

HALLIBURTON

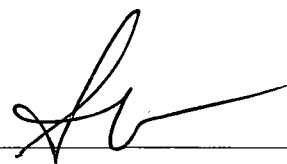
30-015-41047

14103 Interwood S. Parkway • Houston, TX 77032

PHONE 281.986.4400 • FAX 281.986.4499

State of New Mexico, Eddy County

I, Alexis Vargas, certify that I am employed by Halliburton Energy Services, Inc. (AKA Sperry Drilling) and that on the dates of 03 November 2013 through 29 November 2013, I did conduct or supervise the taking of MWD directional surveys for the well Skeen 2 State 2H ST01 from a depth of 470' MD to a depth of 12555' 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 which was conducted at the request of Chevron for the well of Skeen 2 State 2H ST01, API No. 30-015-41047-0100 in Eddy County, New Mexico. I have reviewed this report and find that it confirms to the principles and procedures as set forth by Halliburton Energy Services, Inc. (AKA Sperry Drilling).



Field Engineer

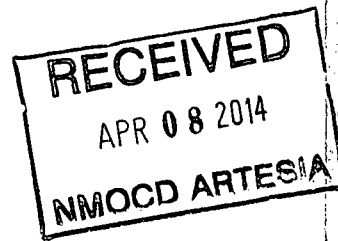
Chevron

Skeen 2 State 2H

Eddy County, NM

Ensign 767

API# 30-015-41047-0000



November 3, 2013 – November 17, 2013

HD-MJ-0900870277

Sperry Drilling

Survey Report

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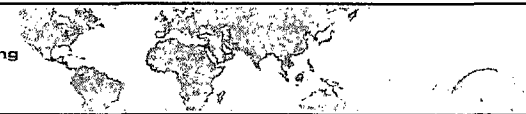
**Drilling and Formation
Evaluation**

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]



Survey Report for Chevron

Rig : Ensign 767
Well Name : Skeen 2 State 2H
Field Name : Delaware River
Country : USA
Job Number : HD-XX-0900870277
Job Start Date : 03-Nov-13
API Number : 30-015-41047



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GENERAL INFORMATION

Company	: Chevron
Rig	: Ensign 767
Well	: Skeen 2 State 2H
Field	: Delaware River
State	: New Mexico
County	: Eddy County
Country	: USA
API Number	: 30-015-41047
Sperry Drilling Job Number	: HD-XX-0900870277
Job Start Date	: 03-Nov-13
Job End Date	: 17-Nov-13
North Reference	: Grid
Total Correction (deg)	: 7.577
Dip Angle (deg)	: 59.873
Total Magnetic Field (nT)	: 48227
Date of Magnetic Data	: 04 November, 2013
Well Head coordinates N	: 32 deg. 4 min 42.07 sec North
Well Head coordinates E	: 104 deg. 9 min 45.61 sec West
Vertical section direction (deg)	: 181.13
Unit Number	: 11310664
MWD Engineers	: Alexis Vargas, Robert Martin
Company Representatives	: Bill LaLonde
Company Geologist:	: Greg Minnery,



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)
470.00	0.94	313.45	469.98	2.64 N	2.79 W	-2.59	0.20
650.00	1.24	326.78	649.95	5.28 N	4.92 W	-5.18	0.22
835.00	1.68	316.53	834.89	8.92 N	7.88 W	-8.76	0.28
1020.00	2.23	303.06	1,019.78	12.85 N	12.76 W	-12.59	0.38
1113.00	1.77	286.50	1,112.72	14.24 N	15.65 W	-13.93	0.78
1208.00	2.42	280.99	1,207.66	15.04 N	19.03 W	-14.66	0.71
1399.00	1.40	272.30	1,398.55	15.90 N	25.32 W	-15.40	0.55
1493.00	1.48	265.51	1,492.52	15.85 N	27.68 W	-15.30	0.20
1684.00	0.43	61.63	1,683.50	16.00 N	29.51 W	-15.42	0.99
1874.00	2.18	87.72	1,873.45	16.49 N	25.28 W	-15.98	0.95
2065.00	3.11	83.89	2,064.24	17.18 N	16.50 W	-16.85	0.50
2160.00	2.64	70.55	2,159.13	18.18 N	11.88 W	-17.95	0.86
2210.00	2.29	66.51	2,209.08	18.97 N	9.88 W	-18.77	0.78
2360.00	1.86	47.23	2,358.98	21.81 N	5.34 W	-21.70	0.54
2455.00	1.32	56.30	2,453.95	23.47 N	3.30 W	-23.40	0.62
2644.00	1.30	32.34	2,642.90	26.49 N	0.34 W	-26.48	0.29
2835.00	1.62	44.08	2,833.83	30.27 N	2.71 E	-30.32	0.23
3025.00	0.90	37.73	3,023.79	33.38 N	5.49 E	-33.48	0.39
3215.00	1.00	59.24	3,213.76	35.40 N	7.82 E	-35.55	0.19
3404.00	0.76	58.73	3,402.74	36.90 N	10.32 E	-37.10	0.13
3594.00	0.68	29.53	3,592.73	38.54 N	11.96 E	-38.77	0.20
3784.00	0.53	348.97	3,782.72	40.39 N	12.35 E	-40.62	0.23
3973.00	0.38	225.05	3,971.71	40.80 N	11.74 E	-41.03	0.42
4163.00	0.48	170.11	4,161.71	39.57 N	11.44 E	-39.79	0.21
4353.00	0.39	193.79	4,351.70	38.16 N	11.42 E	-38.37	0.11
4544.00	0.72	143.56	4,542.69	36.56 N	11.98 E	-36.79	0.29
4735.00	0.65	190.84	4,733.68	34.52 N	12.49 E	-34.76	0.29
4924.00	0.75	183.35	4,922.67	32.22 N	12.21 E	-32.46	0.07
5115.00	1.16	217.93	5,113.64	29.44 N	10.95 E	-29.65	0.36
5305.00	1.03	219.15	5,303.61	26.60 N	8.69 E	-26.77	0.07
5495.00	1.42	227.62	5,493.56	23.69 N	5.88 E	-23.80	0.23
5685.00	0.77	213.14	5,683.53	21.03 N	3.44 E	-21.10	0.37
5876.00	1.37	231.75	5,874.49	18.55 N	0.94 E	-18.56	0.36
6066.00	1.86	197.75	6,064.42	14.21 N	1.78 W	-14.17	0.55
6257.00	1.50	211.66	6,255.34	9.13 N	4.03 W	-9.05	0.28
6448.00	1.46	197.83	6,446.28	4.69 N	6.09 W	-4.57	0.19
6637.00	4.70	173.01	6,634.99	5.30 S	5.88 W	5.41	1.81
6827.00	2.49	147.42	6,824.61	16.51 S	2.71 W	16.56	1.41
6923.00	1.72	161.91	6,920.55	19.64 S	1.14 W	19.66	0.97
7018.00	2.10	154.40	7,015.49	22.57 S	0.06 E	22.56	0.47
7113.00	1.36	166.23	7,110.45	25.23 S	1.08 E	25.20	0.86



DIRECTIONAL SURVEY DATA

Measured Depth (ft)	Inclination (deg)	Direction (deg)	Vertical Depth (ft)	Latitude (ft)	Departure (ft)	Vertical Section (ft)	Dogleg (%/100)
7208.00	1.47	160.40	7,205.42	27.47 S	1.75 E	27.43	0.19
7303.00	0.97	197.32	7,300.40	29.38 S	1.92 E	29.34	0.96
7398.00	0.76	242.33	7,395.39	30.44 S	1.12 E	30.41	0.72
7493.00	1.41	255.26	7,490.37	31.03 S	0.56 W	31.03	0.72
8050.00	1.41	255.26	8,047.21	34.51 S	13.80 W	34.78	0.00

SURVEY FOOTER

SURVEYS CALCULATED USING SHORT COLLAR METHOD

TIE-ON SURVEY ASSUMED VERTICAL AT SURFACE

SURVEYS FROM 470.00' MD TO 7493.00' MD ARE PROVIDED BY SPERRY DRILLING MWD

SURVEY AT 7493.00' MD HAS BEEN PROJECTED TO TD AT 8050.00' MD

SPERRY ENGINEERS: ALEXIS VARGAS, ROBERT MARTIN

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 181.13 degrees (Grid)
- A total correction of 7.58 deg from Magnetic north to Grid north has been applied
- Horizontal displacement is relative to the well head.
- Horizontal displacement (closure) at 8,050.00 feet is 37.17 feet along 201.79 degrees (Grid)

WARRANTY

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