

**MINERAL RESOURCE ESTIMATE  
RUDDOCK CREEK DEPOSIT  
Kamloops Mining Division  
British Columbia**

**NTS: 82M/15W**

**Prepared for**

**Selkirk Metals Corp.  
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**B.C. Geographic System Map Sheet: 082M.076  
Latitude: 51° 46.6' N; Longitude 118° 54.1' W  
UTM (NAD 83): 5 737 900 N; 368 800 E; Zone 11**

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## 1 SUMMARY

Selkirk Metals Corp. (“Selkirk”) is filing this technical report describing the Ruddock Creek Property (the “Property”) for the purposes of complying with disclosure and reporting requirements set forth in National Instrument 43-101: *Standards of Disclosure for Mineral Projects* (“NI 43-101”), Companion Policy 43-101CP and Form 43-101 F1. Selkirk holds an undivided 100% interest in the Property.

The Property is located between the headwaters of Ruddock Creek and Oliver Creek in the Scrip Range of the Monashee Mountains in southeast British Columbia, approximately 100 km north northwest of Revelstoke, 28 km east of Avola and 6.5 km west of Gordon Horne Peak. The claims are situated on NTS map sheet 82M/15W and B.C. Geographic System map sheet 082M.076.

There was no direct road access to the central portion of the Property until 2007 when an excavator trail was completed from the end of the existing logging road at the south end of Oliver Creek. Access was previously achieved by helicopter. In 2006 a camp was established at Tumtum Lake on the Adams River approximately 20 km northwest of the main drill area, which operated for the 2006 and 2007 programs. The 2008 underground work was all completed from a 40 man camp established at Light Lake in late 2007.

The Property contains “Sedex-Type” stratabound zinc-lead mineralization hosted by calc-silicate rocks, which have been intruded by pegmatite dykes and sills. The main deposit, which has been the historical focus of exploration on the Property is known as the E Zone. Detailed surface diamond drilling from 2005 to 2007 has shown the E Zone deposit to be continuous for in excess of 1.1 km east west, up to 400 m in width north south and varying in true thickness from less than 5 m to over 35 m. This work was successful in showing that the mineralization forms a planar sheet of sulphides dipping approximately 45 degrees to the north and plunging approximately 40 degrees to the west.

Underground development of the decline commenced in October 2007 and was completed by September 2008. The main decline was driven 982m to the north at a -15% grade to intersect the deep E Zone mineralization in the vicinity of hole RD-06-152. At the 900m point on the decline a cross cut was excavated 175m to the east at a grade of +10% to provide drill stations for definition drilling of the deep E Zone. Thirty-two underground holes totaling 5,430m were completed during the 2008 program. These holes confirmed the attitude and tenor of the mineralization as determined by the surface drilling. Mineralization consists of sphalerite and galena with accessory sulphide minerals of pyrite and pyrrhotite.

A mineral resource has been estimated for the E Zone using a total of 770 composites from 108 drill holes (1941m). Using a base case cut-off grade of 4% combined Pb:Zn the current Mineral Resource is estimated to contain an Indicated 2,338,000T averaging 7.79% Zn and 1.61% Pb and an Inferred 1,492,000T grading 6.5% Zn and 1.26% Pb. This mineral resource remains open to the west, the down dip portion of the mineralized horizon. The mineral resource at a range of cut-off grades is presented in Table 1-1.

**Table 1-1 Ruddock Creek E-Zone Mineral Resource**

Cutoff Grade % Pb+Zn	INDICATED				INFERRED			
	Tonnes 000's	% Zn	% Pb	% comb Pb+Zn	Tonnes 000's	% Zn	% Pb	% comb Pb+Zn
3	2,613	7.28	1.50	8.78	1,614	6.23	1.21	7.44
<b>4</b>	<b>2,338</b>	<b>7.79</b>	<b>1.61</b>	<b>9.40</b>	<b>1,492</b>	<b>6.50</b>	<b>1.26</b>	<b>7.76</b>
5	2,012	8.43	1.75	10.18	1,336	6.82	1.31	8.13

Resource estimation was carried out using Gemcom Surpac© software. Block grades were estimated using ordinary kriging constrained by zone domains. Three kriging passes with incremental search distances were implemented. Blocks estimated in the first two passes using a maximum anisotropic search distance of 31m were classified as indicated. Blocks estimated in the 3<sup>rd</sup> pass using a maximum anisotropic search distance of 100m were classified as inferred.

The Creek Zone is located 900m west of the E Zone surface exposure. Diamond drilling carried out on the Creek Zone in 2006 and 2007 has shown this horizon to be continuous over a 400 m by 600 m area down dip and along strike from the surface showing. The mineralization dips gently to the north, plunges gently to the west and is up to 12.6 m thick. The relationship of the Creek Zone to the E Zone is not yet clear and may represent a fault offset and up lift of the E Zone mineralization, or it could correspond with the mineralization encountered at the G and M Zones, which overlie the deep E Zone. If the Creek Zone mineralization does correspond to the G and M Zones then it represents a second sulphide horizon with a stratigraphic separation of approximately 600 m. Previous shallow drilling by Cominco Ltd. in the G and M areas was based on the presence of surface mineralization discovered by Falconbridge Nickel Mines Limited. As the structural history of this area is not well understood the resolution of this question will require additional deep drilling in the area of the Creek Zone.

In 2007 drilling commenced at the Q Zone and consisted of 5 holes totaling 1,390 m. The mineralized sulphide horizon was intersected in one hole at a down dip distance of 170m from the surface outcrop and had a thickness of 3.5m. As in the Creek Zone the sulphides at the Q have a gentle northerly dip.

At the U Zone 8 holes were completed in 2007 totaling 1,539 m, and a new surface showing discovered 500m to the west between the U and the V showings. The drill program and the surface sampling indicate a strike extent to the U Zone of 600m, while remaining open to the east and west.

A multi phase program is recommended for the Ruddock Creek Property to include deep penetrating geophysical studies in an effort to locate the thicker portions of the E Zone and Creek Zone orebodies. The targets generated by the geophysical survey will require diamond drilling. Additional underground development is required to access the deep western portion of the E Zone mineralization for underground drilling.

Environmental data collection should continue with additional flora and fauna studies along with continuation of the water quality and meteorological data gathering. Ongoing metallurgical studies should include additional DMS testing and floatation tests to determine the optimal circuits for this ore, and further tailings studies to establish disposal parameters.

The overall budget for this work is estimated at \$7,300,000.

It is recommended that increased diligence be applied in the monitoring of reference standards and that 5% of the sample pulps be routinely sent to a secondary laboratory for re-analysis.

## 2 INTRODUCTION AND TERMS OF REFERENCE

This technical report covering the Property was commissioned by Selkirk to comply with disclosure and reporting requirements set forth in NI 43-101, Companion Policy 43-101CP, and Form 43-101F1. The purpose of this technical report is to present the results of the recently completed 43-101 compliant Resource Estimate.

The scope of this study included a review of pertinent technical reports and data relative to the general setting, infrastructure, geology, project history, exploration activities, methods and results, methodology, quality assurance, and interpretations. The authors have been directly involved on and off-site with the 2005, 2006, 2007 and 2008 exploration programs. All sources of information used in the preparation of this technical report are detailed in the Section 21.0, References.

Units of measure and conversion factors used in this report are shown in the table below.

**Table 2-1 Units of measure**

### **Linear Measure**

1 inch	=	2.54 centimetres
1 foot	=	0.305 metres
1 yard	=	0.9144 metres
1 mile	=	1.6 kilometres

### **Area Measure**

1 hectare	=	2.47 acres
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### **Weight**

1 pound	=	0.454 kilograms		
1 ton (short)	=	2000 pounds	=	0.907 tonnes
1 long ton	=	2240 pounds	=	1.016 tonnes
1 tonne	=	1000 kilograms	=	2204.6 pounds

## 3 RELIANCE ON OTHER EXPERTS

It was not within the scope of this report to independently verify the legal status or ownership of the mineral properties or underlying option agreements and transfers of title. Information related to claim ownership (Sections 1, 4 & 6), permitting (Section 4) and environmental liabilities (Section 4) have been provided by Selkirk. Metallurgical and Geotechnical Characterization data (Section 16) has been provided by SGS Lakefield Research Ltd., and the author has no reason to believe this information is misleading or misrepresented.

## 4 PROPERTY DESCRIPTION AND LOCATION

The Property is located between the headwaters of Ruddock Creek and Oliver Creek in the Scrip Range of the Monashee Mountains in southeast British Columbia, approximately 100

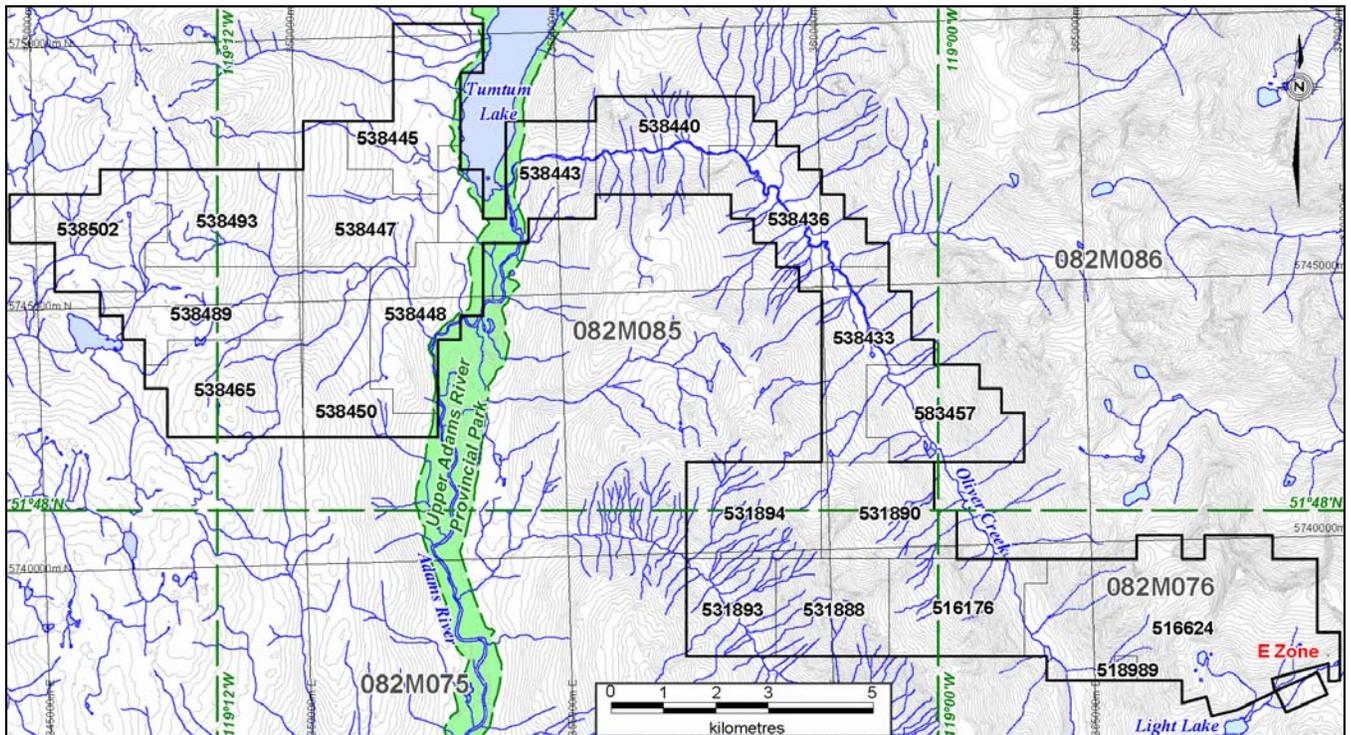
km north northwest of Revelstoke, 28 km east of Avola and 6.5 km west of Gordon Horne Peak (Figure 4-1). The claims are situated on NTS map sheet 82M/15W and B.C. Geographic System map sheet 082M.076. Geographic coordinates for the center of the property are 51° 46.6' north latitude; 118° 54.1' west longitude and the UTM coordinates (NAD 83) are 5,737,900 N and 368,800 E in Zone 11.

Figure 4-1 Location Map



The Ruddock Creek Property is comprised of 20 cell claims containing an aggregate of 511 cells and covering a gross area of 10,187.565 hectares (Figure 4-2). These claims represent (a) the conversion in July 2005 of two 4 post mineral claims (15 units) and 59 two post claims into one cell claim of 79 cells, (b) the acquisition in July and August 2005 of two cell claims containing 26 cells, (c) the further acquisition in April 2006 of four claims containing 82 cells, (d) the acquisition of 12 cell claims containing 300 cells in August 2006 and (e) the most recent acquisition in May 2008 of one claim containing 24 cells. The claims are located primarily in the Kamloops Mining Division although a small portion of the Property extends eastward into the Revelstoke Mining Division. The original 2 post claims were staked from October 1960 to September 1962 and the two 4 post claims in June 1977. The principal claim is Tenure No. 516624 and all the claims are registered in the name of Selkirk Metals Corp. The claims are shown on Plan Nos. RC-08-2 to RC-08-3b contained herein. The details of the mineral claims that comprise the Property are set out in Section B of this report. The expiry dates shown are based on the Statement of Work filed on January 29, 2009 as Event #4260466 and assume that the work contained in this report will be accepted for assessment purposes.

**Figure 4-2 Claim Map**



The Property is subject to a 1% NSR in favour of Teck Cominco Metals Ltd. (“Teck-Cominco”) on all production, however Teck-Cominco has waived their claim to the first \$350,000 of royalty revenue. In addition Teck-Cominco has a right of first offer to purchase all or part of the production from the Property on regular commercial terms.

Under the Mineral Tenure Act of British Columbia, a titleholder is granted the use of the surface for mineral exploration purposes only. A property is defined by the cells that make up the claim tenure, which are derived from an electronic map database maintained by the

Ministry of Energy, Mines and Petroleum Resources. These cells legally define the boundaries of the property. There are no known environmental liabilities associated with the Ruddock Creek Property.

Claim information is summarized in Table 4-1 to Table 4-4.

**Table 4-1 Summary of Mineral Claims**

<b>RUDDOCK CREEK</b>			<b>SCHEDULE OF MINERAL CLAIMS</b>			
<b>PROVINCE: British Columbia</b>			<b>CLAIMS:</b> 20	<b>CELLS: 511</b>		<b>AREA: 10187.565</b> ha
<b>MINING DIVISION: Kamloops</b>			<b>NTS: 82M/14E, 15W</b>		<b>BCGS: 082M.075,076,084,085,086</b>	
<b>LOCATION: 77 km east of Clearwater, 155 km NE of Kamloops, 100 km NNW of Revelstoke.</b>			<b>LATITUDE: 51°46.5'</b>		<b>LONGITUDE: 118°55'</b>	
<b>6.5 km west of Gordon Horne Peak</b>			<b>UTM: NAD 83</b>	<b>Zone 11</b>	<b>5 738 000 N</b>	<b>368 000 E</b>
<b>MAP</b>			<b>PROPERTY INTEREST:</b>			
1:250 000	82M Seymour Arm		<b>Selkirk Metals Corp. – 100%</b>  <b>Teck Cominco Limited – 1% Net Smelter Return and right of first offer to purchase all or part of production.</b>			
1:50 000	82M/14 Messiter					
1:50 000	82M/15 Scrip Creek					
1:20 000	82M.075 Camp Six Creek					
1:20 000	82M.076 Gordon Horne Peak					
1:20 000	82M.084 Sundt Creek					
1:20 000	82M.085 Tumtum Lake					
1:20 000	82M.086 Horne Creek					
<b>AGREEMENT SUMMARY:</b>						
<b>Jan 10 2000:</b> Acquisition Agreement between <b>Falconbridge Limited</b> and <b>Doublestar Resources Ltd.</b> whereby Doublestar acquired Falconbridge's 58.9% interest in the Ruddock Creek Property.						
<b>Feb 28 2001:</b> Sale and Purchase Agreement between <b>Cominco Ltd.</b> and <b>Doublestar Resources Ltd.</b> whereby Doublestar acquired Cominco's 41.1% interest in the Ruddock Creek Property. Cominco was granted a royalty of 1% of Net Smelter Returns (NSR) on all production from the Property and a right of first offer to purchase all or part of the products from the Property.						
<b>Mar 23, 2004:</b> Letter Option Agreement between <b>Doublestar Resources Ltd.</b> and <b>Cross Lake Minerals Ltd.</b>						
<b>Jun 10, 2004:</b> Formal Option and Joint Venture Agreement between <b>Doublestar Resources Ltd.</b> and <b>Cross Lake Minerals Ltd.</b> whereby Cross Lake acquired the right to earn a 60% interest (First Option) by cash payments of \$10,000, by issuing 900,000 shares and by incurring aggregate exploration expenditures of \$3,000,000 by Dec 2007; an additional 10% interest (Second Option) may be earned by incurring additional exploration expenditures of \$1,750,000.						
<b>May 16, 2005:</b> Notice from Cross Lake to Doublestar of its intention to assign interest to <b>Selkirk Metals Holdings Corp.</b> Amendment to paragraph 2.02(c) adjusting the outstanding number of shares remaining to be issued, 200,000 shares of Selkirk Metals Corp. instead of 500,000 shares of Cross Lake.						
<b>Jun 16, 2005:</b> Assignment Agreement between <b>Cross Lake Minerals Ltd.</b> and <b>Selkirk Metals Holdings Corp.</b> whereby Cross Lake assigned all its rights, interests and obligations in the Option and Joint Venture Agreement to Selkirk Holdings.						
<b>Oct 05, 2006:</b> Notice from <b>Selkirk Metals Holdings Corp.</b> to <b>Doublestar Resources Ltd.</b> of completion of the First Option (60%) and intention to exercise the Second Option (additional 10%).						
<b>Nov 01, 2006:</b> Notice from <b>Selkirk Metals Holdings Corp.</b> to <b>Doublestar Resources Ltd.</b> of completion of the Second Option (additional 10% earned) and the formation of 70:30 Joint Venture.						

**Aug 31, 2007:** Assignment Agreement between **Doublestar Resources Ltd.** and **Selkirk Metals Holdings Corp.** whereby Doublestar assigned all its right, title and interest in the Ruddock Creek Joint Venture and the Property to Selkirk Holdings.

**Feb 28 2009:** Selkirk Metals Holdings Corp. and Selkirk Metals Corp. were amalgamated as one company under the name of Selkirk Metals Corp.

**Table 4-2 Claim Summary**

CLAIM NAME	TENURE NUMBER	CELLS	GROSS AREA (hec)	RECORD DATE (yyyy-mm-dd)	GOOD TO DATE (yyyy-mm-dd)	ANNUAL WORK \$	RECORDED OWNER / REMARKS
OLIVER	516176	25	499.901	7/6/2005	12/1/2017	3999.21	Selkirk Metals Corp.
-	516624	79	1579.8	7/10/2005	12/1/2017	12638.4	"
RC 2	518989	1	20.001	8/12/2005	12/1/2017	160.01	"
RC 3	531888	20	399.925	4/12/2006	12/1/2012	3199.4	"
RC 4	531890	22	439.759	4/12/2006	12/1/2012	3518.07	"
RC 5	531893	16	319.94	4/12/2006	12/1/2012	2559.52	"
RC 6	531894	24	479.733	4/12/2006	12/1/2012	3837.86	"
RC 7	538433	25	499.43	8/1/2006	12/1/2012	3995.44	"
RC 8	538436	25	499.16	8/1/2006	12/1/2012	3993.28	"
RC 9	538440	25	499.027	8/1/2006	12/1/2012	3992.22	"
RC 10	538443	25	493.098	8/1/2006	12/1/2012	3944.78	"
RC 11	538445	25	492.593	8/1/2006	12/1/2012	3940.74	"
RC 12	538447	25	499.164	8/1/2006	12/1/2012	3993.31	"
RC 13	538448	25	489.713	8/1/2006	12/1/2012	3917.7	"
RC 14	538450	25	499.459	8/1/2006	12/1/2012	3995.67	"
RC 15	538465	25	499.52	8/1/2006	12/1/2012	3996.16	"
RC 16	538489	25	499.364	8/2/2006	12/1/2012	3994.91	"
RC 17	538493	25	499.198	8/2/2006	12/1/2012	3993.58	"
RC 18	538502	25	499.221	8/2/2006	12/1/2012	3993.77	"
OC 10	583457	24	479.559	5/1/2008	12/1/2012	3836.47	"
<b>TOTAL</b>	<b>20</b>	<b>511</b>	<b>10187.57</b>			<b>\$81,500.50</b>	

**Table 4-3 Assessment Work Filing Summary**

Date of Filing (yyyy-mm-dd)	Work Filed \$	New Work Applied \$	PAC Credits Applied	PAC Credits Saved	Total PAC Credits	Date of Approval (yyyy-mm-dd)	Event Number
10/20/2004	Notice to Group: 62 claims					10/20/2004	3218721
10/20/2004	375412.2	77000	-	298412.22		7/18/2005	3218722
2/24/2006	794114.1	58371.18	-	735742.87		1/15/2007	4071828
5/11/2006	42968.75	12638.4	-	8846.37		3/27/2007	4083589
11/30/2006	2479302	153354	-	2325948		6/27/2007	4113588
1/29/2009	5000000	163332.1	-	4836667.9			4260466

**Table 4-4 Claim Boundary Coordinates UTM NAD 83 ZONE 11**

MAIN BLOCK	Cell ID	Cell Corner	Easting	Northing
Corner No.				
1	082M15D042C	NE	369 315.428	5 739 561.703
2	082M15D032A	NW	369 279.331	5 738 171.620
3	082M15D032A	NE	369 710.459	5 738 160.421

<b>MAIN BLOCK</b>				
<b>Corner No.</b>	<b>Cell ID</b>	<b>Cell Corner</b>	<b>Easting</b>	<b>Northing</b>
4	082M15D022D	SE	369 686.477	5 737 233.699
5	082M15D022D	Not a corner*	369 455*	5 737 225*
6	082M15D022D	Not a corner*	369 495*	5 737 570*
7	082M15D023D	Not a corner*	368 380*	5 737 295*
8	082M15D023D	Not a corner*	368 420*	5 737 045*
9	082M15D014D	Not a corner*	367 720*	5 736 720*
10	082M15D014C	Not a corner*	367 220*	5 736 610*
11	082M15D024B	Not a corner*	367 115*	5 736 990*
12	082M15D025A	Not a corner*	366 655*	5 736 875*
13	082M15D025A	NW	366 668.019	5 737 312.766
14	082M15D028D	SW	364 080.768	5 737 381.962
15	082M15D028D	NW	364 093.278	5 737 845.315
16	082M14A036A	SW	357 194.618	5 738 036.323
17	082M14A066D	NW	357 299.838	5 741 743.104
18	082M14A061D	NE	362 039.152	5 741 610.790
19	082M15D060C	NW	362 013.721	5 740 684.084
20	082M15D060C	NE	362 444.647	5 740 672.297
<b>Corner No.</b>	<b>Cell ID</b>	<b>Cell Corner</b>	<b>Easting</b>	<b>Northing</b>
21	082M15D060B	SE	362 419.299	5 739 745.591
22	082M15D056A	SW	365 867.359	5 739 652.463
23	082M15D056A	NW	365 879.713	5 740 115.821
24	082M15D055B	NE	366 744.652	5 740 092.910
25	082M15D055B	SE	366 729.378	5 739 629.551
26	082M15D054B	SW	367 160.387	5 739 618.132
27	082M15D054B	NW	367 172.622	5 740 081.491
28	082M15D053B	NE	368 465.527	5 740 047.532
29	082M15D053B	SE	368 453.413	5 739 584.171
<b>SE PARCEL</b>				
A	082M15D022C	Not a corner*	369 250*	5 737 385*
B	082M15D022A	Not a corner*	369 420*	5 736 970*
C	082M15D013A	Not a corner*	368 630*	5 736 640*
D	082M15D023D	Not a corner*	368 460*	5 737 070*
<b>Note:</b> Property corners are numbered in a sequence starting at the NE corner of the property and proceeding in a clockwise direction.				
* These points are not computed MTO cell corners and the coordinate values have been scaled from 1:20 000 claim and topographic maps.				

## 5 ACCESSIBILITY, CLIMATE, LOCAL RESOURCES INFRASTRUCTURE AND PHYSIOGRAPHY

### 5.1 Highways

The Ruddock Creek property can be accessed from provincial highway #5, the Yellowhead Highway, or highway #1, the Trans Canada Highway, via unpaved logging roads. The southernmost route leaves highway #1 at the east end of Little Shuswap Lake. The Adams Lake logging main extends north 128kms from Chase, up the Adams River to the point where it meets the Oliver Creek road. From Highway #5 it is possible to take a secondary paved road from Louis Creek to Adams Lake where it meets the Adams Lake logging road. At the community of Vavenby, the Vavenby #2 logging road crosses the summit to meet the

Adams Lake/ Tumtum road, a distance of 38kms. From this point it is an additional 55kms to the intersection with the Oliver Creek road. The most northerly route is the Finn Creek logging road, located 15kms north of the community of Avola on highway #5. This route travels 24kms east over the Finn Creek pass and down to the Adams River. From this point it is an additional 19kms south to the intersection of the Oliver Creek road.

The Oliver Creek road starts at the outlet of Tumtum Lake on the Adams River and travels south for 24kms to the headwaters of Oliver Creek. Road access to the Light Lake campsite and the E Zone portal was completed in late 2007 and has been used for all subsequent programs. This consisted of 8kms of new road construction from the end of the existing logging road network at the south end of Oliver Creek.

A proposed route for shortening the access to the Oliver Creek road is near the community of Avola. Existing unused logging roads climb the western flanks of the ridge separating the Thompson River from the Adams River, and lack only 1 or 2 kilometers to connect with similar logging roads on the eastern flank of the ridge. These existing roads would require upgrading to provide reliable all season access, however the proposed route would consist of a total of approximately 45kms.

## **5.2 Railways**

The North Thompson River is the transport corridor for CN's main line from Edmonton, AB to Vancouver, BC. The rail line passes through the community of Avola on the east side of the river near the proposed access point for power and road services to the property.

## **5.3 Airports**

The closest commercial airport is located at Kamloops, BC, 215kms to the south of the project. This facility is capable of handling multiple engine commercial jets up to Boeing 747 capacity.

## **5.4 Telecommunications**

Currently the communications system at the camp is a high speed satellite system for voice and data. Land lines are present along the Thompson River corridor.

## **5.5 Power Supply**

The 2008 exploration program relied on diesel powered generators located in the camp and at the portal site. The underground power supply at the portal is no longer on site, however the 350kw camp unit is still in place. Power for a mine and mill operation would require the construction of a power line from the existing BC Hydro substation at Avola. This power line would follow the same route as the proposed new access road starting near the community of Avola. Preliminary communication with BC Hydro indicates that the existing transmission lines along the Thompson River corridor carry sufficient power to supply the proposed mine development. It is estimated that a mine mill complex to process 2000 tpd of Ruddock ore would require approximately 20MW of power.

## 5.6 Climate

The climate in the area is temperate with generally warm summers and cool, wet winters. Substantial snow accumulations of 3 to 5m are the norm, thus limiting the fieldwork season primarily to July through September. Permanent snow cover exists on some of the higher areas of the Property.

On September 1, 2006, a meteorological station was installed near Light Lake at an elevation of about 1770 m. This site was chosen as being centrally located with respect to the exploration at the time. The site was also selected based on relatively flat terrain and survivability of the instruments. Standard meteorological observations consisting of wind speed and direction, temperature and precipitation are being measured and recorded at the station by the following equipment:

- Campbell Scientific CR1000 data-logger;
- Campbell Scientific 107 Temperature Probe with gill radiation shield;
- RM Young 05103 Wind Monitor; and
- Texas Electronics TE525M Tipping Bucket Rain Gauge.

## 5.7 Vegetation

The vegetation is mainly in the western one third of the claims below the 1900 m level and consists primarily of subalpine Balsam Fir, Spruce, Hemlock and Western Red Cedar. Vegetation is limited to heather and stunted shrubs in the lower alpine regions above tree-line and in the upper areas the ground is either barren rock or is covered by permanent neve snow, small glaciers or glacial moraine and rock talus.

## 5.8 Hydrology

Two stream flow gauging stations were installed in early July 2006; one on Light Creek at the outlet from Light Lake, and one at km 7.7 on the Oliver Creek Forest Service Road (FSR). The Oliver Creek station will provide integrated information on runoff patterns throughout most of the property, while the Light Creek station will provide more specific information on the area proposed for most intensive development.

The gauging stations were installed by Northwest Hydraulics Ltd. and operated in accordance with standard provincial procedures (BC MoELP 1998). Each gauging station consists of a Solinst water-level sensor with built-in data logger that senses and records level (or stage) at 15 minute intervals. A staff gauge and series of benchmarks provide a physical reference at each station to verify the accuracy of the recorded stage data. The data collected to date represent a complete water year with the low winter flow period, freshet and increased water temperatures through summer and the lower flows during fall into winter.

Stream flows were measured six times at each gauging station in order to develop site-specific stage-discharge ratings curves. Three measurements were completed in 2006 on Light and Oliver Creek, and an additional three were completed in 2007 and 2008.

A snowpack survey was undertaken on May 15, 2007 within the project watershed. The snow course was located along the Forestry Service Access Road leading to Light Lake

above the camp and consisted of ten sampling sites beginning at an initial station (UTM N 5735560, E 0366839) spaced 10 m apart.

## 5.9 Physiography

The claims are situated in extremely mountainous terrain at the height of land between the drainages of the Columbia River and Fraser River systems. The terrain is characterized by heavily timbered lower slopes and steeper alpine-glaciated upper slopes. Elevations range from 950 m above sea level at the western edge of the claims in the Oliver Creek drainage to 2854 m above sea level on an unnamed peak at the northern edge of the holdings. The terrain is extremely steep in some areas making access very difficult. A number of small alpine lakes or tarns dot the area. Water supply from streams fed by glacial and snow melt varies according to elevation and time of year.

## 6 HISTORY

Exploration on the Ruddock Creek Property dates from the discovery of massive sulphide mineralization and the subsequent staking of the ground in 1960 by Falconbridge. The most extensive exploration programs were conducted by Falconbridge, over the period 1961-1963. During this phase of exploration, most of the property was mapped at scales ranging from 1:240 (1" = 20') to 1:4800 (1" = 400'). Core drilling was completed at the E Zone, and the F, G, M, T, Q, U, and V showings (see summary in Table 6-1). Falconbridge completed detailed 1:480 (1" = 40') geological cross sections through the E Zone area during its exploration program, as well as several property-scale sections showing stratigraphic and structural correlations of the massive sulphide interval between the different showings. They also constructed structure contour maps of the subsurface projection of the E Zone.

Cominco Ltd. optioned the property from Falconbridge in 1975 and completed two additional drill holes plus a wedged hole in 1975 and 1976 exploring for deep extensions to the E Zone. Cominco also completed additional detailed mapping at the F and G showings and calculated an "indicated potential" for the E Zone of 1.5 MT grading 10% Pb+Zn, increasing to 3.0 MT if the E Zone is projected westward to the E Zone Fault (Mawer, 1976). In 1977 Cominco carried out further drilling on the Upper and Lower G Zones as well as the F and T Zones. Cominco contracted a structural evaluation of the property in 1978 (Marshall, 1978). This study corroborated many of the general interpretations made by Falconbridge and also provided additional detail to the interpretation of lithologic sequence, structural fabrics and folding history. Cominco also conducted a small program of surface and bore hole geophysics in 1982. Cominco's interest at this time was 40% and subsequently increased to 41.1%.

Doublestar Resources Ltd. acquired Falconbridge's 58.9% interest in January 2000 and in August and September 2000 carried out a detailed structural mapping program on the Property. In February 2001, Doublestar purchased the 41.1% interest of Cominco to hold a 100% interest in the Property, subject only to a 1% Net Smelter Royalty in favour of Cominco.

In March 2004, Cross Lake acquired an option on the Property from Doublestar and in August and September 2004 completed an 11 hole NQ drill program on the E Zone totalling 1838.7 m.

Selkirk continued work on the Property in 2005. A helicopter-borne AeroTEM II Electromagnetic and Magnetic survey was flown by Aeroquest Limited in May, four deep drill holes (3245.4 m) were completed on the E Zone Extension during July, August and September and a geological mapping, geochemical sampling and UTEM-3 geophysical survey program was conducted in the Oliver Creek Valley in September and October.

In 2006 a major exploration drill program was designed to evaluate the E zone mineralized horizon. A 15 person camp was established at the forest service campsite located at the southwest side of Tumtum Lake. Drilling was awarded to Connors Drilling Ltd of Kamloops BC where 12,808.48 m of NQ2 drilling was completed in 35 drill holes from 10 drill pads located on the E Zone, 1,073.1 m in 10 holes from one drill pad located at the Creek Zone and 857.47 m in three separate drill holes located in Oliver Creek. The drilling was completed between June 26 and October 28, 2006. All but the Oliver Creek drill holes were helicopter supported. During the 2006 field season approximately 5.2 km of access trail was established from the termination of the Oliver Creek logging haul road toward Light Lake gaining approximately 300m in elevation. By the end of the 2006 field season, the road was within 300 m of the core logging facilities located at Light Lake.

The 2007 exploration program consisted of additional road building to complete the access route to the proposed camp site and underground portal location, along with surface diamond drilling. A permanent camp was established in September 2007, at the Light Lake site, which is capable of housing up to 50 people. This camp was utilised during the construction of the exploration decline on the E Zone between September 2007 and September 2008. Surface diamond drilling operations were carried out from the campsite at Tumtum Lake between June and September 2007. Drilling commenced at the Q Zone and consisted of 5 holes totalling 1,390 m. At the U Zone 8 holes were completed totalling 1,539 m, 12 holes (3,998 m) from 3 pads were completed on the Creek Zone and 9 holes (2,366 m) from 3 pads on the E Zone.

Procon Mining and Tunneling Ltd. mobilized their equipment and personnel to the Ruddock Creek project on September 18, 2007 and work continued through the winter of 2007, 2008 on completion of the underground decline and eastern crosscut. The decline was collared at a grade of minus 15% to undercut deep E Zone mineralization intersected by drill holes RD-05-135 and RD-06-152, and was completed to a depth of 985 m. Drifting to the east at the 900 m point of the decline extended 175 m to provide drill stations to test the deep E Zone horizon.

Atlas Drilling Ltd., of Kamloops B.C. was contracted to carry out the 2008 underground diamond drilling program. The contractor used one Atlas Copco U-6 and one HydraCore 1000 to complete 5,430 m in thirty-two NQ2 drill holes. The 2008 E Zone drill program was designed to increase the drill hole density on the mineralized horizon in areas of widely spaced drill hole intercepts. Six drill stations were excavated within the underground workings, two along the decline and four along the length of the incline. These were located to provide intercepts of the lower E Zone mineralization along 25 m sections. A fan of holes was drilled from each drill station to intersect the mineralization at 30 m intervals.

Drilling commenced on July 13, 2008 with the first drill and was completed by October 2008. The core was logged, photographed and split using a diamond rock saw or a manual splitter and the samples designated for assay were shipped by a commercial freight line to Acme Analytical Laboratories in Vancouver, B.C. for analysis. The drill core, both split and unsplit,

remains stored in wooden core boxes on site. The split core is stored on metal racks, while the boxes of unsplit core were cross stacked and piled in the area around the core shack.

Acme Analytical Laboratories Ltd. of Vancouver was engaged to carry out the analytical work on the drill core samples. The analytical procedure utilized was Group 7AR 23 multi element assay by ICP-ES methods.

Enkon Environmental Ltd was retained in 2006 to initiate baseline environmental studies for the Ruddock Creek Project area. This included stream flow and water quality measurements along with baseline weather data collection.

Golder Associates was retained in 2008 to evaluate the environmental work completed to date, assess the potential mill and tailings sites and to provide a framework for further studies.

Table 6-1 summarizes work and drilling completed to date on the Ruddock Creek Property. An aggregate of 252 holes totalling 44,088 m have now been drilled, with the E Zone and G, M, T, U, R, V, and Q zones represented. Drill core was stored on site but, other than the most recent drilling, is generally in poor condition.

**Table 6-1 Ruddock Creek Property: Summary of Activities**

Year	Company	Area or Zone	Type of Work	Drilling		
				Holes	Hole Numbers	Metres
1960	Falconbridge		Prospecting, staking			
1961	Falconbridge	E, M, T	Prospecting, geological mapping, drilling	37	E-1 to 19 M-1 to 15 T-1 to 3	813 104 23 940
1962	Falconbridge	E, Q, T	Drilling, hand stripping and trenching	27	E20-33, 33A-37 Q-1 to 3 T-4 to 8	1,130 84 80 1,294
1963	Falconbridge	E-Zone., R, Q, U, V	Drilling, hand stripping and trenching	25	ED-1 to 8 Q-4 to 13 R-1 to 3 U-1 to 3 V-1	3,229 347 67 37 8 3,688
1973	Cominco		Aeromagnetic survey of western portion	-		
1975	Cominco	E-Zone	Drilling	1	C-1-75	694
1976	Cominco	E-Zone	Drilling	2	C76-1, 76-1A	1,372
1977	Cominco	Upper G, Lower G, F, T	Drilling, geological mapping, prospecting	31	UG77-1 to 12 LG77-1 to 8 F77-1 to 5 T77-1 to 6	832 377 156 189 1,554
1978	Cominco		Structural study	-	-	-
1982	Cominco		Limited surface and bore hole geophysics	-	-	
2000	Doublestar		Geological mapping and structural analysis	-	-	
2004	Cross Lake	E-Zone	Drilling	11	RD-04-101 to RD-04-111	1,839

MINERAL RESOURCE ESTIMATE – RUDDOCK CREEK DEPOSIT

Year	Company	Area or Zone	Type of Work	Drilling		
				Holes	Hole Numbers	Metres
2005	Selkirk	Complete property	Airborne geophysical survey: AeroTEM II EM and Mag (232.2 line km)			
2005	Selkirk	E-Zone	Drilling	4	RD-05-112 to RD-05-115	3,245
2005	Selkirk	Oliver Cr.	Geological mapping and sampling (500 x 1800 m)			
2005	Selkirk	Oliver Cr.	Geochemical sampling			
2005	Selkirk	Oliver Cr.	Geophysical survey: UTEM-3 (18.575 line km)			
2006	Selkirk	E-Zone	Drilling	35	RC-06-116 to 143, 146 – 148, 150 - 153	12,808
2006	Selkirk	Creek Zone	Drilling	10	RC-06-144,145, 149, 154 – 160	1,074
2006	Selkirk	Oliver Cr.	Drilling	3	OL-06-01 to OL-06-03	857
2006	Selkirk	Light Lake	Light Lake Access Road: 5.2 km completed			
2006	Selkirk	General	Environmental baseline studies			
2007	Selkirk	E Zone	Drilling	9	RC-07-173 to 175, 180-185	2,366
2007	Selkirk	Creek Zone	Drilling	12	RC-07-161 to 172	3,998
2007	Selkirk	U Zone	Drilling	8	RC-07-U1 to U8	1,539
2007	Selkirk	Q Zone	Drilling	5	RC-07-Q1 to Q5	1,390
2007	Selkirk	E-Zone Decline	Underground development: Exploration decline started; 200 m completed in 2007			
2007	Selkirk	Light Lake	Camp: 40 persons			
2007	Selkirk	E-Zone	ABA test work			
2007	Selkirk	E-Zone	Metallurgical test work			
2007	Selkirk	General	Ongoing environmental baseline studies			
2008	Selkirk	E-Zone Decline	Underground development: Exploration decline continued; 782 m completed in 2008 to a final length of 982 m. 900E crosscut completed to 175 m.			
2008	Selkirk	E-Zone	Underground drilling	32	EUG-08-001 to EUG-08-032	5,430
2008	Selkirk	E-Zone	Ongoing ABA test work			
2008	Selkirk	E-Zone	Ongoing metallurgical test work			
2008	Selkirk	General	Ongoing environmental baseline studies			
2008	Selkirk	General	Commencement of Preliminary Assessment by Golder Associates Ltd.			
<b>Total Drilled</b>				<b>252</b>		<b>44,088</b>
<b>Total Pre-2004</b>				<b>123</b>		<b>9,542</b>
<b>Total 2004-2008 / Cross Lake / Selkirk</b>				<b>129</b>		<b>34,546</b>

## 7 GEOLOGICAL SETTING

### 7.1 Regional Geology

The geologic and structural description outlined below is summarized from the BCDM Bulletin #57 by J.T. Fyles (1970).

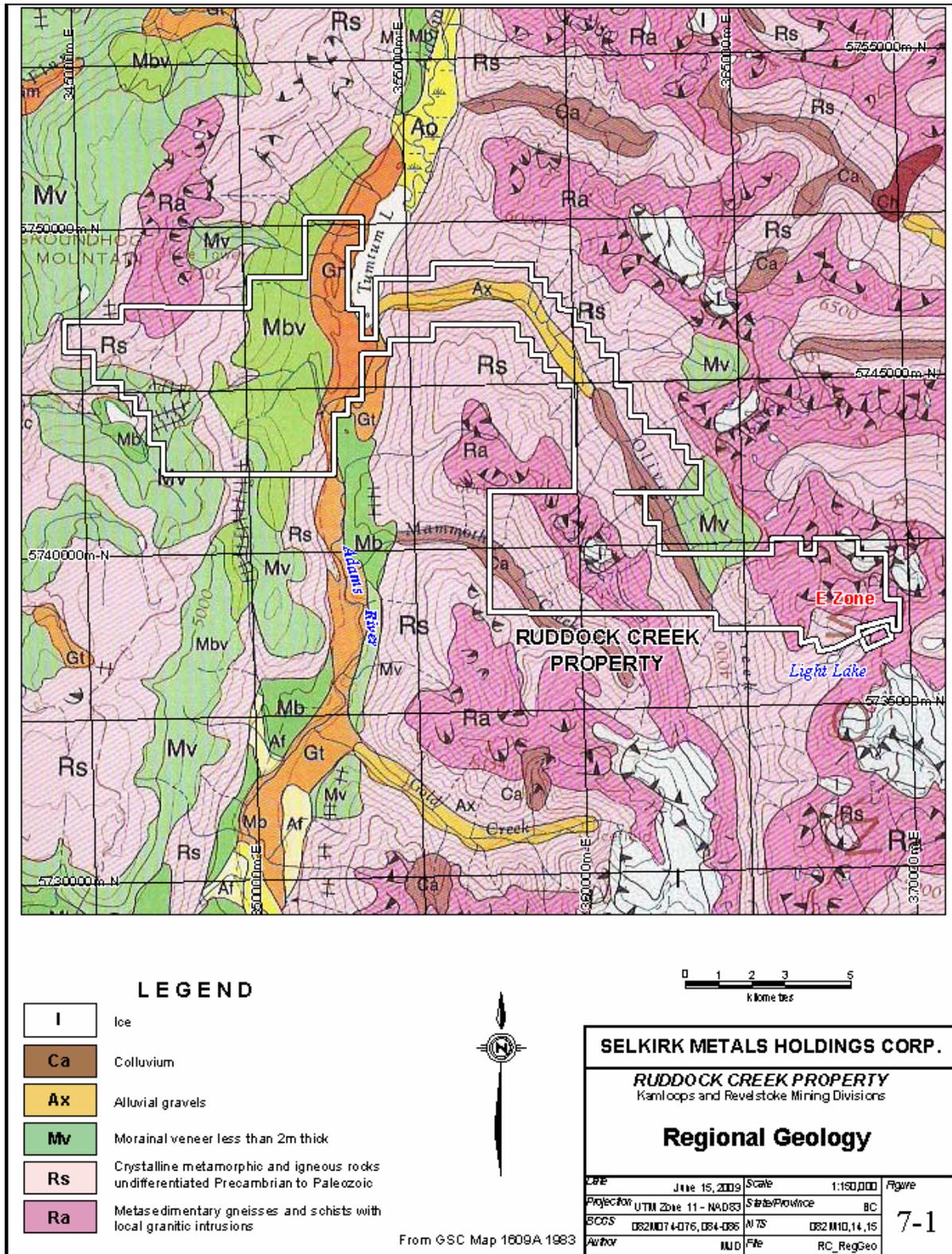
The deposit lies in metasedimentary rocks of the Shuswap metamorphic complex on the northwest flank of the Frenchman Cap Gneiss Dome. The Dome is elongate with the long axis trending north-northwest, parallel to the Columbia River. In the northern area of the “Dome” the core gneisses lie beneath gently northerly dipping metasedimentary rocks which grade upward into metasedimentary rocks containing abundant pegmatite. This pegmatite rich zone covers wide areas between the Columbia River and Oliver Creek.

Pegmatite and medium-grained granitic rocks make up more than 50% of the outcrops. These rocks represent mainly if not entirely partial melting of the metasediments. Rock units and structures can be projected and traced among the pegmatite sheets without significant displacement. The abundance of pegmatite and very few distinctive marker beds, except for the sulphide layers in the metasedimentary rocks, translates into correlations that are largely interpretive.

The structure of the area is dominated by repetitive folding, which took place during metamorphism, and was followed by faulting. The earliest folds called Phase I are isoclinal and obscure and tend to thicken the sequences in the hinges. The later folds, called Phase II, are more open and abundant on all scales. Faults in the area are of two types, thrusts and normal. The E Zone Fault is an example of a late normal block fault, which strikes northerly and dips 58-60 degrees west. Phase I isoclinal folds, with thickened hinge Zones and sheared out limbs have large indicated strike lengths which may be measured in kilometres. These structures were refolded and tightened by Phase II folding. The formation of granite probably began late in the Phase II deformation, or after it, along with the development of pegmatites. It is likely that the development of the penetrative gneiss dome to the south contributed directly to the high degree of metamorphism and structural complexity of the area.

The regional geology is illustrated in Figure 7-1.

Figure 7-1 Regional Geology



## 7.2 Local Geology

The most recent property scale mapping was carried out in 2000 by Peter Lewis, P.Geo., who was contracted by Doublestar to work on the Ruddock Creek Project. His study focused on evaluating the structural history of the property with the objective of defining controls on the distribution of massive sulphide bodies. Lewis was also able to define and group rock units from previous geologists on the Property into mapable units that he used in creating property scale maps. Mapping was completed for the eastern portion of the property, including the E Zone, F, G, and M showings, at 1:5,000. The area surrounding the E Zone was also mapped at 1:2,500 to provide more detailed control on the lithologic successions and structural features present in the area of greatest economic interest. The T showing area was mapped at 1:5,000 and a reconnaissance visit to the U showing was completed. A description of the stratigraphy and intrusive units as defined by Lewis follows:

## 7.3 Property Geology

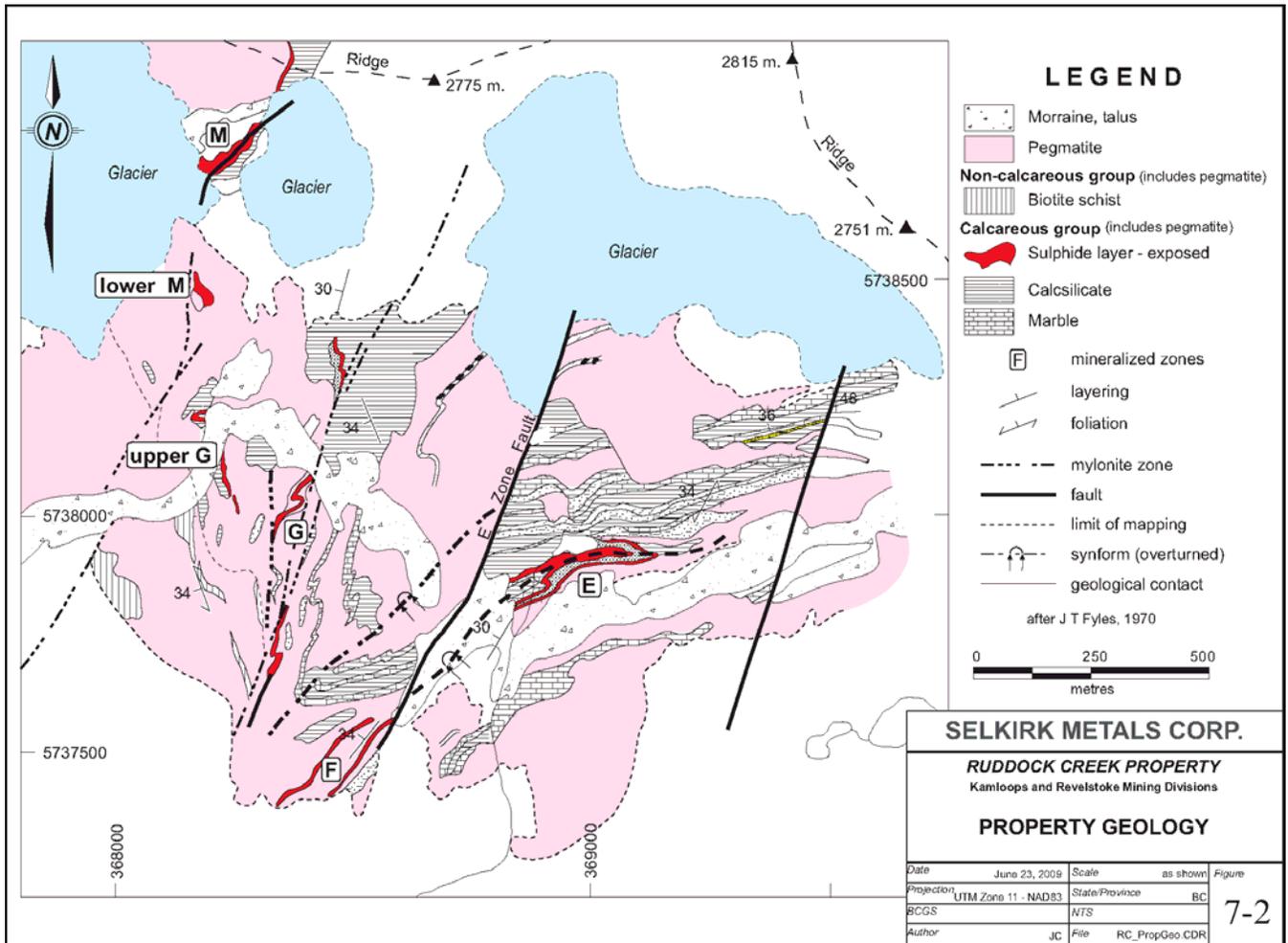
The Ruddock Creek Property contains a variety of amphibolite-grade metasedimentary and metavolcanic rocks, cut by granitic intrusions that range texturally from fine-grained to pegmatitic (Figure 7-2). Contacts between lithologic units of the metamorphic succession are difficult to follow in many areas due to the high proportion of granitic intrusive rocks.

Intense deformation and metamorphism has obliterated any primary facing direction indicators in the metasedimentary and metavolcanic rocks. Structural repetition, due to both folding and thrust faulting, is documented at several locations on the property and could easily occur elsewhere where it is not yet recognized. Therefore, the metamorphic rock sequence portrayed on the property map and described below is best considered a structural sequence, composed of units with uncertain stratigraphic relationships.

The metasedimentary and metavolcanic rocks on the property comprise schists, gneisses, quartzites and marbles, which can be divided into seven compositionally distinct lithotypes (Table 7-1). Individual lithotypes can form layers as thin as a few centimetres, to as thick as several tens of metres. Most lithotypes occur at multiple levels within the section, and thus the individual lithotypes do not comprise map units in a formational sense.

Although the individual metamorphic lithotypes do not form unique map units, the thickness and distribution of each shows systematic variation across the map area. This variation defines three lithologic domains: the E Zone structural hanging wall domain, the E Zone structural footwall domain, and the T showing domain.

Figure 7-2 Property Geology



### 7.3.1 E Zone structural footwall lithologic domain

Massive sulphides at the E Zone were previously thought to occur within the hinge area of a property-scale, recumbent, tight to isoclinal synform. 1" = 40' scale mapping by Falconbridge (Morris, 1965) documented inverted lithologic successions on the two opposing limbs in the immediate hinge area. However, property-scale mapping by Lewis shows significantly different lithologic successions, on what was previously considered the two limbs, beginning 30 – 50 m from the postulated fold axial surface. Based on these lithologic differences and other structural evidence, a fault sub-parallel to layering has been interpreted, referred to as the Camp Fault, because it crosses the area near the location of the camp used in early exploration programs. Rocks structurally below the Camp Fault are assigned to the E Zone structural footwall domain, and above, the E Zone structural hanging wall domain. The relative stratigraphic position of the lithologic sequences in the two domains is uncertain.

**Table 7-1 Property Geology Correlations**

Metavolcanic / metasedimentary units present at the Ruddock Creek property and correlation with previous lithologic designations					
Primary Rock Type	Drill Legend	Map Code	Description	Assignment by Morris, 1965	Distribution
mafic gneiss	BQ	mg	Thinly-banded to massive, dark green, fine-grained pyroxene +/- amphibole gneiss; subordinate plagioclase; garnet common	Not differentiated; included in units QA and HGM amphibolitic quartzite, hornblende-biotite-garnet schist)	Occurs structurally 100-200 m above F and G showings; 30-50 m above T showings
calc-silicate gneiss, marble	CS	cs	Thinly- to thickly-banded, compositionally varied unit containing alternating bands of fine- to coarse- grained quartzite, marble, diopside-rich and amphibolitic marble and quartzite	LQ (quartzitic marble)	Widely distributed through project area, occurs both structurally above and below massive sulphides
marble	MBL	ma	Tan to light gray, medium to very coarse-grained, massive marble, with subordinate micaceous or diopside partings	Not differentiated; included in LQ (quartzitic marble)	Forms mapable unit between F and G showings, thick units on slope structurally below E Zone
amphibole gneiss	BQ	ag	Thinly- to medium-banded, amphibole + plagioclase gneiss; contains garnetiferous layers; distinguished from calc-silicate gneiss by lack of calcite and by abundance of amphibole; may represent metamorphosed chloritic alteration	QA, HGM, ALQ (amphibolitic quartzite and others)	Occurs as thin (not mapable) layers within calc-silicate gneiss; occurs as thick mapable unit only in hanging wall to E Zone, and pinches out abruptly along strike.
biotite schist	BQ	bs	Highly-schistose, coarse-grained biotite containing up to 40% by volume foliation-parallel to moderately discordant leucocratic segregations (probably both transposed veins and metamorphic segregations) consisting of fine- to medium-grained quartz	MQ (biotite quartzite schist)	Occurs structurally above massive sulphides at E Zone and F and G showings, forms thick unit structurally overlying T showings, and in several layers (with possible structural repetition) below E Zone.

Metavolcanic / metasedimentary units present at the Ruddock Creek property and correlation with previous lithologic designations					
Primary Rock Type	Drill Legend	Map Code	Description	Assignment by Morris, 1965	Distribution
			and feldspar; abundant garnet in some intervals		
quartzo-feldspathic biotite schist	MBQ	qb	Finely-banded to massive, schist to semi-schist, consisting of quartz, feldspar, and biotite in varying proportions; distinguished from biotite schist by finer grain size, less schistose texture, and lack of leucocratic segregations.	Not differentiated; included in either QM (quartzite, slightly micaceous) or MQ (biotite quartzite schist)	Abundant immediately above massive sulphide interval at E Zone and T showings.
quartzite, quartzose schist	QZ	qz	Thinly- to thickly-bedded, fine- to medium-grained recrystallized quartz grains with variable percentage of fine biotite or amphibole grains; commonly includes decimetre to metre thick schistose, marble, and calc-silicate layers not mapable at property scale; gradational into quartzo-feldspathic biotite schist	QZ (thin, mineralized quartzite) or QM (quartzite, slightly micaceous)	Usually spatially associated with massive or disseminated sulphide mineralization; thickest at E Zone

The E Zone structural footwall lithologic domain is well exposed on the steep, southeast-facing slopes below the E Zone. It consists primarily of biotite schist, marble, and calc-silicates interlayered on the scale of several metres to several tens of metres. Minor structures, such as asymmetric secondary folds, suggest that this interlayering may be in part structural, and Figure 7-2 illustrates the synformal axial trace that has in the past been inferred from this evidence. Both of the postulated lower and upper limbs of this fold consist of a carbonate package sandwiched within biotite schists. In the lower sequence this carbonate package is a pure light gray marble in the east, which grades westerly along strike into a two-part succession with a lower, calc-silicate gneiss division and an upper marble division. The carbonate package in the upper sequence is dominated by calc-silicate gneiss, with subordinate lenses of gray to tan marble. The biotite schist that overlies the calc-silicate gneiss in the upper sequence is in turn overlain by quartzo-feldspathic mica schist containing lenses of quartzite and minor calc-silicate.

### 7.3.2 E Zone structural hanging wall lithologic domain

The E Zone structural hanging wall lithologic domain is well exposed on the slopes above the E Zone and to the west of the E Zone Fault. Quartzites, micaceous quartzites, and subordinate marble, calc-silicate, and biotite schist containing massive sulphide layers form the lowest rocks within the succession. Falconbridge's mapping of the E Zone (Morris, 1965) shows this lower sequence in detail. Biotite schists with minor calc-silicate and quartzo-feldspathic schist structurally overlie the quartzite + massive sulphide interval. These are in turn overlain by amphibolitic gneiss at the E Zone, which grades eastward into a sequence dominated by interlayered calc-silicate gneiss and quartzo-feldspathic schist. The highest exposed rocks in the E Zone area are calc-silicate gneisses with subordinate interlayered quartzo-feldspathic schist and marble.

West of the E Zone Fault, a similar lithologic sequence is exposed in the structural hanging wall to the F showing, although the large volume of pegmatite here precludes defining the sequence to the same level of detail. Displacement along the E Zone Fault has exposed higher levels here: mafic pyroxene gneisses overlie calc-silicate rocks correlated with those forming highest exposed levels to the east of the fault.

### 7.3.3 T showing lithologic domain

Three main lithologic units are exposed at the T showing area. Structurally lowest rocks, which contain the massive sulphide lenses, consist of quartzo-feldspathic schists with lesser quartzite, biotite schist, and calc-silicate gneiss. This package is overlain by mafic gneisses that are lithologically similar to those in the uppermost part of the E Zone structural hanging wall domain. Highest rocks in the T showing lithologic domain are biotite schists, which are exposed over large areas and form a monotonous unit at least several hundred metres thick north of the T showings.

### 7.3.4 Correlation between lithologic domains

The Camp Fault, which separates the E Zone structural footwall domain and the other two lithologic domains, has an uncertain offset history. The inferred fault trace is sub-parallel to lithologic contacts, consistent with formation as a thrust fault, possibly during regional folding. If so, the footwall domain may represent a higher stratigraphic level than the hanging wall domain (because it lies in the lower plate of the thrust fault), and the thick biotite schist sequences may be roughly equivalent to those in the upper part of the T showing lithologic domain. This correlation implies that the massive sulphide interval may be present at depth in the footwall domain. Because fault geometry is poorly constrained and is certainly modified by subsequent deformation, it is not possible to estimate displacement direction or magnitude.

The massive sulphide interval provides a stratigraphic tie between the E Zone hanging wall lithologic domain and the T showing lithologic domain. In both domains, massive sulphides occur within a lithologically varied interval containing quartzite, calc silicate, quartzo-feldspathic schist, and biotite schist. If the mafic gneiss interval present in both is laterally equivalent, this lithologically varied interval is significantly thicker at the E Zone than at the T showing. This might indicate that the E Zone area occupied a subbasin during massive sulphide deposition.

Amphibolite gneiss, though present as thin layers within the calc-silicate gneiss, only forms a mapable lithologic unit in the E Zone hanging wall domain. The localization of this rock type adjacent to the thickest known massive sulphide layers suggests that it may be a metamorphosed alteration zone, possibly originally chloritic in composition. This has two important implications: first, the occurrence of similar rocks elsewhere on the property may be a useful exploration guide; second, the E Zone hanging wall lithologic domain, and by inference, the T showing lithologic domain, represent the original stratigraphic footwall to the massive sulphide interval.

Intrusive rocks on the property include small, tabular, massive tremolite + actinolite bodies, and voluminous dykes, sills, stocks, and plutons of granitic composition (Table 7-1). The latter comprise roughly 50% of the rock present on the property (Mawer, 1976; Fyles, 1970), and are highly variable texturally and structurally. They range from planar dykes that cut shallowly or sharply across compositional layering, to large, irregular bodies containing abundant xenoliths of country rock. Grain size ranges from fine to pegmatitic, although previous workers refer to all as “pegmatites”. Some of the granitic rocks possess a grain orientation fabric parallel to foliation in the adjacent country rock, and intrusive contacts are often deformed. In some areas, pegmatite occurs in lenticular boudins around which foliation wraps. Elsewhere, granitic rocks of similar composition and grain size lack any visible grain fabric, and contacts cut across folds and structural fabrics in the adjacent country rock. Together, these relationships suggest that formation of the granitic rocks was in part synchronous with, and in part outlasted deformation.

The origin of these granitic rocks has been the subject of debate among previous workers: some suggest magma emplacement within dilational fractures (Marshall, 1978), while others favour in-situ replacement of the metamorphic package (Fyles, 1970). Contact relations of the granitic rocks support both processes. Dykes can have sharp, planar contacts that cut across lithologic contacts in the metamorphic rock sequence, implying infilling of dilational fractures. However, several features indicate in-situ melting and/or replacement of the country rock:

1. Many of the xenoliths have diffuse, irregular contacts with the enclosing pegmatite.
2. Layering within adjacent xenoliths is consistently oriented.
3. Distinctive compositional layers or lithologic contacts within xenoliths can be traced through adjacent xenoliths with no apparent offset.

Massive tremolite/actinolite bodies occur on the property near the T showing and E Zone. They have tabular forms with contacts concordant to or cutting shallowly across foliation, and occur at several structural levels. Although they are very coarse-grained and lack grain orientation fabrics, they are boudinaged and their contacts are deformed. They most likely originated as ultramafic dykes, which have been transposed into their present semi-concordant geometry during subsequent deformation.

## **8 DEPOSIT TYPE**

The Ruddock Creek property hosts “SEDEX” style mineralization that has been compared to the Broken Hill (BHP) deposit type. SEDEX deposits result from seafloor deposition of sulphides within a third order basin, usually associated with a regional fault system, which acts as a conduit for the mineral bearing fluids. Local depressions in the basin can result in thickening of the sulphide horizon. Clastic and/or chemical sediment accumulation needs to

be low during the deposition of the sulphides in order to produce economic grades of base or precious metal mineralization. In the Broken Hill model, this sulphide horizon is then subjected to folding and metamorphism, which results in local attenuation and thickening of the sulphides along the limbs and in the hinges of the folds.

At Ruddock Creek, the mineralization is hosted by a sequence of high grade metasedimentary rocks of Paleo-Proterozoic age. The mineralization is associated with a calc-silicate sequence thought to be the metamorphosed equivalent of the original host sediments and peripheral alteration zones. For a detailed discussion of the similarities between the Ruddock Creek deposit and the Broken Hill deposits the reader is referred to Hoy T., 2000.

Structurally the deposit is continuous with the exception of the west dipping E Fault, which cuts the massive sulphides at approximately the mid point of the currently drilled area, or about 600 m west of the surface outcrop. In the immediate area of the E Fault, the massive sulphide horizon shows evidence of possible thinning due to movement along the fault plane and a small offset due to rotation of the units, however there are insufficient drill intercepts in this area to confirm if this is a local phenomena or consistent along the trace of the structure.

## **9 MINERALIZATION**

Mineralization at Ruddock Creek consists of a conformable planar massive sulphide horizon, exposed intermittently for over 5 kilometres along strike. The Ruddock Creek Sulphide Horizon consists dominantly of calc-silicate rocks, pegmatites and lesser biotite schist. Lenses of massive sulphide, composed of sphalerite, pyrrhotite and galena in order of abundance are hosted by the calc-silicate portions of the package. The Ruddock Creek Sulphide Horizon varies from less than 5m to over 50m in true thickness. Massive sulphide lenses consist of sphalerite, pyrrhotite, galena, pyrite and minor chalcopyrite, and are generally medium grained. The coarser grain size is thought to be a result of recrystallization during the metamorphic event. They are often complexly folded within themselves on axes that plunge to the west. The folds within the sulphide layers are usually irregular in form. Galena and sphalerite also occur as scattered grains in marble and calcareous quartzite occasionally associated with fluorite.

Multiple individual massive sulphide lenses are present within the horizon, ranging from less than 1m to greater than 5m in true thickness, separated by variable thicknesses of non mineralized pegmatite, calc-silicate or biotite schist. Locally these stacked lenses of massive sulphide and host rock, attain true thicknesses of over 30m of ore grade material.

There have been nine zones of mineralization identified on the Property to date: E, F, G (including the Upper and Lower G), M, T (including the Upper and Lower T and Creek Zone) in the eastern half, and the U, V, R, and Q which occur as contorted layers and lenses forming the western half. The mineralization at the E Zone has been the main focus of most previous exploration programs as it is the best exposed and contains the most continuous ore horizons known to date.

## 10 EXPLORATION

Selkirk has conducted exploration programs on the Ruddock Creek property in 2004 (Cross Lake), 2005, 2006, 2007 and 2008. These programs involved ground and airborne geophysical surveys, soil and rock sampling surveys along with mapping, prospecting, diamond drilling and the development of 1,157m of underground decline and cross cut. The majority of this work was carried out on the E Zone as it had the greatest amount of historical information, outcrops at surface and at present is the largest defined orebody. Smaller programs have also been conducted on the Creek Zone, the T Zones, the U Zone and the Q Zone, all of which included some diamond drilling. A brief summary of each years program is included here as background to the resource estimate.

In 2004 Cross Lake completed 11 holes on the eastern portion of the E Zone totaling 1,839m. These holes all targeted the near surface portion of the deposit, and were helicopter supported with a field camp located on the E Zone. All holes intersected the sulphide bearing horizon.

The 2005 program consisted of an airborne Aero-Tem and Magnetic survey of the entire property, carried out by Aerodat Ltd. This work identified a number of anomalies some of which are co-incident with known showings of the mineralized horizon. Additional anomalies were defined which fit the assumed trend of sulphide horizon. A 4 hole diamond drill program was carried out again based from a helicopter supported camp on the E Zone. This consisted of 3,245m to test for the presence of the postulated deep E Zone mineralization to the west of the E Fault. Hole RD-05-113 successfully intersected this mineralization at a depth of 696m. Prospecting, mapping soil geochemical sampling and a grid based UTEM survey were carried out in the Oliver Creek valley downslope of the Q, R and V showings, in an area of airborne anomalies. Numerous massive sulphide boulders were uncovered and a strong geochemical anomaly defined by the soil sampling. Subsequent trenching and mapping showed this to be transported material in the glacial till filling the valley bottom.

As a result of the success of hole RD-05-113 an expanded drilling program was initiated in 2006. Connors Drilling Ltd., of Kamloops B.C. was contracted to carry out the 2006 diamond drilling program. The contractor used one Boyles Bros 25A, one 37A, and one 30HH drill to complete the forty-eight holes. A total of 12,808.48 m of NQ-2 sized core were drilled in 35 holes within the E Zone, 1,073.71 m in 10 holes at the Creek Zone and 857.47 m in 3 holes in Oliver Creek. A drill hole collar survey was initiated on September 15, 2006 locating both recent drill hole collar locations from the 2004, 2005 and a portion of the 2006 drill programs as well as many drill hole collar locations from the Falconbridge, Cominco vintage drill programs covering the period from 1961 to 1977.

Foraco Drilling Ltd., of Kamloops B.C. was contracted to carry out the 2007 diamond drilling program. The contractor used one Boyles Bros 25A, one 37A, and one 30HH drill to complete 9,294.1m in thirty four NQ2 drill holes. Four areas were evaluated during the 2007 drill program.

With the completion of the mine site access road to the Light Lake camp site and beyond to the proposed decline collar site, Procon Mining and Tunneling Ltd. mobilized their equipment and personnel to the Ruddock Creek project and on September 18, 2007. The decline was collared at a grade of minus 15% to undercut deep E Zone mineralization

intersected by drill holes RD-05-113 and RC-06-152, and was driven to a final length of 982m. Drifting to the east at the end of the decline enabled the drilling of closed spaced intercepts on the deep E Zone horizon. On September 15, 2007 all of the remaining drill hole collars that could be located and identified covering the remainder of the 2006 and 2007 drill programs were surveyed in. In addition to the drill hole collar surveys, control points and Hubs were established across the survey area including three Hub locations near the 2007 underground portal entrance. The 2006 and 2007 survey programs were completed by Azimuth Forestry and Mapping of Revelstoke, BC.

Drilling commenced on July 16, 2007 with the mobilization of the first drill to the Q Zone area followed by the mobilization of two remaining drills as they became available for the Creek Zone and E Zone drill programs. The 2007 drill program was completed by mid September, 2007. Due to the steep terrain, drill core was transported from the drill sites to the core logging facility at Light Lake by helicopter. The core was logged, photographed and split using a diamond rock saw or a manual splitter and the samples designated for assay were flown out by helicopter to the staging area on Highway 23, transported to Revelstoke and then shipped by a commercial freight line to Acme Analytical Laboratories in Vancouver, B.C. for analysis. The drill core, both split and unsplit, remains stored in wooden core boxes on site. The split core is stored on metal racks, while the boxes of unsplit core were cross stacked and piled in the area around the core shack.

The 2008 program consisted of 1,157m of underground development to provide access to drill the deep E Zone at a density sufficient to calculate a mineral resource. Between July and October 2008 32 holes totalling 5,430 m were completed from 5 drill stations. This program was supported from the 40 man camp located at Light Lake, which was completed in the fall of 2007. Thirty one of the holes intersected the mineralized horizon, with one hole abandoned due to drilling problems. The locations of all of the E Zone drill holes are illustrated on Figure 10-1 and Figure 10-2. A cross section through the E Zone is illustrated in Figure 10-3.

Figure 10-1 E Zone Drill Hole Plan - West Half

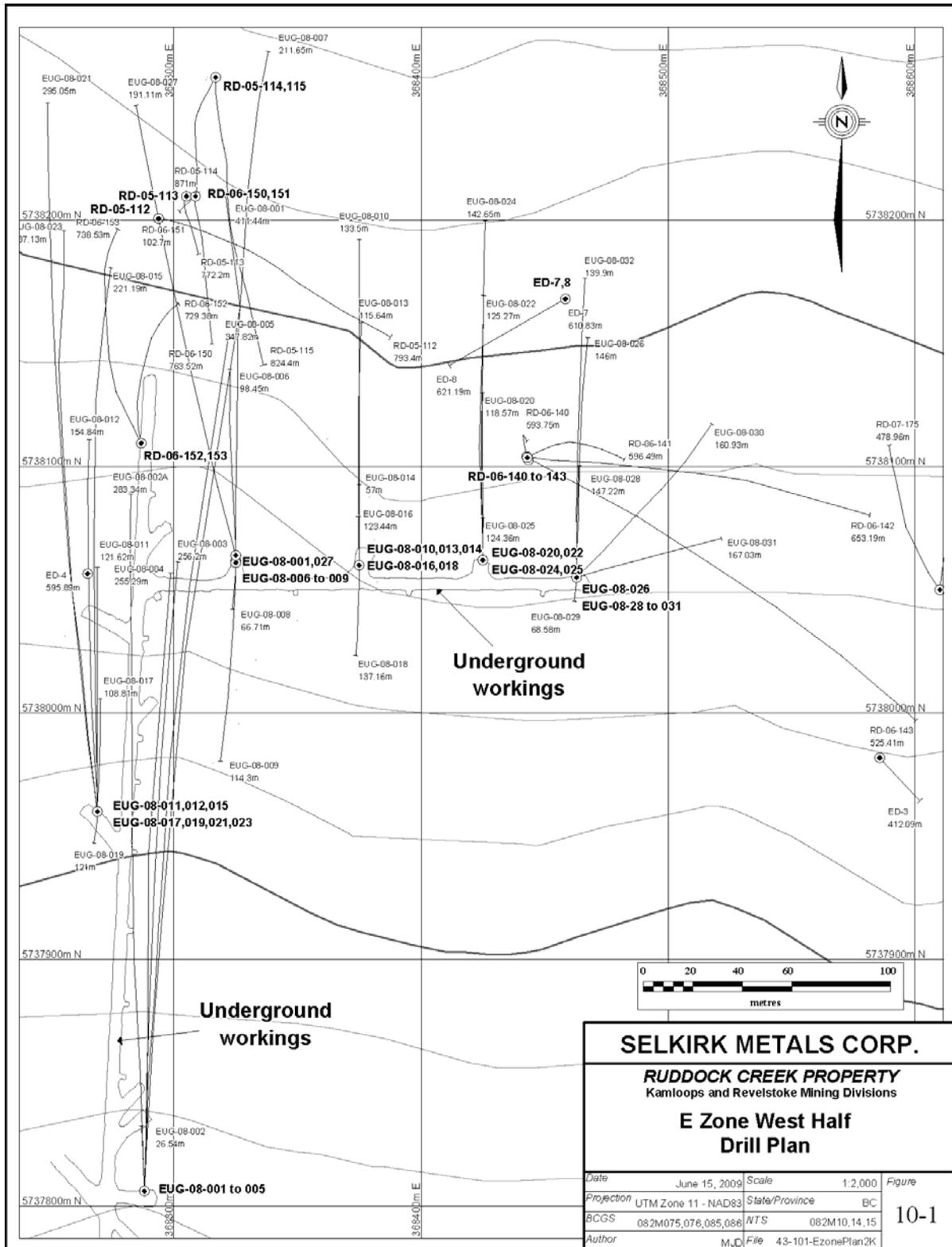


Figure 10-2 E Zone Drill Hole Plan - East Half

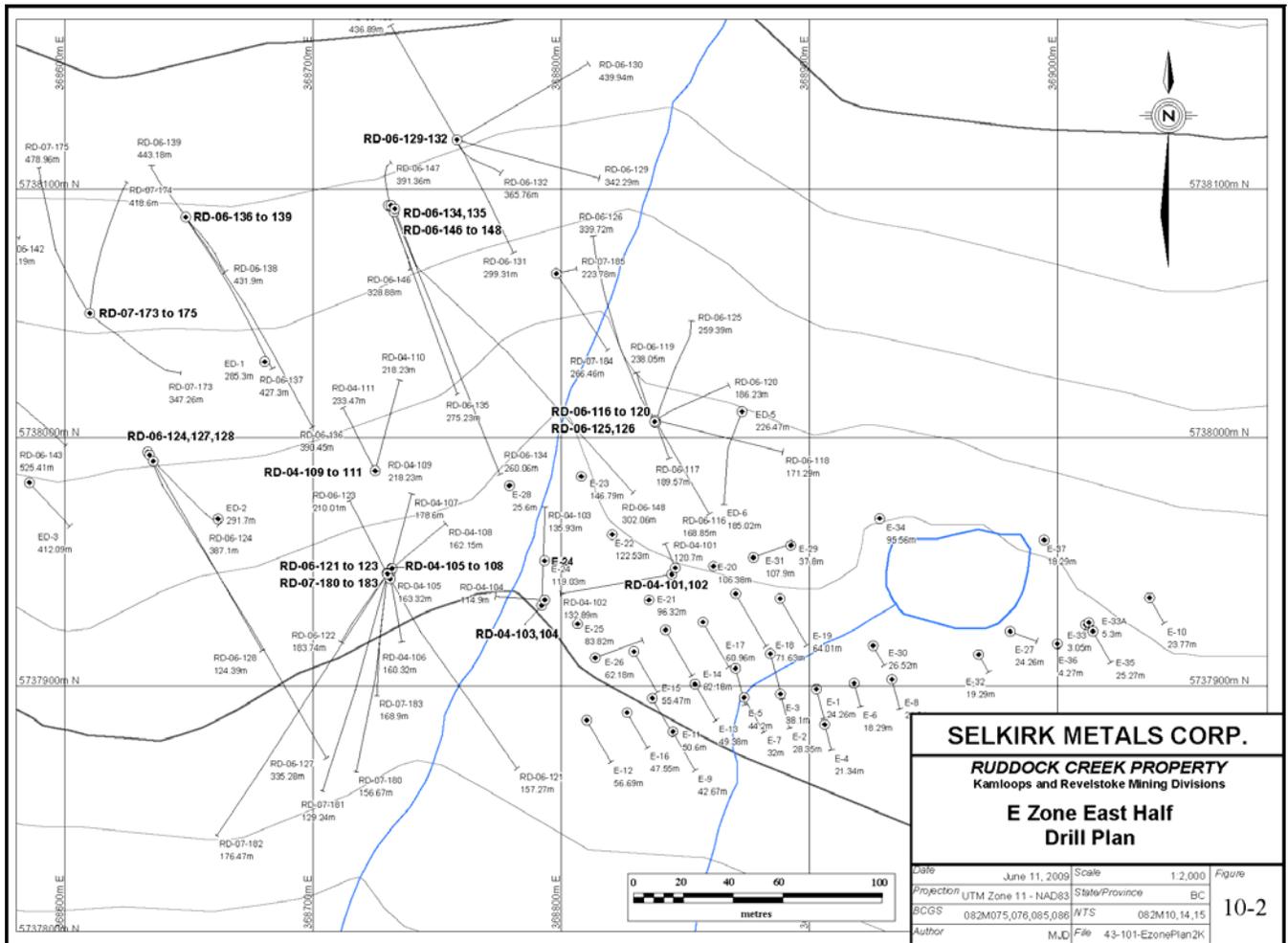
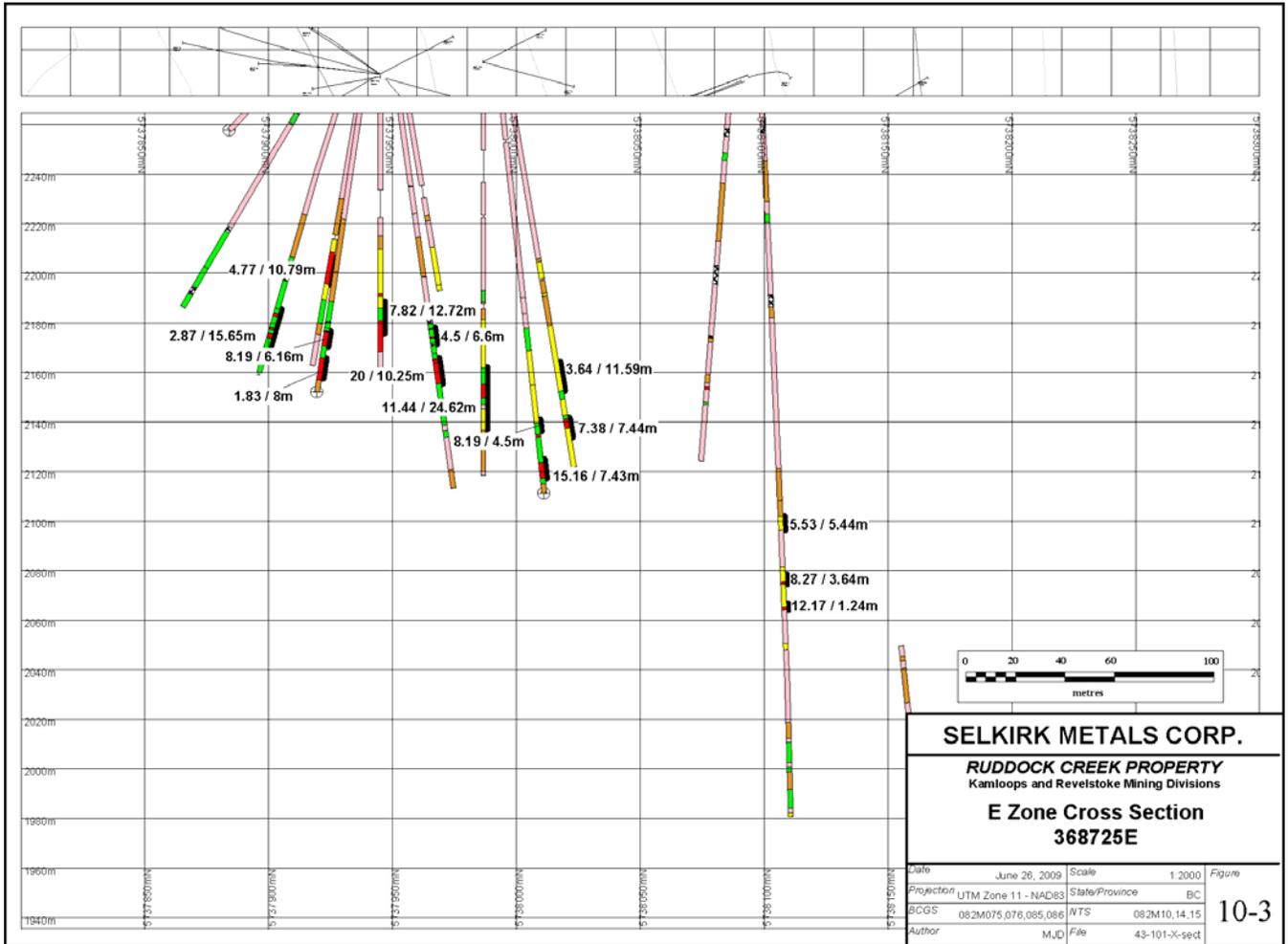


Figure 10-3 E Zone Cross Section 368725 E



## 11 DRILLING

Within the eastern portion of the E Zone, the surface drilling was designed to provide a 30 m grid of intercepts of the mineralized horizon. The step out holes to the west were designed to prove the continuity of the mineralization between the eastern near surface mineralization and the deeper zone intersected by RD-05-113 and RD-06-152. Subsequent to completing the decline and crosscut, underground drilling was initiated to continue the 30m spacing of drill intercepts on the deep E Zone mineralization.

A complete list of drill holes attitudes and collar locations for the E Zone are shown in Table 11-1. A summary of significant intercepts of zinc-lead mineralization for the E Zone is shown in Table 11-2.

Table 11-1 E Zone Drill Hole Locations

Hole_Id	East	North	Elev	TD	Azim	Inclin	Year	Company
E-1	368902.82	5737898.64	2317.08	24.26	165.00	-60.00	1961	Falconbridge
E-2	368888.34	5737896.71	2314.56	28.35	165.00	-60.00	1961	Falconbridge
E-3	368884.29	5737913.00	2316.51	38.10	165.00	-60.00	1961	Falconbridge
E-4	368906.14	5737884.44	2317.83	21.34	165.00	-60.00	1961	Falconbridge
E-5	368870.23	5737907.06	2314.17	44.20	165.00	-70.00	1961	Falconbridge
E-6	368918.07	5737901.05	2319.74	18.29	165.00	-58.00	1961	Falconbridge
E-7	368873.74	5737895.19	2310.85	32.00	150.00	-60.00	1961	Falconbridge
E-8	368933.24	5737902.55	2320.30	21.34	165.00	-55.00	1961	Falconbridge
E-9	368844.97	5737881.49	2303.90	42.67	150.00	-65.00	1961	Falconbridge
E-10	369037.10	5737935.48	2314.49	23.77	150.00	-60.00	1961	Falconbridge
E-11	368836.73	5737894.94	2303.30	50.60	150.00	-70.00	1961	Falconbridge
E-12	368810.31	5737886.13	2299.07	56.69	150.00	-70.00	1961	Falconbridge
E-13	368853.90	5737900.70	2309.56	49.38	150.00	-70.00	1961	Falconbridge
E-14	368842.05	5737922.53	2314.51	62.18	150.00	-70.00	1961	Falconbridge
E-15	368829.21	5737913.79	2304.97	55.47	150.00	-70.00	1961	Falconbridge
E-16	368826.58	5737889.17	2299.22	47.55	150.00	-70.00	1961	Falconbridge
E-17	368857.13	5737925.63	2318.29	60.96	150.00	-70.00	1961	Falconbridge
E-18	368870.31	5737937.09	2321.71	71.63	150.00	-70.00	1961	Falconbridge
E-19	368888.14	5737935.13	2321.52	64.01	150.00	-70.00	1961	Falconbridge
E-20	368861.32	5737948.19	2324.01	106.38	0.00	-90.00	1962	Falconbridge
E-21	368835.31	5737934.55	2316.79	96.32	0.00	-90.00	1962	Falconbridge
E-22	368820.50	5737960.91	2316.82	122.53	0.00	-90.00	1962	Falconbridge
E-23	368808.08	5737984.31	2313.63	146.79	0.00	-90.00	1962	Falconbridge
E-24	368793.28	5737950.42	2303.08	119.03	0.00	-90.00	1962	Falconbridge
E-25	368806.57	5737924.92	2299.22	83.82	0.00	-90.00	1962	Falconbridge
E-26	368813.67	5737911.26	2301.04	62.18	70.00	-71.00	1962	Falconbridge
E-27	368980.90	5737921.87	2317.23	24.26	110.00	-62.00	1962	Falconbridge
E-28	368779.16	5737980.61	2306.03	25.60	0.00	-90.00	1962	Falconbridge
E-29	368892.46	5737956.55	2326.97	37.80	0.00	-90.00	1962	Falconbridge
E-30	368925.68	5737916.10	2317.79	26.52	150.00	-70.00	1962	Falconbridge
E-31	368877.39	5737951.67	2326.68	107.90	70.00	-81.00	1962	Falconbridge
E-32	368968.18	5737912.63	2317.05	19.29	150.00	-65.00	1962	Falconbridge
E-33	369011.28	5737924.53	2324.86	3.05	150.00	-65.00	1962	Falconbridge
E-33A	369012.65	5737925.39	2324.96	5.30	150.00	-70.00	1962	Falconbridge
E-34	368928.27	5737967.28	2317.71	95.56	0.00	-90.00	1962	Falconbridge
E-35	369014.26	5737921.94	2326.55	25.27	150.00	-55.00	1962	Falconbridge
E-36	368999.94	5737916.89	2322.50	4.27	150.00	-65.00	1962	Falconbridge
E-37	368994.55	5737958.68	2324.30	18.29	0.00	-90.00	1962	Falconbridge
C76-1	368313.00	5738257.00	2444.83	455.76	0.00	-90.00	1976	Cominco
C76-1A	368313.40	5738257.87	2444.83	916.24	0.00	-90.00	1976	Cominco
ED-1	368680.47	5738030.55	2354.56	285.30	0.00	-90.00	1963	Falconbridge
ED-2	368661.69	5737967.21	2329.14	291.70	0.00	-90.00	1963	Falconbridge
ED-3	368585.67	5737981.83	2349.16	412.09	0.00	-90.00	1963	Falconbridge
ED-4	368265.07	5738056.52	2354.29	595.89	0.00	-90.00	1963	Falconbridge
ED-5	368872.86	5738010.43	2354.22	226.47	0.00	-90.00	1963	Falconbridge
ED-6	368872.86	5738010.43	2354.22	185.02	201.00	-78.00	1963	Falconbridge
ED-7	368458.41	5738168.05	2408.24	610.83	0.00	-90.00	1963	Falconbridge
ED-8	368458.41	5738168.05	2408.24	621.19	240.00	-85.00	1963	Falconbridge
C-75-1	368361.98	5738111.13	2381.90	694.04	0.00	-90.00	1975	Cominco
RD-04-101	368845.91	5737947.51	2320.46	120.70	338.00	-85.00	2004	Cross Lake
RD-04-102	368844.51	5737944.87	2320.12	132.89	260.00	-70.00	2004	Cross Lake
RD-04-103	368792.09	5737932.34	2301.37	135.93	2.00	-73.00	2004	Cross Lake

MINERAL RESOURCE ESTIMATE – RUDDOCK CREEK DEPOSIT

Hole_Id	East	North	Elev	TD	Azim	Inclin	Year	Company
RD-04-104	368793.32	5737934.60	2301.31	114.90	274.00	-80.00	2004	Cross Lake
RD-04-105	368730.98	5737945.12	2320.59	163.32	0.00	-90.00	2004	Cross Lake
RD-04-106	368730.98	5737945.12	2320.59	160.32	170.00	-80.00	2004	Cross Lake
RD-04-107	368731.70	5737947.35	2320.06	178.60	15.00	-80.00	2004	Cross Lake
RD-04-108	368731.89	5737947.25	2320.05	162.15	50.00	-80.00	2004	Cross Lake
RD-04-109	368725.06	5737986.59	2336.73	218.23	0.00	-90.00	2004	Cross Lake
RD-04-110	368725.06	5737986.59	2336.73	218.23	15.00	-80.00	2004	Cross Lake
RD-04-111	368725.06	5737986.59	2336.73	233.47	333.00	-83.00	2004	Cross Lake
RD-05-112	368293.75	5738200.66	2416.82	777.86	96.78	-84.10	2005	Selkirk Metals
RD-05-113	368305.01	5738209.65	2420.08	772.20	254.90	-89.30	2005	Selkirk Metals
RD-05-114	368316.86	5738257.97	2437.11	871.00	214.90	-87.00	2005	Selkirk Metals
RD-05-115	368316.86	5738257.97	2437.11	824.40	180.00	-83.00	2005	Selkirk Metals
RD-06-116	368837.88	5738007.03	2341.88	168.85	150.00	-75.00	2006	Selkirk Metals
RD-06-117	368837.88	5738007.03	2341.88	189.57	160.00	-85.00	2006	Selkirk Metals
RD-06-118	368837.88	5738007.03	2341.88	171.29	104.00	-72.00	2006	Selkirk Metals
RD-06-119	368837.88	5738007.03	2341.88	238.05	330.00	-84.00	2006	Selkirk Metals
RD-06-120	368837.88	5738007.03	2341.88	186.23	60.00	-79.00	2006	Selkirk Metals
RD-06-121	368731.07	5737943.09	2319.58	157.27	150.00	-55.00	2006	Selkirk Metals
RD-06-122	368729.96	5737945.08	2320.66	183.74	220.00	-79.00	2006	Selkirk Metals
RD-06-123	368729.75	5737945.28	2320.70	210.01	333.00	-81.00	2006	Selkirk Metals
RD-06-124	368633.33	5737994.18	2339.26	387.10	150.00	-85.00	2006	Selkirk Metals
RD-06-125	368838.05	5738005.96	2342.06	259.39	17.60	-79.90	2006	Selkirk Metals
RD-06-126	368837.63	5738006.32	2342.01	339.72	330.00	-76.00	2006	Selkirk Metals
RD-06-127	368634.06	5737992.94	2338.65	335.28	157.20	-64.90	2006	Selkirk Metals
RD-06-128	368635.50	5737990.43	2337.80	124.39	150.00	-45.00	2006	Selkirk Metals
RD-06-129	368757.95	5738119.88	2382.86	342.29	105.00	-80.00	2006	Selkirk Metals
RD-06-130	368757.95	5738119.88	2382.86	439.94	60.00	-82.00	2006	Selkirk Metals
RD-06-131	368757.95	5738119.88	2382.86	299.31	150.00	-80.00	2006	Selkirk Metals
RD-06-132	368757.95	5738119.88	2382.86	365.76	150.00	-88.00	2006	Selkirk Metals
RD-06-133	368757.95	5738119.88	2382.86	436.89	330.00	-83.00	2006	Selkirk Metals
RD-06-134	368732.62	5738090.91	2371.22	260.06	158.00	-64.00	2006	Selkirk Metals
RD-06-135	368730.63	5738093.09	2372.03	275.23	160.00	-73.00	2006	Selkirk Metals
RD-06-136	368648.70	5738088.83	2381.33	390.45	145.00	-75.00	2006	Selkirk Metals
RD-06-137	368648.70	5738088.83	2381.33	427.30	149.00	-80.20	2006	Selkirk Metals
RD-06-138	368648.70	5738088.83	2381.33	431.90	143.48	-86.70	2006	Selkirk Metals
RD-06-139	368648.70	5738088.83	2381.33	443.18	325.58	-85.10	2006	Selkirk Metals
RD-06-140	368443.49	5738102.58	2382.76	593.75	338.28	-87.50	2006	Selkirk Metals
RD-06-141	368442.79	5738104.00	2382.58	596.49	76.00	-85.00	2006	Selkirk Metals
RD-06-142	368442.79	5738104.00	2382.58	653.19	98.00	-77.00	2006	Selkirk Metals
RD-06-143	368443.07	5738103.58	2382.77	525.41	117.58	-68.60	2006	Selkirk Metals
RD-06-146	368730.37	5738093.57	2372.02	328.88	161.48	-85.30	2006	Selkirk Metals
RD-06-147	368731.34	5738093.56	2371.84	391.36	342.48	-86.40	2006	Selkirk Metals
RD-06-148	368732.86	5738092.13	2371.37	302.06	158.98	-60.50	2006	Selkirk Metals
RD-06-150	368308.67	5738209.69	2417.24	763.52	185.18	-87.30	2006	Selkirk Metals
RD-06-151	368308.67	5738209.69	2417.24	102.70	227.00	-85.00	2006	Selkirk Metals
RD-06-152	368286.78	5738109.41	2369.26	729.38	348.48	-83.70	2006	Selkirk Metals
RD-06-153	368286.78	5738109.41	2369.26	738.53	334.08	-80.50	2006	Selkirk Metals
RD-07-173	368610.00	5738050.00	2363.00	347.26	130.78	-82.60	2007	Selkirk Metals
RD-07-174	368610.00	5738050.00	2363.00	418.60	7.20	-82.00	2007	Selkirk Metals
RD-07-175	368610.00	5738050.00	2363.00	478.96	327.00	-80.00	2007	Selkirk Metals
RD-07-180	368729.96	5737945.08	2320.66	156.67	187.00	-59.00	2007	Selkirk Metals
RD-07-181	368729.96	5737945.08	2320.66	129.24	195.00	-45.00	2007	Selkirk Metals
RD-07-182	368729.96	5737945.08	2320.66	176.47	213.00	-44.00	2007	Selkirk Metals

Hole_Id	East	North	Elev	TD	Azim	Inclin	Year	Company
RD-07-183	368729.96	5737945.08	2320.66	168.90	186.78	-72.00	2007	Selkirk Metals
RD-07-184	368798.00	5738066.00	2347.00	266.46	146.00	-82.00	2007	Selkirk Metals
RD-07-185	368798.00	5738066.00	2347.00	223.78	76.00	-88.00	2007	Selkirk Metals
EUG-08-001	368288.00	5737806.00	1770.00	411.44	3.00	-8.50	2008	Selkirk Metals
EUG-08-002	368288.00	5737806.00	1770.00	26.54	358.00	-4.50	2008	Selkirk Metals
EUG-08-002A	368288.00	5737806.00	1770.00	283.34	358.00	-4.00	2008	Selkirk Metals
EUG-08-003	368288.00	5737806.00	1770.00	256.20	2.00	2.50	2008	Selkirk Metals
EUG-08-004	368288.00	5737806.00	1770.00	255.29	2.00	10.00	2008	Selkirk Metals
EUG-08-005	368288.00	5737806.00	1770.00	347.82	3.00	-4.50	2008	Selkirk Metals
EUG-08-006	368325.00	5738064.00	1737.00	98.45	0.00	41.00	2008	Selkirk Metals
EUG-08-007	368325.00	5738064.00	1737.00	211.65	0.00	-16.00	2008	Selkirk Metals
EUG-08-008	368325.00	5738062.00	1737.00	66.71	180.00	73.00	2008	Selkirk Metals
EUG-08-009	368325.00	5738061.00	1737.00	114.30	180.00	44.00	2008	Selkirk Metals
EUG-08-010	368375.00	5738060.00	1741.00	133.50	0.00	8.00	2008	Selkirk Metals
EUG-08-011	368269.00	5737960.00	1750.00	121.62	0.00	35.50	2008	Selkirk Metals
EUG-08-012	368269.00	5737960.00	1750.00	154.84	0.00	10.00	2008	Selkirk Metals
EUG-08-013	368375.00	5738060.00	1741.00	115.64	0.00	30.00	2008	Selkirk Metals
EUG-08-014	368375.00	5738060.00	1741.00	57.00	0.00	55.00	2008	Selkirk Metals
EUG-08-015	368269.00	5737960.00	1750.00	221.19	0.00	-4.00	2008	Selkirk Metals
EUG-08-016	368375.00	5738060.00	1741.00	123.44	0.00	82.00	2008	Selkirk Metals
EUG-08-017	368269.00	5737960.00	1750.00	108.81	0.00	66.00	2008	Selkirk Metals
EUG-08-018	368375.00	5738060.00	1741.00	137.16	180.00	75.00	2008	Selkirk Metals
EUG-08-019	368269.00	5737960.00	1750.00	121.00	180.00	84.00	2008	Selkirk Metals
EUG-08-020	368425.00	5738062.00	1746.00	118.57	0.00	55.00	2008	Selkirk Metals
EUG-08-021	368269.00	5737960.00	1750.00	295.05	353.00	-14.00	2008	Selkirk Metals
EUG-08-022	368425.00	5738062.00	1746.00	125.27	0.00	30.00	2008	Selkirk Metals
EUG-08-023	368269.00	5737960.00	1750.00	237.13	353.00	-4.00	2008	Selkirk Metals
EUG-08-024	368425.00	5738062.00	1746.00	142.65	0.00	13.00	2008	Selkirk Metals
EUG-08-025	368425.00	5738062.00	1746.00	124.36	0.00	82.00	2008	Selkirk Metals
EUG-08-026	368463.00	5738055.00	1748.00	146.00	0.00	48.00	2008	Selkirk Metals
EUG-08-027	368325.00	5738064.00	1737.00	191.11	346.00	-15.00	2008	Selkirk Metals
EUG-08-028	368463.00	5738055.00	1748.00	147.22	0.00	73.00	2008	Selkirk Metals
EUG-08-029	368463.00	5738055.00	1748.00	68.58	180.00	81.00	2008	Selkirk Metals
EUG-08-030	368463.00	5738055.00	1748.00	160.93	46.00	57.00	2008	Selkirk Metals
EUG-08-031	368463.00	5738055.00	1748.00	167.03	77.00	68.00	2008	Selkirk Metals
EUG-08-032	368463.00	5738055.00	1748.00	139.90	0.00	28.00	2008	Selkirk Metals

Table 11-2 E Zone - Significant Mineralized Intervals

Hole ID	From (m)	To (m)	Width (m)	Zn %	Pb %	Zn + Pb %
E-1	6.43	22.01	15.58	9.34	2.24	11.58
E-2	6.25	25.98	19.73	8.84	1.89	10.73
E-3	11.74	36.59	24.85	6.34	1.25	7.59
E-4	1.43	17.87	16.44	5.82	1.17	6.99
E-5	14.63	40.85	26.22	5.11	0.74	5.85
E-6	0.95	16.65	15.7	8.37	1.64	10.01
E-7	0	30.12	30.12	4.85	0.98	5.83
E-8	0.12	18.9	18.78	7.27	1.19	8.46
E-9	24.91	35.52	10.61	5.53	0.76	6.29
E-10	0.7	2.5	1.8	12.45	2.66	15.11
E-12	12.96	22.87	9.91	5.59	1.28	6.87

MINERAL RESOURCE ESTIMATE – RUDDOCK CREEK DEPOSIT

Hole ID	From (m)	To (m)	Width (m)	Zn %	Pb %	Zn + Pb %
	40.37	56.34	15.97	5.87	1.23	7.1
E-13	10.85	27.16	16.31	6.96	1.26	8.22
E-14	33.78	60.3	26.52	7.63	1.66	9.29
E-15	28.05	53.08	25.03	5.82	1.13	6.95
E-16	9.18	12.93	3.75	12.47	2.86	15.33
	31.52	42.1	10.58	5.14	0.88	6.02
E-17	33.08	58.9	25.82	9.66	2.17	11.83
E-18	38.08	67.9	29.82	7.05	1.7	8.75
E-19	36.8	61.59	24.79	6.59	1.59	8.18
E-20	76.92	101.55	24.63	5.83	1.12	6.95
E-21	49.18	92.38	43.2	9.79	2.03	11.82
E-22	87.65	117.32	29.67	3.94	0.77	4.71
E-23	112.2	132.01	19.81	6.49	1.29	7.78
E-24	64.94	68.32	3.38	4.68	0.84	5.52
	78.02	108.78	30.76	9	1.91	10.91
E-25	41.49	76.43	34.94	8.6	1.44	10.04
E-26	28.2	45.82	17.62	3.52	0.72	4.24
	55.85	57.93	2.08	9.53	1.03	10.56
E-27	0	16.77	16.77	6.34	1.29	7.63
E-30	0	24.88	24.88	9.11	2.19	11.3
E-31	67.9	88.9	21	7.19	1.35	8.54
	94.97	104.36	9.39	4.45	0.9	5.35
E-32	0	16.4	16.4	4.53	0.94	5.47
E-33A	1.01	5.3	4.29	4.34	1.94	6.28
E-34	37.77	38.29	0.52	17.74	3.61	21.35
	64.36	86.65	22.29	8.77	2.32	11.09
E-35	0	25.27	25.27	2.42	0.45	2.87
ED-4	90.83	107.9	17.07	6.12	0.79	6.91
	573.95	582.48	8.53	2.38	0.5	2.88
ED-6	141.16	161.59	20.43	6.44	1.31	7.75
ED-8	594.82	596.32	1.5	37.13	5.84	42.97
C75-1	609.3	614.79	5.49	7.67	1.53	9.2
RD-101	86	101.5	15.5	9.98	2.17	12.15
RD-102	69	70.9	1.9	10.1	1.75	11.85
	79.6	125.5	45.9	10.44	2.26	12.70
RD-103	83	117.79	34.74	5.49	1.12	6.61
RD-104	62.1	84.43	22.33	7.43	1.59	9.02
RD-105	132	144.72	12.72	6.47	1.35	7.82
RD-106	116	126.79	10.79	4.18	0.59	4.77
RD-107	142.25	159.32	17.07	15.02	3.37	18.39
RD-108	130.5	145.74	14.79	10.02	1.9	11.92
RD-109	174.88	199.5	24.62	9.14	2.3	11.44
RD-110	175.4	206	30.6	2.7	0.6	3.30
RD-111	197.5	221.03	23.53	5.3	1.5	6.80
RD-112	680.8	685.3	4.5	6.21	1.16	7.37
RD-113	705.5	725.55	20.05	11.13	2.35	13.48
RD-116	125.85	131.95	6.1	9.81	1.92	11.73

MINERAL RESOURCE ESTIMATE – RUDDOCK CREEK DEPOSIT

Hole ID	From (m)	To (m)	Width (m)	Zn %	Pb %	Zn + Pb %
RD-117	130.2	136.1	5.81	12.79	2.33	15.12
	141.07	145.1	4.03	9.47	1.44	10.91
	155.91	162.55	6.64	4.98	0.73	5.71
RD-118	115.85	116.58	0.73	12.39	0.23	12.62
RD-119	157	161.07	4.07	7.2	0.99	8.19
	167	174.39	7.39	14.78	3.16	17.94
	178.38	183.36	4.98	4.22	0.76	4.98
	192.5	212	19.5	3.55	0.76	4.31
RD-121	91.08	100.84	9.76	5.8	1.32	7.12
	115.8	118.49	2.69	7.67	2.76	10.43
	124.05	129.79	5.74	6.78	1.53	8.31
RD-122	146.35	152.51	6.16	6.93	1.26	8.19
	157.46	165.46	8	1.51	0.32	1.83
RD-123	144.75	151.35	6.6	3.79	0.71	4.50
	157.1	167.35	10.25	16.35	3.65	20.00
RD-125	216.35	217.18	0.83	7.45	0.87	8.32
RD-127	244.84	252.1	7.26	4.92	0.92	5.84
RD-129	283.4	288.78	5.38	3.09	0.81	3.90
RD-131	240.71	243.41	2.7	2.77	0.16	2.93
	259.03	263.21	4.18	6.72	0.86	7.58
RD-132	294.4	299.51	5.11	4.21	0.98	5.19
RD-134	221.1	235.61	14.51	2.83	0.54	3.37
RD-135	219.37	222.23	2.86	5.38	0.78	6.16
	236.29	248.73	12.44	9.39	1.87	11.26
RD-137	299.3	304.4	5.1	2.05	0.55	2.60
RD-138	328.3	337.1	8.8	4.76	0.76	5.52
RD-139	369.18	374.07	4.89	4.7	0.87	5.57
RD-140	566.63	570.69	4.06	9.22	2.13	11.35
RD-141	558.45	571.38	12.93	7.48	1.49	8.97
RD-143	471.8	475.65	3.85	4.3	0.83	5.13
RD-146	277.71	286.92	9.21	4.32	0.81	5.13
RD-147	270.29	275.73	5.44	5.04	0.49	5.53
	293.98	308.02	14.04	3.81	0.53	4.34
RD-148	214.46	239.26	24.8	5.77	1.03	6.80
RD-149	47.62	58.26	10.64	13.26	2.87	16.13
RD-150	685.31	703.5	18.19	6.5	1.03	7.53
	711.56	714.92	3.36	8.46	1.4	9.86
RD-152	648.84	652	3.16	14.13	2.62	16.75
	655.43	671.4	22.56	11.7	2.27	13.97
RD-153	681.22	685.93	4.71	6.43	0.98	7.41
RD-173	323.14	326.66	3.52	1.25	0.22	1.47
RD-174	375.95	381.3	5.35	7.52	1.57	9.09
RD-175	432.65	436.17	3.52	2.7	0.55	3.25
RD-183	141.25	156.9	15.65	2.5	0.37	2.87
RD-184	214.58	228.86	14.28	5.73	0.94	6.67
RD-185	187.35	197.43	10.08	4.25	0.22	4.47
	212.38	218.18	5.8	1.76	0.09	1.85

## MINERAL RESOURCE ESTIMATE – RUDDOCK CREEK DEPOSIT

Hole ID	From (m)	To (m)	Width (m)	Zn %	Pb %	Zn + Pb %
EUG-08-001	325.38	327.83	2.45	2.98	0.01	2.99
	343.16	344.06	0.90	8.45	0.93	9.38
	350.6	364.11	13.51	3.1	1.05	4.15
	386.49	391.63	5.14	12.77	1.86	14.63
	397.1	398.29	1.19	9.02	2.64	11.66
EUG-08-002	204.66	206.2	1.54	4.56	0.9	5.46
	232	236.24	4.24	4.39	0.92	5.31
EUG-08-003	158.04	160.88	2.84	4	1.01	5.01
	222.3	224.3	2.00	3.98	1.65	5.63
	230.2	231.2	1.00	16.32	3.36	19.68
EUG-08-004	58.3	59.05	0.75	23.07	4.9	27.97
	142.15	144.81	2.66	13.72	3.12	16.84
	198.48	201.82	3.34	2.92	0.79	3.71
	240.11	244.68	4.57	3.26	0.64	3.90
EUG-08-005	251.37	262.79	11.42	7.51	0.86	8.37
	307.22	309.24	2.02	2.19	0.62	2.81
	313.1	331.97	18.87	8.38	1.52	9.90
EUG-08-006	17.38	19.97	2.59	3.26	0.51	3.77
EUG-08-007	77.11	79.45	2.34	2.16	0.03	2.19
	129.57	134.2	4.63	12.71	2.87	15.58
	139.4	142.02	2.62	6.77	0.62	7.39
EUG-08-008	32.61	40.15	7.54	3.27	0.58	3.85
EUG-08-009	61.44	71.15	9.71	4.65	0.96	5.61
EUG-08-010	47.3	51.93	4.63	3.5	0.79	4.29
	70.79	73.96	3.17	4.81	2.08	6.89
	107	108.6	1.60	11.37	2.55	13.92
EUG-08-011	90.64	94.18	3.54	7.59	1.61	9.20
EUG-08-012	39.26	40.55	1.29	22.64	4.89	27.53
	51.44	55.02	3.58	10.42	2.39	12.81
	81.76	84.55	2.79	2.15	0.74	2.89
	126.11	128.6	2.49	7.72	1.62	9.34
EUG-08-013	45.23	48.91	3.68	3.9	0.45	4.35
	56.85	58.75	1.90	16.71	3.58	20.29
	76.74	78.2	1.46	17.27	2.81	20.08
	87.96	92.39	4.43	3.15	0.27	3.42
EUG-08-014	28.92	32.59	3.67	2.12	0.32	2.44
	37.99	40.76	2.77	12.27	2.3	14.57
EUG-08-015	69.29	98.51	29.22	3.18	0.77	3.95
or	78.65	82.19	3.54	11.54	2.25	13.79
	142.09	150.27	8.18	4.68	1.99	6.67
	182.63	189.43	6.80	2.93	0.6	3.53
EUG-08-016	28.53	32.32	3.79	6.56	1.41	7.97
	64.38	70.1	5.72	6.05	0.91	6.96
EUG-08-017	20.21	26.85	6.64	8.03	1.74	9.77
	63.36	66.07	2.71	3.54	1.48	5.02
	73.47	78.25	4.78	4.48	1.22	5.70
EUG-08-018	52	54.64	2.64	9.24	2.14	11.38

Hole ID	From (m)	To (m)	Width (m)	Zn %	Pb %	Zn + Pb %
	69.89	73.63	3.74	1.73	0.3	2.03
EUG-08-019	26.96	33.09	6.13	12.7	2.84	15.54
	84.1	88.71	4.61	9.31	1.73	11.04
EUG-08-020	70.28	75.73	5.45	11.72	2.4	14.12
	94.3	97.56	3.26	6.4	1.18	7.58
EUG-08-021	179.01	194.3	15.29	12.19	2.18	14.37
	227.58	238.41	10.83	10.23	1.96	12.19
EUG-08-022	83.34	85.58	2.24	4.99	1.05	6.04
EUG-08-023	58	61.21	3.21	6.67	1.15	7.82
	94.69	96.06	1.37	7.18	2.84	10.02
	147.32	151.37	4.05	3.93	1.81	5.74
	175.65	183.52	7.87	7.3	1.2	8.50
EUG-08-024	88.18	89.88	1.70	6.96	1.54	8.50
EUG-08-025	73.7	77.45	3.75	5.1	0.97	6.07
EUG-08-026	92.52	96.85	4.33	9.39	1.49	10.88
EUG-08-027	58.41	60.05	1.64	8.65	1.37	10.02
	82.21	86.88	4.67	9.94	1.85	11.79
	102.72	110.82	8.10	10.58	1.64	12.22
	116.83	130.95	14.12	9.39	1.34	10.73
EUG-08-028	85.25	90.78	5.53	3.09	0.46	3.55
EUG-08-030	99.64	106.69	7.05	6.24	1.05	7.29
EUG-08-031	112	122.67	10.67	2.97	0.55	3.52
	131.82	140.18	8.36	7.29	1.43	8.72
	160.34	160.67	0.33	15.68	3.48	19.16
EUG-08-032	107.74	108.07	0.33	13.13	2.57	15.70

## 12 SAMPLING METHOD AND APPROACH

Drill core sampling during the 2005 to 2008 exploration programs followed the same procedures. Core was placed by the drillers in wooden core boxes and the lids secured with screws before transporting to the logging facility. A helicopter, zip line or truck was used to move core boxes from the drills to the logging station where the core was logged, measured for rock quality and photographed by the geologists. Mineralized sections were sawn and one half retained on site for future reference or follow up analysis. The sampled intervals were recorded, put in labeled plastic bags with tags. The samples were then consolidated into rice bags for transport to the lab. Sampling of the drill core was generally in 1 m to 1.5 m intervals unless discrete geologic features such as veins, massive sulphide lenses or faults were encountered.

The samples are representative of both the mineralization and wall rocks encountered in the drilling. The authors are not aware of any factors related to the sampling that would materially impact the reliability or accuracy of these results.

The drill core, both split and unsplit, remains stored in wooden core boxes on site. The split core is stored on metal racks, while the boxes of unsplit core were cross stacked and piled in a core storage area.

## **13 SAMPLE PREPARATION, ANALYSES AND SECURITY**

### **13.1 Sample Preparation**

For the 2004, 2005, 2006, 2007 and 2008 programs a sample handling procedure and chain of custody was maintained and all of the sample shipments tracked. Core and rock samples were placed into uniquely numbered sample bags with a tag placed in the bag in the event the writing on the bag is obscured. A record of the sample interval and other specific details was documented in the sample book. A representative example of any rock samples collected was stored for reference at a later date.

Drill core samples were generally 1 to 1.5 m in length, or less, depending on geological features present. The maximum sample length for the program was 3m. The sample intervals were determined and marked by the geologist responsible for logging the hole. Samples were cut using a diamond saw or a manual splitter, with 50% of the sample bagged and sent for analyses and the remaining 50% returned to the core box and stored on site.

Acme Analytical of Vancouver, BC was retained to carry out all sample analyses, however in 2007 a group of 30 sample pulps were chosen and sent to ALS Chemex for check assays. These samples were then renumbered and sent back to Acme as a further check.

Quality control involved the insertion of check samples consisting of duplicates, blanks and standards in the sample stream. One standard sample was inserted every 20 samples, with one blank and one duplicate inserted every 50 samples. These check samples are in addition to the re-analyses conducted by the laboratory as part of their own quality control measures.

At all times access to the samples was limited to authorized personnel. Results from the laboratory are reported directly to the Qualified Person who disseminates the information as required. It is the author's opinion that the sampling methodology, sample preparation, security, analytical procedures and quality assurance practices used by Selkirk Metals Corp. and the laboratory were both adequate and conducted in compliance with standard industry practices.

At Acme, core samples are crushed to -10 mesh (2mm) and rifle split to obtain a 250 gram representative sample which is then pulverized to -150 mesh (100µm) in a mild-steel ring and puck mill. Samples are then routinely analyzed by ICP-AES using a nitric acid-aqua regia digestion for the determination of 36 elements, including Zn, Cu, Pb, and Au. Samples returning high values of base metals by the ICP method are routinely assayed (Acme Group 7AR). The analysis utilizes concentrated nitric and hydrochloric acid digestion prior to analysis. The lab routinely uses sample blanks, pulp duplicate analysis and in house standard reference materials as part of the quality control and data verification program.

### **13.2 QA/QC**

A QA/QC protocol involving the insertion of blanks and standards in the sample stream was initiated in 2005. Approximately 1 out of every 20 samples was a standard or blank. Results are discussed in Section 14.1.

A number of pulps from the 2005 drill program were re-analyzed at a secondary laboratory.

## 14 DATA VERIFICATION

The Ruddock Creek project has a long history with a significant database of historical data. The majority of past work programs were completed by Cominco and Falconbridge and are well documented with respect to methodology, personnel and analytical procedures. More recent work programs carried out by Cross Lake and Selkirk have returned results that show a very good correlation with the historical values. Although the authors have not independently verified all of the historical data it is believed to be reliable.

The authors examined the original assay certificates and drill logs as well as the digital database. The site visit included examination of drill core, drill sites and underground workings. Assay data for the Falconbridge era drilling on the E Zone (holes E-1 to E-36) was collected from original drill logs showing interval, sample number, and Pb, Zn and Ag assays. The 1976 and 1977 drilling by Cominco has both the original assay certificates from Bondar-Clegg and Company, and original drill logs with sample number, interval and assay values.

### 14.1 Standards

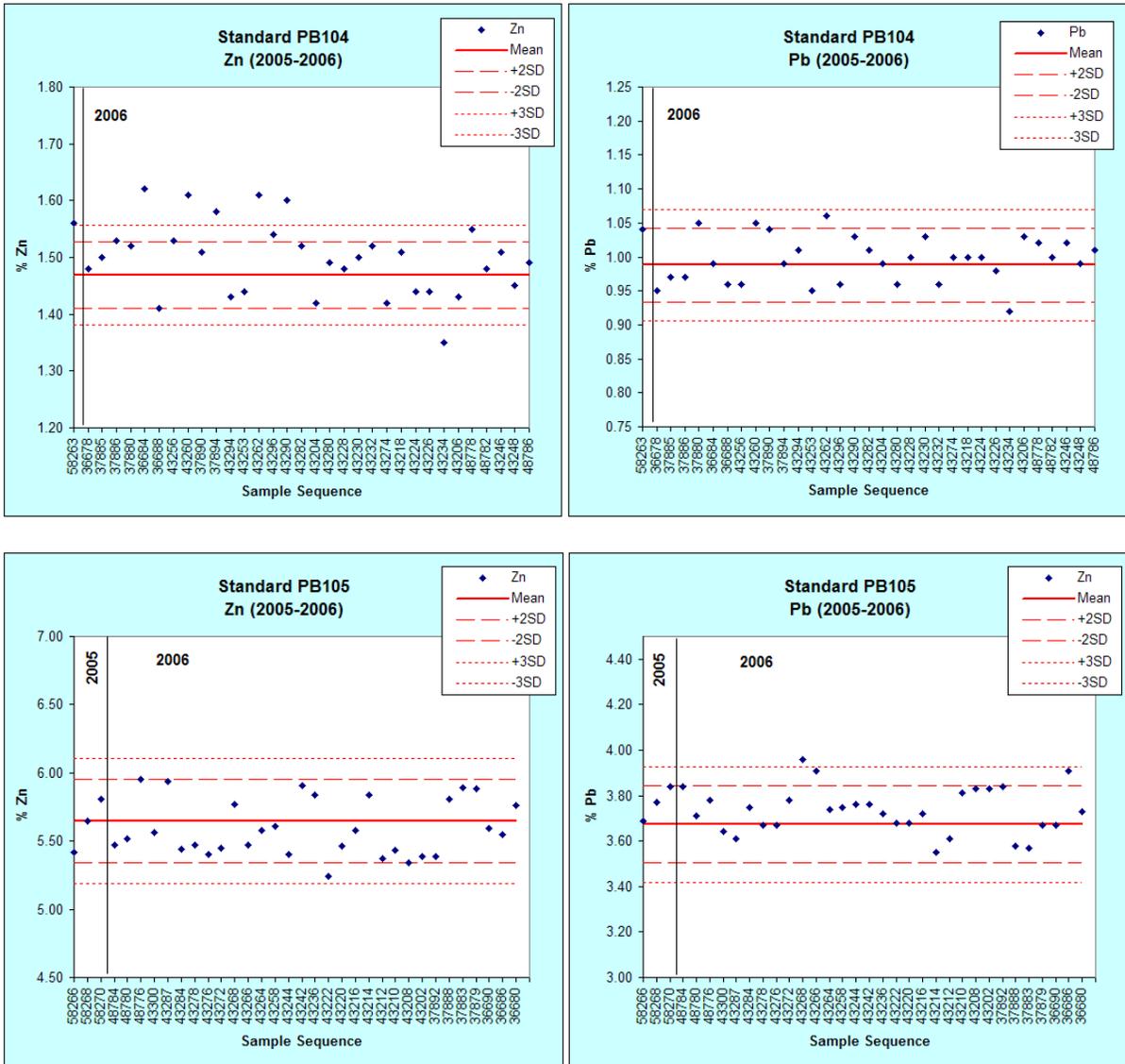
Four reference standards and one blank standard were purchased from WCM Minerals of Burnaby B.C. and utilized during the 2005 and subsequent drill programs. The statistics for these are shown in Table 14-1.

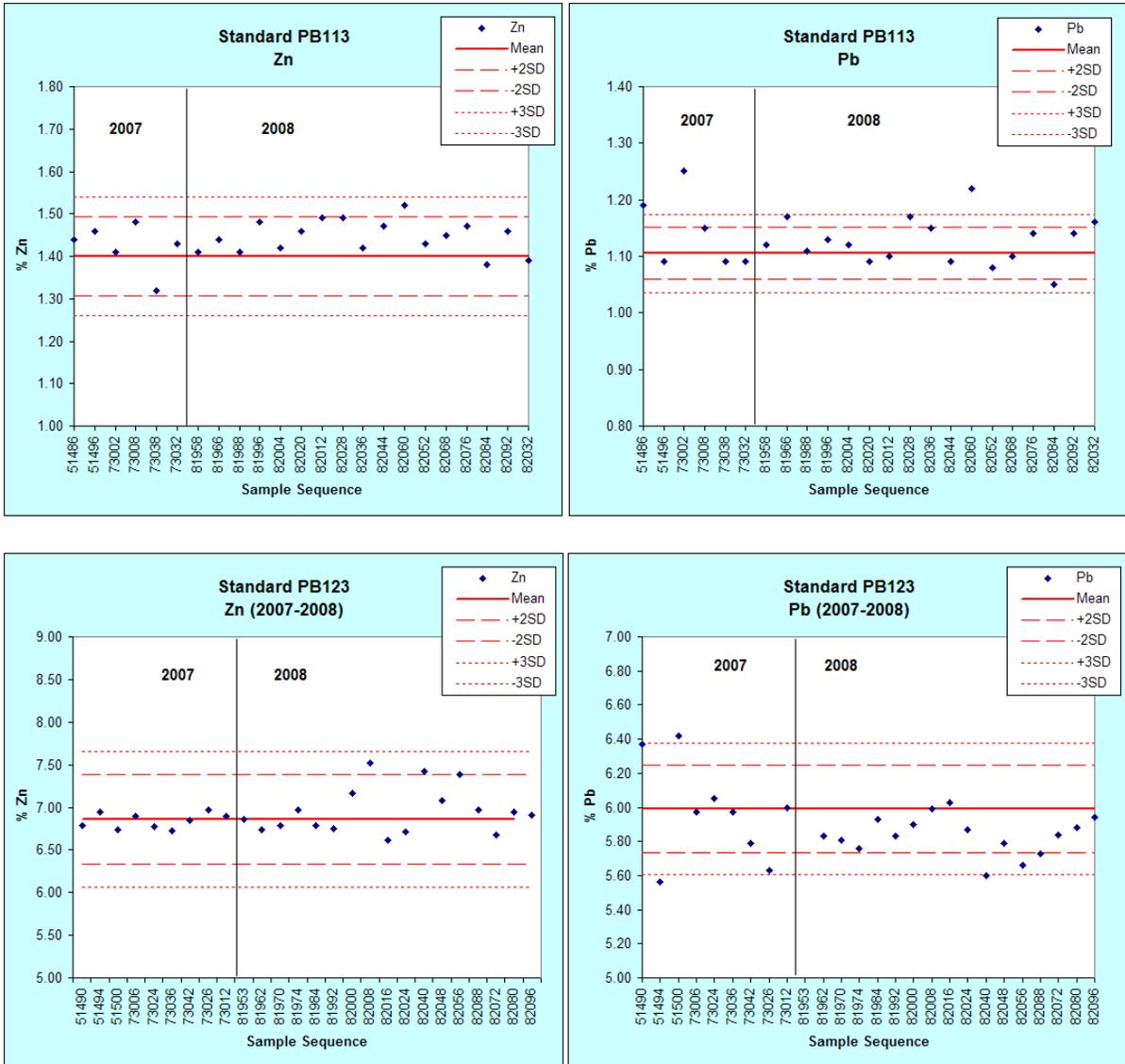
**Table 14-1 Reference Standards**

Ref ID	Type	Drill Program	Zn		Pb	
			Mean	Std Dev	Mean	Std Dev
BL 105	Blank	2005-08	-	-	-	-
PB 104	Std	2005-06	1.469	0.0294	0.988	0.0274
PB 105	Std	2005-06	5.648	0.1531	3.673	0.0845
PB 113	Std	2007-08	1.400	0.0465	1.105	0.0231
PB 123	Std	2007-08	6.99	0.2535	6.035	0.149

Sample sequence charts for the standards are shown in Figure 14-1. Two failed batches were re-analyzed at ACME in 2009 at the request of the author. Apparently no regular monitoring of the standards was carried out by company staff. Part of the reason was due to long delays in receiving analytical results and many were not received until after the drill program had been completed.

Figure 14-1 Reference Standards - Sample sequence charts





### 14.2 Blanks

A total of 52 blanks were inserted during the 2005-2008 drill programs. No evidence of contamination during sample preparation was found.

### 14.3 Pulp re-checks

A total of 25 pulps from the 2005 drill program were re-analyzed at ALS Chemex in February 2006. Zn had the best correlation with no evident bias (Figure 14-3). Pb values tended to be marginally higher in the original ACME assays than in the ALS Chemex results (Figure 14-2). One sample was a clear outlier and was attributed to a sample mix-up as both Pb and Zn assays were significantly different.

Figure 14-2 2005 Check assays - Pb

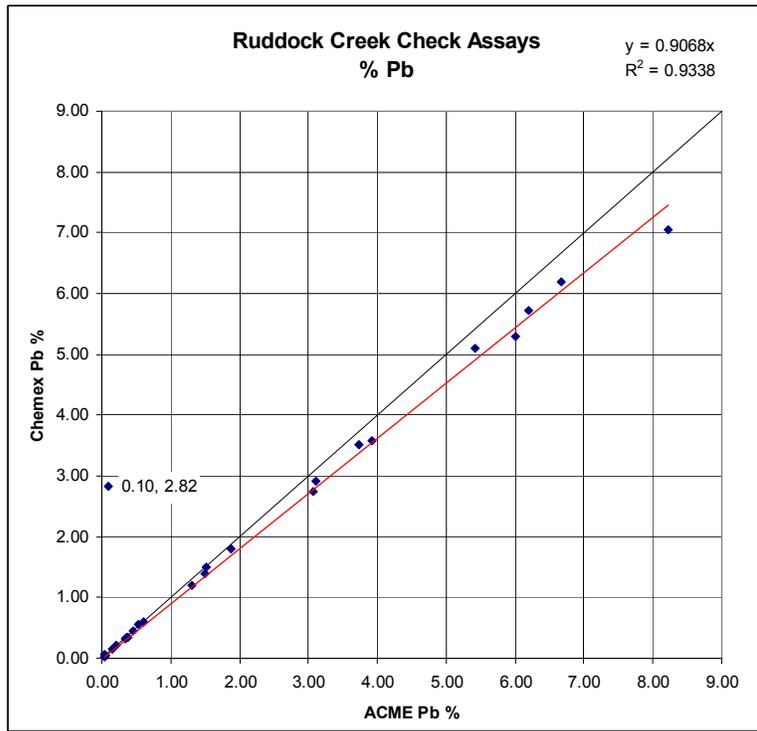
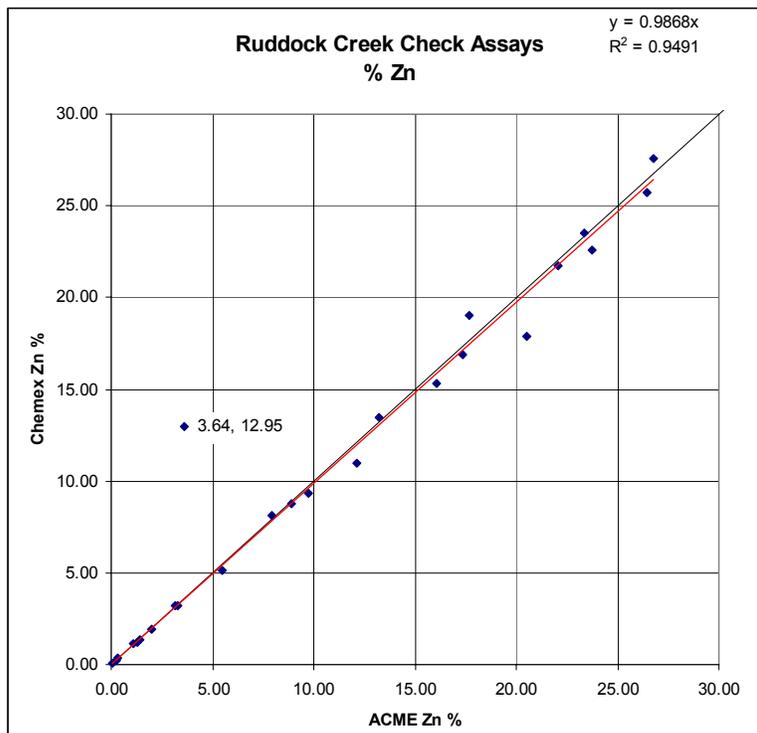


Figure 14-3 2005 Check assays - Zn



## 14.4 Conclusion

The authors are of the opinion that the data collection methods and database are of sufficient precision and accuracy to support resource estimation. However, the inclusion of historic drill data which has limited verification precludes the inclusion of a measured classification for the Upper E Zone.

It is recommended that more diligence be applied in the monitoring of reference standards and that 5% of the sample pulps be routinely sent to a secondary laboratory for re-analysis.

## 15 ADJACENT PROPERTIES

Not applicable.

## 16 MINERAL PROCESSING AND METALLURGICAL TESTING

SGS Mineral Services, a division of Lakefield Research was contracted by Selkirk to conduct Mineral Processing, Metallurgical Testing and Tailings Classification tests on ore from the Ruddock Creek deposit. This work commenced in 2006 and the final report was received in April of 2009. The following discussion is excerpted from the Lakefield reports detailed in Section 19, References.

### 16.1 Ore Sample

A blended shipment of 44 kg of Ruddock Creek Drill core was used for metallurgical testing, mineral processing and acid base accounting by SGS-Lakefield. The ore was derived from drill core from the near surface portion of the E Zone, the deep E Zone and from the Creek Zone. Prior to blending the ore was subjected to Wax Immersion testing to determine the Specific Gravity of the various rock types present. The intervals were blended to form a composite of each zone, followed by stage crushing and sample splitting for Head Assay and Bond Work Index determination. The head assays are presented in Table 16-1.

**Table 16-1 Head assay or zone composites**

Sample ID	Head Assay					
	Pb %	Zn %	Fe %	Ag g/t	C(g)	S %
E-Zone	1.37	6.4	6.38	4.5	0.13	5.76
Deep E-Zone	1.11	5.65	6.01	1.4	0.02	4.37
Creek Zone	1.48	5.76	5.55	1.3	0.07	5.32

The remaining sample in each composite was partly crushed to -3/8" for heavy liquid testing, and 10 mesh for flotation testing.

The BWI value for the E-Zone was 14.1 kWh/t where as for both Deep East and Creek Zones it was 13.7kWh/t. These values fall into the medium range of hardness within the SGS database. Heavy liquid (HL) testing was conducted on the E-Zone sample to assess the possibility of preconcentration prior to flotation. This has the potential for significant savings to mining, hauling and waste disposal costs. In the best test it was shown that 34% of the mass could be removed with only 1% and 0.3% loss of lead and zinc metal respectively.

## 16.2 Mineralogical Characterization

The sample of E-Zone material was submitted for Rapid Mineral Scan (RMS) as an initial determination of mineralogy. This technique uses a combination of optical mineralogy and XRD to provide a fast, semi-quantitative evaluation of mineralogy prior to starting a flotation program.

The RMS indicated that the ore was mainly silicates (non-opaques) with sphalerite being the most abundant sulphide mineral. Pyrite, pyrhotite and galena abundance were each quantified as minor, suggesting 1-5%. Sphalerite grain size was found to be in the 40-80 micron category, where-as galena grain size was found to be 20-40 microns. This is typical for Pb:Zn ores. The XRD results showed that quartz and plagioclase were the major silicate species with lesser amounts of feldspar. Later in the program, a sample of E-Zone was submitted for analysis by QEMSCAN. This is an acronym for Quantitative Evaluation of Materials by Scanning Electron Microscopy and is an advanced system capable of measuring mineralogical variability at the micron scale.

Initially the sample was analyzed using the Bulk Modal Analysis (BMA) method, in order to obtain a complete mineral modal balance. The BMA data confirms that quartz and feldspar are the two dominant minerals in the ore, with sphalerite being the most abundant sulphide. Interestingly, pyrhotite is the next most abundant sulphide at 7.7%, with pyrite being relatively minor at 1.3%. Mica was also noticeably significant, which may have consequences for flotation as it is readily entrained in froth due to its plate-like structure. In order to assess the liberation characteristics of both the galena and sphalerite in the sample, a plot of liberation vs. size was constructed (known as a release curve), and benchmarked against the SGS global database for both galena and sphalerite. The Ruddock Creek E-Zone galena can be ranked as moderately fine grained. For sphalerite on the other hand, Ruddock Creek E-Zone ranks as one of the better samples in the database with a high degree of sphalerite liberation at relatively coarse sizes. It is likely that the galena liberation may drive the primary grind size, and fairly fine regrinding of lead rougher concentrates will almost certainly be required. Overall, zinc metallurgy is likely to be very strong although significant zinc is likely to report to the lead circuit via the lead cleaner tailings stream.

## 16.3 Heavy Liquid Separation

In order to investigate the potential for pre-concentration of sulphide bearing rocks away from barren gangue rocks, heavy liquid testing was conducted on the E-Zone sample at crush sizes of - 3/8" and -5/8". At both crush sizes sub 14 mesh fines were screened out and the oversize tested sequentially at three specific gravity (SG) values, with methylene iodide being the heavy liquid and SG modification made by addition of acetone.

It can be seen in Table 16-2 that the finer crush size (-3/8") performed marginally better than the coarser crush size (-5/8") as would be expected. The best result was at the finer crush size and at an SG of 2.7 at which 34% of the mass was removed to HL floats, with metal losses of only 1% of the Pb and 0.3% of the Zn. At the higher SG of 2.95 the mass removal increases to 55% and metal losses increase to 3.7% of the Pb and 2.8% of the zinc.

**Table 16-2 Detailed Assay of Sink and Float Fractions**

Product	Pb %	Zn %	Fe %	Ag (g/t)	C(g) %	STOT%	S2 %
Sink Fraction	1.92	12.7	9.7	4.63	0.03	12.3	11.6
Float Fraction	0.052	0.19	0.86	< 0.5	0.07	0.34	0.11
HLS Head (Calc.)	1.29	8.47	6.71	3.23	0.066	8.37	7.75

The base metals distribution from the test is shown in Table 16-3.

**Table 16-3 Distribution of Base Metals in HLS Products**

Product	Weight		Grade Distribution					
	(g)	%	Pb	Zn	Fe	Pb	Zn	Fe
Sink Fraction	24280	66.2	1.92	12.7	9.7	98.6	99.2	95.7
Float Fraction	12390	33.8	0.052	0.19	0.86	1.36	0.76	4.33
HLS Head (Calc.)	36670	100	1.29	8.47	6.71	100	100	100

The gangue ‘float’ fraction comprised 34% of the HLS feed. After HLS, a ‘pre-concentrated’ flotation feed was produced by combining the sink fraction and the -20 mesh fraction (from initial sample preparation of ore composite). The pre-concentrated flotation feed was crushed to -10 mesh and rotary split into 2kg flotation charges. The float fraction was also crushed to -10 mesh and freezer stored for environmental testing.

## 16.4 Flotation

Flotation testing, supported by automated mineralogy, was conducted on the E-Zone and Deep E-Zone samples. A total of 13 batch tests were conducted on the E-Zone sample, followed by a locked cycle test. In addition a locked cycle test was also conducted on the Deep E-Zone composite. The batch tests were designed to optimize the primary grind and reagent suites. It was found that generally the main challenge of the ore was depressing the zinc in the lead circuit. The amount of zinc reporting to final tails was extremely low in all tests, so the focus was more on lead circuit optimization. Use of Cytec 3418A as a lead collector proved superior to AF242, and the use of lime as a pH modifier in the lead cleaners proved superior to soda ash. Results were generally superior at a finer grind, which does correspond to the mineralogy as galena is fairly fine grained. A primary grind of 65 microns and a rougher concentrate regrind of ~20 microns gave the best results, but the potential to make the primary grind slightly coarser may exist with further testing.

The lead circuit conditions used in both F11 and F13 were then used with locked cycle tests. The middlings from any given cycle are added to the appropriate place in the next cycle, effectively simulating a continuous process. The results of the first locked cycle test (LCT1) gave an improvement of several percent recovery points over the batch testing, and gave a final lead recovery of 91.4% to a concentrate grade of 63.2% Pb. It should be noted that this included a heavy liquid pre-concentration step. A locked cycle test was then conducted on Deep E-Zone material and gave far superior results. A lead recovery of 94% was achieved to a concentrate grade of 68.8% Pb.

The amount of zinc reporting to the lead rougher concentrate was high throughout all the early testwork, and although the majority reported to cleaner tailings, the overall loss had a negative impact the zinc recovery. Tests F11 and F13 were able to minimize the zinc reporting to lead rougher concentrates down to approximately 5% using higher depressant dosages. This ensured less zinc reported to the final lead concentrates which had a positive

impact on zinc recovery. In LCT1, the total zinc lost to lead concentrate was 1.5%, which is considered a good result. It should be noted that in LCT2 (Deep E-Zone) the amount of zinc lost to the lead concentrate is even less at 1.3% despite the increase in lead recovery.

The lead results are good, and are as predicted from the batch testing where as the zinc results are not quite as good as what the batch tests and mineralogy suggest. The main source of zinc loss is in the cleaner scavenger tail. This may be the result of i) inadequate flotation time in the cleaners, ii) over-grinding of the rougher concentrates resulting in the loss of ultra fine zinc (which is common in cleaner circuits), or iii) the lack of copper sulphate in the regrind. It is likely that further testing will reduce this loss and hence increase the zinc recovery.

The results of LCT2 conducted on the Deep E-Zone material, were superior to LCT1, particularly for lead. The zinc recovery was high at 94.1% but the zinc concentrate grade was low at 46.1%. It is likely that by moving along the grade vs. recovery curve, a recovery of ~90% would be achieved to a concentrate grade of ~50% Zn. It should be noted that again the cleaner scavenger tail is the main source of zinc loss. Commenting further on the locked cycle tests, the improved metallurgy of LCT2 could be attributable to i) the Zn circuit being pulled harder than in LCT1 (thus the higher Zn recovery in LCT2), and ii) better operator judgment in performing the test, having experienced froth behavior from LCT1. The latter assertion is further reinforced by noting that the circuit stability plot for LCT2 was smoother than LCT1.

### **16.5 Batch Cleaner Testing**

Two batch cleaner tests, F1 and F2, were performed to confirm the metallurgy of the flotation circuit. The final lead concentrate in F1 graded 54% Pb at only 7.3% recovery. The Pb 2nd cleaner concentrate graded 58% at 59% recovery, indicating the later cleaning stages performed poorly. The zinc concentrate graded 55% Zn at 32% recovery. The recoveries were very poor and it was observed that froth bubble structure during this test was very poor. The results in test F2 were significantly improved over test F1. The lead final concentrate (Pb 5<sup>th</sup> cleaner concentrate) graded 74% Pb at 60% recovery. The Pb 4th cleaner concentrate in test F2 graded 70% Pb at almost 90% recovery. The zinc concentrate graded 52% Zn with 72% recovery.

### **16.6 Environmental Characterization**

SGS completed environmental and geotechnical characterization of ore, tailings and heavy liquid separation (HLS) waste from the Ruddock Creek project. Additional environmental tests were also completed on selected waste rock samples from the deposit. The purpose of the environmental test program was to assess the geochemical, acid rock drainage (ARD), contaminant release potential and geotechnical properties associated with the ore, tailings, HLS waste and waste rock materials.

Semi-quantitative XRD analyses determined that the ore (*RD-06-116*) sample tested was predominantly comprised of sulphides and silicates. Pyrrhotite and sphalerite were the dominant sulphide minerals followed by galena and pentlandite. Quartz was the dominant silicate mineral, followed by orthoclase and albite. XRD examination of the tailings (*Comb Zn Ro Tails*) and HLS waste (*Float Fraction*) samples reported increased silicates and significantly lesser sulphide.

Whole rock and inductively coupled plasma-optical emission spectroscopy/mass spectroscopy (ICPOES/ MS) elemental analyses completed on the tailings and HLS waste confirmed the primarily silicate composition of the waste samples while indicating that Zn was available in the tailings at at ~1.6%. The considerable loss on ignition (LOI) determined for the *Comb Zn Ro Tails* sample suggests the presence of appreciable amounts of oxidizable/volatile species (e.g. hydroxides and carbonates). The *Float Fraction* waste reported a lesser LOI suggesting little in the way of oxidizable/volatile species. ICP-OES/MS elemental analysis of the ore sample (*RD-06-116*) reported significant amounts of silicate and metallic elements including Pb and Zn as would be expected. Due to the metallic nature of the ore sample (*RD-06-116*); whole rock analyses could not be completed.

ICP-OES/MS elemental analysis of the waste rock samples (*730151 PG*, *730152 CS*, *730153 CS* and *730154 PG*) similarly reported significant amounts of silicate and metallic elements. The *730153 CS* sample was the only waste rock sample to report significant amounts of Ca. Only trace levels of Ca were observed in the other waste rock samples. Modified acid base accounting (ABA) test results for the ore (*RD-06-116*), tailings (*Comb Zn Ro Tails*) and *RC 730152 CS* waste rock samples indicated that the NP of these samples is insufficient to counteract the potential acidity determined based on the sulphide concentrations present. The acidic final pH values determined for these samples during net acid generation (NAG) testing confirmed the acid generation potentials indicated by the ABA test results and suggested that metal acidity may be a factor which will also contribute to the overall acidity generated by these samples. Modified ABA testing of the *Float Fraction* and *RC 730151 PG* samples indicated significant amounts of fast reacting carbonate mineralization which, coupled with the low sulphide concentrations, suggest that these samples are highly unlikely to generate acidity. The near neutral to slightly alkaline final pH values reported after aggressive oxidation of the *Float Fraction* and *RC 730151 PG* samples during NAG testing confirmed the unlikely acid generation potential of these samples. Although the *RC 730154 PG* sample similarly reported a very low sulphide content; carbonate assay indicated that almost all of this samples total NP is from less reactive mineral sources. These results suggest significant uncertainty with regards to the availability and reactivity of this total NP. NAG testing was not completed on the *RC 730154 PG* sample. ABA testing indicated that the *RC 730153 CS* and *RC Blend* samples clearly have the potential for acid consumption. The alkaline final pH reported for the *RC Blend* sample during NAG testing confirms the acid consumption potential of this sample.

Analysis of the ore, tailings and HLS waste shake flask extraction leachates reported all controlled parameters, with the exception of Zn (*Float Fraction*), at concentrations well within the World Bank limits. ICP-OES/MS analyses of the fresh and aged *Comb Zn Ro Tails* decant solutions similarly reported all MMER controlled parameters, with the exception of Zn, at levels well within the specified limits.

Results of the toxicity tests completed on the *Comb Zn Ro Tails Day 61* decant solution indicated that the aged tailings solution was significantly more toxic to the *Daphnia magna* (planktonic crustaceans) than to the rainbow trout fry.

Particle size distribution analyses indicated that both the ore (*RD-06-116*) and the HLS waste (*Float Fraction*) samples were comprised primarily of sand sized grains. Only minor fractions of the samples were classified as fines. In comparison, the *Comb Zn Ro Tails* showed a much finer particle size distribution with the majority of the sample being classified as fines. Atterberg limits testing completed on the minus 0.425 (-40 mesh) fraction of the

tailings (*Comb Zn Ro Tails*) resulted in a non-plastic (NP) classification for this sample. Results of the standard Proctor tests completed on the *Comb Zn Ro Tails* sample reported compaction characteristics that would typically be expected from a silt or rock flour type material. Consolidation testing conducted on the material showed only a modest reduction in the volume of the voids present in the tailings sample. Direct shear test results for the tailings sample reported that the sample was non cohesive (c=0) and an internal angle of friction of  $\sim 40^\circ$  ( $\phi=40.43^\circ$ ). Results of the settling tests indicated that the *Comb Zn Ro Tails* will settle quite quickly in a tailings pond setting; however, the addition of drainage to the settling test resulted in only a minor difference in the final settled density of the samples. Hydraulic conductivity testing conducted on the drained settling test sample reported semi-pervious hydraulic conductivities corresponding to that which would be expected from silt type soils.

## 17 MINERAL RESOURCE ESTIMATE

### 17.1 Exploratory Data Analysis

Resource modeling for the E Zone utilized analytical data from surface and underground core drilling programs. The source data for the Upper E Zone included historic drill data while the Lower E Zone model used only recent drilling information. A few historic drill holes penetrated the Lower E Zone but downhole surveys were not taken so the locations of the intercepts were not judged to be of sufficient accuracy for use in resource estimation. The following tables summarize historic and recent drilling on the E Zone.

**Table 17-1 E-Zone historic drilling (pre 2004)**

Company	Year	Series	Number	Metres	Assayed Intervals	Assayed metres
Falconbridge	1961	E-1 to 19	19	812.79	373	442.86
Falconbridge	1962	E-20 to 37	19	1,130.16	374	400.82
Falconbridge	1963	ED-1 to 8	8	3,228.49	30	59.55
Cominco	1975	C-1-75	1	694.04	12	66.15
Cominco	1976	C76-1 & 2	2	1372	-	-
<b>Total</b>			<b>49</b>	<b>7237.48</b>	<b>789</b>	<b>969.38</b>

**Table 17-2 E-Zone recent drilling (2004-2008)**

Company	Year	Series	Number	Metres	Assayed Intervals	Assayed metres
Cross Lake	2004	RD-100 to 111	11	1,838.74	345	456.90
Selkirk Metals	2005	RD-112 to 115	4	3,245.46	90	78.55
Selkirk Metals	2006	RD-116 to 160	35	12,788.47	912	1,106.00
Selkirk Metals	2007	RD-161 to 185	9	2,366.34	247	271.36
Selkirk Metals	2008	EUG-1 to 32	33	5,429.74	1,054	1,039.54
<b>Total</b>			<b>92</b>	<b>25,668.75</b>	<b>2648</b>	<b>2,952.35</b>

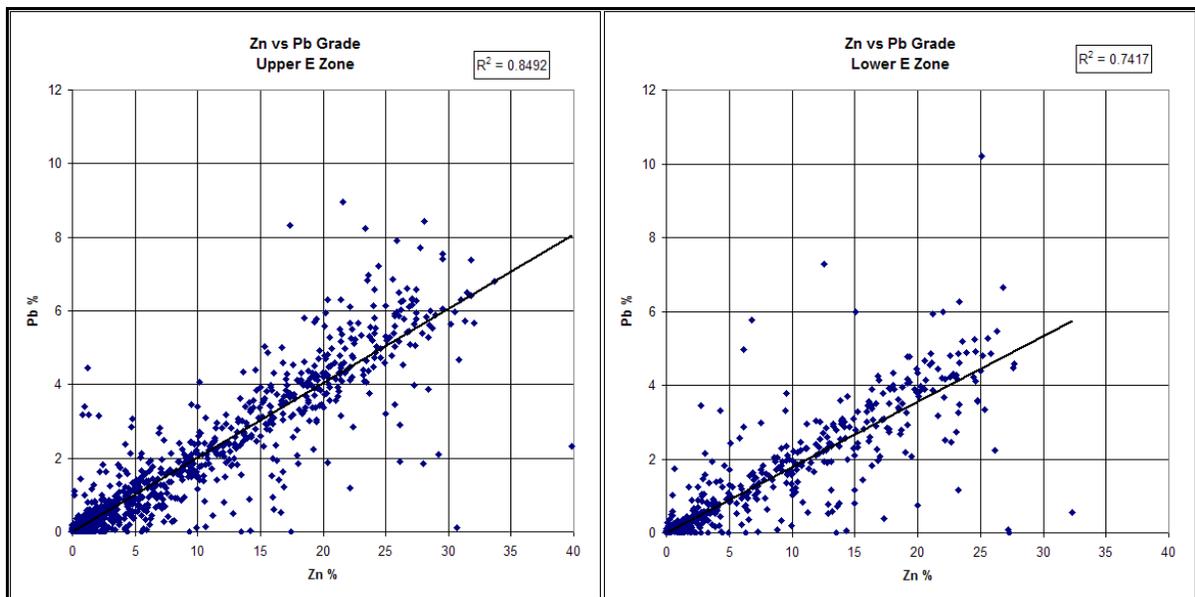
A total of 770 composites from 108 drill holes (1941m) were used for block grade estimation.

Statistical analysis was performed on samples within the mineral zones and the results are shown in Table 17-3. The Zn:Pb ratio is fairly constant at around 5:1 and both zones show a similar correlation (Figure 17-1).

Table 17-3 Sample statistics by zone

	UPPER E ZONE			LOWER E ZONE		
	Zn	Pb	Ag	Zn	Pb	Ag
Count	1129	1129	514	631	1760	1144
Min	0.00	0.00	0.00	0.00	0.00	0.00
Max	39.87	8.96	76.00	32.32	10.21	76.00
Mean	7.69	1.56	2.65	6.63	1.44	2.30
Wt Avg	6.46	1.35	2.17	6.09	1.18	2.06
Median	3.57	0.60	0.30	2.80	0.55	0.00
Variance	77.13	3.66	44.36	60.56	3.25	30.05
Std Dev	8.78	1.91	6.66	7.78	1.80	5.48
COV	1.14	1.23	2.51	1.17	1.25	2.38

Figure 17-1 Scatterplots of Zn vs Pb by zone



Outliers were evaluated by analyzing decile distribution and probability plots. Results are illustrated in Figure 17-2 and Figure 17-3. Neither Zn nor Pb contained more than 40% of contained metal in the upper decile or 5% in the upper percentile. Probability plots showed no significant outlier population. It was deemed that cutting or capping of high grade samples was not required.

Figure 17-2 Decile analysis and cumulative probability for Zn

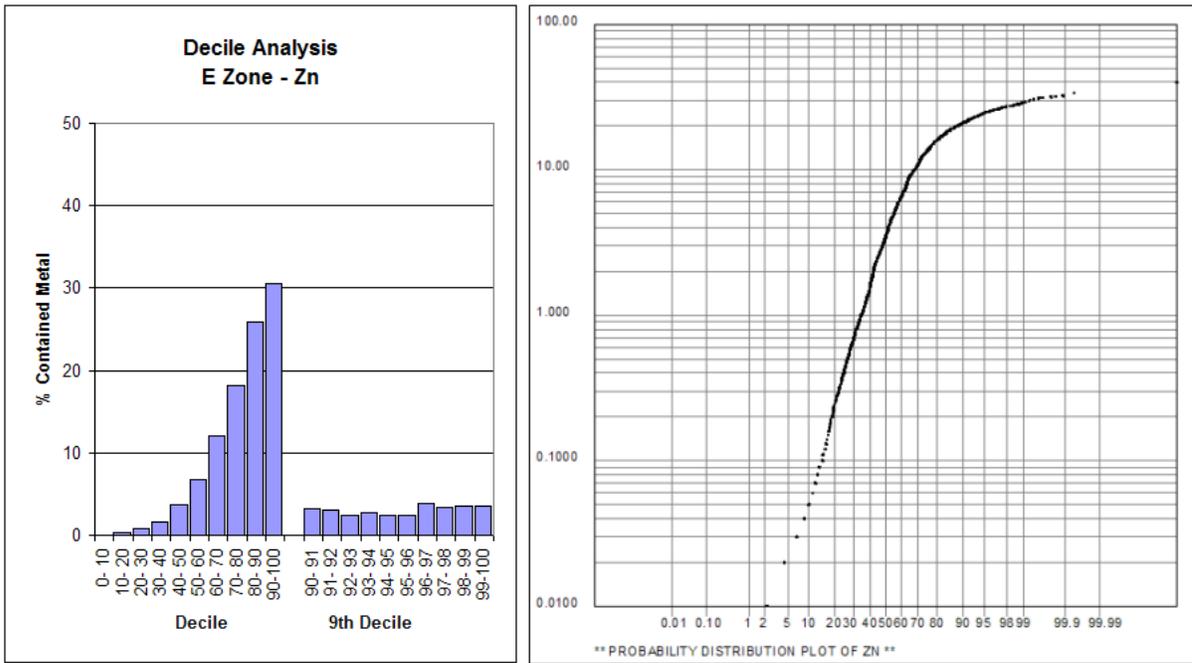
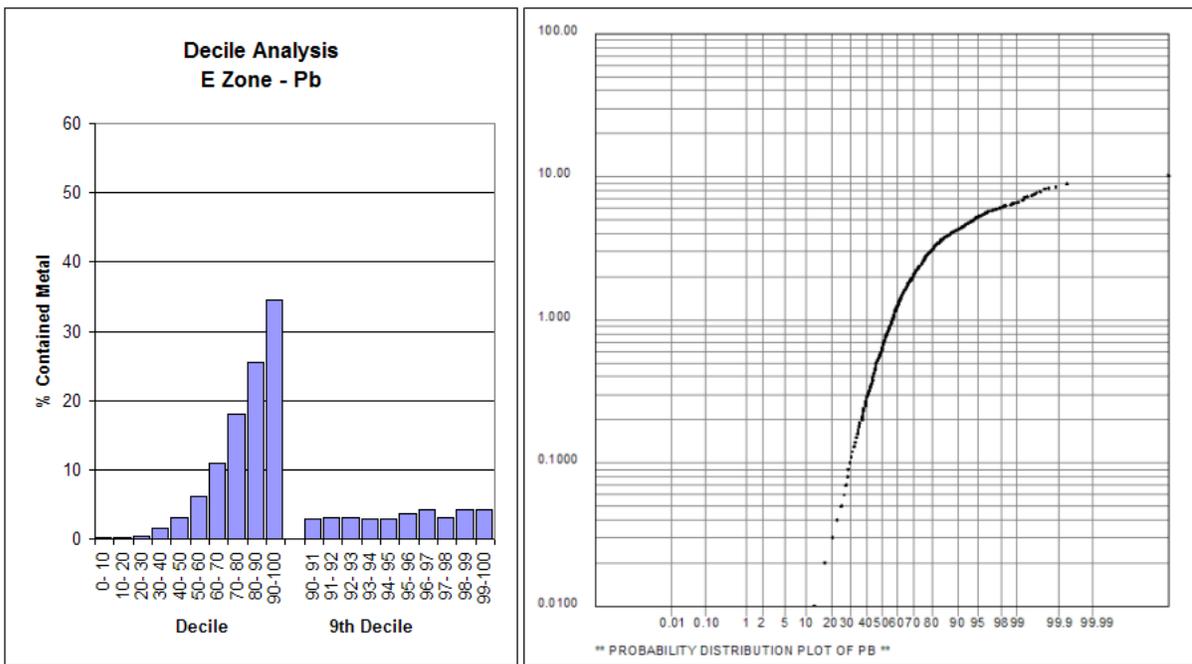


Figure 17-3 Decile analysis and cumulative probability for Pb

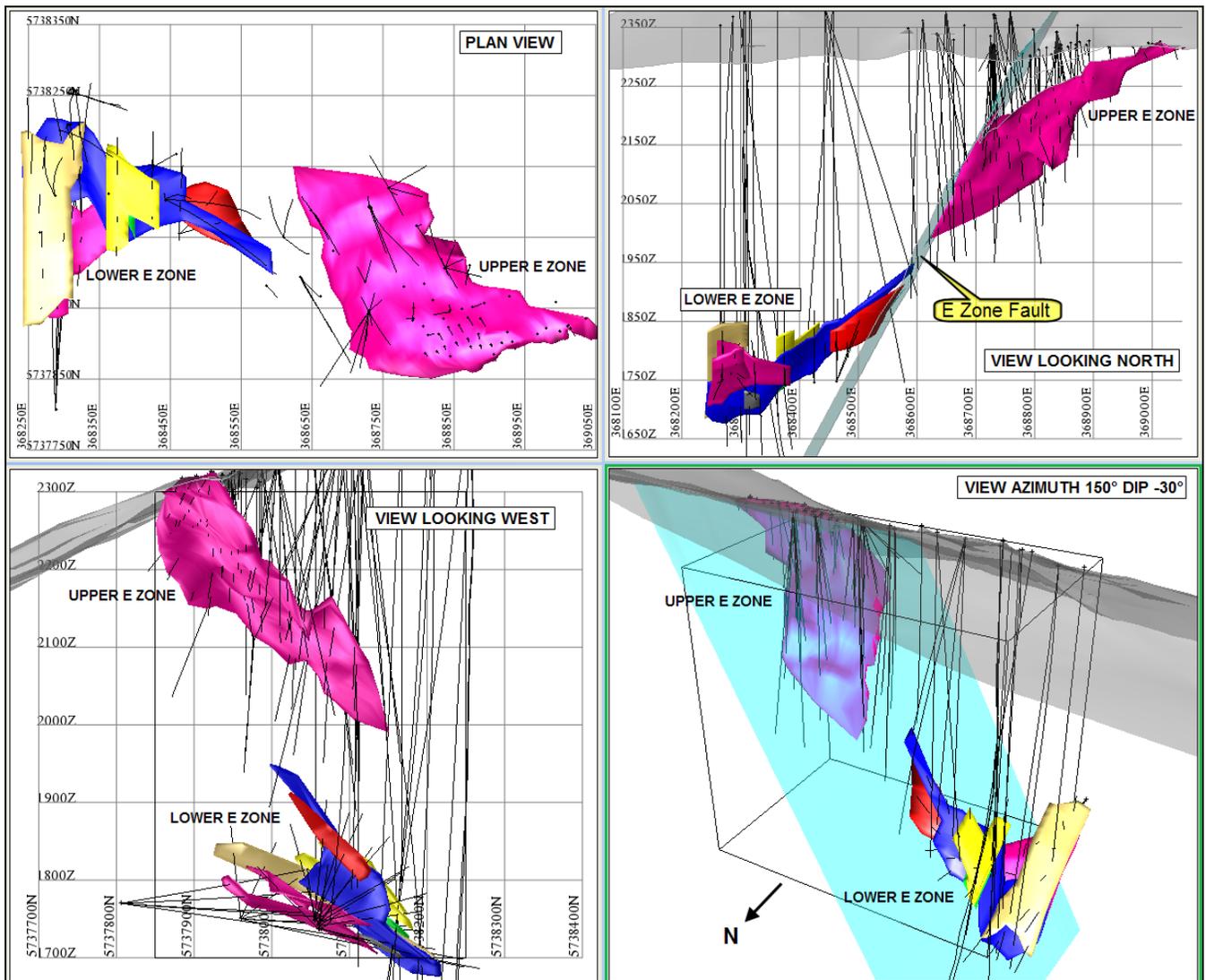


## 17.2 Deposit Modeling

The Upper and Lower E Zone geometry was interpreted in cross section using a minimum width of 2.5 m. The sections were then wireframed into 3D solids using Gemcom Surpac Vision© software. The Upper E Zone was modeled as a single continuous unit with internal

dilution in the form of pegmatite dykes included. The Lower E Zone was interpreted as seven sub-zones separated by unmineralized material. The zones were assigned integer codes with 101 signifying the Upper E Zone and 201-207 the Lower E Zone solids. Portions of the lower E Zone solids were extended up to 100m beyond the last drill fence. Figure 17-4 illustrates the final models in plan, section and perspective views.

**Figure 17-4 E Zone solid models**



### 17.3 Compositing

Downhole composites were created within the 3D solid models using the 'best fit' method. This procedure produces samples of variable length, but of equal length within a contiguous drill hole zone, ensuring the composite length is as close as possible to the nominated composite length. In this case, the nominated length was set at 2.5m. Statistics for the individual domains are shown in the Table 17-4. Histograms of frequency distribution for Zn and Pb are illustrated in Figure 17-5 to Figure 17-8

Table 17-4 Composite statistics by zone

Zone	Domain	n	Mean Composite Grades				Zn/Pb Ratio
			Zn	Pb	Ag	Pb+Zn	
Upper E Zone	101	550	6.22	1.30	0.98	7.52	4.81
Lower E Zone	201	23	6.96	1.28	2.17	8.25	5.42
	202	11	4.22	0.65	1.48	4.87	6.51
	203	4	5.86	1.05	1.44	6.91	5.56
	204	96	7.47	1.47	2.66	8.94	5.09
	205	13	5.33	1.00	1.73	6.33	5.36
	206	60	3.93	0.82	0.88	4.75	4.80
	207	13	1.54	0.19	0.35	1.73	8.06
	201-207	220	5.78	1.12	1.85	6.90	5.17

Figure 17-5 Frequency distribution of Zn composites in Upper E Zone

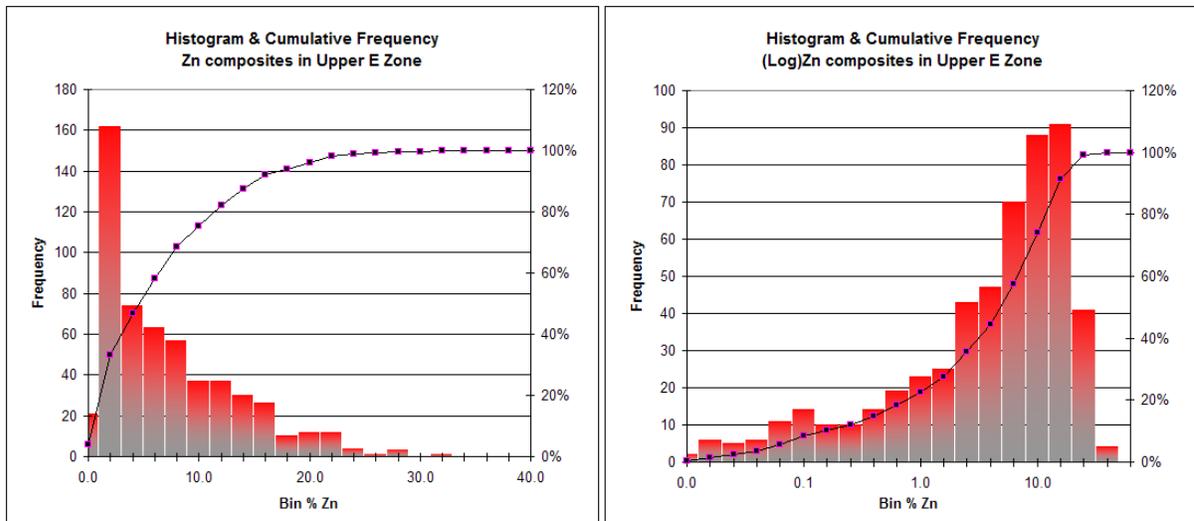


Figure 17-6 Frequency distribution of Zn composites in Lower E Zone

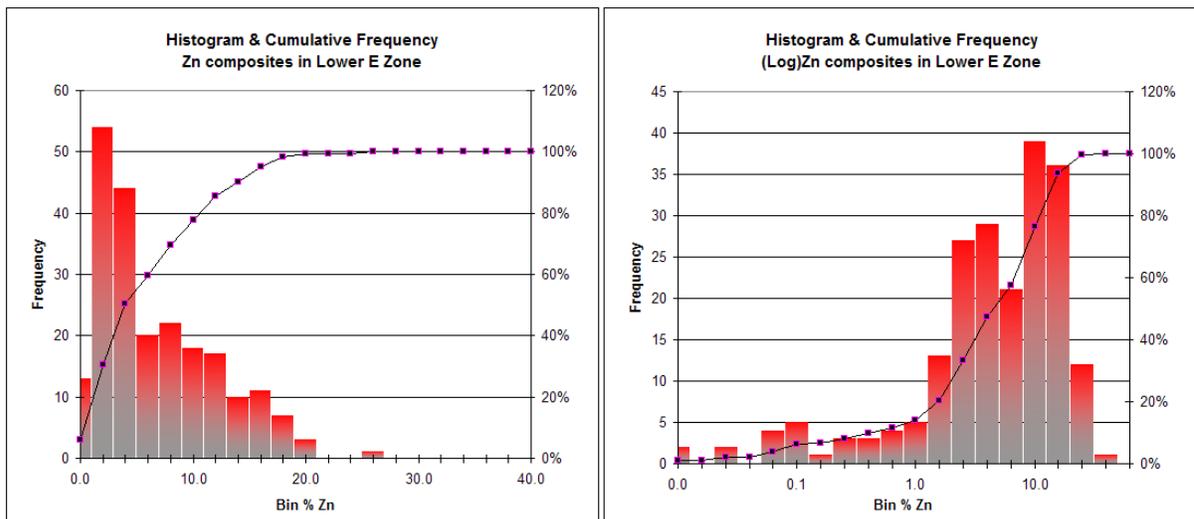


Figure 17-7 Frequency distribution of Pb composites in Upper E Zone

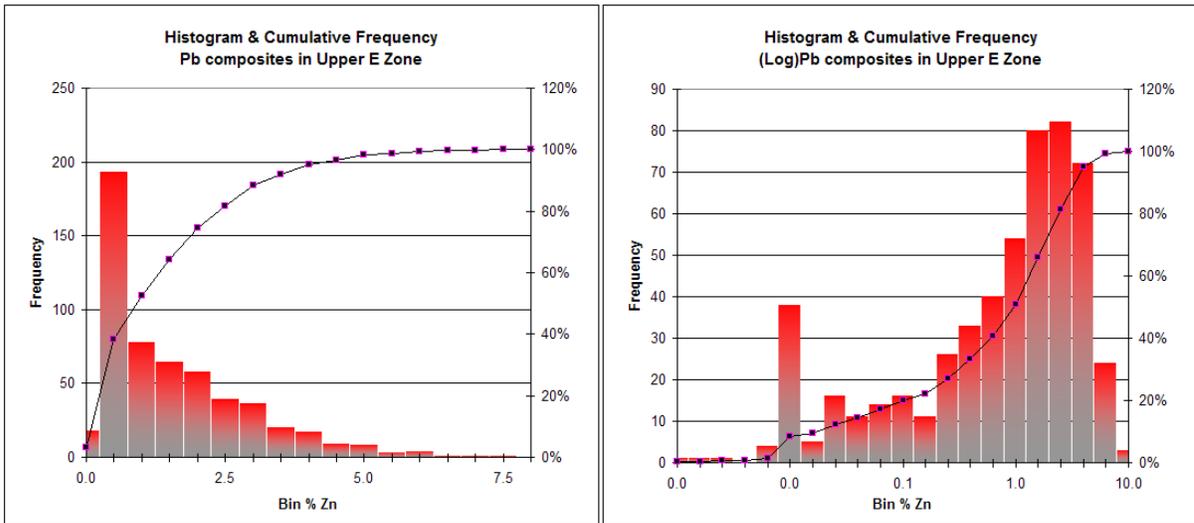
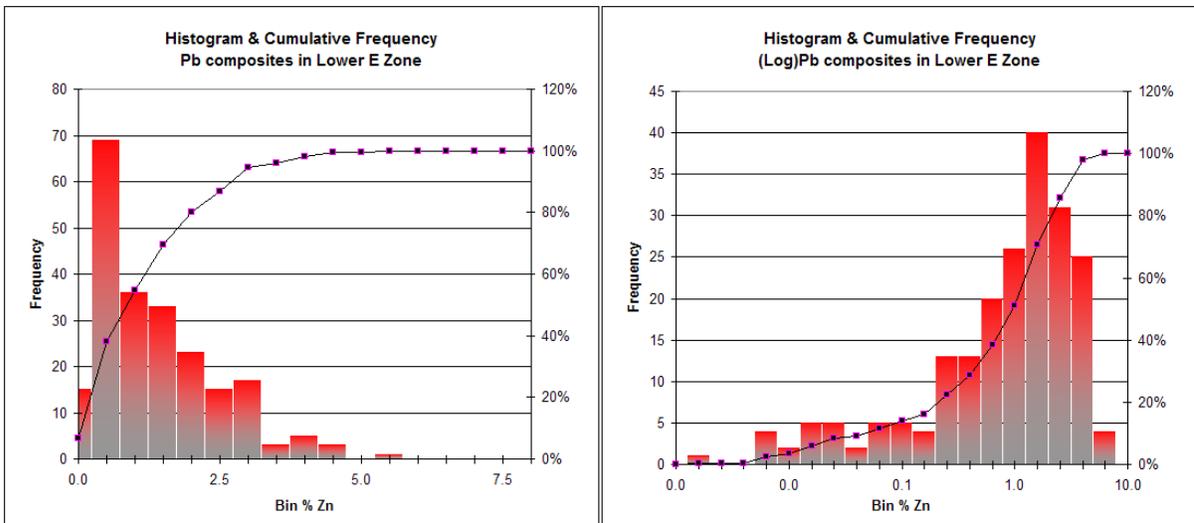


Figure 17-8 Frequency distribution of Pb composites in Lower E Zone

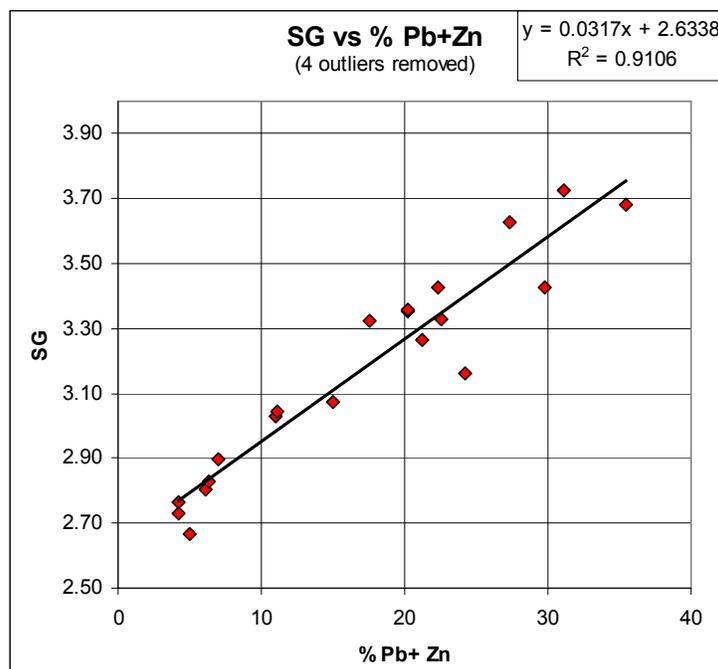


## 17.4 Density

A total of 30 SG measurements were made from drill core using the water immersion method after sealing the core with wax. Most of the samples (24) were from the massive sulfide zones grading over 4% combined Pb:Zn. After removing 3 outliers, the results for the massive sulfide samples were plotted against the Pb/Zn content as shown in Figure 17-9. Results showed a good correlation between increasing grade and SG ( $R^2=0.91$ ) and a linear regression formula was applied to blocks based on their estimated Pb:Zn content with a lower cap of 2.6 (the median value of unmineralized samples). The formula applied was

$$SG = 0.0317 * (\%Pb + \%Zn) + 2.63$$

**Figure 17-9 Scatterplot of SG vs % Pb+Zn**



## 17.5 Variogram Analysis

Normal semi-variograms for Zn and Pb were modeled using composites falling within the domain constraints in order to determine kriging parameters, search parameters and anisotropy. Single spherical structures were modeled in the plane of the zones with maximum ranges of approximately 31-34m. The minor axes perpendicular to the zone geometry were between 8 and 11 m. The nugget effect was moderate at 23-30% of the total variance for Zn and 17-19% of the variance for Pb. The model parameters are listed in Table 17-5.

**Table 17-5 Variogram models**

Item	Axis	Azim	Dip	co	c1	a1
<b>Zn Upper E Zone</b>	Major	53	0	13.5	26.9	33.8
	S-Major	143	43	13.5	26.9	30.2
	Minor	143	-47	13.5	26.9	11.2
<b>Pb Upper E Zone</b>	Major	53	0	0.23	1.624	31.4
	S-Major	143	43	0.23	1.624	25.1
	Minor	143	-47	0.23	1.624	10.4
<b>Zn Lower E Zone</b>	Major	50	53	6.43	21.4	31.0
	S-Major	140	32	6.43	21.4	26.0
	Minor	140	-58	6.43	21.4	8.6
<b>Pb Lower E Zone</b>	Major	50	53	0.23	0.95	31.4
	S-Major	140	32	0.23	0.95	26.2
	Minor	140	-58	0.23	0.95	8.7

## 17.6 Block Model and Grade Estimation Procedures

A block model was created in Gemcom-Surpac Vision© software using a parent block size 10 x 5 x 5 m with a minimum sub-block size of 5x 2.5 x 2.5m. The model was rotated to match the average trend of the mineralized zones (Table 17-6).

**Table 17-6 Block model parameters**

	X	Y	Z
Minimum Coordinates	368000	5738050	1450
Maximum Coordinates	369300	5738950	1800
Parent Block Size	10	5	5
Min. Block Size	5	2.5	2.5
Rotation	44°	53.5°	0°

Zn and Pb grades within the zone domains were estimated in three passes using the ordinary kriging method. The first pass used a maximum anisotropic search equivalent to approximately half the full variogram range. The second pass used the full variogram range and the final pass extended a maximum distance of 100 m. Kriging search parameters are summarized in Table 17-7. Block model statistics are shown in Table 17-8 and charts of frequency distribution in Figure 17-10. The block model grade distribution is illustrated in Figure 17-11 and Figure 17-12.

Table 17-7 Search parameters

Zn - Upper E Zone						
Kriging Pass	Search Distance (m)			Min # Composites	Max # Composites	Max/Hole
	0->053	43->143	-47->143			
1	16	13	5	3	12	3
2	31	26	10	3	15	3
3	100	83	33	2	18	3
Zn - Lower E Zone						
Kriging Pass	Search Distance (m)			Min # Composites	Max # Composites	Max/Hole
	53->050	32->140	-58->140			
1	16	13	4	3	12	3
2	31	26	9	3	15	3
3	100	84	28	2	18	3
Pb - Upper E Zone						
Kriging Pass	Search Distance (m)			Min # Composites	Max # Composites	Max/Hole
	0->053	43->143	-47->143			
1	16	13	5	3	12	3
2	31	25	10	3	15	3
3	100	80	33	2	18	3
Pb - Lower E Zone						
Kriging Pass	Search Distance (m)			Min # Composites	Max # Composites	Max/Hole
	53->050	32->140	-58->140			
1	16	13	4	3	12	3
2	31	26	9	3	15	3
3	100	83	28	2	18	3

Table 17-8 Block model statistics by cut-off grade

Cutoff Grade % Pb+Zn	Tonnes 000's	% Zn	% Pb	% comb Pb+Zn
0.0	4,905	6.11	1.24	7.35
1.0	4,716	6.34	1.29	7.63
2.0	4,495	6.59	1.34	7.93
3.0	4,227	6.88	1.39	8.27
4.0	3,831	7.29	1.47	8.76
5.0	3,348	7.79	1.58	9.37
6.0	2,769	8.45	1.72	10.17
7.0	2,284	9.09	1.86	10.95
8.0	1,846	9.77	2.01	11.78
9.0	1,446	10.53	2.16	12.69
10.0	1,125	11.28	2.33	13.61

Figure 17-10 Block model frequency distribution of grades

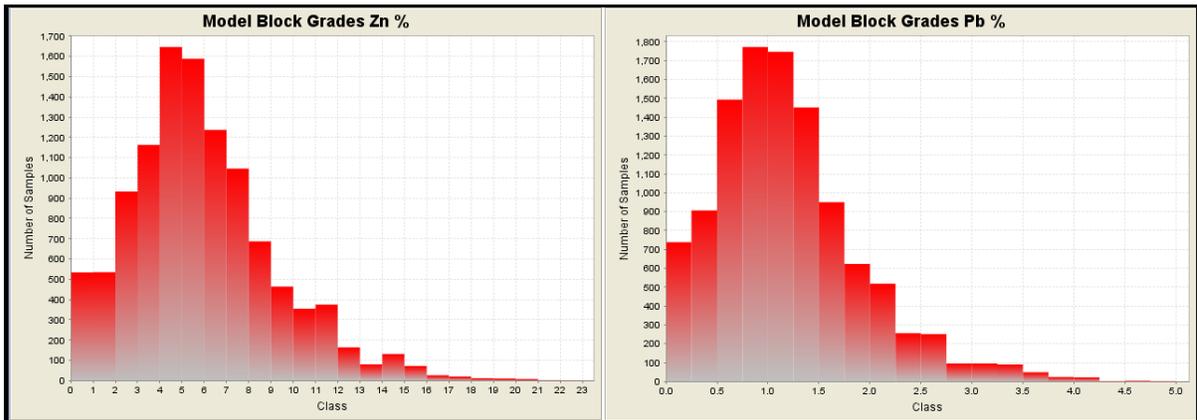


Figure 17-11 Block model grade distribution - Zn

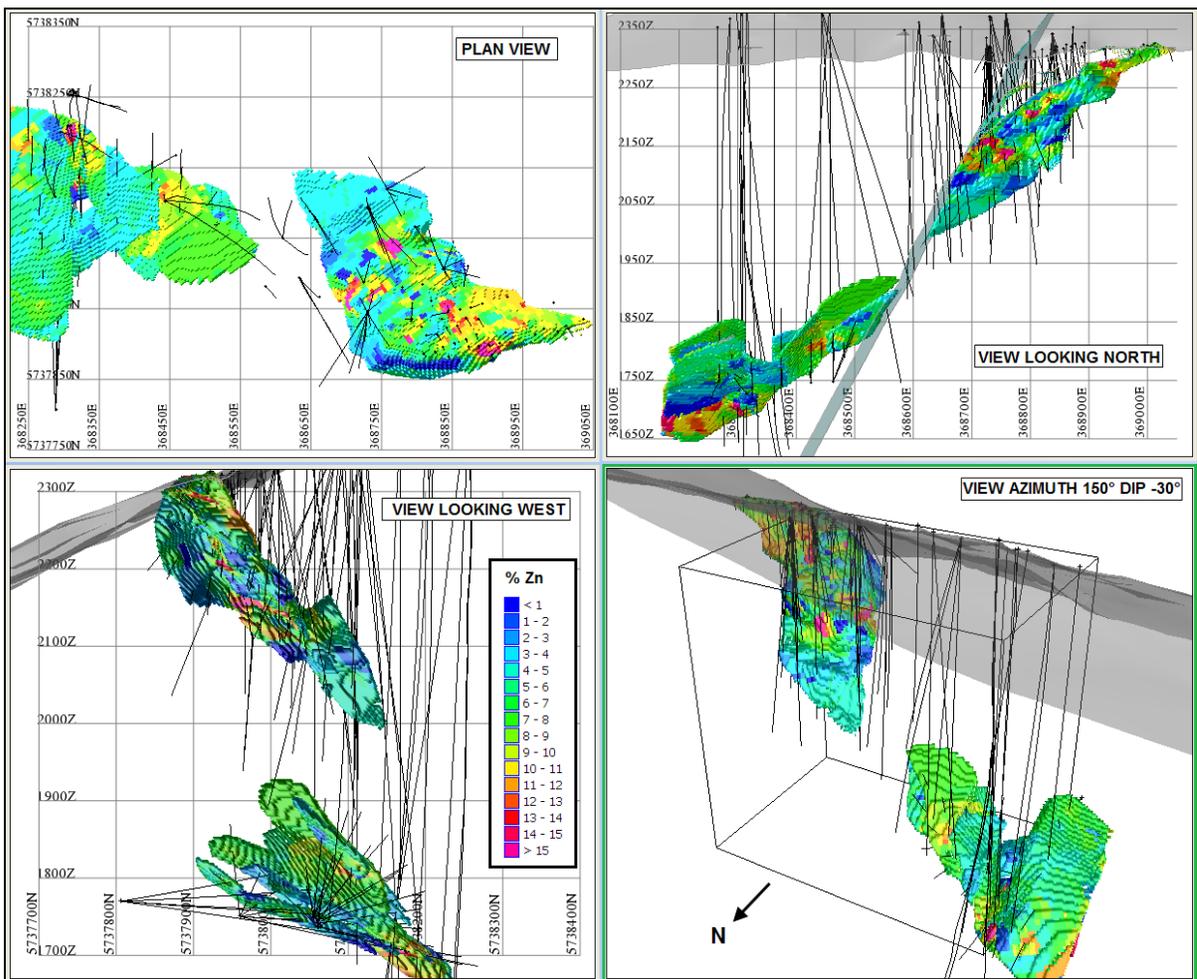
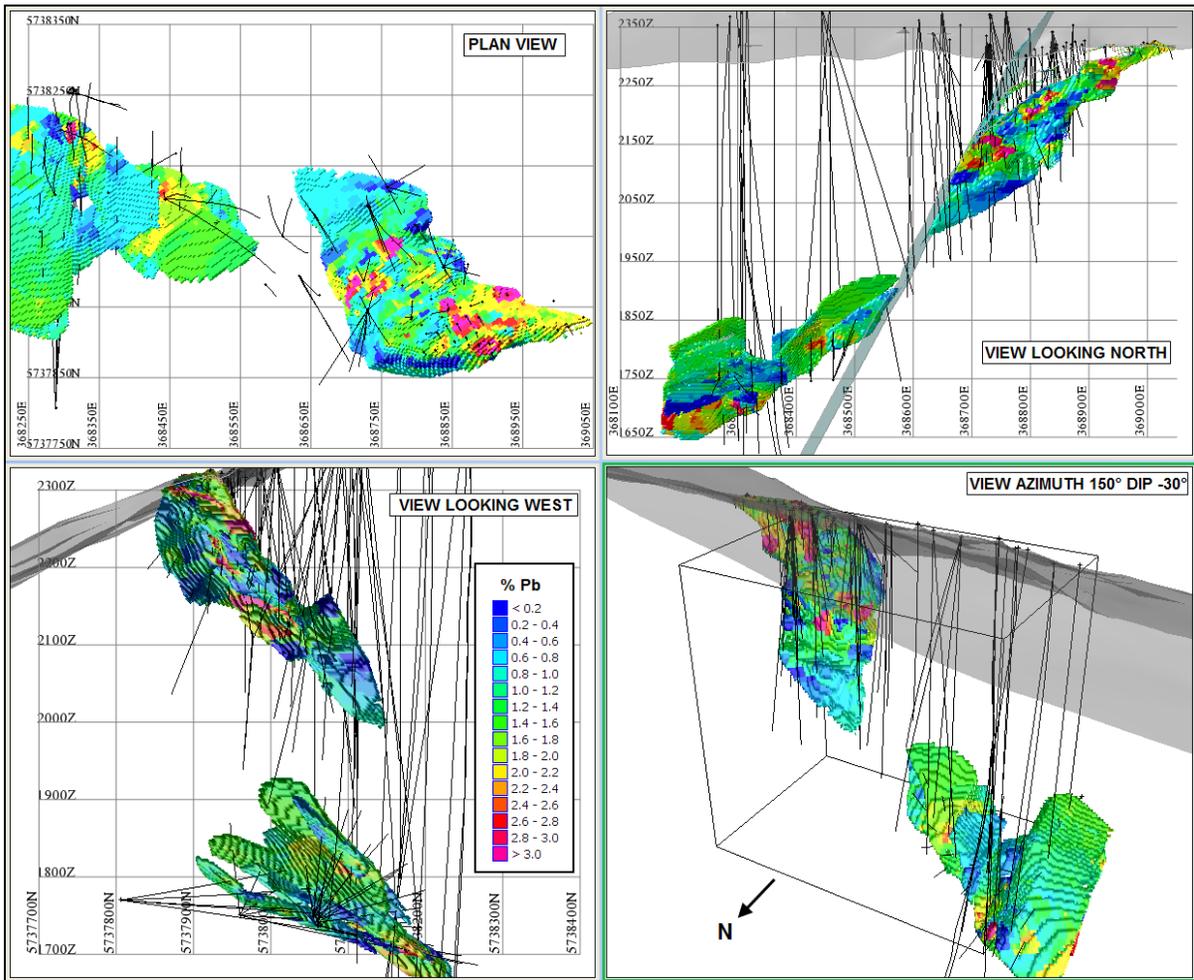


Figure 17-12 Block model grade distribution - Pb



## 17.7 Mineral Resource Classification

Resource classifications used in this study conform to the following definition from National Instrument 43-101:

### **Measured Mineral Resource**

*A 'Measured Mineral Resource' is that part of a Mineral Resource for which quantity, grade or quality, densities, shape, physical characteristics are so well established that they can be estimated with confidence sufficient to allow the appropriate application of technical and economic parameters, to support production planning and evaluation of the economic viability of the deposit. The estimate is based on detailed and reliable exploration, sampling and testing information gathered through appropriate techniques from locations such as outcrops, trenches, pits, workings and drill holes that are spaced closely enough to confirm both geological and grade continuity.*

### **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.*

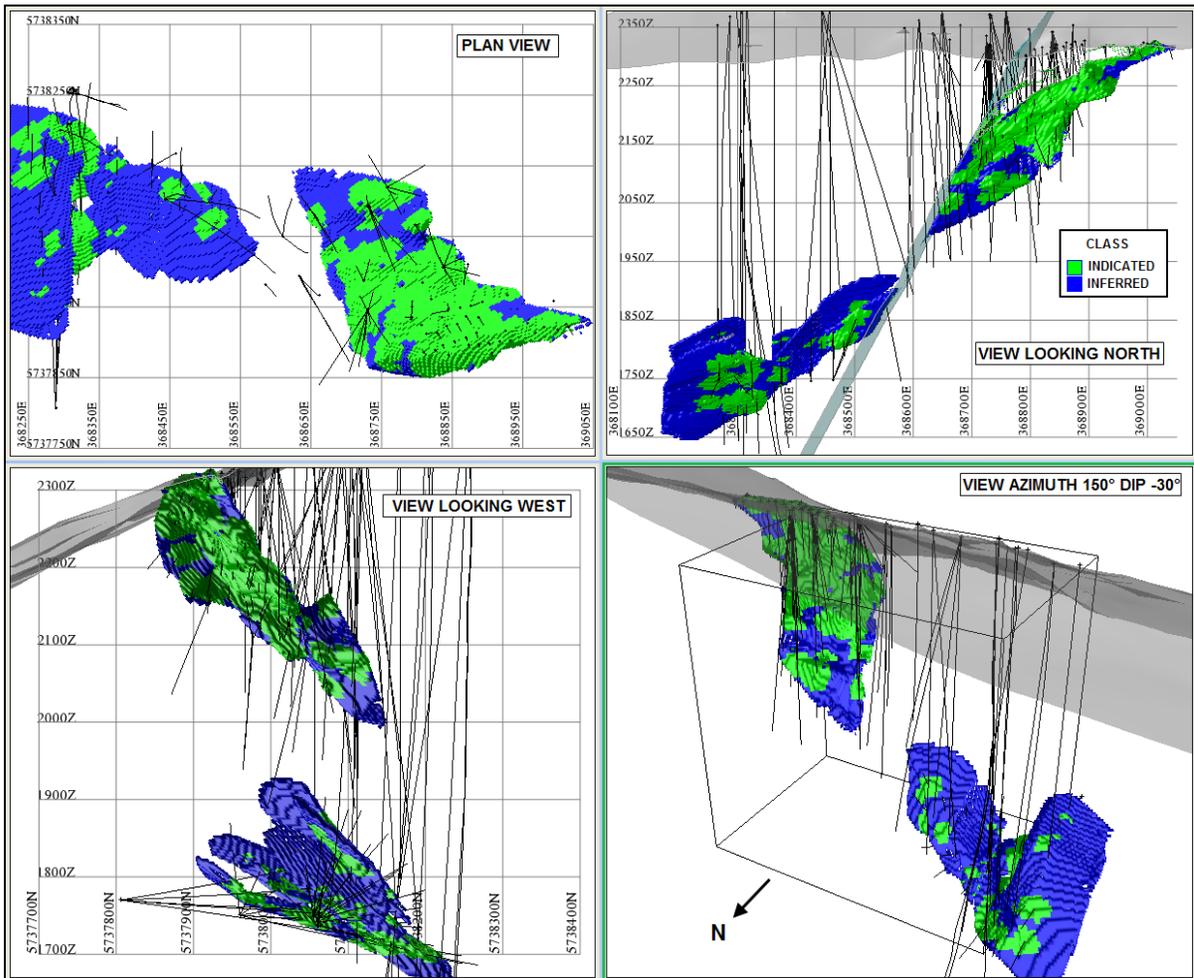
### ***Inferred Mineral Resource***

*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, pits, workings and drill holes.*

No part of the resource model was classified as 'measured', largely due to the irregularity of the massive sulphide beds and the intruding pegmatites, particularly in the Lower E Zone. Also, the historic drill holes used in the grade estimation of the Upper E-Zone did not have the level of QA/QC required for this classification.

Estimated blocks were classified as 'indicated' if they were estimated in the first or second kriging pass. All other estimated blocks were assigned to the 'inferred' category. The block classification is illustrated in Figure 17-13.

Figure 17-13 Block model classification



### 17.8 Model Validation

Model verification was carried out by visual comparison of blocks and sample grades in plan and section views. The estimated block grades showed reasonable correlation with adjacent composite grades.

A nearest neighbour estimate was also carried out using the same parameters as the kriging runs. The global mean grade comparisons between samples, composites and the two block model estimates show reasonable correlation (Table 17-9).

Table 17-9 Global mean grade comparison

Source	Zn %	Pb %
Samples	6.35	1.30
Composites	6.10	1.25
Kriged Model	5.96	1.21
NN Model	6.33	1.27

## 17.9 Cut-off Determination

A base case cut-off grade for combined Pb:Zn was determined by using the following cost/price assumptions.

**Table 17-10 Cut-off grade determination**

US\$/CDN\$1	\$28.90
Mining Cost	\$10.71
Processing Cost	\$4.42
G&A	\$18.87
Smelting/Refining/Transportation	\$62.90
Recovery	90%
Zinc Price US\$/lb	\$0.85
Lead Price US\$/lb	\$0.65
Zn:Pb Ratio	5:1
Pb-Zn combined cut-off	3.9%

For reporting purposes the cut-off grade was rounded to 4% combined Pb:Zn.

## 17.10 Mineral Resource Summary

The mineral resource for Ruddock Creek is presented in the tables below using a range of cut-offs with a base case of 4% combined Zn-Pb.

**Table 17-11 Ruddock Creek Mineral Resource - Upper E Zone**

Cutoff Grade % Pb+Zn	INDICATED				INFERRED			
	Tonnes 000's	% Zn	% Pb	% comb Pb+Zn	Tonnes 000's	% Zn	% Pb	% comb Pb+Zn
3	2,139	7.27	1.51	8.78	455	5.74	1.13	6.87
<b>4</b>	<b>1,915</b>	<b>7.78</b>	<b>1.62</b>	<b>9.40</b>	<b>398</b>	<b>6.15</b>	<b>1.18</b>	<b>7.33</b>
5	1,630	8.47	1.78	10.25	332	6.61	1.27	7.88

**Table 17-12 Ruddock Creek Mineral Resource - Lower E Zone**

Cutoff Grade % Pb+Zn	INDICATED				INFERRED			
	Tonnes 000's	% Zn	% Pb	% comb Pb+Zn	Tonnes 000's	% Zn	% Pb	% comb Pb+Zn
3	474	7.32	1.44	8.76	1,159	6.42	1.25	7.67
<b>4</b>	<b>423</b>	<b>7.85</b>	<b>1.54</b>	<b>9.39</b>	<b>1,094</b>	<b>6.63</b>	<b>1.28</b>	<b>7.91</b>
5	382	8.30	1.63	9.93	1,004	6.89	1.33	8.22

**Table 17-13 Ruddock Creek Mineral Resource – E Zone Combined**

Cutoff Grade % Pb+Zn	INDICATED				INFERRED			
	Tonnes 000's	% Zn	% Pb	% comb Pb+Zn	Tonnes 000's	% Zn	% Pb	% comb Pb+Zn
3	2,613	7.28	1.50	8.78	1,614	6.23	1.21	7.44
<b>4</b>	<b>2,338</b>	<b>7.79</b>	<b>1.61</b>	<b>9.40</b>	<b>1,492</b>	<b>6.50</b>	<b>1.26</b>	<b>7.76</b>
5	2,012	8.43	1.75	10.18	1,336	6.82	1.31	8.13

## 18 OTHER RELEVANT DATA AND INFORMATION

The authors are of the opinion that all known relevant technical data and information with regard to the Ruddock Creek Property has been reviewed and addressed in this Technical Report.

## 19 CONCLUSIONS

A stratabound massive sulphide horizon exists on the Ruddock Creek Property which is exposed at surface in the E Zone outcrops. This horizon has been shown by drilling and underground development to be a continuous tabular sheet of mineralization, in excess of 1000 m down plunge and 400 m down dip. The mineralization at Ruddock Creek has been subjected to multiple episodes of folding and metamorphism which has resulted in multiple mineralized horizons varying from less than 5 m to over 35 m in thickness. The zinc to lead ratio is relatively constant at approximately 5:1.

Underground development and drilling has defined a mineral resource at the E Zone on the Ruddock Creek property. At a 4% Pb:Zn cutoff the current Mineral Resource contains an Indicated 2,338,000T of 7.79% Zn and 1.61% Pb and an Inferred 1,492,000T of 6.5% Zn and 1.26% Pb. This mineral resource remains open to the west, the down dip portion of the mineralized horizon. It is the authors' opinion that there is excellent potential to expand the base metal deposit on the Ruddock Creek Property.

Metallurgical Testing and Mineral Processing studies completed by SGS-Lakefield Research of E Zone material has resulted in a process flowsheet involving heavy liquid separation and flotation leading to a lead recovery of 90.4% to a concentrate grade of 63.2% Pb, and zinc recovery of 86.1% to a concentrate grade of 52.9%. Further upside may be possible with further testing, as the majority of zinc loss was in the cleaner scavenger tailings. The silver content of the lead concentrate was 362 g/t.

The Creek Zone contains a mineralized horizon very similar to the E Zone mineralization. Drilling by Selkirk has shown this mineralization to be continuous for at least 400 m by 600 m, and to exhibit grades and thicknesses consistent with those observed at the E Zone. This mineralization remains open both along strike and down dip. Extrapolating the geometry of the Creek Zone horizon it appears that it is a continuation of the T Zone located 600 m to the west, and may be continuous with the U Zone an additional 500m further west.

The relationship of the Creek Zone to the E Zone is not yet clear, and may represent a fault offset and up lift of the E Zone mineralization, or it could correspond with the mineralization encountered at the G and M Zones. If the Creek Zone mineralization does correspond to the G and M Zones then it represents a second sulphide horizon with a stratigraphic separation of approximately 600 m. Previous shallow drilling by Cominco in the G and M areas was based on the presence of surface mineralization discovered by Falconbridge. As the structural history of this area is not well understood the resolution of this question will require additional deep drilling in the area of the Creek Zone.

Additional zones of known mineralization exist at the U, V, R, and Q showings which may represent continuations of the T and Creek Zone sulphide horizon to the west.

## 20 RECOMMENDATIONS

Additional exploration work is recommended to extend the significant high grade massive sulphide body at the E Zone to the west. The Creek Zone – U Zone has shown the surface is similar in grade and style to the E Zone, and will require geophysical surveys and drilling to establish its full extent and stratigraphic location. Further work is required on the western showings to determine their stratigraphic position with respect to the mineralization as exposed in the E Zone and Creek Zone.

It is recommended that increased diligence be applied in the monitoring of reference standards and that 5% of the sample pulps be routinely sent to a secondary laboratory for re-analysis.

A program of geophysical surveys is recommended to attempt to trace the deep E Zone down dip to the west and to expand the area of the Creek Zone – U Zone mineralization. Anomalies generated by this work would then require drill testing. A proposed 400 m of underground development would be required to extend the decline an additional 50-60 m through the mineralization turning west at the same time. An additional 350 m of down plunge decline located in the center of mineralized horizon at a distance of 75 m from the mineralized plane would then be required. This would provide stations for underground drill testing of the deep western portion of the zone.

Environmental data collection should continue with additional flora and fauna studies along with continuation of the water quality and meteorological data gathering. Metallurgical studies should include additional HLS testing and floatation tests to determine the optimal circuits for this ore.

The budget estimate provided in Table 20-1 provides a breakdown of the costs involved with the work programs described above.

**Table 20-1 Budget Estimate**

<b><u>Geophysical Surveys</u></b>	
EM Grid 30km at \$2,000/km	\$ 150,000
<b><u>Surface Diamond Drilling</u></b>	
Diamond Drilling 3,000 m at \$150/m	\$ 450,000
<b><u>Underground Development</u></b>	
Equipment	\$ 900,000
Dewatering	\$ 490,800
400 metre decline at \$3,750/m	\$ 1,500,000
<b><u>Underground Diamond Drilling</u></b>	
2 drills, 11,100m	\$ 1,110,000
<b><u>Project Support Costs</u></b>	
Labour, Equipment, Fuel	\$ 850,000
Geologists, Technicians, Analysis	\$ 300,000
Helicopter Support	\$ 150,000
Road Maintenance/Construction	\$ 50,000
Miscellaneous travel/accommodation	\$ 50,000
Metallurgical Testing	\$ 50,000
Environmental Sampling	\$ 100,000
Demobilization:	\$ 100,000
Reports/Drafting/Computer Modeling	\$ 50,000
Administration	\$ 50,000
<b>Subtotal</b>	<b>\$ 6,350,800</b>
Contingency 15%	\$ 952,620
<b>Total</b>	<b>\$ 7,303,420</b>
<b>Rounded Total</b>	<b>\$ 7,300,000</b>

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**Certificate of Author**

I, Ronald G. Simpson, P.Ge, residing at 1975 Stephens St., Vancouver, British Columbia, V6K 4M7, do hereby certify that:

1. I am president of GeoSim Services Inc.
2. This certificate applies to the report entitled “Mineral Resource Estimate, Ruddock Creek Project, British Columbia” dated July 15, 2009.
3. I graduated with an Honours Degree of Bachelor of Science in Geology from the University of British Columbia in 1975. I have practiced my profession continuously since 1975. My relevant experience is as follows:
  - 1975-1993 Geologist employed by several mining/exploration companies including Cominco Ltd., Bethlehem Copper Corporation, E & B Explorations Ltd, Mascot Gold Mines Ltd., and Homestake Canada Inc.
  - 1993-1999 Self employed geological consultant specializing in resource estimation and GIS work
  - 1999 – Present: President, GeoSim Services Inc.
4. I am a member in good standing of the Association of Professional Engineers and Geoscientists of British Columbia (Registered Professional Geoscientist, No. 19513) I am a “qualified person” for the purposes of NI 43-101 due to my experience and current affiliation with a professional organization as defined in NI 43-101.
5. I have visited the property on 2 occasions, most recently on October 9, 2008.
6. I am independent of the issuer applying all of the tests in section 1.4 of National Instrument 43 101.
7. I have had no prior involvement with the property that is the subject of the Technical Report.
8. I am responsible for the preparation of Section 17 of the Technical Report. All other sections are collaboration.
9. 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.
10. As of the date of this certificate, to the best of my knowledge, information and belief, the technical report contains all scientific and technical information that is required to be disclosed to make the technical report not misleading
11. I consent to the filing of the Technical Report with any stock exchange and other regulatory authority and any publication by them, including electronic publication in the public company files on their websites accessible by the public, of the Technical Report.

DATED this 15th day of July 2009

“Ronald G. Simpson”

Ronald G. Simpson, P.Ge.

## Certificate of Author

I, Jim Chapman, P.Geo, of 2705 West 5th Avenue, in the Province of British Columbia, am a Professional Geoscientist.

I am:

- a member in good standing of the Association of Professional Engineers and Geoscientists of British Columbia (Licence #19871).
- a graduate from the University of British Columbia with a Bachelor of Science degree in geology in 1976, and I have practiced my profession continuously since graduation.

As a result of my experience and qualifications I am a Qualified Person as defined in National Policy 43-101.

This experience has included all aspects of the industry from project generation through implementation and report preparation for owners, clients and regulatory authorities. Since 1982 I have operated as an independent consulting geologist and have been responsible for international and domestic project development, examination, evaluation and reporting on a variety of mineral deposit types and commodities, supervision and management of exploration projects as well as client representation and government liaison.

I am a co- author of the report titled “Mineral Resource Estimate for the Ruddock Creek Project, Kamloops Mining Division, BC” for Selkirk Metals Corp. dated July 15, 2009. The sources of all information are quoted in the report. The information provided by the various parties is to the best of my knowledge and experience correct.

As stated in the “Report” I have managed several years of exploration programs on the property.

I am not aware of any material fact or material change with respect to the subject matter of this technical report, which is not reflected in this report, the omission to disclose which would make this report misleading.

I hold options for 125,000 shares of Selkirk Metals Corp at a price of \$0.22. I have no direct or indirect interest in the subject property described in this report.

I have read National Instrument 43-101, Form 43-101F1 and this report has been prepared in compliance with NI 43-101 and Form 43-101F1.

Dated at Vancouver, British Columbia, this 15th day of July 2009.

“James Chapman”

James Chapman, P.Geo

Qualified Person