WELL REPORT
ANDERSON OIL COMPANY
BONITA #2
MCKINLEY COUNTY, NEW MEXICO

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LOCATION

660' from the south line and 1980' from the east line of Section 25, Township 20 North, Range 11 West, NMPM.

ELEVATION

6491' Ground: 6503' Kelley Bushing

CONTRACTOR

Young Drilling Company, Inc., Rig #1, Ideco Rambler, Rotary Tools.

SPUD AND COMPLETION DATA

Well commenced: October 30, 1971
Well completed: November 7, 1971, Plugged and abandoned
Total Depth 3676' Driller: 3674' Logger

Plugging Program:

Surface	- 10 sacks
290' - 340'	- 18 sacks
1250' - 1350'	- 35 sacks
2400' - 2550'	- 50 sacks
3300' - 3400'	- 35 sacks

CASING

8 5/8" @ 74' with 40 sacks

ELECTRICAL SURVEYS

Dresser Atlas - Induction Electrolog from 77' to 3674'
Dresser Atlas - Densilog from 76' to 3674'
Dresser Atlas - Acoustilog from 750' to 1260': 1440' to 1660': 2290' to 2760': 3250' to 3638'

FORMATION TOPS

Cretaceous	Depth	KB Datum
Menefee (Kmf)	Surface	+6503
Point Lookout (Kpl)	1300'	+5203
Upper Mancos (Kmu)	1468'	+5035
Gallup (Kg)	2340'	+4163
Hospah Gallup (Khg)	2441'	+4062
Massive Gallup (Kmg)	2534'	+3969
Lower Mancos (Kml)	2650'	+3853
Sanastee (Kms)	2898'	+3605
Greenhorn (Kgh)	3250'	+3253

FORMATION TOPS - CONTINUED

Cretaceous	Depth	KB Datum
Graneros (Kgr)	3306'	+3197
Dakota "A" (Kda)	3344'	+3159
Dakota "B" (Kdb)	3446'	+3057
Dakota "D" (Kdd)	3540'	+2963
Dakota Burro Canyon (Kdbc)	3634'	+2869
Jurassic		
Morrison (Jm)	3663'	+2840
Total Depth (Logger)	3674'	+2829
Total Depth (Driller)	3676'	

WELL CUTTINGS

30' samples from 1750' to 2300'
10' samples from 2300' to 2700'
30' samples from 2700' to 3200'
10' samples from 3200' to 3676' (Driller TD)
Samples described below from 3200' to 3676' (Driller TD)

SAMPLE DESCRIPTION

3200-20 80% sltstn, gy, hd, calc, sdy in part: 20% sh, dk gy, carb

3220-30 50% sltstn, as above: 50% sh, as above

3230-50 40% sltstn, as above: 60% sh, as above

TOP GREENHORN 3250' LOGS

3250-60 70% sh, as above: 30% sltstn, as above

3260-70 50% sh, as above: 50% sltstn, as above

3270-90 70% sh, as above, calc in part: 20% sltstn, as above: 10% ls, gy brn, v/shy, ds

3290-3300 100% sh, dk gy, carb: Tr sh, calc, as above: Tr sltstn, as above

TOP GRANEROS 3306' LOGS

3300-30 20% ls, mott gy brn, ds, shy: 10% sltstn, as above: 70% sh, as above, calc in part

3330-40 80% sh, dk gy, carb: 10% ls, as above: 10% sltstn, as above

TOP DAKOTA "A" 3344' LOGS

3340-50 100% sh, as above: Tr ls, as above: Tr sltstn, as above

SAMPLE DESCRIPTION - CONTINUED

3552' Circ sample

15" - 80% sh, as above: 20% ss, uncons, f-m-g, SA-SR, arkosic, glauc, N-S

30" - 50% ss, wht-buff, uncons-cons, domin uncons, as above, N-S: cons, ss, shy in part, calc & tite in part: 50% sh, as above

45" - 50% ss, as above: 50% sh, as above

3356' Circ sample

15" - 50% ss, as above, domin uncons: 50% sh, as above

30" - 50% ss, cons-uncons, tan, f-m-g, SA-SR, arkosic, calc in part, por in part, lt oil stn, bright gold fluor, sl/cut, excellent cut when acidized

45" - 50% ss, as above: 50% sh, as above

DST #1 3346-56

3360-70 100% cavings

3370-80 50% ss, as above: 50% sh, as above

3380-85 30% ss, as above: 70% sh, as above

DST #2 3343-85

3385-3410 100% sh, dk gy, silty in part: Tr sltstn, gy, hd, shy, calc

3410-20 90% sh, as above, sdy in part: 10% sltstn, shy, sdy in part

3420-30 90% ss, lt gy, v-f-g, arkosic, SA-SR, calc in part, por in part, N-S: 10% sh, dk gy, platy

TOP DAKOTA "B" 3446' LOGS

3430-50 10% ss, as above, calc, tite: 90% sh, dk gy, silty & sdy in part

3450-60 100% sh, dk gy, platy, sdy, silty in part: Tr ss, as above: inoc prism

3460-70 100% sh, as above: Tr ss, as above: Tr sltstn, gy, hd, calc, shy

3470-80 100% sh, as above: Tr ss, buff, v-f-f-g, SA-SR, arkosic, por & friable, N-S: Tr sltstn, as above

3480-90 70% sh, as above: 30% ss, as above, N-S: Tr sltstn, as above: Tr bentonite

SAMPLE DESCRIPTION - CONTINUED

3490-3510 90% sh, as above, domin platy: 10% ss, as above: Tr bentonite

TOP DAKOTA "D" 3540' LOGS

3510-3650 100% sh, as above: Tr ss, as above: N-S: Tr sltstn, as above: Tr bentonite

TOP DAKOTA BURRO CANYON 3634' LOGS

3650-60 20% ss, wht, f-m-g, SA-SR, abt intstl clay, N-S: 80% sh, dk gy, as above: Tr sh, med grn, silic in part, wxy in part

TOP MORRISON 3663' LOGS

3660-70 20% ss, as above: 70% sh, dk gy, as above: 10% sh, med grn, as above

3670-76 100% sh, dk gy, as above: Tr grn sh, as above: Tr ss, as above

3676 TD Driller

DRILLING TIME

Five foot drilling time from 3200' to 3676' (Driller TD) is listed below.

	05-10-15-20-25-30-35-40-45-50-55-60-65-70-75-80-85-90-95-100
3200-3300	7- 7- 7- 6- 7- 6- 7- 8- 6- 6- 6- 6- 9-11-10-12-10- 9-10- 9
3300-3400	11-12-10-12-15-14-15-19-17-13- 8- 6- 7-11-13-18-20-25-25-21
3400-3500	24-15-12-15-19-20-21-24-25-23-21- 6- 4- 3- 5- 7- 7- 4- 4- 4
3500-3600	8- 7- 8-10-15-11- 9-17-20- 8- 8- 5- 5- 4-19-14-14-12-12- 5
3600	10-24-23-25-22-24-25-30-53-13- 8-22-23-24-31

CHRONOLOGICAL LOG

10-30-71 Surface set by small rig.
8 5/8" - 62' ground level, with 40 sacks, 2% calc
PD 4:30 P.M. 10-30-71

11-01-71 MIRT

11-02-71 ø 1578' w/bit #1

Dev. 1/4° @ 500'

Drlg (11 1/2 hrs)
Drill out from under surface 7:30 P.M. 11-01-71

CHRONOLOGICAL LOG - CONTINUED

11-03-71 ø 2745' w/bit #3
Bit #1 - OSC-3 - 1695' - 14 hrs
Bit #2 - OSCIG - 908' - 15 1/2 hrs

Dev. 1/2° @ 1000'
3/4° @ 1578'
1 ° @ 2050'
1-1/4° @ 2676'

Drlg (19 3/4 hrs) Trips (4 hrs) Rig service (1/4 hr)

11-04-71 TD 3356', prep to DST
Bit #3 - OSCIG - 680' - 15 1/2 hrs

Mud Properties: Vis 100, Wt 9.1, Wl 6.4

Drlg (14 hrs) Trips (3 1/4 hrs) Rig service (1/4 hr)
Circ samples and condition hole for DST (6 3/4 hrs)

11-05-71 ø 3434'

Mud Properties: Vis 43, Wt 9.5, Wl 6.8

Drlg (5 1/4 hrs) Trips (9 3/4 hrs) Circulating (1 hr)
Drill Stem Test (4 1/2 hrs) Misc (3 1/2 hrs)

11-06-71 TD 3676', Logging
Bit #4 - OW4 - 290' - 15 1/4 hrs
Bit #5 - OW4 - 30' - 2 1/2 hrs

Dev. 1° @ 3356'
1° @ 3676'

Mud Properties: Vis 78, Wt 9.4, Wl 7.2

Drlg (12 1/2 hrs) Trips (4 hrs) Rig service (1/4 hr)
Cond hole (1 1/2 hrs) Rig repair (3/4 hr) Logging (5 hrs)

11-07-71 TD 3676' P & A

Logging (11 hrs) WOO (7 hrs)

BIT RECORD

No.	Make	Size	Type	From	To	Footage	Hours Run
1	HTC	7 7/8	OSC-3	73'	1768'	1695'	14
2	HTC	7 7/8	OSCIG	1768'	2676'	908'	15 1/2
3	HTC	7 7/8	OSCIG	2676'	3356'	680'	15 1/2
4	HTC	7 7/8	OW4	3356'	3646'	290'	15 1/4
5	HTC	7 7/8	OW4	3646'	3676'	30'	2 1/2

TOTAL ROTATING HOURS - 62 3/4

DEVIATION RECORD

No.	Degree	Depth	Date
1	1/4°	500'	11-01-71
2	1/2°	1000'	11-02-71
3	3/4°	1578'	11-02-71
4	1 °	2050'	11-02-71
5	1-1/4°	2676'	11-02-71
6	1 °	3356'	11-05-71
7	1 °	3676'	11-06-71

ELECTRICAL SURVEY CALCULATIONS

Formation	Depth	Porosity		Rw	Water Saturation	Q
		Densilog	Acoustilog			
Dakota "D"	3592-94	19%	21%	2.3*	100%	.1
Dakota "D"	3554-56	20%	20%	2.3*	100%	0
Dakota "B"	3488-92	21%	23%	3.0*	100%	.09
Dakota "B"	3452-56	20%	28%	3.0*	100%	.28
Dakota "A"	3358-60	18%	19%	.45	78%	.08
Dakota "A"	3356-58	20%	23%	.45	56%	.13
Dakota "A"	3354-56	21%	21%	.45	59%	0
Dakota "A"	3356-54	24%	21%	.45	68%	0
Dakota "A"	3350-52	21%	21%	.45	70%	0
Dakota "A"	3348-50	22%	26%	.45	62%	.15
Dakota "A"	3346-48	18%	25%	.45	67%	.28
Dakota "A"	3344-46	25%	25%	.45	65%	0

Rw - DST Data

DRILLSTEM TEST RECORD

DST #1: 3346-56 (Dakota "A") 3340-50 (Adjusted to logs)

Open 15 minutes: very weak blow, dead in 15 minutes
Initial Shut In: 30 minutes
Open 30 minutes: dead

Recovered 35' drilling mud, very slightly oil cut

Initial hydrostatic pressure	1772 psi
Final hydrostatic pressure	1720 psi
Initial flow pressure (1)	8 psi
Final flow pressure (1)	43 psi
Initial flow pressure (2)	43 psi
Final flow pressure (2)	60 psi

DST #2: 3343-85 (Dakota "A") 3337-79 (Adjusted to logs)

Open 15 minutes: very weak to weak blow
Initial Shut In: 30 minutes
Open 60 minutes: very weak to weak blow
Final Shut In: 60 minutes

Recovered 1' free oil, 92' slightly oil cut mud

Bottom Hole Sample: 2200 cc oil cut mud, no gas

Initial hydrostatic pressure	1720 psi
Final hydrostatic pressure	1702 psi
Initial flow pressure (1)	8 psi
Final flow pressure (1)	17 psi
Initial flow pressure (2)	25 psi
Final flow pressure (2)	43 psi
Initial shut in pressure	1321 psi
Final shut in pressure	1313 psi

SUMMATION

This well was spudded October 30, 1971, and plugged and abandoned November 7, 1971. The well was drilled to a total depth of 3676' Driller, 3674' Logger in the Morrison formation of Jurassic age. A total of 62 3/4 rotating hours were required for the drilling of this test.

All formations from 3200' to 3676' (Driller TD) were evaluated by (1) careful examination of rotary cuttings from 3200' to TD by a geologist in the field; (2) the entire stratigraphic section was evaluated by qualitative and quantitative analysis of the electrical surveys. A show of oil was recorded in the Dakota "A" zone 3346-56' and subsequently drillstem tested. Recovery was 35' very slightly oil cut mud. The entire Dakota "A" zone was drilled and drillstem tested. Recovery on this test was 1' free oil, 92' slightly oil cut mud. The other prospective zones in the well calculated water from the electrical surveys.

The well ran structurally 6' lower than the Davis Oil Company: Bonita #1, located in Section 25, Township 20 North, Range 11 West, McKinley County, New Mexico, on top of the Dakota "A" zone.

Rotary samples were saved from 1750' to total depth and shipped to the Four Corners Sample Cut in Farmington, New Mexico. An Induction Electrolog and Densilog were run from surface casing to total depth. An Acoustilog were run over selected intervals.

Dave M. Thomas, Jr.
CPG 914