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REPORT

on the

INDUCED POLARIZATION AND RESITIVITY SURVEY

BRADSHAW AREA,

FRANKFIELD PROPERTY

NORTH TIMMINS GOLD PROJECT

PORCUPINE MINING DIVISION,

NORTHEASTERN ONTARIO

August 31, 2016 **Kevin Montgomery P.Geo.**

SUMMARY

The North Timmins Gold Project, held by Gowest Gold Ltd., is situated 32 km north-northeast of Timmins, Ontario. It is comprised of 672 claim units (10,908 hectares) in Evelyn, Tully, Little, Gowan, Prosser and Wark Townships. It is accessible from Highway 655 via an all-weather gravel road that turns east off Highway 655, 11.5 km north of the Kidd Creek Mine access road.

A deep penetrating gradient time domain induced polarization (IP)/Resistivity survey was conducted by Insight Geophysics Inc. over the Bradshaw gold deposit in early 2016. Based on the success of the results, the survey area was extended eastward in early 2017. A saw cut grid (20.5 line km) was established by Silver Spruce Explorations Inc in 2016 and Compass Exploration in 2017 for the surveying. The total grid consisted of 19 north-south grid lines totaling 18.7 km and two tie lines totaling 1.8 km. The IP/Resistivity survey consisted of 16.7 line km of gradient array surveying and 2.75 line km of sectioning.

The 2016-2017 IP/Resisitivity survey detected and outlined two strong to moderate chargeability high anomalies and a distinct northeast trending high resistivity linear.

It is recommended that possible future diamond drilling target the eastern portion of the northeast resistivity high linear and the southeastern total chargeability anomaly. In addition, further IP/Resisitivity surveying should be consider to the east of the existing grid to outline the continuation of the resistivity linear.

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MAPS & SECTIONS (in back pocket)

INTRODUCTION

The Frankfield Property is part of the North Timmins Project of Gowest Gold Ltd. The project is comprised of 78 mining claims (672 claim units) covering approximately 10,908 hectares, east of the Kidd Creek Mine site. The property is held 100% by Gowest Gold Ltd.

This report describes two separate contiguous induced polarization/resistivity surveys that were carried out on the Frankfield Property, from February 18 to March 8, 2016 and from December 21, 2016 to January 19, 2017.

PROPERTY LOCATION AND ACCESS

The North Timmins Project area is located in Evelyn, Tully, Little, Prosser and Wark Townships, approximately 32 km north-northeast of the City of Timmins, Ontario (Figure 1). Surface access to the Frankfield Property, part of the North Timmins Project, is easily gained via Highway 655 and an all-weather gravel road (Whidden Road) that turns east off Highway 655, 11.5 km north of the Kidd Creek Mine access road. This 14 km long all-weather road ends at the former Texmont gold zone pit on the Frankfield Property. In 2016, the Whidden Road was extended 1.5 km on the Frankfield Property to the Bradshaw Portal Outcrop.

PROPERTY DESCRIPTION

The North Timmins Gold Project of Gowest is comprised of one patented mineral claim, ten leased mineral claims and 67 unpatented mineral claims variously located in Prosser, Wark, Tully, Gowan, Little and Evelyn Townships (Figure 2). It consists of 672 claim units covering approximately 10,908 hectares. The Frankfield Property consists of nine mining leases (54 contiguous mining claim units) in Tully and Prosser Townships totalling 837 hectares. Gowest owns the surface rights to seven of the mining leases. A detailed list of the North Timmins Gold Project claims is found in Appendix A.

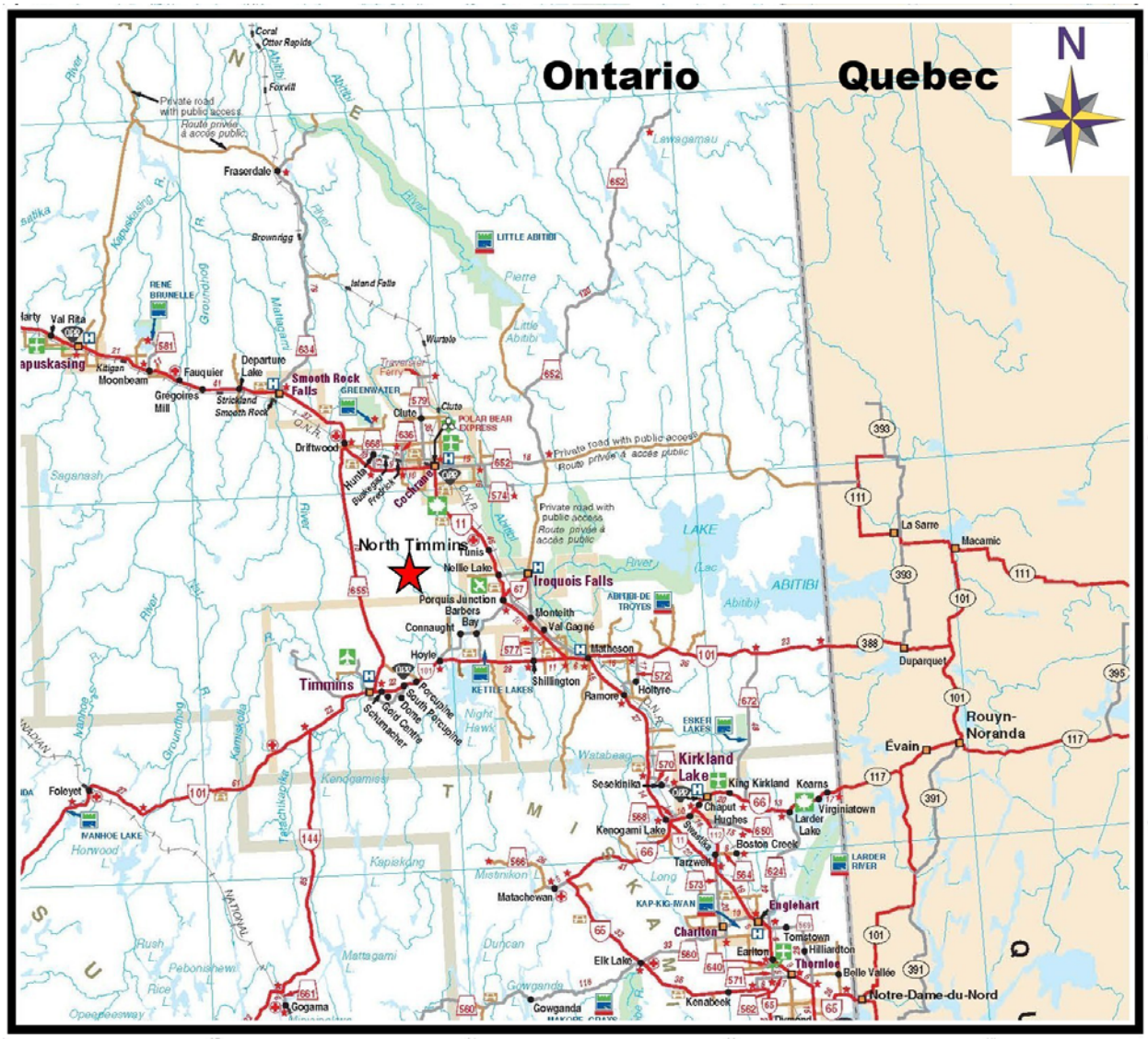

Figure 1 Location Map

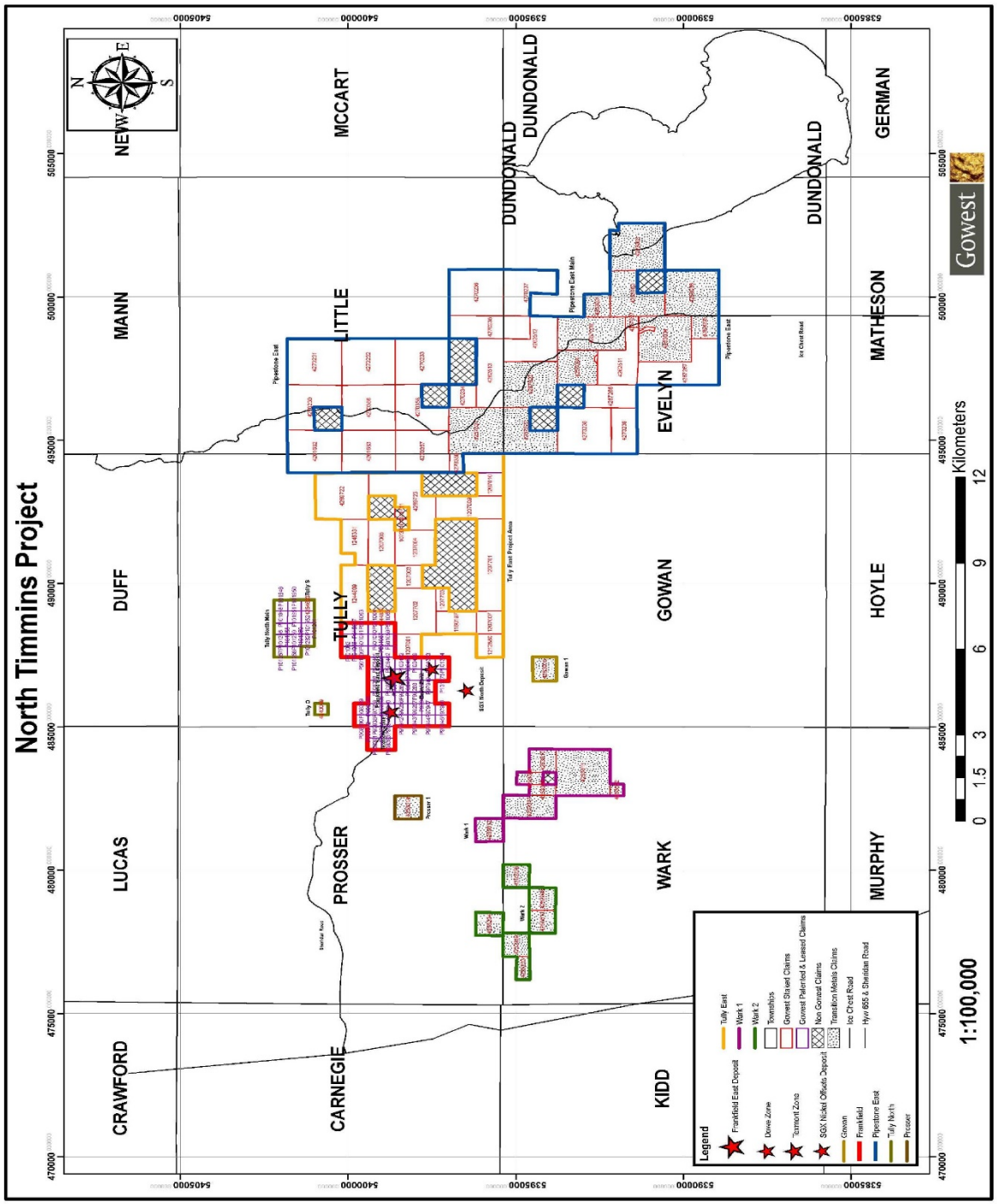

Figure 2 Project Map

GRID DESCRIPTION

A saw cut grid (8.2 line km) was established by Silver Spruce Explorations Inc. for Gowest Gold Ltd on the Frankfield Property. It was cut from February 18 to March 2, 2016. This grid was then extended eastward (12.3 line km) by Compass Exploration, from December 21, 2016 to January 9, 2017.

The total grid consisted of 19 north-south grid lines totaling 18.7 km and two tie lines totaling 1.8 km.(see Table 1). The grid covers the following claims P501057 to 58 (Lease 107310), P501059 to 60 (Lease 107311), P508398 to 402 (Lease 107280), P100440 to 42 (Lease 107361), and P1207001 (Lease 1079337); see Figure 3.

Table 1 Frankfield Property Grid

Line		UTM E	From UTM N	To UTM N	Line Length (m)
6300E		486300	5398300	5399100	800
6400E		486400	5398300	5399100	800
6500E		486500	5398300	5399100	800
6600E		486600	5398300	5399100	800
6700E		486700	5397800	5399600	1800
6800E		486800	5398300	5399100	800
6900E		486900	5398300	5399100	800
7000E		487000	5398300	5399100	800
7100E		487100	5398300	5399100	800
EAST	GRID			**TOTAL**	8200
7200E		487200	5398300	5399300	1000
7300E		487300	5398300	5399300	1000
7400E		487400	5398300	5399300	1000
7500E		487500	5398300	5399300	1000
7600E		487600	5397800	5399800	2000
7700E		487700	5398300	5399300	1000
7800E		487800	5398300	5399300	1000
7900E		487900	5398300	5399300	1000
8000E		488000	5398300	5399300	1000
8100E		488100	5398300	5398800	500

North TL	7200	to 8100E		900
South TL	7200	to 8100E		900
			TOTAL	12300

Figure 3 Bradshaw Area, Frankfield Property IP grid

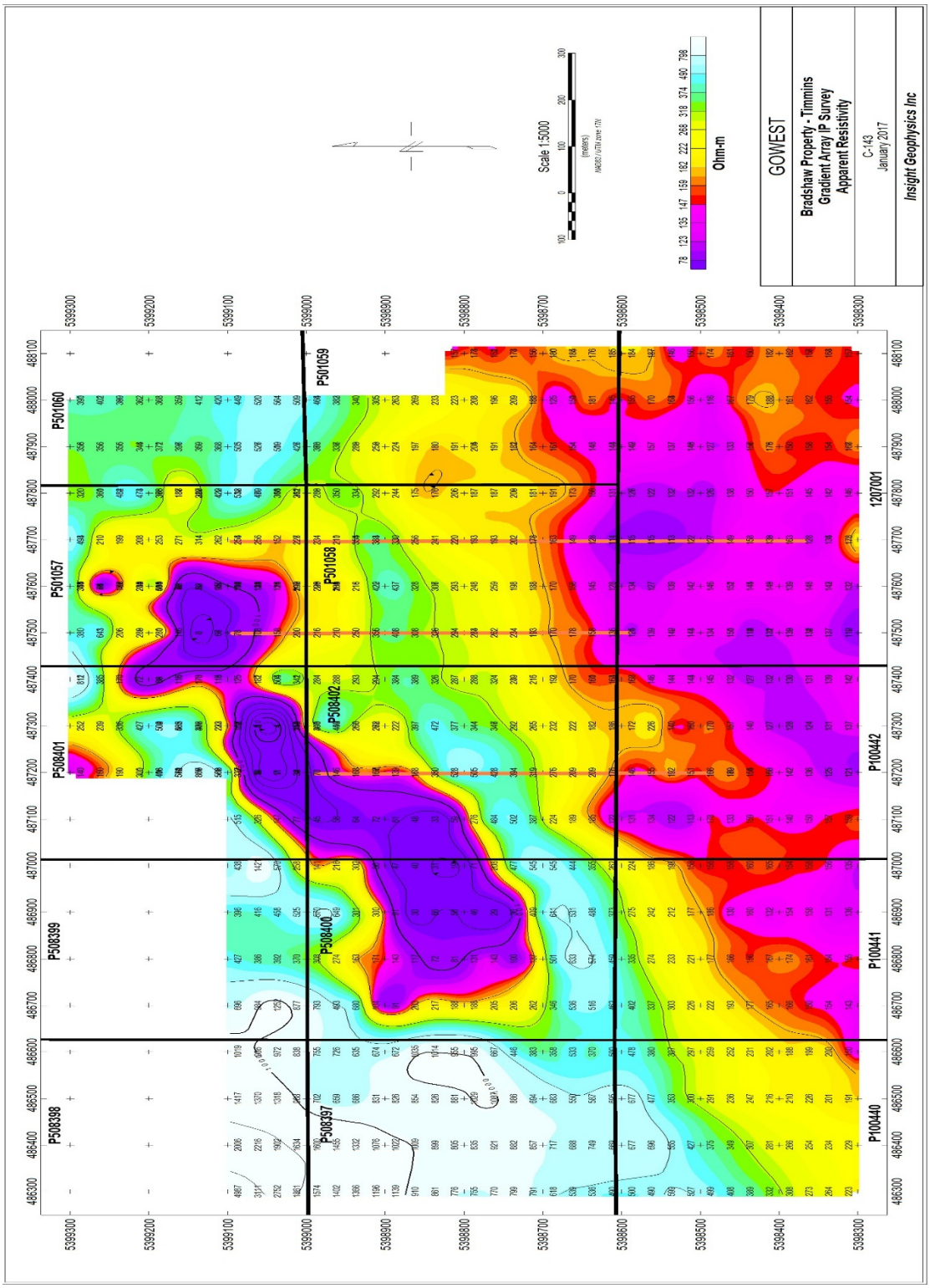

Figure 4 Bradshaw area, Frankfield Property Resistivity Map

INDUCED POLARIZATION PROGRAM

A deep penetrating gradient time domain induced polarization (IP)/Resistivity survey was conducted by Insight Geophysics Inc. over the central Bradshaw area being claims P508398 to 402 (Lease 107280) and P100440 to 42 (Lease 107361). The survey was conducted from February 29 to March 8, 2016 and was comprised of 7.2 line km of gradient array surveying and 1 line km of sectioning. A field crew of five conducted the survey. The field crew chief was Tom Goutos of Insight Geophysics Inc. and his helpers were Nick Alles (Insight), Joe Wabie (Insight), Shay (Vision Exploration) and Jonathan Green (Vision).

As a result of the success of this survey, a second survey was conducted by Insight Geophysics Inc. over the east Bradshaw area being claims P501057 to 58 (Lease 107310), P501059 to 60 (Lease 107311), and P1207001 (Lease 1079337). This eastern survey was conducted from January 6 to 9, 2017 and was comprised of 9.5 line km of gradient array surveying and 1.75 line km of sectioning. A field crew of five conducted the survey. The field crew chief was Tom Goutos of Insight Geophysics Inc. and his helpers were Perry Nielsen (Insight), John Kieley (Insight) and two others from Ox-Bowe Construction Services.

Details regarding the survey equipment specifications, the survey parameters and the data acquisition details are found in Appendix B the Insight Geophysics Logistical Reports.

INDUCED POLARIZATION AND RESISTIVITY RESULTS

Two strong to moderate chargeability high anomalies were outlined by the Insight IP/Resisitivity survey. A broad Total Chargeability high stretches over 1.2 km in the northern portion of the grid. A second moderate east-west Total Chargeability anomaly occurs in the southeast portion of the grid (see Map 1).

Two strong apparent resistivity low anomalies with a distinct northeast trending high resistivity linear between them (Figure 4), were outlined by the Insight IP/Resisitivity survey.

CONCLUSION AND RECOMMENDATIONS

The North Total Chargeability high is caused by several graphitic horizons in the mafic volcanics that are often associated with the margins of ultramafic volcanics. The cause of the southeast anomaly is unknown due to lack of diamond drilling in the area. The southern moderate to strong resistivity low coincides with ultramafic volcanics and the northern strong resistivity low with graphitic argillites and ultramafics within mafic unaltered volcanics. The northeast linear resistivity high coincides with the altered mafic volcanics hosting the Bradshaw gold deposit zones.

It is recommended that possible future diamond drilling target the eastern portion of the northeast resistivity high linear and the southeast total chargeability anomaly. In addition, further IP/Resisitivity surveying should be consider to the east of the existing grid to outline the continuation of the resistivity linear.

APPENDIX A NORTH TIMMINS GOLD PROJECT CLAIM LIST

District/Division	Project/Property	Township	Claim Number	Recording Date	Claim Due Date
Porcupine - 60	GW Orphan Tully (G-3985)	Tully	4240049	2010-Mar-03	2022-Mar-03
Porcupine - 60	GW Orphan Tully (G-3985)	Tully	4254623	2010-Mar-03	2020-Mar-03
Porcupine - 60	GC Tully East Block-1	Tully	1207009	1996-Mar-19	2019-Mar-19
Porcupine - 60	GC Tully East Block-1	Tully	1244809	2001-Mar-30	2019-Mar-30
Porcupine - 60	Guidoccio Tully East	Tully	4269722	2012-Mar-08	2018-Mar-08
Porcupine - 60	Guidoccio Tully East	Tully	4269723	2012-Mar-08	2018-Mar-08
Porcupine – 60	Gowest Tully East	Tully	4277620	2014-Aug-28	2021-Aug-28
Porcupine – 60	Gowest Tully East	Tully	4277624	2014-Aug-29	2021-Aug-29
Porcupine - 60	Transition Pipestone East	Evelyn	4253001	2010-Feb-02	2019-Feb-02
Porcupine - 60	Transition Pipestone East	Evelyn	4253002	2010-Feb-02	2019-Feb-02
Porcupine - 60	Transition Pipestone East	Evelyn	4253003	2010-Feb-02	2019-Feb-02
Porcupine - 60	Transition Pipestone East	Evelyn	4253004	2010-Feb-02	2019-Feb-02
Porcupine - 60	Transition Pipestone East	Evelyn	4253005	2010-Feb-02	2019-Feb-02
Porcupine - 60	Transition Pipestone East	Evelyn	4253006	2010-Feb-02	2019-Feb-02
Porcupine - 60	Transition Pipestone East	Evelyn	4257022	2010-Jul-12	2019-Jul-12
Porcupine - 60	Transition Pipestone East	Evelyn	4257023	2010-Jul-12	2019-Jul-12
District/Division	**Project/Property**	**Township**	**Claim Number**	**Recording Date**	**Claim Due Date**
Porcupine - 60	Transition Pipestone East	Evelyn	4257024	2010-Jul-12	2019-Jul-12
Porcupine - 60	Transition Pipestone East	Evelyn	4257025	2010-Jul-12	2019-Jul-12
Porcupine - 60	Transition Pipestone East	Evelyn	4257027	2010-Jul-12	2019-Jul-12
Porcupine - 60	Gowan	Gowan	4253015	2010-Feb-02	2018-Feb-02
Porcupine - 60	Transition Pipestone East	Little	4257021	2010-Jul-12	2019-Jul-12
Porcupine - 60	Prosser	Prosser	4253014	2010-Feb-02	2018-Feb-02
Porcupine - 60	Wark 1	Prosser	4255012	2010-Mar-09	2019-Mar-09
Porcupine - 60	Wark 2	Prosser	4255234	2010-Apr-26	2019-Apr-26
Porcupine - 60	Wark 2	Wark	4252998	2010-Apr-27	2019-Apr-27
Porcupine - 60	Wark 2	Wark	4252999	2010-Apr-26	2019-Apr-26
Porcupine - 60	Wark 1	Wark	4253007	2010-Feb-02	2019-Feb-02
Porcupine - 60	Wark 1	Wark	4253009	2010-Feb-02	2019-Feb-02
Porcupine - 60	Wark 1	Wark	4253010	2010-Feb-02	2019-Feb-02
Porcupine - 60	Wark 1	Wark	4253011	2010-Feb-02	2019-Feb-02
Porcupine - 60	Wark 1	Wark	4253012	2010-Feb-02	2019-Feb-02
Porcupine - 60	Wark 1	Wark	4253013	2010-Feb-02	2019-Feb-02
Porcupine - 60	Wark 2	Wark	4255013	2010-Mar-09	2019-Mar-09
Porcupine - 60	Wark 2	Wark	4255233	2010-Apr-26	2019-Apr-26
Porcupine - 60	Wark 2	Wark	4255235	2010-Apr-26	2019-Apr-26
Porcupine - 60	GW Pipestone East	Little	4270230	2012-May-04	2018-May-04

Porcupine - 60	GW Pipestone East	Evelyn	4262511	2011-Jun-15	2018-Jun-15	
Porcupine - 60	GW Pipestone East	Evelyn	4262512	2011-Jun-15	2018-Jun-15	
Porcupine - 60	GW Pipestone East	Little	4262513	2011-Jun-15	2018-Jun-15	
Porcupine - 60	GW Pipestone East	Little	4270231	2012-May-04	2018-May-04	
Porcupine - 60	GW Pipestone East	Little	4270232	2012-May-04	2018-May-04	
Porcupine - 60	GW Pipestone East	Little	4270233	2012-May-04	2018-May-04	
Porcupine - 60	GW Pipestone East	Little	4270234	2012-May-04	2018-May-04	
Porcupine - 60	GW Pipestone East	Little	4270235	2012-May-04	2018-May-04	
Porcupine - 60	GW Pipestone East	Little	4270236	2012-May-04	2018-May-04	
Porcupine - 60	GW Pipestone East	Evelyn	4270237	2012-May-04	2018-May-04	
Porcupine - 60	GW Pipestone East	Evelyn	4270238	2012-May-04	2018-May-04	
Porcupine - 60	GW Pipestone East	Evelyn	4270239	2012-May-04	2018-May-04	
Porcupine - 60	GW Pipestone East	Evelyn	4267266	2012-May-04	2018-May-04	
Porcupine - 60	GW Pipestone East	Evelyn	4267267	2012-May-04	2018-May-04	
Porcupine - 60	GW Pipestone East	Little	4270356	2013-Apr-08	2018-Apr-08	
Porcupine - 60	GW Pipestone East	Little	4270357	2013-Apr-08	2018-Apr-08	
Porcupine - 60	GW Pipestone East	Little	4270358	2013-Apr-08	2018-Apr-08	
Porcupine - 60	GW Pipestone East	Tully	4270359	2013-Apr-08	2018-Apr-08	
Porcupine - 60	GW Pipestone East	Little	4261682	2013-Apr-22	2018-Apr-22	
Porcupine - 60	GW Pipestone East	Little	4261683	2013-Apr-22	2018-Apr-22	

District/Division	**Project/Property**	**Township**	**Lease or License**	**Claim No.**	**Start/Anniversary**	**Lease Expiry**
Porcupine - 60	Dowe	Tully	107242	101372	1999-Feb-01	2020-Jan-31
Porcupine - 60	Dowe	Tully	107242	101373	1999-Feb-01	2020-Jan-31
Porcupine - 60	Dowe	Tully	107242	101374	1999-Feb-01	2020-Jan-31
Porcupine - 60	Dowe	Tully	107242	101375	1999-Feb-01	2020-Jan-31
Porcupine - 60	Texmont/Frankfield	Prosser	107280	508392	1999-Dec-01	2020-Nov-30
Porcupine - 60	Texmont/Frankfield	Prosser	107280	508394	1999-Dec-01	2020-Nov-30
Porcupine - 60	Texmont/Frankfield	Tully	107280	508389	1999-Dec-01	2020-Nov-30
Porcupine - 60	Texmont/Frankfield	Tully	107280	508395	1999-Dec-01	2020-Nov-30
Porcupine - 60	Texmont/Frankfield	Tully	107280	508396	1999-Dec-01	2020-Nov-30

District/Division	**Project/Property**	**Township**	**Lease or License**	**Claim No.**	**Start/Anniversary**	**Lease Expiry**
Porcupine - 60	Texmont/Frankfield	Tully	107280	508398	1999-Dec-01	2020-Nov-30
Porcupine - 60	Texmont/Frankfield	Tully	107280	508397	1999-Dec-01	2020-Nov-30
Porcupine - 60	Texmont/Frankfield	Tully	107280	508399	1999-Dec-01	2020-Nov-30
Porcupine - 60	Texmont/Frankfield	Tully	107280	508400	1999-Dec-01	2020-Nov-30
Porcupine - 60	Texmont/Frankfield	Tully	107280	508401	1999-Dec-01	2020-Nov-30
Porcupine - 60	Texmont/Frankfield	Tully	107280	508402	1999-Dec-01	2020-Nov-30
Porcupine - 60	Texmont/Frankfield	Prosser	107281	508391	1999-Dec-01	2020-Nov-30
Porcupine - 60	Texmont/Frankfield	Prosser	107281	508393	1999-Dec-01	2020-Nov-30
Porcupine - 60	Texmont/Frankfield	Tully	107281	508390	1999-Dec-01	2020-Nov-30
Porcupine - 60	Texmont/Frankfield	Tully	107335	97938	2000-Oct-01	2021-Sept-30
Porcupine - 60	Texmont/Frankfield	Tully	107335	97941	2000-Oct-01	2021-Sept-30

Porcupine - 60	Texmont/Frankfield	Tully	107335	97942	2000-Oct-01	2021-Sept-30
Porcupine - 60	Texmont/Frankfield	Tully	107335	97943	2000-Oct-01	2021-Sept-30
Porcupine - 60	Texmont/Frankfield	Tully	107335	97939	2000-Oct-01	2021-Sept-30
Porcupine - 60	Texmont/Frankfield	Tully	107335	97940	2000-Oct-01	2021-Sept-30
Porcupine - 60	Texmont/Frankfield	Tully	107335	97948	2000-Oct-01	2021-Sept-30
Porcupine - 60	Texmont/Frankfield	Tully	107335	97949	2000-Oct-01	2021-Sept-30
Porcupine - 60	Texmont/Frankfield	Tully	107336	97944	2000-Oct-01	2021-Sept-30
Porcupine - 60	Texmont/Frankfield	Tully	107336	97945	2000-Oct-01	2021-Sept-30
Porcupine - 60	Texmont/Frankfield	Tully	107336	97947	2000-Oct-01	2021-Sept-30
Porcupine - 60	Texmont/Frankfield	Tully	107336	97946	2000-Oct-01	2021-Sept-30
Porcupine - 60	Texmont/Frankfield	Tully	107360	99286	2000-Oct-01	2021-Sept-30
Porcupine - 60	Texmont/Frankfield	Tully	107360	99287	2000-Oct-01	2021-Sept-30
Porcupine - 60	Texmont/Frankfield	Tully	107360	99289	2000-Oct-01	2021-Sept-30
Porcupine - 60	Texmont/Frankfield	Tully	107360	99288	2000-Oct-01	2021-Sept-30
Porcupine - 60	Texmont/Frankfield	Tully	107361	100440	2001-Jun-01	2022-May-31
Porcupine - 60	Texmont/Frankfield	Tully	107361	100437	2001-Jun-01	2022-May-31
Porcupine - 60	Texmont/Frankfield	Tully	107361	100441	2001-Jun-01	2022-May-31
Porcupine - 60	Texmont/Frankfield	Tully	107361	100438	2001-Jun-01	2022-May-31
Porcupine - 60	Texmont/Frankfield	Tully	107361	100442	2001-Jun-01	2022-May-31

District/Division	**Project/Property**	**Township**	**Lease or License**	**Claim No.**	**Start/Anniversary**	**Lease Expiry**
Porcupine - 60	Texmont/Frankfield	Tully	107361	100439	2001-Jun-01	2022-May-31
Porcupine - 60	GC Tully North Block-1	Tully	107484	101255	2003-Sept-01	2024-Aug-31
Porcupine - 60	GC Tully North Block-1	Tully	107484	101256	2003-Sept-01	2024-Aug-31
Porcupine - 60	GC Tully North Block-1	Tully	107484	101257	2003-Sept-01	2024-Aug-31
Porcupine - 60	GC Tully North Block-1	Tully	107484	101258	2003-Sept-01	2024-Aug-31
Porcupine - 60	GC Tully North Block-1	Tully	107484	101259	2003-Sept-01	2024-Aug-31
Porcupine - 60	GC Tully North Block-1	Tully	107484	101260	2003-Sept-01	2024-Aug-31
Porcupine - 60	GC Tully North Block-1	Tully	107484	101261	2003-Sept-01	2024-Aug-31
Porcupine - 60	GC Tully North Block-1	Tully	107484	101262	2003-Sept-01	2024-Aug-31
Porcupine - 60	GC Tully North Block-1	Tully	107484	101948	2003-Sept-01	2024-Aug-31
Porcupine - 60	GC Tully North Block-1	Tully	107484	101949	2003-Sept-01	2024-Aug-31
Porcupine - 60	GC Tully North Block-1	Tully	107484	101950	2003-Sept-01	2024-Aug-31
Porcupine - 60	GC Tully North Block-1	Tully	107484	101951	2003-Sept-01	2024-Aug-31
Porcupine - 60	GC Tully North Block-1	Tully	107484	101952	2003-Sept-01	2024-Aug-31
Porcupine - 60	White Star/Frankfield	Tully	107311	501055	2000-June-01	2021-May-31
Porcupine - 60	White Star/Frankfield	Tully	107311	501056	2000-June-01	2021-May-31
Porcupine - 60	White Star/Frankfield	Tully	107310	501057	2000-June-01	2021-May-31
Porcupine - 60	White Star/Frankfield	Tully	107310	501058	2000-June-01	2021-May-31
Porcupine - 60	White Star/Frankfield	Tully	107311	501059	2000-June-01	2021-May-31
Porcupine - 60	White Star/Frankfield	Tully	107311	501060	2000-June-01	2021-May-31
Porcupine - 60	White Star/Frankfield	Tully	107311	501061	2000-June-01	2021-May-31

Porcupine - 60	White Star/Frankfield	Tully	107310	501062	2000-June-01	2021-May-31
Porcupine - 60	White Star/Frankfield	Tully	107310	501063	2000-June-01	2021-May-31
Porcupine - 60	White Star/Frankfield	Tully	107311	501064	2000-June-01	2021-May-31
Porcupine - 60	White Star/Frankfield	Tully	107311	501065	2000-June-01	2021-May-31
Porcupine - 60	White Star/Frankfield	Tully	107310	515807	2000-June-01	2021-May-31
Porcupine - 60	GC Tully East Block-1	Tully	109337	1160197	2013-Aug-01	2034-Jul-31
Porcupine - 60	GC Tully East Block-1	Tully	109337	1207001	2013-Aug-01	2034-Jul-31
Porcupine - 60	GC Tully East Block-1	Tully	109337	1207003	2013-Aug-01	2034-Jul-31
Porcupine - 60	GC Tully East Block-1	Tully	109337	1207004	2013-Aug-01	2034-Jul-31
Porcupine - 60	GC Tully East Block-1	Tully	109337	1207005	2013-Aug-01	2034-Jul-31
Porcupine - 60	GC Tully East Block-1	Tully	109337	1207007	2013-Aug-01	2034-Jul-31
Porcupine - 60	GC Tully East Block-1	Tully	109337	1207010	2013-Aug-01	2034-Jul-31
Porcupine - 60	GC Tully East Block-1	Tully	109337	1207701	2013-Aug-01	2034-Jul-31
Porcupine - 60	GC Tully East Block-1	Tully	109337	1207702	2013-Aug-01	2034-Jul-31
Porcupine - 60	GC Tully East Block-1	Tully	109337	1207703	2013-Aug-01	2034-Jul-31
Porcupine - 60	GC Tully East Block-1	Tully	109337	1212880	2013-Aug-01	2034-Jul-31
Porcupine - 60	GC Tully East Block-1	Tully	109337	1244810	2013-Aug-01	2034-Jul-31
Porcupine - 60	GC Tully East Block-1	Tully	109337	1245331	2013-Aug-01	2034-Jul-31

District/Division	**Project/Property**		**Township and Location**
Porcupine - 60	Boudreau purchase	Tully	SE1/4 &SW1/4 N1/2 and S1/2 of Lot 1, Conc 1

APPENDIX B INSIGHT GEOPHYSICS LOGISTICAL REPORT

INSIGHT GEOPHYSICS INC.
95 WALBY DR., OAKVILLE, ONTARIO, CANADA, L6L-4C8
905 465 2996

Geophysical Survey Logistics Report

Gradient and Insight Section Array Resistivity Survey

Bradshaw and Wark 1 Projects

Timmins, Ontario, Canada
Gowest Gold Ltd.

March 2016

C-138

Craig Pawluk
Insight Geophysics Inc.

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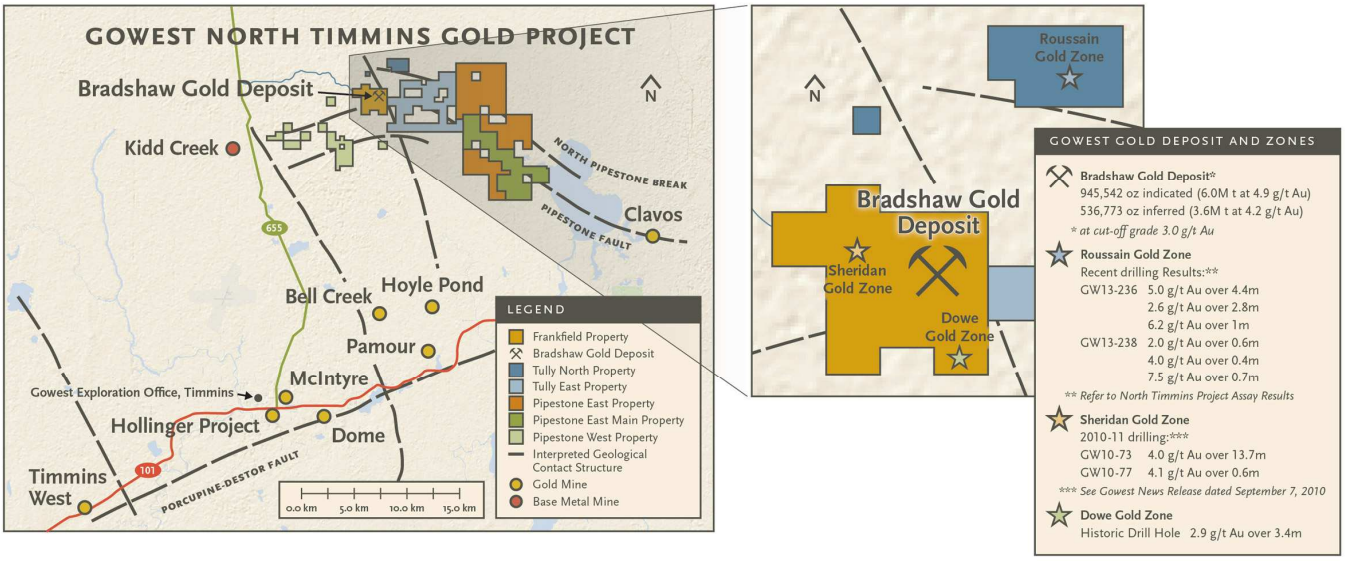
INTRODUCTION

From February 29 through March 30, 2016, Insight Geophysics Inc. was contracted by Gowest Gold to perform Gradient and Insight Section IP/Resistivity surveys on the Bradshaw and Wark 1 Properties near Timmins, Ontario.

General Information

Project Name:	Bradshaw and Wark 1 projects
Survey Type:	Gradient and Insight Section Time Domain Induced Polarization / Resistivity
Client:	Gowest Gold Ltd.
Representatives:	Mr. Kevin Montgomery, Manager of exploration

SURVEY GRID

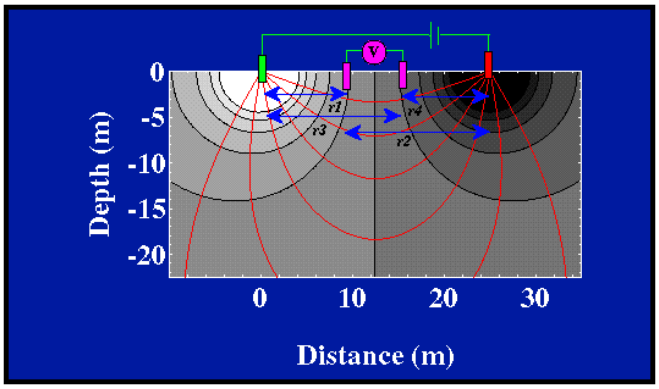


PROJECT LOCATION MAPS

SURVEY PARAMETERS

Apparent Resistivity

Let the distances between the four electrodes be given by *r1, r2, r3,* and *r4* as shown in the figure.



Knowing the locations of the four electrodes, and by measuring the amount of current input into the ground, *i*, and the voltage difference between the two potential electrodes, *ÆV*, we can compute the resistivity of the medium, *rho-a*, using the following equation

$$\rho_a = \frac{2\pi\Delta V}{i}\left[\frac{1}{\left(\frac{1}{r_1}-\frac{1}{r_2}-\frac{1}{r_3}+\frac{1}{r_4}\right)}\right]$$

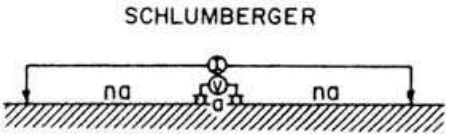
The resistivity computed using the equation given above is referred to as the *apparent resistivity*. We call it the apparent resistivity for the following reason. We can always compute *rho-a*, we only need to know the locations of the electrodes and measure the current and voltage. If, however, the Earth does not have a constant resistivity (that is if the resistivity varies with depth or horizontally), the resistivity computed by the above equation will not represent the true resistivity of the Earth. Thus, we refer to it as an apparent resistivity.

Chargeability (M)

True chargeability is the ratio of the over- or secondary voltage, V_s, to the observed voltage, V_o, applied by way of an electrode array so that $M = V_s/V_o$, expressed as a percentage or as millivolts per volt. In reality, what is measured is the apparent chargeability (M_a) which is the area (A) beneath the voltage-time decay curve over a defined time interval (t_1 to t_2) and normalized by the assumed steady-state primary voltage, V_p, such that $\mathbf{M_a = A/V_p = (1/V_p) \times \int_{t1}^{t2}}$ of V(t)dt, in units of mVs/V.

Data Acquisition

Data acquisition of the gradient and the Insight Section arrays are based on the principles of the Schlumberger array. In the Schlumberger array, a vertical geo-electric sounding is produced by expanding the current electrodes out from a centrally located pair of potential electrodes. As the Distance between the current electrodes (L) is increased, the effective depth of penetration is also increased, thus creating a geo-electric sounding curve.



$$\rho = \pi \frac{V}{I} n(n+1)a$$

The Gradient Array is a modified Schlumberger array which is best utilized for economically covering large areas. As with the Schlumberger array, the potential electrodes are always located within the boundaries of the two current electrodes. However, unlike the Schlumberger array, the current electrodes are placed at a fixed location (up to 100 times the potential dipole separation) and the potential electrodes are moved in a profile manner up and down lines between the current electrodes. Typically several lines can be read from a single transmitter placement.

The effective depth of penetration can be approximated from Edwards(1977) where he defines the effective depth (Ze) between current electrodes separated by (L) as:

$$\mathbf{Z_E/L = 0.190}$$

The results from the Gradient array are used to define the lateral boundaries of geo-electric anomalies. These anomalies can then be further detailed in a vertical dimension by surveying them with Insight Sections.

The Insight Section is composed of a fixed array of potential electrodes (typically 40 with a potential dipole separation (MN) of 25 meters). The dimensions of the array are completely flexible pending the target depth and dimensions. Starting at the center location of the Insight Section, multiple current injections at various AB lengths are used to create vertical geo-electric soundings beneath each of the receiver potential dipoles. AB lengths used to create an Insight Section typically range from 5MN to 100MN.

Data points are plotted directly below the center point of each potential electrode in the array. The estimated depth calculation for each plot point uses Edwards Ze estimation that has been further modified to reflect the reduction in effective penetration encountered as the position of any given potential electrode deviates from the center of L towards one or the other current electrode positions.

Specifications

IP Survey

Survey Type: Time Domain Induced Polarization / Resistivity

Array Types: Gradient and Insight Section Array

AB (Tx dipole spacing):	Multiple AB injections
MN (Rx dipole spacing):	25 meters gradient, 25 meters Sections
Sampling Interval:	25 meters gradient, 25 meters Sections

Instrumentation

ELREC PRO Ten channel IP receiver

TECHNICAL SPECIFICATIONS

• Input voltage:
Max. input voltage: 15 V
Protection: up to 800V
• Voltage measurement:
Accuracy: 0.2 % typical
Resolution: 1 μV
Minimum value: 1 μV
• Chargeability measurement:
Accuracy: 0.6 % typical
• Induced Polarization (chargeability) measured over to 20 automatic or user defined windows
• Input impedance: 100 MΩ
• Signal waveform: Time domain (ON+,OFF,ON-,OFF) with a pulse duration of 500 ms - 1 s - 2 s - 4 s - 8 s
• Automatic synchronization and re-synchronization process on primary voltage signals
• Computation of apparent resistivity, average chargeability and standard deviation
• Noise reduction: automatic stacking number in relation with a given standard deviation value
• SP compensation through automatic linear drift correction
• 50 to 60Hz power line rejection
• Battery test

GENERAL SPECIFICATIONS.

• Data flash memory: more than 21 000 readings
• Serial link RS-232 for data download
• Power supply: internal rechargeable 12V, 7.2 Ah battery ; optional external 12V standard car battery can be also used
• Weather proof
• Shock resistant fiber-glass case
• Operating temperature: -20 °C to +70 °C
• Dimensions: 31 x 21 x 21 cm
• Weight: 6 kg

Walcer Model TX KW10

Voltage Input
125V line to neutral
400 Hz / 3 phase
Powered by MG12, MG6 and MG12A

Output
100 - 3200V in 10 steps
0.05 - 20 Amps
Tested to 10.5 kVA

Switching
1 sec., 2 sec., 4 sec., 8 sec.

Metering
LED for line voltage
and output current

Size
63cm. x 54cm. x 25cm.

Weight
44 kg.

IP Parameters

Transmitted Waveform: Square wave @ 0.0625 Hz (***4 second Square Wave***)
50% duty cycle

Receiver Sampling: Semi-Logarithmic windows (20 windows)

Window	Width (ms)	Window	Width (ms)
M Delay	160		
1	80	11	160
2	80	12	160
3	80	13	160
4	80	14	160
5	80	15	320
6	80	16	320
7	80	17	320
8	80	18	320
9	160	19	320
10	160	20	320
		TOTAL	3680ms

Recorded Parameters

IP measured parameter: Chargeability in mV/V

Resistivity measured Parameters: Primary Voltage in mV and Transmitted Current in mA.

SURVEY EXECUTION

Generalities

Survey Dates: Feb 29-March 30, 2016

IGI PERSONNEL:

Tom Goutos
Nick Alles
Joe Wabie

Survey Coverage:

Bradshaw

Gradient

A total of approximately 7.2 km of gradient array surveying was completed on the Bradshaw project

Insight Section Survey

6700E 8500N to 9000N
6900E 8500N to 9000N

Wark 1

Gradient

A total of approximately 19.5 km of gradient array surveying was completed on the Bradshaw project

Insight Section Survey

1325E 5400N to 5900N
1625E 5500N to 6000N
1950E 4400N to 5400N
2250E 4250N to 5250N
2450E 4300N to 5300N

DATA PRESENTATION

Quality Control and Processing

The Insight Section Array utilizes a distributed array of 40 channels. Special attention is taken to ensure best possible contact resistance (k-Ohm) prior to acquisition. Approximately 10-15% of the data is repeated and saved in the field for quality control purposes.

Particular attention is given to the time decay curves of the chargeability. The curves are monitored by the operator in real time while taking measurements in the field and every effort is made to ensure the maximum quality of decay curve is achieved. Decay curves are further analyzed by the processing department prior to producing final plots of the data using the Halverson-Wait model as a reference..

Apparent resistivity and total chargeability are calculated by the Elrec-Pro receiver. All receiver data is stored in the final data.csv file including all geometry points, primary voltages and voltage decays for further quality control and data reduction as required.

Once the data has been quality reviewed and low quality readings rejected, a depth estimate calculation is made for the remaining data. The depth estimate is based on a uniform half space and does not account for resistivity changes actually encountered at surface or at depth. Changes in half space penetration resulting from the geometry of the receiver dipoles positions relative to transmitter dipoles positions are estimated.

Depending on the surface conditions encountered on the property, the data will also be corrected for topographic and surface effects.

The final reduced field data can then be inverted using the UBD-2D inversion program. Final inversions are an optional product to the client.

Maps

Gradient maps of the Total Chargeability and Apparent Resistivity are presented at a scale of 1:5,000 and are in UTM co-ordinates .

Section maps of the Apparent Resistivity and Total Chargeability are presented at a scale of 1:5000 and are in UTM co-ordinates.

Respectfully Submitted

Craig Pawluk
Geophysicist
Insight Geophysics Inc

INSIGHT GEOPHYSICS INC.
95 WALBY DR., OAKVILLE, ONTARIO, CANADA, L6L-4C8
905 465 2996

Geophysical Survey Logistics Report

Gradient and Insight Section Array Resistivity Survey

Bradshaw Projects -

Timmins, Ontario, Canada
Gowest Gold Ltd.

January 2017

C-143

Craig Pawluk
Insight Geophysics Inc.

TABLE OF CONTENTS

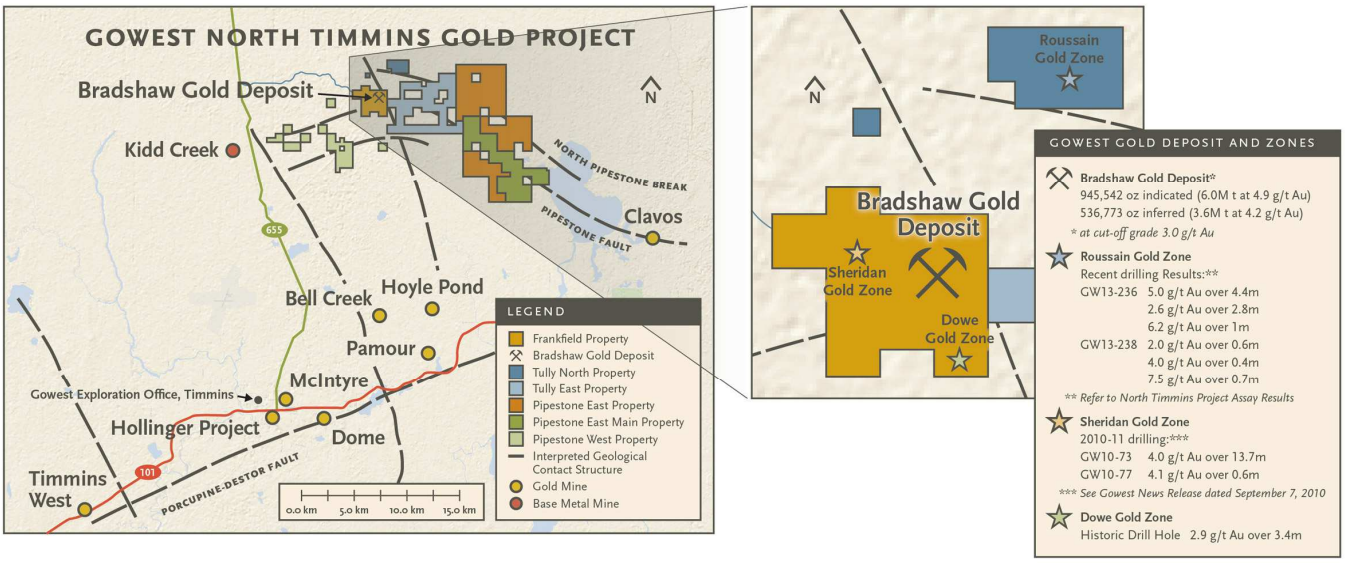
INTRODUCTION

From January 6-19, 2017, Insight Geophysics Inc. was contracted by Gowest Gold to perform Gradient and Insight Section IP/Resistivity surveys on the Bradshaw Property near Timmins, Ontario.

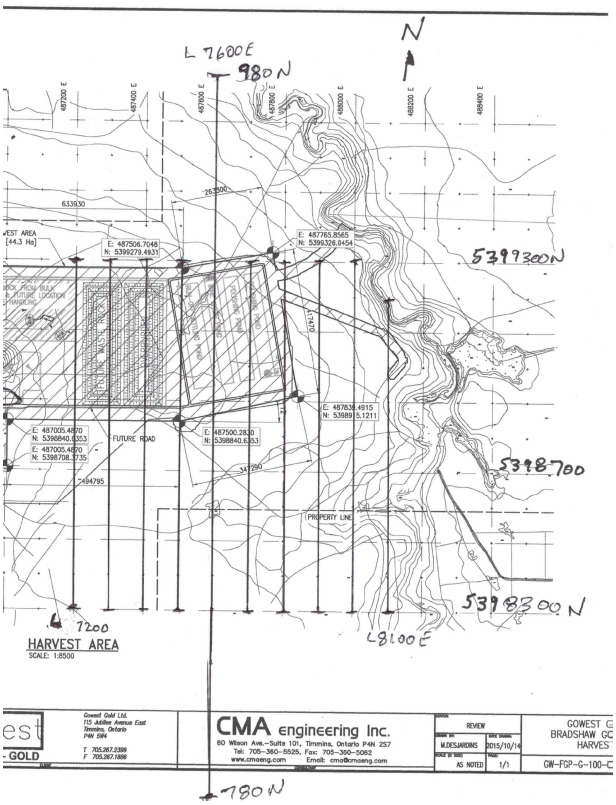
General Information

Project Name:	Bradshaw
Survey Type:	Gradient and Insight Section Time Domain Induced Polarization / Resistivity
Client:	Gowest Gold Ltd.
Representatives:	Mr. Kevin Montgomery, Manager of exploration -

SURVEY GRID



PROJECT LOCATION MAPS -

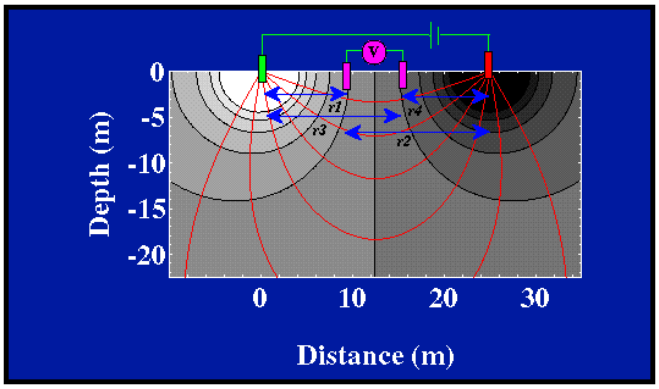


PROJECT GRID per Kevin Montgomery, Manager Exploration Gowest -

SURVEY PARAMETERS

Apparent Resistivity

Let the distances between the four electrodes be given by *r1, r2, r3,* and *r4* as shown in the figure.



Knowing the locations of the four electrodes, and by measuring the amount of current input into the ground, *i*, and the voltage difference between the two potential electrodes, *ÆV*, we can compute the resistivity of the medium, *rho-a*, using the following equation

$$\rho_a = \frac{2\pi\Delta V}{i}\left[\frac{1}{\left(\frac{1}{r_1}-\frac{1}{r_2}-\frac{1}{r_3}+\frac{1}{r_4}\right)}\right]$$

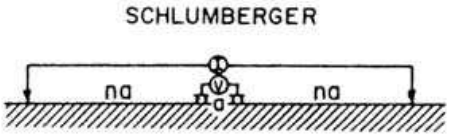
The resistivity computed using the equation given above is referred to as the *apparent resistivity*. We call it the apparent resistivity for the following reason. We can always compute *rho-a*, we only need to know the locations of the electrodes and measure the current and voltage. If, however, the Earth does not have a constant resistivity (that is if the resistivity varies with depth or horizontally), the resistivity computed by the above equation will not represent the true resistivity of the Earth. Thus, we refer to it as an apparent resistivity.

Chargeability (M)

True chargeability is the ratio of the over- or secondary voltage, V_s, to the observed voltage, V_o, applied by way of an electrode array so that $M = V_s/V_o$, expressed as a percentage or as millivolts per volt. In reality, what is measured is the apparent chargeability (M_a) which is the area (A) beneath the voltage-time decay curve over a defined time interval (t_1 to t_2) and normalized by the assumed steady-state primary voltage, V_p, such that $\mathbf{M_a = A/V_p = (1/V_p) \times \int_{t1}^{t2}}$ of V(t)dt, in units of mVs/V.

Data Acquisition

Data acquisition of the gradient and the Insight Section arrays are based on the principles of the Schlumberger array. In the Schlumberger array, a vertical geo-electric sounding is produced by expanding the current electrodes out from a centrally located pair of potential electrodes. As the Distance between the current electrodes (L) is increased, the effective depth of penetration is also increased, thus creating a geo-electric sounding curve.



$$\rho = \pi \frac{V}{I} n(n+1)a$$

The Gradient Array is a modified Schlumberger array which is best utilized for economically covering large areas. As with the Schlumberger array, the potential electrodes are always located within the boundaries of the two current electrodes. However, unlike the Schlumberger array, the current electrodes are placed at a fixed location (up to 100 times the potential dipole separation) and the potential electrodes are moved in a profile manner up and down lines between the current electrodes. Typically several lines can be read from a single transmitter placement.

The effective depth of penetration can be approximated from Edwards(1977) where he defines the effective depth (Ze) between current electrodes separated by (L) as:

$$\mathbf{Z_E/L = 0.190}$$

The results from the Gradient array are used to define the lateral boundaries of geo-electric anomalies. These anomalies can then be further detailed in a vertical dimension by surveying them with Insight Sections.

The Insight Section is composed of a fixed array of potential electrodes (typically 40 with a potential dipole separation (MN) of 25 meters). The dimensions of the array are completely flexible pending the target depth and dimensions. Starting at the center location of the Insight Section, multiple current injections at various AB lengths are used to create vertical geo-electric soundings beneath each of the receiver potential dipoles. AB lengths used to create an Insight Section typically range from 5MN to 100MN.

Data points are plotted directly below the center point of each potential electrode in the array. The estimated depth calculation for each plot point uses Edwards Ze estimation that has been further modified to reflect the reduction in effective penetration encountered as the position of any given potential electrode deviates from the center of L towards one or the other current electrode positions.

Specifications

IP Survey

Survey Type: Time Domain Induced Polarization / Resistivity

Array Types: Gradient and Insight Section Array

AB (Tx dipole spacing):	Multiple AB injections
MN (Rx dipole spacing):	25 meters gradient, 25 meters Sections
Sampling Interval:	25 meters gradient, 25 meters Sections

Instrumentation

ELREC PRO Ten channel IP receiver

TECHNICAL SPECIFICATIONS

• Input voltage:
Max. input voltage: 15 V
Protection: up to 800V
• Voltage measurement:
Accuracy: 0.2 % typical
Resolution: 1 µV
Minimum value: 1 µV
• Chargeability measurement:
Accuracy: 0.6 % typical
• Induced Polarization (chargeability) measured over to 20 automatic or user defined windows
• Input impedance: 100 MΩ
• Signal waveform: Time domain (ON+,OFF,ON-,OFF) with a pulse duration of 500 ms - 1 s - 2 s - 4 s - 8 s
• Automatic synchronization and re-synchronization process on primary voltage signals
• Computation of apparent resistivity, average chargeability and standard deviation
• Noise reduction: automatic stacking number in relation with a given standard deviation value
• SP compensation through automatic linear drift correction
• 50 to 60Hz power line rejection
• Battery test

GENERAL SPECIFICATIONS.

• Data flash memory: more than 21 000 readings
• Serial link RS-232 for data download
• Power supply: internal rechargeable 12V, 7.2 Ah battery ; optional external 12V standard car battery can be also used
• Weather proof
• Shock resistant fiber-glass case
• Operating temperature: -20 °C to +70 °C
• Dimensions: 31 x 21 x 21 cm
• Weight: 6 kg

Walcer Model TX KW10

Voltage Input
125V line to neutral -
400 Hz / 3 phase -
Powered by MG12, MG6 and -
MG12A -

Output
100 - 3200V in 10 steps -
0.05 - 20 Amps -
Tested to 10.5 kVA -

Switching
1 sec., 2 sec., 4 sec., 8 sec.

Metering
LED for line voltage
and output current

Size
63cm. x 54cm. x 25cm.

Weight
44 kg.

IP Parameters

Transmitted Waveform: - Square wave @ 0.0625 Hz (***4 second Square Wave***)
50% duty cycle

Receiver Sampling: - Semi-Logarithmic windows (20 windows)

Window	Width (ms)	Window	Width (ms)
M Delay	160		
1	80	11	160
2	80	12	160
3	80	13	160
4	80	14	160
5	80	15	320
6	80	16	320
7	80	17	320
8	80	18	320
9	160	19	320
10	160	20	320
		TOTAL	3680ms

Recorded Parameters

IP measured parameter: - Chargeability in mV/V

Resistivity measured Parameters: - Primary Voltage in mV and Transmitted Current in mA.

SURVEY EXECUTION

Generalities

Survey Dates: Jan 6-19, 2017

IGI PERSONNEL:

Tom Goutos
Perry Nielsen
John Kieley
2 local assistants were provided by the client

Survey Coverage:

Bradshaw

Gradient

A total of approximately 9.5 km of gradient array surveying was completed on the Bradshaw project

Insight Section Survey

7200E 8500N to 9000N -
7500E 8600N to 9100N -
7700E 8350N to 9100N -

DATA PRESENTATION

Quality Control and Processing

The Insight Section Array utilizes a distributed array of 40 channels. Special attention is taken to ensure best possible contact resistance (k-Ohm) prior to acquisition. Approximately 10-15% of the data is repeated and saved in the field for quality control purposes.

Particular attention is given to the time decay curves of the chargeability. The curves are monitored by the operator in real time while taking measurements in the field and every effort is made to ensure the maximum quality of decay curve is achieved. Decay curves are further analyzed by the processing department prior to producing final plots of the data using the Halverson-Wait model as a reference..

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Depending on the surface conditions encountered on the property, the data will also be corrected for topographic and surface effects.

The final reduced field data can then be inverted using the UBD-2D inversion program. Final inversions are an optional product to the client.

Maps

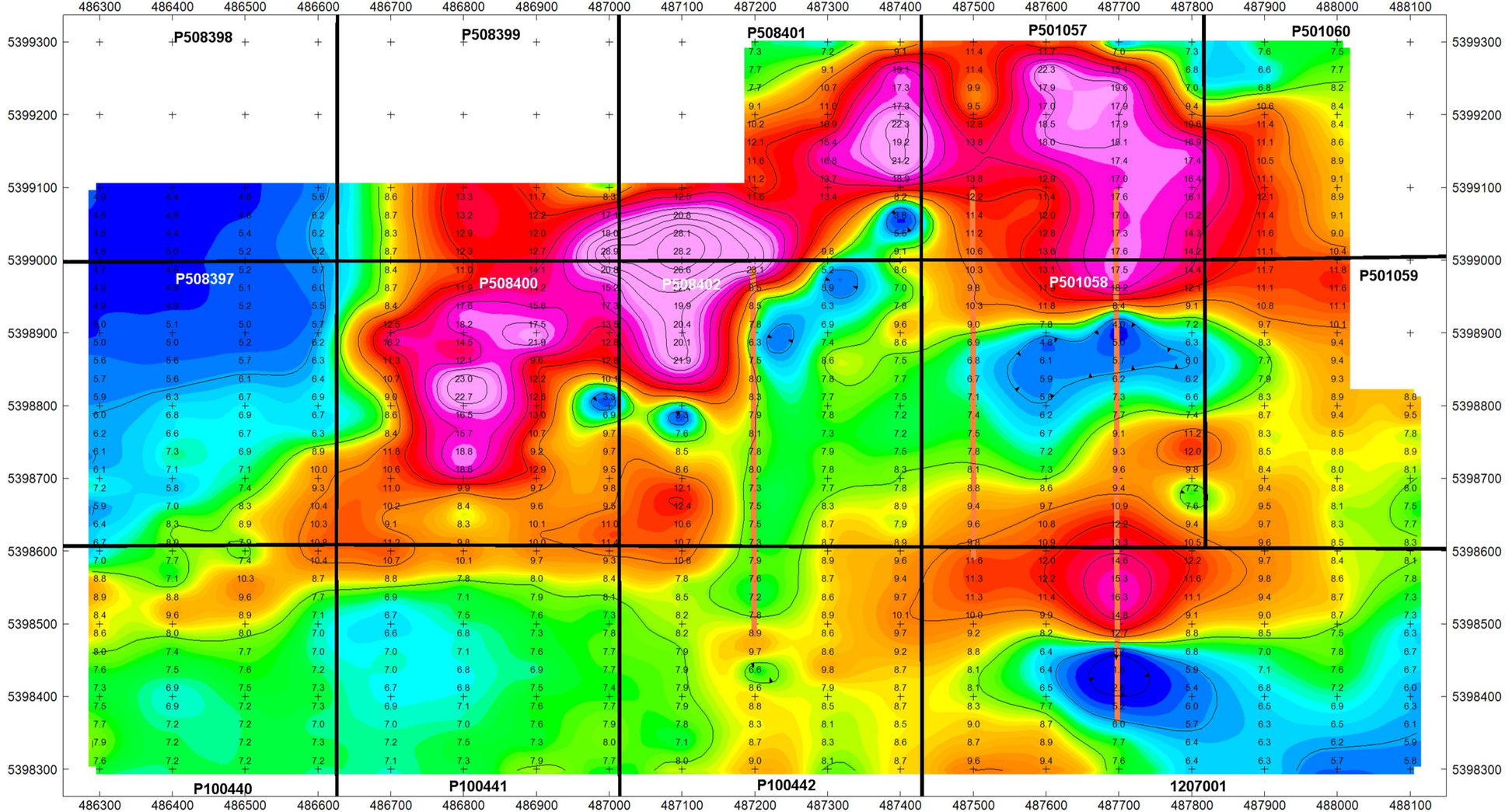
Gradient maps are combined with data collected in 2016.

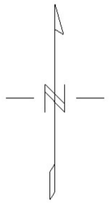
Gradient maps of the Total Chargeability and Apparent Resistivity are presented at a scale of 1:5,000 and are in UTM co-ordinates .

Section maps of the Apparent Resistivity and Total Chargeability are presented at a scale of 1:5000 and are in UTM co-ordinates.

Respectfully Submitted

Craig Pawluk
Geophysicist
Insight Geophysics Inc





Scale 1:5000

100 0 100 200 300

(meters)

NAD83 / UTM zone 17N

4.9 6.3 6.9 7.3 7.6 8.0 8.5 8.9 9.5 10.4 11.7 14.1 17.4

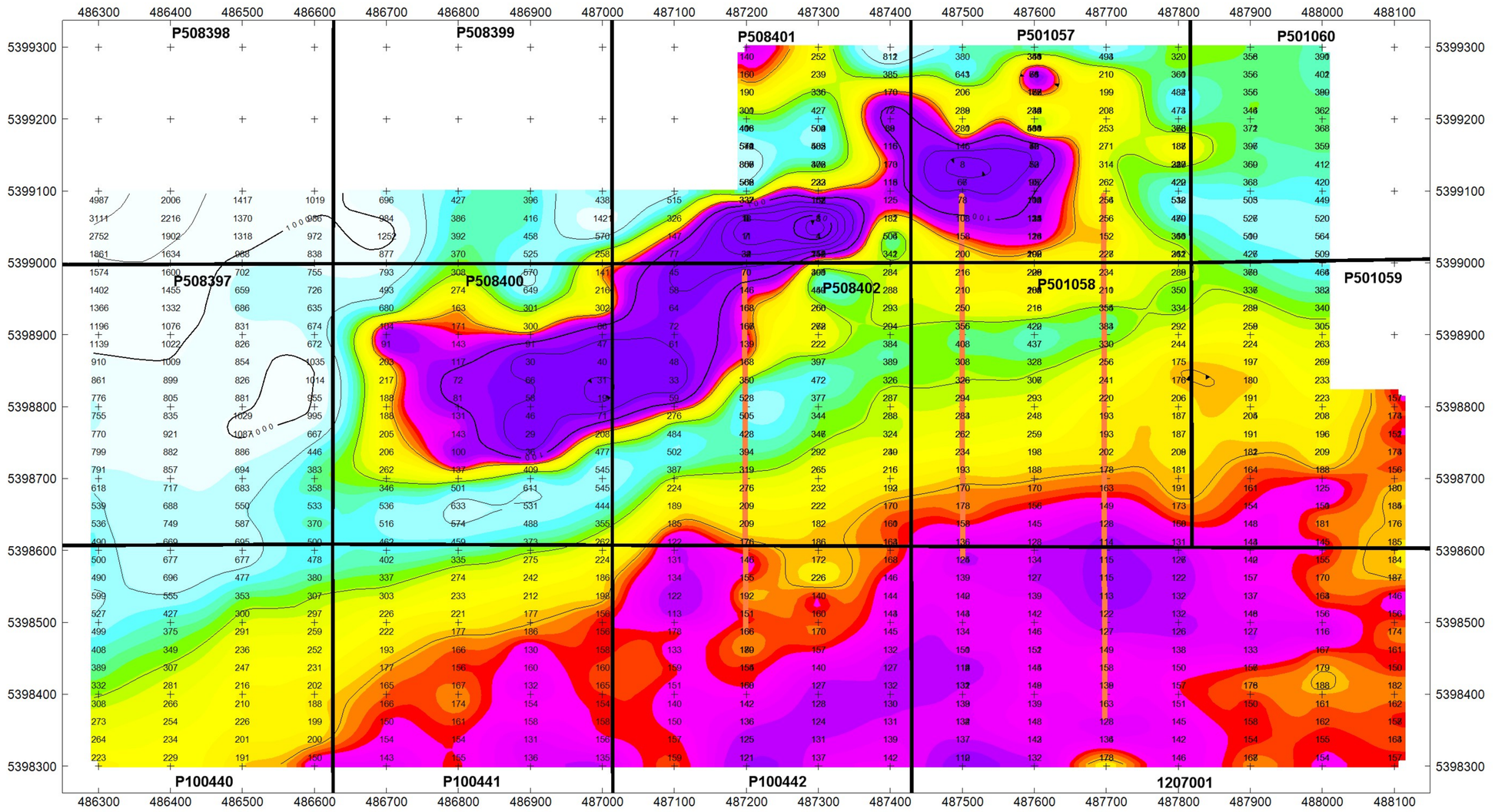
mV/V

GOWEST

Bradshaw Property - Timmins
Gradient Array IP Survey
Total Chargeability

C-143
January 2017

Insight Geophysics Inc



Scale 1:5000

100 0 100 200 300

(meters)

NAD83 / UTM zone 17N

78 123 135 147 159 182 222 268 318 374 490 798

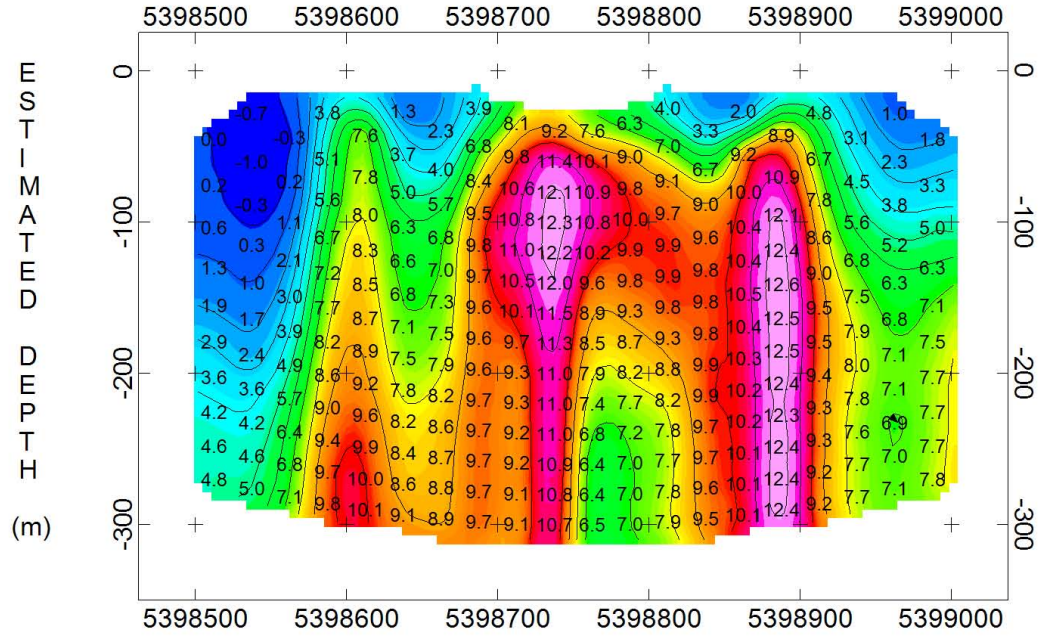
Ohm-m

GOWEST

Bradshaw Property - Timmins
Gradient Array IP Survey
Apparent Resistivity

C-143
January 2017

Insight Geophysics Inc



Scale 1:5000

50 0 50 100 150 200

(meters)

0.0 2.6 4.3 5.9 7.0 7.4 8.0 8.5 9.1 9.6 9.9 10.4 11.4

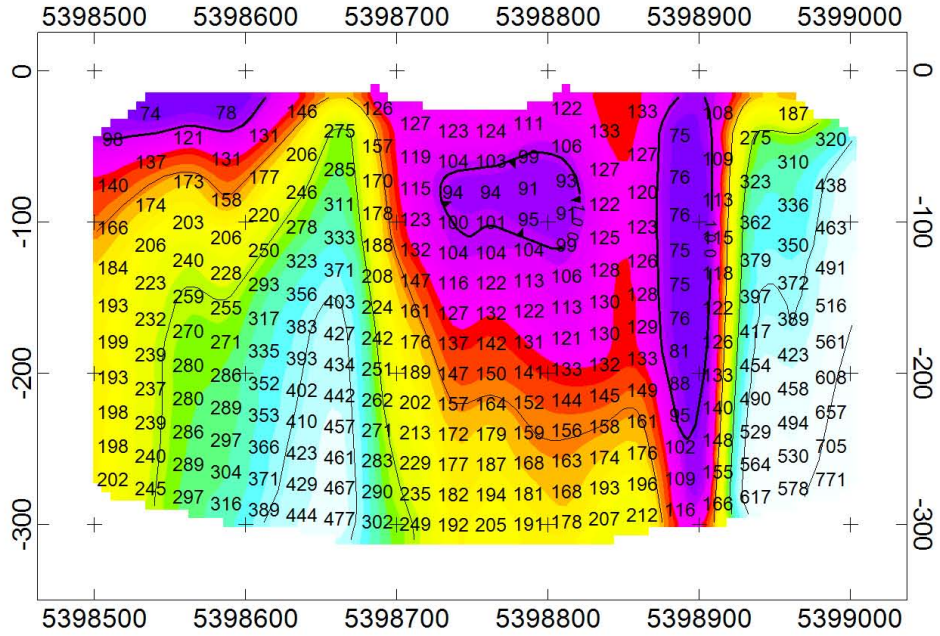
mV/V

GOWEST GOLD

Bradshaw Property
Timmins, ON
Insight Section 486700E

Total Chargeability
Elrec Pro - Walcer 10kW
C-138 March 2016

Insight Geophysics Inc



Scale 1:5000

50 0 50 100 150 200

(meters)

86 104 120 132 151 174 195 222 263 305 375 445

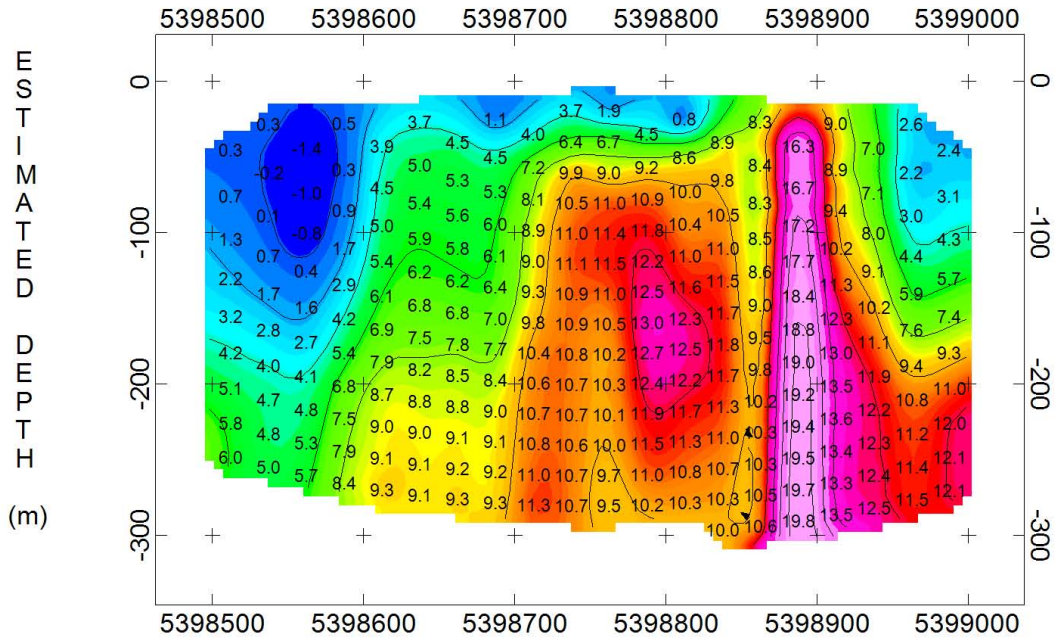
Ohm-m

GOWEST GOLD

Bradshaw Property
Timmins, ON
Insight Section 486700E

Apparent Resistivity
Elrec Pro - Walcer 10kW
C-138 March 2016

Insight Geophysics Inc



Scale 1:5000

50 0 50 100 150 200

(meters)

-0.1 2.2 3.9 5.2 6.2 7.8 8.9 9.6 10.3 10.8 11.4 12.2 14.9

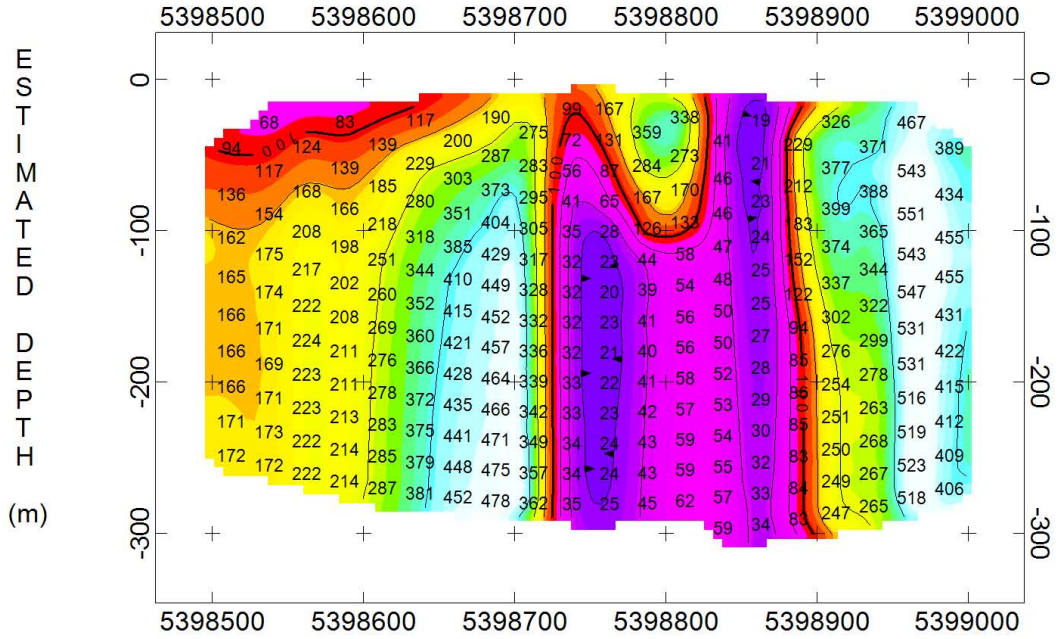
mV/V

GOWEST GOLD

Bradshaw Grid
Timmins Ontario
Insight Section 486900E

Total Chargeability
Elrec Pro- Walcer 10kW
C-138 March 2016

Insight Geophysics Inc



Scale 1:5000

50 0 50 100 150 200

(meters)

21 39 57 92 145 172 211 243 295 358 407 454

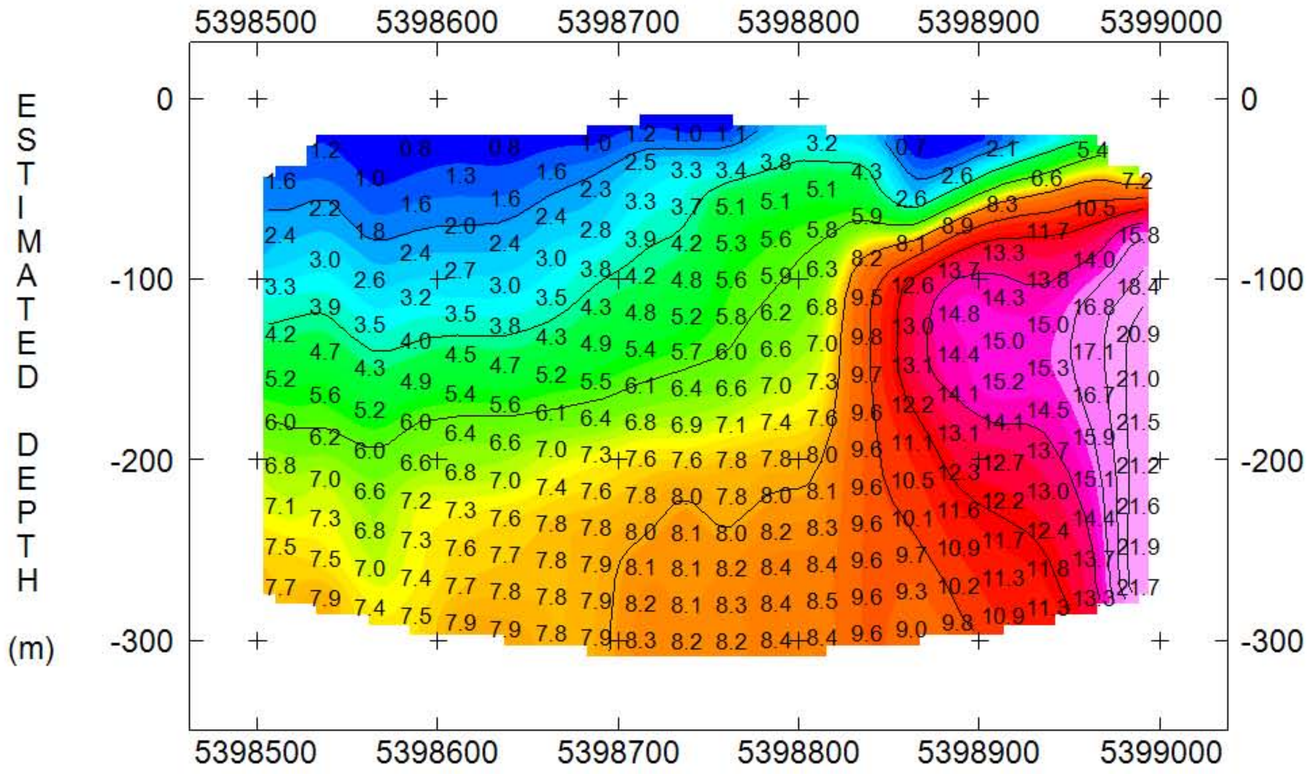
Ohm-m

GOWEST GOLD

Bradshaw Grid
Timmins Ontario
Insight Section 486900E

Apparent Resistivity
Elrec Pro- Walcer 10kW
C-138 March 2016

Insight Geophysics Inc



Scale 1:5000

50 0 50 100 150 200

(meters)

1.1 2.4 3.6 4.7 5.7 6.5 7.2 7.7 8.0 8.7 10.8 13.1 15.3

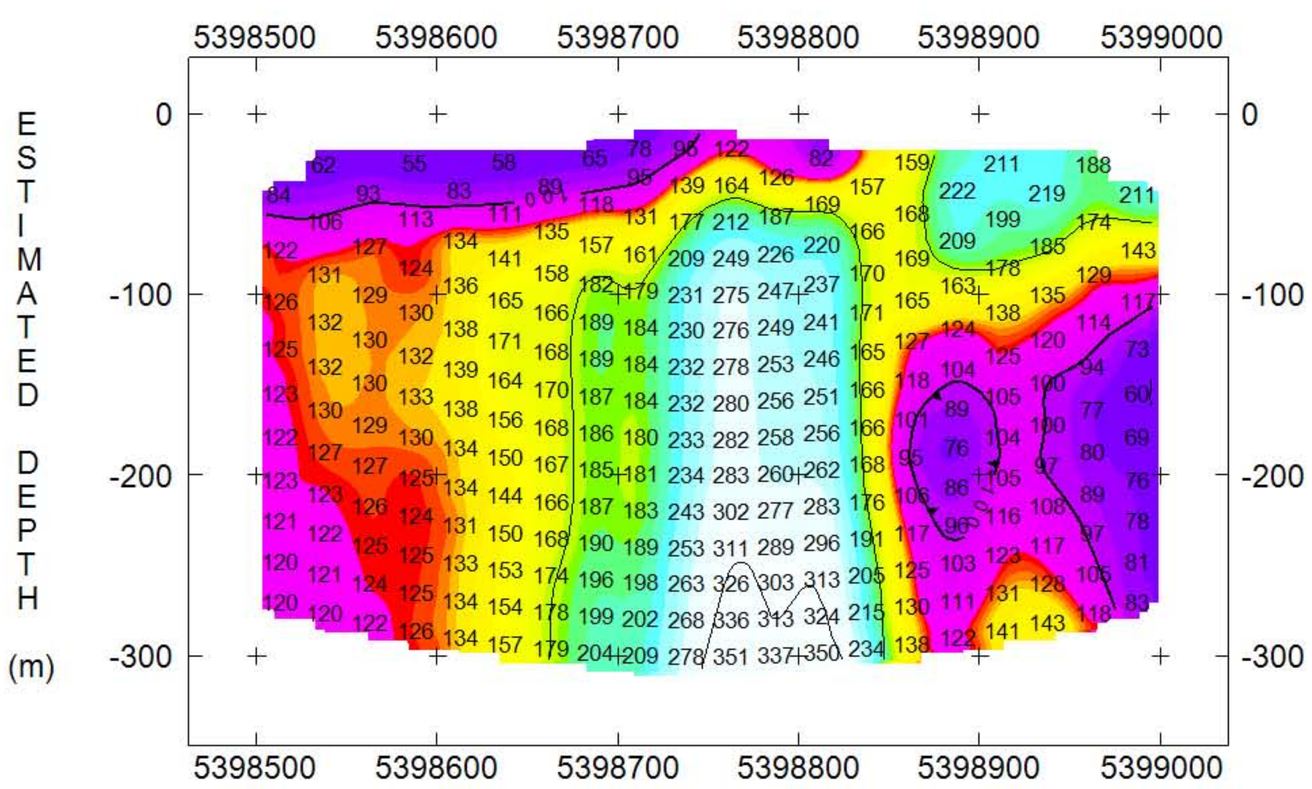
mV/V

GOWEST

Bradshaw Property, Timmins
Insight Section 7200E
Total Chargeability

C-143
Jan 2017

Insight Geophysics Inc



Scale 1:5000

50 0 50 100 150 200

(meters)

NAD83 / UTM zone 17N

78 100 116 124 128 133 149 166 182 197 228 269

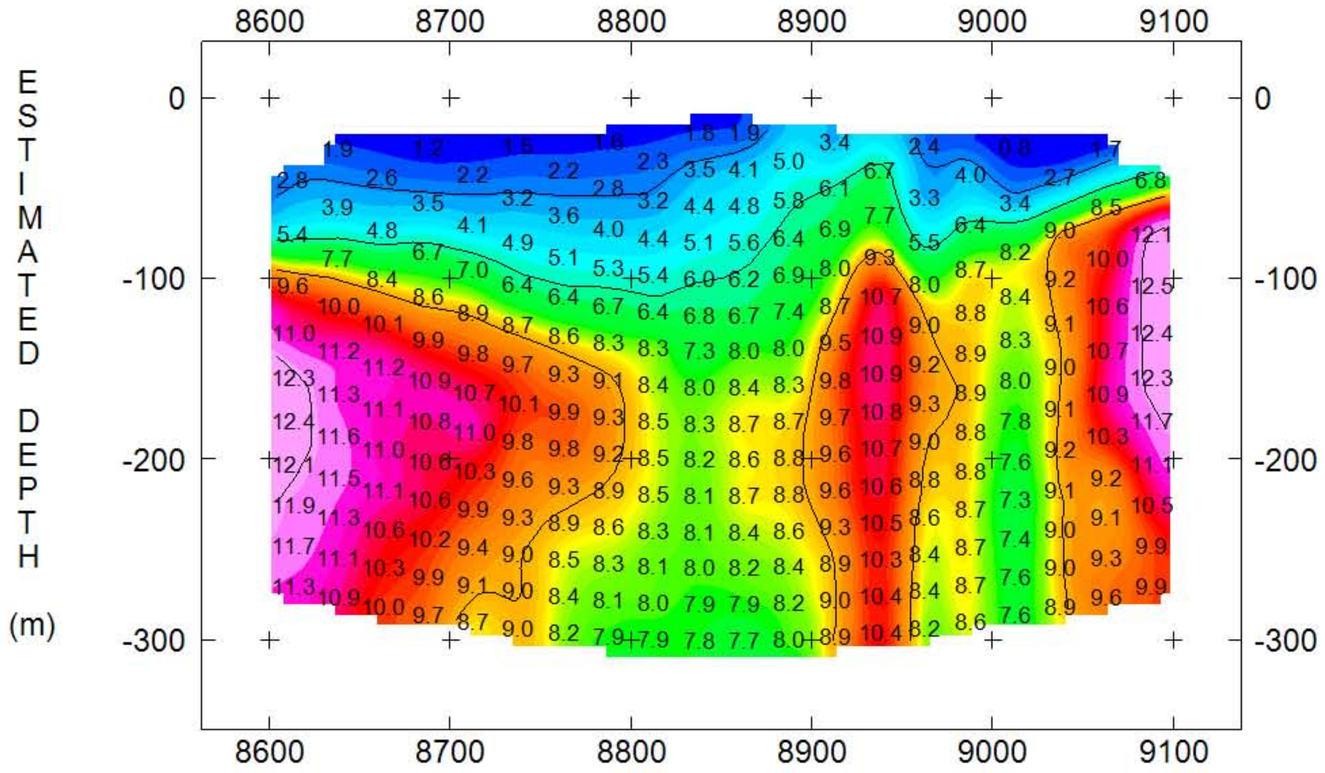
Ohm-m

GOWEST

Bradshaw Property, Timmins
Insight Section 7200E
Apparent Resistivity

C-143
Jan 2017

Insight Geophysics Inc



Scale 1:5000

50 0 50 100 150 200

(meters)

NAD83 / UTM zone 17N

1.8 3.7 5.5 7.2 8.0 8.3 8.6 9.0 9.3 9.7 10.1 10.8 11.5

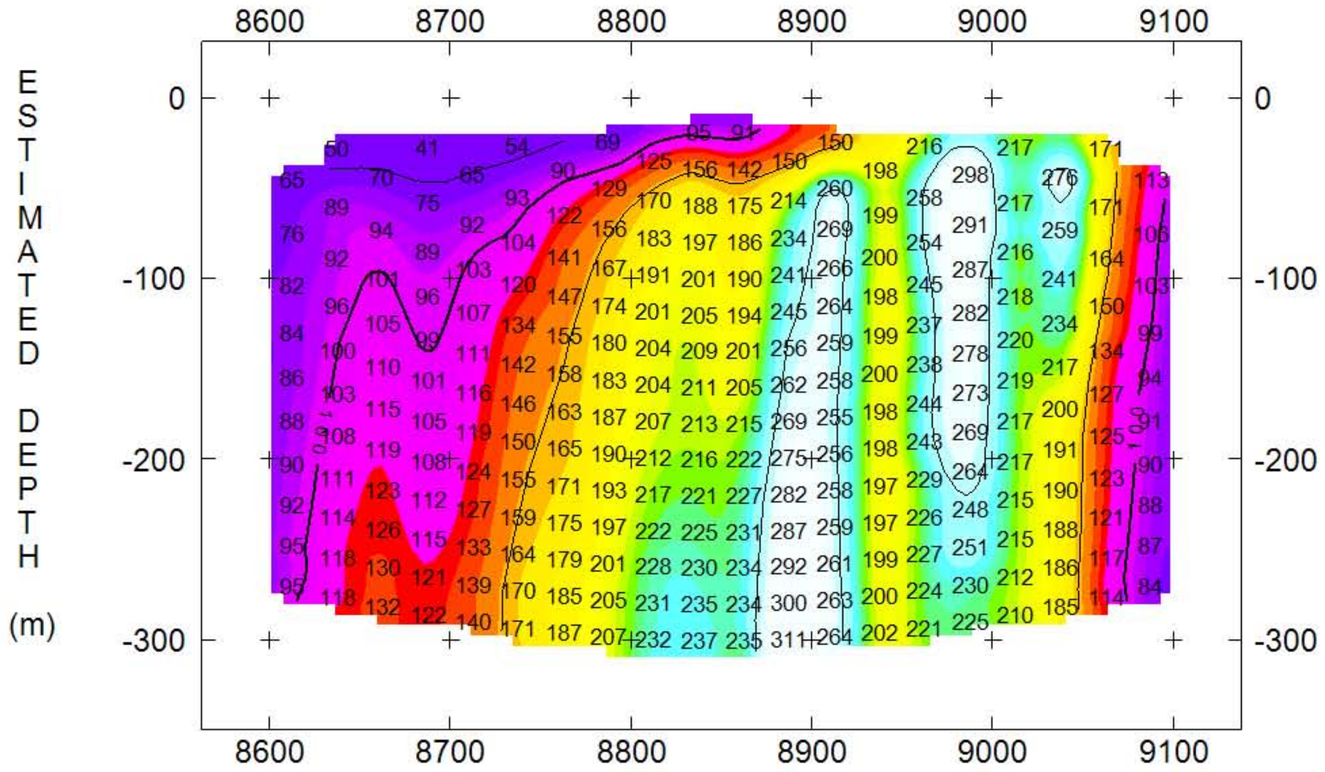
mV/V

GOWEST

Bradshaw Property, Ontario
Insight Section 7500E
Total Chargeability

C-143
Jan 2017

Insight Geophysics Inc



Scale 1:5000

50 0 50 100 150 200

(meters)

NAD83 / UTM zone 17N

77 94 106 120 141 169 191 204 215 227 239 261

Ohm-m

GOWEST

Bradshaw Property, Ontario
Insight Section 7500E
Apparent Resistivity

C-143
Jan 2017

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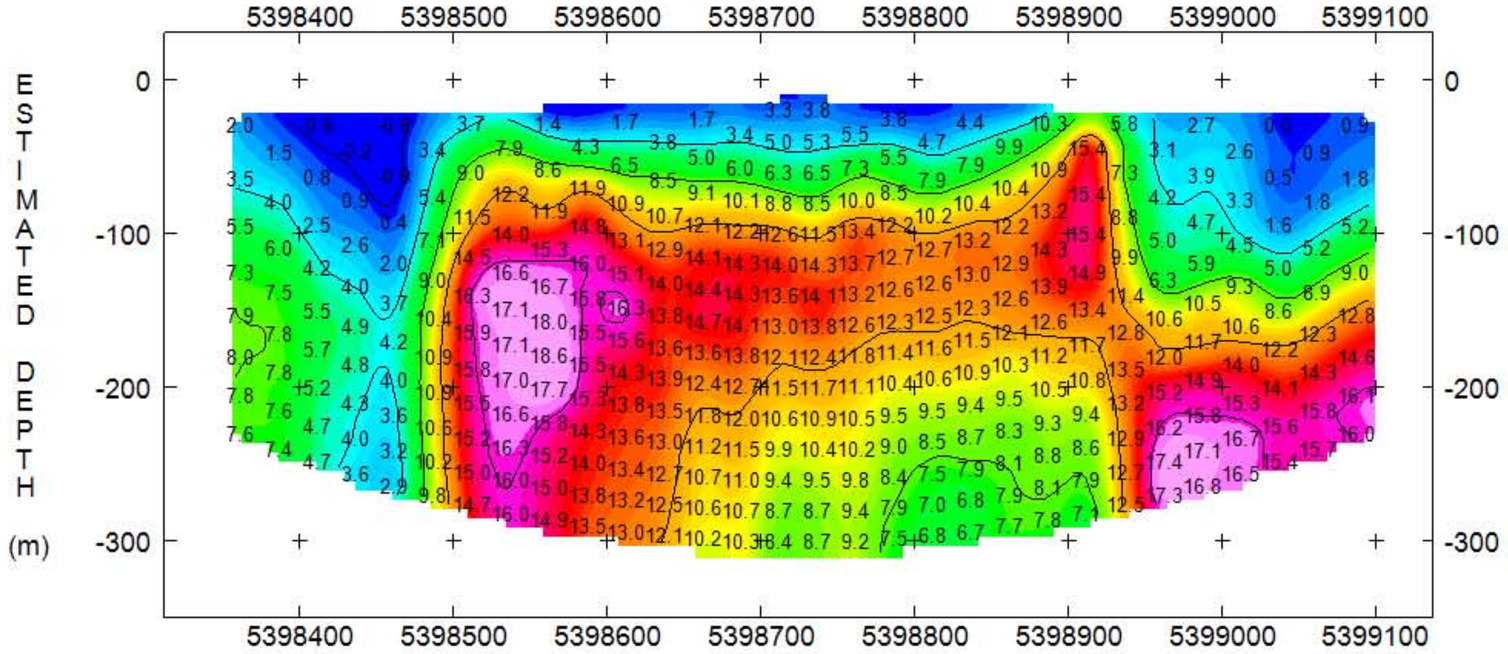

Scale 1:5000

50 0 50 100 150 200 250

(meters)

0.6 2.8 4.4 6.0 7.5 8.9 10.2 11.4 12.4 13.2 14.0 14.8 15.7

mV/V

GOWEST

Bradshaw Property, Ontario
Insight Section 7700E
Total Chargeability

C-143
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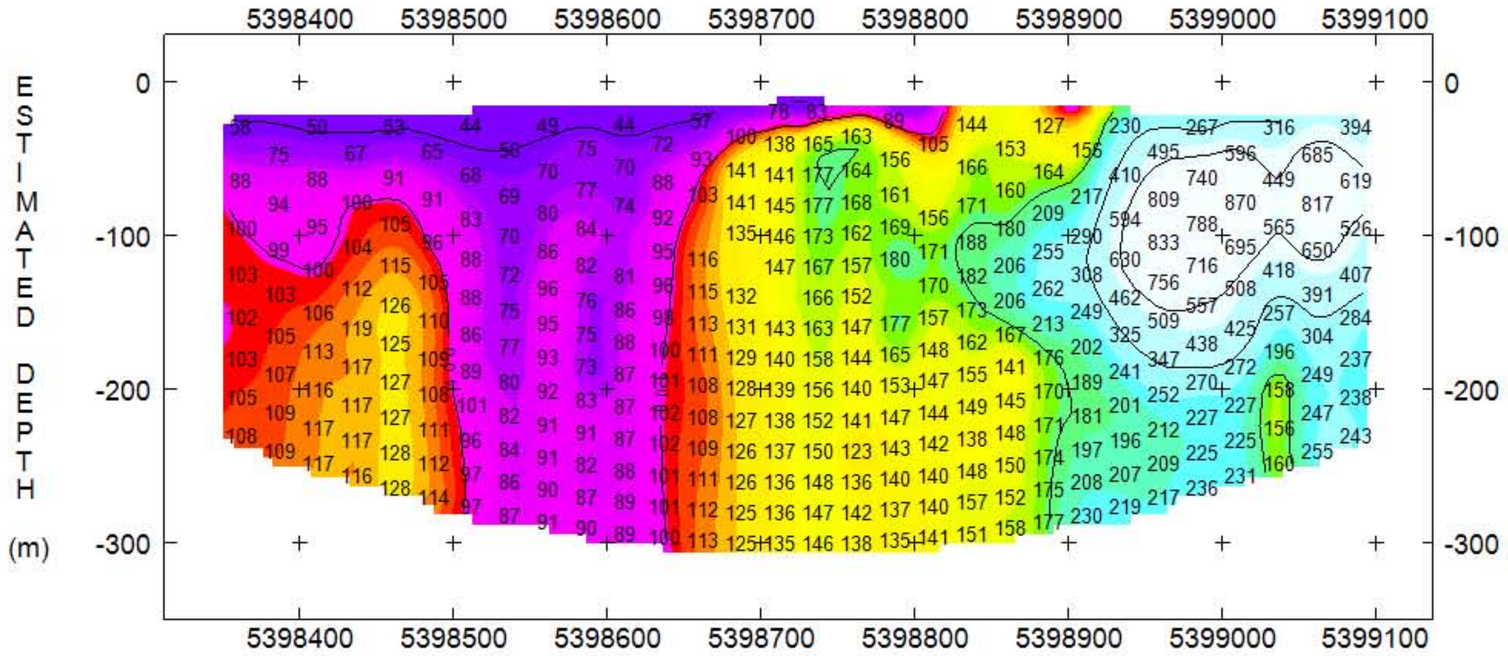

Scale 1:5000

50 0 50 100 150 200 250

(meters)

NAD83 / UTM zone 17N

66 82 90 101 110 123 140 150 165 191 244 481

Ohm-m

GOWEST

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Apparent Resistivity

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