3	Topographical Features	5
Figure No. 4	Drillhole Locations and Au in Soil Anomalies	8
Figure No. 5	2012 Doreen Soil and Rock Sample Locations	13
Figure No. 6	2009 Airborne Geophysical Survey - 1st Vertical Derivative Magnetics	14
Figure No. 7	2009 Airborne Geophysical Survey - Residual Total Magnetics	15
Figure No. 8	2009 Airborne Geophysical Survey - Thorium/Potassium	16
Figure No. 9	2009 Airborne Geophysical Survey - Potassium	17
Figure No. 10	Regional Geology Map	19

LIST of APPENDICES

Appendix A	Glossary of Terms
Appendix B	Mineral Claim Details.
Appendix C	Coarse Fraction - XRF Results
Appendix D	Coarse/Fine Soil - XRF Comparison
Appendix E	Rock Sampling Program - XRF Results
Appendix F	Statement of Expenditures

1.0 INTRODUCTION AND WORK COMPLETED

The mineral claims comprising the property are owned by and registered in the name of Barker Minerals Ltd. **(See Appendix B - Mineral Claim Detail)** During the summer of 2012 a total of 55 soil samples and 2 outcrop rock samples were collected along the upper East-West road of interest from an easting of 639870 to 640369 for a length of 500 meters. The spacing between each sample was ten meters, determined by meter-marked hip-chain.

The purpose of the 2012 program was to confirm the gold in soil environment and to determine the best methodology of the use of a hand held XRF analyzer. 55 soil samples were collected and once at camp they were sieved and prepared for initial XRF analysis. The 26 samples which indicated gold and/or gold pathfinders may be present were further crushed and pulverized and analyzed by XRF in order to compare to the initial coarse XRF results.

The 2 different methodologies were compared in order to determine if in-situ analysis would be as efficient in detecting anomalous areas of interest as the more costly, labor and time intensive process of collecting, preparing and assaying of every sample. Comparative results of the 2 different analysis types indicate that the hand held XRF should be able to be effectively used in the field for in-situ analysis of soils, for analysis of sieved samples in the field, or collected for follow up analysis back at camp. **(See Appendix C, D & E - XRF Soil, Rock & Soil Comparison Analysis Results)**

The Likely 2008/2009 GSC Geophysical Airborne results were reviewed around the Doreen project and incorporated in the body of the report as figures.

The local geology and past history of the Doreen project area is described in this report with information from previous assessment reports #13,172, Noranda - 1984; #17,089, Eureka Resources - 1988; and #19,551 Eureka Resources - 1990

2.0 PROPERTY LOCATION

The Doreen claims are situated some 85 km east of Williams Lake, British Columbia, within National System area 93A/7W, and are centered at 120° 57'W longitude and 52° 17'30"N latitude. Road access to the property is east for 55 kilometers on the paved road from 150 Mile House to Horsefly River for about 30 km to a branch road that goes south up Doreen Creek to Doreen Lake **(Figure 1 – Doreen Property Location) (Figure 2 – Doreen Property Claim Map)**

The south-facing slope north of the east end of Doreen Lake has been burned and logged. A network of old skid trails and recent bulldozer trails built by Eureka Resources, Inc. reaches the south-central part of the Dorfly 2 claim where most of the exploration work has been done.

3.0 GEOGRAPHY AND PHYSIOGRAPHY

The property is situated regionally in the Interior Plateau physiographic area. Glacial drift of various depths occur on the property with outcrop scarce except in the higher elevation areas where a moderate amount of outcrop is exposed and will be mapped in follow up programs. Overburden is thin in the eastern part of the claims but increase in depth to the west.

The climate is typical for the central interior, with warm summers and moderately cold winters. Annual precipitation is around 40 centimetres.



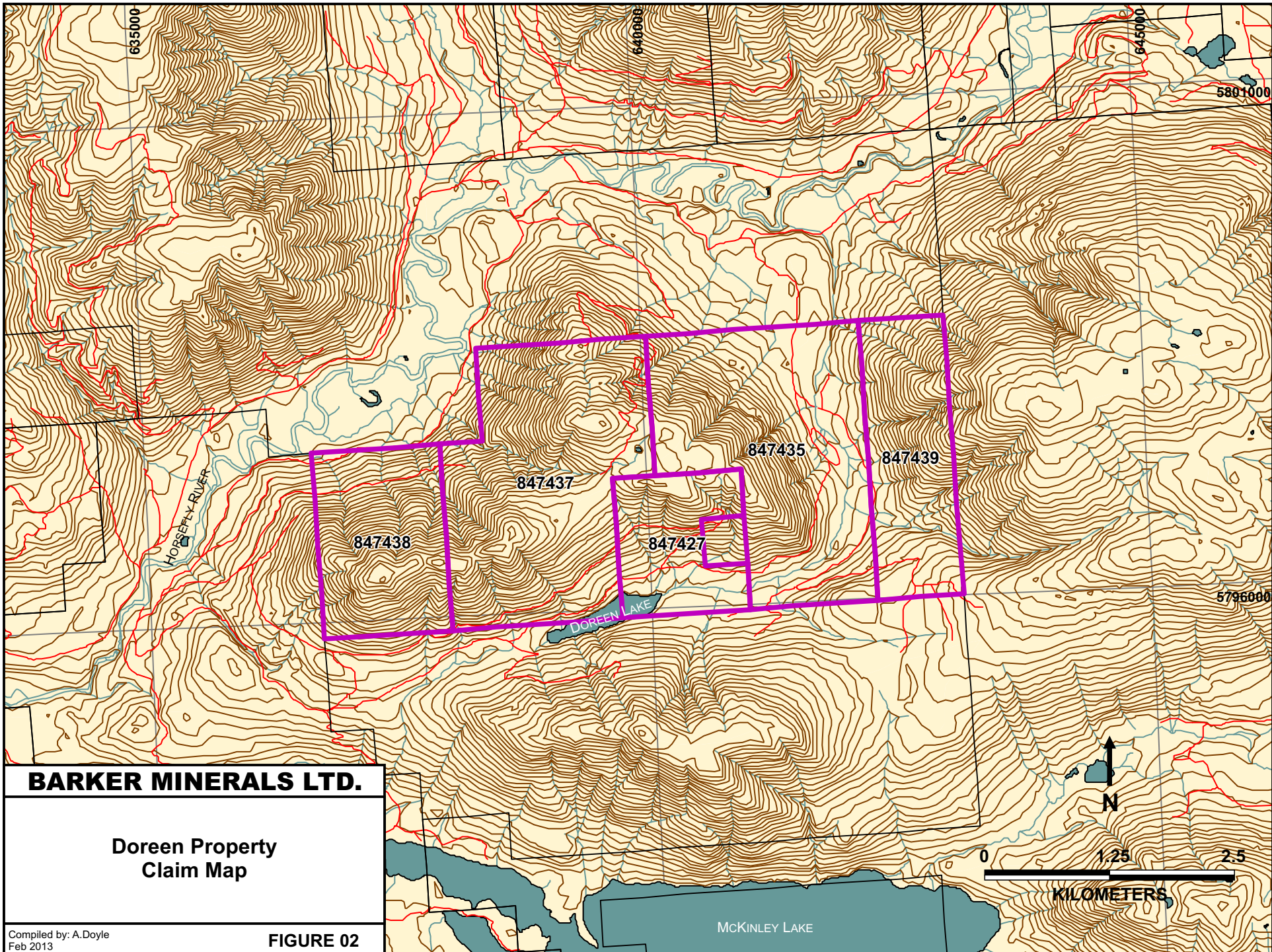
BARKER MINERALS LTD.

Property
Location
Map

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Feb 2013

FIGURE 01





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**Doreen Property
Claim Map**

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FIGURE 02

McKINLEY LAKE

KILOMETERS

The project area has been ravaged by beetle bug kill and is being actively logged for fir, spruce and pine in the area, principally during winters, which has created significant road access to the project areas.

The claims area covers moderately dissected, rolling hills near the transition between the Interior Plateau on the west and the Cariboo Mountains on the east. Relief is about 500 m, from Doreen Lake (950 m elev.) to the hill on the north (1,550 m elev.) Forests of cedar, fir, balsam and spruce cover the eastern and southern claims area. These have been logged in part recently. A large burn covers the remainder of the claims, and it has light to moderate second growth. **(Figure 3 - Google Earth Topography)**

4.0 MINERAL DEPOSITS

Three general types of gold deposits are possible on the project, gold-bearing veins, stratabound occurrences and copper-gold porphyry type deposits. This classification is simplistic, but forms a starting point in the discussion.

Upper Triassic black argillites and phyllites host most of the gold-quartz veins along the eastern margin of the Quesnel Trough, as for example, the Frasergold occurrence (stratigraphically controlled, gold-bearing quartz veins and segregations) and similar occurrences in the Spanish Mountain area.

The Doreen occurrence is classed as vein type. There are crosscutting vein-like bodies of massive pyrrhotite and pyrite in the area, some parts of which do carry gold. However, there is scarcity of megascopic quartz veining and Doreen occurrence should not be confused with the gold-quartz veins in the Upper Triassic rock units to the east.

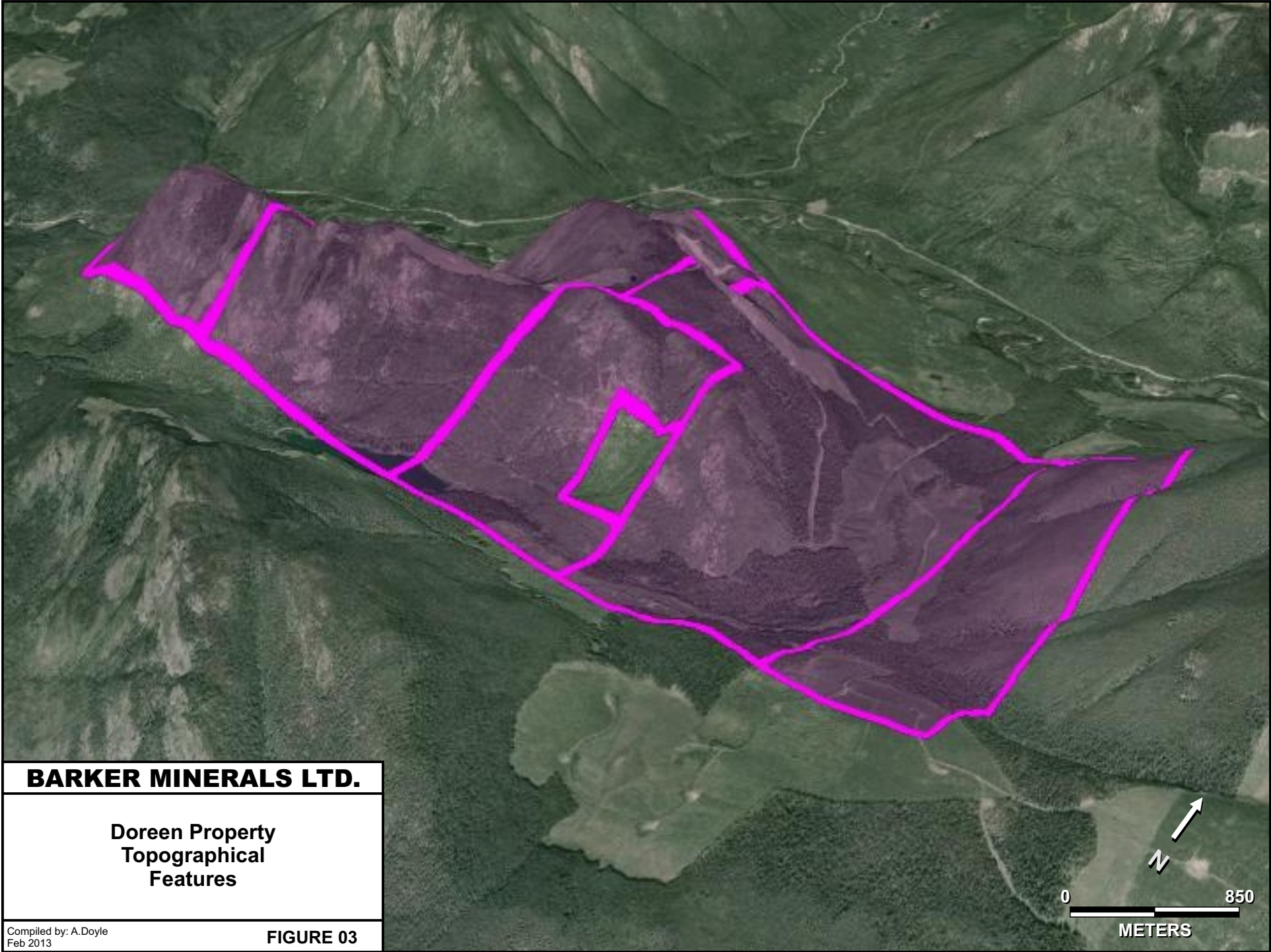
The largest and most developed gold deposits are associated with the early Jurassic plutons, namely the Cariboo-Bell deposit and the QR deposit. At the Mt. Polley Cariboo-Bell deposit, 9 km southwest of Likely mineralization is mainly confined to high level, intrusive breccia zones within an alkalic laccolith of early Jurassic age emplaced at the site of an Upper Triassic eruptive center (Saleken and Simpson, 1984).

The QR deposit, 15 km northwest of Likely has gold mineralization located within a 300 m wide alteration halo about the QR stock in volcanoclastics, blocky basaltic conglomerate and breccia, and hornfelsed sediments. The QR stock has diorite margin and monzonite core (Fox et al, 1986).

There are two types of ore present at the QR deposit: pyritic stockworks in propylitized basalts and disseminated pyrite in massive, propylitized basaltic tuffs. The alteration assemblage includes variable amounts of pyrite, chlorite, fine-grained disseminated epidote, epidote-rich selvages on pyrite-carbonate veinlets, and thin pyrite-epidote coatings on fractures (Fox et al, 1986).

Fox et al have summarized the events as follows. They are repeated in full, as they could be directly applicable to an understanding of the mineralization on the Doreen claims. The three stages are:

- 1) 'Mafic submarine volcanics of shoshonitic (alkalic) composition are deposited from fissure style eruptions. No textural zoning within the basaltic pile is present to indicate any central volcanic center. During waning stages of the mafic phase, a brief volcanic hiatus allows development of shelf-like limestones and calcareous sediments. Remnant heat flow from the mafic volcanics or perhaps the initial development of the central



BARKER MINERALS LTD.

Doreen Property
Topographical
Features

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FIGURE 03

volcanic centers present during the subsequent felsic volcanic phase results in local fumarolic activity. This activity results in pyrite-carbonate alteration of basaltic units near the top of the pile. Pyrite precipitates forming fine-grained framboidal, colloform masses and bedded textures accompanied by sparry calcite cement. Traces of chalcopyrite in this horizon and local beds of massive pyrite suggest that massive sulphide deposits may have formed at this time. Gold is not present at this stage.

- 2) Rapidly rising, differentiating, silica-poor diorite stocks begin to intrude the volcanic pile. Felsic breccias and flows are erupted from central volcanoes. Fragments of the stock and the surrounding basaltic rocks are often taken up in eruptive breccia flows. Felsic rocks quickly grade outward from volcanic centers into distal volcanoclastic and epiclastic equivalents. Possible auriferous exhalative horizons may form at this time within proximal felsic strata.
- 3) Eventually the alkalic stock, now strongly differentiated, intrudes its own volcanic extrusives. Possible caldera collapse provides a plumbing system for a convection system of heated, acidic, oxidizing meteoric and/or magmatic fluids. Gold is taken into solution from the surrounding rock mass or contributed directly from magmatic fluids. When gold-laden solutions encounter the pyrite-carbonate horizon, formed in Stage 1, the strong pH-Eh barrier precipitates gold at the reaction front. Higher in the convective system no favorable host rock is present and the system diffuses into a large, low grade porphyry copper deposit.'

It follows from the above descriptions and models presented that gold exploration in the Quesnel Gold Belt should then focus on semi-conformable; stratabound mineralization hosted by permeable volcanoclastic or sedimentary rocks, preferably calcareous tuffs and siltstones, and developed in propylitic alteration zones about alkalic plugs, stocks and dikes. Major faults could have played a part in the mineralization, in so far as volcanic centers could be preferentially developed in gradens along a volcanic axis.

5.0 HISTORY

The exploration history of the Doreen claims has been well reviewed by Leishman (1985) and the following is mostly based on his summary.

5.1 In 1974 Newmont Mining and Dome Mines

Reported the occurrence of porphyry copper mineralization in a small-altered quartz diorite stock, the "Doreen" occurrence (B.C. Ministry of Mines, G.E.M., 1974)

5.2 In 1982 a government agrochemical release

(Regional Agrochemical Survey, Geological Survey of Canada, B.C. Ministry of Energy, Mines and Petroleum Resources, N.T.S. 93A) identified prominent agrochemical anomalies in silts and which touched off a staking rush in the area. Kern Holdings Ltd. staked the Door claims at this time.

5.3 1981–1983 Kern Holdings Ltd. and Eureka Resources Ltd.

Kern Holdings Ltd. completed a soil survey over the claims in 1981, collecting 330 samples. Anomalous gold values were not abundant; however a correlation between anomalous copper and gold values was noted. In 1983 Eureka Resources Ltd. undertook soil sampling (887 samples), geological mapping, rock chip sampling, a limited VLF-EM survey and access road construction.

A broad zone, greater than 45 ppb Au, parallels the base line from 14E to 26E. Zones of ferricrete (re-cemented talus and soil with sulphide fragments) were found near the main gold geochemical anomaly. These carried from 0.022 oz Au/ton, and were thought at the time to indicate near surface mineralization.

5.4 1984 Noranda Exploration Co. Ltd.

In the early part of the 1984 field season Noranda undertook, geological mapping, geophysical and geochemical surveys, and drilled two short holes.

Most of the work was along the base line in the area of the main geochemical anomaly. A HLEM and magnetometer survey was completed over most of the area. An EM conductor was outlined, which coincided with the eastern end of the soil geochemical anomaly. However, over most of its length the conductor lies some 50 m north of the geochemical anomaly. Test lines of induced polarization indicated an extensive and highly polarized unit (pyrite and pyrrhotite). Baerg and Bradish (1984) concluded that the HLEM and IP anomaly source could possibly be a mineralized shear or narrow alteration zone. One sample of float carried 12.5 ppm Au.

Two holes were spotted to test the EM conductor. Massive sulphides were intersected but these carried negligible gold. However, later re-sampling of the core by Eureka reported a value of 0.026 oz Au/ton over 2.1 m of highly altered andesite with low sulphide content in the hole NDL-84-1.

5.5 1984–1985 Eureka Resources Inc.

Eureka then performed trenching, soil and rock chip sampling. The trenching was concentrated in the area of Noranda's drill holes. Values to 0.132 oz Au/ton were reported. A narrow band of brecciated massive pyrrhotite and pyrite was uncovered near 22+60E, 2+00N but no gold values were reported. One sample of massive sulphide float collected by B. Kahlert carried **68 ppm Au.**

Further trench chip sampling by Eureka in 1985, uncovered two more zones of massive sulphides with both carrying insignificant values of gold and silver. One sample of andesite west of NDL-84-1 returned 0.186 oz Au/ton over 2 m. The steep topography precluded trenching, however.

5.6 1989 Gibraltar Mines Drilling

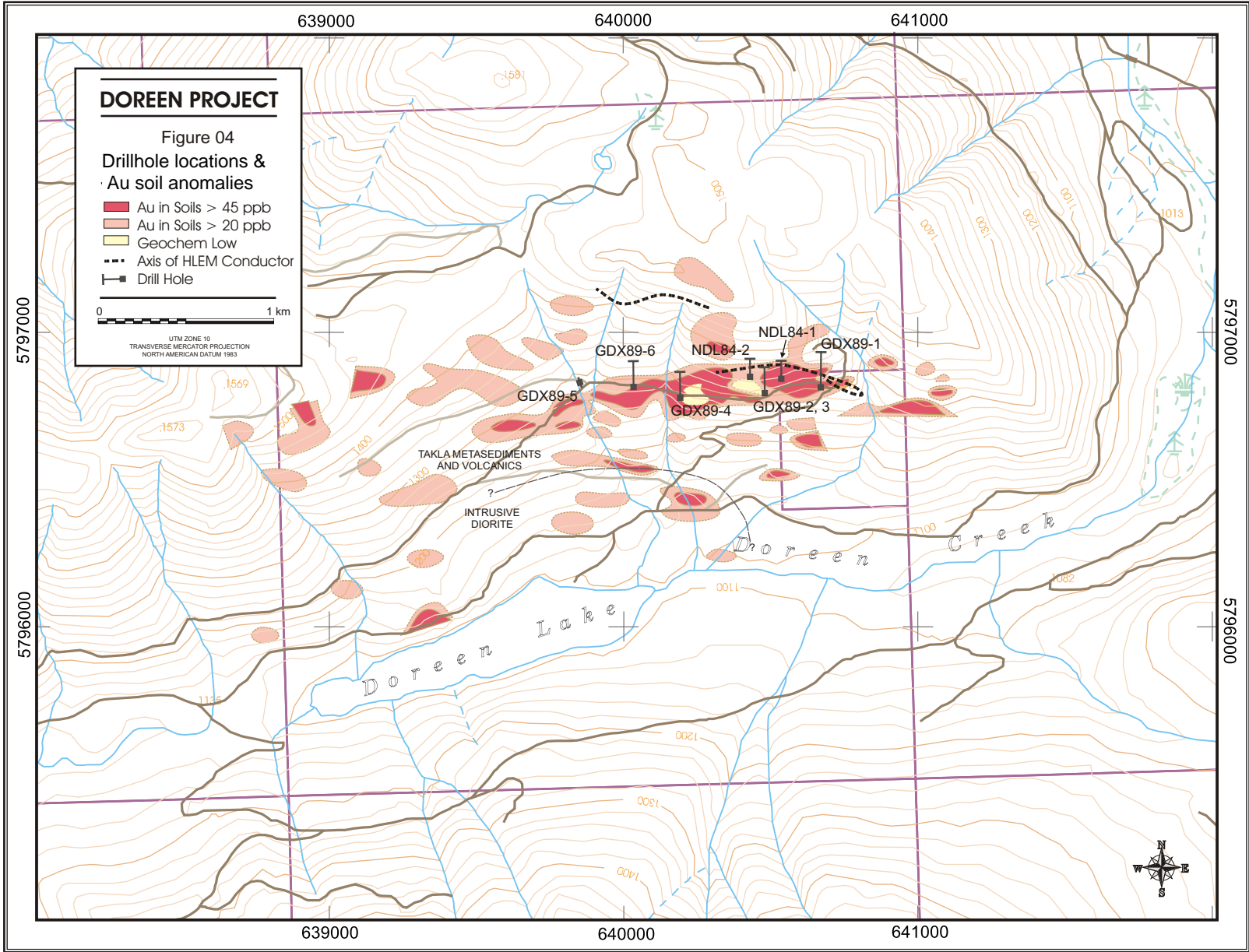
A diamond drill program was conducted by Gibraltar Mines Limited during the period August 14 to August 30, 1989. Six holes were drilled totalling 1212.71 meters.

5.6.1 Objective

The primary purpose of the 1989 drill program was to test the inferred bedrock source of the large east trending geochemical gold anomaly outlined by Eureka. A secondary purpose was to determine the geological nature of the sulfide mineralization found in rock exposures within and adjacent to the geochemical anomaly. **(Figure 4 – Drillhole Locations and Au Soil Anomalies)**

5.6.2 Results

Two vertical and four angle N.Q. diamond drill holes were completed. Some difficulty was encountered in drilling the hard, highly fractured hornfelsic rocks but recoveries generally remained above 95. Survey control was by compass, hip chain and topographic map. Assays of the core were unavailable at the time the Statement of Work was submitted.



Drill holes 89-1, 89-2, 89-3, 89-4 and 89-6 have encountered similar rock types. All holes for example, have intersected an alternating sequence of fine-grained siliceous black argillite and fine to medium grained grey-green tuff. The tuff appears to be of andesitic or dacitic composition and generally lacks bedding structure. The argillite appears to be composed mainly of silica with minor and variable amounts of graphite and carbonate. Fine bedding structure is often shown by alternating grey and black laminae. Bedding angles, as indicated in vertical hole 89-3, suggest the sequence dips at 70- to 80-degrees. The thickness of the alternating tuff and argillite beds vary between one- and 40-meters. All the above holes also indicate the argillite-tuff sequence has been intruded by a series of grey seriate textured dacitic dykes. Heat metamorphic effects occur on most dyke contacts and some brecciation of the host rock was noted in holes 89-2 and 89-4. A steep dip can be inferred for most of the dykes; particularly in the case of drill hole 89-2, which suggests the dyke contact, lies along the 63-degree axis of the hole. Another dyke rock was noted in holes 89-4 and 89-6; this is a grey-green fine-grained seriate textured hornblende porphyry having conspicuous black prismatic hornblende phenocrysts. All the rock units contain very fine grained disseminated pyrrhotite and pyrite which generally averages between one- and two-percent, and may exceed seven-percent in some three- to six-meter sections. The relationship between pyrite and pyrrhotite is not clear, but there is some suggestion that the proportion of pyrite increases towards the west. Massive brown pyrrhotite segregations occur in many of the holes, particularly in hole 89-1, in which several massive zones up to .5 meters thick have been intersected. Minor chalcopyrite often accompanies the massive pyrrhotite. All the rock units are cut by numerous quartz and quartz-carbonate veinlets, which occasionally also contain sulphides.

Drill holes 89-3, 89-4 and 89-6 have encountered higher grades of contact metamorphism associated with zones of plutonic rock. In the case of 89-3, a biotite hornfels was intersected near the bottom of the hole at 201 m., followed by a zone of grey diorite and more biotite hornfels. Further to the west, hole 89.4 appears to be confined entirely to alternating zones of biotite hornfels, recrystallized tuff and dacitic dykes. A four meter zone of diorite rock was also noted. Still further west, hole 89-6 has intersected a sequence of breccias, zones of biotite hornfels and recrystallized tuff, and 17-meter wide zone of grey quartz-diorite fragments. Another is a mixture of various plutonic porphyry fragments, some of which appear felsic.

Drill hole 89-5, which was the most westerly hole of the program, was confined almost entirely to a dioritic rock type. The diorite appears mainly as a fine to medium grained, equigranular plutonic rock consisting essentially of plagioclase and mafic minerals. Various degrees of propylitic alteration were noted throughout the hole, mainly involving a saussuritization of plagioclase and chloritization of mafic minerals. Cutting the propylite were numerous zones of dark chlorite-green alteration assumed to be an assemblage of chlorite, silica and minor carbonate. This same alteration also occurs as halos and envelopes around certain quartz veins. Zones of massive epidote occur throughout the hole, as well as quartz veining accompanied by various combinations of chlorite, epidote and carbonate. Disseminated pyrite was noted and pyrrhotite also occurs in veins either alone or with the other vein minerals. One zone, at about 213-meters, contains massive pyrrhotite, pyrite and chalcopyrite in a quartz-carbonate-chlorite gangue over a width of about .6-meters. Of interest in this hole, was the occurrence of hornblende porphyry dykes similar to those of holes 89-4 and 89-6, which were clearly intrusive

to the diorite.

5.7 Mineralization

Baerg and Bradish reported that four types of mineralization occur:

1. small isolated pods of semi-massive pyrrhotite-pyrite-chalcocopyrite in chloritic altered volcanics,
2. semi-massive to massive pyrrhotite, +/- pyrite, +/- chalcocopyrite in east-west shear zones within andesitic volcanics
3. small chalcocopyrite-rich zones in chloritic siliceous volcanics, and
4. isolated massive sulphide float in ferricrete.
5. fine pyrite-filled fractures in andesite, and
6. disseminated pyrite in andesite

Gold mineralization occurs in the following areas:

1. Massive pyrrhotite and pyrite to **68,000 ppb Au**. Gold values in these rocks are very variable and I do not believe they constitute a prime target for gold mineralization. Drilling by Noranda verified that massive sulphides are the probable cause of the conductivity anomaly. *“However, these sulphides are not thought to have much to do with the geochemical anomaly to the south”*.
2. Ferricrete; assays to 0.155 oz Au/ton and 12.55 ppm Au. The ferricrete consists of fragments of sulphides, bleached argillite and altered volcanics cemented with iron oxides. It occurs near and downslope of the massive sulphides exposed in the trenches and is considered to be a surficial deposit related to groundwater flow. Gold is a common constituent of such iron oxides, and in this case is most likely derived from any gold-bearing sulphides in the massive sulphide occurrences. The ferricrete is not considered to be a gold exploration target but it is a useful prospecting phenomena.
3. Rocks mapped as andesite 20 m west of NDL-84-1; assays of 0.132 and 0.186 oz Au/ton. The rocks in this area are silicified, chloritic andesites. These rocks are a worthy exploration target. They lay upslope of the gold geochemical anomaly in soil, but their location does not explain the east-west trend of the gold anomaly.

5.8 Doreen Mineralization Model

The following geological factors that could be part of a mineralization model are:

1. presence of interlayered andesitic volcanics and argillites; permeable due to their inherent volcanoclastic and clastic textures and brecciated aspect.
2. presence of quartz diorite plug or stock; the possibility of other bodies being present should be explored, as these could be the source of gold-bearing fluids, as at other occurrences in the region.
3. situation of east-west structure (s) which at this time are considered to be shear zone (s) and to control massive sulphide deposits. They could explain the subparallel gold geochemical anomaly.
4. Airborne coincident Radiometric Th/K lows associated with K highs and magnetic highs confirm a very favorable gold environment.

Geological factors critical to mineralization at the QR deposit that have not yet been found on the Doreen claims are:

1. pervasive propylitic and potassic alteration,
2. calcareous tuffs and sediments, and
3. pyrite-carbonate alteration whose location subsequently determines where gold precipitates.

It remains to be determined if gold mineralization detected in the andesites near the geochemical anomaly is the source of that anomaly. It may very well be that there is an underlying east-west structure that extends westward as far as the quartz diorite plug. ***If that is so, then the Doreen mineralization model would include a source of gold (the diorite), a conduit (the east-west structure), and host rock (permeable, brecciated, slightly altered andesitic volcanics and shattered argillites).***

5.9 Interpretation of 1989 Drill Program

The diamond drill program has indicated the geochemical anomaly is underlain in part, by a contact zone formed between a dioritic pluton and an argillite-tuff sequence. The diorite appears to have been altered by an early alteration, and a later hydrothermal phase, which has caused localized *chlorite-quartz-carbonate alteration*. Sulfides, mainly pyrite and pyrrhotite with minor chalcopyrite and molybdenite appear to have accompanied the later alteration phase. The sulfide mineralization also appears to have been a relatively late event since it occurs in all rocks including the hornblende porphyry, which is clearly younger than the diorite. The presence of a quartz diorite zone in hole 89-4 and felsic fragments in nearby breccias are of interest since it suggests the pluton is differentiated into more acidic phases. Narrow contact effects immediately next to the pluton, which involve the transformation of argillite to biotite hornfels and the recrystallization of tuff to granoblastic textured rock, suggests an epizonal level of emplacement. An irregular easterly dipping contact zone is also indicated by the distribution of biotite hornfels and plutonic rock in drill holes 89-3, 89-4 and 89-6. The fact that the drill holes are distributed along a westerly axis, and each hole, with the exception of 89-5, has intersected the argillite-tuff sequence as well as numerous dacite dykes suggests that both the argillite-tuff sequence and the dykes strike close to a westerly direction. This appears even more likely when it is considered that both the dykes and host rock dip at 70- to 80-degrees, possibly to the north. *If westerly strike is correct, then this drill program has been confined to only a narrow horizon within the sedimentary-volcanic host rock formation. The drilling may, however, lie at a large angle to the thermal metamorphic gradient set up by the pluton; that is; the pluton at this point is considered to strike northerly.*

5.10 Geological Survey of Canada Airborne Geophysical Survey Compilation

5.10.1 Likely Airborne Radiometric and Magnetic Survey

The Geological Survey of Canada (GSC) conducted an airborne geophysical survey (Likely survey) in 2008-2009 covering a 30 km x 150 km area oriented NW-SE between the latitudes of Quesnel and Williams Lake. A portion of this survey covered the area of the Doreen property. The work resulted in a series of 1:50,000 scale magnetic and gamma-ray spectrometric maps, published as GSC Open Files 6157 to 6166.

6.0 2012 WORK PROGRAM

6.1 *Soil Collection and XRF Analysis Comparison Study*

During the summer of 2012 a total of 55 soil samples were collected along the upper East-West road of interest from an easting of 639870 to 640369 for a length of 500 meters. The spacing between each sample was ten meters, determined by meter-marked hip-chain. **(Figure 5 – 2012 Doreen Soil and Rock Sample Locations)**

The purpose of the 2012 program was to confirm the gold in soil environment and to determine the best methodology of the use of a hand held XRF analyzer. Soil samples were collected and once at camp they were sieved and prepared for initial XRF analysis. The samples which indicated gold and/or gold pathfinders may be present were selected for further crushing and pulverizing then re-analyzed by XRF in order to compare to the initial coarse XRF results.

It is expected at the end of this study Barker will have determined what level of homogenizing of soil samples is required in order to achieve reliable and repeatable XRF geochemical results.

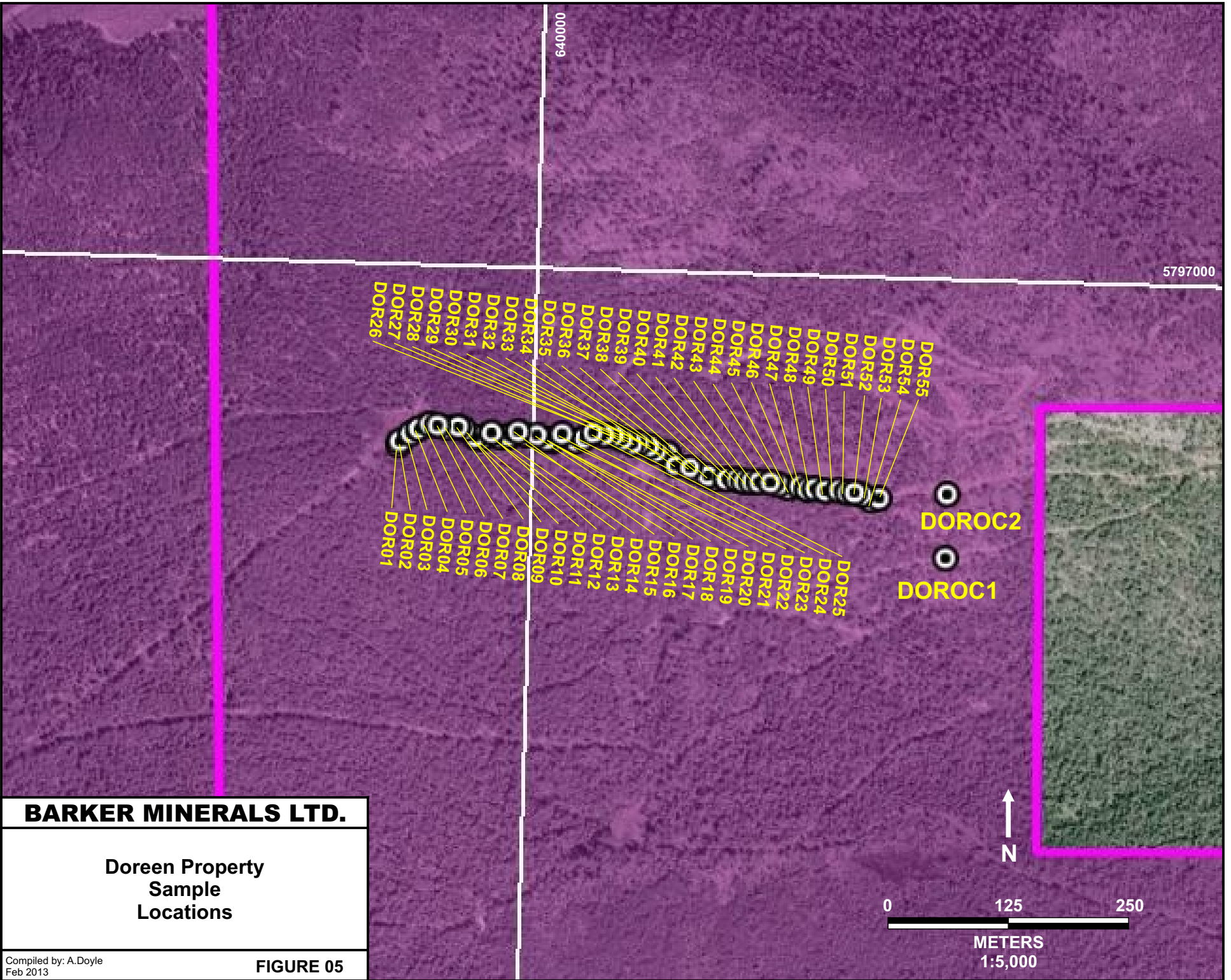
Although bedrock was rare on the area of soil sampling cursory rock sampling was conducted where surface outcrop permitted with 2 samples being analyzed by handheld XRF.

The initial results of the comparative study of various media fractions indicate that similar patterns are detected in the coarse media vs the finely pulverized material. This suggests that soil collecting on masse is not required and 1st pass sampling can reliably be completed with in-situ, or in the field, XRF sampling with the hand held analyzer. The ability to detect the most favorable gold targets in real time will save the company significant money which would otherwise have to be spent collecting, transporting, preparing and assaying every sample, good or bad.

The ability to gather geochemical information in real time allows for quick decisions to be made which also shortens the timeframe to define the most favorable targets for follow up.

Barker's compilation of the extensive airborne surveys results included placing Barker's Doreen property claims onto a background showing the 1st vertical derivative magnetics, **(Figure 6 – 2009 Airborne Geophysical Survey – 1st Vertical Derivative Magnetics)**, **(Figure 7 - 2009 Airborne Geophysical Survey – Residual Total Magnetics)** **(Figure 8 – 2009 Airborne Geophysical Survey - Thorium/Potassium)** and potassium **(Figure 9 - 2009 Airborne Geophysical Survey - Potassium)** results from portions of the GSC maps from Open File 6157.

Almost the entire Doreen property is underlain by a large and strong, broad NW/SE trending first derivative and residual magnetic signature which is also associated with a Th/K low and K high. The magnetic highs may represent important intrusive host rocks. This geophysical signature style is typical of important gold bearing environments elsewhere in the world.



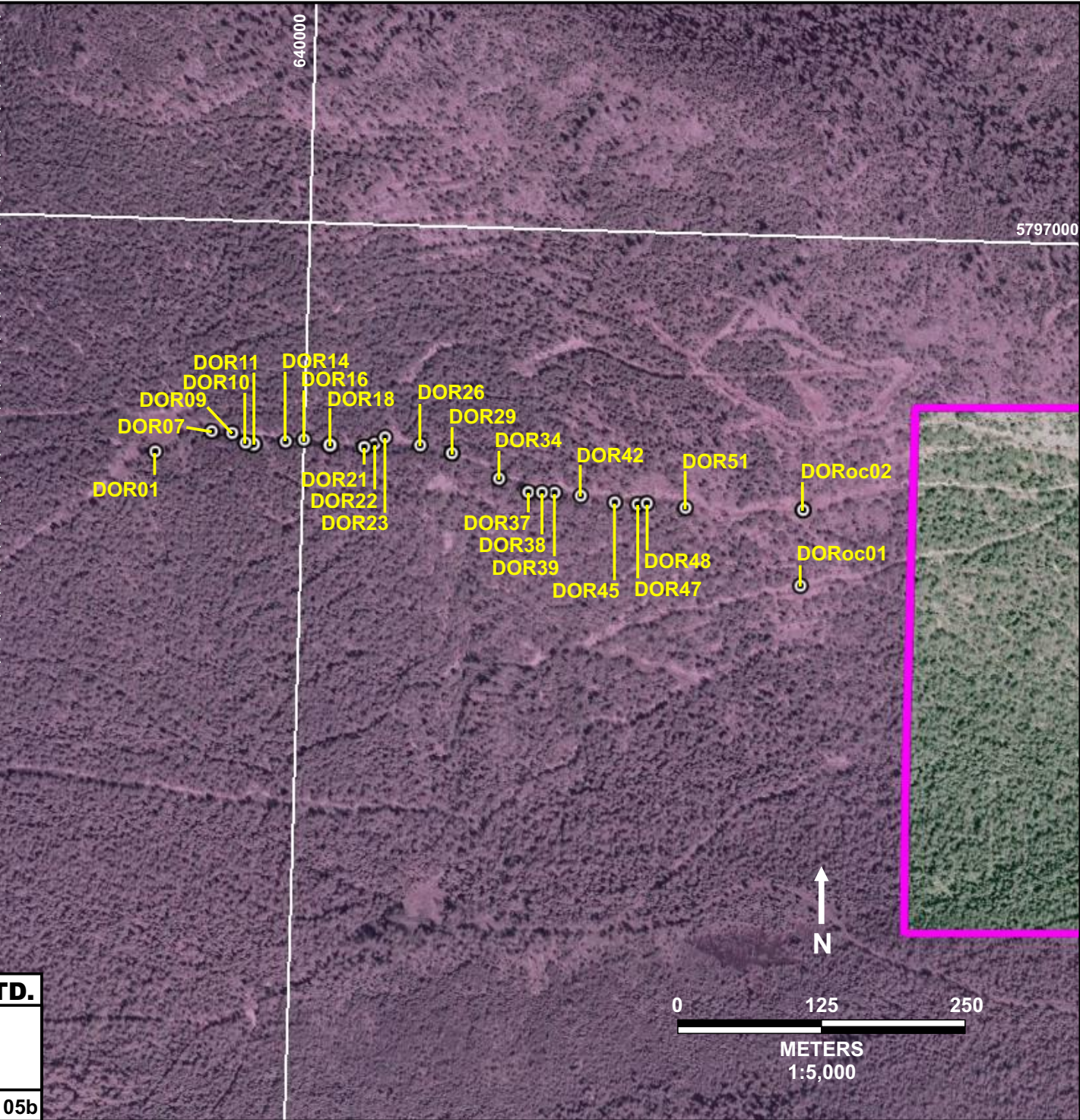
BARKER MINERALS LTD.

Doreen Property
Sample
Locations

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Feb 2013

FIGURE 05

ID	Au PPM	Position
DOR01	8.19	10 U 639870 5796808
DOR07	7.75	10 U 639919 5796827
DOR09	7.77	10 U 639937 5796826
DOR10	7.95	10 U 639949 5796818
DOR11	8.4	10 U 639956 5796817
DOR14	7.81	10 U 639984 5796820
DOR16	8.31	10 U 640000 5796822
DOR18	10.26	10 U 640023 5796818
DOR21	7.95	10 U 640053 5796817
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DOR22	8.8	10 U 640062 5796820
DOR23	8.78	10 U 640071 5796826
DOR26	8.4	10 U 640102 5796820
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DOR29	12.36	10 U 640130 5796814
DOR34	9.31	10 U 640172 5796793
DOR37	11.64	10 U 640198 5796782
DOR38	10.42	10 U 640210 5796782
DOR39	8.84	10 U 640221 5796782
DOR42	9.21	10 U 640244 5796780
DOR45	9.27	10 U 640274 5796775
DOR47	10.79	10 U 640294 5796774
DOR48	9.28	10 U 640302 5796775
DOR51	9.47	10 U 640336 5796772
DOROC1	9.95	10 U 640440 5796707
DOROC2	11.87	10 U 640439 5796773
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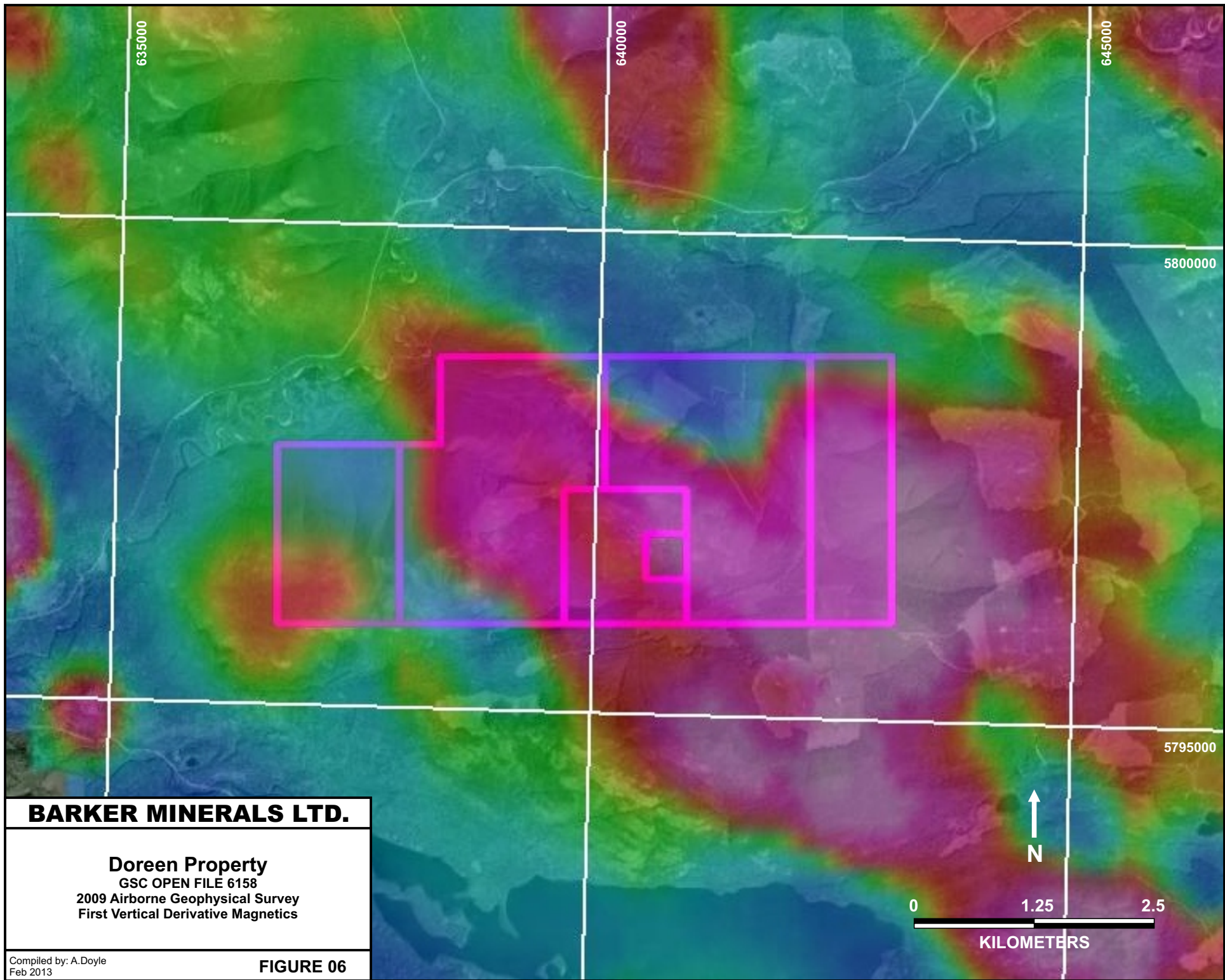


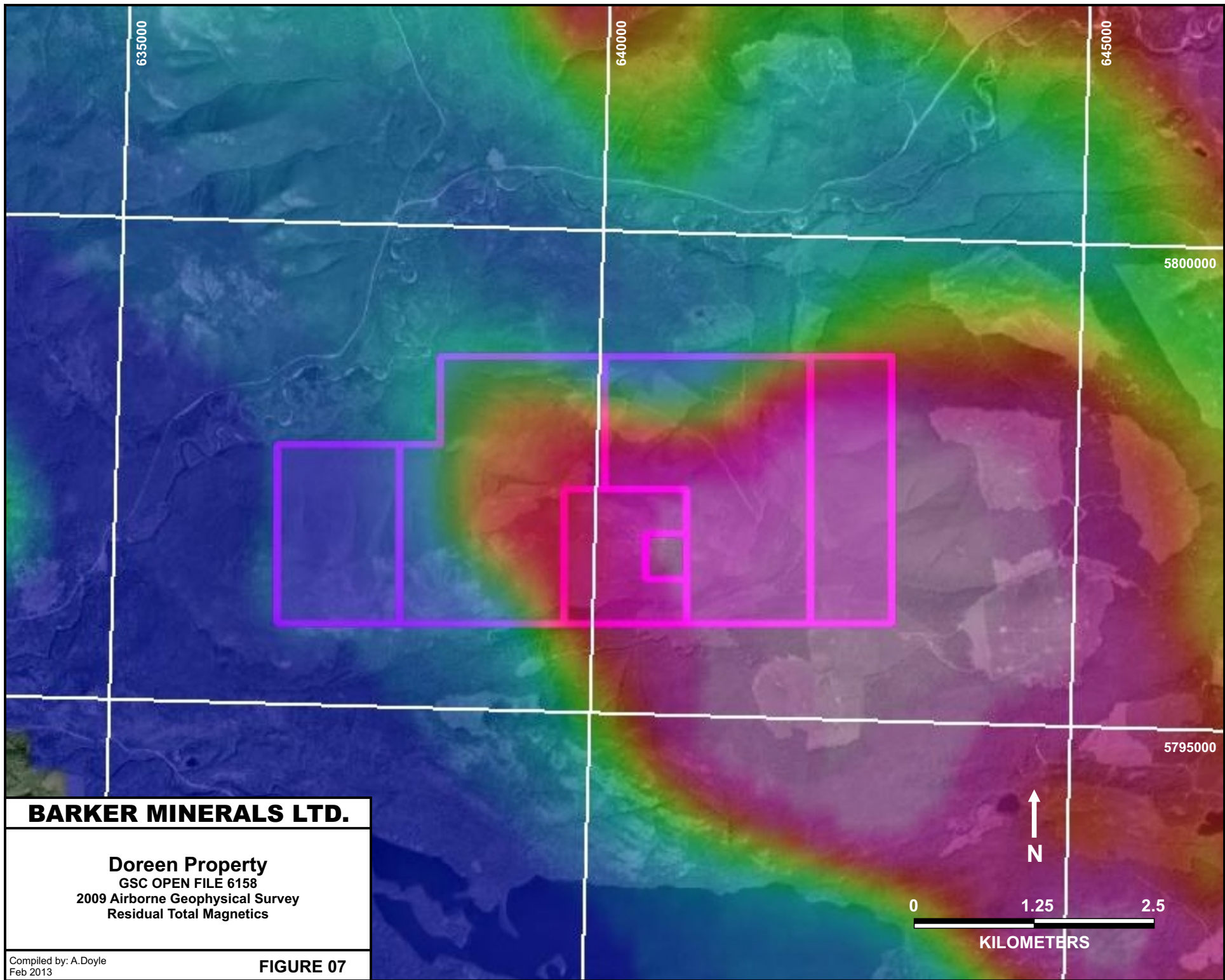
BARKER MINERALS LTD.

**Doreen Property
Gold In Soils**

Compiled by: A.Doyle
Feb 2013

FIGURE 05b



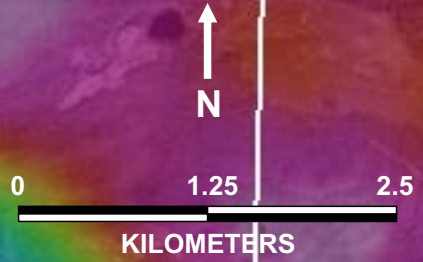


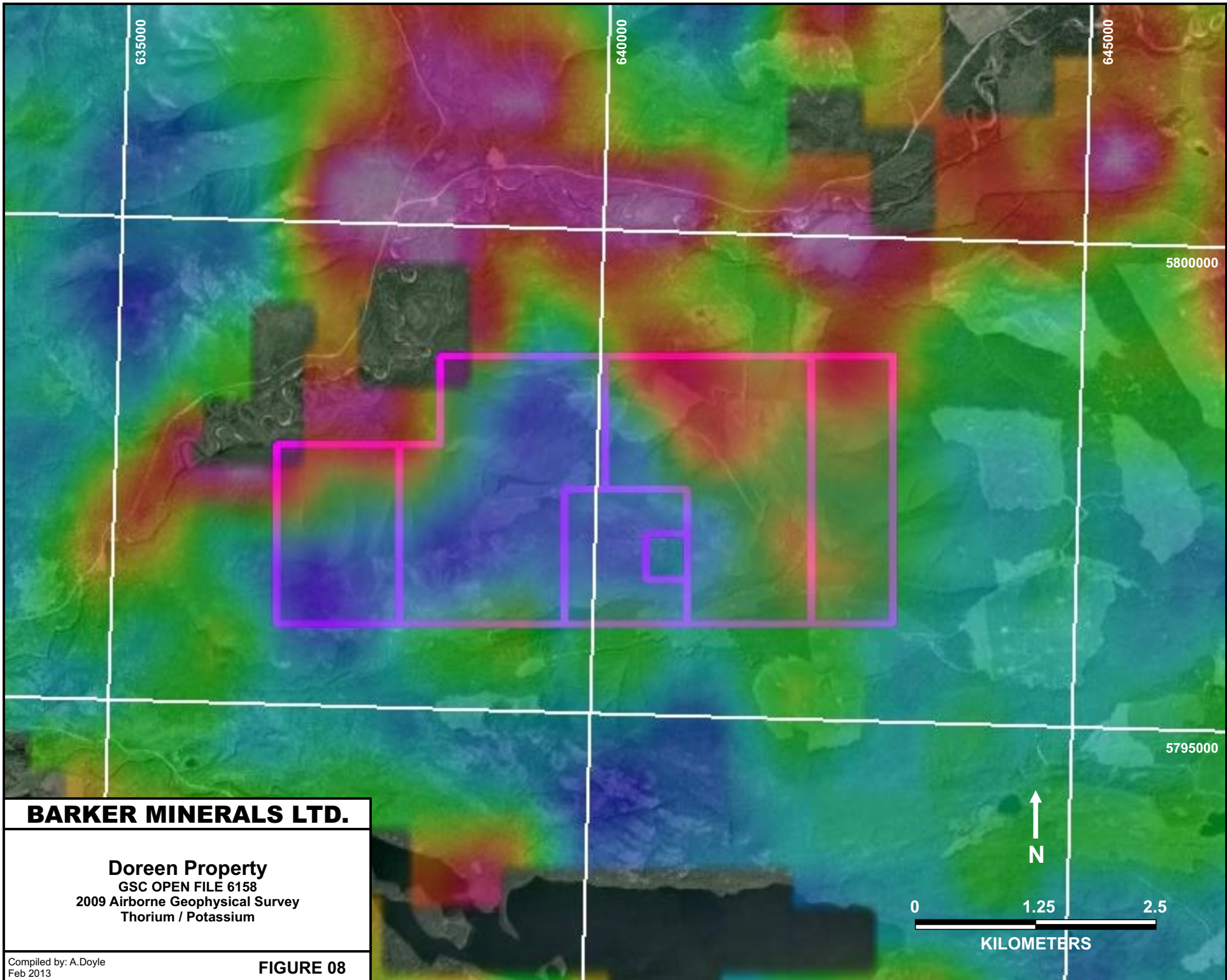
BARKER MINERALS LTD.

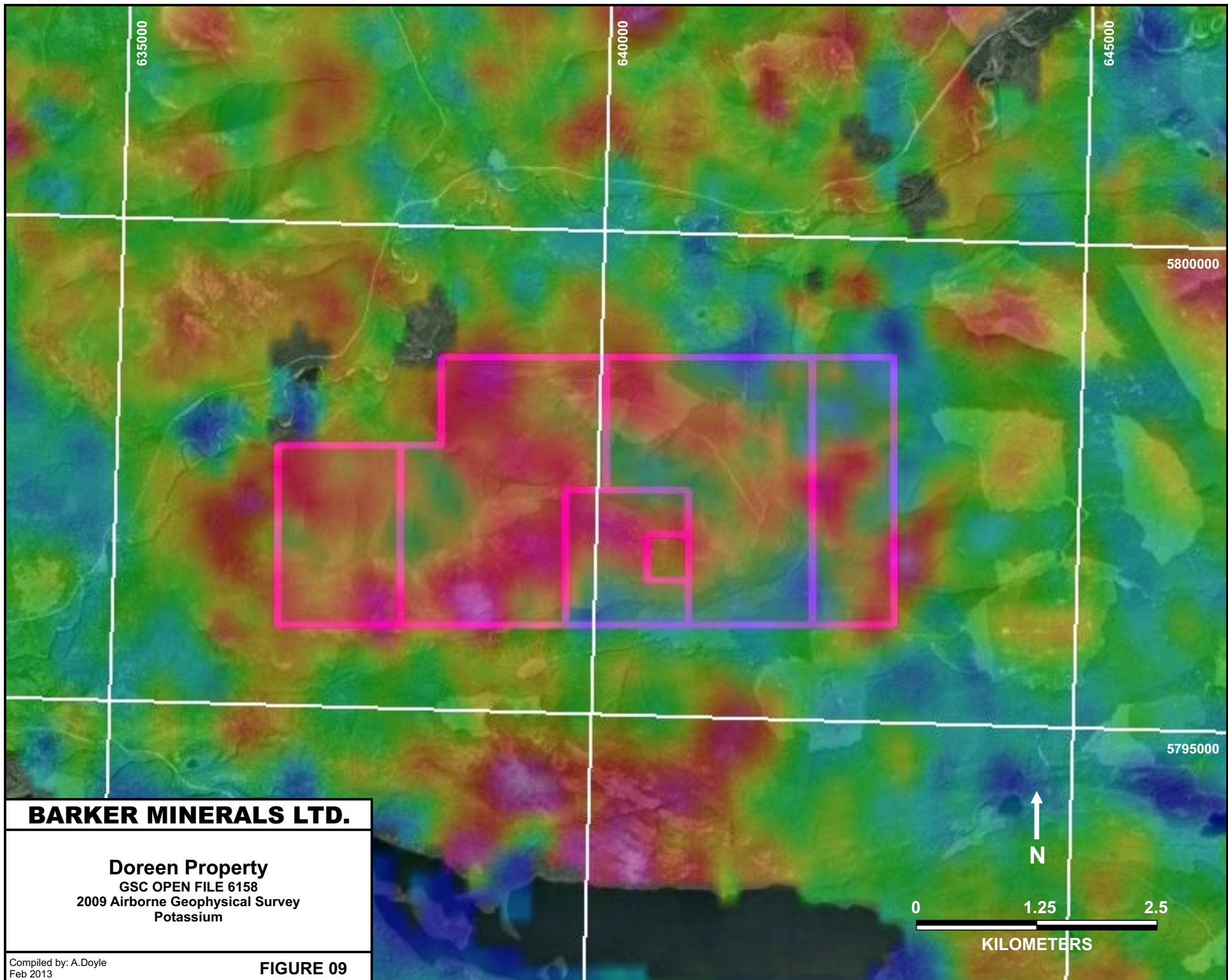
Doreen Property
GSC OPEN FILE 6158
2009 Airborne Geophysical Survey
Residual Total Magnetics

Compiled by: A.Doyle
Feb 2013

FIGURE 07







7.0 REGIONAL GEOLOGY

The area referred to as the Quesnel Gold Belt lies within the Quesnel Trough, a linear belt of early Mesozoic volcanic and sedimentary rocks lying between the Omineca Crystalline Belt (early Paleozoic and Precambrian metasedimentary rocks) on the east and the Pinchi Geanticline (Paleozoic Cache Creek Group) on the west. (**Figure 10 - Regional Geology Map**)

The Quesnel Trough in the section is composed of alkalic volcanics, volcanoclastics and sedimentary rocks intruded by comagmatic stocks and dike complexes (Campbell, 1978). The basal unit of the Trough is of Upper Triassic black argillite, located along the eastern boundary of the Trough and representing a back arc basinal facies.

Above the argillite unit lie a succession of augite porphyry breccias and flows with subordinate interbedded argillites. This area in turn is overlain by volcanoclastics and argillites of Upper Triassic and Lower Jurassic age.

Several volcanic centers emerged in the Lower Jurassic. These are recognized by subaerial volcanic flows and composite lenses of sandstone, grit and conglomerate Saleken and Simpson (1984). Between Horsefly Lake and Horsefly River, Panteleyev (1987) considers that felsic-clast conglomerates mark a series of small grabens, which may be part of a series of larger, northwesterly trending grabens along the medial axis of a volcanic arc. This same structural zone could have controlled emplacement of volcanic centers.

8.0 LOCAL GEOLOGY

8.1 *Lithology*

The Doreen claims are underlain by Upper Triassic – Lower Jurassic interbedded andesitic volcanics and argillites, which have been intruded by at least one small plug of quartz diorite north of Doreen Lake.

The black argillites have been hornfelsed into hard, flinty material, which is highly shattered, sheared and brecciated. Fine laminations are discernible in a few places and a fine fracture cleavage filled with quartz was noted in one case. Iron oxide coatings are common and some outcrops are thickly coated with goossan. The argillites have locally been bleached to light gray and in some places show partial silicification. Fine quartz stringers are common but not pervasive, as are iron oxide and fine pyrite-filled fractures. Where both quartz and pyrite stringers are present pyrite crosscuts quartz.

The volcanic rocks are predominantly hornblende andesite with subordinate hornblende – pyroxene andesite. All those seen by the author in the main work area are flows, breccias or possibly volcanoclastics. In most cases the groundmass was either so fine grained, glassy and opaque or so altered the rocks could not be readily classified. Some did have the appearance of being dike rock (slightly coarser grained, less porphyritic) with a texture intermediate between typical flows and intrusives.

Feldspar is extensively saussuritized and sericitized. The groundmass has been variously altered to an assemblage of carbonate, chlorite, iron oxides, and less commonly, minor epidote. Some rocks have been silicified, with abundant cryptocrystalline light gray quartz and quartz-filled stringers. Fine pyrite is ubiquitous, coating joint surfaces, forming irregular blebs to ½ cm, disseminations and filling fine fractures.

121°00'

DOREEN PROJECT

Figure 10

REGIONAL GEOLOGY MAP



Kilometres

UTM ZONE 10
TRANSVERSE MERCATOR PROJECTION
NORTH AMERICAN DATUM 1983

19

53°30'

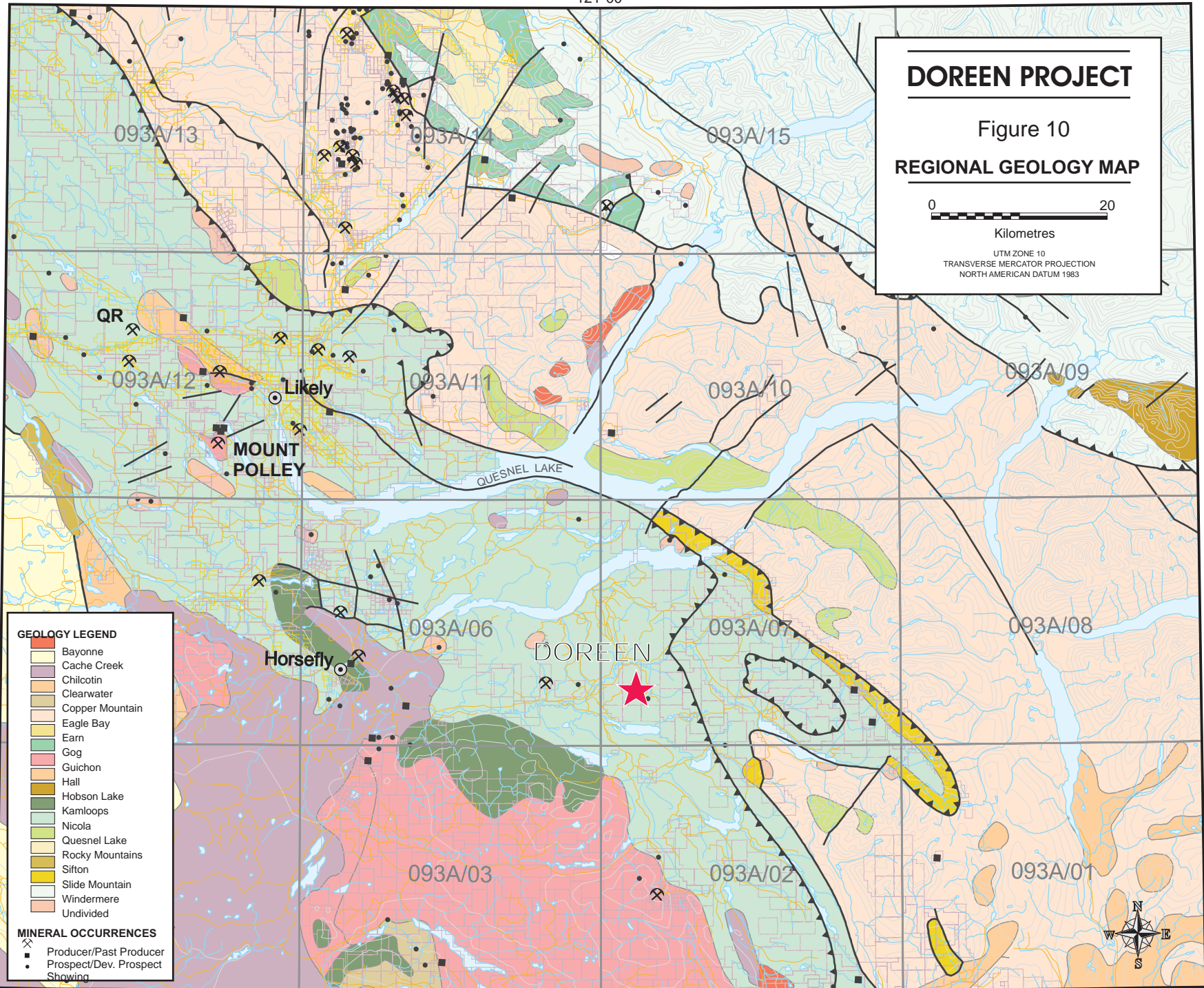
53°30'

GEOLOGY LEGEND

- Bayonne
- Cache Creek
- Chilcotin
- Clearwater
- Copper Mountain
- Eagle Bay
- Earn
- Gog
- Guichon
- Hall
- Hobson Lake
- Kamloops
- Nicola
- Quesnel Lake
- Rocky Mountains
- Sifton
- Slide Mountain
- Windermere
- Undivided

MINERAL OCCURRENCES

- Producer/Past Producer
- Prospect/Dev. Prospect Showing



121°00'



An x-ray diffraction study of six andesite samples was done by Cominco Exploration Research Laboratory in Vancouver. The x-ray study revealed that quartz is present in four of the six examples. It is considered to be the result of silicification, both of the groundmass and through the introduction of quartz stringers. Chlorite is a large component of some samples. Both calcite and pyroxene were detected but are rare. Epidote is not abundant.

The rocks do not appear to be extensively propylitized, due to the abundance of relatively unaltered amphibole and pyroxene and the fact that the cores of the plagioclase grains have not been replaced by epidote. No stringers or coatings of epidote were seen.

The quartz diorite to the north of Doreen Lake is of fine to medium grained, pale green pyroxene set in feldspar groundmass that includes some intergranular quartz. A few ragged, inclusion-filled, subhedral hornblende prisms are present and these have been partly replaced by epidote. It would be useful to know the extent of the plug or stock and if the mineralogy or alteration is zoned.

8.2 Structure

The structure has been mapped as interbedded volcanic and sedimentary rocks striking about 040°. The few bedding measurements made confirm this general strike and indicate a dip of 50-60° to the northeast. I am not confident of the map pattern shown due to the lack of exposure and difficulty in tracing any one layer or units.

A preliminary study of the fractures indicates the following:

1. cross joint set; strike 070°, dip 90°, right angles to bedding, filled with quartz
2. shear joint set; strike 040°, dip 70° northwest
3. dilation joint set; strike 050°, dip 50° southeast
4. shear joint set; strike 340°, dip 55° east-northwest, subparallel to bedding
5. quartz-filled fractures dipping moderate angles to north and north-east
6. a single shear zone striking 110°, dip 74° north-northeast, cuts quartz-filled cross joints (Set 1 above)
7. Baerg and Bradish (1984) reported that massive sulphides occur in east-west trending shear zones. Other evidence for east-west structures includes the east-west trends of the conductivity and geochemical anomalies and a parallel major fracture zone in the valley of Doreen lake and extending at least as far west as the Horsefly River.

Baerg and Bradish reported that their magnetometer survey appeared to be mapping the stratigraphy. However, their magnetometer map (Figure 10 of their report) shows magnetic trends of N60°W, some 20° west of the lithological trends shown on the geology map.

9.0 2012 EXPLORATION SUMMARY

A total of 55 soil samples were collected in 2012 along the upper East-West road of interest from an easting of 639870 to 640369 for a length of 500 meters. The spacing between each sample was ten meters, determined by meter-marked hip-chain. Each hole was flagged with pink flagging tape (marked DOR# - SOILS – BML – OCT. 2012 – JB) and a GPS coordinate (with a waypoint name identical to the sample number) was taken.

Collected soils were placed into plastic sample-bags, marked a corresponding number “DOR#”, and zip-tied. Holes were dug to a minimum depth of the shovel head (22cm, Photo 1.1). Care was taken to remove large clasts and organics.



Photo 1.1: Typical hole depth of 22cm

The 500 meter stretch of sampled road, similar to the Simlock Gold property, has a strong glacial till and colluvial input. Sections of the road are a heterogeneous mixture of gravel-cobble clast-supported tills (Photo 1.2) or angular-clast supported colluvium (Photo 1.3). Collecting the fine-grained matrix suitable for soils collection proved difficult throughout the survey.

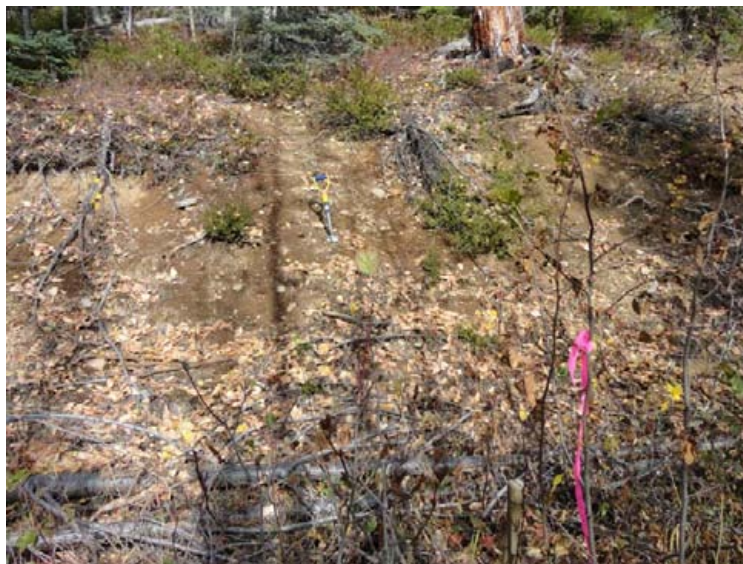


Photo 1.2: Glacial till exposed from road-cut



Photo 1.3: Colluvium on sampled road

As the soils survey was the primary objective of the excursion, little focus was given to rock outcrop. Two samples of oxidized and massive siliceous argillite (?) were collected (Photo 1.4, Waypoints: *DorOC1* and *DorOC2*) for analysis. *DorOC1* was the earliest exposure observed on the hike up to the E-W road. This siliceous argillite comprised a bulk of the colluvium and was the only observed rock-type outcropping along the E-W road.



Photo 1.4: Oxidized siliceous argillite(?) outcrop

9.1 Sampling Method and Approach

Soils were sampled and/or collected from the flanks of logging roadside. A pick and shovel were used to recover soil from a depth of 15-25cm. Soils were predominantly coarse-grained (coarse grained and matrix with gravel-cobble sized clasts). The soils collected are interpreted to be predominantly colluvial (derived from erosional processes above) as clasts are large and angular and represent the lithologies found in outcrop on location. At each sample location, a GPS waypoint was taken and marked in notebook, the area was flagged with tape and any pertinent observations were noted.

9.2 Sample Preparation and Analysis

The Niton XL3t XRF analyzer was used to conduct the analysis in the comparative soil survey study.

The initial samples were sieved down to as fine a matrix as possible. Each soil was then analyzed twice using the 'Soils Mode' for an average of 120 - 180 seconds each. Each sample was further analyzed twice with the "Mining mode" to provide a comparison between each analysis method.

Samples of interest for follow up comparison XRF analysis were crushed and pulverized in order to homogenize the samples as much as possible.

Known standards were also used for calibration and quality control purposes.

The 2012 XRF soil and rock geochemical results are in Appendices B, C and D.

10.0 CONCLUSIONS AND RECOMMENDATIONS

The question of whether the previous soil anomalies can be linked to the bedrock below should be pressed. A strong correlation between gold anomalies and the underlying bedrock should not be immediately drawn. It is possible the east-west trend of the gold anomaly can be explained by colluvial/till contamination? As tills and colluvial clasts dominate the soils, they are more inclined to influence the soil geochemistry and represent the overlying rock rather than the underlying bedrock. For example, as mentioned in the excerpts above, ferricrete is present as talus and measures high in sulphides and bears gold – this will be reflected in the soils in which it sits. This is further confirmed by the relatively unsuccessful attempt to find the source of the gold anomalies in the *Gibraltar* drill-program which drilled these soil anomalies. Also mentioned above, the gold-bearing andesite west of ND-84-1 lies upslope of the geochemical anomaly in soil and is bound to leach and contaminate the soils below. Lastly, large gold occurrences have been found to occur in float; float is by definition not in-situ and have come from sources elsewhere (but perhaps nearby).

A property wide program of soil and rock sampling should be followed up by geological mapping and geophysical surveys to define targets for follow up exploration programs. IP surveys are recommended on the new soil grid in order to define targets for follow up drilling.

The results of the XRF comparison study supports the conclusion that the XRF may be just as effective providing interpretable results when taking in-situ samples, or sieved and analyzed in the field, as collecting the samples and drying, preparing and assaying in order to determine the geochemistry of a target area being sampled. All roads and outcrops should be sampled wherever possible in order to identify target areas for more detailed follow up programs.

Gold was semi-quantitatively identified in 22 soil samples by the XRF in the range of 6 ppm to 12

ppm. Gold was also semi-quantitatively identified in the 2 outcrop samples with readings between 7.18 ppm and 12.69 ppm. Accurate gold values would need to be determined by accredited lab fire assay process taking into consideration the high iron and sulphur content. Roasting processes and proper fluxes should be determined in advance in order to produce reliable, repeatable fire assay gold results.

11.0 CERTIFICATE OF QUALIFICATIONS

This report was prepared by Louis E. Doyle, Prospector, who has 19 years experience managing exploration projects in the Cariboo region of British Columbia.

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APPENDIX A

Glossary of Technical Terms and Abbreviations

Glossary of Technical Terms and Abbreviations

Anomalous	Chemical and mineralogical changes and higher than typical background values in elements in a rock resulting from reaction with hydrothermal fluids or increase in pressure or temperature.
Anomaly	The geographical area corresponding to anomalous geochemical or geophysical values.
Argentiferous	Containing silver.
Background	The typical concentration of an element or geophysical response in an area, generally referring to values below some threshold level, above which values are designated as anomalous.
BCGS	British Columbia Geological Survey.
B.C. MEMPR	British Columbia Ministry of energy Mines and Petroleum Resources.
cm	Centimetre.
Cratonic	Pertaining to a craton, an old part of the continental crust, generally making up the interior portion of a continent such as North America.
DCIP	An electrical method which uses the injection of current and the measurement of voltage and its rate of decay to determine the subsurface resistivity and chargeability.
DDH	Diamond drill hole.
Diatreme	A breccia-filled volcanic pipe that was formed by a gaseous intrusion.
EM	Electromagnetic.
Float	Loose rocks or boulders; the location of the bedrock source is not known.
GBC	Geoscience BC.
GSC	Geological Survey of Canada
Grab sample	A sample of a single rock or selected rock chips collected from within a restricted area of interest.
g/t	Grams per tonne (metric tonne). 34.29 g/t (metric tonnes) = 1.00 oz/T (short tons)
Ha	Hectare - an area totalling 10,000 square metres, e.g., an area 100 metres by 100 metres.
HLEM	Horizontal loop electromagnetic.

ICP	Inductively coupled plasma.
IP	Induced polarization.
km	Kilometre.
lb.	Pound.
Leucocratic	Light-coloured.
m	Metre.
Max-min	An HLEM technique to test for resistivity and conductivity of rocks.
MT	Magnetotelluric. A electrical method that uses natural variations in the Earth's magnetic field to induce electric current in the ground to determine the subsurface resistivity.
NNW-SSE	North northwest – South southeast
NW-SE	Northwest - southeast.
N-S	North-South.
oz.	Ounce.
oz/T	ounces per ton (Imperial measurement). 34.29 g/t (metric tonnes) = 1.00 oz/T (short tons).
oz/st	ounces per short ton (Imperial measurement, same as oz/T). 34.29 g/t (metric tonnes) = 1.00 oz/st (short tons).
ppb	Parts per billion.
ppm	Parts per million (1 ppm = 1,000 ppb = 1 g/t).
Protolith	The original rock before it was metamorphosed.
QUEST	Quesnellia Exploration Strategy.
TDEM	Time Domain EM.
Tholeiitic	A type of basalt. The most common volcanic rocks on Earth, produced by submarine volcanism at mid-ocean ridges and make up much of the ocean crust. Chemically, these basalts have been described as subalkaline, that is, they contain less (Na ₂ O plus K ₂ O) at similar SiO ₂ than alkali basalt.
TRIM	Terrain Resource Information Management.
VLF	Very low frequency.

VLf-EM Very low frequency electromagnetic.

VMS Volcanic-related massive sulphide.

APPENDIX B

Doreen Project – Claim Details

Appendix B - Barker Minerals Ltd. - Doreen Claim Details

Tenure Number	Claim Name	Owner	Tenure Type	Tenure Sub Type	Map Number	Issue Date	Good To Date	Status	Area (ha)
847427		140410 (100%)	Mineral	Claim	093A	2011/feb/25	2013/dec/31	GOOD	158.1066
847435		140410 (100%)	Mineral	Claim	093A	2011/feb/25	2013/dec/31	GOOD	474.2369
847437		140410 (100%)	Mineral	Claim	093A	2011/feb/25	2013/dec/31	GOOD	494.0316
847438		140410 (100%)	Mineral	Claim	093A	2011/feb/25	2013/dec/31	GOOD	237.1665
847439		140410 (100%)	Mineral	Claim	093A	2011/feb/25	2013/dec/31	GOOD	237.142

APPENDIX C

Doreen Project – Coarse Fraction – XRF Results

Doreen 2012 Soil-Sampling Program - Coarse Fraction XRF Results

XRF readings are 120 seconds at 4 readings per sample (2 soils mode, 2 mining mode)

Sample Num	Position	Altitude	Reading	Type	Duration	Units
DOR01	10 U 63987	1306 m	37	Soil	120.01	ppm
			38	Soil	120.14	ppm
			39	Mining	120.51	ppm
DOR02	10 U 63987	1304 m	40	Mining	120.34	ppm
			41	Soil	120.37	ppm
			42	Soil	120.15	ppm
DOR03	10 U 63988	1307 m	43	Mining	120.73	ppm
			44	Mining	120.32	ppm
			45	Soil	120.1	ppm
DOR04	10 U 63988	1309 m	46	Soil	120.17	ppm
			47	Mining	121.45	ppm
			48	Mining	121.49	ppm
DOR05	10 U 63990	1309 m	49	Soil	120.13	ppm
			50	Soil	120.37	ppm
			51	Mining	121.4	ppm
DOR06	10 U 63991	1308 m	52	Mining	121.82	ppm
			53	Soil	120.35	ppm
			54	Soil	120.4	ppm
DOR07	10 U 63991	1305 m	55	Mining	120.48	ppm
			56	Mining	120.87	ppm
			59	Soil	120.27	ppm
DOR08	10 U 63993	1304 m	60	Soil	120	ppm
			61	Mining	121.72	ppm
			62	Mining	120.39	ppm
DOR09	10 U 63993	1305 m	63	Soil	120.39	ppm
			64	Soil	120.3	ppm
			65	Mining	120.36	ppm
DOR10	10 U 63994	1303 m	66	Mining	120.73	ppm
			67	Soil	120.07	ppm
			68	Soil	120.13	ppm
DOR11	10 U 63995	1305 m	69	Mining	120.47	ppm
			70	Mining	121.7	ppm
			71	Soil	120.38	ppm
DOR12	10 U 63996	1303 m	72	Soil	120.01	ppm
			73	Mining	121.36	ppm
			74	Mining	120.19	ppm
DOR13	10 U 63997	1304 m	75	Soil	120.02	ppm
			76	Soil	120.28	ppm
			77	Mining	121.37	ppm
DOR14	10 U 63998	1306 m	78	Mining	120.59	ppm
			79	Mining	120.22	ppm
			84	Soil	120.17	ppm
DOR15	10 U 63999	1305 m	85	Mining	120.96	ppm
			86	Mining	122.42	ppm
			87	Soil	120.13	ppm
DOR16	10 U 64000	1305 m	88	Soil	120.16	ppm
			89	Mining	121.35	ppm
			90	Mining	120.96	ppm
DOR17	10 U 64001	1305 m	91	Soil	120.1	ppm
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			93	Mining	121.74	ppm
DOR18	10 U 64002	1305 m	94	Mining	121.61	ppm
			95	Soil	120.01	ppm
			96	Soil	120.34	ppm
DOR19	10 U 64003	1305 m	99	Mining	121.05	ppm
			100	Mining	121.51	ppm
			101	Soil	120.13	ppm
DOR20	10 U 64004	1305 m	102	Soil	120.24	ppm
			103	Mining	120.38	ppm
			104	Mining	121.47	ppm
DOR21	10 U 64005	1305 m	107	Soil	120.29	ppm
			108	Soil	120.01	ppm

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7.75	129	12.6	40746.66	32	<LOD	74	80	169	<LOD	<LOD	<LOD	90	24619
<LOD	114	10.8	40810.21	19	<LOD	77	84	172	<LOD	23	<LOD	86	24023
<LOD	<LOD	<LOD	49798.99	<LOD	<LOD		91	166	<LOD	<LOD	<LOD	<LOD	<LOD
<LOD	<LOD	<LOD	50182.83	<LOD	<LOD		75	162	<LOD	<LOD	<LOD	<LOD	<LOD
<LOD	110	13.4	48117.54	26	<LOD	86	118	163	<LOD	28	<LOD	101	23178
<LOD	115	19.6	48331.63	20	<LOD	108	112	163	<LOD	28	<LOD	95	22466
<LOD	<LOD	6.9	56713.03	<LOD	<LOD		117	160	<LOD	<LOD	<LOD	<LOD	<LOD
<LOD	<LOD	7.5	56680.93	<LOD	<LOD		114	144	<LOD	<LOD	<LOD	<LOD	<LOD
7.77	110	15.6	54289.84	19	<LOD	41	137	175	<LOD	22	<LOD	98	22617
<LOD	104	15.6	54543.35	31	<LOD	84	140	183	<LOD	31	<LOD	102	22985
<LOD	<LOD	9.0	62845.42	<LOD	<LOD		131	182	<LOD	<LOD	<LOD	<LOD	<LOD
<LOD	<LOD	9.1	62572.35	<LOD	<LOD		147	186	<LOD	<LOD	<LOD	<LOD	<LOD
<LOD	119	26.8	57514.28	26	<LOD	77	150	185	<LOD	18	<LOD	87	21253
7.95	120	22.6	58429.16	22	<LOD	75	175	185	<LOD	24	<LOD	114	20601
<LOD	<LOD	14.0	65977.13	<LOD	<LOD		161	178	<LOD	<LOD	<LOD	<LOD	<LOD
<LOD	<LOD	11.6	65782.2	<LOD	<LOD		172	185	<LOD	<LOD	<LOD	<LOD	<LOD
<LOD	129	11.6	44432.47	30	<LOD	107	99	130	<LOD	26	<LOD	102	21449
8.4	103	12.8	44688.32	29	<LOD	72	93	129	<LOD	30	<LOD	94	22225
<LOD	<LOD	<LOD	53150.19	<LOD	<LOD		82	109	<LOD	<LOD	<LOD	<LOD	<LOD
<LOD	<LOD	<LOD	53635.71	<LOD	<LOD		91	107	<LOD	<LOD	<LOD	<LOD	<LOD
<LOD	118	8.0	41027.85	27	<LOD	75	72	193	<LOD	27	<LOD	86	21615
<LOD	125	10.0	41391.89	27	<LOD	83	87	180	<LOD	23	<LOD	86	22024
<LOD	<LOD	<LOD	49579.51	<LOD	<LOD		77	177	<LOD	<LOD	<LOD	<LOD	<LOD
<LOD	<LOD	<LOD	50335.55	<LOD	<LOD		72	175	<LOD	<LOD	<LOD	<LOD	<LOD
<LOD	111	15.0	49887.4	19	<LOD	112	137	141	<LOD	21	<LOD	83	23995
<LOD	135	13.3	50102.27	33	<LOD	95	116	146	<LOD	33	<LOD	112	24623
<LOD	<LOD	<LOD	58381.93	<LOD	<LOD		122	136	<LOD	<LOD	<LOD	<LOD	<LOD
<LOD	<LOD	7.1	59166.33	<LOD	<LOD		134	140	<LOD	<LOD	<LOD	<LOD	<LOD
<LOD	140	19.4	56264.57	32	<LOD	107	153	130	<LOD	34	<LOD	106	20698
7.81	150	17.4	56575.66	37	<LOD	95	155	142	15	43	<LOD	118	20707
<LOD	<LOD	13.4	65034.23	<LOD	<LOD		162	130	<LOD	<LOD	<LOD	<LOD	<LOD
<LOD	<LOD	9.5	64511.89	<LOD	<LOD		151	133	<LOD	<LOD	<LOD	<LOD	<LOD
<LOD	115	11.9	41527.98	25	<LOD	76	99	115	16	30	<LOD	71	23005
<LOD	114	10.9	41819.55	20	<LOD	73	90	109	<LOD	25	<LOD	81	23701
<LOD	<LOD	<LOD	51098.4	<LOD	<LOD		100	113	<LOD	<LOD	<LOD	<LOD	<LOD
<LOD	<LOD	<LOD	50642.91	<LOD	<LOD		104	102	<LOD	<LOD	<LOD	<LOD	<LOD
8.31	119	16.5	51731.43	20	<LOD	93	189	130	<LOD	32	<LOD	99	22558
<LOD	118	14.4	52263.64	26	<LOD	87	208	128	<LOD	30	<LOD	102	21568

Ca	K	Ti	Th	Rb	Sr	Mn	Si	Zr	P	Al	Ba
7292	6991	2890	7	58	325	911		92			1302
7278	7026	2977	6	57	327	915		91			1216
6745	6560	<LOD	<LOD	28	250	<LOD	37618	73	1850	10638	1026
6659	6499	<LOD	<LOD	28	252	<LOD	37683	74	1538	16253	1002
8353	7204	3042	6	56	348	1026		95			1090
8476	7045	3000	5	60	345	1017		95			1089
7351	6163	1841	<LOD	28	264	<LOD	32159	76	1595	11146	928
7300	6321	<LOD	<LOD	30	265	<LOD	32946	81	1283	7799	931
8328	8085	2788	7	54	322	1214		89			1106
8349	8003	2824	4	55	323	1255		85</			

Doreen 2012 Soil-Sampling Program - Coarse Fraction XRF Results

XRF readings are 120 seconds at 4 readings per sample (2 soils mode, 2 mining mode)

Sample Num	Position	Altitude	Reading	Type	Duration	Units
			109	Mining	120.98	ppm
			110	Mining	120.91	ppm
DOR17	10 U 64001	1296 m	111	Soil	120	ppm
			112	Soil	120.29	ppm
			113	Mining	121	ppm
			114	Mining	120.74	ppm
DOR18	10 U 64002	1301 m	117	Soil	120.15	ppm
			118	Soil	120.21	ppm
			119	Mining	120.23	ppm
			120	Mining	121.51	ppm
DOR19	10 U 64003	1303 m	121	Soil	120.13	ppm
			122	Soil	120.27	ppm
			123	Mining	121.07	ppm
			124	Mining	121.37	ppm
DOR20	10 U 64003	1301 m	125	Soil	120.02	ppm
			126	Soil	120.11	ppm
			127	Mining	121.18	ppm
			128	Mining	121.55	ppm
DOR21	10 U 64005	1295 m	131	Soil	120.13	ppm
			132	Soil	120.3	ppm
			133	Mining	120.82	ppm
			134	Mining	121.34	ppm
DOR22	10 U 64006	1295 m	135	Soil	120.28	ppm
			136	Soil	120.16	ppm
			137	Mining	120.15	ppm
			138	Mining	121.44	ppm
DOR23	10 U 64007	1284 m	139	Soil	120.09	ppm
			140	Soil	120.21	ppm
			141	Mining	120.74	ppm
			142	Mining	121.35	ppm
DOR24	10 U 64008	1287 m	143	Soil	120.25	ppm
			144	Soil	120.07	ppm
			145	Mining	121.3	ppm
			146	Mining	120.67	ppm
DOR25	10 U 64009	1291 m	147	Soil	120.15	ppm
			148	Soil	120.03	ppm
			149	Mining	121.09	ppm
			150	Mining	121.5	ppm
DOR26	10 U 64010	1290 m	153	Soil	120.07	ppm
			154	Soil	120.05	ppm
			155	Mining	120.31	ppm
			156	Mining	120.42	ppm
DOR27	10 U 64011	1289 m	159	Soil	120.07	ppm
			160	Soil	120.22	ppm
			161	Mining	121.15	ppm
			162	Mining	121.19	ppm
DOR28	10 U 64011	1289 m	163	Soil	120.27	ppm
			164	Soil	120.21	ppm
			165	Mining	120.86	ppm
			166	Mining	120.62	ppm
DOR29	10 U 64013	1289 m	167	Soil	120.27	ppm
			168	Soil	120.01	ppm
			169	Mining	120.27	ppm
			170	Mining	120.87	ppm
DOR30	10 U 64013	1289 m	171	Soil	120.01	ppm
			172	Soil	120.02	ppm
			173	Mining	120.89	ppm
			174	Mining	120.13	ppm
DOR31	10 U 64014	1289 m	189	Soil	120.07	ppm
			190	Soil	120.16	ppm
			191	Mining	120.1	ppm
			192	Mining	120.25	ppm

Au	Ag	As	Fe	Sb	Se	Te	Cu	Zn	Cd	Sn	Mo	Ni	S
< LOD	< LOD	8.3	60491.34	< LOD	< LOD		187	121	< LOD	< LOD	< LOD	< LOD	< LOD
< LOD	< LOD	7.4	61523.24	< LOD	< LOD		211	121	< LOD	< LOD	< LOD	< LOD	< LOD
< LOD	117	17.8	60659.82	38	< LOD	95	157	193	14	26	4	101	21771
< LOD	117	17.0	61617.41	26	< LOD	85	168	205	< LOD	31	< LOD	87	22118
< LOD	< LOD	11.8	68674.43	< LOD	< LOD		187	191	< LOD	< LOD	< LOD	< LOD	< LOD
< LOD	< LOD	7.8	69153.26	< LOD	< LOD		183	203	< LOD	< LOD	< LOD	< LOD	< LOD
< LOD	105	15.6	59422.58	35	< LOD	96	162	153	< LOD	29	< LOD	71	21954
10.26	122	21.5	59658.06	41	< LOD	103	141	161	< LOD	30	< LOD	110	22020
< LOD	< LOD	15.3	67472.3	< LOD	< LOD		157	158	< LOD	< LOD	< LOD	< LOD	< LOD
< LOD	< LOD	14.3	67734.22	< LOD	< LOD		153	155	< LOD	< LOD	< LOD	< LOD	< LOD
< LOD	142	23.7	65979.93	29	< LOD	80	193	164	< LOD	34	4	94	22191
< LOD	118	24.5	65387.2	23	3.93	81	181	182	< LOD	30	< LOD	80	22592
< LOD	< LOD	16.6	72313.21	< LOD	< LOD		190	151	< LOD	< LOD	< LOD	< LOD	< LOD
< LOD	< LOD	16.4	72890.66	< LOD	< LOD		203	155	< LOD	< LOD	< LOD	< LOD	< LOD
< LOD	136	17.6	59096.68	32	< LOD	108	163	158	< LOD	35	< LOD	76	20286
< LOD	149	19.1	59785.91	30	< LOD	126	161	166	< LOD	38	< LOD	117	20506
< LOD	< LOD	9.4	67314.27	< LOD	< LOD		146	153	< LOD	< LOD	< LOD	< LOD	< LOD
< LOD	< LOD	14.4	67269.07	< LOD	< LOD		146	151	< LOD	< LOD	< LOD	< LOD	< LOD
7.95	114	21.3	66405.78	15	< LOD	73	184	170	< LOD	38	< LOD	92	20410
9.32	130	18.6	66834.9	28	< LOD	82	174	182	< LOD	39	< LOD	111	20365
< LOD	< LOD	14.3	73909.45	< LOD	< LOD		167	158	< LOD	< LOD	< LOD	< LOD	< LOD
< LOD	< LOD	13.0	73795.23	< LOD	< LOD		204	161	< LOD	< LOD	< LOD	< LOD	< LOD
8.8	130	22.7	51780.86	35	< LOD	98	210	190	< LOD	33	< LOD	113	25405
< LOD	135	23.0	52521.09	33	< LOD	109	210	182	< LOD	44	< LOD	113	25323
< LOD	< LOD	11.4	60202.77	< LOD	< LOD		217	179	< LOD	< LOD	< LOD	< LOD	< LOD
< LOD	< LOD	13.9	60717.88	< LOD	< LOD		214	181	< LOD	< LOD	< LOD	< LOD	< LOD
8.78	122	26.4	63195.94	17	< LOD	72	237	230	< LOD	31	< LOD	102	21384
< LOD	117	29.2	63847.11	24	< LOD	94	239	224	< LOD	36	4	104	22063
< LOD	< LOD	19.8	70937.17	< LOD	< LOD		254	216	< LOD	< LOD	< LOD	< LOD	< LOD
< LOD	< LOD	20.0	71043.03	< LOD	< LOD		252	210	< LOD	< LOD	< LOD	< LOD	< LOD
< LOD	127	12.6	43129.49	32	< LOD	89	143	206	< LOD	37	< LOD	125	20948
< LOD	158	12.2	43173.45	28	< LOD	87	137	206	16	33	< LOD	117	21892
< LOD	< LOD	7.8	52054.19	< LOD	< LOD		134	193	< LOD	< LOD	< LOD	< LOD	< LOD
< LOD	< LOD	6.9	52230.99	< LOD	< LOD		141	198	< LOD	< LOD	< LOD	< LOD	< LOD
< LOD	109	33.8	69825.87	22	< LOD	86	269	372	15	28	8	83	24694
< LOD	106	28.5	69943.83	22	< LOD	106	268	379	17	32	6	91	25037
< LOD	< LOD	23.3	76912.18	< LOD	< LOD		274	355	< LOD	< LOD	< LOD	< LOD	< LOD
< LOD	< LOD	24.3	77346.81	< LOD	< LOD		299	369	< LOD	< LOD	< LOD	< LOD	< LOD
8.4	107	15.5	55278.91	17	< LOD	85	297	167	< LOD	29	4	109	20793
< LOD	125	15.2	55147.14	28	< LOD	95	304	149	< LOD	34	6	104	20790
< LOD	< LOD	9.8	63615.27	< LOD	< LOD		301	151	< LOD	< LOD	< LOD	< LOD	< LOD
< LOD	100	11.3	63143.98	< LOD	< LOD		312	156	< LOD	< LOD	< LOD	< LOD	< LOD
< LOD	140	15.4	49798.14	27	< LOD	118	211	166	< LOD	37	< LOD	117	21397
< LOD	166	15.2	50798.78	34	< LOD	136	182	163	< LOD	39	< LOD	135	21057
< LOD	114	6.4	58757.22	< LOD	< LOD		213	151	< LOD	< LOD	< LOD	< LOD	< LOD
< LOD	105	8.5	58767.43	< LOD	< LOD		213	161	< LOD	< LOD	< LOD	< LOD	< LOD
< LOD	< LOD	16.5	48116.41	19	< LOD	69	153	225	< LOD	< LOD	< LOD	67	21710
< LOD	< LOD	14.6	48273.79	< LOD	< LOD	57	154	238	< LOD	24	< LOD	88	22354
< LOD	< LOD	< LOD	57610.84	< LOD	< LOD		170	227	< LOD	< LOD	< LOD	< LOD	< LOD
< LOD	< LOD	9.0	57118.28	< LOD	< LOD		139	226	< LOD	< LOD	< LOD	< LOD	< LOD
12.36	144	14.9	53825.83	27	< LOD	95	211	170	< LOD	37	< LOD	111	22031
7.87	156	13.9	54193.78	35	< LOD	128	201	164	< LOD	28	< LOD	105	21738
< LOD	< LOD	9.7	62392.04	< LOD	< LOD		226	160	< LOD	< LOD	< LOD	< LOD	< LOD
< LOD	100	< LOD	62170.34	< LOD	< LOD		235	164	< LOD	< LOD	< LOD	< LOD	< LOD
< LOD	129	11.3	47027.57	32	3.89	94	164	194	< LOD	29	< LOD	100	20970
< LOD	115	13.6	47139.51	23	< LOD	90	168	190	< LOD	29	< LOD	105	21219
< LOD	< LOD	< LOD	56145.96	< LOD	< LOD		169	188	< LOD	< LOD	< LOD	< LOD	< LOD
< LOD	< LOD	10.8	55751.8	< LOD	< LOD		156	189	< LOD	< LOD	< LOD	< LOD	< LOD
< LOD	138	17.6	54732.49	23	< LOD	105	168	220	13	39	< LOD	132	22569
< LOD	147	18.1	54625.19	20	< LOD	92	173	220	< LOD	33	< LOD	120	22178
< LOD	110	9.7	62622.14	< LOD	< LOD		164	229	< LOD	< LOD	< LOD	78	< LOD
< LOD	110	10.3	63040.91	< LOD	< LOD		172	221	< LOD	< LOD	< LOD	77	< LOD

Ca	K	Ti	Th	Rb	Sr	Mn	Si	Zr	P	Al	Ba
9008	6242	< LOD	< LOD	27	340	< LOD	37761	82	2217	14456	1039
8950	6404	< LOD	< LOD	28	343	< LOD	39192	82	1956	16388	1006
7236	8754	3028	9	61	325	1269		105			1533
7381	8788	3066	6	60	332	1319		101			1410
6893	8544	2518	< LOD	28	250	< LOD	45681	85	1381	17508	1058
6955	8360	2317	< LOD	31	252	< LOD	47190	82	1358	17504	1097
6954	7119	2673	6	58	381	1154		95			1449
6896	7301	2688	8	56	378	1200		91			1502
7179	7424	< LOD	< LOD	28	286	< LOD	31893	78	1602	9648	1161
7378	7344	< LOD	< LOD	28	289	< LOD	32546	72	1883	11120	1128
7378	8232	2959	5	59	336	1256		90			1500

Doreen 2012 Soil-Sampling Program - Coarse Fraction XRF Results

XRF readings are 120 seconds at 4 readings per sample (2 soils mode, 2 mining mode)

Sample Num	Position	Altitude	Reading	Type	Duration	Units
DOR32	10 U 64015	1287 m	195	Soil	120.12	ppm
			196	Soil	120.03	ppm
			197	Mining	120.23	ppm
DOR33	10 U 64015	1285 m	198	Mining	120.94	ppm
			199	Soil	120.32	ppm
			200	Soil	120.15	ppm
DOR34	10 U 64017	1284 m	201	Mining	120.26	ppm
			202	Mining	120.12	ppm
			203	Soil	120.07	ppm
DOR35	10 U 64018	1284 m	204	Soil	120.06	ppm
			205	Mining	120.93	ppm
			206	Mining	121.6	ppm
DOR36	10 U 64019	1282 m	207	Soil	120.19	ppm
			208	Soil	120.35	ppm
			209	Mining	120.61	ppm
DOR37	10 U 64019	1283 m	210	Mining	120.89	ppm
			213	Soil	120.07	ppm
			214	Soil	120.34	ppm
DOR38	10 U 64021	1283 m	215	Mining	120.98	ppm
			216	Mining	121.4	ppm
			219	Soil	120.21	ppm
DOR39	10 U 64022	1282 m	220	Soil	120.08	ppm
			221	Mining	121.33	ppm
			222	Mining	120.76	ppm
DOR40	10 U 64022	1281 m	223	Soil	120.12	ppm
			224	Soil	120.24	ppm
			225	Mining	120.64	ppm
DOR41	10 U 64023	1286 m	226	Mining	120.02	ppm
			227	Soil	120.19	ppm
			228	Soil	120.37	ppm
DOR42	10 U 64024	1286 m	229	Mining	121.49	ppm
			230	Mining	121.37	ppm
			231	Soil	120.13	ppm
DOR43	10 U 64025	1287 m	232	Soil	120.15	ppm
			233	Mining	121.8	ppm
			234	Mining	120.42	ppm
DOR44	10 U 64026	1286 m	237	Soil	120.41	ppm
			238	Soil	120.22	ppm
			239	Mining	120.64	ppm
DOR45	10 U 64027	1284 m	240	Mining	120.86	ppm
			241	Soil	120.18	ppm
			242	Soil	120.13	ppm
DOR46	10 U 64028	1286 m	243	Mining	120.48	ppm
			244	Mining	120.92	ppm
			245	Soil	120.02	ppm
DOR47	10 U 64029	1288 m	246	Soil	120.19	ppm
			247	Mining	121.53	ppm
			248	Mining	121.46	ppm
			249	Soil	120.19	ppm
			250	Soil	120.34	ppm
			251	Mining	121.62	ppm
			252	Mining	121.57	ppm
			253	Soil	120.25	ppm
			254	Soil	120.22	ppm
			255	Mining	121.73	ppm
			256	Mining	120.14	ppm
			259	Soil	120.17	ppm
			260	Mining	121.01	ppm
			261	Mining	120.51	ppm
			262	Soil	120.06	ppm
			263	Soil	120.31	ppm

Au	Ag	As	Fe	Sb	Se	Te	Cu	Zn	Cd	Sn	Mo	Ni	S
< LOD	137	13.4	62161.91	29	< LOD	82	212	208	< LOD	32	< LOD	99	20936
< LOD	124	17.6	62425.31	19	4.22	66	205	221	< LOD	25	6	93	21019
< LOD	< LOD	9.5	70017.36	< LOD	< LOD		205	201	< LOD	< LOD	< LOD	< LOD	< LOD
< LOD	< LOD	8.9	69820.72	< LOD	< LOD		198	204	< LOD	< LOD	< LOD	< LOD	< LOD
< LOD	156	20.2	68340.67	26	< LOD	107	217	165	< LOD	32	< LOD	116	25936
< LOD	155	26.4	69021.02	26	< LOD	102	222	167	< LOD	35	6	123	26025
< LOD	104	15.2	75487.38	< LOD	< LOD		228	162	< LOD	< LOD	< LOD	< LOD	< LOD
< LOD	112	18.0	75320.48	< LOD	< LOD		239	175	< LOD	< LOD	< LOD	< LOD	< LOD
< LOD	127	23.6	69990.23	33	< LOD	96	220	184	14	35	< LOD	86	23491
9.31	119	27.0	70836.33	25	< LOD	94	211	166	< LOD	28	6	96	22293
< LOD	110	16.8	76519.41	< LOD	< LOD		222	143	< LOD	< LOD	< LOD	< LOD	< LOD
< LOD	107	17.2	77265.12	< LOD	< LOD		229	145	< LOD	< LOD	< LOD	< LOD	< LOD
< LOD	161	22.4	70745.33	25	< LOD	125	249	183	18	36	< LOD	102	24070
< LOD	131	25.4	70696.96	24	< LOD	92	246	181	15	29	4	115	24865
< LOD	< LOD	12.4	77243.1	< LOD	< LOD		259	178	< LOD	< LOD	< LOD	< LOD	< LOD
< LOD	< LOD	13.5	77694.97	< LOD	< LOD		276	195	< LOD	< LOD	< LOD	< LOD	< LOD
< LOD	139	20.3	62574.63	25	< LOD	93	204	178	< LOD	40	< LOD	91	27190
< LOD	140	18.6	63129.99	39	4.21	90	213	189	< LOD	42	< LOD	122	28741
< LOD	< LOD	12.8	70647.9	< LOD	< LOD		222	174	< LOD	< LOD	< LOD	< LOD	< LOD
< LOD	107	10.8	70630.34	< LOD	< LOD		211	180	< LOD	< LOD	< LOD	< LOD	< LOD
11.64	136	17.1	60659.16	27	< LOD	96	199	167	19	26	< LOD	93	23304
< LOD	114	16.9	60424.17	30	< LOD	70	223	166	< LOD	25	< LOD	92	23517
< LOD	< LOD	8.0	68728.39	< LOD	< LOD		217	161	< LOD	< LOD	< LOD	< LOD	< LOD
< LOD	< LOD	7.8	68931.13	< LOD	< LOD		225	165	< LOD	< LOD	< LOD	< LOD	< LOD
10.42	165	16.4	65171.88	45	< LOD	130	239	189	17	57	< LOD	134	21581
< LOD	154	20.8	66042.48	35	< LOD	114	227	189	< LOD	43	< LOD	129	22370
< LOD	< LOD	7.7	72968.52	< LOD	< LOD		235	180	< LOD	< LOD	< LOD	< LOD	< LOD
< LOD	< LOD	11.0	72795.18	< LOD	< LOD		222	173	< LOD	< LOD	< LOD	88	< LOD
8.84	137	18.1	69019.61	22	< LOD	96	243	226	< LOD	27	< LOD	111	22242
< LOD	135	21.4	69640.71	23	4.36	69	250	220	< LOD	31	< LOD	106	22281
< LOD	112	10.7	75624.92	< LOD	< LOD		231	216	< LOD	< LOD	< LOD	< LOD	< LOD
< LOD	106	11.8	76899.06	< LOD	< LOD		231	209	< LOD	< LOD	< LOD	< LOD	< LOD
< LOD	206	13.4	140569.4	41	< LOD	142	480	546	19	57	< LOD	211	22706
< LOD	216	9.9	140469.2	52	< LOD	154	474	538	22	54	5	222	22564
< LOD	108	< LOD	128557.6	< LOD	< LOD		493	531	< LOD	< LOD	< LOD	173	< LOD
< LOD	109	< LOD	129825.4	< LOD	< LOD		471	514	< LOD	< LOD	< LOD	189	< LOD
< LOD	107	20.9	77661.84	24	< LOD	81	250	194	< LOD	29	< LOD	95	24092
< LOD	114	20.8	78993.9	19	< LOD	84	244	207	< LOD	26	< LOD	87	24741
< LOD	< LOD	15.1	83532.96	< LOD	< LOD		256	196	< LOD	< LOD	< LOD	< LOD	< LOD
< LOD	< LOD	13.6	83518.25	< LOD	< LOD		271	192	< LOD	< LOD	< LOD	< LOD	< LOD
9.21	143	11.6	65418.96	31	< LOD	116	235	160	< LOD	29	< LOD	121	22073
< LOD	129	13.7	65790.2	36	< LOD	109	238	161	< LOD	42	4	104	21595
< LOD	< LOD	10.0	72625.91	< LOD	< LOD		255	160	< LOD	< LOD	< LOD	< LOD	< LOD
< LOD	< LOD	10.9	72472.11	< LOD	< LOD		239	163	< LOD	< LOD	< LOD	< LOD	< LOD
< LOD	129	18.6	64421.61	32	< LOD	65	255	184	< LOD	37	< LOD	118	24015
< LOD	147	18.2	65255.53	35	< LOD	107	247	187	14	37	< LOD	109	23357
< LOD	< LOD	14.0	72390.08	< LOD	< LOD		253	191	< LOD	< LOD	< LOD	< LOD	< LOD
< LOD	< LOD	8.9	72447.6	< LOD	< LOD		253	173	< LOD	< LOD	< LOD	< LOD	< LOD
< LOD	159	13.2	126700.2	31	< LOD	134	308	144	19	42	5	124	20507
< LOD	181	14.2	128916.1	38	7.92	128	313	143	< LOD	35	7	135	19785
< LOD	107	< LOD	120828.9	< LOD	< LOD		306	141	< LOD	< LOD	< LOD	< LOD	< LOD
< LOD	102	< LOD	121687.6	< LOD	< LOD		302	137	< LOD	< LOD	< LOD	< LOD	< LOD
< LOD	178	20.1	67876.57	34	< LOD	114	232	180	< LOD	37	< LOD	124	23842
9.27	180	19.5	67562.33	42	< LOD	128	234	173	< LOD	50	< LOD	126	24807
< LOD	108	13.0	74760.88	< LOD	< LOD		235	158	< LOD	< LOD	< LOD	< LOD	< LOD
< LOD	125	13.8	75255.84	< LOD	< LOD		241	169	< LOD	< LOD	< LOD	< LOD	< LOD
< LOD	143	17.5	61795.01	30	< LOD	112	258	151	< LOD	34	< LOD	111	20245
< LOD	119	19.7	61480.05	25	< LOD	85	252	156	16	26	< LOD	89	19572
< LOD	< LOD	< LOD	69729.37	< LOD	< LOD		254	160	< LOD	< LOD	< LOD	< LOD	< LOD
< LOD	< LOD	10.0	69295.23	< LOD	< LOD		259	142	< LOD	< LOD	< LOD	< LOD	< LOD
< LOD	141	15.5	67047.44	28	< LOD	98	208	212	< LOD	35	< LOD	107	22628
10.79	155	16.6	67240.9	37	< LOD	90	225	233	< LOD	41	< LOD	109	22322

Ca	K	Ti	Th	Rb	Sr	Mn	Si	Zr	P	Al	Ba
8100	9276	3112	8	63	352	1259		104			1520
8091	9261	3202	9	64	359	1239		106			1411
7579	8799	< LOD	< LOD	31	276	< LOD	53448	87	1695	22067	1130
7585	8818	< LOD	< LOD	32	277	< LOD	52447	90	2019	18628	1128
7295	9336	3118	10	63	339	1297		105			1496
7362	9376	3025	8	62	346	1256		108			1556
6726	8600	< LOD	< LOD	32	261	< LOD	46186	86	1954	14742	1118
6805	8797	< LOD	< LOD	31	259	< LOD	46099	86	2014	20662	1110
6816	8114	2785	8	63	353	1160		104			1455
6718	8411	2815	11	63	355	1169		102			1416
6699	8061	< LOD	< LOD	32	269	< LOD	43360	82	2123	17424	1044
6803	8082	< LOD	< LOD	32	273	< LOD	42923	83	2624	15778	1102
7201	8223	2529	6	70	338	1474		96			1638
7364	8130	2611	< LOD	70	340	1414		100			1602
7009	7761	< LOD	< LOD								

Doreen 2012 Soil-Sampling Program - Coarse Fraction XRF Results

XRF readings are 120 seconds at 4 readings per sample (2 soils mode, 2 mining mode)						
Sample Num	Position	Altitude	Reading	Type	Duration	Units
			264	Mining	120.89	ppm
			265	Mining	120.24	ppm
DOR48	10 U 64030	1287 m	266	Soil	120.09	ppm
			267	Soil	120.38	ppm
			268	Mining	121.04	ppm
			269	Mining	121.16	ppm
DOR49	10 U 64031	1286 m	270	Soil	120.14	ppm
			271	Soil	120.26	ppm
			272	Mining	120.94	ppm
			273	Mining	121.35	ppm
DOR50	10 U 64032	1287 m	274	Soil	120.26	ppm
			275	Soil	120	ppm
			276	Mining	121.35	ppm
			277	Mining	120.02	ppm
DOR51	10 U 64033	1287 m	282	Soil	120.07	ppm
			283	Soil	120.01	ppm
			284	Mining	121.61	ppm
			285	Mining	121.02	ppm
DOR52	10 U 64034	1284 m	286	Soil	120.26	ppm
			287	Soil	120.03	ppm
			288	Mining	121.74	ppm
			289	Mining	120.32	ppm
DOR53	10 U 64035	1284 m	290	Soil	120.22	ppm
			291	Soil	120.13	ppm
			292	Mining	120.07	ppm
			293	Mining	121.68	ppm
DOR54	10 U 64036	1283 m	294	Soil	120.28	ppm
			295	Soil	120.24	ppm
			296	Mining	120.65	ppm
			297	Mining	120.35	ppm
DOR55	10 U 64038	1283 m	298	Soil	120.23	ppm
			299	Soil	120.24	ppm
			300	Mining	121.13	ppm
			301	Mining	120.49	ppm
DOROC1	10 U 64044	1252 m	304	Soil	120.37	ppm
			305	Soil	120.2	ppm
			306	Mining	122.5	ppm
			307	Mining	120.98	ppm
DOROC2	10 U 64043	1290 m	308	Soil	120.39	ppm
			309	Soil	120.08	ppm
			310	Mining	121.52	ppm
			311	Mining	121.82	ppm

Au	Ag	As	Fe	Sb	Se	Te	Cu	Zn	Cd	Sn	Mo	Ni	S
< LOD	< LOD	10.6	73320.11	< LOD	< LOD		223	199	< LOD	< LOD	< LOD	< LOD	< LOD
< LOD	< LOD	7.5	74226.56	< LOD	< LOD		214	225	< LOD	< LOD	< LOD	< LOD	< LOD
9.28	112	16.3	70373.88	29	< LOD	86	223	264	< LOD	29	< LOD	104	20597
< LOD	112	18.0	71015.13	25	< LOD	82	213	264	< LOD	29	< LOD	123	21621
< LOD	< LOD	10.7	76887.61	< LOD	< LOD		220	252	< LOD	< LOD	< LOD	< LOD	< LOD
< LOD	< LOD	12.7	77304.87	< LOD	< LOD		225	238	< LOD	< LOD	< LOD	< LOD	< LOD
< LOD	151	14.1	72413.16	21	< LOD	108	199	281	< LOD	36	< LOD	128	20326
< LOD	132	18.6	72905.18	35	< LOD	115	198	285	< LOD	39	< LOD	117	20027
< LOD	< LOD	7.0	78694.48	< LOD	< LOD		205	271	< LOD	< LOD	< LOD	< LOD	< LOD
< LOD	< LOD	7.4	79152.08	< LOD	< LOD		184	264	< LOD	< LOD	< LOD	< LOD	< LOD
< LOD	113	15.5	67934.73	24	< LOD	75	185	231	< LOD	34	< LOD	108	18878
< LOD	123	12.6	68156.16	19	< LOD	103	181	232	< LOD	36	< LOD	124	18869
< LOD	< LOD	< LOD	74207.48	< LOD	< LOD		194	217	< LOD	< LOD	< LOD	< LOD	< LOD
< LOD	< LOD	< LOD	75331.32	< LOD	< LOD		188	239	< LOD	< LOD	< LOD	< LOD	< LOD
9.47	104	16.4	101444.5	< LOD	< LOD		185	411	< LOD	< LOD	4	82	18997
< LOD	< LOD	13.6	101059.2	< LOD	4.54		191	400	< LOD	< LOD	4	89	19299
< LOD	101	10.6	101220.2	< LOD	< LOD		201	383	< LOD	< LOD	< LOD	< LOD	< LOD
< LOD	< LOD	8.8	101353	< LOD	< LOD		196	402	< LOD	< LOD	< LOD	< LOD	< LOD
< LOD	129	14.1	75771.92	20	< LOD	57	279	166	17	33	< LOD	110	21973
< LOD	125	17.6	77281.95	31	< LOD	90	277	166	< LOD	35	4	106	22387
< LOD	< LOD	7.8	82148.22	< LOD	< LOD		293	158	< LOD	< LOD	< LOD	< LOD	< LOD
< LOD	110	8.5	82647.92	< LOD	< LOD		278	152	< LOD	< LOD	< LOD	< LOD	< LOD
< LOD	114	14.7	89277.84	21	< LOD	91	281	250	19	22	5	81	21322
< LOD	112	15.7	90382.91	24	< LOD	90	293	239	< LOD	31	6	79	20466
< LOD	< LOD	13.1	91998.8	< LOD	< LOD		307	236	< LOD	< LOD	< LOD	< LOD	< LOD
< LOD	< LOD	8.1	92005.84	< LOD	< LOD		272	239	< LOD	< LOD	< LOD	< LOD	< LOD
< LOD	116	13.3	84330.21	25	< LOD	72	214	176	< LOD	32	< LOD	96	20026
< LOD	116	14.2	86029.34	< LOD	< LOD	67	236	183	< LOD	26	< LOD	93	22123
< LOD	107	< LOD	89023.23	< LOD	< LOD		246	165	< LOD	< LOD	< LOD	< LOD	< LOD
< LOD	102	< LOD	89446.64	< LOD	< LOD		255	181	< LOD	< LOD	< LOD	< LOD	< LOD
< LOD	121	11.0	78586.47	33	< LOD	90	239	162	< LOD	24	< LOD	111	22140
< LOD	144	13.9	79063.88	34	< LOD	102	247	152	14	38	< LOD	112	22446
< LOD	< LOD	7.8	83914.26	< LOD	< LOD		253	155	< LOD	< LOD	< LOD	< LOD	< LOD
< LOD	101	< LOD	84204.32	< LOD	< LOD		214	152	< LOD	< LOD	< LOD	< LOD	< LOD
9.95	171	< LOD	44390.04	40	< LOD	130	111	71	< LOD	44	13	125	27186
< LOD	156	5.7	44531.58	41	5.9	157	105	65	14	46	9	133	27295
< LOD	110	< LOD	53114.64	< LOD	< LOD		106	55	< LOD	< LOD	6	< LOD	3870
< LOD	< LOD	< LOD	53322.47	< LOD	< LOD		100	52	< LOD	< LOD	8	< LOD	4000
11.87	192	6.5	89613.89	34	4.63	102	466	47	< LOD	49	< LOD	142	40118
12.69	185	8.6	89996.44	34	6.93	129	426	45	< LOD	46	< LOD	138	42010
< LOD	122	< LOD	93164.41	< LOD	< LOD		465	34	< LOD	< LOD	< LOD	< LOD	10204
< LOD	116	< LOD	93669.51	< LOD	< LOD		475	48	< LOD	< LOD	< LOD	< LOD	10343

Ca	K	Ti	Th	Rb	Sr	Mn	Si	Zr	P	Al	Ba
8293	6874	< LOD	< LOD	30	277	< LOD	42780	82	1715	20918	1144
8422	7066	< LOD	< LOD	31	284	< LOD	43675	85	1984	18042	1189
8423	7076	2840	9	53	351	1142		91			1413
8510	7036	2916	6	55	354	1177		91			1391
8034	6454	< LOD	< LOD	29	268	< LOD	42645	74	2188	13234	1098
7915	6466	< LOD	< LOD	28	271	< LOD	42035	70	1481	14694	1027
8981	7298	3180	8	67	326	1279		90			1599
9260	7095	3089	9	72	332	1275		95			1624
8470	6841	< LOD	< LOD	36	252	< LOD	43180	74	1896	14732	1105
8438	6521	< LOD	< LOD	34	255	< LOD	41910	75	2235	17707	1129
10920	8086	3216	5	55	395	1047		94			1398
11003	8014	3211	6	59	396	1118		96			1414
10095	7500	< LOD	< LOD	28	298	< LOD	55467	77	2029	21622	1028
10102	7704	< LOD	< LOD	31	300	< LOD	56839	80	1797	21602	1085
11758	6546	3129	8	49	289	1267		94			971
11634	6450	3176	7	50	278	1275		99			945
10946	6205	< LOD	< LOD	26	218	< LOD	43500	74	2104	20276	832
11041	6013	< LOD	< LOD	23	213	< LOD	42737	76	2401	17114	823
8779	6513	2793	6	53	330	1172		76			1374
8729	6365	2720	8	58	335	1122		83			1368
8149	5875	< LOD	< LOD	27	255	< LOD	35642	65	2112	15413	1000
8242	5887	< LOD	< LOD	27	257	< LOD	34155	63	2162	13985	1043
10207	9020	3323	8	59	369	1300		95			1247
10203	9227	3400	8	61	364	1307		100			1260
8975	8211	< LOD	< LOD	30	273	< LOD	50242	81	1671	21262	927
8945	8056	< LOD	< LOD	30	276	< LOD	49567	78	1518	21344	963
9507	6763	2749	7	55	340	1266		90			1448
9480	6675	2784	6	54	352	1351		92			1459
8776	6354	< LOD	< LOD	26	265	< LOD	40225	70	2002	16016	1106
8737	6153	< LOD	< LOD	26	268	< LOD	40000	74	1609	15454	1100
8411	7146	2846	5	68	360	1213		98			1533
8368	7024	2760	5	67	358	1269		101			1634
7699	6672	< LOD	< LOD	35	276	< LOD	37494	78	2438	16768	1129
7945	6719	< LOD	< LOD	32	272	< LOD	37878	82	2052	13564	1175
16278											

Doreen 2012 Soil-Sampling Program - Coarse Fraction XRF Results

XRF readings are 120 seconds at 4 readings per sample (2 soils mode, 2 mining mode)						
Sample Num	Position	Altitude	Reading	Type	Duration	Units
DOR01	10 U 63987	1306 m	37	Soil	120.01	ppm
			38	Soil	120.14	ppm
			39	Mining	120.51	ppm
			40	Mining	120.34	ppm
DOR02	10 U 63987	1304 m	41	Soil	120.37	ppm
			42	Soil	120.15	ppm
			43	Mining	120.73	ppm
			44	Mining	120.32	ppm
DOR03	10 U 63988	1307 m	45	Soil	120.1	ppm
			46	Soil	120.17	ppm
			47	Mining	121.45	ppm
			48	Mining	121.49	ppm
DOR04	10 U 63988	1309 m	49	Soil	120.13	ppm
			50	Soil	120.37	ppm
			51	Mining	121.4	ppm
			52	Mining	121.82	ppm
DOR05	10 U 63990	1309 m	53	Soil	120.35	ppm
			54	Soil	120.4	ppm
			55	Mining	120.48	ppm
			56	Mining	120.87	ppm
DOR06	10 U 63991	1308 m	59	Soil	120.27	ppm
			60	Soil	120	ppm
			61	Mining	121.72	ppm
			62	Mining	120.39	ppm
DOR07	10 U 63991	1305 m	63	Soil	120.39	ppm
			64	Soil	120.3	ppm
			65	Mining	120.36	ppm
			66	Mining	120.73	ppm
DOR08	10 U 63993	1304 m	67	Soil	120.07	ppm
			68	Soil	120.13	ppm
			69	Mining	120.47	ppm
			70	Mining	121.7	ppm
DOR09	10 U 63993	1305 m	71	Soil	120.38	ppm
			72	Soil	120.01	ppm
			73	Mining	121.36	ppm
			74	Mining	120.19	ppm
DOR10	10 U 63994	1303 m	75	Soil	120.02	ppm
			76	Soil	120.28	ppm
			77	Mining	121.37	ppm
			78	Mining	120.59	ppm
DOR11	10 U 63995	1305 m	83	Soil	120.22	ppm
			84	Soil	120.17	ppm
			85	Mining	120.96	ppm
			86	Mining	122.42	ppm
DOR12	10 U 63996	1303 m	87	Soil	120.13	ppm
			88	Soil	120.16	ppm
			89	Mining	121.35	ppm
			90	Mining	120.96	ppm
DOR13	10 U 63997	1304 m	91	Soil	120.1	ppm
			92	Soil	120.14	ppm
			93	Mining	121.74	ppm
			94	Mining	121.61	ppm
DOR14	10 U 63998	1306 m	95	Soil	120.01	ppm
			96	Soil	120.34	ppm
			99	Mining	121.05	ppm
			100	Mining	121.51	ppm
DOR15	10 U 63999	1305 m	101	Soil	120.13	ppm
			102	Soil	120.24	ppm
			103	Mining	120.38	ppm
			104	Mining	121.47	ppm
DOR16	10 U 64000	1305 m	107	Soil	120.29	ppm
			108	Soil	120.01	ppm

U	Cl
< LOD	
< LOD	
< LOD	338083
< LOD	339020
9	
< LOD	
< LOD	340388
9	342348
8	
< LOD	
< LOD	346269
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8	
11	345363
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7	
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7	
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8	
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< LOD	354631
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8	
< LOD	
< LOD	358358
< LOD	359639
< LOD	
< LOD	
< LOD	
< LOD	344843
< LOD	345244
< LOD	
< LOD	
< LOD	
< LOD	339145
< LOD	341986
8	
< LOD	
10	336291
< LOD	338426
< LOD	
8	
< LOD	352780
< LOD	356471
< LOD	
8	
< LOD	333966
< LOD	335280
7	
< LOD	
< LOD	
< LOD	350703
< LOD	352543
< LOD	
< LOD	

Sc	Y	Nb	Cs	Nd	La	Pr	Ce
< LOD			72				
40			64				
< LOD	< LOD	< LOD		531	190	367	234
< LOD	< LOD	< LOD		557	222	407	258
46			33				
50			42				
< LOD	< LOD	4		478	203	346	256
< LOD	< LOD	4		452	136	263	179
61			60				
60			47				
< LOD	< LOD	< LOD		494	203	306	193
< LOD	< LOD	< LOD		407	< LOD	262	147
46			80				
46			86				
2	< LOD	< LOD		560	238	398	310
< LOD	< LOD	< LOD		589	218	441	289
57			51				
40			54				
< LOD	< LOD	4		548	231	407	210
< LOD	< LOD	< LOD		427	156	320	172
44			54				
37			54				
< LOD	< LOD	< LOD		485	184	282	208
< LOD	< LOD	5		456	171	315	189
42			92				
26			78				
< LOD	< LOD	< LOD		496	187	350	225
< LOD	< LOD	< LOD		579	226	374	215
39			78				
55			81				
2	< LOD	< LOD		590	193	343	284
2	< LOD	< LOD		565	253	352	241
48			58				
49			78				
2	< LOD	< LOD		649	213	414	261
2	< LOD	< LOD		622	268	431	274
48			62				
30			76				
3	< LOD	< LOD		662	264	415	280
2	< LOD	< LOD		642	208	416	250
36			84				
48			68				
< LOD	< LOD	< LOD		508	187	348	196
< LOD	< LOD	< LOD		552	232	373	248
49			78				
51			88				
< LOD	< LOD	< LOD		576	201	358	219
< LOD	< LOD	< LOD		590	209	457	301
56			76				
43			97				
< LOD	2	< LOD		587	245	408	288
2	< LOD	< LOD		629	238	438	262
50			99				
33			103				
2	4			728	252	479	302
2	5			702	258	480	332
36			85				
40			79				
< LOD	< LOD	< LOD		602	209	414	257
< LOD	< LOD	< LOD		580	219	398	264
50			70				
46			77				

Doreen 2012 Soil-Sampling Program - Coarse Fraction XRF Results

XRF readings are 120 seconds at 4 readings per sample (2 soils mode, 2 mining mode)						
Sample Num	Position	Altitude	Reading	Type	Duration	Units
			109	Mining	120.98	ppm
			110	Mining	120.91	ppm
DOR17	10 U 64001	1296 m	111	Soil	120	ppm
			112	Soil	120.29	ppm
			113	Mining	121	ppm
			114	Mining	120.74	ppm
DOR18	10 U 64002	1301 m	117	Soil	120.15	ppm
			118	Soil	120.21	ppm
			119	Mining	120.23	ppm
			120	Mining	121.51	ppm
DOR19	10 U 64003	1303 m	121	Soil	120.13	ppm
			122	Soil	120.27	ppm
			123	Mining	121.07	ppm
			124	Mining	121.37	ppm
DOR20	10 U 64003	1301 m	125	Soil	120.02	ppm
			126	Soil	120.11	ppm
			127	Mining	121.18	ppm
			128	Mining	121.55	ppm
DOR21	10 U 64005	1295 m	131	Soil	120.13	ppm
			132	Soil	120.3	ppm
			133	Mining	120.82	ppm
			134	Mining	121.34	ppm
DOR22	10 U 64006	1295 m	135	Soil	120.28	ppm
			136	Soil	120.16	ppm
			137	Mining	120.15	ppm
			138	Mining	121.44	ppm
DOR23	10 U 64007	1284 m	139	Soil	120.09	ppm
			140	Soil	120.21	ppm
			141	Mining	120.74	ppm
			142	Mining	121.35	ppm
DOR24	10 U 64008	1287 m	143	Soil	120.25	ppm
			144	Soil	120.07	ppm
			145	Mining	121.3	ppm
			146	Mining	120.67	ppm
DOR25	10 U 64009	1291 m	147	Soil	120.15	ppm
			148	Soil	120.03	ppm
			149	Mining	121.09	ppm
			150	Mining	121.5	ppm
DOR26	10 U 64010	1290 m	153	Soil	120.07	ppm
			154	Soil	120.05	ppm
			155	Mining	120.31	ppm
			156	Mining	120.42	ppm
DOR27	10 U 64011	1289 m	159	Soil	120.07	ppm
			160	Soil	120.22	ppm
			161	Mining	121.15	ppm
			162	Mining	121.19	ppm
DOR28	10 U 64011	1289 m	163	Soil	120.27	ppm
			164	Soil	120.21	ppm
			165	Mining	120.86	ppm
			166	Mining	120.62	ppm
DOR29	10 U 64013	1289 m	167	Soil	120.27	ppm
			168	Soil	120.01	ppm
			169	Mining	120.27	ppm
			170	Mining	120.87	ppm
DOR30	10 U 64013	1289 m	171	Soil	120.01	ppm
			172	Soil	120.02	ppm
			173	Mining	120.89	ppm
			174	Mining	120.13	ppm
DOR31	10 U 64014	1289 m	189	Soil	120.07	ppm
			190	Soil	120.16	ppm
			191	Mining	120.1	ppm
			192	Mining	120.25	ppm

U	Cl
< LOD	349725
< LOD	353327
< LOD	
10	344134
< LOD	345391
< LOD	
10	
14	345612
< LOD	349173
< LOD	
< LOD	
< LOD	351531
< LOD	353029
< LOD	
< LOD	
< LOD	348026
< LOD	351419
< LOD	
< LOD	340654
< LOD	340827
8	
8	
9	379081
10	381265
11	
< LOD	
< LOD	345980
< LOD	346899
< LOD	
8	
10	345585
11	347479
< LOD	
< LOD	
< LOD	362094
< LOD	365138
12	
12	
< LOD	345953
< LOD	345642
< LOD	
8	
< LOD	332307
11	333752
< LOD	
< LOD	
11	340935
< LOD	339534
< LOD	
< LOD	
< LOD	340029
< LOD	339049
< LOD	
< LOD	
< LOD	
< LOD	339121
< LOD	340977
8	
< LOD	
< LOD	358644
< LOD	359434

Sc	Y	Nb	Cs	Nd	La	Pr	Ce
< LOD	2	< LOD		659	268	473	316
< LOD	< LOD	< LOD		682	188	383	197
33			90				
46			70				
	3	< LOD		606	184	445	256
< LOD	3	4		607	222	399	301
47			79				
47			94				
	2	< LOD		711	281	447	298
	2	< LOD		581	246	427	237
43			86				
41			73				
< LOD	< LOD	< LOD		609	242	417	255
< LOD	< LOD	< LOD		614	218	446	273
50			98				
35			103				
	2	< LOD		650	232	394	285
	2	< LOD		628	195	413	231
55			83				
47			86				
< LOD	< LOD	< LOD		605	224	375	257
< LOD	< LOD	5		724	268	463	274
30			97				
43			88				
< LOD	< LOD	< LOD		640	236	440	246
	2	4		577	205	394	295
40			80				
28			84				
	2	< LOD		628	237	435	285
	2	< LOD		622	219	435	320
41			79				
30			84				
< LOD	< LOD	< LOD		673	226	413	320
< LOD	< LOD	< LOD		609	180	354	295
43			77				
34			69				
	2	< LOD		599	196	364	282
	2	< LOD		525	214	377	246
37			67				
36			76				
< LOD	< LOD	< LOD		584	233	385	229
< LOD	< LOD	< LOD		680	286	463	321
38			97				
34			116				
< LOD	< LOD	4		778	267	503	318
< LOD	< LOD	< LOD		643	274	530	357
38			70				
53			58				
< LOD	< LOD	< LOD		551	216	365	246
< LOD	< LOD	< LOD		475	201	384	217
34			97				
32			100				
< LOD	2	< LOD		716	307	497	281
< LOD	< LOD	< LOD		707	267	450	295
44			84				
48			75				
< LOD	< LOD	< LOD		590	222	409	282
< LOD	2	< LOD		550	213	369	198
34			88				
47			86				
< LOD	2	< LOD		674	193	417	312
< LOD	< LOD	< LOD		708	291	497	305

Doreen 2012 Soil-Sampling Program - Coarse Fraction XRF Results

XRF readings are 120 seconds at 4 readings per sample (2 soils mode, 2 mining mode)						
Sample Num	Position	Altitude	Reading	Type	Duration	Units
DOR32	10 U 64015	1287 m	195	Soil	120.12	ppm
			196	Soil	120.03	ppm
			197	Mining	120.23	ppm
			198	Mining	120.94	ppm
DOR33	10 U 64015	1285 m	199	Soil	120.32	ppm
			200	Soil	120.15	ppm
			201	Mining	120.26	ppm
			202	Mining	120.12	ppm
DOR34	10 U 64017	1284 m	203	Soil	120.07	ppm
			204	Soil	120.06	ppm
			205	Mining	120.93	ppm
			206	Mining	121.6	ppm
DOR35	10 U 64018	1284 m	207	Soil	120.19	ppm
			208	Soil	120.35	ppm
			209	Mining	120.61	ppm
			210	Mining	120.89	ppm
DOR36	10 U 64019	1282 m	213	Soil	120.07	ppm
			214	Soil	120.34	ppm
			215	Mining	120.98	ppm
			216	Mining	121.4	ppm
DOR37	10 U 64019	1283 m	219	Soil	120.21	ppm
			220	Soil	120.08	ppm
			221	Mining	121.33	ppm
			222	Mining	120.76	ppm
DOR38	10 U 64021	1283 m	223	Soil	120.12	ppm
			224	Soil	120.24	ppm
			225	Mining	120.64	ppm
			226	Mining	120.02	ppm
DOR39	10 U 64022	1282 m	227	Soil	120.19	ppm
			228	Soil	120.37	ppm
			229	Mining	121.49	ppm
			230	Mining	121.37	ppm
DOR40	10 U 64022	1281 m	231	Soil	120.13	ppm
			232	Soil	120.15	ppm
			233	Mining	121.8	ppm
			234	Mining	120.42	ppm
DOR41	10 U 64023	1286 m	237	Soil	120.41	ppm
			238	Soil	120.22	ppm
			239	Mining	120.64	ppm
			240	Mining	120.86	ppm
DOR42	10 U 64024	1286 m	241	Soil	120.18	ppm
			242	Soil	120.13	ppm
			243	Mining	120.48	ppm
			244	Mining	120.92	ppm
DOR43	10 U 64025	1287 m	245	Soil	120.02	ppm
			246	Soil	120.19	ppm
			247	Mining	121.53	ppm
			248	Mining	121.46	ppm
DOR44	10 U 64026	1286 m	249	Soil	120.19	ppm
			250	Soil	120.34	ppm
			251	Mining	121.62	ppm
			252	Mining	121.57	ppm
DOR45	10 U 64027	1284 m	253	Soil	120.25	ppm
			254	Soil	120.22	ppm
			255	Mining	121.73	ppm
			256	Mining	120.14	ppm
DOR46	10 U 64028	1286 m	258	Soil	120.07	ppm
			259	Soil	120.17	ppm
			260	Mining	121.01	ppm
			261	Mining	120.51	ppm
DOR47	10 U 64029	1288 m	262	Soil	120.06	ppm
			263	Soil	120.31	ppm

U	Cl
< LOD	
< LOD	
< LOD	336920
< LOD	337769
9	
< LOD	
< LOD	366937
< LOD	366303
< LOD	
< LOD	360646
< LOD	361587
< LOD	
< LOD	366922
11	368226
< LOD	
< LOD	372035
< LOD	375313
< LOD	
< LOD	
< LOD	348298
< LOD	350453
< LOD	
11	
11	333962
< LOD	334119
< LOD	
< LOD	
< LOD	350559
13	356303
10	
< LOD	
< LOD	371498
< LOD	374342
8	
< LOD	
< LOD	356178
< LOD	358299
14	
< LOD	
< LOD	347865
< LOD	349393
< LOD	
< LOD	
9	
< LOD	371364
< LOD	372636
< LOD	
< LOD	
< LOD	339481
< LOD	341113
11	
< LOD	
< LOD	370716
< LOD	374275
13	
< LOD	335137
< LOD	336427
< LOD	
< LOD	

Sc	Y	Nb	Cs	Nd	La	Pr	Ce
< LOD			96				
45			78				
< LOD	< LOD	5		556	195	341	243
2	< LOD	< LOD		629	227	420	231
40			102				
52			93				
< LOD	< LOD	4		662	247	423	254
2	4			609	241	408	295
31			84				
60			75				
< LOD	< LOD			645	215	407	276
< LOD	< LOD	< LOD		708	260	512	327
46			99				
39			82				
2	< LOD			650	215	480	268
2	< LOD			706	273	459	309
24			89				
37			94				
2	< LOD			658	200	420	280
2	< LOD			643	272	524	319
40			86				
44			70				
< LOD	< LOD	< LOD		539	192	372	248
< LOD	< LOD	< LOD		632	266	480	280
60			129				
30			106				
2	< LOD			640	237	433	240
2	< LOD			704	230	397	269
69			75				
66			75				
2	5			710	317	476	314
2	< LOD			712	264	427	277
87			131				
102			135				
2	< LOD			951	284	656	462
< LOD	< LOD			894	342	576	374
58			73				
30			71				
2	< LOD			621	257	383	286
3	< LOD			514	190	347	207
44			87				
36			98				
< LOD	< LOD			660	243	441	279
< LOD	< LOD			662	253	447	278
54			88				
43			86				
3	< LOD			704	286	446	255
3	< LOD			578	203	402	260
56			102				
60			107				
2	< LOD			705	259	492	287
2	< LOD			710	253	481	326
48			110				
49			127				
2	< LOD			751	281	518	380
2	< LOD			761	275	486	384
44			87				
56			81				
2	< LOD			725	260	396	266
< LOD	< LOD			634	234	439	275
63			88				
46			104				

Doreen 2012 Soil-Sampling Program - Coarse Fraction XRF Results

XRF readings are 120 seconds at 4 readings per sample (2 soils mode, 2 mining mode)						
Sample Num	Position	Altitude	Reading	Type	Duration	Units
			264	Mining	120.89	ppm
			265	Mining	120.24	ppm
DOR48	10 U 64030	1287 m	266	Soil	120.09	ppm
			267	Soil	120.38	ppm
			268	Mining	121.04	ppm
			269	Mining	121.16	ppm
DOR49	10 U 64031	1286 m	270	Soil	120.14	ppm
			271	Soil	120.26	ppm
			272	Mining	120.94	ppm
			273	Mining	121.35	ppm
DOR50	10 U 64032	1287 m	274	Soil	120.26	ppm
			275	Soil	120	ppm
			276	Mining	121.35	ppm
			277	Mining	120.02	ppm
DOR51	10 U 64033	1287 m	282	Soil	120.07	ppm
			283	Soil	120.01	ppm
			284	Mining	121.61	ppm
			285	Mining	121.02	ppm
DOR52	10 U 64034	1284 m	286	Soil	120.26	ppm
			287	Soil	120.03	ppm
			288	Mining	121.74	ppm
			289	Mining	120.32	ppm
DOR53	10 U 64035	1284 m	290	Soil	120.22	ppm
			291	Soil	120.13	ppm
			292	Mining	120.07	ppm
			293	Mining	121.68	ppm
DOR54	10 U 64036	1283 m	294	Soil	120.28	ppm
			295	Soil	120.24	ppm
			296	Mining	120.65	ppm
			297	Mining	120.35	ppm
DOR55	10 U 64036	1283 m	298	Soil	120.23	ppm
			299	Soil	120.24	ppm
			300	Mining	121.13	ppm
			301	Mining	120.49	ppm
DOROC1	10 U 64044	1252 m	304	Soil	120.37	ppm
			305	Soil	120.2	ppm
			306	Mining	122.5	ppm
			307	Mining	120.98	ppm
DOROC2	10 U 64043	1290 m	308	Soil	120.39	ppm
			309	Soil	120.08	ppm
			310	Mining	121.52	ppm
			311	Mining	121.82	ppm

U	Cl
< LOD	361284
< LOD	365785
< LOD	
< LOD	
< LOD	342342
< LOD	342205
11	
< LOD	
< LOD	331125
< LOD	333275
9	
< LOD	
< LOD	313214
< LOD	316136
< LOD	
9	
< LOD	325507
< LOD	325850
8	
< LOD	
< LOD	347988
< LOD	348127
< LOD	
8	
< LOD	324453
< LOD	324879
< LOD	
< LOD	
12	333897
< LOD	335318
9	
< LOD	
< LOD	342544
< LOD	344398
< LOD	
< LOD	
< LOD	325179
< LOD	325123
< LOD	
< LOD	
< LOD	
< LOD	323716
< LOD	326192

Sc	Y	Nb	Cs	Nd	La	Pr	Ce
< LOD	< LOD	< LOD		560	230	376	259
	2	< LOD		505	217	422	248
48			79				
< LOD			82				
40	< LOD	< LOD		596	203	303	255
	< LOD	< LOD		587	200	436	251
43			99				
50			97				
	< LOD	< LOD		549	216	419	251
	< LOD	< LOD		589	246	365	229
58			81				
58			84				
	< LOD	< LOD		655	271	430	286
	< LOD	5		658	252	396	249
54			41				
53			32				
	< LOD	5		693	216	510	279
	< LOD	5		824	259	480	297
46			85				
51			75				
	< LOD	< LOD		631	211	415	314
	< LOD	< LOD		721	307	483	295
51			58				
52			66				
	< LOD	< LOD		536	165	301	263
	< LOD	< LOD		541	193	352	214
53			73				
68			69				
	< LOD	< LOD		621	263	420	242
	< LOD	< LOD		675	256	526	286
50			88				
55			97				
	< LOD	< LOD		521	228	353	261
	< LOD	4		706	246	387	278
82			116				
76			131				
	3	< LOD		675	263	434	295
	3	< LOD		624	243	457	305
121			119				
111			109				
	2	< LOD		889	291	601	366
	2	< LOD		881	303	655	402

Doreen 2012 Coarse/Fine Soil XRF Comparisons

4 XRF readings per sample (2 soils mode, 2 mining mode)

	Coarse first pass analysis, 120 second readings
	Sieved, Crushed, 180 Second readings

Sample Number	Position	Altitude	Reading	Type	Duration	Units	Au	Au	Ag	Ag	As	As	Fe	Fe	Hg	Hg	Sb	Sb	Bi	Bi	Se	Se	Te	Te	Cu	Cu	Zn	Zn	Pb	Pb	Cd		
DOR01	10 U 639870 5796808	1306 m	339	Soil	180.1	ppm	8.19	6.17	104	< LOD	10	13	43138	52194	9	7	21	26			< LOD	< LOD	70	65	102	103	141	153	< LOD	17	< LOD		
			340	Soil	180.31	ppm	< LOD	6.24	< LOD	< LOD	10	12	43501	52705	< LOD	7	< LOD	14			< LOD	< LOD	43	94	105	104	124	159	< LOD	15	< LOD		
			341	Mining	181.83	ppm	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	52123	60889			< LOD	< LOD	< LOD	< LOD	< LOD	< LOD					93	102	133	140	< LOD	< LOD	< LOD
			342	Mining	180.13	ppm	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	52012	61206			< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD			91	102	124	140	< LOD	< LOD	< LOD
DOR07	10 U 639919 5796827	1305 m	343	Soil	180.06	ppm	7.75	6.24	129	< LOD	13	13	40747	47851	< LOD	< LOD	32	16			< LOD	< LOD	74	70	80	99	169	176	< LOD	55	< LOD		
			344	Soil	180.02	ppm	< LOD	< LOD	114	< LOD	11	12	40810	47990	< LOD	< LOD	19	< LOD			< LOD	< LOD	77	38	84	98	172	179	< LOD	53	< LOD		
			345	Mining	181.8	ppm	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	49799	56809			< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD			91	107	166	174	< LOD	45	< LOD
			346	Mining	181.75	ppm	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	50183	56695			< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD			75	94	162	166	< LOD	45	< LOD
DOR09	10 U 639937 5796826	1305 m	347	Soil	180.12	ppm	7.77	< LOD	110	108	16	18	54290	58695	< LOD	< LOD	19	22			< LOD	< LOD	41	79	137	162	175	188	< LOD	8	< LOD		
			348	Soil	180.33	ppm	< LOD	9.3	104	< LOD	16	18	54543	59473	< LOD	< LOD	31	21			< LOD	< LOD	84	56	140	161	183	197	8	7	< LOD		
			349	Mining	180.76	ppm	< LOD	< LOD	< LOD	< LOD	9	12	62845	66706			< LOD	< LOD	< LOD	< LOD	< LOD	< LOD					131	159	182	194	< LOD	< LOD	< LOD
			350	Mining	180.51	ppm	< LOD	< LOD	< LOD	< LOD	9	7	62572	67264			< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD			147	154	186	194	< LOD	< LOD	< LOD
DOR10	10 U 639949 5796818	1303 m	351	Soil	180.37	ppm	< LOD	< LOD	119	< LOD	27	21	57514	62888	10	< LOD	26	19			< LOD	< LOD	77	43	150	179	185	202	< LOD	56	< LOD		
			352	Soil	180.2	ppm	7.95	< LOD	120	< LOD	23	18	58429	62909	< LOD	< LOD	22	16			< LOD	< LOD	75	59	175	187	185	199	< LOD	59	< LOD		
			353	Mining	180.43	ppm	< LOD	< LOD	< LOD	< LOD	14	11	65977	70303			< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD			161	183	178	190	< LOD	47	< LOD
			354	Mining	180.49	ppm	< LOD	< LOD	< LOD	< LOD	12	10	65782	70994			< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD			172	187	185	193	< LOD	48	< LOD
DOR11	10 U 639956 5796817	1305 m	355	Soil	180.18	ppm	< LOD	< LOD	129	< LOD	12	14	44432	45078	10	< LOD	30	14			< LOD	< LOD	107	64	99	94	130	135	< LOD	< LOD	< LOD		
			356	Soil	180.26	ppm	8.4	< LOD	103	< LOD	13	16	44688	45058	9	< LOD	29	18			< LOD	< LOD	72	67	93	90	129	141	< LOD	< LOD	< LOD		
			357	Mining	181.15	ppm	< LOD	< LOD	< LOD	< LOD	< LOD	7	53150	53561			< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD			82	88	109	127	< LOD	< LOD	< LOD
			358	Mining	181.02	ppm	< LOD	< LOD	< LOD	< LOD	< LOD	7	53636	53807			< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD			91	90	107	132	< LOD	< LOD	< LOD
DOR14	10 U 639984 5796820	1306 m	361	Soil	180.21	ppm	< LOD	< LOD	140	114	19	22	56265	59774	< LOD	8	32	20			< LOD	< LOD	107	73	153	182	130	162	< LOD	< LOD	< LOD		
			362	Soil	180.23	ppm	7.81	6.97	150	110	17	22	56576	60370	9	< LOD	37	21			< LOD	< LOD	95	70	155	185	142	160	< LOD	< LOD	15		
			363	Mining	180.42	ppm	< LOD	< LOD	< LOD	< LOD	13	13	65034	67986			< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD			162	185	130	162	< LOD	< LOD	< LOD
			364	Mining	180.48	ppm	< LOD	< LOD	< LOD	< LOD	9	13	64512	68345			< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD			151	208	133	161	< LOD	< LOD	< LOD
DOR16	10 U 640000 5796822	1305 m	365	Soil	180.37	ppm	8.31	< LOD	119	< LOD	17	17	51731	59021	< LOD	< LOD	20	15			< LOD	< LOD	93	60	189	220	130	145	< LOD	< LOD	< LOD		
			366	Soil	180	ppm	< LOD	< LOD	118	< LOD	14	20	52264	59365	< LOD	< LOD	26	22			< LOD	< LOD	87	80	208	214	128	150	< LOD	< LOD	< LOD		
			367	Mining	180.21	ppm	< LOD	< LOD	< LOD	< LOD	8	9	60491	67167			< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD			187	226	121	146	< LOD	< LOD	< LOD
			368	Mining	181.23	ppm	< LOD	< LOD	< LOD	< LOD	7	11	61523	67384			< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD			211	237	121	146	< LOD	< LOD	< LOD
DOR18	10 U 640023 5796818	1301 m	369	Soil	180.24	ppm	< LOD	< LOD	105	104	16	24	59423	66637	< LOD	10	35	24			< LOD	< LOD	96	67	162	175	153	174	8	< LOD	< LOD		
			370	Soil	180.14	ppm	10.26	< LOD	122	121	21	25	59658	66767	< LOD	< LOD	41	19			< LOD	< LOD	103	84	141	187	161	168	< LOD	< LOD	< LOD		
			371	Mining	180.16	ppm	< LOD	< LOD	< LOD	< LOD	15	14	67472	73819			< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD			157	201	158	168	< LOD	< LOD	< LOD
			372	Mining	181	ppm	< LOD	< LOD	< LOD	< LOD	14	14	67734	74724			< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD			153	186	155	167	< LOD	< LOD	< LOD
DOR19	10 U 640030 5796817	1303 m	373	Soil	180.39	ppm	< LOD	< LOD	142	110	24	20	65980	66212	< LOD	8	29	17			< LOD	< LOD	80	72	193	200	164	180	< LOD	11	< LOD		
			374	Soil	180.24	ppm	< LOD	< LOD	118	117	24	23	65387	66297	< LOD	< LOD	23	28			4	< LOD	81	79	181	202	182	188	< LOD	9	< LOD		
			375	Mining	180.46	ppm	< LOD	< LOD	< LOD	< LOD	17	13	72313	73417			< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD			190	205	151	167	< LOD	< LOD	< LOD
			376	Mining	180.62	ppm	< LOD	< LOD	< LOD	< LOD	16	12	72891	73937			< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD			203	201	155	168	< LOD	< LOD	< LOD

Doreen 2012 Coarse/Fine Soil XRF Comparisons

4 XRF readings per sample (2 soils mode, 2 mining mode)

	Coarse first pass analysis, 120 second readings
	Sieved, Crushed, 180 Second readings

Sample Number	Position	Altitude	Reading	Type	Duration	Units	Au	Au	Ag	Ag	As	As	Fe	Fe	Hg	Hg	Sb	Sb	Bi	Bi	Se	Se	Te	Te	Cu	Cu	Zn	Zn	Pb	Pb	Cd		
DOR20	10 U 640039 5796824	1301 m	377	Soil	180.34	ppm	< LOD	6.75	136	112	18	23	59097	69982	< LOD	< LOD	32	18			< LOD	< LOD	108	72	163	192	158	169	< LOD	< LOD	< LOD		
			378	Soil	180.34	ppm	< LOD	< LOD	149	117	19	23	59786	70767	< LOD	9	30	28			< LOD	< LOD	126	52	161	184	166	177	< LOD	< LOD	< LOD		
			379	Mining	181.05	ppm	< LOD	< LOD	< LOD	< LOD	9	16	67314	77172			< LOD	< LOD	< LOD	< LOD	< LOD	< LOD					146	199	153	170	< LOD	< LOD	< LOD
			380	Mining	180.14	ppm	< LOD	< LOD	< LOD	< LOD	14	13	67269	77822			< LOD	< LOD	< LOD	< LOD	< LOD	< LOD					146	188	151	166	< LOD	< LOD	< LOD
DOR21	10 U 640053 5796817	1295 m	383	Soil	180.08	ppm	7.95	6.92	114	120	21	19	66406	67368	< LOD	< LOD	15	16			< LOD	< LOD	73	65	184	193	170	186	9	< LOD	< LOD		
			384	Soil	180.16	ppm	9.32	< LOD	130	118	19	22	66835	67775	9	< LOD	28	22			< LOD	< LOD	82	71	174	217	182	190	9	< LOD	< LOD		
			385	Mining	181.34	ppm	< LOD	< LOD	< LOD	< LOD	14	13	73909	74894			< LOD	< LOD	< LOD	< LOD	< LOD	< LOD					167	191	158	175	< LOD	< LOD	< LOD
			386	Mining	180.63	ppm	< LOD	< LOD	< LOD	< LOD	13	13	73795	74537			< LOD	< LOD	< LOD	< LOD	< LOD	< LOD					204	221	161	171	< LOD	< LOD	< LOD
DOR22	10 U 640062 5796820	1295 m	387	Soil	180.1	ppm	8.8	< LOD	130	< LOD	23	25	51781	61589	< LOD	< LOD	35	13			< LOD	4	98	67	210	264	190	210	< LOD	< LOD	< LOD		
			388	Soil	180.15	ppm	< LOD	< LOD	135	< LOD	23	25	52251	61611	< LOD	< LOD	33	24			< LOD	< LOD	109	80	210	262	182	223	< LOD	< LOD	< LOD		
			389	Mining	180.21	ppm	< LOD	< LOD	< LOD	< LOD	11	16	60203	70151			< LOD	< LOD	< LOD	< LOD	< LOD	< LOD					217	264	179	215	< LOD	< LOD	< LOD
			390	Mining	180.97	ppm	< LOD	< LOD	< LOD	< LOD	14	16	60718	69823			< LOD	< LOD	< LOD	< LOD	< LOD	< LOD					214	265	181	207	< LOD	< LOD	< LOD
DOR23	10 U 640071 5796826	1284 m	393	Soil	180.06	ppm	8.78	< LOD	122	148	26	33	63196	58562	< LOD	< LOD	17	30			< LOD	< LOD	72	119	237	237	230	209	< LOD	< LOD	< LOD		
			394	Soil	180.23	ppm	< LOD	6.79	117	131	29	30	63847	58795	12	9	24	28			< LOD	4	94	104	239	237	224	222	< LOD	< LOD	< LOD		
			395	Mining	181.19	ppm	< LOD	< LOD	< LOD	< LOD	20	21	70937	66628			< LOD	< LOD	< LOD	< LOD	< LOD	< LOD					254	243	216	209	< LOD	< LOD	< LOD
			396	Mining	181.48	ppm	< LOD	< LOD	< LOD	< LOD	20	21	71043	67036			< LOD	< LOD	< LOD	< LOD	< LOD	< LOD					252	239	210	205	< LOD	< LOD	< LOD
DOR25	10 U 640093 5796824	1291 m	397	Soil	180.16	ppm	< LOD	< LOD	109	119	34	36	69826	73657	< LOD	< LOD	22	23			< LOD	< LOD	86	91	269	326	372	406	< LOD	< LOD	15		
			398	Soil	180.29	ppm	< LOD	< LOD	106	< LOD	28	35	69944	74060	< LOD	< LOD	22	22			< LOD	< LOD	106	66	268	304	379	412	9	< LOD	17		
			399	Mining	181.53	ppm	< LOD	< LOD	< LOD	< LOD	23	25	76912	80156			< LOD	< LOD	< LOD	< LOD	< LOD	< LOD					274	346	355	396	< LOD	< LOD	< LOD
			400	Mining	181.23	ppm	< LOD	< LOD	< LOD	< LOD	24	25	77347	80356			< LOD	< LOD	< LOD	< LOD	< LOD	< LOD					299	324	369	402	< LOD	< LOD	< LOD
DOR26	10 U 640102 5796820	1290 m	401	Soil	180.1	ppm	8.4	< LOD	107	100	15	20	55279	59935	9	8	17	21			< LOD	< LOD	85	56	297	380	167	195	< LOD	< LOD	< LOD		
			402	Soil	180.26	ppm	< LOD	< LOD	125	< LOD	15	21	55147	60866	< LOD	< LOD	28	26			< LOD	4	95	73	304	373	149	194	< LOD	< LOD	< LOD		
			403	Mining	180.12	ppm	< LOD	< LOD	< LOD	< LOD	10	10	63615	68483			< LOD	< LOD	< LOD	< LOD	< LOD	< LOD					301	414	151	182	< LOD	< LOD	< LOD
			404	Mining	180.62	ppm	< LOD	< LOD	100	< LOD	11	11	63144	68490			< LOD	< LOD	< LOD	< LOD	< LOD	< LOD					312	400	156	189	< LOD	< LOD	< LOD
DOR29	10 U 640130 5796814	1289 m	407	Soil	180.31	ppm	12.36	6.44	144	< LOD	15	10	53826	47546	< LOD	< LOD	27	19			< LOD	< LOD	95	72	211	190	170	222	< LOD	< LOD	< LOD		
			408	Soil	180.2	ppm	7.87	< LOD	156	< LOD	14	13	54194	47814	< LOD	< LOD	35	23			< LOD	< LOD	128	79	201	211	164	225	< LOD	< LOD	< LOD		
			409	Mining	181.3	ppm	< LOD	< LOD	< LOD	< LOD	10	< LOD	62392	56644			< LOD	< LOD	< LOD	< LOD	< LOD	< LOD					226	203	160	225	< LOD	< LOD	< LOD
			410	Mining	180.69	ppm	< LOD	< LOD	100	< LOD	< LOD	9	62170	57376			< LOD	< LOD	< LOD	< LOD	< LOD	< LOD					235	214	164	216	< LOD	< LOD	< LOD
DOR34	10 U 640172 5796793	1284 m	411	Soil	180.1	ppm	< LOD	< LOD	127	126	24	23	69990	70123	< LOD	< LOD	33	30			< LOD	< LOD	96	87	220	259	184	176	< LOD	< LOD	14		
			412	Soil	180.05	ppm	9.31	< LOD	119	120	27	23	70836	71058	< LOD	< LOD	25	29			< LOD	< LOD	94	88	211	261	166	181	< LOD	< LOD	< LOD		
			413	Mining	181.73	ppm	< LOD	< LOD	110	< LOD	17	14	76519	77024			< LOD	< LOD	< LOD	< LOD	< LOD	< LOD					222	261	143	173	< LOD	< LOD	< LOD
			414	Mining	180.91	ppm	< LOD	< LOD	107	< LOD	17	15	77265	77193			< LOD	< LOD	< LOD	< LOD	< LOD	< LOD					229	266	145	174	< LOD	< LOD	< LOD
DOR37	10 U 640198 5796782	1283 m	415	Soil	180.15	ppm	11.64	< LOD	136	< LOD	17	17	60659	67313	< LOD	< LOD	27	< LOD			< LOD	< LOD	96	41	199	259	167	204	< LOD	< LOD	19		
			416	Soil	180.21	ppm	< LOD	< LOD	114	< LOD	17	19	60424	68109	< LOD	< LOD	30	19			< LOD	3	70	36	223	261	166	196	< LOD	< LOD	< LOD		
			417	Mining	180.21	ppm	< LOD	< LOD	< LOD	< LOD	8	11	68728	74642			< LOD	< LOD	< LOD	< LOD	< LOD	< LOD					217	267	161	194	< LOD	< LOD	< LOD
			418	Mining	181.16	ppm	< LOD	< LOD	< LOD	< LOD	8	11	68931	75174			< LOD	< LOD	< LOD	< LOD	< LOD	< LOD					225	260	165	206	< LOD	< LOD	< LOD

Doreen 2012 Coarse/Fine Soil XRF Comparisons

4 XRF readings per sample (2 soils mode, 2 mining mode)

Coarse first pass analysis, 120 second readings

Sieved, Crushed, 180 Second readings

Sample Number	Position	Altitude	Reading	Type	Duration	Units	Au	Au	Ag	Ag	As	As	Fe	Fe	Hg	Hg	Sb	Sb	Bi	Bi	Se	Se	Te	Te	Cu	Cu	Zn	Zn	Pb	Pb	Cd		
DOR38	10 U 640210 5796782	1283 m	419	Soil	180.01	ppm	10.42	7.51	165	136	16	16	65172	63922	< LOD	< LOD	45	31			< LOD	3	130	94	239	228	189	195	< LOD	< LOD	17		
			420	Soil	180.05	ppm	< LOD	< LOD	154	148	21	15	66042	64773	< LOD	< LOD	35	36			< LOD	< LOD	114	121	227	233	189	190	< LOD	< LOD	< LOD		
			421	Mining	181.6	ppm	< LOD	< LOD	< LOD	< LOD	8	10	72969	71906			< LOD	< LOD	< LOD	< LOD	< LOD	< LOD					235	225	180	176	< LOD	< LOD	< LOD
			422	Mining	180.19	ppm	< LOD	< LOD	< LOD	106	11	11	72795	72387			< LOD	< LOD	< LOD	< LOD	< LOD	< LOD					222	223	173	181	< LOD	< LOD	< LOD
DOR39	10 U 640221 5796782	1282 m	423	Soil	180.29	ppm	8.84	8.28	137	157	18	17	69020	63985	< LOD	< LOD	22	34			< LOD	4	96	108	243	211	226	198	< LOD	< LOD	< LOD		
			424	Soil	180.28	ppm	< LOD	< LOD	135	163	21	19	69641	64024	< LOD	< LOD	23	36			4	< LOD	69	114	250	213	220	205	< LOD	< LOD	< LOD		
			425	Mining	181.78	ppm	< LOD	< LOD	112	103	11	13	75625	71427			< LOD	< LOD	< LOD	< LOD	< LOD	< LOD					231	216	216	185	< LOD	< LOD	< LOD
			426	Mining	180.5	ppm	< LOD	< LOD	106	100	12	12	76899	71732			< LOD	< LOD	< LOD	< LOD	< LOD	< LOD					231	213	209	184	< LOD	< LOD	< LOD
DOR40	10 U 640228 5796780	1281 m	429	Soil	180.13	ppm	< LOD	< LOD	206	198	13	10	140569	113873	< LOD	< LOD	41	40			< LOD	< LOD	142	120	480	352	546	422	< LOD	< LOD	19		
			430	Soil	180.02	ppm	< LOD	7.34	216	206	10	7	140469	113776	< LOD	< LOD	52	41			< LOD	< LOD	154	146	474	342	538	422	< LOD	< LOD	22		
			431	Mining	181.13	ppm	< LOD	< LOD	108	111	< LOD	< LOD	128558	111100			< LOD	< LOD	< LOD	< LOD	< LOD	< LOD					493	339	531	419	< LOD	< LOD	< LOD
			432	Mining	180.9	ppm	< LOD	< LOD	109	112	< LOD	< LOD	129825	111416			< LOD	< LOD	< LOD	< LOD	< LOD	< LOD					471	348	514	413	< LOD	< LOD	< LOD
DOR42	10 U 640244 5796780	1286 m	433	Soil	180.19	ppm	9.21	< LOD	143	134	12	12	65419	63197	< LOD	< LOD	31	27			< LOD	< LOD	116	97	235	241	160	161	< LOD	< LOD	< LOD		
			434	Soil	180.11	ppm	< LOD	< LOD	129	137	14	16	65790	63347	< LOD	8	36	27			< LOD	5	109	115	238	233	161	157	< LOD	< LOD	< LOD		
			435	Mining	181.4	ppm	< LOD	< LOD	< LOD	< LOD	10	8	72626	70826			< LOD	< LOD	< LOD	< LOD	< LOD	< LOD					255	266	160	154	< LOD	< LOD	< LOD
			436	Mining	181.01	ppm	< LOD	< LOD	< LOD	< LOD	11	8	72472	71269			< LOD	< LOD	< LOD	< LOD	< LOD	< LOD					239	251	163	152	< LOD	< LOD	< LOD
DOR44	10 U 640264 5796778	1286 m	439	Soil	180.25	ppm	< LOD	10.75	159	173	13	14	126700	118415	11	< LOD	31	37			< LOD	6	134	114	308	294	144	141	< LOD	< LOD	19		
			440	Soil	180.11	ppm	< LOD	10.09	181	184	14	13	128916	118019	< LOD	9	38	32			8	7	128	137	313	286	143	137	< LOD	< LOD	< LOD		
			441	Mining	180.72	ppm	< LOD	< LOD	107	< LOD	< LOD	9	120829	113296			< LOD	< LOD	< LOD	< LOD	< LOD	< LOD					306	305	141	124	< LOD	< LOD	< LOD
			442	Mining	181	ppm	< LOD	< LOD	102	117	< LOD	< LOD	121688	114263			< LOD	< LOD	< LOD	< LOD	< LOD	< LOD					302	311	137	129	< LOD	< LOD	< LOD
DOR45	10 U 640274 5796775	1284 m	443	Soil	180.26	ppm	< LOD	< LOD	178	136	20	18	67877	70694	< LOD	< LOD	34	24			< LOD	4	114	89	232	249	180	184	< LOD	< LOD	< LOD		
			444	Soil	180.2	ppm	9.27	< LOD	180	143	20	21	67562	71035	< LOD	< LOD	42	26			< LOD	< LOD	128	89	234	236	173	178	< LOD	< LOD	< LOD		
			445	Mining	180.27	ppm	< LOD	< LOD	108	< LOD	13	14	74761	77733			< LOD	< LOD	< LOD	< LOD	< LOD	< LOD					235	258	158	177	< LOD	< LOD	< LOD
			446	Mining	180.96	ppm	< LOD	< LOD	125	< LOD	14	10	75256	77884			< LOD	< LOD	< LOD	< LOD	< LOD	< LOD					241	250	169	171	< LOD	< LOD	< LOD
DOR47	10 U 640294 5796774	1288 m	447	Soil	180.2	ppm	< LOD	< LOD	141	110	15	17	67047	72432	< LOD	< LOD	28	30			< LOD	< LOD	98	84	208	239	212	238	< LOD	< LOD	< LOD		
			448	Soil	180.04	ppm	10.79	< LOD	155	108	17	17	67241	73293	< LOD	8	37	31			< LOD	< LOD	90	83	225	245	233	233	< LOD	< LOD	< LOD		
			449	Mining	180.18	ppm	< LOD	< LOD	< LOD	< LOD	11	11	73320	78877			< LOD	< LOD	< LOD	< LOD	< LOD	< LOD					223	256	199	235	< LOD	< LOD	< LOD
			450	Mining	180.06	ppm	< LOD	< LOD	< LOD	< LOD	7	12	74227	79196			< LOD	< LOD	< LOD	< LOD	< LOD	< LOD					214	240	225	228	< LOD	< LOD	< LOD
DOR48	10 U 640302 5796775	1287 m	453	Soil	180.08	ppm	9.28	< LOD	112	< LOD	16	15	70374	72647	< LOD	< LOD	29	17			< LOD	< LOD	86	45	223	234	264	272	< LOD	< LOD	< LOD		
			454	Soil	180.1	ppm	< LOD	< LOD	112	< LOD	18	17	71015	72637	< LOD	< LOD	25	24			< LOD	< LOD	82	69	213	228	264	262	< LOD	< LOD	< LOD		
			455	Mining	181	ppm	< LOD	< LOD	< LOD	< LOD	11	10	76888	78838			< LOD	< LOD	< LOD	< LOD	< LOD	< LOD					220	252	252	245	< LOD	< LOD	< LOD
			456	Mining	180.82	ppm	< LOD	< LOD	< LOD	< LOD	13	10	77305	79656			< LOD	< LOD	< LOD	< LOD	< LOD	< LOD					225	231	238	258	< LOD	< LOD	< LOD
DOR51	10 U 640336 5796772	1287 m	457	Soil	180.09	ppm	9.47	< LOD	104	108	16	14	101444	97248	< LOD	< LOD	< LOD	24			< LOD	< LOD		74	185	214	411	406	< LOD	< LOD	< LOD		
			458	Soil	180.11	ppm	< LOD	8.13	< LOD	< LOD	14	15	101059	97592	< LOD	< LOD	< LOD	24			5	< LOD		58	191	185	400	414	< LOD	< LOD	< LOD		
			459	Mining	181.01	ppm	< LOD	< LOD	101	< LOD	11	10	101220	98999			< LOD	< LOD	< LOD	< LOD	< LOD	< LOD					201	211	383	406	< LOD	< LOD	< LOD
			460	Mining	181.35	ppm	< LOD	< LOD	< LOD	< LOD	9	7	101353	99164			< LOD	< LOD	< LOD	< LOD	< LOD	< LOD					196	224	402	413	< LOD	< LOD	< LOD

Doreen 2012 Coarse/Fine Soil XRF Comparisons

4 XRF readings per sample (2 soils mode, 2 mining mode)

	Coarse first pass analysis, 120 second readings
	Sieved, Crushed, 180 Second readings

Sample Number	Position	Altitude	Reading	Type	Duration	Units		Cd	Sn	Sn	W	W	Mo	Mo	Ni	Ni	Co	Co	Pd	Pd	V	V	Cr	Cr	S	S		Ba	Ba	K	K			
DOR01	10 U 639870 5796808	1306 m	339	Soil	180.1	ppm		< LOD	24	25	< LOD	< LOD	< LOD	< LOD	91	80	280	290	< LOD	< LOD	150	177	< LOD	< LOD	21936	19639		1302	1241	6991	9083			
			340	Soil	180.31	ppm		< LOD	< LOD	24	< LOD	< LOD	< LOD	< LOD	< LOD	66	74	275	242	< LOD	< LOD	148	169	< LOD	< LOD	22035	20062		1216	1284	7026	9118		
			341	Mining	181.83	ppm		< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	1026	989	6560	9014
			342	Mining	180.13	ppm		< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	1002	961	6499	8924
DOR07	10 U 639919 5796827	1305 m	343	Soil	180.06	ppm		< LOD	< LOD	20	< LOD	< LOD	< LOD	< LOD	90	72	167	201	< LOD	< LOD	110	165	< LOD	< LOD	24619	18777		1486	1029	5041	8321			
			344	Soil	180.02	ppm		< LOD	23	16	< LOD	< LOD	< LOD	< LOD	86	76	195	271	< LOD	< LOD	138	157	< LOD	< LOD	24023	19003		1371	1025	5045	8387			
			345	Mining	181.8	ppm		< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	1114	872	4665	8343
			346	Mining	181.75	ppm		< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	1133	854	4918	8162
DOR09	10 U 639937 5796826	1305 m	347	Soil	180.12	ppm		< LOD	22	28	< LOD	< LOD	< LOD	< LOD	98	87	< LOD	239	< LOD	< LOD	169	184	< LOD	< LOD	22617	18606		1324	1323	7810	11300			
			348	Soil	180.33	ppm		< LOD	31	16	< LOD	< LOD	< LOD	< LOD	102	88	196	< LOD	< LOD	< LOD	159	193	< LOD	< LOD	22985	18926		1379	1254	7844	11337			
			349	Mining	180.76	ppm		< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	1099	1010	7463	11020
			350	Mining	180.51	ppm		< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	1052	994	7691	10871
DOR10	10 U 639949 5796818	1303 m	351	Soil	180.37	ppm		< LOD	18	22	< LOD	< LOD	< LOD	< LOD	87	100	< LOD	161	< LOD	< LOD	168	201	< LOD	< LOD	21253	21007		1367	1223	8539	10928			
			352	Soil	180.2	ppm		< LOD	24	22	< LOD	28	< LOD	3	114	78	207	298	< LOD	< LOD	160	201	< LOD	< LOD	20601	20210		1399	1267	8389	10740			
			353	Mining	180.43	ppm		< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	1121	1020	8441	10393
			354	Mining	180.49	ppm		< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	1098	1054	8600	10352
DOR11	10 U 639956 5796817	1305 m	355	Soil	180.18	ppm		< LOD	26	17	< LOD	< LOD	< LOD	< LOD	102	76	252	217	< LOD	< LOD	151	169	< LOD	< LOD	21449	20597		1387	1088	7777	8233			
			356	Soil	180.26	ppm		< LOD	30	18	< LOD	< LOD	< LOD	< LOD	94	89	249	204	< LOD	< LOD	137	159	< LOD	< LOD	22225	20176		1368	1154	7840	8184			
			357	Mining	181.15	ppm		< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	1020	918	7313	8573
			358	Mining	181.02	ppm		< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	1042	909	7434	8467
DOR14	10 U 639984 5796820	1306 m	361	Soil	180.21	ppm		< LOD	34	23	< LOD	< LOD	< LOD	4	106	99	248	233	< LOD	< LOD	154	160	< LOD	< LOD	20698	20841		1565	1282	8553	9673			
			362	Soil	180.23	ppm		< LOD	43	25	< LOD	< LOD	< LOD	3	118	104	357	236	< LOD	< LOD	133	175	< LOD	< LOD	20707	21547		1607	1252	8553	9636			
			363	Mining	180.42	ppm		< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	1179	960	8569	9573
			364	Mining	180.48	ppm		< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	1173	970	8327	9848
DOR16	10 U 640000 5796822	1305 m	365	Soil	180.37	ppm		< LOD	32	22	< LOD	< LOD	< LOD	< LOD	99	87	278	< LOD	< LOD	< LOD	132	167	< LOD	< LOD	22558	21289		1320	1026	6355	8518			
			366	Soil	180	ppm		< LOD	30	25	< LOD	< LOD	< LOD	3	102	80	282	204	< LOD	< LOD	147	181	< LOD	< LOD	21568	20944		1353	1071	6619	8227			
			367	Mining	180.21	ppm		< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	1039	806	6242	8017
			368	Mining	181.23	ppm		< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	1006	853	6404	7892
DOR18	10 U 640023 5796818	1301 m	369	Soil	180.24	ppm		< LOD	29	27	< LOD	< LOD	< LOD	< LOD	71	85	335	205	< LOD	< LOD	139	209	< LOD	< LOD	21954	19449		1449	1313	7119	9944			
			370	Soil	180.14	ppm		< LOD	30	27	< LOD	< LOD	< LOD	< LOD	110	111	209	212	< LOD	< LOD	153	186	< LOD	< LOD	22020	21068		1502	1319	7301	9831			
			371	Mining	180.16	ppm		< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	1161	981	7424	9586
			372	Mining	181	ppm		< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	1128	1016	7344	9622
DOR19	10 U 640030 5796817	1303 m	373	Soil	180.39	ppm		< LOD	34	27	< LOD	< LOD	4	< LOD	94	109	382	< LOD	< LOD	< LOD	152	201	< LOD	< LOD	22191	18431		1500	1480	8232	11582			
			374	Soil	180.24	ppm		< LOD	30	27	< LOD	< LOD	< LOD	< LOD	80	93	366	< LOD	< LOD	10	180	192	< LOD	< LOD	22592	18314		1422	1493	8497	11699			
			375	Mining	180.46	ppm		< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	1066	1152	8089	11293
			376	Mining	180.62	ppm		< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	1125	1147	8054	11400

APPENDIX D

Doreen Project – Coarse/Fine Soil – XRF Comparison

Doreen 2012 Coarse/Fine Soil XRF Comparisons

4 XRF readings per sample (2 soils mode, 2 mining mode)

	Coarse first pass analysis, 120 second readings
	Sieved, Crushed, 180 Second readings

Sample Number	Position	Altitude	Reading	Type	Duration	Units		Cd	Sn	Sn	W	W	Mo	Mo	Ni	Ni	Co	Co	Pd	Pd	V	V	Cr	Cr	S	S		Ba	Ba	K	K		
DOR20	10 U 640039 5796824	1301 m	377	Soil	180.34	ppm		< LOD	35	25	< LOD	< LOD	< LOD	< LOD	76	99	373	< LOD	< LOD	< LOD	151	219	< LOD	< LOD	20286	17920		1538	1382	7319	11821		
			378	Soil	180.34	ppm		< LOD	38	24	< LOD	< LOD	< LOD	< LOD	117	115	243	< LOD	< LOD	< LOD			< LOD	< LOD	< LOD	< LOD	20506	18809		1549	1396	7393	11888
			379	Mining	181.05	ppm		< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD			< LOD	< LOD	< LOD	< LOD	< LOD	< LOD		1100	1043	7672	11108
			380	Mining	180.14	ppm		< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD			< LOD	< LOD	< LOD	< LOD	< LOD	< LOD		1092	1107	7570	11354
DOR21	10 U 640053 5796817	1295 m	383	Soil	180.08	ppm		< LOD	38	29	< LOD	< LOD	< LOD	< LOD	92	106	219	< LOD	< LOD	< LOD	155	214	< LOD	< LOD	20410	19746		1418	1485	8806	10758		
			384	Soil	180.16	ppm		< LOD	39	31	< LOD	< LOD	< LOD	< LOD	111	114	234	167	< LOD	12	180	211	< LOD	< LOD	20365	19168		1402	1448	8776	10631		
			385	Mining	181.34	ppm		< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD			< LOD	< LOD	< LOD	< LOD	< LOD	< LOD		1083	1124	8555	10303
			386	Mining	180.63	ppm		< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD			< LOD	< LOD	< LOD	< LOD	< LOD	< LOD		1132	1132	8790	10385
DOR22	10 U 640062 5796820	1295 m	387	Soil	180.1	ppm		< LOD	33	27	< LOD	< LOD	< LOD	< LOD	113	89	238	< LOD	< LOD	< LOD	139	160	< LOD	< LOD	25405	20471		1503	1197	6201	8920		
			388	Soil	180.15	ppm		< LOD	44	22	< LOD	< LOD	< LOD	< LOD	113	92	301	< LOD	< LOD	< LOD			< LOD	< LOD	< LOD	< LOD	25323	20382		1383	1160	6346	9138
			389	Mining	180.21	ppm		< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD			< LOD	< LOD	< LOD	< LOD	< LOD	< LOD		1063	955	6028	9010
			390	Mining	180.97	ppm		< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD			< LOD	< LOD	< LOD	< LOD	< LOD	< LOD		1058	981	6285	8915
DOR23	10 U 640071 5796826	1284 m	393	Soil	180.06	ppm		< LOD	31	34	< LOD	< LOD	< LOD	4	102	99	270	299	< LOD	< LOD	169	161	< LOD	< LOD	21384	20946		1317	1484	8115	8364		
			394	Soil	180.23	ppm		< LOD	36	35	< LOD	< LOD	4	5	104	111	251	319	< LOD	< LOD	156	167	< LOD	< LOD	22063	20740		1293	1455	8072	8295		
			395	Mining	181.19	ppm		< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD			< LOD	< LOD	< LOD	< LOD	< LOD	< LOD		1036	1075	7590	8237
			396	Mining	181.48	ppm		< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD			< LOD	< LOD	< LOD	< LOD	< LOD	< LOD		998	1111	7615	8276
DOR25	10 U 640093 5796824	1291 m	397	Soil	180.16	ppm		< LOD	28	31	< LOD	< LOD	8	5	83	82	255	328	< LOD	< LOD	142	161	< LOD	< LOD	24694	20131		1406	1364	7289	9828		
			398	Soil	180.29	ppm		< LOD	32	18	< LOD	< LOD	6	7	91	86	< LOD	392	< LOD	< LOD	148	168	< LOD	< LOD	25037	20796		1381	1273	7011	10007		
			399	Mining	181.53	ppm		< LOD	< LOD	< LOD	< LOD	< LOD	6	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD			< LOD	< LOD	< LOD	< LOD	< LOD	< LOD		1021	1013	6778	9513	
			400	Mining	181.23	ppm		< LOD	< LOD	< LOD	< LOD	< LOD	7	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD			< LOD	< LOD	< LOD	< LOD	< LOD	< LOD		1060	1014	6663	9569	
DOR26	10 U 640102 5796820	1290 m	401	Soil	180.1	ppm		< LOD	29	27	< LOD	< LOD	4	6	109	71	< LOD	315	< LOD	< LOD	148	150	< LOD	< LOD	20793	20013		1347	1277	7689	10796		
			402	Soil	180.26	ppm		< LOD	34	32	< LOD	< LOD	6	6	104	88	< LOD	268	< LOD	< LOD	148	170	< LOD	< LOD	20790	19902		1381	1288	7722	10749		
			403	Mining	180.12	ppm		< LOD	< LOD	< LOD	< LOD	< LOD	4	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD			< LOD	< LOD	< LOD	< LOD	< LOD	< LOD		1073	993	7154	10743	
			404	Mining	180.62	ppm		< LOD	< LOD	< LOD	< LOD	< LOD	5	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD			< LOD	< LOD	< LOD	< LOD	< LOD	< LOD		1094	958	7439	10687	
DOR29	10 U 640130 5796814	1289 m	407	Soil	180.31	ppm		18	37	22	< LOD	< LOD	< LOD	3	111	76	194	181	< LOD	< LOD	142	149	< LOD	< LOD	22031	21606		1650	1251	8453	10058		
			408	Soil	180.2	ppm		13	28	15	< LOD	< LOD	< LOD	< LOD	105	71	305	233	< LOD	< LOD	140	148	< LOD	< LOD	21738	20916		1565	1226	8428	10019		
			409	Mining	181.3	ppm		< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD			< LOD	< LOD	< LOD	< LOD	< LOD	< LOD		1242	970	7909	9758	
			410	Mining	180.69	ppm		< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD			< LOD	< LOD	< LOD	< LOD	< LOD	< LOD		1236	982	7719	9785	
DOR34	10 U 640172 5796793	1284 m	411	Soil	180.1	ppm		< LOD	35	24	< LOD	< LOD	< LOD	5	86	85	426	336	< LOD	< LOD	142	174	< LOD	< LOD	23491	18272		1455	1407	8114	10688		
			412	Soil	180.05	ppm		< LOD	28	24	< LOD	< LOD	6	3	96	116	370	196	< LOD	< LOD	147	200	< LOD	< LOD	22293	19756		1416	1411	8411	10966		
			413	Mining	181.73	ppm		< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD			< LOD	< LOD	< LOD	< LOD	< LOD	< LOD		1044	1058	8061	10936	
			414	Mining	180.91	ppm		< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD			< LOD	< LOD	< LOD	< LOD	< LOD	< LOD		1102	1049	8082	10851	
DOR37	10 U 640198 5796782	1283 m	415	Soil	180.15	ppm		< LOD	26	16	< LOD	< LOD	< LOD	< LOD	93	77	347	294	< LOD	< LOD	153	182	< LOD	< LOD	23304	22111		1526	1149	8327	10996		
			416	Soil	180.21	ppm		< LOD	25	< LOD	< LOD	< LOD	< LOD	4	92	62	410	292	< LOD	< LOD	148	175	< LOD	< LOD	23517	21335		1373	1161	8033	11261		
			417	Mining	180.21	ppm		< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD			< LOD	< LOD	< LOD	< LOD	< LOD	< LOD		1038	943	7348	10057	
			418	Mining	181.16	ppm		< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD			< LOD	< LOD	< LOD	< LOD	< LOD	< LOD		1146	917	7177	10373	

Doreen 2012 Coarse/Fine Soil XRF Comparisons

4 XRF readings per sample (2 soils mode, 2 mining mode)

Coarse first pass analysis, 120 second readings

Sieved, Crushed, 180 Second readings

Sample Number	Position	Altitude	Reading	Type	Duration	Units		Cd	Sn	Sn	W	W	Mo	Mo	Ni	Ni	Co	Co	Pd	Pd	V	V	Cr	Cr	S	S		Ba	Ba	K	K
DOR38	10 U 640210 5796782	1283 m	419	Soil	180.01	ppm		< LOD	57	31	< LOD	< LOD	< LOD	< LOD	134	101	292	320	< LOD	< LOD	152	147	< LOD	< LOD	21581	20858		2301	1495	9402	9338
			420	Soil	180.05	ppm		< LOD	43	38	< LOD	< LOD	< LOD	< LOD	129	123	282	273	< LOD	< LOD	177	157	< LOD	< LOD	22370	21104		2206	1554	9200	9411
			421	Mining	181.6	ppm		< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD			< LOD	< LOD	< LOD	< LOD	< LOD	< LOD		1633	1135	8652	9480
			422	Mining	180.19	ppm		< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	88	< LOD	< LOD	< LOD			< LOD	< LOD	< LOD	< LOD	< LOD	< LOD		1626	1130	8148	9473
DOR39	10 U 640221 5796782	1282 m	423	Soil	180.29	ppm		15	27	30	< LOD	26	< LOD	< LOD	111	128	234	164	< LOD	11	177	175	< LOD	< LOD	22242	19705		1966	1904	9139	11324
			424	Soil	180.28	ppm		< LOD	31	39	49	< LOD	< LOD	< LOD	106	112	329	174	< LOD	< LOD	154	165	< LOD	< LOD	22281	18519		1949	1934	9234	11210
			425	Mining	181.78	ppm		< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD			< LOD	< LOD	< LOD	< LOD	< LOD	< LOD		1543	1360	8695	11413
			426	Mining	180.5	ppm		< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD			< LOD	< LOD	< LOD	< LOD	< LOD	< LOD		1577	1415	8943	11279
DOR40	10 U 640228 5796780	1281 m	429	Soil	180.13	ppm		24	57	50	< LOD	< LOD	< LOD	< LOD	211	186	< LOD	< LOD	< LOD	< LOD	264	239	< LOD	61	22706	22786		1255	1199	4659	5221
			430	Soil	180.02	ppm		< LOD	54	52	< LOD	< LOD	5	< LOD	222	176	451	< LOD	< LOD	< LOD	205	226	44	45	22564	20721		1260	1272	5093	5335
			431	Mining	181.13	ppm		< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	173	186	< LOD	< LOD			< LOD	< LOD	< LOD	< LOD	< LOD	< LOD		826	795	4742	5801
			432	Mining	180.9	ppm		< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	189	142	< LOD	< LOD			< LOD	< LOD	< LOD	375	< LOD	< LOD		815	813	4721	5733
DOR42	10 U 640244 5796780	1286 m	433	Soil	180.19	ppm		< LOD	29	33	< LOD	26	< LOD	< LOD	121	104	229	329	< LOD	< LOD	180	179	< LOD	< LOD	22073	22688		1537	1570	8195	7890
			434	Soil	180.11	ppm		< LOD	42	37	< LOD	< LOD	4	< LOD	104	99	205	303	< LOD	< LOD	155	170	< LOD	< LOD	21595	22205		1603	1588	8025	7972
			435	Mining	181.4	ppm		< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD			< LOD	< LOD	< LOD	< LOD	< LOD	< LOD		1179	1177	7892	8114
			436	Mining	181.01	ppm		< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD			< LOD	< LOD	< LOD	< LOD	< LOD	< LOD		1142	1194	7657	8167
DOR44	10 U 640264 5796778	1286 m	439	Soil	180.25	ppm		16	42	38	< LOD	< LOD	5	7	124	120	< LOD	< LOD	< LOD	< LOD	194	186	< LOD	< LOD	20507	18350		1658	1784	7815	8569
			440	Soil	180.11	ppm		17	35	41	< LOD	< LOD	7	6	135	127	< LOD	< LOD	< LOD	< LOD	187	160	< LOD	< LOD	19785	18783		1666	1834	7840	8573
			441	Mining	180.72	ppm		< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD			< LOD	< LOD	< LOD	< LOD	< LOD	< LOD		1154	1331	7403	8453
			442	Mining	181	ppm		< LOD	< LOD	< LOD	< LOD	< LOD	4	< LOD	74	< LOD	< LOD	< LOD			< LOD	< LOD	< LOD	< LOD	< LOD	< LOD		1140	1362	7557	8475
DOR45	10 U 640274 5796775	1284 m	443	Soil	180.26	ppm		< LOD	37	35	< LOD	< LOD	< LOD	< LOD	124	110	314	415	< LOD	< LOD	159	162	< LOD	< LOD	23842	22123		1647	1420	8069	8479
			444	Soil	180.2	ppm		< LOD	50	29	< LOD	< LOD	< LOD	< LOD	126	91	267	335	< LOD	< LOD	151	161	< LOD	< LOD	24807	21573		1803	1459	7808	8438
			445	Mining	180.27	ppm		< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD			< LOD	< LOD	< LOD	< LOD	< LOD	< LOD		1248	1081	7173	8721
			446	Mining	180.96	ppm		< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD			< LOD	< LOD	< LOD	< LOD	< LOD	< LOD		1265	1140	7580	8754
DOR47	10 U 640294 5796774	1288 m	447	Soil	180.2	ppm		< LOD	35	30	< LOD	< LOD	3	107	80	329	369	< LOD	< LOD	135	179	< LOD	< LOD	22628	21554		1479	1277	6633	8888	
			448	Soil	180.04	ppm		< LOD	41	28	< LOD	< LOD	< LOD	< LOD	109	84	285	306	< LOD	< LOD	152	154	< LOD	< LOD	22322	21444		1566	1259	6699	8730
			449	Mining	180.18	ppm		< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD			< LOD	< LOD	< LOD	< LOD	< LOD	< LOD		1144	967	6874	8834
			450	Mining	180.06	ppm		< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD			< LOD	< LOD	< LOD	< LOD	< LOD	< LOD		1189	976	7066	9032
DOR48	10 U 640302 5796775	1287 m	453	Soil	180.08	ppm		< LOD	29	16	< LOD	< LOD	< LOD	4	104	77	< LOD	321	< LOD	< LOD	154	159	< LOD	< LOD	20597	20037		1413	1063	7076	8605
			454	Soil	180.1	ppm		< LOD	29	17	< LOD	< LOD	< LOD	< LOD	123	72	230	252	< LOD	< LOD	161	178	< LOD	< LOD	21621	20070		1391	1163	7036	8519
			455	Mining	181	ppm		< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD			< LOD	< LOD	< LOD	< LOD	< LOD	< LOD		1098	900	6454	8567
			456	Mining	180.82	ppm		< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD			< LOD	< LOD	< LOD	< LOD	< LOD	< LOD		1027	880	6466	8626
DOR51	10 U 640336 5796772	1287 m	457	Soil	180.09	ppm		< LOD	< LOD	32	32	< LOD	4	< LOD	82	85	552	345	< LOD	< LOD	144	160	< LOD	< LOD	18997	21042		971	1040	6546	7488
			458	Soil	180.11	ppm		< LOD	< LOD	23	33	< LOD	4	< LOD	89	81	660	473	< LOD	< LOD	143	161	< LOD	< LOD	19299	20990		945	982	6450	7698
			459	Mining	181.01	ppm		< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD			< LOD	< LOD	< LOD	< LOD	< LOD	< LOD		832	783	6205	6975
			460	Mining	181.35	ppm		< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD			< LOD	< LOD	< LOD	< LOD	< LOD	< LOD		823	797	6013	7077

Doreen 2012 Coarse/Fine Soil XRF Comparisons

4 XRF readings per sample (2 soils mode, 2 mining mode)

	Coarse first pass analysis, 120 second readings
	Sieved, Crushed, 180 Second readings

Sample Number	Position	Altitude	Reading	Type	Duration	Units		Ti	Ti	Th	Th	Rb	Rb	Sr	Sr	Mn	Mn	Si	Si	Zr	Zr	P	P	Al	Al	Ca	Ca	U	U	Cl	Cl		Sc		
DOR01	10 U 639870 5796808	1306 m	339	Soil	180.1	ppm		2890	3616	7	7	58	60	325	359	911	977			92	104					7292	9595	< LOD	< LOD				41		
			340	Soil	180.31	ppm		2977	3576	6	6	57	63	327	357	915	1025			91	104					7278	9441	< LOD	< LOD				40		
			341	Mining	181.83	ppm		< LOD	2270	< LOD	< LOD	28	31	250	277	< LOD	< LOD	37618	58726	73	80	1850	1709	10638	18629	6745	9111	< LOD	< LOD	338083	326633				
			342	Mining	180.13	ppm		< LOD	2272	< LOD	< LOD	28	31	252	276	< LOD	< LOD	37683	58747	74	86	1538	1816	16253	19602	6659	9070	< LOD	< LOD	339020	327997				
DOR07	10 U 639919 5796827	1305 m	343	Soil	180.06	ppm		2540	3593	5	10	52	54	304	339	652	776			93	121					5660	9521	< LOD	< LOD				42		
			344	Soil	180.02	ppm		2581	3596	6	10	50	54	307	338	628	789			90	124					5728	9473	< LOD	< LOD				26		
			345	Mining	181.8	ppm		1835	2355	< LOD	< LOD	26	29	239	257	< LOD	< LOD	28506	62085	74	98	1765	1918	9037	21448	5729	9299	< LOD	< LOD	362906	326603				
			346	Mining	181.75	ppm		< LOD	2369	< LOD	< LOD	25	26	236	258	< LOD	< LOD	27313	62622	75	99	1182	2069	11910	20492	5679	9482	< LOD	< LOD	365548	328087				
DOR09	10 U 639937 5796826	1305 m	347	Soil	180.12	ppm		2790	3504	8	8	58	58	323	341	1002	1198			109	103					7168	9820	8	6				48		
			348	Soil	180.33	ppm		2793	3491	9	8	58	61	325	345	1069	1236					111	104					7224	9799	< LOD	< LOD				49
			349	Mining	180.76	ppm		< LOD	2175	< LOD	< LOD	29	31	247	263	< LOD	< LOD	38442	68786	88	83	2279	1435	14103	23866	7090	9234	< LOD	8	358358	324260				
			350	Mining	180.51	ppm		< LOD	2295	< LOD	< LOD	29	31	246	265	< LOD	< LOD	37117	68752	89	85	1538	1956	13363	26353	7173	9338	< LOD	< LOD	359639	324339				
DOR10	10 U 639949 5796818	1303 m	351	Soil	180.37	ppm		2835	3524	8	6	58	61	323	332	1159	1218			103	118					6962	8945	< LOD	< LOD				48		
			352	Soil	180.2	ppm		2837	3491	7	7	59	61	323	333	1178	1160					105	120					7083	9025	< LOD	6			30	
			353	Mining	180.43	ppm		< LOD	2459	< LOD	< LOD	30	31	245	255	< LOD	< LOD	42415	61155	87	96	1601	1885	14725	24384	6915	8467	< LOD	< LOD	344843	342758				
			354	Mining	180.49	ppm		< LOD	2373	< LOD	< LOD	29	31	246	257	< LOD	< LOD	42847	61955	87	97	1603	1730	16507	24802	7159	8510	< LOD	< LOD	345244	343913				
DOR11	10 U 639956 5796817	1305 m	355	Soil	180.18	ppm		3110	3267	7	4	59	56	340	337	863	798			120	126					7135	7832	< LOD	< LOD				36		
			356	Soil	180.26	ppm		3154	3222	5	6	55	56	349	338	866	774					114	124					7224	7845	< LOD	< LOD				48
			357	Mining	181.15	ppm		2149	2132	< LOD	< LOD	28	29	270	262	< LOD	< LOD	46934	63825	94	99	2153	1601	17258	18185	6910	8190	< LOD	< LOD	339145	352829				
			358	Mining	181.02	ppm		2072	2271	< LOD	< LOD	28	28	266	262	< LOD	< LOD	49272	62769	97	100	2329	2125	17059	19102	6859	8049	< LOD	< LOD	341986	353565				
DOR14	10 U 639984 5796820	1306 m	361	Soil	180.21	ppm		3251	3671	7	9	64	63	323	321	972	1056			140	174					7389	8723	< LOD	7				50		
			362	Soil	180.23	ppm		3135	3697	9	12	66	63	320	331	1009	1030					146	173					7345	8563	8	9				33
			363	Mining	180.42	ppm		< LOD	2384	< LOD	< LOD	34	31	243	249	< LOD	< LOD	47010	66484	113	141	1469	1309	18443	23743	6729	8554	< LOD	7	333966	352123				
			364	Mining	180.48	ppm		< LOD	2296	< LOD	< LOD	34	32	242	253	< LOD	< LOD	47102	65544	112	142	1862	1870	16430	23768	6850	8495	< LOD	8	335280	353200				
DOR16	10 U 640000 5796822	1305 m	365	Soil	180.37	ppm		2943	3594	< LOD	5	54	49	437	407	909	902			98	123					9186	13289	< LOD	8				50		
			366	Soil	180	ppm		2967	3562	5	7	51	51	445	414	843	887					103	120					9350	13368	< LOD	6				46
			367	Mining	180.21	ppm		< LOD	2093	< LOD	< LOD	27	25	340	315	< LOD	< LOD	37761	62185	82	99	2217	2574	14456	20713	9008	12535	< LOD	< LOD	349725	342785				
			368	Mining	181.23	ppm		< LOD	2527	< LOD	13	28	27	343	316	< LOD	< LOD	39192	62593	82	98	1956	2005	16388	20107	8950	12623	< LOD	< LOD	353327	346366				
DOR18	10 U 640023 5796818	1301 m	369	Soil	180.24	ppm		2673	3423	6	9	58	57	381	344	1154	1283			95	99					6954	9071	< LOD	< LOD				47		
			370	Soil	180.14	ppm		2688	3367	8	7	56	57	378	342	1200	1301					91	98					6896	9087	10	8				47
			371	Mining	180.16	ppm		< LOD	2231	< LOD	< LOD	28	29	286	260	< LOD	< LOD	31893	58096	78	80	1602	1967	9648	24814	7179	8883	14	< LOD	345612	348969				
			372	Mining	181	ppm		< LOD	2300	< LOD	< LOD	28	28	289	265	< LOD	< LOD	32546	58885	72	81	1883	2056	11120	21502	7378	8900	< LOD	< LOD	349173	352105				
DOR19	10 U 640030 5796817	1303 m	373	Soil	180.39	ppm		2959	3408	5	4	59	66	336	377	1256	1326			90	88					7378	10348	< LOD	7				43		
			374	Soil	180.24	ppm		2931	3482	6	4	60	64	338	378	1201	1492					96	94					7497	10477	< LOD	9				41
			375	Mining	180.46	ppm		< LOD	2343	< LOD	< LOD	30	33	259	288	< LOD	< LOD	35316	65171	72	76	1714	1521	14614	21852	7009	10148	< LOD	< LOD	351531	326097				
			376	Mining	180.62	ppm		< LOD	< LOD	< LOD	< LOD	32	33	261	289	< LOD	< LOD	35546	65565	74	75	1963	1734	13329	20307	7061	10344	< LOD	9	353029	328456				

Doreen 2012 Coarse/Fine Soil XRF Comparisons

4 XRF readings per sample (2 soils mode, 2 mining mode)

	Coarse first pass analysis, 120 second readings
	Sieved, Crushed, 180 Second readings

Sample Number	Position	Altitude	Reading	Type	Duration	Units		Ti	Ti	Th	Th	Rb	Rb	Sr	Sr	Mn	Mn	Si	Si	Zr	Zr	P	P	Al	Al	Ca	Ca	U	U	Cl	Cl		Sc		
DOR20	10 U 640039 5796824	1301 m	377	Soil	180.34	ppm		2430	3486	10	6	57	64	353	373	1072	1329			88	97					6957	10738	< LOD	< LOD				50		
			378	Soil	180.34	ppm		2368	3484	8	7	61	64	355	377	1158	1352					89	100					7030	10829	< LOD	6			35	
			379	Mining	181.05	ppm		< LOD	2432	< LOD	< LOD	28	33	272	283	< LOD	< LOD	34501	65978	72	79	1786	1667	12623	21802	7223	10168	< LOD	< LOD	348026	333754				
			380	Mining	180.14	ppm		< LOD	2163	< LOD	< LOD	29	32	272	288	< LOD	< LOD	36075	66002	72	79	1499	2113	11245	27036	7229	10504	< LOD	< LOD	351419	335073				
DOR21	10 U 640053 5796817	1295 m	383	Soil	180.08	ppm		3093	3321	7	7	60	65	351	371	1298	1310			92	101					8217	9623	< LOD	9				55		
			384	Soil	180.16	ppm		3037	3349	8	8	62	63	349	376	1200	1365			93	100					8292	9602	9	8					47	
			385	Mining	181.34	ppm		< LOD	2269	< LOD	< LOD	30	35	270	287	< LOD	< LOD	46204	63713	77	80	1542	1513	16408	20808	8104	9305	< LOD	< LOD	340654	335108				
			386	Mining	180.63	ppm		< LOD	2184	< LOD	< LOD	29	32	266	288	< LOD	< LOD	45947	64506	78	82	1736	1678	14384	20788	7919	9444	< LOD	< LOD	340827	339738				
DOR22	10 U 640062 5796820	1295 m	387	Soil	180.1	ppm		2498	3195	6	7	53	56	373	340	998	1063			106	113					6860	8900	8	< LOD				30		
			388	Soil	180.15	ppm		2425	3156	5	8	58	57	377	337	1046	1078					101	109					6768	8861	8	< LOD				43
			389	Mining	180.21	ppm		< LOD	< LOD	< LOD	< LOD	29	28	290	265	< LOD	< LOD	32655	61384	80	91	1601	1947	10464	23303	6832	9143	9	9	379081	355833				
			390	Mining	180.97	ppm		< LOD	2292	< LOD	< LOD	27	29	289	265	< LOD	< LOD	31029	61416	80	92	1722	1915	11146	24384	6832	9116	10	< LOD	381265	357196				
DOR23	10 U 640071 5796826	1284 m	393	Soil	180.06	ppm		2948	2948	8	6	56	57	356	353	1125	1365					103	102			7466	7559	11	< LOD				40		
			394	Soil	180.23	ppm		3058	2898	7	6	57	56	358	359	1159	1344					103	97			7451	7569	< LOD	< LOD					28	
			395	Mining	181.19	ppm		< LOD	< LOD	< LOD	< LOD	28	28	270	272	< LOD	< LOD	41317	54882	88	82	2019	1681	16324	17650	6905	7347	< LOD	< LOD	345980	355951				
			396	Mining	181.48	ppm		< LOD	< LOD	< LOD	< LOD	28	29	276	272	< LOD	< LOD	42107	55145	87	83	1660	2071	11598	20333	6849	7424	< LOD	< LOD	346899	357036				
DOR25	10 U 640093 5796824	1291 m	397	Soil	180.16	ppm		2375	2905	8	5	55	59	334	357	1122	1278					92	87			7002	9117	< LOD	9				43		
			398	Soil	180.29	ppm		2306	2976	6	6	56	62	335	360	1212	1306					93	85			7068	9188	< LOD	< LOD					34	
			399	Mining	181.53	ppm		< LOD	2123	< LOD	< LOD	28	31	255	277	< LOD	< LOD	28327	48356	74	68	1239	1646	12619	18808	6690	8411	< LOD	< LOD	362094	341401				
			400	Mining	181.23	ppm		< LOD	< LOD	< LOD	< LOD	28	29	255	275	< LOD	< LOD	27914	48160	75	72	1435	1875	16150	15875	6589	8539	< LOD	< LOD	365138	343233				
DOR26	10 U 640102 5796820	1290 m	401	Soil	180.1	ppm		2462	2892	7	7	60	64	359	359	934	1015					93	100			6775	8952	12	< LOD				37		
			402	Soil	180.26	ppm		2427	3003	4	8	62	63	352	358	989	1000					90	104			6651	8883	12	7					36	
			403	Mining	180.12	ppm		< LOD	< LOD	< LOD	< LOD	31	31	276	276	< LOD	< LOD	37469	57217	74	83	1708	1691	13965	22771	6650	8387	< LOD	< LOD	345953	339724				
			404	Mining	180.62	ppm		< LOD	2049	< LOD	< LOD	30	33	277	275	< LOD	< LOD	38066	58365	76	82	1682	2268	11601	21950	6689	8669	< LOD	< LOD	345642	341520				
DOR29	10 U 640130 5796814	1289 m	407	Soil	180.31	ppm		3028	3275	7	5	70	68	388	391	933	806					93	95			7392	9213	< LOD	< LOD				34		
			408	Soil	180.2	ppm		3050	3259	8	5	66	68	396	391	989	808					90	95			7483	9267	< LOD	< LOD					32	
			409	Mining	181.3	ppm		< LOD	2159	< LOD	< LOD	34	33	300	301	< LOD	< LOD	41376	60093	79	78	1336	1765	12499	23285	7066	8521	< LOD	8	340029	347458				
			410	Mining	180.69	ppm		< LOD	2161	< LOD	< LOD	34	34	300	304	< LOD	< LOD	41668	60882	75	76	1169	2170	18642	20811	6853	8888	< LOD	< LOD	339049	349603				
DOR34	10 U 640172 5796793	1284 m	411	Soil	180.1	ppm		2785	3377	8	8	63	66	353	350	1160	1238					104	103			6816	9149	< LOD	6				31		
			412	Soil	180.05	ppm		2815	3402	11	8	63	66	355	347	1169	1272					102	109			6718	9084	< LOD	9				60		
			413	Mining	181.73	ppm		< LOD	2391	< LOD	< LOD	32	34	269	268	< LOD	< LOD	43360	69808	82	84	2123	2132	17424	24837	6699	8891	< LOD	< LOD	360646	338153				
			414	Mining	180.91	ppm		< LOD	2553	< LOD	< LOD	32	33	273	268	< LOD	< LOD	42923	70242	83	85	2624	1871	15778	23891	6803	8922	< LOD	< LOD	361587	341268				
DOR37	10 U 640198 5796782	1283 m	415	Soil	180.15	ppm		2896	3529	8	6	62	65	336	361	1049	1162					92	104			7717	11028	< LOD	7				40		
			416	Soil	180.21	ppm		2855	3524	7	8	64	67	336	365	1103	1101					88	104			7947	10873	< LOD	< LOD					44	
			417	Mining	180.21	ppm		< LOD	2299	< LOD	< LOD	32	32	259	274	< LOD	< LOD	37652	63124	73	83	1490	1984	15146	28364	7220	9653	< LOD	< LOD	348298	341238				
			418	Mining	181.16	ppm		< LOD	2323	< LOD	< LOD	33	32	263	277	< LOD	< LOD	37544	65297	75	84	1207	2003	14321	24099	7023	9849	< LOD	8	350453	344760				

Doreen 2012 Coarse/Fine Soil XRF Comparisons

4 XRF readings per sample (2 soils mode, 2 mining mode)

Coarse first pass analysis, 120 second readings

Sieved, Crushed, 180 Second readings

Sample Number	Position	Altitude	Reading	Type	Duration	Units	Ti	Ti	Th	Th	Rb	Rb	Sr	Sr	Mn	Mn	Si	Si	Zr	Zr	P	P	Al	Al	Ca	Ca	U	U	Cl	Cl	Sc
DOR38	10 U 640210 5796782	1283 m	419	Soil	180.01	ppm	3128	3097	9	10	78	65	374	373	1679	1125			101	96					8374	9306	< LOD	< LOD			60
			420	Soil	180.05	ppm	3144	3184	7	7	74	68	382	371	1724	1195			103	102					8412	9369	11	< LOD			30
			421	Mining	181.6	ppm	< LOD	2104	< LOD	< LOD	39	33	291	285	< LOD	< LOD	47329	59338	83	81	1702	1693	15921	23458	7868	9128	11	< LOD	333962	359543	
			422	Mining	180.19	ppm	< LOD	< LOD	< LOD	< LOD	38	33	291	288	< LOD	< LOD	45825	58584	83	75	1808	1868	16070	25488	7516	9328	< LOD	< LOD	334119	360234	
DOR39	10 U 640221 5796782	1282 m	423	Soil	180.29	ppm	2898	3207	10	9	71	71	402	431	1421	1525			102	124					10654	12637	< LOD	< LOD			69
			424	Soil	180.28	ppm	2866	3179	9	9	71	73	400	437	1513	1525			100	123					10731	12649	< LOD	< LOD			66
			425	Mining	181.78	ppm	< LOD	2069	< LOD	< LOD	35	37	304	335	< LOD	< LOD	45988	69166	82	100	1523	1732	15994	25158	10329	11995	< LOD	< LOD	350559	338563	
			426	Mining	180.5	ppm	< LOD	< LOD	< LOD	< LOD	35	38	309	332	< LOD	< LOD	44756	69949	84	101	1408	1490	19084	29441	10284	12259	13	< LOD	356303	340579	
DOR40	10 U 640228 5796780	1281 m	429	Soil	180.13	ppm	2780	2911	11	7	41	48	297	305	2761	2070			45	40					15239	21200	10	< LOD			87
			430	Soil	180.02	ppm	2738	3038	8	6	41	47	294	308	2553	2093			47	42					15342	21204	< LOD	7			102
			431	Mining	181.13	ppm	< LOD	< LOD	< LOD	< LOD	21	23	226	227	< LOD	< LOD	30166	38109	37	34	1570	2108	22291	22518	15064	22051	< LOD	< LOD	371498	381794	
			432	Mining	180.9	ppm	< LOD	< LOD	< LOD	< LOD	22	22	225	229	< LOD	< LOD	28241	38403	34	34	1765	2018	17158	20069	15029	21725	< LOD	< LOD	374342	384878	
DOR42	10 U 640244 5796780	1286 m	433	Soil	180.19	ppm	2819	3100	8	7	63	62	371	375	1128	1132			98	104					7537	8005	14	< LOD			44
			434	Soil	180.11	ppm	2892	3082	10	9	66	64	374	375	1192	1075			99	103					7600	7980	< LOD	< LOD			36
			435	Mining	181.4	ppm	< LOD	1993	< LOD	< LOD	32	32	288	288	< LOD	< LOD	45430	53453	80	83	1324	1897	16203	24352	7224	7844	< LOD	< LOD	347865	376420	
			436	Mining	181.01	ppm	< LOD	2262	< LOD	< LOD	31	31	284	291	< LOD	< LOD	45137	53913	81	86	1399	1660	17765	21268	7172	7902	< LOD	< LOD	349393	378171	
DOR44	10 U 640264 5796778	1286 m	439	Soil	180.25	ppm	2561	2597	8	6	58	51	420	451	1627	1490			80	86					10176	12975	< LOD	9			56
			440	Soil	180.11	ppm	2529	2579	7	8	59	54	430	446	1570	1541			81	85					9970	12889	< LOD	< LOD			60
			441	Mining	180.72	ppm	< LOD	< LOD	< LOD	< LOD	30	26	325	336	< LOD	< LOD	41779	52452	66	65	2172	1433	15625	22863	9805	12319	< LOD	< LOD	339481	320154	
			442	Mining	181	ppm	< LOD	< LOD	< LOD	< LOD	30	26	325	338	< LOD	< LOD	42696	52684	65	69	1808	1802	20746	21606	9504	12561	< LOD	9	341113	323268	
DOR45	10 U 640274 5796775	1284 m	443	Soil	180.26	ppm	2732	2977	8	8	61	63	352	339	1091	1101			100	107					7325	7909	11	< LOD			48
			444	Soil	180.2	ppm	2740	3061	6	7	64	61	354	342	1047	1129			101	102					7557	7988	< LOD	7			49
			445	Mining	180.27	ppm	< LOD	< LOD	< LOD	< LOD	31	30	271	259	< LOD	< LOD	41218	50878	83	86	1528	1455	16669	19857	6703	8017	< LOD	< LOD	370716	365347	
			446	Mining	180.96	ppm	< LOD	2226	< LOD	< LOD	31	31	274	259	< LOD	< LOD	42541	51874	82	84	2162	1955	16974	21591	7091	7801	< LOD	< LOD	374275	366663	
DOR47	10 U 640294 5796774	1288 m	447	Soil	180.2	ppm	2572	3258	5	9	58	57	352	349	1098	1222			96	105					8050	10965	< LOD	< LOD			63
			448	Soil	180.04	ppm	2647	3208	9	9	57	58	360	354	1156	1340			96	108					8105	10873	< LOD	7			46
			449	Mining	180.18	ppm	< LOD	2246	< LOD	< LOD	30	29	277	271	< LOD	< LOD	42780	57384	82	85	1715	2002	20918	23440	8293	10802	< LOD	< LOD	361284	354696	
			450	Mining	180.06	ppm	< LOD	< LOD	< LOD	< LOD	31	29	284	268	< LOD	< LOD	43675	57574	85	86	1984	2061	18042	21166	8422	10788	< LOD	< LOD	365785	355808	
DOR48	10 U 640302 5796775	1287 m	453	Soil	180.08	ppm	2840	3204	9	9	53	56	351	335	1142	1203			91	100					8423	10804	< LOD	< LOD			48
			454	Soil	180.1	ppm	2916	3168	6	8	55	55	354	334	1177	1171			91	97					8510	10777	< LOD	8			40
			455	Mining	181	ppm	< LOD	2115	< LOD	< LOD	29	29	268	258	< LOD	< LOD	42645	57499	74	78	2188	1992	13234	18893	8034	10904	< LOD	< LOD	342342	341634	
			456	Mining	180.82	ppm	< LOD	2108	< LOD	< LOD	28	29	271	258	< LOD	< LOD	42035	56796	70	80	1481	1895	14694	20892	7915	10621	< LOD	< LOD	342205	343814	
DOR51	10 U 640336 5796772	1287 m	457	Soil	180.09	ppm	3129	3475	8	9	49	53	289	305	1267	1127			94	115					11758	13304	< LOD	< LOD			54
			458	Soil	180.11	ppm	3176	3507	7	8	50	51	278	311	1275	1117			99	113					11634	13276	9	7			53
			459	Mining	181.01	ppm	< LOD	< LOD	< LOD	< LOD	26	27	218	237	< LOD	< LOD	43500	51823	74	92	2104	2744	20276	22300	10946	12323	< LOD	< LOD	325507	352159	
			460	Mining	181.35	ppm	< LOD	2388	< LOD	< LOD	23	26	213	238	< LOD	< LOD	42737	52397	76	90	2401	2198	17114	24292	11041	12569	< LOD	< LOD	325850	352827	

Doreen 2012 Coarse/Fine Soil XRF Comparisons

4 XRF readings per sample (2 soils mode, 2 mining mode)

	Coarse first pass analysis, 120 second readings
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	Sieved, Crushed, 180 Second readings
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Sample Number	Position	Altitude	Reading	Type	Duration	Units	Sc	Y	Y	Nb	Nb	Cs	Cs	Nd	Nd	La	La	Pr	Pr	Ce	Ce		
DOR01	10 U 639870 5796808	1306 m	339	Soil	180.1	ppm	50					72	69										
			340	Soil	180.31	ppm	48						64	71									
			341	Mining	181.83	ppm		< LOD	< LOD	< LOD	4					531	506	190	163	367	314	234	225
			342	Mining	180.13	ppm		< LOD	2	< LOD	4					557	441	222	172	407	349	258	217
DOR07	10 U 639919 5796827	1305 m	343	Soil	180.06	ppm	51					92	48										
			344	Soil	180.02	ppm	60						78	45									
			345	Mining	181.8	ppm		< LOD	< LOD	< LOD	4					496	470	187	187	350	333	225	237
			346	Mining	181.75	ppm		< LOD	< LOD	< LOD	4					579	380	226	182	374	287	215	210
DOR09	10 U 639937 5796826	1305 m	347	Soil	180.12	ppm	60					58	65										
			348	Soil	180.33	ppm	54						78	55									
			349	Mining	180.76	ppm		2	2	< LOD	3					649	477	213	211	414	339	261	231
			350	Mining	180.51	ppm		2	2	< LOD	4					622	494	268	162	431	335	274	178
DOR10	10 U 639949 5796818	1303 m	351	Soil	180.37	ppm	49					62	52										
			352	Soil	180.2	ppm	47						76	55									
			353	Mining	180.43	ppm		3	3	< LOD	4					662	450	264	167	415	319	280	194
			354	Mining	180.49	ppm		2	2	< LOD	4					642	500	208	190	416	346	250	206
DOR11	10 U 639956 5796817	1305 m	355	Soil	180.18	ppm	55					84	44										
			356	Soil	180.26	ppm	49						68	57									
			357	Mining	181.15	ppm		< LOD	2	< LOD	4					508	461	187	202	348	342	196	207
			358	Mining	181.02	ppm		< LOD	< LOD	< LOD	< LOD					552	467	232	204	373	278	248	173
DOR14	10 U 639984 5796820	1306 m	361	Soil	180.21	ppm	38					99	71										
			362	Soil	180.23	ppm	55						103	70									
			363	Mining	180.42	ppm		2	2	4	6					728	558	252	219	479	369	302	251
			364	Mining	180.48	ppm		2	3	5	6					702	570	258	224	480	393	332	280
DOR16	10 U 640000 5796822	1305 m	365	Soil	180.37	ppm	62					70	45										
			366	Soil	180	ppm	75						77	59									
			367	Mining	180.21	ppm		2	< LOD	< LOD	4					659	487	268	186	473	344	316	232
			368	Mining	181.23	ppm		< LOD	2	< LOD	4					682	522	188	202	383	325	197	248
DOR18	10 U 640023 5796818	1301 m	369	Soil	180.24	ppm	55					79	70										
			370	Soil	180.14	ppm	47						94	66									
			371	Mining	180.16	ppm		2	2	< LOD	4					711	591	281	212	447	413	298	262
			372	Mining	181	ppm		2	2	< LOD	< LOD					581	564	246	220	427	351	237	263
DOR19	10 U 640030 5796817	1303 m	373	Soil	180.39	ppm	60					86	73										
			374	Soil	180.24	ppm	62						73	82									
			375	Mining	180.46	ppm		< LOD	2	< LOD	< LOD					609	566	242	225	417	391	255	240
			376	Mining	180.62	ppm		< LOD	2	< LOD	< LOD					614	554	218	199	446	370	273	271

Doreen 2012 Coarse/Fine Soil XRF Comparisons

4 XRF readings per sample (2 soils mode, 2 mining mode)

Coarse first pass analysis, 120 second readings

Sieved, Crushed, 180 Second readings

Sample Number	Position	Altitude	Reading	Type	Duration	Units	Sc	Y	Y	Nb	Nb	Cs	Cs	Nd	Nd	La	La	Pr	Pr	Ce	Ce		
DOR20	10 U 640039 5796824	1301 m	377	Soil	180.34	ppm	46					98	62										
			378	Soil	180.34	ppm	48						103	68									
			379	Mining	181.05	ppm		2	2	< LOD	< LOD			650	576	232	198	394	330	285	258		
			380	Mining	180.14	ppm		2	2	< LOD	< LOD			628	636	195	253	413	389	231	319		
DOR21	10 U 640053 5796817	1295 m	383	Soil	180.08	ppm	43					83	71										
			384	Soil	180.16	ppm	53						86	81									
			385	Mining	181.34	ppm		< LOD	2	< LOD	< LOD			605	647	224	212	375	419	257	205		
			386	Mining	180.63	ppm		< LOD	2	5	< LOD			724	659	268	258	463	407	274	289		
DOR22	10 U 640062 5796820	1295 m	387	Soil	180.1	ppm	56					97	60										
			388	Soil	180.15	ppm	55						88	60									
			389	Mining	180.21	ppm		< LOD	2	< LOD	4			640	588	236	253	440	445	246	280		
			390	Mining	180.97	ppm		2	2	4	5			577	569	205	221	394	384	295	272		
DOR23	10 U 640071 5796826	1284 m	393	Soil	180.06	ppm	47					80	98										
			394	Soil	180.23	ppm	42						84	103									
			395	Mining	181.19	ppm		2	2	< LOD	4			628	712	237	238	435	439	285	267		
			396	Mining	181.48	ppm		2	< LOD	< LOD	3			622	709	219	250	435	440	320	292		
DOR25	10 U 640093 5796824	1291 m	397	Soil	180.16	ppm	49					77	72										
			398	Soil	180.29	ppm	54						69	69									
			399	Mining	181.53	ppm		2	2	< LOD	< LOD			599	591	196	225	364	387	282	236		
			400	Mining	181.23	ppm		2	2	< LOD	< LOD			525	538	214	200	377	348	246	199		
DOR26	10 U 640102 5796820	1290 m	401	Soil	180.1	ppm	54					67	64										
			402	Soil	180.26	ppm	61						76	70									
			403	Mining	180.12	ppm		< LOD	< LOD	< LOD	< LOD			584	434	233	184	385	336	229	219		
			404	Mining	180.62	ppm		< LOD	< LOD	< LOD	4			680	460	286	160	463	333	321	214		
DOR29	10 U 640130 5796814	1289 m	407	Soil	180.31	ppm	43					97	56										
			408	Soil	180.2	ppm	56						100	55									
			409	Mining	181.3	ppm		2	< LOD	< LOD	4			716	499	307	204	497	338	281	215		
			410	Mining	180.69	ppm		< LOD	2	< LOD	< LOD			707	454	267	151	450	299	295	170		
DOR34	10 U 640172 5796793	1284 m	411	Soil	180.1	ppm	54					84	71										
			412	Soil	180.05	ppm	45						75	68									
			413	Mining	181.73	ppm		< LOD	< LOD	< LOD	5			645	540	215	167	407	373	276	244		
			414	Mining	180.91	ppm		< LOD	2	< LOD	5			708	553	260	176	512	386	327	269		
DOR37	10 U 640198 5796782	1283 m	415	Soil	180.15	ppm	61					86	51										
			416	Soil	180.21	ppm	59						70	46									
			417	Mining	180.21	ppm		< LOD	< LOD	< LOD	3			539	393	192	178	372	318	248	186		
			418	Mining	181.16	ppm		< LOD	2	< LOD	3			632	458	266	151	480	275	280	169		

Doreen 2012 Coarse/Fine Soil XRF Comparisons

4 XRF readings per sample (2 soils mode, 2 mining mode)

Coarse first pass analysis, 120 second readings

Sieved, Crushed, 180 Second readings

Sample Number	Position	Altitude	Reading	Type	Duration	Units	Sc	Y	Y	Nb	Nb	Cs	Cs	Nd	Nd	La	La	Pr	Pr	Ce	Ce		
DOR38	10 U 640210 5796782	1283 m	419	Soil	180.01	ppm	46					129	88										
			420	Soil	180.05	ppm	32						106	101									
			421	Mining	181.6	ppm		2	< LOD	< LOD	3					640	717	237	249	433	466	240	304
DOR39	10 U 640221 5796782	1282 m	422	Mining	180.19	ppm		2	< LOD	< LOD	4					704	653	230	238	397	421	269	259
			423	Soil	180.29	ppm	53						75	94									
			424	Soil	180.28	ppm	63						75	99									
DOR40	10 U 640228 5796780	1281 m	425	Mining	181.78	ppm		2	2	5	< LOD					710	592	317	241	476	448	314	243
			426	Mining	180.5	ppm		2	2	< LOD	< LOD					712	715	264	264	427	438	277	290
			429	Soil	180.13	ppm	143						131	113									
DOR42	10 U 640244 5796780	1286 m	430	Soil	180.02	ppm	143					135	129										
			431	Mining	181.13	ppm		2	< LOD	< LOD	< LOD					951	847	284	281	656	535	462	349
			432	Mining	180.9	ppm		< LOD	2	< LOD	< LOD					894	899	342	295	576	541	374	358
DOR44	10 U 640264 5796778	1286 m	433	Soil	180.19	ppm	43					87	95										
			434	Soil	180.11	ppm	47						98	93									
			435	Mining	181.4	ppm		< LOD	2	< LOD	< LOD					660	609	243	214	441	449	279	263
DOR45	10 U 640274 5796775	1284 m	436	Mining	181.01	ppm		< LOD	2	< LOD	< LOD					662	611	253	261	447	464	278	273
			439	Soil	180.25	ppm	64						102	119									
			440	Soil	180.11	ppm	74						107	122									
DOR47	10 U 640294 5796774	1288 m	441	Mining	180.72	ppm		2	2	< LOD	< LOD					705	849	259	311	492	575	287	397
			442	Mining	181	ppm		2	2	< LOD	< LOD					710	912	253	311	481	618	326	367
			443	Soil	180.26	ppm	47						110	82									
DOR48	10 U 640302 5796775	1287 m	444	Soil	180.2	ppm	54					127	82										
			445	Mining	180.27	ppm		2	2	< LOD	3					751	635	281	231	518	446	380	246
			446	Mining	180.96	ppm		2	< LOD	< LOD	< LOD					761	744	275	298	486	452	384	291
DOR51	10 U 640336 5796772	1287 m	447	Soil	180.2	ppm	56					88	72										
			448	Soil	180.04	ppm	70						104	72									
			449	Mining	180.18	ppm		< LOD	2	< LOD	4					560	603	230	207	376	392	259	244
DOR51	10 U 640336 5796772	1287 m	450	Mining	180.06	ppm		2	2	< LOD	4					505	608	217	209	422	417	248	239
			453	Soil	180.08	ppm	58						79	44									
			454	Soil	180.1	ppm	57						82	60									
DOR51	10 U 640336 5796772	1287 m	455	Mining	181	ppm		< LOD	< LOD	< LOD	4					596	504	203	215	303	333	255	250
			456	Mining	180.82	ppm		< LOD	< LOD	< LOD	4					587	466	200	179	436	295	251	176
			457	Soil	180.09	ppm	77						41	64									
DOR51	10 U 640336 5796772	1287 m	458	Soil	180.11	ppm	87					32	56										
			459	Mining	181.01	ppm		< LOD	< LOD	5	6					693	616	216	206	510	412	279	275
			460	Mining	181.35	ppm		< LOD	< LOD	5	4					824	629	259	230	480	432	297	285

APPENDIX E

Doreen Project – Rock Sampling Program – XRF Results

Doreen 2012 Rock-Sampling Program - XRF Results
4 XRF readings per sample (2 soils mode, 2 mining mode)

Coarse first pass analysis, 120 second readings
 Sieved, Crushed, 180 Second readings

Sample Number	Position	Altitude	Reading	Type	Duration	Units	Mo	Mo	Ni	Ni	Co	Co	V	V	Cr	Cr	S	S		Ba	Ba	K	K	Ti	Ti	Th	Th	Rb	Rb	Sr	Sr	Mn	Mn	Si	Si	Zr	Zr		
DOROC1	10 U 640440 5796707	1252 m	463	Soil	180.3	ppm	13	12	125	121	< LOD	304	132	128	< LOD	< LOD	27186	28502		2789	2868	14077	14253	2540	2455	4	8	85	87	486	484	649	699			118	118		
			464	Soil	180.07	ppm	9	13	133	129	< LOD	221	155	142	< LOD	< LOD	27295	28987		2756	2982	13938	14372	2491	2422	8	8	83	84	487	481	641	716			121	116		
			465	Mining	181.79	ppm	6	10	< LOD	76	< LOD	241	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	3870	4988		1996	2210	13954	15088	< LOD	< LOD	< LOD	< LOD	43	44	372	372	< LOD	< LOD	64041	74669	90	94
			466	Mining	181.22	ppm	8	11	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	4000	5120		2042	2195	13635	15076	< LOD	< LOD	< LOD	13	44	44	374	374	< LOD	< LOD	62281	74177	93	89
DOROC2	10 U 640439 5796773	1290 m	467	Soil	180.13	ppm	< LOD	5	142	115	< LOD	< LOD	166	175	< LOD	< LOD	40118	37421		2380	1989	11853	10062	2954	2707	8	8	63	60	378	367	933	1004			70	72		
			468	Soil	180.22	ppm	< LOD	6	138	97	< LOD	357	168	163	< LOD	< LOD	42010	37636		2331	2043	11776	10311	3103	2660	7	7	62	60	383	368	1005	945			70	73		
			469	Mining	181.43	ppm	< LOD	5	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	10204	10745		1730	1552	10944	11060	< LOD	< LOD	< LOD	< LOD	32	30	286	278	< LOD	< LOD	57832	59758	57	56
			470	Mining	181.15	ppm	< LOD	< LOD	< LOD	69	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	< LOD	10343	10474		1758	1525	11516	11087	< LOD	< LOD	< LOD	< LOD	32	30	289	275	< LOD	< LOD	59027	60062	57	57

Doreen 2012 Rock-Sampling Program - XRF Results
4 XRF readings per sample (2 soils mode, 2 mining mode)

Coarse first pass analysis, 120 second readings
 Sieved, Crushed, 180 Second readings

Sample Number	Position	Altitude	Reading	Type	Duration	Units	P	P	Al	Al	Ca	Ca	U	U	Cl	Cl	Sc	Sc	Y	Y	Nb	Nb	Cs	Cs	Nd	Nd	La	La	Pr	Pr	Ce	Ce	Pd	Pd		
DOROC1	10 U 640440 5796707	1252 m	463	Soil	180.3	ppm					16278	17848	< LOD	8			82	98					116	121									< LOD	< LOD		
			464	Soil	180.07	ppm						16314	17890	< LOD	9			76	82					131	123									< LOD	12	
			465	Mining	181.79	ppm	1393	2081	18249	23538	15388	18471	< LOD	< LOD	325179	356013					3	3	< LOD	4			675	747	263	277	434	522	295	315		
			466	Mining	181.22	ppm	2023	2352	19213	23256	15656	18419	< LOD	13	325123	357566					3	3	< LOD	5			624	693	243	268	457	498	305	285		
DOROC2	10 U 640439 5796773	1290 m	467	Soil	180.13	ppm					29429	26634	< LOD	9			121	123					119	105									< LOD	< LOD		
			468	Soil	180.22	ppm						29579	26722	< LOD	< LOD									109	108									< LOD	< LOD	
			469	Mining	181.43	ppm	2066	1722	18614	21416	27348	28062	< LOD	< LOD	323716	361445					2	< LOD	< LOD	4			889	842	291	285	601	547	366	367		
			470	Mining	181.15	ppm	1807	2530	20431	23136	27567	28006	< LOD	8	326192	362219					2	2	< LOD	< LOD			881	895	303	293	655	612	402	351		

APPENDIX F

Doreen Project – Statement of Expenditures

Barker Minerals Ltd.

Work was completed between June 1, 2012 to October 1, 2012

Work was done on the following claims:

847427, 847435, 847437, 847438 & 847438

Geological

Jack Logan - Rock & soil collection

2 days @ \$400.00/day wages	\$	800.00
2 days @ \$125.00/day room & board	\$	250.00
2 days @ \$126.00/day vehicle & gas	\$	250.00

Brian Hall - Rock & soil collection

2 days @ \$250.00/day wages	\$	500.00
2 days @ \$125.00/day room & board	\$	250.00

Jack Logan - Sample preparation (drying, seiving & pulverizing)

3. days @ \$400.00/day wages	\$	1,200.00
3 days @ \$125.00/day room & board	\$	375.00

Aaron Doyle - Sample preparation (drying, seiving & pulverizing)

3 days @ \$400.00/day wages	\$	1,200.00
3 days @ \$125.00/day room & board	\$	375.00

\$ 5,200.00

Geochemical

Jack Logan - XRF analysis

2 days @ \$400.00/day wages	\$	800.00
2 days @ \$125.00/day room & board	\$	250.00

XRF Analysis

2 rock samples @ \$10.00 / reading x 4 readings	\$	80.00
55 soil samples (coarse) @ \$10.00 / reading x 4 readings	\$	2,200.00
26 soil samples (pulverized) @ \$10.00 / reading x 4 readings	\$	1,040.00

\$ 4,370.00

Miscellaneous Expenditures

Aaron Doyle - Camp Manager

2 days @ \$100.00/day wages	\$	200.00
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Quad rental

2 days @ \$25.00/day	\$	50.00
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Hand held communications (Hand held radios)

2 days @ \$25.00/day	\$	50.00
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Total Misc. Expenditures **\$ 300.00**

Barker Minerals Ltd.

Work was completed between June 1, 2012 to October 1, 2012

Work was done on the following claims:

847427, 847435, 847437, 847438 & 847438

Mobe & Demobe

Brian Hall

1 day @ \$125.00/day wages	\$ 125.00
1 day @ \$125.00/day vehicle & gas	\$ 125.00

Jack Logan

2 days @ \$200.00/day wages	\$ 400.00
Flights	\$ 714.84

Total Mobe & Demobe **\$ 1,364.84**

Planning, Supervising, Report Preparation & Airborne Interpretation

Louis Doyle

3 days @ \$600.00/day wages	\$ 1,800.00
	\$ 1,800.00

Map Drafting

Aaron Doyle

1 day @ \$400.00/day wages	\$ 400.00
1 day @ \$125.00/day room & board	\$ 125.00
	\$ 525.00

Data Preparation

Jack Logan - XRF analysis

1 day @ \$400.00/day wages	\$ 400.00
1 day @ \$125.00/day room & board	\$ 125.00
	\$ 525.00

Total Geological Expenditures	\$ 5,200.00
Total Geochemical Expenditures	\$ 4,370.00
Total Misc. Expenditures - Supplies, etc.	\$ 300.00
Total Mobe & Demobe	\$ 1,364.84
Total Planning, Supervising, Report Preparation & Airborne Interpretation	\$ 1,800.00
Total Map Drafting	\$ 525.00
Total Data Preparation	\$ 525.00
Total Expenditures	\$ 14,084.84