

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
"As Drilled"

WELL LOCATION AND ACREAGE DEDICATION PLAT

*API Number 30-039-30754	*Pool Code 97232 / 72319 / 71599	*Pool Name BASIN MANCOS / BLANCO MESAVERDE / BASIN DAKOTA
*Property Code 17033	*Property Name ROSA UNIT	*Well Number 20D
*OGRID No. 120782	*Operator Name WILLIAMS PRODUCTION COMPANY	*Elevation 6368'

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
G	14	31N	6W		1485	NORTH	1525	EAST	RIO ARriba

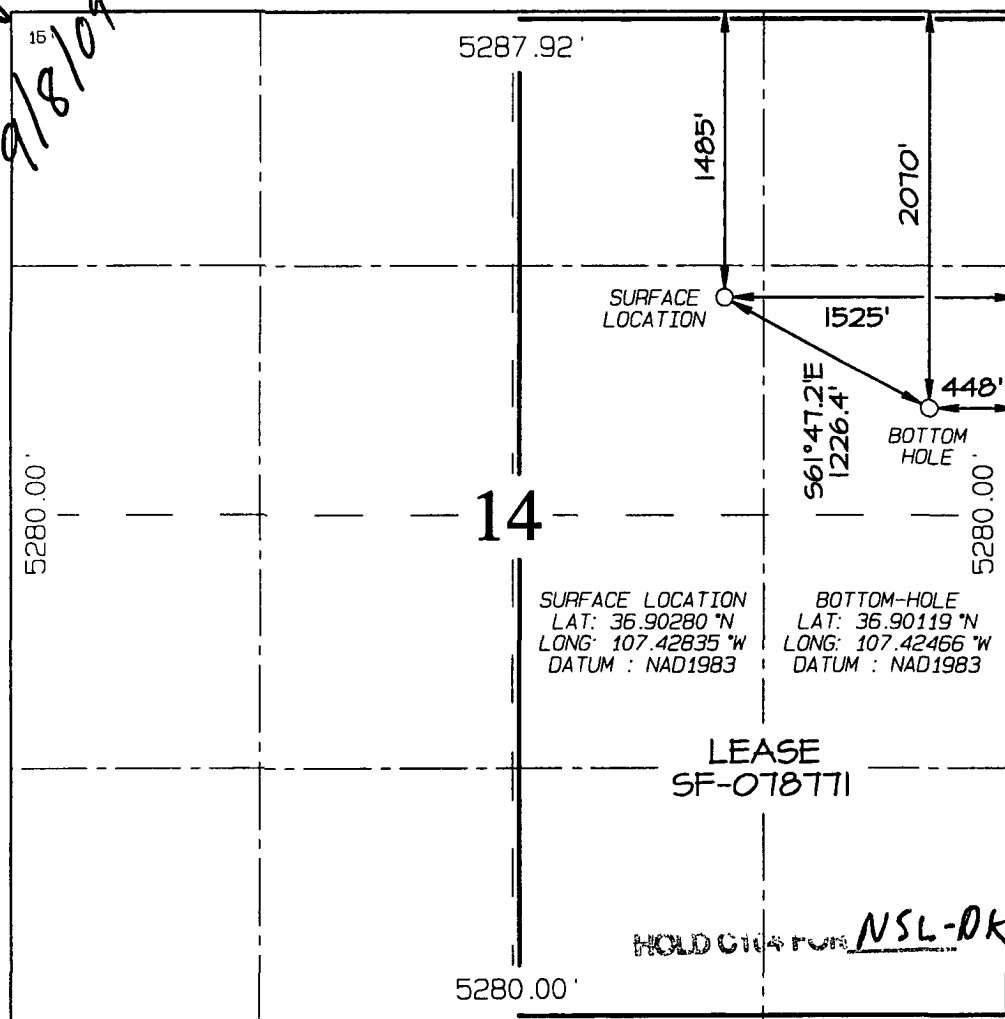
¹¹ Bottom Hole Location If Different From Surface

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
H	14	31N	6W		2070	NORTH	448	EAST	RIO ARriba

¹² Dedicated Acres 320.0 Acres - (E/2)	¹³ Joint or Infill	¹⁴ Consolidation Code	¹⁵ Order No. RCVD SEP 3 '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

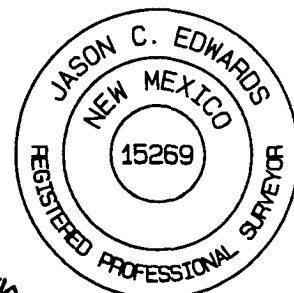


¹⁷ OPERATOR CERTIFICATION
I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or unleased mineral interest in the land including the proposed bottom-hole location or has a right to 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

Larry Higgins 9-2-09
Signature Date
Larry Higgins
Printed Name

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 31, 2009
Survey Date: NOVEMBER 21, 2008

Signature and Seal of Professional Surveyor



JASON C. EDWARDS
Certificate Number 15269



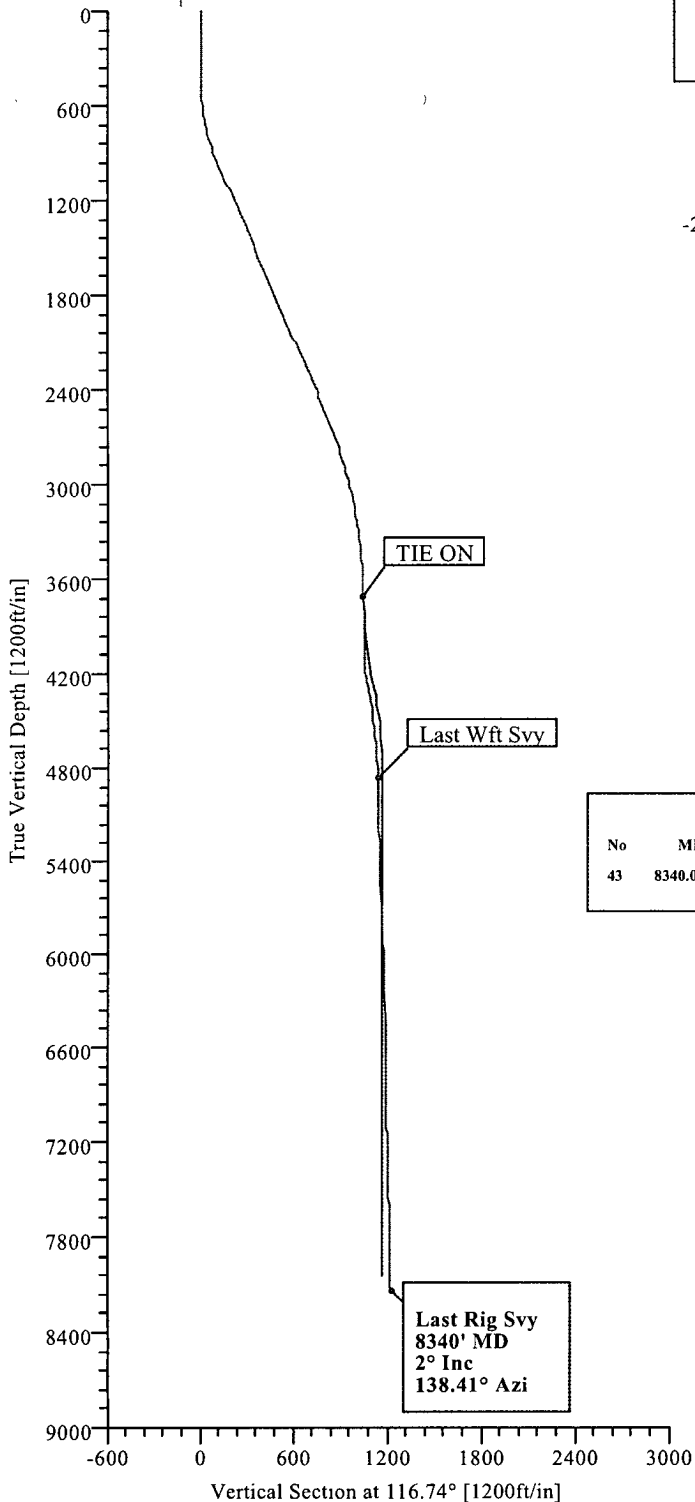
ROSA UNIT #20D
RIO ARRIBA CO., NEW MEXICO

API #

30-039-30754



KB ELEV: 6382'
GR ELEV: 6368'



SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	DLeg	TFace	VSec	Target
1	3901.00	0.63	143.16	3708.24	-473.30	936.52	0.00	0.00	1049.33	
2	4000.00	0.63	116.00	3807.24	-473.98	937.34	0.30	256.42	1050.36	
3	4379.00	12.00	116.00	4183.32	-492.22	974.75	3.00	0.00	1091.98	
4	4539.00	12.00	116.00	4339.82	-506.80	1004.65	0.00	0.00	1125.24	
5	4939.00	0.00	0.00	4736.91	-525.10	1042.16	3.00	180.00	1166.97	
6	8235.00	0.00	0.00	8032.91	-525.10	1042.16	0.00	0.00	1166.97	

WELL DETAILS

Name	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Slot
#20D	0.00	0.00	2150041.64	1295892.90	36°54'10.080N	107°25'42.060W	N/A

FORMATION TOP DETAILS

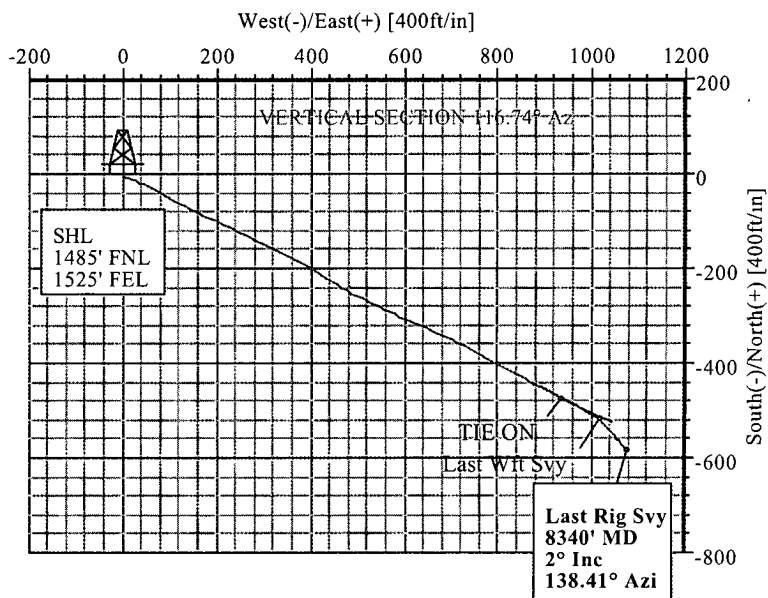
No.	TVDP	MDPath	Formation
1	5087.83	5287.00	Cliffhouse Trans
2	5402.65	5602.00	Cliffhouse
3	5454.62	5654.00	Menefee
4	5682.45	5882.00	Point Lookout
5	5994.25	6194.00	Mancos



Azimuths to True North
Magnetic North 9 99°

Magnetic Field
Strength: 51139nT
Dip Angle: 63 72°
Date 7/27/2009
Model igrf200510

Total Correction to True North 9 99°



Last Rig Survey

No	MD	Inc	Az	TVD	+N/-S	+E/-W	DLeg	TFace	VSec
43	8340.00	2.00	138.41	8139.58	-585.15	1077.14	0.35	0.00	1225.23

RCVD SEP 3 '09

OIL CONS. DIV.

DIST. 3



Weatherford

Survey: ST01 WFT SVY (#20D/ST01)

Created By: Lindsey Maddux

Date: 8/25/2009



Weatherford International, Inc.

Survey Report



Weatherford

Company: WILLIAMS PRODUCTION		Date: 8/25/2009	Time: 15:26:16	Page: 1
Field: RIO ARRIBA CO. NM (NAD 83)		Co-ordinate(NE) Reference: Well: #20D, True North		
Site: Rosa Unit #20D		Vertical (TVD) Reference: SITE 6382.0		
Well: #20D		Section (VS) Reference: Well (0.00N,0.00E,116.74Azi)		
Wellpath: ST01		Survey Calculation Method: Minimum Curvature Db: Sybase		

Field: RIO ARRIBA CO. NM (NAD 83)			
Map System: US State Plane Coordinate System 1983		Map Zone: New Mexico, Central Zone	
Geo Datum: GRS 1980		Coordinate System: Well Centre	
Sys Datum: Mean Sea Level		Geomagnetic Model: igrf200510	

Site: Rosa Unit #20D			
Site Position:	Northing: 2150041.64 ft	Latitude: 36 54 10.080 N	
From: Geographic	Easting: 1295892.90 ft	Longitude: 107 25 42.060 W	
Position Uncertainty: 0.00 ft		North Reference: True	
Ground Level: 6368.00 ft		Grid Convergence: -0.71 deg	

Well: #20D		Slot Name:	
Well Position: +N/-S 0.00 ft	Northing: 2150041.64 ft	Latitude: 36 54 10.080 N	
+E/-W 0.00 ft	Easting: 1295892.90 ft	Longitude: 107 25 42.060 W	
Position Uncertainty: 0.00 ft			

Wellpath: ST01		Drilled From: 1	
Current Datum: SITE	Height 6382.00 ft	Tie-on Depth: 3901.00 ft	
Magnetic Data: 7/27/2009		Above System Datum: Mean Sea Level	
Field Strength: 51139 nT		Declination: 9.99 deg	
Vertical Section: Depth From (TVD)	+N/-S	Mag Dip Angle: 63.72 deg	
ft	ft	+E/-W	Direction
		ft	deg
0.00	0.00	0.00	116.74

Survey: ST01 WFT SVY		Start Date: 8/3/2009	
Company: Weatherford International, Inc		Engineer: Lindsey Maddux	
Tool: MWD;MWD - Standard		Tied-to: From: Definitive Path	

Survey: ST01 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
3901.00	0.63	143.16	3708.24	-473.30	936.52	1049.33	0.00	0.00	0.00	TIE ON
3994.00	0.76	155.27	3801.24	-474.27	937.09	1050.27	0.21	0.14	13.02	MWD
4102.00	0.69	204.68	3909.23	-475.51	937.12	1050.85	0.56	-0.06	45.75	MWD
4130.00	0.74	213.04	3937.23	-475.82	936.95	1050.84	0.41	0.18	29.86	MWD
4161.00	0.63	197.26	3968.23	-476.15	936.79	1050.84	0.70	-0.35	-50.90	MWD
4194.00	0.69	182.51	4001.22	-476.52	936.72	1050.96	0.54	0.18	-44.70	MWD
4225.00	0.44	218.01	4032.22	-476.80	936.64	1051.01	1.35	-0.81	114.52	MWD
4257.00	0.69	223.13	4064.22	-477.04	936.44	1050.93	0.80	0.78	16.00	MWD
4288.00	1.25	134.76	4095.22	-477.41	936.55	1051.20	4.55	1.81	-285.06	MWD
4321.00	4.56	110.28	4128.17	-478.12	938.03	1052.85	10.49	10.03	-74.18	MWD
4352.00	9.50	99.41	4158.93	-478.97	941.72	1056.51	16.43	15.94	-35.06	MWD
4384.00	10.25	102.66	4190.46	-480.02	947.10	1061.80	2.92	2.34	10.16	MWD
4416.00	10.56	108.03	4221.93	-481.55	952.67	1067.46	3.18	0.97	16.78	MWD
4447.00	10.69	113.91	4252.40	-483.60	958.00	1073.14	3.52	0.42	18.97	MWD
4480.00	11.13	117.53	4284.80	-486.31	963.62	1079.38	2.47	1.33	10.97	MWD
4512.00	10.44	121.16	4316.24	-489.24	968.84	1085.36	3.02	-2.16	11.34	MWD
4544.00	9.69	122.41	4347.75	-492.18	973.59	1090.93	2.44	-2.34	3.91	MWD
4575.00	8.94	124.16	4378.34	-494.93	977.79	1095.91	2.59	-2.42	5.65	MWD
4607.00	7.94	128.91	4409.99	-497.72	981.57	1100.54	3.81	-3.12	14.84	MWD
4640.00	7.38	123.78	4442.70	-500.33	985.10	1104.87	2.68	-1.70	-15.55	MWD
4672.00	6.81	121.41	4474.45	-502.46	988.43	1108.80	2.00	-1.78	-7.41	MWD
4704.00	6.50	120.53	4506.23	-504.37	991.61	1112.50	1.02	-0.97	-2.75	MWD
4735.00	6.56	120.03	4537.03	-506.15	994.65	1116.02	0.27	0.19	-1.61	MWD
4767.00	6.38	123.41	4568.83	-508.04	997.72	1119.61	1.32	-0.56	10.56	MWD



Weatherford International, Inc.

Survey Report



Weatherford

Company: WILLIAMS PRODUCTION	Date: 8/25/2009	Time: 15:26:16	Page: 2
Field: RIO ARRIBA CO. NM (NAD 83)	Co-ordinate(NE) Reference: Well: #20D, True North		
Site: Rosa Unit #20D	Vertical (TVD) Reference: SITE 6382.0		
Well: #20D	Section (VS) Reference: Well (0.00N,0.00E,116.74Azi)		
Wellpath: ST01	Survey Calculation Method: Minimum Curvature	Db: Sybase	

Survey: ST01 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
4799.00	6.25	117.78	4600.64	-509.83	1000.75	1123.12	1.98	-0.41	-17.59	MWD
4830.00	6.50	110.41	4631.44	-511.23	1003.88	1126.55	2.76	0.81	-23.77	MWD
4862.00	5.50	110.41	4663.27	-512.39	1007.02	1129.87	3.12	-3.12	0.00	MWD
4894.00	4.75	112.91	4695.14	-513.45	1009.68	1132.72	2.44	-2.34	7.81	MWD
4926.00	3.63	114.78	4727.05	-514.39	1011.82	1135.05	3.53	-3.50	5.84	MWD
4946.00	3.19	124.66	4747.02	-514.97	1012.85	1136.24	3.66	-2.20	49.40	MWD
5005.00	2.56	116.78	4805.95	-516.50	1015.37	1139.18	1.26	-1.07	-13.36	MWD
5022.00	2.19	113.28	4822.93	-516.79	1016.01	1139.88	2.34	-2.18	-20.59	MWD
5064.00	1.31	138.41	4864.91	-517.47	1017.07	1141.13	2.73	-2.10	59.83	Last Wft Svy
5456.00	2.00	138.41	5256.75	-525.94	1024.58	1151.65	0.18	0.18	0.00	
5902.00	2.25	138.41	5702.44	-538.31	1035.56	1167.02	0.06	0.06	0.00	
6451.00	1.50	138.41	6251.14	-551.74	1047.48	1183.71	0.14	-0.14	0.00	
6652.00	1.50	138.41	6452.07	-555.68	1050.98	1188.60	0.00	0.00	0.00	
6772.00	1.00	138.41	6572.04	-557.63	1052.71	1191.04	0.42	-0.42	0.00	
7000.00	1.00	138.41	6800.01	-560.61	1055.36	1194.73	0.00	0.00	0.00	
7259.00	1.00	138.41	7058.97	-563.99	1058.36	1198.93	0.00	0.00	0.00	
7542.00	2.00	138.41	7341.87	-569.53	1063.27	1205.82	0.35	0.35	0.00	
8051.00	1.00	138.41	7850.69	-579.50	1072.12	1218.20	0.20	-0.20	0.00	
8340.00	2.00	138.41	8139.58	-585.15	1077.14	1225.23	0.35	0.35	0.00	Last Rig Svy

Annotation

MD ft	TVD ft	
3901.00	3708.24	TIE ON
5064.00	4864.91	Last Wft Svy
8340.00	8139.58	Last Rig Svy