

-1210 0060

(48) Item 60

PRELIMINARY EXAMINATION  
OF THE VARIOUS  
EFFIE FAY CLAIM GROUPS  
T45N, R63 & 64E, MDBM  
ELKO COUNTY, NEVADA  
PAN-NEVADA INC.  
MAY, 1970



UNITED STATES  
DEPARTMENT OF JUSTICE  
FEDERAL BUREAU OF INVESTIGATION  
WASHINGTON, D. C. 20535  
MAY 19 1964  
MEMORANDUM FOR THE DIRECTOR  
SUBJECT: [Illegible]



PRELIMINARY EXAMINATION  
OF THE VARIOUS  
EFFIE FAY CLAIM GROUPS  
T45N, R63 & 64E, MDBM  
ELKO COUNTY, NEVADA

PAN-NEVADA INC.  
L. B. GOLDSMITH  
MAY, 1970



## INTRODUCTION

Nine different claims or groups of claims are included in the designation of "Effie Fay," located in T45N, R63 & 64E, MDBM (see location and topographic map, page i). All of the properties were examined. The Effie Fay and Lucie were considered to be the most likely prospects; mapping, IP surveying and diamond drilling were completed.

## GENERAL GEOLOGY

A granodiorite is cut by northeasterly trending fractures. The fractures have associated altered zones which are enriched in K-feldspar. Sparse copper mineralization is present in the altered zones, apparently in narrow quartz veinlets which do not form extensive stockworks.

## IP SURVEYS

The IP results indicated some weakly anomalous zones which roughly corresponded to the northeasterly fractures (see McPhar reports). IP responses were attributed to clay minerals along slips which were encountered in drilling.

## DIAMOND DRILLING

Nine holes were core drilled for a total of 1759 feet, six on the Effie Fay and three on the Lucie (see geology map and drill logs).

## ECONOMIC GEOLOGY

No commercial mineralization was encountered in the drilling.

## CONCLUSIONS AND RECOMMENDATIONS

No further work should be done; the property should be returned to the lessor.

L. B. Goldsmith, Geologist

Pan-Nevada Inc.  
May, 1970



APPENDIX



# SAMPLE LOGS - EFFIE FAY CLAIMS

Number	Description	ASSAYS				
		Au ozs/ton	Ag ozs/ton	Cu %	Mn %	Mo %

EFFIE FAY GROUP						
175.	Chip, across 50'. Alaskite dyke or altered granodiorite. Very faint occasional copper carbonate. Leached sulphides (relicts), possibly pyrite.	Tr	Nil	0.025	0.078	
176.	Chip, across 50'. As no. 175.	Tr	Nil	0.258	0.078	
177.	Chip, across 16'. Alaskite dyke or altered granodiorite. Sulphides and minor copper carbonate. Copper carbonate in narrow zone (2') in nearby small pit.	Nil	Nil	0.573	0.104	
178.	Chip, across 20'. Alaskite dyke. Copper carbonate in 3" zone. Relict sulphide gossan (disseminated limonite).	Tr	0.1	0.743	0.052	
179.	Chip, across 100'. Alaskite dyke. Rusty relict disseminated limonite.	Tr	Nil	0.050	0.052	
180.	Channel, across 10' at portal of adit. Alaskite dyke or altered granodiorite, with weathered disseminated sulphide.	Nil	Nil	0.018	0.052	
181.	Channel, 15'. Alaskite dyke or altered granodiorite. Along outcrop above adit. More weathered sulphides than no. 180.	Tr	Nil	0.025	0.026	
182.	Channel, 15', across top of caved adit. Same rock, but less weathered disseminated sulphide. Some copper oxides in pits to the SE.	Nil	0.3	0.025	0.026	
183.	Chip, 150'. Alteration zone.	Tr	Nil	0.012	0.026	
184.	Channel, 25' along pit. Alaskite dyke or altered granodiorite. Some disseminated copper oxides and minor sulphides.	Tr	Nil	0.296	0.104	



Number	Description	ASSAYS				
		Au ozs/ton	Ag ozs/ton	Cu %	Mn %	Mo %
185.	Channel, 15' along caved workings. Alaskite or altered granodiorite.	Tr	Nil	0.144	Nil	
186.	Chip, 15', in lower pits. Alaskite or altered granodiorite with much disseminated copper oxide.	Nil	0.1	0.233	0.026	
187.	Channel, 20' along middle trench between two pits. Alaskite or altered granodiorite with disseminated copper oxide.	Tr	Nil	0.340	Nil	
LUCIE GROUP						
188.	Channel 15' across alaskite dyke or altered granodiorite. White, coarse grained feldspars, minor biotite. Patchy copper silicate and carbonate stain.	Tr	Nil	0.258	Nil	
189.	Channel, 12', across adit portal. Alaskite or altered granodiorite. Weathered disseminated sulphides.	Tr	0.1	0.018	Nil	
190.	Channel, 5', in small pit (reported on plat as a shaft) in alaskite or altered granodiorite. No trace of weathered out sulphide.	Nil	Nil	0.138	Nil	
191.	Channel, 10', within pit ("shaft"), alaskite or altered granodiorite without weathered disseminated sulphide or copper carbonates.	Tr	Nil	0.050	Nil	
192.	Channel, 25'. Altered zone, with only minor evidence of weathered sulphide dissemination.	Tr	Nil	0.466	Nil.	
193.	Channel, 15'. Footwall (SE) in shaft. Slightly altered granodiorite.	Nil	0.2	0.088	Nil	
194.	Channel, 10'. NE wall along fracture zone in shaft. Altered granodiorite.	Tr	Nil	0.346	Nil	
195.	Channel, 10', SW wall across fracture zone in shaft. Altered granodiorite.	Tr	Nil	3.906	Nil	



Number	Description	ASSAYS				
		Au ozs/ton	Ag ozs/ton	Cu %	Mn %	Mo %
OLINDA GROUP						
196.	Chip, 10', at NW of shaft collar. Altered granodiorite or alaskite. Light brown rusty gossan, relict limonite. Molybdenite?	Tr	Nil	0.006	Nil	Nil
197.	Channel, 15'. Sheared alaskite or granodiorite porphyry. Narrow seam (2") N 60° E, 90° with light brown rusty gossan.	Tr	6.2	0.025	Nil	Nil
198.	Channel, 15'. Across mouth of adit in altered zone.	Tr	0.1	0.365	Nil	Nil
199.	Channel, 10'. Along SE wall of 30' deep shaft. Abundant relict disseminated sulphides.	Tr	0.3	0.510	Nil	Nil
LUCIE GROUP						
200.	Channel, 25', in inclined shaft (15' deep) in altered granodiorite, showing some disseminated weathered sulphides.	Tr	0.4	0.963	Nil	
201.	Channel, 10', in "shaft" in alaskite dyke.	Tr	0.1	0.390	Nil	
202.	Channel, 20', in alaskite dyke. Weathered disseminated sulphides.	Nil	Nil	0.018	Nil	

Assays were performed by the Union Assay Office, P. O. Box 1528, 269 Brooklyn Ave., Salt Lake City, Utah; the original assay reports, dated August 13 and 15, 1968, are signed by Glen P. Williams.



PAN-NEVADA INC.  
DIAMOND DRILL HOLE LOG

Property: Lucie

Hole Number: L - 1

Location: Contact area, Elko County, Nevada. T45N, R63E, sec 27, MDBM.

Date Started: April 3, 1970

Date Completed: April 9, 1970

Logged By: L. B. Goldsmith

Coordinates of Collar: 8 + 40N, 52 + 00W

Elevation of Collar: 6400'

Dip: - 90°

Length: 217'

Contractor: E. J. Longyear Co.

Drill Type: 44

Core Size: NQ

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FOOTAGE

From To

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DESCRIPTION

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0	10	Casing
10	42	Granodiorite, gray, friable, partly porphyritic. Biotite, chlorite. Ferromagnesians altering to chlorite.
42	51	Granodiorite porphyry, altered. Ferromagnesians to limonite and chlorite. Clay alteration on slips.
51	185	Biotite granodiorite. Minor pink manganese stain. Limonite after ferromagnesians. Clay seam: 171' - 175'.
185	201	Breccia and clay in altered zone.
201	217	Altered granodiorite.

END OF HOLE



PAN-NEVADA INC.  
DIAMOND DRILL HOLE LOG

Property: Lucie

Hole Number: L - 2

Location: Contact area, Elko County, Nevada. T45N, R63E, sec 27, MDBM

Date Started: April 10, 1970

Date Completed: April 21, 1970

Logged By: L. B. Goldsmith

Coordinates of Collar: 5 + 60 N, 56 + 00 W

Elevation of Collar: 6400'

Dip: - 90°

Length: 200'

Contractor: E. J. Longyear Co.

Drill Type: 44

Core Size: NQ

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FOOTAGE  
From To

DESCRIPTION

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0	10	Casing
10	22	Granodiorite with biotite and chlorite
22	29	Altered zone.
29	80	Granodiorite. Coarse grained from 53' - 80'.
80	176	Altered granodiorite. Bleached. Limonite after ferromagnesians. Fractured with clay on slips.
176	200	Granodiorite, friable

END OF HOLE



PAN-NEVADA INC.  
DIAMOND DRILL HOLE LOG

Property: Lucie

Hole Number: L-3

Location: Contact area, Elko County, Nevada. T45N, R63E, sec 27, MDBM.

Date Started: April 22, 1970

Date Completed: April 28, 1970

Logged By: L. B. Goldsmith

Coordinates of Collar: 3 + 90 N, 55 + 70 W

Elevation of Collar: 6380'

Dip: - 90°

Length: 200'

Contractor: E. J. Longyear Co.

Drill Type: 44

Core Size: NQ

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FOOTAGE  
From To

DESCRIPTION

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0	10	Casing
10	50	Altered zone. Fractured with clay on slips. Minor pink manganese stain.
50	70	Biotite granodiorite and altered zone.
70	123	Granodiorite
123	132	Altered zone.
132	200	Granodiorite

END OF HOLE



PAN-NEVADA INC.

DIAMOND DRILL HOLE LOG

Property: Effie Fay

Hole Number: EF-1

Location: Contact area, Elko County, Nevada. T45N, R63E, sec 24, MDBM

Date Started: February 18, 1970

Date Completed: February 24, 1970

Logged By: D. E. Hopkins

Coordinates of Collar: 0 + 40 N, 13 + 00 W

Elevation of Collar: 6200'

Dip: - 90°

Length: 152'

Contractor: E. J. Longyear Co.

Drill Type: 44

Core Size: NQ

FOOTAGE

From To

DESCRIPTION

0	10	Casing
10	22	Granodiorite, light grey, coarse-grained, porphyritic, very soft, feldspar argillized, biotite to brown biotite, Fe-Mg to chlorite.
22	69	Granodiorite, light grey, coarse-grained, porphyritic, medium hard to soft, locally friable, feldspar moderately argillized, biotite to brown biotite, Fe-Mg to chlorite, weak CuO in fracture at 23 feet.
69	80	Granodiorite, light grey, moderate to strong silicification, fractured, very hard.
80	142	Granodiorite, light grey, coarse-grained, porphyritic, very hard, feldspar fresh, biotite fresh, Fe-Mg to chlorite.
142	152	Granodiorite, light grey, coarse-grained, porphyritic, soft, friable, feldspar moderately argillized, biotite fresh, Fe-Mg to chlorite.

END OF HOLE



PAN-NEVADA INC.  
DIAMOND DRILL HOLE LOG

Property: Effie Fay

Hole Number: EF-2

Location: Contact area, Elko County, Nevada. T45N, R63E, sec 24, MDBM

Date Started: February 26, 1970

Date Completed: March 4, 1970

Logged By: D. E. Hopkins

Coordinates of Collar: 0 + 30 S, 18 + 80 W

Elevation of Collar: 6200'

Dip: - 90°

Length: 214'

Contractor: E. J. Longyear Co.

Drill Type: 44

Core Size: NQ

FOOTAGE  
From To

DESCRIPTION

0	5	Casing
5	6	Alaskite(?). Pink, medium-grained, very hard, black fine-grained mineral (magnetite?) locally.
6	48	Granodiorite, light grey, coarse-grained, porphyritic, hard, feldspar fresh to weak argillized locally, biotite fresh to weak brown biotite, Fe-Mg to weak chlorite.
48	55	Granodiorite, light grey, coarse-grained, porphyritic, medium hard to soft, feldspar moderately argillized, biotite fresh to weak brown biotite, Fe-Mg to chlorite.
55	104	Granodiorite, light grey, coarse-grained, porphyritic, hard, feldspar and biotite fresh, Fe-Mg to weak chlorite.
104	114	Granodiorite, light grey, coarse-grained, porphyritic, medium hard to soft, feldspar moderately to strongly argillized, biotite fresh to brown biotite, Fe-Mg to chlorite, slickensides locally.
114	165	Granodiorite, light grey, coarse-grained, porphyritic, hard, feldspar fresh to weakly argillized, biotite fresh to weak brown biotite, Fe-Mg moderately altered to chlorite.



Effie Fay - Hole Number EF-2

FOOTAGE		DESCRIPTION
From	To	
165	214	Granodiorite, light grey, coarse-grained, porphyritic, medium hard to soft, locally very friable, biotite fresh to moderate brown biotite, feldspar moderately fresh to strongly argillized locally, Fe-Mg to chlorite.

END OF HOLE



PAN-NEVADA INC.

DIAMOND DRILL HOLE LOG

Property: Effie Fay

Hole Number: EF-3

Location: Contact area, Elko County, Nevada. T45N, R63E, sec 24, MDBM

Date Started: March 5, 1970

Date Completed: March 11, 1970

Logged By: D. E. Hopkins

Coordinates of Collar: 3 + 00 S, 7 + 40 W

Elevation of Collar: 6160'

Dip: - 90°

Length: 174'

Contractor: E. J. Longyear Co.

Drill Type: 44

Core Size: NQ

FOOTAGE		DESCRIPTION
From	To	
0	5	Casing
5	37	Granodiorite, light grey, coarse-grained, porphyritic, soft, feldspar strongly argillized, biotite and Fe-Mg to chlorite.
37	62	Granodiorite, light grey, coarse-grained, porphyritic, hard, feldspar moderately argillized, biotite fresh, Fe-Mg to chlorite.
62	70	Granodiorite, light grey, coarse-grained, porphyritic, soft, feldspar moderately argillized, biotite to brown biotite and weak chlorite, Fe-Mg to chlorite.
70	150	Granodiorite, light grey, coarse-grained, porphyritic, hard, feldspar and biotite fresh, Fe-Mg to weak chlorite.
150	163	Granodiorite, light grey, coarse-grained, porphyritic, medium hard to soft, feldspar moderately to strongly (locally) argillized, biotite fresh to weak brown biotite, Fe-Mg to chlorite.
163	174	Granite, pink to light grey, coarse-grained, porphyritic, hard, feldspar fresh, to moderately argillized, biotite fresh to weak brown biotite, Fe-Mg to chlorite locally. Three inch quartz vein at 171 feet.

END OF HOLE



PAN-NEVADA INC.

DIAMOND DRILL HOLE LOG

Property: Effie Fay

Hole Number: EF-4

Location: Contact area, Elko County, Nevada. T45N, R63E, sec 25, MDBM

Date Started: March 12, 1970

Date Completed: March 17, 1970

Logged By: D. E. Hopkins

Coordinates of Collar: 9 + 65 S, 18 + 00 W

Elevation of Collar: 6080'

Dip: - 90°

Length: 183'

Contractor: E. J. Longyear Co.

Drill Type: 44

Core Size: NQ

FOOTAGE

From To

DESCRIPTION

0	10	Casing
10	79	Granodiorite, light grey, coarse-grained, porphyritic, medium hard to soft and friable, feldspar locally fresh to strongly argillized, biotite fresh to moderate brown biotite, Fe-Mg to chlorite.
79	110	Granodiorite, light grey, coarse-grained, porphyritic, hard, feldspar fresh to weakly argillized locally, biotite fresh to weak brown biotite, Fe-Mg fresh to weak chlorite locally.
110	172	Granodiorite, light grey, coarse-grained, porphyritic, hard, feldspar, biotite and Fe-Mg fresh.
172	183	Granite, pink, medium-grained, hard, biotite rich, feldspar, biotite and Fe-Mg fresh.

END OF HOLE



PAN-NEVADA INC.  
DIAMOND DRILL HOLE LOG

Property: Effie Fay

Hole Number: EF-5

Location: Contact area, Elko County, Nevada. T45N, R63E, sec 25, MDBM

Date Started: March 18, 1970

Date Completed: March 23, 1970

Logged By: D. E. Hopkins

Coordinates of Collar: 12 + 30 S, 22 + 80 W

Elevation of Collar: 6000'

Dip: - 90°

Length: 200'

Contractor: E. J. Longyear Co.

Drill Type: 44

Core Size: NQ

FOOTAGE

From To

DESCRIPTION

0	18	Casing
18	83	Granodiorite, grey, coarse-grained, porphyritic, medium-hard to soft, feldspar fresh to moderately argillized, biotite fresh to weak brown biotite, Fe-Mg moderately altered to chlorite.
83	97	Granodiorite, buff, coarse-grained, porphyritic, medium-hard, feldspar moderately argillized, biotite and Fe-Mg altered to orange Fe oxide.
97	113	Granodiorite, grey, coarse-grained, porphyritic, medium-hard to hard, feldspar fresh to weakly argillized, biotite fresh, locally altered to brown biotite, Fe-Mg to chlorite.
113	128	Granodiorite, buff, coarse-grained, porphyritic, hard, very fractured, feldspar fresh to weakly argillized, biotite and Fe-Mg altered to orange Fe oxide.
128	148	Granodiorite, grey, coarse-grained, porphyritic, hard, feldspar fresh to weakly argillized, biotite fresh to weak brown biotite locally, Fe-Mg moderately altered to chlorite.
148	163	Granodiorite, buff, coarse-grained, porphyritic, medium-hard to soft, feldspar moderately to strongly argillized, biotite and Fe-Mg altered to orange Fe oxide.



Effie Fay - Hole Number EF-5

FOOTAGE		DESCRIPTION
From	To	
163	177	Granodiorite, grey, coarse-grained, porphyritic, medium-hard to soft, friable, feldspar weakly to strongly argillized, biotite fresh to weak brown biotite locally, Fe-Mg altered to chlorite.
177	196	Granodiorite, buff, coarse-grained, porphyritic, soft, feldspar strongly argillized, biotite and Fe-Mg altered to orange Fe oxide.
196	200	Granodiorite, grey, medium-hard to hard coarse-grained, porphyritic, feldspar weakly argillized, biotite fresh to weak brown biotite locally, Fe-Mg altered to chlorite.

END OF HOLE



PAN-NEVADA INC.

DIAMOND DRILL HOLE LOG

Property: Effie Fay

Hole Number: EF-6

Location: Contact area, Elko County, Nevada. T45N, R63E, sec 25, MDBM

Date Started: March 26, 1970

Date Completed: April 1, 1970

Logged By: D. E. Hopkins

Coordinates of Collar: 15 + 00 S, 24 + 75 W

Elevation of Collar: 5960'

Dip: - 90°

Length: 219'

Contractor: E. J. Longyear Co.

Drill Type: 44

Core Size: NQ

FOOTAGE

From To

DESCRIPTION

0	13	Casing
13	24	Granodiorite, 50% rec., dark grey, coarse-grained, porphyritic, soft friable, feldspar strongly argillized, biotite moderately fresh, locally altered to brown biotite, Fe-Mg altered to chlorite.
24	43	Granodiorite, 75% rec., dark grey, coarse-grained, porphyritic, medium-hard to soft, friable, feldspar moderately to strongly argillized, biotite fresh, Fe-Mg altered to chlorite.
43	50	Granodiorite, dark grey, coarse-grained, porphyritic, hard, feldspar fresh to moderately argillized, biotite fresh to weak brown biotite, Fe-Mg to chlorite.
50	66	Granodiorite, buff, coarse-grained, porphyritic, soft, friable, feldspar strongly argillized, biotite and Fe-Mg altered to orange Fe oxide.
66	75	Alaskite dike, white, coarse-grained, hard, minor fine-grained mineral (magnetite?) locally altered to red Fe oxide.



Effie Fay - Hole Number EF-6

FOOTAGE		DESCRIPTION
From	To	
75	87	Granodiorite, buff, coarse-grained, porphyritic, hard, feldspar fresh to moderately argillized, biotite and Fe-Mg altered to orange Fe oxide.
87	124	Granodiorite, dark grey, coarse-grained, porphyritic, hard to soft locally, feldspar fresh to moderately argillized, biotite fresh to weak brown biotite, Fe-Mg altered to chlorite.
124	209	Granodiorite, buff to brown, coarse-grained, porphyritic, medium-hard to soft, friable, feldspar moderately to strongly argillized, biotite and Fe-Mg altered to orange Fe oxide.
209	219	Granodiorite, grey, coarse-grained, porphyritic, hard, locally soft, fresh to strongly argillized locally, biotite fresh to brown biotite locally, Fe-Mg fresh to minor alteration to chlorite.

END OF HOLE



STON  
KATON'S  
CORRASABLE  
BOARD  
DEAR  
GARY  
STON  
STON



Please note exception on  
page 5.







*Loake  
Note: BL*

FRANK W. LEWIS

6904 WOODMAN AVENUE  
VAN NUYS, CALIFORNIA

December 1, 1967

AREA 213 780-5689

Norman Ursel  
85 Richmond St  
West Toronto, Canada

RE Contact Copppe.  
Effie Fay Mines of  
PANTEPEC

Dear Mr. Ursel:

Enclosed are several booklets and reports which I have collected on the Contact Mining Area. You asked me to send this information on.

I am also ordering you Nevada Bureau of Mines Report 2 'An Inventory of Molybdenum Occurrences in Nevada' by John H. Schilling.

On page 11 Note the Copper Shield Group. The name is different than the Effie Fay Group but you will note some of the claims are called the Copper Shield. This is the same mine. It is 2,400 feet from North and South to from 3,000 to 6,000 East and West.

Florence No. 16 claim probably corresponds to your Mine Known as the Blue Rock. You may note Bunker Hill Recently (within the past year) bought the property adjacent and East of this group.

On page twelve of the Report is the reference to the Ivy Wilson Mine. This Corresponds to your Lucie group which is almost 1 mile long and about 1200 feet wide.

We should get together one day soon and go over this area. Perhaps we could spend a few days up there next spring or even this winter as there is seldom much snow although it gets fairly cold for field work. We would need a four wheel drive vehicle and perhaps I can pick mine up which is still in Ely and meet you there. One can fly to Salt Lake city from Whence one then flies by private plane to their small aircraft landing strip at Jackpot which is 15 miles from the site at Contact itself. Another transfer point would be from Twin Falls by bus, about 50 miles as I recall.

Perhaps I will get free one of these days and I will go up here for you to take a look around this area to find out if in fact they are building a mill. At the same time I would visit one or two of your other properties to check the status of any activity. You may recall we have recently heard of much activity near Sulphur Nevada, and this should be looked into.

Until later,

*Frank W. Lewis*  
Frank W. Lewis

Coord

*File*  
Encl: 5 maps, Gray Copper Report, Letters of Mr. Gray, Tunnel Assay Ma



*EFFIE FAX*

McPHAR GEOPHYSICS LIMITED

PHONE 444-4451  
TORONTO AREA CODE 416

139 BOND AVENUE, DON MILLS, ONTARIO, CANADA

CABLE-McPHAR  
TORONTO

December 6, 1968

Mr. Norman H. Ursel,  
Suite 801,  
85 Richmond Street West,  
Toronto, Ontario.

Dear Norm:

Herewith are the results of the geochem tests at long last.

They were apparently mislaid by the lab.

Yours truly,

McPHAR GEOPHYSICS LIMITED



A. W. Mullan.

AWM:sb



Laboratory

2 Thorncliffe Park Drive, Unit 45  
Toronto 17, Ontario, Canada

Joe Phoe.  
Nov 1968

PAN-YELDA

Standard Geochemical Tests. (all results given in parts per million)

1) *Stenogramma*



8764

70-7-1  
\$16/70

®





E. J. LONGYEAR COMPANY

308 EAST PIMA STREET  
PHOENIX, ARIZONA 85004  
PHONE 258-6543  
GEN. OFFICE - MINNEAPOLIS, MINN.

December 3, 1969

Pan-Nevada Inc.  
Suite 2  
830 Ryland Avenue  
Reno, Nevada

SUBJECT: PROPOSAL COVERING YOUR PLANNED CORE DRILLING PROGRAM  
APPROXIMATELY FIVE MILES WEST OF CONTACT, NEVADA

Gentlemen:

1. We are pleased to submit our proposal which will cover your planned core drilling program in the above subject area.
2. It is our understanding that your program will consist of a minimum of 3,000 linear feet of NQ and BQ size drill holes of which none are expected to exceed 1,000 feet in total length or depth. The total number of holes you plan to drill is four.

It is expected that overburden depth will vary from very little to possibly as much as 50 feet and will be composed of sand and boulders.

The diamond drilling is expected to be carried out in relatively solid granitic type rocks.

It is understood that you possibly may wish some angle hole drilling as well as vertical holes.

Ample water may be available in an old mine tunnel approximately 800 feet from the first drill site. Possibly a water truck will not be required for all of the holes and we would not plan to use it unless the distance would be such or the supply of water insufficient which would make the water truck usage necessary.

Living accommodations for the drill crew are meager to non-existent in the area. The Contractor will be required to furnish a trailer or make other arrangements for the crew in the immediate area of the job.

It is understood that your starting date for this work is sometime during the first quarter of 1970.



3. For the work as outlined above, we propose to furnish one Longyear drilling machine of suitable capacity together with all the required accessory equipment including service vehicles.

We would expect to carry out the program operating a minimum of one shift per day on a six day per week basis.

4. We will carry public liability insurance covering personal injury and property damage and Workmen's Compensation insurance and also all-risk insurance on the drilling equipment protecting against loss by theft, fire, flood, landslides and other similar hazards. Certificates showing the coverage referred to will be furnished upon request.

5. Based upon conditions which we expect will prevail on this program, we are pleased to outline our price schedule below:

- a) Mobilization and demobilization of personnel and drilling equipment from our Ely, Nevada facility.....\$425.00 lump sum/rig
- b) Overburden drilling - Alluvial material or weathered ledge rock where rotary bits are applicable -
- 4-1/2" Size
- 0 to 100 feet in depth.....\$6.25 per foot
- c) Diamond core drilling - Vertical holes -
- |                                 | NO WL      | BO WL      |
|---------------------------------|------------|------------|
| 0 to 500 feet in depth.....     | \$8.95/ft. | \$8.70/ft. |
| 500 to 1,000 feet in depth..... | \$9.45/ft. | \$9.20/ft. |
- NOTE: In the event angle hole drilling is desired, it is understood that an additional charge of \$0.40 per foot will be made to the above increment charges. Furthermore, angle holes will be limited to a minus 45 degrees or steeper as measured from the horizontal.
- d) Reaming for casing, if required and where applicable - All sizes involved.....\$4.50 per foot
- e) Standby time or delays for the convenience of Pan-Nevada or for which they are responsible will be invoiced at.....\$17.75 per hour with 2-man drill crew.



December 3, 1969

- f) Time spent by crews performing cementing activity, installing or pulling casing or performing other necessary hole stabilizing or hole plugging activity will be invoiced at.....\$19.90 per hour for each 2-man drill crew.
- g) Cement, drill mud, additives or other hole stabilizing or hole plugging material consumed will be invoiced at our jobsite cost, plus a 10% markup charge.
- h) Casing lost or left in holes at your request will be invoiced at our replacement cost, jobsite basis.
- i) Water truck service, if required -
  - 1) Truck rental - \$300.00 per month plus 20 cents per mile traveled while engaged in water hauling activity.
  - 2) A source of water will be provided by Pan-Nevada at no cost to the Longyear Company.
  - 3) If and when required, a separate, full time water truck driver will be furnished for \$5.10 per hour. If the water hauling activity can be carried out by using the drill helper as the water truck driver and without subjecting the drilling to delays, no charge will be made for the driving service.
- j) Core boxes, cardboard type, capacity ten feet of core in either NX or BX size will be furnished by the Longyear Company for.....\$1.00 each

6. Cores and/or samples obtained in the drilling will be turned over to your representative at the drill sites in containers furnished by you or by the Longyear Company as outlined above.

7. Provided acceptable financial information is not available, it is understood that this proposal is subject to the condition that you secure written approval of your arrangement for payment for the work to be performed before it is commenced. Written approval can only be given by a corporate officer of the Longyear Company by separate letter. Also, such approval can be withheld in his sole discretion.



Pan-Nevada Inc.

-4-

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8. Statements covering the work performed will be prepared as promptly as possible after the fifteenth and last day of each month and payment will become due within twenty days from your receipt of statement.

9. We appreciate the opportunity to make our drilling service available to you for this project. If awarded the work, it is understood that the commencement of the project would be dependent upon the availability of personnel and equipment at that particular time. Because of this, we would appreciate your advising us as much in advance as possible so that we can make every effort to make equipment and personnel available to start the work at your planned starting date.

Sincerely,

E. J. LONGYEAR COMPANY

*J. R. Miller*

Manager, Southwestern Zone  
Contract Drilling Division

J.R.Miller:jag

RECEIVED:

Company

BY

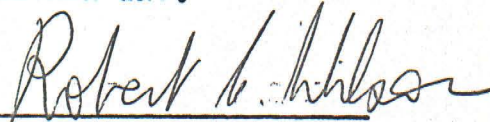
DATE



attached letter agreement is approved subject to the additional terms set forth in Exhibit "A" attached hereto and made a part hereof.

PAN-NEVADA INC.

By



Robert C. Wilson  
Vice President.

E. J. LONGYEAR COMPANY accepts the terms and conditions of Exhibit "A" except for exception outlined below\*

E. J. LONGYEAR COMPANY

By

  
Manager, Southwestern Zone

\*Exception:

Reference Exhibit "A" - Records

It is understood that Longyear will, during the conduct of the work or at the completion of the work, retain all drill reports, invoice information, cost data and any other form or report that is usually produced and retained by Longyear or its employees in the normal conduct of carrying out its business.



EXHIBIT "A"

Manner of Operation. The services shall be conducted in a workmanlike manner in accordance with the accepted standards of the drilling profession.

Responsibility for Personnel. Longyear Company shall be responsible for compensation to its employees for all claims of any nature including, but not limited to, injury, sickness or death arising out of, or during the course of, employment hereunder except such claims caused by the sole negligence of Pan Nevada.

Replacement of Personnel. Longyear Company shall replace at its own expense any employee who:

- Resigns or is discharged or is assigned elsewhere by Longyear Company;
- By reason of wilful and repeated non-cooperation with Pan Nevada's personnel may cause disruption of the work.

Responsibility for Longyear Company's Equipment. Longyear Company assumes responsibility for damage to or loss of its equipment caused by or arising out of the conduct of operations hereunder.

Records. Upon completion of work in any area, Longyear Company shall deliver to Pan Nevada all records, data sheets, maps, reports, and other information obtained or used in connection with said work.

All such records and reports, including maps furnished by Pan Nevada, are the sole property of Pan Nevada and shall be held confidential by Longyear Company, its agents and employees;

Longyear Company, its agents and employees, shall not divulge, other than to persons designated by Pan Nevada, any information with respect to any drilling services, the results obtained therefrom, or any other confidential information of Pan Nevada; and shall zealously guard all such records and information to prevent the same from falling into the hands of any unauthorized person or persons. The foregoing obligations are continuing ones, and shall survive the expiration or termination for any reason of this Agreement.



Laws and Regulations. Longyear Company shall conduct its affairs hereunder in compliance with the laws, ordinances and regulations of the jurisdiction of the State of Nevada.

Longyear Company shall comply with Pan Nevada's rules and regulations in effect within the area of operations and shall observe all conditions and restrictions in Pan Nevada's permits, licenses, and labor contracts; provided, however, Pan Nevada shall advise Longyear Company of such rules and regulations, and of such conditions and restrictions.

Responsibility for Claims. Longyear Company assumes responsibility for and shall hold and save Pan Nevada harmless from each and every claim, suit, or judgment for damage to or loss of property and for injury to or death of any person or persons caused by or arising out of or in connection with the operations of Longyear Company, its employees and representatives, under this Agreement, except as herein provided.

Insurance. Longyear Company shall comply with the requirements of all Unemployment Insurance and Workmen's Compensation legislation and shall, prior to and throughout the continuance of operations pursuant to this Agreement, take out, pay for and maintain in a reputable insurance company or companies the following insurance:

- A. Public Liability Insurance covering said operations hereunder with limits of \$100,000.00 for any one person injured or killed and \$300,000.00 for two or more persons injured or killed in any one accident;
- B. Property Damage Liability Insurance covering said operations hereunder to the extent of \$100,000.00 for damages resulting from any one accident sustained by third parties;
- C. Automobile Public Liability Insurance covering all automotive units engaged in said operations hereunder with limits of \$100,000.00 for any one person injured or killed and \$300,000.00 for two or more persons injured or killed in any one accident;
- D. Automobile Property Damage Liability Insurance covering all automotive units engaged in said operations hereunder up to the extent of \$100,000.00 for damages resulting from any one accident.



E. All risk insurance on the drilling equipment.

Longyear Company shall furnish Pan Nevada with appropriate Certificates of Insurance evidencing full compliance with all requirements outlined above. The policy and certificates shall include Pan Nevada as additional named insured. The certificate shall further certify that no endorsements are attached to the policies limiting or restricting the basic insuring agreements. Pan Nevada will be provided with Thirty (30) days' advance written notice of cancellation, of any amendment, or material change in the policies.

Period of the Agreement. This Agreement may be terminated by Pan Nevada at any time after the completion of the minimum drilling program of Three Thousand (3,000) linear feet. Said notice shall be in writing, and can be given either at the drilling site or to Longyear Company's office. Upon receiving written notice, Longyear Company shall forthwith discontinue any further drilling.

Independent Contractor. Longyear Company's operations under this Agreement shall be conducted as an Independent Contractor, and it shall at its sole discretion choose the means to be employed and the manner of carrying out the work, being responsible to Pan Nevada only for the results thereof, but the work shall meet with Pan Nevada's approval.

Assignment. This Agreement and the rights and obligations hereof, shall be binding upon and inure to the benefit of the successors and assigns of the respective parties; provided, however, that Longyear Company cannot assign its rights and duties hereunder without consent of Pan Nevada which consent shall not be unreasonably withheld.

Applicable Law. The validity and interpretation of this Agreement will be governed by the laws of the State of Nevada, U.S.A.



NOTES:

1. BASELINE CHAINED HORIZONTALLY. CROSSLINES SLOPE-CHAINED FOR FACILITY OF IP CALCULATIONS; GRID IS NARROWER N-S THAN DEPICTED.
2. COUNTRY ROCK IS GRANODIORITE.

qz = QUARTZ VEIN  
AZ = ALTERED ZONE (OR ALASKITE DYKE)  
Gr = GRANODIORITE

[illegible]

GEOLOGY MAP AND IP GRID

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