

Report On The 2003
MMI Soil
Geochemistry Survey
Sidace Lake Property
Coli Lake, Sobeski Lake,
And Black Bear Lake Areas,
Red Lake District,
Ontario

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NTS 52N05

By
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Senior Geologist,
Goldcorp Inc.,
February 2005

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B) 073426	
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I) 074513	
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pocket)	NORTH SHEET – SAMPLE LOCATION, MMI-Au, MMI-Zn, MMI-As, MMI-Hg

Introduction

This report presents and summarizes the results of 1883 Mobile-Metal Ion sampling program completed by Planet Exploration Inc. and Goldcorp Inc. on the Sidace Lake property in Sobeski Lake Area, Blackbear Lake Area, Coli Lake Area, and Nungesser Lake Area.

The geochemical sampling program was completed during the periods of June 23, 2003 and July 26, 2003. Samples were collected off of roads, trails, grid lines, and gps lines through clear cut areas. Samples collected along grid lines were brushed out and re-picketed.

Planet Exploration Services of Massey, Ontario, undertook the soil sampling. Pascal Chantigny of Cochenour, Ontario and Ottawa, Ontario, undertook field supervision. Michael Dehn, of Oakville, Ontario, undertook analysis and interpretation of the geochemical results.

Location and Access

The Sidace Lake property is located within the Red Lake Mining Division of the Ministry of Northern Development and Mines, 25 kilometres northwest of Cochenour, Ontario, on NTS sheet 52N05, in Northwestern Ontario (see Figures 1-3).



Figure 1 Location of Red Lake, Ontario

Access is from Highway 105 to Highway 125, existing at Nungessor Road, a paved unassumed logging road that exits north off of Highway 125 between the communities of Cochenour and Balmertown. Approximately 19 kilometres up Nungessor Road the property begins, and access to the center of the property can be obtained by taking the hard based 2 lane Coli Lake Road, which heads east off of Nungessor Road and traverses the property beyond its eastern most extent. Many primary and secondary logging roads traverse the property (see Figure 4).

Some parts of the property are covered by small lakes and wide swamps as well as several small creeks. Access is extremely good for an exploration property.

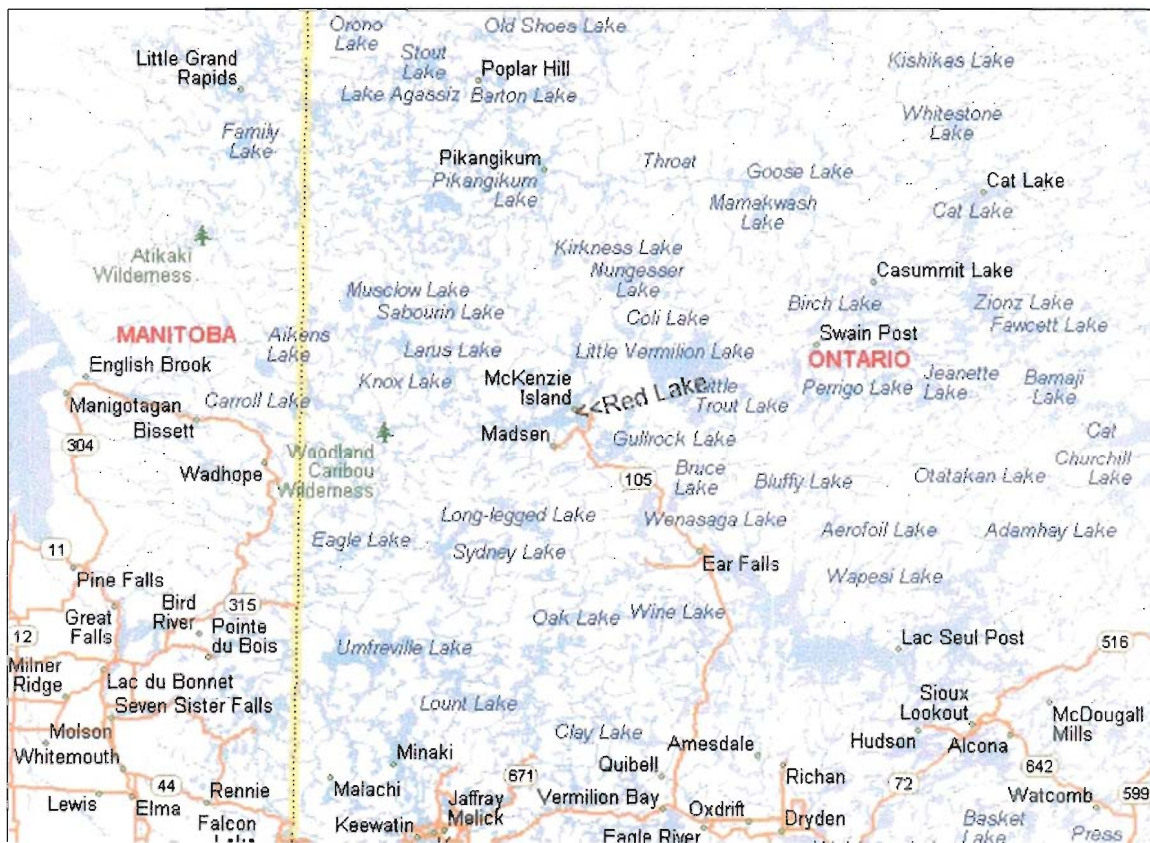


Figure 2 Location of Red Lake in northern Ontario

Claims and Ownership

The Sidace Lake Property consists of 71 staked claims comprising in excess of 32,000 contiguous acres (see figure 4). A list of claims is found in Table 1. All claims are 100% Planet Exploration Inc, even if otherwise stated in the list. Goldcorp Inc. is earning a 50% interest in the claims after reaching certain expenditure and property payment thresholds.

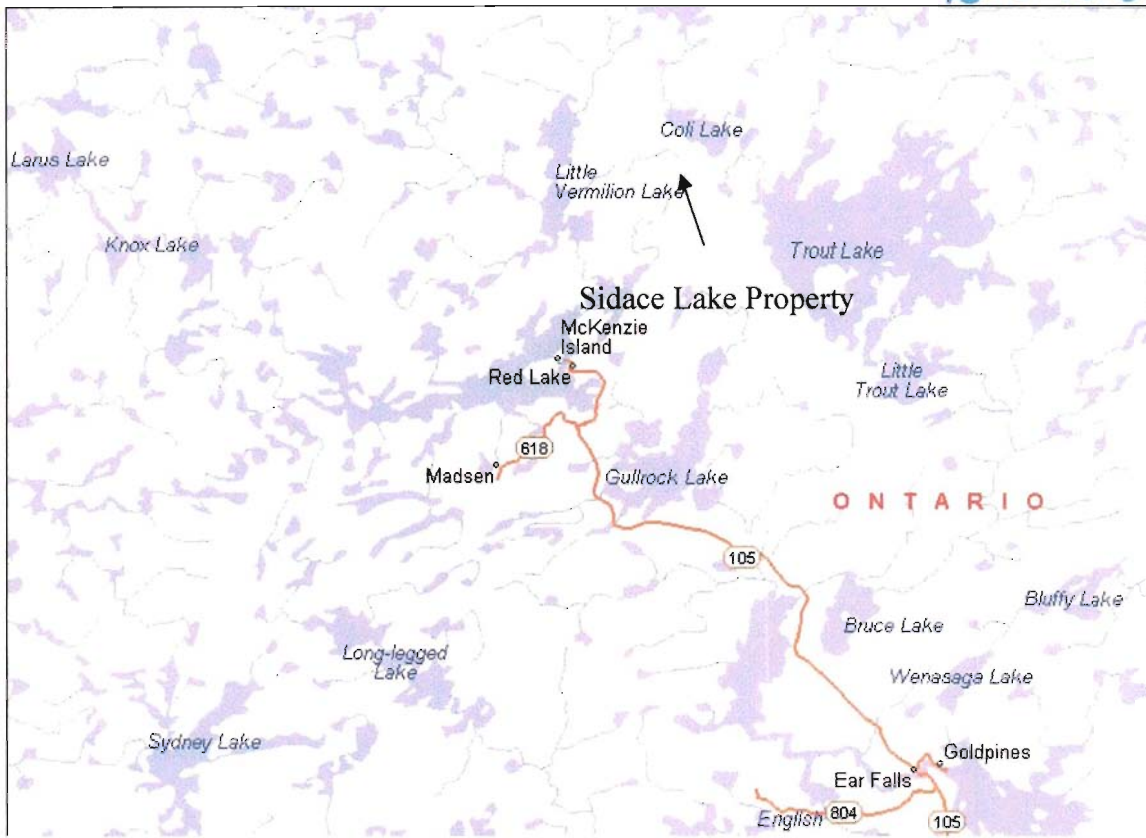


Figure 3 Location of Sidace Lake Property

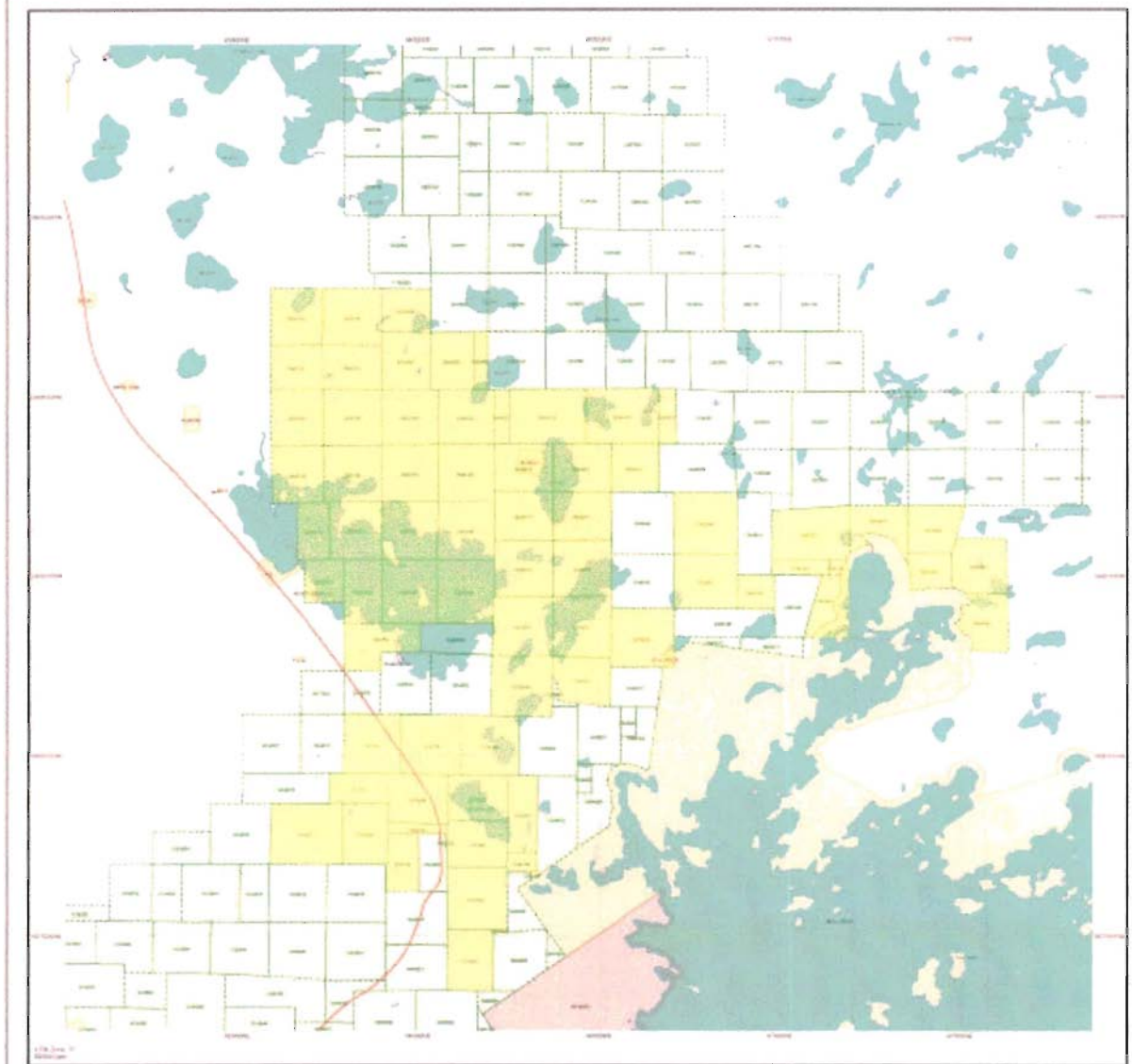
Previous Work

There is very limited previous work on the property. There is no known previous litho-geochemical or soil geochemical survey on the property. The area that is covered by the property has never been mapped by the OGS or GSC at any scale better than 1:50,000.

The first recorded work on the area that the property covers is ground and airborne geophysics completed in the late 1970's to the early 1980's with follow up drilling of conductors searching for base metal occurrences.

The predecessor to Planet Exploration Inc. completed some RC drilling with very encouraging gold grain anomalies, in the late 1990's. This was followed up by diamond drilling and a small mapping program (1998-1999) and a small ground geophysical survey.

It wasn't until 2002 and early 2003 that the property had some significant drilling and some significant exploration success. Goldcorp Inc. optioned the property from Planet Exploration Inc. in early 2003.



TOWNSHIP / AREA
COLI LAKE AREA

ADMINISTRATIVE DISTRICT:
 Mining Division
 Land Titles/Registry Division
 Ministry of Natural Resources District

REGISTRATION NO. LAND TENURE WITHDRAWAL DESIGN

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Scale 1:50,000

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Sidace Lake

Figure 4 Sidace Lake Property Claims

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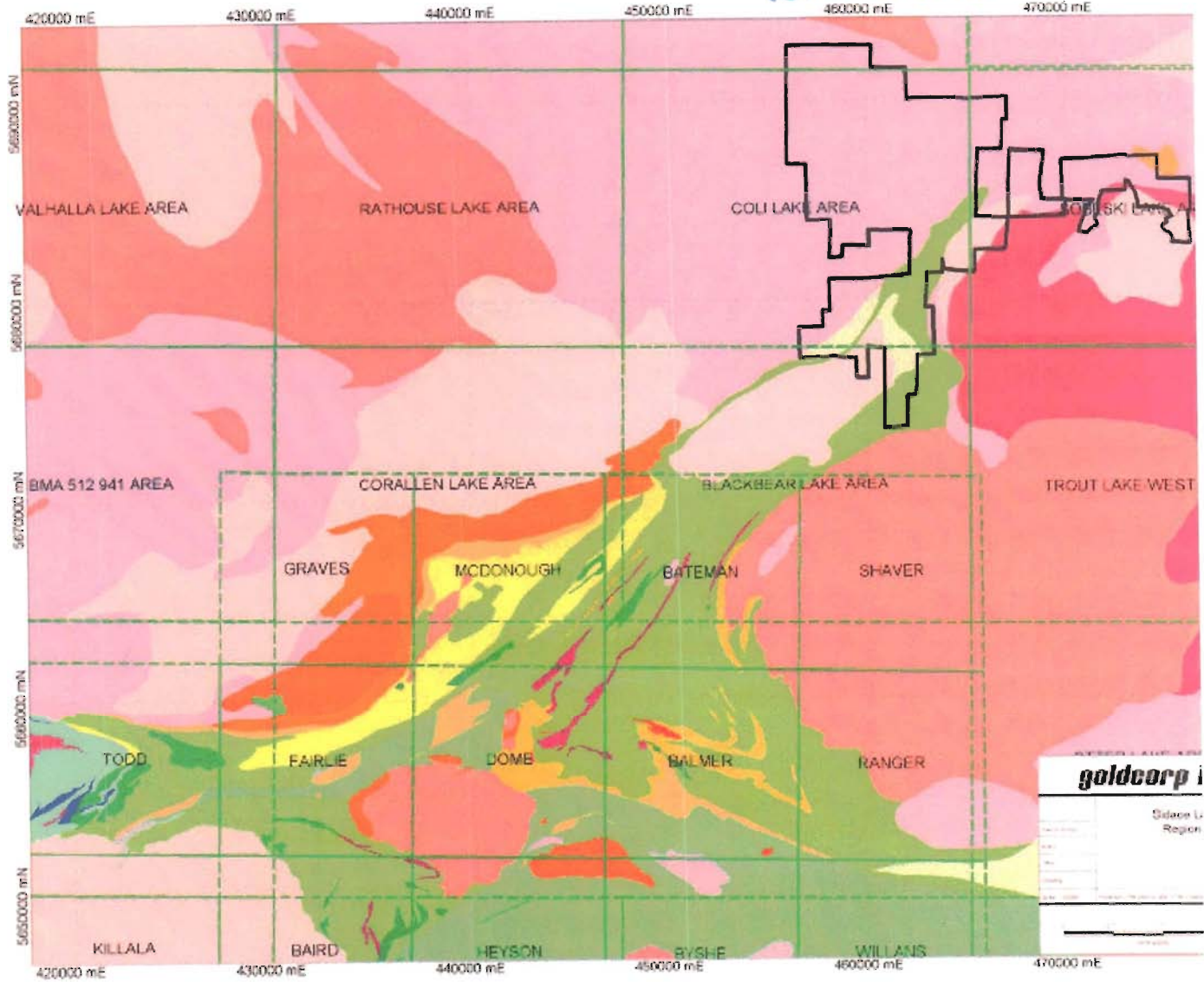


Figure 5 Sidace Lake Property and Regional Geology

Regional Geology

The Red Lake Greenstone Belt is a volcanoclastic assemblage of Archean age rocks that form part of the larger Uchi Subprovince of the Superior Craton. The belt is subdivided into several sequences based primarily on compositional and tectonic characteristics, and it is believed that the ages of some of the assemblages may be picking up later metamorphic events and not primary events. With that in mind, using common nomenclature, the assemblages that seem to most resemble the Sidace Lake Property are:

- The volcano-dominated Balmer assemblage (2.99 Ga), which is most commonly identified in the south central portion, and eastern portion of the main Red Lake Greenstone Belt and the north western portion of the Birch-Uchi Greenstone Belt (Skinner township). GSC Gravity data over the main Red Lake Greenstone Belt and the northern portion of the Sidace Lake Property implying the Property is underlain by a thick sequence of Archean greenstone that is overlain by felsics intrusives and gneiss'.
- The Ball assemblage (2.94-2.92 Ga) at the western end of the Red Lake Greenstone Belt, which is synonymous with the Siderock Lake/Wallace Lake geology at the east end of the Rice Lake Greenstone Belt shares many similarities with the felsics and sedimentary rocks found on the Sidace Lake Property, including limestone/marble horizons.
- The Bruce Channel assemblage (2.89 Ga) found extensively around the Cochenour Mine and the Red Lake and Campbell Mines composed of mafic volcanic flows, felsic pyroclastics and a thick sequence of "Timiskaming-like" sediments including iron formation.

Work Program Summary

Dan Patrie Exploration Ltd. Of Massey Ontario completed the grid line rehabilitation and undertook the MMI geochemical survey between June 23, 2003 and July 26, 2003. All grid line stations and off grid line stations also had GPS coordinates collected in NAD 27, UTM Zone 15 coordinates. Stations along the road were actually collected 3m off of the road in the most undisturbed media present.

Dan Patrie Exploration Ltd. undertook MMI media sampling using 2 two-man crews. 1883 analysis were performed on 895 sample sites. Nine Goldcorp Inc. standards common sand used regularly by Goldcorp Inc. for MMI analysis). Samples were taken at regular intervals using a hand soil auger between 20cm and 30cm depth when possible. The preferred sample media was a mineral soil, but other media types were collected where no mineral soil was present. The sample was described so that it could be easily compared from other samples based on slope, vegetation, soil and moisture. Samples were placed into plastic Whirl-Pak sealed bags. Sample size averaged between 250 and 500g. Field data for each sample was recorded on a custom designed data sheet. Data collected included: sample location in both grid and UTM coordinates (when applicable), sample type, depth, moisture content, slope, vegetation type as well as an attribute field for comments.

Samples were stored, packed in sealed 5 gallon pails at the Goldcorp Inc. core facility at the Cochenour Mine property and shipped via Manitoulin Transport Inc. to SGS-XRAL Laboratories in Don Mills, Ontario.

SGS-XRAL a homogeneous 50 gram split of each sample is taken for each analysis. For each MMI split, 50ml of a diluted MMI solution is added to the sample based on the MMI procedure requested. The sample is placed in a shaker and is shaken for 20 minutes. The sample is allowed to sit in the MMI solution overnight. After the allotted digestion time, the sample is placed in a centrifuge for 10 minutes if needed. The resulting liquid is decanted into a 20-ml test tube, before being processed through the ICP-ES for the final analysis, and the decanted liquid is additionally diluted 10 times (total dilution is 100 times). An internal standard containing 50.0 ppb Re is added to on in every 10 samples. A control sample with know metal values and a blank is sent through the instrument with each batch of samples.

Table 2 – MMI Sample by Procedure

	MMI A	MMI B	MMI F	Total Samples
Field Samples	788	897	179	
Blank Samples	9	9	1	
Total Samples	797	906	180	1883

Conclusions and Recommendations

There are two few samples to get a good representation of the presence or absence of mineralization.

Au, when present, appears to have an affinity for Zn and As, however more analysis is required to prove this.

There appear to be batch errors from the lab, as certain batches of samples seem to have off kilter background values.

MMI does not pick up roaster contamination (from previous work in the camp). MMI does pick up tailings anomalies very strongly (from previous work). MMI picks up drill cutting anomalies strongly.

Thick overburden on the property (in places > 130m!) may be too much for the MMI to penetrate

A detailed geology map at the scale of 1:20,000 must be created in order to assist in the proper interpretation of the results.

Hg, Mo, and As are present in the system and MMI-F is a viable tool to detect these element.

Au values in drill core should be followed up and validated with new drilling data, and additional MMI should be completed over these values.

MMI-M (multi-element) appears to have success on the adjacent properties and should be tested as the all-in-one solution to MMI A, B and F.

No drilling is recommended based on the MMI results – however gold is known to exist on the property and other techniques show better correlation with gold values (airborne magnetics).

Statements of Qualification

I, Michael A. Dehn, of 1068 Queens Ave, Oakville, certify that

- I am the author of the report
- I graduated from the University of Waterloo with a Bachelor of Science Degree in 1993
- I have been practicing my profession since 1994 and actively involved in mineral exploration and geological mapping since 1990
- I am, and have been an employee of Goldcorp Inc. since 1994
- I do not hold or expect to receive any interest in the property described in this report
- I have been on this property on several occasions since 1999
- I have managed in excess of 12 MMI geochemical surveys in the Red Lake Greenstone Belt since 2000, and Goldcorp Inc. now has a database in excess of 30,000 samples.
- Data from MMI projects have, in the past, been reviewed by Dr. Mark Fedikow, Wamtech Pty Ltd, and IO Geochemistry of Australia

Sidace Lake Property
Claim List

TABLE 1

<u>Township / Area</u>	<u>Claim</u>	<u>Recording</u>	<u>Claim Due</u>	<u>Recorded Holder</u>
BLACK BEAR LAKE	KRL 1210402	1996-APR-17	2005-APR-17	Planet Exploration Inc.
BLACK BEAR LAKE	KRL 1210404	1996-APR-17	2006-APR-17	Planet Exploration Inc.
BLACK BEAR LAKE	KRL 1248148	2003-FEB-15	2005-FEB-15	Goldcorp Inc.
BLACK BEAR LAKE	KRL 1248149	2003-FEB-15	2005-FEB-15	Goldcorp Inc.
BLACK BEAR LAKE	KRL 1248156	2003-AUG-05	2005-AUG-05	Goldcorp Inc.
BLACK BEAR LAKE	KRL 1248157	2003-AUG-05	2005-AUG-05	Goldcorp Inc.
BLACK BEAR LAKE	KRL 3004390	2003-NOV-21	2005-NOV-21	Bryan Calvin Patrie
COLI LAKE	KRL 1210049	1996-APR-17	2006-APR-17	Planet Exploration Inc.
COLI LAKE	KRL 1210385	1996-APR-17	2005-APR-17	Planet Exploration Inc.
COLI LAKE	KRL 1210388	1996-APR-17	2006-APR-17	Planet Exploration Inc.
COLI LAKE	KRL 1210389	1996-APR-17	2006-APR-17	Planet Exploration Inc.
COLI LAKE	KRL 1210390	1996-APR-17	2006-APR-17	Planet Exploration Inc.
COLI LAKE	KRL 1210405	1996-APR-17	2006-APR-17	Planet Exploration Inc.
COLI LAKE	KRL 1210406	1996-APR-17	2005-APR-17	Planet Exploration Inc.
COLI LAKE	KRL 1210407	1996-APR-17	2005-APR-17	Planet Exploration Inc.
COLI LAKE	KRL 1215801	1997-FEB-13	2006-FEB-13	Planet Exploration Inc.
COLI LAKE	KRL 1217312	1998-NOV-26	2005-NOV-26	Planet Exploration Inc.
COLI LAKE	KRL 1217313	1998-NOV-26	2005-NOV-26	Planet Exploration Inc.
COLI LAKE	KRL 1234031	1998-NOV-26	2005-NOV-26	Planet Exploration Inc.
COLI LAKE	KRL 3005672	2003-MAY-09	2005-MAY-09	Planet Exploration Inc.
COLI LAKE	KRL 3005673	2003-MAY-09	2005-MAY-09	Planet Exploration Inc.
COLI LAKE	KRL 3005675	2003-MAY-09	2005-MAY-09	Planet Exploration Inc.
COLI LAKE	KRL 3005678	2003-MAY-09	2005-MAY-09	Planet Exploration Inc.
COLI LAKE	KRL 3005679	2003-MAY-09	2005-MAY-09	Planet Exploration Inc.
COLI LAKE	KRL 3008152	2003-MAY-09	2005-MAY-09	Planet Exploration Inc.
COLI LAKE	KRL 3008153	2003-MAY-09	2005-MAY-09	Planet Exploration Inc.
COLI LAKE	KRL 3008155	2003-MAY-09	2005-MAY-09	Planet Exploration Inc.
COLI LAKE	KRL 3008156	2003-MAY-09	2005-MAY-09	Planet Exploration Inc.
COLI LAKE	KRL 3008157	2003-MAY-09	2005-MAY-09	Planet Exploration Inc.
COLI LAKE	KRL 3008158	2003-MAY-09	2005-MAY-09	Planet Exploration Inc.
COLI LAKE	KRL 3008159	2003-MAY-09	2005-MAY-09	Planet Exploration Inc.
COLI LAKE	KRL 3008160	2003-MAY-09	2005-MAY-09	Planet Exploration Inc.
COLI LAKE	KRL 3008161	2003-MAY-09	2005-MAY-09	Planet Exploration Inc.
COLI LAKE	KRL 3008162	2003-MAY-09	2005-MAY-09	Planet Exploration Inc.
COLI LAKE	KRL 3008163	2003-MAY-09	2005-MAY-09	Planet Exploration Inc.
COLI LAKE	KRL 3008164	2003-MAY-09	2005-MAY-09	Planet Exploration Inc.
COLI LAKE	KRL 3008165	2003-MAY-09	2005-MAY-09	Planet Exploration Inc.
COLI LAKE	KRL 3008166	2003-MAY-09	2005-MAY-09	Planet Exploration Inc.
COLI LAKE	KRL 3008167	2003-MAY-09	2005-MAY-09	Planet Exploration Inc.
COLI LAKE	KRL 3008168	2003-MAY-09	2005-MAY-09	Planet Exploration Inc.
COLI LAKE	KRL 3008169	2003-MAY-09	2005-MAY-09	Planet Exploration Inc.
COLI LAKE	KRL 3008170	2003-MAY-09	2005-MAY-09	Planet Exploration Inc.
COLI LAKE	KRL 3008171	2003-MAY-09	2005-MAY-09	Planet Exploration Inc.
COLI LAKE	KRL 3004391	2003-NOV-21	2005-NOV-21	Bryan Calvin Patrie
NUNGESSER LAKE	KRL 3005680	2003-MAY-09	2005-MAY-09	Planet Exploration Inc.
NUNGESSER LAKE	KRL 3005684	2003-MAY-09	2005-MAY-09	Planet Exploration Inc.
NUNGESSER LAKE	KRL 3008148	2003-MAY-09	2005-MAY-09	Planet Exploration Inc.
NUNGESSER LAKE	KRL 3008149	2003-MAY-09	2005-MAY-09	Planet Exploration Inc.
NUNGESSER LAKE	KRL 3012308	2003-MAY-09	2005-MAY-09	Planet Exploration Inc.
NUNGESSER LAKE	KRL 3012309	2003-MAY-09	2005-MAY-09	Planet Exploration Inc.

Sidace Lake Property
Claim List

TABLE 1

<u>Township / Area</u>	<u>Claim</u>	<u>Recording</u>	<u>Claim Due</u>	<u>Recorded Holder</u>
SOBESKI LAKE	KRL 1215800	1997-FEB-13	2006-FEB-13	Planet Exploration Inc.
SOBESKI LAKE	KRL 1217161	1997-FEB-13	2006-FEB-13	Planet Exploration Inc.
SOBESKI LAKE	KRL 1234032	1998-NOV-26	2006-NOV-26	Planet Exploration Inc.
SOBESKI LAKE	KRL 1234033	1998-NOV-26	2005-NOV-26	Planet Exploration Inc.
SOBESKI LAKE	KRL 1244550	2002-APR-04	2005-APR-04	Planet Exploration Inc.
SOBESKI LAKE	KRL 1244551	2002-APR-04	2005-APR-04	Planet Exploration Inc.
SOBESKI LAKE	KRL 3003410	2002-SEP-25	2006-SEP-25	Planet Exploration Inc.
SOBESKI LAKE	KRL 3003411	2002-SEP-25	2006-SEP-25	Planet Exploration Inc.
SOBESKI LAKE	KRL 3003412	2002-SEP-25	2006-SEP-25	Planet Exploration Inc.
SOBESKI LAKE	KRL 3005674	2003-MAY-09	2005-MAY-09	Planet Exploration Inc.
SOBESKI LAKE	KRL 3005676	2003-MAY-09	2005-MAY-09	Planet Exploration Inc.
SOBESKI LAKE	KRL 3005677	2003-MAY-09	2005-MAY-09	Planet Exploration Inc.
SOBESKI LAKE	KRL 3005681	2003-MAY-09	2005-MAY-09	Planet Exploration Inc.
SOBESKI LAKE	KRL 3005726	2003-MAY-09	2005-MAY-09	Planet Exploration Inc.
SOBESKI LAKE	KRL 1248166	2003-NOV-21	2005-NOV-21	Goldcorp Inc.
SOBESKI LAKE	KRL 1248167	2003-NOV-21	2005-NOV-21	Goldcorp Inc.
SOBESKI LAKE	KRL 1248168	2003-NOV-21	2005-NOV-21	Goldcorp Inc.
SOBESKI LAKE	KRL 3004386	2003-NOV-21	2005-NOV-21	Goldcorp Inc.
SOBESKI LAKE	KRL 3004387	2003-NOV-21	2005-NOV-21	Goldcorp Inc.
SOBESKI LAKE	KRL 3004388	2003-NOV-21	2005-NOV-21	Goldcorp Inc.
SOBESKI LAKE	KRL 3004389	2003-NOV-21	2005-NOV-21	Goldcorp Inc.

Sample	UTM E	UTM N	Date sample collected	GRID E	GRID N	Slope	Vegetation	Soil	Moisture	Depth	Attributes
PN0001	462393.91	5681381.71	2003 / Jun / 22	4275	5200	flat	mixed	organic	dry	30	
PN0002	462396.86	5681377.76	2003 / Jun / 22	4275	5195	flat	mixed	clay	dry	25	
PN0003	462399.70	5681373.64	2003 / Jun / 22	4275	5190	flat	mixed	clay	dry	25	
PN0004	462402.62	5681369.58	2003 / Jun / 22	4275	5185	flat	mixed	clay	dry	25	
PN0005	462405.54	5681365.51	2003 / Jun / 22	4275	5180	flat	spruce	clay	dry	25	
PN0006	462408.53	5681361.50	2003 / Jun / 22	4275	5175	flat	spruce	clay	dry	25	
PN0007	462411.46	5681357.25	2003 / Jun / 22	4275	5170	flat	spruce	organic	dry	25	
PN0008	462414.37	5681353.36	2003 / Jun / 22	4275	5165	flat	spruce	clay	dry	15	
PN0009	462417.29	5681349.29	2003 / Jun / 22	4275	5160	flat	spruce	clay	dry	20	
PN0010	462420.11	5681345.17	2003 / Jun / 22	4275	5155	flat	spruce	organic	dry	20	
PN0011	462423.21	5681341.03	2003 / Jun / 22	4275	5150	flat	spruce	humic	dry	20	drillroad
PN0012	462425.95	5681337.03	2003 / Jun / 22	4275	5145	flat	spruce	clay	moist	20	drillroad
PN0013	462429.04	5681332.90	2003 / Jun / 22	4275	5140	flat	spruce	clay	moist	25	
PN0014	462431.78	5681328.90	2003 / Jun / 22	4275	5135	flat	spruce	humic	moist	30	
PN0015	462434.70	5681324.83	2003 / Jun / 22	4275	5130	flat	spruce	clay	dry	20	
PN0016	462437.62	5681320.77	2003 / Jun / 22	4275	5125	flat	spruce	clay	moist	25	
PN0017	462440.70	5681316.63	2003 / Jun / 22	4275	5120	flat	spruce	clay	moist	20	
PN0018	462443.54	5681312.51	2003 / Jun / 22	4275	5115	flat	spruce	clay	moist	25	
PN0019	462446.45	5681308.62	2003 / Jun / 22	4275	5110	flat	mixed	clay	dry	20	
PN0020	462449.29	5681304.49	2003 / Jun / 22	4275	5105	flat	mixed	clay	moist	25	
PN0021	462452.37	5681300.36	2003 / Jun / 22	4275	5100	flat	spruce	clay	dry	20	drillroad
PN0022	462452.37	5681300.36	2003 / Jun / 22	4275	5100	flat	spruce	clay	dry	20	drillroad
PN0023	462455.12	5681296.36	2003 / Jun / 22	4275	5095	flat	spruce	clay	dry	20	drillroad
PN0024	462458.04	5681292.29	2003 / Jun / 22	4275	5090	flat	-	clay	dry	20	open drill area
PN0025	462461.05	5681288.10	2003 / Jun / 22	4275	5085	flat	-	clay	dry	20	open drill area (hole RL-02-04)
PN0026	462463.96	5681284.03	2003 / Jun / 22	4275	5080	flat	-	clay	dry	20	open area
PN0027	462466.88	5681279.97	2003 / Jun / 22	4275	5075	flat	-	clay	wet	20	open area
PN0028	462469.79	5681276.08	2003 / Jun / 22	4275	5070	flat	-	clay	wet	20	open drill area (hole RL-03-23)
PN0029	462472.71	5681272.01	2003 / Jun / 22	4275	5065	flat	-	organic	wet	20	open area
PN0030	462475.54	5681267.89	2003 / Jun / 22	4275	5060	flat	swamp	clay	wet	20	
PN0031	462478.55	5681263.70	2003 / Jun / 22	4275	5055	flat	swamp	clay	wet	20	drillhole RL-02-14
PN0032	462481.37	5681259.75	2003 / Jun / 22	4275	5050	flat	swamp	clay	wet	20	
PN0033	462484.29	5681255.68	2003 / Jun / 22	4275	5045	flat	swamp	organic	wet	30	end-of-line, swamp
PN0034	462533.51	5681237.95	2003 / Jun / 22	4300	5000	flat	swamp	organic	wet	30	swamp
PN0035	462530.58	5681242.01	2003 / Jun / 22	4300	5005	flat	swamp	organic	wet	30	
PN0036	462527.65	5681246.26	2003 / Jun / 22	4300	5010	flat	swamp	clay	wet	30	
PN0037	462524.89	5681250.25	2003 / Jun / 22	4300	5015	flat	swamp	organic	wet	30	
PN0038	462521.96	5681254.50	2003 / Jun / 22	4300	5020	flat	swamp	clay	wet	30	
PN0039	462519.13	5681258.62	2003 / Jun / 22	4300	5025	flat	swamp	clay	wet	20	
PN0040	462516.28	5681262.74	2003 / Jun / 22	4300	5030	flat	swamp	organic	wet	30	
PN0041	462513.52	5681266.73	2003 / Jun / 22	4300	5035	flat	swamp	clay	damp	20	
PN0042	462510.76	5681270.91	2003 / Jun / 22	4300	5040	flat	swamp	clay	damp	20	drillhole RL-02-05
PN0043	462510.76	5681270.91	2003 / Jun / 22	4300	5040	flat	swamp	clay	damp	20	drillhole RL-02-05
PN0044	462507.83	5681275.15	2003 / Jun / 22	4300	5045	flat	swamp	clay	wet	20	
PN0045	462505.07	5681279.15	2003 / Jun / 22	4300	5050	flat	swamp	clay	moist	20	
PN0046	462502.15	5681283.20	2003 / Jun / 22	4300	5055	flat	swamp	clay	damp	20	
PN0047	462499.30	5681287.32	2003 / Jun / 22	4300	5060	gentle	-	clay	dry	20	
PN0048	462496.37	5681291.57	2003 / Jun / 22	4300	5065	gentle	-	clay	dry	20	
PN0049	462493.70	5681295.62	2003 / Jun / 22	4300	5070	flat	-	clay	dry	15	drillhole RL-99EXT
PN0050	462490.86	5681299.74	2003 / Jun / 22								
PN0051	462487.93	5681303.99	2003 / Jun / 22	4300	5075	flat	-	clay	damp	20	open
PN0052	462485.00	5681308.05	2003 / Jun / 22	4300	5080	flat	-	clay	dry	15	open
PN0053	462482.25	5681312.05	2003 / Jun / 22	4300	5085	flat	-	clay	dry	20	open
PN0054	462479.49	5681316.22	2003 / Jun / 22	4300	5090	flat	-	clay	dry	15	open/drillroad
PN0055	462476.64	5681320.34	2003 / Jun / 22	4300	5095	flat	-	clay	damp	15	drillroad
PN0056	462473.80	5681324.46	2003 / Jun / 22	4300	5100	flat	spruce	clay	wet	20	drillroad
PN0057	462470.96	5681328.58	2003 / Jun / 22	4300	5105	flat	spruce	clay	damp	20	
PN0058	462468.11	5681332.69	2003 / Jun / 22	4300	5110	flat	spruce	organic	moist	20	
PN0059	462465.27	5681336.81	2003 / Jun / 22	4300	5115	flat	spruce	organic	moist	20	
PN0060	462462.34	5681340.88	2003 / Jun / 22	4300	5120	flat	spruce	clay	damp	20	
PN0061	462459.58	5681345.05	2003 / Jun / 22	4300	5125	flat	spruce	clay	moist	20	
PN0062	462456.57	5681349.24	2003 / Jun / 22	4300	5130	flat	spruce	sand	moist	20	
PN0063	462453.73	5681353.36	2003 / Jun / 22	4300	5135	flat	spruce	clay	damp	25	
PN0064	462451.05	5681357.41	2003 / Jun / 22	4300	5140	flat	spruce	clay	damp	30	
PN0065	462448.21	5681361.53	2003 / Jun / 22	4300	5145	flat	spruce	clay	damp	30	
PN0066	462445.20	5681365.72	2003 / Jun / 23	4300	5150	flat	spruce	clay	damp	25	
PN0067	462442.53	5681369.77	2003 / Jun / 23	4300	5155	flat	spruce	clay	damp	20	drillroad
PN0068	462439.60	5681374.02	2003 / Jun / 23	4300	5160	flat	spruce	clay	dry	20	drillroad
PN0069	462436.75	5681378.13	2003 / Jun / 23	4300	5165	flat	spruce	humic	damp	20	
PN0070	462433.91	5681382.07	2003 / Jun / 23	4300	5170	flat	spruce	clay	wet	25	new drillhole
PN0071	462431.16	5681386.24	2003 / Jun / 23	4300	5175	flat	spruce	clay	wet	20	new drillhole
PN0072	462428.31	5681390.36	2003 / Jun / 23	4300	5180	flat	spruce	clay	damp	20	new drillhole

Sample	UTM E	UTM N	Date sample collected	GRID E	GRID N	Slope	Vegetation	Soil	Moisture	Depth	Attributes
PN0073	462425.30	5681394.55	2003 / Jun / 23	4300	5185	flat	spruce	clay	damp	30	
PN0074	462422.54	5681398.55	2003 / Jun / 23	4300	5190	flat	spruce	clay	damp	30	
PN0075	462419.78	5681402.72	2003 / Jun / 23	4300	5195	flat	spruce	humic	moist	30	
PN0076	462416.86	5681406.79	2003 / Jun / 23	4300	5200	flat	spruce	humic	damp	30	
PN0077	461996.21	5680876.95	2003 / Jun / 23	1900	4800	flat	spruce	humic	wet	30	
PN0078	462006.26	5680870.31	2003 / Jun / 23	1900	4787.5	flat	spruce	humic	wet	30	
PN0079	462013.27	5680857.13	2003 / Jun / 23	1900	4775	flat	spruce	humic	wet	30	
PN0080	462020.30	5680846.34	2003 / Jun / 23	1900	4762.5	flat	spruce	humic	wet	30	
PN0081	462028.10	5680837.93	2003 / Jun / 23	1900	4750	flat	spruce	humic	wet	30	
PN0082	462033.28	5680830.14	2003 / Jun / 23	1900	4737.5	flat	spruce	humic	wet	30	
PN0083	462041.02	5680814.57	2003 / Jun / 23	1900	4725	flat	spruce	humic	wet	30	
PN0084	462049.57	5680807.35	2003 / Jun / 23	1900	4712.5	flat	spruce	humic	wet	30	
PN0085	462057.35	5680795.95	2003 / Jun / 23	1900	4700	flat	spruce	humic	wet	30	
PN0086	462063.63	5680785.17	2003 / Jun / 23	1900	4687.5	flat	spruce	humic	wet	30	
PN0087	462068.79	5680774.39	2003 / Jun / 23	1900	4675	flat	spruce	humic	wet	30	
PN0088	462076.26	5680772.55	2003 / Jun / 23	1900	4662.5	flat	spruce	humic	wet	30	
PN0089	462083.99	5680755.78	2003 / Jun / 23	1900	4650	flat	spruce	humic	wet	30	
PN0090	462090.68	5680750.36	2003 / Jun / 23	1900	4637.5	flat	spruce	humic	wet	30	
PN0091	462097.35	5680740.77	2003 / Jun / 23	1900	4625	flat	spruce	humic	wet	30	
PN0092	462103.62	5680728.79	2003 / Jun / 23	1900	4612.5	flat	spruce	humic	wet	30	
PN0093	462110.28	5680718.00	2003 / Jun / 23	1900	4600	flat	spruce	humic	wet	30	
PN0094	462982.50	5681549.24	2003 / Jun / 23	1900	4587.5	flat	spruce	humic	wet	30	
PN0095	462994.79	5681541.40	2003 / Jun / 23	1900	4575	flat	spruce	humic	wet	30	
PN0096	462997.72	5681531.83	2003 / Jun / 23	1900	4562.5	flat	spruce	humic	wet	30	
PN0097	462997.72	5681531.83	2003 / Jun / 23	1900	4562.5	flat	spruce	humic	wet	30	
PN0098	463003.68	5681528.21	2003 / Jun / 23	1900	4550	flat	spruce	humic	wet	30	
PN0099	463011.44	5681515.03	2003 / Jun / 23	1900	4537.5	flat	spruce	humic	wet	30	
PN0100	463016.61	5681506.04	2003 / Jun / 23	1900	4525	flat	spruce	humic	wet	30	
PN0101	463026.24	5681492.25	2003 / Jun / 23	1900	4512.5	flat	spruce	humic	wet	30	
PN0102	463034.79	5681485.63	2003 / Jun / 23	1900	4500	flat	spruce	humic	wet	30	
PN0103	462978.50	5681564.78	2003 / Jun / 23	1900	4487.5	flat	spruce	humic	wet	30	
PN0104	462971.83	5681573.78	2003 / Jun / 23	1900	4475	flat	spruce	humic	wet	30	
PN0105	462965.15	5681580.99	2003 / Jun / 23	1900	4462.5	flat	spruce	humic	wet	30	
PN0106	462959.97	5681588.78	2003 / Jun / 23	1900	4450	flat	spruce	humic	wet	30	
PN0107	462952.20	5681601.37	2003 / Jun / 23	1900	4437.5	flat	spruce	humic	wet	30	
PN0108	462945.90	5681609.76	2003 / Jun / 23	1900	4425	flat	spruce	humic	wet	30	
PN0109	462941.83	5681615.16	2003 / Jun / 23	1900	4412.5	flat	spruce	humic	wet	30	
PN0110	462934.44	5681628.34	2003 / Jun / 23	1900	4400	flat	spruce	humic	wet	30	
PN0111	463085.84	5683427.18	2003 / Jun / 29			flat	spruce	sand	moist	20	
PN0112	463099.86	5683400.23	2003 / Jun / 29			flat	spruce	sand	dry	20	
PN0113	463116.46	5683368.49	2003 / Jun / 29			flat	swamp	sand	wet	20	
PN0114	463125.27	5683345.76	2003 / Jun / 29			flat	swamp	sand	wet	20	
PN0115	463132.56	5683320.05	2003 / Jun / 29			flat	spruce	sand	dry	20	
PN0116	463138.74	5683294.95	2003 / Jun / 29			flat	spruce	sand	dry	20	
PN0117	463144.54	5683269.85	2003 / Jun / 29			flat	spruce	sand	dry	20	
PN0118	463148.11	5683245.96	2003 / Jun / 29			flat	spruce	sand	dry	20	
PN0119	463153.17	5683221.46	2003 / Jun / 29			flat	spruce	sand	dry	20	
PN0120	463154.51	5683199.38	2003 / Jun / 29			flat	spruce	sand	dry	20	
PN0121	463156.55	5683171.92	2003 / Jun / 29			flat	spruce	sand	dry	20	
PN0122	463159.00	5683148.04	2003 / Jun / 29			flat	spruce	sand	dry	20	
PN0123	463164.41	5683120.56	2003 / Jun / 29			flat	spruce	sand	dry	20	
PN0124	463166.51	5683099.66	2003 / Jun / 29			flat	spruce	sand	dry	20	
PN0125	463170.79	5683071.00	2003 / Jun / 29			flat	spruce	sand	dry	20	
PN0126	463177.36	5683048.28	2003 / Jun / 29			flat	spruce	sand	dry	20	
PN0127	463183.90	5683022.58	2003 / Jun / 29			flat	spruce	sand	dry	20	
PN0128	463183.72	5682996.92	2003 / Jun / 29			flat	spruce	sand	dry	20	
PN0129	463185.79	5682973.05	2003 / Jun / 29			flat	spruce	sand	dry	20	
PN0130	463188.98	5682947.97	2003 / Jun / 29			flat	spruce	sand	dry	20	L-5750E, 60+50N
PN0131	463188.98	5682947.97	2003 / Jun / 29			flat	spruce	sand	dry	20	L-5750E, 60+50N
PN0132	463194.78	5682922.87	2003 / Jun / 29			flat	spruce	sand	dry	20	L-5750E, 60+25N
PN0133	463201.35	5682899.55	2003 / Jun / 29			flat	spruce	sand	dry	20	
PN0134	463201.53	5682873.30	2003 / Jun / 29			flat	spruce	sand	dry	20	
PN0135	463206.96	5682847.61	2003 / Jun / 29			flat	spruce	sand	dry	20	
PN0136	463209.40	5682823.13	2003 / Jun / 29			flat	spruce	sand	dry	20	
PN0137	463211.83	5682797.46	2003 / Jun / 29			flat	spruce	sand	dry	20	
PN0138	463213.88	5682770.60	2003 / Jun / 29			flat	spruce	sand	dry	20	
PN0139	463217.80	5682743.72	2003 / Jun / 29			gentle	mixed	sand	dry	20	
PN0140	463219.50	5682719.25	2003 / Jun / 29			gentle	mixed	sand	dry	20	
PN0141	463221.59	5682697.76	2003 / Jun / 29			gentle	mixed	sand	dry	20	
PN0142	463224.78	5682673.27	2003 / Jun / 29			gentle	mixed	sand	dry	20	
PN0143	463227.95	5682646.40	2003 / Jun / 29			gentle	mixed	sand	dry	20	
PN0144	463230.77	5682621.92	2003 / Jun / 29			gentle	mixed	sand	dry	20	

Sample	UTM E	UTM N	Date sample collected	GRID E	GRID N	Slope	Vegetation	Soil	Moisture	Depth	Attributes
PN0145	463235.09	5682599.22	2003 / Jun / 29			flat	mixed	sand	dry	20	
PN0146	463236.38	5682569.98	2003 / Jun / 29			flat	mixed	sand	dry	20	
PN0147	463240.32	5682546.09	2003 / Jun / 29			flat	mixed	sand	dry	20	
PN0148	463242.40	5682522.80	2003 / Jun / 29			flat	mixed	-	-	20	
PN0149	463243.74	5682500.72	2003 / Jun / 29			gentle	mixed	sand	dry	20	
PN0150	463244.30	5682474.47	2003 / Jun / 29			gentle	mixed	sand	dry	20	
PN0151	463240.00	5682448.84	2003 / Jun / 29			flat	mixed	sand	dry	20	L5550-5650N
PN0152	463240.00	5682448.84	2003 / Jun / 29			flat	mixed	sand	dry	20	L5550-5650N
PN0153	463249.16	5682422.53	2003 / Jun / 29			flat	mixed	sand	dry	20	
PN0154	463251.61	5682398.65	2003 / Jun / 29			flat	mixed	sand	dry	20	
PN0155	463253.29	5682372.98	2003 / Jun / 29			flat	mixed	sand	dry	20	
PN0156	463253.49	5682347.92	2003 / Jun / 29			flat	mixed	sand	dry	20	
PN0157	463255.54	5682321.66	2003 / Jun / 29			gentle	mixed	sand	dry	20	
PN0158	463256.86	5682297.19	2003 / Jun / 29			gentle	mixed	sand	dry	20	
PN0159	463260.44	5682274.49	2003 / Jun / 29			gentle	mixed	sand	dry	20	
PN0160	463262.86	5682247.63	2003 / Jun / 29			gentle	mixed	sand	dry	20	
PN0161	463263.82	5682224.35	2003 / Jun / 29			gentle	mixed	sand	dry	20	
PN0162											blank
PN0163	463264.76	5682198.69	2003 / Jun / 29			flat	mixed	sand	dry	20	
PN0164	463266.45	5682174.22	2003 / Jun / 29			flat	mixed	sand	dry	20	
PN0165	463268.88	5682147.35	2003 / Jun / 29			flat	mixed	sand	dry	20	
PN0166	463270.19	5682122.29	2003 / Jun / 29			flat	mixed	sand	dry	20	
PN0167	463270.41	5682099.62	2003 / Jun / 29			flat	mixed	sand	dry	20	
PN0168	463278.41	5682067.94	2003 / Jun / 29			gentle	mixed	sand	dry	20	
PN0169	463277.51	5682047.66	2003 / Jun / 29			flat	mixed	sand	dry	20	
PN0170	463285.19	5682023.15	2003 / Jun / 29			flat	mixed	sand	dry	20	
PN0171	463283.51	5681996.91	2003 / Jun / 29			flat	mixed	sand	dry	20	
PN0172	463281.47	5681973.66	2003 / Jun / 29			flat	mixed	sand	dry	20	
PN0173	463281.67	5681949.19	2003 / Jun / 29			flat	mixed	sand	dry	20	
PN0174	463281.67	5681949.19	2003 / Jun / 29			flat	mixed	sand	dry	20	
PN0175	463284.10	5681922.33	2003 / Jun / 29			flat	mixed	sand	dry	20	
PN0176	463292.50	5681894.83	2003 / Jun / 29			flat	mixed	sand	dry	20	
PN0177	463302.03	5681866.72	2003 / Jun / 29			flat	mixed	sand	dry	20	
PN0178	463303.74	5681845.23	2003 / Jun / 29			flat	mixed	sand	dry	20	
PN0179	463311.06	5681821.91	2003 / Jun / 29			flat	mixed	sand	dry	20	
PN0180	463316.13	5681799.20	2003 / Jun / 29			flat	mixed	sand	dry	20	
PN0181	463329.41	5681772.86	2003 / Jun / 29			flat	mixed	sand	dry	20	BL-5000N
PN0182	463338.21	5681747.74	2003 / Jun / 29			flat	mixed	sand	dry	20	
PN0183	463341.78	5681723.25	2003 / Jun / 29			flat	mixed	sand	dry	20	
PN0184	463354.71	5681700.49	2003 / Jun / 29			gentle	mixed	sand	dry	20	
PN0185	463375.46	5681673.49	2003 / Jun / 29			flat	mixed	sand	dry	20	
PN0186	463399.21	5681646.47	2003 / Jun / 29			flat	mixed	sand	dry	20	
PN0187	463415.12	5681621.90	2003 / Jun / 29			flat	mixed	sand	dry	20	
PN0188	463435.20	5681604.45	2003 / Jun / 29			flat	mixed	sand	dry	20	
PN0189	463458.76	5681603.09	2003 / Jun / 29			flat	mixed	sand	dry	20	
PN0190	463482.71	5681604.12	2003 / Jun / 29			flat	mixed	sand	dry	20	
PN0191	463506.31	5681608.72	2003 / Jun / 29			flat	mixed	sand	dry	20	
PN0192	463530.60	5681604.97	2003 / Jun / 29			flat	spruce	sand	dry	20	
PN0193	463556.75	5681599.41	2003 / Jun / 29			flat	spruce	sand	dry	20	
PN0194	463582.50	5681590.88	2003 / Jun / 29			gentle	spruce	sand	dry	20	
PN0195	463582.50	5681590.88	2003 / Jun / 29			gentle	spruce	sand	dry	20	
PN0196	463603.34	5681575.22	2003 / Jun / 29			gentle	spruce	sand	dry	20	
PN0197	463619.26	5681551.84	2003 / Jun / 29			gentle	spruce	sand	dry	20	
PN0198	463629.56	5681526.71	2003 / Jun / 29			flat	spruce	sand	dry	20	
PN0199	463640.61	5681502.76	2003 / Jun / 29			flat	spruce	sand	dry	20	
PN0200	463649.41	5681477.05	2003 / Jun / 29			gentle	spruce	sand	dry	20	
PN0201	463661.25	5681458.47	2003 / Jun / 29			gentle	spruce	sand	dry	20	
PN0202	463670.79	5681432.75	2003 / Jun / 29			flat	spruce	sand	dry	20	
PN0203	463678.48	5681408.83	2003 / Jun / 29			flat	spruce	sand	dry	20	
PN0204	463686.15	5681382.52	2003 / Jun / 29			flat	spruce	sand	dry	20	
PN0205	463692.71	5681357.42	2003 / Jun / 29			flat	spruce	sand	dry	20	outcrop
PN0206	463696.63	5681330.55	2003 / Jun / 29			flat	spruce	sand	dry	20	
PN0207	463694.57	5681304.31	2003 / Jun / 29			flat	spruce	clay	dry	20	
PN0208	463688.42	5681280.49	2003 / Jun / 29			flat	spruce	clay	dry	20	
PN0209	463675.56	5681260.30	2003 / Jun / 29			flat	spruce	clay	dry	20	
PN0210	463663.41	5681236.52	2003 / Jun / 29			flat	spruce	clay	dry	20	
PN0211	463651.30	5681216.32	2003 / Jun / 29			flat	spruce	sand	dry	20	
PN0212	459381.55	5679982.44	2003 / Jun / 30			flat	spruce	sand	dry	20	
PN0213	459395.61	5679962.04	2003 / Jun / 30			flat	spruce	sand	dry	20	
PN0214	459416.02	5679939.81	2003 / Jun / 30			flat	spruce	sand	dry	20	
PN0215	459431.96	5679921.18	2003 / Jun / 30			flat	spruce	sand	dry	20	
PN0216	459445.63	5679899.00	2003 / Jun / 30			flat	spruce	sand	dry	20	

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Sample	UTM E	UTM N	Date sample collected	GRID E	GRID N	Slope	Vegetation	Soil	Moisture	Depth	Attributes
PN0217	459457.82	5679878.62	2003 / Jun / 30			flat	spruce	sand	dry	20	
PN0218	459473.40	5679860.60	2003 / Jun / 30			flat	spruce	sand	dry	20	
PN0219	459488.54	5679835.42	2003 / Jun / 30			flat	spruce	sand	dry	20	
PN0220	459504.47	5679814.42	2003 / Jun / 30			flat	spruce	sand	dry	20	
PN0221	459521.53	5679795.79	2003 / Jun / 30			flat	spruce	sand	dry	20	
PN0222	459534.82	5679771.82	2003 / Jun / 30			flat	spruce	sand	dry	20	
PN0223	459548.14	5679753.22	2003 / Jun / 30			flat	spruce	sand	dry	20	
PN0224	459564.85	5679735.78	2003 / Jun / 30			flat	spruce	sand	dry	20	
PN0225	459578.20	5679720.17	2003 / Jun / 30			flat	spruce	sand	dry	20	
PN0226	459593.71	5679694.39	2003 / Jun / 30			flat	spruce	sand	dry	20	
PN0227	459608.53	5679674.59	2003 / Jun / 30			flat	spruce	sand	dry	20	
PN0228	459622.58	5679653.00	2003 / Jun / 30			flat	spruce	sand	dry	20	
PN0229	459638.14	5679632.59	2003 / Jun / 30			flat	spruce	sand	dry	20	
PN0230	459653.73	5679616.96	2003 / Jun / 30			flat	spruce	sand	dry	20	
PN0231	459670.38	5679591.77	2003 / Jun / 30			flat	spruce	sand	dry	20	
PN0232	459670.38	5679591.77	2003 / Jun / 30			flat	spruce	sand	dry	20	
PN0233	459685.56	5679571.96	2003 / Jun / 30			flat	spruce	sand	dry	20	
PN0234	459699.24	5679549.78	2003 / Jun / 30			flat	spruce	sand	dry	20	
PN0235	459714.05	5679529.97	2003 / Jun / 30			flat	spruce	sand	dry	20	
PN0236	459729.58	5679505.99	2003 / Jun / 30			flat	spruce	sand	dry	20	
PN0237	459745.13	5679484.39	2003 / Jun / 30			flat	spruce	sand	dry	20	
PN0238	459761.05	5679461.59	2003 / Jun / 30			flat	spruce	sand	dry	20	
PN0239	459775.88	5679443.58	2003 / Jun / 30			flat	spruce	sand	dry	20	
PN0240	459788.05	5679421.41	2003 / Jun / 30			flat	spruce	sand	dry	20	
PN0241	459803.96	5679398.02	2003 / Jun / 30			flat	spruce	sand	dry	20	
PN0242	459819.56	5679382.98	2003 / Jun / 30			flat	spruce	sand	dry	20	
PN0243	459836.95	5679357.19	2003 / Jun / 30			flat	spruce	sand	dry	20	
PN0244	459851.77	5679337.98	2003 / Jun / 30			flat	spruce	sand	dry	20	
PN0245	459865.08	5679316.40	2003 / Jun / 30			flat	spruce	sand	dry	20	
PN0246	459879.55	5679300.78	2003 / Jun / 30			flat	spruce	sand	dry	20	
PN0247	459895.82	5679275.59	2003 / Jun / 30			flat	spruce	sand	dry	20	
PN0248	459911.38	5679255.18	2003 / Jun / 30			flat	spruce	sand	dry	20	
PN0249	459925.05	5679231.81	2003 / Jun / 30			flat	spruce	sand	dry	20	
PN0250	459938.76	5679214.40	2003 / Jun / 30			flat	spruce	sand	dry	20	
PN0251	459953.17	5679190.43	2003 / Jun / 30			flat	spruce	sand	dry	20	
PN0252	459968.37	5679171.81	2003 / Jun / 30			flat	spruce	sand	dry	20	
PN0253	459968.37	5679171.81	2003 / Jun / 30			flat	spruce	sand	dry	20	
PN0254	459985.80	5679150.20	2003 / Jun / 30			flat	spruce	sand	dry	20	
PN0255	460000.27	5679133.98	2003 / Jun / 30			flat	spruce	sand	dry	20	
PN0256	460014.89	5679111.19	2003 / Jun / 30			flat	spruce	sand	dry	20	
PN0257	460029.13	5679091.39	2003 / Jun / 30			flat	spruce	sand	dry	20	
PN0258	460042.44	5679070.41	2003 / Jun / 30			flat	spruce	sand	dry	20	
PN0259	460057.67	5679055.37	2003 / Jun / 30			flat	spruce	sand	dry	20	
PN0260	460073.59	5679033.18	2003 / Jun / 30			flat	spruce	sand	dry	20	
PN0261	460086.90	5679011.60	2003 / Jun / 30			flat	spruce	sand	dry	20	
PN0262	460102.83	5678990.59	2003 / Jun / 30			flat	spruce	sand	dry	20	
PN0263											blank
PN0264	460116.91	5678971.99	2003 / Jun / 30			flat	spruce	sand	dry	20	
PN0265	460130.97	5678951.59	2003 / Jun / 30			flat	spruce	sand	dry	20	
PN0266	460145.79	5678931.19	2003 / Jun / 30			flat	spruce	sand	dry	20	
PN0267	460161.71	5678908.40	2003 / Jun / 30			flat	spruce	sand	dry	20	
PN0268	460174.63	5678886.22	2003 / Jun / 30			flat	spruce	sand	dry	20	
PN0269	460190.95	5678866.41	2003 / Jun / 30			flat	spruce	sand	dry	20	
PN0270	460206.12	5678844.22	2003 / Jun / 30			flat	spruce	sand	dry	20	
PN0271	460217.93	5678822.05	2003 / Jun / 30			flat	spruce	sand	dry	20	
PN0272	460232.73	5678800.46	2003 / Jun / 30			flat	spruce	sand	dry	20	
PN0273	460241.93	5678779.51	2003 / Jun / 30			flat	spruce	sand	dry	20	
PN0274	460248.92	5678763.34	2003 / Jun / 30			flat	spruce	sand	dry	20	
PN0275	460248.92	5678763.34	2003 / Jun / 30			flat	spruce	sand	dry	20	
PN0276	463420.65	5677733.26	2003 / Jun / 30			flat	mixed	sand	dry	20	
PN0277	463407.80	5677716.05	2003 / Jun / 30			flat	mixed	sand	moist	20	
PN0278	463395.29	5677693.47	2003 / Jun / 30			flat	mixed	sand	moist	20	
PN0279	463383.56	5677676.26	2003 / Jun / 30			flat	mixed	sand	dry	20	
PN0280	463371.06	5677656.66	2003 / Jun / 30			flat	mixed	sand	dry	20	
PN0281	463363.03	5677633.45	2003 / Jun / 30			flat	mixed	sand	dry	20	
PN0282	463352.79	5677614.43	2003 / Jun / 30			flat	mixed	sand	dry	20	
PN0283	463345.91	5677595.39	2003 / Jun / 30			flat	mixed	sand	dry	20	
PN0284	463337.15	5677574.57	2003 / Jun / 30			flat	mixed	sand	dry	20	
PN0285	463332.09	5677547.76	2003 / Jun / 30			flat	mixed	sand	dry	20	
PN0286	463326.32	5677525.73	2003 / Jun / 30			flat	mixed	sand	dry	20	
PN0287	463322.04	5677502.49	2003 / Jun / 30			flat	mixed	sand	moist	20	
PN0288	463324.11	5677479.21	2003 / Jun / 30			flat	mixed	sand	moist	20	

Sample	UTM E	UTM N	Date sample collected	GRID E	GRID N	Slope	Vegetation	Soil	Moisture	Depth	Attributes
PN0289	463324.67	5677452.36	2003 / Jun / 30			flat	mixed	sand	moist	20	
PN0290	463316.66	5677431.53	2003 / Jun / 30			flat	mixed	sand	moist	20	
PN0291	463303.04	5677412.54	2003 / Jun / 30			flat	mixed	sand	dry	20	
PN0292	463284.56	5677392.99	2003 / Jun / 30			flat	mixed	sand	dry	20	
PN0293	463263.53	5677384.78	2003 / Jun / 30			flat	mixed	sand	dry	20	
PN0294	463241.00	5677376.00	2003 / Jun / 30			flat	mixed	sand	dry	20	
PN0295	463216.22	5677365.44	2003 / Jun / 30			flat	mixed	sand	dry	20	
PN0296	463216.22	5677365.44	2003 / Jun / 30			flat	mixed	sand	dry	20	
PN0297	463197.06	5677357.22	2003 / Jun / 30			flat	mixed	sand	moist	20	
PN0298	463179.03	5677348.40	2003 / Jun / 30			flat	mixed	sand	dry	20	
PN0299	463154.99	5677337.84	2003 / Jun / 30			flat	-	sand	dry	20	woodlot
PN0300	463133.95	5677328.44	2003 / Jun / 30			flat	-	sand	dry	20	woodlot
PN0301	463112.89	5677315.47	2003 / Jun / 30			flat	-	sand	dry	20	woodlot
PN0302	463091.09	5677303.10	2003 / Jun / 30			flat	-	sand	dry	20	woodlot
PN0303	463071.89	5677289.51	2003 / Jun / 30			flat	-	sand	wet	20	woodlot
PN0304	463053.45	5677275.92	2003 / Jun / 30			flat	-	sand	dry	20	woodlot
PN0305	463032.77	5677263.55	2003 / Jun / 30			flat	-	sand	moist	20	woodlot
PN0306	463021.76	5677243.34	2003 / Jun / 30			flat	swamp	sand	moist	20	
PN0307	463010.75	5677222.54	2003 / Jun / 30			flat	swamp	sand	wet	20	
PN0308	462999.74	5677200.55	2003 / Jun / 30			flat	swamp	sand	wet	20	
PN0309	462989.84	5677178.54	2003 / Jun / 30			flat	swamp	sand	wet	20	
PN0310	462973.62	5677161.36	2003 / Jun / 30			flat	swamp	sand	wet	20	
PN0311	462954.03	5677145.99	2003 / Jun / 30			flat	swamp	organic	dry	20	
PN0312	462933.36	5677134.21	2003 / Jun / 30			flat	swamp	sand	moist	20	claimline
PN0313	462913.77	5677118.24	2003 / Jun / 30			flat	swamp	sand	dry	20	
PN0314	462893.06	5677101.69	2003 / Jun / 30			flat	spruce	sand	dry	20	
PN0315	462878.33	5677084.49	2003 / Jun / 30			flat	spruce	sand	moist	20	
PN0316											blank
PN0317	462863.22	5677066.70	2003 / Jun / 30			flat	mixed	sand	dry	20	woodlot
PN0318	462863.22	5677066.70	2003 / Jun / 30			flat	mixed	sand	dry	20	woodlot
PN0319	462852.22	5677047.09	2003 / Jun / 30			flat	mixed	sand	dry	20	woodlot
PN0320	462837.11	5677028.71	2003 / Jun / 30			flat	spruce	sand	dry	20	woodlot
PN0321	462823.87	5677009.72	2003 / Jun / 30			flat	spruce	sand	dry	20	woodlot
PN0322	462806.50	5676990.75	2003 / Jun / 30			flat	-	sand	dry	20	woodlot
PN0323	462789.54	5676975.36	2003 / Jun / 30			flat	-	sand	dry	20	woodlot
PN0324	462769.96	5676959.99	2003 / Jun / 30			flat	-	sand	dry	20	woodlot
PN0325	462750.01	5676945.82	2003 / Jun / 30			flat	-	sand	dry	20	woodlot
PN0326	462726.36	5676937.04	2003 / Jun / 30			flat	-	sand	dry	20	woodlot
PN0327	462703.84	5676930.64	2003 / Jun / 30			flat	-	sand	dry	20	woodlot
PN0328	462681.69	5676921.86	2003 / Jun / 30			flat	-	sand	dry	20	woodlot
PN0329	462659.54	5676914.26	2003 / Jun / 30			flat	mixed	sand	dry	20	woodlot
PN0330	462637.02	5676907.27	2003 / Jun / 30			flat	mixed	sand	dry	20	woodlot
PN0331	462612.63	5676900.88	2003 / Jun / 30			flat	mixed	sand	dry	20	
PN0332	462590.49	5676894.48	2003 / Jun / 30			flat	mixed	sand	dry	20	
PN0333	462567.22	5676886.90	2003 / Jun / 30			flat	mixed	sand	dry	20	
PN0334	462541.40	5676889.47	2003 / Jun / 30			gentle	spruce	sand	dry	20	
PN0335	462517.03	5676884.88	2003 / Jun / 30			gentle	spruce	sand	dry	20	
PN0336	462491.17	5676882.08	2003 / Jun / 30			gentle	spruce	sand	dry	20	
PN0337	462466.09	5676882.86	2003 / Jun / 30			gentle	spruce	sand	dry	20	
PN0338	462441.37	5676881.85	2003 / Jun / 30			gentle	spruce	sand	dry	20	
PN0339	462441.37	5676881.85	2003 / Jun / 30			gentle	spruce	sand	dry	20	
PN0340	462419.27	5676881.42	2003 / Jun / 30			gentle	spruce	sand	dry	20	
PN0341	462394.95	5676883.38	2003 / Jun / 30			gentle	spruce	sand	dry	20	
PN0342	462369.50	5676885.36	2003 / Jun / 30			gentle	spruce	sand	dry	20	
PN0343	462344.06	5676889.13	2003 / Jun / 30			gentle	spruce	sand	dry	20	
PN0344	462321.27	5676895.86	2003 / Jun / 30			gentle	spruce	sand	dry	20	
PN0345	462296.59	5676900.21	2003 / Jun / 30			gentle	spruce	sand	dry	20	
PN0346	462272.28	5676903.97	2003 / Jun / 30			gentle	spruce	sand	dry	20	
PN0347	462245.35	5676908.35	2003 / Jun / 30			gentle	spruce	sand	dry	20	
PN0348	462221.43	5676915.09	2003 / Jun / 30			flat	spruce	sand	dry	20	
PN0349	462196.40	5676922.43	2003 / Jun / 30			gentle	spruce	sand	moist	20	2km marker
PN0350	462168.73	5676927.41	2003 / Jun / 30			flat	spruce	sand	dry	20	
PN0351	462150.79	5676932.31	2003 / Jun / 30			gentle	spruce	sand	dry	20	
PN0352	462123.89	5676940.86	2003 / Jun / 30			gentle	spruce	sand	dry	20	
PN0353	462100.32	5676943.42	2003 / Jun / 30			gentle	spruce	sand	moist	20	
PN0354	462070.78	5676948.41	2003 / Jun / 30			gentle	spruce	sand	moist	20	
PN0355	462045.72	5676953.37	2003 / Jun / 30			gentle	spruce	sand	moist	20	
PN0356	462019.95	5676961.32	2003 / Jun / 30			gentle	spruce	sand	moist	20	
PN0357	461997.53	5676968.05	2003 / Jun / 30			gentle	spruce	sand	moist	20	
PN0358	461975.13	5676977.16	2003 / Jun / 30			flat	spruce	sand	dry	20	
PN0359	461952.35	5676985.68	2003 / Jun / 30			flat	spruce	sand	moist	20	
PN0360	461952.35	5676985.68	2003 / Jun / 30			flat	spruce	sand	moist	20	

Sample	UTM E	UTM N	Date sample collected	GRID E	GRID N	Slope	Vegetation	Soil	Moisture	Depth	Attributes
PN0361	461927.34	5676996.01	2003 / Jun / 30			flat	spruce	sand	moist	20	
PN0362	461905.31	5677004.53	2003 / Jun / 30			flat	spruce	sand	moist	20	
PN0363	461882.92	5677014.24	2003 / Jun / 30			flat	spruce	sand	moist	20	
PN0364	461858.65	5677023.37	2003 / Jun / 30			flat	spruce	sand	moist	20	
PN0365	461835.48	5677030.10	2003 / Jun / 30			flat	spruce	sand	moist	20	
PN0366	461810.46	5677039.24	2003 / Jun / 30			flat	spruce	sand	moist	20	
PN0367	461787.32	5677048.96	2003 / Jun / 30			flat	spruce	sand	moist	20	
PN0368	461765.29	5677057.47	2003 / Jun / 30			flat	spruce	sand	moist	20	
PN0369	461741.75	5677064.21	2003 / Jun / 30			flat	spruce	sand	moist	20	
PN0370											blank
PN0371	461718.94	5677068.56	2003 / Jun / 30			flat	spruce	sand	moist	20	
PN0372	461692.03	5677075.32	2003 / Jun / 30			flat	spruce	sand	dry	20	
PN0373	461668.47	5677079.08	2003 / Jun / 30			gentle	mixed	sand	moist	20	
PN0374	461644.90	5677082.24	2003 / Jun / 30			gentle	mixed	sand	moist	20	
PN0375	461618.74	5677089.00	2003 / Jun / 30			flat	mixed	sand	moist	20	
PN0376	461592.94	5677093.37	2003 / Jun / 30			gentle	mixed	sand	moist	20	
PN0377	461564.87	5677095.37	2003 / Jun / 30			flat	mixed	sand	moist	20	
PN0378	461540.16	5677096.15	2003 / Jun / 30			flat	mixed	sand	moist	20	
PN0379	461517.72	5677099.90	2003 / Jun / 30			flat	spruce	sand	dry	20	
PN0380	461520.11	5677068.26	2003 / Jun / 30			flat	spruce	sand	moist	20	
PN0381	461525.14	5677040.78	2003 / Jun / 30			gentle	spruce	sand	moist	20	
PN0382	461525.14	5677040.78	2003 / Jun / 30			gentle	spruce	sand	moist	20	
PN0383	461458.68	5676717.33	2003 / Jul / 01			gentle	spruce	sand	dry	20	
PN0384	461479.03	5676733.88	2003 / Jul / 01			gentle	spruce	sand	dry	20	
PN0385	461494.15	5676753.45	2003 / Jul / 01			gentle	spruce	sand	dry	20	
PN0386	461511.14	5676771.82	2003 / Jul / 01			gentle	spruce	sand	dry	20	
PN0387	461530.00	5676789.57	2003 / Jul / 01			steep	spruce	sand	dry	20	
PN0388	461538.01	5676808.61	2003 / Jul / 01			steep	spruce	sand	dry	20	
PN0389	461530.29	5676827.75	2003 / Jul / 01			gentle	spruce	sand	dry	20	
PN0390	461516.63	5676854.11	2003 / Jul / 01			gentle	spruce	sand	dry	20	
PN0391	461514.16	5676875.01	2003 / Jul / 01			gentle	spruce	sand	dry	20	
PN0392	461513.58	5676897.08	2003 / Jul / 01			gentle	spruce	sand	dry	20	
PN0393	461518.33	5676930.46	2003 / Jul / 01			gentle	spruce	sand	dry	20	
PN0394	461518.51	5676955.51	2003 / Jul / 01			gentle	spruce	sand	dry	20	
PN0395	461523.20	5676981.73	2003 / Jul / 01			gentle	spruce	sand	dry	20	
PN0396	461524.54	5677010.36	2003 / Jul / 01			flat	spruce	sand	dry	20	
PN0397	461428.97	5676699.65	2003 / Jul / 01			flat	spruce	sand	dry	20	
PN0398	461397.72	5676677.81	2003 / Jul / 01			flat	spruce	sand	dry	20	
PN0399	461365.36	5676656.58	2003 / Jul / 01			flat	spruce	sand	dry	20	
PN0400	461335.25	5676637.12	2003 / Jul / 01			flat	spruce	sand	dry	20	
PN0401	461331.22	5676598.97	2003 / Jul / 01			flat	spruce	sand	dry	20	
PN0402	461340.75	5676572.05	2003 / Jul / 01			flat	spruce	sand	dry	20	
PN0403	461340.75	5676572.05	2003 / Jul / 01			flat	spruce	sand	dry	20	
PN0404	461349.54	5676545.73	2003 / Jul / 01			flat	spruce	-	-	20	
PN0405	461359.10	5676521.80	2003 / Jul / 01			flat	spruce	sand	dry	20	
PN0406	461376.91	5676499.59	2003 / Jul / 01			flat	spruce	sand	dry	20	
PN0407	461398.42	5676471.98	2003 / Jul / 01			flat	spruce	sand	dry	20	
PN0408	461413.57	5676445.62	2003 / Jul / 01			flat	spruce	sand	dry	20	
PN0409	461426.11	5676419.87	2003 / Jul / 01			flat	spruce	sand	dry	20	
PN0410	461437.90	5676393.53	2003 / Jul / 01			flat	spruce	sand	dry	20	
PN0411	461447.47	5676371.98	2003 / Jul / 01			flat	spruce	sand	dry	20	
PN0412	461457.39	5676346.85	2003 / Jul / 01			flat	spruce	sand	dry	20	
PN0413	461465.08	5676322.93	2003 / Jul / 01			flat	spruce	sand	dry	20	
PN0414	461470.47	5676292.46	2003 / Jul / 01			flat	spruce	sand	dry	20	
PN0415	461476.67	5676270.94	2003 / Jul / 01			flat	spruce	sand	dry	20	
PN0416	461482.77	5676235.69	2003 / Jul / 01			flat	spruce	sand	dry	20	
PN0417	461488.92	5676206.41	2003 / Jul / 01			flat	spruce	sand	dry	20	
PN0418	461495.06	5676176.54	2003 / Jul / 01			flat	spruce	sand	dry	20	
PN0419	461508.33	5676147.80	2003 / Jul / 01			flat	spruce	sand	dry	20	
PN0420	461519.37	5676122.07	2003 / Jul / 01			flat	spruce	sand	dry	20	
PN0421	461528.18	5676097.54	2003 / Jul / 01			flat	spruce	sand	dry	20	
PN0422	461535.85	5676072.43	2003 / Jul / 01			flat	spruce	sand	dry	20	
PN0423	461542.38	5676044.34	2003 / Jul / 01			flat	spruce	sand	dry	20	
PN0424	461542.38	5676044.34	2003 / Jul / 01			flat	spruce	sand	dry	20	
PN0425	461546.69	5676019.84	2003 / Jul / 01			flat	spruce	sand	dry	20	
PN0426	461551.02	5675997.74	2003 / Jul / 01			flat	spruce	sand	dry	20	
PN0427	461551.96	5675972.67	2003 / Jul / 01			flat	spruce	sand	dry	20	
PN0428	461549.49	5675943.46	2003 / Jul / 01			flat	spruce	sand	dry	20	
PN0429	461547.44	5675920.21	2003 / Jul / 01			flat	spruce	sand	dry	20	
PN0430	461545.75	5675894.57	2003 / Jul / 01			flat	spruce	sand	dry	20	
PN0431	461545.56	5675868.91	2003 / Jul / 01			flat	spruce	sand	dry	20	
PN0432	461548.38	5675845.63	2003 / Jul / 01			flat	spruce	sand	dry	20	

Sample	UTM E	UTM N	Date sample collected	GRID E	GRID N	Slope	Vegetation	Soil	Moisture	Depth	Attributes
PN0433	461553.06	5675819.34	2003 / Jul / 01			flat	spruce	sand	dry	20	
PN0434											blank
PN0435	461559.64	5675797.81	2003 / Jul / 01			flat	spruce	sand	dry	20	
PN0436	461566.55	5675771.51	2003 / Jul / 01			flat	spruce	sand	dry	20	
PN0437	461570.84	5675744.04	2003 / Jul / 01			flat	spruce	sand	dry	20	
PN0438	461571.04	5675720.17	2003 / Jul / 01			flat	spruce	sand	dry	20	
PN0439	461571.21	5675692.73	2003 / Jul / 01			flat	spruce	sand	dry	20	
PN0440	461566.53	5675667.71	2003 / Jul / 01			flat	spruce	sand	dry	20	
PN0441	461562.61	5675644.47	2003 / Jul / 01			flat	spruce	sand	dry	20	
PN0442	461551.18	5675618.90	2003 / Jul / 01			flat	spruce	sand	dry	20	
PN0443	461533.73	5675589.80	2003 / Jul / 01			flat	spruce	sand	dry	20	
PN0444	461518.50	5675556.50	2003 / Jul / 01			flat	spruce	sand	dry	20	
PN0445	461506.68	5675529.15	2003 / Jul / 01			flat	spruce	sand	dry	20	
PN0446	461506.68	5675529.15	2003 / Jul / 01			flat	spruce	sand	dry	20	
PN0447	461516.95	5675499.24	2003 / Jul / 01			flat	spruce	sand	dry	20	
PN0448	461526.45	5675468.15	2003 / Jul / 01			flat	spruce	sand	dry	20	
PN0449	461546.40	5675431.61	2003 / Jul / 01			flat	spruce	sand	dry	20	
PN0450	461563.43	5675405.23	2003 / Jul / 01			flat	spruce	sand	dry	20	
PN0451	461579.30	5675373.49	2003 / Jul / 01			flat	spruce	sand	dry	20	woodlot
PN0452	461589.61	5675349.55	2003 / Jul / 01			flat	spruce	sand	dry	20	
PN0453	461599.17	5675325.61	2003 / Jul / 01			flat	spruce	sand	dry	20	
PN0454	461607.96	5675298.10	2003 / Jul / 01			flat	spruce	sand	dry	20	
PN0455	461615.64	5675273.59	2003 / Jul / 01			flat	spruce	sand	dry	20	
PN0456	461622.20	5675249.67	2003 / Jul / 01			flat	spruce	sand	dry	20	
PN0457	461628.36	5675222.18	2003 / Jul / 01			flat	spruce	sand	dry	20	
PN0458	461632.68	5675198.29	2003 / Jul / 01			flat	spruce	sand	dry	20	
PN0459	461637.73	5675172.00	2003 / Jul / 01			flat	spruce	sand	dry	20	
PN0460	461646.16	5675147.48	2003 / Jul / 01			flat	spruce	sand	dry	20	
PN0461	461653.11	5675124.76	2003 / Jul / 01			flat	spruce	sand	dry	20	
PN0462	461656.29	5675100.27	2003 / Jul / 01			flat	spruce	sand	dry	20	
PN0463	461657.19	5675069.84	2003 / Jul / 01			flat	spruce	sand	dry	20	
PN0464	461657.02	5675047.17	2003 / Jul / 01			flat	spruce	sand	dry	20	
PN0465	461658.34	5675023.30	2003 / Jul / 01			flat	spruce	sand	dry	20	
PN0466	461658.90	5674998.23	2003 / Jul / 01			flat	spruce	sand	dry	20	
PN0467	461658.90	5674998.23	2003 / Jul / 01			flat	spruce	sand	dry	20	
PN0468	461665.46	5674973.13	2003 / Jul / 01			flat	spruce	sand	dry	20	
PN0469	461673.89	5674949.20	2003 / Jul / 01			flat	spruce	sand	dry	20	
PN0470	461687.20	5674924.64	2003 / Jul / 01			flat	spruce	sand	dry	20	
PN0471	461700.88	5674900.68	2003 / Jul / 01			flat	spruce	sand	dry	20	
PN0472	461710.03	5674871.97	2003 / Jul / 01			flat	spruce	sand	dry	20	
PN0473	461715.07	5674845.09	2003 / Jul / 01			flat	spruce	-	-	20	
PN0474	461713.40	5674821.24	2003 / Jul / 01			flat	spruce	sand	dry	20	
PN0475	461712.46	5674796.19	2003 / Jul / 01			flat	spruce	sand	dry	20	
PN0476	461718.65	5674772.87	2003 / Jul / 01			flat	spruce	sand	dry	20	
PN0477	461729.72	5674750.12	2003 / Jul / 01			flat	spruce	sand	dry	20	
PN0478	461741.52	5674724.98	2003 / Jul / 01			flat	spruce	sand	dry	20	
PN0479	461754.05	5674696.84	2003 / Jul / 01			flat	spruce	sand	dry	20	
PN0480	461762.46	5674669.34	2003 / Jul / 01			flat	spruce	sand	dry	20	
PN0481	461768.31	5674649.60	2003 / Jul / 01			flat	spruce	sand	dry	20	
PN0482	461777.09	5674622.10	2003 / Jul / 01			flat	spruce	sand	dry	20	
PN0483	461785.91	5674598.76	2003 / Jul / 01			flat	spruce	sand	dry	20	
PN0484	461793.21	5674572.46	2003 / Jul / 01			flat	spruce	sand	dry	20	
PN0485	461800.89	5674547.35	2003 / Jul / 01			flat	spruce	sand	dry	20	
PN0486	461810.83	5674524.60	2003 / Jul / 01			flat	spruce	sand	dry	20	
PN0487											blank
PN0488	461819.27	5674500.08	2003 / Jul / 01			flat	spruce	sand	dry	20	
PN0489	461819.27	5674500.08	2003 / Jul / 01			flat	spruce	sand	dry	20	
PN0490	461827.68	5674472.57	2003 / Jul / 01			flat	spruce	sand	dry	20	
PN0491	461832.75	5674448.67	2003 / Jul / 01			flat	spruce	sand	dry	20	
PN0492	461842.67	5674422.94	2003 / Jul / 01			flat	spruce	sand	dry	20	
PN0493	461858.61	5674399.56	2003 / Jul / 01			flat	spruce	sand	dry	20	
PN0494	461882.78	5674375.51	2003 / Jul / 01			flat	spruce	sand	dry	20	
PN0495	461907.75	5674358.03	2003 / Jul / 01			flat	spruce	sand	dry	20	
PN0496	461929.73	5674341.16	2003 / Jul / 01			flat	spruce	sand	dry	20	
PN0497	461944.96	5674323.75	2003 / Jul / 01			flat	spruce	sand	dry	20	
PN0498	461962.10	5674311.09	2003 / Jul / 01			flat	spruce	sand	dry	20	
PN0499	461984.46	5674295.41	2003 / Jul / 01			flat	spruce	sand	dry	20	
PN0500	461996.21	5680876.95	2003 / Jun / 23	3650	5000	flat	spruce	sand	moist	15	
PN0501	462006.26	5680870.31	2003 / Jun / 23	3650	4987.5	flat	spruce	sand	moist	20	
PN0502	462013.27	5680857.13	2003 / Jun / 23	3650	4975	flat	spruce	sand	moist	20	
PN0503	462020.30	5680846.34	2003 / Jun / 23	3650	4962.5	flat	spruce	sand	moist	20	
PN0504	462028.10	5680837.93	2003 / Jun / 23	3650	4950	flat	spruce	sand	moist	20	

Sample	UTM E	UTM N	Date sample collected	GRID E	GRID N	Slope	Vegetation	Soil	Moisture	Depth	Attributes
PN0505	462033.28	5680830.14	2003 / Jun / 23	3650	4937.5	flat	spruce	sand	moist	20	
PN0506	462041.02	5680814.57	2003 / Jun / 23	3650	4925	gentle	spruce	sand	moist	20	
PN0507	462049.57	5680807.35	2003 / Jun / 23	3650	4912.5	gentle	spruce	sand	dry	20	
PN0508	462057.35	5680795.95	2003 / Jun / 23	3650	4900	gentle	spruce	sand	dry	20	
PN0509	462063.63	5680785.17	2003 / Jun / 23	3650	4887.5	gentle	spruce	sand	dry	20	
PN0510	462068.79	5680774.39	2003 / Jun / 23	3650	4875	flat	spruce	organic	moist	20	
PN0511	462076.26	5680772.55	2003 / Jun / 23	3650	4862.5	flat	spruce	organic	wet	20	
PN0512	462083.99	5680755.78	2003 / Jun / 23	3650	4850	flat	spruce	organic	wet	20	
PN0513	462090.68	5680750.36	2003 / Jun / 23	3650	4837.5	flat	spruce	organic	wet	20	
PN0514	462097.35	5680740.77	2003 / Jun / 23	3650	4825	flat	spruce	organic	wet	20	
PN0515	462103.62	5680728.79	2003 / Jun / 23	3650	4812.5	flat	swamp	organic	wet	30	
PN0516	462110.28	5680718.00	2003 / Jun / 23	3650	4800	flat	swamp	organic	wet	30	
PN0517	462982.50	5681549.24	2003 / Jun / 23	4850	5000	gentle	spruce	sand	moist	20	
PN0518	462994.79	5681541.40	2003 / Jun / 23	4850	4987.5	gentle	spruce	sand	dry	15	
PN0519	462997.72	5681531.83	2003 / Jun / 23	4850	4975	gentle	spruce	sand	dry	20	
PN0520	462997.72	5681531.83	2003 / Jun / 23	4850	4975	gentle	spruce	sand	dry	20	
PN0521	463003.68	5681528.21	2003 / Jun / 23	4850	4962.5	gentle	spruce	sand	moist	20	
PN0522	463011.44	5681515.03	2003 / Jun / 23	4850	4950	flat	spruce	clay	moist	20	
PN0523	463016.61	5681506.04	2003 / Jun / 23	4850	4937.5	flat	spruce	humic	moist	20	
PN0524	463026.24	5681492.25	2003 / Jun / 23	4850	4925	flat	spruce	clay	moist	20	
PN0525	463034.79	5681485.63	2003 / Jun / 23	4850	4912.5	flat	spruce	clay	wet	20	
PN0526	462978.50	5681564.78	2003 / Jun / 23	4850	5012.5	gentle	spruce	clay	moist	20	
PN0527	462971.83	5681573.78	2003 / Jun / 23	4850	5025	gentle	spruce	sand	dry	20	
PN0528	462965.15	5681580.99	2003 / Jun / 23	4850	5037.5	gentle	spruce	sand	dry	20	
PN0529	462959.97	5681588.78	2003 / Jun / 23	4850	5050	gentle	spruce	sand	dry	20	
PN0530	462952.20	5681601.37	2003 / Jun / 23	4850	5062.5	flat	spruce	sand	moist	20	
PN0531	462945.90	5681609.76	2003 / Jun / 23	4850	5075	gentle	spruce	sand	moist	20	
PN0532	462941.83	5681615.16	2003 / Jun / 23	4850	5087.5	gentle	spruce	sand	dry	20	
PN0533	462934.44	5681628.34	2003 / Jun / 23	4850	5100	flat	spruce	humic	moist	20	
PN0534	462922.20	5681642.15	2003 / Jun / 23	4850	5112.5	flat	spruce	sand	moist	20	
PN0535	462915.17	5681653.54	2003 / Jun / 23	4850	5125	flat	spruce	sand	moist	20	
PN0536	462909.28	5681666.71	2003 / Jun / 23	4850	5137.5	flat	spruce	sand	dry	20	
PN0537	462902.23	5681674.51	2003 / Jun / 23	4850	5150	flat	spruce	organic	damp	20	
PN0538	462897.44	5681684.69	2003 / Jun / 23	4850	5162.5	flat	spruce	humic	damp	20	
PN0539	462890.80	5681697.86	2003 / Jun / 23	4850	5175	flat	spruce	humic	damp	20	
PN0540	462884.51	5681708.05	2003 / Jun / 23	4850	5187.5	flat	spruce	humic	damp	20	
PN0541	462884.51	5681708.05	2003 / Jun / 23	4850	5187.5	flat	spruce	humic	damp	20	
PN0542	462881.56	5681713.44	2003 / Jun / 23	4850	5200	flat	spruce	humic	moist	20	
PN0543	462872.28	5681723.05	2003 / Jun / 23	4850	5212.5	flat	spruce	humic	moist	20	
PN0544	462860.79	5681738.05	2003 / Jun / 23	4850	5225	flat	spruce	humic	damp	20	
PN0545	462854.12	5681747.05	2003 / Jun / 23	4850	5237.5	flat	spruce	humic	damp	20	
PN0546	462846.00	5681761.43	2003 / Jun / 23	4850	5250	flat	spruce	humic	wet	30	
PN0547	462842.31	5681769.21	2003 / Jun / 23	4850	5262.5	flat	spruce	humic	damp	30	
PN0548	462833.43	5681783.00	2003 / Jun / 23	4850	5275	flat	spruce	organic	damp	20	
PN0549	462829.00	5681790.19	2003 / Jun / 23	4850	5287.5	gentle	mixed	sand	wet	20	
PN0550	462819.72	5681800.40	2003 / Jun / 23	4850	5300	gentle	mixed	sand	moist	20	
PN0551											blank
PN0552	462811.58	5681813.58	2003 / Jun / 23	4850	5312.5	-	-	-	-	-	
PN0553	462807.50	5681818.38	2003 / Jun / 23	4850	5325	gentle	mixed	humic	dry	20	
PN0554	462801.57	5681825.59	2003 / Jun / 23	4850	5337.5	gentle	mixed	humic	dry	20	
PN0555	462795.68	5681838.75	2003 / Jun / 23	4850	5350	flat	mixed	sand	dry	15	
PN0556	462789.03	5681849.54	2003 / Jun / 23	4850	5362.5	flat	mixed	sand	moist	20	
PN0557	462777.12	5681858.58	2003 / Jun / 23	4850	5375	gentle	spruce	sand	dry	20	
PN0558	462773.09	5681870.54	2003 / Jun / 23	4850	5387.5	gentle	spruce	sand	moist	15	
PN0559	462766.45	5681882.52	2003 / Jun / 23	4850	5400	gentle	spruce	sand	dry	20	
PN0560	461996.21	5680876.95	2003 / Jun / 23	2500	5000	flat	spruce	clay	moist	20	
PN0561	462006.26	5680870.31	2003 / Jun / 23	2500	5012.5	flat	spruce	clay	moist	20	
PN0562	462013.27	5680857.13	2003 / Jun / 23	2500	5025	flat	spruce	clay	dry	20	
PN0563	462020.30	5680846.34	2003 / Jun / 23	2500	5037.5	flat	spruce	clay	dry	20	
PN0564	462028.10	5680837.93	2003 / Jun / 23	2500	5050	flat	spruce	clay	dry	20	
PN0565	462033.28	5680830.14	2003 / Jun / 23	2500	5062.5	flat	spruce	clay	dry	20	
PN0566	462041.02	5680814.57	2003 / Jun / 23	2500	5075	flat	spruce	sand	moist	20	
PN0567	462049.57	5680807.35	2003 / Jun / 23	2500	5087.5	flat	spruce	sand	moist	20	
PN0568	462057.35	5680795.95	2003 / Jun / 23	2500	5100	flat	spruce	sand	moist	20	
PN0569	462063.63	5680785.17	2003 / Jun / 23	2500	4987.5	gentle	spruce	sand	dry	20	
PN0570	462068.79	5680774.39	2003 / Jun / 23	2500	4975	flat	spruce	clay	dry	20	
PN0571	462076.26	5680772.55	2003 / Jun / 23	2500	4962.5	flat	spruce	clay	dry	20	
PN0572	462083.99	5680755.78	2003 / Jun / 23	2500	4950	flat	mixed	sand	dry	20	
PN0573	462090.68	5680750.36	2003 / Jun / 23	2500	4937.5	flat	mixed	sand	dry	20	
PN0574	462097.35	5680740.77	2003 / Jun / 23	2500	4925	flat	mixed	sand	dry	25	
PN0575	462103.62	5680728.79	2003 / Jun / 23	2500	4912.5	flat	mixed	clay	dry	20	
PN0576	462110.28	5680718.00	2003 / Jun / 23	2500	4900	gentle	mixed	sand	dry	20	

Sample	UTM E	UTM N	Date sample collected	GRID E	GRID N	Slope	Vegetation	Soil	Moisture	Depth	Attributes
PN0577	462982.50	5681549.24	2003 / Jun / 23	2500	4887.5	gentle	mixed	sand	dry	20	
PN0578	462994.79	5681541.40	2003 / Jun / 23	2500	4875	flat	mixed	humic	dry	20	
PN0579	462997.72	5681531.83	2003 / Jun / 23	2500	4862.5	flat	spruce	sand	dry	20	
PN0580	462997.72	5681531.83	2003 / Jun / 23	2500	4862.5	flat	spruce	sand	dry	20	
PN0581	463003.68	5681528.21	2003 / Jun / 23	2500	4850	gentle	mixed	sand	dry	20	
PN0582	463011.44	5681515.03	2003 / Jun / 23	2500	4837.5	gentle	mixed	sand	dry	20	
PN0583	463016.61	5681506.04	2003 / Jun / 23	2500	4825	gentle	-	sand	dry	20	
PN0584	463026.24	5681492.25	2003 / Jun / 23	2500	4812.5	gentle	spruce	sand	dry	15	
PN0585	463034.79	5681485.63	2003 / Jun / 23	2500	4800	gentle	spruce	sand	dry	20	
PN0586	462978.50	5681564.78	2003 / Jun / 23	2500	4787.5	gentle	spruce	sand	dry	20	
PN0587	462971.83	5681573.78	2003 / Jun / 23	2500	4775	gentle	spruce	sand	dry	20	
PN0588	462965.15	5681580.99	2003 / Jun / 23	2500	4762.5	gentle	spruce	sand	dry	20	
PN0589	462959.97	5681588.78	2003 / Jun / 23	2500	4750	gentle	mixed	sand	dry	20	
PN0590	462952.20	5681601.37	2003 / Jun / 23	2500	4737.5	gentle	spruce	sand	dry	20	
PN0591	462945.90	5681609.76	2003 / Jun / 23	2500	4725	gentle	spruce	humic	dry	20	
PN0592	462941.83	5681615.16	2003 / Jun / 23	2500	4712.5	flat	spruce	sand	dry	20	
PN0593	462934.44	5681628.34	2003 / Jun / 23	2500	4700	flat	spruce	sand	dry	20	
PN0594	462922.20	5681642.15	2003 / Jun / 23	2500	4687.5	flat	spruce	sand	moist	20	
PN0595	462915.17	5681653.54	2003 / Jun / 23	2500	4675	flat	spruce	clay	moist	20	
PN0596	462909.28	5681666.71	2003 / Jun / 23	2500	4662.5	flat	spruce	sand	damp	20	
PN0597	462902.23	5681674.51	2003 / Jun / 23	2500	4650	flat	spruce	organic	moist	20	
PN0598	462897.44	5681684.69	2003 / Jun / 23	2500	4637.5	flat	spruce	organic	damp	30	
PN0599	462890.80	5681697.86	2003 / Jun / 23	2500	4625	flat	spruce	organic	wet	25	
PN0600	462884.51	5681708.05	2003 / Jun / 23	2500	4612.5	flat	spruce	humic	wet	25	
PN0601	462884.51	5681708.05	2003 / Jun / 23	2500	4612.5	flat	spruce	humic	wet	25	
PN0602	462881.56	5681713.44	2003 / Jun / 23	2500	4600	flat	swamp	organic	wet	25	
PN0603											blank
PN0603b	461998.95	5674278.60	2003 / Jul / 01			flat	spruce	sand	dry	20	
PN0604	462025.02	5674257.53	2003 / Jul / 01			flat	spruce	sand	dry	20	
PN0605	462039.15	5674243.10	2003 / Jul / 01			flat	spruce	sand	dry	20	
PN0606	462057.41	5674229.84	2003 / Jul / 01			flat	spruce	sand	dry	20	
PN0607	462074.53	5674214.80	2003 / Jul / 01			flat	spruce	sand	dry	20	
PN0608	462093.49	5674194.38	2003 / Jul / 01			flat	spruce	sand	dry	20	
PN0609	462114.66	5674169.76	2003 / Jul / 01			flat	spruce	sand	dry	20	
PN0610	462127.97	5674145.80	2003 / Jul / 01			flat	spruce	sand	dry	20	
PN0611	462138.53	5674104.56	2003 / Jul / 01			flat	spruce	sand	dry	20	
PN0612	462148.05	5674074.66	2003 / Jul / 01			flat	spruce	sand	dry	20	
PN0613	462148.05	5674074.66	2003 / Jul / 01			flat	spruce	sand	dry	20	
PN0614	462160.04	5674024.46	2003 / Jul / 01			flat	spruce	sand	dry	20	
PN0615	462163.68	5674008.92	2003 / Jul / 01			flat	spruce	sand	dry	20	
PN0616	462164.62	5673985.05	2003 / Jul / 01			flat	spruce	sand	dry	20	
PN0617	462169.97	5673947.42	2003 / Jul / 01			flat	spruce	sand	dry	20	
PN0618	462177.94	5673910.97	2003 / Jul / 01			flat	spruce	sand	dry	20	
PN0619	462178.82	5673878.15	2003 / Jul / 01			flat	spruce	sand	dry	20	
PN0620	462179.33	5673844.74	2003 / Jul / 01			flat	spruce	sand	dry	20	
PN0621	462184.29	5673805.93	2003 / Jul / 01			flat	spruce	sand	dry	20	
PN0622	462181.05	5673774.33	2003 / Jul / 01			flat	spruce	sand	dry	20	
PN0623	462176.37	5673749.31	2003 / Jul / 01			flat	spruce	sand	dry	20	
PN0624	462168.67	5673720.13	2003 / Jul / 01			flat	spruce	sand	dry	20	
PN0625	462159.45	5673690.37	2003 / Jul / 01			flat	spruce	sand	dry	20	
PN0626	462150.28	5673665.38	2003 / Jul / 01			flat	spruce	sand	dry	20	
PN0627	462143.78	5673648.13	2003 / Jul / 01			flat	spruce	sand	dry	20	
PN0628	462133.46	5673620.16	2003 / Jul / 01			flat	spruce	sand	dry	20	
PN0629	462122.39	5673593.40	2003 / Jul / 01			flat	spruce	sand	dry	20	
PN0630	462118.86	5673571.35	2003 / Jul / 01			flat	spruce	sand	dry	20	
PN0631	462114.51	5673540.96	2003 / Jul / 01			flat	spruce	sand	dry	20	
PN0632	462113.24	5673521.28	2003 / Jul / 01			flat	spruce	sand	dry	20	
PN0633	462108.15	5673491.49	2003 / Jul / 01			flat	spruce	sand	dry	20	claimline
PN0634	462108.15	5673491.49	2003 / Jul / 01			flat	spruce	sand	dry	20	claimline
PN0635	462106.50	5673470.62	2003 / Jul / 01			flat	spruce	sand	dry	20	
PN0636	462095.86	5673450.41	2003 / Jul / 01			flat	spruce	sand	dry	20	
PN0637	462095.57	5673411.04	2003 / Jul / 01			flat	spruce	sand	dry	20	
PN0638	462493.11	5681243.43	2003 / Jul / 17	4275	5020	flat	swamp	clay	wet	20	
PN0639	462496.12	5681239.43	2003 / Jul / 17	4275	5015	flat	swamp	clay	wet	20	
PN0640	462498.96	5681235.31	2003 / Jul / 17	4275	5010	flat	swamp	clay	wet	30	
PN0641	462501.88	5681231.25	2003 / Jul / 17	4275	5005	flat	swamp	clay	wet	30	
PN0642	462504.89	5681227.25	2003 / Jul / 17	4275	5000	flat	swamp	organic	wet	30	
PN0643	462507.65	5681223.25	2003 / Jul / 17	4275	4995	flat	swamp	clay	wet	30	
PN0644	462510.57	5681219.19	2003 / Jul / 17	4275	4990	flat	swamp	organic	wet	30	
PN0645	462513.50	5681215.12	2003 / Jul / 17	4275	4985	flat	swamp	organic	wet	30	
PN0646	462516.51	5681210.94	2003 / Jul / 17	4275	4980	flat	swamp	organic	wet	30	
PN0647	462519.44	5681206.88	2003 / Jul / 17	4275	4975	flat	swamp	organic	wet	30	

2.29255

Sample	UTM E	UTM N	Date sample collected	GRID E	GRID N	Slope	Vegetation	Soil	Moisture	Depth	Attributes
PN0648	462522.35	5681202.99	2003 / Jul / 17	4275	4970	flat	swamp	organic	wet	30	
PN0649	462525.28	5681198.75	2003 / Jul / 17	4275	4965	flat	swamp	organic	wet	30	
PN0650	462528.12	5681194.81	2003 / Jul / 17	4275	4960	flat	swamp	organic	wet	30	
PN0651	462531.05	5681190.75	2003 / Jul / 17	4275	4955	flat	swamp	organic	wet	30	
PN0652	462533.97	5681186.69	2003 / Jul / 17	4275	4950	flat	swamp	organic	wet	30	
PN0653	462536.99	5681182.51	2003 / Jul / 17	4275	4945	flat	swamp	organic	wet	30	
PN0654	462539.91	5681178.45	2003 / Jul / 17	4275	4940	flat	swamp	organic	wet	30	
PN0655	462542.83	5681174.38	2003 / Jul / 17	4275	4935	flat	swamp	organic	wet	30	water too deep to go further
PN0656	462566.11	5681191.33	2003 / Jul / 17	4300	4930	flat	swamp	organic	wet	30	water too deep to go further
PN0657	462563.83	5681194.73	2003 / Jul / 17	4300	4935	flat	swamp	organic	wet	30	
PN0658	462561.46	5681197.99	2003 / Jul / 17	4300	4940	flat	swamp	organic	wet	30	
PN0659	462559.13	5681201.32	2003 / Jul / 17	4300	4945	flat	swamp	organic	wet	30	
PN0660	462556.84	5681204.72	2003 / Jul / 17	4300	4950	flat	swamp	organic	wet	30	
PN0661	462554.46	5681208.14	2003 / Jul / 17	4300	4955	flat	swamp	clay	wet	30	
PN0662	462554.46	5681208.14	2003 / Jul / 17	4300	4955	flat	swamp	clay	wet	30	
PN0663	462552.14	5681211.30	2003 / Jul / 17	4300	4960	flat	swamp	clay	wet	30	
PN0664	462549.83	5681214.62	2003 / Jul / 17	4300	4965	flat	swamp	clay	wet	30	
PN0665	462547.55	5681218.02	2003 / Jul / 17	4300	4970	flat	swamp	clay	wet	30	
PN0666	462545.22	5681221.35	2003 / Jul / 17	4300	4975	flat	swamp	clay	wet	30	
PN0667	462542.77	5681224.70	2003 / Jul / 17	4300	4980	flat	swamp	clay	wet	30	
PN0668	462540.57	5681228.00	2003 / Jul / 17	4300	4985	flat	swamp	clay	wet	30	
PN0669	462538.13	5681231.36	2003 / Jul / 17	4300	4990	flat	swamp	clay	wet	30	
PN0670	462535.79	5681234.68	2003 / Jul / 17	4300	4995	flat	swamp	clay	wet	30	
PN0671	460860.29	5679995.81	2003 / Jul / 26	2200	4900	flat	spruce	sand	wet	20	
PN0672	460846.56	5680011.42	2003 / Jul / 26	2200	4925	flat	spruce	sand	wet	20	
PN0673	460832.11	5680031.23	2003 / Jul / 26	2200	4950	flat	spruce	clay	dry	20	
PN0674	460819.19	5680053.99	2003 / Jul / 26	2200	4975	flat	spruce	clay	wet	20	
PN0675	460802.89	5680075.60	2003 / Jul / 26	2200	5000	flat	spruce	clay	wet	20	
PN0676	460794.07	5680095.95	2003 / Jul / 26	2200	5025	flat	spruce	sand	damp	20	
PN0677	460778.87	5680115.15	2003 / Jul / 26	2200	5050	flat	spruce	clay	dry	15	
PN0678	460763.68	5680135.56	2003 / Jul / 26	2200	5075	gentle	spruce	clay	damp	20	
PN0679	460750.36	5680155.34	2003 / Jul / 26	2200	5100	gentle	spruce	sand	damp	20	
PN0680	460740.05	5680177.50	2003 / Jul / 26	2200	5125	gentle	mixed	sand	dry	20	
PN0681	460740.05	5680177.50	2003 / Jul / 26	2200	5125	gentle	mixed	sand	dry	20	
PN0682	460723.76	5680200.29	2003 / Jul / 26	2200	5150	gentle	mixed	organic	dry	20	
PN0683	460710.47	5680223.07	2003 / Jul / 26	2200	5175	gentle	mixed	humic	dry	20	
PN0684	460703.88	5680242.80	2003 / Jul / 26	2200	5200	gentle	mixed	sand	dry	20	
PN0685	460697.73	5680269.70	2003 / Jul / 26	2200	5225	gentle	mixed	sand	dry	20	
PN0686	460684.34	5680281.14	2003 / Jul / 26	2200	5250	flat	mixed	sand	dry	20	
PN0687	460677.51	5680316.99	2003 / Jul / 26	2200	5275	flat	mixed	sand	dry	20	
PN0688	460665.31	5680336.76	2003 / Jul / 26	2200	5300	flat	mixed	humic	dry	20	
PN0689	460656.86	5680357.12	2003 / Jul / 26	2200	5325	flat	mixed	sand	dry	20	
PN0690	460643.15	5680375.72	2003 / Jul / 26	2200	5350	flat	mixed	sand	dry	20	
PN0691	460635.08	5680396.66	2003 / Jul / 26	2200	5375	flat	mixed	sand	dry	20	
PN0692	460623.67	5680420.02	2003 / Jul / 26	2200	5400	flat	mixed	sand	dry	20	
PN0693	460611.50	5680443.37	2003 / Jul / 26	2200	5425	flat	mixed	sand	dry	20	
PN0694	460600.46	5680467.33	2003 / Jul / 26	2200	5450	flat	mixed	sand	dry	20	
PN0695	460582.28	5680488.34	2003 / Jul / 26	2200	5475	flat	spruce	sand	dry	20	
PN0696	460567.88	5680512.32	2003 / Jul / 26	2200	5500	flat	spruce	sand	dry	20	
PN0697	460521.40	5680503.13	2003 / Jul / 26	2100	5500	flat	spruce	sand	dry	20	
PN0698	460540.60	5680469.58	2003 / Jul / 26	2100	5475	flat	spruce	sand	dry	20	
PN0699	460558.34	5680440.80	2003 / Jul / 26	2100	5450	flat	mixed	sand	dry	20	
PN0700											blank
PN0701	460570.57	5680425.80	2003 / Jul / 26	2100	5425	flat	spruce	sand	dry	20	
PN0702	460590.24	5680403.57	2003 / Jul / 26	2100	5400	flat	mixed	sand	dry	20	
PN0703	460608.39	5680379.57	2003 / Jul / 26	2100	5375	flat	mixed	sand	dry	20	
PN0704	460622.07	5680357.98	2003 / Jul / 26	2100	5350	flat	mixed	sand	dry	20	
PN0705	460634.64	5680337.60	2003 / Jul / 26	2100	5325	flat	mixed	sand	dry	20	
PN0706	460647.22	5680320.20	2003 / Jul / 26	2100	5300	flat	mixed	sand	dry	20	
PN0707	460666.14	5680299.17	2003 / Jul / 26	2100	5275	flat	mixed	sand	dry	20	
PN0708	460662.60	5680276.53	2003 / Jul / 26	2100	5250	flat	mixed	sand	dry	20	
PN0709	460671.03	5680254.39	2003 / Jul / 26	2100	5225	flat	mixed	sand	dry	20	
PN0710	460674.96	5680228.71	2003 / Jul / 26	2100	5200	flat	mixed	sand	dry	20	
PN0711	460690.09	5680201.74	2003 / Jul / 26	2100	5175	flat	mixed	sand	dry	20	
PN0712	460692.56	5680182.04	2003 / Jul / 26	2100	5150	gentle	mixed	sand	dry	20	
PN0713	460699.45	5680153.35	2003 / Jul / 26	2100	5125	flat	mixed	sand	dry	20	
PN0714	460699.41	5680147.98	2003 / Jul / 26	2100	5100	gentle	mixed	sand	damp	20	
PN0715	460714.82	5680108.48	2003 / Jul / 26	2100	5075	flat	mixed	sand	dry	20	
PN0716	460723.97	5680082.17	2003 / Jul / 26	2100	5050	flat	mixed	clay	damp	20	
PN0717	460731.27	5680057.05	2003 / Jul / 26	2100	5025	flat	mixed	clay	damp	20	
PN0718	460732.87	5680022.44	2003 / Jul / 26	2100	5000	flat	mixed	clay	damp	20	
PN0719	460731.95	5679999.18	2003 / Jul / 26	2100	4975	flat	mixed	clay	wet	20	

Sample	UTM E	UTM N	Date sample collected	GRID E	GRID N	Slope	Vegetation	Soil	Moisture	Depth	Attributes
PN0720	460742.69	5679985.38	2003 / Jul / 26	2100	4950	flat	mixed	organic	wet	20	
PN0721	460742.69	5679985.38	2003 / Jul / 26	2100	4950	flat	mixed	organic	wet	20	
PN0722	460763.83	5679958.96	2003 / Jul / 26	2100	4925	flat	spruce	organic	wet	20	
PN0723	460776.40	5679939.78	2003 / Jul / 26	2100	4900	flat	spruce	organic	wet	30	
PN0724	462585.79	5681165.36	2003 / Jul / 26			flat	swamp	organic	wet	40	
PN0725	462591.76	5681161.74	2003 / Jul / 26			flat	swamp	organic	wet	40	
PN0726	462591.00	5681161.15	2003 / Jul / 26			flat	swamp	organic	wet	40	
PN0727	462591.71	5681155.77	2003 / Jul / 26			flat	swamp	organic	wet	40	
PN0728	462584.58	5681153.44	2003 / Jul / 26			flat	swamp	organic	wet	40	
PN0729	462581.19	5681148.69	2003 / Jul / 26			flat	swamp	organic	wet	40	
PN0730	462577.80	5681147.52	2003 / Jul / 26			flat	swamp	organic	wet	35	
PN0731	462575.54	5681143.95	2003 / Jul / 26			flat	swamp	organic	wet	40	
PN0732	462569.16	5681142.21	2003 / Jul / 26			flat	mixed	organic	wet	40	
PN0733	462573.99	5681137.41	2003 / Jul / 26			flat	swamp	organic	wet	40	
PN0734	462575.12	5681137.40	2003 / Jul / 26			-	-	organic	wet	40	
PN0735	462575.45	5681132.63	2003 / Jul / 26			flat	swamp	organic	wet	40	
PN0736	462576.59	5681134.41	2003 / Jul / 26			flat	swamp	organic	wet	40	
PN0737	462579.17	5681130.21	2003 / Jul / 26			flat	swamp	organic	wet	40	
PN0738	462580.87	5681129.01	2003 / Jul / 26			flat	swamp	organic	wet	40	
PN0739	462581.39	5681126.62	2003 / Jul / 26			flat	swamp	organic	wet	40	
PN0740	462582.48	5681121.84	2003 / Jul / 26			flat	swamp	clay	wet	40	
PN0741	462582.48	5681121.84	2003 / Jul / 26			flat	swamp	clay	wet	40	
PN0742	462585.83	5681118.83	2003 / Jul / 26			flat	swamp	clay	wet	40	
PN0743	462588.44	5681117.61	2003 / Jul / 26			flat	swamp	sand	wet	40	
PN0744	462592.52	5681112.81	2003 / Jul / 26			flat	swamp	sand	wet	40	
PN0745	462598.11	5681109.79	2003 / Jul / 26			flat	swamp	sand	wet	40	
PN0746	462602.97	5681109.15	2003 / Jul / 26			flat	swamp	clay	wet	40	
PN0747	462603.30	5681103.78	2003 / Jul / 26			flat	swamp	organic	wet	40	
PN0748	462607.75	5681097.78	2003 / Jul / 26			flat	swamp	clay	wet	40	
PN0749	462606.95	5681091.83	2003 / Jul / 26			flat	swamp	humic	damp	40	
PN0750											blank
PN0751	462610.24	5681080.47	2003 / Jul / 26			flat	swamp	organic	wet	40	
PN0752	462609.87	5681080.47	2003 / Jul / 26			flat	swamp	organic	wet	40	
PN0753	462617.28	5681070.27	2003 / Jul / 26			flat	spruce	clay	damp	40	
PN0754	462616.53	5681070.28	2003 / Jul / 26			flat	spruce	organic	wet	40	
PN0755	462619.12	5681065.49	2003 / Jul / 26			flat	spruce	clay	wet	40	
PN0756	462607.01	5681048.27	2003 / Jul / 26			flat	spruce	clay	moist	40	
PN0757	462605.92	5681051.86	2003 / Jul / 26			flat	spruce	clay	damp	40	
PN0758	462599.96	5681055.48	2003 / Jul / 26			flat	spruce	clay	damp	40	
PN0759	462593.22	5681055.53	2003 / Jul / 26			flat	spruce	clay	damp	40	
PN0760	462579.82	5681065.77	2003 / Jul / 26			flat	spruce	clay	moist	40	
PN0761	462579.82	5681065.77	2003 / Jul / 26			flat	spruce	clay	moist	40	
PN0762	462581.78	5681076.50	2003 / Jul / 26			flat	spruce	clay	damp	40	
PN0763	462575.49	5681086.09	2003 / Jul / 26			flat	spruce	clay	moist	40	
PN0764	462569.57	5681096.27	2003 / Jul / 26			flat	spruce	clay	moist	40	
PN0765	462564.75	5681102.27	2003 / Jul / 26			flat	spruce	clay	damp	40	
PN0766	462561.82	5681110.65	2003 / Jul / 26			flat	spruce	clay	wet	40	
PN0767	462558.10	5681113.66	2003 / Jul / 26			flat	spruce	clay	wet	40	
PN0768	462552.90	5681119.07	2003 / Jul / 26			flat	spruce	clay	wet	40	
PN0769	462552.22	5681127.43	2003 / Jul / 26			flat	spruce	organic	wet	40	
PN0770	462543.60	5681126.30	2003 / Jul / 26			flat	swamp	organic	wet	40	
PN0771	462541.04	5681133.48	2003 / Jul / 26			flat	swamp	organic	wet	40	
PN0772	462618.23	5681046.40	2003 / Jul / 26			flat	spruce	clay	damp	20	
PN0773	462613.69	5681039.88	2003 / Jul / 26			flat	spruce	clay	moist	20	
PN0774	462610.30	5681036.92	2003 / Jul / 26			flat	spruce	clay	moist	20	
PN0775	462613.27	5681034.51	2003 / Jul / 26			flat	spruce	clay	dry	20	
PN0776	462613.97	5681027.34	2003 / Jul / 26			flat	spruce	sand	moist	20	
PN0777	462617.31	5681023.14	2003 / Jul / 26			flat	spruce	sand	moist	20	
PN0778	462620.27	5681019.54	2003 / Jul / 26			flat	spruce	sand	moist	20	
PN0779	462623.98	5681014.74	2003 / Jul / 26			flat	spruce	sand	moist	20	
PN0780	462628.07	5681011.13	2003 / Jul / 26			flat	spruce	sand	damp	30	
PN0781	462628.07	5681011.13	2003 / Jul / 26			flat	spruce	sand	damp	30	
PN0782	462629.16	5681006.35	2003 / Jul / 26			flat	spruce	sand	wet	20	
PN0783	462633.62	5681003.33	2003 / Jul / 26			flat	spruce	humic	wet	35	
PN0784	462637.32	5680997.94	2003 / Jul / 26			flat	swamp	humic	wet	45	
PN0785	462640.28	5680991.95	2003 / Jul / 26			flat	swamp	organic	wet	30	
PN0786	462638.98	5681020.00	2003 / Jul / 26			flat	swamp	organic	wet	45	
PN0787	462635.27	5681024.20	2003 / Jul / 26			flat	swamp	organic	wet	30	
PN0788	462630.44	5681027.82	2003 / Jul / 26			flat	swamp	humic	damp	30	
PN0789	462631.22	5681033.18	2003 / Jul / 26			flat	spruce	organic	wet	35	spruce, swamp
PN0790	462630.88	5681037.96	2003 / Jul / 26			flat	spruce	organic	wet	40	spruce, swamp
PN0791	462628.67	5681041.56	2003 / Jul / 26			flat	spruce	organic	wet	40	spruce, swamp

MMI Sample Descriptions and Locations

APPENDIX 1

Sample	UTM E	UTM N	Date sample collected	GRID E	GRID N	Slope	Vegetation	Soil	Moisture	Depth	Attributes
PN0792	462623.08	5681045.77	2003 / Jul / 26			flat	spruce	humic	wet	30	spruce, swamp
PN0793	462621.28	5681054.13	2003 / Jul / 26			flat	spruce	organic	wet	45	spruce, swamp
PN0794	462618.31	5681058.33	2003 / Jul / 26			flat	spruce	clay	wet	30	spruce, swamp
PN0795	462616.10	5681062.52	2003 / Jul / 26			flat	spruce	organic	wet	30	spruce, swamp
PN0796	462611.27	5681066.74	2003 / Jul / 26			flat	spruce	clay	wet	30	spruce, swamp
PN1001	461021.58	5680094.81	2003 / Jul / 26	2400	4900	gentle	mixed	sand	dry	15	
PN1002	460995.58	5680119.47	2003 / Jul / 26	2400	4925	flat	mixed	sand	dry	15	
PN1003	460993.50	5680140.96	2003 / Jul / 26	2400	4950	flat	spruce	organic	damp	15	
PN1004	460981.31	5680163.13	2003 / Jul / 26	2400	4975	flat	spruce	organic	damp	15	
PN1005	460968.36	5680181.13	2003 / Jul / 26	2400	5000	flat	spruce	organic	damp	20	
PN1006	460953.55	5680203.90	2003 / Jul / 26	2400	5025	flat	spruce	organic	damp	20	
PN1007	460942.13	5680226.07	2003 / Jul / 26	2400	5050	flat	spruce	organic	damp	20	
PN1008	460924.67	5680242.90	2003 / Jul / 26	2400	5075	flat	spruce	organic	damp	20	
PN1009	460909.05	5680256.75	2003 / Jul / 26	2400	5100	flat	spruce	sand	damp	20	
PN1010	460900.27	5680282.47	2003 / Jul / 26	2400	5125	flat	spruce	sand	damp	20	
PN1011	460886.99	5680307.62	2003 / Jul / 26	2400	5150	flat	mixed	sand	damp	20	clear cut
PN1012	460873.30	5680327.42	2003 / Jul / 26	2400	5175	flat	mixed	sand	dry	20	clear cut
PN1013	460856.25	5680349.02	2003 / Jul / 26	2400	5200	flat	spruce	sand	dry	20	
PN1014	460847.03	5680367.00	2003 / Jul / 26	2400	5225	flat	spruce	sand	dry	20	
PN1015	460832.25	5680391.56	2003 / Jul / 26	2400	5250	flat	spruce	sand	dry	20	
PN1016	460820.42	5680409.56	2003 / Jul / 26	2400	5275	flat	mixed	sand	dry	20	
PN1017	460800.37	5680430.60	2003 / Jul / 26	2400	5300	flat	mixed	sand	dry	20	
PN1018	460792.31	5680452.73	2003 / Jul / 26	2400	5325	flat	mixed	sand	dry	20	
PN1019	460775.19	5680465.39	2003 / Jul / 26	2400	5350	flat	spruce	sand	dry	20	
PN1020	460764.51	5680487.54	2003 / Jul / 26	2400	5375	flat	spruce	sand	dry	20	
PN1021	460764.51	5680487.54	2003 / Jul / 26	2400	5375	flat	spruce	sand	dry	20	
PN1022	460750.87	5680513.90	2003 / Jul / 26	2400	5400	flat	spruce	sand	dry	20	
PN1023	460731.92	5680532.53	2003 / Jul / 26	2400	5425	flat	mixed	sand	dry	20	
PN1024	460723.12	5680555.28	2003 / Jul / 26	2400	5450	flat	spruce	sand	dry	20	
PN1025	460709.07	5680577.45	2003 / Jul / 26	2400	5475	flat	mixed	sand	dry	20	
PN1026	460696.11	5680596.05	2003 / Jul / 26	2400	5500	flat	mixed	sand	dry	20	road
PN1027	460618.10	5680523.87	2003 / Jul / 26	2300	5500	flat	mixed	sand	dry	20	
PN1028	460631.05	5680504.08	2003 / Jul / 26	2300	5475	flat	mixed	humic	dry	20	clear cut
PN1029	460640.61	5680483.72	2003 / Jul / 26	2300	5450	flat	mixed	sand	dry	20	clear cut
PN1030	460660.60	5680455.53	2003 / Jul / 26	2300	5425	flat	mixed	sand	dry	20	clear cut
PN1031	460673.53	5680432.15	2003 / Jul / 26	2300	5400	flat	mixed	sand	dry	20	clear cut
PN1032	460688.32	5680409.38	2003 / Jul / 26	2300	5375	flat	mixed	sand	dry	20	clear cut
PN1033	460703.87	5680388.37	2003 / Jul / 26	2300	5350	flat	mixed	sand	dry	20	clear cut
PN1034	460720.19	5680369.16	2003 / Jul / 26	2300	5325	flat	mixed	sand	dry	20	clear cut
PN1035	460735.78	5680352.33	2003 / Jul / 26	2300	5300	flat	mixed	sand	dry	20	clear cut
PN1036	460749.83	5680330.75	2003 / Jul / 26	2300	5275	flat	mixed	sand	dry	20	clear cut
PN1037	460762.04	5680312.16	2003 / Jul / 26	2300	5250	flat	mixed	sand	dry	20	clear cut
PN1038	460774.25	5680294.17	2003 / Jul / 26	2300	5225	flat	mixed	sand	dry	20	clear cut
PN1039	460789.04	5680270.79	2003 / Jul / 26	2300	5200	flat	mixed	sand	dry	20	clear cut
PN1040	460803.49	5680251.59	2003 / Jul / 26	2300	5175	flat	mixed	sand	dry	20	clear cut
PN1041	460803.49	5680251.59	2003 / Jul / 26	2300	5175	flat	mixed	sand	dry	20	clear cut
PN1042	460817.54	5680229.41	2003 / Jul / 26	2300	5150	flat	mixed	sand	dry	20	clear cut
PN1043	460830.13	5680212.01	2003 / Jul / 26	2300	5125	flat	mixed	sand	dry	20	clear cut
PN1044	460845.70	5680193.40	2003 / Jul / 26	2300	5100	flat	mixed	sand	dry	20	clear cut
PN1045	460860.13	5680171.81	2003 / Jul / 26	2300	5075	flat	mixed	sand	damp	20	clear cut
PN1046	460874.19	5680150.22	2003 / Jul / 26	2300	5050	flat	mixed	sand	dry	20	clear cut
PN1047	460878.98	5680141.24	2003 / Jul / 26	2300	5025	flat	mixed	organic	damp	20	clear cut
PN1048	460887.49	5680129.24	2003 / Jul / 26	2300	5000	flat	mixed	humic	dry	20	clear cut
PN1049	460895.55	5680105.91	2003 / Jul / 26	2300	4975	flat	mixed	sand	dry	20	
PN1050											blank
PN1051	460900.56	5680074.85	2003 / Jul / 26	2300	4950	flat	spruce	sand	dry	20	
PN1052	460907.82	5680046.76	2003 / Jul / 26	2300	4925	flat	spruce	sand	dry	20	
PN1053	460906.98	5680034.23	2003 / Jul / 26	2300	4900	flat	spruce	sand	dry	20	
PN1054	461114.86	5680156.74	2003 / Jul / 26	2500	4900	flat	mixed	sand	dry	20	
PN1055	461091.48	5680181.98	2003 / Jul / 26	2500	4925	flat	mixed	sand	dry	20	
PN1056	461081.50	5680198.16	2003 / Jul / 26	2500	4950	flat	mixed	clay	dry	20	
PN1057	461068.18	5680219.14	2003 / Jul / 26	2500	4975	flat	mixed	clay	dry	20	
PN1058	461053.75	5680240.73	2003 / Jul / 26	2500	5000	flat	mixed	humic	wet	20	
PN1059	461040.46	5680263.50	2003 / Jul / 26	2500	5025	flat	mixed	clay	moist	20	clear cut
PN1060	461024.90	5680284.50	2003 / Jul / 26	2500	5050	flat	spruce	clay	moist	20	clear cut
PN1061	461024.90	5680284.50	2003 / Jul / 26	2500	5050	flat	spruce	clay	moist	20	clear cut
PN1062	461014.55	5680301.88	2003 / Jul / 26	2500	5075	flat	spruce	clay	moist	20	
PN1063	460998.23	5680321.10	2003 / Jul / 26	2500	5100	flat	spruce	clay	moist	20	
PN1064	460985.68	5680343.26	2003 / Jul / 26	2500	5125	flat	mixed	clay	moist	20	clear cut
PN1065	460967.16	5680368.46	2003 / Jul / 26	2500	5150	flat	mixed	sand	dry	20	clear cut
PN1066	460956.83	5680387.63	2003 / Jul / 26	2500	5175	flat	mixed	clay	dry	20	clear cut
PN1067	460944.62	5680406.22	2003 / Jul / 26	2500	5200	flat	mixed	sand	dry	20	

Sample	UTM E	UTM N	Date sample collected	GRID E	GRID N	Slope	Vegetation	Soil	Moisture	Depth	Attributes
PN1068	460933.57	5680429.58	2003 / Jul / 26	2500	5225	flat	mixed	sand	dry	20	
PN1069	460927.03	5680454.08	2003 / Jul / 26	2500	5250	flat	mixed	sand	dry	20	
PN1070	460904.30	5680467.38	2003 / Jul / 26	2500	5275	flat	mixed	sand	dry	20	
PN1071	460886.84	5680483.62	2003 / Jul / 26	2500	5300	flat	mixed	sand	dry	20	
PN1072	460873.56	5680509.38	2003 / Jul / 26	2500	5325	flat	mixed	sand	dry	20	
PN1073	460861.75	5680529.15	2003 / Jul / 26	2500	5350	gentle	mixed	sand	dry	20	
PN1074	460847.67	5680548.35	2003 / Jul / 26	2500	5375	gentle	mixed	sand	dry	20	
PN1075	460830.99	5680568.77	2003 / Jul / 26	2500	5400	flat	mixed	sand	dry	20	
PN1076	460817.32	5680591.54	2003 / Jul / 26	2500	5425	flat	mixed	sand	dry	20	
PN1077	460804.75	5680611.33	2003 / Jul / 26	2500	5450	flat	mixed	sand	dry	20	
PN1078	460792.52	5680627.52	2003 / Jul / 26	2500	5475	flat	mixed	sand	dry	20	
PN1079	460775.12	5680651.53	2003 / Jul / 26	2500	5500	flat	mixed	sand	dry	20	
PN1080	460698.86	5679880.71	2003 / Jul / 26	2000	4900	flat	spruce	humic	wet	20	
PN1081	460698.86	5679880.71	2003 / Jul / 26	2000	4900	flat	spruce	humic	wet	20	
PN1082	460683.67	5679901.11	2003 / Jul / 26	2000	4925	flat	spruce	humic	wet	20	
PN1083	460670.36	5679922.69	2003 / Jul / 26	2000	4950	flat	spruce	organic	wet	20	
PN1084	460657.42	5679943.67	2003 / Jul / 26	2000	4975	gentle	mixed	sand	wet	20	clear cut
PN1085	460639.27	5679968.27	2003 / Jul / 26	2000	5000	gentle	mixed	sand	dry	20	clear cut
PN1086	460628.93	5679985.06	2003 / Jul / 26	2000	5025	gentle	mixed	sand	dry	20	clear cut
PN1087	460616.73	5680004.25	2003 / Jul / 26	2000	5050	gentle	mixed	sand	dry	20	clear cut
PN1088	460606.43	5680026.99	2003 / Jul / 26	2000	5075	gentle	mixed	sand	dry	20	clear cut
PN1089	460593.08	5680043.20	2003 / Jul / 26	2000	5100	gentle	mixed	sand	dry	20	clear cut
PN1090	460580.51	5680062.98	2003 / Jul / 26	2000	5125	gentle	mixed	sand	dry	20	clear cut
PN1091	460572.07	5680084.53	2003 / Jul / 26	2000	5150	gentle	mixed	sand	dry	20	clear cut
PN1092	460558.02	5680107.90	2003 / Jul / 26	2000	5175	flat	mixed	sand	dry	20	clear cut
PN1093	460547.64	5680119.91	2003 / Jul / 26	2000	5200	flat	mixed	sand	dry	20	clear cut
PN1094	460532.83	5680140.91	2003 / Jul / 26	2000	5225	flat	mixed	sand	dry	20	clear cut
PN1095	460516.50	5680158.93	2003 / Jul / 26	2000	5250	flat	mixed	sand	dry	20	clear cut
PN1096	460502.44	5680178.73	2003 / Jul / 26	2000	5275	gentle	mixed	sand	dry	20	clear cut
PN1097	460491.34	5680196.11	2003 / Jul / 26	2000	5300	flat	mixed	sand	dry	20	clear cut
PN1098	460479.52	5680215.90	2003 / Jul / 26	2000	5325	flat	mixed	sand	dry	20	clear cut
PN1099	460468.80	5680233.28	2003 / Jul / 26	2000	5350	flat	mixed	sand	dry	20	clear cut
PN1100											blank
PN1101	460458.46	5680250.66	2003 / Jul / 26	2000	5375	flat	mixed	sand	dry	20	clear cut
PN1102	460458.46	5680250.66	2003 / Jul / 26	2000	5375	flat	mixed	sand	dry	20	clear cut
PN1103	460446.64	5680271.04	2003 / Jul / 26	2000	5400	flat	mixed	sand	dry	20	clear cut
PN1104	460433.65	5680286.06	2003 / Jul / 26	2000	5425	flat	mixed	sand	dry	20	clear cut
PN1105	460420.70	5680304.64	2003 / Jul / 26	2000	5450	flat	mixed	sand	dry	20	clear cut
PN1106	460407.78	5680326.82	2003 / Jul / 26	2000	5475	flat	mixed	sand	dry	20	clear cut, road
PN1107	460393.72	5680346.61	2003 / Jul / 26	2000	5500	flat	mixed	sand	dry	20	road

Sample	Certificate number	Au	Co	Ni	Pd	Ag	Cu	Zn	Cd	Pb	Certificate number	Fe	As	Se	Mo	Sb	Hg
PN0001	073207	0.26	11	24	<0.1	0.62	28	2020	41	69	074463	170	186	4	10	7	12
PN0002	073207	0.19	15	22	<0.1	0.38	9	1350	40	100	074463	467	309	6	16	13	16
PN0003	073207	<0.1	13	11	<0.1	0.16	39	1350	21	37	074463	547	236	7	8	7	14
PN0004	073207	<0.1	5	11	0.11	1.28	52	103	<10	34	074463	366	80	10	3	3	12
PN0005	073207	<0.1	5	6	<0.1	0.65	21	675	18	52	074463	353	170	11	4	4	14
PN0006	073207	<0.1	3	7	<0.1	1	42	194	16	99	074463	491	120	22	3	3	22
PN0007	073207	<0.1	8	17	0.12	0.14	<5	4760	92	33							
PN0008	073207	0.11	13	18	0.11	1.48	13	471	39	302	074463	281	644	9	13	7	12
PN0009	073207	<0.1	7	9	0.19	0.32	<5	566	28	34	074463	149	193	4	11	6	9
PN0010	073207	<0.1	5	4	0.14	0.17	8	1080	28	47	074463	72.6	135	3	19	3	6
PN0011	073207	<0.1	15	22	0.21	0.76	12	2480	43	54	074463	123	141	5	13	4	6
PN0012	073207	<0.1	5	12	0.16	2.93	126	353	<10	25	074463	1150	104	16	5	2	20
PN0013	073207	<0.1	8	28	<0.1	2.02	58	1720	48	66							
PN0014	073207	<0.1	3	5	<0.1	0.82	<5	1170	29	<20	074463	92.9	66	2	7	<1	7
PN0015	073207	<0.1	6	17	0.11	0.51	24	1100	27	49	074463	300	224	18	12	3	13
PN0016	073207	<0.1	5	10	0.17	0.48	41	1330	19	44	074463	542	316	19	8	3	21
PN0017	073207	<0.1	4	9	<0.1	1.35	27	1380	31	88	074463	785	195	16	13	7	18
PN0018	073207	<0.1	9	14	<0.1	2.6	33	211	<10	35	074463	120	147	6	4	3	9
PN0019	073207	<0.1	18	12	<0.1	0.23	37	490	33	48	074463	735	232	7	15	8	11
PN0020	073207	<0.1	18	13	0.12	0.31	49	864	36	43	074463	652	647	9	11	9	13
PN0021	073207	<0.1	9	6	<0.1	0.1	42	537	24	<20							
PN0022	073207	<0.1	9	8	0.11	0.18	40	1580	20	<20	074463	1410	318	7	13	17	13
PN0023	073207	<0.1	32	43	0.17	10.8	95	521	<10	<20	074463	928	131	4	24	6	41
PN0024	073207	<0.1	18	20	0.14	3.7	100	633	15	<20	074463	1200	157	10	22	5	13
PN0025	073207	<0.1	17	21	0.11	3.38	78	212	<10	<20	074463	703	136	7	13	3	29
PN0026	073207	0.15	7	14	<0.1	2.25	45	1480	22	<20	074463	668	285	2	45	7	140
PN0027	073207	0.32	29	35	<0.1	2.93	109	1410	21	<20	074463	818	3950	7	250	72	1191
PN0028	073207	0.38	52	246	0.17	17.9	38	3380	<10	<20	074463	356	839	3	24	14	2847
PN0029	073207	<0.1	5	<3	0.1	0.29	<5	402	29	<20	074463	66.1	85	<2	27	1	157
PN0030	073207	<0.1	14	7	<0.1	0.52	28	552	13	<20	074463	171	121	9	11	2	21
PN0031	073207	0.17	30	129	0.18	4.12	<5	437	<10	<20	074463	323	114	4	20	2	696
PN0032	073207	<0.1	207	133	<0.1	0.45	<5	448	<10	<20	074463	735	405	4	23	12	145
PN0033	073207	<0.1	62	77	0.11	0.46	<5	269	<10	<20	074463	1260	166	7	26	7	27
PN0034	073207	<0.1	24	46	<0.1	0.42	<5	374	<10	<20	074463	1060	223	3	16	3	8
PN0035	073207	<0.1	7	8	0.18	0.27	<5	501	<10	<20	074463	188	113	4	7	3	15
PN0036	073207	0.11	198	372	0.16	0.88	21	448	<10	<20	074463	1400	111	9	27	1	7
PN0037	073207	<0.1	17	31	<0.1	4.14	5	1480	<10	<20	074463	131	82	4	9	3	116
PN0038	073207	<0.1	116	166	<0.1	0.16	67	609	13	<20	074463	700	274	7	7	4	16
PN0039	073207	0.31	125	137	<0.1	0.58	22	559	10	<20	074463	676	239	4	12	4	29
PN0040	073207	<0.1	8	8	<0.1	0.97	10	1360	12	<20	074463	118	215	<2	12	2	343
PN0041	073207	0.52	32	105	0.16	11.3	149	2810	19	<20	074463	869	1700	4	208	26	2991
PN0042	073207	0.22	77	102	<0.1	1.75	565	1460	12	22	074463	1070	772	4	77	84	2926
PN0043	073207	0.25	39	83	0.17	1.70	249	805	10	<20	074463	830	451	4	57	29	1213
PN0044	073207	<0.1	10	12	<0.1	5.04	47	2380	27	25	074463	370	121	5	10	4	113
PN0045	073207	<0.1	45	77	0.24	1.3	99	69	<10	<20	074463	645	23	7	7	1	13
PN0046	073207	0.22	17	93	0.11	6.89	159	2260	13	<20	074463	740	242	<2	49	19	2382
PN0047	073207	0.22	34	92	0.3	24.9	96	1590	<10	<20	074463	694	386	3	46	17	1888
PN0048	073207	0.17	57	139	0.2	29.7	103	697	<10	<20	074463	608	220	9	29	11	678
PN0049	073207	1.13	141	475	0.19	7.94	2090	5470	20	540	074463	1540	1330	7	397	91	12660
PN0050	073207	0.34	3	<3	<0.1	2.9	145	46	11	1690	074463	45.9	91	8	6	3	3
PN0051	073207	<0.1	23	84	<0.1	6.98	70	333	<10	<20	074463	559	72	4	13	4	58
PN0052	073207	<0.1	84	42	0.16	1.44	55	767	<10	<20	074463	1180	268	<2	27	6	56
PN0053	073207	0.15	9	21	<0.1	1.78	42	590	13	<20	074463	460	100	5	11	3	13
PN0054	073207	0.12	17	14	0.11	0.6	124	295	<10	<20	074463	585	131	2	10	4	60
PN0055	073207	<0.1	8	14	<0.1	0.53	83	229	<10	<20	074463	583	126	7	10	2	10
PN0056	073207	<0.1	12	16	<0.1	0.41	50	384	<10	<20	074463	1060	858	8	31	6	14
PN0057	073207	<0.1	10	11	0.11	0.27	61	356	<10	<20	074463	160	204	5	10	3	5
PN0058	073207	0.31	6	17	<0.1	0.31	33	3520	41	84	074463	171	446	3	14	5	10
PN0059	073207	0.27	18	23	<0.1	0.66	29	1570	28	25	074463	480	268	5	17	6	11
PN0060	073207	<0.1	8	13	<0.1	0.37	26	1400	15	<20	074463	309	287	5	13	5	6
PN0061	073207	<0.1	10	22	<0.1	0.43	60	266	10	<20	074463	730	35	9	10	1	7
PN0062	073207	<0.1	21	183	0.11	2.78	54	66	<10	<20	074463	765	30	10	22	<1	5
PN0063	073207	<0.1	7	8	<0.1	0.19	16	1060	21	<20	074463	687	507	10	14	4	4
PN0064	073207	<0.1	12	24	<0.1	0.66	54	1620	35	76	074463	276	370	4	9	3	7
PN0065	073207	<0.1	15	27	<0.1	0.68	35	1290	35	33	074463	317	604	3	13	5	7
PN0066	073207	<0.1	15	42	<0.1	1.69	47	147	<10	<20	074463	407	32	7	7	<1	6
PN0067	073207	<0.1	3	12	<0.1	0.54	7	2530	14	31	074463	60.6	89	4	5	2	4
PN0068	073207	<0.1	51	217	<0.1	2.49	103	111	<10	<20	074463	375	12	6	8	<1	<3
PN0069	073207	0.25	4	14	<0.1	0.7	<5	1490	45	79	074463	29	52	2	5	2	5
PN0070	073207	<0.1	4	9	<0.1	0.26	<5	735	<10	<20	074463	239	77	6	10	5	6
PN0071	073207	<0.1	5	13	0.19	0.99	29	31	<10	<20	074463	914	25	13	3	<1	7
PN0072	073207	<0.1	5	27	<0.1	0.79	28	130	<10	<20	074463	929	116	14	4	1	10
PN0073	073207	<0.1	4	5	<0.1	0.82	6	365	<10	<20	074463	119	61	3	4	<1	8
PN0074	073207	<0.1	11	15	0.22	0.43	<5	1460	36	48	074463	69	47	<2	4	1	<3
PN0075	073207	<0.1	5	15	0.11	0.2	<5	8080	115	52	074463	40.2	91	<2	7	1	4
PN0076	073207	<0.1	11	18	<0.1	0.28	5	3270	57	73	074463	156	144	<2	5	2	5
PN0077	073207	<0.1	<1	<3	<0.1	<0.1	<5	2060	<10	<20							
PN0078	073207	<0.1	<1	<3	<0.1	<0.1	<5	178	<10	<20							
PN0079	073207	<0.1	<1	<3	<0.1	1.16	<5	330	<10	<20							
PN0080	073207	<0.1	<1	<3	<0.1	0.14	<5	233	<10	<20							
PN0081	073207	<0.1	<1	<3	<0.1	<											

Sample	Certificate number	Au	Co	Ni	Pd	Ag	Cu	Zn	Cd	Pb	Certificate number	Fe	As	Se	Mo	Sb	Hg
PN0088	073207	<0.1	<1	<3	<0.1	<0.1	<5	274	<10	<20							
PN0089	073207	<0.1	<1	<3	<0.1	<0.1	<5	500	<10	<20							
PN0090	073207	<0.1	<1	<3	<0.1	<0.1	<5	291	<10	<20							
PN0091	073207	<0.1	<1	<3	<0.1	<0.1	<5	192	<10	<20							
PN0092	073207	<0.1	<1	<3	<0.1	<0.1	<5	326	<10	<20							
PN0093	073207	<0.1	<1	<3	<0.1	<0.1	<5	180	<10	<20							
PN0094	073207	<0.1	<1	4	<0.1	0.1	<5	369	<10	<20							
PN0095	073207	<0.1	<1	<3	<0.1	<0.1	<5	357	<10	<20							
PN0096	073207	<0.1	<1	<3	<0.1	<0.1	<5	203	<10	<20							
PN0097	073207	<0.1	<1	<3	<0.1	<0.1	<5	259	<10	<20							
PN0098	073207	<0.1	<1	<3	<0.1	0.13	<5	344	<10	<20							
PN0099	073207	<0.1	<1	<3	<0.1	<0.1	<5	454	<10	<20							
PN0100	073207	<0.1	<1	<3	<0.1	<0.1	<5	329	<10	<20							
PN0101	073207	<0.1	<1	<3	<0.1	<0.1	<5	542	<10	<20							
PN0102	073207	<0.1	<1	<3	<0.1	<0.1	<5	406	<10	<20							
PN0103	073207	<0.1	<1	<3	<0.1	<0.1	<5	681	11	<20							
PN0104	073207	<0.1	<1	<3	<0.1	<0.1	<5	587	14	22							
PN0105	073207	<0.1	<1	<3	<0.1	<0.1	<5	364	<10	<20							
PN0106	073207	<0.1	<1	<3	<0.1	<0.1	<5	456	13	<20							
PN0107	073207	<0.1	<1	<3	<0.1	<0.1	<5	355	<10	<20							
PN0108	073207	<0.1	<1	<3	<0.1	<0.1	<5	804	<10	<20							
PN0109	073207	<0.1	<1	<3	<0.1	<0.1	<5	477	38	<20							
PN0110	073207	<0.1	<1	<3	<0.1	<0.1	<5	438	<10	23							
PN0111	073425	0.36	11	36	<0.1	2.2	23	677	15	128							
PN0112	073425	0.11	4	13	<0.1	0.24	16	430	15	75							
PN0113	073425	<0.1	6	9	<0.1	0.33	19	554	<10	22							
PN0114	073425	<0.1	5	12	<0.1	0.35	64	431	<10	55							
PN0115	073425	<0.1	50	66	0.21	1.37	56	251	<10	38							
PN0116	073425	<0.1	8	15	0.12	1.44	92	32	<10	51							
PN0117	073425	<0.1	10	13	0.16	1.09	55	27	<10	48							
PN0118	073425	<0.1	3	8	<0.1	1.37	55	17	<10	88							
PN0119	073425	<0.1	3	6	<0.1	2.45	23	21	<10	36							
PN0120	073425	<0.1	3	12	<0.1	2.95	24	95	<10	56							
PN0121	073425	<0.1	2	42	<0.1	1.96	33	199	<10	55							
PN0122	073425	<0.1	4	13	<0.1	1.97	23	139	<10	82							
PN0123	073425	<0.1	14	27	0.16	1.42	94	140	<10	108							
PN0124	073425	<0.1	11	30	<0.1	1.61	60	55	<10	46							
PN0125	073425	<0.1	3	12	<0.1	3.37	35	79	<10	27							
PN0126	073425	<0.1	8	34	<0.1	3.56	42	256	<10	27							
PN0127	073425	<0.1	18	75	<0.1	2.16	47	120	<10	23							
PN0128	073425	0.49	10	14	<0.1	0.48	56	501	18	67							
PN0129	073425	<0.1	12	36	<0.1	1.59	46	94	<10	43							
PN0130	073425	<0.1	15	26	0.13	1.11	60	160	<10	47							
PN0131	073425	<0.1	29	29	0.21	1.38	79	53	<10	53							
PN0132	073425	0.17	5	55	<0.1	1.97	45	165	<10	64							
PN0133	073425	<0.1	5	16	<0.1	2.19	18	115	<10	39							
PN0134	073425	<0.1	4	14	<0.1	2.3	29	24	<10	29							
PN0135	073425	<0.1	3	17	0.12	2.71	17	31	<10	22							
PN0136	073425	<0.1	4	13	<0.1	0.88	15	448	18	37							
PN0137	073425	<0.1	6	39	<0.1	2.96	27	446	<10	27							
PN0138	073425	<0.1	6	31	<0.1	4.5	24	41	<10	21							
PN0139	073425	<0.1	5	10	<0.1	1.13	9	93	12	134							
PN0140	073425	<0.1	13	37	0.11	0.94	35	91	<10	36							
PN0141	073425	<0.1	3	23	<0.1	2.06	28	90	<10	30							
PN0142	073425	<0.1	5	36	<0.1	3.42	37	99	<10	58							
PN0143	073425	<0.1	3	25	<0.1	4.88	43	237	<10	62							
PN0144	073425	<0.1	4	36	<0.1	2.91	87	169	<10	37							
PN0145	073425	<0.1	5	28	<0.1	3.55	28	342	<10	32							
PN0146	073425	<0.1	7	27	<0.1	5.92	64	46	<10	25							
PN0147	073425	<0.1	14	40	<0.1	2.04	51	511	<10	51							
PN0148	073425	<0.1	11	45	<0.1	3.6	36	100	<10	30							
PN0149	073425	<0.1	3	38	<0.1	1.79	36	135	<10	43							
PN0150	073425	<0.1	5	9	0.13	0.14	14	549	22	46							
PN0151	073425	<0.1	13	19	0.13	0.45	90	184	<10	29							
PN0152	073425	<0.1	7	32	<0.1	2.03	50	699	13	47							
PN0153	073425	<0.1	2	10	<0.1	2.26	41	73	<10	35							
PN0154	073425	<0.1	4	19	<0.1	3.62	23	67	<10	27							
PN0155	073425	<0.1	31	23	0.28	1.03	39	268	<10	<20							
PN0156	073425	<0.1	25	33	0.13	1.4	100	34	<10	39							
PN0157	073425	<0.1	3	10	<0.1	1.25	27	163	<10	28							
PN0158	073425	<0.1	3	6	<0.1	0.66	42	41	<10	48							
PN0159	073425	<0.1	8	11	0.19	1.19	53	46	<10	27							
PN0160	073425	<0.1	4	8	<0.1	3.9	72	17	<10	33							
PN0161	073425	<0.1	4	12	<0.1	1.11	64	28	<10	24							
PN0162	073425	0.34	1	<3	<0.1	3.72	160	32	<10	3130							
PN0163	073425	<0.1	3	10	<0.1	3.53	39	27	<10	31							
PN0164	073425	<0.1	8	22	0.13	1.6	148	56	<10	<20							
PN0165	073425	<0.1	5	14	<0.1	1.5	20	402	13	41							
PN0166	073425	<0.1	3	10	<0.1	2.93	37	71	<10	29							
PN0167	073425	<0.1	3	9	<0.1	5.01	32	34	<10	29							
PN0168	073425	<0.1	3	24	<0.1	3.6	26	41	<10	23							
PN0169	073425	<0.1	2	6	<0.1	4.18	31	15	<10	30							
PN0170	073425	<0.1	5	15	<0.1	1.63	57	73	<10	65							
PN0171	073425	<0.1	12	66	<0.1	2.57	60	2538	16	<20							
PN0172	073425	<0.1	6	43	<0.1	2.81	81	66	<10	24							
PN0173	073425	<0.1	3	7	<0.1	1.3	75	15	<10	24							
PN0174	073425	<0.1	4	10	<0.1	1.6	72	24	<10	33							

Sample	Certificate number	Au	Co	Ni	Pd	Ag	Cu	Zn	Cd	Pb	Certificate number	Fe	As	Se	Mo	Sb	Hg
PN0175	073425	<0.1	10	40	<0.1	2.94	38	55	<10	<20							
PN0176	073425	<0.1	8	16	<0.1	3.71	36	32	<10	24							
PN0177	073425	<0.1	12	41	0.1	3.7	26	77	<10	<20							
PN0178	073425	<0.1	16	51	<0.1	3.21	34	46	<10	41							
PN0179	073425	<0.1	6	16	<0.1	3.09	38	31	<10	24							
PN0180	073425	<0.1	17	60	0.1	3.29	40	312	<10	<20							
PN0181	073425	<0.1	7	19	<0.1	1.46	22	93	<10	65							
PN0182	073425	<0.1	15	35	<0.1	4.2	55	69	<10	37							
PN0183	073425	<0.1	14	25	<0.1	1.82	20	243	<10	30							
PN0184	073425	<0.1	14	35	<0.1	2.05	38	59	<10	39							
PN0185	073425	<0.1	13	20	0.13	1.15	60	536	18	57							
PN0186	073425	<0.1	8	36	<0.1	2.34	24	52	<10	39							
PN0187	073425	<0.1	16	36	0.1	2.04	32	34	<10	26							
PN0188	073425	<0.1	6	25	<0.1	3.45	27	112	<10	37							
PN0189	073425	<0.1	5	12	<0.1	5.39	32	308	<10	24							
PN0190	073425	<0.1	30	28	<0.1	1.75	86	53	<10	33							
PN0191	073425	<0.1	6	9	<0.1	0.68	141	15	<10	25							
PN0192	073425	<0.1	15	30	<0.1	0.89	98	64	<10	<20							
PN0193	073425	<0.1	5	32	<0.1	2.05	133	137	<10	43							
PN0194	073425	<0.1	16	29	<0.1	2.27	31	51	<10	33							
PN0195	073425	<0.1	9	23	<0.1	2.11	28	71	<10	32							
PN0196	073425	<0.1	22	26	0.13	1.48	179	67	<10	43							
PN0197	073425	<0.1	121	87	0.11	1.69	327	57	<10	36							
PN0198	073425	<0.1	25	28	<0.1	1.39	54	239	<10	22							
PN0199	073425	<0.1	17	29	<0.1	1.33	38	82	<10	22							
PN0200	073425	<0.1	20	26	<0.1	0.91	14	56	<10	<20							
PN0201	073425	<0.1	11	23	<0.1	0.56	20	54	<10	<20							
PN0202	073425	<0.1	14	21	<0.1	0.91	27	33	<10	<20							
PN0203	073425	<0.1	14	33	0.15	1.25	7	52	<10	<20							
PN0204	073425	0.3	8	22	0.39	1.02	6	122	<10	<20							
PN0205	073425	<0.1	5	11	<0.1	0.69	22	71	<10	37							
PN0206	073425	<0.1	5	10	<0.1	1.4	8	45	<10	<20							
PN0207	073425	<0.1	7	13	<0.1	2.67	31	66	<10	<20							
PN0208	073425	<0.1	7	36	<0.1	2.17	28	142	<10	44							
PN0209	073425	<0.1	17	22	<0.1	1.25	24	61	<10	22							
PN0210	073425	<0.1	9	10	<0.1	1.05	13	37	<10	22							
PN0211	073425	<0.1	10	15	<0.1	1.41	22	42	<10	<20							
PN0212	073425	<0.1	2	5	0.11	2.9	22	31	<10	40							
PN0213	073425	<0.1	3	17	<0.1	4.75	19	775	<10	39							
PN0214	073425	<0.1	2	12	0.4	4.39	16	32	<10	<20							
PN0215	073425	<0.1	3	11	<0.1	3.77	23	136	<10	27							
PN0216	073425	<0.1	3	12	<0.1	4.3	18	216	<10	<20							
PN0217	073425	<0.1	8	22	<0.1	3.65	26	189	<10	34							
PN0218	073425	<0.1	3	6	<0.1	1.94	37	34	<10	28							
PN0219	073425	<0.1	3	22	<0.1	4.18	21	123	<10	28							
PN0220	073425	<0.1	5	17	<0.1	4.92	16	91	<10	24							
PN0221	073425	<0.1	4	17	<0.1	3.8	18	147	<10	44							
PN0222	073426	<0.1	7	47	<0.1	3.95	27	221	<10	58							
PN0223	073426	<0.1	2	14	0.37	4.2	16	34	<10	30							
PN0224	073426	<0.1	15	36	<0.1	1.73	34	86	<10	40							
PN0225	073426	<0.1	10	39	<0.1	2.22	35	378	<10	29							
PN0226	073426	<0.1	6	26	<0.1	5.87	21	662	<10	27							
PN0227	073426	<0.1	4	26	<0.1	3.6	41	106	<10	43							
PN0228	073426	<0.1	5	33	<0.1	2.82	26	368	<10	49							
PN0229	073426	<0.1	7	39	<0.1	3.97	25	259	<10	81							
PN0230	073426	<0.1	2	17	<0.1	4.76	23	240	<10	74							
PN0231	073426	<0.1	11	65	<0.1	6.51	23	183	<10	39							
PN0232	073426	<0.1	6	23	<0.1	2.54	17	97	<10	27							
PN0233	073426	<0.1	4	15	<0.1	1.9	14	44	<10	31							
PN0234	073426	<0.1	3	14	<0.1	1.73	9	56	<10	28							
PN0235	073426	<0.1	3	10	<0.1	4.38	12	32	<10	25							
PN0236	073426	<0.1	2	11	<0.1	5.16	21	41	<10	41							
PN0237	073426	<0.1	7	25	<0.1	2.76	21	131	<10	90							
PN0238	073426	<0.1	5	19	<0.1	5.87	16	50	<10	26							
PN0239	073426	<0.1	3	11	<0.1	7.12	18	71	<10	31							
PN0240	073426	<0.1	4	18	<0.1	2.46	15	148	<10	45							
PN0241	073426	<0.1	3	9	<0.1	1.94	19	19	<10	31							
PN0242	073426	<0.1	2	10	<0.1	5.86	19	54	<10	40							
PN0243	073426	<0.1	4	23	<0.1	9.21	31	145	<10	30							
PN0244	073426	<0.1	2	11	<0.1	5.2	20	102	<10	65							
PN0245	073426	<0.1	3	14	<0.1	6.98	17	24	<10	23							
PN0246	073426	<0.1	6	35	<0.1	7.18	26	83	<10	22							
PN0247	073426	<0.1	2	11	<0.1	5.95	29	38	<10	33							
PN0248	073426	<0.1	4	23	<0.1	2.78	33	295	<10	125							
PN0249	073426	<0.1	9	40	<0.1	2.15	28	313	<10	51							
PN0250	073426	0.11	7	21	<0.1	2.75	42	92	<10	98							
PN0251	073426	<0.1	4	13	<0.1	3.54	31	98	<10	41							
PN0252	073426	<0.1	6	24	<0.1	3.33	19	86	<10	36							
PN0253	073426	<0.1	3	11	<0.1	4.05	24	80	<10	23							
PN0254	073426	<0.1	5	28	<0.1	4.53	33	190	<10	112							
PN0255	073426	<0.1	6	47	<0.1	3.92	26	1784	12	35							
PN0256	073426	<0.1	4	13	<0.1	4.91	30	51	<10	35							
PN0257	073426	<0.1	2	16	<0.1	3.11	24	176	<10	60							
PN0258	073426	0.11	9	49	<0.1	3.04	31	632	<10	61							
PN0259	073426	<0.1	3	18	<0.1	7.01	16	59	<10	39							
PN0260	073426	0.12	10	36	<0.1	4.54	40	461	<10	140							
PN0261	073426	<0.1	1	9	<0.1	5.89	23	29	<10	34							

Sample	Certificate number	Au	Co	Ni	Pd	Ag	Cu	Zn	Cd	Pb	Certificate number	Fe	As	Se	Mo	Sb	Hg
PN0262	073426	<0.1	1	7	<0.1	1.82	17	46	<10	50							
PN0263	073426	0.25	1	5	<0.1	2.99	134	44	11	1760							
PN0264	073426	<0.1	3	13	<0.1	2.9	24	95	<10	55							
PN0265	073426	<0.1	1	15	<0.1	5.18	20	20	<10	23							
PN0266	073426	<0.1	2	11	<0.1	2.57	20	90	<10	41							
PN0267	073426	<0.1	2	18	<0.1	6.56	19	78	<10	34							
PN0268	073426	<0.1	3	25	<0.1	6.02	23	197	<10	43							
PN0269	073426	0.11	2	15	<0.1	6.32	36	122	<10	73							
PN0270	073426	<0.1	<1	13	<0.1	5.33	20	170	<10	47							
PN0271	073426	<0.1	5	24	<0.1	6.78	20	72	<10	22							
PN0272	073426	0.16	4	28	<0.1	2.47	24	735	12	117							
PN0273	073426	<0.1	5	22	<0.1	8.78	16	49	<10	27							
PN0274	073426	0.19	5	48	<0.1	6.65	56	494	<10	117							
PN0275	073426	0.23	2	29	<0.1	5.58	39	178	<10	168							
PN0276	073426	<0.1	7	24	0.21	0.3	<5	1097	23	<20							
PN0277	073426	<0.1	8	27	<0.1	1.37	106	947	<10	<20							
PN0278	073426	<0.1	8	31	<0.1	0.89	46	388	<10	<20							
PN0279	073426	<0.1	24	37	0.13	2	60	123	<10	41							
PN0280	073426	<0.1	11	35	<0.1	2.1	144	558	23	104							
PN0281	073426	<0.1	8	26	<0.1	3.35	48	112	<10	45							
PN0282	073426	<0.1	28	30	0.18	1.12	47	162	<10	32							
PN0283	073426	<0.1	11	20	<0.1	1.89	36	56	<10	<20							
PN0284	073426	<0.1	7	18	<0.1	2.88	41	39	<10	32							
PN0285	073426	<0.1	10	29	<0.1	3.39	45	103	<10	37							
PN0286	073426	<0.1	7	19	0.2	6.17	112	23	<10	32							
PN0287	073426	<0.1	36	33	0.4	2.22	167	49	<10	53							
PN0288	073426	<0.1	28	41	0.13	4.24	200	35	<10	34							
PN0289	073426	<0.1	24	38	<0.1	1.63	130	119	<10	<20							
PN0290	073426	<0.1	11	59	0.12	2.84	54	344	<10	38							
PN0291	073426	<0.1	13	59	0.12	1.57	50	271	<10	23							
PN0292	073426	<0.1	18	33	0.15	1.24	120	620	<10	25							
PN0293	073426	<0.1	26	36	0.12	1.05	130	309	<10	30							
PN0294	073426	<0.1	16	45	<0.1	1.37	144	193	<10	60							
PN0295	073426	<0.1	23	41	0.17	1.57	29	538	<10	36							
PN0296	073426	<0.1	21	45	0.18	1.87	30	397	<10	53							
PN0297	073426	<0.1	33	52	0.21	2.07	144	26	<10	56							
PN0298	073426	<0.1	57	48	0.22	1.07	50	319	<10	26							
PN0299	073426	<0.1	14	37	0.22	1.46	51	865	<10	37							
PN0300	073426	<0.1	37	59	0.14	1.48	193	139	<10	31							
PN0301	073426	<0.1	32	42	0.22	0.58	177	329	<10	43							
PN0302	073426	<0.1	12	51	0.18	1.71	32	741	10	33							
PN0303	073426	<0.1	25	43	0.13	0.6	53	395	<10	<20							
PN0304	073426	<0.1	32	60	0.17	0.97	380	24	<10	26							
PN0305	073426	<0.1	16	56	0.16	2.39	67	276	<10	42							
PN0306	073426	<0.1	28	91	0.21	1.77	220	182	<10	30							
PN0307	073426	<0.1	28	60	0.18	0.32	38	193	<10	45							
PN0308	073426	<0.1	27	63	0.28	1.18	211	107	<10	52							
PN0309	073426	<0.1	7	27	0.11	1.21	53	381	<10	<20							
PN0310	073426	<0.1	23	56	0.1	1.4	124	855	<10	41							
PN0311	073426	<0.1	12	39	0.18	0.5	24	2806	33	29							
PN0312	073426	<0.1	5	17	<0.1	0.94	39	1380	25	31							
PN0313	073426	<0.1	85	53	0.34	1.61	111	109	<10	31							
PN0314	073426	<0.1	6	18	<0.1	1.74	61	126	<10	211							
PN0315	073426	<0.1	3	11	<0.1	0.99	35	56	<10	30							
PN0316	073426	0.25	2	6	<0.1	3.67	113	60	12	1370							
PN0317	073426	<0.1	6	30	<0.1	3.19	14	36	<10	27							
PN0318	073426	<0.1	4	24	<0.1	4.06	18	56	<10	36							
PN0319	073426	<0.1	10	43	<0.1	7.52	24	218	<10	39							
PN0320	073426	<0.1	2	14	<0.1	6.09	17	43	<10	29							
PN0321	073427	<0.1	5	45	0.11	5.56	24	128	<10	37							
PN0322	073427	<0.1	2	14	<0.1	6.25	14	19	<10	46							
PN0323	073427	<0.1	2	17	<0.1	4.75	25	70	<10	53							
PN0324	073427	<0.1	3	19	<0.1	4.56	28	240	<10	38							
PN0325	073427	<0.1	4	39	<0.1	3.63	55	2197	12	33							
PN0326	073427	<0.1	2	11	<0.1	3.13	53	120	<10	37							
PN0327	073427	<0.1	4	35	<0.1	4.9	65	220	<10	50							
PN0328	073427	<0.1	8	26	<0.1	7.52	63	71	<10	24							
PN0329	073427	<0.1	4	13	<0.1	0.13	9	1091	28	86							
PN0330	073427	<0.1	2	15	<0.1	1.33	21	2458	20	32							
PN0331	073427	<0.1	5	42	<0.1	3.51	16	423	<10	29							
PN0332	073427	<0.1	3	24	<0.1	6.06	22	165	<10	39							
PN0333	073427	<0.1	4	29	<0.1	5.27	31	308	19	42							
PN0334	073427	<0.1	3	12	<0.1	1.95	30	55	<10	30							
PN0335	073427	<0.1	6	19	<0.1	1.83	44	552	13	53							
PN0336	073427	<0.1	5	20	<0.1	3.11	39	93	<10	56							
PN0337	073427	<0.1	6	17	<0.1	3.63	16	39	<10	33							
PN0338	073427	<0.1	5	25	<0.1	4.61	30	146	<10	44							
PN0339	073427	<0.1	6	28	<0.1	3.59	29	203	<10	41							
PN0340	073427	<0.1	9	22	<0.1	3.01	36	327	<10	64							
PN0341	073427	<0.1	6	28	<0.1	4.92	31	170	<10	44							
PN0342	073427	0.27	5	19	0.1	1.91	31	165	<10	49							
PN0343	073427	<0.1	3	33	<0.1	1.62	28	517	<10	52							
PN0344	073427	<0.1	7	34	<0.1	5.6	41	129	<10	47							
PN0345	073427	<0.1	5	36	0.1	3.69	36	1097	<10	58							
PN0346	073427	<0.1	8	44	<0.1	3.32	45	354	<10	44							
PN0347	073427	<0.1	7	45	<0.1	2.85	73	237	<10	48							
PN0348	073427	<0.1	11	25	<0.1	1.12	36	449	<10	38							

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Sample	Certificate number	Au	Co	Ni	Pd	Ag	Cu	Zn	Cd	Pb	Certificate number	Fe	As	Se	Mo	Sb	Hg
PN0349	073427	<0.1	3	13	<0.1	3.81	19	39	<10	29							
PN0350	073427	<0.1	5	24	<0.1	2.42	27	121	<10	32							
PN0351	073427	<0.1	6	17	<0.1	2.24	42	166	12	66							
PN0352	073427	<0.1	4	17	<0.1	2.83	46	270	<10	67							
PN0353	073427	<0.1	3	25	<0.1	1.65	28	969	22	55							
PN0354	073427	<0.1	7	16	<0.1	0.27	34	2899	25	59							
PN0355	073427	<0.1	8	46	<0.1	5.48	33	261	<10	39							
PN0356	073427	<0.1	5	17	<0.1	6.34	23	57	<10	30							
PN0357	073427	<0.1	6	25	<0.1	2.29	21	288	11	50							
PN0358	073427	<0.1	8	22	<0.1	2.5	23	128	<10	65							
PN0359	073427	<0.1	4	11	<0.1	3.96	22	83	<10	56							
PN0360	073427	<0.1	4	17	<0.1	2.63	21	225	<10	36							
PN0361	073427	<0.1	4	15	<0.1	0.79	12	421	19	33							
PN0362	073427	<0.1	4	21	<0.1	1.84	19	441	15	48							
PN0363	073427	<0.1	3	8	<0.1	0.13	23	1896	25	21							
PN0364	073427	<0.1	<1	<3	<0.1	<0.1	33	111	<10	26							
PN0365	073427	<0.1	4	24	<0.1	4.34	24	172	11	32							
PN0366	073427	<0.1	7	35	<0.1	2.36	22	126	<10	45							
PN0367	073427	<0.1	11	26	<0.1	4.18	34	110	<10	<20							
PN0368	073427	<0.1	7	32	<0.1	5.57	41	308	<10	59							
PN0369	073427	<0.1	4	17	<0.1	2.93	21	367	<10	28							
PN0370	073427	0.49	1	5	<0.1	2.02	95	40	<10	137							
PN0371	073427	0.12	5	32	<0.1	3.95	23	130	<10	54							
PN0372	073427	<0.1	9	19	<0.1	4.99	24	132	<10	30							
PN0373	073427	<0.1	3	19	<0.1	5.62	21	98	<10	32							
PN0374	073427	<0.1	5	32	<0.1	4.29	35	397	<10	51							
PN0375	073427	<0.1	6	16	<0.1	2.96	36	753	16	41							
PN0376	073427	<0.1	2	9	<0.1	<0.1	<5	969	21	39							
PN0377	073427	<0.1	2	11	0.12	0.19	<5	399	21	47							
PN0378	073427	<0.1	6	24	<0.1	3.3	43	686	13	47							
PN0379	073427	<0.1	2	9	<0.1	3.61	24	91	<10	49							
PN0380	073427	<0.1	4	26	<0.1	5.27	20	24	<10	32							
PN0381	073427	<0.1	8	29	<0.1	12.3	66	106	<10	<20							
PN0382	073427	<0.1	6	36	<0.1	8.58	34	102	<10	26							
PN0383	073427	<0.1	10	26	<0.1	3.94	56	97	<10	66							
PN0384	073427	<0.1	4	18	<0.1	4.42	25	254	<10	52							
PN0385	073427	<0.1	2	7	<0.1	2.74	12	52	<10	75							
PN0386	073427	<0.1	4	11	<0.1	1.6	12	36	<10	27							
PN0387	073427	<0.1	4	14	<0.1	9.12	31	181	<10	45							
PN0388	073427	<0.1	3	15	<0.1	4.15	30	89	<10	34							
PN0389	073427	<0.1	4	18	<0.1	3.15	24	140	<10	33							
PN0390	073427	<0.1	6	22	<0.1	3.67	61	238	<10	36							
PN0391	073427	<0.1	5	22	<0.1	3.73	46	110	<10	52							
PN0392	073427	<0.1	7	23	<0.1	0.73	24	160	<10	64							
PN0393	073427	<0.1	8	32	<0.1	3.7	36	229	11	53							
PN0394	073427	<0.1	3	15	<0.1	4.16	22	38	<10	34							
PN0395	073427	<0.1	4	22	<0.1	4.09	26	44	<10	37							
PN0396	073427	<0.1	<1	9	<0.1	1.0	16	31	<10	<20							
PN0397	073427	<0.1	1	7	<0.1	3.92	17	47	<10	24							
PN0398	073427	<0.1	2	16	<0.1	2.21	14	80	<10	36							
PN0399	073427	<0.1	2	7	<0.1	5.07	14	40	<10	34							
PN0400	073427	<0.1	4	13	<0.1	2.65	14	699	24	47							
PN0401	073427	<0.1	2	12	<0.1	7.42	28	67	<10	71							
PN0402	073427	<0.1	3	35	<0.1	4.18	17	513	13	56							
PN0403	073427	<0.1	4	15	<0.1	3.25	23	592	14	39							
PN0404	073427	<0.1	<1	5	<0.1	4.68	17	66	<10	38							
PN0405	073427	<0.1	2	11	<0.1	3.56	23	76	<10	37							
PN0406	073427	<0.1	1	12	<0.1	2.98	16	91	<10	48							
PN0407	073427	<0.1	2	10	<0.1	9.2	16	82	<10	22							
PN0408	073427	<0.1	14	59	0.13	4.69	24	691	11	33							
PN0409	073427	<0.1	17	26	<0.1	4.59	40	118	<10	30							
PN0410	073427	<0.1	3	13	<0.1	2.11	18	83	<10	49							
PN0411	073427	<0.1	2	23	<0.1	1.49	26	253	<10	35							
PN0412	073427	<0.1	3	16	<0.1	1.34	21	376	<10	50							
PN0413	073427	<0.1	6	12	<0.1	5.98	35	90	<10	87							
PN0414	073427	<0.1	4	15	<0.1	2.66	20	85	<10	34							
PN0415	073427	<0.1	2	15	<0.1	2.7	22	1300	<10	47							
PN0416	073427	<0.1	4	26	<0.1	3.69	34	151	<10	49							
PN0417	073427	<0.1	3	19	<0.1	5.87	16	32	<10	28							
PN0418	073427	<0.1	1	8	<0.1	5.8	12	21	<10	<20							
PN0419	073427	<0.1	5	17	<0.1	9.81	20	68	<10	29							
PN0420	073427	<0.1	2	11	<0.1	3.51	14	190	<10	30							
PN0421	073428	<0.1	4	14	0.1	1.95	12	56	<10	33							
PN0422	073428	<0.1	3	14	<0.1	3.96	22	155	<10	38							
PN0423	073428	<0.1	2	11	<0.1	2.86	23	70	<10	33							
PN0424	073428	<0.1	4	14	<0.1	3.28	24	89	<10	49							
PN0425	073428	<0.1	3	11	<0.1	3.89	17	28	<10	24							
PN0426	073428	<0.1	4	9	<0.1	3.56	19	47	<10	29							
PN0427	073428	<0.1	3	15	<0.1	1.6	19	73	<10	22							
PN0428	073428	<0.1	5	11	<0.1	3.81	20	53	<10	30							
PN0429	073428	<0.1	3	11	<0.1	2.84	15	53	<10	65							
PN0430	073428	<0.1	1	12	<0.1	11.3	13	25	<10	<20							
PN0431	073428	<0.1	6	30	<0.1	4.28	27	98	<10	39							
PN0432	073428	<0.1	2	14	<0.1	6.34	20	49	<10	34							
PN0433	073428	<0.1	1	9	<0.1	3.19	13	52	<10	28							
PN0434	073428	0.56	<1	5	<0.1	1.96	104	35	<10	138							
PN0435	073428	<0.1	2	14	<0.1	3.26	13	231	<10	42							

Sample	Certificate number	Au	Co	Ni	Pd	Ag	Cu	Zn	Cd	Pb	Certificate number	Fe	As	Se	Mo	Sb	Hg
PN0436	073428	<0.1	2	11	<0.1	3.83	12	27	<10	23							
PN0437	073428	<0.1	4	12	<0.1	1.95	10	48	<10	31							
PN0438	073428	<0.1	4	18	<0.1	3.15	95	297	10	31							
PN0439	073428	<0.1	4	10	<0.1	4.84	27	54	<10	28							
PN0440	073428	<0.1	2	11	<0.1	1.95	18	57	<10	41							
PN0441	073428	<0.1	4	17	<0.1	4.48	15	51	<10	38							
PN0442	073428	<0.1	<1	6	<0.1	6.05	16	11	<10	20							
PN0443	073428	<0.1	2	11	<0.1	0.58	8	209	15	43							
PN0444	073428	<0.1	2	16	<0.1	3.78	16	123	<10	32							
PN0445	073428	<0.1	8	28	<0.1	3.19	24	871	<10	59							
PN0446	073428	<0.1	4	28	<0.1	3.34	27	458	11	63							
PN0447	073428	<0.1	2	11	<0.1	1.95	22	67	<10	32							
PN0448	073428	<0.1	3	8	<0.1	1.81	22	93	<10	21							
PN0449	073428	<0.1	3	9	<0.1	3.21	10	349	<10	<20							
PN0450	073428	<0.1	2	16	<0.1	3.17	17	119	<10	39							
PN0451	073428	<0.1	2	20	<0.1	2.68	19	494	<10	37							
PN0452	073428	<0.1	2	9	<0.1	2.17	14	193	<10	28							
PN0453	073428	<0.1	1	9	<0.1	4.36	17	28	<10	25							
PN0454	073428	<0.1	<1	5	<0.1	1.78	35	33	<10	28							
PN0455	073428	<0.1	2	13	<0.1	7.85	14	22	<10	23							
PN0456	073428	<0.1	2	14	<0.1	4.66	16	58	<10	36							
PN0457	073428	<0.1	2	17	<0.1	6.06	24	49	<10	24							
PN0458	073428	<0.1	1	11	<0.1	3.87	14	270	<10	22							
PN0459	073428	<0.1	<1	7	<0.1	6.64	20	60	<10	<20							
PN0460	073428	<0.1	1	9	<0.1	4.33	14	25	<10	31							
PN0461	073428	<0.1	<1	7	<0.1	3.33	12	41	<10	29							
PN0462	073428	<0.1	3	14	<0.1	2.47	16	182	<10	23							
PN0463	073428	<0.1	1	6	<0.1	2.49	17	29	<10	29							
PN0464	073428	<0.1	3	21	<0.1	3.28	17	103	<10	40							
PN0465	073428	<0.1	3	14	<0.1	2.36	18	225	11	50							
PN0466	073428	<0.1	1	8	<0.1	2.25	24	25	<10	25							
PN0467	073428	<0.1	2	17	<0.1	1.77	27	61	<10	31							
PN0468	073428	<0.1	<1	4	<0.1	3.52	15	38	<10	31							
PN0469	073428	<0.1	2	9	<0.1	4.62	18	48	<10	27							
PN0470	073428	<0.1	1	7	<0.1	3.92	16	99	<10	25							
PN0471	073428	<0.1	3	10	<0.1	6.52	21	68	<10	<20							
PN0472	073428	<0.1	<1	5	<0.1	4.35	13	40	<10	60							
PN0473	073428	<0.1	2	11	<0.1	3.29	18	96	<10	44							
PN0474	073428	<0.1	3	9	<0.1	6.9	15	30	<10	25							
PN0475	073428	<0.1	2	14	<0.1	3.64	14	48	<10	48							
PN0476	073428	<0.1	3	21	<0.1	3.25	21	69	<10	126							
PN0477	073428	<0.1	3	10	<0.1	4.07	24	46	<10	<20							
PN0478	073428	<0.1	3	8	<0.1	15.6	26	27	<10	23							
PN0479	073428	<0.1	2	12	<0.1	3.48	27	73	<10	74							
PN0480	073428	<0.1	2	6	<0.1	7.29	13	61	<10	25							
PN0481	073428	<0.1	2	10	<0.1	5.51	13	11	<10	22							
PN0482	073428	<0.1	3	17	<0.1	5.86	15	48	<10	41							
PN0483	073428	<0.1	3	16	<0.1	5.6	23	96	<10	28							
PN0484	073428	<0.1	2	7	<0.1	4.71	11	25	<10	37							
PN0485	073428	<0.1	2	14	<0.1	3.44	15	118	<10	84							
PN0486	073428	<0.1	2	10	<0.1	4.09	9	75	<10	48							
PN0487	073428	1.18	1	4	<0.1	2.14	116	40	<10	175							
PN0488	073428	<0.1	3	10	<0.1	10.6	20	38	<10	32							
PN0489	073428	<0.1	2	10	<0.1	7.97	16	30	<10	<20							
PN0490	073428	<0.1	3	16	<0.1	3.01	12	61	<10	36							
PN0491	073428	<0.1	4	13	<0.1	6.35	36	38	<10	31							
PN0492	073428	<0.1	2	11	<0.1	4.29	18	28	<10	<20							
PN0493	073428	<0.1	2	11	<0.1	4.36	16	39	<10	22							
PN0494	073428	<0.1	2	13	<0.1	3.95	14	83	<10	48							
PN0495	073428	<0.1	3	11	<0.1	4.38	20	23	<10	23							
PN0496	073428	0.1	4	22	<0.1	9.31	35	54	<10	39							
PN0497	073428	<0.1	3	11	<0.1	4.82	28	73	<10	49							
PN0498	073428	<0.1	4	9	<0.1	7.95	46	29	<10	29							
PN0499	073428	<0.1	3	8	<0.1	7.25	22	36	<10	31							
PN0500	073208	<0.1	4	15	<0.1	1.43	26	85	<10	22							
PN0501	073208	<0.1	4	14	<0.1	2.68	36	107	10	28							
PN0502	073208	<0.1	4	13	<0.1	0.93	33	140	<10	<20							
PN0503	073208	<0.1	4	9	<0.1	0.35	40	105	<10	39							
PN0504	073208	<0.1	4	20	<0.1	0.82	22	28	<10	<20							
PN0505	073208	<0.1	15	34	<0.1	5.42	68	131	<10	<20							
PN0506	073208	<0.1	4	19	<0.1	4.47	39	49	<10	<20							
PN0507	073208	<0.1	4	18	<0.1	2.2	39	180	<10	48							
PN0508	073208	<0.1	3	18	<0.1	0.62	27	64	<10	58							
PN0509	073208	0.48	3	10	<0.1	0.53	34	243	10	40							
PN0510	073208	<0.1	7	24	0.14	0.24	13	17	<10	<20							
PN0511	073208	<0.1	4	9	<0.1	<0.1	<5	152	<10	<20							
PN0512	073208	<0.1	2	8	<0.1	<0.1	<5	146	<10	<20							
PN0513	073208	<0.1	2	5	<0.1	<0.1	<5	154	<10	<20							
PN0514	073208	<0.1	1	<3	<0.1	<0.1	<5	95	<10	<20							
PN0515	073208	<0.1	1	<3	<0.1	0.12	<5	39	<10	<20							
PN0516	073208	<0.1	<1	<3	<0.1	<0.1	<5	52	<10	<20							
PN0517	073208	<0.1	5	10	<0.1	0.56	29	324	<10	22							
PN0518	073208	<0.1	9	21	<0.1	3.4	105	930	48	50							
PN0519	073208	<0.1	6	13	0.12	0.8	46	315	13	39							
PN0520	073208	<0.1	10	21	<0.1	0.94	56	248	<10	<20							
PN0521	073208	<0.1	8	15	<0.1	0.71	61	135	<10	<20							
PN0522	073208	<0.1	17	16	0.13	0.55	29	258	19	<20							

Sample	Certificate number	Au	Co	Ni	Pd	Ag	Cu	Zn	Cd	Pb	Certificate number	Fe	As	Se	Mo	Sb	Hg
PN0523	073208	<0.1	16	17	0.19	0.36	22	152	30	25							
PN0524	073208	<0.1	19	17	<0.1	0.87	21	245	15	<20							
PN0525	073208	<0.1	208	464	<0.1	2.63	35	85	<10	<20							
PN0526	073208	<0.1	6	12	0.15	0.61	53	177	<10	<20							
PN0527	073208	<0.1	6	12	<0.1	4.12	53	167	<10	<20							
PN0528	073208	<0.1	5	20	<0.1	2.88	25	46	<10	<20							
PN0529	073208	<0.1	4	8	<0.1	0.16	11	1210	49	125							
PN0530	073208	<0.1	4	5	<0.1	0.2	16	373	21	<20							
PN0531	073208	<0.1	7	9	<0.1	0.55	10	220	19	<20							
PN0532	073208	<0.1	3	4	<0.1	0.23	6	425	<10	<20							
PN0533	073208	<0.1	5	11	<0.1	0.21	14	1000	44	<20							
PN0534	073208	<0.1	3	13	<0.1	0.3	6	175	<10	<20							
PN0535	073208	<0.1	4	4	0.14	0.24	10	280	<10	27							
PN0536	073208	<0.1	9	11	0.16	0.22	97	87	23	79							
PN0537	073208	<0.1	4	4	<0.1	<0.1	<5	203	<10	<20							
PN0538	073208	<0.1	2	<3	<0.1	<0.1	<5	123	<10	<20							
PN0539	073208	<0.1	2	13	<0.1	0.1	9	956	25	<20							
PN0540	073208	<0.1	2	<3	<0.1	<0.1	<5	97	<10	<20							
PN0541	073208	<0.1	1	<3	<0.1	0.11	<5	58	<10	<20							
PN0542	073208	<0.1	1	<3	<0.1	<0.1	<5	75	13	<20							
PN0543	073208	<0.1	2	4	<0.1	<0.1	<5	94	<10	<20							
PN0544	073208	<0.1	1	4	<0.1	<0.1	<5	303	<10	<20							
PN0545	073208	<0.1	2	<3	<0.1	0.12	<5	355	<10	<20							
PN0546	073208	<0.1	3	6	<0.1	0.18	<5	149	<10	<20							
PN0547	073208	<0.1	2	3	<0.1	0.34	<5	64	<10	<20							
PN0548	073208	<0.1	31	27	<0.1	0.34	65	265	<10	<20							
PN0549	073208	0.14	25	28	<0.1	0.39	110	293	<10	<20							
PN0550	073208	<0.1	61	207	0.22	2.14	380	116	<10	<20							
PN0551	073208	0.42	4	9	<0.1	6.12	171	39	<10	1880							
PN0552	073208	0.23	334	721	0.86	3.69	988	49	<10	<20							
PN0553	073208	<0.1	14	21	<0.1	0.27	87	5180	51	<20							
PN0554	073208	0.13	5	7	<0.1	<0.1	18	2170	53	80							
PN0555	073208	<0.1	7	18	<0.1	0.77	115	210	<10	22							
PN0556	073208	0.18	9	17	<0.1	0.45	64	82	<10	<20							
PN0557	073208	<0.1	5	7	<0.1	0.13	23	425	16	60							
PN0558	073208	<0.1	5	9	0.13	<0.1	6	146	29	<20							
PN0559	073208	<0.1	5	7	<0.1	<0.1	19	311	19	51							
PN0560	073208	<0.1	3	8	<0.1	0.71	23	221	<10	<20							
PN0561	073208	<0.1	4	11	<0.1	1.35	63	99	<10	<20							
PN0562	073208	<0.1	7	13	<0.1	0.82	40	358	11	<20							
PN0563	073208	<0.1	11	13	<0.1	0.66	65	131	<10	<20							
PN0564	073208	<0.1	10	10	<0.1	0.62	61	506	17	34							
PN0565	073208	<0.1	8	9	<0.1	0.22	29	457	14	<20							
PN0566	073208	<0.1	4	8	<0.1	0.67	28	230	<10	<20							
PN0567	073208	<0.1	5	11	<0.1	0.48	18	148	16	<20							
PN0568	073208	<0.1	7	9	<0.1	0.34	30	332	<10	22							
PN0569	073208	<0.1	11	18	<0.1	0.8	43	380	11	<20							
PN0570	073208	<0.1	12	24	<0.1	0.7	31	149	<10	<20							
PN0571	073208	<0.1	10	13	<0.1	1.27	41	52	<10	<20							
PN0572	073208	0.2	15	97	<0.1	1.11	126	21	<10	<20							
PN0573	073208	<0.1	5	11	<0.1	0.43	13	166	<10	<20							
PN0574	073208	<0.1	6	14	<0.1	1.41	38	103	<10	23							
PN0575	073208	<0.1	7	15	<0.1	0.55	9	487	21	22							
PN0576	073208	0.17	16	44	<0.1	7.88	8	130	<10	<20							
PN0577	073208	<0.1	2	13	<0.1	3.67	8	23	<10	<20							
PN0578	073208	<0.1	4	6	<0.1	0.11	18	2020	47	58							
PN0579	073208	0.24	4	7	<0.1	0.43	20	839	17	85							
PN0580	073208	<0.1	5	18	<0.1	4.24	58	206	<10	50							
PN0581	073208	<0.1	3	13	<0.1	0.97	28	126	17	62							
PN0582	073208	<0.1	3	15	0.12	0.26	<5	564	22	<20							
PN0583	073208	<0.1	10	9	<0.1	0.34	37	248	21	56							
PN0584	073208	1.36	6	9	<0.1	0.46	26	1250	17	45							
PN0585	073208	<0.1	6	10	<0.1	1.7	44	225	<10	47							
PN0586	073208	<0.1	2	5	<0.1	0.74	19	122	<10	56							
PN0587	073208	<0.1	4	5	<0.1	0.24	18	92	<10	46							
PN0588	073208	<0.1	3	5	<0.1	0.55	17	206	<10	32							
PN0589	073208	<0.1	4	13	<0.1	0.17	6	233	26	<20							
PN0590	073208	<0.1	3	18	<0.1	1.27	20	655	<10	50							
PN0591	073208	<0.1	3	5	<0.1	<0.1	11	738	56	<20							
PN0592	073208	0.13	11	21	<0.1	3.19	26	242	14	95							
PN0593	073208	<0.1	3	5	0.14	0.24	11	585	21	30							
PN0594	073208	<0.1	1	10	0.11	0.21	16	81	<10	<20							
PN0595	073208	<0.1	2	34	0.11	0.35	44	192	<10	<20							
PN0596	073208	<0.1	12	20	0.14	0.25	39	219	14	<20							
PN0597	073208	<0.1	1	7	<0.1	<0.1	<5	101	<10	<20							
PN0598	073208	<0.1	3	12	<0.1	<0.1	<5	119	<10	<20							
PN0599	073208	<0.1	2	11	<0.1	<0.1	<5	198	<10	<20							
PN0600	073208	<0.1	<1	11	<0.1	<0.1	5	299	<10	<20							
PN0601	073208	0.1	<1	42	0.14	0.1	42	159	<10	<20							
PN0602	073208	0.16	9	23	<0.1	0.14	<5	327	<10	<20							
PN0603	073208	0.27	3	7	<0.1	2.87	173	48	11	417							
PN0603b	073428	<0.1	3	12	<0.1	1.27	7	40	<10	36							
PN0604	073428	<0.1	5	15	<0.1	4.13	25	116	<10	62							
PN0605	073428	<0.1	1	13	<0.1	5.41	18	64	<10	32							
PN0606	073428	<0.1	2	8	<0.1	3.39	21	23	<10	28							
PN0607	073428	0.2	6	28	<0.1	1.84	32	237	13	151							
PN0608	073428	<0.1	2	9	<0.1	5.54	19	53	<10	30							

Sample	Certificate number	Au	Co	Ni	Pd	Ag	Cu	Zn	Cd	Pb	Certificate number	Fe	As	Se	Mo	Sb	Hg
PN0609	073428	<0.1	2	16	<0.1	3.21	18	153	<10	98							
PN0610	073428	<0.1	5	50	<0.1	2.84	19	79	<10	46							
PN0611	073428	<0.1	2	8	<0.1	6.34	18	22	<10	26							
PN0612	073428	<0.1	6	10	<0.1	1.48	17	37	<10	21							
PN0613	073428	<0.1	5	12	<0.1	3.06	16	131	<10	27							
PN0614	073428	<0.1	2	16	<0.1	2.01	22	171	13	64							
PN0615	073428	<0.1	3	9	<0.1	5.26	24	48	<10	30							
PN0616	073428	<0.1	2	16	<0.1	3.59	18	43	<10	44							
PN0617	073428	<0.1	2	14	<0.1	7.18	22	105	<10	57							
PN0618	073428	<0.1	2	13	<0.1	3.19	19	69	13	47							
PN0619	073428	<0.1	1	13	<0.1	5.12	18	40	<10	35							
PN0620	073428	<0.1	3	17	<0.1	6.39	15	86	<10	<20							
PN0621	073428	<0.1	2	22	<0.1	4.71	13	151	<10	58							
PN0622	073428	<0.1	3	15	<0.1	6.02	30	40	<10	<20							
PN0623	073428	<0.1	2	19	<0.1	1.81	7	116	<10	53							
PN0624	073428	<0.1	3	13	<0.1	0.66	16	258	14	100							
PN0625	073428	<0.1	3	23	<0.1	1.96	15	116	<10	114							
PN0626	073428	<0.1	4	7	<0.1	2.98	19	28	<10	22							
PN0627	073428	<0.1	2	10	<0.1	4.5	18	56	<10	36							
PN0628	073428	<0.1	2	11	<0.1	5.63	17	88	<10	59							
PN0629	073428	<0.1	2	13	<0.1	1.6	16	69	<10	226							
PN0630	073428	<0.1	3	13	<0.1	3.36	19	48	<10	40							
PN0631	073428	<0.1	4	9	<0.1	5.4	18	46	<10	25							
PN0632	073428	<0.1	2	18	<0.1	1.45	15	101	<10	66							
PN0633	073428	<0.1	1	17	<0.1	1.74	12	110	11	44							
PN0634	073428	<0.1	1	42	<0.1	2.14	9	211	17	80							
PN0635	073428	<0.1	3	19	<0.1	4.96	32	75	<10	41							
PN0636	073428	<0.1	<1	<3	<0.1	<0.1	24	124	10	36							
PN0637	073428	<0.1	2	9	<0.1	7.98	13	42	<10	31							
PN0638	073824	1.65	90	335	<0.1	12.7	<5	1113	<10	70							
PN0639	073824	0.95	125	326	<0.1	7.76	<5	598	<10	52	074512	899	403	5	27	23	641
PN0640	073824	0.13	50	139	0.14	0.78	17	113	<10	59	074512	2090	394	10	43	36	184
PN0641	073824	<0.1	35	222	0.18	0.59	<5	50	<10	30	074512	1130	99	5	15	4	11
PN0642	073824	0.21	29	424	0.72	0.55	52	35	<10	35	074512	1010	125	10	7	3	7
PN0643	073824	<0.1	12	81	0.22	0.53	24	58	<10	20	074512	712	98	9	12	3	<3
PN0644	073824	<0.1	12	37	0.16	0.52	7	142	<10	23	074512	328	128	7	14	3	4
PN0645	073824	<0.1	10	84	0.15	0.87	5	160	<10	<20	074512	202	164	4	12	3	4
PN0646	073824	<0.1	15	133	0.19	2.59	<5	69	<10	<20	074512	246	42	7	21	2	7
PN0647	073824	<0.1	8	47	0.12	0.75	9	209	<10	<20	074512	163	120	5	13	3	11
PN0648	073824	<0.1	3	33	0.18	0.68	12	<5	<10	<20	074512	125	37	6	10	2	9
PN0649	073824	<0.1	3	18	<0.1	0.72	5	9	<10	<20	074512	94.2	32	<2	9	1	11
PN0650	073824	<0.1	3	13	<0.1	0.19	<5	55	<10	<20	074512	80.6	34	<2	7	<1	<3
PN0651	073824	<0.1	4	22	<0.1	0.35	<5	20	<10	<20	074512	90.3	33	5	23	1	7
PN0652	073824	<0.1	4	27	<0.1	0.21	<5	104	<10	<20	074512	83.9	29	3	21	<1	10
PN0653	073824	<0.1	3	23	<0.1	0.68	5	<5	<10	<20	074512	72.1	31	<2	13	<1	7
PN0654	073824	<0.1	2	10	<0.1	0.15	<5	47	<10	<20	074512	95.3	32	<2	13	<1	9
PN0655	073824	<0.1	3	48	<0.1	0.33	<5	66	<10	<20	074512	77.1	58	<2	20	1	19
PN0656	073824	<0.1	4	16	<0.1	0.32	<5	85	<10	<20	074512	69.5	114	<2	47	1	18
PN0657	073824	<0.1	3	12	<0.1	0.25	<5	28	<10	<20	074512	103	110	<2	27	1	5
PN0658	073824	<0.1	4	14	<0.1	0.33	<5	80	<10	<20	074512	92.1	38	3	24	<1	6
PN0659	073824	<0.1	4	11	<0.1	0.33	<5	213	<10	<20	074512	134	48	3	9	1	<3
PN0660	073824	<0.1	5	33	0.15	0.25	8	46	<10	<20	074512	276	52	<2	17	2	9
PN0661	073824	<0.1	6	24	0.14	0.7	<5	50	<10	<20	074512	459	57	<2	12	2	10
PN0662	073824	<0.1	7	29	0.14	0.41	6	8	<10	<20	074512	276	108	<2	15	2	5
PN0663	073824	<0.1	6	11	0.11	0.41	<5	365	<10	<20	074512	254	64	4	18	2	4
PN0664	073824	<0.1	13	207	0.15	0.43	17	<5	<10	<20	074512	633	182	13	56	3	13
PN0665	073824	<0.1	16	184	0.24	0.56	<5	64	<10	30	074512	629	168	17	52	3	12
PN0666	073824	<0.1	17	104	0.27	0.7	21	83	<10	28	074512	651	78	16	9	2	5
PN0667	073824	<0.1	22	84	0.38	0.54	18	217	<10	25	074512	629	155	12	11	2	9
PN0668	073824	<0.1	23	82	0.26	0.97	13	190	<10	24	074512	581	81	8	15	2	5
PN0669	073824	<0.1	30	157	0.14	0.41	24	343	<10	29	074512	614	90	15	12	1	8
PN0670	073824	<0.1	229	545	0.28	0.98	7	288	<10	34	074512	655	64	7	9	<1	6
PN0671	073824	<0.1	4	11	0.1	0.87	13	146	<10	48							
PN0672	073824	<0.1	8	15	<0.1	0.14	43	1149	18	74							
PN0673	073824	<0.1	5	16	<0.1	0.62	33	177	<10	60							
PN0674	073824	<0.1	3	10	<0.1	0.54	12	282	<10	40							
PN0675	073824	<0.1	5	10	<0.1	0.47	39	375	11	73							
PN0676	073824	<0.1	3	7	0.12	0.68	14	233	13	62							
PN0677	073824	<0.1	11	19	<0.1	1.36	34	65	<10	54							
PN0678	073824	<0.1	3	7	<0.1	0.92	36	182	15	74							
PN0679	073824	<0.1	2	7	<0.1	0.99	10	421	20	103							
PN0680	073824	<0.1	4	10	<0.1	5.08	42	489	13	91							
PN0681	073824	<0.1	6	9	0.11	0.53	34	681	20	97							
PN0682	073824	<0.1	4	10	0.14	0.26	<5	2255	41	51							
PN0683	073824	0.12	12	40	0.25	1.14	43	5374	49	161							
PN0684	073824	<0.1	2	12	<0.1	2.9	22	1726	24	100							
PN0685	073824	<0.1	3	14	<0.1	3.23	12	1325	32	129							
PN0686	073824	0.1	7	26	0.18	1.1	17	1777	47	149							
PN0687	073824	<0.1	3	8	<0.1	1.83	45	87	11	83							
PN0688	073824	<0.1	8	28	0.26	0.51	9	3016	83	191							
PN0689	073824	<0.1	6	11	0.11	0.17	14	1409	36	76							
PN0690	073824	<0.1	2	10	<0.1	2.14	25	358	13	106							
PN0691	073824	<0.1	6	19	<0.1	3.19	42	184	<10	83							
PN0692	073824	<0.1	9	30	0.26	0.67	17	2167	42	120							
PN0693	073824	<0.1	3	11	<0.1	0.99	34	655	27	138							
PN0694	073824	<0.1	3	7	<0.1	0.69	16	407	26	104							
PN0695	073824	<0.1	2	5	<0.1	1.48	29	94	<10	64							

Sample	Certificate number	Au	Co	Ni	Pd	Ag	Cu	Zn	Cd	Pb	Certificate number	Fe	As	Se	Mo	Sb	Hg
PN0696	073824	<0.1	6	19	<0.1	8.19	29	37	<10	56							
PN0697	073824	<0.1	5	20	<0.1	4.71	39	269	13	65							
PN0698	073824	<0.1	4	14	0.19	1.61	62	216	<10	64							
PN0699	073824	<0.1	5	12	<0.1	2.91	30	236	11	108							
PN0700	073824	1.04	2	7	<0.1	2.35	126	47	<10	170							
PN0701	073824	0.18	7	30	0.21	1.22	8	2070	41	130							
PN0702	073824	<0.1	2	11	<0.1	1.91	18	717	14	91							
PN0703	073824	<0.1	3	19	<0.1	2.27	45	809	27	99							
PN0704	073824	<0.1	4	16	<0.1	2.07	40	256	15	112							
PN0705	073824	<0.1	3	10	0.14	0.22	-5	832	25	26							
PN0706	073824	<0.1	3	8	<0.1	1.18	7	696	22	97							
PN0707	073824	<0.1	4	11	<0.1	0.27	10	756	19	87							
PN0708	073824	<0.1	8	29	0.24	1.14	13	2629	64	51							
PN0709	073824	<0.1	9	17	<0.1	0.81	33	828	26	69							
PN0710	073824	<0.1	2	7	<0.1	1.77	24	366	11	105							
PN0711	073824	<0.1	4	9	<0.1	4.93	34	286	10	98							
PN0712	073824	<0.1	4	11	<0.1	0.23	19	704	24	100							
PN0713	073824	0.1	5	14	<0.1	0.56	9	681	23	103							
PN0714	073824	<0.1	2	17	<0.1	0.5	8	390	10	74							
PN0715	073824	<0.1	2	9	<0.1	1.15	-5	308	18	87							
PN0716	073824	<0.1	4	10	0.12	0.3	27	849	24	88							
PN0717	073824	<0.1	5	13	<0.1	0.42	23	129	20	55							
PN0718	073824	<0.1	6	15	0.14	0.93	31	983	18	71							
PN0719	073824	<0.1	8	13	0.11	0.23	16	748	26	62							
PN0720	073824	<0.1	25	68	0.23	0.27	6	617	13	30							
PN0721	073825	<0.1	23	71	<0.1	0.15											
PN0722	073825	<0.1	10	22	<0.1	0.79											
PN0723	073825	<0.1	23	71	<0.1	0.15	<5	518	<10	45							
PN0724	073825	<0.1	10	22	<0.1	0.79	<5	687	<10	<20	074513	83.4	328	4	28	4	27
PN0725	073825	<0.1	3	7	<0.1	<0.1	<5	364	<10	<20	074513	105	298	<2	23	5	14
PN0726	073825	<0.1	5	13	<0.1	<0.1	<5	113	<10	<20	074513	99.3	294	<2	27	5	8
PN0727	073825	<0.1	5	10	<0.1	<0.1	<5	130	<10	<20	074513	109	390	2	26	6	7
PN0728	073825	<0.1	4	7	<0.1	<0.1	<5	153	<10	<20	074513	165	359	<2	26	6	17
PN0729	073825	<0.1	4	9	<0.1	<0.1	<5	126	<10	<20	074513	82.6	222	3	21	3	10
PN0730	073825	<0.1	2	9	<0.1	<0.1	<5	260	<10	<20	074513	94.8	382	<2	32	5	6
PN0731	073825	<0.1	2	6	<0.1	0.12	<5	54	<10	<20	074513	175	232	3	26	6	16
PN0732	073825	<0.1	4	12	<0.1	<0.1	<5	232	<10	<20	074513	130	301	<2	31	6	17
PN0733	073825	<0.1	3	20	<0.1	0.13	<5	<5	<10	<20	074513	1090	689	5	39	12	35
PN0734	073825	<0.1	4	14	<0.1	<0.1	<5	112	<10	<20	074513	596	130	<2	14	3	18
PN0735	073825	<0.1	4	18	<0.1	<0.1	<5	59	<10	<20	074513	875	170	4	16	4	5
PN0736	073825	<0.1	6	27	<0.1	0.13	<5	9	<10	<20	074513	505	179	2	18	5	14
PN0737	073825	<0.1	4	11	<0.1	<0.1	<5	30	<10	<20	074513	318	122	3	15	3	4
PN0738	073825	<0.1	8	20	<0.1	0.11	<5	154	<10	<20	074513	1550	125	<2	13	3	5
PN0739	073825	<0.1	8	25	<0.1	0.18	<5	38	<10	<20	074513	2150	166	<2	11	1	<3
PN0740	073825	<0.1	21	93	<0.1	<0.1	<5	57	<10	<20	074513	2290	67	<2	9	2	4
PN0741	073825	<0.1	79	190	<0.1	<0.1	<5	93	<10	29	074513	1330	53	<2	8	1	4
PN0742	073825	<0.1	67	83	0.14	0.28	<5	71	<10	80	074513	1950	437	5	11	6	8
PN0743	073825	<0.1	21	46	<0.1	1.13	6	63	<10	31	074513	850	183	<2	9	2	<3
PN0744	073825	<0.1	31	50	0.23	0.39	11	166	10	73	074513	277	57	<2	5	<1	<3
PN0745	073825	0.31	11	29	<0.1	0.25	12	218	<10	24	074513	625	80	<2	7	2	<3
PN0746	073825	<0.1	5	4	<0.1	0.13	7	530	14	<20	074513	3510	43	10	12	<1	4
PN0747	073825	<0.1	12	16	<0.1	<0.1	10	214	<10	37	074513	921	112	<2	19	3	<3
PN0748	073825	<0.1	27	69	0.33	0.53	19	163	<10	126	074513	2620	41	3	26	<1	<3
PN0749	073825	<0.1	5	13	<0.1	0.3	13	644	17	32	074513	226	59	<2	9	3	6
PN0750	073825	<0.1	44	56	<0.1	0.23	<5	195	<10	74	074513	3200	77	4	57	2	4
PN0751	073825	<0.1	2	5	<0.1	<0.1	5	622	<10	<20	074513	1900	65	3	26	4	5
PN0752	073825	0.13	1	3	<0.1	1.91	117	19	<10	121	074513	2000	25	6	9	<1	3
PN0753	073825	<0.1	50	77	<0.1	<0.1	<5	57	<10	57	074513	4210	157	12	21	5	9
PN0754	073825	<0.1	18	27	<0.1	<0.1	<5	188	<10	52	074513	3430	30	4	18	3	8
PN0755	073825	<0.1	52	73	<0.1	2.17	6	89	<10	67	074513	1380	106	5	6	3	8
PN0756	073825	<0.1	6	8	<0.1	<0.1	6	627	13	40	074513	451	106	4	10	3	4
PN0757	073825	<0.1	55	123	<0.1	0.15	7	45	<10	75	074513	274	247	4	20	4	7
PN0758	073825	<0.1	16	12	<0.1	0.15	58	303	12	61	074513	575	112	<2	7	1	4
PN0759	073825	<0.1	16	14	<0.1	0.25	20	244	27	28	074513	720	69	7	4	1	8
PN0760	073825	<0.1	9	7	<0.1	0.11	8	120	22	<20	074513	519	40	9	5	<1	4
PN0761	073825	<0.1	14	14	<0.1	0.4	33	351	16	<20	074513	242	27	<2	2	<1	<3
PN0762	073825	<0.1	14	20	<0.1	0.74	111	238	11	35	074513	769	44	4	4	1	<3
PN0763	073825	<0.1	23	24	<0.1	0.4	113	246	10	52	074513	661	106	2	5	2	3
PN0764	073825	<0.1	67	71	<0.1	0.75	47	133	<10	21	074513	752	189	3	9	3	4
PN0765	073825	<0.1	74	100	<0.1	0.56	33	346	14	53	074513	812	182	4	14	2	5
PN0766	073825	<0.1	24	28	<0.1	0.34	12	445	17	<20	074513	486	139	4	7	1	4
PN0767	073825	<0.1	30	46	<0.1	0.2	<5	418	18	33	074513	239	86	4	5	<1	<3
PN0768	073825	<0.1	270	305	<0.1	<0.1	<5	114	13	36	074513	123	108	<2	23	2	<3
PN0769	073825	<0.1	109	166	<0.1	0.36	<5	117	<10	<20	074513	167	132	<2	13	2	<3
PN0770	073825	<0.1	9	26	<0.1	<0.1	<5	242	<10	<20	074513	95.2	136	2	22	2	3
PN0771	073825	<0.1	4	16	<0.1	<0.1	<5	200	<10	<20	074513	258	233	6	4	3	8
PN0772	073825	<0.1	3	11	<0.1	<0.1	<5	322	<10	<20	074513	206	238	5	6	4	11
PN0773	073825	<0.1	2	3	<0.1	<0.1	<5	58	<10	<20	074513	330	104	7	3	3	7
PN0774	073825	<0.1	6	7	<0.1	0.31	43	463	26	51	074513	80.8	64	<2	1	<1	3
PN0775	073825	<0.1	2	6	<0.1	0.21	21	45	16	26	074513	127	160	11	<1	2	18
PN0776	073825	<0.1	3	5	<0.1	0.22	15	142	15	57	074513	632	544	19	6	7	49
PN0777	073825	<0.1	3	8	0.11	<0.1	7	56	13	22	074513	1390	252	9	9	3	8
PN0778	073825	<0.1	2	6	<0.1	<0.1	13	61	17	122	074513	1160	53	8	3	2	7
PN0779	073825	<0.1	4	8	<0.1	<0.1	37	601	29	88	074513	822	43	6	4	<1	5
PN0780	073825	<0.1	6	9	<0.1	<0.1											

Sample	Certificate number	Au	Co	Ni	Pd	Ag	Cu	Zn	Cd	Pb	Certificate number	Fe	As	Se	Mo	Sb	Hg
PN0783	073825	<0.1	5	8	<0.1	0.52	38	167	<10	66	074513	276	72	<2	15	2	15
PN0784	073825	<0.1	3	7	<0.1	<0.1	9	345	11	52	074513	739	218	<2	75	6	77
PN0785	073825	<0.1	2	3	<0.1	<0.1	<5	502	11	45	074513	1010	167	<2	30	4	73
PN0786	073825	<0.1	2	6	<0.1	0.13	<5	265	<10	<20	074513	1910	71	<2	25	3	9
PN0787	073825	<0.1	3	13	<0.1	<0.1	<5	513	<10	<20	074513	775	48	<2	15	2	3
PN0788	073825	<0.1	3	12	<0.1	<0.1	<5	198	<10	<20	074513	2520	77	7	12	2	16
PN0789	073825	<0.1	3	6	<0.1	<0.1	30	451	<10	49	074513	1840	62	4	8	3	<3
PN0790	073825	<0.1	4	7	<0.1	<0.1	13	1217	21	67	074513	2820	196	26	11	2	20
PN0791	073825	<0.1	2	8	<0.1	<0.1	16	188	<10	136	074513	265	106	2	6	2	3
PN0792	073825	<0.1	<1	<3	<0.1	<0.1	6	162	<10	91	074513	3490	45	4	23	2	8
PN0793	073825	<0.1	4	13	0.29	0.17	80	367	12	178	074513	2030	37	4	7	1	<3
PN0794	073825	<0.1	4	21	0.16	1.09	7	1843	32	85	074513	6530	48	13	18	1	10
PN0795	073825	<0.1	6	14	<0.1	0.16	<5	142	<10	79	074513	3080	33	7	11	<1	<3
PN0796	073825	<0.1	11	17	<0.1	<0.1	<5	214	<10	126							
PN1001	073826	<0.1	3	8	<0.1	0.16											
PN1002	073826	<0.1	5	6	<0.1	0.12											
PN1003	073826	<0.1	3	5	<0.1	<0.1											
PN1004	073826	<0.1	2	4	<0.1	2.3											
PN1005	073826	<0.1	3	5	<0.1	0.11											
PN1006	073826	<0.1	5	7	<0.1	<0.1											
PN1007	073826	<0.1	3	5	<0.1	0.13											
PN1008	073826	<0.1	8	8	<0.1	<0.1											
PN1009	073826	<0.1	3	6	<0.1	0.18											
PN1010	073826	<0.1	12	8	<0.1	0.11											
PN1011	073826	<0.1	5	13	<0.1	2.04											
PN1012	073826	<0.1	4	29	<0.1	6.62											
PN1013	073826	<0.1	4	6	<0.1	0.26											
PN1014	073826	<0.1	4	14	<0.1	4.41											
PN1015	073826	<0.1	7	23	0.18	0.14											
PN1016	073826	<0.1	5	22	0.14	0.16											
PN1017	073826	<0.1	8	11	<0.1	0.49											
PN1018	073826	<0.1	6	10	<0.1	0.58											
PN1019	073826	<0.1	8	15	<0.1	2.73											
PN1020	073826	<0.1	5	14	<0.1	0.71											
PN1021	073826	<0.1	5	13	<0.1	3.09											
PN1022	073826	<0.1	3	11	<0.1	1.32											
PN1023	073826	<0.1	4	10	<0.1	0.21											
PN1024	073826	<0.1	11	37	<0.1	4.65											
PN1025	073826	<0.1	5	25	<0.1	2.67											
PN1026	073826	<0.1	3	7	<0.1	2.63											
PN1027	073826	<0.1	4	10	0.25	1.54											
PN1028	073826	<0.1	5	12	<0.1	0.27											
PN1029	073826	<0.1	3	13	<0.1	6.92											
PN1030	073826	<0.1	3	6	<0.1	0.19											
PN1031	073826	<0.1	6	10	<0.1	2.08											
PN1032	073826	<0.1	3	7	<0.1	1.29											
PN1033	073826	<0.1	3	8	<0.1	5.84											
PN1034	073826	0.16	2	6	<0.1	0.19											
PN1035	073826	<0.1	2	6	<0.1	0.23											
PN1036	073826	<0.1	5	9	<0.1	0.95											
PN1037	073826	<0.1	3	6	<0.1	0.32											
PN1038	073826	<0.1	4	14	<0.1	2.87											
PN1039	073826	<0.1	3	8	<0.1	0.32											
PN1040	073826	<0.1	5	46	0.11	0.2											
PN1041	073826	<0.1	2	6	<0.1	1.16											
PN1042	073826	<0.1	3	10	<0.1	5.86											
PN1043	073826	<0.1	2	6	<0.1	7.69											
PN1044	073826	<0.1	2	7	<0.1	0.19											
PN1045	073826	<0.1	1	4	<0.1	0.36											
PN1046	073826	<0.1	2	8	<0.1	0.2											
PN1047	073826	<0.1	4	22	0.12	0.23											
PN1048	073826	<0.1	3	18	0.1	0.21											
PN1049	073826	<0.1	3	7	<0.1	1.81											
PN1050	073826	0.15	1	<3	<0.1	1.83											
PN1051	073826	0.12	2	9	<0.1	1.03											
PN1052	073826	<0.1	3	9	<0.1	1.01											
PN1053	073826	<0.1	9	15	<0.1	0.23											
PN1054	073826	<0.1	6	39	<0.1	5.25											
PN1055	073826	<0.1	5	25	<0.1	0.51											
PN1056	073826	<0.1	18	42	<0.1	1.3											
PN1057	073826	<0.1	10	16	<0.1	0.88											
PN1058	073826	<0.1	5	8	<0.1	0.2											
PN1059	073826	<0.1	8	12	<0.1	0.26											
PN1060	073826	<0.1	12	12	<0.1	0.28											
PN1061	073826	<0.1	10	12	<0.1	0.33											
PN1062	073826	<0.1	5	9	<0.1	0.62											
PN1063	073826	<0.1	7	11	<0.1	1.21											
PN1064	073826	<0.1	10	6	<0.1	0.12											
PN1065	073826	<0.1	3	11	<0.1	1.25											
PN1066	073826	<0.1	5	9	<0.1	0.39											
PN1067	073826	<0.1	2	5	<0.1	0.14											
PN1068	073826	<0.1	5	21	0.11	0.21											
PN1069	073826	<0.1	4	32	<0.1	5.13											
PN1070	073826	<0.1	7	41	<0.1	2.33											
PN1071	073826	0.12	6	18	<0.1	0.76											
PN1072	073826	<0.1	6	18	<0.1	1.54											
PN1073	073826	<0.1	2	8	<0.1	0.33											

Sample	Certificate number	Au	Co	Ni	Pd	Ag	Cu	Zn	Cd	Pb	Certificate number	Fe	As	Se	Mo	Sb	Hg
PN1074	073826	<0.1	6	12	<0.1	0.17											
PN1075	073826	<0.1	4	7	<0.1	0.14											
PN1076	073826	<0.1	4	5	<0.1	<0.1											
PN1077	073826	<0.1	11	31	0.11	0.87											
PN1078	073826	<0.1	3	12	<0.1	2.26											
PN1079	073826	<0.1	4	8	<0.1	0.55											
PN1080	073826	<0.1	1	14	<0.1	<0.1											
PN1081	073826	<0.1	<1	3	<0.1	<0.1											
PN1082	073826	<0.1	2	4	<0.1	<0.1											
PN1083	073826	<0.1	2	5	<0.1	<0.1											
PN1084	073826	<0.1	2	8	<0.1	0.4											
PN1085	073826	<0.1	4	13	<0.1	11.9											
PN1086	073826	<0.1	3	8	<0.1	0.11											
PN1087	073826	<0.1	6	12	<0.1	12.8											
PN1088	073826	<0.1	3	11	<0.1	5.39											
PN1089	073826	<0.1	4	7	<0.1	0.12											
PN1090	073826	<0.1	5	12	<0.1	0.88											
PN1091	073826	<0.1	3	7	<0.1	0.35											
PN1092	073826	0.15	2	10	<0.1	2.71											
PN1093	073826	<0.1	6	19	<0.1	0.37											
PN1094	073826	<0.1	3	7	<0.1	0.31											
PN1095	073826	<0.1	3	6	<0.1	0.13											
PN1096	073826	<0.1	2	6	<0.1	1.19											
PN1097	073826	<0.1	6	27	<0.1	6.97											
PN1098	073826	<0.1	2	12	<0.1	3.43											
PN1099	073826	<0.1	4	12	<0.1	2.51											
PN1100	073826	0.14	2	4	<0.1	1.74											
PN1101	073826	<0.1	2	15	<0.1	3.97											
PN1102	073826	<0.1	3	12	<0.1	3.88											
PN1103	073826	<0.1	5	20	0.13	0.42											
PN1104	073826	<0.1	4	8	<0.1	0.73											
PN1105	073826	<0.1	4	32	<0.1	3.52											
PN1106	073826	<0.1	5	28	<0.1	1.8											
PN1107	073826	<0.1	6	21	<0.1	4.2											

Sample Ident	Cu	Zn	Cd	Pb	Au	Co	Ni	Pd	Ag
Scheme Code	MMI-A	MMI-A	MMI-A	MMI-A	MMI-B	MMI-B	MMI-B	MMI-B	MMI-B
Analysis Unit	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Detection Limit	5	5	10	20	0.1	1	3	0.1	0.1
PN0500	26	85	<10	22	<0.1	4	15	<0.1	1.43
PN0501	36	107	10	28	<0.1	4	14	<0.1	2.68
PN0502	33	140	<10	<20	<0.1	4	13	<0.1	0.93
PN0503	40	105	<10	39	<0.1	4	9	<0.1	0.35
PN0504	22	28	<10	<20	<0.1	4	20	<0.1	0.82
PN0505	68	131	<10	<20	<0.1	15	34	<0.1	5.42
PN0506	39	49	<10	<20	<0.1	4	19	<0.1	4.47
PN0507	39	180	<10	48	<0.1	4	18	<0.1	2.2
PN0508	27	64	<10	58	<0.1	3	18	<0.1	0.62
PN0509	34	243	10	40	0.48	3	10	<0.1	0.53
PN0510	13	17	<10	<20	<0.1	7	24	0.14	0.24
PN0511	<5	152	<10	<20	<0.1	4	9	<0.1	<0.1
PN0512	<5	146	<10	<20	<0.1	2	8	<0.1	<0.1
PN0513	<5	154	<10	<20	<0.1	2	5	<0.1	<0.1
PN0514	<5	95	<10	<20	<0.1	1	<3	<0.1	<0.1
PN0515	<5	39	<10	<20	<0.1	1	<3	<0.1	0.12
PN0516	<5	52	<10	<20	<0.1	<1	<3	<0.1	<0.1
PN0517	29	324	<10	22	<0.1	5	10	<0.1	0.56
PN0518	105	930	48	50	<0.1	9	21	<0.1	3.4
PN0519	46	315	13	39	<0.1	6	13	0.12	0.8
PN0520	56	248	<10	<20	<0.1	10	21	<0.1	0.94
PN0521	61	135	<10	<20	<0.1	8	15	<0.1	0.71
PN0522	29	258	19	<20	<0.1	17	16	0.13	0.55
PN0523	22	152	30	25	<0.1	16	17	0.19	0.36
PN0524	21	245	15	<20	<0.1	19	17	<0.1	0.87
PN0525	35	85	<10	<20	<0.1	208	464	<0.1	2.63
PN0526	53	177	<10	<20	<0.1	6	12	0.15	0.61
PN0527	53	167	<10	<20	<0.1	6	12	<0.1	4.12
PN0528	25	46	<10	<20	<0.1	5	20	<0.1	2.88
PN0529	11	1210	49	125	<0.1	4	8	<0.1	0.16
PN0530	16	373	21	<20	<0.1	4	5	<0.1	0.2
PN0531	10	220	19	<20	<0.1	7	9	<0.1	0.55
PN0532	6	425	<10	<20	<0.1	3	4	<0.1	0.23
PN0533	14	1000	44	<20	<0.1	5	11	<0.1	0.21
PN0534	6	175	<10	<20	<0.1	3	13	<0.1	0.3
PN0535	10	280	<10	27	<0.1	4	4	0.14	0.24
PN0536	97	87	23	79	<0.1	9	11	0.16	0.22
PN0537	<5	203	<10	<20	<0.1	4	4	<0.1	<0.1
PN0538	<5	123	<10	<20	<0.1	2	<3	<0.1	<0.1
PN0539	9	956	25	<20	<0.1	2	13	<0.1	0.1
PN0540	<5	97	<10	<20	<0.1	2	<3	<0.1	<0.1
PN0541	<5	58	<10	<20	<0.1	1	<3	<0.1	0.11
PN0542	<5	75	13	<20	<0.1	1	<3	<0.1	<0.1
PN0543	<5	94	<10	<20	<0.1	2	4	<0.1	<0.1
PN0544	<5	303	<10	<20	<0.1	1	4	<0.1	<0.1
PN0545	<5	355	<10	<20	<0.1	2	<3	<0.1	0.12
PN0546	<5	149	<10	<20	<0.1	3	6	<0.1	0.18
PN0547	<5	64	<10	<20	<0.1	2	3	<0.1	0.34
PN0548	65	265	<10	<20	<0.1	31	27	<0.1	0.34
PN0549	110	293	<10	<20	0.14	25	28	<0.1	0.39
PN0550	380	116	<10	<20	<0.1	61	207	0.22	2.14
PN0551	171	39	<10	1880	0.42	4	9	<0.1	6.12
PN0552	988	49	<10	<20	0.23	334	721	0.86	3.69
PN0553	87	5180	51	<20	<0.1	14	21	<0.1	0.27
PN0554	18	2170	53	80	0.13	5	7	<0.1	<0.1

PN0555	115	210	<10	22	<0.1	7	18	<0.1	0.77
PN0556	64	82	<10	<20	0.18	9	17	<0.1	0.45
PN0557	23	425	16	60	<0.1	5	7	<0.1	0.13
PN0558	6	146	29	<20	<0.1	5	9	0.13	<0.1
PN0559	19	311	19	51	<0.1	5	7	<0.1	<0.1
PN0560	23	221	<10	<20	<0.1	3	8	<0.1	0.71
PN0561	63	99	<10	<20	<0.1	4	11	<0.1	1.35
PN0562	40	358	11	<20	<0.1	7	13	<0.1	0.82
PN0563	65	131	<10	<20	<0.1	11	13	<0.1	0.66
PN0564	61	506	17	34	<0.1	10	10	<0.1	0.62
PN0565	29	457	14	<20	<0.1	8	9	<0.1	0.22
PN0566	28	230	<10	<20	<0.1	4	8	<0.1	0.67
PN0567	18	148	16	<20	<0.1	5	11	<0.1	0.48
PN0568	30	332	<10	22	<0.1	7	9	<0.1	0.34
PN0569	43	380	11	<20	<0.1	11	18	<0.1	0.8
PN0570	31	149	<10	<20	<0.1	12	24	<0.1	0.7
PN0571	41	52	<10	<20	<0.1	10	13	<0.1	1.27
PN0572	126	21	<10	<20	0.2	15	97	<0.1	1.11
PN0573	13	166	<10	<20	<0.1	5	11	<0.1	0.43
PN0574	38	103	<10	23	<0.1	6	14	<0.1	1.41
PN0575	9	487	21	22	<0.1	7	15	<0.1	0.55
PN0576	8	130	<10	<20	0.17	16	44	<0.1	7.88
PN0577	8	23	<10	<20	<0.1	2	13	<0.1	3.67
PN0578	18	2020	47	58	<0.1	4	6	<0.1	0.11
PN0579	20	839	17	85	0.24	4	7	<0.1	0.43
PN0580	58	206	<10	50	<0.1	5	18	<0.1	4.24
PN0581	28	126	17	62	<0.1	3	13	<0.1	0.97
PN0582	<5	564	22	<20	<0.1	3	15	0.12	0.26
PN0583	37	248	21	56	<0.1	10	9	<0.1	0.34
PN0584	26	1250	17	45	1.36	6	9	<0.1	0.46
PN0585	44	225	<10	47	<0.1	6	10	<0.1	1.7
PN0586	19	122	<10	56	<0.1	2	5	<0.1	0.74
PN0587	18	92	<10	46	<0.1	4	5	<0.1	0.24
PN0588	17	206	<10	32	<0.1	3	5	<0.1	0.55
PN0589	6	233	26	<20	<0.1	4	13	<0.1	0.17
PN0590	20	655	<10	50	<0.1	3	18	<0.1	1.27
PN0591	11	738	56	<20	<0.1	3	5	<0.1	<0.1
PN0592	26	242	14	95	0.13	11	21	<0.1	3.19
PN0593	11	585	21	30	<0.1	3	5	0.14	0.24
PN0594	16	81	<10	<20	<0.1	1	10	0.11	0.21
PN0595	44	192	<10	<20	<0.1	2	34	0.11	0.35
PN0596	39	219	14	<20	<0.1	12	20	0.14	0.25
PN0597	<5	101	<10	<20	<0.1	1	7	<0.1	<0.1
PN0598	<5	119	<10	<20	<0.1	3	12	<0.1	<0.1
PN0599	<5	198	<10	<20	<0.1	2	11	<0.1	<0.1
PN0600	5	299	<10	<20	<0.1	<1	11	<0.1	<0.1
PN0601	42	159	<10	<20	0.1	<1	42	0.14	0.1
PN0602	<5	327	<10	<20	0.16	9	23	<0.1	0.14
PN0603	173	48	11	417	0.27	3	7	<0.1	2.87
DUP-PN0500	24	97	<10	29	<0.1	3	12	<0.1	1.12
DUP-PN0512	<5	119	<10	<20	<0.1	2	6	<0.1	<0.1
DUP-PN0524	22	229	15	<20	<0.1	22	28	<0.1	1.04
DUP-PN0536	80	194	20	67	<0.1	8	10	0.12	0.2
DUP-PN0548	60	304	<10	<20	<0.1	25	21	<0.1	0.2
DUP-PN0560	22	251	10	<20	<0.1	3	11	<0.1	0.68
DUP-PN0572	102	21	<10	<20	0.13	14	90	<0.1	1.12
DUP-PN0584	n.a.	n.a.	n.a.	n.a.	1.11	6	10	<0.1	0.52
DUP-PN0596	50	242	13	<20	<0.1	10	13	0.15	0.13

Sample Ident	Cu	Zn	Cd	Pb	Au	Co	Ni	Pd	Ag
Scheme Code	MMI-A	MMI-A	MMI-A	MMI-A	MMI-B	MMI-B	MMI-B	MMI-B	MMI-B
Analysis Unit	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Detection Limit	5	5	10	20	0.1	1	3	0.1	0.1
PN0221	18	147	<10	44	<0.1	4	17	<0.1	3.8
PN0222	27	221	<10	58	<0.1	7	47	<0.1	3.95
PN0223	16	34	<10	30	<0.1	2	14	0.37	4.2
PN0224	34	86	<10	40	<0.1	15	36	<0.1	1.73
PN0225	35	378	<10	29	<0.1	10	39	<0.1	2.22
PN0226	21	662	<10	27	<0.1	6	26	<0.1	5.87
PN0227	41	108	<10	43	<0.1	4	26	<0.1	3.6
PN0228	26	388	<10	49	<0.1	5	33	<0.1	2.82
PN0229	25	259	<10	81	<0.1	7	39	<0.1	3.97
PN0230	23	240	<10	74	<0.1	2	17	<0.1	4.76
PN0231	23	183	<10	39	<0.1	11	65	<0.1	6.51
PN0232	17	97	<10	27	<0.1	6	23	<0.1	2.54
PN0233	14	44	<10	31	<0.1	4	15	<0.1	1.9
PN0234	9	56	<10	28	<0.1	3	14	<0.1	1.73
PN0235	12	32	<10	25	<0.1	3	10	<0.1	4.38
PN0236	21	41	<10	41	<0.1	2	11	<0.1	5.16
PN0237	21	131	<10	90	<0.1	7	25	<0.1	2.76
PN0238	16	50	<10	26	<0.1	5	19	<0.1	5.87
PN0239	18	71	<10	31	<0.1	3	11	<0.1	7.12
PN0240	15	148	<10	45	<0.1	4	18	<0.1	2.46
PN0241	19	19	<10	31	<0.1	3	9	<0.1	1.94
PN0242	19	54	<10	40	<0.1	2	10	<0.1	5.86
PN0243	31	145	<10	30	<0.1	4	23	<0.1	9.21
PN0244	20	102	<10	65	<0.1	2	11	<0.1	5.2
PN0245	17	24	<10	23	<0.1	3	14	<0.1	6.98
PN0246	26	83	<10	22	<0.1	6	35	<0.1	7.18
PN0247	29	38	<10	33	<0.1	2	11	<0.1	5.95
PN0248	33	295	<10	125	<0.1	4	23	<0.1	2.78
PN0249	28	313	<10	51	<0.1	9	40	<0.1	2.15
PN0250	42	92	<10	98	0.11	7	21	<0.1	2.75
PN0251	31	98	<10	41	<0.1	4	13	<0.1	3.54
PN0252	19	86	<10	36	<0.1	6	24	<0.1	3.33
PN0253	24	80	<10	23	<0.1	3	11	<0.1	4.05
PN0254	33	190	<10	112	<0.1	5	28	<0.1	4.53
PN0255	26	1784	12	35	<0.1	6	47	<0.1	3.92
PN0256	30	51	<10	35	<0.1	4	13	<0.1	4.91
PN0257	24	176	<10	60	<0.1	2	16	<0.1	3.11
PN0258	31	632	<10	61	0.11	9	49	<0.1	3.04
PN0259	16	59	<10	39	<0.1	3	18	<0.1	7.01
PN0260	40	461	<10	140	0.12	10	36	<0.1	4.54
PN0261	23	29	<10	34	<0.1	1	9	<0.1	5.89
PN0262	17	46	<10	50	<0.1	1	7	<0.1	1.82
PN0263	134	44	11	1760	0.25	1	5	<0.1	2.99
PN0264	24	95	<10	55	<0.1	3	13	<0.1	2.9
PN0265	20	20	<10	23	<0.1	1	15	<0.1	5.18
PN0266	20	90	<10	41	<0.1	2	11	<0.1	2.57
PN0267	19	78	<10	34	<0.1	2	18	<0.1	6.56
PN0268	23	197	<10	43	<0.1	3	25	<0.1	6.02
PN0269	36	122	<10	73	0.11	2	15	<0.1	6.32
PN0270	20	170	<10	47	<0.1	<1	13	<0.1	5.33
PN0271	20	72	<10	22	<0.1	5	24	<0.1	6.78
PN0272	24	735	12	117	0.16	4	28	<0.1	2.47
PN0273	16	49	<10	27	<0.1	5	22	<0.1	8.78
PN0274	56	494	<10	117	0.19	5	48	<0.1	6.65
PN0275	39	178	<10	168	0.23	2	29	<0.1	5.58

Sample Ident Scheme Code	Cu		Zn		Cd		Pb		Au		Co		Ni		Pd		Ag	
	MMI-A	MMI-A	MMI-A	MMI-A	MMI-B	MMI-B	MMI-B	MMI-B	MMI-B	MMI-B	MMI-B	MMI-B	MMI-B	MMI-B	MMI-B	MMI-B	MMI-B	MMI-B
Analysis Unit	ppb		ppb		ppb		ppb		ppb		ppb		ppb		ppb		ppb	
Detection Limit	5	5	10	20	0.1	1	3	0.1	0.1	0.1	1	3	0.1	0.1	0.1	0.1	0.1	0.1
PN0276	<5	1097	23	<20	<0.1	7	24	0.21	0.3									
PN0277	106	947	<10	<20	<0.1	8	27	<0.1	1.37									
PN0278	46	388	<10	<20	<0.1	8	31	<0.1	0.89									
PN0279	60	123	<10	41	<0.1	24	37	0.13	2									
PN0280	144	558	23	104	<0.1	11	35	<0.1	2.1									
PN0281	48	112	<10	45	<0.1	8	26	<0.1	3.35									
PN0282	47	162	<10	32	<0.1	28	30	0.18	1.12									
PN0283	36	56	<10	<20	<0.1	11	20	<0.1	1.89									
PN0284	41	39	<10	32	<0.1	7	18	<0.1	2.88									
PN0285	45	103	<10	37	<0.1	10	29	<0.1	3.39									
PN0286	112	23	<10	32	<0.1	7	19	0.2	6.17									
PN0287	167	49	<10	53	<0.1	36	33	0.4	2.22									
PN0288	200	35	<10	34	<0.1	28	41	0.13	4.24									
PN0289	130	119	<10	<20	<0.1	24	38	<0.1	1.63									
PN0290	54	344	<10	38	<0.1	11	59	0.12	2.84									
PN0291	50	271	<10	23	<0.1	13	59	0.12	1.57									
PN0292	120	620	<10	25	<0.1	18	33	0.15	1.24									
PN0293	130	309	<10	30	<0.1	26	36	0.12	1.05									
PN0294	144	193	<10	60	<0.1	16	45	<0.1	1.37									
PN0295	29	538	<10	36	<0.1	23	41	0.17	1.57									
PN0296	30	397	<10	53	<0.1	21	45	0.18	1.87									
PN0297	144	26	<10	56	<0.1	33	52	0.21	2.07									
PN0298	50	319	<10	26	<0.1	57	48	0.22	1.07									
PN0299	51	865	<10	37	<0.1	14	37	0.22	1.46									
PN0300	193	139	<10	31	<0.1	37	59	0.14	1.48									
PN0301	177	329	<10	43	<0.1	32	42	0.22	0.58									
PN0302	32	741	10	33	<0.1	12	51	0.18	1.71									
PN0303	53	395	<10	<20	<0.1	25	43	0.13	0.6									
PN0304	380	24	<10	26	<0.1	32	60	0.17	0.97									
PN0305	67	276	<10	42	<0.1	16	56	0.16	2.39									
PN0306	220	182	<10	30	<0.1	28	91	0.21	1.77									
PN0307	38	193	<10	45	<0.1	28	60	0.18	0.32									
PN0308	211	107	<10	52	<0.1	27	63	0.28	1.18									
PN0309	53	381	<10	<20	<0.1	7	27	0.11	1.21									
PN0310	124	855	<10	41	<0.1	23	56	0.1	1.4									
PN0311	24	2806	33	29	<0.1	12	39	0.18	0.5									
PN0312	39	1380	25	31	<0.1	5	17	<0.1	0.94									
PN0313	111	109	<10	31	<0.1	85	53	0.34	1.61									
PN0314	61	126	<10	211	<0.1	6	18	<0.1	1.74									
PN0315	35	56	<10	30	<0.1	3	11	<0.1	0.99									
PN0316	113	60	12	1370	0.25	2	6	<0.1	3.67									
PN0317	14	36	<10	27	<0.1	6	30	<0.1	3.19									
PN0318	18	56	<10	36	<0.1	4	24	<0.1	4.06									
PN0319	24	218	<10	39	<0.1	10	43	<0.1	7.52									
PN0320	17	43	<10	29	<0.1	2	14	<0.1	6.09									
DUP-PN0221	n.a.	n.a.	n.a.	n.a.	<0.1	4	16	<0.1	3.11									
DUP-PN0233	17	40	<10	27	<0.1	5	14	<0.1	1.87									
DUP-PN0245	22	27	<10	27	<0.1	2	13	<0.1	6.23									
DUP-PN0257	27	176	<10	55	<0.1	3	18	<0.1	3.03									
DUP-PN0269	35	134	<10	67	<0.1	3	17	<0.1	5.91									
DUP-PN0281	53	111	<10	32	<0.1	7	30	<0.1	4.03									
DUP-PN0293	115	282	<10	27	<0.1	28	41	0.19	1.06									
DUP-PN0305	67	320	11	41	<0.1	15	63	0.16	2.62									
DUP-PN0317	16	30	<10	31	<0.1	6	30	<0.1	2.96									

Sample Ident	Cu	Zn	Cd	Pb	Au	Co	Ni	Pd	Ag
Scheme Code	MMI-A	MMI-A	MMI-A	MMI-A	MMI-B	MMI-B	MMI-B	MMI-B	MMI-B
Analysis Unit	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Detection Limit	5	5	10	20	0.1	1	3	0.1	0.1
PN0321	24	128	<10	37	<0.1	5	45	0.11	5.56
PN0322	14	19	<10	46	<0.1	2	14	<0.1	6.25
PN0323	25	70	<10	53	<0.1	2	17	<0.1	4.75
PN0324	28	240	<10	38	<0.1	3	19	<0.1	4.56
PN0325	55	2197	12	33	<0.1	4	39	<0.1	3.63
PN0326	53	120	<10	37	<0.1	2	11	<0.1	3.13
PN0327	65	220	<10	50	<0.1	4	35	<0.1	4.9
PN0328	63	71	<10	24	<0.1	8	26	<0.1	7.52
PN0329	9	1091	28	86	<0.1	4	13	<0.1	0.13
PN0330	21	2458	20	32	<0.1	2	15	<0.1	1.33
PN0331	16	423	<10	29	<0.1	5	42	<0.1	3.51
PN0332	22	165	<10	39	<0.1	3	24	<0.1	6.06
PN0333	31	308	19	42	<0.1	4	29	<0.1	5.27
PN0334	30	55	<10	30	<0.1	3	12	<0.1	1.95
PN0335	44	552	13	53	<0.1	6	19	<0.1	1.83
PN0336	39	93	<10	56	<0.1	5	20	<0.1	3.11
PN0337	16	39	<10	33	<0.1	6	17	<0.1	3.63
PN0338	30	146	<10	44	<0.1	5	25	<0.1	4.61
PN0339	29	203	<10	41	<0.1	6	28	<0.1	3.59
PN0340	36	327	<10	64	<0.1	9	22	<0.1	3.01
PN0341	31	170	<10	44	<0.1	6	28	<0.1	4.92
PN0342	31	165	<10	49	0.27	5	19	0.1	1.91
PN0343	28	517	<10	52	<0.1	3	33	<0.1	1.62
PN0344	41	129	<10	47	<0.1	7	34	<0.1	5.6
PN0345	36	1097	<10	58	<0.1	5	36	0.1	3.69
PN0346	45	354	<10	44	<0.1	8	44	<0.1	3.32
PN0347	73	237	<10	48	<0.1	7	45	<0.1	2.85
PN0348	36	449	<10	38	<0.1	11	25	<0.1	1.12
PN0349	19	39	<10	29	<0.1	3	13	<0.1	3.81
PN0350	27	121	<10	32	<0.1	5	24	<0.1	2.42
PN0351	42	166	12	66	<0.1	6	17	<0.1	2.24
PN0352	46	270	<10	67	<0.1	4	17	<0.1	2.83
PN0353	28	969	22	55	<0.1	3	25	<0.1	1.65
PN0354	34	2899	25	59	<0.1	7	16	<0.1	0.27
PN0355	33	261	<10	39	<0.1	8	46	<0.1	5.48
PN0356	23	57	<10	30	<0.1	5	17	<0.1	6.34
PN0357	21	288	11	50	<0.1	6	25	<0.1	2.29
PN0358	23	128	<10	65	<0.1	8	22	<0.1	2.5
PN0359	22	83	<10	56	<0.1	4	11	<0.1	3.96
PN0360	21	225	<10	36	<0.1	4	17	<0.1	2.63
PN0361	12	421	19	33	<0.1	4	15	<0.1	0.79
PN0362	19	441	15	48	<0.1	4	21	<0.1	1.84
PN0363	23	1896	25	21	<0.1	3	8	<0.1	0.13
PN0364	33	111	<10	26	<0.1	<1	<3	<0.1	<0.1
PN0365	24	172	11	32	<0.1	4	24	<0.1	4.34
PN0366	22	126	<10	45	<0.1	7	35	<0.1	2.36
PN0367	34	110	<10	<20	<0.1	11	26	<0.1	4.18
PN0368	41	308	<10	59	<0.1	7	32	<0.1	5.57
PN0369	21	367	<10	28	<0.1	4	17	<0.1	2.93
PN0370	95	40	<10	137	0.49	1	5	<0.1	2.02
PN0371	23	130	<10	54	0.12	5	32	<0.1	3.95
PN0372	24	132	<10	30	<0.1	9	19	<0.1	4.99
PN0373	21	98	<10	32	<0.1	3	19	<0.1	5.62
PN0374	35	397	<10	51	<0.1	5	32	<0.1	4.29
PN0375	36	753	16	41	<0.1	6	16	<0.1	2.96

Sample Ident	Cu	Zn	Cd	Pb	Au	Co	Ni	Pd	Ag
Scheme Code	MMI-A	MMI-A	MMI-A	MMI-A	MMI-B	MMI-B	MMI-B	MMI-B	MMI-B
Analysis Unit	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
PN0376	<5	969	21	39	<0.1	2	9	<0.1	<0.1
PN0377	<5	399	21	47	<0.1	2	11	0.12	0.19
PN0378	43	686	13	47	<0.1	6	24	<0.1	3.3
PN0379	24	91	<10	49	<0.1	2	9	<0.1	3.61
PN0380	20	24	<10	32	<0.1	4	26	<0.1	5.27
PN0381	66	106	<10	<20	<0.1	8	29	<0.1	12.3
PN0382	34	102	<10	26	<0.1	6	36	<0.1	8.58
PN0383	56	97	<10	66	<0.1	10	26	<0.1	3.94
PN0384	25	254	<10	52	<0.1	4	18	<0.1	4.42
PN0385	12	52	<10	75	<0.1	2	7	<0.1	2.74
PN0386	12	36	<10	27	<0.1	4	11	<0.1	16
PN0387	31	181	<10	45	<0.1	4	14	<0.1	9.12
PN0388	30	89	<10	34	<0.1	3	15	<0.1	4.15
PN0389	24	140	<10	33	<0.1	4	18	<0.1	3.15
PN0390	61	238	<10	36	<0.1	6	22	<0.1	3.67
PN0391	46	110	<10	52	<0.1	5	22	<0.1	3.73
PN0392	24	160	<10	64	<0.1	7	23	<0.1	0.73
PN0393	36	229	11	53	<0.1	8	32	<0.1	3.7
PN0394	22	38	<10	34	<0.1	3	15	<0.1	4.16
PN0395	26	44	<10	37	<0.1	4	22	<0.1	4.09
PN0396	16	31	<10	<20	<0.1	<1	9	<0.1	10
PN0397	17	47	<10	24	<0.1	1	7	<0.1	3.92
PN0398	14	80	<10	36	<0.1	2	16	<0.1	2.21
PN0399	14	40	<10	34	<0.1	2	7	<0.1	5.07
PN0400	14	699	24	47	<0.1	4	13	<0.1	2.65
PN0401	28	67	<10	71	<0.1	2	12	<0.1	7.42
PN0402	17	513	13	56	<0.1	3	35	<0.1	4.18
PN0403	23	592	14	39	<0.1	4	15	<0.1	3.25
PN0404	17	66	<10	38	<0.1	<1	5	<0.1	4.68
PN0405	23	76	<10	37	<0.1	2	11	<0.1	3.56
PN0406	16	91	<10	48	<0.1	1	12	<0.1	2.98
PN0407	16	82	<10	22	<0.1	2	10	<0.1	9.2
PN0408	24	691	11	33	<0.1	14	59	0.13	4.69
PN0409	40	118	<10	30	<0.1	17	26	<0.1	4.59
PN0410	18	83	<10	49	<0.1	3	13	<0.1	2.11
PN0411	26	253	<10	35	<0.1	2	23	<0.1	1.49
PN0412	21	376	<10	50	<0.1	3	16	<0.1	1.34
PN0413	35	90	<10	87	<0.1	6	12	<0.1	5.98
PN0414	20	85	<10	34	<0.1	4	15	<0.1	2.66
PN0415	22	1300	<10	47	<0.1	2	15	<0.1	2.7
PN0416	34	151	<10	49	<0.1	4	26	<0.1	3.69
PN0417	16	32	<10	28	<0.1	3	19	<0.1	5.87
PN0418	12	21	<10	<20	<0.1	1	8	<0.1	5.8
PN0419	20	68	<10	29	<0.1	5	17	<0.1	9.81
PN0420	14	190	<10	30	<0.1	2	11	<0.1	3.51
DUP-PN0321	29	141	<10	32	<0.1	4	39	<0.1	4.73
DUP-PN0333	32	305	18	54	<0.1	4	26	<0.1	4.63
DUP-PN0345	41	1258	11	55	<0.1	4	33	<0.1	4.17
DUP-PN0357	20	253	11	53	<0.1	5	24	<0.1	2.54
DUP-PN0369	24	423	<10	29	<0.1	4	20	<0.1	2.93
DUP-PN0381	60	106	<10	24	<0.1	9	33	<0.1	12.2
DUP-PN0393	37	196	11	53	<0.1	8	34	<0.1	3.04
DUP-PN0405	21	80	<10	37	<0.1	1	9	<0.1	4.01
DUP-PN0417	19	38	<10	33	<0.1	5	19	<0.1	5.81

Sample Ident	Cu	Zn	Cd	Pb	Au	Co	Ni	Pd	Ag
Scheme Code	MMI-A	MMI-A	MMI-A	MMI-A	MMI-B	MMI-B	MMI-B	MMI-B	MMI-B
Analysis Unit	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Detection Limit	5	5	10	20	0.1	1	3	0.1	0.1
PN0421	12	56	<10	33	<0.1	4	14	0.1	1.95
PN0422	22	155	<10	38	<0.1	3	14	<0.1	3.96
PN0423	23	70	<10	33	<0.1	2	11	<0.1	2.86
PN0424	24	89	<10	49	<0.1	4	14	<0.1	3.28
PN0425	17	28	<10	24	<0.1	3	11	<0.1	3.89
PN0426	19	47	<10	29	<0.1	4	9	<0.1	3.56
PN0427	19	73	<10	22	<0.1	3	15	<0.1	1.6
PN0428	20	53	<10	30	<0.1	5	11	<0.1	3.81
PN0429	15	53	<10	65	<0.1	3	11	<0.1	2.84
PN0430	13	25	<10	<20	<0.1	1	12	<0.1	11.3
PN0431	27	98	<10	39	<0.1	6	30	<0.1	4.28
PN0432	20	49	<10	34	<0.1	2	14	<0.1	6.34
PN0433	13	52	<10	28	<0.1	1	9	<0.1	3.19
PN0434	104	35	<10	138	0.56	<1	5	<0.1	1.96
PN0435	13	231	<10	42	<0.1	2	14	<0.1	3.26
PN0436	12	27	<10	23	<0.1	2	11	<0.1	3.83
PN0437	10	48	<10	31	<0.1	4	12	<0.1	1.95
PN0438	95	297	10	31	<0.1	4	18	<0.1	3.15
PN0439	27	54	<10	28	<0.1	4	10	<0.1	4.84
PN0440	18	57	<10	41	<0.1	2	11	<0.1	1.95
PN0441	15	51	<10	38	<0.1	4	17	<0.1	4.48
PN0442	16	11	<10	20	<0.1	<1	6	<0.1	6.05
PN0443	8	209	15	43	<0.1	2	11	<0.1	0.58
PN0444	16	123	<10	32	<0.1	2	16	<0.1	3.78
PN0445	24	871	<10	59	<0.1	8	28	<0.1	3.19
PN0446	27	458	11	63	<0.1	4	28	<0.1	3.34
PN0447	22	67	<10	32	<0.1	2	11	<0.1	1.95
PN0448	22	93	<10	21	<0.1	3	8	<0.1	1.81
PN0449	10	349	<10	<20	<0.1	3	9	<0.1	3.21
PN0450	17	119	<10	39	<0.1	2	16	<0.1	3.17
PN0451	19	494	<10	37	<0.1	2	20	<0.1	2.68
PN0452	14	193	<10	28	<0.1	2	9	<0.1	2.17
PN0453	17	28	<10	25	<0.1	1	9	<0.1	4.36
PN0454	35	33	<10	28	<0.1	<1	5	<0.1	1.78
PN0455	14	22	<10	23	<0.1	2	13	<0.1	7.85
PN0456	16	58	<10	36	<0.1	2	14	<0.1	4.66
PN0457	24	49	<10	24	<0.1	2	17	<0.1	6.06
PN0458	14	270	<10	22	<0.1	1	11	<0.1	3.87
PN0459	20	60	<10	<20	<0.1	<1	7	<0.1	6.64
PN0460	14	25	<10	31	<0.1	1	9	<0.1	4.33
PN0461	12	41	<10	29	<0.1	<1	7	<0.1	3.33
PN0462	16	182	<10	23	<0.1	3	14	<0.1	2.47
PN0463	17	29	<10	29	<0.1	1	6	<0.1	2.49
PN0464	17	103	<10	40	<0.1	3	21	<0.1	3.28
PN0465	18	225	11	50	<0.1	3	14	<0.1	2.36
PN0466	24	25	<10	25	<0.1	1	8	<0.1	2.25
PN0467	27	61	<10	31	<0.1	2	17	<0.1	1.77
PN0468	15	38	<10	31	<0.1	<1	4	<0.1	3.52
PN0469	18	48	<10	27	<0.1	2	9	<0.1	4.62
PN0470	16	99	<10	25	<0.1	1	7	<0.1	3.92
PN0471	21	68	<10	<20	<0.1	3	10	<0.1	6.52
PN0472	13	40	<10	60	<0.1	<1	5	<0.1	4.35
PN0473	18	96	<10	44	<0.1	2	11	<0.1	3.29
PN0474	15	30	<10	25	<0.1	3	9	<0.1	6.9
PN0475	14	48	<10	48	<0.1	2	14	<0.1	3.64

Sample Ident	Cu	Zn	Cd	Pb	Au	Co	Ni	Pd	Ag
Scheme Code	MMI-A	MMI-A	MMI-A	MMI-A	MMI-B	MMI-B	MMI-B	MMI-B	MMI-B
Analysis Unit	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Detection Limit	5	5	10	20	0.1	1	3	0.1	0.1
PN0476	21	69	<10	126	<0.1	3	21	<0.1	3.25
PN0477	24	46	<10	<20	<0.1	3	10	<0.1	4.07
PN0478	26	27	<10	23	<0.1	3	8	<0.1	15.6
PN0479	27	73	<10	74	<0.1	2	12	<0.1	3.48
PN0480	13	61	<10	25	<0.1	2	6	<0.1	7.29
PN0481	13	11	<10	22	<0.1	2	10	<0.1	5.51
PN0482	15	48	<10	41	<0.1	3	17	<0.1	5.86
PN0483	23	96	<10	28	<0.1	3	16	<0.1	5.6
PN0484	11	25	<10	37	<0.1	2	7	<0.1	4.71
PN0485	15	118	<10	84	<0.1	2	14	<0.1	3.44
PN0486	9	75	<10	48	<0.1	2	10	<0.1	4.09
PN0487	116	40	<10	175	1.18	1	4	<0.1	2.14
PN0488	20	38	<10	32	<0.1	3	10	<0.1	10.6
PN0489	16	30	<10	<20	<0.1	2	10	<0.1	7.97
PN0490	12	61	<10	36	<0.1	3	16	<0.1	3.01
PN0491	36	38	<10	31	<0.1	4	13	<0.1	6.35
PN0492	18	28	<10	<20	<0.1	2	11	<0.1	4.29
PN0493	16	39	<10	22	<0.1	2	11	<0.1	4.36
PN0494	14	83	<10	48	<0.1	2	13	<0.1	3.95
PN0495	20	23	<10	23	<0.1	3	11	<0.1	4.38
PN0496	35	54	<10	39	0.1	4	22	<0.1	9.31
PN0497	28	73	<10	49	<0.1	3	11	<0.1	4.82
PN0498	46	29	<10	29	<0.1	4	9	<0.1	7.95
PN0499	22	36	<10	31	<0.1	3	8	<0.1	7.25
PN0603	7	40	<10	36	<0.1	3	12	<0.1	1.27
PN0604	25	116	<10	62	<0.1	5	15	<0.1	4.13
PN0605	18	64	<10	32	<0.1	1	13	<0.1	5.41
PN0606	21	23	<10	28	<0.1	2	8	<0.1	3.39
PN0607	32	237	13	151	0.2	6	28	<0.1	1.84
PN0608	19	53	<10	30	<0.1	2	9	<0.1	5.54
PN0609	18	153	<10	98	<0.1	2	16	<0.1	3.21
PN0610	19	79	<10	46	<0.1	5	50	<0.1	2.84
PN0611	18	22	<10	26	<0.1	2	8	<0.1	6.34
PN0612	17	37	<10	21	<0.1	6	10	<0.1	1.48
PN0613	16	131	<10	27	<0.1	5	12	<0.1	3.06
PN0614	22	171	13	64	<0.1	2	16	<0.1	2.01
PN0615	24	48	<10	30	<0.1	3	9	<0.1	5.26
PN0616	18	43	<10	44	<0.1	2	16	<0.1	3.59
PN0617	22	105	<10	57	<0.1	2	14	<0.1	7.18
PN0618	19	69	13	47	<0.1	2	13	<0.1	3.19
PN0619	18	40	<10	35	<0.1	1	13	<0.1	5.12
PN0620	15	86	<10	<20	<0.1	3	17	<0.1	6.39
PN0621	13	151	<10	58	<0.1	2	22	<0.1	4.71
PN0622	30	40	<10	<20	<0.1	3	15	<0.1	6.02
PN0623	7	116	<10	53	<0.1	2	19	<0.1	1.81
PN0624	16	258	14	100	<0.1	3	13	<0.1	0.66
PN0625	15	116	<10	114	<0.1	3	23	<0.1	1.96
PN0626	19	28	<10	22	<0.1	4	7	<0.1	2.98
PN0627	18	56	<10	36	<0.1	2	10	<0.1	4.5
PN0628	17	88	<10	59	<0.1	2	11	<0.1	5.63
PN0629	16	69	<10	226	<0.1	2	13	<0.1	1.6
PN0630	19	48	<10	40	<0.1	3	13	<0.1	3.36
PN0631	18	46	<10	25	<0.1	4	9	<0.1	5.4
PN0632	15	101	<10	66	<0.1	2	18	<0.1	1.45
PN0633	12	110	11	44	<0.1	1	17	<0.1	1.74

Sample Ident	Cu	Zn	Cd	Pb	Au	Co	Ni	Pd	Ag
Scheme Code	MMI-A	MMI-A	MMI-A	MMI-A	MMI-B	MMI-B	MMI-B	MMI-B	MMI-B
Analysis Unit	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Detection Limit	5	5	10	20	0.1	1	3	0.1	0.1
PN0634	9	211	17	80	<0.1	1	42	<0.1	2.14
PN0635	32	75	<10	41	<0.1	3	19	<0.1	4.96
PN0636	24	124	10	36	<0.1	<1	<3	<0.1	<0.1
PN0637	13	42	<10	31	<0.1	2	9	<0.1	7.98
DUP-PN0421	11	62	<10	25	<0.1	4	14	<0.1	2.2
DUP-PN0433	12	61	<10	28	<0.1	3	9	<0.1	4.07
DUP-PN0445	21	814	<10	50	<0.1	10	32	<0.1	3.52
DUP-PN0457	21	50	<10	20	<0.1	2	18	<0.1	6.42
DUP-PN0469	18	49	<10	29	<0.1	2	8	<0.1	4.93
DUP-PN0481	16	15	<10	<20	<0.1	3	9	<0.1	5.62
DUP-PN0493	18	43	<10	27	<0.1	2	9	<0.1	4.26
DUP-PN0608	17	51	<10	32	<0.1	2	9	<0.1	6.51
DUP-PN0620	16	79	<10	22	<0.1	3	16	<0.1	6.26
DUP-PN0632	11	116	<10	71	<0.1	2	14	<0.1	1.49

Sample Ident	Au	Co	Ni	Pd	Ag	Cu	Zn	Cd	Pb
Scheme Code	MMI-B	MMI-B	MMI-B	MMI-B	MMI-B	MMI-A	MMI-A	MMI-A	MMI-A
Analysis Unit	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Detection Limit	0.1	1	3	0.1	0.1	5	5	10	20
PN0638	1.65	90	335	<0.1	12.7	<5	1113	<10	70
PN0639	0.95	125	326	<0.1	7.76	<5	598	<10	52
PN0640	0.13	50	139	0.14	0.78	17	113	<10	59
PN0641	<0.1	35	222	0.18	0.59	<5	50	<10	30
PN0642	0.21	29	424	0.72	0.55	52	35	<10	35
PN0643	<0.1	12	81	0.22	0.53	24	58	<10	20
PN0644	<0.1	12	37	0.16	0.52	7	142	<10	23
PN0645	<0.1	10	84	0.15	0.87	5	160	<10	<20
PN0646	<0.1	15	133	0.19	2.59	<5	69	<10	<20
PN0647	<0.1	8	47	0.12	0.75	9	209	<10	<20
PN0648	<0.1	3	33	0.18	0.68	12	<5	<10	<20
PN0649	<0.1	3	18	<0.1	0.72	5	9	<10	<20
PN0650	<0.1	3	13	<0.1	0.19	<5	55	<10	<20
PN0651	<0.1	4	22	<0.1	0.35	<5	20	<10	<20
PN0652	<0.1	4	27	<0.1	0.21	<5	104	<10	<20
PN0653	<0.1	3	23	<0.1	0.68	5	<5	<10	<20
PN0654	<0.1	2	10	<0.1	0.15	<5	47	<10	<20
PN0655	<0.1	3	48	<0.1	0.33	<5	66	<10	<20
PN0656	<0.1	4	16	<0.1	0.32	<5	85	<10	<20
PN0657	<0.1	3	12	<0.1	0.25	<5	28	<10	<20
PN0658	<0.1	4	14	<0.1	0.33	<5	80	<10	<20
PN0659	<0.1	4	11	<0.1	0.33	<5	213	<10	<20
PN0660	<0.1	5	33	0.15	0.25	8	46	<10	<20
PN0661	<0.1	6	24	0.14	0.7	<5	50	<10	<20
PN0662	<0.1	7	29	0.14	0.41	6	8	<10	<20
PN0663	<0.1	6	11	0.11	0.41	<5	365	<10	<20
PN0664	<0.1	13	207	0.15	0.43	17	<5	<10	<20
PN0665	<0.1	16	184	0.24	0.56	<5	64	<10	30
PN0666	<0.1	17	104	0.27	0.7	21	83	<10	28
PN0667	<0.1	22	84	0.38	0.54	18	217	<10	25
PN0668	<0.1	23	82	0.26	0.97	13	190	<10	24
PN0669	<0.1	30	157	0.14	0.41	24	343	<10	29
PN0670	<0.1	229	545	0.28	0.98	7	288	<10	34
PN0671	<0.1	4	11	0.1	0.87	13	146	<10	48
PN0672	<0.1	8	15	<0.1	0.14	43	1149	18	74
PN0673	<0.1	5	16	<0.1	0.62	33	177	<10	60
PN0674	<0.1	3	10	<0.1	0.54	12	282	<10	40
PN0675	<0.1	5	10	<0.1	0.47	39	375	11	73
PN0676	<0.1	3	7	0.12	0.68	14	233	13	62
PN0677	<0.1	11	19	<0.1	1.36	34	65	<10	54
PN0678	<0.1	3	7	<0.1	0.92	36	182	15	74
PN0679	<0.1	2	7	<0.1	0.99	10	421	20	103
PN0680	<0.1	4	10	<0.1	5.08	42	489	13	91
PN0681	<0.1	6	9	0.11	0.53	34	681	20	97
PN0682	<0.1	4	10	0.14	0.26	<5	2255	41	51
PN0683	0.12	12	40	0.25	1.14	43	5374	49	161
PN0684	<0.1	2	12	<0.1	2.9	22	1726	24	100
PN0685	<0.1	3	14	<0.1	3.23	12	1325	32	129
PN0686	0.1	7	26	0.18	1.1	17	1777	47	149
PN0687	<0.1	3	8	<0.1	1.83	45	87	11	83
PN0688	<0.1	8	28	0.26	0.51	9	3016	83	191
PN0689	<0.1	6	11	0.11	0.17	14	1409	36	76
PN0690	<0.1	2	10	<0.1	2.14	25	358	13	106
PN0691	<0.1	6	19	<0.1	3.19	42	184	<10	83
PN0692	<0.1	9	30	0.26	0.67	17	2167	42	120

PN0693	<0.1	3	11	<0.1	0.99	34	655	27	138
PN0694	<0.1	3	7	<0.1	0.69	16	407	26	104
PN0695	<0.1	2	5	<0.1	1.48	29	94	<10	64
PN0696	<0.1	6	19	<0.1	8.19	29	37	<10	56
PN0697	<0.1	5	20	<0.1	4.71	39	269	13	65
PN0698	<0.1	4	14	0.19	1.61	62	216	<10	64
PN0699	<0.1	5	12	<0.1	2.91	30	236	11	108
PN0700	1.04	2	7	<0.1	2.35	126	47	<10	170
PN0701	0.18	7	30	0.21	1.22	8	2070	41	130
PN0702	<0.1	2	11	<0.1	1.91	18	717	14	91
PN0703	<0.1	3	19	<0.1	2.27	45	809	27	99
PN0704	<0.1	4	16	<0.1	2.07	40	256	15	112
PN0705	<0.1	3	10	0.14	0.22	<5	832	25	26
PN0706	<0.1	3	8	<0.1	1.18	7	696	22	97
PN0707	<0.1	4	11	<0.1	0.27	10	756	19	87
PN0708	<0.1	8	29	0.24	1.14	13	2629	64	51
PN0709	<0.1	9	17	<0.1	0.81	33	828	26	69
PN0710	<0.1	2	7	<0.1	1.77	24	366	11	105
PN0711	<0.1	4	9	<0.1	4.93	34	286	10	98
PN0712	<0.1	4	11	<0.1	0.23	19	704	24	100
PN0713	0.1	5	14	<0.1	0.56	9	681	23	103
PN0714	<0.1	2	17	<0.1	0.5	8	390	10	74
PN0715	<0.1	2	9	<0.1	1.15	<5	308	18	87
PN0716	<0.1	4	10	0.12	0.3	27	849	24	88
PN0717	<0.1	5	13	<0.1	0.42	23	129	20	55
PN0718	<0.1	6	15	0.14	0.93	31	983	18	71
PN0719	<0.1	8	13	0.11	0.23	16	748	26	62
PN0720	<0.1	25	68	0.23	0.27	6	617	13	30
DUP-PN0638	1.42	105	337	0.21	11.1	<5	1091	<10	63
DUP-PN0650	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
DUP-PN0662	<0.1	6	32	0.16	0.53	<5	7	<10	<20
DUP-PN0674	<0.1	3	10	<0.1	0.73	8	329	<10	41
DUP-PN0686	<0.1	7	27	0.15	1.1	13	2010	47	131
DUP-PN0698	0.1	4	14	0.14	1.75	72	250	<10	66
DUP-PN0710	<0.1	2	7	<0.1	1.73	25	400	12	113

Sample Ident	Au	Co	Ni	Pd	Ag	Cu	Zn	Cd	Pb
Scheme Code	MMI-B	MMI-B	MMI-B	MMI-B	MMI-B	MMI-A	MMI-A	MMI-A	MMI-A
Analysis Unit	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Detection Limit	0.1	1	3	0.1	0.1	5	5	10	20
PN0721	<0.1	23	71	<0.1	0.15	<5	518	<10	45
PN0722	<0.1	10	22	<0.1	0.79	<5	687	<10	<20
PN0723	<0.1	3	7	<0.1	<0.1	<5	364	<10	<20
PN0724	<0.1	5	13	<0.1	<0.1	<5	113	<10	<20
PN0725	<0.1	5	10	<0.1	<0.1	<5	130	<10	<20
PN0726	<0.1	4	7	<0.1	<0.1	<5	153	<10	<20
PN0727	<0.1	4	9	<0.1	<0.1	<5	126	<10	<20
PN0728	<0.1	2	9	<0.1	<0.1	<5	280	<10	<20
PN0729	<0.1	2	6	<0.1	0.12	<5	54	<10	<20
PN0730	<0.1	4	12	<0.1	<0.1	<5	232	<10	<20
PN0731	<0.1	3	20	<0.1	0.13	<5	<5	<10	<20
PN0732	<0.1	4	14	<0.1	<0.1	<5	112	<10	<20
PN0733	<0.1	4	18	<0.1	<0.1	<5	59	<10	<20
PN0734	<0.1	6	27	<0.1	0.13	<5	9	<10	<20
PN0735	<0.1	4	11	<0.1	<0.1	<5	30	<10	<20
PN0736	<0.1	8	20	<0.1	0.11	<5	154	<10	<20
PN0737	<0.1	8	25	<0.1	0.18	<5	38	<10	<20
PN0738	<0.1	21	93	<0.1	<0.1	<5	57	<10	<20
PN0739	<0.1	79	190	<0.1	<0.1	<5	93	<10	29
PN0740	<0.1	67	83	0.14	0.28	<5	71	<10	80
PN0741	<0.1	21	46	<0.1	1.13	6	63	<10	31
PN0742	<0.1	31	50	0.23	0.39	11	166	10	73
PN0743	0.31	11	29	<0.1	0.25	12	218	<10	24
PN0744	<0.1	5	4	<0.1	0.13	7	530	14	<20
PN0745	<0.1	12	16	<0.1	<0.1	10	214	<10	37
PN0746	<0.1	27	69	0.33	0.53	19	163	<10	126
PN0747	<0.1	5	13	<0.1	0.3	13	644	17	32
PN0748	<0.1	44	56	<0.1	0.23	<5	195	<10	74
PN0749	<0.1	2	5	<0.1	<0.1	5	622	<10	<20
PN0750	0.13	1	3	<0.1	1.91	117	19	<10	121
PN0751	<0.1	50	77	<0.1	<0.1	<5	57	<10	57
PN0752	<0.1	18	27	<0.1	<0.1	<5	188	<10	52
PN0753	<0.1	52	73	<0.1	2.17	6	89	<10	67
PN0754	<0.1	6	8	<0.1	<0.1	6	627	13	40
PN0755	<0.1	55	123	<0.1	0.15	7	45	<10	75
PN0756	<0.1	16	12	<0.1	0.15	58	303	12	61
PN0757	<0.1	16	14	<0.1	0.25	20	244	27	28
PN0758	<0.1	9	7	<0.1	0.11	8	120	22	<20
PN0759	<0.1	14	14	<0.1	0.4	33	351	16	<20
PN0760	<0.1	14	20	<0.1	0.74	111	238	11	35
PN0761	<0.1	23	24	<0.1	0.4	113	246	10	52
PN0762	<0.1	67	71	<0.1	0.75	47	133	<10	21
PN0763	<0.1	74	100	<0.1	0.56	33	346	14	53
PN0764	<0.1	24	28	<0.1	0.34	12	445	17	<20
PN0765	<0.1	30	46	<0.1	0.2	<5	418	18	33
PN0766	<0.1	270	305	<0.1	<0.1	<5	114	13	36
PN0767	<0.1	109	166	<0.1	0.36	<5	117	<10	<20
PN0768	<0.1	9	26	<0.1	<0.1	<5	242	<10	<20
PN0769	<0.1	4	16	<0.1	<0.1	<5	200	<10	<20
PN0770	<0.1	3	11	<0.1	<0.1	<5	322	<10	<20
PN0771	<0.1	2	3	<0.1	<0.1	<5	58	<10	<20
PN0772	<0.1	6	7	<0.1	0.31	43	463	26	51
PN0773	<0.1	2	6	<0.1	0.21	21	45	16	26
PN0774	<0.1	3	5	<0.1	0.22	15	142	15	57
PN0775	<0.1	3	8	0.11	<0.1	7	56	13	22

Sample Ident	Au	Co	Ni	Pd	Ag	Cu	Zn	Cd	Pb
Scheme Code	MMI-B	MMI-B	MMI-B	MMI-B	MMI-B	MMI-A	MMI-A	MMI-A	MMI-A
Analysis Unit	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
PN0776	<0.1	2	6	<0.1	<0.1	13	61	17	122
PN0777	<0.1	4	8	<0.1	<0.1	37	601	29	88
PN0778	<0.1	6	9	<0.1	<0.1	26	720	22	95
PN0779	<0.1	7	5	<0.1	<0.1	32	336	16	65
PN0780	<0.1	5	7	<0.1	0.26	28	105	<10	113
PN0781	<0.1	5	8	<0.1	0.52	38	167	<10	66
PN0782	<0.1	3	7	<0.1	<0.1	9	345	11	52
PN0783	<0.1	2	3	<0.1	<0.1	<5	502	11	45
PN0784	<0.1	2	6	<0.1	0.13	<5	265	<10	<20
PN0785	<0.1	3	13	<0.1	<0.1	<5	513	<10	<20
PN0786	<0.1	3	12	<0.1	<0.1	<5	198	<10	<20
PN0787	<0.1	3	6	<0.1	<0.1	30	451	<10	49
PN0788	<0.1	4	7	<0.1	<0.1	13	1217	21	67
PN0789	<0.1	2	8	<0.1	<0.1	16	188	<10	136
PN0790	<0.1	<1	<3	<0.1	<0.1	6	162	<10	91
PN0791	<0.1	4	13	0.29	0.17	80	367	12	178
PN0792	<0.1	4	21	0.16	1.09	7	1843	32	85
PN0793	<0.1	6	14	<0.1	0.16	<5	142	<10	79
PN0794	<0.1	11	17	<0.1	<0.1	<5	214	<10	126
PN0795	<0.1	31	56	<0.1	<0.1	<5	240	<10	131
PN0796	<0.1	93	72	0.12	0.51	23	586	11	161
DUP-PN0721	<0.1	26	79	<0.1	0.24	<5	581	11	41
DUP-PN0733	<0.1	4	20	<0.1	<0.1	<5	79	<10	<20
DUP-PN0745	<0.1	14	19	<0.1	0.12	9	211	<10	40
DUP-PN0757	<0.1	13	12	<0.1	0.35	n.a.	n.a.	n.a.	n.a.
DUP-PN0769	<0.1	3	9	<0.1	<0.1	<5	345	<10	<20
DUP-PN0781	<0.1	6	9	<0.1	0.42	31	39	<10	61
DUP-PN0793	<0.1	3	9	<0.1	<0.1	<5	171	<10	62

Sample Ident	Au	Co	Ni	Pd	Ag
Scheme Code	MMI-B	MMI-B	MMI-B	MMI-B	MMI-B
Analysis Unit	ppb	ppb	ppb	ppb	ppb
Detection Limit	0.1	1	3	0.1	0.1
PN1001	<0.1	3	8	<0.1	0.16
PN1002	<0.1	5	6	<0.1	0.12
PN1003	<0.1	3	5	<0.1	<0.1
PN1004	<0.1	2	4	<0.1	2.3
PN1005	<0.1	3	5	<0.1	0.11
PN1006	<0.1	5	7	<0.1	<0.1
PN1007	<0.1	3	5	<0.1	0.13
PN1008	<0.1	8	8	<0.1	<0.1
PN1009	<0.1	3	6	<0.1	0.18
PN1010	<0.1	12	8	<0.1	0.11
PN1011	<0.1	5	13	<0.1	2.04
PN1012	<0.1	4	29	<0.1	6.62
PN1013	<0.1	4	6	<0.1	0.26
PN1014	<0.1	4	14	<0.1	4.41
PN1015	<0.1	7	23	0.18	0.14
PN1016	<0.1	5	22	0.14	0.16
PN1017	<0.1	8	11	<0.1	0.49
PN1018	<0.1	6	10	<0.1	0.58
PN1019	<0.1	8	15	<0.1	2.73
PN1020	<0.1	5	14	<0.1	0.71
PN1021	<0.1	5	13	<0.1	3.09
PN1022	<0.1	3	11	<0.1	1.32
PN1023	<0.1	4	10	<0.1	0.21
PN1024	<0.1	11	37	<0.1	4.65
PN1025	<0.1	5	25	<0.1	2.67
PN1026	<0.1	3	7	<0.1	2.63
PN1027	<0.1	4	10	0.25	1.54
PN1028	<0.1	5	12	<0.1	0.27
PN1029	<0.1	3	13	<0.1	6.92
PN1030	<0.1	3	6	<0.1	0.19
PN1031	<0.1	6	10	<0.1	2.08
PN1032	<0.1	3	7	<0.1	1.29
PN1033	<0.1	3	8	<0.1	5.84
PN1034	0.16	2	6	<0.1	0.19
PN1035	<0.1	2	6	<0.1	0.23
PN1036	<0.1	5	9	<0.1	0.95
PN1037	<0.1	3	6	<0.1	0.32
PN1038	<0.1	4	14	<0.1	2.87
PN1039	<0.1	3	8	<0.1	0.32
PN1040	<0.1	5	46	0.11	0.2
PN1041	<0.1	2	6	<0.1	1.16
PN1042	<0.1	3	10	<0.1	5.86
PN1043	<0.1	2	6	<0.1	7.69
PN1044	<0.1	2	7	<0.1	0.19
PN1045	<0.1	1	4	<0.1	0.36
PN1046	<0.1	2	8	<0.1	0.2
PN1047	<0.1	4	22	0.12	0.23

SGS-XRAL Certificate
MMI B

APPENDIX 3G

073826

Sample Ident	Au	Co	Ni	Pd	Ag
Scheme Code	MMI-B	MMI-B	MMI-B	MMI-B	MMI-B
Analysis Unit	ppb	ppb	ppb	ppb	ppb
PN1048	<0.1	3	18	0.1	0.21
PN1049	<0.1	3	7	<0.1	1.81
PN1050	0.15	1	<3	<0.1	1.83
PN1051	0.12	2	9	<0.1	1.03
PN1052	<0.1	3	9	<0.1	1.01
PN1053	<0.1	9	15	<0.1	0.23
PN1054	<0.1	6	39	<0.1	5.25
PN1055	<0.1	5	25	<0.1	0.51
PN1056	<0.1	18	42	<0.1	1.3
PN1057	<0.1	10	16	<0.1	0.88
PN1058	<0.1	5	8	<0.1	0.2
PN1059	<0.1	8	12	<0.1	0.26
PN1060	<0.1	12	12	<0.1	0.28
PN1061	<0.1	10	12	<0.1	0.33
PN1062	<0.1	5	9	<0.1	0.62
PN1063	<0.1	7	11	<0.1	1.21
PN1064	<0.1	10	6	<0.1	0.12
PN1065	<0.1	3	11	<0.1	1.25
PN1066	<0.1	5	9	<0.1	0.39
PN1067	<0.1	2	5	<0.1	0.14
PN1068	<0.1	5	21	0.11	0.21
PN1069	<0.1	4	32	<0.1	5.13
PN1070	<0.1	7	41	<0.1	2.33
PN1071	0.12	6	18	<0.1	0.76
PN1072	<0.1	6	18	<0.1	1.54
PN1073	<0.1	2	8	<0.1	0.33
PN1074	<0.1	6	12	<0.1	0.17
PN1075	<0.1	4	7	<0.1	0.14
PN1076	<0.1	4	5	<0.1	<0.1
PN1077	<0.1	11	31	0.11	0.87
PN1078	<0.1	3	12	<0.1	2.26
PN1079	<0.1	4	8	<0.1	0.55
PN1080	<0.1	1	14	<0.1	<0.1
PN1081	<0.1	<1	3	<0.1	<0.1
PN1082	<0.1	2	4	<0.1	<0.1
PN1083	<0.1	2	5	<0.1	<0.1
PN1084	<0.1	2	8	<0.1	0.4
PN1085	<0.1	4	13	<0.1	11.9
PN1086	<0.1	3	8	<0.1	0.11
PN1087	<0.1	6	12	<0.1	12.8
PN1088	<0.1	3	11	<0.1	5.39
PN1089	<0.1	4	7	<0.1	0.12
PN1090	<0.1	5	12	<0.1	0.88
PN1091	<0.1	3	7	<0.1	0.35
PN1092	0.15	2	10	<0.1	2.71
PN1093	<0.1	6	19	<0.1	0.37
PN1094	<0.1	3	7	<0.1	0.31
PN1095	<0.1	3	6	<0.1	0.13

SGS-XRAL Certificate
MMI B

APPENDIX 3G

073826

Sample Ident	Au	Co	Ni	Pd	Ag
Scheme Code	MMI-B	MMI-B	MMI-B	MMI-B	MMI-B
Analysis Unit	ppb	ppb	ppb	ppb	ppb
PN1096	<0.1	2	6	<0.1	1.19
PN1097	<0.1	6	27	<0.1	6.97
PN1098	<0.1	2	12	<0.1	3.43
PN1099	<0.1	4	12	<0.1	2.51
PN1100	0.14	2	4	<0.1	1.74
PN1101	<0.1	2	15	<0.1	3.97
PN1102	<0.1	3	12	<0.1	3.88
PN1103	<0.1	5	20	0.13	0.42
PN1104	<0.1	4	8	<0.1	0.73
PN1105	<0.1	4	32	<0.1	3.52
PN1106	<0.1	5	28	<0.1	1.8
PN1107	<0.1	6	21	<0.1	4.2
DUP-PN1001	<0.1	2	7	<0.1	0.26
DUP-PN1013	<0.1	4	7	<0.1	0.11
DUP-PN1025	<0.1	5	29	<0.1	2.43
DUP-PN1037	<0.1	4	6	<0.1	0.26
DUP-PN1049	<0.1	2	9	<0.1	1.53
DUP-PN1061	<0.1	10	11	<0.1	0.33
DUP-PN1073	<0.1	3	9	<0.1	0.21
DUP-PN1085	<0.1	4	13	<0.1	10.6
DUP-PN1097	<0.1	6	28	<0.1	6.79

SYS-XRAL Certificates
MMI - F

APPENDIX 3H

074463

Sample Ident	Fe	As	Se	Mo	Sb	Hg
Scheme Code	MMI-F	MMI-F	MMI-F	MMI-F	MMI-F	MMI-F
Analysis Unit	ppm	ppb	ppb	ppb	ppb	ppb
Detection Limit	0.1	1	2	1	1	3
PN0001	170	186	4	10	7	12
PN0002	467	309	6	16	13	16
PN0003	547	236	7	8	7	14
PN0004	366	80	10	3	3	12
PN0005	353	170	11	4	4	14
PN0006	491	120	22	3	3	22
PN0007	I.S.	I.S.	I.S.	I.S.	I.S.	I.S.
PN0008	281	644	9	13	7	12
PN0009	149	193	4	11	6	9
PN0010	72.6	135	3	19	3	6
PN0011	123	141	5	13	4	6
PN0012	1150	104	16	5	2	20
PN0013	I.S.	I.S.	I.S.	I.S.	I.S.	I.S.
PN0014	92.9	66	2	7	<1	7
PN0015	300	224	18	12	3	13
PN0016	542	316	19	8	3	21
PN0017	785	195	16	13	7	18
PN0018	120	147	6	4	3	9
PN0019	735	232	7	15	8	11
PN0020	652	647	9	11	9	13
PN0021	I.S.	I.S.	I.S.	I.S.	I.S.	I.S.
PN0022	1410	318	7	13	17	13
PN0023	928	131	4	24	6	41
PN0024	1200	157	10	22	5	13
PN0025	703	136	7	13	3	29
PN0026	668	285	2	45	7	140
PN0027	818	3950	7	250	72	1191
PN0028	356	839	3	24	14	2847
PN0029	66.1	85	<2	27	1	157
PN0030	171	121	9	11	2	21
PN0031	323	114	4	20	2	696
PN0032	735	405	4	23	12	145
PN0033	1260	166	7	26	7	27
PN0034	1060	223	3	16	3	8
PN0035	188	113	4	7	3	15
PN0036	1400	111	9	27	1	7
PN0037	131	82	4	9	3	116
PN0038	700	274	7	7	4	16
PN0039	676	239	4	12	4	29
PN0040	118	215	<2	12	2	343
PN0041	869	1700	4	208	26	2991
PN0042	1070	772	4	77	84	2926
PN0043	830	451	4	57	29	1213
PN0044	370	121	5	10	4	113
PN0045	645	23	7	7	1	13
PN0046	740	242	<2	49	19	2382
PN0047	694	386	3	46	17	1888
PN0048	608	220	9	29	11	678

SYS-XRAL Certificates
MMI - F

APPENDIX 3H

074463

Sample Ident	Fe	As	Se	Mo	Sb	Hg
Scheme Code	MMI-F	MMI-F	MMI-F	MMI-F	MMI-F	MMI-F
Analysis Unit	ppm	ppb	ppb	ppb	ppb	ppb
PN0049	1540	1330	7	397	91	12660
PN0050	45.9	91	8	6	3	3
PN0051	559	72	4	13	4	58
PN0052	1180	268	<2	27	6	56
PN0053	460	100	5	11	3	13
PN0054	585	131	2	10	4	60
PN0055	583	126	7	10	2	10
PN0056	1060	858	8	31	6	14
PN0057	160	204	5	10	3	5
PN0058	171	446	3	14	5	10
PN0059	480	268	5	17	6	11
PN0060	309	287	5	13	5	6
PN0061	730	35	9	10	1	7
PN0062	765	30	10	22	<1	5
PN0063	687	507	10	14	4	4
PN0064	276	370	4	9	3	7
PN0065	317	604	3	13	5	7
PN0066	407	32	7	7	<1	6
PN0067	60.6	89	4	5	2	4
PN0068	375	12	6	8	<1	<3
PN0069	29	52	2	5	2	5
PN0070	239	77	6	10	5	6
PN0071	914	25	13	3	<1	7
PN0072	929	116	14	4	1	10
PN0073	119	61	3	4	<1	8
PN0074	69	47	<2	4	1	<3
PN0075	40.2	91	<2	7	1	4
PN0076	156	144	<2	5	2	5
DUP-PN0003	574	246	5	8	8	12
DUP-PN0014	107	78	3	9	<1	<3
DUP-PN0025	559	125	4	8	3	34
DUP-PN0038	801	283	3	8	4	12
DUP-PN0051	493	77	4	13	3	48
DUP-PN0061	647	41	6	9	2	5
DUP-PN0074	62.5	39	<2	4	1	<3

SGS-XRAL Certificate
MMI F

APPENDIX 3I

074513

2 - 292 55

Sample Ident	Fe	As	Se	Mo	Sb	Hg
Scheme Code	MMI-F	MMI-F	MMI-F	MMI-F	MMI-F	MMI-F
Analysis Unit	ppm	ppb	ppb	ppb	ppb	ppb
Detection Limit	0.1	1	2	1	1	3
PN0724	83.4	328	4	28	4	27
PN0725	105	298	<2	23	5	14
PN0726	99.3	294	<2	27	5	8
PN0727	109	390	2	26	6	7
PN0728	165	359	<2	26	6	17
PN0729	82.6	222	3	21	3	10
PN0730	94.8	382	<2	32	5	6
PN0731	175	232	3	26	6	16
PN0732	130	301	<2	31	6	17
PN0733	1090	689	5	39	12	35
PN0734	596	130	<2	14	3	18
PN0735	875	170	4	16	4	5
PN0736	505	179	2	18	5	14
PN0737	318	122	3	15	3	4
PN0738	1550	125	<2	13	3	5
PN0739	2150	166	<2	11	1	<3
PN0740	2290	67	<2	9	2	4
PN0741	1330	53	<2	8	1	4
PN0742	1950	437	5	11	6	8
PN0743	850	183	<2	9	2	<3
PN0744	277	57	<2	5	<1	<3
PN0745	625	80	<2	7	2	<3
PN0746	3510	43	10	12	<1	4
PN0747	921	112	<2	19	3	<3
PN0748	2620	41	3	26	<1	<3
PN0749	226	59	<2	9	3	6
PN0751	3200	77	4	57	2	4
PN0752	1900	65	3	26	4	5
PN0753	2000	26	6	9	<1	3
PN0754	4210	157	12	21	5	9
PN0755	3430	30	4	18	3	8
PN0756	1380	106	5	6	3	8
PN0757	451	106	4	10	3	4
PN0758	274	247	4	20	4	7
PN0759	575	112	<2	7	1	4
PN0760	720	69	7	4	1	8
PN0761	519	40	9	5	<1	4
PN0762	242	27	<2	2	<1	<3
PN0763	769	44	4	4	1	<3
PN0764	661	106	2	5	2	3
PN0765	752	189	3	9	3	4
PN0766	812	182	4	14	2	5
PN0767	486	139	4	7	1	4
PN0768	239	86	4	5	<1	<3
PN0769	123	108	<2	23	2	<3
PN0770	167	132	<2	13	2	<3
PN0771	95.2	136	2	22	2	3
PN0772	258	233	6	4	3	8

SGS-XRAL Certificate
MMI F

APPENDIX 3I

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PN0773	206	238	5	6	4	11
PN0774	330	104	7	3	3	7
PN0775	80.8	64	<2	1	<1	3
PN0776	127	160	11	<1	2	18
PN0777	632	544	19	6	7	49
PN0778	1390	252	9	9	3	8
PN0779	1160	53	8	3	2	7
PN0780	822	43	6	4	<1	5
PN0781	460	23	11	5	<1	10
PN0782	977	79	2	12	3	<3
PN0783	203	38	<2	4	2	<3
PN0784	276	72	<2	15	2	15
PN0785	739	218	<2	75	6	77
PN0786	1010	167	<2	30	4	73
PN0787	1910	71	<2	25	3	9
PN0788	775	48	<2	15	2	3
PN0789	2520	77	7	12	2	16
PN0790	1840	62	4	8	3	<3
PN0791	2820	196	26	11	2	20
PN0792	265	106	2	6	2	3
PN0793	3490	45	4	23	2	8
PN0794	2030	37	4	7	1	<3
PN0795	6530	48	13	18	1	10
PN0796	3080	33	7	11	<1	<3
DUP-PN0724	83.9	306	2	25	3	23
DUP-PN0736	531	192	4	18	4	15
DUP-PN0748	2730	36	3	24	<1	<3
DUP-PN0761	617	48	7	5	1	<3
DUP-PN0773	169	292	4	5	4	7
DUP-PN0785	813	180	<2	76	4	81

Sample Ident	Cu	Zn	Cd	Pb	Au	Co	Ni	Pd	Ag
Scheme Code	MMI-A	MMI-A	MMI-A	MMI-A	MMI-B	MMI-B	MMI-B	MMI-B	MMI-B
Analysis Unit	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Detection Limit	5	5	10	20	0.1	1	3	0.1	0.1
PN0001	28	2020	41	69	0.26	11	24	<0.1	0.62
PN0002	9	1350	40	100	0.19	15	22	<0.1	0.38
PN0003	39	1350	21	37	<0.1	13	11	<0.1	0.16
PN0004	52	103	<10	34	<0.1	5	11	0.11	1.28
PN0005	21	675	18	52	<0.1	5	6	<0.1	0.65
PN0006	42	194	16	99	<0.1	3	7	<0.1	1
PN0007	<5	4760	92	33	<0.1	8	17	0.12	0.14
PN0008	13	471	39	302	0.11	13	18	0.11	1.48
PN0009	<5	566	28	34	<0.1	7	9	0.19	0.32
PN0010	8	1080	28	47	<0.1	5	4	0.14	0.17
PN0011	12	2480	43	54	<0.1	15	22	0.21	0.76
PN0012	126	353	<10	25	<0.1	5	12	0.16	2.93
PN0013	58	1720	46	66	<0.1	8	28	<0.1	2.02
PN0014	<5	1170	29	<20	<0.1	3	5	<0.1	0.82
PN0015	24	1100	27	49	<0.1	6	17	0.11	0.51
PN0016	41	1330	19	44	<0.1	5	10	0.17	0.48
PN0017	27	1380	31	88	<0.1	4	9	<0.1	1.35
PN0018	33	211	<10	35	<0.1	9	14	<0.1	2.6
PN0019	37	490	33	48	<0.1	18	12	<0.1	0.23
PN0020	49	864	36	43	<0.1	18	13	0.12	0.31
PN0021	42	537	24	<20	<0.1	9	6	<0.1	0.1
PN0022	40	1580	20	<20	<0.1	9	8	0.11	0.18
PN0023	95	521	<10	<20	<0.1	32	43	0.17	10.8
PN0024	100	633	15	<20	<0.1	18	20	0.14	3.7
PN0025	78	212	<10	<20	<0.1	17	21	0.11	3.38
PN0026	45	1480	22	<20	0.15	7	14	<0.1	2.25
PN0027	109	1410	21	<20	0.32	29	35	<0.1	2.93
PN0028	38	3380	<10	<20	0.38	52	246	0.17	17.9
PN0029	<5	402	29	<20	<0.1	5	<3	0.1	0.29
PN0030	28	552	13	<20	<0.1	14	7	<0.1	0.52
PN0031	<5	437	<10	<20	0.17	30	129	0.18	4.12
PN0032	<5	448	<10	<20	<0.1	207	133	<0.1	0.45
PN0033	<5	269	<10	<20	<0.1	62	77	0.11	0.46
PN0034	<5	374	<10	<20	<0.1	24	46	<0.1	0.42
PN0035	<5	501	<10	<20	<0.1	7	8	0.18	0.27
PN0036	21	448	<10	20	0.11	198	372	0.16	0.88
PN0037	5	1480	<10	<20	<0.1	17	31	<0.1	4.14
PN0038	67	609	13	<20	<0.1	116	166	<0.1	0.16
PN0039	22	559	10	<20	0.31	125	137	<0.1	0.58
PN0040	10	1360	12	<20	<0.1	8	8	<0.1	0.97
PN0041	149	2810	19	<20	0.52	32	105	0.16	11.3
PN0042	565	1460	12	22	0.22	77	102	<0.1	175
PN0043	249	805	10	<20	0.25	39	83	0.17	170
PN0044	47	2380	27	25	<0.1	10	12	<0.1	5.04
PN0045	99	69	<10	<20	<0.1	45	77	0.24	13
PN0046	159	2260	13	<20	0.22	17	93	0.11	6.89
PN0047	96	1590	<10	<20	0.22	34	92	0.3	24.9
PN0048	103	697	<10	<20	0.17	57	139	0.2	29.7
PN0049	2090	5470	20	540	1.13	141	475	0.19	794
PN0050	145	46	11	1690	0.34	3	<3	<0.1	2.9
PN0051	70	333	<10	<20	<0.1	23	84	<0.1	6.98
PN0052	55	767	<10	<20	<0.1	84	42	0.16	1.44
PN0053	42	590	13	<20	0.15	9	21	<0.1	1.78
PN0054	124	295	<10	<20	0.12	17	14	0.11	0.6
PN0055	83	229	<10	<20	<0.1	8	14	<0.1	0.53

Sample Ident	Cu	Zn	Cd	Pb	Au	Co	Ni	Pd	Ag
Scheme Code	MMI-A	MMI-A	MMI-A	MMI-A	MMI-B	MMI-B	MMI-B	MMI-B	MMI-B
Analysis Unit	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Detection Limit	5	5	10	20	0.1	1	3	0.1	0.1
PN0056	50	384	<10	<20	<0.1	12	16	<0.1	0.41
PN0057	61	356	<10	<20	<0.1	10	11	0.11	0.27
PN0058	33	3520	41	84	0.31	6	17	<0.1	0.31
PN0059	29	1570	28	25	0.27	18	23	<0.1	0.66
PN0060	26	1400	15	<20	<0.1	8	13	<0.1	0.37
PN0061	60	266	10	<20	<0.1	10	22	<0.1	0.43
PN0062	54	66	<10	<20	<0.1	21	183	0.11	2.78
PN0063	16	1060	21	<20	<0.1	7	8	<0.1	0.19
PN0064	54	1620	35	76	<0.1	12	24	<0.1	0.66
PN0065	35	1290	35	33	<0.1	15	27	<0.1	0.68
PN0066	47	147	<10	<20	<0.1	15	42	<0.1	1.69
PN0067	7	2530	14	31	<0.1	3	12	<0.1	0.54
PN0068	103	111	<10	<20	<0.1	51	217	<0.1	2.49
PN0069	<5	1490	45	79	0.25	4	14	<0.1	0.7
PN0070	<5	735	<10	<20	<0.1	4	9	<0.1	0.26
PN0071	29	31	<10	<20	<0.1	5	13	0.19	0.99
PN0072	28	130	<10	<20	<0.1	5	27	<0.1	0.79
PN0073	6	365	<10	<20	<0.1	4	5	<0.1	0.82
PN0074	<5	1460	36	48	<0.1	11	15	0.22	0.43
PN0075	<5	8080	115	52	<0.1	5	15	0.11	0.2
PN0076	5	3270	57	73	<0.1	11	18	<0.1	0.28
PN0077	<5	2060	<10	<20	<0.1	<1	<3	<0.1	<0.1
PN0078	<5	178	<10	<20	<0.1	<1	<3	<0.1	<0.1
PN0079	<5	330	<10	<20	<0.1	<1	<3	<0.1	1.16
PN0080	<5	233	<10	<20	<0.1	<1	<3	<0.1	0.14
PN0081	34	409	<10	<20	<0.1	<1	<3	<0.1	<0.1
PN0082	<5	181	<10	<20	<0.1	<1	<3	<0.1	0.13
PN0083	<5	278	<10	<20	<0.1	<1	<3	<0.1	<0.1
PN0084	<5	301	<10	<20	<0.1	<1	<3	<0.1	<0.1
PN0085	<5	305	12	<20	<0.1	1	<3	<0.1	<0.1
PN0086	<5	391	<10	22	<0.1	<1	<3	<0.1	<0.1
PN0087	<5	363	<10	<20	<0.1	<1	<3	<0.1	<0.1
PN0088	<5	274	<10	<20	<0.1	<1	<3	<0.1	<0.1
PN0089	<5	500	<10	<20	<0.1	<1	<3	<0.1	<0.1
PN0090	<5	291	<10	<20	<0.1	<1	<3	<0.1	<0.1
PN0091	<5	192	<10	<20	<0.1	<1	<3	<0.1	<0.1
PN0092	<5	326	<10	<20	<0.1	<1	<3	<0.1	<0.1
PN0093	<5	180	<10	<20	<0.1	<1	<3	<0.1	<0.1
PN0094	<5	369	<10	<20	<0.1	<1	4	<0.1	0.1
PN0095	<5	357	<10	<20	<0.1	<1	<3	<0.1	<0.1
PN0096	<5	203	<10	<20	<0.1	<1	<3	<0.1	<0.1
PN0097	<5	259	<10	<20	<0.1	<1	<3	<0.1	<0.1
PN0098	<5	344	<10	<20	<0.1	<1	<3	<0.1	0.13
PN0099	<5	454	<10	<20	<0.1	<1	<3	<0.1	<0.1
PN0100	<5	329	<10	<20	<0.1	<1	<3	<0.1	<0.1
PN0101	<5	542	<10	<20	<0.1	<1	<3	<0.1	<0.1
PN0102	<5	406	<10	<20	<0.1	<1	<3	<0.1	<0.1
PN0103	<5	681	11	<20	<0.1	<1	<3	<0.1	<0.1
PN0104	<5	587	14	22	<0.1	<1	<3	<0.1	<0.1
PN0105	<5	364	<10	<20	<0.1	<1	<3	<0.1	<0.1
PN0106	<5	456	13	<20	<0.1	<1	<3	<0.1	<0.1
PN0107	<5	355	<10	<20	<0.1	<1	<3	<0.1	<0.1
PN0108	<5	804	<10	<20	<0.1	<1	<3	<0.1	<0.1
PN0109	<5	477	38	<20	<0.1	<1	<3	<0.1	<0.1
PN0110	<5	438	<10	23	<0.1	<1	<3	<0.1	<0.1

Sample Ident	Cu	Zn	Cd	Pb	Au	Co	Ni	Pd	Ag
Scheme Code	MMI-A	MMI-A	MMI-A	MMI-A	MMI-B	MMI-B	MMI-B	MMI-B	MMI-B
Analysis Unit	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Detection Limit	5	5	10	20	0.1	1	3	0.1	0.1
DUP-PN0001	28	2170	43	76	n.a.	n.a.	n.a.	n.a.	n.a.
DUP-PN0013	61	1600	43	64	0.12	8	27	<0.1	1.7
DUP-PN0025	75	223	<10	<20	<0.1	16	24	<0.1	3.52
DUP-PN0037	<5	1350	<10	<20	0.13	15	31	<0.1	3.75
DUP-PN0049	1900	4850	11	495	n.a.	n.a.	n.a.	n.a.	n.a.
DUP-PN0061	66	320	16	<20	<0.1	9	18	<0.1	0.49
DUP-PN0073	<5	415	<10	<20	<0.1	4	6	<0.1	0.68
DUP-PN0085	<5	344	14	20	n.a.	n.a.	n.a.	n.a.	n.a.
DUP-PN0097	<5	299	<10	<20	<0.1	<1	<3	<0.1	<0.1
DUP-PN0109	<5	429	30	<20	<0.1	1	<3	<0.1	<0.1

Sample Ident	Au	Co	Ni	Pd	Ag	Cu	Zn	Cd	Pb
Scheme Code	MMI-B	MMI-B	MMI-B	MMI-B	MMI-B	MMI-A	MMI-A	MMI-A	MMI-A
Analysis Unit	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Detection Limit	0.1	1	3	0.1	0.1	5	5	10	20
PN0111	0.36	11	36	<0.1	2.2	23	677	15	128
PN0112	0.11	4	13	<0.1	0.24	16	430	15	75
PN0113	<0.1	6	9	<0.1	0.33	19	554	<10	22
PN0114	<0.1	5	12	<0.1	0.35	64	431	<10	55
PN0115	<0.1	50	66	0.21	1.37	56	251	<10	38
PN0116	<0.1	8	15	0.12	1.44	92	32	<10	51
PN0117	<0.1	10	13	0.16	1.09	55	27	<10	48
PN0118	<0.1	3	8	<0.1	1.37	55	17	<10	88
PN0119	<0.1	3	6	<0.1	2.45	23	21	<10	36
PN0120	<0.1	3	12	<0.1	2.95	24	95	<10	56
PN0121	<0.1	2	42	<0.1	1.96	33	199	<10	55
PN0122	<0.1	4	13	<0.1	1.97	23	139	<10	82
PN0123	<0.1	14	27	0.16	1.42	94	140	<10	108
PN0124	<0.1	11	30	<0.1	1.61	60	55	<10	46
PN0125	<0.1	3	12	<0.1	3.37	35	79	<10	27
PN0126	<0.1	8	34	<0.1	3.56	42	256	<10	27
PN0127	<0.1	18	75	<0.1	2.16	47	120	<10	23
PN0128	0.49	10	14	<0.1	0.48	56	501	18	67
PN0129	<0.1	12	36	<0.1	1.59	46	94	<10	43
PN0130	<0.1	15	26	0.13	1.11	60	160	<10	47
PN0131	<0.1	29	29	0.21	1.38	79	53	<10	53
PN0132	0.17	5	55	<0.1	1.97	45	165	<10	64
PN0133	<0.1	5	16	<0.1	2.19	18	115	<10	39
PN0134	<0.1	4	14	<0.1	2.3	29	24	<10	29
PN0135	<0.1	3	17	0.12	2.71	17	31	<10	22
PN0136	<0.1	4	13	<0.1	0.88	15	448	18	37
PN0137	<0.1	6	39	<0.1	2.96	27	446	<10	27
PN0138	<0.1	6	31	<0.1	4.5	24	41	<10	21
PN0139	<0.1	5	10	<0.1	1.13	9	93	12	134
PN0140	<0.1	13	37	0.11	0.94	35	91	<10	36
PN0141	<0.1	3	23	<0.1	2.06	28	90	<10	30
PN0142	<0.1	5	36	<0.1	3.42	37	99	<10	58
PN0143	<0.1	3	25	<0.1	4.88	43	237	<10	62
PN0144	<0.1	4	36	<0.1	2.91	87	169	<10	37
PN0145	<0.1	5	28	<0.1	3.55	28	342	<10	32
PN0146	<0.1	7	27	<0.1	5.92	64	46	<10	25
PN0147	<0.1	14	40	<0.1	2.04	51	511	<10	51
PN0148	<0.1	11	45	<0.1	3.6	36	100	<10	30
PN0149	<0.1	3	38	<0.1	1.79	36	135	<10	43
PN0150	<0.1	5	9	0.13	0.14	14	549	22	46
PN0151	<0.1	13	19	0.13	0.45	90	184	<10	29
PN0152	<0.1	7	32	<0.1	2.03	50	699	13	47
PN0153	<0.1	2	10	<0.1	2.26	41	73	<10	35
PN0154	<0.1	4	19	<0.1	3.62	23	67	<10	27
PN0155	<0.1	31	23	0.28	1.03	39	268	<10	<20
PN0156	<0.1	25	33	0.13	1.4	100	34	<10	39
PN0157	<0.1	3	10	<0.1	1.25	27	163	<10	28
PN0158	<0.1	3	6	<0.1	0.66	42	41	<10	48
PN0159	<0.1	8	11	0.19	1.19	53	46	<10	27
PN0160	<0.1	4	8	<0.1	3.9	72	17	<10	33
PN0161	<0.1	4	12	<0.1	1.11	64	28	<10	24
PN0162	0.34	1	<3	<0.1	3.72	160	32	<10	3130
PN0163	<0.1	3	10	<0.1	3.53	39	27	<10	31
PN0164	<0.1	8	22	0.13	1.6	148	56	<10	<20
PN0165	<0.1	5	14	<0.1	1.5	20	402	13	41

Sample Ident	Au	Co	Ni	Pd	Ag	Cu	Zn	Cd	Pb
Scheme Code	MMI-B	MMI-B	MMI-B	MMI-B	MMI-B	MMI-A	MMI-A	MMI-A	MMI-A
Analysis Unit	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Detection Limit	0.1	1	3	0.1	0.1	5	5	10	20
PN0166	<0.1	3	10	<0.1	2.93	37	71	<10	29
PN0167	<0.1	3	9	<0.1	5.01	32	34	<10	29
PN0168	<0.1	3	24	<0.1	3.6	26	41	<10	23
PN0169	<0.1	2	6	<0.1	4.18	31	15	<10	30
PN0170	<0.1	5	15	<0.1	1.63	57	73	<10	65
PN0171	<0.1	12	66	<0.1	2.57	60	2538	16	<20
PN0172	<0.1	6	43	<0.1	2.81	81	66	<10	24
PN0173	<0.1	3	7	<0.1	1.3	75	15	<10	24
PN0174	<0.1	4	10	<0.1	1.6	72	24	<10	33
PN0175	<0.1	10	40	<0.1	2.94	38	55	<10	<20
PN0176	<0.1	8	16	<0.1	3.71	36	32	<10	24
PN0177	<0.1	12	41	0.1	3.7	26	77	<10	<20
PN0178	<0.1	16	51	<0.1	3.21	34	46	<10	41
PN0179	<0.1	6	16	<0.1	3.09	38	31	<10	24
PN0180	<0.1	17	60	0.1	3.29	40	312	<10	<20
PN0181	<0.1	7	19	<0.1	1.46	22	93	<10	65
PN0182	<0.1	15	35	<0.1	4.2	55	69	<10	37
PN0183	<0.1	14	25	<0.1	1.82	20	243	<10	30
PN0184	<0.1	14	35	<0.1	2.05	38	59	<10	39
PN0185	<0.1	13	20	0.13	1.15	60	536	18	57
PN0186	<0.1	8	36	<0.1	2.34	24	52	<10	39
PN0187	<0.1	16	36	0.1	2.04	32	34	<10	26
PN0188	<0.1	6	25	<0.1	3.45	27	112	<10	37
PN0189	<0.1	5	12	<0.1	5.39	32	308	<10	24
PN0190	<0.1	30	28	<0.1	1.75	86	53	<10	33
PN0191	<0.1	6	9	<0.1	0.68	141	15	<10	25
PN0192	<0.1	15	30	<0.1	0.89	98	64	<10	<20
PN0193	<0.1	5	32	<0.1	2.05	133	137	<10	43
PN0194	<0.1	16	29	<0.1	2.27	31	51	<10	33
PN0195	<0.1	9	23	<0.1	2.11	28	71	<10	32
PN0196	<0.1	22	26	0.13	1.48	179	67	<10	43
PN0197	<0.1	121	87	0.11	1.69	327	57	<10	36
PN0198	<0.1	25	28	<0.1	1.39	54	239	<10	22
PN0199	<0.1	17	29	<0.1	1.33	38	82	<10	22
PN0200	<0.1	20	26	<0.1	0.91	14	56	<10	<20
PN0201	<0.1	11	23	<0.1	0.56	20	54	<10	<20
PN0202	<0.1	14	21	<0.1	0.91	27	33	<10	<20
PN0203	<0.1	14	33	0.15	1.25	7	52	<10	<20
PN0204	0.3	8	22	0.39	1.02	6	122	<10	<20
PN0205	<0.1	5	11	<0.1	0.69	22	71	<10	37
PN0206	<0.1	5	10	<0.1	1.4	8	45	<10	<20
PN0207	<0.1	7	13	<0.1	2.67	31	66	<10	<20
PN0208	<0.1	7	36	<0.1	2.17	28	142	<10	44
PN0209	<0.1	17	22	<0.1	1.25	24	61	<10	22
PN0210	<0.1	9	10	<0.1	1.05	13	37	<10	22
PN0211	<0.1	10	15	<0.1	1.41	22	42	<10	<20
PN0212	<0.1	2	5	0.11	2.9	22	31	<10	40
PN0213	<0.1	3	17	<0.1	4.75	19	775	<10	39
PN0214	<0.1	2	12	0.4	4.39	16	32	<10	<20
PN0215	<0.1	3	11	<0.1	3.77	23	136	<10	27
PN0216	<0.1	3	12	<0.1	4.3	18	216	<10	<20
PN0217	<0.1	8	22	<0.1	3.65	26	189	<10	34
PN0218	<0.1	3	6	<0.1	1.94	37	34	<10	28
PN0219	<0.1	3	22	<0.1	4.18	21	123	<10	28
PN0220	<0.1	5	17	<0.1	4.92	16	91	<10	24

Sample Ident	Au	Co	Ni	Pd	Ag	Cu	Zn	Cd	Pb
Scheme Code	MMI-B	MMI-B	MMI-B	MMI-B	MMI-B	MMI-A	MMI-A	MMI-A	MMI-A
Analysis Unit	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Detection Limit	0.1	1	3	0.1	0.1	5	5	10	20
DUP-PN0111	0.33	11	33	<0.1	2.03	19	589	11	135
DUP-PN0123	<0.1	13	20	0.12	1.18	82	156	<10	124
DUP-PN0135	<0.1	3	18	<0.1	2.24	18	35	<10	21
DUP-PN0147	<0.1	13	44	<0.1	1.99	59	558	<10	76
DUP-PN0159	<0.1	11	13	0.13	1.27	52	60	<10	43
DUP-PN0171	<0.1	11	68	<0.1	2.33	61	2962	17	22
DUP-PN0183	<0.1	11	20	<0.1	1.87	21	296	<10	38
DUP-PN0195	<0.1	7	21	<0.1	1.95	28	74	<10	30
DUP-PN0207	<0.1	5	10	<0.1	3.03	32	67	<10	22
DUP-PN0219	<0.1	3	18	<0.1	3.64	18	142	<10	35

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MMI F

APPENDIX 3L

074512

Sample Ident	Fe	As	Se	Mo	Sb	Hg
Scheme Code	MMI-F	MMI-F	MMI-F	MMI-F	MMI-F	MMI-F
Analysis Unit	ppm	ppb	ppb	ppb	ppb	ppb
Detection Limit	0.1	1	2	1	1	3
PN0639	899	403	5	27	23	641
PN0640	2090	394	10	43	36	184
PN0641	1130	99	5	15	4	11
PN0642	1010	125	10	7	3	7
PN0643	712	98	9	12	3	<3
PN0644	328	128	7	14	3	4
PN0645	202	164	4	12	3	4
PN0646	246	42	7	21	2	7
PN0647	163	120	5	13	3	11
PN0648	125	37	6	10	2	9
PN0649	94.2	32	<2	9	1	11
PN0650	80.6	34	<2	7	<1	<3
PN0651	90.3	33	5	23	1	7
PN0652	83.9	29	3	21	<1	10
PN0653	72.1	31	<2	13	<1	7
PN0654	95.3	32	<2	13	<1	9
PN0655	77.1	58	<2	20	1	19
PN0656	69.5	114	<2	47	1	18
PN0657	103	110	<2	27	1	5
PN0658	92.1	38	3	24	<1	6
PN0659	134	48	3	9	1	<3
PN0660	276	52	<2	17	2	9
PN0661	459	57	<2	12	2	10
PN0662	276	108	<2	15	2	5
PN0663	254	64	4	18	2	4
PN0664	633	182	13	56	3	13
PN0665	629	168	17	52	3	12
PN0666	651	78	16	9	2	5
PN0667	629	155	12	11	2	9
PN0668	581	81	8	15	2	5
PN0669	614	90	15	12	1	8
PN0670	655	64	7	9	<1	6
DUP-PN0639	853	410	6	31	23	722
DUP-PN0651	87.5	38	2	21	<1	9
DUP-PN0663	302	58	3	19	1	<3

MMI Geochemistry: Overview

APPENDIX 4

Mobile Metal Ion Geochemistry

The Mobile Metal Ion (MMI) Process® is a totally integrated geochemical approach to precious metal, base metal and kimberlite exploration. It uses a weak partial extraction and ICP-MS ultra trace element analysis to improve the conventional geochemical response over buried ore deposits.

MMI anomalies are sharply bounded and, in most cases, directly overlie and define the surface projection of buried primary mineralized zones.

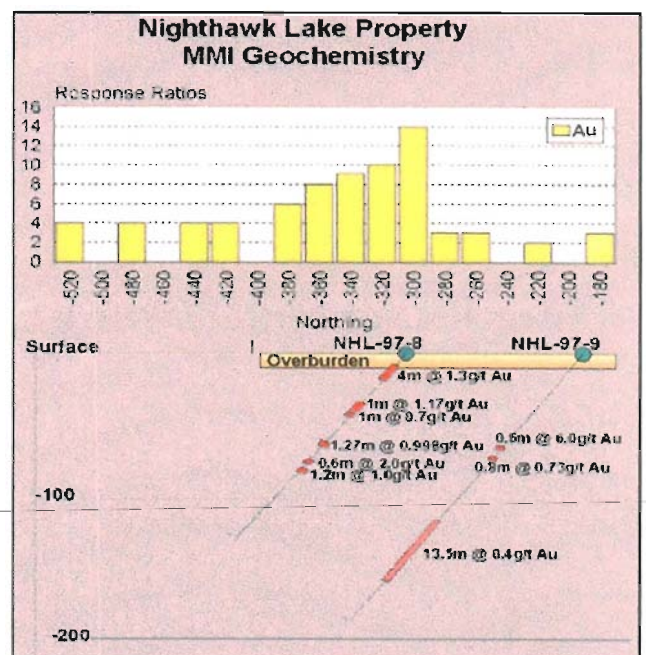


The effectiveness of the MMI Process has been documented in over 1000 case histories on six continents and it has been responsible for numerous commercial successes.

MMI PROCESS®

The MMI Process® consists of:

- simple sample collection procedure in which a 50g sample is collected 10 to 25 cm below the A_0 horizon regardless of which soil horizon this depth corresponds to. This sampling depth is critical to the success of method.
- samples are not otherwise prepared or dried
- weak extraction using a multi-component solution to release the mobile ions. There are several extractions possible, and each is specific to various targets or elements.
- high sensitivity ICP-MS analysis which provides part per billion range results
- innovative interpretation using MMI response ratios



The MMI Process® was developed by Wamtech Pty. Ltd in Australia and is performed by exclusive license at SGS Minerals' full service accredited laboratory facilities in Toronto, Ontario, Canada.

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WHEN YOU NEED TO BE SURE

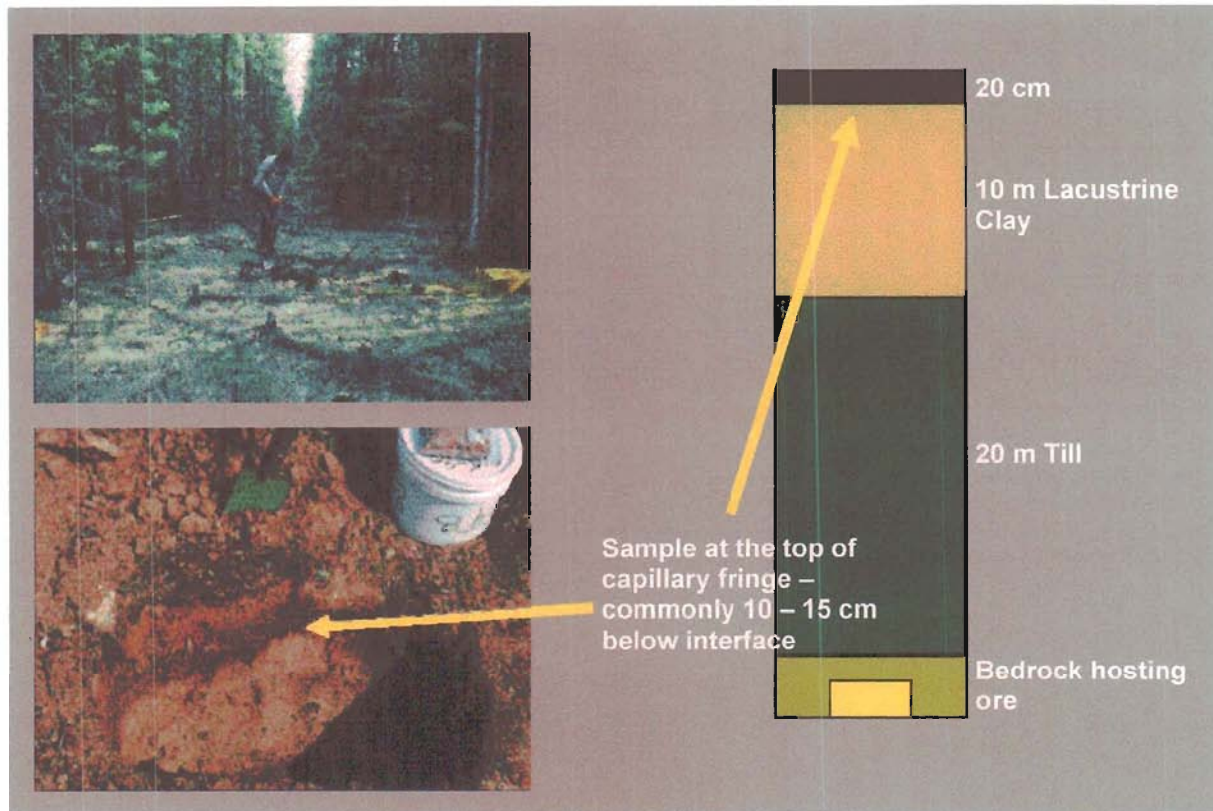
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Sampling for MMI in Boreal Zones

APPENDIX 5

Mobile Metal Ion Geochemistry

Sampling for MMI in Boreal Climatic Zones



WHERE TO SAMPLE

Experience in MMI sampling in Europe and North America demonstrates that the mobile metal ion geochemical technique works best when samples are collected at a constant depth (10-25 cm) **BELOW** the interface between leaf and twig litter on surface, and completely decomposed material. This sampling interval below the leaf and twig litter can vary from A to B horizon.

SAMPLING PROCEDURE

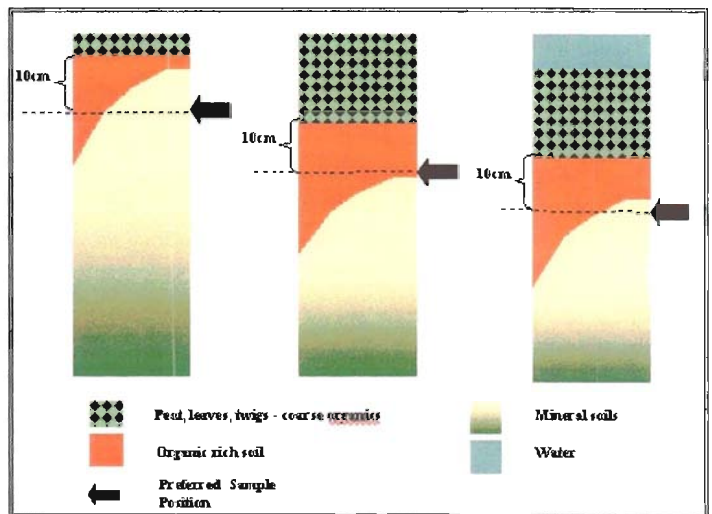
To sample for MMI geochemistry in boreal climates, particularly in areas with substrates that contain overlying peat blankets;

- Before actually taking the sample, brush sampling equipment to eliminate residue from previous samples and flush it with soil from the new sample site.
- Scrape away any extensive organic horizon (O or Ao) and eliminate loose non-decomposed matter, debris, and any possible cultural contamination.

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- Penetrate the leaf litter and organic material that still has structure (i.e. decomposing leaves, bark, twigs and peat). Once through to a true A-horizon (where the soil resembles a decomposed mass without any obvious leaf or vegetation visible), discard the top 10cm of this A-horizon material and then collect the sample 10 and 25 cm below this horizon.

Diagram at right shows the optimal sampling depths.



- Ensure not to mix organic and inorganic soils in the collected sample. For example, if the material within the 10 to 25 cm zone has a mixture of humus and inorganic soil then proceed to the base of this “mixed zone” and collect the sample from the inorganic material. If the thickness of the humified organic layer exceeds 25 cm then the sample should be collected from the organic layer. Note the soil type in your field description of the site.
- Different soil types may be characterized by variable geochemical backgrounds for some or all elements. To avoid mixing MMI data populations based on soil type, interpret data for organic and inorganic soils separately. If significant differences between soil types are not noted in the lower 25th percentile and background calculations of the data set, then the data populations may be combined for interpretation based on response ratios. For further details on calculating response ratios, please contact an SGS or MMI representative or visit the MMI web site at www.mmigeochem.com.
- During sample collection and handling, no jewelry (watches, rings, bracelets, and chains) should be worn, as this can be a major source of contamination.
- Regardless of topographic influences and associated variability in the soil profile the sample should be collected 10 to 25 cm below the interface with the non-decomposed surface leaf / twig matter.
- Clear and concise notes should be kept at each site, paying close attention to the location of the sample with respect to the thickness and nature of the soil horizons. Parameters such as soil moisture, development of a “b-horizon”, organic content, presence or absence of suspended aqueous material within the soil and general characteristics of the overburden in the survey area can be very useful for data interpretation.



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Low-level Au Analysis after MMI Extraction

**Technical Bulletin TB09
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INTRODUCTION

Analysis of gold on the ICPMS has seen dramatic and consistent lowering of the lower detection limit, from the ppm level in the early 1990's to the ppb level in the late 1990's. For many years the lower detection limit for Au after extraction with MMI-B has been 0.1 ppb. The first few years of the twenty first century have seen further developments in ICPMS instrumentation, both in reliability, and in further lowering of the detection limits for many elements. One of the limiting factors in assessing the practical lower limit of detection, is the ability of the carrier solution to (a) prevent Au from adsorbing and precipitating during the analysis procedure, and (b) to not produce matrix interference with the analysis and measurement procedure. In this regard a number of the licensed laboratories have remarked on the suitability of MMI-B extractant as a carrier for Au during the ICPMS analysis procedure.

The lower detection limit (LDL) of an analytical technique can be defined in a number of ways. In general, the standard deviation (SD) of a number repetitive measurements of a sample will increase with the mean value of the measurements. Many definitions of the LDL are based on the standard deviation near the point where the standard deviation is similar in magnitude to the absolute value. Commonly the LDL is defined as this SD or some multiple (either twice or three times) of it. Consequently, a considerable amount of the material in this document is concerned with determining the standard deviation in repetitive analyses of samples with very low values of contained Au.

INSTRUMENT VERSUS NATURAL BACKGROUND

For many of the exploration programs carried out with MMI-B, the background calculated (usually as the lowest quartile) is above the instrument background, and (correctly) the natural background is used for calculation of response ratios. However, for some exploration programs in areas of deep cover (e.g. desert terrain, or glacial terrain), the background calculated from the lowest quartile uses samples whose reported value is less than 0.1 ppb. For this, the calculation usually assumes a value of 0.05 ppb, or half of the lower detection limit of the instrument. The background calculated is thus partly or wholly influenced by the instrument detection limit. This has an effect on the anomaly contrast within the program. An example showing this is highlighted in Table 1 on page 3.

The samples provided by a client, were from an exploration area in deeply covered terrain in Western Australia, suspected of containing Au mineralization. The client compared MMI-B analyses (Lab C) with those from two other techniques, Labs A and B. The techniques have different levels of extraction. The initial MMI-B figures, with the 0.1 ppb lower detection limit, designated 1DP are shown in the fourth column. Not only is the comparison not flattering to MMI, the lower detection limit has been calculated on an operator imposed lower detection limit (< 0.1 ppb), not the natural background, or in fact the ICPMS limit. The actual ICPMS values from which these were derived, are shown to 3 decimal places, denoted 3DP, in column 5. The real or natural background calculated is now much lower, 0.019 ppb.

The importance of this, in relation to resolution of the Au anomalies is shown in Table 2.

Table 1. Analytical data for client samples for three laboratories.

Laboratory	Lab A	Lab B	Lab C	Lab C
Method	TL6	dil HCl	MMI	MMI
Sample	-80#	-80#	1DP	3DP
	<i>Au (ppb)</i>	<i>Au (ppb)</i>	<i>Au (ppb)</i>	<i>Au (ppb)</i>
CWS051	0.42	0.05	0.2	0.168
CWS052	0.54	0.2	0.2	0.194
CWS053	0.9	0.4	0.3	0.303
CWS055	0.39	0.2	0.2	0.182
CWS056	0.51	0.4	0.05	0.094
CWS057	0.44	0.1	0.1	0.127
CWS058	0.26	0.05	0.05	0.002
CWS059	0.31	0.05	0.05	0.099
CWS060	0.38	0.05	0.1	0.110
CWS061	0.36	0.05	0.1	0.133
CWS062	0.31	0.4	0.05	0.097
CWS063	0.22	0.05	0.05	0.031
CWS064	0.18	0.05	0.05	0.049
CWS065	0.26	0.05	0.05	0.033
CWS066	0.18	0.05	0.05	0.005
CWS067	0.25	0.05	0.05	0.059
CWS068	0.29	0.05	0.05	0.043
CWS069	0.18	0.05	0.05	0.036
CWS070	0.29	0.05	0.05	0.061
CWS071	0.35	0.05	0.05	0.058
CWS072	0.36	0.8	0.05	0.067
CWS073	0.16	0.1	0.05	0.005
CWS074	0.53	0.05	0.05	0.091
CWS075	1.07	0.6	0.3	0.348
CWS076	1.14	0.8	0.4	0.421
B/Grounds	0.195	0.05	0.05	0.018667

2.29255

Table 2. Response Ratios calculated from the data shown in Table 1.

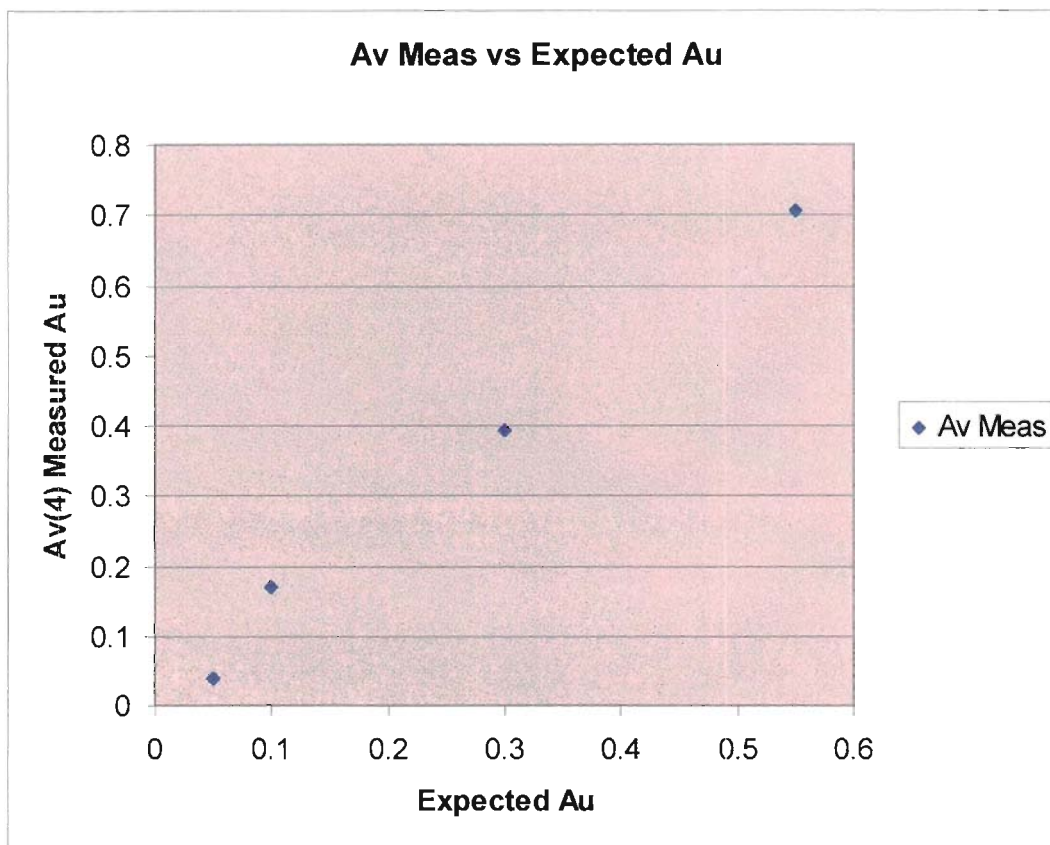
Laboratory	Lab A	Lab B	Lab C	Lab C
Method	TL6	dil HCl	MMI	MMI
Sample	-80#	-80#	1DP	3DP
	<i>Au (ppb)</i>	<i>Au (ppb)</i>	<i>Au (ppb)</i>	<i>Au (ppb)</i>
CWS051	2	1	4	9
CWS052	3	4	4	10
CWS053	5	8	6	16
CWS055	2	4	4	10
CWS056	3	8	1	5
CWS057	2	2	2	7
CWS058	1	1	1	1
CWS059	2	1	1	5
CWS060	2	1	2	6
CWS061	2	1	2	7
CWS062	2	8	1	5
CWS063	1	1	1	2
CWS064	1	1	1	3
CWS065	1	1	1	2
CWS066	1	1	1	1
CWS067	1	1	1	3
CWS068	1	1	1	2
CWS069	1	1	1	2
CWS070	1	1	1	3
CWS071	2	1	1	3
CWS072	2	16	1	4
CWS073	1	2	1	1
CWS074	3	1	1	5
CWS075	5	12	6	19
CWS076	6	16	8	23

If we compare the MMI data in columns 4 and 5 of Table 2, it is immediately apparent that not only is the resolution of the highest point of the anomaly greater with the 3DP data, there is also better resolution of the 'shoulders'. Whilst the highest response ratios for each of the labs A, B, and C correspond, the MMI analysis, at this level of reporting gives best resolution of the anomalies. The question which needs to be further investigated is how much of this additional instrument resolution can be justifiably reported.

LINEARITY BELOW 1 ppb

To test linearity below 1 ppb, a sample with a known concentration of Au was 'mixed' with various amounts of a 'blank'. Four samples were thus produced with expected Au values of between 0.05 and 0.55 ppb. Each was analysed four times and the mean values plotted, as shown in Figure 1.

Figure 1. Mean Values of average measurements versus expected Au values.



This graph confirms that there is good linearity at sub-ppb levels for the MMI-B method of analysis. The peaks and shoulders referred to in the example above are in this same range, and confirm that the technique could be used for resolution of anomalies of this absolute order, providing the background values are reliable.

REPRODUCIBILITY ON SOLUTION BLANKS

To test the instrument reproducibility, blank MMI-B extraction solutions were analysed by the ICPMS technique in different laboratories at different times. Means and standard deviations for runs of ten blanks at a time are shown below in Table 3.

Table 3. Replicates of blank MMI-B solution.

Sample	1st Run	2 nd Run
MMI-B Blank	0.0134	0.0031
MMI-B Blank	0.0009	0.0054
MMI-B Blank	-0.0077	0.0133
MMI-B Blank	-0.0086	0.0057
MMI-B Blank	-0.0042	-0.0047
MMI-B Blank	-0.0028	-0.0006
MMI-B Blank	0.0031	0.0101
MMI-B Blank	-0.0026	0.0043
MMI-B Blank	-0.0017	0.0009
MMI-B Blank	0.0003	-0.0102
Mean	-0.001	0.00273
Std Deviation	0.0062	0.0068

Whilst it is an important step, analysis of a blank solution is not truly indicative of the entire extraction/analysis procedure.

ANALYSIS OF SOIL SAMPLES WITH LOW Au VALUES

ABSRM09 is a ferruginous sand from a non-gold occurring province in Western Australia. This sample has been used in the past as a 'blank' for Au. In Table 4, the replicate values obtained after digestion of 50 g of this sample with 50 ml of MMIB extractant are shown.

Table 4. Replicate values for extractions with MMI-B from ABSRM09 standard.

Sample	Au (ppb) Lab A	Au (ppb) LabB
ABSRM09	0.1004	0.078
ABSRM09	0.0615	0.062
ABSRM09	0.1297	0.073
ABSRM09	0.0795	0.078
ABSRM09	0.1214	0.067
ABSRM09	0.0598	0.083
ABSRM09	0.0389	0.054
ABSRM09	0.0635	0.067
ABSRM09	0.1108	0.068
ABSRM09	0.0638	0.083
Mean	0.08293	0.0713
Standard Deviation	0.03062	0.0094

Note: The laboratory notation used in this section does not necessarily refer to the same laboratories in other sections.

This result suggests several things. Firstly, the sample does contain a (now) measurable concentration of gold. Secondly, the standard deviation is appreciably lower than the absolute value. Thirdly, even using this sample, the LDL by most definitions is lower than 0.1 ppb. Fourthly, to correctly estimate the LDL, a soil sample with an even lower absolute Au concentration is required.

In general, samples such as this with a small, measurable amount of gold are likely to suffer very badly from the 'nugget effect'. In particular, 50 g samples taken for replicates are likely to contain different numbers of gold particles, which can contribute to the standard deviation. This problem, whilst it exists, is not as acute for the MMI technique in that it is the desorption of small (numerous) surface particles which is targeted. For conventional analysis the 'nugget effect' will produce very high standard deviations at low concentrations.

ANALYSIS OF SILICA SAND

Samples of white silica sand from a commercial sand pit on the Swan Coastal Plain (Bassendean Sand) were sent to several laboratories for replicate Au analysis after extraction with MMI-B. Results are shown in Table 5 below.

Table 5. Replicate analyses of silica sand.

Sample	Au (ppb) Lab A	Au (ppb) Lab B
Silica sand (MMISRM15)	-0.0045	-0.007
Silica sand (MMISRM15)	-0.0047	0.003
Silica sand (MMISRM15)	-0.0233	0.006
Silica sand (MMISRM15)	-0.0190	0.006
Silica sand (MMISRM15)	-0.0205	0.006
Silica sand (MMISRM15)	-0.0352	0.006
Silica sand (MMISRM15)	-0.0227	-0.003
Silica sand (MMISRM15)	-0.0367	-0.011
Silica sand (MMISRM15)	-0.0300	-0.011
Silica sand (MMISRM15)	-0.0276	0.009
Mean	-0.022	0.001
StandardDeviation	0.011	0.007

Note: The laboratory notation used in this section does not necessarily refer to the same laboratories in other sections.

SELECTION OF A LOWER DETECTION LIMIT FOR Au

Skoog and Leary (1992) consider that the minimum distinguishable analytical signal, S_m can be represented as:

$$S_m = S_{bl} + kS_{bl}$$

where S_{bl} is the mean blank signal, S_{bl} is the standard deviation and k is a constant. Some definitions of lower detection limit refer to it being the value of the standard deviation of a blank i.e. when $k = 1$. Raising the value of k for example from 1 to 2 to 3 improves the confidence level of detection; a value of $k=2$ will give a level of confidence of 95%. However, as pointed out earlier, increasing the LDL will reduce the accuracy and sensitivity of the interpretation procedure by creating a higher background. For example, consider a batch of data with a true (natural) background of 0.01ppb. If the laboratory provides an LDL (at (say) a 50% level of confidence) of 0.01ppb, the calculated background calculated will be acceptably close to the true value. If the laboratory quotes the data with an LDL of say 0.03ppb at a higher level of confidence, the calculated background (using the lowest quartile of the data, and half the value of the LDL for values less than the LDL) will be 0.015ppb – an error of 50%. Raising the quoted LDL to 0.1ppb, with an almost 100% level of confidence will result in the calculation of a background of 0.05ppb – an error of 500%. This error carries over from the background value to response ratios calculated from it. It must also be remembered that with the MMI technique we are measuring and averaging a number of very low values (usually 25% of the database) to obtain the background, and this in itself provides an increased level of confidence. From the data above it appears, that for the MMI technique, and particularly for the purpose of obtaining true (natural) backgrounds, an LDL of 0.01 ppb is not inappropriate.

EFFECT OF LDL OF 0.01 ppb Au ON CLIENT PROGRAM

The effect of quoting Au values to 0.01 ppb on the client program (Table 1) is shown in the Table 6 below.

Table 6. Effect of LDL of 0.01 ppb on client's data set.

Sample	Au(ppb)	Au3dp(ppb)	Au2DP(ppb)	Au(RR)	Au3DP(RR)	Au2DP(RR)
CWS 051	0.2	0.168	0.17	4	9	9
CWS 052	0.2	0.194	0.19	4	10	10
CWS 053	0.3	0.303	0.30	6	16	16
CWS 055	0.2	0.182	0.18	4	9	9
CWS 056	-0.1	0.094	0.09	1	5	5
CWS 057	0.1	0.127	0.13	2	7	7
CWS 058	-0.1	0.005	0.005	1	1	0
CWS 059	-0.1	0.099	0.10	1	5	5
CWS 060	0.1	0.110	0.11	2	6	6
CWS 061	0.1	0.133	0.13	2	7	7
CWS 062	-0.1	0.097	0.10	1	5	5
CWS 063	-0.1	0.031	0.030	1	2	2
CWS 064	-0.1	0.049	0.05	1	3	3
CWS 065	-0.1	0.033	0.030	1	2	2
CWS 066	-0.1	0.005	0.005	1	1	0
CWS 067	-0.1	0.059	0.06	1	3	3
CWS 068	-0.1	0.043	0.04	1	2	2
CWS 069	-0.1	0.036	0.040	1	2	2
CWS 070	-0.1	0.061	0.06	1	3	3
CWS 071	-0.1	0.058	0.06	1	3	3
CWS 072	-0.1	0.067	0.07	1	3	4
CWS 073	-0.1	0.005	0.005	1	1	0
CWS 074	-0.1	0.091	0.09	1	5	5
CWS 075	0.3	0.348	0.35	6	18	18
CWS 076	0.4	0.421	0.42	8	22	22
B/G (25%)	0.05	0.019167	0.019			
Values in red are those used to calculate background						

The raw data rounded to 0.01 ppb are shown in column 4 of the above table, and the response ratios derived from that data and using a background calculated from the lower quartile of that data are shown in column 7. It is immediately apparent that the data rounded to two decimal places is providing more information than the original data (rounded to one decimal place) and is very similar to that (3DP) for the full instrument capability.

REFERENCE

Skoog, D.A., and Leary, J.J. 1992. *Principles of Instrumental Analysis*. Saunders College Publishing, New York, 700pp.



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MMI Manual For

Mobile Metal Ion Geochemical Soil Surveys

Version 5.04



Important Information

This **MMI Manual** has been prepared to assist exploration personnel with more effective application of Mobile Metal Ion geochemical surveys. This is the fifth edition of the MMI Process Information Manual, containing the feedback MMI TECHNOLOGY has received and any additional information that it feels is relevant.

To date, the main application for MMI geochemistry has been directed at defining more precise drill targets following directly on from the surface soil sampling phase of exploration. The technique has demonstrated an ability to reduce costs by reducing drilling in the early phase of exploration.

An ongoing program of development is continuing to systematically expand the applicability of the technique to other aspects of mineral exploration. It is the intention to upgrade this manual as further relevant applications pass through the various stages of research and testing that MMI TECHNOLOGY undertakes as part of its ongoing internal research and development program.

The MMI Process is an innovative, robust, and cost effective integrated geochemical exploration package. However, it does require careful application to maximize the value from interpretation. Applied diligently, the MMI Process can deliver significant benefits from the soil sampling phase of exploration.

Should you have any queries regarding the analytical aspects of MMI Geochemistry, or require assistance with orientation surveys and interpretation, please do not hesitate to contact the members of our staff:

Mr Russell Birrell	Director
Dr Alan Mann	Director
Mr Toby Foster	Operations Manager
Mrs Sue Staltari	Technical Assistant

And

Mr Walter Grondin	North American Consultant
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Please Note:

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1.0 INTRODUCTION

'**Mobile Metal Ions**' is a term used to describe ions which have moved in the weathering zone and that are only weakly or loosely attached to surface soil particles. It is a widely held belief that these Mobile Metal Ions are transported from deeply-buried ore bodies to the surface. Studies from Australia and overseas have shown that such Mobile Metal Ions are useful in locating buried mineralization. Mobile Metal Ions are generally at very low concentrations in the soil. To successfully interpret these weak signals, a series of very carefully quality-controlled steps have been developed that, when put together, constitute an integrated package '**The MMI Process**'.

The steps, which are necessary to ensure the successful application of Mobile Metal Ion geochemistry for mineral exploration, include:

- A field, commodity and exploration situation appropriate for application of MMI geochemistry;
- An understanding of landform and regolith relationships;
- Application of appropriate specialized digestions;
- Access to advanced ICP-MS analytical equipment/techniques; and
- Correct interpretation of the partial extraction analytical data.

Orientation surveys are recommended, where possible, to develop a level of confidence for any particular prospect or project area.

Currently, the optimum application for MMI geochemistry is to define specific mineralization targets for detailed drilling, making broad reconnaissance RAB programmes less important. In this scenario, the assumption is that a number of target areas have been defined and MMI is used to prioritize and more accurately define targets for RC drill programmes.

Developmental work has allowed extension of the technique to a regional application, and also a target definition role.

2.0 BACKGROUND INFORMATION

The key attributes of Mobile Metal Ion surface soil geochemical anomalies include:

- Constrained, precise anomalies, vertically above oxidizing mineralization and occasionally at up-dip projection positions on the surface;
- Commodity elements respond reducing the need for pathfinders;
- The anomalies can precisely target mineralization at significant depths;
- The incidence of false anomalies is very low in comparison to conventional geochemistry;
- Surface soil anomalies are repeatable and persist over time; and
- Anomalies have a better signal to noise ratio related to mineralization in a much wider range of regolith units when compared with conventional techniques.

The Mobile Metal Ion geochemical technique has been developed since 1990 and resulted from an initial series of 13 case studies where the attributes summarized above were first observed. After this initial field testing in Australia and off-shore, a larger scale research and development initiative was instigated culminating in the establishment of The Geochemistry Research Centre at Technology Park in Perth. In an effort to understand and effectively apply MMI geochemistry to mineral exploration, its first project, The Mechanism of Formation of Mobile Metal Ion Anomalies, was supported by 11 mining companies, WAMTECH and the Western Australian State Government. As a result of the success of the first project a second project titled, Geochemical Anomalies – Their Dynamic Nature and Interpretation, began in late 1995 and ran for a period of two years. Wamtech is still actively involved with the Geochemistry Research Centre today.

It is important to realize that the MMI approach to geochemical exploration is significantly different to that used in conventional surveys. The principal aim of the process is to remove the smallest amount of metal ions from the exterior of soil particles whilst leaving the substrate unaffected. This is the essential difference between MMI and other partial digestion techniques that specifically attack substrates, such as iron oxides and manganese oxides. This approach optimizes the use of improved analytical instrumentation with lower detection limits now available. While absolute metal concentration levels are significantly less than those from 'total digestions', the signal to noise ratios are significantly enhanced using MMI procedures.

Early case studies clearly suggested that, on an empirical basis, better contrast was achieved over a number of different styles of mineralization using MMI when compared to conventional (total) techniques. It was postulated that the very loosely-attached ions were sourced from mineralization and that input from other sources of metals, for example lateritic or lithological contributions would be minimized.

The concept of the **MMI Process** has been introduced to reinforce the requirement that the method is not simply an analytical technique. It is a series of integrated steps that, when combined correctly and intelligently, is proving to be a powerful addition to the existing exploration geochemistry techniques.

3.0 APPROPRIATE LANDFORM AND REGOLITH SITUATIONS

Mobile Metal Ion geochemistry has proved successful in a broad range of landform situations including relict, erosional, and depositional regimes. It is also proving effective in lateritic terrains by identifying primary sources of mineralization from the surface within broader conventional anomalies influenced by specific regolith units.

Surface Mobile Metal Ion geochemistry essentially responds to sources of mineralization, so that weakly-mineralized structures, like subsurface supergene mineralization blankets, are defined at a lower contrast level than the primary zones from which they are derived.

3.1 Relict and Erosional Regimes

Surface regolith units developed on relict and erosional landforms respond well to MMI geochemistry. The key advantage is a superior signal to noise ratio over mineralization. Compared to conventional geochemistry, it allows better focusing on follow-up exploration, either further surface sampling or more precise target drilling. Conventional responses are usually broader and maxima are often not directly over mineralization, particularly in deeply-weathered terrains. MMI responses are more constrained; commodity element anomalies are usually closely related to primary mineralization.

This does not automatically ensure that a commercially viable deposit is identified beneath each MMI anomaly. However, the success rate for ore-grade drill intercepts early within an exploration programme can be significantly improved.

At an operational level, MMI samples can easily be collected from the surface of these regimes in a straightforward manner as discussed in the sampling procedure section.

3.2 Depositional Regimes

Surface soils on depositional regimes need to be addressed with extra care. Case studies have shown that the MMI technique extends the range of effective surface soil geochemistry further into more complex transported regolith units, when compared to conventional geochemical techniques. Again it is the superior *signal to noise* or *anomaly to background* responses provided by MMI geochemistry that allow the technique to identify and highlight anomalous responses from mineralization while reducing the effects of spurious background levels.

Terrain with colluvial soils, where coarser components are obvious, usually respond well to the MMI technique. In terrain with extensive alluvium, particularly within larger tracts of sheetwash with intermittent flood activity, care is required with any geochemical technique. MMI anomalies in this terrain type can be of the order of 1 ppb or less. At these analytical levels, great care must be taken to ensure quality of data, and correct interpretation. No geochemistry, including MMI, is successful where very active ingress of depositional material occurs, such as aeolian dunes and active alluvial channels.

An effective *orientation study* is strongly recommended if possible to provide data before embarking on a survey.

4.0 ORIENTATION STUDIES

Although MMI geochemistry is a powerful technique, it should not be regarded as a panacea for exploration. Field inspection can be important to establish whether any major landform or regolith changes are likely to influence the MMI results. Other relevant background material that can contribute to a successful MMI survey programme and interpretation includes: geological maps, aerial photographs, geophysical data including aeromagnetic maps and any interpretation thereof, conventional geochemistry results showing broader anomalies or corridors, and styles of any known mineralization.

As with any geochemical survey, an orientation programme can provide valuable information if a suitable target can be accessed and soils collected at the surface. Prior to any orientation, it is also important for the exploration professional to define the parameters for minimum target size, especially when considering sample spacing for future exploration surveys. An important feature of MMI geochemistry is that it essentially responds to oxidizing primary mineralization. Weakly-mineralized structures may not respond clearly or distinctly to an MMI programme so an orientation should preferably test a target considered significant.

A sampling interval appropriate to the dimensions of the target and host geology is recommended for orientation surveys. Generally, a 25 – 50 metre interval sample spacing along lines is sufficient. However, in the final stages of NiS exploration, 10 metre spacing is used.

To obtain the further benefit from the analytical data generated using commercial MMI analyses, response ratios (discussed below) can be calculated. Background samples provide the necessary data to allow meaningful response ratios to be calculated and therefore orientation sampling **must** include soils collected off the known mineralization.

5.0 SAMPLE DENSITY AND GRID ORIENTATION

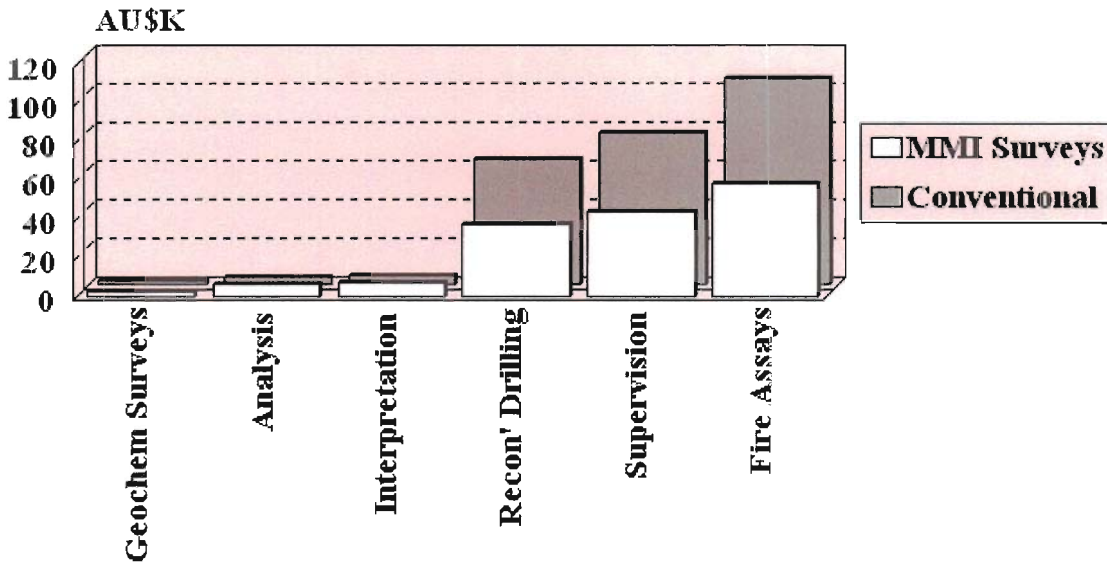
Density of sampling is largely influenced by the type and style of mineralization being sought. Narrow, higher grade styles require a maximum of 50-m sample intervals along lines spaced according to the required strike length of mineralization considered as an economic target within the specific project area. If the minimum strike length is 200 m, then the maximum line spacing should be 200 m. This is assuming that the target mineralization is likely to produce a geochemical halo, giving rise to an anomaly that may extend further than 200 m (for example along strike of a mineralized structure). However, it is recommended that the line spacing be equal or less than the target mineralization length. Generally for gold targets a sample spacing of 100 m x 50 m will allow a focused drill programme to commence, eliminating blanket RAB drilling.

Larger sedimentary styles (for example Mississippi Valley style) can have expanded sample patterns. However, in these cases it is vital that background is also sampled. Very specific targets, for example massive nickel sulphides along basal contacts, have in the past required 25 m x 25 m, or even 20 m x 10m spacing to allow detailed anomaly definition prior to the first phase of drilling. This pattern density may represent the second or third infill phase of MMI sampling after an initial broader-spaced programme to identify contacts, or complementary with geophysical targets.

One important aspect of incorporating MMI geochemistry into an exploration programme is that it can substantially reduce drilling costs (see Figure 1). If anomalies remain strong along significant strike lengths and more precise targets are desired, it is still more cost effective to undertake infill surface sampling within the anomalous trend rather than to blanket drill.

COST COMPARISON: CONVENTIONAL vs MMI

**Case Study: Discovery of the Golden Web Gold Deposit, St Francis Mining
 Exploration Phase 1 - Grassroots to Pre-definition drilling**



Cumulative Costs

Figure 1

5.1 Sampling Grids

Pre-designated sample grids and numbers should be established prior to sampling to avoid irregular sample spacing/numbering which disrupts later data interpretation and any subsequent follow-up work. Sampling should be conducted in a methodical way, preferably starting from the lowest easting and northing and working upwards. Avoid allocating negative eastings and northings for sample coordinates.

For orientation, survey traverses across known targets are ideal. These traverses can be assessed independently; however, it is imperative that background samples are collected for the general area, even at the expense of maintaining a consistent spacing along the line once the mineralized zone has been covered.

6.0 SAMPLE COLLECTION

6.1 Sampling Position

Do not vary depth beneath the true soil interface, or target a specific layer/feature of a soil profile when sampling. - Extensive research has shown that element concentrations can vary markedly with a change in sampling depth. Any significant variation in sampling depth and technique can cause severe problems for interpretation. It is imperative that all samples are collected in a consistent manner. In tropical terrains, the true soil interface is the ground surface. In terrains with deep organic overburden, the true soil interface is the position where living plant matter ceases and inorganic soil material becomes evident.

In undisturbed environments samples should be collected approximately 10 to 25 cm below the true soil interface at a consistent depth. - The initial step in taking an MMI soil sample requires the surface soil layer to be scraped away eliminating loose organic matter, debris, and any possible contamination. In cases where there is an extensive organic horizon (O or Ao) at the surface, (e.g. Canada), the sample should be taken 10 to 25cm below the lower interface, i.e. into the A horizon. Before actually taking the soil sample material, equipment should be brushed to eliminate residue from previous samples and preferably flushed with the soil from the new sample site. During sample collection and handling, **no jewellery** (watches, rings, bracelets, and chains) should be worn, as this can be a major source of contamination.

Moist Samples. - Damp samples should be collected in a similar manner to soils in dry environments. Samples should not be dried in ovens or pulverised in crushers or mills. In the case of dry plastic clays, sample material can be desegregated by crushing with a mallet between disposable plastic sheets. Sieving should be avoided if there is any possibility of serious cross-contamination during sample collection via the sieve. In this case, larger rocks and twigs/leaves etc can be removed by hand.

Organic Material. - Organic material in the form of fine roots and hairs, decomposing leaf material and other fine organic debris **WILL NOT** adversely affect MMI analyses. Experimental work has shown that variability in sampling depth has a more significant impact on element responses.

Contaminated Sites. - Where there is a potential contamination problem, samples should be collected at a depth so as to avoid any contaminated material and the sampler's judgment must be relied upon. Another option available to the sampler if there is possible site contamination is to sample in the lee of a tree and/or under a thick layer of organic litter.

6.2 Equipment

- A 30-cm diameter **plastic** garden sieve or kitchen colander with minus 5-mm apertures, available from hardware and supermarkets, is ideal for sample collection;
- **Plastic** collection dish with similar diameter and a kitchen floor brush used for cleaning the sieve and dish between samples;
- A bare steel (no paint) garden spade; and
- **Plastic** snap seal bags, **do not use calico.**

6.3 Sample Specification

A 250 gram sample is collected and stored in a plastic bag (a 90 x 150-mm plastic snap seal sample bag is recommended). Once sealed in the snap seal plastic bags, samples should be placed in polyweave sample dispatch bags. Stored in this manner, samples can be carried on tray-back vehicles during summer without problems and be stored for long periods.

6.4 Sample Site

Sample sites should be undisturbed and preferably away from any major contamination: creek beds, drainage, drilling lines, pads, roads, etc. Wind borne contamination should also be eliminated during sample collection by sampling just below the surface.

MMI SOIL SAMPLING - IN SUMMARY

- Use one laboratory wherever possible.
- For a particular survey, avoid submitting samples in small batches (if possible). If this cannot be avoided, calculate Response Ratios for each batch, BEFORE combining the data.
- Always sample consistently 10 – 25cm below the true soil interface.

6.5 Other Assistance

MMI TECHNOLOGY has assembled a number of technical bulletins to assist users with their sampling programs. This information can be accessed via the MMI Web Page or copies can be obtained from MMI Technology or its licensed laboratories worldwide. MMI staff can be made available to visit survey sites, discuss sampling procedures, train personnel, and perform sample collection.

Relevant MMI Technical Bulletins available

1. TB01 Sampling Procedures in Active Desert Terrain
2. TB02 Size Fraction Analysis
3. TB03 Improving Anomaly Resolution
4. TB04 Repeat Sampling Study
5. TB05 The Application of MMI Geochemistry in Tropical Environments
6. TB06 MMI Geochemistry in Deeply Weathered Lateritic Environments
7. TB07 Gold Exploration in Carbonate Terrains
8. TB08 The Application of MMI Geochemistry in Carbonate Environments
9. TB09 Low Level Gold Analysis After MMI Extraction
10. TB10 Analysis for Pathfinders
11. TB11 WAMRD8: Reproducibility of Data in the MMI Process
12. TB12 MMI Analysis for Gold and Silver in Carbonate Environments
13. TB13 WAMRD9: Solubilities of Cu, Pb, Zn & Cd in MMI-A Leachants Applied to Carbonate Samples
14. TB14 Sampling in Boreal Climatic Zones

7.0 STANDARD REFERENCE MATERIAL CHECKS AND DUPLICATE SAMPLES

Standard Reference Material (SRM) and duplicate samples are a very important part of quality assurance and control, by identifying any human or equipment error. They also provide the required measure of confidence in the data reported by the laboratory.

One check and one duplicate sample should be inserted for every batch of 50 samples. Preferably these should be inserted within the normal sample number sequence submitted to the laboratory. MMI TECHNOLOGY can supply standard reference material at a nominal cost. Companies can also collect their own check material once values from a specific sample site are known.

Mobile Metal Ion responses in soils are consistent, repeatable, and there is no nugget effect. The ions are distributed homogenously throughout the soil and it is possible to engineer a desired standard reference sample value by mixing samples with known responses (see Figure 2). As can be seen from this case study, the mean of the two samples that were combined in equal proportions and thoroughly mixed gave an accurate indication of the results of four sub samples.

Mobile Metal Ion Distribution

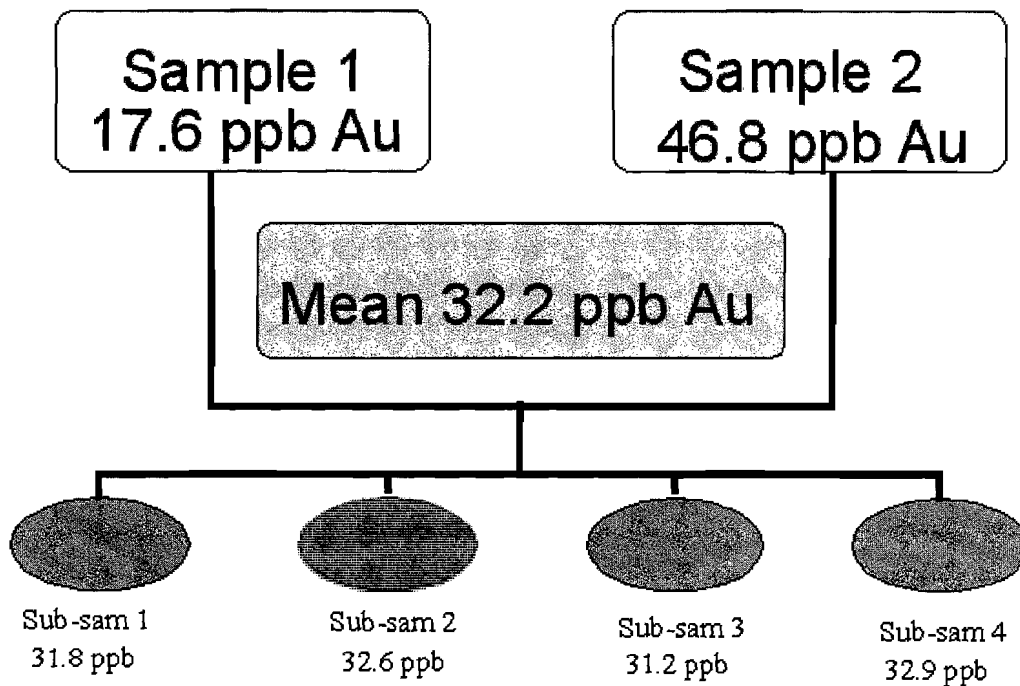


Figure 2

8.0 SAMPLE SUBMISSION

Before submitting the samples to the laboratory, samples for the survey should be collected and stored until the whole job has been completed. Only then should the samples be submitted as a single batch to a laboratory licensed by WAMTECH to undertake Mobile Metal Ion Analyses. A **Sample Submission Form** is included in Appendix II at the rear of the manual. By submitting the samples as a single batch, the samples are less prone to any slight degree of variation that may occur due to different laboratory conditions. This also allows the data to be received as a single batch reducing the chance of database corruption.

8.1 Overseas Sample Submission

Samples dispatched to laboratories overseas, depending upon local legislation, must go through various custom and quarantine procedures. Generally, laboratories must be registered as a quarantine laboratory to accept deliveries of samples from overseas for chemical analysis. This registration usually requires that the laboratory render the samples and packaging biologically sterile prior to disposal by heat treating samples and packaging. To allow efficient and quick release by Customs and Quarantine services, it is imperative that all documentation is clearly and concisely filled out. For the correct documentation and procedures contact your local Customs services and the analysing laboratory or MMI Technology, Perth, Australia. Samples arriving from overseas are usually subject to various government charges on each consignment. The laboratories will also most likely have an additional charge to cover their cost of handling and disposal of quarantine samples. For this reason the larger the sample batches or consignments, the more cost effective the analyses.

9.0 ANALYSES

Currently two commercial laboratories, ALS-CHEMEX, in Perth, Australia, and SGS in Toronto, Canada are licensed to undertake **Mobile Metal Ion Analysis**. Prior to this agreement, a detailed development programme was undertaken to ensure that the required analytical standards were being met and could be delivered on a routine, commercial basis. MMI Technology has a rigorous quality control check programme to ensure that the required laboratory standards are being maintained and the digest liquors provided to the laboratory meet the required stringent extraction criteria. Each digest liquor supplied to the laboratories is provided with an individual warranty form for that specific liquor, and to which it must conform.

The MMI Process uses leachant solutions which have been specially developed to selectively 'release' the adsorbed ions from the soil material. The aim of the selective leaching is to remove metals which are loosely bound on the surface of particles within existing soil profiles, without attacking or influencing the natural mineralization of the soil or specific substrates. Using sensitive ICPMS instrumentation, the MMI Process is able to detect Mobile Metal Ions in digest solutions at sub-parts per billion level.

Eight MMI leachants are currently available:

MMI-A:	Cu, Pb, Zn, Cd (Base Metals)
MMI-B:	Au, Ag, Ni, Co, Pd (Precious Metals)
MMI-C:	Cu, Pb, Zn, Cd (Base Metals in Carbonate Environments)
MMI-D:	Ni, Co, Pd, Nb, Cr, Mg, Rb, Y (Diamond Host Rocks)
MMI-F:	As, Sb, Hg, Mo, Se, Fe (Pathfinders)
MMI-G:	U, Th, Pb, Ta, W, Sn (Pegmatites)
MMI-L:	Au, Ag, Ni, Co, Pd (Precious Metals in Super Absorbent or Highly Saline Environments)
MMI-M:	All of the above elements + rare earths (Multi Element Extraction)

[Detection limits for each element and leach and costs are available from the MMI licensed laboratory]

9.1 Quality Control

As with any geochemical survey, it is important to maintain a check sample programme independent from that undertaken by the laboratory. One standard reference material and one duplicate sample should be inserted within each sequence of 50 samples to monitor precision and accuracy. It is preferred that the QC samples be inserted as part of the numbering sequence but not essential. If MMI TECHNOLOGY is to be actively involved in the programme as consultants, standard reference material and duplicate sample will be monitored and reported upon. The precision and accuracy of MMI analyses is typically very high.

10.0 DATA HANDLING

Each individual laboratory has its own method of data reporting, most will usually supply the results via email. The dispatch and retrieval of results is the responsibility of the laboratory and client. Once the results have been received, care should be taken not to corrupt the original data and to safeguard against its loss. As the samples should have been submitted as a single batch, the results should also be available as a single database. This helps avoid possible data corruption by reducing data transfer and manipulation.

10.1 MMI Response Ratios

MMI interpretation of individual elements can be done on raw (ppb) data. To facilitate multi-element interpretation of MMI analytical data, it is recommended that for each element, a background for the data is calculated, using (say) the lowest quartile of the data. Then a peak to background ratio (**response ratio**) is calculated for each element for each sample. A simple work sheet on MMI Response Ratios is included in Appendix I.

Response ratios provide a number of benefits for interpretation:

- Reduce the effects of dissolution variables during extraction, for example time and temperature;
- Allow the splicing of different data batches or data from varying regolith situations;
- Reduce the effects of sampling in different regolith units; and
- Facilitate multi-element data presentations for interpretation.

Before presenting MMI data in any graphical form, individual element response ratios are calculated for each sample. The concept of response ratios is simple: it involves determining a background value for each element in a survey area and ratioing all the data to that background. In more detail:

Determining the Background

- Select an element, for example Au, and determine the lowest 25% of the data for all the samples analysed in the survey area.
- Any values less than the detection limit need to be included and a value half of the detection limit should be substituted as an estimate value (based on scientific reports). For example, if Au has a detection limit of 0.01 ppb, any sample that analysed below this should be given a substituted value of 0.005 ppb.
- After determining the lowest quartile (25%) of the data, the average of these values is then calculated. This is the BACKGROUND value for that element within the specific dataset of a survey area.

Calculating MMI Response Ratios

- Response ratios are calculated by dividing each sample value by the predetermined background value for that element. The numbers are then rounded to give whole numbers greater than or equal to one (1).
- A sample with a response ratio of 2, or less, is considered low and is a background sample. Samples with response ratios greater than 5 could be considered significant depending upon the regolith/landform characteristics of the area and the sample spacing used for the survey. *Note however, that due to the greater contrast inherent in the MMI technique, response ratios in general need to be greater than 2-5 times background before being considered "anomalous"*. If composite sampling has been employed then response ratios greater than 5 may be highly significant. Obviously, this may change depending upon the overall distribution and magnitude of response ratios in an area. For example, some areas may have anomalous Au values at 10 (RR) whereas for another area the anomalous Au values may be those samples with a response ratio greater than 20.

Additional advantages of using response ratios are:

1. The effective application of MMI Response ratios relies upon correct determination of the background for the survey area. It is important that the survey area covers sufficient ground and has not just been conducted over a mineralized sequence. Correct determination of the background and ratioing of all the data to that value helps distinguish between those samples which are anomalous and those which are not. With MMI we are not looking at the absolute value of an element (for example Au) in a sample as it is a partial extraction technique. Instead, we are interested in the relative difference between background samples and those which are anomalous and which may overlie mineralization.
2. Response Ratio data is in a uniform format, allowing individual elements to be compared directly for coincident or zoned anomalies that can be easily identified using stacked bar charts.

-
3. Response ratios are also valuable for dealing with multiple batch analysis where slight batch variations can occur during extraction. In some cases response ratios have been useful where highly-transported soils exist in conjunction with relict and erosional regimes by enabling the samples to be treated in separate datasets according to their regolith type.

The method of calculating response ratios for MMI data is certainly not a new one in geochemistry, although many people will argue it is an attempt to enhance the data. This is not the case as response ratios are merely a relative comparison of signal to background. It is also important to remember that all data from a laboratory are going to be relative; that is, relative to the standard used in the laboratory.

After response ratios have been calculated, the data can easily be presented in various ways to show required features and indicate trends. There is no set formula for defining the significance of any particular set of response ratio data. A number of factors will influence the final results. Orientation sampling can provide some assistance; however, like most exploration techniques experience with the technique is invaluable.

11.0 MMI IMAGING and INTERPRETATION SERVICES

As noted earlier, MMI provides sharp, high contrast anomalies compared to conventional or total digestion geochemistry. This can pose problems for the unwary, or the geologist trained only in interpretation of conventional geochemistry. To assist MMI users with interpretation and presentation of MMI data, MMI Technology provides a range of Imaging and Interpretation services to suit specific client needs. The services available range from database management and calculation of response ratios, through to in-depth imaging and interpretation reports, and also a consulting service. A table of available services is shown in the table below.

MMI Technology
 Schedule of Services and Prices - May, 2004

SERVICE 1			
<u>Data Base Management</u>			
Data base construction incorporating analytical QA/QC, analyses, coordinates and response ratios.			
<u>Stacked Bar Charts</u>		<u>Coloured Images/Maps</u>	
Stacked bar charts showing specific element associations at sample sites along a line or traverse.		Coloured contour images of element responses.	
<i>Price Schedule</i>		<i>Price Schedule</i>	
1 Line	US\$ 230	<100 Samples	US\$ 540
2-10 lines	US\$ 450	100-300 Samples	US\$ 660
>10 lines	US\$ 690	>300 Samples	US\$ 770
<u>Stacked Bars + Coloured Images</u>			
<i>Price Schedule</i>			
<100 Samples		US\$ 720	
100-300 Samples		US\$ 1050	
>300 Samples		US\$ 1400	

SERVICE 2			
<u>Data Interpretation</u>			
Includes database construction incorporating analytical QA/QC, analyses, coordinates and response ratios, stacked bars and coloured images.			
<u>Quick Look</u>		<u>Detailed Review</u>	
Brief review and comment on element responses as shown on stacked bar charts and coloured maps.		A full report including database, images, interpretation and recommendations.	
<u>Price Schedule</u>		<u>Price Schedule</u>	
<100 Samples	US\$ 1000	<100 Samples	US\$ 2880
100-300 Samples	US\$ 1150	100-300 Samples	US\$ 3080
>300 Samples	US\$ 1250	>300 Samples	US\$ 3500

SERVICE 3	
<u>Consulting</u>	
Consulting service including workshops, seminars, sample programme design, sampling instruction etc.	
Principal Consultant	- US\$ 80/hr
Senior Technical Officer	- US\$ 50/hr

MMI Technology is also able to provide a soil sampling service. For this, and all of the above services, please contact MMI Technology for a quote to clarify any costs involved.

Services 1 and 2 are available by email, enabling a very quick turn around time for interpretation. For more information and to obtain a quote on any of the service packages, please contact MMI TECHNOLOGY at info@mmigeochem.com or visit our web site at <http://www.mmigeochem.com>.

By drawing on its extensive experience, MMI Technology is able to provide clients with precise, in-depth interpretations and recommendations from MMI data. MMI Technology can generate stunning and accurate images from MMI data. Images such as Stack Bar Charts and Coloured Contour Images (see examples in Figures 3 and 4 below) allow quick, easy and accurate interpretation so you know exactly what your MMI data is telling you.

Stacked Bar Chart of MMI Response Ratios For Base Metals

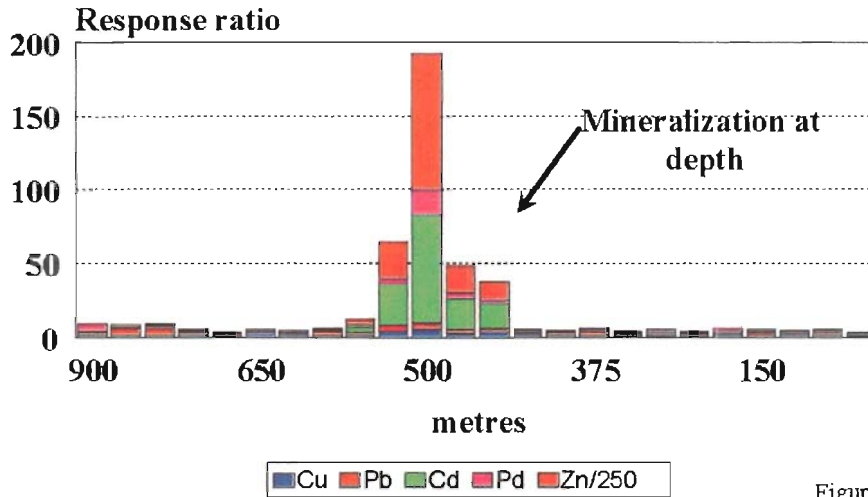


Figure 3

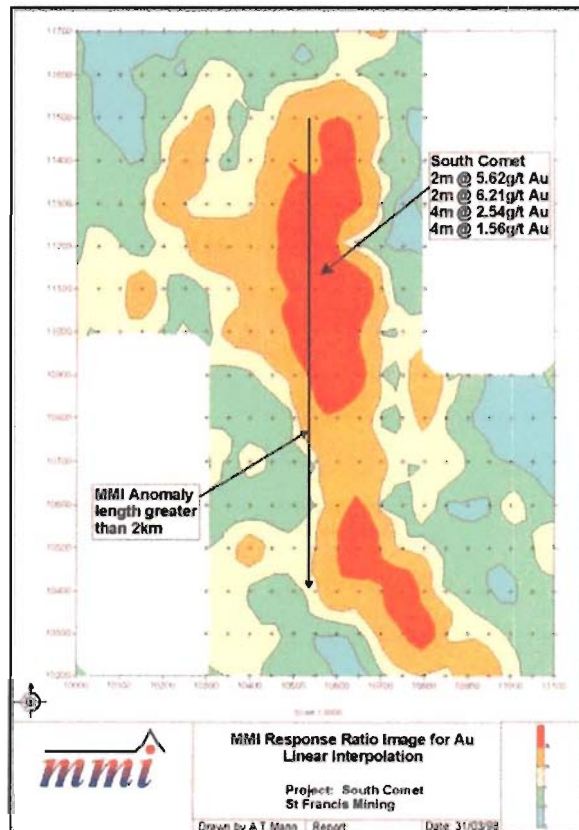


Figure 4

12.0 CASE STUDIES

MMI geochemistry has been used extensively world wide for over 10 years, generating a multitude of case studies. A selection of these case studies has been made available for publication by the participating companies. The case studies have been presented on our MMI Web Site: <http://www.mmigeochem.com> and can be downloaded and printed from the web site.

13.0 APPLICATIONS

To date, the MMI technique has been successfully applied in a number of different situations with varying commodities (including gold, base metals, nickel, and diamonds), mineralization styles, geological settings, depth of burial, and climatic regimes ranging from arid/semi-arid through to wet and both tropical and temperate. It has been successfully tested and applied on all continents in the world (barring Antarctica).

13.1 Target Drilling

The initial development of the MMI Process primarily focused on more accurate target drilling for a range of commodities in the widest possible spread of landform and regolith situations, mineralization styles, and settings. Consequently, sample spacing has been kept tight to provide the necessary data density over target areas for interpretation, thereby allowing resolution of the anomaly to define specific targets for RC drilling.

If applied in an integrated and systematic manner, MMI geochemistry can significantly improve the cost effectiveness of exploration programmes. Currently it has been used to eliminate first pass reconnaissance drilling phases and allows the programme to proceed directly to a target drilling phase. A cost comparison exercise is included in Appendix I, and a case study presenting actual exploration costs for St. Francis Mining to discover the Golden Web deposit is summarized in Figure 5.

COST COMPARISON: CONVENTIONAL vs MMI

Case Study: Discovery of the Golden Web Gold Deposit, St Francis Mining
Exploration Phase 1 - Grassroots to Pre-definition drilling

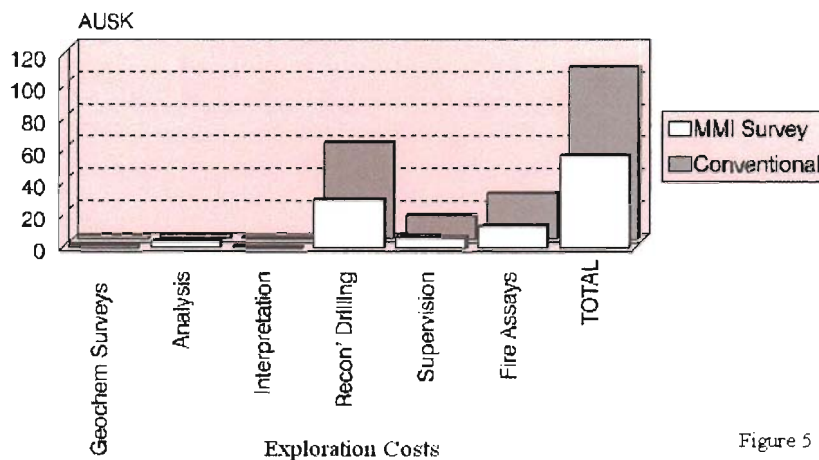


Figure 5

For target drilling the maximum sample density should be 50 m x 50 m. In situations where the target is steeply dipping, narrow, possibly with a restricted strike but significant depth extension, for example nickel sulphide lenses, then 25 m x 25 m sampling density, or even 20 m x 10 m, may need to be employed.

13.2 Definition of Mineralization Trends

In many economic ore deposits, mineralization is zoned. This is often as a consequence of the temperature and pressure variations during ore emplacement. High resolution geochemistry such as MMI can often provide sufficient spatial resolution for zoning to be seen from surface. Two examples are shown below.

The San Jorge copper-gold deposit is at the southern end of a north-south trend of various hydrothermal deposits that outcrop for over 300 km in the Uspallata Valley and its environs (Argentina). The MMI geochemistry for section 8650E, superimposed upon the known geology and sub-surface mineralisation, Figure 3, shows a number of interesting features. Firstly, there is a zonation pattern across the deposit, with outlying anomalies of Zn and Cd giving way to anomalous Cu, Au, and Ag over the primary and enriched zones of the deposit. Secondly, whilst Cu is present in considerable concentrations and reports very strongly in the MMI geochemistry, Au and Ag also report with very strong MMI response ratios over the mineralisation, considering the tenor of the Au mineralisation (average 0.2ppm). Thirdly, given the varying depth of the gravel cover, the MMI geochemistry has provided a sharp and accurate surface outline of the sub-surface mineralisation, with response ratios for Cu of over 100 times background, and Au and Ag response ratios of over 50 times background. The full case study can be viewed at <http://www.mmigeochem.com>.

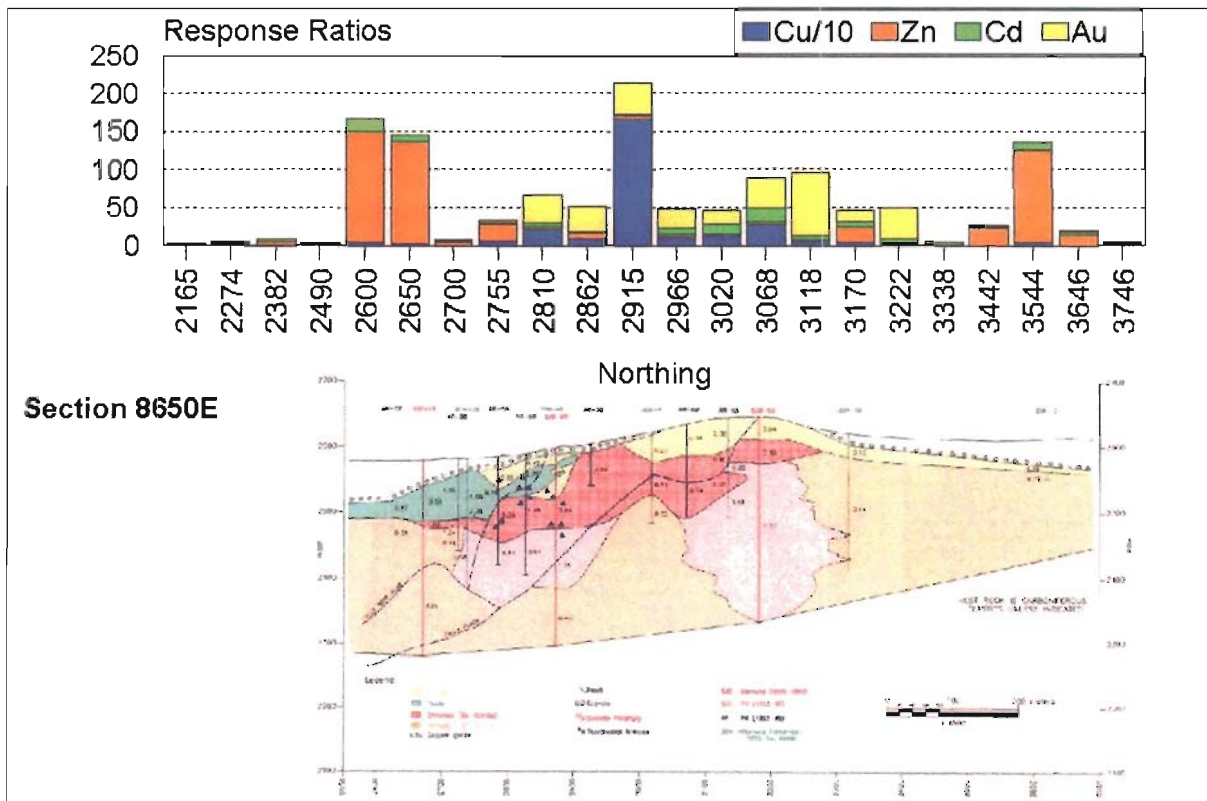


Figure 6. MMI response ratios plotted above cross sectional geology of San Jorge project, Mendoza.

The rare earth elements at Nepean, Coolgardie, Western Australia, show an interesting pattern, with a central “low” where the NiS expresses itself with very high Ni and Pd in the sample at 1000E, flanked by sharp and very high values in immediately adjacent samples. Samples more than 100m from the deposit show close to background values for these light rare earths. A possible reason can be explained by reference to the cross section below in Figure 7.

Hill (2001) has pointed out that fresh substrate rock samples commonly show high values for the light rare earth elements whereas primitive komatiites do not. The nickel sulphide bodies (after thermal erosion and mixing) commonly also have a rare earth signature. It is therefore possible to discriminate barren and potentially fertile (and therefore prospective) komatiites. It is believed that the soil samples in the traverse at 4550N (at 25m spacings) are accurately reflecting the geochemical signature of the mine sequence.

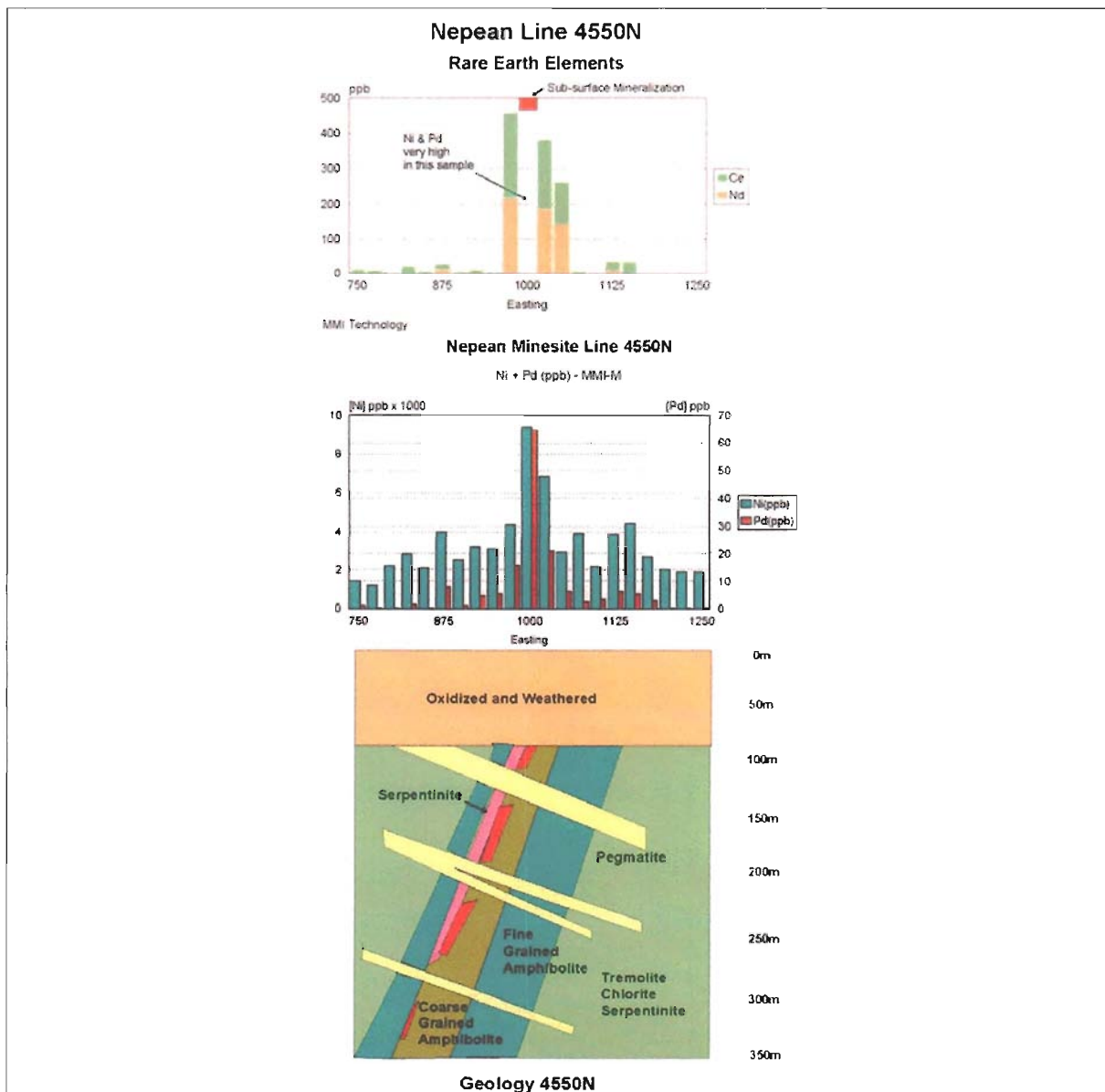


Figure 7. Rare earth elements Ce and Nd enveloping high Ni and Pd, with underlying geology, at Nepean nickel deposit, Coolgardie.

13.3 Future Developments

MMI Technology is continuing its own research and field testing to determine the practicalities and cost effectiveness for the application of MMI techniques to:

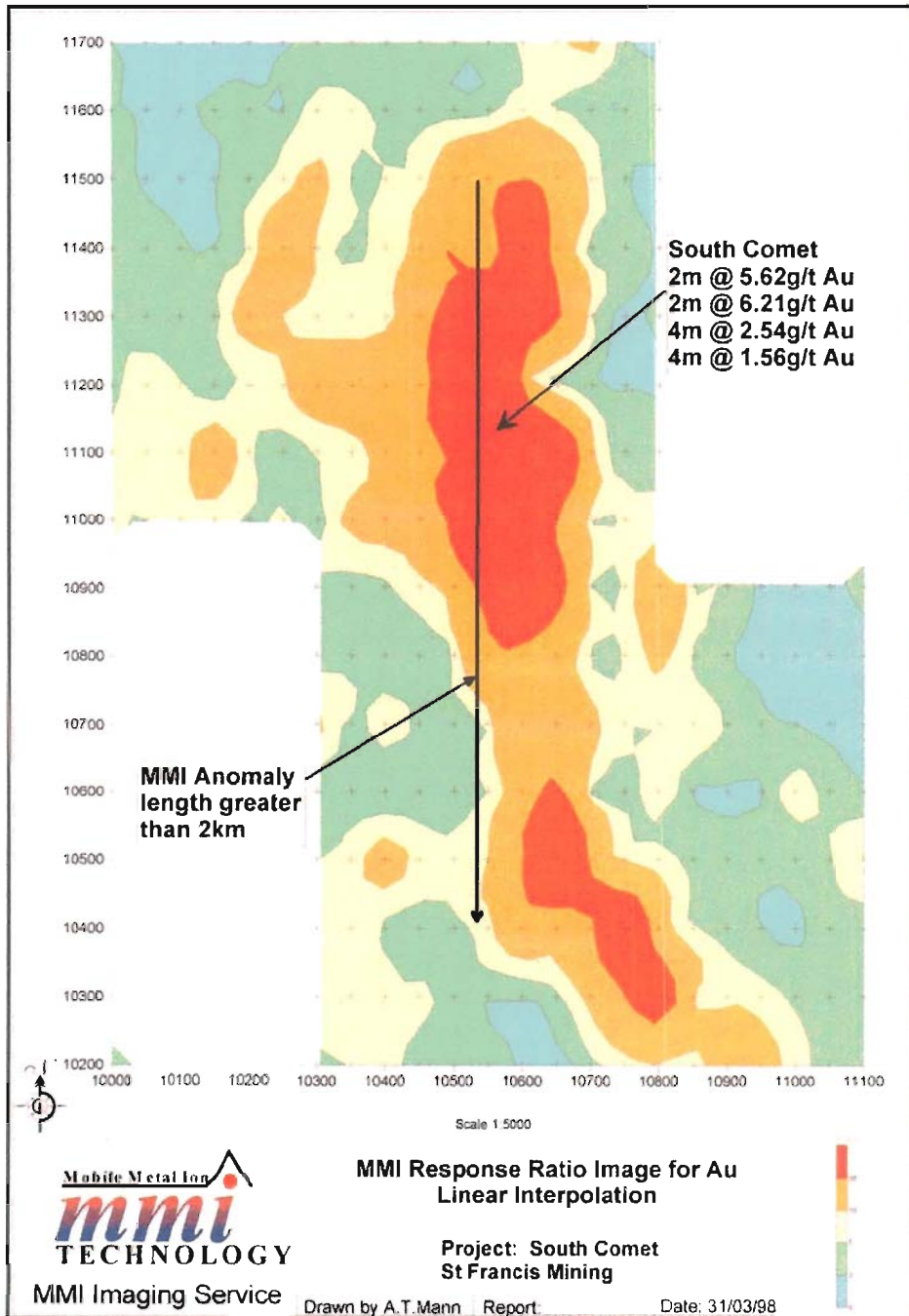
- a) Further develop the technique for definition of distinct mineralization trends within chalcophile corridors at a regional scale;
- b) Identify geochemical target zones, anomalies and trends at a prospect scale;
- c) Extend the effectiveness into those regolith terrains that are still problematical;
- d) Interpret subtle down-hole geochemical responses within deeply-weathered profiles to target deeper primary mineralization; and
- e) Identify buried, broad scale alteration haloes around large mineralization settings.

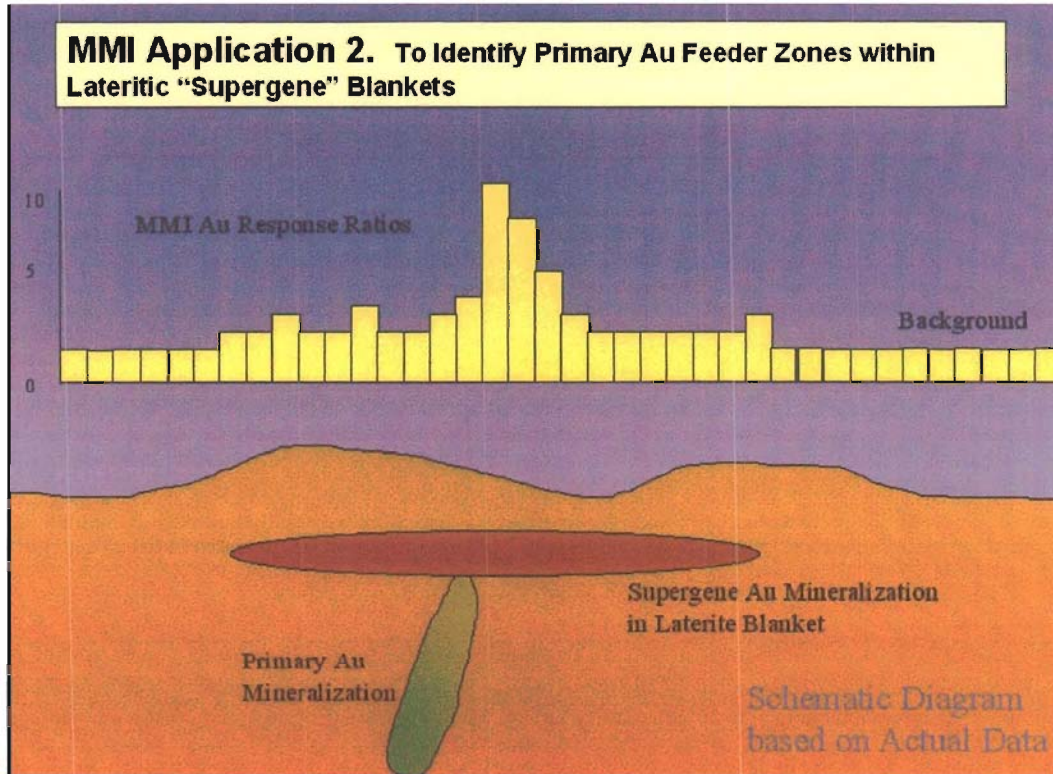
13.4 Specific Applications

Following is a list of specific MMI applications. Discrete diagrams are included for each of the applications.

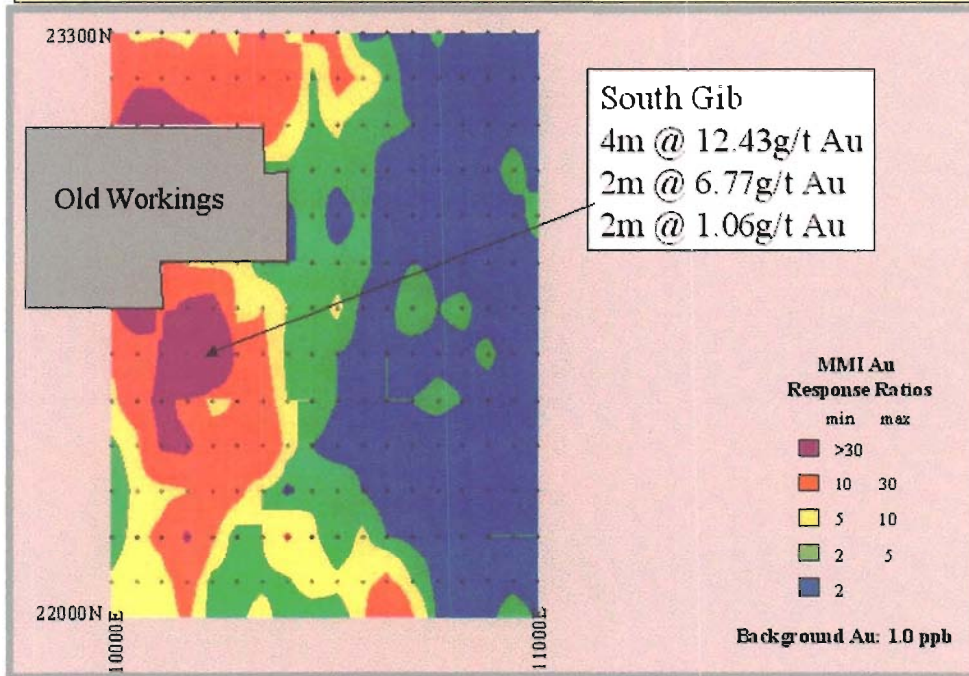
1. To provide sharp geochemistry for accurate target drilling of Au, Ni, and base metal deposits.
2. To identify primary Au feeder zones within lateritic 'supergene' blankets.
3. To accurately trace on surface, the strike extensions of known mineralized ore zones.
4. To identify genuine surface anomalies from displaced (false) anomalies in residual and erosional laterite profiles.
5. To identify ultramafic units, channel flow rocks, and mineralized basal contacts in Ni exploration.
6. To identify the surface projection position of deeply-buried base metal deposits.
7. To provide enhanced signal to noise geochemistry capabilities in depositional regimes.
8. To identify metal zonation, for example in porphyry systems.
9. Delineating mineralization in areas of strong anomalism.
10. To provide multi-element geochemistry in regional and semi regional exploration programmes.

MMI Application 1. To Provide Sharp Geochemistry for Accurate Target Drilling of Au, Ni, and Base Metals Deposits.

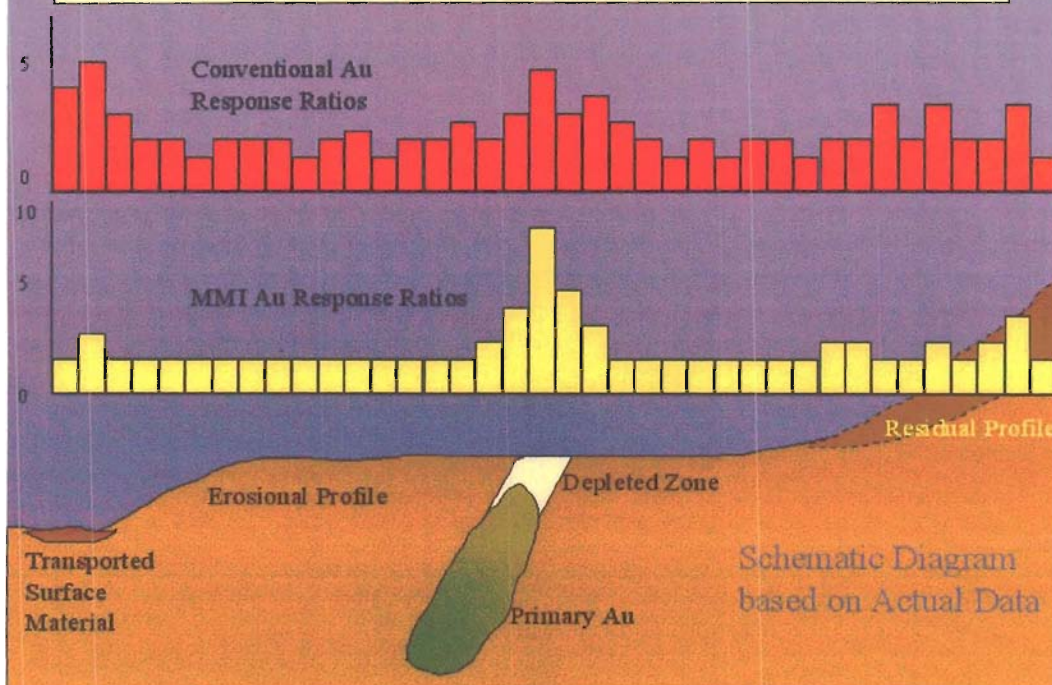




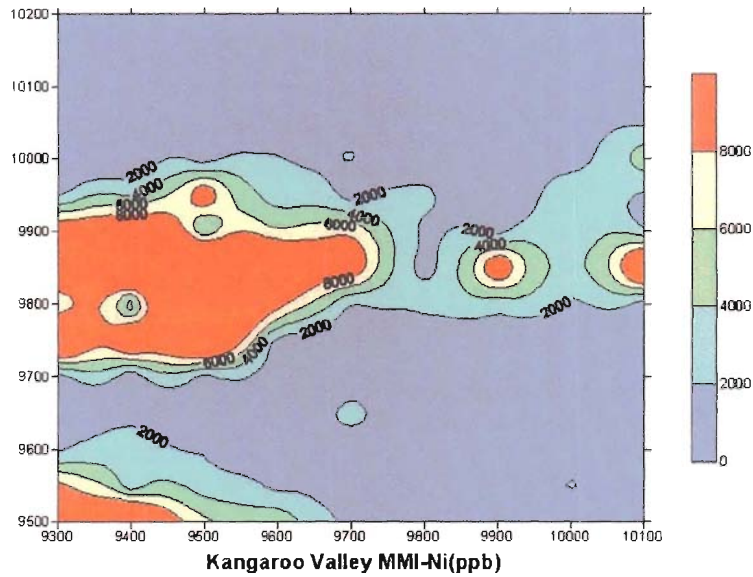
MMI Application 3. To Accurately Trace on Surface, the Strike Extensions of Known Mineralized Ore Zones



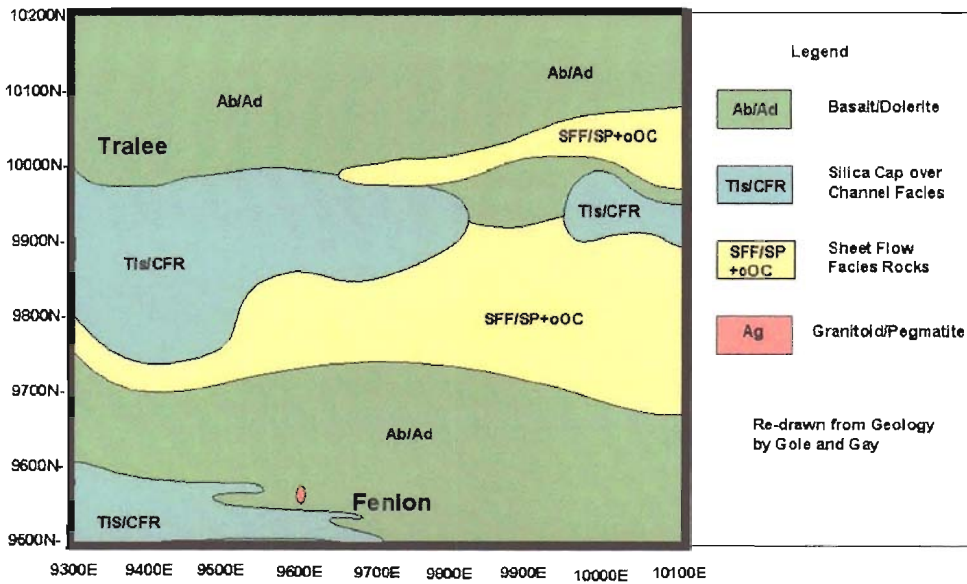
MMI Application 4. To Identify Genuine Surface Anomalies from Displaced (false) Anomalies in Residual and Erosional Lateritic Profiles.



MMI Application 5. To Identify Ultramafic Units, Channel Flow Rocks, and Mineralized Basal Contacts in Ni Exploration



MMI-B analysis of Ni in soils from Kangaroo Valley, Coolgardie, W.A.

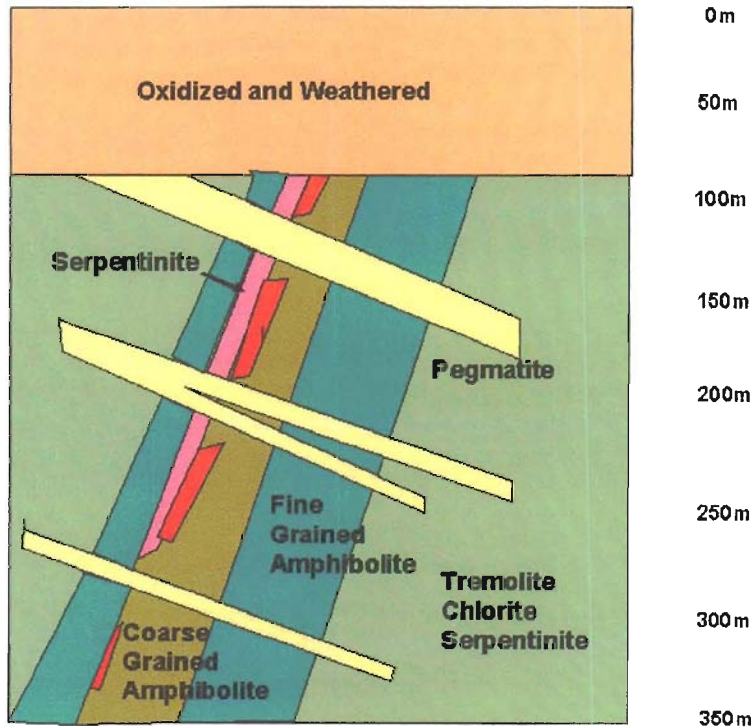
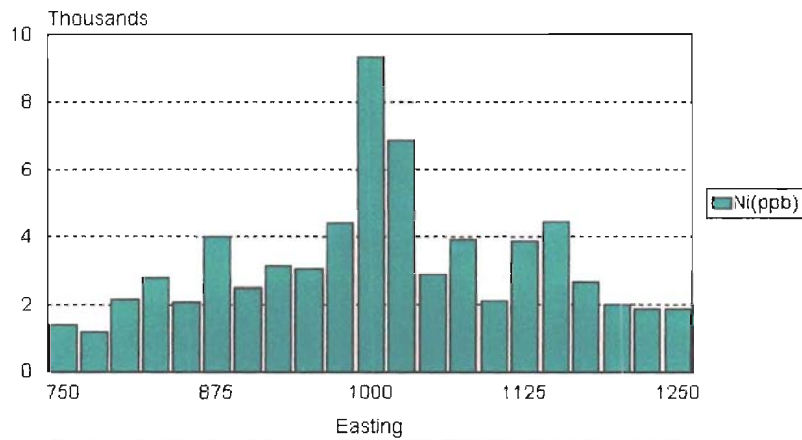


Geology of the Kangaroo Valley area, after Gole and Gay, 1995.

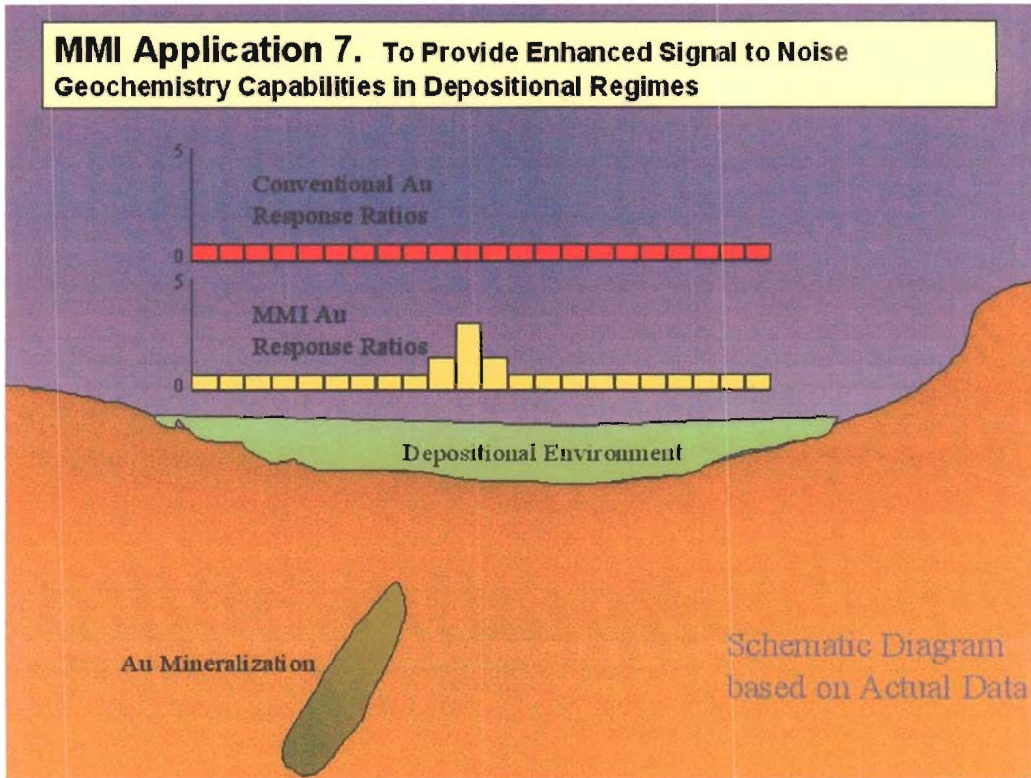
MMI Application 6. To Identify the Surface Projection Position of Deeply-Buried Base Metal Deposits.

Nepean Minesite Line 4550N

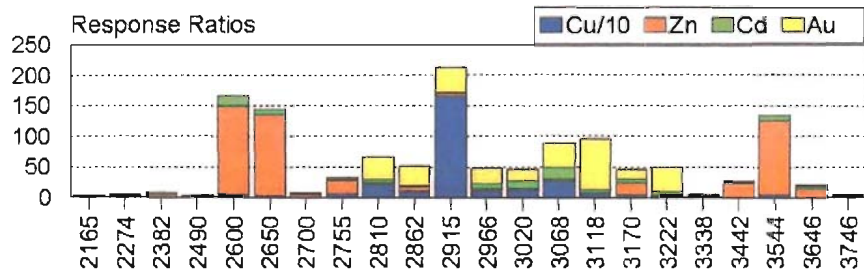
Ni(ppb) - MMI-M



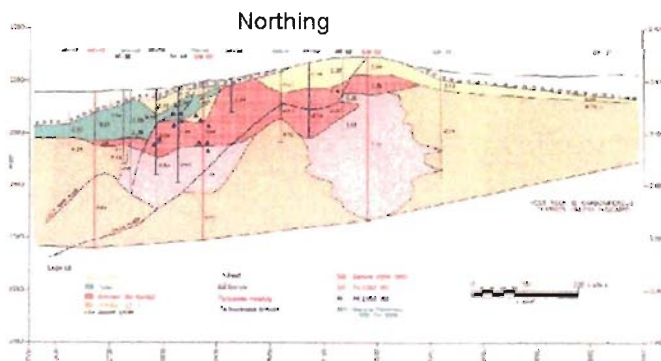
Geology 4550N



**MMI Application 8. To Identify Metal Zonation, for example in
Porphyry Systems.**



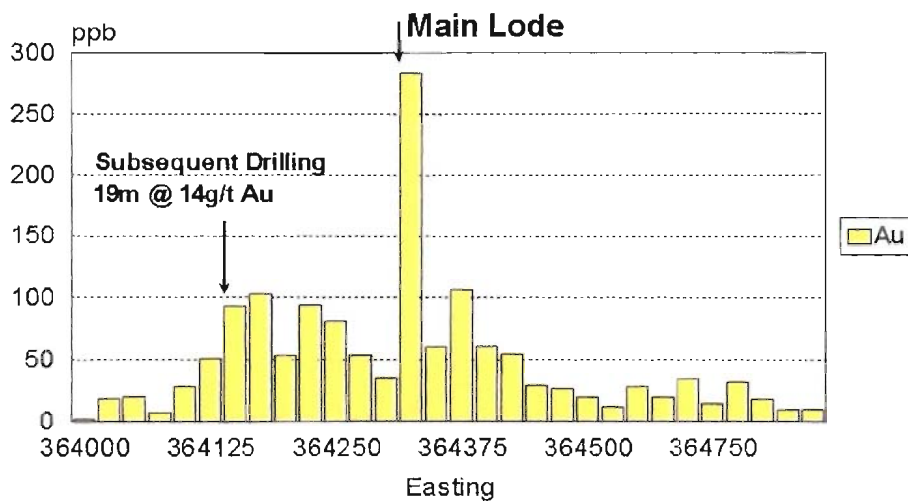
Section 8650E



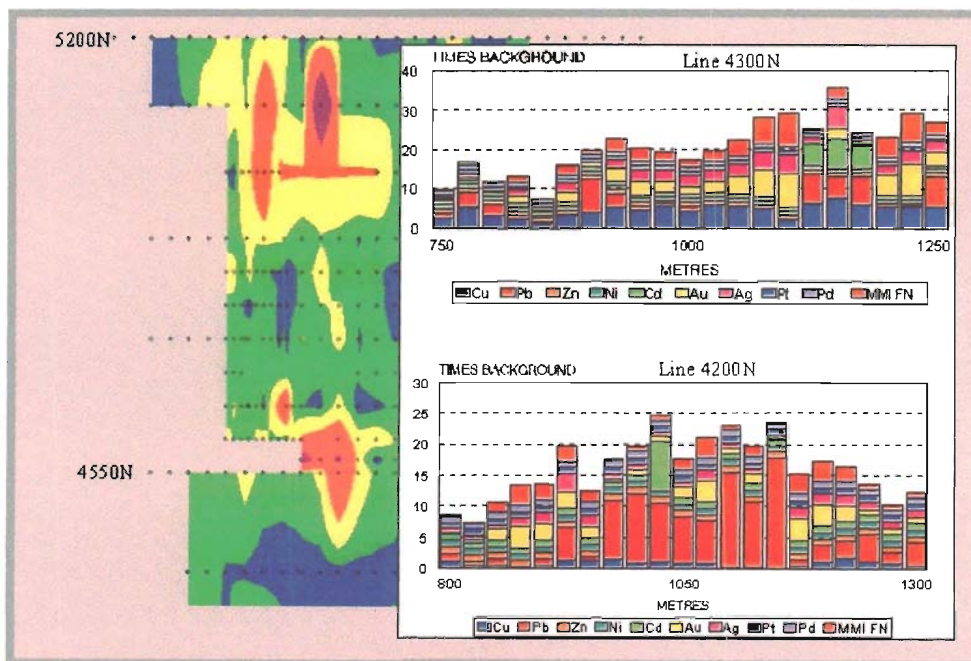
MMI Application 9. To delineate mineralization in areas of strong anomalism.

The Mount

MMI Orientation Line 6510800N



MMI Application 10. To Provide Multi-Element Geochemistry in Regional and Semi Regional Exploration Programmes



14.0 REFERENCES

- Camuti, S. K. (1995), *Partial Extraction and Mobile Metal Ions*, 17th International Geochemical Exploration Symposium, May 1995, E.G.R.U., pp. 31-34.
- Dawson, S. (2004), *New Frontiers for Canadian Mining and Exploration – High grade found at Assean Lake*, The Northern Miner, April 2004.
- Hill, R.E.T., 2001. Komatiite volcanology, volcanological setting and primary geochemical properties of komatiite-associated nickel deposits. *Geochemistry: Exploration Environment, Analysis*, 1(4), 365-381.
- Gold Gazette (1996), *New Approach Applied to Exploration*, May 1996, Volume 4, No. 20, Resource Information Unit (RIU), pp. 29-30. Editor Andrea Maxey.
- Paydirt (1996), *Intrepid Junior Miner Sets Sites on Coolgardie*, March 1996, Vol 1, Issue 15, Louthean Publishing Pty Ltd, Western Australia, pp. 37-38. Editor Ross Louthean.

APPENDIX I

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MMI RESPONSE RATIO AND COST COMPARISON WORKSHEET

MMI RESPONSE RATIO AND COST COMPARISON WORKSHEET

Why Use Partial Digestion involving Mobil Metal Ions?

To illustrate the use of partial digestions and Mobile Metal Ions we shall examine real data from a case from Central Queensland. This data came from an area where both conventional and partial digestion chemistry work, and both can provide us with figures which we can compare.

Sample	Metres (E)	Cu (Total) ppb	RR (Total)	Cu (Partial) ppb	RR (Partial)
CQ1	0	4200		100	
CQ2	25	3800		120	
CQ3	50	7000		100	
CQ4	75	17000		2500	
CQ5	100	9000		200	
CQ6	125	6000		150	
CQ7	150	5100		100	
CQ8	175	5000		150	

1. Calculate for both the conventional and the partial data sets for Cu, a background based on the lowest quartile (25%), i.e. average the lowest two values from each set.
Conventional B/G = Partial B/G =
2. Now calculate the MMI Response Ratio (RR) for each sample, by dividing each value by the background, for both data sets. Fill in the response ration data in the table above.
3. Now plot on the graph below, the signal to background (i.e. response ratio) for each sample, from each of the techniques.

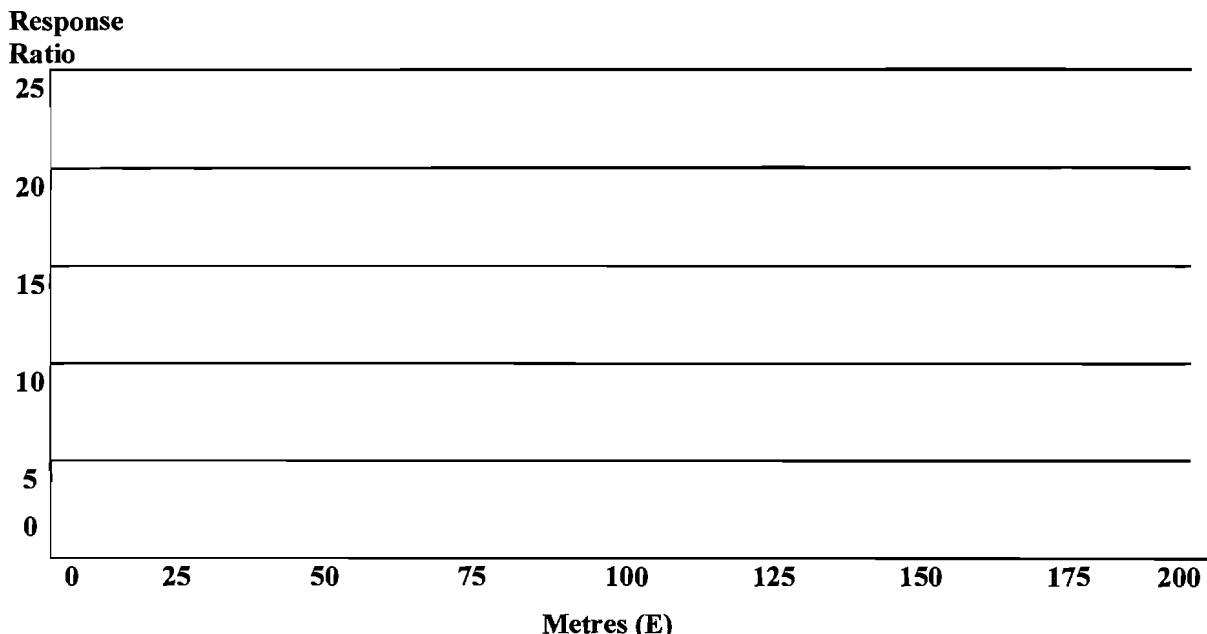


Figure 1. MMI Response Ratios for Total and Partial Digestion from a case study. Using the MMI partial digestion, we have extracted less than 2 % of the total metal from most of the samples (note a higher percentage from the anomalous sample). By so doing we have increased the signal to noise ratio considerably. We have preferentially used unbound metal in doing this.

There are a number of possible situations where the increased signal to noise ratio of the partial geochemical anomaly may be of advantage:

1. Where the amount of transported material in take (colluvial) soil would swamp a conventional geochemical signal, but not one from partial digestion.
2. Where the depth of the mineralization is so great that the bleed signal of metal is very weak.
3. Where the amount of weathering in the profile has led to a very low metal signal in the surface soil.

There is another situation, where the increased width resolution 'the sharpness' of the partial geochemistry signal can be of great value. It relates to being able to directly target-drill from a geochemical anomaly. The present example gives some kind of illustration of this. The conventional geochemical signal has shoulders which give the anomaly a width of approximately 100 m (four samples > or = 1.5 times RR). As a second exercise we can approximately cost compare the Total Exploration Cost to the end of first round drilling of this target by these two scenarios. Use your own estimates of costs to complete the following table, assuming first round drilling would be at 25 m spacings to 50 m:

Item	MMI Geochemistry	Cost	Conventional Geochemistry	Cost
Geochemical Sampling	0.1 day @ \$	\$	0.1 day @ \$	\$
Analysis (assume a total of 80 samples)	80 samples @ \$	\$	80 samples @ \$	\$
Geochemical Interpretation	1 day @ \$	\$	0.5 day @ \$	\$
Gridding Costs	0.2 day @ \$	\$	0.2 day @ \$	\$
Drilling	100 metres @ \$	\$	200 metres @ \$	\$
Drill Supervision by Geologist	1 day @ \$	\$	2 days @ \$	\$
Downhole Samples	100 samples @ \$	\$	200 samples @ \$	\$
Other	\$	\$	\$	\$
Total	\$	\$	\$	\$

Report On The 2003
MMI Soil
Geochemistry Survey
Sidace Lake Property
Coli Lake, Sobeski Lake,
And Black Bear Lake Areas,
Red Lake District,
Ontario

Supplemental to Original Report

2. 29255

NTS 52N05

Revisions

By
Michael Dehn,
Senior Geologist
Goldcorp Inc.
May 2005

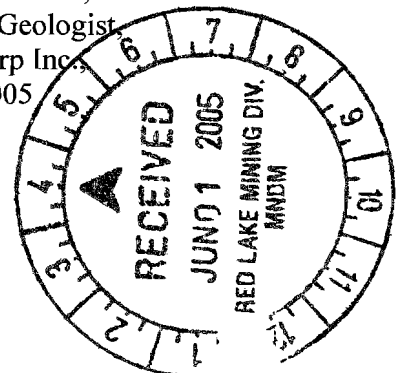


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APPENDIX 1 - SGS-XRAL CERTIFICATES

DISCUSSION

MMI Soil Geochemistry was completed on several areas for a test of the analysis' application to the exploration of the Sidace Lake Property, a property which is covered in large part by the Trout Lake Moraine.

Results of MMI A (Base Metal) MMI B (Au) and MMI F (Porphyry) show varied responses, with some variability due to differences in overburden thickness and drill cutting contamination.

Elevated levels of Barium, Mercury, Arsenic and Antimony are for in the preliminary ICP results for The Sidace Lake Property (report in progress) and MMI responses for these elements appear only where drill cutting are on surface, and not along the predicted horizon. Geological interpretation is also rapidly changing in this area due to ongoing drilling, and the core of the Barium, Mercury, Arsenic and Antimony anomaly in bedrock be better defined and a new MMI M (multi – element) survey over the same areas as the MMI A, B, and F surveys to validate the initial survey.

It is not believed that sample media or sampling depth is an issue with the reported MMI survey.

It is believed that recent drill cutting have contaminated some samples.

The density of samples may be insufficient to get any real background data for a property as large as the Sidace Lake Property, and a new reconnaissance survey is recommend using MMI M over the newly discovered mineral horizon on the west shore of Upper Duck Lake trending westerly to North of Anderson Lake.

In MMI survey work, which Goldcorp has completed a significant quantity of samples in the Red Lake Greenstone Belt, MMI is not a stand alone direct detection mineralization tool. MMI must always be used in conjunction with at least one other detection method (we prefer airborne magnetics and diamond drilling). Goldcorp's success in targeting mineralization is now better than 50% (1 in every 2 holes hits mineralization) when using MMI in regional grassroots exploration.

A program of MMI sampling on 25m line spacing with samples every 10m on line. 6 detailed line around high grade skarn mineralization near Upper Duck Lake and another 3 lines around new mineralization discovered north of Anderson Lake. A total of approximately 5000 samples and at a total anticipated cost of \$25,000. This program should commence immediately.

APPENDIX 1 - SGS-XRAL CERTIFICATES



PN0001 - PN0110

MME-A-B

CERTIFICATE OF ANALYSIS

Work Order: 073207

To: Goldcorp Inc.
Attn: W. Paterson

Date : 11/07/03

P.O. Box 190 HWY 125
COCHENOUR
ONTARIO/CANADA/P0V 1L0

Copy 1 to :

P.O. No. :
Project No. : PLANET JV
No. of Samples : 110 Soil (MMI)
Date Submitted : 27/06/03
Report Comprises : Cover Sheet plus
Pages 1 to 3

Distribution of unused material:

Pulps: RETURN
Rejects: RETURN

Certified By :

Dr. Hugh de Souza, General Manager

ISO 9002 REGISTERED

ISO 17025 Accredited for Specific Tests. SCC No. 456

Report Footer:

L.N.R. = Listed not received I.S. = Insufficient Sample
n.a = Not applicable - = No result
*INF = Composition of this sample makes detection impossible by this method
M after a result denotes ppb to ppm conversion, % denotes ppm to % conversion

Subject to SGS General Terms and Conditions



Work Order: 073207

Date: 11/07/03

FINAL

Page 1 of 3

Element.	Cu	Zn	Cd	Pb	As	Co	Ni	Pd	Ag
Method.	MMI-A	MMI-A	MMI-A	MMI-A	MMI-B	MMI-B	MMI-B	MMI-B	MMI-B
Det. Ltm.	5	5	10	20	0.1	1	3	0.1	0.1
Units.	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
PN0001	28	2020	41	69	0.26	11	24	<0.1	0.62
PN0002	9	1350	40	100	0.19	15	22	<0.1	0.38
PN0003	39	1350	21	37	<0.1	13	11	<0.1	0.16
PN0004	52	103	<10	34	<0.1	5	11	0.11	1.28
PN0005	21	675	18	52	<0.1	5	6	<0.1	0.65
PN0006	42	194	16	99	<0.1	3	7	<0.1	1.00
PN0007	<5	4760	92	33	<0.1	8	17	0.12	0.14
PN0008	13	471	39	302	0.11	13	18	0.11	1.48
PN0009	<5	566	28	34	<0.1	7	9	0.19	0.32
PN0010	8	1080	28	47	<0.1	5	4	0.14	0.17
PN0011	12	2480	43	54	<0.1	15	22	0.21	0.76
PN0012	126	353	<10	25	<0.1	5	12	0.16	2.93
PN0013	58	1720	46	66	<0.1	8	28	<0.1	2.02
PN0014	<5	1170	29	<20	<0.1	3	5	<0.1	0.82
PN0015	24	1100	27	49	<0.1	6	17	0.11	0.51
PN0016	41	1330	19	44	<0.1	5	10	0.17	0.48
PN0017	27	1380	31	88	<0.1	4	9	<0.1	1.35
PN0018	33	211	<10	35	<0.1	9	14	<0.1	2.60
PN0019	37	490	33	48	<0.1	18	12	<0.1	0.23
PN0020	49	864	36	43	<0.1	18	13	0.12	0.31
PN0021	42	537	24	<20	<0.1	9	6	<0.1	0.10
PN0022	40	1580	20	<20	<0.1	9	8	0.11	0.18
PN0023	95	521	<10	<20	<0.1	32	43	0.17	10.8
PN0024	100	633	15	<20	<0.1	18	20	0.14	3.70
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PN0027	109	1410	21	<20	0.32	29	35	<0.1	2.93
PN0028	38	3380	<10	<20	0.38	52	246	0.17	17.9
PN0029	<5	402	29	<20	<0.1	5	<3	0.10	0.29
PN0030	28	552	13	<20	<0.1	14	7	<0.1	0.52
PN0031	<5	437	<10	<20	0.17	30	129	0.18	4.12
PN0032	<5	448	<10	<20	<0.1	207	133	<0.1	0.45
PN0033	<5	269	<10	<20	<0.1	62	77	0.11	0.46
PN0034	<5	374	<10	<20	<0.1	24	46	<0.1	0.42
PN0035	<5	501	<10	<20	<0.1	7	8	0.18	0.27
PN0036	21	448	<10	20	0.11	198	372	0.16	0.88
PN0037	5	1480	<10	<20	<0.1	17	31	<0.1	4.14
PN0038	67	609	13	<20	<0.1	116	166	<0.1	0.16
PN0039	22	559	10	<20	0.31	125	137	<0.1	0.58
PN0040	10	1360	12	<20	<0.1	8	8	<0.1	0.97
PN0041	149	2810	19	<20	0.52	32	105	0.16	11.3
PN0042	565	1460	12	22	0.22	77	102	<0.1	175
PN0043	249	805	10	<20	0.25	39	83	0.17	170
PN0044	47	2380	27	25	<0.1	10	12	<0.1	5.04
PN0045	99	69	<10	<20	<0.1	45	77	0.24	13.0



Work Order: 073207

Date: 11/07/03

FINAL

Page 2 of 3

Element.	Cu	Zn	Cd	Pb	Au	Co	Ni	Pd	Ag
Method.	MMI-A	MMI-A	MMI-A	MMI-A	MMI-B	MMI-B	MMI-B	MMI-B	MMI-B
Det.Lim.	5	5	10	20	0.1	1	3	0.1	0.1
Units.	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
PN0046	159	2260	13	<20	0.22	17	93	0.11	6.89
PN0047	96	1590	<10	<20	0.22	34	92	0.30	24.9
PN0048	103	697	<10	<20	0.17	57	139	0.20	29.7
PN0049	2090	5470	20	540	1.13	141	475	0.19	794
PN0050	145	46	11	1690	0.34	3	<3	<0.1	2.90
PN0051	70	333	<10	<20	<0.1	23	84	<0.1	6.98
PN0052	55	767	<10	<20	<0.1	84	42	0.16	1.44
PN0053	42	590	13	<20	0.15	9	21	<0.1	1.78
PN0054	124	295	<10	<20	0.12	17	14	0.11	0.60
PN0055	83	229	<10	<20	<0.1	8	14	<0.1	0.53
PN0056	50	384	<10	<20	<0.1	12	16	<0.1	0.41
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PN0058	33	3520	41	84	0.31	6	17	<0.1	0.31
PN0059	29	1570	28	25	0.27	18	23	<0.1	0.66
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PN0061	60	266	10	<20	<0.1	10	22	<0.1	0.43
PN0062	54	66	<10	<20	<0.1	21	183	0.11	2.78
PN0063	16	1060	21	<20	<0.1	7	8	<0.1	0.19
PN0064	54	1620	35	76	<0.1	12	24	<0.1	0.66
PN0065	35	1290	35	33	<0.1	15	27	<0.1	0.68
PN0066	47	147	<10	<20	<0.1	15	42	<0.1	1.69
PN0067	7	2530	14	31	<0.1	3	12	<0.1	0.54
PN0068	103	111	<10	<20	<0.1	51	217	<0.1	2.49
PN0069	<5	1490	45	79	0.25	4	14	<0.1	0.70
PN0070	<5	735	<10	<20	<0.1	4	9	<0.1	0.26
PN0071	29	31	<10	<20	<0.1	5	13	0.19	0.99
PN0072	28	130	<10	<20	<0.1	5	27	<0.1	0.79
PN0073	6	365	<10	<20	<0.1	4	5	<0.1	0.82
PN0074	<5	1460	36	48	<0.1	11	15	0.22	0.43
PN0075	<5	8080	115	52	<0.1	5	15	0.11	0.20
PN0076	5	3270	57	73	<0.1	11	18	<0.1	0.28
PN0077	<5	2060	<10	<20	<0.1	<1	<3	<0.1	<0.1
PN0078	<5	178	<10	<20	<0.1	<1	<3	<0.1	<0.1
PN0079	<5	330	<10	<20	<0.1	<1	<3	<0.1	1.16
PN0080	<5	233	<10	<20	<0.1	<1	<3	<0.1	0.14
PN0081	34	409	<10	<20	<0.1	<1	<3	<0.1	<0.1
PN0082	<5	181	<10	<20	<0.1	<1	<3	<0.1	0.13
PN0083	<5	278	<10	<20	<0.1	<1	<3	<0.1	<0.1
PN0084	<5	301	<10	<20	<0.1	<1	<3	<0.1	<0.1
PN0085	<5	305	12	<20	<0.1	1	<3	<0.1	<0.1
PN0086	<5	391	<10	22	<0.1	<1	<3	<0.1	<0.1
PN0087	<5	363	<10	<20	<0.1	<1	<3	<0.1	<0.1
PN0088	<5	274	<10	<20	<0.1	<1	<3	<0.1	<0.1
PN0089	<5	500	<10	<20	<0.1	<1	<3	<0.1	<0.1
PN0090	<5	291	<10	<20	<0.1	<1	<3	<0.1	<0.1



Work Order: 073207

Date: 11/07/03

FINAL

Page 3 of 3

Element.	Cu	Zn	Cd	Pb	Au	Co	Ni	Pd	Ag
Method.	MMI-A	MMI-A	MMI-A	MMI-A	MMI-B	MMI-B	MMI-B	MMI-B	MMI-B
Det.Lim.	5	5	10	20	0.1	1	3	0.1	0.1
Units.	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
PN0091	<5	192	<10	<20	<0.1	<1	<3	<0.1	<0.1
PN0092	<5	326	<10	<20	<0.1	<1	<3	<0.1	<0.1
PN0093	<5	180	<10	<20	<0.1	<1	<3	<0.1	<0.1
PN0094	<5	369	<10	<20	<0.1	<1	4	<0.1	0.10
PN0095	<5	357	<10	<20	<0.1	<1	<3	<0.1	<0.1
PN0096	<5	203	<10	<20	<0.1	<1	<3	<0.1	<0.1
PN0097	<5	259	<10	<20	<0.1	<1	<3	<0.1	<0.1
PN0098	<5	344	<10	<20	<0.1	<1	<3	<0.1	0.13
PN0099	<5	454	<10	<20	<0.1	<1	<3	<0.1	<0.1
PN0100	<5	329	<10	<20	<0.1	<1	<3	<0.1	<0.1
PN0101	<5	542	<10	<20	<0.1	<1	<3	<0.1	<0.1
PN0102	<5	406	<10	<20	<0.1	<1	<3	<0.1	<0.1
PN0103	<5	681	11	<20	<0.1	<1	<3	<0.1	<0.1
PN0104	<5	587	14	22	<0.1	<1	<3	<0.1	<0.1
PN0105	<5	364	<10	<20	<0.1	<1	<3	<0.1	<0.1
PN0106	<5	456	13	<20	<0.1	<1	<3	<0.1	<0.1
PN0107	<5	355	<10	<20	<0.1	<1	<3	<0.1	<0.1
PN0108	<5	804	<10	<20	<0.1	<1	<3	<0.1	<0.1
PN0109	<5	477	38	<20	<0.1	<1	<3	<0.1	<0.1
PN0110	<5	438	<10	23	<0.1	<1	<3	<0.1	<0.1
*Dup PN0001	28	2170	43	76	n.a.	n.a.	n.a.	n.a.	n.a.
*Dup PN0013	61	1600	43	64	0.12	8	27	<0.1	1.70
*Dup PN0025	75	223	<10	<20	<0.1	16	24	<0.1	3.52
*Dup PN0037	<5	1350	<10	<20	0.13	15	31	<0.1	3.75
*Dup PN0049	1900	4850	11	495	n.a.	n.a.	n.a.	n.a.	n.a.
*Dup PN0061	66	320	16	<20	<0.1	9	18	<0.1	0.49
*Dup PN0073	<5	415	<10	<20	<0.1	4	6	<0.1	0.68
*Dup PN0085	<5	344	14	20	n.a.	n.a.	n.a.	n.a.	n.a.
*Dup PN0097	<5	299	<10	<20	<0.1	<1	<3	<0.1	<0.1
*Dup PN0109	<5	429	30	<20	<0.1	1	<3	<0.1	<0.1



PN 0111 - PNO 220

A-B

CERTIFICATE OF ANALYSIS

Work Order: 073425

To: Goldcorp Inc.
Attn: W. Paterson

Date : 12/08/03

P.O. Box 190 HWY 125
COCHENOUR
ONTARIO/CANADA/P0V 1L0

Copy 1 to :

P.O. No. : Planet
Project No. : Sidace Lake
No. of Samples : 110 Soil (MMI)
Date Submitted : 10/07/03
Report Comprises : Cover Sheet plus
Pages 1 to 3

Distribution of unused material:
Pulps: RETURN
Rejects: RETURN

Certified By :

Mr. Hugh de Souza, General Manager

ISO 9002 REGISTERED

ISO 17025 Accredited for Specific Tests. SCC No. 456

Report Footer

L N.R. = Listed not received I.S. = Insufficient Sample
n.a. = Not applicable -- = No result
*INF = Composition of this sample makes detection impossible by this method
M after a result denotes ppb to ppm conversion, % denotes ppm to % conversion

Subject to SGS General Terms and Conditions.



Work Order: 073425

Date: 12/08/03

FINAL

Page 1 of 3

Element	Cu	Zn	Cd	Pb	Au	Co	Ni	Pd	Ag
Method	MMI-A	MMI-A	MMI-A	MMI-A	MMI-B	MMI-B	MMI-B	MMI-B	MMI-B
Det.Lim.	5	5	10	20	0.1	1	3	0.1	0.1
Units.	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
PN0111	23	677	15	128	0.36	11	36	<0.1	2.20
PN0112	16	430	15	75	0.11	4	13	<0.1	0.24
PN0113	19	554	<10	22	<0.1	6	9	<0.1	0.33
PN0114	64	431	<10	55	<0.1	5	12	<0.1	0.35
PN0115	56	251	<10	38	<0.1	50	66	0.21	1.37
PN0116	92	32	<10	51	<0.1	8	15	0.12	1.44
PN0117	55	27	<10	48	<0.1	10	13	0.16	1.09
PN0118	55	17	<10	88	<0.1	3	8	<0.1	1.37
PN0119	23	21	<10	36	<0.1	3	6	<0.1	2.45
PN0120	24	95	<10	56	<0.1	3	12	<0.1	2.95
PN0121	33	199	<10	55	<0.1	2	42	<0.1	1.96
PN0122	23	139	<10	82	<0.1	4	13	<0.1	1.97
PN0123	94	140	<10	108	<0.1	14	27	0.16	1.42
PN0124	60	55	<10	46	<0.1	11	30	<0.1	1.61
PN0125	35	79	<10	27	<0.1	3	12	<0.1	3.37
PN0126	42	256	<10	27	<0.1	8	34	<0.1	3.56
PN0127	47	120	<10	23	<0.1	18	75	<0.1	2.16
PN0128	56	501	18	67	0.49	10	14	<0.1	0.48
PN0129	46	94	<10	43	<0.1	12	36	<0.1	1.59
PN0130	60	160	<10	47	<0.1	15	26	0.13	1.11
PN0131	79	53	<10	53	<0.1	29	29	0.21	1.38
PN0132	45	165	<10	64	0.17	5	55	<0.1	1.97
PN0133	18	115	<10	39	<0.1	5	16	<0.1	2.19
PN0134	29	24	<10	29	<0.1	4	14	<0.1	2.30
PN0135	17	31	<10	22	<0.1	3	17	0.12	2.71
PN0136	15	448	18	37	<0.1	4	13	<0.1	0.88
PN0137	27	446	<10	27	<0.1	6	39	<0.1	2.96
PN0138	24	41	<10	21	<0.1	6	31	<0.1	4.50
PN0139	9	93	12	134	<0.1	5	10	<0.1	1.13
PN0140	35	91	<10	36	<0.1	13	37	0.11	0.94
PN0141	28	90	<10	30	<0.1	3	23	<0.1	2.06
PN0142	37	99	<10	58	<0.1	5	36	<0.1	3.42
PN0143	43	237	<10	62	<0.1	3	25	<0.1	4.88
PN0144	87	169	<10	37	<0.1	4	36	<0.1	2.91
PN0145	28	342	<10	32	<0.1	5	28	<0.1	3.55
PN0146	64	46	<10	25	<0.1	7	27	<0.1	5.92
PN0147	51	511	<10	51	<0.1	14	40	<0.1	2.04
PN0148	36	100	<10	30	<0.1	11	45	<0.1	3.60
PN0149	36	135	<10	43	<0.1	3	38	<0.1	1.79
PN0150	14	549	22	46	<0.1	5	9	0.13	0.14
PN0151	90	184	<10	29	<0.1	13	19	0.13	0.45
PN0152	50	699	13	47	<0.1	7	32	<0.1	2.03
PN0153	41	73	<10	35	<0.1	2	10	<0.1	2.26
PN0154	23	67	<10	27	<0.1	4	19	<0.1	3.62
PN0155	39	268	<10	<20	<0.1	3	23	0.28	1.03



Work Order: 073425

Date: 12/08/03

FINAL

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Element. Method. Det.Lim. Units.	Cu MMI-A 5 ppb	Zn MMI-A 5 ppb	Cd MMI-A 10 ppb	Pb MMI-A 20 ppb	Au MMI-B 0.1 ppb	Co MMI-B 1 ppb	Ni MMI-B 3 ppb	Pd MMI-B 0.1 ppb	Ag MMI-B 0.1 ppb
PN0156	100	34	<10	39	<0.1	25	33	0.13	1.40
PN0157	27	163	<10	28	<0.1	3	10	<0.1	1.25
PN0158	42	41	<10	48	<0.1	3	6	<0.1	0.66
PN0159	53	46	<10	27	<0.1	8	11	0.19	1.19
PN0160	72	17	<10	33	<0.1	4	8	<0.1	3.90
PN0161	64	28	<10	24	<0.1	4	12	<0.1	1.11
PN0162	160	32	<10	3130	0.34	1	<3	<0.1	3.72
PN0163	39	27	<10	31	<0.1	3	10	<0.1	3.53
PN0164	148	56	<10	<20	<0.1	8	22	0.13	1.60
PN0165	20	402	13	41	<0.1	5	14	<0.1	1.50
PN0166	37	71	<10	29	<0.1	3	10	<0.1	2.93
PN0167	32	34	<10	29	<0.1	3	9	<0.1	5.01
PN0168	26	41	<10	23	<0.1	3	24	<0.1	3.60
PN0169	31	15	<10	30	<0.1	2	6	<0.1	4.18
PN0170	57	73	<10	65	<0.1	5	15	<0.1	1.63
PN0171	60	2538	16	<20	<0.1	12	66	<0.1	2.57
PN0172	81	66	<10	24	<0.1	6	43	<0.1	2.81
PN0173	75	15	<10	24	<0.1	3	7	<0.1	1.30
PN0174	72	24	<10	33	<0.1	4	10	<0.1	1.60
PN0175	38	55	<10	<20	<0.1	10	40	<0.1	2.94
PN0176	36	32	<10	24	<0.1	8	16	<0.1	3.71
PN0177	26	77	<10	<20	<0.1	12	41	0.10	3.70
PN0178	34	46	<10	41	<0.1	16	51	<0.1	3.21
PN0179	38	31	<10	24	<0.1	6	16	<0.1	3.09
PN0180	40	312	<10	<20	<0.1	17	60	0.10	3.29
PN0181	22	93	<10	65	<0.1	7	19	<0.1	1.46
PN0182	55	69	<10	37	<0.1	15	35	<0.1	4.20
PN0183	20	243	<10	30	<0.1	14	25	<0.1	1.82
PN0184	38	59	<10	39	<0.1	14	35	<0.1	2.05
PN0185	60	536	18	57	<0.1	13	20	0.13	1.15
PN0186	24	52	<10	39	<0.1	8	36	<0.1	2.34
PN0187	32	34	<10	26	<0.1	16	36	0.10	2.04
PN0188	27	112	<10	37	<0.1	6	25	<0.1	3.45
PN0189	32	308	<10	24	<0.1	5	12	<0.1	5.39
PN0190	86	53	<10	33	<0.1	30	28	<0.1	1.75
PN0191	141	15	<10	25	<0.1	6	9	<0.1	0.68
PN0192	98	64	<10	<20	<0.1	15	30	<0.1	0.89
PN0193	133	137	<10	43	<0.1	5	32	<0.1	2.05
PN0194	31	51	<10	33	<0.1	16	29	<0.1	2.27
PN0195	28	71	<10	32	<0.1	9	23	<0.1	2.11
PN0196	179	67	<10	43	<0.1	22	26	0.13	1.48
PN0197	327	57	<10	36	<0.1	121	87	0.11	1.69
PN0198	54	239	<10	22	<0.1	25	28	<0.1	1.39
PN0199	38	82	<10	22	<0.1	17	29	<0.1	1.33
PN0200	14	56	<10	<20	<0.1	20	26	<0.1	0.91



Work Order: 073425

Date: 12/08/03

FINAL

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Element.	Cu	Zn	Cd	Pb	Au	Co	Ni	Pd	Ag
Method.	MMI-A	MMI-A	MMI-A	MMI-A	MMI-B	MMI-B	MMI-B	MMI-B	MMI-B
Det.Lim.	5	5	10	20	0.1	1	3	0.1	0.1
Units.	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
PN0201	20	54	<10	<20	<0.1	11	23	<0.1	0.56
PN0202	27	33	<10	<20	<0.1	14	21	<0.1	0.91
PN0203	7	52	<10	<20	<0.1	14	33	0.15	1.25
PN0204	6	122	<10	<20	0.30	8	22	0.39	1.02
PN0205	22	71	<10	37	<0.1	5	11	<0.1	0.69
PN0206	8	45	<10	<20	<0.1	5	10	<0.1	1.40
PN0207	31	66	<10	<20	<0.1	7	13	<0.1	2.67
PN0208	28	142	<10	44	<0.1	7	36	<0.1	2.17
PN0209	24	61	<10	22	<0.1	17	22	<0.1	1.25
PN0210	13	37	<10	22	<0.1	9	10	<0.1	1.05
PN0211	22	42	<10	<20	<0.1	10	15	<0.1	1.41
PN0212	22	31	<10	40	<0.1	2	5	0.11	2.90
PN0213	19	775	<10	39	<0.1	3	17	<0.1	4.75
PN0214	16	32	<10	<20	<0.1	2	12	0.40	4.39
PN0215	23	136	<10	27	<0.1	3	11	<0.1	3.77
PN0216	18	216	<10	<20	<0.1	3	12	<0.1	4.30
PN0217	26	189	<10	34	<0.1	8	22	<0.1	3.65
PN0218	37	34	<10	28	<0.1	3	6	<0.1	1.94
PN0219	21	123	<10	28	<0.1	3	22	<0.1	4.18
PN0220	16	91	<10	24	<0.1	5	17	<0.1	4.92
*Dup PN0111	19	589	11	135	0.33	11	33	<0.1	2.03
*Dup PN0123	82	156	<10	124	<0.1	13	20	0.12	1.18
*Dup PN0135	18	35	<10	21	<0.1	3	18	<0.1	2.24
*Dup PN0147	59	558	<10	76	<0.1	13	44	<0.1	1.99
*Dup PN0159	52	60	<10	43	<0.1	11	13	0.13	1.27
*Dup PN0171	61	2962	17	22	<0.1	11	68	<0.1	2.33
*Dup PN0183	21	296	<10	38	<0.1	11	20	<0.1	1.87
*Dup PN0195	28	74	<10	30	<0.1	7	21	<0.1	1.95
*Dup PN0207	32	67	<10	22	<0.1	5	10	<0.1	3.03
*Dup PN0219	18	142	<10	35	<0.1	3	18	<0.1	3.64



PN0221 - PN0320
A-B.

CERTIFICATE OF ANALYSIS

Work Order: 073426

To: Goldcorp Inc.
Attn: W. Paterson

Date : 31/07/03

P.O. Box 190 HWY 125
COCHENOUR
ONTARIO/CANADA/POV 1L0

Copy 1 to :

P.O. No. : Planet
Project No. : Sidace Lake
No. of Samples : 100 Soil (MMI)
Date Submitted : 10/07/03
Report Comprises : Cover Sheet plus
Pages 1 to 3

Distribution of unused material:

Pulps: RETURN
Rejects: RETURN

Certified By :

For: Dr. Hugh de Souza, General Manager

ISO 9002 REGISTERED

ISO 17025 Accredited for Specific Tests. SCC No. 456

Report Footer:

L.N.R. = Listed not received I.S. = Insufficient Sample
n.a. = Not applicable -- = No result
*INF = Composition of this sample makes detection impossible by this method
M after a result denotes ppb to ppm conversion, % denotes ppm to % conversion

Subject to SGS General Terms and Conditions



Work Order: 073426

Date: 31/07/03

FINAL

Page 1 of 3

Element	Cu	Zn	Cd	Pb	As	Co	Ni	Pd	Ag
Method.	MMI-A	MMI-A	MMI-A	MMI-A	MMI-B	MMI-B	MMI-B	MMI-B	MMI-B
Det.Lim.	5	5	10	20	0.1	1	3	0.1	0.1
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
PN0221	18	147	<10	44	<0.1	4	17	<0.1	3.80
PN0222	27	221	<10	58	<0.1	7	47	<0.1	3.95
PN0223	16	34	<10	30	<0.1	2	14	0.37	4.20
PN0224	34	86	<10	40	<0.1	15	36	<0.1	1.73
PN0225	35	378	<10	29	<0.1	10	39	<0.1	2.22
PN0226	21	662	<10	27	<0.1	6	26	<0.1	5.87
PN0227	41	108	<10	43	<0.1	4	26	<0.1	3.60
PN0228	26	388	<10	49	<0.1	5	33	<0.1	2.82
PN0229	25	259	<10	81	<0.1	7	39	<0.1	3.97
PN0230	23	240	<10	74	<0.1	2	17	<0.1	4.76
PN0231	23	183	<10	39	<0.1	11	65	<0.1	6.51
PN0232	17	97	<10	27	<0.1	6	23	<0.1	2.54
PN0233	14	44	<10	31	<0.1	4	15	<0.1	1.90
PN0234	9	56	<10	28	<0.1	3	14	<0.1	1.73
PN0235	12	32	<10	25	<0.1	3	10	<0.1	4.38
PN0236	21	41	<10	41	<0.1	2	11	<0.1	5.16
PN0237	21	131	<10	90	<0.1	7	25	<0.1	2.76
PN0238	16	50	<10	26	<0.1	5	19	<0.1	5.87
PN0239	18	71	<10	31	<0.1	3	11	<0.1	7.12
PN0240	15	148	<10	45	<0.1	4	18	<0.1	2.46
PN0241	19	19	<10	31	<0.1	3	9	<0.1	1.94
PN0242	19	54	<10	40	<0.1	2	10	<0.1	5.86
PN0243	31	145	<10	30	<0.1	4	23	<0.1	9.21
PN0244	20	102	<10	65	<0.1	2	11	<0.1	5.20
PN0245	17	24	<10	23	<0.1	3	14	<0.1	6.98
PN0246	26	83	<10	22	<0.1	6	35	<0.1	7.18
PN0247	29	38	<10	33	<0.1	2	11	<0.1	5.95
PN0248	33	295	<10	125	<0.1	4	23	<0.1	2.78
PN0249	28	313	<10	51	<0.1	9	40	<0.1	2.15
PN0250	42	92	<10	98	0.11	7	21	<0.1	2.75
PN0251	31	98	<10	41	<0.1	4	13	<0.1	3.54
PN0252	19	86	<10	36	<0.1	6	24	<0.1	3.33
PN0253	24	80	<10	23	<0.1	3	11	<0.1	4.05
PN0254	33	190	<10	112	<0.1	5	28	<0.1	4.53
PN0255	26	1784	12	35	<0.1	6	47	<0.1	3.92
PN0256	30	51	<10	35	<0.1	4	13	<0.1	4.91
PN0257	24	176	<10	60	<0.1	2	16	<0.1	3.11
PN0258	31	632	<10	61	0.11	9	49	<0.1	3.04
PN0259	16	59	<10	39	<0.1	3	18	<0.1	7.01
PN0260	40	461	<10	140	0.12	10	36	<0.1	4.54
PN0261	23	29	<10	34	<0.1	1	9	<0.1	5.89
PN0262	17	46	<10	50	<0.1	1	7	<0.1	1.82
PN0263	134	44	11	1760	0.25	1	5	<0.1	2.99
PN0264	24	95	<10	55	<0.1	3	13	<0.1	2.90
PN0265	20	20	<10	23	<0.1	1	15	<0.1	5.18



Work Order: 073426

Date: 31/07/03

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Element. Method. Det.Lim Units.	Cu MMI-A 5 ppb	Zn MMI-A 5 ppb	Cd MMI-A 10 ppb	Pb MMI-A 20 ppb	Au MMI-B 0.1 ppb	Co MMI-B 1 ppb	Ni MMI-B 3 ppb	Pd MMI-B 0.1 ppb	Ag MMI-B 0.1 ppb
PN0266	20	90	<10	41	<0.1	2	11	<0.1	2.57
PN0267	19	78	<10	34	<0.1	2	18	<0.1	6.56
PN0268	23	197	<10	43	<0.1	3	25	<0.1	6.02
PN0269	36	122	<10	73	0.11	2	15	<0.1	6.32
PN0270	20	170	<10	47	<0.1	<1	13	<0.1	5.33
PN0271	20	72	<10	22	<0.1	5	24	<0.1	6.78
PN0272	24	735	12	117	0.16	4	28	<0.1	2.47
PN0273	16	49	<10	27	<0.1	5	22	<0.1	8.78
PN0274	56	494	<10	117	0.19	5	48	<0.1	6.65
PN0275	39	178	<10	168	0.23	2	29	<0.1	5.58
PN0276	<5	1097	23	<20	<0.1	7	24	0.21	0.30
PN0277	106	947	<10	<20	<0.1	8	27	<0.1	1.37
PN0278	46	388	<10	<20	<0.1	8	31	<0.1	0.89
PN0279	60	123	<10	41	<0.1	24	37	0.13	2.00
PN0280	144	558	23	104	<0.1	11	35	<0.1	2.10
PN0281	48	112	<10	45	<0.1	8	26	<0.1	3.35
PN0282	47	162	<10	32	<0.1	28	30	0.18	1.12
PN0283	36	56	<10	<20	<0.1	11	20	<0.1	1.89
PN0284	41	39	<10	32	<0.1	7	18	<0.1	2.88
PN0285	45	103	<10	37	<0.1	10	29	<0.1	3.39
PN0286	112	23	<10	32	<0.1	7	19	0.20	6.17
PN0287	167	49	<10	53	<0.1	36	33	0.40	2.22
PN0288	200	35	<10	34	<0.1	28	41	0.13	4.24
PN0289	130	119	<10	<20	<0.1	24	38	<0.1	1.63
PN0290	54	344	<10	38	<0.1	11	59	0.12	2.84
PN0291	50	271	<10	23	<0.1	13	59	0.12	1.57
PN0292	120	620	<10	25	<0.1	18	33	0.15	1.24
PN0293	130	309	<10	30	<0.1	26	36	0.12	1.05
PN0294	144	193	<10	60	<0.1	16	45	<0.1	1.37
PN0295	29	538	<10	36	<0.1	23	41	0.17	1.57
PN0296	30	397	<10	53	<0.1	21	45	0.18	1.87
PN0297	144	26	<10	56	<0.1	33	52	0.21	2.07
PN0298	50	319	<10	26	<0.1	57	48	0.22	1.07
PN0299	51	865	<10	37	<0.1	14	37	0.22	1.46
PN0300	193	139	<10	31	<0.1	37	59	0.14	1.48
PN0301	177	329	<10	43	<0.1	32	42	0.22	0.58
PN0302	32	741	10	33	<0.1	12	51	0.18	1.71
PN0303	53	395	<10	<20	<0.1	25	43	0.13	0.60
PN0304	380	24	<10	26	<0.1	32	60	0.17	0.97
PN0305	67	276	<10	42	<0.1	16	56	0.16	2.39
PN0306	220	182	<10	30	<0.1	28	91	0.21	1.77
PN0307	38	193	<10	45	<0.1	28	60	0.18	0.32
PN0308	211	107	<10	52	<0.1	27	63	0.28	1.18
PN0309	53	381	<10	<20	<0.1	7	27	0.11	1.21
PN0310	124	855	<10	41	<0.1	23	56	0.10	1.40



Work Order: 073426

Date: 31/07/03

FINAL

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Element	Cu	Zn	Cd	Pb	Au	Co	Ni	Pd	Ag
Method.	MMI-A	MMI-A	MMI-A	MMI-A	MMI-B	MMI-B	MMI-B	MMI-B	MMI-B
Det.Lim.	5	5	10	20	0.1	1	3	0.1	0.1
Units.	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
PN0311	24	2806	33	29	<0.1	12	39	0.18	0.50
PN0312	39	1380	25	31	<0.1	5	17	<0.1	0.94
PN0313	111	109	<10	31	<0.1	85	53	0.34	1.61
PN0314	61	126	<10	211	<0.1	6	18	<0.1	1.74
PN0315	35	56	<10	30	<0.1	3	11	<0.1	0.99
PN0316	113	60	12	1370	0.25	2	6	<0.1	3.67
PN0317	14	36	<10	27	<0.1	6	30	<0.1	3.19
PN0318	18	56	<10	36	<0.1	4	24	<0.1	4.06
PN0319	24	218	<10	39	<0.1	10	43	<0.1	7.52
PN0320	17	43	<10	29	<0.1	2	14	<0.1	6.09
*Dup PN0221	n.a.	n.a.	n.a.	n.a.	<0.1	4	16	<0.1	3.11
*Dup PN0233	17	40	<10	27	<0.1	5	14	<0.1	1.87
*Dup PN0245	22	27	<10	27	<0.1	2	13	<0.1	6.23
*Dup PN0257	27	176	<10	55	<0.1	3	18	<0.1	3.03
*Dup PN0269	35	134	<10	67	<0.1	3	17	<0.1	5.91
*Dup PN0281	53	111	<10	32	<0.1	7	30	<0.1	4.03
*Dup PN0293	115	282	<10	27	<0.1	28	41	0.19	1.06
*Dup PN0305	67	320	11	41	<0.1	15	63	0.16	2.62
*Dup PN0317	16	30	<10	31	<0.1	6	30	<0.1	2.96



PN 0321-PN0420

A-B

CERTIFICATE OF ANALYSIS

Work Order: 073427

To: Goldcorp Inc.
Attn: W. Paterson

Date : 31/07/03

P.O. Box 190 HWY 125
COCHENOUR
ONTARIO/CANADA/POV 1LO

Copy 1 to :

P.O. No. : Planet
Project No. : Sidace Lake
No. of Samples : 100 Soil (MMI)
Date Submitted : 10/07/03
Report Comprises : Cover Sheet plus
Pages 1 to 3

Distribution of unused material:

Pulps: RETURN
Rejects: RETURN

Certified By :

For: Dr. Hugh de Souza, General Manager

ISO 9002 REGISTERED

ISO 17025 Accredited for Specific Tests. SCC No. 456

Report Footer: L.N.R = Listed not received I.S. = Insufficient Sample
n.a. = Not applicable -- = No result
*INF = Composition of this sample makes detection impossible by this method
M after a result denotes ppb to ppm conversion, % denotes ppm to % conversion

Subject to SGS General Terms and Conditions



Work Order: 073427

Date: 31/07/03

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Element Method.	Cu	Zn	Cd	Pb	Au	Co	Ni	Pd	Ag
Def.Lim.	MMI-A	MMI-A	MMI-A	MMI-A	MMI-B	MMI-B	MMI-B	MMI-B	MMI-B
Units	5	5	10	20	0.1	1	3	0.1	0.1
	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
PN0321	24	128	<10	37	<0.1	5	45	0.11	5.56
PN0322	14	19	<10	46	<0.1	2	14	<0.1	6.25
PN0323	25	70	<10	53	<0.1	2	17	<0.1	4.75
PN0324	28	240	<10	38	<0.1	3	19	<0.1	4.56
PN0325	55	2197	12	33	<0.1	4	39	<0.1	3.63
PN0326	53	120	<10	37	<0.1	2	11	<0.1	3.13
PN0327	65	220	<10	50	<0.1	4	35	<0.1	4.90
PN0328	63	71	<10	24	<0.1	8	26	<0.1	7.52
PN0329	9	1091	28	86	<0.1	4	13	<0.1	0.13
PN0330	21	2458	20	32	<0.1	2	15	<0.1	1.33
PN0331	16	423	<10	29	<0.1	5	42	<0.1	3.51
PN0332	22	165	<10	39	<0.1	3	24	<0.1	6.06
PN0333	31	308	19	42	<0.1	4	29	<0.1	5.27
PN0334	30	55	<10	30	<0.1	3	12	<0.1	1.95
PN0335	44	552	13	53	<0.1	6	19	<0.1	1.83
PN0336	39	93	<10	56	<0.1	5	20	<0.1	3.11
PN0337	16	39	<10	33	<0.1	6	17	<0.1	3.63
PN0338	30	146	<10	44	<0.1	5	25	<0.1	4.61
PN0339	29	203	<10	41	<0.1	6	28	<0.1	3.59
PN0340	36	327	<10	64	<0.1	9	22	<0.1	3.01
PN0341	31	170	<10	44	<0.1	6	28	<0.1	4.92
PN0342	31	165	<10	49	0.27	5	19	0.10	1.91
PN0343	28	517	<10	52	<0.1	3	33	<0.1	1.62
PN0344	41	129	<10	47	<0.1	7	34	<0.1	5.60
PN0345	36	1097	<10	58	<0.1	5	36	0.10	3.69
PN0346	45	354	<10	44	<0.1	8	44	<0.1	3.32
PN0347	73	237	<10	48	<0.1	7	45	<0.1	2.85
PN0348	36	449	<10	38	<0.1	11	25	<0.1	1.12
PN0349	19	39	<10	29	<0.1	3	13	<0.1	3.81
PN0350	27	121	<10	32	<0.1	5	24	<0.1	2.42
PN0351	42	166	12	66	<0.1	6	17	<0.1	2.24
PN0352	46	270	<10	67	<0.1	4	17	<0.1	2.83
PN0353	28	969	22	55	<0.1	3	25	<0.1	1.65
PN0354	34	2899	25	59	<0.1	7	16	<0.1	0.27
PN0355	33	261	<10	39	<0.1	8	46	<0.1	5.48
PN0356	23	57	<10	30	<0.1	5	17	<0.1	6.34
PN0357	21	288	11	50	<0.1	6	25	<0.1	2.29
PN0358	23	128	<10	65	<0.1	8	22	<0.1	2.50
PN0359	22	83	<10	56	<0.1	4	11	<0.1	3.96
PN0360	21	225	<10	36	<0.1	4	17	<0.1	2.63
PN0361	12	421	19	33	<0.1	4	15	<0.1	0.79
PN0362	19	441	15	48	<0.1	4	21	<0.1	1.84
PN0363	23	1896	25	21	<0.1	3	8	<0.1	0.13
PN0364	33	111	<10	26	<0.1	<1	<3	<0.1	<0.1
PN0365	24	172	11	32	<0.1	4	24	<0.1	4.34



Work Order: 073427

Date: 31/07/03

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Element. Method. Det.Lim. Units	Cu		Zn		Cd		Pb		Au		Co		Ni		Pd		Ag	
	MMI-A	MMI-A	MMI-A	MMI-A	MMI-A	MMI-B	MMI-B	MMI-B	MMI-B	MMI-B	MMI-B	MMI-B	MMI-B	MMI-B	MMI-B	MMI-B	MMI-B	MMI-B
	5	5	10	20	0.1	1	3	0.1	1	3	0.1	1	3	0.1	0.1	0.1	0.1	0.1
	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
PN0366	22	126	<10	45	<0.1	7	35	<0.1	2.36									
PN0367	34	110	<10	<20	<0.1	11	26	<0.1	4.18									
PN0368	41	308	<10	59	<0.1	7	32	<0.1	5.57									
PN0369	21	367	<10	28	<0.1	4	17	<0.1	2.93									
PN0370	95	40	<10	137	0.49	1	5	<0.1	2.02									
PN0371	23	130	<10	54	0.12	5	32	<0.1	3.95									
PN0372	24	132	<10	30	<0.1	9	19	<0.1	4.99									
PN0373	21	98	<10	32	<0.1	3	19	<0.1	5.62									
PN0374	35	397	<10	51	<0.1	5	32	<0.1	4.29									
PN0375	36	753	16	41	<0.1	6	16	<0.1	2.96									
PN0376	<5	969	21	39	<0.1	2	9	<0.1	<0.1									
PN0377	<5	399	21	47	<0.1	2	11	0.12	0.19									
PN0378	43	686	13	47	<0.1	6	24	<0.1	3.30									
PN0379	24	91	<10	49	<0.1	2	9	<0.1	3.61									
PN0380	20	24	<10	32	<0.1	4	26	<0.1	5.27									
PN0381	66	106	<10	<20	<0.1	8	29	<0.1	12.3									
PN0382	34	102	<10	26	<0.1	6	36	<0.1	8.58									
PN0383	56	97	<10	66	<0.1	10	26	<0.1	3.94									
PN0384	25	254	<10	52	<0.1	4	18	<0.1	4.42									
PN0385	12	52	<10	75	<0.1	2	7	<0.1	2.74									
PN0386	12	36	<10	27	<0.1	4	11	<0.1	16.0									
PN0387	31	181	<10	45	<0.1	4	14	<0.1	9.12									
PN0388	30	89	<10	34	<0.1	3	15	<0.1	4.15									
PN0389	24	140	<10	33	<0.1	4	18	<0.1	3.15									
PN0390	61	238	<10	36	<0.1	6	22	<0.1	3.67									
PN0391	46	110	<10	52	<0.1	5	22	<0.1	3.73									
PN0392	24	160	<10	64	<0.1	7	23	<0.1	0.73									
PN0393	36	229	11	53	<0.1	8	32	<0.1	3.70									
PN0394	22	38	<10	34	<0.1	3	15	<0.1	4.16									
PN0395	26	44	<10	37	<0.1	4	22	<0.1	4.09									
PN0396	16	31	<10	<20	<0.1	<1	9	<0.1	10.0									
PN0397	17	47	<10	24	<0.1	1	7	<0.1	3.92									
PN0398	14	80	<10	36	<0.1	2	16	<0.1	2.21									
PN0399	14	40	<10	34	<0.1	2	7	<0.1	5.07									
PN0400	14	699	24	47	<0.1	4	13	<0.1	2.65									
PN0401	28	67	<10	71	<0.1	2	12	<0.1	7.42									
PN0402	17	513	13	56	<0.1	3	35	<0.1	4.18									
PN0403	23	592	14	39	<0.1	4	15	<0.1	3.25									
PN0404	17	66	<10	38	<0.1	<1	5	<0.1	4.68									
PN0405	23	76	<10	37	<0.1	2	11	<0.1	3.56									
PN0406	16	91	<10	48	<0.1	1	12	<0.1	2.98									
PN0407	16	82	<10	22	<0.1	2	10	<0.1	9.20									
PN0408	24	691	11	33	<0.1	14	59	0.13	4.69									
PN0409	40	118	<10	30	<0.1	17	26	<0.1	4.59									
PN0410	18	83	<10	49	<0.1	3	13	<0.1	2.11									



Work Order: 073427

Date: 31/07/03

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Element.	Cu	Zn	Cd	Pb	Au	Co	Ni	Pd	Ag
Method.	MMI-A	MMI-A	MMI-A	MMI-A	MMI-B	MMI-B	MMI-B	MMI-B	MMI-B
Det.Lim.	5	5	10	20	0.1	1	3	0.1	0.1
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
PN0411	26	253	<10	35	<0.1	2	23	<0.1	1.49
PN0412	21	376	<10	50	<0.1	3	16	<0.1	1.34
PN0413	35	90	<10	87	<0.1	6	12	<0.1	5.98
PN0414	20	85	<10	34	<0.1	4	15	<0.1	2.66
PN0415	22	1300	<10	47	<0.1	2	15	<0.1	2.70
PN0416	34	151	<10	49	<0.1	4	26	<0.1	3.69
PN0417	16	32	<10	28	<0.1	3	19	<0.1	5.87
PN0418	12	21	<10	<20	<0.1	1	8	<0.1	5.80
PN0419	20	68	<10	29	<0.1	5	17	<0.1	9.81
PN0420	14	190	<10	30	<0.1	2	11	<0.1	3.51
*Dup PN0321	29	141	<10	32	<0.1	4	39	<0.1	4.73
*Dup PN0333	32	305	18	54	<0.1	4	26	<0.1	4.63
*Dup PN0345	41	1258	11	55	<0.1	4	33	<0.1	4.17
*Dup PN0357	20	253	11	53	<0.1	5	24	<0.1	2.54
*Dup PN0369	24	423	<10	29	<0.1	4	20	<0.1	2.93
*Dup PN0381	60	106	<10	24	<0.1	9	33	<0.1	12.2
*Dup PN0393	37	196	11	53	<0.1	8	34	<0.1	3.04
*Dup PN0405	21	80	<10	37	<0.1	1	9	<0.1	4.01
*Dup PN0417	19	38	<10	33	<0.1	5	19	<0.1	5.81



ANO 421 - ANO 499

ANO 0603 - ANO 637

A - B

CERTIFICATE OF ANALYSIS

Work Order: 073428

To: Goldcorp Inc.
Attn: W. Paterson

Date : 28/07/03

P.O. Box 190 HWY 125
COCHENOUR
ONTARIO/CANADA/POV 1L0

Copy 1 to :

P.O. No. : Planet
Project No. : Sidace Lake
No. of Samples : 114 Soil (MMI)
Date Submitted : 10/07/03
Report Comprises : Cover Sheet plus
Pages 1 to 3

Distribution of unused material:

Pulps: RETURN
Rejects: RETURN

Certified By :

FOR: Dr. Hugh de Souza, General Manager

ISO 9002 REGISTERED

ISO 17025 Accredited for Specific Tests. SCC No. 456

Report Footer:

L.N.R. = Listed not received I.S. = Insufficient Sample
n.a. = Not applicable - = No result
*INF = Composition of this sample makes detection impossible by this method
M after a result denotes ppb to ppm conversion, % denotes ppm to % conversion

Subject to SGS General Terms and Conditions



Work Order: 073428

Date: 28/07/03

FINAL

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Element. Method. Det.Lim. Units.	Cu MMI-A 5 ppb	Zn MMI-A 5 ppb	Cd MMI-A 10 ppb	Pb MMI-A 20 ppb	Au MMI-B 0.1 ppb	Co MMI-B 1 ppb	Ni MMI-B 3 ppb	Pd MMI-B 0.1 ppb	Ag MMI-B 0.1 ppb
PN0421	12	56	<10	33	<0.1	4	14	0.10	1.95
PN0422	22	155	<10	38	<0.1	3	14	<0.1	3.96
PN0423	23	70	<10	33	<0.1	2	11	<0.1	2.86
PN0424	24	89	<10	49	<0.1	4	14	<0.1	3.28
PN0425	17	28	<10	24	<0.1	3	11	<0.1	3.89
PN0426	19	47	<10	29	<0.1	4	9	<0.1	3.56
PN0427	19	73	<10	22	<0.1	3	15	<0.1	1.60
PN0428	20	53	<10	30	<0.1	5	11	<0.1	3.81
PN0429	15	53	<10	65	<0.1	3	11	<0.1	2.84
PN0430	13	25	<10	<20	<0.1	1	12	<0.1	11.3
PN0431	27	98	<10	39	<0.1	6	30	<0.1	4.28
PN0432	20	49	<10	34	<0.1	2	14	<0.1	6.34
PN0433	13	52	<10	28	<0.1	1	9	<0.1	3.19
PN0434	104	35	<10	138	0.56	<1	5	<0.1	1.96
PN0435	13	231	<10	42	<0.1	2	14	<0.1	3.26
PN0436	12	27	<10	23	<0.1	2	11	<0.1	3.83
PN0437	10	48	<10	31	<0.1	4	12	<0.1	1.95
PN0438	95	297	10	31	<0.1	4	18	<0.1	3.15
PN0439	27	54	<10	28	<0.1	4	10	<0.1	4.84
PN0440	18	57	<10	41	<0.1	2	11	<0.1	1.95
PN0441	15	51	<10	38	<0.1	4	17	<0.1	4.48
PN0442	16	11	<10	20	<0.1	<1	6	<0.1	6.05
PN0443	8	209	15	43	<0.1	2	11	<0.1	0.58
PN0444	16	123	<10	32	<0.1	2	16	<0.1	3.78
PN0445	24	871	<10	59	<0.1	8	28	<0.1	3.19
PN0446	27	458	11	63	<0.1	4	28	<0.1	3.34
PN0447	22	67	<10	32	<0.1	2	11	<0.1	1.95
PN0448	22	93	<10	21	<0.1	3	8	<0.1	1.81
PN0449	10	349	<10	<20	<0.1	3	9	<0.1	3.21
PN0450	17	119	<10	39	<0.1	2	16	<0.1	3.17
PN0451	19	494	<10	37	<0.1	2	20	<0.1	2.68
PN0452	14	193	<10	28	<0.1	2	9	<0.1	2.17
PN0453	17	28	<10	25	<0.1	1	9	<0.1	4.36
PN0454	35	33	<10	28	<0.1	<1	5	<0.1	1.78
PN0455	14	22	<10	23	<0.1	2	13	<0.1	7.85
PN0456	16	58	<10	36	<0.1	2	14	<0.1	4.66
PN0457	24	49	<10	24	<0.1	2	17	<0.1	6.06
PN0458	14	270	<10	22	<0.1	1	11	<0.1	3.87
PN0459	20	60	<10	<20	<0.1	<1	7	<0.1	6.64
PN0460	14	25	<10	31	<0.1	1	9	<0.1	4.33
PN0461	12	41	<10	29	<0.1	<1	7	<0.1	3.33
PN0462	16	182	<10	23	<0.1	3	14	<0.1	2.47
PN0463	17	29	<10	29	<0.1	1	6	<0.1	2.49
PN0464	17	103	<10	40	<0.1	3	21	<0.1	3.28
PN0465	18	225	11	50	<0.1	3	14	<0.1	2.36



Work Order: 073428

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Element.	Cu	Zn	Cd	Pb	Au	Co	Ni	Pd	Ag
Method.	MMI-A	MMI-A	MMI-A	MMI-A	MMI-B	MMI-B	MMI-B	MMI-B	MMI-B
Det. Lim.	5	5	10	20	0.1	1	3	0.1	0.1
Units.	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
PN0466	24	25	<10	25	<0.1	1	8	<0.1	2.25
PN0467	27	61	<10	31	<0.1	2	17	<0.1	1.77
PN0468	15	38	<10	31	<0.1	<1	4	<0.1	3.52
PN0469	18	48	<10	27	<0.1	2	9	<0.1	4.62
PN0470	16	99	<10	25	<0.1	1	7	<0.1	3.92
PN0471	21	68	<10	<20	<0.1	3	10	<0.1	6.52
PN0472	13	40	<10	60	<0.1	<1	5	<0.1	4.35
PN0473	18	96	<10	44	<0.1	2	11	<0.1	3.29
PN0474	15	30	<10	25	<0.1	3	9	<0.1	6.90
PN0475	14	48	<10	48	<0.1	2	14	<0.1	3.64
PN0476	21	69	<10	126	<0.1	3	21	<0.1	3.25
PN0477	24	46	<10	<20	<0.1	3	10	<0.1	4.07
PN0478	26	27	<10	23	<0.1	3	8	<0.1	15.6
PN0479	27	73	<10	74	<0.1	2	12	<0.1	3.48
PN0480	13	61	<10	25	<0.1	2	6	<0.1	7.29
PN0481	13	11	<10	22	<0.1	2	10	<0.1	5.51
PN0482	15	48	<10	41	<0.1	3	17	<0.1	5.86
PN0483	23	96	<10	28	<0.1	3	16	<0.1	5.60
PN0484	11	25	<10	37	<0.1	2	7	<0.1	4.71
PN0485	15	118	<10	84	<0.1	2	14	<0.1	3.44
PN0486	9	75	<10	48	<0.1	2	10	<0.1	4.09
PN0487	116	40	<10	175	1.18	1	4	<0.1	2.14
PN0488	20	38	<10	32	<0.1	3	10	<0.1	10.6
PN0489	16	30	<10	<20	<0.1	2	10	<0.1	7.97
PN0490	12	61	<10	36	<0.1	3	16	<0.1	3.01
PN0491	36	38	<10	31	<0.1	4	13	<0.1	6.35
PN0492	18	28	<10	<20	<0.1	2	11	<0.1	4.29
PN0493	16	39	<10	22	<0.1	2	11	<0.1	4.36
PN0494	14	83	<10	48	<0.1	2	13	<0.1	3.95
PN0495	20	23	<10	23	<0.1	3	11	<0.1	4.38
PN0496	35	54	<10	39	0.10	4	22	<0.1	9.31
PN0497	28	73	<10	49	<0.1	3	11	<0.1	4.82
PN0498	46	29	<10	29	<0.1	4	9	<0.1	7.95
PN0499	22	36	<10	31	<0.1	3	8	<0.1	7.25
PN0603	7	40	<10	36	<0.1	3	12	<0.1	1.27
PN0604	25	116	<10	62	<0.1	5	15	<0.1	4.13
PN0605	18	64	<10	32	<0.1	1	13	<0.1	5.41
PN0606	21	23	<10	28	<0.1	2	8	<0.1	3.39
PN0607	32	237	13	151	0.20	6	28	<0.1	1.84
PN0608	19	53	<10	30	<0.1	2	9	<0.1	5.54
PN0609	18	153	<10	98	<0.1	2	16	<0.1	3.21
PN0610	19	79	<10	46	<0.1	5	50	<0.1	2.84
PN0611	18	22	<10	26	<0.1	2	8	<0.1	6.34
PN0612	17	37	<10	21	<0.1	6	10	<0.1	1.48
PN0613	16	131	<10	27	<0.1	5	12	<0.1	3.06



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Element.	Cu	Zn	Cd	Pb	Au	Co	Ni	Pd	Ag
Method.	MMI-A	MMI-A	MMI-A	MMI-A	MMI-B	MMI-B	MMI-B	MMI-B	MMI-B
Det.Lim.	5	5	10	20	0.1	1	3	0.1	0.1
Units.	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
PN0614	22	171	13	64	<0.1	2	16	<0.1	2.01
PN0615	24	48	<10	30	<0.1	3	9	<0.1	5.26
PN0616	18	43	<10	44	<0.1	2	16	<0.1	3.59
PN0617	22	105	<10	57	<0.1	2	14	<0.1	7.18
PN0618	19	69	13	47	<0.1	2	13	<0.1	3.19
PN0619	18	40	<10	35	<0.1	1	13	<0.1	5.12
PN0620	15	86	<10	<20	<0.1	3	17	<0.1	6.39
PN0621	13	151	<10	58	<0.1	2	22	<0.1	4.71
PN0622	30	40	<10	<20	<0.1	3	15	<0.1	6.02
PN0623	7	116	<10	53	<0.1	2	19	<0.1	1.81
PN0624	16	258	14	100	<0.1	3	13	<0.1	0.66
PN0625	15	116	<10	114	<0.1	3	23	<0.1	1.96
PN0626	19	28	<10	22	<0.1	4	7	<0.1	2.98
PN0627	18	56	<10	36	<0.1	2	10	<0.1	4.50
PN0628	17	88	<10	59	<0.1	2	11	<0.1	5.63
PN0629	16	69	<10	226	<0.1	2	13	<0.1	1.60
PN0630	19	48	<10	40	<0.1	3	13	<0.1	3.36
PN0631	18	46	<10	25	<0.1	4	9	<0.1	5.40
PN0632	15	101	<10	66	<0.1	2	18	<0.1	1.45
PN0633	12	110	11	44	<0.1	1	17	<0.1	1.74
PN0634	9	211	17	80	<0.1	1	42	<0.1	2.14
PN0635	32	75	<10	41	<0.1	3	19	<0.1	4.96
PN0636	24	124	10	36	<0.1	<1	<3	<0.1	<0.1
PN0637	13	42	<10	31	<0.1	2	9	<0.1	7.98
*Dup PN0421	11	62	<10	25	<0.1	4	14	<0.1	2.20
*Dup PN0433	12	61	<10	28	<0.1	3	9	<0.1	4.07
*Dup PN0445	21	814	<10	50	<0.1	10	32	<0.1	3.52
*Dup PN0457	21	50	<10	20	<0.1	2	18	<0.1	6.42
*Dup PN0469	18	49	<10	29	<0.1	2	8	<0.1	4.93
*Dup PN0481	16	15	<10	<20	<0.1	3	9	<0.1	5.62
*Dup PN0493	18	43	<10	27	<0.1	2	9	<0.1	4.26
*Dup PN0608	17	51	<10	32	<0.1	2	9	<0.1	6.51
*Dup PN0620	16	79	<10	22	<0.1	3	16	<0.1	6.26
*Dup PN0632	11	116	<10	71	<0.1	2	14	<0.1	1.49



CERTIFICATE OF ANALYSIS

Work Order: 073208

To: Goldcorp Inc.
Attn: W. Paterson

Date : 11/07/03

P.O. Box 190 HWY 125
COCHENOUR
ONTARIO/CANADA/POV 1L0

Copy 1 to :

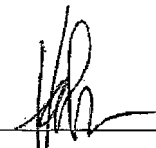
P.O. No. :
Project No. : PLANET JV
No. of Samples : 104 Soil (MMI)
Date Submitted : 27/06/03
Report Comprises : Cover Sheet plus
Pages 1 to 3

Note:
Duplicate results outside acceptance criteria due to sample inhomogeneity.

Distribution of unused material:

Pulps: RETURN
Rejects: RETURN

Certified By :



 Dr. Hugh de Souza, General Manager

ISO 9002 REGISTERED

ISO 17025 Accredited for Specific Tests. SCC No. 456

Report Footer: L.N.R. = Listed not received I.S. = Insufficient Sample
 n.a. = Not applicable - = No result
 *INF = Composition of this sample makes detection impossible by this method
 M after a result denotes ppb to ppm conversion, % denotes ppm to % conversion

Subject to SGS General Terms and Conditions



Work Order: 073208

Date: 11/07/03

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Element.	Cu	Zn	Cd	Pb	Au	Co	Ni	Pd	Ag
Method.	MMI-A	MMI-A	MMI-A	MMI-A	MMI-B	MMI-B	MMI-B	MMI-B	MMI-B
Det. Lim.	5	5	10	20	0.1	1	3	0.1	0.1
Units.	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
PN0500	26	85	<10	22	<0.1	4	15	<0.1	1.43
PN0501	36	107	10	28	<0.1	4	14	<0.1	2.68
PN0502	33	140	<10	<20	<0.1	4	13	<0.1	0.93
PN0503	40	105	<10	39	<0.1	4	9	<0.1	0.35
PN0504	22	28	<10	<20	<0.1	4	20	<0.1	0.82
PN0505	68	131	<10	<20	<0.1	15	34	<0.1	5.42
PN0506	39	49	<10	<20	<0.1	4	19	<0.1	4.47
PN0507	39	180	<10	48	<0.1	4	18	<0.1	2.20
PN0508	27	64	<10	58	<0.1	3	18	<0.1	0.62
PN0509	34	243	10	40	0.48	3	10	<0.1	0.53
PN0510	13	17	<10	<20	<0.1	7	24	0.14	0.24
PN0511	<5	152	<10	<20	<0.1	4	9	<0.1	<0.1
PN0512	<5	146	<10	<20	<0.1	2	8	<0.1	<0.1
PN0513	<5	154	<10	<20	<0.1	2	5	<0.1	<0.1
PN0514	<5	95	<10	<20	<0.1	1	<3	<0.1	<0.1
PN0515	<5	39	<10	<20	<0.1	1	<3	<0.1	0.12
PN0516	<5	52	<10	<20	<0.1	<1	<3	<0.1	<0.1
PN0517	29	324	<10	22	<0.1	5	10	<0.1	0.56
PN0518	105	930	48	50	<0.1	9	21	<0.1	3.40
PN0519	46	315	13	39	<0.1	6	13	0.12	0.80
PN0520	56	248	<10	<20	<0.1	10	21	<0.1	0.94
PN0521	61	135	<10	<20	<0.1	8	15	<0.1	0.71
PN0522	29	258	19	<20	<0.1	17	16	0.13	0.55
PN0523	22	152	30	25	<0.1	16	17	0.19	0.36
PN0524	21	245	15	<20	<0.1	19	17	<0.1	0.87
PN0525	35	85	<10	<20	<0.1	208	464	<0.1	2.63
PN0526	53	177	<10	<20	<0.1	6	12	0.15	0.61
PN0527	53	167	<10	<20	<0.1	6	12	<0.1	4.12
PN0528	25	46	<10	<20	<0.1	5	20	<0.1	2.88
PN0529	11	1210	49	125	<0.1	4	8	<0.1	0.16
PN0530	16	373	21	<20	<0.1	4	5	<0.1	0.20
PN0531	10	220	19	<20	<0.1	7	9	<0.1	0.55
PN0532	6	425	<10	<20	<0.1	3	4	<0.1	0.23
PN0533	14	1000	44	<20	<0.1	5	11	<0.1	0.21
PN0534	6	175	<10	<20	<0.1	3	13	<0.1	0.30
PN0535	10	280	<10	27	<0.1	4	4	0.14	0.24
PN0536	97	87	23	79	<0.1	9	11	0.16	0.22
PN0537	<5	203	<10	<20	<0.1	4	4	<0.1	<0.1
PN0538	<5	123	<10	<20	<0.1	2	<3	<0.1	<0.1
PN0539	9	956	25	<20	<0.1	2	13	<0.1	0.10
PN0540	<5	97	<10	<20	<0.1	2	<3	<0.1	<0.1
PN0541	<5	58	<10	<20	<0.1	1	<3	<0.1	0.11
PN0542	<5	75	13	<20	<0.1	1	<3	<0.1	<0.1
PN0543	<5	94	<10	<20	<0.1	2	4	<0.1	<0.1
PN0544	<5	303	<10	<20	<0.1	1	4	<0.1	<0.1



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Date: 11/07/03

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Element.	Cu	Zn	Cd	Pb	Au	Co	Ni	Pd	Ag
Method.	MMI-A	MMI-A	MMI-A	MMI-A	MMI-B	MMI-B	MMI-B	MMI-B	MMI-B
Det.Lim.	5	5	10	20	0.1	1	3	0.1	0.1
Units.	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
PN0545	<5	355	<10	<20	<0.1	2	<3	<0.1	0.12
PN0546	<5	149	<10	<20	<0.1	3	6	<0.1	0.18
PN0547	<5	64	<10	<20	<0.1	2	3	<0.1	0.34
PN0548	65	265	<10	<20	<0.1	31	27	<0.1	0.34
PN0549	110	293	<10	<20	0.14	25	28	<0.1	0.39
PN0550	380	116	<10	<20	<0.1	61	207	0.22	2.14
PN0551	171	39	<10	1880	0.42	4	9	<0.1	6.12
PN0552	988	49	<10	<20	0.23	334	721	0.86	3.69
PN0553	87	5180	51	<20	<0.1	14	21	<0.1	0.27
PN0554	18	2170	53	80	0.13	5	7	<0.1	<0.1
PN0555	115	210	<10	22	<0.1	7	18	<0.1	0.77
PN0556	64	82	<10	<20	0.18	9	17	<0.1	0.45
PN0557	23	425	16	60	<0.1	5	7	<0.1	0.13
PN0558	6	146	29	<20	<0.1	5	9	0.13	<0.1
PN0559	19	311	19	51	<0.1	5	7	<0.1	<0.1
PN0560	23	221	<10	<20	<0.1	3	8	<0.1	0.71
PN0561	63	99	<10	<20	<0.1	4	11	<0.1	1.35
PN0562	40	358	11	<20	<0.1	7	13	<0.1	0.82
PN0563	65	131	<10	<20	<0.1	11	13	<0.1	0.66
PN0564	61	506	17	34	<0.1	10	10	<0.1	0.62
PN0565	29	457	14	<20	<0.1	8	9	<0.1	0.22
PN0566	28	230	<10	<20	<0.1	4	8	<0.1	0.67
PN0567	18	148	16	<20	<0.1	5	11	<0.1	0.48
PN0568	30	332	<10	22	<0.1	7	9	<0.1	0.34
PN0569	43	380	11	<20	<0.1	11	18	<0.1	0.80
PN0570	31	149	<10	<20	<0.1	12	24	<0.1	0.70
PN0571	41	52	<10	<20	<0.1	10	13	<0.1	1.27
PN0572	126	21	<10	<20	0.20	15	97	<0.1	1.11
PN0573	13	166	<10	<20	<0.1	5	11	<0.1	0.43
PN0574	38	103	<10	23	<0.1	6	14	<0.1	1.41
PN0575	9	487	21	22	<0.1	7	15	<0.1	0.55
PN0576	8	130	<10	<20	0.17	16	44	<0.1	7.88
PN0577	8	23	<10	<20	<0.1	2	13	<0.1	3.67
PN0578	18	2020	47	58	<0.1	4	6	<0.1	0.11
PN0579	20	839	17	85	0.24	4	7	<0.1	0.43
PN0580	58	206	<10	50	<0.1	5	18	<0.1	4.24
PN0581	28	126	17	62	<0.1	3	13	<0.1	0.97
PN0582	<5	564	22	<20	<0.1	3	15	0.12	0.26
PN0583	37	248	21	56	<0.1	10	9	<0.1	0.34
PN0584	26	1250	17	45	1.36	6	9	<0.1	0.46
PN0585	44	225	<10	47	<0.1	6	10	<0.1	1.70
PN0586	19	122	<10	56	<0.1	2	5	<0.1	0.74
PN0587	18	92	<10	46	<0.1	4	5	<0.1	0.24
PN0588	17	206	<10	32	<0.1	3	5	<0.1	0.55
PN0589	6	233	26	<20	<0.1	4	13	<0.1	0.17



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Element.	Cu	Zn	Cd	Pb	Au	Co	Ni	Pd	Ag
Method.	MMI-A	MMI-A	MMI-A	MMI-A	MMI-B	MMI-B	MMI-B	MMI-B	MMI-B
Def.Lim.	5	5	10	20	0.1	1	3	0.1	0.1
Units.	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
PN0590	20	655	<10	50	<0.1	3	18	<0.1	1.27
PN0591	11	738	56	<20	<0.1	3	5	<0.1	<0.1
PN0592	26	242	14	95	0.13	11	21	<0.1	3.19
PN0593	11	585	21	30	<0.1	3	5	0.14	0.24
PN0594	16	81	<10	<20	<0.1	1	10	0.11	0.21
PN0595	44	192	<10	<20	<0.1	2	34	0.11	0.35
PN0596	39	219	14	<20	<0.1	12	20	0.14	0.25
PN0597	<5	101	<10	<20	<0.1	1	7	<0.1	<0.1
PN0598	<5	119	<10	<20	<0.1	3	12	<0.1	<0.1
PN0599	<5	198	<10	<20	<0.1	2	11	<0.1	<0.1
PN0600	5	299	<10	<20	<0.1	<1	11	<0.1	<0.1
PN0601	42	159	<10	<20	0.10	<1	42	0.14	0.10
PN0602	<5	327	<10	<20	0.16	9	23	<0.1	0.14
PN0603	173	48	11	417	0.27	3	7	<0.1	2.87
*Dup PN0500	24	97	<10	29	<0.1	3	12	<0.1	1.12
*Dup PN0512	<5	119	<10	<20	<0.1	2	6	<0.1	<0.1
*Dup PN0524	22	229	15	<20	<0.1	22	28	<0.1	1.04
*Dup PN0536	80	194	20	67	<0.1	8	10	0.12	0.20
*Dup PN0548	60	304	<10	<20	<0.1	25	21	<0.1	0.20
*Dup PN0560	22	251	10	<20	<0.1	3	11	<0.1	0.68
*Dup PN0572	102	21	<10	<20	0.13	14	90	<0.1	1.12
*Dup PN0584	n.a.	n.a.	n.a.	n.a.	1.11	6	10	<0.1	0.52
*Dup PN0596	50	242	13	<20	<0.1	10	13	0.15	0.13



PN0638 - PN0720
A-B

CERTIFICATE OF ANALYSIS

Work Order: 073824

To: Goldcorp Inc.
Attn: W. Paterson

Date : 20/08/03

P.O. Box 190 HWY 125
COCHENOUR
ONTARIO/CANADA/POV 1L0

Copy 1 to : /mdehn@goldcorp.com
Goldcorp.Inc.- M. Dehn

P.O. No. : Planet
Project No. :
No. of Samples : 83 Soil (MMI)
Date Submitted : 07/08/03
Report Comprises : Cover Sheet plus
Pages 1 to 2

Distribution of unused material:

Pulps: RETURN
Rejects: RETURN

Certified By :

Dr. Hugh de Souza, General Manager

ISO 9002 REGISTERED

ISO 17025 Accredited for Specific Tests. SCC No. 456

Report Footer: L.N.R. = Listed not received I.S. = Insufficient Sample
n.a. = Not applicable - = No result
*INF = Composition of this sample makes detection impossible by this method
M after a result denotes ppb to ppm conversion, % denotes ppm to % conversion

Subject to SGS General Terms and Conditions



Work Order: 073824

Date: 20/08/03

FINAL

Page 1 of 2

Element.	Au	Co	Ni	Pd	Ag	Cu	Zn	Cd	Pb
Method.	MMI-B	MMI-B	MMI-B	MMI-B	MMI-B	MMI-A	MMI-A	MMI-A	MMI-A
Det.Lim.	0.1	1	3	0.1	0.1	5	5	10	20
Units.	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
PN0638	1.65	90	335	<0.1	12.7	<5	1113	<10	70
PN0639	0.95	125	326	<0.1	7.76	<5	598	<10	52
PN0640	0.13	50	139	0.14	0.78	17	113	<10	59
PN0641	<0.1	35	222	0.18	0.59	<5	50	<10	30
PN0642	0.21	29	424	0.72	0.55	52	35	<10	35
PN0643	<0.1	12	81	0.22	0.53	24	58	<10	20
PN0644	<0.1	12	37	0.16	0.52	7	142	<10	23
PN0645	<0.1	10	84	0.15	0.87	5	160	<10	<20
PN0646	<0.1	15	133	0.19	2.59	<5	69	<10	<20
PN0647	<0.1	8	47	0.12	0.75	9	209	<10	<20
PN0648	<0.1	3	33	0.18	0.68	12	<5	<10	<20
PN0649	<0.1	3	18	<0.1	0.72	5	9	<10	<20
PN0650	<0.1	3	13	<0.1	0.19	<5	55	<10	<20
PN0651	<0.1	4	22	<0.1	0.35	<5	20	<10	<20
PN0652	<0.1	4	27	<0.1	0.21	<5	104	<10	<20
PN0653	<0.1	3	23	<0.1	0.68	5	<5	<10	<20
PN0654	<0.1	2	10	<0.1	0.15	<5	47	<10	<20
PN0655	<0.1	3	48	<0.1	0.33	<5	66	<10	<20
PN0656	<0.1	4	16	<0.1	0.32	<5	85	<10	<20
PN0657	<0.1	3	12	<0.1	0.25	<5	28	<10	<20
PN0658	<0.1	4	14	<0.1	0.33	<5	80	<10	<20
PN0659	<0.1	4	11	<0.1	0.33	<5	213	<10	<20
PN0660	<0.1	5	33	0.15	0.25	8	46	<10	<20
PN0661	<0.1	6	24	0.14	0.70	<5	50	<10	<20
PN0662	<0.1	7	29	0.14	0.41	6	8	<10	<20
PN0663	<0.1	6	11	0.11	0.41	<5	365	<10	<20
PN0664	<0.1	13	207	0.15	0.43	17	<5	<10	<20
PN0665	<0.1	16	184	0.24	0.56	<5	64	<10	30
PN0666	<0.1	17	104	0.27	0.70	21	83	<10	28
PN0667	<0.1	22	84	0.38	0.54	18	217	<10	25
PN0668	<0.1	23	82	0.26	0.97	13	190	<10	24
PN0669	<0.1	30	157	0.14	0.41	24	343	<10	29
PN0670	<0.1	229	545	0.28	0.98	7	288	<10	34
PN0671	<0.1	4	11	0.10	0.87	13	146	<10	48
PN0672	<0.1	8	15	<0.1	0.14	43	1149	18	74
PN0673	<0.1	5	16	<0.1	0.62	33	177	<10	60
PN0674	<0.1	3	10	<0.1	0.54	12	282	<10	40
PN0675	<0.1	5	10	<0.1	0.47	39	375	11	73
PN0676	<0.1	3	7	0.12	0.68	14	233	13	62
PN0677	<0.1	11	19	<0.1	1.36	34	65	<10	54
PN0678	<0.1	3	7	<0.1	0.92	36	182	15	74
PN0679	<0.1	2	7	<0.1	0.99	10	421	20	103
PN0680	<0.1	4	10	<0.1	5.08	42	489	13	91
PN0681	<0.1	6	9	0.11	0.53	34	681	20	97
PN0682	<0.1	4	10	0.14	0.26	<5	2255	41	51



Work Order: 073824

Date: 20/08/03

FINAL

Page 2 of 2

Element.	Au	Co	Ni	Pd	Ag	Cu	Zn	Cd	Pb
Method	MMI-B	MMI-B	MMI-B	MMI-B	MMI-B	MMI-A	MMI-A	MMI-A	MMI-A
Det. Lim.	0.1	1	3	0.1	0.1	5	5	10	20
Units.	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
PN0683	0.12	12	40	0.25	1.14	43	5374	49	161
PN0684	<0.1	2	12	<0.1	2.90	22	1726	24	100
PN0685	<0.1	3	14	<0.1	3.23	12	1325	32	129
PN0686	0.10	7	26	0.18	1.10	17	1777	47	149
PN0687	<0.1	3	8	<0.1	1.83	45	87	11	83
PN0688	<0.1	8	28	0.26	0.51	9	3016	83	191
PN0689	<0.1	6	11	0.11	0.17	14	1409	36	76
PN0690	<0.1	2	10	<0.1	2.14	25	358	13	106
PN0691	<0.1	6	19	<0.1	3.19	42	184	<10	83
PN0692	<0.1	9	30	0.26	0.67	17	2167	42	120
PN0693	<0.1	3	11	<0.1	0.99	34	655	27	138
PN0694	<0.1	3	7	<0.1	0.69	16	407	26	104
PN0695	<0.1	2	5	<0.1	1.48	29	94	<10	64
PN0696	<0.1	6	19	<0.1	8.19	29	37	<10	56
PN0697	<0.1	5	20	<0.1	4.71	39	269	13	65
PN0698	<0.1	4	14	0.19	1.61	62	216	<10	64
PN0699	<0.1	5	12	<0.1	2.91	30	236	11	108
PN0700	1.04	2	7	<0.1	2.35	126	47	<10	170
PN0701	0.18	7	30	0.21	1.22	8	2070	41	130
PN0702	<0.1	2	11	<0.1	1.91	18	717	14	91
PN0703	<0.1	3	19	<0.1	2.27	45	809	27	99
PN0704	<0.1	4	16	<0.1	2.07	40	256	15	112
PN0705	<0.1	3	10	0.14	0.22	<5	832	25	26
PN0706	<0.1	3	8	<0.1	1.18	7	696	22	97
PN0707	<0.1	4	11	<0.1	0.27	10	756	19	87
PN0708	<0.1	8	29	0.24	1.14	13	2629	64	51
PN0709	<0.1	9	17	<0.1	0.81	33	828	26	69
PN0710	<0.1	2	7	<0.1	1.77	24	366	11	105
PN0711	<0.1	4	9	<0.1	4.93	34	286	10	98
PN0712	<0.1	4	11	<0.1	0.23	19	704	24	100
PN0713	0.10	5	14	<0.1	0.56	9	681	23	103
PN0714	<0.1	2	17	<0.1	0.50	8	390	10	74
PN0715	<0.1	2	9	<0.1	1.15	<5	308	18	87
PN0716	<0.1	4	10	0.12	0.30	27	849	24	88
PN0717	<0.1	5	13	<0.1	0.42	23	129	20	55
PN0718	<0.1	6	15	0.14	0.93	31	983	18	71
PN0719	<0.1	8	13	0.11	0.23	16	748	26	62
PN0720	<0.1	25	68	0.23	0.27	6	617	13	30
*Dup PN0638	1.42	105	337	0.21	11.1	<5	1091	<10	63
*Dup PN0650	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
*Dup PN0662	<0.1	6	32	0.16	0.53	<5	7	<10	<20
*Dup PN0674	<0.1	3	10	<0.1	0.73	8	329	<10	41
*Dup PN0686	<0.1	7	27	0.15	1.10	13	2010	47	131
*Dup PN0698	0.10	4	14	0.14	1.75	72	250	<10	66
*Dup PN0710	<0.1	2	7	<0.1	1.73	25	400	12	113

PNO 721 - PNO 796

A-B.



CERTIFICATE OF ANALYSIS

Work Order: 073825

To: Goldcorp Inc.
Attn: W. Paterson

Date : 08/09/03

P.O. Box 190 HWY 125
COCHENOUR
ONTARIO/CANADA/POV 1L0

Copy 1 to : /mdehn@goldcorp.com
Goldcorp.Inc.- M. Dehn

P.O. No. : Planet
Project No. :
No. of Samples : 76 Soil (MMI)
Date Submitted : 07/08/03
Report Comprises : Cover Sheet plus
Pages 1 to 2

Note:
Duplicate results outside acceptance criteria due to sample matrix interference.

Distribution of unused material:

Pulps: RETURN
Rejects: RETURN

Certified By :

Dr. Hugh de Souza, General Manager

ISO 9002 REGISTERED

ISO 17025 Accredited for Specific Tests. SCC No. 456

Report Footer: L.N.R. = Listed not received I.S. = Insufficient Sample
n.a. = Not applicable - = No result
*INF = Composition of this sample makes detection impossible by this method
M after a result denotes ppb to ppm conversion, % denotes ppm to % conversion

Subject to SGS General Terms and Conditions



Work Order: 073825

Date: 08/09/03

FINAL

Page 1 of 2

Element. Method. Det.Lim. Units	Au MMI-B 0.1 ppb	Co MMI-B 1 ppb	Ni MMI-B 3 ppb	Pd MMI-B 0.1 ppb	Ag MMI-B 0.1 ppb	Cu MMI-A 5 ppb	Zn MMI-A 5 ppb	Cd MMI-A 10 ppb	Pb MMI-A 20 ppb
PN0721	<0.1	23	71	<0.1	0.15	<5	518	<10	45
PN0722	<0.1	10	22	<0.1	0.79	<5	687	<10	<20
PN0723	<0.1	3	7	<0.1	<0.1	<5	364	<10	<20
PN0724	<0.1	5	13	<0.1	<0.1	<5	113	<10	<20
PN0725	<0.1	5	10	<0.1	<0.1	<5	130	<10	<20
PN0726	<0.1	4	7	<0.1	<0.1	<5	153	<10	<20
PN0727	<0.1	4	9	<0.1	<0.1	<5	126	<10	<20
PN0728	<0.1	2	9	<0.1	<0.1	<5	280	<10	<20
PN0729	<0.1	2	6	<0.1	0.12	<5	54	<10	<20
PN0730	<0.1	4	12	<0.1	<0.1	<5	232	<10	<20
PN0731	<0.1	3	20	<0.1	0.13	<5	<5	<10	<20
PN0732	<0.1	4	14	<0.1	<0.1	<5	112	<10	<20
PN0733	<0.1	4	18	<0.1	<0.1	<5	59	<10	<20
PN0734	<0.1	6	27	<0.1	0.13	<5	9	<10	<20
PN0735	<0.1	4	11	<0.1	<0.1	<5	30	<10	<20
PN0736	<0.1	8	20	<0.1	0.11	<5	154	<10	<20
PN0737	<0.1	8	25	<0.1	0.18	<5	38	<10	<20
PN0738	<0.1	21	93	<0.1	<0.1	<5	57	<10	<20
PN0739	<0.1	79	190	<0.1	<0.1	<5	93	<10	29
PN0740	<0.1	67	83	0.14	0.28	<5	71	<10	80
PN0741	<0.1	21	46	<0.1	1.13	6	63	<10	31
PN0742	<0.1	31	50	0.23	0.39	11	166	10	73
PN0743	0.31	11	29	<0.1	0.25	12	218	<10	24
PN0744	<0.1	5	4	<0.1	0.13	7	530	14	<20
PN0745	<0.1	12	16	<0.1	<0.1	10	214	<10	37
PN0746	<0.1	27	69	0.33	0.53	19	163	<10	126
PN0747	<0.1	5	13	<0.1	0.30	13	644	17	32
PN0748	<0.1	44	56	<0.1	0.23	<5	195	<10	74
PN0749	<0.1	2	5	<0.1	<0.1	5	622	<10	<20
PN0750	0.13	1	3	<0.1	1.91	117	19	<10	121
PN0751	<0.1	50	77	<0.1	<0.1	<5	57	<10	57
PN0752	<0.1	18	27	<0.1	<0.1	<5	188	<10	52
PN0753	<0.1	52	73	<0.1	2.17	6	89	<10	67
PN0754	<0.1	6	8	<0.1	<0.1	6	627	13	40
PN0755	<0.1	55	123	<0.1	0.15	7	45	<10	75
PN0756	<0.1	16	12	<0.1	0.15	58	303	12	61
PN0757	<0.1	16	14	<0.1	0.25	20	244	27	28
PN0758	<0.1	9	7	<0.1	0.11	8	120	22	<20
PN0759	<0.1	14	14	<0.1	0.40	33	351	16	<20
PN0760	<0.1	14	20	<0.1	0.74	111	238	11	35
PN0761	<0.1	23	24	<0.1	0.40	113	246	10	52
PN0762	<0.1	67	71	<0.1	0.75	47	133	<10	21
PN0763	<0.1	74	100	<0.1	0.56	33	346	14	53
PN0764	<0.1	24	28	<0.1	0.34	12	445	17	<20
PN0765	<0.1	30	46	<0.1	0.20	<5	418	18	33



Work Order: 073825

Date: 08/09/03

FINAL

Page 2 of 2

Element. Method. Det.Lim. Units.	Au MMI-B 0.1 ppb	Co MMI-B 1 ppb	Ni MMI-B 3 ppb	Pd MMI-B 0.1 ppb	Ag MMI-B 0.1 ppb	Cu MMI-A 5 ppb	Zn MMI-A 5 ppb	Cd MMI-A 10 ppb	Pb MMI-A 20 ppb
PN0766	<0.1	270	305	<0.1	<0.1	<5	114	13	36
PN0767	<0.1	109	166	<0.1	0.36	<5	117	<10	<20
PN0768	<0.1	9	26	<0.1	<0.1	<5	242	<10	<20
PN0769	<0.1	4	16	<0.1	<0.1	<5	200	<10	<20
PN0770	<0.1	3	11	<0.1	<0.1	<5	322	<10	<20
PN0771	<0.1	2	3	<0.1	<0.1	<5	58	<10	<20
PN0772	<0.1	6	7	<0.1	0.31	43	463	26	51
PN0773	<0.1	2	6	<0.1	0.21	21	45	16	26
PN0774	<0.1	3	5	<0.1	0.22	15	142	15	57
PN0775	<0.1	3	8	0.11	<0.1	7	56	13	22
PN0776	<0.1	2	6	<0.1	<0.1	13	61	17	122
PN0777	<0.1	4	8	<0.1	<0.1	37	601	29	88
PN0778	<0.1	6	9	<0.1	<0.1	26	720	22	95
PN0779	<0.1	7	5	<0.1	<0.1	32	336	16	65
PN0780	<0.1	5	7	<0.1	0.26	28	105	<10	113
PN0781	<0.1	5	8	<0.1	0.52	38	167	<10	66
PN0782	<0.1	3	7	<0.1	<0.1	9	345	11	52
PN0783	<0.1	2	3	<0.1	<0.1	<5	502	11	45
PN0784	<0.1	2	6	<0.1	0.13	<5	265	<10	<20
PN0785	<0.1	3	13	<0.1	<0.1	<5	513	<10	<20
PN0786	<0.1	3	12	<0.1	<0.1	<5	198	<10	<20
PN0787	<0.1	3	6	<0.1	<0.1	30	451	<10	49
PN0788	<0.1	4	7	<0.1	<0.1	13	1217	21	67
PN0789	<0.1	2	8	<0.1	<0.1	16	188	<10	136
PN0790	<0.1	<1	<3	<0.1	<0.1	6	162	<10	91
PN0791	<0.1	4	13	0.29	0.17	80	367	12	178
PN0792	<0.1	4	21	0.16	1.09	7	1843	32	85
PN0793	<0.1	6	14	<0.1	0.16	<5	142	<10	79
PN0794	<0.1	11	17	<0.1	<0.1	<5	214	<10	126
PN0795	<0.1	31	56	<0.1	<0.1	<5	240	<10	131
PN0796	<0.1	93	72	0.12	0.51	23	586	11	161
*Dup PN0721	<0.1	26	79	<0.1	0.24	<5	581	11	41
*Dup PN0733	<0.1	4	20	<0.1	<0.1	<5	79	<10	<20
*Dup PN0745	<0.1	14	19	<0.1	0.12	9	211	<10	40
*Dup PN0757	<0.1	13	12	<0.1	0.35	n a.	n.a.	n.a.	n.a.
*Dup PN0769	<0.1	3	9	<0.1	<0.1	<5	345	<10	<20
*Dup PN0781	<0.1	6	9	<0.1	0.42	31	39	<10	61
*Dup PN0793	<0.1	3	9	<0.1	<0.1	<5	171	<10	62



DN1001-PN1107.

B.

CERTIFICATE OF ANALYSIS

Work Order: 073826

To: Goldcorp Inc.
Attn: W. Paterson

Date : 28/08/03

P.O. Box 190 HWY 125
COCHENOUR
ONTARIO/CANADA/POV 1L0

Copy 1 to : /mdehn@goldcorp.com
Goldcorp.Inc.- M. Dehn

P.O. No. :
Project No. : *MARCUS/ Planet.*
No. of Samples : 107 Soil (MMI)
Date Submitted : 07/08/03
Report Comprises : Cover Sheet plus
Pages 1 to 3

Distribution of unused material:

Pulps: RETURN
Rejects: RETURN

Certified By :

FOR Dr. Hugh de Souza, General Manager

ISO 9002 REGISTERED

ISO 17025 Accredited for Specific Tests. SCC No. 456

Report Footer: L.N.R. = Listed not received I.S. = Insufficient Sample
n.a. = Not applicable -- = No result
*INF = Composition of this sample makes detection impossible by this method
M after a result denotes ppb to ppm conversion, % denotes ppm to % conversion

Subject to SGS General Terms and Conditions

SGS Canada Inc. Minerals Services 1885 Leslie Street Toronto ON M3B 2M3 t(416) 445-5755 f(416) 445-4152 www.sgs.ca

Member of the SGS Group (Société Générale de Surveillance)



Work Order: 073826

Date: 28/08/03

FINAL

Page 1 of 3

Element. Method. Det.Lim. Units.	Au MMI-B 0.1 ppb	Co MMI-B 1 ppb	Ni MMI-B 3 ppb	Pd MMI-B 0.1 ppb	Ag MMI-B 0.1 ppb
PN1001	<0.1	3	8	<0.1	0.16
PN1002	<0.1	5	6	<0.1	0.12
PN1003	<0.1	3	5	<0.1	<0.1
PN1004	<0.1	2	4	<0.1	2.30
PN1005	<0.1	3	5	<0.1	0.11
PN1006	<0.1	5	7	<0.1	<0.1
PN1007	<0.1	3	5	<0.1	0.13
PN1008	<0.1	8	8	<0.1	<0.1
PN1009	<0.1	3	6	<0.1	0.18
PN1010	<0.1	12	8	<0.1	0.11
PN1011	<0.1	5	13	<0.1	2.04
PN1012	<0.1	4	29	<0.1	6.62
PN1013	<0.1	4	6	<0.1	0.26
PN1014	<0.1	4	14	<0.1	4.41
PN1015	<0.1	7	23	0.18	0.14
PN1016	<0.1	5	22	0.14	0.16
PN1017	<0.1	8	11	<0.1	0.49
PN1018	<0.1	6	10	<0.1	0.58
PN1019	<0.1	8	15	<0.1	2.73
PN1020	<0.1	5	14	<0.1	0.71
PN1021	<0.1	5	13	<0.1	3.09
PN1022	<0.1	3	11	<0.1	1.32
PN1023	<0.1	4	10	<0.1	0.21
PN1024	<0.1	11	37	<0.1	4.65
PN1025	<0.1	5	25	<0.1	2.67
PN1026	<0.1	3	7	<0.1	2.63
PN1027	<0.1	4	10	0.25	1.54
PN1028	<0.1	5	12	<0.1	0.27
PN1029	<0.1	3	13	<0.1	6.92
PN1030	<0.1	3	6	<0.1	0.19
PN1031	<0.1	6	10	<0.1	2.08
PN1032	<0.1	3	7	<0.1	1.29
PN1033	<0.1	3	8	<0.1	5.84
PN1034	0.16	2	6	<0.1	0.19
PN1035	<0.1	2	6	<0.1	0.23
PN1036	<0.1	5	9	<0.1	0.95
PN1037	<0.1	3	6	<0.1	0.32
PN1038	<0.1	4	14	<0.1	2.87
PN1039	<0.1	3	8	<0.1	0.32
PN1040	<0.1	5	46	0.11	0.20
PN1041	<0.1	2	6	<0.1	1.16
PN1042	<0.1	3	10	<0.1	5.86
PN1043	<0.1	2	6	<0.1	7.69
PN1044	<0.1	2	7	<0.1	0.19
PN1045	<0.1	1	4	<0.1	0.36



Work Order: 073826

Date: 28/08/03

FINAL

Page 2 of 3

Element. Method. Det.Lim. Units.	Au MMI-B 0.1 ppb	Co MMI-B 1 ppb	Ni MMI-B 3 ppb	Pd MMI-B 0.1 ppb	Ag MMI-B 0.1 ppb
PN1046	<0.1	2	8	<0.1	0.20
PN1047	<0.1	4	22	0.12	0.23
PN1048	<0.1	3	18	0.10	0.21
PN1049	<0.1	3	7	<0.1	1.81
PN1050	0.15	1	<3	<0.1	1.83
PN1051	0.12	2	9	<0.1	1.03
PN1052	<0.1	3	9	<0.1	1.01
PN1053	<0.1	9	15	<0.1	0.23
PN1054	<0.1	6	39	<0.1	5.25
PN1055	<0.1	5	25	<0.1	0.51
PN1056	<0.1	18	42	<0.1	1.30
PN1057	<0.1	10	16	<0.1	0.88
PN1058	<0.1	5	8	<0.1	0.20
PN1059	<0.1	8	12	<0.1	0.26
PN1060	<0.1	12	12	<0.1	0.28
PN1061	<0.1	10	12	<0.1	0.33
PN1062	<0.1	5	9	<0.1	0.62
PN1063	<0.1	7	11	<0.1	1.21
PN1064	<0.1	10	6	<0.1	0.12
PN1065	<0.1	3	11	<0.1	1.25
PN1066	<0.1	5	9	<0.1	0.39
PN1067	<0.1	2	5	<0.1	0.14
PN1068	<0.1	5	21	0.11	0.21
PN1069	<0.1	4	32	<0.1	5.13
PN1070	<0.1	7	41	<0.1	2.33
PN1071	0.12	6	18	<0.1	0.76
PN1072	<0.1	6	18	<0.1	1.54
PN1073	<0.1	2	8	<0.1	0.33
PN1074	<0.1	6	12	<0.1	0.17
PN1075	<0.1	4	7	<0.1	0.14
PN1076	<0.1	4	5	<0.1	<0.1
PN1077	<0.1	11	31	0.11	0.87
PN1078	<0.1	3	12	<0.1	2.26
PN1079	<0.1	4	8	<0.1	0.55
PN1080	<0.1	1	14	<0.1	<0.1
PN1081	<0.1	<1	3	<0.1	<0.1
PN1082	<0.1	2	4	<0.1	<0.1
PN1083	<0.1	2	5	<0.1	<0.1
PN1084	<0.1	2	8	<0.1	0.40
PN1085	<0.1	4	13	<0.1	11.9
PN1086	<0.1	3	8	<0.1	0.11
PN1087	<0.1	6	12	<0.1	12.8
PN1088	<0.1	3	11	<0.1	5.39
PN1089	<0.1	4	7	<0.1	0.12
PN1090	<0.1	5	12	<0.1	0.88



Work Order: 073826

Date: 28/08/03

FINAL

Page 3 of 3

Element.	Au	Co	Ni	Pd	Ag
Method.	MMI-B	MMI-B	MMI-B	MMI-B	MMI-B
Def.Lim.	0.1	1	3	0.1	0.1
Units.	ppb	ppb	ppb	ppb	ppb
PN1091	<0.1	3	7	<0.1	0.35
PN1092	0.15	2	10	<0.1	2.71
PN1093	<0.1	6	19	<0.1	0.37
PN1094	<0.1	3	7	<0.1	0.31
PN1095	<0.1	3	6	<0.1	0.13
PN1096	<0.1	2	6	<0.1	1.19
PN1097	<0.1	6	27	<0.1	6.97
PN1098	<0.1	2	12	<0.1	3.43
PN1099	<0.1	4	12	<0.1	2.51
PN1100	0.14	2	4	<0.1	1.74
PN1101	<0.1	2	15	<0.1	3.97
PN1102	<0.1	3	12	<0.1	3.88
PN1103	<0.1	5	20	0.13	0.42
PN1104	<0.1	4	8	<0.1	0.73
PN1105	<0.1	4	32	<0.1	3.52
PN1106	<0.1	5	28	<0.1	1.80
PN1107	<0.1	6	21	<0.1	4.20
*Dup PN1001	<0.1	2	7	<0.1	0.26
*Dup PN1013	<0.1	4	7	<0.1	0.11
*Dup PN1025	<0.1	5	29	<0.1	2.43
*Dup PN1037	<0.1	4	6	<0.1	0.26
*Dup PN1049	<0.1	2	9	<0.1	1.53
*Dup PN1061	<0.1	10	11	<0.1	0.33
*Dup PN1073	<0.1	3	9	<0.1	0.21
*Dup PN1085	<0.1	4	13	<0.1	10.6
*Dup PN1097	<0.1	6	28	<0.1	6.79



MMI-F

CERTIFICATE OF ANALYSIS

Work Order: 074463

To: **Goldcorp Inc.**
Attn: **W. Paterson**

Date : 03/10/03

P.O. Box 190 HWY 125
COCHENOUR
ONTARIO/CANADA/POV 1L0

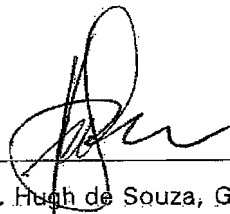
Copy 1 to : /mdehn@goldcorp.com
Goldcorp.Inc.- M. Dehn

P.O. No. : Planet
Project No. : POH 73207
No. of Samples : 76 Soil (MMI)
Date Submitted : 19/09/03
Report Comprises : Cover Sheet plus
Pages 1 to 2

Distribution of unused material:

Pulps: RETURN
Rejects: RETURN

Certified By :


Dr. Hugh de Souza, General Manager

ISO 9002 REGISTERED

ISO 17025 Accredited for Specific Tests. SCC No. 456

Report Footer: L.N.R. = Listed not received I.S. = Insufficient Sample
n.a. = Not applicable -- = No result
*INF = Composition of this sample makes detection impossible by this method
M after a result denotes ppb to ppm conversion, % denotes ppm to % conversion

Subject to SGS General Terms and Conditions



Work Order: 074463

Date: 03/10/03

FINAL

Page 1 of 2

Element. Method. Det.Lim. Units.	Fe MMI-F 0.1 ppm	As MMI-F 1 ppb	Se MMI-F 2 ppb	Mo MMI-F 1 ppb	Sb MMI-F 1 ppb	Hg MMI-F 3 ppb
PN0001	170	186	4	10	7	12
PN0002	467	309	6	16	13	16
PN0003	547	236	7	8	7	14
PN0004	366	80	10	3	3	12
PN0005	353	170	11	4	4	14
PN0006	491	120	22	3	3	22
PN0007	I.S.	I.S.	I.S.	I.S.	I.S.	I.S.
PN0008	281	644	9	13	7	12
PN0009	149	193	4	11	6	9
PN0010	72.6	135	3	19	3	6
PN0011	123	141	5	13	4	6
PN0012	1150	104	16	5	2	20
PN0013	I.S.	I.S.	I.S.	I.S.	I.S.	I.S.
PN0014	92.9	66	2	7	<1	7
PN0015	300	224	18	12	3	13
PN0016	542	316	19	8	3	21
PN0017	785	195	16	13	7	18
PN0018	120	147	6	4	3	9
PN0019	735	252	7	15	8	11
PN0020	652	647	9	11	9	13
PN0021	I.S.	I.S.	I.S.	I.S.	I.S.	I.S.
PN0022	1410	318	7	13	17	13
PN0023	928	131	4	24	6	41
PN0024	1200	157	10	22	5	13
PN0025	703	136	7	13	3	29
PN0026	668	285	2	45	7	140
PN0027	818	3950	7	250	72	1191
PN0028	356	839	3	24	14	2847
PN0029	66.1	85	<2	27	1	157
PN0030	171	121	9	11	2	21
PN0031	323	114	4	20	2	696
PN0032	735	405	4	23	12	145
PN0033	1260	166	7	26	7	27
PN0034	1060	223	3	16	3	8
PN0035	188	113	4	7	3	15
PN0036	1400	111	9	27	1	7
PN0037	131	82	4	9	3	116
PN0038	700	274	7	7	4	16
PN0039	676	239	4	12	4	29
PN0040	118	215	<2	12	2	343
PN0041	869	1700	4	208	26	2991
PN0042	1070	772	4	77	84	2926
PN0043	830	451	4	57	29	1213
PN0044	370	121	5	10	4	113
PN0045	645	23	7	7	1	13



Work Order: 074463

Date: 03/10/03

FINAL

Page 2 of 2

Element.	Fe	As	Se	Mo	Sb	Hg
Method.	MMI-F	MMI-F	MMI-F	MMI-F	MMI-F	MMI-F
Def.Lim.	0.1	1	2	1	1	3
Units.	ppm	ppb	ppb	ppb	ppb	ppb
PN0046	740	242	<2	49	19	2382
PN0047	694	386	3	46	17	1888
PN0048	608	220	9	29	11	678
PN0049	1540	1330	7	397	91	12660
PN0050	45.9	91	8	6	3	3
PN0051	559	72	4	13	4	58
PN0052	1180	268	<2	27	6	56
PN0053	460	100	5	11	3	13
PN0054	585	131	2	10	4	60
PN0055	583	126	7	10	2	10
PN0056	1060	858	8	31	6	14
PN0057	160	204	5	10	3	5
PN0058	171	446	3	14	5	10
PN0059	480	268	5	17	6	11
PN0060	309	287	5	13	5	6
PN0061	730	35	9	10	1	7
PN0062	765	30	10	22	<1	5
PN0063	687	507	10	14	4	4
PN0064	276	370	4	9	3	7
PN0065	317	604	3	13	5	7
PN0066	407	32	7	7	<1	6
PN0067	60.6	89	4	5	2	4
PN0068	375	12	6	8	<1	<3
PN0069	29.0	52	2	5	2	5
PN0070	239	77	6	10	5	6
PN0071	914	25	13	3	<1	7
PN0072	929	116	14	4	1	10
PN0073	119	61	3	4	<1	8
PN0074	69.0	47	<2	4	1	<3
PN0075	40.2	91	<2	7	1	4
PN0076	156	144	<2	5	2	5
*Dup PN0003	574	246	5	8	8	12
*Dup PN0014	107	78	3	9	<1	<3
*Dup PN0025	559	125	4	8	3	34
*Dup PN0038	801	283	3	8	4	12
*Dup PN0051	493	77	4	13	3	48
*Dup PN0061	647	41	6	9	2	5
*Dup PN0074	62.5	39	<2	4	1	<3



PW 0639 - PW 0670

MMI-F

CERTIFICATE OF ANALYSIS

Work Order: 074512

To: Goldcorp Inc.
Attn: W. Paterson

Date : 03/10/03

P.O. Box 190 HWY 125
COCHENOUR
ONTARIO/CANADA/POV 1L0

Copy 1 to : /mdehn@goldcorp.com
Goldcorp.Inc.- M. Dehn

P.O. No. : Planet
Project No. : POH 073824
No. of Samples : 32 Soil (MMI)
Date Submitted : 23/09/03
Report Comprises : Cover Sheet plus
Pages 1 to 1

Distribution of unused material:

Pulps: RETURN
Rejects: RETURN

Certified By :

Dr. Hugh de Souza, General Manager

ISO 9002 REGISTERED

ISO 17025 Accredited for Specific Tests. SCC No. 456

Report Footer: L.N.R. = Listed not received I.S. = Insufficient Sample
n.a. = Not applicable - = No result
*INF = Composition of this sample makes detection impossible by this method
M after a result denotes ppb to ppm conversion, % denotes ppm to % conversion

Subject to SGS General Terms and Conditions



Work Order: 074512

Date: 03/10/03

FINAL

Page 1 of 1

Element. Method. Det. Lbm. Units.	Fe MMI-F 0.1 ppm	As MMI-F 1 ppb	Se MMI-F 2 ppb	Mo MMI-F 1 ppb	Sb MMI-F 1 ppb	Hg MMI-F 3 ppb
PN0639	899	403	5	27	23	641
PN0640	2090	394	10	43	36	184
PN0641	1130	99	5	15	4	11
PN0642	1010	125	10	7	3	7
PN0643	712	98	9	12	3	<3
PN0644	328	128	7	14	3	4
PN0645	202	164	4	12	3	4
PN0646	246	42	7	21	2	7
PN0647	163	120	5	13	3	11
PN0648	125	37	6	10	2	9
PN0649	94.2	32	<2	9	1	11
PN0650	80.6	34	<2	7	<1	<3
PN0651	90.3	33	5	23	1	7
PN0652	83.9	29	3	21	<1	10
PN0653	72.1	31	<2	13	<1	7
PN0654	95.3	32	<2	13	<1	9
PN0655	77.1	58	<2	20	1	19
PN0656	69.5	114	<2	47	1	18
PN0657	103	110	<2	27	1	5
PN0658	92.1	38	3	24	<1	6
PN0659	134	48	3	9	1	<3
PN0660	276	52	<2	17	2	9
PN0661	459	57	<2	12	2	10
PN0662	276	108	<2	15	2	5
PN0663	254	64	4	18	2	4
PN0664	633	182	13	56	3	13
PN0665	629	168	17	52	3	12
PN0666	651	78	16	9	2	5
PN0667	629	155	12	11	2	9
PN0668	581	81	8	15	2	5
PN0669	614	90	15	12	1	8
PN0670	655	64	7	9	<1	6
*Dup PN0639	853	410	6	31	23	722
*Dup PN0651	87.5	38	2	21	<1	9
*Dup PN0663	302	58	3	19	1	<3

AJ 0724 - PNO 796

MME - F



CERTIFICATE OF ANALYSIS

Work Order: 074513

To: **Goldcorp Inc.**
Attn: **W. Paterson**

Date : 03/10/03

P.O. Box 190 HWY 125
COCHENOUR
ONTARIO/CANADA/POV 1L0

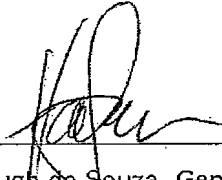
Copy 1 to :

P.O. No. :
Project No. : POH 073825
No. of Samples : 72 Pulp
Date Submitted : 23/09/03
Report Comprises : Cover Sheet plus
Pages 1 to 2

Distribution of unused material:

Pulps: RETURN
Rejects: RETURN

Certified By :



Dr. Hugh de Souza, General Manager

ISO 9002 REGISTERED

ISO 17025 Accredited for Specific Tests. SCC No. 456

Report Footer: L.N.R. = Listed not received I.S. = Insufficient Sample
n.a. = Not applicable -- = No result
*INF = Composition of this sample makes detection impossible by this method
M after a result denotes ppb to ppm conversion, % denotes ppm to % conversion

Subject to SGS General Terms and Conditions



Work Order: 074513

Date: 03/10/03

FINAL

Page 1 of 2

Element. Method. Det.Lim. Units.	Fe MMI-F 0.1 ppm	As MMI-F 1 ppb	Se MMI-F 2 ppb	Mo MMI-F 1 ppb	Sb MMI-F 1 ppb	Hg MMI-F 3 ppb
PN0724	83.4	328	4	28	4	27
PN0725	105	298	<2	23	5	14
PN0726	99.3	294	<2	27	5	8
PN0727	109	390	2	26	6	7
PN0728	165	359	<2	26	6	17
PN0729	82.6	222	3	21	3	10
PN0730	94.8	382	<2	32	5	6
PN0731	175	232	3	26	6	16
PN0732	130	301	<2	31	6	17
PN0733	1090	689	5	39	12	35
PN0734	596	130	<2	14	3	18
PN0735	875	170	4	16	4	5
PN0736	505	179	2	18	5	14
PN0737	318	122	3	15	3	4
PN0738	1550	125	<2	13	3	5
PN0739	2150	166	<2	11	1	<3
PN0740	2290	67	<2	9	2	4
PN0741	1330	53	<2	8	1	4
PN0742	1950	437	5	11	6	8
PN0743	850	183	<2	9	2	<3
PN0744	277	57	<2	5	<1	<3
PN0745	625	80	<2	7	2	<3
PN0746	3510	43	10	12	<1	4
PN0747	921	112	<2	19	3	<3
PN0748	2620	41	3	26	<1	<3
PN0749	226	59	<2	9	3	6
PN0751	3200	77	4	57	2	4
PN0752	1900	65	3	26	4	5
PN0753	2000	26	6	9	<1	3
PN0754	4210	157	12	21	5	9
PN0755	3430	30	4	18	3	8
PN0756	1380	106	5	6	3	8
PN0757	451	106	4	10	3	4
PN0758	274	247	4	20	4	7
PN0759	575	112	<2	7	1	4
PN0760	720	69	7	4	1	8
PN0761	519	40	9	5	<1	4
PN0762	242	27	<2	2	<1	<3
PN0763	769	44	4	4	1	<3
PN0764	661	106	2	5	2	3
PN0765	752	189	3	9	3	4
PN0766	812	182	4	14	2	5
PN0767	486	139	4	7	1	4
PN0768	239	86	4	5	<1	<3
PN0769	123	108	<2	23	2	<3



Work Order: 074513

Date: 03/10/03

FINAL

Page 2 of 2

Element.	Fe	As	Se	Mo	Sb	Hg
Method.	MMI-F	MMI-F	MMI-F	MMI-F	MMI-F	MMI-F
Det. Lim.	0.1	1	2	1	1	3
Units.	ppm	ppb	ppb	ppb	ppb	ppb
PN0770	167	132	<2	13	2	<3
PN0771	95.2	136	2	22	2	3
PN0772	258	233	6	4	3	8
PN0773	206	238	5	6	4	11
PN0774	330	104	7	3	3	7
PN0775	80.8	64	<2	1	<1	3
PN0776	127	160	11	<1	2	18
PN0777	632	544	19	6	7	49
PN0778	1390	252	9	9	3	8
PN0779	1160	53	8	3	2	7
PN0780	822	43	6	4	<1	5
PN0781	460	23	11	5	<1	10
PN0782	977	79	2	12	3	<3
PN0783	203	38	<2	4	2	<3
PN0784	276	72	<2	15	2	15
PN0785	739	218	<2	75	6	77
PN0786	1010	167	<2	30	4	73
PN0787	1910	71	<2	25	3	9
PN0788	775	48	<2	15	2	3
PN0789	2520	77	7	12	2	16
PN0790	1840	62	4	8	3	<3
PN0791	2820	196	26	11	2	20
PN0792	265	106	2	6	2	3
PN0793	3490	45	4	23	2	8
PN0794	2030	37	4	7	1	<3
PN0795	6530	48	13	18	1	10
PN0796	3080	33	7	11	<1	<3
*Dup PN0724	83.9	306	2	25	3	23
*Dup PN0736	531	192	4	18	4	15
*Dup PN0748	2730	36	3	24	<1	<3
*Dup PN0761	617	48	7	5	1	<3
*Dup PN0773	169	292	4	5	4	7
*Dup PN0785	813	180	<2	76	4	81



Work Order: 073825

Date: 08/09/03

FINAL

Page 2 of 2

Element. Method. Det.Lim. Units.	Au MMI-B 0.1 ppb	Co MMI-B 1 ppb	Ni MMI-B 3 ppb	Pd MMI-B 0.1 ppb	Ag MMI-B 0.1 ppb	Cu MMI-A 5 ppb	Zn MMI-A 5 ppb	Cd MMI-A 10 ppb	Pb MMI-A 20 ppb
PN0766	<0.1	270	305	<0.1	<0.1	<5	114	13	36
PN0767	<0.1	109	166	<0.1	0.36	<5	117	<10	<20
PN0768	<0.1	9	26	<0.1	<0.1	<5	242	<10	<20
PN0769	<0.1	4	16	<0.1	<0.1	<5	200	<10	<20
PN0770	<0.1	3	11	<0.1	<0.1	<5	322	<10	<20
PN0771	<0.1	2	3	<0.1	<0.1	<5	58	<10	<20
PN0772	<0.1	6	7	<0.1	0.31	43	463	26	51
PN0773	<0.1	2	6	<0.1	0.21	21	45	16	26
PN0774	<0.1	3	5	<0.1	0.22	15	142	15	57
PN0775	<0.1	3	8	0.11	<0.1	7	56	13	22
PN0776	<0.1	2	6	<0.1	<0.1	13	61	17	122
PN0777	<0.1	4	8	<0.1	<0.1	37	601	29	88
PN0778	<0.1	6	9	<0.1	<0.1	26	720	22	95
PN0779	<0.1	7	5	<0.1	<0.1	32	336	16	65
PN0780	<0.1	5	7	<0.1	0.26	28	105	<10	113
PN0781	<0.1	5	8	<0.1	0.52	38	167	<10	66
PN0782	<0.1	3	7	<0.1	<0.1	9	345	11	52
PN0783	<0.1	2	3	<0.1	<0.1	<5	502	11	45
PN0784	<0.1	2	6	<0.1	0.13	<5	265	<10	<20
PN0785	<0.1	3	13	<0.1	<0.1	<5	513	<10	<20
PN0786	<0.1	3	12	<0.1	<0.1	<5	198	<10	<20
PN0787	<0.1	3	6	<0.1	<0.1	30	451	<10	49
PN0788	<0.1	4	7	<0.1	<0.1	13	1217	21	67
PN0789	<0.1	2	8	<0.1	<0.1	16	188	<10	136
PN0790	<0.1	<1	<3	<0.1	<0.1	6	162	<10	91
PN0791	<0.1	4	13	0.29	0.17	80	367	12	178
PN0792	<0.1	4	21	0.16	1.09	7	1843	32	85
PN0793	<0.1	6	14	<0.1	0.16	<5	142	<10	79
PN0794	<0.1	11	17	<0.1	<0.1	<5	214	<10	126
PN0795	<0.1	31	56	<0.1	<0.1	<5	240	<10	131
PN0796	<0.1	93	72	0.12	0.51	23	586	11	161
*Dup PN0721	<0.1	26	79	<0.1	0.24	<5	581	11	41
*Dup PN0733	<0.1	4	20	<0.1	<0.1	<5	79	<10	<20
*Dup PN0745	<0.1	14	19	<0.1	0.12	9	211	<10	40
*Dup PN0757	<0.1	13	12	<0.1	0.35	n.a.	n.a.	n.a.	n.a.
*Dup PN0769	<0.1	3	9	<0.1	<0.1	<5	345	<10	<20
*Dup PN0781	<0.1	6	9	<0.1	0.42	31	39	<10	61
*Dup PN0793	<0.1	3	9	<0.1	<0.1	<5	171	<10	62



AN1001-PN1107.

B.

CERTIFICATE OF ANALYSIS

Work Order: 073826

To: Goldcorp Inc.
Attn: W. Paterson

Date : 28/08/03

P.O. Box 190 HWY 125
COCHENOUR
ONTARIO/CANADA/P0V 1L0

Copy 1 to : /mdehn@goldcorp.com
Goldcorp.Inc.- M. Dehn

P.O. No. :
Project No. : *MARCUS/Planet.*
No. of Samples : 107 Soil (MMI)
Date Submitted : 07/08/03
Report Comprises : Cover Sheet plus
Pages 1 to 3

Distribution of unused material:
Pulps: RETURN
Rejects: RETURN

Certified By

Dr. Hugh de Souza, General Manager

ISO 9002 REGISTERED

ISO 17025 Accredited for Specific Tests. SCC No. 456

Report Footer:	L.N.R.	= Listed not received	I.S.	= Insufficient Sample
	n.a.	= Not applicable	--	= No result
	*INF	= Composition of this sample makes detection impossible by this method		
	<i>M</i> after a result denotes ppb to ppm conversion, % denotes ppm to % conversion			

Subject to SGS General Terms and Conditions

SGS Canada Inc. Minerals Services 1885 Leslie Street Toronto ON M3B 2M3 t(416) 445-5755 f(416) 445-4152 www.sgs.ca

Member of the SGS Group (Société Générale de Surveillance)



Work Order: 073826

Date: 28/08/03

FINAL

Page 1 of 3

Element. Method. Det.Lim. Units.	Au MMI-B 0.1 ppb	Co MMI-B 1 ppb	Ni MMI-B 3 ppb	Pd MMI-B 0.1 ppb	Ag MMI-B 0.1 ppb
PN1001	<0.1	3	8	<0.1	0.16
PN1002	<0.1	5	6	<0.1	0.12
PN1003	<0.1	3	5	<0.1	<0.1
PN1004	<0.1	2	4	<0.1	2.30
PN1005	<0.1	3	5	<0.1	0.11
PN1006	<0.1	5	7	<0.1	<0.1
PN1007	<0.1	3	5	<0.1	0.13
PN1008	<0.1	8	8	<0.1	<0.1
PN1009	<0.1	3	6	<0.1	0.18
PN1010	<0.1	12	8	<0.1	0.11
PN1011	<0.1	5	13	<0.1	2.04
PN1012	<0.1	4	29	<0.1	6.62
PN1013	<0.1	4	6	<0.1	0.26
PN1014	<0.1	4	14	<0.1	4.41
PN1015	<0.1	7	23	0.18	0.14
PN1016	<0.1	5	22	0.14	0.16
PN1017	<0.1	8	11	<0.1	0.49
PN1018	<0.1	6	10	<0.1	0.58
PN1019	<0.1	8	15	<0.1	2.73
PN1020	<0.1	5	14	<0.1	0.71
PN1021	<0.1	5	13	<0.1	3.09
PN1022	<0.1	3	11	<0.1	1.32
PN1023	<0.1	4	10	<0.1	0.21
PN1024	<0.1	11	37	<0.1	4.65
PN1025	<0.1	5	25	<0.1	2.67
PN1026	<0.1	3	7	<0.1	2.63
PN1027	<0.1	4	10	0.25	1.54
PN1028	<0.1	5	12	<0.1	0.27
PN1029	<0.1	3	13	<0.1	6.92
PN1030	<0.1	3	6	<0.1	0.19
PN1031	<0.1	6	10	<0.1	2.08
PN1032	<0.1	3	7	<0.1	1.29
PN1033	<0.1	3	8	<0.1	5.84
PN1034	0.16	2	6	<0.1	0.19
PN1035	<0.1	2	6	<0.1	0.23
PN1036	<0.1	5	9	<0.1	0.95
PN1037	<0.1	3	6	<0.1	0.32
PN1038	<0.1	4	14	<0.1	2.87
PN1039	<0.1	3	8	<0.1	0.32
PN1040	<0.1	5	46	0.11	0.20
PN1041	<0.1	2	6	<0.1	1.16
PN1042	<0.1	3	10	<0.1	5.86
PN1043	<0.1	2	6	<0.1	7.69
PN1044	<0.1	2	7	<0.1	0.19
PN1045	<0.1	1	4	<0.1	0.36



Work Order: 073826

Date: 28/08/03

FINAL

Page 2 of 3

Element. Method. Det.Lim. Units.	Au MMI-B 0.1 ppb	Co MMI-B 1 ppb	Ni MMI-B 3 ppb	Pd MMI-B 0.1 ppb	Ag MMI-B 0.1 ppb
PN1046	<0.1	2	8	<0.1	0.20
PN1047	<0.1	4	22	0.12	0.23
PN1048	<0.1	3	18	0.10	0.21
PN1049	<0.1	3	7	<0.1	1.81
PN1050	0.15	1	<3	<0.1	1.83
PN1051	0.12	2	9	<0.1	1.03
PN1052	<0.1	3	9	<0.1	1.01
PN1053	<0.1	9	15	<0.1	0.23
PN1054	<0.1	6	39	<0.1	5.25
PN1055	<0.1	5	25	<0.1	0.51
PN1056	<0.1	18	42	<0.1	1.30
PN1057	<0.1	10	16	<0.1	0.88
PN1058	<0.1	5	8	<0.1	0.20
PN1059	<0.1	8	12	<0.1	0.26
PN1060	<0.1	12	12	<0.1	0.28
PN1061	<0.1	10	12	<0.1	0.33
PN1062	<0.1	5	9	<0.1	0.62
PN1063	<0.1	7	11	<0.1	1.21
PN1064	<0.1	10	6	<0.1	0.12
PN1065	<0.1	3	11	<0.1	1.25
PN1066	<0.1	5	9	<0.1	0.39
PN1067	<0.1	2	5	<0.1	0.14
PN1068	<0.1	5	21	0.11	0.21
PN1069	<0.1	4	32	<0.1	5.13
PN1070	<0.1	7	41	<0.1	2.33
PN1071	0.12	6	18	<0.1	0.76
PN1072	<0.1	6	18	<0.1	1.54
PN1073	<0.1	2	8	<0.1	0.33
PN1074	<0.1	6	12	<0.1	0.17
PN1075	<0.1	4	7	<0.1	0.14
PN1076	<0.1	4	5	<0.1	<0.1
PN1077	<0.1	11	31	0.11	0.87
PN1078	<0.1	3	12	<0.1	2.26
PN1079	<0.1	4	8	<0.1	0.55
PN1080	<0.1	1	14	<0.1	<0.1
PN1081	<0.1	<1	3	<0.1	<0.1
PN1082	<0.1	2	4	<0.1	<0.1
PN1083	<0.1	2	5	<0.1	<0.1
PN1084	<0.1	2	8	<0.1	0.40
PN1085	<0.1	4	13	<0.1	11.9
PN1086	<0.1	3	8	<0.1	0.11
PN1087	<0.1	6	12	<0.1	12.8
PN1088	<0.1	3	11	<0.1	5.39
PN1089	<0.1	4	7	<0.1	0.12
PN1090	<0.1	5	12	<0.1	0.88



Work Order: 073826

Date: 28/08/03

FINAL

Page 3 of 3

Element.	Au	Co	Ni	Pd	Ag
Method.	MMI-B	MMI-B	MMI-B	MMI-B	MMI-B
Det.Lim.	0.1	1	3	0.1	0.1
Units.	ppb	ppb	ppb	ppb	ppb
PN1091	<0.1	3	7	<0.1	0.35
PN1092	0.15	2	10	<0.1	2.71
PN1093	<0.1	6	19	<0.1	0.37
PN1094	<0.1	3	7	<0.1	0.31
PN1095	<0.1	3	6	<0.1	0.13
PN1096	<0.1	2	6	<0.1	1.19
PN1097	<0.1	6	27	<0.1	6.97
PN1098	<0.1	2	12	<0.1	3.43
PN1099	<0.1	4	12	<0.1	2.51
PN1100	0.14	2	4	<0.1	1.74
PN1101	<0.1	2	15	<0.1	3.97
PN1102	<0.1	3	12	<0.1	3.88
PN1103	<0.1	5	20	0.13	0.42
PN1104	<0.1	4	8	<0.1	0.73
PN1105	<0.1	4	32	<0.1	3.52
PN1106	<0.1	5	28	<0.1	1.80
PN1107	<0.1	6	21	<0.1	4.20
*Dup PN1001	<0.1	2	7	<0.1	0.26
*Dup PN1013	<0.1	4	7	<0.1	0.11
*Dup PN1025	<0.1	5	29	<0.1	2.43
*Dup PN1037	<0.1	4	6	<0.1	0.26
*Dup PN1049	<0.1	2	9	<0.1	1.53
*Dup PN1061	<0.1	10	11	<0.1	0.33
*Dup PN1073	<0.1	3	9	<0.1	0.21
*Dup PN1085	<0.1	4	13	<0.1	10.6
*Dup PN1097	<0.1	6	28	<0.1	6.79



MMI-F

CERTIFICATE OF ANALYSIS

Work Order: 074463

To: Goldcorp Inc.
Attn: W. Paterson

Date : 03/10/03

P.O. Box 190 HWY 125
COCHENOUR
ONTARIO/CANADA/POV 1L0

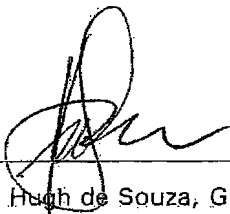
Copy 1 to : /mdehn@goldcorp.com
Goldcorp.Inc.- M. Dehn

P.O. No. : Planet
Project No. : POH 73207
No. of Samples : 76 Soil (MMI)
Date Submitted : 19/09/03
Report Comprises : Cover Sheet plus
Pages 1 to 2

Distribution of unused material:

Pulps: RETURN
Rejects: RETURN

Certified By :


Dr. Hugh de Souza, General Manager

ISO 9002 REGISTERED

ISO 17025 Accredited for Specific Tests. SCC No. 456

Report Footer: L.N.R. = Listed not received I.S. = Insufficient Sample
n.a. = Not applicable -- = No result
*INF = Composition of this sample makes detection impossible by this method
M after a result denotes ppb to ppm conversion, % denotes ppm to % conversion

Subject to SGS General Terms and Conditions



Work Order: 074463

Date: 03/10/03

FINAL

Page 1 of 2

Element.	Fe	As	Se	Mo	Sb	Hg
Method.	MMI-F	MMI-F	MMI-F	MMI-F	MMI-F	MMI-F
Det.Lim.	0.1	1	2	1	1	3
Units.	ppm	ppb	ppb	ppb	ppb	ppb
PN0001	170	186	4	10	7	12
PN0002	467	309	6	16	13	16
PN0003	547	236	7	8	7	14
PN0004	366	80	10	3	3	12
PN0005	353	170	11	4	4	14
PN0006	491	120	22	3	3	22
PN0007	I.S.	I.S.	I.S.	I.S.	I.S.	I.S.
PN0008	281	644	9	13	7	12
PN0009	149	193	4	11	6	9
PN0010	72.6	135	3	19	3	6
PN0011	123	141	5	13	4	6
PN0012	1150	104	16	5	2	20
PN0013	I.S.	I.S.	I.S.	I.S.	I.S.	I.S.
PN0014	92.9	66	2	7	<1	7
PN0015	300	224	18	12	3	13
PN0016	542	316	19	8	3	21
PN0017	785	195	16	13	7	18
PN0018	120	147	6	4	3	9
PN0019	735	232	7	15	8	11
PN0020	652	647	9	11	9	13
PN0021	I.S.	I.S.	I.S.	I.S.	I.S.	I.S.
PN0022	1410	318	7	13	17	13
PN0023	928	131	4	24	6	41
PN0024	1200	157	10	22	5	13
PN0025	703	136	7	13	3	29
PN0026	668	285	2	45	7	140
PN0027	818	3950	7	250	72	1191
PN0028	356	839	3	24	14	2847
PN0029	66.1	85	<2	27	1	157
PN0030	171	121	9	11	2	21
PN0031	323	114	4	20	2	696
PN0032	735	405	4	23	12	145
PN0033	1260	166	7	26	7	27
PN0034	1060	223	3	16	3	8
PN0035	188	113	4	7	3	15
PN0036	1400	111	9	27	1	7
PN0037	131	82	4	9	3	116
PN0038	700	274	7	7	4	16
PN0039	676	239	4	12	4	29
PN0040	118	215	<2	12	2	343
PN0041	869	1700	4	208	26	2991
PN0042	1070	772	4	77	84	2926
PN0043	830	451	4	57	29	1213
PN0044	370	121	5	10	4	113
PN0045	645	23	7	7	1	13



Work Order: 074463

Date: 03/10/03

FINAL

Page 2 of 2

Element	Fe	As	Se	Mo	Sb	Hg
Method.	MMI-F	MMI-F	MMI-F	MMI-F	MMI-F	MMI-F
Det.Lim.	0.1	1	2	1	1	3
Units.	ppm	ppb	ppb	ppb	ppb	ppb
PN0046	740	242	<2	49	19	2382
PN0047	694	386	3	46	17	1888
PN0048	608	220	9	29	11	678
PN0049	1540	1330	7	397	91	12660
PN0050	45.9	91	8	6	3	3
PN0051	559	72	4	13	4	58
PN0052	1180	268	<2	27	6	56
PN0053	460	100	5	11	3	13
PN0054	585	131	2	10	4	60
PN0055	583	126	7	10	2	10
PN0056	1060	858	8	31	6	14
PN0057	160	204	5	10	3	5
PN0058	171	446	3	14	5	10
PN0059	480	268	5	17	6	11
PN0060	309	287	5	13	5	6
PN0061	730	35	9	10	1	7
PN0062	765	30	10	22	<1	5
PN0063	687	507	10	14	4	4
PN0064	276	370	4	9	3	7
PN0065	317	604	3	13	5	7
PN0066	407	32	7	7	<1	6
PN0067	60.6	89	4	5	2	4
PN0068	375	12	6	8	<1	<3
PN0069	29.0	52	2	5	2	5
PN0070	239	77	6	10	5	6
PN0071	914	25	13	3	<1	7
PN0072	929	116	14	4	1	10
PN0073	119	61	3	4	<1	8
PN0074	69.0	47	<2	4	1	<3
PN0075	40.2	91	<2	7	1	4
PN0076	156	144	<2	5	2	5
*Dup PN0003	574	246	5	8	8	12
*Dup PN0014	107	78	3	9	<1	<3
*Dup PN0025	559	125	4	8	3	34
*Dup PN0038	801	283	3	8	4	12
*Dup PN0051	493	77	4	13	3	48
*Dup PN0061	647	41	6	9	2	5
*Dup PN0074	62.5	39	<2	4	1	<3

PN 0639 - PN 0670

MMI - F



CERTIFICATE OF ANALYSIS

Work Order: 074512

To: Goldcorp Inc.
Attn: W. Paterson

Date : 03/10/03

P.O. Box 190 HWY 125
COCHENOUR
ONTARIO/CANADA/POV 1L0

Copy 1 to : /mdehn@goldcorp.com
Goldcorp.Inc.- M. Dehn

P.O. No. : Planet
Project No. : POH 073824
No. of Samples : 32 Soil (MMI)
Date Submitted : 23/09/03
Report Comprises : Cover Sheet plus
Pages 1 to 1

Distribution of unused material:

Pulps: RETURN
Rejects: RETURN

Certified By :

Dr. Hugh de Souza, General Manager

ISO 9002 REGISTERED

ISO 17025 Accredited for Specific Tests. SCC No. 456

Report Footer: L.N.R. = Listed not received I.S. = Insufficient Sample
n.a. = Not applicable - = No result
*INF = Composition of this sample makes detection impossible by this method
M after a result denotes ppb to ppm conversion, % denotes ppm to % conversion

Subject to SGS General Terms and Conditions



Work Order: 074512

Date: 03/10/03

FINAL

Page 1 of 1

Element.	Fe	As	Se	Mo	Sb	Hg
Method.	MMI-F	MMI-F	MMI-F	MMI-F	MMI-F	MMI-F
Det. Lim.	0.1	1	2	1	1	3
Units.	ppm	ppb	ppb	ppb	ppb	ppb
PN0639	899	403	5	27	23	641
PN0640	2090	394	10	43	36	184
PN0641	1130	99	5	15	4	11
PN0642	1010	125	10	7	3	7
PN0643	712	98	9	12	3	<3
PN0644	328	128	7	14	3	4
PN0645	202	164	4	12	3	4
PN0646	246	42	7	21	2	7
PN0647	163	120	5	13	3	11
PN0648	125	37	6	10	2	9
PN0649	94.2	32	<2	9	1	11
PN0650	80.6	34	<2	7	<1	<3
PN0651	90.3	33	5	23	1	7
PN0652	83.9	29	3	21	<1	10
PN0653	72.1	31	<2	13	<1	7
PN0654	95.3	32	<2	13	<1	9
PN0655	77.1	58	<2	20	1	19
PN0656	69.5	114	<2	47	1	18
PN0657	103	110	<2	27	1	5
PN0658	92.1	38	3	24	<1	6
PN0659	134	48	3	9	1	<3
PN0660	276	52	<2	17	2	9
PN0661	459	57	<2	12	2	10
PN0662	276	108	<2	15	2	5
PN0663	254	64	4	18	2	4
PN0664	633	182	13	56	3	13
PN0665	629	168	17	52	3	12
PN0666	651	78	16	9	2	5
PN0667	629	155	12	11	2	9
PN0668	581	81	8	15	2	5
PN0669	614	90	15	12	1	8
PN0670	655	64	7	9	<1	6
*Dup PN0639	853	410	6	31	23	722
*Dup PN0651	87.5	38	2	21	<1	9
*Dup PN0663	302	58	3	19	1	<3

AO 0724 - PNO 796

MME - F



CERTIFICATE OF ANALYSIS

Work Order: 074513

To: Goldcorp Inc.
Attn: W. Paterson

Date : 03/10/03

P.O. Box 190 HWY 125
COCHENOUR
ONTARIO/CANADA/POV 1L0

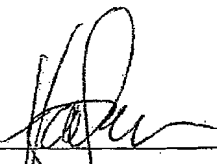
Copy 1 to :

P.O. No. :
Project No. : POH 073825
No. of Samples : 72 Pulp
Date Submitted : 23/09/03
Report Comprises : Cover Sheet plus
Pages 1 to 2

Distribution of unused material:

Pulps: RETURN
Rejects: RETURN

Certified By :



Dr. Hugh de Souza, General Manager

ISO 9002 REGISTERED

ISO 17025 Accredited for Specific Tests. SCC No. 456

Report Footer L.N.R. = Listed not received I.S. = Insufficient Sample
n.a. = Not applicable - = No result
*INF = Composition of this sample makes detection impossible by this method
M after a result denotes ppb to ppm conversion, % denotes ppm to % conversion

Subject to SGS General Terms and Conditions



Work Order: 074513

Date: 03/10/03

FINAL

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Element. Method. Det.Lim. Units.	Fe MMI-F 0.1 ppm	As MMI-F 1 ppb	Se MMI-F 2 ppb	Mo MMI-F 1 ppb	Sb MMI-F 1 ppb	Hg MMI-F 3 ppb
PN0724	83.4	328	4	28	4	27
PN0725	105	298	<2	23	5	14
PN0726	99.3	294	<2	27	5	8
PN0727	109	390	2	26	6	7
PN0728	165	359	<2	26	6	17
PN0729	82.6	222	3	21	3	10
PN0730	94.8	382	<2	32	5	6
PN0731	175	232	3	26	6	16
PN0732	130	301	<2	31	6	17
PN0733	1090	689	5	39	12	35
PN0734	596	130	<2	14	3	18
PN0735	875	170	4	16	4	5
PN0736	505	179	2	18	5	14
PN0737	318	122	3	15	3	4
PN0738	1550	125	<2	13	3	5
PN0739	2150	166	<2	11	1	<3
PN0740	2290	67	<2	9	2	4
PN0741	1330	53	<2	8	1	4
PN0742	1950	437	5	11	6	8
PN0743	850	183	<2	9	2	<3
PN0744	277	57	<2	5	<1	<3
PN0745	625	80	<2	7	2	<3
PN0746	3510	43	10	12	<1	4
PN0747	921	112	<2	19	3	<3
PN0748	2620	41	3	26	<1	<3
PN0749	226	59	<2	9	3	6
PN0751	3200	77	4	57	2	4
PN0752	1900	65	3	26	4	5
PN0753	2000	26	6	9	<1	3
PN0754	4210	157	12	21	5	9
PN0755	3430	30	4	18	3	8
PN0756	1380	106	5	6	3	8
PN0757	451	106	4	10	3	4
PN0758	274	247	4	20	4	7
PN0759	575	112	<2	7	1	4
PN0760	720	69	7	4	1	8
PN0761	519	40	9	5	<1	4
PN0762	242	27	<2	2	<1	<3
PN0763	769	44	4	4	1	<3
PN0764	661	106	2	5	2	3
PN0765	752	189	3	9	3	4
PN0766	812	182	4	14	2	5
PN0767	486	139	4	7	1	4
PN0768	239	86	4	5	<1	<3
PN0769	123	108	<2	23	2	<3



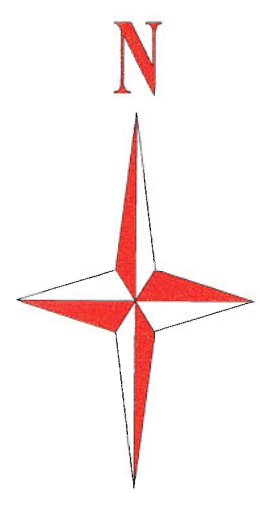
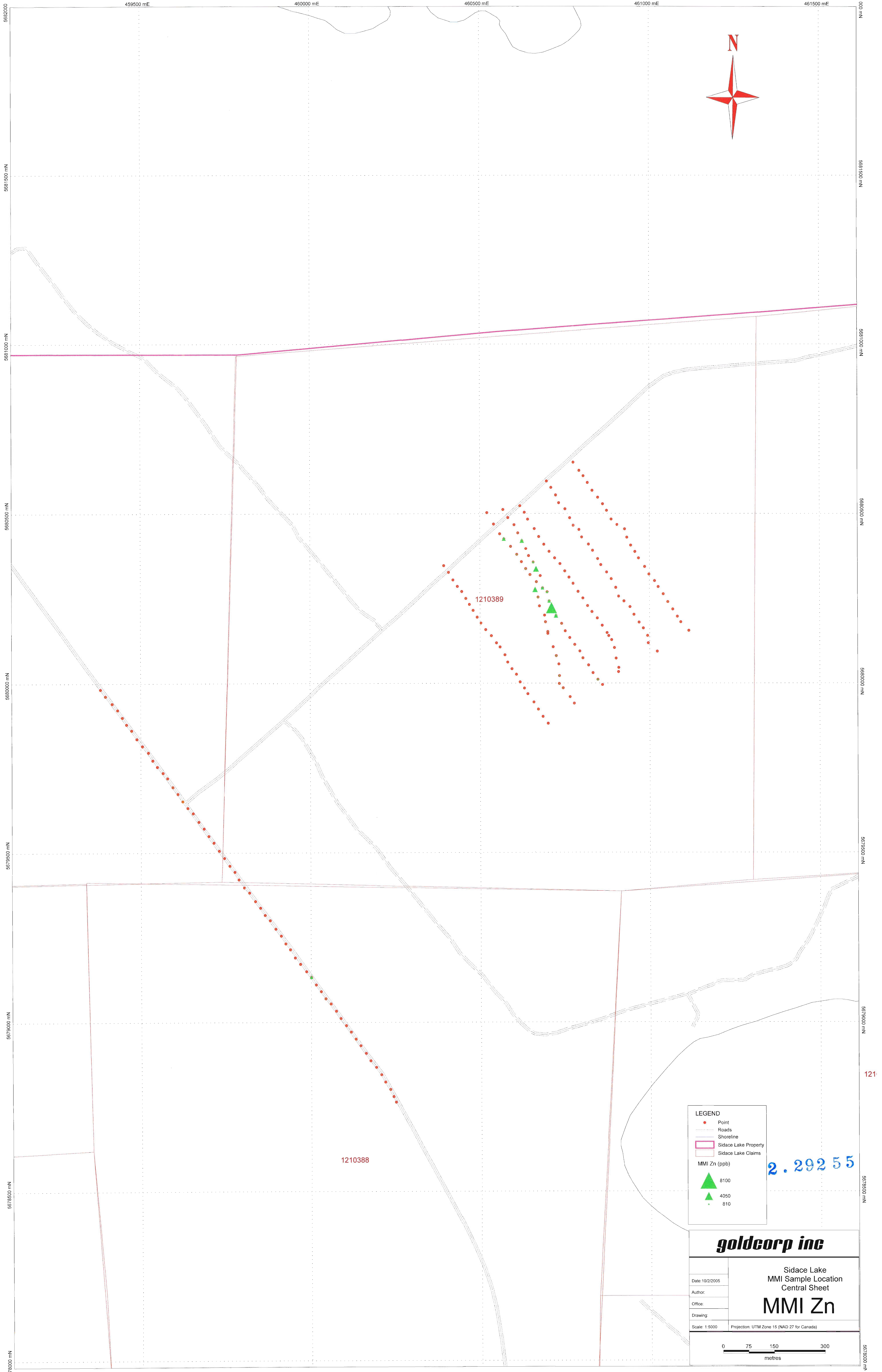
Work Order: 074513

Date: 03/10/03

FINAL

Page 2 of 2

Element.	Fe	As	Se	Mo	Sb	Hg
Method.	MMI-F	MMI-F	MMI-F	MMI-F	MMI-F	MMI-F
Det. Lim.	0.1	1	2	1	1	3
Units.	ppm	ppb	ppb	ppb	ppb	ppb
PN0770	167	132	<2	13	2	<3
PN0771	95.2	136	2	22	2	3
PN0772	258	233	6	4	3	8
PN0773	206	238	5	6	4	11
PN0774	330	104	7	3	3	7
PN0775	80.8	64	<2	1	<1	3
PN0776	127	160	11	<1	2	18
PN0777	632	544	19	6	7	49
PN0778	1390	252	9	9	3	8
PN0779	1160	53	8	3	2	7
PN0780	822	43	6	4	<1	5
PN0781	460	23	11	5	<1	10
PN0782	977	79	2	12	3	<3
PN0783	203	38	<2	4	2	<3
PN0784	276	72	<2	15	2	15
PN0785	739	218	<2	75	6	77
PN0786	1010	167	<2	30	4	73
PN0787	1910	71	<2	25	3	9
PN0788	775	48	<2	15	2	3
PN0789	2520	77	7	12	2	16
PN0790	1840	62	4	8	3	<3
PN0791	2820	196	26	11	2	20
PN0792	265	106	2	6	2	3
PN0793	3490	45	4	23	2	8
PN0794	2030	37	4	7	1	<3
PN0795	6530	48	13	18	1	10
PN0796	3080	33	7	11	<1	<3
*Dup PN0724	83.9	306	2	25	3	23
*Dup PN0736	531	192	4	18	4	15
*Dup PN0748	2730	36	3	24	<1	<3
*Dup PN0761	617	48	7	5	1	<3
*Dup PN0773	169	292	4	5	4	7
*Dup PN0785	813	180	<2	76	4	81



LEGEND

- Point
- Roads
- Shoreline
- ▭ Sidace Lake Property
- ▭ Sidace Lake Claims

MMI Zn (ppb)

- ▲ 8100
- ▲ 4050
- 810

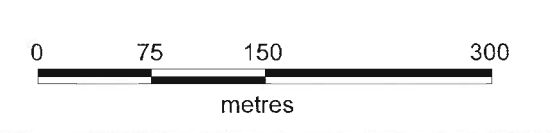
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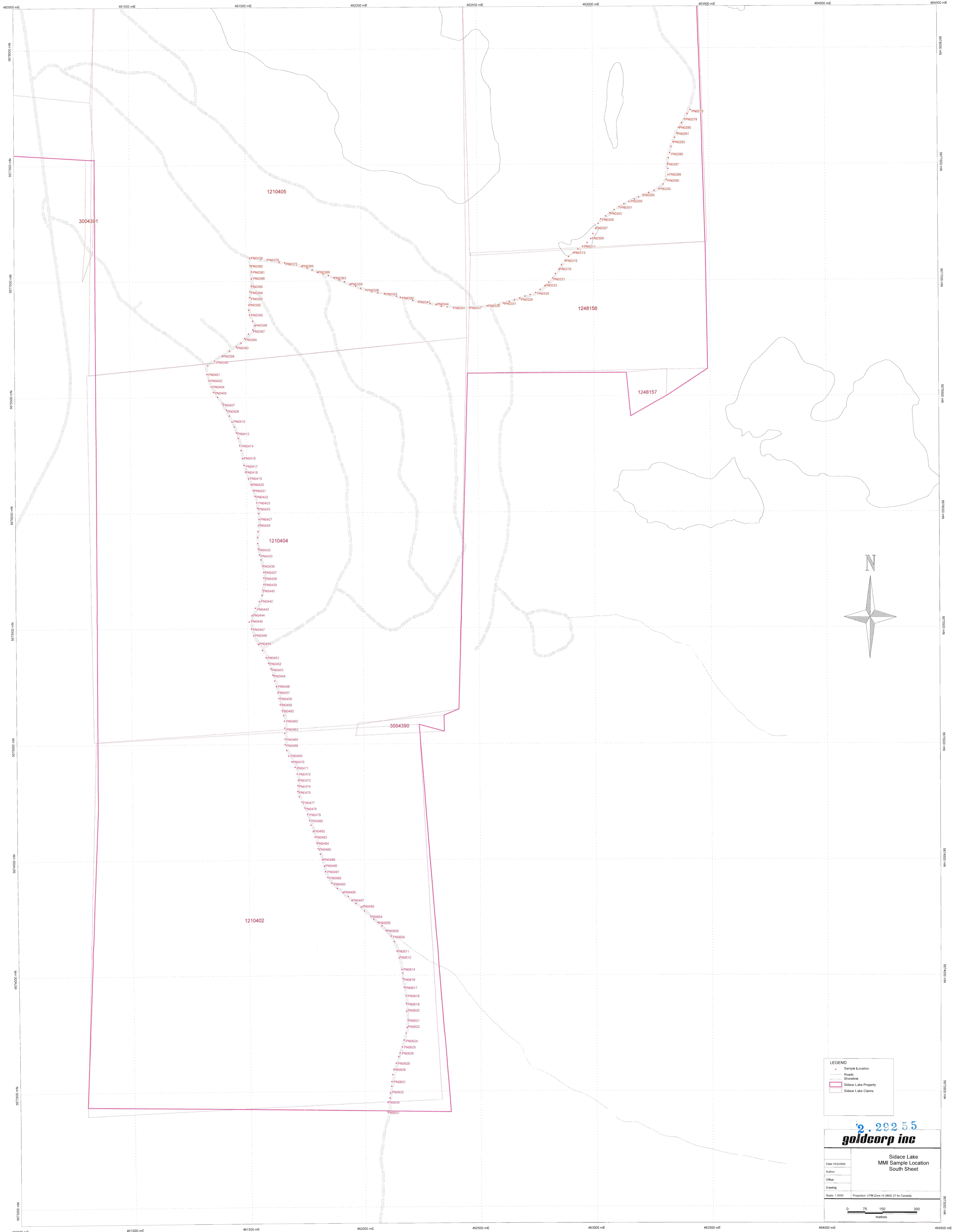
goldcorp inc

Date: 10/2/2005
 Author:
 Office:
 Drawing:

Sidace Lake
 MMI Sample Location
 Central Sheet
MMI Zn

Scale: 1:5000 Projection: UTM Zone 15 (NAD 27 for Canada)





LEGEND

- Sample Location
- Roads
- Shoreline
- ▭ Sidace Lake Property
- ▭ Sidace Lake Claims

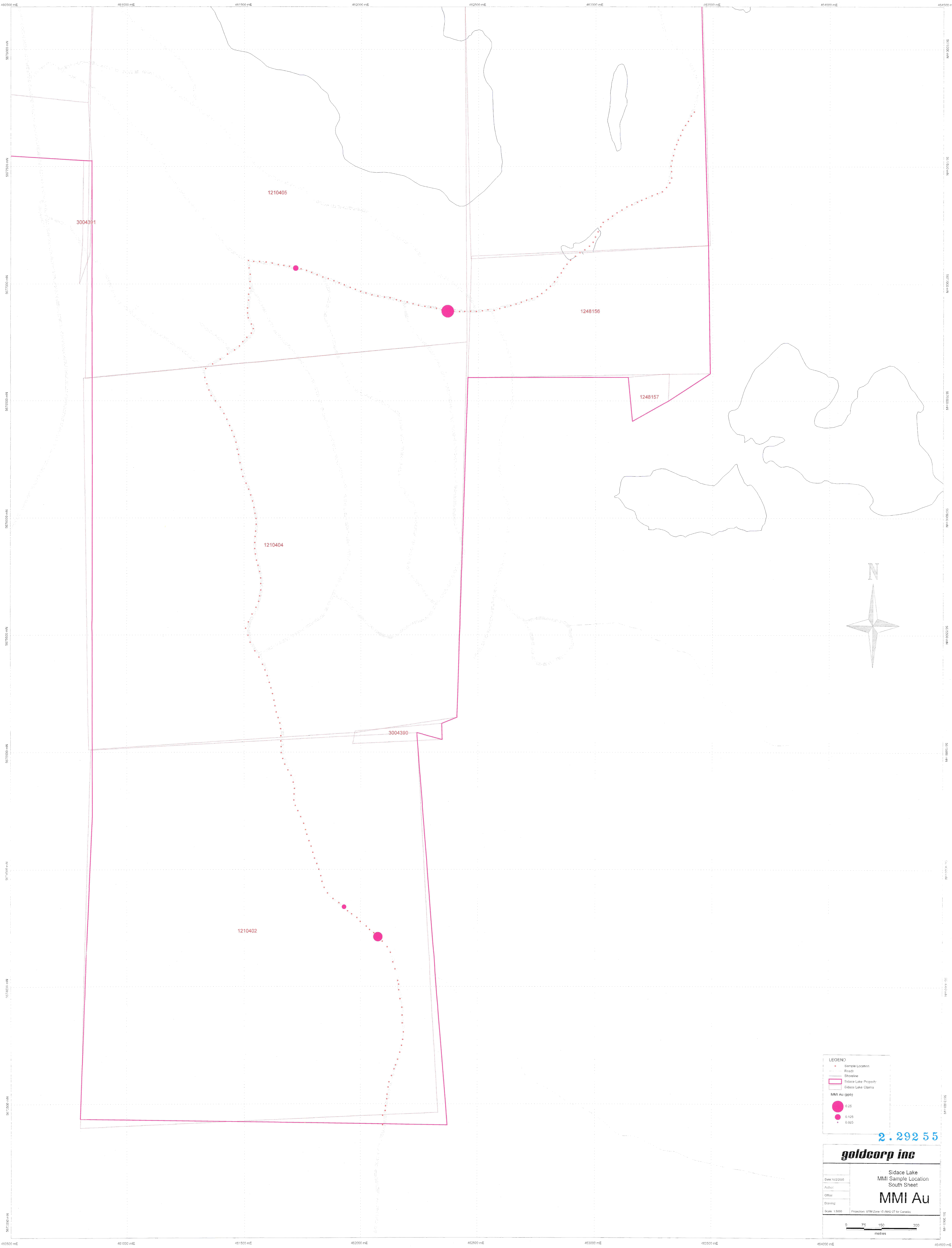
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goldcorp inc

Sidace Lake
 MMI Sample Location
 South Sheet

Date: 10/22/09
 Author:
 Office:
 Drawing:

Scale: 1:5000 Projection: UTM Zone 18 (NAD 27 for Canada)

0 75 150 300
 metres



LEGEND

- Sample Location
- Road
- Shoreline
- Sidace Lake Property
- Sidace Lake Claims

MMI Au (ppb)

- 0.25
- 0.125
- 0.0625

2. 292 55

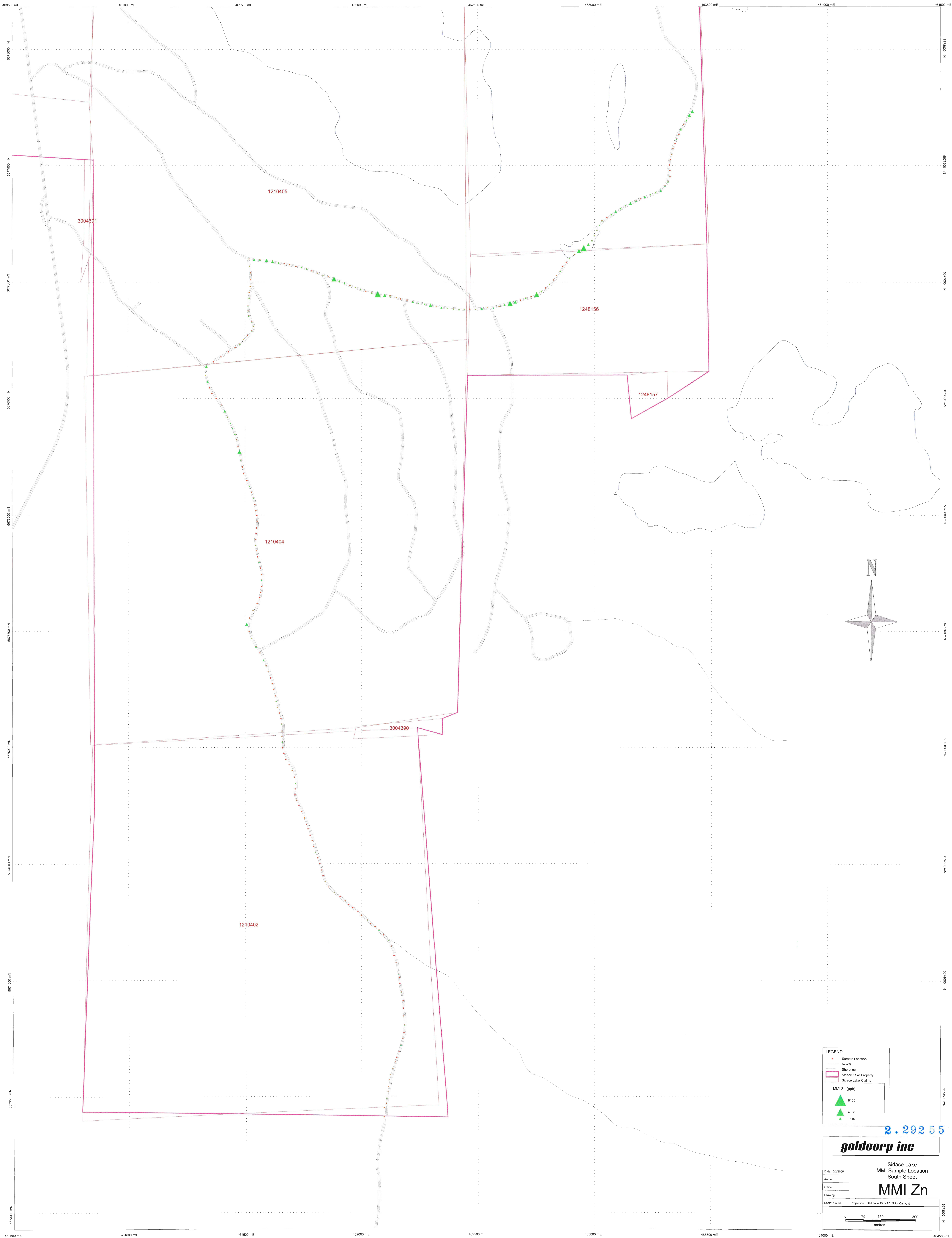
goldcorp inc

Sidace Lake
MMI Sample Location
South Sheet

MMI Au

Date: 1/2/2005
Author:
Editor:
Drawing:
Scale: 1:5000 Projection: UTM Zone 15 (NAD 27 for Canada)

0 75 150 300
metres



LEGEND

- Sample Location
- Roads
- Shoreline
- Sidace Lake Property
- Sidace Lake Claims

MMI Zn (ppb)

- 8100
- 4050
- 810

2.29255

goldcorp inc

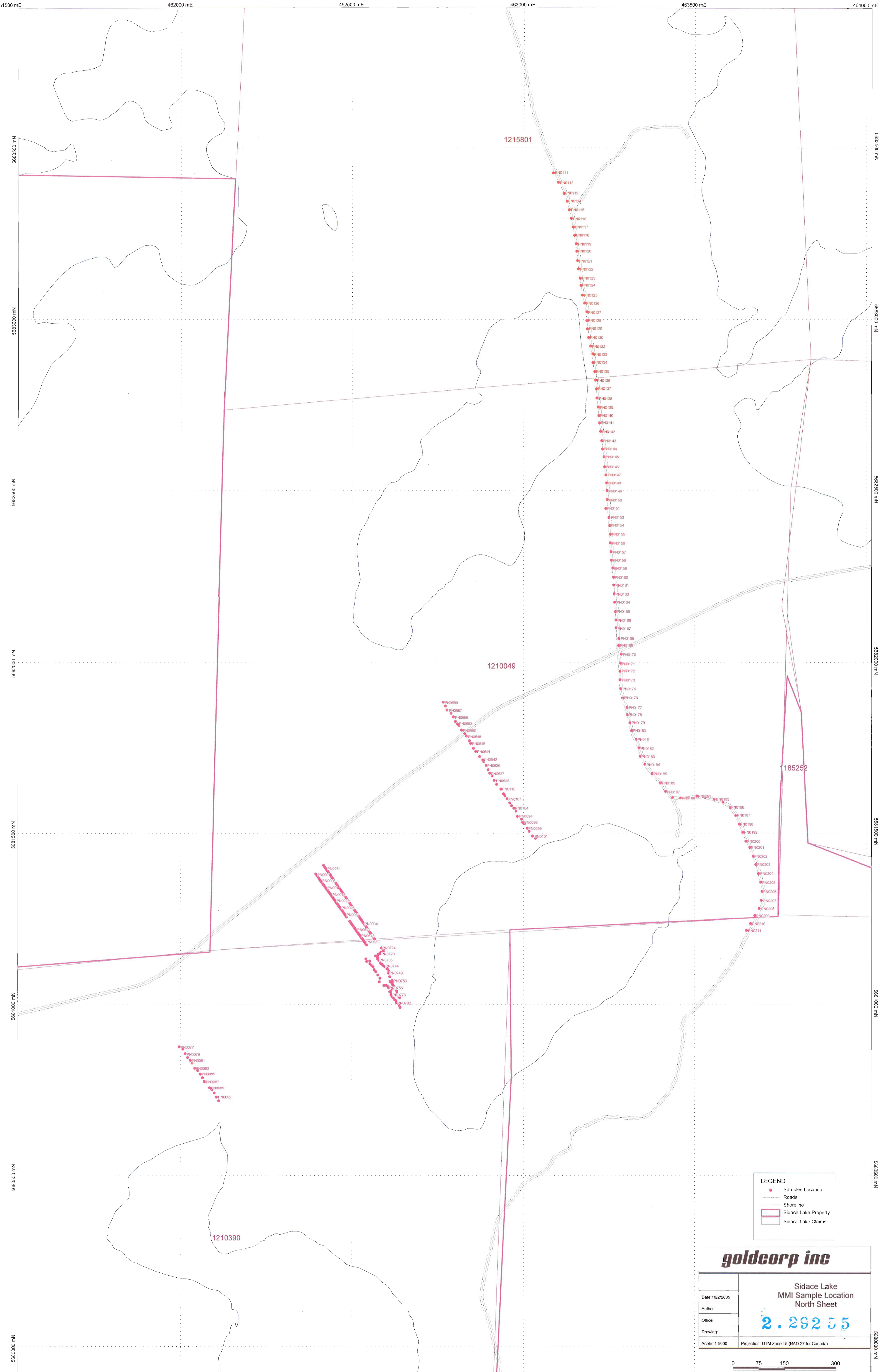
Sidace Lake
MMI Sample Location
South Sheet

MMI Zn

Date: 10/2/2005
Author:
Office:
Drawing:

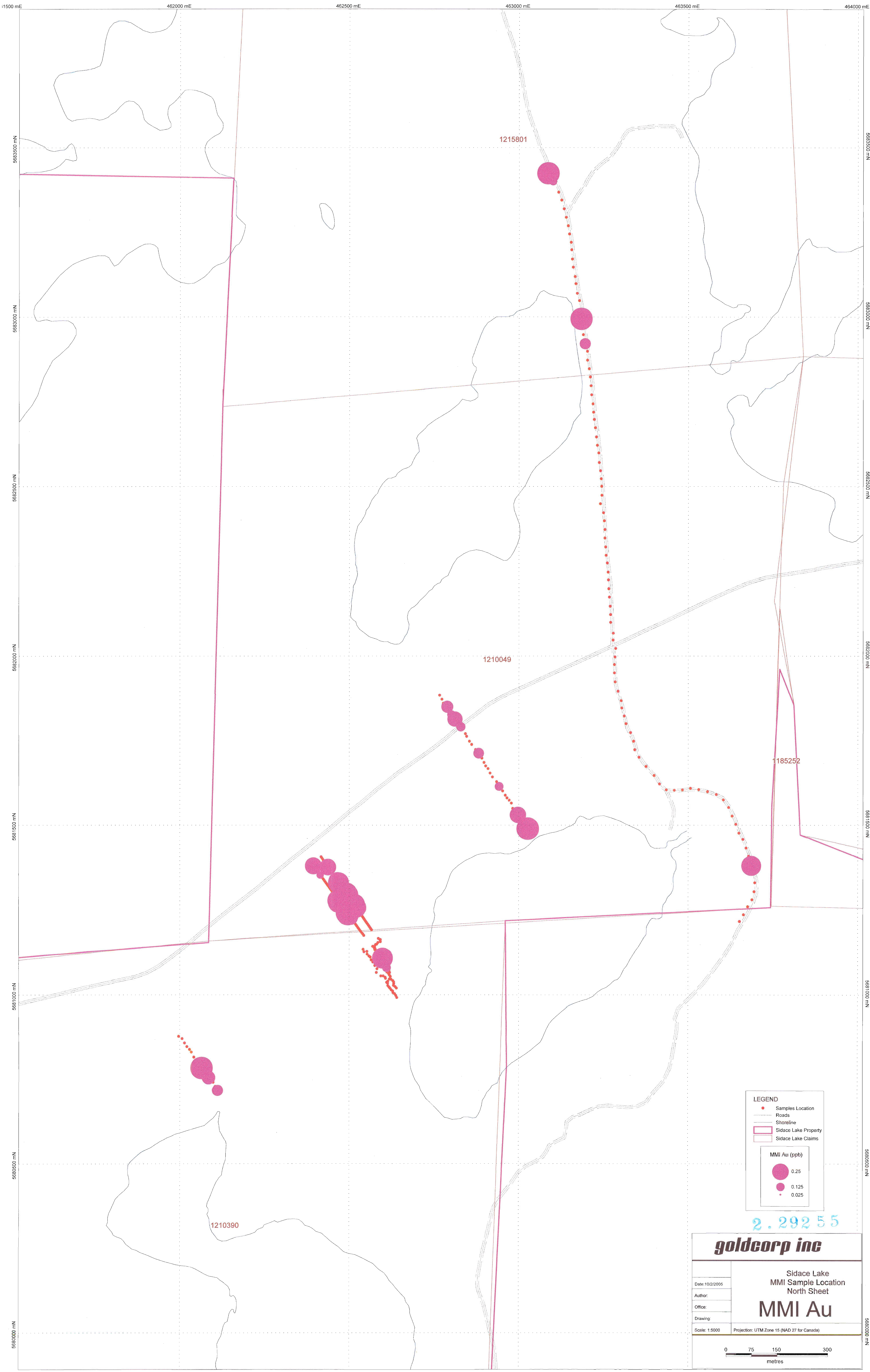
Scale: 1:5000 Projection: UTM Zone 18 (NAD 83 for Canada)

0 75 150 300
metres



LEGEND	
●	Samples Location
—	Roads
~	Shoreline
▭	Sidace Lake Property
▭	Sidace Lake Claims

goldcorp inc	
Sidace Lake MMI Sample Location North Sheet	
2.29255	
Date: 10/2/2005	
Author:	
Office:	
Drawing:	
Scale: 1:5000	Projection: UTM Zone 15 (NAD 27 for Canada)
0 75 150 300 metres	



1215801

1210049

185252

1210390

LEGEND

- Samples Location
- Roads
- Shoreline
- ▭ Sidace Lake Property
- ▭ Sidace Lake Claims

MMI Au (ppb)

- 0.25
- 0.125
- 0.025

2.29255

goldcorp inc

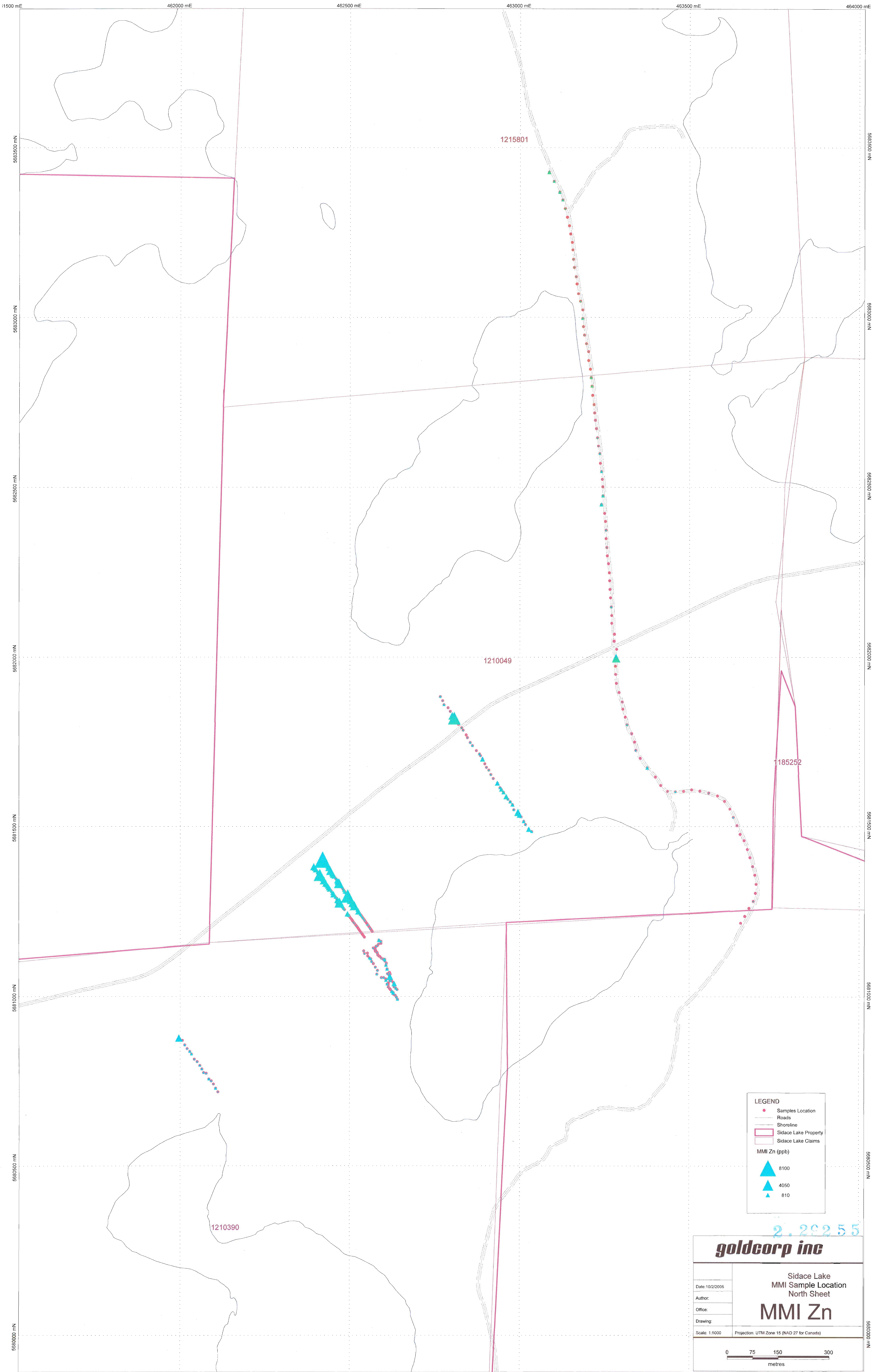
Sidace Lake
MMI Sample Location
North Sheet

MMI Au

Date: 10/2/2005
Author:
Office:
Drawing:
Scale: 1:5000
Projection: UTM Zone 15 (NAD 27 for Canada)

0 75 150 300
metres

NW 0053895
NW 0053895
NW 0052895
NW 0052895
NW 0051895
NW 0051895
NW 0050895
NW 0050895
NW 0049895



LEGEND

- Samples Location
- Roads
- Shoreline
- ▭ Sidace Lake Property
- ▭ Sidace Lake Claims

MMI Zn (ppb)

- ▲ 8100
- ▲ 4050
- ▲ 810

goldcorp inc

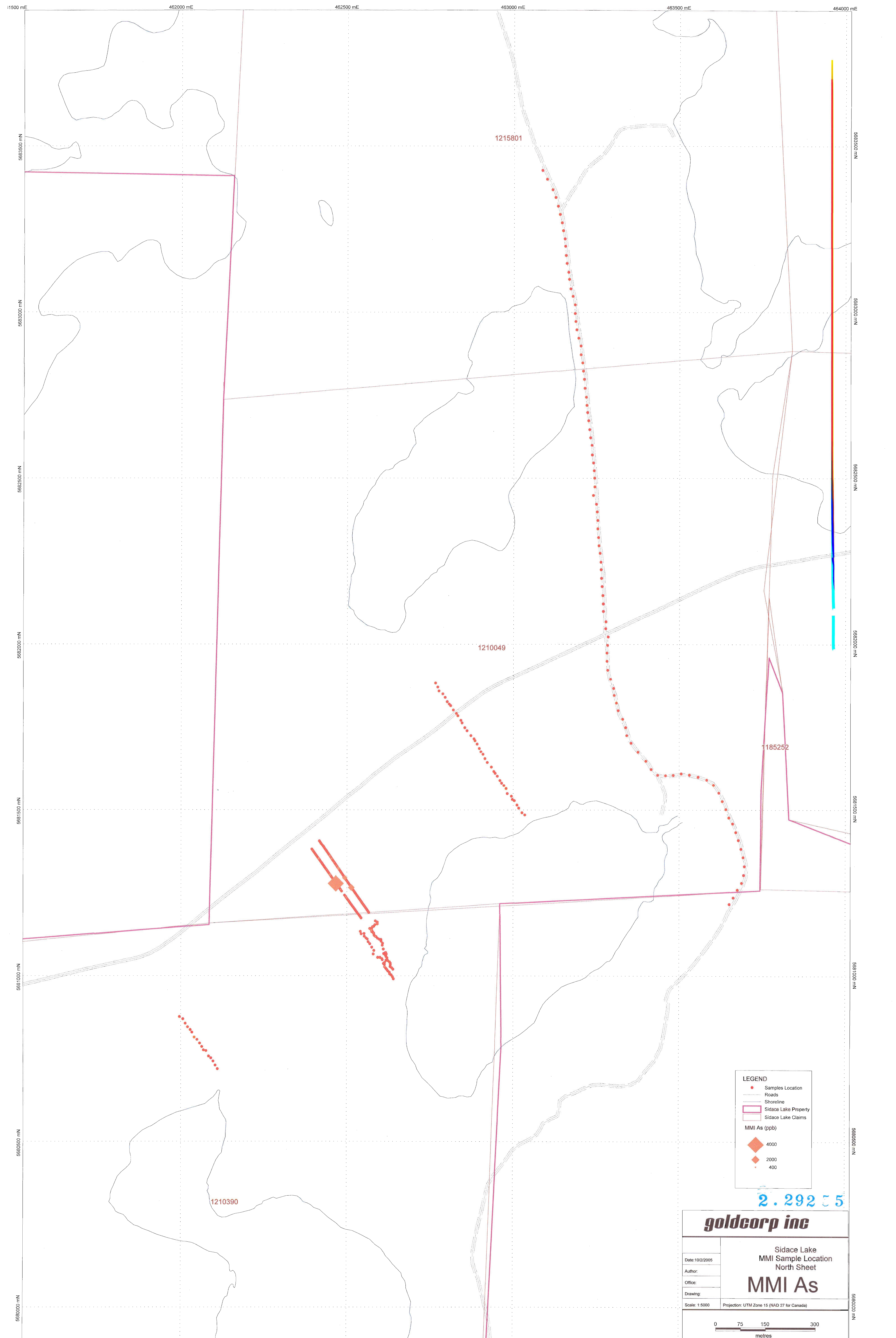
Sidace Lake
MMI Sample Location
North Sheet
MMI Zn

Date: 10/2/2005	
Author:	
Office:	
Drawing:	
Scale: 1:5000	Projection: UTM Zone 15 (NAD 27 for Canada)

0 75 150 300
metres

2.29255

NW 000895



1215801

1210049

1185252

1210390

LEGEND

- Samples Location
- Roads
- Shoreline
- ▭ Sidace Lake Property
- ▭ Sidace Lake Claims

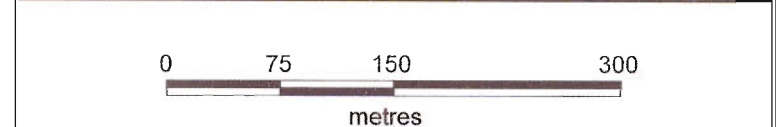
MMI As (ppb)

- ◆ 4000
- ◆ 2000
- 400

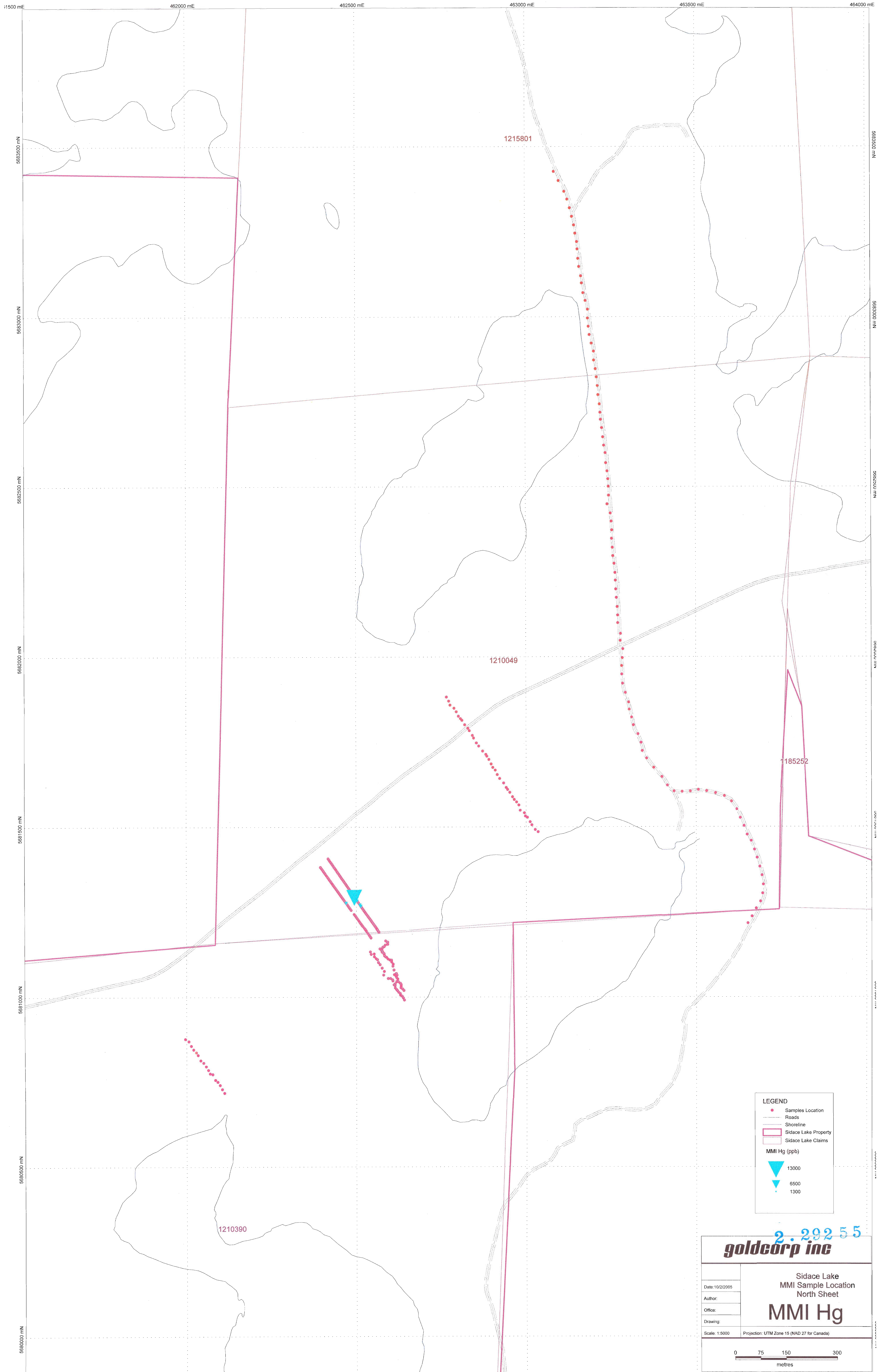
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goldcorp inc

Date: 10/2/2005	Sidace Lake MMI Sample Location North Sheet MMI As
Author:	
Office:	
Drawing:	
Scale: 1:5000	Projection: UTM Zone 15 (NAD 27 for Canada)



NW 0052895
NW 0002895
NW 0052895
NW 0002895
NW 0051895
NW 0001895
NW 0051895
NW 0001895
NW 0050895
NW 0000895



1215801

1210049

1185252

1210390

LEGEND

- Samples Location
- Roads
- Shoreline
- Sidace Lake Property
- Sidace Lake Claims
- MMI Hg (ppb)
- 13000
- 6500
- 1300

2.29255

goldcorp inc

<small>Date:</small> 10/2/2005	Sidace Lake MMI Sample Location North Sheet
<small>Author:</small>	MMI Hg
<small>Office:</small>	
<small>Drawing:</small>	
<small>Scale:</small> 1:5000	<small>Projection:</small> UTM Zone 15 (NAD 27 for Canada)

0 75 150 300
metres