

COMINCO LTD.

EXPLORATION  
NTS: 105G/16

WESTERN CANADA

1992 ASSESSMENT REPORT

SOIL GEOCHEMISTRY

JEFF CLAIMS

WATSON LAKE MINING DISTRICT

YUKON TERRITORY

LATITUDE 61°52'

LONG. 130°19'

WORK PERFORMED

AUGUST 1, 1992

SEPTEMBER, 1992

H.C. SCHULTZE

093043



MAP NO.: ASSESSMENT REPORT X  
105 G 16 PROSPECTUS  
CONFIDENTIAL X  
OPEN FILE

DOCUMENT NO: 093043  
MINING DISTRICT: WATSON LAKE  
TYPE OF WORK: SOIL SAMPLING

REPORT FILED UNDER: COMINCO LIMITED

DATE PERFORMED: AUGUST 1, 1992

DATE FILED: SEPTEMBER 28, 1992

LOCATION: LAT.: 61°52'N

AREA: MCEVOY LAKE

LONG.: 130°19'W

VALUE \$: 1,000

CLAIM NAME & NO.: JEFF 1-4 (YB 34214-217)

WORK DONE BY: H. C. SCHULTZ

WORK DONE FOR: COMINCO LIMITED

DATE TO GOOD STANDING:

REMARKS: GALENA SPHALERITE TETRAHEDRITE BEARING VEINS WITHIN SILICIFIED EARN GROUP MUDSTONES AND SILTSTONES RETURNED VARIABLE PB ZN AND AG VALUES. 71 SOIL SAMPLES RETURNED NO TREND AND NO SIGNIFICANT RESULTS.




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H.C. SCHULTZE

This report has been examined by  
the Geological Evaluation Unit  
under Section 53 (1) Yukon Quartz  
Mining Act and is allowed as  
representation work in the amount  
of \$ 1,000.

*D J DeWitt*  
Regional Manager, Exploration and  
Geological Services for Commissioner  
of Yukon Territory.



*3/11/53*

TABLE OF CONTENTS

	Page
SUMMARY . . . . .	1
LOCATION . . . . .	1
TENURE . . . . .	1
HISTORY . . . . .	2
WORK IN 1992 . . . . .	2
Objective . . . . .	2
Soil Geochemistry . . . . .	2
RESULTS . . . . .	2
CONCLUSIONS . . . . .	3
RECOMMENDATIONS . . . . .	3

ATTACHMENTS

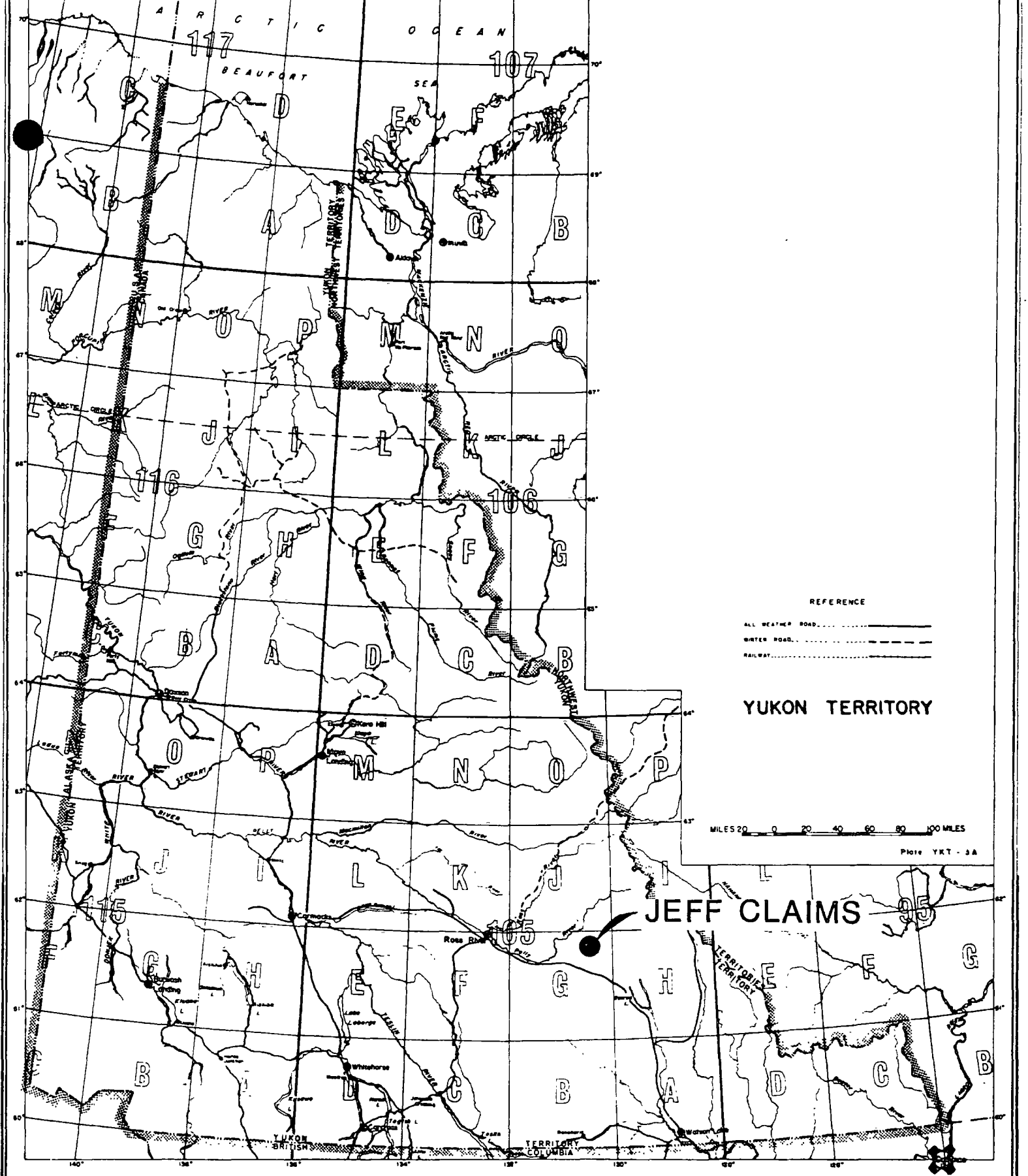
- APPENDIX A - Statement of Expenditures
- APPENDIX B - Affidavit
- APPENDIX C - Statement of Qualifications
- APPENDIX D - Analyses
- APPENDIX E - Statistical Data

FIGURES

FIGURE 1

PLATES

PLATE 92-1 - CLAIM MAP / SOIL SAMPLE LOCATION MAP



Drawn by:		Traced by:	
Revised by:	Date:	Revised by:	Date:

# LOCATION MAP

Scale: \_\_\_\_\_ Date: \_\_\_\_\_ Plate: \_\_\_\_\_

COMINCO LTD

EXPLORATION  
NTS: 105G/16

WESTERN CANADA  
September, 1992

ASSESSMENT REPORT

SUMMARY

The Jeff 1-4 mineral claims were staked in August 1991 over a galena, sphalerite, and tetrahedrite bearing set of quartz veins within silicified Earn Gp. mudstones and siltstones. Soil sampling that year defined a strong SW-NE trending geochemical anomaly extending outwards from the showing.

In 1992 soil grids were established on the Jeff 2 and 3 claims over what was thought to be the trace of the mineralised vein system. No significant encouraging results were obtained from the resulting data set comprising 71 samples. The data would suggest that the vein set lacks continuity along strike and is limited in width.

No further work is recommended.

LOCATION

The Jeff claims lie on mapsheet 105G/16 at latitude 61° 52' and longitude 130° 19' falling within the bounds of the Watson Lake Mining District, Y.T.. They lie at an elevation of 1550 m and exist above treeline which commences at about 1450 m. Outcrop exposure is sparse and typically restricted to creek cuts and ridge tops, the latter of which occur at about 1680 m. Vegetation comprises low lying grasses and staghorn moss along with alders in moist, wet areas. Glacial cover is thin (< 2 m) to nonexistent.

Access is by helicopter; approximately a half hour flight from Finlayson Lake on the Robert Campbell Highway some 40 km to the southeast.

TENURE

The claims total 4 units and are owned 100% by Cominco Ltd. Due dates after application of 1992 work expenditures are as follows.

<u>Claim</u>	<u>Tag No.</u>	<u>Units</u>	<u>Date of Record</u>	<u>Due Date</u>
Jeff 1-4	YB34214 to YB34217	4x1	August 7, 1991	February 7, 1995

## HISTORY

The Jeff claims were staked over a Ag + Pb + Zn mineralized vein occurrence identified during the course of a regional Cominco Exploration campaign carried out in 1991.

Initially a weakly mineralized, rusty weathering float fragment was collected by a soil sampling technician. Follow-up prospecting revealed a showing obliquely exposed over a 5 m interval within a small incised gully. Chip samples collected in 1991 across the face of the showing yielded values ranging from 0.2% Pb, 0.89% Zn, and 22g Ag over 0.3 m to 24% Pb, 13.5% Zn, and 1560g Ag over 1 m.

Mineralization comprises lensey massive galena and sphalerite with pyrite and traces of chalcopyrite and tetrahedrite in vein quartz gangue. Veins parallel a strong foliation developed in the host argillites and siltstones oriented at 225/65° NW. A small grid established over and proximal to the showing indicated that a NE-SW trend highly anomalous in Pb, Zn, and Ag exists.

## WORK IN 1992 (August 1)

### Objective

To further define the trace of the mineralized vein in subcrop by soil geochemical methods.

### Soil Geochemistry

Soil grids were established on the Jeff 2 and 3 claims along strike of the anomalous soil geochemical trend defined in 1991. A total of 71 samples were collected at 50 m intervals along lines 350 m long spaced 100 m apart; hip-chains and compasses were used for control.

The B-soil horizon was sampled in all but 7 samples. Samples were collected in large Kraft paper envelopes, air dried and shipped to Cominco's Exploration Research Lab in Vancouver, B.C. for analysis. At the lab samples were sieved to -80 mesh fraction and digested in hot nitric acid solution and then analyzed by sequential ICP for 8 elements.

## RESULTS

The survey yielded disappointing results. Low geochemical values were recovered from the soils; typically an order of magnitude lower than the anomalous Ag, Pb, and Zn values derived from the 1991 survey. No pronounced geochemical trend is defined.

Spurious elevated Pb (> 20 ppm) and Zn (> 100 ppm) values do exist on the grids however only one sample, No. 191784 on the Jeff 2 grid yielded a silver value above the detection limit; its value is 1.3 ppm.

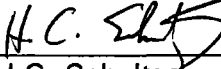
CONCLUSIONS

Soil grid data collected in 1992 would indicate that the argentiferous galena and sphalerite bearing set of quartz veins found in situ in 1991 do not have any significant strike or width continuity and possibly that the grade of the veins near surface diminishes significantly. Tighter density soil sampling may better define the vein system however lack of significant surface expression at the current sample density precludes the possibility of any significant mineralization of sizable dimension.

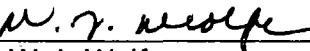
RECOMMENDATIONS

No further work is recommended on the Jeff claim block.

Reported by:

  
\_\_\_\_\_  
H.C. Schultze  
Geologist

Approved for  
Release by:

  
\_\_\_\_\_  
W.J. Wolfe  
Manager, Exploration-  
Western Canada

HCS/  
DISTRIBUTION

Mining Recorder (2)  
Western Canada

APPENDIX 'A'

STATEMENT OF EXPENDITURES

SALARIES:

Geochemical Sampling Crew

Marcus Willson (Temp. Field Assistant)	1 day @ \$240	\$240
Darren Senft (Temp. Field Assistant)	1 day @ 180	180

Report Writing/ Supervision/ Planning

H.C. Schultze (Perm. Geologist)	2 days @ 275	550
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GEOCHEMISTRY:

71 samples: Cu, Pb, Zn, Ag, As, Fe, Ni, V @ \$8.50/sample	603.50
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TRANSPORTATION:

Helicopter - 1 hour @ \$732/hour	732
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ACCOMADATION:

Finlayson Lake Base Camp - Room and board: 3 man days @ \$85/day	255
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TOTAL EXPENDITURES:	\$2,560.50
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**APPENDIX 'B'**  
**A F F I D A V I T**

I, H.C. Schultze of the City of West Vancouver, British Columbia, make Oath and say:

1. That I am employed as a Geologist by Cominco Ltd. and as such, have personal knowledge of the facts to which I hereinafter depose.
2. That annexed hereto and marked Exhibit 'A' to this my Affidavit is a true copy of expenditures incurred on a soil geochemical survey conducted on the JEFF Mineral Claims on August 1 of 1992.
3. That said expenditures were incurred August 1, 1992 for the purpose of mineral exploration on the noted claims.

  
\_\_\_\_\_  
H.C. Schultze  
Geologist

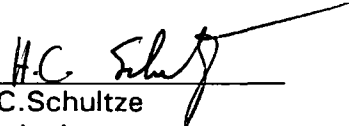
September, 1992

**APPENDIX 'C'**

**STATEMENT OF QUALIFICATIONS**

I, H.C. Schultze of the City of West Vancouver, British Columbia, do hereby certify:

1. That I am a graduate of the University of Calgary 1988 with a B.Sc. degree, Geology Major.
2. That I am employed by Cominco Ltd. as an exploration geologist.
3. That I have been actively involved in mineral exploration for the past eight years.

  
\_\_\_\_\_  
H.C. Schultze  
Geologist

September, 1992

**APPENDIX 'D'**

**SOIL GEOCHEMISTRY DATA**

LAD NUMBER	FIELD NO	MAP ZONE	EAST	NORTH	E	M	O	S	COL	SZ	QR	H	CH	S	H	P	PH	CU PPH	Pb PPH	ZN PPH	Ag. PPH	Ag PPH	Ni PPH	Fe %	V PPH	Ba PPH
59229195	191780		+0	+4	1	4		GB	24	1	2	30	2	B			5	10	44	4.4	4	9	1.09	12		
59229196	191781		+50	+4	1	4		B3	24	1	2	30	2	B			5	21	35	4.4	5	7	1.36	8		
59229197	191782		+100	+4	1	4		GB	24	1	2	35	2	B			19	52	193	4.4	4	37	1.50	23		
59229198	191783		+150	+4	1	4		B2	24	1	2	35	2	B			10	50	100	4.4	6	18	1.48	26		
59229199	191784		+200	+4	1	4		B2	24	1	2	35	2	B			22	11	153	1.3	2	43	1.14	22		
59229200	191785		+50	+4	1	4		B2	24	1	2	30	2	B			0	7	33	4.4	2	5	.72	12		
59229201	191786		+100	+4	1	4		B2	24	1	2	30	2	B			4	4	13	4.4	2	1	.22	4		
59229202	191787		+150	+4	1	4		GB	24	1	2	30	2	B			6	5	35	4.4	5	4	.61	24		
59229203	191788		+200	+4	1	4		B3	24	1	2	30	2	B			11	10	77	4.4	2	17	1.44	20		
59229204	191789		+200	+3	1	4		B2	24	1	2	25	2	B			5	5	27	4.4	4	3	.61	16		
59229205	191790		+150	+3	1	4		GB	24	1	2	30	2	B			15	14	43	4.4	0	4	1.05	19		
59229206	191791		+100	+3	1	4		B2	23	1	2	30	2	B			7	22	43	4.4	0	5	.90	17		
59229207	191792		+50	+3	1	4		RD	34	1	2	25	2	B			11	4	4	4.4	2	11	.12	12		
59229208	191793		+0	+3	1	4		GB	24	1	2	25	2	B			3	4	21	4.4	2	1	.22	5		
59229209	191794		+50	+3	1	4		RB	23	1	2	30	2	B			4	16	268	4.4	5	16	1.42	7		
59229210	191795		+100	+3	1	4		RD	24	1	2	30	2	B			10	4	9	4.4	2	11	.17	3		
59229211	191796		+150	+3	1	4		B2	24	1	2	30	2	B			0	8	45	4.4	10	13	1.46	20		
59229212	191797		+200	+3	1	4		B2	43	1	2	30	2	B			10	8	59	4.4	5	15	1.54	20		
59229213	191798		+200	+2	1	4		B2	24	2	2	30	2	B			8	15	49	4.4	22	8	1.52	15		
59229214	191799		+150	+2	1	4		B2	24	1	2	30	2	B			17	5	57	4.4	4	0	1.07	17		
59229215	191800		+100	+2	1	4		B2	24	1	2	25	3	B			8	13	63	4.4	4	7	.79	18		
59229216	191801		+50	+2	1	4		B2	24	2	2	25	2	B			7	5	49	4.4	6	5	.93	16		
59229217	191802		+0	+2	1	4		B2	24	2	2	25	2	B			3	7	27	4.4	3	2	.46	17		
59229218	191803		+50	+2	1	4		B2	23	1	2	25	2	B			6	35	87	4.4	10	10	1.24	16		
59229219	191804		+100	+2	1	4		B3	24	1	2	30	2	B			4	18	96	4.4	11	10	1.37	14		
59229220	191805		+150	+2	1	4		B2	24	1	2	25	2	B			6	23	219	4.4	17	9	1.23	14		
59229221	191806		+200	+2	1	4		B2	24	2	2	30	2	B			4	8	50	4.4	4	4	.71	13		
59229222	191807		+200	+1	1	4		RB	24	1	2	30	2	B			4	7	10	4.4	2	11	.26	12		



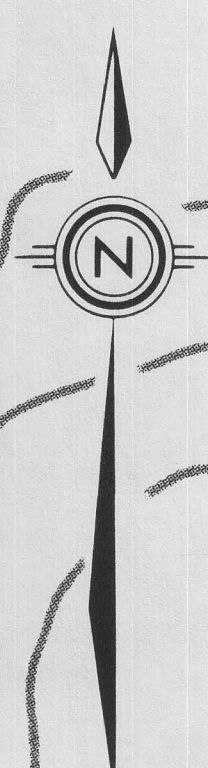
LAD NUMBER	FIELD NO	MAP ZONE	EAST	NORTH	E	N	O	S	COL	SZ	QR	H	CH	B	H	P	PH	Cu PPM	Pb PPM	Zn PPM	Ag PPM	As PPM	Ni PPM	Fe %	V PPM	Ba PPM
S9229259	191859		+100	+15	1	4			BG	34	1	1	35	2	B			4	15	61	(.4)	6	4	.59	11	
S9229260	191860		+50	+15	1	4			3B	34	1	1	40	2	B			6	45	92	(.4)	9	7	1.10	17	
S9229261	191861		+0	+15	1	4			3D	4	2	1	45	2	A			4	7	62	(.4)	4	5	.01	14	
S9229262	191862		+100	+15	1	4	J		3B	4	J	J	35	1	A			29	25	214	(.4)	32	30	2.32	12	
S9229263	191863		+150	+15	1	4			3B	34	1	1	40	2	B			10	10	72	(.4)	17	14	2.11	16	
S9229264	191864		+200	+15	1	4			3B	34	1	1	35	2	B			17	17	60	(.4)	45	7	1.40	15	
S9229265	191865		+50	+15	1	4			3B	34	1	1	40	2	D			9	96	157	(.4)	22	13	1.05	14	

I=INSUFFICIENT SAMPLE X=SMALL SAMPLE E=EXCEEDS CALIBRATION C=BEING CHECKED R=REVISED

IF REQUESTED ANALYSES ARE NOT SHOWN /RESULTS ARE TO FOLLOW

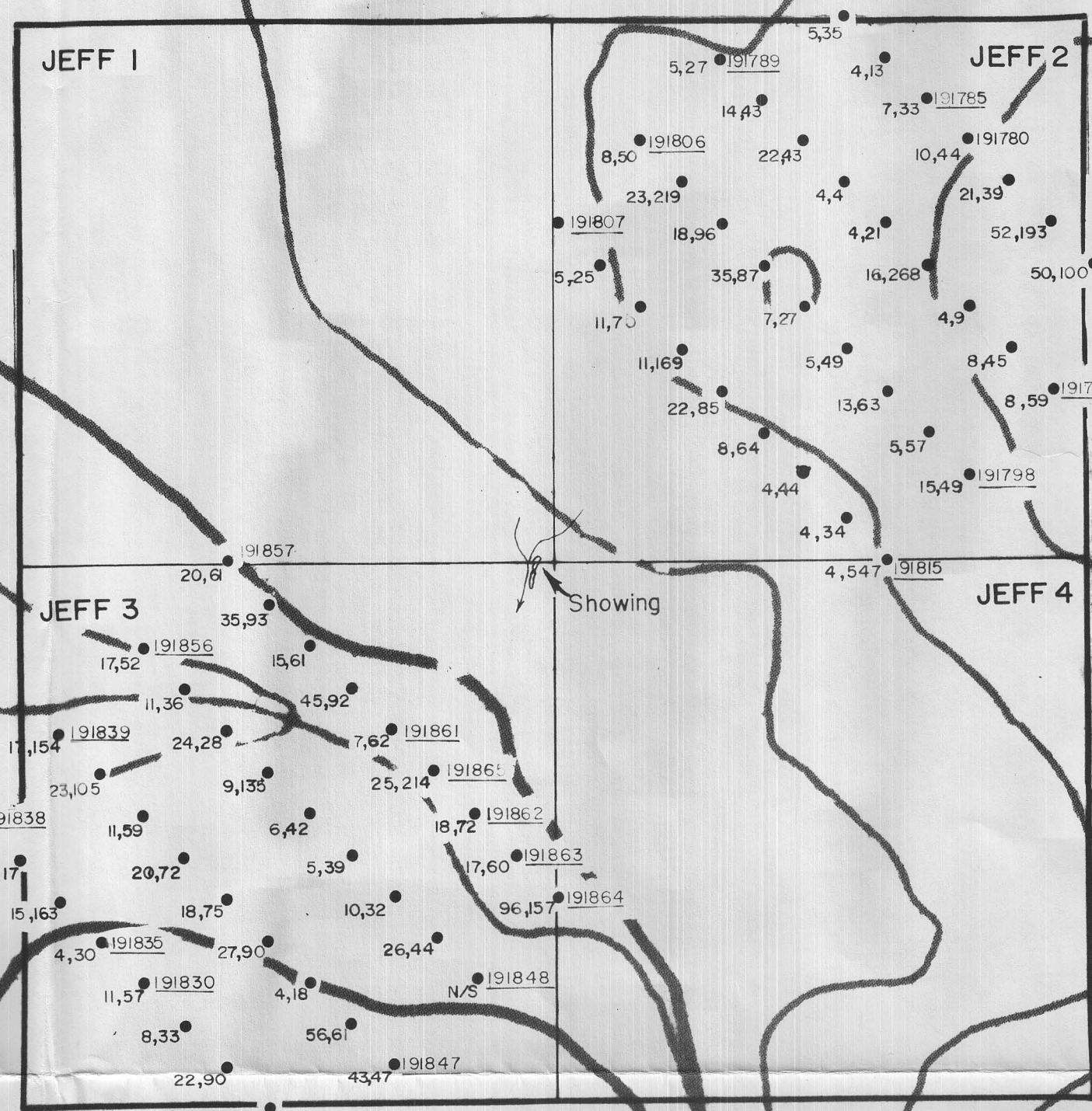
#### ANALYTICAL METHODS

Cu 20% HNO3 DECOMPOSITION / I.C.P. ANALYSIS  
Pb 20% HNO3 DECOMPOSITION / I.C.P. ANALYSIS  
Zn 20% HNO3 DECOMPOSITION / I.C.P. ANALYSIS  
Ag 20% HNO3 DECOMPOSITION / I.C.P. ANALYSIS  
As 20% HNO3 DECOMPOSITION / I.C.P. ANALYSIS  
Ni 20% HNO3 DECOMPOSITION / I.C.P. ANALYSIS  
Fe 20% HNO3 DECOMPOSITION / I.C.P. ANALYSIS  
V 20% HNO3 DECOMPOSITION / I.C.P. ANALYSIS  
Ba X-RAY FLUORESCENCE / LOOSE POWDER



4600

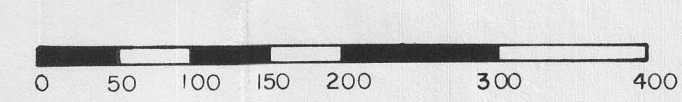
5500



61°52' N

5100

130°20' W



20,61 191857 Soil sample number

Pb, Zn values (ppm)

093043

**JEFF CLAIMS** (458) 105G-16

Drawn by:	Traced by:	MAP# 105 9/16
Revised by:	Revised by:	Doc# 093043 Soil Sample Locations -
		Pb, Zn values
		Scale: 1:5000
		Date:
		Plate: