

District I
1625 N. French Dr., Hobbs, NM 88240

District II
1301 W. Grand Avenue, Artesia, NM 88210

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

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

State of New Mexico
Energy, Minerals & Natural Resources Department

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

Form C-102
Revised October 12, 2005
Instructions on back
Submit to Appropriate District Office
State Lease - 4 Copies
Fee Lease - 3 Copies

☒ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

"As Drilled"

*API Number 30039 30783	*Pool Code 97232 / 72319 / 71599	*Pool Name BASIN MANCOS / BLANCO MESAVERDE / BASIN DAKOTA
*Property Code 17033	*Property Name ROSA UNIT	*Well Number 89D
*GRID No. 120782	*Operator Name WILLIAMS PRODUCTION COMPANY	*Elevation 6664'

10 Surface Location

UL or lot no.	Section	Township	Range	Lot Idh	Feet from the	North/South line	Feet from the	East/West line	County
A	34	32N	6W		600	NORTH	645	EAST	RIO ARriba

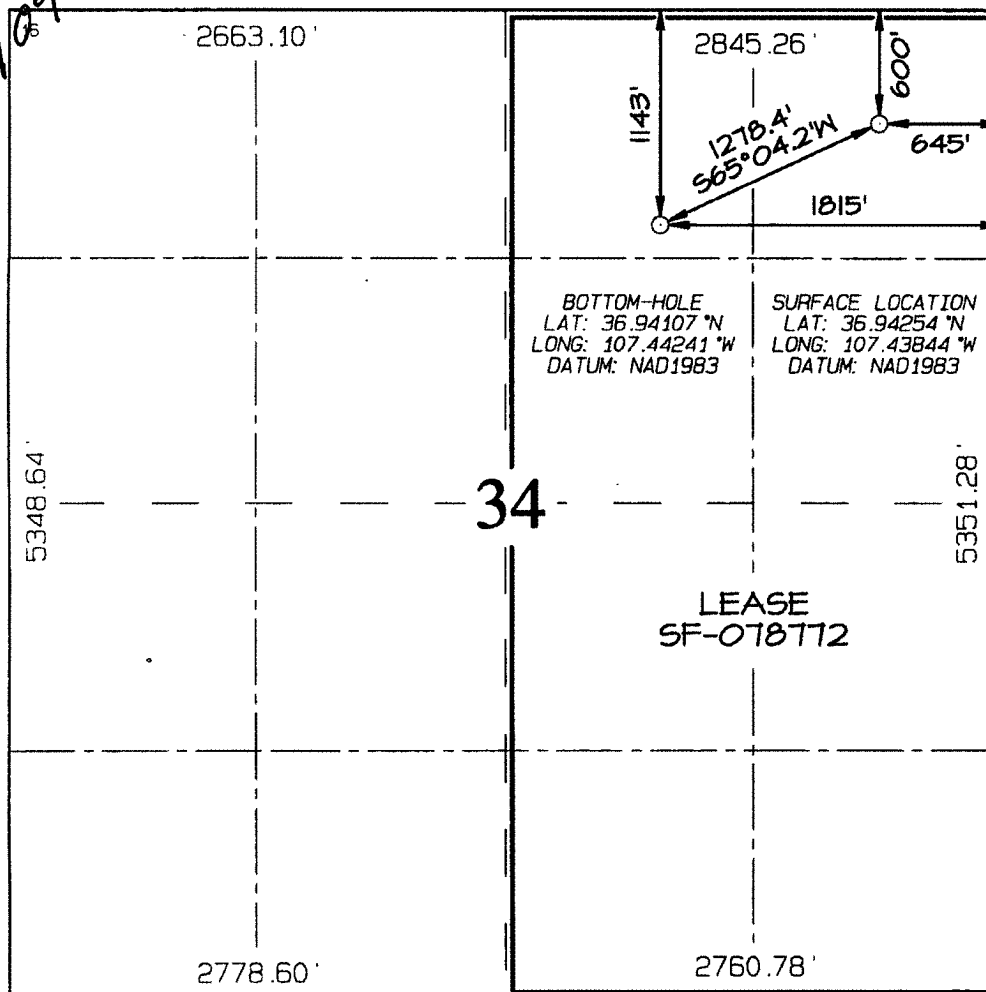
11 Bottom Hole Location If Different From Surface

UL or lot no.	Section	Township	Range	Lot Idh	Feet from the	North/South line	Feet from the	East/West line	County
B	34	32N	6W		1143	NORTH	1815	EAST	RIO ARriba

12 Dedicated Acres 320.0 Acres - (E/2)	13 Joint or Infill	14 Consolidation Code	15 Order No. RCVD AUG 21 '09 OIL CONS. DIV.
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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

DIST. 3



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.

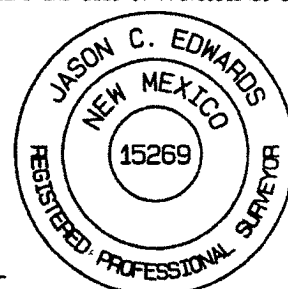
Signature: Heather Riley
Date: 8/20/09
Printed Name: Heather Riley

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: AUGUST 19, 2009
Date of Survey: MAY 29, 2009

Signature and Seal of Professional Surveyor



JASON C. EDWARDS
Certificate Number 15269



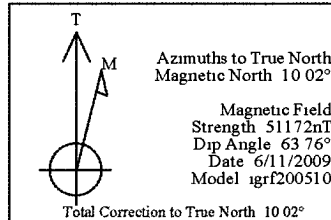
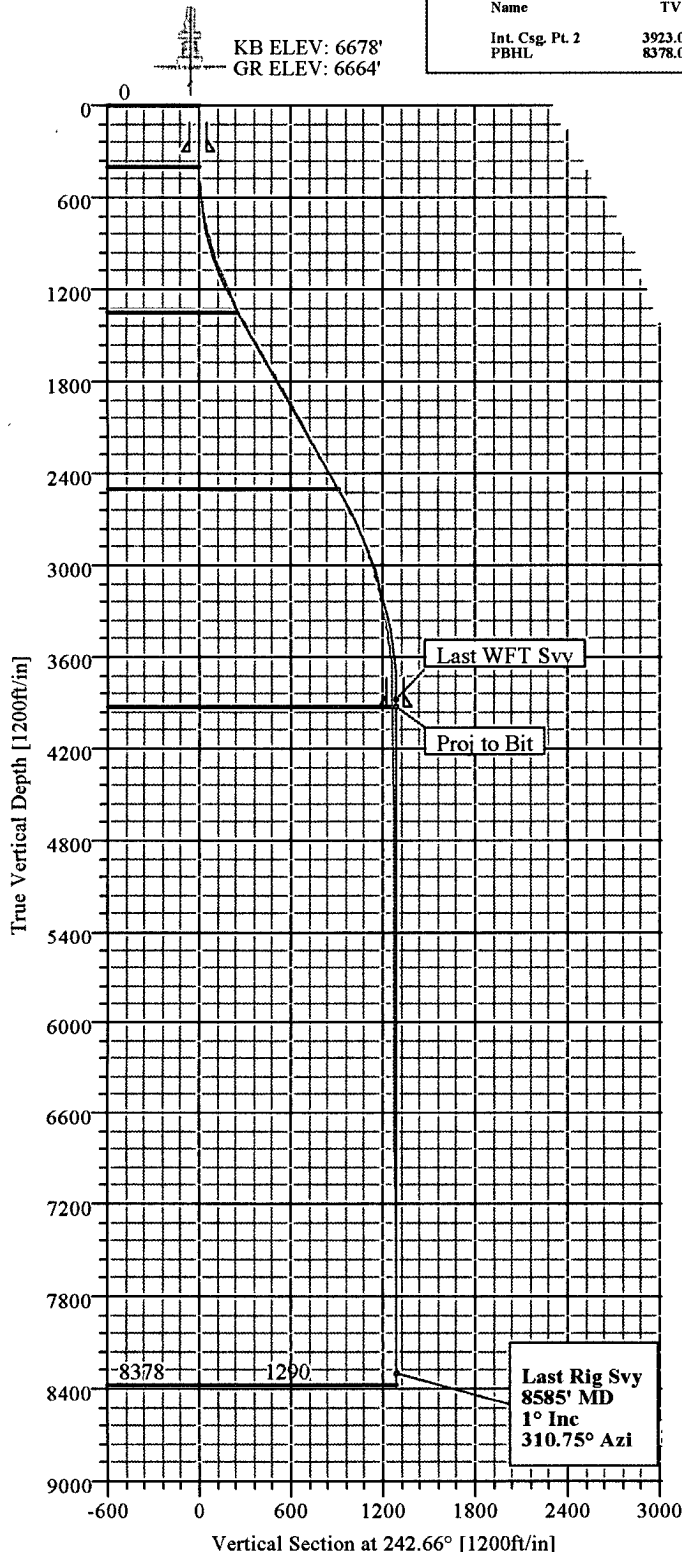
ROSA UNIT #89D
RIO ARriba CO., NEW MEXICO

API # 3039 30783

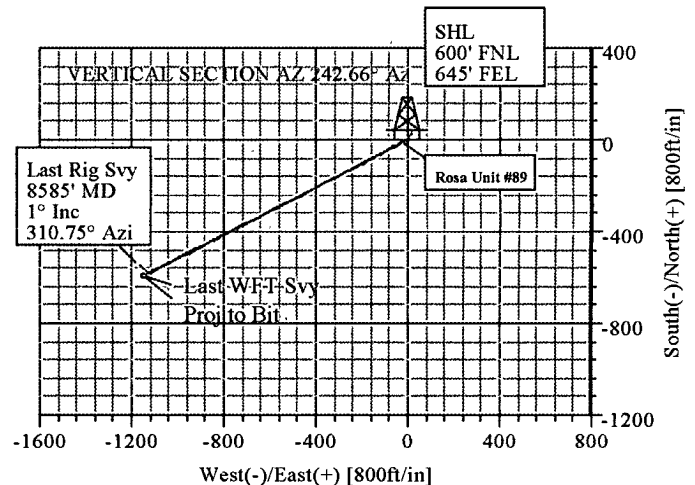
SECTION DETAILS										
Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	DLeg	TFace	VSec	Target
1	0.00	0.00	242.66	0.00	0.00	0.00	0.00	0.00	0.00	
2	400.00	0.00	242.66	400.00	0.00	0.00	0.00	0.00	0.00	
3	1393.88	29.82	242.66	1349.62	-116.11	-224.58	3.00	242.66	252.82	
4	2718.12	29.82	242.66	2498.56	-418.50	-809.48	0.00	0.00	911.26	
5	4208.94	0.00	242.66	3923.00	-592.67	-1146.35	2.00	180.00	1290.49	
6	8663.94	0.00	242.66	8378.00	-592.67	-1146.35	0.00	242.66	1290.49	

WELL DETAILS							
Name	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Slot
#89D	0.00	0.00	2164546.39	1293123.29	36°56'33.140N	107°26'18.380W	N/A

TARGET DETAILS								
Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Shape
Int. Csg. Pt. 2	3923.00	-592.67	-1146.35	2163968.06	1291969.64	36°56'27.280N	107°26'32.500W	Point
PBHL	8378.00	-592.67	-1146.35	2163968.06	1291969.64	36°56'27.280N	107°26'32.500W	Point



FORMATION TOP DETAILS			
No.	TVDPath	MDPath	Formation
1	2673.00	2915.43	Ojo Alamo Ss.
2	2768.00	3020.11	Kirtland Sh.
3	3193.00	3470.80	Fruitland Fm.
4	3448.00	3731.73	Pictured Cliffs Ss.
5	3743.00	4028.82	Lewis Sh.
6	5378.00	5663.94	Cliff House Ss. Trans.
7	5703.00	5988.94	Cliff House Ss.
8	5748.00	6033.94	Menefee Fm.
9	5928.00	6213.94	Point Lookout Ss.
10	6238.00	6523.94	Mancos Sh.
11	7283.00	7568.94	Gallup Ss.
12	8023.00	8308.94	Greenhorn Ls.
13	8083.00	8368.94	Graneros Ss.
14	8213.00	8498.94	Dakota Ss.



RCVD AUG 21 '09
OIL CONS. DIV.
DIST. 3



Weatherford®

CASING DETAILS				
No.	TVD	MD	Name	Size
1	300.00	300.00	10 3/4"	10.750
2	3923.00	4208.94	7 5/8" Int. Csg.	0.000

Plan: Plan #2 (#89D/1)
Created By: Lindsey Maddux Date: 8/12/2009



Weatherford International, Inc.

Survey Report



Weatherford

Company: WILLIAMS PRODUCTION	Date: 8/12/2009	Time: 14:52:26	Page: 1
Field: RIO ARRIBA CO. NM (NAD 83)	Co-ordinate(NE) Reference:	Well: #89D, True North	
Site: Rosa Unit #89D	Vertical (TVD) Reference:	SITE 6678.0	
Well: #89D	Section (VS) Reference:	Well (0.00N,0.00E,242.66Azi)	
Wellpath: 1	Survey Calculation Method:	Minimum Curvature	Db: Sybase

Field: RIO ARRIBA CO. NM (NAD 83)

Map System: US State Plane Coordinate System 1983
Geo Datum: GRS 1980
Sys Datum: Mean Sea Level

Map Zone: New Mexico, Central Zone
Coordinate System: Well Centre
Geomagnetic Model: igrf200510

Site: Rosa Unit #89D

600' FNL 645' FEL of SEC 34 T32N R6W

Site Position:	Northing: 2164546.39 ft	Latitude: 36 56 33.140 N
From: Geographic	Easting: 1293123.29 ft	Longitude: 107 26 18.380 W
Position Uncertainty: 0.00 ft		North Reference: True
Ground Level: 6664.00 ft		Grid Convergence: -0.71 deg

Well: #89D

Slot Name:

Well Position: +N/-S 0.00 ft	Northing: 2164546.39 ft	Latitude: 36 56 33.140 N
+E/-W 0.00 ft	Easting: 1293123.29 ft	Longitude: 107 26 18.380 W
Position Uncertainty: 0.00 ft		

Wellpath: 1

Current Datum: SITE	Height 6678.00 ft	Drilled From: Surface
Magnetic Data: 6/11/2009		Tie-on Depth: 0.00 ft
Field Strength: 51172 nT		Above System Datum: Mean Sea Level
Vertical Section: Depth From (TVD)		Declination: 10.02 deg
ft	+N/-S ft	Mag Dip Angle: 63.76 deg
		+E/-W ft
		Direction deg
0.00	0.00	0.00 242.66

Survey: WFT SVY

Start Date: 7/27/2009

Company: Weatherford International, Inc
Tool: MWD;MWD - Standard

Engineer: Lindsey Maddux
Tied-to: From Surface

Survey: WFT SVY

MD ft	Incl deg	Azim deg	TVD ft	+N/-S ft	+E/-W ft	VS ft	DLS deg/100ft	Build deg/100ft	Turn deg/100ft	Tool/Comment
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	MWD
421.00	1.08	275.77	420.98	0.40	-3.95	3.32	0.26	0.26	0.00	MWD
452.00	2.11	266.78	451.96	0.40	-4.81	4.09	3.41	3.32	-29.00	MWD
482.00	3.21	262.24	481.93	0.25	-6.19	5.38	3.73	3.67	-15.13	MWD
513.00	4.28	257.90	512.86	-0.11	-8.18	7.32	3.57	3.45	-14.00	MWD
544.00	5.23	251.11	543.76	-0.81	-10.65	9.83	3.56	3.06	-21.90	MWD
573.00	6.12	249.54	572.61	-1.78	-13.35	12.67	3.12	3.07	-5.41	MWD
604.00	6.85	246.20	603.42	-3.10	-16.59	16.16	2.65	2.35	-10.77	MWD
635.00	7.52	240.21	634.17	-4.85	-20.04	20.03	3.24	2.16	-19.32	MWD
666.00	8.56	237.76	664.87	-7.09	-23.75	24.36	3.53	3.35	-7.90	MWD
697.00	9.88	240.26	695.47	-9.64	-28.01	29.31	4.45	4.26	8.06	MWD
728.00	10.94	239.64	725.96	-12.45	-32.86	34.91	3.44	3.42	-2.00	MWD
759.00	12.00	240.51	756.34	-15.52	-38.21	41.07	3.46	3.42	2.81	MWD
790.00	13.06	242.89	786.60	-18.70	-44.13	47.79	3.80	3.42	7.68	MWD
819.00	13.88	241.14	814.80	-21.88	-50.09	54.54	3.16	2.83	-6.03	MWD
849.00	14.56	242.56	843.88	-25.35	-56.59	61.91	2.55	2.27	4.73	MWD
880.00	15.13	241.14	873.85	-29.10	-63.59	69.85	2.18	1.84	-4.58	MWD
911.00	16.00	239.89	903.71	-33.20	-70.83	78.16	3.01	2.81	-4.03	MWD
941.00	16.94	239.39	932.48	-37.50	-78.17	86.66	3.17	3.13	-1.67	MWD
971.00	17.88	240.51	961.10	-41.99	-85.94	95.62	3.33	3.13	3.73	MWD
1001.00	18.69	238.51	989.59	-46.77	-94.05	105.02	3.42	2.70	-6.67	MWD
1032.00	19.44	239.26	1018.89	-52.00	-102.72	115.12	2.55	2.42	2.42	MWD
1063.00	20.13	238.76	1048.06	-57.40	-111.71	125.60	2.29	2.23	-1.61	MWD
1093.00	20.98	238.13	1076.15	-62.91	-120.69	136.10	2.93	2.83	-2.10	MWD



Weatherford International, Inc.

Survey Report



Weatherford

Company: WILLIAMS PRODUCTION	Date: 8/12/2009	Time: 14:52:26	Page: 2
Field: RIO ARRIBA CO. NM (NAD 83)	Co-ordinate(NE) Reference: Well: #89D, True North		
Site: Rosa Unit #89D	Vertical (TVD) Reference: SITE 6678.0		
Well: #89D	Section (VS) Reference: Well (0.00N,0.00E,242.66Azi)		
Wellpath: 1	Survey Calculation Method: Minimum Curvature	Db: Sybase	

Survey: WFT SVY

MD ft	Incl deg	Azim deg	TVD ft	+N/-S ft	+E/-W ft	VS ft	DLS deg/100ft	Build deg/100ft	Turn deg/100ft	Tool/Comment
1124.00	21.29	239.96	1105.06	-68.66	-130.27	147.25	2.35	1.00	5.90	MWD
1155.00	21.75	239.87	1133.90	-74.36	-140.11	158.61	1.49	1.48	-0.29	MWD
1186.00	22.72	241.12	1162.60	-80.14	-150.32	170.33	3.48	3.13	4.03	MWD
1218.00	23.37	241.51	1192.04	-86.15	-161.31	182.86	2.09	2.03	1.22	MWD
1249.00	23.75	240.26	1220.46	-92.18	-172.13	195.24	2.02	1.23	-4.03	MWD
1280.00	25.03	242.42	1248.69	-98.31	-183.37	208.04	5.03	4.13	6.97	MWD
1312.00	25.97	242.15	1277.57	-104.72	-195.56	221.81	2.96	2.94	-0.84	MWD
1342.00	26.58	243.74	1304.47	-110.76	-207.39	235.09	3.10	2.03	5.30	MWD
1374.00	27.65	242.97	1332.96	-117.30	-220.43	249.68	3.52	3.34	-2.41	MWD
1406.00	28.20	244.39	1361.23	-123.94	-233.86	264.66	2.70	1.72	4.44	MWD
1437.00	28.12	244.73	1388.56	-130.23	-247.07	279.28	0.58	-0.26	1.10	MWD
1468.00	28.24	244.24	1415.89	-136.53	-260.28	293.91	0.84	0.39	-1.58	MWD
1499.00	28.84	243.82	1443.12	-143.02	-273.60	308.72	2.04	1.94	-1.35	MWD
1530.00	29.51	244.00	1470.19	-149.66	-287.17	323.83	2.18	2.16	0.58	MWD
1560.00	29.88	243.87	1496.25	-156.19	-300.52	338.68	1.25	1.23	-0.43	MWD
1623.00	30.34	244.03	1550.75	-170.07	-328.91	370.28	0.74	0.73	0.25	MWD
1686.00	30.32	241.96	1605.13	-184.52	-357.25	402.09	1.66	-0.03	-3.29	MWD
1749.00	30.76	240.18	1659.39	-200.00	-385.27	434.09	1.60	0.70	-2.83	MWD
1812.00	30.92	241.47	1713.48	-215.75	-413.46	466.37	1.08	0.25	2.05	MWD
1876.00	30.48	240.10	1768.51	-231.69	-441.98	499.02	1.29	-0.69	-2.14	MWD
1938.00	29.89	241.68	1822.10	-246.86	-469.21	530.18	1.60	-0.95	2.55	MWD
1970.00	28.88	243.51	1849.99	-254.09	-483.15	545.88	4.22	-3.16	5.72	MWD
2033.00	29.52	243.51	1904.98	-267.80	-510.66	576.61	1.02	1.02	0.00	MWD
2097.00	29.83	243.13	1960.59	-282.02	-538.97	608.29	0.57	0.48	-0.59	MWD
2160.00	29.11	241.60	2015.44	-296.40	-566.43	639.28	1.65	-1.14	-2.43	MWD
2224.00	28.78	241.65	2071.44	-311.12	-593.68	670.25	0.52	-0.52	0.08	MWD
2288.00	28.31	243.76	2127.66	-325.14	-620.85	700.83	1.74	-0.73	3.30	MWD
2351.00	28.75	243.39	2183.01	-338.53	-647.80	730.91	0.75	0.70	-0.59	MWD
2383.00	28.91	243.40	2211.05	-345.44	-661.59	746.34	0.50	0.50	0.03	MWD
2415.00	29.03	242.61	2239.04	-352.48	-675.40	761.84	1.25	0.37	-2.47	MWD
2447.00	29.06	242.78	2267.02	-359.61	-689.21	777.38	0.27	0.09	0.53	MWD
2479.00	29.00	243.52	2295.00	-366.62	-703.06	792.91	1.14	-0.19	2.31	MWD
2511.00	29.17	242.53	2322.96	-373.68	-716.93	808.46	1.59	0.53	-3.09	MWD
2543.00	29.31	241.70	2350.89	-380.99	-730.74	824.09	1.34	0.44	-2.59	MWD
2574.00	29.56	240.72	2377.88	-388.32	-744.09	839.32	1.75	0.81	-3.16	MWD
2606.00	29.94	240.88	2405.67	-396.07	-757.95	855.19	1.21	1.19	0.50	MWD
2638.00	29.48	243.11	2433.46	-403.52	-771.95	871.05	3.74	-1.44	6.97	MWD
2670.00	29.73	243.79	2461.28	-410.58	-786.09	886.85	1.31	0.78	2.12	MWD
2701.00	29.67	243.34	2488.21	-417.42	-799.85	902.21	0.74	-0.19	-1.45	MWD
2733.00	29.46	242.98	2516.04	-424.55	-813.93	918.00	0.86	-0.66	-1.12	MWD
2765.00	28.87	243.12	2543.99	-431.62	-827.84	933.59	1.86	-1.84	0.44	MWD
2797.00	28.57	243.40	2572.05	-438.54	-841.57	948.97	1.03	-0.94	0.87	MWD
2828.00	27.84	242.12	2599.37	-445.24	-854.59	963.62	3.06	-2.35	-4.13	MWD
2860.00	27.10	241.54	2627.76	-452.21	-867.61	978.38	2.46	-2.31	-1.81	MWD
2892.00	26.68	240.97	2656.30	-459.17	-880.30	992.85	1.54	-1.31	-1.78	MWD
2924.00	26.26	240.99	2684.95	-466.09	-892.77	1007.10	1.31	-1.31	0.06	MWD
2956.00	25.47	242.34	2713.74	-472.71	-905.06	1021.06	3.08	-2.47	4.22	MWD
2988.00	24.72	242.11	2742.72	-479.04	-917.06	1034.63	2.36	-2.34	-0.72	MWD
3020.00	24.05	241.63	2771.87	-485.27	-928.71	1047.84	2.18	-2.09	-1.50	MWD
3052.00	23.40	240.94	2801.16	-491.45	-940.01	1060.71	2.21	-2.03	-2.16	MWD
3083.00	22.58	242.00	2829.70	-497.24	-950.64	1072.82	2.96	-2.65	3.42	MWD
3114.00	21.95	244.43	2858.39	-502.53	-961.12	1084.56	3.60	-2.03	7.84	MWD
3177.00	19.84	246.42	2917.24	-511.89	-981.55	1107.00	3.53	-3.35	3.16	MWD



Weatherford International, Inc.

Survey Report

**Weatherford**

Company:	WILLIAMS PRODUCTION	Date:	8/12/2009	Time:	14:52:26	Page:	3
Field:	RIO ARRIBA CO. NM (NAD 83)	Co-ordinate(NE) Reference:	Well: #89D, True North				
Site:	Rosa Unit #89D	Vertical (TVD) Reference:	SITE 6678.0				
Well:	#89D	Section (VS) Reference:	Well (0.00N,0.00E,242.66Azi)				
Wellpath:	1	Survey Calculation Method:	Minimum Curvature	Db:	Sybase		

Survey: WFT SVY

MD ft	Incl deg	Azim deg	TVD ft	+N/-S ft	+E/-W ft	VS ft	DLS deg/100ft	Build deg/100ft	Turn deg/100ft	Tool/Comment
3209.00	18.27	247.62	2947.49	-515.97	-991.16	1117.42	5.06	-4.91	3.75	MWD
3240.00	17.51	249.78	2976.99	-519.43	-1000.03	1126.89	3.25	-2.45	6.97	MWD
3272.00	16.62	248.79	3007.58	-522.75	-1008.82	1136.21	2.93	-2.78	-3.09	MWD
3304.00	15.98	246.48	3038.29	-526.17	-1017.12	1145.16	2.85	-2.00	-7.22	MWD
3336.00	15.72	244.06	3069.08	-529.82	-1025.06	1153.89	2.22	-0.81	-7.56	MWD
3367.00	15.41	242.82	3098.94	-533.54	-1032.50	1162.20	1.47	-1.00	-4.00	MWD
3399.00	14.48	242.10	3129.86	-537.35	-1039.82	1170.46	2.96	-2.91	-2.25	MWD
3431.00	13.36	241.99	3160.92	-540.96	-1046.62	1178.15	3.50	-3.50	-0.34	MWD
3462.00	12.71	242.43	3191.12	-544.22	-1052.80	1185.15	2.12	-2.10	1.42	MWD
3494.00	12.26	243.23	3222.36	-547.38	-1058.96	1192.06	1.51	-1.41	2.50	MWD
3526.00	11.73	245.53	3253.66	-550.26	-1064.95	1198.71	2.23	-1.66	7.19	MWD
3558.00	11.42	245.92	3285.01	-552.90	-1070.80	1205.12	1.00	-0.97	1.22	MWD
3590.00	11.06	245.39	3316.40	-555.47	-1076.49	1211.35	1.17	-1.12	-1.66	MWD
3621.00	10.68	245.32	3346.84	-557.91	-1081.80	1217.19	1.23	-1.23	-0.23	MWD
3653.00	8.84	245.05	3378.38	-560.18	-1086.72	1222.61	5.75	-5.75	-0.84	MWD
3684.00	8.07	243.88	3409.04	-562.15	-1090.84	1227.16	2.54	-2.48	-3.77	MWD
3715.00	8.03	243.92	3439.74	-564.06	-1094.74	1231.50	0.13	-0.13	0.13	MWD
3747.00	8.10	243.38	3471.42	-566.05	-1098.76	1235.99	0.32	0.22	-1.69	MWD
3779.00	7.87	243.61	3503.11	-568.03	-1102.74	1240.44	0.73	-0.72	0.72	MWD
3811.00	7.66	242.73	3534.82	-569.98	-1106.59	1244.76	0.75	-0.66	-2.75	MWD
3842.00	7.40	241.25	3565.55	-571.89	-1110.18	1248.82	1.05	-0.84	-4.77	MWD
3874.00	7.03	241.78	3597.29	-573.81	-1113.71	1252.84	1.17	-1.16	1.66	MWD
3905.00	6.09	242.48	3628.09	-575.47	-1116.84	1256.38	3.04	-3.03	2.26	MWD
3937.00	4.78	247.14	3659.95	-576.77	-1119.58	1259.41	4.32	-4.09	14.56	MWD
3968.00	3.93	254.93	3690.86	-577.55	-1121.79	1261.73	3.33	-2.74	25.13	MWD
3999.00	3.52	261.04	3721.79	-577.97	-1123.76	1263.68	1.84	-1.32	19.71	MWD
4031.00	3.16	265.04	3753.74	-578.20	-1125.61	1265.42	1.34	-1.12	12.50	MWD
4062.00	2.50	269.53	3784.70	-578.28	-1127.14	1266.82	2.24	-2.13	14.48	MWD
4093.00	1.49	278.94	3815.68	-578.22	-1128.21	1267.74	3.41	-3.26	30.35	MWD
4125.00	0.70	292.84	3847.67	-578.08	-1128.80	1268.21	2.59	-2.47	43.44	MWD
4157.00	0.41	310.75	3879.67	-577.93	-1129.07	1268.37	1.05	-0.91	55.97	Last WFT Svy
4209.00	0.41	310.75	3931.67	-577.69	-1129.35	1268.51	0.00	0.00	0.00	Proj to Bit
8585.00	1.00	310.75	8307.32	-542.54	-1170.14	1288.60	0.01	0.01	0.00	Last Rig Svy

Annotation

MD ft	TVD ft	
4157.00	3879.67	Last WFT Svy
4209.00	3931.67	Proj to Bit
8585.00	8307.32	Last Rig Svy