

**INVESTIGATION OF JAFFRAY GRAVITY LOW  
FOR CRETACEOUS INTRUSIVES**

**JOY AND BEA CLAIMS  
(JOY GROUP #1 & JOY GROUP #2)**

**FORT STEELE MINING DIVISION  
BRITISH COLUMBIA  
5470000N, 618500E, UTM Projection NAD83**

**For  
R. H. Stanfield  
350 - 4723 1st Street S.W.  
Calgary, Alberta**

**By  
Pilsun P. Master, M.Sc., P.Geol.  
MASTER MINERAL RESOURCE SERVICES LTD.  
Calgary, Alberta**

GEOLOGICAL SURVEY BRANCH ASSESSMENT REPORTS
DATE RECEIVED JAN 03 1997

GEOLOGICAL SURVEY BRANCH  
ASSESSMENT REPORTS

**24,689**

**December 1996**

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## **INTRODUCTION:**

The Stanfield holdings, include a considerable portion of the Rocky Mountain Trench tectono-stratigraphic terrain between Fort Steele and Elko. A large portion of the holdings over the Rocky Mountains has been investigated by airborne geophysical surveys, and future plans include extending the surveys over portions of the Trench.

Due to the potential for thick conductive overburden in the Trench, selection of proper frequencies for the multi channel electromagnetic surveys is important, and the opportunity to test the depth and nature of the overburden in a portion of the Trench selected for the next survey presented itself, when a percussion drill became available this Fall between two assignments elsewhere on the property.

It has been known for sometime (1962) that the Trench in the East Kootenay area of British Columbia consists of a string of gravity lows. These lows are bounded on the sides of the trench by gravity highs interpreted as due mainly to the specific gravity of the intrusive dykes and sills. The gravity lows are separated from each other by structural highs that generally coincide in part with major linears that extend from one side of the Trench to the other.

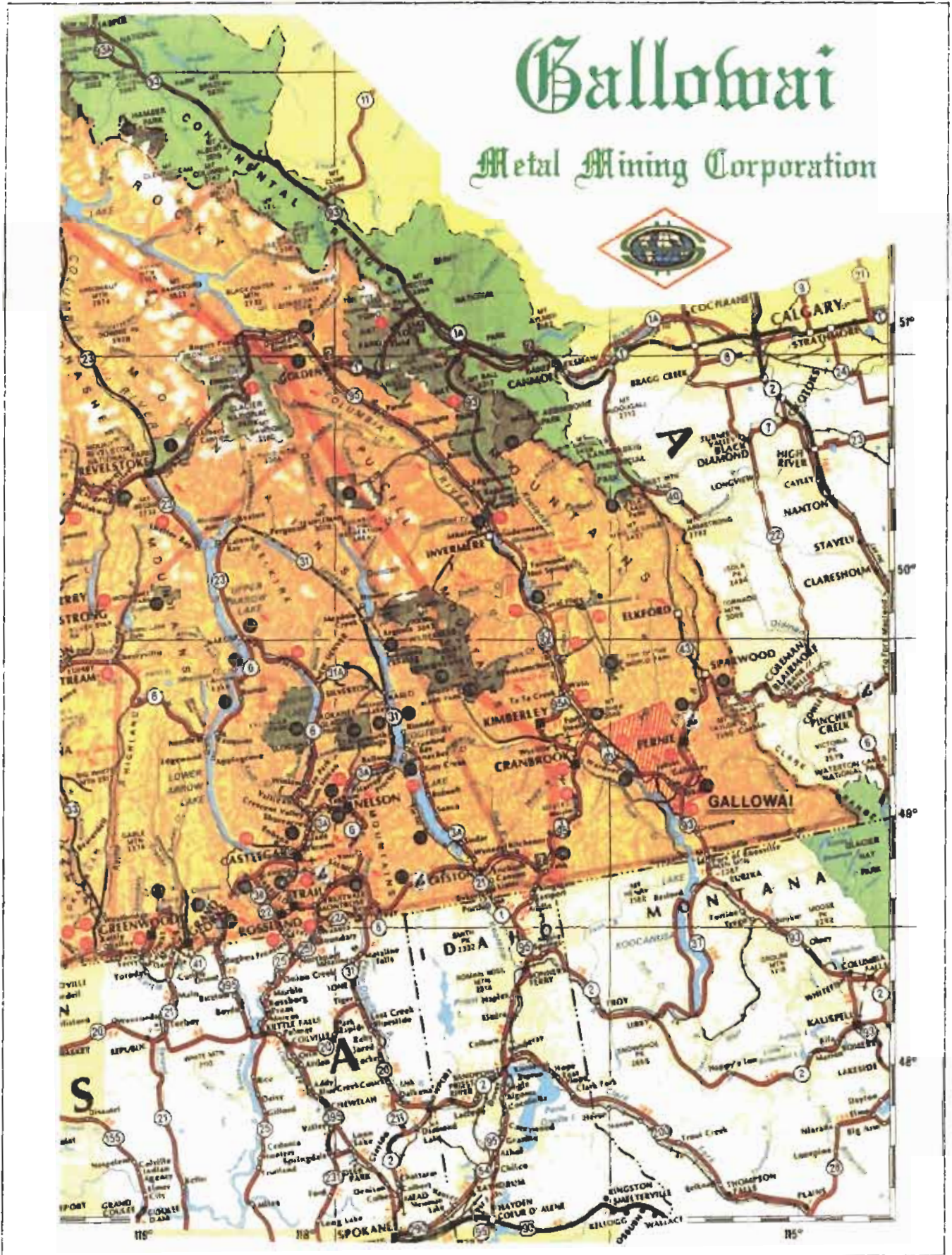
In addition, the R. H. Stanfield group is in the process of investigating a monzonite intrusive on its property for commercial feldspar (industrial mineral), and several of the above mentioned cross Trench features and divides between gravity lows are associated with Cretaceous intrusives of quartz monzonite. Some of these intrusive bodies exhibit distinct geophysical signatures.

The drilling program is considered preliminary, because only a small prism of the Trench and of one of four known gravity lows could be investigated. The holes also were placed where the drill platform could be mobilized with minimum disturbance of the surface, using existing roads. The sites selected were just east of Lake Koocanusa valley, west northwest of the town of Jaffray, on the Joy and Bea claims of the Stanfield Holdings.

## **LOCATION, ACCESSIBILITY & TOPOGRAPHY:**

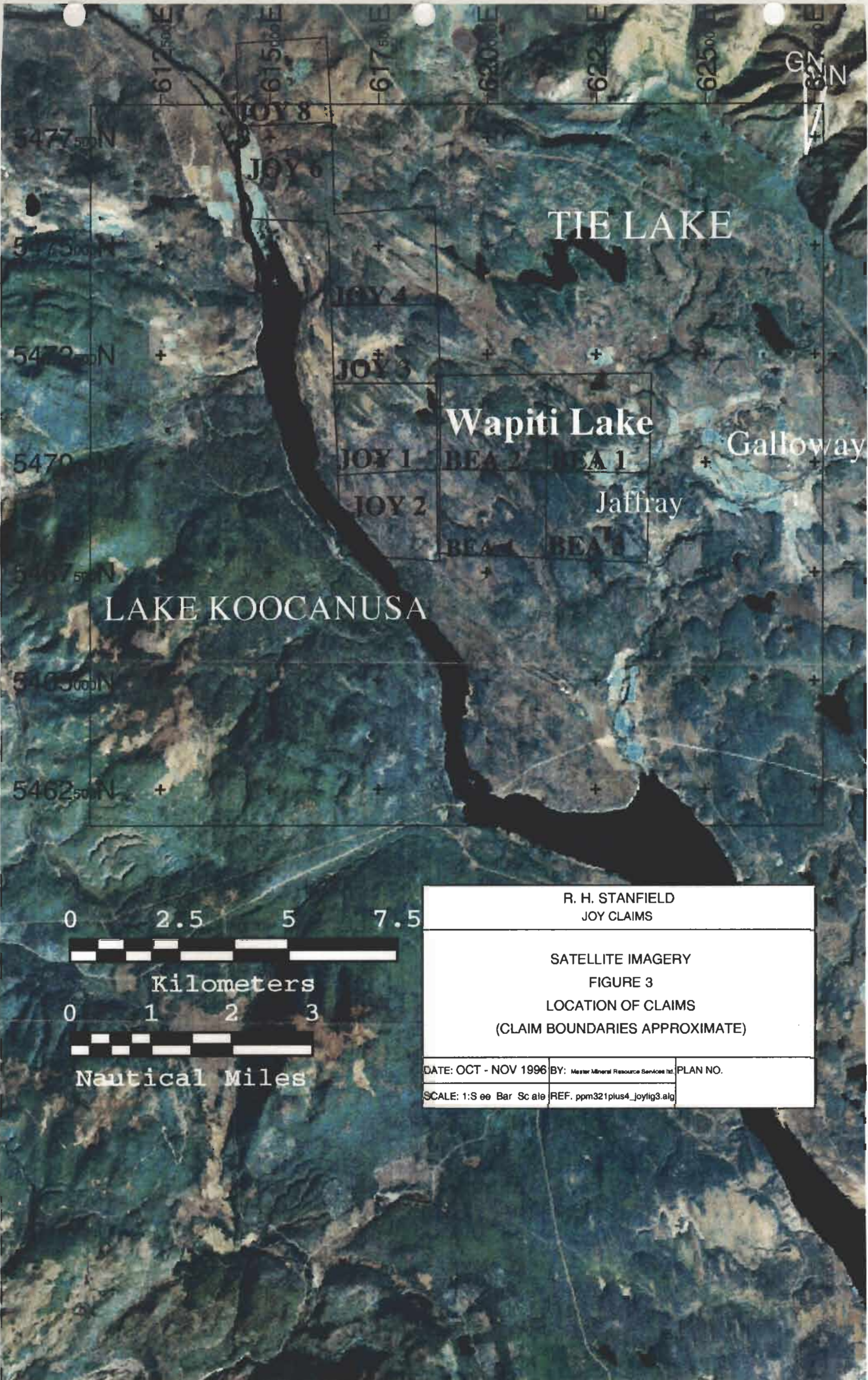
The Joy and Bea claims in Joy Groups #1 and 2, extend from just north of the north end of Lake Koocanusa to just south of the town of Jaffray. They are approximately 40 kilometers by Highway 3 from Cranbrook, and then by secondary roads into the Wapiti Lakes area. **Figure 2** shows the regional setting on a Satellite imagery (321plus4 spectral bands). The UTM grid is superimposed and major cultural features are labeled. Most of the claims are in open parkland with ridges of glacial moraines. Thicker vegetation of secondary growth is concentrated on moraine ridges.

The claims are in the Fort Steele Mining Division in N.T.S. 82G/6, centered approximately at 49°23'N, 115°22'W. Topographic relief ranges from 750 meters to 880



**SITE LOCATION**





LAKE KOOCANUSA

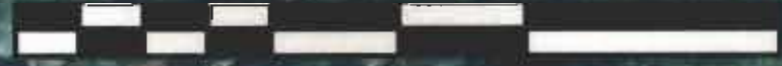
TIE LAKE

Wapiti Lake

Galloway

Jaffray

0 2.5 5 7.5



Kilometers

0 1 2 3



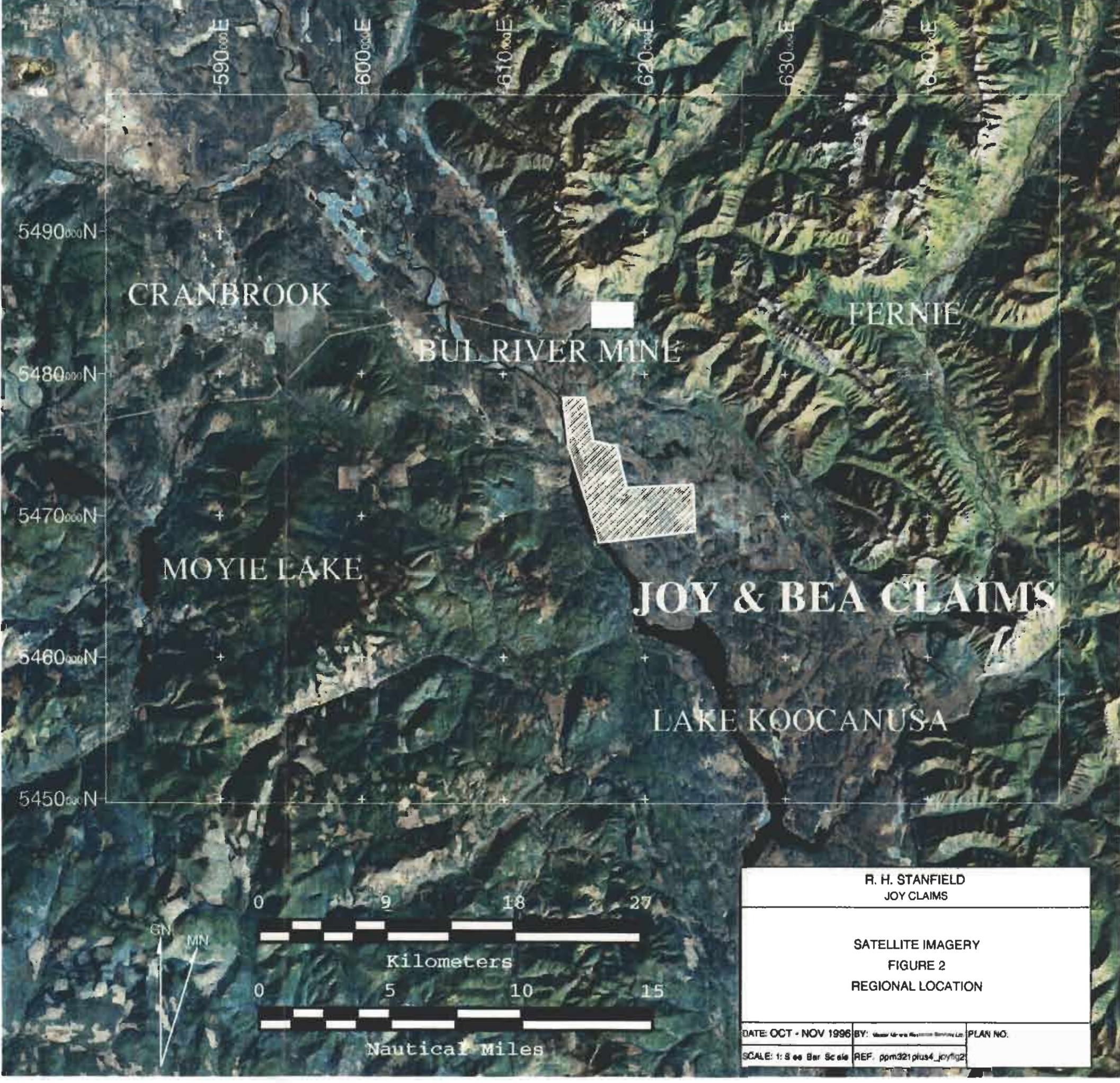
Nautical Miles

R. H. STANFIELD  
JOY CLAIMS

SATELLITE IMAGERY  
FIGURE 3  
LOCATION OF CLAIMS  
(CLAIM BOUNDARIES APPROXIMATE)

DATE: OCT - NOV 1996	BY: Master Mineral Resource Services Ltd.	PLAN NO.
SCALE: 1:50000	REF. ppm321plus4_joyfig3.alg	





CRANBROOK

BUL RIVER MINE

FERNIE

MOYIE LAKE

JOY & BEA CLAIMS

LAKE KOOCANUSA

R. H. STANFIELD  
JOY CLAIMS

SATELLITE IMAGERY  
FIGURE 2  
REGIONAL LOCATION

DATE: OCT - NOV 1996	BY: Stanfield Geomatics Services Ltd.	PLAN NO.
SCALE: 1: See Bar Scale	REF: ppm321plus4_joyfig2	



meters. **Figure 3** is a larger scale satellite imagery (also 321plus4 multi spectral) showing the approximate outline of the claims with respect to physiographic and cultural features.

#### **PROPERTY:**

**Figure 4** shows the boundaries of the claims in Joy Groups #1 and 2 and the location of drill collars for percussion drill holes Joy 1-96 and Joy 2-96.

<u>Group</u>	<u>Name of Claim</u>	<u>Number of Units</u>	<u>Tenure Number</u>
Joy #1	Joy #1	20	341050
	Joy #3	20	342177
	Joy #4	20	342178
	Joy #6	20	341588
	Joy #8	20	341589
Joy #2	Joy #2	20	341051
	Bea #1	20	342179
	Bea #2	20	342180
	Bea #3	20	342444
	Bea #4	20	342445

#### **OBJECTIVES AND SCOPE OF WORK DONE:**

Four gravity lows are recognized and named after small towns of Wasa, Fort Steele, Jaffray and Waldo (Thompson, 1962) from northwest to southeast. Each of these Trench lows are separated by "ridges" that coincide with known northeast trending structures, that extend from one side of the Trench to the other. For example the St. Mary's - Wild Horse Fault Systems separate the Wasa from the Fort Steele depressions, while the south end of the Fort Steele low is marked by the Moyie - Dibble Fault Systems (Hoy and Carter, 1993). The Hosmer Fault trends into the Trench between the Jaffray and Waldo lows.

Of particular interest is the association of monzonite intrusives with the St. Mary's - Wild Horse systems and the age relationship (Cretaceous) between these systems and the intrusives (Ricc, 1941). Thompson (1962) also reports that the specific gravity of the monzonite stock near Bull River was 2.56 and "might logically cause the Trench lows". This stock is probably the same one indicated on Hoy and Carter's 1993 map, which is currently being explored for production of feldspar (Master, 1996). Although Thompson (1962) indicates that the Trench lows are probably due to large volumes of Tertiary





sediments in pre-glacial depressions bounded by Mesozoic age gravity faults, there is a distinct possibility that, some of the Mesozoic cross Trench structures are made up of or associated with monzonite intrusives -- potential sources of feldspar.

One such ridge between the Fort Steele and Jaffray Trench lows is covered by the R. H. Stanfield holdings, and also contains the area of monzonite southwest of the Bul River Mine site now being evaluated for feldspar (Master, 1996). An airborne geophysical survey is planned to test the hypothesis, but the selection of frequencies for the multi-channel survey, the spacing and direction of flight lines, etc. has not been decided on. As a first step, due to the availability of a percussion drill this Fall, two drill holes were completed near Wapiti Lake, well within the Jaffray gravity low to find out the nature of the "sediments".

Both air and water were used as drill fluids. Cuttings from every five feet (1.5 meters) were accumulated, from which a grab sample was picked and placed in labeled plastic bag. The cuttings from the drill were examined for visual criteria and cut for chemical analysis for gold, silver, copper, lead, zinc and nickel. The logs with lithological description of cuttings and the chemical analysis are in **Appendix 1**.

## **RESULTS:**

Within 80 to 120 meters of the surface, the drilling indicates the presence of limestone-dolomite bedrock. The overlying sediments were mostly glacial till, with no strong evidence of older (Tertiary) sediments. This suggests that the Paleozoic sediments shown on Troy and Carter's map (1993) extend further south, and perhaps cover a large portion of the Jaffray gravity low. If this is true, then the gravity low is not due to Tertiary sediments, but due to other causes indicated by Thompson (1962), i.e. buried granitic (monzonite) masses of low density, and /or infaulted Paleozoic rocks of low density.

The other modes of origin suggested by Thompson (1962), such as glacial plucking and pre-Pleistocene stream channel sediments, and rocks of volcanic origin have been discounted by Thompson (1962).

## **RECOMMENDATIONS:**

For the airborne geophysical surveys, magnetic susceptibility differences as seen on the St. Mary's batholith and the Bull River feldspar stock should be used to locate other stocks and batholiths of similar lithology within the Jaffray basin.



**COSTS STATEMENT:**

(Based on information provided by R. H. Stanfield and Bul River Mineral Corporation Ltd.)

Drilling Program Joy 1-96 Hole

**Direct Costs**

Mobilization and Demobilization	1,000.00
Drilling Costs (420' x \$30)	12,600.00
12 Bags Seisgel Mud @ \$24.00/per	288.00
1- 6 5/8" drive shoes @ \$98.50/per	98.50
86'- 6 5/8 Casing @ \$8.75/ft	752.50
1- 6 1/4 Button Bit @ \$600/per	600.00
420'- 4 1/2" Casing @ \$4.70/ft	1,974.00

**Total Direct Costs****\$17,313.00****Indirect Costs**

R+B @ \$65/man/day -5 days	975.00
Foreman 50 hrs. @ \$20.00 per/hour	1,000.00
Foreman 5 days 4X4 @50.00	250.00
Foreman R+B \$65/day 5 days	325.00
Consultant Fees 2 Days @ \$350.00/day	700.00
Consultant R+B \$65/day 1 days	65.00
Consultant days 4X4 @ \$50.00/1 days	50.00
Chemical Analysis	300.00
Co-ordinator sampling, site reclaim. \$140/day x4	560.00
Co-ordinator 4X4 \$50/day x4	200.00
Co-ordinator R+B \$65/day 4 days	<u>260.00</u>

**Total Indirect Costs****\$4685.00**

**Total Costs**  
**\$21,998.00**



**General Information**

Contractor	Schmidt Drilling Ltd. P.O. Box 98, Tees, Alberta T0C 2N0
Crew	Driller-Darcy Schmidt Helpers-Bob Bell, Don Brown
Contractor Equipment	Ingersol Rand TH60 Truck Mounted Rotary Percussion Drill Rig, 600CFM Air Compressor. Western Star Flatbed, 1000 Ga. Tanker and Pipe Truck 915 Weldco Casing Hammer, 5 x10 mud pump Tool Shed Trailer (8x15) and ¼ ton 4x4 Diesel Crew Cab and Slip Tank
Company Equipment	F250 Bush Box 4x4 Pickups

**Drilling Program Joy 2-96 Hole****Direct Costs**

Mobilization and Demobilization	1,000.00
Drilling Costs (305' x \$30)	9,150.00
14 Bags Seisgel Mud @ \$24.00/per	336.00
1- 6 5/8" drive shoes @ \$98.50/per	98.50
245'- 6 5/8 Casing @ \$8.75/ft	2,143.75
1- 5 7/8" Tricone Button Bit @ \$1120/per	1,120.00
1- 8" Ring Bit @ \$450.00/per	450.00
20 L Pail Foam @ \$120/per	120.00

**Total Direct Costs****\$14,418.25****Indirect Costs**

R+B @ \$65/man/day -4 days	780.00
Foreman 40 hrs. @ \$20.00 per/hour	800.00
Foreman 4 days 4X4 @ \$50.00	200.00
Foreman R+B \$65/day 4 days	260.00
Consultant Fees 2 Days @ \$350.00/day	700.00
Consultant R+B \$65/day 1 days	65.00
Consultant days 4X4 @ \$50.00/day	50.00
Chemical Analysis	300.00
Co-ordinator sampling, site reclaim. \$140/day x2	280.00
Co-ordinator 4X4 \$50/day x2	100.00
Co-ordinator R+B \$65/day 2 days	130.00

**Total Indirect Costs****\$3665.00**



**Total Costs****\$18,083.25****General Information**

Contractor	Schmidt Drilling Ltd. P.O. Box 98, Tees, Alberta T0C 2N0
Crew	Driller-Darcy Schmidt Helpers-Bob Bell, Don Brown
Contractor Equipment	Ingersol Rand TH60 Truck Mounted Rotary Percussion Drill Rig, 600CFM Air Compressor. Western Star Flatbed, 1000 Ga. Tanker and Pipe Truck 915 Weldco Casing Hammer, 5 x 10 mud pump Tool Shed Trailer (8x15) and ¾ ton 4x4 Diesel Crew Cab and Slip Tank
Company Equipment	F250 Bush Box 4x4 Pickups

**Note: Took from PAC****\$ 1916.75****REFERENCES:**

Hoy, T.; 1993; Geology of the Purcell Supergroup in the Fernie West-Half Map Area, Southeastern British Columbia; Bulletin 84, Mineral Resource Division, Ministry of Energy, Mines and Petroleum Resources, British Columbia

Hoy, T. and Carter, G.; 1993; Geology of the Fernie W1/2 Map Sheet (and part of Nelson E1/2), Map to accompany Bulletin 84.

Master, P.; 1996; Further Investigation of Commercial Feldspar Resource on Aspen Group #1; Assessment Report filed in October 1996.

Thompson, T.L.; 1962; Origin of the Rocky Mountain Trench in Southeastern British Columbia by Cenozoic Block Faulting; Journal of the Alberta Society of Petroleum Geologists, volume 10, number 7, pp. 408-427.

**CERTIFICATE**

I, Pilsum Master of 32 Midpark Gardens S.E. Calgary, Alberta certify that:

I am a graduate of the University of Bombay, India and a graduate of the University of New Mexico, U.S.A., and hold the following degrees:

B.Sc., 1963, Geology/Chemistry  
 M.Sc., 1965, Geology  
 M.Sc., 1968, Geology/Mineralogy

I am a Registered Professional Geologist (Association of Professional Engineers, Geologists and Geophysicists of Alberta) and a member of the American Institute of Mining, Metallurgical and Processing Engineers.

I am the President of Master Mineral Resource Services Ltd. of Calgary, Alberta with Permit to Practice Number P5336 from the Association of Professional Engineers, Geologists and Geophysicists of Alberta.

I have practiced my profession for the past twenty seven years.

This Report on the Joy Groups #1 and #2 is based upon my involvement in the compilation of geological literature, selection of drill targets, examination of drill sites, logging of drill cuttings, splitting of samples, and the evaluation and compilation of data.

I and my company do not hold any interest in the properties or securities of R. H. Stanfield, or affiliates thereof, nor do I and my company expect to receive any directly or indirectly.

---

Pilsum Master, M.Sc., M.Sc., P.Geol.  
 President  
 Master Mineral Resource Services Ltd.

<b>PERMIT TO PRACTICE</b>	
MASTER MINERAL RESOURCE SERVICES LTD.	
Signature	<i>Pilsum Master</i>
Date	<i>DEC 19, 96</i>
<b>PERMIT NUMBER: P 5336</b>	
The Association of Professional Engineers, Geologists and Geophysicists of Alberta	



**CERTIFICATE**

December 20, 1996

I, Phil D. de Souza, certify that:

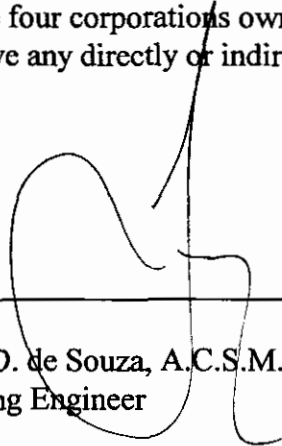
I am a graduate of the Camborne School of Mines, Cornwall, England and that I hold the degree of ACSM First Class in Mining Engineering therefrom.

I am a member of the Canadian Institute of Mining and Metallurgy and a member of the American Institute of Mining, Metallurgical and Processing Engineers.

I am a licensed Professional Engineer of the Province of Alberta, British Columbia and Ontario, Canada, and have been practicing my profession for the past thirty two years.

This report by Pilsum master, P.Geol. (Alberta) entitled: "Investigation of Jaffray Gravity Low For Cretaceous Intrusives, Joy and Bea Claims", for R. H. Stanfield has been reviewed by me and results from my direct involvement in the Stanfield Group since 1987.

I certify that neither I nor my Associates or Partners hold any interest or securities in any of the four corporations owning an interest in the properties, nor do I, or we expect to receive any directly or indirectly.

  
\_\_\_\_\_  
Phil D. de Souza, A.C.S.M., P.Eng.  
Mining Engineer



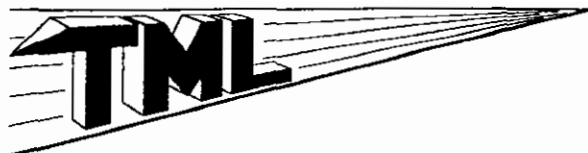
**APPENDIX 1**  
**DRILL LOGS & CHEMICAL ANALYSIS**



BUL RIVER MINERAL CORPORATION LTD.				R. H. STANFIELD							
<b>PROJECT</b>	Jaffray Gravity Low			<b>LOCATIO</b>	5470000N, 618500E UTM Coordinates						
<b>CLAIMS:</b>	Joy Group #1										
<b>DRILL HOLE NO:</b>	Joy 1-96			<b>DRILLED BY: Schmidt Drilling Ltd</b>							
				<b>DATES DRILLED: September 9-13, October 16,17, 1996</b>							
				<b>LOGGED BY: Pilsum Master, P.Geol</b>							
				<b>DATES LOGGED:November 5, 1996</b>							
<b>FROM (Ft)</b>	<b>FROM</b>	<b>TO (Ft)</b>	<b>TO</b>	<b>DESCRIPTION</b>	<b>SAMPLE #</b>	<b>Au</b>	<b>Ag</b>	<b>Cu</b>	<b>Pb</b>	<b>Zn</b>	<b>Ni</b>
	<b>(Metres)</b>		<b>(Metres)</b>			<b>ppb</b>	<b>ppb</b>	<b>ppm</b>	<b>ppm</b>	<b>ppm</b>	<b>ppm</b>
0.00	0.00	393.00	119.09	Overburden, Glacial Till	No Samples						
393.00	119.09	398.00	120.61	White-gray Limestone, argillaceous, strong effervescence with 10% HCl	393-398	6.00	0.13	4	1	13	3
398.00	120.61	403.00	122.12	Gray argillaceous limestone	398-403	2.00	0.11	5	2	13	4
403.00	122.12	408.00	123.64	Gray argillaceous limestone	403-408	2.00	0.17	4	3	18	4
408.00	123.64	413.00	125.15	Gray argillaceous limestone	408-413	6.00	0.24	5	3	18	4
413.00	125.15	418.00	126.67	Gray argillaceous limestone	413-418	2.00	0.19	5	1	23	5
418.00	126.67	420.00	127.27	Gray argillaceous limestone	418-420	2.00	0.24	5	3	23	4
<b>Hole to be continued by Diamond Drilling</b>											

R. H. STANFIELD				R. H. STANFIELD									
<b>PROJECT</b> Jaffray Gravity Low		<b>LOCATIO</b> 5470000N, 618500E UTM Coordinates											
<b>CLAIMS:</b> Joy Group #2		Joy Claim #2											
<b>DRILL HOLE NO:</b> Joy2-96		<b>DRILLED BY:</b> Schmidt Drilling Ltd.											
		<b>DATES DRILLED:</b> October 9-15, 1996.											
		<b>LOGGED BY:</b> Pilsum Master, P.Geol.											
		<b>DATES LOGGED:</b> November 6, 1996											
FROM (Ft)	FROM (Metres)	TO (Ft)	TO (Metres)	DESCRIPTION	SAMPLE #	Au ppb	Ag ppb	Cu ppm	Pb ppm	Zn ppm	Ni ppm		
0.00	0.00	140.00	42.42		No Samples								
140.00	42.42	145.00	43.94	Mixed cobbles and gravel		8.00	0.01	11	5	20	8		
160.00	48.48	165.00	50.00	Mixed pebbles and gravel		18.00	0.09	9	4	17	7		
180.00	54.55	185.00	56.06	Mixed pebbles and gravel		2.00	0.05	9	3	20	8		
200.00	60.61	205.00	62.12	Mostly gravel mainly of gray limestone		6.00	0.04	10	3	19	8		
220.00	66.67	413.00	125.15	Mixed cobbles and gravel again		2.00	0.02	7	2	23	9		
240.00	72.73	245.00	74.24	Mostly gray/brown dolomitic limestone, strong effer. with 10% HCl		2.00	0.17	3	1	20	1		
245.00	74.24	250.00	75.76	White-gray Limestone more argillic, cuttings quite pulverised		14.00	0.12	3	2	15	1		
250.00	75.76	255.00	77.27	White-gray more argillic limestone		4.00	0.12	3	2	22	4		
255.00	77.27	260.00	78.79	White-gray more argillic limestone, darker argillic prominent		2.00	0.16	4	2	25	6		
260.00	78.79	265.00	80.30	White-gray more argillic limestone, darker argillic prominent		4.00	0.26	4	2	23	6		
265.00	80.30	270.00	81.82	Cuttings too fine for detail, mostly argillic limestone		4.00	0.12	4	2	30	7		
270.00	81.82	275.00	83.33	Gray limestone with darker argillic fractions		2.00	0.15	4	2	17	9		
275.00	83.33	280.00	84.85	Gray limestone with darker argillic fractions		2.00	0.11	4	1	14	3		
280.00	84.85	285.00	86.36	Gray limestone with darker argillic fractions		2.00	0.09	3	1	10	1		
285.00	86.36	290.00	87.88	Gray limestone, increasing proportion of darker argillic fractions		2.00	0.05	4	2	59	5		
290.00	87.88	295.00	89.39	Gray limestone smaller proportion of argillic dark fraction)		2.00	0.15	3	1	19	5		
295.00	89.39	300.00	90.91	Gray limestone smaller proportion of argillic dark fraction)		6.00	0.12	3	2	23	4		
Hole to be continued by Diamond Drilling													





# TERRAMIN RESEARCH LABS LTD.

14, 2235 - 30 Avenue NE, Calgary, Alberta, T2E 7C7

Phone (403) 250-9460

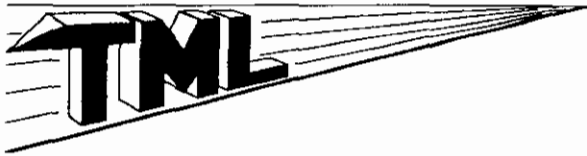
Toll Free (800) 363-0962

FAX (403) 291-7064

30 April 1997

## FIRE ASSAY / AA PROCEDURE FOR GOLD, SILVER, PLATINUM, PALLADIUM

Approximately one assay-ton of prepared sample is fused with a litharge flux charge to obtain a lead button. The button is cupelled down to a precious metal prill which is then dissolved in aqua regia. The resulting solution is analysed by atomic absorption spectrophotometry to determine the precious metals.



# TERRAMIN RESEARCH LABS LTD.

14, 2235 - 30 Avenue NE, Calgary, Alberta, T2E 7C7

Phone (403) 250-9460

Toll Free (800) 363-0962

FAX (403) 291-7064

30 April 1997

## ANALYTICAL METHOD FOR BASE METALS

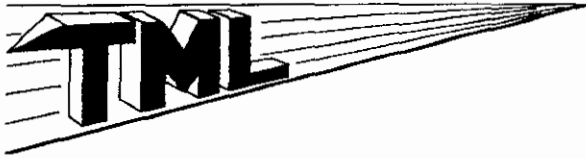
### TOTAL DISSOLUTION

Ag, Cd, Co, Cr, Cu, Fe, Pb, Mn, Mo, Ni, Zn

A portion of the prepared sample is digested in a mixture of acids (hydrofluoric / nitric / perchloric / hydrochloric) to effect a total dissolution of the sample.

The elements are determined by atomic absorption spectrophotometry.





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14, 2235 - 30 Avenue NE, Calgary, Alberta, T2E 7C7

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30 April 1997

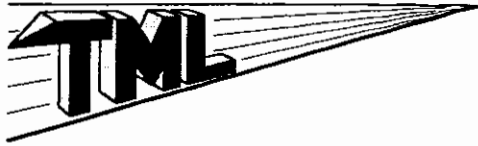
## ANALYTICAL METHOD FOR BASE METALS

### TOTAL DISSOLUTION

Ag, Cd, Co, Cr(soluble), Cu, Fe (soluble), Pb, Mn (soluble), Mo, Ni, Zn

A portion of the prepared sample is digested in hot nitric / perchloric acid mixture, or hot aqua regia (nitric / hydrochloric acids).

The elements are determined by atomic absorption spectrophotometry.



**TERRAMIN RESEARCH LABS LTD.**

**ANALYTICAL REPORT**

**R.H. Stanfield  
350. 4723 - 1st Street S.W.  
Calgary, Alberta  
T2G 0A1**

**Ross Stanfield / Pilsum Master**

**Date: Nov. 1, 1996**

**Job No: 96-277**

**Project: Joy Claims**

**24 Drill Cuttings**

**Signed:** \_\_\_\_\_

A handwritten signature in black ink, appearing to be 'R.H. Stanfield', is written over a horizontal line that serves as a signature line.



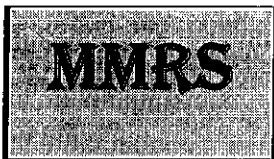
TERRAMIN RESEARCH LABS Ltd.

Job No: 96-277

Client: R.H. Stanfield  
Project: Joy Claims

Sample Number	from	to	Au ppb	Ag ppm	Cu ppm	Pb ppm	Zn ppm	Ni ppm
Joy 1-96	393	398	6	0.13	4	1	13	3
Joy 1-96	398	403	2	0.11	5	2	13	4
Joy 1-96	403	408	2	0.17	4	3	18	4
Joy 1-96	408	413	6	0.24	5	3	18	4
Joy 1-96	413	418	2	0.19	5	1	23	5
Joy 1-96	418	420	2	0.24	5	3	23	4
Joy 2-96	140	145	8	0.01	11	5	20	8
Joy 2-96	160	165	18	0.09	9	4	17	7
Joy 2-96	180	185	2	0.05	9	3	20	8
Joy 2-96	200	205	6	0.04	10	3	19	8
Joy 2-96	220	225	2	0.02	7	2	23	9
Joy 2-96	240	245	2	0.17	3	1	20	1
Joy 2-96	245	250	14	0.12	3	2	15	1
Joy 2-96	250	255	4	0.12	3	2	22	4
Joy 2-96	255	260	2	0.16	4	2	25	6
Joy 2-96	260	265	4	0.26	4	2	23	6
Joy 2-96	265	270	4	0.12	4	2	30	7
Joy 2-96	270	275	2	0.15	4	2	17	9
Joy 2-96	275	280	2	0.11	4	1	14	3
Joy 2-96	280	285	2	0.09	3	1	10	1
Joy 2-96	285	290	2	0.05	4	2	59	5
Joy 2-96	290	295	2	0.15	3	1	19	5
"A" Joy 2-96	295	300	6	0.12	3	2	23	4
"B" Joy 2-96	295	300	8	0.15	3	1	21	3





## MASTER MINERAL RESOURCE SERVICES LTD.

**Pilsum Master, M.Sc., M.Sc., P.Geol.**

32 Midpark Gardens S.E., Calgary, Alberta, Canada T2X 1N7

Telephone (403) 256 - 6220 \* Facsimile (403) 254 - 4333

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**Computer Imaging: *Geophysical Data/ GIS, AutoCAD: Drafting Services***

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April 28, 1997

Mr. A. Wilcox.  
Geoscience Information Section,  
Geological Survey Branch  
Ministry of Employment and Investment,  
5- 1810 Blanshard Street,  
Victoria, B.C. V8V 1X4

**Re. Assessment Report #24689**

**Your File No. 24500-03-AME**

Dear Mr. Wilcox:

Further to your letter of March 12, 1997 (copy enclosed) to Mr. R. H. Stanfield regarding the above mentioned Assessment Report, I am enclosing two copies of the report with the amended drill logs and the analytical method description attached to Appendix 1.

Please note that these two drill holes were necessary to put casing down in the deep glacial overburden and through the Paleozoic sediments. The holes will then be extended by diamond drilling. The percussion drilling costs in the report include the cost of six hundred and forty five feet of 6 and 5/8 casing, which is left in the holes through which the diamond drilling program will continue. This method has been used in the past by the R. H. Stanfield group of companies and reported in separate assessment reports. Please refer to Assessment Report #23632 "Drilling -PBR 2.94", 1994 by Phil de Souza for percussioned drill hole for casing to complete diamond drill hole Br 2-95 reported by myself in 1995 Assessment Report titled "Drilling Report on Steeples Group #1C, Steeples Group #2B". On the Stanfield claim group in certain areas the only way to drill through overburden and younger sedimentary piles is by diamond drilling through pre-placed casing that has been advanced by percussion drilling.

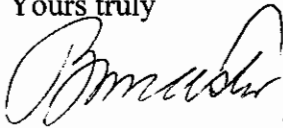
The fixed costs reported are for deep percussion drill holes, and show no change from the ones reported and accepted in assessment reports submitted by the Stanfield Group since 1994 and even earlier. I am taking the liberty of enclosing a copy of a letter by Cora Lynn Drilling (a previous percussion drilling contractor on the property) that describes the problems in drilling in this area.

continued pg 2/-

The logs of the drill cuttings are as detailed as can be possible through carbonate sediments with no distinctive features or metallic mineralisation. Based on my experience in industrial minerals the carbonate sediments did not also exhibit obvious characteristics of value as industrial minerals. The analysis of the drill cuttings support the lack of obvious mineralisation. The drill cuttings may provide data to select some criteria for airborne geophysical surveys planned in the area. To complete this line of investigation, we intend to extend the drill holes by diamond drilling to determine if a deep seated younger intrusive body(s) is present (one of the objectives in my report).

I regret not mentioning in my report the objectives of leaving the casing behind for diamond drilling, and for not including descriptions of analytical method used.

Yours truly

A handwritten signature in black ink, appearing to read 'Pilsum Master', written in a cursive style.

Pilsum Master, P.Geol.

Encl.

2 copies of amended assessment report #24689  
Copy of your covering letter of March 12, 1997  
Copy of letter from Cora Lynn Drilling Co. Ltd.

*Cora Lynn* DRILLING Co. LTD.

P.O. BOX 1149 STRATHMORE, ALBERTA

TOJ 3H0

PHONE: (403) 934-3645

Mr. Phil Desouza, P. Eng.,  
Professional Engineer Mining  
Stanfield Group  
3rd Floor 4723 1st S.W.  
Calgary, Alta.

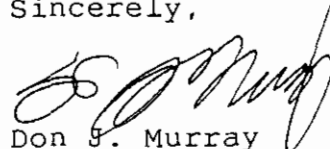
Sept. 1/92

Dear Mr. Desouza:

As per your inquiry I am of the opinion that the Stanfield property near Galoway B.C. is some of the most difficult drilling in the world certainly in Canada.

The overburden is a mixture of sands, swelling clays and huge boulders. Usually the boulders are followed by a void under which is a pressurized water filled sand thus what works for one type will not work for the other thus extreme conditions. The Odex system has worked the best in the past however its service life is immensely shortened by the conditions. Thanking you for interest if there is anything further please do not hesitate to call.

Sincerely,



Don S. Murray  
Cora Lynn Drilling Co.