

PERMIT NUMBER: N/A
Waiver R-004

MONITOR WELL UI-TH-2

Completed at Utah International Test Hole 2, drilled December 1980

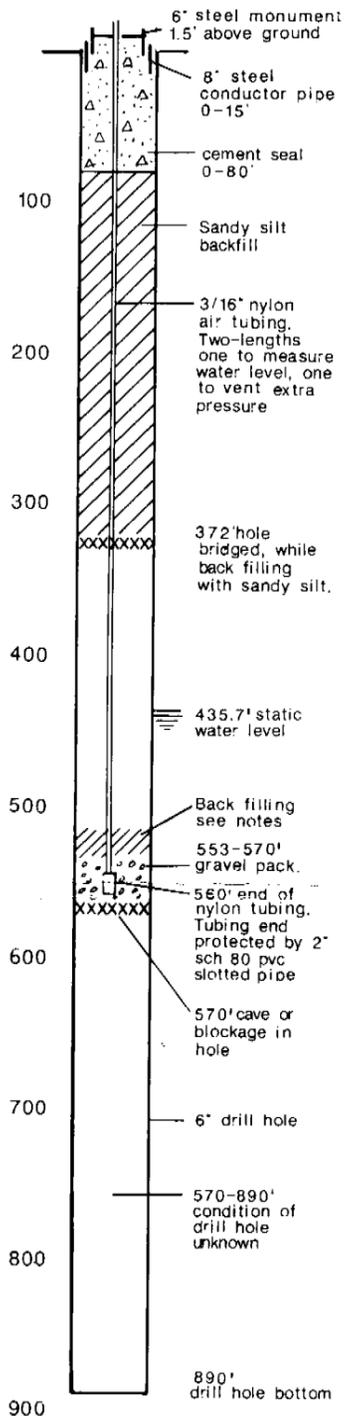
NE 1/4 SE 1/4 Section 12, T. 43N., R. 68E.

Elko County

WELL CONSTRUCTION

LITHOLOGIC LOG (From Utah International Records)

NOTES/OBSERVATIONS



0 - 20	Alluvial-limestone fragments in soil and clay
20 - 50	Medium brown clay (HP)
50 - 60	Light brown silty clay (LP)
60 - 80	Light brown silty clay (MP)
80 - 100	Light brown silty clay-slightly sandy
100 - 120	Light brown cherty siltstone (NP, AN)
120 - 130	Medium brown sandy siltstone (LP)
130 - 160	Medium brown clay w/chert fragments (MP)
160 - 190	Light brown clay w/chert fragments (LP)
190 - 200	Medium brown clay (HP)
200 - 210	Light brown clay filled w/chert and limestone fragments (LP, AN)
210 - 240	Light green siltstone w/minor chert fragments (LP, AN)
240 - 300	Light grey & brown clay w/chert fragments (MP to HP)
300 - 360	Yellow siltstone w/chert fragments (NP)
360 - 370	Light grey limestone w/chert fragments
370 - 470	Light grey silty limestone (AE)
470 - 540	Yellow silty limestone w/chert fragments (NP, AE)
540 - 550	Light grey silty limestone w/chert fragments (NP, AE)
550 - 560	Light brown silty limestone w/chert fragments (LP, AE)
560 - 580	Light grey silty limestone w/chert fragments (LP, AE)
580 - 600	Light brown silty limestone w/chert fragments
600 - 880	Light grey limestone w/chert fragments
880 - 890	Dark grey limestone (AE)

See Log # 22283
and Permit # 38834

Monitor well water levels did not show any response to air lift pumping during development of water well # 2.

Installation notes show 23.5 gallon buckets of backfill were poured down the hole. After allowing 40 minutes of settling time the backfill was noted to rise only 1 ft. in the drill hole. The zone at which this occurred was not accurately recorded. It is possibly around 540 ft.

552-565', 15 ft. of rise after adding 9 1/2, 5 gallon buckets of gravel. In a 6" drill hole this amount should have filled 32 ft. of hole.

555-570' - Partial collapse of drill hole walls. Depth checker temporarily hanging up on ledges.

570 - Blockage could not get depth checker past here.
605 - Utah International drill records showed the first water producing zone at 605 ft. with 20 gpm.

GENERAL INSTALLATION NOTES

- Installation of nylon air tubing and backfilling were performed in 1988 during construction and development of Indian Springs Test Well #2. Cementing was performed during the 1989 field program.
- Depths were checked with weighted 3/16" nylon air tubing. Stretch & suspended sediment from backfilling may be affecting reading reliability.
- 560' monitoring well depth (end of nylon tubing) determined by submergence pressure 54 psi (124.7') added to static water level of 435.7 ft. measured with an electric sounder.

EXPLANATION OF ABBREVIATED SYMBOLS ON UI-TH-1 & 2 LITHOLOGIC LOGS

- Plasticity:** NP = non-plastic
LP = low plasticity
MP = medium plasticity
HP = high plasticity
- Acid test reaction (with dilute 10% solution of HCL acid):**
AN = negative results to acid test
AE = effervescent result from acid, i.e., limestone
- Magnetic:** NMag = No magnetic material in the sample
Mag = Sample contained some magnetic particles

Log No. : _____

Basin: 11-189 d

INDIAN SPRINGS PROJECT Elko County, Nevada	
SUMMARY OF INDIAN SPRINGS MONITOR WELL UI-TH-2	
D. Gabbay Consulting Hydrologist	
DATE: November 1990	FOR: ABERMIN, INC.

PERMIT NUMBER: N/A R-004

OFFICE USE ONLY
 Log No. 22203
 Permit No. _____
 Basin. _____

WELL DRILLERS REPORT

Please complete this form in its entirety

1. OWNER Utah International Inc. ADDRESS Montello Nev. P.O. Box

2. LOCATION NE 1/4 SE 1/4 Sec. 12 T. 43 N/S R. 68 E. Elko County
 PERMIT NO. R-004

3. TYPE OF WORK	4. PROPOSED USE	5. TYPE WELL
New Well <input type="checkbox"/> Recondition <input type="checkbox"/>	Domestic <input type="checkbox"/> Irrigation <input type="checkbox"/> Test <input type="checkbox"/>	Cable <input type="checkbox"/> Rotary <input type="checkbox"/>
Deepen <input type="checkbox"/> <u>Test</u> Other <u>ore</u> <input type="checkbox"/>	Municipal <input type="checkbox"/> Industrial <input type="checkbox"/> Stock <input type="checkbox"/>	Other <input type="checkbox"/>

6. LITHOLOGIC LOG

Material	Water Strata	From	To	Thick-ness
<u>sandy clay, brown, gray, yellow, white & red</u>		0	340	
<u>soft fractured limestone</u>	605	340	710	
<u>hard gray rock</u>	711	710	880	

I left a 15ft. piece of 8' conductor pipe in hole & welded a steel cap on. This hole may be used for further testing by core drilling.

See Log # 30657 for completion

8. WELL CONSTRUCTION

Diameter hole 6 inches Total depth 880 feet

Casing record _____ Thickness _____

Weight per foot _____ Thickness _____

Diameter	From	To
<u>8 5/8 o.d.</u> inches	0	15
_____ inches	_____	_____

Surface seal: Yes No Type _____

Depth of seal _____ feet

Gravel packed: Yes No

Gravel packed from _____ feet to _____ feet

Perforations:

Type perforation None

Size perforation _____

From _____ feet to _____ feet

Date started 12/14/80
 Date completed 12/15/80

7. WELL TEST DATA

Pump RPM	G.P.M.	Draw Down	After Hours Pump

BAILER TEST

G.P.M. _____	Draw down _____ feet	_____ hours
G.P.M. _____	Draw down _____ feet	_____ hours
G.P.M. _____	Draw down _____ feet	_____ hours

9. 11-87 436' WATER LEVEL

Static water level 500 Feet below land surface

Flow _____ G.P.M. 30 to 40

Water temperature Cool ° F. Quality clear

10. DRILLERS CERTIFICATION

This well was drilled under my supervision and the report is true to the best of my knowledge.

Name Paul Williams

Address 22 S. Patterson Sparks

Nevada contractor's license number 14483

Nevada driller's license number 957

Signed Paul E Williams

Date 12/20/80