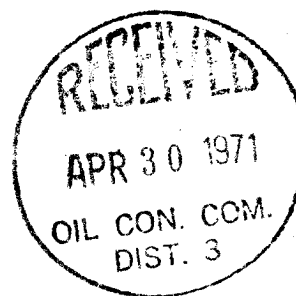


WELL REPORT  
DAVIS OIL COMPANY  
PINTADO CANYON #1  
MCKINLEY COUNTY, NEW MEXICO



## WELL REPORT

DAVIS OIL COMPANY: PINTADO CANYON #1

MCKINLEY COUNTY, NEW MEXICO

### LOCATION

950' from the south line and 990' from the east line of  
Section 28, Township 20 North, Range 8 West, NMPM.

### ELEVATION

6656 ground

6666 Kelley bushing

### CONTRACTOR

Lewmont Drilling Associates, Rig #8, Unit 15, Rotary tools.

### SPUD AND COMPLETION DATA

Well commenced: April 15, 1971

Well completed: April 23, 1971, plugged & abandoned

Total Depth: 4081'

Plugging Program:

Surface	5 sacks
700' - 750'	16 sacks
1760' - 1860'	32 sacks
2900' - 3050'	48 sacks
3914' - 4014'	32 sacks

### CASING

Surface: 8 5/8" @75' with 50 sacks

### ELECTRICAL SURVEYS

Dresser Atlas - Induction Electrolog from 75' to 4073'

Dresser Atlas - Densilog from 75' to 4076'

Dresser Atlas - Acoustilog from 1130' to 1910': 2800' to 3120':  
3650' to 4073'

### FORMATION TOPS

CRETACEOUS	DEPTH	KB DATUM
Menefee	Surface	+6666
Point Lookout	1810'	+4856
Upper Mancos	1930'	+4736
Gallup	2793'	+3873
Hospah Gallup	2930'	+3736
Massive Gallup	3012'	+3654
Lower Mancos	3125'	+3541
Sanastee	3357'	+3309
Greenhorn	3688'	+2978

## FORMATION TOPS - CONTINUED

CRETACEOUS	DEPTH	KB DATUM
Graneros	3726'	+2940
Dakota "A"	3755'	+2911
Dakota "B"	3874'	+2792
Dakota "D"	3964'	+2702
Dakota (Burro Canyon)	4020'	+2646
JURASSIC		
Morrison	4073'	+2593
Total Depth	4081'	+2585

## WELL CUTTINGS

30' samples from 80' to 2900'

10' samples from 2900' to 4081'

Samples described below from 2900' to 4081'(TD)

### SAMPLE DESCRIPTION:

- 2900-20      80% sh, gy, dk gy, gy brn, micac, carb.:  
20% ss, cons-uncons, gy, v-f-y, hd, tite  
silty, calc, N-S - ss domin uncons.
- 2920-30      60% ss, gy-wht, uncons, v-f-f-g, domin v-f-g,  
sa-sr, Tr cons ss, sl par, friable, sl/ark - N-S  
40% sh, as above: Tr aragonite

### TOP HOSPAH GALLUP 2930 LOGS

- 2930-40      70% ss, as above occ m-g's: 30% sh, as above
- 2940-50      50% ss, as above: 50% sh, as above
- 2950-60      70% ss, as above: 30% sh, as above: Tr aragonite
- 2960-70      50% ss, as above: 50% sh, as above
- 2970-80      70% ss, as above, Tr glauc: 30% sh, as above
- 2980-90      100% sh, as above: Tr ss, as above
- 2990-3000    70% sh, as above: 30% ss, as above
- 3000-3010    70% ss, as above: 30% sh, as above

### TOP MASSIVE GALLUP 3012' LOGS

- 3010-30      80% sh, dk gy, gy grn, gy brn, carb. 20% ss, as above,  
bcm v/silty, hd & tite
- 3030-40      70% sh, as above: 30% ss, gy-wht, cons-uncons, sr-sa,  
sl/arkosic, porous & friable in part, N-S

3040-60	50% ss, as above, 50% sh, as above
3060-70	70% ss, as above: 30% sh, as above
3070-90	90% ss, as above: 10% sh, as above
3090-3110	60% sh, as above: 40% ss, as above, bcm hd, tite silty calc & domin v-f-g
3110-30	70% sh, as above: 30% ss, as above, appears lamin.

TOP UPPER MANCOS 3125 LOGS

3130-50	80% sh, as above: 20% ss, as above
3150-60	100% sh, as above: Tr ss, as above
3160-90	80% ss, uncons, as above, <u>N-S</u> 20% sh, as above
3190-3200	50% ss, as above: 50% sh, as above
3200-10	60% sh, as above: 40% ss, as above
3210-20	80% sh, as above: 20% ss, as above
3220-50	90% sh, as above: 10% ss, as above
3250-60	No sample

TOP SANASTEE 3357 LOGS

3260-3430	100% sh, dk gy, gy brn, gy grn, carb in part: sdy & silty in part: Tr ss, gy, v-f-g, silty, hd & tite
3430-40	100% sh, as above: Tr ls, mott brn, v-f-xln hd, tite
3440-50	90% sh, as above: 10% ls, as above
3450-60	100% sh, as above: Tr ls, as above: Tr sltstn, gy, calc, micac, hd
3460-3540	100% sh, as above: Tr sltstn, as above
3540-70	100% sh, as above, inc in sltstn lamin
3570-3640	100% sh, as 3460-3540
3640-70	90% sh, dk gy, gy grn, med hd: 10% sltstn, mott gy, calc, carb inclusions, micac, hd, tite
3670-80	80% sh, as above: 20% sltstn, as above

TOP GREENHORN 3688' LOGS

3680-90 90% sh, as above: 10% sltstn, as above  
3690-3700 100% sh, as above: Tr sltstn, as above: Tr bentonite  
3700-10 100% sh, domin dk gy, calc, occ sltstn lamin, bcm hd:  
Tr bentonite  
3710-20 90% sh, as above less calc as 3640-70: 10% sltstn  
as above: Tr ls, gy brn, v-f-xln, hd, tite

TOP GRANEROS 3726 LOGS

3720-50 100% sh, as above: Tr sltstn, as above

TOP DAKOTA "A" 3755 LOGS

3750-70 100% sh, as above: Tr sltstn, as above: Tr ls,  
gy brn, ds, tite  
3770-80 50% ss, wht-tan, f-g, cons, glauc, sa-sr, well  
cmt to Tr porous ss-blue gold fluor; No cut -  
ss cuts when crushed - sl stn: 50% sh, as above  
3780-90 30% ss, as above, bcm shy & tite: 70% sh, as above  
3790-3800 100% sh, as above: Tr ss, as above  
3800-10 100% sh, as above: Tr ss, as above, No fluor:  
abt bentonite min fluor  
3810-20 90% sh, as above: 10% ss, as above N-S  
3820-40 80% sh, as above: 20% ss, v-f-f-g, cons, sa-sr  
clean-shy, well cmted, glauc, N-S: Tr diss pyrite  
3840-70 90% sh, as above: 10% ss, as above

TOP DAKOTA "B" 3874 LOGS

3870-90 80% sh, as above: 20% ss, wht-tan, v-f-f-g,  
sl/arkosic, sa-sr, Tr por, N-S, Abt bentonite fluor  
3890-3900 40% ss, as above N-S: 60% sh, as above, Tr bentonite  
3900-10 80% sh, as above carb: 20% ss, as above: N-S  
Tr diss pyrite  
3910-30 90% sh, as above: 10% ss, as above: N-S  
Tr diss pyrite  
3930-50 100% sh, as above: Tr ss, as above: N-S  
Tr diss pyrite

3950-60 90% sh, as above, sdy in part: 10% ss, as above:  
Tr diss pyrite

TOP DAKOTA "D" 3964' LOGS

3960-70 100% sh, as above: Tr ss, as above:

3970-80 80% sh, as above: 20% ss, as above:  
Tr diss pyrite

3980-90 40% ss, tan-wht, v-f-f-g, cons - uncons, sa-sr, sl  
arkosic, sl/calc, well cmt'd to porous, N-S: 60% sh,  
as above: Tr diss pyrite

3990-4000 90% ss, as above, domin cons, domin porous, N-S:  
10% sh, as above

4000-10 40% ss, as above, bcm tite & silty, N-S: 60% sh,  
as above: Tr sh, grn, soft, w/ss grain inclusions

TOP DAKOTA (BURRO CANYON) 4020' LOGS

4010-60 90% sh, gy, gy grn, dk gy, platy, carb & sdy in part:  
10% ss, as above: Tr bentonite

TOP MORRISON 4073' LOGS

4060-75 100% ss, wht, f-c-g, uncons, conglg abt cht & feldsparg:  
N-S: Tr sh, dk gy-blk, platy

4075-81 80% sh, as above: 10% sh, pale grn, wxy, sdy in part:  
10% ss, as above

DRILLING TIME

Five foot drilling time from 2900' to 4081' (TD) is listed below.

2900-3000	9-10-8-12-11-8-11-17-8-7-6-10-13-8-10-10-8-12-13-13
3000-3100	13-13-8-4-4-5-6-3-4-4-4-4-7-5-6-6-8-8-7-9
3100-3200	12-11-10-11-12-15-12-11-11-11-12-13-11-12-14-14-15-17-14-15
3200-3300	17-17-17-18-18-20-18-20-20-20-20-15-15-17-17-16-14-15-15
3300-3400	15-15-15-14-13-11-11-10-11-12-11-10-10-7-7-9-8-7-7-7
3400-3500	7-7-7-8-8-8-8-8-10-8-8-8-8-12-14-9-8-6-7-8
3500-3600	7-7-8-9-8-8-10-8-6-8-8-11-8-8-8-8-7-8-8-8
3600-3700	8-8-8-8-12-12-12-13-15-14-16-16-16-14-13-14-18-19-19-16
3700-3800	15-14-13-15-13-13-16-18-15-13-10-9-7-9-9-16-17-19-23-24
3800-3900	6-9-10-13-15-12-14-17-21-27-22-27-27-16-13-9-13-13-13-9
3900-4000	19-17-17-12-12-13-13-13-13-13-17-18-14-12-6-9-26-14-15-18
4000-4100	27-28-22-14-4-4-4-4-4-4-4-6-22-21-42-34-td

## CHRONOLOGICAL LOG

4-15-71 RURT  
4-16-71 TD 1699' Trip Bit #2  
Rigging up (6 3/4 hrs) Drilling (15 hrs) Trip (1/2 hr)  
Misc. (1 3/4 hrs)  
Dev. 0° @ 570'  
1/4° @ 1070'  
1/2° @ 1481'  
4-17-71 TD 2652' Waiting on cement truck  
Drilling (11 1/2 hrs) Trip (2 1/2 hrs) recementing  
Surface (8 1/2 hrs) Misc. (1 1/2 hrs)  
Dev. 1/2° @ 1699'  
3/4° @ 2226'  
3/4° @ 2652'  
4-18-71 TD 2978 Trip Bit #4  
Drilling (8 1/2 hrs) Trips (4 1/2 hrs)  
Waiting on cement truck (2 hrs) Recement (1 1/2 hrs)  
WOC (7 1/4 hrs) Rig Serv. (1/4 hr)  
4-19-71 ø 3434'  
Drilling (18 1/4 hrs) Trips (4 1/2 hrs) Reaming (1/2 hr)  
Misc. (3/4 hr)  
Dev. 1° @ 2978'  
4-20-71 ø 3818'  
Drilling (14 3/4 hrs) Trip (4 1/4 hrs) Rig repair  
(4 1/4 hrs) Misc. (3/4 hr)  
Dev. 3/4° @ 3625'  
4-21-71 TD 4081 Preparing to run logs  
Drilling (13 1/2 hrs) Trip (4 hrs) Rig repair  
(2 hrs) Circulate for logs (2 1/2 hrs)  
Trip to Log (1 1/4 hrs) Misc. (3/4 hr)  
4-22-71 TD 4081' WOO  
Rng logs (16 1/4 hrs) Waiting on orders (7 3/4 hrs)  
4-23-71 TD 4081' Spotting plugs. Waiting on orders (16 1/2 hrs)  
Rng DST (7 1/2 hrs)  
4-24-71 TD 4081' P & A  
Spotting plugs (9 1/2 hrs)  
P & A 4-23-71 9:30 a.m.

## BIT RECORD

<u>No.</u>	<u>Make</u>	<u>Size</u>	<u>Type</u>	<u>Depth</u> <u>Out</u>	<u>Footage</u>	<u>Hours Run</u>
1	STC	7 7/8	DTS	1699	1639	15
2	STC	7 7/8	DTS	2652	953	11 1/2
3	STC	7 7/8	DTTJ	2978	326	8 1/2
4	SEC	7 7/8	S4T	3257	235	11 1/4
5	STC	7 7/8	DGT	3625	368	12 1/2
6	STC	7 7/8	DGT	3903	278	13 3/4
7	STC	7 7/8	DGT	4081	178	13 3/4

TOTAL ROTATING HOURS - 76 1/4

### DEVIATION RECORD

<u>No.</u>	<u>Degree</u>	<u>Depth</u>	<u>Date</u>
1	0 °	570	4-16-71
2	1/4°	1070	4-16-71
3	1/2°	1481	4-16-71
4	1/2°	1699	4-17-71
5	3/4°	2226	4-17-71
6	3/4°	2652	4-17-71
7	1 °	2978	4-19-71
8	3/4°	3625	4-20-71

### ELECTRICAL SURVEY CALCULATIONS

<u>Formation</u>	<u>Depth</u>	<u>Porosity</u> <u>Density</u>	<u>Acoustilog</u>	<u>Rw</u>	<u>Water</u> <u>Saturation</u>	<u>Q</u>
Dakota (Burro Canyon)	4020-73	21%	28%	.5	73%	.25
Dakota "D"	3973-78	15%	15%	.3	90%	.0
Dakota "B"	3898-3908	14%	15%	.34	100%	.06
Dakota "A"	3764-66	16%	16%	.5	100%	.0
Massive Gallup	3020-30	18%	21%	.9	100%	.14
Hospah Gallup	2946-64	17%	18%	.9	100%	.05

### DRILL STEM TEST RECORD

Staddle Packer DST #1: 3755 - 3785 (Dakota "A")  
Open 15 minutes very weak blow: Initial shut in 45 minutes:  
open 30 minutes, no blow: Final shut in 90 minutes:

Recovered 20' drilling mud.

Initial hydrostatic pressure	2035 psi
Final hydrostatic pressure	2026 psi
Initial flow pressure (1)	8 psi
Final flow pressure (1)	17 psi
Initial flow pressure (2)	17 psi
Final flow pressure (2)	25 psi
Initial shut in pressure (45")	1597 psi
Final shut in pressure (90")	1571 psi
Bottom hole temp. 114° F	



## SUMMATION

This well was spudded April 15, 1971, and plugged and abandoned April 23, 1971. The well was drilled to a total depth of 4081' in the Morrison formation of Jurassic age. A total of 76 1/4 rotating hours were required for the drilling of this test.

All formations from 2900 to 4081 (TD) were evaluated by (1) careful examination of rotary cuttings from 2900 to TD by a geologist in the field; and (2) the entire stratigraphic section was evaluated by qualitative and quantitative analysis of the electrical surveys. These data indicated only one show in the Dakota "A" which was subsequently drillstem tested with negative results.

The well ran structurally 161' higher than the Tesoro Petroleum Corp: Pueblo Pintado #1, located in Section 23, Township 20 North, Range 8 West, McKinley County, New Mexico, on top of the Dakota "A" zone.

Rotary samples were saved from 80' to total depth and shipped to the Four Corners Sample Cut in Farmington, New Mexico. An Induction Electrolog, Densilog and Acoustilog were run from surface casing to total depth.

*Dave M. Thomas, Jr.*

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CPG 914