MINERAL RESOURCE ESTIMATE UPDATE FOR THE SEEL AND OX DEPOSITS

Gold Reach Resources Ltd.

Ootsa Property

Tahtsa Reach Area

British Columbia, Canada

Latitude 53°38' N

Longitude 127°05' W

Prepared for

Gold Reach Resources Ltd.

By

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Gary Giroux, P.Eng. MASc.

February 19, 2013

The effective date of exploration for Seel is January 20, 2013

The effective date of exploration for Ox is February 08, 2013

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1.0 SUMMARY

The Ootsa property is located in west-central British Columbia on the south side of Tahtsa Reach, an arm of Ootsa Lake, and has good access via a network of well-maintained all season logging roads. The towns of Houston and Smithers, BC are the nearest populated centers that serve as local supply and logistic headquarters to the mineral exploration industry. The Ootsa claims are adjacent to and contiguous with the operating Huckleberry mine property, located 8km northwest of the center of exploration activity on the Ootsa property. The Ootsa Property is comprised of several claims that total over 47,000 hectares (Ha) and contain 2 porphyry deposits, Seel and Ox, along with a high grade silver-base metal vein system at Damascus. Details of these deposits along with past exploration work are available in several historic assessment reports, 2 technical reports supporting resource estimates for Ox and Seel in 2008, and in a technical report supporting a January 2012 resource update on the Seel deposit. This report is intended to support the most recent resource updates completed on both the Seel and Ox deposits in early 2013. The effective date for the Seel resource update is January 20th, 2013, and the effective date for the Ox resource is February 8th, 2013.

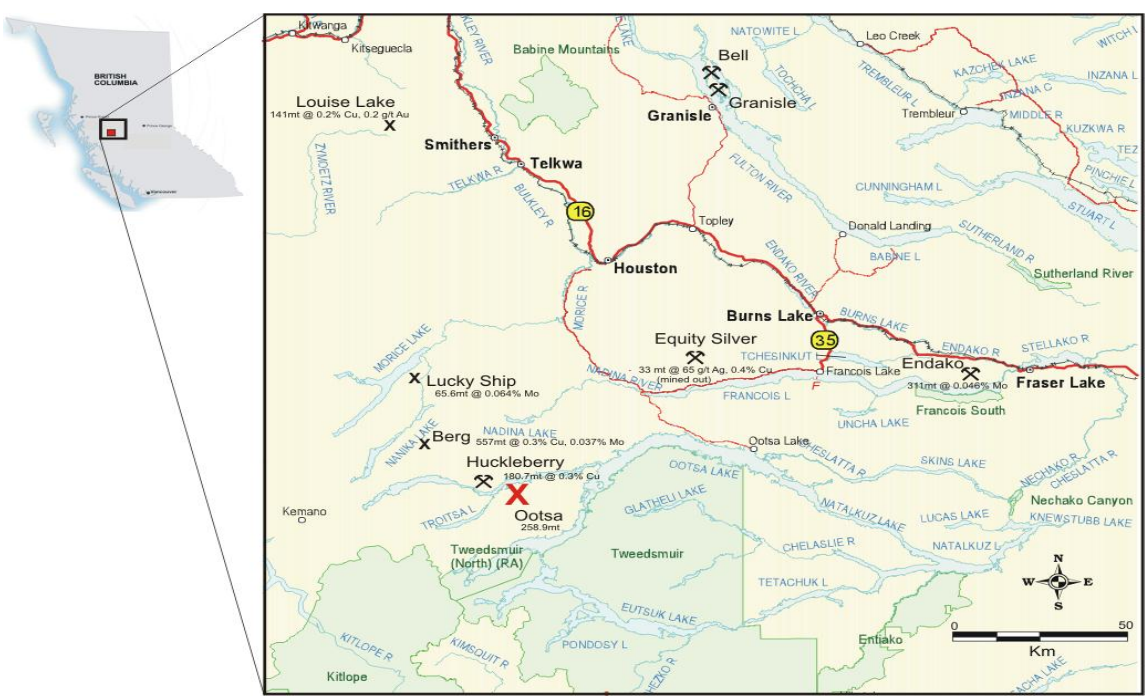


Figure 1.1: Location of the Ootsa property in west central British Columbia

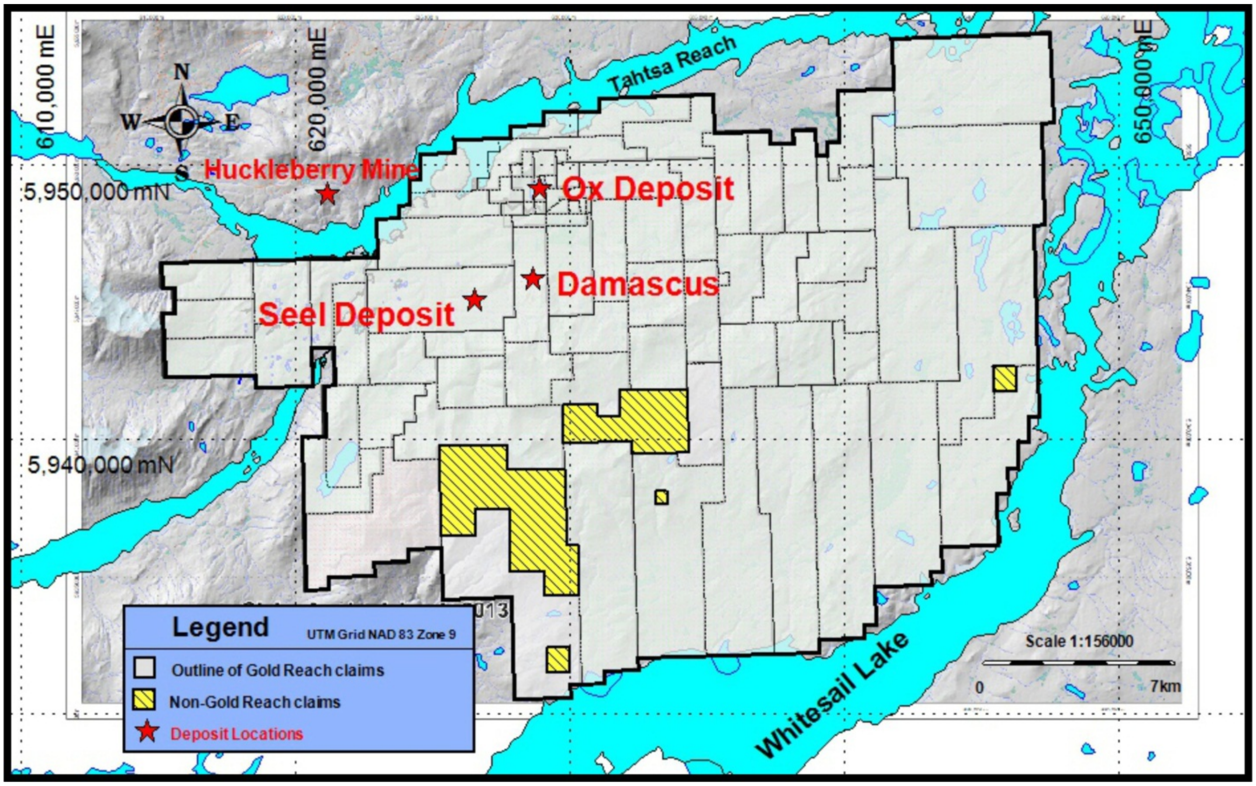


Figure 1.2: Plan map representation of Ootsa property claims with deposit locations.

During the 2012 summer field season Gold Reach Resources completed 38,627.8 meters of drilling in 46 holes at the Seel deposit and 4947.4 meters in 18 holes at the Ox deposit. 2012 drilling at Seel focused on the newly discovered West Seel deposit located on the west side of the Seel deposit and has substantially increased the area of known mineralization at West Seel. Only one hole was drilled into the Seel Cu-Au zone (for metallurgical studies) so the geology and size for the Seel Cu-Au zone (east side of the deposit) is mainly unchanged for the 2013 resource update. The 2012 drilling at the Ox deposit was intended to verify and expand an initial resource estimate conducted by Wardrop Engineering in 2008.

In December 2012 Gold Reach commissioned a third resource estimate on the Seel deposit, which follows the initial estimate completed in 2008 by Wardrop Engineering and a 2012 resource update completed by Giroux Consultants Ltd. The Ox resource estimate is an update to the initial estimate completed by Wardrop Engineering in 2008. The current Seel and Ox independent resource estimates were completed by Giroux Consultants Ltd. They have been completed in accordance with Canadian Securities Administrators National Instrument 43-101 ("NI 43-101") and the CIM Standards on Mineral Resources and Reserves, and have effective dates of January 20, 2013(Seel) and February 8, 2013 (Ox).

Results of the latest resource estimates at Seel and Ox are summarized in the tables below. At a 0.2% Cu Eq cut off the Seel deposit contains an indicated resource of 66.55 million tonnes grading 0.21% Cu, 0.18 g/t Au, 0.015% Mo and 2.03 g/t Ag (0.39% Cu Eq) plus an inferred resource of 392.7 million tonnes grading 0.16% Cu, 0.11 g/t Au, 0.018% Mo, and 1.95 g/t Ag (0.32% 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 and 2012 drill programs.

Table 1-1: Indicated Resource Within the Seel Mineralized Solids

Cut-off (CUEQ)	Tonnes (x1000)	Grade > Cut-off				
		Cu (%)	Au (g/t)	Mo (%)	Ag (g/t)	CuEq (%)
0.10	82,240	0.18	0.16	0.013	1.82	0.34
0.15	77,240	0.19	0.16	0.014	1.88	0.36
0.20	66,550	0.21	0.18	0.015	2.03	0.39
0.25	52,510	0.23	0.20	0.016	2.28	0.43
0.30	41,530	0.26	0.22	0.016	2.48	0.47
0.35	32,890	0.28	0.24	0.017	2.59	0.51
0.40	25,810	0.30	0.26	0.018	2.64	0.55
0.45	19,810	0.32	0.29	0.019	2.66	0.59
0.50	14,550	0.34	0.32	0.021	2.67	0.63
0.55	10,540	0.36	0.34	0.022	2.66	0.67

Table 1-2: Inferred Resource Within the Seel Mineralized Solids

Cut-off (CUEQ)	Tonnes (x1000)	Grade > Cut-off				
		Cu (%)	Au (g/t)	Mo (%)	Ag (g/t)	CuEq (%)
0.10	476,520	0.15	0.11	0.016	1.82	0.29
0.15	462,040	0.15	0.11	0.017	1.84	0.30
0.20	392,740	0.16	0.11	0.018	1.95	0.32
0.25	275,100	0.19	0.13	0.020	2.19	0.36
0.30	175,440	0.21	0.15	0.023	2.48	0.40
0.35	110,460	0.23	0.17	0.026	2.71	0.45
0.40	66,550	0.25	0.20	0.029	2.96	0.51
0.45	41,770	0.27	0.23	0.032	3.19	0.56
0.50	26,700	0.29	0.26	0.035	3.36	0.60
0.55	16,820	0.30	0.29	0.038	3.55	0.65

A summary of the resource update on the Ox deposit appears below in Table 1-3. There are an insufficient amount of drill holes to classify the Ox resource as either measured or indicated so the totals are reported simply as an inferred resource. A total of 52,650 million tonnes grading 0.21% Cu, 0.03 g/t Au, 0.022 % Mo, and 1.25 g/t Ag (0.32 % CuEq) are contained at Ox based on a 0.2 % CuEq cut-off.

Table 1-3: Inferred Resource Within the OX Mineralized Solid

Cut-off (CUEQ)	Tonnes (x1000)	Grade > Cut-off				
		Cu (%)	Au (g/t)	Mo (%)	Ag (g/t)	CuEq (%)
0.10	59,800	0.20	0.03	0.020	1.25	0.30
0.15	57,930	0.20	0.03	0.021	1.24	0.31
0.20	52,650	0.21	0.03	0.022	1.25	0.32
0.25	41,060	0.23	0.04	0.024	1.29	0.34
0.30	27,710	0.25	0.04	0.026	1.37	0.38
0.35	16,500	0.28	0.05	0.028	1.45	0.41
0.40	7,900	0.31	0.05	0.031	1.50	0.46
0.45	3,890	0.34	0.06	0.033	1.55	0.50
0.50	1,670	0.37	0.07	0.035	1.56	0.54
0.55	480	0.41	0.08	0.036	1.72	0.60

Table 1-4 provides a summary for all domains in the 2013 resource update at Ootsa. This summary and the preceding charts are based on grades contained in the mineralized solids. See section 14 of this report for a more thorough explanation of the resource estimate methodology.

Table 1-4: SUMMARY OF RESOURCE FOR ALL DOMAINS

Domain	Class	Cut-off (CUEQ)	Tonnes (x1000)	Grade > Cut-off				
				Cu (%)	Au (g/t)	Mo (%)	Ag (g/t)	CuEq (%)
East Seel	Indicated	0.20	35,480	0.21	0.19	0.009	1.09	0.37
West Seel	Indicated	0.20	31,070	0.21	0.15	0.022	3.10	0.41
Total	Indicated	0.20	66,550	0.21	0.17	0.015	2.03	0.39
East Seel	Inferred	0.20	64,170	0.13	0.11	0.015	0.94	0.25
West Seel	Inferred	0.20	326,420	0.17	0.12	0.019	2.12	0.33
Seel Breccia	Inferred	0.20	1,210	0.42	0.06	0.001	12.63	0.60
Seel NE	Inferred	0.20	810	0.18	0.10	0.006	0.62	0.26
Ox	Inferred	0.20	52,650	0.21	0.03	0.022	1.25	0.32
Total	Inferred	0.20	445,260	0.17	0.11	0.018	1.87	0.32

* Note – Differences in totals from earlier tables result from rounding

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 grades > 0.15 % CuEq. Four domains were defined at Seel, consisting of the West, the East, the Breccia and the Northeast zone. All assays outside the solids were considered waste. The Ox deposit was modelled as one domain. Greater detail of the parameters and methodology used can be found in Section 14 of this report.

Uniform down hole 5 m composites were formed from the drill data and a block model with blocks measuring 10 x 10 x 5 m were 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 polymetallic nature of the Seel and Ox deposits 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 ($3.25/lb Cu, $1500/oz Au, $29/oz Ag) and a price of $12/lb for Mo. Bulk density values for the Seel resource were determined through the use of 1700 specific gravity (weight in air/weight in water method) measurements made during the 2011 and 2012 field season. A bulk density average value of 2.75 for the Ox resource was determined from 235 specific gravity measurements from 2012 drilling. Recoveries used were obtained from previous metallurgical testing completed in 2009. Those results suggested 96% recovery for Cu, 87% recover for Au, 86% recovery for Ag, and 87% recovery for Mo. A new round of metallurgical tests is currently in progress but results are not yet available at the time of report preparation.

2.0 TERMS OF REFERENCE

This report on estimation of mineral resources for the Seel and Ox deposits was prepared by C. McDowell and G. Giroux on behalf of Gold Reach Resources in order 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 and technical reports pertaining to the project and are noted in the References section and/or where directly cited in the body of this report. 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, President of Gold Reach Resouces, and Gary Giroux of Giroux Consultants Ltd. between December, 2011 and January 2013. 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 2012 period. The Seel resource estimate is based on a database containing 146 diamond drillholes totaling 66,923 meters complete with assay certificates. The Ox resource estimate is based on 44 holes drilled by Gold Reach totaling 11,090 meters, details of which can be found in Section 14 of this report and in a technical report supporting the 2008 resource estimate (Arseneau et al., 2008). Au was analysed by fire assay and Cu and other elements were analysed by inductively coupled plasma (ICP).

Hard copy and/or digital records of the 2012 drilling data were delivered to Giroux Consultants Ltd. by Gold Reach personnel for purposes of the current resource estimate update. The latest round of data was intended to augment previously supplied data from past programs and resource estimates which included digital elevation files, geologic reports, drill logs, drill plans, assay and laboratory records. 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 constructed using Gemcom software.

Author McDowell has been involved in all aspects of the 2012 Gold Reach Resources exploration program at the Ootsa Property and has spent a significant amount of time on the project in 2012. Author Giroux has not visited the property.

Units of measure in this report are metric and monetary amounts are denoted in Canadian Dollars.

3.0 RELIANCE ON OTHER EXPERTS

3.1 General

Gold Reach Resources 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 authors McDowell and Giroux for Gold Reach Resources 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 Resources 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 takes responsibility for the remaining sections.

4.0 PROPERTY DESCRIPTION AND 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 1.1). 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'W. Gold Reach Resources Ltd in conjunction with its 100% wholly owned subsidary Ootsa Ventures Ltd. owns 100% of the Ootsa Property. The Ootsa Property consists of 77 contiguous non-survey mineral claims totaling 47,079.7 hectares. There is some overlap within the claims, especially around the Ox area as they represent some of the oldest claims in the area.

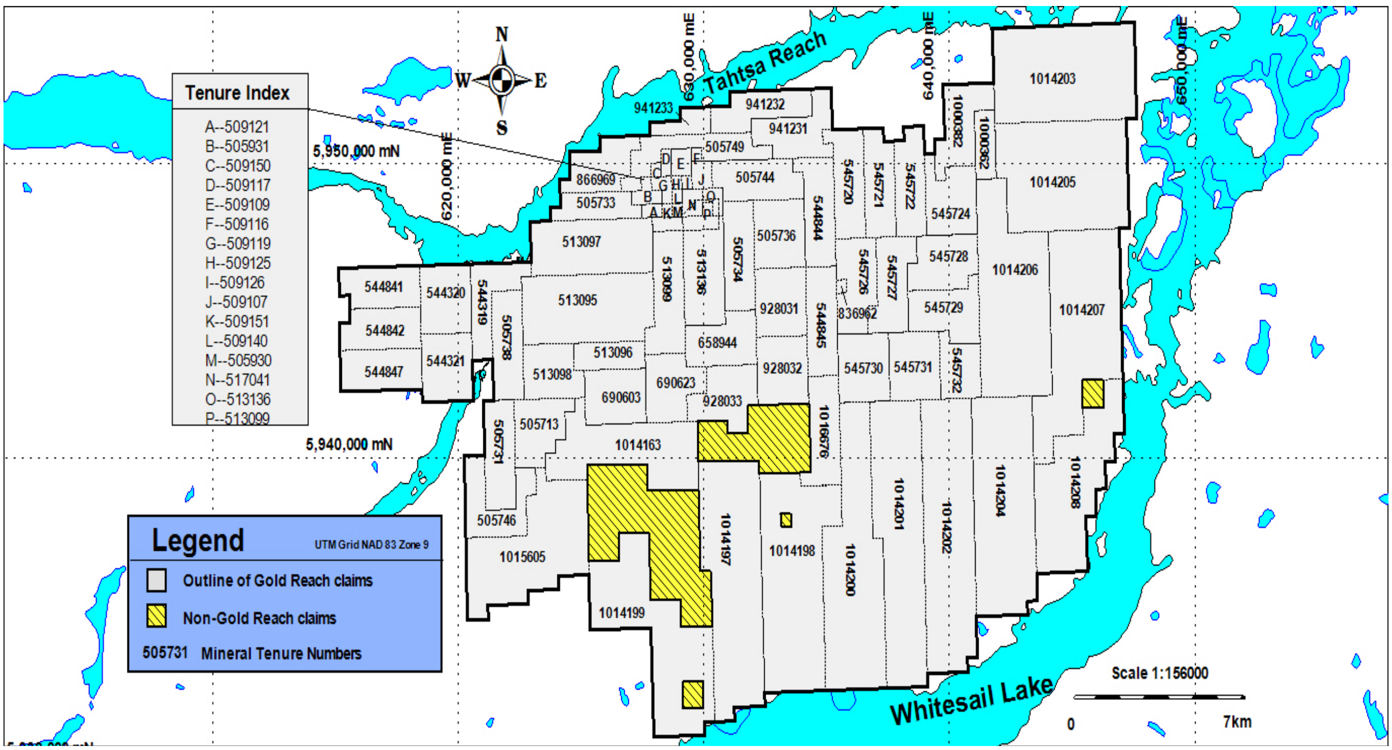


Figure 4.1: Ootsa Property claims map with mineral tenure labels.

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

The author undertook a search of the tenure data on the British Columbia government's Mineral Titles Online (MTO) web site which confirms the geospatial locations of the claims 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 are assumed to be correct.

Table 4-1: List of Mineral Tenures at the Ootsa Property.

Gold Reach Resources Ltd.				
Tenure #	**Claim**	**Owner**	**Good To Date**	**Area (ha)**
403806	SEEL 9	Gold Reach	2022/jul/02	300.0
505713	Seel 11	Gold Reach	2022/jul/02	441.3
505731	Seel 12	Gold Reach	2022/jul/02	460.6
505733	Seel 13	Gold Reach	2022/jul/02	306.5
505734	Seel 13	Gold Reach	2022/jul/02	459.9
505736	Seel 15	Gold Reach	2022/jul/02	479.0
505738	Seel 16	Gold Reach	2022/jul/02	460.2
505744	Seel 17	Gold Reach	2022/jul/02	478.8
505746	Seel 18	Gold Reach	2022/jul/02	479.9
505749	Seel 19	Gold Reach	2022/jul/02	478.7
513095		Gold Reach	2022/jul/02	1226.9
513096		Gold Reach	2022/jul/02	268.5
513097		Gold Reach	2022/jul/02	919.8
513098		Gold Reach	2022/jul/02	421.9
513099		Gold Reach	2022/jul/02	613.4
513136		Gold Reach	2022/jul/02	613.3
517041	SEEL 20	Gold Reach	2022/jul/02	57.5
658944	SEEL L1	Gold Reach	2022/jul/02	460.2
866969		Gold Reach	2022/jul/02	421.3
928031		Gold Reach	2022/jul/02	479.3
928032		Gold Reach	2022/jul/02	479.5
928033		Gold Reach	2022/jul/02	479.6
941231		Gold Reach	2022/jul/02	478.7
941232		Gold Reach	2022/jul/02	421.2
941233		Gold Reach	2022/jul/02	172.3
1015605		Gold Reach	2014/jan/01	1478.7
			total:	**13336.9**

Ootsa Ventures Ltd.				
Tenure #	**Claim**	**Owner**	**Good To Date**	**Area (ha)**
505930		Ootsa Ventures	2022/jul/02	76.6
505931		Ootsa Ventures	2022/jul/02	76.6
509107		Ootsa Ventures	2022/jul/02	76.6
509109		Ootsa Ventures	2022/jul/02	76.6
509116		Ootsa Ventures	2022/jul/02	19.2
509117		Ootsa Ventures	2022/jul/02	38.3
509119		Ootsa Ventures	2022/jul/02	57.5
509121		Ootsa Ventures	2022/jul/02	38.3
509122		Ootsa Ventures	2022/jul/02	19.2
509125		Ootsa Ventures	2022/jul/02	19.2
509126		Ootsa Ventures	2022/jul/02	19.2
509140		Ootsa Ventures	2022/jul/02	19.2
509150		Ootsa Ventures	2022/jul/02	19.2
509151		Ootsa Ventures	2022/jul/02	19.2
544319	SEEL20	Ootsa Ventures	2022/jul/02	402.5
544320		Ootsa Ventures	2022/jul/02	479.2
544321	SEEL22	Ootsa Ventures	2022/jul/02	479.4
544841	SEEL23	Ootsa Ventures	2022/jul/02	440.8
544842	SEEL24	Ootsa Ventures	2022/jul/02	441.0
544844	SEEL25	Ootsa Ventures	2022/jul/02	479.0
544845	SEEL26	Ootsa Ventures	2022/jul/02	460.2
544847	SEEL27	Ootsa Ventures	2022/jul/02	460.3
545720	SEEL28	Ootsa Ventures	2022/jul/02	478.9
545721	SEEL29	Ootsa Ventures	2022/jul/02	440.6
545722	SEEL30	Ootsa Ventures	2022/jul/02	440.6
545724	SEEL31	Ootsa Ventures	2022/jul/02	478.9
545726	SEEL32	Ootsa Ventures	2022/jul/02	479.2
545727	SEEL33	Ootsa Ventures	2022/jul/02	479.2
545728	SEEL34	Ootsa Ventures	2022/jul/02	479.2
545729	SEEL35	Ootsa Ventures	2022/jul/02	479.3
545730	SEEL36	Ootsa Ventures	2022/jul/02	479.5
545731	SEEL37	Ootsa Ventures	2022/jul/02	479.5
545732	SEEL38	Ootsa Ventures	2022/jul/02	326.1
690603	SEEL 40	Ootsa Ventures	2022/jul/02	460.4
690623	SEEL41	Ootsa Ventures	2022/jul/02	460.4
836962	XE1	Ootsa Ventures	2022/jul/02	19.2
1000362	OTSA EA	Ootsa Ventures	2022/jul/02	191.5
1000382	OTSA EAS	Ootsa Ventures	2022/jul/02	478.7
1014163		Ootsa Ventures	2013/nov/01	1132.2
1014197		Ootsa Ventures	2013/nov/01	1920.9
1014198		Ootsa Ventures	2013/nov/01	1901.7
1014199		Ootsa Ventures	2013/nov/01	1633.4
1014200		Ootsa Ventures	2013/nov/01	1882.4
1014201		Ootsa Ventures	2013/nov/01	1805.1
1014202		Ootsa Ventures	2013/nov/01	1901.2
1014203		Ootsa Ventures	2013/nov/01	1875.8
1014204		Ootsa Ventures	2013/nov/01	1824.0
1014205		Ootsa Ventures	2013/nov/01	1915.5
1014206		Ootsa Ventures	2013/nov/01	1840.5
1014207		Ootsa Ventures	2013/nov/01	1898.4
1014208		Ootsa Ventures	2013/nov/01	1343.8
			total:	**33742.8**

4.1 Agreements

Gold Reach acquired the Ootsa Property (Seel Claims 1-7) by way of an option agreement on January 31, 2003. On October 11, 2005, Grayd Resources Ltd staked additional claims 8-20 and included them in the option agreement. On October 15, 2007 Grayd Resources Ltd declined their back in right and Gold Reach owned 100% of the Seel Claims 1-20.

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

On January 7, 2007, Gold Reach Resources Ltd and its wholly owned subsidiary, Oosta Ventures Ltd., acquired a 100% interest in 14 claims totalling approximately 538 ha known as the “Ox 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 Ventures Ltd. and all of them remain in good standing. Claim acquisition in the immediate area of the Ootsa Properties continues up to the time of this report writing.

Portions of the area of the claim lie within areas of interest claimed by the Wet'suwet'en, Cheslatta-Carrier, Carrier-Sekani, Skin Tyee, and Nee-Tahi-Buhn First Nations.

On January 25, 2013, Gold Reach Resources Ltd. issued a press release announcing the signing of a letter of understanding (LOU) with the Cheslatta Carrier Nation. The LOU between Gold Reach and Cheslatta will help the two parties 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 Ox and Seel properties.

Cheslatta is a First Nations community located on the south side of Francois Lake near Burns Lake, B.C., and is one of many First Nation Groups claiming rights and title over the area covering the Ootsa Property.

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 $200.00 in the fourth and subsequent years.

5.0 ACCESS, CLIMATE, INFRASTRUCTURE AND PHYSIOGRAPHY

The Ootsa Property is located approximately 120 km south of the town of Houston in the west-central interior of British Columbia. Houston and the nearby community of Smithers, 63 km west along Highway 16, serve as major supply and industrial centers to the region. Both the CNR transcontinental railway and Trans-Canada Highway 16 pass through both towns. While Smithers has a larger population than Houston, 5500 and 3600 respectively, the surrounding region is consistently populated as well.

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. The Morice Forest Service Road (FSR) network is accessed by a southbound turn from Highway 16 approximately 3km west of Houston. Travel south 56.5 km on the Morice FSR then veer southwest on the Morice-Nadina FSR for a further 33 kilometers. At km 89 verge south on the Morice Reach FSR and follow to kilometer 103 where you will arrive at the Tahtsa Reach barge landing. A logging camp exists at the north barge landing. The barge is privately operated and will make the 1.6 km crossing for a toll. Once at the south barge landing take the Troitsa Main FSR to km 14 where the Gold Reach exploration camp is located.

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. During winter the snowpack generally ranges from 1 to 5 m but has been known to reach a maximum of 12 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 some exploration activities such as diamond drilling can be conducted year round.

5.2 Infrastructure

A network of logging roads that connect to the main transportation network from Houston transects the claim block and provide good access to most of the Ootsa Property. Drill specific roads have been constructed to access several areas around the Seel and Ox deposits. Gold Reach resurfaced the main Seel drill access road with gravel in 2012 to ensure consistent access to the core of the deposit during wet conditions. In addition, a new bridge was installed to facilitate a local creek crossing and minimize impact on the creek.

Both Houston and Smithers contain rail facilities while port facilities are located in Stewart, Prince Rupert, and Kitimat. The adjacent Huckleberry Mine, 8 km NW of the Seel deposit, 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.

5.3 Physiography

The property is located in the Tahtsa Ranges physiographic region of central British Columbia, part of the transition zone between the Coast Mountains and Interior Plateau. It lies astride 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 generally 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. Topography is moderately steep and timber covered, while above 1550 m elevation the terrain is alpine in nature. 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. 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.

6.0 PROPERTY 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). Section 6.4 on the exploration history of Ox was taken from Arseneau et al. (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 20thcentury. Interest in mining the area began in the early 1900's in 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 t of ore grading 408 g/t Ag, 12.1%Pb and 11.5% Zn. The Tahtsa-Francois Area became a centre of intense exploration activity in the 1960's and 1970's 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 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 Engineering 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 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 1960's and 1970's 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 remains in production at the time of preparation of this report, is a modern mine and mill industrial complex producing copper, molybdenum and silver. The mine is exceptionally well located with respect to roads, electrical power, water, and other infrastructure.

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 owned 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 “Ox 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 1970’s 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. Select results from these drill programs were included in table format in a technical report filed in 2012 to support the previous Seel resource estimate (McDowell and Giroux, 2012). Most of these drill holes were shallow and drilled at a 45 degree angle to target 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.

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 and salvageable core has been transported to the Gold Reach core storage facility.

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 Orgyzlo (2004).

6.4 Previous Exploration –Ox deposit

The Ox porphyry copper deposit was found in 1968 during a regional prospecting program carried out by Silver Standard Mines Limited and American Smelting and Refining Company. Attention was drawn to the Ox Lake area due to a prominent gossan associated with a lead, zinc and silver vein on a bluff overlooking Ox lake; a nearby granodiorite porphyry that was recognized as being virtually identical to that of the Huckleberry porphyry deposit 8km to the west of the Ox claims.

Between 1968 and 1981 work has included geological mapping, 32.2 km of magnetometer surveying, 14.3 km of I.P. surveying, 2.4km of VLF-EM surveying, 843 soil samples and 61km of bulldozer trenching all to investigate copper-molybdenum mineralization (Holtby, 1989).

Silver Standard drilled 4826.5 meters of BQ core from 35 drill holes between 1968 and 1969. Drilling identified a steep, westerly dipping crescent shaped mineralized zone on the west side of Ox Lake. An additional 333.5 m from two drill holes were completed by Asarco Exploration in 1981. Various government publications report historical mineral resources for the Ox deposit, none of these estimates could be verified and they are of unknown reliability and not deemed relevant as they have been superseded by the estimate conducted by Wardrop Engineering in 2008.

6.5 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 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 to search 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 “a 2000 by 600 meter 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, line cutting (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 line cutting, 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 (Deveaux, 1989) concluded that the mineralized zone has a shallow plunge to the south of 28’, and is still open in that direction and at depth. 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 “values and width did not improve with depth” on the Damascus Vein (Devereaux, 1989).

6.6 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 Author does 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.

6.7 Exploration in 2003

Reconnaissance exploration was undertaken on the Seel 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 “tight” breccia (well mineralized with pyrite, but with little porosity) was noted over several hundred meters in the creek. There is a strong possibility that an unidentified breccia pipe is located 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 (627236, 5945732) 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 at 0+600 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 “sanded” 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 +80-20 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 under the direction of Gold Reach Resources, the current property operators. A description of exploration activities conducted by Gold Reach from 2004 until current can be found in Section 9 of this report.

7.0 GEOLOGICAL SETTING AND MINERALIZATION

The following section is compiled in part from earlier geological reports prepared 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, the Berg, and Lucky Ship deposits (Figure 1.1). 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 (aka quartz porphyry), 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. 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 Lake and 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 kilometer scale curved faults that dissect the mineralized zone.

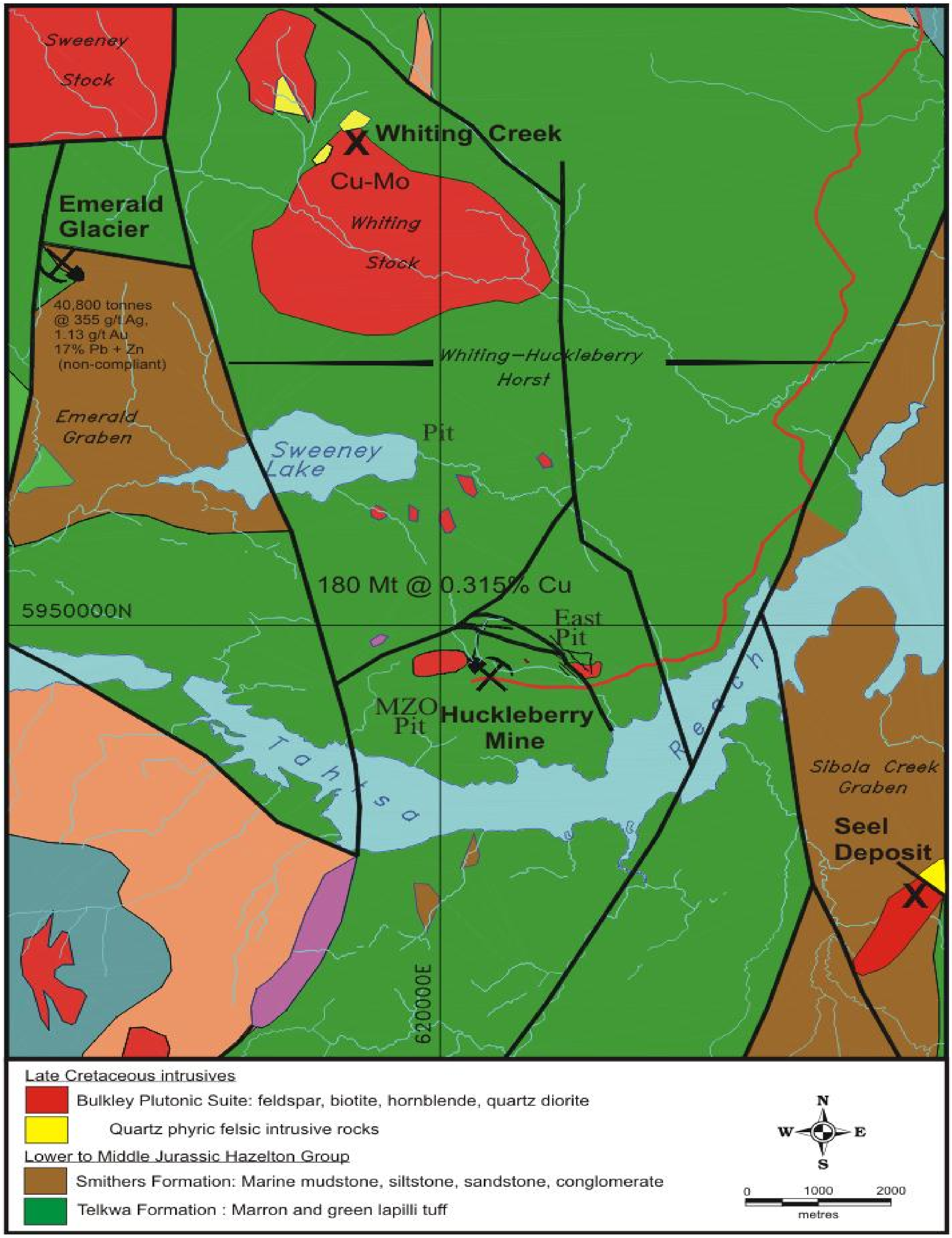


Figure 7.1: Geology of Tahtsa Reach.Geology from McIntyre et al, (1994), McIntyre (2001), and Christensen et al., 2011. Resource numbers in the figure come from various company websites and have not been verified by the Authors. They are for illustrative purposes only.

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. The Ox deposit location does not occur on Figure 7.1 as it is located immediately right of the map area, roughly 4km ENE of the Seel deposit.

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 in the writers opinion 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).

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 Whitesail 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 the lower part of the Middle Jurassic Smithers Formation. The best section where this transition is exposed is 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 rhyolitic ash 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 whereas those further down slope and up section are typical of the Smithers 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. 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 WhitesailRange. 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. These high level intrusions were probably feeders 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 feldspathic intrusive rocks. At least 7 distinct intrusive phases have been recognized at Seel within an intrusive complex that is at a minimum 1.6 km long by 0.5 km wide and is elongate in a northeast direction. The oldest intrusives, determined by cross cutting relationships, are an equigranular feldspar-quartz-biotite intrusive (locally dioritic) and a coarse crowded feldspar porphyry that varies 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 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 has been taken as a whole for the purpose of resource estimation but two distinct domains have emerged after the last two years of intensive drilling. The “Seel Cu-Au” zone hosts porphyry Cu-Au mineralization associated with quartz-magnetite veins on the east side of the Seel deposit. It is hosted mainly in highly altered porphyritic intrusive rocks with some mineralization hosted in hornfelsed sedimentary rocks near its north and west margins. The “West Seel” deposit defines porphyry Cu-Au-Mo-Ag mineralization hosted in fine grained clastic sedimentary rocks, with lessor sandstone to conglomerate beds, and undifferentiated porphyritic intrusives associated with pyrite-pyrrhotite-chalcopyrite-molybdenite veins. At depth the West Seel deposit is hosted by a large weakly porphyritic intrusive containing strong biotite alteration (potassic) that does not come to surface. This intrusive contains 70 to 80% euhedral to subhedral feldspar crystals 1-5 mm in size, with 5 to 10% interstitial quartz and abundant secondary biotite, and is likely granodiorite in composition.

Evidence of faulting is fairly common in drill holes at Seel. Three significant faults have been identified during 2011 and 2012 drilling and are labelled on Figure 7.2 as the North Fault, the East Fault, and the West Seel Fault. These faults postdate the main episode of porphyry mineralization but locally host younger lower temperature vein and breccia style mineralization and related alteration. The amount of displacements on the faults remains unconstrained but it is important to note that porphyry related alteration and mineralization occurs on either side of the structures. High grade gold-silver and local base metal mineralization can occur along the faults and are often associated with strong clay alteration which can be grade destructive in the surrounding porphyry. The West Seel fault loosely defines the boundary between the two distinct mineralized zones at Seel. Cataclasite and brecciated textures, often accompanied by quartz-carbonate-sulfide veining, have been observed in drill core from near the West Seel fault. Often the location of the fault has been inferred through subtle criteria such as grade, lithologic and alteration changes.

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 and can often be well mineralized.

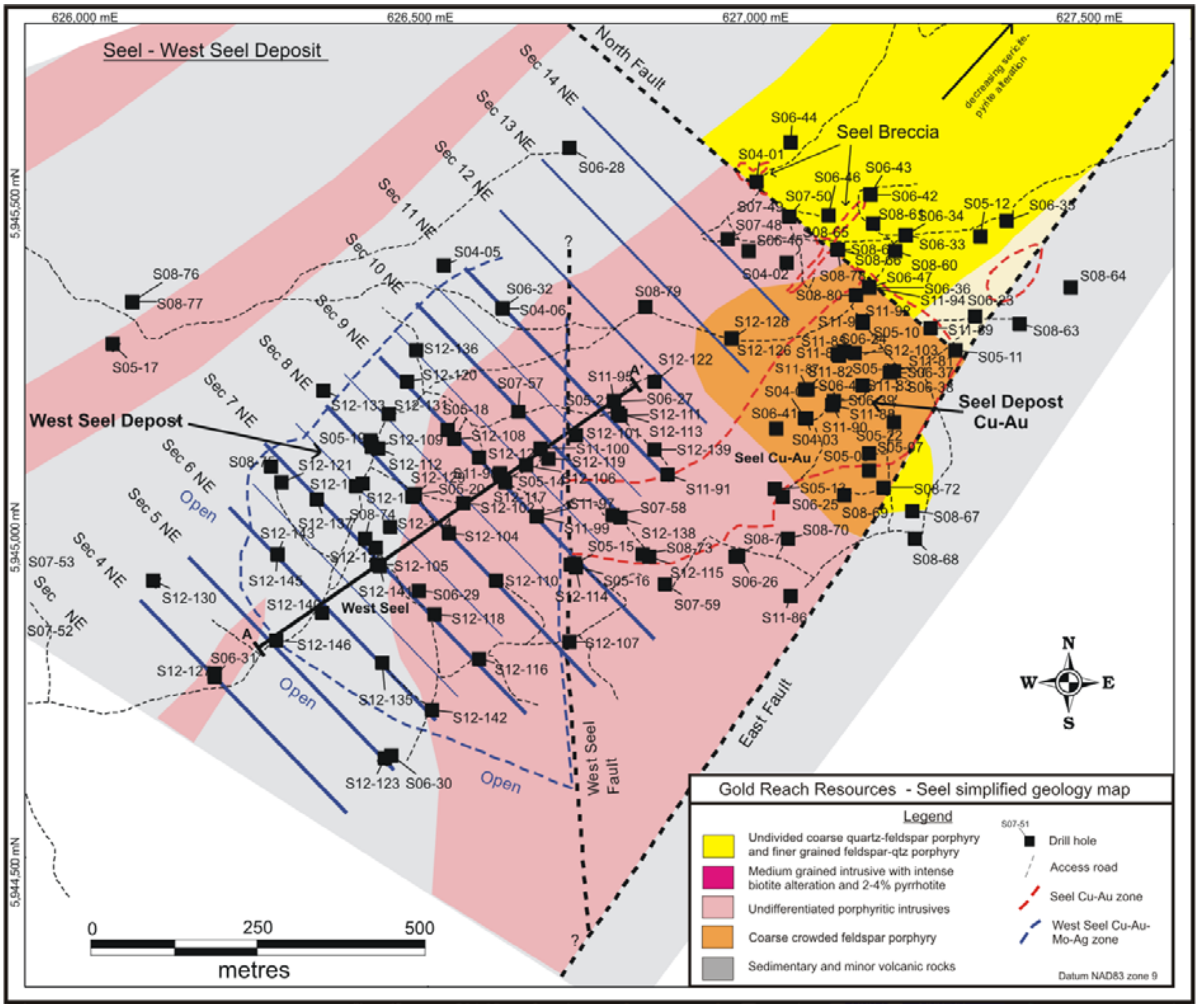


Figure 7.2: Simplified geology map of the Seel deposit with drill holes, section lines and surficial fault traces.

7.2.1 The Seel Cu-Au zone

The Seel Cu-Au zone was the locus of much drilling in 2011and formed the bulk of the data for the 2012 resource estimate at Seel. The lone hole drilled at the Seel Cu-Au zone in 2012 was completed for metallurgical purposes. As such the focus of this report will be on the West Seel zone so only a brief description of the Seel Cu-Au zone will be included here. For more detailed information pertaining to drill results from 2011 please consult the 2012 Seel technical report (McDowell and Giroux, 2012).

Seel Cu-Au style porphyry mineralization is associated with early potassic alteration and quartz + 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 3 mm 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 that might have been present. In the mineralized zone the rock contains 2 to 4% finely disseminated pyrite and chalcopyrite in a variably silica flooded groundmass. Pyrite and chalcopyrite also occur along fractures, and pyrite-chalcopyrite-magnetite occurs in quartz veins, locally concentrated in the vein centers. There are generally 5 to 7 quartz veins per meter that vary in size from 0.5 to 1 cm within the mineralized zone. Early high temperature quartz-chalcopyrite veins occur in this zone 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-colored K-feldspar within the crowded feldspar porphyry groundmass, as vein selvages along with biotite veins and zones, and quartz-pyrite-chalcopyrite-magnetite veins. Locally potassic alteration occurs with chlorite, which can alter a portion of the biotite crystals. In places potassic alteration has been overprinted by sericite alteration and the rock has been bleached to a light grey-green or tan color, mafic minerals have been destroyed, and often the feldspar phenocrysts and 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 that sericite alteration is grade destructive. This has been 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.

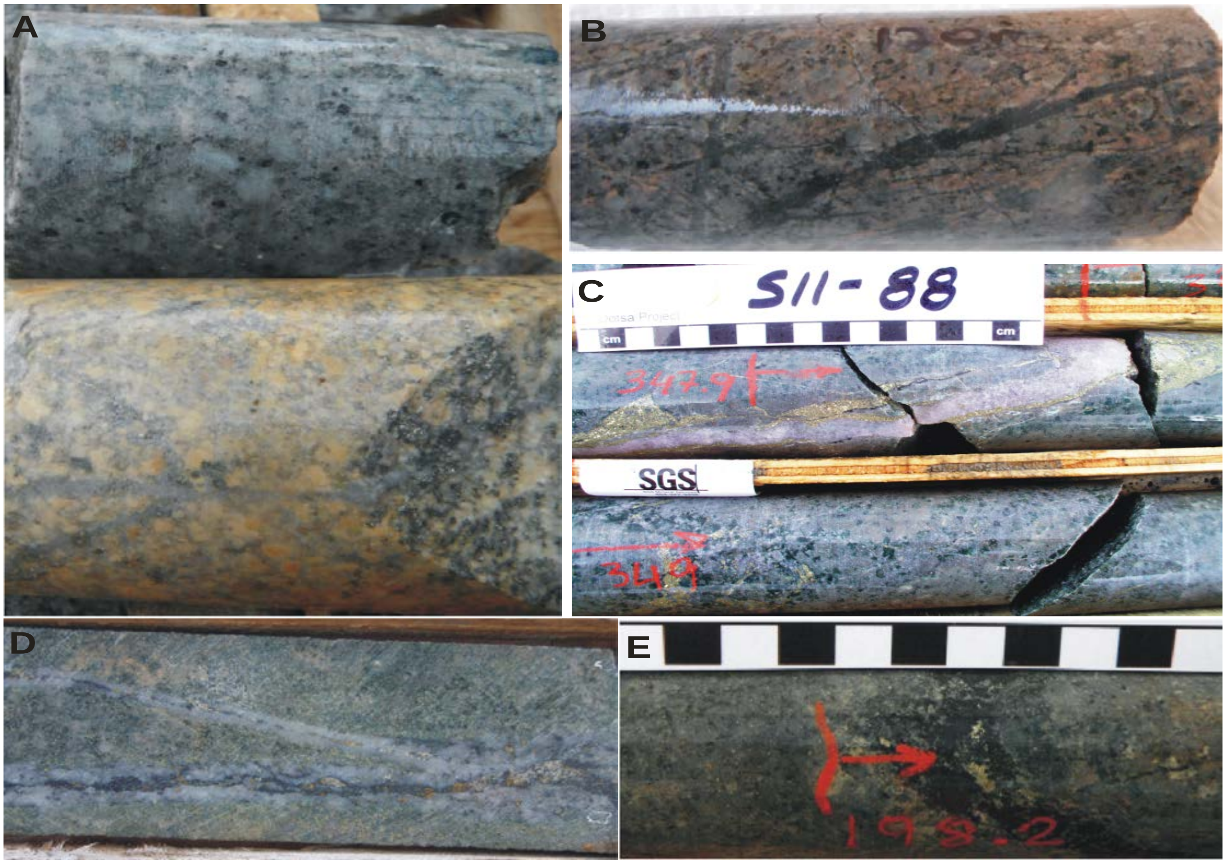


Figure 7.3: Photos of the Seel Cu-Au zone. A) top-Sericite dominated alteration, bottom-Potassic alteration B) Potassic alteration with fine grained disseminated chalcopyrite and pyrite, K-feldspar porphyry matrix, quartz-sulfide veinlets and black biotite + chalcopyrite veinlets. C) Potassic + chlorite 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

The West Seel zone was discovered by drilling during the 2011 field season when holes 91, 95, 97 and 100 all intersected Cu-Au-Mo-Ag bearing porphyry style mineralization. The 2012 field season saw 45 of 46 drill holes pierced into the West Seel zone. Mineralization at West Seel is hosted in three different lithologies including a suite of undifferentiated porphyritic intrusives, a sedimentary package with variable biotite hornfelsing and in an equigranular weakly porphyritic intrusive rock with strong biotite alteration. The undifferentiated porphyritic intrusives range in grain size from fine to medium, are feldspar dominant (10-30%) with common biotite and rare to minor quartz eyes. Sericite alteration is widespread with intermittent zones of silicic flooding and an occasional potassic component. Quartz veining varies between 1-2 veins per meter to greater than 5 with a sulfide assemblage consisting of pyrite-chalcopyrite-molybdenite. The wall rocks are comprised mainly of fine grained sedimentary rocks, dominant mud to siltstone with minor sandstone, and occasional conglomerate that have been variably hornfelsed. This hornfelsed contact zone is manifested by strong biotite alteration with vein controlled and disseminated sulfide mineralization consisting of pyrite-chalcopyrite-molybdenite with variably present pyrrhotite. Mineralization in this package is consistent and can be host to some of the highest Cu grades in the deposit. The lower West Seel intrusion is equigranular to weakly porphyritic and has moderate to strong biotite (potassic) alteration throughout. This intrusion exerts a strong control on mineralization at West Seel. The sulfide assemblage is notably different from elsewhere at Seel due to the amount of pyrrhotite that appears with pyrite, chalcopyrite and molybdenite. 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, 1-2 mm quartz-pyrrhotite-chalcopyrite-pyrite-molybdenite veins per meter.This lithology can average about 2 to 4% pyrrhotite and is strongly magnetic.

Figure 7.4: Assorted rocks from the West Seel zone. A) Biotite hornfels with strong silicic component. B) Sericite-silicic alteration to fine grain feldspar porphyry. C) Conglomeritic sedimentary rock with biotite alteration. D) Biotite altered equigranular intrusive with multi-generational quartz-sulfide veining from West Seel Intrusive.

The mineralized zone at West Seel is volumetrically large and remains unconstrained in a few directions. To date the mineralization has been traced roughly 800 meters along a northeast-southwest strike, with widths up to 600 meters and to depths in excess of 1000 meters below surface. West Seel style mineralization forms a gradational contact on the west side but is truncated by the West Seel Fault on the east side, however strong alteration and localized mineralization does occur to the east side of the West Seel Fault. Late quartz-carbonate veins with precious and base metal sulfides are found in fault splays and sub-parallel structures and fractures near the fault. The sense of displacement along the West Seel fault remains poorly understood so the faulted east side of the West Seel deposit is a valid conceptual exploration target.

Four cross sections (6NE to 9NE) through the West Seel deposit are shown below to illustrate the geometry and distribution of mineralization at West Seel. The locations of the sections are shown on Figure 7.2 and in the insets of each section. The West Seel intrusive is encountered in the vicinity of 400 meters below surface on all sections. It remains open on sections 6 and 7NE and to the west on sections 9 and 9NE. Mineralization extends to surface on sections 8 and 9NE but starts at gradually deeper levels in a southwesterly direction. The West Seel deposit is a well-developed porphyry system with modest to strong ore grades and room for significant tonnage expansion to the SSW.

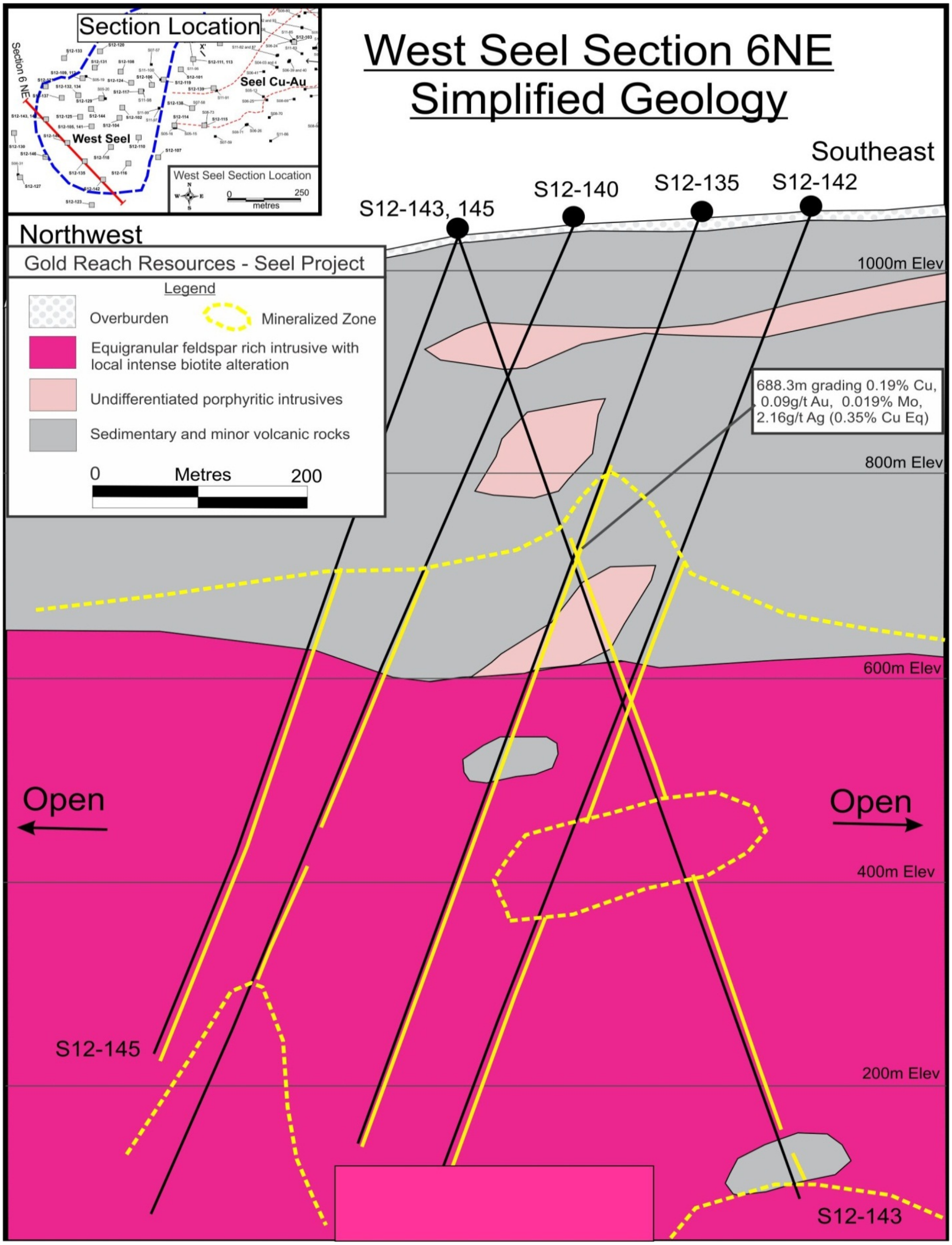


Figure 7.5: Section 6NE with voluminous West Seel intrusive open in three directions.

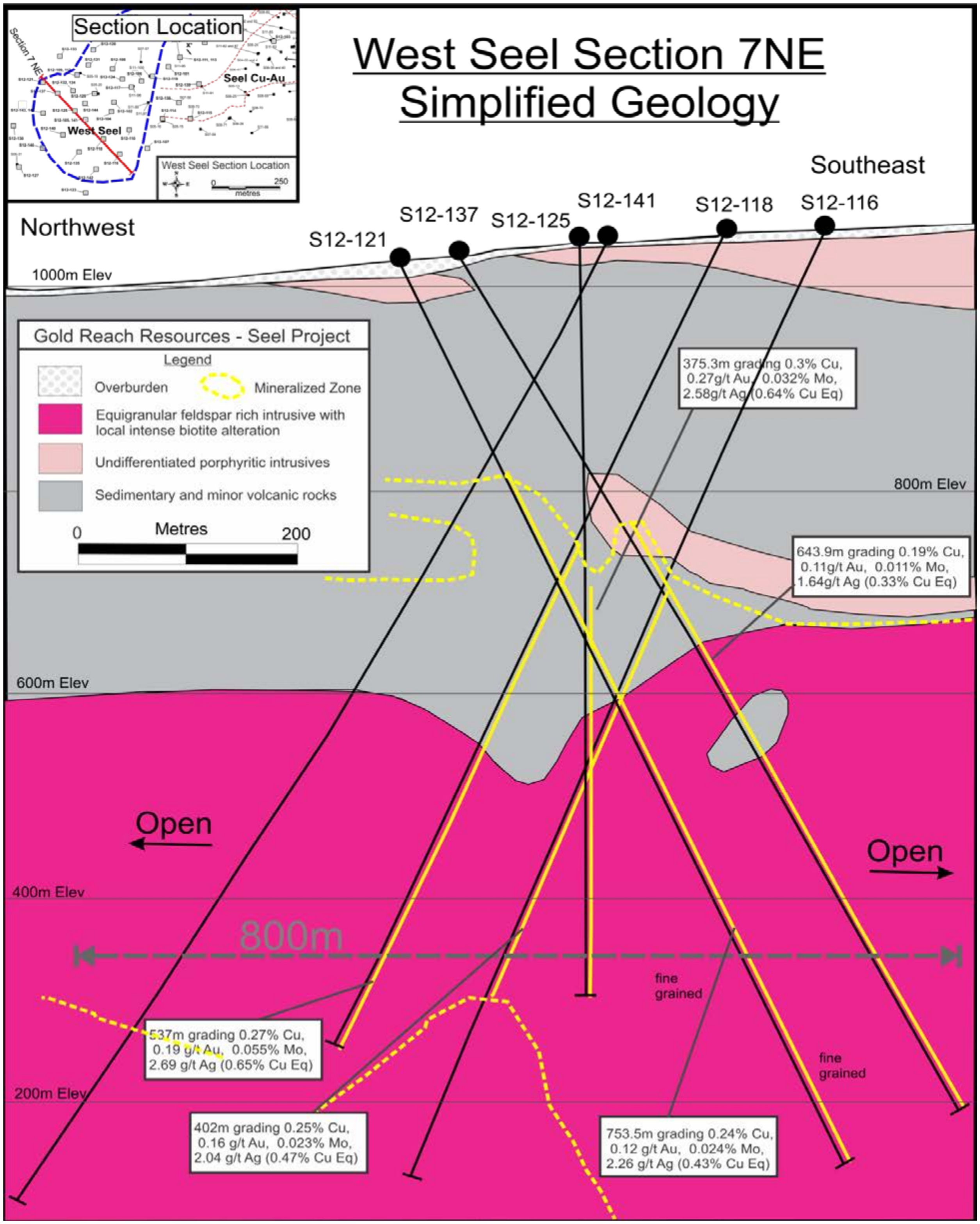


Figure 7.6: Section 7NE through West Seel zone. Drill holes encountered substantial intercepts into the West Seel intrusive.

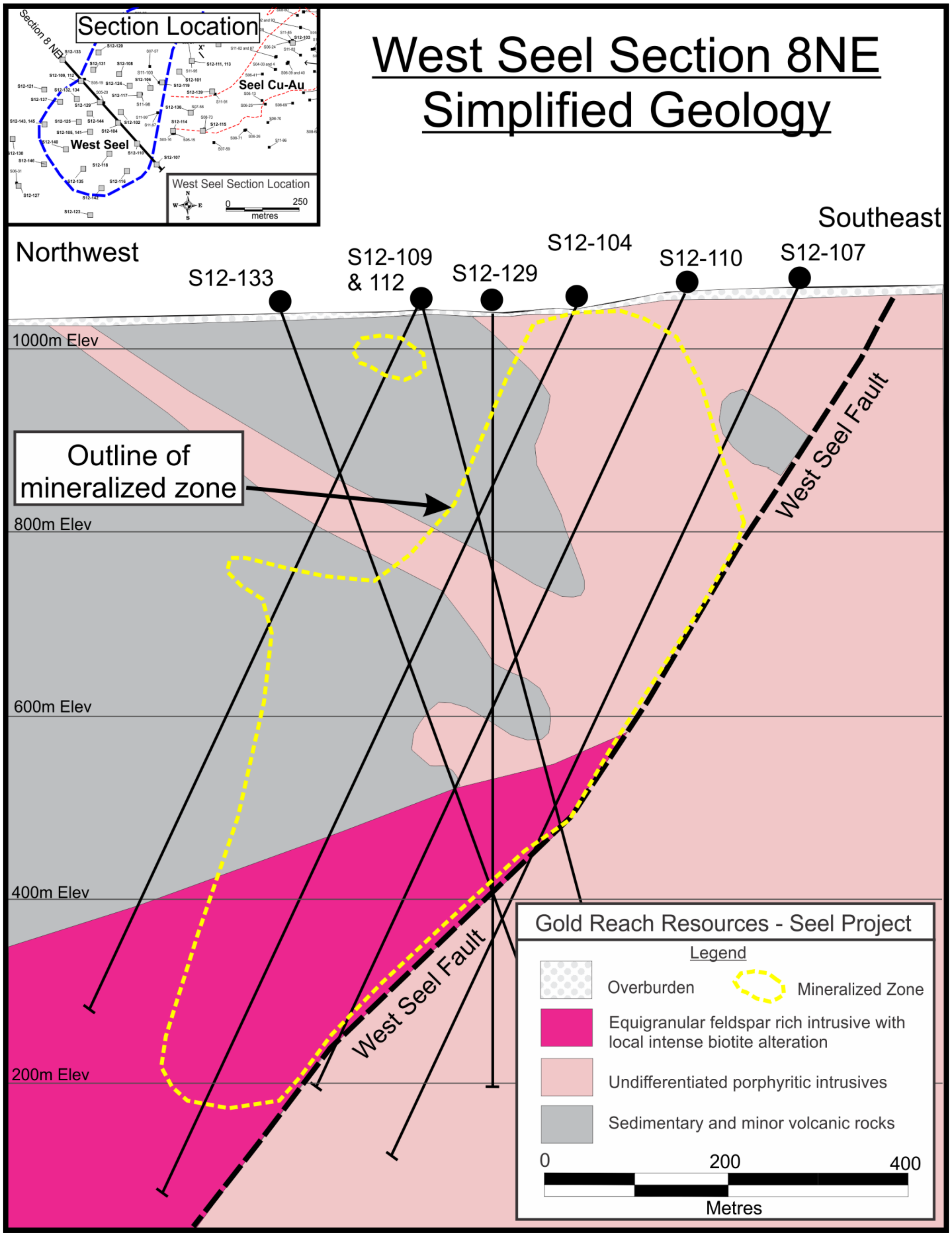


Figure 7.7: Section 8NE. Mineralization extends to surface on this section.

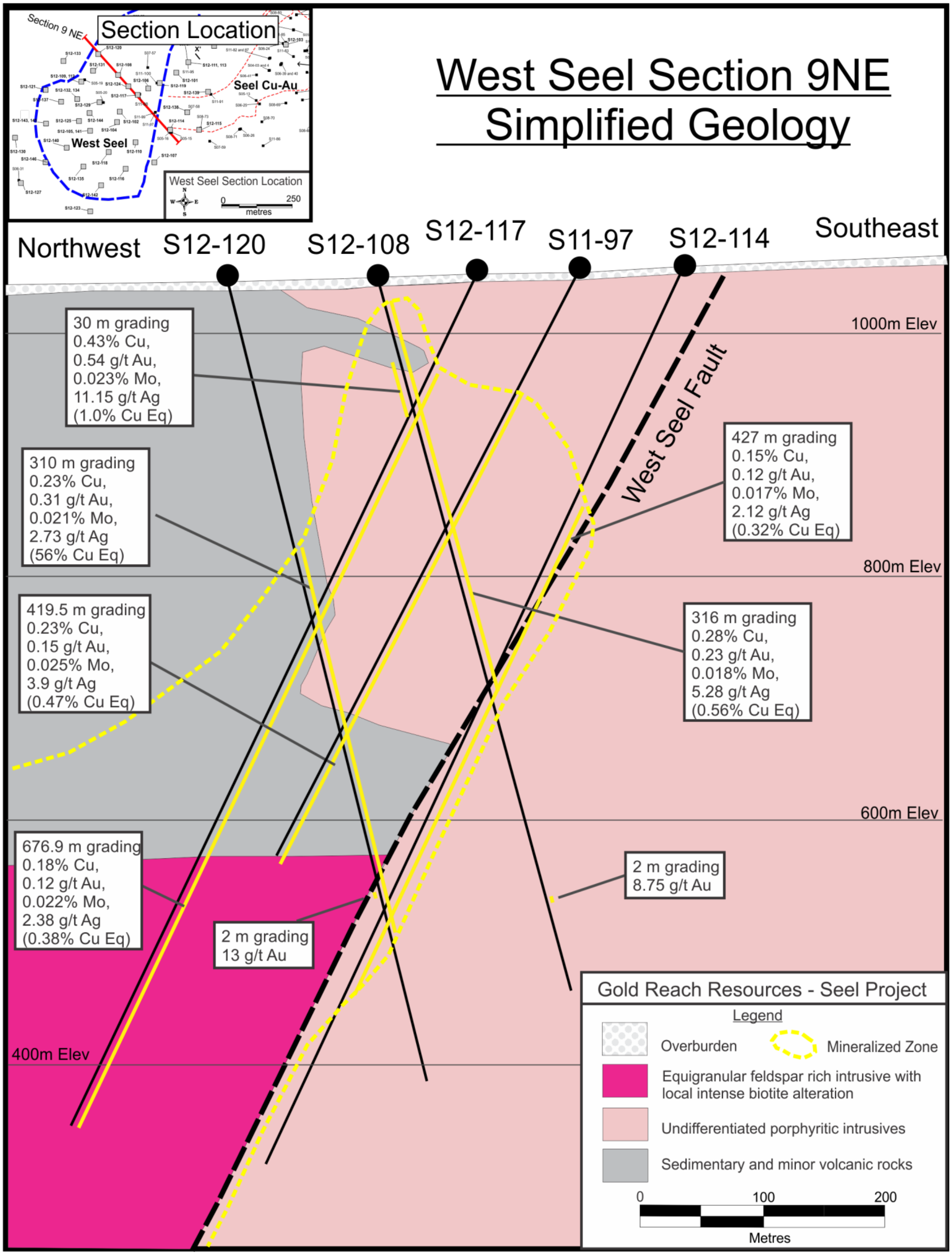


Figure 7.8: Section 9NE. Mineralization extends to near surface.

7.3 Geology and Mineralization of the Ox Deposit

The Ox deposit is located 4km northeast of the Seel deposit and contains a crescent shaped zone of disseminated and vein controlled porphyry Cu mineralization. Mineralization contains pyrite, chalcopyrite, and molybdenite hosted in hornfelsed sedimentary rocks near the western margin of a granodiorite porphyry stock.

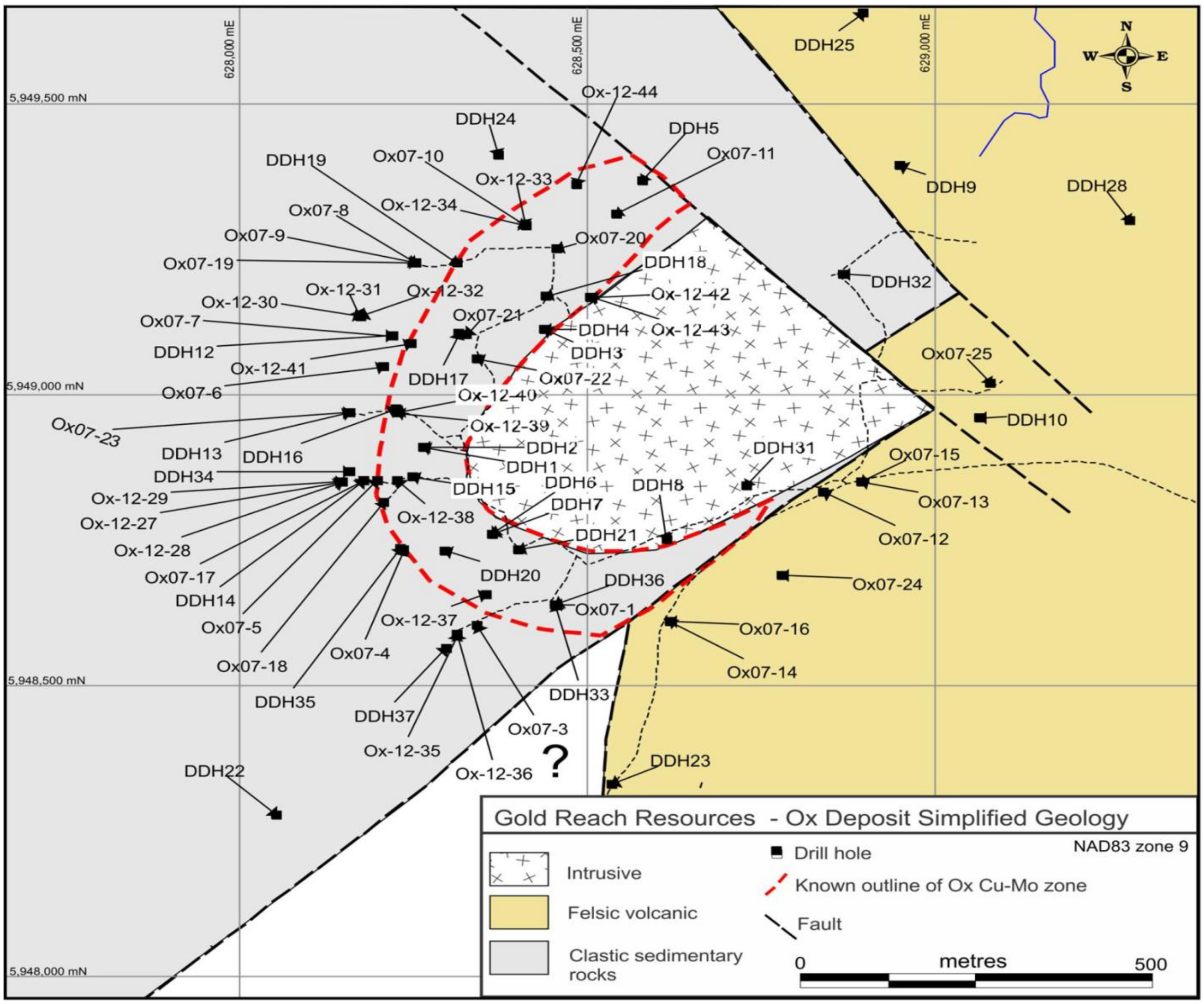


Figure 7.9: Ox deposit simplified geology with drill hole locations.

The main host rock for mineralization is a hard siliceous fine grained clastic sedimentary rock with patchy zones of strong biotite hornfels, and zones with K-feldspar, biotite, sericite, chlorite, anhydrite, silicic and clay alteration. Blebs and patches of epidote occur throughout the zone. Quartz veining is weak to moderate but present within mineralized zones, comprising quartz with K-feldspar, and quartz with chalcopyrite and/or molydenite. Quartz-chalcopyrite veins generally cut molybdenite bearing veinlets. Pyrite veinlets and disseminated pyrite (2-3%) is widespread as are late calcite veinlets.

A fine grained feldspar porphyry occurs as dikes or sills within the mineralized zones and contains mineralization and alteration similar to the surrounding sedimentary rocks. A coarse crowded feldspar biotite porphyry forms and intrusive body on the east side of the Ox mineralized zone. The porphyry contains upward of 90% feldspar crystals 2 to 10 mm in size (average 6 mm), 5-10% biotite up to 5 mm, plus minor interstitial quartz, and is interpreted to have a granodiorite composition. The crowded porphyry does not contain significant zones of mineralization but does have variable K-feldspar, sericite, chlorite, pyrite, and clay alteration with weak copper and molybdenum locally. Quartz veining is typically sparse. Several drill holes indicate the crowded porphyry is in fault contact with the adjacent mineralized sedimentary rocks.

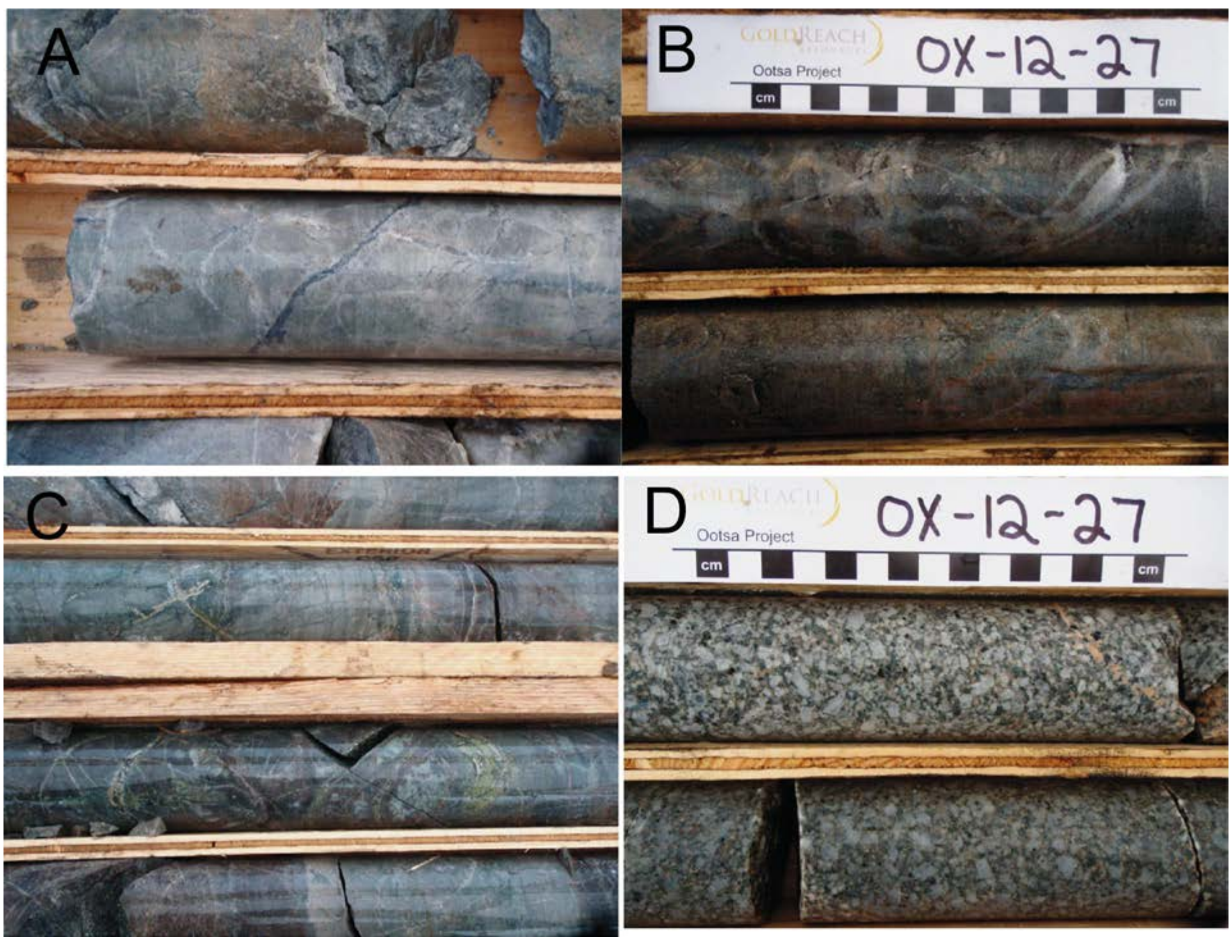


Figure 7.10: Photos of drill core from the Ox deposit. A) Grey molybdenite veinlets in a bleached sericite and clay altered fine grained sedimentary rock. B) Biotite and K-feldspar altered fine grained sedimentary rock cut by quartz sulfide veins. C) Variably

altered and multi colored thin bedded fine grained sedimentary rocks. D) Coarse crowded feldspar biotite porphyry intrusion that occurs on the east side of the Ox deposit. Note the pink K-feldspar vein in the upper right.

A volumetrically minor episode of late unmineralized mafic dikes with quartz-carbonate veins and chlorite alteration occur locally, some controlled by late faults.

The majority of the Ox zone is strongly fractured, with several fractures per meter and brecciated zones or thin cataclasite zones are common. Faulting clearly plays a strong roll in controlling and bounding mineralization at the Ox deposit.

A late episode of calcite-tan Fe-carbonate-quartz and base metal sulfide veins locally cut the Ox mineralization. These veins appear to be controlled by late faults that cut the zone. At a depth of 246 m in Ox12-33, 10 meters (4m true width) of carbonate veining (calcite + tan Fe-carbonate) with faint crustiform banding and trace to > 10% galena and sphalerite was encountered. The vein returned 147 g/t Ag (4.3 ounces per tonne) and 11.1% combined lead and zinc from 246 to 256 meters, including 304 g/t Ag (8.7 ounces per tonne) and 23.2% combined lead and zinc over 4 meters from 246 to 250 meters depth.

Four cross sections have been constructed through the Ox deposit to help illustrate the geometry of the zone. Overall the mineralized zone at Ox has been identified over a curved length of 750m and typically has widths ranging from 100 to 150 meters and extends to depths between 150 and 230 meters below surface.

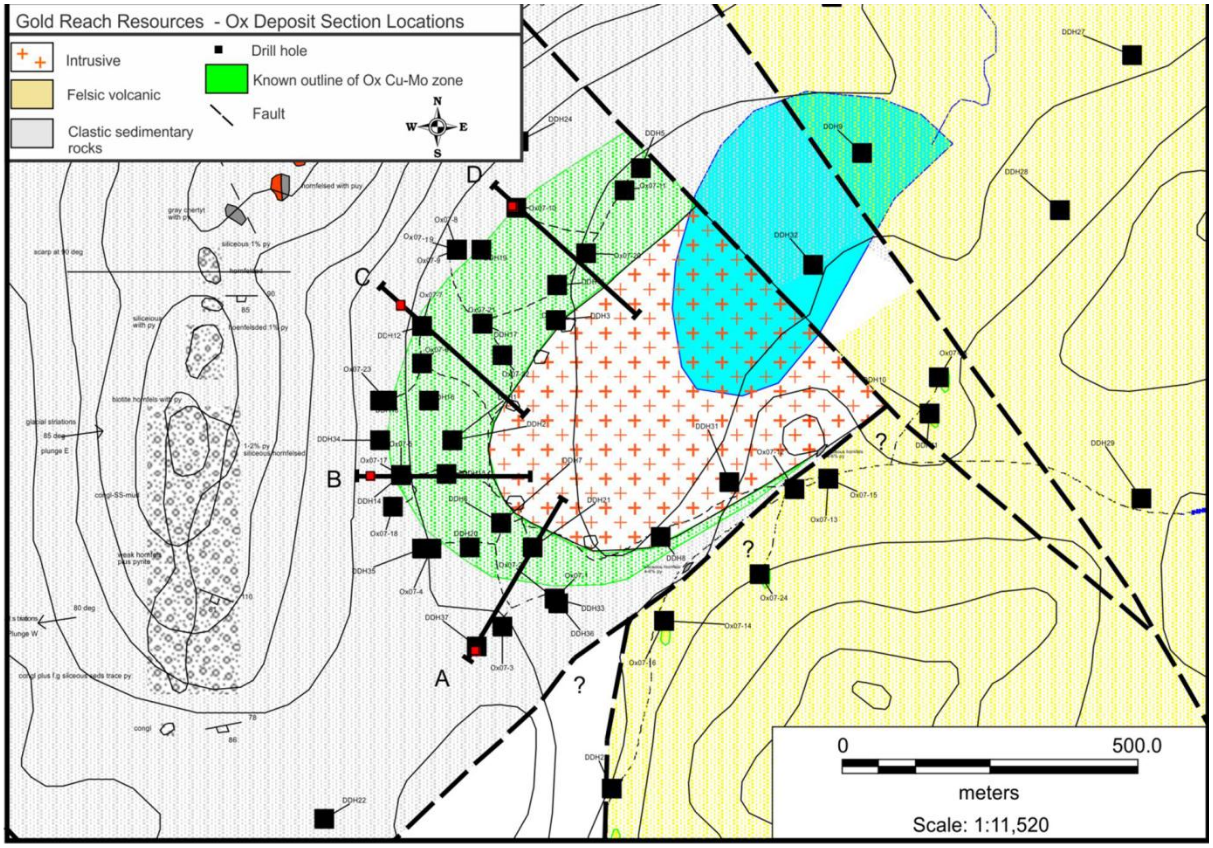


Figure 7.11: Cross section locations at the Ox deposit.

On all sections mineralization is hosted in the sedimentary (grey) rocks with variably attenuated amounts of fine to medium grained porphyry (pink). Mineralization has a gradational boundary on the west side whereas a crowded feldspar biotite porphyry bounds mineralization on the east side. In general, mineralization appears to be highest at or near surface with an apparent decrease with depth, with the main mineralized body extending 150 to 230 metres below surface. Significant alteration is still present in the rocks underlying the mineralized zone but Cu and Mo values are generally weak and patchy. It is possible that the Ox mineralized zone was originally east dipping and has been truncated along its length by the fault pictured in sections A and D.

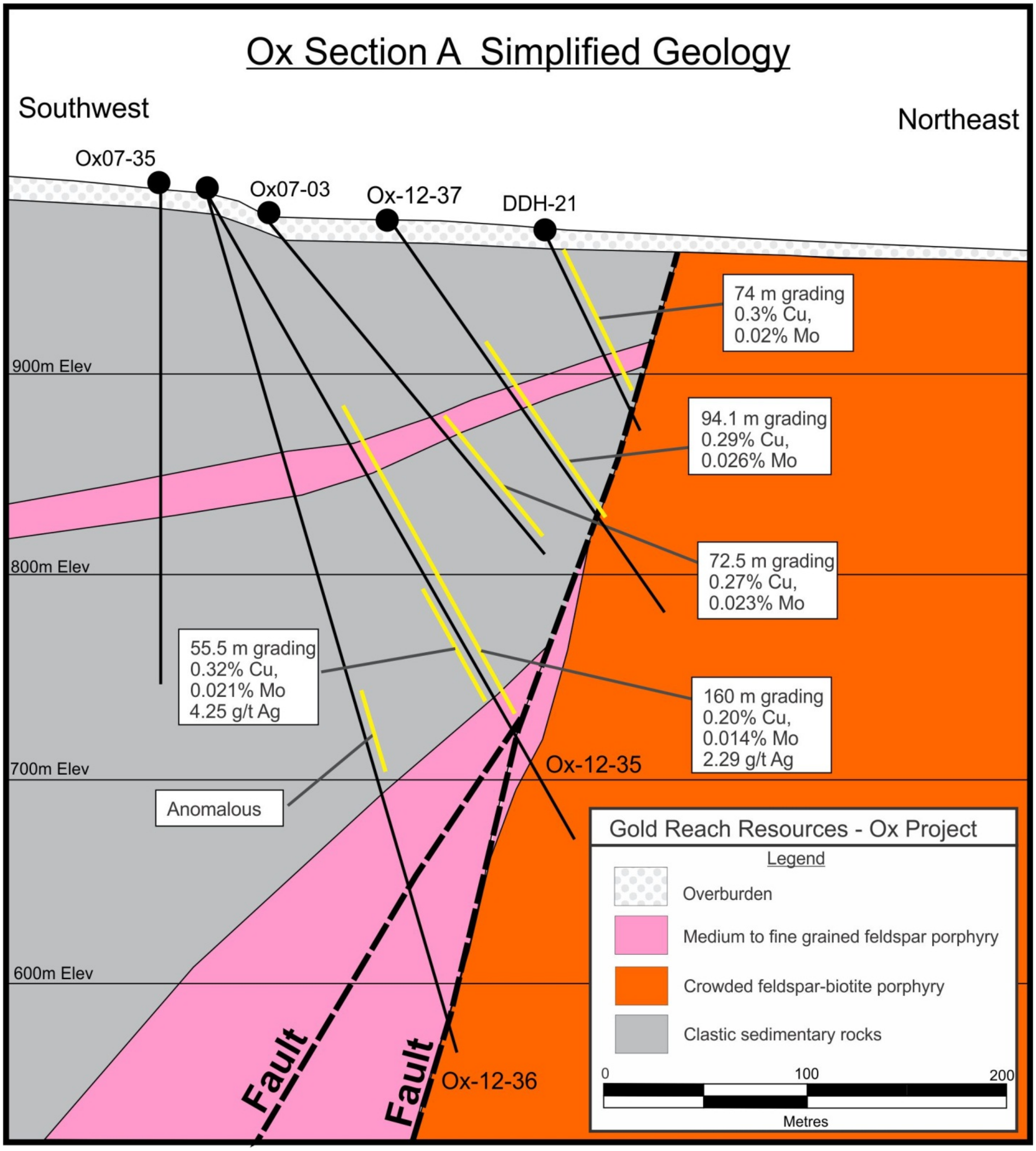


Figure 7.12: Ox cross section A with drill holes and simplified geology.

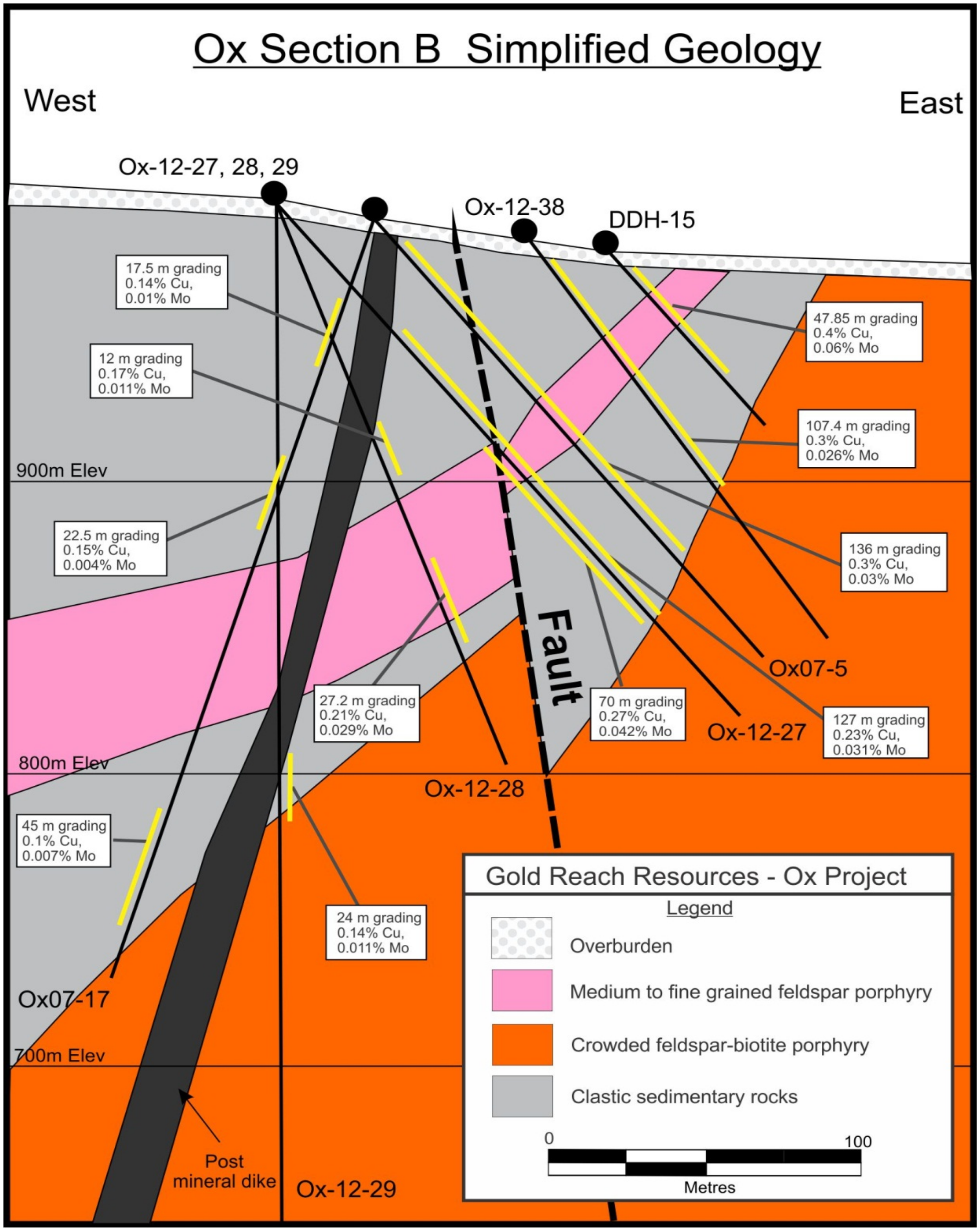


Figure 7.13: Ox cross section B with drill holes and simplified geology.

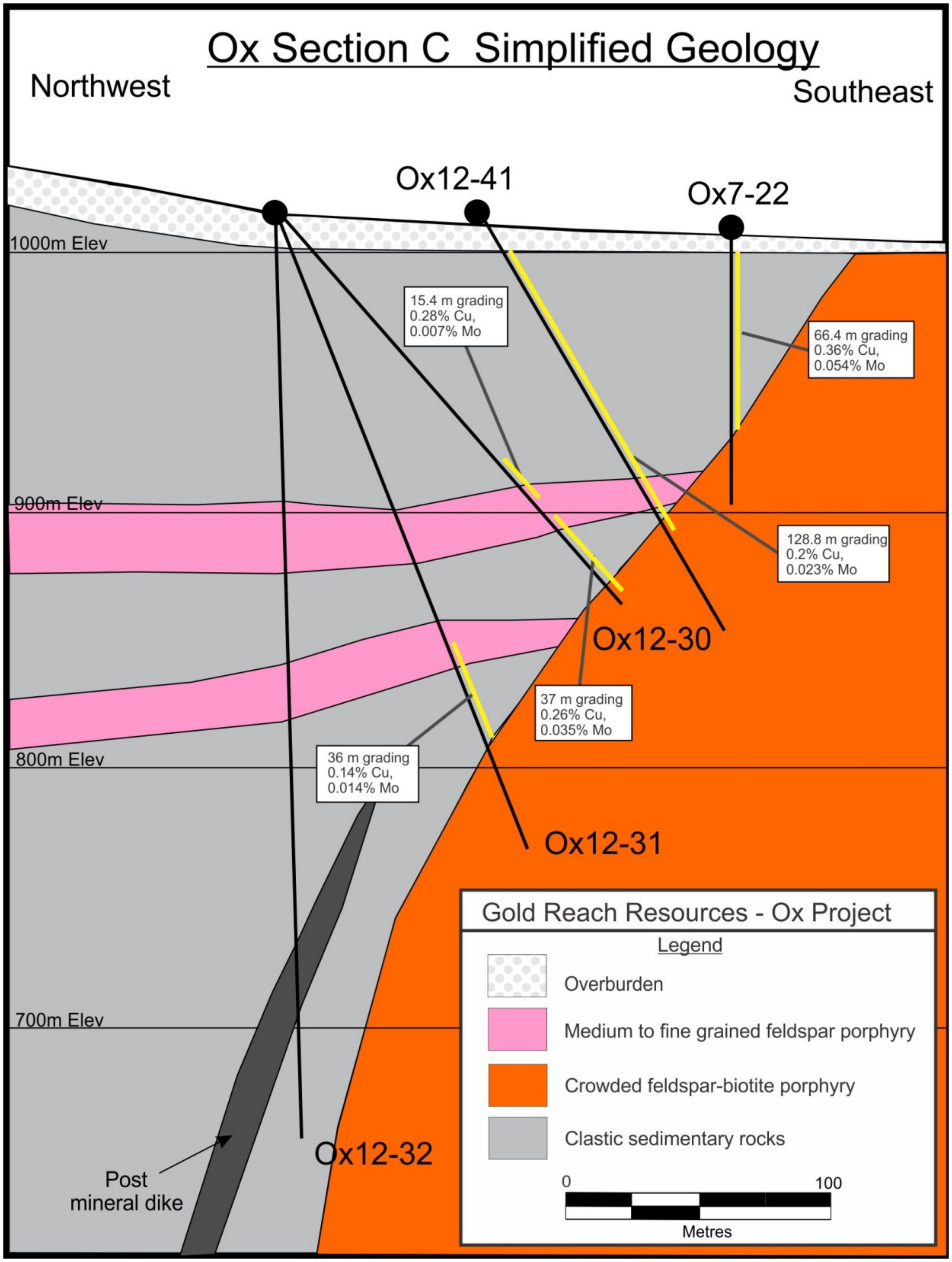


Figure 7.14: Ox cross section C with drill holes and simplified geology.

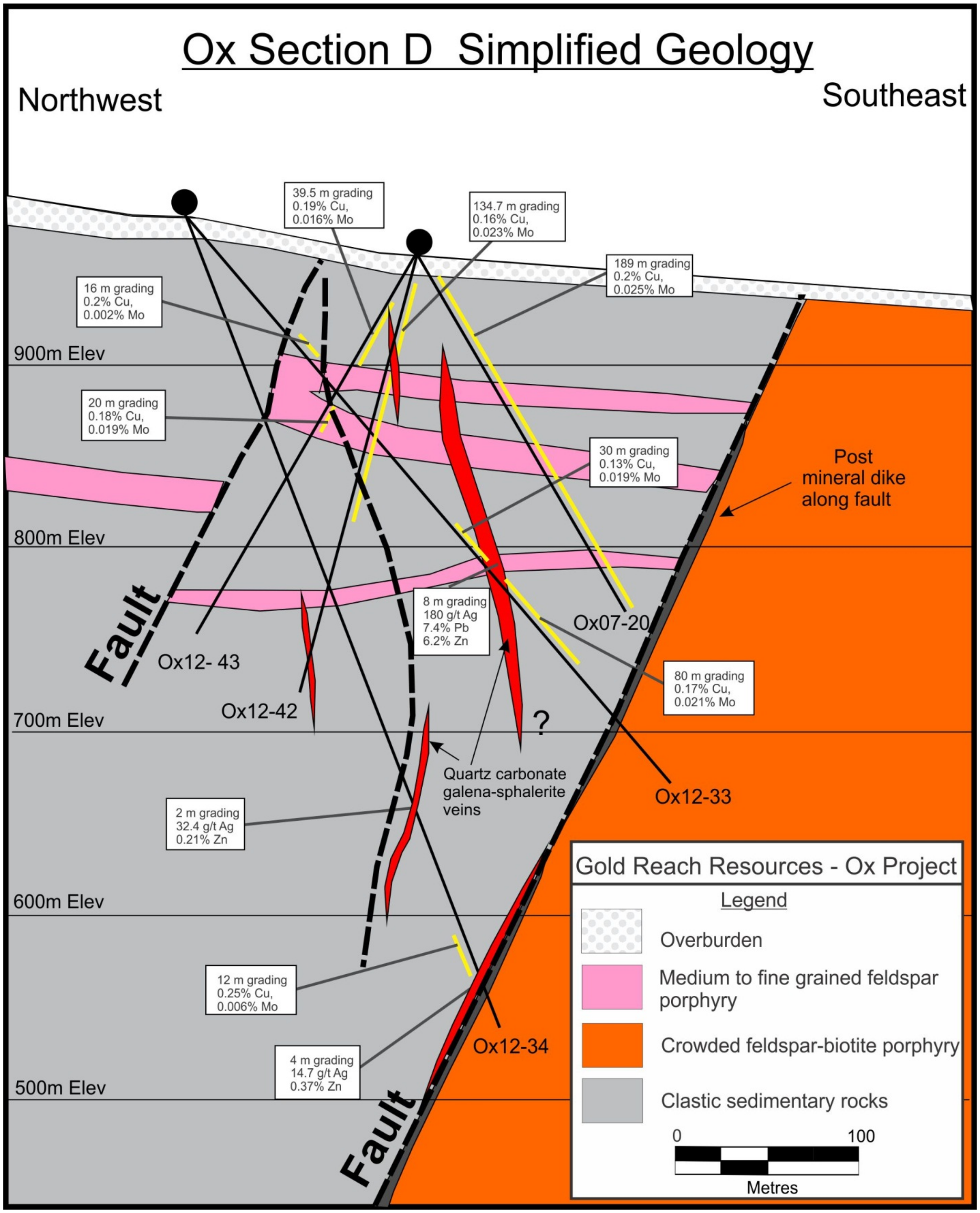


Figure 7.15: Ox cross section D with drill holes and simplified geology.

8.0 Deposit Type

The Seel deposit, along with the Ox deposit and 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 global Cu production, half of global Mo production, and around one-fifth of global 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 magmas, fluids, and metals that form porphyry deposits.

Porphyry Cu ± Au ± 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 and 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 veinlet controlled Cu-Au-Mo-Ag mineralization and large zones of potassic, sericitic, chlorite-bearing, and argillic alteration assemblage 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.

9.0 EXPLORATION

This section will comprise all work completed at the Seel and Ox Properties by Gold Reach Resources from 2004 until present. Exploration previous to 2004 is described in Section 6.0.

9.1 Seel Property Exploration 2004

During the latter stages of 2004 Gold Reach conducted an exploration program on the Seel property that involved diamond drilling and geophysical surveying. The initial step of grid cutting was completed in the late summer by CJL Enterprises Ltd. of Smithers, B.C. A combined 2D/3D IP survey was done between September 27 and October 10 while a magnetic survey took place from October 26-29, 2004. Both surveys were carried out by SJ Geophysics Ltd. of Delta, BC. The results of this work are discussed in a previous technical report (MacIntyre, 2005) but the summary is included in this report for continuity. The geophysical surveys were done on a single grid consisting of 10 lines, each 2000m in length. The 3D-IP lines had a separation of 100m while the three 2D lines were spaced at 200m interval with pickets placed every 50m for both surveys. The IP survey was successful in delineating some NNE linear features and showed a zone of high chargeability(sulfides) with a corresponding low resistivity (alteration) over a portion of the Seel deposit (Rastad, 2004). The data collected from the magnetic survey was analyzed by plotting the total magnetic field strength as a false colour contour map which also showed two NNE trending linear features.

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 took place between December 7, 2004 and January 20, 2005 when 9 drill holes totalling 3370 meters were completed.

9.2 2005 Exploration

In 2005, the exploration program at Seel involved diamond drilling, IP surveying, geologic mapping, prospecting and surface sampling over many areas of the property.

A phase II drill program was designed to follow up on Cu-Au-Mo mineralization intersected during drilling activity in December 2004/January 2005. The eight hole program was completed between February 20 and March 20, 2005. The expenditures from this diamond drill program were filed for assessment credit and the results from this work are reported in an assessment report written by Daubeny and Smit entitled "Report on Diamond Drilling on the Seel Mineral Claims Tahtsa Reach, Omineca Mining Division" dated July 2005.

Between mid-June and mid-July 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 geophysical program was based out of Tahtsa Timber Company's Whitesail logging camp located approximately 14 km by all-weather logging road from the western boundary of the Seel claims.

Details from this survey are included in a report entitled "3D Induced Polarization and Magnetometre Survey on the Seel Property" (Rastad, 2004) for Grayd Resource Corporation and Gold Reach Resources Ltd.

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 entitled "Diamond Drilling Report on the Seel Property" by D.G. MacIntyre (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.

9.3 2006 Exploration

Field activities at Seel in 2006 included two separate diamond drill programs, access trail construction, line cutting, IP and magnetometer geophysical surveys and some limited stream sampling.

An NQ diamond drill program commenced in early December 2005 and finished on February 1, 2006 with a total of 3243 meters in 15 drill holes from which 2903 meters of core was recovered with the remaining 340 meters deemed as overburden. The drill program was based out of a trailer camp located at the barge landing on the north shore of Tahtsa Reach. It was designed to further test the extent of potentially economic porphyry copper-molybdenum-gold mineralization first intersected in 2003 and to test IP and magnetic anomalies defined in the 2004-2005 programs.

Later in 2006, between August 30 and September 26, a 15 hole 3,638-m diamond drill program was carried out. The drilling was designed to expand on the known porphyry-style mineralization intersected during previous 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.

Also during the summer of 2006, a modest IP survey (Welsh, 2007) and stream sampling program was completed. A 10.5 line km 3D Induced Polarization and magnetometer survey was carried out over 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.

9.4 2007-2008 Exploration

In 2007-2008 Gold Reach Resources conducted more diamond drilling at both Seel and Ox, and increased the footprint of past IP surveys. In two separate drill programs located at Seel, from July-October 2007 and March-April of 2008, 7638.57 meters of NQ core was drilled from 33 holes (Strickland, 2008). The summer 2007 program was designed to further test the Seel Breccia and Cu-Au areas that previous drilling had defined in a zone measuring approximately 700 m by 500 m. It was anticipated that this 12 hole program would allow the company to 3-D model these zones for possible resource calculations and expand the field through exploration extension drilling.

The 2008 drill program consisted of 4,407 metres in 21 drill holes located near the Seel Breccia and Cu-Au areas. The program included further testing of areas 200 metres away from the Seel Breccia where previous drill programs had intersected consistent mineralization. Drill results showed the area to contain wider and more continuous mineralization than previously thought. The breccia zone showed good correlation between silver values with copper mineralization in the areas of chalcopyrite mineralization. Overall, drilling in 2007 and 2008 confirmed that potentially economic copper-gold-molybdenum mineralization existed on the Seel property along a northeast-southwest strike.

Gold Reach drilled a total of 26 NQ sized drill holes in 2007 on the Ox Property. The drilling was completed in two separate phases. The initial phase took place in the winter of 2007 and consisted of 2381 meters in 12 holes. Drilling activities were mainly centered on the west side of Ox lake where previous discoveries of mineralization were located. One of the winter 2007 drill holes was collared on the east side of the lake over a geophysical anomaly but it failed to intersect significant mineralization.

The second phase of drilling took place during the summer of 2007 when 14 holes totalling 3761 meters were completed. Seven of the drill holes targeted the mineralized zone on the west side of Ox lake, while the remaining 7 holes were spotted on the east side of the lake. Once again, no significant mineralization was encountered in the eastern holes (Arseneau et al., 2008).

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 length of the IP survey was 48.6 line kilometres on the Ox 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. The purpose of the survey was to assist with the geological mapping process by outlining subsurface features as well to delineate drill targets in a known copper-gold-molybdenum porphyry system and a disseminated and vein controlled pyrite, chalcopyrite and molybdenite mineralization zone.

9.5 2009 Exploration

An airborne geophysical survey totalling 1,325 line kilometres was completed on the Ootsa Property between October 4 and 10, 2009. 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°.

9.6 2011 Exploration

During 2011 Gold Reach Resources completed an exploration program at the Ootsa property which included 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. At the end of the season the applicable drill and survey data was used to compile a resource update on the Seel deposit. (McDowell and Giroux, 2012)

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 kilometers. The survey expanded geophysical coverage to the northwest to tie in a zone between and west of the Seel and Ox porphyries. A total of 14 lines, roughly 3 km in length were surveyed. The lines were oriented at an azimuth of 135^o 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. Below are compilation maps of much of the IP data that had been collected in the previous years.

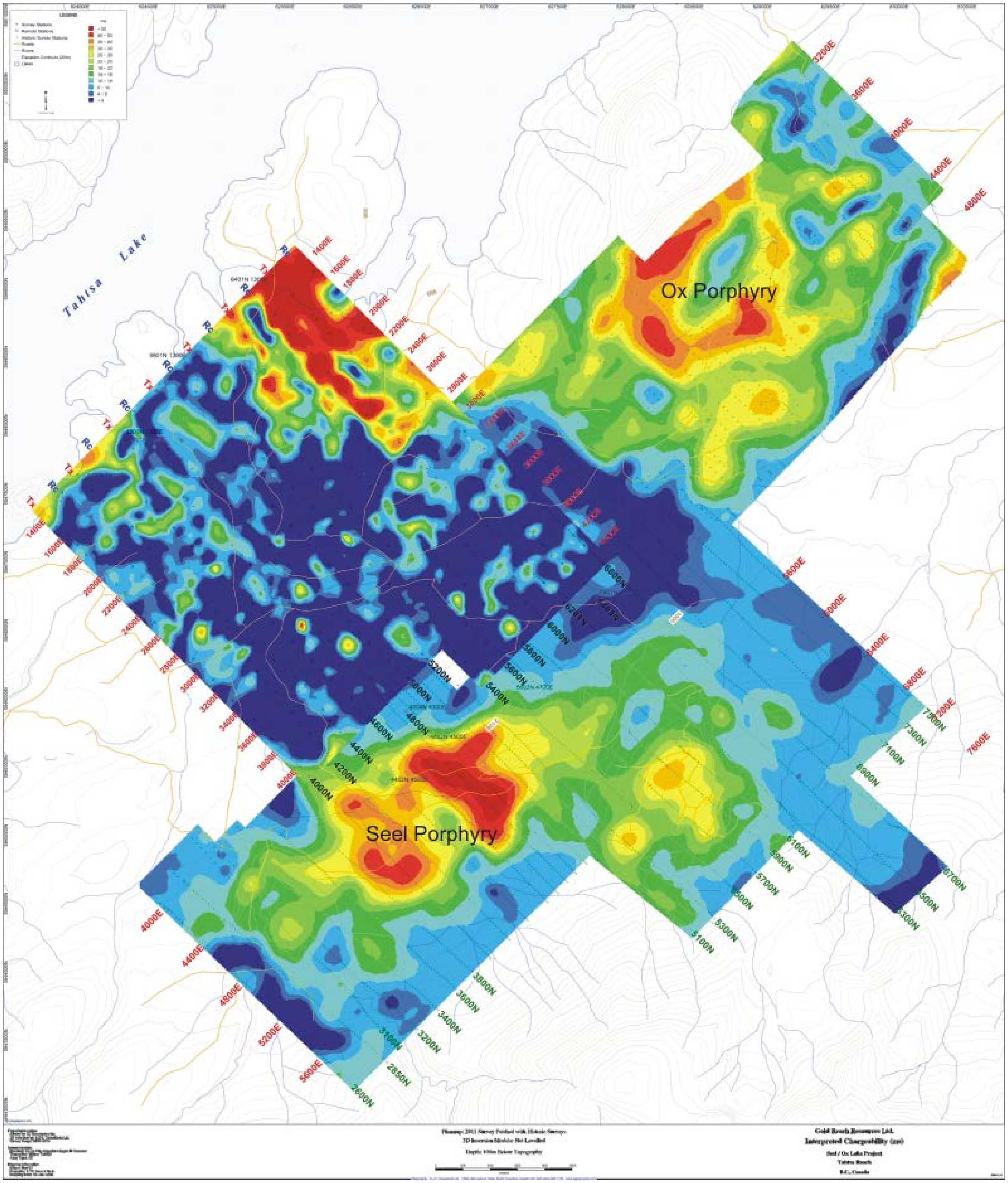


Figure 9.1: A compilation of the chargeability data in the vicinity of the Seel and Ox deposits.

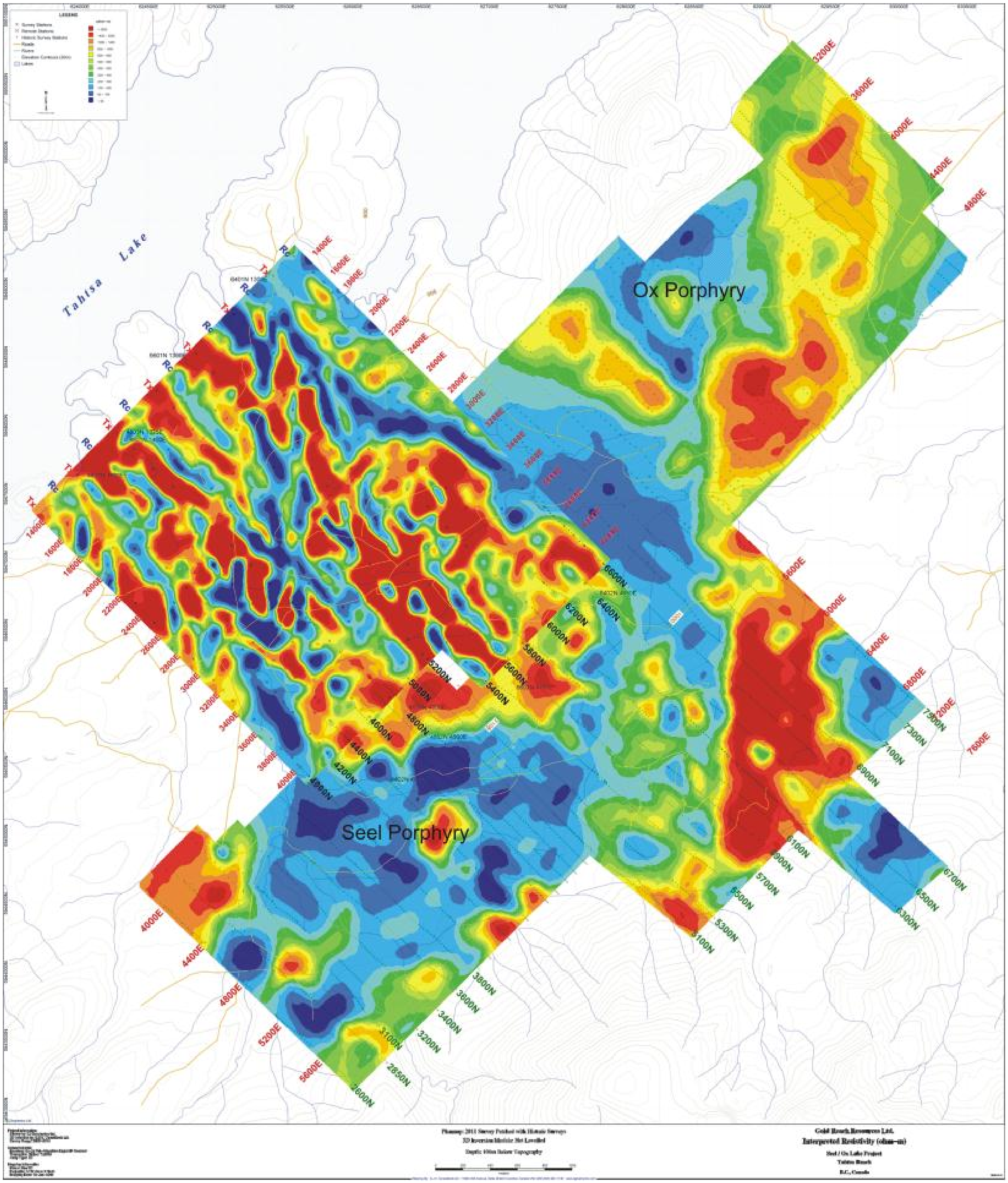


Figure 9.2: A compilation of resistivity data from around the Seel and Ox deposits.

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. Several hundred of the samples sent for ICP analyses were also analyzed by XRF and comparison of the two methods showed that Cu and other base metals analysed by XRF return comparable anomalies to those analysed by ICP. The 2011 soil sampling program showed a strong Cu-in-soil anomaly located to the northwest of the Ox deposit. The anomaly was spaced over an area roughly 800m long by 250m wide and partially coincided with a historic IP chargeability anomaly. The coincident anomaly was partially investigated by drilling in 2012. Also, a smaller less pronounced Cu-in-soil anomaly was shown to occur and partially overlap chargeability high about 2km west of Ox.

In 2011 a surface mapping program was initiated over the property. A simplified geology map that covers the Seel and Ox deposits can be viewed in Section 7 of this report.

During 2011 Gold Reach completed 10,393.4m of NQ2 core drilling in 20 holes at the Seel Deposit. All drill holes were spotted at the Seel deposit and eventually included the discovery of the West Seel zone during the latter stages of the drill campaign. Drill operations were performed by two skid mounted hydraulic drill rigs that recovered NQ2 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 meters of core per shift, with a maximum production of 152 meters per shift.

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

9.7 2012 Exploration

The 2012 field season at the Ootsa Property saw Gold Reach Resources conduct a large exploration program involving diamond drilling, IP surveying, soil sampling, mapping and improvements to property infrastructure.

9.7.1 Drilling

Gold Reach drilled a combined 45,157.1 meters of NQ2 core on the Ootsa Property in 2012. The Seel deposit saw 38,627.8 meters drilled in 46 holes. Hole S12-103 was drilled to 618 meters depth and will be used for metallurgical studies that are currently underway. The remaining 6529.3 meters were drilled at or near the Ox deposit, located 4km NE of Seel, of which 4947.4 meters from 18 holes were used to update an Ox resource that was first calculated in 2008 by Wardrop Engineering. The remaining 1581.9 meters were drilled into an IP anomaly located 2.5km east of the Ox deposit. All 3 of these exploration holes encountered pervasive clay alteration, abundant pyrite and very weak mineralization throughout, which adequately explained the existing IP anomaly.

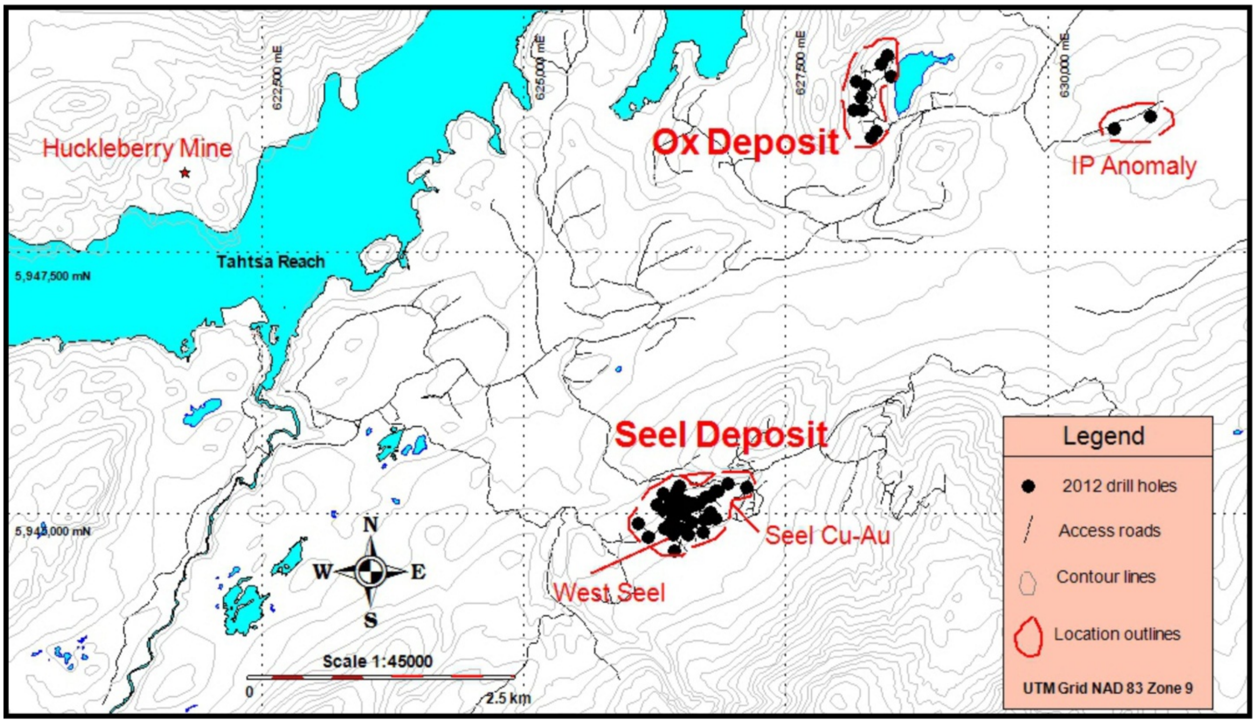


Figure 9.3: Location of 2012 drilling.

A total of 45 drill holes were collared in the West Seel Cu-Mo-Au-Ag zone, which is a blind porphyry discovered through drilling at the end of the 2011 season. Details on the geology and mineralization of the entire Seel deposit can be found in Section 7 of this report.

The 18 drill holes collared at Ox were intended to determine the expansion potential and to glean a better understanding of deposit geometry and the controls on mineralization. Greater detail on the geology, geometry and drill hole placement at Ox Lake can be found in Section 7 of this report.

9.7.2 Soil Sampling

A total of 2179 conventional B-horizon soil samples were taken in 2012 and all were analyzed on site with a portable XRF spectrometer. After conducting a comparison in 2011, Gold Reach personnel determined that the XRF data was comparable to ICP values with respect to base metal data. The data was used to generate thematic maps depicting anomalies in Cu, Mo, As, Pb, Zn, Mn and Sb. Figure 9.4 shows a Cu value thematic map with over 5000 soil samples collected over several years at the Ootsa property.

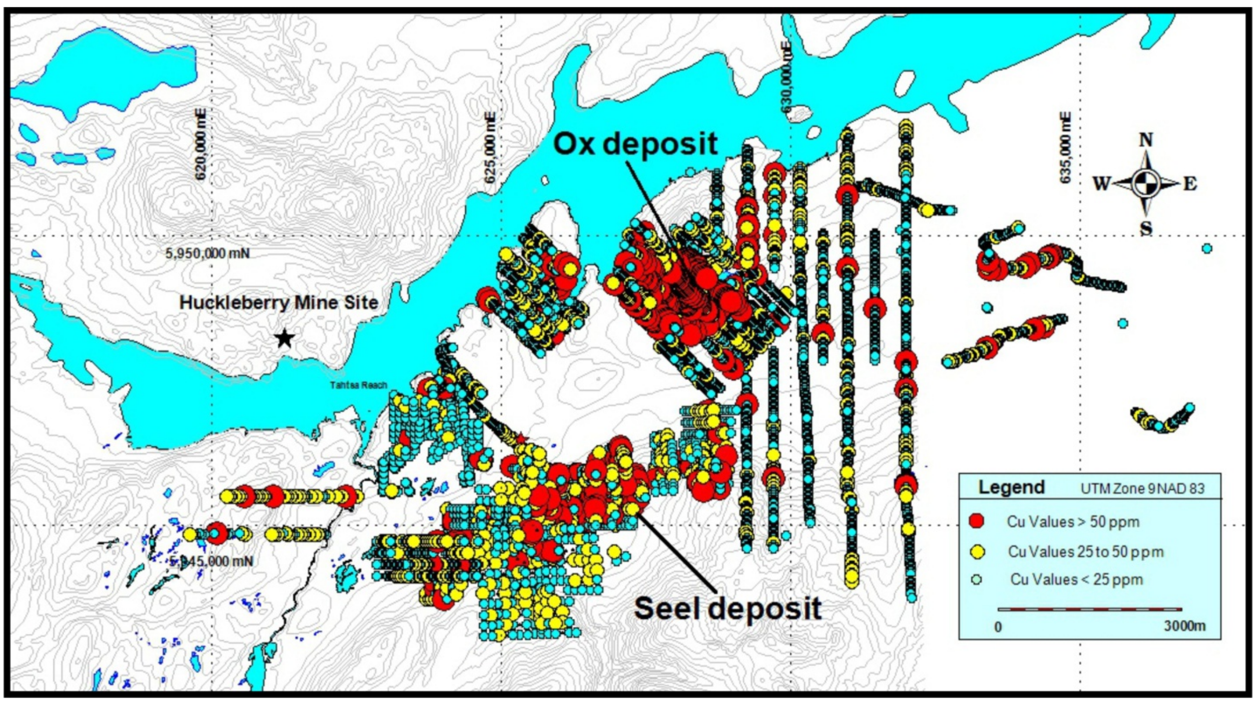


Figure 9.4: Copper in soil map generated from over 5000 soil samples across the Ootsa property.

9.7.3 IP Survey

Gold Reach Resources completed 42.9 line kilometers of a combined 3D-IP and resistivity survey that involved 14 km of line cutting and greater than 28 km along existing roads. The 2012 survey partially covered a large area east of the Seel and Ox deposits and was effective in uncovering some anomalous zones. Figure 9.5 shows the

2012 survey combined with the compilation of all earlier IP data collected in the past several years. The zone denoted as 'anomalous' was drilled late in 2012 where abundant clay alteration and pyrite mineralization was discovered.

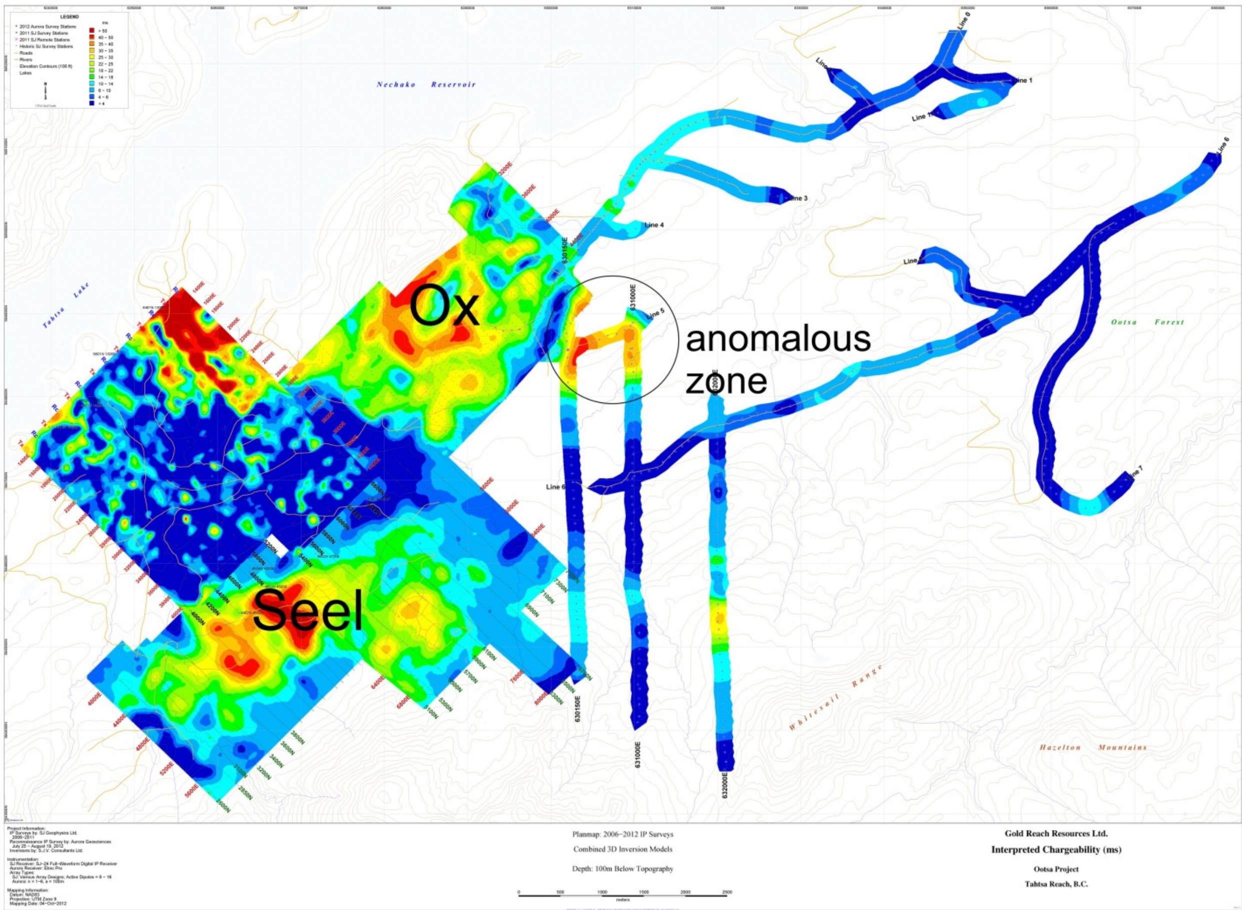


Figure 9.5: Combined historical and 2012 IP surveys showing chargeability at 100m depth. 2012 survey includes the 3 N-S lines and the snake-like lines shown on the right hand (eastern) side of the picture. Compare to Figure 9.1.

9.7.4 Additional activities

One metallurgy specific hole was drilled into the Seel Cu-Au zone in 2012 in order to augment metallurgical data already in hand. The 2012 metallurgical results are not yet available as the testing is still in progress.

Gold Reach made many infrastructure improvements on the Ootsa Property during the field season including the addition of a trailer camp capable of sleeping 21 people with kitchen, bath, laundry and storage facilities. A new septic system was designed and installed in order to handle the greater camp capacity as was a pressurized water system. In addition Gold Reach resurfaced 3.5 km of the Seel access road with gravel sourced locally and contracted the installation of a steel frame bridge over a narrow creek.

10.0 DRILLING

The period of early exploration of the Ootsa Property (Seel and Ox properties) prior to its acquisition by Gold Reach Resources is described in Section 6. No data from this period has been used to generate the current resource estimate described in this report. Gold Reach Resources began exploration of Seel in 2003 and the first diamond drill holes were drilled in 2004. The first Ox drill campaign directed by Gold Reach took place in 2007 with a second round in 2012. Yearly totals from both deposits are tabulated below in Tables 10-1 and 10-2. A complete list of collar locations and total depths for the Seel and Ox deposits can be found in Appendix 1 and 2 respectively.

Table 10-1: Seel drilling compilation, 2004 to present

Year	Number of Holes	Meterage	Location
2004	6 diamond drill holes	1096m	Seel
2005	16 diamond drill holes	3525m	Seel
2006	25 diamond drill holes	5641m	Seel
2007	12 diamond drill holes	3232m	Seel
2008	21 diamond drill holes	4408m	Seel
2011	20 diamond drill holes	10,393m	Seel
2012	46 diamond drill holes	38,627m	Seel
Total	**146 diamond drill holes**	**66,921m**	

Table 10-2: Ox drilling compilation, 2007 to present

Year	Number of Holes	Meterage	Location
2007	26 diamond drill holes	6142.3m	Ox
2012	18 diamond drill holes	4947.4m	Ox

Total	**44 diamond drill holes**	**11,090m**	

11.0 SAMPLE HANDLING, PREPARATION, ANALYSIS, AND SECURITY

All drill core from the 2012 exploration program at Ootsa was handled in a manner commensurate with industry standards and similar to methods employed by Gold Reach Resources in 2011. Core was delivered to the camp site by the drill crew at the end of each shift. Gold Reach personnel would then photograph, measure, log and mark the core for sampling. Gas powered core saws were used to split the core in half, then one half was placed in marked polyurethane sample bags with corresponding sample tags and sealed with plastic zip ties. Individual core samples were typically 2 meters in length and 100% of the drill core was sampled. Half of the drill core remains stored in core racks on the property for verification and reference purposes. Four to five sample bags were inserted into each rice sack and subsequently marked and sealed with plastic zip ties. Two sample shipments per week were made by company personnel to SGS Labs in Telkwa, BC where the samples were prepared for analysis.

Sample preparation followed the SGS PRP89 package. The samples were crushed with a Boyd Crusher (jaw crusher) until 75% passed through a 2mm 10 mesh screen. The sample was then mixed and split into a 250 g sub-sample via a riffle splitter or Stand Alone Rotarty Sample Divider. The sub-sample was subsequently pulverized in a ring pulverizer until 85% would pass a 75µ 200 mesh screen. SGS was responsible for shipping the pulps to their Vancouver laboratory for analysis.

In Vancouver samples were processed using the SGS procedure for ME-ICP40B, a 32 Multi-Element ICP-OES analysis with multi-acid digestion that uses a combination of HCl (hydrochloric acid), HNO3 (nitric acid), HF (hydrofluoric acid) and HClO4 (perchloric acid). Gold was analyzed using FAA313, a SGS procedure involving Fire Assay and Flame Atomic Absorption. Pulverized samples are weighed, mixed with flux and fused using lead oxide at 1100°C followed by cupellation of the resulting lead button (Dore bead). The bead is digested by 1:1 HNO_3 and HCl and submitted for analysis by the Flame Atomic Absorption Spectrometer (AAS). SGS claims a lower detection limit of 5 ppb and an upper limit of 10,000 ppb for this procedure.

11.1 Quality Assurance and Quality Control

An independently monitored quality control program was established and implemented for all of the 2012 drilling at the Seel deposit. A total of 21,118 samples were submitted to the lab for assay of which 2060 were blanks, duplicates or certified standards. This translates into a ratio of over 10% of all samples being QA/QC specific.

Blanks and duplicates were inserted into the sample stream at a rate of one each for every twenty samples for an overall rate of one QA/QC sample per ten core samples. Blank material was sourced from two different locations situated near the project. The *Felsic Blank* accounted for 96% of the blank material used this year and was gathered from a road quarry at km 21 on the Whitesail road. The *10km Blank* was used at the onset of the 2012 drill program as excess snow prohibited Gold Reach personnel from accessing the Felsic Blank quarry. It was sourced from km 10 on the Troitsa Main road. Duplicates were taken by sawing 2m core samples in half and then one of the halves were quartered. Each quarter was inserted into a separate sample bag with a unique sample number and independently listed in the Gold Reach database. The remaining half core sample was retained on site at the Ootsa camp. Gold Reach utilized two reference standards (Table 11.1) during 2012 drilling at Seel and one at Ox. Two to three reference standards were included with each sample shipment to the lab.

11.1.1 Seel QA/QC

Blanks

A total of 928 field blanks were inserted into the sample stream which represents over 4% of all samples submitted from the Seel deposit in 2012. Of the 928 blanks 891 were sourced from a road quarry at 21km on the Whitesail road and are termed *felsic blank* in the Gold Reach database. The remaining 37 blanks were taken from near the 10km mark on the Troitsa Main road and were used in place of the felsic blank as access to the Whitesail road quarry was limited due to excess snow at the onset of the 2012 field season.

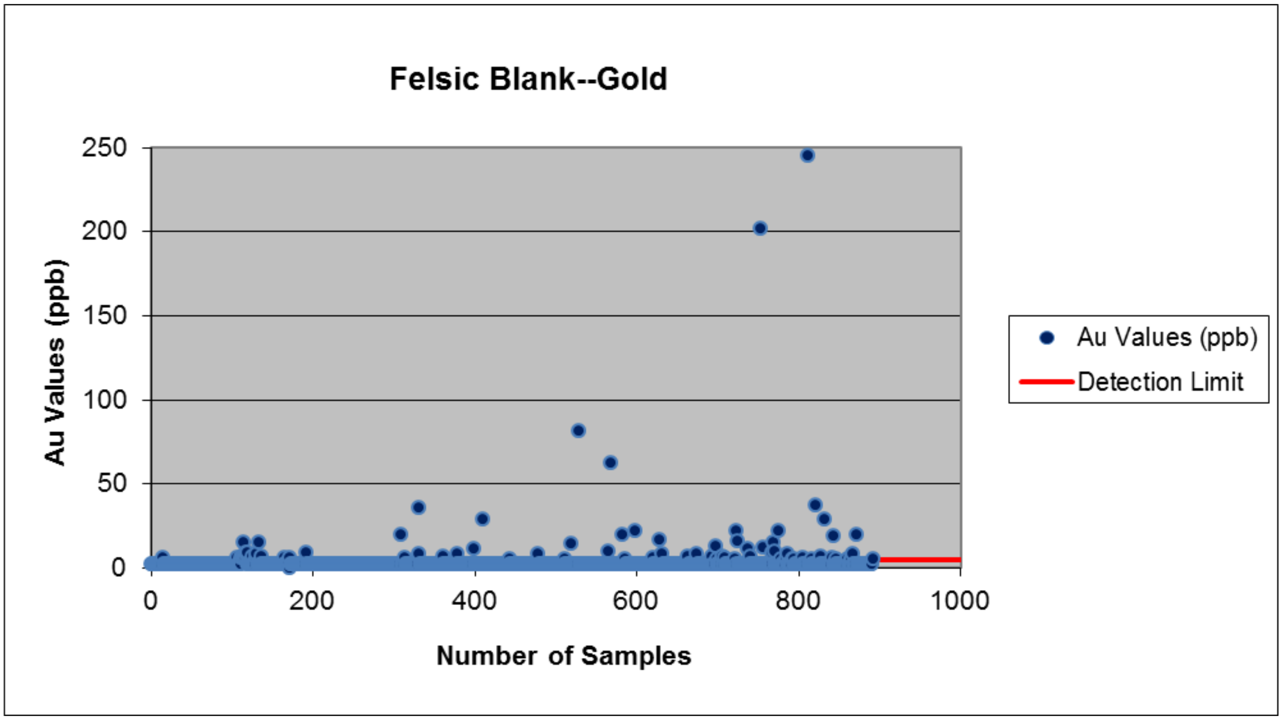


Figure 11.1: Au results for felsic blank. 4 samples of 891 submitted returned Au values greater than 10 times that of the detection limit of 5 ppb.

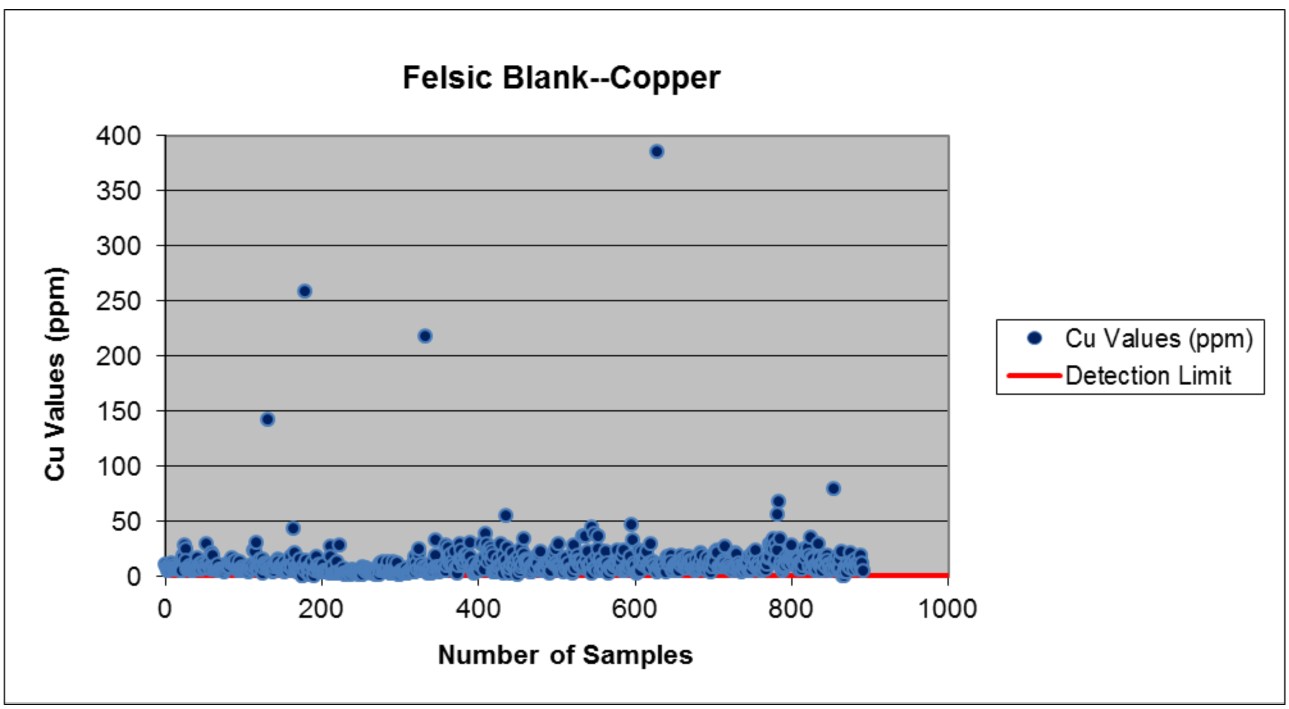


Figure 11.2: Cu results for felsic blanks. Less than 0.5% of tested samples returned values above background level. Detection limit is stated at 0.5 ppm by SGS.

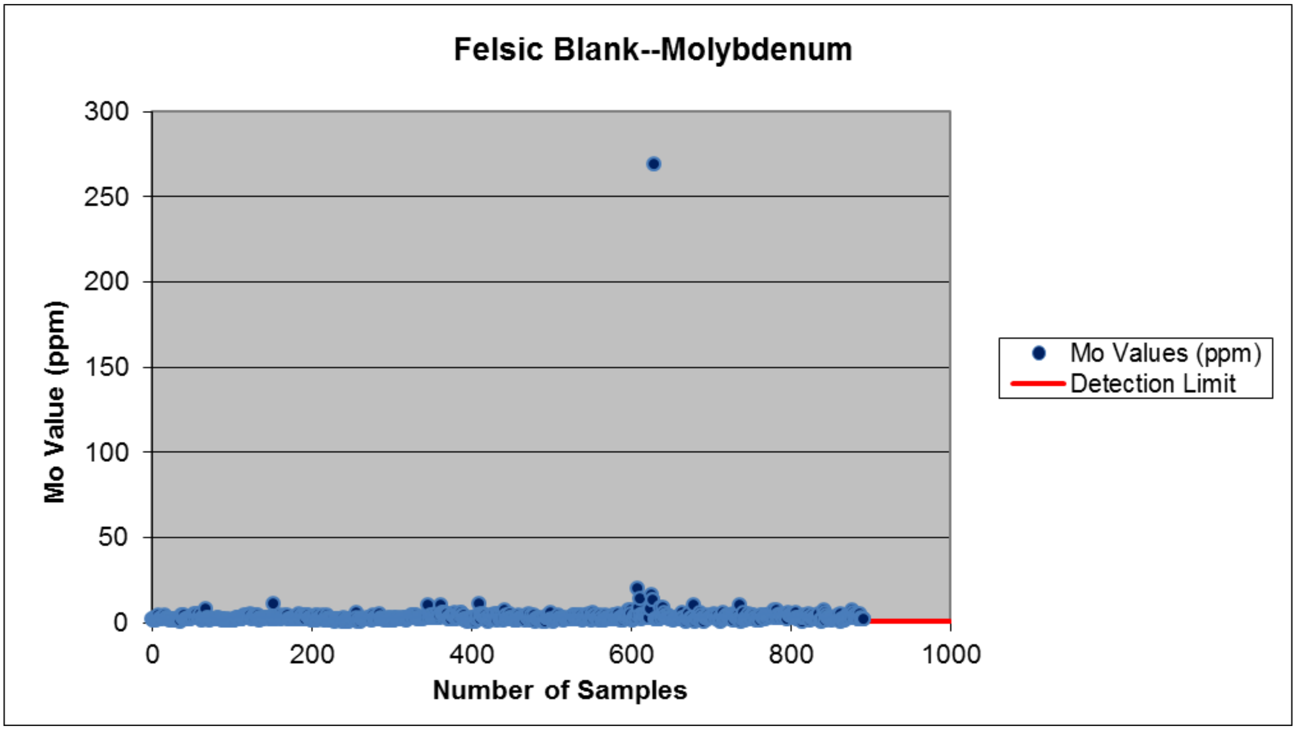


Figure 11.3: Mo results from 891 felsic blanks. Only one sample tested anonamously high for Mo.

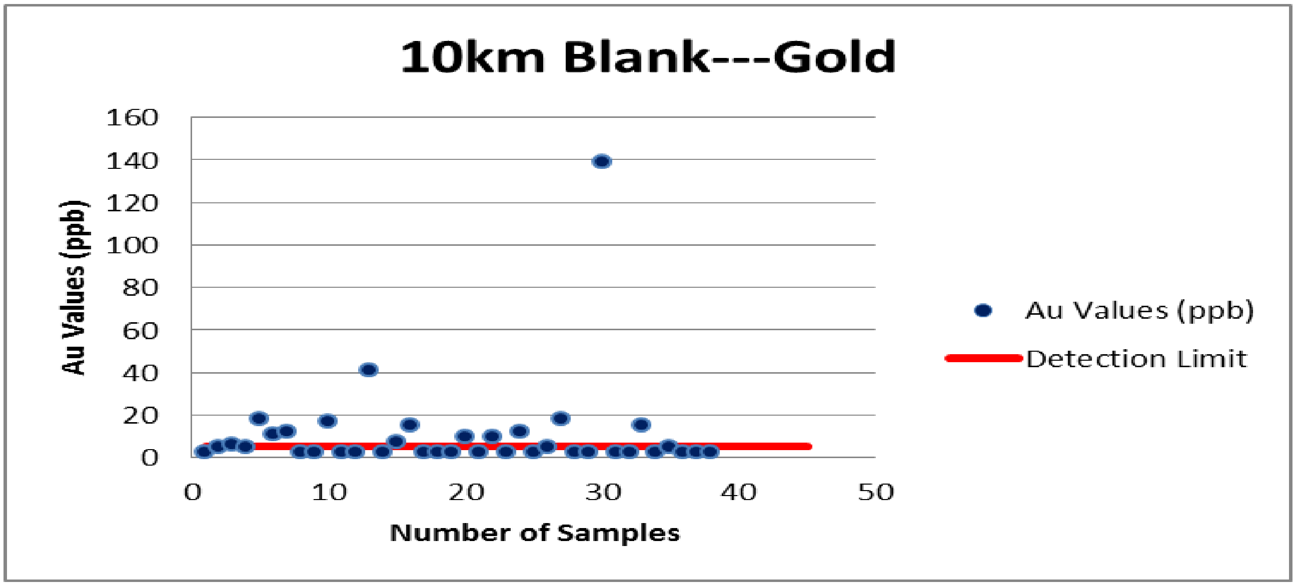


Figure 11.4: Au results from 37 blank submittals. One sample showed anonamously high Au values.

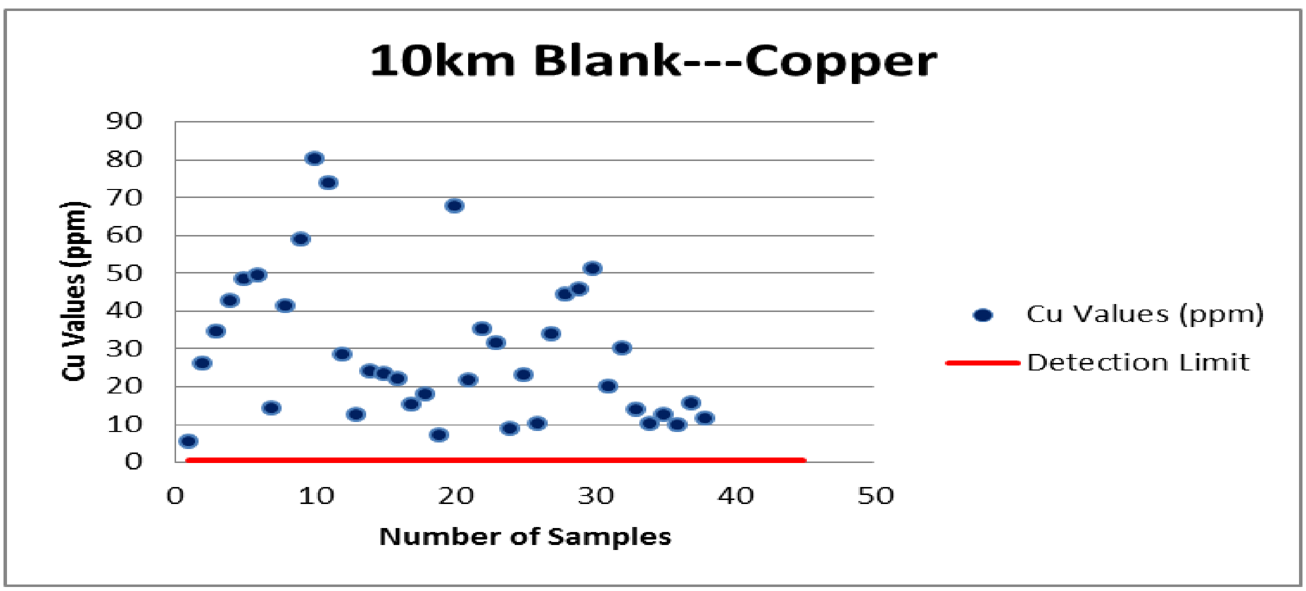


Figure 11.5: Cu results from a suite of 37 “10km” blanks. All tested above the 0.5 ppm detection limit but all fell within acceptable background limits.

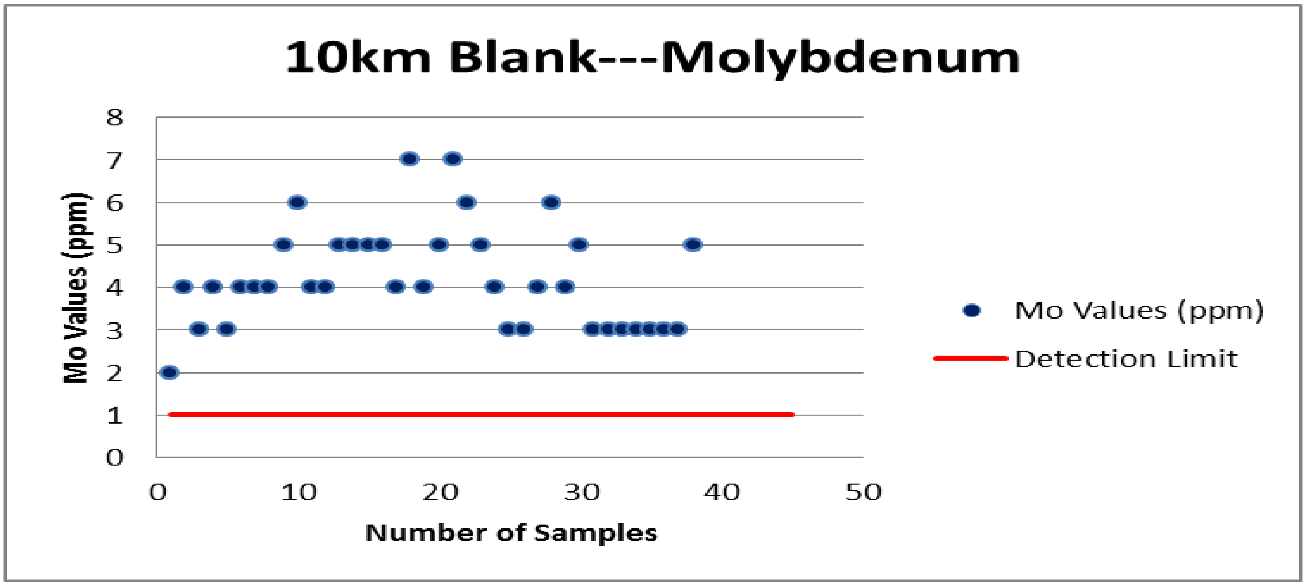


Figure 11.6: Mo results from a suite of 37 "10km blanks". All results fell within acceptable background levels.

While the vast majority of assay values for the 21km Felsic Blank reported acceptable levels a few exceptions were discovered. There were two exceptionally high and two more moderately high gold values returned. Copper values were elevated in three separate cases while one molybdenum assay was unacceptably high. These discrepancies may be attributed to improper cleaning of the crushing equipment at the sample preparation stage. The 10km blank consistently returned elevated copper and molybdenum values. This lithology likely has relatively high background levels for these two minerals and for this reason is not suited for use as blank material.

Duplicates

A total of 958 samples were duplicated by quartering the core halves and attaching a unique sample number to each sample. This method of quality control can check assay precision but is more likely to provide information about the continuity of mineralization in the rocks. Comparisons were made by using XY scatter plots that pitted the original samples vs their respective duplicates. A correlation coefficient (R^2) of 1 represents perfect continuity between the sample original and duplicate. As copper is often disseminated throughout the rock, molybdenum can be disseminated and vein hosted while gold is more often vein-hosted an expected decrease in correlation can be seen from Cu to Mo to Au.

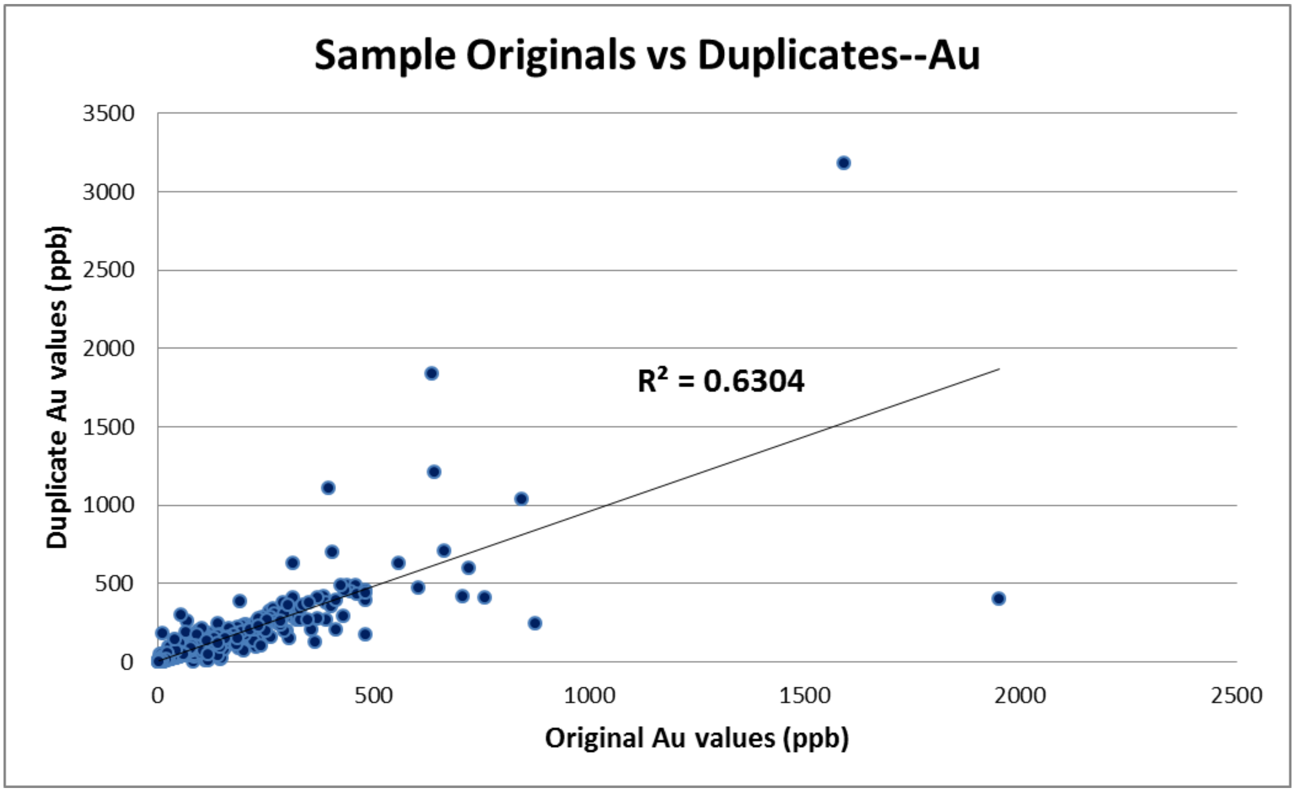


Figure 11.7: Correlation of Au values between sample originals and duplicates. Au values show a low correlation due to nature of gold mineralization in the deposit.

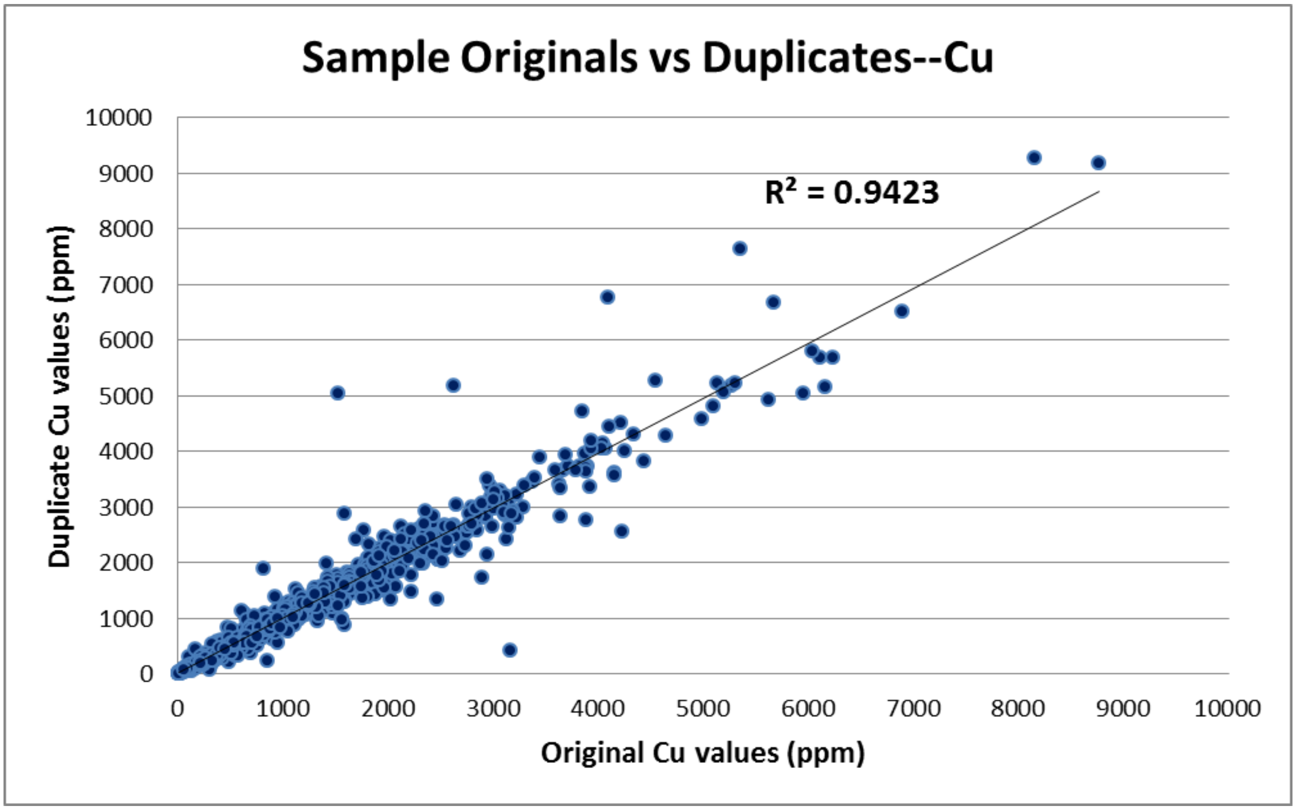


Figure 11.8: Relatively strong correlation in Cu values from sample originals and duplicates.

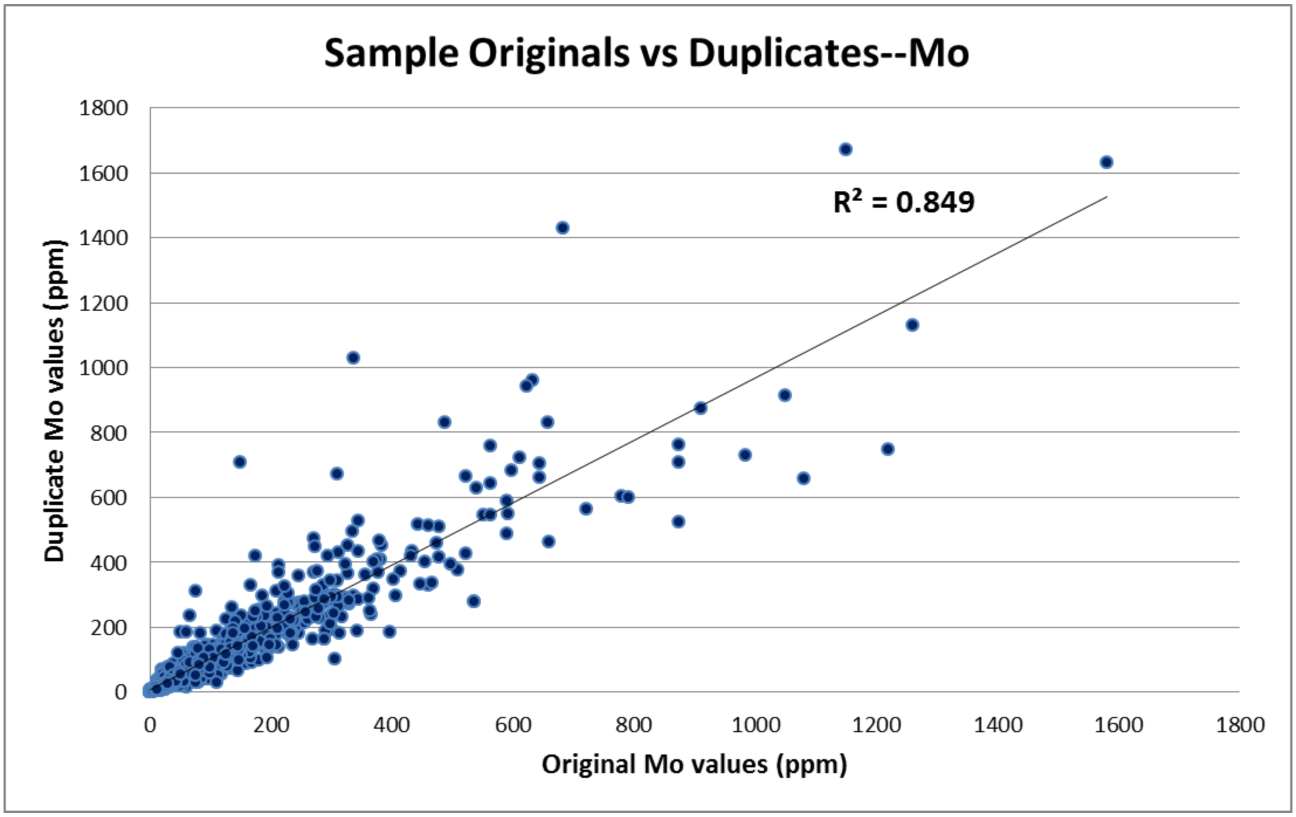


Figure 11.9: Graph shows moderately high correlation in Mo values from sample originals to duplicates. Outliers may be attributed to vein-hosted nature of molybdenum mineralization.

Standards

Two different lab-certified standards were utilized during the 2012 drilling season at Seel, CDN-CM-13 and CDN-CM-25. The expected mean values along with the two standard deviation values determined after round robin analysis are given below in Table 11-1.

Table 11-1: Lab derived assay values and expected standard deviations.

STANDARD REFERENCE MATERIAL: CDN-CM-13	
Recommended values and the "Between Lab" Two Standard Deviations	
Gold: 0.740 ± 0.094 g/t	0.646 to 0.834
Copper: 0.786 ± 0.036 %	0.75 to 0.822
Molybdenum: 0.044 ± 0.004 %	0.040 to 0.048
STANDARD REFERENCE MATERIAL: CDN-CM-25	
Recommended values and the "Between Lab" Two Standard Deviations	
Gold: 0.228 ± 0.03 g/t	0.258 to 0.198
Copper: 0.191 ± 0.006 %	0.197 to 0.185
Molybdenum: 0.019 ± 0.002 %	0.021 to 0.017

A total of 166 certified standards were inserted into the sample stream throughout the Seel drill program. Chart representations of the results are shown below for each gold, copper and molybdenum.

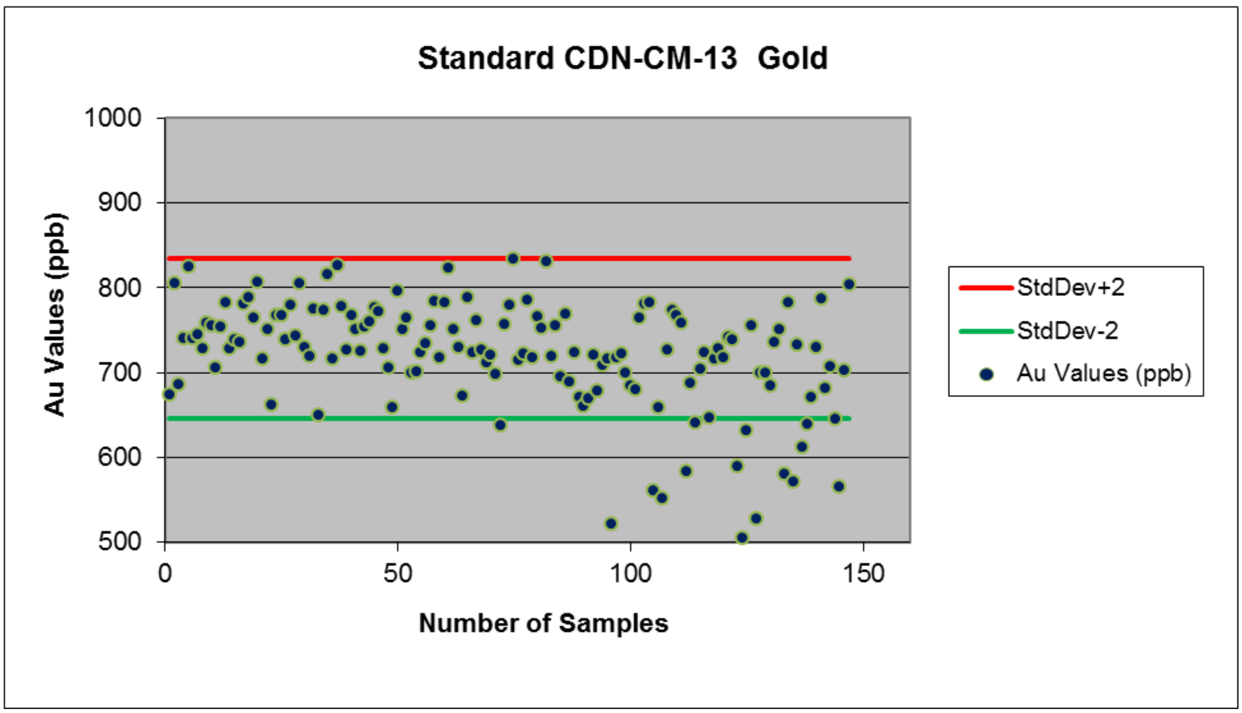


Figure 11.10: Chart shows Au assay results from 147 CDN-CM-13 standard submittals. An apparent low bias is evident from samples submitted later in the field season.

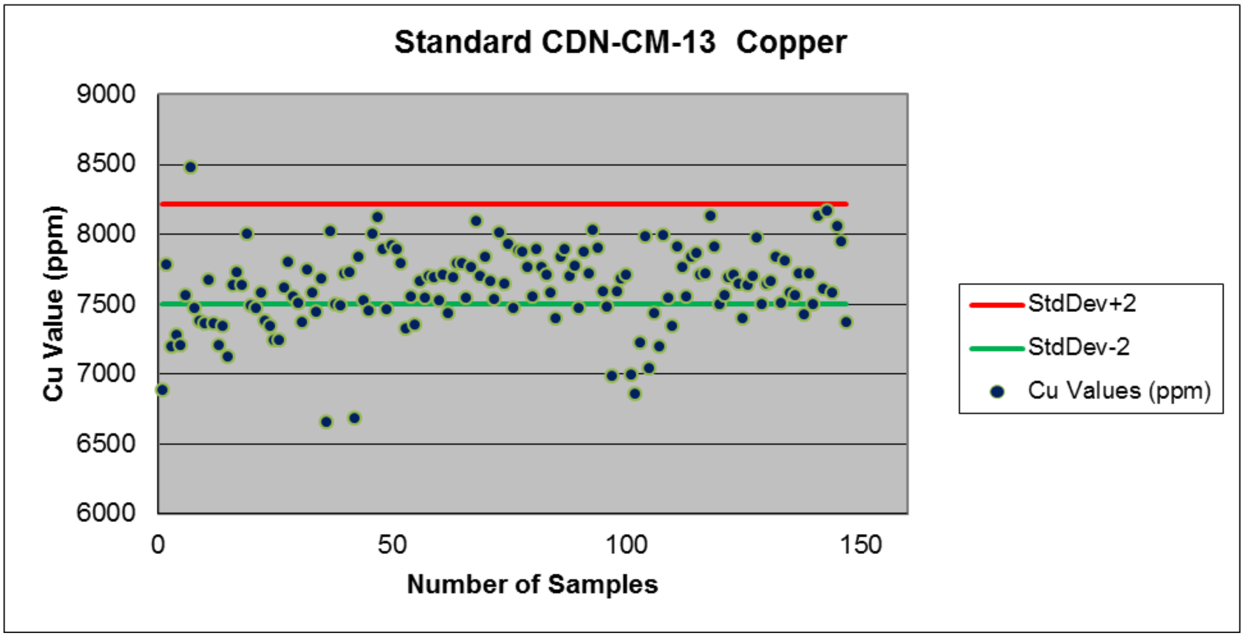


Figure 11.11: Cu values from 147 CDN-CM-13 standard submittals. Overall the results show a majority of values at or below the lower two standard deviation level.

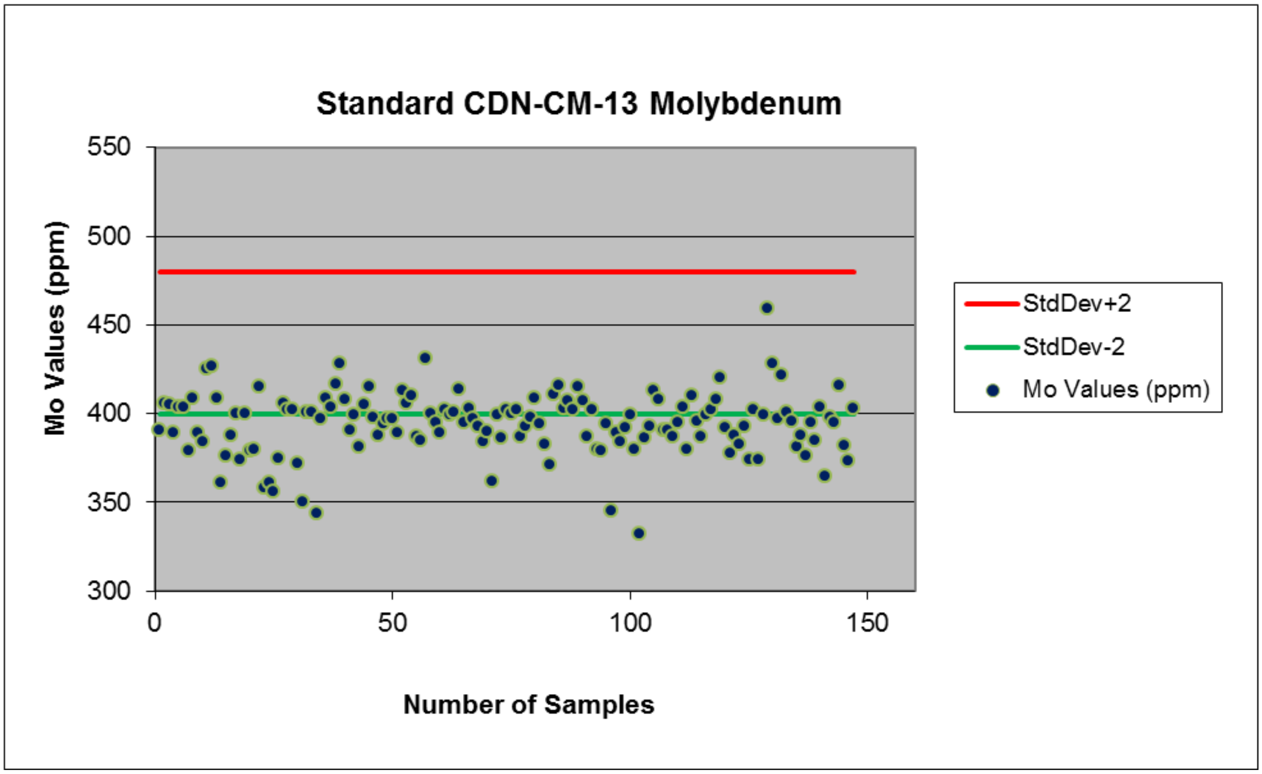


Figure 11.12: Chart shows Mo values returned from 147 CDN-CM-13 certified standards. The vast majority of samples tested at or below the acceptable -2 standard deviation level.

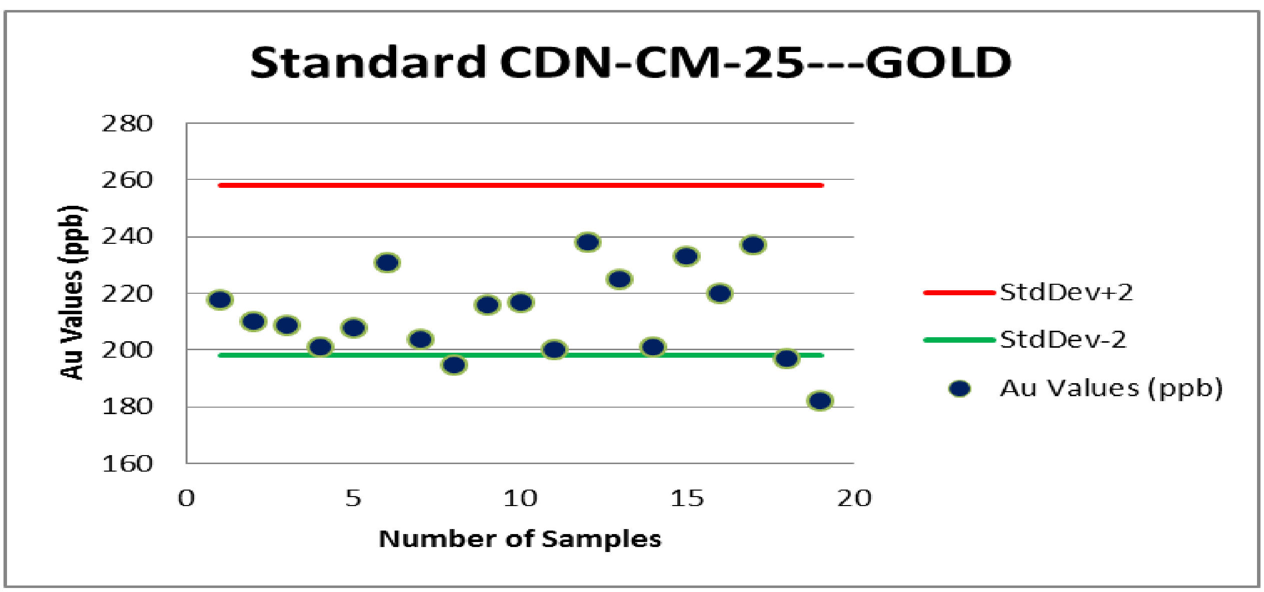


Figure 11.13: Chart shows results of 19 CDN-CM-25 certified standard assays for Au.

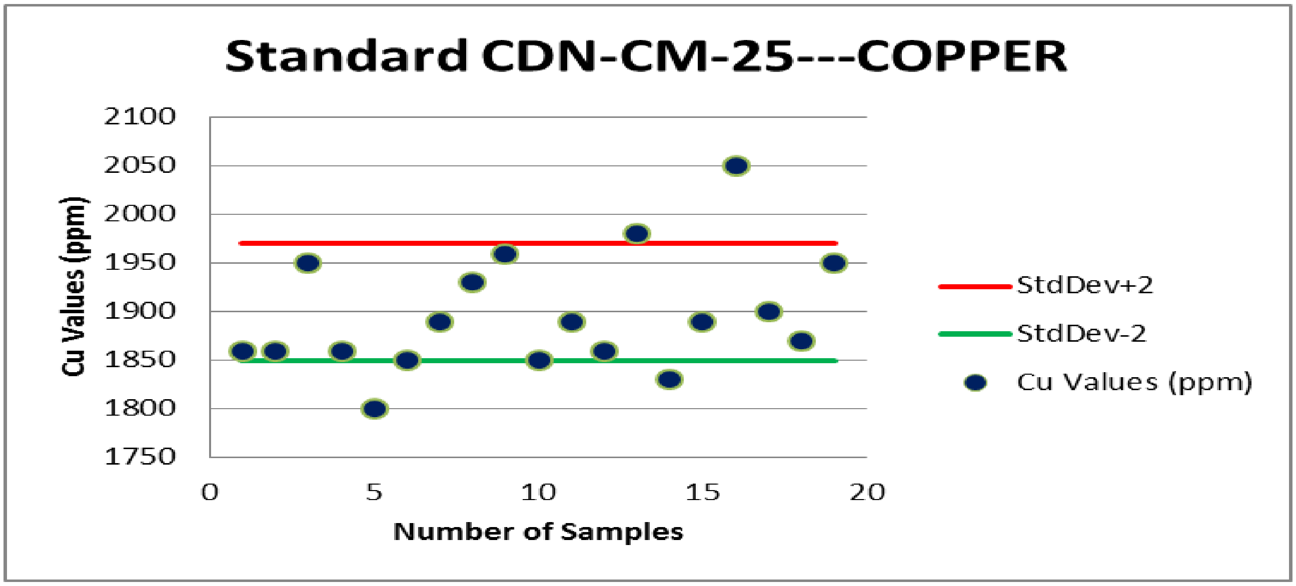


Figure 11.14: Chart shows results of 19 CDN-CM-25 certified standard assays for Cu.

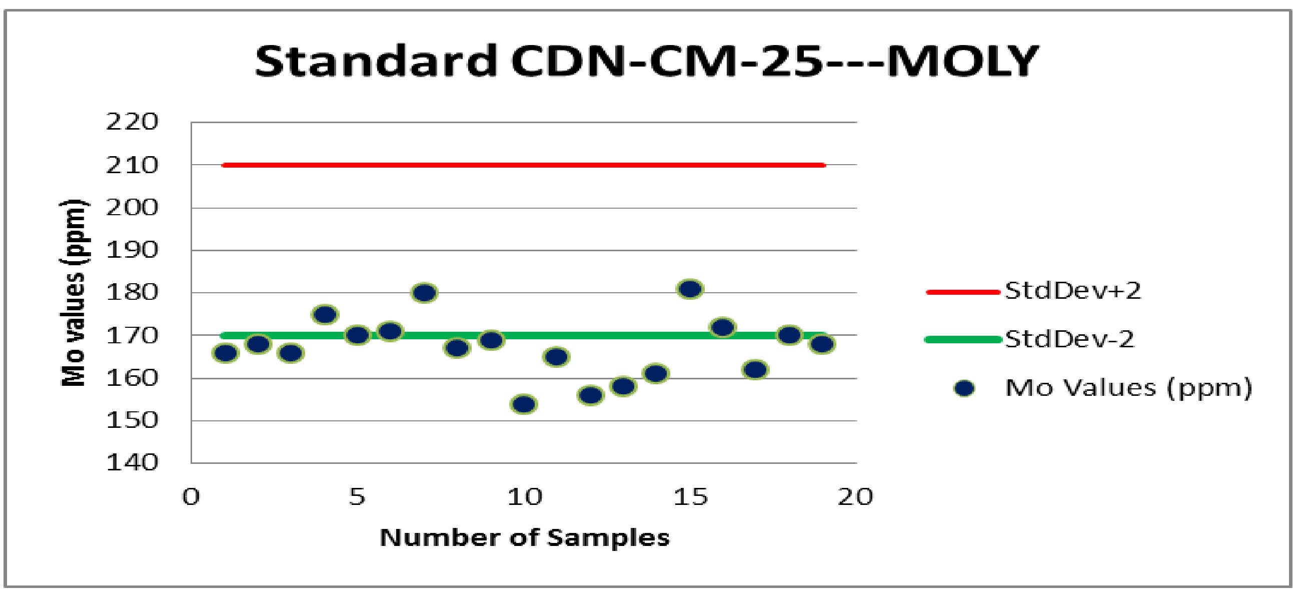


Figure 11.15: Chart shows results of 19 CDN-CM-25 certified standard assays for molybdenum. These results are similar to Mo values obtained from certified standard CDN-CM-13.

Overall the assay results show a significant number of values at or below the lowermost expected threshold, particularly with regard to molybdenum. As a result Gold Reach requested several pulps to be sent out to AGAT laboratories for re-assay. A total of 208 pulps were chosen from a variety of drill holes and lithologies and sent in two separate batches in August and October. The results are shown below in the following charts.

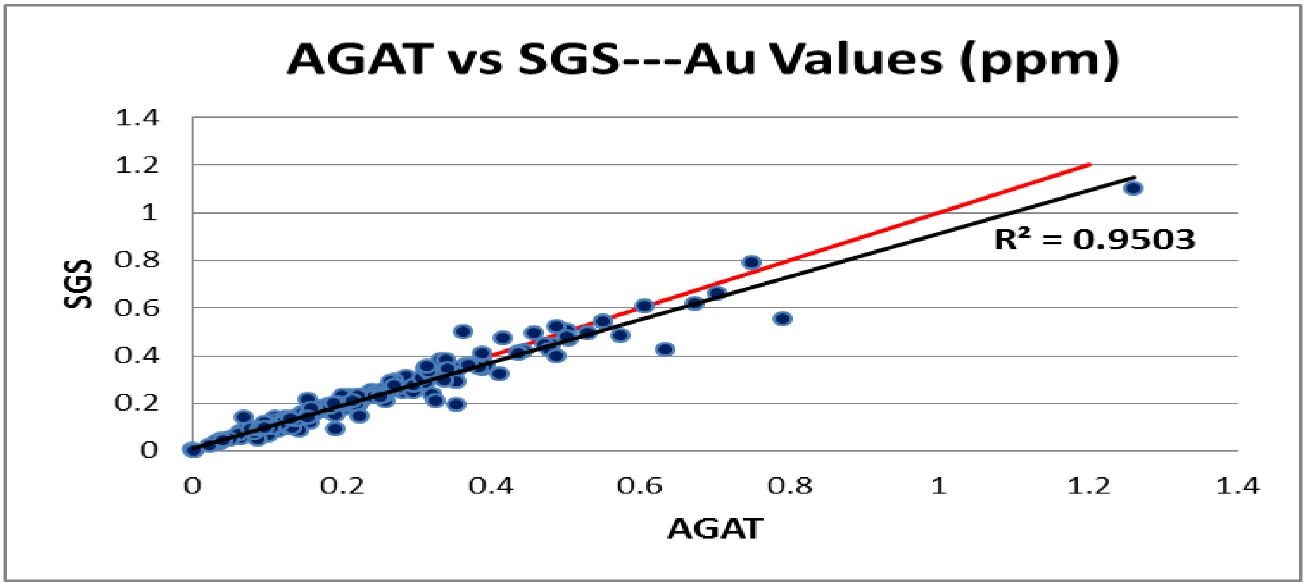


Figure 11.16: Comparison of Au assays between AGAT and SGS labs. R^2 value and trendline are shown in black. A line of perfect correlation for illustrative purposes is shown in red.

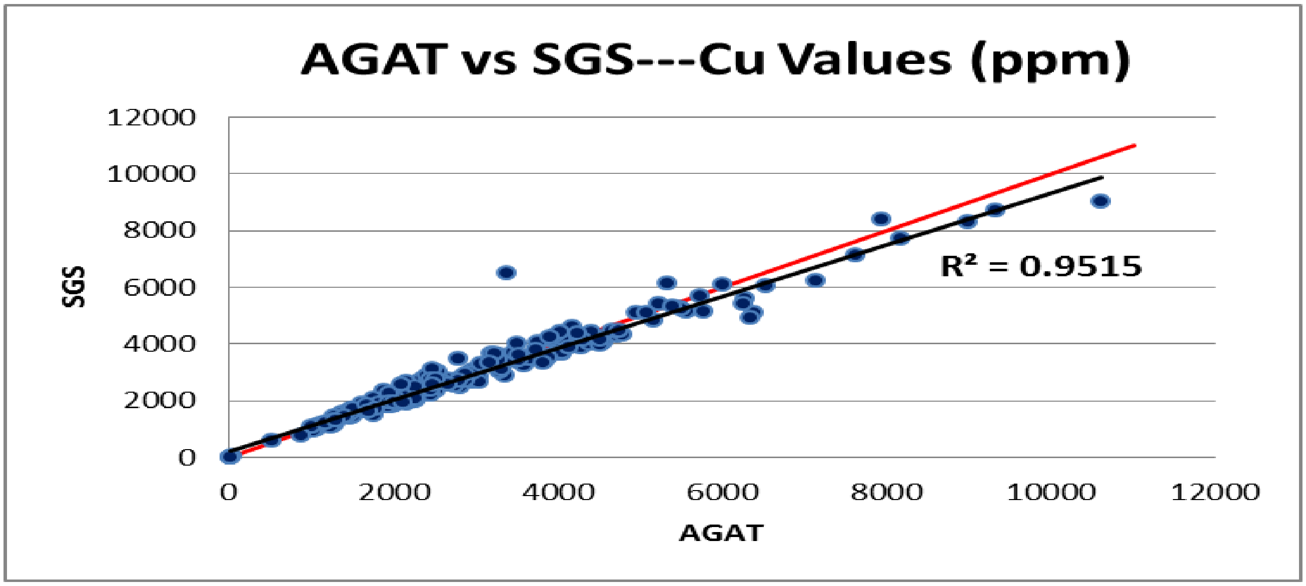


Figure 11.17: Comparison of Cu assays between AGAT and SGS labs. R^2 value and trendline are shown in black. A line of perfect correlation for illustrative purposes is shown in red.

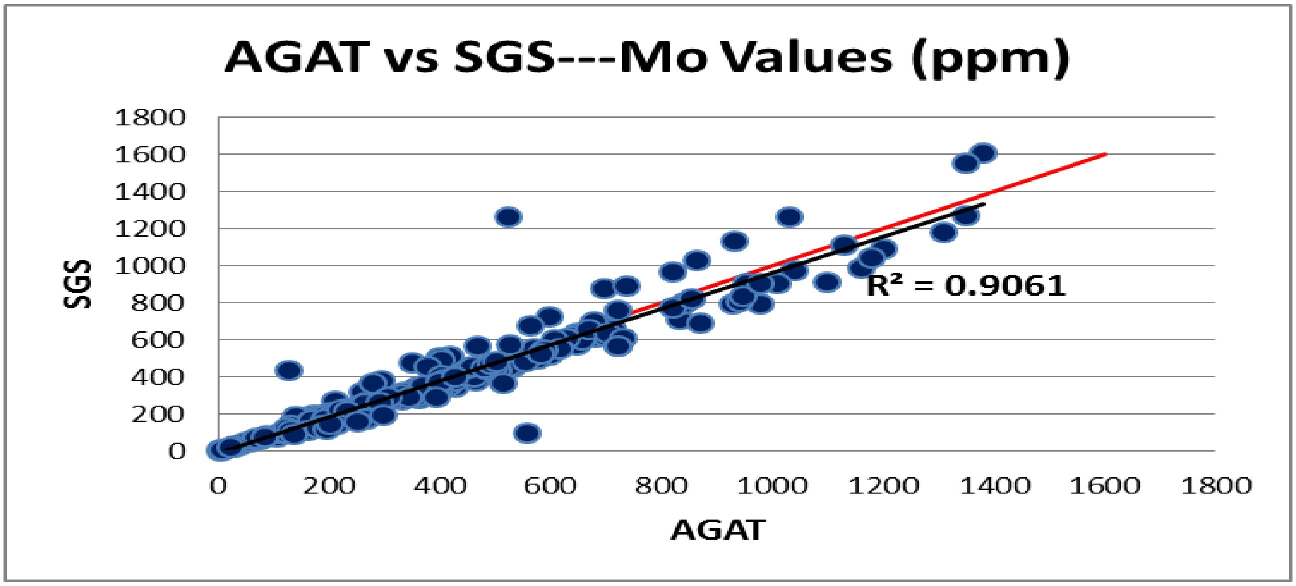


Figure 11.18: Comparison of Mo assays between AGAT and SGS labs. R^2 value and trendline are shown in black. A line of perfect correlation for illustrative purposes is shown in red.

Secondary analyses by AGAT laboratories showed higher values for both Au and Cu in the order of 60% of the time with an average increase of 0.02 ppm and 250ppm respectively. Retested values for molybdenum showed the starkest difference with 80% of the AGAT samples registering an average of 50 ppm higher.

Gold Reach concludes that the SGS analyses have a tendancy to slightly under report the true value in several samples with a slight negative bias evident for copper and gold, and a stronger negative bias for molybdenum. Overall the results have been deemed acceptable for the purpose of this resource estimate.

11.1.2 Ox Deposit QA/QC

Blanks

A total of 108 blanks were inserted into the sample stream from the 2012 Ox deposit drill program. All of the blank material was sourced from 21km on the Whitesail road. Gold, copper and molybdenum levels in all of the blanks submitted for assay tested at acceptably low levels.

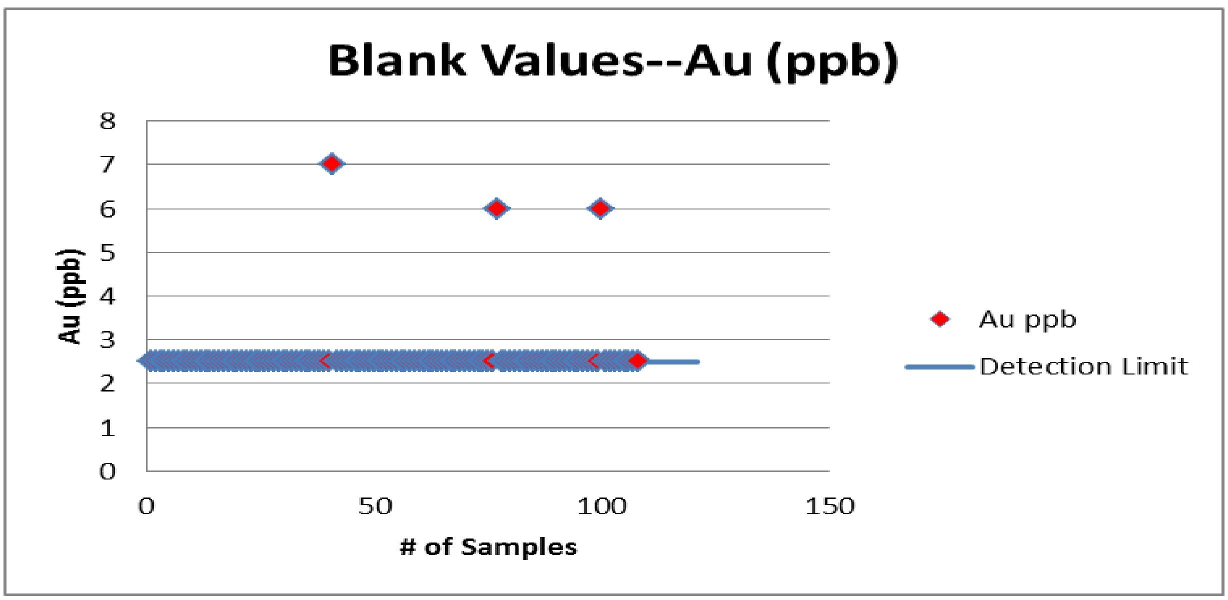


Figure 11.19: The vast majority of Au values tested at detection limit with only three analyses returning slightly elevated levels.

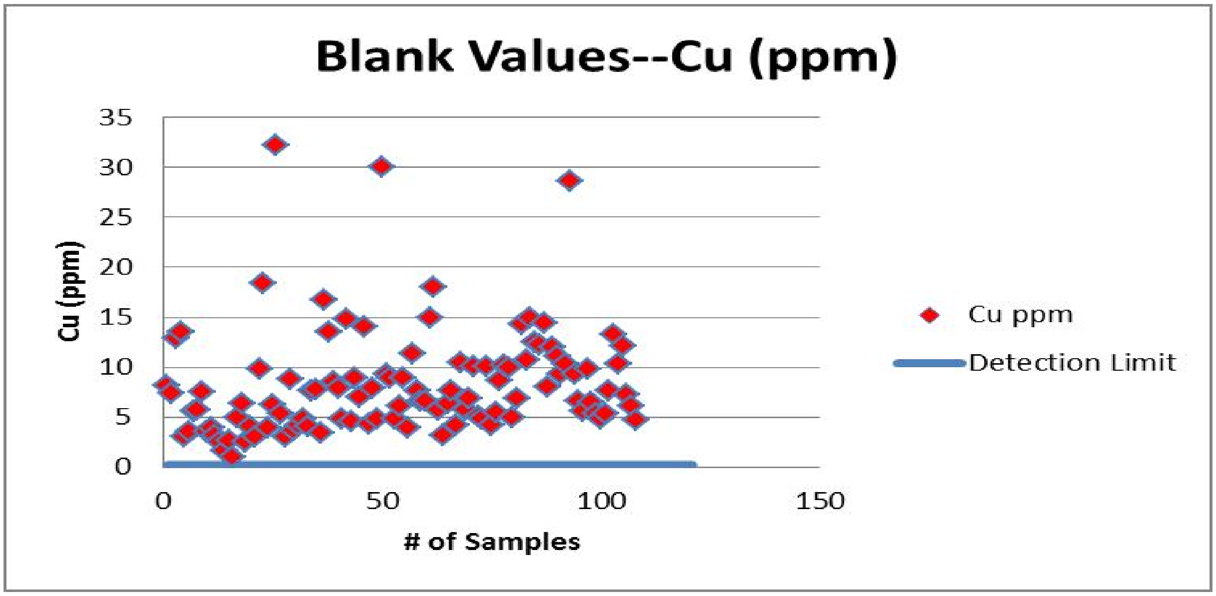


Figure 11.20: Cu values from blank analysis returned results at expected background levels.

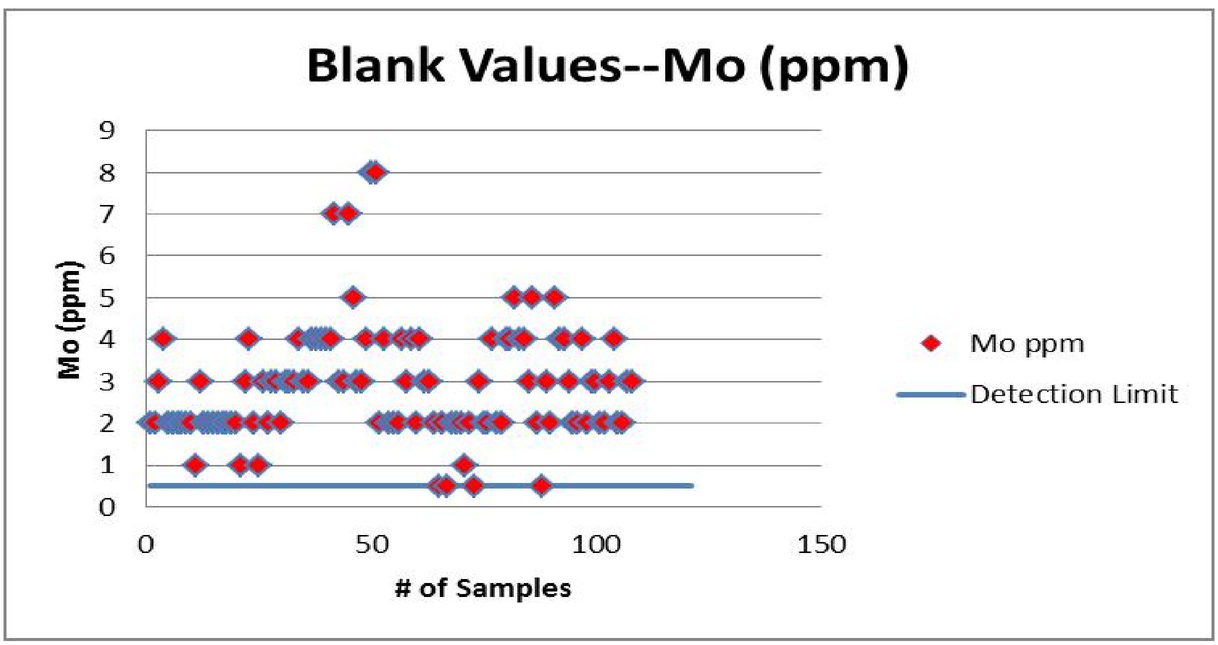


Figure 11.21: Mo results were correlative to expected background levels.

Duplicates

There were a total of 114 duplicate samples marked, cut and sent to the lab for assay during 2012 Ox drilling. Analysis for Au, Cu and Mo showed acceptable repeatability between the sample originals and their duplicates with good correlation coefficients for all three elements.

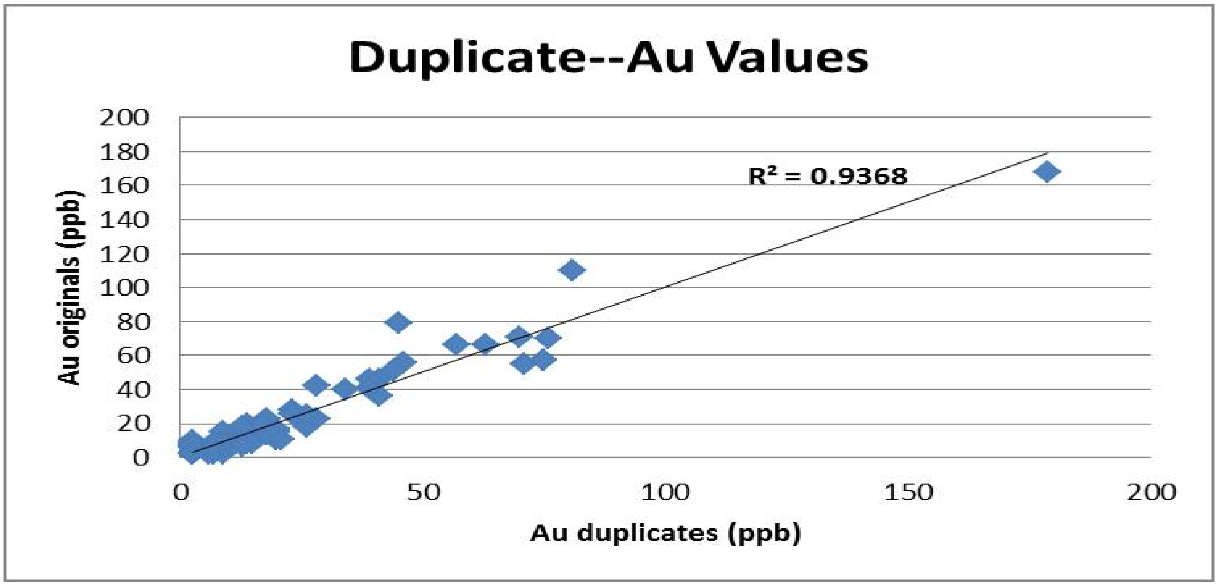


Figure 11.22: Comparison of Au values between sample originals and duplicates for 114 samples

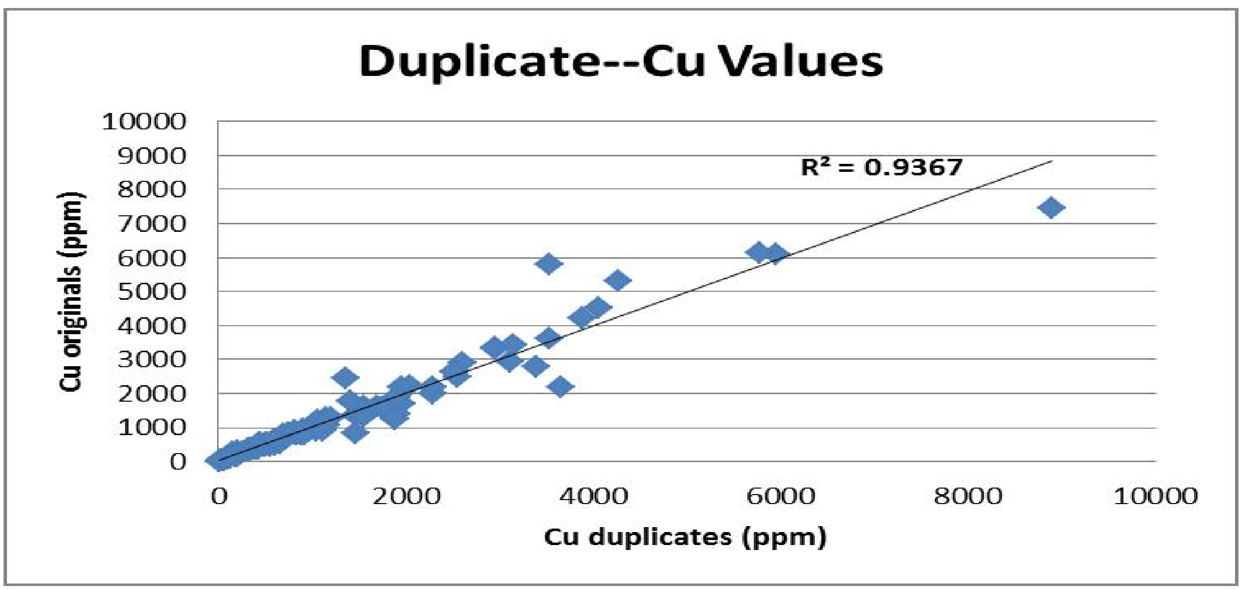
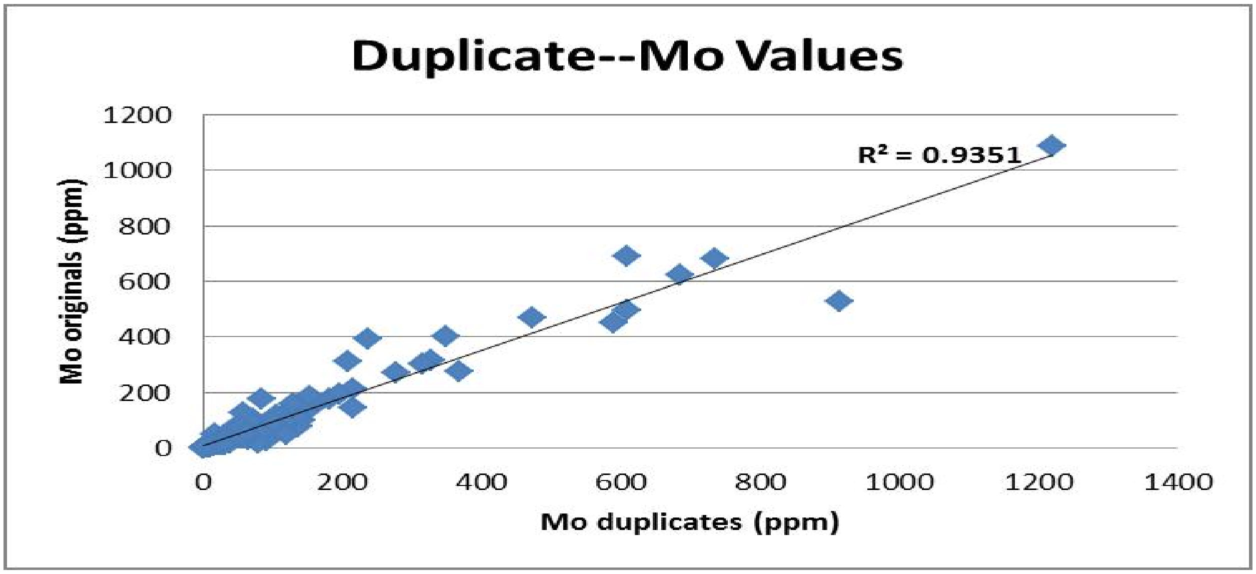


Table 11.23: Comparison of Cu values between sample originals and duplicates for 114 samples.



Figue 11.24: Comparison of Mo values between sample originals and duplicates for 114 samples.

Standards

A total of sixteen CDN-CM-13 lab certified standards were included in the 2012 Ox drilling program. Results from standard anyalyes were mixed with Au results testing at acceptable levels while both Cu and Mo showed lower than expected levels. Results are portrayed in the following charts. Standard deviation levels were taken from a fact sheet provided by the lab with results shown in Table 11-1.

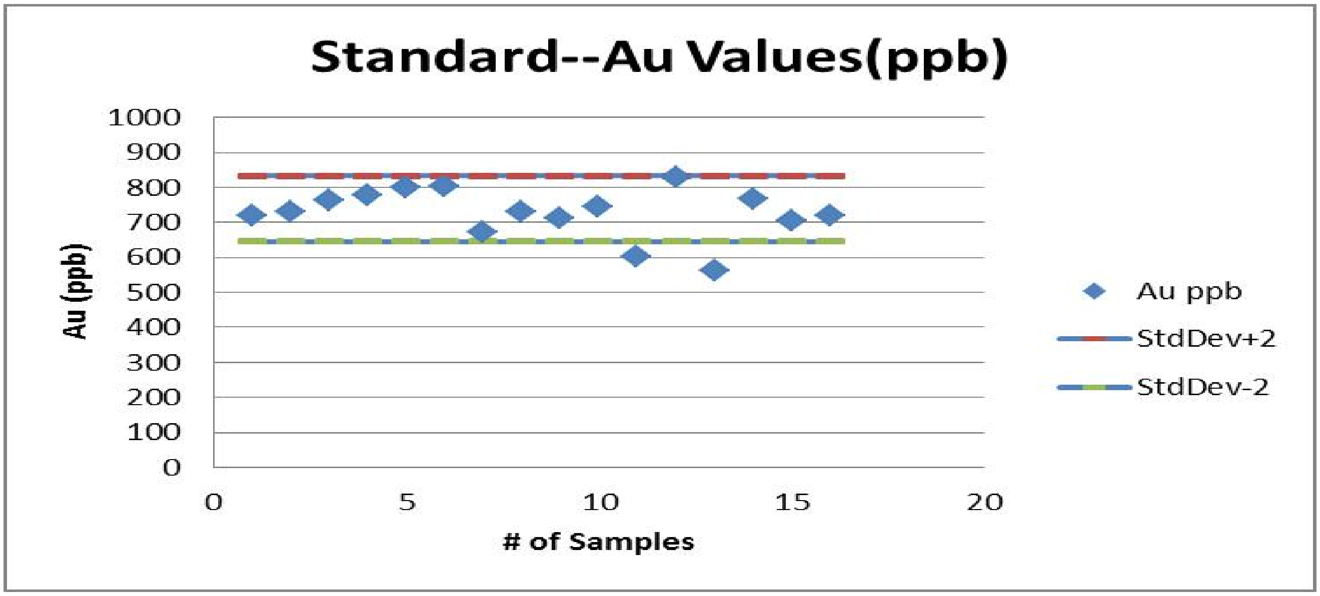


Figure 11.25: The majority of Au values tested withing acceptable parameters.

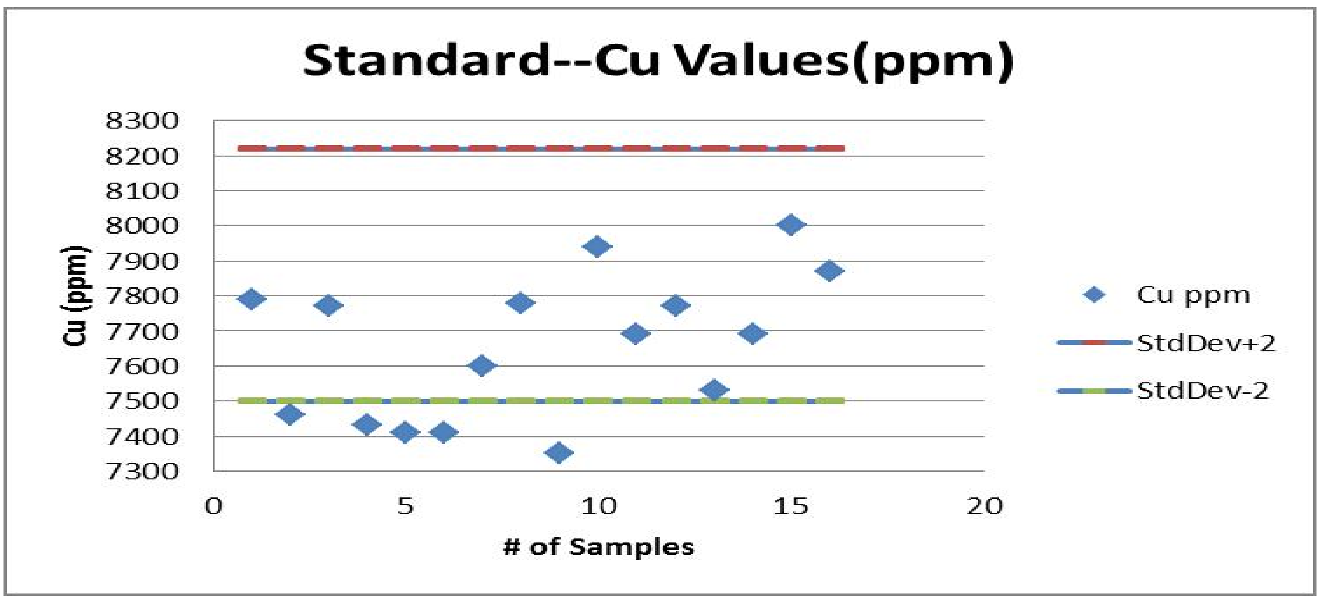


Figure 11.26: Five of sixteen (31%) samples registered Cu values below the two standard deviation level.

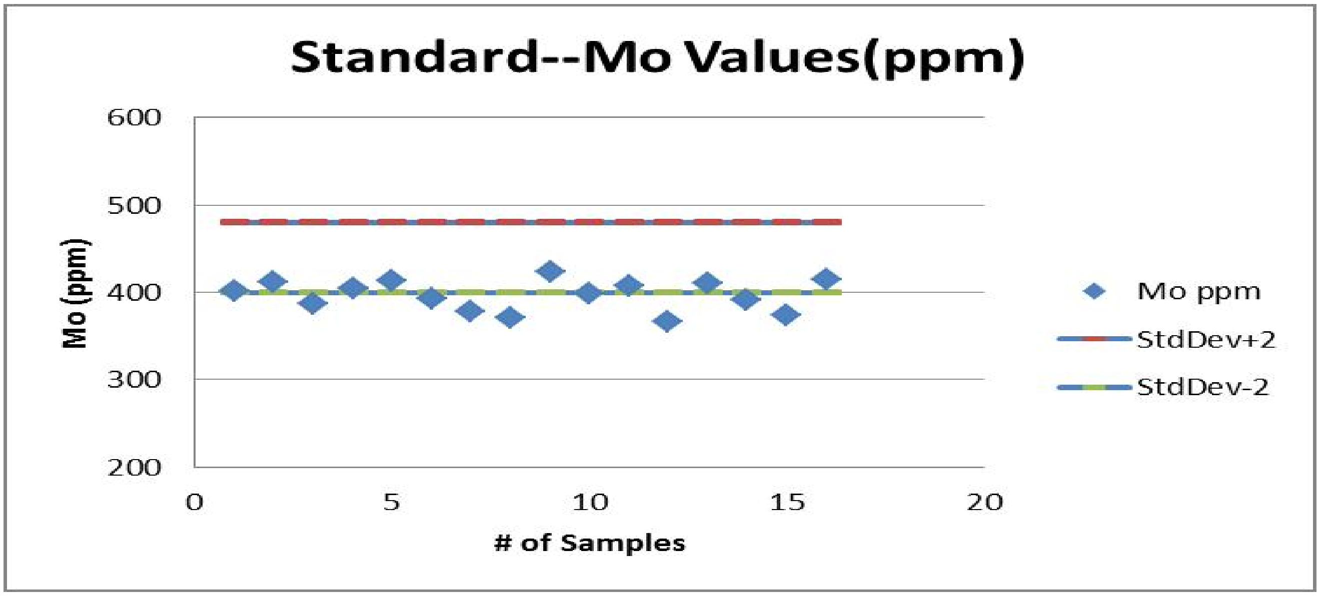


Figure 11.27: Seven of sixteen (44%) samples registered Mo values below the the two standard deviation level.

Assay results from the 16 lab certified standards at Ox showed a progression toward lowermost acceptable values from Au to Cu to Mo. As was done with Seel samples, Gold Reach requested SGS labs to forward 50 sample pulps to AGAT laboratories for re-assay. The charts below show comparative results between the two labs for those samples.

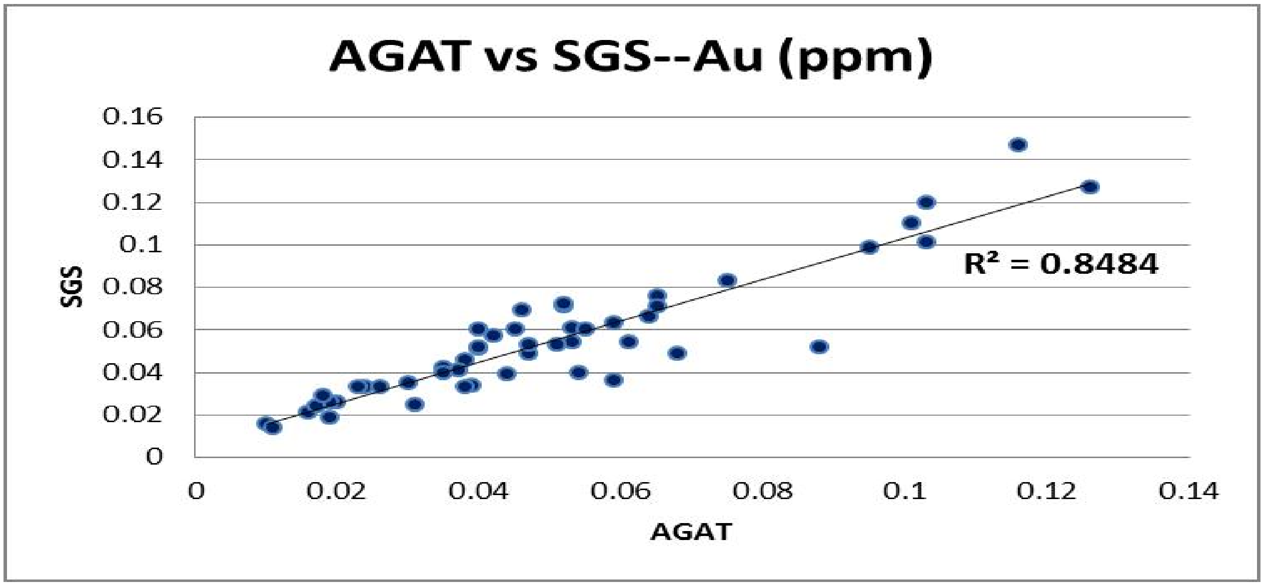


Figure 11.28: Correlation of Au values between two labs.

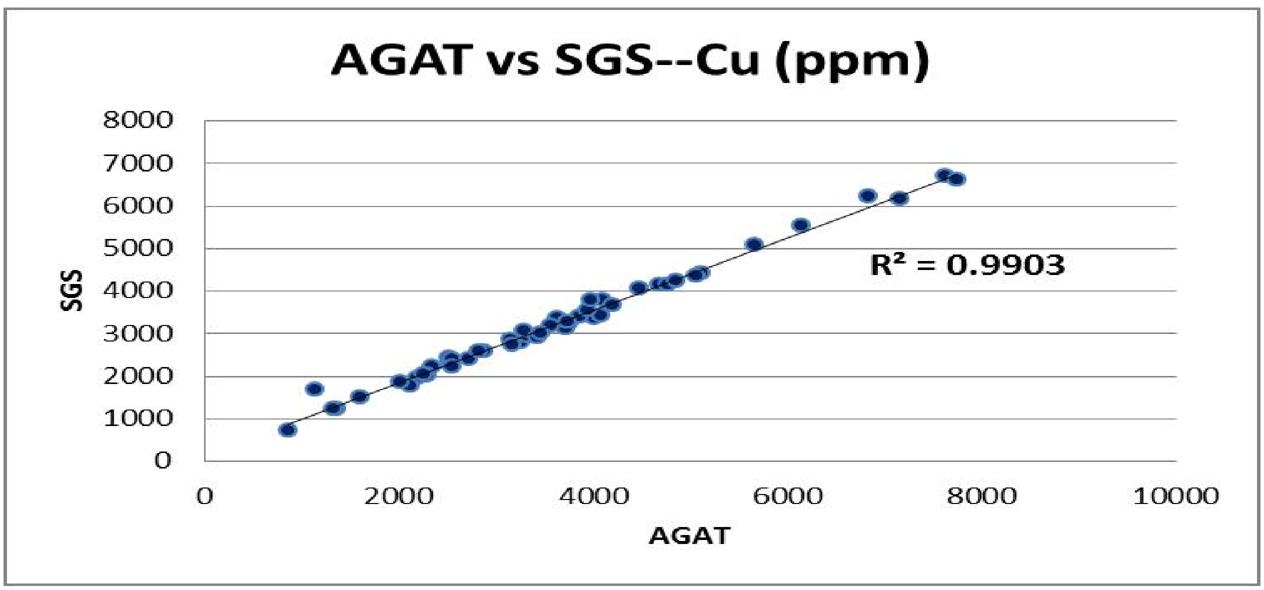


Figure 11.29: Strong correlation for Cu values between labs.

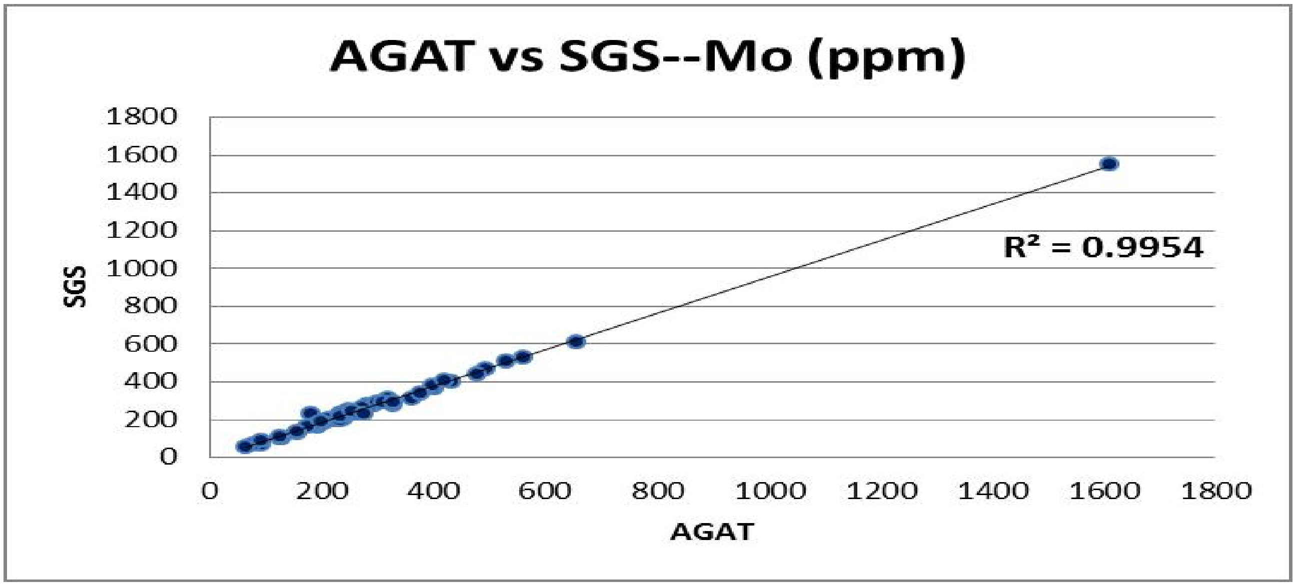


Figure 11.30: Strong correlation for Mo values between labs.

A comparative analysis between AGAT and SGS showed that SGS returned higher Au grades 80% of the time with an average difference of 0.009 ppm. AGAT returned higher values for Cu 98% of the time with an average difference of 409 ppm. AGAT also returned higher values for Mo 96% of the time with average differences of 23 ppm.

Gold Reach concludes that the SGS analyses have a tendancy to slightly under report the true value in several samples with a slight negative bias evident for copper and molybdenum. Overall the results have been deemed acceptable for the purpose of this resource estimate.

12.0 DATA VERIFICATION

All completed drill hole collars were marked with a treated fence post that is labelled with an aluminum tag. Collar locations are professionally DGPS surveyed by McElhanney Associates Land Surveying Ltd.

Two to three reference standards are included with each sample shipment to monitor the accuracy of the lab analysis. Blanks are inserted at a rate of 1 blank for every 20 samples to ensure sample contamination is not a factor during sample collection or sample analysis. One in every 20 samples are duplicated by quartering the core then inserting the two quarters in two separate sample bags with unique sample numbers and retaining half the core on site. Sample duplicates can help to determine the precision of lab analytical techniques.

Data entry is completed by geologists that work directly for Gold Reach Resources or act as consultants to the company. All data 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. All databases have further data verification checks when they are merged into Geosoft Target 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 accurate and complete. Assay values for each hole are then checked against the logged description of mineralization to ensure a suitable 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 cannot be reconciled, the sample interval will be resampled and sent for testing.

13.0 MINERAL PROCESSING AND METALLURGICAL TESTING

In June 2009 a total of 226 kilograms of drill core from three diamond drill holes was sent to PRA Metallurgical Division (PRA), a subsidiary of Inspectorate America Corp., for preliminary metallurgical testing. Two of the samples were sourced from the Seel resource (S06-42 and S08-72) and one was from the Ox resource (Ox07-22). The submitted rock 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 this floatation work are summarized in the table below.

Table 13-1: Flotation test.

Sample	Calculated Head Grade, (g/t or %)				Rougher Concentrate Grade (g/t or %)				Total Rougher Recovery (%)					
	Au	Ag	Cu	Fe	Au	Ag	Cu	Fe	Mass	Au	Ag	Cu	Fe	Mo
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

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 testing is required to optimize recoveries and produce a marketable copper product with related potential by-products such as gold and molybdenum.

In 2012 a metallurgical specific hole was drilled into the Seel Cu-Au zone. Hole number S12-103 was drilled to a depth of 618 meters and a portion has been submitted for analysis to Inspectorate Exploration and Mining Services of Richmond, BC. Also, samples have been submitted from the upper and lower portions of hole S12-101, which was drilled into the Cu-Mo-Au-Ag zone at West Seel. The current round of testing will aim to optimize recoveries by determining the ideal grind size, performing rougher and cleaner flotation testing and locked cycle testing. Recoveries for copper, gold, silver, and molybdenum will be characterized. Metallurgical testing is in progress at the time of report preparation.

14.0 MINERAL RESOURCE ESTIMATE

Giroux Consultants was contracted by Gold Reach Resources Ltd. (“GRV”) to complete a Resource Estimate Update for the Seel property near Ootsa Lake, B.C. The resource was estimated by Gary Giroux, P.Eng. MASc. who is a qualified person and independent of the 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 hole 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	10,393 m
2012	46 diamond drill holes	38,628 m
Total	**146 diamond drill holes**	**66,923 m**

This resource estimation represents an update of a resource estimated by Wardrop in November 2008 (Stubens, et. al. 2008) and updated February 23, 2012 (McDowell and Giroux, 2012). Since the 2012 resource was estimated an additional 46 drill holes totalling 38,628 m have been completed by Gold Reach in 2012.

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. A total of 196 gaps in the from-to record were identified and values of 0.001%, 0.001 g/t, 5 ppm and 0.1 g/t were inserted for Cu, Au, Mo and Ag respectively.

Collar elevations were compared to a 1 m Lidar contour surface topography file and holes plotting above the topographic surface were adjusted downward.

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
SER	Sericite, Sericite-clay, Sericite-sillica
SIL	Silic, silic-phyllic, silica-carb, Quartz, silic-chlorite, silic-biotite
SUL	Sulfide

Table 14-1: Statistics for Cu and Au sorted by Alteration Type

Alteration	Variable	Number Of assays	Mean	S.D.	Min.	Max.	Coef. Of Variation
ARG	Cu %	1,237	0.10	0.14	0.001	1.00	1.37
	Au g/t	1,237	0.11	0.51	0.001	13.00	4.49
BIO	Cu %	4,372	0.15	0.16	0.001	7.07	1.06
	Au g/t	4,372	0.09	0.16	0.003	3.97	1.87
CHL	Cu %	233	0.11	0.16	0.001	0.72	1.45
	Au g/t	233	0.12	0.20	0.003	1.39	1.56
CLAY	Cu %	44	0.20	0.16	0.003	0.57	0.81
	Au g/t	44	0.16	0.15	0.003	0.62	0.92
PHI	Cu %	8,927	0.10	0.13	0.001	2.95	1.26
	Au g/t	8,927	0.10	0.36	0.001	23.00	3.66
POT	Cu %	5,186	0.16	0.14	0.001	2.52	0.91
	Au g/t	5,186	0.12	0.18	0.001	5.02	1.52
PROP	Cu %	639	0.03	0.05	0.001	0.48	1.72
	Au g/t	639	0.05	0.,23	0.003	5.62	4.68
SER	Cu %	597	0.06	0.08	0.001	0.44	1.34
	Au g/t	597	0.06	0.14	0.003	1.58	2.24
SIL	Cu %	1,949	0.13	0.12	0.001	1.14	0.91
	Au g/t	1,949	0.11	0.29	0.003	8.07	2.71
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

Mineralization appears to occur in all types of alteration phases with the exception of propylitic and sericitic. 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 110 holes that intersected the mineralized solids, highlighted.

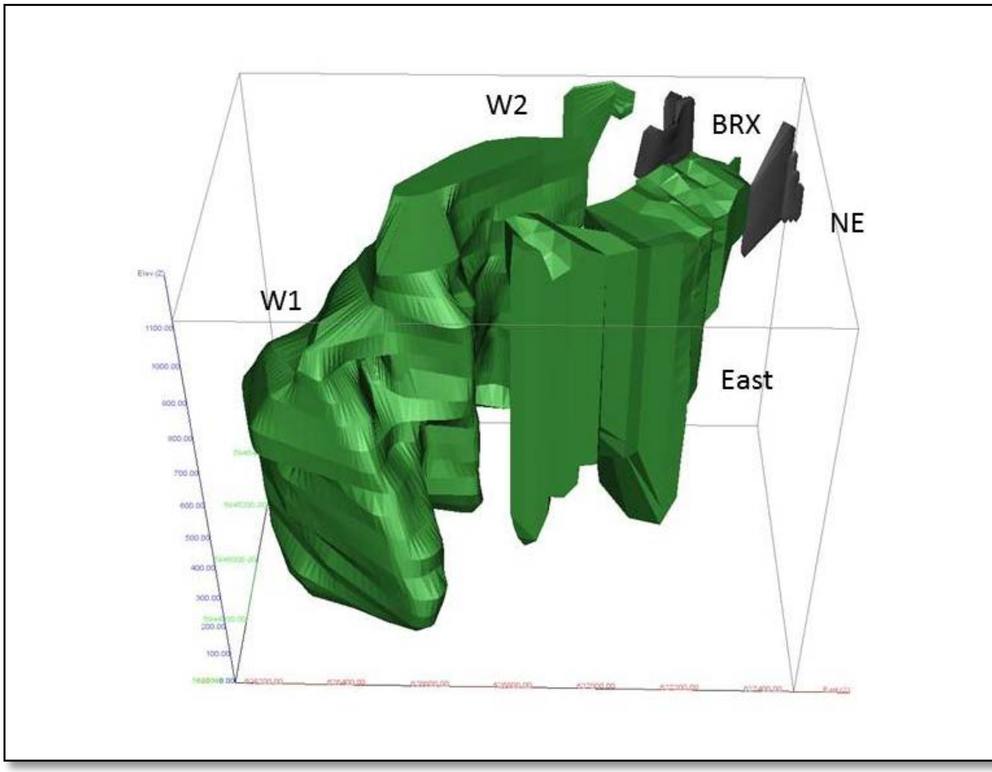


Figure 14.1: Isometric view looking N showing Mineralized Wire Frames

Assays were compared to these domain solids and “back tagged” with a domain code. Statistics for Cu, Au, Mo and Ag as a function of domain are tabulated below. Since there were no new drill holes in the NE and Breccia zone the statistics for these zones were unchanged.

Table 14-2: Statistics for Cu, Au, Mo and Ag sorted by Domain

Domain	Variable	Number	Mean	S.D.	Min.	Max.	Coef. Of Variation
East Zone	Cu %	4,226	0.19	0.21	0.001	8.56	1.13
	Au g/t	4,226	0.18	0.19	0.001	3.90	1.10
	Mo %	4,226	0.007	0.013	0.0001	0.20	2.02
	Ag g/t	4,226	1.16	4.43	0.1	223.0	3.82
West Zone W1 & W2	Cu %	13,645	0.17	0.14	0.001	7.07	0.82
	Au g/t	13,645	0.12	0.36	0.001	23.00	2.90
	Mo %	13,645	0.018	0.023	0.0001	0.40	1.26
	Ag g/t	13,645	2.35	2.67	0.1	131.0	1.13
Breccia Zone	Cu %	245	0.48	0.58	0.001	3.10	1.21
	Au g/t	245	0.06	0.08	0.001	0.79	1.40
	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
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 %	12,535	0.03	0.04	0.001	1.24	1.37
	Au g/t	12,535	0.03	0.12	0.001	8.75	3.82
	Mo %	12,160	0.002	0.009	0.0001	0.61	3.82
	Ag g/t	12,180	0.91	1.08	0.1	37.3	11.91

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.

Table 14-3: Cap Levels for all variables in all domains

Domain	Variable	Cap Level	Number Capped
East & NE Zones	Cu	2.0 %	3
	Au	2.5 g/t	2
	Mo	0.29 %	0
	Ag	52.0 g/t	3
West Zone W1 & W2	Cu	1.3 %	4
	Au	8.6 g/t	4
	Mo	0.30 %	4
	Ag	30.0 g/t	8
Breccia Zone	Cu	3.4 %	0
	Au	0.28 g/t	3
	Mo	0.006 %	0
	Ag	76.0 g/t	2
Waste	Cu	0.33 %	24
	Au	0.91 g/t	17
	Mo	0.09 %	14
	Ag	12.0 g/t	18

The results from capping are shown in Table 14-4 with small reductions in mean grade but significant reductions in standard deviation and as a result coefficient of variation.

Table 14-4: Statistics for Capped Cu, Au, Mo and Ag sorted by Domain

Domain	Variable	Number	Mean	S.D.	Min.	Max.	Coef. Of Variation
East Zone	Cu %	4,226	0.19	0.17	0.001	2.00	0.90
	Au g/t	4,226	0.18	0.19	0.001	2.50	1.07
	Mo %	4,226	0.007	0.013	0.0001	0.20	2.02
	Ag g/t	4,226	1.12	2.87	0.1	52.0	2.57
West Zone	Cu %	13,645	0.17	0.13	0.001	1.30	0.74
	Au g/t	13,645	0.12	0.26	0.001	8.60	2.17
	Mo %	13,645	0.018	0.022	0.0001	0.30	1.24
	Ag g/t	13,645	2.34	2.25	0.1	30.0	0.96
Breccia Zone	Cu %	245	0.48	0.58	0.001	3.10	1.21
	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 %	12,535	0.03	0.04	0.001	0.33	1.19
	Au g/t	12,535	0.03	0.06	0.001	0.91	1.76
	Mo %	12,160	0.002	0.006	0.0001	0.09	2.39
	Ag g/t	12,180	0.90	0.92	0.1	12.0	1.02

14.1.1 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.

Table 14-5: Statistics of 5m Composite for Cu, Au, Mo and Ag sorted by Domain

Domain	Variable	Number	Mean	S.D.	Min.	Max.	Coef. Of Variation
East Zone	Cu %	1,650	0.18	0.15	0.001	1.27	0.82
	Au g/t	1,650	0.18	0.17	0.003	1.88	0.96
	Mo %	1,650	0.007	0.012	0.0001	0.12	1.71
	Ag g/t	1,650	1.1	2.32	0.1	41.1	2.13
West Zone	Cu %	5,403	0.17	0.11	0.001	0.97	0.63
	Au g/t	5,403	0.12	0.19	0.002	4.55	1.54
	Mo %	5,403	0.018	0.018	0.0001	0.20	1.00
	Ag g/t	5,403	2.3	1.81	0.1	18.9	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 %	5,488	0.03	0.03	0.001	0.39	1.10
	Au g/t	5,488	0.03	0.04	0.001	0.74	1.48
	Mo %	5,306	0.002	0.004	0.0001	0.06	1.93
	Ag g/t	5,316	0.8	0.77	0.1	11.77	0.92

14.1.2 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^o, 0^o, 45^o and 135^o. 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^o 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^o. The longest range perpendicular to this was along azimuth 155^o dipping -60^o. Molybdenum in the east zone had a similar orientation. Gold showed a maximum horizontal continuity along azimuth 110^o with a down dip direction of azimuth 200^o dipping -55^o. Silver in the east zone showed the best continuity along azimuth 20^o. 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 copper and silver showed a geometric anisotropy with longest horizontal range along azimuth 175^o. For gold the directions of maximum continuity was along azimuth 135^o. Molybdenum within the West domain showed maximum continuity along azimuths 0^o dip 0^o.

Nugget effect to sill ratios varied from a low of 15% in East zone Ag to a high of 30% in West zone Mo, 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 3.

Table 14-6: Semivariogram Parameters for Seel

Domain	Variable	Azimuth/Dip	C_o	C_1	C_2	Short Range (m)	Long Range (m)
East	Cu	065° / 0°	0.10	0.15	0.13	20.0	110.0
		335° / -30°	0.10	0.15	0.13	40.0	70.0
		155° / -60°	0.10	0.15	0.13	50.0	150.0
	Au	110° / 0°	0.10	0.15	0.18	44.0	180.0
		020° / -35°	0.10	0.15	0.18	20.0	60.0
		200° / -55°	0.10	0.15	0.18	30.0	160.0
	Mo	065° / 0°	0.08	0.10	0.34	12.0	70.0
		335° / -30°	0.08	0.10	0.34	10.0	60.0
		155° / -60°	0.08	0.10	0.34	10.0	150.0
	Ag	020° / 0°	0.08	0.15	0.30	30.0	54.0
		110° / 0°	0.08	0.15	0.30	20.0	34.0
		000° / -90°	0.08	0.15	0.30	30.0	60.0
West	Cu	175° / 0°	0.05	0.10	0.15	15.0	124.0
		85° / -10°	0.05	0.10	0.15	12.0	20.0
		265° / -80°	0.05	0.10	0.15	20.0	100.0
	Au	130° / 0°	0.10	0.12	0.22	40.0	200.0
		045° / -70°	0.10	0.12	0.22	12.0	134.0
		225° / -20°	0.10	0.12	0.22	10.0	50.0
	Mo	0° / 0°	0.15	0.10	0.25	10.0	150.0
		270° / -60°	0.15	0.10	0.25	30.0	160.0
		90° / -30°	0.15	0.10	0.25	30.0	70.0
	Ag	175° / 0°	0.05	0.06	0.14	20.0	60.0
		085° / 0°	0.05	0.06	0.14	5.0	24.0
		0° / -90°	0.05	0.06	0.14	40.0	100.0
Waste	Cu	Omni Directional	0.13	0.05	0.12	20.0	80.0
	Au	Omni Directional	0.14	0.04	0.12	20.0	80.0
	Mo	Omni Directional	0.32	0.18	0.26	40.0	150.0
	Ag	Omni Directional	0.05	0.15	0.20	50.0	150.0

Note: C_o = Nugget Effect, C_1=short range structure and C_2= long range structure

14.1.3 Block Model

A block model with blocks 10 x 10 x 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, within overburden and within the various solids was recorded. The block model origin is as follows:

Lower Left Corner

626070 E Column size = 10 m 136 columns

5944590 N Row size = 10 m 96 rows

Top of Model

1125 elevation Level size = 5 m 226 levels

No Rotation

14.1.4 Bulk Density

A total of 1,701 specific gravity determinations were made from pieces of drill core on the Seel property by the weight in air/weight in water method during the 2011-2012 drill campaigns. The determinations are tabulated below sorted by Lithology and Domain.

Table 14-7: Specific Gravity Measurements

Summary of 2012 SG measurements (field measurements wt in air vs wt in water method)

Zone	Unit	Number of samples	Average SG
West Seel	Bio intrusive (deep West Seel intrusive)	300	2.72
West Seel	Undiferentiated porphyries	498	2.70
West Seel	Sedimentary rocks	617	2.76
	Global average West Seel all units	1415	**2.73**
West Seel	Felsic dikes	6	2.64
West Seel	Mafic dikes	9	2.68
East Seel	Coarse crowded porphyry	24	2.74
East Seel	Undifferentiated porphyry	183	2.71
East Seel	Sedimentary rocks	79	2.83
	Global average East Seel all unit	286	**2.75**
	Average for West Seel and East Seel all units	1701	**2.73**

For this resource estimate the average specific gravity of 286 East zone samples of 2.75 was used for the East and NE zones to convert volume to tonnage. In the West zone the average of 1,415 specific gravity samples of 2.73 was used. For the Breccia zone the average specific gravity of 3 samples excluding the massive sulphide sample was 3.03. An overall average of 2.73 was used for material outside the mineralized solids that was considered waste and a nominal 1.60 was used for overburden.

14.1.5 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 14-8 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 14-8: Kriging Parameters for Cu in all Domains

Domain	Pass	Number Estimated	Az/Dip	Dist. (m)	Az/Dip	Dist. (m)	Az/Dip	Dist. (m)
East	1	6,668	065° / 0°	27.5	335° / -30°	17.5	155° / -60	37.5
	2	30,302	065° / 0°	55.0	335° / -30°	35.0	155° / -60	75.0
	3	48,480	065° / 0°	110.0	335° / -30°	70.0	155° / -60	150.0
	4	35,906	065° / 0°	220.0	335° / -30°	140.0	155° / -60	300.0
West	1	3,311	175° / 0°	31.0	85° / -10°	5.0	265° / -80	25.0
	2	28,871	175° / 0°	62.0	85° / -10°	10.0	265° / -80	50.0
	3	111,526	175° / 0°	124.0	85° / -10°	20.0	265° / -80	100.0
	4	176,171	175° / 0°	248.0	85° / -10°	40.0	265° / -80	200.0
Breccia	1	524	065° / 0°	27.5	335° / -30°	17.5	155° / -60	37.5
	2	1,089	065° / 0°	55.0	335° / -30°	35.0	155° / -60	75.0
	3	639	065° / 0°	110.0	335° / -30°	70.0	155° / -60	150.0
	4	79	065° / 0°	220.0	335° / -30°	140.0	155° / -60	300.0
NE	1	0	065° / 0°	27.5	335° / -30°	17.5	155° / -60	37.5
	2	0	065° / 0°	55.0	335° / -30°	35.0	155° / -60	75.0
	3	395	065° / 0°	110.0	335° / -30°	70.0	155° / -60	150.0
	4	1,623	065° / 0°	220.0	335° / -30°	140.0	155° / -60	300.0

14.2 Ox Resource

The data base for the Ox resource consisted of 35 BQ diamond drill holes drilled from 1968 to 1969 by Silver Standard and an additional 2 diamond drill holes completed by Asarco in 1981. After acquiring the Property Gold Reach drilled 26 NQ diamond drill holes in 2007 and 18 diamond drill holes in 2012. Only 44 holes drilled by Gold Reach have been used to model grades at the Ox deposit.

In a 43-101 Report complete in 2008, Wardrop completed data verification on both the historic and recent drilling;

"Wardrop verified the assay database records against the original paper assay certificates for both the historical and current drilling. Original assay sheets for the references to the sample numbers were missing for a number of the drill holes completed in 1968 and 1969, therefore comparisons could not be made to the original assay certificates. For these samples, verification was carried out against results compiled in a report prepared by Silver Standard in 1969. Of the 35 drill holes from 1968 - 1981 verified, a total of 5 samples out of 1321 could not be verified. A line error rate of 0.4% (52 line errors out of 1321 lines) was observed where the difference in grade was significant (ΔCu > 0.1%, ΔMo > 0.01%, ΔMoS2 > 0.01%). All errors were corrected in the digital database.

Wardrop received assay results from the twenty-six drill holes completed in 2007 directly from Assayers Canada as comma delimited text files. These were formatted and imported directly into Gems without verification of assay values.

Wardrop concluded that the assay and survey database was sufficiently free of error to be adequate for resource estimation of the Ox Lake deposit."

"Wardrop determined that there were differences between the historical (pre-2007) and the recent (2007) drill hole assay populations."

These differences can be quantified by the following cumulative frequency plots of Cu and Mo. Figure 14.2 shows the relative location of drill holes on the Ox Lake Property.

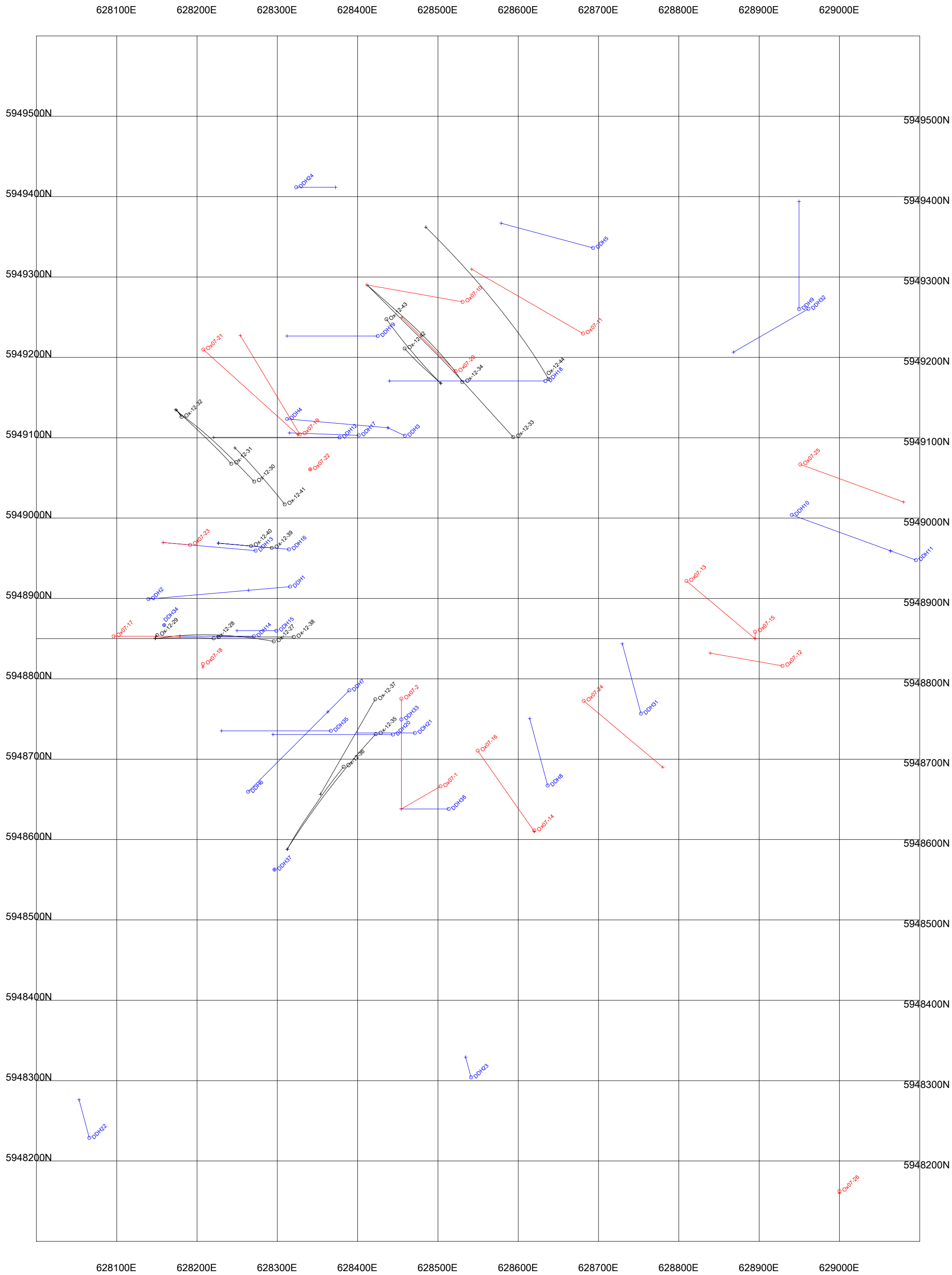


Figure 14.2: Ox Drill Hole plan with historic holes in blue (1968-1981), 2007 holes in red and 2012 holes in black.

Drill holes DDH22, DDH23, DDH9, DDH32 and Ox07-26 are all outside the mineralized area and have been removed from the comparison. Lognormal cumulative probability plots are shown for both Cu and Mo comparing the three drill periods.

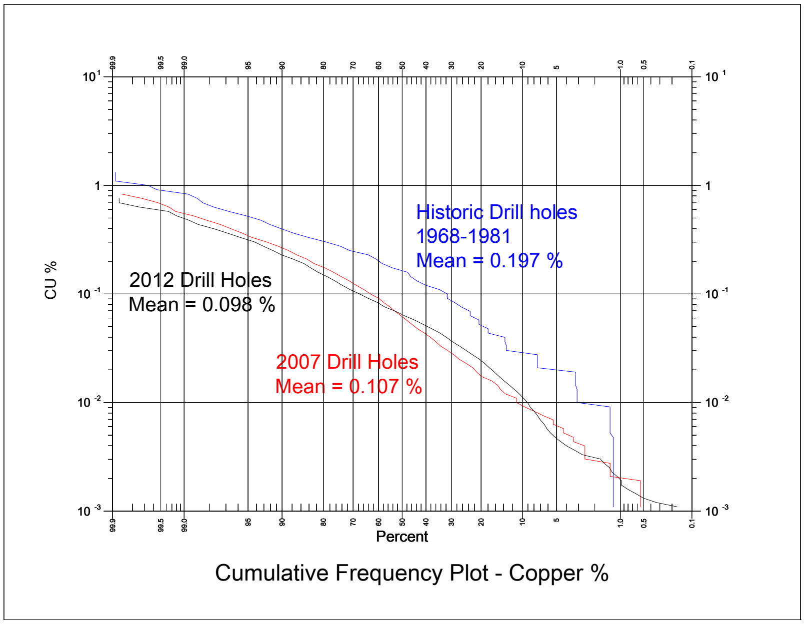


Figure 14.3: Lognormal Cumulative frequency plot comparing historic drill results for Cu in blue with recent drill results in red.

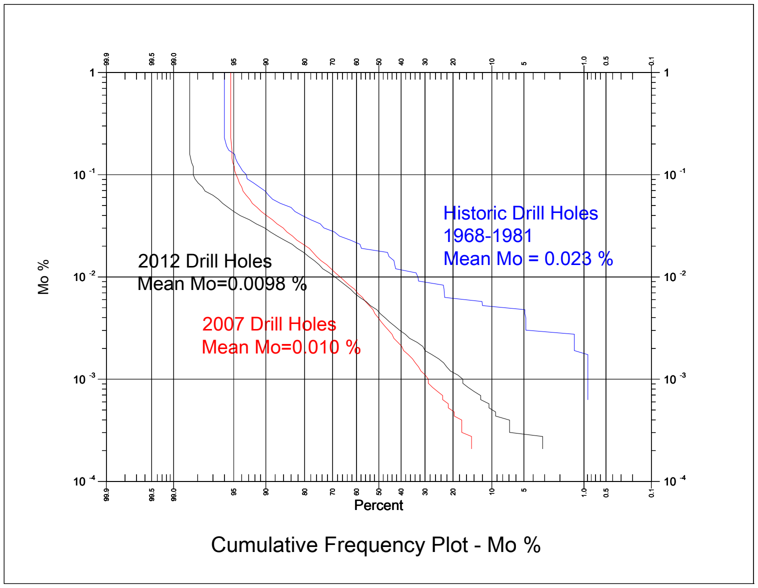


Figure 14.4: Lognormal Cumulative frequency plot comparing historic drill results for Mo in blue with 2007 drill results in red and 2012 drill results in black.

This comparison shows higher average grades and a different grade distribution for both Cu and Mo in the historic holes when compared to recent drilling. As a result the historic drill holes were not used in this resource estimate.

A three dimensional geologic solid was constructed from the drill hole results guided by a 0.15 % Cu Equivalent grade and lithology. The geologic shell that wraps around a granodiorite porphyry intrusion is contained within a hornfelsed sedimentary rock (see Figure 14.5.

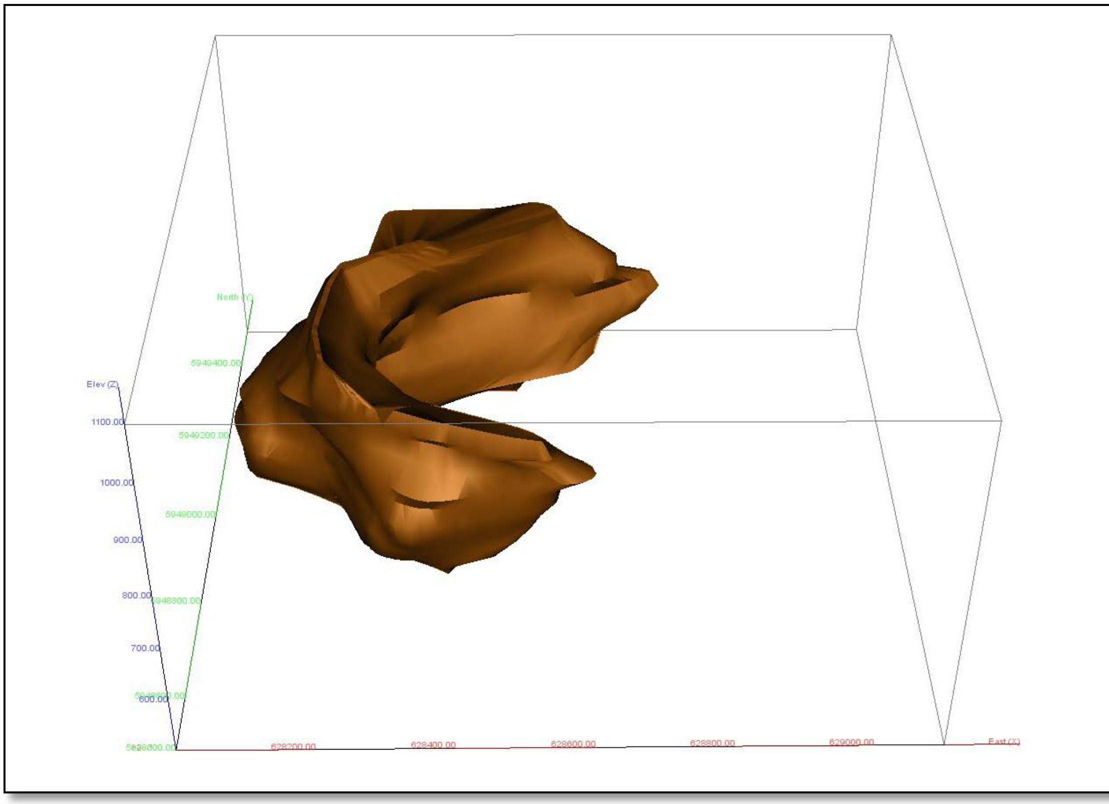


Figure 14.5: Isometric View looking N of the Geologic Solid that constrains the mineralization.

The drill holes were "passed through" the geologic solid and the assays were back tagged if within the mineralized zone. The simple statistics for assays inside the solid are compared to those outside in Table 14.9. Of the supplied drill holes, 30 intersected the geologic solid. Appendix 2 lists all supplied drill holes with the holes used for the estimate highlighted.

When the drill holes were plotted with the 1m Lidar surface topography a number of hole collars plotted above the topographic surface. The topography was assumed to be more accurate so these holes were adjusted down to fit the topography.

Table 14-9: Assay Statistics for Inside and Outside Geologic Solid

Variable	Number	Mean	Standard Deviation	Minimum Value	Maximum Value	Coefficient Of Variation
Mineralized Solid						
Cu	1,371	0.20	0.13	0.001	0.89	0.66
Au	1,371	0.03	0.04	0.001	0.62	1.14
Mo	1,371	0.022	0.023	0.0001	0.216	1.02
Ag	1,371	1.69	12.09	0.01	370.00	7.14
Waste						
Cu	3,234	0.06	0.07	0.001	1.00	1.14
Au	3,234	0.01	0.04	0.001	0.90	3.16
Mo	3,234	0.005	0.008	0.0001	0.098	1.64
Ag	3,234	0.88	2.10	0.10	91.70	2.38

The grade distributions for each variable in each domain were examined using lognormal cumulative frequency plots to determine if capping was required. In each case multiple overlapping lognormal populations were observed. In most cases, a threshold of 2 standard deviations above the mean of the second highest population was an effective cap level for each variable. The cap levels and number of samples capped are tabulated below.

Table 14-10: Capping Levels

Domain	Variable	Cap Level	Number Capped
Mineralized Solid	Cu	0.97 %	0
	Au	0.29 g/t	3
	Mo	0.14 %	5
	Ag	13.0 g/t	5
Waste	Cu	0.47 %	11
	Au	0.11 g/t	35
	Mo	0.06 %	4
	Ag	6.8 g/t	26

Top capping resulted in slightly lower mean values and reductions in the coefficient of variation for all variables.

Table 14-11: Capped Assay Statistics for Inside and Outside Geologic Solid

Variable	Number	Mean	Standard Deviation	Minimum Value	Maximum Value	Coefficient Of Variation
Mineralized Solid						
Cu	1,371	0.20	0.13	0.001	0.89	0.66
Au	1,371	0.03	0.03	0.001	0.29	1.01
Mo	1,371	0.022	0.022	0.0001	0.140	0.98
Ag	1,371	1.20	1.39	0.01	13.00	1.15
Waste						
Cu	3,234	0.06	0.06	0.001	0.47	1.08

Au	3,234	0.01	0.02	0.001	0.11	1.53
Mo	3,234	0.005	0.007	0.0001	0.060	1.60
Ag	3,234	0.80	0.84	0.01	6.80	1.04

14.2.1 Composites

Uniform 5 m down hole composites were formed, honouring the geologic solid boundaries. Small intervals at the solid boundaries were combined with an adjoining sample if less than 2.5 m. As a result a uniform support of 5 ± 2.5 m was created. The statistics for 5 m composites are tabulated below.

Table 14-12: 5 m Composite Statistics for Inside and Outside Geologic Solid

Variable	Number	Mean	Standard Deviation	Minimum Value	Maximum Value	Coefficient Of Variation
Mineralized Solid						
Cu	614	0.20	0.12	0.003	0.80	0.58
Au	614	0.03	0.02	0.001	0.19	0.81
Mo	614	0.022	0.018	0.0002	0.110	0.80
Ag	614	1.18	1.13	0.01	13.00	0.95
Waste						
Cu	1,499	0.06	0.06	0.001	0.45	1.03
Au	1,499	0.01	0.01	0.001	0.11	1.34
Mo	1,499	0.004	0.006	0.0001	0.046	1.41
Ag	1,499	0.74	0.70	0.01	6.80	0.95

14.2.2 Variography

Pairwise relative semivariograms were used to determine the grade continuity within both the mineralized solid and the surrounding waste. For the mineralized solid there were insufficient data points to disprove an assumption of isotropy in the horizontal plane for each of the four variables. All variables in waste show isotropic structures.

In all cases nested spherical models were fit to the data. The semivariogram parameters are listed below.

Table 14-13: Semivariogram Parameters for OX

Domain	Variable	Azimuth/Dip	C_o	C_1	C_2	Short Range (m)	Long Range (m)
Mineralized Solid	Cu	090° / 0°	0.05	0.25	0.31	20.0	50.0
		0° / 0°	0.05	0.25	0.31	20.0	50.0
		000° / -90°	0.05	0.25	0.31	46.0	90.0
	Au	090° / 0°	0.10	0.25	0.28	20.0	50.0
		0° / 0°	0.10	0.25	0.28	20.0	50.0
		000° / -90°	0.10	0.25	0.28	30.0	90.0
	Mo	090° / 0°	0.15	0.15	0.42	30.0	50.0
		0° / 0°	0.15	0.15	0.42	30.0	50.0
		000° / -90°	0.15	0.15	0.42	30.0	90.0
	Ag	090° / 0°	0.05	0.15	0.37	30.0	50.0
		0° / 0°	0.05	0.15	0.37	30.0	50.0
		000° / -90°	0.05	0.15	0.37	30.0	90.0
Waste	Cu	Omni Directional	0.10	0.10	0.40	12.0	50.0
	Au	Omni Directional	0.15	0.10	0.20	30.0	60.0
	Mo	Omni Directional	0.20	0.10	0.45	15.0	50.0
	Ag	Omni Directional	0.20	0.10	0.25	30.0	70.0

Note: C_o = Nugget Effect, C_1=short range structure and C_2= long range structure

14.2.3 Block Model

A block model with blocks 10 x 10 x 5 m in dimension was superimposed over the geologic solid with the percentage of each block below surface topography, below the bedrock surface and within the geologic solid recorded. The difference between the percentage below topography and the percentage below bedrock was assigned to overburden. The block model origin was as follows:

Lower Left Corner of Model

628040 E	Column size = 10 m	Number of columns = 69
5948620 N	Row size = 10 m	Number of rows = 68

Top of Model

1085 Elevation	Level size = 5 m	Number of levels = 88

No rotation

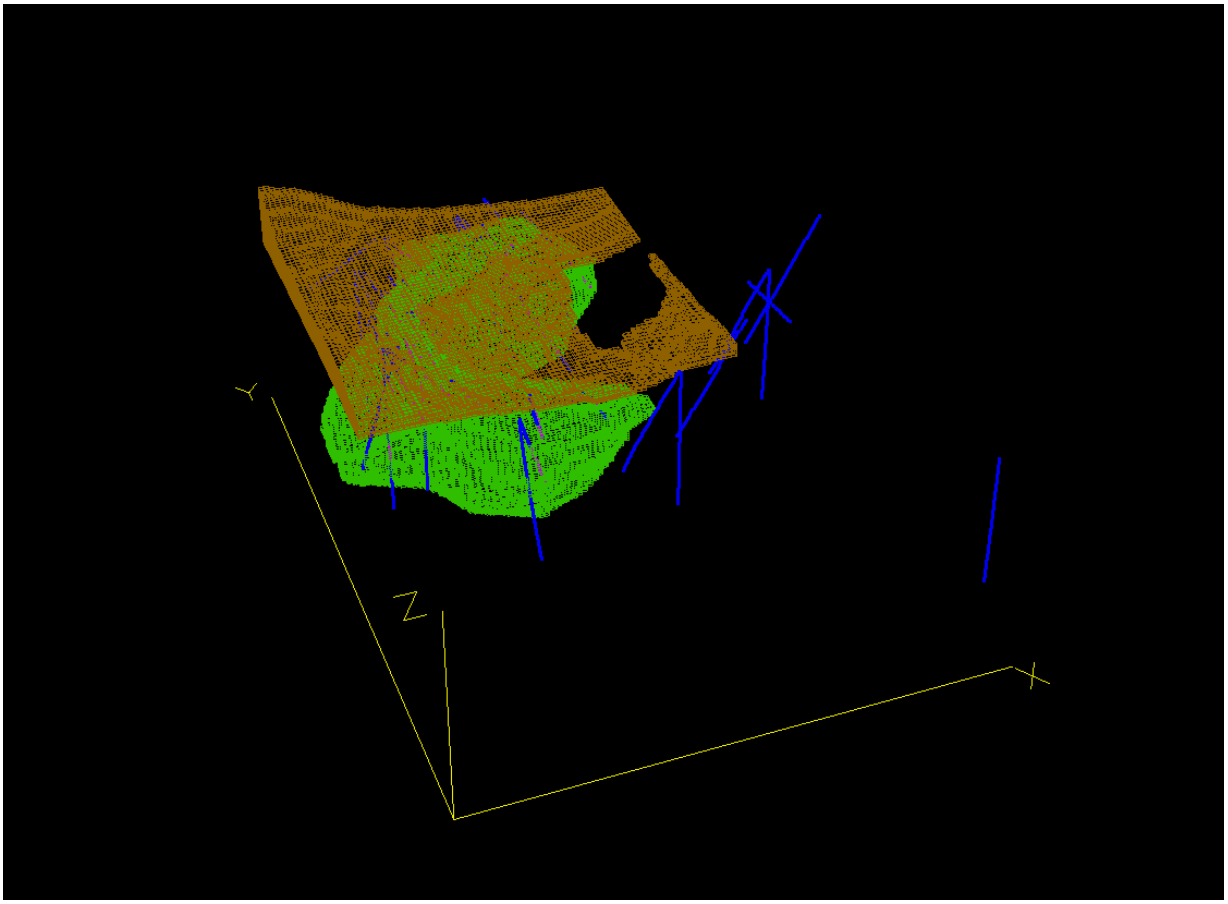


Figure 14.6: Isometric view looking NE showing mineralized solid in green, overburden in brown, mineralized composites in magenta and waste composites in blue

14.2.4 Bulk Density

During the 2012 drill campaign a total of 235 specific gravity determinations were made from drill core using the weight in air / weight in water method. The results are sorted by rock type below and show reasonably consistent values. For the resource estimate the average specific gravity of 2.75 was used to convert volume to tonnes.

Table 14-14: Specific Gravity Determinations for OX

Rock Type	Number	Minimum SG	Maximum SG	Average SG
Breccia	2	2.67	2.72	2.69
CrFB-P	11	2.64	3.79	2.73
Dia/M	1			2.70
FBP	21	2.55	2.81	2.70
Fg F-P	28	2.47	2.86	2.70
Fg Sed	157	2.58	3.45	2.78
FP	8	2.58	2.90	2.69
Mafic Dyke	5	2.58	2.75	2.67

Ic Volcs	1			2.81
Seds	1			2.70
TOTAL	**235**	**2.47**	**3.79**	**2.75**

14.2.5 Grade Interpolation

Grades for Cu, Au, Mo and Ag were interpolated into blocks containing some percentage of mineralized solid by Ordinary Kriging. The kriging exercise was completed in a series of 4 passes with the search ellipse dimensions and orientation a function of the semivariogram for the variable being estimated. Pass 1 used search dimensions equal to ¼ of the semivariogram range and required a minimum of 4 composites to be found to estimate a block. For blocks not estimated in Pass 1 a second pass was completed using search ellipse dimensions equal to ½ the semivariogram range. A third pass using the full range and a fourth pass using twice the range completed the exercise. In all passes a maximum of 16 composites were allowed and if more than 16 were found the closest 16 were used. In all passes the maximum number of composites allowed from a single hole was set to 3 to force the estimate to use more than one drill hole.

For estimated blocks that contained some percentage of material outside the mineralized solid, grades for the four variables were estimated by Ordinary Kriging in a similar manner using only composites outside the mineralized solid. Due to fewer holes outside the solid a fifth pass was required to estimate waste in all blocks.

The weighted average grades for the total blocks were then determined using the following equation.

$$\text{Total Cu} = \frac{(\%\ OVB * 0.001) + (\%\ MIN * MIN\_CU) + (\%\ WASTE * WASTE\_CU)}{\%\ BELOW\ TOPOGRAPHY}$$

The kriging parameters and number of blocks estimated in each pass for Cu are tabulated below.

Table 14-15: Kriging Parameters for OX

Domain	Variable	Number Estimated	Az / Dip	Distance (m)	Az / Dip	Distance (m)	Az / Dip	Distance (m)
Mineralized Solid	Cu	147	90 / 0	12.5	0 / 0	12.5	0 / -90	22.5
		2,384	90 / 0	25.0	0 / 0	25.0	0 / -90	45.0
		15,564	90 / 0	50.0	0 / 0	50.0	0 / -90	90.0
		34,509	90 / 0	100.0	0 / 0	100.0	0 / -90	180.0
Waste	Cu	36	Omni Directional			12.5		
		332	Omni Directional			25.0		
		2,780	Omni Directional			50.0		
		9,926	Omni Directional			100.0		
		2,345	Omni Directional			200.0		

14.3 Classification

Based on the study herein reported, delineated mineralization of the Seel and Ox Deposits 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 both the Seel and Ox properties 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 Seel East and West domains 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 Seel Breccia and NE domains the drilling was not dense enough to classify any Indicated Resource. All blocks were classified as Inferred.

The Ox deposit has insufficient drill holes at this point in time to classify any of this resource as measured or indicated. All estimated blocks were classified as Inferred.

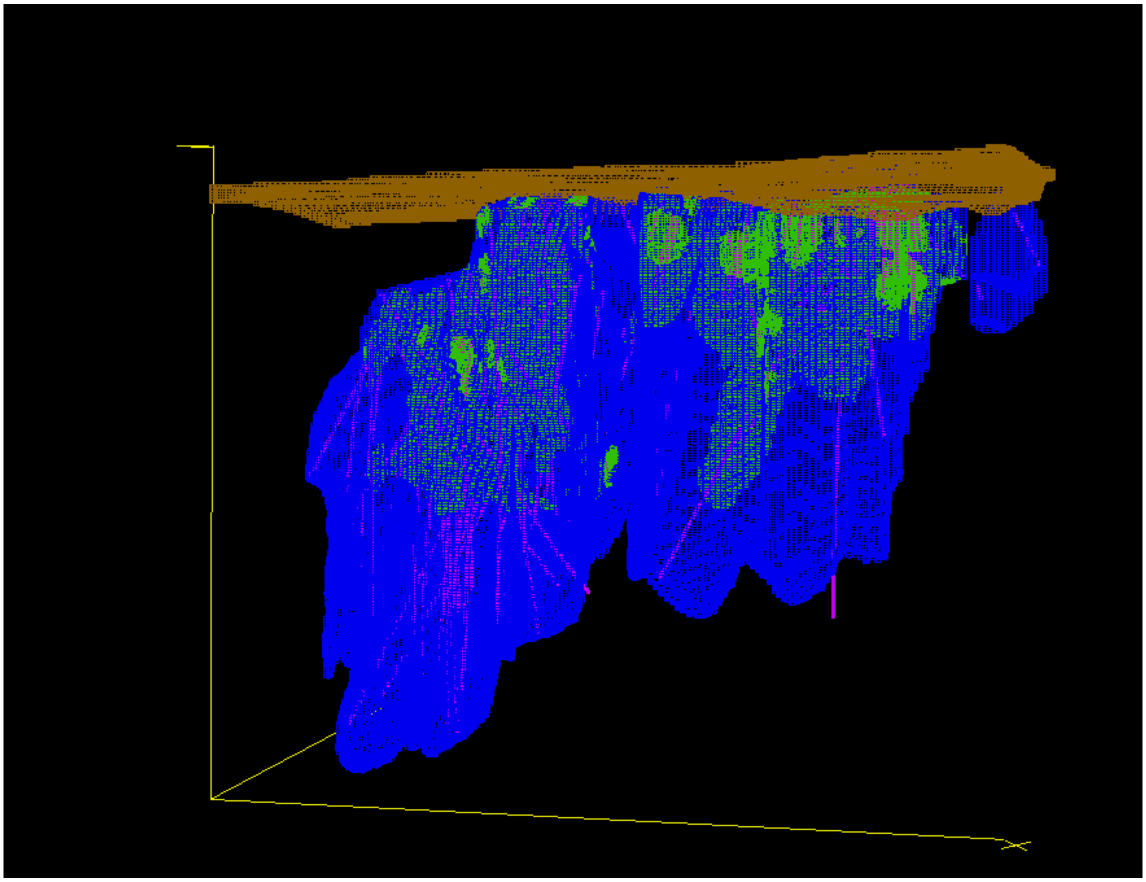


Figure 14.7: Isometric view of the Seel deposit looking North showing blocks classed Indicated in green, blocks classed Inferred in blue, overburden in brown and mineralized composites in magenta.

Due to the 4 elements of Cu, Mo, Au and Ag all contributing to the economic value of the deposits 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	$3.25 / lb	96 % based on two samples from Seel	68.78 $/%
Gold	$1500 / oz	87 % based on two samples from Seel	41.96 $/(g/t)
Silver	$29.00 / oz	86 % based on two samples from Seel	0.80 $/(g/t)
Molybdenum	$12 / lb	87 % based on one sample from Ox	230.16 $/%

$$CuEq = \frac{(Cu\% * 68.78) + (Au\ g/t * 41.96) + (Ag\ g/t * 0.80) + (Mo\ \% * 230.16)}{68.78}$$

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 14-16 and 14-17 show the total resource within the Seel mineralized solids. No external edge dilution has been added and this assumes one could mine to the limits of the mineralized solid.

Table 14-16: Indicated Resource Within the Seel Mineralized Solids

Cut-off (CUEQ)	Tonnes (x1000)	Grade > Cut-off				
		Cu (%)	Au (g/t)	Mo (%)	Ag (g/t)	CuEq (%)
0.10	82,240	0.18	0.16	0.013	1.82	0.34
0.15	77,240	0.19	0.16	0.014	1.88	0.36
0.20	**66,550**	**0.21**	**0.18**	**0.015**	**2.03**	**0.39**
0.25	52,510	0.23	0.20	0.016	2.28	0.43
0.30	41,530	0.26	0.22	0.016	2.48	0.47
0.35	32,890	0.28	0.24	0.017	2.59	0.51
0.40	25,810	0.30	0.26	0.018	2.64	0.55
0.45	19,810	0.32	0.29	0.019	2.66	0.59
0.50	14,550	0.34	0.32	0.021	2.67	0.63
0.55	10,540	0.36	0.34	0.022	2.66	0.67

Table 14-17: Inferred Resource Within the Seel Mineralized Solids

Cut-off (CUEQ)	Tonnes (x1000)	Grade > Cut-off				
		Cu (%)	Au (g/t)	Mo (%)	Ag (g/t)	CuEq (%)
0.10	476,520	0.15	0.11	0.016	1.82	0.29
0.15	462,040	0.15	0.11	0.017	1.84	0.30
0.20	**392,740**	**0.16**	**0.11**	**0.018**	**1.95**	**0.32**
0.25	275,100	0.19	0.13	0.020	2.19	0.36
0.30	175,440	0.21	0.15	0.023	2.48	0.40
0.35	110,460	0.23	0.17	0.026	2.71	0.45
0.40	66,550	0.25	0.20	0.029	2.96	0.51
0.45	41,770	0.27	0.23	0.032	3.19	0.56
0.50	26,700	0.29	0.26	0.035	3.36	0.60
0.55	16,820	0.30	0.29	0.038	3.55	0.65

Tables 14-18 and 14-19 show the resource within the total blocks. The external edge dilution has been added and this assumes, due to equipment, one would mine the total

10 x 10 x 5 m blocks. Reality is somewhere between these two extremes as one could never mine to the extents of the mineralized solids and with decent grade control one should not take in this much external dilution.

Table 14-18: Indicated Resource Within the Seel Total Blocks

Cut-off (CUEQ)	Tonnes (x1000)	Grade > Cut-off				
		Cu (%)	Au (g/t)	Mo (%)	Ag (g/t)	CuEq (%)
0.10	85,390	0.18	0.15	0.013	1.79	0.34
0.15	79,280	0.19	0.16	0.014	1.87	0.36
0.20	**67,760**	**0.21**	**0.17**	**0.015**	**2.02**	**0.39**
0.25	53,270	0.23	0.20	0.015	2.27	0.43
0.30	41,980	0.26	0.22	0.016	2.47	0.47
0.35	33,210	0.28	0.24	0.017	2.57	0.51
0.40	25,980	0.30	0.26	0.018	2.63	0.55
0.45	19,890	0.32	0.29	0.019	2.65	0.59
0.50	14,610	0.34	0.32	0.021	2.66	0.63
0.55	10,570	0.36	0.34	0.021	2.65	0.67

Table 14-19: Inferred Resource Within the Seel Total Blocks

Cut-off (CUEQ)	Tonnes (x1000)	Grade > Cut-off				
		Cu (%)	Au (g/t)	Mo (%)	Ag (g/t)	CuEq (%)
0.10	516,140	0.15	0.10	0.016	1.79	0.28
0.15	492,880	0.15	0.11	0.016	1.83	0.29
0.20	**410,880**	**0.16**	**0.11**	**0.018**	**1.95**	**0.31**
0.25	283,200	0.19	0.13	0.020	2.20	0.36
0.30	178,980	0.21	0.15	0.023	2.50	0.40
0.35	112,040	0.23	0.17	0.026	2.73	0.45
0.40	67,160	0.25	0.20	0.029	3.00	0.51
0.45	42,060	0.27	0.23	0.032	3.24	0.56
0.50	26,840	0.29	0.26	0.035	3.44	0.60
0.55	16,990	0.31	0.29	0.038	3.66	0.65

The resource estimated for the Ox deposit can be reported in a similar manner with Table 14-20 showing the grade and tonnage for various cut-offs for the mineralized portion of the zone and 14-21 shows the grades and tonnage associated with total blocks. Again a 0.20 % Cu Equivalent Cut-off has been highlighted as a possible open pit cut-off.

Table 14-20: Inferred Resource Within the OX Mineralized Solid

Cut-off (CUEQ)	Tonnes (x1000)	Grade > Cut-off				
		Cu (%)	Au (g/t)	Mo (%)	Ag (g/t)	CuEq (%)
0.10	59,800	0.20	0.03	0.020	1.25	0.30
0.15	57,930	0.20	0.03	0.021	1.24	0.31
0.20	**52,650**	**0.21**	**0.03**	**0.022**	**1.25**	**0.32**
0.25	41,060	0.23	0.04	0.024	1.29	0.34
0.30	27,710	0.25	0.04	0.026	1.37	0.38
0.35	16,500	0.28	0.05	0.028	1.45	0.41
0.40	7,900	0.31	0.05	0.031	1.50	0.46
0.45	3,890	0.34	0.06	0.033	1.55	0.50
0.50	1,670	0.37	0.07	0.035	1.56	0.54
0.55	480	0.41	0.08	0.036	1.72	0.60

Table 14-21: Inferred Resource Within the OX Total Blocks

Cut-off (CUEQ)	Tonnes (x1000)	Grade > Cut-off				
		Cu (%)	Au (g/t)	Mo (%)	Ag (g/t)	CuEq (%)
0.10	68,060	0.18	0.03	0.019	1.20	0.28
0.15	62,350	0.19	0.03	0.020	1.21	0.29
0.20	**53,540**	**0.21**	**0.03**	**0.021**	**1.23**	**0.31**
0.25	40,230	0.23	0.04	0.024	1.28	0.34
0.30	26,660	0.25	0.04	0.026	1.35	0.38
0.35	15,590	0.28	0.05	0.028	1.44	0.41
0.40	7,380	0.31	0.05	0.031	1.49	0.46
0.45	3,580	0.34	0.06	0.033	1.54	0.50
0.50	1,490	0.36	0.07	0.035	1.56	0.54
0.55	430	0.41	0.08	0.036	1.71	0.60

The resource is subdivided by domain in Table 14-22.

Table 14-22: SUMMARY OF RESOURCE FOR ALL DOMAINS

Domain	Class	Cut-off (CUEQ)	Tonnes (x1000)	Grade > Cut-off				
				Cu (%)	Au (g/t)	Mo (%)	Ag (g/t)	CuEq (%)
East Seel	Indicated	0.20	35,480	0.21	0.19	0.009	1.09	0.37
West Seel	Indicated	0.20	31,070	0.21	0.15	0.022	3.10	0.41
Total	Indicated	**0.20**	**66,550**	**0.21**	**0.17**	**0.015**	**2.03**	**0.39**
East Seel	Inferred	0.20	64,170	0.13	0.11	0.015	0.94	0.25
West Seel	Inferred	0.20	326,420	0.17	0.12	0.019	2.12	0.33
Seel Breccia	Inferred	0.20	1,210	0.42	0.06	0.001	12.63	0.60
Seel NE	Inferred	0.20	810	0.18	0.10	0.006	0.62	0.26
Ox	Inferred	0.20	52,650	0.21	0.03	0.022	1.25	0.32
Total	**Inferred**	**0.20**	**445,260**	**0.17**	**0.11**	**0.018**	**1.87**	**0.32**

* Note – Differences in totals from earlier tables result from rounding.

14.8 Block Model Verification

Level plans for the Seel Deposit 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 14.8 to 14.11.

Level plans were also produced for Seel showing Cu Eq grades for levels 700, 600 and 500 in Figures 14.12 to 14.14 respectively and for Ox for levels 900, 800 and 700 in Figures 14.15 to 14.17 respectively.

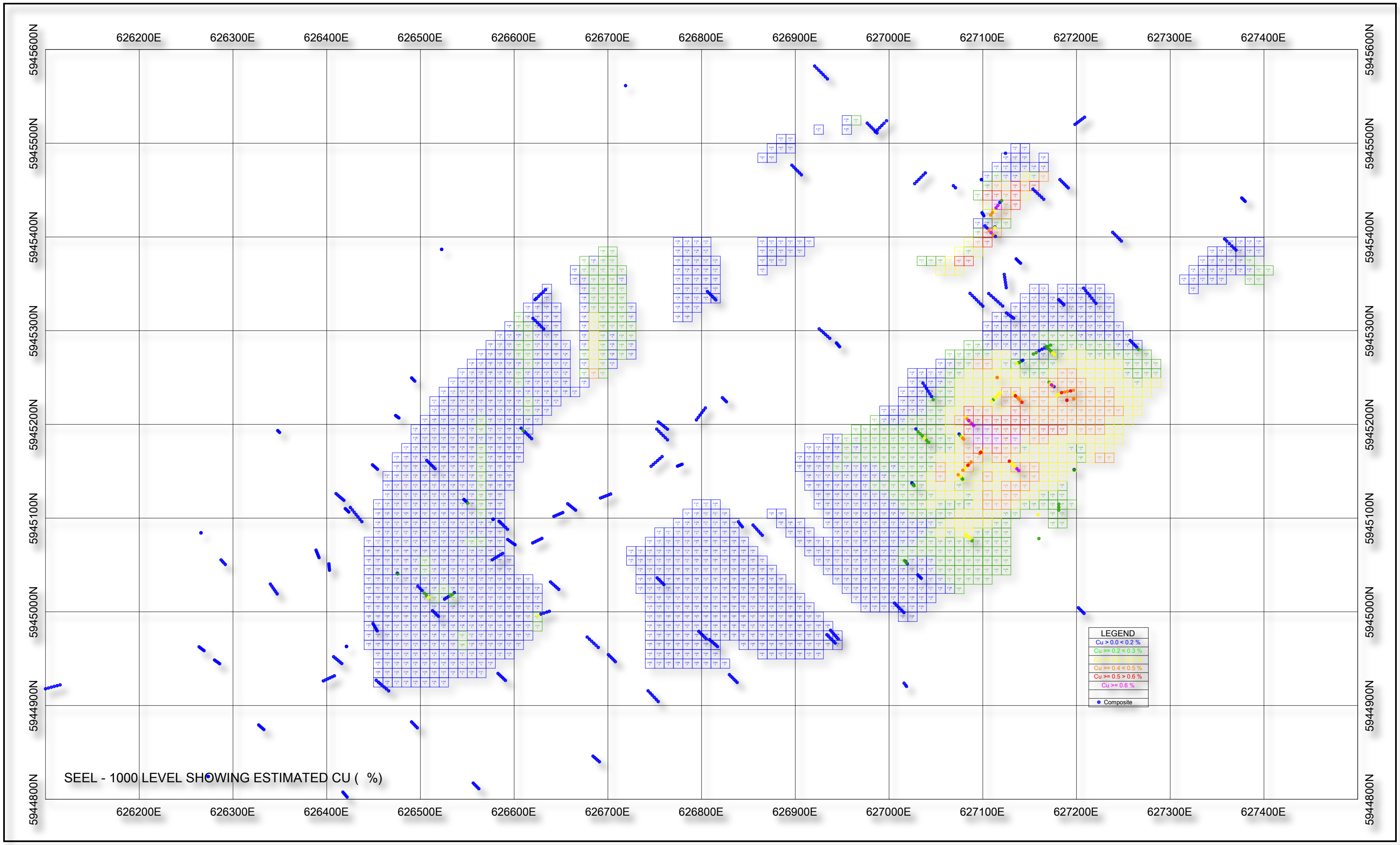


Figure 14.8: Seel 1000 Level Plan Showing Estimated Cu (%)

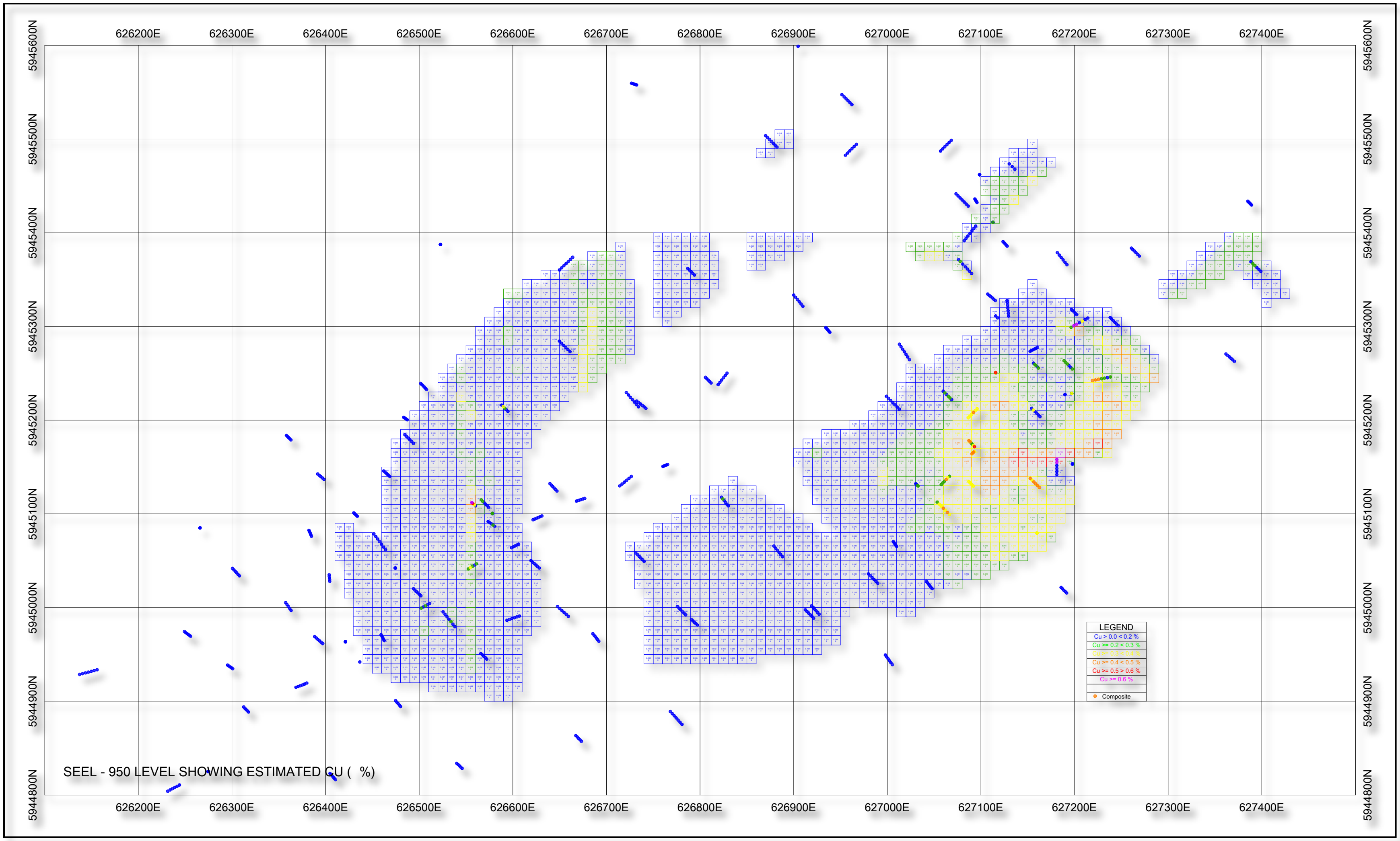


Figure 14.9: Seel 950 Level Plan Showing Estimated Cu (%)

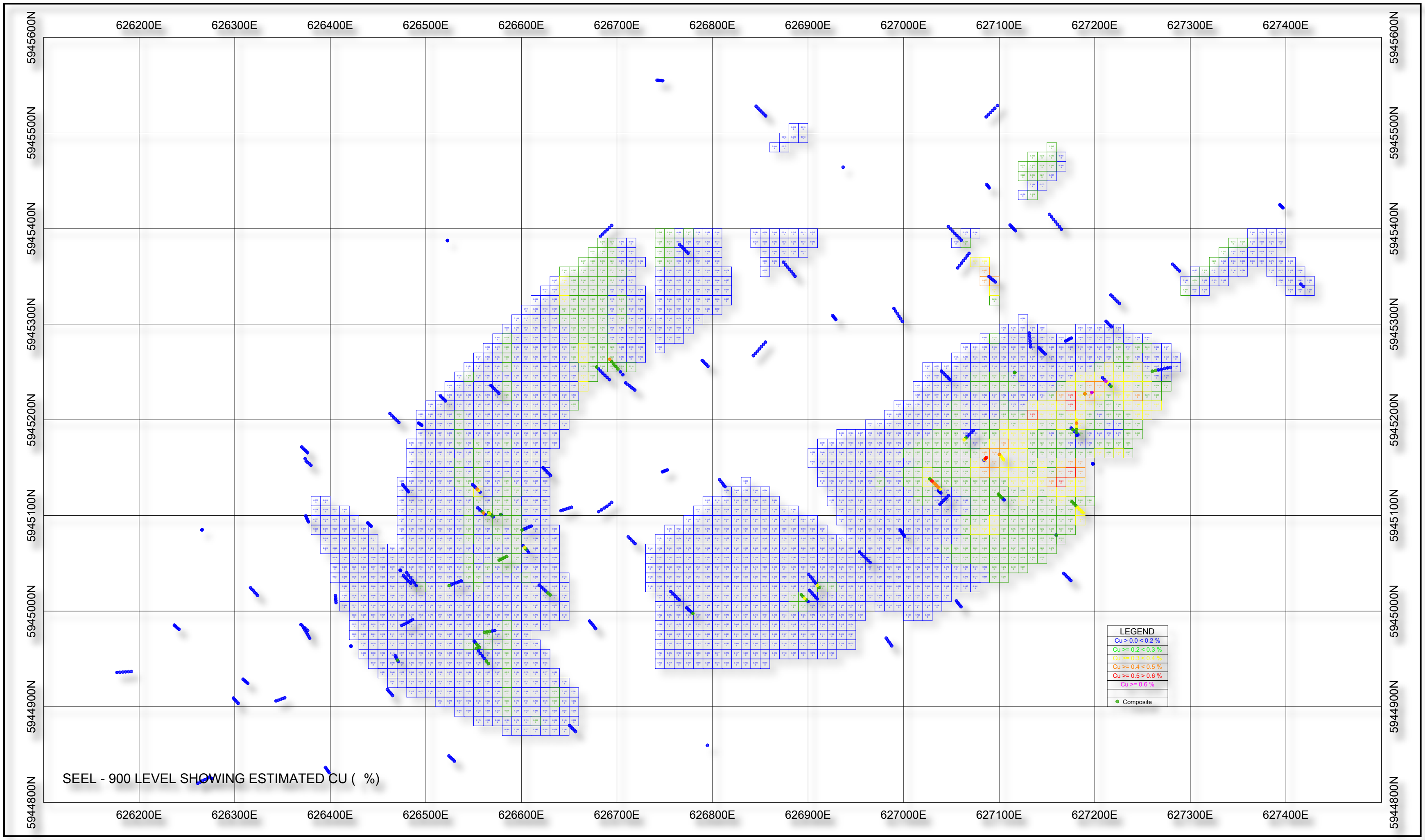


Figure 14.10: Seel 900 Level Plan Showing Estimated Cu (%)

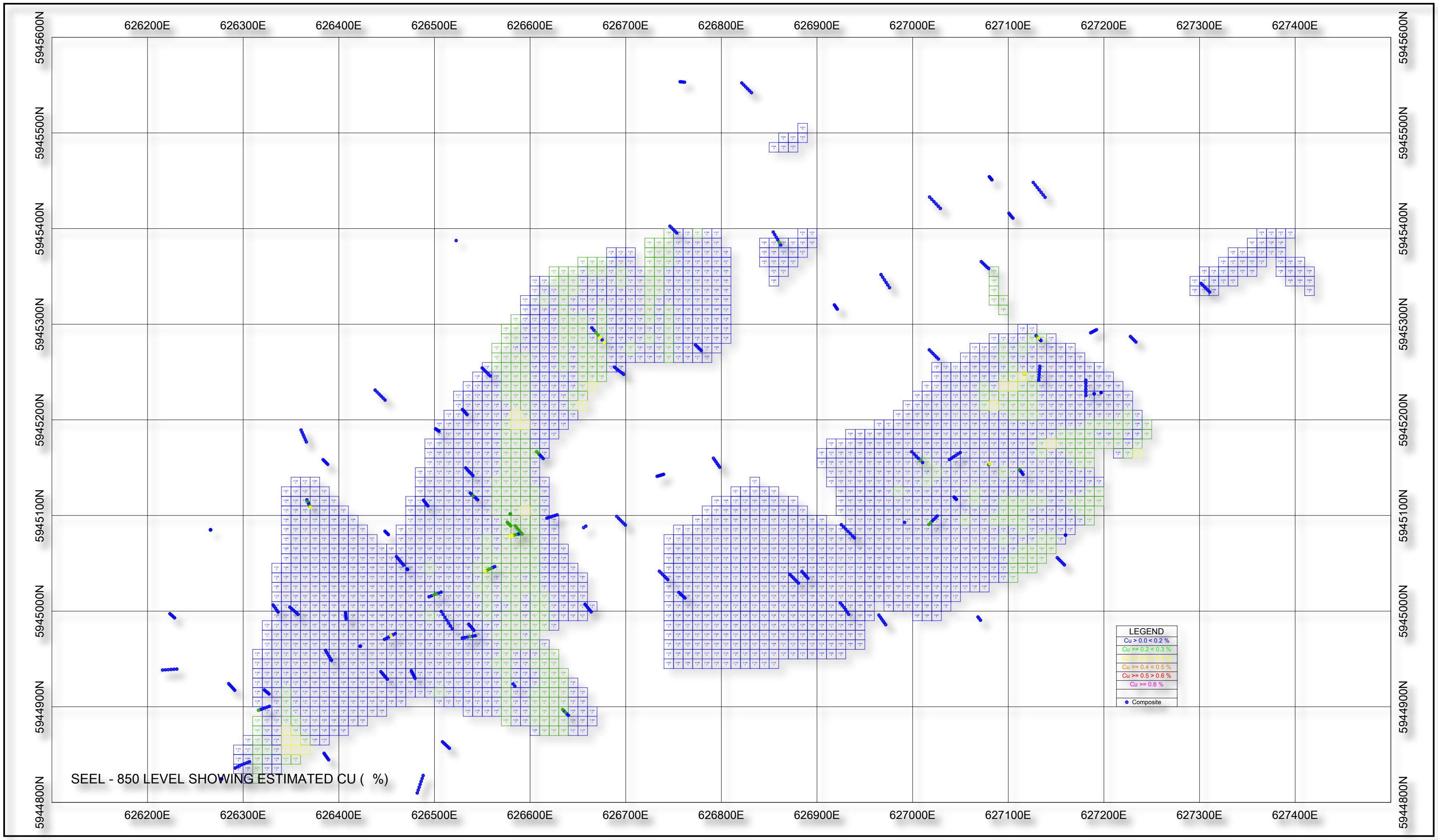


Figure 14.11: Seel 850 Level Plan Showing Estimated Cu (%)

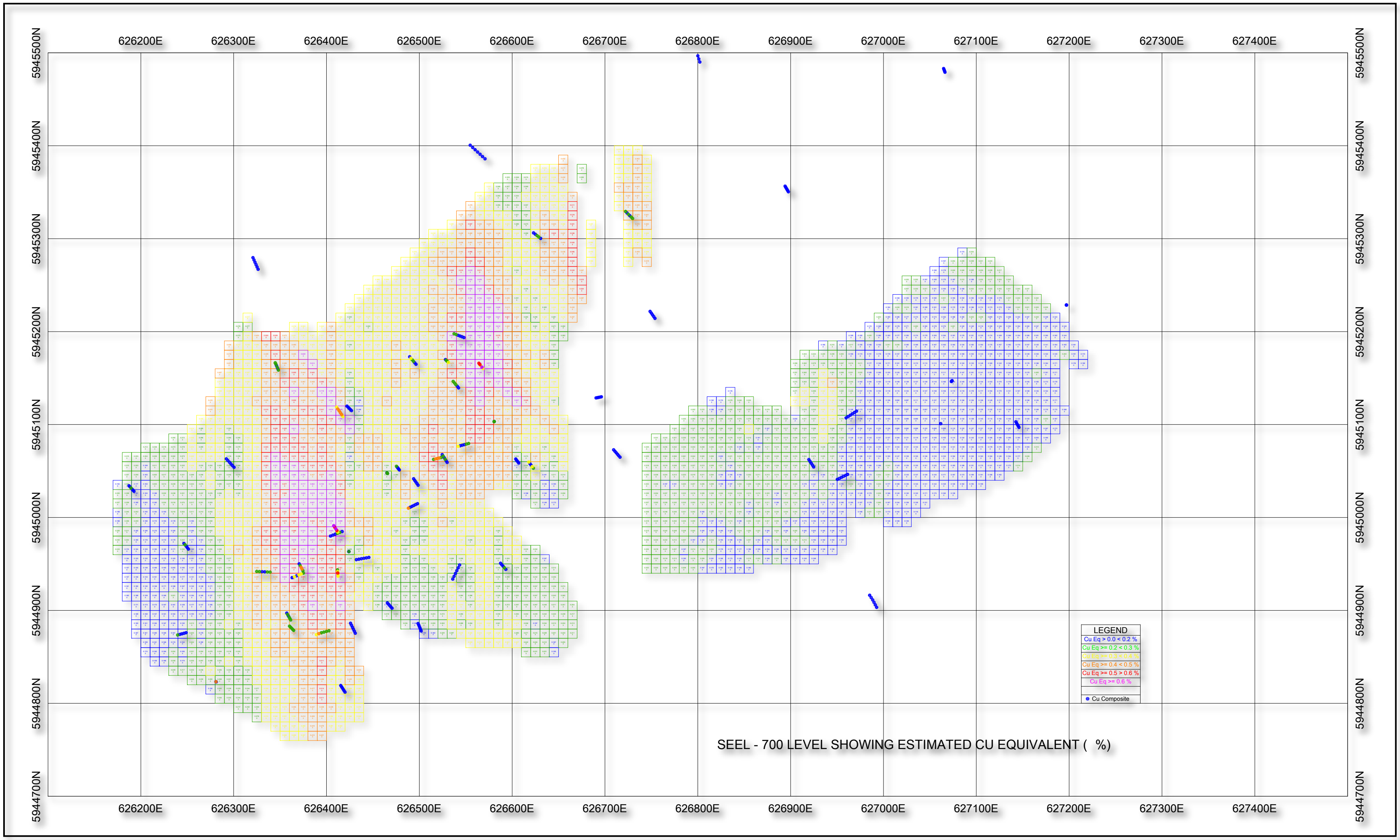


Figure 14.12: Seel 700 Level Plan Showing Estimated Cu Eq (%)

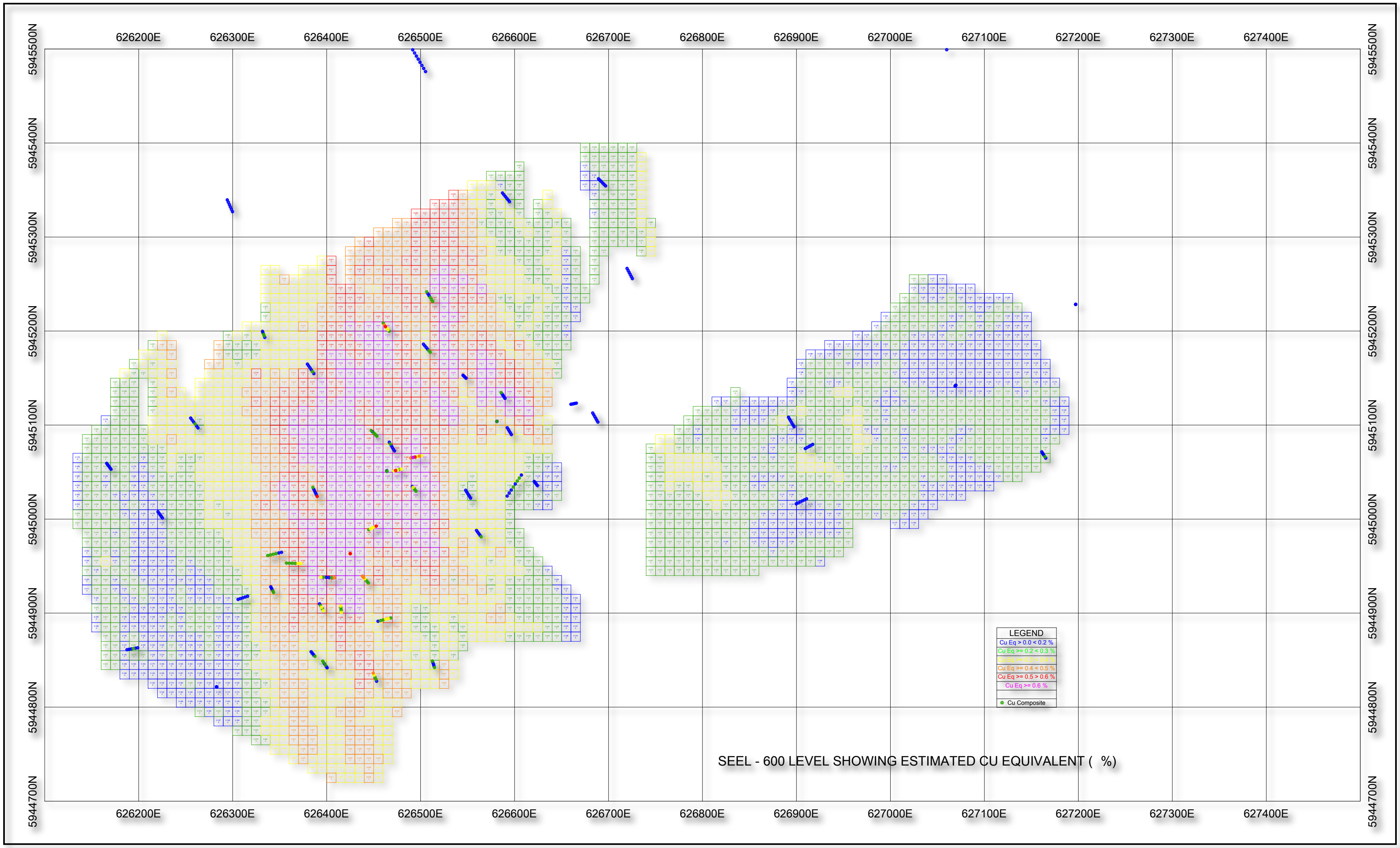


Figure 14.13: Seel 600 Level Plan Showing Estimated Cu Eq (%)

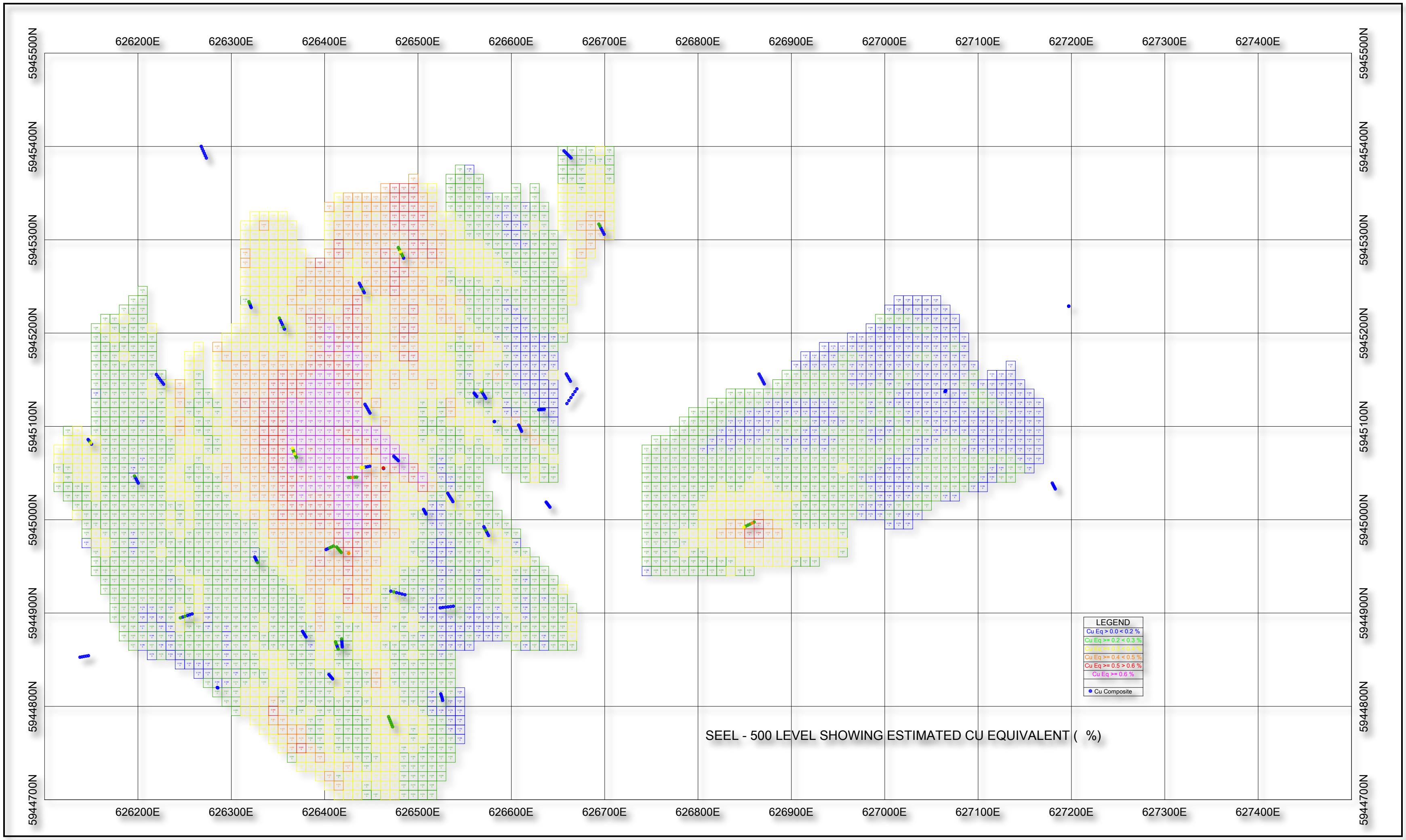


Figure 14.14: Seel 500 Level Plan Showing Estimated Cu Eq (%)

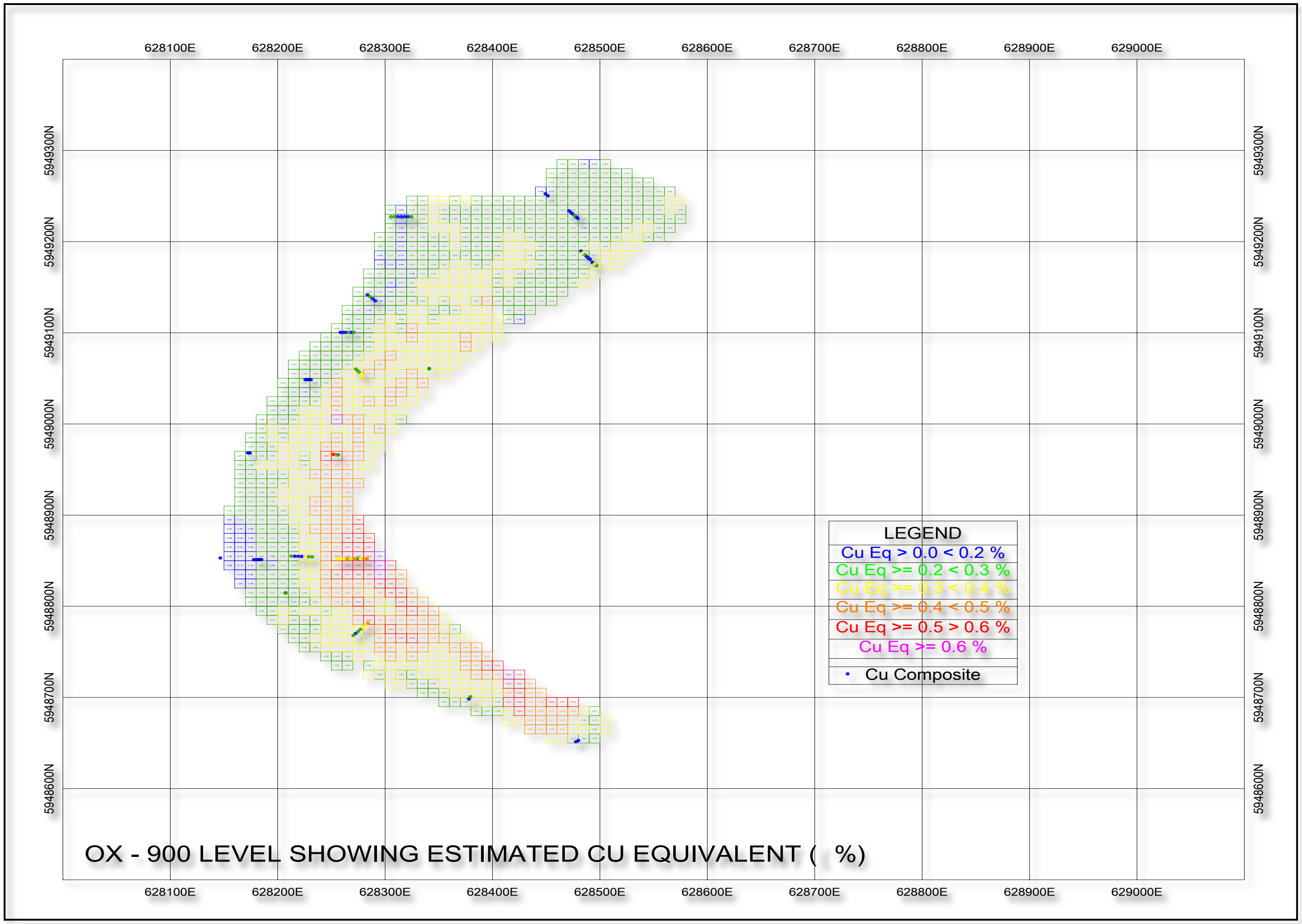


Figure 14.15: OX 900 Level Plan Showing Estimated Cu Eq (%)

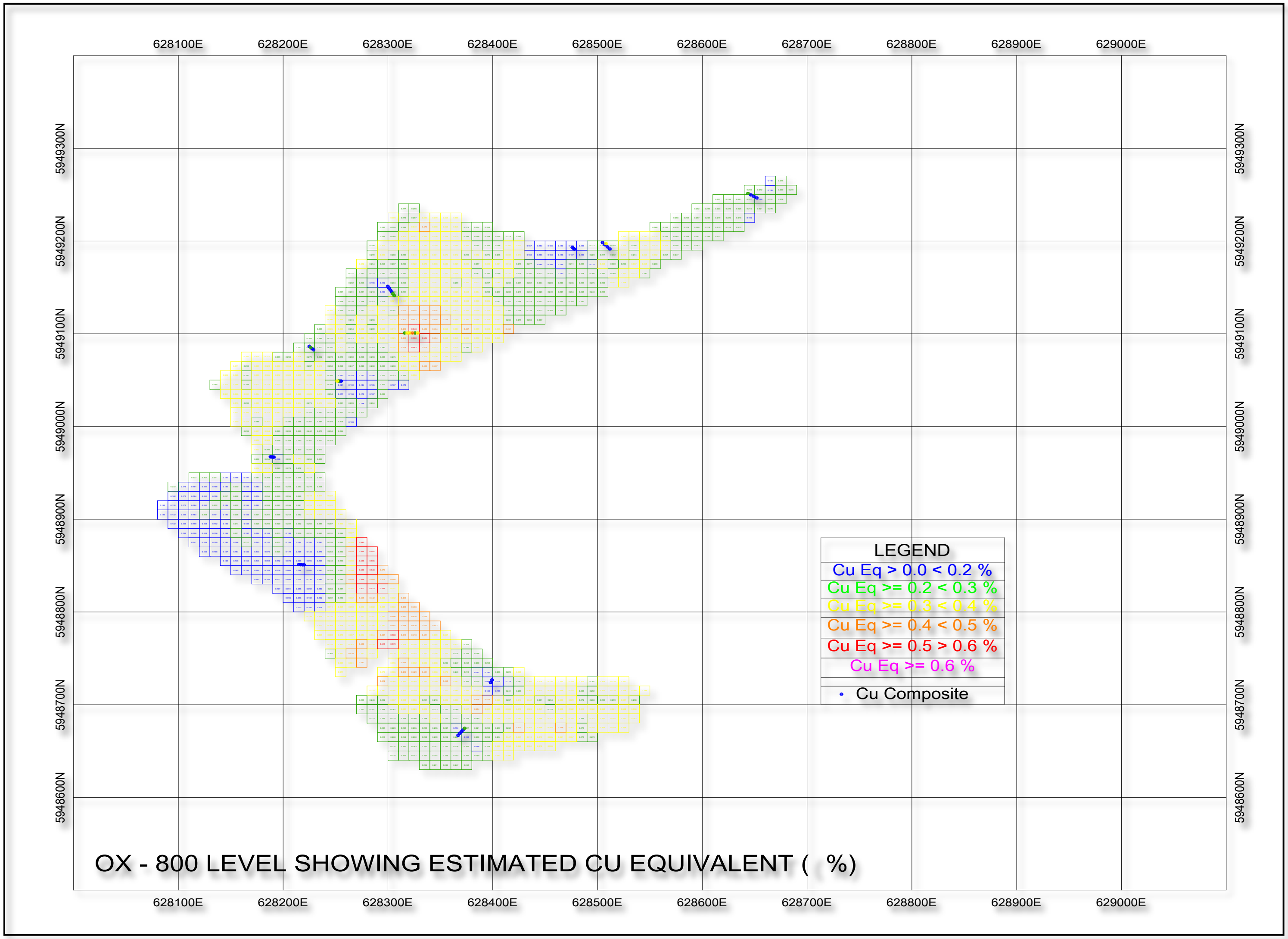


Figure 14.16: OX 800 Level Plan Showing Estimated Cu Eq (%)

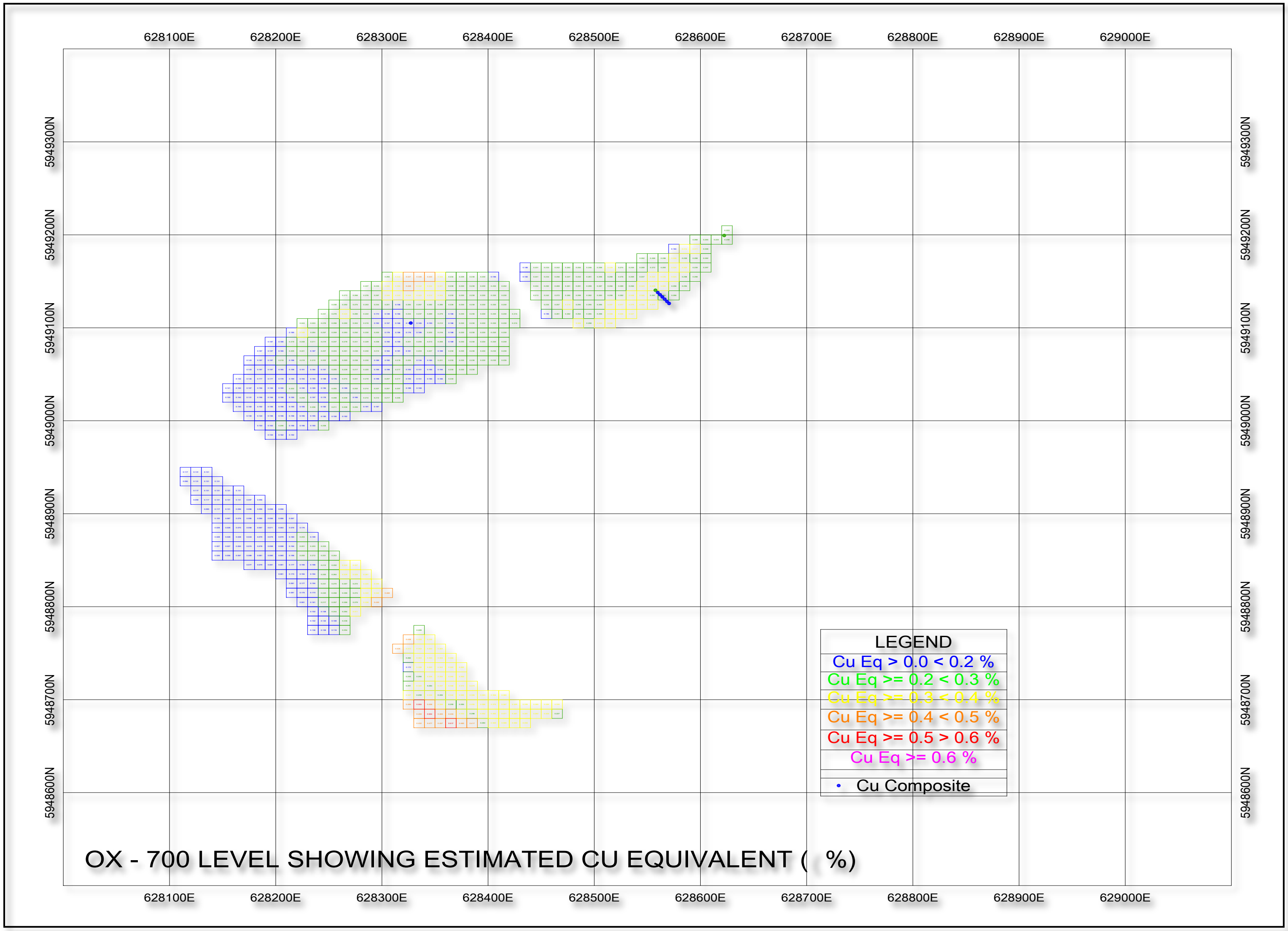


Figure 14.17: OX 700 Level Plan Showing Estimated Cu Eq (%)

15.0 OTHER RELEVANT DATA AND INFORMATION

The Authors 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 water-filled and most have started to revegetate naturally.

The Ootsa 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 is in possession of 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.

16.0 ADJACENT PROPERTIES

The Huckleberry Mine property is located adjacent to the Ootsa Property to the northwest. The Huckleberry Mine is owned by Huckleberry Mines Ltd. of which Imperial Metals Corporation owns a 50% interest and a consortium of Japanses companies (Mitsubishi Materials Corporation, Marubeni Corporation, Furukawa Co. and Dowa Mining Co. Ltd.) own the remaining 50% interest. 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. The MZO is projected to extend the mine life from 2014 to 2021.

(www.imperialmetals.com/s/HuckleberryMine.asp, 2013).

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 the above noted website. It is stated here for reference only.

17.0 INTERPRETATION AND CONCLUSIONS

The Seel and Ox drill hole databases, containing 66,921 meters from 146 holes and 11,090 meters from 44 holes respectively, are of sufficient quality to support the resource estimate described in this report. After subsequent analysis only 58,773 meters (110 holes) from Seel and 6929 meters (30 holes) from Ox were deemed to intersect the mineralized solid and thereby used in this resource estimate. Geologic continuity of the mineralized zones was established based on geological characteristics, alteration patterns, and mineralization grade 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 measuring 10 x 10 x 5 m were 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 polymetallic nature of the two deposits, copper equivalent values were used for modelling. Copper equivalents were calculated using 3 year trailing average metal prices for Cu, Au and Ag ($3.25/lb Cu, $1500/oz Au, $29/oz Ag) and a value near spot price of $12 lb for Mo as the 3 year trailing average is above the current price. 2009 metallurgical test results of 96% recovery for Cu, 87% recover for Au, 86% recovery for Ag, and 87% recovery for Mo were used for recovery data.

At a 0.2% Cu Eq cut off the Seel deposit contains an indicated resource of 66.55 million tonnes grading 0.21% Cu, 0.18 g/t Au, 0.015% Mo and 2.03 g/t Ag (0.39% Cu Eq) plus an inferred resource of 392.7 million tonnes grading 0.16% Cu, 0.11 g/t Au, 0.018% Mo, and 1.95 g/t Ag (0.32% Cu Eq). Using the same 0.2% Cu Eq cut off, the Ox deposit contains an inferred resource of 52.65 million tonnes grading 0.21% Cu, 0.03 g/t Au, 0.022 % Mo, and 1.25 g/t Ag (0.32% Cu Eq). Taken together, the Seel and Ox deposits contain a global resource within the mineralized solids of 66.55 million tons grading 0.21% Cu, 0.18 g/t Au, 0.015% Mo and 2.03 g/t Ag (0.39% Cu Eq) in the indicated category and 445.26 million tonnes grading 0.17% Cu, 0.11 g/t Au, 0.018% Mo and 1.87 g/t Ag (0.32% Cu Eq) within the inferred designation.

The majority of the Ootsa Resource has been designated in the inferred category due to the wide spacing between the drill holes completed thus far. The combined Seel deposit is aerially extensive with the Seel Cu-Au zone encompassing an area roughly 600m x 300m and up to 650 m deep while the West Seel Cu-Au-Mo-Ag zone has been traced over 800m x 600m and up to 1000m in depth. The Seel Cu-Au zone begins near surface with anywhere from 4 to 30 meters of gravel cover. The West Seel mineralized zone is covered by 4.6 to 22 meters of gravel with an average of about 10 meters and depth of mineralization can vary from 4.8 meters in the north to 300 meters in the south. The Ox deposit displays an arcuate geometry of 750m in curved length with widths between 100 and 150m and mineralized depths extending from near surface to a maximum of 230m below surface.

The geometry and location of the Seel and Ox mineralized zones suggest both deposits would be well suited to open pit mining methods.

18.0 Recommendations

The Author recognizes that a significant amount of drilling during 2011 and 2012 has greatly increased the resource estimates of the Seel and Ox deposits. Both deposits offer the possibility of substantial expansion with continued drilling and would benefit from an upgrade in resource categories through targeted infill drilling. As a first step, preliminary engineering studies of the Seel deposit would be beneficial in defining potential pit parameters and economics to aid in defining a more effective drill plan.

At Seel, extending the West Seel Zone southward would likely add significant tonnage to the existing resource. Greater drilling density across the Seel deposit would effectively move much of the resource from Inferred into the Indicated category. The large chargeability anomaly surrounding the Seel deposit should be more thoroughly drill tested to look for additional zones of near surface mineralization.

At Ox several historic well mineralized drill holes have not been incorporated into the resource calculation. Redrilling several of these historic holes would be an effective means of adding grade and tonnage to the Ox resource.

The Ootsa Property is a large land package (>47,000 ha) and to date very little of the property has been explored. The existing 3-D induced polarization coverage should be expanded to cover large portions of the mostly covered area east of the Seel and Ox deposits. Numerous exploration targets defined around the Seel and Ox deposits should be drill tested. Also, a strong chargeability anomaly located near the shore of Tahtsa Reach and directly north of the Seel deposit (west of the Ox deposit) has had limited exploration. A first pass limited drill program could explain the reason for this anomaly.

A program of property wide reconnaissance involving prospecting, mapping and surface sampling may uncover other potential areas of interest.

19.0 Budget for Recommendations

Activity	Estimated Cost in CDN$
40,000 m drill program (all in costs)	8,000,000.00
Engineering studies-pit design	15,000.00
3-D geophysical surveying	100,000.00
Field Support—travel and vehicles	100,000.00
Resource Update	25,000.00
subtotal	8,240,000.00
10% Contingency	824,000.00
Grand Total	**9,064,000.00**

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21 DATE AND SIGNATURE PAGE

21 DATE AND SIGNATURE PAGE

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

Cornell McDowell, P.Geo.
Dated at Edmonton, AB, this 19th day of February, 2013

PROFESSIONAL PROVINCE OF C. D. McDOWELL # 37411 BRITISH COLUMBIA GEOSCIENTIST

Cornell McDowell, P.Geo.
Signed

Gary Giroux, P. Eng. MASc.
Dated at Vancouver, BC, this 19th day of February, 2013

PROFESSIONAL PROVINCE OF G. H. GIROUX BRITISH COLUMBIA ENGINEER

Gary Giroux, P. Eng.
Signed

The effective date of the exploration data for the Seel Deposit is January 20th, 2013.
The effective date of the exploration data for the Ox Deposit is February, 8th, 2013.

22 STATEMENT OF QUALIFICATIONS

CERTIFICATE. C. McDowell

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

1) I am a professional geologist providing consulting services to the exploration industry with an office at 3507 108st NW Edmonton, Alberta.

2) I graduated from the University of Alberta in 2005 with a B.Sc., Specialization in Geology.

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

4) I have practiced my profession continuously since 2005. I have had 8 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 AND OX DEPOSITS**" dated February 19th, 2013 (the "Technical Report").

7) I have spent considerable time on the Ootsa project in 2012 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.

9) I am independent of the issuer.

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 19th day of February, 2013

(signed) C. McDowell, P.Geo.

(Sealed)

CERTIFICATE G.H. Giroux

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

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 porphyry deposits both in B.C. and around the world, including Casino, Mt. Milligan, Cu Mountain, Zaldivar and Huckleberry.
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 Update for the Seel and Ox Deposits" dated February 19, 2013 (the "Technical Report"). I have not visited the property.
7) Prior to being retained by Gold Reach Resources 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 19th day of February, 2013

G. H. Giroux, P.Eng., MASc.

PROFESSIONAL
PROVINCE OF
G. H. GIROUX
BRITISH COLUMBIA
ENGINEER

APPENDIX 1 – LISTING OF DRILL HOLES FOR SEEL

The holes used in the estimate are highlighted

HOLE	EASTING	NORTHING	ELEVATION	HOLE LENGTH (m)
S04-001	626991.30	5945512.40	1109.40	210.30
S04-002	627036.00	5945391.00	1099.20	182.90
S04-003	627065.50	5945159.00	1053.70	178.30
S04-004	627063.50	5945158.00	1053.70	182.90
S04-005	626522.70	5945387.50	1017.30	155.40
S04-006	626611.20	5945322.90	1027.20	185.90
S05-007	627159.00	5945105.00	1076.30	73.90
S05-008	627113.30	5945253.50	1063.10	222.60
S05-009	627159.90	5945079.50	1064.10	239.87
S05-010	627150.00	5945302.20	1059.10	218.54
S05-011	627288.60	5945258.90	1067.40	218.54
S05-012	627325.20	5945430.50	1072.10	212.45
S05-013	627018.80	5945052.10	1052.90	220.98
S05-014	626607.20	5945074.90	1050.60	270.36
S05-015	626719.90	5944940.40	1051.90	178.92
S05-016	626714.20	5944939.50	1051.90	219.64
S05-017	626028.30	5945269.80	989.30	200.25
S05-018	626528.90	5945140.20	1045.80	253.59
S05-019	626413.60	5945125.40	1035.60	306.93
S05-020	626479.80	5945045.60	1041.80	245.05
S05-021	626777.70	5945184.20	1045.80	242.92
S05-022	627197.40	5945151.70	1066.90	199.95
S06-023	627317.50	5945310.30	1072.10	172.82
S06-024	627115.30	5945251.50	1063.10	264.26
S06-025	627030.10	5945040.10	1054.50	203.30
S06-026	626963.40	5944952.60	1057.90	270.36
S06-027	626777.70	5945184.20	1045.80	206.35
S06-028	626711.80	5945563.60	1063.20	175.87
S06-029	626486.50	5944898.90	1047.40	111.86
S06-030	626444.80	5944653.40	1061.60	152.43
S06-031	626181.30	5944771.30	1045.60	249.02
S06-032	626611.20	5945322.90	1027.20	188.06
S06-033	627213.30	5945431.00	1069.10	288.65
S06-034	627213.30	5945431.00	1069.10	112.78
S06-035	627364.90	5945453.80	1073.90	204.52
S06-036	627160.30	5945354.60	1091.50	340.46
S06-037	627189.80	5945227.20	1060.30	325.22

S06-038	627189.80	5945227.20	1060.30	212.45
S06-039	627107.50	5945183.10	1056.00	206.35
S06-040	627107.50	5945183.10	1056.00	343.51
S06-041	627019.70	5945142.90	1050.70	343.51
S06-042	627161.50	5945493.00	1094.20	280.72
S06-043	627161.50	5945493.00	1094.20	121.01
S06-044	627043.00	5945570.40	1111.90	233.78
S06-045	626978.50	5945408.80	1094.90	267.31
S06-046	627098.60	5945461.90	1092.20	154.50
S06-047	627160.30	5945354.60	1091.50	211.84
S07-048	626948.10	5945425.50	1097.90	344.42
S07-049	627039.70	5945459.20	1116.10	216.41
S07-050	627039.70	5945459.20	1116.10	182.88
S07-051	625890.90	5944913.30	1021.80	426.72
S07-052	625890.90	5944913.30	1021.80	320.04
S07-053	625890.90	5944913.30	1021.80	210.01
S07-054	628535.00	5945232.00	1308.00	225.00
S07-055	628020.00	5945020.00	1195.00	316.08
S07-056	628303.00	5945565.00	1219.00	358.75
S07-057	626635.90	5945168.30	1049.50	303.89
S07-058	626776.50	5945013.10	1052.80	245.97
S07-059	626854.60	5944908.70	1059.70	81.38
S08-060	627198.00	5945408.00	1073.00	151.20
S08-061	627164.60	5945449.70	1082.70	90.00
S08-062	627112.90	5945411.20	1083.80	99.40
S08-063	627383.70	5945298.00	1074.50	39.30
S08-064	627460.00	5945354.50	1084.90	38.40
S08-065	627112.90	5945411.20	1083.80	498.70
S08-066	627112.90	5945411.20	1083.80	154.20
S08-067	627224.20	5945018.80	1073.20	91.40
S08-068	627228.20	5944978.90	1074.60	263.00
S08-069	627122.70	5945043.10	1062.80	315.80
S08-070	627038.50	5944977.30	1061.00	313.03
S08-071	626959.50	5944950.50	1057.90	313.03
S08-072	627181.10	5945054.30	1067.30	339.00
S08-073	626821.80	5944955.10	1052.80	294.74
S08-074	626406.50	5944978.30	1041.40	12.20
S08-075	626265.90	5945085.00	1024.00	232.87
S08-076	626057.80	5945332.70	997.90	375.00
S08-077	626057.80	5945332.70	997.90	218.54
S08-078	627112.90	5945411.20	1083.80	303.90
S08-079	626824.90	5945323.90	1036.90	258.20
S08-080	627139.60	5945342.40	1069.10	6.10

S11-081	627197.10	5945228.60	1062.00	694.94
S11-082	627064.40	5945200.60	1051.20	731.52
S11-083	627149.80	5945207.30	1058.60	237.20
S11-084	627122.10	5945257.70	1054.00	198.12
S11-085	627122.10	5945257.70	1054.00	281.64
S11-086	627042.70	5944892.70	1065.00	740.66
S11-087	627067.30	5945202.10	1049.70	414.53
S11-088	627104.60	5945178.30	1056.10	810.16
S11-089	627251.20	5945292.40	1067.70	423.67
S11-090	627104.60	5945178.30	1056.10	792.48
S11-091	626858.80	5945074.20	1046.90	661.41
S11-092	627150.00	5945301.20	1059.10	411.48
S11-093	627150.00	5945301.20	1059.10	292.60
S11-094	627160.30	5945354.60	1091.50	325.22
S11-095	626777.90	5945183.70	1045.60	557.78
S11-096	625833.00	5945632.30	978.60	309.98
S11-097	626662.60	5945010.90	1050.70	539.49
S11-098	626607.60	5945075.00	1050.60	623.92
S11-099	626662.60	5945010.90	1050.70	609.90
S11-100	626667.90	5945113.60	1051.90	736.70
S12-101	626720.28	5945133.56	1053.99	1079.00
S12-102	626553.81	5945030.75	1047.07	950.98
S12-103	627138.46	5945255.19	1059.17	618.00
S12-104	626530.82	5944985.00	1045.83	1067.80
S12-105	626423.49	5944939.51	1044.53	929.60
S12-106	626646.37	5945087.21	1053.80	1146.00
S12-107	626710.51	5944823.68	1063.94	1045.50
S12-108	626539.47	5945127.10	1047.67	606.00
S12-109	626415.68	5945114.89	1036.32	748.10
S12-110	626602.36	5944916.32	1049.81	945.10
S12-111	626786.96	5945161.62	1047.07	832.30
S12-112	626425.36	5945113.06	1036.99	841.20
S12-113	626782.90	5945164.98	1047.06	774.20
S12-114	626720.75	5944934.84	1053.64	825.60
S12-115	626830.90	5944951.07	1054.74	938.80
S12-116	626576.50	5944797.81	1055.64	972.30
S12-117	626614.63	5945062.20	1052.28	774.90
S12-118	626509.47	5944863.87	1051.89	887.00
S12-119	626679.66	5945097.46	1053.61	807.70
S12-120	626469.49	5945213.41	1037.28	742.50
S12-121	626280.61	5945063.09	1025.42	987.50
S12-122	626837.92	5945213.52	1043.38	829.10
S12-123	626436.58	5944649.02	1060.70	789.40

S12-124	626577.25	5945099.03	1049.81	769.60
S12-125	626421.12	5944964.00	1042.88	719.30
S12-126	626953.16	5945277.61	1044.83	713.40
S12-127	626181.97	5944775.85	1044.33	874.80
S12-128	626953.16	5945277.61	1044.83	430.70
S12-129	626475.85	5945041.59	1041.32	850.50
S12-130	626089.17	5944915.71	1025.81	868.70
S12-131	626441.78	5945164.19	1038.08	621.80
S12-132	626392.33	5945055.58	1032.47	606.60
S12-133	626343.07	5945198.83	1021.17	835.20
S12-134	626401.71	5945059.61	1032.83	862.60
S12-135	626431.40	5944791.82	1051.65	957.30
S12-136	626482.11	5945258.97	1037.55	664.50
S12-137	626334.28	5945037.05	1028.25	947.90
S12-138	626787.82	5945008.49	1053.56	573.00
S12-139	626838.14	5945111.46	1049.96	527.30
S12-140	626341.75	5944867.19	1045.45	1082.00
S12-141	626427.02	5944936.07	1044.50	981.50
S12-142	626505.46	5944721.15	1059.43	999.70
S12-143	626274.87	5944954.67	1034.89	993.70
S12-144	626444.22	5944996.42	1041.06	816.90
S12-145	626274.87	5944954.67	1034.89	850.40
S12-146	626273.00	5944825.00	1044.00	941.80

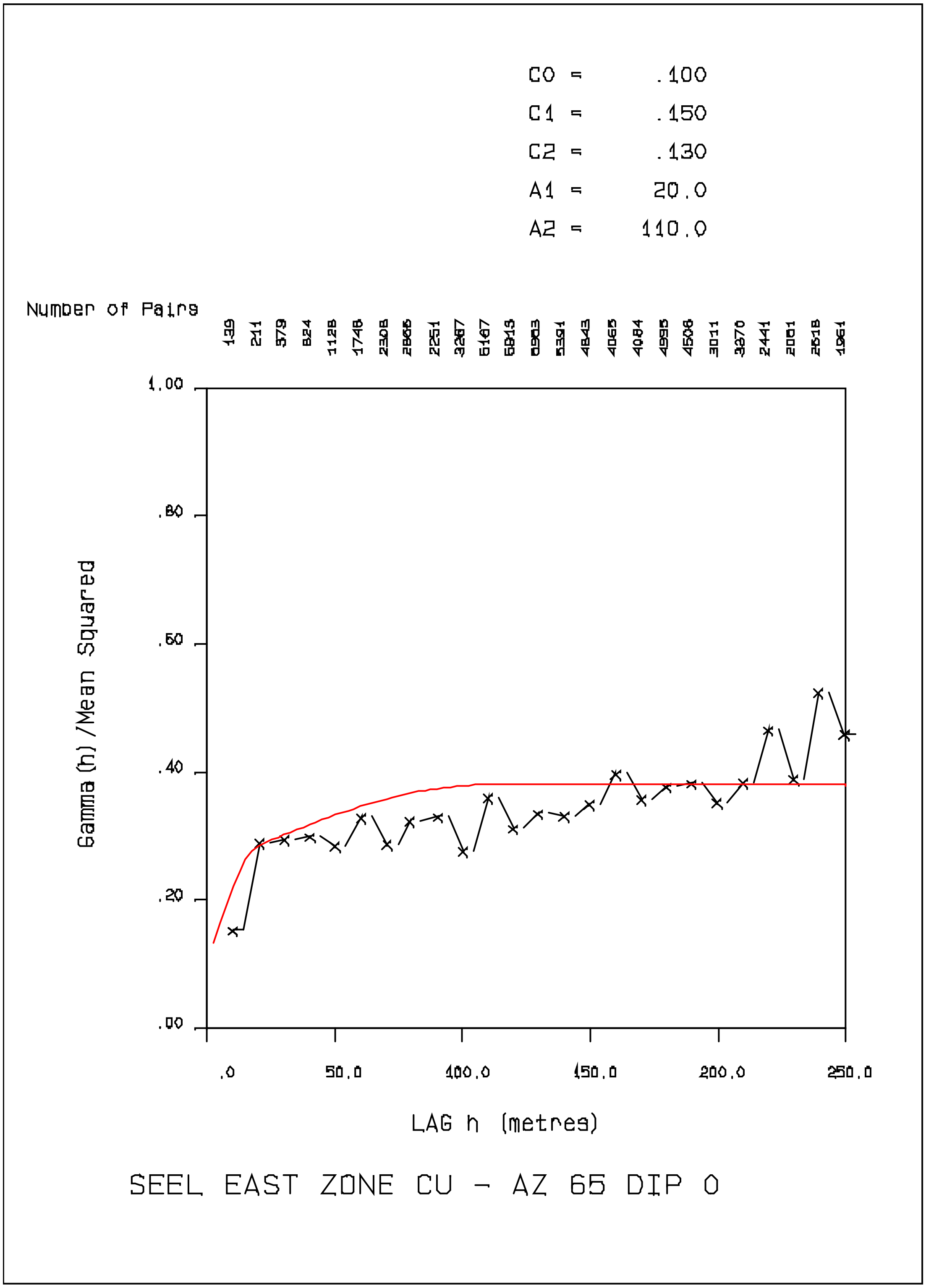
APPENDIX 2 – LISTING OF DRILL HOLES FOR OX

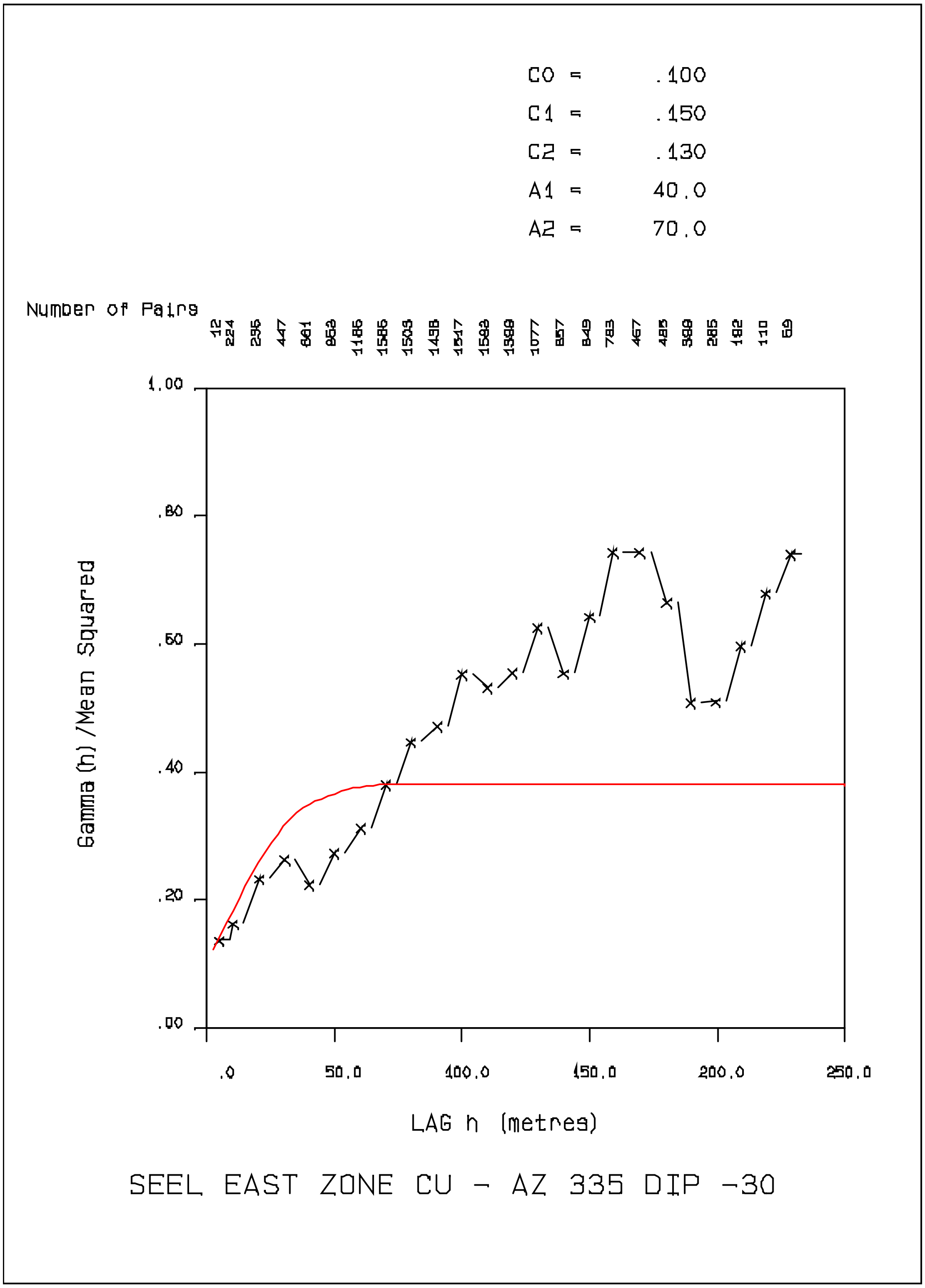
(The drill holes used in the Resource Estimate are highlighted)

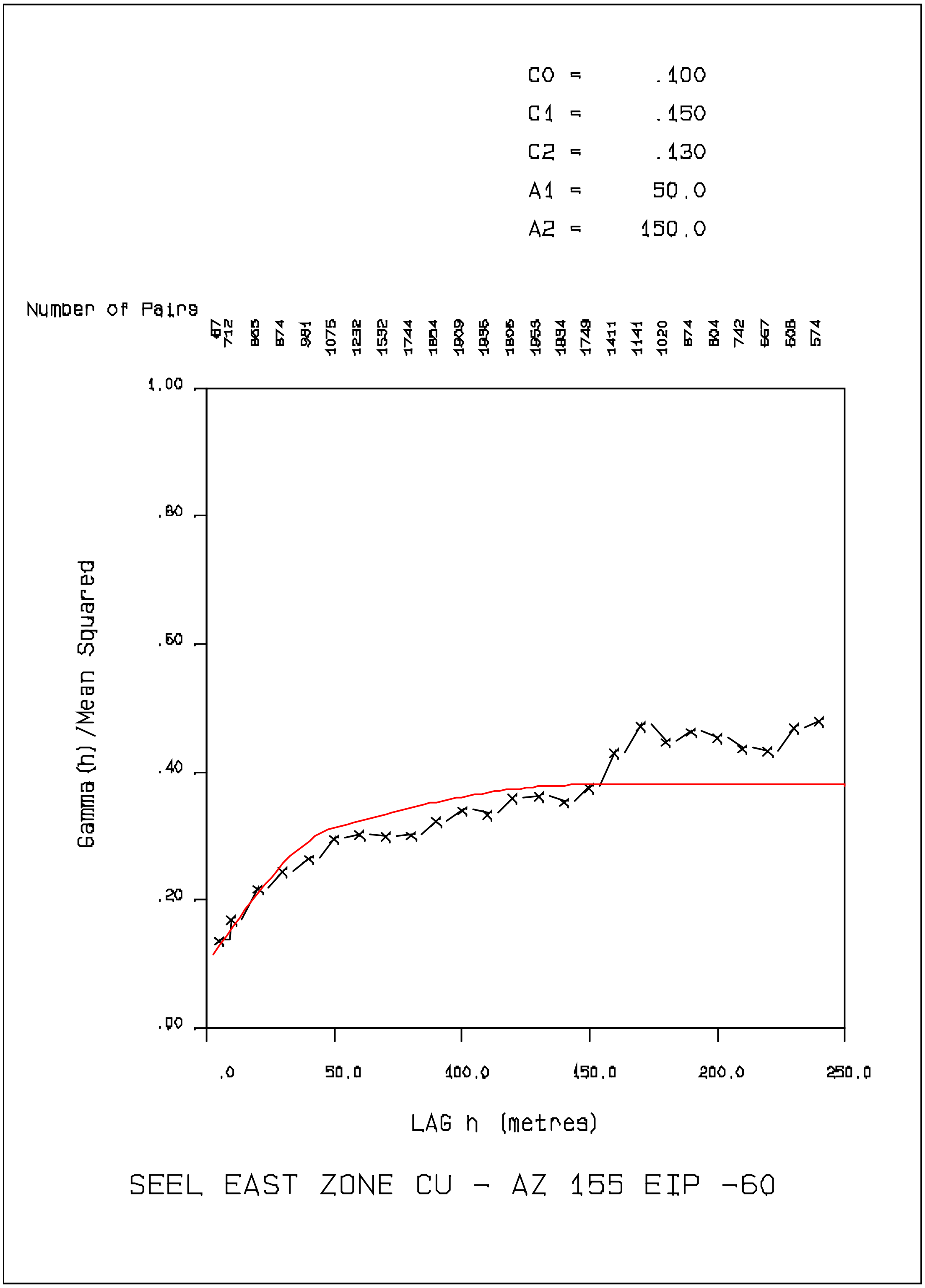
HOLE	EASTING	NORTHING	ELEVATION	HOLE LENGTH (m)
DDH01	628264.39	5948910.18	972.46	73.15
DDH02	628264.39	5948910.18	972.46	177.39
DDH03	628437.69	5949112.43	950.67	32.92
DDH04	628437.69	5949112.43	950.67	178.31
DDH05	628578.70	5949366.92	944.47	167.64
DDH06	628362.88	5948758.92	961.15	198.73
DDH07	628362.88	5948758.92	961.15	53.64
DDH08	628614.26	5948750.62	953.95	121.92
DDH09	628949.72	5949394.09	949.11	189.59
DDH10	629063.82	5948959.15	961.70	185.32
DDH11	629063.82	5948959.15	961.70	47.24
DDH12	628220.70	5949100.45	977.11	243.84
DDH13	628157.80	5948969.57	984.01	179.83
DDH14	628178.74	5948853.03	983.41	143.26
DDH15	628249.85	5948859.89	970.70	76.20
DDH16	628226.72	5948968.79	974.60	137.16
DDH17	628315.07	5949105.99	968.24	134.11
DDH18	628439.55	5949170.55	949.78	302.06
DDH19	628311.99	5949226.62	967.73	175.87
DDH20	628294.48	5948730.72	966.05	232.56
DDH21	628400.01	5948732.65	956.98	110.95
DDH22	628053.12	5948276.29	991.99	76.50
DDH23	628534.46	5948329.31	981.78	76.20
DDH24	628372.54	5949411.70	978.06	76.20
DDH25	628896.78	5949655.50	952.98	76.20
DDH26	629151.11	5949919.68	935.25	76.81
DDH27	629400.00	5949560.00	931.71	127.10
DDH28	629280.00	5949300.00	959.12	76.20
DDH29	629420.00	5948820.00	973.99	92.35
DDH30	629870.00	5949070.00	950.00	76.50
DDH31	628729.58	5948843.57	970.18	127.10
DDH32	628868.04	5949206.49	946.97	152.40
DDH33	628454.47	5948638.13	960.15	157.58
DDH34	628159.10	5948866.87	987.11	246.89
DDH35	628230.52	5948735.27	973.08	211.84
DDH36	628454.47	5948638.13	960.15	93.60
DDH37	628296.50	5948562.70	980.72	239.90
Ox07-01	628454.47	5948638.13	960.15	112.47
Ox07-02	628454.47	5948638.13	960.15	194.16
Ox07-03	628342.25	5948603.99	970.78	212.45
Ox07-04	628236.27	5948733.93	972.04	175.87
Ox07-05	628198.10	5948852.06	979.21	194.16

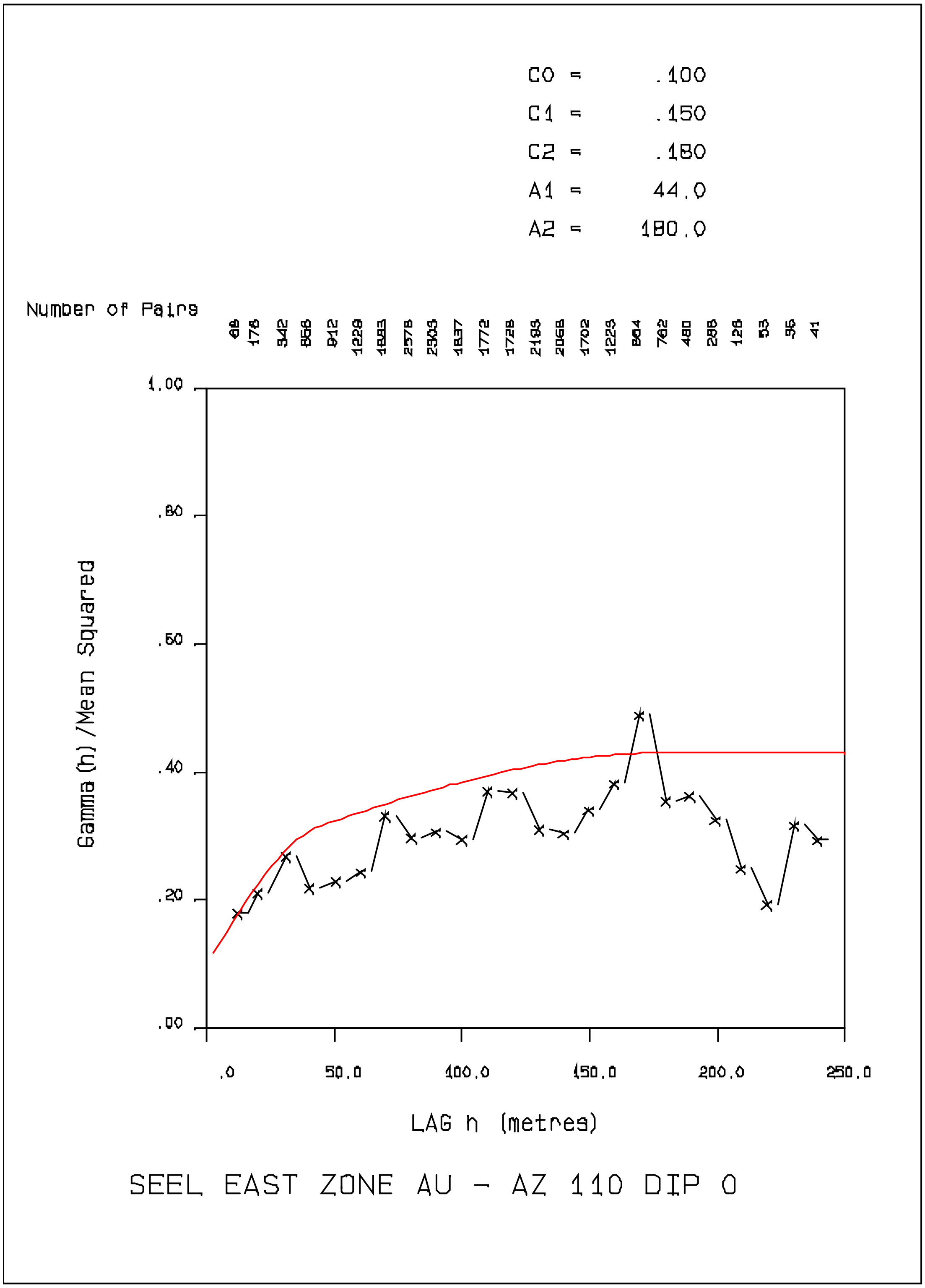
Ox07-06	628207.67	5949048.68	978.64	186.23
Ox07-07	628220.70	5949100.45	977.11	239.88
Ox07-08	628253.90	5949227.40	975.98	303.89
Ox07-09	628253.90	5949227.40	975.98	181.97
Ox07-10	628411.69	5949290.05	958.33	188.06
Ox07-11	628541.97	5949309.70	943.88	249.02
Ox07-12	628839.00	5948832.00	981.02	142.34
Ox07-13	628895.00	5948850.00	980.93	288.65
Ox07-14	628620.00	5948610.00	980.57	303.89
Ox07-15	628895.00	5948850.00	980.93	306.93
Ox07-16	628620.00	5948610.00	980.57	306.93
Ox07-17	628179.00	5948853.00	983.35	270.36
Ox07-18	628207.30	5948814.64	976.28	303.89
Ox07-19	628253.90	5949227.40	975.98	303.89
Ox07-20	628455.04	5949249.94	953.03	200.25
Ox07-21	628325.58	5949103.78	965.98	236.83
Ox07-22	628341.01	5949060.65	959.64	100.58
Ox07-23	628157.80	5948969.57	984.01	194.00
Ox07-24	628780.00	5948690.00	997.96	322.62
Ox07-25	629080.00	5949020.00	961.52	334.37
Ox07-26	629000.00	5948160.00	1027.57	288.65
Ox-12-27	628148.11	5948850.39	988.79	228.60
Ox-12-28	628148.11	5948850.39	988.79	204.20
Ox-12-29	628148.11	5948850.39	988.79	371.80
Ox-12-30	628173.84	5949134.67	985.52	201.30
Ox-12-31	628173.84	5949134.67	985.52	262.10
Ox-12-32	628173.84	5949134.67	985.52	356.60
Ox-12-33	628411.69	5949290.05	958.33	405.40
Ox-12-34	628411.69	5949290.05	958.33	472.40
Ox-12-35	628312.43	5948587.94	976.82	365.80
Ox-12-36	628312.43	5948587.94	976.82	442.00
Ox-12-37	628353.74	5948656.36	965.00	237.90
Ox-12-38	628226.08	5948852.20	971.56	164.60
Ox-12-39	628226.72	5948968.79	974.60	103.60
Ox-12-40	628226.72	5948968.79	974.60	118.90
Ox-12-41	628247.15	5949087.36	975.01	185.90
Ox-12-42	628503.52	5949167.81	944.02	246.90
Ox-12-43	628503.52	5949167.81	944.02	213.60
Ox-12-44	628484.88	5949361.98	954.00	365.80

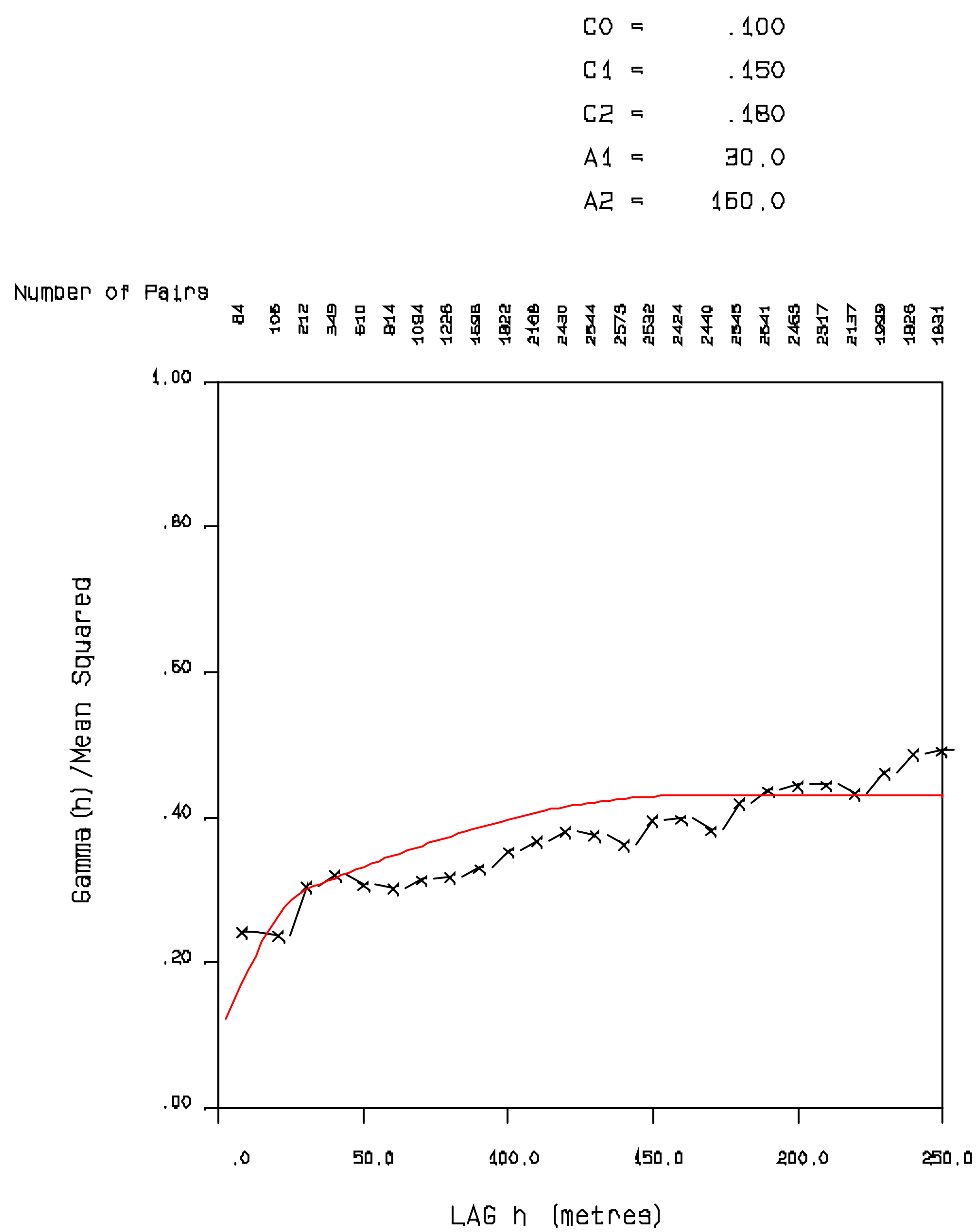
APPENDIX 3 – SEMIVARIOGRAMS USED FOR SEEL



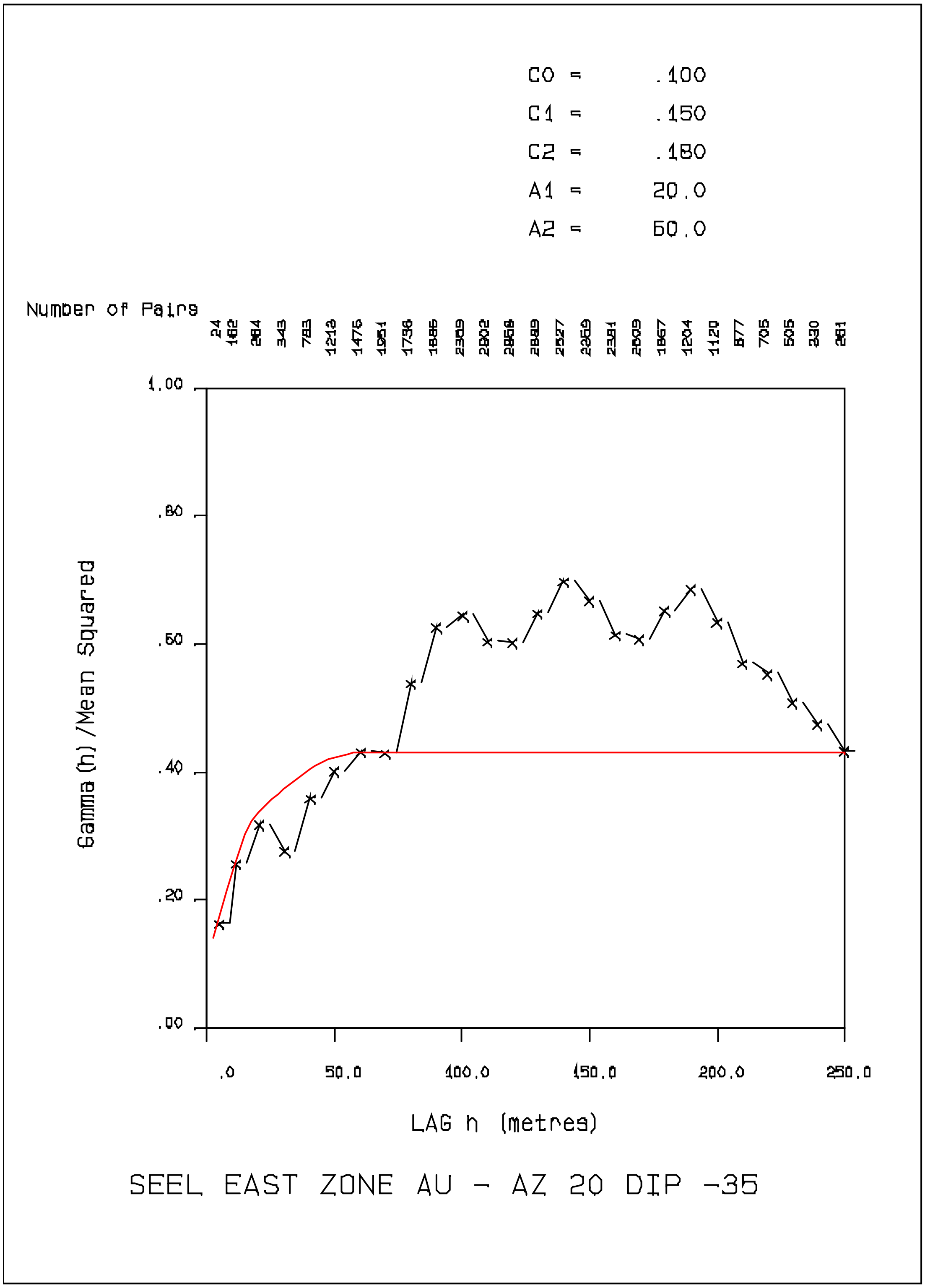

C0 = .100
C1 = .150
C2 = .130
A1 = 40.0
A2 = 70.0
Number of Pairs
1.00
.80
.60
.40
.20
.00
Gamma (h) /Mean Squared
.0
50.0
100.0
150.0
200.0
250.0
LAG h (metres)
SEEL EAST ZONE CU - AZ 335 DIP -30

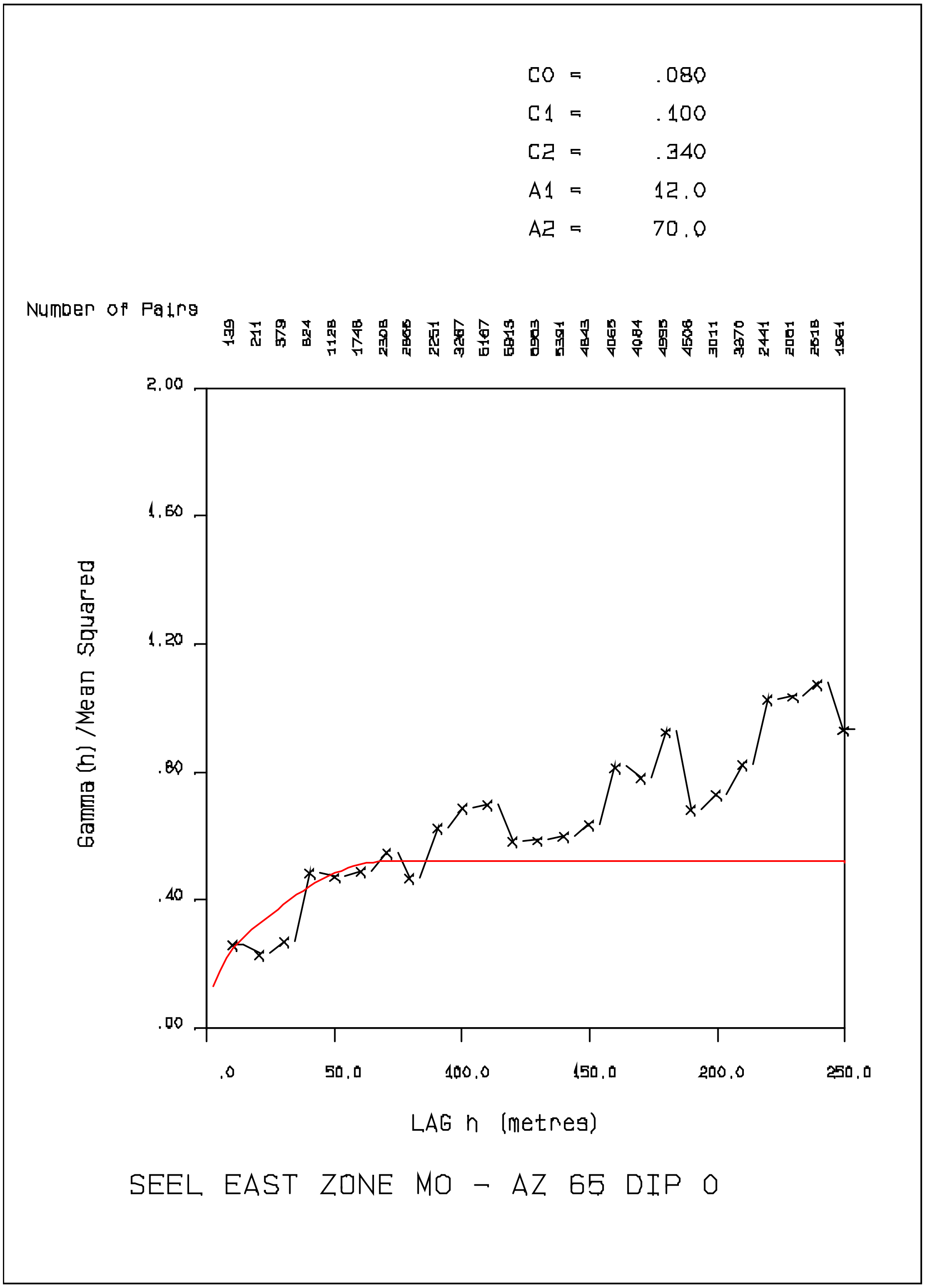

C0 = .100
C1 = .150
C2 = .130
A1 = 50.0
A2 = 150.0
Number of Pairs
67 712 865 874 981 1075 1232 1532 1744 1854 1809 1856 1806 1853 1834 1749 1411 1141 1020 874 804 742 667 608 574
1.00
.80
.60
.40
.20
.00
Gamma (h) /Mean Squared
.0
50.0
100.0
150.0
200.0
250.0
LAG h (metres)
SEEL EAST ZONE CU - AZ 155 EIP -60

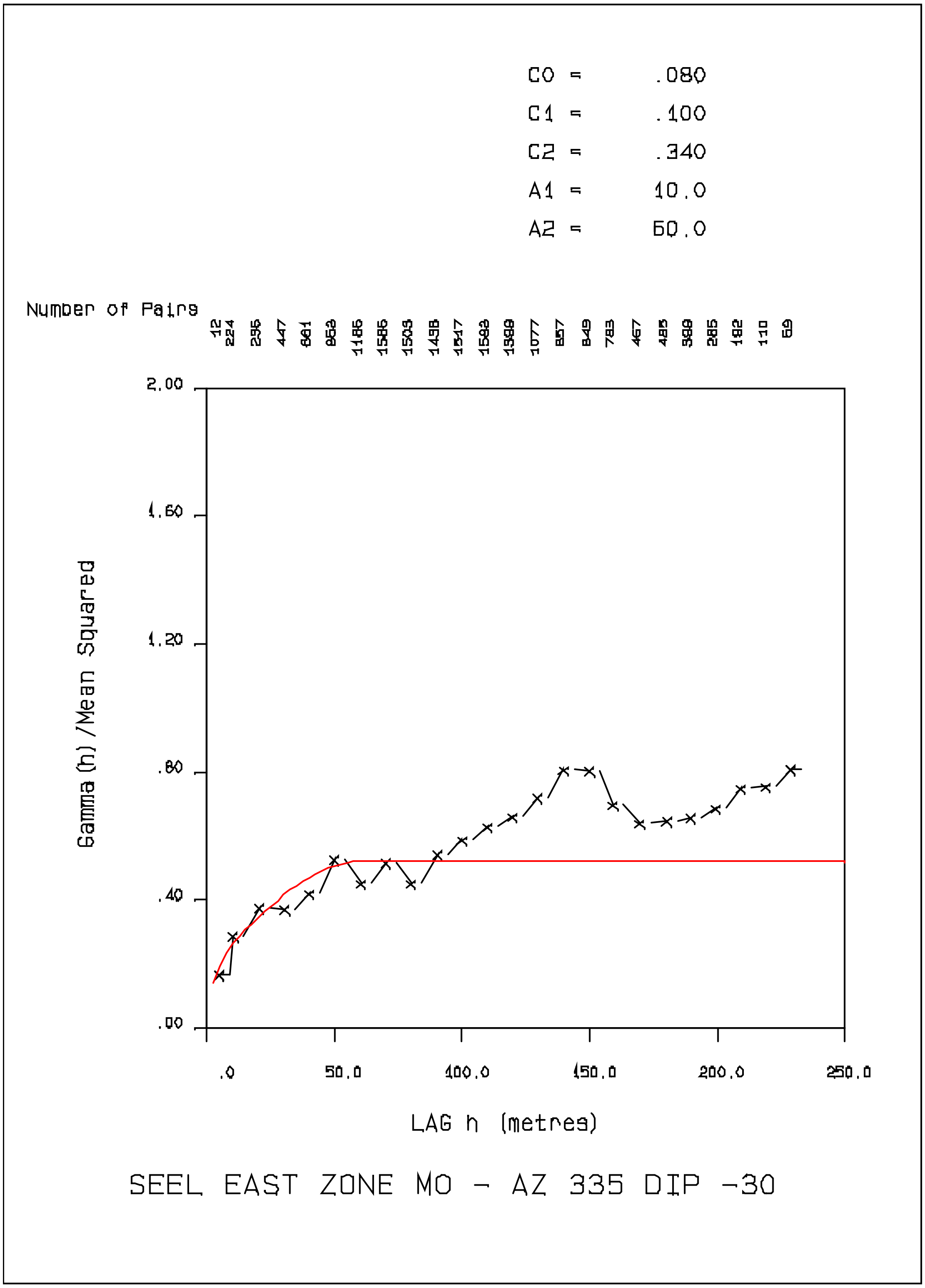

C0 = .100
C1 = .150
C2 = .180
A1 = 44.0
A2 = 180.0
Number of Pairs
1.00
.80
.60
.40
.20
.00
Gamma (h) /Mean Squared
.0
50.0
100.0
150.0
200.0
250.0
LAG h (metres)
SEEL EAST ZONE AU - AZ 110 DIP 0

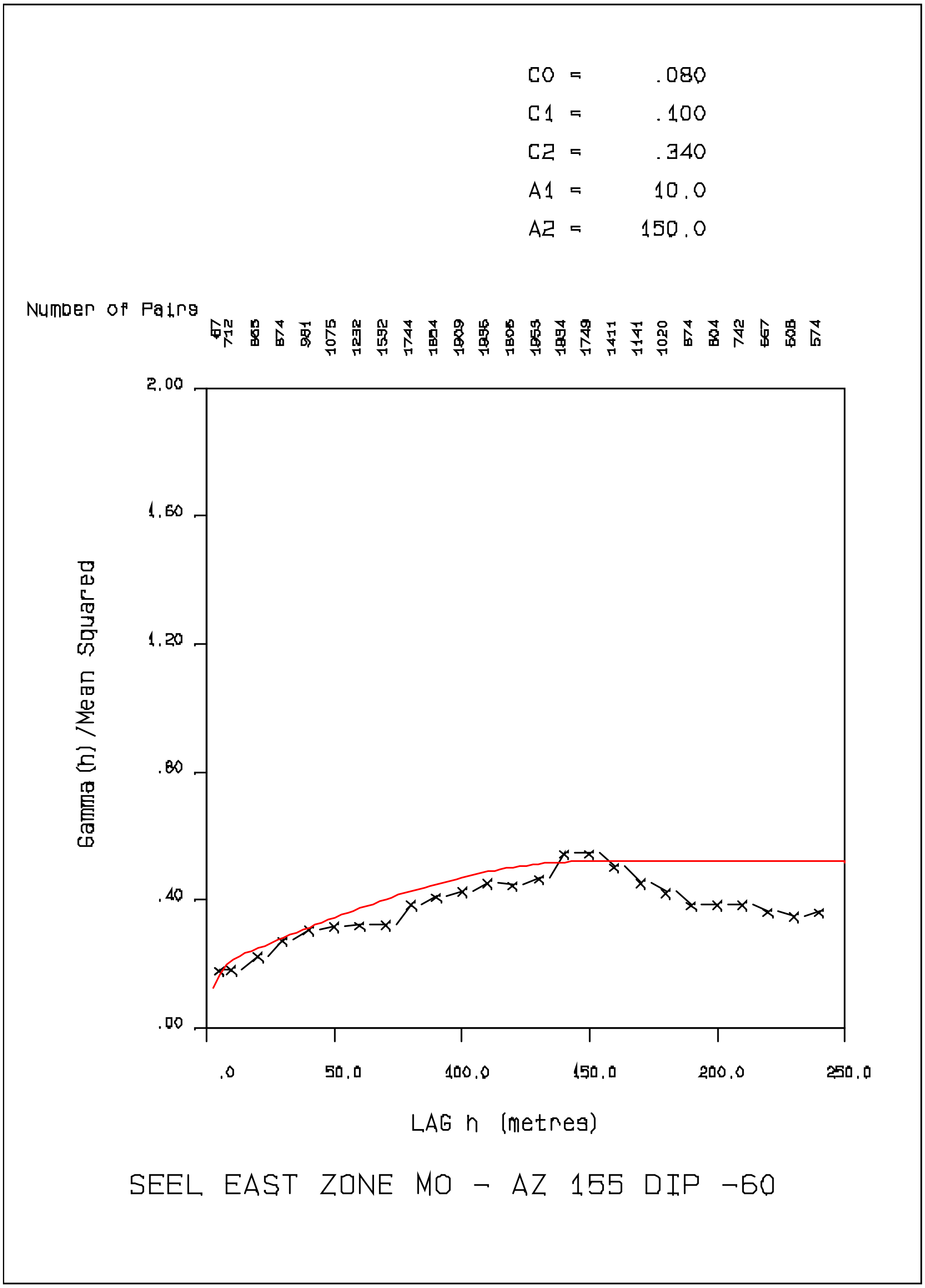


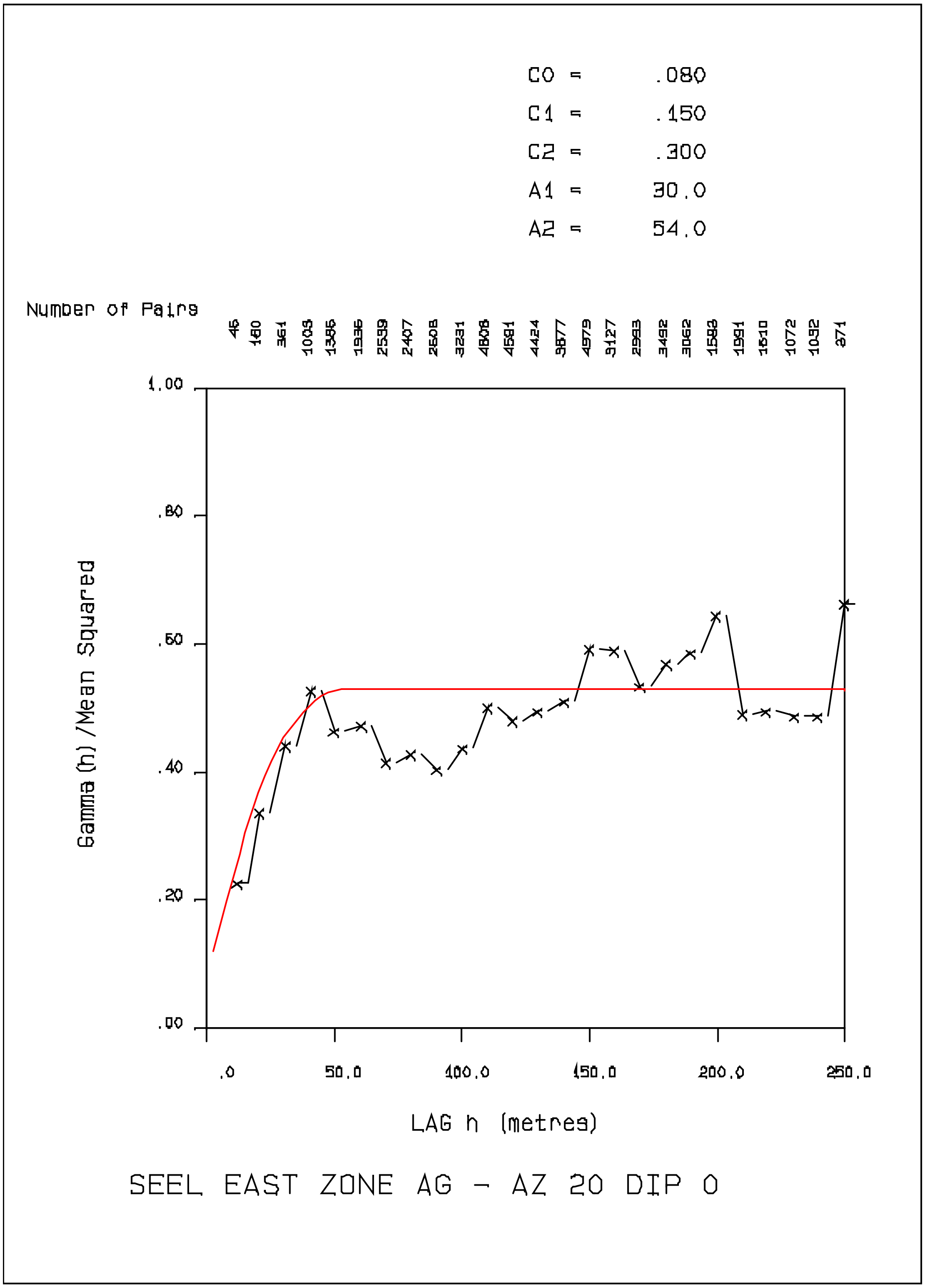
SEEL EAST ZONE AU - AZ 200 DIP -55

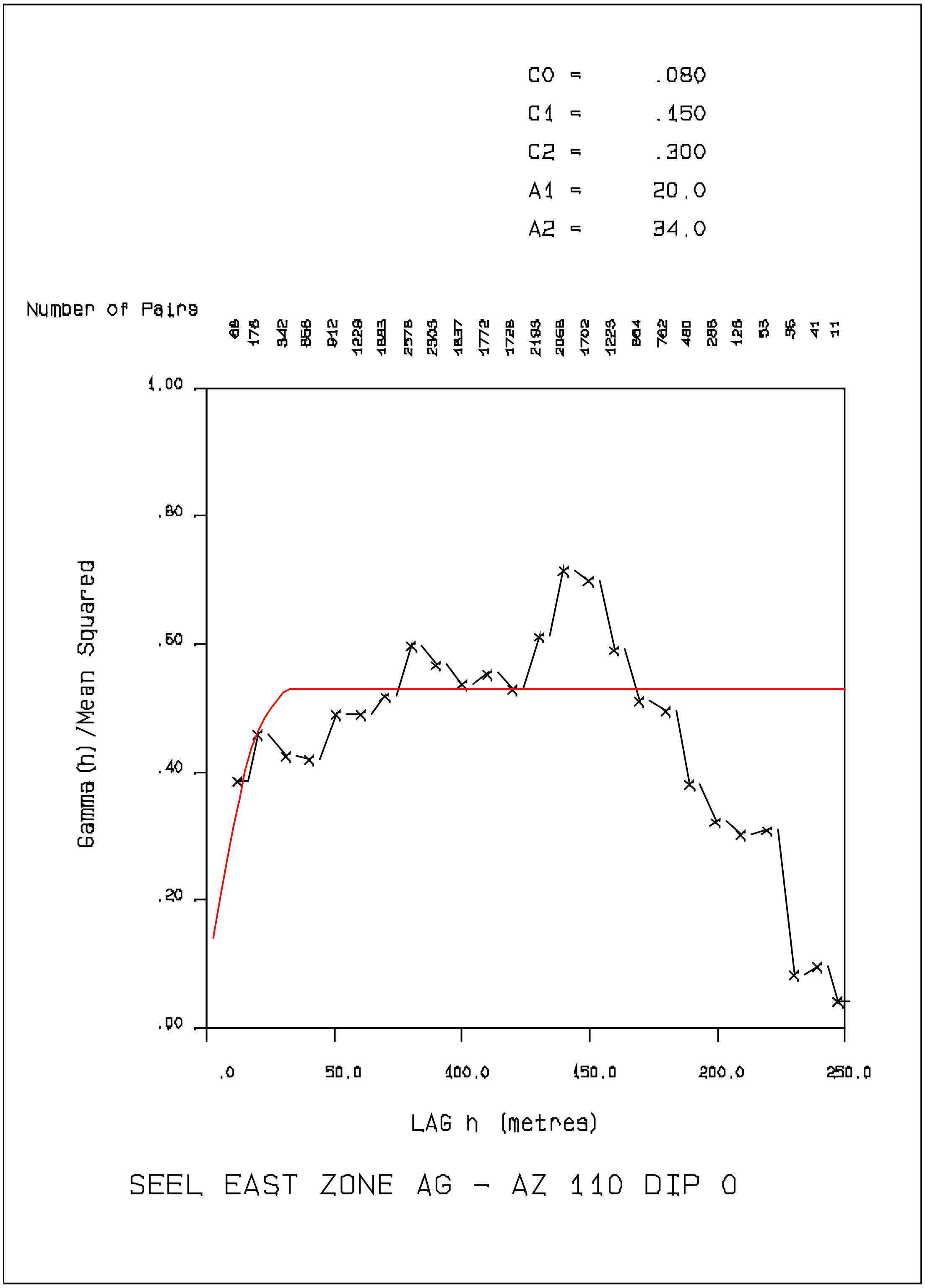

C0 = .100
C1 = .150
C2 = .180
A1 = 20.0
A2 = 60.0
Number of Pairs
24 162 264 343 783 1213 1476 1951 1736 1886 2309 2802 2858 2889 2527 2359 2381 2609 1867 1204 1120 877 705 505 330 261
1.00
.80
.60
.40
.20
.00
Gamma (h) /Mean Squared
.0
50.0
100.0
150.0
200.0
250.0
LAG h (metres)
SEEL EAST ZONE AU - AZ 20 DIP -35

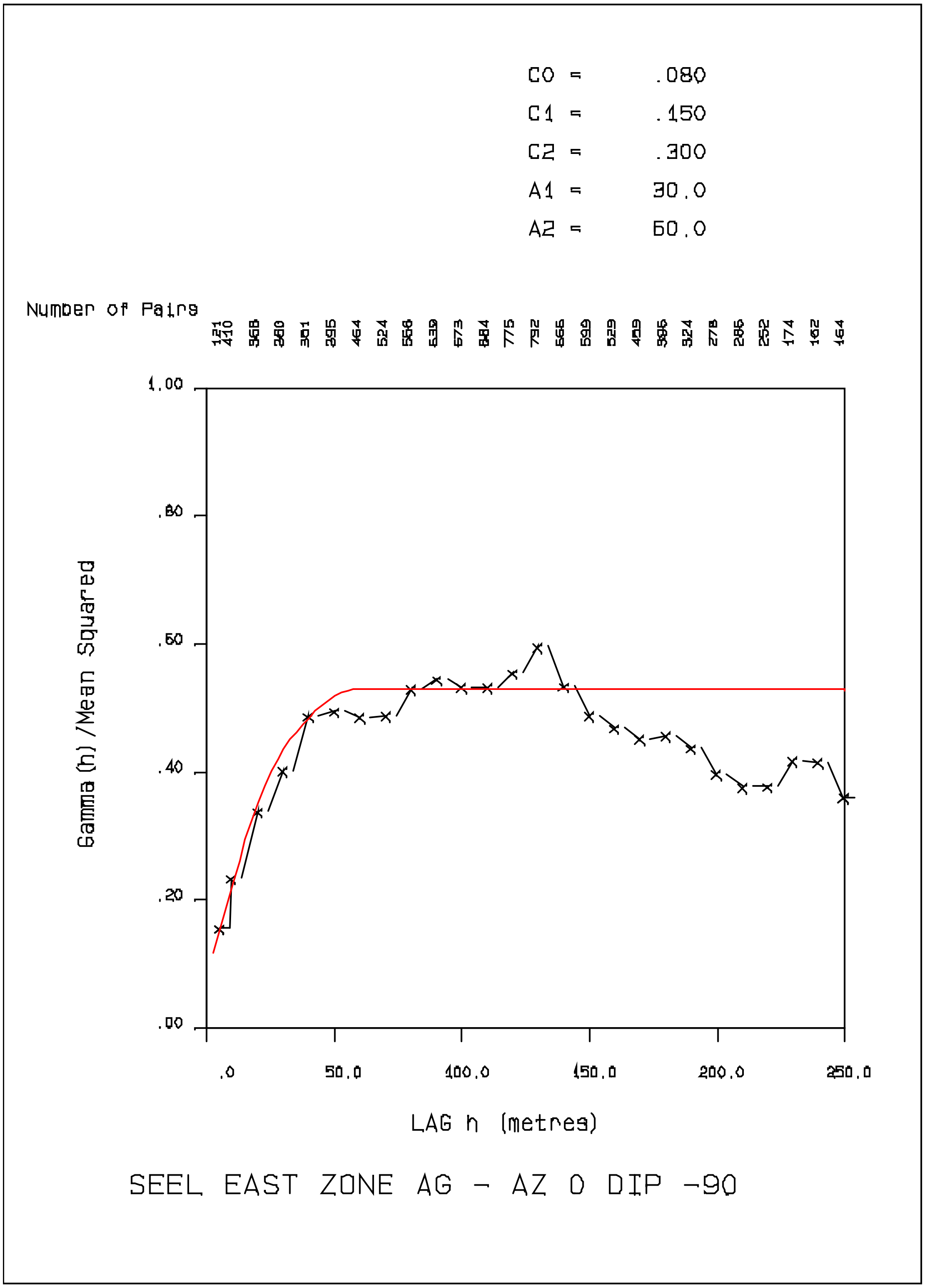

C0 = .080
C1 = .100
C2 = .340
A1 = 12.0
A2 = 70.0
Number of Pairs
139 211 379 824 1128 1748 2308 2865 2251 3267 6167 6813 5391 4843 4065 4084 4995 4506 3011 3370 2441 2061 2518 1961
2.00
1.60
1.20
.80
.40
.00
Gamma (h) /Mean Squared
.0
50.0
100.0
150.0
200.0
250.0
LAG h (metres)
SEEL EAST ZONE MO - AZ 65 DIP 0

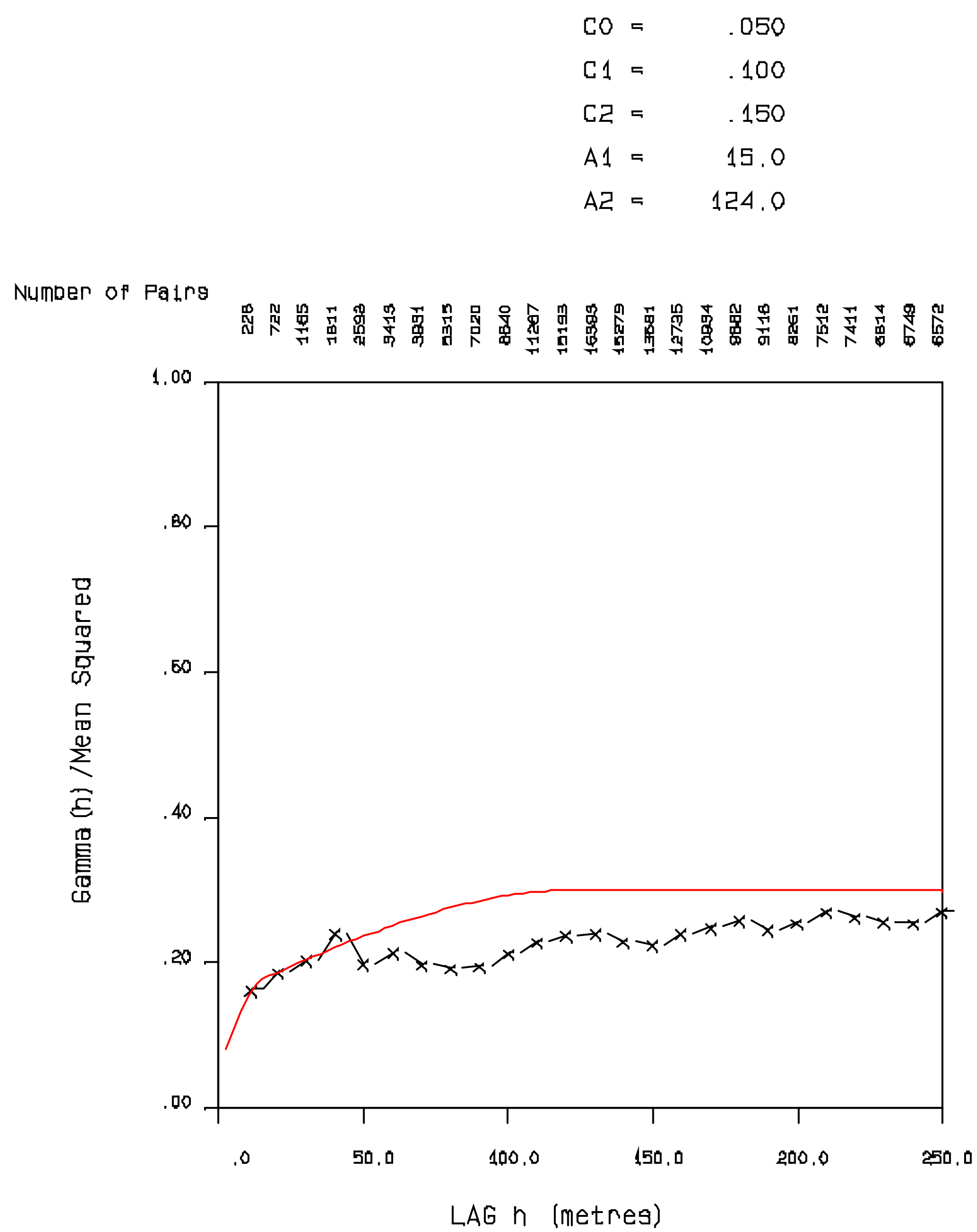

C0 = .080
C1 = .100
C2 = .340
A1 = 10.0
A2 = 50.0
Number of Pairs
12 224 295 447 661 852 1186 1586 1503 1498 1517 1582 1398 1077 857 849 783 467 485 398 285 192 110 69
2.00
1.60
1.20
.80
.40
.00
Gamma (h) /Mean Squared
.0
50.0
100.0
150.0
200.0
250.0
LAG h (metres)
SEEL EAST ZONE MO - AZ 335 DIP -30


CO = .080
C1 = .100
C2 = .340
A1 = 10.0
A2 = 150.0
Number of Pairs
67
712
865
874
981
1075
1232
1532
1744
1854
1909
1956
1805
1953
1834
1749
1411
1141
1020
874
804
742
567
508
574
2.00
1.60
1.20
.80
.40
.00
Gamma (h) /Mean Squared
.0
50.0
100.0
150.0
200.0
250.0
LAG h (metres)
SEEL EAST ZONE MO - AZ 155 DIP -60

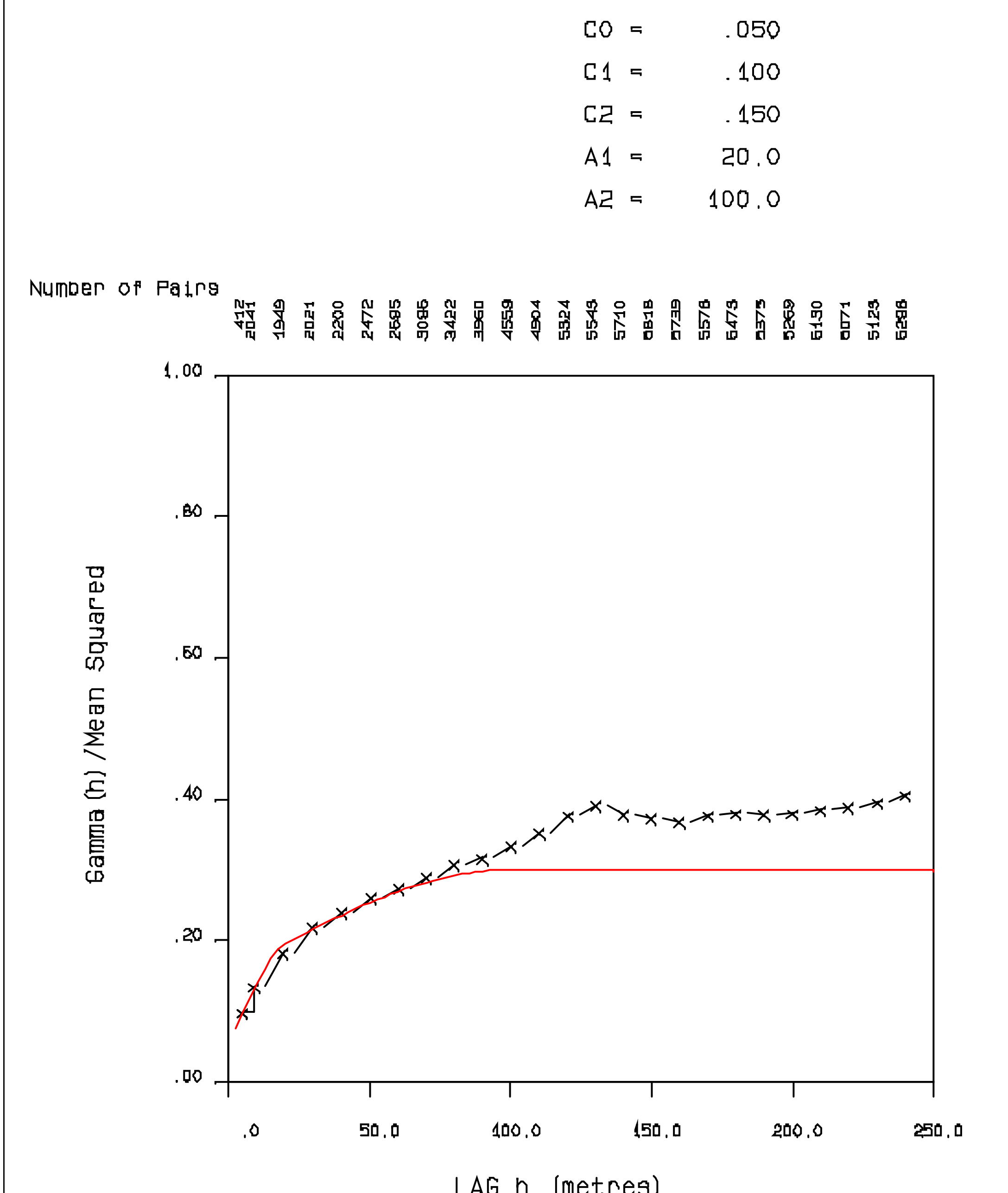

C0 = .080
C1 = .150
C2 = .300
A1 = 30.0
A2 = 54.0
Number of Pairs
45 160 361 1003 1385 1935 2539 2407 2508 3231 4808 4581 4424 3877 4979 3127 2983 3492 3062 1582 1591 1510 1072 1032 371
1.00
.80
.60
.40
.20
.00
Gamma (h) /Mean Squared
.0
50.0
100.0
150.0
200.0
250.0
LAG h (metres)
SEEL EAST ZONE AG - AZ 20 DIP 0


C0 = .080
C1 = .150
C2 = .300
A1 = 20.0
A2 = 34.0
Number of Pairs
68
178
342
856
912
1228
1883
2578
2303
1837
1772
1728
2183
2068
1702
1223
804
762
480
286
128
53
36
41
11
1.00
.80
.60
.40
.20
.00
Gamma (h) /Mean Squared
.0
50.0
100.0
150.0
200.0
250.0
LAG h (metres)
SEEL EAST ZONE AG - AZ 110 DIP 0

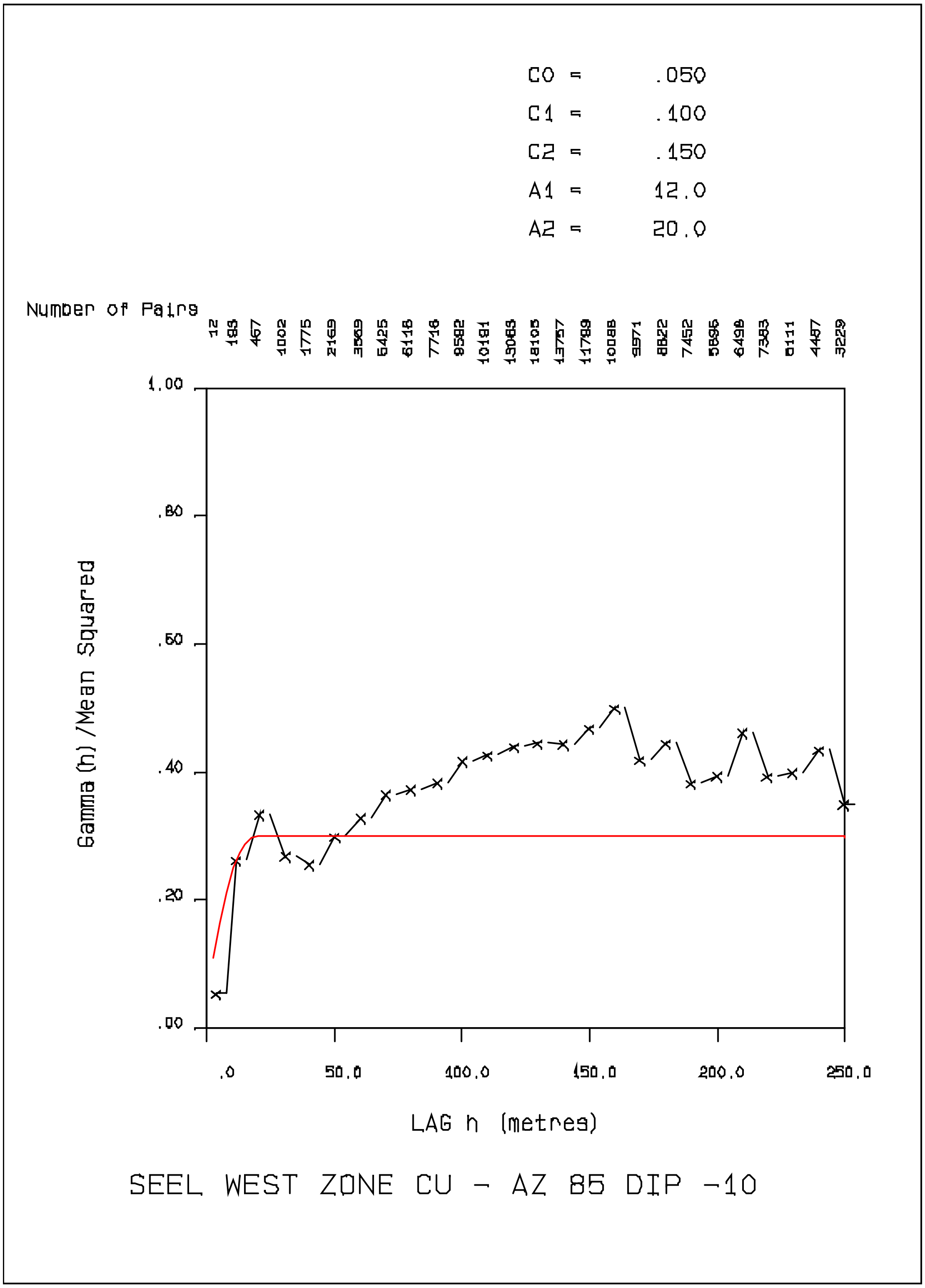

C0 = .080
C1 = .150
C2 = .300
A1 = 30.0
A2 = 60.0
Number of Pairs
121 410 368 380 381 395 464 524 556 639 673 884 775 792 565 599 529 459 396 324 278 286 252 174 162 164
1.00
.80
.60
.40
.20
.00
Gamma (h) /Mean Squared
.0
50.0
100.0
150.0
200.0
250.0
LAG h (metres)
SEEL EAST ZONE AG - AZ 0 DIP -90

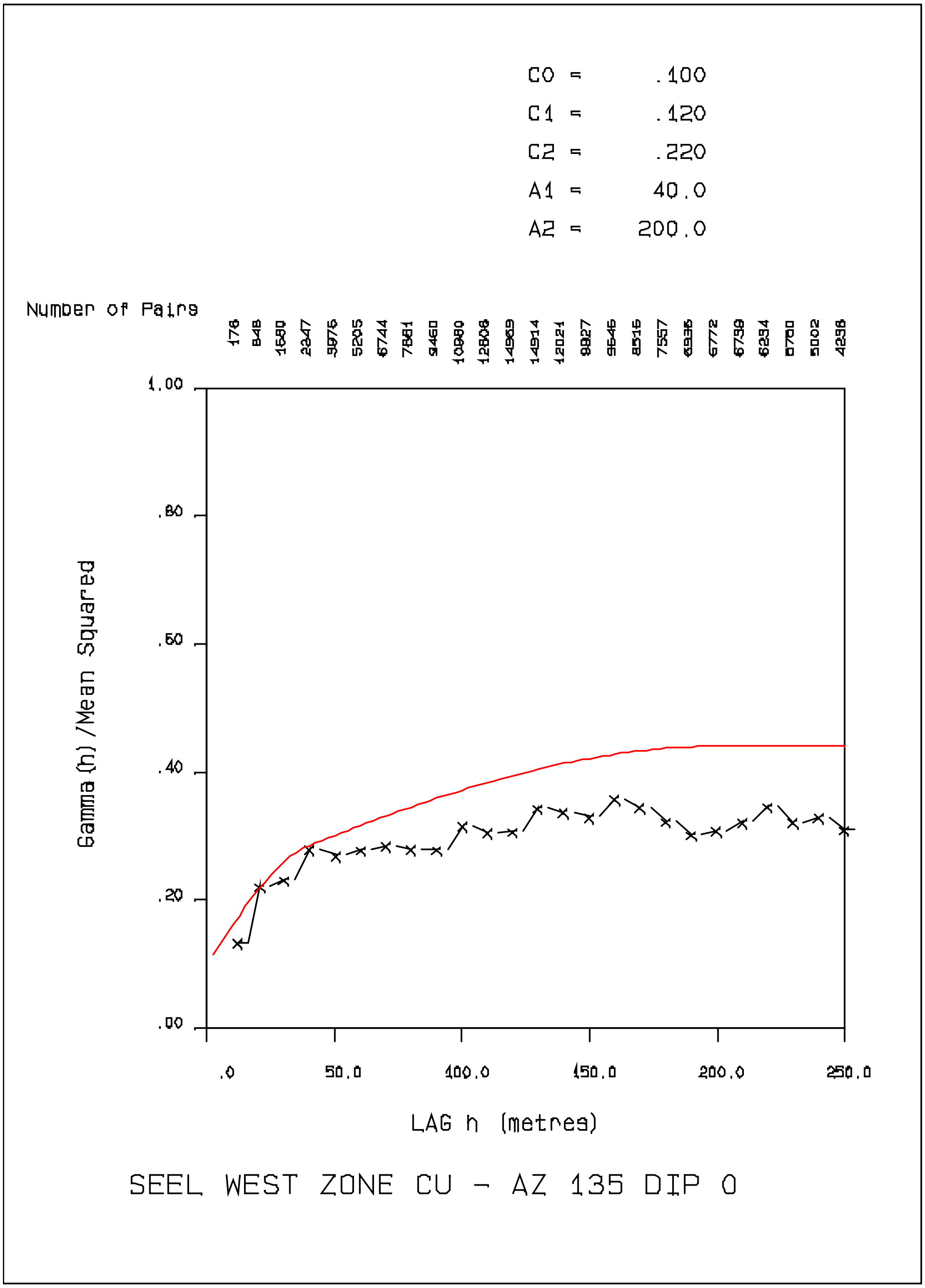


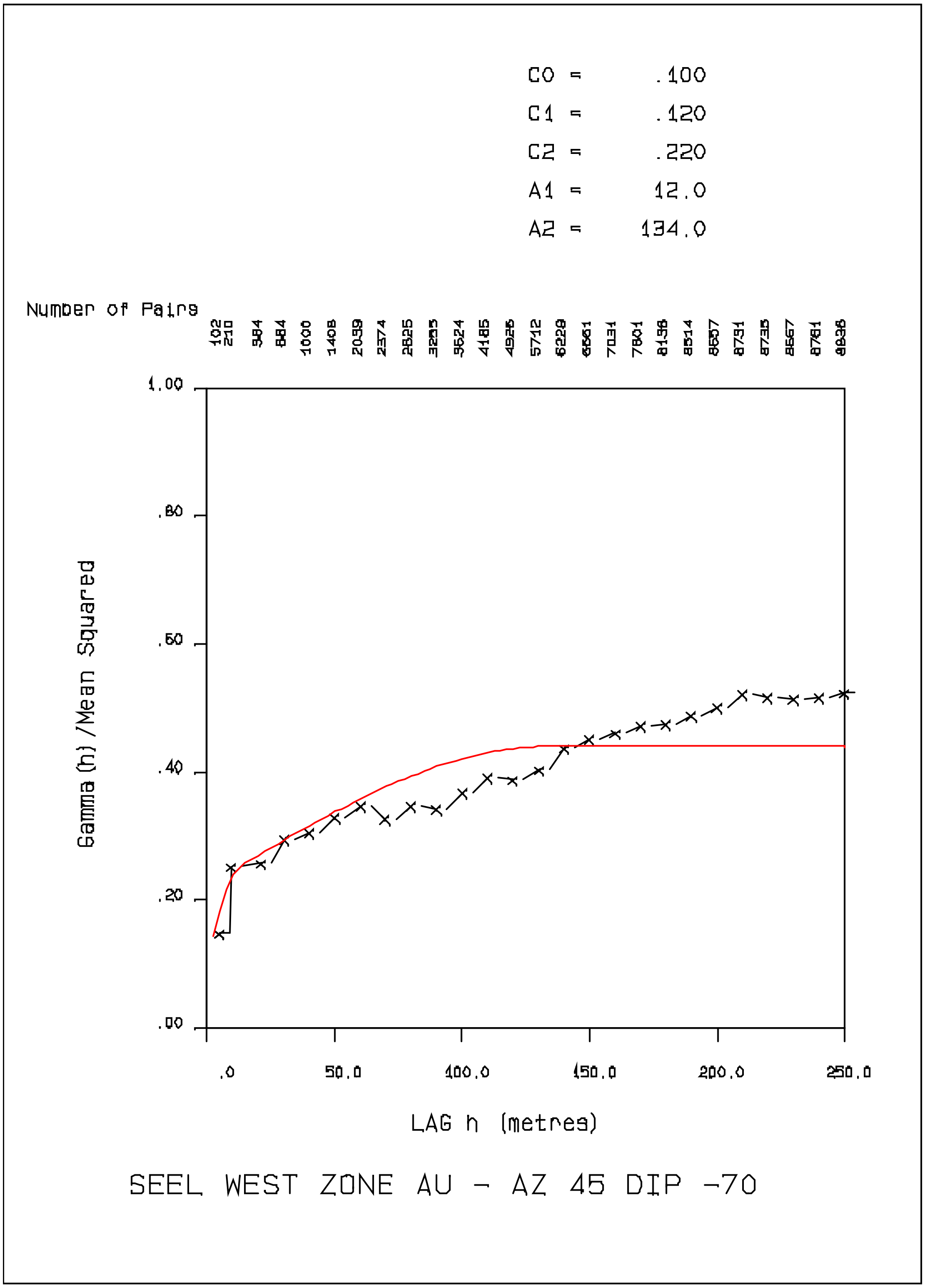
SEEL WEST ZONE CU - AZ 175 DIP 0

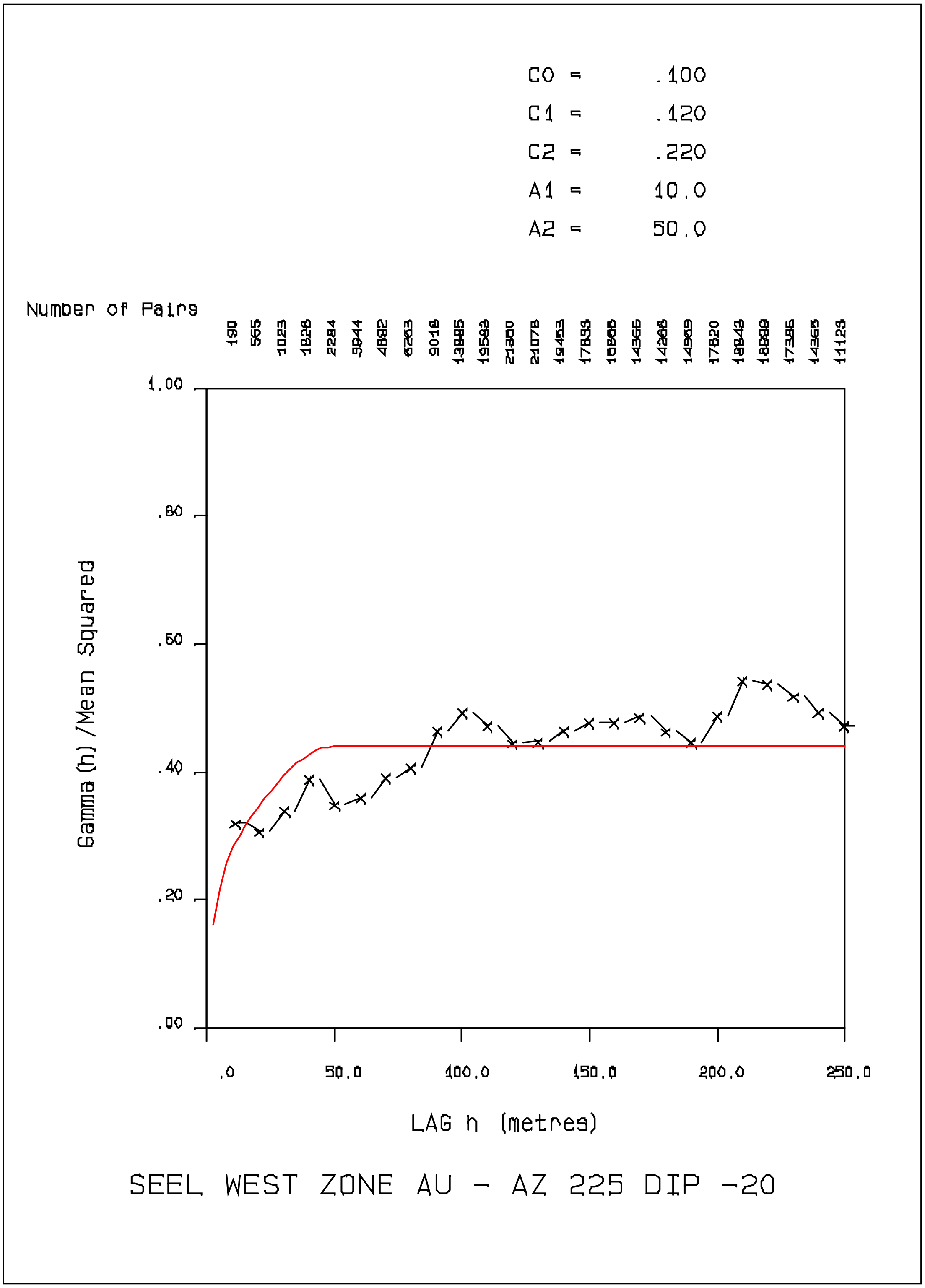


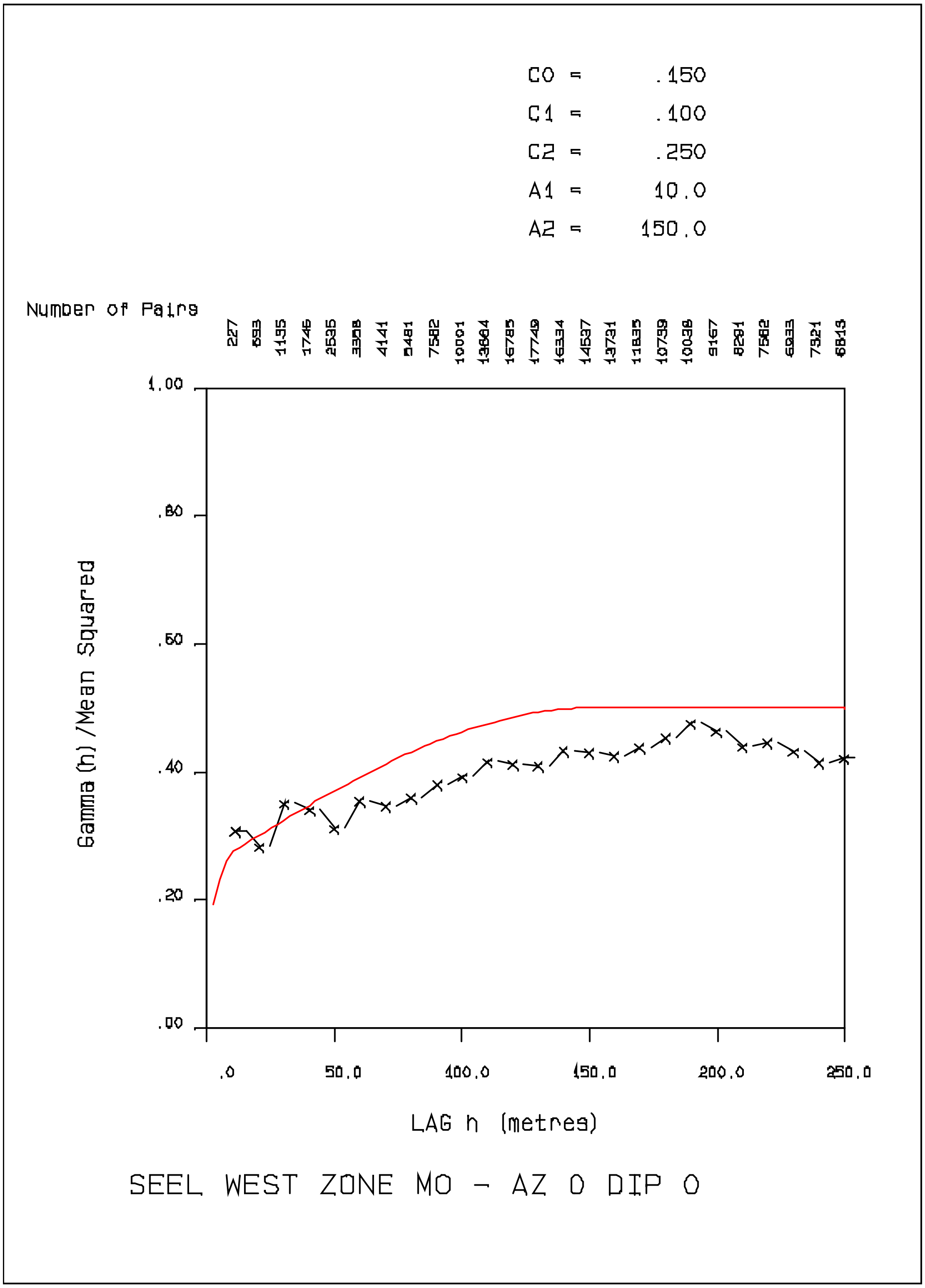
SEEL WEST ZONE CU - AZ 265 DIP -80

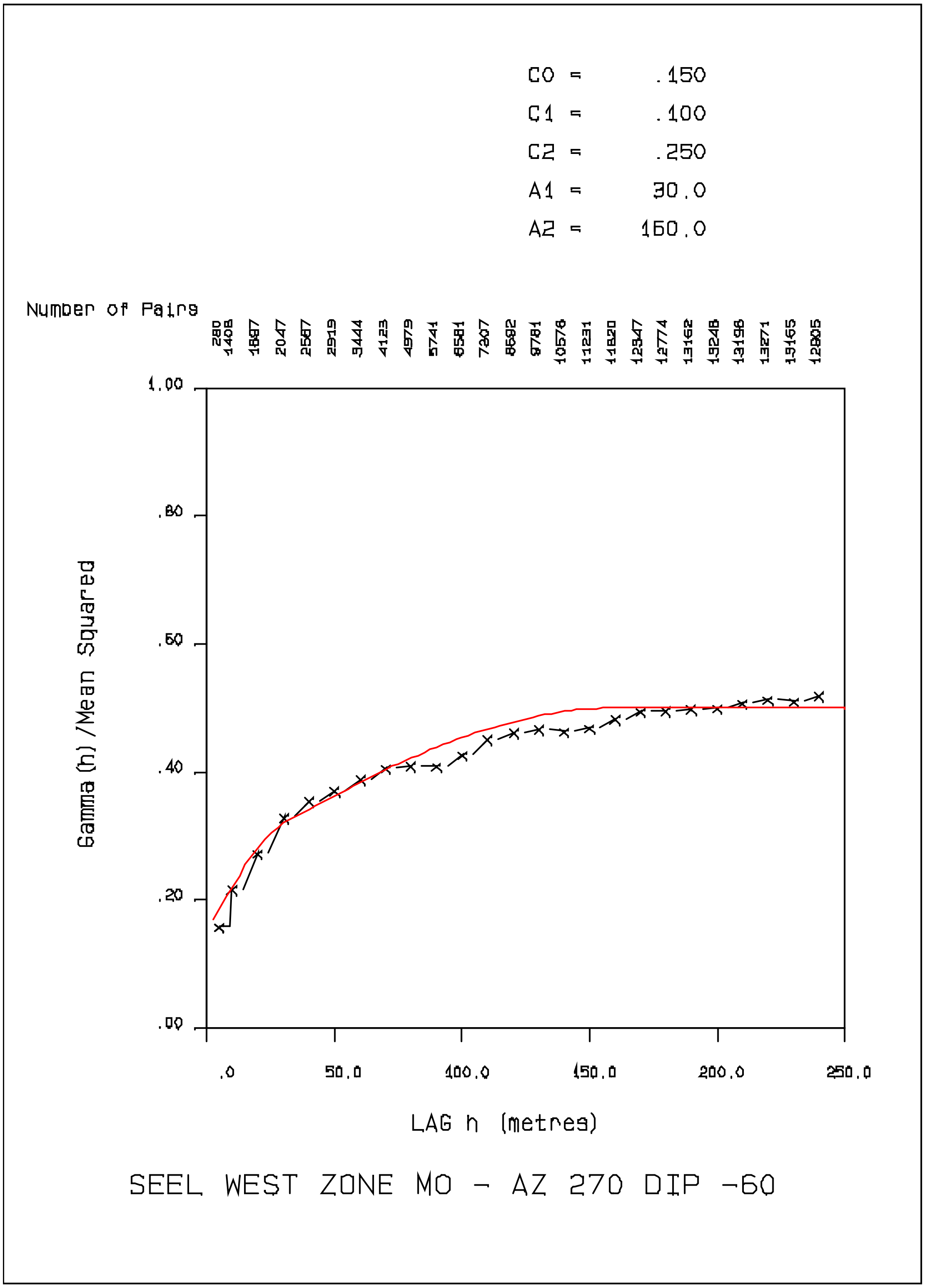

C0 = .050
C1 = .100
C2 = .150
A1 = 12.0
A2 = 20.0
Number of Pairs
12 193 467 1002 1775 2169 3569 6425 6118 7716 9582 10191 13063 13105 13757 11789 10088 9971 8822 7452 5896 6498 7383 8111 4487 3229
1.00
.80
.60
.40
.20
.00
Gamma (h) /Mean Squared
.0
50.0
100.0
150.0
200.0
250.0
LAG h (metres)
SEEL WEST ZONE CU - AZ 85 DIP -10

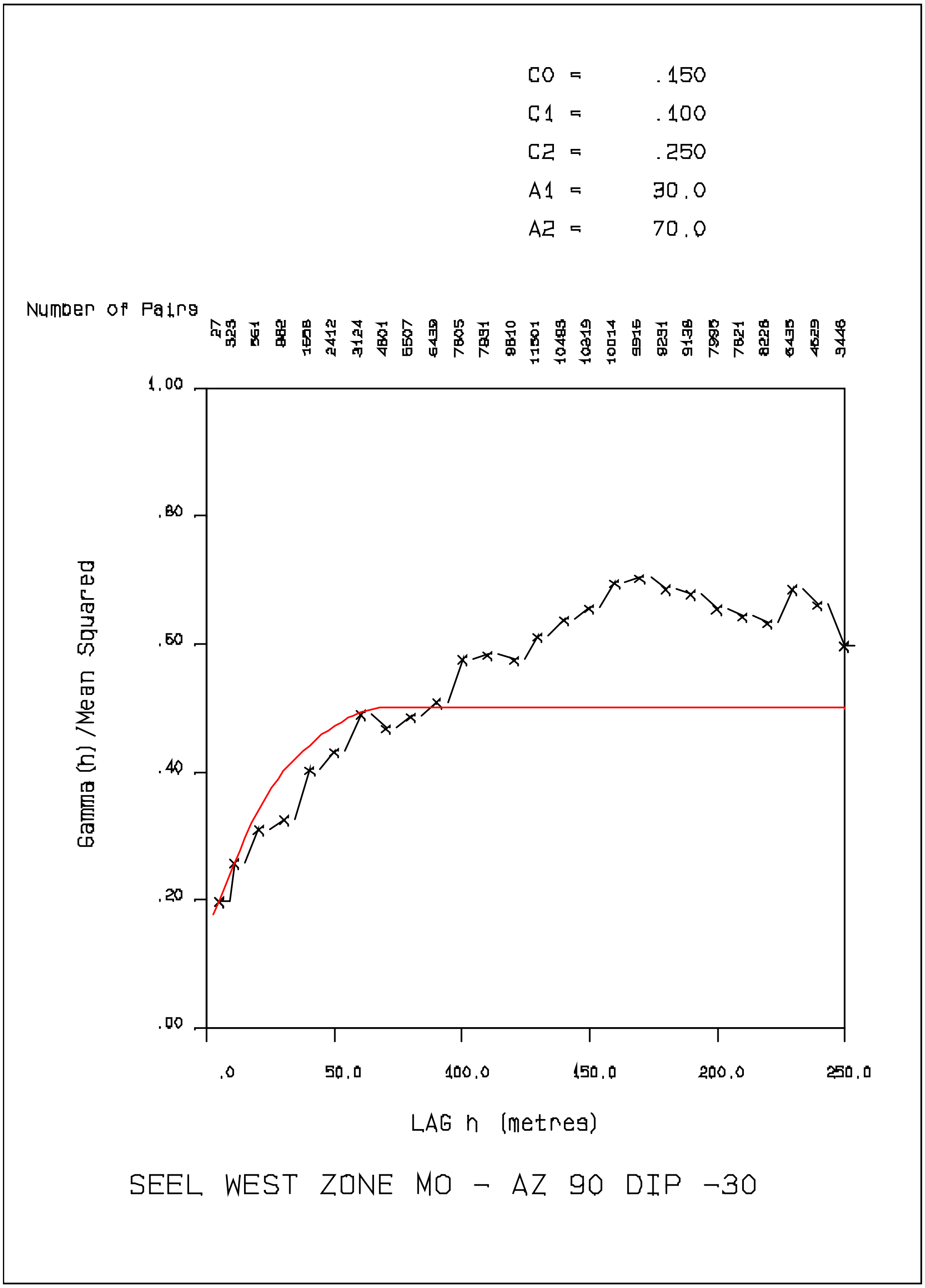

C0 = .100
C1 = .120
C2 = .220
A1 = 40.0
A2 = 200.0
Number of Pairs
176
848
1680
2347
3976
5205
6744
7861
9460
10880
12806
14969
14914
12021
9827
9646
8516
7557
6935
6772
6738
6234
5760
5002
4236
1.00
.80
.60
.40
.20
.00
Gamma (h) /Mean Squared
.0
50.0
100.0
150.0
200.0
250.0
LAG h (metres)
SEEL WEST ZONE CU - AZ 135 DIP 0

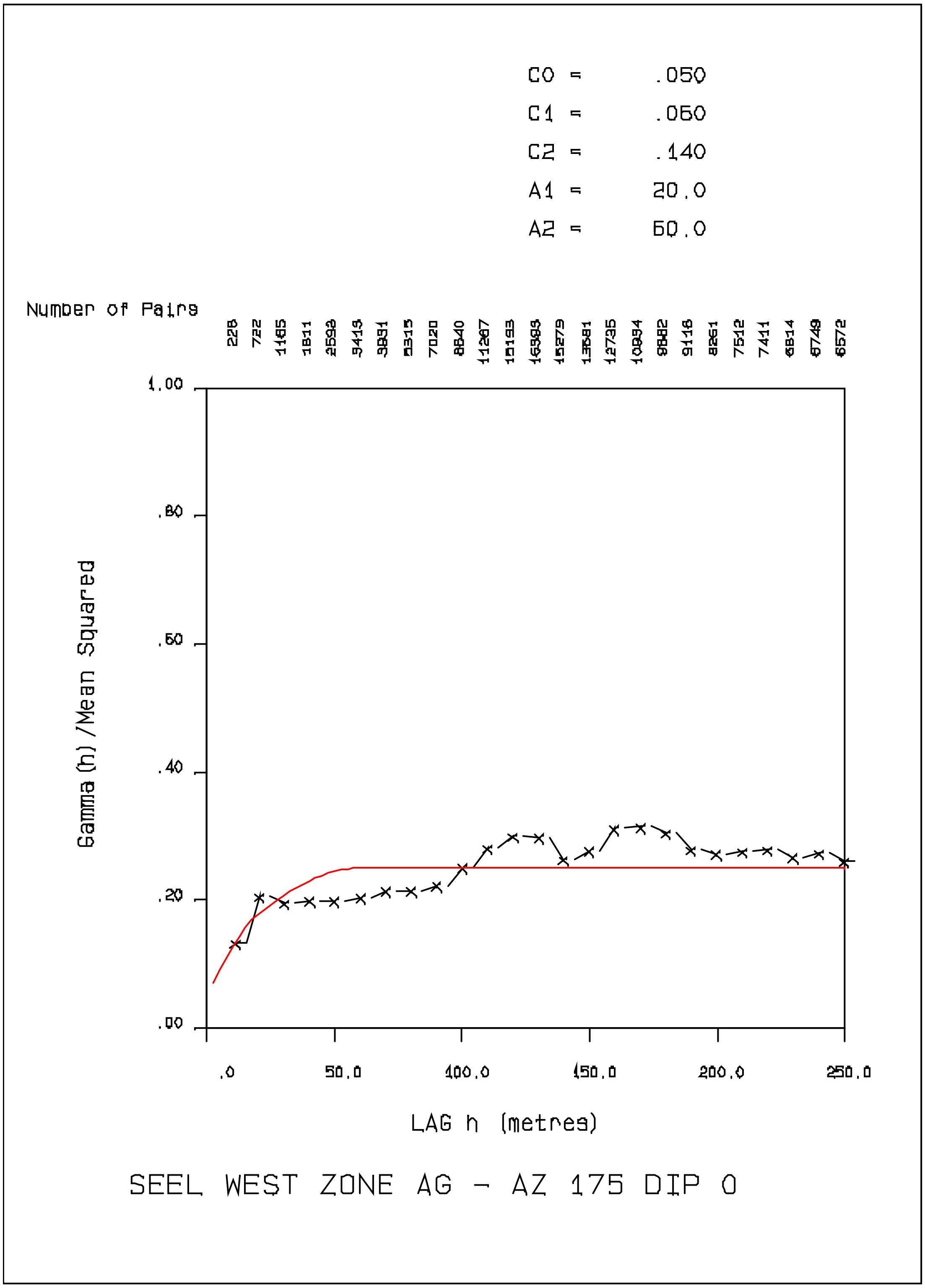

C0 = .100
C1 = .120
C2 = .220
A1 = 12.0
A2 = 134.0
Number of Pairs
102 210 584 884 1000 1408 2039 2374 2825 3255 3624 4185 4926 5712 6229 6561 7031 7801 8136 8514 8657 8731 8735 8867 8761 8936
1.00
.80
.60
.40
.20
.00
Gamma (h) /Mean Squared
.0
50.0
100.0
150.0
200.0
250.0
LAG h (metres)
SEEL WEST ZONE AU - AZ 45 DIP -70

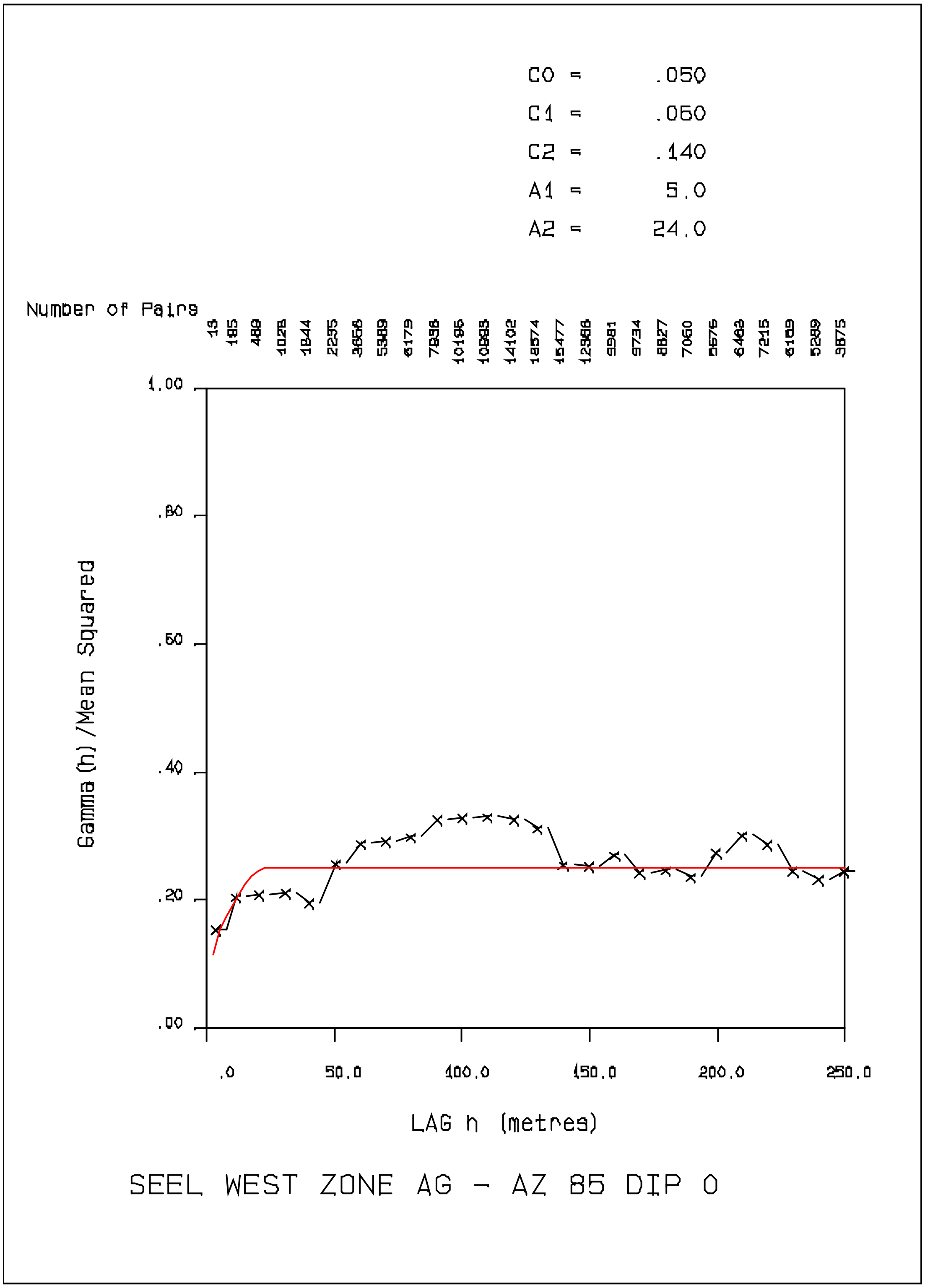

C0 = .100
C1 = .120
C2 = .220
A1 = 10.0
A2 = 50.0
Number of Pairs
Gamma (h) /Mean Squared
1.00
.80
.60
.40
.20
.00
.0
50.0
100.0
150.0
200.0
250.0
LAG h (metres)
SEEL WEST ZONE AU - AZ 225 DIP -20

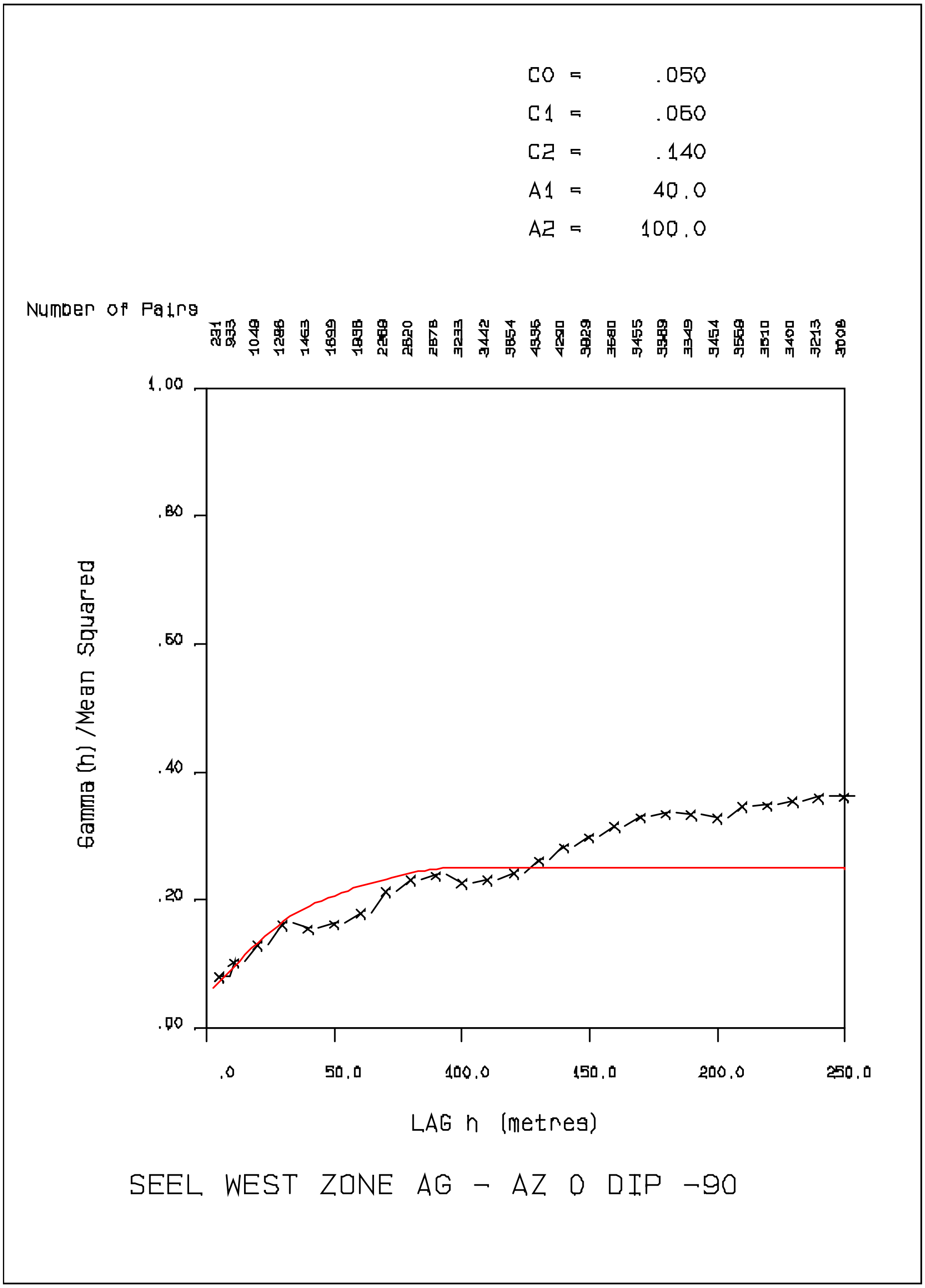

C0 = .150
C1 = .100
C2 = .250
A1 = 10.0
A2 = 150.0
Number of Pairs
227 593 1135 1746 2535 3358 4141 5481 7582 10001 13664 16785 17749 16334 14537 13731 11835 10739 10038 9167 8281 7582 6933 7321 6813
1.00
.80
.60
.40
.20
.00
Gamma (h) /Mean Squared
.0
50.0
100.0
150.0
200.0
250.0
LAG h (metres)
SEEL WEST ZONE MO - AZ 0 DIP 0

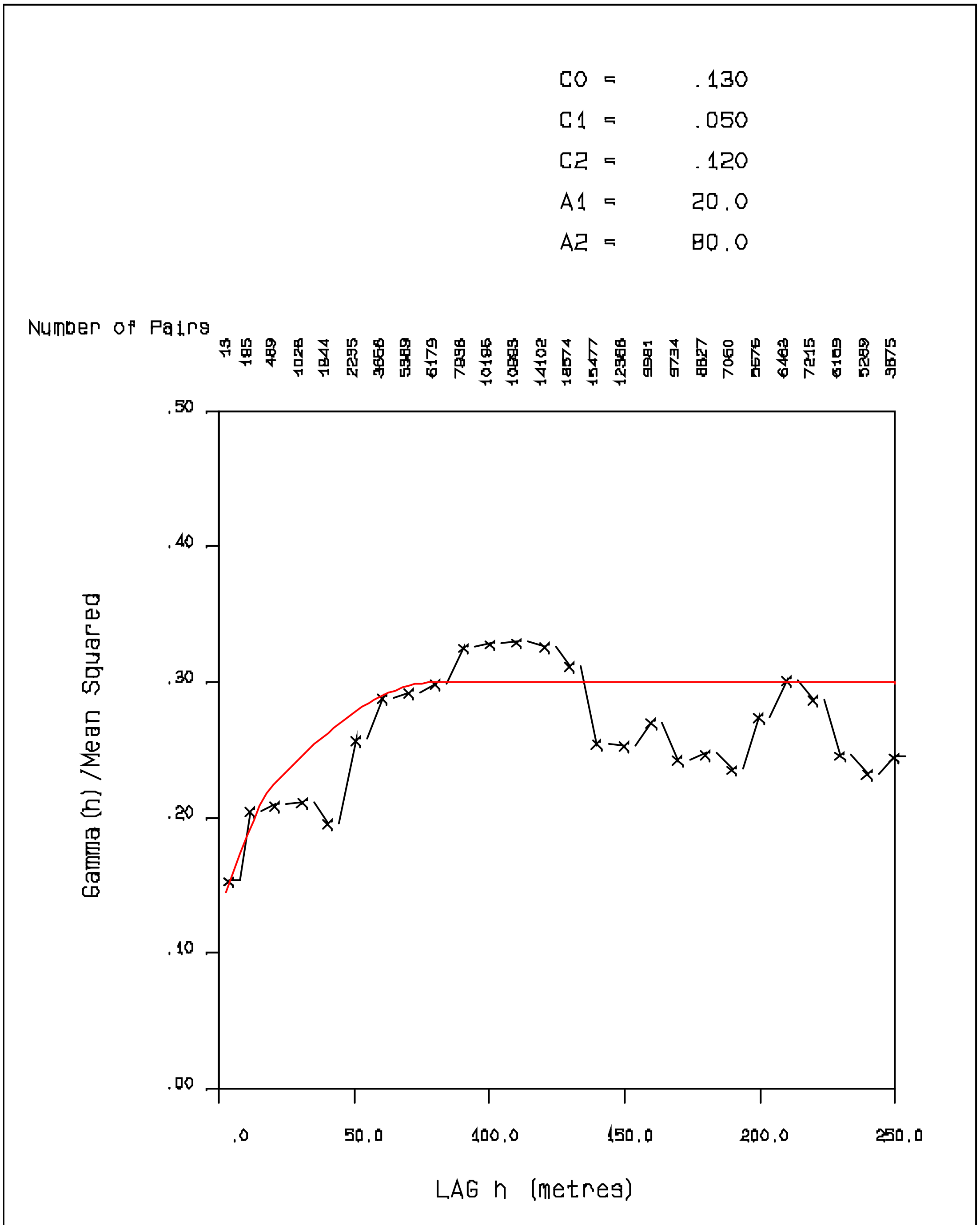

CO = .150
C1 = .100
C2 = .250
A1 = 30.0
A2 = 150.0
Number of Pairs
280
1408
1887
2047
2567
2919
3444
4123
4979
5741
6581
7307
8682
9781
10576
11231
11820
12347
12774
13162
13248
13198
13271
13165
12805
1.00
.80
.60
.40
.20
.00
Gamma (h) /Mean Squared
.0
50.0
100.0
150.0
200.0
250.0
LAG h (metres)
SEEL WEST ZONE MO - AZ 270 DIP -60


C0 = .150
C1 = .100
C2 = .250
A1 = 30.0
A2 = 70.0
Number of Pairs
27
323
561
882
1658
2412
3124
4801
5507
6439
7605
7831
9810
11501
10483
10219
10014
9916
9231
9138
7985
7821
8228
6435
4629
3446
1.00
.80
.60
.40
.20
.00
Gamma (h) /Mean Squared
.0
50.0
100.0
150.0
200.0
250.0
LAG h (metres)
SEEL WEST ZONE MO - AZ 90 DIP -30

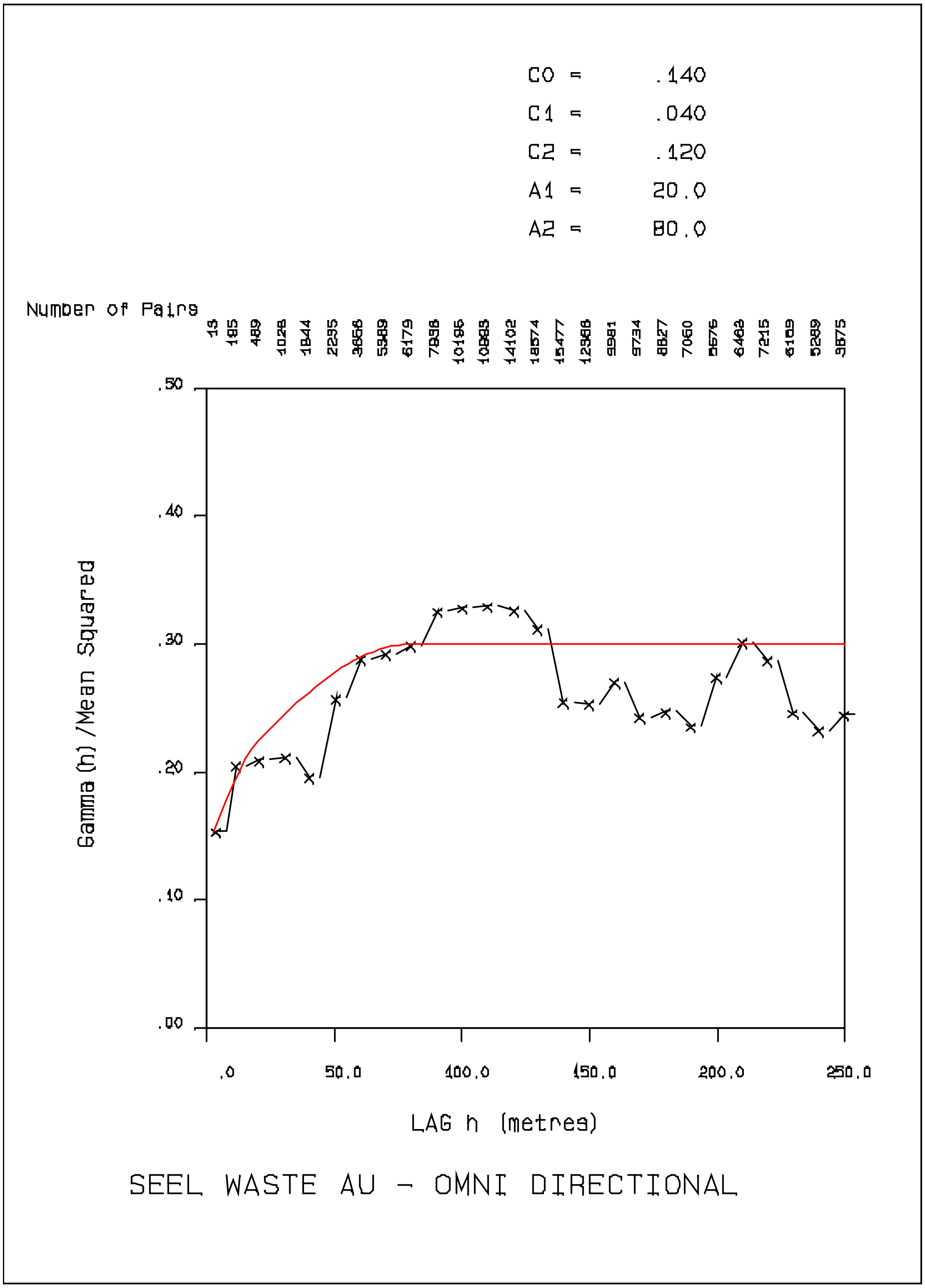

CO = .050
C1 = .060
C2 = .140
A1 = 20.0
A2 = 60.0
Number of Pairs
226
722
1165
1611
2592
3413
3831
5315
7020
8640
11267
15193
16393
15279
13581
12735
10834
9882
9116
8261
7512
7411
6814
6749
6572
1.00
.80
.60
.40
.20
.00
Gamma (h) /Mean Squared
.0
50.0
100.0
150.0
200.0
250.0
LAG h (metres)
SEEL WEST ZONE AG - AZ 175 DIP 0

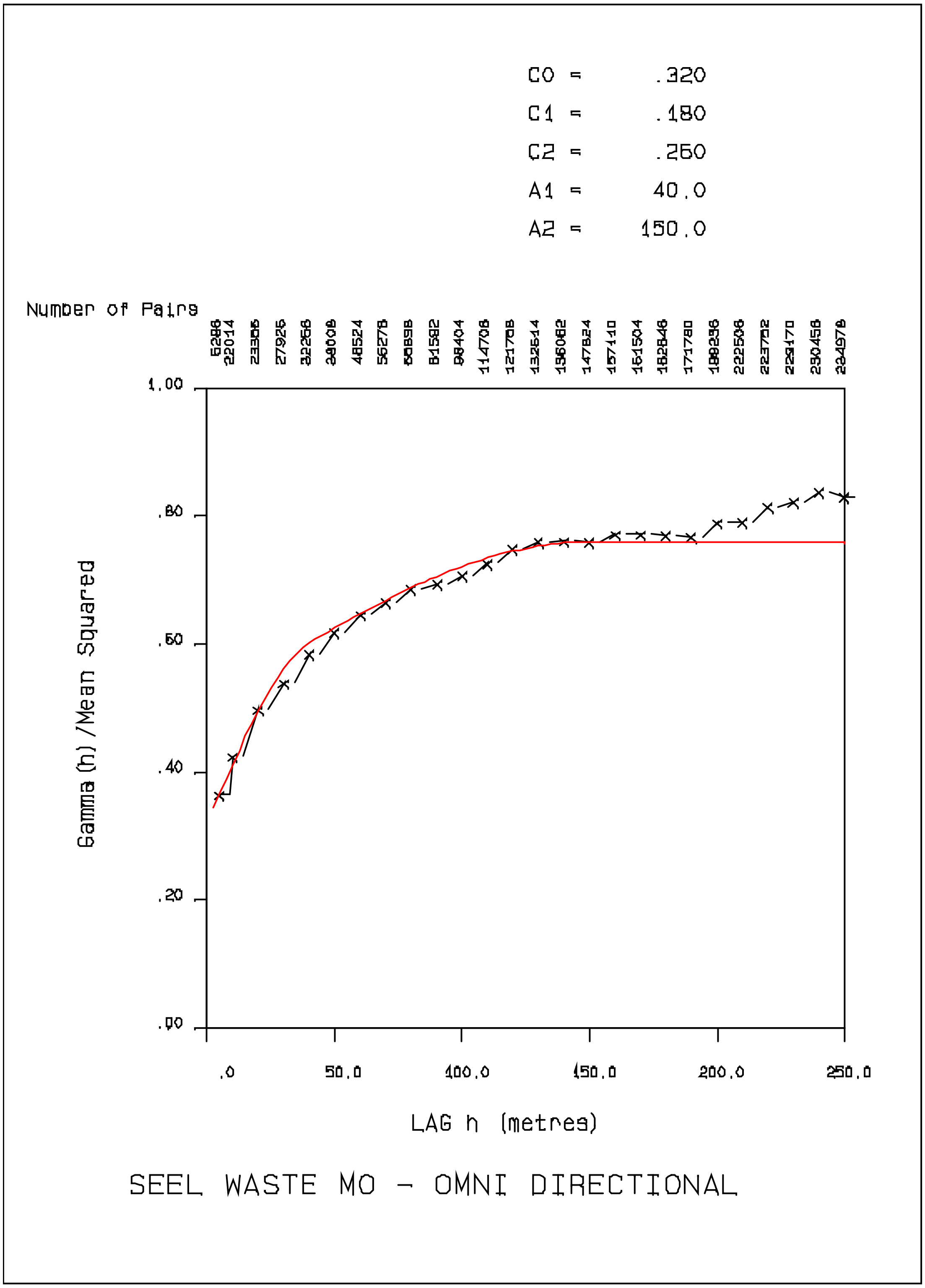

C0 = .050
C1 = .060
C2 = .140
A1 = 5.0
A2 = 24.0
Number of Pairs
1.00
.80
.60
.40
.20
.00
Gamma (h) /Mean Squared
.0
50.0
100.0
150.0
200.0
250.0
LAG h (metres)
SEEL WEST ZONE AG - AZ 85 DIP 0

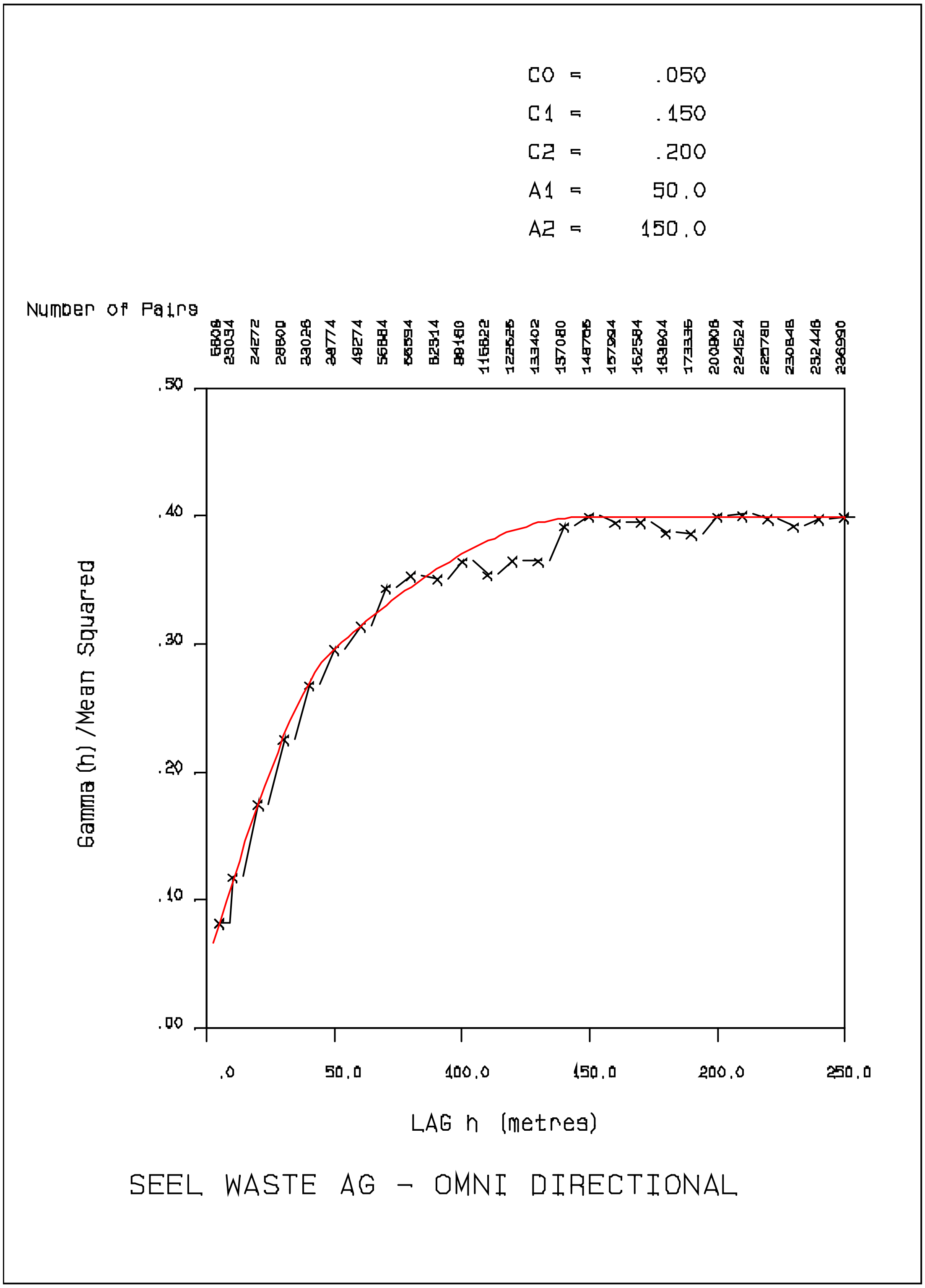

C0 = .050
C1 = .060
C2 = .140
A1 = 40.0
A2 = 100.0
Number of Pairs
231
933
1049
1463
2520
2878
3233
3442
3854
3580
3455
3349
3454
3510
3400
3213
1.00
.80
.60
.40
.20
.00
Gamma (h) /Mean Squared
.0
50.0
100.0
150.0
200.0
250.0
LAG h (metres)
SEEL WEST ZONE AG - AZ 0 DIP -90



SEEL WASTE CU - OMIN DIRECTIONAL


C0 = .140
C1 = .040
C2 = .120
A1 = 20.0
A2 = 80.0
Number of Pairs
13 195 489 1028 1844 2235 3658 5589 6179 7898 10196 10883 14102 18574 15477 12588 9981 9734 8827 7060 5676 6463 7215 6109 5289 3675
.50
.40
.30
.20
.10
.00
Gamma (h) /Mean Squared
.0
50.0
100.0
150.0
200.0
250.0
LAG h (metres)
SEEL WASTE AU - OMNI DIRECTIONAL


C0 = .320
C1 = .180
C2 = .260
A1 = 40.0
A2 = 150.0
Number of Pairs
22014
27925
48524
171780
1.00
.80
.60
.40
.20
.00
Gamma (h) /Mean Squared
.0
50.0
100.0
150.0
200.0
250.0
LAG h (metres)
SEEL WASTE MO - OMNI DIRECTIONAL


CO = .050
C1 = .150
C2 = .200
A1 = 50.0
A2 = 150.0
Number of Pairs
Gamma (h) /Mean Squared
.00
.10
.20
.30
.40
.50
.0
50.0
100.0
150.0
200.0
250.0
LAG h (metres)
SEEL WASTE AG - OMNI DIRECTIONAL