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### GEOLOGICAL AND GEOCHEMICAL REPORT

on the

FILE NO:

SUTLAHINE PROPERTY (PARK 10 - 13 CLAIMS)

Trapper Lake Area, British Columbia

**Atlin Mining Division** 

N.T.S. 104K/10E

Latitude: 58°31.3'N Longitude: 132°54.0'W

for

Consolidated Parklane Resources Inc. 850 - 609 W. Hastings St. Vancouver, B.C.

and

Slocan Development Corp. Ltd. 1100 - 808 W. Hastings St. Vancouver, B.C.

by

Azimuth Geological Incorporated 205 - 470 Granville St. Vancouver B.C.

7" <sup>7</sup> \*

Gregory G. Crowe, M.Sc., P. Geol. Larry R. Haynes, B.Sc.

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GEOLOGICAL BRANCH ASSESSMENT REPORT

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### SUMMARY

The Sutlahine property comprises four contiguous claims totalling 80 units and is located in northwestern British Columbia, approximately 120 km northwest of Telegraph Creek and 48 km north-northwest of the Golden Bear gold mine. Access is by float plane and/or helicopter.

The Park 10-13 claims, which are largely covered by glacial and alluvial overburden, overlie Cretaceous or Tertiary quartz monzonite. Upper Triassic Stuhini Group metamorphosed volcanics and sediments are present in the northwest corner of the claims. Faulting, fracturing and shearing of the quartz monzonite has developed along a north to northeast trend. Gossanous and hornfelsed zones are found in the Stuhini Group rocks.

Low grade copper mineralization was discovered by the Taku Syndicate in 1970 on portions of the ground covered by the Park claims. Geological and geophysical surveys completed by the syndicate during the summer of 1970 identified five copper showings on the Taku ground. Regional geochemical surveys by Chevron Canada Resources Ltd. in the early 1980's identified anomalous metal values in the area of the Sutlahine property. No further exploration was completed in the area until the location of the Park claims and work on the property work during 1991.

Current work consisted of geological mapping (1:5000), prospecting and rock sampling (32 samples), reconnaissance soil sampling (109 samples over 5.1 km) and silt sampling (12 samples). Copper mineralization was identified at several localities on the property. Mineralization occurs mainly as veinlets and fracture fillings in weakly altered quartz monzonite. In places, high silver values accompany the copper mineralization. Soil sampling located several anomalous copper-molybdenum and copper-arsenic zones on the property. Anomalous copper and molybdenum in soils are spatially associated with copper mineralization. Anomalous copper-arsenic-lead in soils coincident with gossanous and hornfelsed sediments may be related to base and precious metal mineralization.

Further work should consist of detailed soil sampling, prospecting and mapping to evaluate the copper-arsenic soil anomalies.

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### INTRODUCTION

At the request of Prime Equities Inc. (on behalf of Slocan Development Corp. Ltd.) Azimuth Geological Inc. was contracted to evaluate the Sutlahine property using geological and geochemical techniques. The property is located in northwestern British Columbia, 50 km northwest of the Golden Bear mine, in an under-explored but geologically attractive area.

Exploration by the Taku Syndicate in 1970 located low grade copper-molybdenum mineralization within portions of the ground covered by the Sutlahine property. Results of the syndicate's work suggested that the copper mineralization was controlled by faulting and fracturing within a quartz monzonite. The property was not assessed for its precious metal potential at the time. Results of regional heavy mineral silt sampling by Chevron Canada Resources Ltd. in the early 1980's returned anomalous arsenic and gold values on the property.

Current work was aimed at developing an understanding of the geological setting, extending the known showings, and conducting a preliminary examination of the remaining property for similar or other styles of mineralization.

### LOCATION, ACCESS and PHYSIOGRAPHY

The Sutlahine property is located in the extreme northwest corner of British Columbia (Figure 1), 1220 km northwest of Vancouver and 250 km south-southeast of Whitehorse, Yukon Territory (NTS: 104K/10). Closest supply towns are Telegraph Creek, 130 km to the southeast; Dease Lake, 170 km to the east; and Juneau, Alaska, 90 km to the west-southwest.

Access to the claim area is possible by float-equipped aircraft to Trapper Lake (16 km east southeast) or to Tatsamenie Lake (40 km southeast). Airstrips for conventional aircraft are located at Tatsamenie Lake, Muddy Lake (52 km southeast) and Tulsequah (40 km west-northwest). Final access would be by helicopter. A private road provides access from Telegraph Creek to the Golden Bear mine-site at Muddy Lake and is available for public use by prior arrangement with Golden Bear Operating Company.

Physiographically, the claims are located in the Tahltan Highland, a moderately rugged transitional zone between the Stikine Plateau and the eastern ranges of the Coast Mountains. Elevations on the Sutlahine property vary from approximately 700 m in the northwest corner of the property to 2285 m along the southern claim boundary. Most of the property is sub-alpine in nature with the exception of the lower valley floors in the east and northwest. Permanent icefields occupy the upper reaches of several small drainages within the claim area.



### **CLAIM STATUS**

The Sutlahine property consists of four contiguous modified grid claims (Park 10-13) totalling 80 units located in the Atlin Mining Division (Figure 2). Public records indicate the claims are owned by Consolidated Parklane Resources Ltd.

Current claim data as shown in public records is compiled below.

### Table I Claim Information

Claim Name	Record Number	Units	Expiry Date <sup>1</sup>						
Park 10	4528	20	March 24, 1994						
Park 11	4529	20	March 24, 1994						
Park 12	4530	20	March 24, 1994						
Park 13	4531	20	March 24, 1994						

<sup>1</sup> Assuming acceptance of current submission.



### HISTORY

Although no record remains, it is likely that the general area of the Sutlahine property was prospected in the 1920's and 1930's following discovery of the Tulsequah Chief and Polaris Taku deposits, 47 km to the northwest.

The only assessment work reported in the immediate area of the Sutlanine property are 1970 geological and geophysical surveys carried out on the B, S and J claims by L.G. White for the Taku Syndicate (White, 1970). Exploration of the B, S and J claims focused on the porphyry copper-molybdenum potential of the property. Geological surveys identified five mineralized zones on the claims and reported copper grades ranging from 0.02% to 0.32% and molybdenum grades from trace to 0.12%. White concluded that copper and molybdenum mineralization was controlled by northeasterly faulting and fracturing in a quartz monzonite. Little attention was paid to the precious metal potential on the claims.

The Park claims are covered by regional geochemical stream sediment surveys (RGS No. 20). Three samples were collected from two sites associated with drainages on the claims. Elevated copper values (108, 100 ppm Cu) were reported in two samples located four kilometres downstream from the copper showings. One of the two samples carried elevated gold values (70 ppb Au). Results of regional heavy mineral silt sampling by Chevron Canada Resources Ltd. in the early 1980's also showed anomalous results (K. Shannon, pers. commun., 1991) associated with the property.

In 1991 the Sutlahine property was staked by Consolidated Parklane Resources Inc. as the Park 10, Park 11, Park 12 and Park 13 claims and optioned to Slocan Development Corp. Ltd.. The Park claims cover approximately two thirds of the area previously covered by the B, S and J claims, including two of the five copper showings.

### **REGIONAL GEOLOGY**

The Tulsequah map-area was most recently mapped by Souther (1971). Regional geology in the Tatsamenie Lake-Trapper Lake area is shown in Figure 3. Oldest rocks in the area are strongly deformed and regionally metamorphosed Permian and Lower Triassic metasediments and metavolcanics (Units 3 and 4) of the Stikine Assemblage (Monger, 1980) which are intruded by Lower or Middle Triassic foliated quartz diorite (Unit 6). These older rocks appear to be restricted to an area between Trapper and Tatsamenie Lakes.

A major regional unconformity separates older rocks from less deformed Upper Triassic and younger strata. Most widespread of the younger strata are Upper Triassic Stuhini Group basic volcanics and related sediments (Units 7 and 8). In the area of interest these rocks form a southeast-trending syncline enclosing a core of Lower and Middle Jurassic Takwahoni Formation (Laberge Group) sediments and overlying Upper Cretaceous to Tertiary felsic volcanics and related sub-volcanic intrusives of the Sloko Group (Units 11, 14 to 16). Upper Jurassic diorite plugs (Unit 12) commonly intrude Takwahoni and older rocks and often appear to be spatially associated with mineralization in the area. According to Souther (1971) and to current work the Sutlahine property is underlain by Lower to Middle Jurassic sediments and volcanics and by Cretaceous/Tertiary quartz monzonite.

In the northeast corner of the map-area, Upper Triassic limestone (Sinwa Formation: Unit 9) and Lower Jurassic sediments of the Inklin Formation (Unit 10) have been thrust southwestward along the King Salmon Fault to form the Atlin Horst.

Flat-lying Late Tertiary to Pleistocene volcanics (Units 17 and 18) overlie all units along the east margin of the map-area.

Three structural events have been documented in the area (Schroeter, 1986; Oliver and Hodgson, 1990). The oldest mid-Triassic event is typically represented by tight folds with north-trending axial surfaces. Mid-Jurassic deformation resulted from southwest-verging thrust faults which produced broad northwest-trending folds. Youngest structures are Eocene extension faults of apparent random orientation.



Mineralization in the Tulsequah area is dominated by volcanogenic(?) massive sulphide deposits in the Tulsequah district, 46 km northwest of the Sutlahine property, and by shear-hosted precious metal mineralization at and near the Golden Bear deposit. Copper-lead-zinc-gold-silver mineralization at Tulsequah Chief, Big Bull, and Ericksen-Ashby is associated with a contact between Permian felsic pyroclastic rocks and underlying massive andesitic flows (Gunning, 1988; Nelson and Payne, 1983). Most recent (1989) reserves for Tulsequah Chief are given as 5.8 Mt of 1.55% Cu, 1.22% Pb, 6.81% Zn, 2.74 g/t Au, 109.4 g/t Ag. Recent exploration by Cominco Ltd. and Redfern Resources Ltd. is expected to increase this reserve. Across the Tulsequah River at the nearby Polaris Taku property, Suntac Minerals Corporation report probable plus possible reserves of 803,765 tonnes grading 16.1 g/t Au (March 21, 1990 News Release). Mineralization occurs in an arsenopyrite-bearing quartz-carbonate shear zone cutting Permian(?) sediments and tuffs. Grade and geological setting suggest similarities with the Golden Bear deposit.

The Golden Bear deposit, located 50 km southeast of Sutlahine (Figure 3), is being actively mined by Chevron Minerals Ltd. and North American Metals Corp. (Homestake Mining Company) who report (1990 Annual Report) proven plus probable reserves (before mining) of 569,453 tonnes grading 17.60 g/t gold. Mineralization at Golden Bear consists of pyrite-arsenopyrite-scorodite-native gold within a persistent quartz-carbonate altered shear cutting Permian to Lower Triassic(?) limestone and metasediments.

The Thorn property, located 7.5 km northeast of the Sutlahine property (Figure 3), is underlain by Eocene Sloko felsic volcanics intruded by a small quartz-feldspar-porphyry stock (Woodcock, 1987). Gold and silver are associated with both linear, east-west trending, pyrite-arsenopyrite-tetrahedrite-bearing silicified zones and with pods and lenses of pyritetetrahedrite-enargite. The property was drilled in 1986 by American Reserve Mining Corporation.

### **1991 WORK PROGRAM**

Current field work was conducted between July 15 and Aug. 15, 1991 by various personnel (detailed in Appendix A - Cost Statement). Field work was supported from common camp facilities at Trapper Lake (16 km east-southeast of Sutlahine) where a contract Bell 206B helicopter supplied by Trans North Air was available for claim access.

Field work consisted mainly of reconnaissance soil sampling at 50 and/or 100 m intervals (5.1 km of line; 109 samples) and silt sampling (12 samples). Reconnaissance mapping and prospecting were completed along major drainages, ridges and soil lines. During mapping 32 rock samples were collected from mineralized and/or altered outcrops. Results of the 1991 surveys are presented in Figure 4.

### **PROPERTY GEOLOGY**

No systematic mapping was completed during this current program; however, check mapping was conducted while prospecting and soil sampling. Widespread glacial and alluvial overburden generally limits outcrop to the major drainages and higher elevations on the property.

Most of the Sutlahine property appears to be underlain by fine to medium grained quartz monzonite which Souther (1971) interpreted to be Upper Cretaceous or Early Tertiary age. Work by White (1970) identified two phases of quartz monzonite, a central porphyritic core gradational to an outer non porphyritic phase. This distinction was not made during the 1991 work. The northwestern corner of the property is underlain by Upper Triassic Stuhini Group volcanics and sediments. Several gossanous and hornfelsed zones are found within this unit. The youngest units on the property are numerous mafic (basalt, andesite) and aplite dykes. The dykes show a predominant north to northeast trend and occur singularly and in swarms.

Structural features (faulting, shearing and jointing) on the property show the same north and northeasterly trends. Fault and shear zones are typically narrow with lengths up to five hundred metres.

Copper mineralization is present in several localities on the property and occurs mainly along joints and shears as chalcopyrite smears and fracture fillings in weakly altered quartz monzonite. High silver values (up to 249.9 ppm Ag) associated with sphalerite and galena are found in quartz-calcite veinlets and fracture fillings in the quartz monzonite.

### MINERALIZATION AND ROCK GEOCHEMISTRY

Work on the property during 1991 located several mineral occurrences on the Sutlahine property. Most of the mineralization is found within four areas. Rock samples were taken from mineralized outcrop and float encountered while prospecting or soil sampling. Significant sample results are tabulated in Table II and results discussed in more detail below. Rock samples are described in Appendix B and complete analytical results are included in Appendix C.

Sample No.	ppb Au	ppm Ag	ppm Pb	ppm Zn	ppm Cu	ppm Mo		
18063	83	24.5	1629	679	15555	5		
18066	80	102.1	5389	2072	30606	19		
18067	433	43.5	352	870	35226	11		
18068	130	249.9	17242	37264	28044	23		
18071	5	58.3	488	1245	17647	1		
18238	75	2.0	11	51	2700	18		
18408	55	3.0	33	51	5300	14		
18534	65	14.2	3138	644	3084	29		
18535	28	24.1	563	75	22100	73		
18536	112	17.3	55	168	12081	27		
18603	86	5.9	341	182	3487	2		
18604	1	2.1	187	124	152	3		

# TABLE IISignificant Rock Sample Results

In the southwest corner of the Park 12 claim grab samples (18603, 18066-68) of quartzcalcite-chalcopyrite veinlets and fracture fillings returned high copper (1.5-3.5% Cu)and silver (24.5-249.9 ppm Ag) values. The veinlets show a general north-south trend within the quartz monzonite host. The high silver values in samples 18066 and 18068 are associated with sphalerite and galena mineralization.

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A series of ENE and NNW mineralized joint sets are found on the west side of the ridge along the Park 10-Park 12 claim boundary. Mineralization consists of chalcopyrite, galena, sphalerite, arsenopyrite and minor molybdenite. Sample 18534, taken from a 10 cm wide zone, returned copper, lead and silver values. On the east side of the ridge several mineralized, five to six metre wide shear zones occur in the quartz monzonite. Samples (18535,36) of vein material in the shear returned high copper values (1.2-2.2% Cu). Samples (18603,04) of clay altered and sheared quartz monzonite along the ridge crest carry weak copper values.

Chalcopyrite, malachite and pyrite was observed in quartz-carbonate breccia vein in a major shear zone near the south boundary of the Park 13 claim. The steeply dipping (84°SE) shear zone is up to 25 metres wide and has been traced over 500m along a 032° strike. A sample (18408) of the breccia material returned weak copper values (0.53% Cu).

Chalcopyrite-quartz veins were found in float along the west side of the main valley near the southern boundary of the Park 10 claim. The mineralized float (18071) carries high copper and silver values. The mineralized float is likely dispersed from copper mineralization 200 metres south of the Park 11 claim identified by White (1970).

### SOIL AND SILT GEOCHEMISTRY

One hundred and nine soil samples were taken at 50 and/or 100 m intervals along nine widely spaced soil lines from four areas of interest on the Sutlahine property. The soil lines were run along contour, subparallel to the main drainage directions. Twelve silt samples were collected from two separate drainage systems. Soil samples were generally taken in a poorly developed B horizon at depths between 5 and 35 cm, placed in Kraft bags and shipped to Min-En Labs in Vancouver for 30 element ICP and geochemical gold analysis. Analytical techniques are included in Appendix E.

Results of the geochemical sampling are discussed below. Sample locations with gold and silver results are plotted on Figure 4 while all results are compiled in Appendix D.

Two contour soil lines (L 1240, L 1360) were run near the eastern boundary of the Park 12 claim. Anomalous copper (up to 967 ppm Cu) in soils is found along the south end of L 1360 from stations 00+00N to 5+00N. Anomalous molybdenum values (9-105 ppm Mo) are found along line L 1360 from stations 9+00N to 16+00N. Weakly anomalous molybdenum values (6-33 ppm Mo) are found downslope of line L 1360 on line L 1240 from stations 12+00N to 18+00N. The anomalous copper and molybdenum values are interpreted to indicate weak copper mineralization in the underlying quartz monzonite. The extent of the copper-molybdenum soil anomaly does not suggest wide spread mineralization. Gold and silver results for these lines show background values.

Five soil samples (SSM1-SSM5) were collected from a traverse along the ridge in the northeast corner of the Park 10 claim. Three samples (SSM3-5) from soils overlying pyritic, hornfelsed volcanics returned anomalous copper (942, 225, 202 ppm Cu) and arsenic (437, 692, 338 ppm As). No mineralization was observed in the area of the soil samples. Anomalous nickel and chromium are associated with the soil samples suggesting a high metal background for the hornfelsed volcanics. Gold values are low (5 to 25 ppb Au).

Five contour soil lines (L 1200, L 1115, LT, L 1250 and L 1320) were run across gossanous and hornfelsed sediments and volcanics on the northern and northwestern portions of the Park 10 claim. Lines were run on either side of the valley and cover an area approximately 500m by 1000m. Soil survey results show widespread, highly anomalous arsenic with values up to 1300 ppm As. Copper results show a high background (100-200 ppm Cu) with anomalous values up to 570 ppm Cu. Anomalous nickel and chromium in soils and rocks (18074-76, 18902-06) are associated with the anomalous arsenic and copper values. On line L 1115 anomalous lead values (190, 200, 170, 150 ppm Pb) are present over 200m from stations 4+50E to 6+50E. Elevated gold (90 ppb Au) is reported at station 6+00E. The highly anomalous As sample of 1300 ppm As is found at station 7+00E. A single point anomalous bismuth value (45 ppm Bi) was reported in the same sample. The copperarsenic-lead association may be indicative of mineralization in this area.

A series of soil samples (WT01-03, WT06-11) were collected on the Park 11 claim. Four samples carried weakly anomalous copper (110 to 220 ppm Cu) values. The anomalous soils are believed to be related to low grade copper mineralization reported by White (1970). White identified five copper showings in this general area. The copper mineralization occurs as chalcopyrite smears and fracture fillings in weakly altered quartz monzonite. Gold results returned <5 ppb Au.

Silt surveys results from 12 samples (S1-S7, WT04-05, 18409, 18901, 18907) do not show any significant anomalies. Samples with anomalous copper, WT04 (220 ppm Cu) and 18409 (180 ppm Cu) are believed to be indicative of weak copper mineralization in the quartz monzonite. Gold and silver results show background values.

### CONCLUSIONS

The Sutlahine property is underlain by Upper Cretaceous or Tertiary, fine to medium grained quartz monzonite and Upper Triassic Stuhini Group volcanics and sediments. The Stuhini Group rocks are restricted to the northern and northwest portions of the property. Scattered occurrences of low grade copper mineralization are found as chalcopyrite-quartz-calcite veinlets and fracture fillings in structures (joints, fractures and shears) within the quartz monzonite. The mineralized structures show a dominant north to northeast trend. In some areas high silver values accompany the copper mineralization. The silver values are associated with sphalerite and galena mineralization.

Widely spaced, reconnaissance soil sampling located several copper-molybdenum and copper-arsenic anomalies. The copper-molybdenum soil anomalies occur within the quartz monzonite and are believed to be generated from copper occurrences similar to copper mineralization seen elsewhere on the property. Copper-arsenic soil anomalies are underlain by Stuhini Group rocks, often in gossanous or hornfelsed areas. Mineralization was not observed in the areas of the anomalous copper-arsenic soils. The source of the anomalous metals in soils is uncertain. Other anomalous metals (nickel,chromium) associated with the high copper-arsenic soils may indicate a high metal background associated with the underlying rock units. However, a strong copper-arsenic-lead soil anomaly on line L 1115 is more likely to be indicative of copper-gold mineralization.

The mineralization located on the Sutlahine property does not appear to be of economic grade. However, the mineralization identifies a significant mineralized system. Additional soil sampling, prospecting and mapping should be used to further evaluate the copperarsenic soil anomalies.

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### CERTIFICATE

I, Gregory G. Crowe, of Bowen Bay Road, Bowen Island, British Columbia hereby certify that:

- 1) I am a consulting geologist with offices at 205 470 Granville Street, Vancouver, B.C.
- 2) I hold a degree of Bachelor of Science in Geology from Carleton University, 1977.
- 3) I hold a degree of Master of Science in Structural Geology from the University of Calgary, 1981.
- 4) I am a Fellow of the Geological Association of Canada.
- 5) I am a registered member of the Association of Professional Engineers, Geophysicists and Geologists of Alberta (Membership No. 35569).
- 6) This report is based on work done under my direct supervision.

Dated on this 28th day of February, 1992 at Vancouver, B.C.

Gregory G. Crowe, M.Sc., P. Geol.

### CERTIFICATE

I, Larry R. Haynes, of 127 E. 18th. Ave., Vancouver, British Columbia hereby certify that:

- I am a consulting geologist with an office at 127 E. 18th Ave., Vancouver, B.C. 1)
- I hold a degree of Bachelor of Science in Geology from the University of 2) British Columbia, 1972.
- I have practised my profession continuously since 1972. 3)
- I am a Fellow of the Geological Association of Canada. 4)
- 5) This report is based on work done under my supervision.

Dated on this 28th day of February, 1992 at Vancouver, B.C.

L. Hanes Larry R. Haynes, B.Sc.

Appendix A

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COST STATEMENT

## COSTS INCURRED - JULY 15 TO AUG. 15, 1991

Mobilization		\$ 1,500.	.00
Supervision - R. M. Cann/G. Crowe	1.8 @ \$400/dav	720.	.00
Field superv L. Haynes/J. Lehtinen	1.4 @ \$375/day	525.	.00
Sr. geol L. Lyons	2.8 @ \$350/day	980.	.00
Sr. geol W. Taylor	2.9 @ \$350/day	1015.	.00
Ass't - H. Culbert	4.2 @ \$225/day	945.	.00
Consultant - G. McArthur	2.8 @ \$350/day	980.	.00
Food and accom. at Trapper Lk. camp	15.0 @ \$120/manday	1,800.	.00
Consumable supplies & equip. rental	15.0 @ \$25/manday	375.	.50
Portable radio rentals		37.	50
Helicopter (Trans North)	4.5 @ \$750/hr	3,375.	00
Analytical			
Soils (Au+30 element ICP)	109 @ \$12	1,308.	00
Silts (Au+30 element ICP)	12 @ \$12	144.	00
Rocks (Au+30 element ICP)	32 @ \$18	576.	00
Camp Construction - Jempland (proport	tional share)	3,000.	00
Report			
Drafting		500.	00
Copying/Reproductions		300.	00
Writing		3200.	<u>00</u>
TOTAL		\$ 21281.	00

Appendix B

### **ROCK SAMPLE DESCRIPTIONS**

#### ROCK DESCRIPTIONS - SUTLAHINE PROPERTY

SAMPLE NO.	CLAIM	WIDTH metres	UTM northing	UTM easting	ELEVATION metres	N DESCRIPTION
18063			6488760	622820		Malachite-stained chlorite-veined quartz monz intrusive. Quartz veinlets 1–2m spacing N–S orientation. Cpy-mo-py.
18064			6488760	622820		Orangey weathering siliceous carbonate breccia with trace pyrite adjacent to basalt dyke, E-W trend.
18065			6488760	622820		Vuggy quartz-carbonate breccia adjacent to basalt dyke cutting qtz monz.
18066			6488760	622820		N-S trending cpy-chl quartz vein in quartz monz.
18067			6488760	622820		Cpy-qtz-chl vein, N-S in quartz monz.
18068			6488760	622820		Limonitic cpy-pb vein in quartz monz.
18071		Talus	6488900	621260		Chalcopyrite veins with quartz and chlorite in quartz monzonite intrusive near drop-off.
18072		Talus	6489040	621170		Rusty hornfels sediment, trace pyrite and pyrrhotite.
18073		Talus	6489120	621180		Rusty hornfels sediment, trace pyrite, cirque west area.
18074		0/C	6489840	621220	1045	Rusty hornfels sediment, trace pyrrhotite.
18075		0/C	6489650	620540	1150	Rusty hornfels cpy. Cirque 2.
18076		0/C	6489680 ^	620500	1150	Hornfels sediment - calcsilicates.
18238	Park 11	Float	6488270	621400	1390	Monzonite float near creek - diss. pyrite, trace to .5% galena, trace to .5% chalcopyrite.
18239	Park 11	Float	6488220	621375	1400	Iron carbonate, limonitic boulder with angular green mafic fragments in quartz carbonate matrix. No sulphides seen.
18240	Park 11	Float	6488350	621375	1400	Green chloritic fine grained rock with pyrrhotite and pyrite along fractures.
18241	Park 11	Float	6486970	621275	1610	Gossanous andesitic float with bands of pyrite. 10–15% pyrite content.
18242	Park 11	Float	6486780	621940	1765	Sericite/chlorite/limonite altered monzonite with 4-5% disseminated pyrite.

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SAM	PLE NO.	CLAI	M WIDTH metres	UTM northing	UTM easting	ELEVATION metres	DESCRIPTION
	18407	Park 1	3 Float	6486820	623900	1680	Siliceous monzonite with disseminated pyrite in narrow quartz veins. 10cm width on block near shear zone.
	18408	Park 1	3 Grab	6487000	624020	1660	Quartz-carbonate breccia within altered fractured shear zone in monzonite. Breccia is about 1m wide at this point, shear zone is up to 25m, 030/84SE. Contains chalcopyrite, pyrite, malachite.
	18534	Park 1	0 Grab		622230	1700	Quartz-chlorite-chalcopyrite-molybdenite along joint surface (164/86E) in altered quartz monz. Secondary quartz, k-spar, biotite; clay-altered feldspars.
	18535	Park 1	2 Grab	6489730	622560	1720	Quartz veins in clay-altered monzonite. Cpy, galena, moly, possibly trace pyrite; malachite. Quartz veins are about 5cm wide in 5-6 meter wide alteration (possibly shear) zone.
	18536	Park 1	2 Grab	6489410	622680	1 <b>710</b>	Narrow quartz vein in clay-altered qtz-monzonite. Cpy, possibly trace moly.
	18537	Park 1	2 Grab	6489080	622890	1750	Float from mineralized zone in cliffs (talus in glacier). Clay-altered monzonite, specks of cpy, and malachite.
	18601	Park 1	0 Grab	6490045	622070	1640	Fine-grained metased containing about 2% po. Quartzose, rusty red-brown weathered sfc, blue- gray fresh sfc. Fine-grained sulphides diss. throughout. Stuhini sed o/c.
	18602	Park 1	0 Grab	6490080	621998	1645	Fine-grained metased with about 3% po, tr py. Quartzose, rusty red-brown weathered sfc, blue- gray fresh sfc. Fine-grained sulphides diss. throughout. Stuhini sed o/c.
	18603	Park 1	2 Grab	6489305	622510	1850	Sample in o/c in 30cm shear trending 172, dip 71N, containing blebs of cpy. Shear in medium-grained qtz-monzonite, clay-atered feldspars, calcite stringers.
	18604	Park 1	2 Grab	6489010	622575	1890	Sample in o/c from 50cm wide shear in qtz-monz, trending 188/78E. Med-grained biotite-qtz-monz, clay-altered feldspars, powdery matrix with remob. qtz-carb, <1% py.

SAMPLE NO.	CLAIM	WIDTH metres	UTM northing	UTM easting	ELEVATION metres	DESCRIPTION
18902	Park 10	Grab	6489480	621800		Altered felsic dyke? flow? Spotty pyrite. Hornfelsed.
18903	Park 10	Grab	6489500	621800		15m north of 902. As for 902 with more pyrite.
18904	Park 10	Grab	6489880	621650	1	Hornfelsed volcanic tuff with disseminated pyrite. Fairly felsic tuffs.
18905	Park 10	Grab	6489930	621610		Hornfelsed volcanic tuff with pyrite. Variable tuffs from lapilli to agglomerate.
18906	Park 10	Grab	6490090	621550		Hornfelsed volcanic with massive pyrrhotite near contact zone with upper andesitic tuffs.

1

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Appendix C

### **ROCK ANALYTICAL RESULTS**



2 - 302 - 48th STREET, EAST SASKATOON, SASKATCHEWAN S7K 6A4 (306) 931-1033 FAX: (306) 242-4717



### CERTIFICATE OF ANALYSIS

SAMPLE(S) FROM Prime Exploration Ltd. 10th Floor-Box 10 808 West Hastings Street Vancouver, B.C. V6C 2X6



INVOICE #: 17961 P.O.: R3404

SAMPLE(S) OF Rock

T. Muraro Project: SLDSR Azimuth

REMARKS: Azimuth Geological Inc.

Au ppb

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Aug 19/91

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PRIME EXPLO 10th Floor Box 10 808 West Hastings PROJ:SLDSR AZIMUTH S3037	St.	ION	LT	D.					2-302 PHC	2-48TH ONE #:	(300 (300	REET. 6) 931 C.A	SASK - 1 . P.	ATOON 033 P Regia	, SA FAX LAS Dige	SKATCH #: (3 MA Stion	SCAI	242 - N	s7к ( 4717	574				RI Pa Fi	PORT ge 1 le No ite	No. : No. : D. :	M9 1 0 AU2 AU2	9597 of 1 23MA 3-26-1	991		
SAMPLE #	Ag ppm	A1 %	As ppm	B	Ba ppm	Be ppm	Bi ppm	Ca %	Cd ppm	Co	Cr	Cu	Te %	K S	Mg %	Mn	Mo	Na %	Ni	P	Pb pps	Sb	Sc	Sn ppm	Sr pps	Ti ppm	V	W	Y	Zn	Ir
												2700				220				210						1300					
18238		1 1	( )	< 10	180			17		10	15	2700	9.4	0.53	1.40	1100	10	0.06	41	160	10	20	-	( 10	350	1300		( 10	13	91	-
18240	. 1	2.6	. 5	( 10	21	. 1	15	1 1	21	64	200	410	13	0.02	1.1	1200		0.18	52	820	29	15	3	( 10	52	930	120	( 10	6	88	12
18241	. 1	1.2	100	< 10	9	< 1	< 5	0.19	1	25	61	28	8.7	0.12	0.71	200	1004	0.01	12	110	35	< 5	2	20	14	40	34	< 10	9	72	-
18242	3	0.49	110	< 10	28	< 1	5	0.05	< 1	3	83	170	4.2	0.46	0.14	53	14	0.01	3	250	20	< 5	(1	10	10	31	13	< 10		13	2
18407	< 1	0.65	< 5	< 10	270	< 1	10	0.04	< 1	16	73	34	3.9	0.40	0.23	480	42	0.01	3	140	9	< 5	< 1	< 10	9	58	15	< 10	5	34	< 1
18408	3	0.11	10	< 10	32	< 1	< 5	11	< 1	6	62	5300	4.0	0.13	1.4	1800	14	0.01	5	62	33	15	< 1	< 10	90	3	32	< 10	18	51	3

A .5 gm sample is digested with 2 ml of 3:1 HCL/HNO3 at 95 C for 90 min and diluted to 10 ml with DI H20 This method is partial for many oxide materials

TSL/91

COMP: AZIMUTH GEOLGOICAL PROJ: SULTAHINE P.O. SLDSR

#### MIN-EN LABS - ICP REPORT

705 WEST 15TH ST., NORTH VANCOUVER, B.C. V7M 1T2

FILE NO: 1S-0296-RJ1

DATE: 91/08/08 \* ROCK \* (ACT:F31)

WE/J.BLACKWELL

SAMPLE

NUMBER

18071

18072

18073

18074

18075

18076

18534 18535

18536

18537

18601 18602 18603

18604

(604)980-5814 OR (604)988-4524

AG PPM	AL PPM	AS PPM	B PPM	BA PPM	BE PPM	BI PPM	CA PPM	CD PPM	CO	CU PPM	FE PPM	K PPN	LI	MG PPM	MN PPM	MO	NA PPM	NI PPM	P PPM	PB PPM	SB PPM	SR PPM	TH PPM	TI PPM	V PPM	ZN PPM	GA PPM	SN PPM	W PPM	CR PPM	AU-FIRE PPB
58.3 .1 .1 .1	43900 43190 29630 25350 42500	1 18 20 6	19 11 9 4 7	18 32 76 195 113	.1 .1 .5 .1	319 7 4 2 11	53410 9670 49360 5130 20380	6.7 .1 .1 .1	46 28 22 19 27	17647 488 333 160 326	120050 121880 121780 45890 75890	940 490 210 6850 7650	20 56 22 31 27	10900 20070 5860 12180 12370	1289 2307 2352 361 758	1 1 3 1	460 70 20 470 3800	16 1 1 45 39	1270 650 630 1210 1140	488 31 6 20 5	11 1 1 1	300 27 106 16 173	1 1 1 1	3084 773 791 137 2265	322.5 84.7 114.0 50.0 166.2	1245 146 111 34 58	1 1 1 1	1 1 1 1	14 22 37	73 36 28 55 122	5 2 4 1 6
1.3 14.2 24.1 17.3 5.0	46160 29240 5520 10680 5000	163 1036 32 30 12	5 7 3 4 1	49 329 36 59 452	.4 .3 .1 .7 .6	11 64 1531 48 11	21000 3400 1390 1810 57960	.1 .1 .1 .1	18 17 9 19 8	36 3084 22100 12081 2753	40940 83650 34130 49280 30820	3320 1390 1280 1420 1540	32 38 5 11 3	14090 10040 2000 3470 22820	639 1624 435 174 820	5 29 73 27 8	4430 190 60 70 30	18 1 1 1	950 470 170 260 240	10 3138 563 55 40	1 26 33 13 5	117 20 7 6 87	1 8 1 6 1	2530 79 40 48 26	153.2 45.9 12.4 13.1 31.8	54 644 75 168 77	2 4 1 3 2	1 1 2 1	7 195 35 8 5	101 61 168 97 94	2 65 28 112 2
.3 .5 5.9 2.1	23370 17590 13190 3600	87 23 183 64	4 4 2 1	88 84 485 40	.7 1.0 .5 .7	9 4 99 6	10570 5130 18600 68450	.1 .1 .1	15 13 81 23	213 82 3487 152	43230 36950 51730 34900	1630 2610 1890 1420	38 40 20 2	9500 9640 6630 11480	776 388 910 1344	4 2 2 3	1080 740 230 20	21 11 1	540 590 480 170	11 6 341 187	1 2 5 9	67 40 31 65	1 10 2	684 697 39 13	58.5 39.1 33.1 31.3	53 36 182 124	2 1 1 3	1 1 1	5 4 4 3	98 69 78 49	3 2 86 1

FROU.	OOLIMITINE	FIG: SLUGR
ATTN:	G. CROWE/J.	BLACKWELL

58.3 43900

17.3 10680

1.3 46160 163 14.2 29240 1036 24.1 5520 32

4 84 1.0 2 485 .5 1 40 .7

COMP: AZIMUTH GEOLOGICAL

PROJ: SULTAHINE P.O. SLDSR

#### MIN-EN LABS --- ICP REPORT

705 WEST 15TH ST., NORTH VANCOUVER, B.C. V7M 1T2 (604)980-5814 OR (604)988-4524 FILE NO: 1S-0269-RJ1

DATE: 91/08/06 \* ROCK \* (ACT:F31)

ATTN: G.CROWE

SAMPLE NUMBER	AG PPM	AL PPM	AS PPM	B PPM	BA PPM	BE PPM	BI PPM	CA PPM	CD PPM	CO PPM	CU PPM	FE PPM	K PPM	L I PPM	MG PPM	MN PPM	MO PPM	NA PPM	N I PPM	P PPM	PB PPM	SB PPM	SR PP <b>m</b> i	TH PP <b>m</b>	TI PPM	V PPM	ZN PPM	GA PPM	SN PPM	W PPM I	CR PPM	AU-FIRE PPB
18902 18903 18904 18905 18906	.1 .1 .1 .1 .1	19350 15690 10440 34230 32630	290 29 54 1 158	10 6 6 14	105 33 162 57 31	.6 .1 1.3 .6 .1	19 12 15 1	5790 10110 2280 15890 12100	.1 .1 .1 .1	17 18 20 40	205 207 31 197 472	29790 42940 23840 55710 215910	5170 800 2240 1120 850	30 20 51 28 36	10280 7120 1760 3450 6660	295 353 74 463 1794	5291 1	530 1640 640 3180 3190	29 39 2 1 50	990 1410 180 990 1180	55 18 8 17 26	1 1 1 1	14 38 15 106 87	3 2 3 2 1	1330 2011 172 1317 754	113.7 106.9 23.8 87.6 104.3	239 57 23 58 180	2 2 1 2 1	1 1 1 1	7 6 6 4 1	134 118 155 80 52	5 11 13 2 14
18063 18064 18065 18066 18067	24.5 .1 .1 102.1 43.5	9100 3710 2990 28480 6570	106 114 8 206 346	32254	236 103 1140 754 142	.6 .6 2.3 .8	3470 68 30 385 42	5760 56260 78620 3690 2550	5.2 .1 .1 .1 3.9	49 28 11 40 94	15555 427 234 30606 35226	38720 39110 38320 92490 70790	1890 2060 420 2010 1600	14 1 4 34 8	5140 16050 32300 7890 2000	1156 1402 2300 778 2010	5 8 1 19 11	40 1790 40 20 20	15 1 4 1 54	210 140 150 140 40	1629 75 56 5389 352	27 1 3 28 45	11 65 151 10 7	11 7 4 18 4	38 18 21 21 19	24.3 24.8 44.8 29.9 9.3	679 70 84 2072 870	1 1 1 3 1	1 1 2 2	7 4 2 4 81	136 94 44 43 158	83 19 1 80 433
18068	249.9	4870	163	7	58	.5	4650	3630	420.7	45	28044	49530	1150	4	1470	468	23	30	1	60	17242	75	19	7	16	9.2	37264	1	4	18	158	130
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Appendix D

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### SOIL AND SILT ANALYTICAL RESULTS

## **TSL LABORATORIES**

2 - 302 - 48th STREET, EAST SASKATOON, SASKATCHEWAN S7K 6A4 (306) 931-1033 FAX: (306) 242-4717



### CERTIFICATE OF ANALYSIS

SAMPLE(S) FROM SAMPLE(S) FROM Prime Exploration Ltd. 10th Floor-Box 10 808 West Hastings Street Vancouver, B.C. V6C 2X6



INVOICE #: 17948 P.O.: 1S-0432-SG1

SAMPLE(S) OF Soils/Silt

T. Muraro Project: SLDSR Azimuth

REMARKS: Azimuth Geological Inc.

			Au ppb
LW1			<5
L1115	10+65		<5
L1115	0+00E		<5
L1115	0+50E		10
L1115	1+00E		15
L1115	1+50E		5
L1115	2+00E		10
L1115	2+50E		30
L1115	3+50E		20
L1115	4+00E		30
L1115	4+50E		20
L1115	5+00E		10
L1115	5+50E		20
L1115	6+00E		90
L1115	6+50E		20
L1115	7+00E		<5
L1115	7+50E		15
L1115	8+00E		20
L1115	9+00E		5
L1115	9+50E		10
COPIES	TO:	J.	Blackwell

INVOICE TO: Prime Exploration - Vancouver

Aug 19/91

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## **TSL LABORATORIES**

2 - 302 - 48th STREET, EAST SASKATOON, SASKATCHEWAN S7K 6A4 306) 931-1033 FAX: (306) 242-4717

### CERTIFICATE OF ANALYSIS

Prime Exploration Ltd. SAMPLE(S) FROM 10th Floor-Box 10 808 West Hastings Street Vancouver, B.C. V6C 2X6



of

INVOICE #: 17948 P.O.: 1S-0432-SG1

Soils/Silt SAMPLE(S) OF

> T. Muraro Project: SLDSR Azimuth

**REMARKS:** Azimuth Geological Inc.

			Au ppb
L:	11:	L5 10+00E	10
L	Т	0+00S	110
L	Т	0+40S	65
L	Т	0+90S	<5
L	Т	1+35S	<5
L	т	1+90S	10
L	Т	2+50S	<5
L	Т	3+00S	<5
L	Т	4+00S	<5
L	Т	<b>4+50S</b>	5
L	т	5+20S	<5
L	T	5+80S	10

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2 - 302 - 48th STREET, EAST SASKATOON, SASKATCHEWAN S7K 6A4 (306) 931-1033 FAX: (306) 242-4717

### CERTIFICATE OF ANALYSIS

SAMPLE(S) FROM Prime Exploration Ltd. 10th Floor-Box 10 808 West Hastings Street Vancouver, B.C. V6C 2X6



INVOICE #: 17956 P.O.: 1S-0432-SG3

SAMPLE(S) OF Soils

G. Crowe Project: SLDSR Azimuth

REMARKS: Azimuth Geological Inc.

Au ppb

L	т	6+20S	10
L	Т	6+50S	5
L	Т	7+00S	5
L	т	8+75S	10

- L T 9+35S 15
- L Т 9+75S 5

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Aug 19/91

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S\_\_\_\_JORI\_\_RIE\_

2-302-48TH STREET, SASKATOON, SASKATCHEWAN

#### PRIME EXPLORATION LTD.

10th Floor Box 10

808 West Hastings St.

PROJ:SLDSR

s3049

PHONE #: (306) 931 - 1033 FAX #: (306) 242 - 4717

S7K 6A4

#### I.C.A.P. PLASMA SCAN

#### Aqua-Regia Digestion

REPORT No.	:	M9601
Page No.	:	1 of 1
File No.	:	AU23MB
Date	:	AUG-26-1991

SA	MPLE #	λg	<b>A</b> 1		B	Ba	Be	Bi	Ca Cd	Co Cr	Cu	7.	K	Mg	Mn	Мо	Na 🕌	N1	P Pb	Sb Sc	Sn Sr	TI V	W Y	Zn Zr
		PPa	X	<b>PP</b>	ppm	PPn	ppm	ppm	X PP	ppa ppa	PP	<b>n 1</b>	*	8 <b>X</b>	ppm	PP	* ]	<b>pp</b> m	pp <b>m ppm</b>	ppa <b>ppa</b>	ppa <b>ppa</b>	ppm ppm	pp <b>a ppa</b>	ppa pp
LWI			0.40		< 10	48	< 1	<u> </u>	0.45 ( 1		13	0 3.	2 0.00	0.24	250	<b>\$</b>	0.01		820 13	< 5 2	< 10 16	370 120	< 10 <b>18</b>	36
L1115	10+65	<b>(</b> .1	0.71	30	< 10	83	< 1	( )	0.37 (1	7 20	8	6 3.	0 0.12	0.37	440	ÇZ	0.01	<u>7</u>	820 44	< 5	< 10 <b>16</b>	310 87	< 10 20	74 74
L1115	0+00 E	· < 1	2.0	45	< 10	79	< 1	. ( 5	0.64 < 1	14 27	11	о з.	4 0.40	0.63	770	4 2	0.04	- 29	940 25	< 5 <b>6</b>	< 10 49	740 89	< 10 11	80
L1115	00+50 E	· · · · · ·	6.8	860	< 10	170	1	< 5	0.55 < 1	22 17	20	0 5.	1<0.01	0.37	570		0.01	32 :	1200 65	< 5 5	< 10 <b>100</b>	280 61	< 10 <b>11</b>	110
L1115	1+00 E	(* <b>6</b> 1	2.7	910	< 10	140	1	< 5	0.25 (1	27 19	21	06.	0 0.28	0.46	620	6	0.01	81	860 48	5 5	< 10 59	230 <b>61</b>	< 10 <b>15</b>	170
							1																	
L1115	1+50 E	< 1	2.6	240	< 10	110	< 1	< 5	0.23 ( 1	6 14	8	2 3.	6 0.13	0.24	300	•	0.01	13 :	1300 52	< 5 2	< 10 86	100 55	20 5	74 3
L1115	2+00 E	< 1	3.5	530	< 10	140	< 1	< 5	0.37 < 1	17 31	20	0 6.	4 0.09	0.54	580	8	0.02	43 :	1400 65	< 5 7	< 10 120	220 89	< 10 10	140
L1115	2+50 E	< 1	2.5	280	< 10	210	< 1	< 5	0.39 (1	22 21	10	0 4.	6 0.19	0.68	1300	< 2	0.01	25 :	1100 62	< 5 6	< 10 62	49 62	< 10 13	110
L1115	3+50 E	< 1	1.6	110	< 10	200	< 1	< 5	0.61 < 1	11 12	3	4 3.	1 0.07	0.44	880	< 2	0.02	13	930 43	< 5 3	< 10 76	110 40	< 10 10	98 2
L1115	4+00 E	<1	2.1	130	< 10	320	< 1	< 5	0.57 < 1	17 16	5	63.	2 0.05	0.47	1600	< 2	0.02	14 1	1300 81	< 5 3	< 10 82	120 49	< 10 15	98 2
				순하지									Ŷ.											
L1115	4+50 E	< 1	2.1	130	< 10	300	< 1	< 5	0.61 < 1	14 20	3	8 3.	7 0.12	0.68	1200	2	0.02	18 :	1100 190	5 4	< 10 <b>82</b>	130 52	20 13	200 2
L1115	5+00 E	< 1	2.1	120	< 10	270	< 1	5	0.66 ( 1	11 23	- 4	0 3.	8 0.19	0.72	910	2	0.02	21	1200 200	5 🦸	< 10 <b>80</b>	120 53	30 11	260
L1115	5+50 E	· · · · 1	2.0	110	< 10	300	< 1	< 5	0.69 < 1	12 20	3	8 3.	4 0.08	0.69	1000	< 2	0.02	18	970 170	< 5 🚺	< 10 74	110 49	< 10 <b>10</b>	190 1
L1115	6+00 E	S < 1	1.8	75	< 10	450	< 1	< 5	1.1 < 1	8 17	- 4	0 3.	0<0.01	0.54	620	< 2	0.02	14 1	1200 150	< 5 🔰 💲	< 10 110	110 44	< 10 <b>16</b>	200
L1115	6+50 E	< 1	1.2	50	< 10	730	< 1)	< 5	1.2 < 1	17 10	4	4 2.	3 0.10	0.29	2100	2	0.01	7 1	1500 97	< 5 2	< 10 96	53 31	< 10 <b>11</b>	100 🦿 1
													17. 19. 19.											
L1115	7+00 E	< 1	3.2	1300	< 10	350	< 1	45	0.86 4	36 15	5	2 3.	8 0.25	0.51	1200	< 2	0.02	21 1	1000 61	< 5 5	< 10 230	130 63	< 10 <b>16</b>	110
L1115	7+50 E	j ( 1	1.9	240	< 10	680	< 1	< 5	0.82 < 1	26 10	11(	0 3.	6 0.26	0.41	1200	< 2	0.01	14	920 62	< 5	< 10 94	38 42	< 10 23	110
L1115	8+00 E	< 1	1.7	160	< 10	510	< 1	< 5	0.69 (1	23 9	4:	3 3.	2 0.07	0.43	1400	( 2	0.01	15 1	1000 <b>70</b>	< 5 🖌	< 10 59	33 37	< 10 17	150
L1115	9+00 E	< 1	1.8	220	< 10	240	< 1	< 5	0.56 < 1	19 11	5	9 3.	4<0.01	0.47	1300	< 2	0.02	13	840 97	< 5	< 10 69	120 50	< 10 <b>16</b>	130 2
L1115	9+50 E	< 1	1.7	300	< 10	310	< 1	€ 5	0.62 < 1	15 9	3/	8 3.	3 0.09	0.45	1300	< 2	0.02	10	980 110	< 5 3	< 10 66	66 38	< 10 15	170 1
													# 13	신인 사람										
L1115	10+00 E	< 1	1.8	250	< 10 °	280	< 1	< 5	0.82 (1	17 10	38	8 3.	5<0.01	0.47	1500	< 2	0.02	11 1	1000 91	< 5 6	< 10 72	93 42	< 10 <b>15</b>	160 3
LT	0+00 S	< 1	3.7	510	< 10	82	1	< 5	0.71 < 1	42 28	21(	0 4.	6(0.01	0.64	1200	( 2	0.02	43 1	1300 51	5 5	< 10 100	410 75	< 10 8	160
LT	00+40 S	< 1	2.7	360	< 10	70	< 1	ć 5	0.79 (1	33 25	14	0 4.	4 0.06	0.63	1400	< 2	0.02	35 2	2200 40	< 5 6	< 10 95	430 65	< 10 7	160 3
LT	00+90 S	< 1	3.5	410	< 10	51	< 1°	< 5	1.1 (1	31 31	19	0 6.	6 0.30	0.68	970	22	0.02	41 1	1300 32	< 5 7	( 10 120	650 87	< 10 9	160 7
LT	1+35 S	ं र 1	2.4	250	< 10	56	< 1	< 5	0.39 < 1	16 23	14	0 4.	2 0.26	0.53	680	247	0.01	26 2	2000 29	10 4	( 10 52	360 58	20 6	110 3
						1.1			1111				7					- 7						
LT	1+90 S	< 1	2.3	340	< 10	120	1	< 5	0.38 < 1	21 22	120	o 4.	7 0.04	0.43	1100	62	0.01	26 1	1700 34	10 3	( 10 76	260 58	10 8	150 2
LT	2+50 S	< 1	1.3	110	< 10 <sup>m</sup>	67	< 1	< 5	0.17 (1	4 16	- 60	0 2.	4 0.25	0.22	180	27	0 01	10	780 27	15 2	( 10 31	120 61	< 10 Å	65 / 1
LT	3+00 s	< 1	1.9	130	< 10	72	< 1.	25	0.34 (1	14 27	170	0 3.0	9 0 26	0.54	660	1 2	0 01	21	650 38		× 10 32	160 99	$\frac{1}{2}$	110
LT	4+00 S	< 1	2.9	450	¢ 10	130	21	< 5	0.26 (1	23 22	140	0 5	0 0 14	0.50	1200	23	0 01	25 1	400 41	254	· 10 43	260 93	10	130 2
LT	4+50 S		2.4	520	< 10 C	98	2 1	25	0.66 1	35 23	370	0 6	3 0 02	0.50	960	23	0.01	43	590 60	2 5 0	× 10 71	200 93	× 10 12	210 7
		• •			•				0.00 1		57	•		· · · · 2	300		0.04		330		<b>` ` ` ` ` ` ` ` ` `</b>	220 130	\ _V	LTA
LT	5+20 8	6 1	2 2	470	< 10	100	1		0 73 / 1	35 22	320	0 5	3 0 00	0 64	1200		A A1	∿	1100 36	10	/ 10 FE	70 110	10 17	170
LT	5+80 s	21	2.5	220	2 10	56	2 10	22	1 4 2 1	47 14	320	0 D.	4 0.09	0.04	1700	) (	0.01	34 1	710 30	16 14	V 10 90	750 100		160 44
	2.00 5		£.J		· • •		• <b>⊥</b>	· • •	*** * *	<b>4</b> / 10 144		. 0.4	- 0.20	V.00	1,00	<b>\$</b>	0.03	40	10 \$0	TD 73	( IV 63	120 120	( TO T4	73A 76
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A .5 gm sample is digested with 2 ml of 3:1 HCL/HNO3 at 95 C for 90 min and diluted to 10 ml with DI H2O This method is partial for many oxide materials



	S ORI NE	
PRIME EXPLORATION LTD.	2-302-48TH STREET, SASKATOON, SASKATCHEWAN S7K 6A4	REPORT No. : M9590
10th Floor Box 10	PHONE #: (306) 931 - 1033 FAX #: (306) 242 - 4717	Page No. : 1 of 1
808 West Hastings St.		File No. : AU23MB
PROJ: SLDSR	I.C.A.P. PLASMA SCAN	Date : AUG-26-1991
s3053	Aqua-Regia Digestion	

SA	MPLE #	Ŋ	<b>A</b> 1	λs	B	Ba	Be 🖗	Bi	Ca Cd	Co	Cr	Cu	'e K	Mg	Mn	Мо	Na	14	P	Pb	Sb Sc	Sn	Sr	ti Y	W	In Ir
		PPR	*	PPa	ppm	ppa	ppm	PP	* <b>PP</b>	ppm	ppa				ppm	PPS	*	PP	ppm	PPE	ppa pp	t ppa	pps	ppa ppa	ppa pp	ppa ppa
LT	6+20 S	< 1	2.5	210	< 10	53	< 1	< 5	1.5 1	44	16	570	.2<0.0	01 <b>0.79</b>	1300	٢ 2	0.03	25	890	24	5 11	< 10	79	470 190	< 10 1	180 9
LT	6+50 S	< 1	2.2	210	< 10	46	< 1	< 5	1.4 < 1	34	15	510 5	.3<0.0	0.68	1100	< 2	0.02	21	1100	23	5 11	< 10	73	370 160	< 10 1	160 7
LT	7+00 S	c 1	2.2	140	< 10	79	< 1	< 5	1.1 (1	44	17	400 4	.7 0.1	12 0.61	1600	< 2	0.02	19	1200	52	< 5	< 10	55	200 150	< 10 12	160 4
LT	8+75 S	<b>4</b> 1	2.1	110	< 10	210	< 1	5	1.1 61	31	29	230 7	.2 0.0	06 <b>0.76</b>	1900	< 2	0.02	30	1000	13	15 21	< 10	49	370 240	< 10 <b>2</b> 0	5 150 12
LΤ	9+35° S		2.0	110	< 10	150	< 1	5	1.1 (1	27	32	190 7	.0 0.1	11 0.77	1200	¢ 2	0.03	31	910	12	10 17	< 10	50	400 230	< 10 <b>1</b> 9	1 110 <b>11</b>
							5 - 4 5 - 7 6 - 7 7 - 7												1							
LT	9+75 S		2.0	130	< 10	200	< 1	< 5	1.9	30	30	200 /	.0 0.(	0.75	1400		0.02	31	1000	- 13	10	< 10	62	380 230	< 10 19	110 11
	· · ·																									

A .5 gm sample is digested with 2 ml of 3:1 HCL/HNO3  $\,$ at 95 C for 90 min and diluted to 10 ml with DI H20 This method is partial for many oxide materials



TSL/91



2 - 302 - 48th STREET, EAST SASKATOON, SASKATCHEWAN S7K 6A4 (306) 931-1033 FAX: (306) 242-4717



### CERTIFICATE OF ANALYSIS

SAMPLE(S) FROM 10th Floor-Box 10 808 West Hastings Street Vancouver, B.C. V6C 2X6

REPORT No. S3047

INVOICE #: 17941 P.O.: 1S-0430-SG1

SAMPLE(S) OF Soils

T. Muraro Project: SLDSR Azimuth

REMARKS: Azimuth Geological Inc.

Au ppb

L	WΤ	1	<5
L	WT	2	<5
L	WT	3	<5
L	WT	4	<5
$\mathbf{L}$	WT	5	<5
$\mathbf{L}$	WT	6	<5
L	WT	7	<5
L	WT	8	<5
L	WT	9	<5
L	WT	10	<5
т	1.111	11	15
ц -	WT	11	< 5
L	HC	T	<5
$\mathbf{L}$	HC	2	<5

COPIES TO: J. Blackwell INVOICE TO: Prime Exploration - Vancouver

Aug 19/91

SIGNED

For enquiries on this report, please contact Customer Service Department. Samples, Pulps and Rejects discarded two months from the date of this report.

Page 1 of 1

S       OR       ILE         PRIME EXPLORATION LTD.       10.0       14.0       10.0																															
PROJ:SLDSR S3047											1.0	C.A	.P. Aqua-	<b>P</b> Regia	Dige	MA a	SCA	N						D	ate		AUG	3-26-1	991		
SAMPLE #	Ag	A1 %	As ppm	B	Ba ppm	Be ppm	Bi	Ca %	Cd ppm	Co	Cr	Cu ppm	Fe X	к %	Mg %	Mn ppm	Mo	Na X	Ni ppm	P ppm	Pb	Sb ppm	Sc	Sn ppm	Sr ppm	Ti ppm	V ppm	W	Y	Zn ppm	Zr
I. WT 1	2	1.9	25	20	92	.1	. 5	0.80	. ,	17	44	220	5.0	0.13	0.96	1200		0.05	21	940	170	10		( 10	72	450	170	30	19	290	
L WT 2	< 1	0.73	Provent fillen f																												
L WT 3	< 1	0.88	5	20	130	< 1	< 5	0.25	< 1	7	16	85	2.9	0.12	0.46	560	< 2	0.01	6	460	13	< 5	3	< 10	9	260	67	< 10	16	52	1
L WT 4	< 1	1.0	< 5	20	200	< 1	< 5	0.87	< 1	8	19	220	2.7	0.23	0.52	540	< 2	0.01	15	670	23	< 5	3	< 10	23	83	45	< 10	26	68	1
L WT 5 -	< 1	0.78	5	20	97	< 1	< 5	0.29	< 1	6	8	66	1.9	0.27	0.44	370	< 2	0.01	6	340	9	< 5	3	< 10	13	260	25	< 10	13	45	3
L WT 6	< 1	1.7	10	20	85	Hous F (00) H																									
L WT 7	< 1	1.1	5	20	150	< 1	< 5	0.40	< 1	7	14	23	2.8	0.33	0.61	550	2	0.02	8	580	18	< 5	5	( 10	13	220	62	< 10	25	46	
L WT 8	< 1	1.6	20	10	180	1	< 5	0.40	< 1	11	19	120	3.5	0.16	0.64	970	< 2	0.01	13	830	25	< 5	7	< 10	17	160	60	< 10	25	78	
L WT 9	< 1	0.96	10	20	180	< 1	< 5	0.38	< 1	8	17	34	3.0	0.41	0.54	520	2	0.02	8	710	18	< 5	5	< 10	12	310	70	< 10	25	48	1
L WT 10	< 1	1.3	< 5	20	73	< 1	< 5	0.20	< 1	9	18	170	3.1	0.12	0.50	450	4	0.02	9	660	19	< 5	1	< 10	8	570	74	< 10	14	63	1
L WT 11	< 1	1.4	15	20	54	< 1	< 5	0.13	< 1	8	17	98	3.1	0.55	0.53	480	2	0.02	9	230	18	< 5	4	< 10	9	570	70	< 10	8	71	
L HC 1	< 1	1.2	< 5	10	190	2	< 5	1.0	< 1	11	14	39	3.7	0.27	0.44	910	2	0.01	8	1400	17	< 5	11	< 10	37	210	62	< 10	38	89	-
L HC 2	Age       Al       As       B       Bs       Bs <th< td=""></th<>																														
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A .5 gm sample is digested with 2 ml of 3:1 HCL/HNO3 at 95 C for 90 min and diluted to 10 ml with DI H20 This method is partial for many oxide materials

()SR SIGNED :

TSL/91

COMP: AZIMUTH GE PROJ: SULTAHINE	OLOGIC	AL LDSR							70	MIN 5 WES	<b>I-EN</b> T 15T (60	N LZ	ABS , NOR1	 Th VAI		<b>RE</b> ER, B.	<b>POR</b> ' c. v7 4	<b>Т</b> Ж 1т2	!										FILE • SO	NO: DAT	15-0) (E: 9	296-SJ2 1/08/09 CT:F31)
SAMPLE	AG	AL	AS	В	BA	BE	BI	CA	CD	CO	CU	FE	K	LI	MG	MN	MO	NA	NI	P	PB	SB	SR	TH	TI	V	ZN	GA	SN	W	CR A	U-WET
NUMBER L12 0+00 L12 1+00 L12 2+00 L12 3+00	PPM .3 .6 .6 .4	PPM 31270 30560 46620 56690	86 507 205 499	9 9 6 4 4	РРМ 67 498 81 74	.6 .8 .4 .8	<u>РРМ</u> 8 6 10 6	PPM 4720 11700 11790 19690	PPM .1 .1 .1 .1	PPM 17 34 17 33	201 142 106 145	34210 36010 36020 44340	PPM 1370 2150 1580 2080	25 35 23 28	7390 6300 7080 7670	598 2127 546 2070	<u>РРМ</u> 4 1 2 3	630 230 620 570	9 9 5 16 46	1170 1410 1750 1140	57 164 44 39	1 3 1 1	18 70 82 124	2 2 1 1	614 172 808 697 8	79.4 59.3 82.1 85.9	PPM 115 171 91 91	5 4 5 5	1 1 1 1	2 1 2 2	17 7 24 27	<u>ррв</u> 30 10 10 5
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COMP: AZIMUTH GEOLOGICAL PROJ: SULTAHINE P.O. SLDSR ATTN: G.CROWE/J.BLACKWELL

#### MIN-EN LABS - ICP REPORT

705 WEST 15TH ST., NORTH VANCOUVER, B.C. V7M 1T2 (604)980-5814 OR (604)988-4524 FILE NO: 15-0269-5J2

DATE: 91/08/08

• SOIL \* (ACT:F31)

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SAN	1PLE 1BER	AG PPM	AL PPM	AS PPM	B PPM	BA PPM	BE PPM	BI CA PPM PPM	CD PPM	C( PPI	D CU M PPM	FE PPM	K I PPM	L1 PPN	NG PPM	MN PPM	MO PPM	) NA   PPM	NI PPM	P PPM	PB PPM	SB PPM	SR PPM	TH PPM	TI PPM	PP	ZN PPM	GA PPM	SN PPM	W PPM	CR /	AU-WET PPB
L13 L13 L13 L13 L13	320 3+00N 320 2+00N 320 1+50N 320 1+00N 320 0+50N	.4 .1 .1 .1	29430 25850 25080 24070 30270	84 35 38 246 360	34 10 4 6 4	315 166 754 372 345	.9 1.4 1.7 1.4 2.0	5 12680 3 14410 2 6800 3 8200 2 5140	.1 .1 .1 .1	53 38 12 28	3 203 8 224 2 43 8 98 6 144	59540 84630 30440 46510 59940	2430 1790 2860 1920 2750	43 30 30 32 52	43250 13440 4130 6660 11370	1175 1809 1243 1600 1489	1 1 4 2	640 230 70 180 70	256 12 5 30 37	1070 1450 1150 1160 1210	23 10 44 72 30	1 9 1 2 2	191 37 36 44 14	1 1 1 1	1371 916 62 148 170	98.3 280.3 52.7 61.7 90.0	i 130 i 110 i 112 i 137 i 130	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1 1 1 1	9 5 1 2 3	243 36 10 22 33	5 5 5 5 5
L13 L12 L12 L12	320 0+00N 250 5+00N 250 4+00N 250 3+00N 250 2+00N	 .1 .1 .1	32910 34430 33640 31560 29060	334 318 443 190 83	5 6 7 6	170 92 109 47 54	1.7 1.1 1.3 .5	15 4890 4 12870 4 12480 8 22140 8 21810	.1 .1 .1 .1	34543	1 201 1 463 1 484 2 560 7 414	54750 68450 75750 77920 64360	2490 920 1720 1180 780	39 26 33 27 27	18550 12600 13290 12620 12240	1268 1459 2131 1446 1283		210 720 160 790 420	90 31 23 5 7	1280 1160 1360 1150 660	34 41 51 24 29	4 3 18 10	19 62 55 70 64	1 1 1 1 1 1 1	332 1096 1042 2296 2278	101.9 181.2 169.3 230.2 200.0	120 192 229 152 115	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1 1 1 1	64344	102 26 32 17 19	10 5 5 5 5
L12 L12	250 1+00N 250 0+00N	 1.3 .4	27080 28480	26 83	5 11	43 197	.6 .9	10 17980 5 12010	.1 .1	4' 59	1 393 9 251	67520 61000	1840	29 36	14350 39020	2118 1377	1	360 520	7 248	1240 1220	11 28	2	73 94	1	2483 1514	200.9	103	1	1	4 10	17 245	55
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COMP: AZIMUTH PROJ: SULTAHIN ATTN: G.CROWE/	GEOLOGICAL NE P.O. SLDS /J.BLACKWELL	R							₩ 705	<b>LIN</b> WEST	<b>- EN</b> 15TH (604)	LAB ST., N 980-58	<b>S</b> — North 314 of	— I( VANCO R (604	<b>CP</b> UVER, )988-	REP( B.C. 4524	0 <b>RT</b> v7M	112									*	FILE SIL	NO: DA TS *	1S-0 Te: 9 (A	296-SJ1 1/08/09 CT:F31)
SAMPLE NUMBER	AG AL PPM PPM	AS PPM	B PPM	BA PPM	BE PPM	BI	CA PPM	CD PPM	CO PPM	CU	FE PPM	K PPM	LI	MG	MN PPM	MO	NA PPM	NI PPM	P PPM	PB PPM	SB PPM	SR PPM P	TH	TI	V PPM	ZN	GA PPM	SN PPM I	W	CR A	U-WET PPB
S 1 S 2 S 3 S 4 S 5	.5 4340 .4 6560 .5 6300 .5 5860 .6 5320	1 1 1 1	5 4 3 2	59 176 56 60 62	.1 .1 .1 .1 .1	6 5 8 7 6	10570 11670 5870 5230 8310	.1 .1 .1 .1 .1	8 8 9 7 7	48 27 47 42 41	27880 28220 26960 21820 19900	560 990 1030 1120 960	6 8 10 10 9	2950 3810 4230 4010 3580	273 377 380 344 340	1 1 1 1	230 300 210 210 190	1 1 1 1	970 1040 1090 840 910	12 15 13 9 10	1 1 1 1	20 30 12 11 14	14 13 5 6 4	911 834 1002 880 725	89.3 78.8 73.1 56.7 48.9	24 32 38 33 31	1 2 2 2 2	1 1 1 1	22322	19 17 16 12 11	5 5 10 5 5 5
\$ 6 \$ 7	.5 5690 .5 5750	1	2 4	57 49	.1 .1	9 7	6580 5730	.1 .1	8 8	47 80	25580 35310	940 890	10 9	3850 3390	346 416	1	220 190	1	1130 1070	11 24	1 1	12 10	8 22	922 918	69.0 113.7	44 50	2 1	1	33	15 21	5
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COMP: AZIMUTH GEOLOGICAL INC.

PROJ: SULTAHINE SLDSR

#### MIN-EN LABS - ICP REPORT

705 WEST 15TH ST., NORTH VANCOUVER, B.C. V7M 1T2 (604)980-5814 OR (604)988-4524

FILE NO: 1S-0304-SJ1+2

DATE: 91/08/09

ATTN: GREG CROWE/JERRY BLACKWELL

\* SOIL \* (ACT:F31)

SAMPLE NUMBER	AG A PPM PP	IL AS	B PPM	BA PPM	BE PPM	BI PPM	CA PPM	CD PPM	CO PPM	CU PPM	FE PPM	K PPM	LI PPM	MG PPM	MN PPM	MO PPM	NA PPM	NI PPM	P PPM	PB PPM	SB PPM	SR PPM	TH PPM	TI PPM	V PPM	ZN PPM	GA PPM	SN PPM	W PPM	CR / PPM	AU-WET PPB
SSM1 SSM2 SSM3 SSM4 SSM5	.9 1999 .8 1307 .2 3303 .1 3495 .5 3650	0 1 0 5 0 437 0 692 0 338	7 4 6 5 17	136 103 90 273 229	1.8 1.2 .9 1.8 1.1	3 4 51 22 28	6770 5230 5360 6630 14800	.1 .1 .1 .1 .1	12 13 38 64 65	52 46 942 225 202	30610 31110 83820 77780 69340	1280 1700 1870 2710 2300	19 13 38 46 43	6370 3910 9020 11920 54580	1035 1529 1212 3571 1900	4 5 2 2 1	30 30 170 100 330	1 42 88 448	950 690 1260 930 1480	41 49 32 14	1 1 2 6 5	9 15 30 23 63	27 29 1 1	165 184 309 39 777	51.0 50.6 67.9 58.1 154.9	63 52 102 112 157	4 3 1 2 1	1 1 1 4	1 2 1 26	11 6 35 28 693	5 10 25 5 5
SSM6 L1240 20+00N L1240 19+00N L1240 18+00N L1240 17+00N	1.0 2451 1.0 1224 1.2 1836 .6 2096 .9 1666	0 9 0 22 0 53 0 44 0 20	2 1 2 2 1	161 66 106 70 147	1.5 .3 1.0 .8 1.2	12 8 11 17 6	6840 5630 8330 4200 8380	.1 .1 .1 .1	14 12 16 13	303 87 95 135 75	34680 30700 35080 37660 36300	1860 1090 1550 980 1210	22 16 23 26 20	7780 5720 6720 4640 6560	1305 647 1006 976 986	8 3 33 3 3	50 150 130 530 470	2 1 4 1 1	1060 1020 1250 1010 1250	63 29 46 59 46	1 1 1 1	11 10 15 10 16	20 1 10 1 1	258 940 560 338 278	61.2 77.8 71.4 68.1 83.0	81 52 76 69 70	42344	1 1 1 1	22222	17 15 14 9 14	5 5 5 5 5
L1240 16+00N L1240 15+00N L1240 14+00N L1240 14+00N L1240 13+00N L1240 12+00N	.5 2193 .5 1795 .6 1222 .6 1541 .9 1255	0 12 0 5 0 4 0 3 0 2	1 2 1 1	35 94 74 156 54	.3 .9 .4 1.2 .2	6 6 5 3	2960 6100 5590 7490 3330	.1 .1 .1 .1 .1	11 15 11 15 4	49 37 30 43 29	38940 39310 24160 41440 17860	880 1220 1310 1760 760	19 20 11 18 5	5080 8850 4650 6330 2130	857 940 949 1031 244	7 3 13 5 18	480 380 550 80 500	1 11 3 9 1	1070 1380 1240 1750 1320	42 43 36 33 23	1 1 1 1	7 10 18 14 11	1 7 21 1	593 375 269 409 175	98.8 97.4 52.0 92.0 50.7	62 75 64 74 29	44243	1 1 1 1	3 3 1 2 1	16 28 9 23 11	5 5 5 5 5 5
L1240 11+00N L1240 10+00N L1240 09+00N L1240 08+00N L1240 07+00N	.7 1418 1.1 1074 1.1 728 1.3 1155 1.2 937	0 8 0 1 0 1 0 1 0 1	1 1 1 1	148 85 63 124 86	.9 .3 .2 .2	6 7 9 7 8	6410 6500 5410 6660 6290	.1 .1 .1 .1	12 11 9 9 11	93 51 73 69 70	34360 30270 28740 27540 32420	1670 1490 1320 1810 1500	15 15 12 14 13	4390 6230 4340 5780 5450	838 617 500 636 540	6 1 1 1	70 210 230 280 270	1 1 1 1	1020 1000 860 800 1120	42 23 22 28 20	1 1 1 1	11 14 10 14 13	14 14 11 14 9	340 941 1038 947 1041	71.4 70.7 78.6 64.3 87.3	66 47 39 62 47	3 2 1 2 2	1 1 1 1	12223	12 14 13 12 18	5 10 5 5 5
L1240 06+00N L1240 05+00N L1240 04+00N L1240 03+00N L1240 02+00N	1.0 1199 1.2 1046 1.3 1122 1.1 657 1.2 643	0 1 0 1 0 1 0 1 0 2	1 1 1 1	109 86 107 55 58	.2 .3 .5 .1 .1	9 14 8 10 10	6730 6620 6710 5900 5880	.1 .1 .1 .1	12 12 12 9	81 94 69 64 56	36600 36390 34150 31110 30520	1790 1820 1980 1020 1150	15 16 17 10 10	6430 6160 6120 4010 3910	618 623 610 429 398	1 2 1 1	360 190 240 210 240	1 1 1 1	1160 1220 1160 1070 1020	18 27 18 16 15	1 1 1 1	16 13 16 11 11	9 20 16 8 6	1234 1101 1255 1011 1086	95.3 96.5 84.3 90.6 88.7	53 57 54 42 38	2 1 2 1 2	1 1 1	3 3 3 4 3 4 3	21 19 18 18 18	5 5 5 10
L1240 01+00N L1240 00+00N L1360 16+00N L1360 15+00N L1360 14+00N	1.2 538 .9 509 1.0 2529 .8 1867 1.2 2638	0 1 0 54 0 22 0 23	1 1 2 1	41 39 96 120 53	.1 .1 1.3 1.5 1.1	7 6 12 6 7	5770 5880 5440 8140 8130	.1 .1 .1 .1	8 9 22 15 11	47 71 264 96 97	34010 43640 48330 36550 29420	740 710 1690 1930 1310	7 7 32 23 34	2930 2950 6220 7890 7940	381 398 1897 1054 567	1 39 1 12	170 180 60 60 410	1 1 1 4	910 970 930 1340 1060	21 26 71 41 53	1 1 1 1	10 9 12 13 28	11 15 22 18 1	1154 1214 385 204 512	110.5 151.9 84.8 86.9 66.7	40 34 91 71 81	1 5 4 5	1 1 1	34 22 3	19 25 12 14 14	5 5 5 5
L1360 13+00N L1360 12+00N L1360 11+00N L1360 10+00N L1360 09+00N	.6 2592 .4 1811 .3 2105 .4 2201 .5 2434	0 97 0 4 0 1 0 1 0 22	8 3 4 2	83 144 184 149 46	.8 1.3 1.5 1.1 .9	12 10 6 8 7	6240 5210 7450 5310 2090	.1	14 14 15 15 9	77 79 56 66 47	39300 38750 43450 36710 30930	1280 1440 1540 1440 1440	57 20 25 25 37	8590 6490 6930 5990 5310	691 1112 1083 1815 551	105 9 14 19 35	480 80 120 110 410	4 4 3 1	1020 1040 1200 1260 1080	80 50 44 58 52	1 2 1 2 3	26 11 15 14 9	1 11 19 1 1	1146 400 539 549 451	85.0 79.9 90.1 71.3 70.5	101 88 94 86 114	63344	1 1 1 1	333333	18 16 20 12 13	5 10 10 5 5
L1360 08+00N L1360 07+00N L1360 06+00N L1360 05+00N L1360 04+00N	1.2 3357 1.0 2607 .5 1828 .8 2016 .5 2263	0 23 0 19 0 1 0 13 0 4	322222	251 138 197 183 304	1.9 1.3 1.2 1.6 1.6	10 15 7 34 12	9410 8210 8540 7820 6100	.1	11 13 13 11 9	80 144 57 332 155	34580 33570 34380 30640 27600	3910 2030 1920 2040 2170	46 34 17 21 19	7960 7050 6630 4930 4080	1072 739 1134 983 680	10 7 3 7 5	460 540 620 440 70	2 2 1 1	1070 970 1090 760 610	66 76 47 105 68	5 3 1 2 3	61 31 21 17 12	27 1 6 11 14	130 224 479 234 183	71.5 69.4 72.4 46.2 47.7	81 86 89 108 72	95344	1 1 1 1	33322	17 15 15 8 9	5 10 5 5 5
L1360 03+00N L1360 02+00N L1360 01+00N L1360 00+00N	.6 1264 .5 1976 .9 2386 .6 2568	0 1 0 4 0 39 0 1	1 1 2	102 81 590 351	.5 .9 2.0 1.8	5 5 14 8	3480 1920 6050 7880	.1 .1 .1	4 8 11 21	72 72 967 173	18190 24980 29700 49270	1720 1430 2400 1880	7 24 20 27	1730 3100 5300 13190	181 632 718 1208	4 8 1	80 610 140 120	1 1 5 20	500 680 760 1830	32 48 64 51	1 2 5 1	8 13 17 22	1 1 5 1	191 248 173 959	38.7 44.5 56.2 130.2	43 62 95 127	1 3 5 3	1 1 1	1 1 3 4	6 8 20 43	5 10 5 10

PRIME EXPL 10th Floor Box 1 808 West Hasting PROJ:SLDSR AZIMU S3037	JORATI 10 Js St. JTH	ON LTI	). 		2-302 PHC	T \$ 2-40TH STF DNE #: (306 I.(	S Т. Heet, Saska ) 931 - 10 C.A.P. Aqua-R	T.AROR/ hoon, SAS 33 FAX PLASM egia Diges	ATORIES RATCHEWAN #: (306) 2 MA SCAN stion	8 87K 6 42 - 4717	74	1	REPORT Page N File No Date	No. : M9 Io. : 1 o . : AU2 : AU3	9597 f 1 3MA -26-1991	
SAMPLE #	Ag ppm	Al As \$ ppm	B Ba ppm ppm	Be Bi ppm ppm	Ca Cd X Ppm	Co Cr ppm ppm	Cu Fe ppm %	K Mg S S	Mn Mo ppm ppm	Na Ni % ppm	P Pb ppm ppm	Sb Sc ppm ppm	Sn Sr ppm ppm	TÍ V ppm ppm	A A A	Zn Er ppm ppm
18409		1.0 5	< 10 110	< 1 < 5	0.55	7 19	180	0.39	670	0.03	560 51	< 5 3	< 10 24	530 45	< 10 20	91

A .5 gm sample is digested with 2 ml of 3:1 HCL/HNO3 at 95 C for 90 min and diluted to 10 ml with DI H20 This method is partial for many oxide materials

SIGNED :

TSL/91

DMP: /ZIMUTH ROJ: SULTAHI	I GEOLO	GICAL . SLDS	R							705	MIN 5 Wes	<b>I-EN</b> T 15TH	LAE	88 Nort	] H VANC	C <b>CP</b> COUVER	REP , B.C	ORI . V7M	1172		•							i	FILE	NO: DAT	15-0 E: 9	269-s 1/08/
TN: G.CROWE	/J.BLA	CKWELL	•									(604	)980-5	814	OR (60	988(4)	-4524								<u></u>			1	* SII	.T *	(A	CT:F3
SAMPLE NUMBER	AG PPM	AL PPM	AS PP <del>M</del>	B PPM	BA PPM	BE PPM	BI PPM	CA PPM	CD PPM	CO PPM		FE PPM	K PPN	LI PPM	MG PPM	MN PPM	MO PPM	NA PPM	NI PPM	P PPM 700	PB PPM	SB PPM	SR PPM	TH PPM	TI PPM	PPM	ZN PPM	GA PPM	SN PPM F	PPM P	CR A	U-WET
18907	.1	3380	1	6	39 34	.8	2	6000	.1	11	176	72410	590	6	2280	246	1	80	1	1240	3	1	6	43	653 2	289.8	24 39	1	1	6	49	5
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Appendix E

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### ANALYTICAL PROCEDURES

#### Division of Assayers Corp. Ltd.



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ANALYTICAL PRECEDURE REPORT FOR ASSESSMENT WORK: PROCEDURE FOR WET GOLD GEOCHEMICAL ANALYSIS

Samples are processed by Min-En Laboratories, at 705 West 15th Street, North Vancouver, employing the following procedures.

After drying the samples at 95 C, soil and stream sediment samples are screened by 80 mesh sieve to obtain the minus 80 mesh fraction for analysis. The rock samples are crushed by a jaw crusher and pulverized on a ring mill pulverizer.

5.00 grams of sample is weighed into porcelain crucibles and cindered @ 800 C for 3 hours. Samples are then transferred to beakers and digested using aqua regia, diluted to volume and mixed.

Further oxidation and treatment of 75% of the above solution is then extracted for gold by Methyl Iso-butyl Ketone.

The MIBK solutions are analyzed on an atomic absorption spectrometer using a suitable standard set.

Division of Assayers Corp. Ltd.



ANALYTICAL PROCEDURE REPORT FOR ASSESSMENT WORK: PROCEDURE FOR TRACE ELEMENT ICP

> Ag, Al, As, B, Ba, Be, Bi, Ca, Cd, Co, Cu, Fe, K, Li, Mg, Mn, Mo, Na, Ni, P, Pb, Sb, Sr, Th, U, V, Zn, Ga, Sn, W, Cr

Samples are processed by Min-En Laboratories, at 705 West 15th Street, North Vancouver, employing the following procedures.

After drying the samples at 95 C, soil and stream sediment samples are screened by 80 mesh sieve to obtain the minus 80 mesh fraction for analysis. The rock samples are crushed by a jaw crusher and pulverized on a ring mill pulverizer.

0.50 gram of the sample is digested for 2 hours with an aqua regia mixture. After cooling samples are diluted to standard volume.

The solutions are analyzed by computer operated Jarrall Ash 9000 ICAP or Jobin Yvon 70 Type II Inductively Coupled Plasma Spectrometers.

- States



### **T S L LABORATORIES**

DIVISION OF BURGENER TECHNICAL ENTERPRISES LIMITED

2 - 302 - 48th STREET, SASKATOON, SASKATCHEWAN S7K 6A4 (306) 931-1033 FAX: (306) 242-4717

1 - SAMPLE PREPARATION PROCEDURES Rock and Core

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- Entire sample is crushed, riffled and the subsequent split is pulverized to -150 mesh.
- Soils Sample is dried and sieved to -80 mesh.
- 2 FIRE ASSAY PROCEDURES Geochem Gold (Au ppb) -A 30g subsample is fused, cupelled and the subsequent dore' bead is dissolved in aqua rega. The solution is then analyzed on the Atomic Absorption. Assay Gold (Au oz/ton) -

A 29.16g subsample is fused, cupelled and the subsequent dore' bead is parted with a dilute nitric acid solution. The gold obtained is rinsed with DI water, annealed and weighed on a microbalance.

Assay Silver (Ag oz/ton) -A 2.00g sample is digested with 15mls HCl plus 5mls HN03 for 1 hour in a covered beaker; diluted to 100mls with 1:1 HCl. The solution is then run on the Atomic Absorption.

- 3 BASE METALS Geochem - A 1g subsample is digested with 5mls of aqua rega for 1 1/2 to 2 hours, then diluted with DI H20. The solutions are then run on the Atomic Absorption.
  - Assay A 0.500g sample is taken to dryness with 15mls HCl plus 5mls HN03, then redissolved with 5mls HN03 and diluted to 100mls with DI H20. The solution is run on the Atomic Absorption.



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Page 2.

5. ICAP Geochemical Analysis -A 1g subsample is digested with 5mls of aqua rega for 1 1/2 to 2 hours, then diluted with DI H20. The solutions are then run on the ICAP.

6. Heavy Mineral Concentrates -

The sample is initially wet sieved through -1700 micron, then placed on a shaker table. A heavy liquid separation is performed, Methylene Iodide, (S.G. - 3.3); diluted to give a S.G. of 2.96. The heavies were then analyzed for Au by Fire Assay plus an ICAP Scan.

7. Mercury Analysis -

A 1 gram subsample is digested with 4mls of nitric acid plus 1ml of sulfuric acid in a water bath for 1 1/2 to 2 hours, diluted with DI water. A couple of drops of a potassium permangante solution are then added to each sample solution. An aliquot of each solution is then analyzed on the A.A. by a cold vapor procedure.

Yours truly,

Bernie Dum

Bernie Dunn

BD/vh

