

Chisholm Buffalo 12-1 Fed Com 2BS 1H MWD 0' to 19930' - Definitive Survey Geodetic Report (Def Survey)



Report Date: July 23, 2019 - 04:54 PM
Client: Chisholm
Field: N44 Lee County (NAD 83)
Structure / Slot: Chisholm Buffalo 12-1 Fed Com 2BS 1H / Chisholm Buffalo 12-1 Fed Com 2BS 1H
Well: Chisholm Buffalo 12-1 Fed Com 2BS 1H
Borehole: Original Borehole
UWI / API#: Unknown / Unknown
Survey Name: Chisholm Buffalo 12-1 Fed Com 2BS 1H MWD 0' to 19930' - Definitive
Survey Date: June 20, 2019
Tort / AHD / DDI / ERD Ratio: 285.483' / 10897.880' R / 8.808' / 1.131
Coordinate Reference System: NAD83 New Mexico State Plane, Eastern Zone, US Feet
Location Lat / Long: N 32° 40' 5.58227", W 103° 37' 14.38217"
Location Grid N/E Y/X: N 607565.750 RUS, E 760842.380 RUS
CRS Grid Convergence Angle: 0.3847°
Grid Scale Factor: 0.99999417
Version / Patch: 2.10.760.0

Survey / DLS Computation: Minimum Curvature / Lubinski
Vertical Section Azimuth: 359.863° (Grid North)
Vertical Section Origin: 0.000 R, 0.000 R
TVD Reference Datum: RKB
TVD Reference Elevation: 3744.800 ft above MSL
Seabed / Ground Elevation: 3712.900 ft above MSL
Magnetic Declination: 6.808°
North: 067565.750
Total Gravity Field Strength: 988.5107mg (8.80885 Based)
Gravity Model: GARM
Total Magnetic Field Strength: 48174.283 nT
Magnetic Dip Angle: 80.808°
Declination Date: June 21, 2019
Magnetic Declination Model: HDGM 2019
North Reference: Grid North
Total Corr Mag North-Grid: 0.3847°
Local Coord Referenced To: Well Head

HOBBS OGD
OCT 16 2019
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Comments	MD (ft)	Incl (°)	Azimuth (°)	TVD (ft)	VSEB (ft)	NS (ft)	EW (ft)	DLS (°/100ft)	Northing (ftUS)	Eastings (ftUS)	Latitude (N/S ° ' '')	Longitude (E/W ° ' '')	Closure (ft)	Closure Azimuth
SHL	0.00	0.00	0.53	0.00	0.00	0.00	0.00	N/A	607565.75	760842.38	N 32.40 5.58 W 103.37 14.38		0.00	0.00
First SLB MWD Survey	160.00	0.38	29.85	160.00	0.46	0.46	0.28	0.24	607566.21	760842.82	N 32.40 5.80 W 103.37 14.38		0.53	29.85
	190.00	0.55	25.02	190.00	0.67	0.68	0.37	0.58	607566.43	760842.73	N 32.40 5.80 W 103.37 14.38		0.77	28.95
	278.00	0.41	10.01	277.99	1.37	1.37	0.81	0.21	607567.12	760842.97	N 32.40 5.81 W 103.37 14.37		1.50	23.93
	373.00	0.56	345.05	372.99	2.15	2.15	0.55	0.27	607567.80	760842.91	N 32.40 5.81 W 103.37 14.38		2.22	14.28
	468.00	0.45	339.22	467.99	2.95	2.95	0.30	0.13	607568.70	760842.66	N 32.40 5.82 W 103.37 14.38		2.97	5.71
	562.00	0.28	323.72	561.99	3.48	3.48	0.03	0.21	607569.23	760842.39	N 32.40 5.83 W 103.37 14.38		3.48	0.46
	655.00	0.35	330.42	654.98	3.91	3.91	-0.25	0.08	607569.66	760842.11	N 32.40 5.83 W 103.37 14.38		3.92	358.39
	740.00	0.50	355.81	739.98	4.51	4.51	-0.40	0.28	607570.28	760841.98	N 32.40 5.84 W 103.37 14.39		4.52	354.89
	834.00	0.48	332.35	833.98	5.27	5.28	-0.02	0.11	607571.01	760841.74	N 32.40 5.84 W 103.37 14.39		5.30	353.29
	929.00	0.45	313.82	928.98	5.88	5.87	-1.08	0.18	607571.82	760841.28	N 32.40 5.85 W 103.37 14.39		5.97	349.82
	1024.00	0.59	312.57	1023.87	6.47	6.46	-1.71	0.15	607572.21	760840.85	N 32.40 5.86 W 103.37 14.40		6.68	345.21
	1118.00	0.81	304.71	1117.98	7.18	7.17	-0.25	0.25	607572.92	760839.75	N 32.40 5.86 W 103.37 14.41		7.63	340.00
	1213.00	0.73	299.36	1212.98	7.87	7.85	-3.69	0.11	607573.60	760839.87	N 32.40 5.87 W 103.37 14.42		8.67	334.83
	1309.00	0.74	289.68	1308.95	8.48	8.48	-4.78	0.01	607574.20	760839.60	N 32.40 5.88 W 103.37 14.44		9.70	330.83
	1403.00	0.51	285.47	1402.94	8.90	8.87	-5.89	0.30	607574.82	760839.87	N 32.40 5.88 W 103.37 14.45		10.54	327.34
	1498.00	0.50	286.45	1497.94	9.21	9.17	-6.47	0.10	607575.42	760839.50	N 32.40 5.88 W 103.37 14.46		11.22	324.81
	1531.00	0.34	327.02	1530.94	9.35	9.31	-6.65	0.82	607575.06	760839.71	N 32.40 5.88 W 103.37 14.46		11.44	324.48
	1556.00	1.01	60.24	1555.93	10.21	10.17	-5.89	0.87	607575.92	760839.47	N 32.40 5.89 W 103.37 14.45		11.79	329.81
	1751.00	1.13	51.84	1750.91	11.18	11.17	-4.43	0.21	607576.92	760839.83	N 32.40 5.70 W 103.37 14.43		12.01	338.36
	1846.00	1.28	54.29	1845.89	12.37	12.35	-2.84	0.15	607578.10	760839.52	N 32.40 5.71 W 103.37 14.41		12.68	347.03
	1940.00	1.49	53.22	1939.87	13.68	13.67	-1.05	0.21	607579.42	760841.31	N 32.40 5.73 W 103.37 14.39		13.71	355.82
	2034.00	1.48	51.32	2033.84	15.13	15.14	0.65	0.05	607580.89	760843.21	N 32.40 5.74 W 103.37 14.37		15.16	3.20
	2127.00	1.79	55.23	2126.90	16.89	16.89	0.36	0.38	607582.46	760845.32	N 32.40 5.78 W 103.37 14.35		16.96	10.04
	2221.00	1.81	56.25	2220.75	18.33	18.33	5.39	0.05	607584.11	760847.75	N 32.40 5.77 W 103.37 14.32		18.14	16.37
	2316.00	1.89	58.04	2315.70	20.07	20.12	8.01	0.19	607585.87	760850.37	N 32.40 5.79 W 103.37 14.29		21.65	21.71
	2410.00	2.02	54.97	2409.84	21.82	21.88	10.72	0.05	607587.73	760853.08	N 32.40 5.81 W 103.37 14.28		24.45	26.00
	2505.00	2.08	56.00	2504.55	24.88	24.94	13.54	1.32	607590.69	760855.90	N 32.40 5.84 W 103.37 14.22		28.38	28.50
	2600.00	1.84	61.35	2599.48	27.04	27.14	18.34	2.28	607592.89	760858.70	N 32.40 5.86 W 103.37 14.19		31.68	31.04
	2694.00	1.86	99.15	2693.44	28.99	27.10	19.17	0.82	607592.85	760861.53	N 32.40 5.86 W 103.37 14.16		33.20	35.28
	2788.00	2.32	101.24	2787.38	28.35	28.49	22.54	0.50	607592.24	760864.90	N 32.40 5.85 W 103.37 14.12		34.78	40.40
	2883.00	2.48	99.43	2882.29	25.82	25.78	28.44	0.17	607591.53	760868.80	N 32.40 5.85 W 103.37 14.07		36.93	45.73
	2978.00	2.80	100.87	2977.20	24.86	25.04	30.57	0.17	607590.78	760872.93	N 32.40 5.84 W 103.37 14.02		39.52	50.87
	3072.00	1.42	102.61	3071.14	23.84	23.81	33.64	1.49	607590.76	760876.00	N 32.40 5.83 W 103.37 13.99		41.33	54.48
	3167.00	0.80	138.59	3166.12	22.66	22.87	35.08	0.72	607588.81	760877.42	N 32.40 5.82 W 103.37 13.97		41.88	56.89
	3262.00	0.64	156.28	3261.12	21.67	21.88	35.71	0.29	607587.53	760878.07	N 32.40 5.81 W 103.37 13.96		41.88	58.50
	3356.00	0.36	170.92	3355.11	20.80	21.11	35.87	0.33	607586.86	760878.33	N 32.40 5.80 W 103.37 13.96		41.71	59.59
	3450.00	0.11	183.13	3449.11	20.52	20.73	36.01	0.27	607586.48	760878.37	N 32.40 5.79 W 103.37 13.96		41.55	60.08
	3538.00	0.23	208.72	3537.11	20.51	20.51	35.72	0.16	607586.47	760878.02	N 32.40 5.78 W 103.37 13.96		41.26	59.85
	3627.00	0.62	327.72	3626.11	21.55	21.75	34.78	0.23	607587.50	760877.14	N 32.40 5.81 W 103.37 13.97		41.02	57.68
	3721.00	0.88	325.91	3720.10	22.57	22.77	34.11	0.26	607588.22	760878.47	N 32.40 5.82 W 103.37 13.98		41.01	56.28
	4017.00	0.81	324.30	4016.09	23.72	23.91	33.31	0.08	607588.86	760875.87	N 32.40 5.83 W 103.37 13.99		41.01	54.33
	4111.00	0.53	322.75	4110.28	24.61	24.80	32.88	0.26	607590.55	760875.02	N 32.40 5.84 W 103.37 14.00		41.01	52.76
	4206.00	0.64	311.68	4205.08	25.31	25.50	32.00	0.17	607591.25	760874.36	N 32.40 5.84 W 103.37 14.01		40.92	51.45
	4301.00	0.51	311.25	4300.07	25.95	26.13	31.29	0.14	607591.88	760873.85	N 32.40 5.85 W 103.37 14.01		40.77	50.13
	4396.00	0.48	329.18	4395.07	26.57	26.75	30.78	0.17	607592.50	760873.12	N 32.40 5.85 W 103.37 14.02		40.77	48.89
	4491.00	0.88	329.31	4490.06	28.20	28.38	29.73	0.11	607594.13	760872.09	N 32.40 5.87 W 103.37 14.03		41.10	48.34
	4581.00	0.44	312.49	4580.26	28.92	29.09	29.15	0.28	607594.84	760871.51	N 32.40 5.88 W 103.37 14.04		41.18	45.08
	4676.00	0.88	314.87	4675.05	29.57	29.74	28.48	0.25	607595.49	760870.84	N 32.40 5.88 W 103.37 14.05		41.37	42.42
	4772.00	0.52	338.16	4771.04	30.37	30.54	27.90	0.28	607596.29	760870.26	N 32.40 5.89 W 103.37 14.05		41.37	42.42
	4866.00	0.45	321.55	4865.04	31.05	31.22	27.50	0.15	607596.97	760869.88	N 32.40 5.90 W 103.37 14.06		41.60	41.38
	5062.00	0.53	314.09	5061.04	31.88	31.82	28.95	0.11	607597.57	760869.31	N 32.40 5.91 W 103.37 14.06		41.70	40.28
	5252.00	0.41	320.71	5251.03	32.81	32.86	25.88	0.07	607598.71	760868.24	N 32.40 5.92 W 103.37 14.08		41.91	38.15
	5429.00	0.29	9.91	5428.03	33.74	33.89	25.58	0.18	607598.84	760867.82	N 32.40 5.93 W 103.37 14.08		42.45	37.03
	5522.00	0.28	25.83	5521.03	34.17	34.33	25.70	0.08	607600.08	760868.06	N 32.40 5.93 W 103.37 14.08		42.88	36.82
	5616.00	0.25	58.78	5615.03	34.49	34.64	25.88	0.16	607600.38	760868.33	N 32.40 5.93 W 103.37 14.08		43.30	36.87
	5711.00	0.48	62.44	5710.02	34.73	34.73	25.35	0.32	607600.48	760868.81	N 32.40 5.93 W 103.37 14.07		43.72	37.40
	5805.00	2.02	202.22	5804.02	33.02	33.18	28.32	0.17	607598.88	760868.68	N 32.40 5.92 W 103.37 14.07		42.35	36.42
	5900.00	2.07	196.82	5898.94	28.84	29.08	25.19	0.21	607598.74	760867.55	N 32.40 5.89 W 103.37 14.08		39.16	40.03
	5994.00	3.31	194.05	5992.84	25.59	25.73	24.04	1.33	607591.48	760868.40	N 32.40 5.85 W 103.37 14.10		35.21	43.05
	6088.00	3.87	193.88	6086.85	19.89	20.02	22.81	0.80	607595.77	760864.87	N 32.40 5.78 W 103.37 14.12		30.20	48.48
	6183.00	1.82	190.72	6181.44	13.87	13.87	17.25	0.17	607597.51	760863.61	N 32.40 5.73 W 103.37 14.13		26.16	51.83
	6279.00	3.56	190.78	6277.24	7.89	7.80	19.79	0.40	607593.55	760862.15	N 32.40 5.67 W 103.37 14.15		21.28	66.48
	6374.00	4.20	200.38	6372.02	1.61	1.72	17.73	0.72	607597.47	760860.09	N 32.40 5.61 W 103.37 14.17		17.82	84.47

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Comments	MD (ft)	Incl (°)	Azlm Grid (°)	TVD (ft)	VSEC (ft)	NS (ft)	EW (ft)	OLS (°/100ft)	Northing (ftUS)	Easting (ftUS)	Latitude (N/S ° ' ")	Longitude (E/W ° ' ")	Closure (ft)	Closure Azimuth (°)
Survey Program:														
Description	Part	MD From (ft)	MD To (ft)	EOU Freq (ft)	Hole Size (in)	Casing Diameter (in)	Survey Tool Type		Borehole / Survey					
	1	0.000	32.000	1/88.425	30.000	30.000	NAL_MWID_1.0_DEG-Depth Only		Original Borehole / Chisholm Buffalo 12-1 Fed Com 2BS 1H MWID 0' to 19930' - Definitive					
	1	32.000	32.000	Act Sins	30.000	30.000	NAL_MWID_1.0_DEG-Depth Only		Original Borehole / Chisholm Buffalo 12-1 Fed Com 2BS 1H MWID 0' to 19930' - Definitive					
	1	32.000	19930.000	Act Sins	30.000	30.000	NAL_MWID_1.0_DEG		Original Borehole / Chisholm Buffalo 12-1 Fed Com 2BS 1H					