

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

RECEIVED
OIL CONSERVATION DIVISION

1220 South St. Francis Drive
Santa Fe, NM 87505

Bureau of Land Management
Farmington Field Office

Form C-102
Revised August 1, 2011

Submit one copy to
Appropriate District Office

☒ AMENDED REPORT

As-Drilled

WELL LOCATION AND ACREAGE DEDICATION PLAT

*API Number 30-039-27818		*Pool Code 71629		*Pool Name BASIN FRUITLAND COAL	
*Property Code 17033		*Property Name ROSA UNIT			*Well Number 212A
*OGRID No 120782		*Operator Name WILLIAMS PRODUCTION COMPANY			*Elevation 6207'

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	14	31N	6W		1140	SOUTH	1387	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
B	14	31N	6W		1028	NORTH	2265	EAST	RIO ARriba

¹² Dedicated Acres 320.0 Acres - (E/2)	¹³ Joint or Infill	¹⁴ Consolidation Code	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 2643.96' END OF LATERAL LAT: 36.90401°N LONG: 107.43022°W DATUM: NAD1927 LAT: 36.90402°N LONG: 107.43082°W DATUM: NAD1983 POINT OF ENTRY LAT: 36.89747°N LONG: 107.42799°W DATUM: NAD1927 LAT: 36.89748°N LONG: 107.42859°W DATUM: NAD1983 SURFACE LOCATION LAT: 36.89546°N LONG: 107.42787°W DATUM: NAD1927 LAT: 36.89546°N LONG: 107.42787°W DATUM: NAD1983	14 1028' 2265' 1601' 1387' 1140' 1876' 5280.00' 5280.00' 5280.00' 2643.96' LEASE SF-078771 N15°36.1'W 2461.1' N16°12.1'W 766.2'	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 <i>Larry Higgins</i> 11-30-11 Signature Date LARRY HIGGINS Printed Name LARRY.HIGGINS@WILLIAMS.COM E-mail Address 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: NOVEMBER 22, 2011 Date of Survey: APRIL 12, 2004 Signature and Seal of Professional Surveyor JASON C. EDWARDS NEW MEXICO REGISTERED PROFESSIONAL SURVEYOR 15269 JASON C. EDWARDS Certificate Number 15269
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Williams Energy

Rosa Unit #212A STK
Sec14 T31N-R06W - 212A
Rio Arriba Co. NM
GL: 6207' KB: 14'

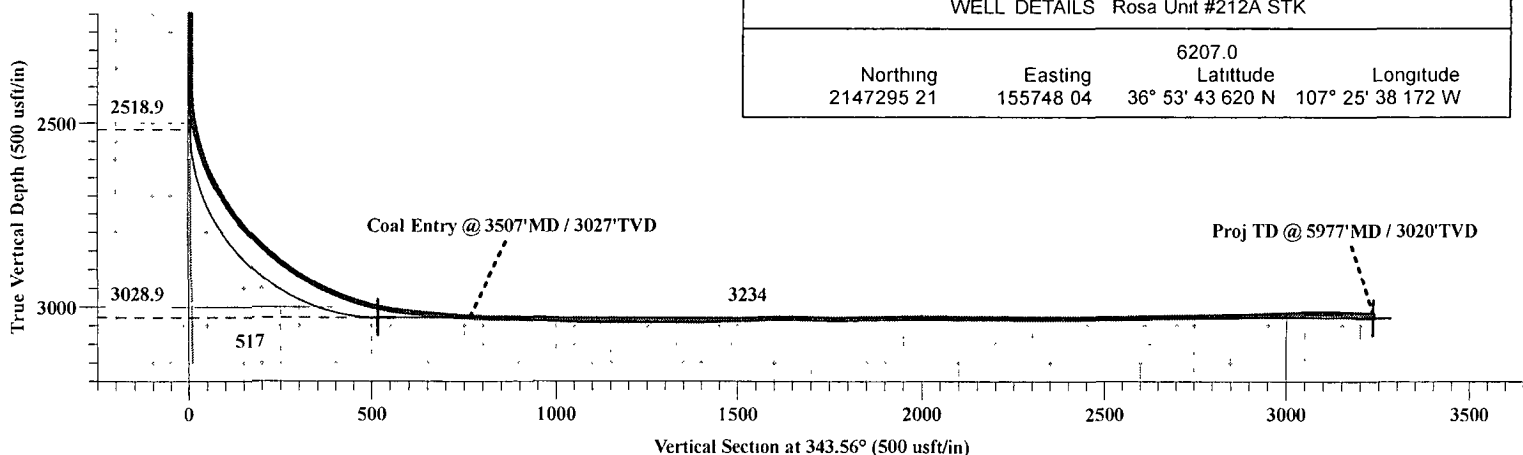
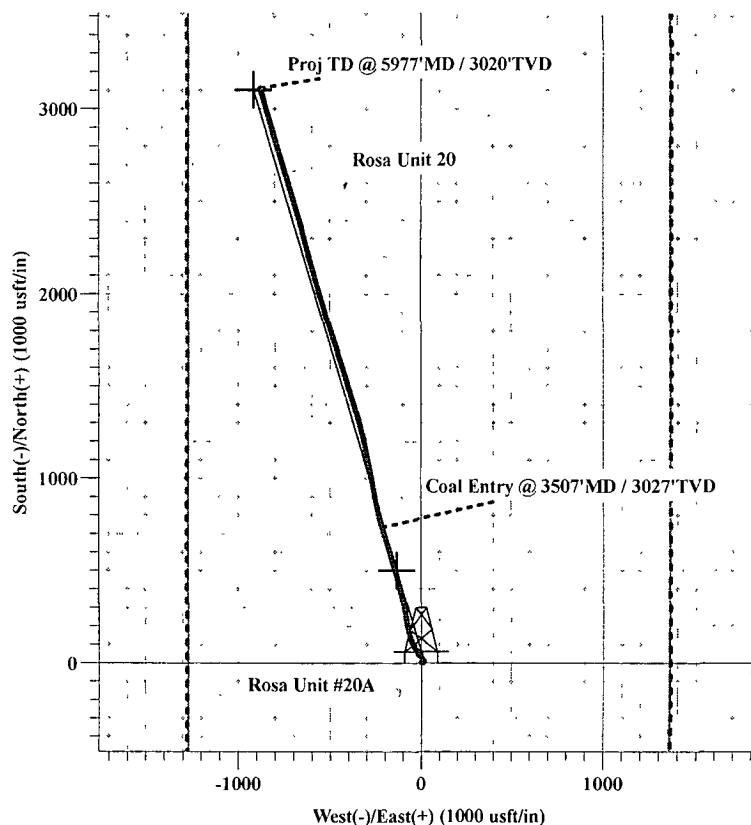


A Schlumberger Company

WELLBORE TARGET DETAILS (MAP CO-ORDINATES)

Name	TVD	+N/-S	+E/-W	Northing	Easting	Shape
LAND-212	3029 0	500.2	-132 1	2147797 00	155622 12	Point
TD-212	3029 0	3102 1	-915 3	2150408 39	154871 12	Point

EOW
No Hardlines
Crossed



WELL DETAILS Rosa Unit #212A STK				
Northing	Easting	6207.0	Latitude	Longitude
2147295 21	155748 04		36° 53' 43 620 N	107° 25' 38 172 W

SECTION DETAILS									
MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	Vsect	Target
2519 0	0 17	338 05	2518.9	10 4	15 5	0 00	0 00	5 6	
3321 0	90 00	343 25	3028 9	500 2	-132 1	11 20	5 20	517 2	
6038 2	90 00	343 25	3029 0	3102 1	-915 3	0 00	0 00	3234 3	TD-212

Plan: Design #2 (Rosa Unit #212A STK/STK)

Created By: Frank C. Scardino

Date: 10/10/2011

Williams Energy

Rio Arriba Co. NM

Sec14 T31N-R06W - 212A

Rosa Unit #212A STK

STK

Design: STK

Standard Survey Report

21 November, 2011

Survey Report

Company:	Williams Energy	Local Co-ordinate Reference:	Site Sec14 T31N-R06W - 212A
Project:	Rio Arriba Co. NM	TVD Reference:	WELL @ 6221' 0usft (Original Well Elev)
Site:	Sec14 T31N-R06W - 212A	MD Reference:	WELL @ 6221' 0usft (Original Well Elev)
Well:	Rosa Unit #212A 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:	Sec14 T31N-R06W - 212A		
Site Position:		Northing:	2,147,295 21 usft
From:	Lat/Long	Easting:	155,748 04 usft
Position Uncertainty:	0 0 usft	Slot Radius:	13-3/16 "
		Latitude:	36° 53' 43 620 N
		Longitude:	107° 25' 38 172 W
		Grid Convergence:	-0 71 °

Well:	Rosa Unit #212A STK		
Well Position	+N/-S	0 0 usft	Northing: 2,147,295 21 usft
	+E/-W	0 0 usft	Easting: 155,748 04 usft
Position Uncertainty	0 0 usft	Wellhead Elevation:	usft
		Latitude:	36° 53' 43 620 N
		Longitude:	107° 25' 38 172 W
		Ground Level:	6,207 0 usft

Wellbore	STK		
Magnetics	Model Name	Sample Date	Declination
	IGRF2010	10/10/11	9 73
			Dip Angle
			63 65
			Field Strength
			50,838

Design	STK		
Audit Notes:			
Version:	1 0	Phase:	ACTUAL
		Tie On Depth:	0 0
Vertical Section:	Depth From (TVD)	+N/-S	+E/-W
	(usft)	(usft)	(usft)
	0 0	0 0	0 0
			Direction
			(°)
			343 56

Survey Program	Date	11/21/11		
From	To	Survey (Wellbore)	Tool Name	Description
(usft)	(usft)			
200 0	5,977 0	Survey #1 (STK)	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 65	58 19	200 0	0 6	1 0	0 3	0 33	0 33	0 00
400 0	1 17	89 18	400 0	1 2	4 0	0 1	0 35	0 26	15 50
600 0	0 85	95 03	599 9	1 1	7 5	-1 0	0 17	-0 16	2 93
800 0	0 62	94 77	799 9	0 9	10 0	-2 0	0 12	-0 12	-0 13
1,000 0	0 30	102 65	999 9	0 7	11 6	-2 6	0 16	-0 16	3 94
1,200 0	0 38	39 91	1,199 9	1 1	12 6	-2 5	0 18	0 04	-31 37
1,400 0	0 45	35 01	1,399 9	2 2	13 4	-1 7	0 04	0 04	-2 45
1,600 0	0 49	22 94	1,599 9	3 7	14 2	-0 5	0 05	0 02	-6 04
1,800 0	0 67	9 21	1,799 9	5 6	14 8	1 2	0 11	0 09	-6 87

Survey Report

Company:	Williams Energy	Local Co-ordinate Reference:	Site Sec14 T31N-R06W- 212A
Project:	Rio Arriba Co NM	TVD Reference:	WELL @ 6221 0usft.(Original Well Elev)
Site:	Sec14,T31N-R06W- 212A	MD Reference:	WELL @ 6221 0usft.(Original Well Elev)
Well:	Rosa Unit #212A 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)
2,000 0	0 69	8 66	1,999 9	8 0	15 1	3 4	0 01	0 01	-0 28
2,200 0	0 22	41 78	2,199 9	9 4	15 6	4 7	0 26	-0 24	16 56
2,400 0	0 22	334 05	2,399 9	10 1	15 6	5 2	0 12	0 00	-33 87
2,581 0	19.96	323 37	2,577 2	35 4	-3 1	34 9	10 91	10 91	-5 90
2,613 0	22 34	323 41	2,607 0	44 7	-10 0	45.7	7 44	7 44	0 13
2,645 0	24 18	329 99	2,636 4	55 3	-16 9	57 8	9 94	5 75	20 56
2,677 0	27 17	330 51	2,665 3	67 3	-23 8	71 3	9 37	9 34	1 63
2,709 0	32 01	330 69	2,693 1	81 1	-31 5	86 7	15 13	15 13	0 56
2,741 0	34 38	330 25	2,719 9	96 3	-40 2	103 7	7 44	7 41	-1 38
2,773 0	34 65	332 05	2,746 2	112 2	-48 9	121 4	3 30	0 84	5.63
2,805 0	37 55	340 10	2,772 1	129 4	-56 5	140 1	17 36	9 06	25 16
2,838 0	41 68	344 41	2,797 5	149 4	-62 9	161 1	15 03	12 52	13 06
2,870 0	45 02	347 72	2,820 8	170 7	-68 2	183 1	12 62	10 44	10 34
2,901 0	47 66	349 77	2,842 2	192 7	-72.5	205 4	9 77	8 52	6 61
2,933 0	51 53	350 49	2,862 9	216 7	-76 7	229 6	12 21	12 09	2 25
2,965.0	54 17	350 47	2,882 3	241 9	-80 9	254 9	8 25	8 25	-0 06
2,997 0	55 75	350 05	2,900 6	267 7	-85 4	280 9	5 05	4 94	-1 31
3,030 0	56.19	350 20	2,919 1	294 7	-90 0	308 1	1 39	1 33	0 45
3,062 0	61 11	349 40	2,935 7	321 5	-94 9	335 3	15 52	15 38	-2 50
3,093 0	64 98	347 38	2,949 8	348 6	-100 5	362.8	13 77	12 48	-6 52
3,125 0	66 74	346 72	2,962 9	377 1	-107 0	391 9	5 81	5 50	-2 06
3,157 0	69 91	346 05	2,974 7	406 0	-114.0	421 6	10 10	9 91	-2 09
3,189 0	73 25	344 35	2,984 8	435 3	-121 8	452 0	11 59	10 44	-5 31
3,221 0	75 80	344 10	2,993 3	465 0	-130 1	482 8	8 00	7 97	-0 78
3,253 0	77 65	343 65	3,000 7	494 9	-138 8	513 9	5 94	5 78	-1 41
3,285 0	80 02	342 98	3,006 9	525 0	-147 8	545 3	7 69	7 41	-2 09
3,316 0	82 57	342 84	3,011 6	554 3	-156 8	576 0	8 24	8 23	-0 45
3,346 0	83 62	342 70	3,015 2	582 7	-165 6	605 8	3 53	3 50	-0 47
3,378 0	85 74	342 72	3,018 2	613 1	-175 1	637 6	6 63	6 63	0 06
3,409 0	85.74	342 49	3,020 5	642 6	-184 3	668 5	0 74	0 00	-0 74
3,441 0	85 47	342 03	3,022 9	673 0	-194 1	700 4	1 66	-0 84	-1.44
3,504 0	86 26	343 06	3,027 4	733 0	-212 9	763 2	2 06	1 25	1 63
3,507.0	86 43	343 22	3,027 6	735 8	-213 8	766 2	7 76	5 78	5 20
Coal Entry @ 3507 MD / 3027 TVD									
3,568 0	89 96	346 38	3,029 6	794 6	-229 8	827 2	7 76	5 78	5 19
3,632 0	88 90	347 61	3,030 2	857 0	-244.2	891 1	2 54	-1 66	1 92
3,696 0	88 29	349 20	3,031 8	919 7	-257 0	954 8	2 66	-0 95	2 48
3,760 0	87 05	349 76	3,034 4	982 5	-268 7	1,018 4	2 13	-1 94	0 88
3,824 0	88 99	348 38	3,036 6	1,045 3	-280 8	1,082 1	3 72	3 03	-2 16
3,888 0	89.52	347 97	3,037 4	1,108 0	-293 9	1,145 9	1 05	0 83	-0 64
3,951 0	89 96	347 70	3,037 7	1,169 6	-307 2	1,208 7	0 82	0 70	-0 43
4,014 0	91 19	346 41	3,037 1	1,230 9	-321 3	1,271 6	2 83	1 95	-2.05
4,078 0	89 52	345 30	3,036 7	1,293 0	-337 0	1,335 5	3 13	-2 61	-1 73
4,141 0	90 40	342 20	3,036 7	1,353 5	-354 6	1,398 5	5 12	1 40	-4 92

Survey Report

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Site:	Sec14 T31N-R06W - 212A	MD Reference:	WELL @ 6221'0usft (Original Well Elev)
Well:	Rosa Unit #212A 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)
4,205 0	92 68	341 43	3,035 0	1,414 3	-374 6	1,462 4	3 76	3 56	-1 20
4,269 0	92 24	341 94	3,032 2	1,475 0	-394 6	1,526 3	1 05	-0 69	0 80
4,332 0	91 45	343 36	3,030 2	1,535 1	-413 4	1,589 3	2 58	-1 25	2 25
4,397 0	88 55	342 95	3,030 2	1,597 3	-432 3	1,654 3	4 51	-4 46	-0 63
4,461 0	88 64	343 29	3,031 8	1,658 5	-450 8	1,718 3	0 55	0 14	0 53
4,525 0	90 84	341 18	3,032 1	1,719 4	-470 4	1,782 2	4 76	3 44	-3 30
4,589 0	91 19	342 24	3,030 9	1,780 2	-490 4	1,846 2	1 74	0 55	1 66
4,653 0	90 84	342 54	3,029 8	1,841 2	-509 8	1,910 2	0 72	-0 55	0 47
4,716 0	90 48	343 03	3,029 1	1,901 3	-528 4	1,973 2	0 97	-0 57	0 78
4,780 0	89 34	343 05	3,029 2	1,962 6	-547 1	2,037 2	1 78	-1 78	0 03
4,844 0	89 87	343 61	3,029 6	2,023 9	-565 5	2,101 2	1 20	0 83	0 88
4,907 0	89 78	344 50	3,029 8	2,084 4	-582 8	2,164 2	1 42	-0 14	1 41
4,971 0	89 25	345 23	3,030 4	2,146 2	-599 5	2,228 1	1 41	-0 83	1 14
5,035 0	89 25	345 21	3,031 2	2,208 1	-615 8	2,292 1	0 03	0 00	-0 03
5,099 0	90 48	344 66	3,031 3	2,269 9	-632 4	2,356 1	2 11	1 92	-0 86
5,162 0	90 57	345 01	3,030 8	2,330 7	-648 9	2,419 1	0 57	0 14	0 56
5,226 0	90 04	345 41	3,030 4	2,392 6	-665 3	2,483 0	1 04	-0 83	0 63
5,289 0	91 10	343 15	3,029 8	2,453 2	-682 3	2,546 0	3 96	1 68	-3 59
5,354 0	91 54	343 20	3,028 3	2,515 4	-701 1	2,611 0	0 68	0 68	0 08
5,418 0	91 10	342 92	3,026 8	2,576 6	-719 8	2,675 0	0 81	-0 69	-0 44
5,482 0	90 31	343 10	3,026 0	2,637 8	-738 5	2,739 0	1 27	-1 23	0 28
5,546 0	89 96	344 08	3,025 9	2,699 2	-756 6	2,803 0	1 63	-0 55	1 53
5,610 0	91 71	342 62	3,025 0	2,760 5	-774 9	2,867 0	3 56	2 73	-2 28
5,674 0	91 89	343 18	3,022 9	2,821 7	-793 7	2,930 9	0 92	0 28	0 88
5,737 0	93 12	343 14	3,020 2	2,881 9	-811 9	2,993 9	1 95	1 95	-0 06
5,802 0	91 89	344 40	3,017 4	2,944 3	-830 1	3,058 8	2 71	-1 89	1 94
5,865 0	89 25	344 20	3,016 7	3,004 9	-847 1	3,121 8	4 20	-4 19	-0 32
5,912 0	87 85	343 98	3,017 9	3,050 1	-860 0	3,168 8	3 02	-2 98	-0 47
5,977 0	87 85	343 98	3,020 4	3,112 5	-877 9	3,233 7	0 00	0 00	0 00

Proj TD @ 5977' MD / 3020' TVD

Design Annotations

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates	+N/-S (usft)	+E/-W (usft)	Comment
3,507 0	3,027 6	735 8	-213 8		Coal Entry @ 3507' MD / 3027' TVD
5,977 0	3,020 4	3,112 5	-877 9		Proj TD @ 5977' MD / 3020' TVD

Checked By

Approved By

Date