# **BRITISH COLUMBIA** PROSPECTORS ASSISTANCE PROGRAM MINISTRY OF ENERGY AND MINES **GEOLOGICAL SURVEY BRANCH**

PROGRAM YEAR: 1996/1997

REPORT #:

PAP 96-32

NAME:

**ERIK OSTENSOE** 

# BRITISH COLUMBIA PROSPECTORS ASSISTANCE PROGRAM PROSPECTING REPORT FORM (continued)

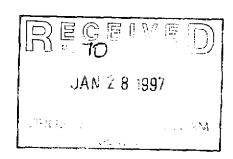
#### **B. TECHNICAL REPORT**

- One technical report to be completed for each project area.
- Refer to Program Requirements/Regulations, section 15, 16 and 17.
- If work was performed on claims a copy of the applicable assessment report may be submitted in lieu of the supporting data (see section 16) required with this TECHNICAL REPORT.

Name	ERIK O	STENSOE	Reference N	umber	96/97	P70	
LOCATIO	N/COMMO	DITIES			•		
			w - Tulameen, Bi	C. MINFII	E No. if appli	icable	
-	Project Area		•	Lat4		Long 124	°50°
	-		ten km west	_		√. Β. ⊂ ·	
_			River road	<del></del>			<del></del>
	try Roz	4.	111111111111111111111111111111111111111	persect .	<del>)</del>		<u>.                                      </u>
	_	ched For gold	0.1000		_		
viam Comi	noumes Searc	ned For	copper	<del></del>		<del>-, ,</del>	
Known Min	neral Occurrer	nces in Project Area	Rabbitt Mine 1:	5 0.5 K	n from	SW corne	<u> </u>
			ecurrences in				
east 5		Boulder M					\
WORK	PERFORME						
1. Conv	ventional Pros	specting (area)			<del></del>	·	
2. Geol	logical Mappi	ng (hectares/scale)	300 hectar	es/	1:5000	scale	
			Soil sampling				/AA-
			etometer survey				
5. Phys	sical Work (ty	pe and amount) <u>we</u>	aswed and ma	urked U	z Kun ef	grid	
		es, size, depth in m, tota				J	
7. Othe	er (specify)						
SIGNIFICA	ANT RESUL	TS			_		
Commoditie	es <u>Anomalo</u>	us gold in seil, A	nagnetic anomaly	_ Claim Na	ame <u>Rain</u>	Wero 4	
Location (sl	how on map)	Lat <u>49°34</u>	Long _12_0	f so	Elevation	925 n	ether.
Best assay/s	sample type_	Soil samples +	Four 2E in Line	45, 2+	50E on L	55, 1+506	to 2+50
c. Line	65 retur	med 18 to 3331	ppb gold, Magn. a	nomialies	2000 NT	en lineson	rec to 3
Description	of mineraliza	tion, host rocks, anoma	alies <u>weak qu</u>	ente vei	nue wit	h feldspe	notessit
OCCUPS	in diar	ite/altered ar	desite in south	5-~ J 2-~ J	+ of R	lamber 4	elzim.
			.es 0+00to 3+00				
1	r.	- to Tail	eal Report.				
PIERS	se refe	to terme	al Color		··		
				<del> </del>	·		·
			·				
	<del></del>				<u> </u>		

Supporting data must be submitted with this TECHNICAL REPORT

Information on this form is confidential for one year from the date of receipt subject to the provisions of the Freedom of Information Act.



### REPORT OF

## GEOLOGICAL, GEOCHEMICAL AND GEOPHYSICAL FIELD WORK

RAINBOW PROJECT, TULAMEEN DISTRICT,

SIMILKAMEEN MINING DIVISION, B.C.

October and November, 1996.

49 degrees 34' North Latitude 120 degrees 50' West Longitude

NTS Sheet 92H/10W.

Work by Erik A. Ostensoe, P. Geo. and T. E. Lisle, P. Eng.

Report by Erik A. Ostensoe, P. Geo.

Date of Report: January 15, 1997.

E. A. OSTONOE

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# CONTENTS

		Page
0.1	UMMARY, CONCLUSIONS AND RECOMMENDATIONS	I
1.0	NTRODUCTION	2
	<ul> <li>1.1 Introduction</li> <li>1.2 Location and Access</li> <li>1.3 Geography</li> <li>1.4 Property History</li> <li>1.5 1996 Work</li> <li>1.6 References</li> </ul>	2 2 3 3 4 4
2.0	EOLOGY OF RAINBOW PROPERTY	. 5
	<ul><li>2.1 Regional Geology</li><li>2.2 Geology of Rainbow Claims</li></ul>	5 5
3.0	EOCHEMISTRY OF RAINBOW PROJECT	7
4.0	MAGNETICS OF RAINBOW PROJECT	8
	4.1 Introduction 4.2 Magnetics of Rainbow Claims	8

## APPENDICES

Appendix 1. Geochemical Data Sheets
Geochemical Analyses

Appendix 2. Personnel

Appendix 3. EG+G Model G-856 "Memory Mag" Magnetometer

Appendix 4. Statement of Expenditures

## **ILLUSTRATIONS**

		page
Figure 1.	Location of Tulameen District	follows page 1
Figure 2.	Rainbow Claims	follows page 1
Figure 3.	Regional Geology	follows page 5
Figure 5.	Geology	in pocket
Figure 6.	Copper-Gold Soil Geochemistry	in pocket
Figure 7.	Magnetometer Survey	in pocket

#### 0.1 SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

A program of grid preparation, geological mapping, geochemical sampling, and magnetometer surveying was carried out on the Rainbow Project claims during October and November, 1996 by Erik Ostensoe and Thomas Lisle. This work was a continuation of similar programs that the owners have been pursuing since 1992.

Geological mapping showed that the tuffaceous and andesitic volcanic rocks that are present in the central and northern parts of the property are replaced by dominantly andesitic and dioritic volcanic and intrusive rocks in the southern area. The rhyolite/feldspar porphyry unit that forms gossans in the central and northwestern parts of the property was not found to the south. Minor amounts of fine-grained sulphide minerals occur with feldspathic alteration. Analyses of geochemical samples revealed low copper values and several narrow zones of elevated gold values. The magnetometer survey showed a partially defined area of "high" magnetics in the central part of the newly prepared grid. This anomalous area has no outcrops and is unexplained.

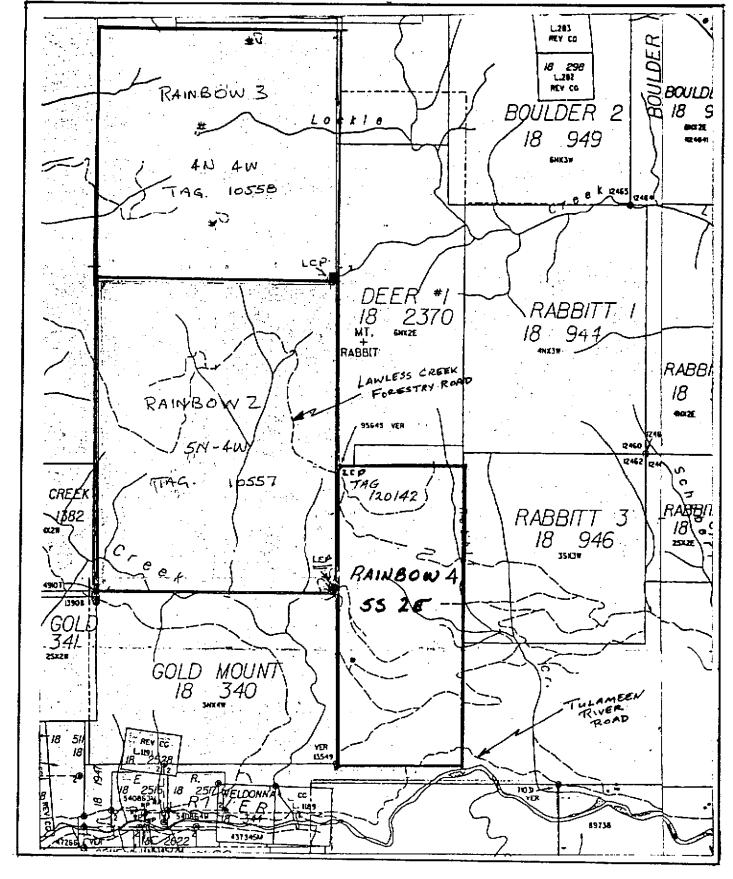
Work during 1996 expanded coverage of the Rainbow Project. The owners believe that the original proposal, that the area has good potential to host valuable mineral deposits, remains valid and that the recent work has contributed useful data.

Further, more detailed, magnetometer surveys are required to better define the geometry of the newly recognized magnetically anomalous area. The possibility that the anomaly reflects the presence of an outlier of the Tulameen Ultramafic Complex deserves further study. A first step in such a study may be the PGE analysis of a few soil samples from the area. Several narrow low level gold anomalies should be further sampled and prospected. Steep cliffs that rise from the north side of Lawless Creek cannot be gridded but should be prospected as conditions permit. The advisability of carrying out a complete VLF-EM survey of the claims should be considered.

All surveys should be extended southerly to the limit of the property near the Tulameen River. Examination of several small areas south of Lawless Creek Forest Road that have been gridded but not surveyed should be completed. Soil samples from 1995 that have not been analysed should be processed to obtain maximum information. The northernmost part of the property has not been surveyed.

A compilation of available data, geological, prospecting, geochemical and geophysical, would be a useful tool in interpreting the potential of the area.

. DEASE LAKE RAINBOW CLAIMS LOCATION MAP, RAINBOW CLAIMS TULAMEEN AREA SIMILKAMEEN MINING DIVISION BRITISH COLUMBIA Fig 1



RAINBOW PROJECT, CLAIM MAP.

BRITISH COLUMBIA CLAIM MAP 92 H 056

Figure 2.

#### 1.0 INTRODUCTION

#### 1.1 Introduction

The Rainbow Project comprises forty-six claim units in three four-post mineral claims owned jointly by Erik Ostensoe and T. E. Lisle and as detailed below:

Name	Record No. 3	No. of Units	Record Date	Current Expiry Date*
Rainbow 2	309158	20	May 6, 1992	May 6, 1999
Rambow 3	309159	16	May 6, 1992	May 7, 1999
Rambow 4	323956	10	March 1, 1994	March 1, 1999.

<sup>\*1996</sup> Work will be submitted in support of a Statement of Work to extend the expiry dates shown.

Mssrs. Lisle and Ostensoe, during October and November, 1996, completed a program of technical surveys on the southern part of the Rainbow Project area. This work was a continuation of similar work undertaken elsewhere on the claims by the same persons during 1994 and 1995 field seasons. The objective of the project is to thoroughly examine the geological setting of the claims and to search for mineral deposits, particularly gold-bearing quartz structures similar to those found nearby to the southwest on the Rabbit property, and massive sulphide-type deposits similar to those found to the east on the east side of Boulder Mountain. Platinum occurs at Grasshopper Mountain about three kms southwest of the property but is not known to be present on the Rainbow claims.

Work has in the past included prospecting, geological mapping, geochemical soil sampling, and a magnetometer survey. A VLF-EM survey was attempted during 1994 but may not have been properly executed. Work in 1996 comprised grid preparation, mapping, soil sampling and magnetometer surveying as discussed in following sections of this report.

Field work on the Rainbow property has in part been financed by grants from the Prospectors Assistance Program of the Energy and Minerals Division of the Ministry of Employment and Investment. The Annual Work Approval Number is KAM 96-1500440-357.

#### 1.2 Location and Access

The Rainbow 1, 2, 3 claims are located from six to ten km west of the town of Tulameen, in the Similkameen Mining District (Figures 1, 2), on the west side of Rabbit Mountain. They are north

of Tulameen River and are almost entirely east and north of Lawless Creek. Elevations range from 840 metres at Tulameen River to 1646 metres at the northwest end of the claims.

Access to Tulameen is provided by 25 km of paved provincial road from Highway 3 at Princeton, B. C., 280 km east of Vancouver, or alternatively, by 30 km of logging road from Coquihalla toll booth on Highway 5. The Rainbow claims, as illustrated in Figure 2, are crossed by two roads: a lower road that follows Tulameen River at the south end of the claims; and a higher road, the Lawless Creek Forestry Road, that provides access to the middle and northern parts of the property.

## 1.3 Geography

The Rainbow claims are located in the Cascade Mountains of southern British Columbia in the Intermontane Physiographic Belt. Moderately steep slopes near major streams give way at higher elevation to gentle upland terrain. Forests of interior fir, with pine and cedar, where readily accessible, have been extensively logged; substantial damage from beetle infestations has occurred in recent years.

Tulameen, an unincorporated town of about 300 persons, offers basic services and accommodation. Princeton, a town of about 3000 persons, provides all support services required by mineral explorers.

## 1.4 Property History

The Tulameen area of southern British Columbia has attracted the attention of prospectors since the earliest miners found placer gold and platinum in the area and rich deposits of low grade coal a short distance south. Several copper prospects, mostly related to the felsic "Cousin Jack" horizon east of Rabbit Mountain, were explored by short underground adits and by several programs of diamond drilling. The Rabbit gold prospect, located southwest of the southwest corner of Rainbow 2 claim, hosted impressive lode gold occurrences and has recorded production of 1057 ounces gold from 1432 tons of quartz vein ore. Coarse placer gold is reported to have been recovered from the north side of Lawless Creek, on or near the Rainbow 2 claim.

The present owners of the Rainbow claims commenced work in 1992 and completed various reconnaissance and detailed technical surveys in ensuing years (i.e. Assessment Report 24302).

#### 1.5 1996 Work

The author and T. E. Lisle, P. Eng., with the assistance of Prospectors Assistance Grant 96/97-P70, explored the southern portion of the Rainbow claims in the period October 8 through November 6, 1996. Work included preparation of 12 km of grid, geological mapping of approximately 3 square km area, 18 km of magnetometer survey, and gathering of 162 soil samples. Work was handicapped by early winter conditions that resulted in frozen ground and partial snow cover. Annual Work Approval Number is KAM 96-150040-357.

#### 1.6 References

1. Camsell, Charles Geology and Mineral Deposits of Tulameen District, British Columbia, Geol. Surv. Canada, Memoir 16, 1913 2. Monger, JWH Structural Evolution of the Southwestern Intermontane Belt, Ashcroft and Hope Map Area, British Columbia: in Current Research, Part A, Geol. Surv. Canada, Paper 85 - 1A, pp 349 -358. 3. Geology of the Hope and Ashcroft Map Areas, British Columbia Geol. Surv. Canada, Maps 41-1989, 42-1989 4. Lisle, T. E. and Ostensoe, E. Prospecting Report on the Rainbow 2 and 3 Mineral Claims, Tulameen Area, Similkameen Mining Division, B. C., Assessment Report, 1993 5. Geochemical and Geophysical Report on the Rainbow 2 and 3 Mineral Claims, Tulameen Area, Similkameen Mining Division, B. C., Assessment Report, 1995 6. Geological and Geochemical Report on the Rainbow 2, 3 and 4 Mineral Claims, Tulameen, Similkameen Mining Division, B. C., Assessment Report 24302, 1995.

#### 2.0 GEOLOGY OF RAINBOW PROJECT

## 2.1 Regional Geology

The Tulameen area is situated in the Intermontane Belt of southern British Columbia in a northwesterly trending terrain of Upper Triassic age Nicola Group volcanic and sedimentary rocks. The Nicola Group comprises a three-fold assemblage: an eastern portion of alkalic and cale-alkalic submarine volcanic rocks, lahar deposits, basaltic flows and high-level syenite stocks; a central section of subaerial and submarine andesite, basalt and co-magnatic intrusions of diorite and syenite; and a western belt of flows and pyroclastic rocks with andesitic to rhyolitic composition and minor interbedded limestone, volcanic conglomerate, sandstone and argillite. The Rainbow Project lies within the western belt.

Major intrusions are: the Upper Triassic age Tulameen Ultramafic Complex located south and southwest of Rainbow Project; the Eagle Granodiorite of apparent Upper Jurassic age which occurs along the west side, and Tertiary Otter granite intrusions located at and north of the town of Tulameen. Rocks are disrupted by northwest and northeast trending faults with unknown displacement.

Nicola volcanic rocks and related intrusions in southern British Columbia are host to several world-class mineral deposits, including the Brenda and Highland Valley copper-molybdenum mines, the Copper Mountain/Ingerbelle and Afton copper-gold mines, and the Craigmont copper-iron skarn deposit. The Tulameen River and its westside tributaries have produced substantial amounts of placer gold and platinum and low grade coal was produced for many years from Eocene age deposits located a few km south of Tulameen townsite. Several gold and base metal prospects have received substantial exploration work and prospecting is active throughout the Tulameen district.

## 2.2 Geology of the Rainbow Claims

Much of the Rainbow claims have been mapped in detail by Mssrs. Lisle and Ostensoe (i. e. Assessment Report No. 24302). Figure 4 of this report includes recently acquired additional information from the southern part of the claims.

The northern and western parts of the claims are dominated by tuffs, flows and tuff breccias of andesitic to dacitic composition, intruded by an extensive body of dark-grey to purplish coloured diorite/monzonite. A variably altered pale grey to greenish-grey rhyolite/feldspar porphyry unit is present in a broad northwesterly band that is poorly exposed from 1+50 west on line 12 north northwesterly to 6+00 west on line 25 north. A siliceous zone within the band carries up to 10%

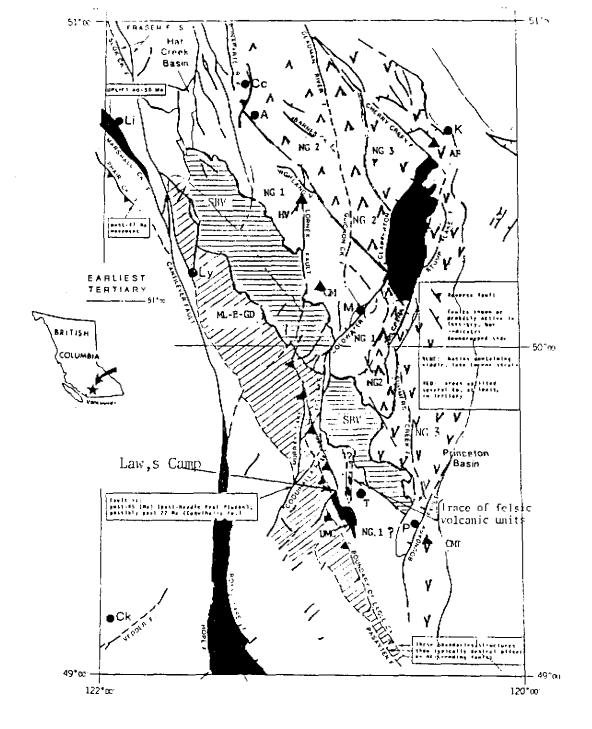


FIGURE 3.
GEOLOGICAL SKETCH, HOPE-ASHCROFT MAP AREAS (After Monger)
Showing major geologic units and mineral deposits.

LEGIND.		
Cretaceous,	Spences Bridge Group	SBV
	s.Mo.lytton-Hagle Granodiorite	ML-E-GD.
Late Triassic.	Nicola Arc Complex.	
	liwestern Volcanic Facies,	NG I
	2)Contral Volumnic Factors.	
	3)Pastern Volcanic Factes.	NG 3
Triassic-Jurassic.	Tulameen Ultramafic Complex.	(₩C
PRINCIPAL MINES.	PRINCIPAL SPITELISMINS	
Highland Valley HV.	A Asheroit. i He	me. EKamiloops, IY-Lytton.
Alton. AF.	L Fillocet, M Mc	rritt. P Princeron, T Tulameen.
Conner Mountain, CAT		

pyrite and minor magnetite and chalcopyrite in skarn-like propyllitic chlorite, quartz, epidote alteration.

The southern parts of Rainbow 2 and 4 claims are underlain by andesite, breeciated, porphyritic and tuffaceous, and by diorites of various appearances. Alteration varies from moderate to strong and is typically propyllitic; feldspathic and epidotic. Sulphide minerals, pyrite and chalcopyrite, are present in small amounts. Deep overburden is present near the baseline between 0 + 00 and 7 +00 north.

#### 3.0 GEOCHEMISTRY OF RAINBOW PROJECT

The geochemistry of the Rainbow claims has been investigated by collection of 1081 soil samples, of which 747 have been analysed by ICP methods for 30 elements and for gold by fire assay/atomic absorption. 334 samples taken as part of the 1995 work program remain in storage pending analysis.

162 samples were taken and analysed as part of the 1996 work program. Details of sample site, soil horizon, soil depth and characteristics, were recorded in the field on Sample Data Sheets that are included along with Geochemical Analysis Certificates in Appendix 1 of this report. Copper and gold analyses have been plotted on Figure 5 of this report. Figure 5 also displays copper and gold data for all previously analysed soil samples.

Figure 5 of this report is contoured to show the 10 ppb gold values. In general, the pattern of elevated gold in soil shows a northwesterly trend that obliquely crosses the property grid and in part correlates with the rhyolite/feldspar porphyry unit.

Soil samples from the 1996 work returned gold values as high as 333 ppb (one analysis of 1020 ppb gold was re-checked by the lab and returned 11 ppb). Three areas of anomalous gold values are present.

Copper in soil values are, in general, low to a maximum of 189 ppm. There is only a very feeble correlation of elevated copper and gold values.

#### 4.0 MAGNETICS OF RAINBOW PROJECT

#### 4.1 Introduction

An eighteen km grid located south of the Lawless Creek Forestry Road was surveyed during 1996 using a EG+G model G-856 proton magnetometer. Observations were recorded at 25 metre intervals and data have been compiled in Figure 6 of this report.

A data sheet describing the design and operation of the G-856 magnetometer is included as Appendix III of this report.

The claim owners acknowledge with thanks the cooperation and assistance of Better Resources Ltd., owner of the magnetometer, and of Gary H. Giroux, P. Eng., who prepared Figure 6.

#### 4.2 Magnetics of Rainbow Claims

A EG+G model G-856 magnetometer was employed in the Rainbow property survey. A second instrument that would have been used as a recording base station was not available so that the operator relied upon repeated observations at certain locations to ensure that the survey was completed in a period of low magnetic activity. No unusual variations in the magnetic field that may have been related to magnetic storms were noticed.

The survey totalled 18 km, with observations at 25 metre intervals on east-west lines spaced 100 metres apart. The survey area extended from line 7+00 North to line 7+00 South and from 1000 metres east of the base line to as far as 8+50 metres west. Data were retrieved from the module and plotted as Figure 6 of this report using a "Fast-CAD" computer method and a contour interval of 200 nT.

Figure 6 shows little variation in the magnetic field outside of the area enclosed by line 0+00 south to line 5+00 south. Small amplitude apparent anomalies in the northwest part of the figure may result from steep topography as no particular geological features that might have influenced the magnetic field were noted in that part of the area. A sharply defined anomaly oriented north-south and with amplitude in the order of 2300 nT occurs at 2+00 E on lines 0+00 and 1+00S, with probable continuations both to the west and southeast. A thumb-print anomaly with similar amplitude centered at 5+00 E on line 1+00 S has a one reading source and lacks any dipole effect and is not given much credence. The broad 2000 nT magnetic high that occupies the area from 6+50 East on line 1+00 S southeasterly at least as far as the east end of line 3+00 S is not completely defined by the survey. It occurs in a flat area of no outcrops and, speculatively, may

represent an area of strongly magnetic rocks, such as Tulameen Ultramafite, that, if present, may have important economic implications.

# APPENDIX I.

Geochemical Data Sheets

Geochemical Analysis Certificates

PROJECT SAMPLER GENERAL LOCATION DATE NTS MAP SHEET

LOCATION NTS UTM

GRID 🛩

	NORTH SOUTH	EAST WEST	Survey-type	Depth	Hortzon	Colour	Material	% Gravel	% Organic	<b>C1</b>	<b></b>	_		
1	0+00	9+50	Soil	0.2	B	Brown	Allunum	35	3m	Clay	35	Sand 20	Bedrock	1505/ope-south. W side of small cr.
2		9+00		0.2	В	DK brown	//	30	10		40			
3		8+50		0.25	В		mudified till	25	5		35			Some fine talus
4		8+00		0,35	ß	_				5	25	20		Under allumin layer
5		7+50		0.Z5	Z	. 1 . 1	Till/allur.	40	5	10	20		- <del></del>	Gravel 0.5 to 1.5 cm.
		7+00		0.35	B	Brown	Glacial- fluvial	50	v	5	25	20		8° slope-south.
, , , , , , , ,		6+50		0.25	í	Light	T.11	35		<del>-</del>	25	15		Fair quality.
		6+00		0.30	в	Pale brown	T.11	45			15	10		
		5+50		0.20	В		Glacial. Fluoral	40		20	30	10		<i>-</i>
10		5.00		0.25		1201	G-4 ?	30			30		ſ	Fair quality.
SURVEY TYPE: S=S DEPTH: Measured in	Soil: SS=Silt; R=Rock Cl n meters	4+50	(	0.25		<u> </u>	G-1?	25			30			Good material

brown.

End of spl. line

HORIZON: Marked A, B, or C

COLOUR: Br. Brown, Bl. Black, R. Red, G. Grey, O. Orange, Dk. Dark, Lt. Light. MATERIAL: T Till; Co. Colluvium A. Alluvium, F. Fluvial, GF. Glaciofiuvial, O. Organic.

PROJECT SAMPLER GENERAL LOCATION DATE Nov. 5, 1996 NTS MAP SHEET 92 H - 10W

LOCATION NTS UTM

GRID 🗸

	NORTH SOUTH	EAST WEST	Survey-type	Depth	Hortzon	Colour	Material	% Gravel	% Organic	Clay	SIM			
,	2+00	5+00	Soil	0.2	13	DK red	1	25	5		30	Sand	Drante	
		5+50	***	0.2	B	Light	"		<del>-</del>	20	<del></del>	20	D1811110	On slope _ 15°E.
				0.2	0	PASO-		25	-	25	30	20		Lower slope
3		6+00	<del></del>	0.25	B	Red	clayey soil	20	L-/	45	25	10	1	Flat. Beside violating
4		6+50		0.25	В	Dark	pon Clay			100		<u> </u>		*==+
		7-00		0.25		Grey	1-		<del></del>					Flat. V. gummy.
		7+50	<del></del>			Red	<del></del>			80	15	5		" Lacustrine?
╹├┼┼┼┼		7+50		0.25	010	brown	Till Elzy	20		65	10	5	-	Flat, Logged ~ 1960.
7		8+00		0.20	$\mathcal{B}$	Deep	1,11?	10		30	5	5	·· <u>·</u>	
• <u> </u>		8-50		0.25	ß	Yellow	ا د سیس		·			-		Lacustrum?
						Drange	Till	15		70	10	5		Flat. Under soil yer
<b>╹</b> ├┼┼┼┼		9+00		0.25	ß	brown	Till?	20		60	10	10		Flat. Good avataris
10		9+50	k	25	B	Red	T.11?	20		65	10	5		
CHOLEY TARE A		10+00		7.40		Okred	<u></u> 1							Flat
DEPTH: Measured	Soit; SS=Siit; R=Rock C in meters.	hlp	L.	,, ¬ •	0	brown	5011	_		70	15	15		Flat ground

70 15 15 Flat ground E.O.L.

DEPTH: Measured in meters. HORIZON: Marked A. B. or C

COLOUR: Br. Brown, Bl. Black, R. Red, G. Grey, O. Orange, Dk. Dark, El. Light. MATERIAL: T Till; Co. Colluvium. A. Alluvium. F. Fluvial. GF. Glaciofluvial. O. Organic.

ORGANICS: Visual estimate of organic content. GRAVEL: Estimate of Gravel sized fragments.

CLAY-SILT-SAND: Low to moderate to high estimates.

PROJECT GENERAL LOCATION

SAMPLER DATE

NTS MAP SHEET

LOCATION

NTS UTM

GRID -

<del></del>	HTUOS LEGIS	EAST TO THE	Survey-type	Depth	Hortzon	Colour	Material	% Gravel	% Organic	Clay	Sik	Sand		
,	4+00	0100	5016								- OIR	34110	- DOG OCK	Remarks
2	"	0+50	"	0.52	ß	Pale BR.	G.F. TILL	+20%	4	4	M.	#		No Sample.
	11	1400	"/	0.35	ß	11	5.61	+20%	4	4	_	14		Grovelly . (Rewarders.
	- "	1450	"	0.30	ß	"	и 3	+15%	4	4	M	Н		
	1/	2100	"	0.57	B	11	TILL	±152	L	L-M	M	M		Below Outcapp.
	"	2+50	"	0.30	B	*1	TILL?	±15%	L	M	M	м	<del> </del>	News Oc.
+	"	3+00	"	0.15		B.E.	Rocky TILL		_	M	M	M		Suscapp.
	11	3+50	"	0.35	В	Y-R. BA	GF?	HILM	<b>L</b> .	M	M	#		
	1,	4+00	"	0.50	B	Br.	TILL	Mod.	۷.	M	M	M		
	l)	4+50	"	?	В	1/	TILL	Mod.	4	M2		M- H		
SURVEY TYPE: S	// =Soll; SS=Sill; R=Rock C	5+00 Thip	"	o.32	B	Y-RBR.	41	Mod-	l	L.	14	4.		SILTY - Reworked ?

DEPTH: Measured in meters. HORIZON: Marked A, B, or C

COLOUR: Br. Brown, Bl. Black, R. Red, G. Grey, O. Orange, Dk. Dark, LL Light, MATERIAL: T Till; Co. Colluvium, A. Alluvium, F. Fluvial, GF. Glaciofluvial, O. Organic,

ORGANICS: Visual estimate of organic content, GRAVEL: Estimate of Gravel sized fragments.

CLAY-SILT-SAND: Low to moderate to high estimates.

PROJECT GENERAL LOCATION

SAMPLER DATE

NTS MAP SHEET

LOCATION

NTS UTM

GRID -

Г	1	ΙT	T 1	-NEEDEL SOUTH	EAST WHAT.	Survey-type	Depth	Hortzon	Colour	Material	% Gravel	. % Organic	Clay	Sik	Sand	Redmck	Remarks
1		$\coprod$	$\downarrow \downarrow$	4+00	5450	SOIL	0.25	13?	R.Be.	7,LL		4	M	4	M		Cobbles + some pable
2				./	6+00	"	0-15	e	Bn.	11		K-M	4-14	H	?		ON BEDROCK
3	$\ \cdot\ $		$\coprod$	<u> </u>	6+50	"	0.20	B/c	Grey brown	T111	20		50	25	5		
4	$\sqcup$		$\coprod$		7+00	-	0.15	В	Red- brown		20	4	50	25	0-5	otter intr.	shallow cover soil
6	Ц			<u> </u>	7+50			В	Red- brown	<b>"</b> (₹)	30		50	15	5	-	
4	-				8+00		0.25	В	Red- brown		25		45		10		Good soil material.
7					8+50		0.20	В	Dark red	Residual Soil	20	_	40	30		Myred	
•		$\bot$			9+00		0.15	B	Red brown	t.	30		30	30	10	10 tt. / 4	Good soil
•				<u></u>	9+50		0.15	B	Red brown	Till	20		45	25	1	otter	
10					10+00		-		_	_			_	_	-		Boggy. No soil.

SURVEY TYPE: S=Soil; SS=Silt; R=Rock Chip

DEPTH: Measured in meters. HORIZON: Marked A, B, or C

COLOUR: Br. Brown, Bt. Black, R. Red. G. Grey, O. Orange, Dk. Dark, Lt. Light, MATERIAL: T Till; Co. Colluvium, A. Alluvium, F. Fluvial, GF. Glaciofluvial, O. Organic.

MEAN Bedrook.

## **GEOCHEMICAL DATA**

PROJECT GENERAL LOCATION

SAMPLER DATE NTS MAP SHEET

T. LISLE OCTOBER , 1896 10W

LOCATION

NTS

UTM SOUTH GRID -

	2-0 /4	GRID -												
		EAST THE	Survey-type	Depth	Horizon	Colour	Material	% Gravel	% Organic	Cley	SIN	Sand	Bedrock	Remarks
1	5+00	0+00	5016	0.30	B'	BR	TILL.	₹	4	M	H	H		
2	"	0+50	"	0.35	B	"	War Shine	+25%	۷.	4	1	<i>H</i> .	<del></del>	P 4 2
3	41	1+00	"	0.52	e.B.	11	TILL?		- L-	7	11	14		Growthy Reworked
4	u	1+50	"	0.15	ح	"/	TILL	7/0%	L	4	M.	<b>-</b>	<u> </u>	
5	"	2+00	"	0.30	c	11	FINES.	-	4	4	M	#	<del></del>	Neur Bedrock
•	1	2+50	"	0.50	C	BR	TILL	>10%	4	<b>L</b>	M.	4		ANGULAR RIC FRAGS,
7	"(	3+00	"	0.35	c	BR	TOLUS FINES	7/06	۷	4		N		Poor Sample.
	"	3+50	4	0.30	c	Pale Br.	TILL	7 - 7	L		м.	<del> </del>		
•	"	4+00	"	0.10	e	Br.	11		۷	M		M		Subcrop. by OC.
0	4/	4+50	"	0.35	c	Pale Br.	"(	\$ 10%.		<u></u>	M.	14		ON BEBROCK
SURVEY TYPE:	// S=Soil: SS=Sift; R=Rock (	5+00	11	0.35		L1	Glasia Phrant	152		<u>- 1</u>				Ancolor to Roomet Robble

DEPTH: Measured in meters, HORIZON: Marked A, B, or C

COLOUR: Br. Brown, Bl. Black, R. Red, G. Grey, O. Orange, Dk. Dark, Lt. Light,

MATERIAL: T. Till; Co. Colluvium. A. Alluvium. F. Fluvial. GF. Glaciofluvial. O. Organic,

PROJECT SAMPLER GENERAL LOCATION TULAMERO DATE NTS MAP SHEET

LOCATION NTS

UTM GRID -

r	1 1	1 T	_	-	Marien South	EAST WEET	Survey-type	Depth	Hortzon	Colour	Material	% Gravel	% Organic	Clay	Sitt	Sand	Padent D
,		-	1	$\perp$	5+00	5+50	5016	0.15	د	BR.	TILL	+10%	۷.		M	<i>A</i>	Bedrock Remarks
L						6+00	"	0.15	c	<i>t</i> )	TILL	+10%?	L	4	M	4	Sugarop.
l 					"	6+50	"	035	_	11	el	\$ 107?	L	۷.	4	1+	"
			1		//	7 +00	"1	0.30	В	BR	G.F. ?	,, ?	,	<del> </del>   ~	M	#	Glacio fluvial?
					11	7450	"	0.20	د	Y.Bn.	TILL	15%		4	M	. #	Colacio pluvia (1.
					11	8+00	"	0.25	c	Ale Br.		7	L-M	4			AUGUCAN MARGERS
					7	8+50	"	0.30	B	Ale	"	+25%	L		M.	Н	ON BEDROCK
					"	9.00		0.15	C	"	7,44	+5%		-			Bosol 7111?
					4	9450	4	0.50	B. e !	BR	"	15%.	4	4	+	#	
$\int$					4	10400	,,	035	B	BR.	af?	+20%				<i>H</i> .	News Bediect

SURVEY TYPE: S=Soil: SS=Silt; R\*Rock Chip

DEPTH: Measured in meters. HORIZON: Marked A, B, or C

COLOUR: Br. Brown, Bl. Black, R. Red, G. Grey, O. Orange, Dk. Dark, Lt. Light, MATERIAL: T Till; Co. Colluvium. A. Alluvium. F. Fluvial. GF. Glaciofluvial. O. Organic.

PROJECT SAMPLER GENERAL LOCATION DATE NTS MAP SHEET 92 H- 10W

LOCATION NTS

UTM

		GRID -												
	-H9823F SOUTH	EAST WEST	Survey-type	Depth	Horizon	Colour	Material	% Gravel	% Organic	Class	OIL.			
1 1 1 1	6+00	0+00	Soil	0.20		Yellowish	Alhum	30	A GIVENE	15	8lk 30			
2		0+50		0.15		Dark brown		25		35		20		Flat ground above hawless Cr.
3		1+00		0.15	C		Talus fines						60% Talus	40% soil Poor
4-1-1-1		1+50		0.25	C	Grey	**	-		20			65% talus	Poor
5		2+00		0.20		PLOWN		15	····				-iams	
•		2+50		0.25	C	brown	Till + clay	15		65		_		25° slope with talus.
7		3+00		0.15	c	Brown		25		45	20	10		20 510BE
		3+50		0.20		Grey	- till	15		_	20	20		
		4+00		0.10		Red	Allamam	25		65				11
10		4+50	(	0.10	ر ا	Brown	very thin clay till.	10		75	-15			Very rocky.

SURVEY TYPE: S=Soil; SS=Silt; R=Rock CNp

DEPTH: Measured in meters HORIZON: Marked A. B. or C

COLOUR: Br. Brown, Bl. Black, R. Red, G. Grey, O. Orange, Dk. Dark, Et. Light.

MATERIAL: T Till; Co. Colluvium, A. Alluvium, F. Fluvial, GF. Gladofluvial, O. Organic,

PROJECT RAINGOW
GENERALLOCATION THE AMERICA

SAMPLER Date

NTS MAP SHEET

Erik Ostensoe October 13, 1996.

LOCATION

NTS UTM

GRID -

NORTH SOUTH EAST -WEST Survey-type Depth Hortzon Colour Material % Graye! % Organic Clay SIN Sand Bedrock Remarks Jellow Trapt 5+00 6+00 Soil 0.10 B/c 15 65 10 10 Very them soil. Ash-5+50  $\mathcal{L}$ 0.10 15 grey 50 25 10 Thin soil. modified Reddish 6+00 0.10  $\mathcal{B}$ promy 11,7 30 40 On bedrock. Light Talus 6+50 40 brown 11 st Lux 30 20 10 0.10 Light Talus + 7+00 -0.15 50 clayer dire brown 30 20 0.10 Light 7+50 C ? -0.15 PLOM V 30 60 10 Very rocky terrain Reddish clayey soil with takes chip 8+00 015 60 30 procon 10 Pyrite + cpyr in bedrock Grey\_ 8+50 0.15 Till brown 30 35 25 10 Redduk 9+00 0.20 Till 30 25 م*ي*وسم 35 10 10+00 4- $\leftarrow$ 1<del>0.10</del>1 Grey 411-

SURVEY TYPE: S=Soil; SS=Siit; R=Rock Chip

DEPTH: Measured in meters.

HORIZON: Marked A, B, or C

COLOUR: Br. Brown, Bl. Black, R. Red, G. Grey, O. Orange, Dk. Dark, Et. Light, MATERIAL: T Till, Co. Colluvium, A. Alluvium, F. Fluviel, GF. Glaciofluvial, O. Organic,

ORGANICS: Visual estimate of organic content.

GRAVEL: Estimate of Gravel sized fragments.

CLAY-SILT-SAND: Low to moderate to high estimates.

GENERAL LOCATION Rambow

GENERAL LOCATION Tulamen, B.C.

SAMPLER

Erik Ostensoe

October 13,1996

NTS MAP BHEET 92H - 10W

LOCATION NTS

UTM

	GRID :													
HORTH SO	WTH EAST	10053	Survey-type	Depth	Horizon	Colour	Material	% Gravel	% Organic	Clay	Silt	Sand	Bedrock	Demost .
7+	-00 1+	-00	Soil		<del>-</del>	Yellow	Alluvium	vv		0	v			Rounded pea gravel.
2		-50		0.40	13						ļ			Limonitic Soil with talus fines.
	2-	+00			C	Yellow	Talus fines (Corrse)			v	V			
		+50			C	11	Clay + talus fine							25° slope to South Fa
	3	+00		0.05	<b>B</b> ?	Madinia	clay on	73 lus 35 %		25	26		<del></del>	Steep slope. Fa
	3	+50		.05-	R?		bove	-0 /0			25	13	·	Poor sample
	4	+00		.10		med.	clay +			-	- -			рл н и I
	4	+50		.10		Red	11							Better than the abou
	5-	+00		.05-	Ţ	Grey		<u>- la y</u>		30	70			Much outcrop, Good.
	5	+50		.20	c	ベミスカルエート	< 13V	+1(( 15% Frags.		<del></del> -	j		-	10° slope to south
Charles	<u> </u>			• 20		brown	Soilin?	frags.		60	- 25	7		

SURVEY TYPE: S=Soll; SS=Silt; R=Rock Chip

DEPTH: Measured in meters. HORIZON: Marked A, B, or C

COLOUR: Br. Brown. Bl. Black, R. Red. G. Grey, O. Orange, Dk. Dark, Lt. Light, MATERIAL: T Till; Co. Colluvium. A. Alluvium. F. Fluvial, GF. Glaciofluvial, O. Organic.

PROJECT
GENERAL LOCATION

Rainbow Tulampen R.C.

SAMPLER

Erik Ostensoe

NTS MAP SHEET

DATE

92 H = 10

LOCATION

NTS UTM

2010 e-

		GRID 🛩												
	HORTH SOUTH	EAST WEST	Survey-type	Depth	Hortzon		Material	% Grave!	% Organic	Class	£:14	S		
,	7+00	6+00	Soil		C	Very Pale brown	modified till?	L	7 0 July 1	<i>-</i>	3/IL	SANG L	Bedrock	Gentle slope
<b>'</b>	<del> </del>	6+50				Grey	Till?	LL	1	سا				clayey soil with rounded pebbles
		7+00		0.15		Brown grey	modified	~		W				rounded pebbles
		7+50		0.15	C	Grey	modified			v				
	_	8+00		0.(5	<u> </u>	Brown	i		<u>-</u>	2,				As schoole but
<u> </u>		8+50		0.20		<del>'</del>	clayey alluvium	W						Stream gravels + son
		9+00		0.15	c	Grey	COBYSE STREETS	35		ا سريسو				Fair quality.
		9+50		0.15			clayey Soil	~						Slope 10° to south. Very similar to
		10+00		0.15	<u> </u>	13	Gavel	V.	-	-		-	-	9+00E.
							and soil			-				gravel
							1_	L						

SURVEY TYPE: S=Soll; SS+Slit: R=Rock Chip

DEPTH: Measured in meters HORIZON: Marked A, B, or C

COLOUR: Br. Brown. Bl. Black, R. Red. G. Grey, O. Orange, Dk. Dark, Lt. Light, MATERIAL: T Titl, Co. Cofluvium, A. Alluvium, F. Fluvial, GF. Glaciofluvial, O. Organic, ORGANICS: Visual estimate of organic content.

GRAVEL: Estimate of Gravel sized fragments.

CLAY-SILT-SAND: Low to moderate to high estimates.

ANGULAR TO ROUND.

**GEOCHEMICAL DATA** 

PROJECT GENERAL LOCATION

SAMPLER DATE

T. LISLE

NTS MAP SHEET

OCTOBER, 1996 924 10W

LOCATION

NTS UTM GRID /

NORTH SOUTH EAST WEEK Survey-type Depth Hortzon Colour Material % Gravel % Organic Clay \$M: Send Bedrock Remarks 1+00 N 0100 30 K . 11 0+50 " 6007 1. OLO LOGGING 4 B 1 Limi Be GLACIEFLURIS 1100 0.25 4 H H L DISTURBED AREM 4 4 1+50 0.30 Ge. BR. " 0 L, H \_ M. REWORKED TILL? " c! " YBR. 2+00 0.30 H. TILL <.5 L H L " 2+50 0.35 B BR. TILL. **45** ۷. H. ۷ 14 4 " 3 0.20 3+00 BR. +20 TILL L. M M 4 OLD ROAD. 11 4 3+50 B BR. 11 5 L. 0.35 Glacioflurial.? 4 M M Ale 4 " 1400 11 M ۷ M 0.35 50 Ba. 4 0.35 B BR 4150 10-15 M TILL 13R. .. 0.30 10% 1/ NIM PROBLES YEBBLES M

SURVEY TYPE: S=Soil; SS=Sill; R=Rock Chip

DEPTH: Measured in meters. HORIZON: Marked A, B, or C

COLOUR: Br. Brown, Bl. Black, R. Red. G. Grey, O. Orange, Dk. Dark, Lt. Light. MATERIAL: T Titl: Co. Colluvium, A. Altuvium, F. Fluvial, GF. Glaciofluvial, O. Organic.

PROJECT RAINBOW

GENERAL LOCATION TO LAMBOUR

SAMPLER DATE 7.41565

NTS MAP SHEET

OCTOBER , 1996

LOCATION

NTS UTM

GRID

NORT	H BANKH	EAST MEET	Survey-type	Depth	Hortzon	Colour	Material	% Gravei	% Organic	Clay	Silk	Sand	Bedrock	Remarks
//	+00A/	5150	3014.	0.35	B.	BR	TILL	10-15%	۷	M	M	M		
	"	6100	-1	0.20			TALOS FION						112-1112	79405 FINEL - POOR
	"	6150	4	0.35	ر ۲	Bn.		15%	۷.	M	M	M		Pelbles Aws To Round
	"	7400	4	?	۷	BR.	TILL	+15%	<i>L</i> ,	1.	-۲-	Н	<del></del>	AT BEOROCK.
	"	7150	"	0.35	<u> </u>	BR.	1	15%	4	M	M	14		
	"	8+00	4	0.25	c ?	RBR.		1153	L	۷	L			Subcrop . August Fa
	4	8+50	"	0.30	В	Pale Be	a	120%	۲,	M	м.	Н		,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,
	"	9400	"	0.30		"	"	± 20%	۷	И	M	Н		
	"	9+50	4	0.30	B	Be-	"	±10	4	M	м	M		W but of CH
	//	10+00	,	0.30		Pale Be.		10%		M	M.	L		W bank of CK.  E bank of CK.

SURVEY TYPE: S=Soil; \$\$=\$ilt; R=Rock Chip

DEPTH: Measured in meters. HORIZON: Marked: A, B, or C

COLOUR: Br. Brown. Bl. Black, R. Red. G. Grey, O. Orange, Dk. Dark, Lt. Light, MATERIAL: T Till; Co. Colluvium. A. Alluvium, F. Fluviai, GF. Gladofluviai, O. Organic.

PROJECT GENERAL LOCATION

SAMPLER DATE

T. LISLE

NTS MAP SHEET

LOCATION

NTS UTM

GBID /

					GRUD 🗸												
	П	ГТ		NORTH SOUTH	EAST WEST	Survey-type	Depth	Hortzon	Colour	Material	% Gravel	% Organic	Clay	Sin	Sand	Bedrock	Remarks
1	Н		- -	2+00 N.	0+00	Soil	0.30	B	Bg.	Tice?	+10%	L	L	м.	Ħ		
2	<del>                                     </del>		$\perp$	ч.	01506	*1	02.0	B	Br.	TILL !	+252	L	L,	м.	14		GRADBLLY - ROWNERDS
3		-	$\perp \mid$	ч	1+00 E	"	0.35	В		Tier	±10%	L		M,	m.		ROAD BANK (1-0 M clow
4			1	"	1+50€	11	0.35	c?	R. Br.	14	+/02	L	<u>_</u>	M.	м.		
5		4		"	2+005	4	0.35	B! c?	R.g.	4	+10%	L	i_	м	M	-	Pebble full
•		$\perp$	$\perp \downarrow$	u	2+508	4	o 30	В	Y BR	'n	152.	L.	M	м	M.	·	
,		_		ч	31006	4	?	B	13 R.	••	± 20%	L-	м.	М.	M		REWORKED TILL!
•		_		tr tr	3+5013	4	035	В	Be.	"	110%	L	M	м.	M		ACTION TO THE STATE OF THE STAT
•	-			£ g	4+00E	4	0.32	B'. د ُ	P.Ba.	11	?	<i>L</i>	M	м.	M.	V-q.,	Reworken Till?
0				14	4.505		0.30	B	Be.	"	5%	4	M	N	M		Pebbby
SUF	RVE	Y TY	rPE: 5:	+, •Soil; SS≖Silt: R≖Rock Cl	5+00E	11	o·30	B	BR.	·	57-10%			M	<u>~</u> !		7.007

DEPTH: Measured in meters. HORIZON: Marked A, B, or C

COLOUR: Br. Brown, Bl. Black, R. Red, G. Grey, O. Orange, Dk. Dark, Lt. Light, MATERIAL: T Till; Co. Colluvium. A. Alluvium. F. Fluvial. GF. Glaciofluvial. O. Organic.

PROJECT ROIN 60 W' SAMPLER 7. LISLE

GENERAL LOCATION TUL 9 M BTN DATE BC70 BER , 1996

NTS MAP SHEET 92 H 10 W

LOCATION

NTS UTM GRID

NORTH SOUTH EAST WEET Survey-type Depth Horizon Colour Material % Gravel % Organic Clay Sin Sand Bedrock Remarks 6 2+00 5150E 301L 0.30 u M M-BR. TILL 4 5-10 Pebbly cf to 5100 @ ., 6+00E " 13 RBO 0.30 12 M M M 10-15 11 L,. 6+50F 0.30 B. C? Y.BR 410 M M M c ? 7400E 4 ± 10% 0.35 BR. M M M 7150E 4 t 10 0.30 13 ۷. M Be. M. 14 ٧ L 84000 " <u>\_</u> Y.BP 1152 0.40 M M C> 8-150E " 4 0.50 Be. 1 M M. 15-20 FOR MIYTORE OF TILL 7 9400€ 4 Br. 035 > 25% 4 L-M RUMA FILL & TALUS FINE 1.0 M down - Wal CK 4 9450E " 0:30 В 10% Bank OF OLD ADAD. M Bn. L M Ale B? B.of.CK. M 10+006 £10 4 M 0.35 BR

SURVEY TYPE: S=Soil; SS=Silt; R=Rock Chip

DEPTH. Measured in meters. HORIZON: Marked A, B, or C

COLOUR: Br. Brown, Bl. Black, R. Red, G. Grey, O. Orange, Dk. Dark, Lt. Light,

MATERIAL: T Till; Co. Colluvium. A. Alluvium. F. Fluvial. GF. Glaciofluvial. O. Organic.

PROJECT RAINAOW. SAMPLER GENERAL LOCATION TULAMERN DATE NTS MAP SHEET

LOCATION NTS UTM

			NORTH SOUTH	GRID EAST TERMS	Survey-type	Depth	Hortzon	Colour	Material	% Gravel	% Organic	Clay	Silt	Sand	Bedrock	Romarka
		_	3+00	0+00	5012.	0.40	<i>1</i> 3.	Bn.	Ghein fhom TILL?	25%	۷.	и	M	H		Rowally ? THE
1	-	_	"	0+50	",	0.60	B?	BR	Glucio flora	+25%	<i>L</i>	M	M	M.		
$\downarrow$		_	"	1+00	"	0.35	B	BR.	Glass of things	+25%	4	M	M	L		Abundand Cobbles Com
$\downarrow$		_	"	1450	4	0.45	B	BR.	"	125%	۲.	M	M.	м		SI. Limonific .
			4	2+00	4	0.45	B	BR.	TILL	15.20%	۷	м	M.	Н		Neur Road
			"	2+50	4	0.50	В	BR.	TILL	20%	L	M	M.	4		
$\perp$		$\perp$	"	3+00	"	0.25	В	Be	TILL	+10%	4	М	M	4		
1			4	3+50	"	0.35	В	BR	TILL	7	٦	M	М	M.		Road Bank 1.0 Md
	$\perp \downarrow$		"	4+00	"/	o·30	ß	BR	TILL	15%	۲.	M	M	M		
			4	1+50	"	.25	B	BR	u	\$15%		M	М	M.		
		YPE: 5	// S≠Soil; SS=Silt; R=Rock	5400 Chip	11	0.40	В	Bn	. "	2	<i>L</i> :	M	M	M·	<del></del>	- 14 B - 1700 1

DEPTH: Messured in meters. HORIZON: Marked A. B. or C.

COLOUR: Br. Brown, Bl. Black, R. Red, G. Grey, O. Orange, Dk. Derk, Lt. Light, MATERIAL: T Till; Co. Colluvium, A. Alluvium, F. Fluvial, GF. Glaciofluvial, Q. Organic,

PROJECT RAINGOW SAMPLER T.LISLE GENERAL LOCATION TULMMERS DATE DC TOBERL, 1996 NTS MAP SHEET 9214 10 W.

LOCATION NTS

GRID -

NORTH SE EAST ME Survey-type Depth Hortzon Colour Material % Gravel % Organic Clay 3M Sand Bedrock Remarks Pole 5014 5450 3+00 be. 25% REWOIKED. TILL. ClociofLimit M. H ٨ Poor Samelt. B? Time " 6+00 BR. " 0.35 20% M Borrom of Road Bank.
Upper Sive of Road. M +10% BR. TILL? H 6+50 0.33 " ۷. M M 10 Methor NouTH. (Sleep Book - Possibly Reworked fell 4 7+00 BR 202 M M M " 0.3d TILL 7+50 B BR. 0.30 11 4 >10% 4 M M M Pably . Approximate . 4 BR 8100 0.40 L H-M 17 7/0% M M 4/ " 8+50 0.30 11 720% M 8. be. ۷. M M Pabbly #-H-4 BR 41 9+00 41 4102 0.15 ٨ M. M ۷. TALU 3 AboNEANT ROCK 11 " 9150 Be. FINES. <del>\_\_\_\_\_</del> FRAGS
BOSE OF ROUNT Cut. C? G-BA. H *H* . 11 ۲. 0.25 TILL 710 L. 11 10100 1.5M below Top.

SURVEY TYPE: S=Soil; SS=Silt; R=Rock Chip

DEPTH: Measured in meters. HORIZON: Marked A, B, or C

COLOUR: Br. Brown, Bl. Black, R. Red, G. Grey, O. Orange, Dk. Dark, Lt. Light, MATERIAL: T. Tiff; Co. Coffuvium, A. Altuvium, F. Fluvial, GF, Gladofluvial, O. Organic.

622 E. BASTINGS ST. VANCOUVER BC VOA 1RU PROME (662, 253-11) Fac (304)

#### GEOCHEMICAL ANALYSIS CERTIFICATE

T.E. Lisle & Associates PROJECT HAT File # 96-6590 Page 1
145 W. Rockland Road, Horth Vancouver BC V7N 2V8

SAMPLE#	1			2n ppm	_	Ni ppm	Co	Mn ppm							Cd ppm				Ca %	P %	La ppm	Cr ppm	Mg X	8a ppm	Ti %	ppm B	Al %	Na %	K %	PPM W	Au* ppb
96 R-1 96 R-2 96 R-3 RE 96 R-3		6 173 7 7	5 ও ও		<.3 <.3 <.3 <.3	3	29 10	47 1.4 115 2.6 548 3.5 522 3.	00 16	34 <2	<5 <5	<2 <2	<2 <2	35 107	<.2 <.2	<2 <2	4 <b>&lt;</b> 2	54 96	.84 . 1.66 .	087 146	5 11	23 6	.28 1.86	6 33	.20 .20	6 4 3 4	.60 2.03	.04	.04	<2 <2	5 1 <1 <1

ICP - .500 GRAM SAMPLE IS DIGESTED WITH 3ML 3-1-2 HCL-HN03-H20 AT 95 DEG. E FOR ONE HOUR AND IS DILUTED TO 10 ML WITH HATER. THIS LEACH IS PARTIAL FOR MN FE SR CA P LA CR MG BA TI B W AND LIMITED FOR MA K AND AL. ASSAY RECOMMENDED FOR ROCK AND CORE SAMPLES IF CU PB 2N AS > 1%, AG > 30 PPM & AU > 1000 PPB - SAMPLE TYPE: P1 ROCK P2 TO P7 SOIL AU\* - IGNITED, AQUA-REGIA/MIBK EXTRACT, GF/AA FINISHED.(10 GM) Samples beginning 'RE' are Reruns and 'RRE' are Reject Reruns.

DATE RECEIVED: DEC 13 1996 DATE REPORT MAILED: Dec 24/ 96. SIGNED BY ......D. TOYE, C. LEONG, J. WANG; CERTIFIED B.C. ASSAYERS



# T.E. Lisle & Associates PROJECT HAT FILE # 96-6590

Page 2

ACHE ANALYTICAL

SAMPLE#	Мо	Cu ppm	Pb ppm	Zn ppm	Ag ppm	Mi ppm	Co ppm	PPM PPM	Fe %	As ppm	D Dpm	Au ppm	Th ppm	ppm Sr	Cd ppm	Sb ppm	Bi ppm	ppm V	Ca %	P %	La ppm	Cr ppm	Mg %	Ba ppm	T i	6 ppm	Al %	Na %	К %	W ppm	Au*
3N 0+00E	1	44	7	167	<.3	21	18	1240	3.93	<b>&lt;</b> 2	<5	<2	2	36	.4	2	<2	82	45	. 136	15	33	. 85	271	.07		. 67	01	47		1
3N 0+50E	1	60	5	182	<.3	22		1068		<2	₹5	- 2	2	36	.5	٠ <u>²</u>	<2	90		.209	16	35	.91	271 245	.08	<3 3	.57	.01 .02	. 13	<2	1
3N 1+00E	1	50	18	143	<.3	21		1320		<2	<5	₹2	<2	44	.5	₹2	<2	83		.102	14	31	.87	272	.05	<3 2		.01	. 13	<2	2
N 1+50E	1 1	37	8	214	<.3	17		1154		ž	<5	<2	2	34	.3	<2	<2	68		. 156	10	27	.74	270	.05	<3 2		.02		<2	1
SN 2+00E	1	30	8	211	<.3	17		799		2	< <b>5</b>	<2	<2	38	۲.۶	₹2	<2	66		.116	10	27	.73	184	.07	<3 1			. 11 . 13	<5 <5	8
N 2+50E	1	34	9	186	<.3	18	13	1188	3.32	<2	<5	<2	2	25	<.2	<2	<2	66	.30	. 148	14	22	.67	266	.06	<3 2	28	.01	.11	<2	1
N 3+00E	1	43	8	116	<.3	18	16	947	3.83	<2	<5	<2	3	28	<.2	<2	<2	73		.128	24	24	.83	292	.04	<3 2		.01	.17	₹2	<1
1 3+50E	1	47	8	96	<.3	19	15	805	3.87	<2	<5	<2	2	33	<.2	<2	<2	82		.076	22	30	. 85	198	.06	<3 2		.01	. 14	<2	2
N 4+00E	1	44	8	101	<.3	19	14	545	3.95	<2	<5	<2	2	27	<.2	<2	2	86		. 105	16	28	. 84	181	.06	<3 2		Di	. 13	<2	6
N 4+50E	1	43	7	130	<.3	20	14	817	3.84	<2	<5	<2	2	32	<.2	3	<2	87		.110	10	27	.80	194	.07	<3 2		.01	. 12	<2	2
N 5+00E	2	67	12	93	<.3	23		810		5	<5	<2	3	39	<.2	<2	<2	111	.54	.112	23	36	1.28	101	.06	<b>&lt;</b> 3 2	.37	.01	. 12	<2	9
1 5+50E	1	45	5	122	<.3	21		924		<2	<5	<2	<2	27	<.2	<2	<2	82		. 120	15	30	.78	170	.05	<3 2		.02	. 13	<2	1
1 6+00E	1	54	14	165	<.3	25	16	1708	3.88	<2	<5	<2	<2	41	.4	<2	<2	82	.59		17		.96	195	.05	₹3 2		.02	. 14	<2	2
4 6+50E	2	70	17	92	<.3	18	16	840	4.34	3	<5	<2	2	41	<.2	<2	<2	106		.044	24		1.07	66	.07	<3 1		.01	.07	<2	3
1 7+00E	1	94	14	179	<.3	22	20	1522	4.78	<2	<5	<2	2	44	.5	<2	2	97	.62		20		1.36	139	.06	<3 2		.02	. 15	<2	5
1 7+50E	1	65	9	162	≺.3	23		1050		2	<5	<2	2	32	<.2	<2	<2	87	.40	. 136	18	34	1.02	160	.07	<3 Z	-46	.01	.12	<b>&lt;</b> 2	1
8+00E	1	56		144	<.3	27		692		<2	<5	<2	<2	30	<.2	<2	2	87	.39		13			108	.05	<3 2		.01	. 12	<2	i
1 8+50E	1	56	-	110	<.3	20		681		<2	۹5	<2	2	28	<.2	<2	<2	86	.33		15			118	.06	<3 2		.01	.08	<2	•
9+00E	1	88		161	<.3	23	16	1767	4.26	<2	<5	<2	2	29	.3	<2	<2	91	.50		39			160	.05	<3 3		.01	.09		1020
3N 9+00E	1	88	13	159	<.3	22	16	1757	4 . 24	2	<5	<2	<2	29	.4	<2	<2	91	.49	.097	39			157	. 05	<33		.01	.10	<b>₹</b> 2	11
N 9+50E	2	46	6	75	<.3	18	17	1602	4.71	26	<5	<2	3	66	.4	<2	<2	121	1.15	. 148	48	27	.98	115	.06	<3 2	36	.01	. 17	<2	11
N 10+00E	4	86	9	142	<.3	31	25	2518	5.03	6	<5	<2	2	55	.4	2	<2		1.02		18			231	.05	<3.2		.03	.11	<2	7
1 0+00E	1	41	7	97	<.3	17	15	815	3.76	3	<5	<2	2	29	<.2	<2	<2	77		.069	12	27		135	.05	<3 1		.01	.11	<2	3
0+50E	1	43		161	<.3	20		999		<2	5	<2	<2	35	<.2	<2	3	74	.49	. 123	12	28		213	.05	<3 2		.01	. 14	<2	8
1+00E	1	57	10	127	<.3	19	17	667	4.14	2	<5	<2	2	28	<.2	<2	<2	84	.37	.068	17	30	.95	169	.07	<3 2		.01	.11	<2	ž
1+50E	<1	42	-	181	<.3	21		878		<2	<\$	<2	2	32	.2	<2	<2	69	-46	. 135	13	29	.87	191	.06	< <b>3</b> 2	.29	.02	. 15	<2	6
2+00E	<1	34		151	<.3	23		774		<2	<5	<2	2	30	<.2	<2	<2	72	.34		11	29	.91	163	.06	<3 2		.01	.11	<2	2
2+50E	1	41		122	<.3	18		829		2	<5	<2	2	29	<.2	<2	<2	78	.38		13	30		130	.06	<3 1			. 11	₹2	3
3+00E	1	41	8	89	<.3	17		639	3.80	<2	<b>&lt;</b> 5	<2	<2	28	<.2	<2	Ž	74	.36		13	28		124	.05	<3 1		.01	. 12	<2	3
3+50E	1	32	5	99	<.3	19	13	545	3.70	3	<5	<2	<2	25	<.2	<2	3	77	.28		8	30		150	.07	<3 2			. 12	٠ <u>2</u>	Z
4+00E	1	24	6	174	<.3	18		942		<2	<5	<2	2	28	.2	<2	2	69	.37	. 126	9	24	.64	283	.06	<3 2	46	.02	.11	<2	1
4+50E	1	39	6	143	<.3	19	14	783	3.91	<2	<5	<2	2	30	<.2	2	<2	82	.38		12	26		200	.07	<3 2		.01	.12	<2	3
5+00E	1	45	8	84	<.3	18		610 4		<2	<5	<2	2	33	<.2	<b>√2</b>	<2	92	.42		20	25		110	.07	<3 1		.01	.13	₹2	5
5+50E	1	32	7	66	<.3	15	13	707	5.90	<2	<5	<2	3	30	<.2	<2	<2	88	.51		30	17		281	.06	<3 2		.01	. 15	۷2	1
6+00E	1	56	8	140	<.3	33	16	953	3.94	<2	5	<2	2	31	<.2	<2	<2	87	.40		15	28		203	.06	<3 2			.17	<2	1
ANDARD C2/AU-S	20	61	4.1	139	4 A	71	35 :	1118 3	. R.	41	17	٠	37	E2 4	19.0	18	19	70	.53	•00	39		.96	225	.08	27 1		. 06	. 13	12	51

Sample type: SOIL. Samples beginning 'RE' are Reruns and 'RRE' are Reject Reruns.

All results are considered the confidential property of the client. Acme assumes the liabilities for actual cost of the analysis only.



## T.E. Lisle & Associates PROJECT HAT FILE # 96-6590

Page 3

ACK ANALYTICAL

	<del></del>							···	_										~										,	CHE ANALY	TICAL
SAMPLE#	Ho ppm		PPm PPm	2n ppm	Ppm Ag	Mi PPM	og og	Mn Ppm	Fe X		U PPM	Au ppm	Th ppm	Sr ppm	ppm Cd	Sb ppm	Bi PPM	V ppm	Ca %	P %	La ppm	Сг ррт	Mg %	Ba ppm	I i	8 ppm	Al %	Na %	K %		Au*
2N 6+50E	1 1	41	9	103	<,3	19	17	1594	/ 21	<2	. F			70							• • •					FF				PP	PPU
2N 7+00E	1 1	27	10	189	<.3	20		1275			<5	<2	<2	39	<.2	<2	<2	107	- 48		18	29	.73		. 05	4 1	.97	.01	. 14	<2	13
2N 7+50E	i i	21	10	181	<.3	19				<2	<5	<2	<2	37	<.2	<2	<2	67		.089	10	26	.73	191	.07	3 2	.02	.02	. 13	<2	1
2N 8+00E	i	73	7	73				979		<2	<5	<2	<2	41	<.2	<2	<2	66	.50		9	24	. 70	229	.08	<3 2	.02	.01	. 13	<2	1
2N 8+50E	1 3	86	7	126	<.3	22		689		<2	<b>&lt;</b> 5	<2	2	43	<.2	<2	<2	102	.59	.077	20	31	1.03	97	.08	<3 2	. 10	.01	.08	<2	1
EM O. SOF	1 -	00	•	120	<.3	34	19	1618	4.61	<2	<b>₹</b> 5	<2	2	41	<.2	2	<2	98	.58	. 123	16	33	.95	197	.09	<3 2	.52	.01	.12	<2	< j
2N 9+00E	<1	24	10	140	<.3	19	11	1371	3 08	<2	<b>&lt;</b> 5	<2	2	39	.2	<b>&lt;</b> 2	2	97		4/7	_										
2N 9+50E	1	78	8	116	<.3	21		781		2	<5	<2	2	32	<.2	<u>₹2</u>	2	84		. 163	9	21	.76	165	. 10	<3 2		.02	. 09	<2	<1
2N 10+00E	1	55	9	119	∢.3	21		1034		<2	<b>~</b> 5	<2	<2				<2	87		.099	21		1.23	84	. 05	<3 2		.01	.09	<2	5
1+00N 1+00E	1 1	49	10	97	<.3	26		1559		3	<5			41	<.2	<2	<2	75		.066	16	34	. 97	95	.06	<3 1	. 75	.02	. 16	<2	5
1+00N 1+50E	<1	32	4	123	<.3	20		608		<s< td=""><td><b>&lt;</b>5</td><td>&lt;2</td><td>2</td><td>45</td><td>≺.2</td><td>&lt;2</td><td>&lt;2</td><td>88</td><td>.65</td><td></td><td>20</td><td></td><td>1.26</td><td>25<del>9</del></td><td>.06</td><td>&lt;32</td><td>.70</td><td>. 02</td><td>.14</td><td>&lt;2</td><td>1</td></s<>	<b>&lt;</b> 5	<2	2	45	≺.2	<2	<2	88	.65		20		1.26	25 <del>9</del>	.06	<32	.70	. 02	.14	<2	1
	1		•	16.2	٠٠	20	12	OUG	3.30	٠.	₹2	<2	<2	35	<.2	₹2	<2	70	.53	. 056	11	32	.97	147	.06	<3 1	.91	. 02	.11	<2	2
1+00N 2+00E	1	32	8	160	<.3	22	14	732	3.70	2	6	<2	<2	30	<.2	3	<2	79	.42 .	104	10	36	1 07	157	04	-2° ¬				_	_
1+00N 2+50E	<1	28	4	150	<.3	21		841		<2	<5	<2	₹2	29	<.2	<2	٠2	72	.37	072		31	1.03	156	.06	<32		.01	.11	<2	3
1+00W 3+00E	1	72	<3	68	<.3	23		889		4	<5	<2	<2	44	<.2	3	2	92	.59		10		.99	163	.07	<3 2		.01	14	<2	1
1+00N 3+50E	1	45	5	131	<.3	18		1039		<2	<5	<2	<2	40	<.2	<2	₹2	75	.29 .	. 1 10	14		1.51	66	.08	<3 2		.01	.08	<2	1
1+00N 4+00E	1	26	6	106	<.3	15		740		<2	<5	<2	<b>≺2</b>	28	₹.2	<2	<2	63	.61 .		1 <del>9</del> 12	29 23	.97	234	.06	<3 2		.02	.10	<b>&lt;2</b>	<1
										_	_	-	-				~L	Ų.J		. 000	12	23	.87	223	.03	<3 1	. 95	.01	.11	<2	1
1+00N 4+50E	<b>1</b> <1	37		115	<.3	18		901		<2	<5	<2	<2	33	۲.2	2	<2	74	.43	.058	33	30	.78	135	.06	<3 1	OR.	.02	.09	<2	_
1+00N 5+00E	<1	31	12	164	<.3	18		1083		<2	<\$	<2	<2	31	<.2	<2	<2	72	41		10	26	.73	224	.07	<3.2		.01	.11		2
1+00N 5+50E	1	27	8	165	<.3	16	14	1614	3.19	<2	<5	<2	<2	37	<.2	Ž	<2	66	.59		13	21		251	.06	<3 2		-02		٠2	20
1+00N 6+00E	5	49	11	61	.3	24	32	1815 4	4.53	<2	<5	<2	<2	98	<.2	<2	<b>√2</b>		1.96		28			187	.04	7 1		.01	.12	<b>&lt;2</b>	6
1+00N 6+50E	3	136	6	65	<.3	31	23	623	5.75	3	<b>&lt;</b> 5	<2	2	43	<.2	<2	_	129	.58 .		13	26	.93	73	.05	<3 1		.01	.19	<2 <2	2
1+00W 7+00E	3	81	6	60	<.3	25	21			_	_	_																,		٦.	7
1+00N 7+50E	Ž	62	8	103	<.3	25 26		669 5		3	<5	<2	2		<.2	<2		130	.62 .		16	28	1.22	78	.07	<3.2	.08	.01	.08	<2	13
RE 1+00N 7+50E	2	60	-	:			16	782	1	3	<5	<2	2	40	<.2	<2	2	104	.47	109	20	32	1.11	158	.08	<32	.20	.01	. 16	<2	2
1+00N 8+00E	1 1	58	•		<.3	25	15	763	/	2	<5	<2	2	39	<.2	<2	<2	101	.46 .		20	31	1.08	153	.08	<3.2	. 15	.01	. 16	<2	7
1+00N 8+50E	2	55			<.3	25		1581 3		<2	<5	<2	<2	44	.3	<2	<2	82	.57 .	142	20	33	.89	223	.07	<3 2		.01	. 13	<2	<1
OUR DIJUL		23	6	119	<.3	23	16	992 4	1.12	2	<5	<b>&lt;</b> 2	<2	38	. 4	<2	<2	89	.55 .	830	12	33	1.02	147	.07	<3 2		.01	.11	<b>₹</b> 2	ż
1+00N 9+00E	1	60	10	141	<.3	24	16	891 4	25	7	<5	<2	2	32	. 7	- 7	,														
1+00N 9+50E	1	44	9		<.3	21		376		2	<5	<2	<2	32	۲.2	<b>&lt;</b> 2	3		.43 .		15			150	.06	<3 2		.01	.09	<2	<1
1+00N 10+00E	l i	54	•		<.3	19	14	827 3	77	<2	<5				.2	<2	<2	80		081	12	30		227	.06	<3.2.	.29	.01	. 10	<2	1
+00S 0+50E	Ιi	54	-		₹.3	23		997 3				<2	<2		<.2	<2	<2		.53 .		13	34 1		123	- 06	<31.	94	.01	. 12	<2	1
+00S 1+00E	l i	66	4		₹.3	19		717 3		2	<5 <5	<b>&lt;2</b>	2		<.2	<2	<2		.50 .		14	34	. 84	198	.09	<3.2.	67	.01	.09	<2	<1
	-		•			17	17	, ii ,	. 77		17	<2	2	34	<.2	<2	<b>&lt;</b> 2	93	.50 .	074	22	35 1	1.00	69	.09	<3 1.	.79	.01	.08	<2	≺1
++00\$ 1+50E	1	51	9	99	<.3	20	18	826 3	. 89	2	<5	<2	<2	37	<.2	<2	2	89	/ D	ΛΩE	**	<b>3</b> ,	Δ.								
+008 S+D0E	1	81	9	132	<.3	26		708 4		<2	<5	<2	<2	38	. 2	<2			.48 .		15				.10	<3 2.			. 12	<2	1
+00\$ 2+50E	<1	34	7		<.3	19		762 3		ς2	5	<2	2		<.2		<2 -2		.46 .		15	38 1			.09	33.		.02	. 13	<2	18
+00S 3+00E	<1	29			<.3	15		093 3		<2	5	<2		- •		<2	<2		.56 .		8				.08	<32.		. 01	.09	<2	5
+00\$ 3+50E	1	34			<.3	20		837 3		<2	<5	٠ <u>٠</u>	<2		< 2	<2	<b>&lt;</b> 2		.35 .		8	24			.09	≺3 2.	51 .	.02	.07	<2	<1
			•				1.0	ן זכט	.40	٦.	45	42	<2	30	<,2	<5	<2	78	.40 .	102	9	32	.74	197	.08	<32.	39	.01	.10	<2	13
TANDARD CZ/AU-S	20	5 <b>7</b>	43	140	6.3	69	34 1	170 3	.84	38	18	8	33	47 1	77	17	1/	70	£/ :	400						_					
							- ' '				10	<u> </u>		4/ /	1.1	13	16	70	.54 .	108	37	66	. 95	185	.08	26 1,	86	.06	. 13	12	48

Sample type: SOIL. Samples beginning 'RE' are Reruns and 'RRE' are Reject Reruns.



# T.E. Lisle & Associates PROJECT HAT FILE # 96-6590

Page 4

ACHE ANALYTICA

74401 5#	Mo Cu Pb Zn Ag Ni Co Mn Fe As II Au Th Sn Cd Sh Bi W Co D La D W													TICK																	
SAMPLE#	bbu		Pb ppm		ppm Ag	Ni ppm	bbw Co	Mn ppm	fe %	As ppm	ppm U	Au ppm	Th ppm	\$r ppm	ppm Cd	Sb ppm	Bi ppm	PPm PPm	Ca %	P %	La ppm	Cr ppm	Mg %	Ba ppm	Ti %	B ppm	Al %	Na X	K %	ppm	Au*
4+00\$ 4+00E	1 1	29	8	94	<.3	20	14	635	<b>र 5</b> र	4	<5	<2	2	31		7														<del></del>	
4+00S 4+50E	1 1	31	10	109	< 3	16	12	593		2	<5	<2 <2	2	34	<.2	3	2	88	.40		8	36		116	.09	<3 1		.01	.08	<2	1
4+00\$ 5+00E	1	34	7	155	.3	21	13	943		<2	<b>&lt;</b> 5	<2	2	30	<.2	2	<2	89	.45		. 8	33	.82	115	.08	<3 1		.02	.07	<2	1
4+00S 5+50E	1	24	13	141	<.3	21		748		<2	<5	<2			<.2	<2	<2	78	.40		15	31	. 66	142	.09	<3 2		.02	.09	<2	<1
4+00S 6+00E	2	52	9	128	.3	23		1742		<2	<5	<2	2 ≺2	31 57	<.2 <.2	<2 <2	2 <2	80 82	.38 1.09		8 37	31 35	.61 .64	150 177	.09 .07	<3 2		.02	.08	<2	<1
5+00s 0+00E	١.,	,,	_		_							-,	-				٠	OL.	1.07	.070	١٠.	3)	. 04	177	-07	<33	.41	.02	.09	<2	<1
5+00\$ 0+50E	1 :	46	8	100	<.3	24	15	568		4	<5	<2	2	37	<.2	2	<2	95	.44	.084	11	40	.83	106	.12	<32	. 13	.02	.08	<2	<1
+005 0+30E +005 1+00E		59	10	119	.3	25		795		6	<5	<2	3	38	<.2	<2	<2	96	.47	. 109	15	40	.86	164	.11	<3 2		.02	.09	<2	3
+005 1+50E	1 :	45	12	108	<.3	24		757		5	<b>&lt;</b> 5	<2	2	35	<.2	<2	<2	100	.42	.047	11	36	.78	170	. 10	<3 2		.02	.08	<2	1
	1 1	63	10	115	.3	25		939		<2	<5	<2	3	44	<.2	<2	3	97	.54	.081	18	45	.92	135	.11	<3 2		.01	.13	<2	<1
+00S 2+00E	1	92	14	141	<.3	27	16	1089	4 - 10	<2	<b>&lt;</b> 5	<2	3	41	<.2	<2	<2	99	.54		18	40	.86	159	.11	<3.3		.02	. 10	<2	2
+00\$ 2+50£	1	59	10	137	.3	22	13	1052	3.80	<2	<b>&lt;</b> 5	<2	2	40	<.2	<2	<2	88	.55	040	10	70	7-1	404							
+00\$ 3+00E	1	73	12	169	<.3	21		1533		Ž	< <b>5</b>	<2	Ž	37	<.2	<2	<2	87	.46	.069	19	35	.72	181	. 10	<33		.02	.12	<2	26
+00\$ 3+50E	<1	50	10	146	<.3	24	13	1245	3.39	<2	<5	<2	2	29	<.2	₹2	<b>√2</b>	89	.34		10	36	.69	192	.08	<3.3		.02	.09	<2	3
+005 4+00E	1	21	9	178	<.3	9		2991		<2	<5	₹2	<2	15	<.2	<2	₹2	76			10	33		199	. 11	<3 3		.02	.07	<2	8
00\$ 4+50E	<1	40	8	116	<.3	21		695		3	< 5	<2	<2	29	<.2	√2 ≺2	<2	90	.20 . .38 .	.374 .091	6 11	19 36	.22 .79	250 159	. 12	<3.1		.02	.03	<2	2
00c E. 00c					_						-	_	-		•			,,,	.56 .	.071		30	.19	134	.07	<32	.43	.01	.07	<2	12
00S 5+00E 5+00S 5+00E	1	42	14	118	<.3	25		741		<2	5	<2	3	22	<.2	2	<2	96	.28 .	. 135	9	38	.79	186	. 10	<3.3.	RN	.02	.07	<2	
<del>-</del>	1	45	13	122	<.3	25		784		<2	<5	<2	3	24	<.2	<2	<2	101	.29 .	. 140	9	40	. 82		.11	<3.3		.02	.07	ξ2	, L
00S 5+50E	1	40	11	123	<.3	22	14	1078 4	4.11	<2	<5	<2	2	26	<.2	2	<2	104	.35 .		8	31	.63		.11	<3.3		.02	.06	<2	1
00S 6+00E	1	37	10	141	<.3	23		1086 4		<2	<5	<2	3	25	<.2	<2	<2	98	.28 .		12	38	.78		.08	<3 3.		.02	.08	<2	1
00S 6+50E	1	27	7	97	<.3	19	19	664 4	. 75	<2	<5	<5	3	30	<.2	<2	<2	124	.35 .		11	28	.81	90	.10	<3 2.		.01	.05	٠ <u>٠</u>	2
300+7 200	1	30	10	124	<.3	19	12	668 3	3 66	<2	<b>&lt;</b> 5	<2	<2	32	. J	~9	-23	00	77	A/F	_					_					
00\$ 7+50E	1	40	12	107	<.3	19		237 3		<2	<b>₹</b> 5	<2	2	-	<.2 <.2	<2	·2	88	.37 .		9	33			.07	<3 2.		.01	. 09	<2	2
00S 8+00E	<1	34	12	149	<.3	18		2069		<2	<5	₹2	<2		<.2	<2 <2	<2 ≺2	92	.31 .		16	30		183	.09	<3 3.		.01	.08	<2	<1
00\$ 8+50E	1	32	7		<.3	19		773 4		4	< <b>5</b>	<2	5	39	<.2		2	80	.98 .		13	31		274	.06	<3 2.		.01	.10	<2	1
00s 9+00E	1	25	17		<.3	17		861 3		<2	₹5	<2	<2	48	.4	<2 <2	<2	90 69	.55 . .80 .		16	34		175	.07	<3 1.		.02	.10	<2	37
0.505												-	٠	40	. "	14	12	07	. 00 .	UYB	10	28	.51	344	.06	<3 1.	82	.01	.11	<2	2
00\$ 9+50E 00\$ 10+00E	1 1	31	24		٠.3	19	13 2	092 3	.60	4	<5	<b>42</b>	<2	46	.2	<2	<2	79	.71 .	132	11	33	.59	293	.06	<3 2.	22	.02	. 13	<2	1
00\$ 0+00E		34	8	130	<.3	20		085 3		2	<5	<2	<2		<.2	<2	<2	77	.46 .		9	31	.62		.07	<3 1.		.01	.10	<2	2
00S 0+50E		61	10	108	<.3	25		650 3		7	<5	<2	3	33	<.2	<2	<2	86	.37 .	277	15				.12	<3 2.			.08	<2 <2	4
005 0+50E	1	51		127	<.3	23		451 3		4	<5	<2	2	42	<.2	3	<2	96		125	12				. 13	<3 2.			.10	<2	16
005 1+00E	1	63	11	111	<.3	30	19 1	365 4	. 11	<2	<5	<2	2	34	<.2	<2	<2	94	.41 .	102	10				.11	<3 2.			.08	<2	1
00S 1+50E	1	64	12	124	<.3	27	18 1	965 4	.33	10	<5	<2	Z	50	<,2	<2	<2	100	41	007	21	7/	70	207	00						
00\$ 2+00E	1	63	10	98	.3	22		584 4	-	3	جَ5	<2	4		<.2	<2	\2	99		097	21				.09	<3 3.			. 11	<2	10
00S 2+50E	1	45	11	95	<.3	20		481 3		2	6	<b>₹</b> 2	3		<.2	3	2	95	.54 .45 .		18	40			.12	<3 2,			.11		333
10\$ 3+00E	1	63	10		<.3	21		997 4		₹Ž	<5	<2	3		<.2	2	<2	100		057	12	37			- 12	<3 2.			.10	<2	32
0S 3+50E	1	35	13		<.3	21		715 3		<2	<Š	<2	2		2	<2	<2	92	.48 .1 .48 .1		17 12				.10	<3 3.			.09	<2	4
ANDARD COVALLE	20	£0	/7	4/7			<b>.</b>				·	_					12				12	30	.15	110	.10	<3 2.	, 0د	. 02	. 12	<2	3
ANDARD C2/AU-S	20	59	42	143	6.8	76	36 1	211 3	.82	39	17	7	36	52 1	7.9	16	16	75	.57	106	41	70	. 95	207	.09	24 1.	90 .	.06	. 13	12	48
																				-				<del></del>			<del></del>				

Sample type: SOIL. Samples beginning 'RE' are Reruns and 'RRE' are Reject Reruns.



44

# T.E. Lisle & Associates PROJECT HAT FILE # 96-6590

Page 5

44

SAMPLE#	Ho	Cu	Pb	Žn	Ag	Ni	Co	Mn	Fe	As	L)	Au	Th	\$r	Cd	Sb	Bi			<del></del>	·								A	CHE MIN,	MICH
<del></del>	bbu	bbw	ppm	PPm	ppm	ppm	ppm	ppm	X		ppm	bba	ppm	56w	ppm	bbu		Ppm V	Ca X		ta ppm	Cr ppm			Tí X	B ppm	Al ¥	Ha X	K X	W mag	Au*
6+00\$ 4+00E	1	44	14		۲.3	21	15	1903	3.93	2	<5	<2	<2	31	<.2	<b>&lt;2</b>	٠2	01								PP				Phil	ppb
6+00\$ 4+50E	1 1	38	11		<.3	35		583		<2	<5	<2	<b>~2</b>	32	<.2	₹2 - ₹2	<2	94 82		.219	12	37			. 09		. 30	. 02	.08	<2	4
6+00\$ 5+00E	1 1	91	12		<.3			1452		₹2	<5	<2	2	24	<.2	ν2	2	120	.47		10	35		190	. 11		.63	.02	. 10	<2	2
RE 6+00S 5+00E	1 1	97	15	138	<.3			1570		<2	<5	<2	2	25	<.2	ζ2	<2	117	.30	.323	12	34		131	.11		. 44	.02	.07	< 2	8
6+00\$ 5+50E	5	27	14	114	∢.3	18	11	550	3.82	2	<5	<2	₹2	31	<.2	<2	<2	91		.352	13 9	35 33		140 101	. 11	<3 3 <3 2		. 02 . 02	.07	<2	23
6+00S 6+00E	1	63	17	140	<.3	21	16	1912	4.43	2	<b>&lt;</b> 5	<2	<2	38							_				.0,	٠, ٢	.01	. 02	.08	<2	9
6+00s 6+50E	<1	32	7	119	<.3	18		822		<2	<5	₹2	<2	33	<.2	-2	- 2	98		. 106	24	39		175	.08	<33	. 33	.02	.11	<2	4
6+005 7+00E	1	36	11	93	<.3	19	13			<2	<b>&lt;</b> 5	₹2	2	33	<.2	<2	<2	84	.41		10	31		227	.09	<32	. 36	.02	.13	۲2	6
6+00\$ 7+50E	5	37	13	125	<.3	22	16	994 4	.58	√2	<b>&lt;</b> 5	<2	5		<.2	₹Ž	3	99		.052	11	31		151	. 1D	<33	. 15	.02	.09	<2	9
6+005 8+DQE	1	33	10	135	<.3	19	18	770 4		<2	<5	<2	2	42	₹.2	<5 <5	<\$	110		- 148	14	33	.70	144	. 11	3 4	. 05	.02	.10	<b>&lt;2</b>	4
(.DO= +.===	[									_	•		_	42	٦.2	٠.	<2	105	. 48	- 177	16	24	.65	193	.07	3 2	. 81	.02	.12	<2	11
6+00\$ 8+50£	1	31	11	174	<.3	22	17	1045 4	.21	<2	<5	<5	2	36	<.2	<2	<2	90		0.77							,				
6+00\$ 9+00E	1 1	23	13	105	٠.3	18	14	805 3	. 78	4	<5	<2	2	34	<.2	5	<2	86		.073	12	36		204	.08	3 2		.02	.11	<2	16
6+00s 10+00E	1	31	12	164	<.3	23	13	2286 3	.72	2	<5	٠Ž	Ž	44	.2	2	3	82		.073 .130	13	26		205	.07	3 2		.02	- 11	<2	3
7+00\$ 1+00E 7+00\$ 1+50E	1	60	15	107	<.3	23		694 3		7	₹5	<2	Ž	43	<.2	₹2	3	89		- 141	16	36		379	.08	32			.17	<2	4
7,002 1+20E	1	109	8	96	<.3	40	28	1102 4	.63	14	<5	<2	2	35	<.2	<2	2	127		.090	14 12	40 38		154	. 10	<3 2			. 10	<2	3
7+00\$ 2+00£		٠.	_		_											_	-		.,,	.070	12	ÞΦ	.92	124	. 13	<32	. 83	.02	.08	<2	1
7+00S 2+50E	,	54	8	93	<.3	21		653 3		12	<5	<2	2	35	<.2	<2	<2	97	45	.114	10	27	4.7	157							
7+005 3+00E	' '	56	8	129	۲.3	27	16	559 3	.41	<2	<5	<2	3	38	<.2	<2	<2	78		.154	10	28	. 62 . 58		. 09	3 2.			. 10	∢2	8
7+00S 3+50E	' '	69 75			<.3	27	21 7	2401 4	. 20	6	<5	≺2	2	61	<.2	2	׎	100		. 196	14	35		161 303	. 12 . 10	3 2.			. 10	۲2	3
7+00\$ 4+00E	· ;	53			< .3	24	20	1232 4	.41	4	<5	<2	2	36	<.2	<2	<2	102	.44		19	34			. 10	3 2.			. 11	∢2	5
	•	,,	10	132	<.3	22	15 4	2035 3	. 89	3	<5	<b>&lt;</b> S	2	43	.2	<2	<2	83	.56		16	32			.09	<3 2.			12	<b>&lt;2</b>	19
7+00\$ 4+50E	1	112	9	128	<.3	31				_	_												.03	231	.07	٠٥ ٤.	07	. 02	.11	<b>∢</b> 2	100
7+00s 5+00E	i	153	12		<.3	21 108	10 20 (	969 4	.02	<2	5	<2	3		<.2	2	2	97	. 35	. 174	18	31	.76	157	. 12	<3 3.	3 n	.02	0.0		15
7+00\$ 5+50E	í	37		151		22	12	169 4 438 3.	.91	<2	< <b>5</b>	<2	3		<.2	<5	<2		.52			245 2			. 15	<3 3.			.08 .09	<2	15 15
7+005 6+00E	ż	35			<.3	17	12 1	143 3.	./0	<2	<b>&lt;</b> 5	<2	2		<.2	3	< 2	81	.52	.213	8				.08	<3 Z.			. 12	<2 <2	3
+00\$ 6+50E	1	32			<.3	20	12	616 3.	42	<2 3	<5	<2	2		<.2	<2	<2	78	.56		7				.08	<3.5			.09	ν <u>ς</u>	3
1				,		20	13	010 3.	. <del>74</del>	۵	<5	<b>&lt;</b> 2	2	39	<-5	4	<5	90	.54	.096	10	32			.08	<3.3			11	₹2 -<2	1
+00s 7+00E	2	52	10	108	< 3	22	16	966 4.	11	<2	<5	~ J	•		_		_											-L .	. • •	12	,
+00\$ 7+50E	1	41	7		< 3	24		641 3.		έ2	< <b>5</b>	<2 <2	5		<.2	2	<2		. 62 .		14			102	.09	<3 2.	81 .	02 .	.08	<2	2
*00S 8+00E	2	43	10		< 3	23		882 4		ν2 - Σ	5	<b>₹</b> 2	5	38	<.2	<2	<2		.48 .		10			176	.11	<3 3.	-		13	₹2	3
+00\$ 8+50E	1	56		141	<.3	24		199 4		4	<Ś	<2 <2	2			<b>&lt;</b> 2			.57 .		16				. 09	<3 3.4			10	<2	4
+00S 9+00E	1	26	15	218	<.3	20		234 3.		ž	7		<u>د</u> ُ 2	40	<.2 .2	<2 <2	<2		49 .		28				. 08	<3 2.1		02 .	13	₹2	12
									_	-	•	_		70	٠.	``	<5	84	.57 ,	157	10	34	.61	293	.07	<3 2.5	59 .		12	<2	2



### T.E. Lisle & Associates PROJECT HAT FILE # 96-6590

Page 7



SAMPLE#	Mc ppm	Cu ppm	Pb ppm	2n ppm	Ag ppm	Ní ppm	Co PPM	Mn ppm	Fe %	As ppm	ppm U	Au ppm	Th ppm	Sr ppm	Cd ppm	Sb ppm	Bi ppm	PPM PPM	Ca X	P X	La ppm	Cr ppm	Mg %	Ba ppm	Ti %	ppm B	Al %	Na X	Х		Au* ppb
2 505 0100	3	77	12	172	<.3	17	13	794 3	7	,	<5	<2	<b>√2</b>	30	<.Z		2	70	.45 .0	68	9	29	.77	110	.08	<3 1	.98	.02	.09	<2	4
8+50E 0+00	2	33	12			11	.,	392 3		<2	Ξ.	<2	, L	37	< 2	3	<2	58		28	11	28	.75	114	07	<3 2	.05	.03	. 05	<2	5
8+50E 2+00S	!	41		96	<.3	15	.,			-	<5 -5		2	= :		-2	ξ2	74		22	12	31	.65	147	.07	<3 2		.01	.07	<2	2
8+50E 4+00S	1	38	11	144	<.3	18	12	583 3		<2	<5	<2	2	20	<.2	<2	=		•		12	= :		147	.07	<3 2		.01	.07	<2	2
RE 8+50E 4+00S	1	37	10	145	<.3	19	12	588 3		<2	<5	<2	2	20	<.2	<2	<2	76		22	12	31	.66			<3.1		.02	.10	<2	3
9+00E 0+00 T	3	29	10	175	<.3	15	12	1780 2	.91	<2	<5	<b>∢</b> 2	<2	43	.3	<2	<2	59	.82 .0	159	10	24	.53	157	.07	₹3	yı	.02	. 10	```	,
9+00E 2+00S		59	12	233	<.3	22	16	652 4	40	<b>&lt;2</b>	<5	<2	2	26	<.2	3	<2	87	.33 .1	41	12	40	1.04	179	.07	<3 3	.30	.01	.09	<2	1
	1 :	===	16	205	<.3	10	11	473 3		₹2	<5	٠2	5	21	<.2	3	<2	71	27 1	32	9	30	.59	177	.09	<3 2	2.59	.02	.07	<2	1
9+00E 4+00S		33	7			10	43	664 3		<2		<2	<2	28	<.2	<2	<2	75	40 .0	-	ō	30	.73	117	.07	<3 1	.86	.01	. 10	<2	6
9+50E 0+00 <del>-</del>	]	37	- 1	131	<.3	17	12				<5	_					7			142	13	27	.64	252	08	∢3 3		_D2	.08	<2	6
9+50E 2+00\$	1	45	11	155	.3	17	12	727 3		<2	<5	≺2	<2	42	<.2	<2	2	73		. –		7/	.70	173	.05	<3 2		.02	.08	<2	Ĭ
9+50E 4+00\$	1	39	10	106	.3	21	11	527 3	1.55	<2	<5	<2	<2	28	≺.2	5	<2	72	.35 .0	199	17	36	.70	173	.05	-5 2	J.C	. 52	.50	~4	•
10+00E 2+00S	1	105	12	174	.5	25	18	1375 4	.66	<b>&lt;</b> 2	<5	<2	<2	73	.3	2	<2	83	1,10 .0	92	28	44	1.07	380	.04	<3 3	3.65	.02	.12	<2	5

Sample type: SOIL. Samples beginning 'RE' are Reruns and 'RRE' are Reject Reruns.

																											1
1	4+50E 0+00	1	44	3	104	₹.3	19	17 1069 3.13	3	₹5	<2	<2	33	<.2	<2	<2	75	.36 .139	6	38 .90	159	.08	<3 2.28	.01	. 08	<2	2
1	5+00E 0+00	1 1	82	8	116	<.3	23	15 798 4.14	3	<5	- 2	2	37	<.2	<2	<2	88	.47 .058	18	44 1.11	142	.08	<3 2.62	. 02	.11	<2	3
1	5+00E 2+00S	1 i	37	4	115	<.3	18	18 1005 4.13	<2	<5	<2	<2	28	<.2	4	<2	102	.30 .114	9	27 .82	137	.08	<3 2.88	. 02	.08	<z< td=""><td>1</td></z<>	1
1	5+50E 0+00	l i	35	3	194	< . 3	17	14 548 3.60		<5	<2	3	35	<.2	<2	<2	79	.49 .107	16	21 .68	155	.08	<3 3.30	.02	.08	<2	2
1	3 302 0.00	·		_	• • •	•••	•		_																		
I	5+50E 2+00S	1	30	5	191	<.3	19	11 700 2.95	4	<5	<2	3	25	<.2	2	<2	66	.27 .235	9	22 .49	198	. 10	<3 2.55	. 02	.07	2	1
ı	6+00E 0+00	1 7	96	5	68	<.3	39	29 830 5.43		<5	<2	2	43	<.2	3	2	132	.87 .112	32	55 1.52	66	.04	3 2.60	.01	. 16	<2	3
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١		\ \ <u>1</u>	55	7		< .3	18	14 528 3.98	_	< <b>5</b>	<5	2	26	<.2	``	<2	87	.30 .054	8	31 .88	96	.07	<3 1.95	.01	.08	<2	18
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Sample type: SOIL. Samples beginning 'RE' are Reruns and 'RRE' are Reject Reruns.

Data FA \_\_\_

### APPENDIX II.

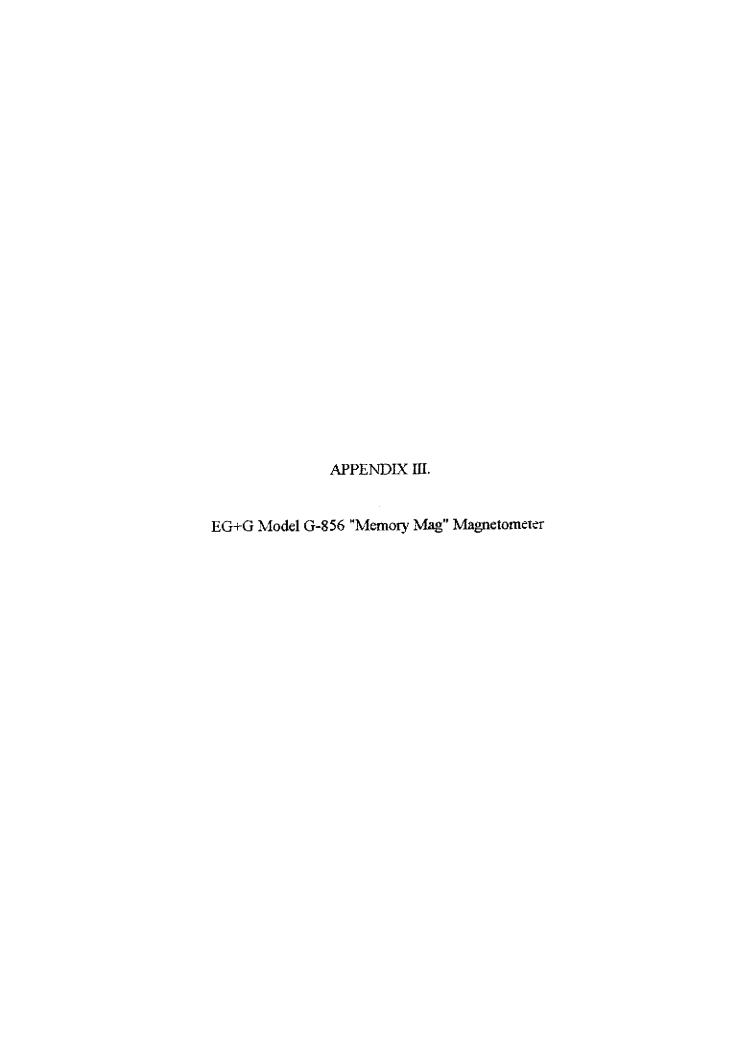
### PERSONNEL

- 1. Erik Ostensoe, P. Geo.
- 2. Thomas E. Lisle, P. Eng.

#### PERSONNEL

The following persons carried out the field work described in the accompanying report:

- 1. Erik A. Ostensoe, P.Geo. geologist (UBC, 1960)
  - more than thirty years experience in mineral exploration, principally in western and northern North America
  - member 18,727 of Assoc. of Professional Engineers and Geoscientists of British Columbia
  - worked on Rainbow Project claims 1992 to 1996
  - co-owner of Rainbow 2, 3, 4 claims
  - prepared accompanying report of work.
- 2. Thomas E. Lisle, P. Eng. geologist (UBC, 1964)
  - more than thirty years experience in mineral exploration, principally in western North America
  - member 08528 of Assoc. of Professional Engineers and Geoscientists of British Columbia
  - worked on Rainbow Project claims 1992 to 1996
  - co-owner of Rainbow 2, 3, 4 claims.



#### Magnetometers

A magnetometer is an instrument for measuring the intensity of the earth's magnetic field. Most rocks contain some magnetite, the most common magnetic mineral, and therefore produce some disturbances in the magnetic field. Soils and even some man made objects such as pottery can have magnetic properties.

Through interpretation of magnetometer readings, assumptions can be made about what exists beneath the surface, whether it is a pipeline, an ancient urn, a particular mineral, or geologic structure. The interpretation of magnetic data received from a magnetometer is sometimes a difficult task, made even more complex by constant changes in the earth's overall magnetic field, the size and distance of objects from the magnetometer, the amount of magnetic material the object contains, and the susceptibility of the object to absorb magnetism from other sources. On the other hand, many applications may require only simple interpretations of anomalies.

The proton precession magnetometer has become the principal instrument for magnetic studies because it combines high accuracy and ease of use. The Applications Manual for Portable Magnetometers, supplied with this instrument, includes general information on the use of magnetometers. It should be studied as a companion to this volume, which deals specifically with the G-856 Memory Mag magnetometer.

#### The G-856

The G-856 is a portable, man-carried magnetometer and a "base station" magnetometer. As a hand-carried instrument, it features simple, push button operation and a built-in digital memory which stores over 1000 readings. This relieves you of the need to log data in the field, eliminates transcription errors and most important, lets you use computers to automatically record and process the data from the magnetic survey.

The G-856 Hemory-Hag magnetometer will also record automatically at regular intervals, so it can be left unattended to monitor diurnal changes in the earth's magnetic field. These readings are used to correct simultaneous field measurements for high accuracy surveys. Here again, the data may be fed directly into a computer so that the field data taken with an identical G-856 may be automatically corrected. The time-of-day is recorded with each reading taken in either mode from a built-in digital clock.

All operations are controlled from a weatherproof membrane switch front panel. The sequence of operations was carefully designed to be very simple to operate and yet flexible. Erasing the memory requires an intricate, fail-safe sequence to protect the data, except for the most recent rending which can be easily deleted and replaced if desired.

A single connector is used for the sensor and data output. The output format is in the universal RS-232, understood by most small and large computers and some printers. The data may also be printed and graphed on the G-866 Recording Hagnetometer, or stored for later analysis on digital tape recorders like Geometrics G-724M.

Physically, the G-856 is compact and lightweight. It is weatherproof and operates over a wide temperature range. It is powered by eight D-Cell batteries, sufficient for about 3000 readings.

Above all, the G-856 is a high-precision magnetometer, the result of many years experience in the manufacture of similar instruments. An internal programming switch allows modification of the cycle times to ensure that the G-856 works properly near the magnetic equator and in high gradients where other models may operate only marginally or fail to obtain reliable data.

The operation of the instrument is controlled by a microprocessor and the control program may be changed at any time for product improvement or other considerations. In that event, you may find variations between this manual and the operation of your actual instrument operation. Such variations will have no adverse effect and should be recognizeable as you familiarize yourself with operation.

P9. 48750

-200**S** -200**5** CONTOUR INTERVAL 200 AT. +\$\frac{1}{1}\frac{1}\frac{1}{1}\frac{1}{1}\frac{1}{1}\frac{1}{1}\frac{1}{1}\frac{1}\frac{1}{1}\frac{1}{1}\frac{1}{1}\frac{1}{1}\frac{1}{1}\frac{1}{1}\frac{1}{1}\frac{1}{1}\frac{1}{1}\frac{1}{1}\frac{1}{1}\frac{1}\frac{1}{1}\frac{1}{1}\frac{1}{1}\frac{1}\frac{1}{1}\frac{1}{1}\frac{1}{1}\frac{1}{1}\frac{1}{1}\frac{1}{1}\frac{1}{1}\frac{1}{1}\frac{1}{1}\frac{1}{1}\frac{1}{1}\frac{1}{1}\frac{1}{1}\frac{1}\frac{1}{1}\frac{1}{1}\frac{1}{1}\frac{1}{1}\frac{1}{1}\frac{1}\frac{1}{1}\frac{1}{1}\frac{1}{1}\frac{1}{1}\frac{1}\frac{1}{1}\frac{1}\frac{1}\frac{1}\frac{1}{1}\frac RAINBOW PROJECT -3062 SIMILKAMEEN MINING DIVISION B.C. -400**\$** -500**\$** 96-32 O FIGURE 6 JANUARY 1997 -600**S** +\$\frac{1}{4}\frac{1}{4 -700**S** --700**S** 

