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VALE

Assessment Report

Diamond Drill Program, Borehole Geophysics
Crieghton Property, NTS: 41-I-06, Ontario

Submitted By: Carrie Forget, P. Geo
September 15, 2015

Brownfield Exploration, North Atlantic

Contents

Introduction

One hole (BH125945-0), totaling 1,524 metres (5,000 feet) was drilled on patented land on Vale's Creighton property to explore for a possible extension to known mineralization into the footwall along an interpreted shear zone. The hole was geologically logged from collar to foot of hole and sampled where mineralization occurred. Down hole north-seeking gyro, and geophysical surveys (UTEM-4 and Radio-Imaging (RIM)) were completed on the hole as well.

Property

Location and Access

The property on which the borehole is collared is located approximately 18 km west of Sudbury, northwest of the town of Lively and east of Highway 144 near the Creighton Mine site (Figure 1). The collar location can be accessed from Regional Road 24 to Creighton Mine Road then from Inco Road (Figure 2). Access to the collar location is restricted to the public by a controlled gate at Creighton Mine.

Property Status

BH125945-0 is located on patented land held by Vale on lot 2, concession 1 of Creighton-Davies township. Assessment credits are being applied to property identification number (PIN) 73368-0105.

Exploration Program

Diamond Drilling

BH125945-0 was drilled to a depth of 1,524 metres (5,000 ft) to explore for a potential extension to mineralization along an interpreted shear zone projected into the footwall from the main Creighton mineralization within the Creighton embayment. The hole intersected typical footwall rocks for the area consisting mainly of granite, granodiorite, and diorite all cross-cut by variable thicknesses of Sudbury Breccia. The hole did not intersect any mineralization of economic value. The drill hole log and table of lithology codes are included in Appendix I, the drill hole plan map is included in Appendix II, the drill hole cross-section is included in Appendix III and assay certificates for samples are included in Appendix IV.

BH125945-0 was surveyed with a north-seeking gyroscope (gyro) to determine the accurate trajectory of the hole, which is depicted in both the plan section and cross-section. Gyro survey information is included in Appendix V.

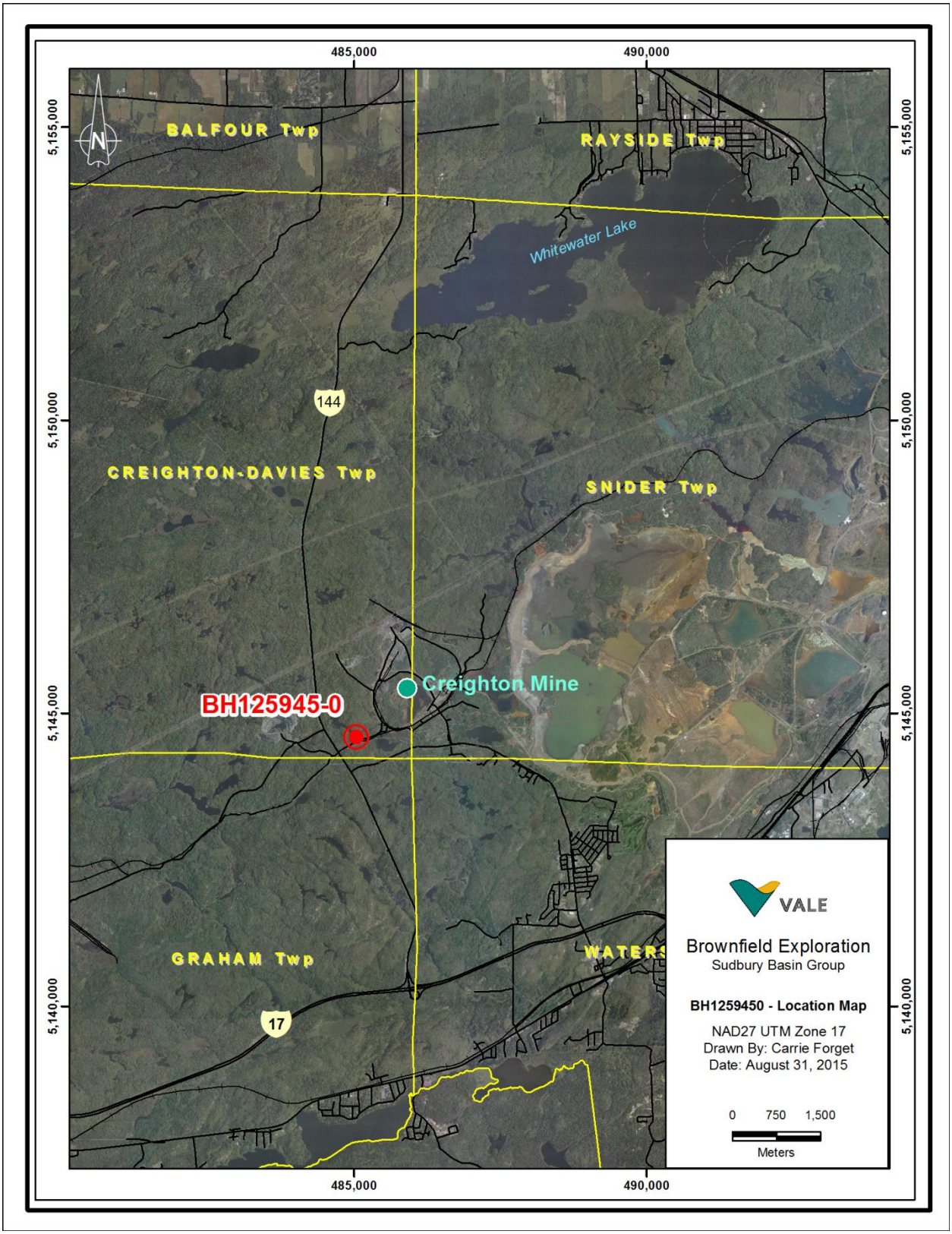


Figure 1. BH125945-0 is located west of Sudbury in Creighton-Davies Township near Vale's Creighton Mine

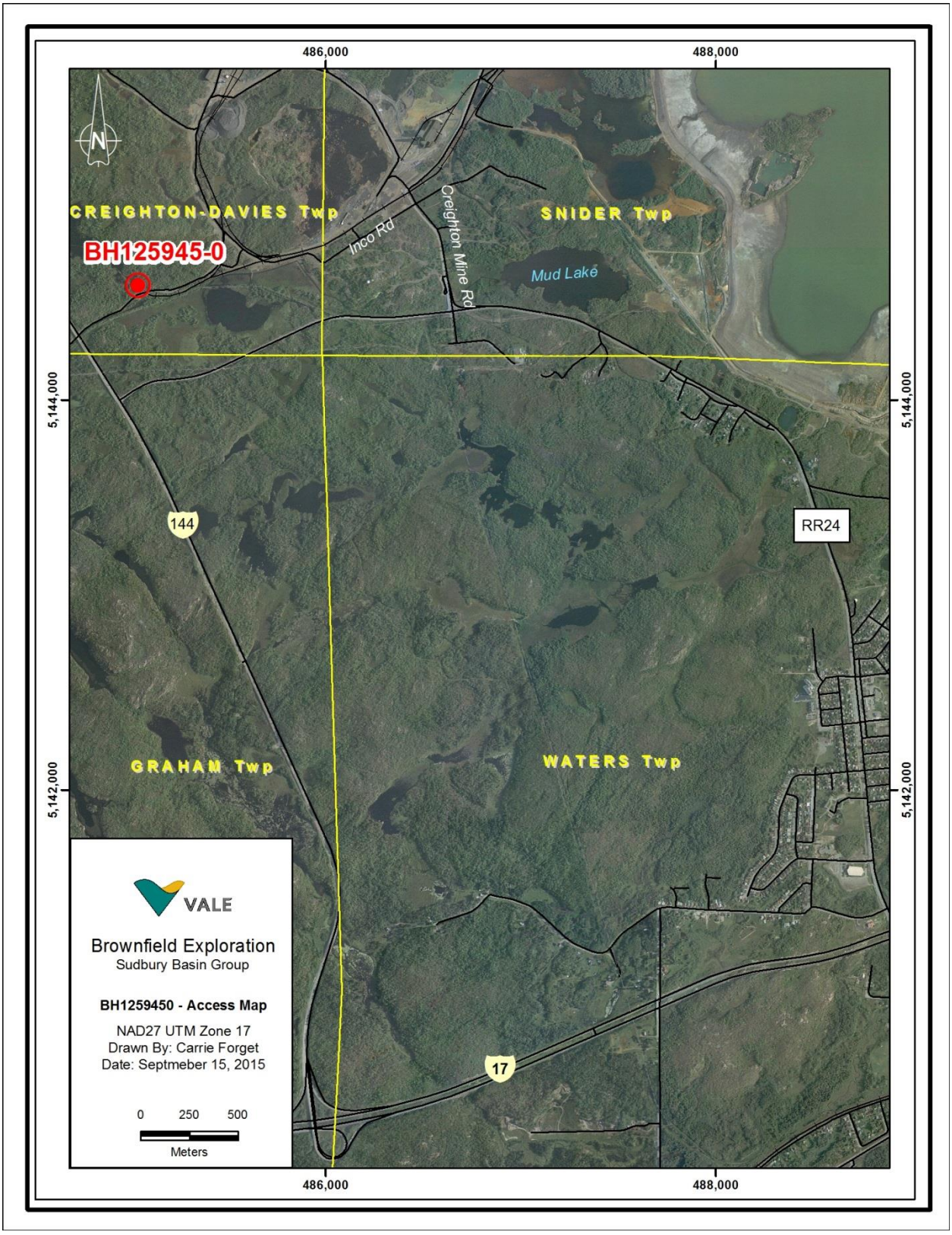


Figure 2. Access to BH1259450 via Regional Road 24.

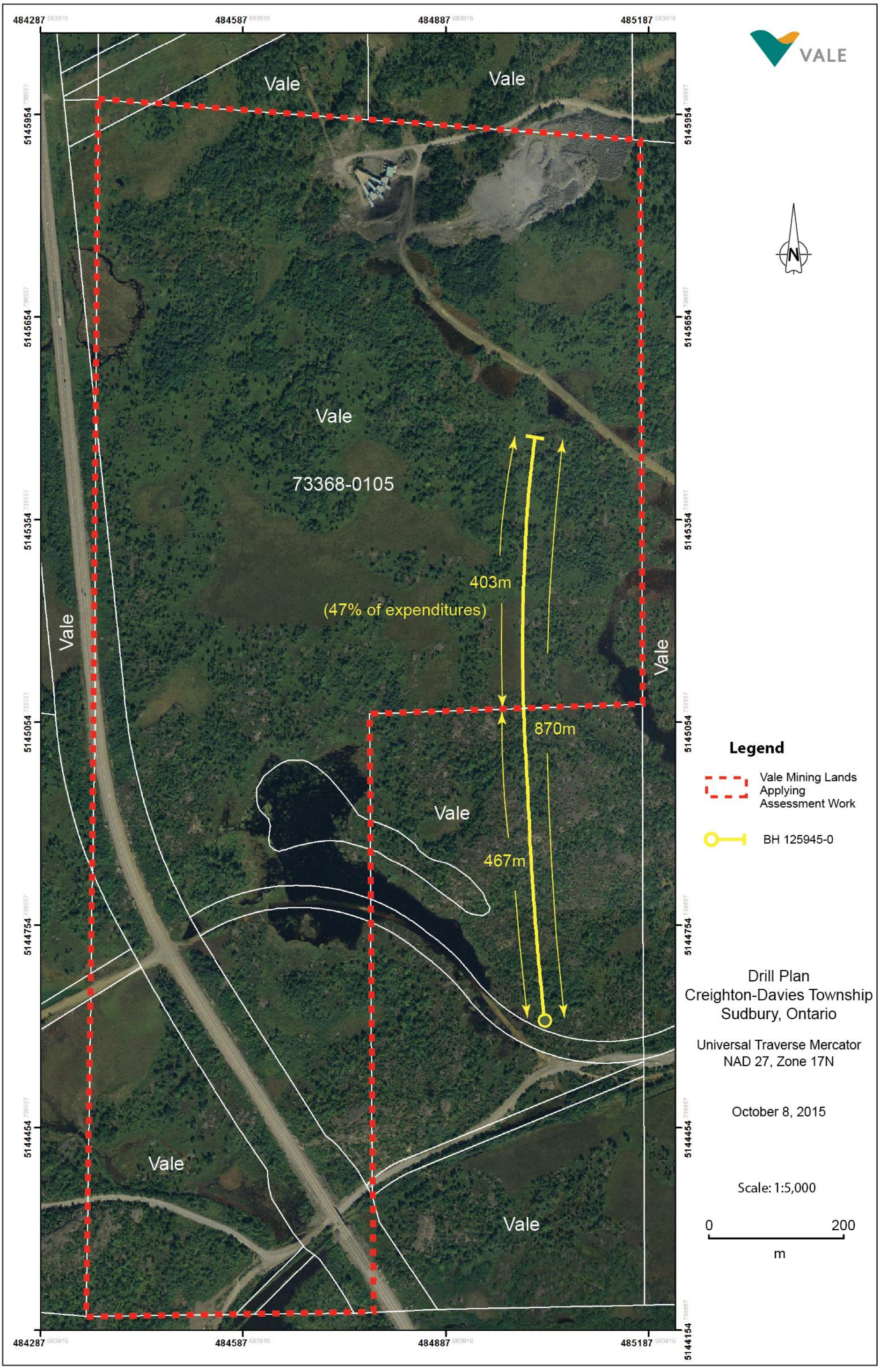


Figure 3. BH125945-0 was drilled in Creighton-Davies Twp, Lot 2, Concession 1, partially on patent PIN 73368-0105.

Borehole Geophysics

RIM

A Radio-imaging survey (RIM) was completed between BH125945-0 and another existing borehole (BH125944-0) to image the resistivity of the rocks between the two holes. Cross-hole RIM is a tomographic technique which involves transmitting electromagnetic (EM) signals of known characteristic through the ground and measuring the strength and phase of those EM waves at a distant receiver. The measurements are made with the transmitter fixed in one borehole and the receiver continuously moving over a fixed depth interval in the other. The transmitted signal is attenuated as it passes through the ground at a rate determined by the frequency of the signal, transmitter-receiver geometry and the electrical conductivity of the ground it travels through. The more conductive the material is that the transmitted signal passes through, the more attenuated the EM signal becomes (Pears and Fullagar, 1998). The Fara RIM System that was used for BH125945-0 employs an electric dipole antenna for the transmitter and receiver and allows for transmitting and recording of data at 4 different frequencies simultaneously (Stevens *et al*, 2000). The data collected is filtered and then processed to produce tomographic images aligned along the plane between the two holes with values corresponding to attenuation or apparent resistivity. The technique allows for imaging and potential detection of conductive material between boreholes up to 1 km in separation and is a good compliment to borehole EM surveying. The survey parameters, survey report and images produced are included in Appendix VI.

UTEM-4

A down-hole geophysical UTEM survey was completed in the winter of 2014 to measure the conductivity around the hole and assess the exploration potential in the surrounding area. The borehole UTEM-4 survey, designed to do simultaneous three-component oriented down-hole UTEM measurements, was completed by contractor Lamontagne Geophysics and was surveyed off of two loops (Figure 4) at a frequency of 31 Hz. Survey profiles from the surveys are included in Appendix VII.

Conclusions & Recommendations

Final interpretation of the UTEM-4 results indicated broad weak responses modeled to be consistent with conductors along the base of the Sudbury Igneous Complex (SIC) associated with known Creighton mineralization both northeast and northwest of the hole. The data did not indicate any local anomalies in the footwall near the hole.

Based on geological information, lack of mineralization intersected in the hole and geophysical interpretations, follow-up drilling was not recommended.

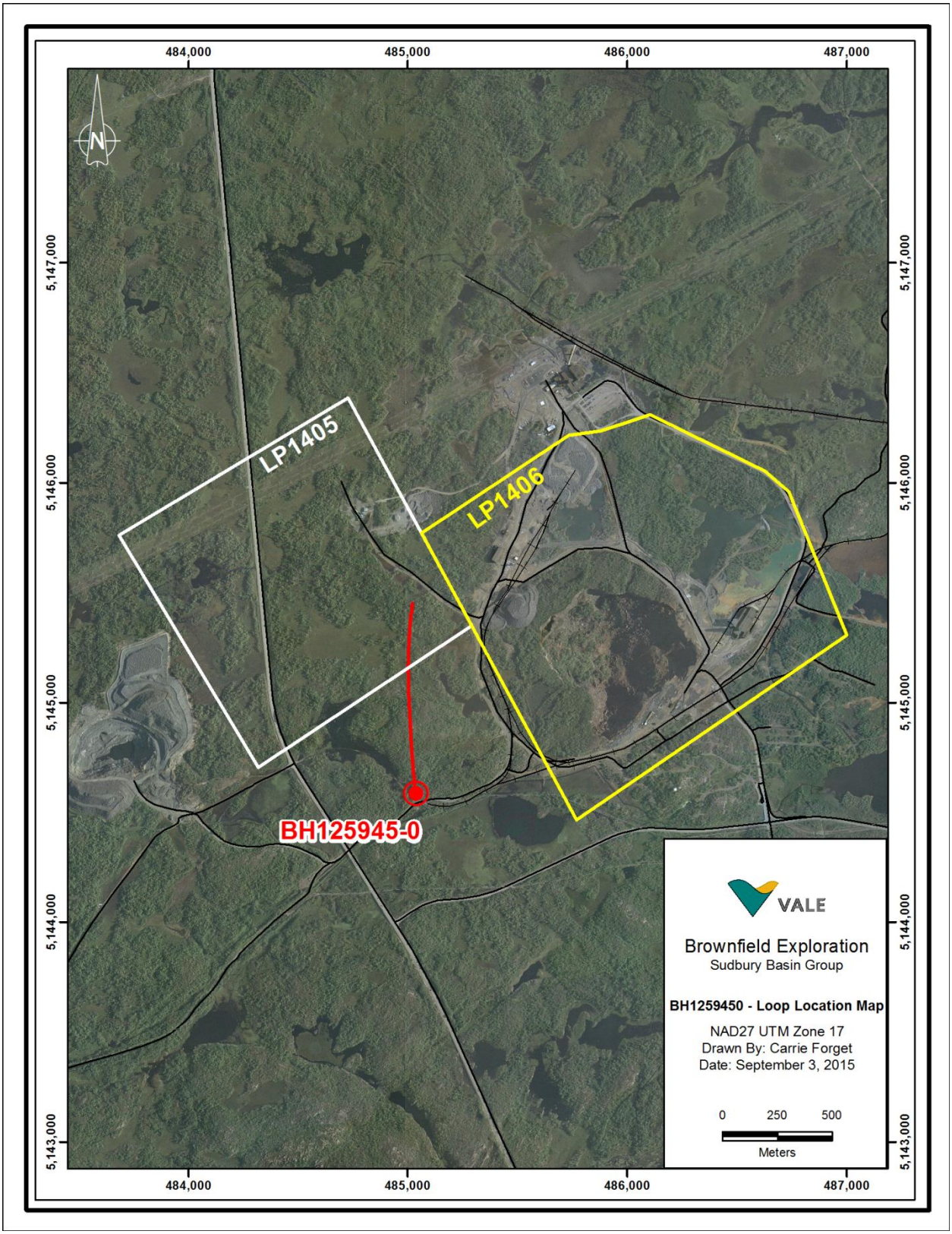


Figure 4. The location of geophysical loops used for the borehole UTEM-4 survey in relation to BH125945-0.

References

Pears, G.A. and P.K. Fullagar. 1998. Weighted tomographic imaging of radio frequency data. Exploration Geophysics, 29: pp. 554-559.

Stevens, K., A. Watts, and G. Redko. 2000. In-mine applications of the radio-wave method in the Sudbury igneous complex. SEG Technical Program Expanded Abstracts 2000: pp. 1130-1133.

Statement of Qualifications

I, Cory Furlong of Sudbury, Ontario hereby certify that:

1. I am registered as a Professional Geoscientist with the Association of Professional Geoscientists of Ontario; registration number 1707.
2. I am a 2005 graduate of a Bachelor of Science degree in Earth Sciences from Memorial University.
3. I have earned a Master's Degree in Diplomacy in 2011 from Norwich University, Vermont.
4. I have worked as a Geologist in Sudbury, Ontario continuously since 2005.
5. I am currently employed as a Mine Geologist at Vale's Copper Cliff Mine, Ontario.
6. I am the Geologist that logged and supervised the drilling.

Cory Furlong, P.Geo

September 15, 2015

Statement of Qualifications

I, Carrie Forget of 1081 Soloy Drive, Sudbury, Ontario hereby certify that:

1. I am registered as a Professional Geoscientist with the Association of Professional Geoscientists of Ontario with registration number 1695.
2. I am a 2005 graduate of Carleton University in Ottawa with a Bachelor of Science degree in Geology.
3. I have practiced my profession continuously since 2005.
4. I am currently employed as a Project Geologist with Vale Brownfield Exploration, North Atlantic in Copper Cliff, Ontario.
5. I am the author of this report.

Carrie Forget, P.Geo

September 15, 2015

Appendix I – Drill hole log and table of lithology codes

CODE	DESCRIPTION
ALTN	Alteration
BLBS	Blebs of Sulphide
BX	Breccia
CASE	Casing
CRGR	Creighton Granite
DIA	Diabase
DIO	Diorite
DISS	Disseminated
FCTR	Fracture-filled Sulphides
FLT	Fault
FSGN	Felsic Gneiss
GAB	Gabbro
GDGN	Granodiorite Gneiss
GN	Gneiss
GR	Granite
GRDR	Granodiorite
GRPY	Granite Porphyry
MFGN	Mafic Gneiss
MTGB	Metagabbro
NVS	No Visible Sulphides
OB	Overburden
PGMT	Pegmatite
PTCH	Patch(es) of Sulphides, large, ragged edges
QCCV	Quartz-carbonate-chlorite vein
QCV	Quartz-carbonate vein
QDIA	Quartz Diabase
QTZ	Quartz
QV	Quartz Vein
SCH	Schist
SHR	Shear Zone
SPKS	Specks of Sulphides
STRT	Structure
SUBX	Sudbury Breccia
TR	Trace Sulphides

BOREHOLE	125945-0				
PROPERTY NAME	Creighton		**PROPERTY ID**	Mining & Surface Patent PIN 73368-0238	
DEPTH (ft)	5000				
COORDS (UTM NAD27 ZN 17)	**NORTHING**	5144586	**EASTING**	485035	**ELEV (ft)** 1007
CORE SIZE	NQ		**DRILL CONTRACTOR**	Boart Longyear	
START DATE	Sunday, November 28, 2010		**END DATE**	Thursday, February 03, 2011	
STATUS	Complete		**CORE STORAGE LOCATION**	Copper Cliff Mine Core Farm- reps only	

COMMENTS/NOTES

Logged by: Hadi Mahony & Cory Furlong
Collar: Picked up with Trimble R8 GPS on Feb 7 2011. Casing: 3m NW casing and shoe left in hole
Target being drilled: Possible shear extension to 118 Shear Family
Survey Data: Halliburton final northseeking gyro Feb 1
UTEM-4: No conductive anomalies detected. RIM Survey: RIM survey paired with hole 1259440.

DIRECTIONAL INFORMATION

DEPTH (ft)	0	30	60	90	120	150	180	210	240	270	300	330	360	390	420	450	480
AZIMUTH	355.16	355.12	355.08	355.29	355.25	355.07	354.88	354.74	354.73	354.64	353.99	353.87	353.82	354.07	354.32	354.35	354.42
DIP	-61.72	-61.25	-60.77	-60.62	-60.72	-60.59	-60.49	-60.44	-60.28	-60.23	-60.25	-60.15	-59.99	-59.98	-59.96	-59.98	-59.97
DEPTH (ft)	510	540	570	600	630	660	690	720	750	780	810	840	870	900	930	960	990
AZIMUTH	354.62	354.68	354.69	354.84	354.88	354.81	355.01	355.1	355.07	355.12	355.16	355.31	355.35	355.32	355.43	355.6	355.58
DIP	-59.9	-59.8	-59.73	-59.66	-59.61	-59.79	-59.59	-59.8	-59.71	-59.75	-59.75	-59.62	-59.56	-59.57	-59.59	-59.55	-59.45
DEPTH (ft)	1020	1050	1080	1110	1140	1170	1200	1230	1260	1290	1320	1350	1380	1410	1440	1470	1500
AZIMUTH	355.68	355.85	356.05	356.04	356.1	356.18	356.06	355.97	355.96	355.91	355.9	356.01	356.1	356.2	356.2	356.27	356.28
DIP	-59.54	-59.43	-59.45	-59.48	-59.45	-59.39	-59.42	-59.42	-59.27	-59.13	-59.11	-58.94	-59.07	-58.9	-58.87	-58.83	-58.8
DEPTH (ft)	1530	1560	1590	1620	1650	1680	1710	1740	1770	1800	1830	1860	1890	1920	1950	1980	2010
AZIMUTH	356.39	356.59	356.76	356.8	356.79	356.86	356.89	356.98	356.91	356.97	357.01	357.11	357.15	357.23	357.15	356.96	356.89
DIP	-58.66	-58.61	-58.54	-58.46	-58.4	-58.34	-58.36	-58.07	-58.22	-57.98	-57.84	-57.56	-57.48	-57.52	-57.42	-57.26	-57.2
DEPTH (ft)	2040	2070	2100	2130	2160	2190	2220	2250	2280	2310	2340	2370	2400	2430	2460	2490	2520
AZIMUTH	356.85	357.04	357.01	357.21	357.11	357.3	357.31	357.24	357.1	357.04	357.09	357.07	357	356.64	356.61	356.81	356.81
DIP	-57.19	-57.11	-57.07	-57.02	-56.92	-56.84	-56.58	-56.34	-56.18	-56.1	-56.06	-55.82	-55.38	-55.32	-54.92	-54.81	-54.59
DEPTH (ft)	2550	2580	2610	2640	2670	2700	2730	2760	2790	2820	2850	2880	2910	2940	2970	3000	3030
AZIMUTH	356.79	356.76	356.9	357.03	357.12	357.26	357.29	357.19	357.25	357.23	357.54	357.83	357.97	358.11	358.29	358.43	358.56
DIP	-54.45	-54.56	-54.57	-54.4	-54.23	-54.11	-53.98	-54.1	-54.01	-53.86	-54.02	-54.03	-53.94	-53.82	-53.79	-53.8	-53.68
DEPTH (ft)	3060	3090	3120	3150	3180	3210	3240	3270	3300	3330	3360	3390	3420	3450	3480	3510	3540
AZIMUTH	358.71	358.78	358.81	358.84	359	359.1	359.12	359.2	359.29	359.37	359.51	359.77	0.06	0.18	0.22	0.47	0.57
DIP	-53.58	-53.72	-53.66	-53.49	-53.71	-53.58	-53.6	-53.47	-53.44	-53.3	-53.12	-53.05	-52.84	-52.51	-52.46	-52.5	-52.33
DEPTH (ft)	3570	3600	3630	3660	3690	3720	3750	3780	3810	3840	3870	3900	3930	3960	3990	4020	4050
AZIMUTH	0.66	0.94	1.02	1.06	1.18	1.32	1.42	1.5	1.68	1.84	1.82	1.91	2.01	2.18	2.37	2.44	2.52
DIP	-52.2	-52.16	-52.13	-52.09	-52.06	-52.04	-52	-52.03	-52.1	-51.97	-51.82	-51.73	-51.58	-51.72	-51.58	-51.57	-51.55
DEPTH (ft)	4080	4110	4140	4170	4200	4230	4260	4290	4320	4350	4380	4410	4440	4470	4500	4530	4560
AZIMUTH	2.65	2.73	2.86	2.85	2.63	2.66	2.73	2.86	3.01	3.16	3.37	3.56	3.72	3.93	4.17	4.52	4.55
DIP	-51.38	-51.25	-51.06	-50.76	-50.16	-49.92	-49.95	-49.91	-49.8	-49.66	-49.62	-49.62	-49.53	-49.41	-49.29	-49.53	-49.61
DEPTH (ft)	4590	4620	4650	4680	4710	4740	4770	4800	4830	4842.52							
AZIMUTH	5.59	6.01	6.11	6.26	6.42	6.57	6.73	6.75	6.63	6.7							
DIP	-49.33	-49.29	-49.33	-49.15	-49.07	-49.02	-48.89	-48.8	-48.8	-48.79							

LOG

DEPTH	LENGTH	SAMPLE	Cu (%)	Ni (%)	TPM (oz/t)	RQD	ORE	MINOR ROCK	ROCK	DESCRIPTION
0	0									Collar
2.5	2.5					0			OB	NO CORE RECOVERED
6	3.5					90	NVS	CRGR	CASE	FG EQUIGRNLR LEUCO CRGR OVERPRINTD BY MOD PERV SALMON ORG ALTN, CRGR COMPOSED PRIMARILY OF QTZ-FSP W 10% VFG-FG AMPHS, LEUCO CRGR APPEARS TO PREDATE A SECONDARY FINER INTERMEADIATE(DK GRY-BLK DIORITE) PHASE HOSTG SWEATS OR PARTIALLY ASSIMILATED?? LEUCO CRGR INCLS, NMRS BLK MM SCALE FCTRS AT MOD TO STP ANGLS TCA
30.7	24.7					90	NVS	GR	GRDR	GR AT TOP 6FT OF ENTRY AS ABV MAKING A 1-3MM DIFFUSE CT TO A FINER GRAIND GRDR, FSP OVERPRINTD BY SAME PERV DK SALMON ORG ALTN TRGT LIKELY ASSOC W RUSTY BROWN STAIND FCTRS AT MOD ANGLS TCA
39.4	8.7					70	NVS	GRDR	ALTN	GRNTC-GRDR STGLY OVERPRINTD BY SALMON ORG RUSTY RED ALTN LIKELY HEM ASSOC W NMRS STAIND FCTRS AT 40-90 DEG TCA, BOT 1FT OF ENTRY CORE FCTRD TO SMALL 1CM TO 5CM BLOCKS
56.2	16.8					83	NVS	GRDR	ALTN	MOD TO STGLY ALTD INTERMINGLD GR-GRDR, ALTN COMPOSED OF STG RUSTY RED ALTN AND NMRS DK GRY EPID JTS & VNLTS AT SHLW TO MOD ANGLS TCA
60.5	4.3					90	NVS	ALTN	DIA	VFG DK GRN MASS NON-MTC DIA DYKE W 1-2CM WIDE CHILLD MARGINS, U & LCT SHARP AT 40 & 35 DEG TCA, DIA HOSTG LOCL PATHCES OF 3-5% FINE GRAINS OF QTZ OR FSP, LOCL QTZ-CARB JTS AT SHLW TO MOD ANGLS TCA, NO ALTN AS SEEN IN GR ABV
88.6	28.1					92	NVS	STRT	GR	GR AA 6FT INTERMINGLD W 20% FG BLK SPKLD WH DIO AGAIN AA 6FY, UNITS CUT BY NMRS DK GRN-GRY EPID? JTS-VNS AT MOD ANGLS TCA & LOCL HAIR LINE FCTRS W CM SCALE OFFSETS DISPLACING GRNTC TXTRS
119.7	31.1					95	NVS	GR	DIO	VFG-FG BLK SPKLD WH DIO HOSTG 10% V IREG FG GRNTC VNS AND INCLS, DIO LOCL PORPH, RARE EPID JTS AND V WK SALMON ORG ALTN AS SEEN ABV, LOCL GRNTC VNS SHARE A FOLIATION BTW 20-50 DEG TCA
120.6	0.9	MG173172	0.007	0	0	90	FCTR	DIO	FLT	ENTRY CAPTURES HAIR LINE FCTR OFFSETING GRNTC BND 2CM, CHL STAIND FCTR AT 30 DEG TCA HOSTG 1% FLECKS OF CP
122.9	2.3	MG173173	0.007	0.001	0	95	NVS	STRT	DIO	DIO AA 120.2 CUT BY SHLW SETS OF HAIR LINE FCTRS THAT APPEAR TO OFFSET GRNTC LENSES WITHIN DIO, FCTRS ASSOC W CARB FLLD WEDGES, 2CM WIDE BLK APHANITIC VN THAT RESEMBLES AN INCL FREE SUBX VN BUT FEATURE MAY BE ASSOC W STRT?
126.5	3.6	MG173174	0.009	0.001	0	70	FCTR	DIO	FLT	DIO AS ABV CUT BY NMRS MM SCALE CHL+/-CARB FCTRS FEW OF WHICH HOSTG FLECKS OF SMEARED CP-PY, FCTRS BEARING WKLY DEFINED SLICKEN LINES
206.4	79.9					88	NVS	GR	DIO	AGAIN DIO AS ABV DESCRIPTION REVISED; MASS DIOTC? UNIT, VFG-FG MTX COMPOSED OF BLK ALMOST MF LOOKING COMPOSITION W SPKLD WH ANHEDRAL FSP GRAINS, MTX ALSO HOSTS 5% FG DISS PNK SILVERY LEUCOXENE, NON MTC, TR PY, UNIT ALSO CONTAINS VARIABLE PROPORTIONS OF FN-MG ANHEDRAL GRNTC LOOKING CLOTS AND LOCL STKS THAT GIVE THE IMPRESSION THAT THE UNIT IS A DIFFERENT PHASE WITHIN THE CRGR BUT RESEMBLES THE MTGB DESCRIBED IN HOLE 1259440 MINUS THE CLOTY COARSER GRIAND AMPH'S, DIO UNIT CUT BY NMRS(UP TO 20%) 1CM TO 3FT LONG PNK GRNTC VNS THAT LOCL CONTAIN ANGULAR FRAGMENTS OF DIO UNIT, DK GRN-BLK HAIR LINE FCTRS ARE COMMON TRGT ENTRY AT MOD TO STP ANGLS TCA W LOCL CM? SCALE OFFSETS, THIN SECTION TAKEN AT 197FT TO CLASSIFY DIO LITHOLOGY AND COMPARE W MTGB IN HOLE 1259440

224.4	18					65	NVS	DIO	STRT	DIO AS ABV BUT CORE SPLIT SUB-PLL TCA BY <1MM WIDE CARB JTS
226	1.6					70	NVS	ALTN	FLT	<1CM WIDE FCTR AT 0-20 TCA W STG CHL+/-CARB ALTN & SLICKEN LINES ALONG FCTR PLANES, THIS FLT ZONE APPEARS TO HAVE TRUNCATED DIO UNIT ABV BUT SLSC ALTN HALOE MAY HAVE OVERPRINTD A NON-STRT CT TO THE GR-GRDR DESCRIBED BELOW
227.1	1.1					95	NVS	GR	SUBX	10CM WIDE 3D4 SUBX VN CUTTING PNK GR-GRDR
230.2	3.1					95	NVS	ALTN	GRDR	FG DULL DK GRY-BLK BEIGE-ORG GRDR THAT HAS A V DIRTY ALTD APPEARENCE, LOCL SHLW BLK FCTRS CUT BY SHLW CARB FLLD HAIR LINE FCTRS
232.6	2.4					95	NVS	ALTN	STRT	V STGLY ALTD GRDR, CORE BLOCKY & RUBLY DUE TO SHLW CHL FCTR AT 10 DEG TCA
286.9	54.3					95	NVS	ALTN	GRDR	AA 230.2, LOCL CARB FCTRS AT VARIOUS ANGLS TCA
292.1	5.2					95	NVS		DIO	SAME UNIT AA 206.4 BUT NO BEIGE-ORG ALTN ON UNEQUIGRNLR GRNTC? CLOTS, UNIT BLACK AND WH IN COLOUR, UNIT HAS SHARP CT W GRDR ABV AT 30 DEG TCA PLL TO CARB STKS AT UPPER MARGIN IN DIO
296	3.9					90	NVS	DIO	STRT	DIO AS ABV HOSTG WHAT LOOKS LIKE FOLDED(OPEN FOLDS)LENSES OF GR CROSSCUT BY CHL STAIND FCTRS BEARING SLICKEN LINES, LCT OF DIO TO GR BELOW COMPOSED OF PROTRUDING SHLW FCTRS BXTG GR HOST, FULL CORE FROM 289.6 TO 309FT KEPT WITH IN SEQUENCE W REPS
299.3	3.3					95	NVS		GR	VFG-FG GRNLR PNK CUT BY NMRS HAIR LINE FCTRS AT MOD ANGLS TCA
302	2.7					95	NVS	GR	SUBX	20% 1 TO 10 CM WIDE 3D4 SUBX VNLTS-VNS CUTTING GR AS ABV
305.1	3.1					80	NVS	FLT	SHR	DIO UNIT AA 292.1 BUT APPEARS TO BE STRONGLY SHRD DEFINED BY SHLW WISPY SINUOUS GRNTC LENSES WITHIN DIO WHICH APPEARS TO BE CROSSCUT AND OFFSET BY 4CM BY CHL STAIND FCTR AT 15 DEG TCA
309.8	4.7					95	NVS		DIO	AA 292.1
334.3	24.5					95	NVS	DIO	SHR	DIO AS ABV CUT BY 6-7 2-5CM WIDE MICASIOUS & QTZ-CARB SHRS AT 0-20 DEG TCA, SHR AT BOT OF ENTRY OFFSET BY 3 CM BY A CARB FLLD HAIR LINE FCTR AT 20 DEG TCA
342.5	8.2					95	NVS	GR	DIO	292.1, SILISIFIED LCT AT 40 DEG TCA TO GRDR BELOW, DIO HOSTG LOCL GRNTC BNDS
358.3	15.8					95	NVS		GRDR	AA 230.2
360.3	2	MG173175	0.004	0	0	95	FCTR		GRDR	AS ABV CUT BY CARB FLLD HAIR LINE FCTR SUB-PLL TCA HOSTG 1% CP SPKS
391.4	31.1					95	NVS	GR	GRDR	GRDR AS ABV BUT FROM 375 TO 379 GRDR MADES A GRADATIONAL CT W A MORE LEUCO GRNTC PHASE AND GRADES BACK TO GRDR, LOCL CARB & BLK HAIR LINE FCTRS AT VARIOUS ANGLS TCA
392.6	1.2					60	NVS	GRDR	FLT	BLOCY-GRAVELY CORE DUE TO RUSTY BROWN+/-CARB STAIND FCTRS AT 40 DEG TCA LOCL BEARING SLICKEN LINES
426.1	33.5					95	NVS	QTZ	ALTN	GRDR AS SEEN ABV W STG SALMON ORG PERV ALTN CUT BY LARGE INTERCONNECTD STP EPID VNLTS CUT & LOCL OFFSET BY SHLW-MOD CHL FCTRS, LOCL 1-6CM WIDE QTZ+/-CARB VNLTS-VNS EVERY 7FT OF ENTRY AT SHLW TO STP ANGLS TCA
442.9	16.8					92	NVS	DIO	STRT	GR AS ABV WHICH APPEARS TO BE INTRUDED BY DIO AA 292.1 WHICH HAS A REVERSE RELATIONASHIP TO THAT DESCRIBED PREVIOUSLY, BOTH UNITS CUT BY A LARGE INTERCONNECTD NTWK OF BLK HAIR LINE FCTRS PROPOGRATING TO CM SCALE VNLTS DMNTLY AT STP ANGLS TCA LOCL OFFSETING WHAT APPEARS TO BE SUBX VNLTS, CHRONOLOGICAL SEQUENCE; GR-DIO-BLK FCTR NTWK-EPID ALTN SYN TO CARB FCTRS-QTZ VNS

466.1	23.2					90	NVS	ALTN	GR	MASS VFG-FG EQUIGRNLR GR PINK IN COLOUR LIKELY ATTRIBUTED TO MOD-STG PERV ALTN, LOCL BLK HAIR LINE FCTRS AT AS SEEN ABV
498.5	32.4					95	NVS	GR	DIO	ENTRY COMPOSED OF EQUAL PROPORTIONS OF GR & DIO DIO AA 292.1, DIO APPEARS INTRUDED & BXTD BY ALTD PNK GR TO 494FT AND UNALTD WH-LT GRY GR TO BOT OF ENTRY AS 1CM TO 8FT VNS HOSTG RNND TO ANGULAR DIO INCLS, LOCL 1-2CM WIDE SHR? AT 484.1 & HAIR LINE FCTR AT 489FT OFFSETING LITHOLOGIES BY <4CM AT 15 DEG TCA
536.4	37.9					95	NVS		DIO	MASS DIO AA 292.1, LITTLE TO NO ALTN & NO GR PRESENT
537.8	1.4					40	NVS	DIO	SHR	BLOCKY-GRAVELY CORE SPLIT BY BRITTLE FCTRS, 3CM WIDE MM SCALE DUCTILE SHR FABRIC AT BASE OF ENTRY TRENDING AT 40 DEG TCA
543.9	6.1					95	NVS		DIO	AA 536.4
544.9	1	MG173176	0.005	0.006	0	95	NVS		DIO	AS ABV
545.4	0.5	MG173177	0.009	0.007	0	93	FCTR	DIO	SHR	ENTRY CAPTURES 1CM WIDE BLK APHANITC SHR FABRIC OR FCTR AT 50 DEG TCA HOSTG SPOTTY TRACES OF CARB & <CM SCALE STKS OF CP & PY+/-PO?
546.2	0.8	MG173178	0.003	0.006	0	95	NVS		DIO	DIO AS ABV, NO SULP
560.5	14.3					95	NVS	GR	DIO	DIO AS ABV HOSTG RARE BEIGE GRNTC INCLS AND CUT BY 10% 1CM TO 1FT LT GRY LEUCO GR VNS, LOCL SHLW HAIR LINE FCTRS W MM SCALE DISPLACMENT OFFSETING GRNTC VNS
561	0.5					95	NVS	DIO	SHR	WK-MOD SHRD DIO W CARB ALTN ALONG FABRIC AT 55-90 DEG TCA
584	23					95	NVS	GR	DIO	AA 498.5 BUT DIO COMPOSED OF A 5FT SECTION OF FSPTHC PORPH TXTR & <1% OF 2-4MM WIDE GRAINS OF BLUE QTZ, CORE KEPT FROM 574.2 584.0 FT TO REPRESENT DIFFERENT PHASE OF DIO, SAMPLE TAKEN AT 579.2FT FOR THIN SECTION
597.2	13.2					95	NVS	GN	GRDR	MASS VFG-FG DIRTY LOOKING LT-DK GRY BEIGE GRDR W A LOCAL 20CM LONG SECTION OF MOD DEVELOPED GN, GRDR TRANSITIONS TO A LEUCO GR AT BOT 2FT OF ENTRY W A SHARP CHILLD MARGIN TO DIO BELOW AT 40 DEG TCA
640.2	43					95	NVS		DIO	MASS MF UNIT(ROCK YET TO BE CLASSIFIED, DIO USED UNTIL CONFIRMD)? UNIT STRONGLY RESEMBLING SIC NORITE, VFG-FG MTX COMPOSED OF BLK MF LOOKING COMPOSITION W SPKLD WH TO LT GRY ANHEDRAL FSP GRAINS, MTX ALSO HOSTS 5% FG DISS PNK SILVERY LEUCOXENE, NON MTC, TR PY, UNIT ALSO CONTAINS UP TO 10%-15% VARIABLE PROPORTIONS OF 2MM TO 2CM WH-BEIGE GRNTC INCLS W V RAGGD LIKELY ASSIMILATED MARGINS, THESE SMALL GRNTC INCLS DIFFER IN TXTR & COMPOSITION THAT CROSSCUT GR ABV WHICH LIKELY REPRESENTS THE HOST ROCK TO DIO UNIT, LOCL MICRO FCTRS W 2-4MM WIDE WH ALTN SALVAGES BLEACHING FSPS, SAMPLE TAKEN FOR THIN SECTION AT 611FT TO IDENTIFY MINS AND ROCK TYPE AND TO COMPARE WITH MTGB DESCIBED IN HOLE 1259440
643.3	3.1					90	NVS	QTZ	SCH	TOP 0.4FT OF ENTRY CONSISTS OF QTZ-CARB-BT SHR/SHIST AT 40-50 DEG TCA AT UPPER MARGIN OF A 1FT WH QTZ VN FOLLOWED BY A SECOND BT-QTZ SHR TO END OF ENTRY TO DIA DYKE, LOWER SHR/SHIST AT 10-50 DEG TCA W NMRS QTZ BOUDINES W LOCL PY SPKS-STKS, CT TO DIA NOT VSBL
662.3	19					95	NVS		DIA	APHANITIC TO VFG BLK MASS DIA DYKE, NON MTC, LOCL CARB JTS AT MOD TO STP ANGLS TCA
666.2	3.9					92	NVS	DIO	SCH	ENTRY CPTURES TWO BT-QTZ-CARB SHRS AT LCT (25 DEG TCA) OF DIA FROM 662.4 TO 663.3 AND FROM 664.8 TO 666.2 CUTTING DIO HOST
681.2	15					90	NVS		DIO	AA 640.2, LOCL CARB AT STP ANGLS TCA AND CHL JTS AT SHLW ANGLS TCA
682.7	1.5					80	NVS	DIO	QTZ	6-8CM WIDE SMOKEY WH QTZ VN AT 10 DEG TCA

737.2	54.5					95	NVS	GR	DIO	AA 681.2 LOCL HOSTG 20CM & 1.5 FT GRNTC PGMT INCLS? CONTANING VERMICULAR TXTR, DIO ALSO HOSTG LOCL <1CM STKS OF WH-BEIGE GR LIKELY SIMILAR TO THE SMALL GRNTC INCLS
738.9	1.7	MG173179	0.004	0.002	0	95	NVS	GR	DIO	AS ABV
739.5	0.6	MG173180	0.007	0.001	0	95	BLBS	BX	PGMT	GR PGMT LOCL BXTD TO 1MM TO 1CM LONG ANGULAR CLASTS LIKELY RLTD LATE INTERCONNECTD BLK FCTRS, LOCL INTSL SPKS-BLBS OF PO TO QTZ & FSP
740.5	1	MG173181	0.004	0.002	0	95	NVS	PGMT	DIO	AA 737.2
757	16.5					95	NVS	GR	DIO	AA 681.2, VARIABLE PROPORTIONS OF VSBL LEUCOXENE RANGING FROM <1% TO 5%
760	3					88	NVS	QTZ	SCH	2FT QTZ VN W BT-CARB SCH OR SHR AT 30 DEG TCA, LOWER SHR DEFORMING UCT W DIA BELOW
769.6	9.6					95	NVS		DIA	APHANITIC-VFG DK GRN MASS DIA DYKE, WKLY MTC, LCT SHARP AT 30 DEG TCA
779.6	10					95	NVS	STRT	DIO	AA 757 CUT BY NMRS MICRO-FCTRS AT MOD ANGLS TCA W 1CM WIDE SPOTTY WH ALTN SALVAGES BLEACHING FSP, LOCL TNLT VNS UP TO 2FT WIDE, 775 TO 776.8 DIO CUT BY 1MM WIDE EPID-CHL JT AT 10 DEG TCA BEARING SLICKEN LINES
780.6	1					95	NVS		SCH	WH-BLK BT-CARB SHIST AT 60 DEG TCA
785.2	4.6					95	NVS	MTGB	GR	FN-MG WH-LT GRY TNLTC VNS W LOCL 20CM WIDE LEAPORD TXTRD MTGB? LIKELY DIFFERENT PHASE TO THE QUESTIONABLE DIO
786	0.8					95	NVS		SCH	AA 780.6, FOLIATION AT 50-80 DEG TCA
800	14					95	NVS		DIO	AA 640.2 BUT W A VARIED TXTR, UNEQUIGRNLR GRAIN SIZE, VARIABLE PATCHY-RAGGD FLSC PORTIONS TO VARIABLE PROPORTIONS OF LEUCOXENE, ABV TXTRS LIKELY A PRODUCT OF META??
800.8	0.8					95	NVS	GR	SCH	WKLY DEVELOPED BT+/-CARB SCH INTERMINGLD WITH LEUCO GR(TNLT)
835	34.2					95	NVS	GRDR	GR	TOP 15FT OF ENTRY COMPOSED OF FG MASS BLK-LT GRY SPKLD WH DIRTY COLOURD GRDR THAT TRANSITIONS TO A MORE LEUCO GR W ZONES OF BT RICH BNDS, FROM 828.4 TO 830.7 GR HOSTG DIO INCLS AND GR ALONG THE INCL MARGINS SHOW REACTION RIMS
837.5	2.5					95	NVS		DIO	UNIT LIKELY RLTD TO DIO SEEN AND DESCRIBED AT 800FT, 60/40 MF MINS TO WH ANHEDRAL FSP
838.2	0.7	MG173182	0.021	0	0	95	SPKS		DIO	AS ABV BUT SAMPLE CAPTURING 1CM WIDE QTZ-FSPTHC VNLT AT 45 DEG TCA HOSTG PY SPKS
849.4	11.2					95	NVS	GR	DIO	SIMILAR TO DIO AT 800FT PREDOMINANTLY RELATIVELY MED-CG COMPARED TO DIO SEEN AT 640.2 W WHAT LOOKS TO BE A HIGHER PERCENTAGE OF THE ANHEDRAL FSPS, AGAIN NMRS GRNTC OR TNLTC VNS CROSSCUTING UNIT
850.9	1.5	MG173183	0.004	0.001	0	95	NVS	GR	DIO	AS ABV, TR LEUCOXENE
851.5	0.6	MG173184	0.006	0.001	0	95	FCTR	DIO	QTZ	ENTRY CAPTURES 4MM WIDE WH-BLUEISH QTZ VNLT CUTTING DIO AS ABV AT 60 DEG TCA HOSTG 2% PRAGGD PATCHY PO MINERALIZATION
853.4	1.9	MG173185	0.003	0.001	0	95	NVS	GR	DIO	AA 850.9
854.1	0.7	MG173186	0.004	0.001	0	95	NVS	QTZ	DIO	AA 851.5 BUT QTZ VNLT AT 65 DEG TCA HOSTG NO NVS
866.1	12					95	NVS	GR	DIO	SIMILAR TO DIO AT 800FT PREDOMINANTLY RELATIVELY MED-CG COMPARED TO DIO SEEN AT 640.2 W WHAT LOOKS TO BE A HIGHER PERCENTAGE OF THE ANHEDRAL FSPS, AGAIN NMRS GRNTC OR TNLTC VNS CROSSCUTING UNIT
902	35.9					95	NVS		DIO	DIO AA 640.2 BUT NO VSBL DISS LEUCOXENE AS SEEN BEFORE, THIS UNIT SEPERATED BY GRNTC INCL OR VN TO CG DIO ABV, TR-SPKS OF PY

903.9	1.9					45	NVS	DIO	STRT	AS ABV CUT BY DK GRN ALTN FCTR PLANES AT 0-10 DEG TCA
904.5	0.6					95	NVS	ALTN	SUBX	COMPETENT DIO AS SEEN ABV CUT BY WHAT APPEARS TO BE 4MM TO 2CM WIDE ALTD SUBX VNLTS SOME OF WHICH WITH SHARP CT & OTHERS MORE DIFFUSE RESEMBLING LENSES OF ALTN, 2CM WIDE VNLT WITH SHARP CT CONTAIN 2% MM SCALE FSPTHC INCLS?,
908.1	3.6					95	NVS	DIO	SUBX	AGAIN QUESTIONABLE ALTD SUBX AA 903.9 IN THE SHAPE OF A NOSE OF A FOLD,SHARP CTS, APHANTIC DOMINATED MTX, MAY BE CONFUSED W SOME FORM OF AN ALTN VN?
908.5	0.4					65	TR	DIO	FLT	AA 640.2 BUT COARSER GRAIND, LEUCOXENE NOT VSBL, NO BEIGE COLOURING ON FSPTHC INCLS OR PHENOS, VERY FRESH IN APPERENCE, ENTRY CUT BY NMRS GRN-DK GRN-BLK STAIND FCTR PLANES AT 15-30 DEG TCA LOCL BEARING SLICKEN LINES & RARE SMEARS OF PY OR PO?
915.3	6.8					95	NVS		DIO	MASS MF UNIT(ROCK YET TO BE CLASSIFIED, DIO USED UNTIL CONFIRMD)? UNIT STRONGLY RESEMBLING SIC NORITE, VFG-FG MTX COMPOSED OF BLK MF LOOKING COMPOSITION W FG SPKLD WH TO LT GRY ANHEDRAL FSP GRAINS, NON MTC, TR PY, UNIT ALSO CONTAINS UP TO 10% 2MM TO 2CM WH-BEIGE GRNTC INCLS W V RAGGD LIKELY ASSIMILATED MARGINS, LOCL MICRO FCTRS W 2-4MM WIDE WH ALTN SALVAGES BLEACHING FSPS
916.8	1.5					55	NVS	DIO	STRT	DIO AS ABV BUT CORE BLOCKY & FRGAMENTED IN 2-6CM ANGULAR PIECES W GREASY GRN-BLK ALTN ALONG FCTR PLANES AT 10-20 DEG TCA, NO VSBL SLICKEN LINES
931	14.2					95	NVS	ALTN	DIO	AA 915.3 THAT APPEARS TO BE TRANSITIONAL TO DIFFERENT MF PAHSE DESCIBED BELOW, FROM 920.5 TO 921.3 A 5MM TO 1CM WIDE DULL DK GRY-GRN ALTN? VNLT THAT APPEARS TO BE EXPLOITING A PREEIXSTING HAIR LINE FCTR AT 5 DEG TCA, NOTE THAT THIS VNLT STGLY RESEMBLES THE RARE QUESTIONABLE SUBX VNLTS DESCRIBED IN ABV AND BELOW ENTRIES WHICH MAY DISMISS THOSE CLASSIFICATION AS IN THIS ENTRY THIS VNLT COULD NOT BE A SUBX VNLT AS THE VNLT PINCHES OUT ALONG THE EXISTING FCTR IN A DIFFUSE MANOR, VNLT CAPTURED IN REPS
939.1	8.1					95	NVS		GAB	MASS FINER GRAIND PHASE THAT APPEARS GRADATIONAL TO ABV & BELOW THAT HAS A VERY SPKLD BLK DISS TXTR TRGT, UNIT RESEMBLES UNDIFFERENTIATED DIA DYKE, NON MTC, SAMPLE TAKEN FOR THIS SECTION AT 935FT TO IDENTIFY ROCK AND MINERALOGY
942.6	3.5					90	NVS		DIO	AA 915.3
943.1	0.5	MG173187	0.006	0.004	0	95	FCTR		DIO	AS ABV CUT BY A MICRO FCTR PLANE BEARING 2% PY+PO+CP(55/40/5) MINZN
950	6.9					95	NVS		DIO	AA 915.3 THAT APPEARS TO BE TRANSITIONAL TO UNIT BELOW
955.8	5.8					95	NVS	ALTN	DIO	GRADATIONAL TO ABV BUT WHEN DRY ROCK LOOKS DISTINCTLY DIFFERENT, DIFFERENCE DEFINED BY 15% 2-5MM WIDE SUB TO ANHEDRAL BT CLOTS, MTX APPEARS OVERPRINTD BY A LIGHT BLUISH-GRY ALTN?
961.2	5.4					95	NVS	ALTN	SUBX	QUESTIONABLE SET OF SUBX OR ALTN VNLTS, AT 956.2 TO 957.3 DIO CUT BY 1 TO 20 CM WIDE VNLTS-VNS & 1CM WIDE VNLT AT 961.1, VNS CONSISTING OF AN APHANITIC DULL DK GRN MTX W SHARP CT MARGINS BUT YET LOCL WISPY CHARACTER, 2% WH 1MM SCALE FLSC LOOKING INCLS?, VNLTS CUT BY CARB FCTRS AT 10 DEG TCA, THIN SECTION AT 956.3 TO CONFIRM SUBX
983.1	21.9					95	NVS		DIO	AA 955.8, THIN SECTION TAKEN AT 974.4 TO IDENTIFY MINERALOGY
985.7	2.6					80	NVS	STRT	DIO	AS ABV BUT HOSTG 5% FG DISS LEUCOXENE SAME AS DIO UNIT AT 640.2, DIO CUT BY NMRS CARB JTS AT 20 DEG TCA
987.3	1.6					90	NVS		SCH	BT-CARB SHIST DEFORMING DIO AS ABV AT 65 DEG TCA

997.7	10.4					85	NVS	ALTN	FLT	ENTRY CAPTURES STGLY CARBONITZD DIO AS 985.7 CUT BY STGLY SILISIFIED GR W LOCL CARB+BT SCH ZONES ALONG MARGINS OF GR CT'S, NMRS QTZ-CARB JTS CUTTING DIO AT STP ANGLS TCA & LOCL OFFSET(CM SCALE) BY HAIR LINE FCTRS AT 30 DEG TCA
1004.1	6.4					95	NVS		DIO	AA 915.3 BUT HOSTG ~5% FG DISS SILVERY LEUCOXENE
1004.6	0.5					95	NVS		SCH	BT-CARB SHIST W SHARP UCT & LCT AT 60 & 35 DEG TCA
1007	2.4					95	NVS		GR	FG EQUIGRNLR GRY GR BOUNDED BY BT SCH ZONES
1007.6	0.6					90	NVS		SCH	BT CARB SCH W A FABRIC AT 45-90 DEG TCA
1023.7	16.1					95	NVS		DIO	AA 915.3 W VARIABLE PROPORTIONS<1% TO 5%) OF LEUCOXENE
1028.5	4.8					95			DIO	AA 955.8 BUT DIFFERENCE IN TXTR MAY REFLECT THE LOCL ABSCENCE OF THE WH ALTN SALVAGES FROM THE NMRS MICRO FCTRS OR PERHAPS THE WAY TE DRILL HAS POLISHED THE CORE
1028.7	0.2					95	NVS	DIO	SUBX	2CM WIDE BLK APHANITIC SUBX? VN W SHARP STP CTS, VN HOSTG WHAT LOOKS LIKE STGLY STRETCHED (0.1MM*4MM) FSP'S THAT MAY REFLECT SMALL INCLS DERIVED FROM DIO??
1032	3.3					95	NVS		DIO	AA 955.8
1036.6	4.6					80	NVS	DIO	STRT	DIO AS ABV CUT BY NMRS CHL & CARB STAIND FCTRS AT 20 DEG TCA LOCL BEARING SLICKEN LINES
1054.1	17.5					90	NVS		DIO	AA 955.8 CUT BY LOCL CARB JTS AT SHLW TO MOD ANGLS TCA
1074.5	20.4					88	NVS	STRT	DIO	AA 915.3 W LOCL TRANSITIONAL TXTRS TO THE PORPH BT CLOTS SEEN IN DIO AT 955.8, DIO CUTBY NMRS CARB VNLTS AT 20-30 DEG TCA
1081.4	6.9					90	NVS	DIO	STRT	DIO AS ABV BUT MOD-STGLY CARBTZD ASSOC W NMRS JTS-VNS, DISCONTINUOUS STRKS & CARB FLLD VOIDS TRGT ENTRY PREDOMINANTLY TRENDING 50-80 DEG TCA
1100.1	18.7					95	NVS		DIO	AA 915.3 CUT BY LOCL QTZ VNLTS EXHIBITING COMB TXTR XTAL GROWTH ASSOC W PATCHY EPID ALTN
1102.4	2.3					90	NVS	ALTN	QTZ	DIO AS ABV CUT BY 3MM TO 2CM WIDE QTZ+/-CARB VNS AT SHLW TO STP ANGLS TCA ASSOC W WISPY EPID VNLTS ALONG MARGINS
1119	16.6					95	NVS		DIO	AA 915.3 WK TO MOD CARBTZD+EPZD PATCHES ASSOC W QTZ-CARB JTS AT SHLW TO MOD ANGLS TCA
1120.3	1.3	MG173188	0.013	0.01	0	95	NVS	ALTN	QTZ	AS ABV BUT ALSO CUT BY 2-3CM WIDE TNLTC VN SUBPLL TCA, SAMPLE BRACKETING MINZN BELOW
1120.8	0.5	MG173189	0.033	0.012	0	95	FCTR	DIO	QTZ	AA 1118.1 BUT ENTRY CAPTURES 1CM WIDE QTZ VN W COMB TXTRD XTAL GROWTH HOSTG 1-2% CP SPKS AND <1% PO SPKS
1122	1.2	MG173190	0.011	0.012	0	95	NVS		DIO	AS ABV BUT NO MINZN
1149.7	27.7					93	NVS	ALTN	DIO	SAME DIO UNIT AS ABV AND AS DESCRIBED AT 915.3 BUT GRNTC INCLS ARE NOT PRESENT AND BLK MF MTX ALTD TO GRN-DK GRN COLOUR(CHL+EPID?) LIKELY ASSOC W SHLW CARB+/-CHL+EPID FCTRS
1150.2	0.5					95	NVS		DIA	BLK APHANITIC DYKLET W SHARP STP ANGLS TCA, COMPOSITION UNCERTAIN, MTX HOSTS SPOTTY(1-3MM) WH INCLS? IN CENTER OF DYKLET, ROCK ID UNCERTAIN
1182.9	32.7					92	NVS	ALTN	DIO	AA 1149.7
1183.8	0.9	MG173191	0.015	0.029	0	92	NVS	ALTN	DIO	AS ABV
1184.5	0.7	MG173192	0.015	0.026	0	92	FCTR	STRT	DIO	AS ABV CUT BY 1CM WIDE QTZ-CARB VN AT 20 DEG TCA HOSTG 1CM WIDE PO SPK AND VFG SPKS OF CP
1188.5	4	MG173193	0.012	0.03	0	95	BLBS	STRT	DIO	DIO HOSTG RAGGD PATCHES OF PO AND CP SPKS ASSOC W PATCHES OF QTZ-FSP, MINZN ALSO AS FLL IN FCTR SHLW-MOD DIPPING FCTRS TCA

1189	0.5	MG173194	0.29	0.103	0.001	95	PTCH	STRT	MTGB	AS ABV BUT MTGB HOSTG SPOTTY-PATCHY ZONES OF WH-LT GRY QTZ-FSP HOSTG 4% PATCHY PO & 1% CP SPKS, MINZN ALSO AS FLL IN SHLW TO MOD FCTRS THAT HAVE LOCL DISPLACED FLSC PATCH BY ~1CM THAT LIKELY INDICATES THAT SULP FCTR CONTROLED
1190.5	1.5	MG173195	0.013	0.029	0	95	NVS		MTGB	BARREN MTGB
1220.4	29.9					95	NVS	ALTN	DIO	AS ABV, 1-2CM WIDE QTZ-CARB VN NTWK AT 1212.6 TO 1217FT AT 10-30 DEG TCA
1221	0.6					90	NVS	ALTN	DIO	4CM WIDE QTZ-CARB VN AT 45 DEG TCA CUTTING GRN ALTD DIO
1263	42					95	NVS		DIO	MASS MF UNIT(ROCK YET TO BE CLASSIFIED, DIO USED UNTIL CONFIRMD)? UNIT STRONGLY RESEMBLING SIC NORITE, VFG-FG MTX COMPOSED OF BLK MF LOOKING COMPOSITION W FG SPKLD WH TO LT GRY ANHEDRAL FSP GRAINS, FSP GRAINS COARSEN FROM 1260FT TO END OF ENTRY, LOCL WH QTZ-FSPTHC STKS, NON MTC, BLK MF MTX VARIABLY ALTD TO A GRN-DK GRN COLOUR(CHL+EPID?) LIKELY ASSOC W SHLW CARB+/-CHL+EPID FCTRS, 4CM WIDE BLK APHANITIC VN AT 60 DEG TCA AT 1226.9 TO 1227.3
1287.6	24.6					95	NVS		SCH	BT CARB SCH AT CT BTWN DIO ABV & GR BELOW, SCH FABRIC AT 60 DEG TCA
1293.5	5.9					95	NVS	GR	SUBX	TOP 1FT OF ENTRY CONSIST OF MASS FG GRY GR FOLLOWED BY 1CM TO 2.8 FT WIDE 3D4-5 SUBX VNS AT MOD TO STP ANGLS TCA
1300.4	6.9					82	NVS	STRT	GR	GR AS ABV CUT BY NMRS CARB & GRN COLOURED HAIR LINE FCTRS & JTS AT VARIOUS ANGLS TCA, CORE LOCL BLOCKY TO GRAVELY
1300.9	0.5					90	NVS	ALTN	SUBX	V STGLY EPZD SUBX VN
1306	5.1					95	NVS		GR	FG GRY GR THAT HAS LOCL PATCHY COLOURD PNK ALTN ASSOC W MM SCALE JTS AT MOD TO STP ANGLS TCA, GR HAS A FAINT MM SCALE FABRIC AT 45 DEG TCA
1310.7	4.7					25	NVS	GR	STRT	BLOCKY TO GRAVELY CORE DUE TO NMRS CARB + DK GRN STAIND FCTRS AT SHLW ANGLS TCA
1364.1	53.4					95	NVS		GR	GR AA 1306 BUT APPEARS OVERALL MASS IN TXTR UNTIL 1345FT WHERE FOLLIATION IS MODTLY DEVELOPED AT 20-30, NMRS DK GRN-BLK HAIR LINE FCTRS AT SHLW TO MOD ANGLS TCA
1399.9	35.8					92	NVS	GR	GN	GR AS ABV BUT INTERBNDD WITH A MORE LEUCOCRATIC PNK GRNTC-TNLTC WELL DEVELOPED GN?, 2CM WIDE EPID VN AT 1382.9 TO 1383.3 AT 40 DEG TCA, SHARP CT W QTZ VN AND SHIST BELOW
1401.2	1.3	MG168436	0.002	0.002	0	90	NVS	SCH	QTZ	ENTRY CAPTURES LCT OF GR CUT BY TWO 3-6CM WIDE INTERCONNECTD QTZ VNS FOLLOWED BY BT-QTZ-CARB SHIST AT 40 DEG TCA
1402.2	1	MG168437	0.046	0.002	0	95	SPKS		SCH	BT-QTZ-CARB SCH, FABRIC GRADING FROM ABV AT 30 DEG TCA W LOCL <1% CP SPKS
1402.8	0.6	MG173196	0.014	0.003	0	95	NVS		SCH	BT-QTZ-CARB SCHIST AT 30 DEG TCA
1409.9	7.1	MG173197	0.005	0.002	0	95	NVS	STRT	MTGB	MTGB AS SEEN & GRADATIONAL TO ABV ENTRIES AS DESCRIBED AT 915.3: IGNOEUS ROCK COMPOSED OF A VFG-FG BLK MF MTX THAT APPEARS TO BE RETROGRESSED TO AMPHS & BT, MTX HOSTG COARSER GRAIND UNEQUIGRNLR ANHEDRAL SPKLD LOOKING WH-LT GRY FSP'S+/-QTZ, <5% VFG DISS REFLECTIVE SILVERY LEUCOXENE GRAINS, NMRS QTZ-CARB 2MM TO 1CM WIDE JTS-VNLTS AT 40 DEG TCA
1414.9	5	MG173198	0.004	0.001	0	95	NVS		MTGB	AS ABV W LOCL 2-3CM WIDE GRNTC VNS CROSSCUT BY MM SCALE FCTRS OFFSET VN AT THE MM SCALE AT MOD ANGLS TCA
1417.3	2.4	MG173199	0.004	0.001	0	95	NVS	MTGB	GR	SHARPLY CUTTING FG GRDR CUTTING MTGB, UCT AT 25 DEG TCA
1418.7	1.4	MG173200	0.005	0	0	95	NVS	GR	MTGB	AA 1414.9

1419.2	0.5	MG168424	0.007	0.001	0	95	SPKS	MTGB	GR	GR VN HOSTG 1-2% PO+/-PY SPKS
1425.2	6	MG168425	0.004	0.001	0	95	NVS		GR	SHARPLY CUTTING FG LT-DK GRY GRDR W MODTLY DEVELOPED FABRIC AT 60 DEG TCA
1425.9	0.7	MG168426	0.041	0.015	0	85	DISS		SCH	BT SCHIST W STG SHR LOOKING FABRIC AT 30 DEG TCA HOSTG CM SCALE 1-2% PO & <1% CP STKS PLL TO FABRIC
1427.3	1.4	MG168427	0.008	0.025	0	95	NVS	QTZ	SCH	AS ABV BUT NO VSBL SULP, SCH AT LCT TO GR & MTGB
1430.1	2.8	MG168428	0.008	0.027	0	95	NVS		SCH	AS ABV LOCL HAIR LINE QTZ-CARB FCTRS AT 70 DEG TCA OFFSETING MAJOR SCH FABRIC BY 1-2CM, SCH FABRIC AT 0-10 DEG TCA
1438.9	8.8	MG168429	0.006	0.002	0	95	NVS	GR	MTGB	AA 1409.9 CUT BY LOCL 1-4CM WIDE GRY GRNTC VNS & STKS
1440.2	1.3	MG168430	0.003	0.001	0	95	NVS		GR	LT GRY GR SIMILAR BUT MORE LEUCOCRATIC THAN GR AT 1425.2
1440.7	0.5	MG168431	0.003	0.002	0	95	NVS	MTGB	SUBX	4CM WIDE 2D4 SUBX VN AT 30 DEG TCA THAT APPEARS TO BE EXPLOITING LCT OF GR TO MTGB, FIRST INDICATION IN THIS HOLE WHERE SUBX CUTS THE MTGB
1450.1	9.4	MG168432	0.002	0.001	0	95	NVS		GR	AA 1440.2
1454.8	4.7	MG168433	0	0.001	0	88	NVS	GR	STRT	AS ABV BUT GR PNK IN COLOUR LIKELY ALTN RLTD TO NMRS MM-CM SCALE EPID-SLSC FCTRS AT 60-90 DEG TCA
1455.3	0.5	MG168434	0.005	0.001	0	90	FCTR	GR	STRT	AS ABV, CP SPKS AS FCTR FLL IN QTZ-CARB FCTR AT 45 DEG TCA
1456.4	1.1	MG168435	0.001	0.001	0	95	NVS		GR	GR AS ABV ALTN & FCTRS BECOMING RARE IN OCC
1470.6	14.2					95	NVS		GR	AA 1440.2 W A MOD-STG MM SCALE FABRIC AT 45 DEG TCA
1489	18.4					85	NVS	STRT	GRGN	GRADATIONAL TO ABV BUT COMPOSITIONAL BNDD DEVELOPING RESEMBLING A GNEISSIC ROCK SHARING THE SAME FABRIC AT 45 DEG TCA AS ABV, UNIT CUT BY NMRS HAIR LINE-MM SCALE FCTRS AT MOD ANGLS TCA W PNK ALTN SALVAGES
1523.6	34.6					95	NVS		GR	AA 1440.2 HOSTG NMRS CM SCALE LEUCO QTZ-FSP VNS AT MOD ANGLS TCA
1524.5	0.9					95	NVS	GR	SUBX	TWO 1CM & 15 CM WIDE 3D4 SUBX VNS AT STP ANGLS TCA
1573.5	49					95	NVS		GR	AGAIN SIMILAR GR TO THAT SEEN ABV: FG MASS TO WKLY FOLIATED GRY GR-GRDR CUT BY NMRS WH-PNK CM SCALE LEUCO GRNTC VNLTS, BOT 15FT GR OVERPRINTD BY WK-MOD DK SALMON ORG ALTN
1586.2	12.7					90	NVS	ALTN	SUBX	20% 1CM TO 20CM WIDE STP 3D4 SUBX VNS CUTTING GR AS DESCRIBD ABV, SUBX DOES NOT SHOW VSBL ALTN AS SHOWN IN GR ABV
1599.9	13.7					90	NVS	ALTN	GR	AA 1573.5 ALTD BY PERV SALMON ORG ALTN
1600.8	0.9					95	NVS	GR	SUBX	3MM TO 2CM WIDE SUBX VNLTS AT SHLW ANGLS TCA
1621.3	20.5					90	NVS	ALTN	GR	AA 1599.9, FOLIATION AT 45 DEG TCA
1625.1	3.8					60	NVS	STRT	ALTN	FROM 1621.3 TO 1623.0 GR OVERPRINTD BY WK TO INTENSE RUSTY RED ALTN W DEPTH, FROM 1623.0 TO END OF ENTRY ROCK INTENSLY SLSCFD ASSOC W <1CM WIDE QTZ-CARB VNLTS AT 10 & 75 DEG TCA
1626.3	1.2					25	NVS	ALTN	STRT	AS ABV BUT CONSIST OF 1CM WIDE DISC CORE 50% OF WHICH TURNED TO RUBLE
1630.6	4.3					88	NVS	ALTN	QTZ	ENTRY CAPTURES 1-5CM WIDE SMOKEY GRY QTZ+/-CARB VN AT 0-10 DEG TCA W NMRS <1CM WIDE INTERCONNECTD SPLAYS, ROCK UNIT INTENSLY SLSCFD
1643.7	13.1					80	NVS	FLT	BX	GR HEAVILY! CUT BY NMRS INTERCONNECTD MM SCALE BLK FCTRS A 70-90 DEG TCA THAT ARE PRE-SYN TO LESSER OCC PF CARB JTS SHARING THE SAME FCTR PLANES, IN LOCL AREAS WHERE BLK FCTRS ARE PERV IT HAS BXTD THE GR IN ANGULAR-SUBANGULAR FRAGMENTS THAT CLOSELY RESEMBLES SUBX(BUT NOT SUBX!)
1644.2	0.5					20	NVS	ALTN	STRT	RUBLY ANGULAR CORE STGLY ALTD TO A RUSTY RED COLOUR W DK GRN ALTN STAIND ON PLANES OF FCTR CORE

1669.9	25.7					88	NVS	FLT	BX	AA 1643.7, RARE GRNTC BNDS PRESENT SHOW CM SCALE OFFSET FROM BLK FCTRS, RARE QTZ-CARB-CHL VNS AT 80-90 DEG TCA
1675.8	5.9					85	NVS	ALTN	BX	AS ABV BUT GR HOSTG PNK GRNTC BNDS THAT REVEAL AMT OFFSET ALONG FCTR PLANES: APROX 4CM & LOCL BEYOND WIDTH OF CORE, UNIT STGLY OVERPRINTD BY PERV DK SALMON ORG ALTN
1677.3	1.5					20	NVS	ALTN	FLT	ENTRY CAPTURES 8CM INTENSLY HEMTZD(RUSTY RED)WIDE VUGGY FLT GOUGE W A FLT TREND AT 70 DEG TCA HOSTG ANGULAR-SUB-ANGULAR <4MM WIDE FRAGMENTS IN AN APHANITIC MTX, 4MM WIDE QTZ VNLT AT 50 DEG TCA AT START OF ENTRY WHERE CORE IS BROKEN
1680	2.7					90	NVS	STRT	ALTN	INTENSLY SLSCFD & HEMTZD ROCK W A STRUCTURAL? DUCTILE FABRIC AT 15-20 DEG TCA, LITTLE TO NO RELIC GRNTC TXTR, LOCL CARB JTS AT 60-70 DEG TCA
1687.4	7.4					85	NVS	ALTN	BX	AA 1643.7 BUT FLT BX BECOMING LESS INTENSE WITH DEPTH, STG RUSTY RED ALTN BUT ALTN GRADATIONALY BECOMING ABSCENT AS BELOW
1690.8	3.4					95	NVS	GR	SUBX	1CM TO 0.9FT WIDE 3D4 SUBX AT SHLW TO STP ANGLS TC CUTTING SAME VIRTUALLY UNALTD GRY GR AS SEEN ABV FLT ZONE
1692.9	2.1					95	NVS		GR	FG MASS GRY GR-GRDR, SAME GRNTC UNIT AS SEEN IN ABV ENTIRES W LOCL PINKISH DISCOLOURATION DUE TO ALTN SALVAGES FROM HAIR LINE FCTRS AT MOD ANGLS TCA
1696	3.1					95	NVS	GR	SUBX	25% 1-5CM WIDE 3D3-4 SUBX VNS AT SHLW TO MOD ANGLS TCA SHARPLY CUTTING GR
1709.2	13.2					95	NVS		GR	AA 1692.9
1711	1.8					95	NVS	GR	SUBX	AA 1696.0
1718.3	7.3					95	NVS		GR	AA 1692.9
1720.5	2.2					95	NVS	GR	SUBX	45% 1-8CM WIDE 3D3-4 SUBX VNS AT SHLW TO STP ANGLS TCA
1742	21.5					95	NVS		GR	AA 1692.9
1742.6	0.6					95	NVS	ALTN	QCV	ENTRY CAPTURES THREE 2MM TO 3CM WIDE QTZ-CARB VNLTS AT 80 DEG TCA ASSOC W DULL DK GRY-GRN ALTN TRGT ENTRY
1824.4	81.8					90	NVS	STRT	GR	AA 1692.9, FROM 1755.8 TO 1756.3 <5MM WIDE QTZ-CARB+/-CHL VNLT AT 40 DEG TCA W STG WELL DEFINED SLICKS AND STEPPING TXTRS, AT 1768.1 TO 1768.5 A 3CM WIDE SUBX AT 45 DEG TCA, AT 1777.1 TO 1778.0 CARB+HEM? HAIR LINE FCTR AT 10 DEG TCA W SLICKEN LINES ALONG PLANE OF BROKEN CORE
1842.7	18.3					95	NVS	GR	GR	FINER GRAIND GRANOPHYRIC WH-LT GRY LEUCO GR CUTTING GR UNIT ABV, LOCL LT PNK ALTN ASSOC W HIARL LINE FCTRS
1850.3	7.6					90	NVS	ALTN	GR	AA 1692.2
1857.1	6.8					95	NVS	GR	DIA	APHANITIC TO VFG BLK DIA OR GAB UNIT HOSTG 5-10% VFG-FG DISS LEUCOXENE, UCT BXTD BY 4CM WIDE SUBX VN, LCT VERY DIFFUSE W GR-GRDR UNIT BELOW, DIA CUT BY LOCL 1-6CM WIDE GRNTC VNS THAT ARE LOCL OFFSET BY 3CM BY EPID JTS
1930.4	73.3					95	NVS		GR	AA 1954.9
1935.2	4.8					95	NVS	GR	SUBX	TWO 2CM & 30CM WIDE 3D3-4 SUBX VNS & MM SCALE FCTRS CUTTING GR
1954.9	19.7					95	NVS	SUBX	GR	AA 1692.9 BUT V PRESTINE IN TXTR, LITTLE TO NO ALTN W LOCL DK SALMON ORG ASSOC W DK GRN STAIND FCTRS, LOCL (2%) CM SCALE SUBX VNLTS AT MOD ANGLS TCA
1957.2	2.3					95	NVS		SUBX	PERV 3D3 SUBX VN HOSTG UP TO 15CM WIDE INCLS
1962.6	5.4					95	NVS		GR	AA 1954.9

1963	0.4					95	NVS		SUBX	3D3 SUBX VN AT 70 DEG TCA
1971.5	8.5					95	NVS		GR	GR AA 1954.9
1978.9	7.4					95	NVS	GR	SUBX	55% 1-23CM WIDE 3D3-4 SUBX VNS AT STP ANGLS TCA
1984.7	5.8					95	NVS		GR	AA 1954.9
1986.3	1.6					85	NVS	GR	FLT	3MM TO 1CM WIDE QTZ-CARB VNLT AT 5 DEG TCA OFFSETING PRE-EXISTING
2036.3	50					95	NVS		GR	AA 1954.9
2052.2	15.9					95	NVS	GR	SUBX	40% 1CM TO 35CM WIDE 3D3-4 SUBX VNS HOSTG SUB-RNDD INCLS <4CM IN DIAM
2058.4	6.2					88	NVS	QCV	SCH	BT-QTZ-CARB SCH SHRD AT 25 DEG TCA BTWN LCT OF GR TO BASALT BELOW
2139.9	81.5					90	NVS		DIA	APHANITIC-VFG DK GRN-BLK MASS DIA, GRAIN SIZE CHANGES BACK AND FORTH FROM APHANITIC TO VFG, LOCL WKLY MTC, NMRS SHLW QTZ-CARB JTS-VNS(1MM TO 3CM)
2140.9	1	MG168438	0.011	0.003	0	95	NVS		DIA	AS ABV
2141.4	0.5	MG168439	0.056	0.003	0	95	FCTR	DIA	QTZ	3CM WIDE QTZ VN CUTTING DIA HOSTG 1*2CM RECTANGULAR BLB OF PO &
2143.2	1.8	MG168440	0.011	0.003	0	95	NVS		DIA	AA 2139.9
2143.7	0.5	MG168441	0.018	0.003	0	90	FCTR	QTZ	DIA	<1CM WIDE QTZ VNLT HOSTG <1% CP SPKS
2144.5	0.8	MG168442	0.01	0.003	0	95	NVS	QTZ	DIA	AS ABV BUT NVS
2168.3	23.8					90	NVS		DIA	DIA AA 2139.9 W WHAT LOOKS LIKE A CHILLD MARGIN APPROACHING SHR BELOW
2171	2.7					85	NVS	QCV	SCH	BT-QTZ-CARB SCH W A SHR FABRIC AT 30 DEG TCA, SCH EXPLOITG LCT OF DIA TO GR BELOW
2175	4					95	NVS		GR	AA 1954.9
2183.3	8.3					95	TR	GR	MTGB	TOP 1.5 FT OF ENTRY MARKED AS LCT OF GR HOSTG ANFULAR MTGB INCLS FOLLOWED VFG MF ROCK HOSTG 5% VFG-FG DISS LEUCOXENE SIMILAR TO THAT SEEN IN MTG B UNIT AT TOP OF HOLE, LCT SHARPLY CUT BY GR BELOW W LATE WK SHR FABRIC HOSTG PY SPKS ALONG SHR FABRIC
2191.5	8.2					95	NVS		GR	AA 1954.9
2195.2	3.7					95	NVS	GR	SUBX	10% 1MM TO 10CM WIDE 3D3-4 SUBX VNS HOSTG <1CM DIAM INCLS, VNS AT VARIOUS ORNTNS TCA
2201.6	6.4					95	NVS		GR	AA 1954.9
2253.9	52.3					95	NVS	GR	SUBX	45% 1CM VNLTS TO 6FT PERV 3AD3-4 SUBX ZONES SHARPLY CUTTING GRY GR AT VARIOUS ANGLS TCA. THREE OCC'S OF RNDD EXOTIC MF INCLS IN BX MTX
2260.4	6.5					95	NVS	GR	FLT	ENTRY CAPTURES FOUR REPETATIVE 1CM WIDE MF LOOKING BNDS AT 45 DEG TCA OFFSET BY MM SCALE BLK FCTRS AT 55 DEG TCA ALL CUTTING A LEUCO GRNTC PHASE WITHIN GR
2299.7	39.3					95	NVS	MTGB	GR	AA 1954.9 W LOCL MTGB INCLS AT TOP 25 FT OF ENTRY, 2% 1-4CM WIDE 3D4 SUBX VNS
2301.7	2					95	NVS		SUBX	PERV 3D4 3D4 SUBX VN AT 45 DEG TCA
2324	22.3					95	NVS	SUBX	GR	AA 1954.9 HOSTG LOCL 6CM WIDE SUBX VN AT 60 DEG TCA AT 2316.7
2334.2	10.2					90	NVS	MTGB	SUBX	75% 3D4 SUBX AS TWO 3 & 5FT VNS HOSTG UP TO 20CM DIAM RNDD INCLS
2349.1	14.9					95	NVS		MTGB	SAME MASS MTGB UNIT AS SEEN TRGT HOLE: VFG-FG MF MTX HOSTG FN-MG
2352.6	3.5					95	NVS	MTGB	SUBX	55% 2D4-5 SUBX ASSOC W LCT OF MTGB TO GR BELOW
2379.7	27.1					95	NVS	GR	SUBX	45% 6CM TO 4FT WIDE 3AD4 SUBX VNS CUTTING GR & MTGB
2396.1	16.4					95	NVS	SUBX	GR	GR AA 1954.9 CUT BY 3% 1-4CM WIDE SUBX VNLTS
2396.7	0.6					95	NVS		SCH	WK TO MOD DEVELOPED BT SCH AT CT W GR & MTGB

2405.2	8.5					95	NVS	STRT	MTGB	MTGB CUT BY 40% 0.5 TO 6CM WIDE GR VNLTS AT MOD ANGLS TCA W LOCL CM SCALE OFFSET BY HAIR LINE FCTRS, END OF ENTRY MARKED BY SHARP CT AT 40 DEG TCA
2426.3	21.1					95	NVS		MTGB	AA 2349.1, WHEN CORE DRY ROCK LOOKS STGLY ALTD TRGT, ALTD MF MINS ANHEDRAL,RAGGD,CIRCULAR W INSTL ANHEDRAL FSP'S, LAST BOX LOGGED 257
2431.4	5.1					95	NVS		GR	FG EQUIGRNLR LT-DK GRY MASS MELANO LOOKING GR AS SEEN TRGT HOLE
2437.7	6.3					95	NVS	GR	SUBX	50% 3MM FCTRS TO 1FT 3D4-5 SUBX BXTG CT BTWN GR & MTGB, AT BOT 1FT OF ENTRY SUBX CUT BY YELLOW CARB FLLD ALTN STKS
2443.6	5.9					95	NVS		MTGB	SAME MASS MTGB UNIT AS SEEN TRGT HOLE: VFG-FG MF MTX HOSTG FN-MG ANHEDRAL WH-LT GRY FSP'S, LOCL 1-3CM WIDE QTZ-FSPTHC VNS
2445.4	1.8					95	NVS		SUBX	3D4-5 SUBX VN AT MOD TO STP ANGLS TCA
2456.4	11					95	NVS	GR	MTGB	MTGB CUT & BXTD BY 25% WH-LT GRY LEUCO GR, AT 2452.5 TO 2453.4 ANGULAR MTGB FRAGMENTS OFFSET AT CM SCALE BY TWO 60 & 70 DEG HAIR LINE FCTRS
2459.3	2.9					95	NVS	MTGB	STRT	MTGB CUT BY NMRS 1MM TO 1CM QTZ+YELLOW CARB VNLTS AT 40 DEG TCA
2462.7	3.4					95	NVS		MTGB	AA 2443.6
2479	16.3					95	NVS	MTGB	GR	WH-LT GRY LEUCO GR CUTTING AND BXTG MTGB
2481.2	2.2					95	NVS		SUBX	2D4-5 SUBX VN HOSTG 55% GRNTC INCLS HOSTG UP TO 5CM INCLS
2493.4	12.2					95	NVS	GR	MTGB	MTGB AS SEEN ABV HOSTG 5% FG DISS LEUCOXENE, MTGB CUT BY LOCL 1CM TO 2FT WIDE GRTNC VNS
2494.1	0.7					95	NVS	MTGB	FLT	MTGB CUT BY LEUCO GR AS ABV OFFSET(<1CM) BY NMRS HAIR LINE FCTRS AT 60 DEG TCA
2499	4.9					95	NVS	GR	MTGB	AA 2493.4
2537	38					95	NVS	GR	SUBX	15% <1CM WIDE SUBX VNLTS TO 1.5FT WIDE 3D4-5 SUBX VNS AT MOD TO STP ANGLS TCA CUTTING COMPETENT MASS WH-LT GRY FG GR
2569.9	32.9					95	NVS	MTGB	GR	GR AS ABV HOSTG 3 OCC'S OF 3-4FT WIDE MTGB UNITS W SHISTOSE TXTRS
2578.7	8.8					95	NVS	QTZ	GAB	GABROIC UNIT RESEMBLING DIA DYKE BUT UNIT GRADES BACK AND FORTH FROM APHANITIC TO V FINE TO FINE GRAIN SIZE, COARSER FRACTION HOSTS DISS LEUCOXENE SUGGESTING A FINER GRAINED PHASE OF THE MTGB SEEN TRGT HOLE, GAB HOSTG 3% 2MM TO 2CM DIAMETER SIZED FSPTHC PHENOS, SHARP LCT TO GR AT 80 DEG TCA
2652.5	73.8					95	NVS	MTGB	GRDR	FG MASS EQUIGRNLR LT-DK GRY GRDR HOSTG 3CM TO 20M WIDE MTGB FRAGMENTS
2677	24.5					95	NVS		MTGB	MASS TO LOCL WKLY FOLIATED(35-45 DEG TCA) MTGB UNIT LIKELY RLTD TO MTGB UNITS SEEN TRGT HOLE BUT CG & HOSTG 5-7% DISS LEUCOXENE
2696	19					90	NVS		MTGB	GRADATIONAL TO ABV BUT SLIGHTLY FINER GRAIND, DK GRY-BLK FN-MG OVERALL MASS LOOKING MTGB UNIT HOSTG LOCL STKS OF BLUE QTZ & AGAIN 3-5% DISS LEUCOXENE
2697	1					95	NVS	ALTN	QV	TWO 1 TO 3CM WIDE QTZ VNS AT 25 AT 70 DEG TCA ASSOC W CHL FCTRS
2800.3	103.3					95	NVS	GR	MTGB	AA 2696 BUT VARIED IN TXTR W GRADATIONAL CHANGES IN GRAIN SIZE AND VARIED AMTS OF FSP & QTZ-FSPTHC STKS & VNS UP 15CM LONG
2806.1	5.8					90	NVS	ALTN	DIA	VFG MASS DIA DYKE OVERPRINTD BY PERV GRN ALTN ASSOC W NMRS <1CM SCALE QTZ VNLTS-FCTRS AT SHLW TO MOD ANGLS TCA, UCT STGLY ALTD & CUT BY NMRS QTZ VNLTS AT 45 DEG TCA
2810.9	4.8					80	NVS	ALTN	QCCV	AS ABV BUT HEAVILY FCTRD BY NMRS QC+/-CHL VNLTS (1MM TO 2CM WIDE) DMNTLY AT 35-45 DEG TCA & 80 DEG TCA, LOCL RAGGD 12CM WIDE WH QTZ VN AT CENTER OF ENTRY

2819	8.1					95	NVS		GRDR	FN-MG EQUIGRNLR MASS TO WKLY FOLLIATED AT 50 DEG TCA DK GRY MELANO CRATIC LOOKING GRDR
2820.3	1.3					95	NVS	GRDR	SUBX	3D4-5 SUBX VN AT SHLW TO MOD ANGLE TCA CUTTING GRDR AS ABV
2903.5	83.2					95	NVS		GRDR	AA 2819.0 CUT BY LOCL MM SCLAE ORG COLOURED QC FCTRS AT SHLW TO MOD ANGLS TCA, RARE (<1%) 1-2CM WIDE SUBX VNLTS
2906	2.5					95	NVS	GRDR	SUBX	TWO 20CM & 30CM WIDE 3D4 SUBX VNS AT MOD TO STP ANGLS TCA
2926.7	20.7					95	NVS		GRDR	AA 2819
2929.4	2.7					90	NVS	GRDR	SUBX	80% 1-15CM WIDE 3D4 SUBX VNS CUTTING GRDR
2940.5	11.1					95	NVS	SUBX	GRDR	AA 2819 CUT BY LOCL 2-15CM WIDE SUBX VN
2951.1	10.6					95	NVS	GRDR	SUBX	70% SUBX 3D4 SUBX
2964.3	13.2					95	NVS		GRDR	AA 2819
2966.9	2.6					95	NVS	GRDR	SUBX	65% 1CM TO 15CM WIDE SUBX VNS AT MOD TO STP ANGLS TCA
2987	20.1					95	NVS		GRDR	AA 2819, <3CM WIDE SUBX VNLTS FROM 2969.7 TO 2970.6
3022.7	35.7					90	NVS		GRDR	AA 2819, LOCL CHL STAIND FCTRS SUB-PLL TCA
3041.3	18.6					95	NVS	GRDR	SUBX	40% 1-8CM WIDE SUBX VNLTS-VNS DMNTLY AT SHLW ANGLS TCA
3082	40.7					90	NVS	GR	GRDR	SAME UNIT AA 2819: FN-MG DK GRY MELANOCRATIC LOOKING GRDR, EQUIGRNLR MASS TO WKLY FOLLIATED AT 50 DEG TCA, FSP WKLY OVERPRINTD BY SALMON ORG ALTN, LOCL 5CM TO 6FT LEUCO GR BNDS
3153.4	71.4					90	NVS	SUBX	QCV	NMRS <1CM QC VNLTS AT 35-40 DEG TCA STARTING AT CT W SUBX VNLTS TO GR, ENTRY APEARS TO CAPTURE WKLY DEVELOPED SHR
3154.8	1.4					95	NVS		GRDR	AA 3082
3157	2.2					95	NVS	GRDR	SUBX	ENTRY CAPTURES TWO 10-15 CM WIDE 3D4 SUBX VNS CUTTING GRDR
3161.3	4.3					90	NVS		GRDR	AA 3082
3164.3	3					85	NVS	GRDR	QCCV	NMRS 1MM TO 1CM QC+/-CHL VEINLETS CUTTING GRDR AT 20-50 DEG TCA HOSTG LOCL PY FLL
3195	30.7					88	NVS	QCV	ALTN	ENTRY CAPTURES GRDR SECTION CUT BY NMRS QC JTS AT VARIOUS ANGLS TCA ASSOC W WK DK SALMON ORG ALTN OVERPRINTG FSP'S
3212.8	17.8					95	NVS	GR	GRDR	GRDR AA 3082, FROM 3208.3 TO 3218.8 CONSIST OF LT GRY LEUCO GR
3213.9	1.1					95	NVS	GR	SUBX	80% 1CM TO 30CM WIDE 3D4 SUBX VNLTS-VNS
3269.5	55.6					95	NVS	GR	GRDR	INTERBNDD COLLECTION OF VFG-FG DK GRY GRDR W 15% LT GRY LEUCO GR AND THREE 1FT SECTIONS OF PORPH GR FROM 3234.0 TO 3239.6, RARE QC VNLTS & LITTLE TO NO ALTN
3276.9	7.4					95	NVS	GR	SUBX	60% 1CM TO 3FT WIDE 3D4 SUBX VNS CUTTING GRY GR
3363.2	86.3					90	NVS		GR	GR AS ABV: FG EQUIGRNLR MASS LOOKING GRY GR WKLY OVERPRINTD BY PATCHY ZONES OF SALMON ORG ALTN LIKELY ASSOC W DK HAIR LINE FCTRS & QC JTS, WKLY BNDD PNK LEUCO GR FROM 3350.4 TO 3358FT
3366.1	2.9					85	NVS	GR	SUBX	AS ABV CUT BY THREE 1-6CM WIDE SUBX VNS
3417.9	51.8					92	NVS	GN	GR	AA 3363.2 W AGAIN LOCL MORE LEUCO GR COMPOSITIONS THAT GRADE FROM THE TYPICAL GRY GR & GN FABRIC LOCL WELL DEVELOPED, LOCL CONCENTRATIONS OF BLK MM SCALE FCTRS AT MOD TO STP ANGLS TCA ASSOC W WK SALMON ORG ALTN
3419.4	1.5					95	NVS	GR	STRT	AS ABV CUT BY NMRS BLK HAIR LINE FCTRS(IMATURE EN-ECHELON STYLE) OFFSETING 1CM WIDE PNK GRNTC VNLT BY <1CM
3422.6	3.2					95	NVS	GR	SUBX	20% 2CM TO 25CM WIDE 3D4 SUBX VNS CUTTING GR
3427.6	5					95	NVS	STRT	GR	AA 3419.4
3433.5	5.9					90	NVS	ALTN	FLT	HEAVILY FCTRD GR, FCTRS CONSIST OF 1 TO 5MM WIDE BLK INTERCONNECTD FCTRS AT 60-90 DEG TCA OFFSETING GRNTC TXTRS BY <1CM

3437.7	4.2					95	NVS	GR	MFGN	FG EQUIGRNLR BLK MFGN? INTER-MINGLD W WH QTZ-FSPTHC BNDS AT 45 DEG TCA, UNIT APPEARS INTERBNDD W GR ABV
3463.8	26.1					95	NVS		GRDR	FG GRY-DK GRY EQUIGNLR WKLY BNDD OR FOLIATED (40 DEG TCA) GR-GRDR HOSTG <5% PNK LEUCO GRNTC BNDS
3464.5	0.7					95	NVS	ALTN	SUBX	V STGLY EPZD+SLSCFD SUBX VN AT 40 DEG TCA
3503.9	39.4					95	NVS	GR	GRDR	GRADATIONAL TO GRDR ABV BUT GRADING TO MORE GRDR TO DIOTC COMPOSITIONS HOSTG 10% PNK LEUCO GRNTC UNITS
3559.8	55.9					90	NVS	GR	MTGB	VFG DK GRY-BLK MTGB HOSTG 10-15% FG DISS LEUCOXENE & 5-15% ANHEDRAL QTZ-FSTHC CLOTS(1CM IN DIAM), 10% QTZ-FSPTHC BNDS AT MOD TO STP ANGLS TCA, SAME MTGB UNIT SEEN TRGT HOLE, STG EPID ALTN AT 3508.5 TO 3509.9
3586.1	26.3					95	NVS	GR	MTGB	SIMILAR MTGB UNIT AS ABV BUT FINER GRAIND & MORE MASS IN TXTR W NO QTZ-FSPTHC CLOTS AS ABV, 5% VFG DISS LEUCOXENE, MTGB AGAIN HOSTG 5% GRY GNRTC BNDS, SHARP CT W GRNTC BNDS ABV
3687.1	101					95	NVS	GR	MTGB	MASS MTGB UNIT AS SEEN TRGT HOLE: VFG BLK MASS MF MTX HOSTG FN-MG SUBHEDRAL-ANHEDRAL SPKLD WH FSPS GRAINS TO RAGGD QTZ-FSPTHC CLOTS UP TO 1CM IN DIAM, FG DISS LEUCOXENE UP TO 10%, MTGB VARIED IN TXTR AS GRAIN SIZE INCREASES AND DECREASES TRGT ENTRY, ALSO PERCENTAGE OF LEUCOXENE PROPORTIONAL TO FSPTHC CLOTS: THE GREATER THE SPKLD FSP THE GREATER THE AMNT OF LEUCOXENE, MTGB HOSTS RARE GRY GRNTC BNDS & QTZ VNS
3754	66.9					90	NVS	STRT	QDIA	APHANITIC-VFG BLK MASS QDIA DYKE, UCT SHARP AT 20 DEG TCA, LCT SHARP AT 40 DEG TCA, DIA CUT BY 1% <2CM WIDE QTZ-SPTHC VNLTS & JTS AT MOD TO STP ANGLS TCA, RARE CHL STAIND FCTRS AT SHLW ANGLS TCA W SLICKEN LINES ALONG FCTR PLANES
3775.7	21.7					95	NVS		MTGB	AA 3687.1
3776.7	1	MG168443	0.008	0.014	0	90	NVS	MTGB	STRT	AS ABV CUT BY CM SCALE GRNTC VNS WHICH ARE OFFSET BY HAIR LINE FCTRS AT 10 DEG TCA BEYOND WIDTH OF CORE
3777.2	0.5	MG168444	0.027	0.014	0	95	FCTR	MTGB	STRT	AS ABV BUT SAMPLE CAPTURES 1 SPK OF CP ALONG HAIR LINE FCTR
3778.3	1.1	MG168445	0.025	0.015	0	95	NVS	MTGB	STRT	AA 3776.7
3811.9	33.6					95	NVS		MTGB	AA 3687.1
3812.8	0.9					95	NVS	ALTN	SHR	WKLY DEVELOPED SHR ASSOC & PLL TO SINUOUS HAIR LINE FCTRS AT 40 DEG TCA, TR PY ALONG HAIR LINE FCTRS
3833.1	20.3					95	NVS		MTGB	AA 3687.1
3834.2	1.1	MG168447	0.001	0.008	0	95	NVS	STRT	MTGB	AS ABV W PATCHY WKLY DEVELOPED BT SCH, LOCL SLIKEN LINES ALONG PLANE OF BROCKEN CORE
3834.8	0.6	MG168448	0.004	0.002	0	95	FCTR		QTZ	WH QTZ-FSPTHC UNIT W GRAPHITIC TXTRS CUT BY NMRS INTERCONNECTD JTS LOCL HOSTG <1% PO+PY SPKS
3836.5	1.7	MG168449	0.002	0.001	0	95	NVS		QTZ	AS ABV BUT NVS
3840.8	4.3	MG168450	0.007	0.005	0	95	NVS	MTGB	SCH	WELL DEVELOPED BT SCHIST STARTING AT LCT TO QTZ ABV, SCHIST FABRIC AT 40 DEG TCA
3849.3	8.5	MG168451	0.009	0.005	0	95	NVS		MTGB	MASS MTGB SEEN TRGT HOLE; VFG-FG BLK MF MTX HOSTG 20-40% FN-MG WH-LT BLUE ANHEDRAL GRAINS, TR PY, LOCL HAIR LINE FCTRS W <1CM WH ALTN SALVAGES
3858	8.7	MG168452	0.007	0.004	0	95	NVS		MTGB	AS ABV
3859.1	1.1	MG168453	0.022	0.005	0	95	FCTR		QV	SMOKEY WH QTZ VN CUT BY WH & DK GRN HAIR LINE FCTRS LOCL HOSTG CP+PY+PO SPKS

3860.1	1	MG168454	0.009	0.002	0	90	NVS		MTGB	AA 3849.3
3889.6	29.5					85	NVS	STRT	MTGB	AS ABV CUT BY NMRS QC JTS & VNLTS <2CM WIDTH & CHL STAIND HAIR LINE FCTRS W SLIKEN LINES, BOTH VNLTS & FCTRS DMNTLY AT 20-40 DEG TCA
3904.8	15.2					85	NVS	QCV	MTGB	AS ABV W MORE ABUNDANT QC JTS & VNLTS SOME OF WHICH ORG IN COLOUR
3907.6	2.8					15	NVS	QCV	MTGB	AS ABV BUT POORLY RECOVERED CORE DUE TO NMRS QC FCTRS & SPIRAL FCTR FROM TOO MUCH PRESSURE FROM DRILL
3985.5	77.9					75	NVS	MTGB	STRT	MTGB AS ABV BUT CORE FCTRD ON AVG EVERY 1FT BY DK GRN-BLK ALTD FCTRS DMNTLY AT 15-40 DEG TCA A FRACTION OF WHICH HAVE WELL DEFND SLICKEN LINES BUT LITHOLOGY OFFER NO SENSE OF DISPLACMENT & IS EXPECTED TO BE NEGLIGABLE, LESSER QC VNLTS AT 10-60 DEG TCA
3987.4	1.9					90	NVS	GRPY	SCH	WK TO STGLY DEVELOPED QC BT SCH AT CT W MTGB & GRPY, SCH SHR AT 40 DEG TCA
3998.7	11.3					75	NVS	GRPY	GAB	QUESTIONABLE UNIT THAT CLOSELY RESEMBLES MTGB IN ABV ENTRIES BUT FINER GRAIND & HOSTS PORPH? FSPS(<1CM IN DIAM), GAB CUT BY <1FT LENSES OF GRY MELANOCRATIC LOOKING PORPH GR
4014.8	16.1					95	NVS		GRPY	MASS FN-MG DK GRY GRPY, PORPH FSP'S SUBHEDRAL & AS LARGE AS 2CM IN DIAM
4038.6	23.8					95	NVS		DIA	MASS DK GRY FN-MG DIA? DYKE W SHARP U & LCT AT 60 DEG TCA, NON TO LOCL V WKLY MTC
4053.8	15.2					95	NVS	GR	GRPY	AA 4014.8 BUT APPEARS MORE MELANO CRATIC IN COMPOSITION (GRDR) GRPY CUT BY 3% PNK LEUCO GR VNS <20CM LONG
4114	60.2					95	NVS		GRDR	AS ABV BUT GRPY DISPLAYS LOCL WK-MOD THERMALY SIC RCZD TXTRS PARTICULARLY RECOGNIZD WHEN DRY CONSISTING OF A WH-LT GRY RCZD GRNLR FLSC MTX HOSTG BLK SPOTTY ANHEDRAL AMPH'S BUT NOT DEVELOPED ENOUGH TO RESEMBLE TYPICAL MTBX STYLE TXTRS, FSP ARE ANHEDRAL IN SHAPE & APPEAR TO HAVE UNDERGONE SOME FORM OF THERMAL RECRYSTALIZATION?
4122.9	8.9					95	NVS		GRDR	AA 4014.8, PORP? FSP ARE ANHEDRAL IN SHAPE & APPEAR TO HAVE UNDERGONE SOME FORM OF THERMAL RECRYSTALIZATION? , LOCL <2CM WIDE QTZ VNS AT 30-45 DEG TCA
4123.5	0.6					95	NVS		SCH	QC BT SCH SHR AT 45 DEG TCA
4144.7	21.2					95	NVS		GRDR	AA 4114
4150.4	5.7					95	NVS		DIA	APHANITIC-VFG BLK MASS DIA DYKE, NON MTC
4170.9	20.5					95			GRDR	AA 4114 BUT HOSTG 5% VFG DISS LEUCOXENE THAT WAS TYPICALY SEEN IN MTGB
4178.3	7.4					85	NVS	QCV	SHR	WELLL DEVELOPED DUCTILE SHR ZONE W 0.5MM TO 1CM THICK SHR FABRIC AT 30-40 DEG TCA INTERBNDD W QTZ BNDS & LOCL X-CUT BY 2-3CM WIDE QTZ+/- CARB VN AT 4173FT, RELIC LITHOLOGY APPEARS TO BE AS ABV, LOCL STG-VFG PERV CHL ALTN AT BOT 2FT OF ENTRY
4182.6	4.3					95	NVS	GRDR	SUBX	AA 4170.9
4190	7.4					95	NVS	GR	SUBX	60% 3D4 SUBX VNS FROM 1CM TO 3.5FT LONG CUTTING CT BTWN GRDR ABV AND WH-PNK LEUCO GRNTC UNIT
4230.3	40.3					95	NVS		DIA	APHANITIC-VFG BLK-DK GRN MASS DIA DYKE CUT BY NMRS QTZ VNLTS AT MOD ANGLS TCA, UCT SHARP AT 70 DEG TCA, LCT SHARP AT 40 DEG TCA, BOTH CONTACTS APPEAR TO X-CUT SUBX

4245.5	15.2					95	NVS	SCH	SUBX	PERV ZONE OF 3D4 SUBX HOSTG 40% INCLS UP TO 6CM WIDE, FROM 4240.5 TO 4242.1FT IS A WH LEUCO GR UNIT FOLLOWED BY 0.3FT BT SCH AT 45 DEG TCA, FROM 4242.1 TO 4245.5 CONSIST OF GRDR CUT BY SUBX VNS- VNLTS REPRESETING LOWER CT OF SUBX VN
4283.2	37.7					95	NVS		GAB	VFG-FG BLK MASS GABBROIC-MTGB UNIT HOSTG 3% VFG DISS LEUCOXENE, 1% <1CM WIDE CREAMY COLOURD FSPS, V WKLY MTC, BXTD UCT, LCT SHARP LIKE A DIA AT 55 DEG TCA, LOCL PO SMEAR ALONG FCTR AT 50 DEG TCA 4248.3
4308.5	25.3					95	NVS	GN	GRDR	SIMILAR GRDR UNIT TO GRDR AA 4114; VFG-MG DK TO LT GRY PORP GRDR, SUBHEDRAL WH-CREAMY COLOURED PORP FPS <1CM IN DIAM, LOCL DEVELOPED GNEISSIC BNDS
4322.8	14.3					95	NVS		DIA	MASS VFG DK GRN DIA DYKE, NON- TO LOCL V WKLY MTC
4326.6	3.8	MG168455	0.007	0	0	95	NVS		DIO	SIMILAR TO THAT AA 4308.5 BUT LACKING THE PORPH TXTR & FINER GRAIND, DESCRIPTION REVISED: FG EUIGRNLR IGNEOUS ROCK COMPOSD OF A VFG-FG DK GRY-BLK MTX MIXED W 35% WH-LT GRY ANHEDRAL FLSC MINS, 5% VFG DISS LEUCOXENE, LOCL 1CM DIAM GRNTC CLOTS
4327.5	0.9	MG168456	0.015	0	0	95	NVS		DIO	AS ABV, TR PO ALONG HAIR LINE FCTRS
4328.5	1	MG168457	0.071	0.001	0	95	NVS		DIO	DIO AA 4326.6, 3% DISS PY & 1% PO, PY ALSO AS STKS ALONG U & LCT OF 5CM WIDE WH GRNTC BND
4330	1.5	MG168458	0.056	0.001	0	95	NVS	FLT	DIO	DIO AS ABV, 3-4% DISS 3% PY+ <1%PO, DISS SULP SPKS FOLIATED AT ANGLE PLL TO V SUBTLE FOLIATION IN GRANITOID, 1CM FLSC VN CUT & OFFSET BY MICRO FCTRS AT 50 & 60 DEG TCA BY 1 & 3CM
4333.8	3.8	MG168459	0.005	0	0	95	NVS		DIO	DIO AS ABV BUT NO VSBL SULP
4336	2.2					95	NVS	DIO	FLT	AS ABV BUT CAPTURES HAIR LINE FCTRS OFFSETING FG WH FLSC BNDS BEYOND WIDTH OF CORE AT 55 & 65 DEG TCA
4366.8	30.8					95		GN	GRDR	AA GRADATIONAL TO ABV BUT MORE LEUCOCRATIC W A WKLY DEVELOPED GNEISSIC? FOLIATION DEFINED BY WH DISCONTINOUS FLSC BNDS
4367.6	0.8					30	NVS	GRDR	STRT	AS ABV BUT CUT BY DK GRN-BLK CHLTC FCTR AT 10 DEG TCA W WKLY DEFND SLICKEN LINES
4405	37.4					90	NVS	STRT	DIO	GRADATIONAL TO ABV BUT MORE DIOTC IN COMPOSITION AA 4326.6, BLK SPKLD LT GRY GRDR TO DIO PHASE OF CREIGHTON GR?, LOCL HAIR LINE FCTRS W CM SCALE OFFSETS AT 30-70 DEG TCA
4431.8	26.8					95	NVS	FLT	GRGN	WH FN-MG EQUIGRNLR MASS TO WKLY BNDD GR-GRGN & LESSER DIO, LOCL LT DULL REDISH ALTN ASSOC W MICRO FCTRS, ENTRY CUT BY SEVERAL HAIR LINE FCTRS HOSTG SLICKEN LINES AND STEPPING TXTRS SOME OF WHICH OFFSET GNEISSIC BNDS BEYOND WIDTH OF CORE
4497.1	65.3					90	NVS	FSGN	DIO	VFG-FG DK GRY MASS IN APPEARENCE BUT LIKELY BNDD AS DIO HOSTS WELL DEVELOPED BNDS OF GRNTC GN AT 0-30 DEG TCA, LOCL HAIR LINE FCTRS AT MOD ANGLS TCA W MM SCALE OFFSETS, sharp lct at 35 deg tca TO GRGN
4501.7	4.6					90	NVS	STRT	GDGN	TECTONIZED PORPH GR-GRDR, GNSTY WK AT 15 DEG TCA, DK GRN-BLK STAIND FCTR AT FROM 4500 TO 4501.7 AT 10 DEG TCA W STG SLICKEN LINES AND STEPPING TXTRS
4517.5	15.8					95	NVS	DIO	GDGN	GDGN AS ABV INTERBNDD W FG DIOTC BNDS
4519	1.5					60	NVS	GDGN	STRT	FCTRD GDGN CONSISTING OF DK GRN-BLK SOAPY ALTD MM SCALE FCTR AT 10 DEG TCA
4524.2	5.2					95	NVS		GDGN	MOD DEVELOPED PORPH GDGN, GNSTY AT 10 DEG TCA

4535.7	11.5					60	NVS	GDGN	FLT	GDGN AS ABV CUT BY 1-5MM WIDE SUB-PLL FCTRS TRGT ENTRY COATED W CARB & CHL W WELL DEFND SLICKEN LINES & STEPPING TXTRS, GNSTY AT 10 DEG TCA
4563.1	27.4					95	NVS	FLT	GDGN	ENTRY CAPTURES THREE DIFFERENT LITHOLOGIES W IN GN: DK GRY PORPH GDGN; WH LEUCOCRATIC GRNTC BNDS; AND VFG-FG DK GRY-BLK DIO GN, GNSTY AT 15-30 DEG TCA, NMRS HAIR LINE FCTRS W MM TO CM SCALE OFFSETS DMNTLY AT STP ANGLS TCA, LOCL 1CM WIDE DUCTILE DRAG FLT AT 85 DEG TCA AT 4554FT
4565.7	2.6					95	TR		QV	SMOKY WH QTZ VN, SHARP U & LCT'S AT 40 & 25 DEG TCA, LOCL EPID+CHL? FLLD FCTRS HOSTG TR PY
4599.8	34.1					95	NVS		GRDR	FN-MG DK GRY & SPKLD LT GRY GRDR HOSTG 4% 3MM TO 2CM WIDE WH-LT GRY PORP?/XENOXTIC QTZ-FSP'S, UNIT HAS LOCL WK-MOD FOLIATION AT 15 DEG TCA, OVERALL FRESH AND LOCALIZED QTZ JTS AT MOD ANGLS TCA
4643.9	44.1					90	NVS		QDIA	VFG-FG BLK MASS NON-MTC DIA DYKE W CHILLD UPPER CT MARGINS, UCT CUT BY 1CM QTZ VNS AT 40 DEGTCA W LOCL BOUDINED? QTZ PLL TO QV, LOCL QTZ JTS AT 40-65 DEG TCA
4647	3.1					85	NVS	QDIA	QV	ENTRY CAPTURES QDIA AS ABV BUT CUT BY TWO 1-4CM WIDE QTZ-CARB VN AT 0-10 DEG TCA
4651	4					50	NVS		QDIA	QDIA AS ABV BUT CORE VERY BLOCKY PERHAPS AS A RESULT OF LOCL DK GRN STAIND FCTRS & QTZ-CARB VNLTS(<1CM)
4687.3	36.3					90	NVS		QDIA	QDIA AA 4643.9, AGAIN NMRS QTZ JTS AT MOD TO STP ANGLS TCA
4689.7	2.4					95	NVS	SHR	QV	ENTRY CAPTURES LOWER MARGIN OF QDIA X-CUT BY A 1.5FT WIDE MILKY WH QTZ VN THAT IS VERY BXTD AT LOWER MARGIN HOSTD BY BLK CHL? ALTD MTX THAT APPEARS ASSOC W CHL FCTRS W SLICKEN LINES, 8CM ABV UCT OF QV QDIA APPEARS SHRD PLL TCA QV UCT
4723	33.3					95	NVS	GN	GRDR	FN-MG DK GRY SPKLD WH-LT GRY ALMOST EQUIGNLR GRDR W A WK TECTONIC/GN FABRIC AT 10-15 DEG TCA, LOCL PY FLL IN FLSC VNLT AT 4703FT
4723.7	0.7					95	NVS		SUBX	3D3 SUBX VN AT 40 DEG TCA, INCLS <1CM
4756	32.3					95	NVS		GRDR	AA 4723 BUT GNEISSIC FABRIC NOT VSBL, AT 3947 TO 3948 PNK GRNTC VNS OFFSET (2MM TO 4CM) FOUR TIMES BY BLK HAIR LINE FCTRS, OTHER LOCL HAIR LINE FCTRS HOSTG SMEARS OF PY
4780	24					95	NVS		GRDR	GRDR AA 4723 BUT NO VSBL GNEISSIC FABRIC, GRAIN SIZE GRADES BACK FROM COARSER TO FINE AND BACK MAY BE A PRODUCT OF PERV GREYISH SLSC? ALTN
4784	4					40	NVS	GRDR	STRT	AS ABV BUT CORE RECOVERED AS 1-2CM WIDE DISC CORE
4894.7	110.7					85	NVS		GRDR	GRDR AS ABV HOSTG LOCL PNK GRNTC BNDS AT 15 DEG TCA, LOCL DK GRN-BLK CHLTC? STAIND FCTRS AT DMNTLY AT 15-35 DEG TCA SOME OF WHICH CONTAIN SLICKEN LINES BUT NO SIGNIFICANT OFFSET OBSERVED
4897	2.3					90	NVS	GRDR	FLT	GRDR AS ABV BUT ENTRY CAPTURES <1CM WIDE PNK GRNTC VNLTS SUB-PLL TCA OFFSET BY 2CM TO BEYOND WIDTH OF CORE BY CHL?+CARB FCTRS-VNLTS(<1CM)AT 70-80 DEG TCA WHICH ARE ALSO OFFSET(5CM)BY HAIR LINE CARB FLLD FCTRS AT 20 DEG TCA
4947.7	50.7					95	NVS		GRDR	FN-MG DK GRY SPKLD WH-LT GRY ALMOST EQUIGNLR GRDR, locl pnk grntc XENOCRYSTS & NMRS .5-3CM WIDE PNK GRNTC VNLTS, AT 4926 GRNTC VNLT OFFSET BY 4CM BY 80 DEG HAIR LINE FCTR

4949.2	1.5					65	NVS	QV	STRT	GRDR BUT CORE BUT CORE RECOVERED AS DISC CORE(1-4CM BREAKS) LIKELY DUE TO INTERCONNECTFD RUSTY RED HAIR LINE FCTRS SUB-PLL TCA, 1CM WIDE QTZ VNLT AT 25 DEG TCA
5000	50.8					95	NVS		GRDR	AA 4947.7 FOH AT 5000FT

Appendix II – Drill hole Plan map

484,800 485,000 485,200 485,400

5,145,400 5,145,200 5,145,000 5,144,800 5,144,600

FOH 5000 ft

CON 1 CREIGHTON-DAVIES Twp

CON 1 - LOT 2

CON 1 - LOT 1

BH125945-0
Azimuth: 355
Dip: -61.7

N

Legend

- Utility Lines
- Railway
- Lots
- Concessions
- Townships
- Road

ROCK

- Overbuden/Casing
- Structure (Fault, Shear)
- Quartz Veins, Alteration
- Sudbury Breccia
- Breccia
- Diabase
- Schist
- Diorite
- Metagabbro
- Creighton Granite (Granite, granodiorite)

VALE

Brownfield Exploration
Sudbury Basin Group

BH125945-0
Creighton Project

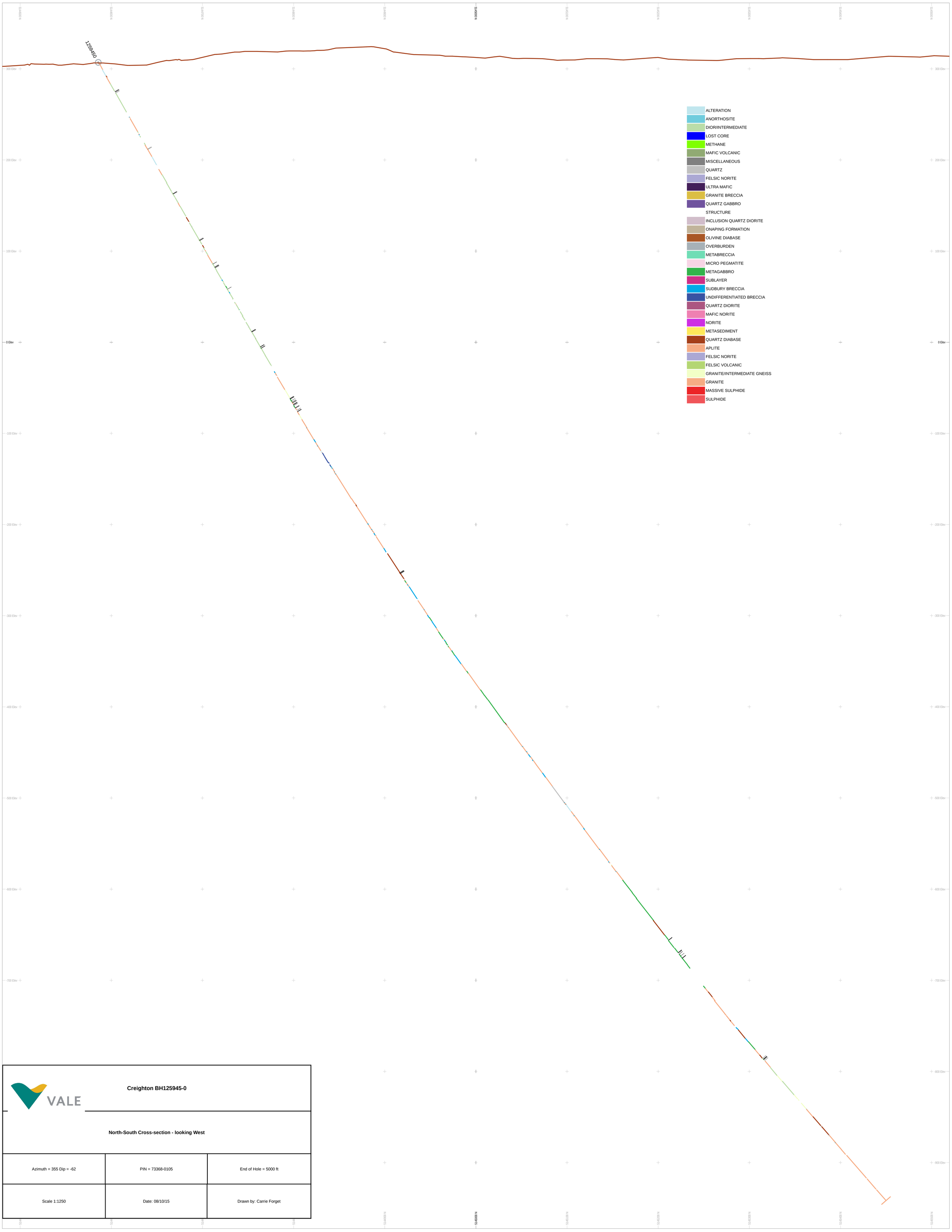
PIN 73368-0105

UTM NAD27 Zone 17
Drawn By: Carrie Forget
Date on: September 15, 2015

1:1,500

0 100
Meters

Appendix III – Drill hole Cross-section map



VALE

Creighton BH125945-0

North-South Cross-section - looking West

Azimuth = 355 Dip = -62	PIN = 73368-0105	End of Hole = 5000 ft
Scale 1:1250	Date: 08/10/15	Drawn by: Carrie Forget

Appendix IV – Assay Certificates

ALS Canada Ltd.
2103 Dollarton Hwy
North Vancouver BC V7H 0A7
Phone: 604 984 0221 Fax: 604 984 0218 www.alsglobal.com

To: VALE TECHNOLOGY DEVELOPMENT (CANADA) LIMITED
ENGINEERING BUILDING DOOR 10 - EXPLORATION
HWY 17 WEST
COPPER CLIFF ON P0M 1N0

Finalized Date: 22- DEC- 2010
Account: PJR

CERTIFICATE SD10187393

Project: 21136.00310

P.O. No.: 9811

This report is for 4 Drill Core samples submitted to our lab in Sudbury, ON, Canada on 9- DEC- 2010.

The following have access to data associated with this certificate:

GORDON BAILEY	NORMAND BELLEMARE	JEANETTE BLESKIE
ARNIE BURTON	MEBS EMAIL	SCOTT JEFFERY
SASA KRSTIC	STEVEN MCGLADE	RYAN PAQUETTE
JOE ROQUE	KRISTEN SIMPSON	BRIAN THOMAS
ATULYA VERMA		

SAMPLE PREPARATION

ALS CODE	DESCRIPTION
WEI- 21	Received Sample Weight
LOG- 22	Sample login - Rcd w/o BarCode
CRU- 31	Fine crushing - 70% < 2mm
SPL- 22Y	Split Sample - Boyd Rotary Splitter
PUL- 31	Pulverize split to 85% < 75 um

ANALYTICAL PROCEDURES

ALS CODE	DESCRIPTION	INSTRUMENT
PGM- ICP23	Pt, Pd, Au 30g FA ICP	ICP- AES
ME- ICP61	33 element four acid ICP- AES	ICP- AES

To: VALE TECHNOLOGY DEVELOPMENT (CANADA) LIMITED
ATTN: JEANETTE BLESKIE
ENGINEERING BUILDING DOOR 10 - EXPLORATION
HWY 17 WEST
COPPER CLIFF ON P0M 1N0

This is the Final Report and supersedes any preliminary report with this certificate number. Results apply to samples as submitted. All pages of this report have been checked and approved for release.

Signature:
Colin Ramshaw, Vancouver Laboratory Manager

ALS Canada Ltd.
2103 Dollarton Hwy
North Vancouver BC V7H 0A7
Phone: 604 984 0221 Fax: 604 984 0218 www.alsglobal.com

To: VALE TECHNOLOGY DEVELOPMENT (CANADA) LIMITED
ENGINEERING BUILDING DOOR 10 - EXPLORATION
HWY 17 WEST
COPPER CLIFF ON P0M 1N0
Project: 21136.00310

Finalized Date: 22- DEC- 2010
Account: PJR

CERTIFICATE OF ANALYSIS SD10187393

Sample Description	Method Analyte Units LOR	WEI-21 Recvd Wt. kg 0.02	ME-ICP61 Ag ppm 0.5	ME-ICP61 Al % 0.01	ME-ICP61 As ppm 5	ME-ICP61 Ba ppm 10	ME-ICP61 Be ppm 0.5	ME-ICP61 Bi ppm 2	ME-ICP61 Ca % 0.01	ME-ICP61 Cd ppm 0.5	ME-ICP61 Co ppm 1	ME-ICP61 Cr ppm 1	ME-ICP61 Cu ppm 1	ME-ICP61 Fe % 0.01	ME-ICP61 Ga ppm 10	ME-ICP61 K % 0.01
MG173179		1.79	<0.5	7.93	<5	380	3.3	6	4.49	<0.5	34	27	36	7.58	20	1.67
MG173180		0.79	<0.5	5.13	<5	70	1.6	<2	1.63	<0.5	10	42	71	1.37	10	0.26
MG173181		1.51	<0.5	7.47	<5	300	3.6	4	4.56	<0.5	33	27	36	7.46	20	1.30
MG173182		1.01	<0.5	7.59	<5	460	3.6	4	3.76	<0.5	25	12	213	7.50	20	2.25

Comments: VITSL-10-0233

ALS Canada Ltd.
2103 Dollarton Hwy
North Vancouver BC V7H 0A7
Phone: 604 984 0221 Fax: 604 984 0218 www.alsglobal.com

To: VALE TECHNOLOGY DEVELOPMENT (CANADA) LIMITED
ENGINEERING BUILDING DOOR 10 - EXPLORATION
HWY 17 WEST
COPPER CLIFF ON P0M 1N0
Project: 21136.00310

Finalized Date: 22- DEC- 2010
Account: PJR

CERTIFICATE OF ANALYSIS SD10187393

Sample Description	Method Analyte Units LOR	ME- ICP61 La ppm 10	ME- ICP61 Mg % 0.01	ME- ICP61 Mn ppm 5	ME- ICP61 Mo ppm 1	ME- ICP61 Na % 0.01	ME- ICP61 Ni ppm 1	ME- ICP61 P ppm 10	ME- ICP61 Pb ppm 2	ME- ICP61 S % 0.01	ME- ICP61 Sb ppm 5	ME- ICP61 Sc ppm 1	ME- ICP61 Sr ppm 1	ME- ICP61 Th ppm 20	ME- ICP61 Ti % 0.01	ME- ICP61 Tl ppm 10
MG173179		40	2.13	1020	2	2.36	21	1030	15	0.10	<5	26	165	<20	0.84	<10
MG173180		40	0.21	184	3	3.23	10	70	34	0.12	<5	3	120	50	0.07	<10
MG173181		40	2.02	1010	2	2.26	21	930	19	0.10	<5	23	148	30	0.80	<10
MG173182		60	1.16	1125	2	2.30	2	2010	27	0.69	<5	21	139	30	0.95	<10

Comments: VITSL- 10- 0233

ALS Canada Ltd.
2103 Dollarton Hwy
North Vancouver BC V7H 0A7
Phone: 604 984 0221 Fax: 604 984 0218 www.alsglobal.com

To: VALE TECHNOLOGY DEVELOPMENT (CANADA) LIMITED
ENGINEERING BUILDING DOOR 10 - EXPLORATION
HWY 17 WEST
COPPER CLIFF ON P0M 1N0

Finalized Date: 22- DEC- 2010
Account: PJR

Project: 21136.00310

CERTIFICATE OF ANALYSIS SD10187393

Sample Description	Method Analyte Units LOR	ME-ICP61 U ppm 10	ME-ICP61 V ppm 1	ME-ICP61 W ppm 10	ME-ICP61 Zn ppm 2	PGM-ICP23 Au ppm 0.001	PGM-ICP23 Pt ppm 0.005	PGM-ICP23 Pd ppm 0.001
MG173179		<10	304	<10	116	<0.001	<0.005	<0.001
MG173180		20	24	<10	22	0.001	<0.005	<0.001
MG173181		<10	313	<10	113	0.001	<0.005	<0.001
MG173182		<10	98	<10	165	0.001	<0.005	<0.001

Comments: VITSL-10-0233

ALS Canada Ltd.
2103 Dollarton Hwy
North Vancouver BC V7H 0A7
Phone: 604 984 0221 Fax: 604 984 0218 www.alsglobal.com

To: VALE TECHNOLOGY DEVELOPMENT (CANADA) LIMITED
ENGINEERING BUILDING DOOR 10 - EXPLORATION
HWY 17 WEST
COPPER CLIFF ON P0M 1N0

Finalized Date: 24- DEC- 2010
Account: PJR

CERTIFICATE SD10188330

Project: 21146.00310

P.O. No.: 9811

This report is for 7 Drill Core samples submitted to our lab in Sudbury, ON, Canada on 9- DEC- 2010.

The following have access to data associated with this certificate:

GORDON BAILEY	NORMAND BELLEMARE	JEANETTE BLESKIE
ARNIE BURTON	MEBS EMAIL	SCOTT JEFFERY
SASA KRSTIC	STEVEN MCGLADE	RYAN PAQUETTE
JOE ROQUE	KRISTEN SIMPSON	BRIAN THOMAS
ATULYA VERMA		

SAMPLE PREPARATION

ALS CODE	DESCRIPTION
WEI- 21	Received Sample Weight
LOG- 22	Sample login - Rcd w/o BarCode
CRU- 31	Fine crushing - 70% < 2mm
SPL- 22Y	Split Sample - Boyd Rotary Splitter
PUL- 31	Pulverize split to 85% < 75 um

ANALYTICAL PROCEDURES

ALS CODE	DESCRIPTION	INSTRUMENT
PGM- ICP23	Pt, Pd, Au 30g FA ICP	ICP- AES
ME- ICP61	33 element four acid ICP- AES	ICP- AES

To: VALE TECHNOLOGY DEVELOPMENT (CANADA) LIMITED
ATTN: JEANETTE BLESKIE
ENGINEERING BUILDING DOOR 10 - EXPLORATION
HWY 17 WEST
COPPER CLIFF ON P0M 1N0

This is the Final Report and supersedes any preliminary report with this certificate number. Results apply to samples as submitted. All pages of this report have been checked and approved for release.

Signature:
Colin Ramshaw, Vancouver Laboratory Manager

ALS Canada Ltd.
2103 Dollarton Hwy
North Vancouver BC V7H 0A7
Phone: 604 984 0221 Fax: 604 984 0218 www.alsglobal.com

To: VALE TECHNOLOGY DEVELOPMENT (CANADA) LIMITED
ENGINEERING BUILDING DOOR 10 - EXPLORATION
HWY 17 WEST
COPPER CLIFF ON P0M 1N0

Finalized Date: 24- DEC- 2010
Account: PJR

Project: 21146.00310

CERTIFICATE OF ANALYSIS SD10188330

Sample Description	Method	WEI- 21	ME- ICP61	ME- ICP61	ME- ICP61	ME- ICP61	ME- ICP61	ME- ICP61	ME- ICP61	ME- ICP61	ME- ICP61	ME- ICP61	ME- ICP61	ME- ICP61	ME- ICP61	ME- ICP61
	Analyte	Recvd Wt.	Ag	Al	As	Ba	Be	Bi	Ca	Cd	Co	Cr	Cu	Fe	Ga	K
	Units	kg	ppm	%	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	%	ppm	%
	LOR	0.02	0.5	0.01	5	10	0.5	2	0.01	0.5	1	1	1	0.01	10	0.01
MG173172		1.33	<0.5	7.54	7	640	4.8	<2	3.35	<0.5	20	13	71	6.75	20	2.03
MG173173		3.76	<0.5	7.94	<5	470	4.1	<2	4.91	<0.5	38	5	71	9.45	20	1.87
MG173174		5.35	<0.5	7.86	14	400	3.2	<2	5.02	<0.5	43	4	88	9.68	20	1.56
MG173175		2.87	<0.5	6.68	5	1110	4.1	<2	1.56	<0.5	4	17	40	3.77	20	3.89
MG173176		1.61	<0.5	7.85	<5	270	4.0	3	6.24	<0.5	38	81	48	7.79	20	1.24
MG173177		0.78	0.5	7.96	<5	270	3.5	<2	6.30	<0.5	46	73	89	8.29	20	1.26
MG173178		1.33	<0.5	8.18	<5	260	3.2	<2	6.64	<0.5	39	80	29	8.10	20	1.24

Comments: VITSL- 10- 0232

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ENGINEERING BUILDING DOOR 10 - EXPLORATION
HWY 17 WEST
COPPER CLIFF ON P0M 1N0

Finalized Date: 24- DEC- 2010
Account: PJR

Project: 21146.00310

CERTIFICATE OF ANALYSIS SD10188330

Sample Description	Method	ME- ICP61	ME- ICP61	ME- ICP61	ME- ICP61	ME- ICP61	ME- ICP61	ME- ICP61	ME- ICP61	ME- ICP61	ME- ICP61	ME- ICP61	ME- ICP61	ME- ICP61	ME- ICP61	ME- ICP61
	Analyte	La	Mg	Mn	Mo	Na	Ni	P	Pb	S	Sb	Sc	Sr	Th	Ti	Tl
	Units	ppm	%	ppm	ppm	%	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	%	ppm
	LOR	10	0.01	5	1	0.01	1	10	2	0.01	5	1	1	20	0.01	10
MG173172		50	1.17	1055	1	2.04	2	1860	27	0.18	<5	18	144	20	0.87	<10
MG173173		50	2.02	1375	1	1.88	8	1640	23	0.12	<5	28	163	20	1.20	<10
MG173174		50	2.30	1435	1	1.76	13	1550	19	0.20	<5	28	171	20	1.28	<10
MG173175		80	0.22	521	3	2.16	2	440	20	0.07	<5	9	108	30	0.29	<10
MG173176		30	3.50	1325	1	2.01	58	1160	15	0.09	<5	30	147	<20	0.70	<10
MG173177		30	3.50	1340	1	1.89	66	1180	13	0.31	<5	30	145	<20	0.70	<10
MG173178		30	3.76	1390	<1	2.01	57	1240	13	0.06	<5	32	159	<20	0.72	<10

Comments: VITSL- 10- 0232

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To: VALE TECHNOLOGY DEVELOPMENT (CANADA) LIMITED
ENGINEERING BUILDING DOOR 10 - EXPLORATION
HWY 17 WEST
COPPER CLIFF ON P0M 1N0
Project: 21146.00310

Finalized Date: 24- DEC- 2010
Account: PJR

CERTIFICATE OF ANALYSIS SD10188330

Sample Description	Method	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	PGM-ICP23	PGM-ICP23	PGM-ICP23
	Analyte	U	V	W	Zn	Au	Pt	Pd
	Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
	LOR	10	1	10	2	0.001	0.005	0.001
MG173172		<10	129	<10	102	<0.001	<0.005	<0.001
MG173173		<10	371	<10	138	<0.001	<0.005	<0.001
MG173174		<10	394	<10	111	<0.001	<0.005	<0.001
MG173175		<10	6	<10	61	0.003	<0.005	0.001
MG173176		<10	174	<10	114	0.001	<0.005	<0.001
MG173177		<10	182	<10	112	<0.001	<0.005	<0.001
MG173178		<10	184	<10	118	<0.001	<0.005	<0.001

Comments: VITSL-10-0232

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To: VALE TECHNOLOGY DEVELOPMENT (CANADA) LIMITED
ENGINEERING BUILDING DOOR 10 - EXPLORATION
HWY 17 WEST
COPPER CLIFF ON P0M 1N0

Finalized Date: 30- DEC- 2010
Account: PJR

CERTIFICATE SD10192042

Project: 21136.00310

P.O. No.: 9811

This report is for 8 Drill Core samples submitted to our lab in Sudbury, ON, Canada on 16- DEC- 2010.

The following have access to data associated with this certificate:

GORDON BAILEY	NORMAND BELLEMARE	JEANETTE BLESKIE
ARNIE BURTON	MEBS EMAIL	SCOTT JEFFERY
SASA KRSTIC	STEVEN MCGLADE	RYAN PAQUETTE
JOE ROQUE	KRISTEN SIMPSON	BRIAN THOMAS
ATULYA VERMA		

SAMPLE PREPARATION

ALS CODE	DESCRIPTION
WEI- 21	Received Sample Weight
LOG- 22	Sample login - Rcd w/o BarCode
CRU- 31	Fine crushing - 70% < 2mm
SPL- 22Y	Split Sample - Boyd Rotary Splitter
PUL- 31	Pulverize split to 85% < 75 um

ANALYTICAL PROCEDURES

ALS CODE	DESCRIPTION	INSTRUMENT
PGM- ICP23	Pt, Pd, Au 30g FA ICP	ICP- AES
ME- ICP61	33 element four acid ICP- AES	ICP- AES

To: VALE TECHNOLOGY DEVELOPMENT (CANADA) LIMITED
ATTN: JEANETTE BLESKIE
ENGINEERING BUILDING DOOR 10 - EXPLORATION
HWY 17 WEST
COPPER CLIFF ON P0M 1N0

This is the Final Report and supersedes any preliminary report with this certificate number. Results apply to samples as submitted. All pages of this report have been checked and approved for release.

Signature:
Colin Ramshaw, Vancouver Laboratory Manager

ALS Canada Ltd.
2103 Dollarton Hwy
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Phone: 604 984 0221 Fax: 604 984 0218 www.alsglobal.com

To: VALE TECHNOLOGY DEVELOPMENT (CANADA) LIMITED
ENGINEERING BUILDING DOOR 10 - EXPLORATION
HWY 17 WEST
COPPER CLIFF ON P0M 1N0

Finalized Date: 30- DEC- 2010
Account: PJR

Project: 21136.00310

CERTIFICATE OF ANALYSIS SD10192042

Sample Description	Method	WEI-21	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61
	Analyte	Recvd Wt.	Ag	Al	As	Ba	Be	Bi	Ca	Cd	Co	Cr	Cu	Fe	Ga	K
	Units	kg	ppm	%	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	%	ppm	%
	LOR	0.02	0.5	0.01	5	10	0.5	2	0.01	0.5	1	1	1	0.01	10	0.01
MG173183		2.23	2.0	7.96	5	790	3.8	<2	3.18	<0.5	21	10	42	6.49	20	3.07
MG173184		0.91	0.8	7.05	<5	390	3.7	<2	3.71	<0.5	27	10	62	7.39	20	2.13
MG173185		2.86	<0.5	7.35	<5	430	3.6	<2	4.07	<0.5	27	30	31	8.10	20	2.29
MG173186		1.14	<0.5	7.07	<5	480	3.3	<2	4.02	<0.5	25	15	42	7.96	20	2.46
MG173187		0.71	<0.5	7.43	<5	330	1.6	<2	6.01	<0.5	46	31	61	9.09	20	1.03
MG173188		1.65	<0.5	7.58	7	240	1.2	<2	4.78	<0.5	37	238	131	6.87	20	0.84
MG173189		1.18	<0.5	6.99	18	130	0.9	<2	4.68	<0.5	46	301	326	7.47	20	0.51
MG173190		1.71	<0.5	7.55	<5	240	1.1	<2	5.17	<0.5	42	318	110	7.96	20	0.83

Comments: VITSL-10-0238

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To: VALE TECHNOLOGY DEVELOPMENT (CANADA) LIMITED
ENGINEERING BUILDING DOOR 10 - EXPLORATION
HWY 17 WEST
COPPER CLIFF ON P0M 1N0
Project: 21136.00310

Finalized Date: 30- DEC- 2010
Account: PJR

CERTIFICATE OF ANALYSIS SD10192042

Sample Description	Method	ME- ICP61	ME- ICP61	ME- ICP61	ME- ICP61	ME- ICP61	ME- ICP61	ME- ICP61	ME- ICP61	ME- ICP61	ME- ICP61	ME- ICP61	ME- ICP61	ME- ICP61	ME- ICP61	ME- ICP61
	Analyte	La	Mg	Mn	Mo	Na	Ni	P	Pb	S	Sb	Sc	Sr	Th	Ti	Tl
	Units	ppm	%	ppm	ppm	%	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	%	ppm
	LOR	10	0.01	5	1	0.01	1	10	2	0.01	5	1	1	20	0.01	10
MG173183		50	0.97	995	2	2.22	8	1490	30	0.04	<5	15	133	20	0.79	<10
MG173184		60	1.13	1115	3	1.97	5	1850	26	0.13	<5	21	115	20	0.95	<10
MG173185		60	1.25	1280	3	1.94	14	1900	28	0.05	<5	22	128	20	1.06	<10
MG173186		60	1.28	1290	2	1.62	7	1910	27	0.09	<5	21	128	20	1.03	<10
MG173187		30	2.75	1330	1	1.78	37	1160	15	0.19	<5	31	156	<20	0.99	10
MG173188		30	3.91	1130	1	1.75	102	930	16	0.11	<5	22	155	<20	0.55	<10
MG173189		20	4.49	1090	1	1.50	116	1080	12	0.12	<5	24	121	<20	0.56	<10
MG173190		20	4.80	1255	<1	1.48	123	1100	9	0.10	<5	23	141	<20	0.66	<10

Comments: VITSL- 10- 0238

ALS Canada Ltd.
2103 Dollarton Hwy
North Vancouver BC V7H 0A7
Phone: 604 984 0221 Fax: 604 984 0218 www.alsglobal.com

To: VALE TECHNOLOGY DEVELOPMENT (CANADA) LIMITED
ENGINEERING BUILDING DOOR 10 - EXPLORATION
HWY 17 WEST
COPPER CLIFF ON P0M 1N0
Project: 21136.00310

Finalized Date: 30- DEC- 2010
Account: PJR

CERTIFICATE OF ANALYSIS SD10192042

Sample Description	Method Analyte Units LOR	ME-ICP61 U ppm 10	ME-ICP61 V ppm 1	ME-ICP61 W ppm 10	ME-ICP61 Zn ppm 2	PGM-ICP23 Au ppm 0.001	PGM-ICP23 Pt ppm 0.005	PGM-ICP23 Pd ppm 0.001
MG173183		<10	115	<10	122	<0.001	<0.005	0.002
MG173184		<10	136	<10	142	<0.001	0.008	0.007
MG173185		<10	156	<10	153	<0.001	<0.005	0.003
MG173186		<10	156	<10	156	<0.001	<0.005	0.002
MG173187		<10	319	<10	128	<0.001	<0.005	<0.001
MG173188		<10	139	<10	101	<0.001	<0.005	0.001
MG173189		<10	149	<10	107	<0.001	<0.005	0.001
MG173190		<10	164	<10	112	<0.001	<0.005	0.001

Comments: VITSL-10-0238

ALS Canada Ltd.
2103 Dollarton Hwy
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Phone: 604 984 0221 Fax: 604 984 0218 www.alsglobal.com

To: VALE TECHNOLOGY DEVELOPMENT (CANADA) LIMITED
ENGINEERING BUILDING DOOR 10 - EXPLORATION
HWY 17 WEST
COPPER CLIFF ON P0M 1N0

Finalized Date: 22- JAN- 2011
Account: PJR

CERTIFICATE SD11007229

Project: 21136.00310

P.O. No.: 9811

This report is for 7 Drill Core samples submitted to our lab in Sudbury, ON, Canada on 13- JAN- 2011.

The following have access to data associated with this certificate:

GORDON BAILEY	NORMAND BELLEMARE	JEANETTE BLESKIE
ARNIE BURTON	MEBS EMAIL	SCOTT JEFFERY
SASA KRSTIC	STEVEN MCGLADE	RYAN PAQUETTE
JOE ROQUE	KRISTEN SIMPSON	BRIAN THOMAS
ATULYA VERMA		

SAMPLE PREPARATION

ALS CODE	DESCRIPTION
WEI- 21	Received Sample Weight
LOG- 22	Sample login - Rcd w/o BarCode
CRU- 31	Fine crushing - 70% < 2mm
SPL- 22Y	Split Sample - Boyd Rotary Splitter
PUL- 31	Pulverize split to 85% < 75 um

ANALYTICAL PROCEDURES

ALS CODE	DESCRIPTION	INSTRUMENT
PGM- ICP23	Pt, Pd, Au 30g FA ICP	ICP- AES
ME- ICP61	33 element four acid ICP- AES	ICP- AES

To: VALE TECHNOLOGY DEVELOPMENT (CANADA) LIMITED
ATTN: JEANETTE BLESKIE
ENGINEERING BUILDING DOOR 10 - EXPLORATION
HWY 17 WEST
COPPER CLIFF ON P0M 1N0

This is the Final Report and supersedes any preliminary report with this certificate number. Results apply to samples as submitted. All pages of this report have been checked and approved for release.

Signature:
Colin Ramshaw, Vancouver Laboratory Manager

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North Vancouver BC V7H 0A7
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ENGINEERING BUILDING DOOR 10 - EXPLORATION
HWY 17 WEST
COPPER CLIFF ON P0M 1N0
Project: 21136.00310

Finalized Date: 22- JAN- 2011
Account: PJR

CERTIFICATE OF ANALYSIS SD11007229

Sample Description	Method Analyte Units LOR	WEI- 21 Recvd Wt. kg 0.02	ME- ICP61 Ag ppm 0.5	ME- ICP61 Al % 0.01	ME- ICP61 As ppm 5	ME- ICP61 Ba ppm 10	ME- ICP61 Be ppm 0.5	ME- ICP61 Bi ppm 2	ME- ICP61 Ca % 0.01	ME- ICP61 Cd ppm 0.5	ME- ICP61 Co ppm 1	ME- ICP61 Cr ppm 1	ME- ICP61 Cu ppm 1	ME- ICP61 Fe % 0.01	ME- ICP61 Ga ppm 10	ME- ICP61 K % 0.01
MG168436		2.02	<0.5	6.58	8	490	3.3	<2	2.10	<0.5	25	24	21	6.38	20	2.50
MG168437		1.48	<0.5	7.91	<5	720	3.6	<2	3.56	<0.5	42	12	457	10.05	20	4.06
MG168438		1.39	<0.5	7.81	<5	460	1.2	<2	5.52	<0.5	37	11	111	8.48	20	1.16
MG168439		0.67	0.5	6.40	9	450	0.9	<2	5.45	1.2	39	18	564	7.37	20	1.15
MG168440		2.88	<0.5	7.65	11	410	1.1	<2	5.56	<0.5	35	11	110	8.24	20	1.00
MG168441		0.92	<0.5	7.72	<5	460	1.1	<2	5.56	<0.5	34	12	179	8.50	20	1.17
MG168442		0.99	<0.5	7.96	5	500	1.1	<2	5.75	<0.5	35	11	102	8.38	20	1.23

Comments: VITSL- 10- 0243

ALS Canada Ltd.
2103 Dollarton Hwy
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Phone: 604 984 0221 Fax: 604 984 0218 www.alsglobal.com

To: VALE TECHNOLOGY DEVELOPMENT (CANADA) LIMITED
ENGINEERING BUILDING DOOR 10 - EXPLORATION
HWY 17 WEST
COPPER CLIFF ON P0M 1N0

Finalized Date: 22- JAN- 2011
Account: PJR

Project: 21136.00310

CERTIFICATE OF ANALYSIS SD11007229

Sample Description	Method Analyte Units LOR	ME- ICP61 La ppm 10	ME- ICP61 Mg % 0.01	ME- ICP61 Mn ppm 5	ME- ICP61 Mo ppm 1	ME- ICP61 Na % 0.01	ME- ICP61 Ni ppm 1	ME- ICP61 P ppm 10	ME- ICP61 Pb ppm 2	ME- ICP61 S % 0.01	ME- ICP61 Sb ppm 5	ME- ICP61 Sc ppm 1	ME- ICP61 Sr ppm 1	ME- ICP61 Th ppm 20	ME- ICP61 Ti % 0.01	ME- ICP61 Tl ppm 10
MG168436		50	1.46	647	1	2.20	24	790	3	0.04	<5	16	136	20	0.74	<10
MG168437		40	2.34	1045	<1	1.76	18	1230	14	0.20	<5	28	154	20	1.17	<10
MG168438		20	2.71	1500	<1	2.28	27	1020	9	0.09	<5	37	309	<20	0.81	<10
MG168439		20	2.23	1335	1	1.85	34	830	10	0.26	<5	30	262	<20	0.67	<10
MG168440		20	2.62	1485	<1	2.27	26	990	5	0.07	<5	36	317	<20	0.80	<10
MG168441		20	2.65	1520	<1	2.26	26	1000	9	0.08	<5	37	320	<20	0.80	<10
MG168442		20	2.67	1510	<1	2.31	27	1020	8	0.07	<5	37	333	<20	0.81	10

Comments: VITSL- 10- 0243

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To: VALE TECHNOLOGY DEVELOPMENT (CANADA) LIMITED
ENGINEERING BUILDING DOOR 10 - EXPLORATION
HWY 17 WEST
COPPER CLIFF ON P0M 1N0

Finalized Date: 22-JAN-2011
Account: PJR

Project: 21136.00310

CERTIFICATE OF ANALYSIS SD11007229

Sample Description	Method Analyte Units LOR	ME-ICP61 U ppm 10	ME-ICP61 V ppm 1	ME-ICP61 W ppm 10	ME-ICP61 Zn ppm 2	PGM-ICP23 Au ppm 0.001	PGM-ICP23 Pt ppm 0.005	PGM-ICP23 Pd ppm 0.001
MG168436		<10	189	<10	68	0.001	<0.005	<0.001
MG168437		<10	432	<10	112	0.007	<0.005	<0.001
MG168438		<10	293	<10	113	0.001	<0.005	<0.001
MG168439		<10	240	<10	178	0.001	<0.005	0.001
MG168440		<10	288	<10	120	0.001	<0.005	0.001
MG168441		<10	285	<10	126	0.001	<0.005	0.001
MG168442		10	289	<10	125	0.001	<0.005	0.001

Comments: VITSL-10-0243

ALS Canada Ltd.
2103 Dollarton Hwy
North Vancouver BC V7H 0A7
Phone: 604 984 0221 Fax: 604 984 0218 www.alsglobal.com

To: VALE TECHNOLOGY DEVELOPMENT (CANADA) LIMITED
ENGINEERING BUILDING DOOR 10 - EXPLORATION
HWY 17 WEST
COPPER CLIFF ON P0M 1N0

Finalized Date: 23- JAN- 2011
This copy reported on 12- DEC- 2011
Account: PJR

CERTIFICATE SD11006588

Project: 21136.00310

P.O. No.: 9811

This report is for 22 Drill Core samples submitted to our lab in Sudbury, ON, Canada on 13- JAN- 2011.

The following have access to data associated with this certificate:

GORDON BAILEY	NORMAND BELLEMARE	JEANETTE BLESKIE
ARNIE BURTON	MEBS EMAIL	SCOTT JEFFERY
SASA KRSTIC	STEVEN MCGLADE	RYAN PAQUETTE
JOE ROQUE	KRISTEN SIMPSON	BRIAN THOMAS
ATULYA VERMA	VALE MEBS SUPPORT WEBTRIEVE	

SAMPLE PREPARATION

ALS CODE	DESCRIPTION
WEI- 21	Received Sample Weight
LOG- 22	Sample login - Rcd w/o BarCode
CRU- 31	Fine crushing - 70% < 2mm
SPL- 22Y	Split Sample - Boyd Rotary Splitter
PUL- 31	Pulverize split to 85% < 75 um

ANALYTICAL PROCEDURES

ALS CODE	DESCRIPTION	INSTRUMENT
PGM- ICP23	Pt, Pd, Au 30g FA ICP	ICP- AES
ME- ICP61	33 element four acid ICP- AES	ICP- AES

To: VALE TECHNOLOGY DEVELOPMENT (CANADA) LIMITED
ATTN: JEANETTE BLESKIE
ENGINEERING BUILDING DOOR 10 - EXPLORATION
HWY 17 WEST
COPPER CLIFF ON P0M 1N0

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Signature:
Colin Ramshaw, Vancouver Laboratory Manager

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ENGINEERING BUILDING DOOR 10 - EXPLORATION
HWY 17 WEST
COPPER CLIFF ON P0M 1N0
Project: 21136.00310

Finalized Date: 23- JAN- 2011
Account: PJR

CERTIFICATE OF ANALYSIS SD11006588

Sample Description	Method	WEI- 21	ME- ICP61	ME- ICP61	ME- ICP61	ME- ICP61	ME- ICP61	ME- ICP61	ME- ICP61	ME- ICP61	ME- ICP61	ME- ICP61	ME- ICP61	ME- ICP61	ME- ICP61	ME- ICP61
	Analyte	Recvd Wt.	Ag	Al	As	Ba	Be	Bi	Ca	Cd	Co	Cr	Cu	Fe	Ga	K
	Units	kg	ppm	%	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	%	ppm	%
	LOR	0.02	0.5	0.01	5	10	0.5	2	0.01	0.5	1	1	1	0.01	10	0.01
MG168424		0.68	<0.5	6.82	<5	490	2.8	3	3.30	<0.5	28	14	73	6.64	20	2.07
MG168425		8.45	<0.5	7.24	<5	1070	2.7	<2	1.99	<0.5	15	19	39	4.18	20	2.84
MG168426		1.04	1.3	7.73	<5	770	2.0	3	1.97	10.7	70	80	414	10.50	20	4.54
MG168427		1.98	<0.5	7.62	<5	770	1.8	<2	3.62	<0.5	49	106	82	10.60	20	5.32
MG168428		4.55	<0.5	7.58	<5	430	1.9	<2	5.16	<0.5	52	82	75	9.22	20	3.00
MG168429		13.35	<0.5	7.54	<5	410	3.6	4	4.76	<0.5	34	6	64	8.75	20	1.67
MG168430		1.93	<0.5	7.50	<5	1010	2.7	2	2.29	<0.5	12	18	30	4.00	20	2.35
MG168431		0.68	<0.5	7.87	<5	600	2.9	3	3.99	<0.5	27	10	26	8.62	20	2.75
MG168432		13.14	<0.5	6.67	<5	870	2.7	<2	1.73	<0.5	9	18	21	3.24	20	3.07
MG168433		6.52	<0.5	6.41	<5	890	2.3	<2	1.57	<0.5	4	14	4	1.85	20	3.14
MG168434		0.70	<0.5	6.92	5	1070	2.6	<2	1.80	<0.5	5	17	49	2.03	20	3.67
MG168435		1.46	<0.5	7.01	<5	850	3.1	<2	1.33	<0.5	6	18	10	2.41	20	3.99
MG173191		1.35	<0.5	8.24	8	220	0.9	<2	5.43	0.5	62	207	150	8.33	20	0.94
MG173192		1.09	<0.5	7.96	12	190	0.8	3	5.38	<0.5	57	197	147	7.73	20	0.82
MG173193		6.36	<0.5	8.35	<5	230	0.9	2	5.56	<0.5	60	209	117	8.52	20	1.00
MG173194		0.82	1.6	5.63	<5	240	0.9	5	4.70	<0.5	173	217	2900	9.79	10	1.08
MG173195		2.40	<0.5	8.55	<5	310	1.1	2	5.69	0.5	60	204	127	8.92	20	1.34
MG173196		1.11	<0.5	7.25	<5	670	2.7	4	4.58	<0.5	41	9	139	9.60	20	3.59
MG173197		10.53	<0.5	7.89	<5	490	3.0	3	4.70	<0.5	37	10	46	10.10	20	2.64
MG173198		7.66	<0.5	7.77	<5	460	3.3	2	4.48	<0.5	33	7	44	8.92	20	2.14
MG173199		3.75	<0.5	7.51	<5	1020	3.1	2	3.15	<0.5	22	10	42	6.21	20	2.80
MG173200		2.18	<0.5	7.61	<5	590	3.4	2	4.56	<0.5	33	4	47	8.69	20	2.49

Comments: **Corrected copy for ME- ICP61 and PGM- ICP23 on samples MG168425 and MG168427**

ALS Canada Ltd.
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North Vancouver BC V7H 0A7
Phone: 604 984 0221 Fax: 604 984 0218 www.alsglobal.com

To: VALE TECHNOLOGY DEVELOPMENT (CANADA) LIMITED
ENGINEERING BUILDING DOOR 10 - EXPLORATION
HWY 17 WEST
COPPER CLIFF ON P0M 1N0
Project: 21136.00310

Finalized Date: 23- JAN- 2011
Account: PJR

CERTIFICATE OF ANALYSIS SD11006588

Sample Description	Method	ME- ICP61	ME- ICP61	ME- ICP61	ME- ICP61	ME- ICP61	ME- ICP61	ME- ICP61	ME- ICP61	ME- ICP61	ME- ICP61	ME- ICP61	ME- ICP61	ME- ICP61	ME- ICP61	ME- ICP61
	Analyte	La	Mg	Mn	Mo	Na	Ni	P	Pb	S	Sb	Sc	Sr	Th	Ti	Tl
	Units	ppm	%	ppm	ppm	%	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	%	ppm
	LOR	10	0.01	5	1	0.01	1	10	2	0.01	5	1	1	20	0.01	10
MG168424		40	1.29	887	3	1.87	13	1030	18	0.12	<5	18	159	20	0.79	<10
MG168425		80	0.79	477	3	2.51	14	900	24	0.05	<5	10	170	20	0.47	<10
MG168426		30	3.68	1100	20	1.24	145	1400	319	0.74	<5	19	110	<20	0.68	10
MG168427		20	5.21	1510	<1	0.74	246	1360	16	0.05	<5	20	92	<20	0.71	<10
MG168428		20	5.18	1600	<1	1.47	265	1270	15	0.07	<5	21	131	<20	0.72	<10
MG168429		40	1.80	1350	1	2.22	20	1680	18	0.13	<5	26	159	<20	1.18	<10
MG168430		60	0.65	546	4	2.86	12	860	22	0.05	<5	9	183	20	0.43	<10
MG168431		60	1.75	1160	2	1.83	18	1490	18	0.04	<5	23	188	<20	1.02	<10
MG168432		70	0.49	445	2	2.12	9	530	23	0.03	<5	7	130	30	0.32	<10
MG168433		70	0.31	261	2	2.29	9	340	16	<0.01	<5	5	112	30	0.23	<10
MG168434		60	0.42	302	2	2.65	9	330	13	0.01	<5	5	96	30	0.23	<10
MG168435		80	0.41	325	1	2.04	11	350	21	0.01	<5	5	105	30	0.23	<10
MG173191		20	6.21	1220	<1	1.52	294	970	9	0.12	<5	19	149	<20	0.52	<10
MG173192		20	5.75	1090	<1	1.57	257	920	8	0.09	<5	19	152	<20	0.49	<10
MG173193		20	6.22	1315	1	1.60	296	1020	8	0.09	<5	21	151	<20	0.54	<10
MG173194		20	5.48	1060	1	1.15	1030	800	10	1.97	<5	19	93	<20	0.42	<10
MG173195		20	6.22	1300	<1	1.57	288	1110	8	0.11	<5	21	154	<20	0.58	<10
MG173196		30	2.24	1115	1	1.55	30	1170	10	0.18	<5	27	155	<20	1.13	10
MG173197		40	2.24	1240	1	2.11	15	1440	13	0.10	<5	28	183	<20	1.15	<10
MG173198		40	1.95	1155	2	2.32	9	1410	12	0.09	<5	25	163	20	1.10	<10
MG173199		60	1.14	834	1	2.02	8	1110	14	0.08	<5	16	176	20	0.72	<10
MG173200		40	1.75	1250	1	1.72	3	1470	15	0.10	<5	25	167	20	1.12	<10

Comments: **Corrected copy for ME- ICP61 and PGM- ICP23 on samples MG168425 and MG168427**

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To: VALE TECHNOLOGY DEVELOPMENT (CANADA) LIMITED
ENGINEERING BUILDING DOOR 10 - EXPLORATION
HWY 17 WEST
COPPER CLIFF ON P0M 1N0

Finalized Date: 23- JAN- 2011
Account: PJR

Project: 21136.00310

CERTIFICATE OF ANALYSIS SD11006588

Sample Description	Method Analyte Units LOR	ME- ICP61 U ppm 10	ME- ICP61 V ppm 1	ME- ICP61 W ppm 10	ME- ICP61 Zn ppm 2	PGM- ICP23 Au ppm 0.001	PGM- ICP23 Pt ppm 0.005	PGM- ICP23 Pd ppm 0.001
MG168424		<10	173	<10	86	<0.001	<0.005	<0.001
MG168425		10	70	<10	72	0.001	<0.005	0.001
MG168426		<10	121	<10	1160	0.004	<0.005	<0.001
MG168427		<10	154	<10	216	0.001	<0.005	0.001
MG168428		<10	162	<10	175	<0.001	<0.005	<0.001
MG168429		<10	238	<10	143	<0.001	<0.005	<0.001
MG168430		<10	55	<10	71	<0.001	<0.005	<0.001
MG168431		<10	226	<10	146	<0.001	<0.005	<0.001
MG168432		<10	49	<10	59	<0.001	<0.005	<0.001
MG168433		<10	29	<10	30	<0.001	<0.005	<0.001
MG168434		<10	24	<10	30	<0.001	<0.005	<0.001
MG168435		<10	27	<10	50	<0.001	<0.005	<0.001
MG173191		<10	119	<10	113	0.001	0.005	<0.001
MG173192		<10	114	<10	110	0.002	0.005	<0.001
MG173193		<10	129	<10	115	0.001	0.005	<0.001
MG173194		<10	116	<10	112	0.026	0.005	0.001
MG173195		<10	137	<10	117	0.001	<0.005	<0.001
MG173196		<10	375	<10	93	<0.001	<0.005	<0.001
MG173197		<10	338	<10	93	<0.001	<0.005	<0.001
MG173198		<10	288	<10	96	<0.001	<0.005	<0.001
MG173199		<10	148	<10	82	<0.001	<0.005	<0.001
MG173200		<10	246	<10	118	0.003	<0.005	0.002

Comments: **Corrected copy for ME- ICP61 and PGM- ICP23 on samples MG168425 and MG168427**

ALS Canada Ltd.
2103 Dollarton Hwy
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To: VALE TECHNOLOGY DEVELOPMENT (CANADA) LIMITED
ENGINEERING BUILDING DOOR 10 - EXPLORATION
HWY 17 WEST
COPPER CLIFF ON P0M 1N0

Finalized Date: 10- FEB- 2011
Account: PJR

CERTIFICATE SD11014330

Project: 21136.00310

P.O. No.: 9811

This report is for 12 Drill Core samples submitted to our lab in Sudbury, ON, Canada on 27- JAN- 2011.

The following have access to data associated with this certificate:

GORDON BAILEY	NORMAND BELLEMARE	JEANETTE BLESKIE
ARNIE BURTON	MEBS EMAIL	SCOTT JEFFERY
SASA KRSTIC	STEVEN MCGLADE	RYAN PAQUETTE
JOE ROQUE	KRISTEN SIMPSON	BRIAN THOMAS
ATULYA VERMA		

SAMPLE PREPARATION

ALS CODE	DESCRIPTION
WEI- 21	Received Sample Weight
LOG- 23	Pulp Login - Rcvd with Barcode
LOG- 22	Sample login - Rcd w/o BarCode
CRU- 31	Fine crushing - 70% <2mm
SPL- 22Y	Split Sample - Boyd Rotary Splitter
PUL- 31	Pulverize split to 85% <75 um

ANALYTICAL PROCEDURES

ALS CODE	DESCRIPTION	INSTRUMENT
PGM- ICP23	Pt, Pd, Au 30g FA ICP	ICP- AES
ME- ICP61	33 element four acid ICP- AES	ICP- AES

To: VALE TECHNOLOGY DEVELOPMENT (CANADA) LIMITED
ATTN: JEANETTE BLESKIE
ENGINEERING BUILDING DOOR 10 - EXPLORATION
HWY 17 WEST
COPPER CLIFF ON P0M 1N0

This is the Final Report and supersedes any preliminary report with this certificate number. Results apply to samples as submitted. All pages of this report have been checked and approved for release.

Signature:
Colin Ramshaw, Vancouver Laboratory Manager

ALS Canada Ltd.
2103 Dollarton Hwy
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Phone: 604 984 0221 Fax: 604 984 0218 www.alsglobal.com

To: VALE TECHNOLOGY DEVELOPMENT (CANADA) LIMITED
ENGINEERING BUILDING DOOR 10 - EXPLORATION
HWY 17 WEST
COPPER CLIFF ON P0M 1N0
Project: 21136.00310

Finalized Date: 10- FEB- 2011
Account: PJR

CERTIFICATE OF ANALYSIS SD11014330

Sample Description	Method Analyte Units LOR	WEI-21 Recvd Wt. kg 0.02	ME-ICP61 Ag ppm 0.5	ME-ICP61 Al % 0.01	ME-ICP61 As ppm 5	ME-ICP61 Ba ppm 10	ME-ICP61 Be ppm 0.5	ME-ICP61 Bi ppm 2	ME-ICP61 Ca % 0.01	ME-ICP61 Cd ppm 0.5	ME-ICP61 Co ppm 1	ME-ICP61 Cr ppm 1	ME-ICP61 Cu ppm 1	ME-ICP61 Fe % 0.01	ME-ICP61 Ga ppm 10	ME-ICP61 K % 0.01
MG168443		1.53	<0.5	6.76	10	290	1.5	<2	6.03	<0.5	43	439	80	8.99	10	1.19
MG168444		0.70	<0.5	7.36	8	380	1.8	<2	5.09	<0.5	36	332	272	7.08	20	1.69
MG168445		1.72	<0.5	7.20	13	250	1.7	<2	5.25	<0.5	48	358	246	8.95	20	1.20
MG168446		0.02	0.5	9.92	7	290	0.5	<2	5.83	<0.5	116	100	1455	8.58	10	0.64
MG168447		1.68	<0.5	7.43	11	620	2.3	<2	3.50	<0.5	35	429	5	9.65	20	4.17
MG168448		0.88	<0.5	7.39	9	200	2.2	<2	2.73	<0.5	9	27	39	1.37	20	0.52
MG168449		2.36	<0.5	6.73	8	160	1.8	<2	1.95	<0.5	4	23	15	0.99	10	0.46
MG168450		6.62	<0.5	7.14	11	650	1.7	<2	4.43	<0.5	41	58	67	10.30	20	3.77
MG168451		13.34	<0.5	7.44	5	220	1.1	<2	7.22	<0.5	48	46	85	10.20	20	0.89
MG168452		14.02	<0.5	7.50	7	280	1.2	<2	7.00	0.8	47	36	66	10.40	20	0.84
MG168453		1.58	<0.5	2.14	7	200	1.2	<2	2.15	<0.5	46	24	220	4.55	10	0.32
MG168454		1.48	<0.5	7.31	5	530	3.9	<2	6.58	<0.5	39	18	92	9.89	20	0.95

Comments: VITSL-11-0008

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To: VALE TECHNOLOGY DEVELOPMENT (CANADA) LIMITED
ENGINEERING BUILDING DOOR 10 - EXPLORATION
HWY 17 WEST
COPPER CLIFF ON P0M 1N0

Finalized Date: 10- FEB- 2011
Account: PJR

Project: 21136.00310

CERTIFICATE OF ANALYSIS SD11014330

Sample Description	Method	ME- ICP61	ME- ICP61	ME- ICP61	ME- ICP61	ME- ICP61	ME- ICP61	ME- ICP61	ME- ICP61	ME- ICP61	ME- ICP61	ME- ICP61	ME- ICP61	ME- ICP61	ME- ICP61	ME- ICP61
	Analyte	La	Mg	Mn	Mo	Na	Ni	P	Pb	S	Sb	Sc	Sr	Th	Ti	Tl
	Units	ppm	%	ppm	ppm	%	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	%	ppm
	LOR	10	0.01	5	1	0.01	1	10	2	0.01	5	1	1	20	0.01	10
MG168443		30	4.39	1305	1	1.64	137	1230	10	0.18	<5	37	136	<20	0.81	10
MG168444		30	3.03	919	1	2.29	140	980	13	0.43	<5	24	168	<20	0.63	<10
MG168445		20	3.92	1125	1	1.76	153	1210	10	0.35	<5	32	138	<20	0.74	<10
MG168446		20	4.42	803	5	2.37	2540	1230	7	1.54	<5	11	594	<20	0.83	<10
MG168447		10	3.87	1120	2	1.20	76	1050	6	0.02	<5	32	73	<20	0.75	<10
MG168448		30	0.32	237	1	4.55	15	150	29	0.11	<5	6	188	30	0.13	<10
MG168449		40	0.18	159	1	4.03	9	70	35	0.02	<5	5	170	50	0.08	<10
MG168450		20	3.75	1260	1	0.92	52	1570	5	0.14	<5	37	80	<20	0.96	<10
MG168451		20	3.91	1560	1	1.51	53	1380	6	0.18	<5	41	152	<20	1.15	<10
MG168452		20	3.57	1605	1	1.71	40	1560	6	0.17	<5	40	162	<20	1.25	<10
MG168453		80	0.86	517	2	0.73	48	540	14	0.65	<5	12	51	30	0.37	<10
MG168454		40	2.53	1525	1	2.26	24	1720	10	0.20	<5	39	247	<20	1.25	<10

Comments: VITSL- 11- 0008

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To: VALE TECHNOLOGY DEVELOPMENT (CANADA) LIMITED
ENGINEERING BUILDING DOOR 10 - EXPLORATION
HWY 17 WEST
COPPER CLIFF ON P0M 1N0

Finalized Date: 10- FEB- 2011
Account: PJR

Project: 21136.00310

CERTIFICATE OF ANALYSIS SD11014330

Sample Description	Method Analyte Units LOR	ME- ICP61 U ppm 10	ME- ICP61 V ppm 1	ME- ICP61 W ppm 10	ME- ICP61 Zn ppm 2	PGM- ICP23 Au ppm 0.001	PGM- ICP23 Pt ppm 0.005	PGM- ICP23 Pd ppm 0.001
MG168443		<10	242	<10	103	0.001	<0.005	<0.001
MG168444		<10	218	<10	77	0.002	<0.005	0.001
MG168445		<10	231	<10	109	0.002	0.008	0.001
MG168446		<10	76	<10	81	0.022	0.010	0.027
MG168447		<10	160	<10	135	<0.001	<0.005	0.001
MG168448		20	53	<10	17	0.001	<0.005	0.001
MG168449		10	34	<10	17	0.001	<0.005	<0.001
MG168450		<10	227	<10	150	<0.001	<0.005	0.001
MG168451		<10	367	<10	125	0.001	<0.005	<0.001
MG168452		<10	360	<10	141	<0.001	<0.005	0.001
MG168453		<10	103	<10	57	0.001	<0.005	<0.001
MG168454		<10	310	<10	152	0.001	<0.005	<0.001

Comments: VITSL- 11- 0008

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To: VALE TECHNOLOGY DEVELOPMENT (CANADA) LIMITED
ENGINEERING BUILDING DOOR 10 - EXPLORATION
HWY 17 WEST
COPPER CLIFF ON P0M 1N0

Finalized Date: 26- FEB- 2011
Account: PJR

CERTIFICATE SD11021457

Project: 21136.00310

P.O. No.: 9811

This report is for 5 Drill Core samples submitted to our lab in Sudbury, ON, Canada on 10- FEB- 2011.

The following have access to data associated with this certificate:

GORDON BAILEY	NORMAND BELLEMARE	JEANETTE BLESKIE
ARNIE BURTON	MEBS EMAIL	SCOTT JEFFERY
SASA KRSTIC	STEVEN MCGLADE	RYAN PAQUETTE
JOE ROQUE	KRISTEN SIMPSON	BRIAN THOMAS
ATULYA VERMA		

SAMPLE PREPARATION

ALS CODE	DESCRIPTION
WEI- 21	Received Sample Weight
LOG- 22	Sample login - Rcd w/o BarCode
CRU- 31	Fine crushing - 70% <2mm
SPL- 22Y	Split Sample - Boyd Rotary Splitter
PUL- 31	Pulverize split to 85% <75 um

ANALYTICAL PROCEDURES

ALS CODE	DESCRIPTION	INSTRUMENT
PGM- ICP23	Pt, Pd, Au 30g FA ICP	ICP- AES
ME- ICP61	33 element four acid ICP- AES	ICP- AES

To: VALE TECHNOLOGY DEVELOPMENT (CANADA) LIMITED
ATTN: JEANETTE BLESKIE
ENGINEERING BUILDING DOOR 10 - EXPLORATION
HWY 17 WEST
COPPER CLIFF ON P0M 1N0

This is the Final Report and supersedes any preliminary report with this certificate number. Results apply to samples as submitted. All pages of this report have been checked and approved for release.

Signature:
Colin Ramshaw, Vancouver Laboratory Manager

ALS Canada Ltd.
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To: VALE TECHNOLOGY DEVELOPMENT (CANADA) LIMITED
ENGINEERING BUILDING DOOR 10 - EXPLORATION
HWY 17 WEST
COPPER CLIFF ON P0M 1N0

Finalized Date: 26- FEB- 2011
Account: PJR

Project: 21136.00310

CERTIFICATE OF ANALYSIS SD11021457

Sample Description	Method Analyte Units LOR	WEI-21 Recvd Wt. kg 0.02	ME-ICP61 Ag ppm 0.5	ME-ICP61 Al % 0.01	ME-ICP61 As ppm 5	ME-ICP61 Ba ppm 10	ME-ICP61 Be ppm 0.5	ME-ICP61 Bi ppm 2	ME-ICP61 Ca % 0.01	ME-ICP61 Cd ppm 0.5	ME-ICP61 Co ppm 1	ME-ICP61 Cr ppm 1	ME-ICP61 Cu ppm 1	ME-ICP61 Fe % 0.01	ME-ICP61 Ga ppm 10	ME-ICP61 K % 0.01
MG168455		5.76	<0.5	7.36	11	790	2.6	2	3.30	<0.5	15	15	67	6.00	20	2.20
MG168456		1.12	<0.5	7.54	8	780	2.9	<2	3.93	<0.5	23	8	152	7.22	20	2.33
MG168457		1.44	<0.5	7.43	<5	1130	3.4	<2	4.05	<0.5	47	12	710	7.28	20	2.90
MG168458		2.26	<0.5	7.52	13	1050	3.0	<2	4.34	<0.5	39	8	563	7.56	20	2.66
MG168459		5.96	<0.5	7.49	7	730	3.0	<2	3.92	<0.5	18	11	54	7.31	20	2.37

Comments: VITSL-11-0015

ALS Canada Ltd.
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To: VALE TECHNOLOGY DEVELOPMENT (CANADA) LIMITED
ENGINEERING BUILDING DOOR 10 - EXPLORATION
HWY 17 WEST
COPPER CLIFF ON P0M 1N0
Project: 21136.00310

Finalized Date: 26- FEB- 2011
Account: PJR

CERTIFICATE OF ANALYSIS SD11021457

Sample Description	Method	ME- ICP61	ME- ICP61	ME- ICP61	ME- ICP61	ME- ICP61	ME- ICP61	ME- ICP61	ME- ICP61	ME- ICP61	ME- ICP61	ME- ICP61	ME- ICP61	ME- ICP61	ME- ICP61	ME- ICP61
	Analyte	La	Mg	Mn	Mo	Na	Ni	P	Pb	S	Sb	Sc	Sr	Th	Tl	Tl
	Units	ppm	%	ppm	ppm	%	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	%	ppm
	LOR	10	0.01	5	1	0.01	1	10	2	0.01	5	1	1	20	0.01	10
MG168455		80	0.82	846	3	2.52	1	1690	20	0.14	<5	15	183	20	0.80	<10
MG168456		60	1.14	1075	2	2.20	<1	1990	14	0.28	<5	19	172	<20	0.97	<10
MG168457		70	1.08	990	2	1.98	10	1680	30	0.89	<5	19	180	30	0.87	<10
MG168458		70	1.19	1065	2	2.02	5	1950	26	0.76	<5	22	170	20	0.99	<10
MG168459		60	1.10	1165	3	2.17	<1	1970	15	0.10	<5	19	142	<20	0.98	<10

Comments: VITSL- 11- 0015

ALS Canada Ltd.
2103 Dollarton Hwy
North Vancouver BC V7H 0A7
Phone: 604 984 0221 Fax: 604 984 0218 www.alsglobal.com

To: VALE TECHNOLOGY DEVELOPMENT (CANADA) LIMITED
ENGINEERING BUILDING DOOR 10 - EXPLORATION
HWY 17 WEST
COPPER CLIFF ON P0M 1N0

Finalized Date: 26- FEB- 2011
Account: PJR

Project: 21136.00310

CERTIFICATE OF ANALYSIS SD11021457

Sample Description	Method Analyte Units LOR	ME- ICP61 U ppm 10	ME- ICP61 V ppm 1	ME- ICP61 W ppm 10	ME- ICP61 Zn ppm 2	PGM- ICP23 Au ppm 0.001	PGM- ICP23 Pt ppm 0.005	PGM- ICP23 Pd ppm 0.001
MG168455		<10	77	<10	94	<0.001	<0.005	<0.001
MG168456		<10	130	<10	109	<0.001	<0.005	<0.001
MG168457		<10	143	<10	102	0.003	<0.005	0.001
MG168458		<10	153	<10	106	0.002	<0.005	<0.001
MG168459		<10	125	10	129	<0.001	<0.005	<0.001

Comments: VITSL- 11- 0015

Appendix V - Gyroscope Survey Data

SPERRY DRILLING SERVICES
GYRO SURVEY REPORT

TYPE OF TOOL:	Northseeking Gyro
OPERATOR:	Rob
DATE PERFORMED:	Feb 1/2011
FIELD CAL PERFORMED:	yes
SERVICES PROVIDED BY DRILLERS:	USE OF DRILL WIRELINE
COMMENT	Outrun will be the final survey as the in-run was being slowed by the drum brake and therefore was not as smooth.

IN

Depth	Dip	Azimuth	Vertical Depth	Latitude	Departure	Vertical Section	Dog Leg
0	-61.72	355.16	0	0	0	0	0
30	-61.89	355.34	26.44	14.13 N	1.17 W	14.14	0.64
60	-61.29	355.2	52.84	28.33 N	2.35 W	28.37	2.01
90	-60.81	355.25	79.08	42.81 N	3.56 W	42.86	1.61
120	-60.54	355.24	105.23	57.46 N	4.78 W	57.54	0.89
150	-60.72	355.03	131.36	72.16 N	6.02 W	72.25	0.69
180	-60.73	354.79	157.55	86.72 N	7.32 W	86.84	0.39
210	-60.42	354.68	183.68	101.41 N	8.68 W	101.55	1.04
240	-60.22	354.65	209.74	116.2 N	10.06 W	116.36	0.66
270	-60.1	354.59	235.75	131.08 N	11.45 W	131.26	0.42
300	-60.21	354.18	261.78	145.93 N	12.91 W	146.13	0.77
330	-60.07	353.67	287.8	160.78 N	14.5 W	161.01	0.96
360	-60.14	353.76	313.8	175.65 N	16.13 W	175.9	0.26
390	-60.02	353.88	339.81	190.52 N	17.74 W	190.8	0.45
420	-60.06	354.07	365.79	205.43 N	19.32 W	205.73	0.34
450	-60.06	354.28	391.79	220.32 N	20.84 W	220.65	0.33
480	-60.18	354.4	417.8	235.21 N	22.31 W	235.56	0.46
510	-60.08	354.51	443.83	250.05 N	23.75 W	250.42	0.37
540	-59.96	354.64	469.8	265 N	25.17 W	265.39	0.46
570	-59.88	354.71	495.77	279.94 N	26.56 W	280.36	0.29
600	-59.67	354.73	521.69	295 N	27.95 W	295.44	0.71
630	-59.71	354.81	547.58	310.08 N	29.33 W	310.54	0.2
660	-59.77	354.87	573.5	325.13 N	30.69 W	325.61	0.21
690	-59.82	354.93	599.42	340.17 N	32.03 W	340.67	0.2
720	-59.81	355.1	625.36	355.19 N	33.34 W	355.72	0.28
750	-59.79	355.14	651.28	370.23 N	34.63 W	370.77	0.09
780	-59.96	355.16	677.23	385.24 N	35.9 W	385.8	0.55
810	-59.59	355.27	703.17	400.25 N	37.16 W	400.84	1.24
840	-59.54	355.29	729.01	415.44 N	38.41 W	416.04	0.18
870	-59.46	355.32	754.88	430.59 N	39.66 W	431.21	0.27
900	-59.34	355.42	780.69	445.83 N	40.89 W	446.47	0.42
930	-59.42	355.48	806.51	461.06 N	42.1 W	461.72	0.27
960	-59.4	355.55	832.33	476.28 N	43.3 W	476.96	0.12
990	-59.45	355.66	858.16	491.5 N	44.46 W	492.2	0.27
1020	-59.49	355.66	884	506.69 N	45.62 W	507.4	0.13
1050	-59.25	355.92	909.81	521.93 N	46.74 W	522.66	0.93
1080	-59.34	356.02	935.61	537.22 N	47.82 W	537.96	0.34
1110	-59.44	356.1	961.43	552.46 N	48.87 W	553.22	0.37
1140	-59.48	356.02	987.27	567.66 N	49.91 W	568.44	0.2
1170	-59.52	356.07	1013.11	582.85 N	50.97 W	583.65	0.16
1200	-59.4	356.05	1038.96	598.05 N	52.01 W	598.86	0.4

1230	-59.34	356.04	1064.77	613.31	N	53.07	W	614.14	0.2
1260	-59.42	356.08	1090.58	628.55	N	54.12	W	629.39	0.26
1290	-59.49	356.07	1116.42	643.77	N	55.16	W	644.62	0.24
1320	-59.5	356.07	1142.28	658.94	N	56.2	W	659.81	0.01
1350	-59.1	356.1	1168.07	674.23	N	57.25	W	675.11	1.33
1380	-58.87	356.17	1193.78	689.65	N	58.29	W	690.56	0.75
1410	-58.93	356.17	1219.47	705.11	N	59.33	W	706.03	0.18
1440	-58.93	356.32	1245.16	720.56	N	60.34	W	721.5	0.26
1470	-58.96	356.4	1270.86	736.01	N	61.32	W	736.96	0.17
1500	-59	356.46	1296.57	751.44	N	62.29	W	752.4	0.16
1530	-58.88	356.63	1322.28	766.88	N	63.22	W	767.86	0.49
1560	-58.7	356.72	1347.94	782.4	N	64.12	W	783.39	0.61
1590	-58.62	356.75	1373.55	797.98	N	65.01	W	798.99	0.29
1620	-58.49	356.88	1399.16	813.6	N	65.89	W	814.61	0.49
1650	-58.35	357	1424.69	829.32	N	66.72	W	830.34	0.51
1680	-58.45	356.95	1450.26	844.99	N	67.55	W	846.03	0.36
1710	-58.06	357	1475.77	860.76	N	68.38	W	861.81	1.29
1740	-58.17	356.89	1501.24	876.58	N	69.23	W	877.65	0.41
1770	-58.25	357.15	1526.74	892.37	N	70.05	W	893.45	0.51
1800	-58	357.18	1552.22	908.19	N	70.83	W	909.28	0.83
1830	-57.86	357.16	1577.64	924.1	N	71.62	W	925.2	0.46
1860	-57.69	357.22	1603.02	940.08	N	72.4	W	941.19	0.56
1890	-57.7	357.32	1628.36	956.11	N	73.17	W	957.23	0.18
1920	-57.59	357.4	1653.72	972.12	N	73.91	W	973.25	0.41
1950	-57.31	357.35	1679.01	988.25	N	74.64	W	989.39	0.92
1980	-57.16	357.2	1704.22	1004.48	N	75.42	W	1005.63	0.58
2010	-57.22	357.12	1729.43	1020.72	N	76.22	W	1021.89	0.26
2040	-57.32	357.04	1754.68	1036.91	N	77.05	W	1038.08	0.36
2070	-57.08	357.16	1779.89	1053.14	N	77.87	W	1054.33	0.82
2100	-57.28	357.28	1805.11	1069.38	N	78.66	W	1070.58	0.69
2130	-57.11	357.29	1830.32	1085.62	N	79.43	W	1086.83	0.57
2160	-57.21	357.38	1855.52	1101.88	N	80.19	W	1103.1	0.37
2190	-57.05	357.49	1880.72	1118.13	N	80.92	W	1119.37	0.57
2220	-56.76	357.54	1905.86	1134.5	N	81.63	W	1135.74	0.96
2250	-56.6	357.44	1930.92	1150.98	N	82.34	W	1152.23	0.56
2280	-56.32	357.28	1955.94	1167.51	N	83.11	W	1168.77	0.97
2310	-56.04	357.26	1980.85	1184.21	N	83.91	W	1185.49	0.94
2340	-56.08	357.35	2005.73	1200.95	N	84.7	W	1202.24	0.19
2370	-56.01	357.32	2030.64	1217.66	N	85.48	W	1218.95	0.23
2400	-55.44	357.31	2055.41	1234.55	N	86.26	W	1235.86	1.88
2430	-55.4	356.97	2080.12	1251.55	N	87.11	W	1252.87	0.65
2460	-55.35	356.94	2104.8	1268.58	N	88.02	W	1269.91	0.17
2490	-54.97	357	2129.43	1285.69	N	88.92	W	1287.03	1.27
2520	-54.87	357.07	2153.97	1302.91	N	89.82	W	1304.27	0.36
2550	-54.56	357.08	2178.47	1320.21	N	90.7	W	1321.58	1.04
2580	-54.49	357.11	2202.89	1337.62	N	91.58	W	1339	0.25
2610	-54.59	357.16	2227.32	1355	N	92.45	W	1356.4	0.34
2640	-54.38	357.25	2251.76	1372.37	N	93.31	W	1373.78	0.74
2670	-53.99	357.38	2276.07	1389.93	N	94.13	W	1391.35	1.32
2700	-54.01	357.47	2300.33	1407.57	N	94.92	W	1409	0.2
2730	-54.27	357.56	2324.66	1425.1	N	95.68	W	1426.54	0.87
2760	-53.93	357.61	2348.96	1442.69	N	96.42	W	1444.14	1.14
2790	-53.92	357.63	2373.2	1460.34	N	97.16	W	1461.8	0.05
2820	-53.9	357.64	2397.44	1477.99	N	97.89	W	1479.47	0.05
2850	-54.17	357.95	2421.72	1495.61	N	98.57	W	1497.09	1.07

2880	-53.95	358.27	2446.02	1513.19	N	99.15	W	1514.68	0.94
2910	-53.89	358.35	2470.26	1530.86	N	99.66	W	1532.35	0.25
2940	-53.74	358.5	2494.48	1548.55	N	100.16	W	1550.05	0.58
2970	-53.66	358.65	2518.65	1566.32	N	100.6	W	1567.83	0.41
3000	-53.81	358.76	2542.83	1584.07	N	101	W	1585.58	0.56
3030	-53.95	358.9	2567.08	1601.73	N	101.36	W	1603.25	0.51
3060	-53.73	359	2591.31	1619.42	N	101.68	W	1620.94	0.76
3090	-53.35	359.04	2615.42	1637.26	N	101.99	W	1638.78	1.26
3120	-53.38	359.18	2639.5	1655.16	N	102.27	W	1656.68	0.3
3150	-53.41	359.27	2663.58	1673.05	N	102.51	W	1674.57	0.2
3180	-53.43	359.36	2687.67	1690.93	N	102.72	W	1692.45	0.2
3210	-53.6	359.44	2711.79	1708.77	N	102.91	W	1710.3	0.58
3240	-53.5	359.54	2735.92	1726.58	N	103.07	W	1728.11	0.37
3270	-53.35	359.65	2760.02	1744.46	N	103.2	W	1745.98	0.57
3300	-53.35	359.74	2784.08	1762.38	N	103.29	W	1763.9	0.17
3330	-53.22	359.86	2808.14	1780.29	N	103.36	W	1781.81	0.51
3360	-52.89	0.04	2832.12	1798.32	N	103.37	W	1799.84	1.16
3390	-52.69	0.22	2856	1816.48	N	103.34	W	1818	0.77
3420	-52.74	0.41	2879.87	1834.66	N	103.24	W	1836.17	0.43
3450	-52.75	0.59	2903.75	1852.81	N	103.07	W	1854.31	0.37
3480	-52.56	0.69	2927.6	1871.01	N	102.87	W	1872.51	0.66
3510	-52.57	0.82	2951.42	1889.24	N	102.63	W	1890.74	0.26
3540	-52.24	1.03	2975.19	1907.54	N	102.34	W	1909.03	1.18
3570	-52.27	1.15	2998.91	1925.91	N	101.98	W	1927.39	0.26
3600	-52.3	1.32	3022.64	1944.26	N	101.59	W	1945.72	0.36
3630	-52.11	1.47	3046.36	1962.62	N	101.14	W	1964.08	0.71
3660	-52.09	1.57	3070.01	1981.07	N	100.65	W	1982.52	0.21
3690	-52.22	1.69	3093.7	1999.47	N	100.13	W	2000.9	0.49
3720	-52.2	1.83	3117.42	2017.83	N	99.56	W	2019.25	0.3
3750	-52.04	1.92	3141.09	2036.24	N	98.96	W	2037.65	0.54
3780	-51.99	1.99	3164.74	2054.7	N	98.33	W	2056.09	0.24
3810	-52.03	2.17	3188.38	2073.16	N	97.66	W	2074.53	0.38
3840	-52.06	2.34	3212.03	2091.59	N	96.94	W	2092.96	0.38
3870	-52.01	2.4	3235.68	2110.03	N	96.17	W	2111.38	0.21
3900	-51.96	2.46	3259.32	2128.49	N	95.39	W	2129.83	0.21
3930	-51.76	2.56	3282.92	2147	N	94.58	W	2148.31	0.68
3960	-51.79	2.71	3306.48	2165.55	N	93.73	W	2166.85	0.34
3990	-51.67	2.89	3330.04	2184.1	N	92.82	W	2185.38	0.52
4020	-51.58	2.98	3353.55	2202.71	N	91.86	W	2203.97	0.36
4050	-51.53	3.06	3377.05	2221.33	N	90.89	W	2222.57	0.25
4080	-51.42	3.17	3400.52	2239.99	N	89.87	W	2241.21	0.43
4110	-51.27	3.26	3423.95	2258.69	N	88.82	W	2259.89	0.52
4140	-51.09	3.45	3447.32	2277.47	N	87.72	W	2278.65	0.72
4170	-51.06	3.43	3470.66	2296.28	N	86.58	W	2297.44	0.11
4200	-50.7	3.35	3493.94	2315.18	N	85.46	W	2316.31	1.21
4230	-50.34	3.28	3517.09	2334.22	N	84.36	W	2335.33	1.2
4260	-50.11	3.3	3540.15	2353.38	N	83.26	W	2354.47	0.78
4290	-49.79	3.4	3563.12	2372.65	N	82.13	W	2373.72	1.1
4320	-49.82	3.57	3586.01	2392	N	80.96	W	2393.04	0.37
4350	-49.88	3.74	3608.95	2411.3	N	79.72	W	2412.32	0.41
4380	-49.67	3.92	3631.87	2430.61	N	78.43	W	2431.61	0.79
4410	-49.48	4.12	3654.69	2450.04	N	77.07	W	2451.01	0.77
4440	-49.46	4.3	3677.5	2469.48	N	75.64	W	2470.42	0.41
4470	-49.33	4.51	3700.27	2488.94	N	74.14	W	2489.85	0.61
4500	-49.3	4.73	3723.01	2508.45	N	72.56	W	2509.33	0.48

4530	-49.63	5.07	3745.81	2527.87	N	70.9	W	2528.72	1.34
4560	-49.45	5.1	3768.64	2547.26	N	69.17	W	2548.08	0.61
4590	-49.6	6.14	3791.46	2566.65	N	67.27	W	2567.42	2.32
4620	-49.32	6.57	3814.26	2586.01	N	65.1	W	2586.75	1.33
4650	-49.34	6.7	3837	2605.45	N	62.83	W	2606.15	0.29
4680	-49.47	6.85	3859.78	2624.84	N	60.53	W	2625.49	0.53
4710	-49.32	7.01	3882.58	2644.2	N	58.18	W	2644.81	0.6
4740	-49.2	7.17	3905.29	2663.65	N	55.76	W	2664.21	0.54
4770	-49.3	7.34	3928.02	2683.07	N	53.29	W	2683.59	0.5
4800	-49.14	7.37	3950.77	2702.47	N	50.77	W	2702.94	0.53
4830	-48.65	7.23	3973.34	2722.07	N	48.27	W	2722.5	1.68
4842.52	-48.79	7.3	3982.75	2730.26	N	47.22	W	2730.67	1.19
				OUT					
Depth	Dip	Azimuth	Vertical Depth	Latitude		Departure		Vertical Section	Dog Leg
0	-61.72	355.16	0	0		0		0	0
30	-61.25	355.12	26.36	14.27	N	1.21	W	14.29	1.58
60	-60.77	355.08	52.6	28.76	N	2.46	W	28.8	1.58
90	-60.62	355.29	78.76	43.4	N	3.7	W	43.47	0.61
120	-60.72	355.25	104.9	58.06	N	4.9	W	58.15	0.31
150	-60.59	355.07	131.07	72.69	N	6.14	W	72.81	0.52
180	-60.49	354.88	157.18	87.4	N	7.43	W	87.55	0.45
210	-60.44	354.74	183.29	102.12	N	8.77	W	102.29	0.29
240	-60.28	354.73	209.36	116.9	N	10.14	W	117.09	0.52
270	-60.23	354.64	235.4	131.73	N	11.5	W	131.95	0.25
300	-60.25	353.99	261.45	146.54	N	12.98	W	146.79	1.08
330	-60.15	353.87	287.48	161.36	N	14.56	W	161.65	0.4
360	-59.99	353.82	313.48	176.24	N	16.17	W	176.56	0.54
390	-59.98	354.07	339.45	191.17	N	17.75	W	191.52	0.42
420	-59.96	354.32	365.43	206.1	N	19.27	W	206.48	0.41
450	-59.98	354.35	391.4	221.05	N	20.75	W	221.45	0.08
480	-59.97	354.42	417.38	235.98	N	22.22	W	236.42	0.13
510	-59.9	354.62	443.34	250.94	N	23.66	W	251.4	0.41
540	-59.8	354.68	469.28	265.94	N	25.05	W	266.43	0.34
570	-59.73	354.69	495.2	280.98	N	26.46	W	281.5	0.24
600	-59.66	354.84	521.1	296.05	N	27.83	W	296.6	0.36
630	-59.61	354.88	546.98	311.18	N	29.19	W	311.75	0.17
660	-59.79	354.81	572.89	326.24	N	30.55	W	326.84	0.62
690	-59.59	355.01	598.78	341.32	N	31.9	W	341.95	0.74
720	-59.8	355.1	624.69	356.4	N	33.2	W	357.06	0.72
750	-59.71	355.07	650.6	371.46	N	34.5	W	372.13	0.33
780	-59.75	355.12	676.51	386.53	N	35.8	W	387.23	0.18
810	-59.75	355.16	702.43	401.58	N	37.08	W	402.31	0.07
840	-59.62	355.31	728.33	416.67	N	38.34	W	417.42	0.49
870	-59.56	355.35	754.2	431.81	N	39.57	W	432.59	0.24
900	-59.57	355.32	780.06	446.96	N	40.8	W	447.76	0.07
930	-59.59	355.43	805.93	462.1	N	42.04	W	462.92	0.19
960	-59.55	355.6	831.8	477.24	N	43.21	W	478.09	0.32
990	-59.45	355.58	857.65	492.44	N	44.39	W	493.3	0.36
1020	-59.54	355.68	883.49	507.62	N	45.55	W	508.5	0.35
1050	-59.43	355.85	909.34	522.81	N	46.68	W	523.72	0.46
1080	-59.45	356.05	935.17	538.02	N	47.75	W	538.95	0.35
1110	-59.48	356.04	961.01	553.23	N	48.8	W	554.18	0.12
1140	-59.45	356.1	986.85	568.43	N	49.85	W	569.4	0.15
1170	-59.39	356.18	1012.68	583.66	N	50.88	W	584.65	0.24

1200	-59.42	356.06	1038.5	598.9	N	51.9	W	599.91	0.23
1230	-59.42	355.97	1064.34	614.11	N	52.97	W	615.14	0.15
1260	-59.27	355.96	1090.15	629.36	N	54.04	W	630.41	0.52
1290	-59.13	355.91	1115.91	644.7	N	55.13	W	645.77	0.46
1320	-59.11	355.9	1141.66	660.05	N	56.23	W	661.14	0.06
1350	-58.94	356.01	1167.37	675.46	N	57.32	W	676.57	0.6
1380	-59.07	356.1	1193.09	690.87	N	58.39	W	692	0.46
1410	-58.9	356.2	1218.8	706.3	N	59.43	W	707.44	0.58
1440	-58.87	356.2	1244.49	721.76	N	60.45	W	722.93	0.09
1470	-58.83	356.27	1270.16	737.25	N	61.47	W	738.43	0.19
1500	-58.8	356.28	1295.83	752.75	N	62.48	W	753.95	0.11
1530	-58.66	356.39	1321.47	768.28	N	63.48	W	769.51	0.49
1560	-58.61	356.59	1347.08	783.88	N	64.44	W	785.12	0.4
1590	-58.54	356.76	1372.69	799.49	N	65.34	W	800.74	0.36
1620	-58.46	356.8	1398.26	815.14	N	66.21	W	816.41	0.29
1650	-58.4	356.79	1423.83	830.82	N	67.1	W	832.11	0.18
1680	-58.34	356.86	1449.37	846.53	N	67.97	W	847.84	0.25
1710	-58.36	356.89	1474.91	862.24	N	68.83	W	863.56	0.07
1740	-58.07	356.98	1500.41	878.03	N	69.67	W	879.36	0.97
1770	-58.22	356.91	1525.89	893.84	N	70.52	W	895.19	0.51
1800	-57.98	356.97	1551.36	909.67	N	71.36	W	911.04	0.81
1830	-57.84	357.01	1576.77	925.59	N	72.2	W	926.97	0.46
1860	-57.56	357.11	1602.13	941.59	N	73.02	W	942.99	0.93
1890	-57.48	357.15	1627.43	957.7	N	73.83	W	959.11	0.29
1920	-57.52	357.23	1652.73	973.8	N	74.62	W	975.22	0.2
1950	-57.42	357.15	1678.03	989.9	N	75.4	W	991.33	0.35
1980	-57.26	356.96	1703.28	1006.08	N	76.24	W	1007.53	0.65
2010	-57.2	356.89	1728.51	1022.3	N	77.11	W	1023.76	0.21
2040	-57.19	356.85	1753.73	1038.52	N	78	W	1040	0.09
2070	-57.11	357.04	1778.93	1054.77	N	78.87	W	1056.27	0.45
2100	-57.07	357.01	1804.11	1071.05	N	79.71	W	1072.56	0.14
2130	-57.02	357.21	1829.28	1087.35	N	80.54	W	1088.87	0.39
2160	-56.92	357.11	1854.44	1103.68	N	81.35	W	1105.22	0.39
2190	-56.84	357.3	1879.56	1120.06	N	82.15	W	1121.61	0.44
2220	-56.58	357.31	1904.64	1136.49	N	82.92	W	1138.06	0.86
2250	-56.34	357.24	1929.65	1153.06	N	83.71	W	1154.64	0.8
2280	-56.18	357.1	1954.59	1169.7	N	84.53	W	1171.3	0.61
2310	-56.1	357.04	1979.5	1186.4	N	85.39	W	1188.01	0.27
2340	-56.06	357.09	2004.39	1203.12	N	86.24	W	1204.74	0.17
2370	-55.82	357.07	2029.26	1219.88	N	87.1	W	1221.52	0.78
2400	-55.38	357	2054	1236.82	N	87.97	W	1238.47	1.47
2430	-55.32	356.64	2078.69	1253.84	N	88.92	W	1255.52	0.72
2460	-54.92	356.61	2103.3	1270.97	N	89.93	W	1272.66	1.34
2490	-54.81	356.81	2127.83	1288.21	N	90.92	W	1289.92	0.52
2520	-54.59	356.81	2152.31	1305.52	N	91.88	W	1307.24	0.75
2550	-54.45	356.79	2176.74	1322.91	N	92.86	W	1324.65	0.44
2580	-54.56	356.76	2201.16	1340.31	N	93.84	W	1342.07	0.36
2610	-54.57	356.9	2225.61	1357.67	N	94.81	W	1359.44	0.27
2640	-54.4	357.03	2250.03	1375.06	N	95.72	W	1376.85	0.64
2670	-54.23	357.12	2274.39	1392.55	N	96.62	W	1394.36	0.59
2700	-54.11	357.26	2298.72	1410.08	N	97.48	W	1411.9	0.47
2730	-53.98	357.29	2322.99	1427.69	N	98.31	W	1429.53	0.44
2760	-54.1	357.19	2347.28	1445.28	N	99.16	W	1447.13	0.44
2790	-54.01	357.25	2371.57	1462.87	N	100.02	W	1464.74	0.32
2820	-53.86	357.23	2395.82	1480.51	N	100.87	W	1482.39	0.51

2850	-54.02	357.54	2420.07	1498.16	N	101.68	W	1500.05	0.81
2880	-54.03	357.83	2444.35	1515.76	N	102.39	W	1517.67	0.58
2910	-53.94	357.97	2468.62	1533.39	N	103.03	W	1535.31	0.38
2940	-53.82	358.11	2492.85	1551.06	N	103.64	W	1552.99	0.49
2970	-53.79	358.29	2517.05	1568.78	N	104.19	W	1570.71	0.38
3000	-53.8	358.43	2541.26	1586.49	N	104.7	W	1588.43	0.27
3030	-53.68	358.56	2565.46	1604.21	N	105.17	W	1606.16	0.46
3060	-53.58	358.71	2589.6	1622.02	N	105.59	W	1623.97	0.46
3090	-53.72	358.78	2613.77	1639.79	N	105.98	W	1641.74	0.5
3120	-53.66	358.81	2637.95	1657.55	N	106.35	W	1659.5	0.22
3150	-53.49	358.84	2662.09	1675.36	N	106.71	W	1677.32	0.57
3180	-53.71	359	2686.23	1693.16	N	107.05	W	1695.12	0.81
3210	-53.58	359.1	2710.4	1710.93	N	107.34	W	1712.9	0.49
3240	-53.6	359.12	2734.54	1728.75	N	107.62	W	1730.71	0.07
3270	-53.47	359.2	2758.67	1746.57	N	107.88	W	1748.54	0.47
3300	-53.44	359.29	2782.76	1764.44	N	108.12	W	1766.41	0.19
3330	-53.3	359.37	2806.85	1782.32	N	108.33	W	1784.29	0.5
3360	-53.12	359.51	2830.86	1800.3	N	108.5	W	1802.27	0.67
3390	-53.05	359.77	2854.85	1818.31	N	108.62	W	1820.28	0.57
3420	-52.84	0.06	2878.8	1836.38	N	108.64	W	1838.35	0.9
3450	-52.51	0.18	2902.65	1854.58	N	108.6	W	1856.54	1.14
3480	-52.46	0.22	2926.44	1872.86	N	108.54	W	1874.81	0.19
3510	-52.5	0.47	2950.23	1891.13	N	108.43	W	1893.07	0.53
3540	-52.33	0.57	2974.01	1909.43	N	108.26	W	1911.37	0.62
3570	-52.2	0.66	2997.73	1927.79	N	108.07	W	1929.72	0.46
3600	-52.16	0.94	3021.43	1946.18	N	107.81	W	1948.1	0.59
3630	-52.13	1.02	3045.11	1964.59	N	107.49	W	1966.5	0.19
3660	-52.09	1.06	3068.79	1983.01	N	107.15	W	1984.91	0.17
3690	-52.06	1.18	3092.45	2001.45	N	106.8	W	2003.34	0.26
3720	-52.04	1.32	3116.11	2019.89	N	106.39	W	2021.76	0.31
3750	-52	1.42	3139.75	2038.35	N	105.95	W	2040.21	0.22
3780	-52.03	1.5	3163.4	2056.82	N	105.48	W	2058.66	0.19
3810	-52.1	1.68	3187.06	2075.25	N	104.97	W	2077.07	0.45
3840	-51.97	1.84	3210.71	2093.69	N	104.4	W	2095.5	0.54
3870	-51.82	1.82	3234.32	2112.2	N	103.81	W	2113.98	0.49
3900	-51.73	1.91	3257.89	2130.75	N	103.21	W	2132.52	0.36
3930	-51.58	2.01	3281.42	2149.35	N	102.57	W	2151.1	0.53
3960	-51.72	2.18	3304.94	2167.96	N	101.89	W	2169.69	0.58
3990	-51.58	2.37	3328.48	2186.54	N	101.15	W	2188.25	0.6
4020	-51.57	2.44	3351.97	2205.19	N	100.36	W	2206.88	0.14
4050	-51.55	2.52	3375.48	2223.8	N	99.57	W	2225.47	0.19
4080	-51.38	2.65	3398.94	2242.48	N	98.72	W	2244.12	0.62
4110	-51.25	2.73	3422.36	2261.21	N	97.84	W	2262.83	0.45
4140	-51.06	2.86	3445.73	2280	N	96.92	W	2281.59	0.7
4170	-50.76	2.85	3469.02	2298.88	N	95.97	W	2300.45	1
4200	-50.16	2.63	3492.15	2317.96	N	95.06	W	2319.5	2.08
4230	-49.92	2.66	3515.15	2337.21	N	94.17	W	2338.73	0.79
4260	-49.95	2.73	3538.1	2356.5	N	93.26	W	2357.99	0.18
4290	-49.91	2.86	3561.06	2375.79	N	92.32	W	2377.25	0.32
4320	-49.8	3.01	3584	2395.1	N	91.33	W	2396.54	0.49
4350	-49.66	3.16	3606.89	2414.46	N	90.29	W	2415.88	0.58
4380	-49.62	3.37	3629.74	2433.87	N	89.19	W	2435.25	0.46
4410	-49.62	3.56	3652.6	2453.27	N	88.01	W	2454.62	0.41
4440	-49.53	3.72	3675.44	2472.68	N	86.78	W	2474	0.45
4470	-49.41	3.93	3698.24	2492.13	N	85.48	W	2493.41	0.63

4500	-49.29	4.17	3720.99	2511.64	N	84.1	W	2512.89	0.63
4530	-49.53	4.52	3743.77	2531.1	N	82.61	W	2532.31	1.11
4560	-49.61	4.55	3766.61	2550.49	N	81.08	W	2551.67	0.28
4590	-49.33	5.59	3789.41	2569.91	N	79.35	W	2571.04	2.43
4620	-49.29	6.01	3812.15	2589.37	N	77.37	W	2590.45	0.93
4650	-49.33	6.11	3834.9	2608.82	N	75.3	W	2609.85	0.27
4680	-49.15	6.26	3857.63	2628.28	N	73.2	W	2629.26	0.7
4710	-49.07	6.42	3880.3	2647.82	N	71.02	W	2648.74	0.43
4740	-49.02	6.57	3902.96	2667.35	N	68.8	W	2668.22	0.39
4770	-48.89	6.73	3925.59	2686.92	N	66.52	W	2687.73	0.55
4800	-48.8	6.75	3948.17	2706.53	N	64.19	W	2707.29	0.28
4830	-48.8	6.63	3970.74	2726.16	N	61.9	W	2726.86	0.25
4842.52	-48.79	6.7	3980.16	2734.35	N	60.94	W	2735.03	0.36

Appendix VI – Radio Imaging Report

Work type	Surface
Measuring frequencies, kHz	156.25, 312.5, 625,
Transmitter antenna length, m	40
Receiver antenna length, m	40
Transmitter step, m	20-50
Receiver step, m	0.5
Stations number	48
Distance between boreholes, m	400 ÷ 1200
Depth range, m	700 ÷ 1750
Processing frequencies, kHz	156.25, 312.5, 625
Processing type	iterative algorithm
Image projection azimuth, Deg.	100.0
Tomography cell size, m	20 × 20
Resistivity range, Ohm·m	2000 ÷ 5000, 2000 ÷ 5000
Figures	

The survey was carried out on three frequencies – 625, 312.5 and 156.25 kHz. Images for 625 kHz look optimal because of highest resolution, especially in the lower part of section.

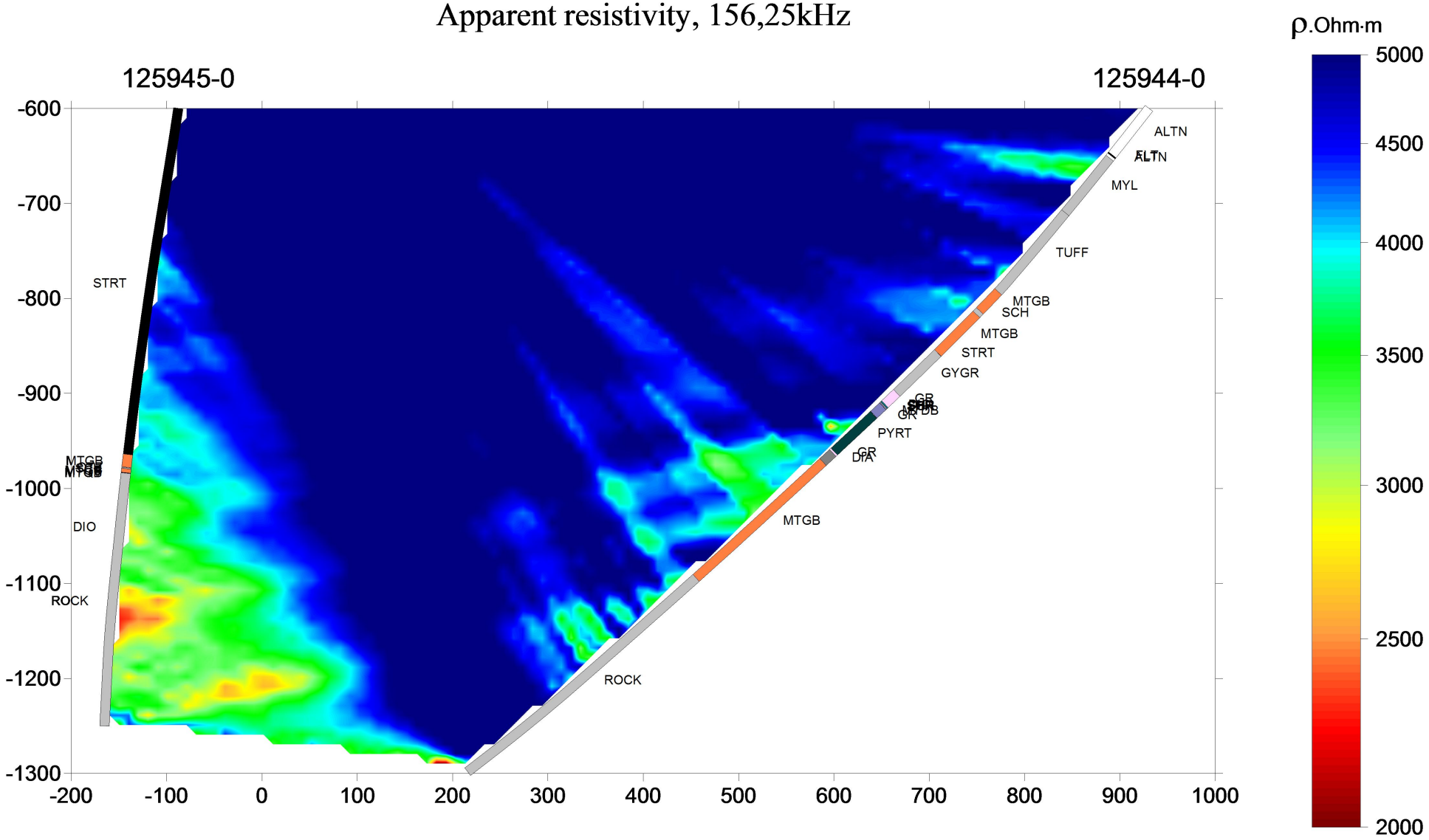
Images are presented in two different variants of color scale – for 2000-5000 and 3000-5000 Ohmm range of apparent resistivity.

Two conductive zones can be found on tomography images.

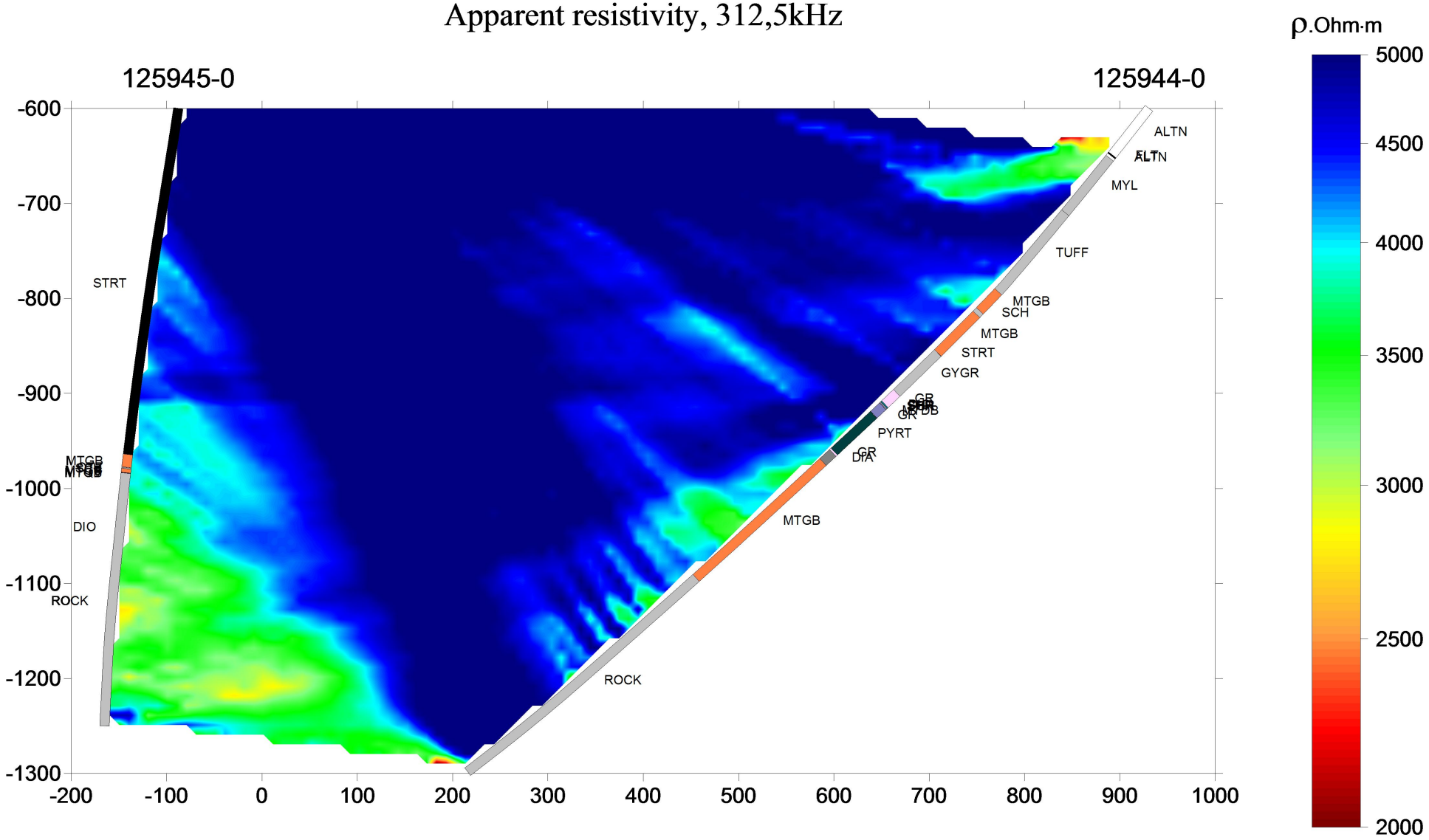
The first zone locates in right part of section. The structure of zone is imaged by best way on image for 625kHz in 3000-5000Ohmm color scale. The zone intersects 125044-0 at 970-1440m depth interval. Central part of the zone rises towards 125945-0 for about 300m.

The second zone locates in the end of 125945-0. It intersects 125945-0 at 1240-1490m interval and extends towards 125044-0 for about 200m.

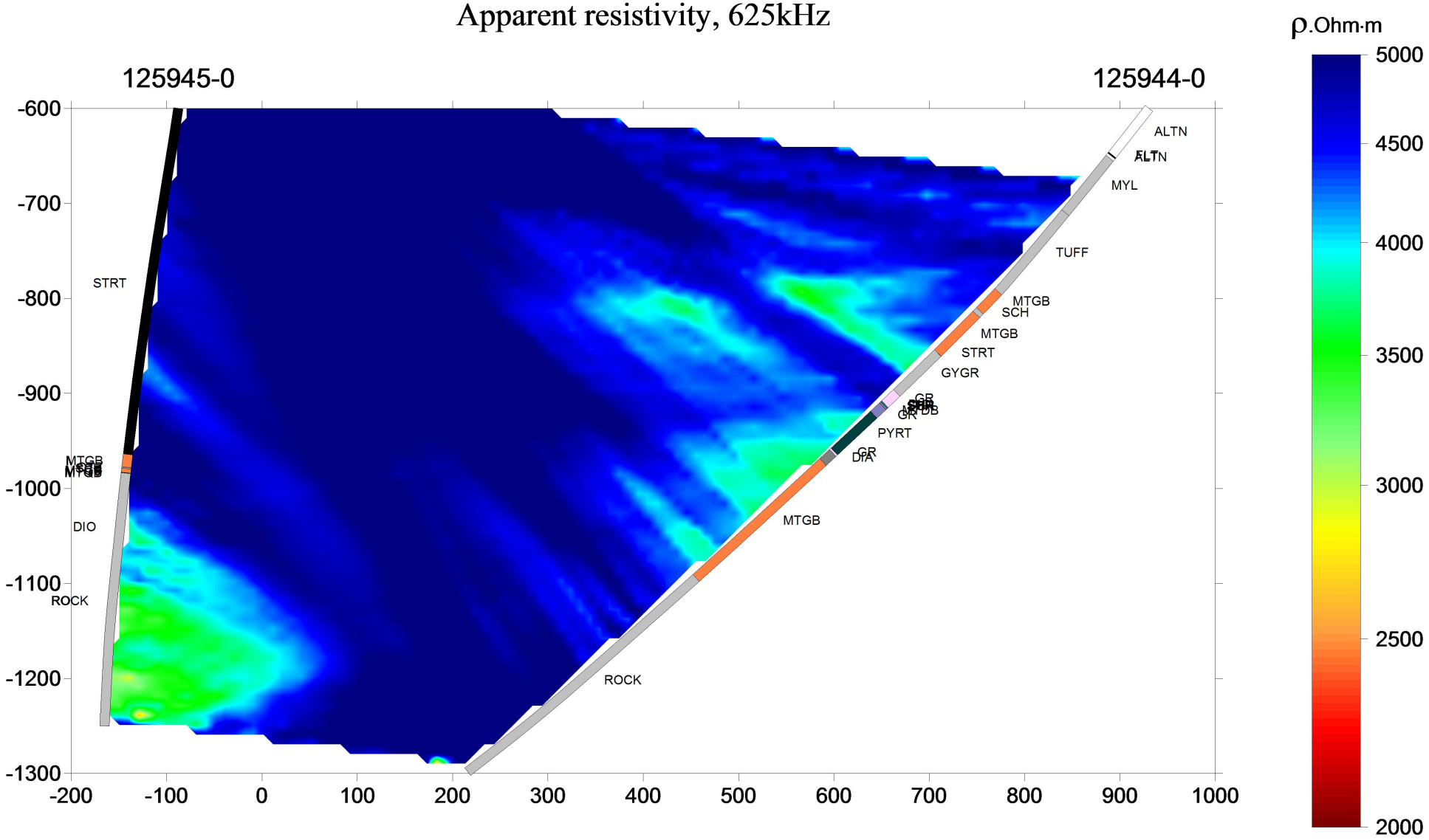
RIM tomography reconstruction
Apparent resistivity, 156,25kHz



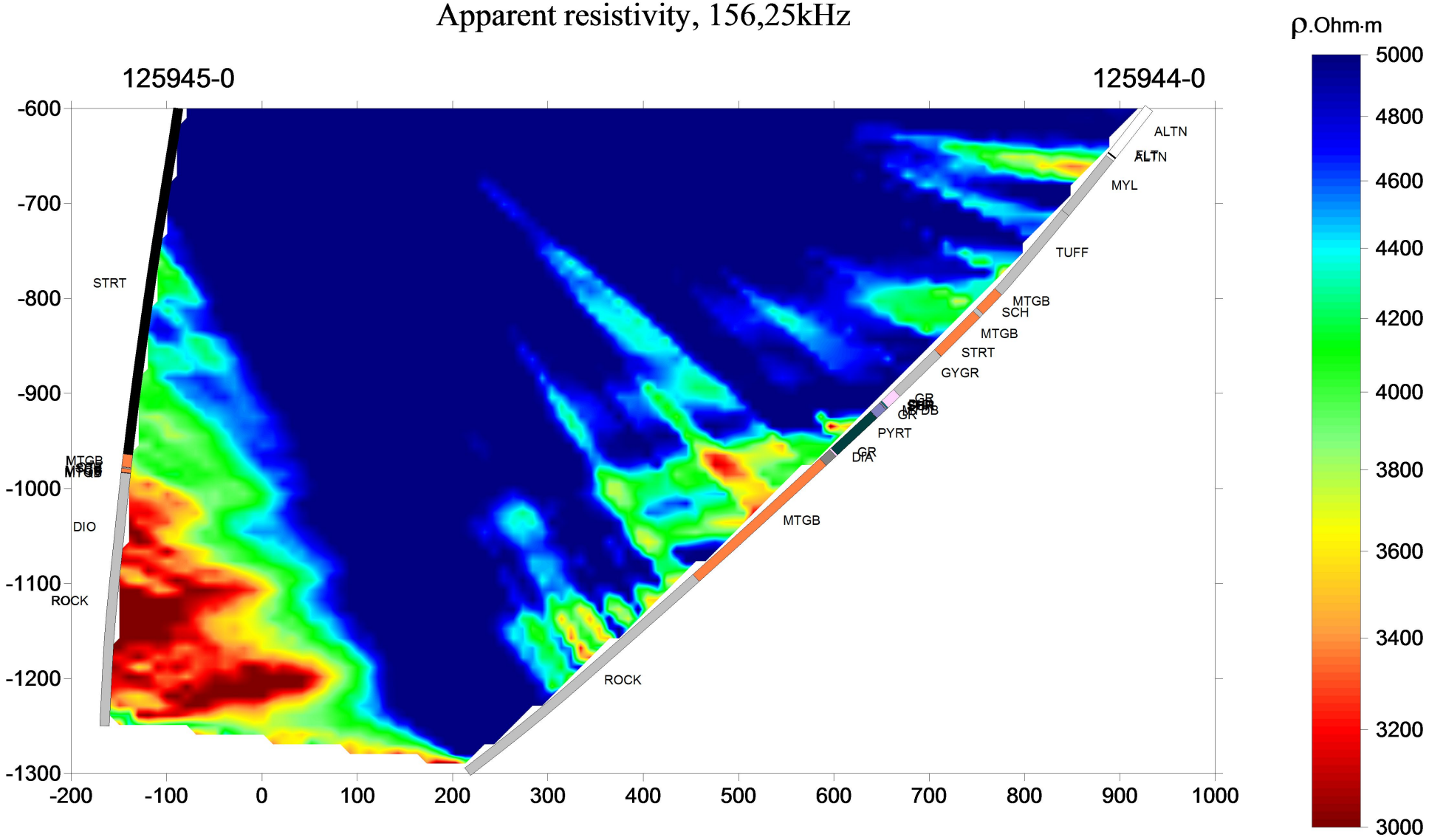
RIM tomography reconstruction
Apparent resistivity, 312,5kHz



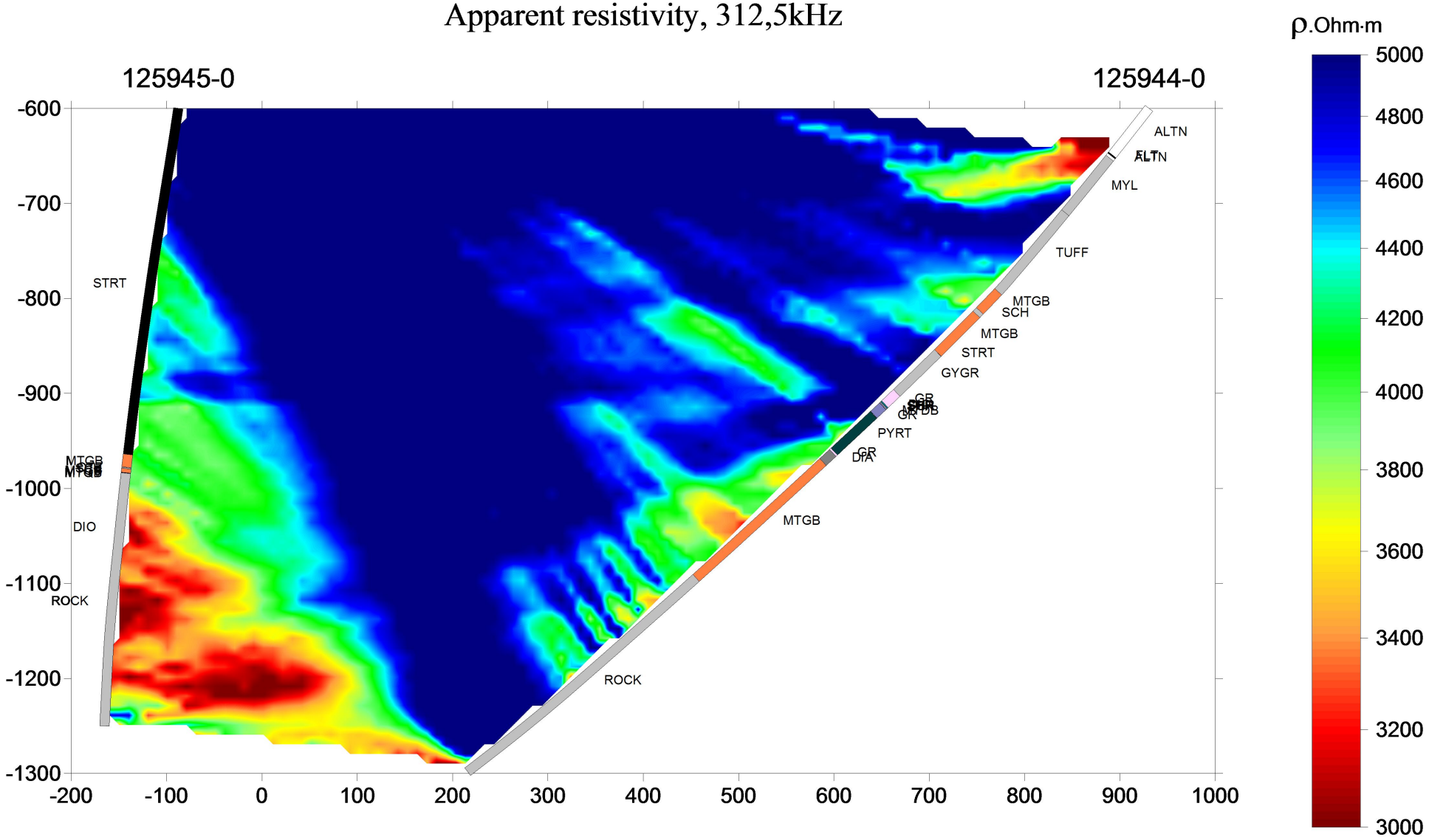
RIM tomography reconstruction
Apparent resistivity, 625kHz



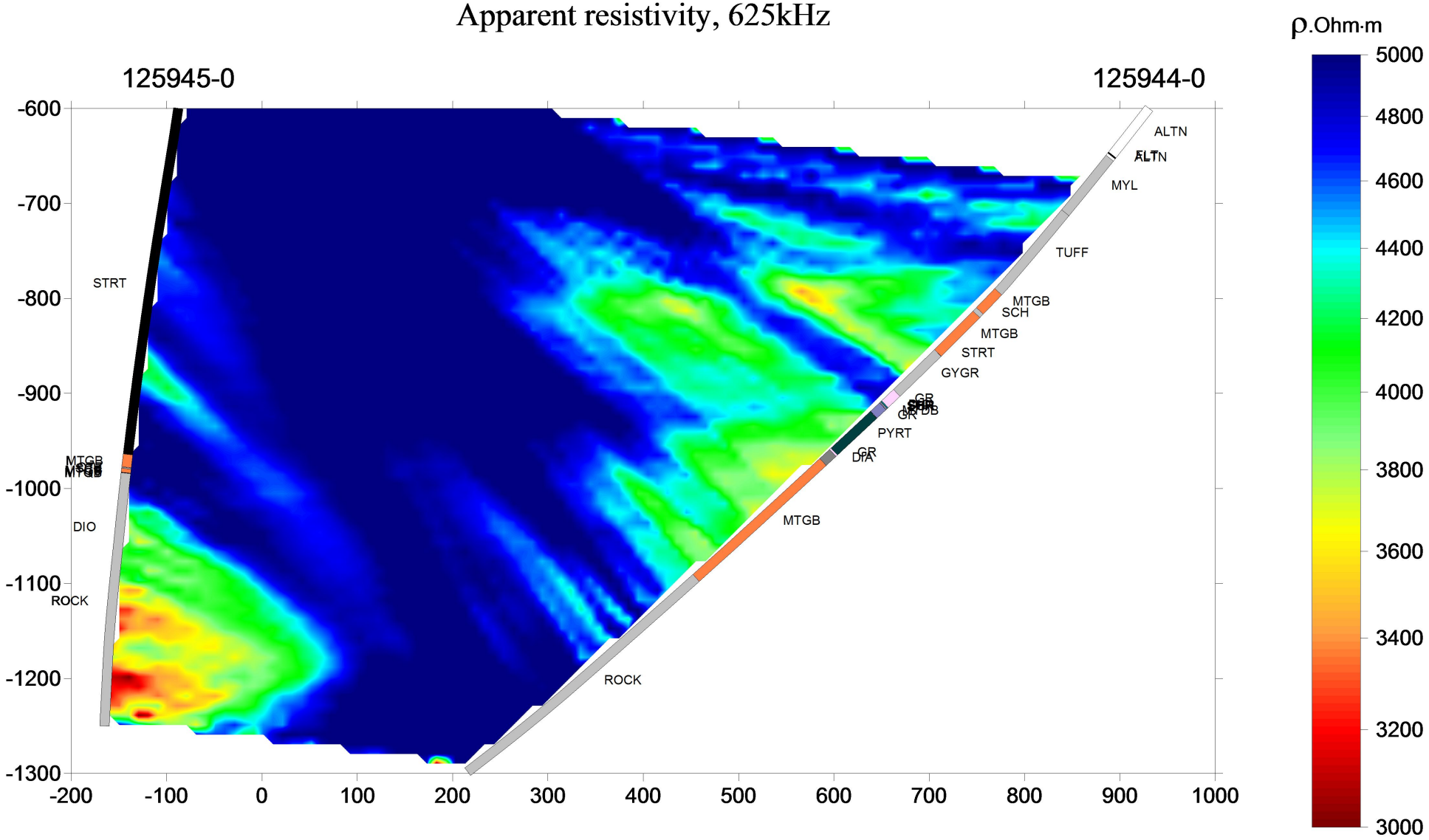
RIM tomography reconstruction
Apparent resistivity, 156,25kHz



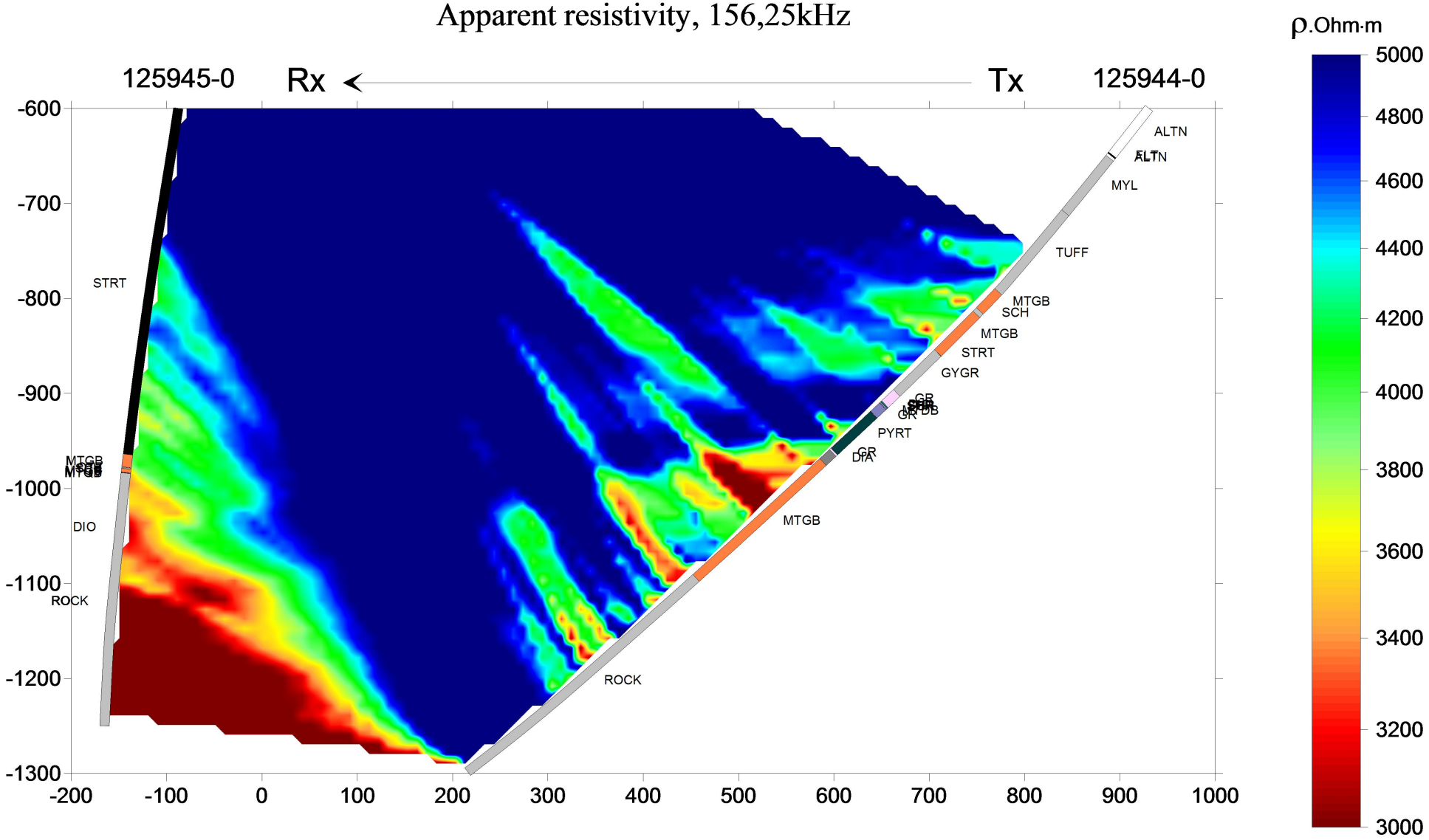
RIM tomography reconstruction
Apparent resistivity, 312,5kHz



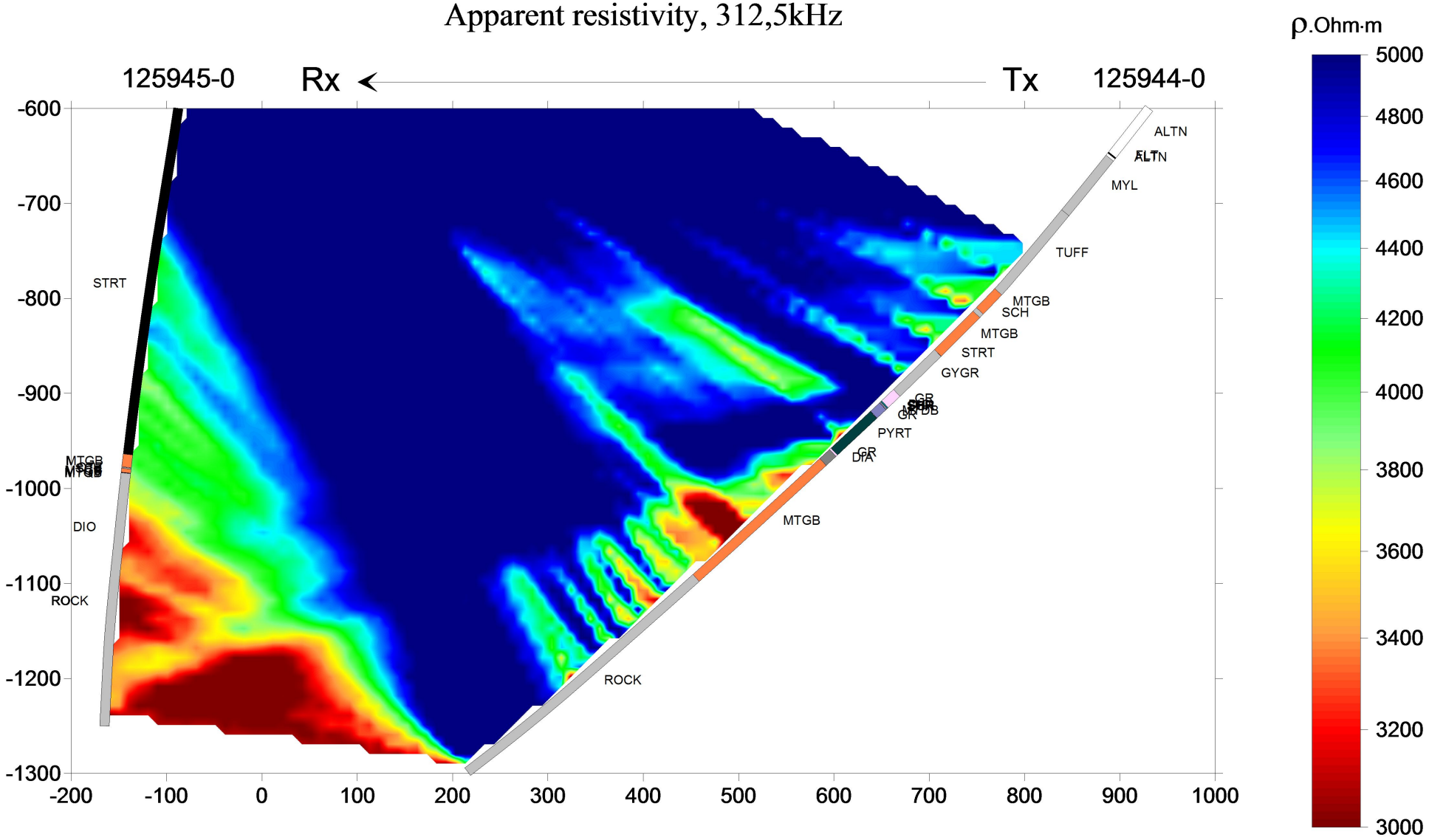
RIM tomography reconstruction
Apparent resistivity, 625kHz



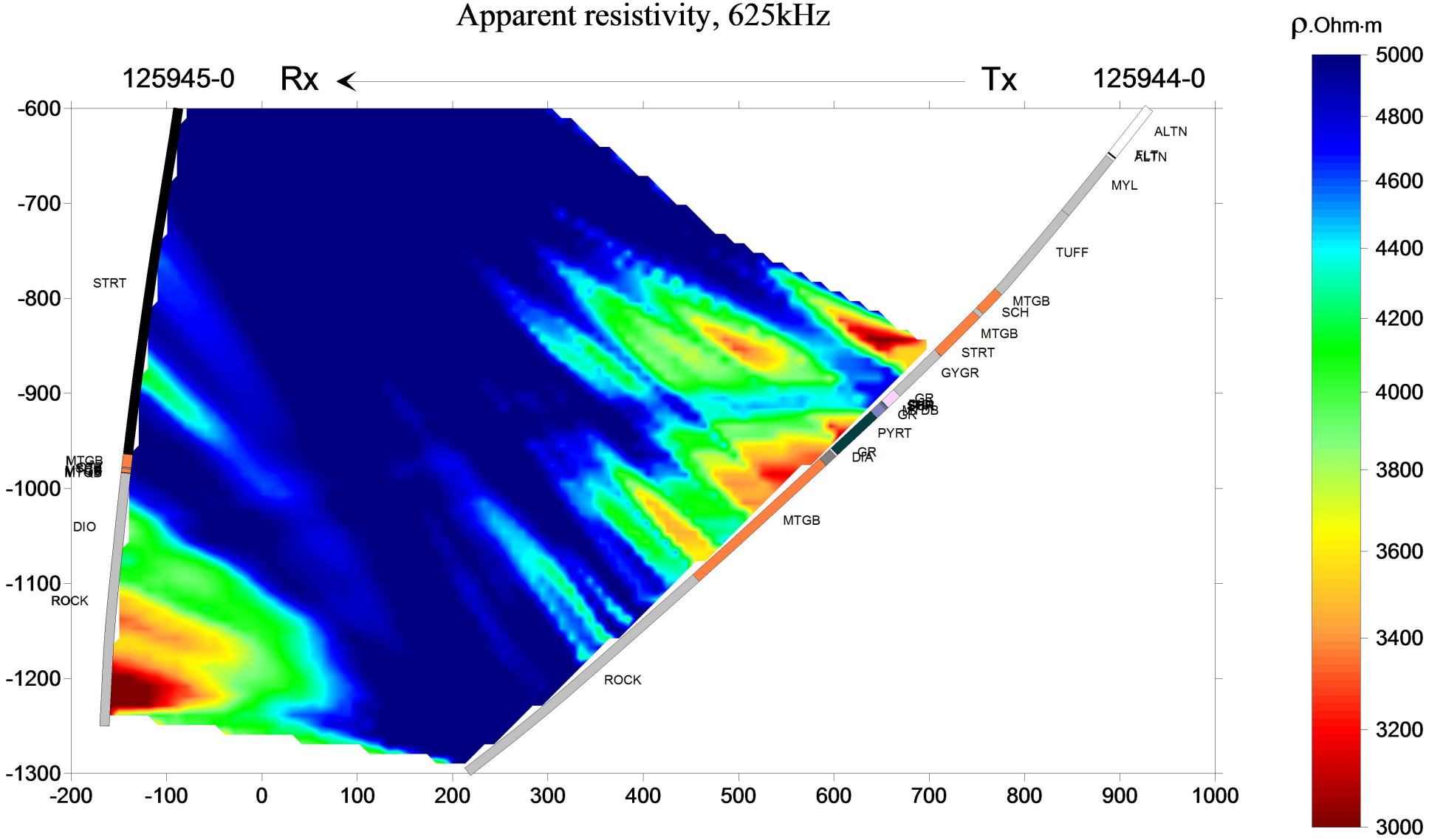
RIM tomography reconstruction
Apparent resistivity, 156,25kHz



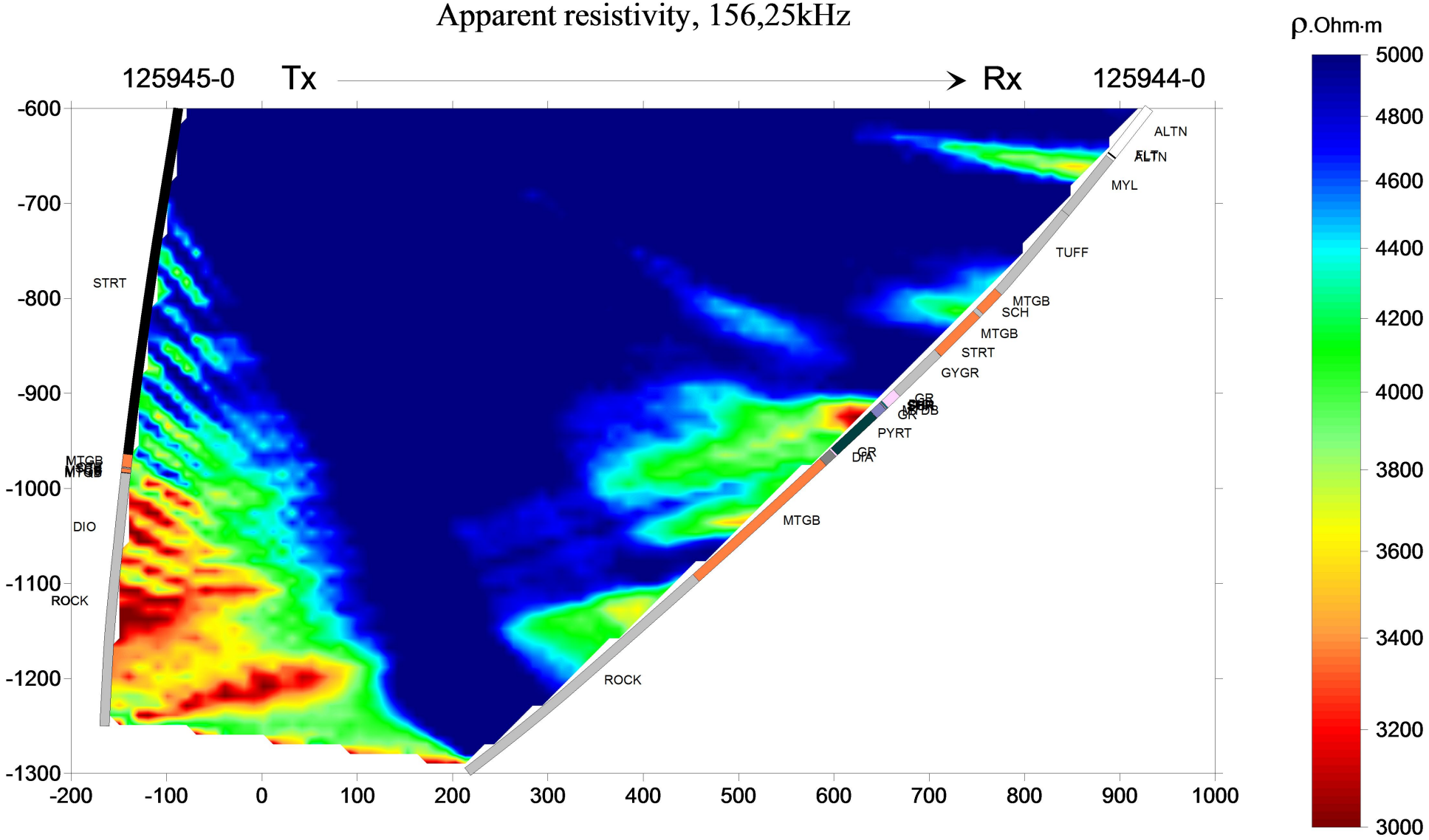
RIM tomography reconstruction
Apparent resistivity, 312,5kHz



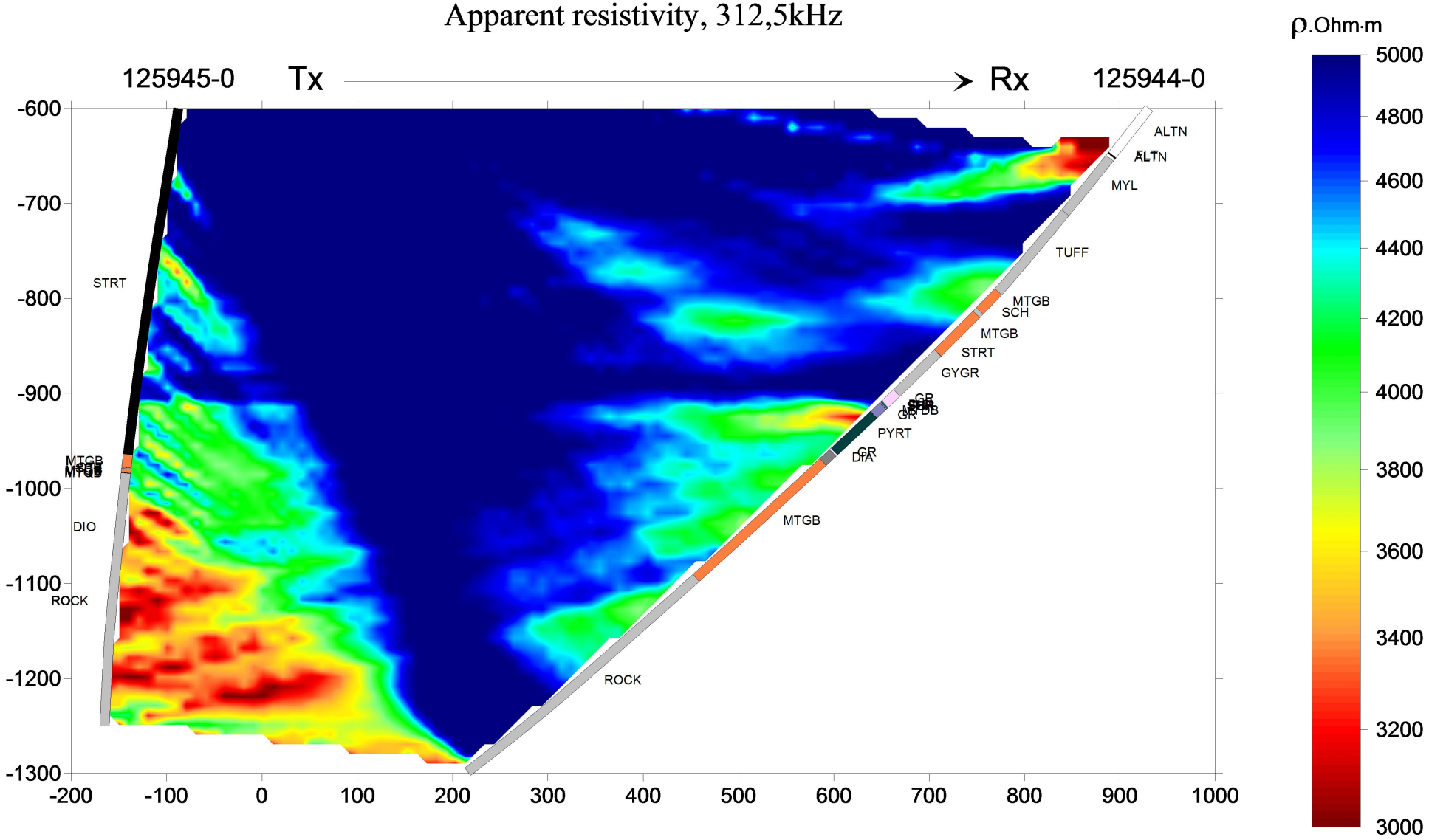
RIM tomography reconstruction
Apparent resistivity, 625kHz



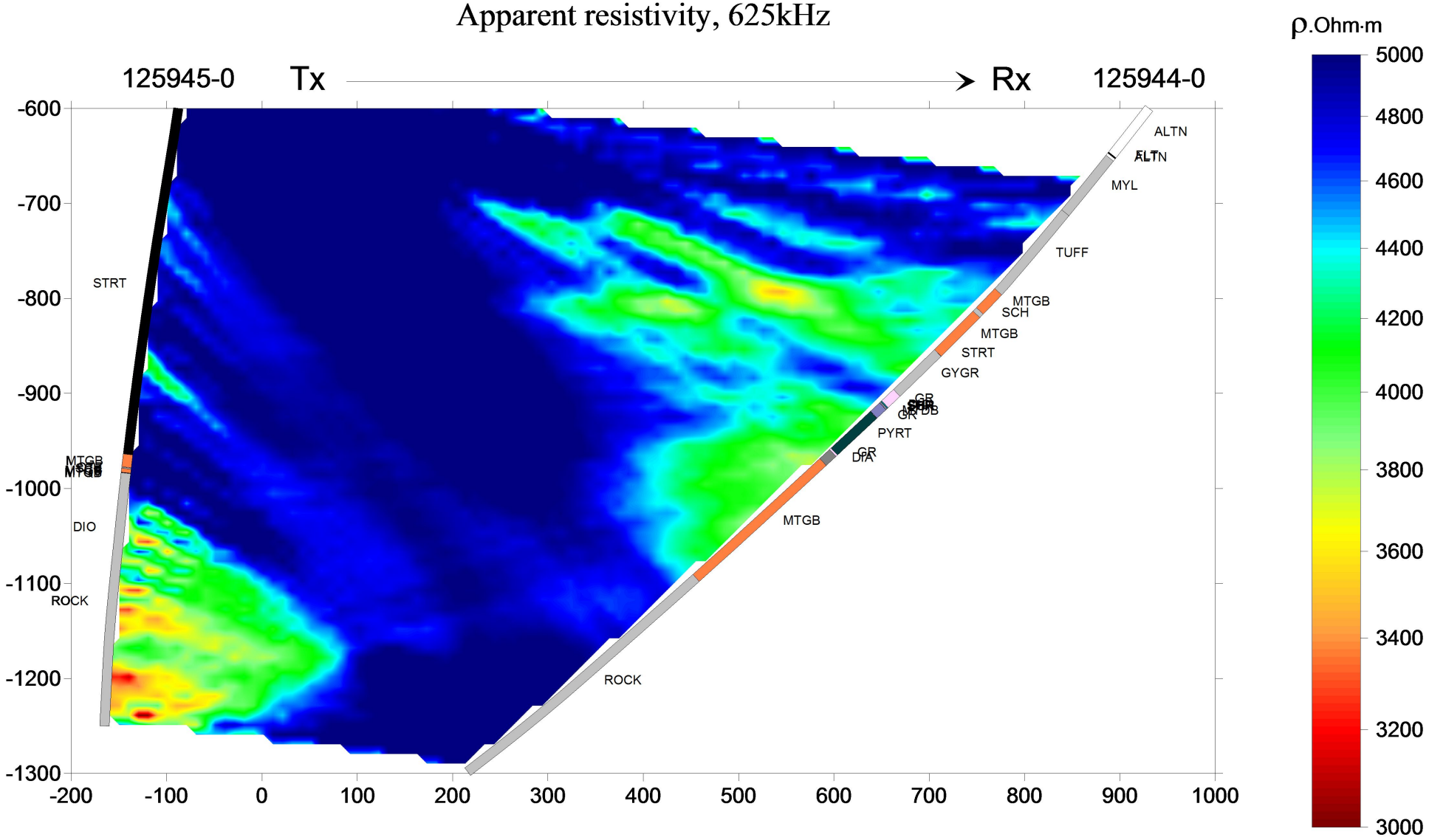
RIM tomography reconstruction
Apparent resistivity, 156,25kHz



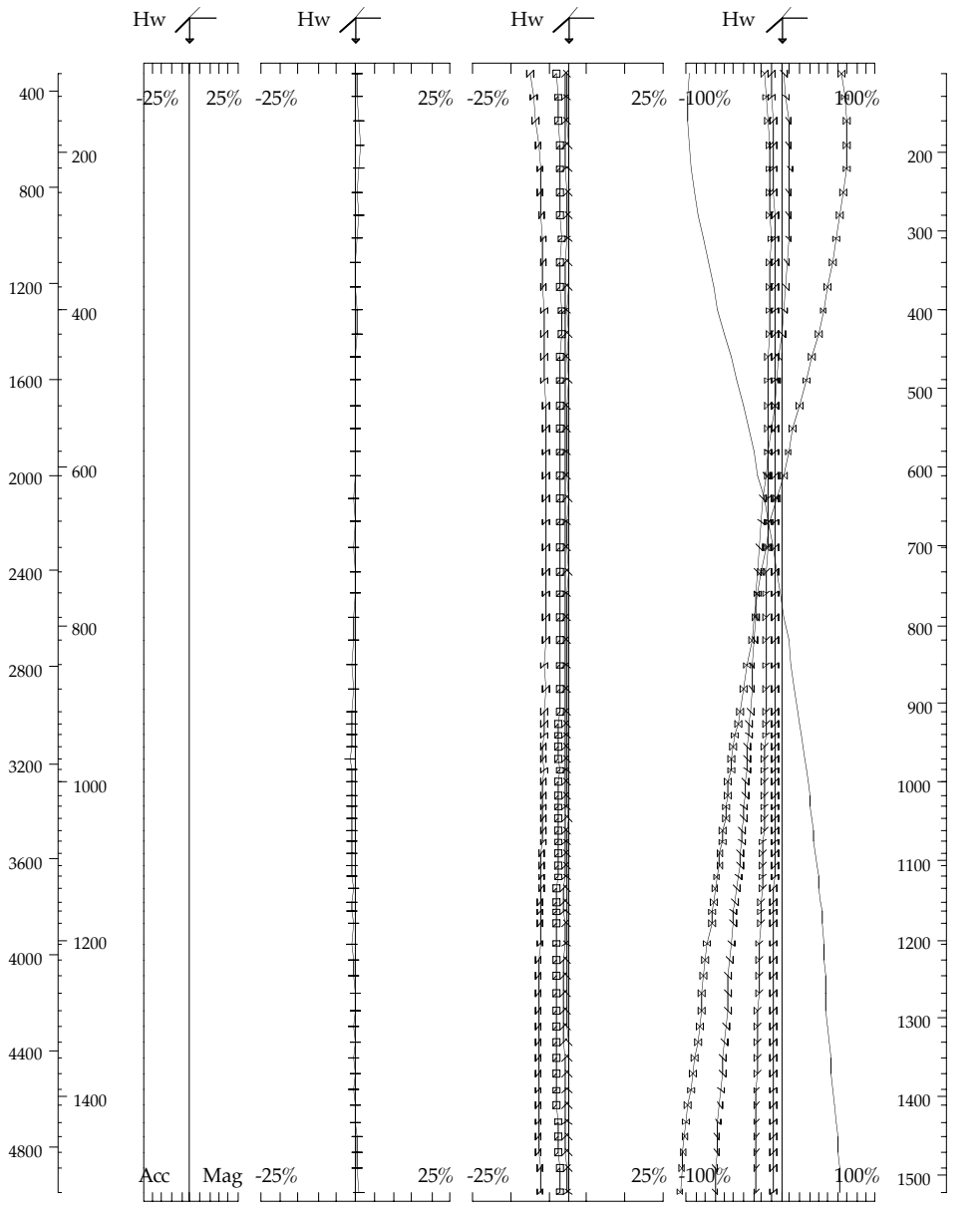
RIM tomography reconstruction
Apparent resistivity, 312,5kHz



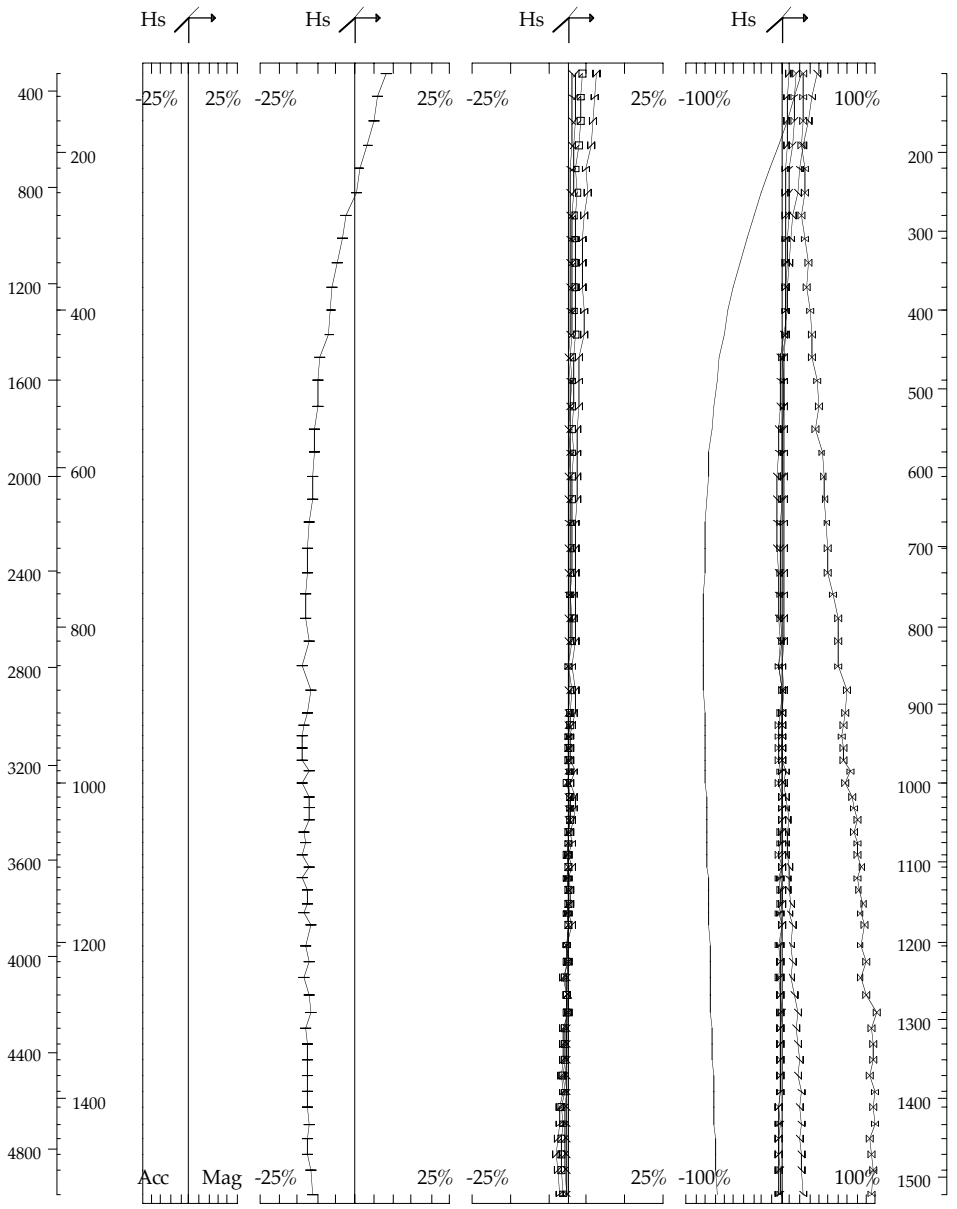
RIM tomography reconstruction
Apparent resistivity, 625kHz



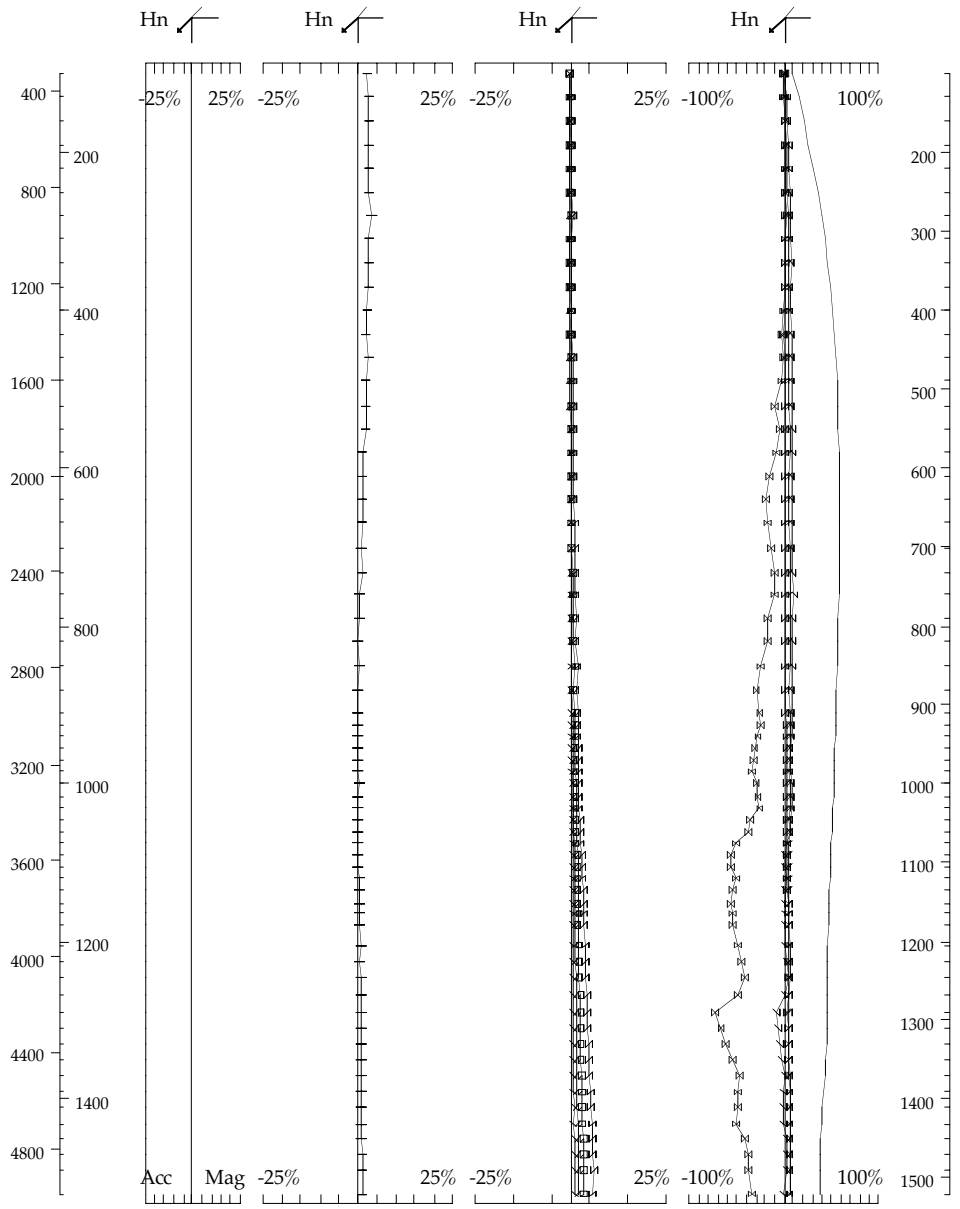
Appendix VII – UTEM-4 profiles



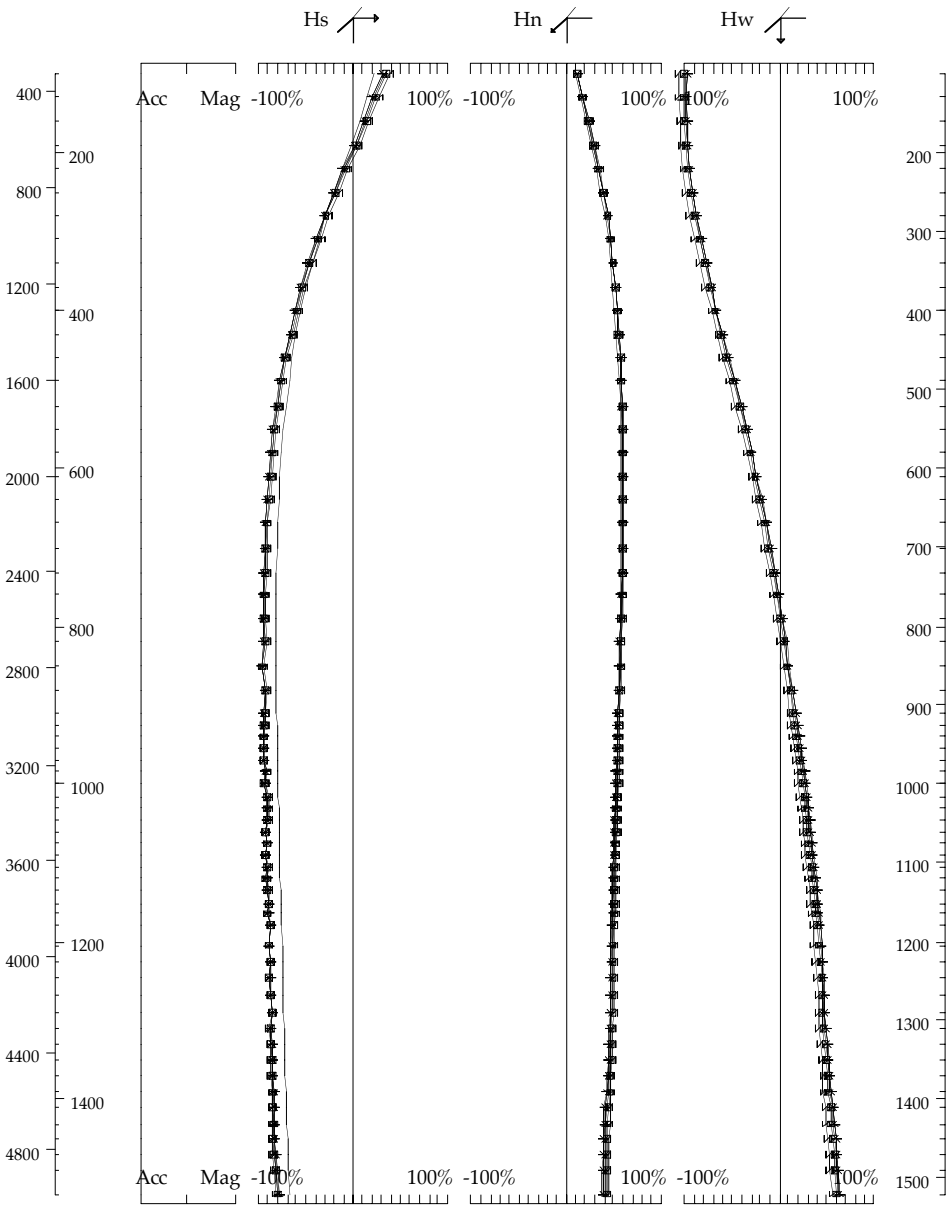
Hole: 125945 Lp: 1405; Job: 1403 Cpt: Hw S 360°; N 90°	Secondary, (Chn-Ch1)/ |Hp| Cont norm @ Δz:0m Base freq: 30.974 Hz Gain factor: -1	BHUTEM-4 Survey at: Creighton Mine For: Vale Technology Development (Canada) Ltd. LAMONTAGNE GEOPHYSICS LTD GEOPHYSIQUE LTEE Surv: 24/2/14 Red : 25/2/14 Plot: 3/9/14



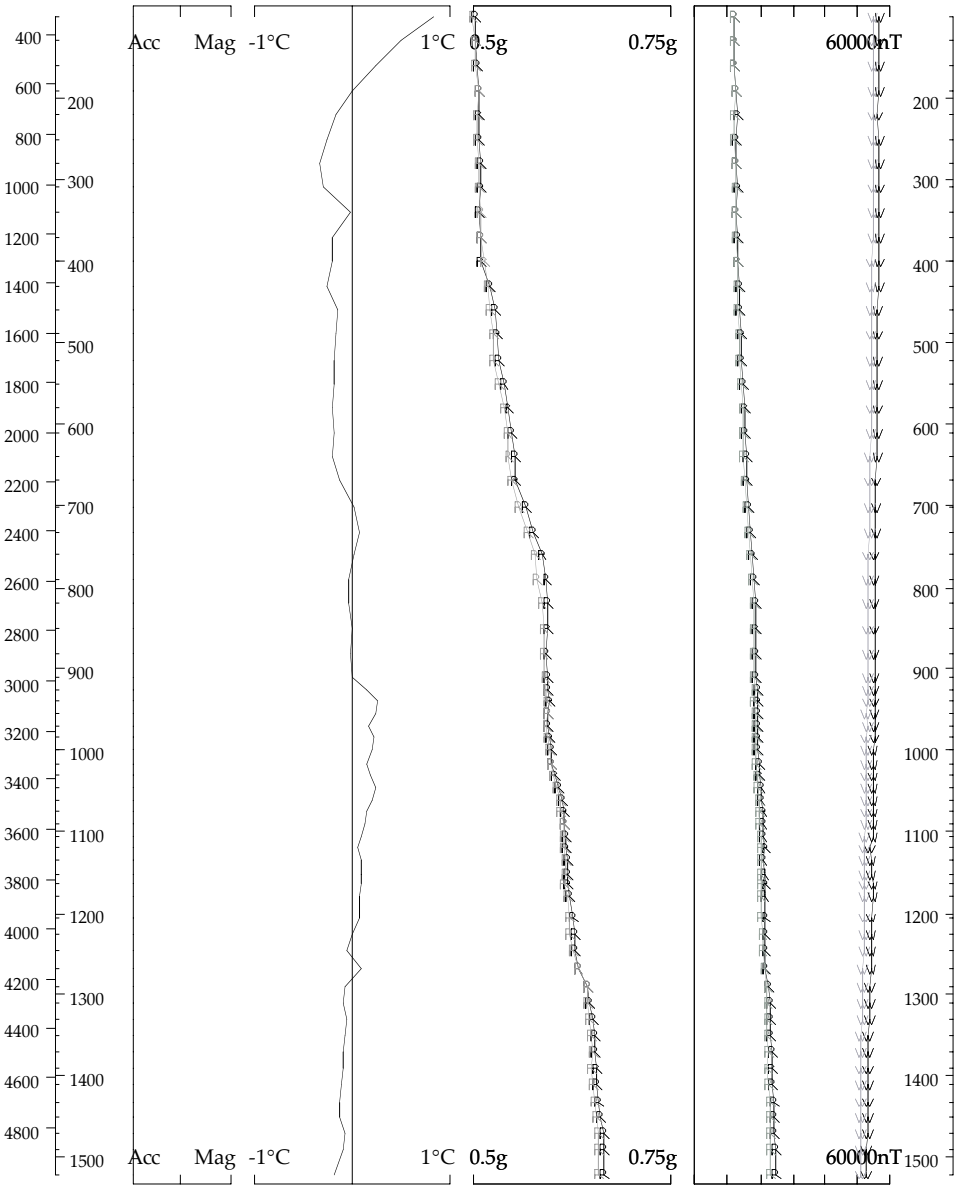
Hole: 125945 Lp: 1405; Job: 1403 Cpt: Hs S 360°; N 90°	Secondary, (Chn-Ch1)/ |Hp| Cont norm @ Δz:0m Base freq: 30.974 Hz Gain factor: -1	BHUTEM-4 Survey at: Creighton Mine For: Vale Technology Development (Canada) Ltd. LAMONTAGNE GEOPHYSICS LTD GEOPHYSIQUE LTEE Surv: 24/2/14 Red : 25/2/14 Plot: 3/9/14



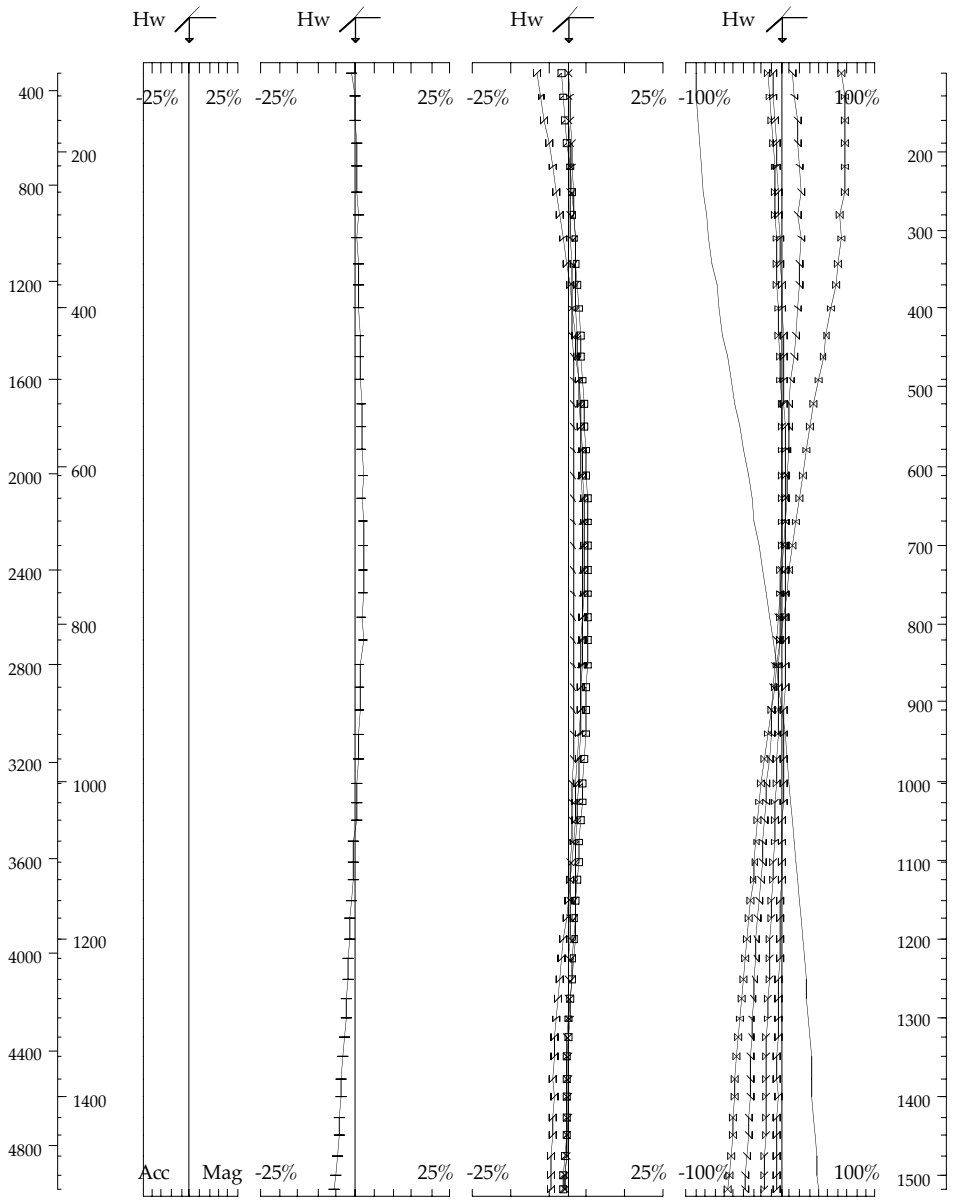
Hole: 125945 Lp: 1405; Job: 1403 Cpt: Hn S 360°; N 90°	Secondary, (Chn-Ch1)/ |Hp| Cont norm @ Δz:0m Base freq: 30.974 Hz Gain factor: -1	BHUTEM-4 Survey at: Creighton Mine For: Vale Technology Development (Canada) Ltd. LAMONTAGNE GEOPHYSICS LTD GEOPHYSIQUE LTEE Surv: 24/2/14 Red : 25/2/14 Plot: 3/9/14



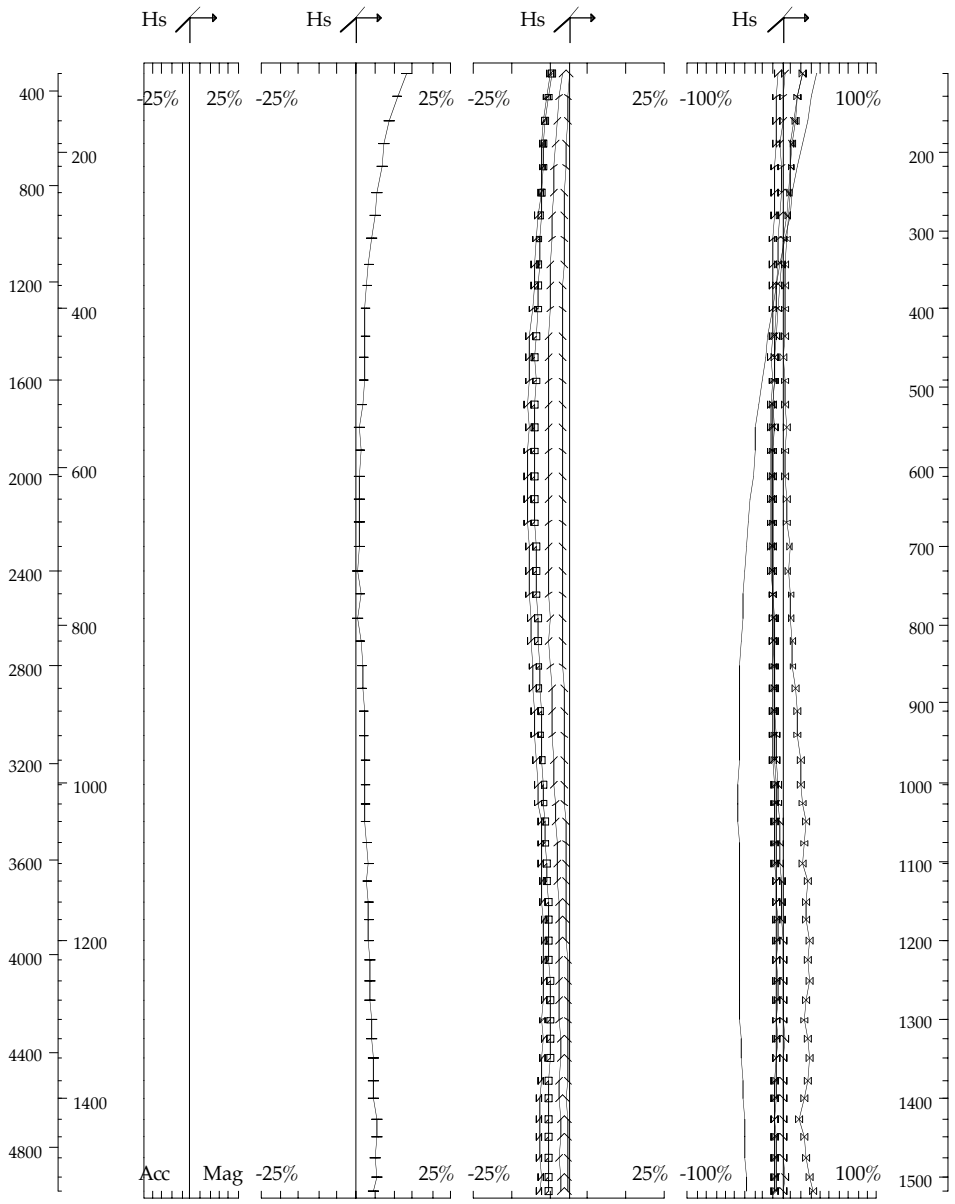
Hole: 125945 Lp: 1405; Job: 1403 Cpt: Hs,Hn,Hw S 360°; N 90°	Total, Chn/|Hp| Cont norm @ Δz:0m Base freq: 30.974 Hz Gain factor: -1	BHUTEM-4 Survey at: Creighton Mine For: Vale Technology Development (Canada) Ltd. LAMONTAGNE GEOPHYSICS LTD GEOPHYSIQUE LTEE Surv: 24/2/14 Red : 25/2/14 Plot: 3/9/14



Hole: 125945 Lp: 1405; Job: 1403 Cpt: S 360°; N 90°	Secondary, (Chn-Ch1)/ |Hp| Cont norm @ Δz:0m Base freq: 30.974 Hz Gain factor: -1	BHUTEM-4 Survey at: Creighton Mine For: Vale Technology Development (Canada) Ltd. LAMONTAGNE GEOPHYSICS LTD GEOPHYSIQUE LTEE Surv: 24/2/14 Red : 25/2/14 Plot: 3/9/14



Hole: 125945 Lp: 1406; Job: 1403 Cpt: Hw S 360°; N 90°	Secondary, (Chn-Ch1)/ |Hp| Cont norm @ Δz:0m Base freq: 30.974 Hz Gain factor: -1	BHUTEM-4 Survey at: Creighton Mine For: Vale Technology Development (Canada) Ltd. LAMONTAGNE GEOPHYSICS LTD GEOPHYSIQUE LTEE Surv: 25/2/14 Red : 22/9/14 Plot: 22/9/14



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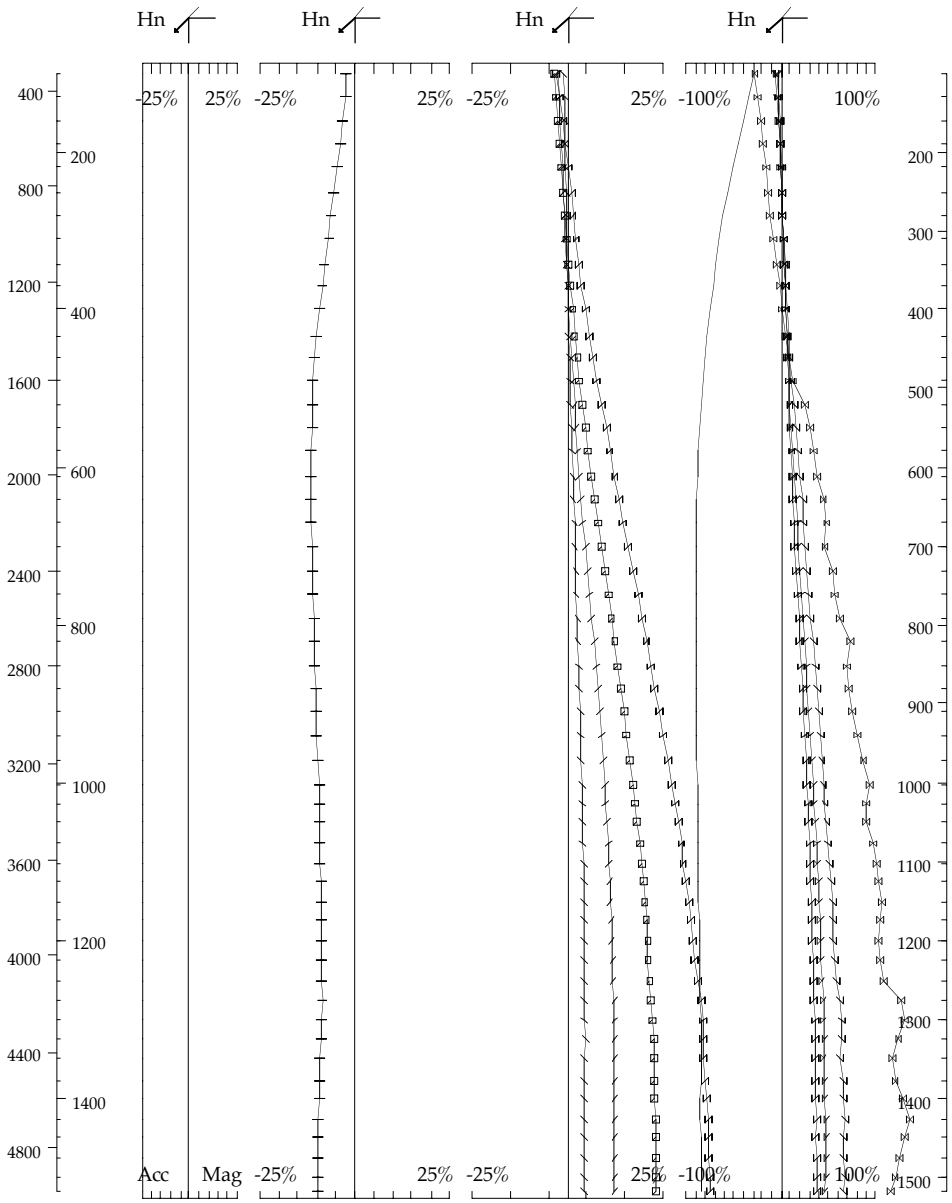
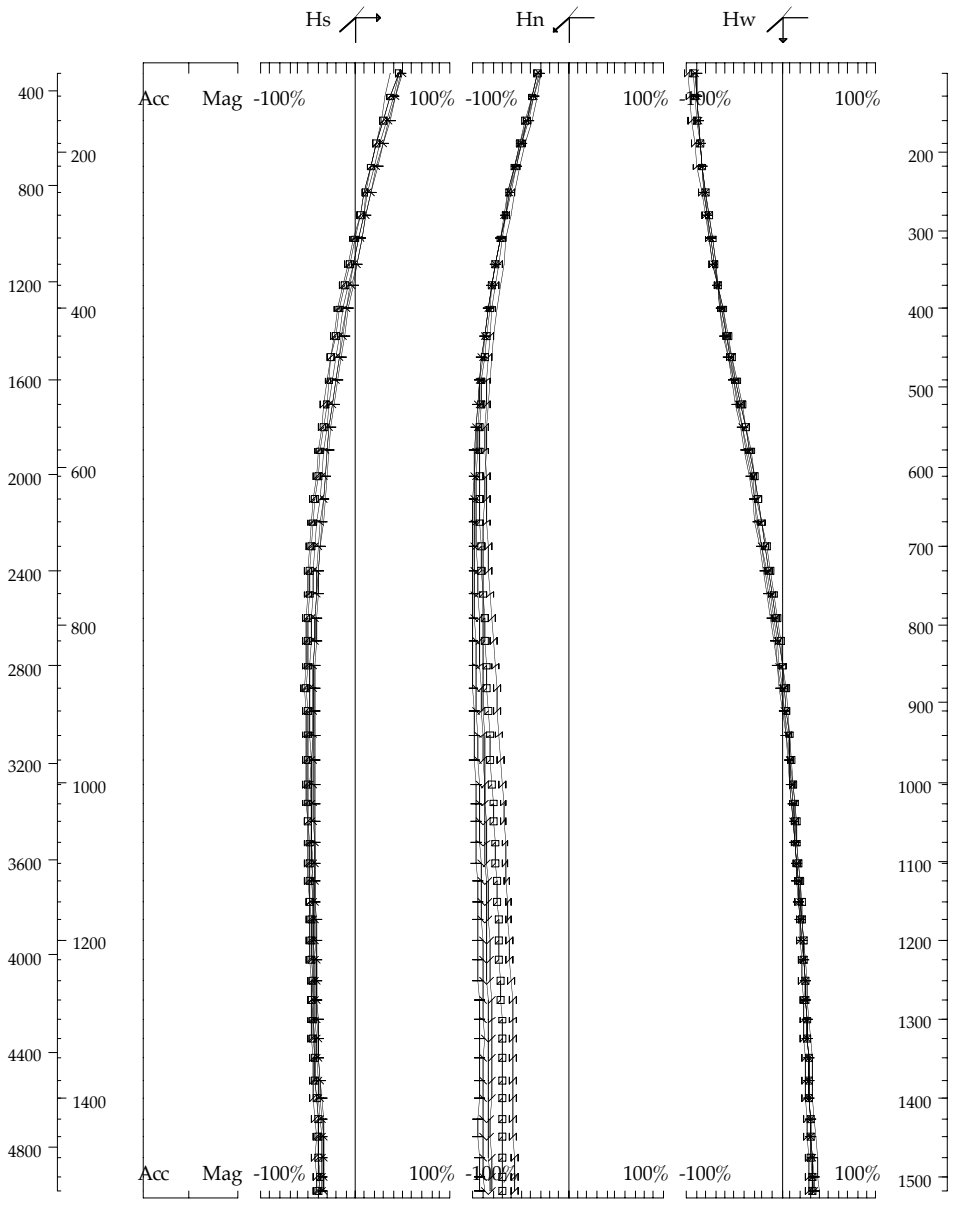
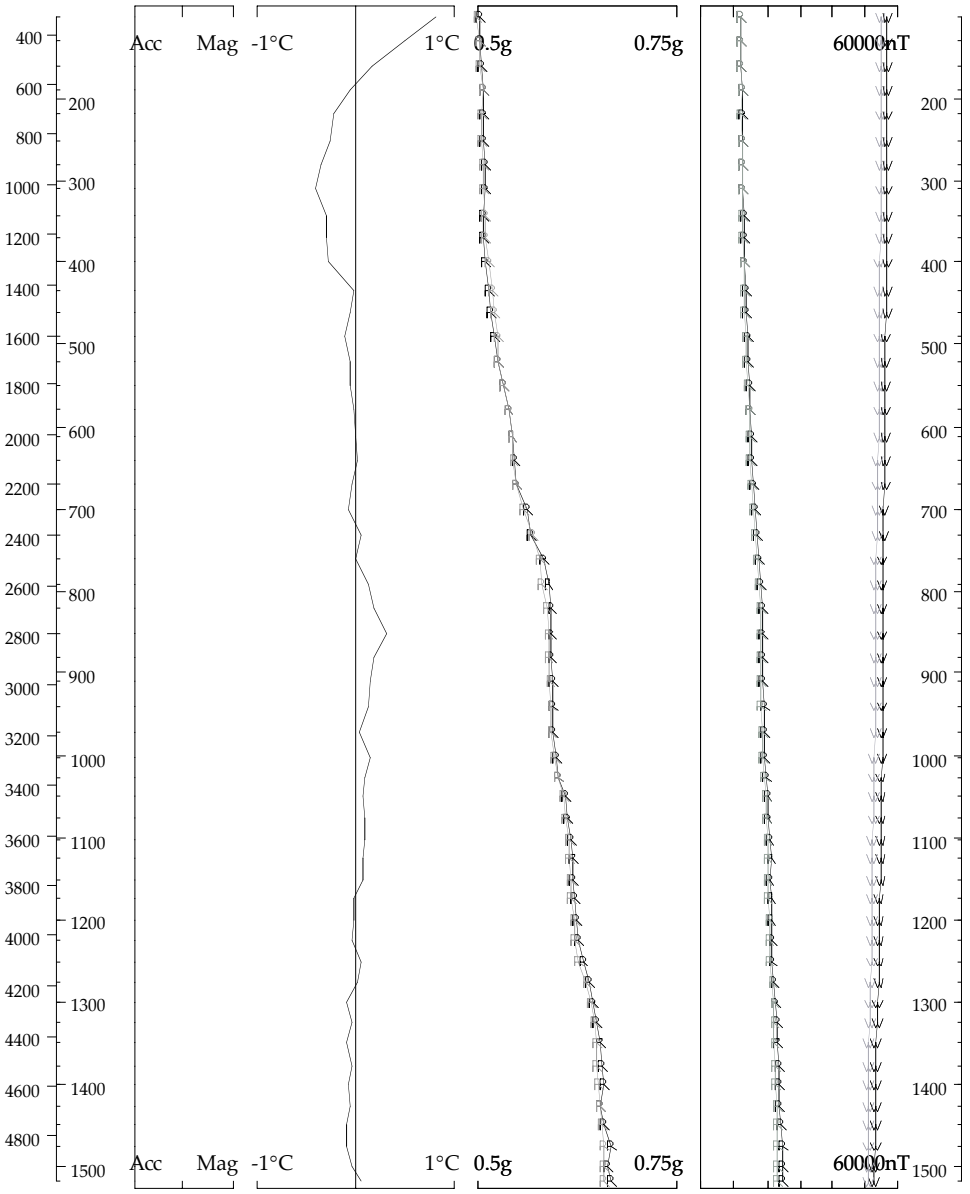


Hole: 125945 Lp: 1406; Job: 1403 Cpt: Hn S 360°; N 90°	Secondary, (Chn-Ch1)/|Hp| Cont norm @ Δz:0m Base freq: 30.974 Hz Gain factor: -1	BHUTEM-4 Survey at: Creighton Mine For: Vale Technology Development (Canada) Ltd. LAMONTAGNE GEOPHYSICS LTD GEOPHYSIQUE LTEE Surv: 25/2/14 Red : 22/9/14 Plot: 22/9/14



Hole: 125945 Lp: 1406; Job: 1403 Cpt: Hs,Hn,Hw S 360°; N 90°	Total, Chn/|Hp| Cont norm @ Δz:0m Base freq: 30.974 Hz Gain factor: -1	BHUTEM-4 Survey at: Creighton Mine For: Vale Technology Development (Canada) Ltd. LAMONTAGNE GEOPHYSICS LTD GEOPHYSIQUE LTEE Surv: 25/2/14 Red : 22/9/14 Plot: 22/9/14



Hole: 125945 Lp: 1406; Job: 1403 Cpt: S 360°; N 90°	Secondary, (Chn-Ch1)/|Hp| Cont norm @ Δz:0m Base freq: 30.974 Hz Gain factor: -1	BHUTEM-4 Survey at: Creighton Mine For: Vale Technology Development (Canada) Ltd. LAMONTAGNE GEOPHYSICS LTD / GEOPHYSIQUE LTEE Surv: 25/2/14 Red : 22/9/14 Plot: 22/9/14

Appendix VIII – Expenditure summary

Information withheld for client confidentiality.

484287 683916 | 484587 683916 | 484887 683916 | 485187 683916

5145954 738557 | 5145654 738557 | 5145354 738557 | 5145054 738557 | 5144754 738557 | 5144454 738557 | 5144154 738557

Vale

Vale

Vale

73368-0105

403m

(47% of expenditures)

870m

Vale

Vale

467m

Vale

Vale

Vale

N

Legend

Vale Mining Lands Applying Assessment Work

BH 125945-0

Drill Plan
Creighton-Davies Township
Sudbury, Ontario

Universal Traverse Mercator
NAD 27, Zone 17N

October 8, 2015

Scale: 1:5,000

0 200

m