

HALLIBURTON

3950 Interwood South Parkway • Houston, TX 77032

PHONE 281.986.4400 • FAX 281.986.4499

State of New Mexico, Lea County

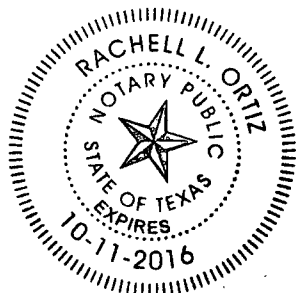
30-025-42362

I, Stephen Hatcher, certify that I am employed by Halliburton Energy Services, Inc. (AKA Sperry Drilling) and that on the dates of March 07, 2015 through April 16, 2015, I did conduct or supervise the taking of MWD Directional surveys for the well Tele Delux 32 State 4H ST01 from 11742' MD to 16860' 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 Tele Delux 32 State 4H ST01 well, API No. 30-025-42362-0100 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).

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Stephen Hatcher

Stephen Hatcher
MWD Field Engineer

SEP 23 2015

Endurance Resources, LLC.

Tele Delux 32 State 4H

Lea County, New Mexico

McVAY 10

API# 30-025-42362-0100

March 07, 2015 – April 16, 2015

MO-XX-0902155367

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**

Survey Report for Endurance Resources, LLC.

Rig : McVAY 10
Well Name : Tele Delux 32 State #004H ST01
Field Name : Bone Springs
Country : USA
Job Number : MO-XX-0902155367
Job Start Date : 07-Mar-15
API Number : 30-025-42362-0100

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	1.01	124.30	99.99	0.50 S	0.73 E	0.55	1.01
200.00	1.02	132.06	199.98	1.59 S	2.12 E	1.75	0.14
300.00	1.16	115.87	299.96	2.63 S	3.69 E	2.90	0.34
400.00	1.21	112.82	399.94	3.48 S	5.57 E	3.89	0.08
500.00	1.12	117.76	499.92	4.34 S	7.41 E	4.89	0.13
600.00	1.26	78.23	599.90	4.57 S	9.35 E	5.27	0.82
700.00	0.97	77.68	699.88	4.17 S	11.26 E	5.01	0.29
800.00	1.29	77.63	799.86	3.75 S	13.18 E	4.74	0.32
900.00	1.37	87.01	899.83	3.44 S	15.47 E	4.61	0.23
1000.00	0.87	76.42	999.81	3.20 S	17.41 E	4.51	0.54
1100.00	0.84	88.97	1,099.80	3.01 S	18.88 E	4.44	0.19
1200.00	0.81	76.01	1,199.79	2.83 S	20.30 E	4.36	0.19
1300.00	0.47	90.35	1,299.79	2.66 S	21.39 E	4.27	0.37
1400.00	0.69	76.74	1,399.78	2.52 S	22.39 E	4.22	0.26
1500.00	0.54	82.04	1,499.78	2.32 S	23.44 E	4.09	0.16
1600.00	0.48	70.39	1,599.77	2.11 S	24.30 E	3.95	0.12
1700.00	0.53	86.63	1,699.77	1.95 S	25.16 E	3.85	0.15
1800.00	0.38	99.64	1,799.77	1.98 S	25.95 E	3.94	0.18
1900.00	0.23	86.07	1,899.76	2.02 S	26.47 E	4.02	0.17
2000.00	0.36	95.87	1,999.76	2.04 S	26.99 E	4.08	0.14
2100.00	0.17	119.36	2,099.76	2.14 S	27.43 E	4.21	0.22
2200.00	0.47	76.84	2,199.76	2.12 S	27.96 E	4.23	0.36
2300.00	0.60	85.68	2,299.76	1.99 S	28.88 E	4.17	0.15
2400.00	0.55	57.42	2,399.75	1.69 S	29.81 E	3.95	0.28
2500.00	0.57	314.21	2,499.75	1.08 S	29.85 E	3.35	0.88
2600.00	0.47	303.27	2,599.74	0.51 S	29.15 E	2.72	0.14
2700.00	0.21	310.67	2,699.74	0.17 S	28.67 E	2.34	0.26
2800.00	0.47	133.44	2,799.74	0.33 S	28.83 E	2.52	0.68
2900.00	0.68	109.11	2,899.74	0.81 S	29.69 E	3.06	0.32
3000.00	0.80	94.74	2,999.73	1.06 S	30.95 E	3.40	0.22
3100.00	0.64	54.70	3,099.72	0.79 S	32.10 E	3.23	0.52
3200.00	0.92	31.35	3,199.71	0.21 N	32.97 E	2.29	0.42
3300.00	0.18	338.01	3,299.71	1.05 N	33.33 E	1.48	0.83
3400.00	0.09	315.72	3,399.71	1.25 N	33.22 E	1.27	0.10
3500.00	0.22	56.59	3,499.71	1.41 N	33.32 E	1.12	0.25
3600.00	0.06	24.40	3,599.71	1.56 N	33.50 E	0.98	0.17
3700.00	0.07	60.30	3,699.71	1.64 N	33.58 E	0.91	0.04
3800.00	0.09	8.52	3,799.71	1.75 N	33.64 E	0.81	0.07
3900.00	0.07	302.25	3,899.71	1.86 N	33.60 E	0.69	0.09
4000.00	0.16	5.50	3,999.70	2.03 N	33.56 E	0.52	0.14
4100.00	0.17	287.76	4,099.70	2.22 N	33.44 E	0.33	0.21

DIRECTIONAL SURVEY DATA

Measured Depth (ft)	Inclination (deg)	Direction (deg)	Vertical Depth (ft)	Latitude (ft)	Departure (ft)	Vertical Section (ft)	Dogleg (°/100')
4200.00	0.25	326.81	4,199.70	2.44 N	33.18 E	0.08	0.16
4300.00	0.47	317.32	4,299.70	2.93 N	32.78 E	-0.43	0.23
4400.00	0.26	310.96	4,399.70	3.38 N	32.33 E	-0.92	0.21
4500.00	0.23	50.88	4,499.70	3.65 N	32.31 E	-1.19	0.38
4600.00	0.86	97.69	4,599.69	3.68 N	33.21 E	-1.15	0.72
4700.00	0.91	103.43	4,699.68	3.39 N	34.73 E	-0.75	0.10
4800.00	0.59	114.22	4,799.67	3.00 N	35.97 E	-0.26	0.35
4900.00	1.05	115.28	4,899.66	2.40 N	37.27 E	0.44	0.46
5000.00	0.27	103.78	4,999.66	1.95 N	38.33 E	0.96	0.79
5100.00	0.35	323.43	5,099.66	2.14 N	38.37 E	0.78	0.58
5200.00	0.17	300.98	5,199.65	2.46 N	38.06 E	0.43	0.20
5300.00	0.18	297.91	5,299.65	2.61 N	37.80 E	0.26	0.01
5400.00	0.03	327.23	5,399.65	2.71 N	37.65 E	0.16	0.15
5500.00	0.03	195.90	5,499.65	2.70 N	37.62 E	0.16	0.05
5600.00	0.06	174.98	5,599.65	2.62 N	37.62 E	0.24	0.03
5700.00	0.04	341.89	5,699.65	2.61 N	37.62 E	0.25	0.10
5800.00	0.04	19.76	5,799.65	2.67 N	37.62 E	0.19	0.03
5900.00	0.08	173.71	5,899.65	2.64 N	37.64 E	0.23	0.12
6000.00	0.10	277.28	5,999.65	2.58 N	37.56 E	0.28	0.14
6100.00	0.01	65.25	6,099.65	2.59 N	37.48 E	0.26	0.11
6200.00	0.07	322.30	6,199.65	2.64 N	37.45 E	0.20	0.07
6300.00	0.08	141.82	6,299.65	2.64 N	37.45 E	0.21	0.15
6400.00	0.08	343.20	6,399.65	2.65 N	37.48 E	0.20	0.16
6500.00	0.06	352.77	6,499.65	2.77 N	37.45 E	0.08	0.02
6600.00	0.15	250.05	6,599.65	2.77 N	37.32 E	0.06	0.17
6700.00	0.05	70.89	6,699.65	2.74 N	37.24 E	0.09	0.20
6800.00	0.11	170.95	6,799.65	2.66 N	37.30 E	0.17	0.13
6900.00	0.05	332.38	6,899.65	2.61 N	37.29 E	0.23	0.16
7000.00	0.11	240.01	6,999.65	2.60 N	37.19 E	0.23	0.12
7100.00	0.07	264.01	7,099.65	2.54 N	37.04 E	0.27	0.05
7200.00	0.05	174.93	7,199.65	2.49 N	36.99 E	0.32	0.09
7300.00	0.08	270.37	7,299.65	2.45 N	36.92 E	0.36	0.10
7400.00	0.20	169.86	7,399.65	2.28 N	36.88 E	0.52	0.23
7500.00	0.10	154.09	7,499.65	2.03 N	36.95 E	0.78	0.11
7600.00	0.08	195.73	7,599.65	1.88 N	36.97 E	0.93	0.07
7700.00	0.22	182.23	7,699.65	1.62 N	36.94 E	1.18	0.14
7800.00	0.36	167.73	7,799.65	1.13 N	37.00 E	1.68	0.16
7900.00	0.42	166.10	7,899.65	0.46 N	37.16 E	2.36	0.06
8000.00	0.68	169.73	7,999.64	0.48 S	37.35 E	3.31	0.26
8100.00	0.48	194.28	8,099.64	1.47 S	37.35 E	4.30	0.31
8200.00	0.62	200.50	8,199.63	2.38 S	37.06 E	5.18	0.15
8300.00	0.80	201.03	8,299.63	3.54 S	36.62 E	6.30	0.18
8400.00	0.89	205.03	8,399.62	4.89 S	36.04 E	7.61	0.11
8500.00	0.96	200.75	8,499.60	6.38 S	35.42 E	9.05	0.10
8600.00	0.89	197.04	8,599.59	7.91 S	34.89 E	10.53	0.09

DIRECTIONAL SURVEY DATA

Measured Depth (ft)	Inclination (deg)	Direction (deg)	Vertical Depth (ft)	Latitude (ft)	Departure (ft)	Vertical Section (ft)	Dogleg (°/100')
8700.00	0.80	197.05	8,699.58	9.32 S	34.46 E	11.90	0.09
8800.00	0.45	196.97	8,799.57	10.36 S	34.14 E	12.92	0.35
8900.00	0.43	198.40	8,899.57	11.09 S	33.91 E	13.63	0.02
9000.00	0.32	175.84	8,999.57	11.72 S	33.81 E	14.26	0.18
9100.00	0.59	151.73	9,099.56	12.46 S	34.07 E	15.01	0.33
9200.00	0.45	118.43	9,199.56	13.10 S	34.66 E	15.69	0.33
9300.00	0.53	80.95	9,299.56	13.21 S	35.46 E	15.86	0.32
9400.00	0.77	89.28	9,399.55	13.13 S	36.59 E	15.87	0.26
9500.00	1.10	79.40	9,499.54	12.95 S	38.21 E	15.81	0.37
9600.00	1.38	98.47	9,599.51	12.95 S	40.34 E	15.97	0.49
9700.00	1.68	119.83	9,699.48	13.85 S	42.81 E	17.06	0.64
9800.00	0.97	150.68	9,799.45	15.32 S	44.49 E	18.65	0.98
9900.00	0.94	200.83	9,899.44	16.82 S	44.61 E	20.16	0.81
10000.00	0.91	205.40	9,999.43	18.31 S	43.98 E	21.59	0.08
10100.00	0.76	221.65	10,099.42	19.52 S	43.20 E	22.74	0.28
10200.00	0.65	254.01	10,199.41	20.17 S	42.21 E	23.32	0.41
10300.00	1.11	316.01	10,299.40	19.63 S	41.00 E	22.69	0.99
10400.00	0.91	340.71	10,399.38	18.19 S	40.06 E	21.17	0.47
10500.00	0.31	262.65	10,499.38	17.47 S	39.53 E	20.42	0.90
10600.00	0.77	286.60	10,599.38	17.31 S	38.62 E	20.19	0.50
10700.00	1.09	290.11	10,699.36	16.79 S	37.08 E	19.56	0.32
10800.00	1.31	294.56	10,799.34	15.99 S	35.15 E	18.61	0.24
10900.00	1.31	294.98	10,899.31	15.03 S	33.07 E	17.50	0.01
11000.00	1.52	291.61	10,999.28	14.06 S	30.80 E	16.36	0.23
11100.00	0.69	287.01	11,099.26	13.40 S	28.99 E	15.56	0.83
11200.00	0.60	300.93	11,199.26	12.95 S	27.97 E	15.04	0.18
11300.00	0.94	264.43	11,299.25	12.76 S	26.70 E	14.75	0.58
11400.00	1.68	247.81	11,399.22	13.40 S	24.53 E	15.22	0.82
11500.00	1.82	215.71	11,499.18	15.24 S	22.25 E	16.88	0.98
11623.00	2.11	239.49	11,622.11	17.98 S	19.16 E	19.38	0.70
11742.00	1.82	266.48	11,741.04	19.20 S	15.38 E	20.32	0.81
11773.00	4.17	190.02	11,772.00	20.34 S	14.69 E	21.40	13.35
11805.00	8.78	183.67	11,803.79	23.93 S	14.33 E	24.95	14.56
11837.00	12.69	185.15	11,835.23	29.87 S	13.86 E	30.83	12.26
11868.00	15.77	184.90	11,865.27	37.46 S	13.19 E	38.35	9.93
11900.00	18.03	185.73	11,895.89	46.72 S	12.33 E	47.52	7.12
11932.00	20.20	187.43	11,926.12	57.13 S	11.12 E	57.80	6.98
11963.00	21.56	190.50	11,955.09	68.03 S	9.39 E	68.55	5.63
11995.00	22.18	192.96	11,984.78	79.70 S	6.97 E	80.00	3.47
12027.00	23.88	194.47	12,014.23	91.86 S	3.99 E	91.90	5.60
12058.00	26.69	192.49	12,042.26	104.73 S	0.92 E	104.50	9.49
12090.00	29.21	191.57	12,070.53	119.40 S	2.20 W	118.89	7.98
12116.00	30.88	190.95	12,093.03	132.17 S	4.74 W	131.43	6.51
12153.00	33.23	189.75	12,124.39	151.48 S	8.26 W	150.42	6.59
12185.00	36.24	187.71	12,150.69	169.50 S	11.02 W	168.18	10.07

DIRECTIONAL SURVEY DATA

Measured Depth (ft)	Inclination (deg)	Direction (deg)	Vertical Depth (ft)	Latitude (ft)	Departure (ft)	Vertical Section (ft)	Dogleg (%/100')
12216.00	38.86	185.70	12,175.26	188.26 S	13.21 W	186.72	9.35
12248.00	41.54	185.06	12,199.70	208.83 S	15.15 W	207.08	8.48
12279.00	44.65	184.63	12,222.33	229.93 S	16.93 W	227.98	10.08
12311.00	48.22	184.31	12,244.38	253.04 S	18.74 W	250.89	11.17
12343.00	52.49	184.08	12,264.79	277.61 S	20.54 W	275.26	13.34
12375.00	56.76	183.85	12,283.31	303.64 S	22.34 W	301.07	13.38
12406.00	61.21	183.00	12,299.28	330.15 S	23.92 W	327.39	14.54
12438.00	64.61	181.68	12,313.85	358.61 S	25.08 W	355.68	11.25
12470.00	67.43	180.31	12,326.86	387.84 S	25.58 W	384.79	9.64
12501.00	69.96	179.18	12,338.12	416.72 S	25.45 W	413.59	8.84
12533.00	73.45	178.45	12,348.16	447.09 S	24.82 W	443.92	11.11
12564.00	76.77	177.59	12,356.13	477.03 S	23.79 W	473.85	11.03
12596.00	79.31	176.02	12,362.76	508.28 S	22.04 W	505.15	9.27
12627.00	82.85	174.72	12,367.57	538.80 S	19.57 W	535.77	12.16
12658.00	86.55	174.46	12,370.43	569.53 S	16.66 W	566.62	11.96
12689.00	88.64	174.04	12,371.73	600.34 S	13.55 W	597.58	6.90
12720.00	90.28	173.40	12,372.02	631.15 S	10.16 W	628.56	5.66
12752.00	91.66	173.17	12,371.48	662.93 S	6.42 W	660.53	4.39
12783.00	92.77	173.20	12,370.28	693.69 S	2.75 W	691.48	3.58
12878.00	92.56	173.44	12,365.86	787.94 S	8.29 E	786.30	0.34
12973.00	89.32	174.68	12,364.30	882.40 S	18.12 E	881.23	3.65
13068.00	89.38	175.48	12,365.37	977.04 S	26.26 E	976.22	0.84
13163.00	88.71	176.52	12,366.95	1,071.80 S	32.88 E	1071.21	1.31
13258.00	89.78	177.11	12,368.20	1,166.64 S	38.16 E	1166.18	1.29
13353.00	87.94	177.05	12,370.09	1,261.50 S	42.99 E	1261.12	1.95
13445.00	87.97	176.44	12,373.38	1,353.29 S	48.21 E	1353.05	0.66
13540.00	89.63	175.42	12,375.37	1,448.02 S	54.95 E	1448.02	2.06
13636.00	89.82	175.79	12,375.84	1,543.74 S	62.31 E	1544.02	0.43
13731.00	89.38	175.70	12,376.50	1,638.48 S	69.36 E	1639.02	0.46
13825.00	88.92	175.61	12,377.89	1,732.19 S	76.48 E	1733.01	0.50
13920.00	89.01	175.54	12,379.60	1,826.90 S	83.81 E	1827.99	0.12
14015.00	88.83	175.68	12,381.39	1,921.60 S	91.07 E	1922.97	0.25
14109.00	89.48	175.94	12,382.78	2,015.34 S	97.93 E	2016.96	0.74
14204.00	89.32	175.38	12,383.78	2,110.06 S	105.12 E	2111.96	0.62
14299.00	89.10	174.35	12,385.08	2,204.67 S	113.63 E	2206.94	1.11
14395.00	90.99	174.03	12,385.01	2,300.17 S	123.35 E	2302.90	1.99
14489.00	91.20	173.85	12,383.21	2,393.63 S	133.27 E	2396.84	0.30
14585.00	90.80	173.45	12,381.54	2,489.03 S	143.88 E	2492.77	0.59
14678.00	88.74	173.79	12,381.91	2,581.44 S	154.21 E	2585.71	2.25
14773.00	88.34	173.62	12,384.34	2,675.84 S	164.62 E	2680.62	0.46
14868.00	89.01	174.90	12,386.54	2,770.34 S	174.12 E	2775.56	1.53
14963.00	88.77	175.42	12,388.37	2,864.98 S	182.14 E	2870.54	0.60
15058.00	89.35	175.29	12,389.93	2,959.65 S	189.84 E	2965.53	0.63
15152.00	90.18	175.32	12,390.31	3,053.34 S	197.53 E	3059.52	0.88
15246.00	89.91	175.72	12,390.24	3,147.05 S	204.88 E	3153.52	0.51

DIRECTIONAL SURVEY DATA

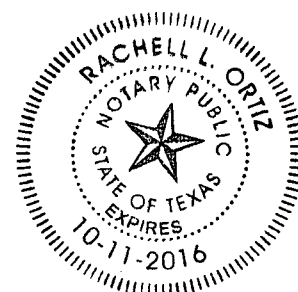
Measured Depth (ft)	Inclination (deg)	Direction (deg)	Vertical Depth (ft)	Latitude (ft)	Departure (ft)	Vertical Section (ft)	Dogleg (°/100')
15341.00	89.78	176.55	12,390.50	3,241.83 S	211.28 E	3248.52	0.88
15436.00	89.48	176.06	12,391.11	3,336.63 S	217.41 E	3343.51	0.60
15531.00	89.60	175.80	12,391.88	3,431.39 S	224.15 E	3438.51	0.31
15626.00	90.06	175.61	12,392.16	3,526.12 S	231.27 E	3533.50	0.52
15722.00	90.03	175.52	12,392.08	3,621.83 S	238.68 E	3629.50	0.10
15817.00	89.75	176.02	12,392.26	3,716.58 S	245.68 E	3724.50	0.60
15911.00	88.80	175.50	12,393.45	3,810.31 S	252.63 E	3818.49	1.16
16006.00	88.09	175.93	12,396.03	3,905.01 S	259.73 E	3913.46	0.87
16100.00	88.25	176.00	12,399.03	3,998.73 S	266.34 E	4007.41	0.19
16196.00	89.72	175.95	12,400.73	4,094.47 S	273.07 E	4103.39	1.54
16291.00	90.86	175.13	12,400.24	4,189.18 S	280.46 E	4198.39	1.48
16386.00	90.40	175.07	12,399.20	4,283.83 S	288.58 E	4293.38	0.49
16481.00	89.97	174.72	12,398.89	4,378.45 S	297.03 E	4388.37	0.58
16575.00	89.91	175.30	12,398.99	4,472.09 S	305.20 E	4482.36	0.62
16670.00	88.77	175.61	12,400.09	4,566.79 S	312.73 E	4577.35	1.24
16765.00	86.95	176.37	12,403.64	4,661.48 S	319.37 E	4672.28	2.08
16860.00	90.37	175.97	12,405.86	4,756.23 S	325.71 E	4767.23	3.63
16940.00	90.37	175.97	12,405.35	4,836.03 S	331.33 E	4847.23	0.00

SURVEY FOOTER

SURVEYS CALCULATED USING THE SHORT COLLAR METHOD.
 SURVEYS FROM 100' MD TO 11623' MD PROVIDED BY VAUGHN ENERGY SERVICES.
 SURVEYS FROM 11742' MD TO 16860' MD PROVIDED BY SPERRY DRILLING SERVICES.
 SURVEY AT 16860' MD IS PROJECTED TO TD AT 16940' MD.
 SPERRY DRILLING ENGINEERS: STEPHEN HATCHER, OLAYEMI BAKARE

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 175.65 degrees (Grid)
- A total correction of 6.69 deg from Magnetic north to Grid north has been applied
- Horizontal displacement is relative to the well head.
- Horizontal displacement (closure) at 16,940.00 feet is 4,847.37 feet along 176.08 degrees (Grid)



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