

HUMBOLDT DRILLING & PUMP CO., INC.

P.O. BOX 592
4675 W. WINNEMUCCA BLVD.
WINNEMUCCA, NEVADA, 89445
(702) 623-5259

LOG NO. 43716-18
PERMIT NO. T
BASIN 2-28-01-03

DEPT. OF WATER RESOURCES
201 S. Fall Street
Carson City, Nevada 89710

October 16, 1984

Gentlemen:

Re: Drilling, Richard Drake Property.

Subject: Summary and Results of drilling program.

Hole number 1. #43716

This hole was drilled at the surveyers original location near the north end of the basin. The hole was drilled to a depth of 87'. At 87' a fracture in the granite was encountered and Two Roller Cone's broke off a new 7 5/8" V1 Tri Cone Roller Bit. The Granite and Quartz bed rock was very hard, it required 30,000 lbs of down pressure on the bit to drill it. There was a tremendous influx of wet clay encountered at 10 feet and persisted throught the hole. Only surface water was encountered in this hole and testing yeilded no other water.

Drill Log:

- 0-1' Top Soil
- 1'-10' Granite boulder
- 10'-50' Sloppy Super saturated clay mixed with granite boulders.
- 50'-51' Mud and Gravel Mix
- 51'-87' Granite mixed with stringers of Quartz, end of hole.

Hole Number 2. #43717

This hole was drilled approximately 330 feet in a southerly direction from Hole #1 along the western edge of the Basin. Only surface water Boulders, and super saturated Clay mud were encountered above the granite floor. The Clay again caused severe plugging problems during drilling. The hole was tested for water, it produced none. Dry Hole.

Drill Log:

- 0-5' Black Topsoil mixed with small boulders.
- 5'-10' Black wet mud, surface water only.
- 10'-65' Super saturated clay mud mixed with boulders.
- 65'-80' Solid granite, dry. End of Hole.

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Hole number 3. #43718

Hole number 3 was drilled approximately 800 feet in a southerly direction from hole #2 and along the western edge of the basin. We encountered gravel at a depth of 50' to 55' and a gravel mud mixture from 60' to 65' with wet clay inbetween the two layers. The hole was drilled to 82', the last 12 feet being solid granite. To get an accurate test on the two gravel zones we set 76 feet of casing, with the 20' perforated section set from 54½ feet to 74½ feet from the surface. We then tested the gravel zones for water. An overnite or approx. 15 hours of percolation time yeilded only approx. 2 gallons of muddy water. The Casing was pulled and the hole abandoned as a dry hole.

Drill Log:

- 0-5' Black Topsoil
- 5'-10' Dirt and clay mixed
- 10'-50' Wet sloppy clay mixed with granite boulders, the last five feet turned to a reddish color mud
- 50'-55' Gravel with some water showing
- 55'-60' Wet sloppy clay
- 60'-65' Clay, sand and Gravel Mixed formation.
- 65'-70' Wet Sloppy Clay.
- 70'-82' Solid Granite.

Hole number 4. #43719

This hole was drilled approximately 600' in a southerly direction from Hole #3 along the western edge of the basin. On this hole we shut down on 10-8 and converted the Drilling Rig from Rotary drilling to an Auger Flight system from one of our other drill rigs. We decided this system would give us a more accurate sampling of the basin sediments and alleviate our plugging problems caused by the wet clay. We were able to determine the viscosity of the

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Clay mud without the caving problems previously encountered. We also could hold an open hole longer and get a more accurate test. We drilled the hole to a depth of 62' and then tripped out and put on the drill pipe and made the water test. A 30 Minute test yielded approx. 3 to 4 gallons of water, a five minute test yielded approx. 1 gallon of water and a 1 minute test yielded approx. 1 quart of water. The hole was abandoned as a dry Hole and preparations were made for move out.

Drill Log:

0-5' Topsoil

5'-10' Wet clay mixed with decomposed granite.

10'-25' Wet clay mixed with gravel sized quartz pebbles.

25'-52' Wet sloppy super saturated clay, approx. 150-200 Viscosity.

52'-62' Solid Granite

End of Report

Sincerely,

A handwritten signature in cursive script, appearing to read 'Brad Santucci'.

Brad Santucci
Drilling Division

Inten# #3351

E $\frac{1}{2}$, NW $\frac{1}{4}$, Sec. 17, T. 43 N, R. 28

Parcel #7, block A

Pine Forest Recreational Estates

Clay was used to back fill the hole, and abandoned according to State laws.