

District I
1625 N. French Drive, Hobbs, NM 88240
Phone (575) 393-6161 Fax: (575) 393-0720

District II
811 S. First Street, Artesia, NM 88210
Phone (575) 748-1283 Fax: (575) 748-9720

District III
1000 Rio Brazos Road, Aztec, NM 87410
Phone (505) 334-6178 Fax: (505) 334-6170

District IV
1220 S. St. Francis Drive, Santa Fe, NM 87505
Phone: (505) 476-3460 Fax: (505) 476-3462

State of New Mexico
Energy, Minerals & Natural Resources Department

Form C-102
Revised August 1, 2011

Submit one copy to
Appropriate District Office

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

☒ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

AS-Drilled

*API Number 30-039-27417		*Pool Code 71629	*Pool Name BASIN FRUITLAND COAL
*Property Code 17033	*Property Name ROSA UNIT		*Well Number 201A
*DGRID No 120782	*Operator Name WILLIAMS PRODUCTION COMPANY		*Elevation 6232'

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	22	31N	6W		911	SOUTH	1819	EAST	RIO ARriba

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
H	22	31N	6W		2623	NORTH	50	EAST	RIO ARriba

12 Dedicated Acres 320.0 Acres - (E/2)	13 Joint or Infill	14 Consolidation Code	15 Order No.
---	--------------------	-----------------------	--------------

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 TRACT 40 LOT 1 5280.00'	5258.88' END OF LATERAL LAT: 36.88511°N LONG: 107.44073°W DATUM: NAD1927 LAT: 36.88512°N LONG: 107.44133°W DATUM: NAD1983	LEASE SF-078766	17 OPERATOR CERTIFICATION 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. <u>Ben Mitchell</u> 11/20/11 Signature Date <u>Ben Mitchell</u> Printed Name E-mail Address	
	22 POINT OF ENTRY LAT: 36.88186°N LONG: 107.44478°W DATUM: NAD1927 LAT: 36.88187°N LONG: 107.44538°W DATUM: NAD1983	1232' 1819' 1460' 911' 5257.56'		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 Date Revised: OCTOBER 28, 2011 Survey Date: FEBRUARY 4, 2003 Signature and Seal of Professional Surveyor
	SURFACE LOCATION LAT: 36.88033°N LONG: 107.44680°W DATUM: NAD1927 LAT: 36.88034°N LONG: 107.44740°W DATUM: NAD1983	1676.4' N44°49.0'E N46°30.4'E 809.4'		15269 JASON C. EDWARDS NEW MEXICO REGISTERED PROFESSIONAL SURVEYOR JASON C. EDWARDS Certificate Number 15269



Williams Energy

*Rosa Unit #201A-STK
Sec22 T31N-R06W - 201A
Rio Arriba Co. NM
GL: 6232' KB: 14'*

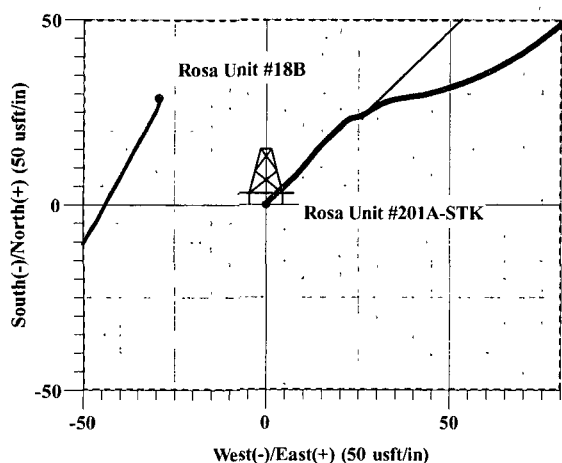


A Schlumberger Company

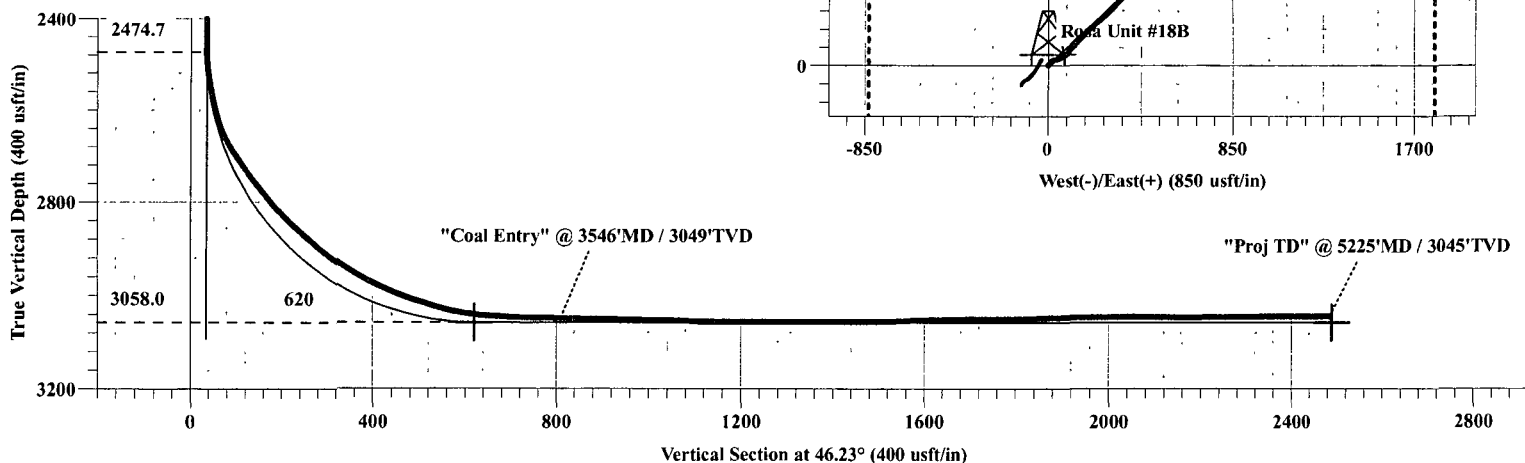
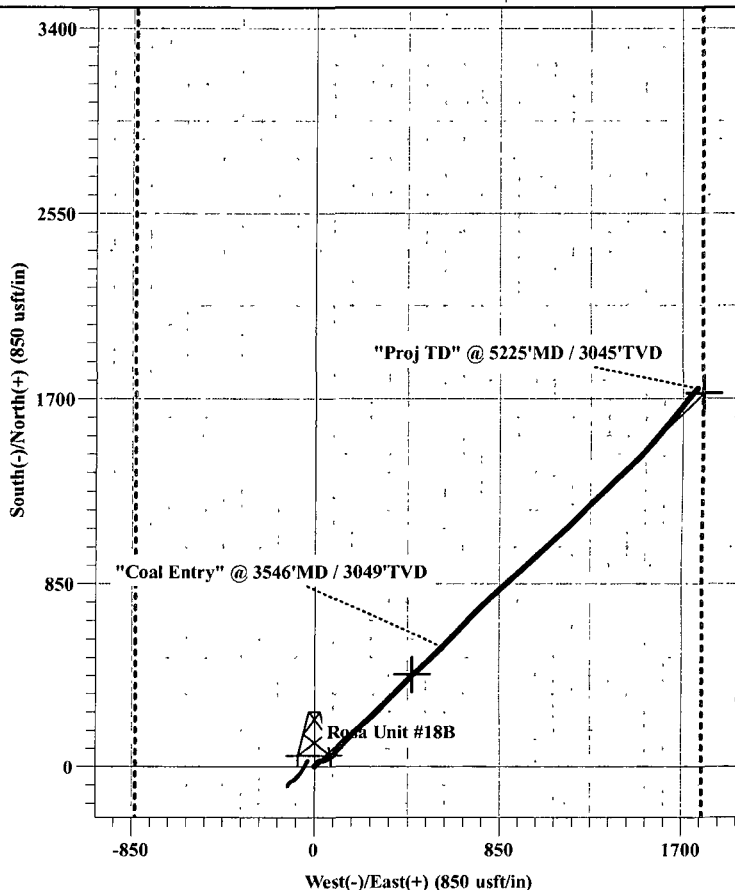
WELLBORE TARGET DETAILS (MAP CO-ORDINATES)

Name	TVD	+N/-S	+E/-W	Northing	Easting	Shape
LAND-201A	3058.0	428.5	448.4	2142284.37	150421.64	Point
TD-201A	3058.0	1722.2	1798.8	2143561.08	151788.17	Point

**EOW
No Hardlines
Crossed**



WELL DETAILS: Rosa Unit #201A-STK				
		6232.0		
Northing	Easting	Latitude	Longitude	
2141861.52	149967.90	36° 52' 49.188 N	107° 26' 48.480 W	



SECTION DETAILS

MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSect	Target
2475.0	0.16	49.95	2474.7	24.0	25.9	0.00	0.00	35.3	
3392.1	90.00	46.23	3058.0	428.5	448.4	9.80	-3.72	620.2	
5262.3	90.00	46.23	3058.0	1722.2	1798.8	0.00	0.00	2490.3	TD-201A

Plan: Design #2 (Rosa Unit #201A-STK/STK)

Created By: Frank C. Scardino

Date: 10/11/2011

Williams Energy

Rio Arriba Co. NM

Sec22 T31N-R06W - 201A

Rosa Unit #201A-STK

STK

Design: STK

Standard Survey Report

24 October, 2011

Survey Report

Company:	Williams Energy	Local Co-ordinate Reference:	Site Sec22 T31N-R06W - 201A
Project:	Rio Arriba Co. NM	TVD Reference:	WELL @ 6246 0usft (Original Well Elev)
Site:	Sec22 T31N-R06W - 201A	MD Reference:	WELL @ 6246 0usft (Original Well Elev)
Well:	Rosa Unit #201A-STK	North Reference:	True
Wellbore:	STK	Survey Calculation Method:	Minimum Curvature
Design:	STK	Database:	EDM 5000 1 Single User Db

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

Site:	Sec22 T31N-R06W - 201A				
Site Position:		Northing:	2,141,861 52 usft	Latitude:	36° 52' 49 188 N
From:	Lat/Long	Easting:	149,967 91 usft	Longitude:	107° 26' 48 480 W
Position Uncertainty:	0.0 usft	Slot Radius:	13-3/16 "	Grid Convergence:	-0 72 °

Well:	Rosa Unit #201A-STK					
Well Position	+N/-S	0 0 usft	Northing:	2,141,861 52 usft	Latitude:	36° 52' 49 188 N
	+E/-W	0 0 usft	Easting:	149,967 91 usft	Longitude:	107° 26' 48 480 W
Position Uncertainty		0 0 usft	Wellhead Elevation:	usft	Ground Level:	6,232 0 usft

Wellbore:	STK				
Magnetics	Model Name	Sample Date	Declination	Dip Angle	Field Strength
			(°)	(°)	(nT)
	IGRF2010	09/22/11	9 75	63 63	50,832

Design:	STK				
Audit Notes:					
Version:	1 0	Phase:	ACTUAL	Tie On Depth:	0 0
Vertical Section:	Depth From (TVD)	+N/-S	+E/-W	Direction	
	(usft)	(usft)	(usft)	(°)	
	0 0	0 0	0 0	46 23	

Survey Program	Date	10/24/11		
From	To	Survey (Wellbore)	Tool Name	Description
(usft)	(usft)			
200 0	5,225 0	Survey #1 (STK)	MWD	MWD - Standard

Survey										
Measured Depth	Inclination	Azimuth	Vertical Depth	+N/-S	+E/-W	Vertical Section	Dogleg Rate	Build Rate	Turn Rate	
(usft)	(°)	(°)	(usft)	(usft)	(usft)	(usft)	(°/100usft)	(°/100usft)	(°/100usft)	
0 0	0.00	0 00	0 0	0 0	0 0	0 0	0 00	0 00	0 00	
200 0	0 26	29 35	200 0	0 4	0.2	0 4	0.13	0.13	0 00	
400 0	0 98	51 18	400 0	1 9	1.8	2 6	0.37	0.36	10 92	
600 0	1.39	44 95	599 9	4 7	4.8	6 7	0.21	0.21	-3 12	
800 0	1 40	44 32	799 9	8 1	8.2	11 6	0.01	0.01	-0 32	
1,000 0	1 46	36 20	999.8	11 9	11.5	16 5	0.11	0.03	-4 06	
1,200.0	1 09	42 21	1,199 8	15 4	14.2	20 9	0.20	-0 19	3 01	
1,600 0	0 92	48 93	1,599 7	20 3	19.2	27 9	0.05	-0 04	1 68	
1,800 0	0 60	38 31	1,799.7	22 2	21.1	30 6	0.17	-0 16	-5 31	
2,000 0	0 65	75.12	1,999 7	23 3	22.8	32 6	0.20	0.03	18 41	

Survey Report

Company:	Williams Energy	Local Co-ordinate Reference:	Site Sec22 T31N-R06W - 201A
Project:	Rio Arriba Co NM	TVD Reference:	WELL @ 6246 0usft (Original Well Elev)
Site:	Sec22 T31N-R06W - 201A	MD Reference:	WELL @ 6246 0usft (Original Well Elev)
Well:	Rosa Unit #201A-STK	North Reference:	True
Wellbore:	STK	Survey Calculation Method:	Minimum Curvature
Design:	STK	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)	
2,200.0	0 44	85.49	2,199 7	23 7	24 7	34.2	0 12	-0 11	5 19	
2,400.0	0 19	63.35	2,399 7	23 9	25 7	35 1	0 14	-0 13	-11 07	
2,475.0	0 16	49 95	2,474 7	24 0	25.9	35 3	0 07	-0 04	-17 87	
2,522.0	10.02	57 76	2,521 4	26 2	29.5	39 4	20 98	20 98	16 62	
2,549.0	10 99	75 65	2,548 0	28 1	33 9	43 9	12 55	3 59	66 26	
2,580 0	12.66	83 19	2,578 3	29 2	40 2	49 2	7 33	5 39	24 32	
2,609 0	17 41	73 93	2,606 3	30 8	47 5	55 6	18 31	16 38	-31 93	
2,641.0	22 42	67 05	2,636 4	34 5	57 7	65 6	17 26	15 66	-21 50	
2,673 0	28 23	57 08	2,665 3	41 0	69 7	78 7	22 47	18 16	-31 16	
2,705.0	32 71	47 51	2,692 9	51 0	82.5	94 8	20 60	14 00	-29 91	
2,737.0	36 14	43.66	2,719 3	63 7	95 4	112 9	12 69	10 72	-12 03	
2,769.0	35 96	42 47	2,745 2	77 4	108 2	131 7	2 26	-0 56	-3 72	
2,800 0	37 72	41 29	2,770 0	91 3	120.6	150 2	6 12	5.68	-3 81	
2,832 0	40 80	41 19	2,794 8	106 5	134 0	170 4	9 63	9.63	-0 31	
2,864 0	44 49	41 28	2,818 3	122 8	148 3	192 0	11 53	11 53	0 28	
2,896 0	46 60	41 14	2,840.7	140 0	163 3	214 8	6 60	6 59	-0 44	
2,928 0	46.87	42 41	2,862 6	157 4	178 8	238 0	3 01	0 84	3 97	
2,960.0	49 59	45 61	2,884 0	174 5	195 4	261 8	11 31	8 50	10 00	
2,992.0	53 82	48.07	2,903 8	191 7	213 7	286 9	14 53	13 22	7 69	
3,024 0	55 75	48 86	2,922 2	209 0	233 3	313 0	6 36	6 03	2 47	
3,055 0	57 16	48 45	2,939 4	226 1	252 7	338 9	4 68	4 55	-1 32	
3,087 0	61 11	46 48	2,955 8	244 6	272 9	366.3	13.43	12 34	-6 16	
3,119.0	64.02	44 95	2,970 5	264 5	293 3	394 7	10 03	9 09	-4 78	
3,151 0	65 60	43 54	2,984.2	285 2	313 5	423 7	6 35	4.94	-4 41	
3,183 0	67 71	42 73	2,996 8	306 6	333 5	453 0	6 99	6 59	-2 53	
3,215 0	72 02	44 21	3,007 8	328 4	354 2	483 0	14 15	13 47	4 63	
3,247 0	72 98	44 41	3,017.5	350 3	375 5	513 5	3 06	3 00	0 63	
3,279 0	74 57	44 26	3,026 4	372 3	397 0	544 2	4 99	4 97	-0 47	
3,311 0	77 91	43 95	3,034 0	394 6	418 6	575 3	10 48	10 44	-0 97	
3,343 0	82 75	45 18	3,039 4	417 0	440.8	606 8	15.59	15 13	3 84	
3,375 0	85 38	45 76	3,042 7	439 4	463 4	638 6	8 41	8 22	1 81	
3,440 0	87 76	46 48	3,046 6	484 3	510 2	703 5	3 82	3.66	1 11	
3,501 0	89 34	47 35	3,048 1	526.0	554 7	764 4	2 96	2 59	1 43	
3,546 0	88 04	45 00	3,049 2	557 1	587 2	809 4	5 96	-2 89	-5 22	
"Coal Entry" @ 3546'MD / 3049'TVD										
3,565 0	87 49	44 01	3,049 9	570 7	600 5	828 4	5 96	-2 89	-5 22	
3,629.0	90 40	42 77	3,051 1	617 2	644 5	892 3	4 94	4 55	-1 94	
3,694 0	88 64	45 23	3,051.6	663 9	689 6	957 3	4 65	-2 71	3 78	
3,757 0	88.55	44.96	3,053 2	708 4	734.2	1,020 2	0 45	-0 14	-0 43	
3,822 0	88 02	44 89	3,055 1	754 4	780 1	1,085 2	0 82	-0 82	-0.11	
3,885 0	90 22	47 29	3,056 1	798 1	825 5	1,148 2	5 17	3 49	3 81	
3,948 0	89 52	48 27	3,056 2	840 4	872.1	1,211 1	1 91	-1 11	1 56	
4,013 0	89 87	47 90	3,056 6	883 8	920 5	1,276 1	0 78	0.54	-0 57	
4,075 0	89 87	48 07	3,056 7	925 3	966 6	1,338 1	0 27	0 00	0 27	

Survey Report

Company: Williams Energy
 Project: Rio Arriba Co NM
 Site: Sec22 T31N-R06W - 201A
 Well: Rosa Unit #201A-STK
 Wellbore: STK
 Design: STK

Local Co-ordinate Reference: Site Sec22 T31N-R06W - 201A
 TVD Reference: WELL @ 6246 0usft (Original Well Elev)
 MD Reference: WELL @ 6246 0usft (Original Well Elev)
 North Reference: True
 Survey Calculation Method: Minimum Curvature
 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)
4,140.0	90.13	48 08	3,056.7	968.7	1,014.9	1,403.0	0.40	0.40	0.02
4,204.0	89.87	48 46	3,056.7	1,011.3	1,062.7	1,467.0	0.72	-0.41	0.59
4,267.0	92.15	47 41	3,055.6	1,053.5	1,109.4	1,530.0	3.98	3.62	-1.67
4,331.0	92.24	47 28	3,053.2	1,096.9	1,156.5	1,593.9	0.25	0.14	-0.20
4,395.0	90.13	45 53	3,051.8	1,141.0	1,202.8	1,657.9	4.28	-3.30	-2.73
4,459.0	90.31	45.97	3,051.6	1,185.6	1,248.7	1,721.9	0.74	0.28	0.69
4,523.0	91.19	46 20	3,050.7	1,230.0	1,294.8	1,785.9	1.42	1.38	0.36
4,587.0	92.07	46.19	3,048.9	1,274.3	1,340.9	1,849.8	1.38	1.38	-0.02
4,652.0	90.57	45 75	3,047.4	1,319.5	1,387.6	1,914.8	2.40	-2.31	-0.68
4,715.0	91.54	47 33	3,046.3	1,362.8	1,433.4	1,977.8	2.94	1.54	2.51
4,779.0	89.25	45.91	3,045.8	1,406.8	1,479.9	2,041.8	4.21	-3.58	-2.22
4,843.0	89.87	41 38	3,046.3	1,453.1	1,524.0	2,105.7	7.14	0.97	-7.08
4,906.0	89.87	41 24	3,046.5	1,500.4	1,565.6	2,168.5	0.22	0.00	-0.22
4,971.0	90.48	40 01	3,046.3	1,549.7	1,607.9	2,233.2	2.11	0.94	-1.89
5,034.0	90.48	38.84	3,045.7	1,598.4	1,647.9	2,295.7	1.86	0.00	-1.86
5,098.0	90.92	38 76	3,045.0	1,648.2	1,688.0	2,359.2	0.70	0.69	-0.13
5,162.0	89.78	39 70	3,044.6	1,697.8	1,728.5	2,422.7	2.31	-1.78	1.47
5,225.0	89.78	39 70	3,044.8	1,746.3	1,768.8	2,485.3	0.00	0.00	0.00

"Proj TD" @ 5225'MD / 3045'TVD

Design Annotations

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
3,546.0	3,049.2	557.1	587.2	"Coal Entry" @ 3546'MD / 3049'TVD
5,225.0	3,044.8	1,746.3	1,768.8	"Proj TD" @ 5225'MD / 3045'TVD

Checked By: _____ Approved By: _____ Date: _____