

GEOLOGICAL WELL REPORT
DAVIS OIL COMPANY
BEARD FEDERAL #1
SAN JUAN COUNTY, NEW MEXICO

N-5-22N-8W

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ABSTRACT

The Davis Oil Company, Beard Federal #1, was spudded February 27, 1979. The well was drilled by March 3, 1979 to a total depth of 1741' Driller, 1741' Logger, in the Mesa Verde formation of Cretaceous age.

The rotary cuttings were examined by a geologist in the field from 90' to 1741' (Driller TD). Schlumberger conducted a Dual Induction Laterlog survey from 91' to 1732' and a CNL-FDC log from 92' to 1739'.

It was determined that the well may be productive and casing was set and cemented on March 3, 1979. The samples were transported to the Farmington office for temporary storage.

GEOLOGICAL WELL REPORT
DAVIS OIL COMPANY: BEARD FEDERAL #1
WILDCAT
SAN JUAN COUNTY, NEW MEXICO

LOCATION

1000' FSL & 1640' FWL, Section 5-T22N-R8W

ELEVATION

6797' GL

CONTRACTOR

Wilson Drilling Company, Rig "D-104"
Toolpusher: Mr. Wilson

SPUD AND COMPLETION DATA

Spud date: 2-27-79
Drillout date: 2-28-79
Date TD reached: 3-3-79 @ 8:00 A.M.
TD Driller: 1741' TD Logger: 1741'

CASING

Surface: 8 5/8" @ 90' w/125 sxs
Production: 4 1/2" @ 1741' (TD) w/175 sxs

ELECTRICAL SURVEYS

Schlumberger: DIL from 91' to 1732'
CNL-FDC from 92' to 1739'

FORMATION TOPS

<u>Tertiary</u>	<u>Depth</u>	<u>GL Datum</u>	<u>Thickness</u>
Tertiary Undivided	Surface	6797'	268'
Ojo Alamo	268'	6529'	193'
<u>Cretaceous</u>			
Kirtland	461'	6336'	264'
Fruitland	725'	6072'	243'
Pictured Cliffs	968'	5829'	253'
Lewis	1221'	5576'	111'
Chacra	1332'	5465'	347'
Mesa Verde	1679'	5118' penet'd	62'
TD Logger	1741'	5056'	
TD Driller	1741'		

WELL CUTTINGS

10' samples from 90' to 1741', Driller TD

BIT RECORD

<u>No.</u>	<u>Make</u>	<u>Size</u>	<u>Type</u>	<u>Depth Out</u>	<u>Footage</u>	<u>Hrs Run</u>
1	---	12 1/4	3V	90'	90'	4
2	---	6 3/4	DJH3	380'	290'	6
3	---	6 3/4	3V	1180'	800'	33
4	---	6 3/4	3V	1741'	941'	22

Total Rotating Hours: 65

DRILLING REPORT

2-27-79 Spud, set 87' of 8 5/8" surface casing, drilling
w/bit #2

Mud Properties: spud mud

2-28-79 Drilling @ 90' and trip for bit #3

Mud properties: benex and water

3-01-79 Drilling @ 720'

Mud Properties: benex and water

3-02-79 Drilling @ 1300'

Mud Properties: Wt. 9.3, Vis 44, W.L. 10, Cake 2/32"

3-03-79 Drilling @ 1575', logging, WOO

Mud Properties: Wt. 9.2, Vis 46, W.L. 10, Cake 2/32"

Note: After short trip, started circulation again
for about 45 minutes, "got gas to surface for
about 20 minutes and it accumulated on the
pits".

SAMPLE DESCRIPTION

90 - 100	100% Ss: clr-milky, granular grains (4mm), sbrnd-rndd,lse
100 - 10	100% Clystn: tan, silty, swelling, vy soft
10 - 20	100% Sh: gry, firm, vy sandy
20 - 30	100% Sh: gry-lt brn, firm-soft, sandy, sl clayey
30 - 40	100% Sh: lt brn-gry, firm, sl sandy Tr. Chert: granular size, clr, sbang.
40 - 50	100% Sh: gry, soft, some waxy, some sl silty Tr. Chert: clr, vy crs grn, sbang.
50 - 60	90% Ss: beige, fn-g, sbrnd, vy clay filled, vy tite, friable 10% Sh: AA
60 - 70	90% Ss: AA, w/some crs grn, all vy tite 10% Sh: rd brn, firm
70 - 90	10% Ss: AA 90% Sh: gry, firm, silty
90 - 200	100% Sh: lt gry, firm, silty
200 - 10	90% Sh: gry, firm, silty, sl carb 10% Ss: gry-beige, vfn-g, sbrnd, vy clay filled, tite
10 - 20	40% Ss: AA 60% Sh: AA
20 - 50	100% Clystn: beige, silty & sandy, swelling,vy soft
50 - 60	100% Sh: drk gry, soft
60 - 70	20% Ss: wht, vfn-fn-g, sbrnd, vy clay filled, shaly, soft, non-porous 80% Sh: AA
70 - 80	20% Ss: drk gry, vfn-fn-g, sbrnd, shaly, firm, non-porous 80% Sh: AA
80 - 90	80% Ss: clr, vy crs-g, rndd, lse, vy cherty (org-pk), porous, <u>N-S</u> 20% Sh: gry-drk gry, soft, sl clayey
90 - 330	90% Ss: AA 10% Sh: AA
330 - 40	10% Ss: AA 90% Sh: AA

340 - 90 80% Ss: clr, m-g, sbrnd, lse, cherty, porous, N-S
 20% Sh: gry, soft, sl clayey

90 - 410 100% Sh: AA

410 - 30 70% Ss: clr, fn-m-g, sbrnd, mostly lse, porous, N-S
 30% Sh: gry, firm

30 - 40 30% Ss: AA
 70% Sh: AA

40 - 60 30% Ss: gry-clr, m-g, sbrnd, shaly, clay filled,
 sl porous, N-S
 70% Sh: gry, clayey, soft

60 - 520 100% Sh: gry, sl clayey, soft

520 - 30 30% Ss: gry, vfn-g, sbrnd, shaly, tite
 70% Sh: gry, firm

30 - 50 100% Sh: AA

50 - 70 30% Ss: gry, vfn-g, sbrnd, shaly, sl clay filled, tite
 70% Sh: AA

70 - 610 10% Ss: AA
 90% Sh: AA

610 - 70 20% Ss: AA
 80% Sh: AA

670 - 700 100% Sh: gry-drk gry, sl carb, firm

700 - 70 90% Sh: AA
 10% Coal: blk, vitreous

70 - 90 20% Ss: gry, vfn-fn-g, sbrnd, shaly, hard, tite
 80% Sh: gry, sl carb, firm

90 - 800 80% Sh: AA
 20% Coal: blk, vitreous

800 - 900 90% Sh: AA
 10% Coal: AA

900 - 20 90% Coal: AA
 10% Sh: AA

20 - 60 100% Sh: gry-drk gry, firm, carb.

60 - 80 100% Coal: blk, vitreous

80 - 1010 10% Ss: gry, vfn-g, sbrnd, sl arkosic, clay filled
 in part, calc, sl porous, N-S
 80% Sh: gry, firm, sl calc
 10% Coal: blk, vitreous

10 - 30 100% Sh: AA

1030 - 50 30% Ss: gry-wht,vfn-fn-g, sbrnd, arkosic, clay filled,
calc, sl porous, N-S
70% Sh: AA

50 - 80 50% Ss: gry-wht, fn-g, sbrnd, sl arkosic, sl clay
fill, calc, porous, N-S
50% Sh: AA

80 - 90 10% Ss: AA
90% Sh: AA

90 - 1120 40% Ss: gry, vfn-g, sbrnd, shaly, sl porous, N-S
60% Sh: AA

1120 - 30 10% Ss: gry, vfn-g, sbrnd, calc, shaly, hard, tite
90% Sh: AA

30 - 40 30% Ss: AA
70% Sh: AA

40 - 50 100% Sh: AA

50 - 60 10% Sltstn: gry, hard, tite
90% Sh: gry, sl calc, firm

60 - 1210 100% Sh: gry-drk gry, sl splintery, firm, sl calc

1210 - 30 100% Sh: gry-gry grn, clayey, soft, sl calc

30 - 1300 100% Sh: gry-gry brn, some clayey, some firm

1300 - 20 90% Sh: gry, sl calc
10% Sltstn: gry-gry brn, vy sl calc, hard

20 - 40 100% Sh: AA

40 - 50 10% Ss: gry-clr, vfn-g, sbrnd, sl shaly, hard, poss
sl porosity, N-S
90% Sh: AA

50 - 80 20% Ss: AA
80% Sh: AA

80 - 1400 50% Ss: AA
50% Sh: AA

1400 - 10 20% Ss: clr-wht, vfn-g, sbrnd, sl arkosic, clay
filled, shaly, tite, N-S
80% Sh: AA

10 - 30 100% Sh: gry brn, soft, clayey

30 - 50 30% Ss: clr-gry, fn-g, sbrnd, sl clay filled, some lse
grns, probably porous, N-S
70% Sh: gry, firm, silty, sl calc.

1450 - 90 10% Ss: gry, vfn-g, sbrnd, shaly, vy clay filled
in part, clean in part, sl porous in part, N-S
90% Sh: gry-drk gry, soft, sl carb, sl calc.

90 - 1510 100% Sh: AA
Tr. Coal: blk, vitreous

1510 - 20 100% Sh: drk gry, sl calc
Tr. Chert: clr, vy crs-g, angular

20 - 50 10% Ss: gry-wht, vfn-fn-g, sbrnd, shaly, tr pyrite,
sl porous, N-S
90% Sh: AA

50 - 60 40% Ss: gry brn, fn-m-g, sbrnd, sl shaly, sl calc,
porous, N-S
60% Sh: gry-gry brn, firm, sl carb.

60 - 80 20% Ss: AA
80% Sh: AA

80 - 90 10% Ss: AA
90% Sh: AA

90 - 1610 20% Ss: gry, fn-g, sbrnd, shaly, sl calc, porous in
part, N-S
80% Sh: AA

10 - 30 100% Sh: AA
Tr. Ss: AA

30 - 40 20% Ss: gry-drk gry, vfn-g, sbrnd, shaly, clay filled,
hard, tite, N-S
80% Sh: gry, firm
Tr. Chert: blu, vy crs-g, ang

40 - 80 100% Sh: lt gry, soft, sl swelling

80 - 1700 20% Ss: wht-clr, fn-m-g, sbrnd, mod clay fill,
sl shaly, poss. sl porosity, N-S
80% Sh: AA

1700 - 10 100% Sh: AA

10 - 20 No sample

20 - 40 60% Ss: wht-clr, fn-m-g, sbrnd, sl shaly, porous, N-S
40% Sh: lt gry-gry, soft, calc.

15 min. circ. spl. 100% Sh: AA

TD 1741'