

1980 DIAMOND DRILLING REPORT
ON THE
ROD CLAIM GROUP
NADALEEN RANGE, YUKON TERRITORY
NTS 106-C-4, 106-D-1
(64°12'N 134°00W)
JULY - SEPTEMBER 1980

Shelley C. James
November 10, 1980

090687

TABLE OF CONTENTS

	<u>Page</u>
1. SUMMARY	1
2. INTRODUCTION	1
3. LOCATION AND ACCESS	2
4. PROPERTY	2
5. HISTORY OF PREVIOUS WORK	2
6. 1980 PROGRAMME	
6.1 Progress summary	3
6.2 Operations	3
6.3 Results	4
7. CONCLUSIONS AND RECOMMENDATIONS	4
8. BIBLIOGRAPHY	5

APPENDICES

- A. Statement of Expenditures
- B. Certificate
- C. Personnel employed
- D. Summary of work
- E. Helicopter time distribution
- F. Site Preparation summary and expenditure
- G. Drill hole data and drill statistics tables
- H. Core logs - (in pocket)
- I. Core assay results

LIST OF ILLUSTRATIONS

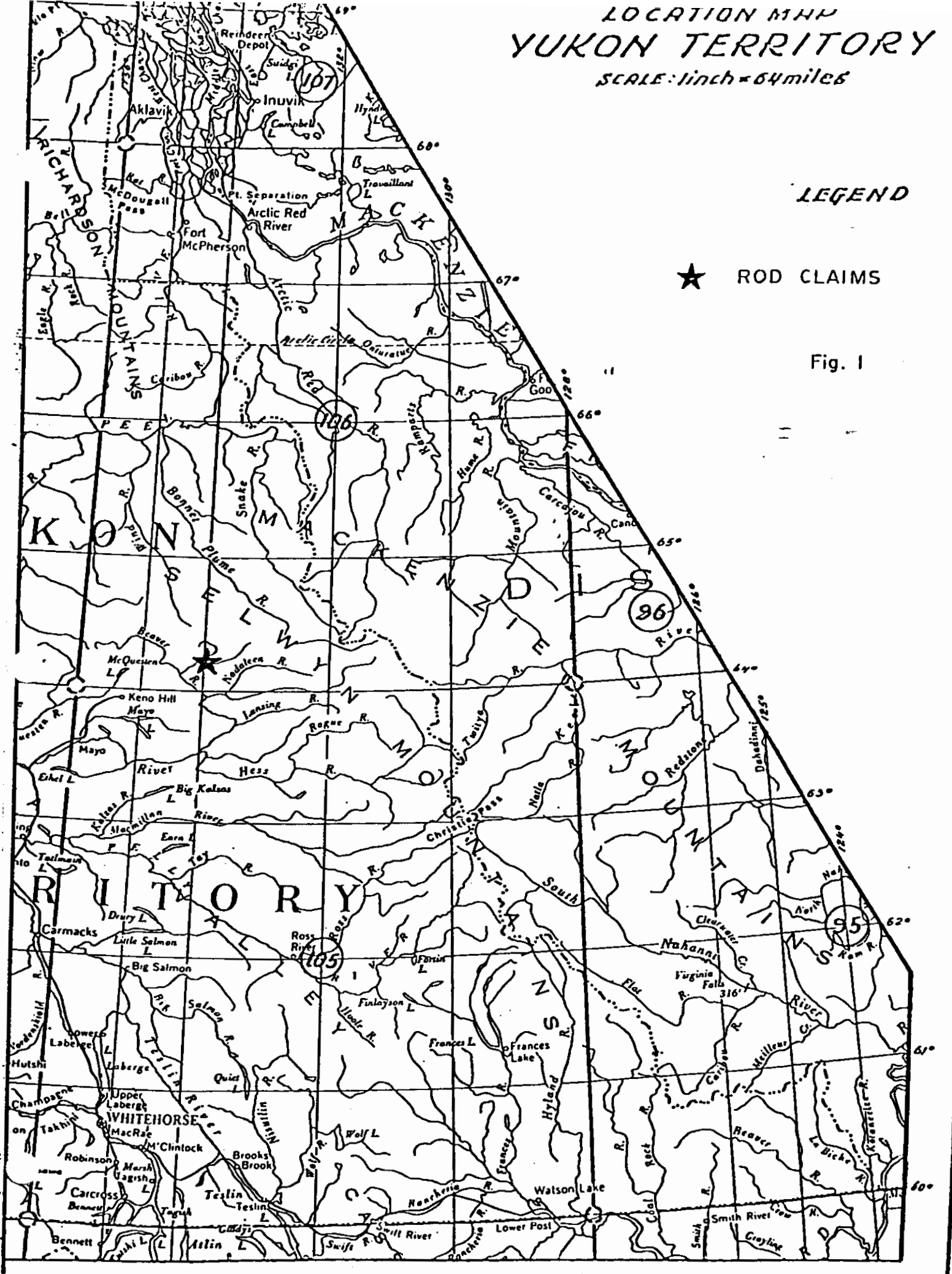
- Fig. 1 : Location map
- Fig. 2 : Regional geology showing claim blocks 1:500,000
- Fig. 3 : Rod claim group location map 1"=1000'
- Fig. 4 : Discovery Ridge geology and drilling 1:480

LOCATION MAP
YUKON TERRITORY
SCALE: 1 inch = 64 miles

LEGEND

★ ROD CLAIMS

Fig. 1



1. SUMMARY

A diamond drilling program of 1,066 feet with total expenditure of \$79,613.02 was conducted on the Rod claim group in 1980.

Highly oxidized very poorly mineralized zones were intersected below trenches which exposed silver-lead-zinc mineralization along a north-east trending structure in 1979.

The nature and source of argentiferous galena float in Paleozoic shales was not adequately tested and remains uncertain.

No further drilling is recommended at present.

2. INTRODUCTION

The 1980 drilling programme conducted on the Rod claim group formed part of Canadian Superior Exploration Limited's Craig Joint Venture project in central eastern Yukon (Fig. 1).

The Rod claim group consists of 100 contiguous claims located 40 miles north east of Keno Hill.

The property is underlain by Paleozoic carbonaceous clastics and Proterozoic sediments juxtaposed along the eastern extension of the Dawson thrust system.

A diamond drilling programme was conducted to explore argentiferous galena and sphalerite mineralization exposed by trenching in 1979.

A total of \$79,613.02 was expended on the property in 1980.

3. LOCATION AND ACCESS (Fig. 1)

The claim block is situated in the Mayo Mining District, 75 miles north east of Mayo. The property is approximately centred at 64°12'N, 134°00'W. (NTS 106 C-4 and 106 D-1).

Access to the property is by helicopter from the operational base "Rackla City" camp. This base, 25 miles east of the Rod claims on the East Rackla river, is serviced by fixed wing aircraft from Mayo and Whitehorse.

4. PROPERTY (Figs. 2 and 3)

The block of 100 continuous claims covers approximately 8 square miles on the north slope of an easterly trending mountain range. It extends from the crest of the range northwards approximately halfway to the East Rackla river. Elevations vary from 3000 to 6000 feet A.S.L. Spruce and alpine fir cover lower slopes giving way to alpine tundra on upper slopes.

The property is bounded by Edina Exploration Ltd.'s Cooker claims and Prism Resources Ltd's Bag claims to the east and west respectively.

<u>Claim name</u>	<u>Date Recorded</u>	<u>Expiry date</u>	<u>Grant number</u>
Rod no. 1 to 100	28 June 1977	20 June 1984	YA15176 to YA15275

5. HISTORY OF PREVIOUS WORK

Discovery of lead-zinc-silver mineralization on the Craig claim group followed by regional geochemical sampling led McIntyre Mines Ltd. to stake this area in 1977.

In 1979 Canadian Superior Exploration Ltd. in joint venture with McIntyre Mines Ltd. conducted soil sampling, geological mapping and trenching. Details

are contained in reports listed in the bibliography.

6. 1980 PROGRAMME

6.1 Progress summary

A total of 1066 feet was drilled in 4 holes during the 1980 field season. Details are contained in appendix G.

6.2 Operations

Helicopter and heating fuel were airlifted to Rackla City camp in May. Field operations supported by a Hughes 500D helicopter were conducted from July 1st to September 17th with a crew varying from 8 to 17 persons. Appendices C, D and E indicate personnel employed, a summary of work and helicopter time distribution.

The programme consisted of 4 diamond drill holes totalling 1066 feet as part of the Craig Joint Venture project.

Extensive site preparation was necessary as is summarized in appendix F.

A Boyles BB 25 A drilling rig with BQ wireline equipment was employed in the work. Two - 12 hour shifts operated. Progress details are summarized in the drill statistics table and diamond drill hole record, appendix G.

Drilling conditions were fair to poor. No permafrost was encountered. Overburden varied from 14 to 35 feet. Poor recovery is partly attributed to shale formations and fractured ground which caused abandonment of 2 holes, CSR-3, and CSR-4. Any further drilling on these claims would require NQ equipment.

Following core-logging, sampled sections were split with half retained for reference. The remainder was submitted to Min-En Laboratories for silver, lead, zinc determinations.

Core is stored in open racks at Rackla City camp.

6.3 Results

The locations of drill holes are shown on Fig. 4 which also summarizes the geology. Further details are available in B.Y. Kim's report listed in the bibliography.

Three holes tested a trenched argentiferous galena-sphalerite showing associated with a north-east trenching structure on claim YA15212.

A hole drilled on claim YA15213 sought the source of high grade argentiferous galena boulders in carbonaceous Paleozoic shales.

Results are contained in appendices: G - drill hole data, H - core logs and I - core assay results.

7. CONCLUSIONS AND RECOMMENDATIONS

1066 feet of diamond drilling was conducted on the Rod claim group in 1980.

Drilling explored a depth extension of high grade silver-lead-zinc mineralization on a north-easterly trending structure. A number of highly oxidized very poorly mineralized zones were intersected.

The nature and source of high grade galena float in Paleozoic shales remains

untested owing to abandonment of hole CSR-3. Various factors including poor results on the primary target precluded further drilling in 1980.

As galena-silver showings appear to be associated with highly oxidized residuals or remnants of a vein system with limited economic potential no further drilling can be recommended at present.

8. BIBLIOGRAPHY

1. Green L.H. 1972 : Geology of Nash Creek, Larsen Creek and Dawson Map - areas, Yukon Territory G.S.C. Mem 364
2. Blusson S 1974 : G.S.C. Open File Report No. 205
3. Blusson S. 1978 : G.S.C. Paper 78-1A, P77-80
4. Floyd A and Arnold R 1977 : Summary Report on the Rod claims
5. Kim B.Y. 1979 : Geological and Geochemical Report on the Rod claims 1-100 NTS 106-C-4 and 106-D-1



Shelley C. James
November 10, 1980

APPENDIX A

STATEMENT OF EXPENDITURES PART I ROD CLAIM GROUP 1980

HELICOPTER - Hughes 500D

- i) 65.35 hrs. drilling programme ie 20% of total cost
\$105 832.83 = \$21,166.57
 - ii) Project general : 1/3 of 21.3% = 7.1% of total cost
\$105 832.83 = \$7,514.13
 - iii) Helicopter fuel 27.1% of total cost \$10,319.13 = \$2,796.48
- Sub total = \$ 31,477.18

FIXED WING

% proportion using Rod claims drill footage to total footage:
1066/7216' = 14.8% of total cost \$41,437.32 = \$ 6,132.72

SALARIES

Geologists : 190 man days @ \$83.70 = \$15,903.00
Assistants : 308 man days @ \$45.00 = \$13,860.00
Cooks : 92 man days @ \$70.00 = \$ 6,440.00
Craig project total \$36,203.00

Rod claims proportion 14.8% of \$36,203.00 = \$ 5,358.04

OPERATING COSTS

Includes camp provisions, supply services miscellaneous equipment
for field, drilling, site preparation and helicopter crews:
Rod claims proportion 14.8% of total cost \$54,919.64 = \$ 8,128.11

DRILLING COSTS

Rod claims proportion of total cost 14.8% of \$161,556.67 \$ 23,910.39

SITE PREPARATION COSTS

Rod claims proportion : 3 sites of total 15; 3/15 = 20% of
total cost \$13,688.40 = \$ 2,737.68

ASSAYS

Rod claims proportion : no of assays/total no of assays 16/57
= 28.01% of total cost \$2,992.20 = \$ 839.91

MOBILIZATION AND DEMOBILIZATION

Rod claims proportion of total cost 14.8% of \$6,952.62 = \$ 1,028.99
Total = \$ 79,613.02

I certify the above expenditures to be a true and accurate account of expenses incurred.

Dated on November 10, 1980 in Vancouver, B.C.

Bames

APPENDIX A

STATEMENT OF EXPENDITURE PART II
ROD CLAIM GROUP

The apportioned value of work done on each Rod claim drilled, on a %
footage basis is as follows:

<u>Grant number</u>	<u>Claim name</u>	<u>Footage</u>	<u>Footage as %</u>	<u>Expenditure</u>
YA15212	Rod no. 37	935	87.71	69,828.58
YA15213	Rod no. 38	131	12.29	9,784.44
		<u>1,066</u>	<u>100</u>	<u>\$79,613.02</u>

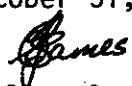
APPENDIX B

CERTIFICATE

I, Shelley C. James do hereby certify that:

1. I am a practicing geologist with residence at Vancouver, B.C.
2. I am a graduate of the University of the Witwatersrand, South Africa (B.Sc. 1970, B.Sc.Hon.Geol. 1971)
3. I am a member in good standing of the Geological Society of South Africa.
4. I have been engaged in the practice of mineral exploration in South Africa and Canada since graduation.
5. I personally supervised the drilling programme on the Rod claims described in this report.
6. I have no financial interest in the subject property.

Dated at Vancouver, B.C.
October 31, 1980


Shelley C. James

APPENDIX C
PERSONNEL EMPLOYED

CANADIAN SUPERIOR EXPLORATION LTD.

R.V. Beavon	Project Manager	8720 Millmore Rd., Richmond, B.C. 274-2208
S.C. James	Supervisor, Geologist	1407-2024 Fullerton Ave. N. Vancouver, B.C. 926-0245
E. Angus	Camp Manager	12474 Crescent Road Surrey, B.C. 531-4146
G. Nixon	Geologist, mapping	5138 E. Boulevard Vancouver, B.C.
B.Y. Kim	Geologist, temporary support	101-222 Ash Street New Westminster, B.C.
M. Jerema	Prospector & Snr. Assistant	10734 120th Street Surrey, B.C.
C. Angus	Assistant	12474 Cresenct Road Surrey, B.C. 531-4146
H. Simpson	Cook	c/o Beggars Roost, R.R.#1 Ganges, B.C. 537-2548
D. Angus	Cook, temporary support	12474 Crescent Road, Surrey, B.C. 531-4146

CONTRACTORS AND SUPPLIERS

Wright Drilling Company - Box 3096 MPP, Kamloops, B.C. 374-9698

D. Wright - Contractor/foreman	A. Bartlett
R. Wright	C. Wright
R. Dougan	

ALC Airlift Corporation - 20769 River Rd., Maple Ridge, B.C. 467-6146

J. Bhanwer - pilot	B. Gibbons - engineer
Y. Nishimura - pilot, temporary support	

M.J. Moreau Enterprises Ltd. - P.O. Box 5282 Whitehorse, Yukon Y1A 4Z2

M.J. Moreau + 1 assistant : site preparation

Casual labour : A. Johnny
N. Moses

Major Services/Suppliers

Air charter : Air North Charter and Training Ltd.
Box 4998
Whitehorse, Yukon Y1A 4Z2

Expediting : Tintina Expediting
Box 159
Mayo, Yukon Y0B 1M0
996-2325

Fuel supplier : White Pass Petroleum Services
Whitehorse, Yukon

Provisions : Graham's Genera Store
Mayo, Yukon

Danny's Dept. Store
Mayo, Yukon

Assays & Analyses : Min-En Laboratores Ltd.
705 W. 15th Street
North Vancouver, B.C.

APPENDIX D

SUMMARY OF WORK

1. Fuel supplies transported to base camp - May
2. Camp preparation - June 23rd - July 15th
3. Drill site preparation - July 15th to August 1st; August 27th - September 8th, 15 sites were prepared; 3 on the Rod Claims.
4. Diamond drilling - July 15th to September 17th, 7215 feet were drilled, 1066 on the Rod Claims.

APPENDIX E

HELICOPTER TIME DISTRIBUTION

Claim group/ area	Geology Mapping	Geology Prospecting Reconn.	Drill Program	Camp/ Misc.	Ferry	Total Hours	% Distribution
Craig Proj-Gen.		25.6		20.2	24	69.8	21.3
Craig-Trent zone			30.55			30.55	9.3
-Nadaleen			68.6			68.6	21.0
-West zone			40.9			40.9	12.5
Rod			65.35			65.35	20.0
Sian	21.3		30.8			52.1	15.9
Total hrs.	21.3	25.6	236.2	20.2	24	327.3	100%
% Distribution	6.5	7.8	72.2	6.2	7.3	100%	

APPENDIX F

SITE PREPARATION SUMMARY AND EXPENDITURE

Extensive drill site preparation was necessary. Simple sites required tree felling and levelling. More complicated sites required tree felling, levelling, benching and blasting.

Contractor J. Moreau and assistant were employed as follows:

<u>Date</u>	<u>Area</u>	<u>No. of Sites</u>	<u>Days</u>	<u>Labour cost (\$400/day)</u>
16-17 July	Trent zone	1	2	800
18-19 July	Nadaleen	1	2	800
20-26 July	West zone	4	7	2800
27-30 July	Rod	3	4	1600
31 July-1 Aug	Sian	1	2	800
27 Aug-3 Sept	Nadaleen	3	8	3200
4-7 Sept	Trent zone	2	4	1600
	Totals	<u>15</u>	<u>29</u>	<u>11600</u>

Total labour	\$11,600
Total mobilization/demob.	\$ 1,600
Total materials	\$ 488.40
Total cost	<u>\$13,688.40</u>

APPENDIX G

MONTHLY DRILL STATISTICS 1980

Month	Period	No. of days	No. of shifts	Footage	Footage per day	Footage per shift	Footage per man shift
July	15-31	16	26	1,987	124.2	76.4	38.2
August	1-31	31	50	3,617	116.7	72.3	36.2
September	1-17	17	20	1,612	94.8	80.6	40.3
Totals		64	96	7,216	113.75	75.2	37.6

No. of shifts excludes entire shifts lost due to moving and poor weather.

1980 : Best footage per shift = 141 ft. (hole CST-1) : Wright Drilling Co.

1977 : Best footage per shift = 310 ft; most holes best shift = 200 to 260 ft. :

Coates Drilling Co.

APPENDIX G

DRILL HOLE DATA ROD CLAIMS

	HOLE NO.			
	<u>CSR-1</u>	<u>CSR-2</u>	<u>CSR-4</u>	<u>CSR-3</u>
Local grid co-ordinates	1120S 4280W	985S 4165W	985S 4165W	345N 4290W
Elevation	4760'	4765'	4765'	4580'
Survey Information	Depth 0 Dip -60° Azimuth 310°	0 -60.5° 310°	0 -90° -	0 -60.5° 000°
Core size	BQ	BQ	BQ	BQ
Footage	338'	317'	280'	131'
End Depth	338'	655'	935'	1066'
Accumulated Footage total				
Overburden depth	35'	15'	14'	14'
Claim name	Rod no. 37	Rod no. 37	Rod no. 37	Rod no. 38
Grant number	YA15212	YA15212	YA15212	YA15213
Date drilled	15-17/8/80	18-20/8/80	20-23/8/80	24-25-18/80
Logged by	S.C.J.	S.C.J.	S.C.J.	S.C.J.
Mineralization	very low grade	very low grade	negligible abandoned	negligible abandoned

% core recovery is indicated on log sheets. All co-ordinates are approximations as holes were not accurately surveyed.

CANADIAN SUPERIOR EXPLORATION LIMITED

DIAMOND DRILLING LOG

PROPERTY ROD. CLAIMS. GROUP..... P-184....
 COMMENCED.. August. 15th, 1980.....
 COMPLETED... August 17th, 1980.....

LOCATION ...Discovery Ridge. (+ 4280W. 1120S. unsurveyed. grid)....
 ELEVATION ..±. 4760'..... DIPS....-60°.....
 BEARING... Az. 310°.....
 DEPTH 338. feet.....

DRILL HOLE No. CSR-1.....
 SHEET No. 1. of 3.....

FROM	TO	DESCRIPTION	SAMPLE No.	FROM	TO	SAMPLE WIDTH	ASSAY VALUE				% Core Recovery
0	42	No core recovered									-
	53	Quartzite : light-medium grey-brown 6" qz vein @ 45' 46-53' chips									27
	67	Shale : medium-dark grey									36
	78	Quartzite : light grey to light green grey (green matrix colouration chloritic or mica-fine). Rusty joints. Minor qz veins.									50
	86.5	Quartzite + shale : light green-grey qzt. interbedded with light green shales/ argillite.									30
	112	Shale : maroon 1" qz vein @ 92 feet.									72
	126	Shale : maroon + light-medium green bands. 3" qz vein @ 117 ft. (tuffaceous?)									88
	139.5	Argillite : very light grey to buff. ^ 137-139' grading to darker grey, @ 137' <13°, 139'-139.5' interlaminated dark grey to black.									94
	145	Quartzite : coarse grain, light-medium grey									90
	148	Quartzite : coarse grain, light-medium grey/brown. Incipient shatter. Minor qz veins.									75
	148.5	Gouge - fault									100
	151	Argillite, black + grey gn + qztic augen - fault zone									100
151	152	Quartzite : shattered to sheared - fault zone									100

CONTRACTOR: ...Wright Drilling Co.....

LOGGED BY: S.C. James.....

CANADIAN SUPERIOR EXPLORATION LIMITED

DIAMOND DRILLING LOG

DRILL HOLE No. ...CSR-1.....

PROPERTY ROD CLAIMS GROUP P-184

LOCATION Discovery Ridge

SHEET No. 2 of 3

FROM	TO	DESCRIPTION	SAMPLE No.	FROM	TO	SAMPLE WIDTH	ASSAY VALUE			Core Recovery
							Pb%	Zn%	Ag oz/t	
152	153	Quartzite + argillite : fault zone, sheared + cataclastic rolled fragments/augen,								
		fracture cleavage <46°.								100
	168.5	Limestone - (slightly dolomitic) fine grain, light grey, qz + carbonate veins.								
		sheared 154-155', crackle bx 155-162.5' sheared 161.5'								
		remnant algal bands @ 163' Incipient shatter 162.5-168.5'								97
	176.5	Limestone : fine grained black carbonaceous + qz veins								
		173.5-175 argillite interbeds								
		175-176.5' sheared @ 173' <18°								90
	180	Limestone : fine + coarse grain, medium-dark grey slightly dolomitized.								
		qz veins. 178-180' incipient shatter								
		180-180.5' qz vein								100
	201	Limestone : black carbonaceous, fine grained. Minor qz & carbonate								
		veining, 189-197' increasing intensity shatter								
		197-201' sheared + rolled fragments. veins qz								
		carbonate								91
	223.5	Limestone : medium-dark grey, alternating coarse & fine bands @ 210°								
		<13° bedding, 210-210.5' very vuggy qz., 210-211' shatter								
		bx. 216-222.5' blocky, chips incipient shatter qz,								
		222.5 - 223.5' incipient shatter.								70
223.5	226	Fault breccia zone oxidized manganiferous wad mineral zone. No visible fresh	42260	223.5	226	2.5	0.23	1.23	0.28	
		sulphides. (core loss)								66

CONTRACTOR: ...Wright Drilling Co.....

LOGGED BY: S.C. James

CANADIAN SUPERIOR EXPLORATION LIMITED

DIAMOND DRILLING LOG

DRILL HOLE No. CSR-1

PROPERTY ROD CLAIMS GROUP

LOCATION Discovery Ridge

SHEET No. . 3 of 3

FROM	TO	DESCRIPTION	SAMPLE No.	FROM	TO	SAMPLE WIDTH	ASSAY VALUE			% Core Recovery
							Pb%	Zn%	AgOz/t	
226	236	Dolomitized Limestone : blocky to incipient bx ankeritic carbonate + qz veins	42261	226	236	10	0.05	0.11	0.09	
		(core loss)								52
	242	Fault breccia with oxidized manganiferous wad zone. qz + carbonate veining	42262	236	242	6	0.02	0.18	0.11	63
	272	Limestone : dark grey (very blocky to 350') minor qz carbonate veins								
		(more veining 268-272')								93
	273.5	Limestone + argillite bands : sheared								93
	275	Quartzite : incipient shatter bx. - Fault								83
	283	Argillite : light green to yellowish green (1' maroon shale @ 281')								83
	303	Argillite/shale : maroon qz veins at 290' 297-298'. greenish bands 299-300'								98
	317	Argillite/shale : light green-yellow to green. silky red interlamination								
		303-307' brownish in places. gradational interlaminated								
		contact. Qz veins in places								94
	321	Quartzite + intense qz veining: brownish grey								83
321	338	Argillite : light green to yellowish green to buff + quartz veins.								
		maroon 329-330'								83
		END OF HOLE								

CONTRACTOR: Wright Drilling Co.

LOGGED BY: S.C. James

CANADIAN SUPERIOR EXPLORATION LIMITED

DIAMOND DRILLING LOG

PROPERTY..... Rod Claims Group..... P-184.....

COMMENCED..... 18th August 1980.....

COMPLETED..... 20th August 1980.....

LOCATION..... Discovery Ridge Area (+ 4165W 985S unsurveyed grid).....

ELEVATION..... 4765 ft...... DIPS..... -60°30'.....

BEARING..... 310°.....

DEPTH..... 317 ft.....

DRILL HOLE No. CSR-2.....

SHEET No. 1. Of 4.....

FROM	TO	DESCRIPTION	SAMPLE No.	FROM	TO	SAMPLE WIDTH	ASSAY VALUE			%Core Recovery
							Pb%	Zn%	AgOz/t	
0	15	No core recovered								-
	45	Shale - maroon, slightly silty in places. qz. veins occasionally								25
	52	Shale - light green grey to green								21
	58	Shale - maroon								50
	64	Shale - buff silty in places. oxidation on joints								57
	69	Quartzite - coarse grain, light-medium brown grey. 6" qz veins @ 65-65.5 and 67.5								
		-68;4" black slate? @ 68								63
	75	Slate - dark grey + black; light grey rusty interlamination @ 70' <33°								33
	78	Quartzite - light-medium brown grey + qz veins. Incipient shatter breccia 77-78'								75
	79	Gouge + qzt fragments. Fault								75
	84	Argillite - light-medium green grey to grey. Rusty on bedding/cleavage planes								66
	92	Quartzite - medium brownish grey @ 90'-2" sheared black argillite + rolled								50
		fragments 91-92 Strongly oxidized vuggy								
	99	Argillite - light-medium green grey-grey strong irregular cleavage No core								75
		96-97.5'								
99	116	Oxidized + Mn wad zone : dark brown + cream. f.bx? MnFe stained carbonate	42263	99	104	5	0.29	0.72	0.30	56
		fragments 105.6-116 Colloform textures, 107-116'=2'								

CONTRACTOR: Wright Drilling Co.

LOGGED BY: S.C. James

CANADIAN SUPERIOR EXPLORATION LIMITED

DIAMOND DRILLING LOG

DRILL HOLE No. CSR-2

PROPERTY Rod Claims Group P-184

LOCATION Discovery Ridge Area

SHEET No. 2 of 4

FROM	TO	DESCRIPTION	SAMPLE No.	FROM	TO	SAMPLE WIDTH	ASSAY VALUE			%Core Recovery
							Pb%	Zn%	AgOz/t	
99	116	cont'd recovered TNL. quartz in places. very minor fresh sph + gn in oxidized matrix	42264	104	107	3	0.49	0.84	0.49	
	123.5	Limestone : slightly dolomitic light grey (remnant wavy bands) incipient brecciation dolomite band @ 151-153.5	42265	107	116	9	0.18	0.39	0.17	80
	157	Dolomitic Limestone : crackle breccia @ 143-144'. Incipient shatter 144-157 minor qz + carbonate crackle veining. Stylolites in places open fractures 155-157								91
	158	Quartzite : light-medium brown grey + oxidized mineral stringers in fractures								100
	163.5	Shale : grey chips + gouge Fault								50
	169.5	Argillite/shale : medium grey to green grey. rusty cleavage + bedding planes 2" black sheared @ 164'	42266	169.5	173	3.5	0.06	0.99	0.19	33
	170.5	Oxidized Mn wad in Fault breccia? zone - dark brown	42267	173	176.5	3.5	0.63	1.33	0.38	100
	173	Sparry dolomitic bx : carbonate iron stained + qz + Fe Mn oxidized mineral stringers	Altered Mineralized? Fault zone							100
	176.5	Sparry Mn Fe stained dolomite bx @ 173.5 minor fresh galena blebs + oxidized mineralized bands (very strong)								100
176.5	227	Limestone : slightly dolomitized, medium grey to dark grey minor carbonate stringers, minor qz stringers								86
		176.5-178 : shatter bx - fault contact								
		178-187 : minor incipient shatter								

CONTRACTOR: D. Wright Drilling

LOGGED BY: S.C. James

CANADIAN SUPERIOR EXPLORATION LIMITED

DIAMOND DRILLING LOG

DRILL HOLE No. CSR-2

PROPERTY Rod Claims Group P-184

LOCATION Discovery Ridge Area

SHEET No. 3 of 4

FROM	TO	DESCRIPTION	SAMPLE No.	FROM	TO	SAMPLE WIDTH	ASSAY VALUE			% Core Recovery
176.5	227	cont'd 212-213 : pellets/lithic fragments? pisolitic 217.5-218.5: sheared $\angle 37^\circ$ 225-226 : narrow arg. beds?								
	228	Argillite/shale : medium grey sheared. Fault @ 227 $\angle 37^\circ$								100
	231	Limestone : dolomitic								88
257.5		Strongly oxidized wad/mineralized zone : 1" cataclastic bx upper contact. dark	42268	231	237	6	0.03	1.79	0.11	90
		brown 237.5-239.5 dolomite; remnant	42269	237	242	5	0.26	1.31	0.20	
		patches below 243. 247.5 gn bleb:								
		Blebs of fresh sph. in oxidized matrix								
	262	Sparry (Fe/Mn stained) dolomite breccia	42270	242	247	5	0.40	1.26	0.24	100
263.5		Oxidized (mineral wad) stringers bands + sparry dolomite breccia (Fe stain)	42271	247	252	5	0.19	1.02	0.20	100
	269	Sparry (Fe/Mn stained) dolomite breccia	42272	252	257.5	5.5	0.07	0.70	0.12	100
	272	Oxidized (mineral wad) stringers + dolomite breccia	42273	257.5	262	4.5	0.03	1.64	0.10	95
276.75		Sparry (Fe/Mn stained) dolomite	42274	262	267	5	0.04	0.59	0.10	95
	281	Dolomite : sparry crackle breccia + qz veins. Occasional stylolites	42275	267	272	5	0.01	0.37	0.10	80
		276.5-277								
	284	Dolomitic crackle breccia. SiO ₂ replacing do fragments?/or cataclastic bx with	Fault							80
		fine qztic and dolomite fragments? 283.5-284 Cataclastic								
		bx with qzt. dolomite frags. Qz veins								
	287	Quartzite - light medium brown grey shatter brecciated @ 286-287'								80
287	292	Argillite/shale : light-medium green grey to green								80

CONTRACTOR: D. Wright Drilling

LOGGED BY: S.C. James

CANADIAN SUPERIOR EXPLORATION LIMITED
DIAMOND DRILLING LOG

DRILL HOLE No. **CSR-2**

PROPERTY....Rod.Claims.Group.....

LOCATION Discovery Ridge Area

SHEET No. ...4. of 4.....

[illegible]

CONTRACTOR:.....Wright Drilling.....

LOGGED BY: S.C. James

CANADIAN SUPERIOR EXPLORATION LIMITED

DIAMOND DRILLING LOG

PROPERTY ROD CLAIMS GROUP P-184

COMMENCED 24th August, 1980

COMPLETED 25th August, 1980 ABANDONED

LOCATION Discovery Ridge (+ 4290W 345N unsurveyed grid)

ELEVATION 4580 ft. DIPS -60.5°

BEARING 000°

DEPTH 131 ft. ABANDONED

DRILL HOLE No. CSR-3

SHEET No. 1 of 1

FROM	TO	DESCRIPTION	SAMPLE No.	FROM	TO	SAMPLE WIDTH	ASSAY VALUE				% Core Recovery
0	14	Overburden									-
	20	No core recovered									-
20	131	Shale : dark grey to black carbonaceous. rusty joint planes evident on chips/									
ABANDONED		broken core.									20
		quartz stringers: 69.5 - 70 ft.									
		81									
		107 - 108.5									
		117 - 127									
		130 - 131 ft.									
		limonitic alteration @ 108-112 ft.									
		Hole planned for 400'. Drill contractor refused to continue drilling with BQ									
		equipment. Ground conditions require NQ/HQ equipment. Diamond bit worn out									
		drilling 75 to 131 ft.									
ABANDONED											

CONTRACTOR: Wright Drilling Co.

LOGGED BY: S.C. James

CANADIAN SUPERIOR EXPLORATION LIMITED

DIAMOND DRILLING LOG

PROPERTY... Rod Claims Group.....

LOCATION... Discovery Ridge Area (+ 4165W 985S unsurveyed grid)

DRILL HOLE No. CSR-4.....

COMMENCED... August 20, 1980 (p.m. shift)....

ELEVATION ± 4765. ft..... DIPS..... -90°.....

SHEET No. 1. of 4.....

COMPLETED... August 23, 1980.....

BEARING..... -.....

DEPTH..... 280 ft. abandoned.....

FROM	TO	DESCRIPTION	SAMPLE No.	FROM	TO	SAMPLE WIDTH	ASSAY VALUE				% Core Recovery
0	14	Casing - no core recovered									-
	57	Shale - maroon prominent cleavage @ 32' < 32°									21
	60	Shale - light green qz stringer @ 60' cleavage 57° @ 61' Sheared 58.5-59.5 Fault?									21
	62	Shale - maroon									18
	65	Shale - light yellowish green									18
	72	Shale/argillite - maroon sheared + qz veins									69
	76	Argillite - silty? light orange grey to buff									38
	77.5	Argillite/shale - light green; silky @ 76 contact clay/gouge. minor Fault									50
	78	Shale - medium greenish grey, slightly silky? sheared?									50
	81	Fault breccia - qz veins, cataclastic shale fragments, shatter brecciated quartzite									38
	94	Quartzite - light-medium grey to brown grey Fine-coarse grain. Minor dark grey									100
		argillite beds (Planar bedding @ 91' < 30°) 81-84' incipient shearing									
		< 42°. incipient shatter breccia throughout. Qz vein @ 84'									
	95	Argillite - sheared + qz stringers Fault?									50
95	105	Shale - medium grey, rusty planes & joints qz stringers @ 102'. 100-106' Sheared < 42°									41

CONTRACTOR: .. D. Wright Drilling Co.

LOGGED BY: .. S.C. James

CANADIAN SUPERIOR EXPLORATION LIMITED

DIAMOND DRILLING LOG

DRILL HOLE No. ... CSR-4

PROPERTY Rod Claims Group

LOCATION Discovery Ridge Area

SHEET No. 2 of 4

FROM	TO	DESCRIPTION	SAMPLE No.	FROM	TO	SAMPLE WIDTH	ASSAY VALUE				% Core Recovery
105	127	Limestone - slightly dolomitic + minor argillite; medium grey beds - irregular, deformed 105-106' sheared + brecciated <u>fault</u> contact incipient shear + shatter throughout 115.5-116 Dyke; pyritic (slightly brecciated on upper contact) 116-117 Dyke fingers pyritic + brecciation. 119-124 fracture parallel core. dyke filled 1/2" 125.5-126 dyke fingers?									100
	151	Limestone - medium-dark grey, massive, slightly dolomitized. Minor qz carbonate crackle + veining Stylolitic in places @ 130' <47° 139-140.5 and @ 143' very thin dyke stringers, pyritic from 139.5-151 thicker carbonate veins 145-146 carbonate vein (minor qz)									100
	162	Limestone - slightly dolomitic, bands of pisolitic (to oncolitic 162-162.5 and @ 156.6') + crackled stylolitic upper contact. Occasional stylolitic (+py)									100
	170.5	Limestone - slightly dolomitic : deformed faint wavy thin bands/beds. Incipient shear/shatter qz, carbonate veins 165-166 pyritic dyke stringers sheared. Sheared dyke @ 165' <47° minor sheared argillite @ 170.2'									100
	171	Dyke - pyritic, medium greenish grey talcose									93
	171	187.5 Limestone : dolomitic, dark grey + white calcite. Crackle bx, occasional later cross cutting veins of Fe stained carbonate 182-187 with vague wavy thin bands/beds									94

CONTRACTOR: D. Wright Drilling Co.

LOGGED BY: S.C. James

CANADIAN SUPERIOR EXPLORATION LIMITED

DIAMOND DRILLING LOG

DRILL HOLE No. CSR-4

PROPERTY Rod Claims Group

LOCATION Discovery Ridge Area

SHEET No. 3 of 4

FROM	TO	DESCRIPTION	SAMPLE No.	FROM	TO	SAMPLE WIDTH	ASSAY VALUE				% Core Recovery
187.5	189	Limestone : dolomitic : 2" cataclastic to shear bx @ 187.5. Sheared to incipient shatter throughout									100
	192.5	Fault zone : cataclastic brecciated limestone + qz veins, gouge + pyritic dyke stringers									100
	193	Limestone : strongly sheared									
	193.5	Argillite : medium grey sheared									75
	198	Shale/Argillite : dark grey-black thin bedded-banded @ 196' <23°									75
	204	Quartzite : brown grey sheared + minor narrow argillaceous bands. Narrow qz carbonate stringers									81
	216	Dolomitic limestone breccia - Fault bx? very coarse carbonate. 205.5-206.5 carbonate/qz vein. (from 207 badly broken) 211 very minor sphalerite specks + limonite/Mn wad.									100
	231	Limestone : slightly dolomitic - crackled									82
	233	Limestone : chips badly broken coarse carbonate veins									82
	237	Fault breccia : coarse carbonate veins, brownish grey limestone fragments. 235-237 + dark brown oxidized material with ¼" fresh galena grain (1 or 2 only) (wad.)									50
237	264	Limestone : slightly dolomitic, massive + crackled. Occasional coarse carbonate vein 287.5-239 chips; 250-253 6" chips - slippage /shear on some edges (some gouge or just mud) 258.5 (fracture totally oxidized ex-sulphide)									66

CONTRACTOR: ... D. Wright Drilling

LOGGED BY: ... S.C. James

DIAMOND DRILLING LOG

DRILL HOLE No. CSR-4

PROPERTY Rod Claims Group

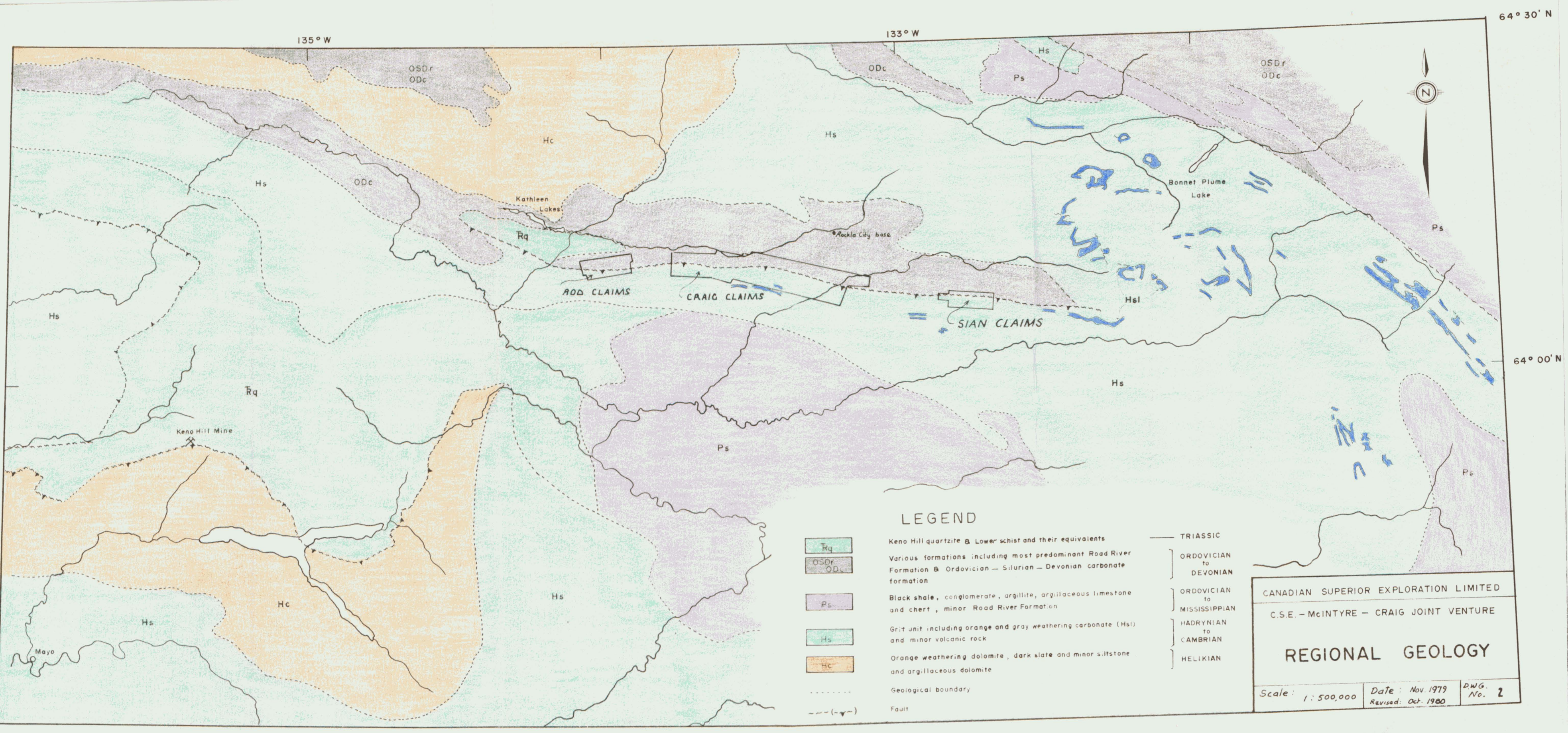
LOCATION Discovery Ridge Area

SHEET No. 4 of 4

[illegible]

CONTRACTOR: D. Wright Drilling Co.

LOGGED BY: S. C. James



LEGEND

- Rq Keno Hill quartzite & Lower schist and their equivalents
- OSDr
ODc Various formations including most predominant Road River Formation & Ordovician — Silurian — Devonian carbonate formation
- Ps Black shale, conglomerate, argillite, argillaceous limestone and chert, minor Road River Formation
- Hs Grit unit including orange and gray weathering carbonate (Hsl) and minor volcanic rock
- Hc Orange weathering dolomite, dark slate and minor siltstone and argillaceous dolomite
- Geological boundary
- (---) Fault

- TRIASSIC
- ORDOVICIAN to DEVONIAN
- ORDOVICIAN to MISSISSIPPIAN
- HADRYNIAN to CAMBRIAN
- HELIKIAN

CANADIAN SUPERIOR EXPLORATION LIMITED

C.S.E. — MCINTYRE — CRAIG JOINT VENTURE

REGIONAL GEOLOGY

Scale: 1:500,000

Date: Nov. 1979
Revised: Oct. 1980

DWG. No. 2

