

5237

ASSESSMENT WORK SUBMISSION  
ON THE HS CLAIMS  
CARIBOO MINING DIVISION, B.C.

93A/6W

by

Exploram Minerals Ltd.  
1004 - 510 West Hastings Street  
Vancouver, B.C.  
V6B 1L8

September 30, 1974

Department of Mines and Petroleum Resources ASSESSMENT REPORT NO. <b>5237</b> MAP.....
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HS Claims, Cariboo Mining Division, B.C.

PART A.

Statement of Qualifications

STATEMENT OF QUALIFICATIONS - E.D. CRUZ

I, Ernesto D. Cruz, of 8596 Terrace Drive, Delta, B.C., HEREBY CERTIFY THAT:

- (1) I am a graduate Mining Engineer at Mapua Institute of Technology, Philippines (B.A.Sc. 1960) and University of Washington, Seattle, Washington (M.A.Sc. 1971).
- (2) I am a member of the Association of Professional Engineers of B.C. (Mining Section).
- (3) I have worked in mineral exploration for about eleven years (1960-1967, Philippines; 1967-present, British Columbia).
- (4) I supervised the diamond drilling exploration of the HS and WL Mineral Claims for Exploram Minerals Ltd., during the period from August 1 to September 30, 1974.
- (5) I have no interest directly or indirectly in the HS and WL Mineral Claims or the securities of Exploram Minerals Ltd., nor do I expect to acquire or receive any.

ERNESTO DO CRUZ, P.ENG.



*Ernesto D. Cruz*  
Ernesto D. Cruz., P. Eng.

DATED at Vancouver, British Columbia,  
this 21st day of October, 1974.

PART B

Location of Core Storage

# *Exploram Minerals Ltd.*

1004 - 510 WEST HASTINGS STREET  
VANCOUVER 2, B.C. V6B 1L8  
PHONE 682-8595

October 21, 1974.

Gold Commissioner,  
Department of Mines and  
Petroleum Resources,  
890 West Pender Street,  
Vancouver, B.C.

Re: Core Storage Location

Dear Sir:

The core from DDH 74-1 and 74-2 on the HS claims are in core boxes stored near the collar of the drill holes. The boxes are piled securely and covered with plywood.

Yours truly,

EDC/efg

*E. D. Cruz*  
E.D. Cruz, P.Eng.

PART C

Drill Logs

# DIAMOND DRILL RECORD

PROPERTY HS CLAIMS SHEET NO. 1 OF 14 HOLE NO. 74-1  
 DRILLED BY: NEWMAC INDUSTRIES STARTED: August 1, 1974 COMPLETED: Aug. 7/74 LOGGED BY: E. Cruz  
 LOCATION: HS - 5 BEARING: \_\_\_\_\_ DIP: \_\_\_\_\_  
 ELEVATION: \_\_\_\_\_ FINAL DEPTH: 750'

DEPTH	CORE RECOVERED	% REC.	INTERSECTION ANGLE	DESCRIPTION
0- 4				Casing
4- 6	2			Pink qtz monzonite porphyry: Medium grained, pink, porphyritic, altered quartz monzonite porphyry. Cpy along quartz veins and fractures.
				Magnetite disseminations.
				Orthoclase - 20-25%
				Qtz - 15-20%
				Chlorite - weak
				Epidote - 2-5%
				Cpy - 0.3-0.5%, 4 qtz stringers/ft.
6- 7	1			- do -
7-12	4			- do -
12-16	4			- do - Inclusions of angular grey qtz-porphyry Grounded core at 12'-13'
16-26	10			- do - 10 qtz stringers/ft, 35°-40° from axis
26-36	10			- do - 5 qtz stringers/ft Chlorite - 1-2% Orthoclase - 40%
36-46	10			- do - 8 qtz stringers/ft
46-56	10			- do - 8 qtz stringers/ft



# DIAMOND DRILL RECORD

PROPERTY ..... HS CLAIMS ..... SHEET NO. 2 OF 14 ..... HOLE NO. 74-1  
 DRILLED BY: NEWMAC INDUSTRIES ..... STARTED: August 1, 1974 ..... COMPLETED: Aug. 7/74 ..... LOGGED BY: E. Cruz  
 LOCATION: HS - 5 ..... BEARING: ..... DIP: .....  
 ..... ELEVATION: ..... FINAL DEPTH: 750'

DEPTH	CORE RECOVERED	% REC.	INTERSECTION ANGLE	DESCRIPTION
56-66	10			- do - 4 qtz stringers/ft
66-73	7			66-69: Same as above becoming less porphyritic (5% phenocryst). No change in alteration and degree of mineralization.
				69-73: Finer grained, non-porphyritic qtz monzonite. Appears to have closer spaced parallel and stockwork quartz stringers containing cpy.
				Cpy - 0.5-1.0%
				Magnetite - 2%
				Chlorite - weak
				Qtz - 30-35%
				Orthoclase- 30-40%
73-77	4			- do -
77-83	6			- do - Cpy - .4-.5%
83-92	9			- do -
92-102	10			Same rock as above, decreasing K-spar.
				Orthoclase- 5-10%
				Qtz - 10-20%
				Chlorite - 2%
				Epidote - 5%
				Magnetite - 3-5%
				Cpy - .3-.7%

# DIAMOND DRILL RECORD

PROPERTY ..... HS CLAIMS ..... SHEET NO. 3 OF 14 ..... HOLE NO. 74-1  
 DRILLED BY: NEWMAC INDUSTRIES ..... STARTED: August 1, 1974 ..... COMPLETED: Aug. 7/74 ..... LOGGED BY: E. Cruz  
 LOCATION: HS - 5 ..... BEARING: ..... DIP: .....  
 ..... ELEVATION: ..... FINAL DEPTH: 750'

DEPTH	CORE RECOVERED	% REC.	INTERSECTION ANGLE	DESCRIPTION
102-112	10			Rock grades back to pink Qtz-monzonite porphyry (fragmental)
				Same as above in degree of alteration and mineralization.
				106-107: Fault. Kaolinized qtz monzonite porphyry.
112-116	4			Same as 102-112.
				Fractured zone at 116-118. Clay along fracture surfaces.
				Fracture $\perp$ to core axis.
116-126	10			Pink qtz monzonite porphyry:
				K-spar - 5%
				Epidote - 10%
				Kaolinization - 1-2%
				Qtz - poor
				Cpy - poor .1-.2%
126-128	1.8			Kaolinized qtz monzonite porphyry.
				Start of Fault zone at 126'. Fractures at 30°-70° to axis. Clay along fault fracture planes.
				Cpy - Nil
				Magnetite - < 1%
128-132	4			- do -
				Solid core from 128-130, intensely fractured at 132-140. Clay along fracture planes.

# DIAMOND DRILL RECORD

PROPERTY ..... HS CLAIMS ..... SHEET NO. 4 OF 14 HOLE NO. 74-1  
 DRILLED BY: ..... NEWMAC INDUSTRIES ..... STARTED: August 1, 1974 ..... COMPLETED: Aug. 7/74 ..... LOGGED BY: E. Cruz  
 LOCATION: ..... HS - 5 ..... BEARING: ..... DIP: .....  
 ..... ELEVATION: ..... FINAL DEPTH: 750'

DEPTH	CORE RECOVERED	% REC.	INTERSECTION ANGLE	DESCRIPTION
				128-132: Poor cpy along qtz stringers.
				Hematite alteration of magnetite. Very weakly magnetic.
				Cpy - <.1%
132-134	1.5			Kaolinized qtz monzonite porphyry. Intensely fractured
				Cpy - <.1%
				Hematite -
134-138	3			- do -
138-140	1.5			- do -
140-149	7			- do -
				Moderate fracturing at 140-149, dominant fracture at 50° from axis.
149-151	0.6			Kaolinized qtz monzonite. Intensely fractured.
				Barren qtz stringers
				Py - .5% (disseminated in places)
				Cpy - Nil
151-154	1.5			- do -
154-155	0.5			- do -
155-156.5	1			- do -
56.5-158	1			- do -
58-159	0.5			- do -

# DIAMOND DRILL RECORD

PROPERTY HS CLAIMS SHEET NO. 5 OF 14 HOLE NO. 74-1  
 DRILLED BY: NEWMAC INDUSTRIES STARTED: August 1, 1974 COMPLETED: Aug. 7/74 LOGGED BY: E. Cruz  
 LOCATION: HS - 5 BEARING: \_\_\_\_\_ DIP: \_\_\_\_\_  
 ELEVATION: \_\_\_\_\_ FINAL DEPTH: 750'

DEPTH	CORE RECOVERED	% REC.	INTERSECTION ANGLE	DESCRIPTION
159-160	0.5			- do -
160-161	0.5			- do -
161-163.5	1.8			- do -
163.5-164.5	0.5			- do -
164.5-166.5	1.3			- do -
166.5-169.5	2.5			- do -
169.5-172	1.7			- do -
				Hematite - 2-3%
				Kaolinization - Intense
				Pyrophyllite(?) - 5-10%
				Sulfides - Nil
172-174	1.3			- do -
174-177	2.6			Intensely kaolinized qtz monzonite
				Hematite dissem. - 2.5%
				Cpy - Nil
				Py - 0.2%
177-179.5	2.3			- do -
				Kaolinization - 40%
				Pyrophyllite(?) - 10-15%
				Sulfides - Nil

# DIAMOND DRILL RECORD

PROPERTY HS CLAIMS SHEET NO. 6 OF 14 HOLE NO. 74-1  
 DRILLED BY: NEWMAC INDUSTRIES STARTED: August 1, 1974 COMPLETED: Aug. 7/74 LOGGED BY: E. Cruz  
 LOCATION: HS - 5 BEARING: \_\_\_\_\_ DIP: \_\_\_\_\_  
 ELEVATION: \_\_\_\_\_ FINAL DEPTH: 750'

DEPTH	CORE RECOVERED	% REC.	INTERSECTION ANGLE	DESCRIPTION
179.5-183.5	3.5			- do -
				Core becoming more solid
				Kaolinization - 30% + pyrophyllite
				Qtz stringers
				Py - .1%
				Cpy - <.1%
				Hematite dissem. - 5%
183.5-194	10			183.5-187: - do -
				Specular hematite stringer at 185'
				Py + Cpy - 0.2% Cpy <.1%
				187-192: Rock grades to massive silicified & chloritized qtz monzonite.
				Qtz stringers 6/ft
				Py + Cpy - 0.3% Cu <.1%
				Magnetite - 2%
				Chlorite - 15%
				Qtz - 20%
				K-spar - weak to nil

# DIAMOND DRILL RECORD

PROPERTY ..... HS CLAIMS ..... SHEET NO. 7 OF 14 HOLE NO. 74-1  
 DRILLED BY: ..... NEWMAC INDUSTRIES ..... STARTED: August 1, 1974 ..... COMPLETED: Aug. 7/74 ..... LOGGED BY: E. Cruz  
 LOCATION: ..... HS - 5 ..... BEARING: ..... DIP: .....  
 ..... ELEVATION: ..... FINAL DEPTH: 750'

DEPTH	CORE RECOVERED	% REC.	INTERSECTION ANGLE	DESCRIPTION
				192-194: Weakly kaolinized & chloritized qtz monzonite
				Hematite, no magnetite
				Quartz stringers Cpy + Py (0.1-0.2%) 4/ft.
194-204	10			194-195: - do -
				198-199.5: Fault Bx. Fragments of kaolinized material healed by clay
				Pyritized cementing material 0.5-1% Py
				195-198.5: Kaolinized qtz monzonite, pyrophyllite.
				198.5-204: - do - Hematite - 1-2%
				Qtz stringers Cpy + py (.2%) 4 qtz stringers/ft.
204-214	10			204-207: Section of chloritized & silicified quartz monzonite.
				Mainly magnetite, few specks of hematite.
				Quartz stringers Cpy + py - (0.2%)
				207-214: Brown, medium to coarse grained quartz monzonite
				Feldspar altered to pyrophyllite, clay alteration intense to 214.
				Specular hematite stringers & dissem. (2-5%)
				Fault fracture every 6" to 1' decreasing to 3" apart at 210-212.
				Quartz stringers - Cpy + py (.1-.2%) 3-7 quartz stringers/ft.
214-224	10			- do -
				Fault bx at 214.5-215.5 & at 218.5-219.5, Hematite, py (1%) Cpy - Nil.

# DIAMOND DRILL RECORD

PROPERTY HS CLAIMS SHEET NO. 8 OF 14 HOLE NO. 74-1  
 DRILLED BY: NEWMAC INDUSTRIES STARTED: August 1, 1974 COMPLETED: Aug. 7/74 LOGGED BY: E. Cruz  
 LOCATION: HS - 5 BEARING: \_\_\_\_\_ DIP: \_\_\_\_\_  
 ELEVATION: \_\_\_\_\_ FINAL DEPTH: 750'

DEPTH	CORE RECOVERED	% REC.	INTERSECTION ANGLE	DESCRIPTION
224-234	10			224-235: Fine, fragmental, kaolinized quartz monzonite. Intense kaolinization at 233-234. Pyrophyllite (?) - 10-20% Massive blebs & stringers of hematite, pyrite Cpy - Nil
234-244	10			235-241: Pinkish, very fine grained aplitic dyke. Closely spaced parallel hairline stringers of hematite at 20° from core axis. Quartz stringers with Cpy at 40° from core axis cut by late calcite stringers (barren). Hematite disseminations. 1" fault gouge at 240'. Kaolin & pyrophyllite on both sides of fault. 4 qtz stringers/ft. Cpy (.1-.2%)
				241-244: Pinkish, kaolinized quartz monzonite Cpy <.1%
244-247	3			Same as 235'-241'
247-257	10			247-252: Rock grades to fine, equigranular, pink qtz monzonite. Disseminated hematite - 1-2% Pyrophyllite(?) - 2% 2-5 quartz stringers/ft. 0.1% Cpy.

# DIAMOND DRILL RECORD

PROPERTY HS CLAIMS SHEET NO. 9 OF 14 HOLE NO. 74-1  
 DRILLED BY: NEWMAC INDUSTRIES STARTED: August 1, 1974 COMPLETED: Aug. 7/74 LOGGED BY: E. Cruz  
 LOCATION: HS - 5 BEARING: \_\_\_\_\_ DIP: \_\_\_\_\_  
 ELEVATION: \_\_\_\_\_ FINAL DEPTH: 750'

DEPTH	CORE RECOVERED	% REC.	INTERSECTION ANGLE	DESCRIPTION
				252-257: Rock grades to pinkish-green, equigranular, epidotized & chloritized quartz monzonite.
				Disseminated magnetite - 2.5%
				Cpy - .2-.3%
				Epidote - 15-20%
257-266	9			Same as above
266-276	10			266-275: Same as above
				Magnetite - < 2% Chlorite - minor
				Hematite - 1-2% Epidote - minor
				Orthoclase - 20% Qtz - > 10%
				275-276: Rock grades to green, aphanitic, chloritized, siliceous
				Volcanics with squirts of pink qtz monzonite at 20-25° from core axis.
				Magnetite bands at 15-20° from axis
				Poor cpy.
276-286	10			Green to pinkish, aphanitic, siliceous volcanics with squirts of quartz monzonite.
				50% quartz monzonite, 50% volcanics.
				Bands of magnetite in volcanics, some hematite disseminated.
				Poor cpy < .1%
				Magnetite 0.5%
				Hematite 1-2%



# DIAMOND DRILL RECORD

PROPERTY HS CLAIMS SHEET NO. 10 OF 14 HOLE NO. 74-1  
 DRILLED BY: NEWMAC INDUSTRIES STARTED: August 1, 1974 COMPLETED: Aug. 7/74 LOGGED BY: E. Cruz  
 LOCATION: HS - 5 BEARING: \_\_\_\_\_ DIP: \_\_\_\_\_  
 ELEVATION: \_\_\_\_\_ FINAL DEPTH: 750'

DEPTH	CORE RECOVERED	% REC.	INTERSECTION ANGLE	DESCRIPTION
286-288	1.8			Quartz monzonite with volcanic inclusions.
				Magnetite - Nil
				Chlorite - 1-2%
				Epidote - 2%
				K-spar - 10+%
				Cpy - <.1% 2-3 quartz stringers/ft.
288-289	.8			- do -
289-299	9.5			289-291: - do -
299-301.5	2.2			291-308: Fault zone. Fault gouge at 292, 293, 296, 297, 300.5, 301.5, 305. Rock is intensely kaolinized quartz monzonite with hematite dissem., py Cpy (<.1%)
301.5-311.5	10			308-311.5: Very fine grained, green siliceous volcanics Magnetite disseminated. Cpy as fine dissem. and along hairline quartz stringers. 0.1% Cu
311.5-321.5	10			Medium grained, siliceous volcanics (Dacite). Chlorite 10-15% Epidote weak Magnetite dissem. 2-5% Cpy along quartz stringers, fractures, dissem. .1% Cu

# DIAMOND DRILL RECORD

PROPERTY ..... HS CLAIMS ..... SHEET NO. 11 OF 14 HOLE NO. 74-1  
 DRILLED BY: NEWMAC INDUSTRIES ..... STARTED: August 1, 1974 ..... COMPLETED: Aug. 7/74 ..... LOGGED BY: E. Cruz  
 LOCATION: HS - 5 ..... BEARING: ..... DIP: .....  
 ..... ELEVATION: ..... FINAL DEPTH: 750'

DEPTH	CORE RECOVERED	% REC.	INTERSECTION ANGLE	DESCRIPTION
321.5-332	10			- do -
332-341	9			- do -
341-351	10			- do - Fracture zone at 346.5-347.5
351-361.5	10			- do - Rock becoming fragmental
				Plagioclase crystals - 10%
				Magnetite dissem., chlorite
				Cpy - .1% Cu
361.5-372	10			- do - Fault at 370-372, gouge material
				Cpy - .05-.1% Cu
372-381	9			- do - Fault zone at 370-389
				Cpy - .05% Cu
381.5-390.5	9			Rock is still siliceous, chloritized, fragmental volcanics with disseminated magnetite.
				No cpy.
390.5-400.5	10			- do -
400.5-410.5	10			- do - No cpy.
410.5-420.5	10			- do -
420.5-430.5	10			- do -
430.5-439.5	9			- do -

# DIAMOND DRILL RECORD

PROPERTY ..... HS CLAIMS ..... SHEET NO. 12 OF 14 HOLE NO. 74-1  
 DRILLED BY: NEWMAC INDUSTRIES ..... STARTED: August 1, 1974 ..... COMPLETED: Aug. 7/74 ..... LOGGED BY: E. Cruz  
 LOCATION: HS - 5 ..... BEARING: ..... DIP: .....  
 ..... ELEVATION: ..... FINAL DEPTH: 750'

DEPTH	CORE RECOVERED	% REC.	INTERSECTION ANGLE	DESCRIPTION
439.5-449.5	10			- do -
449.5-457	7.5			- do -
457-463.5	6.5			Rock changes to fine grained, greenish chloritic banded tuff with interbedded, porphyritic tuffaceous volcanics. Porphyritic tuffaceous volcanics consist of feldspar phenocrysts in fine grained, greenish chloritic matrix, quartz poor & locally fragmental.
				No sulfide. Disseminated magnetite - 1%
463.5-468.5	5			- do - Banding at 40° from core axis.
468.5-479	10			- do -
479-485	6			- do -
485-494	9			- do - Porphyritic, tuffaceous volcanics with interbed of fine ash tuff.
494-504	10			- do -
504-514	10			- do -
514-524	10			Fine to medium grained banded tuff. No sulfides. Weakly magnetic.
524-534.5	10			- do -
534.5-545	10			- do -
545-555.5	10			- do -
555.5-565.5	10			- do -
565.5-575.5	10			- do -

# DIAMOND DRILL RECORD

PROPERTY HS CLAIMS SHEET NO. 13 OF 14 HOLE NO. 74-1  
 DRILLED BY: NEWMAC INDUSTRIES STARTED: August 1, 1974 COMPLETED: Aug. 7/74 LOGGED BY: E. Cruz  
 LOCATION: HS - 5 BEARING: \_\_\_\_\_ DIP: \_\_\_\_\_  
 ELEVATION: \_\_\_\_\_ FINAL DEPTH: 750'

DEPTH	CORE RECOVERED	% REC.	INTERSECTION ANGLE	DESCRIPTION
575.5-579	3.5			Medium grained dacite dyke with inclusions of silicified tuff. Specks of py, magnetic.
579-587	8			- do - Py .5-1% Magnetic
587-593.5	6.5			587-591: Dacite dyke - .5-1% Py, No Cpy. Magnetite & chlorite 591-593.5: Fine grained, green, chloritized dacitic tuff.
593.5-603	9			593.5-599: Very fine grained dacitic tuff, increasingly pyritized. 1-2% Py. Moderately fractured at 593-596, fault gouge at 596. 599-603: Fine to medium grained dacite, fragmental. 1% Py dissem.
603-610	7			Dacite with inclusions and bands of tuffaceous volcanics (dacitic). Py - .5-1% Weakly magnetic.
610-620	8			- do -
620-630	10			- do -
630-640	10			630-636: Medium to fine grained dacitic tuff. 636-640: Very fine grained, brown ash tuff with medium grained dacitic tuff bands. Py - 5%
640-650	10			- do - Py - 5-6%

# DIAMOND DRILL RECORD

PROPERTY HS CLAIMS SHEET NO. 16 OF 16 HOLE NO. 74-1  
 DRILLED BY: NEUMAC INDUSTRIES STARTED: August 1, 1974 COMPLETED: Aug. 7/74 LOGGED BY: E. Cruz  
 LOCATION: HS - 5 BEARING: \_\_\_\_\_ DIP: \_\_\_\_\_  
 ELEVATION: \_\_\_\_\_ FINAL DEPTH: 750'

DEPTH	CORE RECOVERED	% REC.	INTERSECTION ANGLE	DESCRIPTION
650-660	10			- do - Py 5-6%
660-669	9			Very fine grained ash tuff with bands of medium grained dacitic tuff. Py 1-2%
669-670	1			Brown, ash tuff, Py 5%
670-673.5	2.5			- do - Fault gouge at 671-673.5
673.5-678	4			- do - Fault gouge
678-688	10			Brown, fine grained ash tuff with bands of medium grained dacitic tuff. Py 5-6%
688-692	4			Coarse grained, brown, fragmental dacitic volcanics. Py 5-6%
692-700	8			- do - Py 5-6%
700-710	10			- do - Py 2-3%
710-720	10			- do - Py 2-3%
720-730	10			Very fine grained, ash tuff with bands of coarse grained dacitic volcanics. Py 2-5%
730-740	10			- do - Py 2-5%
740-750	10			Green, medium grained, chloritized, feldspathic volcanics of andesitic composition. Few fragments of trachytic andesite. Specks of Py.
				END OF HOLE
				<i>E. D. Cruz</i>

# DIAMOND DRILL RECORD

PROPERTY ..... IIS CLAIMS ..... SHEET NO. 1 OF 13 HOLE NO. 74-2  
 DRILLED BY: ..... NEWMAC INDUSTRIES ..... STARTED: ..... August 11, 1974 ..... COMPLETED: Aug. 20/74 ..... LOGGED BY: E. Cruz .....  
 LOCATION: ..... HS - 5 ..... BEARING: ..... N ..... DIP: 45° .....  
 ..... ELEVATION: ..... FINAL DEPTH: 575' .....

DEPTH	CORE RECOVERED	% REC.	INTERSECTION ANGLE	DESCRIPTION
0-9				Casing
9-15				Altered pink quartz monzonite porphyry:
				Phenocrysts 40% Epidote 5%
				Orthoclase 40% Chlorite 3-5%
				Quartz 10% Magnetite 6%
				Cpy .1-.2% Cu
				Cpy in quartz stringers, along fractures & disseminated.
15-17	1.6	80		- do -
17-21	3.3	82.5		- do -
21-23	0.5	25		- do -
23-29	6	100		- do -
29-34	5	100		- do -
34-44	10	100		- do -
44-54	10	100		- do - Subrounded to angular fragments of dark to green, very fine grained silicified volcanics. Fragments likewise mineralized.
54-64.5	10	96.5		Altered quartz monzonite porphyry, few volcanic fragments, relatively less K-spar.
				K-spar 20-30% Epidote 10-20%
				Quartz 5% + Chlorite 10%
				Cpy .1-.2% Cu Magnetite 6-10%

# DIAMOND DRILL RECORD

PROPERTY ..... HS CLAIMS ..... SHEET NO. 2 OF 13 HOLE NO. 74-2  
 DRILLED BY: NEWMAC INDUSTRIES ..... STARTED: August 11, 1974 ..... COMPLETED: Aug. 20/74 ..... LOGGED BY: E. Cruz  
 LOCATION: HS - 5 ..... BEARING: N ..... DIP: 45°  
 ..... ELEVATION: ..... FINAL DEPTH: 575'

DEPTH	CORE RECOVERED	% REC.	INTERSECTION ANGLE	DESCRIPTION
64.5-72	7.5	100		64.5-65.5: - do -
				65.5-72: Kaolinized quartz monzonite porphyry
				Kaolinization 50-60% Magnetite Nil
				K-spar < 2% Hematite 10%
				Chlorite 2% Cpy <.1% Cu
				Epidote 5%
				Fault zone, fracture surfaces at 60°-90° from axis 5-7 fractures per foot. Post mineral fault.
72-80	6.5	81.5		Quartz monzonite porphyry with sections of grey to buff coloured, silicified, non-porphyrific, finer grained quartz monzonite.
				K-spar 10% Epidote 5%
				Quartz 10% Chlorite 5%
				Cpy .1-.2% Cu Magnetite 5%
80-83	3	100		Medium grained, pinkish, equigranular quartz monzonite.
				K-spar 15% Hematite dissem. 10%
				Quartz 20% Cpy .1% Cu
				Epidote 5-7% Chlorite Nil
				Magnetite Nil

# DIAMOND DRILL RECORD

PROPERTY ..... HS CLAIMS ..... SHEET NO. 3 OF 13 HOLE NO. 74-2  
 DRILLED BY: NEWMAC INDUSTRIES ..... STARTED: August 11, 1974 ..... COMPLETED: Aug. 20/74 ..... LOGGED BY: E. Cruz  
 LOCATION: HS - 5 ..... BEARING: N ..... DIP: 45°  
 ..... ELEVATION: ..... FINAL DEPTH: 575'

DEPTH	CORE RECOVERED	% REC.	INTERSECTION ANGLE	DESCRIPTION
83-85	2	100		- do - Moderately fractured
85-88	2.5	83		- do - Intensely fractured
88-95	6.8	97		Fine grained, grey, granitized volcanics (rhyolite-dacite) with abundant squirts of quartz monzonite at 60° from axis.
				Relatively better cpy
				K-spar                      10%                      Hematite                      5%
				Quartz                      10-20%                      Cpy                      .2-.3% Cu
				Magnetite                      weak
95-104	8	89		- do -
104-114.5	9.5	93		- do - Fracture zone 105.6-106.5, 110.5-111.5
114.5-122	7.5	100		- do -
122-132	10	100		Rock changes to epidotized & silicified, fragmental hybrid rock (volcanics). Rounded and angular fragments in siliceous matrix.
				Chlorite                      5-8%                      Cpy                      .1-.2%
				Epidote                      5-10%                      Magnetite                      1%
				Quartz                      10-20%
132-136	3.5	87.5		- do - More and larger fragments
				Magnetite                      5%



# DIAMOND DRILL RECORD

PROPERTY ..... US CLAIMS ..... SHEET NO. 4 OF 13 HOLE NO. 74-2  
 DRILLED BY: NEWMAC INDUSTRIES ..... STARTED: August 11, 1974 ..... COMPLETED: Aug. 20/74 ..... LOGGED BY: E. Cruz  
 LOCATION: HS - 5 ..... BEARING: N ..... DIP: 45°  
 ..... ELEVATION: ..... FINAL DEPTH: 575'

DEPTH	CORE RECOVERED	% REC.	INTERSECTION ANGLE	DESCRIPTION
136-137	.8	80		- do -
137-140	3	100		- do -
140-142	2	100		- do - Fractured, 60-70° from axis
				Gouge at 141-142.
				Cpy <.1% Magnetite 1-2%
142-147	4	80		- do - Moderately fractured core
				Cpy <.1%
147-150	2.5	83.5		- do - Intense fracturing at 149-150, clay along fracture surfaces.
150-152.5	2.5	100		- do - Moderate fracturing
152.5-161.5	8.5	94.5		- do - Groundmass is more finer grained.
				Relatively better cpy content.
161.5-164	2.7	90		- do - Porphyritic texture. Greenish, medium grained porphyritic rock. 1/2-1 cm. sanseritized plagioclase phenocrysts in siliceous aphanitic groundmass.
				Groundmass is very siliceous (qtz), pink K-spar & chlorite.
				Fine cpy dissem. & along quartz stringers - 0.1% Cu
				Magnetite 2%
164-170	5.5	91.7		- do -
170-177	5.8	83		- do -

# DIAMOND DRILL RECORD

PROPERTY ..... HS CLAIMS ..... SHEET NO. 5 OF 13 HOLE NO. 74-2  
 DRILLED BY: ..... NEWMAC INDUSTRIES ..... STARTED: August 11, 1974 ..... COMPLETED: Aug. 20/74 ..... LOGGED BY: E. Cruz  
 LOCATION: ..... HS - 5 ..... BEARING: N ..... DIP: 45°  
 ..... ELEVATION: ..... FINAL DEPTH: 575'

DEPTH	CORE RECOVERED	% REC.	INTERSECTION ANGLE	DESCRIPTION
177-180	3	100		- do -
180-188	7.8	97.5		- do -
188-193	5	100		- do -
193-198.5	5.5	84.6		- do -
198.5-206.2	7.5	97.5		- do - Fault at 202.5-203.5
206.2-209.5	2.7	82		- do -
209.5-211.5	1.5	75		- do -
211.5-219.5	8.0	100		Sharp contact at 210.5'. Contact at 60° from core axis.
				Rock is pinkish-brown, fine to coarse grained, kaolinized dacite dyke rock. Porphyritic
				becoming fine grained near the contacts. No cpy. Fault gouge at 216-217. Cpy at
				216.5-220 (.1% Cu).
219.5-229.5	10	100		219.5-226.5: Rock grades to greenish, slightly porphyritic, chloritized & silicified
				dacitic dyke rock.
				Cpy dissem. <.1% Cu No mineralized quartz stringer
				Hematite 1-2% Magnetite Nil
				226.5-229.5: Very fine, aphanitic, silicified hybrid rock (volcanics)
				Magnetite 1% Cpy <.1%

# DIAMOND DRILL RECORD

PROPERTY: IIS CLAIMS SHEET NO. 6 OF 13 HOLE NO. 74-2  
 DRILLED BY: NEWMAC INDUSTRIES STARTED: August 11, 1974 COMPLETED: Aug. 20/74 LOGGED BY: E. Cruz  
 LOCATION: HS - 5 BEARING: N DIP: 45°  
 ELEVATION: FINAL DEPTH: 575'

DEPTH	CORE RECOVERED	% REC.	INTERSECTION ANGLE	DESCRIPTION
229.5-239.5	10	100		Green, medium grained, hybrid volcanics with few rounded quartz phenocrysts.
				Chlorite, epidote
				Magnetite 3-5% Cpy .1% Cu
239.5-241.5	2	100		Fracturing at 240-241.5
				240-242.5: Brownish, medium grained dacite dyke
				Cpy Nil K-spar alteration Nil
				Magnetite Nil Hematite 2%
241.5-252	10	97.5		242.5-251: Same as 229.5-239.5
252-258	6	100		251-255.5: Dacite dyke
				No cpy
				255.5-258: Hybrid volcanics with squirts of quartz monzonite.
				Specks of cpy <.1% Cu
				Weakly magnetic
258-267	9	100		258-264: Medium grained, equigranular, hybrid volcanics. Rock is pinkish to green with fine K-spar.
				Cpy <.1% Magnetite 1-2%

# DIAMOND DRILL RECORD

PROPERTY ..... HIS CLAIMS ..... SHEET NO. 7 OF 13 HOLE NO. 74-2  
 DRILLED BY: NEWMAC INDUSTRIES ..... STARTED: August 11, 1974 ..... COMPLETED: Aug. 20/74 ..... LOGGED BY: E. Cruz  
 LOCATION: HS - 5 ..... BEARING: N ..... DIP: 45°  
 ..... ELEVATION: ..... FINAL DEPTH: 575'

DEPTH	CORE RECOVERED	% REC.	INTERSECTION ANGLE	DESCRIPTION
				264-267: Medium grained, pinkish, fragmental hybrid volcanics.
				Specks of Cpy < .1% Cu to Nil
				Magnetite Nil Hematite 1%
				Gouge at 266-267, 267.5-268.5. Start of a strong fault zone.
267-270	3	100		Intensely kaolinized & silicified hybrid volcanics. Hematite stringers in gougy material.
				Fracturing at 50-60° from axis. Rock is pale green & soft.
				Cpy Nil
270-276.5	6	92.5		270-275: Greenish to pink, medium to fine grained, silicified hybrid volcanics.
				Sansseritized plagioclase.
				Chlorite 5% + Magnetite Nil
				Quartz Hematite dissem. 2-4%
				K-spar 50% Cpy Nil
				Rock is moderately fractured.
276.5-281	4	89		Same rock as above but finer grained with more hematite dissem. Moderate to intense fracturing.
				Magnetite Nil Cpy Nil
281-287	5.5	91.7		- do - Medium grained. Very poor cpy in quartz stringers. Moderate to intensely fractured.

# DIAMOND DRILL RECORD

PROPERTY ..... HS CLAIMS ..... SHEET NO. 8 OF 13 HOLE NO. 74-2  
 DRILLED BY: NEWMAC INDUSTRIES ..... STARTED: August 11, 1974 ..... COMPLETED: Aug. 20/74 ..... LOGGED BY: .....  
 LOCATION: HS - 5 ..... BEARING: N ..... DIP: 45° .....  
 ..... ELEVATION: ..... FINAL DEPTH: 575' .....

DEPTH	CORE RECOVERED	% REC.	INTERSECTION ANGLE	DESCRIPTION
287-290.5	3	86		287-292.5 - do -
290.5-294.5	3.5	87.5		292.5-299: Fine grained, pinkish, silicified hybrid volcanics with hairline bands of hematite.
294.5-297	2.5	100		Very poor cpy along quartz stringers.
				Magnetite Nil
				Intensely fractured.
297-299	1.8	90		
299-301.5	1.5	60		- do - Intensely fractured
301.5-303.5	2	100		- do - Intensely sheared and kaolinized.
				No Cpy.
303.5-305	1.2	80		- do -
305-308.5	3.5	100		- do -
308.5-310.5	2	100		- do -
310.5-314.5	3.5	87.5		- do -
314.5-317	2	80		- do -
317-319	1.6	80		- do - More intensely kaolinized & intense fracturing.
319-320.5	1.5	100		- do -
320.5-322.5	2	100		- do -

# DIAMOND DRILL RECORD

PROPERTY ..... IIS CLAIMS ..... SHEET NO. 9 OF 13 HOLE NO. 74-2  
 DRILLED BY: ..... NEWMAC INDUSTRIES ..... STARTED: August 11, 1974 ..... COMPLETED: Aug. 20/74 LOGGED BY: E. Cruz  
 LOCATION: ..... HS - 5 ..... BEARING: N DIP: 45°  
 ..... ELEVATION: ..... FINAL DEPTH: 575'

DEPTH	CORE RECOVERED	% REC.	INTERSECTION ANGLE	DESCRIPTION
322.5-326	2.5	71.5		- do -
326-329	2.5	83		- do -
329-331	1.8	90		- do -
331-331.5	.3	60		- do -
331.5-333	1.4	93		- do -
333-337	3.5	87.5		- do - Fault breccia, clay cementing material, pyrite cubes, gouge.
337-344	7	100		- do - Intensely kaolinized. Fault breccia & gouge at 340-344.
344-354	10	100		- do - Fairly solid, kaolinized hybrid volcanics with gouge sections. Very sparse specks of cpy.
354-363	9	100		Medium grained, greenish to light coloured, weakly kaolinized, hybrid volcanics. Cpy along quartz stringers 0.1% Cu.
				354-357 Intensely fractured section
				357-361 Weakly fractured, fairly solid core.
				361-363 Intense fracturing with gouge material
363-372	9	100		Moderate to intensely fractured
				363-369 Kaolinized hybrid volcanics Specks of cpy along quartz stringers
				369-372 - do - Brecciated, quartz-carbonate cementing material. Poor cpy.

# DIAMOND DRILL RECORD

PROPERTY: HS CLAIMS SHEET NO. 10 OF 13 HOLE NO. 74-2  
 DRILLED BY: NEWMAC INDUSTRIES STARTED: August 11, 1974 COMPLETED: Aug. 20/74 LOGGED BY: E. Cruz  
 LOCATION: HS - 5 BEARING: N DIP: 45°  
 ELEVATION: FINAL DEPTH: 575'

DEPTH	CORE RECOVERED	% REC.	INTERSECTION ANGLE	DESCRIPTION
372-375	3	100		Kaolinized hybrid volcanics. Specks of cpy along quartz stringers. Moderate to intense fracturing.
375-385.0	10	100		375-379.5: Intensely kaolinized. Hybrid volcanics. Intense fracturing at 378-379.5. Specks of Cpy along quartz stringers. 379.5-385: Greenish-grey, fine to medium grained siliceous volcanics of rhyolite-dacite composition. Quartz-eye. K-spar alteration Nil Chlorite 5-10% Silicification 5% Magnetite 5% Cpy <.1% Cu
385.0-394	9	100		385-389: Same rock as above. Dark, medium grained hybrid volcanics (rhyo-dacite composition). Silicification medium to intense K-spar weak Chlorite 5-10% Magnetite 5% Cpy dissem. .1-.15% Cu
394-404	10	100		389-407: Coarse grained, pinkish, porphyritic quartz monzonite
404-414	10	100		K-spar 20% Epidote < 1% Quartz > 5% Magnetite 5-10% Chlorite 1-3% Cpy .15-.2% Cu

# DIAMOND DRILL RECORD

PROPERTY ..... HS CLAIMS ..... SHEET NO. 11 OF 13 HOLE NO. 74-2  
 DRILLED BY: NEWMAC INDUSTRIES ..... STARTED: August 11, 1974 ..... COMPLETED: Aug. 20/74 ..... LOGGED BY: E. Cruz  
 LOCATION: HS - 5 ..... BEARING: N ..... DIP: 45°  
 ..... ELEVATION: ..... FINAL DEPTH: 575'

DEPTH	CORE RECOVERED	% REC.	INTERSECTION ANGLE	DESCRIPTION
				407-414: Fine to medium grained hybrid rock of quartz monzonite composition.
				Squirts of medium grained quartz monzonite.
				K-spar 2-15% Epidote weak
				Quartz > 5% Magnetite 5%
				Chlorite weak Cpy .1-.2% Cu
414-424	10	100		- do - Cpy .1-.2% Cu
424-434	10	100		Fine to medium grained quartz monzonite.
				Cpy <.1% Cu Magnetite 2-3%
434-444	10	100		Coarse grained, grey hybrid volcanics with fine grained intervals.
				K-spar alteration weak Epidote Nil
				Quartz 5-10% Magnetite 5%
				Chlorite 5-15% Cpy .1%
444-454	10	100		- do - Cpy 0.1% Cu
454-464	10	100		- do - Cpy .1-.2% Cu
464-474	10	100		- do -
474-484	10	100		- do -
484-488.5	4.5	100		- do -
488.5-496	7.5	100		- do -



# DIAMOND DRILL RECORD

PROPERTY ..... HS CLAIMS ..... SHEET NO. 12 OF 13 ..... HOLE NO. 74-2  
 DRILLED BY: NEWMAC INDUSTRIES ..... STARTED: August 11, 1974 ..... COMPLETED: Aug. 20/74 ..... LOGGED BY: E. Cruz  
 LOCATION: HS - 5 ..... BEARING: N ..... DIP: 45°  
 ..... ELEVATION: ..... FINAL DEPTH: 575'

DEPTH	CORE RECOVERED	% REC.	INTERSECTION ANGLE	DESCRIPTION
496-506.5	10	100		- do -
506.5-510.5	4	100		- do -
510.5-521	10	100		- do - Increasing K-spar alteration with corresponding increase in Cpy from 517-521.
				K-spar 10-15% Epidote weak
				Quartz 5-10% Magnetite > 5%
				Chlorite weak Cpy .1-.2% Cu
521-531	10	100		Pink, coarse grained quartz monzonite.
				K-spar 30% Epidote weak
				Quartz > 5% Magnetite > 5%
				Chlorite weak Cpy .2% Cu
531-535	4	100		531-534: - do -
				534-543: Kaolinized quartz monzonite. Fault zone.
535-537	1.5	75		543-553: - do - Cpy Nil
537-538	1	100		
538-547	8.5	94.5		553-567: Quartz monzonite with few inclusions of green, fine grained volcanics.
547-557	10	100		Relatively better Cpy at 548-558. Cpy .2-.3% Cu
557-567	10	100		



PART D

Drilling Contract with Bid Sheet and Job Specifications

DRILLING CONTRACT

THIS AGREEMENT made and entered into by and between:

EXPLORAM MINERALS LTD.  
1004 - 510 West Hastings St.,  
Vancouver 2, B.C.

hereinafter called Company, and

NEWMAC INDUSTRIES LTD.  
6190 Meadowland Crescent,  
Kamloops, B.C.

hereinafter called Contractor.

WITNESSETH: THAT,

WHEREAS, Company is the owner, part owner and/or Operator, of certain properties on which it desires to have a program drilled and completed and,

WHEREAS, Contractor represents that it has adequate equipment in good working order and fully trained personnel capable of efficiently operating such equipment with which it desires to drill for Operator;

NOW, THEREFORE, the parties hereto, each in consideration of the promises and agreements of the other, mutually agree as follows:

1. WORK TO BE DONE, LOCATION, COMMENCEMENT DATE, AND DEPTH:

- 1.1. Contractor agrees to drill and complete the hereinafter designated program accordance with all provisions hereof and other conditions and specifications set forth in the Bid Sheet and Job Specifications, identified as Exhibit "A" attached hereto and made a part hereof.
- 1.2. Contractor further agrees to commence operations for the drilling of the project at the location, on the date, and to the depths agreed upon in Sections 1, 2 and 3 of Exhibit "A" hereof.

2. LABOUR, EQUIPMENT, MATERIALS, SUPPLIES AND SERVICES.

- 2.1. All labour, equipment, material, supplies and services necessary to the proper operation of maintenance of the drilling equipment shall be furnished by Contractor. Additional material, equipment, special tools, supplies and services necessary or proper to the drilling and completion of the job shall be furnished at the drill site by the party designated in Exhibit "A". Should tools, materials, apparatus or services, other than those set forth herein or designated in Exhibit "A" be necessary to the drilling of the program, the cost of such tools, materials, apparatus or services and the manner in which they are to be furnished are to be agreed upon by the parties hereto.
- 2.2. Should contractor purchase for Company at the Company's request any materials, supplies, or equipment which Company is obligated to furnish under the terms of this agreement, Company agrees to pay Contractor within thirty days (30) after date of receipt of Contractor's invoice and actual cost of such materials, supplies, or equipment. Contractor agrees to furnish Company copies of suppliers, vendors, or third party invoices covering such materials, supplies or equipment.

3. FOOTAGE RATE, HOURLY RATE, STAND-BY RATE, BASIS OF DETERMINING AMOUNTS PAYABLE TO CONTRACTOR.
- 3.1. Subject to all of the other provisions hereof, Company agrees to pay Contractor for the work performed, services rendered, and the materials, equipment and supplies furnished by Contractor, a sum computed as hereafter prescribed.
- 3.2. For work performed on a footage basis, Contractor shall be paid the rate agreed upon and specified in Section ~~4~~<sup>3</sup> of Exhibit "A", multiplied by the linear footage of hole drilled. Such linear footage of hole drilled shall be determined in the manner specified in Exhibit "A".
- 3.3. For work performed on an hourly basis, the hourly rate shall be as agreed upon in Section ~~4~~<sup>3</sup> of Exhibit A.
- 3.4. If it is necessary to shut down Contractor's drill for repairs while Contractor is performing work on an hourly basis, Contractor shall be allowed compensation in the manner set out in Section ~~4(L)~~<sup>3(g)</sup> of Exhibit "A". *J. J. J.*
- 3.5. In determining the amount of hourly time for which Contractor is to be compensated, it is agreed that such day work time shall begin when Contractor, suspends normal drilling operations being conducted on a footage basis, and shall include the time required to restore the hole to the same drilling conditions which existed when operations on a footage basis were suspended.

4. SECRECY

- 4.1. The Contractor will not give out any information regarding drill results or permit any individual other than the Company's representative, except upon specific permission of responsible officials of the Company.

5. DISCIPLINE:

- 5.1. Contractor shall be an independent contractor with respect to the performance of all work hereunder, and neither Contractor nor anyone employed by Contractor shall be deemed for any purpose to be the employee, agent, servant, or representative of Company in the performance of any work or service or part thereof in any manner dealt with hereunder. Company shall have no direction or control of the Contractor ~~or~~<sup>its</sup> employees and agents except in the results to be obtained. *J. J. J.* The work contemplated herein shall meet the approval of Company and be subject to the general right of inspection of Company to secure the satisfactory completion thereof. The actual performance and superindendence of all work hereunder shall be by Contractor, but Company or its representatives shall have unlimited access to the operations to determine whether work is being performed by Contractor in accordance with all the provisions of this Contract and work order.

~~6. DEPOSIT~~

- ~~6.1. The Company agrees, on signing this Agreement to deposit in the \_\_\_\_\_ Bank of \_\_\_\_\_ in the City of \_\_\_\_\_ the sum of \$ \_\_\_\_\_ to the joint account of the Company and the Contractor, to be held by the Bank for the purposes of this contract. It is understood that the above \$ \_\_\_\_\_ can be used only to apply on the final payment in full to the Contractor. All other payments to be made from separate funds. Until the above deposit is made, the Contractor shall be under no obligation in connection with the Contract.~~

7. INSURANCE

At any and all times during the term of this Agreement, Contractor agrees to carry insurance of the types and in the minimum amounts as follows:

- 7.1 Workmen's Compensation insurance in full compliance with all applicable Provincial laws and regulations.
- 7.2. Employer's liability insurance in the minimum limits of \$100,000.00 per accident covering injury or death to any employee with may be outside the scope of the workmen's compensation statute of the Province in which the work is performed.
- 7.3. Comprehensive general liability insurance with minimum limits of \$500,000.00 for injury to or death of any one person and \$1,000,000.00 for any one accident and with minimum limits of \$250,000.00 for property damage.
- 7.4 Automobile liability insurance covering owned, non-owned, and hired automotive equipment with minimum limits of \$500,000.00 for injury to or death of any one person \$1,000,000.00 for any one accident and \$250,000.00 property damage.
- 7.5 All such insurance shall be carried in a company or companies acceptable to company and shall be maintained in full force and effect during the term of this Agreement, and shall not be cancelled, altered, or amended without ten (10) day's prior written notice having first been furnished to the Company. Contractor agrees to have its insurance carrier furnish Company a certificate or certificates evidencing insurance coverage in accordance with the above requirements and, when requested by Company, to furnish certified copies of all said insurance policies.

8. LOSS OR DAMAGE:

In addition to all other indemnifying provisions contained herein, Contractor represents and warrants that the use or construction of any and all tools and equipment furnished by Contractor and used in the work provided for herein does not infringe on any license or patent which has been issued or applied for, and Contractor agrees to indemnify and hold Company harmless from any and all claims, demands, and causes of action of every kind and character in favour of or made by any patentee, licensee, or claimant of any right or priority to such tools or equipment, or the use or construction thereof, which may result from or arise out of furnishing or use of any such tool or equipment by Contractor in connection with the work under this agreement and applicable work orders.

Contractor shall be liable at all times for damage to or destruction of Contractor's surface equipment and materials, regardless of how such damage or destruction occurs. Company shall be under no liability to reimburse Contractor for any such loss except loss or damage thereto caused by gross negligence or willful acts or omissions of Company or Company's agents, servants, or employees.

Contractor shall not be responsible for damage to the hole on which Contractor performs services nor to property of Company unless such damage shall be caused by or the result of the gross negligence or willful misconduct of Contractor, its agents or employees, this provision applying to sub-surface damage and surface damage resulting from sub-surface damage.

Company shall be responsible for and protect indemnify and

save contractor harmless from any liability for injury to or death of persons or damage to property (including, but not limited to, injury to the job) growing out of or in any way connected with the use of radioactive material in the well hole, unless such damage shall be caused by the gross negligence or willful misconduct of Contractor, its agents or employees.

Except as otherwise provided, Contractor will indemnify and hold Company harmless from and against all damages and claims for damage by reason of injury or death of persons or damage to property caused by the ~~negligence~~ negligence of Contractor, its employees or agents, in the performance of work hereunder and not caused or contributed to by the negligence of Company, its agents or employees.

Neither Company nor Contractor shall be liable to the other for any delays or damages or any failure to act due, occasioned, or caused by reason of Provincial laws or the rules, regulations or orders of any public body or official purporting to exercise authority or control respecting the operations covered hereby, including the use of tools and equipment, or due, occasioned, or caused by strikes, action of the elements, ~~or causes beyond the control of the parties affected hereby,~~ or causes beyond the control of the parties affected hereby, and delays due to the above causes, or any of them, shall not be deemed to be a breach of or failure to perform under this Agreement.

9. PAYMENT

The Company shall pay Contractor for the work and/or equipment or materials furnished by Contractor at the rate stipulated in the work orders provided for herein, subject to the same being accepted by Company as fully complying with all the terms, conditions, specifications and requirements of this Contract and such work orders, provided Contractor shall have satisfied Company that there are no liens or claims on or against Company or its property by reason of the operations of Contractor hereunder.

10. LIENS

The Contractor shall be responsible for, and will pay promptly all costs and charges, incurred by itself for labour, machinery tools, and supplies used, *and will permit no liens to be filed against or to remain against the Company for non payment of the same.*

11. DRILLING SITES

The Contractor agrees to case and drill on the sites and at angles and azimuths selected by the Company representative and to follow the instructions of the Company representative relating to place and time of drilling.

The Company and Contractor respectively agree to comply with all laws, rules and regulations Federal or Provincial, which are now or may become applicable to operations covered by this Agreement and any work order issued in connection herewith. If any of the terms hereof are in conflict with any applicable rule, regulation, order or law of a Provincial or Federal Regulatory Body, the terms of this Contract so in conflict shall not apply and the applicable Provincial or Federal rule, regulation, order or law shall prevail.

12. ECOLOGY AND SANITATION

During the course of the work, the Contractor shall at all times keep the site of any drilling and camp areas free from accumulation of waste material, rubbish or garbage and upon completion of the work, shall remove all tools, scaffolding, surplus materials, rubbish and garbage and leave the working and camp site in a clean condition. The Contractor shall observe and comply with all applicable Federal and Provincial laws, regulations and orders relating to prevention of forest fires and sanitation in the bush and shall bear all costs arising from any violation thereof.

13. CAVITIES

In the event that cavities or loose and caving material or excessive water flows are encountered of a nature as to prevent the successful completion of any hole, the Contractor does not, under such conditions guarantee to drill to a predetermined depth and, in the event that it becomes necessary to abandon the hole, the Company agrees to pay for such uncompleted holes at the rates herein specified for all footage completed. However, should the Company request that further work be carried out in the hole beyond this point, then the Contractor shall continue work in the hole, but such continuing work shall be at Field Cost rates.

14. ACCESS

Preparation of drill sites and access roads is the responsibility of the Contractor. The Company shall provide, at no cost to the Contractor, all rights of ingress and egress to all lands that may be required to enable the Contractor to carry out the specified work.

15. TIMBER RIGHTS

The Contractor shall be permitted to cut and fell any timber on the Company's property as may be required in the course of the work hereunder, and the Company shall indemnify and save harmless the Contractor from any assessment for stumps or other charges of every kind and nature. *Cutting of timber, where necessary, shall be kept to a*

16. CORE

*minimum and under no circumstances shall the indemnity of the Company herein extend to the cutting of any of the large fir trees in the area.*

The drilling shall be conducted so as to produce as high a percentage of core as the nature of the ground being drilled shall allow. All cores recovered shall be delivered to the Company at the drill site, carefully marked.

17. COMPANY REPRESENTATIVE

The Company will have a representative on site authorized to approve client charges on a daily basis.

18. HOLE DIRECTION AND DEPTH

The contractor does not guarantee the direction of the hole beyond the collar nor guarantee to drill any hole to any specified depth. The Contractor will however, expend every reasonable effort to complete all holes to the satisfaction of the Company.

19. RIGHT TO VACATE

Upon completion of the work herein contracted to be performed the Contractor shall have the right to remove within a reasonable length of time all temporary buildings, and



other fixtures including trade fixtures, machinery equipment and appliances placed by the Contractor upon such lands.

20. DISPUTES

This Agreement and any dispute arising hereunder shall be interpreted and determined in accordance with the laws of British Columbia.

In the event there is a conflict between the provisions hereof and any papers or documents, which may have been executed or passed between the parties hereto in connection with the subject matter hereof, it is understood and agreed that the provisions hereof shall be controlling. It is expressly understood and agreed by the parties hereto that no provision of any delivery ticket, invoice or other instrument used by Contractor in setting forth the operations conducted hereunder shall supercede the provisions of this Agreement.

21. FORCE MAJURE:

The Contractor reserves the right to cancel this contract should its fulfillment be rendered impossible by:

- 21.1 War, invasion, insurrection, riot, the order of or regulations of any civil or military authority, or by strikes, lockouts, or labour disputes, whether in or in the neighborhood of the Contractors plant or of that of any supplier of materials necessary for the completion of the contract.
- 21.2 The inability to obtain essential materials and supplies due to priority restriction.
- 21.3 The inability to secure labour due to the restrictions or causes beyond the Contractors control, and the Contractor shall not be liable for any loss or damage directly or indirectly suffered by the Company by reason of exercise of such right of cancellation.

22. NOT ASSIGNABLE

It is mutually agreed that this Agreement shall be binding upon and enure to the benefit of the parties hereto, their respective successors and permitted assigns, but shall not be assignable by either party without the consent in writing of the other party first had and obtained.

23. MAILING ADDRESS

That any notice required to be given hereunder shall be properly given if mailed by registered letter addressed to the Company as follows:

EXPLORAM MINERALS LTD.  
1004 - 510 West Hastings Street,  
Vancouver 2, B.C.

or to the Contractor by registered letter addressed as follows:

NEWMAC INDUSTRIES LTD.  
6190 Meadowland Crescent  
Kamloops, B.C.

This AGREEMENT may be altered only by written consent of both parties hereto.

24. TIME IS OF THE ESSENCE

Time is expressly declared to be the essence of this Contract. If either party hereto defaults in the performance of this Contract or of work commenced under work orders as provided for herein, the other party has the option to terminate this Contract and the work order involved.

WITNESS THE SIGNATURES of the parties hereto in DUPLICATE ORIGINALS, this 18th day of

July A.D., 1974.

WITNESSES:

\_\_\_\_\_  
\_\_\_\_\_

Evelyn F. Gower

WITNESS:

\_\_\_\_\_  
\_\_\_\_\_

Evelyn F. Gower

OPERATOR:

Exploran Minerals Ltd.

BY:

C. C. Kaman

CONTRACTOR:

Thurston Industries Ltd.

BY:

James MacNeill

BID SHEET AND JOB SPECIFICATIONS

NEWMAC INDUSTRIES LTD.  
6190 Meadowland Crescent,  
Kamloops, B.C.  
Phone: 573-5455

EXPLORAM MINERALS LTD.  
1204 - 510 West Hastings Street,  
Vancouver 2, B.C.

Gentlemen:

Please accept this as a firm proposal to drill and complete your diamond drill project in the Horsefly area of British Columbia. The bid specifications are completed in the articles following.

Thank you.

Sincerely,  
NEWMAC INDUSTRIES LTD.

James MacNeill

-----  
1. COMMENCEMENT DATE

Contractor agrees to commence actual moving in operations at the above location on or before August 1st, 1974.

2. DESCRIPTION OF WORK

The work is to consist of a series of drill holes, drilled at locations specified by the Company. A total minimum footage of \_\_\_\_\_ feet shall be drilled, but total footage may be extended by mutual consent. Holes shall be drilled with B.Q. tools producing 1 7/16 diameter core. Maximum depth of any hole shall not exceed 1,000 feet, and minimum depth shall be 250 feet. The Contractor will not be called upon to drill any hole at a flatter angle than - 45°. Measurement of all holes shall be taken from the top of casing pipe. If holes of a greater depth than 1,000 feet are desired, such drilling shall be performed only upon such conditions and at such rates as may be agreed upon before commencement of such drilling.

Exploram Minerals Ltd. agrees that excessive diamond cost will be charged if down holes encounters run diamond costs more than \$2.00 per foot.

3. SCHEDULE OF RATES:

The Company agrees to pay the Contractor for footage drilled and other services performed as follows:

(a) Coring at Bedrock	
Depth Intervals	B.Q. size
1 - 500 ft.	\$ 7.00 per ft.
500 - 1000 ft.	\$ 7.00 per foot.

(b) Casing of Overburden

Depth Interval

0 - 50 ft.	\$ 7.00
50 - 100 ft.	Field Cost plus 10%

(c) The following services will be provided on an operating Field Cost plus 10% basis.

1. Casing of overburden over 50 ft.
2. Reaming and setting casing for borehole reduction, bore hole stabilization, and control of return water.
3. Drilling caved or broken ground
4. All cementing operations excluding setting time but including drilling of set cement.
5. Wedging of boreholes.
6. Supplying water to the drill when water supply over 3,000 feet, lateral and/or 500 ft. vertical lift from borehole collar under non-freezing conditions and 500 ft. lateral and/or 500 ft. vertical lift under freezing conditions.
7. Recovering pipe and/or casing at Company's request.

Where operating field costs are defined as:

OPERATING FIELD COSTS:

Labour (including Supervision) \$ 7.00 per man hour.

Drill, \_\_\_\_\_ pumps and service vehicles including normal operating repairs, \_\_\_\_\_ per drill hour.

Tractor \$15.00 per hour.

Water Truck (excluding driver) \$15.00 per hour.

Pumps for water supply

Supplies consumed or damaged beyond use due to site conditions including diamond articles, mud ingredients, cement, rods, core barrels, etc., Site replacement value plus 10%.

(d) The following services would be provided on a non-operating field cost plus 10% basis.

1. Setting time for cement.
2. Delays caused by Client.
3. Travelling time of crew in excess of 30 minutes per man shift (Labour only).

Where non-operating field costs are defined as:

NON-OPERATING FIELD COSTS:

Labour (including supervision) \$ 7.00 per man hour.

Drill, pump and service vehicle \_\_\_\_\_ per drill hour.

Tractor - operating \$15.00 per hour.  
non operating no charge per hour.

(e) Testing of borehole.

The Contractor, when instructed so to do, shall take any clinometer dip tests desired by the Client. The Contractor's charge for such test shall be at the rate of \$7.00 per man hour.

(f) Transportation and Moves.

1. It is agreed that the moving of drill and camp equipment, supplies and personnel, from the Contractor's warehouse, to the initial drill site, between drill sites, and return from the final drill site to the Contractor's warehouse shall be charged to EXPLORAM MINERALS LTD. at Field Cost, plus 10%. Such costs shall include transportation, securing timber, site preparation, setting up, laying waterline and building camps.
2. Moving shall be interpreted to include tearing down, dismantling machinery, moving, securing timber, transportation, site preparation and setting up.
3. It is understood and agreed that should tractors be used for moving, tractor rental at the rate of \$15.00 per hour will apply.
4. Core boxes will be provided by Contractor. Contractors rates for core boxes on site:

Nominal core length	Core size	Rate
25 ft. boxes	BQ 1 7/16	Invoiced Price.

5. It is agreed that, at the completion of the present active drilling program, the Company may retain the Contractor's drilling equipment at the drill area for a rental of \$1500.00 per month, per drilling unit. The standby rental charge will cease to apply upon commencement of a continuous drilling program, or on the giving of a written notice to the Contractor by the Company that the drilling equipment is no longer required.

(g) Equipment Repairs

If it becomes necessary to shut down the Contractor's equipment for repairs while the Contractor is performing work on an hourly basis, Contractor shall be allowed compensation for such repairs at the appropriate rate. The number of hours for which Contractor is to be compensated shall be limited as follows:

For any one repair job - no charge  
 Total hours per month \_\_\_\_\_.

(h) Special Agreements.

Contractor will supply a 1010 case cat to move drill and build a limited amount of road to move drill to drill site. Cost of cat will be at \$15.00 per working hour plus operator at \$7.00 per working hour with no standby charges for cat or operator.

IN RESPONSE TO THE ABOVE REQUEST our bid for the drilling program of the project hereinabove described is submitted as set forth above.

NEWMAC INDUSTRIES LTD.

By: *James MacNeill*  
*James MacNeill*

Dated July 15th, 1974.  
at Kamloops, B.C.

PART E

Cost Statement of Diamond Drilling  
with Daily Drilling Reports

# NEWMAC

INDUSTRIES LTD.

TELEPHONE: (604) 573-5455

CONTRACT DIAMOND DRILLING

KAMLOOPS, B.C.  
6190 Meadowland Cres.

RECEIVED

SEP 9 1974

EXPLORAM MINERALS LTD.  
1004 - 510 West Hastings St.  
Vancouver, 2 B.C.

EXPLORAM MINERALS LTD.  
VANCOUVER OFFICE

Mr. C. Kerna:

This is a summary of our daily drill reports from the 26 th. of July to the 31 st. of August 1974.

July 26 th. and 27 th.	\$ 266.20	✓
July 28 th. and 29 th.	455.40	✓
July 30 th.	422.40	✓
July 31 st.	404.80	✓
Aug. 1 st.	392.00	✓
Aug. 2 nd.	399.00	✓
Aug. 2	450.80	✓
Aug. 3	354.90	✓
Aug. 3	350.00	✓
Aug. 4	488.40	✓
Aug. 4	581.00	✓
Aug. 5	713.10	✓
Aug. 5	714.00	✓
Aug. 6	478.30	✓
Aug. 6	504.00	✓
Aug. 7	266.00	✓
Aug. 7	342.40	✓
Aug. 8	161.00	✓
Aug. 11	182.00	✓
Aug. 12	344.40	✓
Aug. 13	679.20	✓
Aug. 14	<del>520.20</del> 550.20	✓
Aug. 15	562.60	✓
Aug. 16	592.00	✓
Aug. 17	<del>429.00</del> 429.80	✓
Aug. 18	817.40	✓
Aug. 19	579.00	✓
Aug. 20	542.70	✓
Aug. 21	425.70	✓
Aug. 22	341.50	✓
Aug. 25	350.00	✓
Aug. 26	478.30	✓
Aug. 27	<del>459.00</del> 485.80	✓
Aug. 28	247.80	✓
Aug. 29	562.60	✓
Aug. 30	567.00	✓
Aug. 31	567.00	✓

DDH 74-1, 74-2

12,993

Core box charges as per invoice 239.80 ✓  
 Freight for core boxes 28.67 ✓  
 10% of 318.47 - 31.84 ✓  
 Total 307.12 ✓

16971.40

16809.20

*James MacNeil*

17159.51

TELEPHONE: (804) 573-5455  
 2, BARNHARTVALE, KAMLOOPS, B.C.

COMPANY: *Exploration*  
 LOCATION: *Horsefly B.C.*  
 DATE: *July 26-27/74* p.m. To a.m.  
 HOLE NO. \_\_\_\_\_ ANGLE \_\_\_\_\_ SIZE \_\_\_\_\_ DRILL NO. \_\_\_\_\_

DEPTH START OF SHIFT \_\_\_\_\_ DEPTH END OF SHIFT \_\_\_\_\_  
 FOOTAGE DRILLED \_\_\_\_\_  
 CORE RECOVERED \_\_\_\_\_  
 NUMBER OF RUNS \_\_\_\_\_  
 ROCK FORMATION \_\_\_\_\_

BITS USED IN OVERBURN NO. \_\_\_\_\_ TYPE \_\_\_\_\_  
 TIME LOSS & DELAY \_\_\_\_\_  
 MAINTENANCE \_\_\_\_\_  
 REPAIR \_\_\_\_\_  
 WATER \_\_\_\_\_  
 AIR \_\_\_\_\_  
 FISHING \_\_\_\_\_  
 WASHING & CLEANING HOLE \_\_\_\_\_  
 STANDBY \_\_\_\_\_

TRAVELLING *drilling bit 6 hrs*  
 PULLING CASING \_\_\_\_\_  
 TEARING DOWN \_\_\_\_\_  
 SETTING UP \_\_\_\_\_  
 MOVING FROM HOLE TO HOLE \_\_\_\_\_  
 TESTING \_\_\_\_\_  
 CEMENTING \_\_\_\_\_  
 DRILLING \_\_\_\_\_  
**TIME ALLOTMENT**  
 NEW \_\_\_\_\_ USED \_\_\_\_\_  
 FEET OF CASING \_\_\_\_\_  
 TYPE OF CASING \_\_\_\_\_

RUNNER HRS. S \_\_\_\_\_  
 RUNNER HRS. S \_\_\_\_\_  
 RUNNER HRS. S \_\_\_\_\_  
 HELPER HRS. S \_\_\_\_\_  
 HELPER HRS. S \_\_\_\_\_  
 HELPER HRS. S \_\_\_\_\_

REMARKS: *move cat in from Kamloops 6 hrs.*  
*Clear access road*  
*cut out road from cabin to drill site*  
*cat work 5 hrs.*  
 FOREMAN \_\_\_\_\_ ENGINEER *E. H. Gandy*



Hauling Cat from Kanloops to site	6 hrs. @ 15.00	90.00
Cat work on road to site	5 hrs. @ 15.00	75.00
Operator	11 hrs. @ 7.00	77.00
		<u>242.00</u>
	10 % of 242.00	24.20
		<u>\$266.20</u>

TELEPHONE: (604) 573-5455  
R.R. 2, BARNHARTVALE, KAMLOOPS, B.C.

COMPANY Explorator LOCATION Horsefly B.C.  
 START FROM \_\_\_\_\_ a.m. To \_\_\_\_\_ p.m. DATE July 28<sup>th</sup> + 29<sup>th</sup> /74  
 HOLE NO. \_\_\_\_\_ ANGLE \_\_\_\_\_ SIZE \_\_\_\_\_ DRILL No. 1

DEPTH START OF SHIFT \_\_\_\_\_  
 DEPTH END OF SHIFT \_\_\_\_\_  
 FOOTAGE DRILLED \_\_\_\_\_  
 CORE RECOVERED \_\_\_\_\_  
 NUMBER OF RUNS \_\_\_\_\_  
 ROCK FORMATION \_\_\_\_\_

MATERIAL & CHEMICALS, MUD MIXING \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

FEET OF CASING \_\_\_\_\_  
 TYPE OF CASING \_\_\_\_\_  
 NEW \_\_\_\_\_ USED \_\_\_\_\_

BITS USED IN OVERBURN NO. \_\_\_\_\_  
 TYPE \_\_\_\_\_

**TIME ALLOTMENT**  
 DRILLING \_\_\_\_\_  
 CEMENTING \_\_\_\_\_  
 TESTING \_\_\_\_\_  
 MOVING—FROM HOLE \_\_\_\_\_ TO HOLE \_\_\_\_\_  
 SETTING UP \_\_\_\_\_  
 TEARING DOWN \_\_\_\_\_  
 PULLING CASING \_\_\_\_\_

**TIME LOSS & DELAY**  
 MAINTENANCE \_\_\_\_\_  
 REPAIR \_\_\_\_\_  
 WATER \_\_\_\_\_  
 AIR \_\_\_\_\_  
 FISHING \_\_\_\_\_  
 WASHING & CLEANING HOLE \_\_\_\_\_  
 STANDBY \_\_\_\_\_

TRAVELLING 4 men 8 hrs.  
 RUNNER M. MacNeil HRS. 8 S \_\_\_\_\_  
 RUNNER S. Yaremko HRS. 8 S \_\_\_\_\_  
 RUNNER \_\_\_\_\_ HRS. \_\_\_\_\_ S \_\_\_\_\_

BIT No. \_\_\_\_\_ ON \_\_\_\_\_ OFF \_\_\_\_\_  
 TOTAL BIT FOOTAGE \_\_\_\_\_ No. \_\_\_\_\_  
 HELPER R. Walter HRS. 8 S \_\_\_\_\_  
 HELPER S. Graydon HRS. 8 S \_\_\_\_\_  
 HELPER \_\_\_\_\_ HRS. \_\_\_\_\_ S \_\_\_\_\_

REMARKS July 28. Load drill & Equipment to mobilize to Horsefly Area. 2 men 5 hrs.  
July 29. mobilize to Horsefly & Part way to drill site 4 men 8 hrs. Truck charges 8 hrs.  
 FOREMAN \_\_\_\_\_ ENGINEER E. J. Gray

July 28

Loading drill and equipment to mobilize to Horsefly area

2 men 5 hrs. @ 7.00 per man hr.

\$ 70.00

July 29

Mobilize to Horsefly area and part way to drill site

3 man crew 8 hrs. @ 7.00 per man hr.

168.00

Truck dngs. @ 15.00 per hr.

120.00

Truck operator @ 7.00 per hr.

55.00

414.00

10 % of 414.00

41.40

\$455.40

# NI NEWMAC INDUSTRIES LTD.

DAILY DRILLING REPORT

TELEPHONE: (604) 573-5435  
P.R. 2, BARNHARTVALE, KAMLOOPS, B.C.

COMPANY Kaplan LOCATION Heise fly - BC  
 START FROM \_\_\_\_\_ a.m. To \_\_\_\_\_ p.m. DATE July 30 / 74  
 HOLE NO. \_\_\_\_\_ ANGLE \_\_\_\_\_ SIZE \_\_\_\_\_ DRILL No. \_\_\_\_\_

DEPTH START OF SHIFT \_\_\_\_\_  
 DEPTH END OF SHIFT \_\_\_\_\_  
 FOOTAGE DRILLED \_\_\_\_\_  
 CORE RECOVERED \_\_\_\_\_  
 NUMBER OF RUNS \_\_\_\_\_  
 ROCK FORMATION \_\_\_\_\_

MATERIAL & CHEMICALS, MUD MIXING \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

FEET OF CASING \_\_\_\_\_  
 TYPE OF CASING \_\_\_\_\_  
 NEW \_\_\_\_\_ USED \_\_\_\_\_

BITS USED IN OVERBURN NO. \_\_\_\_\_  
 TYPE \_\_\_\_\_

**TIME ALLOTMENT**  
 DRILLING \_\_\_\_\_  
 CEMENTING \_\_\_\_\_  
 TESTING \_\_\_\_\_  
 MOVING FROM HOLE \_\_\_\_\_ TO HOLE \_\_\_\_\_  
 SETTING UP \_\_\_\_\_  
 TEARING DOWN \_\_\_\_\_  
 PULLING CASING \_\_\_\_\_  
 TRAVELLING moving in 4 men 12 hrs

**TIME LOSS & DELAY**  
 MAINTENANCE \_\_\_\_\_  
 REPAIR \_\_\_\_\_  
 WATER \_\_\_\_\_  
 AIR \_\_\_\_\_  
 FISHING \_\_\_\_\_  
 WASHING & CLEANING HOLE \_\_\_\_\_  
 STANDBY \_\_\_\_\_

RUNNER J. McNeil HRS. 12 S \_\_\_\_\_  
 RUNNER L. Yuma HRS. 12 S \_\_\_\_\_  
 RUNNER \_\_\_\_\_ HRS. \_\_\_\_\_ S \_\_\_\_\_

BIT No. \_\_\_\_\_ ON \_\_\_\_\_ OFF \_\_\_\_\_  
 TOTAL BIT FOOTAGE \_\_\_\_\_ No. \_\_\_\_\_  
 HELPER R. Waller HRS. 12 S \_\_\_\_\_  
 HELPER S. Graydon HRS. 12 S \_\_\_\_\_  
 HELPER \_\_\_\_\_ HRS. \_\_\_\_\_ S \_\_\_\_\_

REMARKS Build road over Swamp 4 men condensing  
road - move drill truck in to 1 1/2 miles off  
site Trouble getting drill truck across Swamp  
cat work 6 hrs.

FOREMAN \_\_\_\_\_ ENGINEER A. D. Gray

Repairing road and filling in swamp etc. and moving in drill  
and equipment near to site.

3 men 12 hrs. @ 7.00 per man hr.

\$252.00 -

Cat work for above 6 hrs.

90.00 -

Cat operator 6 hrs.

42.00 -

384.00

10 % of 384.00 38.40

\$422.40

# NI NEWMAC INDUSTRIES LTD.

TELEPHONE: (504) 573-5455  
P. O. 2, BARNHARTVALE, KAMLOOPS, B.C.

COMPANY Explorcom LOCATION Horsefly BC  
 START FROM \_\_\_\_\_ a.m. To \_\_\_\_\_ p.m. DATE July 31 / 74  
 HOLE NO. \_\_\_\_\_ ANGLE \_\_\_\_\_ SIZE \_\_\_\_\_ DRILL No. 1

DEPTH START OF SHIFT \_\_\_\_\_  
 DEPTH END OF SHIFT \_\_\_\_\_  
 FOOTAGE DRILLED \_\_\_\_\_  
 CORE RECOVERED \_\_\_\_\_  
 NUMBER OF RUNS \_\_\_\_\_  
 ROCK FORMATION \_\_\_\_\_

MATERIAL & CHEMICALS, MUD MIXING \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

FEET OF CASING \_\_\_\_\_  
 TYPE OF CASING \_\_\_\_\_  
 NEW \_\_\_\_\_ USED \_\_\_\_\_

BITS USED IN OVERBURN NO. \_\_\_\_\_  
 TYPE \_\_\_\_\_

**TIME ALLOTMENT**  
 DRILLING \_\_\_\_\_  
 CEMENTING \_\_\_\_\_  
 TESTING \_\_\_\_\_  
 MOVING—FROM HOLE \_\_\_\_\_ TO HOLE \_\_\_\_\_  
 SETTING UP \_\_\_\_\_  
 TEARING DOWN \_\_\_\_\_  
 PULLING CASING \_\_\_\_\_  
 TRAVELLING \_\_\_\_\_

**TIME LOSS & DELAY**  
 MAINTENANCE \_\_\_\_\_  
 REPAIR \_\_\_\_\_  
 WATER \_\_\_\_\_  
 AIR \_\_\_\_\_  
 FISHING \_\_\_\_\_  
 WASHING & CLEANING HOLE \_\_\_\_\_  
 STANDBY \_\_\_\_\_

BIT No. \_\_\_\_\_ ON \_\_\_\_\_ OFF \_\_\_\_\_  
 TOTAL BIT FOOTAGE \_\_\_\_\_ No. \_\_\_\_\_

RUNNER J. Yerman HRS. 11 S \_\_\_\_\_ HELPER S. Graydon HRS. 11 S \_\_\_\_\_  
 RUNNER J. Muir HRS. 11 S \_\_\_\_\_ HELPER R. Walters HRS. 11 S \_\_\_\_\_  
 RUNNER \_\_\_\_\_ HRS. \_\_\_\_\_ S \_\_\_\_\_ HELPER \_\_\_\_\_ HRS. \_\_\_\_\_ S \_\_\_\_\_

REMARKS unload drill & skid in with cat 1/2 miles  
Haul in equipment with 4x4.  
Build drill site and set up drill  
Run water line 600 ft. Setup supply pump.  
4 men 11 hrs cat work. 4 hrs.

FOREMAN \_\_\_\_\_ ENGINEER E. D. Gray

Moving in and setting up drill etc.

4 men 11 hrs. @ 7.00 per man hr.

\$508.00 -

Cat charges 4 hrs. @ 15.00 per hr.

60.00 -

Cat operator chgs. included in above

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368.00 -

10 % of 368.00

36.80 -

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\$404.80 -

# NI NEWMAC INDUSTRIES LTD.

DAILY DRILLING REPORT

TELEPHONE: (304) 573-9453  
P.O. 2, BARNHARTVALE, KAMLOOPS, B.C.

COMPANY Explorom LOCATION Horsefly BC  
 START-FROM 8 a.m. To 7 p.m. DATE Aug. 1 / 74  
 HOLE NO. 74-1 ANGLE -45° SIZE BQ DRILL No. 1

DEPTH START OF SHIFT 0.  
 DEPTH END OF SHIFT 46  
 FOOTAGE DRILLED 46  
 CORE RECOVERED 43  
 NUMBER OF RUNS \_\_\_\_\_  
 ROCK FORMATION \_\_\_\_\_

MATERIAL & CHEMICALS, MUD MIXING \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

FEET OF CASING 14.  
 TYPE OF CASING \_\_\_\_\_  
 NEW \_\_\_\_\_ USED \_\_\_\_\_

BITS USED IN OVERBURN NO. \_\_\_\_\_  
 TYPE \_\_\_\_\_

**TIME ALLOTMENT**

DRILLING \_\_\_\_\_  
 CEMENTING \_\_\_\_\_  
 TESTING \_\_\_\_\_  
 MOVING—FROM HOLE \_\_\_\_\_ TO HOLE \_\_\_\_\_  
 SETTING UP \_\_\_\_\_  
 TEARING DOWN \_\_\_\_\_  
 PULLING CASING \_\_\_\_\_  
 TRAVELLING \_\_\_\_\_

**TIME LOSS & DELAY**

MAINTENANCE \_\_\_\_\_  
 REPAIR \_\_\_\_\_  
 WATER \_\_\_\_\_  
 AIR \_\_\_\_\_  
 FISHING \_\_\_\_\_  
 WASHING & CLEANING HOLE \_\_\_\_\_  
 STANDBY \_\_\_\_\_

BIT No. \_\_\_\_\_ ON \_\_\_\_\_ OFF \_\_\_\_\_

TOTAL BIT FOOTAGE \_\_\_\_\_ No. \_\_\_\_\_

RUNNER S. Yarem HRS. 11 S \_\_\_\_\_  
 RUNNER \_\_\_\_\_ HRS. \_\_\_\_\_ S \_\_\_\_\_  
 RUNNER \_\_\_\_\_ HRS. \_\_\_\_\_ S \_\_\_\_\_  
 HELPER J. Graydon HRS. 11 S \_\_\_\_\_  
 HELPER \_\_\_\_\_ HRS. \_\_\_\_\_ S \_\_\_\_\_  
 HELPER \_\_\_\_\_ HRS. \_\_\_\_\_ S \_\_\_\_\_

REMARKS drill in casing to 4ft. rock hard + had to core ahead.

Run casing to 14 ft. to try recover water return from fracture. 10 ft of casing drilling @ 7.00 per ft. \$70.00

FOREMAN \_\_\_\_\_ ENGINEER E. D. Gray



Drilling 0-46 ft.

\$322.00 ✓

Reaming casing 10 ft.

70.00 ✓

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\$392.00 -

# NI NEWMAC INDUSTRIES LTD.

TELEPHONE: (604) 573-8455  
R.R. 2, BARNHARTVALE, KAMLOOPS, B.C.

COMPANY Explorom LOCATION Horsefly BC  
SHIFT FROM 2 a.m. To 10 p.m. DATE Aug 2/74  
HOLE NO. 74-1 ANGLE -45° SIZE B 6 DRILL No. 1

DEPTH START OF SHIFT 46  
DEPTH END OF SHIFT 92  
FOOTAGE DRILLED 46  
CORE RECOVERED 46  
NUMBER OF RUNS \_\_\_\_\_  
ROCK FORMATION Hard & Fractured

FEET OF CASING \_\_\_\_\_  
TYPE OF CASING \_\_\_\_\_  
NEW \_\_\_\_\_ USED \_\_\_\_\_

### TIME ALLOTMENT

DRILLING \_\_\_\_\_  
CEMENTING \_\_\_\_\_  
TESTING \_\_\_\_\_  
MOVING FROM HOLE \_\_\_\_\_ TO HOLE \_\_\_\_\_  
SETTING UP \_\_\_\_\_  
TEARING DOWN \_\_\_\_\_  
PULLING CASING \_\_\_\_\_  
TRAVELLING \_\_\_\_\_

MATERIAL & CHEMICALS, MUD MIXING \_\_\_\_\_  
\_\_\_\_\_

BITS USED IN OVERBURN NO. \_\_\_\_\_  
TYPE \_\_\_\_\_

### TIME LOSS & DELAY

MAINTENANCE \_\_\_\_\_  
REPAIR \_\_\_\_\_  
WATER \_\_\_\_\_  
AIR \_\_\_\_\_  
FISHING \_\_\_\_\_  
WASHING & CLEANING HOLE \_\_\_\_\_  
STANDBY \_\_\_\_\_

BIT No. \_\_\_\_\_ ON \_\_\_\_\_ OFF \_\_\_\_\_

TOTAL BIT FOOTAGE \_\_\_\_\_ No. \_\_\_\_\_

RUNNER W. MacNeil HRS. 8 S \_\_\_\_\_  
RUNNER I HRS. \_\_\_\_\_ S \_\_\_\_\_  
RUNNER \_\_\_\_\_ HRS. \_\_\_\_\_ S \_\_\_\_\_  
HELPER R. Walters HRS. 8 S \_\_\_\_\_  
HELPER \_\_\_\_\_ HRS. \_\_\_\_\_ S \_\_\_\_\_  
HELPER \_\_\_\_\_ HRS. \_\_\_\_\_ S \_\_\_\_\_

REMARKS Slow drilling  
Setup Permanent Camp.  
2 man 5 hrs.

FOREMAN \_\_\_\_\_ ENGINEER E. D. Cross

Drilling 46 - 92 ft. - 45 ft.  
Setting up camp 2 men 5 hrs.

\$522.00 -

70.00 -

592.00

7.00

\$399.00 -

IO \$ of 70.00

TELEPHONE: (604) 573-5455  
P.R. 2, BARNHARTVALE, KAMLOOPS, B.C.

COMPANY Capleram LOCATION Horsefly BC.  
 SHIFT—FROM \_\_\_\_\_ a.m. To \_\_\_\_\_ p.m. DATE Aug 2/74  
 HOLE NO. 441 ANGLE -45° SIZE BQ DRILL No. 1

DEPTH START OF SHIFT 92-  
 DEPTH END OF SHIFT 152  
 FOOTAGE DRILLED 60  
 CORE RECOVERED 60  
 NUMBER OF RUNS \_\_\_\_\_  
 ROCK FORMATION \_\_\_\_\_

MATERIAL & CHEMICALS, MUD MIXING \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

FEET OF CASING \_\_\_\_\_  
 TYPE OF CASING \_\_\_\_\_  
 NEW \_\_\_\_\_ USED \_\_\_\_\_

BITS USED IN OVERBURN NO. \_\_\_\_\_  
 TYPE \_\_\_\_\_

**TIME ALLOTMENT**

**TIME LOSS & DELAY**

DRILLING \_\_\_\_\_  
 CEMENTING \_\_\_\_\_  
 TESTING \_\_\_\_\_  
 MOVING—FROM HOLE \_\_\_\_\_ TO HOLE \_\_\_\_\_  
 SETTING UP \_\_\_\_\_  
 TEARING DOWN \_\_\_\_\_  
 PULLING CASING \_\_\_\_\_  
 TRAVELLING \_\_\_\_\_

MAINTENANCE \_\_\_\_\_  
 REPAIR \_\_\_\_\_  
 WATER \_\_\_\_\_  
 AIR \_\_\_\_\_  
 FISHING \_\_\_\_\_  
 WASHING & CLEANING HOLE \_\_\_\_\_  
 STANDBY \_\_\_\_\_

BIT No. M5R2106ON 03 OFF 116  
 TOTAL BIT FOOTAGE 113 No. \_\_\_\_\_

RUNNER Syrrama HRS. 2.9 S \_\_\_\_\_  
 RUNNER \_\_\_\_\_ HRS. \_\_\_\_\_ S \_\_\_\_\_  
 RUNNER \_\_\_\_\_ HRS. \_\_\_\_\_ S \_\_\_\_\_

HELPER S Graydon HRS. 9 S \_\_\_\_\_  
 HELPER \_\_\_\_\_ HRS. \_\_\_\_\_ S \_\_\_\_\_  
 HELPER \_\_\_\_\_ HRS. \_\_\_\_\_ S \_\_\_\_\_

REMARKS Pull rod to change bit at 116 ft.  
Had to ream & clean case in hole from  
13 ft to 116 - 103 ft.  
2 men 2 hrs reaming & washing hole.

FOREMAN \_\_\_\_\_ ENGINEER E. A. Cunn

Drilling 90 - 152 ft. — 60 ft.  
Reaming and cleaning hole 2 men 2 hrs.

\$420.00 -

28.00 -

---

448.00 -

10 % of 28.00

2.80 -

---

\$450.80 -

TELEPHONE: (504) 973-5455  
P. O. 21, SAARNAATAVALE, KAMLOOPS, B.C.

COMPANY *Geopetroleum*

SHIFT FROM 6 a.m. To 2

WELL NO. *74-1* ANGLE *-45°* SIZE *B 9* DRILL NO. *1*

LOCATION *Idesofly Br.*

DATE *Aug 3/74*

MATERIAL & CHEMICALS, MUD MIXING

DEPTH START OF SHIFT *152*

DEPTH END OF SHIFT *184*

FOOTAGE DRILLED *32*

CORE RECOVERED *32*

NUMBER OF RUNS *50 ft*

ROCK FORMATION *fault zone*

DEPTH OF CASING

TYPE OF CASING

NEW USED

TIME ALLOTMENT

DRILLING

VENTING

TESTING

MOVING FROM HOLE TO HOLE

SETTING UP

BEARING DOWN

TRILING CASING

TRAVELLING

RUNNER *2*

HRS *8*

S

RUNNER

HRS

S

RUNNER

HRS

S

RUNNER

HRS

S

HELPER *Rudolph* HRS *8*

HELPER HRS

HELPER HRS

HELPER HRS

REMARKS *Hit fault zone had to work + clean hole for 3 hrs. 2m 3 hrs.*

*Sheet runs to review all possible here as it leads to work out. put work on fault next 3 1/2 hrs. E.A. Gm*

ENGINEER

FOREMAN

Drilling I52 - I84 -- 32 ft.		\$224.00
Wash and clean hole 3 hrs. @ 7.00 per man hr.	42.00	-
Lat work 5½ hrs. @ 15.00 per hr.	52.50	-
Lat operator 3½ hrs. @ 7.00 per hr.	24.50	-
	<hr/>	
	119.00	-
10 % of 119.00	11.90	-
	<hr/>	
	130.90	130.90
		<hr/>
		\$354.90

# NI NEWMAC INDUSTRIES LTD.

DAILY DRILLING REPORT

TELEPHONE: (604) 573-5455  
P.R. 2, BARNHARTVALE, KAMLOOPS, B.C.

COMPANY *Keoplam*

LOCATION *Aug 3/74*

SHIFT-FROM *2* a.m. To *10* p.m.

DATE *Horsefly*

HOLE NO. *74-1* ANGLE *-45°*

SIZE *BQ* DRILL No. *1*

DEPTH START OF SHIFT *184*

DEPTH END OF SHIFT *234*

FOOTAGE DRILLED *50*

CORE RECOVERED *50*

NUMBER OF RUNS

ROCK FORMATION

MATERIAL & CHEMICALS, MUD MIXING

BITS USED IN OVERBURN NO.

TYPE

### TIME LOSS & DELAY

MAINTENANCE

REPAIR

WATER

AIR

FISHING

WASHING & CLEANING HOLE

STANDBY

### TIME ALLOTMENT

DRILLING

CEMENTING

TESTING

MOVING-FROM HOLE TO HOLE

SETTING UP

TEARING DOWN

PULLING CASING

TRAVELLING

BIT No. ON OFF

TOTAL BIT FOOTAGE No.

RUNNER *J. Yama* HRS. *8* S

RUNNER HRS. S

RUNNER HRS. S

REMARKS *Hard rock*

HELPER *D. Graydon* HRS. *8* S

HELPER HRS. S

HELPER HRS. S

FOREMAN

ENGINEER *E. A. Gray*



Drilling 134 - 234 ft. — 50 ft.

\$550.00

# NI NEWMAC INDUSTRIES LTD.

TELEPHONE: (604) 573-5435  
P.O. 2, BARNHARTVALE, KAMLOOPS, B.C.

COMPANY Exploran LOCATION Horsely BC  
 START FROM 6 a.m. To 2 p.m. DATE Aug 4/74  
 HOLE NO. 74-1 ANGLE 45° SIZE Bφ DRILL No. 1

DEPTH START OF SHIFT 234  
 DEPTH END OF SHIFT 289  
 FOOTAGE DRILLED 55  
 CORE RECOVERED 55  
 NUMBER OF RUNS \_\_\_\_\_  
 ROCK FORMATION \_\_\_\_\_

MATERIAL & CHEMICALS, MUD MIXING \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

FEET OF CASING \_\_\_\_\_  
 TYPE OF CASING \_\_\_\_\_  
 NEW \_\_\_\_\_ USED \_\_\_\_\_

BITS USED IN OVERBURN NO. \_\_\_\_\_  
 TYPE \_\_\_\_\_

TIME ALLOTMENT

DRILLING \_\_\_\_\_  
 CEMENTING \_\_\_\_\_  
 TESTING \_\_\_\_\_  
 MOVING FROM HOLE \_\_\_\_\_ TO HOLE \_\_\_\_\_  
 SETTING UP \_\_\_\_\_  
 TEARING DOWN \_\_\_\_\_  
 PULLING CASING \_\_\_\_\_  
 TRAVELLING \_\_\_\_\_

TIME LOSS & DELAY

MAINTENANCE \_\_\_\_\_  
 REPAIR \_\_\_\_\_  
 WATER \_\_\_\_\_  
 AIR \_\_\_\_\_  
 FISHING \_\_\_\_\_  
 WASHING & CLEANING HOLE \_\_\_\_\_  
 STANDBY \_\_\_\_\_

BIT No. MSR 2104 ON 116 OFF 288  
 TOTAL BIT FOOTAGE 172 No. 2

RUNNER J MacPhee HRS. 8 S \_\_\_\_\_  
 RUNNER \_\_\_\_\_ HRS. \_\_\_\_\_ S \_\_\_\_\_  
 RUNNER \_\_\_\_\_ HRS. \_\_\_\_\_ S \_\_\_\_\_

HELPER R. Walters HRS. 8 S \_\_\_\_\_  
 HELPER \_\_\_\_\_ HRS. \_\_\_\_\_ S \_\_\_\_\_  
 HELPER \_\_\_\_\_ HRS. \_\_\_\_\_ S \_\_\_\_\_

REMARKS Pull rods and change bit.  
Ream & wash case in hole 2 hrs 2 men.  
at work on road 3 hrs.

FOREMAN \_\_\_\_\_

ENGINEER A. A. Cunn

Drilling 24-289 55 ft.  
Washing cave and reaming  
Cat work 3 hours at \$15.00  
Cat operator 3 hours at \$7.00

\$28.00 -  
45.00 -  
21.00 -

\$385.00 -

10% of \$94.00 9.40

94.00 -  
9.40 -

\$103.40 -

\$103.40 -

\$488.40 -

# NI NEWMAC INDUSTRIES LTD.

DAILY DRILLING REPORT

TELEPHONE: (504) 573-5485  
R.R. 2, BARNHARTVALE, KAMLOOPS, B.C.

COMPANY Caplacem LOCATION Horsely BC  
 SHIFT-FROM 2 a.m. To 10 p.m. DATE Aug 27/74  
 HOLE NO. 74-1 ANGLE -45° SIZE B 1/4 DRILL No. 1

DEPTH START OF SHIFT 289  
 DEPTH END OF SHIFT 372  
 FOOTAGE DRILLED 83  
 CORE RECOVERED 83  
 NUMBER OF RUNS \_\_\_\_\_  
 ROCK FORMATION \_\_\_\_\_

MATERIAL & CHEMICALS, MUD MIXING \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

FEET OF CASING \_\_\_\_\_  
 TYPE OF CASING \_\_\_\_\_  
 NEW \_\_\_\_\_ USED \_\_\_\_\_

BITS USED IN OVERBURN NO. \_\_\_\_\_  
 TYPE \_\_\_\_\_

**TIME ALLOTMENT**

DRILLING \_\_\_\_\_  
 CEMENTING \_\_\_\_\_  
 TESTING \_\_\_\_\_  
 MOVING-FROM HOLE \_\_\_\_\_ TO HOLE \_\_\_\_\_  
 SETTING UP \_\_\_\_\_  
 TEARING DOWN \_\_\_\_\_  
 PULLING CASING \_\_\_\_\_  
 TRAVELLING \_\_\_\_\_

**TIME LOSS & DELAY**

MAINTENANCE \_\_\_\_\_  
 REPAIR \_\_\_\_\_  
 WATER \_\_\_\_\_  
 AIR \_\_\_\_\_  
 FISHING \_\_\_\_\_  
 WASHING & CLEANING HOLE \_\_\_\_\_  
 STANDBY \_\_\_\_\_

BIT No. \_\_\_\_\_ ON \_\_\_\_\_ OFF \_\_\_\_\_

TOTAL BIT FOOTAGE \_\_\_\_\_ No: \_\_\_\_\_

RUNNER Suprema HRS. 8 S \_\_\_\_\_  
 RUNNER \_\_\_\_\_ HRS. \_\_\_\_\_ S \_\_\_\_\_  
 RUNNER \_\_\_\_\_ HRS. \_\_\_\_\_ S \_\_\_\_\_

HELPER S. Hayden HRS. 8 S \_\_\_\_\_  
 HELPER \_\_\_\_\_ HRS. \_\_\_\_\_ S \_\_\_\_\_  
 HELPER \_\_\_\_\_ HRS. \_\_\_\_\_ S \_\_\_\_\_

REMARKS Good drilling

FOREMAN \_\_\_\_\_

ENGINEER E. A. Cross

Drilling from 289 to 372 83ft.

\$581.00

581.00

# NI NEWMAC INDUSTRIES LTD.

DAILY DRILLING REPORT

TELEPHONE: (604) 573-5455  
P.O. 2, SAENHARTVALE, KAMLOOPS, B.C.

COMPANY Explorom LOCATION Idersely, B.C.  
 SHIFT FROM 6 a.m. To 2 p.m. DATE Aug 5/74  
 HOLE NO. 44-1 ANGLE -45° SIZE BØ DRILL No. 1

DEPTH START OF SHIFT 372  
 DEPTH END OF SHIFT 463.5  
 FOOTAGE DRILLED 91-1/2  
 CORE RECOVERED 91 1/2  
 NUMBER OF RUNS \_\_\_\_\_  
 ROCK FORMATION \_\_\_\_\_

MATERIAL & CHEMICALS, MUD MIXING

BITS USED IN OVERBURN NO. \_\_\_\_\_  
 TYPE \_\_\_\_\_

FEET OF CASING \_\_\_\_\_  
 TYPES OF CASING \_\_\_\_\_  
 NEW \_\_\_\_\_ USED \_\_\_\_\_

TIME LOSS & DELAY

TIME ALLOTMENT

DRILLING \_\_\_\_\_  
 CEMENTING \_\_\_\_\_  
 TESTING \_\_\_\_\_  
 MOVING—FROM HOLE \_\_\_\_\_ TO HOLE \_\_\_\_\_  
 SETTING UP \_\_\_\_\_  
 TEARING DOWN \_\_\_\_\_  
 PULLING CASING \_\_\_\_\_  
 TRAVELLING \_\_\_\_\_

MAINTENANCE \_\_\_\_\_  
 REPAIR \_\_\_\_\_  
 WATER \_\_\_\_\_  
 AIR \_\_\_\_\_  
 FISHING \_\_\_\_\_  
 WASHING & CLEANING HOLE \_\_\_\_\_  
 STANDBY \_\_\_\_\_

BIT No. \_\_\_\_\_ ON \_\_\_\_\_ OFF \_\_\_\_\_

TOTAL BIT FOOTAGE \_\_\_\_\_ No. \_\_\_\_\_

RUNNER J. MacNeil HRS. 8 S \_\_\_\_\_  
 RUNNER \_\_\_\_\_ HRS. \_\_\_\_\_ S \_\_\_\_\_  
 RUNNER \_\_\_\_\_ HRS. \_\_\_\_\_ S \_\_\_\_\_

HELPER R. Walton HRS. 8 S \_\_\_\_\_  
 HELPER \_\_\_\_\_ HRS. \_\_\_\_\_ S \_\_\_\_\_  
 HELPER \_\_\_\_\_ HRS. \_\_\_\_\_ S \_\_\_\_\_

REMARKS Good Chilling

pat work on South road. clear trees and build creek crossing. 3 hrs.

FOREMAN \_\_\_\_\_

ENGINEER G. R. Grant

Drilling 372-4638 91½ ft.  
3 hours cat work at \$15.00  
3 hours cat operator at \$7.00

10% of \$66.00 \$6.60

\$640.50 -  
\$45.00 -  
21.00 -  

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66.00 -  
6.60 -  

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\$72.60 -  
\$713.10 -

**NI NEWMAC** INDUSTRIES LTD.

TELEPHONE: (504) 573-5455  
 P.O. 2, EARNHARTVALE, KAMLOOPS, B.C.

COMPANY Kaplan LOCATION Dawson Cr.  
 SHIFT FROM 2 a.m. To 10 p.m. DATE Aug 5 1974  
 HOLE NO. 74-1 ANGLE -45° SIZE BQ DRILL No. 1

DEPTH START OF SHIFT 463 1/2  
 DEPTH END OF SHIFT 565 1/2  
 FOOTAGE DRILLED 102  
 CORE RECOVERED 102  
 NUMBER OF RUNS \_\_\_\_\_  
 ROCK FORMATION \_\_\_\_\_

MATERIAL & CHEMICALS, MUD MIXING \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

FEET OF CASING \_\_\_\_\_  
 TYPE OF CASING \_\_\_\_\_  
 NEW \_\_\_\_\_ USED \_\_\_\_\_

BITS USED IN OVERBURN NO. \_\_\_\_\_  
 TYPE \_\_\_\_\_

TIME ALLOTMENT  
 DRILLING \_\_\_\_\_  
 CEMENTING \_\_\_\_\_  
 TESTING \_\_\_\_\_  
 MOVING FROM HOLE \_\_\_\_\_ TO HOLE \_\_\_\_\_  
 SETTING UP \_\_\_\_\_  
 TEARING DOWN \_\_\_\_\_  
 PULLING CASING \_\_\_\_\_  
 TRAVELLING \_\_\_\_\_

TIME LOSS & DELAY  
 MAINTENANCE \_\_\_\_\_  
 REPAIR \_\_\_\_\_  
 WATER \_\_\_\_\_  
 AIR \_\_\_\_\_  
 FISHING \_\_\_\_\_  
 WASHING & CLEANING HOLE \_\_\_\_\_  
 STANDBY \_\_\_\_\_

RUNNER S. Yerman HRS. 8 S \_\_\_\_\_  
 RUNNER \_\_\_\_\_ HRS. \_\_\_\_\_ S \_\_\_\_\_  
 RUNNER \_\_\_\_\_ HRS. \_\_\_\_\_ S \_\_\_\_\_

BIT No. \_\_\_\_\_ ON \_\_\_\_\_ OFF \_\_\_\_\_  
 TOTAL BIT FOOTAGE \_\_\_\_\_ No. \_\_\_\_\_  
 HELPER S. Dreyer HRS. 8 S \_\_\_\_\_  
 HELPER \_\_\_\_\_ HRS. \_\_\_\_\_ S \_\_\_\_\_  
 HELPER \_\_\_\_\_ HRS. \_\_\_\_\_ S \_\_\_\_\_

REMARKS \_\_\_\_\_

FOREMAN \_\_\_\_\_

ENGINEER E. A. C. [Signature]



Drilling 4638-5658

102ft.

\$714.00

# NI NEWMAC INDUSTRIES LTD.

DAILY DRILLING REPORT

TELEPHONE: (604) 573-5455  
P.R. 2, BARNHARTVALE, KAMLOOPS, B.C.

COMPANY Explorac LOCATION Site #2 Horseyly  
 SHIFT FROM 6 a.m. To 10 p.m. DATE Aug 6  
 HOLE NO. 74-1 ANGLE 45° SIZE BQ DRILL No. 1

DEPTH START OF SHIFT 565 1/2  
 DEPTH END OF SHIFT 620  
 FOOTAGE DRILLED 54 1/2  
 CORE RECOVERED 54 1/2  
 NUMBER OF RUNS \_\_\_\_\_  
 ROCK FORMATION \_\_\_\_\_

FEET OF CASING \_\_\_\_\_  
 TYPE OF CASING \_\_\_\_\_  
 NEW \_\_\_\_\_ USED \_\_\_\_\_

**TIME ALLOTMENT**

DRILLING \_\_\_\_\_  
 CEMENTING \_\_\_\_\_  
 TESTING \_\_\_\_\_  
 MOVING—FROM HOLE \_\_\_\_\_ TO HOLE \_\_\_\_\_  
 SETTING UP \_\_\_\_\_  
 TEARING DOWN \_\_\_\_\_  
 PULLING CASING \_\_\_\_\_  
 TRAVELLING \_\_\_\_\_

RUNNER J MacLus HRS. 8 S \_\_\_\_\_  
 RUNNER \_\_\_\_\_ HRS. \_\_\_\_\_ S \_\_\_\_\_  
 RUNNER \_\_\_\_\_ HRS. \_\_\_\_\_ S \_\_\_\_\_

REMARKS

MATERIAL & CHEMICALS, MUD MIXING \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

BITS USED IN OVERBURN NO. \_\_\_\_\_  
 TYPE \_\_\_\_\_

**TIME LOSS & DELAY**

MAINTENANCE \_\_\_\_\_  
 REPAIR \_\_\_\_\_  
 WATER \_\_\_\_\_  
 AIR \_\_\_\_\_  
 FISHING \_\_\_\_\_  
 WASHING & CLEANING HOLE \_\_\_\_\_  
 STANDBY \_\_\_\_\_

BIT No. \_\_\_\_\_ ON \_\_\_\_\_ OFF \_\_\_\_\_

TOTAL BIT FOOTAGE \_\_\_\_\_ No. \_\_\_\_\_

HELPER R Waters HRS. \_\_\_\_\_ S \_\_\_\_\_  
 HELPER \_\_\_\_\_ HRS. \_\_\_\_\_ S \_\_\_\_\_  
 HELPER \_\_\_\_\_ HRS. \_\_\_\_\_ S \_\_\_\_\_

*Lat work on road to site #2 and road to site #2 - 4 hrs.*

FOREMAN \_\_\_\_\_

ENGINEER E. D. Gray

Drilling 565g-620 54ft.  
Cat work 4 hours at 15.00  
Cat operator 4 hours at 7.00  
10% of 88.00 8.80

381.50 -  
360.00 -  
21.00 -  

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205.00 -  
8.80 -  

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196.20 -  
196.80 -  

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478.30 -

# NI NEWMAC INDUSTRIES LTD.

DAILY DRILLING REPORT

TELEPHONE: (604) 573-5455  
 P.O. 2, BURNHARTVALE, KAMLOOPS, B.C.

COMPANY Explosives LOCATION Horsefly BC  
 SHIFT FROM 7:20 p.m. To 10 p.m. DATE Aug 6/74  
 HOLE NO. 72-1 ANGLE -45° SIZE BK DRILL No. 1

DEPTH START OF SHIFT 620  
 DEPTH END OF SHIFT 692  
 FOOTAGE DRILLED 72  
 CORE RECOVERED 72  
 NUMBER OF RUNS \_\_\_\_\_

ROCK FORMATION Volcanic  
Hard drilling

FEET OF CASING \_\_\_\_\_  
 TYPE OF CASING \_\_\_\_\_  
 NEW \_\_\_\_\_ USED \_\_\_\_\_

**TIME ALLOTMENT**

DRILLING \_\_\_\_\_  
 CEMENTING \_\_\_\_\_  
 TESTING \_\_\_\_\_  
 MOVING FROM HOLE \_\_\_\_\_ TO HOLE \_\_\_\_\_  
 SETTING UP \_\_\_\_\_  
 TEARING DOWN \_\_\_\_\_  
 PULLING CASING \_\_\_\_\_  
 TRAVELLING \_\_\_\_\_

RUNNER Sydney HRS. 8 S \_\_\_\_\_  
 RUNNER \_\_\_\_\_ HRS. \_\_\_\_\_ S \_\_\_\_\_  
 RUNNER \_\_\_\_\_ HRS. \_\_\_\_\_ S \_\_\_\_\_  
 REMARKS \_\_\_\_\_

MATERIAL & CHEMICALS, MUD MIXING \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

BITS USED IN OVERBURN NO. \_\_\_\_\_  
 TYPE \_\_\_\_\_

**TIME LOSS & DELAY**

MAINTENANCE \_\_\_\_\_  
 REPAIR \_\_\_\_\_  
 WATER \_\_\_\_\_  
 AIR \_\_\_\_\_  
 FISHING \_\_\_\_\_  
 WASHING & CLEANING HOLE \_\_\_\_\_  
 STANDBY \_\_\_\_\_

BIT No. \_\_\_\_\_ ON \_\_\_\_\_ OFF \_\_\_\_\_

TOTAL BIT FOOTAGE \_\_\_\_\_ No. \_\_\_\_\_

HELPER S. Graydon HRS. 8 S \_\_\_\_\_  
 HELPER \_\_\_\_\_ HRS. \_\_\_\_\_ S \_\_\_\_\_  
 HELPER \_\_\_\_\_ HRS. \_\_\_\_\_ S \_\_\_\_\_

FOREMAN \_\_\_\_\_

ENGINEER F. A. Cross

Drilling 620-692ft. 72ft.

\$ 504.00 -

# NI NEWMAC INDUSTRIES LTD.

DAILY DRILLING REPORT

TELEPHONE: (604) 573-5435  
R.R. 2, BARNHARTVALE, KAMLOOPS, B.C.

COMPANY Keppel LOCATION Horseshy Bl  
 SHIFT—FROM 6 a.m. To 10 p.m. DATE Aug 7/74  
 HOLE NO. 741 ANGLE -45° SIZE Bφ DRILL No. 1

DEPTH START OF SHIFT 692  
 DEPTH END OF SHIFT 730  
 FOOTAGE DRILLED 38  
 CORE RECOVERED 38  
 NUMBER OF RUNS \_\_\_\_\_  
 ROCK FORMATION \_\_\_\_\_

MATERIAL & CHEMICALS, MUD MIXING \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

FEET OF CASING \_\_\_\_\_  
 TYPE OF CASING \_\_\_\_\_  
 NEW \_\_\_\_\_ USED \_\_\_\_\_

BITS USED IN OVERBURN NO. \_\_\_\_\_  
 TYPE \_\_\_\_\_

**TIME ALLOTMENT**  
 DRILLING \_\_\_\_\_  
 CEMENTING \_\_\_\_\_  
 TESTING \_\_\_\_\_  
 MOVING—FROM HOLE \_\_\_\_\_ TO HOLE \_\_\_\_\_  
 SETTING UP \_\_\_\_\_  
 TEARING DOWN \_\_\_\_\_  
 PULLING CASING \_\_\_\_\_  
 TRAVELLING \_\_\_\_\_

**TIME LOSS & DELAY**  
 MAINTENANCE \_\_\_\_\_  
 REPAIR \_\_\_\_\_  
 WATER \_\_\_\_\_  
 AIR \_\_\_\_\_  
 FISHING \_\_\_\_\_  
 WASHING & CLEANING HOLE \_\_\_\_\_  
 STANDBY \_\_\_\_\_

BIT No. \_\_\_\_\_ ON \_\_\_\_\_ OFF \_\_\_\_\_

TOTAL BIT FOOTAGE \_\_\_\_\_ No. \_\_\_\_\_

RUNNER J. MacNeil HRS. 6 S \_\_\_\_\_  
 RUNNER \_\_\_\_\_ HRS. \_\_\_\_\_ S \_\_\_\_\_  
 RUNNER \_\_\_\_\_ HRS. \_\_\_\_\_ S \_\_\_\_\_  
 REMARKS \_\_\_\_\_

HELPER R. Walter HRS. 6 S \_\_\_\_\_  
 HELPER \_\_\_\_\_ HRS. \_\_\_\_\_ S \_\_\_\_\_  
 HELPER \_\_\_\_\_ HRS. \_\_\_\_\_ S \_\_\_\_\_

FOREMAN \_\_\_\_\_

ENGINEER C. D. Grant

Drilling 692-730ft.

38ft.

\$266.00 -

TELEPHONE: (504) 573-5455

P.O. 2, BARNHARTVALE, KAMLOOOPS, B.C.

COMPANY Esphocem LOCATION Horseshy B.C.

FROM 0 a.m. To 0 p.m. DATE Aug 7/74

HOLE NO. 74-1 ANGLE 45° SIZE B 6 DRILL No. 1

DEPTH START OF SHIFT 730  
 DEPTH END OF SHIFT 750  
 FOOTAGE DRILLED 20  
 CORE RECOVERED 20  
 NUMBER OF RUNS \_\_\_\_\_  
 ROCK FORMATION \_\_\_\_\_

MATERIAL & CHEMICALS, MUD MIXING \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

FEET OF CASING \_\_\_\_\_  
 TYPE OF CASING \_\_\_\_\_  
 NEW \_\_\_\_\_ USED \_\_\_\_\_

BITS USED IN OVERBURN NO. \_\_\_\_\_  
 TYPE \_\_\_\_\_

TIME ALLOTMENT

DRILLING \_\_\_\_\_  
 CEMENTING \_\_\_\_\_  
 TESTING \_\_\_\_\_  
 MOVING—FROM HOLE \_\_\_\_\_ TO HOLE \_\_\_\_\_  
 SETTING UP \_\_\_\_\_  
 BEARING DOWN \_\_\_\_\_  
 PULLING CASING \_\_\_\_\_  
 TRAVELLING \_\_\_\_\_

TIME LOSS & DELAY

MAINTENANCE \_\_\_\_\_  
 REPAIR \_\_\_\_\_  
 WATER \_\_\_\_\_  
 AIR \_\_\_\_\_  
 FISHING \_\_\_\_\_  
 WASHING & CLEANING HOLE \_\_\_\_\_  
 STANDBY \_\_\_\_\_

RUNNER S. Yarnas HRS. 8 S \_\_\_\_\_  
 RUNNER MacNeil HRS. 8 S \_\_\_\_\_  
 RUNNER \_\_\_\_\_ HRS. \_\_\_\_\_ S \_\_\_\_\_

BIT No. \_\_\_\_\_ ON \_\_\_\_\_ OFF \_\_\_\_\_

TOTAL BIT FOOTAGE \_\_\_\_\_ No. \_\_\_\_\_

HELPER S. Hayden HRS. 8 S \_\_\_\_\_  
 HELPER R. Walters HRS. 8 S \_\_\_\_\_  
 HELPER \_\_\_\_\_ HRS. \_\_\_\_\_ S \_\_\_\_\_

REMARKS Finished Hole.  
Tore down set up moved & Reset for hole 74-2  
2 men moving etc. 5 1/2 hrs.  
cat work leveling site & moving drill 2 hrs.

FOREMAN Jenn ENGINEER E.A. Gray



Drilling 750-750 20ft. \$140.00 -  
4 men moving drill 5 1/2 hours at \$7.00 per man hr.

Cat charges \$154.00 -  
operator chgs included in morning 30.00 -  
drilling. \_\_\_\_\_

10% \$184.00 \$184.00 -  
18.40 -  
\_\_\_\_\_

\$202.40 - \$202.40 -  
\_\_\_\_\_

\$342.40 -

# NI NEWMAC INDUSTRIES LTD.

DAILY DRILLING REPORT

TELEPHONE: (604) 573-5453  
R.F. 2, BARNHARTVALE, KAMLOOPS, B.C.

COMPANY Reaper LOCATION Harsetly BC  
 SHIFT-FROM \_\_\_\_\_ a.m. To \_\_\_\_\_ p.m. DATE Aug 2/74  
 HOLE NO. 74-2 ANGLE -45° SIZE B 4 DRILL No. 1

DEPTH START OF SHIFT 0  
 DEPTH END OF SHIFT 23  
 FOOTAGE DRILLED 23  
 CORE RECOVERED 14  
 NUMBER OF RUNS \_\_\_\_\_  
 ROCK FORMATION Broken & hard

FEET OF CASING 09  
 TYPE OF CASING BW  
 NEW \_\_\_\_\_ USED

**TIME ALLOTMENT**

DRILLING 8  
 CEMENTING \_\_\_\_\_  
 TESTING \_\_\_\_\_  
 MOVING-FROM HOLE \_\_\_\_\_ TO HOLE \_\_\_\_\_  
 SETTING UP \_\_\_\_\_  
 TEARING DOWN \_\_\_\_\_  
 PULLING CASING \_\_\_\_\_  
 TRAVELLING \_\_\_\_\_

MATERIAL & CHEMICALS, MUD MIXING \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

BITS USED IN OVERBURN NO. \_\_\_\_\_  
 TYPE \_\_\_\_\_  
 \_\_\_\_\_

**TIME LOSS & DELAY**

MAINTENANCE \_\_\_\_\_  
 REPAIR \_\_\_\_\_  
 WATER \_\_\_\_\_  
 AIR \_\_\_\_\_  
 FISHING \_\_\_\_\_  
 WASHING & CLEANING HOLE \_\_\_\_\_  
 STANDBY \_\_\_\_\_

BIT No. \_\_\_\_\_ ON \_\_\_\_\_ OFF \_\_\_\_\_  
 \_\_\_\_\_  
 TOTAL BIT FOOTAGE \_\_\_\_\_ No. \_\_\_\_\_

RUNNER <u>S. Yerman</u> HRS. <u>8</u> S _____	HELPER <u>3 Graydon</u> HRS. <u>8</u> S _____
RUNNER _____ HRS. _____ S _____	HELPER _____ HRS. _____ S _____
RUNNER _____ HRS. _____ S _____	HELPER _____ HRS. _____ S _____

REMARKS

Run in casing to 9 ft and had to drill ahead

FOREMAN \_\_\_\_\_ ENGINEER N. D. Grant

Drilling C-23ft.

\$161.00 -

TELEPHONE: (604) 573-5455  
P.O. 2, BARNHARTVALE, KAMLOOPS, B.C.

COMPANY Exp. Services LOCATION Horonofly BC  
 SHIFT FROM \_\_\_\_\_ a.m. To \_\_\_\_\_ p.m. DATE Aug 11/74  
 HOLE NO. 74-2 ANGLE -45° SIZE B 9 DRILL No. 1

DEPTH START OF SHIFT 23  
 DEPTH END OF SHIFT 33  
 FOOTAGE DRILLED \_\_\_\_\_  
 CORE RECOVERED \_\_\_\_\_  
 NUMBER OF RUNS \_\_\_\_\_  
 ROCK FORMATION \_\_\_\_\_

MATERIAL & CHEMICALS, MUD MIXING  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

FEET OF CASING From 9 ft to 14 ft.  
 TYPE OF CASING B.W.  
 NEW \_\_\_\_\_ USED

BITS USED IN OVERBURN NO. \_\_\_\_\_  
 TYPE \_\_\_\_\_

**TIME ALLOTMENT**

**TIME LOSS & DELAY**

DRILLING \_\_\_\_\_  
 CEMENTING \_\_\_\_\_  
 TESTING \_\_\_\_\_  
 MOVING—FROM HOLE \_\_\_\_\_ TO HOLE \_\_\_\_\_  
 SETTING UP \_\_\_\_\_  
 TEARING DOWN \_\_\_\_\_  
 PULLING CASING \_\_\_\_\_  
 TRAVELLING \_\_\_\_\_

MAINTENANCE \_\_\_\_\_  
 REPAIR \_\_\_\_\_  
 WATER \_\_\_\_\_  
 AIR \_\_\_\_\_  
 FISHING \_\_\_\_\_  
 WASHING & CLEANING HOLE \_\_\_\_\_  
 STANDBY \_\_\_\_\_

BIT No. \_\_\_\_\_ ON \_\_\_\_\_ OFF \_\_\_\_\_  
 TOTAL BIT FOOTAGE \_\_\_\_\_ No. \_\_\_\_\_

RUNNER S. Yonema HRS. 8 S \_\_\_\_\_  
 RUNNER \_\_\_\_\_ HRS. \_\_\_\_\_ S \_\_\_\_\_  
 RUNNER \_\_\_\_\_ HRS. \_\_\_\_\_ S \_\_\_\_\_

HELPER S. Hayden HRS. 8 S \_\_\_\_\_  
 HELPER \_\_\_\_\_ HRS. \_\_\_\_\_ S \_\_\_\_\_  
 HELPER \_\_\_\_\_ HRS. \_\_\_\_\_ S \_\_\_\_\_

REMARKS

Reamed casing down to 14 ft.  
Casing jammed in hole & broke off 3 ft from  
Surface  
3 hrs fishing to recover casing

FOREMAN \_\_\_\_\_

ENGINEER E. D. Green

Drilling 25-33ft. 10ft.  
Reaming casing 9-14ft. 5ft.  
Fishing casing

\$ 70.00 -  
35.00 -  

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\$70.00 -

10% of \$70.00

7.00 -  

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\$105.00 -

\$77.00 -  

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\$77.00 -

\$182.00 -

# NI NEWMAC INDUSTRIES LTD.

TELEPHONE: (604) 573-5455  
P.O. 2, BARNHARTVALE, KAMLOOPS, B.C.

COMPANY Exploration LOCATION Horseshoe Bay B.C.  
SHIFT—FROM \_\_\_\_\_ a.m. To \_\_\_\_\_ p.m. DATE Aug 12 / 74  
HOLE NO. 44-2 ANGLE -45° SIZE Bφ DRILL No. 1

DEPTH START OF SHIFT 33  
DEPTH END OF SHIFT 80  
FOOTAGE DRILLED 47  
CORE RECOVERED 47  
NUMBER OF RUNS \_\_\_\_\_  
ROCK FORMATION \_\_\_\_\_

MATERIAL & CHEMICALS, MUD MIXING \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

FEET OF CASING \_\_\_\_\_  
TYPE OF CASING \_\_\_\_\_  
NEW \_\_\_\_\_ USED \_\_\_\_\_

BITS USED IN OVERBURN NO. \_\_\_\_\_  
TYPE \_\_\_\_\_

### TIME ALLOTMENT

DRILLING \_\_\_\_\_  
CEMENTING \_\_\_\_\_  
TESTING \_\_\_\_\_  
MOVING—FROM HOLE \_\_\_\_\_ TO HOLE \_\_\_\_\_  
SETTING UP \_\_\_\_\_  
TEARING DOWN \_\_\_\_\_  
PULLING CASING \_\_\_\_\_  
TRAVELLING \_\_\_\_\_

### TIME LOSS & DELAY

MAINTENANCE \_\_\_\_\_  
REPAIR \_\_\_\_\_  
WATER \_\_\_\_\_  
AIR \_\_\_\_\_  
FISHING \_\_\_\_\_  
WASHING & CLEANING HOLE \_\_\_\_\_  
STANDBY \_\_\_\_\_

BIT No. \_\_\_\_\_ ON \_\_\_\_\_ OFF \_\_\_\_\_

TOTAL BIT FOOTAGE \_\_\_\_\_ No. \_\_\_\_\_

RUNNER S. Symon HRS. 8 S \_\_\_\_\_  
RUNNER \_\_\_\_\_ HRS. \_\_\_\_\_ S \_\_\_\_\_  
RUNNER \_\_\_\_\_ HRS. \_\_\_\_\_ S \_\_\_\_\_

HELPER S. Symon HRS. 8 S \_\_\_\_\_  
HELPER \_\_\_\_\_ HRS. \_\_\_\_\_ S \_\_\_\_\_  
HELPER \_\_\_\_\_ HRS. \_\_\_\_\_ S \_\_\_\_\_

REMARKS Pull rods and change bit  
Ream and wash crew in hole for 1 hr.

FOREMAN \_\_\_\_\_

ENGINEER E. R. Grant

Drilling 33-80ft. 47ft.  
Reaming and washing cave 2 men 1 hour  
10% of 14.00

\$329.00 -  
\$14.00 -  
1.40 -

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\$15.40 = 15.40 =

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\$344.40 -

**INI NEWMAC** INDUSTRIES LTD.

TELEPHONE: (604) 573-5455  
 P.O. 2, BARNHARTVALE, KAMLOOPS, B.C.

COMPANY Explorom LOCATION Howsefly BC  
 SHIFT FROM \_\_\_\_\_ a.m. To \_\_\_\_\_ p.m. DATE Aug 13/74  
 HOLE NO. 74-2 ANGLE -45° SIZE Bφ DRILL No. 1

DEPTH START OF SHIFT 80  
 DEPTH END OF SHIFT 161  
 FOOTAGE DRILLED 81  
 CORE RECOVERED 81  
 NUMBER OF RUNS \_\_\_\_\_  
 ROCK FORMATION \_\_\_\_\_

MATERIAL & CHEMICALS, MUD MIXING \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

FEET OF CASING \_\_\_\_\_  
 TYPE OF CASING \_\_\_\_\_  
 NEW \_\_\_\_\_ USED \_\_\_\_\_

BITS USED IN OVERBURN NO. \_\_\_\_\_  
 TYPE \_\_\_\_\_

**TIME ALLOTMENT**  
 DRILLING \_\_\_\_\_  
 CEMENTING \_\_\_\_\_  
 TESTING \_\_\_\_\_  
 MOVING—FROM HOLE \_\_\_\_\_ TO HOLE \_\_\_\_\_  
 SETTING UP \_\_\_\_\_  
 TEARING DOWN \_\_\_\_\_  
 PULLING CASING \_\_\_\_\_  
 TRAVELLING \_\_\_\_\_

**TIME LOSS & DELAY**  
 MAINTENANCE \_\_\_\_\_  
 REPAIR \_\_\_\_\_  
 WATER \_\_\_\_\_  
 AIR \_\_\_\_\_  
 FISHING \_\_\_\_\_  
 WASHING & CLEANING HOLE \_\_\_\_\_  
 STANDBY \_\_\_\_\_

RUNNER 3 prima HRS. 2 S \_\_\_\_\_  
 RUNNER \_\_\_\_\_ HRS. \_\_\_\_\_ S \_\_\_\_\_  
 RUNNER \_\_\_\_\_ HRS. \_\_\_\_\_ S \_\_\_\_\_

BIT No. \_\_\_\_\_ ON \_\_\_\_\_ OFF \_\_\_\_\_  
 TOTAL BIT FOOTAGE \_\_\_\_\_ No. \_\_\_\_\_  
 HELPER S Hayden HRS. 2 S \_\_\_\_\_  
 HELPER \_\_\_\_\_ HRS. \_\_\_\_\_ S \_\_\_\_\_  
 HELPER \_\_\_\_\_ HRS. \_\_\_\_\_ S \_\_\_\_\_

REMARKS  
Hole vibrating rod badly. Had to pull + dress rods wash + treat cave 1 hr.  
Catwork on mud holes on road 4 hrs.

FOREMAN \_\_\_\_\_ ENGINEER E. D. C. [Signature]



Drilling 80-161 Sift.  
Wash and ream cave 2 men 1 hour  
Cat work on mud holes 4 hours  
at \$15.00 an hour  
Cat operator 4 hours at 7.00hr.

10% of 102.00

\$14.00 - \$567.00 -

60.00 -  
28.00 -

\$102.00 -  
10.20 -

\$112.20 -

\$11220 -

\$679.20 -

**NI NEWMAC** INDUSTRIES LTD.

TELEPHONE: (504) 573-5455  
P.O. 2, BARNHARTVALE, KAMLOOPS, B.C.

COMPANY Explorem LOCATION Horse Fly  
SHIFT FROM \_\_\_\_\_ a.m. To \_\_\_\_\_ p.m. DATE Aug 14/74  
HOLE NO. 74-2 ANGLE -45° SIZE B 9 DRILL No. 1

DEPTH START OF SHIFT 161  
DEPTH END OF SHIFT 211  
FOOTAGE DRILLED 50  
CORE RECOVERED 50  
NUMBER OF RUNS \_\_\_\_\_  
ROCK FORMATION \_\_\_\_\_

MATERIAL & CHEMICALS, MUD MIXING \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

FEET OF CASING \_\_\_\_\_  
TYPE OF CASING \_\_\_\_\_  
NEW \_\_\_\_\_ USED \_\_\_\_\_

BITS USED IN OVERBURN NO. \_\_\_\_\_  
TYPE \_\_\_\_\_

**TIME ALLOTMENT**  
DRILLING \_\_\_\_\_  
CEMENTING \_\_\_\_\_  
TESTING \_\_\_\_\_  
MOVING—FROM HOLE \_\_\_\_\_ TO HOLE \_\_\_\_\_  
SETTING UP \_\_\_\_\_  
TEARING DOWN \_\_\_\_\_  
PULLING CASING \_\_\_\_\_  
TRAVELLING \_\_\_\_\_

**TIME LOSS & DELAY**  
MAINTENANCE \_\_\_\_\_  
REPAIR \_\_\_\_\_  
WATER \_\_\_\_\_  
AIR \_\_\_\_\_  
FISHING \_\_\_\_\_  
WASHING & CLEANING HOLE \_\_\_\_\_  
STANDBY \_\_\_\_\_

RUNNER Syrcema HRS. 10 S \_\_\_\_\_ HELPER S. Hayden HRS. 10 S \_\_\_\_\_  
RUNNER \_\_\_\_\_ HRS. \_\_\_\_\_ S \_\_\_\_\_ HELPER \_\_\_\_\_ HRS. \_\_\_\_\_ S \_\_\_\_\_  
RUNNER \_\_\_\_\_ HRS. \_\_\_\_\_ S \_\_\_\_\_ HELPER \_\_\_\_\_ HRS. \_\_\_\_\_ S \_\_\_\_\_

REMARKS Hole squeezing & causing rods to vibrate  
Putted rods to change bit.  
had to wash & ream hole for 2 hrs to lower rods  
cat work on road to south area 7 hrs

FOREMAN \_\_\_\_\_ ENGINEER E.A. Gerny

Drilling 161-211 50ft.  
Wash and ream 2 men 2 hours  
Cat work 7 hours at 15.00  
operator 7 hours at 7.00

10% of 182.00

\$ 28.00 -  
105.00 -  
49.00 -

182.00 -  
18.20 -

190.20

190.20

200.20

540.20

550.20

351.00

350.00

# INI NEWMAC INDUSTRIES LTD.

DAILY DRILLING REPORT

TELEPHONE: (604) 573-5455  
R.R. 2, BARNHARTVALE, KAMLOOPS, B.C.

COMPANY Exploracem LOCATION Aug 15/74  
SHIFT—FROM \_\_\_\_\_ a.m. To \_\_\_\_\_ p.m. DATE Horsefly Bl  
HOLE NO. 74-2 ANGLE -45° SIZE B9 DRILL No. 1

DEPTH START OF SHIFT 211  
DEPTH END OF SHIFT 281  
FOOTAGE DRILLED 70  
CORE RECOVERED 70  
NUMBER OF RUNS \_\_\_\_\_  
ROCK FORMATION \_\_\_\_\_

FEET OF CASING \_\_\_\_\_  
TYPE OF CASING \_\_\_\_\_  
NEW \_\_\_\_\_ USED \_\_\_\_\_

**TIME ALLOTMENT**

DRILLING \_\_\_\_\_  
CEMENTING \_\_\_\_\_  
TESTING \_\_\_\_\_  
MOVING—FROM HOLE \_\_\_\_\_ TO HOLE \_\_\_\_\_  
SETTING UP \_\_\_\_\_  
TEARING DOWN \_\_\_\_\_  
PULLING CASING \_\_\_\_\_  
TRAVELLING \_\_\_\_\_

MATERIAL & CHEMICALS, MUD MIXING \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

BITS USED IN OVERBURN NO. \_\_\_\_\_  
TYPE \_\_\_\_\_

**TIME LOSS & DELAY**

MAINTENANCE \_\_\_\_\_  
REPAIR \_\_\_\_\_  
WATER \_\_\_\_\_  
AIR \_\_\_\_\_  
FISHING \_\_\_\_\_  
WASHING & CLEANING HOLE \_\_\_\_\_  
STANDBY \_\_\_\_\_

BIT No. \_\_\_\_\_ ON \_\_\_\_\_ OFF \_\_\_\_\_  
TOTAL BIT FOOTAGE \_\_\_\_\_ No. \_\_\_\_\_

RUNNER <u>J. Yacema</u> HRS. <u>8</u> S _____	HELPER <u>J. May</u> HRS. <u>8</u> S _____
RUNNER _____ HRS. _____ S _____	HELPER _____ HRS. _____ S _____
RUNNER _____ HRS. _____ S _____	HELPER _____ HRS. _____ S _____
REMARKS _____	

cat work on 3 trenches in area east of drill.  
3 hrs.

FOREMAN \_\_\_\_\_ ENGINEER G. D. Grant

Drilling 211-281ft. 70ft.  
at work 3 hours at 15.00hr.  
Cat operator 3 hours at 7.00 hr.

10% of 66.00

\$45.00 -  
21.00 -

66.00 -  
6.60 -

\$72.60 -

\$490.00 -

72.60 -

\$562.60

# NI NEWMAC INDUSTRIES LTD.

DAILY DRILLING REPORT

TELEPHONE: (604) 573-5455  
P.R. 2, SAHNHARTVALE, KAMLOOPS, B.C.

COMPANY Explorations LOCATION Explorations Horse

SHIFT—FROM ..... a.m. To ..... p.m. DATE Aug 16

HOLE NO. 74-2 ANGLE -45° SIZE 3 1/2 DRILL No. 1

DEPTH START OF SHIFT 281  
DEPTH END OF SHIFT 337  
FOOTAGE DRILLED 56  
CORE RECOVERED 56  
NUMBER OF RUNS .....  
ROCK FORMATION Very broken

MATERIAL & CHEMICALS, MUD MIXING  
.....  
.....  
.....

FEET OF CASING .....  
TYPE OF CASING .....  
NEW ..... USED .....

BITS USED IN OVERBURN NO. ....  
TYPE .....

### TIME ALLOTMENT

DRILLING .....  
CEMENTING .....  
TESTING .....  
MOVING—FROM HOLE ..... TO HOLE .....  
SETTING UP .....  
TEARING DOWN .....  
PULLING CASING .....  
TRAVELLING .....

### TIME LOSS & DELAY

MAINTENANCE .....  
REPAIR .....  
WATER .....  
AIR .....  
FISHING .....  
WASHING & CLEANING HOLE .....  
STANDBY .....

BIT No. .... ON ..... OFF .....

TOTAL BIT FOOTAGE ..... No. ....

RUNNER J. Yarnes HRS. .... S .....  
RUNNER ..... HRS. .... S .....  
RUNNER ..... HRS. .... S .....

HELPER S. Graydon HRS. .... S .....  
HELPER ..... HRS. .... S .....  
HELPER ..... HRS. .... S .....

REMARKS

FOREMAN .....

ENGINEER E. D. Green

Drilling. 56 ft.

\$592.00 -

# NI NEWMAC INDUSTRIES LTD.

DAILY DRILLING REPORT

TELEPHONE: (604) 573-5435  
P.O. 3, BARNHARTVALE, KAMLOOPS, B.C.

COMPANY Explorations LOCATION Horsefly BC  
 START-FROM \_\_\_\_\_ a.m. To \_\_\_\_\_ p.m. DATE Aug 17/74  
 HOLE NO. 74-2 ANGLE -45° SIZE B 4 DRILL No. 1

DEPTH START OF SHIFT 327  
 DEPTH END OF SHIFT 394  
 FOOTAGE DRILLED ~~327~~ 57  
 CORE RECOVERED 57  
 NUMBER OF RUNS \_\_\_\_\_  
 ROCK FORMATION \_\_\_\_\_

MATERIAL & CHEMICALS, MUD MIXING  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

FEET OF CASING \_\_\_\_\_  
 TYPE OF CASING \_\_\_\_\_  
 NEW \_\_\_\_\_ USED \_\_\_\_\_

BITS USED IN OVERBURN NO. \_\_\_\_\_  
 TYPE \_\_\_\_\_

**TIME ALLOTMENT**

**TIME LOSS & DELAY**

DRILLING \_\_\_\_\_  
 CEMENTING \_\_\_\_\_  
 TESTING \_\_\_\_\_  
 MOVING-FROM HOLE \_\_\_\_\_ TO HOLE \_\_\_\_\_  
 SETTING UP \_\_\_\_\_  
 TEARING DOWN \_\_\_\_\_  
 PULLING CASING \_\_\_\_\_  
 TRAVELLING \_\_\_\_\_

MAINTENANCE \_\_\_\_\_  
 REPAIR \_\_\_\_\_  
 WATER \_\_\_\_\_  
 AIR \_\_\_\_\_  
 FISHING \_\_\_\_\_  
 WASHING & CLEANING HOLE \_\_\_\_\_  
 STANDBY \_\_\_\_\_

BIT No. \_\_\_\_\_ ON \_\_\_\_\_ OFF \_\_\_\_\_  
 TOTAL BIT FOOTAGE \_\_\_\_\_ No. \_\_\_\_\_

RUNNER S. Yerman HRS. 8 S \_\_\_\_\_  
 RUNNER \_\_\_\_\_ HRS. \_\_\_\_\_ S \_\_\_\_\_  
 RUNNER \_\_\_\_\_ HRS. \_\_\_\_\_ S \_\_\_\_\_  
 HELPER S. Graydon HRS. 8 S \_\_\_\_\_  
 HELPER \_\_\_\_\_ HRS. \_\_\_\_\_ S \_\_\_\_\_  
 HELPER \_\_\_\_\_ HRS. \_\_\_\_\_ S \_\_\_\_\_

REMARKS Pull rods to change bit  
needed cause for 2 hrs to lower rods.

FOREMAN \_\_\_\_\_ ENGINEER G. D. Gray



Drilling 57 ft.  
Reaming 2 hr.

\$399.00 -

\$28.00 -

*Exp*

\$2.80 -

Total

\$30.80 -

\$50.80 -

~~\$429.00~~

429.80

# NI NEWMAC INDUSTRIES LTD.

DAILY DRILLING REPORT

TELEPHONE: (504) 573-5455  
 P.R. 2, BARNHARTVALE, KAMLOOPS, B.C.

COMPANY Explorations LOCATION Horse Fly

START FROM                      a.m. To                      p.m. DATE Aug 18/74

HOLE NO. 74-2 ANGLE -45° SIZE 7 1/2 DRILL No. 1

DEPTH START OF SHIFT 394 -  
 DEPTH END OF SHIFT 496  
 FOOTAGE DRILLED 102  
 CORE RECOVERED 102  
 NUMBER OF RUNS                       
 ROCK FORMATION                     

MATERIAL & CHEMICALS, MUD MIXING                       
                      
                      
                      
                    

FEET OF CASING                       
 TYPE OF CASING                       
 NEW                      USED                     

BITS USED IN OVERBURN NO.                       
 TYPE                       
                    

**TIME ALLOTMENT**  
 DRILLING                       
 CEMENTING                       
 TESTING                       
 MOVING—FROM HOLE                      TO HOLE                       
 SETTING UP                       
 TEARING DOWN                       
 PULLING CASING                       
 TRAVELLING                     

**TIME LOSS & DELAY**  
 MAINTENANCE                       
 REPAIR                       
 WATER                       
 AIR                       
 FISHING                       
 WASHING & CLEANING HOLE                       
 STANDBY                     

RUNNER Syama HRS. 8 S                       
 RUNNER                      HRS.                      S                       
 RUNNER                      HRS.                      S                     

BIT No.                      ON                      OFF                       
                      
 TOTAL BIT FOOTAGE                      No.                       
 HELPER S Hayden HRS. 8 S                       
 HELPER                      HRS.                      S                       
 HELPER                      HRS.                      S                     

REMARKS Set work on cleanup of road 3 hrs  
1 man setting taps & bits 4 hrs

FOREMAN                      ENGINEER G. D. Grant

Drilling 102. ft.  
Cat work  
Operator  
Clean up man.

\$45.00 -  
\$21.00 -  
\$23.00 -

\$714.00

10/5

\$94.00 -  
\$9.40 -

\$103.40 -

\$103.40 -

\$817.40 -



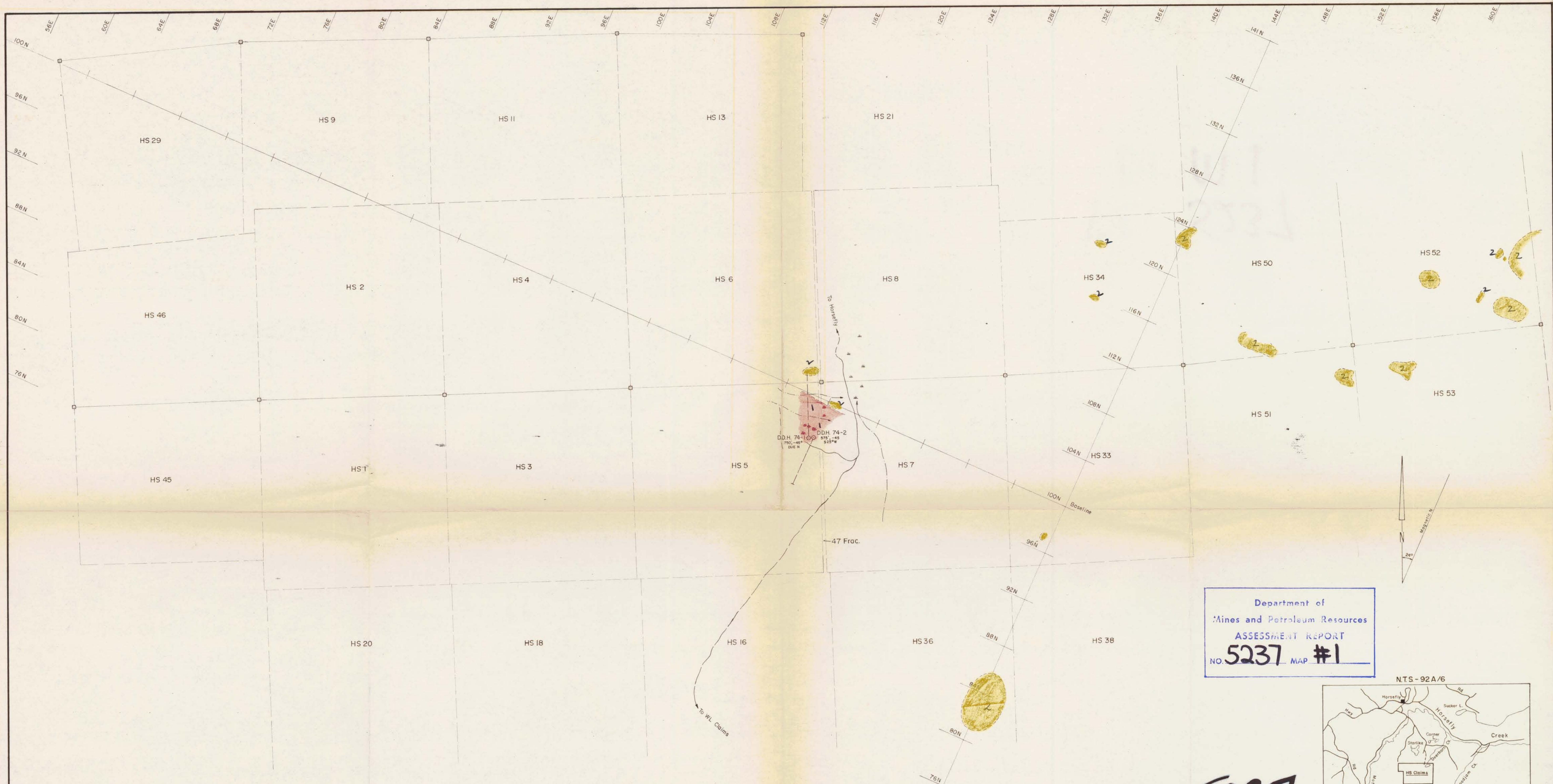
Drilling 77. ft.

\$539.00 -



Drilling 12 ft.		334.00
Freeing rods etc. 4hrs.	\$56.00	-
Reading to mobilize 4 hrs.	\$56.00	-
Cat work 11 hrs	\$165.00	-
Operator	\$77.00	-
Freeing 3 hrs	\$63.00	-
	-----	
	\$417.00	-
10%	\$41.70	-
	-----	
	\$458.70	-
		\$458.70
		-----
		\$542.70

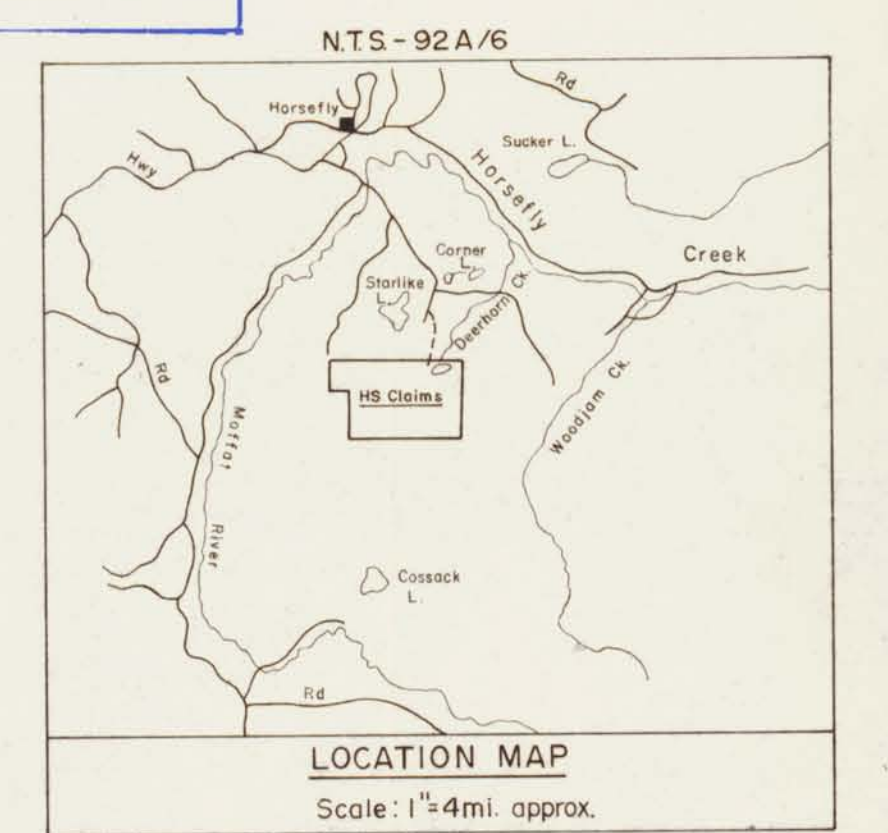




- LEGEND**
- 2 Volcanics
  - 1 Pink Quartz Monzonite Porphyry
  - Geological Contact
  - Outcrop
  - Blasted Pit
  - Diamond Drill Hole
  - Swamp
  - Creek
  - Gully
  - Access Road
  - 100N = 10,000' N
  - Claim post

Department of  
Mines and Petroleum Resources  
ASSESSMENT REPORT  
NO. 5237 MAP #1

5237  
M1



<b>EXPLORAM MINERALS LTD.</b>		Geological and Diamond Drilling Plan HS Claims Cariboo Mining Division, B.C.
DRAWN BY - R.J.E.	DATE - October, 1974	
APPROVED BY - E.D.C.	N.T.S. NO. - 92A/6	
FILE NO. -	DRAWING NO. -	
SCALE - 1" = 400'		