THE RICHARDSON LAKE PROJECT

(LAT. 49%05'N, LONG. 91%00'W)

OPAP PROJECT # 92-558

W.R. TROUP - TORONTO

Report By: W. R. Troup
Date : Nov. 15, 1992

SUMMARY

The Richardson Lake Project Area is located in the Atikoken - Richardson Lake greenstone Belt of the Canadian Precambrian Shield. Gargoyle Lake is located in the centre of the project area.

Previous exploration has resulted in the discovery of several gold and base metal occurrences throughout the region.

Alcanex Ltd., A private company of which the writer is president, acquired an option on 49 claims in the Richardson Lake area in 1990.

Surface sampling and prospecting in 1991 resulted in the discovery of a zinc showing in the area of an A.E.M. anomaly located north of Gargoyle Lake. In October 1992, the writer completed a followup program of rock and humus sampling over the discovery showing and the strike extentions of this showing.

INTRODUCTION

In October 1992, the writer traveled to Richardson Lake to prospect the area north of Gargoyle Lake where anomalous zinc znd copper values were encountered in 1991.

Fourteen rock samples and 29 humus samples were submitted to X-Ray Assay Laboratories for analyses. All samples were analysed for gold and base metals.

LOCATION AND ACCESS

The Richardson Lake project area is located 90 miles northwest of Thunder Bay. The Trans-Canada Highway and Canadian Pacific Rail Line cross the eastern extention of the belt and pass within eight miles of the area of current interest. Recent logging operations have brought road access to Gargoyle Lake, located in the centre of the area.

GEOLOGY

The Richardson Lake Greenstone Belt is part of the Archean Wabigoon Greenstone Belt of the Superior Province. Massive to foliated trondhjemite and granodiorite border the volcanics and sediments of the belt.

Mafic to intermediate volcanics constitute a large portion of the area. In the Gargoyle Lake and Upper Scotch Lake areas narrow felsic horizons are considered to represent felsic tuff horizons and or felsite dikes. The mafic volcanics of the region typically contain horizons of metasediments. A serpentinite body at the east end of Gargoyle Lake is aligned in an east-west direction conformable with stratigraphy. Formational E.M. and Mag anomalies in the area indicate the presence of sulphide facies iron formation.

The terrain is gently rolling with a few hills up to 250 feet high. Bedrock is extensively covered and the stronger electromagnetic conductors of the area are frequently obscurred.

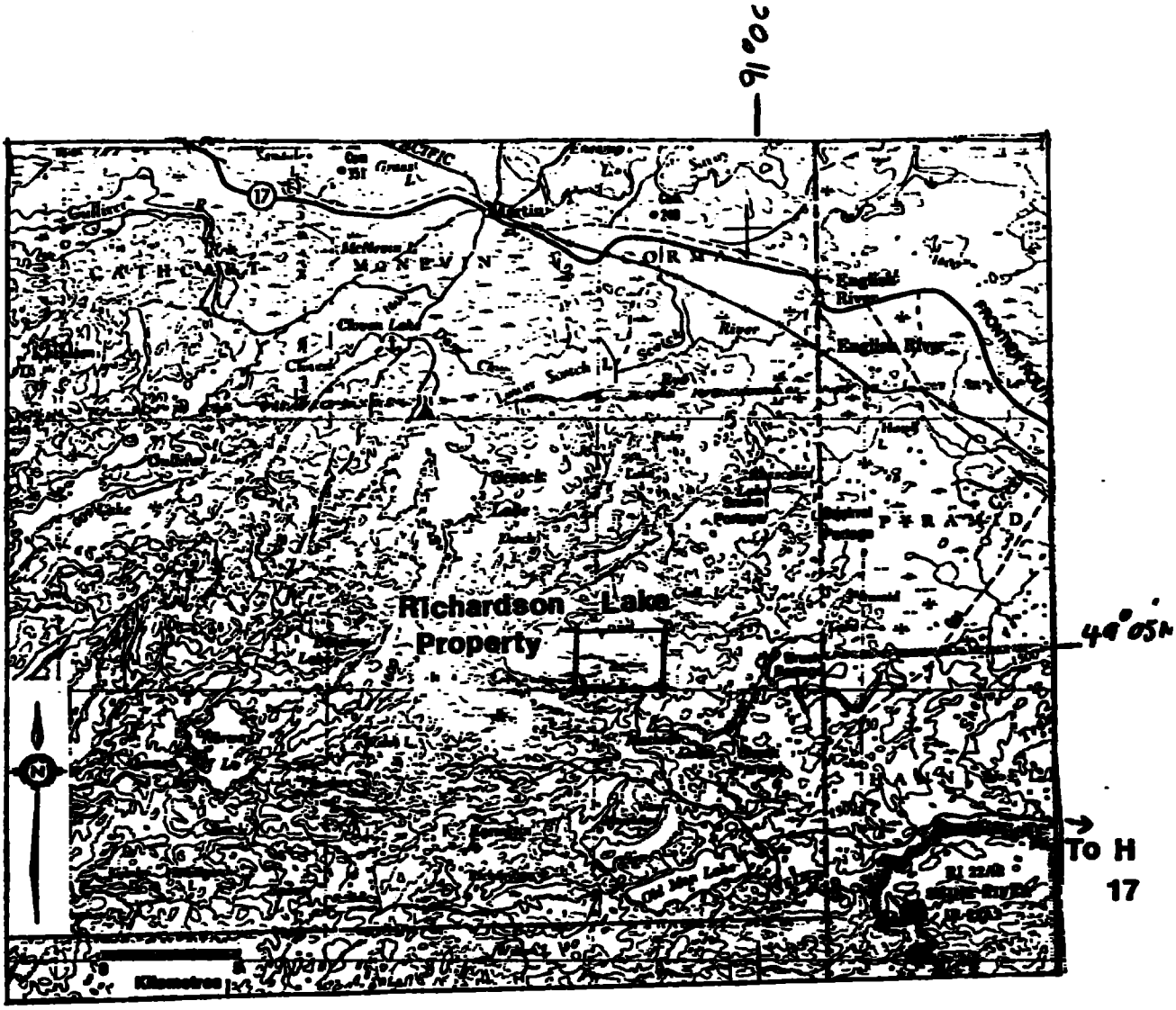

Figure 1

LOCATION MAP OF RICHARDSON LAKE PROPERTY

HISTORY OF EXPLORATION

The first systematic mapping of the area was by C.P.R.'s Development Department in 1952, followed by R. Woolverton in 1960 (ODM Annual report 69).

Gold was first discovered before 1900. In the period 1948-1976, Noranda and Ker-Addison explored base metal prospects in the Lumbly and Spoon Lake areas seven miles southwest of Gargoyle Lake. Chalcopyrite, sphalerite and galena were reported from a shear zone in quartz porphyry. In the Pyramid Lake area, three miles east and along strike of Gargoyle Lake, a sheared porphyry returned anomalous gold values of up to 0.09 opt. Gold mineralization is associated with sphalerite.

In the period 1954-1974, Canico, Candela and Falconbridge were active in the Old Man Lake area located 5 miles south of Gargoyle Lake.

The Gargoyle Lake area was apparently overlooked until 1979 when reconnaissance geological mapping and sampling by Shell Canada located felsic volcanics that had not previously been reported. Shell flew a Questor Input survey over the area in the fall of 1979, and located several isolated anomalies which were considered to hold potential for hosting polymetalic massive sulphides. In 1980, priority targets were located by ground geophysics (i.e. H.E.M. and Mag), and a follow-up drill program was planned. Shell terminated all mineral exploration in 1981, and targets of interest remained untested.

The Ontario Gov't flew the Richardson Lake area with the Questor system in 1980, as part of the Atikoken - Mine Centre Area survey. The survey confirmed the results of the earlier Shell survey.

In the period 1982-83, Teck and Cominco completed ground geophysics and drilling in the Pinecone Lake area located 1.25 miles southeast of Gargoyle Lake. A previous drill hole in this area reportedly returned 3 ten feet intersections assaying 0.17 opt. gold.

In 1990, Placer Dome completed ground geophysics on 43 claims located 1 mile southeast of Gargoyle Lake. Several bedrock anomalies were outlined for further evaluation.

In late October 1989, the writer drove by truck to the north shore of Gargoyle Lake to conduct a field examination of the area. Much of the area of interest was found to have been recently cut over, and burned in preparation for reforestation.

In areas that had not been cut over, remnants of the old Shell grid were located. Remnants of the old Shell grid are the most recent indications of exploration in the area. Preliminary sampling west of Gargoyle Lake returned geochemically anomalous copper values, and the discovery of boulders of rusty ankerite rich mafic volcanics northeast of Gargoyle Lake indicated a favourable gold environment.

In 1990, the writer purchased 49 mineral claims in the area for Alcanex Ltd. Three of the 49 claims were retained with work credits obtained in 1991.

In 1991, reconnaissance geological mapping and sampling was carried out over the Gargoyle Lake area in order to assess the economic potential. An attempt was made to locate outcrop proximal to or along strike from priority A.E.M. anomalies.

Prospecting along strike from known A.E.M. anomalies produced very encouraging results for the area north of Gargoyle Lake.
Sheared graphitic argillite and chert was located in an old trench located along strike to the west of a strong A.E.M anomaly and parallel to a second isolated conductor of interest. Chip sampling across the old trench returned anomalous values in copper (0.15%/1.5ft.), and zinc (4.3%/0.5ft.). Zinc mineralization occurs within a 0.5 foot thick conformable, dark grey quartz vein within the argillite unit.

SUMMARY OF WORK COMPLETED 1992

In October 1992, the writer travelled to Richardson Lake to complete followup sampling in the area of the zinc showing north of Gargoyle Lake. A tent camp, established on the access road north of Gargoyle Lake, served as a base of operations. A total of 6 days were devoted to prospecting and geochemical sampling in the area of interest. Sample locations are indicated on the compilation map in appendix B of this report. Geochemical results and sample descriptions are presented in appendiz A of this report.

CONCLUSIONS AND RECOMMENDATIONS

Geochemically anomalous gold values were obtained from humus samples collected from the area of trenching north of Gargoyle Lake where the 1991 sampling indicated encouraging zinc values. Values of up to 18 ppb were obtained while the mean value in the area was 3.3ppp. The best gold in rock value from this area was 40 ppb. Reconnaissance V.L.F. and H.E.M surveying, completed by G.L. Mealey of Thunderbay, indicated a conductive horizon in the area of trenching and extending up to 100 metres to the east.

The geochemical anomaly encountered in the trenched area is weak but the direct association with known zinc mineralization and a

coincident E.M. response is encouraging. A more extensive geochemical sampling program should be considered under more ideal conditions. Note: it commenced snowing the first day on the property and continued for the duration.

In the area of sampling on the road near the eastern limit of the area of interest, gold values of up to 110 ppb were obtained from rock sampling. Mineralization appears to be associated with narrow quartz-carbonate veining in mafic volcanics. Chalcopyrite is locally present with the veining. Additional prospecting and humus sampling is warranted to better determine the gold potential of this area.

ROCK SAMPLE DESCRIPTIONS

SPL #	TYPE	LOCATION	DESCRIPTION
17852	1' chip	-zinc showing north north of Gargoyle Lake	-sulphide rich section of black quartz -py + sph
17853	1' chip	-north from 17852	-chert, tr - 3% py. on fractures -wall rock to 17852
17854	1 m chip	-north from 17976 of 1991	-felsic intrusive? or flow, 1-4% py
17855	grab	-south edge of east pit -50' east of previous samples 17852-54	-massive int. volc.(?) or intrusive(?)
17856	.5 m chip	-north from 17855	-graphitic argillite -1-5 % diss & lamillar py
17857	0.5m ch	-north from 17856	-sh graph-arg.; 1-5% diss py
17858	grab	-west end of north conductor -300 metres NW from 17857 -north edge of E-W topo low	-sh m.v. with 1-2% diss py
17859	bldr.	-30 metres west of 17858	-granite bldr, angular, qtz + py on shear
17860	grab	-on rd southeast of claims	-sh. carb rich m.v. trend 110 deg and dip 75 deg S., 6" wide q.v with py + cpy
17861	composite chip	-on road 100' E of 17860	-sheared m.v., qtz-carb veining ± py
17862	grab	-65 m west of 17860	-mass m.v, with irregular veins of q-c, plus py + cpy

17863	0.8 m chip	-bldr at base of claim post near 17862	-sheared m.v. w/c pervasive carb alt'n +q-c veinlets -trend 110 deg, dip 80 S
17864	fly rock	-from trench near 17857	-cherty arg. + 3% diss py

HUMUS SAMPLES

SAMPLE #

Line G.1 - Located in area of west trench north of Gargoyle lake

G.1-0+15N	15 Metres north of 0+00
G.1-0+10N	10 Metres north of 0+00
G.1-0+05N	5 Metres north of 0+00
G.1-0.00	Centre of west trench
G.1-0+05S	5 Metres south of 0+00
G.1-0+10S	10 Metres south of 0+00
G.1-0+15S	15 Metres south of 0+00

Line G.2 - Located in area of east trench approximately 30 metres east of Line G.1

G.2-0+30 N
G.2-0+20 N
G.2-0+15 N
G.2-0+10 N
G.2-0+05 N
G.2-0+00 N
G.2-0+05 S
G.2-0+10 S
G.2-0+20 S

Line G.3 - Located approximately 300 meters east north-east of Line G.2

G.3-0+30 N
G.3-0+20 N
G.3-0-10 N
G.3-0+00 N
G.3-0+10 S
G.3-0+20 S
G.3-0+30 S

Line G.4 - Located approximately 125 meters east of Line G.1

G.4-0+30 N
G.4-0+20 N
G.4-0+10 N
G.4-0+00 N
G.4-0+10 S
G.4-0+20 S

APPENDIX A-2

ASSAY LISTINGS

XRAL

X-RAY ASSAY LABORATORIES

A DIVISION OF SGS SUPERVISION SERVICES INC.
1885 LESLIE STREET • DON MILLS, ONTARIO M3B 3J4 • CANADA
TEL: (416)445-5755 TELEX: 06-986947 FAX: (416)445-4152

CERTIFICATE OF ANALYSIS

REPORT 20970

TO: WILLIAM R. TROUP
1365 CLARKSON ROAD NORTH
MISSISSAUGA, ONTARIO
L5J 2W6

CUSTOMER No. 2393

DATE SUBMITTED
21-Oct-92

REF. FILE 13609-

Total Pages 3

29 HUMUS

	METHOD	DETECTION LIMIT
AU PPB	MA	1.
NA PPM	MA	100.
CA %	MA	.5
SC PPM	MA	.2
CR PPM	MA	1.
FE %	MA	.05
CO PPM	MA	1.
NI PPM	MA	20.
ZN PPM	MA	20.
AS PPM	MA	1.
SE PPM	MA	2.
BR PPM	MA	1.
RB PPM	MA	20.
MO PPM	MA	.5

	METHOD	DETECTION LIMIT
AG PPM	MA	2.
CD PPM	MA	2.
SB PPM	MA	.1
BA PPM	MA	100.
LA PPM	MA	1.
CE PPM	MA	1.
SN PPM	MA	.1
TA PPM	MA	.5
W PPM	MA	1.
IR PPB	MA	10.
HG PPM	MA	.5
TH PPM	MA	.5
U PPM	MA	.1

*** UNLESS INSTRUCTED OTHERWISE WE WILL DISCARD PULPS IN 90 DAYS ***
AND REJECTS IN 30 DAYS FROM THE DATE OF THIS REPORT

DATE 06-NOV-92

CERTIFIED BY .....
Jean H.L. Opdebeeck, General Manager

SAMPLE	AU PPB	NA PPM	CA %	SC PPM	CR PPM	FE %	CO PPM	NI PPM	ZN PPM
G-1-0+15N	3	3000	2.1	2.0	28	.87	5	<20	250
G-1-0+10N	2	3400	.9	2.1	22	.82	5	<20	110
G-1-0+05N	4	7800	1.4	3.5	49	1.61	21	<20	250
G-1-0+00	5	2800	1.1	3.9	68	2.84	23	<20	760
G-1-0+05S	2	5800	.9	4.1	100	1.57	14	<20	230
G-1-0+10S	<1	4300	1.1	2.2	21	.70	19	<20	330
G-1-0+15S	2	3900	1.0	2.2	17	.69	5	<20	90
G-2-0+30N	2	2000	.9	1.2	15	.42	2	<20	130
G-2-0+20N	4	2100	.7	1.5	15	.47	2	<20	70
G-2-0+15N	3	1200	1.0	.9	12	.42	2	<20	150
G-2-0+10N	4	1600	1.2	1.4	18	.83	3	<20	190
G-2-0+05N	11	4600	1.1	4.6	68	3.45	20	<20	710
G-2-0+00	18	3200	.6	4.4	66	4.57	23	<20	1200
G-2-0+05S	10	3300	1.0	3.4	52	2.54	9	<20	330
G-2-0+10S	5	3600	1.1	2.5	32	1.04	11	<20	380
G-2-0+20S	3	5400	1.4	2.7	30	1.00	7	<20	160
G-3-0+30N	3	2000	.6	1.8	11	.57	4	<20	60
G-3-0+20N	<1	2700	.7	1.2	16	.36	2	<20	20
G-3-0+10N	1	1800	.6	1.2	11	.44	2	<20	50
G-3-0+00	1	700	.9	.7	6	.27	5	<20	80
G-3-0+10NS	<1	3000	1.9	3.4	21	1.25	15	<20	80
G-3-0+20S	<1	700	.5	.6	5	.20	2	<20	30
G-3-0+30S	<1	2000	.8	1.3	12	.45	2	<20	70
G-4-0+30N	1	1100	2.4	.6	6	.35	2	<20	280
G-4-0+20N	2	3000	2.8	1.5	15	.66	4	<20	300
G-4-0+10N	2	2000	1.9	1.3	13	.55	3	<20	200
G-4-0+00	<1	4200	2.2	2.3	21	.90	8	<20	210
G-4-0+10S	2	4000	2.1	1.9	19	.69	6	<20	240
G-4-0+20S	2	6000	1.4	1.9	22	.64	5	<20	140

NOTE: SAMPLE # INDICATES RELATIVE POSITION ON LINE

ie G-1-0+15N

Line G-1, 15 metres North from 0+00 REFERENCE PT.

SAMPLE	AS PPM	SE PPM	BR PPM	RB PPM	MO PPM	AG PPM	CD PPM	SB PPM	BA PPM
G-1-0+15N	6	<2	5	30	1.1	<2	<2	1.3	600
G-1-0+10N	6	<2	8	30	.7	<2	<2	1.3	400
G-1-0+05N	5	<2	6	30	2.3	<2	<2	1.0	500
G-1-0+00	11	<2	10	20	2.8	<2	<2	1.4	500
G-1-0+05S	6	<2	6	40	1.2	<2	<2	1.4	600
G-1-0+10S	5	<2	9	20	1.1	<2	<2	1.0	300
G-1-0+15S	5	<2	9	<20	<.5	<2	<2	.9	300
G-2-0+30N	5	<2	6	<20	<.5	<2	<2	.8	200
G-2-0+20N	8	<2	6	<20	<.5	<2	<2	1.0	200
G-2-0+15N	5	<2	6	<20	.9	<2	<2	.7	200
G-2-0+10N	6	<2	6	<20	1.4	<2	<2	.9	300
G-2-0+05N	8	<2	7	30	2.2	<2	<2	1.4	600
G-2-0+00	9	<2	9	20	3.0	<2	<2	1.0	300
G-2-0+05S	9	<2	8	30	2.7	<2	<2	1.0	400
G-2-0+10S	12	<2	13	30	2.0	<2	<2	1.4	700
G-2-0+20S	5	<2	8	20	1.1	<2	<2	1.1	500
G-3-0+30N	7	<2	13	<20	<.5	<2	<2	1.0	200
G-3-0+20N	5	<2	8	<20	.9	<2	<2	.9	200
G-3-0+10N	7	<2	11	<20	.5	<2	<2	1.2	200
G-3-0+00	4	<2	13	<20	<.5	<2	<2	.5	100
G-3-0+10NS	4	<2	32	<20	<.5	<2	<2	.3	200
G-3-0+20S	3	<2	8	<20	<.5	<2	<2	.4	200
G-3-0+30S	5	<2	9	20	<.5	<2	<2	.9	300
G-4-0+30N	2	<2	6	<20	.5	<2	<2	.4	600
G-4-0+20N	4	<2	4	20	.7	<2	<2	.8	900
G-4-0+10N	5	<2	6	20	.8	<2	<2	.9	600
G-4-0+00	7	<2	7	50	.6	<2	<2	1.2	1100
G-4-0+10S	5	<2	6	20	<.5	<2	<2	.9	800
G-4-0+20S	4	<2	6	30	<.5	<2	<2	.7	400

SAMPLE	LA PPM	CE PPM	SM PPM	TA PPM	W PPM	IR PPB	HG PPM	TH PPM	U PPM
G-1-0+15N	11	19	1.3	<.5	<1	<10	<.5	2.0	.9
G-1-0+10N	11	20	1.4	<.5	<1	<10	<.5	2.3	1.0
G-1-0+05N	11	17	1.3	<.6	<1	<10	<.5	1.9	.9
G-1-0+00	11	15	1.3	<.5	<1	<10	<.5	1.8	.7
G-1-0+05S	13	21	1.5	<.5	<1	<10	<.5	2.2	.9
G-1-0+10S	11	16	1.1	<.5	<1	<10	<.5	1.8	.9
G-1-0+15S	11	14	1.1	<.5	<1	<10	<.5	1.8	.9
G-2-0+30N	6	11	.7	<.5	<1	<10	<.5	1.3	.6
G-2-0+20N	7	13	.9	<.5	<1	<10	<.5	1.4	.6
G-2-0+15N	5	9	.6	<.5	<1	<10	<.5	1.0	.4
G-2-0+10N	7	13	.9	<.5	<1	<10	<.5	1.3	.5
G-2-0+05N	15	20	1.9	<.5	<1	<10	<.5	2.5	1.1
G-2-0+00	7	12	1.2	<.5	<1	<10	<.5	1.6	.5
G-2-0+05S	9	15	1.2	<.5	<1	<10	<.5	1.6	.7
G-2-0+10S	14	19	1.5	<.5	<1	<10	<.5	2.4	1.0
G-2-0+20S	15	19	1.5	<.5	<1	<10	<.5	2.5	.9
G-3-0+30N	12	15	1.3	<.5	<1	<10	<.5	1.5	.6
G-3-0+20N	6	12	.8	<.5	<1	<10	<.5	1.3	.5
G-3-0+10N	7	15	.9	<.5	<1	<10	<.5	1.5	.5
G-3-0+00	4	8	.6	<.5	<1	<10	<.5	.9	.3
G-3-0+10NS	36	36	3.6	<.5	<1	<10	<.5	4.0	1.7
G-3-0+20S	4	7	.4	<.5	<1	<10	<.5	.7	.3
G-3-0+30S	8	14	1.0	<.5	<1	<10	<.5	1.5	.7
G-4-0+30N	4	7	.5	<.5	<1	<10	<.5	.7	.3
G-4-0+20N	7	14	.9	<.5	<1	<10	<.5	1.4	.6
G-4-0+10N	7	14	.9	<.5	<1	<10	<.5	1.5	.6
G-4-0+00	13	18	1.4	<.5	<1	<10	<.5	2.3	.9
G-4-0+10S	10	15	1.0	<.5	<1	<10	<.5	1.8	.8
G-4-0+20S	8	13	.9	<.5	<1	<10	<.5	1.8	.6

APPENDIX 3
COMPILATION MAP

GEOLOGY, SAMPLE LOCATIONS ETC.

CERTIFICATE OF QUALIFICATIONS

I, William, R. Troup, of Mississauga, Ontario hereby certify and declare the following:

1. I am a Consulting Geologist and President of Alcanex Ltd., a service company providing geological services and project management to the mineral exploration industry.

2. I graduated from the University of Waterloo with an MSc. degree in Geology in 1975.

3. I have been practicing my profession for the past 19 years.

4. I am a fellow in the Geological Association of Canada.

5. I was personally involved in the geological mapping and geochemical sampling described in this report.

6. The report is based on my field work and a review of government geological and geophysical maps and reports for the area, and additional data available in the Ontario Gov"t assessment files.

Toronto, Ontario
November 5, 1992

William R. Troup
Consulting Geologist

William R Troup

SAMPLE	AU PPB	CO PPM	NI PPM	CU PPM	ZN PPM	MO PPM	AG PPM	CD PPM	PB PPM
17852	18	137	462	1420.	8240.	16	4.2	20	68
17853	3	16	68	131.	125.	17	<.5	<1	19
17854	2	12	38	124.	136.	4	<.5	<1	<2
17855	5	68	164	211.	375.	2	<.5	<1	<2
17856	40	42	111	760.	149.	20	4.7	<1	224
17857	10	86	165	1870.	774.	8	2.6	1	97
17858	13	39	44	707.	243.	3	.7	<1	<2
17859	2	3	10	9.4	12.5	7	<.5	<1	<2
17860	14	5	16	316.	12.7	10	<.5	<1	<2
17861	4	31	66	91.7	38.0	2	<.5	<1	<2
17862	110	128	103	2560.	54.2	4	2.8	<1	<2
17863	6	66	128	262.	87.0	4	.6	<1	<2
17864	9	11	30	310.	168.	16	2.7	<1	74
17865	SMP MISS	SMP MISS	SMP MISS	SMP MISS	SMP MISS	SMP MISS	SMP MISS	SMP MISS	SMP MISS
17866	SMP MISS	SMP MISS	SMP MISS	SMP MISS	SMP MISS	SMP MISS	SMP MISS	SMP MISS	SMP MISS

SMP.MISS. - SAMPLE WAS NOT RECEIVED AT XRAL

X-RAY ASSAY LABORATORIES 1885 Leslie Street Don Mills Ontario M3B 3J4 (416)445-6755 Fax (416)445-4152 Tlx 06-986947
Member of the SGS Group (Société Générale de Surveillance)

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Toronto, Ontario
November 5, 1992

William R. Troup
Consulting Geologist

SWAYZE PROJECT -OPAP GRANTs # 92- 558 & 559

W. R. TROUP & B. OTTON

TORONTO JANUARY, 1992

SUMMARY

The swayze greenstone belt represents the west extention of the Abitibi Greenstone Belt of the Canadian Precambrian Shield.

The area has been explored intermittently since the discovery of the Timmins gold camp in the early 1900's. Numerous gold and base metal occurrences have been located and worked throughout the belt. Minor gold production has taken place.

Overburden cover is extensive throughout much of the belt and has severly restricted any large systematic exploration in the area.

The 1992 exploration program was directed at 11 areas. Reconnaissance and detailed geological mapping, prospecting and humus and lake sediment sampling was carried out where appropriate.

Outcrop is lacking in the area of many A.E.M anomalies of interest, and humus and lake sediment sampling were relied on extensively in assessing the mineral potential of such targets.

Encouraging gold values were encountered in Humus sampling completed over an A.E.M. anomaly in Reeves and Muskego Twp., and a detailed follow-up survey is recommended .

In the Claim Lake area of Heenan Twp., gold values of up to 200 ppb. were obtained from an exposure of sheared and carbonated quartz-feldspar-porphyry. Consideration will be given to follow-up soil geochemical sampling over the discovery area.

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APPENDICES

INTRODUCTION

In June prospecting and sampling was initiated in Denyes and Halcrow Twp's, the Brette Lake area in Swayze Twp, and Reeves & Muskego Twps.

In September follow-up prospecting and sampling was initiated in Reeves and Muskego twp's and in the Horwood Lake area.

LOCATION AND ACCESS

The Swayze area is centered approximately 65 miles southwest of Timmins in east-central Ontario. Highway 101 traverses the north boundary of the area enroute from Timmins to Wawa. A network of logging roads provide ready access to most parts of the area. Rail and power facilities are present locally.

REGIONAL GEOLOGY

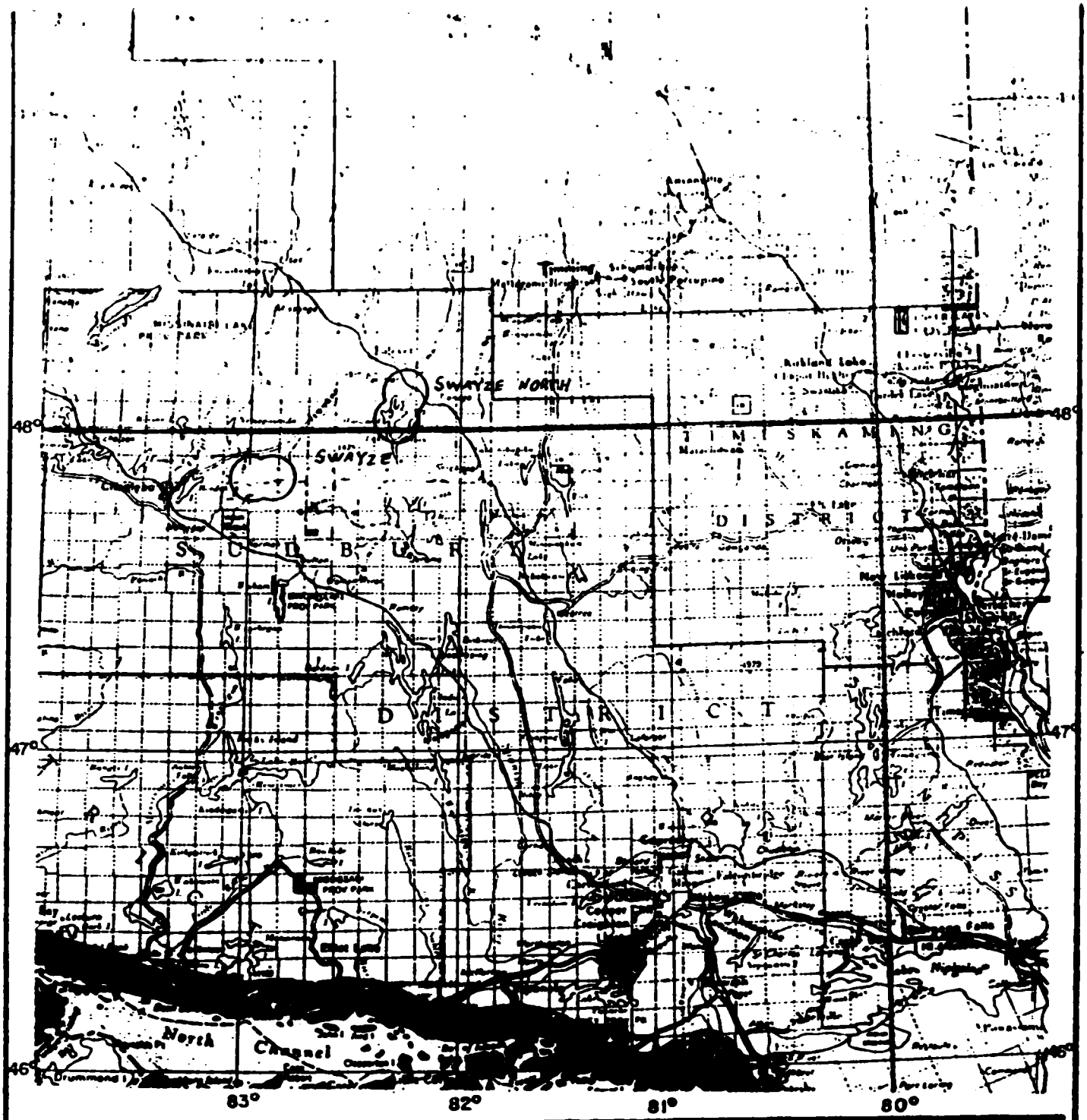
The Swayze Greenstone belt is an extention of the Abitibi Greenstone Belt of the Canadian Precambrian Shield. The geology is dominated by east-west trending steeply dipping sequences of volcanics and sediments, interupted locally by mafic and felsic intrusives.

Gold and base metal occurrences have been recorded throughout the area from a variety of geologic settings.

HISTORY OF EXPLORATION

Initial exploration was carried out for iron prior to 1910. Gold exploration was initiated in the 1930's. A number of companies have carried out gold and base metal exploration programs in the area since that time. The Jerome mine in Osway Township produced 56,878 ounces of gold before closing in 1945. The Tionaga and Orofino Mines in Horwood Township, and the Halcrow-Swayze Mine in Halcrow Township produced lesser amounts of gold.

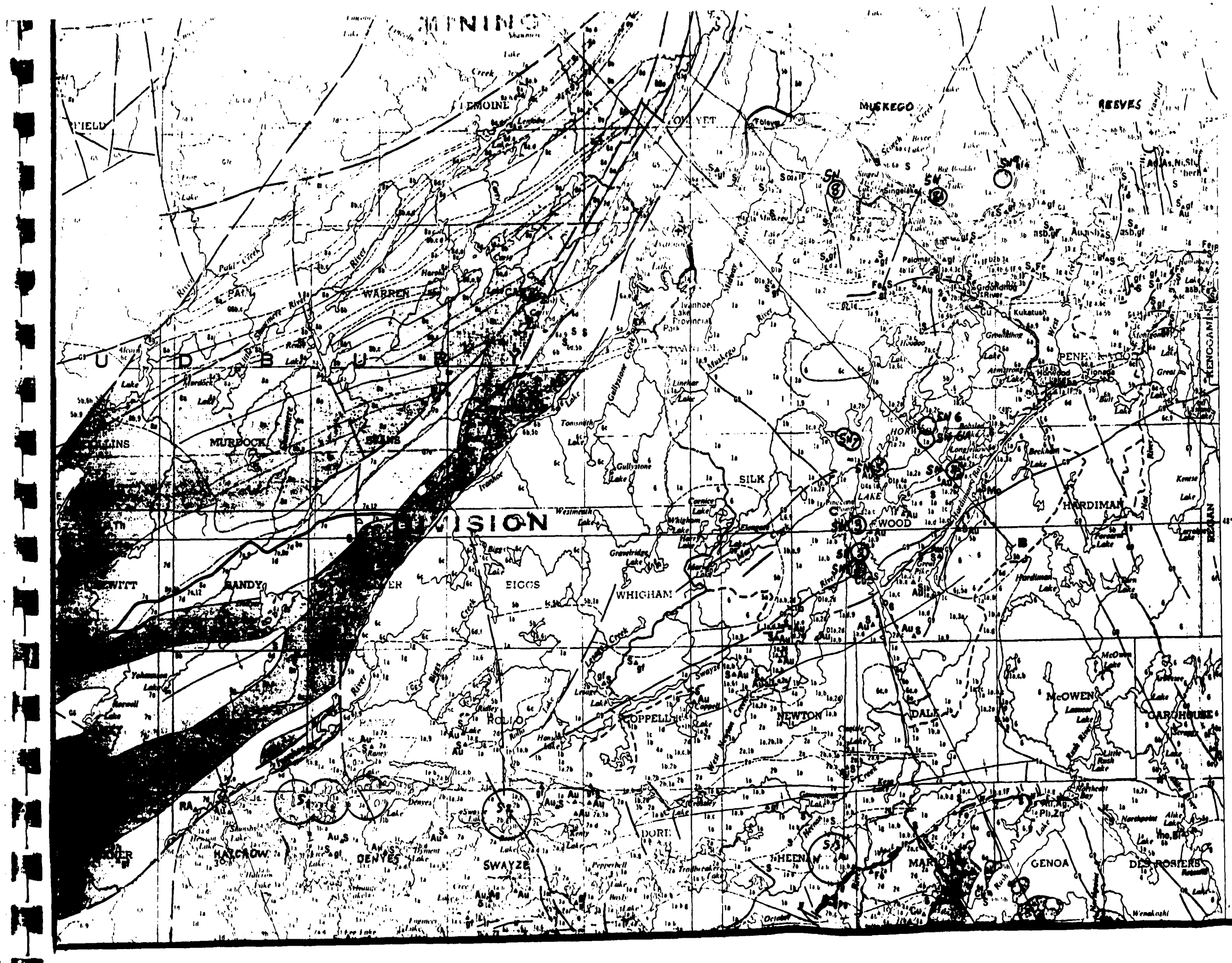
The "Shunsby" deposit in Cunningham Township is the most significant base metal prospect known in the area. In 1991 Cominco, Falconbridge, Noranda, Kirkton Resources and Noble Peak Resources carried out active exploration programs in Cunningham Township.



SWAYZE PROJECT

LOCATION MAP

SCALE 1: 2,000,000



LEGEND

SYMBOLS

SWAYZE PROPOSAL

SWAYZE NORTH

-PROSPECT LOCATIONS

TRANSPORTATION MAP 82

From Map 2301 - Ont Div of Mines

PROSPECTS EXAMINED

Halcrow & Denyes Townships

Prospecting, rock, humous and lake sediment sampling was carried out from a base at the "Fort Reed" lodge on Denyes Lake. Rock sampling was directed at areas of quartz-carbonate veining in the north. Humous geochemical sampling was carried out over select A.E.M anomalies occurring in areas of no outcrop. Two stream sediment samples, collected down ice from airborne magnetic anomalies, were analysed for diamond indicator mineral content.

No significant rock, humous or lake sediment anomalies were detected. No diamond indicator minerals were identified.

In total 14 mandays were devoted to prospecting and sampling in Halcrow and Denyes Township.

Swayze Twp - Brette Lake

Two mandays were devoted to traversing and sampling north of Brette Lake, some 3 miles along strike to the west of the old "Kenty Gold" property. Quartz-carbonate veining was located near the extention of the felsic-mafic contact which extends through the Kenty Mine property but no significant gold values were obtained.

Reeves & Muskego Twp's

In total 22 mandays were devoted to geochemical sampling and prospecting in Reeves and Muskego Twp. The Mooseland Resort situated on highway 101, approximately 5 miles to the west, served as a base of operations for most of the program. The Red Pine Lodge on Ivanhoe Lake, 20 miles further to the west, served as a base when the Mooseland lodge was not available.

Attention was focused on evaluating the mineral potential of a 27 unit claim group straddling the south portion of the boundary between Reeves & Muskego twps. This claim block referred to as the Vimy Creek Property was staked by Troup and Otton in July 1992. Government A.E.M. surveying in this area indicates a coincident and conformable east-west trend of E.M and Magnetic anomalies. To the south, previous operators encountered gold mineralization in a series of parallel conformable shears.

Outcrop was lacking in the two main areas of interest. Angular boulders of iron carbonate enriched mafic volcanics containing trace to 2% pyrite were encountered down ice from the southern E.M trend. No significant gold values were obtained from these boulders. Humus sampling was carried out on several sections along the formational trend of A.E.M. anomalies. Values of 8 & 13 ppb gold were obtained from the west extentin of the section sampled. The mean value in this area is 1.5 ppb Au.

Two alluvial gravel samples were collected and analysed for diamond indicator minerals but none were identified.

Heenan Twp

Two mandays were directed towards prospecting in the Claim Lake area of Heenan Twp.

Rock sampling returned assay values of up to 200 ppb Au from an area of quartz-carbonate altered felsic intrusive.

Horwood Lake Area

In total 12 mandays were devoted to prospecting and sampling in the Horwood Lake area. Humus sampling was directed at one A.E.M. anomaly located in an area of known gold and base metal mineralization. Lake sediment sampling was directed at 6 A.E.M. anomalies occurring in Horwood Lake. Three alluvial gravel samples were analysed for diamond indicator minerals.

No significant gold or base metal values were obtained from either lake sediment sampling or humus sampling. No diamond indicator minerals were identified.

CONCLUSIONS AND RECOMMENDATIONS

Reconnaissance Humus sampling completed in Muskego Township returned geochemically encouraging gold values over a known A.E.M. anomaly. A detailed, closely spaced geochemical sampling survey is warranted to evaluate the significance of this area.

Consideration should be given to conducting a detailed geochemical survey over the area near Claim lake in Heenan Twp from which anomalous gold values were encountered in preliminary rock sampling.

Appendix A-1

ASSAY SAMPLE DESCRIPTIONS

ROCK

SAMPLE #	LOCATION	TYPE	DESCRIPTION
9507	Halcrow Twp. -N.E. corner	grab	-amph gneiss, tr. py
9508	Halcrow Twp -N.E. corner	grab	-sheared felsic tuff
9509	Denyes Lake old trench, south shore	fly rock	-sheared felsic tuff carb., 2-3% diss. py
9510	Denyes Lake, south shore	grab	-qtz.-carb veining (1/2"wide) in sh'd. mafic volc., py on vein margins
9511	Halcrow Twp. N.E. corner	2'chip	-sheared felsic tuff 1-2% diss py
9512	west from 9511	1.5' chip	-sheared felsic tuff 1-2% diss py
9513	Denyes Lake	fly rock	-sheared f.v., fe. carb + 1% py
9514	Denyes Lake, S shore	bldr.	-mafiv volc., carb + po
9515	Denyes Twp. N. shore of Dyment Lake	bldr.	-mafic intrusive, f.g., py on fracture
9516	S.E. Muskego twp.	grab	-shearer felsic tuff 2-3% diss py
9517	As for 9516	grab	-sheared felsic tuff 1-2% diss py
9518	As for 9516	grab	-black, 1'wide Q.V. conformable E-W trend
9519	As for 9518	grab	-pyritic margin on black Q.V. of 9518

9520	Brett Lake	grab	-purple porph, tr-5% py
9521	Brett Lake	grab	-sericite schist, tr. py.
9522	Brett Lake	grab	-sheared m.v. + q.v. trace - 1% py
9523	Brett Lake	grab	-sheared m.v. + tr -1% py
9524	Brett Lake as for 9523	grab	-sheared m.v., trace - 1% py
9525	Brett Lake	grab	-q.v. in m.v., tr - 1% py
9526	Brett Lake	grab	-q.v. in m.v., tr - 1% py
18501	SE corner claim 1150971,Reeves twp	grab	-sh. mafic volcanic, pervasive carb. alt'n, tr. to 1% diss py
18502	South access rd. to Muskego claim group, 3000' south of Flood Lk	1' chip	-qtz.-carb veining in sheared m.v., conformable, tr. fine diss py
18503	On rd. near SW claim bdry, Muskego	grab	-black q.v. in m.v. -1"-2" wide, tr. py. -trend 90 deg. & vert.
18504	As per 18503	grab	-sh mafic volc. wall rock to q.v.
18505	Vimy Creek Property Muskego Twp	boulder	-sh. mafic - int. volc., 1-3% fine diss py, perv. iron carb. alt'n
18506	Central part of Reeves-Muskego claim gp	grab	-sh m.v.; pervasive iron carb alt'n, siliceous veinlets, tr.-1% diss py.

18507	Heenan twp -on road to claim lake	-grab	-chert py. I.F., 15% py
18508	as per 18507 -20' to south	-grab	-as for 18507
18509	as per 18508	-grab	-chert py. I.F.; 10% py
18510	Heenan twp area of reported gold showing	-grab	-sheared m.v.; perv. iron carb alt'n, tr - 1/2 % fine diss py, trend 120 deg. & vert.
18511	15' west from 18510	-grab	-6" to 1' section of qtz-ank veining in m.v.
18512	Muskego Twp claim gp	-grab	-sh'd m.v., tr-1% (py+po) ± magnetite
18513	White Duck Lake	-composite chip	-sheared iron carb rich felsic tuff, sericite, 15% py+cpy
18514	loc'n as per 18513	-grab	-intensely carbonated felsic tuff, 1-2% diss (py+cpy)
18515	as for 18513	-grab	-carb & silica rich felsic tuff, neg'l sulphides
18516	as for 18513 etc.	-grab	-as for 18515
18201	claim 1150970, Muskego-Reeves claim gp.	-grab	-sheared m.v., minor carb
18202	Muskego-Reeves claim gp. -west end of group	-bldr.	-mafic volc. -iron carb -1/2% diss p
18203	Heenan twp near 18507	-grab	-chert-py-rich I.F. -5% py

18204	Heenan twp -area of claim lake gold showing	-bldr.	-monzonite with qtz-carb stringers tr - 1/2% diss. py
18205	100 m west of 18204	-bldr.	-sheared m.v., pervasive iron carb alt'n
18206	Muskego Twp -West end of claim group	-bldr.	-c.g. pegmatitic bldr., rusty

LOCATION OF HUMUS SAMPLING
(Note: distance along line indicated by last digit in sample #)

SAMPLE LINE H-92-1 (10 samples) - Halcrow Twp., sample line across E.M. anomaly previously drilled by Mattagami for base metals.

SAMPLE LINE H-92-2 (11 samples) - Halcrow Twp., sample line across A.E.M. in area of no outcrop

SAMPLE LINE VW-1 - Reeves-Muskego Claim group, east boundary

SAMPLE LINE VW-2 - Reeves-Muskego Claim group, north east corner

SAMPLE LINE VC-1 - Reeves-Muskego Claim group, center of claim group

SAMPLE LINE VC-2 - Reeves-Muskego Claim group, centre of claim group

SAMPLE LINE VW-1 - Reeves-Muskego Claim group, west end of claim group

SAMPLE LINE VW-2 - Reeves-Muskego Claim group, west end of claim group

SAMPLE LINE VW-3 - Reeves-Muskego Claim group, west end of claim group

SAMPLE LINE HL-1 - Horwood Lake, southwest sector

SAMPLE LINE HL-2 - Horwood Lake, 200 metres east of HL-1

LAKE SEDIMENT SAMPLES

DENEYES LAKE

SAMPLE #	TYPE OF SAMPLE
DL-1	SILT-High organics
DL-2	SILT- " "
DL-3	SILT- " "
DL-4	SILT
DL-5	SAND
DL-6	SAND
DL-7	SAND
DL-8	SAND
DL-9	SILT
DL-10	SILT-High Organics
DL-11	SILT- " "
DL-12	SILT- " "
DL-13A	SILT- " "
DL-13B	SILT
DL-14	SILT

LAKE SEDIMENT SAMPLES CONTINUED

HORWOOD LAKE

2 MILES SOUTH OF PINECONE POINT - SAMPLE SPACING APPROX 20 MERES

SAMPLE #	TYPE	
HL-1	SILT	North of conductor
HL-2	SAND	
HL-3	SAND	Near conductor axis
HL-4	SAND	
HL-5	SILT	
HL-6	SILT	South of conductor

HARDIMAN BAY SOUTHEAST OF HARDIMAN BAY - SAMPLE SPACING APPROX.20m

HL-7	SILT	South of conductor
HL-8	SILT	
HL-9	SILT	Near conductor axis
HL-10	SILT	
HL-11	SILT	
HL-12	SILT	North of conductor
HL-13	SILT - HIGH ORGANICS	South of conductor
HL-14	SAND - HIGH ORGANICS	
HL-15	SILT	Near conductor axis
HL-16	SILT	
HL-17	SILT - HIGH ORGANICS	North of conductor

1/2 MILE SOUTHWEST OF PINECONE POINT - SAMPLE SPACING APPROX 20 M.

HL-18	SILT - HIGH ORGANICS	South of conductor
HL-19	SILT - HIGH ORGANICS	
HL-20	SILT - HIGH ORGANICS	
HL-21	SILT - HIGH ORGANICS	Near conductor axis
HL-22	SILT - HIGH ORGANICS	
HL-23	SILT	
HL-24	SILT	
HL-25	SILT	North of conductor
HL-26	SILT	South of conductor
HL-27	SILT	
HL-28	SILT	
HL-29	SAND	Near conductor axis
HL-30	SILT	
HL-31	SILT	
HL-32	SILT	North of conductor

WEST OF MARSH ISLAND - SAMPLE SPACING APPROX. 20 M

HL-33	SILT	North of conductor
HL-34	SILT	
HL-35	SILT	
HL-36	SILT	Near conductor axis
HL-37	SILT	
HL-38	SILT	
HL-39	SILT	South of conductor

SOUTH OF EAST MARSH ISLAND - SAMPLE SPACING APPROX 20 M

HL-40	SILT	North of conductor
HL-41	SILT	
HL-42	SILT	
HL-43	SILT	Near conductor axis
HL-44	SILT	
HL-45	SILT	
HL-46	SILT	South of Conductor

NORTHEAST HORWOOD LAKE - SAMPLE SPACING APPROX 20 M

HL-47	SILT (high organics)	North of Conductor
HL-48	SILT " "	Near conductor axis
HL-49	SILT " "	South of conductor
HL-50	SILT " "	South of conductor
HL-51	SILT " "	Near conductor axis
HL-52	SILT " "	
HL-53	SILT " "	North of conductor

ALLUVIAL GRAVEL SAMPLES TESTED FOR DIAMOND INDICATOR MINERALS

SAMPLE #	LOCATION
HD-1	HALCROW TWP
HD-2	HALCROW TWP
HD-3	HALCROW TWP
HD-4	SOUTH OF VIMY CREEK PROPERTY MUSKEGO TWP
WT-92-1	MUSKEGO TWP
WT-92-2	HORWOOD LAKE
WT-92-3	HORWOOD LAKE
WT-92-4	HORWOOD LAKE

APPENDIX A-2

GEOCHEMICAL ANALYSES

XRAL

X-RAY ASSAY LABORATORIES

A DIVISION OF SGS SUPERVISION SERVICES INC.
1885 LESLIE STREET • DON MILLS, ONTARIO M3B 3J4 • CANADA
TEL: (416)445-5755 TELEX: 06-986947 FAX: (416)445-4152

CERTIFICATE OF ANALYSIS

REPORT 19526

TO: WILLIAM R. TROUP
1365 CLARKSON ROAD NORTH
MISSISSAUGA, ONTARIO
L5J 2W6

CUSTOMER No. 1482

DATE SUBMITTED
18-Jun-92

REF. FILE 12543-D4

Total Pages 1

20 ROCKS

	METHOD	DETECTION LIMIT
AU PPB	FADCP	1.
CO PPM	DCP	1.
NI PPM	DCP	1.
CU PPM	DCP	.5
ZN PPM	DCP	.5
MO PPM	DCP	1.
AG PPM	DCP	.5
CD PPM	DCP	1.
PB PPM	DCP	2.

*** UNLESS INSTRUCTED OTHERWISE WE WILL DISCARD PULPS 90 DAYS ***
AND REJECTS 30 DAYS FROM DATE OF THIS REPORT

DATE 06-JUL-92

CERTIFIED BY .....
Jean H.L. Opdebeeck, General Manager

SAMPLE	AU PPB	CO PPM	NI PPM	CU PPM	ZN PPM	MO PPM	AG PPM	CD PPM	PB PPM
9507	3	13	34	110.	96.2	1	<.5	<1	3
9508	<1	9	29	9.7	32.9	<1	<.5	<1	<2
9509	4	11	24	9.4	73.8	<1	<.5	<1	<2
9510	6	31	15	24.5	67.7	<1	.5	<1	<2
9511	7	33	86	25.1	132.	<1	<.5	<1	12
9512	5	21	57	12.8	68.1	<1	<.5	<1	<2
9513	1	7	14	18.3	84.6	<1	<.5	<1	12
9514	<1	59	58	162.	135.	<1	<.5	<1	<2
9515	11	80	76	124.	99.3	<1	.7	<1	<2
9516	2	14	46	23.9	73.4	<1	<.5	<1	<2
9517	4	3	11	14.0	36.4	<1	<.5	<1	<2
9518	13	62	34	214.	1310.	2	.9	6	<2
9519	5	22	49	5.1	127.	<1	<.5	<1	<2
9520	3	9	13	10.4	31.6	<1	<.5	<1	<2
9521	<1	7	19	39.1	59.4	<1	<.5	<1	<2
9522	2	34	236	23.7	112.	<1	.7	<1	<2
9523	2	8	16	8.4	32.9	<1	<.5	<1	<2
9524	30	15	42	11.9	48.2	<1	<.5	<1	<2
9525	4	42	45	138.	112.	<1	.7	<1	<2
9526	7	45	39	181.	106.	<1	1.1	<1	<2

X-RAY ASSAY LABORATORIES 1885 Leslie Street Don Mills Ontario M3B 3J4 (416)445-5755 Fax (416)445-4152 Tlx 06-986947
Member of the SGS Group (Société Générale de Surveillance)

XRAL

A DIVISION OF SGS SUPERVISION SERVICES INC.
1885 LESLIE STREET • DON MILLS, ONTARIO M3B 3J4 • CANADA
TEL: (416)445-5755 TELEX: 06-986947 FAX: (416)445-4152

CERTIFICATE OF ANALYSIS

REPORT 19724

TO: WILLIAM R. TROUP
1365 CLARKSON ROAD NORTH
MISSISSAUGA, ONTARIO
L5J 2W6

CUSTOMER No. 1482

DATE SUBMITTED
18-Jun-92

REF. FILE 12569-U2

Total Pages 4

15 LAKE SEDIMENTS

	METHOD	DETECTION LIMIT
AU PPB	NA	5.
NA PPM	NA	500.
CA %	NA	1.
SC PPM	NA	.1
CR PPM	NA	10.
FE %	NA	.1
CO PPM	NA	5.
NI PPM	NA	100.
ZN PPM	NA	50.
AS PPM	NA	2.
SE PPM	NA	5.
BR PPM	NA	1.
RB PPM	NA	30.
SR PPM	NA	500.
MO PPM	NA	5.
AG PPM	NA	5.
SB PPM	NA	.2

	METHOD	DETECTION LIMIT
CS PPM	NA	3.
BA PPM	NA	100.
LA PPM	NA	1.
CE PPM	NA	3.
ND PPM	NA	10.
SM PPM	NA	.5
EU PPM	NA	.2
TB PPM	NA	.5
YB PPM	NA	.2
LU PPM	NA	.05
HF PPM	NA	1.
TA PPM	NA	1.
W PPM	NA	4.
IR PPB	NA	20.
TH PPM	NA	.5
U PPM	NA	.5

*** UNLESS INSTRUCTED OTHERWISE WE WILL DISCARD PULPS IN 90 DAYS ***
AND REJECTS IN 30 DAYS FROM THE DATE OF THIS REPORT

DATE 22-JUL-92

CERTIFIED BY .....

Jean H.L. Opdebeeck, General Manager

SAMPLE	AU PPB	NA PPM	CA %	SC PPM	CR PPM	FE %	CO PPM	NI PPM	ZN PPM
DL-1	<5	22000	2	6.8	60	1.6	7	<100	50
DL-2	<5	22000	1	6.4	50	1.4	8	<100	<50
DL-3	<5	22000	1	5.7	50	1.3	7	<100	50
DL-4	<5	19000	1	4.4	30	.9	5	<100	<50
DL-5	<5	21000	1	5.2	50	1.3	7	<100	<50
DL-6	<5	19000	1	6.1	50	1.4	9	<100	50
DL-7	<5	5900	1	5.8	80	1.6	9	<100	160
DL-8	<5	6100	2	6.1	90	1.8	9	<100	140
DL-9	<5	6600	1	6.5	100	2.3	13	<100	130
DL-10	<5	7500	1	6.9	130	3.2	16	<100	170
DL-11	<5	7100	1	5.9	100	1.9	10	<100	140
DL-12	<5	6300	1	5.5	80	1.5	9	<100	120
DL-13A	<5	5900	1	5.0	140	1.4	8	<100	110
DL-13B	<5	7200	1	5.7	70	1.5	8	<100	130
DL-14	28	14000	2	5.9	100	1.3	8	<100	60

SAMPLE	AS PPM	SE PPM	BR PPM	RB PPM	SR PPM	MO PPM	AG PPM	SB PPM
DL-1	<2	<5	4	<30	<500	<5	<5	<.2
DL-2	<2	<5	3	30	<500	<5	<5	.2
DL-3	2	<5	3	30	<500	<5	<5	.3
DL-4	<2	<5	3	30	<500	<5	<5	.2
DL-5	2	<5	3	30	<500	<5	<5	.3
DL-6	3	<5	14	<30	<500	<5	<5	.3
DL-7	5	<5	47	<30	<500	<5	<5	1.4
DL-8	5	<5	49	<30	<500	<5	<5	1.7
DL-9	7	<5	51	<30	<500	<5	<5	2.3
DL-10	9	<5	45	<30	<500	<5	<5	2.6
DL-11	5	<5	44	<30	<500	<5	<5	2.7
DL-12	3	<5	42	<30	<500	<5	<5	1.3
DL-13A	4	<5	39	<30	<500	<5	<5	.9
DL-13B	3	<5	41	<30	<500	<5	<5	.4
DL-14	3	<5	19	<30	<500	<5	<5	.5

SAMPLE	CS PPM	BA PPM	LA PPM	CE PPM	ND PPM	SM PPM	EU PPM	TB PPM
DL-1	<3	500	14	28	10	2.2	.9	<.5
DL-2	<3	500	13	26	10	2.0	.6	<.5
DL-3	<3	400	11	22	10	1.8	.6	<.5
DL-4	<3	300	11	20	10	1.5	.4	<.5
DL-5	<3	500	10	19	<10	1.7	.9	<.5
DL-6	<3	400	16	29	10	2.4	.9	<.5
DL-7	<3	200	27	48	20	3.4	1.2	<.5
DL-8	<3	300	29	53	20	3.5	1.1	<.5
DL-9	<3	400	29	56	20	3.7	.8	<.5
DL-10	<3	300	32	59	20	3.9	1.3	<.5
DL-11	<3	300	27	50	20	3.4	1.2	<.5
DL-12	<3	300	24	45	20	3.1	.8	<.5
DL-13A	<3	300	22	40	20	2.8	.9	<.5
DL-13B	<3	300	24	44	20	3.1	.9	<.5
DL-14	<3	300	21	40	20	2.9	1.0	<.5

SAMPLE	YB PPM	LU PPM	HF PPM	TA PPM	W PPM	IR PPB	TH PPM	U PPM
DL-1	1.0	.12	5	<1	<4	<20	2.7	.6
DL-2	.8	.13	4	<1	<4	<20	2.5	.7
DL-3	.7	.11	4	<1	<4	<20	2.0	<.5
DL-4	.7	.09	3	<1	<4	<20	2.3	1.2
DL-5	.7	.13	4	<1	<4	<20	1.8	.5
DL-6	.8	.12	4	<1	<4	<20	2.6	1.0
DL-7	1.0	.12	2	<1	<4	<20	4.9	2.2
DL-8	1.0	.11	3	<1	<4	<20	5.1	2.4
DL-9	1.0	.16	2	<1	<4	<20	5.2	3.0
DL-10	1.1	.17	3	<1	<4	<20	5.7	3.4
DL-11	1.0	.14	2	1	<4	<20	4.5	2.8
DL-12	1.1	.12	2	1	<4	<20	4.2	2.5
DL-13A	.9	.10	2	<1	<4	<20	3.7	1.6
DL-13B	1.0	.10	3	<1	<4	<20	4.0	2.4
DL-14	1.1	.28	5	<1	<4	<20	3.4	1.5

X-RAY ASSAY LABORATORIES 1885 Leslie Street Don Mills Ontario M3B 3J4 (416)445-5755 Fax (416)445-4152 Tlx 06-986947
Member of the SGS Group (Société Générale de Surveillance)

SAMPLE	AU PPB	NA PPM	CA %	SC PPM	CR PPM	FE %	CO PPM	NI PPM	ZN PPM
1-92-1 - (0+10)	<1	2900	1.2	.8	12	.27	2	<20	70
1-92-1 - (0+20)	1	2900	1.6	1.0	16	.38	3	<20	210
1-92-1 - (0+30)	2	5300	1.6	1.4	24	.46	3	<20	100
1-92-1 - (0+40)	<1	7300	.9	2.4	32	.76	8	20	50
1-92-1 - (0+50)	<1	7800	.7	2.0	47	.59	4	20	30
1-92-1 - (0+60)	<1	7000	.7	1.8	44	.59	4	<20	60
1-92-1 - (0+70)	1	4200	1.0	1.2	23	.41	3	<20	70
1-92-1 - (0+80)	<1	6100	.8	1.7	30	.54	5	<20	40
1-92-1 - (0+90)	<1	5900	1.3	1.5	29	.45	3	<20	30
1-92-1 - (1+00)	3	4200	.6	1.3	21	.40	3	<20	30
1-92-1 - (0+00)	<1	4800	.6	1.3	23	.48	2	<20	60
1-92-12 - (0+20)	<1	2400	1.4	1.5	15	.41	9	<20	60
1-92-12 - (0+40)	4	3800	.5	1.4	16	.44	2	<20	100
1-92-12 - (0+60)	1	2600	.5	.9	13	.32	2	<20	50
1-92-12 - (0+80)	2	800	<.5	.8	8	.28	2	<20	40
1-92-12 - (1+00)	3	3600	.5	1.5	29	.52	2	<20	80
1-92-12 - (1+20)	3	6900	.6	2.3	29	.67	4	<20	80
1-92-12 - (1+40)	1	5300	.5	1.6	33	.51	2	<20	40
1-92-12 - (1+60)	2	1600	<.5	.8	12	.27	2	<20	60
1-92-12 - (1+80)	1	2700	<.5	1.1	15	.33	2	<20	40
1-92-12 - (2+00)	2	3400	.5	1.2	56	.43	2	20	90

SAMPLE	AS PPM	SE PPM	BR PPM	RB PPM	MO PPM	AG PPM	CD PPM	SB PPM	BA PPM
1-92-1 - (0+10)	1	<2	6	<20	1.4	<2	<2	.6	300
1-92-1 - (0+20)	2	<2	8	20	.9	<2	4	.9	500
1-92-1 - (0+30)	2	<2	6	30	<.5	<2	<2	.8	400
1-92-1 - (0+40)	3	<2	5	30	1.9	<2	<2	1.4	400
1-92-1 - (0+50)	3	<2	6	30	1.3	<2	<2	.9	400
1-92-1 - (0+60)	3	<2	6	30	1.4	<2	<2	1.0	300
1-92-1 - (0+70)	3	<2	8	20	.8	<2	<2	1.0	300
1-92-1 - (0+80)	3	<2	5	30	1.0	<2	<2	1.2	400
1-92-1 - (0+90)	3	<2	6	20	.9	<2	<2	1.1	300
1-92-1 - (1+00)	5	<2	9	<20	.5	<2	<2	1.2	300
1-92-1 - (0+00)	3	<2	8	20	1.2	<2	<2	.8	300
1-92-12 - (0+20)	3	<2	12	<20	<.5	<2	<2	1.0	200
1-92-12 - (0+40)	3	<2	11	<20	.6	<2	<2	1.1	300
1-92-12 - (0+60)	2	<2	10	<20	.6	<2	<2	.8	200
1-92-12 - (0+80)	4	<2	15	<20	<.5	<2	<2	.9	100
1-92-12 - (1+00)	6	<2	13	<20	1.9	<2	<2	1.7	200
1-92-12 - (1+20)	4	<2	7	20	.5	<2	<2	1.2	500
1-92-12 - (1+40)	4	<2	8	20	1.2	<2	<2	1.1	200
1-92-12 - (1+60)	3	<2	12	<20	1.0	<2	<2	.9	200
1-92-12 - (1+80)	3	<2	9	<20	1.1	<2	<2	.9	200
1-92-12 - (2+00)	4	<2	11	<20	1.6	<2	<2	1.6	200

SAMPLE	LA PPM	CE PPM	SN PPM	TA PPM	W PPM	IR PPB	HG PPM	TH PPM	U PPM
1-92-1 - (0+10)	5	11	.6	<.5	<1	<10	<.5	.8	.2
1-92-1 - (0+20)	6	12	.7	<.5	<1	<10	<.5	1.0	.3
1-92-1 - (0+30)	8	16	1.0	<.5	<1	<10	<.5	1.4	.5
1-92-1 - (0+40)	15	25	1.6	<.5	<1	<10	<.5	2.3	.6
1-92-1 - (0+50)	11	18	1.3	<.5	<1	<10	<.5	1.8	.5
1-92-1 - (0+60)	10	18	1.1	<.5	<1	<10	<.5	1.7	.5
1-92-1 - (0+70)	7	12	.8	<.5	<1	<10	<.5	1.1	.4
1-92-1 - (0+80)	10	18	1.2	<.5	<1	<10	<.5	1.8	.5
1-92-1 - (0+90)	9	15	1.0	<.5	<1	<10	<.5	1.5	.4
1-92-1 - (1+00)	9	15	.9	<.5	<1	<10	<.5	1.4	.4
1-92-1 - (0+00)	8	14	.9	<.5	<1	<10	<.5	1.2	.4
1-92-12 - (0+20)	26	29	2.5	<.5	<1	<10	<.5	1.1	.4
1-92-12 - (0+40)	9	15	.9	<.5	<1	<10	<.5	1.5	.4
1-92-12 - (0+60)	7	9	.6	<.5	<1	<10	<.5	.9	.3
1-92-12 - (0+80)	8	10	.8	<.5	<1	<10	<.5	.6	.3
1-92-12 - (1+00)	9	15	.9	<.5	<1	<10	<.5	1.5	.6
1-92-12 - (1+20)	13	22	1.5	<.5	<1	<10	<.5	1.9	.7
1-92-12 - (1+40)	9	16	1.0	<.5	<1	<10	<.5	1.4	.5
1-92-12 - (1+60)	7	9	.6	<.5	<1	<10	<.5	.7	.3
1-92-12 - (1+80)	5	10	.6	<.5	<1	<10	<.5	.9	.3
1-92-12 - (2+00)	6	12	.8	<.5	<1	<10	<.5	1.1	.3

XRAL

X-RAY ASSAY LABORATORIES

A DIVISION OF SGS SUPERVISION SERVICES INC.
1885 LESLIE STREET • DON MILLS, ONTARIO M3B 3J4 • CANADA
TEL: (416)445-5755 TELEX: 06-986947 FAX: (416)445-4152

CERTIFICATE OF ANALYSIS

REPORT 20720

TO: WILLIAM R. TROUP
1365 CLARKSON ROAD NORTH
MISSISSAUGA, ONTARIO
L5J 2W6

CUSTOMER No. 2393

DATE SUBMITTED
24-Sep-92

REF. FILE 13389-I7

Total Pages 1

22 ROCKS

	METHOD	DETECTION LIMIT
AU PPB	FADCP	1.
CO PPM	DCP	1.
NI PPM	DCP	1.
CU PPM	DCP	.5
ZN PPM	DCP	.5
MO PPM	DCP	1.
AG PPM	DCP	.5
CD PPM	DCP	1.
PB PPM	DCP	2.

DATE 02-NOV-92

CERTIFIED BY .....
Jean H.L. Opdebeeck, General Manager

SAMPLE	AU PPB	CO PPM	NI PPM	CU PPM	ZN PPM	MO PPM	AG PPM	CD PPM	PB PPM
18201	2	17	7	82.8	87.7	6	.6	<1	13
18202	1	50	107	52.4	90.8	2	<.5	<1	<2
18203	7	24	86	96.3	52.1	5	<.5	<1	2
18204	200	3	7	5.3	26.0	3	<.5	<1	3
18205	<1	7	13	14.7	40.0	3	<.5	<1	<2
18206	5	9	20	211.	20.0	8	<.5	<1	<2
18501	1	58	52	201.	116.	4	.9	<1	<2
18502	<1	8	20	45.9	19.9	13	<.5	<1	<2
18503	<1	4	15	17.9	56.4	14	<.5	<1	<2
18504	4	14	21	114.	409.	4	<.5	<1	<2
18505	<1	44	107	118.	92.0	5	<.5	<1	<2
18506	<1	50	114	99.0	103.	2	<.5	<1	<2
18507	8	10	32	9.5	7.8	10	<.5	<1	<2
18508	<1	4	16	7.5	4.0	4	<.5	<1	<2
18509	<1	3	11	7.1	7.7	13	<.5	<1	<2
18510	<1	42	37	48.5	86.8	3	<.5	<1	<2
18511	6	27	21	24.5	73.9	3	<.5	<1	<2
18512	<1	30	33	189.	76.3	5	.7	<1	<2
18513	30	79	38	649.	83.0	1	<.5	<1	<2
18514	20	70	38	293.	86.8	<1	<.5	<1	<2
18515	<1	14	22	6.0	81.0	<1	<.5	<1	<2
18516	<1	16	26	20.8	100.	<1	<.5	<1	<2

XRAL

X-RAY ASSAY LABORATORIES

A DIVISION OF SGS SUPERVISION SERVICES INC.
1885 LESLIE STREET • DON MILLS, ONTARIO M3B 3J4 • CANADA
TEL: (416)445-5755 TELEX: 06-986947 FAX: (416)445-4152

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1365 CLARKSON ROAD NORTH
MISSISSAUGA, ONTARIO
L5J 2W6

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REPORT 20720 REF. FILE 13389-I7

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A DIVISION OF SGS SUPERVISION SERVICES INC.
1885 LESLIE STREET • DON MILLS, ONTARIO M3B 3J4 • CANADA
TEL: (416)445-5755 TELEX: 06-986947 FAX: (416)445-4152

CERTIFICATE OF ANALYSIS

REPORT 21012

TO: WILLIAM R. TROUP
1365 CLARKSON ROAD NORTH
MISSISSAUGA, ONTARIO
L5J 2W6

CUSTOMER No. 2393

DATE SUBMITTED
24-Sep-92

REF. FILE 13391-

Total Pages 12

193 HUMUS

	METHOD	DETECTION LIMIT
AU PPB	NA	1.
NA PPM	NA	100.
CA %	NA	.5
SC PPM	NA	.2
CR PPM	NA	1.
FE %	NA	.05
CO PPM	NA	1.
NI PPM	NA	20.
ZN PPM	NA	20.
AS PPM	NA	1.
SE PPM	NA	2.
BR PPM	NA	1.
RB PPM	NA	20.
MO PPM	NA	.5

	METHOD	DETECTION LIMIT
AG PPM	NA	2.
CD PPM	NA	2.
SB PPM	NA	.1
BA PPM	NA	100.
LA PPM	NA	1.
CE PPM	NA	1.
SM PPM	NA	.1
TA PPM	NA	.5
W PPM	NA	1.
IR PPB	NA	10.
HG PPM	NA	.5
TH PPM	NA	.5
U PPM	NA	.1

*** UNLESS INSTRUCTED OTHERWISE WE WILL DISCARD PULPS IN 90 DAYS ***
AND REJECTS IN 30 DAYS FROM THE DATE OF THIS REPORT

DATE 11-NOV-92

CERTIFIED BY .....

Jean H.L. Opdebeeck, General Manager

XRAL

NOTE: As per our list of upper limits in our current schedule of services, some of the results are outside the applicable analytical range. Please contact us should you require assays.

X-RAY ASSAY LABORATORIES 1885 Leslie Street Don Mills Ontario M3B 3J4 (416)445-5755 Fax (416)445-4152 Tlx 06-986947
Member of the SGS Group (Société Générale de Surveillance)

SAMPLE	AU PPB	NA PPM	CA %	SC PPM	CR PPM	FE %	CO PPM	NI PPM	ZN PPM
H1-0+10S	1	2200	1.5	.7	12	.26	5	<20	70
H1-0+20S	1	2900	1.2	1.0	17	.35	4	<20	40
H1-0+30S	2	1600	1.4	.8	11	.31	4	<20	90
H1-0+40S	2	2500	1.0	1.1	17	.40	5	<20	40
H1-0+50S	1	1200	1.2	.7	12	.29	4	<20	50
H1-0+60S	1	1200	1.5	.5	7	.19	4	<20	50
H1-0+70S	1	1800	1.2	.7	12	.26	5	<20	40
H1-0+80S	1	600	1.3	.4	6	.19	4	<20	40
H1-0+90S	1	500	1.4	.3	5	.14	3	<20	60
H1-1+00S	2	1300	1.0	.7	10	.27	4	<20	60
H1-1+10S	1	1700	1.1	.7	10	.25	2	<20	60
H1-1+20S	1	2200	1.2	.9	15	.31	3	<20	80
H1-1+30S	1	800	.8	.5	9	.24	2	<20	70
H1-1+40S	2	2500	.7	.8	17	.28	2	<20	40
H1-0+00	1	1400	2.4	.5	7	.19	2	<20	120
H2-0+10S	2	3100	.5	1.0	14	.28	1	<20	30
H2-0+20S	3	4000	.9	1.2	19	.38	3	<20	50
H2-0+30S	2	1300	.9	.7	9	.25	2	<20	40
H2-0+40S	2	2700	.9	1.0	14	.33	3	<20	60
H2-0+50S	<1	9500	1.5	2.2	38	.65	7	<20	70
H2-0+60S	1	2800	1.3	.8	18	.28	3	<20	70
H2-0+70S	<1	6100	1.3	1.5	23	.51	6	<20	80
H2-0+80S	1	2600	2.0	.7	13	.25	4	<20	100
H2-0+90S	4	8400	1.7	2.1	40	.65	9	<20	80
H2-1+00S	<1	4800	1.5	1.2	18	.36	6	<20	110
H2-1+10S	<1	9000	.8	1.9	37	.50	5	<20	30
H2-1+20S	1	1700	.8	.7	12	.23	3	<20	80
H2-1+30S	2	4700	1.1	1.7	29	.49	4	<20	70
H2-1+40S	1	2400	1.6	.7	14	.23	3	<20	130
H2-1+50S	1	1400	1.6	.7	10	.26	5	<20	230
H2-1+60S	<1	4600	1.5	1.3	24	.42	6	<20	190
H2-1+70S	2	6300	1.0	1.9	42	.64	7	<20	110
H2-1+80S	<1	1200	1.0	.7	12	.23	4	<20	150
H2-1+90S	<1	4000	.8	1.1	16	.37	3	<20	80
H2-2+00S	3	10000	.9	2.1	53	.65	5	<20	60
H2-0+00	2	1900	.8	.9	11	.29	3	<20	60
VC1-0+20S	1	400	.8	.3	6	.14	1	<20	40
VC1-0+40S	2	200	3.3	.2	4	1.14	3	<20	50
VC1-0+60S	1	400	1.4	.3	5	.14	1	<20	100
VC1-0+70S	1	200	1.8	.2	3	4.91	16	<20	170
VC1-0+80S	1	300	2.8	.2	3	.21	2	<20	130
VC1-0+90S	1	200	3.1	.2	3	1.41	3	<20	50
VC1-1+00S	2	400	2.5	.3	4	.16	1	<20	50
VC1-1+10S	2	200	3.1	.2	3	1.42	4	<20	50
VC1-1+20S	1	500	.9	.4	4	.16	1	<20	60
VC1-1+30S	1	300	3.2	.3	3	3.21	7	<20	90
VC1-1+40S	1	300	2.8	.3	5	1.01	3	<20	70
VC1-1+50S	1	200	3.3	.2	2	.43	2	<20	40
VC1-1+60S	2	400	2.8	.3	5	.24	2	<20	80
VC1-1+70S	1	300	3.1	.3	3	.20	1	<20	50

SAMPLE	AU PPB	NA PPM	CA %	SC PPM	CR PPM	FE %	CO PPM	NI PPM	ZN PPM
VC1-1+80S	1	300	3.4	.3	4	.98	9	<20	140
VC1-1+90S	<1	300	3.3	.2	2	.29	2	<20	50
VC1-2+00S	1	400	2.9	.4	4	.20	2	<20	60
VC1-2+20S	1	300	4.3	.2	2	.73	4	<20	60
VC1-2+40S	<1	400	3.1	.4	4	.54	3	<20	80
VC1-2+60S	1	300	3.2	.2	3	.76	2	<20	50
VC1-2+80S	3	200	3.1	.2	3	1.57	2	<20	40
VC1-3+00S	8	400	2.5	.3	5	.23	2	<20	70
VC1-3+20S	2	300	3.1	.3	4	.40	3	<20	40
VC1-3+40S	1	300	2.9	.3	3	.13	1	<20	40
VC1-3+60S	1	300	3.7	.2	3	.51	1	<20	90
VC1-3+70S	<1	200	3.8	.2	2	.63	3	<20	60
VC1-3+80S	2	500	2.6	.5	5	2.41	4	<20	60
VC1-3+90S	<1	200	4.3	.2	2	1.60	2	<20	60
VC1-4+00S	<1	300	3.9	.3	4	2.83	3	<20	80
VC1-4+10S	2	300	2.9	.2	3	.90	3	<20	80
VC1-4+20S	1	500	2.3	.5	5	.25	2	<20	50
VC1-4+30S	<1	400	2.7	.3	3	.50	4	<20	50
VC1-4+40S	1	300	2.0	.2	3	.42	2	<20	30
VC1-4+50S	<1	600	2.8	.5	6	.88	4	<20	50
VC1-4+60S	1	400	3.0	.4	4	.61	5	<20	90
VC1-4+80S	1	300	2.2	.2	5	.17	2	<20	70
VC1-5+00S	1	300	3.5	.3	3	.28	3	<20	70
VC1-5+20S	2	300	2.7	.2	4	1.31	5	<20	70
VC1-5+40S	1	300	2.8	.2	5	.90	5	<20	80
VC1-5+60S	1	300	3.0	.3	4	1.60	11	<20	100
VC1-0+00	4	1500	<.5	.7	10	.25	1	<20	40
VC2-3+10N	1	300	2.4	.5	4	.22	2	<20	30
VC2-2+70N	1	400	1.3	.5	5	.19	3	<20	60
VC2-2+50N	1	200	1.6	<.2	2	.12	1	<20	40
VC2-2+40N	<1	100	1.8	<.2	1	.16	1	<20	20
VC2-2+30N	<1	200	1.4	.2	2	.15	1	<20	60
VC2-2+20N	<1	100	1.3	.2	2	.19	1	<20	40
VC2-2+10N	1	200	1.7	.3	5	.33	7	<20	40
VC2-2+00N	<1	200	1.0	.3	3	.14	1	<20	30
VC2-1+90N	1	300	1.4	.4	4	.20	1	<20	40
VC2-1+80N	1	300	1.6	.5	4	.38	3	<20	40
VC2-1+70N	1	200	1.3	.3	3	.30	2	<20	20
VC2-1+60N	<1	400	1.4	.6	4	.31	2	<20	30
VC2-1+50N	1	200	1.6	.3	3	.33	2	<20	50
VC2-1+40N	<1	300	2.8	.3	3	.46	3	<20	40
VC2-1+30N	<1	300	2.4	.3	3	.36	1	<20	30
VC2-1+20N	1	300	2.2	.3	4	.18	2	<20	40
VC2-1+10N	<1	300	2.6	.3	2	.15	2	<20	50
VC2-1+00N	1	300	2.7	.2	2	.11	1	<20	20
VC2-0+90N	1	400	2.3	.4	4	.15	2	<20	50
VC2-0+80N	1	500	.6	.4	5	.17	1	<20	30
VC2-0+70N	2	1700	.5	.7	11	.26	1	<20	50
VC2-0+60N	2	600	.9	.4	6	.16	1	<20	110
VC2-0+40N	3	2800	<.5	1.1	25	.40	2	<20	60

SAMPLE	AU PPB	NA PPM	CA %	SC PPM	CR PPM	FE %	CO PPM	NI PPM	ZN PPM
VC2-0+20N	1	400	2.4	.4	5	.14	2	<20	60
VC2-0+00	4	5800	.7	1.2	40	.39	2	<20	30
VW1-1+10N	<1	9200	2.5	2.4	25	1.11	6	<20	70
VW1-0+80N	2	1400	<.5	.8	8	.27	1	<20	50
VW1-0+60N	<1	200	2.0	.2	2	.87	4	<20	40
VW1-0+50N	1	300	2.6	.3	4	.60	2	<20	60
VW1-0+40N	1	200	2.8	.2	2	.38	3	<20	60
VW1-0+30N	<1	300	3.1	.2	3	.68	3	<20	50
VW1-0+20N	<1	200	3.1	<.2	2	.21	1	<20	40
VW1-0+10N	1	200	3.1	.2	3	.69	3	<20	50
VW1-0+00	1	300	2.3	.2	2	.18	1	<20	40
VW1-0+10S	1	200	2.7	.2	4	.58	2	<20	50
VW1-0+20S	1	200	2.6	.2	3	.85	4	<20	40
VW1-0+30S	1	300	1.2	.3	3	.12	1	<20	40
VW1-0+40S	1	300	2.7	.3	4	.36	1	<20	30
VW1-0+50S	<1	300	2.6	.2	3	.44	2	<20	40
VW1-0+70S	1	300	2.8	.2	3	.20	1	<20	40
VW1-0+90S	1	300	2.4	.3	4	.26	1	<20	30
VW1-1+10S	2	300	2.0	.3	5	.41	3	<20	120
VW2-2+00N	1	1900	<.5	.7	9	.22	1	<20	40
VW2-1+80N	2	500	1.7	.5	5	.26	2	<20	100
VW2-1+60N	1	900	1.4	.5	6	.21	1	<20	30
VW2-1+50N	<1	2400	2.0	.7	10	.99	4	<20	50
VW2-1+40N	<1	14000	2.1	3.3	45	1.08	6	<20	50
VW2-1+30N	13	3700	1.8	1.3	17	.69	3	<20	50
VW2-1+20N	<1	7600	1.8	1.9	19	.72	4	<20	40
VW2-1+00N	1	800	2.1	.6	7	.45	3	<20	50
VW2-0+90N	3	1500	<.5	1.0	12	.34	2	<20	70
VW2-0+80N	2	1800	.7	.9	13	.32	2	<20	90
VW2-0+70N	4	1300	<.5	1.0	10	.36	1	<20	70
VW2-0+60N	3	1300	<.5	.9	10	.32	2	<20	60
VW2-0+50N	3	2100	.6	1.3	19	.44	2	<20	110
VW2-0+40N	3	1000	.9	.6	10	.25	1	<20	130
VW2-0+20N	1	5200	.5	1.8	32	.52	3	20	80
VE1-1+80N	<1	100	1.2	<.2	2	<.05	1	<20	160
VE1-1+60N	2	600	<.5	.5	6	.22	1	<20	60
VE1-1+50N	2	700	<.5	.6	6	.21	1	<20	80
VE1-1+40N	1	100	.6	<.2	2	<.05	1	<20	100
VE1-1+30N	2	400	.7	.3	5	.13	1	<20	80
VE1-1+20N	2	1100	<.5	.8	7	.29	2	<20	40
VE1-1+10N	2	500	<.5	.3	6	.14	1	<20	70
VE1-1+00N	2	2000	<.5	1.1	12	.40	2	<20	90
VE1-0+90N	2	2400	.6	.9	18	.33	2	<20	100
VE1-0+80N	3	1500	<.5	.7	10	.27	1	<20	60
VE1-0+60N	2	900	.6	.7	9	.26	2	<20	100
VE1-0+40N	3	700	.7	.4	7	.18	1	<20	100
VE1-0+20N	2	1700	<.5	.8	10	.28	2	<20	70
VE1-0+00	1	200	.7	<.2	3	.07	1	<20	140
VE2-0+20S	2	400	.6	.3	4	.14	1	<20	60
VE2-0+40S	<1	1500	1.2	1.1	10	.41	3	<20	30

SAMPLE	AU PPB	MA PPM	CA %	SC PPM	CR PPM	FE %	CO PPM	NI PPM	ZN PPM
VE2-0+60S	1	1300	.8	.7	8	.29	3	<20	40
VE2-0+80S	2	4900	1.2	2.2	24	.83	16	<20	30
VE2-0+90S	2	400	.5	.4	6	.17	1	<20	50
VE2-1+00S	1	2000	1.1	1.5	14	.65	15	<20	30
VE2-1+10S	2	500	.6	.6	7	.24	2	<20	80
VE2-1+20S	1	200	<.5	.2	4	.08	1	<20	60
VE2-1+30S	2	1600	.6	1.3	12	.71	7	<20	50
VE2-1+40S	<1	2700	.5	1.6	14	.69	7	<20	30
VE2-1+60S	<1	4100	.8	2.4	25	.94	8	<20	30
VE2-1+80S	2	700	<.5	.7	8	.30	2	<20	100
VE2-2+00S	2	2200	.7	1.1	15	.43	2	<20	80
VE2-2+20S	2	1300	<.5	1.4	10	.66	3	<20	40
VE2-2+40S	1	600	.5	.6	7	.27	2	<20	60
VE2-0+00	2	700	1.2	.9	8	.35	4	<20	30
VE3-0+20W	4	800	.5	.7	9	.31	3	<20	50
VE3-0+70E	1	3200	<.5	1.0	13	.37	2	<20	40
VW3-3+00N	3	1600	<.5	1.3	13	.39	2	<20	70
VW3-3+80N	1	1100	<.5	.7	8	.25	1	<20	70
VW3-3+60N	3	1700	<.5	.8	11	.25	1	<20	70
VW3-3+40N	1	1700	.5	.6	10	.20	1	<20	60
VW3-3+30N	1	1400	<.5	.8	10	.27	1	<20	70
VW3-3+20N	2	1700	<.5	.8	10	.29	1	<20	60
VW3-3+10N	2	1200	.8	.7	10	.27	1	<20	90
VW3-2+00N	2	1200	<.5	.7	7	.25	1	<20	80
VW3-1+90N	<1	1800	2.8	1.5	14	1.26	4	<20	20
VW3-1+80N	1	400	2.9	.5	5	.77	4	<20	40
VW3-1+70N	1	400	1.7	.3	3	.14	1	<20	30
VW3-1+60N	1	300	3.1	.3	4	.30	3	<20	40
VW3-1+50N	<1	300	2.5	<.2	2	.45	4	<20	80
VW3-1+40N	<1	200	2.9	<.2	2	.05	<1	<20	130
VW3-1+30N	4	300	1.6	.3	4	.32	2	<20	60
VW3-1+20N	2	5100	.5	1.2	26	.46	2	<20	50
VW3-1+10N	4	1200	<.5	.6	10	.23	1	<20	70
VW3-1+00N	3	2000	.6	.6	14	.24	2	<20	90
VW3-0+90N	1	2000	.5	.6	15	.24	1	<20	70
VW3-0+80N	1	3400	1.0	1.5	25	.46	3	<20	140
VW3-0+70N	3	1200	.5	1.9	22	.54	4	<20	80
VW3-0+60N	<1	500	1.9	.4	7	.16	1	<20	190
VW3-0+40N	6	500	2.1	.7	7	.51	3	<20	20
VW3-0+20N	3	3500	.5	1.2	24	.37	2	<20	80
VW3-0+00	4	2300	1.3	.8	14	.25	3	<20	200
VW1-1+00N	1	5800	.6	1.5	36	.48	2	<20	50
VW2-0+00	5	1500	.8	.8	16	.33	2	<20	80

SAMPLE	AS PPM	SE PPM	BR PPM	RB PPM	MO PPM	AG PPM	CD PPM	SB PPM	BA PPM
H1-0+10S	2	<2	6	20	.6	<2	<2	.6	300
H1-0+20S	3	<2	6	20	1.5	<2	<2	1.1	300
H1-0+30S	3	<2	7	<20	.8	<2	<2	.9	300
H1-0+40S	3	<2	7	20	.9	<2	<2	1.0	300
H1-0+50S	2	<2	6	20	<.5	<2	<2	.9	200
H1-0+60S	1	<2	7	<20	<.5	<2	<2	.5	200
H1-0+70S	2	<2	6	20	.6	<2	<2	.7	200
H1-0+80S	2	<2	7	<20	<.5	<2	<2	.5	100
H1-0+90S	1	<2	6	<20	<.5	<2	<2	.4	100
H1-1+00S	2	<2	6	<20	1.0	<2	<2	.8	300
H1-1+10S	3	<2	7	<20	<.5	<2	<2	.8	200
H1-1+20S	4	2	8	<20	.7	<2	<2	1.0	300
H1-1+30S	4	<2	8	<20	<.5	<2	<2	.8	300
H1-1+40S	4	<2	6	<20	<.5	<2	<2	.9	200
H1-0+00	1	<2	6	<20	<.5	<2	<2	.3	300
H2-0+10S	2	<2	6	<20	.5	<2	<2	.9	200
H2-0+20S	3	<2	10	<20	<.5	<2	<2	.8	400
H2-0+30S	3	<2	8	<20	.9	<2	<2	.9	100
H2-0+40S	3	<2	8	<20	<.5	<2	<2	1.0	200
H2-0+50S	3	<2	8	30	1.1	<2	<2	.8	500
H2-0+60S	2	<2	7	20	.5	<2	<2	.7	200
H2-0+70S	2	<2	9	20	<.5	<2	<2	.9	400
H2-0+80S	2	<2	7	20	<.5	<2	<2	.5	300
H2-0+90S	4	<2	7	40	.9	<2	<2	.9	900
H2-1+00S	2	<2	9	30	.6	<2	<2	.6	600
H2-1+10S	2	<2	4	30	<.5	<2	<2	.7	400
H2-1+20S	2	<2	5	<20	<.5	<2	<2	.7	200
H2-1+30S	4	<2	7	20	.5	<2	<2	1.2	400
H2-1+40S	2	<2	6	<20	1.2	<2	<2	.5	200
H2-1+50S	3	<2	9	<20	.8	<2	<2	.9	300
H2-1+60S	2	<2	6	20	.9	<2	<2	.7	500
H2-1+70S	4	<2	9	40	.8	<2	<2	1.2	600
H2-1+80S	1	<2	6	20	<.5	<2	<2	.6	300
H2-1+90S	3	<2	7	20	1.1	<2	<2	1.1	400
H2-2+00S	2	<2	6	20	<.5	<2	<2	.4	400
H2-0+00	4	<2	11	<20	.5	<2	<2	1.2	200
VC1-0+20S	4	<2	16	<20	.5	<2	<2	.5	<100
VC1-0+40S	4	<2	60	<20	.6	<2	<2	.4	<100
VC1-0+60S	4	<2	19	<20	<.5	<2	<2	.5	<100
VC1-0+70S	5	<2	18	<20	1.0	<2	<2	.4	200
VC1-0+80S	4	<2	19	<20	<.5	<2	<2	.8	100
VC1-0+90S	3	<2	34	<20	.5	<2	<2	.4	100
VC1-1+00S	3	<2	11	<20	<.5	<2	<2	.8	<100
VC1-1+10S	4	<2	44	<20	.8	<2	<2	.4	100
VC1-1+20S	4	<2	8	<20	<.5	<2	<2	1.1	100
VC1-1+30S	4	<2	34	<20	1.0	<2	<2	.3	700
VC1-1+40S	5	<2	39	<20	.6	<2	<2	.6	100
VC1-1+50S	1	<2	33	<20	<.5	<2	<2	.2	<100
VC1-1+60S	2	<2	25	<20	<.5	<2	<2	.7	<100
VC1-1+70S	2	<2	28	<20	<.5	<2	<2	.7	<100

SAMPLE	AS PPM	SE PPM	BR PPM	RB PPM	MO PPM	AG PPM	CD PPM	SB PPM	BA PPM
VC1-1+80S	12	<2	28	<20	.7	<2	<2	.6	300
VC1-1+90S	2	<2	40	<20	<.5	<2	<2	.4	<100
VC1-2+00S	4	<2	16	<20	<.5	<2	<2	.7	<100
VC1-2+20S	6	<2	52	<20	.6	<2	<2	.3	100
VC1-2+40S	4	<2	29	<20	<.5	<2	<2	.8	<100
VC1-2+60S	2	<2	40	<20	<.5	<2	<2	.4	<100
VC1-2+80S	4	<2	40	<20	<.5	<2	<2	.3	<100
VC1-3+00S	5	<2	20	<20	<.5	<2	<2	.9	<100
VC1-3+20S	3	<2	54	<20	.7	<2	<2	.6	<100
VC1-3+40S	5	<2	24	<20	.7	<2	<2	.6	<100
VC1-3+60S	3	<2	27	<20	.7	<2	<2	.4	100
VC1-3+70S	3	<2	44	<20	.6	<2	<2	.5	100
VC1-3+80S	9	<2	21	<20	.8	<2	<2	1.0	100
VC1-3+90S	6	2	46	<20	.7	<2	<2	.4	100
VC1-4+00S	7	<2	38	<20	<.5	<2	<2	.2	100
VC1-4+10S	5	<2	20	<20	.5	<2	<2	.5	<100
VC1-4+20S	5	<2	15	<20	<.5	<2	<2	1.6	<100
VC1-4+30S	3	<2	18	<20	<.5	<2	<2	.9	<100
VC1-4+40S	3	<2	17	<20	<.5	<2	<2	.6	<100
VC1-4+50S	4	<2	25	<20	.7	<2	<2	.4	100
VC1-4+60S	6	<2	21	<20	.5	<2	<2	.9	100
VC1-4+80S	2	<2	20	<20	<.5	<2	<2	.4	<100
VC1-5+00S	4	<2	36	<20	.9	<2	<2	.7	100
VC1-5+20S	6	<2	35	<20	.6	<2	<2	.5	100
VC1-5+40S	5	2	40	<20	.6	<2	<2	.4	100
VC1-5+60S	7	<2	39	<20	.9	<2	<2	.6	300
VC1-0+00	3	<2	6	<20	.5	<2	<2	.9	100
VC2-3+10N	2	<2	13	<20	<.5	<2	<2	.4	100
VC2-2+70N	4	<2	10	<20	.8	<2	<2	.6	<100
VC2-2+50N	1	<2	8	<20	.9	<2	<2	.3	<100
VC2-2+40N	1	<2	8	<20	.6	<2	<2	.2	<100
VC2-2+30N	1	<2	7	<20	1.1	<2	<2	.4	<100
VC2-2+20N	2	<2	13	<20	.8	<2	<2	.2	<100
VC2-2+10N	3	<2	11	<20	.5	<2	<2	.4	<100
VC2-2+00N	2	<2	11	<20	1.0	<2	<2	.5	<100
VC2-1+90N	2	<2	10	<20	.7	<2	<2	.6	<100
VC2-1+80N	3	<2	14	<20	.7	<2	<2	.6	100
VC2-1+70N	2	<2	8	<20	.8	<2	<2	.5	<100
VC2-1+60N	3	<2	12	<20	.7	<2	<2	.6	<100
VC2-1+50N	2	<2	10	<20	.9	<2	<2	.4	<100
VC2-1+40N	2	<2	15	<20	.5	<2	<2	.4	<100
VC2-1+30N	2	<2	15	<20	.6	<2	<2	.4	<100
VC2-1+20N	2	<2	12	<20	.9	<2	<2	.6	<100
VC2-1+10N	5	<2	12	<20	.8	<2	<2	.9	<100
VC2-1+00N	3	<2	18	<20	.8	<2	<2	.6	<100
VC2-0+90N	4	<2	12	<20	.7	<2	<2	.8	<100
VC2-0+80N	6	<2	10	<20	.6	<2	<2	1.0	100
VC2-0+70N	5	<2	6	<20	.6	<2	<2	1.3	100
VC2-0+60N	2	<2	10	<20	<.5	<2	<2	.7	100
VC2-0+40N	4	<2	5	<20	1.0	<2	<2	1.5	200

SAMPLE	AS PPM	SE PPM	BR PPM	RB PPM	MO PPM	AG PPM	CD PPM	SB PPM	BA PPM
VC2-0+20N	2	<2	10	<20	<.5	<2	<2	.5	100
VC2-0+00	3	<2	6	20	.5	<2	<2	1.0	200
VW1-1+10N	6	<2	17	20	<.5	<2	<2	.1	300
VW1-0+80N	6	<2	6	<20	.7	<2	<2	1.4	100
VW1-0+60N	5	<2	7	<20	<.5	<2	<2	.3	100
VW1-0+50N	4	<2	14	<20	<.5	<2	<2	.4	<100
VW1-0+40N	3	<2	16	<20	.7	<2	<2	.4	100
VW1-0+30N	11	<2	37	<20	.8	<2	<2	.6	200
VW1-0+20N	2	<2	26	<20	.6	<2	<2	.3	<100
VW1-0+10N	5	<2	30	<20	1.2	<2	<2	.4	100
VW1-0+00	3	<2	14	<20	.6	<2	<2	.6	<100
VW1-0+10S	4	<2	23	<20	<.5	<2	<2	.3	<100
VW1-0+20S	9	<2	36	<20	1.0	<2	<2	.4	100
VW1-0+30S	3	<2	7	<20	<.5	<2	<2	.7	<100
VW1-0+40S	4	<2	31	<20	.6	<2	<2	.5	<100
VW1-0+50S	6	<2	24	<20	<.5	<2	<2	.5	100
VW1-0+70S	2	<2	12	<20	.5	<2	<2	.4	<100
VW1-0+90S	5	<2	12	<20	<.5	<2	<2	.7	<100
VW1-1+10S	6	<2	14	<20	.9	<2	<2	.6	200
VW2-2+00N	6	<2	10	<20	<.5	<2	<2	.9	100
VW2-1+80N	6	<2	15	<20	1.0	<2	<2	1.0	100
VW2-1+60N	5	<2	14	<20	.6	<2	<2	1.0	<100
VW2-1+50N	4	<2	15	<20	.5	<2	<2	.2	100
VW2-1+40N	6	<2	14	30	1.0	<2	<2	.1	400
VW2-1+30N	4	<2	15	<20	.6	<2	<2	.3	100
VW2-1+20N	3	<2	14	<20	<.5	<2	<2	.1	200
VW2-1+00N	5	<2	15	<20	<.5	<2	<2	.7	100
VW2-0+90N	5	<2	7	<20	.5	<2	<2	1.8	200
VW2-0+80N	4	<2	10	<20	.7	<2	<2	1.3	200
VW2-0+70N	5	<2	8	<20	1.1	<2	<2	1.7	200
VW2-0+60N	5	<2	13	<20	1.0	<2	<2	1.6	100
VW2-0+50N	4	<2	8	<20	1.1	<2	<2	1.3	200
VW2-0+40N	3	<2	6	<20	.6	<2	<2	1.1	200
VW2-0+20N	3	<2	4	20	1.0	<2	<2	1.5	300
VE-1+80N	<1	<2	6	<20	<.5	<2	<2	.1	100
VE-1+60N	5	<2	9	<20	.9	<2	<2	1.2	100
VE-1+50N	4	<2	7	<20	<.5	<2	<2	1.2	100
VE-1+40N	<1	<2	7	<20	<.5	<2	<2	.1	<100
VE-1+30N	2	<2	10	<20	<.5	<2	<2	.5	100
VE-1+20N	4	<2	7	<20	<.5	<2	<2	1.1	100
VE-1+10N	3	<2	11	<20	<.5	<2	<2	.6	100
VE-1+00N	4	<2	10	<20	1.7	<2	<2	1.2	200
VE-0+90N	4	<2	9	20	.5	<2	<2	1.4	200
VE-0+80N	6	<2	10	<20	<.5	<2	<2	1.4	100
VE-0+60N	5	<2	10	<20	.5	<2	<2	1.4	200
VE-0+40N	3	<2	12	<20	.5	<2	<2	.9	200
VE-0+20N	5	<2	12	<20	<.5	<2	<2	1.3	100
VE-0+00	1	<2	9	<20	<.5	<2	<2	.2	100
VE2-0+20S	3	<2	9	<20	.9	<2	<2	.7	100
VE2-0+40S	4	<2	8	<20	.9	<2	<2	1.0	100

SAMPLE	AS PPM	SE PPM	BR PPM	RB PPM	MO PPM	AG PPM	CD PPM	SB PPM	BA PPM
VE2-0+60S	3	<2	8	<20	.8	<2	<2	.9	100
VE2-0+80S	4	<2	9	20	1.5	<2	<2	.8	200
VE2-0+90S	5	<2	10	<20	.5	<2	<2	.9	<100
VE2-1+00S	4	<2	10	<20	2.0	<2	<2	1.4	100
VE2-1+10S	5	<2	11	<20	1.0	<2	<2	1.1	100
VE2-1+20S	3	<2	12	<20	.6	<2	<2	.4	<100
VE2-1+30S	6	<2	16	<20	.7	<2	<2	.8	100
VE2-1+40S	4	<2	10	<20	.9	<2	<2	1.0	100
VE2-1+60S	3	<2	9	20	1.2	<2	<2	.5	200
VE2-1+80S	3	<2	8	<20	.7	<2	<2	1.2	100
VE2-2+00S	10	<2	12	<20	.6	<2	2	1.0	100
VE2-2+20S	4	<2	11	<20	<.5	<2	<2	.9	100
VE2-2+40S	5	<2	13	<20	<.5	<2	<2	1.0	100
VE2-0+00	3	<2	12	<20	<.5	<2	<2	.7	100
VE3-0+20W	6	<2	12	<20	.5	<2	<2	1.1	100
VE3-0+70E	4	<2	7	<20	.6	<2	<2	.8	200
VW3-3+00N	5	<2	7	<20	.6	<2	<2	2.1	200
VW3-3+80N	4	<2	6	<20	.5	<2	<2	1.4	200
VW3-3+60N	4	<2	5	<20	.9	<2	<2	1.8	200
VW3-3+40N	3	<2	11	<20	.6	<2	<2	.8	100
VW3-3+30N	5	<2	8	<20	1.2	<2	<2	1.5	100
VW3-3+20N	6	<2	11	<20	.6	<2	<2	1.5	200
VW3-3+10N	5	<2	11	<20	.6	<2	<2	1.2	200
VW3-2+00N	5	<2	9	<20	.5	<2	<2	1.4	200
VW3-1+90N	2	<2	17	<20	<.5	<2	<2	.3	100
VW3-1+80N	2	<2	16	<20	.9	<2	<2	.4	100
VW3-1+70N	5	<2	17	<20	.5	<2	<2	1.1	<100
VW3-1+60N	3	<2	38	<20	.7	<2	<2	.5	100
VW3-1+50N	3	<2	21	<20	.7	<2	<2	.3	200
VW3-1+40N	1	<2	8	<20	<.5	<2	<2	.1	<100
VW3-1+30N	3	<2	13	<20	<.5	<2	<2	.6	<100
VW3-1+20N	4	<2	6	20	1.3	<2	<2	1.2	200
VW3-1+10N	4	<2	9	<20	.5	<2	<2	.9	100
VW3-1+00N	2	<2	8	<20	.9	<2	<2	.8	100
VW3-0+90N	2	<2	8	<20	<.5	<2	<2	.8	100
VW3-0+80N	4	<2	6	<20	.9	<2	3	1.4	200
VW3-0+70N	6	<2	18	<20	1.0	<2	<2	1.4	100
VW3-0+60N	2	<2	10	<20	.5	<2	<2	.5	100
VW3-0+40N	4	<2	15	<20	<.5	<2	<2	1.0	100
VW3-0+20N	3	<2	6	<20	.6	<2	<2	1.4	300
VW3-0+00	2	<2	6	<20	<.5	<2	<2	.4	400
VW1-1+00N	5	<2	8	20	2.4	<2	<2	1.6	300
VW2-0+00	6	<2	11	<20	1.3	<2	<2	1.6	200

SAMPLE	LA PPM	CE PPM	SM PPM	TA PPM	W PPM	IR PPB	HG PPM	TH PPM	U PPM
H1-0+10S	5	7	.5	<.5	<1	<10	<.5	.7	.2
H1-0+20S	7	10	.7	<.5	<1	<10	<.5	1.0	.3
H1-0+30S	6	8	.6	<.5	<1	<10	<.5	.8	.3
H1-0+40S	8	11	.8	<.5	<1	<10	<.5	1.1	.4
H1-0+50S	7	8	.6	<.5	<1	<10	<.5	.8	.3
H1-0+60S	6	6	.5	<.5	<1	<10	<.5	.6	.2
H1-0+70S	7	7	.6	<.5	<1	<10	<.5	.7	.2
H1-0+80S	5	4	.4	<.5	<1	<10	<.5	.5	.1
H1-0+90S	3	3	.3	<.5	<1	<10	<.5	<.5	.1
H1-1+00S	7	9	.6	<.5	<1	<10	<.5	.7	.2
H1-1+10S	5	6	.5	<.5	<1	<10	<.5	.7	.3
H1-1+20S	6	9	.6	<.5	<1	<10	<.5	1.0	.3
H1-1+30S	4	6	.4	<.5	<1	<10	<.5	.5	.2
H1-1+40S	5	8	.5	<.5	<1	<10	<.5	1.0	.3
H1-0+00	3	5	.3	<.5	<1	<10	<.5	<.5	.1
H2-0+10S	7	9	.6	<.5	<1	<10	<.5	1.2	.4
H2-0+20S	8	8	.7	<.5	<1	<10	<.5	1.1	.4
H2-0+30S	5	6	.4	<.5	<1	<10	<.5	.7	.3
H2-0+40S	7	10	.7	<.5	<1	<10	<.5	1.1	.3
H2-0+50S	12	14	1.2	<.5	<1	<10	<.5	1.9	.5
H2-0+60S	6	8	.6	<.5	<1	<10	<.5	.9	.3
H2-0+70S	10	10	.8	<.5	<1	<10	<.5	1.2	.5
H2-0+80S	6	7	.6	<.5	<1	<10	<.5	.7	.2
H2-0+90S	14	18	1.2	<.5	1	<10	<.5	2.0	.5
H2-1+00S	9	9	.7	<.5	<1	<10	<.5	1.1	.3
H2-1+10S	12	14	1.1	<.5	<1	<10	<.5	1.9	.6
H2-1+20S	5	6	.4	<.5	<1	<10	<.5	.7	.3
H2-1+30S	11	12	1.0	<.5	<1	<10	<.5	1.7	.6
H2-1+40S	4	6	.4	<.5	<1	<10	<.5	.6	.2
H2-1+50S	7	9	.6	<.5	<1	<10	<.5	.7	.2
H2-1+60S	8	10	.7	<.5	<1	<10	<.5	1.1	.4
H2-1+70S	17	18	1.2	<.5	1	<10	<.5	1.7	.5
H2-1+80S	6	6	.4	<.5	<1	<10	<.5	.6	.2
H2-1+90S	7	9	.6	<.5	<1	<10	<.5	.9	.3
H2-2+00S	8	11	.8	<.5	1	<10	<.5	1.2	.3
H2-0+00	7	7	.6	<.5	1	<10	<.5	.8	.3
VC1-0+20S	2	3	.2	<.5	<1	<10	<.5	<.5	.1
VC1-0+40S	1	2	.1	<.5	<1	<10	<.5	<.5	.1
VC1-0+60S	2	4	.3	<.5	<1	<10	<.5	<.5	.1
VC1-0+70S	1	2	.2	<.5	<1	<10	<.5	<.5	.1
VC1-0+80S	2	3	.2	<.5	<1	<10	<.5	<.5	.1
VC1-0+90S	1	2	.2	<.5	<1	<10	<.5	<.5	.1
VC1-1+00S	2	4	.3	<.5	<1	<10	<.5	<.5	.1
VC1-1+10S	1	2	.2	<.5	<1	<10	<.5	<.5	.1
VC1-1+20S	2	4	.3	<.5	<1	<10	<.5	<.5	.2
VC1-1+30S	2	4	.3	<.5	<1	<10	<.5	<.5	.1
VC1-1+40S	2	3	.2	<.5	<1	<10	<.5	<.5	.1
VC1-1+50S	1	2	.1	<.5	<1	<10	<.5	<.5	.1
VC1-1+60S	2	4	.3	<.5	<1	<10	<.5	<.5	.1
VC1-1+70S	2	3	.2	<.5	<1	<10	<.5	<.5	.1

SAMPLE	LA PPM	CE PPM	SM PPM	TA PPM	W PPM	IR PPB	HG PPM	TH PPM	U PPM
VC1-1+80S	2	4	.3	<.5	<1	<10	<.5	<.5	.1
VC1-1+90S	1	3	.2	<.5	<1	<10	<.5	<.5	.1
VC1-2+00S	2	4	.3	<.5	<1	<10	<.5	.5	.1
VC1-2+20S	1	3	.2	<.5	<1	<10	<.5	<.5	.1
VC1-2+40S	2	4	.3	<.5	<1	<10	<.5	.5	.1
VC1-2+60S	1	2	.2	<.5	<1	<10	<.5	<.5	.1
VC1-2+80S	1	1	.1	<.5	<1	<10	<.5	<.5	.1
VC1-3+00S	2	4	.3	<.5	<1	<10	<.5	<.5	.2
VC1-3+20S	2	3	.2	<.5	<1	<10	<.5	<.5	.2
VC1-3+40S	2	3	.2	<.5	<1	<10	<.5	<.5	.1
VC1-3+60S	2	3	.3	<.5	<1	<10	<.5	<.5	.1
VC1-3+70S	1	2	.1	<.5	<1	<10	<.5	<.5	.1
VC1-3+80S	3	5	.3	<.5	<1	<10	<.5	.5	.2
VC1-3+90S	1	3	.2	<.5	<1	<10	<.5	<.5	.1
VC1-4+00S	2	4	.3	<.5	<1	<10	<.5	.5	.1
VC1-4+10S	1	3	.2	<.5	<1	<10	<.5	<.5	.1
VC1-4+20S	3	5	.4	<.5	<1	<10	<.5	.6	.3
VC1-4+30S	2	3	.3	<.5	<1	<10	<.5	<.5	.1
VC1-4+40S	1	3	.2	<.5	<1	<10	<.5	<.5	.1
VC1-4+50S	3	5	.4	<.5	<1	<10	<.5	.6	.2
VC1-4+60S	2	4	.3	<.5	<1	<10	<.5	.5	.2
VC1-4+80S	1	2	.2	<.5	<1	<10	<.5	<.5	.1
VC1-5+00S	2	3	.2	<.5	<1	<10	<.5	<.5	.1
VC1-5+20S	1	3	.2	<.5	<1	<10	<.5	<.5	.1
VC1-5+40S	1	3	.2	<.5	<1	<10	<.5	<.5	.1
VC1-5+60S	2	4	.2	<.5	<1	<10	<.5	<.5	.1
VC1-0+00	4	6	.4	<.5	<1	<10	<.5	.5	.2
VC2-3+10N	10	14	1.0	<.5	<1	<10	<.5	.5	.6
VC2-2+70N	3	6	.4	<.5	<1	<10	<.5	<.5	.3
VC2-2+50N	2	2	.2	<.5	<1	<10	<.5	<.5	.1
VC2-2+40N	1	2	.1	<.5	<1	<10	<.5	<.5	<.1
VC2-2+30N	1	2	.2	<.5	<1	<10	<.5	<.5	.1
VC2-2+20N	2	3	.2	<.5	<1	<10	<.5	<.5	.1
VC2-2+10N	2	5	.3	<.5	<1	<10	<.5	<.5	.1
VC2-2+00N	2	3	.2	<.5	<1	<10	<.5	<.5	.1
VC2-1+90N	4	6	.5	<.5	<1	<10	<.5	<.5	.2
VC2-1+80N	4	7	.5	<.5	<1	<10	<.5	<.5	.2
VC2-1+70N	3	4	.3	<.5	<1	<10	<.5	<.5	.1
VC2-1+60N	5	8	.5	<.5	<1	<10	<.5	<.5	.2
VC2-1+50N	2	3	.2	<.5	<1	<10	<.5	<.5	.1
VC2-1+40N	2	4	.3	<.5	<1	<10	<.5	<.5	.2
VC2-1+30N	2	3	.3	<.5	<1	<10	<.5	<.5	.2
VC2-1+20N	2	3	.2	<.5	<1	<10	<.5	<.5	.1
VC2-1+10N	2	3	.2	<.5	<1	<10	<.5	<.5	.1
VC2-1+00N	1	2	.2	<.5	<1	<10	<.5	<.5	<.1
VC2-0+90N	3	4	.4	<.5	<1	<10	<.5	<.5	.1
VC2-0+80N	3	4	.3	<.5	<1	<10	<.5	.5	.1
VC2-0+70N	4	6	.4	<.5	<1	<10	<.5	.7	.2
VC2-0+60N	2	4	.3	<.5	<1	<10	<.5	<.5	.1
VC2-0+40N	6	10	.7	<.5	<1	<10	<.5	1.0	.4

SAMPLE	LA PPM	CE PPM	SM PPM	TA PPM	W PPM	IR PPB	HG PPM	TH PPM	U PPM
VC2-0+20N	4	4	.4	<.5	<1	<10	<.5	<.5	.2
VC2-0+00	7	11	.8	<.5	<1	<10	<.5	1.3	.4
VW1-1+10N	12	18	1.4	<.5	<1	<10	<.5	1.4	.6
VW1-0+80N	4	8	.5	<.5	<1	<10	<.5	.8	.2
VW1-0+60N	1	2	.2	<.5	<1	<10	<.5	<.5	.1
VW1-0+50N	2	3	.2	<.5	<1	<10	<.5	<.5	.1
VW1-0+40N	1	2	.1	<.5	<1	<10	<.5	<.5	.1
VW1-0+30N	1	2	.2	<.5	<1	<10	<.5	<.5	.2
VW1-0+20N	1	1	.1	<.5	<1	<10	<.5	<.5	.1
VW1-0+10N	1	2	.2	<.5	<1	<10	<.5	<.5	.1
VW1-0+00	1	3	.2	<.5	<1	<10	<.5	<.5	.1
VW1-0+10S	1	2	.2	<.5	<1	<10	<.5	<.5	.1
VW1-0+20S	1	3	.2	<.5	<1	<10	<.5	<.5	.2
VW1-0+30S	2	2	.2	<.5	<1	<10	<.5	<.5	.1
VW1-0+40S	2	3	.2	<.5	<1	<10	<.5	<.5	.2
VW1-0+50S	2	3	.3	<.5	<1	<10	<.5	<.5	.4
VW1-0+70S	2	3	.2	<.5	<1	<10	<.5	<.5	.1
VW1-0+90S	2	3	.3	<.5	<1	<10	<.5	<.5	.2
VW1-1+10S	2	4	.2	<.5	<1	<10	<.5	<.5	.2
VW2-2+00N	3	6	.4	<.5	<1	<10	<.5	.6	.2
VW2-1+80N	3	5	.3	<.5	<1	<10	<.5	.6	.2
VW2-1+60N	3	5	.4	<.5	<1	<10	<.5	.5	.2
VW2-1+50N	4	7	.6	<.5	<1	<10	<.5	.5	.2
VW2-1+40N	16	19	2.1	<.5	<1	<10	<.5	2.2	.6
VW2-1+30N	6	11	1.0	<.5	<1	<10	<.5	.9	.3
VW2-1+20N	9	16	1.3	<.5	<1	<10	<.5	1.3	.5
VW2-1+00N	3	6	.5	<.5	<1	<10	<.5	.5	.3
VW2-0+90N	6	9	.7	<.5	<1	<10	<.5	1.1	.4
VW2-0+80N	5	7	.6	<.5	<1	<10	<.5	.7	.3
VW2-0+70N	5	9	.7	<.5	<1	<10	<.5	.9	.4
VW2-0+60N	4	8	.6	<.5	<1	<10	<.5	.8	.4
VW2-0+50N	5	8	.7	<.5	<1	<10	<.5	.8	.3
VW2-0+40N	3	5	.4	<.5	<1	<10	<.5	.6	.2
VW2-0+20N	7	12	.9	<.5	<1	<10	<.5	1.3	.6
VE-1+80N	<1	1	.1	<.5	<1	<10	<.5	<.5	<.1
VE-1+60N	4	6	.5	<.5	<1	<10	<.5	.5	.2
VE-1+50N	3	5	.4	<.5	<1	<10	<.5	.6	.2
VE-1+40N	<1	1	.1	<.5	<1	<10	<.5	<.5	<.1
VE-1+30N	2	3	.2	<.5	<1	<10	<.5	<.5	.1
VE-1+20N	5	8	.6	<.5	<1	<10	<.5	.7	.3
VE-1+10N	2	3	.2	<.5	<1	<10	<.5	<.5	.2
VE-1+00N	6	10	.8	<.5	<1	<10	<.5	.8	.5
VE-0+90N	5	8	.7	<.5	<1	<10	<.5	.9	.4
VE-0+80N	5	8	.6	<.5	<1	<10	<.5	.8	.3
VE-0+60N	4	7	.5	<.5	<1	<10	<.5	.7	.3
VE-0+40N	3	5	.4	<.5	<1	<10	<.5	<.5	.2
VE-0+20N	5	8	.7	<.5	1	<10	<.5	.8	.3
VE-0+00	1	2	.1	<.5	<1	<10	<.5	<.5	.1
VE2-0+20S	2	4	.3	<.5	<1	<10	<.5	<.5	.1
VE2-0+40S	10	17	1.2	<.5	<1	<10	<.5	1.1	.7

SAMPLE	LA PPM	CE PPM	SM PPM	TA PPM	W PPM	IR PPB	HG PPM	TH PPM	U PPM
VE2-0+60S	8	13	1.0	<.5	<1	<10	<.5	.6	.4
VE2-0+80S	15	30	2.0	.5	<1	<10	<.5	2.1	1.4
VE2-0+90S	3	6	.4	<.5	<1	<10	<.5	<.5	.2
VE2-1+00S	13	25	1.6	<.5	<1	<10	<.5	1.4	1.0
VE2-1+10S	5	9	.6	<.5	<1	<10	<.5	.5	.3
VE2-1+20S	1	2	.1	<.5	<1	<10	<.5	<.5	.1
VE2-1+30S	13	23	1.7	<.5	<1	<10	<.5	1.1	.5
VE2-1+40S	14	24	1.7	<.5	<1	<10	<.5	1.6	.6
VE2-1+60S	17	29	2.1	<.5	<1	<10	<.5	2.1	.9
VE2-1+80S	5	9	.7	<.5	<1	<10	<.5	.7	.3
VE2-2+00S	6	10	.8	<.5	<1	<10	<.5	1.2	.4
VE2-2+20S	9	16	1.1	<.5	<1	<10	<.5	1.0	.4
VE2-2+40S	4	7	.5	<.5	<1	<10	<.5	.5	.2
VE2-0+00	11	20	1.4	<.5	<1	<10	<.5	.9	1.4
VE3-0+20W	5	10	.7	<.5	<1	<10	<.5	.8	.3
VE3-0+70E	5	10	.7	<.5	<1	<10	<.5	.8	.4
VW3-3+00N	6	9	.7	<.5	<1	<10	<.5	1.1	.5
VW3-3+80N	7	9	.7	<.5	<1	<10	<.5	.8	.3
VW3-3+60N	5	8	.6	<.5	<1	<10	<.5	.8	.3
VW3-3+40N	3	5	.4	<.5	<1	<10	<.5	.5	.2
VW3-3+30N	5	9	.6	<.5	<1	<10	<.5	.9	.4
VW3-3+20N	5	8	.6	<.5	<1	<10	<.5	.8	.4
VW3-3+10N	4	6	.5	<.5	<1	<10	<.5	.7	.3
VW3-2+00N	4	7	.5	<.5	<1	<10	<.5	.8	.3
VW3-1+90N	10	20	1.6	<.5	<1	<10	<.5	1.1	.8
VW3-1+80N	4	7	.6	<.5	<1	<10	<.5	.5	.3
VW3-1+70N	2	4	.3	<.5	<1	<10	<.5	.5	.1
VW3-1+60N	2	4	.3	<.5	<1	<10	<.5	<.5	.2
VW3-1+50N	1	2	.2	<.5	<1	<10	<.5	<.5	.1
VW3-1+40N	1	1	.1	<.5	<1	<10	<.5	<.5	.1
VW3-1+30N	2	3	.2	<.5	<1	<10	<.5	<.5	.4
VW3-1+20N	6	9	.7	<.5	<1	<10	<.5	1.1	.3
VW3-1+10N	3	6	.4	<.5	<1	<10	<.5	.5	.2
VW3-1+00N	3	6	.4	<.5	<1	<10	<.5	.6	.3
VW3-0+90N	3	5	.4	<.5	<1	<10	<.5	.5	.2
VW3-0+80N	6	11	.8	<.5	<1	<10	<.5	1.2	.5
VW3-0+70N	4	7	.6	<.5	<1	<10	<.5	.8	.3
VW3-0+60N	2	4	.3	<.5	<1	<10	<.5	<.5	.2
VW3-0+40N	5	8	1.0	<.5	<1	<10	<.5	.6	.2
VW3-0+20N	6	10	.7	<.5	<1	<10	<.5	1.3	.5
VW3-0+00	3	6	.4	<.5	<1	<10	<.5	.5	.2
VW1-1+00N	7	13	.9	<.5	<1	<10	<.5	1.3	.5
VW2-0+00	4	7	.5	<.5	1	<10	<.5	.7	.3

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Total Pages 6

53 LAKE SEDIMENTS

	METHOD	DETECTION LIMIT
AU PPB	NA	5.
NA PPM	NA	500.
CA %	NA	1.
SC PPM	NA	.1
CR PPM	NA	10.
FE %	NA	.1
CO PPM	NA	5.
NI PPM	NA	100.
ZN PPM	NA	50.
AS PPM	NA	2.
SE PPM	NA	5.
BR PPM	NA	1.
RB PPM	NA	30.
SR PPM	NA	500.
MO PPM	NA	5.
AG PPM	NA	5.
SB PPM	NA	.2
CS PPM	NA	3.
BA PPM	NA	100.
LA PPM	NA	1.
CE PPM	NA	3.
ND PPM	NA	10.
SM PPM	NA	.5
EU PPM	NA	.2
TB PPM	NA	.5

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DATE 12-NOV-92

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Jean H.L. Opdebeeck, General Manager

XRAL

NOTE: As per our list of upper limits in our current schedule of services, some of the results are outside the applicable analytical range. Please contact us should you require assays.

X-RAY ASSAY LABORATORIES 1885 Leslie Street Don Mills Ontario M3B 3J4 (416)445-5755 Fax (416)445-4152 Tlx 06-986947
Member of the SGS Group (Société Générale de Surveillance)

SAMPLE	AU PPB	NA PPM	CA %	SC PPM	CR PPM	FE %	CO PPM	NI PPM	ZN PPM
HL-1	<5	16000	<1	8.7	90	2.9	15	<100	80
HL-2	<5	16000	1	8.7	90	2.9	15	<100	90
HL-3	<5	17000	2	8.8	90	3.0	16	<100	80
HL-4	<5	17000	2	9.2	90	3.0	16	<100	80
HL-5	<5	17000	2	8.7	90	2.7	15	<100	70
HL-6	<5	16000	2	8.6	90	2.8	15	<100	70
HL-7	<5	23000	2	5.3	40	1.2	6	<100	<50
HL-8	<5	22000	2	5.4	40	1.1	7	<100	<50
HL-9	<5	15000	2	6.1	60	1.4	8	<100	60
HL-10	<5	18000	1	6.6	60	1.5	9	<100	<50
HL-11	<5	19000	1	5.0	40	1.0	6	<100	<50
HL-12	<5	22000	1	6.2	50	1.3	7	<100	50
HL-13	<5	20000	1	6.3	50	1.3	7	<100	<50
HL-14	<5	15000	1	6.2	50	1.4	9	<100	<50
HL-15	<5	12000	1	6.5	50	1.5	8	<100	60
HL-16	<5	5100	4	3.8	30	1.1	6	<100	<50
HL-17	<5	9400	1	5.5	40	1.4	8	100	70
HL-18	<5	21000	2	8.5	70	1.8	13	<100	50
HL-19	<5	21000	2	8.7	60	2.1	13	<100	60
HL-20	<5	21000	1	8.1	60	1.9	14	<100	60
HL-21	<5	20000	2	8.5	60	2.0	13	<100	80
HL-22	<5	20000	1	8.8	70	2.2	12	<100	70
HL-23	<5	23000	2	7.7	50	1.5	10	<100	<50
HL-24	<5	18000	1	8.0	60	2.2	11	<100	50
HL-25	<5	18000	3	7.6	70	1.9	10	<100	<50
HL-26	<5	19000	2	9.6	80	2.6	14	<100	60
HL-27	<5	20000	3	9.5	70	2.6	16	<100	70
HL-28	<5	19000	1	9.2	70	2.5	13	<100	50
HL-29	<5	19000	<1	9.0	70	2.4	15	<100	70
HL-30	<5	19000	2	9.0	70	2.4	14	<100	60
HL-31	<5	20000	1	9.1	70	2.4	13	<100	<50
HL-32	<5	20000	2	8.7	70	2.2	13	<100	70
HL-33	8	18000	1	7.0	50	1.5	9	<100	<50
HL-34	<5	18000	2	6.9	50	1.5	9	<100	<50
HL-35	<5	21000	2	8.0	60	1.7	11	<100	60
HL-36	<5	20000	1	9.0	70	2.3	14	<100	70
HL-37	<5	20000	<1	8.9	70	2.1	12	<100	50
HL-38	8	20000	<1	8.3	60	2.1	11	<100	<50
HL-39	<5	19000	1	7.7	60	1.7	10	<100	50
HL-40	<5	20000	1	8.1	60	1.9	13	<100	60
HL-41	<5	18000	1	9.1	80	2.6	13	<100	100
HL-42	<5	20000	1	8.5	70	2.2	12	<100	70
HL-43	<5	19000	1	8.1	70	2.1	12	<100	50
HL-44	<5	19000	1	8.9	80	2.3	14	<100	60
HL-45	<5	18000	1	8.4	70	2.3	16	<100	50
HL-46	<5	19000	2	9.3	80	2.4	14	<100	90
HL-47	<5	15000	1	7.5	60	1.9	11	<100	<50
HL-48	<5	14000	2	7.4	60	1.9	12	<100	70
HL-49	<5	9500	2	5.1	40	1.5	11	<100	<50
HL-50	<5	8200	2	4.3	40	1.4	8	<100	50

SAMPLE	AU PPB	NA PPM	CA %	SC PPM	CR PPM	FE %	CO PPM	NI PPM	ZN PPM
HL-51	<5	11000	2	5.8	50	1.6	10	<100	50
HL-52	<5	10000	2	5.2	40	1.4	8	<100	60
HL-53	<5	10000	3	5.3	40	1.4	8	<100	70

SAMPLE	AS PPM	SE PPM	BR PPM	RB PPM	SR PPM	MO PPM	AG PPM	SB PPM
HL-1	6	<5	8	70	<500	6	<5	.5
HL-2	4	<5	8	70	<500	<5	<5	.5
HL-3	3	<5	8	70	<500	<5	<5	.4
HL-4	4	<5	9	40	<500	<5	<5	<.2
HL-5	3	<5	8	40	<500	<5	<5	.4
HL-6	2	<5	7	40	<500	<5	<5	.5
HL-7	<2	<5	2	60	<500	<5	<5	.2
HL-8	<2	<5	3	70	<500	<5	<5	<.2
HL-9	2	<5	16	30	<500	<5	<5	.3
HL-10	<2	<5	15	<30	<500	<5	<5	<.2
HL-11	<2	<5	3	60	<500	<5	<5	<.2
HL-12	<2	<5	3	70	<500	<5	<5	<.2
HL-13	<2	<5	8	60	<500	<5	<5	.3
HL-14	2	<5	22	50	<500	<5	<5	.5
HL-15	3	<5	24	<30	<500	<5	<5	<.2
HL-16	5	<5	23	30	<500	<5	<5	.2
HL-17	4	<5	32	60	<500	<5	<5	.5
HL-18	4	<5	5	40	<500	<5	<5	<.2
HL-19	3	<5	6	70	<500	<5	<5	<.2
HL-20	5	<5	6	30	<500	<5	<5	.3
HL-21	4	<5	6	50	<500	<5	<5	.2
HL-22	3	<5	6	60	<500	<5	<5	.3
HL-23	3	<5	2	40	<500	<5	<5	<.2
HL-24	3	<5	7	30	<500	<5	<5	.3
HL-25	2	<5	7	<30	<500	<5	<5	.3
HL-26	4	<5	8	80	<500	<5	<5	.2
HL-27	3	<5	8	70	<500	<5	<5	<.2
HL-28	4	<5	8	40	<500	<5	<5	.3
HL-29	2	<5	7	60	<500	<5	<5	<.2
HL-30	4	<5	6	40	<500	<5	<5	.3
HL-31	2	<5	8	60	<500	<5	<5	<.2
HL-32	4	<5	7	50	<500	<5	<5	.2
HL-33	2	<5	6	80	<500	<5	<5	.3
HL-34	2	<5	5	40	<500	<5	<5	.2
HL-35	<2	<5	3	70	<500	<5	<5	.3
HL-36	2	<5	3	90	<500	<5	<5	<.2
HL-37	2	<5	2	80	<500	<5	<5	.3
HL-38	2	<5	4	60	<500	<5	<5	<.2
HL-39	<2	<5	5	80	<500	<5	<5	.3
HL-40	3	<5	6	80	<500	<5	<5	.4
HL-41	3	<5	9	70	<500	<5	<5	.3
HL-42	3	<5	7	70	<500	<5	<5	.2
HL-43	4	<5	6	70	<500	<5	<5	.2
HL-44	5	<5	11	50	<500	<5	<5	.3
HL-45	6	<5	10	50	<500	<5	<5	<.2
HL-46	3	<5	8	50	<500	<5	<5	<.2
HL-47	2	<5	16	40	<500	<5	<5	.4
HL-48	<2	<5	16	60	<500	<5	<5	.2
HL-49	3	<5	24	50	<500	<5	<5	.4
HL-50	3	<5	24	<30	<500	<5	<5	.3

SAMPLE	AS PPM	SE PPM	BR PPM	RB PPM	SR PPM	MO PPM	AG PPM	SB PPM
HL-51	4	<5	26	30	<500	<5	<5	1.9
HL-52	2	<5	19	<30	<500	<5	<5	.3
HL-53	2	<5	20	40	<500	<5	<5	.4

SAMPLE	CS PPM	BA PPM	LA PPM	CE PPM	ND PPM	SM PPM	EU PPM	TB PPM
HL-1	<3	600	27	50	20	3.9	1.2	<.5
HL-2	<3	500	26	51	20	3.8	1.0	<.5
HL-3	<3	600	27	53	20	3.9	1.3	<.5
HL-4	<3	600	27	49	20	3.9	.8	<.5
HL-5	3	600	26	50	20	3.7	1.1	<.5
HL-6	3	600	25	52	20	3.7	1.1	<.5
HL-7	<3	700	10	21	10	1.8	.8	<.5
HL-8	<3	500	12	23	10	1.9	.8	<.5
HL-9	3	500	17	33	10	2.5	.7	<.5
HL-10	<3	500	18	36	20	2.7	.5	<.5
HL-11	<3	500	14	28	10	1.8	.8	<.5
HL-12	<3	500	14	28	10	2.2	.6	<.5
HL-13	<3	500	15	29	10	2.4	.5	<.5
HL-14	<3	500	19	36	20	2.8	.7	<.5
HL-15	<3	400	20	40	20	3.0	.7	<.5
HL-16	<3	300	16	31	10	2.3	.7	<.5
HL-17	<3	400	19	35	20	2.7	.7	<.5
HL-18	<3	700	24	46	20	3.6	1.1	<.5
HL-19	<3	600	25	49	20	3.9	1.2	<.5
HL-20	<3	600	24	47	20	3.7	1.0	<.5
HL-21	<3	500	25	48	20	3.8	1.0	<.5
HL-22	<3	600	26	48	20	3.9	1.0	<.5
HL-23	<3	600	21	41	20	3.4	1.0	<.5
HL-24	<3	700	22	42	20	3.3	.7	<.5
HL-25	<3	500	21	43	20	3.3	.6	<.5
HL-26	<3	600	29	57	20	4.4	1.1	<.5
HL-27	<3	600	30	57	20	4.4	1.1	<.5
HL-28	<3	500	29	56	20	4.2	.9	<.5
HL-29	<3	600	29	55	20	4.2	1.3	<.5
HL-30	<3	600	27	53	20	4.0	1.0	<.5
HL-31	<3	600	28	53	20	4.1	1.2	<.5
HL-32	<3	600	26	51	20	4.0	1.0	<.5
HL-33	<3	600	19	37	20	2.9	.8	<.5
HL-34	<3	700	19	36	10	2.8	.8	<.5
HL-35	<3	700	23	45	20	3.4	1.0	<.5
HL-36	<3	600	29	54	20	4.2	1.0	<.5
HL-37	<3	700	28	53	20	4.0	1.2	<.5
HL-38	<3	700	26	50	20	3.8	.7	<.5
HL-39	<3	700	22	42	20	3.2	.4	<.5
HL-40	<3	600	23	45	20	3.6	.9	<.5
HL-41	<3	700	27	51	20	3.9	1.0	<.5
HL-42	<3	500	24	48	20	3.6	.9	<.5
HL-43	<3	700	23	49	20	3.5	.7	<.5
HL-44	<3	500	26	51	20	4.1	1.2	<.5
HL-45	<3	600	26	51	20	4.0	.9	<.5
HL-46	<3	600	28	54	20	4.2	1.2	<.5
HL-47	<3	500	24	47	20	3.5	1.0	<.5
HL-48	<3	500	23	48	20	3.5	.9	<.5
HL-49	<3	300	20	39	20	2.9	.6	<.5
HL-50	<3	400	20	40	20	2.7	.6	<.5

SAMPLE	CS PPM	BA PPM	LA PPM	CE PPM	ND PPM	SM PPM	EU PPM	TB PPM
HL-51	<3	400	19	38	10	2.9	.5	<.5
HL-52	<3	500	19	38	10	2.7	.8	<.5
HL-53	<3	300	19	37	20	2.8	.8	<.5

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Scientific Services (Pty.) Ltd. (Reg. No. 78/00191/07)

CONSULTING ANALYTICAL LABORATORIES

Report

On the Diamond Potential of
Samples Submitted Under Order Number OR/17-09/2

Prepared for:

Orex Laboratories Limited
18187 - 60 th Avenue
Surrey, B.C.
Canada V3S 1V7

20 October 1992

Introduction

This document reports on a suite of four pre-concentrated samples submitted under cover of order number OR/17-09. Samples were received and processed in our laboratory in September and October 1992, respectively.

Laboratory Procedure

The initial weights of the concentrate samples are recorded on their arrival at the laboratory. The visual assessment of the non-magnetic portion of the concentrate is undertaken by a highly experienced analyst to select a representative suite of kimberlitic indicator minerals for electron microprobe analyses. A Cambridge Zoom 2000 Stero microscope is used in this procedure. The concentrate is fed from a storage funnel onto a conveyor belt which is manually operated by the assessor. The use of this equipment ensures that every grain in the concentrate passes through the field of view of the microscope.

Details of sample weights are given in Table 1, attached.

Note that **ALL** of the samples were found to be barren of kimberlitic indicator minerals.

OREX LABORATORIES LTD #OR1709/2

SAMPLE	CONCENTRATE WT
HD-1	24.97
HD-2	24.97
HD-3	25.05
HD-4	24.98

TABLE 1

Breakdown of Sample Concentrate Weights

Preliminary **M I N E R A L O G I C A L R E P O R T**

On the Diamond Potential of Pre-Concentrated Samples Submitted Under Order Number OR/05-11

Prepared for:

Orex Laboratories Limited
16187 - 60 th Avenue
Surrey, B.C.
Canada V3S 1V7

18 November 1992

Introduction

This report documents a suite of 4 pre-concentrated samples submitted under order number OR/05-11. The samples were received and processed in our laboratory in November 1992.

Laboratory Procedure

The initial weights of the concentrates are recorded on their arrival at the laboratory. The concentrate is then sieved into four size fractions (-1000, -710, -425 and -300 microns) and examined by an experienced analyst under a binocular microscope to recover any (up to 30 grains per species per sample) kimberlitic indicator minerals that may be present. Details of sample weights and indicators recovered are given in Tables 1 and 2, respectively.

Table 1: Breakdown of Sample Weights

Sample	Weight (g)
WRT 92.2.1	25.00
WRT 92.2.2	24.96
WRT 92.2.3	25.03
WRT 92.2.4	25.03

Table 2: Breakdown of Indicators Recovered

Sample	Fraction	Gar	Ilm	Chr	CrDi
WRT 92.2.3	425	1			

Samples not listed in Table 2 are barren of kimberlitic indicators.

NOTE: Follow up on 92-2-3 proved Garnet not of kimberlite origin
No report required
WRT

CERTIFICATE OF QUALIFICATIONS

I, William, R. Troup, of Mississauga, Ontario hereby certify and declare the following:

1. I am a Consulting Geologist and President of Alcanex Ltd., a service company providing geological services and project management to the mineral exploration industry.

2. I graduated from the University of Waterloo with an MSc. degree in Geology in 1975.

3. I have been practicing my profession for the past 19 years.

4. I am a fellow in the Geological Association of Canada.

5. I was personally involved in the geological mapping and geochemical sampling described in this report.

6. The report is based on my field work and a review of government geological and geophysical maps and reports for the area, and additional data available in the Ontario Gov"t assessment files.

Toronto, Ontario
November 5, 1992

William R. Troup
Consulting Geologist

William R Troup

Statement of Qualifications

I, Barry C. Otton, residing at 155 Glencairn Avenue, Toronto, Ontario, M4R-1N1, do hereby certify that:

1. I am a graduate of The University of Western Ontario, London, Ontario, with an Honour's B.Sc. degree in Geology (1983).

2. I am a member of the Geological Association of Canada and of the Prospectors and Developers Association.

3. I have been employed in mineral exploration since 1983 of which 3 years has been as a project geologist, working in Ontario, Québec, Northwest Territories and Saskatchewan.

January 25, 1993

Barry Otton

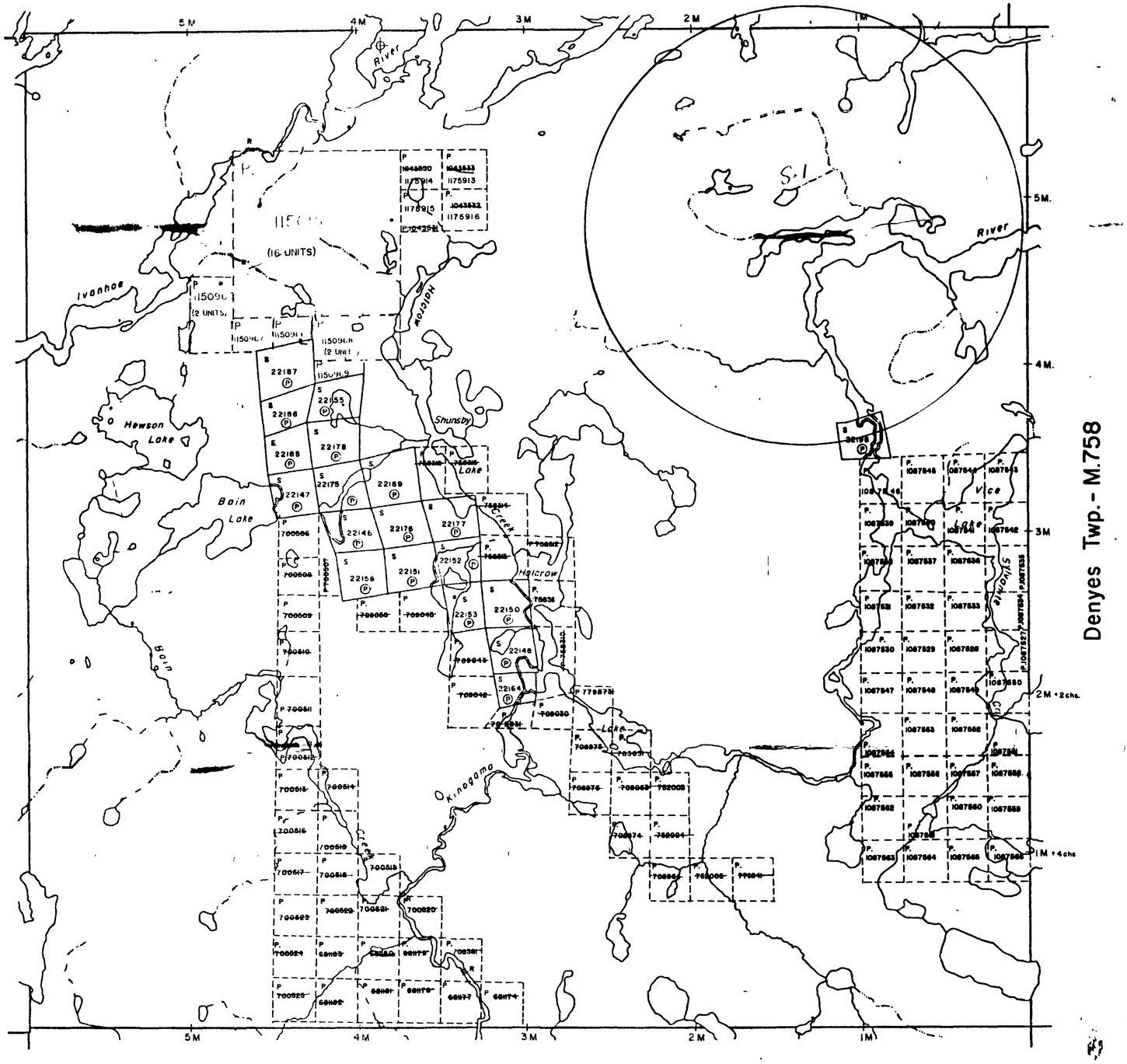
Barry Otton

Crockett Twp. - M.740

Lackner Twp. - M.975

Denyes Twp. - M.758

Tooms Twp. - M.1159



THE TOWNSHIP
OF

HALCROW

DISTRICT OF
SUDBURY

SUDBURY
MINING DIVISION

SCALE: 1-INCH = 40 CHAINS

LEGEND

PATENTED LAND	P
CROWN LAND SALE	C.S.
LEASES	L
LOCATED LAND	Loc.
LICENSE OF OCCUPATION	L.O.
MINING RIGHTS ONLY	M.R.O.
SURFACE RIGHTS ONLY	S.R.O.
ROADS	
IMPROVED ROADS	
KING'S HIGHWAYS	
RAILWAYS	
POWER LINES	
MARSH OR MUSKEG	
MINES	
CANCELLED	C.

REMOTE TOURIST CAMPS

NOTES

400' Surface Rights Reservation around all lakes and rivers

THE INFORMATION THAT APPEARS ON THIS MAP HAS BEEN COMPILED FROM VARIOUS SOURCES, AND ACCURACY IS NOT GUARANTEED. THOSE WISHING TO STAKE MINING CLAIMS SHOULD CONSULT WITH THE MINING RECORDER, MINISTRY OF NORTHERN DEVELOPMENT AND MINES, FOR ADDITIONAL INFORMATION ON THE STATUS OF THE LANDS SHOWN HEREON.

IN SERVICE EFFECTIVE OCT. 19 1989 CHECKED BY D. CHOLETTE

PLAN NO. M.906

DEPARTMENT OF MINES

— ONTARIO —

OSWALD TWP. (M-1042)

FOLEYET TWP. (M-812)

REEVES TWP. (M-1074)

KEITH TWP. (M-962)

THE TOWNSHIP OF

MUSKEGO

DISTRICT OF SUDBURY

PORCUPINE MINING DIVISION

SCALE: 1 INCH = 40 CHAINS

LEGEND

PATENTED LAND	(P)
CROWN LAND SALE	C.S.
LEASES	(L)
LOCATED LAND	Loc
LICENSE OF OCCUPATION	L.O.
MINING RIGHTS ONLY	M.R.O.
SURFACE RIGHTS ONLY	S.R.O.
ROADS	
IMPROVED ROADS	
KING'S HIGHWAYS	
RAILWAYS	
POWER LINES	
MARSH OR MUSKEG	
MINES CANCELLED	C.
LAND USE PLAN	
REMOTE TOURIST CAMPS	

NOTES

400' surface rights reservation around the shores of all lakes and rivers

Subdivision of this township into lots and concessions was annulled march 9, 1962

SAND AND GRAVEL

- M.T.C. Gravel Reserve OCT. 10, 1978
- (62) D.H.O. Pit 1083 (M.T.C.)
- (63) D.T.C. Pit 303 (M.T.C.)
- (64) D.H.O. Pit 1804 (M.T.C.)
- (65) D.H.O. Pit 1082 (M.T.C.)
- (66) D.H.O. Pit 1589 (M.T.C.)

THE INFORMATION THAT APPEARS ON THIS MAP HAS BEEN COMPILED FROM VARIOUS SOURCES AND ACCURACY IS NOT GUARANTEED. THOSE WISHING TO STAKE MINING CLAIMS SHOULD CONSULT WITH THE MINING RECORDER, MINISTRY OF NORTHERN DEVELOPMENT AND MINES. FOR ADDITIONAL INFORMATION ON THE STATUS OF THE LANDS SHOWN HEREON

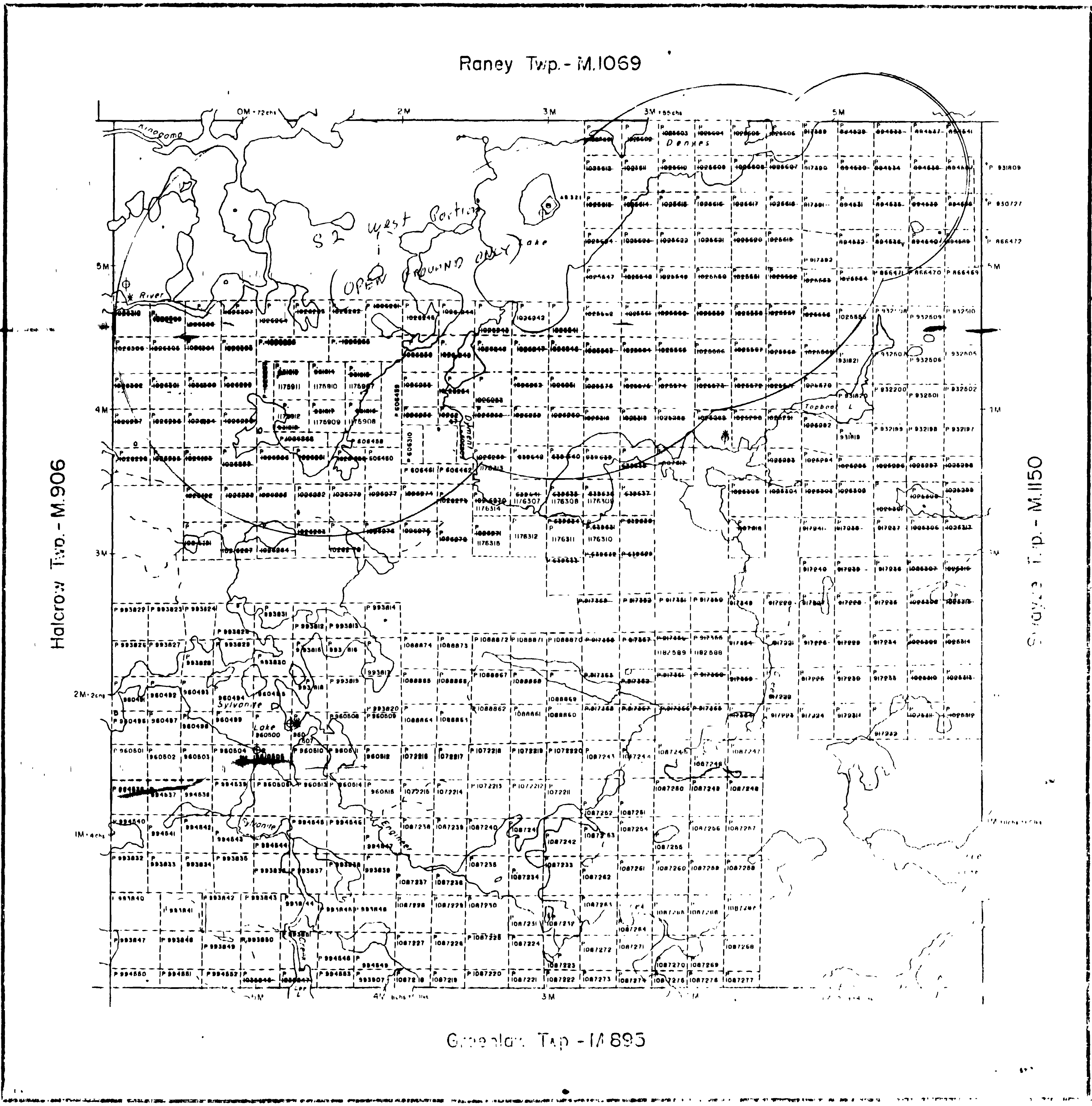
ACTIVE FEBRUARY 1 1990

PLAN NO. M-881

ONTARIO
DEPARTMENT OF MINES
AND NORTHERN AFFAIRS

42B01NE0031 OP92-688 SWAYZE AREA

220



THE TOWNSHIP OF DENYES

DISTRICT OF SUDBURY

PORCUPINE MINING DIVISION

SCALE: 1-INCH = 40 CHAINS

LEGEND

PATENTED LAND	Ⓟ
CROWN LAND SALE	C.S.
LEASES	Ⓛ
LOCATED LAND	Loc.
LICENSE OF OCCUPATION	L.O.
MINING RIGHTS ONLY	M.R.O.
SURFACE RIGHTS ONLY	S.R.O.
ROADS	
IMPROVED ROADS	
KING'S HIGHWAYS	
RAILWAYS	
POWER LINES	
MARSH OR MUSKEG	
MINES	⚒
CANCELLED	C
PATENTED FOR S.R.O.	

NOTES

* L U P

⊕ REMOTE TOURIST CAMPS

CHECKED BY R. BAILEY

PLAN NO. [illegible]

ONTARIO

MINISTRY OF NATURAL RESOURCES

SURVEYS AND MAPPING BRANCH

THE INFORMATION THAT APPEARS ON THIS MAP HAS BEEN COMPILED FROM VARIOUS SOURCES AND ACCURACY IS NOT GUARANTEED. THOSE WISHING TO STAKE MINING CLAIMS SHOULD CONSULT WITH THE MINING RECORDER, MINISTRY OF NORTHERN DEVELOPMENT AND MINES FOR ADDITIONAL INFORMATION ON THE STATUS OF THE LANDS SHOWN HEREON.

42B01NE0031 OP92-558 SWAYZE AREA

230

REFERENCES

AREAS WITHDRAWN FROM DISPOSITION

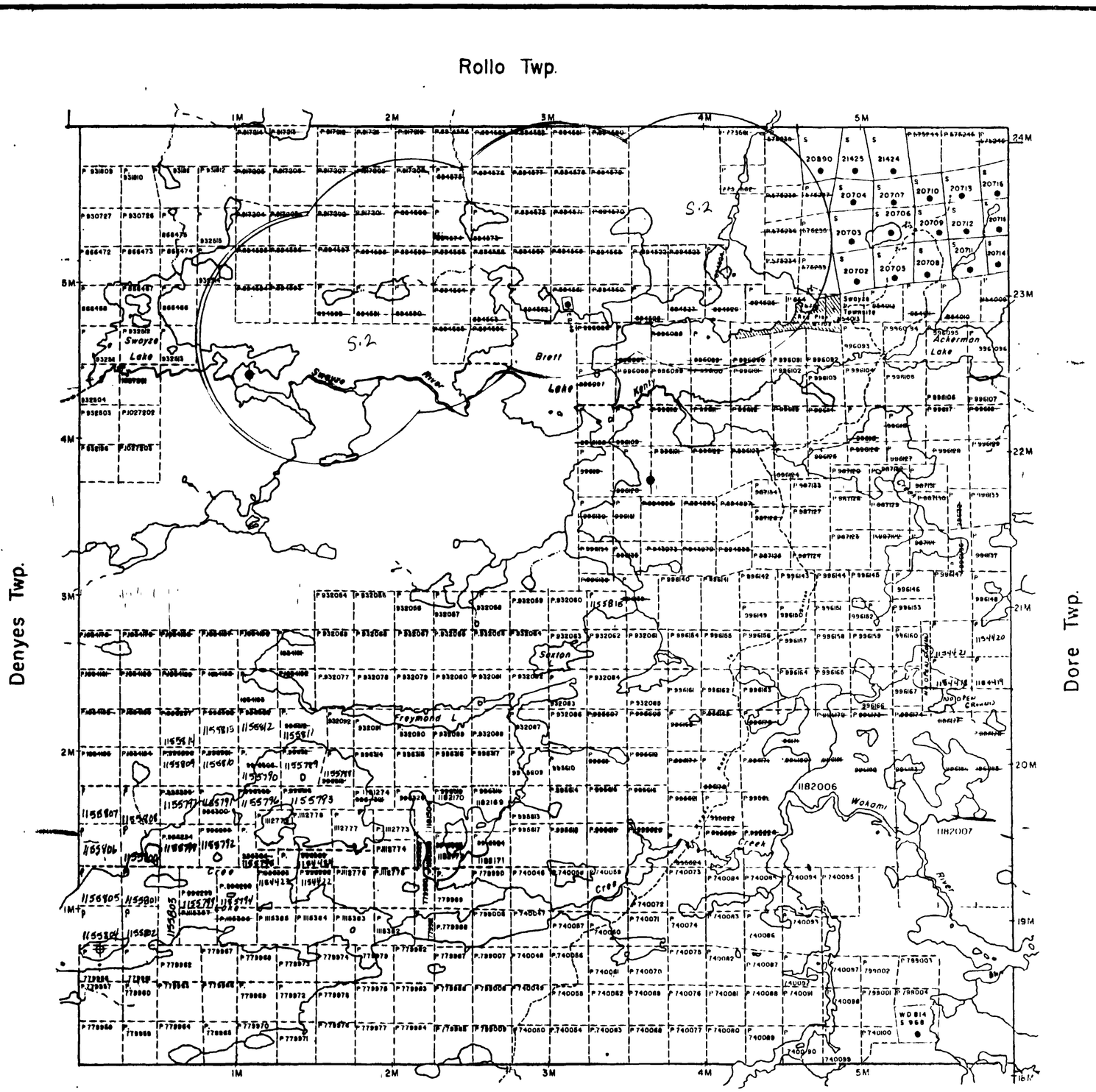
M.R.O. – MINING RIGHTS ONLY

S.R.O. – SURFACE RIGHTS ONLY

M.+ S. – MINING AND SURFACE RIGHTS

Description	Order No.	Date	Disposition	File

THE INFORMATION THAT APPEARS ON THIS MAP HAS BEEN COMPILED FROM VARIOUS SOURCES, AND ACCURACY IS NOT GUARANTEED. THOSE WISHING TO STAKE MINING CLAIMS SHOULD CONSULT WITH THE MINING RECORDER, MINISTRY OF NORTHERN DEVELOPMENT AND MINES, FOR ADDITIONAL INFORMATION ON THE STATUS OF THE LANDS SHOWN HEREON.



LEGEND

- HIGHWAY AND ROUTE No.
- OTHER ROADS
- TRAILS
- SURVEYED LINES
  - TOWNSHIPS, BASE LINES, ETC
  - LOTS, MINING CLAIMS, PARCELS, ETC
- UNSURVEYED LINES
  - LOT LINES
  - PARCEL BOUNDARY
  - MINING CLAIMS ETC.
- RAILWAY AND RIGHT OF WAY
- UTILITY LINES
- NON-PERENNIAL STREAM
- FLOODING OR FLOODING RIGHTS
- SUBDIVISION OR COMPOSITE PLAN
- RESERVATIONS
- ORIGINAL SHORELINE
- MARSH OR MUSKEG
- MINES
- TRAVERSE MONUMENT

DISPOSITION OF CROWN LANDS

TYPE OF DOCUMENT	SYMBOL
PATENT, SURFACE & MINING RIGHTS	●
" , SURFACE RIGHTS ONLY	◒
" , MINING RIGHTS ONLY	◒
LEASE, SURFACE & MINING RIGHTS	■
" , SURFACE RIGHTS ONLY	◪
" , MINING RIGHTS ONLY	◪
LICENCE OF OCCUPATION	▼
ORDER-IN-COUNCIL	OC
RESERVATION	◔
CANCELLED	⊕
SAND & GRAVEL	◔

● REMOTE TOURIST CAMPS

NOTE MINING RIGHTS IN PARCELS PATENTED PRIOR TO MAY 8 1913 VESTED IN ORIGINAL PATENTEE BY THE PUBLIC LANDS ACT R.S.O. 1970, CHAP. 380, SEC. 63, SUBSEC. 1

SCALE: 1 INCH = 40 CHAINS

FEET 0 1000 2000 4000 6000 8000

METRES 0 300 1000 (1 KM) 2000 (2 KM)

TOWNSHIP

SWAYZE

M.N.R. ADMINISTRATIVE DISTRICT

CHAPLEAU

MINING DIVISION

PORCUPINE

LAND TITLES / REGISTRY DIVISION

SUDBURY

Ministry of Natural Resources — Land Management Branch

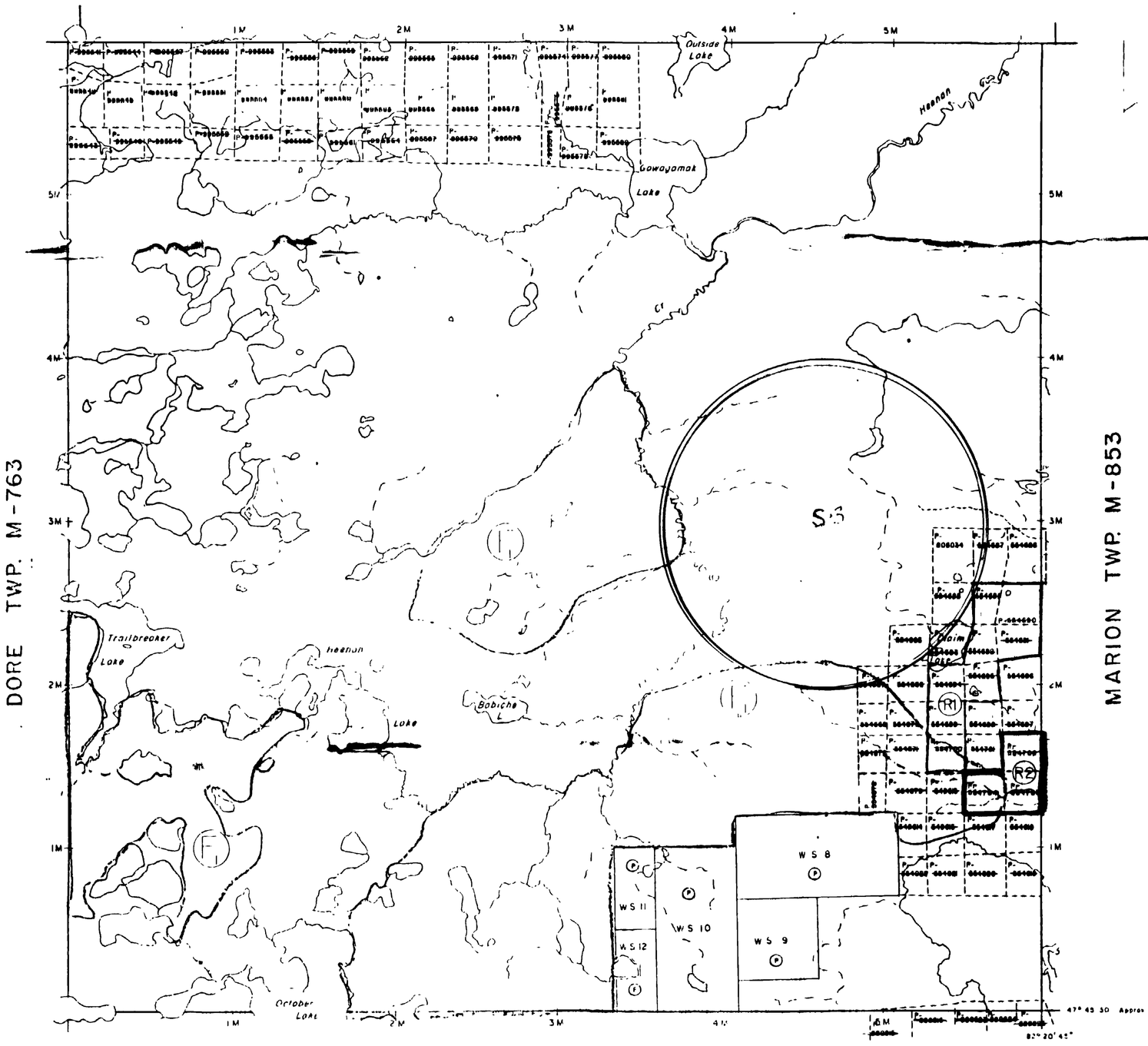
Ontario

Date MARCH, 1985

Number G-3249

ACTIVATED APR 19/90 D.C.

NEWTON TWP.



BENTON TWP. M-659

THE TOWNSHIP
OF

HEENAN

DISTRICT OF
SUDBURY

SUDBURY
MINING DIVISION

SCALE: 1-INCH = 40 CHAINS

LEGEND

PATENTED LAND	P.
CROWN LAND SALE	C.S.
LEASES	L.
LOCATED LAND	Loc.
LICENSE OF OCCUPATION	L.O.
MINING RIGHTS ONLY	M.R.O.
SURFACE RIGHTS ONLY	S.R.O.
ROADS	
IMPROVED ROADS	
KING'S HIGHWAYS	
RAILWAYS	
POWER LINES	
MARSH OR MUSKEG	
MINES	
CANCELLED	C.

NOTES

400' Surface rights reservation around the shores of all lakes and rivers

(R1) MINING AND SURFACE RIGHTS WITHDRAWN FROM STAKING UNDER SECTION 36 OF THE MINING ACT R.S.O. 1980 ORDER NO. W30/86 DATED 86-MAY-21

(R2) MINING AND SURFACE RIGHTS WITHDRAWN FROM STAKING UNDER SECTION 36 OF THE MINING ACT R.S.O. 1980 ORDER NO. W8/87 (LOCAL FILE NRW 5/87) DATED 87-FEB-03

F1 THIS TWP. IS SUBJECT TO FOREST ACTIVITIES IN 1991
FURTHER INFORMATION AVAILABLE ON FILE

RECEIVED
FEB 21 1992

THE INFORMATION THAT APPEARS ON THIS MAP HAS BEEN COMPILED FROM VARIOUS SOURCES, AND ACCURACY IS NOT GUARANTEED. THOSE WISHING TO STAKE MINING CLAIMS SHOULD CONSULT WITH THE MINING RECORDER, MINISTRY OF NORTHERN DEVELOPMENT AND MINES, FOR ADDITIONAL INFORMATION ON THE STATUS OF THE LANDS SHOWN HEREON

CHECKED BY D. CHOLETTE
IN SERVICE OCT. 24/89

PLAN NO. M-925

ONTARIO
DEPARTMENT OF MINES
AND NORTHERN AFFAIRS

M-925 HEENAN TWP.

REFERENCES

WITHDRAWN FROM DISPOSITION

- MINING RIGHTS ONLY
- SURFACE RIGHTS ONLY
- MINING AND SURFACE RIGHTS

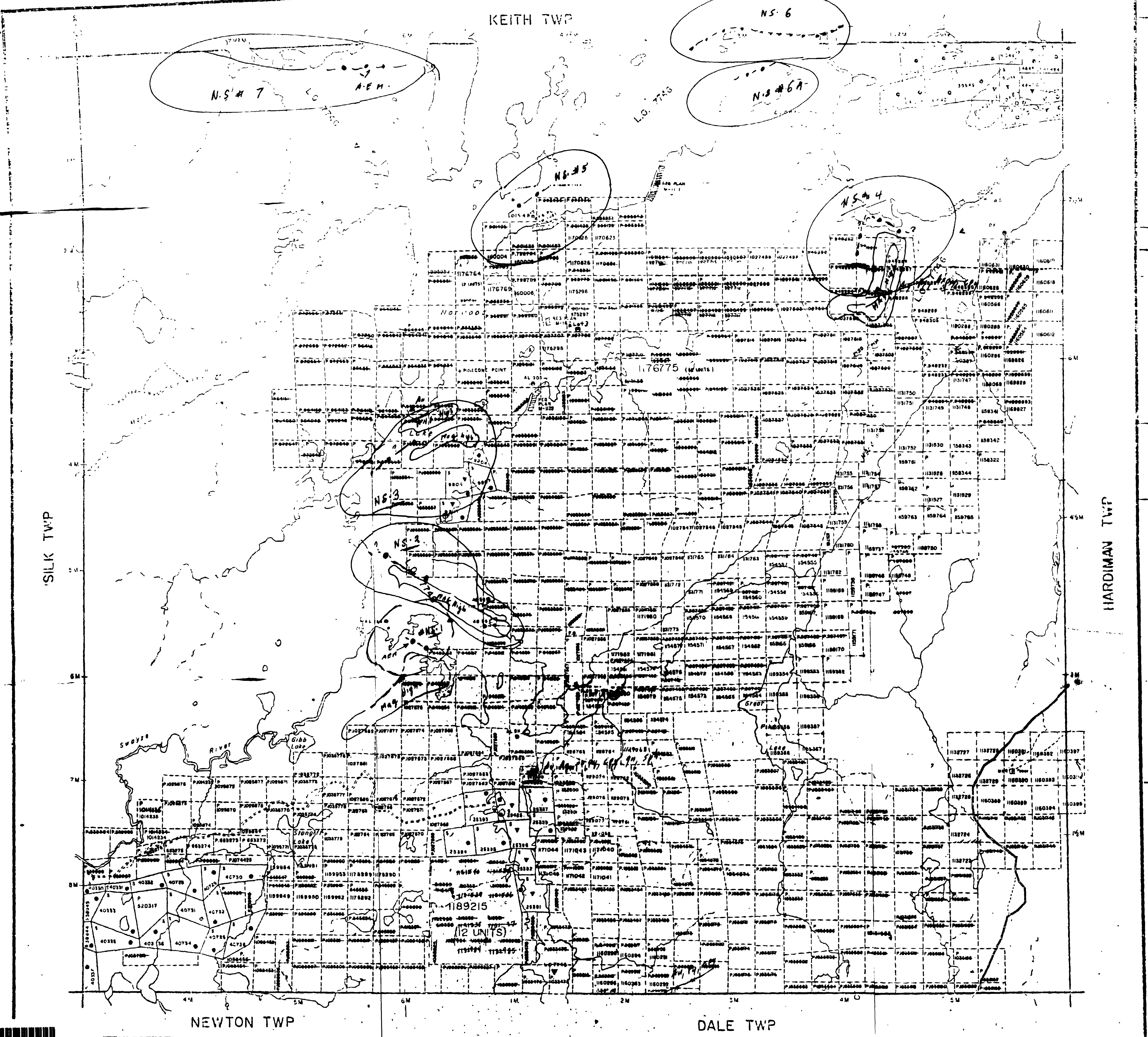
Order No.	Date	Disposition	File

~~...T TO FOREST ACTIVITY IN 1981/82~~

~~...MATION AVAILABLE ON FILE~~

HORWOOD LAKE & HARDIMAN BAY ...117 FEET ARE RESERVED TO THE ...R AND PAPER CO. LTD. File: 75166

... INFORMATION THAT ...EARS ON THIS MAP ... BEEN COMPILED ... VARIOUS SOURCES. ... ACCURACY IS NOT ...RANTEED. THOSE ...ING TO STAKE MIN... CLAIMS SHOULD CON... WITH THE MINING ...RDER MINISTRY OF ...THERN DEVELOP... AND MINES, FOR AD... NAL INFORMATION ... HE STATUS OF THE ...S SHOWN HEREON



LEGEND

HIGHWAY AND ROUTE No.	
OTHER ROADS	
TRAILS	
SURVEYED LINES	
TOWNSHIPS, BASE LINES, ETC	
LOTS, MINING CLAIMS, PARCELS ETC	
UNSURVEYED LINES	
LOT LINES	
PARCEL BOUNDARY	
MINING CLAIMS ETC	
RAILWAY AND RIGHT OF WAY	
UTILITY LINES	
NON-PERENNIAL STREAM	
FLOODING OR FLOODING RIGHTS	
SUBDIVISION OR COMPOSITE PLAN	
RESERVATIONS	
ORIGINAL SHORELINE	
MARSH OR MUSKEG	
MINES	
TRAVERSE MONUMENT	

DISPOSITION OF CROWN LANDS

TYPE OF DOCUMENT	SYMBOL
PATENT SURFACE & MINING RIGHTS	
" , SURFACE RIGHTS ONLY	
" MINING RIGHTS ONLY	
LEASE SURFACE & MINING RIGHTS	
" , SURFACE RIGHTS ONLY	
" , MINING RIGHTS ONLY	
LICENCE OF OCCUPATION	
ORDER-IN-COUNCIL	OC
RESERVATION	
CANCELLED	
SAND & GRAVEL	

NOTE: MINING RIGHTS IN PARCELS PATENTED PRIOR TO MAY 6, 1913, VESTED IN ORIGINAL PATENTEE BY THE PUBLIC LANDS ACT, R.S.O. 1970 CHAP 380 SEC 63 SUBSEC 1

SCALE: 1 INCH = 40 CHAINS

FEET 0 1000 2000 4000 6000 8000

METRES 0 200 1000 (1 KM) 2000 (2 KM)

⊕ REMOTE TOURIST CAMPS

RECEIVED JAN 31 1992

TOWNSHIP

HORWOOD

M.N.R. ADMINISTRATIVE DISTRICT

CHAPLEAU

MINING DIVISION

PORCUPINE

LAND TITLES / REGISTRY DIVISION

SUDBURY

Ministry of Natural Resources — Land Management Branch

Ontario

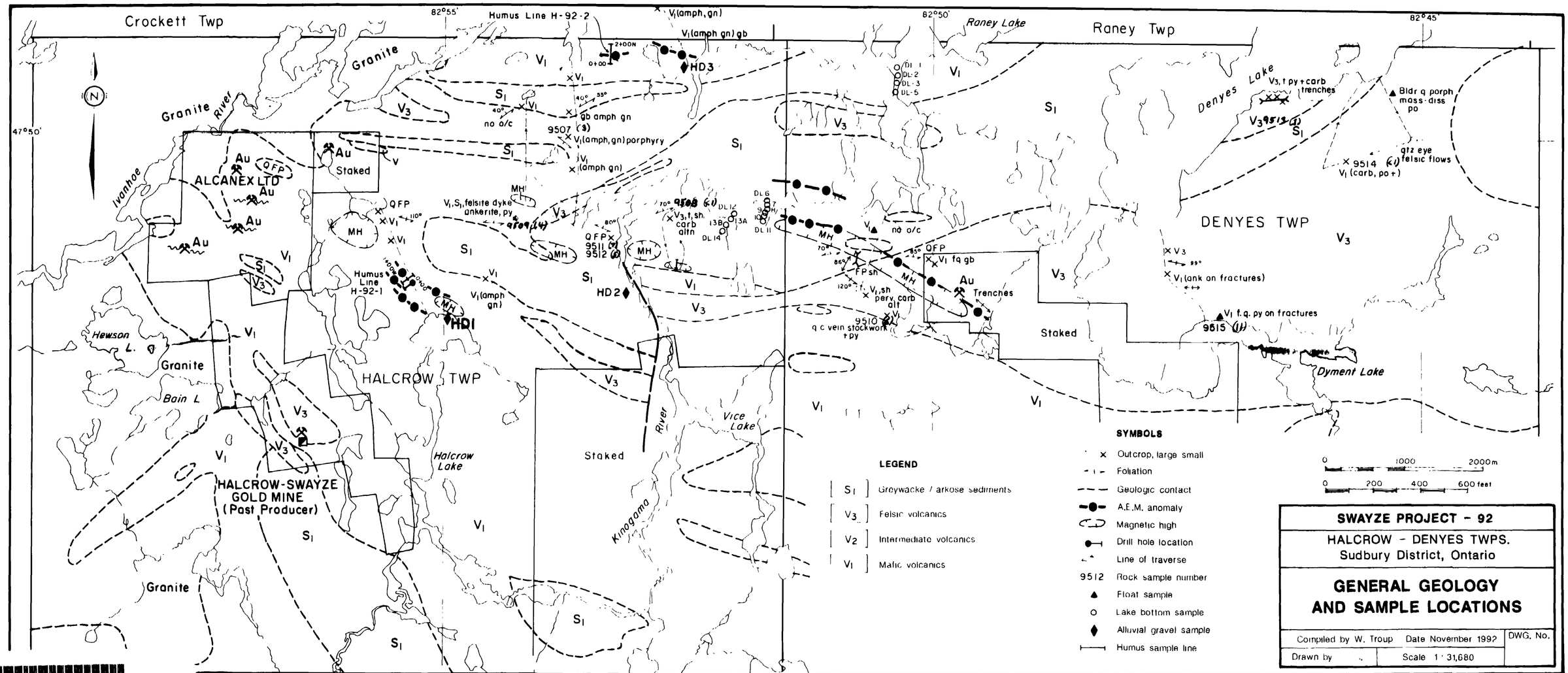
Date: MARCH 1985

Number: G-3228

PLAN ACTIVATED JAN. 18/90

42B01NE0031 OP92-558 SWAYZE AREA

260



LEGEND

S_1	Greywacke / arkose sediments
V_3	Felsic volcanics
V_2	Intermediate volcanics
V_1	Mafic volcanics

SYMBOLS

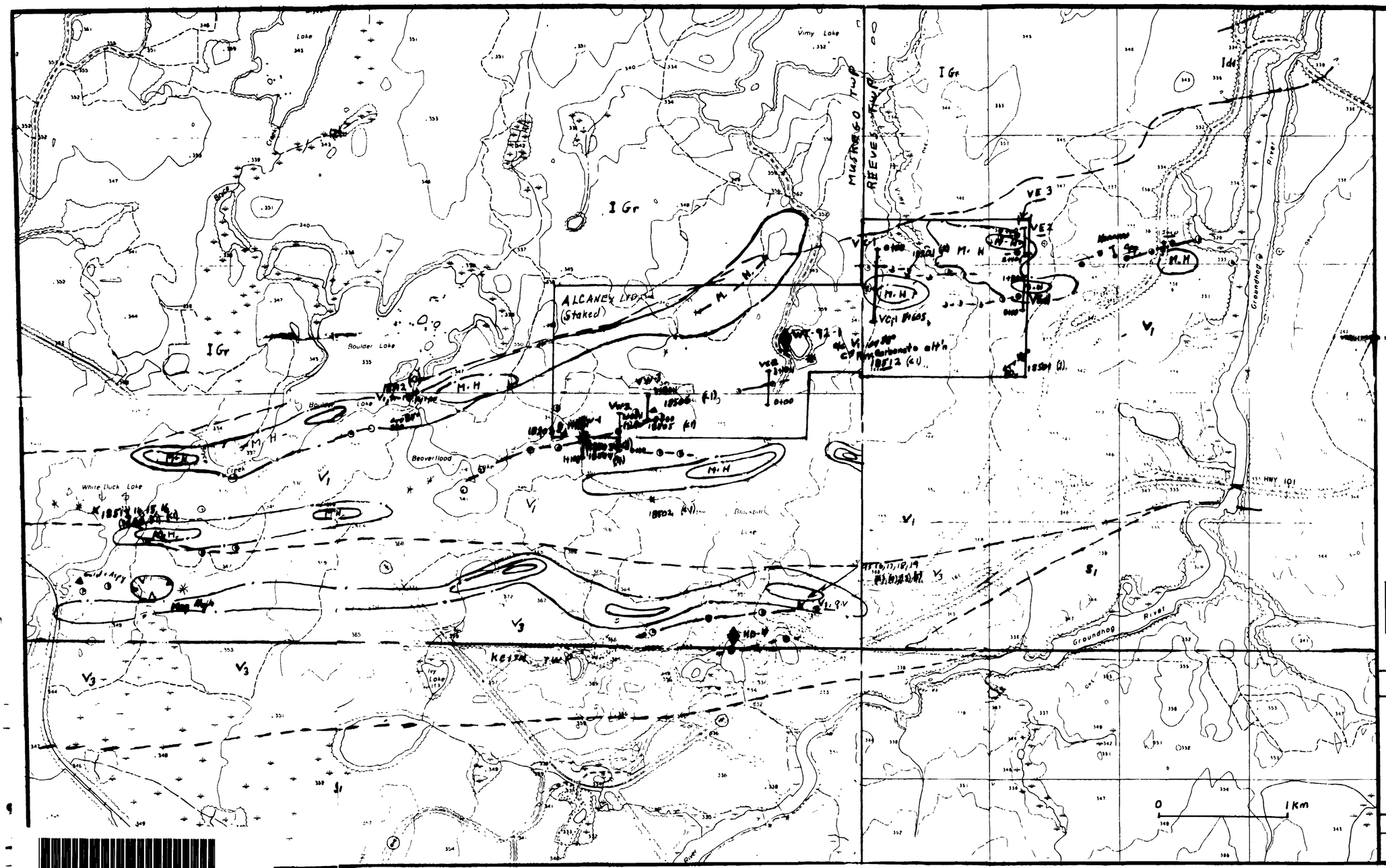
- Outcrop, large small
- Foliation
- Geologic contact
- A.E.M. anomaly
- Magnetic high
- Drill hole location
- Line of traverse
- 9512 Rock sample number
- Float sample
- Lake bottom sample
- Alluvial gravel sample
- Humus sample line

SWAYZE PROJECT - 92

HALCROW - DENYES TWPS.
Sudbury District, Ontario

GENERAL GEOLOGY AND SAMPLE LOCATIONS

Compiled by W. Troup	Date November 1992	DWG. No.
Drawn by	Scale 1 : 31,680	



LEGEND

INTRUSIVES

Idi	diorite
Iqm	quartz monzonite
Igd	granodiorite
QFP	quartz feldspar porphyry

SEDIMENTS

IF	iron formation / chert
S2	quartzite
S1	greywacke / arkose

VOLCANICS

V3	felsic volcanics
V2	intermediate volcanics
V1	mafic volcanics

Geologic contact
A.E.M. anomaly (gov't survey)
Magnetic high — MH
Magnetic low
Drill hole location
Rock sample location & number
Alluvial Gravel
Float sample
Gold analysis (ppb) — (2900)
Lake bottom sample
Humus sample line
Outcrop, large, small
Foliation

ABBREVIATIONS

t - tuff, f - flow, qv - quartz vein
c.g coarse grained, f.g. - fine grained

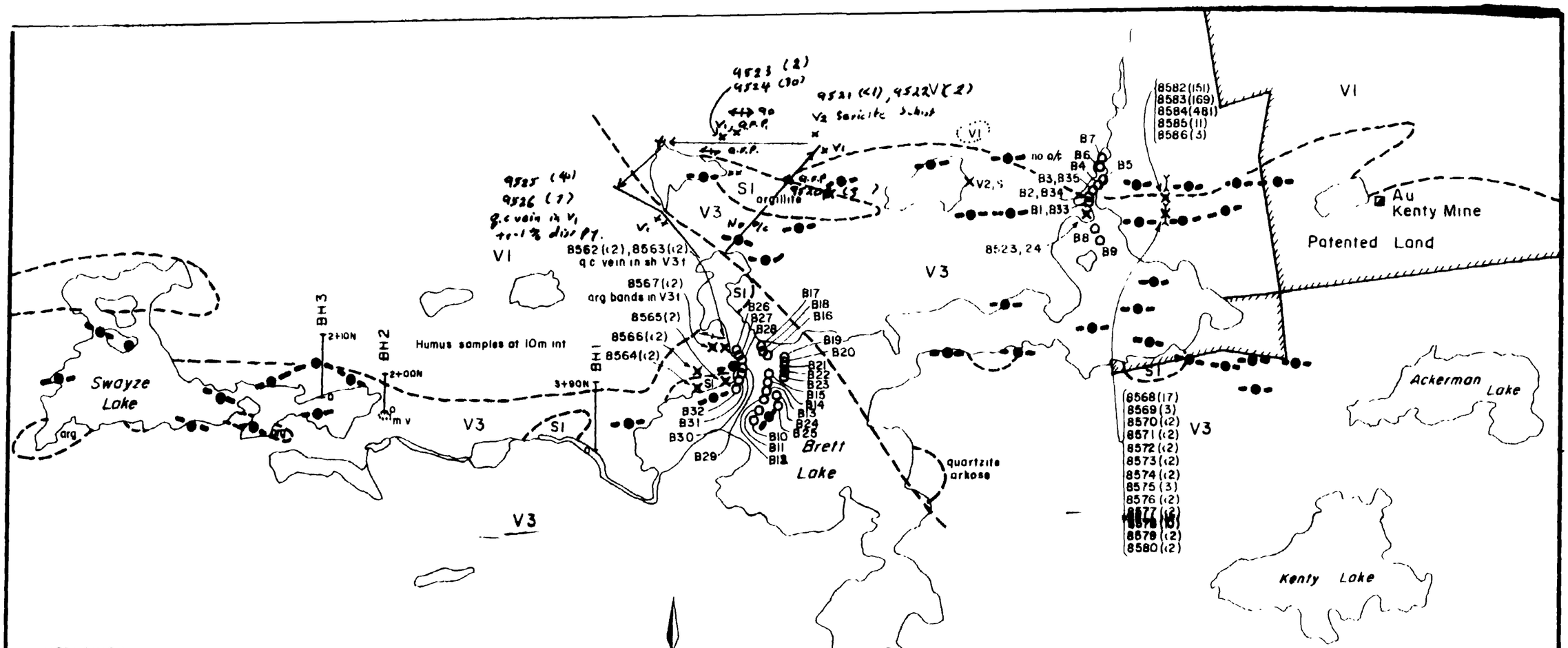
SWAYZE PROJECT

VIMY CREEK

REEVES-MUSKEGO TWPS

Compiled by W. Troup	Date Nov. 1991	DWG.No.
Drawn by R.T.M.	Scale 1:20,000	

42B01NE0031 OP92-558 SWAYZE AREA



INTRUSIVES

- Idi — diorite
- Iqm — quartz monzonite
- Igd — granodiorite
- QFP — quartz - feldspar porphyry

SEDIMENTS

- IF — iron formation / chert
- S2 — quartzite
- S1 — greywacke / arkose

VOLCANICS

- V3 — felsic volcanics
- V2 — intermediate volcanics
- V1 — mafic volcanics

Geologic contact
AEM anomaly
Magnetic high (MH)
Magnetic low (ML)
Drill hole location
Rock sample location & No ● 1901 ▲ 9523 1993 Spling
Float sample
Gold analysis (ppb) (<2)
Lake bottom sample O
Humus sample line BH1
Outcrop large, small
Foliation

ABBREVIATIONS

- t — tuff
- f — flow
- qv — quartz vein
- cg — coarse grained
- fg — fine grained

0 1 MILE

SWAYZE PROJECT

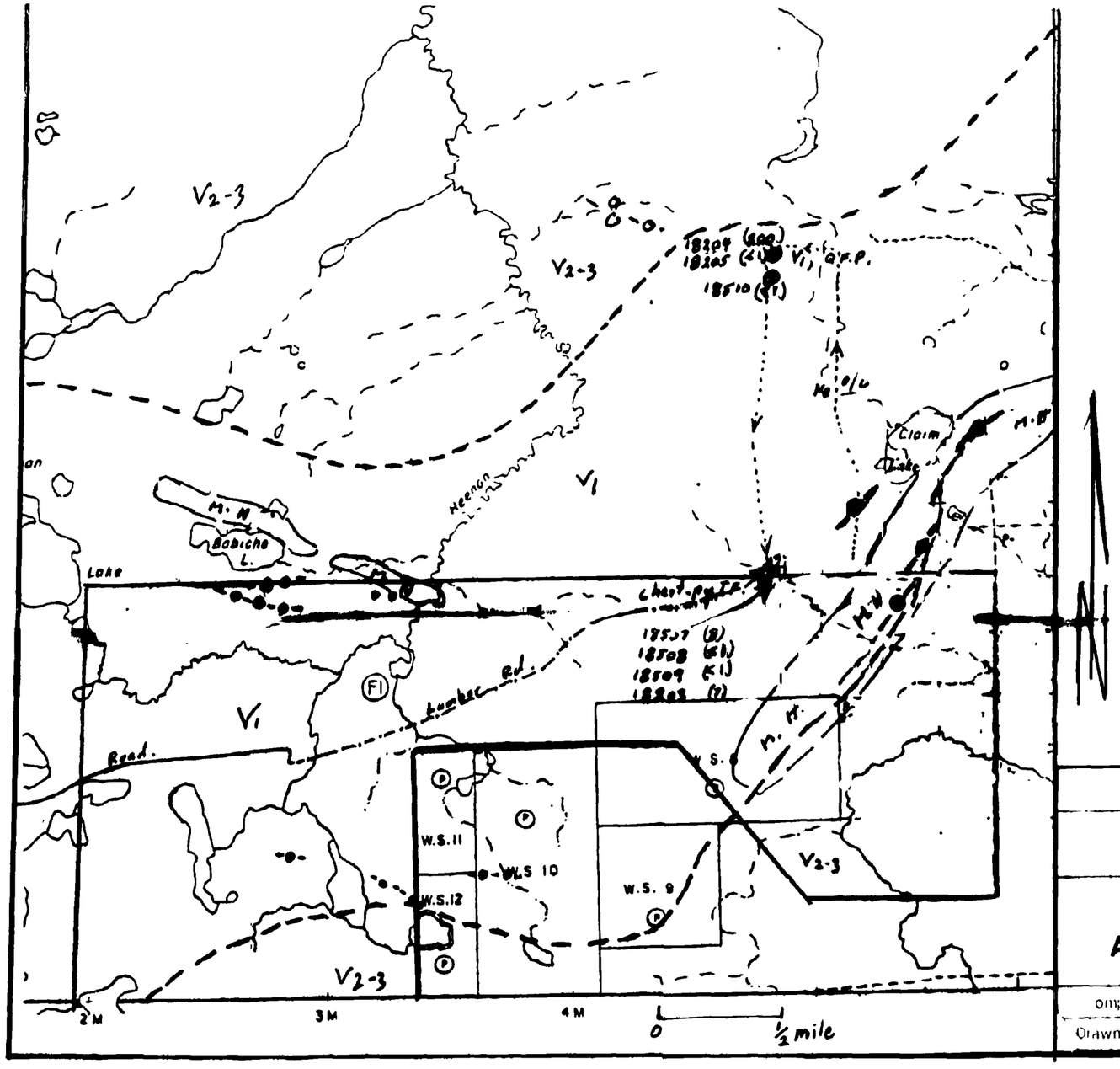
BRETT LAKE

Revised Dec 1992.

Compiled by W Troup	Date Oct 1990	DWG No
Drawn by R T M	Scale as shown	

290

42B01NE0031 OP92-558 SWAYZE AREA



LEGEND

- S_1 — Sedimentary & carbonate sediment
- V_3 — Felsic volcanics
- V_2 — Intermediate volcanics
- V_1 — Mafic volcanics

SYMBOLS

- × Outcrop, large small
- Foliation
- Geologic contact
- AEM anomaly
- Magnetic high
- Drill hole location
- Line of traverse
- 9512 Rock sample number
- ▲ Float sample
- o Lake bottom sample
- ♦ Alluvial gravel sample
- Humus sample line

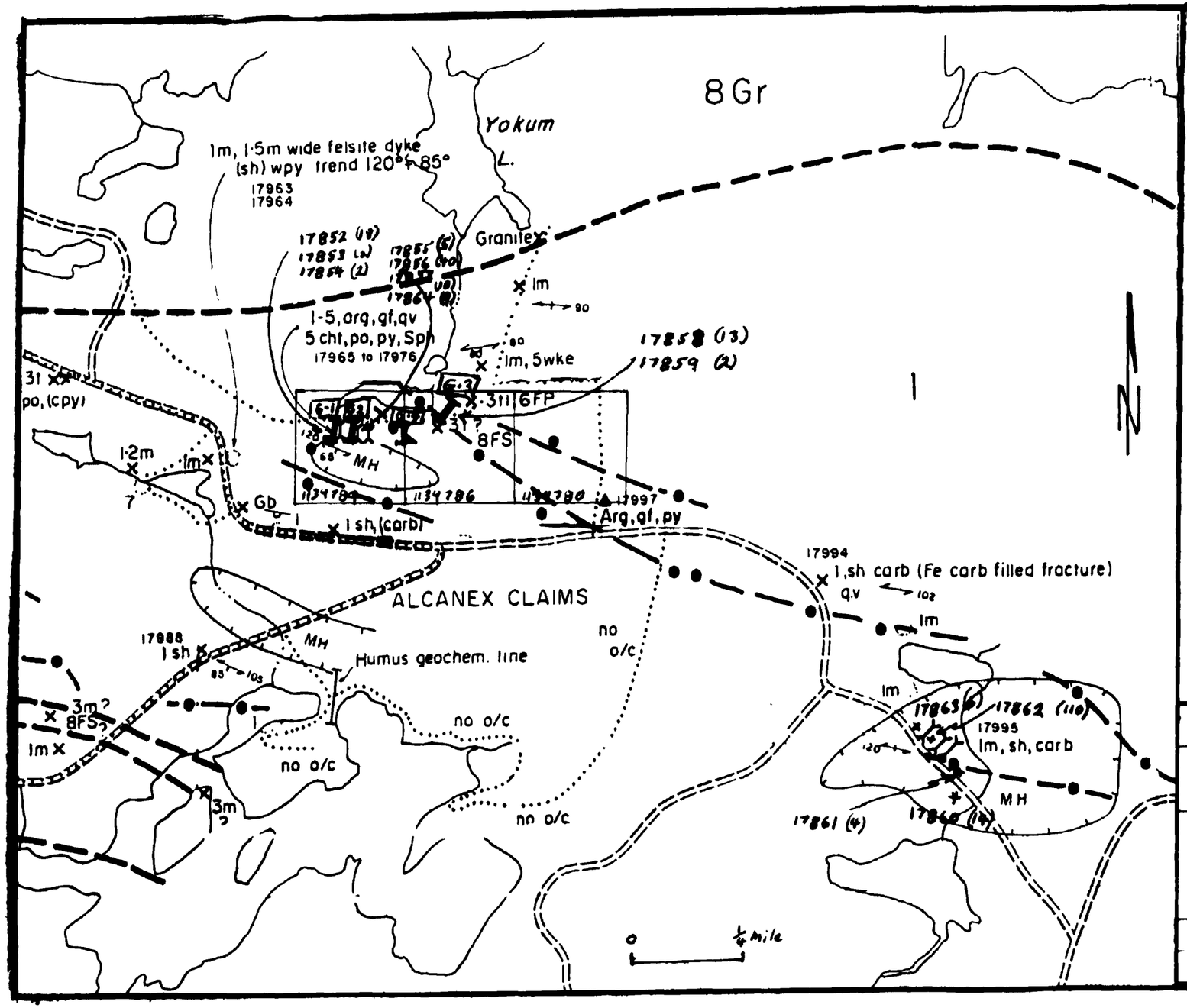
SWAYZE PROJECT - 92

HEENAN TWP

GENERAL GEOLOGY AND SAMPLE LOCATIONS

Compiled by W. Troop Date November 1992 DWG No

Drawn by Scale 1" = ½ mile



LEGEND

10 Mafic dykes 10d diabase

9 9mz monzonite, 9sy syenite

8 8gr granite 8qd granodiorite 8qd quartz diorite, 8fs felsite

7 Mafic intrusive 7qa gabbro 7di diorite, 7sp serpentinite

6 6qfp quartz feldspar porphyry, 6qp quartz porphyry

5 Metasediments, 5 undivided
5b carbonate metasediments, 5cht chert, 5arg argillite/slate, 5if iron formation, 5wke wacke/sandstone, 5cgl conglomerate

4 Volcaniclastic

3 Felsic metavolcanics 3 unsubdivided, 3m massive, 3fl flow 3flf porphyritic flow 3t tuff
Intermediate volcanics
2 unsubdivided 2m massive, 2fl flow, 2flf porphyritic flow, 2t tuff, 2tl tuffil tuff

1 Mafic metavolcanics
1 unsubdivided, 1m massive, 1fl flow, 1flf porphyritic flow, 1p pillowed flow 1t tuff

SYMBOLS

- bedding
- schistosity
- joint
- lineation
- pillow facing
- geological contact
- fault, inferred
- trench
- outcrop
- road, trail
- traverse route
- glacial striae
- sample number
- diamond drill hole
- gas pipe line
- AEM anomaly
- magnetic low
- MH magnetic high

Abbreviations

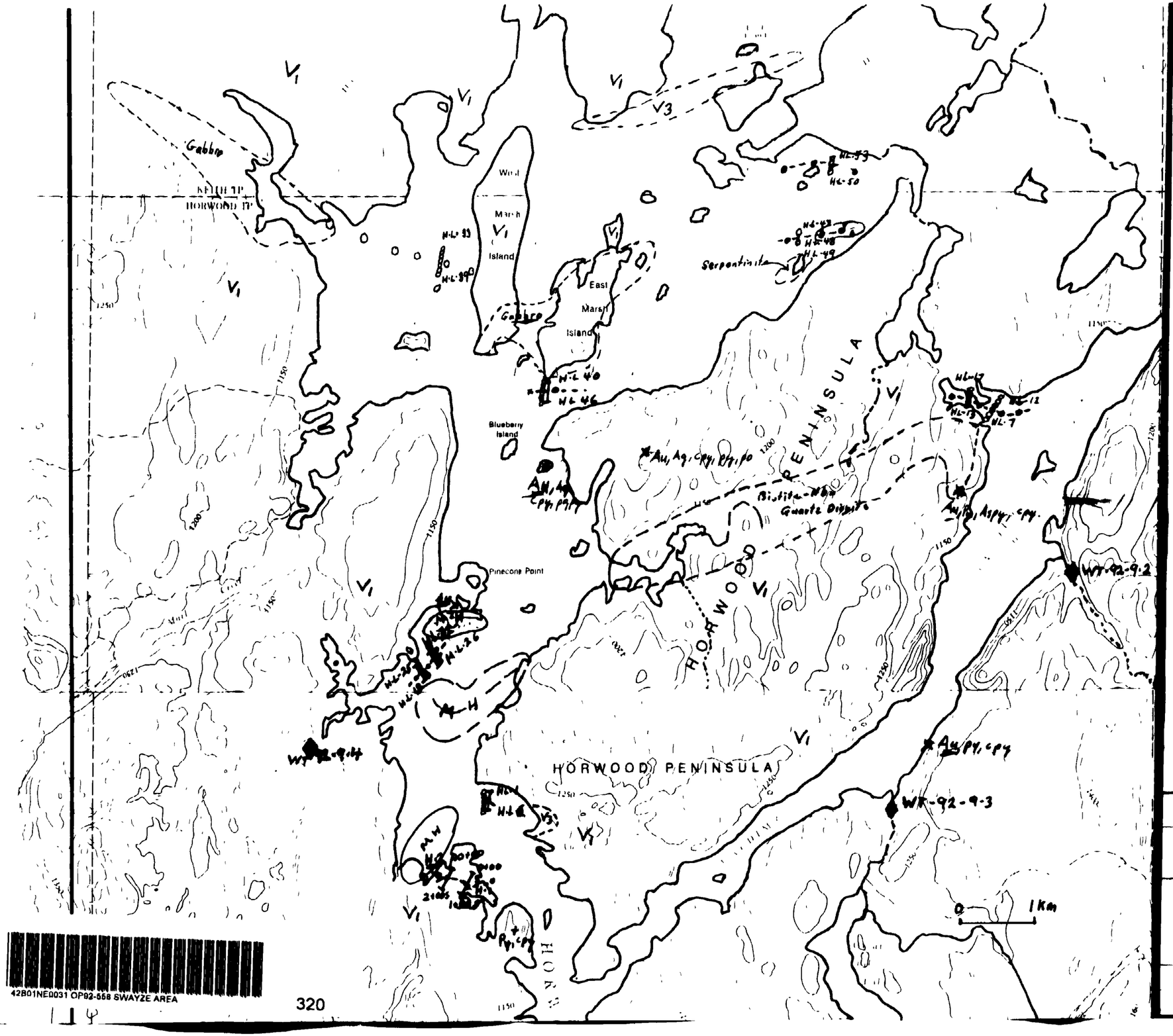
q c v	quartz carbonate vein
dis	disseminated
q.v	quartz vein
c p v	pervasive carbonate alteration
sh	sheared
gl	graphite
	Humus Line 1992

RICHARDSON LAKE PROJECT – 92

GENERAL GEOLOGY AND SAMPLE LOCATIONS

Compiled by W. Troup Date November 1992 DWG No

Scale 1" = 1/4 mile



LEGEND

S_1	Greywacke / arkose sediments
V_3	Felsic volcanics
V_2	Intermediate volcanics
V_1	Mafic volcanics

SYMBOLS

- × Outcrop, large small
- Foliation
- Geologic contact
- A.E.M anomaly
- Magnetic high
- Drill hole location
- Line of traverse
- 9512 Rock sample number
- ▲ Float sample
- ○ Lake bottom sample
- ◆ Alluvial gravel sample
- Humus sample line

SWAYZE PROJECT - 92

HORWOOD LAKE

GENERAL GEOLOGY AND SAMPLE LOCATIONS

Compiled by W. Troop Date December 1992 DWG No.

Drawn by Scale 1:50,000