

District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

OIL CONSERVATION DIVISION
1220 South St. Francis Dr.
Santa Fe, NM 87505

Fee Lease - 3 Copies

As Drilled

'API Number 30-039-29367	'Pool Code 71629	'Pool Name BASIN FRUITLAND COAL
'Property Code 17033	'Property Name ROSA UNIT	'Well Number 383
'OGRID No. 120782	'Operator Name WILLIAMS PRODUCTION COMPANY	'Elevation 6633'

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
P	29	31N	4W		1031	SOUTH	1107	EAST	RIO ARRIBA

U/L or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
A	29	31N	4W		1270	NORTH	912	EAST	RIO ARRIBA

Order No.	RCVD SEP 8 '11 OIL CONS. DIV.
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BOTTOM-HOLE
 LAT: 36.87438 °N
 LONG: 107.27172 °W
 DATUM: NAD1927

LAT: 36.87439 °N
 LONG: 107.27232 °W
 DATUM: NAD1983

SURFACE LOCATION
 LAT: 36.86621 °N
 LONG: 107.27245 °W
 DATUM: NAD1927

LAT: 36.86621 °N
 LONG: 107.27305 °W
 DATUM: NAD1983

LEASE
SF-078894

29

N03°44.6'E 2905.1'

1270'

912'

1107'

1031'

5280.00'

5280.00'

5280.00'

5278.02'

I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or unleased mineral interest in the land including the proposed bottom-hole location or has a right to drill this well at this location pursuant to a contract with an owner of such a mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.

B. Mitchell 9/7/2011
Signature Date

Ben Mitchell
Printed Name

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.

Date Revised: SEPTEMBER 7, 2011
Date of Survey: JULY 10, 2011

Signature and Seal of Professional Surveyor



JASON C. EDWARDS
Certificate Number 15269



Williams Energy

Rosa Unit #383 Stk-2
Sec29 T31N-R4W - 383
Rio Arriba Co. NM
GL: 6633' KB: 14'

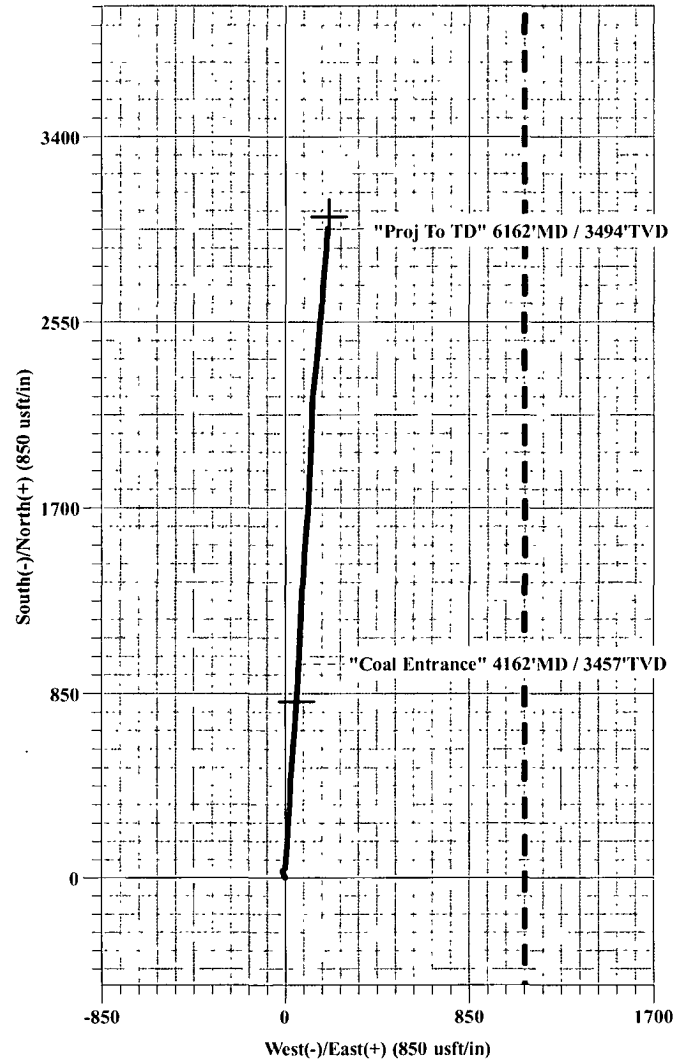


A Schlumberger Company

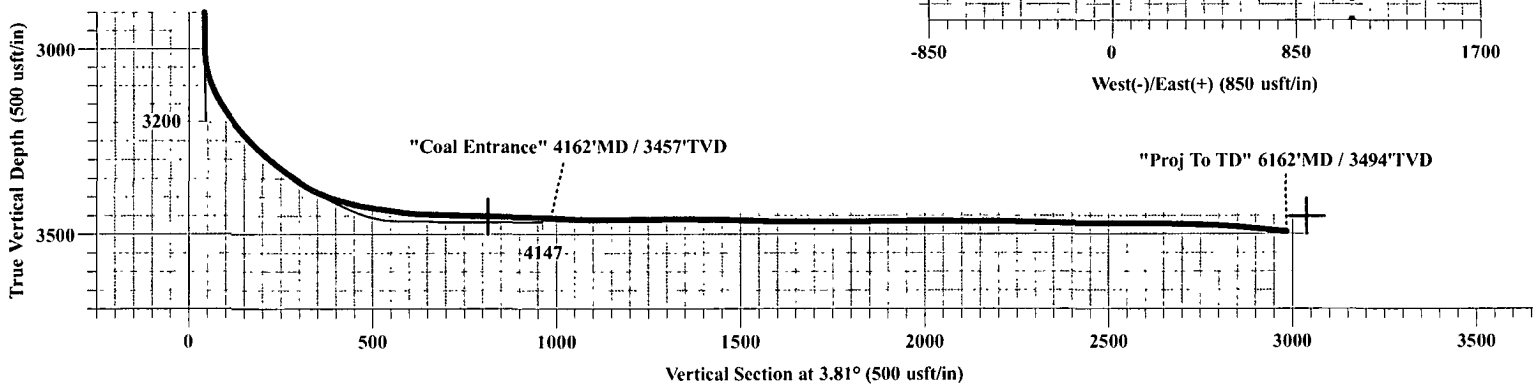
WELLBORE TARGET DETAILS (MAP CO-ORDINATES)

Name	TVD	+N/-S	+E/-W	Northing	Easting	Shape
Land-383	3453.0	814.2	54.2	2136941.76	200970.17	Point
TD-383	3453.0	3032.8	201.8	2139158.67	201141.54	Point

EOW
No Hardline Crossed



WELL DETAILS Rosa Unit #383 Stk				
Northing	Easting	6633.0	Latitude	Longitude
2136128.19	200907.24	36° 51' 58.356 N	107° 16' 20.820 W	



SECTION DETAILS									
MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	Vsect	Target
3400.0	53.06	4.14	3325.3	250.7	13.8	0.00	0.00	251.1	
3640.4	79.50	4.26	3421.1	468.2	29.8	11.00	0.25	469.2	
3989.1	90.00	3.81	3453.0	814.2	54.2	3.01	-2.48	816.0	Land-383
6212.6	90.00	3.81	3453.0	3032.8	201.8	0.00	0.00	3039.5	

Plan: Design #2 (Rosa Unit #383 Stk/STK-2)

Created By: Frank C. Scardino

Date: 8/18/2011

Williams Energy

Rio Arriba Co. NM

Sec29 T31N-R4W - 383

Rosa Unit #383 Stk

STK-2

Design: STK-2

Standard Survey Report

30 August, 2011

Survey Report

Company:	Williams Energy	Local Co-ordinate Reference:	Site Sec29 T31N-R4W - 383
Project:	Rio Arriba Co NM	TVD Reference:	WELL @ 6647 0usft (Original Well Elev)
Site:	Sec29 T31N-R4W - 383	MD Reference:	WELL @ 6647 0usft (Original Well Elev)
Well:	Rosa Unit #383 Stk	North Reference:	True
Wellbore:	STK-2	Survey Calculation Method:	Minimum Curvature
Design:	STK-2	Database:	EDM 5000 1 Single User Db

Project	Rio Arriba Co NM		
Map System:	US State Plane 1927 (Exact solution)	System Datum:	Mean Sea Level
Geo Datum:	NAD 1927 (NADCON CONUS)		
Map Zone:	New Mexico Central 3002		

Site	Sec29 T31N-R4W - 383				
Site Position:		Northing:	2,136,128 18 usft	Latitude:	36° 51' 58 356 N
From:	Lat/Long	Easting:	200,907 24 usft	Longitude:	107° 16' 20 820 W
Position Uncertainty:	0 0 usft	Slot Radius:	13-3/16 "	Grid Convergence:	-0 61 °

Well	Rosa Unit #383 Stk					
Well Position	+N/-S	0 0 usft	Northing:	2,136,128 18 usft	Latitude:	36° 51' 58 356 N
	+E/-W	0 0 usft	Easting:	200,907 24 usft	Longitude:	107° 16' 20 820 W
Position Uncertainty		0 0 usft	Wellhead Elevation:	usft	Ground Level:	6,633 0 usft

Wellbore	STK-2				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	08/22/11	9 68	63 66	50,852

Design	STK-2				
Audit Notes:					
Version:	1 0	Phase:	ACTUAL	Tie On Depth:	0 0
Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)	
	0 0	0 0	0 0	3 81	

Survey Program	Date	08/30/11			
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description	
200 0	6,162 0	Survey #1 (STK-2)	MWD	MWD - Standard	

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
0 0	0 00	0 00	0 0	0 0	0 0	0 0	0 00	0 00	0 00
200 0	0 68	334 78	200 0	1 1	-0 5	1 0	0 34	0 34	0 00
400 0	1 64	336 70	400 0	4 8	-2 1	4 6	0 48	0 48	0 96
600 0	1 90	337 98	599 9	10 5	-4 5	10 2	0 13	0 13	0 64
800 0	1 33	337 98	799 8	15 7	-6 6	15 2	0 29	-0 29	0 00
1,000 0	0 85	341 05	999 7	19 3	-8 0	18 7	0 24	-0 24	1 54
1,200 0	0 69	350 88	1,199 7	21 9	-8 7	21 2	0 10	-0 08	4 92
1,400 0	0 59	319 89	1,399 7	23 8	-9 5	23 1	0 18	-0 05	-15 50
1,600 0	0 64	348 14	1,599 7	25 7	-10 4	25 0	0 15	0 03	14 13
1,800 0	0 80	322 78	1,799 7	27 9	-11 5	27 1	0 18	0 08	-12 68

Survey Report

Company:	Williams Energy	Local Co-ordinate Reference:	Site Sec29 T31N-R4W - 383
Project:	Rio Arriba Co NM	TVD Reference:	WELL @ 6647.0usft (Original Well Elev)
Site:	Sec29 T31N-R4W - 383	MD Reference:	WELL @ 6647.0usft (Original Well Elev)
Well:	Rosa Unit #383 Stk	North Reference:	True
Wellbore:	STK-2	Survey Calculation Method:	Minimum Curvature
Design:	STK-2	Database:	EDM 5000 1 Single User Db

Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
2,000.0	0.84	287.26	1,999.7	29.5	-13.7	28.5	0.25	0.02	-17.76
2,200.0	0.65	28.34	2,199.7	30.9	-14.6	29.9	0.58	-0.10	50.54
2,400.0	2.20	49.03	2,399.6	34.4	-11.1	33.6	0.80	0.78	10.35
2,600.0	1.60	44.14	2,599.5	38.9	-6.3	38.4	0.31	-0.30	-2.45
2,800.0	1.19	50.58	2,799.4	42.3	-2.8	42.0	0.22	-0.21	3.22
3,000.0	0.44	64.31	2,999.4	43.9	-0.5	43.8	0.38	-0.38	6.87
3,099.0	20.75	3.77	3,096.2	61.8	1.1	61.7	20.74	20.52	-61.15
3,131.0	27.08	3.25	3,125.5	74.7	1.8	74.7	19.79	19.78	-1.63
3,163.0	31.13	5.44	3,153.4	90.2	3.0	90.2	13.08	12.66	6.84
3,195.0	34.82	4.32	3,180.3	107.6	4.5	107.6	11.69	11.53	-3.50
3,226.0	37.46	4.15	3,205.3	125.8	5.9	125.9	8.52	8.52	-0.55
3,258.0	40.80	4.12	3,230.1	145.9	7.3	146.1	10.44	10.44	-0.09
3,290.0	44.67	3.21	3,253.6	167.6	8.7	167.8	12.25	12.09	-2.84
3,321.0	47.40	3.00	3,275.1	189.9	9.9	190.1	8.82	8.81	-0.68
3,353.0	49.77	3.24	3,296.3	213.8	11.2	214.1	7.43	7.41	0.75
3,385.0	52.94	4.60	3,316.3	238.8	12.9	239.1	10.45	9.91	4.25
3,417.0	53.20	3.63	3,335.5	264.3	14.8	264.7	2.56	0.81	-3.03
3,449.0	55.49	3.69	3,354.2	290.2	16.4	290.7	7.16	7.16	0.19
3,480.0	58.04	4.64	3,371.1	316.1	18.3	316.6	8.62	8.23	3.06
3,514.0	65.60	3.84	3,387.2	346.0	20.5	346.6	22.33	22.24	-2.35
3,546.0	71.05	1.35	3,399.0	375.6	21.8	376.3	18.50	17.03	-7.78
3,578.0	72.90	0.98	3,408.9	406.1	22.5	406.7	5.88	5.78	-1.16
3,610.0	76.24	2.19	3,417.4	436.9	23.3	437.5	11.06	10.44	3.78
3,640.0	78.00	5.51	3,424.1	466.1	25.3	466.7	12.28	5.87	11.07
3,672.0	80.37	6.23	3,430.1	497.3	28.5	498.1	7.73	7.41	2.25
3,704.0	82.66	4.48	3,434.8	528.8	31.5	529.8	8.97	7.16	-5.47
3,736.0	82.57	2.95	3,438.9	560.5	33.5	561.5	4.75	-0.28	-4.78
3,768.0	84.06	4.91	3,442.7	592.2	35.7	593.3	7.66	4.66	6.13
3,832.0	88.02	4.77	3,447.1	655.8	41.1	657.1	6.19	6.19	-0.22
3,896.0	88.02	4.35	3,449.3	719.6	46.2	721.1	0.66	0.00	-0.66
3,960.0	88.55	4.58	3,451.2	783.4	51.1	785.0	0.90	0.83	0.36
4,024.0	88.11	4.17	3,453.1	847.1	56.0	849.0	0.94	-0.69	-0.64
4,088.0	88.29	2.00	3,455.1	911.0	59.5	913.0	3.40	0.28	-3.39
4,152.0	87.67	2.30	3,457.3	974.9	61.9	976.9	1.08	-0.97	0.47
4,162.0	87.63	2.42	3,457.8	984.9	62.3	986.9	1.29	-0.40	1.23
"Coal Entrance" 4162'MD / 3457'TVD									
4,217.0	87.41	3.10	3,460.1	1,039.8	64.9	1,041.8	1.29	-0.40	1.23
4,281.0	89.34	1.46	3,462.0	1,103.7	67.5	1,105.8	3.96	3.02	-2.56
4,345.0	90.75	4.07	3,461.9	1,167.6	70.6	1,169.7	4.64	2.20	4.08
4,409.0	89.96	3.36	3,461.5	1,231.5	74.7	1,233.7	1.66	-1.23	-1.11
4,473.0	91.10	2.79	3,460.9	1,295.4	78.1	1,297.7	1.99	1.78	-0.89
4,537.0	89.78	2.80	3,460.4	1,359.3	81.3	1,361.7	2.06	-2.06	0.02
4,601.0	88.81	3.72	3,461.2	1,423.2	84.9	1,425.7	2.09	-1.52	1.44
4,665.0	88.29	2.91	3,462.8	1,487.1	88.6	1,489.7	1.50	-0.81	-1.27

Survey Report

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Site:	Sec29 T31N-R4W - 383	MD Reference:	WELL @ 6647 0usft (Original Well Elev)
Well:	Rosa Unit #383 Stk	North Reference:	True
Wellbore:	STK-2	Survey Calculation Method:	Minimum Curvature
Design:	STK-2	Database:	EDM 5000 1 Single User Db

Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	
4,729 0	88 11	6 06	3,464 8	1,550 9	93 6	1,553 6	4 93	-0 28	4 92	
4,791 0	89 43	3 29	3,466 2	1,612 6	98 6	1,615 6	4 95	2 13	-4 47	
4,855 0	89 60	5 50	3,466 7	1,676 4	103 5	1,679 6	3.46	0 27	3 45	
4,919 0	89 96	1 59	3,467 0	1,740.3	107 5	1,743.6	6 14	0 56	-6 11	
4,983.0	90 48	3 35	3,466 7	1,804 2	110 3	1,807.6	2 87	0 81	2.75	
5,047 0	90 66	3 88	3,466 1	1,868 1	114 3	1,871.6	0 87	0 28	0 83	
5,111 0	91 10	3 12	3,465 1	1,932 0	118 2	1,935 6	1 37	0 69	-1 19	
5,173 0	90 22	0 33	3,464 4	1,993 9	120 1	1,997 5	4 72	-1 42	-4 50	
5,236.0	89 43	2 66	3,464 6	2,056 9	121 7	2,060 4	3 91	-1 25	3 70	
5,300.0	88 81	1 52	3,465 6	2,120 9	124 0	2,124 4	2 03	-0 97	-1 78	
5,364 0	90 40	2 78	3,466 0	2,184 8	126 4	2,188 4	3 17	2 48	1.97	
5,428 0	88 55	7 08	3,466 6	2,248 5	131 9	2,252 3	7 31	-2 89	6 72	
5,492 0	87 32	7 76	3,468 9	2,312 0	140 2	2,316 2	2 20	-1 92	1 06	
5,556 0	88.72	5 87	3,471 1	2,375 5	147 8	2,380 0	3 67	2 19	-2 95	
5,620 0	90 22	4 16	3,471 7	2,439 2	153 4	2,444 0	3 55	2 34	-2 67	
5,684 0	89 34	3 98	3,471 9	2,503 1	157 9	2,508.0	1 40	-1 38	-0 28	
5,748 0	89 25	7 14	3,472 7	2,566 7	164 1	2,572 0	4 94	-0 14	4 94	
5,811 0	89 69	2 32	3,473 3	2,629 5	169 3	2,635 0	7 68	0 70	-7 65	
5,875 0	88 99	4 24	3,474 0	2,693 4	173 0	2,698 9	3 19	-1 09	3 00	
5,940 0	88 20	3 41	3,475 6	2,758 2	177 3	2,763 9	1 76	-1 22	-1 28	
6,004 0	86 00	6 62	3,478 9	2,821 9	182 9	2,827.8	6 07	-3 44	5 02	
6,067 0	84 33	4 08	3,484 2	2,884 4	188 8	2,890 6	4 81	-2 65	-4 03	
6,111 0	84 15	3 64	3,488 6	2,928 1	191 7	2,934 3	1 08	-0 41	-1 00	
6,162 0	84 15	3 64	3,493 8	2,978 7	194 9	2,985 1	0 00	0 00	0 00	
"Proj To TD" 6162'MD / 3494'TVD										

Design Annotations				
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
4,162 0	3,457 8	984 9	62 3	"Coal Entrance" 4162'MD / 3457'TVD
6,162 0	3,493 8	2,978 7	194 9	"Proj To TD" 6162'MD / 3494'TVD

Checked By _____	Approved By _____	Date _____
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