

RECEIVED
UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
APR 7 1999 6 AM 8:00

APPLICATION FOR PERMIT TO DRILL, DEEPEN OR PLUG BACK

1a. TYPE OF WORK DRILL ☒ DEEPEN ☐ DIST. 3

1b. TYPE OF WELL
OIL WELL ☐ ☒ OTHER SINGLE ZONE ☒ MULTIPLE ZONE ☐

2. NAME OF OPERATOR Williams Production Company

3. ADDRESS OF OPERATOR c/o Walsh Engineering, 7415 E. Main St. Farmington, NM 87402 (505) 327-4892

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements. *)
At Surface: 220' FSL and 1885' FEL Section 4, T31N, R6W
At proposed Prod. Zone (at top), 289' 1120' FNL and 1025' FWL Section 10, T31N, R6W

14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE* 28 miles NE of Blanco, NM

15. DISTANCE FROM PROPOSED* LOCATION TO NEAREST PROPERTY OR LEASE LINE, FT. (Also to nearest drlg. unit line, if any) 1025'

16. NO. OF ACRES IN LEASE 2552.71

17. NO. OF ACRES ASSIGNED TO THIS WELL 320

18. DISTANCE FROM PROPOSED LOCATION* TO NEAREST WELL, DRILLING, COMPLETED, OR APPLIED FOR ON THIS LEASE, FT. 2600'

19. PROPOSED DEPTH 6100' TVD; 7289' MD

21. ELEVATIONS (Show whether Drilling, Completed, or Applied For) 6451' GR and appeal pursuant to 43 CFR 3165.4

22. APPROX. DATE WORK WILL START* April 1999

23. PROPOSED CASING AND CEMENTING PROGRAM

SIZE OF HOLE	GRADE, SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
12-1/4"	9-5/8"	36#	500'	312 cu.ft. Cl "H" with 2% CaCl ₂
8-3/4"	7"	20#	4139'	1029cu.ft. 65/35 poz & 188cu.ft. 50/50 poz
6-1/4"	4-1/2"	10.5#	4039' - 7289'	142cu.ft. 50/50 poz & 425cu.ft. 50/50 poz

Williams Production Company proposes to drill a directional well to develop the Mesa Verde formation at the above described location in accordance with the attached drilling and surface use plans.

This location has been archaeologically surveyed by Moore Anthropological Research. Copies of their report have been submitted directly to your office.

This APD also is serving as an application to obtain BLM road and pipeline right-of-ways. This well will be adjacent to the Rosa #60A wellpad. This well is accessed by an existing road which crosses the NW/NE, NE/NW, and NW/NW of Sec. 9, the S/2 SW of Sec. 4, the S/2 N/2 of Sec. 8, the NE/NE of Sec. 7, SE/SE of Sec. 6, SW/SW, SE/SW, NE/NE of Sec. 5 all of T31N R6W, SW/SW of Sec. 32, NE/SE and E/2 NE of Sec. 31, SE/SE, NE/SE, SE/NW, and NW/NW of Sec. all of T32N R6W, and NE/NE Sec. 25, T32N R7W where it joins San Juan County Road #4020.

IN ABOVE SPACE DESCRIBE PROPOSED PROGRAM: If proposal is to deepen or plug back, give data on present productive zone and proposed new productive zone. If proposal is to drill or deepen directionally, give pertinent data on subsurface locations and measured and true vertical depths. Give blowout preventer program, if any.

SIGNED Paul C. Thompson TITLE Paul Thompson, Agent DATE 3/26/99

(This space for Federal or State office use)

PERMIT NO.

APPROVAL DATE

APR 22 1999

Application approval does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.

CONDITIONS OF APPROVAL, IF ANY:

APPROVED BY /s/ Duane W. Spencer

TITLE Team Lead, Petroleum Management DATE

APR 22 1999

*See Instructions On Reverse Side

Title 18 U.S.C. Section 1001, makes it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

DD Letter dated 5-13-99
NMOCD

District I
PO Box 1980, Hobbs, NM 88241-1980

District II
PO Drawer DD, Artesia, NM 88211-0719

District III
1000 Rio Brazos Rd., Aztec, NM 87410

District IV
PO Box 2088, Santa Fe, NM 87504-2088

State of New Mexico
Energy, Minerals & Natural Resources Department

Form C-102
Revised February 21, 1994
Instructions on back
Submit to Appropriate District Office
State Lease - 4 Copies
Fee Lease - 3 Copies

RECEIVED
APR 27 1999

OIL CONSERVATION DIVISION
PO Box 2088
Santa Fe, NM 87504-2088

RECEIVED
99 APR -6 AM 8:00
COMMENDED REPORT

OIL CON. DIV.
DIS. 3

WELL LOCATION AND ACREAGE DEDICATION PLAT

070 FARMINGTON, NM

*API Number 30-045-29895		*Pool Code 72319	*Pool Name Blanco Mesa Verde	
*Property Code 008480	*Property Name ROSA UNIT		*Well Number 75	
*OGRIID No. 120782	*Operator Name WILLIAMS PRODUCTION COMPANY		*Elevation 6451'	

10 Surface Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
0	4	31N	6W		220	SOUTH	1885	EAST	SAN JUAN

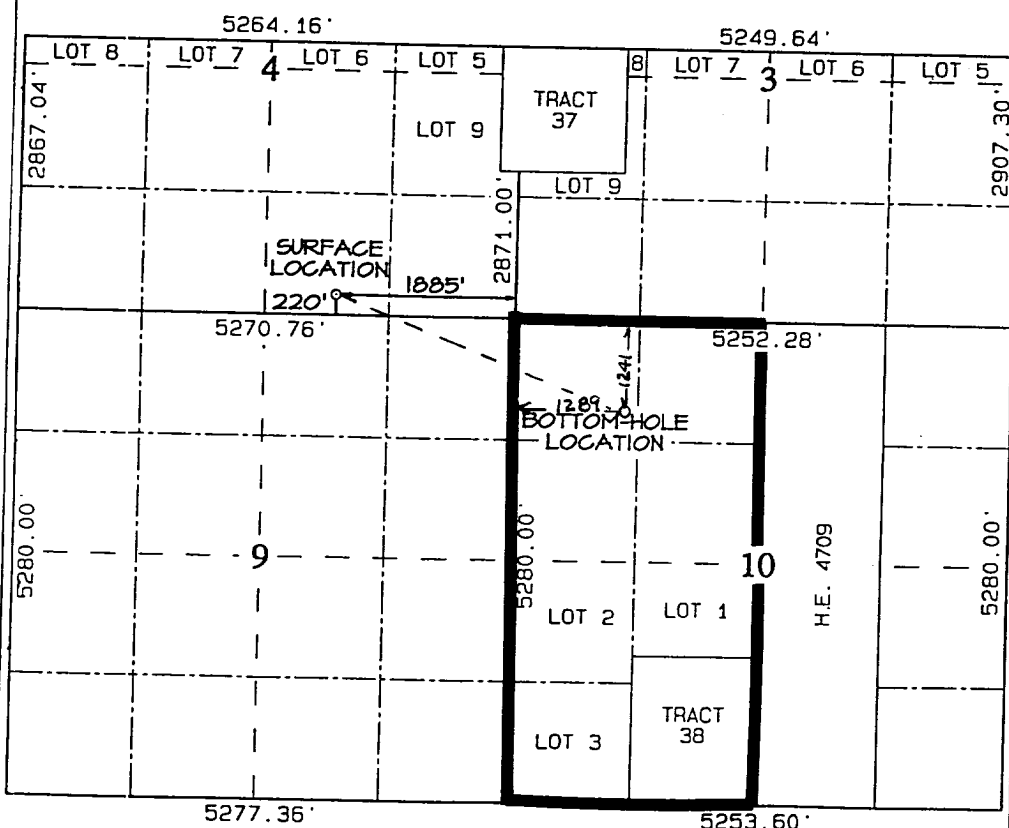
11 Bottom Hole Location If Different From Surface

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
0	10	31N	6W		1241	NORTH	1289	WEST	SAN JUAN

12 Dedicated Acres 320 311.41	13 Joint or Infill Y	14 Consolidation Code U	15 Order No.
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NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED
OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION

16



17 OPERATOR CERTIFICATION

I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief.

Signature
Paul C. Thompson

Printed Name
Paul C. Thompson

Title
Agent

Date
4/5/99

Date

18 SURVEYOR CERTIFICATION

I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief.

MARCH 4, 1999

Date of Survey

Signature and Seal of Professional Surveyor

NEALE C. EDWARDS
NEW MEXICO
6857
Certificate Number 6857

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1. SURFACE CASING: 9-5/8" notched regular pattern guide shoe.
2. INTERMEDIATE CASING: 7" cement nose guide shoe with a self- fill insert float. Place float one(1) joint above the shoe and one centralizer, spaced every joint, starting with the float collar. Place turbulent centralizers, at 120' intervals, starting at 2900' to the surface. Total centralizers = 31 regular and 24 turbulent.

3. PRODUCTION CASING: 4-1/2" whirler type cement nose guide shoe with a latch collar on top of 20' bottom joint. Place marker joint above 6400'. Place one positive standoff turbolizer every other joint. Total turbolizers is 39.

C. CEMENTING:

1. SURFACE: Use 260 sx (312 cu.ft.) of class "H" with 2% CaCl₂ and 1/4# of cello-flake/sk (Yield = 1.20 cu.ft./sk, Weight = 15.6 #/gal.). Use 100% excess to circulate the surface. WOC 12 hours. Test to 1500#.

2. INTERMEDIATE: Lead - 505 sx (1029 cu.ft.) of class "H" 65/35 poz with 10% gel, 2% CaCl₂, and 1/4# cello-flake/sk (Yield = 2.04 cu.ft./sk, Weight = 12.3 #/gal.). Tail - 130sx (188 cu.ft.) of class "H" 50/50 Poz with 4% gel, 0.4% FL-52, 2% CaCl₂, 1/4# cello-flake/sk, (Yield = 1.45 cu.ft./sk, Weight = 13.2#/gal.). Use 100% excess in lead and 75% excess in tail to circulate to surface. Total volume = 1217 cu.ft. WOC 12 hours. Test to 1500#.

3. PRODUCTION LINER: Lead-100sx (142 cu.ft.) of class "H" 50/50 poz with 4 % gel, 0.4% FL-52, 2% CaCl₂, (Yield = 1.45 cu.ft./sk, Weight = 13.2 #/gal.) Tail-295 sx (425 cu.ft.) of class "H" 50/50 poz with 4 % gel, 0.4% FL-52, 2% CaCl₂, 1/4# celloflake/sk (Yield = 1.45 cu.ft./sk, Weight = 13.2 #/gal.) Displace cement at a minimum of 8 BPM. Use 70% excess in lead and tail to cover liner top. Total volume 567 cuft. WOC 12 hours.

IV COMPLETION

A. CBL

1. Run Cement Bond Log across all intervals to be perforated and find Top of Cement behind all casing strings.

B. PRESSURE TEST

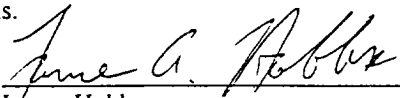
1. Pressure test 7" & 4-1/2" casing to 3300# for 15 minutes.

C. STIMULATION

1. Stimulate Point Lookout with approximately 80,000# of 20/40 sand in slick water.
2. Isolate Point Lookout with a RBP.
3. Perforate the Menefee/Cliff House as determined from the open hole logs.
4. Stimulate with approximately 80,000# of 20/40 sand in slick water.
5. Test each zone before removing bridge plugs.

D. RUNNING TUBING

1. Mesa Verde: Run 2-3/8", 2.9#, J-55, EUE tubing with a SN (1.91" ID) on top of bottom joint. Land tubing approximately 25' above the bottom Point Lookout perforations.


Lance Hobbs
Engineer, Production & Drilling

Sperry-Sun Drilling Services



Proposal Report for Rosa # 75- Initial Plan
Data Source: Information from Dave Egedahl

Williams Production Company
New Mexico

Rio Arriba County
Sec. 10-T31N-R06W

Comments

Measured Depth (ft)	Station Coordinates			Comment
	TVD (ft)	Northings (ft)	Eastings (ft)	
700.00	700.00	0.00 N	0.00 E	Kick-Off Point - 700.00ft
700.01	700.01	0.00 N	0.00 E	Build 2.5°/100' to 44.0° Inc & 114.727° Azm to 2459.99' md
2459.99	2292.03	269.06 S	584.24 E	Hold 44° Inc & 114.727° Azm to 5237.17' md
5237.17	4289.77	1076.03 S	2336.54 E	Drop 2.0°/100' to 20° Inc & 114.727° Azm to 6437.16' md
6437.16	5300.00	1340.09 S	2909.91 E	Target Intersection Point @ 6437.16' md & 5300' TVD
6437.17	5300.01	1340.09 S	2909.92 E	Hold 20° Inc & 114.727° Azm to 7288.50' md
7288.50	6100.00	1461.89 S	3174.39 E	TD of Well @ 7288.50' md & 6100' TVD

Casing details

From		To		Casing Detail
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	
<Surface>	<Surface>	4139.26	3500.00	7" Casing

Targets associated with this wellpath

Target Name	Target Entry Coordinates			Target Shape	Target Type
	TVD (ft)	Northings (ft)	Eastings (ft)		
Rosa # 75A Target	5300.00	1339.90 S	2910.00 E	Point	
Rosa # 75A Target Box	5300.00	1009.90 S	2580.00 E	Polygon	

Sperry-Sun Drilling Services

Proposal Report for Rosa # 75-A - Initial Plan

Data Source: Information from Dave Egedahl



Williams Production Company
New Mexico

Rio Arriba County
Sec. 10-T31N-R06W

Measured Depth (ft)	Incl.	Azim.	Vertical Depth (ft)	Northings (ft)	Eastings (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)
0.00	0.000	0.000	0.00	0.00 N	0.00 E	0.00	
700.00	0.000	0.000	700.00	0.00 N	0.00 E	0.00	0.000
800.00	2.500	114.727	799.97	0.91 S	1.98 E	2.18	2.500
900.00	5.000	114.727	899.75	3.65 S	7.92 E	8.72	2.500
1000.00	7.500	114.727	999.14	8.20 S	17.81 E	19.61	2.500
1100.00	10.000	114.727	1097.97	14.56 S	31.63 E	34.82	2.500
1200.00	12.500	114.727	1196.04	22.72 S	49.34 E	54.33	2.500
1300.00	15.000	114.727	1293.17	32.67 S	70.93 E	78.09	2.500
1400.00	17.500	114.727	1389.17	44.37 S	96.35 E	106.07	2.500
1500.00	20.000	114.727	1483.85	57.81 S	125.54 E	138.21	2.500
1600.00	22.500	114.727	1577.05	72.97 S	158.46 E	174.46	2.500
1700.00	25.000	114.727	1668.57	89.82 S	195.04 E	214.73	2.500
1800.00	27.500	114.727	1758.25	108.32 S	235.21 E	258.95	2.500
1900.00	30.000	114.727	1845.92	128.44 S	278.89 E	307.05	2.500
2000.00	32.500	114.727	1931.40	150.14 S	326.01 E	358.92	2.500
2100.00	35.000	114.727	2014.54	173.37 S	376.47 E	414.47	2.500
2200.00	37.500	114.727	2095.18	198.11 S	430.17 E	473.60	2.500
2300.00	40.000	114.727	2173.16	224.29 S	487.02 E	536.19	2.500
2400.00	42.500	114.727	2248.34	251.86 S	546.91 E	602.12	2.500
2459.99	44.000	114.727	2292.03	269.06 S	584.24 E	643.22	2.500
2500.00	44.000	114.727	2320.81	280.68 S	609.49 E	671.01	0.000
2600.00	44.000	114.727	2392.75	309.74 S	672.58 E	740.48	0.000
2700.00	44.000	114.727	2464.68	338.80 S	735.68 E	809.94	0.000
2800.00	44.000	114.727	2536.62	367.86 S	798.78 E	879.41	0.000
2900.00	44.000	114.727	2608.55	396.91 S	861.87 E	948.87	0.000
3000.00	44.000	114.727	2680.48	425.97 S	924.97 E	1018.34	0.000
3100.00	44.000	114.727	2752.42	455.03 S	988.06 E	1087.81	0.000
3200.00	44.000	114.727	2824.35	484.09 S	1051.16 E	1157.27	0.000
3300.00	44.000	114.727	2896.29	513.14 S	1114.26 E	1226.74	0.000
3400.00	44.000	114.727	2968.22	542.20 S	1177.35 E	1296.20	0.000
3500.00	44.000	114.727	3040.16	571.26 S	1240.45 E	1365.67	0.000
3600.00	44.000	114.727	3112.09	600.32 S	1303.55 E	1435.13	0.000
3700.00	44.000	114.727	3184.02	629.37 S	1366.64 E	1504.60	0.000
3800.00	44.000	114.727	3255.96	658.43 S	1429.74 E	1574.06	0.000
3900.00	44.000	114.727	3327.89	687.49 S	1492.83 E	1643.53	0.000
4000.00	44.000	114.727	3399.83	716.54 S	1555.93 E	1713.00	0.000
4100.00	44.000	114.727	3471.76	745.60 S	1619.03 E	1782.46	0.000
4200.00	44.000	114.727	3543.69	774.66 S	1682.12 E	1851.93	0.000
4300.00	44.000	114.727	3615.63	803.72 S	1745.22 E	1921.39	0.000
4400.00	44.000	114.727	3687.56	832.77 S	1808.32 E	1990.86	0.000
4500.00	44.000	114.727	3759.50	861.83 S	1871.41 E	2060.32	0.000
4600.00	44.000	114.727	3831.43	890.89 S	1934.51 E	2129.79	0.000
4700.00	44.000	114.727	3903.37	919.95 S	1997.60 E	2199.26	0.000
4800.00	44.000	114.727	3975.30	949.00 S	2060.70 E	2268.72	0.000
4900.00	44.000	114.727	4047.23	978.06 S	2123.80 E	2338.19	0.000

Continued...

Sperry-Sun Drilling Services

Proposal Report for Rosa # 75-~~X~~ - Initial Plan

Data Source: Information from Dave Egedahl



Williams Production Company
New Mexico

Rio Arriba County
Sec. 10-T31N-R06W

Measured Depth (ft)	Incl.	Azim.	Vertical Depth (ft)	Northings (ft)	Eastings (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)
5000.00	44.000	114.727	4119.17	1007.12 S	2186.89 E	2407.65	0.000
5100.00	44.000	114.727	4191.10	1036.18 S	2249.99 E	2477.12	0.000
5200.00	44.000	114.727	4263.04	1065.23 S	2313.09 E	2546.58	0.000
5237.17	44.000	114.727	4289.77	1076.03 S	2336.54 E	2572.40	0.000
5300.00	42.743	114.727	4335.45	1094.08 S	2375.73 E	2615.55	2.000
5400.00	40.743	114.727	4410.06	1121.93 S	2436.20 E	2682.13	2.000
5500.00	38.743	114.727	4486.94	1148.67 S	2494.27 E	2746.06	2.000
5600.00	36.743	114.727	4566.02	1174.28 S	2549.87 E	2807.27	2.000
5700.00	34.743	114.727	4647.18	1198.71 S	2602.92 E	2865.68	2.000
5800.00	32.743	114.727	4730.33	1221.95 S	2653.37 E	2921.22	2.000
5900.00	30.743	114.727	4815.36	1243.95 S	2701.16 E	2973.83	2.000
6000.00	28.743	114.727	4902.18	1264.70 S	2746.22 E	3023.44	2.000
6100.00	26.743	114.727	4990.68	1284.17 S	2788.50 E	3069.99	2.000
6200.00	24.743	114.727	5080.75	1302.34 S	2827.95 E	3113.42	2.000
6300.00	22.743	114.727	5172.29	1319.18 S	2864.52 E	3153.68	2.000
6400.00	20.743	114.727	5265.17	1334.68 S	2898.16 E	3190.72	2.000
6437.16	20.000	114.727	5300.00	1340.09 S	2909.91 E	3203.66	2.000
6500.00	20.000	114.727	5359.05	1349.08 S	2929.44 E	3225.15	0.000
6600.00	20.000	114.727	5453.02	1363.39 S	2960.50 E	3259.35	0.000
6700.00	20.000	114.727	5546.99	1377.69 S	2991.57 E	3293.56	0.000
6800.00	20.000	114.727	5640.96	1392.00 S	3022.63 E	3327.76	0.000
6900.00	20.000	114.727	5734.93	1406.31 S	3053.70 E	3361.96	0.000
7000.00	20.000	114.727	5828.90	1420.61 S	3084.77 E	3396.16	0.000
7100.00	20.000	114.727	5922.87	1434.92 S	3115.83 E	3430.36	0.000
7200.00	20.000	114.727	6016.84	1449.23 S	3146.90 E	3464.57	0.000
7288.50	20.000	114.727	6100.00	1461.89 S	3174.39 E	3494.84	0.000

All data is in feet unless otherwise stated. Directions and coordinates are relative to True North.
Vertical depths are relative to RKB. Northings and Eastings are relative to Wellhead.

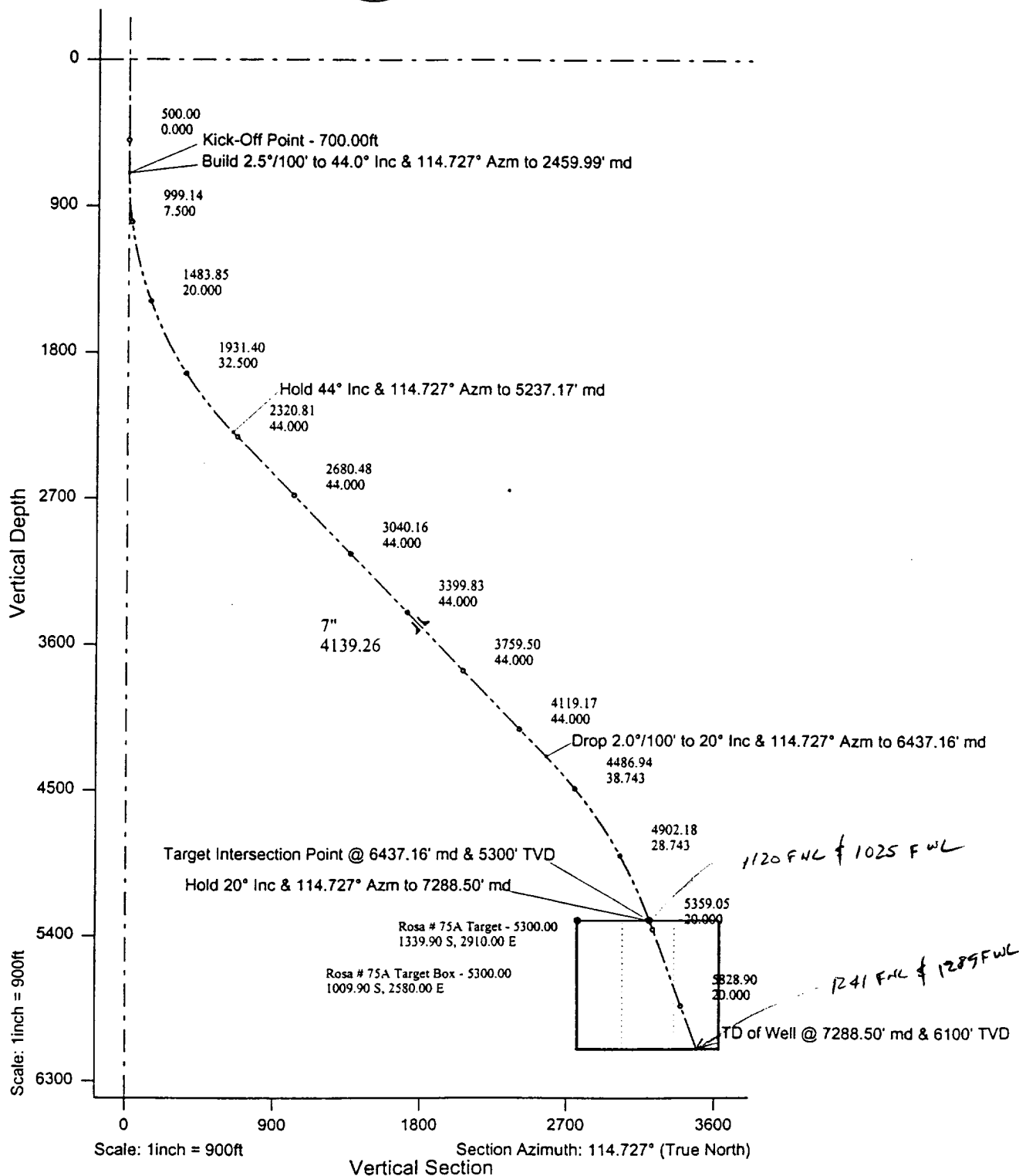
The Dogleg Severity is in Degrees per 100ft.

Vertical Section is from Wellhead and calculated along an Azimuth of 114.727° (True).

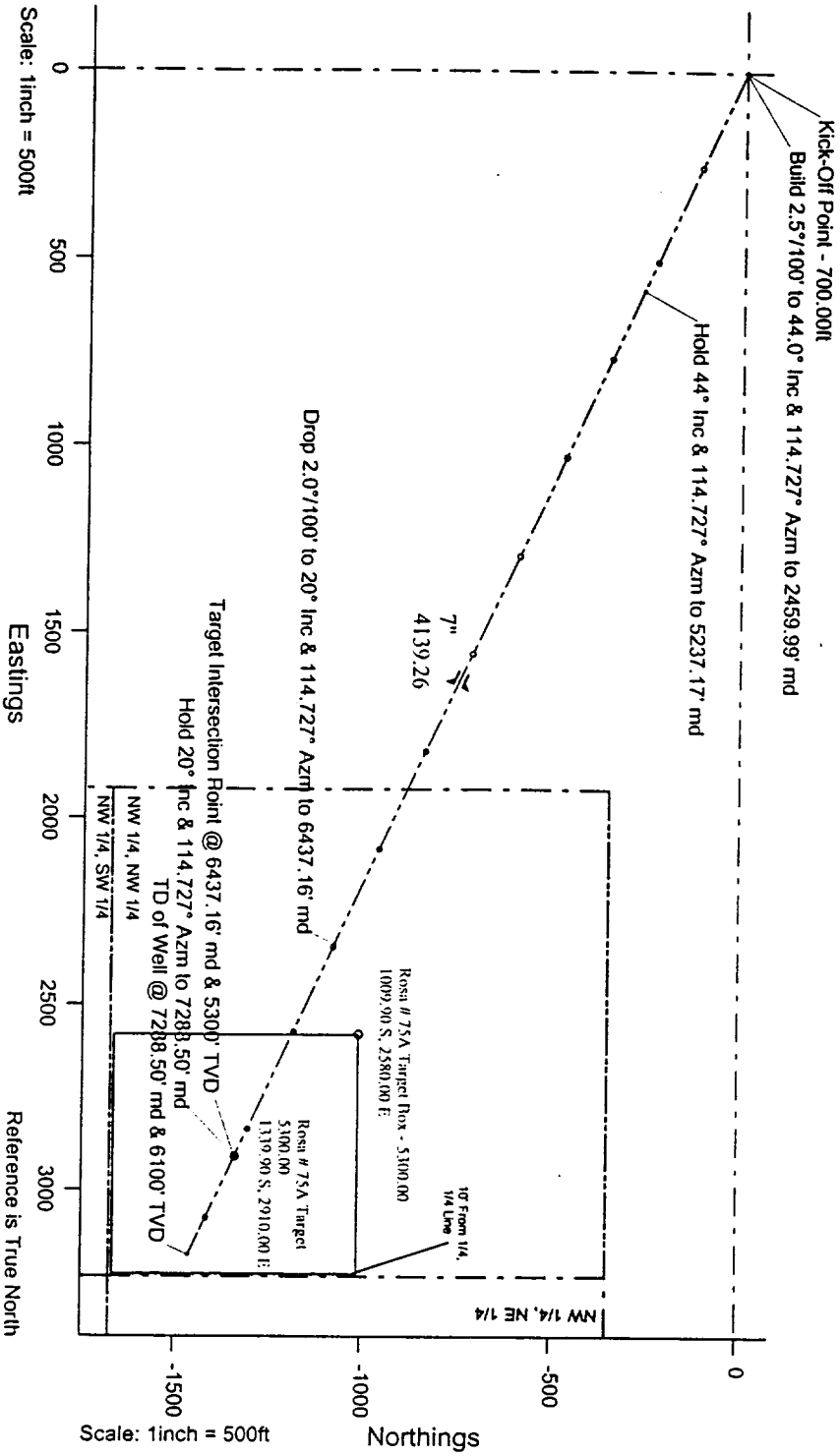
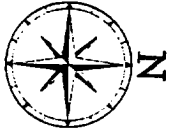
Based upon Minimum Curvature type calculations, at a Measured Depth of 7288.50ft.,
The Bottom Hole Displacement is 3494.84ft., in the Direction of 114.727° (True).

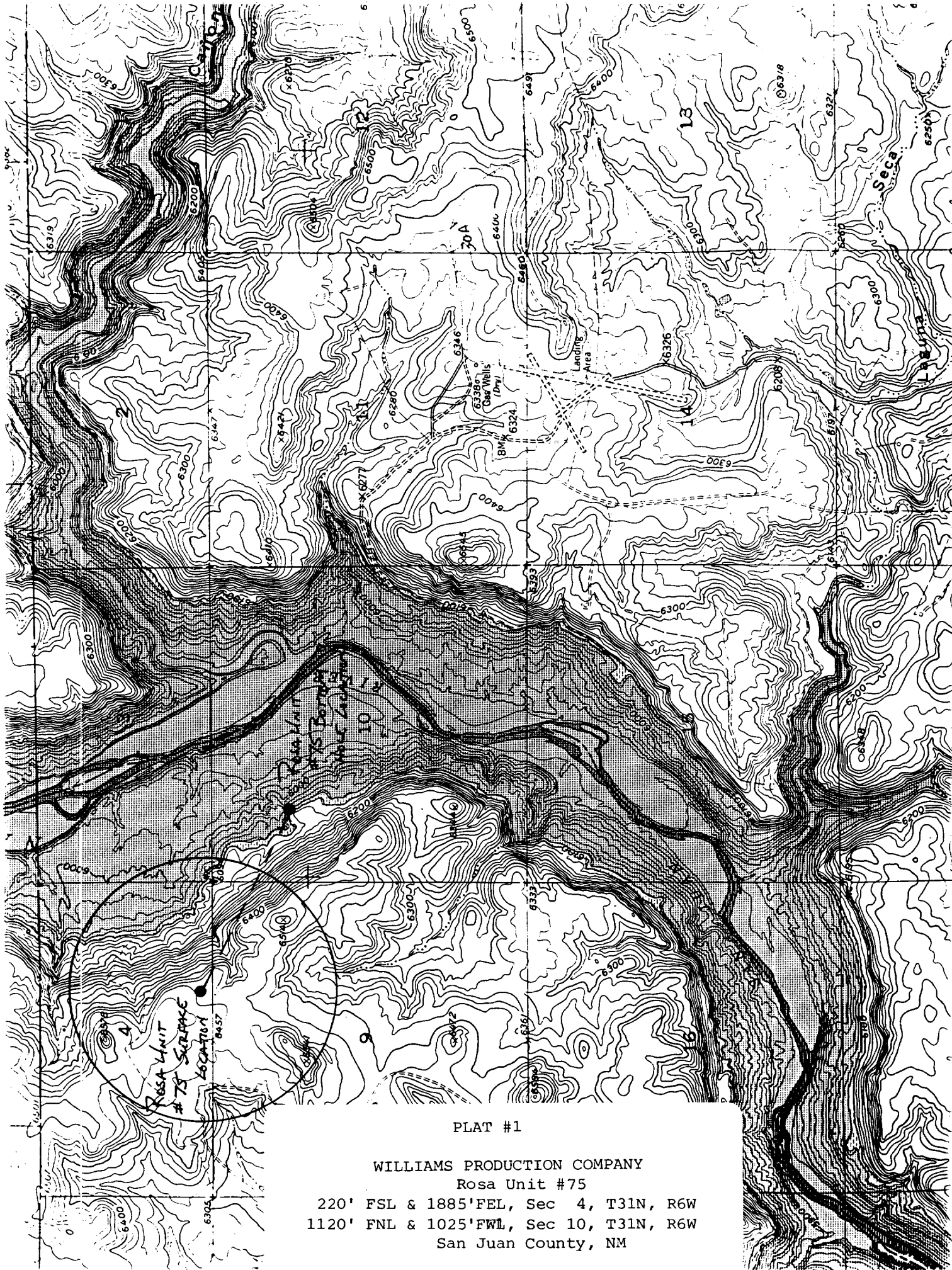
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New Mexico
Rio Arriba County
Sec. 10-T31N-R06W
Rosa # 75,



New Mexico
 Rio Arriba County
 Sec. 10-T31N-R06W
 Rosa # 75-





PLAT #1

WILLIAMS PRODUCTION COMPANY
Rosa Unit #75
220' FSL & 1885'FEL, Sec 4, T31N, R6W
1120' FNL & 1025'FWL, Sec 10, T31N, R6W
San Juan County, NM