

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

¹ API Number 39-30381	² Pool Code 97232 / 72319 / 71599	³ Pool Name BASIN MANCOS / BLANCO MESAVERDE / BASIN DAKOTA
⁴ Property Code 17033	⁵ Property Name ROSA UNIT	⁶ Well Number 17C
⁷ OGRID No. 120782	⁸ Operator Name WILLIAMS PRODUCTION COMPANY	⁹ Elevation 6341'

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
L	20	31N	5W		1940	SOUTH	535	WEST	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
K	20	31N	5W		2290	SOUTH	2302	WEST	RIO ARRIBA

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

¹⁶ 7/17/09	5284.62'	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 7-13-09 Signature Date LARRY HIGGINS Printed Name
2640.00'	20 2302' 535' N81°29.8'E 2454.2' 1940' 2640.00' 2290' 5280.00'	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 Survey Date: SEPTEMBER 18, 2006 Signature and Seal of Professional Surveyor JASON C. EDWARDS NEW MEXICO REGISTERED PROFESSIONAL SURVEYOR 15269 JASON C. EDWARDS Certificate Number 15269

8/7/20



ROSA UNIT #17-C
RIO ARRIBA CO., NEW MEXICO

LEGEND

— #17C, 1, Plan #2
— WFT SVY 2

SECTION DETAILS

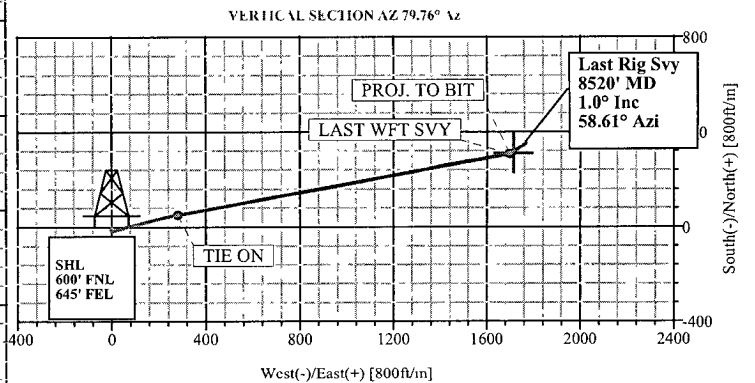
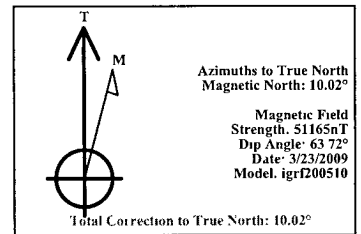
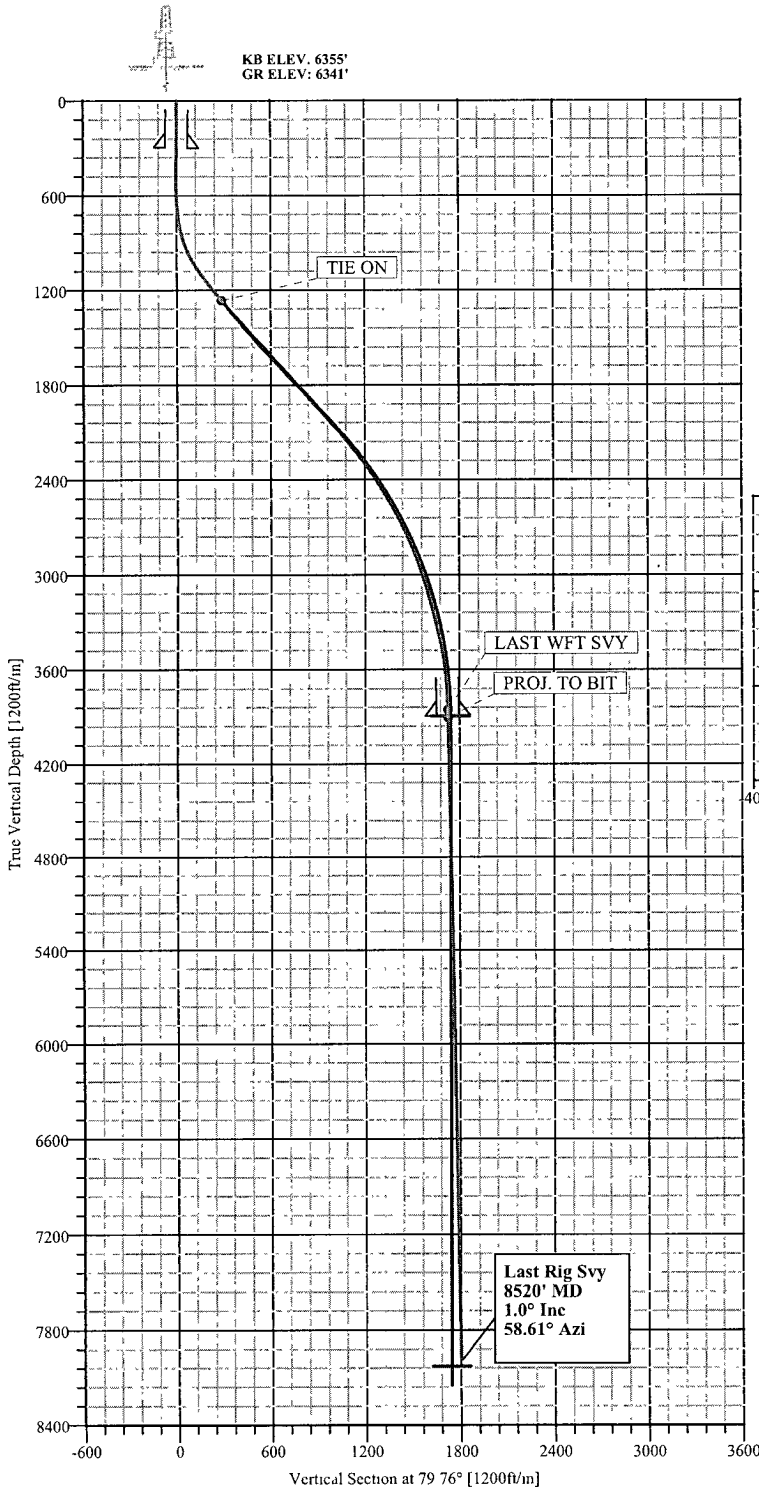
Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	DLeg	TFace	VSec	Target
1	1344 00	39 38	80 25	1264 78	50 93	281 60	0 00	0 00	286 16	
2	1495 75	42 62	79 75	1379 29	68 23	379 62	2 14	-6 03	385 70	
3	2455 27	42 62	79 75	2085 41	183 89	1018 92	0 00	0 00	1035.38	
4	4443.15	0 00	79 75	3895 00	309 54	1713 47	2 14	180 00	1741 20	Int. Csg Pt 2
5	8578 15	0 00	79 75	8030 00	309.54	1713 47	0 00	79 75	1741 20	PBHL

WELL DETAILS

Name	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Slot
#17C	0.00	0.00	2142761.32	1306181.45	36°52'59 340N	107°23'34.330W	N/A

TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Shape
Int. Csg. Pt. 2	3895 00	309.54	1713.47	2143050.32	1307898.50	36°53'02.400N	107°23'13.240W	Point
PBHL	8030.00	309.54	1713.47	2143050.32	1307898.50	36°53'02.400N	107°23'13 240W	Point



Weatherford®

Survey: WFT SVY (#17C/1)

Created By Jayme Wilson

Date: 7/8/2009



Weatherford International Ltd.

SURVEY REPORT



Weatherford

Company: WILLIAMS PRODUCTION	Date: 7/8/2009	Time: 10:54:58	Page: 1
Field: Rio Arriba Co., NM (NAD 83)	Co-ordinate(NE) Reference:	Well: #17C, True North	
Site: Rosa Unit #17C	Vertical (TVD) Reference:	SITE: 6355.0	
Well: #17C	Section (VS) Reference:	Well (0.00N,0.00E,79.76Azi)	
Wellpath: 1	Survey Calculation Method:	Minimum Curvature	Db: Sybase

Survey: WFT SVY 2	Start Date: 7/8/2009
Company: Weatherford International Ltd.	Engineer: Jayme Wilson
Tool: MWD;MWD - Standard	Tied-to: From: WFT SVY

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 #17C

1940' FSL 535' FWL of SEC 20 T31N R5W

Site Position:	Northing: 2142761.32 ft	Latitude: 36 52 59.340 N
From: Geographic	Easting: 1306181.45 ft	Longitude: 107 23 34.330 W
Position Uncertainty: 0.00 ft		North Reference: True
Ground Level: 6341.00 ft		Grid Convergence: -0 69 deg

Well: #17C	Slot Name:
Well Position: +N/-S 0.00 ft	Latitude: 36 52 59.340 N
+E/-W 0.00 ft	Longitude: 107 23 34.330 W
Position Uncertainty: 0.00 ft	

Wellpath: 1	Drilled From: Surface
Current Datum: SITE	Tie-on Depth: 0.00 ft
Magnetic Data: 3/23/2009	Above System Datum: Mean Sea Level
Field Strength: 51165 nT	Declination: 10.02 deg
Vertical Section: Depth From (TVD)	Mag Dip Angle: 63.72 deg
ft	+N/-S ft
0.00	+E/-W ft
	Direction deg
	79.76

Survey

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	Comment
1344.00	39.38	80.25	1264.78	50.93	281.60	286.16	0.00	0.00	0.00	TIE ON
1375.00	39.75	80.25	1288.68	54.27	301.06	305.91	1.19	1.19	0.00	
1405.00	39.88	80.13	1311.72	57.55	319.98	325.12	0.50	0.43	-0.40	
1437.00	40.31	80.25	1336.20	61.06	340.29	345.73	1.37	1.34	0.37	
1469.00	40.69	80 13	1360.53	64 60	360.77	366.51	1.21	1.19	-0.37	
1500.00	40.69	80.13	1384.04	68.06	380.68	386.72	0.00	0.00	0.00	
1531.00	40.55	79.83	1407.57	71.57	400.56	406 90	0.78	-0.45	-0.97	
1562 00	40.69	79.63	1431.10	75.17	420.42	427.08	0.62	0.45	-0.65	
1594.00	40.88	79.63	1455.33	78.93	440.98	447.99	0.59	0.59	0.00	
1626.00	41.00	79.50	1479.50	82.73	461.60	468.95	0.46	0.37	-0.41	
1657.00	41.56	79.75	1502.80	86.42	481.72	489.41	1.88	1.81	0.81	
1688.00	42.13	79.50	1525.89	90.14	502.06	510.09	1.92	1.84	-0.81	
1720.00	42.38	79.38	1549.58	94.08	523.21	531.60	0.82	0.78	-0.37	
1751.00	42.44	79.00	1572.47	98.00	543.75	552.51	0.85	0.19	-1.23	
1782.00	43.14	78.95	1595.21	102.03	564.42	573.57	2.26	2.26	-0.16	
1814.00	43.00	78.63	1618.59	106 28	585.85	595.42	0.81	-0.44	-1.00	
1845.00	43.56	78.50	1641.16	110.49	606.68	616.66	1.83	1.81	-0.42	
1877.00	43.81	78.88	1664.30	114.83	628.36	638.76	1.13	0.78	1.19	
1909.00	43.81	79.25	1687.39	119.03	650.11	660.91	0.80	0.00	1.16	
1940.00	43.50	80.25	1709.82	122.84	671.17	682.31	2.44	-1.00	3.23	
1972.00	43.38	80.63	1733.06	126.49	692.86	704.31	0.90	-0.37	1.19	
2004.00	43.19	80.88	1756.35	130.02	714.52	726.25	0.80	-0.59	0.78	
2035.00	43.06	81.13	1778.98	133.33	735.45	747.44	0.69	-0.42	0.81	
2067.00	43.06	81.00	1802.36	136.72	757.03	769.28	0.28	0.00	-0.41	



Weatherford International Ltd.

SURVEY REPORT

**Weatherford**

Company: WILLIAMS PRODUCTION Date: 7/8/2009 Time: 10:54:58 Page: 2
Field: Rio Arriba Co. NM (NAD 83) Co-ordinate(NE) Reference: Well: #17C True North
Site: Rosa Unit #17C Vertical (TVD) Reference: SITE 6355.0
Well: #17C Section (VS) Reference: Well (0.00N,0.00E,79:76Azi)
Wellpath: 1 Survey Calculation Method: Minimum Curvature Db: Sybase

Survey

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	Comment
2099.00	43.25	80.75	1825.70	140.20	778.64	791.16	0.80	0.59	-0.78	
2131.00	43.25	80.63	1849.01	143.74	800.28	813.09	0.26	0.00	-0.37	
2163.00	42.69	80.50	1872.42	147.32	821.80	834.89	1.77	-1.75	-0.41	
2194.00	42.56	80.63	1895.23	150.76	842.50	855.89	0.51	-0.42	0.42	
2225.00	42.19	80.25	1918.14	154.23	863.11	876.78	1.45	-1.19	-1.23	
2257.00	42.21	80.33	1941.84	157.85	884.29	898.27	0.18	0.06	0.25	
2288.00	41.94	80.13	1964.85	161.38	904.77	919.04	0.97	-0.87	-0.65	
2319.00	41.81	80.13	1987.93	164.93	925.15	939.74	0.42	-0.42	0.00	
2350.00	41.56	79.63	2011.09	168.55	945.45	960.35	1.34	-0.81	-1.61	
2382.00	42.19	79.38	2034.91	172.44	966.45	981.71	2.04	1.97	-0.78	
2414.00	42.63	79.50	2058.54	176.39	987.67	1003.29	1.40	1.37	0.37	
2446.00	41.75	79.75	2082.25	180.27	1008.81	1024.78	2.80	-2.75	0.78	
2477.00	40.88	79.63	2105.53	183.93	1028.94	1045.25	2.82	-2.81	-0.39	
2509.00	40.25	79.38	2129.84	187.72	1049.40	1066.06	2.03	-1.97	-0.78	
2541.00	39.44	79.25	2154.41	191.52	1069.55	1086.56	2.54	-2.53	-0.41	
2573.00	38.81	79.00	2179.24	195.33	1089.38	1106.75	2.03	-1.97	-0.78	
2605.00	38.69	78.75	2204.19	199.19	1109.03	1126.78	0.62	-0.37	-0.78	
2636.00	38.44	78.38	2228.43	203.02	1127.98	1146.10	1.10	-0.81	-1.19	
2667.00	37.25	79.13	2252.91	206.74	1146.63	1165.12	4.12	-3.84	2.42	
2699.00	36.50	79.88	2278.51	210.23	1165.51	1184.32	2.73	-2.34	2.34	
2730.00	35.92	80.12	2303.52	213.41	1183.54	1202.63	1.93	-1.87	0.77	
2762.00	35.44	80.50	2329.51	216.56	1201.94	1221.29	1.65	-1.50	1.19	
2794.00	34.88	82.50	2355.68	219.28	1220.16	1239.71	4.00	-1.75	6.25	
2825.00	34.00	80.13	2381.24	221.92	1237.49	1257.23	5.17	-2.84	-7.65	
2857.00	33.06	79.88	2407.92	224.99	1254.90	1274.91	2.97	-2.94	-0.78	
2888.00	32.75	79.25	2433.94	228.04	1271.46	1291.75	1.49	-1.00	-2.03	
2920.00	31.88	79.00	2460.99	231.27	1288.26	1308.85	2.75	-2.72	-0.78	
2952.00	31.56	78.13	2488.21	234.60	1304.75	1325.68	1.74	-1.00	-2.72	
2984.00	31.25	78.00	2515.52	238.05	1321.07	1342.34	0.99	-0.97	-0.41	
3015.00	30.94	78.13	2542.07	241.36	1336.73	1358.35	1.02	-1.00	0.42	
3046.00	29.94	77.63	2568.79	244.66	1352.09	1374.04	3.33	-3.23	-1.61	
3078.00	29.00	77.25	2596.65	248.08	1367.45	1389.77	3.00	-2.94	-1.19	
3110.00	28.31	78.00	2624.73	251.37	1382.44	1405.11	2.43	-2.16	2.34	
3142.00	27.69	78.63	2652.99	254.41	1397.15	1420.12	2.15	-1.94	1.97	
3174.00	26.81	78.75	2681.44	257.29	1411.52	1434.77	2.76	-2.75	0.37	
3206.00	25.63	79.25	2710.14	259.99	1425.40	1448.91	3.75	-3.69	1.56	
3238.00	24.51	79.86	2739.13	262.45	1438.73	1462.47	3.59	-3.50	1.91	
3269.00	24.00	80.00	2767.39	264.67	1451.27	1475.20	1.66	-1.65	0.45	
3301.00	23.38	79.63	2796.69	266.95	1463.92	1488.06	1.99	-1.94	-1.16	
3333.00	22.56	79.63	2826.16	269.19	1476.21	1500.55	2.56	-2.56	0.00	
3365.00	22.25	79.00	2855.74	271.46	1488.19	1512.75	1.23	-0.97	-1.97	
3397.00	21.75	79.25	2885.41	273.72	1499.96	1524.73	1.59	-1.56	0.78	
3429.00	20.12	80.95	2915.30	275.69	1511.23	1536.16	5.44	-5.09	5.31	
3460.00	19.00	81.75	2944.51	277.25	1521.49	1546.54	3.71	-3.61	2.58	
3492.00	18.69	82.38	2974.79	278.68	1531.72	1556.87	1.16	-0.97	1.97	
3523.00	18.00	83.38	3004.22	279.89	1541.40	1566.61	2.45	-2.23	3.23	
3553.00	17.38	81.63	3032.80	281.08	1550.44	1575.71	2.72	-2.07	-5.83	
3584.00	17.06	80.38	3062.41	282.51	1559.50	1584.89	1.58	-1.03	-4.03	
3616.00	16.44	79.50	3093.05	284.12	1568.59	1594.11	2.09	-1.94	-2.75	
3646.00	16.00	79.88	3121.86	285.62	1576.83	1602.49	1.51	-1.47	1.27	
3678.00	15.75	79.38	3152.64	287.20	1585.44	1611.24	0.89	-0.78	-1.56	
3709.00	14.88	80.13	3182.54	288.65	1593.50	1619.43	2.88	-2.81	2.42	



Weatherford International Ltd.

SURVEY REPORT

**Weatherford**

Company: WILLIAMS PRODUCTION
Field: Rio Arriba Co., NM (NAD 83)
Site: Rosa Unit #17C
Well: #17C
Wellpath: 1

Date: 7/8/2009 Time: 10:54:58 Page: 3
Co-ordinate(NE) Reference: Well: #17C, True North
Vertical(TVD) Reference: SITE 6355.0
Section (VS) Reference: Well (0.00N,0.00E,79.76Azi)
Survey Calculation Method: Minimum Curvature Db: Sybase

Survey

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	Comment
3741.00	14.63	79.49	3213.48	290.09	1601.52	1627.58	0.93	-0.78	-2.00	
3773.00	14.69	78.00	3244.44	291.68	1609.46	1635.68	1.19	0.19	-4.66	
3804.00	14.44	79.00	3274.44	293.23	1617.10	1643.47	1.14	-0.81	3.23	
3836.00	14.13	80.00	3305.45	294.67	1624.86	1651.37	1.24	-0.97	3.12	
3867.00	14.00	79.88	3335.52	295.99	1632.28	1658.90	0.43	-0.42	-0.39	
3899.00	13.13	79.75	3366.63	297.31	1639.67	1666.40	2.72	-2.72	-0.41	
3930.00	12.50	79.13	3396.86	298.57	1646.43	1673.28	2.08	-2.03	-2.00	
3962.00	12.00	78.25	3428.13	299.90	1653.08	1680.07	1.67	-1.56	-2.75	
3992.00	11.31	78.75	3457.51	301.11	1659.02	1686.13	2.32	-2.30	1.67	
4023.00	10.31	77.50	3487.96	302.31	1664.71	1691.94	3.31	-3.23	-4.03	
4055.00	8.94	77.75	3519.51	303.45	1669.94	1697.29	4.28	-4.28	0.78	
4086.00	8.00	79.13	3550.17	304.37	1674.41	1701.85	3.10	-3.03	4.45	
4118.00	7.13	81.00	3581.89	305.10	1678.56	1706.06	2.83	-2.72	5.84	
4149.00	6.31	81.50	3612.68	305.65	1682.14	1709.69	2.65	-2.65	1.61	
4181.00	5.69	80.13	3644.50	306.19	1685.45	1713.03	1.99	-1.94	-4.28	
4213.00	5.22	79.92	3676.36	306.71	1688.44	1716.07	1.47	-1.47	-0.66	
4245.00	4.00	83.75	3708.25	307.09	1690.99	1718.64	3.93	-3.81	11.97	
4277.00	3.18	89.79	3740.19	307.21	1692.98	1720.63	2.82	-2.56	18.87	
4309.00	2.44	89.50	3772.15	307.22	1694.55	1722.18	2.31	-2.31	-0.91	
4340.00	1.69	82.00	3803.13	307.29	1695.66	1723.28	2.57	-2.42	-24.19	
4372.00	1.19	64.38	3835.12	307.50	1696.43	1724.08	2.07	-1.56	-55.06	
4393.00	1.27	58.61	3856.12	307.72	1696.83	1724.50	0.70	0.38	-27.48	LAST WFT SVY
4443.00	1.27	58.61	3906.11	308.29	1697.77	1725.54	0.00	0.00	0.00	PROJ. TO BIT
8520.00	1.00	58.61	7982.30	350.36	1766.71	1800.85	0.01	-0.01	0.00	LAST RIG SVY

Casing Points

MD ft	TVD ft	Diameter in	Hole Size in	Name
300.07	300.00	10.750	12.250	10 3/4"
4431.89	3895.00	0.000	0.000	7 5/8" Int. Csg.

Annotation

MD ft	TVD ft	
1344.00	1264.78	TIE ON
4393.00	3856.12	LAST WFT SVY
4443.00	3906.11	PROJ. TO BIT
8520.00	7982.30	LAST RIG SVY