

SL. 152-15353

11/87

**49 CREEK GROUP**

Geochemistry  
Nelson Mining Division, B.C.  
N.T.S. 82-F-6/W

Lat.  $49^{\circ}27.4'$  Long.  $117^{\circ}25.3'$

November 1986

L. Haynes

Owner/Operator: McMahon Res. Ltd.

**GEOLOGICAL BRANCH  
ASSESSMENT REPORT**

**15,353**

FILMED



49 CREEK GROUP

Geochemistry  
Nelson Mining Division, B.C.  
N.T.S. 82-F-6/W

November 1986

L. Haynes

<u>Claim</u>	<u>Record No.</u>	<u>Anniversary Date</u>
JA #1	2536	November 17, 1987
JA #2	2537	November 17, 1988
JA #3	2638	November 17, 1988
JA #4	2639	November 17, 1988
JA #5	2640	November 17, 1988
JA #6	2641	November 17, 1988
JA #7	2642	November 17, 1987
JA #8	2643	November 17, 1987
PB #9	2766	August 9, 1987
PB#10	2767	August 9, 1987
PB#11	2768	August 9, 1987
PB#12	2769	August 9, 1987
PB #1	2770	August 9, 1988
PB #2	2771	August 9, 1988
PB #3	2772	August 9, 1988
PB #4	2773	August 9, 1988
PB #5	2774	August 9, 1988
PB #6	2775	August 9, 1988
PB #7	2775	August 9, 1988
PB #8	2777	August 9, 1988
JD #1	2949	March 1, 1988
JD #2	2950	March 1, 1988
JD #3	2951	March 1, 1988
JD #4	2952	March 1, 1988
JD #5	2953	March 1, 1988
JD #6	2954	March 1, 1988
JD #7	2955	March 1, 1988
JD #8	2956	March 1, 1988
PB #5	3159	June 7, 1987
PB #6	3160	June 7, 1987

Location: 49 27.5 , 117 25.5  
 Owner: McMahon Resources Ltd.  
 Operator: McMahon Resources Ltd.  
 Work Performed: October 9 to November 5, 1986.

## 49 CREEK GROUP

Geochemistry  
Nelson Mining Division, B.C.  
N.T.S. 82-F-6/W

### SUMMARY

The 49 Creek Group of thirty claims cover a gold prospect located along the lower portions of Fortynine Creek, ten kilometres WSW of Nelson, B.C..

The property lies in an area of poor outcrop along the contact between Rossland Volcanics and Nelson Plutonic Rocks. During 1970 high grade gold samples assaying up to 685 g/t gold (20 oz/ton) were collected near the lower drainage of Fortynine Creek. During the 1980's the 49 Group of claims were consolidated by McMahon Resources Ltd. to protect this discovery.

McMahon Resources carried out soil surveys in 1984 and 1986 in an effort to relocate the original high grade discovery. Both surveys identify two areas with anomalous gold in soils that could represent the high grade gold mineralization.

A programme of detailed geophysics, additional soil sampling and backhoe trenching is recommended in the area of the JA #3 and JA #5 claims.

TABLE OF CONTENTS

	<u>Page No.</u>
<b>SUMMARY</b>	
1. INTRODUCTION. . . . .	1
1.1 Location and Access. . . . .	1
1.2 Topography . . . . .	1
1.3 Property and Claim Status. . . . .	3
1.4 History and Previous Work. . . . .	5
1.5 Work by McMahon Resources in 1986. . . . .	5
2. GEOLOGY . . . . .	6
3. GEOCHEMISTRY. . . . .	6
3.1 Sampling, Sample Preparation and Analytical Procedure . . . . .	6
3.2 Presentation and Discussion of Results . . . . .	7
4. CONCLUSIONS AND RECOMMENDATIONS . . . . .	9

TABLES

I Claim Status	3
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LIST OF ILLUSTRATIONS

Drawing No.

L -1000	Property Location Map	2
C -1000	Claim Map	4
GC-1000	Sample Location - ppb Au	8

APPENDICES

A	Cost Statement
B	References
C	Soil Samples-Consecutive Listing
D	Analytical Results
E	Certificate/Statement of Qualifications

## 49 CREEK GROUP

Geochemistry  
Nelson Mining Division, B.C.  
N.T.S. 82-F-6/W

### 1. INTRODUCTION

The 49 Creek Group covers a gold prospect located ten kilometres WSW of Nelson, B.C.. From October 10 to October 13, 1986, a soil sampling programme was carried out on the property.

Results of the programme are discussed in the following report.

#### 1.1 Location and Access

The 49 Creek Group is located in the Nelson Mining District, B.C., approximately ten kilometres WSW of Nelson, B.C.. The claims are located along the lower drainage of Fortynine Creek, four kilometres above its confluence with the Kootenay River.

Access to the property is by 2 kilometres of unimproved road exiting west from the community of Blewett, B.C.. Ten kilometers of paved highway connect Blewett with Nelson, B.C..

#### 1.2 Topography

The 49 Creek Group encompasses approximately 625 hectares of moderate relief along the valley and ridges of Fortynine Creek. In the area of the claims, Fortynine Creek occupies a prominent northwest-southeast "V" shaped valley. Elevations range from 1100 metres to 1700 metres above sea level.

The valley is heavily forested with a mature hemlock and cedar forest.

**McMAHON RESOURCES LTD.**

**49 CREEK GROUP**

NTS: 82 F/6W

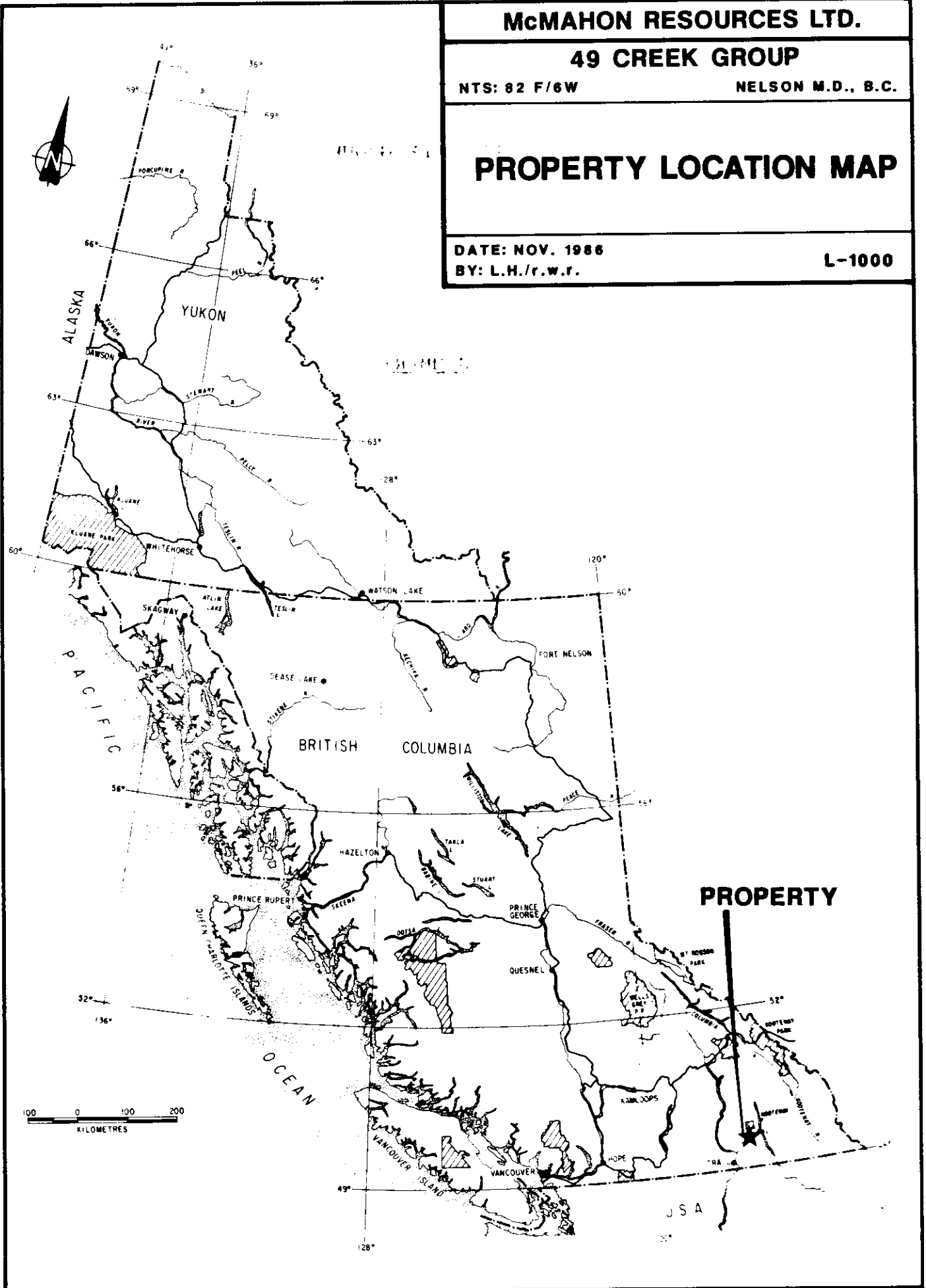
NELSON M.D., B.C.

**PROPERTY LOCATION MAP**

DATE: NOV. 1986

BY: L.H./r.w.r.

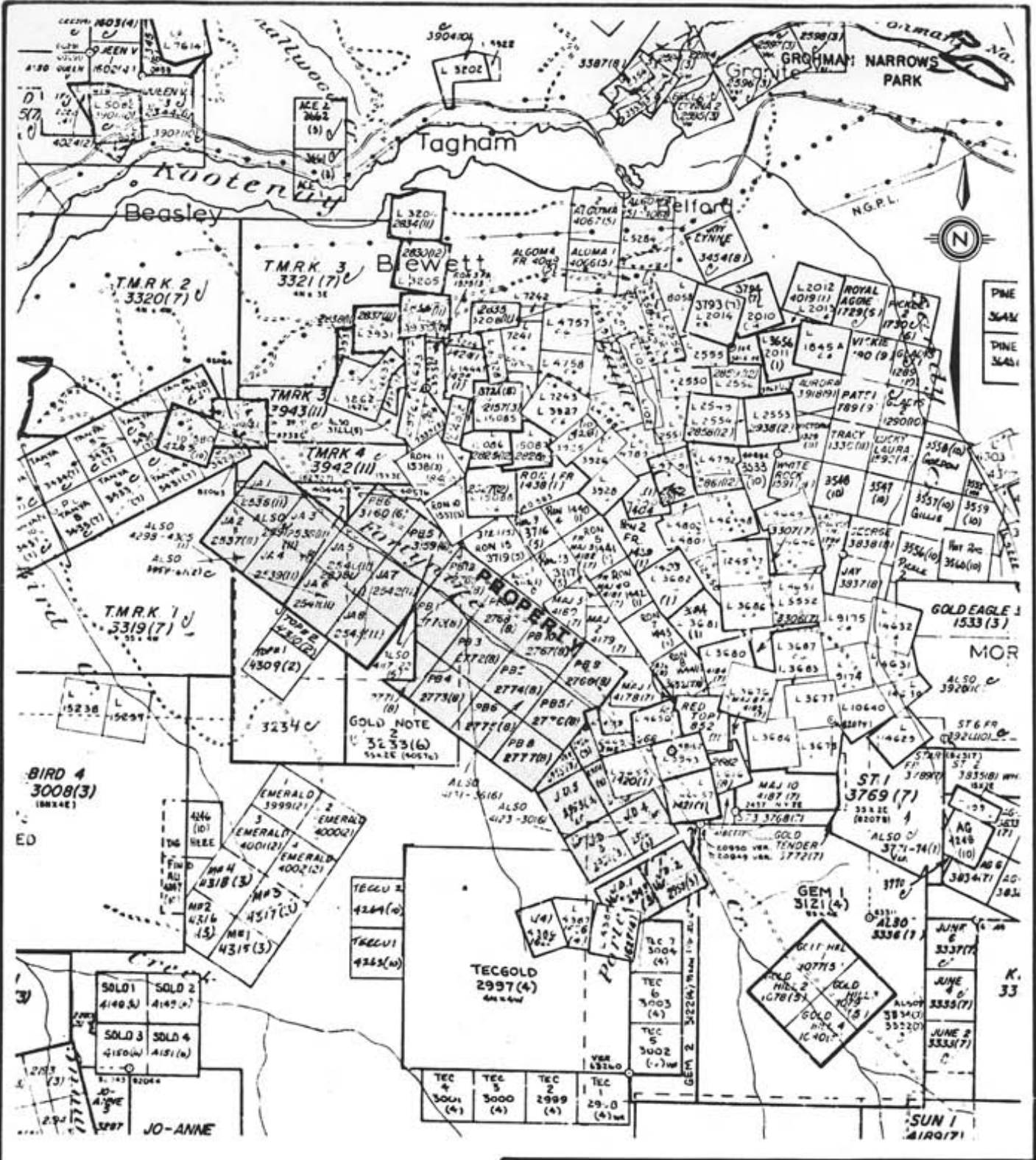
L-1000



### 1.3 Property and Claim Status

The 49 Creek Group currently consists of thirty 2-post mineral claims identified in the table below. The accompanying map on page 4 shows the relative location of these claims.

<u>Claim</u>	<u>Record No.</u>	<u>Anniversary Date</u>
JA #1	2536	November 17, 1987
JA #2	2537	November 17, 1988
JA #3	2638	November 17, 1988
JA #4	2639	November 17, 1988
JA #5	2640	November 17, 1988
JA #6	2641	November 17, 1988
JA #7	2642	November 17, 1987
JA #8	2643	November 17, 1987
PB #9	2766	August 9, 1987
PB#10	2767	August 9, 1987
PB#11	2768	August 9, 1987
PB#12	2769	August 9, 1987
PB #1	2770	August 9, 1988
PB #2	2771	August 9, 1988
PB #3	2772	August 9, 1988
PB #4	2773	August 9, 1988
PB #5	2774	August 9, 1988
PB #6	2775	August 9, 1988
PB #7	2775	August 9, 1988
PB #8	2777	August 9, 1988
JD #1	2949	March 1, 1988
JD #2	2950	March 1, 1988
JD #3	2951	March 1, 1988
JD #4	2952	March 1, 1988
JD #5	2953	March 1, 1988
JD #8	2956	March 1, 1988
PB #5	3159	June 7, 1987
PB #6	3160	June 7, 1987



**McMAHON RESOURCES LTD.**

**49 CREEK GROUP**

NTS: 82 F/6W

NELSON M.D., B.C.

**CLAIM MAP**

DATE NOV., 1986  
BY L.H./rwr

SCALE: 1:50 000

C-1000



#### 1.4 History and Previous Work

Fortynine Creek has a history of placer gold production dating back to the 1890's. H. W. Little notes in GSC Memoir 308 (Nelson Map-Area, West Half) that Fortynine Creek was apparently the most productive operation in the area. Production was carried out on an irregular basis from 1890 until 1945.

In the early 1900's discovery of lode gold deposits in the Fortynine Creek valley followed the placer discoveries. These deposits were typically gold bearing fissure filled veins in Rosland Volcanics (greenstone and augite porphyry). Several of these occurrences are documented in B.C.M.M. Annual Reports including the Referendum, Miracle and May & Jennie properties located near the southern boundary of the 49 Claim Group.

During the 1970's high grade gold samples containing up to 685 g/t (20 oz/ton) gold were collected by Mr. Jim McMahon while prospecting near the lower drainage of Fortynine Creek. The exact location of this discovery remains in doubt because of the untimely death of Mr. McMahon. During the 1980's the 49 Group of thirty claims were consolidated by McMahon Resources Ltd. to protect this discovery.

In July 1984 McMahon Resources Ltd. conducted a soil sample programme in the area where they believed Mr. McMahon had discovered the high grade gold samples. Results of this survey identified a number of highly anomalous gold zones on the JA #3 and JA #5 claims.

#### 1.5 Work by McMahon Resources in 1986

Two independant field programmes were carried out on the 49 Creek Group in 1986.

During the period from April to July 1986 approximately 1250m of line and trail were cleared on the PB #1-PB #8 claims. The trails were being prepared as possible access route to the gold anomalies on the JA claims.

During October 1986 a detailed investigation of the anomalous gold zones on the JA #3 and JA #5 claims was carried out by Archean Engineering Ltd. on behalf of McMahon Resources. Work included the establishment of a soil grid using the claim post for the JA #1, JA #2, JA #3, and JA #4 claims as its origin. Eighty-two soil samples were collected and analyzed.

## 2. GEOLOGY

The general geology of this area is described by H. W. Little in GSC Memoir 308 and GSC Open File 1195. The 49 Creek Group occurs along the contact between Lower Jurassic Elsie Formation (Rossland Group) Volcanics west of Fortynine Creek and Nelson Plutonic (pyroxene-biotite hornblende rock) Rocks east of Fortynine Creek.

Outcrop in the survey area (JA #3, JA #5 claims) is extremely poor. Two small isolated outcrops of weakly altered andesite occur in distinctive north-south trending draws at L2+00S, 0+76E and L 0+00E, 3+00S. A larger outcrop of andesite occurs along Fortynine Creek near L3+00E, 3+00S. All three outcrops show weak to moderate fracturing. In the outcrop at L0+00E, 3+00S quartz occurs as veinlets and fracture fillings. A sample (86100) of vein material did not carry gold values.

## 3. GEOCHEMISTRY

### 3.1 Sampling, Sample Preparation and Analytical Procedure

Soil samples were collected over the JA #3 and JA #5 claims from a grid established by hip chain and compass. The NW-SE claim line between the JA#3 and JA#4 claims was used as L 0+00E for control. The corner post for the JA #1-2-3-4 claims was established as the origin (L 0+00E, 0+00S).

Soil sample lines were run parallel to the claim line and are identified on the sample location map as lines L 1+50E, L 2+00E, L 2+50E and L3+00E. Lines were chosen so that they were intermediate to the earlier (1984) soil survey lines and generally located near the anomalous gold zones. Soil sample sites were selected every 25 metres and the sample site was marked with flagging tape. All samples were collected from the "B" horizon. Samples were collected from 30 to 50 cm deep using a soft rock hammer. A total of 82 samples were collected.

All samples were placed in Kraft paper envelopes and shipped to Acme Analytical Laboratories Ltd. in Vancouver. Here the samples were oven dried and sieved to -80 mesh. Seperate analysis were carried out by Inductively Coupled Argon Plasma (ICP) and Fire Assay (FA) with an Atomic Absorption (AA) finish on the minus 80 mesh fraction. For the ICP analysis, 0.5 gm samples were digested in hot dilute aqua regia in a boiling water bath and diluted to 10ml with demineralized water. For the FA + AA, 10 gm samples were subjected to a fire assay preconcentration, aqua regia digestion and graphite furnace AA determination.

### 3.2 Presentation and Discussion of Results

Analytical results of the eighty-two soil samples collected from the JA #3 and JA #5 claims are included as Appendix D of this report. Gold determinations include both ICP and FA + AA analysis. Gold values in ppb are presented along with sample locations on Drawing GC-1000. A consecutive listing of soil samples is included as Appendix C.

High (>100 ppb) gold in soils identify three anomalous area on the JA #3 and JA #5 claims. These areas are closely related to anomalous areas identified by the 1984 soil survey. The gold anomalies show a north-south orientation. In all three cases overburden masks the source of the anomalies.

#### Area (1)

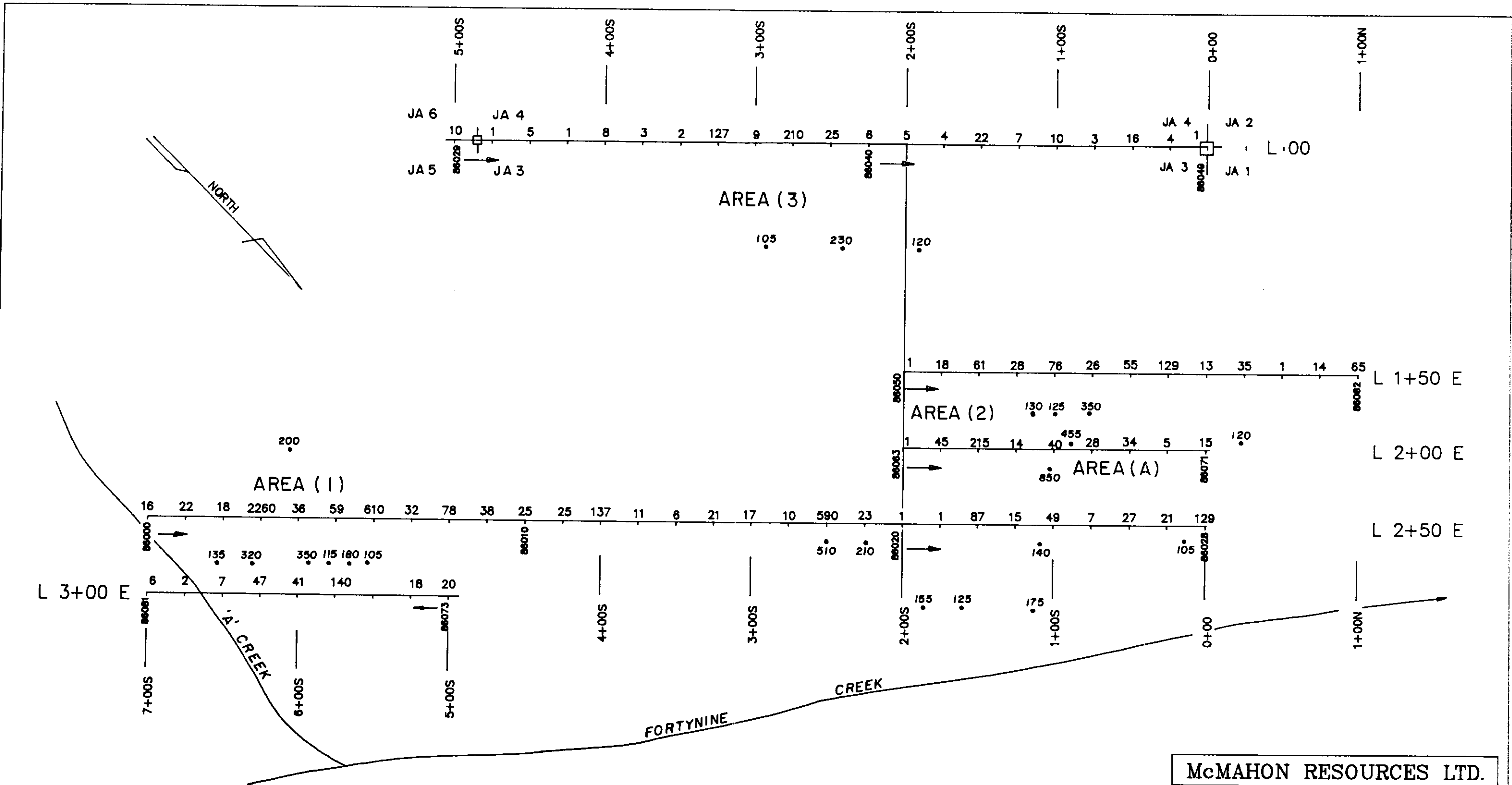
Anomalous gold values of 2260, 610 and 140 ppb are found due west of "A" Creek on lines L 3+00E and L 2+50E. These lines partially enclose a 100 metre string of anomalous gold values (135, 320, 350, 115, 180, 105 ppb) identified in the 1984 survey.

#### Area (2)

Lines 1+50E, 2+00E and 2+50E ( Stations 0+00S to 2+00S ) were located to test for extensions of " AREA A ", a highly anomalous zone defined by values of 125, 130, 350, 455, and 850 ppb gold in the 1984 survey. The 1986 results show anomalous gold values of 129, 215, and 129 ppb on the edges of this anomaly.

#### Area (3)

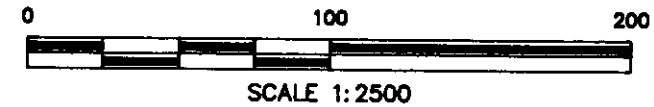
Line L 0+00E has two anomalous samples of 127 and 210 ppb Au fifty metres apart. The samples occur near a north-south striking draw and possibly represent a southerly extension ( 75 m south) of a small two sample anomaly (105, 230 ppb Au) identified by the 1984 results.



LEGEND:

18 20  
 ↑  
 86073  
 850

GOLD VALUE IN PPB.  
 SAMPLE NUMBER  
 GOLD VALUE >100 PPB.  
 1984 - SURVEY



McMAHON RESOURCES LTD.	
49 CREEK GROUP	
NELSON M.D.-B.C. NTS:82F/6	
GOLD GEOCHEMISTRY	
ARCHEAN ENGINEERING LTD.	
DATE: NOVEMBER, 1986	
BY: LRH/rwr	
GC-1000	

#### 4. CONCLUSIONS AND RECOMMENDATIONS

The results of the 1986 soil sampling programme carried out on the JA #3 and JA #5 claims have identified three separate gold anomalies. The programme duplicates the findings of an earlier soil survey (1984) and suggest possible extensions of the 1984 anomalies. Efforts to identify the source of the gold in soil or to relocate the high grade (685 g/t Au) discovery are restricted by extensive overburden.

A general north-south orientation of the soil anomalies corresponds to a prominent drainage pattern on the valley sides. Numerous sharp draws occur along the southwest side of Fortynine Creek and are characterized by their narrow width and north-south strike. In places, weakly fractured andesite boulders are found along the higher elevations of the draws. The repetitive and linear nature of these draws suggest that they are structurally controlled. The proximity of the anomalous gold areas to these draws, in particular "A" Creek, suggest that the gold anomalies could overlie gold bearing structures.

Additional work, including a combination of soil sampling, backhoe trenching and VLF-EM, is recommended for the areas of anomalous gold.

A VLF-EM survey is recommended to test for structures that may be coincident with the existing gold anomalies. Attempts to expose the "AREA A" anomaly by hand trenching were unsuccessful. Overburden may be shallow enough in this area for trenching with a backhoe if access is possible. Additional soil sampling is recommended to close off a number of isolated high gold values from both the 1984 and 1986 soil surveys.

Respectfully submitted,  
ARCHEAN ENGINEERING LTD.



Larry Haynes B.Sc., F.G.A.C.

**APPENDIX**

**A**

**Cost Statement**

COST STATEMENT

49 CREEK GROUP  
Geochemistry, Geology  
9 October to 6 November 1986

Salaries and Wages

L. Haynes	5 Field Days @ \$250.00/Day (October 10-14, 1986)	\$1250.00
M. Marrello	2 Field Days @ \$100.00/Day (October 11-12, 1986)	\$ 200.00
L. Haynes	3 Days-Report Preparation @ \$250.00/Day (October 9, November 4-5, 1986)	\$ 750.00

Food and Accommodation

1 Person; October 10-13, 1986; 4 Man Days @ \$50.00/Day	\$ 200.00
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Transportation

Truck Rental 4 Days @ \$25.00/Day (October 10-13, 1986)	\$ 100.00
Fuel	\$ 33.00
Air Fare (Vancouver-Castlegar-Vancouver)	\$ 209.00

Analyses

83 ICP Analysis (Soils)	\$ 498.00
83 Au by FA + AA (Soils)	\$ 456.00
Sample preparation	\$ 64.50

General Costs

Shipping charges	\$ 19.80
Soil bags, flagging tape	\$ 17.66
Report preparation-Typing, Drafting	\$ 500.00

**TOTAL COST \$4297.96**

**APPENDIX**

**B**

**References**



## REFERENCES

B.C. Minister of Mines Annual Report, 1900, p. 845; 1902, pp. 157-158; 1904, p. 138; 1927 pp. 316-317.

Little, H.W., 1960, GSC Memoir 308, pp. 114-118.

Little, H.W., December 1985, GSC Open File 1195 - Geology Map of Nelson West Half, pp. 13-14.

Sideco, C., August 1984, B.C. Assessment Report No. 12653 - Geochemical Report on the 49 CR. Group.

**APPENDIX**

**C**

**Soil Samples - Consecutive Listing**

## 49 CREEK GROUP

Soil Samples-Consecutive Listing

<u>Sample No.</u>	<u>Location</u>	<u>ppb Au</u>
86000	L 2+50E : 7+00S	16
86001	L 2+50E : 6+75S	22
86002	L 2+50E : 6+50S	18
86003	L 2+50E : 6+25S	2260
86004	L 2+50E : 6+00S	36
86005	L 2+50E : 5+75S	59
86006	L 2+50E : 5+50S	610
86007	L 2+50E : 5+25S	32
86008	L 2+50E : 5+00S	78
86009	L 2+50E : 4+75S	38
86010	L 2+50E : 4+50S	25
86011	L 2+50E : 4+25S	25
86012	L 2+50E : 4+00S	137
86013	L 2+50E : 3+75S	11
86014	L 2+50E : 3+50S	6
86015	L 2+50E : 3+25S	21
86016	L 2+50E : 3+00S	17
86017	L 2+50E : 2+75S	10
86018	L 2+50E : 2+50S	590
86019	L 2+50E : 2+25S	23
86020	L 2+50E : 2+00S	1
86021	L 2+50E : 1+75S	1
86022	L 2+50E : 1+50S	87
86023	L 2+50E : 1+25S	15
86024	L 2+50E : 1+00S	49
86025	L 2+50E : 0+75S	7
86026	L 2+50E : 0+50S	27
86027	L 2+50E : 0+25S	21
86028	L 2+50E : 0+00S	129
86029	L 0+00E : 5+00S	10
86030	L 0+00E : 4+75S	1
86031	L 0+00E : 4+50S	5
86032	L 0+00E : 4+25S	1
86033	L 0+00E : 4+00S	8
86034	L 0+00E : 3+75S	3

<u>Sample No.</u>	<u>Location</u>	<u>ppb Au</u>
86035	L 0+00E : 3+50S	2
86036	L 0+00E : 3+25S	127
86037	L 0+00E : 3+00S	9
86038	L 0+00E : 2+75S	210
86039	L 0+00E : 2+50S	25
86040	L 0+00E : 2+25S	6
86041	L 0+00E : 2+00S	5
86042	L 0+00E : 1+75S	4
86043	L 0+00E : 1+50S	22
86044	L 0+00E : 1+25S	7
86045	L 0+00E : 1+00S	10
86046	L 0+00E : 0+75S	3
86047	L 0+00E : 0+50S	16
86048	L 0+00E : 0+25S	4
86049	L 0+00E : 0+00S	1
86050	L 1+50E : 2+00S	1
86051	L 1+50E : 1+75S	18
86052	L 1+50E : 1+50S	61
86053	L 1+50E : 1+25S	28
86054	L 1+50E : 1+00S	76
86055	L 1+50E : 0+75S	26
86056	L 1+50E : 0+50S	55
86057	L 1+50E : 0+25S	129
86058	L 1+50E : 0+00S	13
86059	L 1+50E : 0+25N	35
86060	L 1+50E : 0+50N	1
86061	L 1+50E : 0+75N	14
86062	L 1+50E : 1+00N	65
86063	L 2+00E : 2+00S	1
86064	L 2+00E : 1+75S	45
86065	L 2+00E : 1+50S	215
86066	L 2+00E : 1+25S	14
86067	L 2+00E : 1+00S	40
86068	L 2+00E : 0+75S	28
86069	L 2+00E : 0+50S	34
86070	L 2+00E : 0+25S	5
86071	L 2+00E : 0+00S	15
86072	L 2+02E : 1+17E	55
86073	L 3+00E : 5+00S	20
86074	L 3+00E : 5+25S	18

<u>Sample No.</u>	<u>Location</u>	<u>ppb Au</u>
86075	L 3+00E : 5+50S	140
86076	L 3+00E : 5+75S	41
86077	L 3+00E : 6+00S	47
86078	L 3+00E : 6+25S	7
86079	L 3+00E : 6+50S	2
86080	L 3+00E : 6+75S	6
86081	L 3+00E : 7+00S	58

**APPENDIX**

**D**

**Analytical Results**







SAMPLE#	Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	U	Au	Th	Sr	Cd	Sb	Bi	V	Ca	P	La	Cr	Mg	Ba	Ti	B	Al	Na	K	W	Au#
	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	%	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	%	%	PPM	PPM	%	PPM	%	PPM	%	%	%	PPM	PPB
B6072	1	63	3	90	.4	16	13	367	3.27	2	5	ND	2	47	1	2	2	83	.42	.126	7	22	.75	83	.13	3	1.33	.01	.11	1	55
B6073	1	87	2	77	.2	16	14	521	3.33	5	5	ND	1	62	1	2	2	84	.63	.251	9	25	.95	102	.13	3	1.47	.01	.11	1	20
B6074	1	116	3	50	.1	13	14	466	3.09	2	5	ND	1	75	1	2	2	86	.88	.316	11	24	.92	82	.11	5	1.16	.01	.26	1	18
B6075	1	93	7	55	.1	14	15	407	3.71	2	5	ND	2	76	1	2	2	100	.74	.228	11	24	.85	70	.13	6	1.13	.02	.17	1	140
B6076	1	109	7	51	.1	17	15	765	3.71	4	6	ND	2	77	1	2	2	102	.83	.258	12	27	.99	90	.13	2	1.16	.02	.33	1	41
B6077	1	31	7	72	.2	10	12	393	3.00	2	5	ND	2	49	1	2	2	69	.38	.157	4	20	.53	83	.11	4	1.07	.01	.08	1	47
B6078	1	43	7	126	.2	15	10	289	2.61	3	5	ND	2	27	1	2	2	54	.27	.233	6	18	.48	109	.13	2	2.15	.02	.09	1	7
B6079	1	152	5	167	.3	41	46	522	3.28	5	5	ND	2	31	1	2	2	51	.24	.197	4	24	.66	140	.14	4	3.16	.02	.08	1	2
B6080	1	29	10	153	.2	19	15	449	3.10	2	5	ND	2	32	1	2	2	54	.28	.124	6	18	.57	130	.14	3	1.91	.02	.10	1	6
B6081	1	38	6	116	.1	13	12	537	3.12	5	5	ND	1	39	1	2	2	56	.33	.171	5	20	.63	125	.13	4	1.73	.02	.09	1	58
STD C/AU-S	21	58	37	132	7.1	71	29	1020	3.93	38	18	8	33	49	17	15	20	62	.48	.102	38	57	.84	179	.08	37	1.72	.06	.14	13	48

*Au anomaly with P, La, K.*

ARCHEAN ENGINEERING FILE # 86-3272

PAGE 4

SAMPLE#	Mo PPM	Cu PPM	Pb PPM	Zn PPM	Ag PPM	Ni PPM	Ce PPM	Mn PPM	Fe %	As PPM	U PPM	Au PPM	Th PPM	Sr PPM	Cd PPM	Sb PPM	Bi PPM	V PPM	Ca %	P %	La PPM	Cr PPM	Mg %	Ba PPM	Ti %	B PPM	Al %	Na %	K %	W PPM	Au#1 PPB
86100	1	34	2	79	.2	4	11	1039	3.03	2	6	ND	3	40	1	2	2	51	.48	.103	4	4	1.08	63	.08	7	1.29	.04	.10	1	1

APPENDIX

E

Certificate  
Statement of Qualifications

CERTIFICATE

I, L. R. Haynes, do hereby certify that:

1. I am a geologist and reside at 127 E. 18th Ave., Vancouver, British Columbia.
2. I am a graduate of the University of British Columbia; with a B.Sc. in Geology (1972).
3. I have practiced my profession since 1972 in Canada and the United States as indicated on the Statement of Qualifications.
4. I am a Fellow in the Geological Association of Canada, Registration Number 4291.
5. I have based this report on a property examination done in October 1986. This report is also based on information obtained from the Geological Survey of Canada and the B.C. Department of Energy, Mines and Petroleum Resources.
6. I have no interest, nor do I expect to receive any interest, either directly or indirectly, in the securities or properties presently held by **McMahon Resources Ltd.**
7. I have no past or present, direct or indirect interest in the 49 Creek Claim Group or in any other mineral claims within the Nelson Mining Division.

Dated at Vancouver, British Columbia, this 8th. day of December, 1986.



L. R. Haynes, B.Sc., F.G.A.C.

STATEMENT OF QUALIFICATIONS

LARRY HAYNES

Academic

October, 1983	Fellow	Geological Association of Canada
May, 1972	B.Sc.	University of British Columbia

Practical

December 1985 -		Geological Consultant
May 1983 - November 1985	Exploration Manager, Golden Dividend Resources	Property appraisal and acquisition in B.C., and Northwestern U.S.A.
November 1982 - May 1983	Associate Geologist Alionis & Lohman	Contract Geologist
May 1972 - October 1982	Geologist Riocanex Inc.	Geologist involved in all aspects of mineral ex- ploration in B.C., Yukon and N.W.T.