I INTRODUCTION AND SUMMARY

This report covers an overburden drilling program carried out by Utah Mines Limited, on 19 mining claims in Moody and Galna Townships. The program commenced on March 23, 1981 and continued until May 2, 1981.

Twenty-five (25) miles of drill access roads were cleared with a D-7 dozer on contract from John Wlad and Sons of Iroquois Falls. Eighteen miles of the lumber road from Abitibi Camp #29 to Trail Lake were opened up by dozer and kept clear of snow by grader by the same contractor.

Twenty-three (23) overburden drill holes were completed during this period by Heath & Sherwood Drilling of Kirkland Lake.

The holes were drilled with a Nodwell mounted Acker drill utilizing the rotary reverse circulation system. Utah's Project Geologist, Johial Newsome and assistants Norman Stock, Ken Baxter, Duncan McIvor and Dominique Godbout completed lithological logging of the holes and sampling of all till, gravel and coarse sand units.

The program was designed as a follow-up verification test of weak gold heavy mineral geochemical anomalies encountered during a 1980 reconnaissance overburden drilling program.

Included with this report are cross sections displaying hole locations and correlative Pleistocene lithological units and a plan map showing roads, hole locations and claims. Lithological drill logs are included for those holes being filed.

One drill camp serviced the program. It was located 1 and 1/4 miles north west of Couchiching Falls on a small creek. Mild weather during February prevented freezing of portions of the drill traverses and this greatly increased moving time between drill sites.

A. AREA AND ACCESS

The Utah Property surrounds Jim's Lake which is 17 miles northeast of Iroquois Falls. The work applies to 194 claims staked previous to it. The claim group is part of a larger property of 532 contiguous claims. The property occupies a northwest one eighth(1/8) portion of Kerrs, a southwest one quarter (1/4) portion of Galna and the eastern central one half (1/2) of Moody Townships. The southeast corner of the property borders on the west shore of Lake Abitibi at the outlet of the Abitibi River. The northeast corner is 2 miles due west of Pierce Bay on the western shore of Lake Abitibi. 22 claims are located in the northeast corner of Knox Township.

Access to the property is by a two-wheel drive lumber road which extends south from Abitibi Camp #29 to the northeast central part of Moody Township. This road is graveled to the south end of Trail Lake. Abitibi Camp #29 is approximately forty miles from Iroquois Falls via the Abitibi Line private road and Highway 652 east from Cochrane. Winter access was available over most of the property utilizing winter packed ice roads constructed by the dozer. However, summer access is only available to the southern section of the property from Abitibi River. Boats can be launched at the Twin Falls boat launching site.

B. A major esker extends through the property from north west to southeast. It is a northern section of the large Munroe Esker system which extends south to Kirkland Lake.

This esker has abundant lakes along its core section, the largest of which is Trail Lake and the second largest Jim's Lake, central to the property. The highest topography along the esker is approximately 30' above the surrounding elevation. Numerous kettle depressions and smaller kettle lakes occur in the esker throughout the property. The surrounding area is occupied by mostly low swamp or semi-swamp areas. The topography near the Abitibi drainage system is incised due to the erosional effect of tributaries flowing into the Abitibi River. There is one large open muskege swamp in the south portion of the property, approximately one mile south of Jim's Lake.

II AREA AND ACCESS (cont)

B. This open muskege swamp is approximately 1 1/4 miles long and one-half mile wide. It trends in a southwest - north east direction. All drainage in the south portion of the property is into Abitibi River. One creek drains the east side of the property into Camp Three Bay of Lake Abitibi. On the northern boundary of the claim group is the Dokis River which drains out of the north end of Trail Lake. The Dokis River meanders in an easterly direction and drains into Northwest Bay of Lake Abitibi.

Vegetation along the esker system is predominantly jackpine with mature birch and spruce flanking its outer margins. Abitibi Price have harvested a large area of timber at the south east end of Trail Lake almost to Jim's Lake. Vegetation over the lower lying areas consists mostly of widely scattered mature black spruce and birch. Clusters of white birch occupy local drumlin topographic ridges. Abundant alder and maple undergrowth is present over most of the lower lying areas. The large muskege swamp is vegetated by widely scattered stunted spruce and labrador tea. Several subsidiary smaller swamps are vegetated by the same plant species.

III EXPLORATION HISTORY

The earliest record of exploration in the area was by North American Rare Metals Limited, who carried out an airborne magnetometer survey in 1962, followed by ground magnetometer, vertical loop and horizontal loop electromagnetometer surveys.

During the same year, Mistango River Mines Limited, followed up with ground magnetometer surveys. They then commenced a diamond drill program which ran between 1962 and 1965. It included the drilling of 34 diamond drill holes in Moody and Galna Townships. Some of these holes were drilled within the property and several outside the property area. The airborne and ground surveys done in 1962 picked up numerous mag anomalies and electromagnetic conductors. In 1964 Mistango River Mines Limited completed a ground turam survey over the central east half of Moody Township and the western half of Galna Township.

Kenneco Explorations (Canada) Limited completed an airborne survey of north eastern Kerrs and southern Galna Townships in 1965. This survey covered the southeast portion of the property and defined about a dozen weak anomalies.

III EXPLORATION HISTORY (cont)

In 1969, Amax drilled one diamond drill hole approximately 1 1/2 miles northwest of the Abitibi River outlet from Lake Abitibi.

Noranda drilled two diamond drill holes near the south boundary of the property in 1965 in northeast Knox Township.

Texasgulf drilled 4 holes in Moody Township. Two of them were on ice in Trail Lake and two others on the west side of the property, one-half mile east of Marathon Creek. This work was done in 1975.

Cominco were active in the area in 1977 and completed a line grid in the area immediately west of the southern termination of the Abitibi logging road. They completed ground magnetometer, E.M. and some gravity surveys on the grid. They reported two diamond drill holes. One was approximately one-quarter mile west of the termination of the logging road and the second one mile due north of the first hole.

The results of this previous exploration work has been the definition of a large number of formational type conductive zones occurring within basaltic volcanics, ultramafic flows or intrusives and interbedded graywacke sediments. The diamond drill results indicate a wide belt of graywacke to graphitic type sediments starting at the halfway point of Trail Lake and extending to the north boundary of Moody Township. This belt is interpreted to strike in an eastwest direction or parallel to the trend of the geophysical conductors to the south.

The area was selected for overburden drilling primarily as an area having untested bedrock anomalies and the overburden method was considered as an effective survey to locate conductors of economic interest.

IV PREPARATION OF CAMP AND DRILL SITES

A The drill camp was located approximately 6000' north of Couchiching Falls. Access to this camp was provided by flagging in a drill traverse and camp road from the south end of the Abitibi Camp #29 logging road.

IV PREPARATION OF CAMP AND DRILL SITES (cont)

A The traverse was opened with a D-7 dozer by clearing out underbrush, small trees and the rare larger trees along the traverse line. The cleared out road was then packed with the dozer to form a winter ice road to facilitate access over swampy areas. Drill holes 2(a) and 2(b) were drilled along this drill traverse camp road. Drill holes UT-81-10-27 were drilled along a drill traverse roads established by compass flagging and dozer clearing.

B Dozer and Grader Contractor;

1) Contractor: John Wlad and Sons Construction Ltd.
IROQUOIS FALLS, ONTARIO, POK IGO

2) Equipment: D-7 Caterpillar Dozer, Champion Road Grader
Wabco Model 660-B

3) Operator: Gordon Gamble
312 Cambridge Avenue
IROQUOIS FALLS, ONTARIO.

4) Work Period: February 28th to April 9th, 1981.

5) Total Dozer and Grader Work Hours: 100

V OVERBURDEN DRILLING SYSTEM AND PROCEDURES

A Overburden Drilling Equipment;

The drill system was an Acker Drill MP-100, mounted on a Nodwell F.M.240. Mounted with drill was a Lister BK Pneumatic Compressor.

The Nodwell provided quick access between the drill hole sites. The drill roads were opened with a D-7 dozer and drill sites measuring 50' by 50' were cleared. Water was provided for the system by a timberjack 230, having a 500 gallon tank mounted on its rear. The water source was a small beaver pond near hole sites 13A and B.

V OVERBURDEN DRILLING SYSTEM AND PROCEDURES (cont)

A The Acker drill has a hydraulic drive system which turns ten foot dual tube reverse circulation rods. The bits used were Greuner tricone skirted bits of diameter 2 15/16". The bit is coupled to the lowest ten foot rod by an adaptor. The circulation is a mixture of air and water which was varied for different lithological units. The water air mixture is ejected between the tricones of the bit and the sample is circulated up the core of the dual tube rods and reaches the surface through a cyclone collector in the drill shack.

The geologists and assistants log the sample as it is ejected from the cyclone sampler. The +10 fraction of the sample was ejected or kept for a reference sample. The silt to gravel size fraction was collected in a three gallon plastic bucket from which samples were taken. Samples were taken of different lithological units. Five foot samples were taken continuously through tills. Ten foot samples were taken through gravels and coarse sands.

The holes were drilled to bedrock and an average of five feet of bedrock were drilled if it was reached. Bedrock was not reached in holes UT-81-14,20,22,23,74 and 77. Failure to reach bedrock was attributed to coarse sand and gravel horizons under high lithostatic pressures. An excess of sample enters the core of the drill rods and cannot be pumped to surface fast enough causing plugging of the rod's sample return passage. Figure # 3 is a schematic cross section of the overburden drilling and collection system.

When holes were completed the circulation recycling tank was cleaned out and the Nodwell moved to the next hole location.

B

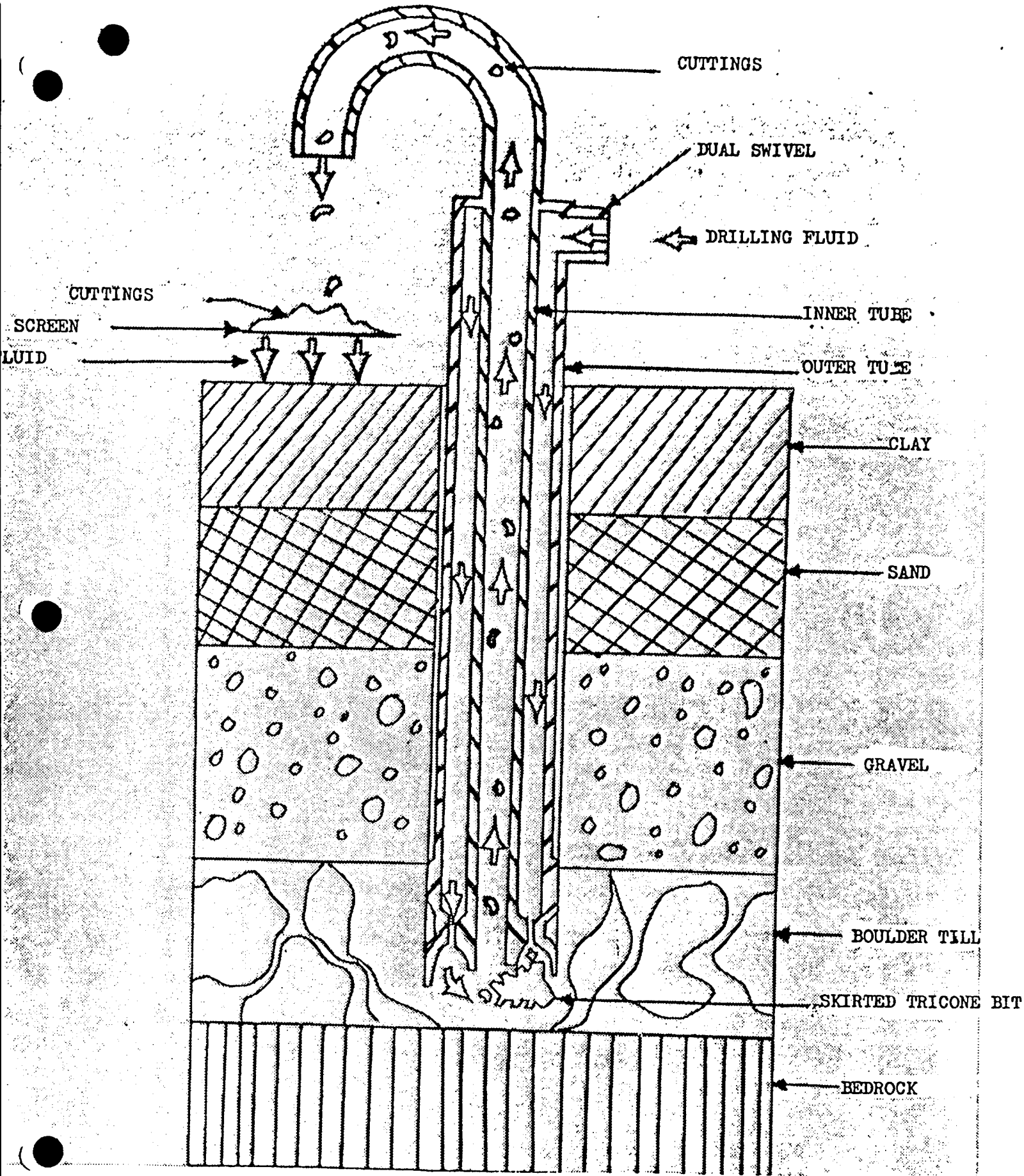
1) Drill Contractor: Heath & Sherwood Drilling
P.O. BOX 998
KIRKLAND LAKE, ONTARIO, P2N 3L3

2) Equipment: F.M.240, Acker Drill MP-100,Timberjack 230 water carrier, Lister BK Pneumatic Compressor.

3) Personnel:

NAME	POSITION	ADDRESS
Arthur Strojny	Driller	King Kirkland General Delivery,
Gerry Brown	Driller's Helper	106 Main St. Kirkland Lake, Ont
L.A. Gregoire	Water Hauler	Guadeloupe St. Cte. Bauce Sud,Que.

4) Work Period: March 23rd,1981 to May2nd,1981.
Hours worked 192.



SCHEMATIC CROSS SECTION OF REVERSE CIRCULATION DRILLING SYSTEM

FIGURE 3

VI OVERBURDEN LOGGING AND LITHOLOGIES

A Logging Techniques;

The sample exits from the cyclone collecter as a slurry. It is logged as it passes through a hand held Canadian standard sieve with a mesh size of 1.7mm. This sieve is supported by a -10 mesh screen which collects a +10 size fraction of the sample. The -10 fraction collected in the hand held sieve is dumped into the +10 screen and passes through to a sample bucket below. Most of the clay size fraction in the tills decants over the edge of the bucket and settles in the recycling tank below. The sample bucket and screen assembly are seated on top of the 100 gallon recycling tank.

The geologist logging the sample recognizes the different lithologies by noting the particle sizes, shapes and compositions. Particle sizes range from clay to cobble. Shape can be angular to very well rounded and lithologies include Paleozoic sediments,Archean volcanics, intrusives and metamorphics.

The following paragraphs are a brief summary of the distinguishing features used to differentiate glacial lithologies.

1) Till: Most commonly composed of the complete size range of particles from clay to cobble. Sometimes clay and/or cobble fractions may be absent. The material has a very unsorted consistency. A high clay content intermixed with sand to pebble size fragments which appear to represent the local bedrock is most confidently called a till. Lodgement tills should have angular fragments of local bedrock well supported by a sand to a clay size matrix of ground up bedrock material. The clay fraction in till often returns as clay balls studded with pebble and sand size grains of bedrock material. Tills represent short distance ice transported material.

2) Gravels and Sands: These lithologies are quite distinguishable being stratified in most cases and having some degree of grain size sorting. In most cases, clay and silt size material should not be associated. However, seams of clay or silt size material can be interlayered stratigraphically. Pebbles and grains of sand and gravel tend to be more rounded, better sorted and represent a greater distance of transportation because of glacial outwash reworking.

3) Clays and Silts: These fractions usually occur together and usually represent deposition from glacial outwash streams in the Lake Barlow Ojiibway Complex. The purest clay will exit as ropey lumps of beige to grey clay. Clay with some silt will exit as lumps and silt only will remain suspended in the sample slurry and will settle out after a short period.

VI OVERBURDEN LOGGING AND LITHOLOGIES

A Logging Techniques:

Recognizing these lithologies is not always simple, since the sample is highly disturbed as it passes up the drill stem core. Thinly bedded sands, gravels and clay units could most likely return to surface as a heterogeneous sized fraction conglomeration resembling till. Other techniques, such as recognizing armoured clasts which are clay filled fractures in pebbles, were used to more confidently identify tills. Some interbedded gravel, sand, silt units may be incorrectly logged and may be tills without a clay fraction. It may be common to have water lain tills or the absence of a good clay fraction in tills formed over the Precambrian volcanic shield. Absence of a clay fraction may be the failure of the ice to grind up a harder bedrock to the clay size fraction.

All the disadvantages of logging a disturbed sample at the site were considered and absolute identities of certain lithologies were not always documented.

B Drill Cross Sections:

1) UT-81-10-11 Traverse; This is only a two hole traverse drilled along a logging road running at 060° west of the north end of Trail Lake.

The holes were drilled to test the northern boundary of the Utah Mines Limited Property for continuation of a gold anomaly.

The top 210 feet of the pleistocene column is lacustrine clay and silt. Below that is a 15-20 foot zone of fine to coarse gravel. A twenty foot section of regolithic bedrock caps partially oxidized graphitic argillite and andesite bedrock.

Anomalous gold geochem was not encountered in this hole.

2) UT-81-19-18 Traverse; This was a second two hole traverse drilled 1/4 mile south of 10-11 on an eastwest logging road. Thirty feet of lacustrine clay and silt occupy the top of the column overlying 130 feet of sand and silt. Hole 19 yeilded a 12 foot section of till whereas hole 18 intersected gravel only underlying a thicker silt-sand section. This may be reworking of the till by alluvial energy nearer to the esker enviroment to the east. No till was seen in hole 18. Silt and sand underly the till in hole 19 and a second thin till sits on bedrock.

2) UT-81-19-18 Traverse; (cont) Bedrock was metamorphased mafic volcanic rock with oxidation limonite staining.

These holes were drilled to locate the possible northern limits of a gold anomaly. No anomalous values were encountered.

3) UT-81-13-17 Traverse; These holes were drilled along an eastwest logging road 3000 feet south of holes 19-18. Both the land surface and bedrock surface descend between holes 13 and 17. Bedrock is 90 lower in elevation at hole 17.

Holes 13 and 14 encountered lacustrine clay at surface. Stratigraphically lower is a thick sequence of silt and sand ranging in thickness from 50 feet in hole 13 to 200 feet in hole 17. Fine to coarse gravel is next being 90 feet thick in hole 13 and only 10 feet in hole 17. Interlayered in the gravel are two thin till units occurring in holes 13 and 14 only. A continuous 10 to 20 foot till bed is present on or just above bedrock in all holes. Underlying this till in holes 13, 14 and 16 is a discontinuous gravel bed up to 7 feet thick.

Bedrock was encountered in all holes but #14. It is mafic to intermediate volcanic highly chloritized with some sericite. Some quartz veins with pyrite were also encountered.

4) UT-81-20-27 Traverse; This was an eastwest traverse drilled along a road constructed by the dozer.

The pleistocene stratigraphy is much more complex and a detail literal description would not achieve any purpose.(refer to cross section) More simply a 10 to 20 foot lacustrine clay zone occurs at surface in all holes. Below this in holes 21 to 26 is an outwash sand and gravel interbedded sequence 100 to 200 feet thick at hole 25. Below this level is a complex package of compacted varied clays, gravels and perhaps up to four till horizons but not occurring in all holes. A basal till rests on bedrock at holes 21 and 26 the only holes that reached it. Bedrock was mafic volcanic rock in 21 & a diorite-granadiorite in hole 26.

The stratigraphic complexity produced very difficult drilling conditions. Tricone bits were destroyed in four holes before reaching bedrock.

5) UT-81-77-73 Traverse; These holes were drilled on an ice road put in by dozer running at about 080° azimuth 1500 feet south of Traverse 20 - 26.

The only correlative section is the upper port of the holes. A lucustrine clay-silt horizon and underlying sand bed extends between the holes. These two units together average 100 feet thick. Below the sand is a series of thin discontinuous gravel and silt units and one continuous 5 to 20 foot thick till bed. The till bed occurs in all holes and is in the midsection of the column. A variably thick clay-silt zone occurs in all holes beginning at the lower 1/3 of the column. It is 100 feet thick in hole 74 and only 10 feet in holes 77 and 73. The lower section of the column is uncorrelative tills and gravels.

Bedrock was chloritized mafic volcanic in holes 73 and 75. Hole 76 bedrock was mafic to ultramafic rock. Holes 74 and 77 did not reach bedrock.

VII SUMMARY OF EXPENDITURES

A Dozer Expenditures: John Wlad and Sons Limited;

INVOICE NUMBER	AMOUNT
1376	$2,605.00
1401	$ 513.00
1421	$1,764.00
TOTAL	$4,882.00

B Overburden Drilling Expenditures: Heath & Sherwood Drilling;

The invoice amounts shown are proportioned according to the ratio of the footage of holes being reported to the total footage of the invoice.

INVOICE NUMBER	HOLE NUMBER(S)	AMOUNT
8898	UT-81-2B,2A,10, 62B,74,75,76	$14,499.00
8936	UT-81-11,12,13,14, 15,16,17,18,19,20, 21,22,23,77	$31,483.00
8996	UT-81-26-27	$ 9,003.00
	TOTAL	$54,985.00

C Utah Mines Limited Supervision + Logging:

Costs = $349.00/hole-includes salaries + lodging of Utah employees on the project in the field.

23 holes x 349 = $8,027.00

GRAND TOTAL = $67,894.00

4526 days to be applied as assessment work in the Work Report.

$$\frac{\$67,545}{\$15.} = 4526$$

VII SUMMARY OF EXPENDITURES:

D Utah Personnel;

NAME	TITLE	ADDRESS
Johial Newsome	Project Geologist	43C, Tamarack Street TIMMINS, Ontario, P4N 6P4 (705) 267-5084
Duncan McIvor	Senior Assistant	80 John Street, EAST WATERLOO, Ontario,
Norman Stock	Geological Assistant	44 Clarence Street, AYLMER, Ontario
Ken Baxter	Geological Assistant	6 Orchard Parkway GRISMBY, Ontario
Dominique Godbout	Sampler	P.O.BOX 1376 GRAND FALLS, New Brunswick

VIII GENERAL

The 23 holes filed with this report were drilled on the following claims;

HOLE	CLAIM # DRILLED ON
UT-81-2B	L. 610786
UT-81-2A	L. 610780
UT-81-10	L. 610473
UT-81-62B	L. 569162
UT-81-74	L. 610401
UT-81-75	L. 610402
UT-81-76	L. 610403
UT-81-77	L. 610740
UT-81-11	L. 610474
UT-81-12	L. 609705
UT-81-13	L. 609714
UT-81-14	L. 609714
UT-81-15	L. 609715
UT-81-16	L. 609716
UT-81-17	L. 609717
UT-81-18	L. 610472
UT-81-19	L. 610472
UT-81-20	L. 609703
UT-81-21	L. 609703
UT-81-22	L. 609704
UT-81-23	L. 609705
UT-81-26	L. 609707
UT-81-27	L. 610456

This work is being filed as Benefication Studies according to Section 86, Subsection 18 of the Ontario Mining Act.

Per: Louis Godbout

LOUIS GODBOUT

DISTRICT GEOLOGIST - TIMMINS

A P P E N D I X

MAPS ENCLOSED ARE;

1. Jim's Lake Work Location Map.

2. Drill Hole Cross Sections

3. Drill Logs.

ATTESTATIONS:

Invoice # plus payment cheques from;

John Wlad and Sons # 1376
1401
1421

AND

Heath & Sherwood # 8898
8936
8996

suite 908, 40 university avenue,
toronto, ontario, M5J 1T1

May 29th, 1981

in account with

heath & sherwood drilling

division of challenger international services ltd.

terms: net cash 15 days after date of invoice

hole no.

to cover diamond drilling for the period

from	to	footage completed	rate
Mar. 1-15	8873	~~103-1/2~~ 101½	~~22~~ 24
	Adj.	(2)	2
Mar.16-31	8898	~~110~~ 109½	~~51-1/2~~ 50½
	Adj.	(1/2)	1/2
Apr. 1-15	8936	~~106~~ 105½	41-3/4 ✓
	Adj.	(1/2)	1/2
Apr 16-30	8967	68-1/2 ✓	49 ✓
May 1-15		~~77-1/2~~ 74½	~~19~~ 21
		~~670-1/2~~	243-3/4
		662 1/4	248 3/4

15% of ~~670-1/2~~ 662 1/4 hrs. 99.3 ~~100.6~~ hrs.

Charge 99.3 ~~100.6~~ hrs. 143.00 ✓ 14,199 90

~~14,385.60~~

Demobilization from last drill site - Lump sum 1/2 of 5561.00 ✓ 2,830.50 ✓

~~$36,931.30~~

36,252 30

Drilling hours for all invoices have been changed to correspond to drill hours approved by D.M.L. for each invoice, with payment adjusted accordingly.

Approved for payment
charge to A.365

F. W. Newsome

e. & o. e.

416-364-7301

suite 908, 40 university avenue,
toronto, ontario,
M5J 1T1

April 21st, 1981

Invoice No. 8936

to

in account with

heath & sherwood drilling

division of challenger international services ltd.

terms: net cash 15 days after date of invoice

hole no.

to cover diamond drilling for the period

from	to	footage completed	rate	
		Materials		
		Bits / Bit Subs / Starter Rods		
Apr. 2		B059580 ✓		
4		B-62307 ✓		
		B-62308 ✓		
6		B-59594 ✓		
7		B-59588 ✓		
8		B-62240 ✓		
		B-62241 ✓		
9		B-62243 ✓		
		B-62242 ✓		
10		B-62245 ✓		
11		B-62244 ✓ / 1 ✓		
		B-62289 ✓		
13		B-62294 ✓		
		B-62293 ✓		
14		1 ✓ / 1 ✓		
14 ✓		2 ✓ / 1 ✓		
		Reverse circulation bit (Gruner)	14 only 662.00	9,268.00 ✓
		Bit Subs	2 only 262.00	524.00 ✓
		Srater Rods	1 only	180.00 ✓
				9,972.00 ✓
		Plus 15%		1,495.80 ✓
				11,467.80 ✓

Meals supplied to Company personnel

H. Newsome	39
N. Stock	44
K. Baxter	44
G. Gamble	7
N. Godbout	2
L. Godbout	5

~~145~~ 141 meals 6.00

846 00

~~[illegible]~~ 00

~~$31,[illegible]~~ 60

$31483 60

Approved for Payment
Charge to A-365
Louis Godbout

e. & o. e.

AP 2 - 14, 15

suite 908, 40 university avenue,
toronto, ontario,
M5J 1T1

April 21st, 1981

to [redacted]ah Mines Limited,
1357 Chenier Avenue,
Timmins, Ontario.

Invoice No. 8936
D.O. 355
Project No. 80-089

in account with

heath & sherwood drilling

division of challenger international services ltd.

terms: net cash 15 days after date of Invoice

to cover diamond drilling for the period

Reverse circulation drilling in the Moody, Knox, Kerrs, Edwards townships in the Larder Lake mining district

hole no.	from	to	footage completed	rate	
UT-81-11			250		
12			211		
77			170		
13			184		
14			135		
15			185		
16			211		
17			225		
18			190		
19			191		
20			182		
21			177		
22			192		
23			223		
			2726 ft.	1.30	3,543.80

2726
250
2476

	Drilling etc.	Repairs & Maintenance	Travel Time
Apr. 1	12	1-1/2	1/2
2	10	1/4	3/4
3	3/4	8-1/4	1
4	9	1-1/2	1/2
5		10	
6	9-1/4	3-1/2	1/4
7	6	4	1
8	8-1/2	1/2	1
9	~~8~~ 8 1/2	1/4	3/4
10	10	1/4	3/4
11	8-1/2	3/4	3/4
12	4	5	1
13	9-1/2		1
14	7-1/2	4	1
15	2	2	1
	~~100~~ 105 1/2	41-3/4	11-1/4

Drilling Rate 105 1/2 ~~100~~ hrs. 143.00 ~~15,150.00~~ 15086.50

Travel Time 11-1/4 hrsx3 men 33-3/4 hrs. 16.00 540.00

~~15,690.00~~
15626.00

e. & o. e.

33859 UTAH MINES LTD PAGE NO. 1

1050 WEST PENDER ST. • VANCOUVER, B.C. V6E 3S7

JOB NO.	VENDOR NO.	VOUCHER NO.	DATE	INVOICE AMOUNT	DISCOUNT	NET AMOUNT
845	031453	8867	03 19 81	40,914.45	.00	40,914.45
		8936	04 21 81	31,483.60	.00	31,483.60
			TOTALS	72,398.05	.00	72,398.05

INQUIRIES: UTAH MINES LTD. EXPLORATION DEPT
1050 WEST PENDER ST VANCOUVER, B C V6E 3S7 (604) 683-6921

033859 33859

UTAH MINES LTD
1050 WEST PENDER STREET • VANCOUVER, B.C. V6E 3S7

CANADIAN IMPERIAL BANK OF COMMERCE
VANCOUVER, B.C.

VENDOR NO.	DATE OF CHEQUE	DOLLARS	CENTS
031453	05-05-81	$ ***72,398.05	

PAY
TO THE ORDER OF

****
HEATH & SHERWOOD
DRILLING
SUITE 908, 40 UNIV. AVE.
TORONTO, ONTARIO
M5J1T1

UTAH MINES LTD
GENERAL ACCOUNT

NOT NEGOTIABLE

⑈33859⑈ ⑆00010⑈010⑆92⑈03117⑈

suite 908, 40 university avenue,
toronto, ontario,
M5J 1T1

May 29th, 1981

Invoice No. 8996
D.O. 355

in account with

heath & sherwood drilling

division of challenger international services ltd.

terms: net cash 15 days after date of invoice

hole no.

to cover diamond drilling for the period

from	to	footage completed	rate		

Materials

	Bits	Bit Subs	Starter Rods	10' Rods
May 2	B-62281		1	
4	B-62278			
7	B-62277			
7	B-59954	1		
8	B-59957			
9	B-59961		1	
	6	1	2	

Reverse circulation bits				
Gruner	6 only	662.00	3,972.00	
Bit Subs	1 only	262.00	262.00	
Starter rods	2 only	180.00	360.00	
			4,594.00	
Plus 15%			689.10	5,283.10
Meals supplied to Company personnel- May 1st-11th				
D. McIver	27			
N. Godbout	23			
H. Newsome	13			
	63 Meals	6.00	378.00	
Additional Cook camp charge May 12-15				
Cook & Camp	4 days	107.40	429.60	
D. McIver	11 Meals			
Alan Skidmore	10			
Nathan Skidmore	10			
	31 meals	6.00	186.00	993.60

Drill hours and Repairs and Maintenance hours from start of operation

Date	Invoice No.	Drilling Hrs.	Repairs & Maintenance
Feb. -15	8821	~~103-174~~ 93	~~18-1/2~~ 22 1/4
	Adj.	(5)	7-1/4
Feb.16-28	8827	~~112~~ 109 3/4	~~28-1/2~~ 30 3/4
	Adj.	(2-1/4)	2-1/4

e. & o. e.

telephone 416 364-7301

telex 06-22127

suite 908, 40 university avenue,
toronto, ontario,
M5J 1T1

May 29th, 1981

to Utah Mines Limited,
1357 Chenier Avenue,
Timmins, Ontario.

Invoice No. 8996
D.O. 355
Project No. 80-089

in account with

heath & sherwood drilling

division of challenger international services ltd.

terms: net cash 15 days after date of invoice

to cover diamond drilling for the period

hole no.	from	to	footage completed	rate	
			Reverse circulation in the Moody, Knox, Kerrs, Edwards townships in the Larder Lake mining district		
			May 1st-15th, 1981		
UT-81-26 ✓			85 ✓		
27 ✓			255 ✓		
36			279 ✓		
35			208 ✓		
34			200 ✓		
33			167 ✓		
32			175 ✓		
			1369 ✓	1.30	1,779.70

	Drilling etc.	Repairs & Maintenance	Travel Time	Field Cost
May 1	9-1/2 ✓		1 ✓	
2	9 ✓	1 ✓	1 ✓	
3	9-1/2 ✓		1 ✓	
4	9-1/2 ✓		1 ✓	
5	3-1/2 ✓	8 ✓	1/2 ✓	
6		9 ✓		4 ✓
7	8-1/2 ✓	1 ✓	1 ✓	
8	9-1/2 ✓		1 ✓	
9	~~13~~ ✓		1 ✓	
10	5-1/2 ✓		1/2 ✓	
	~~77-1/2~~ 74-½	~~19~~ 21	8 ✓	4 ✓

Drilling Rate	74-½	~~77-1/2~~	143.00	10,653.50 ~~11,082.50~~
Travel Time 8 x 3 men		24 hrs.	16.00	384.00
Field Cost 4 x ~~3~~ 2 men		ℰ ~~12 hrs.~~	16.00	~~192.00~~ 128.00
				11,165.50 ~~11,658.50~~

= only 2 men from drill crew worked on fixing bridge

May 1st - 10 hours drill time
1 hour for supper
2 hours repair & maintenance to rods - changing O-rings - drill unit in operation.

E. & O. E.

34320 UTAH MINES LTD. PAGE NO. 1

JOB NO.	INVOICE NO.	INVOICE DATE	GROSS AMOUNT	DISCOUNT	NET AMOUNT
845	1453 8996	05 29 81	36,252.30	.00	36,252.30
		TOTALS	36,252.30	.00	36,252.30

INQUIRIES: UTAH MINES LTD. EXPLORATION DEPT
1050 WEST PENDER ST VANCOUVER, B C V6E 3S7 (604) 683-6921

034320 34320

UTAH MINES LTD.
1050 WEST PENDER STREET • VANCOUVER B.C. V6E 3S7

PAYABLE THROUGH THE CANADIAN IMPERIAL BANK OF COMMERCE 10/10
VANCOUVER, B.C.

VENDOR NO.	DATE OF CHECK	DOLLARS	CENTS
031453	06-16-81	$ ***36,252.30	

PAY TO THE ORDER OF

****
HEATH & SHERWOOD
DRILLING
SUITE 908, 40 UNIV. AVE.
TORONTO, ONTARIO
M5J1T1

UTAH MINES LTD.
GENERAL ACCOUNT

NOT NEGOTIABLE

⑈34320⑈ ⑆00010⑈010⑆92⑈03117⑈

suite 908, 40 university avenue,
toronto, ontario,
M5J 1T1

April 2nd,1981

to [redacted]ah Mines Limited,
1357 Chenier Avenue,
Timmins, Ontario.

Invoice No. 8898
D.O. 355
Project No. 80-089

in account with

heath & sherwood drilling

division of challenger international services ltd.

terms: net cash 15 days after date of invoice

to cover diamond drilling for the period

from	to	footage completed	rate	
		Reverse circulation drilling in the Moody, Knox, Kerrs, Edwards townships in the Larder Lake mining district. March 16th-31st,1981		
		Footage		
UT-81-05		143 ✓		
06		275 ✓		
07		209 ✓		
08		259 ✓		
09		259 ✓		
2B ✓		111 ✓		
2A ✓		97 ✓		
62B ✓		173 ✓		
74 ✓		212 ✓		
75 ✓		214 ✓		
76 ✓		255 ✓		
10 ✓		250 ✓		
		2457 ft. ✓	1.30 ✓	3,194.10 ✓

hole no.	Drilling Etc.	Repairs & Maintenance	Travel Time
Mar. 16	4-3/4 ✓		1/4 ✓
17	10 ✓	1-1/2 ✓	~~1/2~~
18	12-1/4 ✓	1/4 ✓	1/2 ✓
19	10 ✓	1/2 ✓	1/2 ✓
20	11 ✓		
21	10 ✓	1/2 ✓	1/2 ✓
22	8 ✓	1 ✓	1 ✓
23	9-1/2 ✓		1 ✓
24	7-3/4	1-1/4 ✓	1+1/4
25	8 ✓	1-1/2 ✓	1 ✓
26	10-1/4 ✓		1-1/4 ✓
27		12 ✓	
28		1[illegible]	
29		10 ✓	
30		10 ✓	
31	8-1/2 ✓	1 ✓	1/2 ✓
	~~110~~ 109-1/2	~~51-1/2~~ 50-1/2	~~8~~ 7 3/4

e. & o. e.

Telex 06-22627

suite 908, 40 university avenue,

toronto, ontario, M5J 1T1

April 2nd, 1981

to

Page -2-

Invoice No. 8898

In account with

heath & sherwood drilling

division of challenger internationol services ltd.

terms: net cash 15 days after date of invoice

hole no.

to cover diamond drilling for the period

from	to	footage completed		rate	
		109½		1565 8.30	
Drilling Rate		~~210~~ hrs.	143.00	~~15,730.00~~	
Travel Time ~~8~~ 7.5 x 3 men		~~24~~ 23¼ hrs.	16.00	372.00 ~~384.00~~	~~16,114.00~~ 16,030 50

Materials

	Bits	Bit Subs	Starter Rod
Mar. 17			1✓
Mar. 18	B-61453✓		
Mar. 19	B-62201✓		
Mar. 20	B-62198✓		
Mar. 21	B-59587✓		
Mar. 23	B-59586✓	1✓	
Mar. 25	B-62309✓		
Mar. 26	B-59903✓		
Mar. 31	B-59067✓	1✓	1✓
	8✓		2✓

Reverse circulation bit (Gruner)	8 only	662.00	5,296.00✓
Bit Subs	2 only	262.00	524.00✓
Starter Rods	2 only	180.00	360.00✓
			6,180.00✓
Plus 15%			927.00✓
			7,107.00✓

Meals supplied to Company personnel

H. Newsome	46		
K. Baxter	45		
N. STock	46		
	137 meals✓	6.00✓	822.00✓

~~[illegible]~~

27153 60

NOTE: Repairs and Maintenance will be charged at the end of the drill program at actual or 15% of drilling hours - whichever is less.

Approved for Payment
charge to A-366
Louis Gabbott

e. & o. e.

33674

UTAH MINES LTD.

1050 WEST PENDER STREET • VANCOUVER, B.C. V6E 3S7

JOB. NO.	VENDOR NO	INVOICE NO.	INVOICE DATE MO DAY YEAR	INVOICE AMOUNT	DISCOUNT	NET AMOUNT
845	031453	8898	04 02 81	27,153.60	.00	27,153.60
		8899	04 03 81	880.00	.00	880.00
			TOTALS	28,033.60	.00	28,033.60

INQUIRIES: UTAH MINES LTD. EXPLORATION DEPT
1050 WEST PENDER ST VANCOUVER, B C V6E 3S7 (604) 683-6921

033674 33674

UTAH MINES LTD.
1050 WEST PENDER STREET • VANCOUVER, B.C. V6E 3S7

HASTINGS & GRANVILLE BRANCH
CANADIAN IMPERIAL BANK OF COMMERCE 10/10
VANCOUVER, B. C. CANADA

VENDOR NO.	DATE OF CHECK	DOLLARS	CENTS
031453	04-13-81	$ ***28,033.	60

PAY
THE ORDER OF **********
HEATH & SHERWOOD
DRILLING
SUITE 908, 40 UNIV. AVE.
TORONTO, ONTARIO
M5J1T1

UTAH MINES LTD.
GENERAL ACCOUNT

James J. Curry
FINANCIAL VICE PRESIDENT

⑈33674⑈ ⑆00010⑈010⑆92⑈03117⑈

John Wiad
& Sons Const. Ltd.
Iroquois Falls, A. P0K 1G0

232-6782 232-4460

TO Utah Mines Ltd.,
1357 Chenier Ave.,
Timmins, Ont.

Nº 1376

INVOICE DATE	SALESMAN
March , 1981.	

SHIP TO -

YOUR ORDER NO	DATE SHIPPED	SHIPPED VIA	F.O.B. POINT	TERMS

QUANTITY	DESCRIPTION		UNIT PRICE	TOTAL
#1450	D7 Dozer on Feb. 28/81	9 hrs. ✓	50 00	450 00
1451	D7 Dozer on Mar. 2/81	9 hrs. ✓		450 00
1152	D7 On Mar. 3/81	8 hrs. ✓		400 00
1453	D7 on Mar. 4/81	8 hrs. ✓		400 00
1454	D7 on Mar. 5/81	8 hrs. ✓		400 00
1455	D7 on Mar. 6/81	8 hrs. ✓		400 00
1456	Float on Mar. 6/81	3 hrs. ✓	35 00	105 00
		TOTAL		$2605 00 ✓

RECEIVED
MAR 10 1981

Approved for payment
Louis Godbout A365

ORIGINAL

Thank You

33488 UTAH MINES LTD. 1050 WEST PENDER ST. • VANCOUVER, B.C.

JOB NO.	VENDOR NO.	INVOICE NO.	INVOICE DATE	DISCOUNT	NET AMOUNT
845	076570	1376	03 01 81	2,605.00	.00 2,605.00

TOTALS 2,605.00 .00 2,605.00

INQUIRIES: UTAH MINES LTD.
1050 WEST PENDER ST
EXPLORATION DEPT
VANCOUVER, B C V6E 3S7 (604) 683-6921

033488 33488

UTAH MINES LTD.
1050 WEST PENDER STREET • VANCOUVER, B.C. V6E 3S7

PAY

TO THE ORDER OF

****
JOHN WLAD & SONS. CONST.
LTD
IROQUOIS FALLS, A.
ONTARIO, CANADA

POK1GO

VENDOR NO. 076570

DATE OF CHECK 03-26-81

DOLLARS ***2,605.00 CENTS

$

THE ROYAL BANK OF CANADA

UTAH MINES LTD.
GENERAL ACCOUNT

NOT NEGOTIABLE

⑈33488⑈ ⑆00010⑈010⑆92⑈03117⑈

John Wiad
& Sons Const. Ltd.
Iroquois Falls, A. P0K 1G0

232-6782 232-4460

INVOICE

No 1401

INVOICE DATE	SALESMAN
Jan 25 1921	

SHIP TO

TO Utah Mines Ltd.,
1351 Kingston Ave.,
Timmins, Ont.

OUR ORDER NO	DATE SHIPPED	SHIPPED VIA	F.O.B POINT	TERMS

QUANTITY	DESCRIPTION	UNIT PRICE	TOTAL
1349	Loading on Jan. 17, 1921 5½ Lbs.	3½ cc	207 cc
1351	Loading on Jan. 15, 1921 5 Lbs.	3½ cc	254 cc
	O.K. Charge to A-365 Louis Godbout		
	Total		$ 513 cc

ORIGINAL

Thank You

33610

UTAH MINES LTD.
1050 WEST PENDER ST. • VANCOUVER, B.C. V6E 3S7

JOB NO	INVOICE NO.		INVOICE AMOUNT		
845	076570 1401	03 25 81	513.00	.00	513.00

TOTALS	513.00	.00	513.00

INQUIRIES: UTAH MINES LTD. EXPLORATION DEPT
1050 WEST PENDER ST VANCOUVER, B C V6E 3S7 (604) 683-6921

033610 33610

UTAH MINES LTD.
1050 WEST PENDER STREET / VANCOUVER B.C. V6E 3S7

VENDOR NO	DATE OF CHEQUE	DOLLARS	CENTS
076570	04-07-81	$ ******513.00	

PAY

TO THE ORDER OF

****
JOHN WLAD & SONS. CONST.
LTD
IROQUOIS FALLS, A.
ONTARIO. CANADA

P0K1G0

UTAH MINES LTD
GENERAL ACCOUNT

NOT NEGOTIABLE

⑈33610⑈ ⑆00010⑈010⑆92⑈03117⑈

John Wlad
& Sons Const. Ltd.
Iroquois Falls, A. P0K 1G0

232-6782 232-4460

INVOICE

№ 1421

INVOICE DATE	SALESMAN
April [illegible], 1981	

SHIP TO

TO [illegible]
1357 [illegible] Ave.,
Timmins, Ont.

YOUR ORDER NO.	DATE SHIPPED	SHIPPED VIA	F.O.B. POINT	TERMS	

QUANTITY	DESCRIPTION	UNIT PRICE	TOTAL
1684	D7 Dozer on April 6/81 3 hrs.	50 00	150 00
"	Sloping D7 on April 6/81 ? 7 hrs.	35 00	245 00
"	Grader on April 6/81 13 hrs.	38 00	494 00
1685	D7 Dozer on April 7/81 9½ hr.		475 00
1686	~~D7 Dozer on April 8/81~~ ~~[illegible]~~		~~[illegible]~~
1687	D7 Dozer on April 9/81 8 hr.		400 00
	Total		~~[illegible]~~

ORIGINAL

Thank You Approved for $1764.00
A-365 Payment [illegible]

33870 UTAH MINES LTD. PAGE NO. 1

1050 WEST PENDER ST • VANCOUVER, B.C. V6E 3S7

JOB NO	VENDOR NO.	INVOICE NO.	INVOICE DATE MO DAY YEAR	INVOICE AMOUNT	DISCOUNT	NET AMOUNT
845	076570	1421	04 15 81	1,764.00	.00	1,764.00
			TOTALS	1,764.00	.00	1,764.00

INQUIRIES: UTAH MINES LTD. EXPLORATION DEPT
1050 WEST PENDER ST VANCOUVER, B C V6E 3S7 (604) 683-6921

033870 33870

UTAH MINES LTD.
1050 WEST PENDER STREET • VANCOUVER, B.C. V6E 3S7

WASTWOOD & GRANVILLE BRANCH
CANADIAN IMPERIAL BANK OF COMMERCE 10
VANCOUVER, B. C. CANADA 10

VENDOR NO	DATE OF CHECK	DOLLARS	CENTS
076570	05-05-81	$ ****1,764.00	

PAY TO THE ORDER OF

****
JOHN WLAD & SONS. CONST. LTD
IROQUOIS FALLS, A.
ONTARIO, CANADA
P0K1G0

UTAH MINES LTD.
GENERAL ACCOUNT

NOT NEGOTIABLE

⑈33870⑈ ⑆00010⑈010⑆92⑈03⑆⑆7⑈

2.4654

A S S E S S M E N T R E P O R T

ON

OVERBURDEN DRILLING

IN

MOODY AND GALNA TOWNSHIPS

FOR

UTAH MINES LIMITED

MARCH 31, 1982

UTAH MINES LIMITED

DATE 23 MAR 81 HOLE No. UT81-2(A) GEOLOGIST K. BAXTER DRILLER A. STRO

HOLE LOCATION 50' on bearing 315° from hole UT-80-02

BIT No. 59587 FOOTAGE ON BIT 370 - 467 Ft. HOLE = 94'

HOURS MOVE 8:55 to 9:00 AM HOURS DRILL 9:00 AM to 10:15 AM OTHER Pull rods at end of hole 10:15 AM to 10:45 AM Total Footage 97 Ft.

Short adapter between sub & bit replaced for rest of hole

DEPTH	GRAPHIC LOG	SAMPLE No.	DESCRIPTIVE LOG
			0-5 Ft. ORGANICS
			5-50 Ft. OXYDIZED CLAY - 5-15' hard clay balls little return. - 15-50' very soft runny oxydized clay.
50			50-84 Ft. SILT - fine grain sand to silt - 55' minor organics. Very small return of wood chips - 68'-69' a 1Ft. layer of soft grey clay. - 73'-74' 1Ft. layer of soft grey clay. - 68-75' minor organics and very few small pebbles
80			84-94 Ft. GRAVEL - sub-angular, sub-rounded pebbles. - largest clast ~ 1" diam. - graded bedding with very little to no sand return (coarse) - Pebbles ~ 75% Mafic with some altered and gneiss - 94F a 6" layer of red grain sand.
90		01	94-97 Ft. MAFIC BEDROCK - Mafic Vol. with definite quartz vein
100		02 a) b)	After 3' of Bedrock drill bit worn too badly to continue.

UTAH MINES LIMITED

DATE 23 MAR 81 HOLE No. UT 81-2(B) GEOLOGIST K. BAXTER DRILLER A. STROT

HOLE LOCATION 50' on bearing 45° from hole UT 80-02

BIT No. 59587 FOOTAGE ON BIT 259-370 Ft. Hole 106'

HOURS MOVE _____ HOURS DRILL 7:00 AM to 8:40 AM OTHER Pull rods end of hole 8:40 AM to 8:55 AM Total Footage 111'

DEPTH	GRAPHIC LOG	SAMPLE No.	DESCRIPTIVE LOG
10			**0-5 Ft. ORGANIC.** - little return. **5-50 Ft. OXYDIZED CLAY** - hard clay balls for 5-8 Ft. - 8 to 50' soft runny oxydized clay - 35 to 45' very little return
20			
30			
40			
50			**50-75 Ft. SILT** - Fine grain sand to silt - 66-67' a 1 Ft layer of grey clay - 68-75' very minor pebbles and organics (wood chips) but at 70' major organic horizon for about 6".
60			
70			
80		01	**75-106 Ft. SANDY GRAVEL** - 75-95' little +10 return, mostly med. to coarse grain sand. - very small pebbles in gravel - 75' is a small granitic cobble. - pebbles well rounded. - up to 70% Mafic Vol - sub-angular pebbles too. - 95-105' graded bedding in gravel with much return - largest clast size 3/4" diam. - small cobbles and very few elongated pebbles - comp. ranging from 1/3 Granitic 1/3 LST 1/3 Vol to 70-85% Mafic.
90		02	
100		03 ↓	

UTAH MINES LIMITED

DATE 23 MAR 81 HOLE No. UT81 - 2(B) GEOLOGIST K. BAXTER DRILLER A. STRON
HOLE LOCATION 50' on bearing 45° from hole UT 80-02
BIT No. 59587 FOOTAGE ON BIT 259 - 370
HOURS MOVE HOURS DRILL OTHER

DEPTH	GRAPHIC LOG	SAMPLE No.	DESCRIPTIVE LOG
		03	106 - 111 Ft MAFIC BEDROCK
		04	- Mafic Vol.
			- pyritic cubes
		05	- quartz vein (?)
110			samples 5(a) - Heavy Min. a) Con.
			5(b) - Whole Rock. b)
120			

UTAH MINES LIMITED

DATE March 31 81 HOLE No. UT-81-10 GEOLOGIST Stock DRILLER STROSNI

HOLE LOCATION ≈ 1000' East of Campsite II on Road

BIT No. 59067 FOOTAGE ON BIT 0-250' = 250'

HOURS MOVE 7:15-7:30 Am HOURS DRILL 7:30 Am - 3 pm OTHER @ 9:30 - 10 Am wait for water 10:45 - 11 Am install new lead rod

DEPTH	GRAPHIC LOG	SAMPLE No.	DESCRIPTIVE LOG
			0-5 Brown oxidized Clay
			5-15 No Return
			15-209 Fine Sand
			15-25 very little return - fine sand & silt
			@ 25 minor small pebs
			35-105 fine sand & silt & pyrite? flecks probably mica flecks
			105-135 coarse fine sand
			135-165 fine sand & silt
			@ 175 organics @ 154 minor pebs & clay
			165-209 fine sand
			@ 183 coarse sand & peb. layer
			203-205 coarse sand
			209-229.5 Gravel (could be reworked bed ? abundant mafic cobs)
			209-213 fine → c. sand matrix & pebs = mafic rich (≤ 3/8") subangular → spherical well rounded. Minor gg. clay balls & rounded clasts, & carb. pebs
			@ 213 light green mafic vol. boulder & calcite chips
			213-216 as 209-213
			216-220 cobs - mafic 70%, granitic 20% & fine → coarse sand & pebs = mafic rich (≤ 1/2") angular to spherical, well rd.
			⇒ grades into fine → coarse sand & pebs as above (220-222), 222-223 more matrix than pebs
			@ 223.5 (223) black mafic igneous bld & mafic cobs ⇒ increase in fine → med sand matrix & minor pebs @ 227 & minor cobs (50% mafic, 10% qtz.)
			@ 229 large well rd. peb. layer.
		01	
			229.5-244 Regolith Clays & cobs
			@ 229.5-230 graphitic layer - black soft clay-like balls. → blue green clay - soft no or little grit ⇒ 236. @ 230.5 - clay is blue green & mafic chips (layered & brittle)
			@ 235 dark green clay
		02	236-37 dark, brittle, flaky mafic vol. rock & very minor grey clay @ 237 & limonite stain
			237-39 green soft clay
			239.5 graphitic layer, soft & clay like - black & mafic vol chips & pyrite. (2")
			239.75-240 grey, v. soft clay & grit + above chips & abundant pyrite cubes
			@ 240 graphitic layer
		03	240.5 - 244 white soft clay & grit on surface.
			244-250 BEDROCK
			244-249 graphite & abundant pyrite chunks (≤ 1/8") & minor qtz veinlets
			@ 249-250 light green mafic vol. clay & limonite stain & pyrite flecks.

UTAH MINES LIMITED

HOLE No. UT-81-10 GEOLOGIST _____ DRILLER _____

OLE LOCATION _____

BIT No. _____ FOOTAGE ON BIT _____

HOURS MOVE _____ HOURS DRILL _____ OTHER _____

DEPTH	GRAPHIC LOG	SAMPLE No.	DESCRIPTIVE LOG
110			
120			
130		04	
140			
150			
160			
170			
180		05	
190			
200			

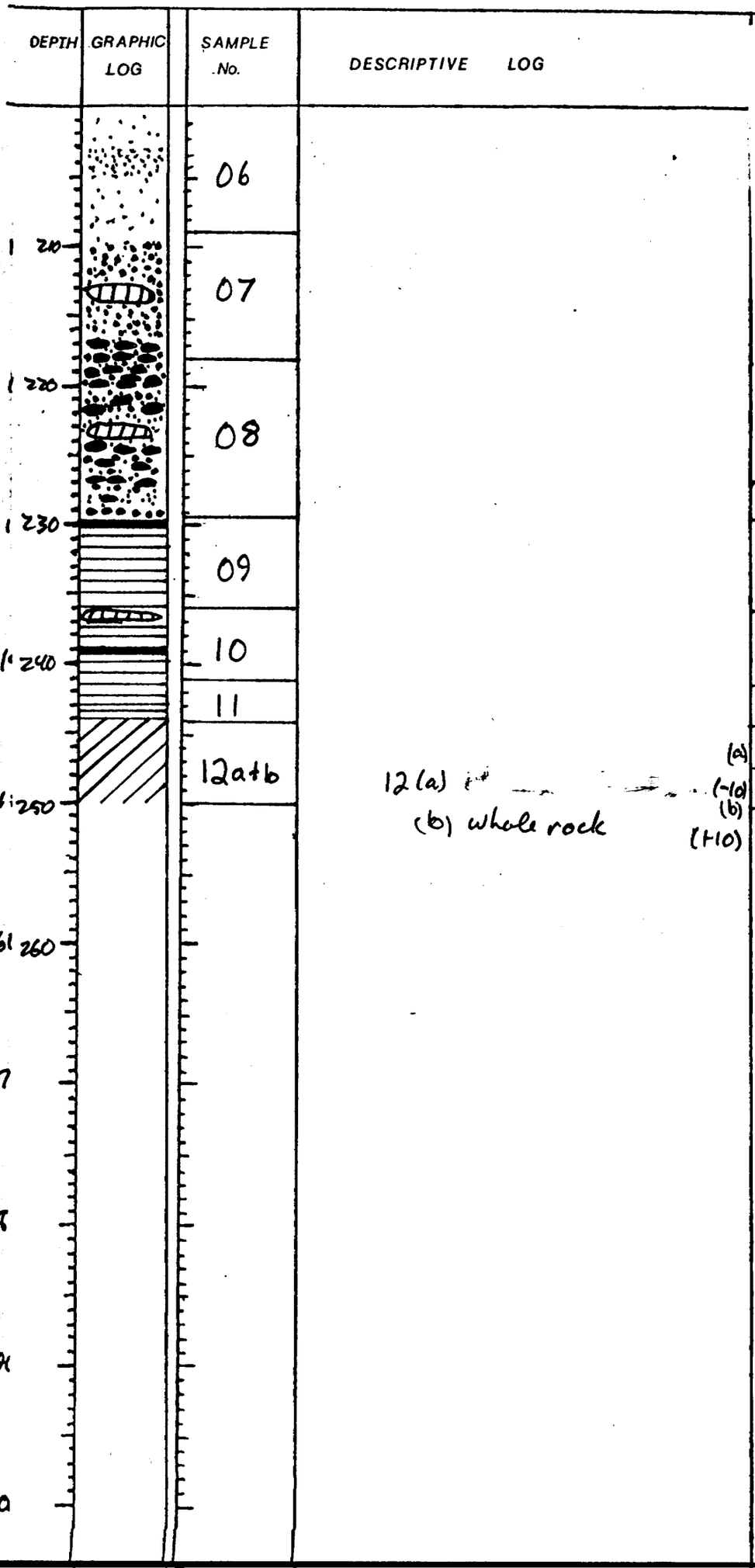
UTAH MINES LIMITED

HOLE No. UT-81-10 GEOLOGIST _____ DRILLER _____

HOLE LOCATION _____

BIT No. _____ FOOTAGE ON BIT _____

HOURS MOVE _____ HOURS DRILL _____ OTHER _____



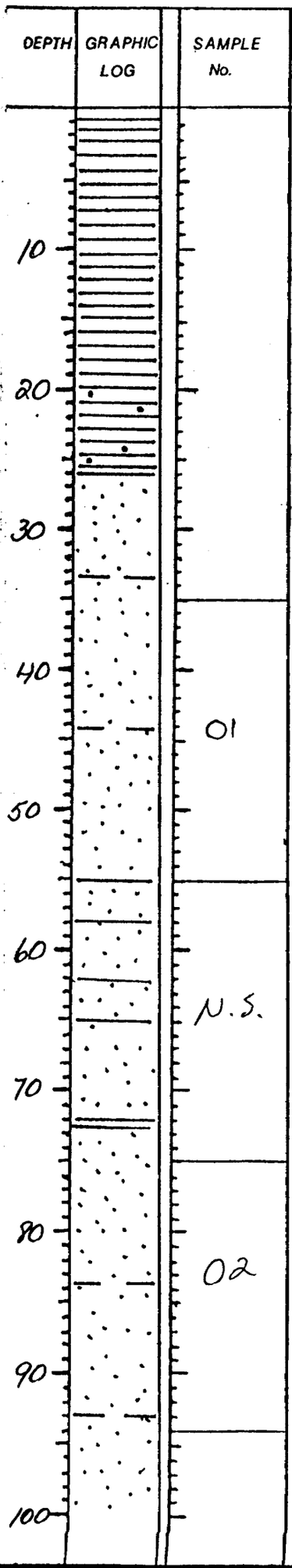
UTAH MINES LIMITED

DATE April 1/81 HOLE No. UT81-11 GEOLOGIST K. BAXTER DRILLER A. STRO

HOLE LOCATION 500 Ft. W of UT81-10

BIT No. 59067 FOOTAGE ON BIT 250 - 500 Ft. Total for hole 25

HOURS MOVE 6:00PM-6:30PM HOURS DRILL 7:30AM-9:00AM, 9:25AM-3:30PM OTHER Fix swivel: 9:00AM - 9:25AM, Pull rods: 3:30PM - 6:00PM



DESCRIPTIVE LOG

0-26 Ft. OXYDIZED CLAY
- 0-5 Ft. hard brown clay
- 5-20 Ft. hard brown clay with minor silt. Little return.
- 20-26 Ft. very soft brown clay grit covered. Very minor pebbles.

26-217 Ft. SAND
- 26-55 Ft. fine grain oxydized sand with high % mica & minor oxydized clay.
- interbeds of clay & silt.

01 ⟷ no #10 sample returned

- 55-65 Ft. med. to fg oxydized sand with very minor gritty grey clay.
- 65-217 grey sand med to fg. much mica.

- 70 Ft. minor organic horiz'n
- 72 Ft short bed of grey clay.

02

- 87 Ft. organic horiz'n.

UTAH MINES LIMITED

April 1/81 HOLE No. UT81-11 GEOLOGIST K. BAXTER DRILLER A. STROJ

E LOCATION 500 Ft. W of UT81-10

T No. 59067 FOOTAGE ON BIT 250-500 Ft.

HOURS MOVE HOURS DRILL OTHER

DEPTH	GRAPHIC LOG	SAMPLE No.	DESCRIPTIVE LOG
110			
			-116 Ft. f-g sand to silt (grey)
120			-118-119 Ft. soft grey clay (little return).
			-134 minor organic horizon
130			
140			-139 Ft. minor peb.
			-144 to 149 Ft. very small interbeds of grey clay.
150			
160			
170			-170 Ft. very minor pebbles + organics.
			-175 Ft. fine gravel or very coarse sand with med to f-g sand matrix & organics (little return).
180			
			-188-189 Ft. Med to coarse grain sand & gravel of small clasts.
190			
200			

UTAH MINES LIMITED

April 1/81 HOLE No. UT81-11 GEOLOGIST K. BAKER DRILLER A. STROW

E LOCATION 500 Ft. W of UT81-10

T No. 59067 FOOTAGE ON BIT 250-500 Ft.

HOURS MOVE HOURS DRILL OTHER

DEPTH	GRAPHIC LOG	SAMPLE No.	DESCRIPTIVE LOG
		N.S.	-203 Ft. f.g. sand to silt; no gravel. -207 Ft. very minor pebbles + clay -211 Ft. minor clay and pebbles. -214 Ft. major organic horizon.
210			
220		03	217 – 227 Ft. PEBBLE GRAVEL -med. to coarse grain sand matrix. - bedded gravel (perhaps graded?) - many compositions but Mafic 2% of quarty granitics + Vol. Vol. → mafic to Ultra mafic little LST.
		04	
230		05	-222 - 223' Mafic to Ultra Mafic Bldr. slightly altered.
		06	-223 - 226 Mafic cobbles 70% granitic + LST etc 30% pale green water + very little return of coarse to med grain sand matrix.
240		07	-226' a 6" granitic Bldr.
			227 – 250 REGOLITHIC CLAY AND BEDROCK. -227 Ft. light green clay with fine to med g. green sand (little sand return) -227.5 Ft. 5-8" Mafic to Ultra mafic Vol. cobble. -230 same as above. -231 quarty carbonate cob. -231.5 – 236 Mafic Bedrock probable ledge resistant to weathering -236 clay. -236.5 Ultra Mafic cobble -238 quarty (clay), Mafic. -238.5 sand clay. -243.5 – 246.5 Mafic Bldr. -246.5 – 250 Mafic to Ultra mafic Vol. Bedrock possibly cut slightly alluvium
250			
260			

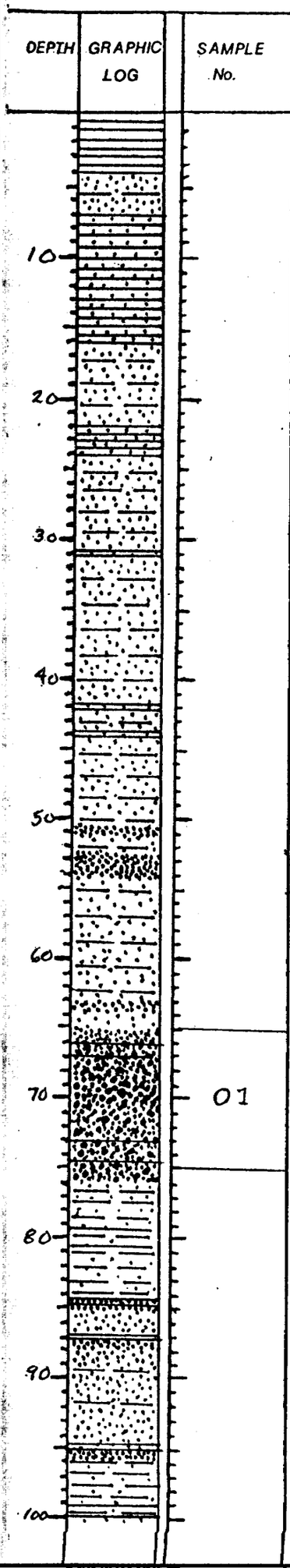
UTAH MINES LIMITED

DATE April 2/81 HOLE No. UT-81-12 GEOLOGIST NENSOME DRILLER STROJNY

HOLE LOCATION 1500' NORTH OF UT-81-05

BIT No. 59580 FOOTAGE ON BIT 0-211' HOLE DEPTH 211'

HOURS MOVE 7:15-8:30 4:30-5:00 HOURS DRILL 8:30 → 3:45 OTHER START PULLING ROD @ 3:45 after finishing hole in bedrock @ 211'



DEPTH	SAMPLE No.	DESCRIPTIVE LOG
		0'-4' Varves - brown oxid. clay.
		4'-65' Fine Sand, Silt & clay.
		4'-7' brown v.f. sand & min. silt.
		7'-16' light brown clay - slig. gritty
		16'-65' brown v.f. sand + silt & v. min. clay. - gritty brown clay layers @ 22'-24', 31', 42', 44'. - 6" c. sand & v. small pebs @ 51' & 52.5'-54'. - m.-c. sand layer @ 63'-64'. - f. sand grey after 60'
		65'-76' Fine Gravel.
		65'-70' - dom. matrix (65%-70%) of f. → c. sand + min. grey clay flakes & small (< ¼") sub-ang. & rounded pebs - grades into larger pebs (< ½") from 69'-70' 60% gr., 40% mat. & mete.
		70'-76' - dom. matrix (60%) of f.-m. sand - 40% c. sand → small pebs (< ¼") - sub-ang. & rounded → w. rounded. 40% gr., 40% mat., 20% other. - min. clay flakes @ 76'
		76'-137' Sand, Silt & clay.
		76'-84' - dom. silt, less v. f. sand & v. min. clay
		84'-85.5' - clay to c. sand (2 cycles)
		85.5'-96' - dom. f.-m. sand & min. silt & c. sand (< 20%) & v.v. min. pebs. - thin clay layers @ 87' & 95' followed by 6" c. sand.
		96'-104' - dom. silt → m. sand, gritty clay @ 99', 100' & 103'
		104'-126' - dom. silt & less v.f. sand + min. clay & c. sand @ 106', 109', 112' - 6" c. sand layer @ 117' - clay @ 122' & 124.5'
		126'-130' - hard grey clay.
		130'-137' - dom. silt + min. clay layers
		137'-142' - Gravel.
	01	f.-m. sand matrix (40%) + pebs (< ½") → small cobs. - ang. → sub-ang. & rounded coarsening ↓ - 40% gr., 40% mat., 20% other
		142'-148' Till ?
		- dom. matrix (70%) - f clay → f. sand. - min. gritty clay balls & small pebs (< ¼" > ½")
		145'-148' - 80% matrix as above + arm'd clasts & smears (< ¼") & gritty clay balls (10% c. sand & 10% pebs) 40% gr., 40% mat., 20% other.
		148'-153' Gravel or Till
		148'-149' - 1 mat. & 2 gr. cobs + min. gritty clay balls (30% matrix clay → f. sand)
		149'-150' - large gr. cob. + min. ang. pebs. - poorly rounded → rounded & min. arm'd clasts - f. sand matrix.
		150'-153' - 2 large gr. cobs in f. → c. sand matrix (50%) + min. pebs & v. min. arm'd clasts - 40% gr., 40% mat. 20% mete + other (qtz, chert, etc.)

UTAH MINES LIMITED

DATE _____ HOLE No. UT-81-12 GEOLOGIST _____ DRILLER _____

HOLE LOCATION _____

BIT No. _____ FOOTAGE ON BIT _____

HOURS MOVE _____ HOURS DRILL _____ OTHER _____

DEPTH	GRAPHIC LOG	SAMPLE No.	DESCRIPTIVE LOG
110			153'-184' Varved silt & clay 153'-159' - light grey clay - gritty for first 6" 159'-164' - dom. silt ± min. clay layers. 164'-169' - light grey clay & silt (50-50) 169'-184' - dom. silt (80%) + clay. - clay layer 181'→183'
120			184'-205' Gravel. 184'-190' - dom. c. sand matrix (70%) - + min. non-gritty clay & pebs (4½") - coarsening ↓ to larger pebs.
130			190'-192' - gr. cob. ↓ f. sand → small pebs ↓ larger pebs - ang → sub. ang & w.r. 40% gr., 40% maf., 20% other. 192'-193' - pink gr. bldr. 193'-195' - dom. fine → c. sand matrix (60%) - coarsening ↓ small pebs ↓ small maf. cobs.
140		02	195'-205' - f. → m. sand matrix (40%) - small pebs → abun. large pebs (3½") → cobs (gr. + maf.) - ang. → sub. ang. & r. → w.r. - cobs dom. 195'-196' & 200'-202' - poorly sorted - sporadic gr. cobs from 202'-205' - v. min. arm'd clasts after 204.5' 40% gr., 40% maf., 20% other.
150		03	205' Bedrock. - maf. vol. or intrus. - gab. or more maf. - fspars slig. healed & maf.'s chl't'd. - min. grey/green clay (in fracts) near bottom. - 6"-8" qtz. vn. @ 209'
160			
170			
180			
190		04	
200		05	

UTAH MINES LIMITED

ATE _____ HOLE No. UT-81-12 GEOLOGIST _____ DRILLER _____

HOLE LOCATION _____

BIT No. _____ FOOTAGE ON BIT _____

HOURS MOVE _____ HOURS DRILL _____ OTHER _____

DEPTH	GRAPHIC LOG	SAMPLE No.	DESCRIPTIVE LOG
		05	
		06	
210			

UTAH MINES LIMITED

DATE 6 APRIL 81 HOLE No. UT81-13 GEOLOGIST K. BAXTER DRILLER A. STRO

HOLE LOCATION ON INTERSECT. OF MAIN ROAD & LOGGING ROAD IMMED. SOUTH OF TRAIL LAK

BIT No. B62 307 FOOTAGE ON BIT 0 - 184 Ft. TOTAL FOOTAGE 18

HOURS MOVE 7:30 - 8:10 AM HOURS DRILL 8:10 AM - 2:30 PM OTHER PULL RODS 2:30 P

3:30 PM.

DEPTH	GRAPHIC LOG	SAMPLE No.	DESCRIPTIVE LOG
			0-5 Ft. NO RETURN
			5-10 Ft. CLAY - soft brown; oxydized
10			10-60 Ft. SILT - very fine sand to silt - oxydized and rich in mica, especially muscovite
20			
30			- 30 ft. a 6" layer of oxydized clay. Little return.
40			- 42 ft. a 6" layer of oxydized clay with very minor pebble
50			
			60-110 Ft. GRAVEL - med to coarse grain sand matrix - bedded and partially graded - few small cobbles. - Approx 40% Mafic to Ultra 40% Granitic 20% others & eqz
60		01	altered → some muscovite schist - largest clast ~ 3/4" diam.
70		02	- many broken fractured clasts Very few rounded sub-angular pebs. Some well rounded - minor ferriginous clasts -66' coarse grain sand matrix and 2' granitic bolder. -69' small mafic & granitic cobbles for 1.5 ft. -70' peb. gravel graded bedding little c.g. sand. to 72.5' -72.5 granitic Bolder pred. <1' -74 peb gravel med to f.g. sand matrix for few inches then med to c.g. Mostly ultra mafic & granitics with minor quartz & LST. -82' minor hematite frago. -74 to 85 graded bedding -83' many of Mafic clasts: flattened, Sub angular well rounded. -94' a 1 Ft. Bolder of granno-diorite.
80		03	
90		04	
100		05 ↓	

UTAH MINES LIMITED

DATE _____ HOLE No. UT81-13 GEOLOGIST _____ DRILLER _____

HOLE LOCATION _____

BIT No. _____ FOOTAGE ON BIT _____

HOURS MOVE _____ HOURS DRILL _____ OTHER _____

DEPTH	GRAPHIC LOG	SAMPLE No.	DESCRIPTIVE LOG
		05	-99' Mafic gniess & ultra mafic cobble. -100' very partial graded bedding Mafic rich & mod. return on med to cg sand.
		06	-105.5 Granitic Bldr.
110		07	110 - 112 Ft. TILL (?) - armoured clasts and gritty clay balls ~5%. - poorly sorted & well rounded pebbles.
		08	
120		09	112 - 120 Ft. GRAVEL - much the same as the previous gravel: med to c.g. sand. Bedded & partially graded. -114 gniessic cobble, rich in almondine garnet. -117 granitic Bldr then med to f.g. sand.
130		10	
		11	120 - 131 Ft TILL (?) - beginning: very minor gritty clay balls and armoured clasts - 123 Ft. higher % gritty clay ~10%. - med to c.g. sand & poorly sorted pebbles - largest clast ~1" diam. - 127 to 131' 90% gritty clay balls and 10% pebbles.
140		12	
150		13	131 - 145 Ft. GRAVEL. -135 gniess with almondine garnet very large clasts. Gravel bedded but not graded. - mafic rich with med to f.g. sand matrix. - minor pyrite -145 layer of soft grey clay.
160		14	145 - 162 Ft. TILL LAYERS (?) -145' clay balls 90% some gritty and minor pebbles with very minor armoured clasts -150' grey silt for 6" then clay balls. (a) -162 6" of grey silt -153 even mix of pebs. & gritty clay balls with armoured clasts for 6" then (b) grey soft clay. -166 same as above. + granite cobble. -155.5-157 granitic Bldr. -157 grey clay. -160 possible till.
170		15	
180			
190			162 - 170 GRAVEL - med to f.g. sand matrix. - poorly sorted - cobbly & mafic rich ~75%. - 165 Ft. Bldr. of Biotite & muscovite gniess. ~6"

UTAH MINES LIMITED

DATE _____ HOLE No. UT81-13 GEOLOGIST _____ DRILLER _____

HOLE LOCATION _____

BIT No. _____ FOOTAGE ON BIT _____

HOURS MOVE _____ HOURS DRILL _____ OTHER _____

DEPTH	GRAPHIC LOG	SAMPLE No.	DESCRIPTIVE LOG	ANALYSES
			170 - 184 Ft. BEDROCK -170-174 Intermed to slightly mafic bedrock. & slightly chloritized & sericitized dacite to andesite -174-180 Ft. Regolith: white kaolinized clay. -180-182 Ft. Bedrock, no clay. END HOLE 184. Samples 16(a) Heavy Min Conc. 15(b) Whole Rock. 15 +10 storage.	

UTAH MINES LIMITED

DATE 6 (47) APRIL 81 HOLE No. UT 81-14 GEOLOGIST K. BAKER DRILLER A. STROH

HOLE LOCATION 1000 Ft. East of UT 81-13.

BIT No. B59594 FOOTAGE ON BIT 0-135 Ft.

HOURS MOVE 3:30PM - 3:45PM HOURS DRILL 3:45PM - 5:10PM OTHER

DEPTH	GRAPHIC LOG	SAMPLE No.	DESCRIPTIVE LOG
			0-3 Ft. CLAY - oxydized & little return.
			3-58 Ft. SILT - little return in the beginning - oxydized - 33 Ft. minor oxydized clay layer. - 41 same as 33 Ft.
10			
20			
30			
40			
50			
			58-110 Ft. SAND & SILT - fine grain sand to silt partly oxydized. - 68' a short 3" layer of soft oxydized soft clay.
60			
70			
80			- 81 a very small oxydized clay layer. - 87 grey f.g. sand to silt not oxydized. - 90 very small grey clay layer.
90			
100			- 100 small oxydized quartz cobble.

UTAH MINES LIMITED

DATE 7 APRIL 81 HOLE No. UT81-14 GEOLOGIST K. BAKER DRILLER R. STROM

HOLE LOCATION

BIT No. 13 59594 FOOTAGE ON BIT

HOURS MOVE HOURS DRILL 11:30AM - 12:20PM OTHER Pull rods 12:20PM to 12:35PM & start back down 12:45PM water truck arrived Pull rods 12:55 1:15 PM

DEPTH	GRAPHIC LOG	SAMPLE No.	DESCRIPTIVE LOG
			- 103' short grey clay layer.
			- 106' very small granitic cobble.
			- 107' very short grey clay layer.
110			- 108-110' major organic origin.
		01	110-130 Ft. GRAVEL
			- med to c.g. sand
			- many comp. well sorted but not very stratified. All are clast size small ~¼" diam.
120			- Mafic rich ~50-60%
		02	40-50% quartz, FS & granitic
			- 125 some strat. & larger clasts ~ 3/4" diam.
			- small intermed to mafic cobble
130		03	130-135 Ft. CLAY RICH GRAVEL
			- 130-131 gritty grey clay balls ~40%
			133 " " " " ~ %
			134 " " " " ~ %
140			- % clay varies.
			- small pebbles of many comp.
			- diam = ¼" or less, well sorted
			- med to c.g. sand matrix
			- pebbles mainly granitic
			- 134 small granitic cobble
			- 135 granitic & mafic cobbles grading into?
			125-135 GRAVEL
			- 125 minor armoured clasts & gritty clay balls for 1'
			- med. to f.g. sand
			- well sorted pebbles, fractured
			- small cobbles granitic rich
			- 128 to 129 sand layer
			- 129 gravel little return
			- 133 granitic cobble with epidote alteration.
			Mafic 35%
			Granitic 45%
			FST etc 20%
			- 133.5 gritty clay balls, armoured clasts, f.g. sand within sand matrix. Possible cobble till (?)
			- 135 dark green to black mafic rock.

UTAH MINES LIMITED

DATE April 7 & 8 / 81 HOLE No. UT-81-15 GEOLOGIST BAXTER & NEWSOME DRILLER STROIN

HOLE LOCATION 1000' EAST OF UT-81-14 ON OLD LOGGING ROAD

BIT No. B 59588 FOOTAGE ON BIT Apr. 7: 0'-155' Apr. 8: 155'-185' TOTAL DEPTH: 185'

HOURS MOVE Apr. 7: 12:30-1:45 Apr. 8: 11:30-11:45 HOURS DRILL Apr. 7: 1:45-4:00 Apr. 8: 8:00 → 11:30 OTHER Apr. 7: pull rods from 4:00-4:45, then clean up.: Apr. 8: 8:00-8:40 - Lower rods; pull rods in B.R. @ 185' @ 10:3

DEPTH	GRAPHIC LOG	SAMPLE No.	DESCRIPTIVE LOG
			0'-95' Fine Sand.
			• ox'd brown fine sand to silt • musco. rich clay layers 63' 187' • min. small pebs @ 63'
10			95'-130' Grey Silt
			• grey silt = min. v.f. sand.
			130'-158' Gravel.
			• small clay layer @ 130'
20			130'-135' • fine gravel = v. min. armid clasts • well sorted = silty matrix.
			135'-137' • major organics • wood chips + min gritty clay balls.
			137'-144' • as above + more larger pebs • m.-c. sand matrix - 50% gr, 40% maf. 10% other • pebs ang. → sub-ang. & rounded • min. cobs.
30			144'-145' • f.-m. sand + gr. bldr.
			145'-147' • f. sand → silt + gr. bldr. <1'
			147'-148' • gravel as above.
			148'-149.5 • gr. bldr.
			149.5-155' • gravel • small clasts & sorted.
			155'-158' • f.→c. sand + min. pebs (≤½") • 2 cycles • abun. m.→c. sand • pebs. v. w.r. • 70% gr., 30% maf. & other.
40			158'-162' • Fine Sand.
			• dom. f. sand.
			162'-171.5' Gravel.
			162'-164' • f. gravel • abun. m.→c. sand + <20% pebs (≤½")
50			164'-165' • above grades into large pebs + cobs then + dom. m.→c. sand + p.w.r. pebs (~35%) • 60% gr., 20% maf., 20% other • gr. bldr. @ 165'
			165'-166' • abun. return of m.→c. sand + pebs (≤½"). v.w.r. & ~30%
			166'-167' • maf. meta. bldr.
60			167'-169' • abun. maf., gr. & meta. cobs (30-30-30) • f.→c. sand + min. pebs (≥½") • v. w.r.
			169'-170' • dom. c. sand + pebs (≤½")
			170'-171.5' • f.→c. sand + large pebs (≥½") & min. cobs. 50-50 gr. & maf.
70			171.5'-181.5' Regolithic Clay (Possibly Very clay Rich Till)
			• 171.5-180' • 90% grey/green gritty clay balls • 2 maf. cobs (1 vol.) at top. 80% maf. grit, 20% gr. & other • 95% gritty clay balls • v. small • after 173' more grey than green after 174' • small maf. vol. cob. @ 177'
80			180'-181.5' • as above • 95% clay, 5% grit → c. sand → small pebs (≤¼") & w.r. • maf. >> gr. & other. • maf. vol. cob. @ 180.5'
90			181.5' BEDROCK
			• chl'd maf. vol. = v. min. ser/talc & <1% py □'s • bas.?
100			

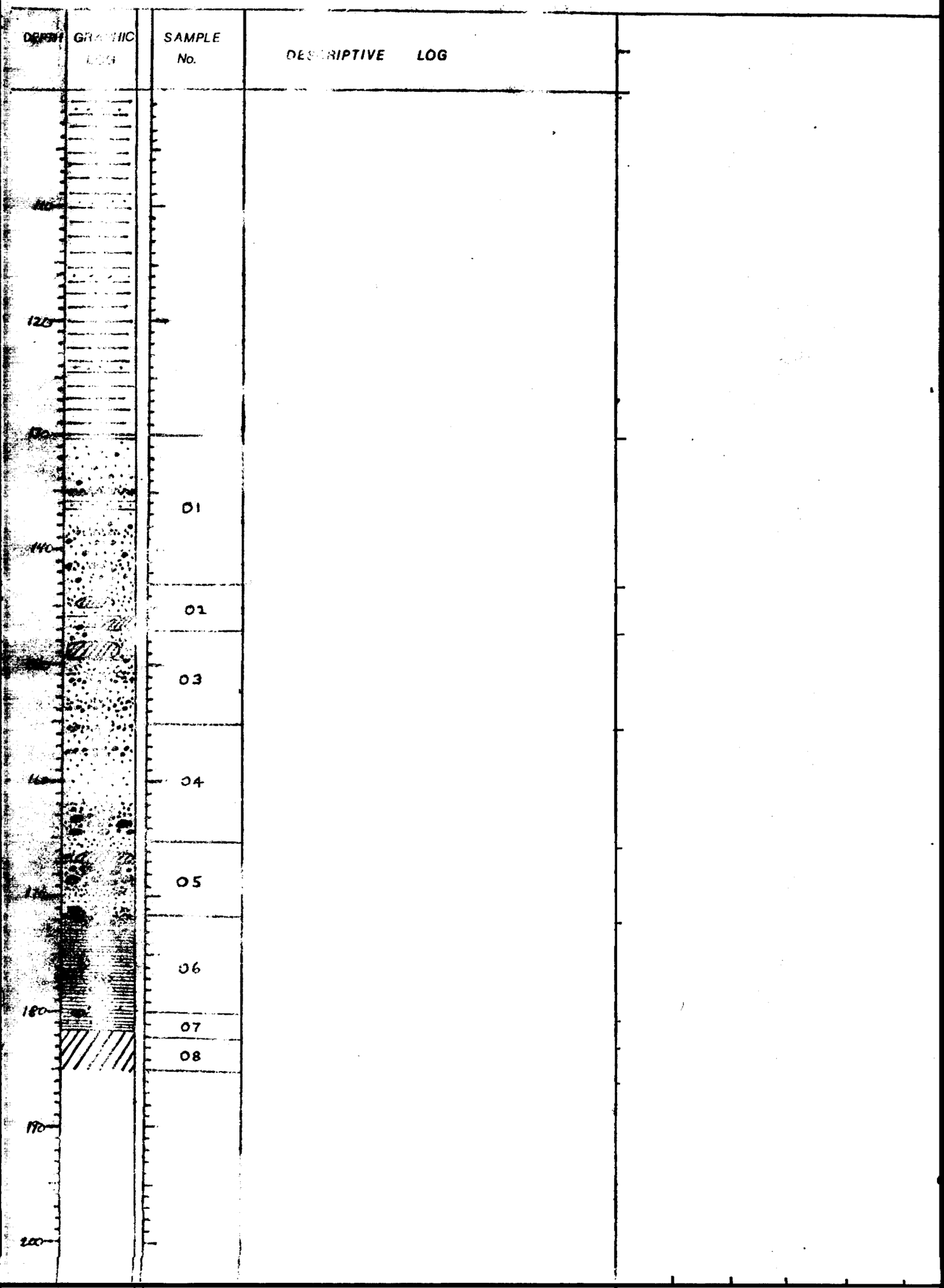
UTAH MINES LIMITED

DATE _____ HOLE NO. UT-81-15 GEOLOGIST _____ DRILLER _____

DRILL LOCATION _____

BIT No. _____ FOOTAGE ON BIT _____

HOURS MOVE _____ HOURS DRILL _____ OTHER _____



UTAH MINES LIMITED

DATE April 8/81 HOLE No. UT-81-16 GEOLOGIST Nowsome DRILLER Strojn

HOLE LOCATION 1000' EAST OF UT-81-15 ON OLD LOGGING ROAD

BIT No. B 62240 FOOTAGE ON BIT 0-208' = 208'

HOURS MOVE 11:30-11:45 / 4:00-4:30 HOURS DRILL 11:45-3:45 OTHER Clean-up 3:45-4:00

DEPTH	GRAPHIC LOG	SAMPLE No.	DESCRIPTIVE LOG
10			**0-165' Sand (Esker)**
			0-95' - fine brown - gray/brown sand - slig. → strong ox'd'n.
			95-110' - fine → med. sand - slig. ox'd - f. > m. sand. - organics @ 124' & 143' - min. clay @ 142'
			110-165' - as ox'd. - f. gray sand & min. silt & sp. min. clay.
20			**165-184' Gravel.**
			165-175' - clay → c. sand matrix - dom. f. sand - min. gritty → non-gritty clay - c. sand ≈ 70% of +10 fraction - min pebs (<20%) - (¼"-½") - well rounded - strat'd layers ± f. sand dom. (50% gr. - 30% mat. - 20% other)
30			175-180' - f. sand
			180-184' - f. sand & c. sand & pebs & large pebs (>¾") @ 181.5' → then f. sand & c. sand & pebs & large pebs → cobs. increases in mat. content near bottom.
40			**184-200' Till (Englacial)**
			184-185' - 70% mat. cobs - (30% other) - f → c. sand matrix & c. min clay.
			185-193' - F → c. sand matrix - abund. interm. → mat. vol. large pebs → cobs & some boleic vol. cobs & ang. & poorly rounded - 50% mat. - 30% gr'c. - 20% other
50			193-195' - min. gritty gray clay balls & more f. sand matrix - less cobs - more c. sand & large pebs than above.
			195-200' - abun. gray/green sand & mat. pebs → cobs. - 80% mat. 20% gr. & other.
60			**200-203' Gravel (or Till)**
			- clay → f. sand (min. g. c. b.) for 1st foot then f → c. sand dom. & pebs → cobs. (small cobs) - w. r. - abun. return 50% gr., 50% mat. & other.
70			**203' Bedrock**
			- dark green mat. vol. with abun. (≥ 50%) qtz. stringers & amorph. to euhed py (~ 3-5% - visual est.)
			- 208-210' - as above & ox'd.
			- 210-211' - light green. vol. - ox'd. - as qtz. stringers - min. v.f.g. py.
80			
90			
100			

UTAH MINES LIMITED

ATE_____ HOLE No. UT-81-16 GEOLOGIST_____ DRILLER _____

HOLE LOCATION _____

BIT No._____ FOOTAGE ON BIT _____

HOURS MOVE_____ HOURS DRILL_____ OTHER_____

DEPTH	GRAPHIC LOG	SAMPLE No.	DESCRIPTIVE LOG
110			
120			
130			
140			
150			
160			
170		01	
180		02	
		03	
190		04	
		05	
200			

UTAH MINES LIMITED

ATE _____ HOLE No. UT-81-16 GEOLOGIST _____ DRILLER _____

HOLE LOCATION _____

BIT No. _____ FOOTAGE ON BIT _____

HOURS MOVE _____ HOURS DRILL _____ OTHER _____

DEPTH	GRAPHIC LOG	SAMPLE No.	DESCRIPTIVE LOG
		06	
		07	
210			

UTAH MINES LIMITED

DATE 9 APRIL 81 HOLE No. UT81-17 GEOLOGIST K. BAXTER DRILLER A. STRAIN

HOLE LOCATION 1000' EAST OF UT 81-16

BIT No. B62441 FOOTAGE ON BIT 0-225 Total Fta. 225'

HOURS MOVE HOURS DRILL 7:30 - 10:30 AM OTHER Pull rods 10:30 AM - 11:00 AM.

DEPTH	GRAPHIC LOG	SAMPLE No.	DESCRIPTIVE LOG
			0-201 Ft. FINE GRAIN SAND to SILT
			- 0-10' oxydized silt, little return
10			- 20' minor small pebbles. & f to med grain sand.
20			
30			
40			
50			- 50' very c.g. sand almost a fine gravel grading into f to med g grey sand at 60'
60			- 62' a 4" clay layer.
70			- 76' f. g. sand to silt.
80			
90			
100			

UTAH MINES LIMITED

DATE _____ HOLE No. UT 81-17 GEOLOGIST _____ DRILLER _____

HOLE LOCATION _____

BIT No. _____ FOOTAGE ON BIT _____

HOURS MOVE _____ HOURS DRILL _____ OTHER _____

DEPTH	GRAPHIC LOG	SAMPLE No.	DESCRIPTIVE LOG
			- 105-110' major organic horizon
110			
120			- 120 med to f.g. sand with some very coarse grains
130			
140			
150			- 155 f.g. sand to silt
160			
170			- 170' a 1' clay layer hard grey angular less small pebbles & armoured clasts appears little reborn
180			
190			
200			

UTAH MINES LIMITED

DATE _____ HOLE No. UT81-17 GEOLOGIST _____ DRILLER _____

HOLE LOCATION _____

BIT No. _____ FOOTAGE ON BIT _____

HOURS MOVE _____ HOURS DRILL _____ OTHER _____

DEPTH	GRAPHIC LOG	SAMPLE No.	DESCRIPTIVE LOG
		01	201-209 Ft. GRAVEL - rich in granitics & mafic to ultra mafic 40, 50% resp. - many flattened clasts due to schistosity & some chloritized - small cobbles & f.g. sand matrix. - 204' Bldr of metamorphosed Felsic - 206-210 → 95% altered Felsic & mafic - minor pyrite - 205 hard granitic Bldr 1.5' - 207-209 Mafic Vol. Bldr.
		02	
210		03	
		04	
		05	
220		06	209-220 Ft. TILL - 90% intermed to mafic Vol. cobbles & few Bldrs & much pyrite (cubes) no clay, & <10% granitics - f to med g. sand matrix - high degree of schistosity. - small zones of intensive rotation - 218 armoured smears. - some clasts sericitized
230			220 - 225. BEDROCK - mafic Vol., much schistosity & partly sericitized → possibly ankerite veining - minor clay seams & pyrite cubes. END HOLE 225. Note → possibly most of sample 5 is bedrock.

UTAH MINES LIMITED

DATE 9 APRIL 81 HOLE No. UT81-18 GEOLOGIST K. BAKER DRILLER A. STROT

HOLE LOCATION 1000' East of UT81-19

BIT No. B62243 (11:00 AM - 12:00 PM) FOOTAGE ON BIT 0-190 Ft. Total Ftg. 190 Ft

HOURS MOVE 3:30 PM - 5:00 PM HOURS DRILL 12:00 - 3:00 PM OTHER Pull rods. 3:00 PM - 3:30 PM.

DEPTH	GRAPHIC LOG	SAMPLE No.	DESCRIPTIVE LOG
			0-30 Ft. CLAY - Oxidized clay grading into soft grey clay at 20 Ft.
30			30-170 Ft. FINE GRAIN SAND & SILT
40			- 40-50' silt with very minor soft grey clay. Very little return of clay.
80			- 84' minor organics

UTAH MINES LIMITED

DATE _____ HOLE No. UT81 - 18 GEOLOGIST _____ DRILLER _____

HOLE LOCATION _____

BIT No. _____ FOOTAGE ON BIT _____

HOURS MOVE _____ HOURS DRILL _____ OTHER _____

DEPTH	GRAPHIC LOG	SAMPLE No.	DESCRIPTIVE LOG
110			-110' very minor organics and clay, little retired mostly silt & f.g. sand.
120			
130			-130' med to f.g. sand. -140' minor organics
140			170 - 185 Ft. GRAVEL - few inches of clay in beginning. - Mafic to ultra mafic cobbles. - 173 pebble gravel, >50% mafic with granitics & LST. - partially oxidized matrix med to c.g. sand. - small amounts of intrusive & cherty tuff noted. - 178' Igneous Bldr. silicified felsic Vol with much pyrite 21' thick - good bedding. - 180' → 40% Mafics 40% Granitics some alteration in Mafics & schistose & some granitic gneiss - most clasts fractured or angular → schistose very few well rounded some spherical & rounded. - 183 Felsic cobble. - 184 very gradual grading
150			
160			
170		01	
180		02	185 - 190 Ft. BEDROCK. - mafic Vol. with minor quartz veining & pyrite partially recrystallized - 186' Regolith → light green soft clay balls 6" - 188' Regolithic clay or clay lenses in bedrock.
190		03	
200			

UTAH MINES LIMITED

DATE Apr. 10/81 HOLE No. UT-81-19 GEOLOGIST crock DRILLER STROJN

HOLE LOCATION Corner of North South Traverse & Main Rd.

BIT No. 562242 FOOTAGE ON BIT 0-182'-182', Newbit # 62245 0-191'

HOURS MOVE 12:45-2pm HOURS DRILL 7AM-12:45 OTHER @ 10:30 pull rods to change bit

DEPTH	GRAPHIC LOG	SAMPLE No.	DESCRIPTIVE LOG
			0-33 Vaves Brown & tan ox. clay & silt.
			33-148 Fine Sand & Silt 33-54 minor tan sl. ox. clay 54-105 v. minor clay tan ox. clay layers @ 55 & 75 @ 91 organics @ 125 ox clay & small peb (<1/8") layer & 135 ox clay layer @ 138 & 142 @ 144 organics & v. min peb.
			148-161 Till or Gravel @ 148 ox. clay layer & grey clay flakes ⇒ fine ⇒ c. sand matrix & odd peb (<1/2") well rd. & angular. with smrd clasts & striae. ⇒ 155 more pebs & small gr. cob @ 155 & 155.5 organics & hard grey gritty clay balls & fine ⇒ coarse sand & few pebs (<1/2") angular sub rd. & smrd clasts & sulphide peb ⇒ 158.5-160 coarse sand & minor grey gritty clay balls & minor ox. clay. 160-161 abundant grey gritty balls ± 20%, fine to coarse sand & odd sub.
			161-182 Fine Sand & Silt. @ 164-165 minor laminated grey clay. 169.5-170.5 laminated clay & peb. layer. & @ 182 @ 182 gr. cob. Till ? (till?) 182-184.5 mafic vol. cob, minor coarse sand & fine sand matrix & minor green argillitic clay < 10%
			184.5-191 Bedrock metamorphosed green mafic vol & qtz veining @ ± 20-30% return, + v.v. minor mineralization. @ 186 brown clumps - ankerite? + limonite staining. 187 & 185.5 c. sand & odd calc peb = fault @ 191 abundant limonite staining.

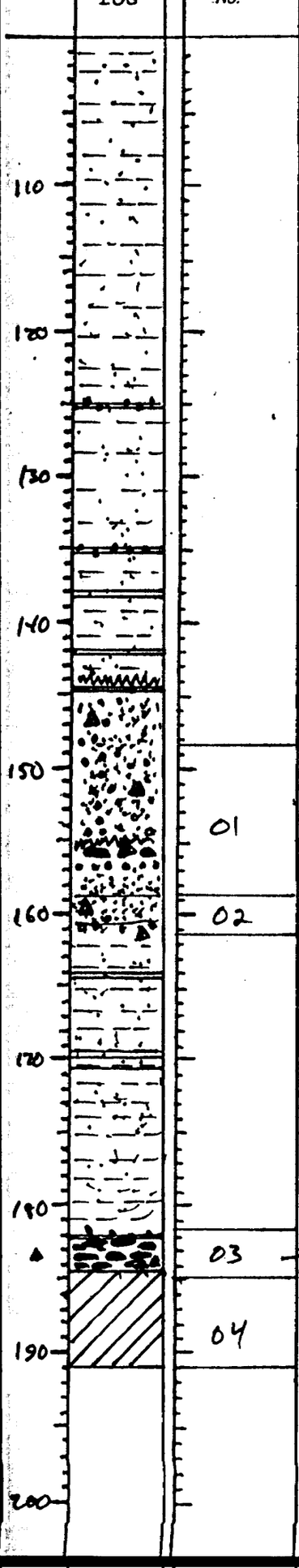
UTAH MINES LIMITED

DATE _____ HOLE No. UT-81-19 GEOLOGIST _____ DRILLER _____

HOLE LOCATION _____

BIT No. _____ FOOTAGE ON BIT _____

HOURS MOVE _____ HOURS DRILL _____ OTHER _____



UTAH MINES LIMITED

DATE 23 MAR 81 HOLE No. UT81-62(B) GEOLOGIST K. BAXTER DRILLER A. SIRO

HOLE LOCATION 50' on bearing 45° from UT80-62

BIT No. 59586 FOOTAGE ON BIT 0-173 Ft.

HOURS MOVE 11:00 AM - 12:45 PM / 3:00 PM - 3:00 PM HOURS DRILL 12:45 PM - 2:35 PM OTHER Pull rods at end of hole 2:35 PM - 3:00 PM

DEPTH	GRAPHIC LOG	SAMPLE No.	DESCRIPTIVE LOG
			0-5 Ft ORGANIC
			5-53 Ft GREY CLAY - 2" layer of hard grey clay at surface of clay horizon. - then soft oozing grey clay.
10			
20			
30			
40			
50			53-155 Ft. SILT - fine grain sand to silt but mainly silt. Little to no +10 mesh return. Interbedded with soft grey clay balls.
60			
70			
80			- 80' 2" bed of soft grey clay balls.
90			- 93-95' soft grey clay balls.
100			- 100-101' soft grey clay balls.

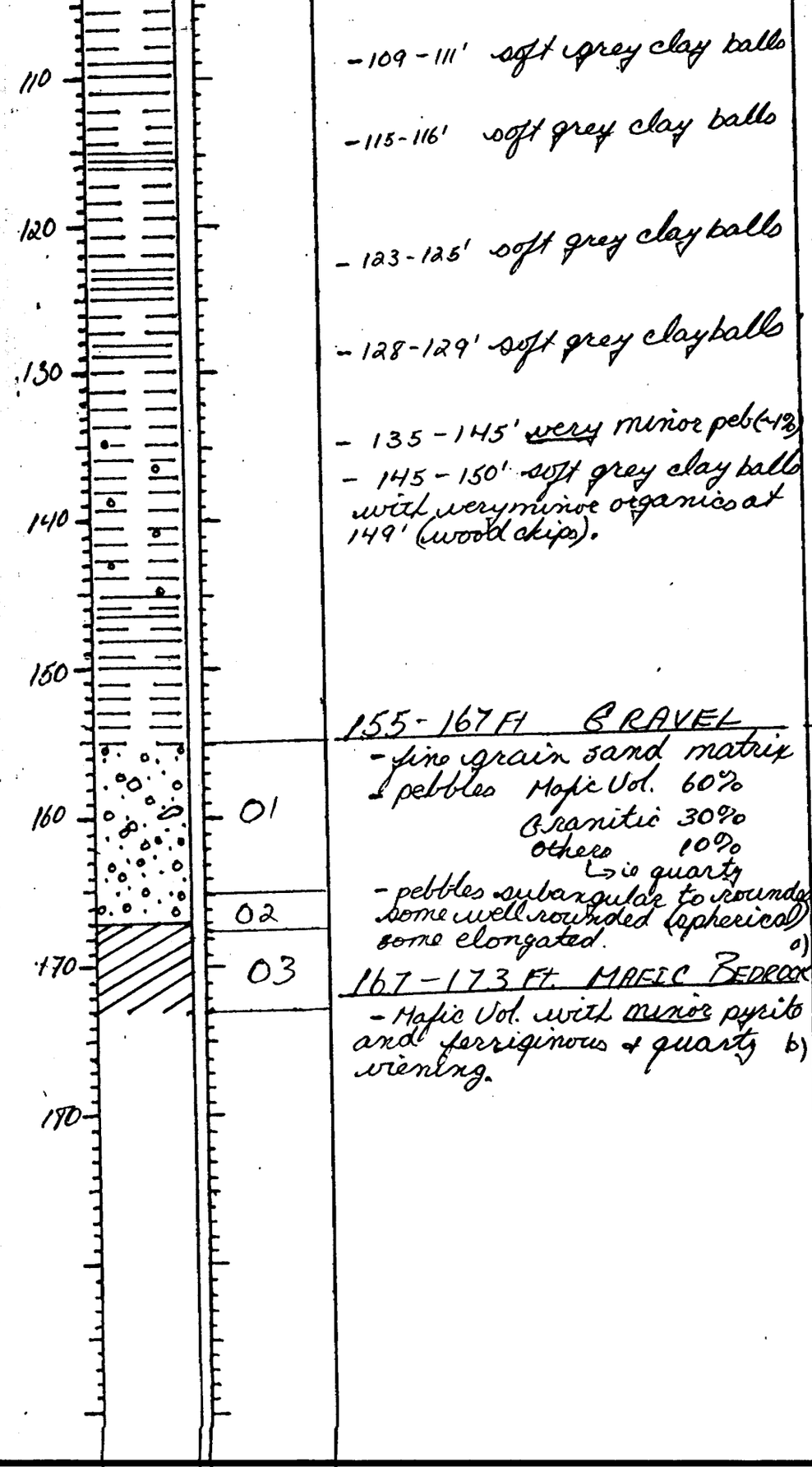
UTAH MINES LIMITED

DATE 23 MAR 81 HOLE No. UT81-62 (B) GEOLOGIST L. BAXTER DRILLER A. STRATH

HOLE LOCATION

BIT No. FOOTAGE ON BIT

HOURS MOVE HOURS DRILL OTHER



- 109 - 111' soft grey clay balls

- 115 - 116' soft grey clay balls

- 123 - 125' soft grey clay balls

- 128 - 129' soft grey clayballs

- 135 - 145' very minor peb (~1%)

- 145 - 150' soft grey clay balls with very minor organics at 149' (wood chips).

155 - 167 Ft GRAVEL

- fine grain sand matrix
- pebbles Mafic Vol. 60%
  Granitic 30%
  Others 10%
  ↳ is quartz
- pebbles subangular to rounded some well rounded (spherical) some elongated. a)

167 - 173 Ft. MAFIC BEDROCK

- Mafic Vol. with minor pyrite and ferriginous + quartz b) veining.

UTAH MINES LIMITED

DATE March 24/81 HOLE No. UT-81-74 GEOLOGIST STOCK DRILLER STRONS

HOLE LOCATION ≈1050 West of hole UT-80-73

BIT No. 59-86 FOOTAGE ON BIT 0-212'

HOURS MOVE 4:45-5 pm HOURS DRILL 7:45 AM-2:15 pm OTHER @ 2:15 pm bit unable to drill further. 2:15-3:30 motor ~~repair~~ maintance 3:30-4 pm pull rods, no tricones on bit, left hole ∴ abondoned hole = Moved to UT-81-75

DEPTH	GRAPHIC LOG	SAMPLE No.	DESCRIPTIVE LOG
			0-60 Varves 0-12 tan, slightly oxodized clay & silt 12-15 soft grey clay 15-35 soft grey clay & minor silt 35-60 fine sand & silt, minor pebs @ 45
10			60-72.5 Gravel or Till 60-65 Fine to coarse sand, minor small pebs - sub angular and well rounded → spherical & minor angular poorly rd., minor clay, grey slightly gritty & armid clasts & smears! slightly stratified. @ 72 clay - grey, slightly gritty & large peb, small cob @ 65!
20			72.5-82 Super Clay
			82-85 Gravel Mafic tuff bld @ 82 → clay layer @ 83 mafic vol. bld → med → coarse sand & pebs (≤ ½") angular → spherical, well rounded, minor armid clasts & smears & clay grey no grit.
30			85-105 Till Fine to coarse sand matrix, abundant pebs - angular → sub angular, sub → well rounded, armid clasts & smears & clay, grey slightly gritty. @ 91 less clay @ 93 cobble material, mafic schist cobs with sulphide, 60% mafic, 20% granitic & armid clasts. 95-105 fine sand & silt → coarse sand & small pebs (≤ ½") Angular poorly rd → spherical well rd. @ 95.5 granitic cob., many mafic schist & tuffs (blade like) dominant cobs, 50% mafic & 40% granitic, 80% of +10. @ 104 abundant grey slightly gritty clay balls, fine → coarse sand & minor pebs as above. (layer)
40			105-109.5 Gravel Fine → coarse sand, granitic cob @ 96' & small pebs, sub-angular → spherical well rd. hard grey no grit layer.
50			109.5-113 Super Clay
60		01	113-115 Till Basalt cob, fine → coarse sand & minor pebs (≤ ½") angular sub rd & well rd, minor hard grey gritty clay balls & armid clasts @ 114 granitic cob.
70			115-122.5 Super Clay @ 116.5 qz. bld (6")
			122.5-134 Gravel 122.5-125 two large cobs (mafic & granitic) fine to coarse sand & pebs (≤ ½") subangular well rd. 125-129 fine, med → coarse sand & small pebs sub angles → spherical, very well rd, grades into larger pebs @ 129 @ 129 fine sand & silt - 132.5 - 132.5-134 fine sand & silt & med → coarse sand & pebs, sub angulas, very well rd. layers.
80		02	
90		03	134-208.5 Fine sand & Silt @ 139 & 144 6" clay layers @ 152 super clay layer @ 160 super clay & organics 169-70 med → coarse sand layers @ 173 abundant organics & clay (minor) 182-85 minor med → c. sand layers & organics @ 191 minor clay & organics & med sand. 196.5-195 minor med → coarse sand. @ 198 & 202.5 organics
		04	
100			

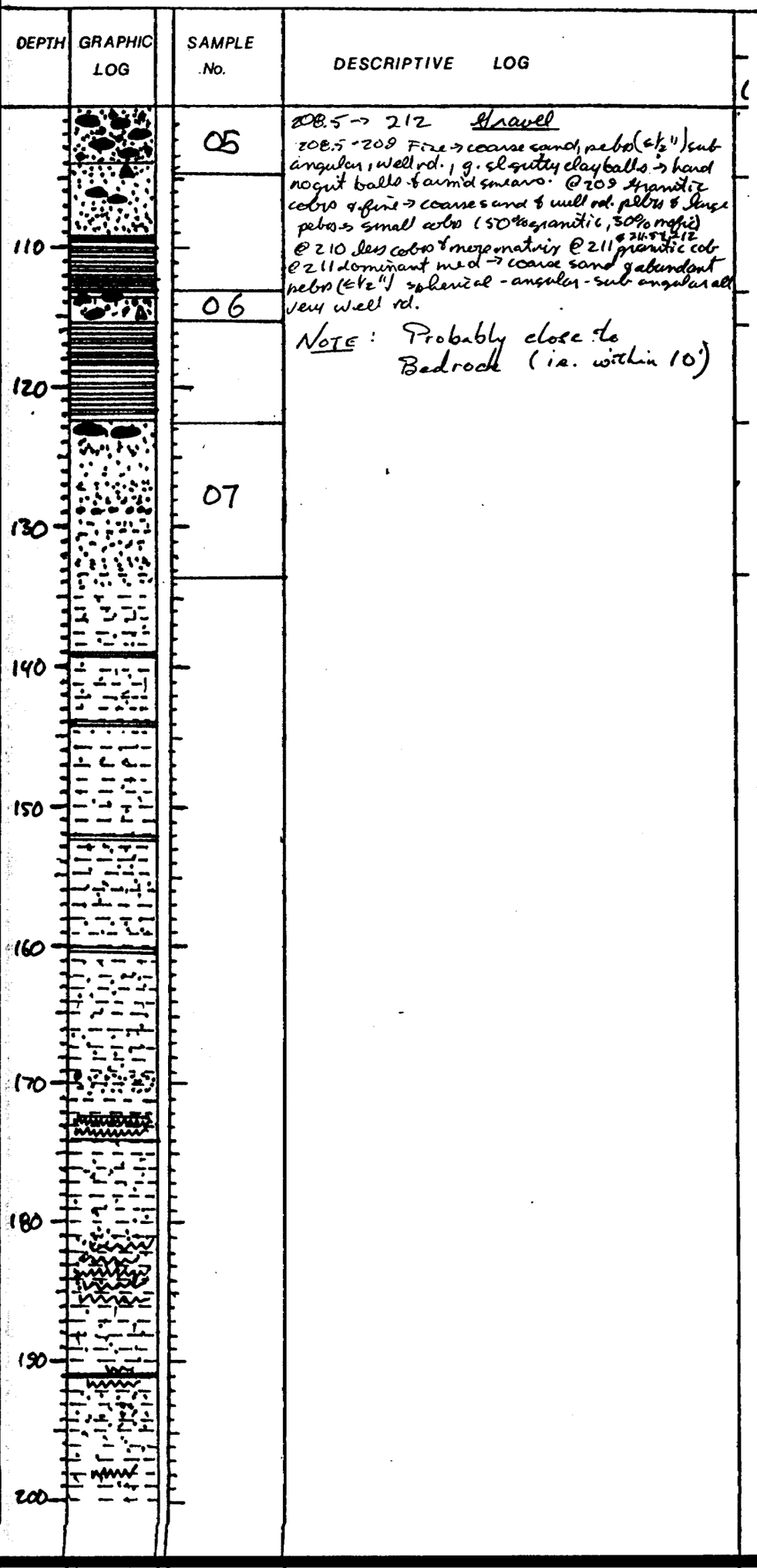
UTAH MINES LIMITED

SITE _____ HOLE No. UT-81-74 GEOLOGIST _____ DRILLER _____

HOLE LOCATION _____

BIT No. _____ FOOTAGE ON BIT _____

HOURS MOVE _____ HOURS DRILL _____ OTHER _____



208.5 → 212 Gravel

208.5 - 209 Fine → coarse sand, pebs (< 1/2") sub angular, well rd. g. sl. sutty clayballs → hard nogut balls & sand smears. @ 209 granitic cobs & fine → coarse sand & well rd. pebs & large pebs → small cobs (50% granitic, 50% mafic) @ 210 less cobs & more matrix @ 211 granitic cob @ 211 dominant med → coarse sand & abundant pebs (< 1/2") spherical - angular - sub angular all very well rd.

NOTE: Probably close to Bedrock (ie. within 10')

UTAH MINES LIMITED

DATE _____ HOLE No. UT-81-74 GEOLOGIST _____ DRILLER _____

HOLE LOCATION _____

BIT No. _____ FOOTAGE ON BIT _____

HOURS MOVE _____ HOURS DRILL _____ OTHER _____

DEPTH	GRAPHIC LOG	SAMPLE No.	DESCRIPTIVE LOG
210		08	
	?		
220			

UTAH MINES LIMITED

DATE MARCH 25/81 HOLE No. UT-81-75 GEOLOGIST NEWSOME DRILLER STROJNY

HOLE LOCATION 1000' WEST OF UT-81-74

BIT No. B. 62309 (75 → 76) FOOTAGE ON BIT 0'-214' • HOLE DEPTH: 214'

HOURS MOVE 4:45 - 5:00 HOURS DRILL 7:30 → 4:15 OTHER 8:00 - 8:35 • Air swivel. 8:45 - 9:00 • work on compressor. 11:30 - 12:15 • pull rods • clean bit - 12:15 - 1:00 • Lower rods. 1:00 - 2:30 • swivel blew off - replace swivel. • finish hole @ 3:45 • pull rods to 4:15, then clean up & move.

DEPTH	GRAPHIC LOG	SAMPLE No.	DESCRIPTIVE LOG
			0'-102' Varved clay to Very Fine Sand
			0-35' • no return.
			35'-55' • gray clay.
			55'-74' • Dom. v.f. sand + minor silt & clay (clay layers @ 70', 73')
			74'-87' • 95% gritty gray clay balls + minor (<5%) small (≤½") • maf. pebs. maf. cob. @ 86'
			87'-102' • intbd. clay & silt.
			102'-104' Till or Gravel.
			• clay → f. sand matrix (~5% g.c.b) • abun. maf. (ign.) cobs + min. gr. cobs + min pebs (≤½") • ang. & well rounded.
			104'-106' • Gritty Clay
			• 95% g.c.b. + vy. min. small pebs.
			106'-111' Gravel or Stratified Till
			• rel. abun. return. • gritty clay grades ↓ c. sand ↓ very well rounded pebs & cobs. • 30% matrix • dom. f. → c. sand + vy. min. g.c.b. • 70% pebs & cobs • 60% gr. 20% maf. 20% mafic + other.
			111'-187' Interbedded Sand, Silt & clay
			111'-120' • dom. silt & v.f. sand • clay layers @ 111' & 117'→118'
			120'-127' • dom. silt • clay → v.f. sand.
			127'-130' • dom. grey clay + min. silt
			130'-132' • dom. silt • clay → v.f. sand.
			132'-136' • dom. clay + min. silt
			136'-150' • silt & v.f. sand • min. clay.
			150'-153' • clay + min silt & v.f. sand.
			153'-165' • dom. silt + min clay → v.f. sand. 6" clay layer @ 165'
			165'-183' • v.f. sand dom. • min silt & clay. • 170' • organics • 176'-177' • clay • 177'-179 • silt
			183-184.5 • clay & gr. cob. & vy.vy. min. mafic peb.
			184.5'-185' v.f. sand + silt
			185-187 - grey clay.
			187'-209.5' Gravel.
			187'-192' • abun. return of c. sand → small pebs (≤½") • subang. & well rounded clay → c. sand matrix • 3 cycles of clay → small pebs.
			192'-193' • coarser • non gritty clay → c. sand matrix • abun. maf. vol. & ign. cobs, felsic vol. & gr. cobs & large pebs. • 40% gr, 40% maf., 20% other.

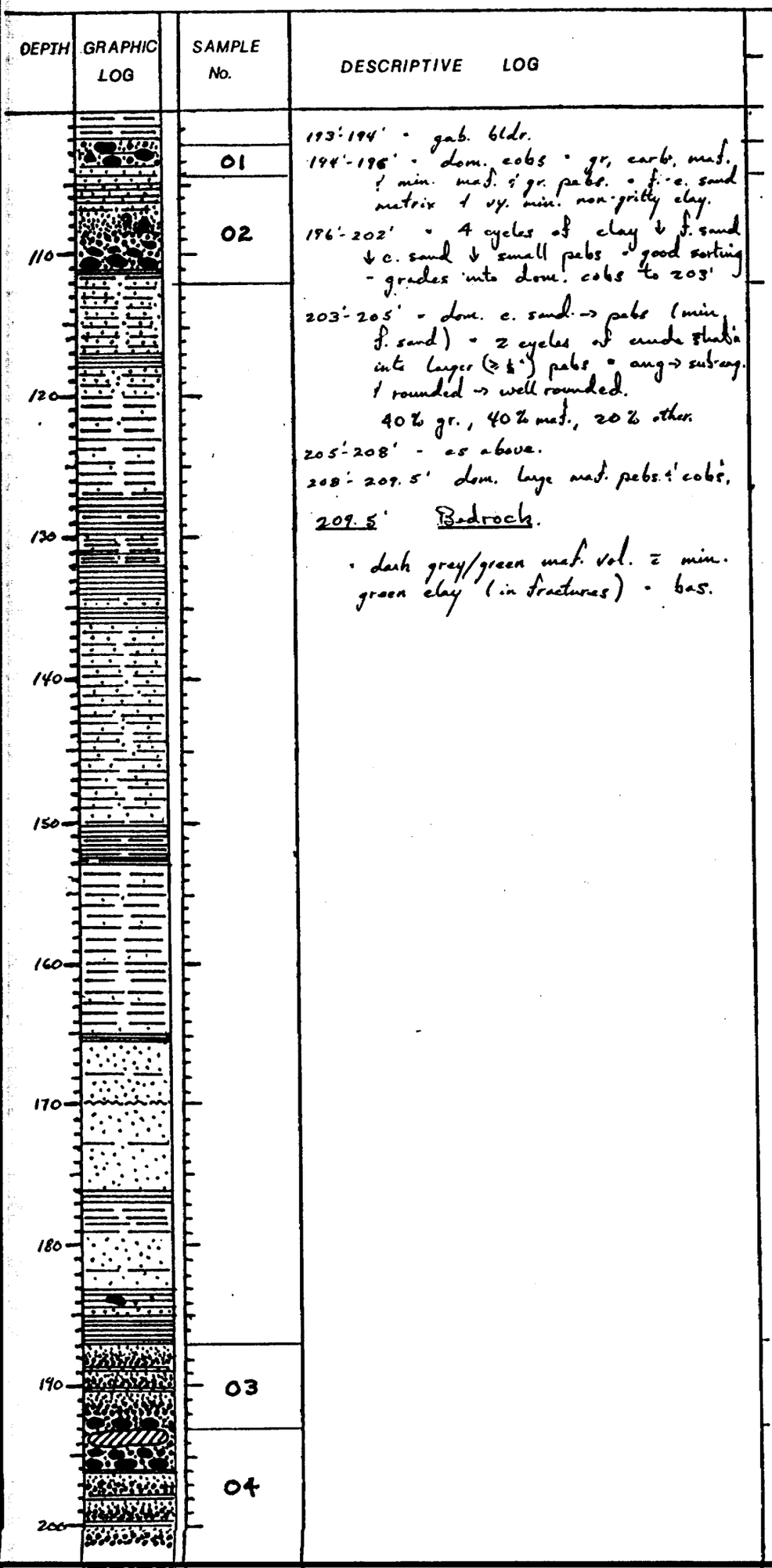
UTAH MINES LIMITED

PROPERTY _____ HOLE No. UT-81-75 GEOLOGIST _____ DRILLER _____

HOLE LOCATION _____

BIT No. _____ FOOTAGE ON BIT _____

HOURS MOVE _____ HOURS DRILL _____ OTHER _____



193'-194' - gab. bldr.

194'-196' - dom. cobs - gr, carb. mat. ± min. mat. & gr. pebs. - f.-c. sand matrix & vy. min. non-gritty clay.

196'-202' - 4 cycles of clay ↓ f. sand ↓ c. sand ↓ small pebs - good sorting - grades into dom. cobs to 203'

203'-205' - dom. c. sand → pebs (min. f. sand) - 2 cycles of crude fining into larger (≥ ½") pebs - ang → subrnd. & rounded → well rounded.
40% gr., 40% mat., 20% other.

205'-208' - as above.

208'-209.5' dom. large mat. pebs & cobs,

209.5' Bedrock.

- dark grey/green mat. vol. ± min. green clay (in fractures) - bas.

UTAH MINES LIMITED

.TE_____ HOLE No. UT-81-75 GEOLOGIST_____ DRILLER _____

HOLE LOCATION _____

BIT No._____ FOOTAGE ON BIT _____

HOURS MOVE_____ HOURS DRILL_____ OTHER_____

DEPTH	GRAPHIC LOG	SAMPLE No.	DESCRIPTIVE LOG
		04	
		05	
210			
		06	

UTAH MINES LIMITED

DATE 26 MAR 81 HOLE No. UT81-76 GEOLOGIST K. BAXTER DRILLER A. STROUD

HOLE LOCATION 1000 Ft. WEST OF UT 81-75

BIT No. 59903 FOOTAGE ON BIT 0-255 Ft. Total Footage 255'

HOURS MOVE 5:15PM-5:45PM HOURS DRILL 7:30AM-9:35AM, 9:45AM-10:35AM, 10:50AM-4:35PM OTHER Pull rods end of hole 4:35PM-5:15PM. Fix Pump 9:35AM-9:45AM Fix Compressor 10:35AM-10:50AM

DEPTH	GRAPHIC LOG	SAMPLE No.	DESCRIPTIVE LOG
			0-5 Ft. ORGANIC - little return
10			5-75 Ft. GREY CLAY - soft - little return
20			
30			
40			
50			
60			
70			75-129 Ft. SILT - with short interbeds of soft grey clay. Very little return of silt or clay. - 92 Ft. Very minor well-rounded pebbles.
80			
90			
100			

UTAH MINES LIMITED

E 26 MAR 81 HOLE No. UT81-76 GEOLOGIST K. BAXTER DRILLER A. STRO

HOLE LOCATION

BIT No. FOOTAGE ON BIT

HOURS MOVE HOURS DRILL OTHER

DEPTH	GRAPHIC LOG	SAMPLE No.	DESCRIPTIVE LOG
			- 106 Ft. very minor pebbles. - 124-125 Ft med to fine grained sand - 125-129 Ft. silt.
110			129-134 Ft. GRAVEL - peb. gravel with very little return of silt matrix. Well-rounded pebbles. Well sorted - largest clast size up to ½" diam. Small Mafic Vol. Cobbles. - 129.5 to 132 Granitic Bldes. - 132-134' gravel generally small clasts well sorted ~50-60% Mafic, the rest granitic and LST.
120		N.S.	
			134-147 Ft. CLAY RICH GRAVEL (TILL?) - bedded with gritty clay balls about 85%. Very minor armoured clasts. - 137' a 6" Mafic cobble. - 139' as very small Granitic cob. then as altered to Mafic Bldes 1 Ft. thick - 140' Mafic cobble. Very little or no return of sand silt matrix
130		01	
		02	
140		03	NB - 144 POSSIBLE TILL - equal clay gravel mix. Minor armoured clasts. Little med. to fg sand matrix. Mafic pebbles mostly. - 145' small Mafic cobble.
150		N.S.	147-166 Ft. GREY CLAY - soft grey clay balls with a silt matrix. No sand. - 147' Mafic & Granitic cobbles. - 156' Organic horizon. - very little return of +10 or of matrix. - very minor (~1%) well-rounded pebbles. - 169' small organic horizon (~5%) - 160' no +10 return, just silt - 161' minor organics - 162' minor soft grey clay balls.
160			
		04	
170		05	166-197 Ft. GRAVEL - fg sand to silt matrix. - very cobbly - comp.: Granitic 50% Mafic 40% LST etc 10% - small proportion of subangular well rounded pebbles. - well sorted but no graded bedding. Largest clast ~½" diam - 166.6' very hard Mafic Vol. Bldes 1 Ft. thick - 167' Mafic & Granitic dominant but increasing amounts of chert. - minor PY. - 168' much quartz & carbonate (40%) minor ferruginous clasts. - 169 Mafic Vol. Bldes. - 169.5-170 soft grey clay balls. - 170-173 very cobbly. Minor altered Mafics ie Gneiss. - 171 Mafic Bldes 1.5 Ft. - 174 well rounded pebbles - 174 17½ Ft. Mafic Bldes
180		06	
190		07	
		08	
200		09	

UTAH MINES LIMITED

DATE 26 MAR 81 HOLE No. UTM-76 GEOLOGIST K. BAXTER DRILLER

HOLE LOCATION

BIT No. FOOTAGE ON BIT

HOURS MOVE HOURS DRILL OTHER

DEPTH	GRAPHIC LOG	SAMPLE No.	DESCRIPTIVE LOG
		09	- 183 - 185 well rounded pebs. some elongated. Gravel bedded but not graded. Largest clast 3/4" diam. Mafic rich.
210		10	- 185 Graded Bedding much return, med to coarse grain sand, sub angular well-rounded pebbles. - 194 Minor grey clay balls
			197 - 223 Ft. CLAY RICH GRAVEL (TILL?) - fine gravel or strat. tell. - grey gritty clay balls ~50% - rounded poorly sorted pebbles. - minor armoured clasts & py. - largest clast size 3/4" diam. - fine grain sand to silt matrix (- 210 Ft. partially graded - very clay rich (~90%) } 4' probably not Till. - small cobbles Mafic
230		11	
		12	- 214' about 45% to 214. clay, 66% peb. - 220' gritty clay balls, no armd clasts. Graded Bedding & well rounded peb. - 223' percent gritty clay balls decreasing (~ 6%). Abundant altered gneiss. - gradually grading into the following gravel
240		13	223 - 252 Ft. GRAVEL - sub angular to spherical well-rounded pebbles. some fragments & elongated flattened pebbles. - very definite graded bedding largest clast size 3/4" diam. - very minor grey clay balls (~ 1%) - fine grain sand to silt matrix - 233' med to fine grain sand. Little +10 return of small clast gravel, well sorted, many lithologies - 239' hard granitic cobble & small % grey clay balls - pebbles mafic rich (75%) - 240 hematite & py. - 243 Mafic to Ultra Mafic cobbles (60%). Little sand.
250		14	
		15	
260			252 - 255 Ft. BEDROCK - Mafic to Ultra Mafic Vol. Bedrock. with very minor py.

UTAH MINES LIMITED

DATE April 4/81 HOLE No. UT-81-77 GEOLOGIST Stock DRILLER STROSN

HOLE LOCATION 1000' West of hole UT-81-76 (swamp)

BIT No. 62308 FOOTAGE ON BIT 0-170'=170'

HOURS MOVE 8-8:30 Am, 4:15-6 pm ? HOURS DRILL @ 8:30 AM - 4pm OTHER 3pm pull rods @ 170' - wheels (cones) broken off bit, cannot go back down

DEPTH	GRAPHIC LOG	SAMPLE No.	DESCRIPTIVE LOG
			0-5 peat 5-15 no return 15-70 Soft grey clay & v. fine silt.
10	?		70-103 Silt & Clay layers 85-95 minor pebs with clay layers @ 97 small peb & fine sand layer
20			103-111.5 Gravel Fine sand & silt matrix 103-105 Fine → coarse sand & pebs (≤ 1/3") angular, well rd → spherical well rd. @ 104, 2 granitic cobs & 1 mafic & v. minor grey gritty clay & aquid clasts. 105-108.5 fine → coarse sand & small pebs Ang → sub ang, sub rd., lots of return 50% mafic & 50% gtic of pebs & sand. 108.5-111.5 no pebs, gt. blds. @ 108.75 & 111
30			
40			111.5-114 Fine Sand & Silt Fine sand & silt & minor grey gritty clay balls & minor c. sand.
			114-135 Till 114-115.5 minor large peb → cob & smaller pebs, angular sub rd. = aquid clasts, grey, gritty clay balls, fine sand & silt matrix & dominant. → minor med → c. sand @ 116. @ 116' Black mafic vol. bld. (6") → fine sand & silt matrix & dominant & pebs ≤ 1/2" ang. → sub-ang. & well rd. 120-24 as above, no clay, only aquid clasts & smears & aquid clasts & g.g. clay balls @ 122 small grey slightly gritty clay balls → more clay sl. grit. @ 123 → large well rd. pebs - ang. well rd. & sub rd. + v. fine sand & silt + minor c. sand & small pebs @ 124 sulphide peb @ 124.5 abundant clay, grey slightly gritty & aquid smears. 125-27 dominant v. fine sand & silt matrix, pebs (≤ 1/2") ang. sub rd. → poorly rd. & aquid clasts & grey gritty balls @ 127 layer of ang. well rd. pebs + above, pebs getting smaller & less rd. + minor med → c. sand. @ 129.5 gt. cob & pebs in bld. (1.5') 131-134 v. fine silt + fine → c. sand matrix, pebs (≤ 1/2") ang, spherical - well rd., grey gritty clay balls & aquid clasts, minor smears. 134 few pebs to 1" return @ 134.5 mafic cob + above, fewer aquid clasts & smears.
50			
60			
70			
80			135-145 Sand & Clay 135-39 minor med → c. sand & odd peb (≤ 2 1/2") w. sub rd. little + 10 return, dominant fg. sand & silt. @ 139.75 abundant grey g. clay balls & minor c. sand. 139.75-141 as 135-39 @ 141 abundant g.g. balls (layer) & med → c. sand minor, dominant fine sand & silt. 143.5 dominant clay & minor pebs.
90			145-150 Gravel on Till As. bld (1.5') minor c. sand & clay balls. 146.5 ± → c. sand, hard laminated clay & pebs (≤ 1/2") ang. sub-rd. → well rd. @ 149 clay dominant & minor organics
100			

UTAH MINES LIMITED

+4

DATE April 10/81 HOLE No. UT-81-20 GEOLOGIST Stock DRILLER STRONITY

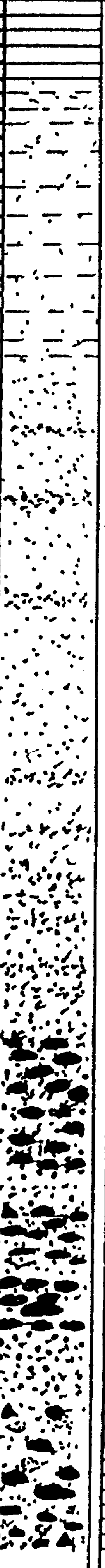
HOLE LOCATION 1000' W of Main Rd. & 1600' North of UT-81-01

BIT No. B62242 FOOTAGE ON BIT 0-183'=183'

HOURS MOVE 12:45-2pm HOURS DRILL 2:15-4:45pm OTHER April 11/81

Drill 7:45 Am - 11:45 Am

pulled rods to check bit @ 10:45 & lost 2 tricones, unable to go back down

DEPTH	GRAPHIC LOG	SAMPLE No.	DESCRIPTIVE LOG	ANALYSES
10, 20, 30, 40, 50, 60, 70, 80, 90, 100		01, 02, 03, 04	see below	

0-23 Varves

0-5 tan ox. clay, fine sand + silt

5-23 fine sand & silt.

23-65 Fine to coarse sand layers

Med sand dominant, fine → coarse layers

55-65 more abundant coarse sand & pebs ≤ 1/2", amm'd clasts minor

65-78 till or gravel

65-?? Fine → coarse sand & pebs ≤ 1/2 angular well rd, matrix, amm'd clasts & grey gritty balls => 2 cobs (gr. & l mafic) => v.g. clay balls → mafic cob. @ 68-70 mafic rich cobs, @ 72 clay flakes & 73.5 mafic cob. more cobs => 75, not much return, cobs in matrix, amm'd clasts.

75-78 fine → coarse sand & hard grey clay no grit (≈10% of 10) pebs to sangular subrd. & amm'd clasts @ 78 2 gr. cobs.

78-90 Gravel

Fine → coarse sand & cobs

78-80 few mafic & gr. cobs. 80-81 fine → sand @ 81 mafic cob (6") 81-84 mostly mafic, few granitic cobs. @ 84 mafic vol. cob (6") & fine → coarse sand & pebs ≤ 1/2, amm'd smears & cobs. 85-86 meta mafic & gr. cobs & fine sand 86-90 fine → coarse sand small pebs & minor amm'd clasts.

90-109 Till or Gravel

90-96 Fine → coarse sand, abundant fine sand & silt, few cobs & odd amm'd clasts. small mafic rich.

@ 96 dark mafic cob.

96-100 small cobs & fine → c. sand & small pebs angular → sub → poorly rd, amm'd clasts & smears. 100-103 as above, more amm'd clasts & smears, no cobs. @ 103 gr. cob

103-109 as 100-103 @ 109 gr. cob

105-109 minor clay ≤ 5%

109-118 Fine Sand & silt.

@ 116 clay & peb layer.

118-137 Gravel

118-125 dominant med sand. coarse sand & odd large peb layer => larger pebs → cobs @ 125 125-129 fine → c. sand & small pebs. @ 127 gr. cob. much return. well rd.

@ 132 larger pebs 132-35 f → c. sand & small pebs, 135-37 larger pebs ≤ 1/2" angular well rd.

137-148 Super Clay

@ 145 & 147 odd peb @ 147 laminated clay

148-149 Till or Gravel

f → c. sand & pebs, ang. sub rd. ≤ 1/2", amm'd clasts & grey gritty clay balls (55% of 10), increasing pebs @ 149 & gr. cob

149-160 Gravel

149-155 large pebs, much return, pebs well rd. small cobs @ 150 lots of fine sand & pebs ≤ 1/2" well rd. & small cobs. @ 151 few cobs, more pebs → well rd. 140% of 10 → 30% ≤ 53, mafic ≥ 35%, gr. ≥ 45%, rest & chert pebs throughout

UTAH MINES LIMITED

DATE _____ HOLE No. UT-81-20 GEOLOGIST _____ DRILLER _____

HOLE LOCATION _____

BIT No. _____ FOOTAGE ON BIT _____

HOURS MOVE _____ HOURS DRILL _____ OTHER _____

DEPTH	GRAPHIC LOG	SAMPLE No.	DESCRIPTIVE LOG
		05	155-159 as above, slightly less return, less c. sand, odd very gritty clayball + finer fine sand & minor silt, pebs ang → spherical, dl well rd.
10		06	@ 159 more fine → c. sand pebs < 20%, increase in clay (20%) ≥ 160 — sl. larger pebs
			160 - 163.5 Clay rich till & gravel
20			160 - clay, very no grit, (60% of 110) odd peb, minor c. sand, dominant fine sand & silt + minor clay & odd peb → increase @ 162 & sand smears @ 162 sm. cob. → fine → c. sand & small pebs & clay, very no grit balls - 50% of 110
		07	163.5 - 183 Clay Rich till
30		08	Dominant clay, green very gritty (95%), @ 163.8 dark green mafic vol. ccb @ 165 decrease in clay ≈ 75% & more cob & minor c. sand @ 168.5 - 170 more return, minor clay balls, fine → c. sand & pebs & ~5% ang/sub rd → poorly rd., odd well rd. @ 170 90% clay, green, very gritty & silt. @ 173 small sm. cob & 90% clay @ 173.5 mafic cob & 90% clay. @ 174.5 sm. cob.
		09	175 - 179.5 as above + more intermix @ 181 sm. cob.
40			
		10	
50		11	
60		12	
70		13	
80		14	

UTAH MINES LIMITED

DATE April 11 & 12/81 HOLE No. UT-81-21 GEOLOGIST STOCK DRILLER SIRCINY

HOLE LOCATION ON MAIN ROAD 1600' North of UT-81-01

BIT No. 62244 FOOTAGE ON BIT 0-115', new sub + Bit # 62289 0-172'

HOURS MOVE April 11 11:45-12:15 HOURS DRILL 12:30-4:30 OTHER @ 114 rpm pulled rods, bit no good.

2:20-3:40 change swivel & water base. April 12 Drill 8:30AM-12 NOON. 8-8:30 thaw equipm

DEPTH	GRAPHIC LOG	SAMPLE No.	DESCRIPTIVE LOG
			0-55 Vaxves
			0-25 tan ox. clay & v. fine sand & silt, 25-55 dominant fine sand & silt @ 33 clay layer & @ 43. 42-45 few clay layers @ 45 gr. cob @ 55 minor c. sand & pebs
			55-75 Fine Sand & silt
			minor c. sand & odd peb
			75-100 Gravel
			Fine → c. sand & pebs (± ½") well rd, cob @ 85 (gr.) 86-90 minor clay < 5% 90-91 minor aim'd smears @ 90.5 felsic cob (igneous) 92-96 cobs & fine → c. sand cobs are: dominantly gr. & some meta mafic 96-100 f → c sand & pebs, sub-angular - sub to poorly rd.
			100-104.5 Till
			Fine → c. sand + pebs as above + minor aim'd clasts of grey gritty clay < 5% @ 100.5 more clay 50-60% & mafic cob. @ 101 clay v. gritty (negobith like) clay balls ≤ ½" → 85% of 10 @ 103 @ 103 mafic cob & 2 gr. cobs, clay layers, c. sand & grit & mafic cob @ 104 siltst. ign cob. → less clay & pebs @ 104.5
			104.5-109 Gravel
			Fine sand → coarse sand @ 105 + organic Fine → med → c. sand layers, large peb, well rd @ 108. :
			109-120 Fine Sand
			109-115 minor c. sand @ 111 clay layer @ 116 clay laye. @ 117 clay, grey sl. gritty @ 117.5 clay & c. sand @ 118 mafic cob & clay flakes & of coal → 120.
			120-124.8 Till (Clay rich)
			@ 120 gr. cob & mafic cob, fine → c. sand → clay (50% + 10) & mafic cob @ 121 → 122.5 clay (80% + 10) grey, hard & gritty, minor c. sand & 2 or 3 cobs → 124 @ 124 99% clay. slightly → no grit (cm) @ 124 mafic vol. cob.
		01	124.8-134.5 Super Clay
			134.5-149 Gravel
		02	@ 134.5 grey clay flakes & odd peb → fine sand → c. sand & pebs & clay flakes & pebs - angular well rd. & small mafic cob & sulphide peb. 135-137 f → c. sand matrix large pebs → cobs (clipper rounded) mafic 60% & gr. 40%. 137-140 f → c. sand layers odd large peb (clipper) @ 140 clay, sl. grit balls @ 140.5 clay flakes & fine sand odd peb. → 142.5.
		03	147.5-145 f. → c. sand & small peb (¼" & ½" well rd) matrix, 90% mafic cobs & some mineralization & minor clay < 4% grey

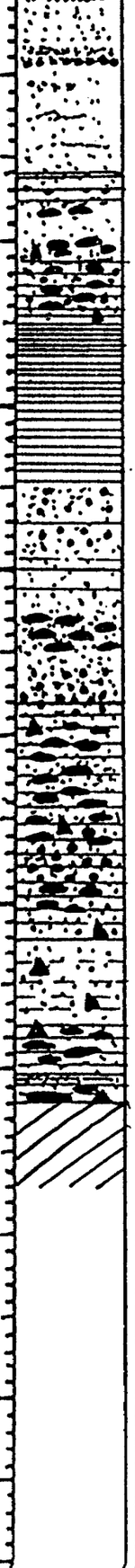
UTAH MINES LIMITED

DATE _____ HOLE No. UT-81-21 GEOLOGIST _____ DRILLER _____

HOLE LOCATION _____

BIT No. _____ FOOTAGE ON BIT _____

HOURS MOVE _____ HOURS DRILL _____ OTHER _____



SAMPLE No.	DESCRIPTIVE LOG
04	145-148 fine → c. sand & small peb WR ≤ ¼" dominant mafic, much return
	148-162 Till (clay rich)
	@148 clay (80%) grey & gritty & f. → c. sand & odd peb, well rd. & arm'd clasts, small cob @ 149.5 @ 150 80% clay layer @ 150.5 gr. cob ⇒ 80% clay @ 151 mafic cob → gr. cob → mafic intrusive cob & 10% clay → 152.5 152.5-155 cobbs 60% mafic, 40% gr. (35%) grey gritty clay balls & abundant arm'd clasts 155-61 fine sand & silt & c sand odd lg. peb (chyio) & pebs well rd., abundant arm'd clasts & g.g. clay balls (30%) @ 158 2 gr. cobs @ 160 clay layer & mafic cob. 161-62. f → c. sand & pebs ≤ ¼ angular sub rd. = arm'd clasts abundant, minor clay (10%) & silt.
05	
	162-166 Till or Fine Sand
	as above (161-62) fewer arm'd clasts & not much return & +10, ⇒ more clay arm'd clasts @ 165
06	166-172 Till clay rich
07	166-69 mafic cob & clay layer & mafic & gr. cobs → clay layer, very gritty & mafic cob & fine → c. sand matrix (minor) (clay 80% +10)
08	168-70 matrix + 80% clay. 170-70.5 mafic cob & matrix & clay 80%. 70.5-72 f sand & silt & clay - very gritty (80% +10) & minor small pebs ≤ ½" ⇒ 171 mafic cob (6")
09	
	172-77 Bedrock
10	Light green mafic volcanic + calcite vienlets.
11	
12	
13	

UTAH MINES LIMITED

DATE 13 APRIL 81 HOLE No. UT-81-22 GEOLOGIST K. BAXTER DRILLER A. STRONG

HOLE LOCATION 1000' EAST OF UT-81-21

BIT No. B 62293 FOOTAGE ON BIT 0-192' TOTAL FOOTAGE 192'

HOURS MOVE 7:30-7:46AM HOURS DRILL 7:45AM - 12:30PM OTHER PULL RODS 12:30PM-1:30 PM Adaptor between bit and coub replaced.

DEPTH	GRAPHIC LOG	SAMPLE No.	DESCRIPTIVE LOG
			0-20 Ft. OXYDIZED CLAY - soft brown clay lumps grading into silt with clay beds by 20 Ft.
10			20-57 Ft. OXYDIZED SILT - partially oxydized silt with short beds of soft clay. silt and f.g. sand matrix. - grading into grey f.g. sand and silt by 60'.
20			
30			
40			- 40' short oxydized clay layer little return.
50			- 52' very little return of small pebbles.
			57'-72 Ft. GRAVEL - med to c.g. sand matrix. - much alteration → biotite gneiss - moderately sorted → many small clasts ~ 1/8 to 1/4" diam and some larger ~ 1/2" diam - minor armoured clasts, no clay. - granitic and mafic rich. - sub angular to angular pebs. & some well rounded. - 65-72' graded bedding. Sequence repeats 2-3 times.
60		01	
70		02	
		03	72-78 Ft. TILL (?) - gritty clay balls ~ 40% & less. - armoured clasts noted. - poorly sorted pebbles. grading back into gravel by 78'
80		04	78-90 Ft. GRAVEL - med to c.g sand matrix. - poorly sorted peb. few small cobble. - much granitic gneiss ~ 70% 30% mafics & LST etc. - many intrusives - 88' → 3" of gritty clay balls & armoured clasts - 83 to 90 graded bedding with small cobbles.
90		05 ↓	90-119 Ft. GRITTY GREY CLAY BALLS (TILL?) - soft grey gritty clay ~ 95% and 5% small pebbles. no matr
100			

UTAH MINES LIMITED

DATE ● HOLE No. UT 81-22 GEOLOGIST _____ DRILLER _____

HOLE LOCATION _____

BIT No. _____ FOOTAGE ON BIT _____

HOURS MOVE _____ HOURS DRILL _____ OTHER _____

DEPTH	GRAPHIC LOG	SAMPLE No.	DESCRIPTIVE LOG
		05	-97' short layer of pelo & a small granitic cobble. 3-6"
			-99' → mud clay.
			- stratification → varying % content of clay balls
		06	-99-105 varying % clay balls 3-4 sequence repetitions
110			112 possible clay rich till to 114
			90% small gritty clay balls 10% pelo. with many armoured clasts & sneaco f.g. sand matrix.
		07	-114-115.6 clay layer.
			-115.5-117 ultra mafic Bldr.
120		08	119-124.5 Ft. GRAVEL
			- many granitic and mafic cobbles.
			- little or no strat.
			- med to c.g. sand matrix.
			- 90% cobble frags. 10% pelo. some well rounded & some subangular
130		09	124.5-156 Ft. CLAY BALLS
			- 100% soft gritty grey clay balls.
			- 130-132 Ft. very minor mafic pebble frags.
			- clay very hard, possibly slightly oxydized
			- minor f.g. sand in matrix little return.
140		10	-138-139 Ft. small granitic cobbles.
			-140 clay oxydized but softer.
			-142 small granitic cobble.
			-143 minor ultra mafic frags.
			-144 Ft → mafic clasts 60% clay balls 40% ?Till(?) minor armoured clasts & sneaco
150		11	-145.5-146.5 Ft ultra mafic vol. Bldr.
			-146.5 clay rich
			- minor frags of biotite schist
			-163 hard grey clay.
			156-192 Ft GOOD TILL
			- mafic rich, many cobbles, med to c.g. sand, armoured clasts
160		12	-160 f.g. sand
			-161 gritty clay balls 50-60%. pebbles & cobbles 40%
			-163 clay rich → 90% clay granite cobble.
			-164 f.g. aplanitic felsic cobble clasts.
			-165.5 clay 50%, pebs. 50%.
170		13	-166 granitic cobble gneiss med to c.g. sand
			-169 small ultra mafic cobble.
			-170 50% gritty clay balls & intervals interned to mafic Bldr. to 171
			- armoured clasts
			-171.6 → 30% clay balls granitics 50% mafics & the rest
180		14	-172 granitic & mafic cobbles minor well rounded pebbles minor armoured clasts f. to med g. sand.
			-174-175 hard felsitic Bldr.
			-179 granitic cobble & gritty clay balls 5-10%.
		15	-180 Felsic vol. cobble
190			-181 granitic cobble. little or no clay
			-182-185 5% clay,
			- many mafic cobbles.
			-191 felsic cobble.
			-192 ball bearings returned END HOLE 192 Ft. Because bit worn. Probably close to bedrock.
200			

UTAH MINES LIMITED

DATE 13 APRIL 81 HOLE No. UT 81 - 23 GEOLOGIST K. BAXTER DRILLER A. STROTH

HOLE LOCATION 1000' EAST OF UT 81 - 22

BIT No. B 62294 FOOTAGE ON BIT APRIL 13 0-126, APRIL 14 125-223 = 22

HOURS MOVE 1:30-2:00 PM HOURS DRILL 2:00 PM - 2:35 PM, 3:00 PM - 4:30 PM OTHER PULL RODS

2:35 - 3:00 PM @ 4:30 - 5:00 PM

DEPTH	GRAPHIC LOG	SAMPLE No.	DESCRIPTIVE LOG	ANALYSES PPM Cu	Pb	Zn	Ni	Ag	A
			0-12 Ft. OXYDIZED CLAY - soft brown clay lumps.						
			12-114 Ft. SAND & SILT - f.g. sand to silt. partially oxydized. with periodic clay layers & very minor small pebbles grading into grey sand by 70'						
			- grey f.g. sand to silt.						
			- 73' small gravel bed 2-3"						
			- 77' organic horizon.						

10 20 30 40 50 60 70 80 90 100

UTAH MINES LIMITED

DATE 14 APRIL 81 HOLE No. UT 81 - 23 GEOLOGIST _____ DRILLER _____

HOLE LOCATION _____

BIT No. _____ FOOTAGE ON BIT 125-223

HOURS MOVE _____ HOURS DRILL 7:30 - 9:30 AM 12:00 - 1:30 PM OTHER DRILL 3:10 - 6:20 PM

Fix Swivel 9:30 - 12:00 AM., Repair base of mast 2:00 - 3:10 PM.

Pull rods 1:30 - 2:00 PM.

DEPTH	GRAPHIC LOG	SAMPLE No.	DESCRIPTIVE LOG
			- 105-107 Ft. med to c.g. sand & little return of gravel - 107 - 114 f.g. sand to silt grading fix to gravel by 114
110			114 - 121 Ft. GRAVEL - poorly sorted pebble gravel - many compositions & lithols - med to f.g. sand matrix.
		01	121 - 140 Ft. TILL (?) - 121 - 123 Ft. grey gritty clay balls ~ 30%, armoured smears & granitic rich. little +10 return just clay layer?
120		02	- 123 possible clay rich till with small mafic cobbles.
		03	- 124 grey gritty clay balls — 95% pebbles — 5% - med to f.g. sand matrix. - small mafic & granitic cobbles - 131' granitic Bldr. 11" then granitic intrusive cobble.
130		04	- 132' pebbles 40%. clay 40%. - 133' clay 99%. ie stratification in % clay.
		05	- 134' mafic cobbles. - 139' clay layer 100% - 139.5' very hard felsic cobble possibly intrusive; no clay.
140			140 - 203 Ft. GRAVEL
		06	- many cobbles. eg 143 ultra mafic cobble with py. - 145' small grey cobble with striations then; - med to f.g. sand + little return of peb. gravel.
150		07	- 148 mafic & granitic cobbles. - fragmented clasts, some angular & subangular few well rounded - 155-164 poorly sorted pebbles.
		08	- 157 cobbles: mafic - 160 well rounded pebbles & small cobbles abundant mica to 161 - 161 ultra mafic Bldr. 1-1.5 thk - 165-170' pebs. & small cobs. granitic rich. poorly sorted @ little +10 return
160			- 170-175 equal % mafics & granitics many well rounded pebs at 175. @ 1 green igneous intrusive cob.
170		09	- 177' till like material, gritty clay balls armoured clasts poorly sorted 6"
			- 178 - 184 very fine well sorted gravel, almost a very c.g. sand with 5% larger clasts — ¾" dia
180		10	- 185 gravel same as 170. f.g. sand to silt. little +10 return to 187 - 187 much return; well sorted gravel small clasts, many comps but mafic rich. - 190 med to c.g. sand Mafic stained fragments.
190		11	- 192 larger clasts ~ 3/4" diam. angular & sub-angular pebs. many well rounded. graded bedding?
200		↓	- 193.5 granitic cobble. - 193 - 195 hard intrusive Bldr. - 197 good graded bedding

UTAH MINES LIMITED

DATE _____ HOLE No. UT 81-23 GEOLOGIST _____ DRILLER _____

HOLE LOCATION _____

BIT No. _____ FOOTAGE ON BIT _____

HOURS MOVE _____ HOURS DRILL _____ OTHER _____

DEPTH	GRAPHIC LOG	SAMPLE No.	DESCRIPTIVE LOG	ANALYSES PPM
		11	-197 armoured clasts noted. -198 mafic intrusive cobble med to c.g. sand. then very f.g. gravel with minor armoured clasts well sorted	
210		12	-gravel grading into following clays. -209' → <10% gritty clay balls 3" then ultra mafic cobble, med to f.g. sand. then granitic rich & mafic pebs. — ? incorporated till?	
220		13	203-223 Ft. = CLAY BEDS (Till?) -204' gritty clay balls 40%. & a large Jaspee pebble. -205-207 clay balls 90%. -206 hard clay 100% no grit. -207 f.g. sand layer. -207.6 ultra mafic cobble. -209 very little +10, some clay balls very minor armoured clasts. -210 hard granitic Bldr. -211 clay 60% & well sorted small clasts (mafic) -213 clay bed 100%. -214 clay balls 60%. little return to 217. -217-218 Gravel bed. med to c.g. sand & clay balls 60-70%. -219 meta ultra mafic Bldr or biotite gniess(?) f.g. & very soft. 1' thick -3" gravel then clay beds to 223'	
230				
240				

UTAH MINES LIMITED

DATE April 30 - May 1, 81 HOLE No. UT-81-26 GEOLOGIST McIvor DRILLER Stroiny

HOLE LOCATION 1000' EAST OF UT-81-25

BIT No. B59956 FOOTAGE ON BIT 90' + 0' - 299' = 389'

HOURS MOVE 7:00 - 7:30 PM, April 29, 81 HOURS DRILL 8:15 - 5:00 PM, April 30 / 7:30 - 4:15 PM, May 1 OTHER

NB. brass shims re. possible contamination

DEPTH	GRAPHIC LOG	SAMPLE No.	DESCRIPTIVE LOG	ANALYSES ppm Cu	Pb	Zn	Ni	Ag	A
0'			0'-7' CLAY - from 0'-5' hard, gritty, brown partially oxized clay - from 5'-7', softer, gritty brown clay						
10'			7'-15' SILT - vfg, light brownish gray silt, grading into fg sand by 15' - contains numerous thin gritty brown clay interbeds.						
20'			15'-151' SAND - from 15'-65', fine grained, light grayish brown sand @ 19', 6" clay seam @ 30', 6" hard brown clay seam @ 32', thin clay seam @ 42' & 44', thin, gritty brownish gray clay seams						
30'			- from 65'-75', stratified, graded sand, as thin beds to 1" of fine grained → medium gr → coarse grained sand, coarsening downwards - from 75'-88', fine grained sand - from 88'-108', stratified graded sand, ± thin beds of coarsening downwards fg-mg-cg sand. - from 108'-128', becomes predom. mg-cg sand. - from 128'-138', stratified, graded sand ± thin beds to 1" of fg-mg-cg sand, coarsening down. - from 138'-151', becomes vfg sand.						
40'									
50'									
60'			151'-188' TILL (STRATIFIED) - from 151'-158', fg sand & silt matrix ± predominantly small cobble cuttings (ang. to ½") & clear smaller pebbles of 50% int-maf volc 10% fel volc 30% gr, grgn, qtz-bio gn - minor gabbro, red sandstone, lmst black argillaceous metaseds - contains 5% small gritty clay lumps - numerous pieces dm. clast - well developed stratification, ± cobble rich beds vs. sand-pebble rich beds.						
70'			- from 158'-160', clay disappears, becoming pred. pebbles & cobbles of 40% int-maf volc, 40% gr, grgn, 5% fel volc, 5% gabbro, minor lmst, ss, metaseds.						
80'			- from 160'-161', cg granite bldr - from 161'-162', gabbro bldr - from 162'-163', qtz-bio gn bldr. - from 163'-168', fg sand & clay matrix, ± large cobbles (6-8") of 60% gr, grgn, qtz-bio gn 30% int-maf volc 5% fel volc (granite schist) - minor ss, lmst, metaseds - contains 5% small gritty clay lumps & numerous well dm. clast @ 166', 1' qtz-bio gn bldr @ 167.5', small, greenish matrix (bentonitized) fel volc bldr.						
90'									
100'									

UTAH MINES LIMITED

DATE ● HOLE No. UT-81-26 GEOLOGIST DRILLER

HOLE LOCATION

BIT No. FOOTAGE ON BIT

HOURS MOVE HOURS DRILL OTHER

DEPTH	GRAPHIC LOG	SAMPLE No.	DESCRIPTIVE LOG	ANALYSES ppm
100'			151-188 STRATIFIED TILL cont.	
			- from 168'-170', very little lg sand matrix, ± predominantly large cobbles & abov pebbl to ½", sub-rd to sub ang, of 30% int-mat volc, 30% gr. grgn, 20% gabbro-diorite, 5% lmst & ss, 5% metaseds, 5% fel volc, - contains 5% small gritty clay ball & numerous well arm. clasts. @ 168', 6" gabbro cobble	
110'			- from 170'-172', small hard gritty clay bal became 80% of 110', ± small pebbles and cobble cuttings of above lithol.	
			- from 172'-173', clay lumps decrease & s becoming pebbles and small cobbles of 30% int-mat volc, 10% fel volc, 30% gr. grgn, 10% gabbro, 5% lmst, 5% metaseds	
120'			- from 173'-174', clay lumps become 80%	
			- from 174'-177.5', clay balls become 5-10% ± pebble & small cobble cuttings of above lithologies - cg sand matrix, numerous well arm. clasts.	
130'			- from 177.5'-178', clay balls become 80% of ±10	
			- from 178'-179', 1' cg. magnetic gabbro	
			- from 179'-181', 2' qtz bio gn bldr.	
			- from 181'-183', becomes 50% small hard gritty clay lumps & 50% wr to sub-ang pebbles to ½" & small cobbles of 50% gr. gr. gn. qtz biogn, 30% int-mat volc, 5% fel volc, 5% gabbro, 5% lmst & endst.	
140'			- from 183'-188', becomes clay rich till, ± small hard gritty clay lumps to 95% of ± clayey small pebbles (<1/8") of above lithologies.	
150'		01	188'-238' INTERBEDDED SILT, SAND & CLA	
			- from 188'-192', clay - @ 190', thin gravel seam	
		02	- from 192'-198', predominantly silt, grading into lg sand by 198', ± numerous thin clay seams.	
160'			- from 198'-203', predominantly lg sand, ± numerous thin hard gray clay seams	
		03	- from 203'-230', predominantly hard gray clay, ± thin silt & gravel interbeds	
			- from 230'-238', predominantly silt, ± numerous thin clay seams which cont clear small well rounded pebbles to 1/4" of primarily int-mat volc & gr. bill.	
170'		04		
		05	238'-255' TILL	
			- from 238'-243', lg sand & minor clay matrix, ± 5% small hard gritty clay lumps & well rd to sub ang pebbles to ½" & small cobble cuttings of 60% int-mat volc, 20% gr. gr. gn, garnet bearing gn, 5% gabbro, 5% fel volc, minor lmst, ss & metaseds, @ 241', 6" basalt cobble, @ 243', 6" gabbro cobble	
180'		06	- from 243'-245', clay lumps increase to 40% ± cobbles & pebbles of above lith. @ 244', small lg bearing semi-rd qtzite cobble	
			- from 246-247.5', cg gabbro blder.	
190'				

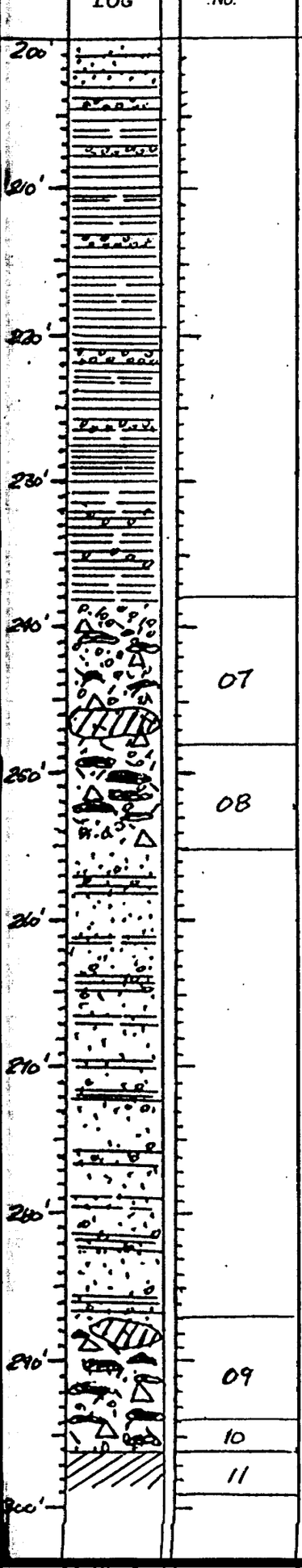
UTAH MINES LIMITED

DATE _____ HOLE No. UT-81-76 GEOLOGIST _____ DRILLER _____

HOLE LOCATION _____

BIT No. _____ FOOTAGE ON BIT _____

HOURS MOVE _____ HOURS DRILL _____ OTHER _____



DEPTH	GRAPHIC LOG	SAMPLE No.	DESCRIPTIVE LOG
			238'-255' TILL cont. - from 248'-255', small hard gritty clay lumps as 30% of +10, ∑ 70% ang-sub ang pebbles & ½" & cobbles of 60% int-mat volc, 20% qr, qr qn, qtz-bio qn 5% gabbro, 5% fel volc, minor lmst, sndst & metased @ 249': 4" dacite cobble @ 249.5': 4" qtz cobble @ 251': 6" qr qn cobble @ 252': 6" qr cobble @ 253': 6" basalt cobble - till contains numerous well arm clasts
			255'-287' INTERBEDDED SAND, SILT & CLAY - predominantly fg, light grayish brown sand, ∑ numerous thin hard gray clay & silt interbeds - clay layers often contain ≈ 3% pebbles (small < ¼"; well rd; "rafted") of pred qr & int-mal lithologies.
			287'-296' TILL - fg-mg sand & minor clay matrix ∑ small hard gritty clay lumps as 50% of +10, ∑ pebbles & cobbles (ang-sub ang, to ½") of 50% int-mat volc, 30% qr, qr qn, qtz-bio qn 10% fel volc (sericite schist) minor lmst, sndst, gabbro, diorite metaseds - contains numerous arm. clasts @ 286'- 6" qr cobble @ 287', 6" mat volc cobble @ 288.5'-289.5', 1' diorite bldr. @ 290', 2" andesite cobble ∑ 1% fy as small cubes
			296'-299' BEDROCK - medium grained, light greenish white diorite (30% light green ferromags & 70% plag, minor qtz) NB. bedrock sample 11 is +10 material
240'		07	
250'		08	
		09	
		10	
		11	

UTAH MINES LIMITED

MAY 2, 81 HOLE No. UT-81-27 GEOLOGIST McIVOR DRILLER STRONG

LE LOCATION 1000' EAST OF UT-81-26

T No. B622281 FOOTAGE ON BIT 0'-255'

HOURS MOVE 4:15-4:45 PM May 1, 81 HOURS DRILL 8:00 - 4:45 PM OTHER

NB.: brass shims re: potential contamination.

DEPTH	GRAPHIC LOG	SAMPLE No.	DESCRIPTIVE LOG	ANALYSES ppm Cu	Pb	Zn	Ni	Ag	Au
0'			**0'-15' CLAY** - from 0'-5': hard brown, gritty, partially oxidized clay - from 5'-15', softer, gray, gritty clay ± clear thin silt interbeds.						
10'			**15'-25' SILT** - light grayish brown silt, grading into fg sand by 25' - contains clear thin clay & gravel seams ± small pebbles (≤ 1/8") of various lithologies.						
20'			**25'-208' SAND (STRATIFIED - GRADED)** - from 25'-45': fine grained brownish gray sand. - from 45'-75': stratified, graded sand ± thin beds coarsening downwards from fg-mg-cg sand. - from 75'-88': fine grained sand @ 82': 1" gravel seam ± small (≤ 1/4") well rd to sub-ang pebbles of predominantly granitic lithologies - from 88'-118': stratified graded sand. ± thin beds coarsening downwards from fg-mg-cg sand. @ 110': 6" gritty gray clay seam - from 118'-128', predominantly mg-cg sand - from 128'-138': stratified, graded sand ± thin beds of coarsening downward fg-mg-cg sand, ± ± clear thin 2-3" gravel seams of p.r to sg. pebbles to 1/4" ± pred gr. & int-mat volc lithologies - from 138'-148', becomes fg sand ± numerous thin silt interbeds - from 148'-168': stratified, graded sand & silt, ± thin beds coarsening downwards of silt-fg sand-mg-cg sand @ 150', 6" gravel seam of small (≤ 1/4") wr to sa pebbles of predominantly gr & int-mat volc lith. - from 168'-178', silt, grading into fg sand by 178' - from 178'-208': fg sand, ± clear thin silt interbeds from 178'-208'.						
30'									
40'									
50'									
60'									
70'									
80'			**208'-224' TILL** - from 208'-221': fg-cg sand & minor clay matrix, ± 5% small hard gritty gray clay balls, ± 95% sub ang-ang pebbles to 1/2" & small cobble cuttings of 40% int-mat volc, often carb, & minor 40% gr, gr-gn, qtz-bio gn, gamet-bearing gn. 5% fel volc (often ser, sch) 5% gabbro, minor lmst, sndst, meta-sed - contains well armored clasts - appears somewhat stratified, ± cobble rich "beds" vs sand-pebble rich "beds" @ 216', 6" pink granite cobble. - from 221'-222', small hard gray gritty clay lumps become 70% of No. ± pebbles & cobbles of above lithologies. - from 222'-224': clay lumps decrease to 5% ± pebbles & small cobbles of 30% int-mat volc, 40% gr, gr-gn, qtz-bio 10% fel volc, 5% gabbro, minor lmst, sndst, meta-sed - @ 222': several small 1/4" Fe clasts.						
90'									
100'									

UTAH MINES LIMITED

HOLE No. UT-81-27 GEOLOGIST _____ DRILLER _____

E LOCATION _____

T No. _____ FOOTAGE ON BIT _____

HOURS MOVE _____ HOURS DRILL _____ OTHER _____

DEPTH	GRAPHIC LOG	SAMPLE No.	DESCRIPTIVE LOG	ANALYSES ppm					
				Cu	Pb	Zn	Ni	Ag	Au
100'			224'-235' CLAY - very hard blueish gray clay - superclay - occasionally slightly gritty - contains few small "rafted" pebbles of various lithologies. 235'-250' TILL - from 235'-238', fg-mg sand matrix ± 2-3% small hard gritty clay balls, ± predominantly cobbles & ang-sub ang pebbles to ½" of 70% int-mat volc - alter, schistose, chl & cark. ± tr Py 10% qr, gr qn, qtz-bio qn. 10% felsic volcanics - minor gabbro, lmst, red sandstone & black argillaceous metased's - from 238'-242', clay lumps disappear, ± pebbles to ½" & cobbles of 60% int-mat volc 10% fel volc (coffee sev & ech) 20% qr, gr qn, qtz-bio qn. 5% gabbro, minor lmst, grdst, metased - numerous well arm. clasts. @ 239', 6" qtz-bio qn cobble @ 240', 6" qtz cobble @ 241', small fel. volc cobble ± 2-3% Py @ 243', 6" cg diorite cobble, - from 242'-248', exclusively large cobbles to 6"-8" of 40% int-mat volc 30% qr, gr qn, qtz-bio qn 10% fel volc, often Py rich & sericitized 15% gabbro-diorite - minor lmst, grdst - contains fg sand matrix, ± some minor clay as smears & armour on clasts. - from 248'-250', fg-cg sand matrix ± 5% small hard grey gritty clay balls and predominantly 2-3" cobbles of 60% int-mat volc 10% fel volc, 10% gabbro 15% qr, gr qn. 250'-255' BEDROCK fg-aph, light green intermediate volcanic (andesite) ± numerous thin calcite veins - from 251'-251.5', numerous thin calcite & qtz-calcite veins, ± tr Py.						
110'									
120'									
130'									
140'									
150'									
160'									
170'									
180'									
190'									
200'									

Ministry of Natural Resources
Ontario

Balmy Kerr, Knox Moody twps

783

THE MINING A

42A16SE0122 2.4654 GALNA

900

To the Recorder of LARDER LAKE

I, UTAH MINES LIMITED T-793
name of Recorded Holder Prospector's Licence

1238 RIVERSIDE DRIVE, TIMMINS, ONTARIO, P4R 1A4
Post Office Address

do hereby report the performance of ~~4503~~ (4526) days of OVERBURDEN DRILLING
type of work

not before reported to be applied on the following contiguous claims

Claim No.	Days	Claim No.	Days	Claim No.	Days
554241	18	554247	18	554254	18
554242	18	554248	18	554255	18
554243	18	554249	18	554256	18
554244	18	554250	18	554257	18
554245	18	554252	18	554258	18
554246	18	554253	18	554259	18

All the work was performed on Mining Claim (s) L.565162, 609703, 609704, 609705, 609707
(In the case of geological and/or geophysical survey (s) where more than 18 claims are involved attach a schedule)

READ CAREFULLY: THE FOLLOWING INFORMATION IS REQUIRED BY THE MINING RECORDER.

For Manual Work, Stripping or Opening up of Mines, Sinking Shafts or Other Actual Mining Operations – Names and addresses of the men who performed the work and the dates and hours of their employment.
For Diamond and other Core Drilling - Footage, No. and angle of holes and diameter of core. Name and address of owner or operator of drill. Dates when drilling was done. Signed core log and sketch in duplicate.
For Compressed Air or Other Power Driven or Mechanical Equipment
Type of drill or equipment. Names and addresses of men engaged in operating equipment and the dates and hours of their employment.
For Power Stripping - Type of equipment. Name and address of owner or operator. Amount expended. Dates on which work was done. Proof of actual cost must be submitted within 30 days of recording.
With each of the above types of work sketches are required to show the location and extent of the workings, relation to the nearest claim post. In the case of diamond or other core drilling the sketch must be submitted in duplicate.
For Geophysical, Geological, Geochemical Surveys and Expenditure Credits - the name of author of report. Covering dates of survey (linecutting & office). Type of instrument used. Total amount of expenditure. Technical reports, maps, expenditure breakdown, receipts must be filed in duplicate with the Minister within 60 days of recording.
For Land Survey - the name and address of Ontario Land surveyor.

LARDER L...
RECEIVED
MAR 5 1982
AM 7 8 9 10 11 12 1 2 3 4 5 6 PM

The Required Information is as Follows: (Attach a list if this space is insufficient)

DRILL CONTRACTOR: HEATH&SHERWOOD DRILLING:P.O.998,KIRKLAND LAKE,ONT.P2N 3L3
EQUIPMENT:NODWELL F.M. 240:ACKER DRILL MP-100,TIMBERJACK230 WATER CARRIER
LISTER-BK PNEUMATIC COMPRESSOR.
PERSONNEL: ARTHUR STOROJNY, GENERAL DELIVERY, KING KIRKLAND,ONT.POK IKO
(DRILLER)
GERRY BROWN:106 MAIN ST. KIRKLAND LAKE, ONT.
TED DOWNSY: 34 DIXON AVENUE, KIRKLAND LAKE, ONT.
L.A. GREGOIRE: L.A. GUADELOUPE STRE.CTE.BAUCE SUD, QUEBEC.
WORK PERIOD: March 23/May 2/81 192 hours. (see attached list)

Date March 4, 1982

Louis Godbout
Signature of Recorded Holder or Agent

The Mining Act
Certificate Verifying Report of Work

I, LOUIS GODBOUT DISTRICT GEOLOGIST FOR UTAH MINES LTD.
1357 Chenier Avenue, Timmins, Ontario, P4R 1A8
(Post Office Address)

LARDER L... MINING DI...
RECEIVED
MAR - 5 1982
AM 7 8 9 10 11 12 1 2 3 4 5 6 PM

hereby certify:

1. That I have a personal and intimate knowledge of the facts set forth in the report of work annexed hereto, having performed the work or witnessed same during and/or after its completion.

2. That the annexed report is true.

Dated MARCH 4 19 82

Louis Godbout
Signature

(file L554241)

RECORDED MAR - 5 1982
REC. No.

THE PENALTY FOR MAKING A FALSE STATEMENT IN THIS REPORT AND/OR CERTIFICATE IS $500. OR SIX MONTHS IMPRISONMENT OR BOTH

18

768 (8/77)

CLAIM SCHEDULE

(CONTINUED FROM REPORT OF WORK FORM)

CLAIM NO.	DAYS	CLAIM NO.	DAYS	CLAIM NO.	DAYS
554260	18	565180	18	565221	18
554336	18	565182	18	565222	18
554337	18	565183	18	565223	18
554338	18	565184	18	565224	18
554339	18	565185	18	565225	18
554340	18	565186	18	565226	18
554341	18	565187	18	565227	18
554343	18	565188	18	565228	18
565030	18	565189	18	565229	18
565031	18	565190	18	565230	18
565032	18	565191	18	567063	18
565033	18	565192	18	567064	18
565034	18	565193	18	567065	18
565035	18	565194	18	567066	18
565153	18	565195	18	567067	18
565154	18	565196	18	567068	18
565156	18	565197	18	567069	18
565157	18	565198	18	567070	18
565158	18	565199	18	567071	18
565159	18	565200	18	567072	18
565160	18	565201	18	567073	18
565161	18	565202	18	567074	18
565162	18	565203	18	567075	18
565163	18	565204	18	567076	18
565164	18	565205	18	567077	18
565165	18	565206	18	567078	18
565166	18	565207	18	567079	18
565167	18	565208	18	567080	18
565168	18	565209	18	567081	18
565169	18	565210	18	567082	18
565170	18	565211	18	567083	18
565171	18	565212	18	567084	18
565172	18	565213	18	567085	18
565173	18	565214	18	567086	18
565174	18	565215	18	567087	18
565175	18	565216	18	567088	18
565176	18	565217	18	567089	18
565177	18	565218	18	567090	18
565178	18	565219	18	567091	18
565179	18	565220	18	567092	18

CLAIM SCHEDULE

CLAIM NO.	DAYS	CLAIM NO.	DAYS	CLAIM NO.	DAYS
567190	20	576938	40		
567193	20	576939	40		
567195	23	576940	40		
567196	20	576941	40		
568876	20	576942	40		
568877	20	576943	40		
576897	20	576944	40		
576898	20	576945	40		
576899	20	576946	40		
576900	20	576947	40		
576901	20	576948	40		
576902	20	576949	40		
576903	20	576950	40		
576904	20	610365	21		
576905	20	610366	21		
576906	20	610373	20		
576907	20	610374	21		
576908	20	610379	20		
576909	20	610380	20		
576910	20	610388	20		
576911	20	610389	20		
576912	20	✓610437	21		
576913	40	✓610438	21		
576914	40	✓610485	20		
576915	40	✓610486	20		
576916	40	✓610497	20		
576917	40	✓610498	20		
576918	40	✓610509	20		
576919	40	✓610510	20		
576920	40	✓610521	20		
576921	40				
576927	18				
576928	18	12			
576929	18				
576930	40				
576931	40				
576932	40				
576933	40				
576934	40				
576935	40				
576936	40				
576937	40				

(continued from yellow REPORT OF WORK FORM)

ALL THE WORK WAS PERFORMED ON MINING CLAIMS:

L. 609714	L.610456
L. 609715	L.610472
L. 609716	L.610473
L. 609717	L.610474
L. 610401	L.610740
L. 610402	L.610780
L. 610403	L.610786

The required information is as follows; (continued from yellow REPORT OF WORK FORM)

DOZER CONTRACTORS: John Wlad & Sons Construction Ltd., Iroquois Falls, Ont., POK 1GO

EQUIPMENT: D-7 Caterpillar Dozer, Champion Road Grader, Wabco Model G60-B

OPERATOR: Gordon Gamble, 312 Cambridge Avenue, Iroquois Falls, Ont.

WORK PERIOD & HOURS: February 28th/April 9th, 1981 - 100 hours.

2.4654

1982 12 17 2.4654

Mining Recorder
Ministry of Natural Resources
4 Government Road East
P.O. Box 984
Kirkland Lake, Ontario
P2N 1A2

Dear Sir:

RE: Overburden Drilling submitted on Mining Claims L 554241 et al in the Townships of Galna, Kerra, Knox and Moody

---

The Overburden Drilling assessment work credits as shown on the attached statement have been approved as of the above date.

Please inform the recorded holder of these mining claims and so indicate on your records.

Yours very truly,

E.F. Anderson
Director
Land Management Branch

Whitney Block, Room 6450
Queen's Park
Toronto, Ontario
M7A 1W3
Phone: 416/965-1380

A. Barr:sc

Encls:

cc: Utah Mines Limited
Timmins, Ontario

cc: Resident Geologist
Kirkland Lake, Ontario

Ontario Ministry of Natural Resources

Technical Assessment
Work Credits

File 2.4654

Recorded Holder	UTAH MINES LIMITED
Township or Area	GALNA, KERRS, KNOX MOODY TOWNSHIPS

Type of survey and number of Assessment days credit per claim	Mining Claims Assessed
Geophysical	$67,894.00 spent on overburden drilling on Mining Claims
Electromagnetic _____ days	L 609714 to 17 inclusive
Magnetometer _____ days	610401 to 03 inclusive
Radiometric _____ days	610456
Induced polarization _____ days	610472 to 74 inclusive
Section 77(19) See across _____ days	610740
Geological _____ days	610780
Geochemical _____ days	610786
Man days ☐ Airborne ☐	4526 assessment work days are allowed which may be grouped in accordance with Sec.76(6) of the Mining Act RSO 1980.
Special provision ☐ Ground ☒	For the Mining REcorder's use:
☐ Credits have been reduced because of partial coverage of claims.	The work assignment for each of the above listed 14 claims is 323 days per claim.
☐ Credits have been reduced because of corrections to work dates and figures of applicant.	

Special credits under section 86 (15a) for the following mining claims

No credits have been allowed for the following mining claims

☐ not sufficiently covered by the survey ☐ Insufficient technical data filed

The Mining Recorder may reduce the above credits if necessary in order that the total number of approved assessment days recorded on each claim does not exceed the maximum allowed as follows: Geophysical — 80; Geological — 40; Geochemical — 40; Section 86(18)-60:

Ontario

Ministry of Natural Resources

Recording Office
4 Gov't Road East
Kirkland Lake, Ontario
P2N 1A2

Notification of recording of assessment work credits

Lands Administration Branch
Mining Lands Section
Ministry of Natural Resources
Room 1617, Whitney Block
Queen's Park, Toronto
M7A 1W3

Date of recording of work: March 5, 1982

Recorded holder: Utah Mines Limited

Address: 1238 Riverside Drive
~~Timmins, Ontario, P4R 1A4~~

Township or Area: Galna, Kerrs, Knox Moody townships

Type of survey and number of Assessment days credit per claim	Mining claims
Geophysical	18 days each: L 554241 to L 554250 incl., 554252 to 554260 incl., 554336 to 554341 incl., 554343, 565030 to 565035, incl., 565153, 565154, 565156 to 565180 incl., 565182 to 565230 incl. 567063 to 567092 incl., 576927 to 29 incl.
Electromagnetic ____ days	
Magnetometer ____ days	
Radiometric ____ days	
Induced polarization ____ days	20 days each: L 567190,567193, 567196, 568876, 568877,576897 to 576912 incl.610373,610379 610380, 610388,610389,610485 610486,610497,610498,610509 610510,610521
Section 77-19 (XXXX) as listed ____ days	
Geological ____ days	21 days each: 610365,610366 610374,610437,610438
Geochemical ____ days	23 days: L 567195
Man days ☐ Airborne ☐	40 days each: L 576913 to 21 incl. 576930 to 50 incl.
Special provision ☐ Ground ☐	

Notice to recorded holder:

☒ Survey reports and maps in duplicate be submitted to the Lands Administration Branch, Toronto within 60 days from the date of recording of this work.

☐ Reports and maps are being forwarded to the Lands Administration Branch with this letter.

Mining recorder

c.c. Utah Mines Limited
Timmins
c.c. L. Godbout
Timmins

792 (6/77)

LA. 065

Ministry of Natural Resources
Ontario

Geotechnical Report Approval

File 2.4654

Mining Lands Comments

☐ To: Geophysics

Comments

☐ Approved ☐ Wish to see again with corrections | Date | Signature

☑ To: Geology - Expenditures Ma Kustra.

Comments

☑ Approved ☐ Wish to see again with corrections | Date Oct 22/82 | Signature C Kustra

☐ To: Geochemistry

Comments

LD

☐ Approved ☐ Wish to see again with corrections | Date | Signature

☐ To: Mining Lands Section, Room 6462, Whitney Block. (Tel: 5-1360)

1982 04 01 2.4654

Mining Recorder
Ministry of Natural Resources
4 Government Road East
P.O. Box 984
Kirkland Lake, Ontario
P2N 1A2

Dear Sir:

We have received reports and maps for Overburden Drilling submitted under Section 77(19) of the Mining Act R.S.O. 1980 on Mining Claims L. 554241 et al in the Townships of Gaina, Kerrs, Knox and Moody.

This material will be examined and assessed and a statement of assessment work credits will be issued.

Yours very truly,

E.F. Anderson
Director
Land Management Branch

Whitney Block, Room 6450
Queen's Park
Toronto, Ontario
M7A 1W3
Phone: 416/965-1316

J. Skura/amc

cc: Utah Mines Limited
Timmins, Ontario