

100-40	1221	411
FILE NO.		

INTERSTATE ENERGY CORP.

ASSESSMENT REPORT

JOY 5 & 6 MINERAL CLAIMS

McLYMONT CREEK PROJECT

Liard Mining Division  
NTS 104B/10W  
56<sup>0</sup>43' North Latitude  
130<sup>0</sup>50' West Longitude

FOR

INTERSTATE ENERGY CORP.  
11th Floor 808 West Hasting St.  
Vancouver, B.C.  
V6C 2X6

by

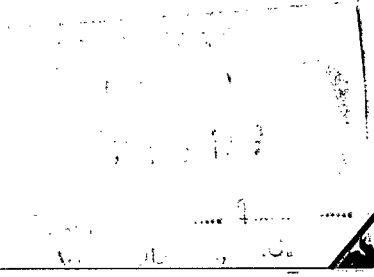
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HI-TEC RESOURCE MANAGEMENT LTD.  
1500-609 Granville Street Vancouver, B.C.  
V7Y 1G5

December 6, 1989

McLYMONT CREEK PROJECT

19,457



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SUMMARY

Interstate Energy Corporation's McLymont Creek Project consists of the Joy 5 and 6 mineral claims, which total 40 units in area. The property lies approximately 110 kilometers northwest of Stewart, British Columbia and 80 kilometers east of Wrangell, Alaska. Access to the property is via helicopter from the Bronson Creek gravel air strip, which is located approximately 20 kilometers to the west. Daily flights are made by fixed wing aircraft to this strip from Smithers during the summer field season.

The claims lie within the Iskut River area, Liard Mining Division, NTS 104B/10W. This area has been the focus of intense mining exploration activity in recent years and several major discoveries have been made including the Prime Capital-Cominco Snip property and the Skyline Reg property. In April 1989 Skyline reported reserves of 876,000 tons grading 0.55 oz gold, with a cut-off grade of 0.3 oz gold. As of June 1989, the deposit was in production at a rate of 312 tons/day. Geological reserves for the Snip property have been calculated as 1.2 million short tons @ 0.9 oz gold/ton.

The Joy 5 and 6 mineral claims lie within the westernmost part of the Intermontane Tectonic Belt, close to



the boundary of the Coastal Crystalline Tectonic Belt. Aerodat Limited carried out an airborne survey over the property, which produced inconclusive results. Vertical gradient data indicated possible fault zones. An orthophotographic study by Pamicon Developments Ltd. outlined several structural lineaments. Geological mapping presented in GSC Open File 2094 indicates that the Joy 6 claim and the northeast corner of the Joy 5 claim are underlain by hornblende biotite granite.

Property mapping completed during the 1989 assessment program confirmed that the majority of the property is underlain by intrusive rocks. A total of twenty-five rock samples were collected from altered granodiorite, altered mafic dykes and quartz veins. No anomalous values were found in any of the twenty-five rock samples, which were analyzed by the 31 element ICP method.

Results of the 1989 program were not very encouraging, but additional work is still required to fully evaluate the potential of the property. In particular heavy mineral samples should be taken of all the main drainages followed by prospecting and mapping in any resulting areas of anomalous geochemistry. As well, geological mapping at a scale of 1:5,000 should be completed and the southwest corner of the Joy 5 claim still needs to be prospected to determine the underlying rock type.



## INTRODUCTION

This report has been written to summarize the assessment work completed during August 1989 on the Joy 5 and 6 claims. A total of 25 rock samples were taken and geological mapping was completed.

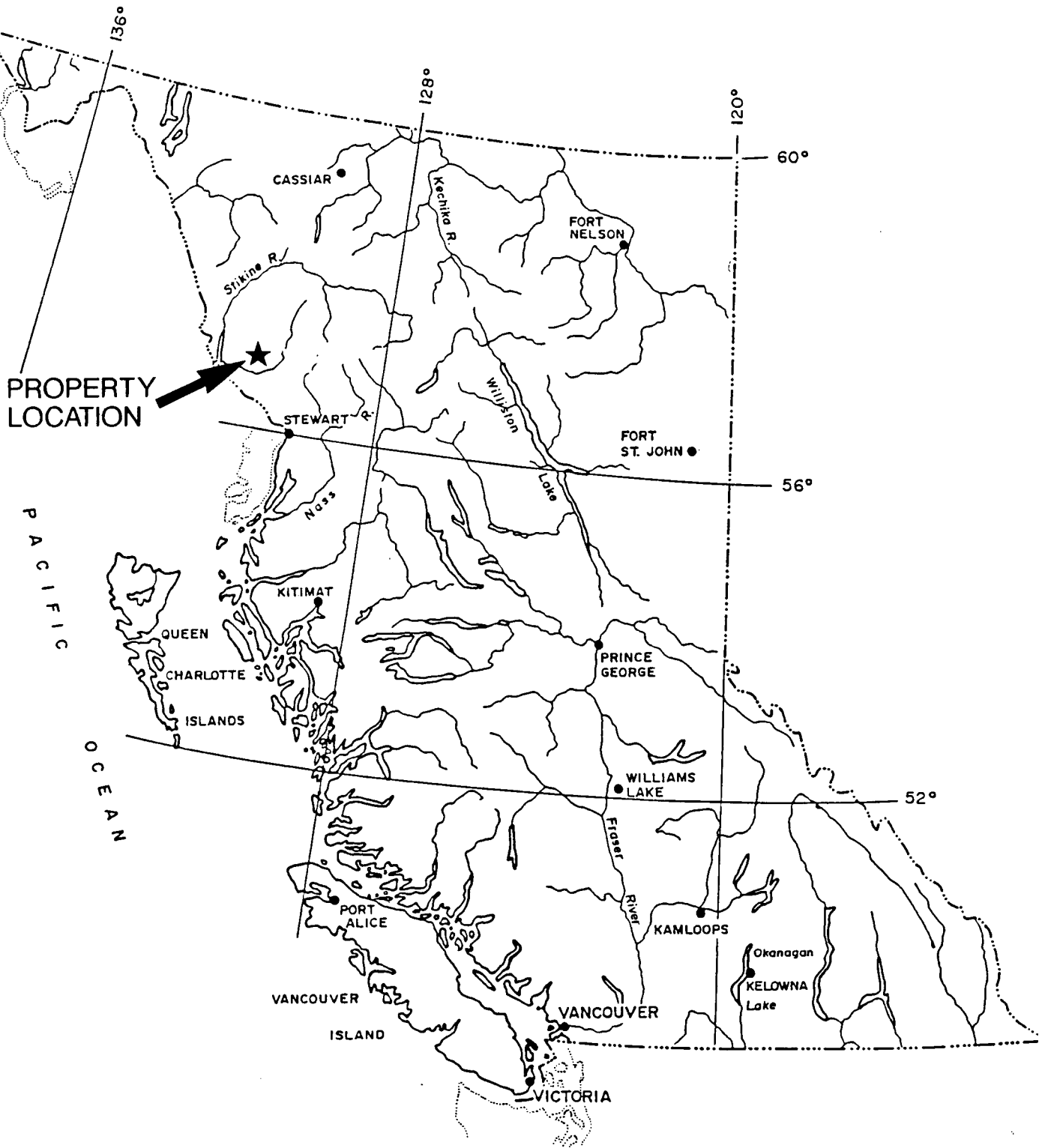
## LOCATION AND ACCESS

The subject property is located in the Iskut River area, approximately 110 kilometers northwest of Stewart, British Columbia and 80 kilometers east of Wrangell, Alaska (Figure 1). Access to the property is via helicopter from the Bronson Creek gravel air strip, which is located approximately 20 kilometers to the west. Daily flights are made by fixed wing aircraft to this strip from Smithers during the summer field season.

## PROPERTY AND OWNERSHIP

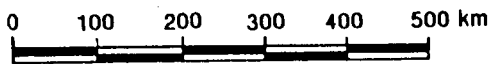
The McLymont Creek Project consists of the Joy 5 and 6 mineral claims, which total 40 units located in the Liard Mining Division, on claim map NTS 104B/10W. Records of the British Columbia Ministry of Energy, Mines and Petroleum Resources indicate that these claims are owned by Western





INTERSTATE ENERGY CORP.  
 McLYMONT CREEK PROJECT  
 JOY 5 & 6 CLAIMS

LOCATION MAP



HI-TEC  
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SCALE: As shown	N.T.S.: 104B/5	FIGURE No: 1
DWN. BY: H.V.	DATE: Nov./1989	
CHKD. BY: V. Kuran	PROJECT No: 89BC035	FILE No:

Informational Services Ltd. (Figure 2). The claims are under option to Interstate Energy Corp.

<u>Claim</u>	<u>Record No.</u>	<u>No. Units</u>	<u>Record Date</u>
Joy 5	3742	20	December 5, 1987
Joy 6	3743	20	December 5, 1987

### PHYSIOGRAPHY

The Joy 5 and 6 claims are situated in mountainous terrain where relief ranges from 1500 feet to 4500 feet above sea level (Figure 3). Lower slopes are covered with hemlock and spruce with an undergrowth of devil's club and huckleberry. Dense slide alder growth covers open steep slopes, while alpine vegetation is found above treeline.

### HISTORY AND PREVIOUS WORK

The first record of prospecting activity in the lower Iskut River area is dated 1907, when F.E. Bronson and Associates of Wrangell, Alaska, staked nine claims on the lower reaches of Bronson Creek, to the north of Johnny Mountain. The Iskut Mining Company was incorporated in 1910 and in 1911, it completed trenching and drifting on the Iskoot and Red Bluff claims. These claims were crown granted in 1914 and by 1920, a 30 foot adit was completed, which exposed veins and stringers hosting galena and gold-silver mineralization.





131°00' E

CHANDI  
RESOURCES  
LTD.

KESTREL  
RESOURCES  
LTD.

INTERNATIONAL PRISM  
EXPLORATION LTD. (IPE-V)

JAZZMAN  
RES. INC.  
(JZM-V)

KIRBY  
ENERGY  
INC.

THUMPER  
RES. CORP.

CONSOLIDATED  
SEA GOLD  
CORP.

GULF  
INTERNATIONAL  
MINERALS  
(GIM-V)

GAB 1

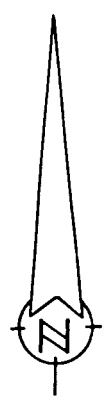
GAB 2

TICKER TAPE  
RESOURCES

McLymont  
Claim Group

GAB 4

GAB 3



56°49'N

massive sulphide  
& gold showing

INTERNATIONAL PRISM  
EXPLORATION LTD.  
(IPE-V)

NEW 5

NEW 6

NEW 1

NEW 2

JOY 11

INTERNATIONAL PRISM EXPLORATION LTD.  
(IPE-V)

JOY 13

JOY 14

BRENWEST MINING  
LTD. (BWM-V)

JOY 4

JOY 7

JOY 8

BIG M PETROLEUM  
INC. (BIM-V)

VANSTATES  
RESOURCES LTD.  
(VST-V)

JOY 5

JOY 6

TUNGCO RESOURCE CORP.  
(TNG-V)

Iskut  
River

JP 2  
River

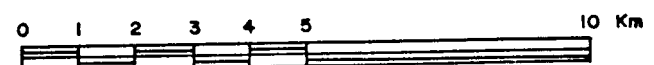
HFDF

SKYLINE  
Stonehouse  
Gold Mine

INTERSTATE ENERGY CORP.

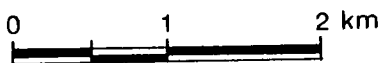
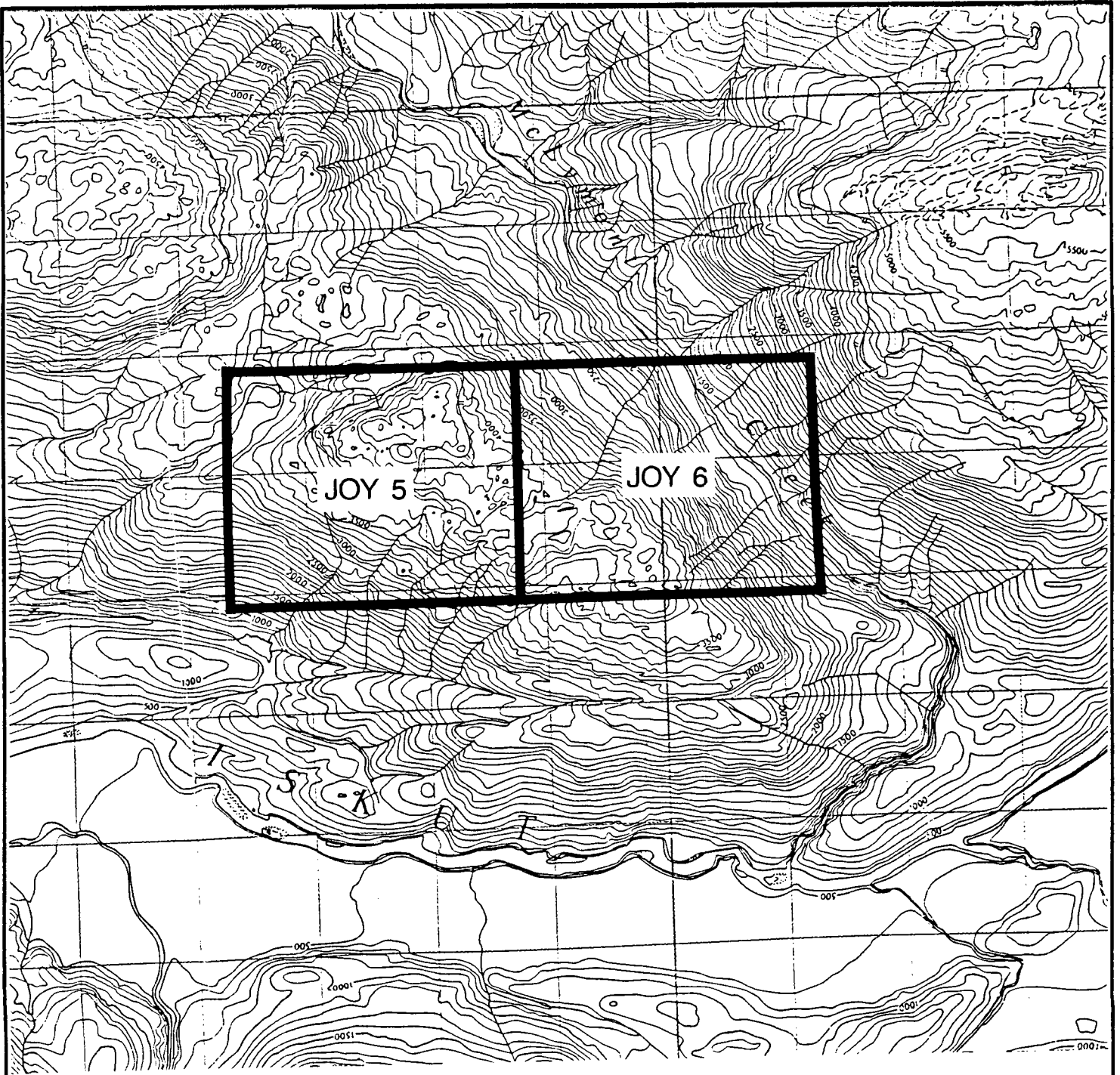
McLYMONT CREEK PROJECT  
JOY 5 & 6 CLAIMS

CLAIM MAP



H-TEC  
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SCALE: As shown	N.T.S.: 104B/5	FIGURE No: <b>2</b>
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INTERSTATE ENERGY CORP.  
 McLYMONT CREEK PROJECT  
 JOY 5 & 6 CLAIMS

TOPOGRAPHIC MAP



MI-TEC  
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SCALE: As shown	N.T.S.: 104B/5	FIGURE No: 3
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CHKD. BY: V. Kuran	PROJECT No: 89BC035	FILE No:

The next major exploration effort in the area occurred in 1954 when Hudson's Bay Mining and Smelting located the Pickaxe showing and found high grade gold-silver-lead-zinc float on the upper slopes of Johnny Mountain. These claims were allowed to lapse and the showings are now part of Skyline Exploration's Reg property.

Several major mining companies conducted airborne geophysical surveys in the region during the 1960's to explore for porphyry copper-molybdenum deposits. Noranda and Kennco investigated the original showings on Johnny Mountain and staked several claims. The original crown grants and surrounding claims were explored by a consortium of Cominco, Copper Soo Mining Ltd., and Tuksi Mining and Development ltd. in 1965. Approximately 555 meters (1,800 feet) of diamond drilling in 10 holes was completed by this group.

Numerous mining companies conducted exploration work elsewhere in the Iskut River area in the 1960's and 1970's. Among these were Iskut Silver Mines, which conducted programs involving geological and geochemical surveys, trenching and packsack drilling on a property located north of the Iskut River and between the Twin and Verrett Rivers.



Between 1962 and 1972 Newmont Mining Corporation of Canada Ltd. investigated several copper-bearing skarn zones northwest of Newmont Lake. They also conducted exploration programs involving geological mapping, geophysics and limited diamond drilling on several prospects in an area near the headwaters of Forrest Kerr Creek.

In 1965, Silver Standard Mines commenced work on the E & L prospect, a nickel-copper deposit, on Nickel Mountain near the headwaters of Snippaker Creek. This prospect was later optioned by Sumito Metal Mining and by the end of 1971, 1,500 feet of underground work had been completed in addition to intensive trenching and surface and underground drilling programs.

In 1969, Skyline Explorations Ltd. restaked the Inel property after having discovered massive sulfide float, which originated from the head of Bronson Glacier. In 1974, Texasgulf Inc. investigated the porphyry copper potential of Johnny Mountain.

The Reg property was restaked by Skyline in 1980 and in 1981, a program of trenching and limited diamond drilling was carried out on this property. The Reg property was optioned to Placer Developments Ltd. in 1982, which formed a joint venture program with Anaconda Canada Ltd. to carry out various surveys in addition to trenching and diamond



drilling in 1983. Exploration was continued on the property by Anaconda during the 1984 field season, after which it reverted to Skyline Explorations Ltd.

In 1980 DuPont staked the Bach and Bax claims as a result of a 10 kg anomalous gold stream sediment sample of 1,350 ppb (-100 mesh) from a tributary of Verret River. A limited follow-up silt sampling program encountered some anomalous gold values, but subsequently no further work was done. DuPont of Canada Explorations Ltd. staked the McLymont property (formerly Warrior claims), located approximately two kilometers to the northeast, on the basis of a regional stream sediment survey in 1980. A number of geophysical and geochemical targets plus gold-silver bearing quartz veins were discovered (Kowalchuk, 1982). A two day program of geochemical sampling was completed by DuPont that year, along with a minor geological examination.

In 1987 Skyline completed 13,655 meters of diamond drilling, 226 meters of underground raise development, and 551.4 meters of drifting on the Stonehouse Gold Zone. This work confirmed the presence of high grade gold mineralization in addition to silver and copper with gold. The proven reserves to date are 876,000 tons grading 0.55 oz/t Au, with a cut-off grade of 0.3 oz gold used to develop



the estimate. During June 1989 production figures were 4,230 oz gold, 7,487 oz silver, and 134,960 lb copper from 9,364 tons of ore (312 ton/day).

Prime Resources and Cominco Ltd. own the Snip gold deposit, which is located five kilometers northwest of Skyline's Stonehouse Gold deposit. In 1987, 13,857 meters of drilling outlined 1.1 M metric tonnes @ 24.0 g/t gold (1.2 M short tons @ 0.7 oz gold/t).

Gulf International Minerals Ltd. acquired the major part of the McLymont claims located fifteen kilometers northwest of the Joy 5 and 6 claims. Previous drilling results gave values averaging 0.164 Au oz/ton (5.6 g/tonne) over 4.3 feet (1.31 meter) for three holes (Yeager and Ikona, 1987). During the 1987 drilling program Gulf International intersected high-grade gold mineralization including 28.1 grams per tonne over 3.96 meters (Lefebure, 1988). To date drill results have outlined the gold-bearing zones over a strike length of 300 meters and to a depth of 150 meters. The mineralized horizons are variable in width with intersections up to 45.5 meters grading 7.1 grams gold per tonne in drill hole 88-28 (Awmack, 1989). The mineralization occurs in skarn zones hosted by Permian limestone found along a prominent northeast trending structure on the McLymont 3 mineral claim.



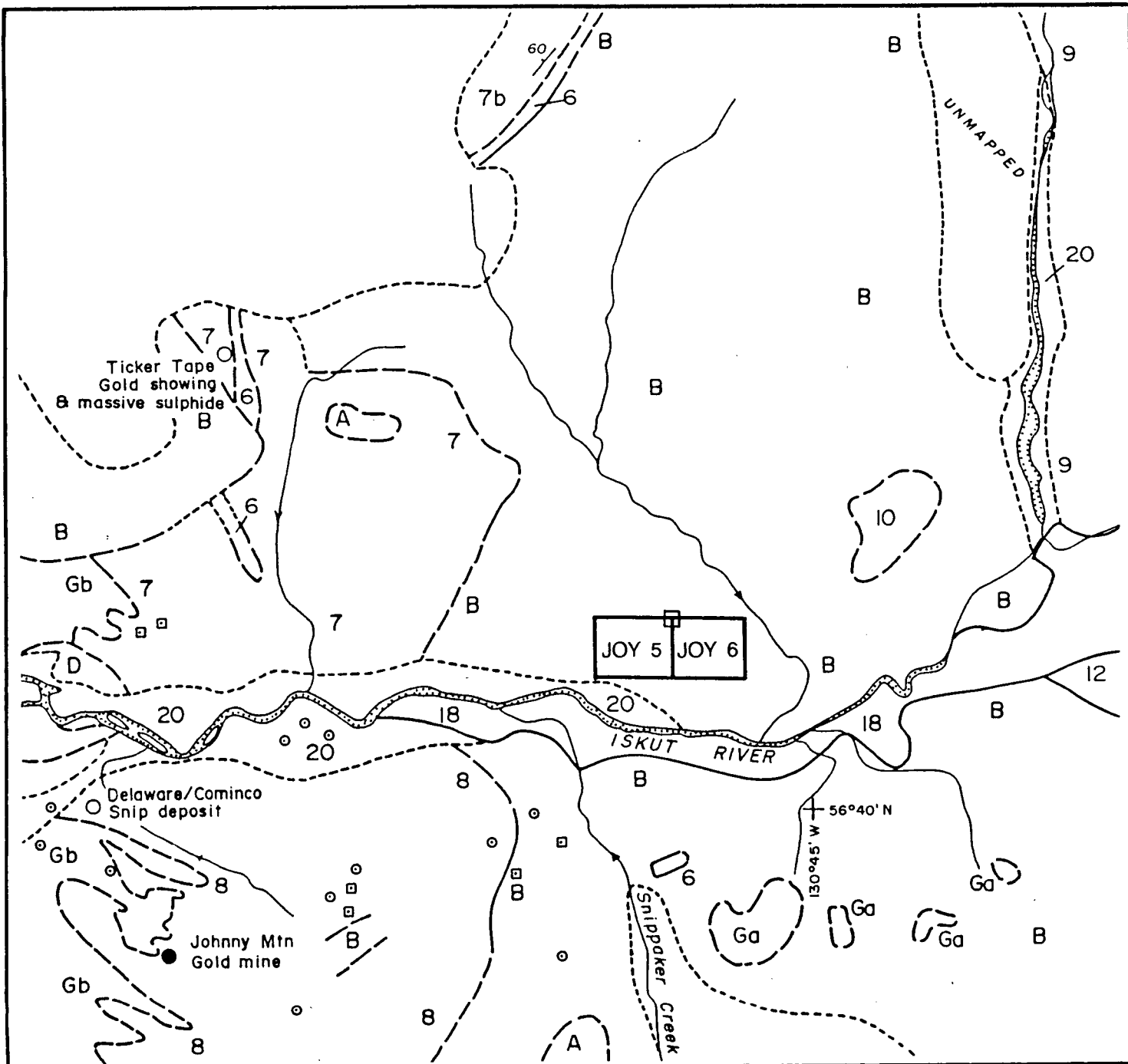
Previous exploration work on the Joy 5 and 6 claim has consisted of airborne geophysics, reconnaissance geochemical sampling, reconnaissance geological mapping, and an orthophotographic study. Vertical gradient data from the geophysical surveying indicated possible fault zones on the property and some weak resistivity lows in the southwest corner of the Joy 5 claim. The orthophotographic study outlined several structural lineaments on the claims.

#### REGIONAL GEOLOGY AND MINERALIZATION

The Joy 5 and 6 claims lie within the westernmost edge of the Intermontane Tectonic Belt, close to the boundary with the Coastal Crystalline Tectonic Belt. To date, geological studies of the area have been completed by Kerr (1930, 1948) and Grove (1986) and they are represented on Geological Survey of Canada Maps 9-1957, 1418A and 1505A. G.S.C. Open File 2094 (1989) compiles geological mapping done by various geologists for consulting and mining companies.

The Coast Crystalline Belt rocks in the area are typically folded and metamorphosed schists and gneisses of mid-Paleozoic age (Figure 4). These rocks are found





**SEDIMENTARY and VOLCANIC ROCKS**

**QUATERNARY RECENT**

- 20** Unconsolidated glacial and fluvial clay, silt, sand, gravels, till; peat, muskeg.
- 18** Olivine basalt, ash, cinders

**UPPER JURASSIC and LOWER CRETACEOUS**

- 12** Argillite, greywacke, conglomerate, coal.

**JURASSIC and/or EARLIER PRE-UPPER JURASSIC**

- 10** Mainly sedimentary rocks
- 9** Mainly volcanic rocks; minor conglomerate; greywacke, argillite.

**TRIASSIC**

- 8** Tuff, siltstone, limestone, conglomerate, brachiopods

**PERMIAN and/or TRIASSIC**

- 7** Volcanic and sedimentary rocks undivided; 7b) mainly greywacke, siltstone, conglomerate

**PERMIAN and (?) EARLIER**

- 6** Limestone, greenstone, chert, argillite, phyllitic quartzite, greywacke; meta-andesite and meta-giorite locally abundant near ultramafic bodies. May include younger greenstone.

**INTRUSIVE ROCKS**

- A** Felstone, felsite porphyry
- B** Mainly quartz monzonite, granodiorite, granite
- D** Granite porphyry, granophyre, syenite and related rocks

**METAMORPHIC ROCKS**

**PERMIAN and/or EARLIER PRE MIDDLE PERMIAN**

- G** Ga) Gneiss Gb) phyllite, quartzite, minor crystalline limestone, highly altered and sheared greywacke and volcanic rock.

--- Geological boundary (defined, approximate, assumed)

/ Bedding (inclined)

■ Heavy mineral concentrate

○ Mineral occurrence



**INTERSTATE ENERGY CORP.**

**McLYMONT CREEK PROJECT  
JOY 5 & 6 CLAIMS**

**REGIONAL GEOLOGY  
and MINERAL DEPOSITS**



**MITEC**  
RESOURCE MANAGEMENT LTD.

SCALE: As shown	N.T.S.: 104B/5	FIGURE No: <b>4</b>
DWN. BY: H.V.	DATE: Nov./1989	
CHKD. BY: V. Kuran	PROJECT No: 89BC035	FILE No:



adjacent to small intrusive bodies, which often have a crystalline limestone covering. The intrusives range in composition from quartz diorite to quartz monzonite.

The Intermontane Tectonic Belt in the Iskut River area is characterized by a Mesozoic volcanic and sedimentary sequence, which may be correlative with lower and middle Jurassic units of the Unuk River and Stewart area to the southeast (Grove, 1986). In the vicinity of Johnny Mtn. and Snippaker Peak, these rocks are overlain by Paleozoic metasedimentary units, which have been thrust over the younger Mesozoic sequence.

Minor Quaternary basalt flows and ash deposits occur along the Iskut River 2 kilometers southwest of the subject property.

On the Prime Resources-Cominco joint venture Snip property, high grade gold has been found in four quartz-carbonate-pyrite shear veins that strike  $110^{\circ}$  to  $120^{\circ}$  and dip  $65^{\circ}$  to the southwest. These veins are hosted by Mesozoic arenites and tuffs that have been cut by a dike-like orthoclase porphyry, which has extensive K-feldspar, silica and pyrite alteration.

The Reg property hosts several sulfide-rich auriferous quartz veins and lenses that are collectively known as the



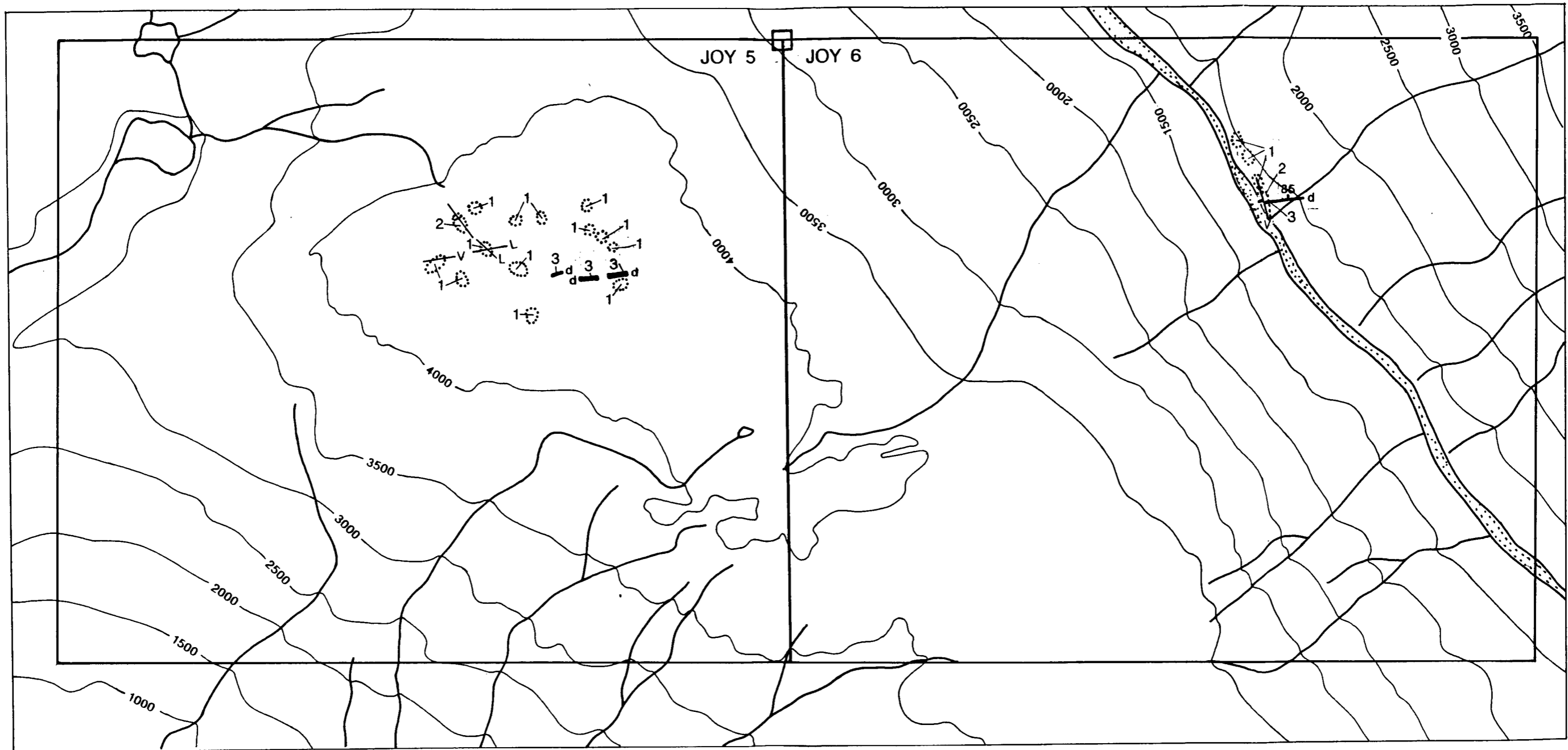
Stonehouse Gold Zone (Grove, 1986). This deposit is hosted by an east-west striking sequence of Jurassic volcanoclastics and prophyritic flows that dip to the north and are unconformably overlain by volcanic breccias and tuffs. Known mineralization is restricted to steeply dipping fractures that trend northeast.

#### PROPERTY GEOLOGY

Geological Survey of Canada mapping indicates that the Joy 6 claim and the northeast corner of the Joy 5 claim are underlain by a hornblende-biotite granite. Limited property geological mapping completed during the 1989 assessment program generally confirmed the regional mapping.

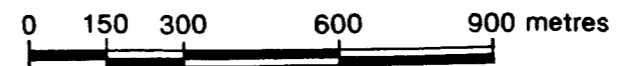
The major rock type observed on the property was a hornblende-biotite granodiorite, containing occasional 1 to 2 mm K-feldspar phenocrysts. A second phase of this granodiorite is of a more mafic composition and is quite distinct from the first phase outcrops, which are fairly close to being a quartz-monzonite. This second phase was only seen once in outcrop along McLymont Creek. The granodiorite outcrops seen on the property are well fractured in numerous directions. The entire property appears to have been subjected to potassic alteration as well as occasional evidence of silicification.





LEGEND

- |   |                        |       |                                   |
|---|------------------------|-------|-----------------------------------|
| 3 | Mafic Dyke             | — L   | Lineament                         |
| 2 | Granodiorite / diorite | — d   | Dyke - Strike / Dip               |
| 1 | Granodiorite           | — v   | Vein - Strike & Dip               |
|   |                        | ○     | Outcrop Pattern                   |
|   |                        | ↘ / ↗ | Strike, Dip,<br>inclined vertical |



<b>INTERSTATE ENERGY CORP.</b> <b>McLYMONT CREEK PROJECT</b> <b>JOY 5 &amp; 6 CLAIMS</b>			
<b>PROPERTY GEOLOGY</b>			
	SCALE: As shown	H.T.B.: 104B/5	FIGURE No.: <b>5</b>
	DRAWN BY: H.V.	DATE: Nov./1989	FILE No.:
	CHG. BY: V. Kuran	PROJECT No.: 89BC035	

Mafic dykes on the property vary from 0.5 to 1.0 meters in width and can be traced along strike for up to 6 meters. They tend to pinch out fairly quickly along strike and for the most part are quite magnetic. Minor chloritization of hornblende occurs in the granodiorite where these dykes have intruded the granodiorite. As well, occasional epidote haloes occur along chilled margins next to these mafic dykes.

#### PROPERTY GEOCHEMISTRY

With the exception of two stream sediment samples taken during the National Geochemical Reconnaissance survey in which no anomalous values above the 80th percentile mark for gold, silver, copper, lead, zinc, and arsenic were obtained, no previous geochemical sampling has been done on the Joy 5 and 6 claims. A total of 25 rock grab samples were collected from the property during the 1989 assessment program. Samples were taken from altered granodiorite, altered mafic dykes, and quartz veins. Rock sample descriptions are provided in Appendix II.

All of the samples were submitted to Min-En Laboratories Limited, North Vancouver, British Columbia for analysis. Samples were subjected to 31 element ICP analysis for Ag, Al, As, B, Ba, Be, Bi, Ca, Cd, Co, Cu, Fe, K, Li,



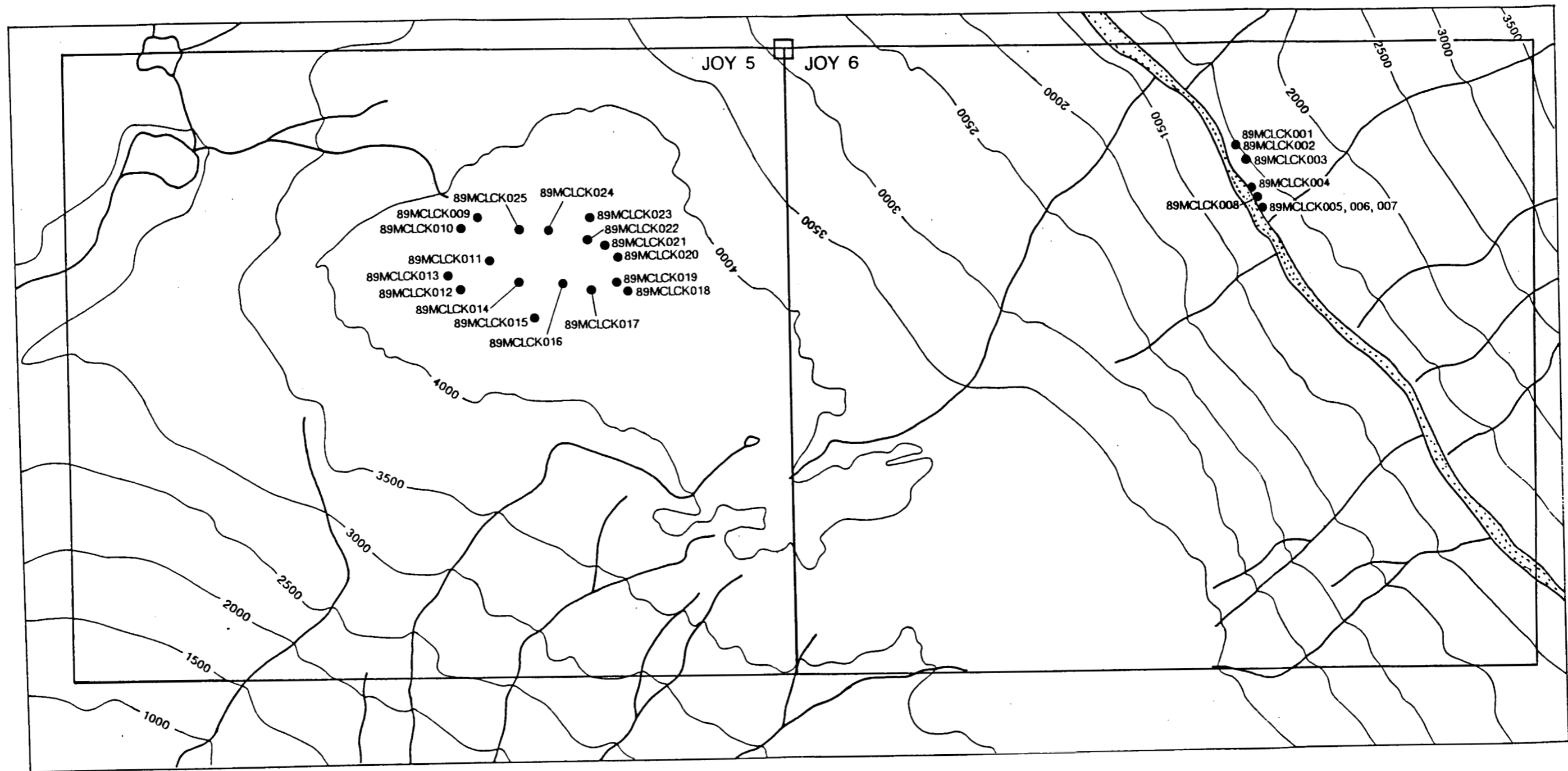
Mg, Mn, Mo, Na, Ni, P, Pb, Sb, Sr, Th, U, V, Zn, Ga, Sn, W, and Cr. Samples were analyzed for gold by wet geochem. Analytical procedures are described in Appendix III.

Analytical data for the rock samples are reported in Appendix IV. Geochemical sample locations and results are plotted on Figure 6. Statistical treatment of the rock sample results is not possible as the sample population is too small. In general the results are not very encouraging. The highest gold value is 15 ppb in grab sample 89MCLCK007, which was taken from an outcrop of a quartz-carbonate vein. The highest silver (3.3 ppm), lead (63 ppm), and zinc (130 ppm) values all came from grab sample 89MCLCK017 taken from a chloritized mafic dyke.

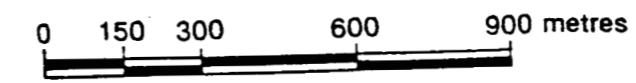
#### CONCLUSIONS AND RECOMMENDATIONS

Results of the 1989 program were not very encouraging, but additional work is still required to fully evaluate the potential of the property. In particular heavy mineral samples should be taken from all the main drainages followed by prospecting and mapping in any resulting area of anomalous geochemistry. As well, the southwest corner of the Joy 5 claim still needs to be mapped to determine the underlying rock type.





SAMPLE NUMBER	AG	AL	AS	B	BA	BE	BI	CA	CD	CO	CU	FE	K	LI	MG	MN	MO	NA	NI	P	PB	SB	SR	TH	U	V	ZN	GA	SN	W	CR	AU	
	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM
89-MCLCK-001	.5	9130	6	1	104	.8	2	23790	.8	9	20660	1580	12	5070	510	1	180	2	720	20	1	7	1	1	35.1	58	1	1	1	38	5		
89-MCLCK-002	.5	5790	14	1	81	.4	4	6390	.9	7	8	20140	1010	10	3730	438	1	820	2	710	12	1	13	1	1	53.1	40	1	1	1	78	5	
89-MCLCK-003	.7	5910	12	1	156	.5	4	6230	.5	8	9	20100	850	6	4040	452	1	720	1	660	16	1	13	1	1	55.1	45	1	1	1	64	5	
89-MCLCK-004	.6	11390	13	1	99	.5	3	21010	1.2	6	12	18990	1530	9	8620	504	3	440	3	640	20	1	16	1	1	46.0	25	1	1	1	88	10	
89-MCLCK-005	3.6	26260	16	1	113	.9	20	24940	1.4	40	20	55370	3680	13	26090	757	5	1400	29	903	49	1	32	1	1	193.8	54	2	4	3	135	5	
89-MCLCK-006	3.2	23310	6	1	39	1.0	18	28080	3.0	34	11	62180	550	37	23540	787	6	683	2	1420	49	2	9	1	1	224.2	62	2	3	2	1	5	
89-MCLCK-007	1.2	2050	36	2	284	.9	7	114190	4.2	21	8	59740	1210	1	23100	4103	8	60	9	240	75	12	23	3	1	28.1	92	2	2	2	31	15	
89-MCLCK-008	1.9	19690	11	1	82	.8	11	17860	1.3	26	45	45370	1830	13	14240	765	4	460	5	1330	34	1	51	1	1	170.8	92	2	2	1	18	5	
89-MCLCK-009	.8	9440	12	1	31	.4	5	10270	.5	8	7	19680	720	6	4370	509	2	630	1	930	13	1	47	1	1	56.4	32	1	1	1	66	5	
89-MCLCK-010	.4	10820	5	1	1109	.8	3	18310	1.2	9	6	24180	3640	8	3570	879	1	240	1	960	18	1	26	1	1	31.4	64	1	1	1	66	5	
89-MCLCK-011	.2	4000	25	1	55	.2	1	3450	.8	3	7	6290	360	2	1090	144	1	110	3	80	2	1	39	1	1	10.7	11	1	1	1	88	5	
89-MCLCK-012	.9	13140	1	1	47	.8	5	10490	.8	10	8	22630	1130	5	4830	589	1	550	2	860	17	1	80	1	1	58.2	47	1	1	1	170	5	
89-MCLCK-013	.7	12860	2	1	56	.4	3	17390	.5	3	6	10350	400	1	500	172	1	40	3	490	3	176	1	2	26.7	11	1	1	1	1	170	5	
89-MCLCK-014	1.1	14070	18	1	44	.7	6	10940	.9	10	9	22980	1230	12	6820	749	3	380	4	920	20	1	72	2	1	55.0	54	2	1	1	96	5	
89-MCLCK-015	.1	13090	6	1	87	1.2	1	790	.5	8	10	21460	2960	5	1500	796	1	130	3	470	13	1	8	1	1	35.3	83	1	1	1	90	10	
89-MCLCK-016	1.3	21050	1	1	122	.9	9	10810	.6	16	12	36650	1870	22	12470	1199	3	380	5	1720	34	1	44	1	1	72.8	107	2	2	1	31	5	
89-MCLCK-017	3.3	34860	1	1	184	1.6	19	26380	1.8	43	46	57580	1190	18	34310	1272	8	890	49	1540	63	2	81	1	1	192.9	130	2	4	3	161	10	
89-MCLCK-018	.9	11150	14	1	115	.7	6	7130	1.3	10	10	20480	1290	7	6180	579	2	430	3	570	23	1	47	1	1	52.6	41	2	1	1	91	5	
89-MCLCK-019	2.9	27140	1	1	110	1.2	17	30410	2.2	34	21	58070	2050	22	24600	1346	7	1510	4	1340	46	1	15	1	1	232.4	96	2	3	2	1	5	
89-MCLCK-020	.9	14670	10	1	44	.8	6	11010	.5	11	21	19610	830	7	7120	759	3	350	3	660	21	1	106	2	1	45.9	47	2	1	1	95	5	
89-MCLCK-021	1.0	14150	5	1	36	.4	5	18660	.5	5	7	12240	570	1	750	302	1	350	2	510	6	1	152	1	2	34.8	14	1	1	1	105	10	
89-MCLCK-022	.8	12920	16	1	19	.3	4	16600	.5	6	6	12920	520	5	4910	388	1	380	4	470	13	1	127	1	2	33.1	25	2	1	1	108	5	
89-MCLCK-023	.8	12170	18	1	83	.5	5	7490	.5	9	7	17130	1700	10	5870	626	2	360	4	580	18	1	74	1	1	35.9	47	2	1	1	110	5	
89-MCLCK-024	.5	13390	16	1	67	1.1	5	6840	.5	10	8	25850	1750	11	6310	725	3	400	3	980	28	1	48	1	2	57.0	57	2	1	1	74	5	
89-MCLCK-025	1.5	15430	13	1	91	.8	6	7910	.5	15	49	30310	1710	15	9140	714	5	430	1	1130	31	1	42	1	1	79.6	68	2	1	1	67	5	



**INTERSTATE ENERGY CORP.**  
**McLYMONT CREEK PROJECT**  
**JOY 5 & 6 CLAIMS**

**PROPERTY GEOCHEMISTRY**

SCALE: As shown	N.T.S. 1048/5	FIGURE No. <b>6</b>
DRAWN BY: H.V.	DATE: Nov./1989	FILE No.
CHECK BY: V. Kuran	PROJECT No. 89BC035	

## REFERENCES

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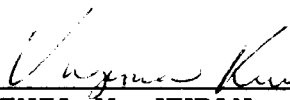
**APPENDIX I**  
**STATEMENT OF QUALIFICATIONS**

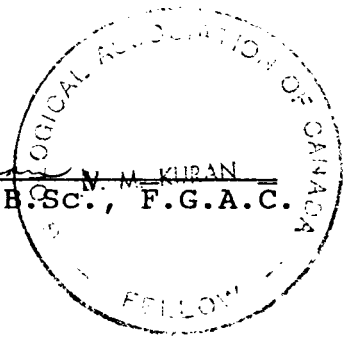
STATEMENT OF QUALIFICATIONS

I, VIRGINIA M. KURAN, of the Municipality of Maple Ridge, in the Province of British Columbia, hereby certify:

1. THAT I am a geologist residing at 25630 Bosonworth Avenue RR#1, Maple Ridge, British Columbia, Canada, V2X 7E6.
2. THAT I obtained an Honors Bachelor of Science degree in Geology from the University of British Columbia, in the City of Vancouver, in the Province of British Columbia, in 1980.
3. THAT I have practiced geology professionally from 1980 to 1989, including 2 years as an exploration geologist with Cominco Ltd.
4. THAT I am a registered Fellow of the Geological Association of Canada.
5. THAT this report is based upon a thorough review of published and printed reports and maps on the subject property and the surrounding area. The writer has not personally visited the property. The assessment work summarized in this report was carried out by geologists Kent Akhurst and George King on August 30 and August 31, 1989.

SIGNED:

  
VIRGINIA M. KURAN, B.Sc., F.G.A.C.



December 6, 1989

**APPENDIX II**

**ROCK SAMPLE DESCRIPTIONS**

## ROCK SAMPLE DESCRIPTIONS:

### Sample 89McLck-001:

Granodiorite: Taken from granodiorite outcrop, plagioclase slightly sericitized, 15-20 % quartz, 10 % mafics (fine-medium grained hornblende and biotite), trace pyrite.

### Sample 89McLck-002:

Granodiorite: Same as for -001, sample taken 10 m. downstream from -001.

### Sample 89McLck-003:

Granodiorite: Sample taken 30 m. downstream from -002. Sample same as -001, -002 except for a trace of K-spar, still granodiorite though.

### Sample 89McLck-004:

Granodiorite: Sample taken 40 m. downstream from -003, and taken from beside east side of McLymont Creek. Outcrop is 10 m. long, 6 m. high. Sample is the same as before except mafics are 30 % still hornblende/biotite.

### Sample 89McLck-005:

Mafic Dyke: 0.3 m. mafic dyke intruding granodiorite, strike dip of 261/85 NW. Rock is magnetic, aphanitic, heavy, some 2mm quartz eyes, trace chlorite, trace epidote. Looks like a basalt, dark-grey to black in colour.

### Sample 89McLck-006:

Mafic Dyke: Sample same as for -005, trace of pyrite, however dykes approximately 1 per 5 m., 0.75 m. thick, minor folding, strike however is always close to 300°, dip appears vertical. Across McLymont Creek from here, one dyke is moderately iron-stained. Rare 1 m. by 10 cm. epidote halos on contact, no sulphides seen in halos.

### Sample 89McLck-007:

Quartz-carbonate Vein: Sample taken 20 m. downstream from -006, same outcrop, downstream end. Over 90 % of outcrop is granodiorite. Sample is an 11 cm wide intensely iron stained quartz-carbonate vein. Vein includes a 2 cm. band of quartz bearing (euhedral, 5 mm length) material, center of vein has 3 cm. band of whitish-pink, semi-euhedral carbonate (calcite, ankerite, dolomite?). Strike/dip of 159°/90°. Vein is only 4 m. long.

Sample 89McLck-008:

Mafic Granodiorite: Sample taken from same outcrop as -006 and -007, the downstream half of the outcrop has a 20 m. by 10 m. series of bands of a granodiorite/diorite rock-type. Came later as clear contact with granodiorite on both sides and occasional xenoliths of granodiorite seen in the more mafic granodiorite. The rock appears to be a later pulse of the same intrusive event. Weathered surface has a porphyritic appearance at first glance. Rock is magnetic, quartz 8 %, trace of epidote, trace pyrite throughout, occasional flecks of biotite, mafics are aphanitic for the most part. Where this rock-type contacts with the original granodiorite intrusion is diorite, rest is mafic side of granodiorite.

Total outcrop is 30 m. wide by 60 m. long.

Order of intrusion from field observations is:  
granodiorite  
granodiorite/diorite  
mafic dykes.

Sample 89McLck-009:

Granodiorite, mafics 30 %, almost totally hornblende, occasional biotite, quartz 20 %, rest is plagioclase. Trace of chloritization on some hornblende, rock very similar to previously noted granodiorite. 2 cm. band of K-spar seen in outcrop. Whole ridge is scattered outcrops (tors).

Sample 89McLck-010:

Granodiorite: Fe stained, yellow-brown colour, all minerals altered except for quartz, limonitic, chloritized (trace), sample taken from area of lineament, runs 143°.

Sample 89McLck-011:

Quartz Vein: 172 m. on a bearing of 132°, 2 cm. wide quartz vein, minor chlorite, grey-white colour, in granodiorite host-rock, occasional epidote halo surrounding vein (in granodiorite). The quartz vein is 6 m. long, has rare K-spar partings in it, replaced by a K-spar vein afterwards.

-at 208 m. mark, intersection of lineaments 140° and 260°, minor, occasional iron-staining on granodiorite here, trace epidote on some float, evidence of mafic intrusions in float in this area, rock fragmented/fractured in all directions - approximately 2 fractures/meter, occasional 2mm K-spar veins in float.

Sample 89McLck-012:

Granodiorite: 125 m. at 260° from 208m station is a 3 m. wide by 4 m. high area of minor Fe stained granodiorite, sample taken along here. Rare pyrite, trace of chloritized mafics, 1 % epidote as 1-3 mm blebs throughout.

Sample 89McLck-013:

Quartz Vein: up to 20 % epidote in vein, considerable hematite staining on fracture surfaces. Vein is 8cm by 2 m. long. Vein located at 80 m. mark on 260° bearing from 208 m. mark, on other side of lineament from -012 sample.

Sample 89McLck-014:

Granodiorite: Coarse -grained with 1 cm K-spar phenocrysts, 20 % hornblende, intense iron-staining on weathered surface, no pyrite seen, rock on fresh surface looks very fresh, 10 % epidote noted.

Sample McLck-015:

Granodiorite: Intense iron-staining, intense limonite alteration, yellow-brown colour, no pyrite or epidote seen, mafics have been altered to chlorite.

Sample McLck-016:

Mafic Dyke: 1 m. by 2 m. long magnetic, aphanitic, looks like 2 - 3 % olivine, dark-grey - green colour.

Sample McLck-017:

Mafic Dyke: trace biotite, locally chloritized, 3 -5 % olivine, strike is 085°, dip is near vertical. Width of dyke is approximately 1 m. throughout, non to occasionally very slightly magnetic throughout, dark-grey - green colour.

Sample McLck-018:

Granodiorite: Coarse-grained, same rock as -014 sample, occasional iron-stains on weathered surface.

Sample McLck-019:

Mafic Dyke: Dark-grey - black, aphanitic, magnetic, 70 cm in width, bedding 083/90.

Sample McLck-020:

Granodiorite: Moderate iron-staining on weathered surface, resembles sample -018

Sample McLck-021:

Granodiorite: Medium-grained, no iron-staining, up to 30 % epidote, fresh surface described as "greenish".

Sample McLck-022:

Granodiorite: Medium to coarse grained, 10 - 30 % epidote, intense oxidization on weathered surface.

Sample McLCK-023:

Granodiorite: Medium-grained, no iron-staining, 10 % epidote, biotite 5 %, 10 % K-spar, 15% hornblende, 20 % quartz, rest is plagioclase.

Sample McLCK-024:

Granodiorite: Moderate iron-staining on weathered surfaces, trace epidote, mafics 30 %, almost totally hornblende, occasional 2 mm phenocrysts of K-spar, no mineralization seen.

Sample McLCK-025:

Granodiorite: same rock as sample -025.

**APPENDIX III**

**GEOCHEMICAL PREPARATION AND ANALYTICAL PROCEDURES**



*MIN-EN Laboratories Ltd.*

*Specialists in Mineral Environments*

Corner 15th Street and Bawicke  
705 WEST 15th STREET  
NORTH VANCOUVER, B.C.  
CANADA

ANALYTICAL PROCEDURE REPORTS FOR ASSESSMENT WORK

PROCEDURE FOR GOLD GEOCHEMICAL ANALYSIS. (WET GEOCHEM)

Geochemical samples for Gold processed by Min-En Laboratories Ltd., at 705 W. 15th St., North Vancouver Laboratory employing the following procedures.

After drying the samples at 95°C soil and stream sediment samples are screened by 80 mesh sieve to obtain the minus 80 mesh fraction for analysis. The rock samples are crushed and pulverized by ceramic plated pulverizer.

A suitable sample weight 5.0 or 10.0 grams are pre-treated with  $\text{HNO}_3$  and  $\text{HClO}_4$  mixture.

After pretreatments the samples are digested with Aqua Regia solution, and after digestion the samples are taken up with 25% HCl to suitable volume.

At this stage of the procedure copper, silver and zinc can be analysed from suitable aliquote by Atomic Absorption Spectrophotometric procedure.

Further oxidation and treatment of at least 75% of the original sample solutions are made suitable for extraction of gold with Methyl Iso-Butyl Ketone.

With a set of suitable standard solution gold is analysed by Atomic Absorption instruments. The obtained detection limit is 5 ppb.



**MINERAL  
• ENVIRONMENTS  
LABORATORIES**

ANALYTICAL PROCEDURE REPORT FOR ASSESSMENT WORK:

PROCEDURE FOR 31 ELEMENT TRACE ICP:

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

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

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

1.0 gram of the sample is digested for 4 hours with an aqua regia  $\text{HClO}_4$  mixture.

After cooling samples are diluted to standard volume. The solutions are analysed by computer operated Jarrall Ash 9000 ICAP or Jobin Yvon 70 Type II Inductively Coupled Plasma Spectrometers. Reports are formatted and printed using a dot-matrix printer.

**APPENDIX IV**

**ANALYTICAL DATA FOR ROCK SAMPLES**



**STATEMENT OF COSTS**

STATEMENT OF COSTS

INTERSTATE ENERGY CORP.

PROJECT 89BC035

JOY 5 & 6 PROJECT

Period of Field Work: August 30 - August 31/1989

Salaries

Kent Akhurst, Geologist, 2 days @ \$400/day	\$	800.00	
George King, Geologist, 2 days @ \$400/day		800.00	\$ 1,600.00

Project Expenses

Project Preparation			500.00
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Mobilization/demobilization

Air Fares, salaries, domicile		2,638.00	
Helicopter support 1.1 hours		798.11	3,436.11

Geochemistry

25 Rock Geochem			
25 - 31 Element Trace ICP	7.00/sample	175.00	
25 - AU WET	4.25/sample	118.75	
25 Rock Sample Preparation	3.00/sample	75.00	
2 Pages Faxed	.50/page	1.00	369.75

Domicile 4 man days @ \$125/man day			500.00
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Field supplies & equipment 4 man days @ \$20/day			80.00
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Accounting, Communications, Freight			204.61
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Report Compilation and Drafting			2,000.00
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15% Project Management Fee		\$ 8,690.47	1,303.57
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TOTAL COST		\$ 9,994.04	=====
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