

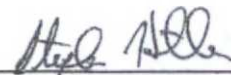
HALLIBURTON

3950 Interwood South Parkway • Houston, TX 77032

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State of New Mexico, Lea County

I, Stephen Hatcher, certify that I am employed by Halliburton Energy Services, Inc. (AKA Sperry Drilling) and that on the dates of June 11, 2015 through July 01, 2015, I did conduct or supervise the taking of MWD Directional surveys for the well Orange Raider 35-1H from 8892' MD to 13787' MD. This data is true, correct, complete and within the limitations of the tools as set forth by Halliburton Energy Services, Inc. (AKA Sperry Drilling). I am authorized and qualified to make this report and this survey was conducted at the request of Endurance Resources LLC. for the Orange Raider 35-1H well, API No. 30-025-39712-0000 in Lea County, New Mexico. I have reviewed this report and find that it conforms to the principles and procedures as set forth by Halliburton Energy Services, Inc. (AKA Sperry Drilling).



Stephen Hatcher
MWD Field Engineer

OCT 29 2015

Endurance Resources, LLC.

Orange Raider 35 State 1H

Lea County, New Mexico

McVAY 10

API# 30-025-39712-0000

June 11, 2015 – July 01, 2015

MO-XX-0902322328

Sperry Drilling

MWD Survey Report

Submitted by Stephen Hatcher

3950 Interwood South Parkway

Houston, TX 77032

Ph: 281.986.4400

HALLIBURTON

**Drilling and Formation
Evaluation**

[REDACTED]

Survey Report for Endurance Resources, LLC.

Rig	:	McVAY 10
Well Name	:	Orange Raider 35 State 1H
Field Name	:	Bone Spring
Country	:	USA
Job Number	:	MO-XX-0902477006
Job Start Date	:	11-Jun-15
API Number	:	30-025-39712-0000

DIRECTIONAL SURVEY DATA

Tie-In

0.00 0.00 0.00 0.00 0.00 N 0.00 E

Measured Depth (ft)	Inclination (deg)	Direction (deg)	Vertical Depth (ft)	Latitude (ft)	Departure (ft)	Vertical Section (ft)	Dogleg (°/100')
100.00	0.24	15.64	100.00	0.20 N	0.06 E	0.20	0.24
200.00	0.15	94.63	200.00	0.39 N	0.24 E	0.39	0.26
300.00	0.10	130.19	300.00	0.33 N	0.44 E	0.32	0.09
400.00	0.14	109.91	400.00	0.23 N	0.62 E	0.22	0.06
500.00	0.05	193.59	500.00	0.14 N	0.73 E	0.14	0.14
600.00	0.19	163.85	600.00	0.06 S	0.76 E	-0.07	0.15
700.00	0.30	132.14	700.00	0.39 S	1.00 E	-0.40	0.17
800.00	0.60	124.28	799.99	0.86 S	1.63 E	-0.88	0.31
900.00	1.13	121.68	899.98	1.68 S	2.90 E	-1.71	0.53
1000.00	1.05	132.67	999.96	2.81 S	4.41 E	-2.86	0.22
1100.00	0.69	182.99	1,099.95	4.04 S	5.06 E	-4.09	0.81
1200.00	1.21	238.40	1,199.94	5.19 S	4.13 E	-5.24	1.00
1300.00	1.78	268.87	1,299.91	5.78 S	1.67 E	-5.79	0.96
1400.00	1.68	260.72	1,399.86	6.04 S	1.33 W	-6.03	0.27
1500.00	1.18	284.24	1,499.83	6.03 S	3.77 W	-5.98	0.76
1600.00	1.49	288.38	1,599.81	5.36 S	6.00 W	-5.30	0.32
1700.00	1.25	279.33	1,699.78	4.78 S	8.31 W	-4.68	0.32
1800.00	1.35	279.04	1,799.75	4.41 S	10.55 W	-4.30	0.10
1900.00	1.18	290.61	1,899.73	3.87 S	12.68 W	-3.72	0.31
2000.00	1.27	284.99	1,999.70	3.22 S	14.71 W	-3.05	0.15
2100.00	1.94	269.66	2,099.67	2.94 S	17.48 W	-2.75	0.79
2200.00	1.99	257.48	2,199.61	3.33 S	20.86 W	-3.09	0.42
2300.00	1.49	265.53	2,299.56	3.80 S	23.86 W	-3.54	0.56
2400.00	1.01	257.39	2,399.54	4.10 S	26.01 W	-3.81	0.51
2500.00	1.09	248.61	2,499.52	4.64 S	27.76 W	-4.33	0.18
2600.00	1.46	258.18	2,599.49	5.25 S	29.89 W	-4.91	0.43
2700.00	1.50	259.20	2,699.46	5.75 S	32.42 W	-5.39	0.05
2800.00	1.25	264.88	2,799.43	6.09 S	34.79 W	-5.71	0.28
2900.00	1.53	279.05	2,899.40	5.98 S	37.20 W	-5.57	0.44
3000.00	1.40	282.50	2,999.37	5.51 S	39.71 W	-5.06	0.16
3100.00	1.39	262.34	3,099.34	5.40 S	42.11 W	-4.93	0.49
3200.00	1.80	292.58	3,199.30	4.96 S	44.76 W	-4.46	0.92
3300.00	1.55	289.09	3,299.26	3.92 S	47.49 W	-3.39	0.27
3400.00	1.20	296.57	3,399.23	3.01 S	49.70 W	-2.45	0.39
3500.00	1.38	298.59	3,499.21	1.96 S	51.69 W	-1.38	0.19
3600.00	2.00	297.73	3,599.16	0.57 S	54.30 W	0.03	0.62
3700.00	1.62	308.86	3,699.11	1.12 N	56.94 W	1.76	0.52
3800.00	1.34	290.87	3,799.08	2.43 N	59.13 W	3.09	0.54
3900.00	1.23	270.49	3,899.06	2.85 N	61.30 W	3.54	0.47
4000.00	2.18	243.54	3,999.01	2.02 N	64.08 W	2.73	1.22
4100.00	1.70	233.13	4,098.96	0.28 N	66.97 W	1.03	0.59

DIRECTIONAL SURVEY DATA

Measured Depth (ft)	Inclination (deg)	Direction (deg)	Vertical Depth (ft)	Latitude (ft)	Departure (ft)	Vertical Section (ft)	Dogleg (°/100')
4200.00	1.34	266.40	4,198.92	0.69 S	69.32 W	0.09	0.94
4300.00	1.67	272.86	4,298.89	0.69 S	71.94 W	0.12	0.37
4400.00	2.24	274.54	4,398.83	0.46 S	75.35 W	0.38	0.57
4500.00	2.11	279.00	4,498.76	0.02 S	79.11 W	0.87	0.21
4600.00	1.15	274.39	4,598.71	0.35 N	81.93 W	1.26	0.97
4700.00	1.61	292.87	4,698.69	0.97 N	84.23 W	1.91	0.63
4800.00	2.49	295.19	4,798.62	2.44 N	87.49 W	3.42	0.88
4900.00	2.54	294.38	4,898.52	4.28 N	91.47 W	5.30	0.06
5000.00	2.24	284.89	4,998.44	5.70 N	95.38 W	6.76	0.50
5100.00	1.55	273.92	5,098.38	6.29 N	98.61 W	7.39	0.78
5200.00	1.38	287.49	5,198.35	6.75 N	101.11 W	7.88	0.39
5300.00	1.80	279.15	5,298.31	7.36 N	103.81 W	8.52	0.48
5400.00	1.80	272.19	5,398.26	7.67 N	106.93 W	8.86	0.22
5500.00	1.15	270.16	5,498.23	7.73 N	109.50 W	8.95	0.65
5600.00	1.88	274.23	5,598.19	7.85 N	112.14 W	9.11	0.74
5700.00	1.62	260.69	5,698.15	7.75 N	115.17 W	9.03	0.49
5800.00	2.42	266.05	5,798.08	7.37 N	118.68 W	8.70	0.82
5900.00	2.54	276.78	5,897.99	7.49 N	122.98 W	8.86	0.48
6000.00	2.47	275.69	5,997.90	7.96 N	127.33 W	9.39	0.08
6100.00	2.27	282.34	6,097.81	8.60 N	131.41 W	10.07	0.34
6200.00	2.55	276.37	6,197.72	9.27 N	135.55 W	10.79	0.38
6300.00	1.87	269.40	6,297.65	9.50 N	139.39 W	11.06	0.73
6400.00	1.94	261.59	6,397.59	9.24 N	142.70 W	10.83	0.27
6500.00	1.87	265.27	6,497.54	8.85 N	146.00 W	10.48	0.14
6600.00	2.15	260.98	6,597.48	8.43 N	149.48 W	10.10	0.32
6700.00	1.97	274.74	6,697.41	8.27 N	153.04 W	9.98	0.52
6800.00	1.90	257.45	6,797.35	8.06 N	156.38 W	9.80	0.59
6900.00	2.13	271.09	6,897.29	7.73 N	159.85 W	9.52	0.53
7000.00	2.01	267.84	6,997.23	7.70 N	163.46 W	9.53	0.17
7100.00	1.90	263.72	7,097.17	7.45 N	166.86 W	9.32	0.18
7200.00	2.41	277.63	7,197.10	7.55 N	170.59 W	9.46	0.73
7300.00	2.10	291.70	7,297.02	8.51 N	174.38 W	10.45	0.63
7400.00	1.71	281.90	7,396.97	9.49 N	177.54 W	11.47	0.51
7500.00	1.70	261.31	7,496.92	9.58 N	180.47 W	11.59	0.61
7600.00	1.67	259.61	7,596.88	9.09 N	183.37 W	11.14	0.06
7700.00	1.52	258.14	7,696.84	8.55 N	186.10 W	10.63	0.16
7800.00	1.63	256.15	7,796.80	7.94 N	188.78 W	10.05	0.12
7900.00	1.68	258.65	7,896.76	7.31 N	191.60 W	9.45	0.09
8000.00	1.53	240.38	7,996.72	6.36 N	194.19 W	8.53	0.53
8100.00	1.86	243.98	8,096.68	4.99 N	196.81 W	7.19	0.35
8200.00	1.96	239.00	8,196.63	3.40 N	199.74 W	5.63	0.19
8300.00	2.06	239.80	8,296.56	1.61 N	202.76 W	3.88	0.10
8400.00	1.81	230.29	8,396.51	0.30 S	205.53 W	2.00	0.41
8500.00	1.98	248.40	8,496.45	1.94 S	208.35 W	0.38	0.62
8600.00	2.15	238.04	8,596.39	3.57 S	211.54 W	-1.21	0.41

DIRECTIONAL SURVEY DATA

Measured Depth (ft)	Inclination (deg)	Direction (deg)	Vertical Depth (ft)	Latitude (ft)	Longitude (ft)	Vertical Section (ft)	Dipleg (ft/100')
8700.00	1.73	245.24	8,696.33	5.20 S	214.51 W	-2.80	0.48
8770.00	1.60	255.81	8,766.30	5.88 S	216.41 W	-3.46	0.48
8892.00	1.56	281.33	8,888.26	5.97 S	219.69 W	-3.52	0.57
8928.00	5.43	347.78	8,924.19	4.21 S	220.53 W	-1.75	13.92
8957.00	8.88	351.60	8,952.96	0.66 S	221.15 W	1.81	12.00
8988.00	11.59	356.37	8,983.47	4.82 N	221.69 W	7.29	9.16
9022.00	14.79	356.56	9,016.57	12.56 N	222.17 W	15.04	9.43
9051.00	17.13	357.88	9,044.45	20.53 N	222.55 W	23.01	8.16
9082.00	20.39	358.86	9,073.79	30.49 N	222.83 W	32.98	10.55
9114.00	23.47	358.78	9,103.48	42.44 N	223.07 W	44.93	9.64
9146.00	26.97	358.10	9,132.42	56.07 N	223.45 W	58.56	10.96
9178.00	29.95	357.32	9,160.55	71.30 N	224.06 W	73.80	9.39
9209.00	32.61	357.39	9,187.04	87.38 N	224.81 W	89.88	8.58
9241.00	34.84	358.24	9,213.66	105.13 N	225.48 W	107.64	7.12
9273.00	37.09	358.44	9,239.55	123.91 N	226.02 W	126.43	7.06
9305.00	40.45	357.98	9,264.50	143.94 N	226.65 W	146.46	10.51
9336.00	42.74	358.28	9,287.68	164.51 N	227.32 W	167.04	7.42
9368.00	44.83	358.76	9,310.78	186.64 N	227.89 W	189.17	6.61
9399.00	46.68	359.59	9,332.41	208.84 N	228.21 W	211.38	6.28
9431.00	48.51	359.60	9,353.99	232.47 N	228.37 W	235.01	5.69
9463.00	50.69	359.84	9,374.73	256.84 N	228.49 W	259.38	6.86
9494.00	54.00	1.52	9,393.66	281.38 N	228.19 W	283.91	11.50
9526.00	57.57	1.79	9,411.66	307.82 N	227.43 W	310.34	11.16
9558.00	59.76	1.08	9,428.30	335.14 N	226.75 W	337.65	7.10
9589.00	62.27	0.16	9,443.32	362.25 N	226.46 W	364.76	8.51
9620.00	65.43	0.12	9,456.98	390.08 N	226.39 W	392.58	10.20
9652.00	68.54	0.16	9,469.49	419.53 N	226.32 W	422.03	9.71
9684.00	71.50	0.37	9,480.42	449.60 N	226.18 W	452.10	9.27
9715.00	73.75	0.66	9,489.68	479.18 N	225.91 W	481.67	7.32
9747.00	76.55	0.35	9,497.88	510.11 N	225.64 W	512.60	8.81
9779.00	78.62	359.57	9,504.76	541.36 N	225.66 W	543.84	6.87
9810.00	81.26	358.73	9,510.18	571.87 N	226.11 W	574.36	8.92
9842.00	84.33	358.96	9,514.19	603.61 N	226.75 W	606.10	9.62
9874.00	86.15	358.97	9,516.85	635.49 N	227.33 W	637.99	5.70
9905.00	87.54	358.46	9,518.56	666.44 N	228.02 W	668.94	4.78
9937.00	88.31	358.83	9,519.72	698.41 N	228.78 W	700.92	2.65
9968.00	89.75	358.90	9,520.24	729.40 N	229.40 W	731.91	4.67
10032.00	91.73	359.18	9,519.42	793.38 N	230.47 W	795.90	3.12
10126.00	90.71	358.42	9,517.42	887.33 N	232.44 W	889.88	1.35
10221.00	90.86	358.86	9,516.12	982.30 N	234.69 W	984.86	0.49
10316.00	88.09	358.45	9,516.99	1,077.26 N	236.91 W	1079.84	2.95
10410.00	89.01	358.20	9,519.36	1,171.19 N	239.66 W	1173.79	1.02
10505.00	90.52	358.78	9,519.75	1,266.15 N	242.16 W	1268.78	1.71
10601.00	91.17	358.45	9,518.33	1,362.11 N	244.48 W	1364.76	0.76
10695.00	90.96	359.72	9,516.58	1,456.08 N	245.97 W	1458.74	1.37

DIRECTIONAL SURVEY DATA

Measured Depth (ft)	Inclination (deg)	Direction (deg)	Vertical Depth (ft)	Latitude (ft)	Departure (ft)	Vertical Section (ft)	Dogleg (°/100')
10789.00	90.77	359.49	9,515.17	1,550.07 N	246.62 W	1552.73	0.32
10884.00	91.48	359.68	9,513.30	1,645.05 N	247.31 W	1647.71	0.77
10979.00	92.69	359.62	9,509.85	1,739.98 N	247.90 W	1742.64	1.27
11074.00	90.59	359.00	9,507.13	1,834.93 N	249.05 W	1837.60	2.31
11169.00	90.40	359.07	9,506.31	1,929.91 N	250.65 W	1932.59	0.21
11264.00	89.72	358.71	9,506.21	2,024.89 N	252.49 W	2027.59	0.80
11359.00	92.09	359.08	9,504.71	2,119.86 N	254.32 W	2122.57	2.53
11454.00	93.27	359.19	9,500.26	2,214.74 N	255.76 W	2217.46	1.25
11550.00	90.34	357.25	9,497.23	2,310.63 N	258.74 W	2313.38	3.66
11645.00	92.50	359.00	9,494.88	2,405.54 N	261.84 W	2408.32	2.93
11740.00	92.72	358.76	9,490.56	2,500.42 N	263.70 W	2503.21	0.35
11835.00	92.13	359.13	9,486.54	2,595.32 N	265.45 W	2598.13	0.73
11930.00	93.18	359.12	9,482.14	2,690.21 N	266.90 W	2693.02	1.10
12025.00	92.90	358.71	9,477.10	2,785.06 N	268.70 W	2787.89	0.52
12119.00	92.50	359.07	9,472.68	2,878.94 N	270.51 W	2881.78	0.57
12214.00	91.88	359.81	9,469.05	2,973.86 N	271.44 W	2976.71	1.01
12309.00	89.04	0.36	9,468.29	3,068.85 N	271.30 W	3071.69	3.04
12405.00	91.04	1.31	9,468.21	3,164.83 N	269.91 W	3167.65	2.31
12499.00	91.78	359.79	9,465.89	3,258.80 N	269.00 W	3261.60	1.79
12593.00	91.60	358.26	9,463.11	3,352.74 N	270.60 W	3355.55	1.65
12688.00	91.11	358.92	9,460.87	3,447.68 N	272.95 W	3450.52	0.87
12783.00	90.92	358.96	9,459.18	3,542.65 N	274.70 W	3545.50	0.20
12878.00	89.97	357.75	9,458.44	3,637.61 N	277.43 W	3640.48	1.63
12973.00	90.98	357.58	9,457.65	3,732.52 N	281.30 W	3735.43	1.08
13069.00	91.26	356.98	9,455.77	3,828.39 N	285.86 W	3831.35	0.69
13163.00	89.94	357.63	9,454.78	3,922.28 N	290.27 W	3925.28	1.57
13256.00	89.66	358.81	9,455.11	4,015.24 N	293.16 W	4018.26	1.30
13351.00	89.29	359.66	9,455.98	4,110.22 N	294.42 W	4113.25	0.98
13445.00	89.75	359.55	9,456.76	4,204.22 N	295.06 W	4207.25	0.51
13540.00	89.32	358.98	9,457.53	4,299.21 N	296.28 W	4302.25	0.75
13634.00	90.25	358.86	9,457.88	4,393.19 N	298.06 W	4396.24	0.99
13729.00	91.57	358.65	9,456.37	4,488.15 N	300.12 W	4491.22	1.41
13787.00	91.32	358.49	9,454.91	4,546.11 N	301.56 W	4549.20	0.52
13850.00	91.32	358.49	9,453.45	4,609.07 N	303.23 W	4612.17	0.01

SURVEY FOOTER

SURVEYS CALCULATED USING THE SHORT COLLAR METHOD.

WELL ASSUMED VERTICAL AT SURFACE.

SURVEYS FROM 100' MD TO 8770' MD PROVIDED BY VAUGHN ENERGY SERVICES.

SURVEYS FROM 8892' MD TO 13787' MD PROVIDED BY SPERRY DRILLING SERVICES.

SURVEY AT 13787' MD IS PROJECTED TO TD AT 13850' MD.

SPERRY DRILLING ENGINEERS: STEPHEN HATCHER, JESSICA BAUMGARTNER

DIRECTIONAL SURVEY DATA NOTES

- Calculation based on minimum curvature method.
- Survey coordinates relative to well system reference point.
- TVD values given relative to drilling measurement point.
- Vertical section relative to well head.
- Vertical section is computed along a direction of 359.36 degrees (Grid)
- A total correction of 6.73 deg from Magnetic north to Grid north has been applied
- Horizontal displacement is relative to the well head.
- Horizontal displacement (closure) at 13,850.00 feet is 4,619.04 feet along 356.24 degrees (Grid)

WARRANTY

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