

ROSA UNIT #60C
BLANCO MV / BASIN DK

Spud: 05/28/11

Completed: 08/04/11

1st Delivery: 0/0/00

Surface Location:

255' FSL and 1870' FEL
SW/4 SE/4 Sec 4 (O), T31N, R06W
San Juan, NM

Bottom Hole Location:

2183' FSL and 1198' FEL
NE/4 SE/4 Sec 4 (I), T31N, R06W
San Juan, NM

Elevation: 6451' GR

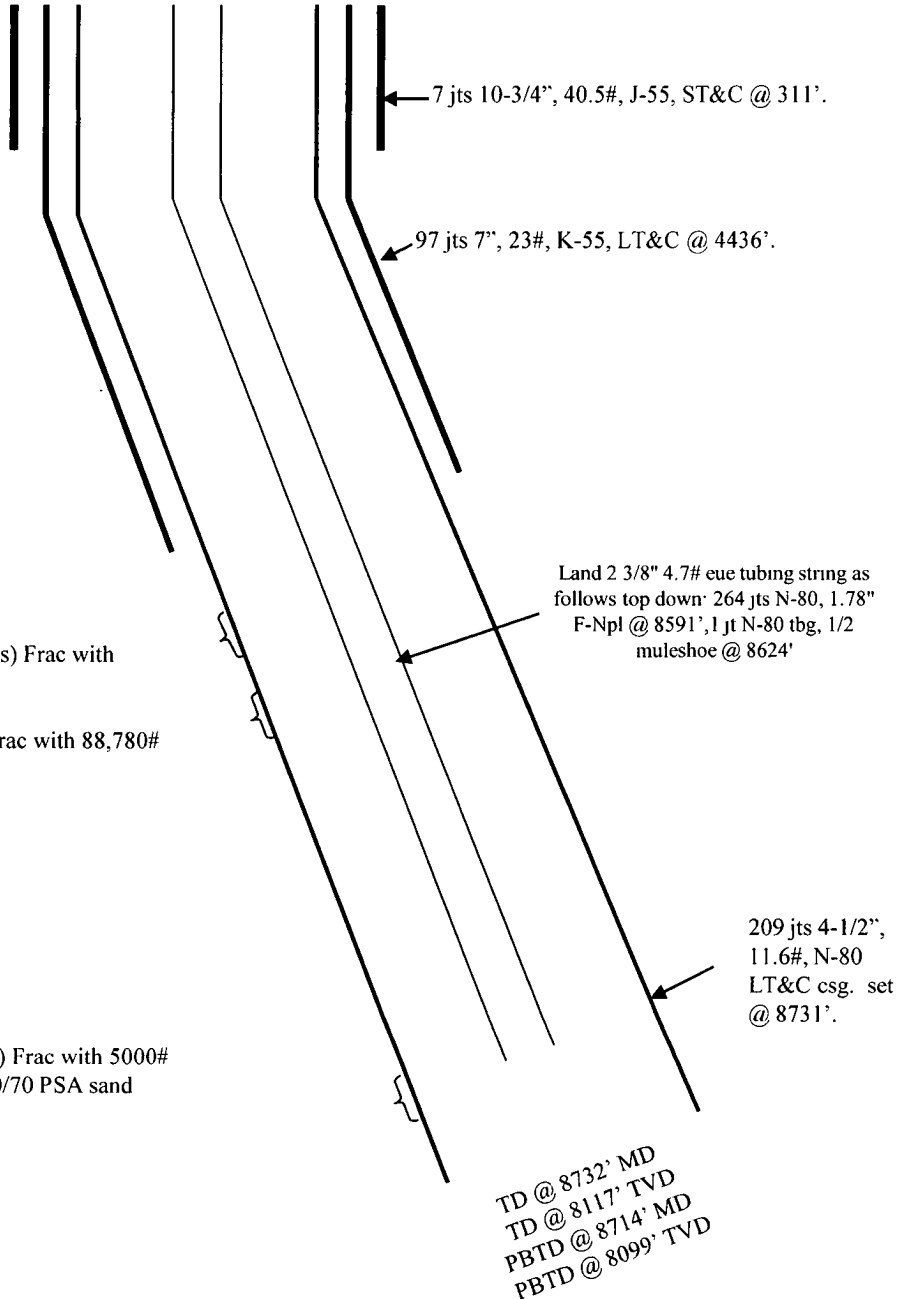
API # 30-045-34213

Top	MD Depth	TVD Depth
Pictured Cliffs	3817'	3240'
Lewis	4130'	3545'
Cliffhouse Ss.	5716'	5130'
Menefee	6076'	5490'
Point Lookout	6316'	5730'
Mancos	6651'	6065'
Dakota	8532'	7946'

CH/Men: 6011' - 6271' (24, 0.34" holes) Frac with
80,000# 20/40 mesh Ottawa sand

PLO: 6351' - 6555' (24, 0.34" holes) Frac with 88,780#
20/40 mesh Ottawa sand

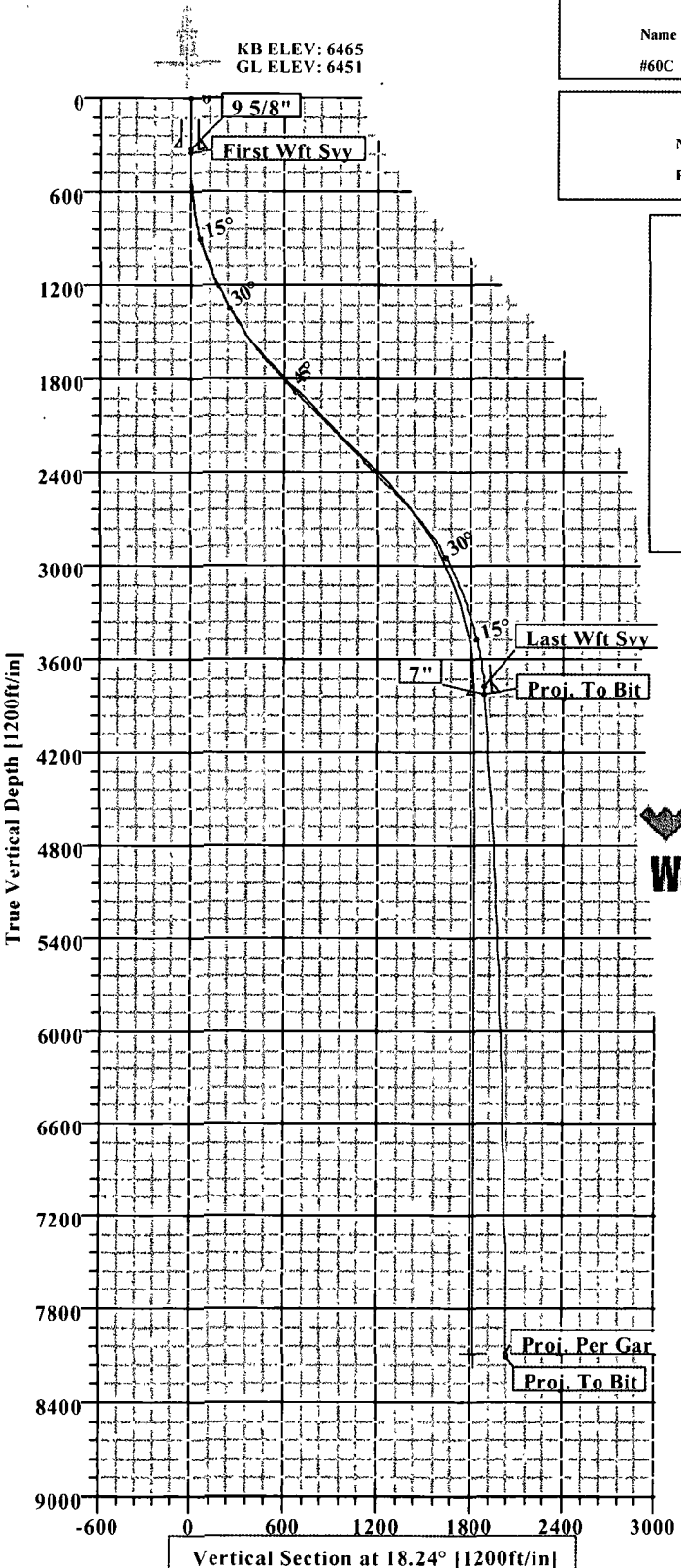
Dakota: 8549' - 8677' (36, 0.34" holes) Frac with 5000#
100 mesh BASF followed w/80,500# 30/70 PSA sand



Hole Size	Casing	Cement	Volume	Top of Cmt
14-3/4"	10-3/4", 40.5#	295 sxs	531 cu.ft.	Surface
9-7/8"	7", 23#	790 sxs	2002 cu.ft.	Surface
6-1/4"	4-1/2", 11.6#	300 sxs	429 cu.ft.	4986' CBL



Rosa Unit Com #60C
SAN JUAN CO. NM



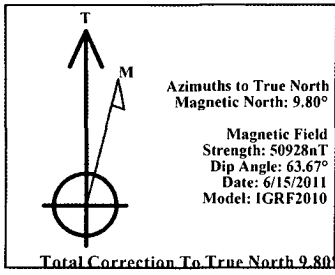
SECTION DETAILS										
Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	DLeg	TFace	VSec	Target
1	0.00	0.00	18.24	0.00	0.00	0.00	0.00	0.00	0.00	
2	400.00	0.00	18.24	400.00	0.00	0.00	0.00	0.00	0.00	
3	1884.15	44.52	18.24	1739.22	520.67	171.61	3.00	18.24	548.23	
4	2917.21	44.52	18.24	2475.74	1208.66	398.36	0.00	0.00	1272.62	
5	4401.36	0.00	18.24	3814.96	1729.34	569.97	3.00	180.00	1820.84	
6	8672.40	0.00	18.24	8086.00	1729.34	569.97	0.00	0.00	1820.84	Pbhl

WELL DETAILS							
Name	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Slot
#60C	0.00	0.00	2155150.88	2830594.07	36°55'19.236N	107°27'56.088W	N/A

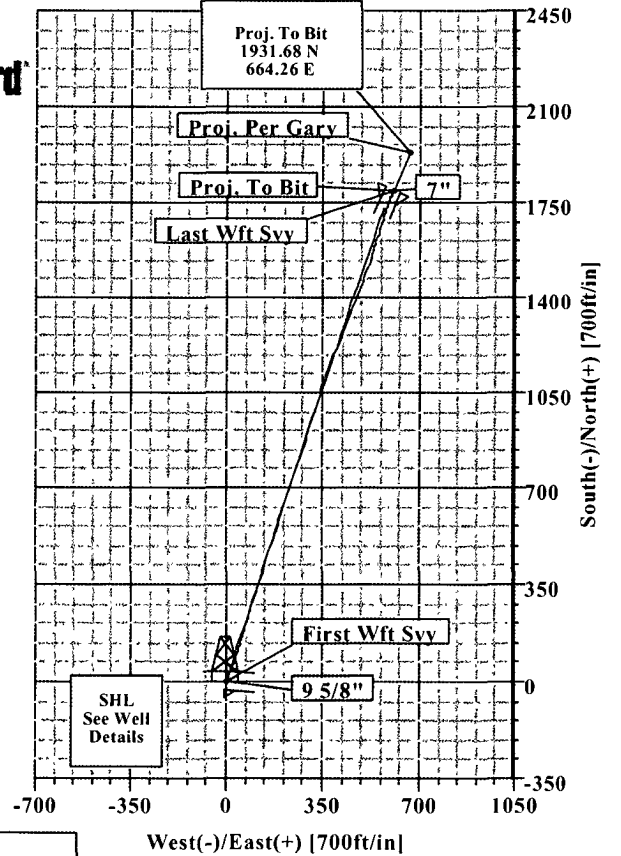
TARGET DETAILS							
Name	TVD	+N/-S	+E/-W	Latitude	Longitude	Shape	
Pbhl	8086.00	1729.34	569.97	36°55'36.336N	107°27'49.068W	Point	

FORMATION TOP DETAILS			
No.	TVDPath	MDPath	Formation
1	1124.00	1142.57	Nacimiento Fm.
2	2420.00	2839.03	Ojo Alamo SS.
3	2535.00	2998.65	Kirtland Sh.
4	2960.00	3514.91	Fruitland Fm.
5	3240.00	3817.34	Pictured Cliffs SS.
6	3545.00	4130.49	Lewis Sh.
7	5130.00	5716.40	Cliff House SS. Trans.
8	5445.00	6031.40	Cliff House SS.
9	5490.00	6076.40	Menefee Fm.
10	5730.00	6316.40	Point Lookout SS.
11	6065.00	6651.40	Mancos Sh.
12	7055.00	7641.40	Gallup SS.
13	7770.00	8356.40	Greenhorn Ls.
14	7810.00	8396.40	Graneros Sh.
15	7946.00	8532.40	Dakota SS.
16	8166.00	8752.40	Morrison Fm.

SITE DETAILS
Rosa Unit Com #60C
Site Centre Latitude: 36°55'19.236N
Longitude: 107°27'56.088W
Ground Level: 6451.00
Positional Uncertainty: 0.00
Convergence: 0.22



LEGEND	
	#60C, I, Plan #2
	Wft Svy



Survey: Wft Svy (#60C/I)									
No	MD	Inc	Az	TVD	+N/-S	+E/-W	DLeg	TFace	VSec
134	8732.00	0.50	23.46	8116.73	1931.68	664.26	0.00	0.00	2042.53



Weatherford International Ltd.

WFT Survey Report Lat, Long



Weatherford

Company: Williams Production	Date: 7/6/2011	Time: 08:58:02	Page: 1
Field: SAN JUAN CO. NM (NAD83)	Co-ordinate(NE) Reference:	Well: #60C, True North	
Site: Rosa Unit Com #60C	Vertical (TVD) Reference:	SITE 6465.0	
Well: #60C	Section (VS) Reference:	Well (0.00N, 0.00E, 18.24Azi)	
Wellpath: 1	Survey Calculation Method:	Minimum Curvature	Db: Sybase

Survey: Wft Svy	Start Date: 6/1/2011
Company: Weatherford International Ltd.	Engineer: Russell W Joyner
Tool: MWD;MWD - Standard	Tied-to: From Surface

Field: SAN JUAN CO. NM (NAD83)

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

Map Zone: New Mexico, Western Zone
Coordinate System: Well Centre
Geomagnetic Model: IGRF2010

Site: Rosa Unit Com #60C

Site Position: Northing: 2155150.88 ft Latitude: 36 55 19.236 N
From: Geographic Easting: 2830594.07 ft Longitude: 107 27 56.088 W
Position Uncertainty: 0.00 ft North Reference: True
Ground Level: 6451.00 ft Grid Convergence: 0.22 deg

Well: #60C Slot Name:
Well Position: +N/-S 0.00 ft Northing: 2155150.88 ft Latitude: 36 55 19.236 N
+E/-W 0.00 ft Easting: 2830594.07 ft Longitude: 107 27 56.088 W
Position Uncertainty: 0.00 ft

Wellpath: 1
Current Datum: SITE Height 6465.00 ft
Magnetic Data: 6/15/2011
Field Strength: 50928 nT
Vertical Section: Depth From (TVD) +N/-S
ft ft
0.00 0.00 0.00 18.24

Survey

MD ft	Incl deg	Azim deg	TVD ft	N/S ft	E/W ft	VS ft	DLS deg/100ft	Lat	Min	Sec	Long	Min	Sec	Comment
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	36	55	19.236	107	27	56.088	9 5/8" First Wft Sv
320.01	0.88	274.52	320.00	0.19	-2.45	-0.58	0.27	36	55	19.238	107	27	56.118	
346.00	0.95	274.52	345.98	0.23	-2.86	-0.68	0.27	36	55	19.238	107	27	56.123	
377.00	1.13	303.21	376.98	0.41	-3.37	-0.66	1.75	36	55	19.240	107	27	56.130	
406.00	1.19	329.30	405.97	0.83	-3.76	-0.39	1.82	36	55	19.244	107	27	56.134	
436.00	1.44	7.68	435.97	1.47	-3.87	0.18	2.99	36	55	19.251	107	27	56.136	
467.00	2.19	36.93	466.95	2.33	-3.47	1.13	3.77	36	55	19.259	107	27	56.131	
499.00	2.94	35.43	498.92	3.49	-2.62	2.49	2.35	36	55	19.270	107	27	56.120	
531.00	3.88	32.68	530.86	5.07	-1.56	4.32	2.98	36	55	19.286	107	27	56.107	
561.00	4.81	28.43	560.78	7.03	-0.41	6.55	3.28	36	55	19.305	107	27	56.093	
591.00	5.56	28.68	590.65	9.41	0.88	9.21	2.50	36	55	19.329	107	27	56.077	
622.00	6.25	28.43	621.49	12.21	2.41	12.35	2.23	36	55	19.357	107	27	56.058	
651.00	6.94	25.55	650.30	15.18	3.91	15.64	2.64	36	55	19.386	107	27	56.040	
681.00	8.19	22.68	680.03	18.79	5.52	19.57	4.35	36	55	19.422	107	27	56.020	
712.00	9.25	22.18	710.68	23.13	7.31	24.26	3.43	36	55	19.465	107	27	55.998	
742.00	10.19	23.18	740.24	27.80	9.27	29.31	3.18	36	55	19.511	107	27	55.974	
772.00	11.33	24.32	769.72	32.93	11.52	34.88	3.87	36	55	19.562	107	27	55.946	
803.00	12.13	25.05	800.07	38.65	14.16	41.14	2.62	36	55	19.618	107	27	55.914	
833.00	13.06	25.05	829.35	44.58	16.93	47.64	3.10	36	55	19.677	107	27	55.880	
863.00	13.94	23.18	858.52	50.97	19.78	54.60	3.27	36	55	19.740	107	27	55.844	
895.00	14.75	23.80	889.52	58.24	22.95	62.50	2.58	36	55	19.812	107	27	55.805	
926.00	15.75	22.30	919.43	65.75	26.13	70.62	3.47	36	55	19.886	107	27	55.766	
958.00	16.69	19.68	950.15	74.09	29.33	79.55	3.72	36	55	19.969	107	27	55.727	
989.00	17.81	17.80	979.76	82.80	32.28	88.74	4.04	36	55	20.055	107	27	55.690	



Weatherford International Ltd.

WFT Survey Report Lat, Long



Weatherford®

Company:	Williams Production	Date:	7/6/2011	Time:	08:58.02	Page:	2
Field:	SAN JUAN, CO. NM (NAD83)	Co-ordinate(NE) Reference:	Well: #60C, True North				
Site:	Rosa Unit Com #60C	Vertical (TVD) Reference:	SITE 6465.0				
Well:	#60C	Section (VS) Reference:	Well (0.00N,0.00E,18.24Azi)				
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	Lat	Min	Sec	Long	Min	Sec	Comment
1021.00	18.88	18.55	1010.13	92.37	35.42	98.81	3.42	36	55	20.149	107	27	55.652	
1052.00	20.06	19.80	1039.36	102.12	38.82	109.14	4.04	36	55	20.246	107	27	55.610	
1083.00	21.06	19.93	1068.38	112.36	42.52	120.03	3.23	36	55	20.347	107	27	55.564	
1115.00	21.88	19.30	1098.16	123.40	46.45	131.73	2.66	36	55	20.456	107	27	55.516	
1146.00	22.28	17.82	1126.89	134.44	50.16	143.39	2.21	36	55	20.565	107	27	55.470	
1178.00	22.38	17.30	1156.49	146.03	53.82	155.54	0.69	36	55	20.680	107	27	55.425	
1209.00	23.69	16.68	1185.02	157.63	57.37	167.67	4.30	36	55	20.795	107	27	55.381	
1241.00	24.69	16.80	1214.21	170.19	61.14	180.78	3.13	36	55	20.919	107	27	55.335	
1272.00	25.69	16.68	1242.26	182.83	64.94	193.97	3.23	36	55	21.044	107	27	55.288	
1304.00	26.50	16.18	1271.00	196.33	68.92	208.04	2.62	36	55	21.177	107	27	55.239	
1336.00	27.81	15.43	1299.47	210.38	72.90	222.63	4.23	36	55	21.316	107	27	55.190	
1367.00	29.25	14.93	1326.71	224.67	76.78	237.41	4.71	36	55	21.458	107	27	55.142	
1399.00	30.44	15.18	1354.46	240.05	80.91	253.31	3.74	36	55	21.610	107	27	55.092	
1430.00	31.32	16.42	1381.07	255.36	85.25	269.21	3.50	36	55	21.761	107	27	55.038	
1461.00	31.81	17.30	1407.48	270.88	89.95	285.43	2.17	36	55	21.915	107	27	54.980	
1492.00	32.44	18.43	1433.73	286.57	95.01	301.91	2.81	36	55	22.070	107	27	54.918	
1524.00	33.13	18.55	1460.64	303.01	100.51	319.24	2.17	36	55	22.232	107	27	54.850	
1556.00	33.81	18.30	1487.33	319.75	106.08	336.89	2.17	36	55	22.398	107	27	54.781	
1587.00	34.65	18.43	1512.96	336.30	111.58	354.33	2.72	36	55	22.561	107	27	54.714	
1616.00	35.56	18.30	1536.68	352.13	116.83	371.00	3.15	36	55	22.718	107	27	54.649	
1648.00	36.81	18.43	1562.51	370.06	122.79	389.89	3.91	36	55	22.895	107	27	54.576	
1679.00	37.81	19.18	1587.17	387.84	128.84	408.68	3.54	36	55	23.071	107	27	54.501	
1710.00	38.81	18.93	1611.49	406.01	135.12	427.90	3.26	36	55	23.251	107	27	54.424	
1741.00	39.31	18.80	1635.56	424.49	141.43	447.43	1.63	36	55	23.433	107	27	54.346	
1773.00	40.13	18.43	1660.18	443.87	147.96	467.88	2.67	36	55	23.625	107	27	54.266	
1804.00	41.50	17.68	1683.64	463.14	154.24	488.14	4.69	36	55	23.816	107	27	54.188	
1836.00	41.75	17.43	1707.56	483.40	160.65	509.40	0.94	36	55	24.016	107	27	54.109	
1867.00	41.50	17.80	1730.73	503.03	166.88	529.99	1.13	36	55	24.210	107	27	54.033	
1898.00	41.19	17.80	1754.00	522.53	173.14	550.46	1.00	36	55	24.403	107	27	53.956	
1929.00	42.13	17.93	1777.16	542.14	179.46	571.07	3.05	36	55	24.597	107	27	53.878	
1960.00	43.13	18.05	1799.97	562.11	185.95	592.06	3.24	36	55	24.794	107	27	53.798	
1992.00	42.81	18.05	1823.39	582.84	192.71	613.88	1.00	36	55	24.999	107	27	53.715	
2023.00	43.50	18.30	1846.00	602.99	199.32	635.08	2.29	36	55	25.198	107	27	53.633	
2055.00	44.25	18.68	1869.07	624.02	206.35	657.26	2.48	36	55	25.406	107	27	53.547	
2086.00	45.00	18.55	1891.13	644.66	213.30	679.03	2.44	36	55	25.611	107	27	53.461	
2116.00	44.94	18.30	1912.36	664.78	220.01	700.23	0.62	36	55	25.809	107	27	53.378	
2148.00	45.44	18.18	1934.91	686.34	227.11	722.94	1.58	36	55	26.023	107	27	53.291	
2180.00	45.06	18.18	1957.44	707.93	234.20	745.66	1.19	36	55	26.236	107	27	53.204	
2211.00	45.00	18.05	1979.34	728.77	241.02	767.59	0.35	36	55	26.442	107	27	53.120	
2241.00	44.56	18.43	2000.64	748.84	247.63	788.73	1.72	36	55	26.641	107	27	53.038	
2273.00	44.44	18.18	2023.46	770.14	254.68	811.15	0.66	36	55	26.851	107	27	52.951	
2305.00	44.94	17.93	2046.21	791.53	261.65	833.66	1.66	36	55	27.063	107	27	52.865	
2336.00	44.44	17.43	2068.25	812.30	268.28	855.46	1.97	36	55	27.268	107	27	52.784	
2367.00	44.56	17.80	2090.36	833.01	274.85	877.19	0.92	36	55	27.473	107	27	52.703	
2399.00	45.41	17.87	2113.00	854.55	281.78	899.81	2.66	36	55	27.686	107	27	52.618	
2430.00	45.63	17.55	2134.72	875.62	288.51	921.92	1.02	36	55	27.894	107	27	52.535	
2461.00	45.13	17.43	2156.49	896.66	295.14	943.99	1.64	36	55	28.102	107	27	52.453	
2492.00	45.06	17.18	2178.37	917.63	301.67	965.94	0.61	36	55	28.310	107	27	52.373	
2523.00	44.63	17.30	2200.35	938.50	308.15	987.80	1.41	36	55	28.516	107	27	52.293	
2554.00	44.44	16.93	2222.45	959.28	314.55	1009.54	1.04	36	55	28.722	107	27	52.214	
2586.00	43.81	17.30	2245.42	980.58	321.10	1031.81	2.13	36	55	28.932	107	27	52.133	
2617.00	43.56	16.05	2267.84	1001.09	327.25	1053.21	2.90	36	55	29.135	107	27	52.058	



Weatherford International Ltd.

WFT Survey Report Lat, Long



Weatherford

Company: Williams Production	Date: 7/6/2011	Time: 08:58:02	Page: 3
Field: SAN JUAN CO. NM (NAD83)	Co-ordinate(NE) Reference: Well: #60C, True North		
Site: Rosa Unit Com #60C	Vertical (TVD) Reference: SITE 6465.0		
Well: #60C	Section (VS) Reference: Well (0°00N, 0°00E, 18.24Azi)		
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	Lat Min	Sec	Long Min	Sec	Comment
2649.00	43.19	16.68	2291.10	1022.17	333.44	1075.18	1.78	36	55	29.343	107	27 51.981
2680.00	42.90	17.66	2313.75	1042.39	339.69	1096.33	2.35	36	55	29.543	107	27 51.904
2711.00	43.56	17.93	2336.34	1062.61	346.17	1117.57	2.21	36	55	29.743	107	27 51.824
2743.00	43.69	19.43	2359.51	1083.52	353.25	1139.64	3.26	36	55	29.950	107	27 51.737
2775.00	43.13	19.18	2382.75	1104.27	360.52	1161.63	1.83	36	55	30.155	107	27 51.648
2806.00	43.06	18.93	2405.39	1124.29	367.43	1182.81	0.60	36	55	30.353	107	27 51.563
2837.00	44.50	19.55	2427.77	1144.54	374.50	1204.25	4.85	36	55	30.553	107	27 51.476
2868.00	45.31	20.05	2449.73	1165.13	381.91	1226.13	2.85	36	55	30.757	107	27 51.384
2900.00	45.38	20.80	2472.22	1186.46	389.86	1248.87	1.68	36	55	30.968	107	27 51.286
2932.00	45.63	21.80	2494.65	1207.73	398.15	1271.66	2.36	36	55	31.178	107	27 51.184
2963.00	46.06	21.30	2516.24	1228.42	406.32	1293.87	1.81	36	55	31.383	107	27 51.084
2995.00	45.62	20.86	2538.53	1249.84	414.57	1316.80	1.69	36	55	31.595	107	27 50.982
3026.00	44.69	20.68	2560.39	1270.39	422.37	1338.75	3.03	36	55	31.798	107	27 50.886
3058.00	44.63	19.93	2583.16	1291.48	430.17	1361.23	1.66	36	55	32.006	107	27 50.790
3089.00	42.94	20.93	2605.54	1311.58	437.66	1382.67	5.89	36	55	32.205	107	27 50.698
3119.00	41.31	21.05	2627.79	1330.37	444.87	1402.77	5.44	36	55	32.391	107	27 50.609
3151.00	40.81	21.43	2651.91	1349.96	452.48	1423.76	1.75	36	55	32.585	107	27 50.515
3182.00	39.25	21.43	2675.65	1368.52	459.77	1443.66	5.03	36	55	32.768	107	27 50.425
3214.00	37.94	20.55	2700.66	1387.16	466.92	1463.60	4.44	36	55	32.952	107	27 50.337
3246.00	37.50	20.30	2725.97	1405.50	473.75	1483.16	1.46	36	55	33.134	107	27 50.253
3278.00	37.31	20.05	2751.39	1423.75	480.45	1502.59	0.76	36	55	33.314	107	27 50.171
3309.00	36.19	20.31	2776.23	1441.16	486.85	1521.13	3.65	36	55	33.486	107	27 50.092
3340.00	35.56	19.93	2801.35	1458.21	493.10	1539.29	2.16	36	55	33.655	107	27 50.015
3372.00	35.13	19.55	2827.45	1475.64	499.35	1557.79	1.51	36	55	33.827	107	27 49.938
3404.00	34.75	19.18	2853.68	1492.93	505.43	1576.11	1.36	36	55	33.998	107	27 49.863
3437.00	33.23	18.54	2881.04	1510.39	511.40	1594.56	4.73	36	55	34.171	107	27 49.789
3469.00	32.13	17.93	2907.98	1526.80	516.80	1611.84	3.59	36	55	34.333	107	27 49.723
3500.00	30.75	17.30	2934.43	1542.21	521.70	1628.01	4.58	36	55	34.486	107	27 49.663
3532.00	29.69	16.68	2962.08	1557.61	526.41	1644.11	3.45	36	55	34.638	107	27 49.605
3563.00	28.50	17.30	2989.17	1572.02	530.81	1659.18	3.96	36	55	34.780	107	27 49.550
3595.00	26.31	17.43	3017.57	1586.08	535.21	1673.90	6.85	36	55	34.919	107	27 49.496
3626.00	25.00	17.43	3045.52	1598.89	539.23	1687.32	4.23	36	55	35.046	107	27 49.447
3658.00	25.06	16.93	3074.51	1611.82	543.22	1700.86	0.69	36	55	35.174	107	27 49.397
3690.00	23.50	17.18	3103.68	1624.40	547.08	1714.02	4.89	36	55	35.298	107	27 49.350
3721.00	22.38	16.68	3132.23	1635.96	550.60	1726.10	3.67	36	55	35.413	107	27 49.307
3753.00	21.45	16.35	3161.91	1647.41	554.00	1738.03	2.93	36	55	35.526	107	27 49.265
3784.00	20.00	16.68	3190.91	1657.93	557.12	1749.00	4.69	36	55	35.630	107	27 49.226
3815.00	19.31	16.93	3220.10	1667.91	560.13	1759.42	2.24	36	55	35.729	107	27 49.189
3847.00	19.13	16.80	3250.32	1677.99	563.19	1769.95	0.58	36	55	35.828	107	27 49.152
3879.00	18.88	16.68	3280.57	1687.97	566.19	1780.37	0.79	36	55	35.927	107	27 49.115
3910.00	18.63	16.80	3309.93	1697.51	569.06	1790.33	0.82	36	55	36.021	107	27 49.079
3942.00	17.81	17.30	3340.32	1707.08	571.99	1800.34	2.61	36	55	36.116	107	27 49.043
3973.00	17.50	17.55	3369.86	1716.05	574.81	1809.74	1.03	36	55	36.205	107	27 49.008
4004.00	16.69	18.43	3399.49	1724.72	577.62	1818.85	2.74	36	55	36.290	107	27 48.974
4036.00	16.01	19.04	3430.20	1733.25	580.51	1827.86	2.19	36	55	36.375	107	27 48.938
4068.00	15.31	20.18	3461.01	1741.39	583.41	1836.49	2.39	36	55	36.455	107	27 48.902
4100.00	14.13	21.43	3491.96	1748.99	586.29	1844.62	3.82	36	55	36.530	107	27 48.867
4131.00	13.31	21.80	3522.07	1755.82	589.00	1851.96	2.66	36	55	36.598	107	27 48.834
4162.00	12.75	22.18	3552.28	1762.30	591.62	1858.93	1.83	36	55	36.662	107	27 48.801
4194.00	11.00	23.55	3583.59	1768.37	594.17	1865.49	5.54	36	55	36.722	107	27 48.770
4225.00	9.25	22.80	3614.11	1773.38	596.32	1870.92	5.66	36	55	36.772	107	27 48.743
4257.00	8.50	21.80	3645.72	1777.95	598.19	1875.85	2.39	36	55	36.817	107	27 48.720
4288.00	7.25	20.05	3676.43	1781.91	599.71	1880.09	4.11	36	55	36.856	107	27 48.702



Weatherford International Ltd.

WFT Survey Report Lat, Long



Weatherford

Company:	Williams Production	Date:	7/6/2011	Time:	08:58:02	Page:	4
Field:	SAN JUAN CO NM (NAD83)	Co-ordinate (NE) Reference:	Well: #60C True North				
Site:	Rosa Unit Com #60C	Vertical (TVD) Reference:	SITE 6465.0				
Well:	#60C	Section (VS) Reference:	Well (0.00N 0.00E 18.24Azi)				
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	Lat Min	Sec	Long Min	Sec	Comment
4320.00	5.86	20 36	3708.22	1785.34	600.97	1883.74	4.35	36	55	36.890	107	27 48 686
4351.00	4.80	20 85	3739.09	1788.04	601.99	1886.62	3.42	36	55	36.916	107	27 48 674
4382.00	3.55	23 46	3770.00	1790.13	602.83	1888.87	4.08	36	55	36.937	107	27 48 663 Last Wft Svy
4437.00	3.55	23 46	3824.90	1793.25	604.19	1892.26	0.00	36	55	36.968	107	27 48 647 7"
8700.00	0.50	23 46	8084.73	1931.42	664.15	2042.25	0.07	36	55	38.334	107	27 47 908 Proj Per Gary
8732.00	0.50	23 46	8116.73	1931.68	664.26	2042.53	0.00	36	55	38.337	107	27 47 907 Proj To Bit

Casing Points

MD ft	TVD ft	Diameter in	Hole Size in	Name
320.01	320.00	9.625	12 250	9 5/8"
4437.00	3824.90	7.000	8 500	7"

Annotation

MD ft	TVD ft	
346.00	345.98	First Wft Svy
4382.00	3770.00	Last Wft Svy
4437.00	3824.90	Proj To Bit
8700.00	8084.73	Proj. Per Gary
8732.00	8116.73	Proj To Bit

Formations

MD ft	TVD ft	Formations	Lithology	Dip Angle deg	Dip Direction deg
1142.88	1124.00	Nacimiento Fm.		0.00	0.00
2826.15	2420.00	Ojo Alamo SS		0.00	0.00
2989.94	2535.00	Kirtland Sh		0.00	0.00
3529.61	2960.00	Fruitland Fm		0.00	0.00
3836.08	3240.00	Pictured Cliffs SS.		0.00	0.00
4154.54	3545.00	Lewis Sh		0.00	0.00
5744.01	5130.00	Cliff House SS. Trans		0.00	0.00
6059.31	5445.00	Cliff House SS.		0.00	0.00
6104.35	5490.00	Menefee Fm		0.00	0.00
6344.54	5730.00	Point Lookout SS.		0.00	0.00
6679.75	6065.00	Mancos Sh		0.00	0.00
7670.14	7055.00	Gallup SS.		0.00	0.00
8385.25	7770.00	Greenhorn Ls		0.00	0.00
8425.25	7810.00	Graneros Sh		0.00	0.00
8561.26	7946.00	Dakota SS.		0.00	0.00
	0.00	Morrison Fm		0.00	0.00