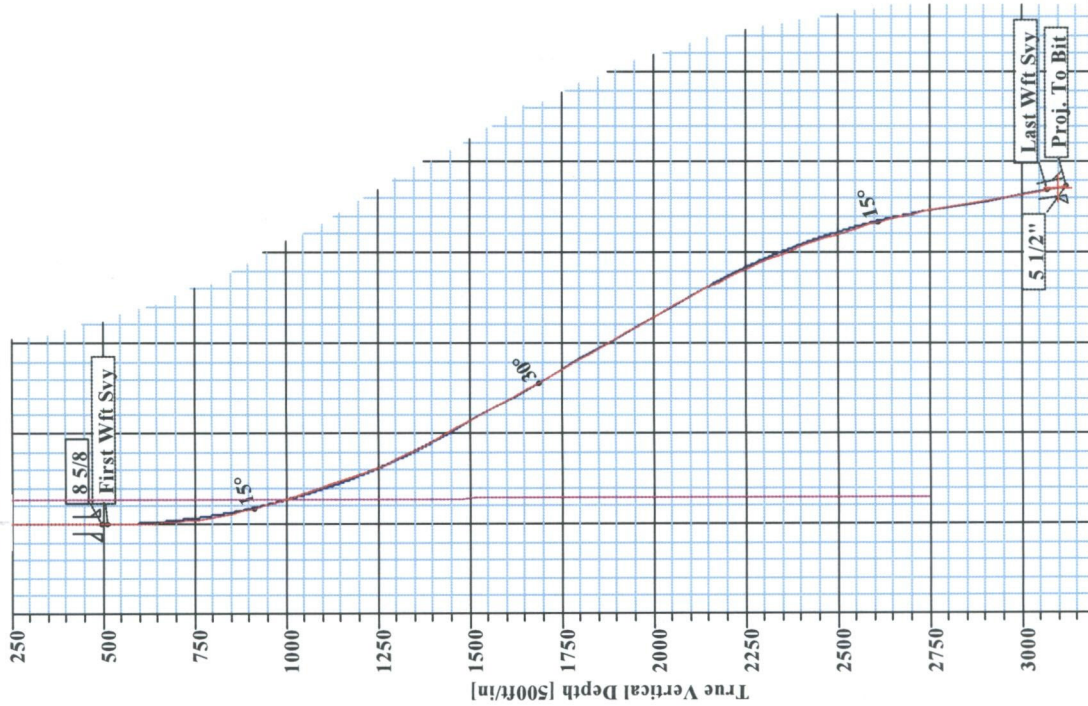




Tiffany 32-7 12-6 La Plata County, CO

KB ELEV: 6356
GL ELEV: 6344



Survey: Wft Svy (Tiffany 32-7 12-6/1)

No	MD	Inc	Azi	TVD	+N/-S	+E/-W	DLeg	TFace	VSec
91	3321.00	10.00	10.30	3124.20	925.60	102.95	0.00	0.00	931.31

Vertical Section at 6.33° [500ft/in]

SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	DLeg	TFace	VSec	Target
1	0.00	0.00	6.33	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2	500.00	0.00	6.33	500.00	0.00	0.00	0.00	0.00	0.00	0.00
3	1500.00	30.00	6.33	1454.93	254.31	28.21	3.00	6.33	255.87	255.87
4	2260.02	30.00	6.33	2113.13	632.01	70.12	3.00	180.00	635.88	635.88
5	2926.69	10.00	6.33	2736.42	857.48	95.13	3.00	180.00	862.44	862.44
6	3295.88	10.00	6.33	3100.00	921.20	102.20	0.00	0.00	926.85	926.85

WELL DETAILS

Name	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Slot
Tiffany 32-7 12-6	0.00	0.00	1137953.16	2400270.42	37°01'38.676"N	107°33'16.092"W	N/A

TARGET DETAILS

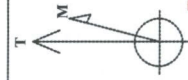
Name	TVD	+N/-S	+E/-W	Latitude	Longitude	Shape
Pbhl	3100.00	921.20	102.20	37°01'47.784"N	107°33'14.832"W	Point

FIELD DETAILS

La Plata County, CO (NAD 83)
Geodetic System: US State Plane Coordinate System 1983
Ellipsoid: GRS 1980
Zone: Colorado, Southern Zone
Magnetic Model: IGRF2010
System Datum: Mean Sea Level
Local North: True North

SITE DETAILS

Tiffany 32-7 12-6
Site Centre Latitude: 37°01'38.676"N
Longitude: 107°33'16.092"W
Ground Level: 6344.00
Positional Uncertainty: 0.00
Convergence: -1.26



Azimuths to True North
Magnetic North: 9.92°
Magnetic Field
Strength: 51039nT
Dip Angle: 63.76°
Date: 10/30/2010
Model: IGRF2010

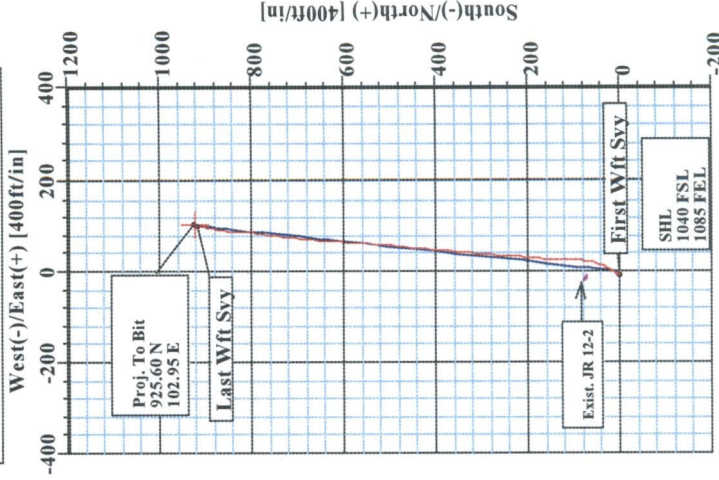
Total Correction to True North: 9.92°

FORMATION TOP DETAILS

No.	TVDPath	MDPath	Formation
1	1524.00	1582.01	Ojo Alamo
2	1595.00	1663.56	Kirtland Shale
3	1662.00	1740.45	Farmington SS
4	2418.00	2595.64	Fruitland Formation
5	2645.00	2833.46	Upper Fruitland Coal
6	2772.00	2963.22	Middle Fruitland Coal
7	2827.00	3019.12	Pictured Cliffs Tongue
8	3003.00	3197.92	Lower Fruitland Coal
9	3014.00	3209.09	Pictured Cliffs SS

LEGEND

Tiffany 32-7 12-6, Plan #1
Exist. JR 12-2 (1)
Wft Svy



Survey: Wft Svy (Tiffany 32-7 12-6/1)

Created By: Russell W. Joyner

Date: 10/14/2010





Weatherford International Ltd.

WFT Survey Report Lat, Long



Company: XTO	Date: 10/14/2010	Time: 08:09:08	Page: 1
Field: La Plata County, CO (NAD 83)	Co-ordinate(NE) Reference: Well: Tiffany 32-7 12-6, True North		
Site: Tiffany 32-7 12-6	Vertical (TVD) Reference: SITE 6356.0		
Well: Tiffany 32-7 12-6	Section (VS) Reference: Well (0.00N,0.00E,6.33Azi)		
Wellpath: 1	Survey Calculation Method: Minimum Curvature	Db: Sybase	

Survey: Wft Svy	Start Date: 10/13/2010
Company: Weatherford International Ltd.	Engineer: Russell W. Joyner
Tool: MWD;MWD - Standard	Tied-to: From Surface

Field: La Plata County, 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: Tiffany 32-7 12-6

Site Position:	Northing: 1137953.16 ft	Latitude: 37 1 38.676 N
From: Geographic	Easting: 2400270.42 ft	Longitude: 107 33 16.092 W
Position Uncertainty: 0.00 ft		North Reference: True
Ground Level: 6344.00 ft		Grid Convergence: -1.26 deg

Well: Tiffany 32-7 12-6	Slot Name:
Well Position: +N/-S 0.00 ft	Latitude: 37 1 38.676 N
+E/-W 0.00 ft	Longitude: 107 33 16.092 W
Position Uncertainty: 0.00 ft	

Wellpath: 1	Drilled From: Surface
Current Datum: SITE	Tie-on Depth: 0.00 ft
Magnetic Data: 10/30/2010	Above System Datum: Mean Sea Level
Field Strength: 51039 nT	Declination: 9.92 deg
Vertical Section: Depth From (TVD)	Mag Dip Angle: 63.76 deg
ft	+E/-W
	Direction
	deg
0.00	0.00
0.00	6.33

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	37	1	38.676	107	33	16.092	8 5/8 First Wft Sv
500.00	1.71	281.66	499.93	1.50	-7.29	0.69	0.34	37	1	38.691	107	33	16.182	
513.00	1.75	281.66	512.92	1.58	-7.67	0.73	0.34	37	1	38.692	107	33	16.187	
544.00	1.63	282.80	543.91	1.78	-8.57	0.82	0.40	37	1	38.694	107	33	16.198	
576.00	0.63	278.55	575.90	1.90	-9.18	0.88	3.13	37	1	38.695	107	33	16.205	
607.00	1.06	37.67	606.90	2.16	-9.18	1.13	4.75	37	1	38.697	107	33	16.205	
637.00	2.94	43.80	636.88	2.93	-8.47	1.98	6.30	37	1	38.705	107	33	16.197	
668.00	4.75	50.92	667.81	4.31	-6.93	3.52	6.03	37	1	38.719	107	33	16.177	
699.00	6.00	43.67	698.67	6.30	-4.81	5.73	4.58	37	1	38.738	107	33	16.151	
730.00	6.88	33.17	729.48	9.02	-2.68	8.67	4.73	37	1	38.765	107	33	16.125	
762.00	8.13	27.80	761.20	12.63	-0.57	12.49	4.48	37	1	38.801	107	33	16.099	
793.00	9.63	29.30	791.83	16.83	1.72	16.91	4.90	37	1	38.842	107	33	16.071	
824.00	11.19	28.42	822.32	21.73	4.42	22.09	5.06	37	1	38.891	107	33	16.038	
856.00	12.56	27.30	853.63	27.56	7.49	28.22	4.34	37	1	38.948	107	33	16.000	
887.00	13.88	25.42	883.81	33.91	10.63	34.88	4.48	37	1	39.011	107	33	15.961	
918.00	15.00	22.17	913.83	40.99	13.74	42.25	4.46	37	1	39.081	107	33	15.923	
950.00	15.56	18.80	944.70	48.88	16.69	50.43	3.28	37	1	39.159	107	33	15.886	
980.00	16.19	14.80	973.56	56.74	19.06	58.49	4.21	37	1	39.237	107	33	15.857	
1012.00	16.75	11.05	1004.25	65.58	21.08	67.50	3.75	37	1	39.324	107	33	15.832	
1044.00	17.38	6.30	1034.84	74.85	22.49	76.88	4.78	37	1	39.416	107	33	15.815	
1075.00	18.06	2.05	1064.37	84.26	23.17	86.30	4.71	37	1	39.509	107	33	15.806	
1107.00	18.94	1.42	1094.71	94.41	23.47	96.42	2.82	37	1	39.609	107	33	15.803	
1139.00	19.69	1.55	1124.91	104.99	23.75	106.96	2.35	37	1	39.714	107	33	15.799	
1170.00	19.75	1.80	1154.09	115.44	24.05	117.39	0.33	37	1	39.817	107	33	15.795	



Weatherford International Ltd.

WFT Survey Report Lat, Long



Company: XTO
Field: La Plata County, CO (NAD 83)
Site: Tiffany 32-7 12-6
Well: Tiffany 32-7 12-6
Wellpath: 1

Date: 10/14/2010 Time: 08:09:08 Page: 2
Co-ordinate(NE) Reference: Well: Tiffany 32-7 12-6, True North
Vertical (TVD) Reference: SITE 6356.0
Section (VS) Reference: Well (0.00N,0.00E,6.33Azi)
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
1202.00	20.25	2.42	1184.16	126.38	24.46	128.31	1.70	37	1	39.925	107	33	15.790	
1234.00	21.25	3.55	1214.09	137.70	25.05	139.62	3.37	37	1	40.037	107	33	15.783	
1266.00	22.63	4.05	1243.77	149.63	25.84	151.57	4.35	37	1	40.155	107	33	15.773	
1297.00	24.19	4.80	1272.22	161.91	26.80	163.88	5.12	37	1	40.277	107	33	15.762	
1329.00	25.44	4.80	1301.26	175.29	27.92	177.30	3.91	37	1	40.409	107	33	15.748	
1361.00	26.50	4.80	1330.03	189.26	29.09	191.31	3.31	37	1	40.547	107	33	15.733	
1392.00	27.38	4.30	1357.67	203.26	30.21	205.35	2.93	37	1	40.686	107	33	15.720	
1424.00	28.19	4.42	1385.98	218.13	31.34	220.25	2.54	37	1	40.833	107	33	15.706	
1456.00	29.13	4.55	1414.06	233.43	32.54	235.59	2.94	37	1	40.984	107	33	15.691	
1487.00	29.31	4.55	1441.11	248.51	33.74	250.72	0.58	37	1	41.133	107	33	15.676	
1518.00	29.31	4.42	1468.14	263.64	34.93	265.89	0.21	37	1	41.283	107	33	15.661	
1549.00	29.25	4.42	1495.18	278.76	36.10	281.04	0.19	37	1	41.432	107	33	15.647	
1581.00	29.13	4.42	1523.12	294.32	37.30	296.64	0.37	37	1	41.586	107	33	15.632	
1613.00	29.63	4.92	1551.00	309.97	38.58	312.33	1.74	37	1	41.741	107	33	15.616	
1644.00	29.50	5.17	1577.97	325.20	39.92	327.62	0.58	37	1	41.891	107	33	15.600	
1675.00	29.25	5.17	1604.98	340.35	41.29	342.83	0.81	37	1	42.041	107	33	15.583	
1707.00	29.25	5.05	1632.90	355.92	42.69	358.46	0.18	37	1	42.195	107	33	15.566	
1739.00	29.81	4.92	1660.74	371.63	44.06	374.23	1.76	37	1	42.350	107	33	15.549	
1770.00	30.00	4.80	1687.62	387.03	45.37	389.68	0.64	37	1	42.503	107	33	15.533	
1801.00	30.56	5.42	1714.39	402.60	46.76	405.30	2.07	37	1	42.656	107	33	15.515	
1833.00	30.50	5.92	1741.95	418.78	48.36	421.56	0.82	37	1	42.816	107	33	15.496	
1865.00	30.50	6.17	1769.52	434.93	50.07	437.80	0.40	37	1	42.976	107	33	15.475	
1896.00	30.38	4.92	1796.25	450.56	51.59	453.50	2.08	37	1	43.131	107	33	15.456	
1927.00	30.31	6.55	1823.00	466.14	53.16	469.16	2.67	37	1	43.285	107	33	15.436	
1958.00	30.31	5.80	1849.77	481.70	54.84	484.81	1.22	37	1	43.438	107	33	15.416	
1990.00	30.14	5.59	1877.42	497.73	56.44	500.91	0.63	37	1	43.597	107	33	15.396	
2022.00	30.06	5.42	1905.10	513.70	57.98	516.96	0.37	37	1	43.755	107	33	15.377	
2053.00	30.00	5.17	1931.94	529.15	59.41	532.47	0.45	37	1	43.908	107	33	15.359	
2085.00	29.88	4.55	1959.67	545.06	60.76	548.44	1.04	37	1	44.065	107	33	15.343	
2116.00	29.75	4.42	1986.57	560.43	61.97	563.84	0.47	37	1	44.217	107	33	15.328	
2147.00	29.63	4.30	2013.50	575.74	63.14	579.19	0.43	37	1	44.368	107	33	15.313	
2178.00	29.56	3.30	2040.45	591.01	64.15	594.48	1.61	37	1	44.519	107	33	15.301	
2209.00	29.38	3.42	2067.44	606.24	65.04	609.71	0.61	37	1	44.670	107	33	15.290	
2241.00	29.25	3.42	2095.34	621.88	65.98	625.36	0.41	37	1	44.824	107	33	15.278	
2273.00	28.44	4.42	2123.37	637.28	67.03	640.78	2.95	37	1	44.977	107	33	15.265	
2304.00	27.06	5.42	2150.81	651.66	68.27	655.21	4.70	37	1	45.119	107	33	15.250	
2335.00	26.06	6.92	2178.53	665.44	69.75	669.07	3.88	37	1	45.255	107	33	15.232	
2367.00	25.19	6.80	2207.39	679.18	71.41	682.91	2.72	37	1	45.391	107	33	15.211	
2398.00	24.31	5.67	2235.54	692.08	72.82	695.89	3.22	37	1	45.518	107	33	15.194	
2430.00	23.75	4.80	2264.77	705.06	74.01	708.92	2.07	37	1	45.647	107	33	15.179	
2462.00	23.25	4.80	2294.11	717.77	75.08	721.67	1.56	37	1	45.772	107	33	15.166	
2493.00	22.81	5.67	2322.64	729.85	76.18	733.80	1.79	37	1	45.892	107	33	15.153	
2524.00	22.13	7.17	2351.29	741.62	77.51	745.65	2.87	37	1	46.008	107	33	15.136	
2555.00	21.50	8.55	2380.07	753.03	79.08	757.16	2.62	37	1	46.121	107	33	15.117	
2587.00	20.75	9.05	2409.92	764.43	80.84	768.68	2.41	37	1	46.234	107	33	15.095	
2618.00	19.88	8.80	2438.99	775.06	82.51	779.43	2.82	37	1	46.339	107	33	15.074	
2650.00	19.13	8.67	2469.15	785.62	84.13	790.11	2.35	37	1	46.443	107	33	15.054	
2679.00	18.19	7.30	2496.63	794.81	85.43	799.38	3.58	37	1	46.534	107	33	15.039	
2711.00	17.31	5.05	2527.10	804.51	86.48	809.14	3.49	37	1	46.630	107	33	15.026	
2743.00	16.44	3.80	2557.73	813.77	87.20	818.42	2.95	37	1	46.722	107	33	15.017	
2774.00	15.69	2.42	2587.52	822.33	87.67	826.98	2.71	37	1	46.806	107	33	15.011	
2805.00	14.81	0.67	2617.42	830.48	87.89	835.11	3.20	37	1	46.887	107	33	15.008	



Weatherford International Ltd.

WFT Survey Report Lat, Long

**Weatherford**

Company: XTO
Field: La Plata County, CO (NAD 83)
Site: Tiffany 32-7 12-6
Well: Tiffany 32-7 12-6
Wellpath: 1

Date: 10/14/2010 Time: 08:09:08 Page: 3
Co-ordinate(NE) Reference: Well: Tiffany 32-7 12-6, True North
Vertical (TVD) Reference: SITE 6356.0
Section (VS) Reference: Well (0.00N,0.00E,6.33Azi)
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
2835.00	13.81	1.42	2646.49	837.90	88.02	842.49	3.39	37	1	46.960	107	33	15.007	
2866.00	12.81	3.30	2676.66	845.03	88.31	849.61	3.51	37	1	47.031	107	33	15.003	
2898.00	11.56	6.67	2707.94	851.75	88.89	856.36	4.49	37	1	47.097	107	33	14.996	
2929.00	10.69	10.05	2738.36	857.67	89.75	862.34	3.51	37	1	47.156	107	33	14.985	
2961.00	10.44	10.92	2769.81	863.44	90.82	868.19	0.93	37	1	47.213	107	33	14.972	
2991.00	10.25	10.80	2799.33	868.73	91.83	873.56	0.64	37	1	47.265	107	33	14.960	
3023.00	10.19	11.67	2830.82	874.30	92.94	879.21	0.52	37	1	47.320	107	33	14.946	
3054.00	10.00	11.30	2861.34	879.62	94.02	884.63	0.65	37	1	47.373	107	33	14.933	
3086.00	10.13	11.55	2892.85	885.10	95.13	890.20	0.43	37	1	47.427	107	33	14.919	
3118.00	10.19	10.42	2924.34	890.64	96.21	895.82	0.65	37	1	47.482	107	33	14.906	
3150.00	10.19	11.30	2955.84	896.20	97.27	901.47	0.49	37	1	47.537	107	33	14.892	
3181.00	10.25	11.30	2986.35	901.60	98.35	906.94	0.19	37	1	47.590	107	33	14.879	
3213.00	10.00	11.42	3017.85	907.11	99.46	912.55	0.78	37	1	47.645	107	33	14.866	
3244.00	10.13	11.17	3048.37	912.43	100.52	917.95	0.44	37	1	47.697	107	33	14.852	
3267.00	10.00	10.30	3071.02	916.38	101.27	921.95	0.87	37	1	47.736	107	33	14.843	Last Wft Svy
3321.00	10.00	10.30	3124.20	925.60	102.95	931.31	0.00	37	1	47.827	107	33	14.823	5 1/2"

Casing Points

MD ft	TVD ft	Diameter in	Hole Size in	Name
500.00	499.93	8.625	12.250	8 5/8
3321.00	3124.20	5.500	7.875	5 1/2"

Formations

MD ft	TVD ft	Formations	Lithology	Dip Angle deg	Dip Direction deg
1582.01	1524.00	Ojo Alamo		0.00	0.00
1663.56	1595.00	Kirtland Shale		0.00	0.00
1740.45	1662.00	Farmington SS		0.00	0.00
2595.64	2418.00	Fruitland Formation		0.00	0.00
2833.46	2645.00	Upper Fruitland Coal		0.00	0.00
2963.22	2772.00	Middle Fruitland Coal		0.00	0.00
3019.12	2827.00	Pictured Cliffs Tongue		0.00	0.00
3197.92	3003.00	Lower Fruitland Coal		0.00	0.00
3209.09	3014.00	Pictured Cliffs SS		0.00	0.00