

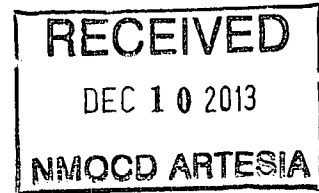


PO Box 261021
Corpus Christi, Texas 78426
(361) 767-0602 • (800) 606-GYRO • Fax (361) 767-0612

A GYRO TECHNOLOGIES INC. COMPANY

August 29, 2013

Devon Energy Production Co., L. P.
333 West Sheridan Ave
Oklahoma City, Oklahoma 73102-5010



Attn: Patti Riechers

Re: **Peridot 13 State No. 002H**

Please find enclosed a copy of the survey from 0.00' to 7200.00' ran on the above referenced well.

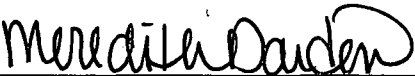
If I can be of any further service please do not hesitate to call me at 800-606-4976.

Sincerely,

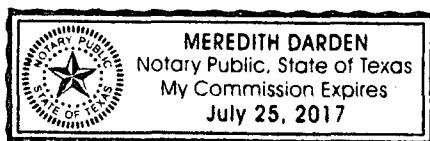

Keith Havelka
Operations

STATE OF TEXAS §
 §
COUNTY OF NUECES §

This instrument was acknowledged before me on the 29th day of August, A.D., 2013, by Keith Havelka.



Meredith Darden
Notary Public, State of Texas





Company: DEVON ENERGY PRODUCTION CO.

Lease/Well: PERIDOT 13 STATE/No. 002H

Rig Name: H&P 223

State/County: NEW MEXICO/EDDY

Latitude: 32.67, Longitude: -104.03

GRID North is 0.16 Degrees East of True North

VS-Azi: 0.00 Degrees



Depth Reference : RKB 25 FEET

DRILLOG HA GYRO SURVEY CALCULATIONS

Filename: e-line gyro survey-de_01.ut

Minimum Curvature Method

Report Date/Time: 8/29/2013 / 10:42

Vaughn Energy Services

Gardendale, Texas

432-563-5444

Surveyor: Nathan Cranor

Peridot 13 State No. 002H / API 30-015-40777



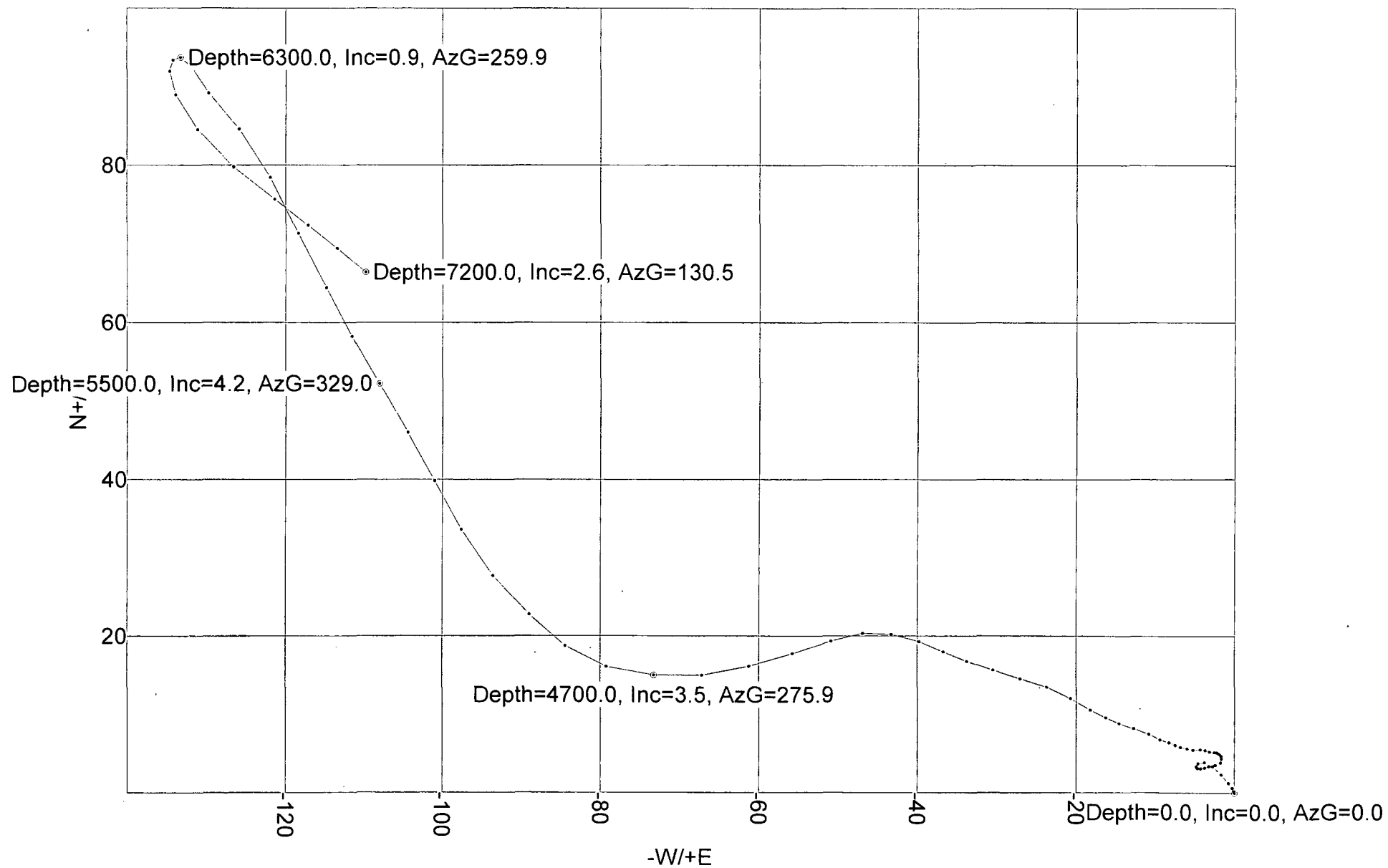
Measured Depth FT	Incl Angle Deg	Drift Direction Deg	TVD FT	+N/-S FT	+E/-W FT	Vertical Section FT	Closure Distance FT	Closure Direction Deg	Dogleg Severity Deg/100
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	****
100.00	0.23	343.61	100.00	0.19	-0.06	0.19	0.20	343.61	0.23
200.00	0.32	326.67	200.00	0.62	-0.27	0.62	0.67	336.63	0.12
300.00	0.59	320.88	300.00	1.26	-0.75	1.26	1.46	329.20	0.27
400.00	1.04	317.54	399.98	2.32	-1.69	2.32	2.87	324.06	0.45
500.00	0.71	310.12	499.97	3.39	-2.77	3.39	4.38	320.76	0.35
600.00	0.67	283.30	599.97	3.92	-3.81	3.92	5.47	315.85	0.32
700.00	0.44	223.85	699.96	3.78	-4.64	3.78	5.98	309.16	0.58
800.00	0.15	162.62	799.96	3.37	-4.87	3.37	5.92	304.73	0.39
900.00	0.15	127.14	899.96	3.17	-4.72	3.17	5.69	303.84	0.09
1000.00	0.35	85.16	999.96	3.11	-4.32	3.11	5.32	305.79	0.26
1100.00	0.28	75.28	1099.96	3.20	-3.78	3.20	4.95	310.24	0.09
1200.00	0.35	65.65	1199.96	3.39	-3.27	3.39	4.71	315.98	0.08
1300.00	0.64	86.73	1299.95	3.54	-2.44	3.54	4.30	325.42	0.34
1400.00	0.37	21.78	1399.95	3.87	-1.77	3.87	4.26	335.47	0.59
1500.00	0.24	359.08	1499.95	4.38	-1.65	4.38	4.68	339.34	0.17
1600.00	0.13	353.15	1599.95	4.71	-1.67	4.71	4.99	340.47	0.11
1700.00	0.33	303.35	1699.95	4.98	-1.92	4.98	5.34	338.89	0.26
1800.00	0.09	281.67	1799.95	5.15	-2.24	5.15	5.62	336.54	0.25

Measured Depth FT	Incl Angle Deg	Drift Direction Deg	TVD FT	+N/-S FT	+E/-W FT	Vertical Section FT	Closure Distance FT	Closure Direction Deg	Dogleg Severity Deg/100
1900.00	0.27	273.85	1899.95	5.18	-2.54	5.18	5.77	333.87	0.18
2000.00	0.46	280.20	1999.94	5.27	-3.17	5.27	6.15	328.99	0.19
2100.00	0.23	305.58	2099.94	5.46	-3.72	5.46	6.61	325.70	0.27
2200.00	0.55	267.72	2199.94	5.56	-4.36	5.56	7.07	321.85	0.39
2300.00	0.50	266.07	2299.94	5.51	-5.28	5.51	7.63	316.22	0.05
2400.00	0.41	299.27	2399.93	5.65	-6.03	5.65	8.26	313.17	0.27
2500.00	0.59	270.93	2499.93	5.84	-6.86	5.84	9.01	310.40	0.30
2600.00	0.33	328.61	2599.93	6.09	-7.53	6.09	9.69	308.99	0.50
2700.00	0.72	279.63	2699.92	6.45	-8.30	6.45	10.51	307.84	0.56
2800.00	0.64	295.52	2799.91	6.79	-9.42	6.79	11.62	305.78	0.20
2900.00	1.20	294.80	2899.90	7.47	-10.88	7.47	13.20	304.49	0.56
3000.00	1.15	287.45	2999.88	8.21	-12.79	8.21	15.20	302.71	0.16
3100.00	1.09	290.65	3099.86	8.85	-14.63	8.85	17.10	301.16	0.09
3200.00	1.01	297.41	3199.84	9.59	-16.31	9.59	18.92	300.46	0.14
3300.00	1.46	296.25	3299.82	10.56	-18.24	10.56	21.08	300.08	0.45
3400.00	1.84	303.59	3399.78	12.02	-20.72	12.02	23.95	300.11	0.43
3500.00	1.99	288.94	3499.72	13.47	-23.70	13.47	27.26	299.61	0.51
3600.00	2.03	286.24	3599.66	14.53	-27.05	14.53	30.71	298.24	0.10
3700.00	2.12	289.50	3699.60	15.64	-30.50	15.64	34.28	297.15	0.15
3800.00	1.87	287.87	3799.54	16.76	-33.80	16.76	37.73	296.38	0.25
3900.00	1.80	297.98	3899.49	18.00	-36.74	18.00	40.91	296.10	0.33
4000.00	2.00	288.78	3999.43	19.30	-39.78	19.30	44.21	295.88	0.37
4100.00	2.14	281.47	4099.36	20.23	-43.26	20.23	47.76	295.06	0.30
4200.00	2.06	262.71	4199.30	20.38	-46.88	20.38	51.12	293.49	0.69
4300.00	2.67	250.24	4299.21	19.36	-50.85	19.36	54.42	290.84	0.79
4400.00	3.22	253.38	4399.08	17.77	-55.73	17.77	58.50	287.69	0.57
4500.00	3.39	253.84	4498.92	16.15	-61.26	16.15	63.36	284.76	0.18
4600.00	3.54	264.17	4598.73	15.01	-67.18	15.01	68.84	282.59	0.64
4700.00	3.49	275.92	4698.55	15.01	-73.28	15.01	74.80	281.57	0.72
4800.00	3.47	284.66	4798.36	16.09	-79.23	16.09	80.85	281.48	0.53
4900.00	3.37	310.15	4898.19	18.75	-84.41	18.75	86.46	282.52	1.51
5000.00	3.62	312.44	4998.00	22.78	-88.99	22.78	91.86	284.36	0.29
5100.00	4.14	321.32	5097.77	27.73	-93.58	27.73	97.60	286.51	0.79
5200.00	4.07	330.12	5197.52	33.63	-97.61	33.63	103.24	289.01	0.63
5300.00	4.00	332.49	5297.27	39.81	-100.99	39.81	108.55	291.51	0.18
5400.00	4.11	329.84	5397.02	46.00	-104.40	46.00	114.08	293.78	0.22
5500.00	4.17	329.05	5496.76	52.21	-108.07	52.21	120.02	295.79	0.08
5600.00	3.81	330.84	5596.52	58.23	-111.56	58.23	125.84	297.56	0.37
5700.00	4.22	333.59	5696.27	64.43	-114.81	64.43	131.65	299.30	0.45

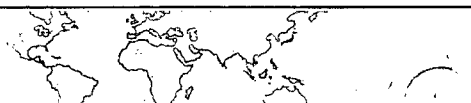
Measured Depth FT	Incl Angle Deg	Drift Direction Deg	TVD FT	+N/-S FT	+E/-W FT	Vertical Section FT	Closure Distance FT	Closure Direction Deg	Dogleg Severity Deg/100
5800.00	4.71	331.36	5795.97	71.33	-118.42	71.33	138.24	301.06	0.52
5900.00	4.42	335.85	5895.65	78.45	-121.97	78.45	145.02	302.75	0.46
6000.00	4.09	317.77	5995.38	84.61	-125.94	84.61	151.72	303.89	1.37
6100.00	2.77	322.49	6095.20	89.17	-129.81	89.17	157.49	304.49	1.35
6200.00	1.74	335.38	6195.12	92.47	-131.92	92.47	161.10	305.03	1.14
6300.00	0.86	259.87	6295.10	93.72	-133.29	93.72	162.94	305.11	1.74
6400.00	0.34	223.89	6395.09	93.37	-134.24	93.37	163.52	304.82	0.62
6500.00	1.42	191.66	6495.08	91.95	-134.70	91.95	163.09	304.32	1.14
6600.00	2.34	150.46	6595.03	88.96	-133.94	88.96	160.79	303.59	1.58
6700.00	3.64	146.71	6694.89	84.53	-131.19	84.53	156.06	302.80	1.31
6800.00	4.07	127.34	6794.67	79.73	-126.63	79.73	149.63	302.20	1.36
6900.00	3.51	128.47	6894.45	75.67	-121.41	75.67	143.06	301.93	0.56
7000.00	2.65	127.52	6994.30	72.36	-117.18	72.36	137.72	301.70	0.87
7100.00	2.78	129.12	7094.19	69.42	-113.47	69.42	133.02	301.46	0.15
7200.00	2.63	130.51	7194.08	66.40	-109.84	66.40	128.35	301.15	0.16



Vaughn Energy Services
Gardendale, Texas
432-563-5444
Surveyor: Nathan Cranor
Peridot 13 State No. 002H / API 30-015-40777



VES Survey Date: 08/27/2013



End of Well Report for Devon Energy

Rig : H&P223
Well Name : Peridot 13 State 2H
Field Name : Permian Basin
Country : USA
Job Number : OK-XX-0900442406
Job Start Date : 23-Aug-13
API Number : 30-015-40777



TABLE OF CONTENTS

1. General Information
2. Operational Overview
3. Summary of MWD Runs
4. Bitrun Summary
5. Directional Survey Data
6. Service Interrupt Report



GENERAL INFORMATION

Company : Devon Energy
Rig : H&P223
Well : Peridot 13 State 2H
Field : Permian Basin
State : New Mexico
County : Eddy
Country : USA
API Number : 30-015-40777
Sperry Drilling Job Number : OK-XX-0900442406
Job Start Date : 23-Aug-13
Job End Date : 06-Sep-13
North Reference : Grid
Total Correction (deg) : 7.518
Dip Angle (deg) : 60.459
Total Magnetic Field (nT) : 48628
Date of Magnetic Data : 23 August, 2013
Well Head coordinates N : 32 deg. 40 min 26.44 sec North
Well Head coordinates E : 104 deg. 1 min 55.18 sec West
Vertical section direction (deg) : 176.18
Unit Number : PP40
MWD Engineers : Mark Mendez, Eiron Ledesma

Company Representatives : John Holmquist
Company Geologist: :



OPERATIONAL OVERVIEW

SPERRY DRILLING WAS CONTRACTED TO DRILL THE PERIDOT 13 STATE 2H WELL FOR DEVON ENERGY PROVIDED WERE REAL TIME AND RECORDED GAMMA AS WELL AS DIRECTIONAL DRILLING SERVICES. CREWS ARRIVED ON 8/23/13 AND RIGGED UP ACCORDINGLY.

RUN 100: GOOD RUN FROM 5989'MD TO 7436'MD. POOH TO PICK UP CURVE ASSEMBLY.

RUN 200: GOOD RUN FROM 7436'MD TO 8247'MD. POOH TO PICK UP MOTOR AND BIT TO FINISH CURVE AND CONTINUE ONTO LATERAL.

RUN 300: GOOD RUN FROM 8247'MD TO 13722 'MD. POOH DUE TO PRESSURE LOSS .

RUN 400: GOOD MWD RUN FROM 13722'MD TO TD DEPTH OF 15208'MD. POOH TO LAY DOWN DIRECTIONAL TOOLS.



SURVEY HEADER

SURVEYS FROM 100' MD TO 7200' MD ARE PROVIDED BY VAUGHN ENERGY SERVICES
 SURVEYS FROM 7287' MD TO 15050' MD PROVIDED BY HALLIBURTON SPERRY SERVICES. FINAL SURVEY AT
 15208' MD IS A STRAIGHT LINE PROJECTION TO THE BIT.

DIRECTIONAL SURVEY DATA

Tie-in

0.00

0.00

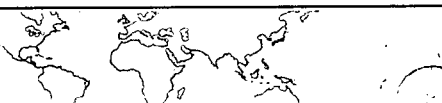
0.00

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	0.23	343.61	100.00	0.19 N	0.06 W	-0.20	0.23
200.00	0.32	326.67	200.00	0.62 N	0.27 W	-0.63	0.12
300.00	0.59	320.88	300.00	1.25 N	0.74 W	-1.30	0.27
400.00	1.04	317.54	399.99	2.32 N	1.68 W	-2.43	0.45
500.00	0.71	310.12	499.97	3.39 N	2.77 W	-3.57	0.35
600.00	0.67	283.30	599.97	3.92 N	3.81 W	-4.17	0.32
700.00	0.44	223.85	699.96	3.78 N	4.65 W	-4.08	0.59
800.00	0.15	162.62	799.96	3.38 N	4.87 W	-3.70	0.39
900.00	0.15	127.14	899.96	3.17 N	4.73 W	-3.48	0.09
1000.00	0.35	85.16	999.96	3.12 N	4.32 W	-3.40	0.26
1100.00	0.28	75.28	1,099.96	3.21 N	3.78 W	-3.45	0.09
1200.00	0.35	65.65	1,199.96	3.40 N	3.27 W	-3.61	0.09
1300.00	0.64	86.73	1,299.95	3.55 N	2.43 W	-3.71	0.34
1400.00	0.37	21.78	1,399.95	3.89 N	1.75 W	-3.99	0.59
1500.00	0.24	359.08	1,499.95	4.40 N	1.64 W	-4.50	0.18
1600.00	0.13	353.15	1,599.95	4.72 N	1.65 W	-4.82	0.11
1700.00	0.33	303.35	1,699.95	4.99 N	1.91 W	-5.10	0.27
1800.00	0.09	281.67	1,799.95	5.16 N	2.23 W	-5.30	0.25
1900.00	0.27	273.85	1,899.95	5.19 N	2.54 W	-5.35	0.18
2000.00	0.46	280.20	1,999.94	5.28 N	3.17 W	-5.48	0.19
2100.00	0.23	305.58	2,099.94	5.47 N	3.73 W	-5.71	0.27
2200.00	0.55	267.72	2,199.94	5.57 N	4.37 W	-5.85	0.39
2300.00	0.50	266.07	2,299.94	5.52 N	5.28 W	-5.86	0.05
2400.00	0.41	299.27	2,399.93	5.66 N	6.03 W	-6.05	0.27
2500.00	0.59	270.93	2,499.93	5.85 N	6.86 W	-6.29	0.30
2600.00	0.33	328.61	2,599.93	6.10 N	7.52 W	-6.59	0.50
2700.00	0.72	279.63	2,699.92	6.45 N	8.29 W	-6.99	0.56
2800.00	0.64	295.52	2,799.92	6.80 N	9.42 W	-7.41	0.20
2900.00	1.20	294.80	2,899.90	7.48 N	10.87 W	-8.18	0.56
3000.00	1.15	287.45	2,999.88	8.22 N	12.78 W	-9.05	0.16
3100.00	1.09	290.65	3,099.86	8.85 N	14.62 W	-9.81	0.09
3200.00	1.01	297.41	3,199.85	9.59 N	16.30 W	-10.66	0.15
3300.00	1.46	296.25	3,299.82	10.56 N	18.22 W	-11.75	0.45
3400.00	1.84	303.59	3,399.78	12.02 N	20.70 W	-13.37	0.43
3500.00	1.99	288.94	3,499.72	13.47 N	23.68 W	-15.02	0.51
3600.00	2.03	286.24	3,599.66	14.53 N	27.02 W	-16.29	0.10
3700.00	2.12	289.50	3,699.60	15.64 N	30.47 W	-17.63	0.15
3800.00	1.87	287.87	3,799.54	16.76 N	33.77 W	-18.97	0.26



DIRECTIONAL SURVEY DATA

Measured Depth (ft)	Inclination (deg)	Direction (deg)	Vertical Depth (ft)	Latitude (ft)	Departure (ft)	Vertical Section (ft)	Dogleg (%/100')
3900.00	1.80	297.98	3,899.49	17.99 N	36.70 W	-20.40	0.33
4000.00	2.00	288.78	3,999.43	19.29 N	39.74 W	-21.90	0.36
4100.00	2.14	281.47	4,099.37	20.23 N	43.23 W	-23.06	0.30
4200.00	2.06	262.71	4,199.30	20.37 N	46.84 W	-23.44	0.69
4300.00	2.67	250.24	4,299.22	19.35 N	50.81 W	-22.70	0.79
4400.00	3.22	253.38	4,399.08	17.76 N	55.70 W	-21.43	0.57
4500.00	3.39	253.84	4,498.92	16.14 N	61.23 W	-20.18	0.17
4600.00	3.54	264.17	4,598.73	15.00 N	67.14 W	-19.44	0.64
4700.00	3.49	275.92	4,698.55	15.00 N	73.24 W	-19.85	0.72
4800.00	3.47	284.66	4,798.36	16.08 N	79.19 W	-21.32	0.53
4900.00	3.37	310.15	4,898.19	18.74 N	84.37 W	-24.32	1.51
5000.00	3.62	312.44	4,998.01	22.77 N	88.94 W	-28.64	0.29
5100.00	4.14	321.32	5,097.78	27.72 N	93.53 W	-33.89	0.79
5200.00	4.07	330.12	5,197.52	33.61 N	97.55 W	-40.04	0.63
5300.00	4.00	332.49	5,297.27	39.78 N	100.93 W	-46.42	0.18
5400.00	4.11	329.84	5,397.02	45.97 N	104.34 W	-52.82	0.22
5500.00	4.17	329.05	5,496.76	52.19 N	108.01 W	-59.27	0.08
5600.00	3.81	330.84	5,596.52	58.21 N	111.50 W	-65.51	0.38
5700.00	4.22	333.59	5,696.27	64.41 N	114.76 W	-71.91	0.45
5800.00	4.71	331.36	5,795.97	71.30 N	118.36 W	-79.03	0.52
5900.00	4.42	335.85	5,895.65	78.42 N	121.91 W	-86.37	0.46
6000.00	4.09	317.77	5,995.38	84.58 N	125.88 W	-92.78	1.38
6100.00	2.77	322.49	6,095.20	89.14 N	129.75 W	-97.58	1.35
6200.00	1.74	335.38	6,195.12	92.44 N	131.85 W	-101.01	1.14
6300.00	0.86	259.87	6,295.10	93.68 N	133.22 W	-102.35	1.74
6400.00	0.34	223.89	6,395.10	93.34 N	134.17 W	-102.07	0.62
6500.00	1.42	191.66	6,495.08	91.91 N	134.63 W	-100.68	1.15
6600.00	2.34	150.46	6,595.03	88.92 N	133.87 W	-97.64	1.58
6700.00	3.64	146.71	6,694.90	84.49 N	131.12 W	-93.04	1.31
6800.00	4.07	127.34	6,794.67	79.68 N	126.56 W	-87.94	1.36
6900.00	3.51	128.47	6,894.45	75.63 N	121.34 W	-83.54	0.56
7000.00	2.65	127.52	6,994.31	72.32 N	117.11 W	-79.96	0.86
7100.00	2.78	129.12	7,094.20	69.38 N	113.39 W	-76.78	0.15
7200.00	2.63	130.51	7,194.08	66.36 N	109.77 W	-73.52	0.16
7287.00	2.56	129.51	7,281.00	63.82 N	106.75 W	-70.79	0.09
7431.00	2.98	121.98	7,424.83	59.79 N	101.09 W	-66.39	0.38
7526.00	3.87	126.59	7,519.66	56.58 N	96.42 W	-62.87	0.98
7621.00	3.74	132.93	7,614.45	52.56 N	91.59 W	-58.54	0.46
7652.00	3.36	137.40	7,645.39	51.20 N	90.23 W	-57.10	1.50
7684.00	4.53	153.51	7,677.31	49.38 N	89.03 W	-55.20	4.99
7715.00	8.29	157.72	7,708.11	46.22 N	87.64 W	-51.95	12.22
7747.00	13.30	168.23	7,739.54	40.47 N	86.01 W	-46.12	16.75
7778.00	17.05	170.47	7,769.46	32.50 N	84.53 W	-38.06	12.24
7810.00	20.22	181.07	7,799.78	22.34 N	83.86 W	-27.88	14.48
7841.00	24.44	182.51	7,828.45	10.57 N	84.24 W	-16.16	13.71



DIRECTIONAL SURVEY DATA							
Measured Depth (ft)	Inclination (deg)	Direction (deg)	Vertical Depth (ft)	Latitude (ft)	Departure (ft)	Vertical Section (ft)	Dogleg (%/100')
7873.00	28.17	184.48	7,857.13	3.58 S	85.12 W	-2.10	11.96
7904.00	30.77	187.94	7,884.12	18.73 S	86.79 W	12.91	10.04
7936.00	33.53	186.46	7,911.21	35.62 S	88.92 W	29.62	8.95
7967.00	36.72	182.67	7,936.57	53.39 S	90.31 W	47.26	12.46
7999.00	39.87	184.04	7,961.68	73.18 S	91.48 W	66.93	10.21
8031.00	43.79	181.74	7,985.52	94.49 S	92.54 W	88.12	13.15
8062.00	47.75	179.45	8,007.14	116.70 S	92.75 W	110.26	13.84
8094.00	51.42	179.24	8,027.89	141.05 S	92.48 W	134.58	11.46
8125.00	55.76	175.90	8,046.29	165.97 S	91.40 W	159.51	16.47
8157.00	59.65	175.08	8,063.38	192.93 S	89.27 W	186.55	12.34
8188.00	63.42	175.57	8,078.16	220.08 S	87.05 W	213.79	12.25
8222.00	67.66	175.83	8,092.23	250.94 S	84.73 W	244.73	12.49
8253.00	70.72	174.48	8,103.24	279.81 S	82.28 W	273.70	10.68
8284.00	73.52	173.35	8,112.76	309.14 S	79.15 W	303.18	9.66
8314.00	76.08	171.87	8,120.63	337.85 S	75.43 W	332.07	9.79
8345.00	78.79	171.25	8,127.37	367.77 S	70.99 W	362.23	8.95
8376.00	80.46	171.18	8,132.95	397.91 S	66.33 W	392.60	5.39
8407.00	82.31	171.02	8,137.59	428.19 S	61.59 W	423.13	5.98
8438.00	83.79	171.39	8,141.34	458.60 S	56.88 W	453.79	4.94
8469.00	85.50	172.01	8,144.24	489.14 S	52.43 W	484.56	5.84
8500.00	86.42	172.41	8,146.42	519.77 S	48.24 W	515.41	3.25
8531.00	86.91	172.51	8,148.22	550.45 S	44.18 W	546.29	1.62
8560.00	87.26	172.67	8,149.69	579.18 S	40.45 W	575.19	1.31
8652.00	89.17	173.61	8,152.56	670.47 S	29.46 W	667.01	2.31
8744.00	88.92	173.89	8,154.10	761.91 S	19.45 W	758.92	0.40
8838.00	88.30	173.80	8,156.37	855.34 S	9.37 W	852.81	0.66
8933.00	89.51	174.17	8,158.19	949.80 S	0.58 E	947.72	1.33
9027.00	88.15	174.54	8,160.11	1,043.32 S	9.82 E	1041.65	1.49
9122.00	89.66	175.08	8,161.93	1,137.91 S	18.41 E	1136.61	1.69
9216.00	90.80	175.82	8,161.55	1,231.61 S	25.88 E	1230.60	1.45
9311.00	90.12	175.57	8,160.78	1,326.34 S	33.01 E	1325.59	0.76
9405.00	89.14	175.61	8,161.39	1,420.05 S	40.24 E	1419.58	1.05
9500.00	90.43	176.20	8,161.75	1,514.81 S	47.02 E	1514.58	1.50
9595.00	90.25	176.77	8,161.19	1,609.63 S	52.84 E	1609.57	0.63
9689.00	89.38	177.00	8,161.49	1,703.49 S	57.94 E	1703.56	0.95
9784.00	88.77	176.76	8,163.02	1,798.33 S	63.12 E	1798.54	0.70
9879.00	90.40	177.03	8,163.71	1,893.19 S	68.27 E	1893.53	1.74
9973.00	90.06	176.04	8,163.33	1,987.02 S	73.94 E	1987.53	1.11
10068.00	89.14	175.24	8,164.00	2,081.74 S	81.16 E	2082.52	1.29
10162.00	88.77	173.63	8,165.72	2,175.28 S	90.27 E	2176.46	1.76
10257.00	89.75	173.32	8,166.95	2,269.65 S	101.06 E	2271.34	1.09
10351.00	89.07	173.79	8,167.91	2,363.05 S	111.61 E	2365.24	0.88
10446.00	90.15	173.65	8,168.55	2,457.48 S	122.00 E	2460.15	1.15
10540.00	90.46	174.82	8,168.04	2,551.00 S	131.45 E	2554.09	1.28
10635.00	89.72	175.63	8,167.89	2,645.67 S	139.35 E	2649.07	1.16



DIRECTIONAL SURVEY DATA							
Measured Depth (ft)	Inclination (deg)	Direction (deg)	Vertical Depth (ft)	Latitude (ft)	Departure (ft)	Vertical Section (ft)	Dogleg (%/100)
10730.00	88.83	175.03	8,169.09	2,740.34 S	147.09 E	2744.06	1.14
10824.00	90.68	175.49	8,169.50	2,834.02 S	154.86 E	2838.04	2.03
10919.00	89.60	175.75	8,169.27	2,928.74 S	162.11 E	2933.03	1.17
11013.00	88.46	176.54	8,170.86	3,022.51 S	168.42 E	3027.02	1.47
11108.00	90.37	176.97	8,171.83	3,117.35 S	173.80 E	3122.00	2.06
11202.00	89.23	177.62	8,172.16	3,211.24 S	178.24 E	3215.98	1.40
11297.00	90.77	177.48	8,172.16	3,306.15 S	182.31 E	3310.95	1.63
11391.00	90.55	177.09	8,171.07	3,400.04 S	186.77 E	3404.93	0.47
11486.00	90.52	177.53	8,170.18	3,494.93 S	191.23 E	3499.90	0.46
11581.00	90.99	176.93	8,168.92	3,589.81 S	195.82 E	3594.88	0.80
11675.00	90.31	176.56	8,167.86	3,683.65 S	201.15 E	3688.87	0.82
11770.00	90.49	176.68	8,167.19	3,778.48 S	206.75 E	3783.86	0.23
11865.00	90.22	176.84	8,166.60	3,873.33 S	212.12 E	3878.86	0.33
11959.00	89.91	176.37	8,166.50	3,967.16 S	217.68 E	3972.85	0.60
12054.00	90.12	175.63	8,166.48	4,061.93 S	224.31 E	4067.85	0.82
12149.00	90.34	175.20	8,166.09	4,156.63 S	231.91 E	4162.84	0.51
12243.00	89.63	175.85	8,166.12	4,250.34 S	239.25 E	4256.83	1.02
12338.00	88.76	174.94	8,167.45	4,345.02 S	246.87 E	4351.81	1.32
12432.00	88.49	174.64	8,169.70	4,438.61 S	255.40 E	4445.76	0.44
12527.00	88.77	173.97	8,171.98	4,533.11 S	264.82 E	4540.68	0.77
12621.00	88.89	174.59	8,173.90	4,626.62 S	274.19 E	4634.61	0.67
12716.00	88.80	174.50	8,175.82	4,721.17 S	283.22 E	4729.55	0.14
12810.00	88.61	174.37	8,177.94	4,814.70 S	292.34 E	4823.48	0.24
12905.00	90.34	174.64	8,178.81	4,909.26 S	301.44 E	4918.44	1.84
13000.00	90.06	175.17	8,178.48	5,003.88 S	309.88 E	5013.41	0.63
13094.00	89.23	176.09	8,179.06	5,097.60 S	317.05 E	5107.40	1.32
13189.00	89.60	175.72	8,180.04	5,192.36 S	323.83 E	5202.40	0.55
13284.00	89.32	175.38	8,180.93	5,287.07 S	331.19 E	5297.39	0.46
13378.00	88.89	175.48	8,182.40	5,380.76 S	338.68 E	5391.37	0.47
13473.00	88.46	175.06	8,184.60	5,475.41 S	346.51 E	5486.33	0.63
13567.00	89.82	174.84	8,186.02	5,569.03 S	354.78 E	5580.29	1.46
13662.00	89.75	175.46	8,186.38	5,663.69 S	362.81 E	5675.28	0.65
13726.00	90.19	174.64	8,186.41	5,727.45 S	368.33 E	5739.26	1.44
13821.00	90.83	175.67	8,185.57	5,822.10 S	376.36 E	5834.24	1.27
13915.00	89.78	176.85	8,185.06	5,915.90 S	382.49 E	5928.24	1.68
14010.00	89.85	177.30	8,185.37	6,010.78 S	387.34 E	6023.23	0.47
14104.00	90.28	177.74	8,185.27	6,104.69 S	391.41 E	6117.20	0.66
14199.00	89.05	178.31	8,185.83	6,199.63 S	394.68 E	6212.15	1.43
14293.00	88.80	177.66	8,187.60	6,293.55 S	397.99 E	6306.08	0.73
14388.00	89.26	178.34	8,189.21	6,388.48 S	401.29 E	6401.02	0.87
14482.00	89.91	178.73	8,189.89	6,482.45 S	403.69 E	6494.94	0.80
14577.00	89.13	178.69	8,190.69	6,577.42 S	405.83 E	6589.84	0.82
14672.00	88.73	177.77	8,192.45	6,672.35 S	408.75 E	6684.76	1.06
14766.00	87.47	176.87	8,195.56	6,766.20 S	413.14 E	6778.69	1.65
14861.00	88.21	176.27	8,199.14	6,860.96 S	418.83 E	6873.62	1.00



DIRECTIONAL SURVEY DATA

Measured Depth (ft)	Inclination (deg)	Direction (deg)	Vertical Depth (ft)	Latitude (ft)	Departure (ft)	Vertical Section (ft)	Dogleg (%/100')
14956.00	88.86	174.41	8,201.57	6,955.61 S	426.54 E	6968.57	2.07
15050.00	89.69	172.90	8,202.76	7,049.02 S	436.93 E	7062.47	1.83
15148.00	91.14	173.62	8,202.05	7,146.34 S	448.42 E	7160.34	1.65
15208.00	91.14	173.62	8,200.85	7,205.96 S	455.09 E	7220.27	0.01

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 176.18 degrees (Grid)
- A total correction of 7.52 deg from Magnetic north to Grid north has been applied
- Horizontal displacement is relative to the well head.
- Horizontal displacement (closure) at 15,208.00 feet is 7,220.31 feet along 176.39 degrees (Grid)

WARRANTY

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HALLIBURTON

| Sperry Drilling



Halliburton/Sperry Drilling
9800 West Reno
Oklahoma City, OK
73127
(405) 324-2222