

Weatherford International Ltd.

WFT Survey Report X & Y's



Company: Manzano LLC		Date: 10/25/2010		Time: 07:29:52		Page: 1	
Field: Huerfano Co., CO (NAD 83)		Co-ordinate(NE) Reference:		Well: Magnino 2 Fee #1, True North			
Site: Magnino 2 Fee #1		Vertical (TVD) Reference:		SITE 0.0			
Well: Magnino 2 Fee #1		Section (VS) Reference:		Well (0.00N,0.00E,230.33Azi)			
Wellpath: 1		Survey Calculation Method:		Minimum Curvature		Db: Sybase	

Survey: Wft Svy		Start Date:		10/7/2010	
Company: Weatherford International Ltd.		Engineer:		Russell W. Joyner	
Tool: MWD;MWD - Standard		Tied-to:		From Surface	

Field: Huerfano Co., CO (NAD 83)					
Map System: US State Plane Coordinate System 1983			Map Zone: Colorado, Southern Zone		
Geo Datum: GRS 1980			Coordinate System: Well Centre		
Sys Datum: Mean Sea Level			Geomagnetic Model: IGRF2010		

Site: Magnino 2 Fee #1					
Site Position:		Northing: 1294131.90 ft		Latitude: 37 28 25.302 N	
From: Geographic		Easting: 3122156.81 ft		Longitude: 105 4 44.692 W	
Position Uncertainty: 0.00 ft				North Reference: True	
Ground Level: 7683.00 ft				Grid Convergence: 0.26 deg	

Well: Magnino 2 Fee #1				Slot Name:			
Well Position: +N/-S 0.00 ft		Northing: 1294131.90 ft		Latitude: 37 28 25.302 N			
+E/-W 0.00 ft		Easting : 3122156.81 ft		Longitude: 105 4 44.692 W			
Position Uncertainty: 0.00 ft							

Wellpath: 1				Drilled From: Surface			
				Tie-on Depth: 0.00 ft			
Current Datum: SITE		Height 0.00 ft		Above System Datum: Mean Sea Level			
Magnetic Data: 8/12/2010				Declination: 8.86 deg			
Field Strength: 51629 nT				Mag Dip Angle: 64.60 deg			
Vertical Section: Depth From (TVD)		+N/-S		+E/-W		Direction	
ft		ft		ft		deg	
0.00		0.00		0.00		230.33	

Survey										
MD ft	Incl deg	Azim deg	TVD ft	N/S ft	E/W ft	DLS deg/100ft	VS ft	MapN ft	MapE ft	Comment
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1294131.90	3122156.81	
92.00	0.57	211.49	92.00	-0.39	-0.24	0.62	0.43	1294131.51	3122156.57	Csg
166.00	1.03	211.49	165.99	-1.27	-0.78	0.62	1.41	1294130.62	3122156.03	First Wft Svy
258.00	1.83	214.63	257.96	-3.19	-2.05	0.87	3.61	1294128.70	3122154.78	
350.00	2.79	210.18	349.89	-6.33	-4.01	1.06	7.13	1294125.55	3122152.83	
441.00	3.03	203.22	440.77	-10.46	-6.07	0.47	11.35	1294121.42	3122150.79	
534.00	3.00	200.62	533.64	-14.99	-7.89	0.15	15.65	1294116.87	3122148.98	
626.00	3.00	195.11	625.51	-19.57	-9.37	0.31	19.70	1294112.29	3122147.53	
719.00	3.28	194.57	718.37	-24.49	-10.67	0.30	23.85	1294107.36	3122146.24	
813.00	4.10	197.08	812.18	-30.31	-12.34	0.89	28.84	1294101.54	3122144.61	
908.00	3.63	192.24	906.96	-36.49	-13.97	0.60	34.05	1294095.34	3122143.00	
1003.00	4.69	191.74	1001.71	-43.24	-15.40	1.12	39.45	1294088.60	3122141.60	
1097.00	4.59	190.65	1095.40	-50.69	-16.88	0.14	45.35	1294081.13	3122140.16	
1197.00	5.35	190.91	1195.03	-59.21	-18.50	0.76	52.03	1294072.61	3122138.58	
1250.00	6.35	195.12	1247.75	-64.46	-19.73	2.06	56.34	1294067.35	3122137.37	Csg
1254.00	6.43	195.38	1251.72	-64.89	-19.85	2.06	56.70	1294066.92	3122137.25	
1285.00	8.70	203.80	1282.45	-68.71	-21.25	8.13	60.22	1294063.09	3122135.86	
1317.00	11.67	211.46	1313.95	-73.69	-23.92	10.18	65.45	1294058.11	3122133.22	
1348.00	14.41	218.83	1344.15	-79.37	-27.98	10.32	72.20	1294052.41	3122129.19	
1379.00	17.10	226.36	1373.98	-85.52	-33.70	10.88	80.53	1294046.23	3122123.50	
1410.00	19.32	230.81	1403.43	-91.91	-40.97	8.45	90.21	1294039.81	3122116.25	
1441.00	21.51	230.23	1432.48	-98.78	-49.31	7.09	101.02	1294032.89	3122107.94	
1473.00	24.07	227.16	1461.98	-106.98	-58.61	8.82	113.40	1294024.66	3122098.68	
1504.00	27.11	229.76	1489.94	-115.84	-68.64	10.45	126.78	1294015.75	3122088.69	

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Field: Huerfano Co., CO (NAD 83)	Co-ordinate(NE) Reference:	Well: Magnino 2 Fee #1, True North	
Site: Magnino 2 Fee #1	Vertical (TVD) Reference:	SITE 0.0	
Well: Magnino 2 Fee #1	Section (VS) Reference:	Well (0.00N,0.00E,230.33Azi)	
Wellpath: 1	Survey Calculation Method:	Minimum Curvature	Db: Sybase

Survey

MD ft	Incl deg	Azim deg	TVD ft	N/S ft	E/W ft	DLS deg/100ft	VS ft	MapN ft	MapE ft	Comment
1536.00	30.11	231.29	1518.03	-125.57	-80.47	9.65	142.10	1294005.97	3122076.90	
1567.00	33.24	231.74	1544.41	-135.70	-93.21	10.13	158.38	1293995.78	3122064.21	
1599.00	35.87	232.67	1570.76	-146.82	-107.56	8.38	176.51	1293984.60	3122049.91	
1630.00	37.65	233.78	1595.60	-157.92	-122.42	6.13	195.04	1293973.43	3122035.10	
1661.00	39.56	233.36	1619.82	-169.41	-137.98	6.22	214.35	1293961.87	3122019.59	
1693.00	40.38	231.61	1644.34	-181.93	-154.28	4.35	234.89	1293949.28	3122003.35	
1725.00	40.56	231.49	1668.69	-194.84	-170.55	0.61	255.66	1293936.29	3121987.14	
1757.00	40.63	232.36	1692.99	-207.68	-186.94	1.78	276.47	1293923.38	3121970.81	
1789.00	40.75	233.11	1717.25	-220.31	-203.54	1.57	297.31	1293910.67	3121954.26	
1821.00	41.29	231.78	1741.39	-233.12	-220.19	3.21	318.30	1293897.80	3121937.67	
1852.00	41.38	230.61	1764.67	-245.95	-236.15	2.51	338.77	1293884.89	3121921.77	
1883.00	41.25	230.99	1787.96	-258.88	-252.01	0.91	359.24	1293871.89	3121905.97	
1945.00	41.30	231.69	1834.55	-284.43	-283.94	0.75	400.13	1293846.19	3121874.15	
1977.00	41.31	231.86	1858.59	-297.50	-300.54	0.35	421.25	1293833.05	3121857.62	
2008.00	41.56	230.36	1881.83	-310.38	-316.50	3.30	441.76	1293820.10	3121841.71	
2039.00	41.69	230.49	1905.00	-323.50	-332.37	0.50	462.35	1293806.91	3121825.89	
2070.00	41.80	230.38	1928.13	-336.64	-348.29	0.43	482.99	1293793.69	3121810.04	
2101.00	41.81	231.11	1951.24	-349.72	-364.29	1.57	503.65	1293780.54	3121794.10	
2133.00	42.23	231.53	1975.02	-363.11	-381.01	1.58	525.07	1293767.08	3121777.44	
2164.00	42.31	229.49	1997.96	-376.37	-397.10	4.43	545.92	1293753.75	3121761.41	
2196.00	42.51	228.96	2021.58	-390.46	-413.44	1.28	567.50	1293739.58	3121745.13	
2228.00	42.75	229.99	2045.13	-404.54	-429.92	2.31	589.17	1293725.42	3121728.72	
2259.00	43.02	229.83	2067.84	-418.13	-446.05	0.94	610.26	1293711.77	3121712.64	
2291.00	41.14	228.63	2091.59	-432.13	-462.30	6.39	631.70	1293697.69	3121696.46	
2322.00	40.69	228.61	2115.02	-445.55	-477.53	1.45	652.00	1293684.20	3121681.29	
2353.00	40.63	230.24	2138.53	-458.69	-492.87	3.43	672.19	1293671.00	3121666.01	
2385.00	40.61	228.97	2162.82	-472.19	-508.74	2.58	693.02	1293657.42	3121650.20	
2417.00	40.88	229.40	2187.07	-485.84	-524.55	1.22	713.90	1293643.70	3121634.46	
2448.00	41.65	230.64	2210.37	-498.97	-540.21	3.62	734.35	1293630.50	3121618.85	
2479.00	41.88	231.86	2233.49	-511.90	-556.32	2.72	754.99	1293617.50	3121602.80	
2510.00	41.88	232.34	2256.57	-524.61	-572.65	1.03	775.68	1293604.72	3121586.53	
2542.00	42.13	230.86	2280.35	-537.91	-589.43	3.19	797.09	1293591.34	3121569.81	
2573.00	42.21	230.94	2303.33	-551.04	-605.58	0.31	817.90	1293578.14	3121553.72	
2605.00	42.38	232.43	2327.00	-564.39	-622.47	3.18	839.42	1293564.71	3121536.88	
2636.00	42.54	231.68	2349.87	-577.25	-638.98	1.71	860.34	1293551.77	3121520.44	
2667.00	41.83	232.50	2372.84	-590.05	-655.40	2.90	881.15	1293538.91	3121504.07	
2699.00	41.58	232.07	2396.73	-603.07	-672.24	1.19	902.42	1293525.81	3121487.29	
2730.00	40.97	233.78	2420.03	-615.40	-688.55	4.14	922.85	1293513.41	3121471.03	
2761.00	41.10	233.70	2443.41	-627.43	-704.96	0.45	943.17	1293501.30	3121454.68	
2792.00	40.94	233.86	2466.80	-639.46	-721.38	0.62	963.48	1293489.20	3121438.32	
2823.00	41.13	233.99	2490.19	-651.44	-737.83	0.67	983.79	1293477.14	3121421.92	
2855.00	41.37	232.97	2514.24	-664.00	-754.78	2.23	1004.86	1293464.51	3121405.02	
2886.00	41.57	233.12	2537.47	-676.34	-771.19	0.72	1025.36	1293452.09	3121388.67	
2916.00	41.77	232.86	2559.88	-688.35	-787.11	0.88	1045.29	1293440.02	3121372.80	
2948.00	41.76	230.59	2583.75	-701.55	-803.85	4.72	1066.59	1293426.74	3121356.13	
2979.00	41.81	231.36	2606.87	-714.55	-819.89	1.66	1087.25	1293413.66	3121340.14	
3011.00	42.09	231.21	2630.67	-727.93	-836.58	0.93	1108.63	1293400.21	3121323.51	
3042.00	41.94	229.74	2653.70	-741.14	-852.59	3.21	1129.38	1293386.93	3121307.57	
3074.00	42.43	229.53	2677.41	-755.05	-868.96	1.59	1150.87	1293372.94	3121291.26	
3105.00	42.69	229.74	2700.24	-768.63	-884.94	0.96	1171.83	1293359.29	3121275.34	
3136.00	41.56	229.74	2723.24	-782.07	-900.80	3.65	1192.63	1293345.78	3121259.54	
3168.00	41.53	229.93	2747.19	-795.76	-917.02	0.40	1213.85	1293332.02	3121243.38	

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Company: Manzano LLC	Date: 10/25/2010	Time: 07:29:52	Page: 3
Field: Huerfano Co., CO (NAD 83)	Co-ordinate(NE) Reference:	Well: Magnino 2 Fee #1, True North	
Site: Magnino 2 Fee #1	Vertical (TVD) Reference:	SITE 0.0	
Well: Magnino 2 Fee #1	Section (VS) Reference:	Well (0.00N,0.00E,230.33Azi)	
Wellpath: 1	Survey Calculation Method:	Minimum Curvature	Db: Sybase

Survey

MD ft	Incl deg	Azim deg	TVD ft	N/S ft	E/W ft	DLS deg/100ft	VS ft	MapN ft	MapE ft	Comment
3199.00	41.94	229.99	2770.32	-809.03	-932.82	1.33	1234.48	1293318.67	3121227.64	
3229.00	42.06	229.99	2792.61	-821.94	-948.20	0.40	1254.56	1293305.70	3121212.32	
3261.00	41.60	230.43	2816.46	-835.60	-964.59	1.71	1275.90	1293291.96	3121195.99	
3293.00	41.75	229.86	2840.36	-849.23	-980.93	1.27	1297.18	1293278.25	3121179.72	
3325.00	41.94	230.99	2864.20	-862.83	-997.38	2.43	1318.52	1293264.58	3121163.32	
3357.00	41.99	232.05	2887.99	-876.15	-1014.13	2.22	1339.91	1293251.19	3121146.63	
3388.00	42.19	232.86	2911.00	-888.81	-1030.61	1.87	1360.68	1293238.46	3121130.22	
3420.00	41.38	232.99	2934.86	-901.66	-1047.62	2.55	1381.98	1293225.52	3121113.26	
3451.00	41.45	233.90	2958.11	-913.88	-1064.09	1.95	1402.46	1293213.24	3121096.84	
3483.00	41.06	232.61	2982.16	-926.50	-1081.00	2.92	1423.53	1293200.54	3121079.99	
3515.00	41.44	230.86	3006.22	-939.57	-1097.56	3.80	1444.62	1293187.40	3121063.49	
3546.00	41.81	230.74	3029.40	-952.58	-1113.52	1.22	1465.21	1293174.31	3121047.59	
3577.00	42.44	231.24	3052.39	-965.67	-1129.68	2.30	1486.00	1293161.15	3121031.49	
3609.00	43.25	231.49	3075.85	-979.26	-1146.68	2.59	1507.76	1293147.49	3121014.55	
3640.00	42.50	230.24	3098.57	-992.57	-1163.04	3.66	1528.85	1293134.10	3120998.25	
3672.00	43.00	230.24	3122.07	-1006.46	-1179.74	1.56	1550.57	1293120.14	3120981.62	
3703.00	42.22	229.99	3144.88	-1019.92	-1195.84	2.57	1571.56	1293106.61	3120965.58	
3734.00	42.38	229.86	3167.81	-1033.35	-1211.80	0.59	1592.42	1293093.10	3120949.67	
3765.00	41.13	229.99	3190.94	-1046.64	-1227.60	4.04	1613.06	1293079.74	3120933.93	
3796.00	41.43	230.57	3214.23	-1059.71	-1243.33	1.57	1633.52	1293066.60	3120918.26	
3828.00	41.94	230.74	3238.13	-1073.20	-1259.79	1.63	1654.80	1293053.04	3120901.87	
3859.00	41.19	230.99	3261.32	-1086.18	-1275.74	2.48	1675.36	1293039.98	3120885.97	
3891.00	41.37	232.10	3285.37	-1099.31	-1292.28	2.36	1696.47	1293026.78	3120869.50	
3922.00	42.00	232.36	3308.52	-1111.94	-1308.57	2.11	1717.07	1293014.08	3120853.26	
3954.00	42.09	230.71	3332.29	-1125.27	-1325.35	3.46	1738.50	1293000.67	3120836.54	
3985.00	42.56	230.59	3355.21	-1138.50	-1341.49	1.54	1759.37	1292987.37	3120820.46	
4017.00	41.38	231.61	3379.00	-1151.94	-1358.14	4.26	1780.77	1292973.85	3120803.87	
4049.00	41.69	232.55	3402.95	-1164.98	-1374.88	2.18	1801.98	1292960.74	3120787.19	
4081.00	42.31	232.49	3426.73	-1178.01	-1391.87	1.94	1823.37	1292947.63	3120770.26	
4112.00	41.31	232.24	3449.84	-1190.63	-1408.24	3.27	1844.03	1292934.94	3120753.95	
4144.00	40.31	232.24	3474.06	-1203.43	-1424.77	3.12	1864.93	1292922.06	3120737.47	
4176.00	40.69	232.74	3498.39	-1216.09	-1441.26	1.56	1885.69	1292909.33	3120721.04	
4207.00	41.44	233.24	3521.77	-1228.35	-1457.52	2.64	1906.04	1292897.00	3120704.84	
4239.00	42.41	233.62	3545.57	-1241.08	-1474.69	3.13	1927.39	1292884.18	3120687.72	
4270.00	41.97	232.24	3568.54	-1253.63	-1491.30	3.31	1948.18	1292871.56	3120671.17	
4301.00	41.00	231.74	3591.77	-1266.28	-1507.48	3.31	1968.71	1292858.84	3120655.04	
4333.00	41.90	231.60	3615.75	-1279.41	-1524.10	2.83	1989.89	1292845.63	3120638.49	
4364.00	41.19	231.86	3638.95	-1292.15	-1540.24	2.36	2010.44	1292832.82	3120622.40	
4396.00	40.00	232.36	3663.25	-1304.94	-1556.67	3.86	2031.25	1292819.96	3120606.03	
4427.00	40.32	232.69	3686.94	-1317.10	-1572.54	1.24	2051.23	1292807.73	3120590.22	
4459.00	40.81	233.61	3711.25	-1329.58	-1589.19	2.42	2072.01	1292795.17	3120573.62	
4488.00	41.13	233.86	3733.15	-1340.83	-1604.52	1.24	2090.99	1292783.86	3120558.34	
4520.00	41.61	233.85	3757.16	-1353.30	-1621.60	1.50	2112.10	1292771.31	3120541.32	
4551.00	41.19	231.49	3780.42	-1365.73	-1637.90	5.21	2132.58	1292758.80	3120525.08	
4583.00	41.44	231.11	3804.45	-1378.94	-1654.39	1.11	2153.71	1292745.52	3120508.65	
4614.00	41.81	231.20	3827.62	-1391.85	-1670.43	1.21	2174.30	1292732.53	3120492.67	
4646.00	42.00	231.61	3851.44	-1405.19	-1687.13	1.04	2195.66	1292719.13	3120476.02	
4677.00	42.42	231.70	3874.40	-1418.11	-1703.47	1.37	2216.49	1292706.13	3120459.75	
4709.00	41.13	230.86	3898.27	-1431.44	-1720.10	4.39	2237.80	1292692.72	3120443.17	
4740.00	39.63	231.11	3921.88	-1444.08	-1735.70	4.87	2257.88	1292680.01	3120427.63	
4772.00	39.56	231.11	3946.54	-1456.89	-1751.58	0.22	2278.28	1292667.13	3120411.81	
4803.00	39.82	231.37	3970.39	-1469.28	-1767.02	1.00	2298.07	1292654.67	3120396.43	
4835.00	40.13	231.36	3994.92	-1482.12	-1783.08	0.97	2318.63	1292641.76	3120380.43	

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Site: Magnino 2 Fee #1	Vertical (TVD) Reference:	SITE 0.0	
Well: Magnino 2 Fee #1	Section (VS) Reference:	Well (0.00N,0.00E,230.33Azi)	
Wellpath: 1	Survey Calculation Method:	Minimum Curvature	Db: Sybase

Survey

MD ft	Incl deg	Azim deg	TVD ft	N/S ft	E/W ft	DLS deg/100ft	VS ft	MapN ft	MapE ft	Comment
4866.00	40.50	231.49	4018.55	-1494.63	-1798.76	1.22	2338.68	1292629.18	3120364.80	
4898.00	40.75	231.99	4042.84	-1507.53	-1815.12	1.28	2359.51	1292616.21	3120348.50	
4929.00	40.94	231.99	4066.29	-1520.01	-1831.09	0.61	2379.77	1292603.65	3120332.59	
4961.00	41.26	231.74	4090.41	-1533.00	-1847.64	1.12	2400.80	1292590.59	3120316.10	
4992.00	41.69	231.99	4113.63	-1545.68	-1863.79	1.49	2421.33	1292577.84	3120300.01	
5024.00	40.13	231.11	4137.82	-1558.71	-1880.20	5.20	2442.28	1292564.74	3120283.65	
5056.00	38.50	231.49	4162.57	-1571.39	-1896.02	5.15	2462.55	1292551.99	3120267.89	
5088.00	35.81	231.74	4188.07	-1583.39	-1911.17	8.42	2481.87	1292539.92	3120252.80	
5119.00	32.88	230.99	4213.67	-1594.30	-1924.83	9.55	2499.35	1292528.94	3120239.18	
5150.00	28.63	230.86	4240.30	-1604.29	-1937.13	13.71	2515.20	1292518.90	3120226.92	
5181.00	24.45	230.04	4268.03	-1613.10	-1947.82	13.54	2529.05	1292510.04	3120216.28	
5213.00	19.75	227.36	4297.67	-1621.02	-1956.87	15.02	2541.08	1292502.08	3120207.26	
5244.00	16.56	228.61	4327.12	-1627.49	-1964.04	10.37	2550.73	1292495.57	3120200.12	
5276.00	14.39	234.14	4357.96	-1632.84	-1970.69	8.19	2559.25	1292490.20	3120193.50	
5307.00	10.94	239.99	4388.20	-1636.57	-1976.36	11.86	2566.00	1292486.44	3120187.84	
5339.00	7.13	240.86	4419.80	-1639.05	-1980.73	11.91	2570.95	1292483.94	3120183.49	
5371.00	4.19	237.74	4451.64	-1640.65	-1983.45	9.23	2574.06	1292482.33	3120180.77	
5402.00	1.15	232.25	4482.61	-1641.44	-1984.65	9.83	2575.49	1292481.53	3120179.57	
5433.00	0.44	339.86	4513.60	-1641.52	-1984.94	4.35	2575.76	1292481.45	3120179.28	
5464.00	1.19	351.11	4544.60	-1641.09	-1985.03	2.46	2575.56	1292481.88	3120179.19	
5495.00	1.75	1.49	4575.59	-1640.30	-1985.07	1.99	2575.08	1292482.67	3120179.15	
5526.00	2.14	0.88	4606.57	-1639.25	-1985.05	1.26	2574.40	1292483.72	3120179.17	
5557.00	2.56	359.36	4637.55	-1637.98	-1985.05	1.37	2573.58	1292485.00	3120179.16	
5589.00	2.50	2.74	4669.51	-1636.56	-1985.02	0.50	2572.66	1292486.41	3120179.18	
5619.00	2.80	359.15	4699.48	-1635.18	-1985.00	1.14	2571.76	1292487.79	3120179.20	
5650.00	2.44	356.74	4730.45	-1633.76	-1985.05	1.21	2570.90	1292489.21	3120179.14	
5682.00	1.31	334.36	4762.43	-1632.75	-1985.25	4.14	2570.40	1292490.22	3120178.94	
5712.00	1.11	322.03	4792.43	-1632.21	-1985.57	1.09	2570.31	1292490.76	3120178.61	
5744.00	1.38	348.24	4824.42	-1631.59	-1985.84	1.95	2570.12	1292491.38	3120178.34	
5775.00	2.06	1.36	4855.40	-1630.67	-1985.91	2.52	2569.58	1292492.30	3120178.27	
5806.00	1.50	21.98	4886.39	-1629.74	-1985.74	2.72	2568.86	1292493.23	3120178.43	
5837.00	1.76	32.21	4917.38	-1628.96	-1985.33	1.26	2568.05	1292494.01	3120178.83	
5868.00	0.69	42.23	4948.37	-1628.42	-1984.96	3.51	2567.41	1292494.56	3120179.21	
5900.00	1.25	37.48	4980.37	-1628.00	-1984.61	1.77	2566.88	1292494.98	3120179.55	
5932.00	2.17	28.45	5012.35	-1627.19	-1984.11	2.99	2565.98	1292495.79	3120180.05	
5963.00	1.44	29.86	5043.33	-1626.33	-1983.64	2.36	2565.07	1292496.64	3120180.52	
5995.00	1.81	21.49	5075.32	-1625.51	-1983.25	1.37	2564.25	1292497.47	3120180.90	
6057.00	3.88	25.61	5137.24	-1622.71	-1981.99	3.35	2561.49	1292500.27	3120182.15	
6120.00	3.25	28.86	5200.12	-1619.23	-1980.21	1.05	2557.89	1292503.77	3120183.92	
6182.00	2.31	36.99	5262.05	-1616.69	-1978.60	1.64	2555.04	1292506.31	3120185.51	
6244.00	2.06	35.49	5324.00	-1614.78	-1977.21	0.41	2552.74	1292508.22	3120186.90	
6307.00	2.45	45.75	5386.95	-1612.92	-1975.58	0.89	2550.31	1292510.09	3120188.51	
6368.00	1.94	50.86	5447.91	-1611.36	-1973.85	0.89	2547.97	1292511.66	3120190.24	
6431.00	2.56	22.99	5510.86	-1609.39	-1972.47	1.97	2545.66	1292513.64	3120191.61	
6494.00	2.63	353.49	5573.80	-1606.66	-1972.09	2.10	2543.62	1292516.37	3120191.98	
6557.00	1.64	312.54	5636.76	-1604.61	-1972.92	2.79	2542.95	1292518.41	3120191.14	
6620.00	1.69	282.11	5699.73	-1603.81	-1974.49	1.39	2543.65	1292519.21	3120189.57	
6684.00	1.94	283.61	5763.70	-1603.36	-1976.46	0.40	2544.88	1292519.65	3120187.59	
6748.00	2.19	283.61	5827.66	-1602.81	-1978.70	0.39	2546.26	1292520.19	3120185.35	
6811.00	0.50	301.99	5890.64	-1602.39	-1980.11	2.73	2547.06	1292520.61	3120183.94	
6872.00	0.38	14.48	5951.64	-1602.05	-1980.28	0.87	2546.98	1292520.94	3120183.76	
6936.00	0.94	40.98	6015.63	-1601.45	-1979.89	0.97	2546.29	1292521.55	3120184.16	

Weatherford International Ltd.

WFT Survey Report X & Y's



Company: Manzano LLC Field: Huerfano Co., CO (NAD 83) Site: Magnino 2 Fee #1 Well: Magnino 2 Fee #1 Wellpath: 1	Date: 10/25/2010 Co-ordinate(NE) Reference: Well: Magnino 2 Fee #1, True North Vertical (TVD) Reference: SITE 0.0 Section (VS) Reference: Well (0.00N,0.00E,230.33Azi) Survey Calculation Method: Minimum Curvature Db: Sybase
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Survey

MD ft	Incl deg	Azim deg	TVD ft	N/S ft	E/W ft	DLS deg/100ft	VS ft	MapN ft	MapE ft	Comment
6999.00	1.26	65.98	6078.62	-1600.77	-1978.91	0.90	2545.12	1292522.22	3120185.13	
7062.00	1.25	62.74	6141.61	-1600.18	-1977.67	0.11	2543.78	1292522.83	3120186.37	
7125.00	2.06	347.24	6204.59	-1598.76	-1977.31	3.37	2542.59	1292524.25	3120186.72	
7188.00	3.94	333.49	6267.50	-1595.72	-1978.53	3.17	2541.59	1292527.28	3120185.49	
7251.00	4.88	338.36	6330.31	-1591.29	-1980.48	1.60	2540.27	1292531.70	3120183.52	
7313.00	4.91	334.62	6392.09	-1586.44	-1982.59	0.52	2538.79	1292536.54	3120181.39	
7375.00	3.50	322.99	6453.92	-1582.53	-1984.87	2.65	2538.05	1292540.44	3120179.09	
7439.00	3.06	322.61	6517.81	-1579.61	-1987.08	0.69	2537.89	1292543.35	3120176.87	
7502.00	2.93	338.19	6580.73	-1576.78	-1988.70	1.30	2537.33	1292546.17	3120175.23	
7565.00	3.00	339.11	6643.64	-1573.75	-1989.89	0.13	2536.31	1292549.20	3120174.03	
7628.00	2.92	336.34	6706.56	-1570.74	-1991.12	0.26	2535.33	1292552.21	3120172.79	
7691.00	2.31	339.49	6769.49	-1568.08	-1992.21	0.99	2534.47	1292554.86	3120171.69	
7754.00	2.94	346.86	6832.43	-1565.32	-1993.02	1.13	2533.34	1292557.62	3120170.86	
7816.00	2.76	11.17	6894.35	-1562.30	-1993.09	1.96	2531.47	1292560.63	3120170.78	
7879.00	2.69	48.74	6957.29	-1559.84	-1991.69	2.79	2528.81	1292563.10	3120172.17	
7942.00	2.56	69.61	7020.22	-1558.38	-1989.26	1.52	2526.01	1292564.58	3120174.59	
8005.00	0.62	133.19	7083.20	-1558.12	-1987.69	3.73	2524.64	1292564.84	3120176.16	
8068.00	1.25	257.61	7146.19	-1558.50	-1988.11	2.67	2525.21	1292564.46	3120175.74	
8132.00	1.06	319.68	7210.18	-1558.20	-1989.18	1.88	2525.83	1292564.75	3120174.67	
8195.00	1.56	40.86	7273.17	-1557.11	-1988.99	2.77	2524.99	1292565.85	3120174.85	
8257.00	3.38	59.74	7335.11	-1555.55	-1986.86	3.18	2522.36	1292567.42	3120176.98	
8320.00	4.25	70.11	7397.97	-1553.82	-1983.06	1.76	2518.33	1292569.16	3120180.77	
8382.00	5.50	74.36	7459.75	-1552.23	-1978.04	2.10	2513.45	1292570.77	3120185.78	
8445.00	6.31	69.86	7522.41	-1550.23	-1971.88	1.48	2507.43	1292572.80	3120191.93	
8509.00	7.05	69.16	7585.98	-1547.62	-1964.91	1.16	2500.40	1292575.44	3120198.89	
8573.00	6.81	73.36	7649.51	-1545.13	-1957.60	0.88	2493.19	1292577.96	3120206.19	
8635.00	7.25	85.97	7711.05	-1543.81	-1950.18	2.58	2486.63	1292579.32	3120213.61	
8698.00	7.45	91.47	7773.53	-1543.63	-1942.13	1.16	2480.32	1292579.53	3120221.65	
8762.00	6.75	105.86	7837.04	-1544.77	-1934.36	2.98	2475.07	1292578.43	3120229.43	
8825.00	4.75	126.36	7899.73	-1547.33	-1928.70	4.50	2472.34	1292575.90	3120235.10	
8888.00	2.75	203.61	7962.62	-1550.26	-1927.20	7.83	2473.06	1292572.97	3120236.61	
8951.00	2.32	196.44	8025.56	-1552.87	-1928.17	0.85	2475.47	1292570.36	3120235.66	
9009.00	2.74	223.31	8083.51	-1555.00	-1929.45	2.15	2477.82	1292568.22	3120234.38	Last Wft Svy
9060.00	2.74	223.31	8134.45	-1556.78	-1931.12	0.00	2480.24	1292566.44	3120232.72	Proj. To Bit

Annotation

MD ft	TVD ft	
166.00	165.99	First Wft Svy
9009.00	8083.51	Last Wft Svy
9060.00	8134.45	Proj. To Bit