

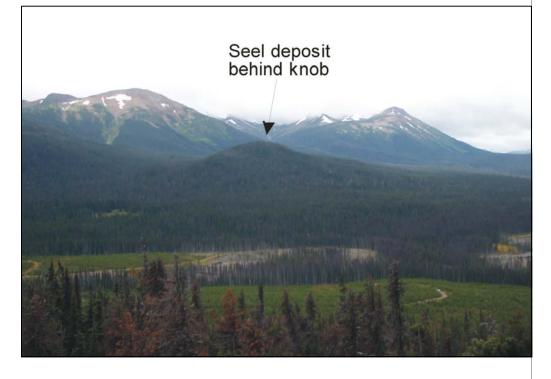
Mineral Resource Estimate Update for the Seel Copper Gold Porphyry Deposit

Tahtsa Reach Area British Columbia, Canada

Latitude 53⁰ 38' N Longitude 127⁰ 05' W

Prepared For

Gold Reach Resources Ltd.



The effective date of the exploration data is December 8, 2011

Ву

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February 15, 2012 Amended July 11, 2012



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1 Summary

The Ootsa Property is located in west-central British Columbia on the south side of Tahtsa Reach, and is accessable by all weather logging roads that transect the claim block. The claims are contiguous with the operating Huckleberry Mine property to the northwest.

The Ootsa property is 22,056 hectares (Ha) in size and is underlain by a series of juxtaposed fault blocks containing tilted and locally folded volcanic and sedimentary strata of the Lower to Middle Jurassic Hazelton Group. These rocks are intruded by multi-phase igneous complexes that are correlative with the Late Cretaceous Bulkley Intrusive suite and are responsible for porphyry-related mineralization in the district.

The Ootsa Property has been intermittently explored by a number of operators since 1968. During this time period 3 main zones of mineralization have been defined; the Seel porphyry, the Ox porphyry, and the Damascus Silver vein. Gold Reach started exploration on the Oosta Property in 2003 and completed consolidation of the property through the acquisition of the Ox porphyry in 2007. In 2008 Gold Reach commissioned initial 43-101 compliant resource estimates on both the Seel and Ox porphyries. The 2008 resource estimate on Seel was completed by Wardrop Engineering Inc. (Wardrop) and was based on 17,896 metres of drilling in 80 holes. The estimate contained an indicated resource of 13,846,000 tonnes grading 0.3% Cu, 0.3 g/t Au, 0.007% Mo, and 1.04 g/t Ag (at a 0.3% Cu Eq cut off) plus an inferred resource of 12,945,000 tonnes grading 0.2% Cu, 0.11 g/t Au, 0.019% Mo, and 3.35 g/t Ag (at a 0.3% Cu Eq cut off). The 2008 43-101 compliant resource estimate on Ox was also completed by Wardrop and was based on 6,530 metres of drilling in 36 holes. The estimate defined a near surface resource at the Ox porphyry containing 16.1 million tonnes of inferred resources grading 0.3% Cu and 0.04% Mo (at a 0.3% Cu Eq cut off).

In 2011 Gold Reach drilled 10,393.4 metres of core in 20 holes at the Seel porphyry and significantly extended the known mineralized zone to depth and discovered the West Seel deposit. To date the West Seel deposit has only been partially defined by drilling but is showing large size potential and contains higher average grades than the rest of the system. Drilling into the new West Seel deposit has returned intervals such as 567 metres grading 0.25% Cu, 0.17 g/t Au, 0.028% Mo, and 3.4 g/t Ag (0.51% Cu Eq.) in hole S11-100 and 419.5 metres grading 0.23% Cu, 0.15 g/t Au, 0.025% Mo, and 3.9 g/t Ag (0.47% Cu Eq.) in hole S11-97. Both of these holes ended in mineralization.

In December 2011 Gold Reach commissioned a second resource estimate on the Seel deposit which is the subject of this technical report. The new resource estimate was conducted by Giroux Consultants Ltd and is based on 28,294 meters of drilling in 100 holes. The estimate has been completed in accordance with Canadian Securities Administrators National Instrument 43-101 (%) 43-101+) and the CIM Standards on Mineral Resources and Reserves, and has an effective date of December 8, 2011.

Results of the new resource estimate are summarized in the tables below. At a 0.2% Cu Eq cut off the Seel deposit contains an indicated resource of 28.13 million tonnes grading 0.22% Cu, 0.21 g/t Au, 0.007% Mo and 1.1 g/t Ag (0.40% Cu Eq) plus an inferred resource of 214.78 million tonnes grading 0.17% Cu, 0.13 g/t Au, 0.017% Mo, and 2.17 g/t Ag (0.33% Cu Eq). The majority of the resource sits in the inferred category reflecting the widely spaced nature of the deep drilling and step out holes completed during the 2011 drill program.



Cut-off		Grad	e > Cut-o	ff						
(CuEq)	Tonnes	Cu (%)	Au (g/t)	Mo (%)	Ag (g/t)	CuEq (%)				
0.10	34,250,000	0.20	0.18	0.007	1.04	0.36				
0.20	28,130,000	0.22	0.21	0.007	1.10	0.40				
0.25	21,020,000	0.26	0.25	0.005	1.22	0.46				
0.30	16,460,000	0.29	0.28	0.003	1.33	0.51				
0.40	11,190,000	0.34	0.34	0.001	1.42	0.59				
0.50	7,240,000	0.38	0.39	0.001	1.42	0.67				

Table 1.1: Indicated and Inferred Resource within the Mineralized Solids Indicated Resource Within the Mineralized Solids

Inferred Resource Within the Mineralized Solids

		Grade > Cut-off					
Cut-off (CuEq)	Tonnes	Cu (%)	Au (g/t)	Мо (%)	Ag (g/t)	CuEq (%)	
0.10	260,890,000	0.15	0.12	0.015	1.98	0.30	
0.20	214,780,000	0.17	0.13	0.017	2.17	0.33	
0.25	159,320,000	0.19	0.14	0.018	2.52	0.37	
0.30	116,380,000	0.21	0.15	0.019	2.84	0.41	
0.40	53,490,000	0.24	0.18	0.023	3.28	0.48	
0.50	13,580,000	0.29	0.22	0.029	3.91	0.58	

The contained metals at a 0.2% Cu Eq cut are summarized in the table below.

Table 1.2: Contained metals at 0.2% Cu Eq cut off

Element	Contained metal
Copper - indicated	136,435,275 pounds
Copper - inferred	804,965,039 pounds
Outlet indicated	400.004
Gold - indicated	189,924 ounces
Gold - inferred	897,694 ounces
Molybdenum - indicated	4,341,122 pounds
Molybdenum - inferred	80,496,504 pounds
Silver - indicated	994,841 ounces
Silver - inferred	14,984,582 ounces
Cu Eq - indicated	248,064,137 pounds
Cu Eq - inferred	1,562,579,193 pounds



The resource estimation was carried out by Independent Qualified Person Gary Giroux, P.Eng. Surface mapping and drill hole geology at the Seel deposit was used to establish geologic continuity of the mineralized zones and formed the basis for modelling. Geologic modeling was done using GemCom software and mineralized domains (solids) have been defined based on alteration type and constrained by grades > 0.15 % CuEq. Four domains were defined consisting of the West Seel zone, the main Seel zone, the Seel Breccia, and a small Northeast zone. All assays outside the solids were considered waste.

Uniform down hole 5 m composites were formed from the drill data and a block model with blocks 10 x 10 x 5 m in dimension was superimposed over all of the mineralized solids. Grades for Cu, Au, Mo and Ag were interpolated into each block by Ordinary Kriging. Due to the poly metallic nature of the Seel deposit a copper equivalent based cut off was used for modelling. Copper equivalent values were calculated using 3 year trailing average metal prices for Cu, Au and Ag (\$3.15 lb copper, \$1205 ounce Au, \$22.18 ounce Ag) and a price of \$12 lb for Mo. Recoveries used were obtained from previous metallurgical testing done on the property (96% recovery for Cu, 87% recover for Au, 86% recovery for Ag, and 87% recovery for Mo).

The new zone of higher grade mineralization discovered at the West Seel deposit is open to the south, west, north, and at depth. Increasing the tonnage of this higher grade mineralization could significantly increase the overall average grade of the Seel deposit. A 15,000 metre drill program is recommend to define the limits of the West Seel zone, to determine if the higher grade zone extends to surface on the west side of the deposit, and determine if metal grades in the zone continue to increase with depth.

2 Introduction and Terms of Reference

This report on estimation of mineral resources for the Seel deposit was prepared by C. McDowell, and G. Giroux on behalf of Gold Reach to comply with technical reporting and disclosure requirements set out under National Instrument 43-101 and is considered to be in accordance with Canadian Institute of Mining, Metallurgy and Petroleum Standards on Mineral Resources and Reserves Definitions and Guidelines (the CIM Standards). Authors McDowell and Giroux are independent of Gold Reach. Some of the information and figures contained in this report have been taken from historic assessment reports and parts have been taken directly from a previous Technical report titled SEEL COPPER PROJECT MINERAL RESOURCE ESTIMATE, dated November 10th, 2008, authored by T. C. Stubens and V. Veljkovic of Wardrop Engineering. The 2008 technical report is based on previous technical reports by Peter L. Ogryzlo, M.Sc., P.Geo., dated June 12, 2004 (Technical Report and Exploration Recommendations, Seel Mineral Claims, Tahtsa Reach, Omenica Mining Division, Report prepared for Grayd Resource Corporation) and by D.G. MacIntyre, Ph.D., P.Eng., dated June 16, 2005 (Diamond Drilling Report on the Seel Property; NI 43-101 Technical report prepared for Gold Reach Resources and Grayd Resource Corporation). These reports are available as PDF documents on the SEDAR website (http://www.sedar.com).

Authors McDowell and Giroux take responsibility for all of the information referenced in this report. Terms of reference were established through discussions between Dr. Shane Ebert of Gold Reach and Gary Giroux of Giroux Consultants Ltd. in December, 2011. It was subsequently determined that the estimate would be based upon validated results for all core drilling completed by Gold Reach during the 2004 to 2011 period. The resource estimate is based on a database containing



100 holes drilled into the Seel deposit totaling 28,294 m of diamond drilling, complete with assay certificates with Au analysed by fire assay and Cu and other elements analysed by inductively coupled plasma (ICP).

Hard copy and/or digital records of the 2004-2011 drilling, as well as digital elevation files and geological reports, were delivered to Giroux Consultants Ltd by Gold Reach for purposes of the current resource estimation program. This included complete drill logs, drill plans, assay records and laboratory records for drilling completed by the company, as well as geological reports. Based on the preceding, Giroux Consultants Ltd assembled and validated a digital drilling database upon which the three dimensional resource estimate block model was developed. Mineralization was constrained within 3D geologic solids built using Gemcom software.

Author McDowel was also involved in the 2011 exploration program and spent 27 days on the property in 2011. Author Giroux has not visited the property.

Units of measure in this report are metric; monetary amounts referred to are in Canadian Dollars.

3 Reliance on Other Experts

3.1 General

Gold Reach has been relied upon with respect to confirmation of validity of mineral exploration titles, definition or assessment of environmental liabilities, details of mineral property agreements and identification of surface title issues.

3.2 Limitations

This report was prepared by McDowell and Giroux for Gold Reach and information, conclusions and estimates contained herein are based upon information available at the time of report preparation. This includes data made available by Gold Reach as well as from government and public record sources. Information contained in this report is believed reliable and no reason has been found to question the quality or validity of data used in this report. Comments and conclusions presented herein reflect the Authors best judgment at the time of report preparation. G. Giroux takes responsibility for section 14 of this report and C. McDowell take responsibility for the remaining sections.

4 **Property Description and Location**

4.1 General

The following information was obtained from the B.C. Ministry of Energy, Mines, and Petroleum Resources, Mineral Titles website and is believed to accurately reflect the status of mineral tenures that comprise the property as of the effective date of this report.



4.2 Property:Location

The Ootsa Property is located within the Omineca Mining Division approximately 120 km by gravel road from the town of Houston in west Central British Columbia (Figure 4.1). The property is located on the south side of Tahtsa Reach, an arm of Ootsa Lake, an artificial lake created by the Kenney dam which blocks the Nechako River. The property is immediately east-southeast of the operating Huckleberry Mine property. The mineral claims are on National Topographic System sheet 093E 11E, centered at approximately Universe Transverse Mercator (UTM) coordinates 627000E, 5945500N using North American Datum (NAD) 83, or latitude 53°38¢N longitude 127°05¢V. Gold Reach Resources Ltd in conjunction with its 100% wholly owned subsidary Ootsa Lake Resources Ltd ownes 100% of the Ootsa Property. The Ootsa Property consists of 61 contiguous non-survey mineral claims totaling 22,056.04 ha. See Table 4.1 below.

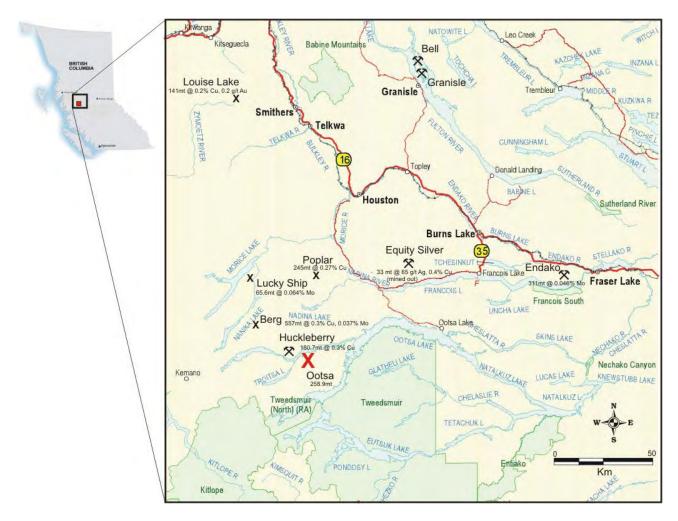


Figure 4.1: Regional Property Location. Resource numbers in the figure come from various company websites and have not been verified by the Authors, they are for illustrative purposes only.



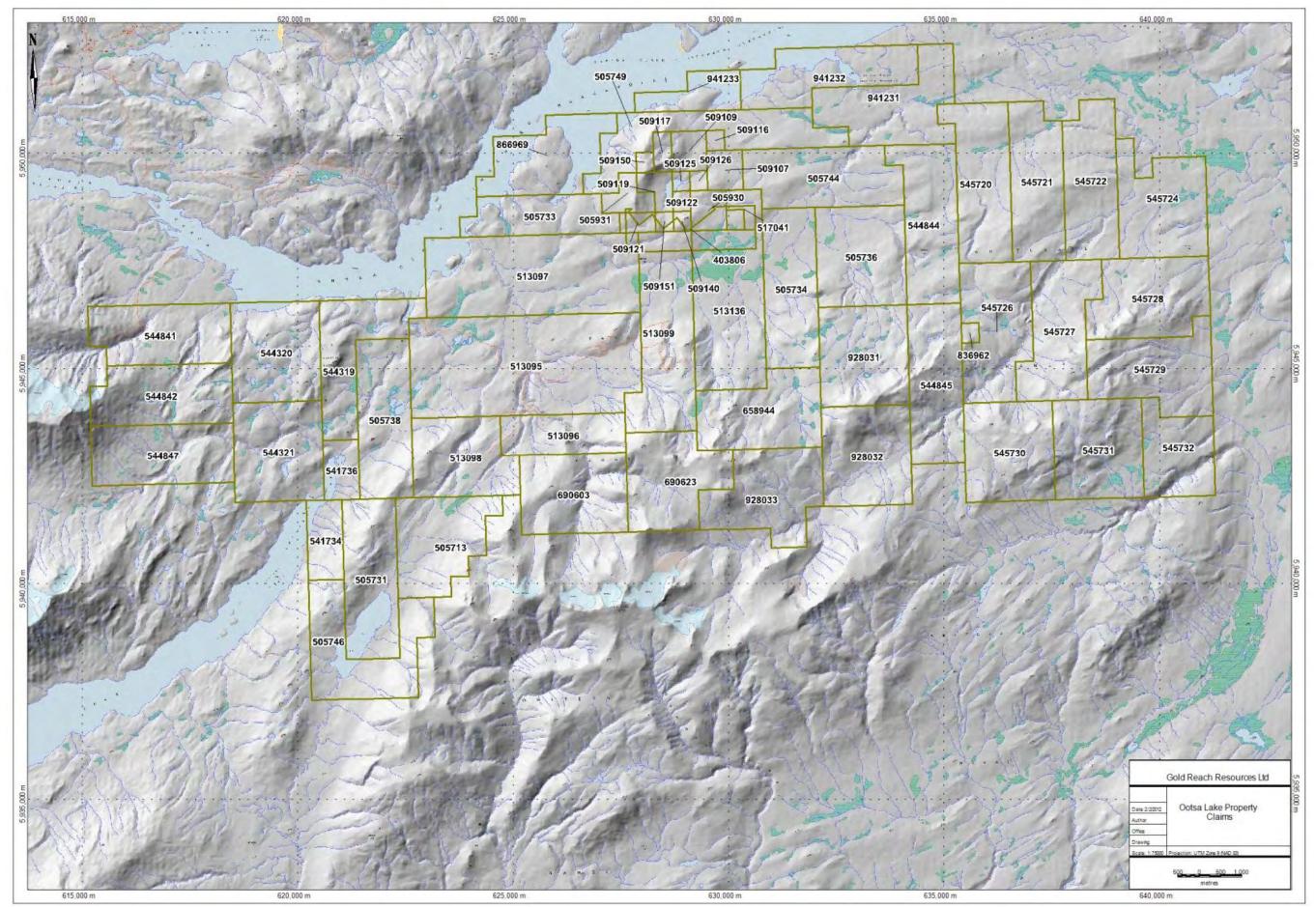
Table 4.1: Ootsa Claims

Tenure	Claim		Good To	Area
Number	Name	Owner	Date	(ha)
403806	SEEL 9	Gold Reach Resources	2018/nov/30	300
505713	Seel 11	Gold Reach Resources	2018/nov/30	441.285
505731	Seel 12	Gold Reach Resources	2018/nov/30	460.557
505733	Seel 13	Gold Reach Resources	2018/nov/30	306.504
505734	Seel 13	Gold Reach Resources	2018/nov/30	459.933
505736	Seel 15	Gold Reach Resources	2018/nov/30	479.031
505738	Seel 16	Gold Reach Resources	2018/nov/30	460.194
505744	Seel 17	Gold Reach Resources	2018/nov/30	478.841
505746	Seel 18	Gold Reach Resources	2018/nov/30	479.923
505749	Seel 19	Gold Reach Resources	2018/nov/30	478.736
513095		Gold Reach Resources	2018/nov/30	1226.884
513096		Gold Reach Resources	2018/nov/30	268.474
513097		Gold Reach Resources	2018/nov/30	919.762
513098		Gold Reach Resources	2018/nov/30	421.93
513099		Gold Reach Resources	2018/nov/30	613.375
513136		Gold Reach Resources	2018/nov/30	613.303
517041	SEEL 20	Gold Reach Resources	2018/nov/30	57.468
658944	SEEL L1	Gold Reach Resources	2018/nov/30	460.2137
866969		Gold Reach Resources	2018/nov/30	421.3228
928031		Gold Reach Resources	2012/nov/03	479.2657
928032		Gold Reach Resources	2012/nov/03	479.5003
928033		Gold Reach Resources	2012/nov/03	479.5794
941231		Gold Reach Resources	2013/jan/18	478.6826
941232		Gold Reach Resources	2013/jan/18	421.1675
941233		Gold Reach Resources	2013/jan/18	172.3089
		Total		11858.24

Tenure	Claim	Good To		Area
Number	Name	Owner	Date	(ha)
505930		Ootsa Lake Resources	2018/nov/30	76.625
505931		Ootsa Lake Resources	2019/nov/15	76.62
509107		Ootsa Lake Resources	2018/nov/30	76.61
509109		Ootsa Lake Resources	2018/nov/30	76.603
509116		Ootsa Lake Resources	2018/nov/30	19.15
509117		Ootsa Lake Resources	2018/nov/30	38.302
509119		Ootsa Lake Resources	2019/nov/15	57.462
509121		Ootsa Lake Resources	2019/nov/15	38.315
509122		Ootsa Lake Resources	2018/nov/30	19.155
509125		Ootsa Lake Resources	2018/nov/30	19.154
509126		Ootsa Lake Resources	2018/nov/30	19.154
509140		Ootsa Lake Resources	2018/nov/30	19.157
509150		Ootsa Lake Resources	2018/nov/30	19.152
509151		Ootsa Lake Resources	2018/nov/30	19.157
544319	SEEL20	Ootsa Lake Resources	2018/nov/30	402.5396
544320		Ootsa Lake Resources	2018/nov/30	479.2105
544321	SEEL22	Ootsa Lake Resources	2018/nov/30	479.447
544841	SEEL23	Ootsa Lake Resources	2018/nov/30	440.8315
544842	SEEL24	Ootsa Lake Resources	2018/nov/30	440.9656
544844	SEEL25	Ootsa Lake Resources	2018/nov/30	478.9541
544845	SEEL26	Ootsa Lake Resources	2018/nov/30	460.1608
544847	SEEL27	Ootsa Lake Resources	2018/nov/30	460.2722
545720	SEEL28	Ootsa Lake Resources	2018/nov/30	478.8621
545721	SEEL29	Ootsa Lake Resources	2018/nov/30	440.5673
545722	SEEL30	Ootsa Lake Resources	2018/nov/30	440.573
545724	SEEL31	Ootsa Lake Resources	2018/nov/30	478.9425
545726	SEEL32	Ootsa Lake Resources	2018/nov/30	479.206
545727	SEEL33	Ootsa Lake Resources	2018/nov/30	479.2168
545728	SEEL34	Ootsa Lake Resources	2018/nov/30	479.1507
545729	SEEL35	Ootsa Lake Resources	2018/nov/30	479.3192
545730	SEEL36	Ootsa Lake Resources	2018/nov/30	479.4968
545731	SEEL37	Ootsa Lake Resources	2018/nov/30	479.4962
545732	SEEL38	Ootsa Lake Resources	2018/nov/30	326.0692
690603	SEEL 40	Ootsa Lake Resources	2018/nov/30	460.3753
690623	SEEL41	Ootsa Lake Resources	2018/nov/30	460.3536
836962	XE1	Ootsa Lake Resources	2018/nov/30	19.1687
		Total		10197.79



Figure 4.2: Ootsa Claims





The writers are not aware of any environmental liabilities related to the Ootsa Property. Trenches and other surface disturbances do not appear to be acid generating and for the most part do not pose significant slope stability hazards. Most are dry, some are partially to completely filled with water and have started to re-vegetate naturally. The Ootsa Property is on Crown land, and the area is open to mineral exploration and development.

The authors undertook a search of the tenure data on the British Columbia government Mineral Titles Online (MTO) web site which confirms the geospatial locations of the claim boundaries of the Ootsa Property. It is common practice in the mineral exploration industry in British Columbia to locate claim boundaries on the internet, since the advent of internet staking. The claims locations on the MTO website (shown in Figure 4.2) are assumed to be correct.

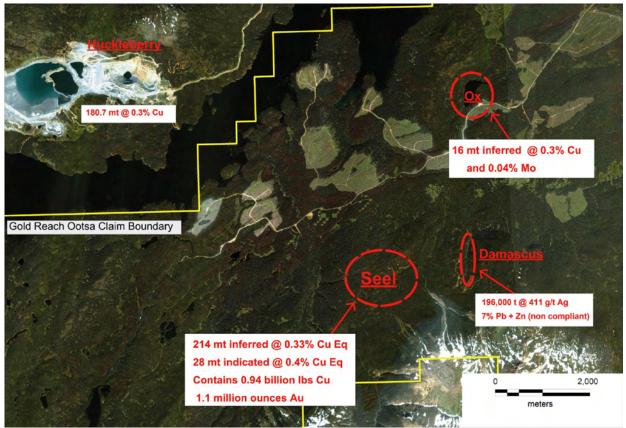


Figure 4.3: Satellite image showing the Huckleberry Mine, the Ootsa claim boundary, the location of the Seel and Ox porphyries and the Damascus silver vein.

Figure 4.3 shows a satellite image of the Ootsa claims. The Huckleberry Mine is visible in the top left corner. The locations of the Seel and Ox porphyries and the Damascus silver vein are shown in red. A network of logging roads and logging cut blocks provides good access through the center of the claim block.

4.3 Agreements

Gold Reach acquired the Ootsa Property (Seel Claims 1-7) by way of an option agreement on January 31, 2003 with Grayd Resources. On October 11, 2005, Grayd Resources Ltd staked



some additional claims and included them in the option agreement. On October 15, 2007 Grayd Resources Ltd declined their back in right to the property leaving Gold Reach with 100% ownership of the Seel 1-20 Claims. A portion of these claims (1,800 hectares, Seel 1 to 7) is subject to a 1% Net Smelter Return Royalty (% SR+) held by Seel Enterprises Ltd.

In November 2006, Gold Reach staked 19 additional claims under its wholly owned subsidiary, Ootsa Lake Resources Ltd. and all of them remain in good standing.

On January 7, 2007, Gold Reach Resources Ltd and its wholly owned subsidiary, Oosta Lake Resources Ltd., acquired a 100% interest in 14 claims totalling approximately 538 ha known as the % Lake Mineral Property+ from Silver Standard Resources Inc., in consideration of the issuance to Silver Standard of 2 million common shares of Gold Reach Resources Ltd. Silver Standard Resources Inc. holds a 2% net smelter royalty on these 14 claims. At any time Gold Reach Resources Ltd can repurchase the entire royalty by paying \$500,000 for the first half (1% NSR) and \$1,000,000 for the remaining half (1% NSR).

In November 2011 and January 2012 Gold Reach staked 5 additional claims under its wholly owned subsidiary, Ootsa Lake Resources Ltd. and all of them remain in good standing.

Portions of the area of the claim lie within areas of interest claimed by the Wet'suwet'en, Cheslatta-Carrier or Carrier-Sekani First Nations. Requirements under the Mineral Tenure Act are that work be performed to a per unit value of \$100.00 for the first three years of a tenure, and \$200 in the fourth and subsequent years. Section 8 of the *Mineral Tenure Act Regulation* in British Columbia describes registering exploration and development for a mineral claim. The value of exploration and development required to maintain a mineral claim for one year is \$4.00 per hectare during each of the first, second, and third anniversary years, and \$8.00 per hectare for each subsequent anniversary year.

On November 3 2010, Gold Reach Resources Ltd. signed a letter of understanding (LOU) with the Cheslatta Carrier Nation through its wholly owned subsidiary Ootsa Lake Resources Ltd. The LOU between Ootsa and Cheslatta has been signed so that the two parties can establish a business relationship and understanding regarding the continuing mineral exploration and development work on the Ootsa Property. The parties have agreed to act in good faith in negotiating the basic terms of a formal joint venture arrangement for the future development of the Property. Cheslatta is an Indian community located on the south side of Francois Lake near Burns Lake, B.C.

5 Accessibility, Climate, Local Resources, Infrastructure and Physiography

The Ootsa Property is located approximately 120 km south of the town of Houston in the westcentral interior of British Columbia. Houston and the nearby community of Smithers, 63 km to the west, serve as a major supply and industrial centre to the Region. The CNR transcontinental railway and paved Highway 16, run through both towns. Houston has a population of around 3,600 with another 2,000 living in the surrounding rural areas. Smithers has a population of around 5,500.

Smithers has an airport with several daily scheduled flights to and from Vancouver, and less frequent flights to other destinations in BC. Smithers is home to several drilling and equipment contractors, and hosts numerous mining and exploration services companies.



The Ootsa property is accessible by 2 wheel drive vehicles and large industrial trucks via a network of well-maintained all weather gravel roads from Houston. To drive to the property: from Houston travel west on Highway 16 to the intersection with the Morice Forest Service Road (FSR). From there drive south 56.5 km on the Morice FSR to the intersection with the Morice-Nadina FSR. Then travel south and west along the Morice Nadina FSR a further 33 kilometres to the Morice Reach FSR (located at kilometre 89 on the road to Huckleberry Mine). The Morice Reach FSR is followed to the south for a further 20 km to the Tahtsa Reach Ferry crossing. A logging camp exists on at the Ferry crossing on the north side of Tahtsa Reach. The ferry is taken to the southern shore of Tahtsa Reach, and travel is resumed west and south by road to approximately kilometre 14 on the Troitsa Main FSR. Gold Reach has a temporary exploration camp constructed in a gravel pit at km 14 on the Troitsa Main FSR.

5.1 Climate

The climate at the Ootsa Property is typical of the Coast Ranges and that of the Central Interior Plateau, with short cool summers, and long relatively mild winters. Annual temperature variation in the region is approximately -25°C to +25°C. In the winter months, snowpack ranges from 1 to 5 m but has been known to reach a maximum of 10 metres at the adjacent Huckleberry Mine. The operating season for ground based activities such as geological mapping, surface sampling and geophysical surveys would extend from approximately early June to late October. With sufficient support, diamond drilling can be conducted year round.

5.2 Physiography

The property is located in the Tahtsa Ranges physiographic region of central British Columbia, near the transition zone between the Coast Mountains and Interior Plateau. It sits along the northern flank of the Whitesail Range on the southern shore of Tahtsa Reach. This range is an up-faulted, block-like mountain which rests abruptly along its north-western margin and slopes cuesta-like towards the south and east (Richards, 1984). It represents an uplifted portion of the Interior Plateau. Relief is moderate on the property, with elevations rising from a valley base of approximately 900 m to 1861 m. At lower elevations topography is gently sloped and timber covered, while above 1550 m elevation the terrain is alpine in nature with abrupt slopes. Between 1350 and 1550 m, the area is forested with white spruce and pine, and below 1350 m by white spruce and fir. Valley bottoms are U-shaped and filled with till and fluvioglacial debris. Outcrop is sparse except on steep slopes and mountain peaks, and along the shores of Ootsa Lake. Logging development has progressed onto the property, and several clear cuts occur through the center of the property, with the closest one located about 1.5 km north of the Seel deposit.

5.3 Infrastructure

A network of logging roads transects the claim block providing good access to most of the Ootsa Property and connects to the main transportation network in Houston. Houston and Smithers both contain rail facilities with port facilities located in Stewart, Prince Rupert, and Kitimat.



The adjacent Huckleberry Mine 8 km NW of the Seel porphyry contains a 16,000 tonne per day mill and concentrator and a camp used to house employees and contractors. A 138 KVA power line connects the Huckleberry Mine to the BC provincial grid at the Houston substation.

6 History

6.1 Introduction

The following section on the history of the property is in part taken from previous technical reports by Ogryzlo (2004) and MacIntyre (2005) as summarized by Stubens and Veljkovic (2008).

6.1.1 Tahtsa Reach-Francois Lake Area Mining History

The Tahtsa Reach area has been actively explored since the early part of the 20th century. Interest in mining in the area began in the early 1900c at the Emerald Glacier Ag-Zn-Pb veins, on the Sibola Range, 9 km west of Huckleberry Mountain. Located approximately 20 km northwest of the Seel Claims, the Emerald Glacier Mine was one of the first mines developed in north central British Columbia. Underground exploration at Emerald Glacier commenced at the end of World War I and between 1951 and 1953 the property produced 4,200 tonnes (t) of ore grading 408 grams per tonne (g/t) Ag, 12.1% Pb and 11.5% Zn. The Tahtsa-Francois Area became a centre of intense exploration activity in the 1960 and 1970 as when extensive stream sediment and soil sampling programs resulted in the discovery of several important porphyry copper and molybdenum deposits including the Berg and Ox porphyry deposits, located 29.5 km to the northwest and 3.5 km to the north of the Seel deposit respectively. The Ox Lake porphyry copper deposit was found in 1968 by the ASARCO-Silver Standard joint venture. The deposit contains an inferred mineral resource of 16 million tons grading 0.3% Cu and 0.04% Mo as estimated by Wardrop in March 2008. The Equity Silver Mine, located 90 km east of the property, was discovered in 1967 and commenced production in 1980. Between 1981 and 1994, 32,649,393 t of ore yielded 2194 t (70.5 million ounces) of silver, 15.6 t (500,000 ounces) of gold and 83,260 t (183,556,879 pounds) of copper.

Between 1968 and 1970, Bethlehem Copper Corp. staked the REA and TL claims east of Kasalka Creek (over the Seel deposit area) to cover anomalous copper-silver soil geochemistry. In 1972, they built a tote-road and drilled eight percussion holes (454 m) to test the anomalies. The Bethlehem claims lapsed and were re-staked by Lansdowne Oil and Minerals Limited in 1980 as the LEAN-TO Group. Soil sampling outlined a moderately strong copper anomaly with attendant anomalous gold, silver, lead, and zinc east of the area tested by Bethlehem. In 1982, 38 shallow diamond drill holes (917 m) were completed and a mineralized breccia zone was discovered (Ager and Holland, 1983). The best intersection contained 18 m grading 1.59 % Cu and 42.2 g/t Ag.

Exploration in the 1960cs and 1970cs led to the discovery of the Huckleberry deposit. The Huckleberry Mine commenced production in 1998. The Huckleberry mine is located approximately 7 km northwest of the Seel deposit on the northern shore of Tahtsa Reach, and 86 km southwest of Houston. The mine, which is currently in production contains a modern mine



and mill industrial complex producing copper, molybdenum, with minor gold and silver. The mine is exceptionally well located with respect to roads, electrical power, water, and other infrastructure. The Huckleberry Mine currently has reserves sufficient for 9 more years of mining.

6.2 History-Ownership

Between 1995 and 2000, different portions of the area enclosed by the Seel Mineral Claims were acquired at various times as the SEEL 1 to 29 two post claims by Seel Enterprises Ltd. These claims were all abandoned on June 25, 2001, and the area was restaked as the Seel #1 and Seel #2 Mineral Claims on June 28 and June 30, 2001 by the same owner. The Seel #3 to Seel #10 Mineral Claims were added at various time between June 30, 2001 and July 20, 2003.

The eastern portion of the area enclosed by the Seel #1 to Seel #10 Mineral Claims was previously held as the OX A, OX B, OX C, and OX-EAST Mineral Claims. These claims were staked between 1981 and 1982, and forfeited on October 1, 2002. The claims were held by Ravenhead Recovery Corporation of Vancouver, BC at the time of forfeiture. Gold Reach acquired the Seel Claims 1-7 by way of an option agreement with Grayd Resources on January 31, 2003. On October 11, 2005, Grayd staked additional claims (8-20) and included them in the option agreement. On Oct. 15, 2007 Grayd declined their back in right and Gold Reach acquired 100% of the Seel Claims 1-20. In November 2006, Gold Reach staked 19 additional claims under its wholly owned subsidiary, Ootsa Lake Resources Ltd. and all of them remain in good standing. On January 12, 2007 Gold Reach acquired 100% of the 14 claims known as the % Data Lake Mineral Property+from Silver Standard pursuant to an agreement dated January 3, 2007.

6.3 Previous Exploration -Seel (Lean-To) Project

The first recorded work on the Seel Claims was done on the REA group of mineral claims in the early 1970c by Bethlehem Copper (Anderson, 1972). A widely spaced geochemical grid survey covered the middle and upper reaches of Seel Creek for copper and silver. The geochemical survey appears to have led to a diamond or percussion drilling program, but there is no public record of the drilling.

The Lean-To prospect was staked by Lansdowne Oil and Minerals in 1980. They actively explored the area around the Seel Breccia from 1980 to 1985. Surface work consisted of geochemical soil sampling, trenching, magnetometer, and VLF (Ager, 1981). An Induced Polarization geophysical survey in 1985 reported very high chargeabilities (to 80 milliseconds). The area of high (+20 msec) chargeabilities extends beyond the limits of the survey (Ager, 1985). The raw IP data was reprocessed in 2003 using modern geophysical inversion techniques, and revealed in cross section a zone of high chargeabilities in the form of an inverted bowl. These geochemical and geophysical surveys have also been included in the project compilation.

This work led to three drilling programs in 1982, 1983 and 1985. The main focus of this work was the Lean-To showing. This showing was first drilled by Lansdowne Oil and Minerals Ltd. in 1982 when they completed 38 diamond drill holes in two phases totalling 917.3 m (Ager et al, 1983). The first 19 holes were drilled by Seel Enterprises Ltd. of Burnaby B.C. using a Winkie IEXS drill rig. Drilling covered an area 650 m long by 550 m wide. Lansdowne drilled an additional 24 holes totalling 1,480.9 m of BQ core in 1983. No drilling was done in 1984 but 10



more holes totalling 201 m were drilled in 1985. Table 6.1 is a summary of significant drill hole intersections encountered in the 1982, 1983 and 1985 drilling programs. As can be seen in the table, most of the drill holes were very short. Most of the holes were drilled at 45 degree angles and were targeted at the Seel breccia body. The best core intersections were split and sent to Acme Analytical Laboratories, Vancouver BC for standard assays for copper, silver, and gold and for geochemical analysis by ICP methods for copper, lead, zinc, silver, tungsten, and gold. Some of this core is stored on the property but only a few boxes remain intact. Of these, only a few boxes have readable labels on them. The surface exploration and drilling resulted in the delineation of an annular zone of sulphide cemented breccia. Highlights of the programs were DH82- 19 which reported 18 m of 1.59% Cu and 640 ppb Au; DH85-1 with 9.76 m of 2.08% Cu, 47 g/t Ag and 0.3 g/t Au; DH85-9 with 0.46m of 8.14% Cu, 112.7 g/t Ag and 6 g/t Au, and DH85-10 with 0.9 m of 8.26% Cu, 120 g/t Ag and 9.5 g/t Au. In general, the breccia has been intersected along an arc length of 450 m to a depth of approximately 40 m. Although the records as supplied are incomplete, the average width and grade as observed in core may be estimated at approximately 8.5 m at 1.7% Cu, 20 g/t Ag and 0.20 g/t Au. An additional 10 holes totalling 203 m were completed in 1985.

There is an indication that a minor drill program took place in 1987, but there are no public records to verify this. Core from the earlier drill programs has suffered considerable damage; salvageable core has been transported to the Gold Reach core storage facility on the property.

The property was revisited between 1995 and 2000 by Mr. Rupert Seel, who undertook a program of excavating trenches, and collecting rock and reconnaissance soil samples on the property. A limited program of stream sediment geochemical surveying and prospecting was performed in 2003 by P. Orgyzlo.



Ho	ole		Interva	al	Cu	Мо	A	g	U	Au	
Number	Length (m)	Start (m)	End (m)	Length (m)	(%)	(%)	(oz/ton)	(g/t)	(oz/ton)	ppb	(g/t)
82-2	30	5.2	5.8	0.6	0.3		0.01	0.34	-		-
		8.4	9	0.6	1.1	1.000	0.01	0.34			
82-3	18.9	11.1	12.8	1.7	1.14		3.63	124.46			
82-4	27.4	4.9	6,9	2	0.38	1.711	0.28	9.60			
	I	11.3	11.9	0.6	0,75		0.46	15.77			
		12.5	14	1.5	0.31		0.28	9.60			
82-5	17.1	5.2	12,1	6.9	0.96		0.77	26.40	-		
	Incl.	8.4	12.2	3.8	1.25		1.08	37.03			
	and:	14.6	17.1	2.5	1.39		1.1	37.71			
82-6	23.8	4.1	5.3	1.2	0.63	1	0.49	16.80			
	1.1.1.1.1.1.1	7.3	9.8	2.5	0.58	1.1.1.1.1	0.46	15.77			
		20.4	23.8	3.4	0.36		0.28	9.60			
82-19	29.3	7.2	25.3	18.1	1.59	1.1.1	1.24	42.51			
	Inci.	7.3	9.4	2.1	4.2		2.94	100.80			-
	and:	18	21.3	3.3	2.29		1.65	56.57			
82-29	53	51.2	53	1.8	0.48		0.28	9.60		T	
82-34	23.5	12.2	15.2	3	0.1		0.11	3.77		360	0.36
82-10	23.3	14.3	15.8	1.5	0.13		1.				
		17.4	18.9	1.5	0.26		0.16	5.49		190	0.19
82-28	40.9	12.8	21.3	8.5	0.12		0.1	3.43		1	1
83-1	91.4	11.8	20	8.2	0.48		0.4	13.71			
		20	60	40	0.13	1	0.14	4.80			
		60	62.2	2.2	1.1	12.1	0.98	33.60			
83-2	97.8	2.6	4.6	2	0.3		0.22	7.54			
	1	65	66.7	1.7	0.44		0.27	9.26			
83-4	168	1	14	13	2.28		1.61	55.20			
		14	18	4	0.13	1	0.14	4.80			
		18	30	12	0.09		0.09	3.09			
		30	46	16	0.79		0.59	20.23			
		46	50	4	0.3		0.24	8.23			
		50	93	43	0.12		0.09	3.09			
83-6	104.5	18.6	24	5.4	1.52		1.28	43.89			
83-7	54.7	33.1	33.4	0.3	1.774	0.21		14 1 1			
83-11	89.4	7.6	25	17.4	1.58		1.23	42.17			
	1	25	31	6	0.16		0.16	5.49		-	
85-1		7.9	11	3.1	1.64		1.12	38.40	0.007		0.24
		11	17.7	6.7	2.28		1.49	51.09	0.011		0.38
85-3		11	11.9	0.9	0.67	-	0.42	14.40	0.001		0.03
		12.2	13.7	1.5	1.4		0.82	28.11	0.002		0.07

 Table 6.1:
 Significant drill hole intercepts, Lean-To Showing (Goldsmith and Lallock, 1986).

Ho	le		Interv	al	Cu	Мо	A	9		Au	
Number	Length (m)	Start (m)	End (m)	Length (m)	(%) (%)	(oz/ton)	(g/t)	(oz/ton)	ppb	(g/t)	
		13.7	15.3	1.6	0.89		0.43	14.74	0.001		0.03
		15.3	16.8	1.5	0.8		0.57	19.54	0.001		0.03
		16.8	18.6	1.8	1.42		1.23	42.17	0.001		0.03
		18.6	20.1	1.5	0.96		0.69	23.66	0.002		0.07
		20.3	21.2	0.9	2.09		1.51	51.77	0.001		0.03
85-4		3.66	4.9	1.24	0.14		0.18	6.17	0.002		0.07
		4.9	5.5	0.6	2.73		2.63	90.17	0.001		0.03
		6.7	7.9	1.2	0.2		0.35	12.00	0.001		0.03
85-5		5.8	6.6	0.8	0.18		0.9	30.86	0.001		0.03
		10.1	13,7	3.6	2.04	1	0.86	29.49	0.01		0.34
85-6		16.5	17.7	1.2	3.18		1.85	63.43	0.008		0.27
1.11		18.8	20.7	1.9	1.97	1	1.22	41.83	0.007		0.24
85-7		15.3	16,8	1.5	1.4		0.78	26,74	0.002		0.07
1.1		17.5	18.5	1	3.9		2.59	88.80	0.003		0.10
85-8		7.6	8.2	0.6	4.35		2.76	94.63	0.005		0.17
		11.3	12.8	1.5	4.11		2.24	76.80	0.012		0.41
	_	20.1	21.7	1.6	4.39		2.47	84.69	0.004		0.14
85-9		4.6	5	0.4	8.14	1	3.29	112.80	0.175		6.00
		8.2	9.5	1.3	3.37		1.04	35.66	0.013		0.45
		9.5	9.8	0.3	0.96		0.47	16.11	0.021	-	0.72
		9.8	11.3	1.5	3.12		1.36	46.63	0.003		0.10
85-10		5.2	6.1	0.9	8.26		3.5	120.00	0.276		9.46

6.4 PREVIOUS EXPLORATION – DAMASCUS VEIN

Work on the Ox Property by International Damascus Resources Ltd. (Damascus Resources) began in 1981 when the current Ox-A, Ox-B and Ox-C Claims were staked. In 1981, an airborne VLF-EM survey was completed. Between 1981 and 1983, prospecting, soil geochemical, and ground magnetometer surveys were completed on the Property as well as diamond drilling on the Ox-C Claim and southern portion of the Ox-B Claim. This work led to the drilling of four diamond drill holes in 1982. None of the holes encountered mineralization and the location and records are not available. Thirty six holes (910 m) were completed in 1983. The Damascus Vein and the Hilltop Vein were discovered and explored during this phase. The best intersection encountered on the Damascus Vein was in Ox-21 where a 3.82 metre core length (2.83 m true width) returned assays averaging 1228.6 g/t Ag, 7.32% Pb and 5.76% Zn. The property was operated by Cominco Ltd. in 1984, which recognised similarities between the Ox Property and to the newly-commissioned Equity Silver Mine. They optioned the property and completed work on the Ox-C and adjacent portion of the Ox-B Claim searching for bulk-tonnage (Equity-type) mineralization which they thought might be associated with the Damascus Vein system. Both the Ox Property and the Equity Mine area are underlain by steeply-dipping Mesozoic and



Tertiary volcanic and intrusive rocks which are clay and tourmaline-altered and have widespread veinlet pyrite-sphalerite mineralization (Blackwell, 1985). Of particular interest to Cominco was % 2000 m long by 600 m wide high contrast Ag-As-Pb-Zn soil geochemical anomaly upslope from previously tested massive sulphide veins+ (Blackwell, 1985). The Cominco program included ground geophysical surveys (VLF-EM and induced polarization), geological mapping, trenching (backhoe, cat and Wajax-pump) and rock geochemical sampling. The K Vein was discovered by prospecting during the 1984 Cominco program. Later in 1984, and following the Cominco program, Ager Consultants supervised an exploration program for Damascus Resources on the Ox-C Claim, completing an additional seven holes on the Damascus Vein and two on the Hilltop Vein. No report is available on the results from this work. On the Ox-East Claim, linecutting (26.7 km.), magnetometer (22.2 km.), induced polarization (11.65 km.) and soil geochemical surveys (787 samples analysed for Ag, Pb, Zn and As) were completed (Kallock and Goldsmith, 1984). Seven diamond drill holes (721.4 m) were subsequently completed to test Ag-Pb- Zn-As anomalies. Hole 844 intersected 0.4 m grading 92.2 g/t Ag, 6.45 % Pb and 10.97 % Zn. None of the other holes intersected any significant mineralization. In 1986, Hi-Tee Resource Management Ltd. (Smallwood and Sorbara, 1986) completed a program on behalf of Damascus Resources consisting of 36.25 km of linecutting, 30 km of induced polarization surveying and 10.6 km of VLF-EM surveying on the Ox-East Claim. This work outlined a strong induced polarization anomaly near the east margin of the Claim. Some trenching and sampling was completed near the K Vein, which is located approximately 200 m south and above the Damascus Vein. A more extensive induced polarization survey covering 30 line km was completed in 1986 (Smallwood and Sorbara, 1986). In 1989, Granges Inc. optioned the property, completing a total of 748.6 m of diamond drilling in eight holes. Six holes (561.4 m) tested depth extensions of the Damascus Vein on the Ox-C Claim and two (187.2 m) tested the induced polarization (IP) anomaly at the east margin of the Ox-East Claim. The results were encouraging and intersected significant mineralization at depth on the Damascus Vein, the best intersection being 4.5 m (1.5 m true width) grading 194.3 g/t Ag, 0.7 g/t Au, 2.7 % Zn and 1.1 % Pb at a depth of 88.0 m (DDH-OX51). Granges concluded that the mineralized zone has a shallow plunge to the south of 28°, and is still open in that direction and at depth (Deveaux, 1989). Of the two holes which were designed to test the strong induced polarization anomaly on the east side of the Ox-East Claim only one tested part of the target, the other was lost due to bad ground conditions. The holes intersected an intensely fractured and altered zone containing disseminated pyrite but no base or precious metal mineralization - the cause of the silver and arsenic-in-soil geochemical anomaly remains unexplained. Granges subsequently dropped their option on the Ox Property because % alues and width did not improve with depth+on the Damascus Vein (Devereaux, 1989).

6.5 Historical Resources Estimate

A historical resource estimate has been reported for the Damascus Vein containing resources of 196,000 tonnes at 411 g/t Ag, and 7% combined Pb + Zn to a down dip depth of 100 m (Goldsmith et al, 1984). This historical resource figure was determined before the implementation of NI 43-101, and does not comply with NI 43-101.

The Authors do not consider this historic resource estimate to be accurate and should not be relied upon. There has been no recorded production from any portion of the Ootsa Property.



6.6 Exploration in 2003

Reconnaissance exploration was undertaken on the Ootsa Property by Gold Reach/Grayd Resources between June 6 and June 13, 2003. Eight days were spent on the property by two prospectors under the direction of Peter Ogryzlo. The purpose of the program was to visit areas of anomalous gold and copper concentrations outside of the known occurrences; visit areas of high IP response revealed in previous geophysical surveys; and to explore the possibility for the existence of a large porphyry copper gold system on the property. The methods used were grass roots prospecting and stream sediment sampling, both directed by the extensive geochemical and geophysical database. Forty-five rock and 38 stream sediment samples were collected. The Seel Breccia was examined, but only for instructional purposes to familiarize the prospectors with the breccia style (angular clasts cemented with pyrite and chalcopyrite) and with the ferricrete blanket. This proved useful, as both prospectors later identified mineralized breccias and ferricrete in float and in outcrop. The most important of the new occurrences are:

1. Radio (Breccia Creek) Breccia prospect. A single cobble of chalcopyrite cemented breccia was found in float near the south bank of the creek near the junction with Seel Creek at 625572E 5945118N (NAD 83). Examination of the creek revealed several hundred metres of outcrop with exposures of ferricrete and quartz-sericite-pyrite altered sedimentary and intrusive rocks. Sulphide contents were locally high. One enigmatic outcrop of chalcopyrite cemented breccia was discovered, which reported appreciable concentration of copper and gold. An exposure of % ight+breccia (well mineralized with pyrite, but with little porosity) was noted over several hundred metres in the creek. There is a strong possibility that an unidentified breccia pipe lies close to these exposures, most likely on the south bank of the creek.

2. Upper Damascus tourmaline zone. A single cobble of tourmaline and pyrite cemented breccia float was collected (628460E, 5945652N) from one of the upper trenches on the Damascus (Ox-C) showing. Tourmaline cemented breccias are of considerable importance in Chilean breccia pipes, and may be both barren and highly mineralized. The area lies within the Damascus IP anomaly, and warrants further work. The cobble reported 323 parts per million (ppm) Cu and 48 parts per billion (ppb) gold.

3. Breccia knoll. An occurrence of weathered breccia (with galena? cement) was collected at the top of the knoll (627236E, 5945732N) which contains the Seel Breccia. The occurrence is approximately 400 m northeast of the Seel Breccia. This area lies near the edge of a gap in the sampling between the Lean-To (Seel) and the Damascus historical work. The underlying lithology is QFP (quartz-feldspar porphyry) pervasively altered to quartz-sericite pyrite. The occurrence reported 7080 ppm Pb and 18.5 g/t silver.

4. Creek C: This drainage was visited and sampled by R. Seel in 1997, who reported a sample located at 0+600 (local grid) of around 2.3 g/t Au. The creek cuts through quartz-sericite-pyrite altered sandstone and felsic volcanics attributed to the Smithers Formation. Sandstones are decalcified and pyritized, giving a ‰anded+texture. A sample of sandstone with around 30% pyrite was collected from an outcrop believed to be the same as the one sampled by R. Seel, and returned 1373 ppb gold.

A stream sediment survey was conducted to test the south-eastern portion of the property, which has no recorded sampling or ground geophysical surveying. Six orientation samples were collected, three regional samples and three samples from mineralized+ drainages. Six conventional silt samples were also collected at the same sites. Approximately five kilograms of sample were collected over 50 m of stream bed at each site. The sample was field sieved down to . 20 mesh, with the collection of approximately 300 g of sieved sample. The orientation



samples were further sieved to . 80 mesh in the lab, and the . 80 mesh fraction and the +80 mesh fraction were both analyzed by ICP-MS on a 30 g split for base and precious metals. The sample program successfully identified new areas with anomalous copper, gold, silver and zinc. This program was followed up in 2004 by the cutting of a new grid, IP and magnetometer surveys and geological mapping. This work is described in a previous technical report by MacIntyre (2005). The IP survey defined a large chargeability anomaly which was tested by 3370 m of diamond drilling in late 2004 and early 2005. The results of this drilling are discussed in section 9 of this report.

7 Geological Setting and Mineralization

The following section is compiled in part from earlier geological reports by Ogryzlo (2004), MacIntyre (2005), Stubens and Veljkovic (2008), and Christensen et al. (2011).

7.1 Local Geology

The Ootsa project is located at the southeast end of a southeast trending belt of porphyry deposits which includes the Huckleberry Mine located 8 km to the northwest, and the Berg, and Lucky Ship deposits (Figure 4.1). The Ootsa Property is underlain by a series of juxtaposed fault blocks containing tilted and locally folded strata of the Telkwa, Nilkitkwa, Whitesail and Smithers Formations of the Lower to Middle Jurassic Hazelton Group. These rocks are cut by multi-phase intrusive complexes that are correlative with the Late Cretaceous Bulkley Intrusive suite. Intrusive phases include diorite, granodiorite, quartz diorite, porphyritic quartz monzonite, porphyritic granodiorite, feldspar porphyry, and quartz feldspar porphyry. The youngest rocks on the property are gently dipping basaltic and rhyolitic flows of the Eocene Ootsa Lake Group that cap older strata in the Whitesail and Kasalka ranges. These units are described in more detail below.

Figure 7.1 shows a simplified geology map of the Tahsta Reach area (from Christensen et al., 2011). The most extensive rock unit in this region is the Telkwa Formation of the Lower to Middle Jurassic Hazelton Group. These rocks consist of lapilli tuff, lithic tuff, crystal tuff, tuff breccia and minor amounts of porphyritic augite andesite, dacite, tuffaceous siliceous argillite and pebble conglomerate. The Huckleberry Mine is located within the Whiting-Huckleberry horst with mineralization hosted within hornfelsed Telkwa Formation and intrusive rocks (Figure 7.1). The Seel deposit is situated within the down dropped Sibola Creek Graben and is hosted in Smithers Formation marine sedimentary rocks and intermediate to felsic porphyritic intrusive rocks.

The structural setting of Tahtsa Reach is one of dextral shear, compressional faulting, and crustal extension and rifting. The following structural description is taken from Christensen et al. (2011). Compressional stresses from the amalgamation of the Stikine Terrane with ancestral North America led to the development of deep seated faults in the region. Relaxation and extension following amalgamation were accompanied by the emplacement of calc-alkaline intrusive rocks with their accompanying zones of hydrothermal alteration and mineralization. Extension was characterized by the formation of northerly trending horsts and grabens. Further compression and dextral shear resulting from subsequent collisional events led to the dismemberment of the Huckleberry Main Zone and East Zone deposits along kilometre scale curved faults that dissect the mineralized zone.

Mineralization at Huckleberry formed in the hornfelsed wallrocks surrounding equigranular granodiorite intrusions. The current level of erosion is interpreted to be near the base of the



Hazelton Group exposing the roots of a porphyry system (Christensen et al., 2011). The stratigraphic level, equigranular intrusive rocks, and simple Cu +/- Mo with limited Au or Ag support the suggestion that the Huckleberry deposit exposes a fairly deep level porphyry system. Geologic characteristics at the Seel deposit, including location higher in the stratigraphic column, highly porphyritic intrusive rocks, local UST textures, relatively high precious metal contents, and superposition of late epithermal veins onto the porphyry system, suggests the Seel deposit exposes a high level porphyry system.

A simplified geology map of the Ootsa property from Stubens and Veljkovic (2008) is shown in Figure 7.2. The main rock types on the map are described below. The descriptions are taken from earlier geological reports prepared by Ogryzlo (2004) and MacIntyre (2005).

7.1.1 Telkwa Formation (LJT)

Widely spaced outcrops of maroon, purple, and red lapilli tuff with lesser crystal, lithic and ash tuff, volcanic breccia and agglomerate interbeds occur along the Troitsa Main Forest Service Road and at isolated localities throughout the property. These rocks, which typically contain 30-60% 1-2 mm feldspar crystal fragments, are lithologically identical to the lower Telkwa Formation elsewhere in central B.C. Therefore, these rocks are correlated with the Telkwa Formation (MacIntyre, 2005).

7.1.2 Nilkitkwa Formation (LMJS)

Medium to thin bedded, dark grey siltstones and mudstones crop out in a number of steep sided creek gullies that are part of the upper Seel Creek drainage system. Good exposures also occur along the banks of Seel Creek near the old Bethlehem Copper camp. These fine grained sedimentary rocks were mapped as unit 6 argillites by Bethlehem Copper (Assessment report 3576). The GSC assigned these rocks to the Middle to Upper Jurassic Ashman Formation (Woodsworth, 1980), but according to MacIntyre (2005) these rocks are sufficiently different in lithology and stratigraphic position to be mapped as a separate and older unit. The primary differences between these rocks and the Smithers or Ashman formations is the lack of feldspar detritus and the more reduced, finer-grained and presumably deeper marine nature of these rocks. These features are similar to the Lower Jurassic Nilkitkwa Formation that is found further north in the Smithers-Babine Lake area. This correlation is supported by the apparent stratigraphic position of these rocks which suggest they overlie the Lower Jurassic Telkwa Formation. Similar marine sedimentary rocks occur near the mouth of Kasalka Creek but these rocks were either mapped as the Smithers or Ashman Formations (Woodsworth, 1980) or included in the Telkwa Formation (MacIntyre, 1985).



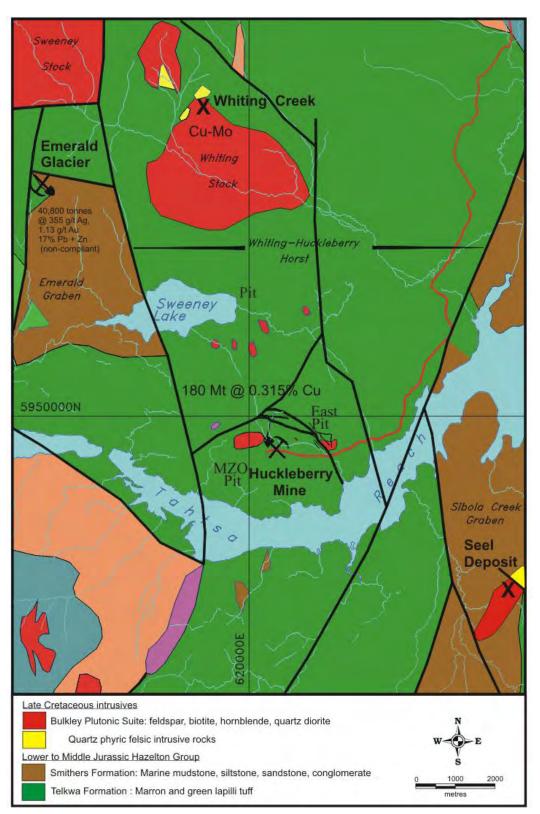
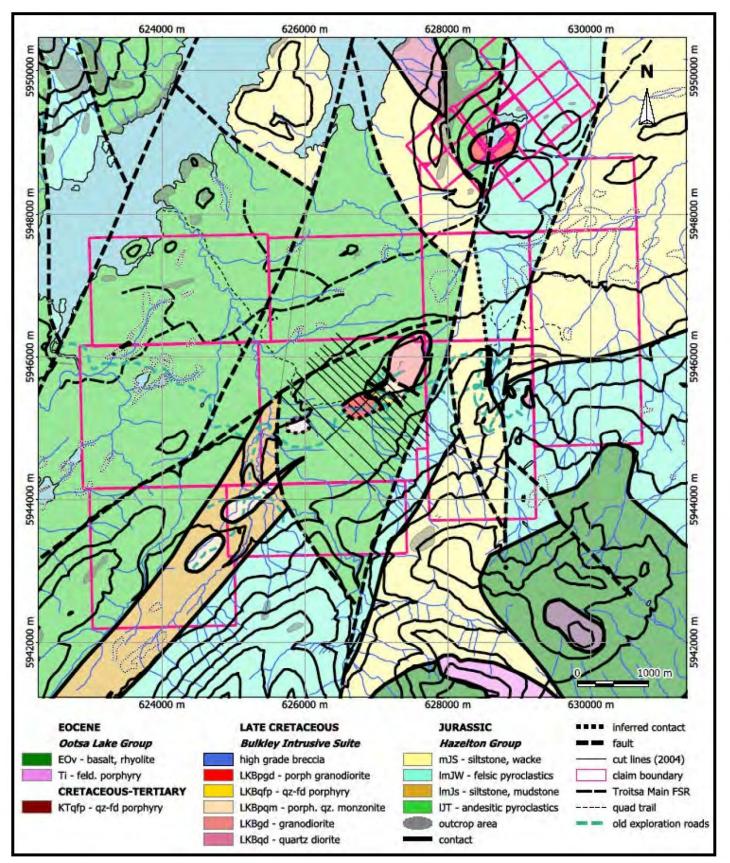


Figure 7.1: Geology of Tahtsa Reach.Geology from McIntyre et al, (1994), McIntyre (2001), and Christensen et al., 2011. Resource numbers in the figure come from various company websites and have not been verified by the Authors. They are for illustrative purposes only.

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Figure 7.2: Simplified geology map of the Ootsa property from Stubens and Veljkovic (2008). The red claim outlines represent the claim boundaries in 2004 and are not current.



7.1.3 Whitesail Formation (LMJW)

A distinctive unit comprised of well bedded cream to light grey rhyolitic ash flow tuffs with lesser interbeds of chert, feldspathic wacke, felsic lapilli tuff and volcanic breccia crops out in creeks draining the steep north facing slope of the White sail range and in the area east of the Damascus vein. These rocks occur elsewhere in the Whitesail- Tahtsa Lake area and were mapped as the Lower to Middle Jurassic Whitesail Formation by the GSC (Woodsworth, 1980). These rocks grade upward and are in part interbedded with lower part of the Middle Jurassic Smithers Formation. The best section where this transition is exposed is in on the steep, north facing slope of the ridge south of the Lean-To showing. Here outcrops exposed in creek gullies at the base of the ridge are mainly rhyoliticash flows interbedded with feldspathic wackes and granule conglomerates and these grade up slope and up section into predominantly feldspathic wacke, siltstone and granule conglomerate of the Smithers Formation. A similar transition is observed in the area east of the Damascus vein where the section dips gently to the north. Rocks exposed near the top of the knoll are typical Whitesail Formation.

7.1.4 Smithers Formation (MJS)

Medium to thin-bedded feldspathic wackes, siltstones and heterolithic granule to pebble conglomerates are exposed on the steep north facing slope south of the Lean-To grid and along prominent cliffs, road cuts and trenches northeast and west of the Damascus vein (Figure 6.2). These rocks are assigned to the Smithers Formation based on lithology and apparent stratigraphic position. Some limy beds containing macrofossils are reported to occur at the base of cliffs east of the Damascus vein (Blackwell, 1985) but these could not be located.

7.1.5 Ootsa Lake Group

The southern boundary of the Seel Property overlaps the northern edge of the Whitesail Range. At higher elevations tilted and folded fault blocks of Hazelton Group rocks are uncomfortably overlain by gently dipping feldspar phyric basalt and lapilli tuff of the Eocene Ootsa Lake Group. Blackwell (1985) reports small outliers of these rocks in Poison Creek west of the Damascus vein. Two small stocks, one comprised of coarse feldspar porphyry, the other biotite-feldspar porphyry intrude Eocene Ootsa Lake Group rocks south of the Seel property (Ti). These high level intrusions were probablyfeeders for Eocene flows that cap the Whitesail range.

7.1.6 Bulkley Intrusive Suite

Intrusive rocks on the Seel property crop out in trenches, road cuts, creeks, and along the crest of some ridges. Drilling at the Seel deposit has intersected large zones of highly altered, mainly feldspar pheric intrusive rocks. At least 7 distinct intrusive phases have been recognized at Seel within an intrusive complex that is at least 1.6 km long by 0.5 km wide and is elongate in a northeast direction (Figure 4). The oldest intrusives, determined by cross cutting relationships are an equigranularfeldspar-quartz-biotite intrusive (locally dioritic) and a coarse crowded feldspar porphyry that various somewhat in grain size and phenocryst abundance. The intrusive complex also contains a medium grained feldspar porphyry and a medium to coarse grained feldspar-quartz porphyry. All of the above intrusive units are known to host porphyry cu-Au-Mo mineralization. At the northeast end of the intrusive complex is a coarse quartz porphyry along



with a finer grained feldspar-quartz porphyry that is spatially related. A volumetrically minor set of relatively late felsic and mafic fine-grained dikes have been intersected in some drill holes.

7.2 Geology and Mineralization of the Seel Deposit

The Seel deposit is hosted mainly in highly altered porphyritic intrusive rocks with some mineralization hosted in hornfelsed sedimentary rocks on the north and west sides. Evidence of faulting is fairly common in drill holes at Seel. Two significant faults have been identified during the 2011 drilling and are labelled on Figure 7.3 as the North Fault and the East Fault. These faults postdate the main episode of porphyry mineralization but local host younger lower-temperature vein and breccia style mineralization and related alteration. The amount of displacements on the faults remains unconstrained and porphyry related alteration and mineralization occurs on either side of the structures. Several zones of brecciation are recognized at the Seel deposit. The largest known zone occurs at the Seel Breccia on the northeast side of the Seel deposit which locally hosts high grade Ag-Cu-Zn-Pb mineralization. Several linear, fault controlled zones of brecciation occur throughout the Seel deposit.

The Seel deposit is located on a gently sloped forest covered area (see Figure 7.4) with limited bedrock exposure and typically 0 to 40 meters of glacial cover. Porphyry related mineralization (Cu-Au+/-Mo+/-Ag) is the dominant style of mineralization at Seel and can be separated into a zone of Cu-Au mineralization (Seel) and a zone of Cu-Au-Mo-Ag mineralization (West Seel). The West Seel deposit is a new discovery made late in the 2011 drilling program and occurs below and adjacent to shallow holes drilled in 2005 and 2008. A late episode of vein and breccia controlled quartz-carbonate+Cu-Zn-Pb-Ag mineralization occurs locally at Seel, this includes the Seel Breccia area shown on Figure 7.3. These 3 styles of mineralization are described below.

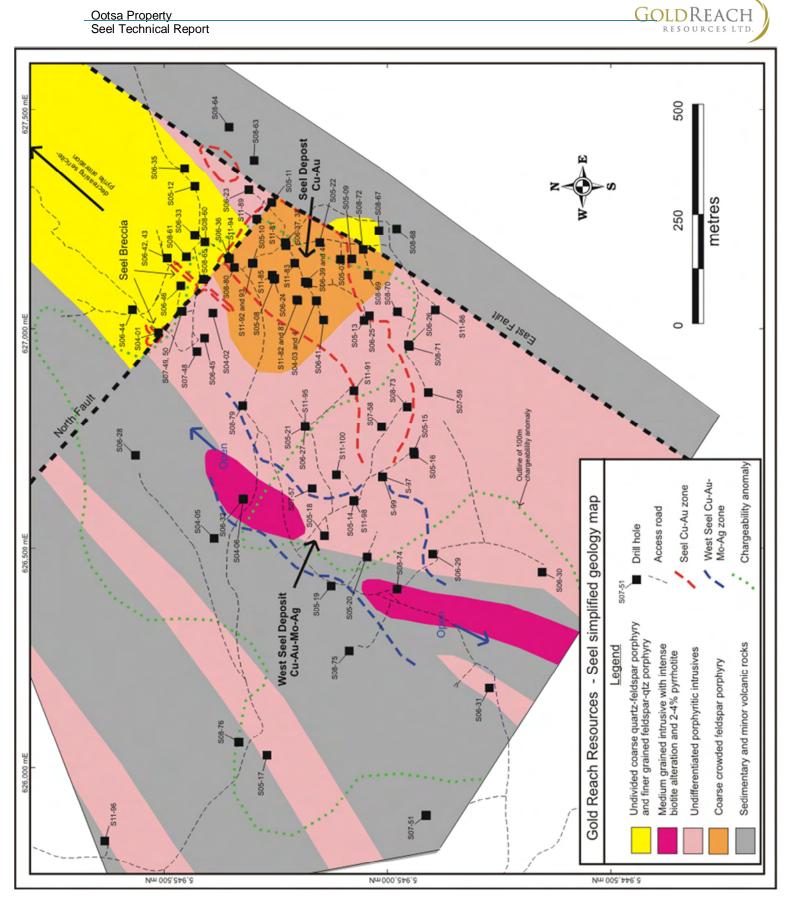


Figure 7.3: Simplified Geology Map of the Seel Deposit



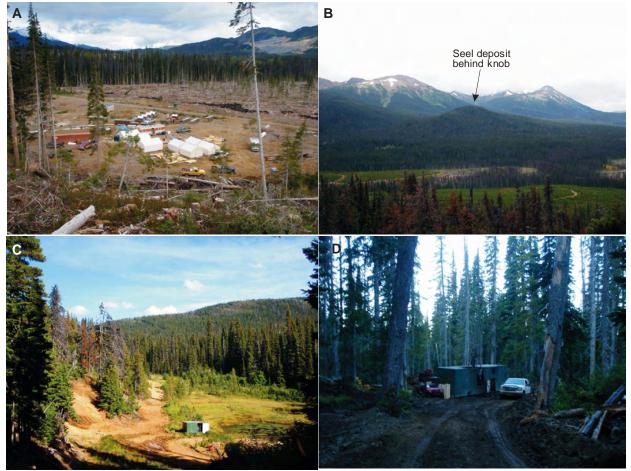


Figure 7.4: Photos from the Ootsa Property. A) View of exploration camp in an old gravel pit beside a logging road. Note the Huckleberry Mine visible in the top right corner. B) View from the Ox Porphyry zone toward the southwest. The Seel deposit is located on flat to gently sloping terrain just behind the small knob. C) Drill access roads and water source at the east end of the Seel porphyry zone. D). Drill site for hole S11-90.

7.2.1 The Seel Cu-Au zone

The Seel deposit contains Cu-Au style porphyry mineralization associated with early potassic alteration and guartz + magnetite veining. This style of mineralization forms a distinct airborne magnetic high. The main intrusive throughout the Cu-Au zone is a coarse crowded porphyry containing 40 to 60% phenocrysts in a fine grained aphanitic matrix. Feldspar is the dominant phenocryst consisting of euhedral and sub rounded crystals, 3 to 7mm in size. Biotite phenocrysts, 2 to 3mm in size make up about 2 to 5% of the rock but are often completely masked by alteration. This rock is termed crowded feldspar porphyry. Alteration causes the color and appearance of this rock to change considerably over short distances, however, the texture and phenocryst composition remains fairly constant. Locally, strong sericite alteration and matrix silicification within the crowded feldspar porphyry bleaches and masks any biotite In the mineralized zone the rock contains 2 to 4% finely that might have been present. disseminated pyrite and chalcopyrite in a variably silica flooded groundmass. Pvrite and chalcopyrite also occur along fractures, and pyrite-chalcopyrite-magnetite occur in quartz veins,



locally concentrated in the vein centres. There are generally 5 to 7, 0.5 to 1cm size quartz veins per metre within the mineralized zone. Early high temperature quartz-chalcopyrite veins occur in this zones along with several episodes of later veins. Two styles of alteration dominate in the Cu-Au zone. The first is an early potassic alteration characterized by salmon to pink color K-feldspar within the crowded feldspar porphyry groundmass and as selvages to veins, along with biotite veins and zones, and quartz-pyrite-chalcopyrite-magnetite veins. Locally potassic alteration occurs with chlorite which has altered a good portion of the biotite crystals. In places potassic alteration has been overprinted by sericite alteration and the rock is bleached to a light gray green or tan color, mafics are destroyed, and feldspar phenocrysts and locally the porphyry groundmass are soft. In some zones there appears to be similar Cu and Au grades in both sericite altered zones and potassic altered zones, whereas in others chalcopyrite abundance is visibly reduced in the sericite altered zones indicating the sericite alteration is grade destructive. This is confirmed locally by assay values. Grade destructive sericite alteration, and locally grade destructive structurally controlled late argillic alteration are important features within parts of the Seel Cu-Au zone.

Drill Hole	From (m)	To (m)	Width (m)*	Au g/t	Cu %	Mo%	Cu Eq%
S11-81	38.5	176	137.5	0.34	0.39		0.63
S11-82	29.6	731.5	701.9	0.19	0.16		0.29
including	29.6	204	174.4	0.4	0.35		0.63
S11-83	41.6	228	186.4	0.27	0.36		0.55
S11-84	19.2	136	116.8	0.21	0.26		0.41
S11-85	13.7	119	105.3	0.25	0.23		0.41
S11-86	85.0	123.0	38.0	0.018	0.09	0.028	0.21
S11-86	379.0	515.0	136.0	0.081	0.12	0.028	0.29
S11-87	32.1	105.0	73.0	0.166	0.16		0.28
S11-88	35.5	810.2	774.7	0.151	0.16	0.014	0.32
including	35.5	141.0	105.5	0.440	0.41		0.72
S11-90	28.0	792.5	764.5	0.199	0.17	0.003	0.32
including	28.0	222.0	194.0	0.419	0.37		0.66

Table 7.1: Select 2011 drill hole results from the Seel Cu-Au zone.

Table 7.1 shows select 2011 drill results from the Seel Cu-Au zone. Three deep holes tested the Cu-Au zone during the 2011 drilling program (holes S11-82, S11-88, and S11-90) and all 3 intersected long intervals of continuous mineralization with the zone remaining open at depth. This is highlighted by hole S11-90 which intersected 764.5 metres of continuous mineralization grading 0.17% Cu and 0.2 g/t Au (0.32% Cu Eq.). Holes drilled within the centre of the Cu-Au zone all intersected a higher grade zone at surface highlighted by hole S11-90 which intersected 194 metres grading 0.37% Cu and 0.42 g/t Au from 28 to 222 metres depth.



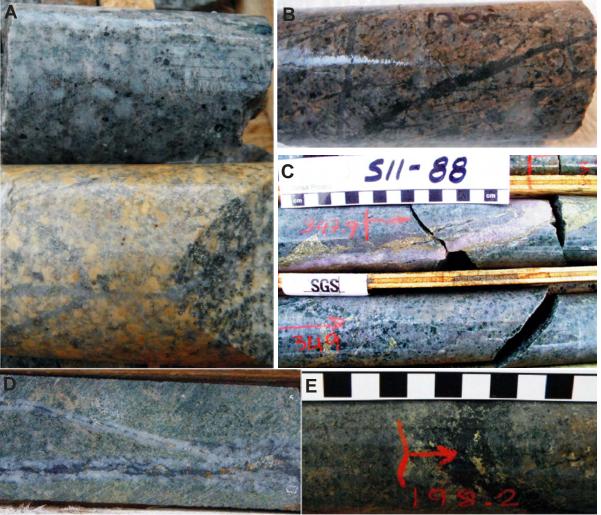


Figure 7.5: Photos of the Seel Cu-Au zone. A) Top: potassic altered coarse crowded feldspar porphyry. Bottom: sericite altered coarse crowded feldspar porphyry. B) Potassic alteration with fine grained disseminated chalcopyrite and pyrite, K-feldspar porphyry matrix, quartz-sulfide veinlets and black biotite + chalcopyrite veinlets. C) Potassic + chlorite altered feldspar porphyry with purple anhydrite vein. D) Mixed potassic and sericite altered porphyry with quartz-magnetite-chalcopyrite veins. E) Magnetite-chalcopyrite vein.

7.2.2 West Seel Cu-Au-Mo-Ag zone

Holes 91, 95, and 97 to 100 have all intersected Cu-Au-Mo-Ag bearing porphyry style mineralization at the West Seel deposit. Mineralization within this zone is hosted within a medium grained weakly porphyritic intrusive rock containing strong biotite alteration (10 to 50% biotite) and a pyrrhotite-pyrite-chalcopyrite-molybdenite sulfide assemblage, and partially hosted in a hornfelsed wallrock contact zone. The wall rocks are comprised mainly of fine grained sedimentary rocks (mudstone, siltstone, minor sandstone) with biotite hornfels. The upper and eastern portions of the deposit occur within the main Seel porphyry complex, and contain mineralization without intense biotite alteration and without pyrrhotite. Secondary biotite is abundant and widespread at depth in the West Seel zone, and largely masks the original intrusive texture. The rock contains up to 1% disseminated chalcopyrite and minor



disseminated molybdenite with 3 to 4, 1-2mm quartz-pyrrhotite-chalcopyrite-pyrite-molybdenite veins per metre. The rock averages about 2 to 4% pyrrhotite and is strongly magnetic. The magnetic zone does not appear to persist to the surface and the zone does not have a significant airborne magnetic anomaly associated with it. The south and west side of the Seel porphyry complex is fairly complex, with a few different styles of intrusion which have been simplified on Figure 7.3 and in the cross sections below. Zones associated with strong biotite alteration appear to contain the best copper grades, and higher grade Cu occurs with biotite altered fine grained sedimentary country rocks around the margins of the main intrusive complex. The zone appears to show an increase in grades with depth.

All of the holes drilled into the zone end in mineralization and the extent of the mineralized zone remains poorly defined. Select results from the drilling at West Seel are summarized in Table 7.2. The zone has returned long intercepts of continuous mineralization highlighted by hole S11-100 which returned 567 metres grading 0.25% Cu, 0.17 g/t Au, 0.028% Mo, and 3.4 g/t Ag (0.51% Cu Eq.).

Drill Hole	From (m)	To (m)	Width (m)*	Au g/t	Cu %	Mo%	Ag g/t	Cu Eq%
S11-91	609.0	661.4	52.4	0.172	0.18	0.035	1.7	0.46
S11-95	241.0	557.8	316.8	0.160	0.23	0.020	3.2	0.45
including	241.0	437.0	196.0	0.194	0.29	0.022	4.4	0.56
S11-97	120.0	539.5	419.5	0.148	0.23	0.025	3.9	0.47
including	324.0	486.0	162.0	0.184	0.27	0.037	3.8	0.58
S11-98	52.0	623.9	571.9	0.122	0.18	0.020	3.8	0.38
including	406.0	623.9	217.9	0.144	0.22	0.030	3.6	0.47
S11-99	66.0	609.9	543.9	0.120	0.18	0.016	3.6	0.36
including	352.0	578.0	226.0	0.175	0.22	0.022	3.5	0.47
including	440.0	578.0	138.0	0.213	0.26	0.028	3.2	0.54
S11-100	170.0	736.7	566.7	0.173	0.25	0.028	3.4	0.51
including	374	510	136.0	0.204	0.29	0.033	4.0	0.60
including	548	672	124.0	0.299	0.27	0.051	2.5	0.71

 Table 7.2:
 Select 2011 drill hole results from the West Seel zone.

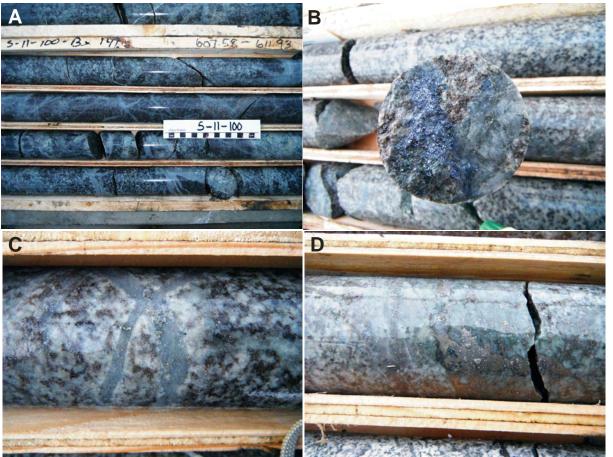


Figure 7.6: Photos from the West Seel zone. A) Biotite altered intrusive with strong quartz veining and disseminated and vein controlled pyrrhotite-chalcopyrite-molybdenite. B) Fracture coated with molybdenite +/- chalcopyrite. C) Quartz veinlets containing pyrrhotite . chalcopyrite . pyrite in a biotite altered intrusive. D) Zones with abundant pyrrhotite.

7.2.3 Late veins and breccias

A late episode of structurally controlled veins and breccias containing quartz-carbonate+Cu-Zn-Pb-Ag mineralization occur at the Seel Breccia and along some of the more significant faults throughout the Seel deposit. Carbonate associated with these zones consists of tan Fe-carbonate, pink Mn-carbonate, and locally calcite. Sulfides consist mainly of chalcopyrite, pyrite, sphalerite, and galena, and trace amounts of sulfosalts occur locally. In places these veins contain open spaces, drusy cavities, crustiform banding, and cockade textures, indicating they are lower temperature and higher level than the earlier porphyry Cu-Au+/-Mo+/-Ag events which they cut and overprint.

Several drill holes into the North Fault show this fault locally contains high grade Cu and Ag mineralization associated with late veins and breccias, returning values such as 8.56 % Cu and 223 g/t Ag over 1 metre in hole S11-81. The largest known zone of late veins and breccias occurs at the Seel Breccia located immediately north of the Seel deposit. Zones of argillic alteration typically surround larger quartz-carbonate-sulfide veins/zones and this alteration generally destroys the grade in the earlier porphyry.





Figure 7.7: Photos of late veins and breccias. A) Cockade texture breccia with quartzcarbonate matrix. B) Faint crustiform banded quartz and tan Fe-carbonate vein with pyrite and chalcopyrite. C) Seel Breccia+, clast supported breccia with pyrite-sphalerite-chalcopyrite + Fecarbonate matrix. D) Clast supported breccia with chalcopyrite . pyrite . Fe-carbonate matrix.

7.3 Known distribution of mineralization

Figure 7.8 shows the distribution of known mineralization at Seel based on copper equivalent grades from the drill hole database. Two large zones of mineralization are apparent, the Seel deposit to the east, and the West Seel deposit to the west. These two zones appear to connect to the south and at depth. A third smaller zone of mineralization occurs at the Seel Breccia, to the north of the Seel deposit, a fourth poorly defined zone of mineralization occurs to the east of the Seel deposit.

The Seel Cu-Au zone has been traced over an area roughly 600 metres long by 300 metres wide and to date has been traced to over 650 metres depth. The West Seel deposit has been traced over an area 550 metres long by 320 metres wide and to depths in excess of 600 metres. Both deposits remain open at depth and The West Seel deposit also remains open to the west, north, and south. Mineralization at the West Seel deposit is widest and remains open at its southwest end near the area where the Seel and West Seel deposits intersect. The geometry of the mineralized zones at depth is illustrated in the cross sections shown in Figures 7.10 to 7.13.



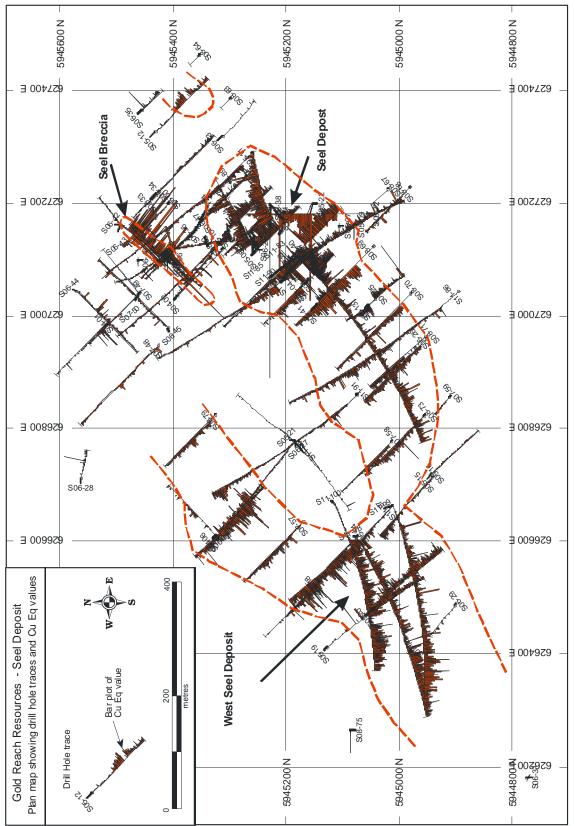


Figure 7.8: Plan map showing the distribution of mineralization at Seel.



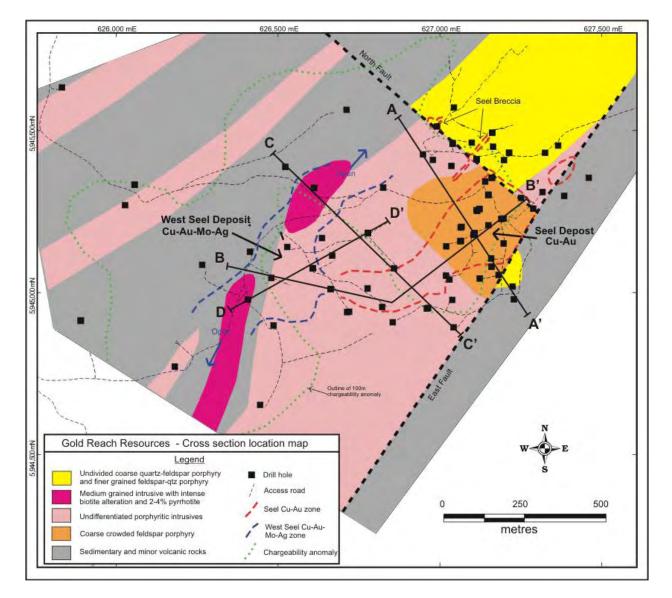
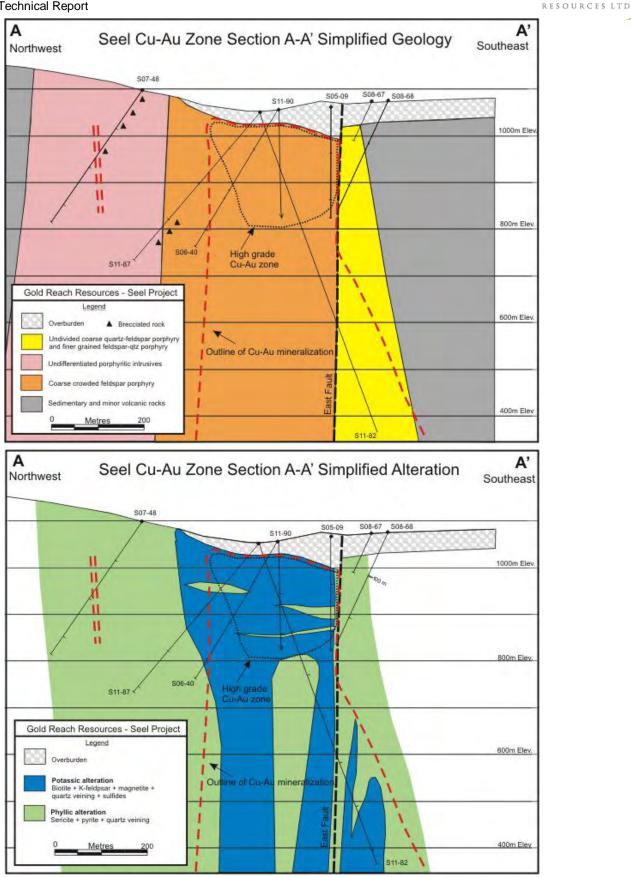


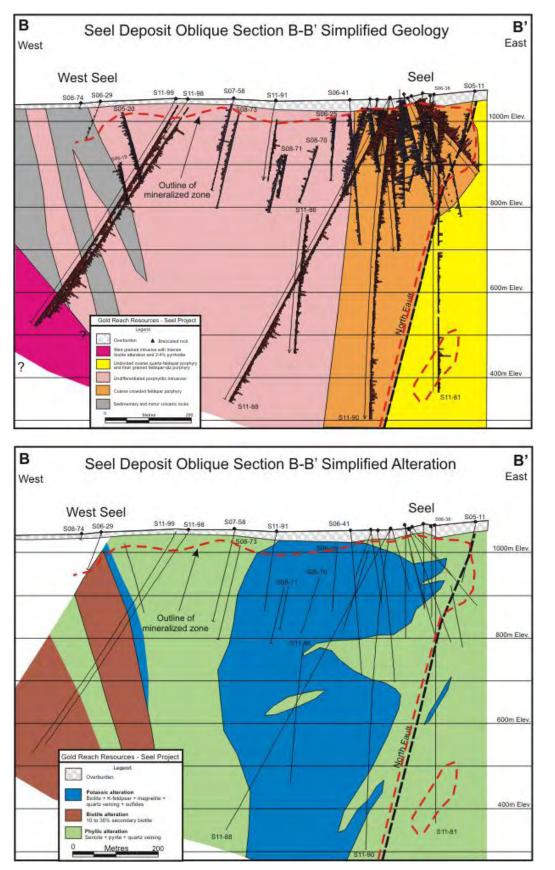
Figure 7.9: Geology map of the Seel deposit showing the location of cross sections A-Aqto D-Dq

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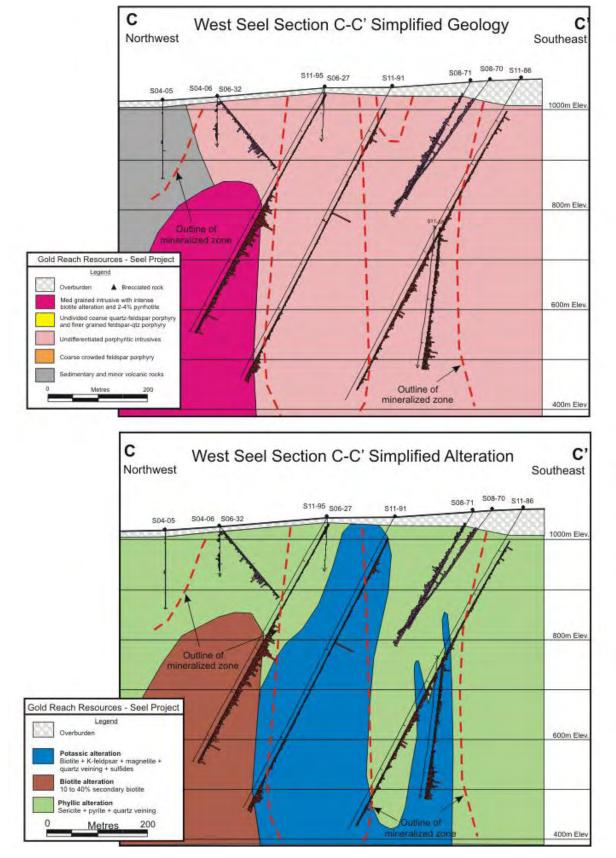
Figure 7.10: Simplified cross Section A-Aqthrough the Seel Cu-Au zone. Rock types shown on top, alteration shown on the bottom.



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Figure 7.11: Simplified long section B-Bqthrough the Seel Cu-Au zone and the West Seel zone. Rock types shown on top, alteration shown on the bottom.



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Figure 7.12: Simplified cross section C-Cqthrough the West Seel zone. Rock types shown on top, alteration shown on the bottom.



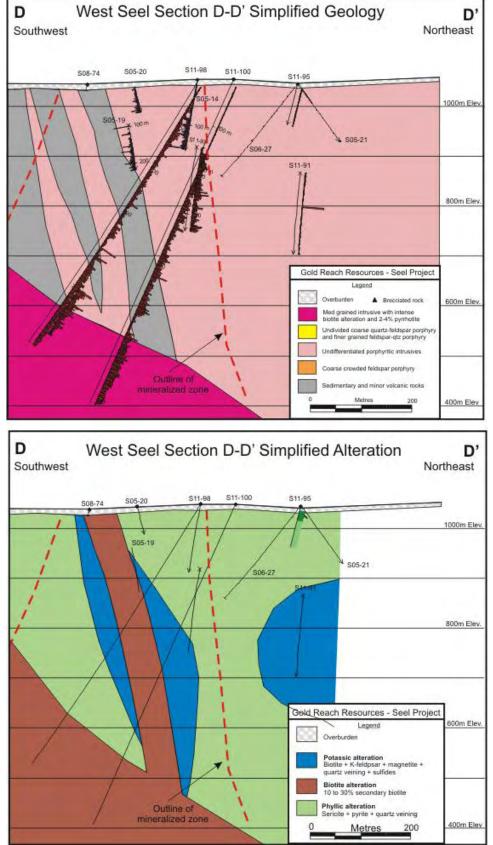
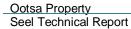


Figure 17.13: Simplified cross section B-Bqthrough the West Seel zone. Rock types shown on top, alteration shown on the bottom.





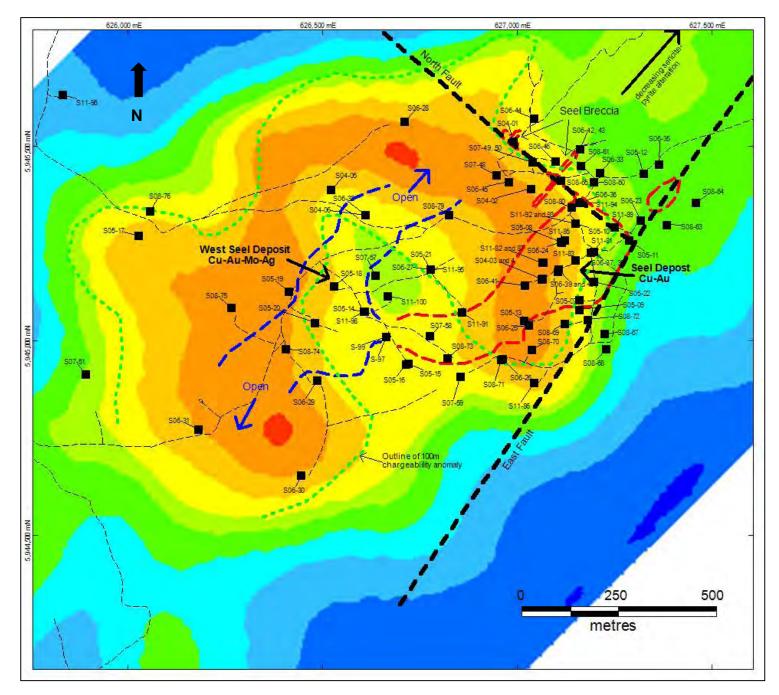


Figure 7.14: 3D-IP model showing chargeability at 200 metres depth over the Seel deposit.

Figure 7.14 shows a plan map of the chargeability model for Seel at 200 metres depth. The high chargeability zone, which appears to be mapping out sulfide content, shows there is significant room to expand the West Seel zone to the northeast, south west, and to the west.



8 Deposit Type

The Seel and Ox deposits, along with the adjacent Huckleberry Mine, share features characteristic of porphyry copper systems based on their geometry, association with intrusive rocks, nature of disseminated and veinlet controlled mineralization, alteration assemblage and alteration zonation, and metal associations.

Roughly three-quarters of the world¢ Cu production, half of the world¢ Mo production, and around one-fifth of the world¢ Au production come from porphyry Cu systems (Sillitoe, 2010). Significant by-product metals from porphyry systems include Re, Ag, Pd, Te, Se, Bi, Zn, and Pb. Porphyry Cu systems form at convergent plate boundaries and include a wide range of mineralization types, including porphyry deposits centered on intrusions, deposits in wallrocks, and a range of vein and replacement style deposits that form at different depths and different distances from intrusions (e.g. Sillitoe, 2010). Porphyry deposits commonly occur along linear trends reflecting structural controls above large composite plutons which supply the magmas, fluids, and metals that form porphyry deposits.

Porphyry Cu \pm Au \pm Mo deposits are generally centered on intrusions or their hornfelsed wallrocks. In non-carbonate bearing rocks structurally controlled base metal and Ag bearing veins can occur peripheral to porphyry Cu centres and high-sulfidation epithermal deposits may occur in strongly altered and leached rocks above porphyry Cu deposits.

Porphyry Cu deposits display a consistent, broad-scale alteration-mineralization zoning pattern that typically affects several cubic kilometers of rock. Porphyry mineralization typically occurs in quartz-bearing veinlets, and locally sulfide veinlets, as well as disseminated throughout the host rocks. Large pyrite halos are known to occur around mineralized zones in several porphyry districts. The deposits typically contain large alteration zones consisting of deep sodic-calcic alteration, centrally located potassic alteration, and higher level or peripheral chlorite-sericite, sericitic, argillic, and advanced argillic alteration. Younger alteration zones commonly overprint older alteration zones in porphyry systems.

The Seel deposits contains disseminated and veinlets controlled Cu-Au-Mo-Ag mineralization and large zones of potassic, sericitic, chlorite-bearing, and argillic alteration assemblages consistent with classification as a porphyry Cu system. Late base metal silver veins at the Seel Breccia and Damascus areas share characteristics with base metal . Ag veins known to occur around porphyry deposits.

The large size of porphyry deposits and the large zones of associated sulfide mineralization make them especially amenable to geophysical exploration. Induced polarization surveys are routinely used in porphyry exploration to outline sulfide zones and associated pyrite halos. Resistivity surveys have also been used to successfully outline the large zones of hydrothermal alteration. Conventional soil geochemical exploration is also very effective for identifying drill targets in areas of thin cover.



9 Exploration

9.1 Seel Property 2004 and 2005

Exploration prior to 2004 at the Seel property is described in the History section of this report. Gold Reach conducted exploration program on the property in December 2004 and January 2005 when 3,370 metres of diamond drilling in 17 holes was competed. The results of this work are discussed in the drilling section of this report. Prior to this drill program, a new cut line grid was established and combined 2D/3D IP and magnetometer surveys were completed. Grid cutting was done by CJL Enterprises Ltd. of Smithers B.C. and the geophysical surveys were done by SJ Geophysics Ltd., of Delta, B.C. The IP Survey was done between September 27 and October 10, 2004 while the magnetic survey took place October 26 - 29, 2004. The results of this work are discussed in more detail in a previous technical report (MacIntyre, 2005) and are summarized here. The geophysical surveys were done on a single grid consisting of 10 lines. Lines 4600N through to line 5200N were used during the 3D-IP recording phase; while lines 4000N, 4200N and 4400N were recorded with a modified pole-dipole configuration in 2D mode. The 3D-IP lines had a separation of 100 m, with pickets placed every 50 m. The three 2D lines were spaced at 200 m intervals, with pickets also placed every 50 m. All lines had a length of 2000 m with pickets labelled from station 4000E through to 6000E. The following discussion of results is extracted and modified from a report prepared by SJV Consultants Ltd. for Grayd Resource Corporation dated November 2004 (Rastad, 2004).

9.2 Magnetic Survey

The data collected from the magnetic survey was analyzed by plotting the total magnetic field strength as a false colour contour plan map (Figure 9.1). The annotated black dashed lines show two NNE trending linear features as distinguished by the magnetic data. Discussion of the individual magnetic anomalies is included within the interpretation of the 3D-IP data set. Also annotated on Figure 9.1 is the IP chargeablitly interpretation from the survey presented in Figure 9.2.



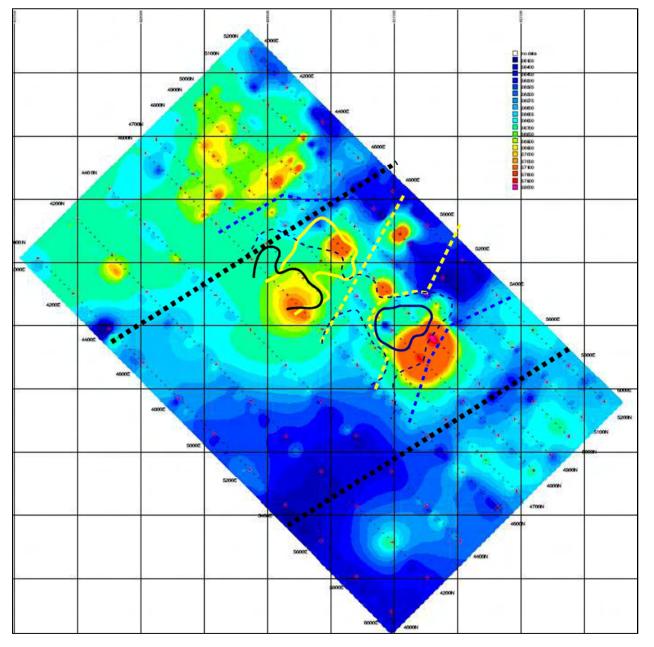


Figure 9.1: Total Field Magnetic Map. Figure from a report prepared by SJV Consultants Ltd. for Grayd Resource Corporation dated November, 2004 (Rastad, 2004).

9.3 3D Induced Polarization Survey

The 3D IP survey provides both resistivity and chargeability values which are then inverted to provide an interpreted 3D block model of the subsurface. Figure 9.2 shows the plan map for chargeability at 100 m depth over part of the Seel deposit and Figure 9.3 shows the plan map for resistivity at 100m depth. The interpretation of the chargeability data has been annotated



onto the reisitivity map in Figure 9.3 and the magnetic plot above (Figure 9.1). The chargeability high anomalies are outlined in blue. Two levels have been introduced - very high chargeability anomalies are indicated by the solid lines and moderate chargeability anomalies are outlined by a dashed line. Low resistivity regions are indicated by a solid yellow line and a region of scattered moderate resistivity values has been outlined by dashed yellow lines.

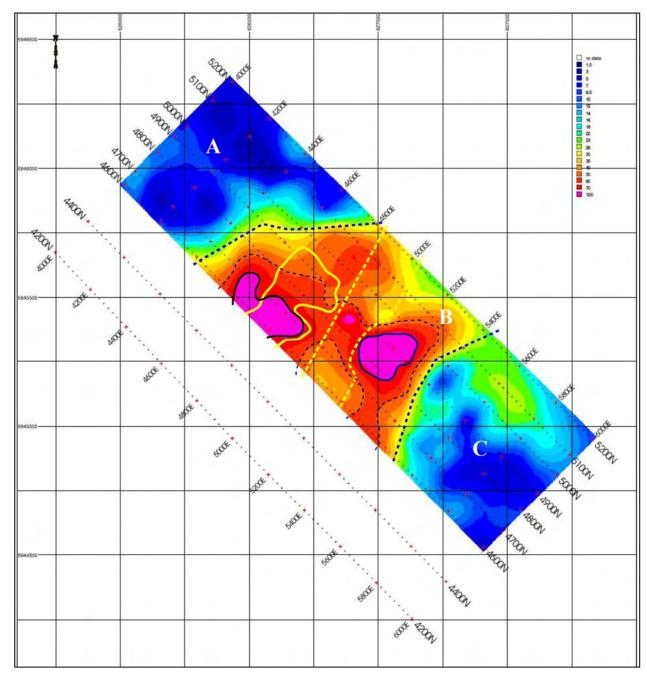


Figure 9.2: Chargeability at 100 meter Depth. Figure from a report prepared by SJV Consultants for Grayd Resource Corporation, dated November, 2004 (Rastad, 2004).



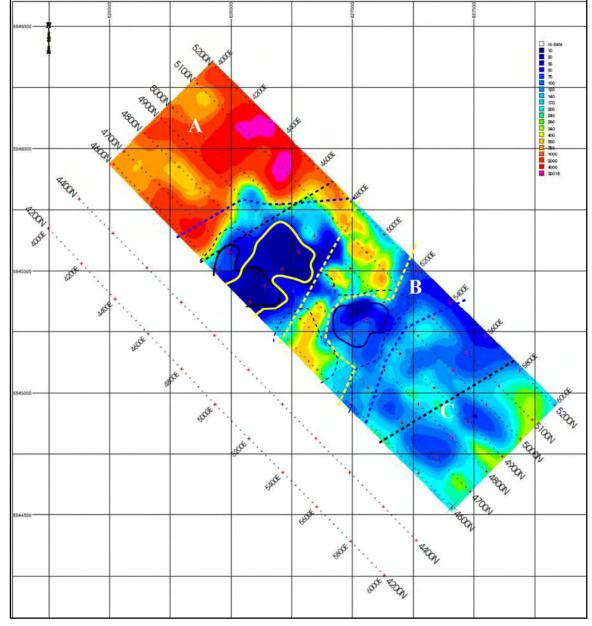


Figure 9.3: Resistivity at 100 Metres Depth Figure from a report prepared by SJV Consultants Ltd. for Grayd Resource Corporation, dated November, 2004 (Rastad, 2004).

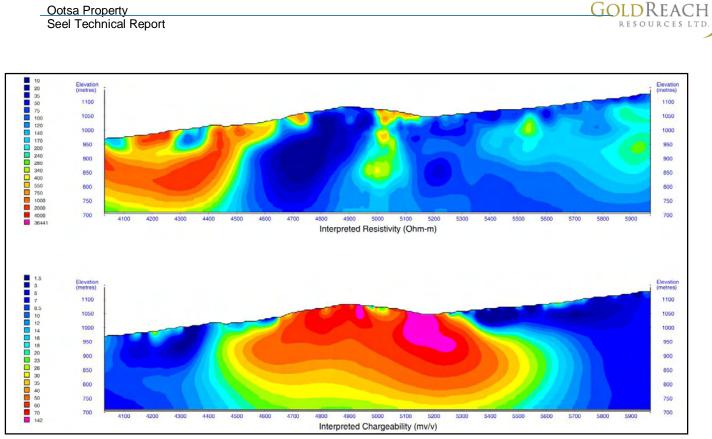


Figure 9.4: Line 4800- 3D Cross Section . Interpreted Resistivity and Chargeability Figure from a report prepared by SJV Consultants Ltd. for Grayd Resource Corporation, dated November, 2004 (Rastad, 2004).

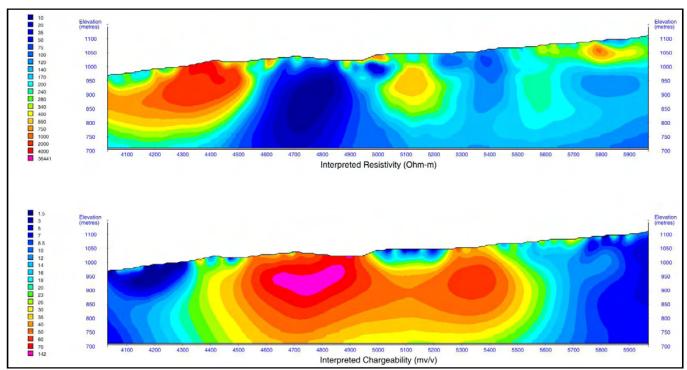


Figure 9.5: Line 4600- 3D Cross Section . Interpreted Resistivity and Chargeability. Figure from a report prepared by SJV Consultants Ltd. for Grayd Resource Corporation dated November, 2004 (Rastad, 2004).



Two distinguishing linear features running NNE are outlined by the chargeability. The first is along the north-western flank of a very high chargeability zone and correlates nicely with a very resistive unit to its northwest. This may indicate a geological contact. The second is on the south-eastern flank of the chargeable body. There is no strong correlation with the resistivity as was seen on the north-western flank; however, a gentle trough of lower resistivity values can be seen. These linear features are annotated with black dashed lines that separate the 3D grid into 3 regions - A, B, and C (Figure 9.2 and Figure 9.3).

Figure 9.4 and 9.5 show a cross section through a portion of the Seel deposit with interpreted chargeablilty and resisitivity. The sections confirm a zone of high chargeablity extending to depth that correlates reasonably well with a zone of low resistivity. The chargeability is outlining the zone of high sulfide content and the resisitivity is outlining strong alteration (sericite and/or clay alteration).

9.4 2005 EXPLORATION

Reconnaissance exploration was undertaken on the Seel Property during the summer of 2005. This work included geologic mapping, prospecting, rock and stream sediment sampling. A description of this program and the results obtained are included in an assessment report titled Report on Diamond Drilling on the Seel Mineral Claims Tahtsa Reach, Omineca Mining Division+dated July 2005.

Don MacIntyre PhD conducted geologic mapping over a nine-day period in late September. Field data gathered during this program was combined with the results of geological mapping done on and in the vicinity of the property by previous operators, and the federal and provincial governments to produce a geological compilation map. The purpose of this work was to better define the location of intrusive bodies and major structures on the property, particularly faults that could have an influence on the distribution and tenor of subsurface mineralization. The results from this work are included in an assessment report titled % provide the Seel Mineral Claims Tahtsa Reach, Omineca Mining Division+dated July 2005.

A ground geophysical exploration program was undertaken on the Seel Property between September 27 and October 29, 2004 consisting of 2D/3D Induced Polarization survey and a ground magnetomer survey. The two surveys were conducted to determine the potential for a sulphide rich porphyry system on the property and were undertaken on a 20 line km grid comprised of 10 lines spaced either 100 or 200 meters apart. The IP survey was successful in confirming the results of previous surveys and this combined with data obtained from portions of the property not previously surveyed defined a NE-SW striking, 1.0 x 1.2 km greater than 30 millisecond chargeability anomaly. The results from this survey are include in a report entitled %D Induced Polarization and Magnetic Survey on the Seel Property for Grayd Resource Corporation and Gold Reach Resources Ltd.+dated July 2005.

A diamond drill program conducted during the winter of 2004-05 was designed to test the Seel breccia and various IP and magnetic anomalies outlined by the geophysical surveys. The drill program commenced in December 2004 and nine drill holes were completed between December 7 and January 20, 2005. A phase II drill program, consisting of eight holes designed to further explore Cu-Au-Mo mineralization intersected in the phase I program, was conducted between February 20 and March 20, 2005. The expenditures these diamond drill programs were filed for assessment credit and the results from this work are reported in an assessment report entitled **R**eport on Diamond Drilling on the Seel Mineral Claims Tahtsa Reach, Omineca Mining Division+dated July 2005.



The summer 2005 geophysical program was based out of Tahtsa Timber Companys Whitesail logging camp located approximately 14 km by all weather logging road from the western boundary of the Seel claims. The December 2005 to February 2006 drilling program was based out of a trailer camp located at the barge landing on the north shore of Tahtsa Reach. The 2005 and 2006 exploration program on the Seel property comprised access trail construction, line cutting, IP and magnetometer geophysical surveys, and diamond drilling.

Ground geophysical exploration programs covered by this report took place between June 12th and July 12th, 2005. During the summer of 2005, Gold Reach conducted 51.4 line km of 3D/2D Induced Polarization and magnetometer surveying on a 5 km long, 2 to 4 km wide, and 29-line grid. The 2005 survey consisted of northeast and southwest extensions to a similar survey undertaken in 2004 and together these two surveys defined a 2.3 x 1.3-km strong IP response underlying the SW portion of the grid and a peripheral+IP feature underlying the NE portion.

The diamond drill program conducted during the winter of 2005-06 was designed to further test the extent of potentially economic porphyry copper-molybdenum-gold mineralization first intersected in the 2003-2004 drill programs and to test IP and magnetic anomalies defined in the 2004-2005 geophysical programs.

9.5 2006 EXPLORATION

A diamond drill program commenced on December 2005 and 15 drill holes were completed between December 5 and February 1st, 2006. The total drilled was 3,242.8 m from which 2,902.5 m of core were recovered, the remainder being overburden. All drill holes recovered NQ size core.

In 2006 a 15 hole, 3,638-m diamond drill program was carried out from August 30 to September 26, 2006. The drilling was designed to expand on the known porphyry-style mineralization intersected during the 2004-2006 drill programs, and to test the area adjoining the Seel breccia, a higher-grade sulphide breccia drilled during the early 1980s by Landsdowne Oil & Gas. Ten and a half line km of 3D Induced Polarization and magnetometer surveying were carried out on a 1.5 km long by 1.2 km wide (7 lines) grid, located in an area adjacent to two earlier surveys.

A stream sediment survey was conducted to test the south-eastern portion of the property, which has no recorded sampling or ground geophysical surveying. Six orientation samples were collected, three regional samples and three samples from mineralized+ drainages. Six conventional silt samples were also collected at the same sites. Approximately 5 kg of samples were collected over 50 m of stream bed at each site.

9.6 2007-2008 Work Program

9.6.1 Drilling

In 2007-2008 Gold Reach Resources undertook summer and winter drill programs at Seel consisting of 7638.57 m diamond drilling in 33 holes. Table 9.1 illustrates the significant intersections encountered in the 2007-2008 drilling program. The summer and winter drill programs tested the Seel Breccia and the Seel Cu-Au porphry zone with sufficient drilling to allow a preliminary resource to be calculated. The drilling showed the Seel breccia to be wider and more



continueoous that initially thought, and the Seel Cu-Au zone returned very encourageing intervals such as 135 m of 0.35% Cu and 0.38 g/t Au, 147 m of 0.29% Cu and 0.27 g/t Au, and 102.1 m of 0.44% Cu and 0.48 g/t Au.

Hole	FROM	TO	LENGTH	CU%	AU GT	AG GT	MO%
S07-57	52.50	237.50	185.00	0.131	0.062	0.5	0.5
			5.00			0.3	0.5
S07-57	247.50	252.50		0.126	0.040		
S07-58	15.00	152.50	137.50	0.124	0.087	0.2	0.2
S08-69	73.15	110.00	36.85	0.319	0.288	0.7	0.0042
S08-69	117.50	312.50	195.00	0.281	0.296	0.5	0.0009
S08-70	48.77	175.00	126.23	0.128	0.081	0.4	0.0176
S08-70	182.50	200.00	17.50	0.076	0.108	0.7	0.0083
S08-70	217.50	222.50	5.00	0.071	0.058	0.3	0.0067
S08-70	240.00	245.00	5.00	0.024	0.506	0.3	0.0036
S08-70	255.00	267.50	12.50	0.085	0.167	1.8	0.0014
S08-71	30.48	313.03	282.55	0.109	0.077	0.6	0.0186
S08-72	83.82	125.00	41.18	0.246	0.246	0.4	0.0005
S08-72	155.00	255.00	100.00	0.497	0.43	5.6	0.0005
S08-72	282.50	300.00	17.50	0.082	0.045	0.3	0.0049
S08-72	310.00	317.50	7.50	0.116	0.029	1.5	0.0018
S08-73	25.00	35.00	10.00	0.046	0.049	0.3	0.0054
S08-73	57.50	237.50	180.00	0.094	0.1	0.2	0.0164
S08-76	90.00	97.50	7.50	0.218	0.051	7.9	0.0005
S08-77	132.50	135.00	2.50	0.133	0.02	4.9	0.001
S08-78	6.10	42.50	36.40	0.209	0.173	7.8	0.0031
S08-78	62.50	70.00	7.50	0.079	0.043	0.4	0.0041
S08-78	147.50	155.00	7.50	0.116	0.103	0.2	0.0017
S08-78	167.50	172.50	5.00	0.133	0.125	0.2	0.0005
S08-78	190.00	200.00	10.00	0.091	0.111	0.3	0.0008
S08-78	207.50	225.00	17.50	0.105	0.12	0.3	0.0008
S08-78	232.50	242.50	10.00	0.148	0.134	0.3	0.001
S08-78	262.50	287.50	25.00	0.108	0.15	0.7	0.0017
S08-78	297.50	303.90	6.40	0.224	0.315	1.5	0.003
S08-79	37.50	205.00	167.50	0.1	0.063	0.3	0.0093

Table 9.1: Drill holes with Significant Intersections 2007 and 2008 programs

Results from drilling between July 2007 to April 2008 confirmed that potentially economic coppergold mineralization occurs at the Seel porphyry along a northeast-southwest strike.

9.6.2 3D Induced Polarization

A 3D Induced Polarization (3D IP) and Magnetometer survey was undertaken for Gold Reach Resources Ltd. on its Ootsa Property by SJ Geophysics Ltd. in June and July, 2007. The total



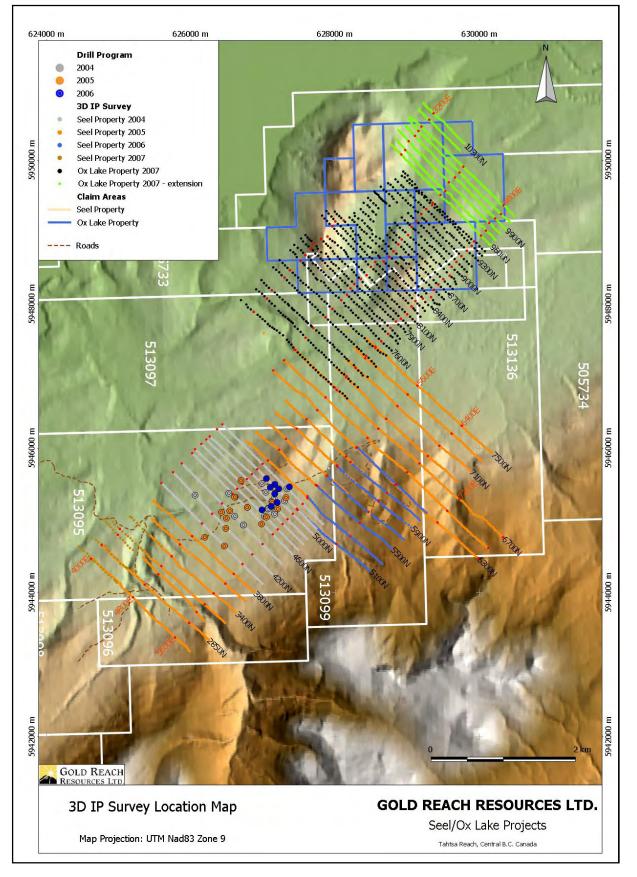
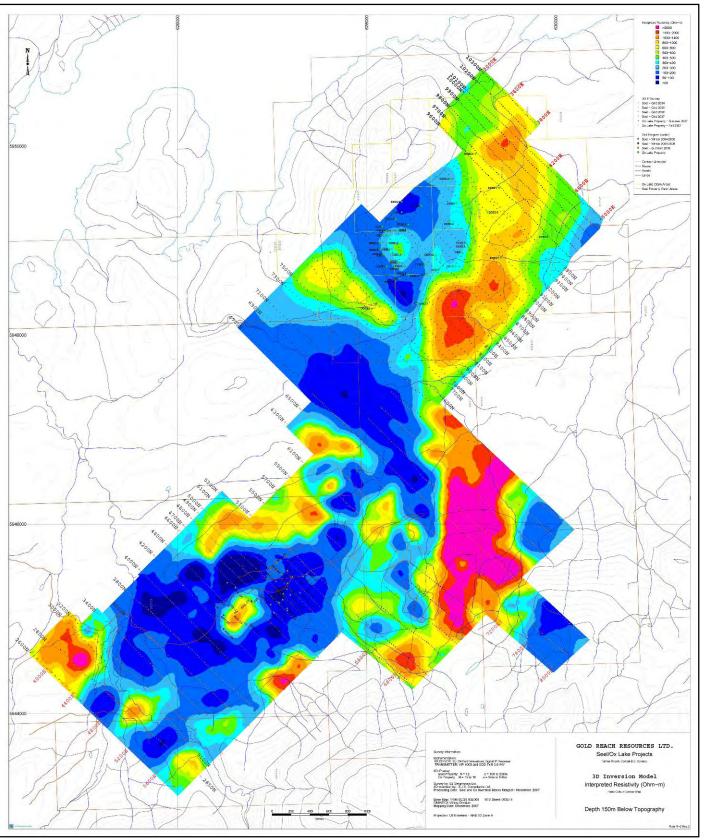


Figure 9.6: Location of drilling and 3DIP Surveys and the Year Completed.



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Figure 9.7: Combined 3DIP Surveys up to 2007, showing resitivity at 150m depth.



length of the IP survey was 48.6 line kilometres on the Ox lake grid and 3.6 line kilometres on the Seel extension grid. This survey was an extension of geophysical surveys acquired in the previous three years. Figure 9.6 contains a map showing the location of drilling and 3D IP surveying at Seel up to 2007. Figure 9.7 shows a map of combined interpreted resistivity for all years up to 2007.

9.7 2009 Exploration Program

Between October 4th and 10th, 2009 Gold Reach Resources Ltd. undertook an airborne geophysical survey at Ootsa totalling 1,325 line kilometres. The survey consisted of Airborne Gamma Ray Spectrometer and a magnetometer survey over the entire claim block. The survey was flown at 200 metre spacing with the line direction of 90°/270°.

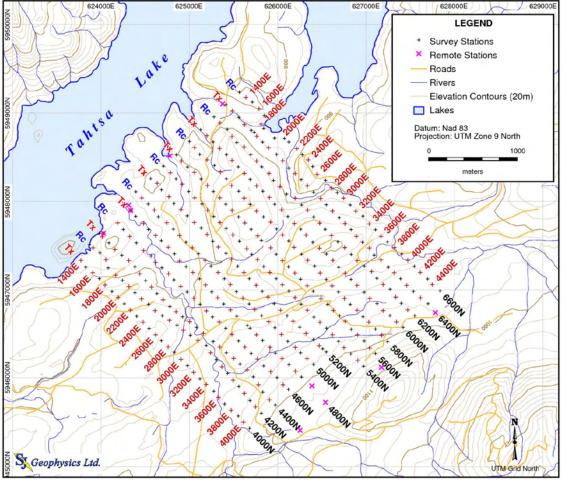
9.8 2011 Exploration Program

During 2011 Gold Reach completed 10,393.4m of NQ2 core drilling in 20 holes at the Seel Deposit, 44.5 line km of 3D-IP surveying, surface mapping and sampling, and 1589 soil samples. Several historic core holes were re-logged and simplified geologic and alteration modelling of the Seel deposit was initiated. The geologic mapping along with cross sections illustrating the geology and alteration of the Seel deposit are presented in section 7.2. Results of the 2011 exploration are discussed below.

9.8.1 3D Induced Polarization

A 3D Induced Polarization (3D IP) and Magnetometer survey was undertaken for Gold Reach Resources Ltd. on its Ootsa Property by SJ Geophysics Ltd. in July, 2011. The total length of the IP survey was 44.5 line kilometres. The survey expanded geophysical coverage to the northwest to tie in a zone between and west of the Seel and Ox porphyryies. A total of 14 lines, roughly 3 km in length were surveyed. The lines were oriented at an azimuth of 135° and lines were spaced 200 metres apart. Station spacing for the IP survey was 100 metres; magnetometer readings were taken every 12.5 metres along the lines. A map showing the location of the 2011 IP grid is presented in Figure 9.8.

Compliation maps showing the 2011 3D IP survey results, along with all previous 3DIP surveys are shown in Figures 9.8 and 9.9. On these figure the Seel and Ox porphyries stand out as chargeablitly highs, and resisitivity lows. A third large chargeablity anomaly, associated with a mottled resistivity low, occurs due west of the Ox porphry, and this anomaly has not yet been tested. A prominent north-south trending linear shows up in the resistivity data, intersecting and occurring just east of the Ox porphyry. This is interpreted to be a major fault which truncates the Ox porphyry and also hosts high grade silver mineralization at the Damascus prospect.



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Figure 9.8: Location map of the 2011 3D IP survey.

Several additional linear features stand out in the IP and resistivity data and are interpreted to be faults. Several of the larger chargeablity anomalies on Figure 9.9 remain open. Future IP surveys will focus on defining the extent of the open anomalies.



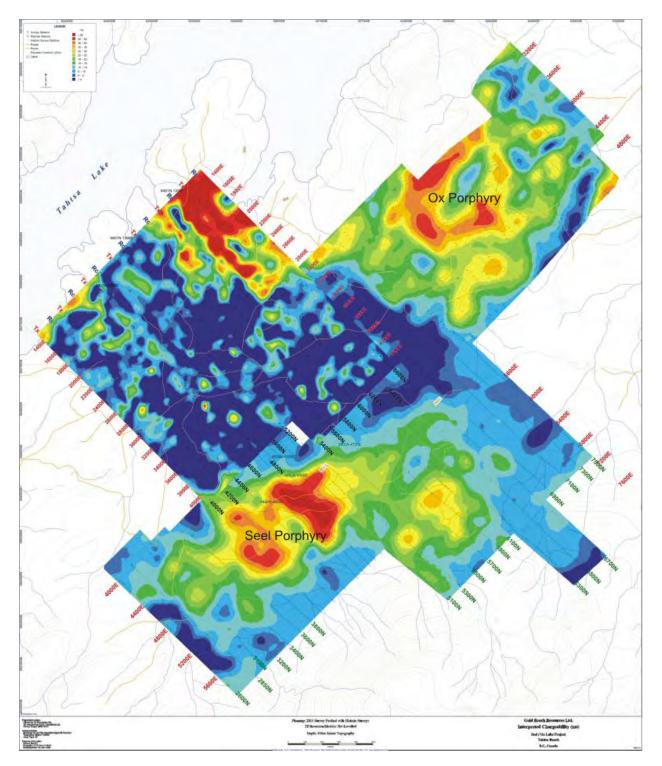


Figure 9.9. Compilation map of all 3D IP surveys on the Ootsa property showing chargeablitly at 100m depth.



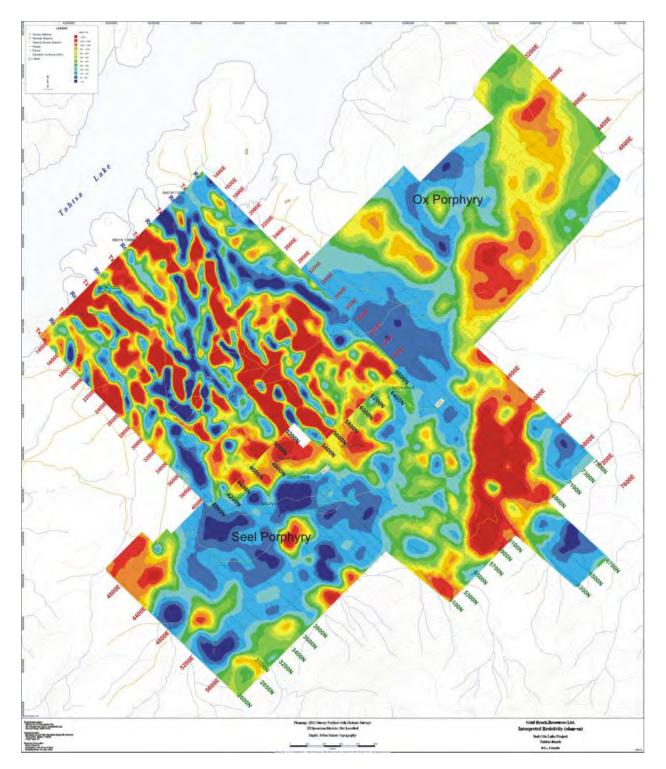
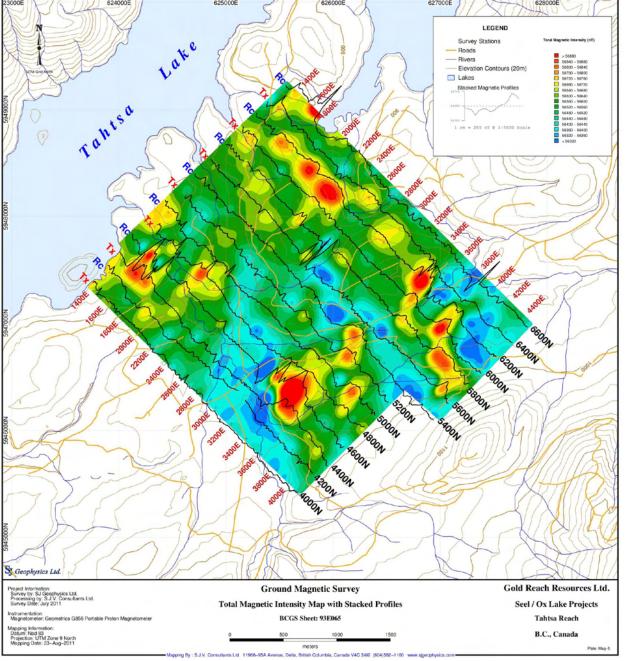


Figure 9.10: Compilation map of all 3D IP surveys showing resistivity at 100m depth.



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Figure 9.11: Results of 2011 ground magnetometer survey.

The results from a ground based magnetometer survey completed at the same time as the IP suveys are show on Figure 9.11

9.8.2 Soil Sampling

A total of 1589 conventional B-horizon soil samples were collected during the 2011 exploration program. Of that total 859 were analysed for gold by fire assay and ICP aqua region digestion and 730 were analysed by field portable XRF spectrometer. In addition several hundred of the samples sent for ICP analyses were also analyzed by XRF and comparison of the two methods



shows that Cu and other base metals analysed by XRF show comparable anomalies as samples analysed by ICP.

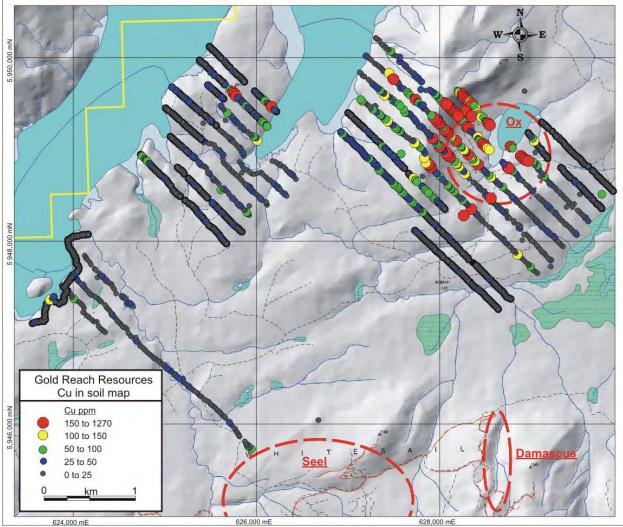


Figure 9.12: Map showing the 2011 soil samples and copper in soil values.

Figure 9.12 shows the location of the 2011 soil samples with Cu-in soil values displayed. Of particular interest is a strong Cu-in-soil anomaly located to the northwest of the Ox deposit. This anomaly is over 800m long by 250m wide (and open) and partially coincides with a historic IP chargeability anomaly. This zone has not been drill tested previously and indicates the Ox porphyry could have good potential for expansion to the north.

A smaller, less pronounced Cu-in-soil anamaly occurs about 2 km west of Ox. This anomaly partially overlaps with a chargeablily high and warrants further exploration.

9.8.3 Surface Mapping

In 2011 a surface mapping program was initiated over the property. A simplified geology map has been produced over the Seel deposit (see section 7.2). Property wide mapping is still ongoing.



9.8.4 Drilling

During 2011 Gold Reach completed 10,393.4m of NQ2 core drilling in 20 holes at the Seel Deposit. The location of the 2011 drill holes are shown in Figure 9.13, a summary of select results from the 2011 drilling is given in Section 7.2.

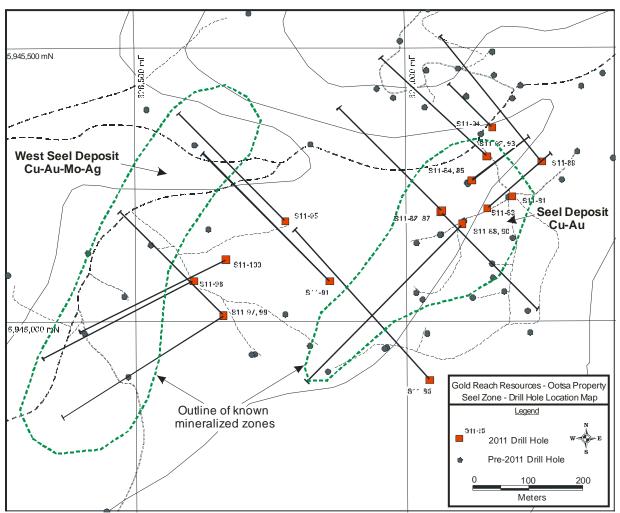


Figure 9.13: Seel deposit, 2011 drill hole location map.

During 2011 two skid mounted hydraulic drill rigs were used to recover NQ2 size drill core. A D6 bulldozer with a winch was used to move the drills, and an excavator was used to make drill pads and sumps and build access trails. The drills operated 24 hours per day, with two 12 hour shifts. Over the duration of the 2011 drill program the drillers averaged 36 metres of core per shift, with a maximum production of 152 metres per shift.

Core recovery was generally 100% with rare broken up zones where less that 100% recovery was obtained.



10 Drilling

10.1 General

The early exploration of the Ootsa Property, prior to its acquisition by Gold Reach Resources, is described in Section 6.0 (History). No data from this period has been used to generate the current resource estimate described in this report. Gold Reach began exploration of Seel in 2003 and the first diamond drill holes by Gold Reach were drilled in 2004. Since then, Gold Reach has drilled 100 diamond drill holes at the Seel deposit totalling 28,294.1 metres. The collar locations and total depths for all Seel holes are listed in Appendix 1.

Table 10.1. Summary of Gold Reach drift holes at See	Table 10.1:	Summary of Gold Reach drill holes at Seel
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Year	Number of holes	Total Meterage	
2004	6 diamond drill holes	1,096 m	
2005	16 diamond drill holes	3,525 m	
2006	25 diamond drill holes	5,641 m	
2007	12 diamond drill holes	3,232 m	
2008	21 diamond drill holes	4,408 m	
2011	20 diamond drill holes	<u>10,393 m</u>	
Total	100 diamond drill holes	28,294 m	

Details for all Gold Reach drilling at Seel are described in the Exploration section above.

11 Sample Preparation, Analysis and Security

11.1 Sampling Preparation, Analyses, and Security Pre 2010

After Stubens and Veljkovic (2008)

Drill core from the 2004 to 2008 drilling programs by Gold Reach was logged and split on site and is stored in a core storage facitly on the property. Samples of drill core were split using two hydraulic core splitters, and some were spit using a core saw. Half of the split core was placed in individual sealed polyurethane bags and half was returned to the original core box for permanent storage. In 2008, 1,625 samples were submitted to the lab, including 83 standard reference materials (blanks, duplicates, and standards), a ratio of one QA/QC sample per twenty core samples. Individual samples were 2.5 meters in length, and sampled 100% of the drill core.

The 2007/2008 sampling and shipping procedure was handled in a secure manner. The sampling procedure was set-up by Barbara Walsh, P.Geo. and all shipments were brought to Assayers Canada (Assayers) in Telkwa, BC for crushing and pulverizing. The samples were crushed with a jaw crusher and then put through a secondary crusher so that they were 60% less than 10 mesh in size. The sample was then mixed, and a 250 gram-sample split was collected. The sub-sample was then pulverized in a ring pulverizer until 90% of the sample



measured less than 150 mesh. Assayers, was responsible for shipping the pulps to their Vancouver laboratory for analysis. In Vancouver, samples were analysed using Assayers procedure for Multi-Element ICPAES Analysis using Aqua Regia Digestion. A 0.5 g sample was digested with 5 ml at a 3:1 HCI:HNO3 solution at 95°C for 2 hours and diluted to 25 ml. A lower detection limit for Cu of 1 ppm and Mo of 2 ppm is stated in the procedure. Gold was analyzed using Assayers Fire Geochem Gold procedure. A 15 g sample is fire assayed with an AA/ICP finish. A lower detection limit of 1 ppb and an upper limit of 10,000 ppb is stated in the procedure.

The samples collected at the Seel property during the 2004 to 2008 drilling seasons were assayed at one of two laboratories:

- 1. ACME Analytical Laboratories Ltd. (Acme) was used until February 2006 to analyze the core from the 2004 and 2005 programs. Acme is a well-respected analytical laboratory located at 852 E. Hastings Street, Vancouver, B.C. According to information on the Acme website (www.acmelab.com), Acme has achieved ISO 9001:2000 accreditation.
- Assayers Canada has analyzed the samples from the 2006, 2007 and 2008 programs, their laboratory is located at 8282 Sherbrooke Street, Vancouver, B.C. Assayers operate according to the guidelines set out in ISO9001/2000 and maintains a quality assurance system that is compliant with the ISO9001/2000 model

11.1.1 Quality Assurance and Quality Control Pre 2010

For drilling season 2008 an independently monitored quality control system was established at the Seel property consisting of the routine insertion of blanks, standards and duplicates.

In addition, standards and ‰lanks+of approximately 8% of sample pulps in Geochem analysis were analyzed at Assayers Laboratories as an independent check of relative bias. Gold Reach used three standards purchased from Assayers laboratory. These samples were inserted regularly with the samples from drilling program:

" Gold Geochem Standard 02-11

- " Gold Geochem Standard 02-18
- ⁷ Multi-element ICP Standard ICP 05

In 2008 Wardrop personal visited the property and took verification samples to test the repeatability of sample results obtained from previous sampling campaigns. They found no bias in the sampling program. The results from standards and duplicates are shown graphically below.



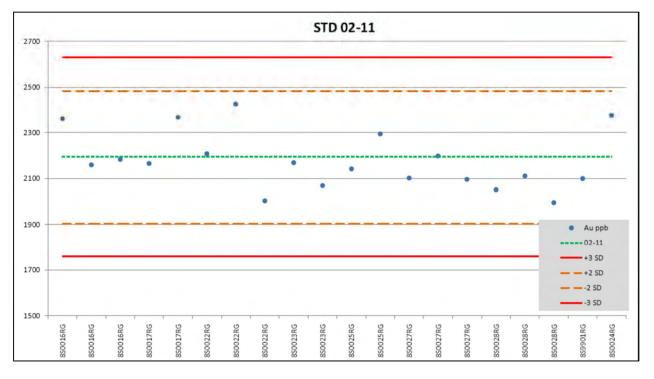
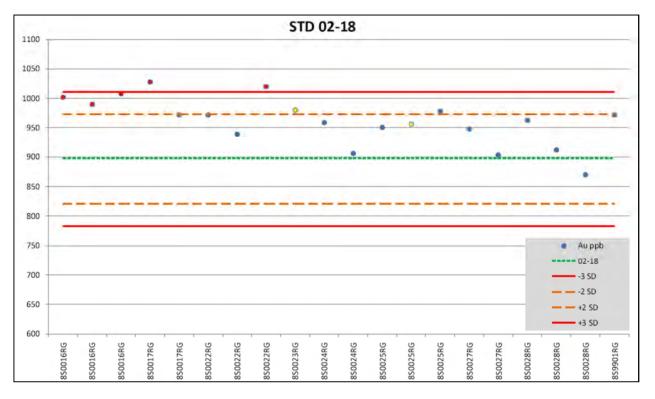
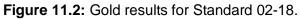


Figure 11.1: Gold results for Standard STD 02-11.







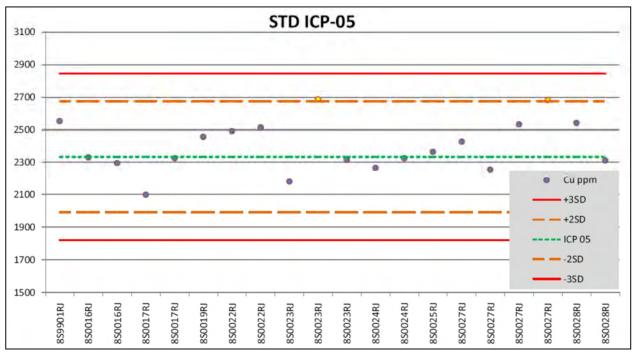


Figure 11.3: Copper results for standard STD ICP-05.

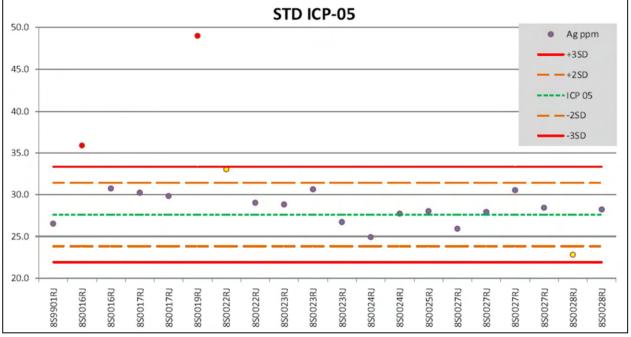


Figure 11.4: Silver results for standard STD ICP-05.



Standard testing had satisfactory results with several exceptions. The assay results of Gold in Standard 02-18 (see Figure 11.2), all seem to show a high bias compared to the expected value. As a result most of the data are grouped along the; +2 standard deviation value. Gold assay results of standard 02-11 however show no bias. Since all of the lots represented by the high STD 02-18 results also contain satisfactory analyses of STD 02-11, it appears that the problem lies with STD 02-18. A review of the round robin certification data for STD 02-18 confirms that the expected value and tolerances provided by Assayers, the source of the standard are correct. This leads to the conclusion that there is likely a problem with the homogeneity of standard 02-18 which the round robin analyses did not detect. In the case of the Multi-element ICP Standard, ICP 05, there are two high values of Ag. Copper results for this standard were with accepted limits and other standards within the same lots were fine. The conclusion is that these high analyses are the result of poor handling or mislabelling rather than systematic analytical problems.

Gold Reach inserted 22 samples which were duplicates of the preceding sample. The analysis of these data is shown as Relative Difference/Average and Scatter plots for Au and Cu in Figures 11.5 and 11.6. The red line on the Scatter plots is the normal linear regression line and R₂ the correlation coefficient. In general all 22 duplicates / original pairs showed good correlation for gold and copper, with a few samples showing some heterogeneity.

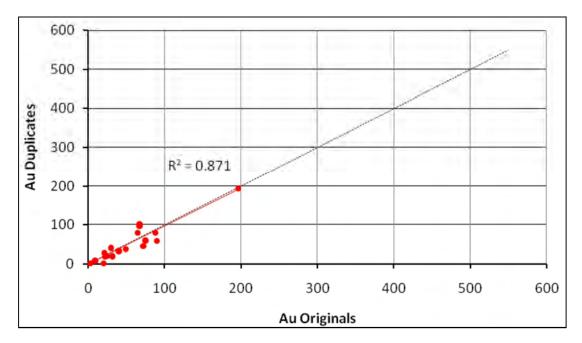


Figure 11.5: Gold duplicates/original scatter plot.



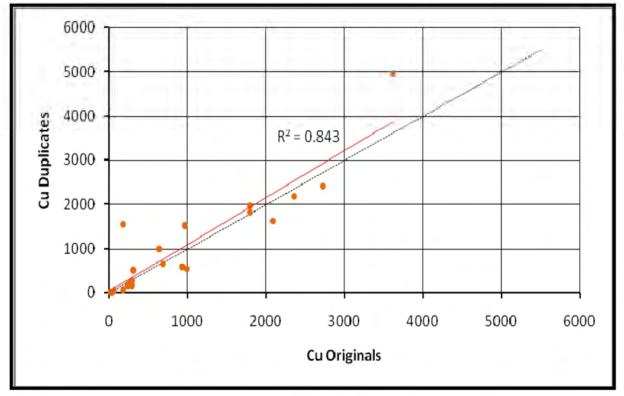


Figure 11.6: Copper duplicates/original scatter plot.

11.2 Sampling Preparation, Analyses, and Security 2011

The 2011 sampling and shipping procedure followed industry best practices and the procedure was set-up by Dr. Shane Ebert, P.Geo.. Core samples were split in half using rock saws with half of the core placed in a clean plasitic bag for analyses and the other half stored on site. Samples were placed in rice bags and sealed. Gold Reach personell delivered the samples to SGS in Telkwa, BC (formaly Assayers Canada) for crushing and pulverizing. The samples were crushed with a jaw crusher and then put through a secondary crusher so that they were 60% less than 10 mesh in size. The sample was then homogenized, and a 250 g sub-sample split collected. The sub-sample was then pulverized in a ring pulverizer until 90% of the sample measured less than 150 mesh. SGS was responsible for shipping the pulps to their Vancouver laboratory for analysis. In Vancouver, samples were processed using SGS procedure ICP40B a 32 multi-element ICPAES analysis using a 4-acid digestion that uses a combination of HCI (hydrochloric acid), HNO3 (nitric acid), HF (hydrofluoric acid) and HCIO4 (perchloric acid).

Gold was analyzed by fire assay using SGS¢ FAA313 procedure where a 30 g sample is fire assayed with an AAS finish. The procedure has a lower detection limit of 5 ppb and an upper limit of 10,000 ppb.

All samples were subjected to a quality control procedure that ensured best practices in the handling, sampling, analysis and storage of the drill core. In this case, the procedures consisted of inserting blanks, duplicates and prepared standards at a rate of one for every 10 samples, on a randomized basis. Individual assay samples were typically 2 meters in length (ranged from 0.6



to 3.66m), and in most cases 100% of the drill core was sampled. Half of the drill core is stored in core racks on the property for verification and reference purposes.

11.3 Quality Assurance and Quality Control 2011

For drilling season 2011 an independently monitored quality control program was established at the approximate rate of 1 quality control sample for every 10 core samples submitted. A total of 5383 samples were submitted to the lab, including 484 QAQC samples (blanks, duplicates, and standards).

Gold Reach used five reference standards and two blanks during the 2011 program (Table 11.1). Multiple standards were included in every sample batch sent to the lab. Approximately one blank and one duplicate sample were inserted per 20 samples.

Standard CDN-CGS-27	From Canadian Resource Laboratories			
Cu 0.379 +/- 0.015 %	(range 0.364 to 0.394%)			
Au 0.432 +/- 0.046 g/t	(range 0.386 to 0.478 g/t)			
Standard CDN-GS-1P5C	From Canadian Resource Laboratories			
Au 1.56 +/- 0.13 g/t	(range 1.43 to 1.69 g/t)			
Standard HGS2	From Accurassay Labs			
Accepted range 3480 to	o 4104 ppb Au			
Standard HV-2 CCRMP	From Natural Resources Canada			
Cu-Mo standard from Hyland Valley				
Cu 0.57 % +/- 0.02				
Mo 0.048% +/- 0.002				
Ag 2.2 ppm +/- 0.3				
Standard CDN-CM-13	From Canadian Resource			
Laboratories				
Recommended values and the %Between Lab+Two Standard Deviations				
Gold: 0.740 ± 0.094 g/t				
Copper: 0.786 ± 0.036 %				
Molybdenum: 0.044 ± 0.004 %				
Blank - Mafic	From a road quarry on Whitesail road			
Blank - felsic volcanic	From a road quarry at km 21 on Whitesail road			

 Table 11.1: Standards Used in 2011.

Graphs showing the results for the standards used in the 2011 drill program are shown in Figures 11.7 to 11.16. Standards CDN-CGS-27, CDN-GS-1P5C, HGS2, CDN-CM-13 and CDN-CM-1 show satisfactory results for Au, Cu and Mo. With the exception of a few scatterd



outliers most of the data are grouped within 2 standard deviations of the accepted value. Samples falling outside the accepted range are circled in red on the graphs.

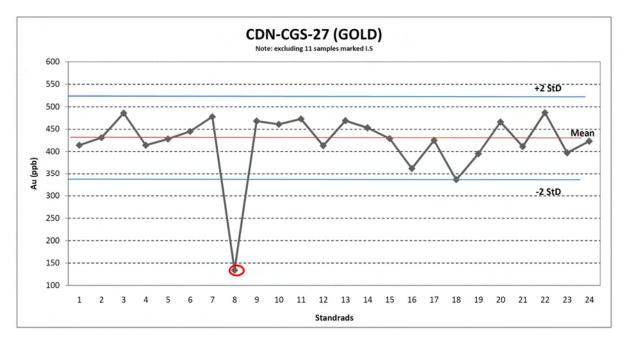


Figure 11.7: Gold results for standard CDN-CGS-27.

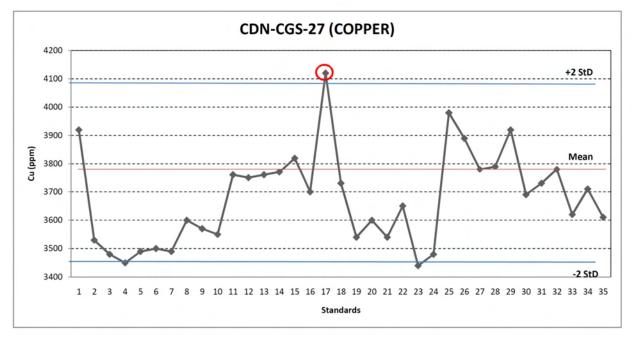
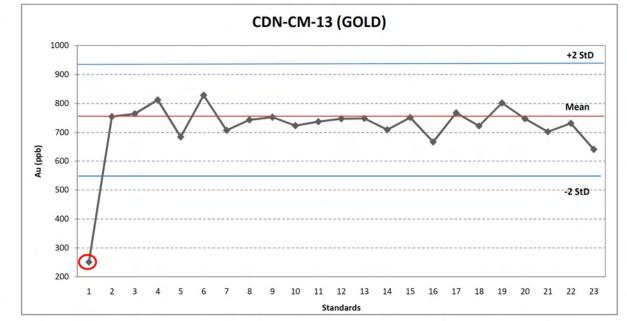


Figure 11.8: Copper results for standard CDN-CGS-27.



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Figure 11.9: Gold results for standard CDN-CM-13.

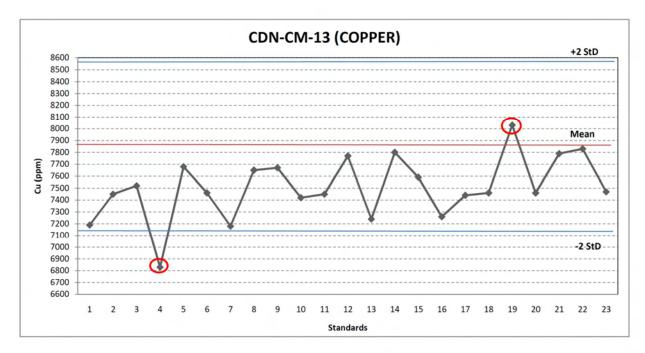


Figure 11.10: Copper results for standard CDN-CM-13.



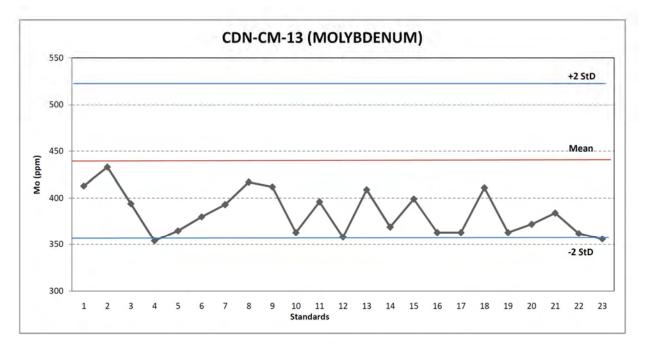


Figure 11.11: Molybdenum results for standared CDN-CM-13.

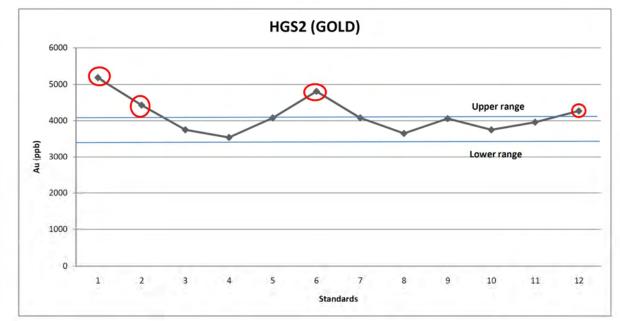


Figure 11.12: Gold results for standard HGS2.

Standard HGS2 (Figure 11.13) returned 4 of 12 samples that were above the accepted range for gold. Other standards in the same batches returned values within acceptable ranges and we suspect there could be a homogeneity problem with standard HGS2. The use of the standard was discontinued part way through the drill program.



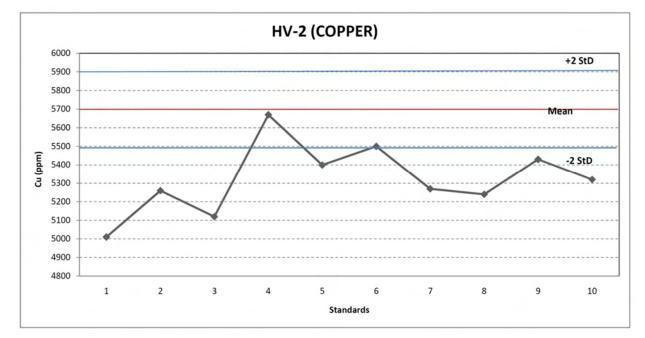


Figure 11.13: Copper results for standard HV-2.

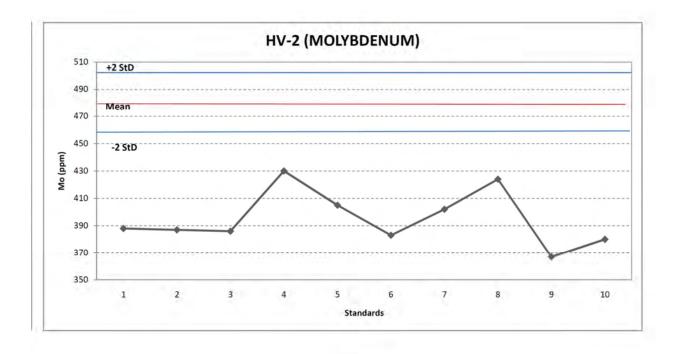


Figure 11.14: Molybdenum results for standard HV-2.



Standard HV-2 consistently returned copper and molybdenum values below the standards stated acceptable range (Figures 11.14 and 11.15). SGS was made aware of the problem and a review of SGS in house standards was conducted. A small negative bias for copper was found in the SGS standards but overall the results were with acceptable limits. Re-testing suggest a problem with the the HV-2 standard, and its use was discontinued. The analyses for the sample batches in question were detmined to be acceptable.

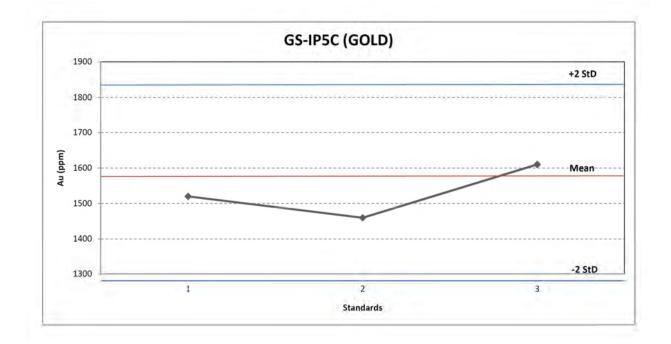


Figure 11.15: Gold results for sample GS-IP5C.

Gold analyses for standard GS-IP5C were all within acceptable limits (Figure 11.16).

The duplicate samples submitted in 2011 returned acceptable values. Figures 11.17 to 11.19 show the comparison between original samples and duplicate samples submitted to SGS Canada for Cu, Au, and Mo. Some heterogeneity in the rock material is evident but overall duplicates show reasonable correlation.



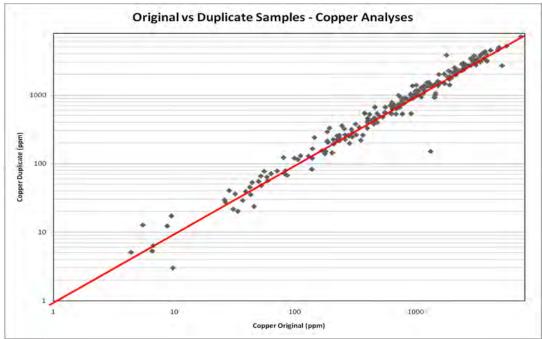


Figure 11.16: Original vs duplicate samples for copper.

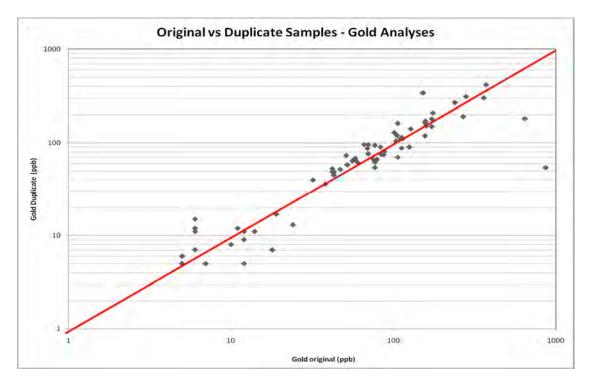


Figure 11.17: Original vs duplicate samples for Gold.



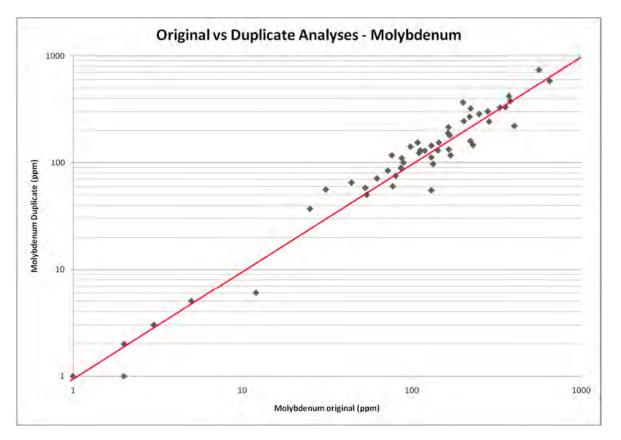


Figure 11.18: Original vs duplicate samples for Molybdenum.

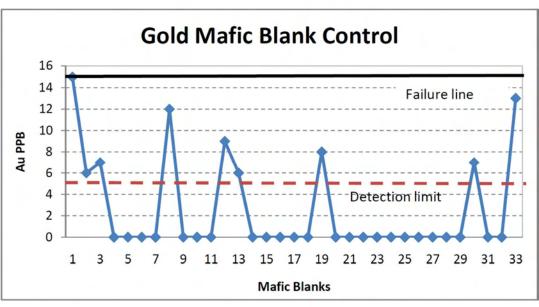
Figure 11.20 shows Au, Cu and Mo results for the mafic and felsic blanks used during the sampling program. The blank materials were collected from rock quarries exposing unaltered volcanic rocks located along the Whitesail Main forest service road.

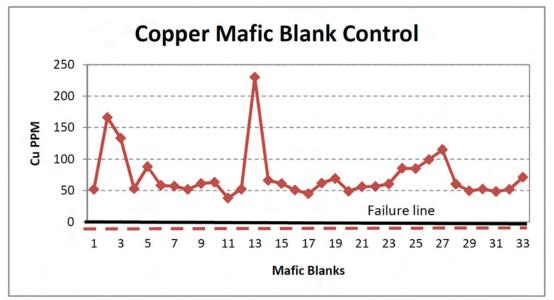
The mafic blank was acceptable for gold and molybdenum but the rock has a fairly high copper background, making it less effective for copper. Part way through the 2011 drilling program a felsic blank was located with very low background values for Cu and Au, and Mo.

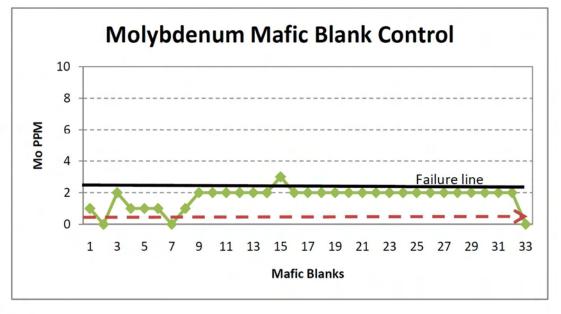
A few of the felsic blank samples show minor amounts of copper, molybdenum, or gold contamination, especially following strongly mineralied samples. Minor contamination, likely from incomplted cleaing of crushing equipment at the assay lab is evident in a few samples. Overall the felsic blank samples are within acceptable and normal ranges.



Mafic blank

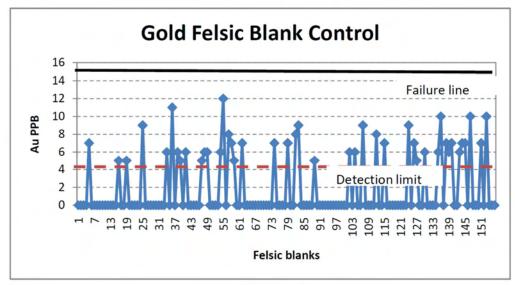


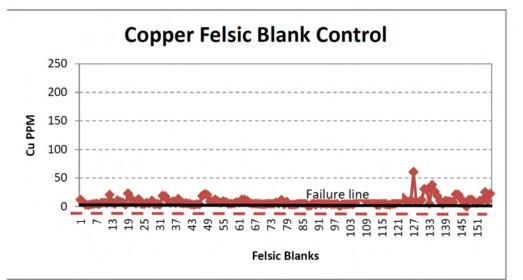






Felsic blank





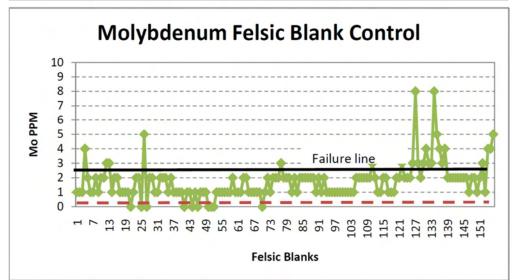


Figure 11.19: Copper, gold and molybdenum values for mafic and felsic blanks.



12 Data Verification

Each drill hole collar location at Seel is marked with a treated fense post. Collar locations have been professionally DGPS surveyed by McElhanney Associates Land Surveying Ltd. Reference standards, blanks, and duplicates are included with every sample batch sent for assay, to monitor assay lab quality and identify potential assay or contamination problems.

Data entry is done by Gold Reach Geologic staff or consultants, and is proofread at several stages by the project geologist. Drill hole collar information, assay sample descriptions and intervals, and lithology and alteration data are entered into excel spreadsheets and manually checked for errors. The databases then undergoe further checks using drill hole modeling software. Assay data is received directly from the lab as excel spreadsheets and is merged with the assay sample database. Further manual and electronic validation is performed to ensure the database is acuracte and complete. Assay values for each hole are then checked against the logged description of mineralization to ensure they match. If discrepancies or irregularities are found the core is re-examined and compared with the assay data. If the core and the assay data can not be reconciled, the interval or drill hole in question will be resamples and sent for assay again. During the 2011 drill program no major discrepancies were found between core and assay results.

13 Mineral Processing and Metallurgical Testing

In 2009 PRA Metallurgical Division (PRA) a subsidiary of Inspectorate America Corp. completed comparative flotation tests on the Seel and Ox resources.

In June 2009 a total of 226 kilograms of drill core from three diamond drill holes was sent to PRA for preliminary metallurgical testing. Two of the samples were from the Seel resource (holes S06-42 and S08-72) and one was from the Ox resource (hole Ox07-22). The core submitted underwent detailed head assays for gold, silver, 30-element ICP, whole rock, sulphur (total), sulphur (sulfide), carbon (total) and organic carbon. A total of 6 rougher flotation tests were completed, and the results of the floatation work are summarized in the table below.

Sample	Calcı		Head or %)	Grade,	Rougher Concentrate Grade (g/t or %) Total			Total Rougher Recovery (%)						
	Au	Ag	Cu	Fe	Au	Ag	Cu	Fe	Mass	Au	Ag	Cu	Fe	Мо
S06-42	0.14	29.1	1.15	12.14	0.47	107.5	4.48	36.11	25.56	89.02	94.2	99.59	75.93	
S08-72	0.87	5.3	0.68	6.24	10.00	57.4	8.45	18.62	7.45	85.57	77.9	93.00	22.18	
Ox 07-22	0.11	3.5	0.51	3.10	0.74	27.4	5.09	15.57	9.42	73.99	74.0	93.92	47.37	87.3

 Table 13.1: Flotation test.

The results indicate recoveries of 93 to 99.6% for Cu, 74 to 89% for Au, 74 to 94% for Ag, and around 87% for Mo. The preliminary results indicate good metal recoveries could be achievable and no specific metallurgical concerns have been identified. Further metallurgical testwork is required to optimize recoveries and produce a marketable copper product with related potential byproducts such as gold and molybdenum.



14 Mineral Resource Estimate

Giroux Consultants was contracted by Gold Reach Resources Ltd. (%GRR+) to complete a Resource Estimate for the Seel and Ox Lake properties near Ootsa Lake, B.C. The resources were estimated by Gary Giroux, P.Eng., MASc. who is a qualified person and independent of both the issuer and the title holder, based on the tests outlined in National Instrument 43-101. The Ootsa Project is comprised of two separate mineral deposits located within the same general property package namely the Seel and Ox.

14.1 Seel Deposit

The Seel Deposit has been explored and drill tested since 1982 by a number of companies. Gold Reach has supplied drill holed data collected since 2004 as shown below.

Year	Number of holes	Total Meterage
2004	6 diamond drill holes	1,096 m
2005	16 diamond drill holes	3,525 m
2006	25 diamond drill holes	5,641 m
2007	12 diamond drill holes	3,232 m
2008	21 diamond drill holes	4,408 m
2011	20 diamond drill holes	<u>10,393 m</u>
Total	100 diamond drill holes	28,294 m

Table 14.1: Supplied drill holed data collected since 2004.

This resource estimation represents an update of a resource estimated by Wardrop in November 2008 (Stubens, et. al. 2008). Since that resource was estimated an additional 20 drill holes have been completed by Gold Reach testing the deeper and lateral portions of the Seel deposit.

Supplied drill hole data consisted of collar locations, down hole surveys and assays for Cu, Au, Mo and Ag. In addition simplified lithologic and alteration information was supplied for each drill hole. Copper assays reported as 0.000 or < 0.001 were set to 0.001 %. Gold assays reported as 0.000 were set to 0.001 g/t. Molybdenum assays reported as <1 were set to 1 ppm and silver assays reported as <0.1 were set to 0.1 g/t. A total of 319 gaps in the from-to record were identified and values of 0.001%, 0.001 g/t, 1 ppm and 0.1 g/t were inserted for Cu, Au, Mo and Ag respectively. A significant number of these gaps were at the start of holes and reflect casing or overburden.



To test the correlation between alteration and grade, assays were back-tagged with an alteration code. Sample statistics are shown below for Cu and Au as a function of various alteration styles.

ALT CODE	ALTERATION
ARG	Argillic, argillic-potassic, strong argillic, weak argillic, argillic-phyllic
BIO	Biotite
CHL	Chlorite, Chlorite-phyllic
CLAY	Clay, Clay rubble, clay gouge
PHI	Phyllic, wk. phyllic, phyllic-silc, phyllic-argillic, phyllic-clay, phyllic-chlorite,
	phyllic-potassic, phyllic-biotite
POT	Potassic, potassic-phyllic
PROP	Propylitic
SIL	Silic, silic-phyllic, silica-carb, Quartz, silic-chlorite
SUL	Sulfide
UNAL	Unaltered

Table 14.2: Statistics for Cu and Au sorted by Alteration Type.

Alteration	Variable	Number Of assays	Mean	S.D.	Min.	Max.	Coef. Of Variation
ARG	Cu %	289	0.12	0.15	0.001	1.00	1.30
	Au g/t	289	0.09	0.12	0.001	0.86	1.33
BIO	Cu %	423	0.25	0.13	0.029	1.27	0.54
	Au g/t	423	0.18	0.15	0.021	1.84	0.88
CHL	Cu %	20	0.13	0.16	0.004	0.54	1.22
	Au g/t	20	0.21	0.21	0.010	0.74	0.98
CLAY	Cu %	17	0.17	0.15	0.007	0.57	0.85
	Au g/t	17	0.13	0.12	0.009	0.43	0.92
PHI	Cu %	2,439	0.11	0.15	0.001	2.95	1.36
	Au g/t	2,439	0.09	0.14	0.001	2.69	1.62
POT	Cu %	1,892	0.15	0.16	0.001	2.52	1.03
	Au g/t	1,892	0.15	0.21	0.001	3.90	1.35
PROP	Cu %	117	0.005	0.010	0.001	0.09	2.04
	Au g/t	117	0.006	0.009	0.002	0.09	1.45
SIL	Cu %	340	0.09	0.10	0.001	0.70	1.15
	Au g/t	340	0.07	0.08	0.002	0.73	1.18
SUL	Cu %	6	1.83	3.05	0.039	8.56	1.66
	Au g/t	6	0.25	0.20	0.073	0.55	0.80
UNAL	Cu %	51	0.04	0.08	0.001	0.36	2.15
	Au g/t	51	0.03	0.06	0.001	0.33	2.18

Mineralization appears to occur in all types of alteration phases with the exception of propylitic and unaltered. In order to model this deposit a combination of alteration and grade using a > 0.15 CuEq % was used to constrain areas of mineralization. The geologic model was built using GemCom software and four mineralized domains were wire-framed: a west zone, an east zone, a breccia zone and a small north east zone (see Figure 14.1). All assays outside the solids were considered waste. The supplied drill holes are listed in Appendix 1 with the holes that intersected the mineralized solids highlighted.



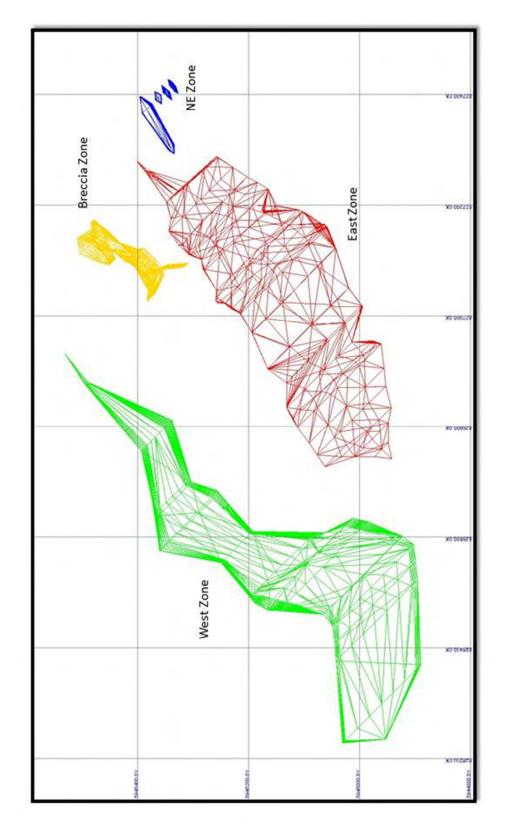


Figure 14.1: Plan view showing Mineralized Wire Frames.



Assays were compared to these domain solids and ‰ack tagged+ with a domain code. Statistics for Cu, Au, Mo and Ag as a function of domain are tabulated below.

Domain	Variable	Number	Mean	S.D.	Min.	Max.	Coef. Of Variation
	Cu %	3,728	0.20	0.22	0.001	8.56	Variation 6 1.12 0 1.08 0 2.10 0 4.03 7 0.66 5 1.26 3 1.07 2 1.01 0 1.21 9 1.40 6 1.29 3 1.21 8 0.75 3 0.78 9 0.91 0 1.77 2 2.60 6 3.82
East Zone	Au g/t	3,728	0.18	0.20	0.001	3.90	1.08
East Zone	Mo %	3,728	0.006	0.012	0.0001	0.20	2.10
	Ag g/t	3,728	1.17	4.71	0.1	223.0	4.03
	Cu %	1,975	0.19	0.12	0.001	Max. V 8.56 3.90 0.20	0.66
West Zone	Au g/t	1,975	0.12	0.15	0.001	2.45	1.26
West Zone	Mo %	1,975	0.018	0.020	0.0001	0.23	1.07
	Ag g/t	1,975	3.19	3.23	0.1	75.2	1.01
	Cu %	245	0.48	0.58	0.001	3.10	1.21
Breccia Zone	Au g/t	245	0.06	0.08	0.001	0.79	1.40
Dieccia Zuile	Mo %	245	0.001	0.001	0.0001	0.006	1.29
	Ag g/t	245	13.42	16.24	0.1	93.3	1.21
	Cu %	72	0.15	0.11	0.001	0.48	0.75
NE Zone	Au g/t	72	0.11	0.09	0.001	0.53	0.78
INE ZONE	Mo %	72	0.005	0.005	0.0001	0.029	0.91
	Ag g/t	72	0.57	0.39	0.1	1.70	0.69
	Cu %	5,967	0.03	0.06	0.001	1.00	Variation 8.56 1.12 3.90 1.08 0.20 2.10 23.0 4.03 1.27 0.66 2.45 1.26 0.23 1.07 75.2 1.01 3.10 1.21 0.79 1.40 0.06 1.29 93.3 1.21 0.48 0.75 0.53 0.78 .029 0.91 1.70 0.69 1.00 1.77 3.12 2.60 .436 3.82
Waste	Au g/t	5,967	0.03	0.07	0.001	3.12	2.60
vvasie	Mo %	5,967	0.002	0.008	0.0001	0.436	3.82
	Ag g/t	5,967	0.70	1.59	0.1	37.3	2.27

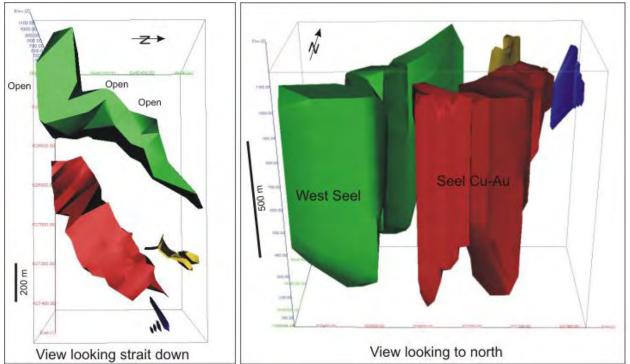


Figure 14.2: Mineralized domains containing the volume modelled in the resource.



To determine if capping was required and if so at what levels, the grade distribution for each variable was evaluated within each domain using lognormal cumulative frequency plots. The small NE zone was combined with the East zone for this exercise. In all cases multiple overlapping lognormal populations were observed. In most cases the top or highest grade population was considered erratic high grade and a cap level of two standard deviations above the mean of the 2nd highest population served as a cap level. The cap levels and number of samples capped are tabulated below for each variable in each domain.

Domain	Variable	Сар	Number Capped
		Level	
East & NE Zones	Cu	2.0 %	3
	Au	2.5 g/t	2
	Мо	0.29 %	0
	Ag	52.0 g/t	3
West Zone	Cu	0.81 %	3
	Au	1.5 g/t	3
	Мо	0.15 %	5
	Ag	36.0 g/t	1
Breccia Zone	Cu	3.4 %	0
	Au	0.28 g/t	3
	Мо	0.006 %	0
	Ag	76.0 g/t	2
Waste	Cu	0.51 %	18
	Au	0.47 g/t	14
	Мо	0.04 %	20
	Ag	21 g/t	7

Table 1/ /·	Can Loval	for all variable	es in all domains.
Table 14.4:	Cap Levels	s ior all variable	es in all domains.

The results from capping are shown in Table 14.5 with small reductions in mean grade but significant reductions in standard deviation and as a result coefficient of variation.

Domain	Variable	Number	Mean	S.D.	Min.	Max.	Coef. Of
							Variation
East Zone	Cu %	3,728	0.19	0.17	0.001	2.00	0.89
	Au g/t	3,728	0.18	0.19	0.001	2.50	1.04
	Mo %	3,728	0.006	0.012	0.0001	0.20	2.10
	Ag g/t	3,728	1.12	3.05	0.1	52.0	2.73
West Zone	Cu %	1,975	0.19	0.12	0.001	0.81	0.65
	Au g/t	1,975	0.12	0.14	0.001	1.50	1.18
	Mo %	1,975	0.018	0.019	0.0001	0.15	1.01
	Ag g/t	1,975	3.17	2.89	0.1	36.0	0.91
Breccia	Cu %	245	0.48	0.58	0.001	3.10	1.21
Zone	Au g/t	245	0.06	0.06	0.001	0.28	1.14
	Mo %	245	0.001	0.001	0.0001	0.006	1.29
	Ag g/t	245	13.34	15.91	0.1	76.0	1.19
NE Zone	Cu %	72	0.15	0.11	0.001	0.48	0.75
	Au g/t	72	0.11	0.09	0.001	0.53	0.78
	Mo %	72	0.005	0.005	0.0001	0.029	0.91
	Ag g/t	72	0.57	0.39	0.1	1.70	0.69
Waste	Cu %	5,967	0.03	0.05	0.001	0.51	1.56
	Au g/t	5,967	0.03	0.04	0.001	0.47	1.62
	Mo %	5,967	0.002	0.004	0.0001	0.04	2.23
	Ag g/t	5,967	0.69	1.40	0.1	21.0	2.04

Table 14.5:	: Statistics for	Capped Cu,	Au, Mo	and Ag sorted	by Domain.
			,		

14.2 Composites

Drill holes were %passed through+ the various domain solids with the point that each hole entered and left each solid recorded. Uniform down hole 5 m composites were then formed to honour these limits. Small intervals at the domain boundaries were combined with the adjoining sample if less than 2.5 m. In this manner a uniform support of 5±2.5 m was obtained. The statistics for 5 m composites are tabulated below.



Domoin	Variable	Number	Maan	<u> </u>	Min.	Max	Coof Of
Domain	Variable	Number	Mean	S.D.	IVIII1.	Max.	Coef. Of
							Variation
East Zone	Cu %	1,451	0.19	0.15	0.002	1.27	0.80
	Au g/t	1,451	0.18	0.17	0.008	1.88	0.94
	Mo %	1,451	0.006	0.011	0.0001	0.12	1.75
	Ag g/t	1,451	1.1	2.47	0.1	41.1	2.27
West Zone	Cu %	759	0.18	0.10	0.001	0.67	0.58
	Au g/t	759	0.12	0.11	0.001	0.74	0.91
	Mo %	759	0.018	0.015	0.0001	0.13	0.85
	Ag g/t	759	3.0	2.35	0.1	19.3	0.78
Breccia Zone	Cu %	110	0.45	0.47	0.001	2.12	1.04
	Au g/t	110	0.05	0.06	0.001	0.24	1.07
	Mo %	110	0.001	0.0006	0.0001	0.003	0.92
	Ag g/t	110	12.5	13.5	0.1	66.5	1.08
NE Zone	Cu %	24	0.14	0.10	0.02	0.38	0.68
	Au g/t	24	0.10	0.06	0.02	0.22	0.55
	Mo %	24	0.005	0.004	0.001	0.02	0.79
	Ag g/t	24	0.5	0.34	0.2	1.17	0.65
Waste	Cu %	1,900	0.03	0.04	0.001	0.56	1.39
	Au g/t	1,900	0.02	0.04	0.001	0.63	1.59
	Mo %	1,900	0.002	0.004	0.0001	0.04	1.94
	Ag g/t	1,900	0.6	0.94	0.1	10.6	1.55

Table 14 6. Statistics of 5m	Composite for Cu. Au	Mo and Ag sorted by	Domain
Table 14.6: Statistics of 5m	Composite for Cu, Au,	, IND and Ag softed by	Domain.

14.3 Variography

The two domains with the most data; East and West Zones were modelled for Cu, Au, Mo and Ag using pairwise relative semivariograms to determine the grade continuity of the Seel deposit. All variables in both domains showed geometric anisotropy with similar nugget effects and sill values but different ranges in different directions. In all cases the down hole direction was modelled first to determine the nugget effect and sill value. In both domains and for all four variables the horizontal plane was analyzed next by producing semivariograms along the azimuth directions of 90°, 0°, 45° and 135°. Azimuths between the two directions with longest ranges were then modelled to determine the direction of maximum continuity in the horizontal plane. The two perpendicular directions to this maximum were then evaluated using -45° dip semivariograms. The dip direction of longest range was then evaluated to determine the maximum range down dip. Once this dip direction was established the orthogonal direction was modelled.

Within the East domain the direction for maximum horizontal continuity for copper was along azimuth 65°. The longest range perpendicular to this was along azimuth 155° dipping -60°. Molybdenum in the east zone had a similar orientation. Gold showed a maximum horizontal continuity along azimuth 110° with a down dip direction of azimuth 200° dipping -55°. Silver in the east zone was isotropic in the horizontal plane with the longest range in the vertical direction. This variography points to perhaps different periods of deposition for the various



elements with Cu and Mo perhaps introduced at a similar time along similar conduits. Gold and silver perhaps were introduced at different times along different structures.

Within the West domain there were fewer composites and as a result the interpretation was more difficult. Copper showed a geometric anisotropy with longest horizontal range along azimuth 45°. For gold the directions of maximum continuity mirrored the East domain indicating perhaps the gold was introduced in similar structures that transected both domains. Molybdenum and silver within the West domain showed maximum continuity along azimuths 125° dip 0° and 215° dip -55° suggesting perhaps they were introduced at a similar time. Nugget effect to sill ratios varied from a low of 10% in West zone Ag to a high of 25% in East zone Au, all showing reasonable sampling variability.

The Breccia and NE domains had insufficient composites to model. In both cases the East domain models were applied. In all cases nested spherical models were used. The semivariogram parameters for all models are tabulated below with the models shown in Appendix 2.



Domain	Variable	Azimuth/Dip	C _o	C ₁	C ₂	Short Range	Long Range
						(m)	(m)
East	Cu	065° / 0°	0.05	0.20	0.13	20.0	110.0
		335° / -30°	0.05	0.20	0.13	40.0	60.0
		155°/-60°	0.05	0.20	0.13	30.0	130.0
	Au	110° / 0°	0.10	0.15	0.15	40.0	150.0
		020° / -35°	0.10	0.15	0.15	20.0	50.0
		200°/-55°	0.10	0.15	0.15	30.0	150.0
	Мо	065° / 0°	0.08	0.10	0.53	12.0	130.0
		335° / -30°	0.08	0.10	0.53	20.0	80.0
		155°/-60°	0.08	0.10	0.53	10.0	200.0
	Ag	090° / 0°	0.08	0.12	0.34	10.0	35.0
		000° / 0°	0.08	0.12	0.34	10.0	35.0
		000°/-90°	0.08	0.12	0.34	25.0	68.0
West	Cu	045° / 0°	0.04	0.03	0.11	20.0	90.0
		315° / 0°	0.04	0.03	0.11	20.0	50.0
		000°/-90°	0.04	0.03	0.11	30.0	110.0
	Au	110° / 0°	0.05	0.05	0.20	20.0	62.0
		020° / -35°	0.05	0.05	0.20	15.0	30.0
		200°/-55°	0.05	0.05	0.20	15.0	90.0
	Мо	125° / 0°	0.10	0.15	0.18	40.0	130.0
		035° / -35°	0.10	0.15	0.18	5.0	10.0
		215°/-55°	0.10	0.15	0.18	40.0	160.0
	Ag	125° / 0°	0.05	0.10	0.35	60.0	170.0
		035° / -35°	0.05	0.10	0.35	10.0	26.0
		215°/-55°	0.05	0.10	0.35	15.0	110.0

Table	14.7:	Semivariogram	Parameters	for Seel.
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Note: C_{o} = Nugget Effect, C_1 = short range structure and C_2 = long range structure

14.4 Block Model

A block model with blocks $10 \times 10 \times 5$ m in dimension was superimposed over all the mineralized solids. For each block in the model, the percentage of the block below surface topography and within the various solids was recorded. The block model origin is as follows: Lower Left Corner

626200 E	Column size = 10 m	123 columns
5944850 N	Row size = 10 m	70 rows
Top of Model		
1125 elevationLe	vel size = 5 m	215 levels
No Rotation		



14.5 Bulk Density

A total of 57 specific gravity determinations were made from pieces of drill core on the Seel property by the weight in air/weight in water method. The determinations are tabulated below sorted by lithology and domain.

Hole	Depth (m)	Description	SG
		Coarse crowded feld porphyry Seel East zone	
S05-08	162	Cu-Au qtz veins + magnetite	2.76
S11-81	67.8	qtz veined sericite alt f.gfeld rich porphyry 2% sulfides	2.79
S11-81	103	coarse crowded FP, partial potassic alt partial sericite, 2-4% sulfides	2.71
S11-81	121	coarse crowded FP, partial potassic alt partial sericite, 2-4% sulfides	2.71
S11-81	147	qtz veined coarse feld porphyry with 3% dissem sulfides, sericite alt	2.74
S11-81	152.7	silic biotite alt feldspar porphyry 3% dissem sulfides	2.71
S11-81	171.1	silic sericite alt coarse feld porphyry minor sulfide	2.81
S11-82	49.6	sericite alt feld porphyry minor veins, minor sulfide	2.70
S11-82	64.9	sericite alt coarse crowded FP, minor magnetite, 3-4% sulfides	2.74
S11-82	76.86	sericite alt coarse crowded FP, minor magnetite, 3-4% sulfides	2.80
S11-82	85.95	sericite alt coarse crowded FP, minor magnetite, 3-4% sulfides	2.81
S11-82	97.9	coarse crowded feldprophyry, magnetite and sulfides, thin qtz veinlets	2.97
S11-82	115	qtz veined feld porphyry 4% magnetite, 4% sulfide	3.00
S11-82	125	silic sericite alt feld porphyry, qtz veins and 5% sulfides, 5% chlorite	2.85
S11-82	240.8	coarse crowded FP, silic, 4% f.g. sulfides, sericite alt	2.73
S11-82	147.1	coarse crowded FP, weak biotite-mag, some ser alt 3% f.g. sulf	2.77
S11-82	164.8	Coarse crowded FP, strong qtz veins with magnetite ccpy	2.81
S11-82	262.8	Coarse crowded FP, silic + sericite alt, weak magnetite, 3% sulfides	2.74
S11-82	282.9	Coarse crowded FP, weak potassic, weak sericite, weak sulfides	2.70
S11-82	307.2	sericite alt coarse crowded FP, qtz vein, 4% sulfide	2.79
S11-82	367.1	coarse crowded FP, weak potassic, weak sulfides	2.66
S11-82	421	coarse crowded FP, weak potassic, weak sulfides	2.69
S11-82	430.8	potassic alt coarse crowded FP, weak sulfides	2.69
S11-88	64	silicified coarse crowded FP, sericite alt, 4% sulfides	2.79
S11-88	70.36	coarse crowded feld porphyry potassic alt, magnetite and 4% sulfides	2.86
S11-88	85.3	coarse crowded feld porphyry, minor potassic and sericite, magnetite, 3% sulfides	2.75
		Average	<u>2.77</u>

Table 14.8:	Specific Gravity	Measurements.
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		Undifferentiated Porphyritic IntrusivesWest Zone	
S11-86	227.5	med grained feld porphyry, sericite alt, 1% pyrite	2.66
S11-86	404	fine to med gr intrusive	2.76
S11-86	412.2	med grained feldpoprhyry weak potassic with chlorite overprint, 3% sulfides	2.77
S11-86	424.3	med grained feld porphyry, chlorite, sericite, 2% sulfide	2.70
S11-88	230.72	med feld-qtz porphyry with chlorite alt biotite spots, 2% sulfides	2.67
S11-88	248	med feld-qtz porphyry with chlorite alt biotite spots, 2% sulfides	2.73
S11-88	593.7	siliceous feld porphyry with qtz veins sericite alt, 3% sulfides	2.72
S11-88	607.8	f.g. intrusive near sed contact, bleached, 3% sulfides	2.70
S11-97	262.6	med gr intrusive qtz veins with ccpy Mo	2.78
S11-97	344	med feldintruqtz veins ccpy-py-mo minor Po	2.69
S11-98	233	f.g rock py-ccpy	2.78
		Average	<u>2.72</u>
		West Seel Med grained Bio-Po alt intrusive	
S11-98	280.1	f.g. veins minor bio ccpy-Po some brx	2.86
S11-98	335	bio spots and ccpy no Po	2.78
S11-98	537	fg to med gr intrusive with biotite Po-ccpy	2.67
S11-98	565	biotite alt with Po-py-ccpy-Mo	2.86
S11-98	594.4	biotite alt fine to med gr intrusivef.gdissem Po-ccpy	2.74
		Average	<u>2.78</u>
		Hornfelsed f.g. sedimentary wallrock	
S11-88	616	dark f.g biotite hornfelsed sed wallrock with 4% sulfides	2.75
S11-88	633.7	dark f.g biotite hornfelsed sed wallrock, sulfide veined, 5% sulfides	2.86
S11-88	643.9	dark f.g biotite hornfelsed sed wallrock, sulfide veined, 5% sulfides	2.85
S11-88	663.8	dark f.g biotite hornfelsed sed wallrock, sulfide veined, 5% sulfides	2.83
S11-88	672.1	dark f.g biotite hornfelsed sed wallrock, qtz veined, 4% sulfides	2.75
S11-88	686.5	dark f.g biotite hornfelsed sed wallrock, qtz veined, 4% sulfides	2.74
S11-99	583.3	f.g. biotite alt with Po-ccpy-Mo	2.84
		Average	<u>2.80</u>
		Late sulfide zones and Seel sulfide breccia	
S06-42	82.5	Seel brx with sulfides	3.00
S06-42	119	Seel brx with sulfides	2.91
S11-81	164	Semi-massive chalcopyrite-Fe-carb vein along fault	3.47
S11-81	181	Brecciated feldspar porphyry with thick sulfide Fe carb veins	3.19
		Average	<u>3.14</u>



		Coarse Quartz-Feldspar Porphyry		
S11-89	196.2	Coarse quartz-feldspar porphyry, sericite altered 1-2% pyrite		2.73
S11-89	207.2	Coarse quartz-feldspar porphyry, sericite altered 1-2% pyrite		2.71
S11-89	213.9	Coarse quartz-feldspar porphyry, sericite altered 1-2% pyrite		2.67
S11-89	312.1	Coarse quartz-feldspar porphyry, sericite altered 1-2% pyrite		2.68
			Average	<u>2.70</u>

For this resource estimate the average specific gravity of 26 East zone samples of 2.77 was used for the East and NE zones to convert volume to tonnage. In the West zone the average of 11 specific gravity samples of 2.72 was used. For the Breccia zone the average specific gravity of 3 samples excluding the massive sulphide sample was 3.03.

14.6 Grade Interpolation

Grades for Cu, Au, Mo and Ag were interpolated into each block, containing some percentage of mineralized solids, by Ordinary Kriging. Each domain was estimated separately using only composites from within that domain. For each variable, within each domain, kriging was completed in a series of 4 passes with the search ellipse for each pass a function of the semivariogram range for that variable within that domain. For the first pass the dimensions of the search ellipse were set to ¼ of the semivariogram range in each of the three principal directions. The ellipse was orientated along the azimuth and dip established by the semivariogram. A minimum of 4 composites with a maximum of 3 from any given drill hole were required to be found within the search ellipse to estimate a block. For blocks not estimated in the first pass, the search ellipse was expanded to ½ the semivariogram range. A third pass using the full range and a fourth pass using twice the range completed the kriging. In all passes the maximum number of composite allowed was set to 16 and if more than 16 were within the search ellipse at any given time the closest 16 were used.

Table 14.9 shows the kriging search parameters for copper in each domain and shows the number of blocks estimated in each pass. For the Breccia and NE domains, there was not enough data to generate semivariograms, so the East domain models were used.

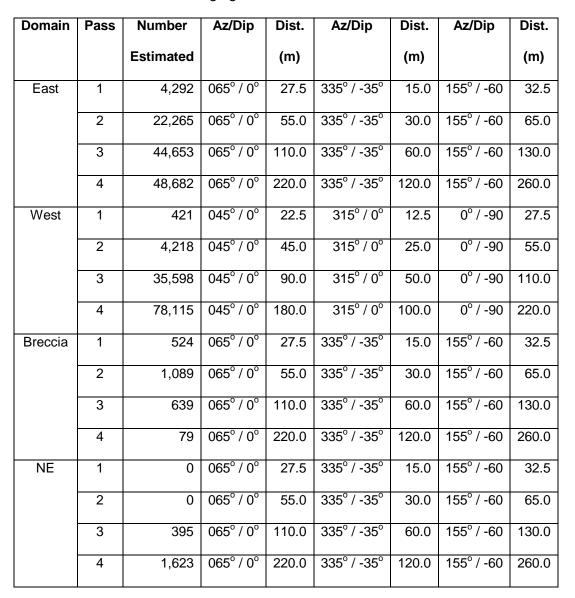


Table 14.9: Kriging	Parameters fo	r Cu in all	Domains
Table 14.9. Kinging	Falameters 10	n Cu in ai	Domains.

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14.7 Classification

Based on the study herein reported, delineated mineralization of the Seel Deposit is classified as a resource according to the following definitions from National Instrument 43-101 and from CIM (2005):

"In this Instrument, the terms "mineral resource", "inferred mineral resource", "indicated mineral resource" and "measured mineral resource" have the meanings ascribed to those terms by the Canadian Institute of Mining, Metallurgy and Petroleum, as the CIM Definition Standards on Mineral Resources and Mineral Reserves adopted by CIM Council, as those definitions may be amended."

The terms Measured, Indicated and Inferred are defined by CIM (2005) as follows: "A Mineral Resource is a concentration or occurrence of diamonds, natural solid inorganic material, or natural solid fossilized organic material including base and precious metals, coal



and industrial minerals in or on the Earth's crust in such form and quantity and of such a grade or quality that it has reasonable prospects for economic extraction. The location, quantity, grade, geological characteristics and continuity of a Mineral Resource are known, estimated or interpreted from specific geological evidence and knowledge."

"The term Mineral Resource covers mineralization and natural material of intrinsic economic interest which has been identified and estimated through exploration and sampling and within which Mineral Reserves may subsequently be defined by the consideration and application of technical, economic, legal, environmental, socio-economic and governmental factors. The phrase 'reasonable prospects for economic extraction' implies a judgment by the Qualified Person in respect of the technical and economic factors likely to influence the prospect of economic extraction. A Mineral Resource is an inventory of mineralization that under realistically assumed and justifiable technical and economic conditions might become economically extractable. These assumptions must be presented explicitly in both public and technical reports."

Inferred Mineral Resource

%An 'Inferred Mineral Resource' is that part of a Mineral Resource for which quantity and grade or quality can be estimated on the basis of geological evidence and limited sampling and reasonably assumed, but not verified, geological and grade continuity. The estimate is based on limited information and sampling gathered through appropriate techniques from locations such as outcrops, trenches, workings and drill holes."

"Due to the uncertainty that may be attached to Inferred Mineral Resources, it cannot be assumed that all or any part of an Inferred Mineral Resource will be upgraded to an Indicated or Measured Mineral Resource as a result of continued exploration. Confidence in the estimate is insufficient to allow the meaningful application of technical and economic parameters or to enable an evaluation of economic viability worthy of public disclosure. Inferred Mineral Resources must be excluded from estimates forming the basis of feasibility or other economic studies."

Indicated Mineral Resource

"An 'Indicated Mineral Resource' is that part of a Mineral Resource for which quantity, grade or quality, densities, shape and physical characteristics, can be estimated with a level of confidence sufficient to allow the appropriate application of technical and economic parameters, to support mine planning and evaluation of the economic viability of the deposit. The estimate is based on detailed and reliable exploration and testing information gathered through appropriate techniques from locations such as outcrops, trenches, pits, workings and drill holes that are spaced closely enough for geological and grade continuity to be reasonably assumed."

"Mineralization may be classified as an Indicated Mineral Resource by the Qualified Person when the nature, quality, quantity and distribution of data are such as to allow confident interpretation of the geological framework and to reasonably assume the continuity of mineralization. The Qualified Person must recognize the importance of the Indicated Mineral Resource category to the advancement of the feasibility of the project. An Indicated Mineral Resource estimate is of sufficient quality to support a Preliminary Feasibility Study which can serve as the basis for major development decisions."

Within the Seel property surface mapping and drill hole interpretation is used to establish geologic continuity and the domain solids are based on this continuity. Grade continuity can be quantified by semivariogram analysis. By orienting the search ellipse in the directions of maximum continuity, as established by variography, the grade continuity can be utilized to classify the resource.



Within the more densely drilled East domain blocks estimated in Pass 1 or 2 using up to ½ the range of the semivariogram were classified as Indicated. All remaining blocks were classified as Inferred.

Within the West, Breccia and NE domains the drilling was not dense enough to classify any Indicated Resource. All blocks were classified as Inferred.

Do to the 4 elements of Cu, Mo, Au and Ag all contributing to the economic value of the deposit a Cu Equivalent value was calculated using the following assumptions. A three year trailing average was used for Cu, Au and Ag prices. A number near spot price was used for molybdenum as the 3 year average would be much higher than spot.

Prices for metals		Recoveries	Unit Value
Copper	\$3.15 / lb	96 % based on two samples from Seel	66.67 \$/%
Gold	\$1205 / oz	87 % based on two samples from Seel	46.72 \$/(g/t)
Silver	\$22.18 / oz	86 % base on two samples from Seel	0.61 \$/(g/t)
Molybdenum \$12 / lb		87 % based on one sample from Ox	230.16 \$/%
CuEq = <u>(Cu%</u>	<u>5 * 66.67) + (Au g/t *</u>	<u>46.72) + (Ag g/t * 0.61) + (Mo % * 230.16)</u>	

66.67 While no economic analysis has been completed on this property and an economic cut-off at

While no economic analysis has been completed on this property and an economic cut-off at this time is unknown a reasonable cut-off for an open pit operation might be 0.2 % CuEq. Tables 14.10 and 14.11 show the total resource within the mineralized solids. No external edge dilution has been added and this assumes one could mine to the limits of the mineralized solid.

Cut-off	Tonnes	Grade > Cut-off				
(CUEQ)	(x1000)	Cu (%)	Au (g/t)	Мо (%)	Ag (g/t)	CuEq (%)
0.10	34,250	0.20	0.18	0.007	1.04	0.36
0.20	28,130	0.22	0.21	0.007	1.10	0.40
0.25	21,020	0.26	0.25	0.005	1.22	0.46
0.30	16,460	0.29	0.28	0.003	1.33	0.51
0.35	13,390	0.32	0.31	0.002	1.40	0.55
0.40	11,190	0.34	0.34	0.001	1.42	0.59
0.45	9,100	0.36	0.36	0.001	1.41	0.63
0.50	7,240	0.38	0.39	0.001	1.42	0.67
0.55	5,700	0.40	0.42	0.001	1.39	0.71
0.60	4,340	0.42	0.44	0.001	1.38	0.75

 Table 14.10: Indicated Resource Within the Mineralized Solids.

	Tonnes Grade > Cut-off				ut-off	
Cut-off (CUEQ)	(x1000)	Cu (%)	Au (g/t)	Мо (%)	Ag (g/t)	CuEq (%)
0.10	260,890	0.15	0.12	0.015	1.98	0.30
0.20	214,780	0.17	0.13	0.017	2.17	0.33
0.25	159,320	0.19	0.14	0.018	2.52	0.37
0.30	116,380	0.21	0.15	0.019	2.84	0.41
0.35	82,280	0.22	0.17	0.021	3.08	0.44
0.40	53,490	0.24	0.18	0.023	3.28	0.48
0.45	30,070	0.26	0.20	0.025	3.51	0.52
0.50	13,580	0.29	0.22	0.029	3.91	0.58
0.55	6,270	0.32	0.24	0.034	4.48	0.64
0.60	3,260	0.35	0.25	0.036	5.33	0.71

	-	
lable 14.11: Interred	Resource Within	n the Mineralized Solids.

At the 0.20 % CuEq cut-off the resource is subdivided by domain in Table 14.12.

Table 14.12: SUMMARY OF RESOURCE FOR ALL DOMAINS
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		Cut-off	Tonnes	Grade > Cut-off					
Domain	Class	(CUEQ)	(x1000)	Cu (%)	Au (g/t)	Mo (%)	Ag (g/t)	CuEq (%)	
East	Indicated	0.20	28,130	0.22	0.21	0.007	1.10	0.40	
East	Inferred	0.20	82,900	0.13	0.11	0.015	0.87	0.27	
West	Inferred	0.20	129,740	0.19	0.13	0.018	2.91	0.37	
Breccia	Inferred	0.20	1,240	0.42	0.06	0.001	12.76	0.58	
NE	Inferred	0.20	900	0.17	0.10	0.006	0.61	0.26	
Total	Inferred	0.20	214,780	0.17	0.13	0.017	2.17	0.33	

Table 14.12 contains a summary of contained metals within the indicated and inferred resources at Seel.



able 14.13: Contained metals at 0.2% Cu Eq cut off.						
Element	Contained metal					
Copper - indicated	136,435,275 pounds					
Copper - inferred	804,965,039 pounds					
Gold - indicated	189,924 ounces					
Gold - inferred	897,694 ounces					
Molybdenum - indicated	4,341,122 pounds					
Molybdenum - inferred	80,496,504 pounds					
Silver - indicated	994,841 ounces					
Silver - inferred	14,984,582 ounces					
Cu Eq - indicated	248,064,137 pounds					
Cu Eq - inferred	1,562,579,193 pounds					

14.8 Block Model Verification

Level plans were produced showing estimated copper grades with composite grades from 10 m above and below block. These plots were examined and no bias was observed in the estimation. Four of these level plans are shown as Figures 14.3 to 14.6.



Figure 14.3: Seel 1050 Level Plan Showing Estimated Cu (%).

	626300E	626400E	626500E	626600E	626700E	626800E	626900E	627000E	627100E	627200E
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SE	626300E	626400E	626500E	626600E	626700E	626800E	626900E	627000E	627100E	627200E

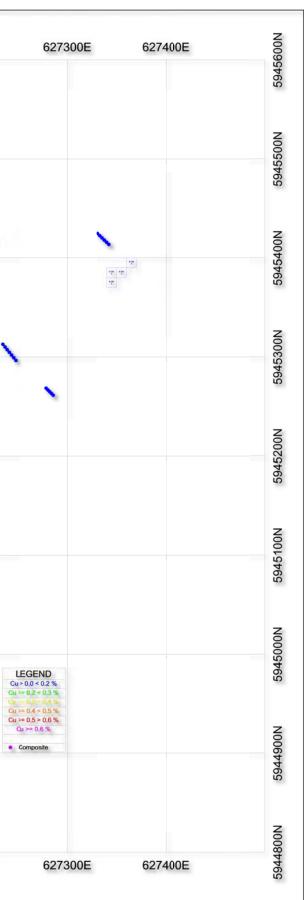
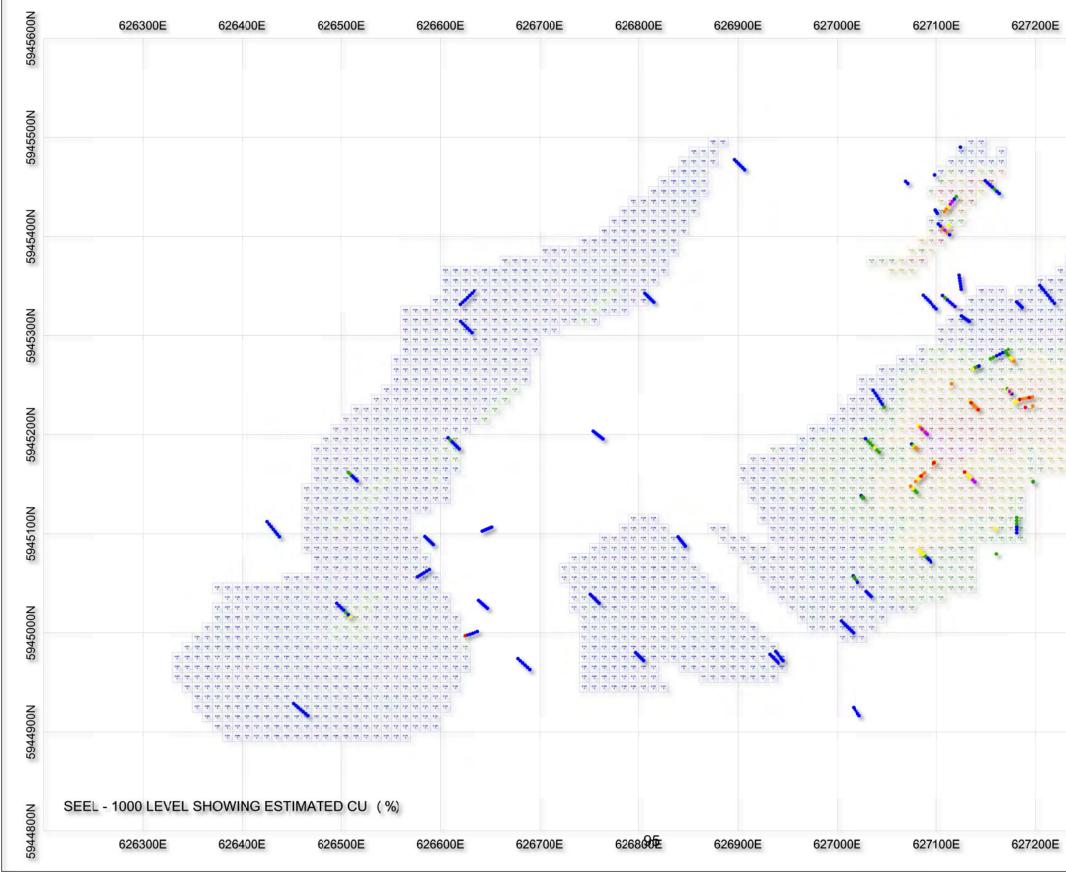




Figure 14.4: Seel 1000 Level Plan Showing Estimated Cu (%).



627300E	627400E	5945600N
		5945500N
2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	1 10 10 1 10 10 10 1 10 10 10 1 10 10 10 1 10 10 10 1 10 10 10 1 10 10 10 1 10 10 10 1 10 10 10	5945400N
4 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7		5945300N
		5945200N
		5945100N
LEG Cu > 0.0 Cu > = 0.2 Cu > = 0.2	< 0.2 % 2 < 0.3 %	5945000N
Cu >= 0,5 Cu >= ● Comp	5 > 0.6 %	5944900N
627300E	627400E	5944800N



Figure 14.5: Seel 950 Level Plan Showing Estimated Cu (%).

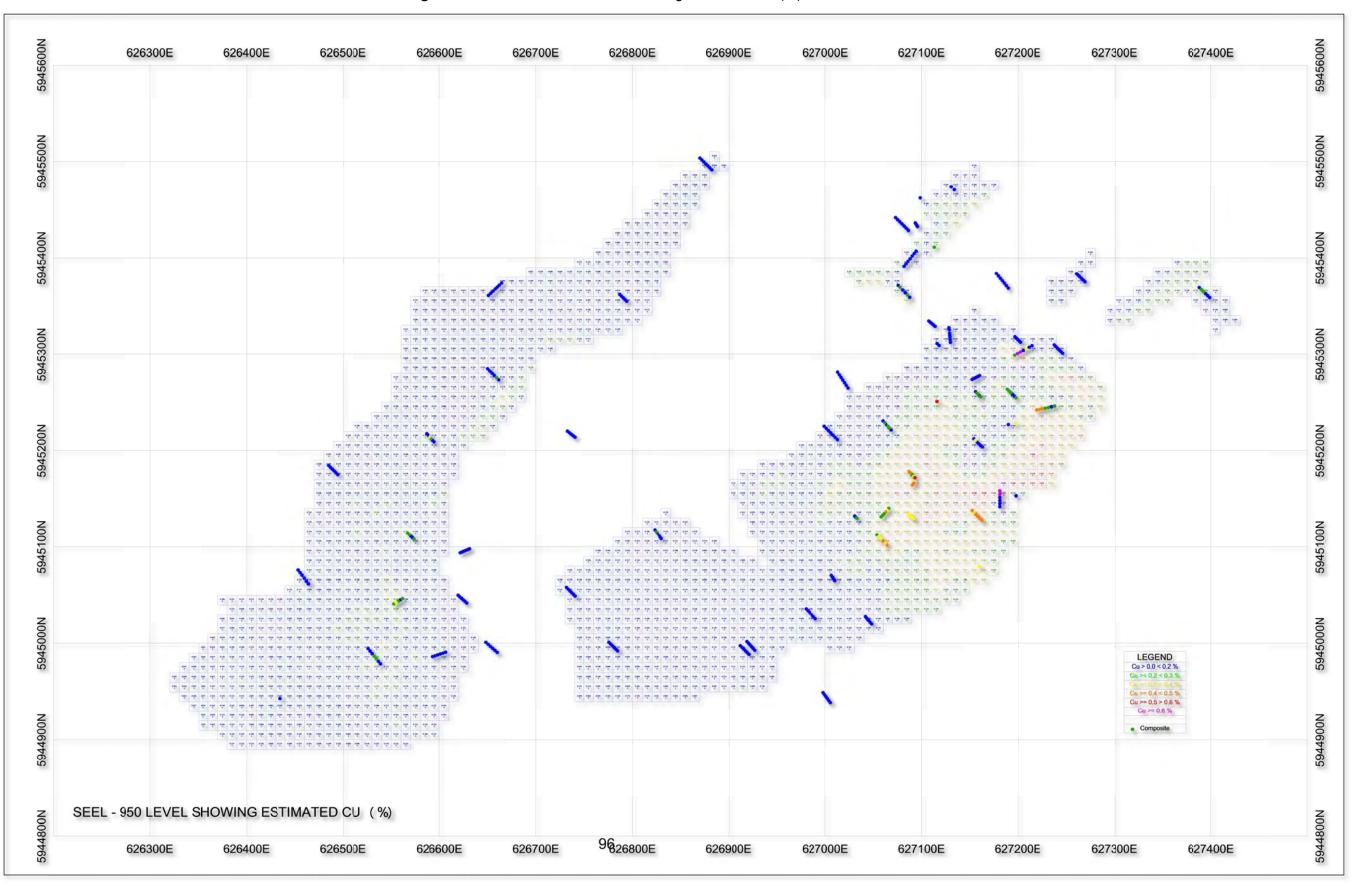
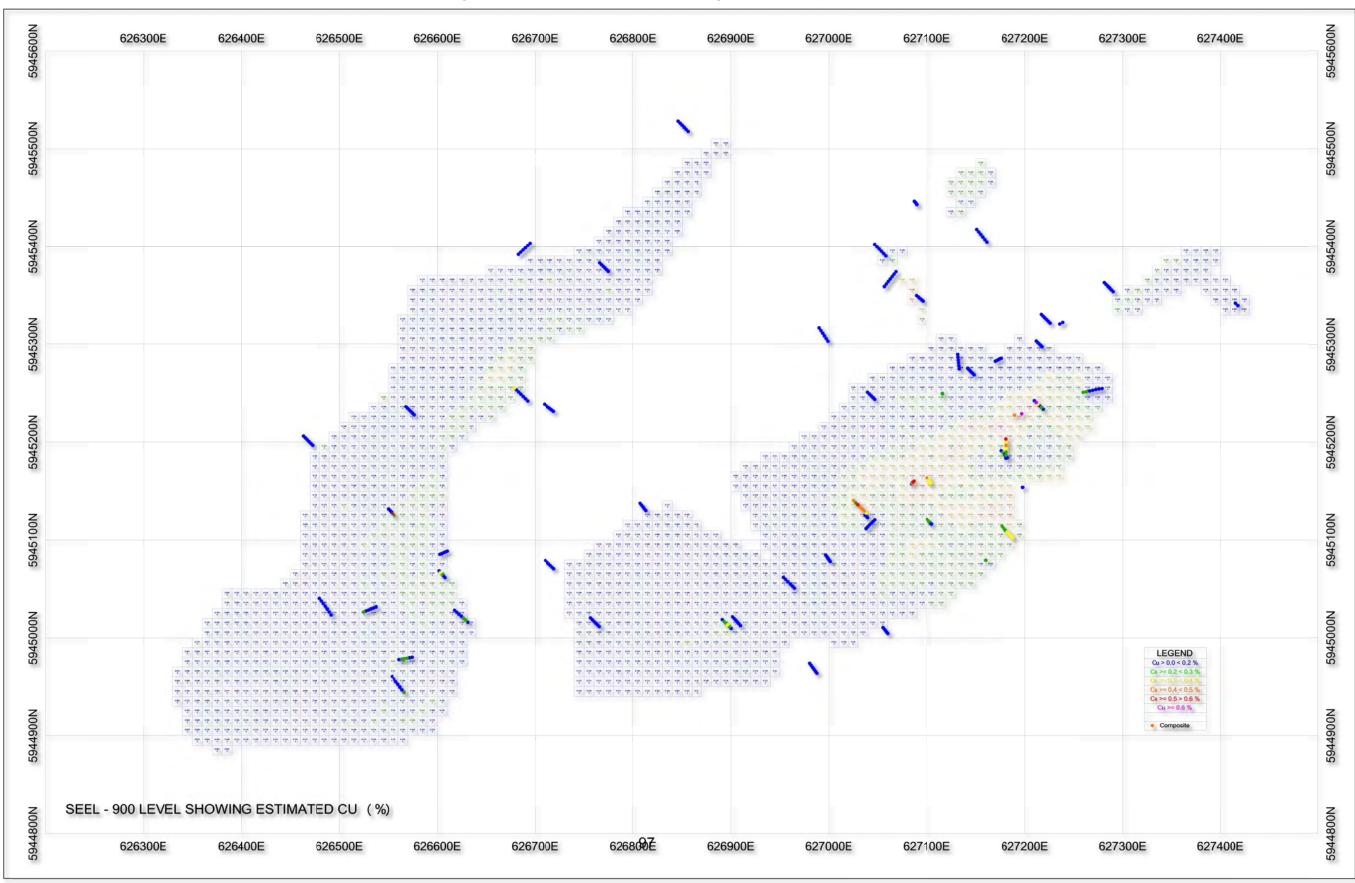




Figure 14.6: Seel 900 Level Plan Showing Estimated Cu (%).





15 Other Relevant Data and Information

15.1 Environmental and Surface Title Liabilities

The writers are not aware of any environmental liabilities related to the Seel property. Trenches and other surface disturbances do not appear to be acid generating and for the most part do not pose significant slope stability hazards. Most are dry, some are partially to completely filled with water and most have started to re-vegetate naturally.

The Seel property is on Crown land, and the area is open to mineral exploration and development. The area of the claims lie within areas of interest claimed by the Cheslatta-Carrier or Carrier-Sekani, Wet'suwet'en, Skin Tyee, and Nee-Tahi-Buhn First Nations.

Prior to conducting an exploration program that will cause a physical disturbance, Gold Reach must first file and receive approval of a Notice of Work and Reclamation as required by section 10 of the BC Mines Act. At the time of writing this report Gold Reach has received a 5-year exploration approval for the Ootsa Property from the BC Ministry of Mines that is valid until 2015 and will allow the company to maintain an exploration camp, conduct geophysical surveying and trenching, and drill up to 215 additional holes on select portions of the Ootsa property.

16 Adjacent Properties

The Huckleberry Mine property occurs adjacent to the Ootsa Proptery on its northwest side. The Huckleberry Mine is owned by Huckleberry Mines Ltd. which is owned by Imperial Metals Corporation and a consortium of Japanses companies (Mitsubishi Materials Corporation, Marubeni Corporation, Furukawa Co. and Dowa Mining Co. Ltd.). The mine produces copper and molybdenum, with accessory but lesser quantities of silver and gold from an open pit mine-mill complex. Production started in 1997 and is continuing at a rate of approximately 16,000 tonnes per day.

The Main Zone Pit at Huckleberry currently contains a measured plus indicated mineral resource containing 180.7 million tonnes with grades of 0.315 % copper and 0.006% molybdenum, plus an inferred mineral resource of 48.0 million tonnes with grades of 0.263% copper and 0.003% molybdenum (Chrisensen et al., 2011). Within these resources Huckleberry Mines has defined a resource of 39.7 million tonnes at a grade of 0.343% copper and 0.009% molybdenum (using a 0.20% copper cutoff grade) that is contained with a pit shell known as the Main Zone Optimization (MZO) Pit. Resources within the MZO pit give the Huckleberry Mine an additional 9 years of mine life.

The Authors have not verified the mineral resources or reserves for the Huckleberry mine. The information is taken from a Technical Report by Christensen et al. (2011) and is stated here for reference only.



17 Interpretation and Conclusions

17.1 CONCLUSIONS

The Seel drill hole database, containing 28,294 metres of drilling in 100 holes, is of sufficient quality to support the resource estimate described in this report. Gold Reach has followed industry standard QA/QC procedures of inserting standard reference samples, blanks and duplicates into the stream of core samples sent for analysis, and maintaining careful chain of custody proceedures. Geologic continuity of the mineralized zones was established through geological characteristics, alteration patterns, and mineralization patterns, and these parameters formed the basis for modelling. Geologic modeling was done using GemCom software. Uniform down hole 5 m composites were formed from the drill data and a block model with blocks 10 x 10 x 5 m in dimension was superimposed over all of the mineralized solids. Grades for Cu, Au, Mo and Ag were interpolated into each block by Ordinary Kriging and copper equivalents were used for modelling. Copper equivalents were calculated using 3 year trailing average metal prices for Cu, Au and Ag (\$3.15 lb copper, \$1205 ounce Au, \$22.18 ounce Ag) and a price of \$12 lb for Mo, and also incorporated recoveries from previous metallurgical testing done on the property (96% recovery for Cu, 87% recover for Au, 86% recovery for Ag, and 87% recovery for Mo).

At a 0.2% Cu Eq cut off the Seel deposit contains an indicated resource of 28.13 million tonnes grading 0.22% Cu, 0.21 g/t Au, 0.007% Mo and 1.1 g/t Ag (0.40% Cu Eq) plus an inferred resource of 214.78 million tonnes grading 0.17% Cu, 0.13 g/t Au, 0.017% Mo, and 2.17 g/t Ag (0.33% Cu Eq). The majority of the resource sits in the inferred category reflecting the widely spaced nature of the deep drilling and step out holes completed during the 2011 drill program. To date, the mineralized zone has been defined over an area exceeding 1000 metres in length, up to 600 metres in width, and to depths exceeding 700 metres. The deposit occurs near the surface and on average contains between 4 and 30 metres of gravel cover. The geometry and location of the Seel mineralized zone would be well suited to open pit mining methods if the project advances to development in the future.

The new West Seel discovery contains a large zone with higher than average copper equivalent grades. There is excellent potential to expand West Seel though step out drilling to the west, south, and north and the zone remains open at depth. In addition, further infill drilling between known zones of higher grade mineralization could significantly increase the tonnage of mineralization within the West Seel zone, and between the West Seel and Seel zones.



18 Recommendations

The Authors recommend a significant drilling program at Seel to define the limits of the large higher grade zone of mineralization at West Seel, to determine if this higher grade zone extends to surface on the west side of the deposit, and to further explore the large chargeability anomaly surrounding the Seel deposit. The West Seel deposit is showing a trend of increasing grade at depth. It is recommended that once the boundaries of the West Seel zone have been defined, one or two deep holes be drilled into the zone to see if grades continue to increase with depth, and to learn more about the depth extent of mineralization. It is recommended that approximately 15,000 metres of drilling be conducted to achieve these goals. Drilling should be conducted on roughly 100m spaced sections with angle holes drilled toward the northwest to get perpendicular intersections on the intrusive-wall rock contact and drill across the long axis of the main mineralized zone.

Figure 18.1 shows a 3D voxel model of copper equivalent grades for the Seel deposit. The large zone of higher grade copper mineralization at the bottom left of the model (red colors and brighter) is only partially delineated. Drill holes should be targeted to infill this higher grade zone, delineate its boundaries to the west, and see if it comes to surface along the west edge of the deposit.

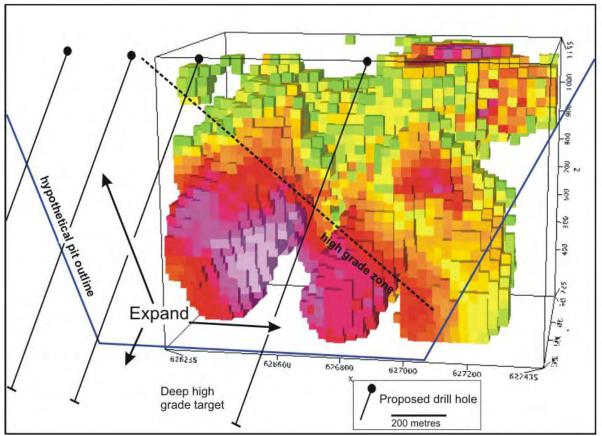


Figure 18.1: 3D Voxel model of copper equivalent grades for the Seel deposit (green and yellow squares = low grade Cu Eq values, red squares and brighter = >0.5% copper equivalent) looking toward the north.



The West Seel mineralized zone remains open to the south west, the northeast, and to the west. Drilling should step out in these directions until the extents of the mineralized zone have been adequately delineated. Following drill delineation of the zone a resource update should be conducted and the geometry, size, and grade of the entire Seel deposit should be evaluated, and a decision made on how to best move the project forward. Future steps would likely include a preliminary economic analyses followed by infill drilling and upgrading resource categories.

A high resolution digital elevation model (Lidar or equivalent) with 1 meter elevation contours should be completed over the property (covering the Seel and Ox deposits and surrounding area), in combination with high resolution aerial photography. A good digital elevation model will be necessary for the next resource update and the topographic and air photo data will be useful for drill hole planning and ongoing surface mapping.

It is recommended that additional metallurgical test work be conducted on the deposit to increase the confidence in the recoveries of copper, gold, molybdenum, and silver, and ensure mineralization from the new West Seel zone has similar metallurgical characteristics as the rest of the system. Up to 3 samples should be obtained from the Seel deposit from fresh drill core. One sample should come from the West Seel zone, one sample should come from the zone of near surface higher grade mineralization from the Seel Cu-Au zone and one sample should come from the zone of Cu-Au-Mo mineralization that occurs between Seel and West Seel. Metallurgical testing should include rougher and cleaner flotation testing as well as locked cycle testing with the objective of optimizing recoveries for copper, precious metals, and molybdenum.

19 Budget For Recommended Work Program

Table 19.1 contains a budget for the recommended work program at Seel.

Item	Estimated cost \$C			
Drilling 15,000m all in costs	3,780,000			
Lidar Survey or equivalent	40,000			
Metallurgy - 3 samples	90,000			
Field Support . Travel, Vehicles,				
ATV's	100,000			
Camp upgrades	65,000			
Resource update	35,000			
Data compilation interp. and final				
report	75,000			
subtotal	4,185,000			
Contingency 10%	418,500			
Grand Total	<u>4,603,500</u>			

 Table 19.1: Budget for recommended work program.



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Ootsa Property Seel Technical Report



21 Date and Signature Page

This document, MINERAL RESOURCE ESTIMATE UPDATE FOR THE SEEL COPPER GOLD PORPHYRY DEPOSIT, GOLD REACH RESOURCES LTD., TAHTSA REACH AREA, BRITISH COLUMBIA CANADA, has been prepared for Gold Reach Resources Ltd. by

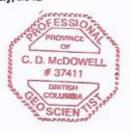
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CornellMcDowell P.Geo. Dated at Edmonton, AB, this 11th day of July, 2012

and

Cornel McDowell P.Geo.

I.



35

BRITISH LUMB

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Gary Giroux, P. Eng. MASc. Dated at Vancouver, BC, this 11th day of July, 2012

G. H. GIROUX Gary Giroux P. Eng.

The effective date of the exploration data is D



22 Statements of Qualifications

CERTIFICATE. C. McDowell

I, C. McDowell, of 3507 108st NW Edmonton, Alberta, do hereby certify that:

- I am a professional geologist providing consulting services to the exploration industry with an office at 3507 108st NW Edmonton, Alberta.
- I graduated from the University of Alberta in 2005 with a B Sc., specialization in geology.

 I am a member in good standing in the Association of Professional Engineers and Geoscientists of the Provinces of British Columbia and Alberta.

 I have practiced my profession continuously since 2005. I have had 7 years' experience in ore deposits and mineral exploration working on a variety of ore deposit types.

5) I have read the definition of "qualified person" set out in National Instrument 43-101 and certify that by reason of education and relevant experience I meet the requirements of a Qualified Person as defined in National Instrument 43-101.

6) I am responsible for the preparation of Sections 1 to 13 and 15 to 20 of the technical report titled "MINERAL RESOURCE ESTIMATE UPDATE FOR THE SEEL COPPER GOLD PORPHYRY DEPOSIT GOLD REACH RESOURCES LTD." dated February 23rd, 2012 (the "Technical Report").

 I have spent considerable time on the Ootsa project in 2011 during the active drilling program.

8) As of the date of this certificate, to the best of my knowledge, information and belief, the portion of the Technical Report for which I am responsible contains all scientific and technical information that is required to be disclosed to make the portion of the Technical Report for which I am responsible not misleading.

I am independent of the issuer.

 I have read National Instrument 43-101 and Form 43-101F1, and the Technical Report has been prepared in compliance with that Instrument and form.

Dated this 11th day of July, 2012

C. McDowell P.Geo.



REACH

Ootsa Property Seel Technical Report

CERTIFICATE G.H. Giroux

I, G.H. Giroux, of 982 Broadview Drive, North Vancouver, British Columbia, do hereby certify that:

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GOLDREACH

- 1) I am a consulting geological engineer with an office at #1215 675 West Hastings Street, Vancouver, British Columbia.
- 2) I am a graduate of the University of British Columbia in 1970 with a B.A. Sc. and in 1984 with a M.A. Sc., both in Geological Engineering.
- 3) I am a member in good standing of the Association of Professional Engineers and Geoscientists of the Province of British Columbia.
- 4) I have practiced my profession continuously since 1970. I have had over 30 years' experience calculating mineral resources. I have previously completed resource estimations on a wide variety of precious metal deposits both in B.C. and around the world, including narrow vein deposits like Montarde and Efemcukuru.
- 5) I have read the definition of "qualified person" set out in National Instrument 43-101 and certify that by reason of education, experience, independence and affiliation with a professional association, I meet the requirements of an Independent Qualified Person as defined in National Instrument 43-101.
- 6) I am responsible for the preparation of Section 14 of the technical report titled "MINERAL RESOURCE ESTIMATE UPDATEFOR THE SEEL COPPER GOLD PORPHYRY DEPOSIT GOLD REACH RESOURCES LTD." dated February 23rd, 2012 (the "Technical Report"). I have not visited the property.
- 7) I have not previously worked on this deposit.
- 8) As of the date of this certificate, to the best of my knowledge, information and belief, the portion of the Technical Report for which I am responsible contains all scientific and technical information that is required to be disclosed to make the portion of the Technical Report for which I am responsible not misleading.
- 9) I am independent of the issuer applying all of the tests in section 1.5 of National Instrument 43-101.
- 10) I have read National Instrument 43-101 and Form 43-101F1, and the Technical Report has been prepared in compliance with that instrument and form.

Dated this 12th day of July, 2012

66660 20 17 G. H. Giroux, P.Eng., MASc. G. H. GIROUX BRITISH oL GINE



APPENDIX 1 – LISTING OF DRILL HOLES



The holes used in the estimate are highlighted LENGTH					
HOLE	EASTING	NORTHING	ELEVATION	(m)	
S04-01	626991.30	5945512.40	1109.40	210.30	
S04-02	627036.00	5945391.00	1099.20	182.90	
S04-03	627065.50	5945159.00	1053.70	178.30	
S04-04	627063.50	5945158.00	1053.70	182.90	
S04-05	626522.70	5945387.50	1017.30	155.40	
S04-06	626611.20	5945322.90	1027.20	185.90	
S05-07	627159.00	5945105.00	1076.30	73.90	
S05-08	627113.30	5945253.50	1063.10	222.60	
S05-09	627159.90	5945079.50	1064.10	239.87	
S05-10	627150.00	5945302.20	1059.10	218.54	
S05-11	627288.60	5945258.90	1067.40	218.54	
S05-12	627325.20	5945430.50	1072.10	212.45	
S05-13	627018.80	5945052.10	1052.90	220.98	
S05-14	626607.20	5945074.90	1050.60	270.36	
S05-15	626719.90	5944940.40	1051.90	178.92	
S05-16	626714.20	5944939.50	1051.90	219.64	
S05-17	626028.30	5945269.80	989.30	200.25	
S05-18	626528.90	5945140.20	1045.80	253.59	
S05-19	626413.60	5945125.40	1035.60	306.93	
S05-20	626479.80	5945045.60	1041.80	245.05	
S05-21	626777.70	5945184.20	1045.80	242.92	
S05-22	627197.40	5945151.70	1066.90	199.95	
S06-23	627317.50	5945310.30	1072.10	172.82	
S06-24	627115.30	5945251.50	1063.10	264.26	
S06-25	627030.10	5945040.10	1054.50	203.30	
S06-26	626963.40	5944952.60	1057.90	270.36	
S06-27	626777.70	5945184.20	1045.80	206.35	
S06-28	626711.80	5945563.60	1063.20	175.87	
S06-29	626486.50	5944898.90	1047.40	111.86	
S06-30	626444.80	5944653.40	1061.60	152.43	
S06-31	626181.30	5944771.30	1045.60	249.02	
S06-32	626611.20	5945322.90	1027.20	188.06	
S06-33	627213.30	5945431.00	1069.10	288.65	
S06-34	627213.30	5945431.00	1069.10	112.78	
S06-35	627364.90	5945453.80	1073.90	204.52	
S06-36	627160.30	5945354.60	1091.50	340.46	
S06-37	627189.80	5945227.20	1060.30	325.22	
S06-38	627189.80	5945227.20	1060.30	212.45	
S06-39	627107.50	5945183.10	1056.00	206.35	
S06-40	627107.50	5945183.10	1056.00	343.51	
S06-41	627019.70	5945142.90	1050.70	343.51	



S06-42 627161.50 5945493.00 1094.20 280.72 S06-43 627161.50 5945493.00 1094.20 121.01 S06-44 627043.00 5945570.40 1111.90 233.78 S06-45 626978.50 5945408.80 1094.90 267.31 S06-46 627098.60 5945461.90 1092.20 154.50 S06-47 627160.30 5945425.50 1097.90 344.42 S07-48 626948.10 5945459.20 1116.10 182.88 S07-51 625890.90 5944913.30 1021.80 426.72 S07-52 625890.90 5944913.30 1021.80 210.01 S07-54 62833.00 594523.00 1308.00 225.00 S07-55 62802.00 594501.00 1195.00 316.08 S07-56 628303.00 594568.30 1049.50 33.89 S07-58 626776.50 5945013.10 1052.80 245.97 S07-59 626854.60 5944908.70 1059.70 81.38					
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S06-45626978.505945408.801094.90267.31S06-46627098.605945354.601091.50211.84S07-48626948.105945352.601097.90344.42S07-49627039.705945459.201116.10216.41S07-50627039.705945459.201116.10182.88S07-51625890.905944913.301021.80426.72S07-52625890.905944913.301021.80225.00S07-5362830.005945232.001308.00225.00S07-5462835.005945232.001195.00316.08S07-5562803.00594565.001219.00358.75S07-57626635.90594518.301049.50303.89S07-58626776.505945408.001073.00151.20S08-61627184.605945449.701082.7090.00S08-63627383.705945238.001074.5039.30S08-64627460.00594534.501084.9038.40S08-65627112.905945411.201083.80498.70S08-6662712.905945411.201083.80154.20S08-67627224.205944978.901074.60263.00S08-68627228.205944978.301074.60263.00S08-67627224.205945043.101062.80315.80S08-76627228.205944978.301074.60263.00S08-7662724.205945043.101062.80315.80S08-7762					
S06-46 627098.60 5945461.90 1092.20 154.50 S06-47 627160.30 5945354.60 1091.50 211.84 S07-48 626948.10 5945459.20 1116.10 216.41 S07-50 627039.70 5945459.20 1116.10 182.88 S07-51 625890.90 5944913.30 1021.80 320.04 S07-52 625890.90 5944913.30 1021.80 220.04 S07-53 625800.90 5945232.00 1308.00 225.00 S07-56 62803.00 594502.00 1195.00 316.08 S07-56 62803.00 594505.00 1219.00 358.75 S07-57 626635.90 5945013.10 1052.80 245.97 S07-58 626776.50 5945013.10 1052.80 245.97 S07-59 626854.60 5944908.70 1069.70 81.38 S08-61 627198.00 5945411.20 1083.80 99.40 S08-63 627333.70 5945298.00 1074.50 39.30	S06-44	627043.00	5945570.40	1111.90	233.78
S06-47627160.305945354.601091.50211.84S07-48626948.105945425.501097.90344.42S07-49627039.705945459.201116.10216.41S07-50627639.705945459.201116.10182.88S07-51625890.905944913.301021.80320.04S07-52625890.905944913.301021.80320.04S07-53625890.905944913.301021.80225.00S07-54628535.005945232.001308.00225.00S07-55628020.005945665.001219.00358.75S07-56628303.005945665.001219.00303.89S07-58626776.505945013.101052.80245.97S07-59626854.605944908.701059.7081.38S08-60627198.005945441.201083.8099.40S08-61627164.605945449.701082.7090.00S08-63627383.70594528.001074.5039.30S08-64627142.905945411.201083.80498.70S08-66627112.905945411.201083.80498.70S08-66627122.705945013.101062.80315.80S08-71626959.505944978.901074.60263.00S08-64627462.005945013.101062.80315.80S08-72627181.105945054.301067.30339.00S08-74626959.505944978.301041.4012.20S08-75<	S06-45	626978.50	5945408.80	1094.90	267.31
S07-48626948.105945425.501097.90344.42S07-49627039.705945459.201116.10216.41S07-50627039.705945459.201116.10182.88S07-51625890.905944913.301021.80426.72S07-52625890.905944913.301021.80210.01S07-54628535.005945232.001308.00225.00S07-55628020.005945020.001195.00316.08S07-56628303.005945565.001219.00358.75S07-57626635.905945013.101052.80245.97S07-58626776.505945013.101052.80245.97S07-59626854.605944908.701073.00151.20S08-61627198.005945449.701082.7090.00S08-63627383.705945298.001074.5039.30S08-64627460.005945354.501084.9038.40S08-65627112.905945411.201083.80498.70S08-66627122.025945018.801073.2091.40S08-66627122.705945043.101062.80315.80S08-67627228.205944978.901074.60263.00S08-68627224.205945043.101062.80315.80S08-70627038.505944977.301061.00313.03S08-71626959.505944978.301041.4012.20S08-75626625.905945945.101052.80294.74S08-76	S06-46	627098.60	5945461.90	1092.20	154.50
S07-49627039.705945459.201116.10216.41S07-50627039.705945459.201116.10182.88S07-51625890.905944913.301021.80426.72S07-52625890.905944913.301021.80220.04S07-53625890.905944913.301021.80225.00S07-54628535.005945232.001308.00225.00S07-5562802.00594502.001195.00316.08S07-56628303.005945565.001219.00358.75S07-57626635.905945168.301049.50303.89S07-58626776.505945013.101052.80245.97S07-59628854.605944908.701059.7081.38S08-60627198.005945449.701082.7090.00S08-62627112.905945411.201083.8099.40S08-63627383.705945298.001074.5039.30S08-64627460.005945354.501084.9038.40S08-65627112.905945411.201083.80498.70S08-66627122.705945018.801073.2091.40S08-68627228.205944978.301074.60263.00S08-69627122.705945043.101062.80315.80S08-70627038.505944977.301061.00313.03S08-72627181.105945085.001024.00232.87S08-76626057.805944973.301041.40122.02S08-76 <td< td=""><td>S06-47</td><td>627160.30</td><td>5945354.60</td><td>1091.50</td><td>211.84</td></td<>	S06-47	627160.30	5945354.60	1091.50	211.84
S07-50627039.705945459.201116.10182.88S07-51625890.905944913.301021.80426.72S07-52625890.905944913.301021.80320.04S07-53625890.905944913.301021.80210.01S07-54628535.005945232.001308.00225.00S07-55628020.005945020.001195.00316.08S07-56628303.005945565.001219.00358.75S07-57626635.905945013.101052.80245.97S07-59626854.605944908.701059.7081.38S08-60627198.005945449.701082.7090.00S08-61627164.605945298.001074.5039.30S08-6362738.705945298.001074.5039.30S08-64627460.005945354.501084.9038.40S08-65627112.905945411.201083.80498.70S08-66627122.005945013.101062.80315.80S08-67627228.205944977.301061.00313.03S08-70627038.505944977.301061.00313.03S08-71626959.505944955.101052.80294.74S08-75626265.905944978.301041.4012.20S08-75626265.905944978.301041.4012.20S08-75626657.80594532.70997.90218.54S08-76626057.80594532.70997.90218.54S08-76626	S07-48	626948.10	5945425.50	1097.90	344.42
S07-51625890.905944913.301021.80426.72S07-52625890.905944913.301021.80320.04S07-53625890.905944913.301021.80210.01S07-54628535.005945232.001308.00225.00S07-55628020.005945020.001195.00316.08S07-56628303.005945565.001219.00358.75S07-57626635.905945168.301049.50303.89S07-58626776.505945013.101052.80245.97S07-59628854.605944908.701082.7090.00S08-61627164.605945411.201083.8099.40S08-62627112.905945411.201083.8099.40S08-63627383.705945298.001074.5039.30S08-64627460.005945354.501084.9038.40S08-65627112.905945411.201083.80498.70S08-6662712.205945013.101062.80315.80S08-67627224.205945013.101062.80315.80S08-70627038.505944977.301061.00313.03S08-71626851.805944955.101052.80294.74S08-7562626.505944978.301041.4012.20S08-7562626.505944978.301041.4012.20S08-7562626.505944978.301067.30339.00S08-7562626.505944978.301067.30339.00S08-75626	S07-49	627039.70	5945459.20	1116.10	216.41
\$07-52625890.905944913.301021.80320.04\$07-53625890.905944913.301021.80210.01\$07-54628535.005945232.001308.00225.00\$07-55628020.005945020.001195.00316.08\$07-56628303.00594565.001219.00358.75\$07-57626635.905945013.101052.80245.97\$07-59626854.605944908.701059.7081.38\$08-60627198.005945449.701082.7090.00\$08-61627144.605945449.701082.7090.00\$08-62627112.905945411.201083.8099.40\$08-63627383.705945298.001074.5039.30\$08-64627460.005945354.501084.9038.40\$08-65627112.905945411.201083.80498.70\$08-66627122.005945411.201083.80154.20\$08-66627122.705945018.801073.2091.40\$08-68627228.205944978.901074.60263.00\$08-69627122.705945043.101062.80313.03\$08-7162695.505944950.501057.90313.03\$08-72627181.105945085.001024.00232.87\$08-76626265.905944978.301041.4012.20\$08-75626657.80594532.70997.90275.00\$08-76626057.80594532.70997.90218.54\$08-7662605	S07-50	627039.70	5945459.20	1116.10	182.88
\$07-53625890.905944913.301021.80210.01\$07-54628535.005945232.001308.00225.00\$07-55628020.005945020.001195.00316.08\$07-56628303.005945565.001219.00358.75\$07-57626635.905945168.301049.50303.89\$07-58626776.505945013.101052.80245.97\$07-59626854.605944908.701059.7081.38\$08-60627198.005945449.701082.7090.00\$08-61627164.605945449.701082.7090.00\$08-62627112.905945411.201083.8099.40\$08-63627383.705945298.001074.5039.30\$08-64627460.005945354.501084.9038.40\$08-65627112.905945411.201083.80498.70\$08-66627112.905945018.801073.2091.40\$08-68627228.205944978.901074.60263.00\$08-69627122.705945043.101062.80315.80\$08-70627038.505944977.301061.00313.03\$08-71626959.505944955.501057.90313.03\$08-73626821.805944978.301041.4012.20\$08-74626406.505944978.301041.4012.20\$08-75626265.90594595.001024.00232.87\$08-76626057.80594532.70997.90375.00\$08-77626	S07-51	625890.90	5944913.30	1021.80	426.72
\$07-54628535.005945232.001308.00225.00\$07-55628020.005945020.001195.00316.08\$07-56628303.005945565.001219.00358.75\$07-57626635.905945168.301049.50303.89\$07-58626776.505945013.101052.80245.97\$07-59626854.605944908.701059.7081.38\$08-60627198.005945449.701082.7090.00\$08-61627164.605945449.701082.7090.00\$08-62627112.905945298.001074.5039.30\$08-63627383.705945298.001074.5039.30\$08-64627460.005945341.201083.80498.70\$08-65627112.905945411.201083.80498.70\$08-66627112.905945411.201083.80154.20\$08-67627224.205944978.901074.60263.00\$08-68627228.205944978.901074.60263.00\$08-69627122.705945043.101062.80315.80\$08-70627038.505944977.301061.00313.03\$08-72627181.105945043.301067.30339.00\$08-73626821.805944978.301041.4012.20\$08-75626657.805944978.301041.4012.20\$08-76626057.80594532.70997.90218.54\$08-76626057.80594532.70997.90218.54\$08-7662	S07-52	625890.90	5944913.30	1021.80	320.04
\$07-55628020.005945020.001195.00316.08\$07-56628303.005945565.001219.00358.75\$07-57626635.905945168.301049.50303.89\$07-58626776.505945013.101052.80245.97\$07-59626854.605944908.701059.7081.38\$08-60627198.005945408.001073.00151.20\$08-61627164.605945449.701082.7090.00\$08-62627112.905945411.201083.8099.40\$08-63627383.705945298.001074.5039.30\$08-64627460.005945354.501084.9038.40\$08-65627112.905945411.201083.80498.70\$08-66627112.905945018.801073.2091.40\$08-66627122.705945018.801073.2091.40\$08-68627228.205944978.901074.60263.00\$08-69627122.705945043.101062.80315.80\$08-70627038.505944977.301061.00313.03\$08-71626959.505944955.101052.80294.74\$08-75626265.905945085.001024.00232.87\$08-75626265.90594532.70997.90375.00\$08-75626265.90594532.70997.90218.54\$08-76626057.80594532.70997.90218.54\$08-76626057.80594532.70997.90218.54\$08-78627112	S07-53	625890.90	5944913.30	1021.80	210.01
S07-56628303.005945565.001219.00358.75S07-57626635.905945168.301049.50303.89S07-58626776.505945013.101052.80245.97S07-59626854.605944908.701059.7081.38S08-60627198.005945408.001073.00151.20S08-61627164.605945449.701082.7090.00S08-62627112.905945411.201083.8099.40S08-63627383.705945298.001074.5039.30S08-64627460.005945354.501084.9038.40S08-65627112.905945411.201083.80498.70S08-66627112.905945411.201083.80154.20S08-67627224.205945018.801073.2091.40S08-68627228.205944978.901074.60263.00S08-69627122.705945043.101062.80315.80S08-70627038.505944977.301061.00313.03S08-72627181.10594505.501057.90313.03S08-75626265.905944978.301041.4012.20S08-75626265.90594532.70997.90276.00S08-76626057.80594532.70997.90276.00S08-78627139.60594532.70997.90218.54S08-78627139.60594532.70997.90218.54S08-76626057.80594532.70997.90218.54S08-78627139.60	S07-54	628535.00	5945232.00	1308.00	225.00
\$07-57626635.905945168.301049.50303.89\$07-58626776.505945013.101052.80245.97\$07-59626854.605944908.701059.7081.38\$08-60627198.005945408.001073.00151.20\$08-61627164.605945449.701082.7090.00\$08-62627112.905945411.201083.8099.40\$08-63627383.705945298.001074.5039.30\$08-64627460.005945354.501084.9038.40\$08-65627112.905945411.201083.80498.70\$08-66627112.905945411.201083.80154.20\$08-67627224.205945018.801073.2091.40\$08-68627228.205944978.901074.60263.00\$08-69627122.705945043.101062.80315.80\$08-70627038.505944977.301061.00313.03\$08-72627181.105945054.301067.30339.00\$08-73626821.805944955.101052.80294.74\$08-74626057.805945332.70997.90375.00\$08-75626265.905945332.70997.90218.54\$08-76626057.805945332.70997.90218.54\$08-76626057.805945332.70997.90218.54\$08-76626057.805945332.70997.90218.54\$08-76626057.805945332.70997.90218.54\$08-78627	S07-55	628020.00	5945020.00	1195.00	316.08
\$07-58626776.505945013.101052.80245.97\$07-59626854.605944908.701059.7081.38\$08-60627198.005945408.001073.00151.20\$08-61627164.605945449.701082.7090.00\$08-62627112.905945411.201083.8099.40\$08-63627383.705945298.001074.5039.30\$08-64627460.005945354.501084.9038.40\$08-65627112.905945411.201083.80498.70\$08-66627112.905945411.201083.80154.20\$08-67627224.205945018.801073.2091.40\$08-68627228.205944978.901074.60263.00\$08-69627122.705945043.101062.80315.80\$08-70627038.505944977.301061.00313.03\$08-71626959.505944955.501057.90313.03\$08-72627181.105945054.301067.30339.00\$08-73626821.805944978.301041.4012.20\$08-75626057.805945332.70997.90218.54\$08-76626057.805945332.70997.90218.54\$08-78627112.905945411.201083.80303.90\$08-79626824.905945323.901036.90258.20\$08-80627139.605945323.901036.90258.20\$08-80627139.605945228.601062.00694.94\$11-100 <td< td=""><td>S07-56</td><td>628303.00</td><td>5945565.00</td><td>1219.00</td><td>358.75</td></td<>	S07-56	628303.00	5945565.00	1219.00	358.75
\$07-59626854.605944908.701059.7081.38\$08-60627198.005945408.001073.00151.20\$08-61627164.605945449.701082.7090.00\$08-62627112.905945411.201083.8099.40\$08-63627383.705945298.001074.5039.30\$08-64627460.005945354.501084.9038.40\$08-65627112.905945411.201083.80498.70\$08-66627112.905945411.201083.80154.20\$08-67627224.205945018.801073.2091.40\$08-68627228.205944978.901074.60263.00\$08-69627122.705945043.101062.80315.80\$08-70627038.505944977.301061.00313.03\$08-71626959.505944955.101057.90313.03\$08-72627181.105945043.301067.30339.00\$08-73626821.805944978.301041.4012.20\$08-75626265.905945050.01024.00232.87\$08-76626057.805945332.70997.90218.54\$08-78627112.905945411.201083.80303.90\$08-79626824.905945323.901036.90258.20\$08-78627112.905945413.601051.90736.70\$11-100626667.905945207.301058.60237.20\$11-81627197.105945228.601062.00694.94\$11-82 <td< td=""><td>S07-57</td><td>626635.90</td><td>5945168.30</td><td>1049.50</td><td>303.89</td></td<>	S07-57	626635.90	5945168.30	1049.50	303.89
\$08-60627198.005945408.001073.00151.20\$08-61627164.605945449.701082.7090.00\$08-62627112.905945411.201083.8099.40\$08-63627383.705945298.001074.5039.30\$08-64627460.005945354.501084.9038.40\$08-65627112.905945411.201083.80498.70\$08-66627112.905945411.201083.80154.20\$08-67627224.205945018.801073.2091.40\$08-68627228.205944978.901074.60263.00\$08-69627122.705945043.101062.80315.80\$08-70627038.50594497.301061.00313.03\$08-72627181.105945054.301067.30339.00\$08-73626821.805944955.101052.80294.74\$08-74626406.505944978.301041.4012.20\$08-75626265.905945332.70997.90375.00\$08-76626057.805945332.70997.90218.54\$08-76626057.80594532.70997.90218.54\$08-76626057.80594532.70997.90218.54\$08-78627112.905945411.201083.80303.90\$08-79626824.90594532.70997.90218.54\$08-76626057.80594532.70997.90218.54\$08-78627112.905945411.201083.80303.90\$08-79626824.9	S07-58	626776.50	5945013.10	1052.80	245.97
\$08-61627164.605945449.701082.7090.00\$08-62627112.905945411.201083.8099.40\$08-63627383.705945298.001074.5039.30\$08-64627460.005945354.501084.9038.40\$08-65627112.905945411.201083.80498.70\$08-66627112.905945411.201083.80154.20\$08-67627224.205945018.801073.2091.40\$08-68627228.205944978.901074.60263.00\$08-69627122.705945043.101062.80315.80\$08-70627038.505944977.301061.00313.03\$08-71626959.505944950.501057.90313.03\$08-72627181.105945043.01067.30339.00\$08-73626821.805944975.101052.80294.74\$08-74626406.505944978.301041.4012.20\$08-7562625.905945085.001024.00232.87\$08-76626057.805945332.70997.90218.54\$08-78627112.905945411.201083.80303.90\$08-79626824.905945323.901036.90258.20\$08-80627139.605945323.901036.90258.20\$08-78627112.905945113.601051.90736.70\$11-81627197.105945228.601062.00694.94\$11-82627064.405945207.301058.60237.20\$11-84	S07-59	626854.60	5944908.70	1059.70	81.38
\$08-62627112.905945411.201083.8099.40\$08-63627383.705945298.001074.5039.30\$08-64627460.005945354.501084.9038.40\$08-65627112.905945411.201083.80498.70\$08-66627112.905945411.201083.80154.20\$08-67627224.205945018.801073.2091.40\$08-68627228.205944978.901074.60263.00\$08-69627122.705945043.101062.80315.80\$08-70627038.505944977.301061.00313.03\$08-71626959.505944950.501057.90313.03\$08-72627181.105945054.301067.30339.00\$08-73626821.805944978.301041.4012.20\$08-74626406.505944978.301041.4012.20\$08-75626265.905945032.70997.90375.00\$08-76626057.805945332.70997.90218.54\$08-78627112.905945411.201083.80303.90\$08-79626824.905945332.70997.90218.54\$08-78627112.905945411.201083.80303.90\$08-79626824.905945323.901036.90258.20\$08-80627139.605945342.401069.106.10\$11-100626667.905945323.901036.90258.20\$08-80627139.605945228.601062.00694.94\$11-826	S08-60	627198.00	5945408.00	1073.00	151.20
S08-63627383.705945298.001074.5039.30S08-64627460.005945354.501084.9038.40S08-65627112.905945411.201083.80498.70S08-66627112.905945411.201083.80154.20S08-67627224.205945018.801073.2091.40S08-68627228.205944978.901074.60263.00S08-69627122.705945043.101062.80315.80S08-70627038.505944977.301061.00313.03S08-71626959.505944950.501057.90313.03S08-72627181.105945054.301067.30339.00S08-73626821.805944978.301041.4012.20S08-74626406.505944978.301041.4012.20S08-75626265.905945085.001024.00232.87S08-76626057.805945332.70997.90375.00S08-78627112.905945411.201083.80303.90S08-79626824.905945323.901036.90258.20S08-80627139.605945323.901036.90258.20S08-80627139.605945200.601051.90736.70S11-81627197.105945228.601062.00694.94S11-82627064.405945207.301058.60237.20S11-84627122.10594527.701054.00198.12	S08-61	627164.60	5945449.70	1082.70	90.00
S08-64627460.005945354.501084.9038.40S08-65627112.905945411.201083.80498.70S08-66627112.905945411.201083.80154.20S08-67627224.205945018.801073.2091.40S08-68627228.205944978.901074.60263.00S08-69627122.705945043.101062.80315.80S08-70627038.505944977.301061.00313.03S08-71626959.505944950.501057.90313.03S08-72627181.105945054.301067.30339.00S08-73626821.805944955.101052.80294.74S08-74626406.505944978.301041.4012.20S08-75626265.905945085.001024.00232.87S08-76626057.80594532.70997.90218.54S08-78627112.90594511.201083.80303.90S08-79626824.905945323.901036.90258.20S08-80627139.605945342.401069.106.10S11-81627197.105945228.601062.00694.94S11-82627064.405945207.301058.60237.20S11-84627122.105945257.701054.00198.12	S08-62	627112.90	5945411.20	1083.80	99.40
S08-65627112.905945411.201083.80498.70S08-66627112.905945411.201083.80154.20S08-67627224.205945018.801073.2091.40S08-68627228.205944978.901074.60263.00S08-69627122.705945043.101062.80315.80S08-70627038.505944977.301061.00313.03S08-71626959.505944950.501057.90313.03S08-72627181.105945054.301067.30339.00S08-73626821.805944978.301041.4012.20S08-74626406.505944978.301041.4012.20S08-75626265.905945085.001024.00232.87S08-76626057.805945332.70997.90375.00S08-78627112.905945411.201083.80303.90S08-79626824.905945323.901036.90258.20S08-80627139.605945342.401069.106.10S11-81627197.10594528.601062.00694.94S11-82627064.405945207.301058.60237.20S11-84627122.105945257.701054.00198.12	S08-63	627383.70	5945298.00	1074.50	39.30
\$08-66627112.905945411.201083.80154.20\$08-67627224.205945018.801073.2091.40\$08-68627228.205944978.901074.60263.00\$08-69627122.705945043.101062.80315.80\$08-70627038.505944977.301061.00313.03\$08-71626959.505944950.501057.90313.03\$08-72627181.105945054.301067.30339.00\$08-73626821.805944978.301041.4012.20\$08-74626406.505944978.301041.4012.20\$08-7562625.905945085.001024.00232.87\$08-76626057.805945332.70997.90375.00\$08-78627112.905945332.70997.90218.54\$08-78627112.905945323.901036.90258.20\$08-79626824.905945323.901036.90258.20\$08-80627139.605945113.601051.90736.70\$11-100626667.905945113.601051.90736.70\$11-81627197.10594520.601051.20731.52\$11-83627149.805945207.301058.60237.20\$11-84627122.10594527.701054.00198.12	S08-64	627460.00	5945354.50	1084.90	38.40
\$08-67627224.205945018.801073.2091.40\$08-68627228.205944978.901074.60263.00\$08-69627122.705945043.101062.80315.80\$08-70627038.505944977.301061.00313.03\$08-71626959.505944950.501057.90313.03\$08-72627181.105945054.301067.30339.00\$08-73626821.805944955.101052.80294.74\$08-74626406.505944978.301041.4012.20\$08-75626265.905945085.001024.00232.87\$08-76626057.805945332.70997.90375.00\$08-78627112.905945411.201083.80303.90\$08-79626824.905945323.901036.90258.20\$08-80627139.605945342.401069.106.10\$11-100626667.905945113.601051.90736.70\$11-81627197.105945207.301058.60237.20\$11-83627149.805945207.301058.60237.20\$11-84627122.105945257.701054.00198.12	S08-65	627112.90	5945411.20	1083.80	498.70
S08-68627228.205944978.901074.60263.00S08-69627122.705945043.101062.80315.80S08-70627038.505944977.301061.00313.03S08-71626959.505944950.501057.90313.03S08-72627181.105945054.301067.30339.00S08-73626821.805944978.301041.4012.20S08-74626406.505944978.301041.4012.20S08-75626265.905945085.001024.00232.87S08-76626057.805945332.70997.90375.00S08-78627112.905945411.201083.80303.90S08-79626824.905945323.901036.90258.20S08-80627139.605945113.601051.90736.70S11-81627197.105945228.601062.00694.94S11-82627064.405945207.301058.60237.20S11-84627122.10594527.701054.00198.12	S08-66	627112.90	5945411.20	1083.80	154.20
\$08-69627122.705945043.101062.80315.80\$08-70627038.505944977.301061.00313.03\$08-71626959.505944950.501057.90313.03\$08-72627181.105945054.301067.30339.00\$08-73626821.805944955.101052.80294.74\$08-74626406.505944978.301041.4012.20\$08-75626265.905945085.001024.00232.87\$08-76626057.805945332.70997.90375.00\$08-77626057.805945332.70997.90218.54\$08-78627112.905945411.201083.80303.90\$08-79626824.905945323.901036.90258.20\$08-80627139.605945113.601051.90736.70\$11-100626667.905945228.601062.00694.94\$11-81627197.105945200.601051.20731.52\$11-83627149.805945207.301058.60237.20\$11-84627122.105945257.701054.00198.12	S08-67	627224.20	5945018.80	1073.20	91.40
\$08-70627038.505944977.301061.00313.03\$08-71626959.505944950.501057.90313.03\$08-72627181.105945054.301067.30339.00\$08-73626821.805944955.101052.80294.74\$08-74626406.505944978.301041.4012.20\$08-75626265.905945085.001024.00232.87\$08-76626057.805945332.70997.90375.00\$08-77626057.805945332.70997.90218.54\$08-78627112.905945411.201083.80303.90\$08-79626824.905945323.901036.90258.20\$08-80627139.605945342.401069.106.10\$11-100626667.905945113.601051.90736.70\$11-81627197.105945200.601051.20731.52\$11-82627064.405945207.301058.60237.20\$11-84627122.105945257.701054.00198.12	S08-68	627228.20	5944978.90	1074.60	263.00
\$08-71626959.505944950.501057.90313.03\$08-72627181.105945054.301067.30339.00\$08-73626821.805944955.101052.80294.74\$08-74626406.505944978.301041.4012.20\$08-75626265.905945085.001024.00232.87\$08-76626057.805945332.70997.90375.00\$08-77626057.805945332.70997.90218.54\$08-78627112.905945411.201083.80303.90\$08-79626824.905945323.901036.90258.20\$08-80627139.605945113.601051.90736.70\$11-100626667.905945228.601062.00694.94\$11-82627064.405945207.301058.60237.20\$11-84627122.105945257.701054.00198.12	S08-69	627122.70	5945043.10	1062.80	315.80
\$08-72627181.105945054.301067.30339.00\$08-73626821.805944955.101052.80294.74\$08-74626406.505944978.301041.4012.20\$08-75626265.905945085.001024.00232.87\$08-76626057.805945332.70997.90375.00\$08-77626057.805945332.70997.90218.54\$08-78627112.905945411.201083.80303.90\$08-79626824.905945323.901036.90258.20\$08-80627139.605945342.401069.106.10\$11-100626667.905945113.601051.90736.70\$11-81627197.105945228.601062.00694.94\$11-82627064.405945207.301058.60237.20\$11-84627122.105945257.701054.00198.12	S08-70	627038.50	5944977.30	1061.00	313.03
\$08-73626821.805944955.101052.80294.74\$08-74626406.505944978.301041.4012.20\$08-75626265.905945085.001024.00232.87\$08-76626057.805945332.70997.90375.00\$08-77626057.805945332.70997.90218.54\$08-78627112.905945411.201083.80303.90\$08-79626824.905945323.901036.90258.20\$08-80627139.605945342.401069.106.10\$11-100626667.905945113.601051.90736.70\$11-81627197.105945228.601062.00694.94\$11-82627064.405945200.601051.20731.52\$11-83627149.805945257.701054.00198.12	S08-71	626959.50	5944950.50	1057.90	313.03
\$08-74626406.505944978.301041.4012.20\$08-75626265.905945085.001024.00232.87\$08-76626057.805945332.70997.90375.00\$08-77626057.805945332.70997.90218.54\$08-78627112.905945411.201083.80303.90\$08-79626824.905945323.901036.90258.20\$08-80627139.605945342.401069.106.10\$11-100626667.905945113.601051.90736.70\$11-81627197.105945228.601062.00694.94\$11-82627064.405945200.601051.20731.52\$11-83627149.805945257.701054.00198.12	S08-72	627181.10	5945054.30	1067.30	339.00
\$08-75626265.905945085.001024.00232.87\$08-76626057.805945332.70997.90375.00\$08-77626057.805945332.70997.90218.54\$08-78627112.905945411.201083.80303.90\$08-79626824.905945323.901036.90258.20\$08-80627139.605945342.401069.106.10\$11-100626667.905945113.601051.90736.70\$11-81627197.105945228.601062.00694.94\$11-82627064.405945207.301058.60237.20\$11-84627122.105945257.701054.00198.12	S08-73	626821.80	5944955.10	1052.80	294.74
\$08-76626057.805945332.70997.90375.00\$08-77626057.805945332.70997.90218.54\$08-78627112.905945411.201083.80303.90\$08-79626824.905945323.901036.90258.20\$08-80627139.605945342.401069.106.10\$11-100626667.905945113.601051.90736.70\$11-81627197.105945228.601062.00694.94\$11-82627064.405945200.601051.20731.52\$11-83627149.805945257.701054.00198.12	S08-74	626406.50	5944978.30	1041.40	12.20
S08-77626057.805945332.70997.90218.54S08-78627112.905945411.201083.80303.90S08-79626824.905945323.901036.90258.20S08-80627139.605945342.401069.106.10S11-100626667.905945113.601051.90736.70S11-81627197.105945228.601062.00694.94S11-82627064.405945200.601051.20731.52S11-83627149.805945257.701058.60237.20S11-84627122.105945257.701054.00198.12	S08-75	626265.90	5945085.00	1024.00	232.87
\$08-78627112.905945411.201083.80303.90\$08-79626824.905945323.901036.90258.20\$08-80627139.605945342.401069.106.10\$11-100626667.905945113.601051.90736.70\$11-81627197.105945228.601062.00694.94\$11-82627064.405945200.601051.20731.52\$11-83627149.805945207.301058.60237.20\$11-84627122.105945257.701054.00198.12	S08-76	626057.80	5945332.70	997.90	375.00
S08-79626824.905945323.901036.90258.20S08-80627139.605945342.401069.106.10S11-100626667.905945113.601051.90736.70S11-81627197.105945228.601062.00694.94S11-82627064.405945200.601051.20731.52S11-83627149.805945207.301058.60237.20S11-84627122.105945257.701054.00198.12	S08-77	626057.80	5945332.70	997.90	218.54
S08-80627139.605945342.401069.106.10S11-100626667.905945113.601051.90736.70S11-81627197.105945228.601062.00694.94S11-82627064.405945200.601051.20731.52S11-83627149.805945207.301058.60237.20S11-84627122.105945257.701054.00198.12	S08-78	627112.90	5945411.20	1083.80	303.90
S11-100626667.905945113.601051.90736.70S11-81627197.105945228.601062.00694.94S11-82627064.405945200.601051.20731.52S11-83627149.805945207.301058.60237.20S11-84627122.105945257.701054.00198.12	S08-79	626824.90	5945323.90	1036.90	258.20
S11-81627197.105945228.601062.00694.94S11-82627064.405945200.601051.20731.52S11-83627149.805945207.301058.60237.20S11-84627122.105945257.701054.00198.12	S08-80	627139.60	5945342.40	1069.10	6.10
S11-82627064.405945200.601051.20731.52S11-83627149.805945207.301058.60237.20S11-84627122.105945257.701054.00198.12	S11-100	626667.90	5945113.60	1051.90	736.70
S11-83627149.805945207.301058.60237.20S11-84627122.105945257.701054.00198.12	S11-81	627197.10	5945228.60	1062.00	694.94
S11-84 627122.10 5945257.70 1054.00 198.12	S11-82	627064.40	5945200.60	1051.20	731.52
	S11-83	627149.80	5945207.30	1058.60	237.20
S11-85627122.105945257.701054.00281.64	S11-84	627122.10	5945257.70	1054.00	198.12
	S11-85	627122.10	5945257.70	1054.00	281.64



\$11-86627042.705944892.701065.00740.66\$11-87627067.305945202.101049.70414.53\$11-88627104.605945178.301056.10810.16\$11-89627251.205945292.401067.70423.67\$11-90627104.605945178.301056.10792.48\$11-91626858.805945074.201046.90661.41\$11-92627150.005945301.201059.10411.48\$11-93627150.005945301.201059.10292.60\$11-94627160.305945354.601091.50325.22\$11-95626777.905945183.701045.60557.78\$11-96625833.005945010.901050.70539.49\$11-98626607.605945075.001050.70539.49\$11-99626662.605945010.901050.70609.90					
S11-88627104.605945178.301056.10810.16S11-89627251.205945292.401067.70423.67S11-90627104.605945178.301056.10792.48S11-91626858.805945074.201046.90661.41S11-92627150.005945301.201059.10411.48S11-93627150.005945354.601091.50325.22S11-94627160.305945632.30978.60309.98S11-96625833.005945010.901050.70539.49S11-98626607.605945075.001050.60623.92	S11-86	627042.70	5944892.70	1065.00	740.66
S11-89627251.205945292.401067.70423.67S11-90627104.605945178.301056.10792.48S11-91626858.805945074.201046.90661.41S11-92627150.005945301.201059.10411.48S11-93627150.005945301.201059.10292.60S11-94627160.305945354.601091.50325.22S11-95626777.905945183.701045.60557.78S11-96625833.005945632.30978.60309.98S11-97626662.605945075.001050.70539.49S11-98626607.605945075.001050.60623.92	S11-87	627067.30	5945202.10	1049.70	414.53
S11-90627104.605945178.301056.10792.48S11-91626858.805945074.201046.90661.41S11-92627150.005945301.201059.10411.48S11-93627150.005945301.201059.10292.60S11-94627160.305945354.601091.50325.22S11-95626777.905945183.701045.60557.78S11-96625833.005945632.30978.60309.98S11-97626662.605945010.901050.70539.49S11-98626607.605945075.001050.60623.92	S11-88	627104.60	5945178.30	1056.10	810.16
S11-91626858.805945074.201046.90661.41S11-92627150.005945301.201059.10411.48S11-93627150.005945301.201059.10292.60S11-94627160.305945354.601091.50325.22S11-95626777.905945183.701045.60557.78S11-96625833.005945632.30978.60309.98S11-97626662.605945010.901050.70539.49S11-98626607.605945075.001050.60623.92	S11-89	627251.20	5945292.40	1067.70	423.67
S11-92627150.005945301.201059.10411.48S11-93627150.005945301.201059.10292.60S11-94627160.305945354.601091.50325.22S11-95626777.905945183.701045.60557.78S11-96625833.005945632.30978.60309.98S11-97626662.605945010.901050.70539.49S11-98626607.605945075.001050.60623.92	S11-90	627104.60	5945178.30	1056.10	792.48
S11-93627150.005945301.201059.10292.60S11-94627160.305945354.601091.50325.22S11-95626777.905945183.701045.60557.78S11-96625833.005945632.30978.60309.98S11-97626662.605945010.901050.70539.49S11-98626607.605945075.001050.60623.92	S11-91	626858.80	5945074.20	1046.90	661.41
S11-94627160.305945354.601091.50325.22S11-95626777.905945183.701045.60557.78S11-96625833.005945632.30978.60309.98S11-97626662.605945010.901050.70539.49S11-98626607.605945075.001050.60623.92	S11-92	627150.00	5945301.20	1059.10	411.48
\$11-95626777.905945183.701045.60557.78\$11-96625833.005945632.30978.60309.98\$11-97626662.605945010.901050.70539.49\$11-98626607.605945075.001050.60623.92	S11-93	627150.00	5945301.20	1059.10	292.60
S11-96625833.005945632.30978.60309.98S11-97626662.605945010.901050.70539.49S11-98626607.605945075.001050.60623.92	S11-94	627160.30	5945354.60	1091.50	325.22
S11-97626662.605945010.901050.70539.49S11-98626607.605945075.001050.60623.92	S11-95	626777.90	5945183.70	1045.60	557.78
S11-98 626607.60 5945075.00 1050.60 623.92	S11-96	625833.00	5945632.30	978.60	309.98
	S11-97	626662.60	5945010.90	1050.70	539.49
S11-99 626662.60 5945010.90 1050.70 609.90	S11-98	626607.60	5945075.00	1050.60	623.92
	S11-99	626662.60	5945010.90	1050.70	609.90

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APPENDIX 2 – SEMIVARIOGRAMS USED



