

District I
1625 N. French Dr., Hobbs, NM 88240
Phone: (575) 393-6161 Fax: (575) 393-0720
District II
811 S. First St., Artesia, NM 88210
Phone: (575) 748-1283 Fax: (575) 748-9720
District III
1000 Rio Brazos Road, Aztec, NM 87410
Phone: (505) 334-6178 Fax: (505) 334-6170
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505
Phone: (505) 476-3460 Fax: (505) 476-3462

State of New Mexico
Energy, Minerals & Natural Resources Department
OIL CONSERVATION DIVISION
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-102
Revised August 1, 2011
Submit one copy to appropriate
District Office

☒ AMENDED REPORT
"As-Drilled"

WELL LOCATION AND ACREAGE DEDICATION PLAT

¹ API Number 30-015-45176	² Pool Code 98220	³ Pool Name PURPLE SAGE; WOLFCAMP (GAS)
⁴ Property Code 322260	⁵ Property Name SND 12 01 FED 004	⁶ Well Number 2H
⁷ OGRID No. 4323	⁸ Operator Name CHEVRON U.S.A. INC.	⁹ Elevation 3587'

¹⁰ Surface Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
P	12	24 SOUTH	31 EAST, N.M.P.M.		367'	SOUTH	379'	EAST	EDDY

¹¹ Bottom Hole Location If Different From Surface

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
A	1	24 SOUTH	31 EAST, N.M.P.M.		170'	NORTH	344'	EAST	EDDY
¹² Dedicated Acres 640	¹³ Joint or Infill Infill	¹⁴ Consolidation Code	¹⁵ Order No. R-20250						

No allowable will be assigned to this completion until all interests have been consolidated or a non-standard unit has been approved by the division.

¹⁶ <table border="1"> <tr> <th>AS-STAKED SND 12 01 FED 004 2H WELL</th> <th>AS-DRILLED BOTTOM HOLE LOCATION</th> </tr> <tr> <td>X= 688,511' Y= 446,295' LAT. 32.225511° N LONG. 103.723732° W NAD 27</td> <td>X= 688,492' Y= 456,323' LAT. 32.253079° N LONG. 103.723609° W NAD 27</td> </tr> <tr> <td>X= 729,695' Y= 446,354' LAT. 32.225634° N LONG. 103.724215° W NAD83/2011</td> <td>X= 729,675' Y= 456,382' LAT. 32.253202° N LONG. 103.724093° W NAD83/2011</td> </tr> <tr> <td colspan="2">ELEVATION +3587' NAVD 88</td> </tr> </table>	AS-STAKED SND 12 01 FED 004 2H WELL	AS-DRILLED BOTTOM HOLE LOCATION	X= 688,511' Y= 446,295' LAT. 32.225511° N LONG. 103.723732° W NAD 27	X= 688,492' Y= 456,323' LAT. 32.253079° N LONG. 103.723609° W NAD 27	X= 729,695' Y= 446,354' LAT. 32.225634° N LONG. 103.724215° W NAD83/2011	X= 729,675' Y= 456,382' LAT. 32.253202° N LONG. 103.724093° W NAD83/2011	ELEVATION +3587' NAVD 88			¹⁷ OPERATOR CERTIFICATION I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or unleased mineral interest in the land including the proposed bottom hole location or has a right to drill this well at this location pursuant to a contract with an owner of such a mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division. Signature: Date: 4/16/2020 Printed Name: Laura Becerra E-mail Address: LBecerra@Chevron.com ¹⁸ SURVEYOR CERTIFICATION I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief. Date of Survey: 07/31/2017 Signature and Seal of Professional Surveyor: Certificate Number: 23006 Seal: ROBERT L. LASTRAPES, NEW MEXICO, 23006, 02/24/2020	
AS-STAKED SND 12 01 FED 004 2H WELL	AS-DRILLED BOTTOM HOLE LOCATION										
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ELEVATION +3587' NAVD 88											
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Intent ☐ As Drilled ☒

API # 30-015-45176			
Operator Name: CHEVRON USA INC		Property Name: SND 12 01 FED 004	Well Number 2H

Kick Off Point (KOP)

UL P	Section 12	Township 24S	Range 31E	Lot	Feet 93	From N/S FSL	Feet 532	From E/W FEL	County EDDY
Latitude 32.224882					Longitude 103.724708				NAD NAD 83/86

First Take Point (FTP)

UL P	Section 12	Township 24S	Range 31E	Lot	Feet 495	From N/S FSL	Feet 396	From E/W FEL	County EDDY
Latitude 32.225988					Longitude 103.724267				NAD NAD 83/86

Last Take Point (LTP)

UL A	Section 1	Township 24S	Range 31E	Lot	Feet 362	From N/S FNL	Feet 344	From E/W FEL	County EDDY
Latitude 32.252674					Longitude 103.724093				NAD NAD 86/86

Is this well the defining well for the Horizontal Spacing Unit? ☐

Is this well an infill well? ☐

If infill is yes please provide API if available, Operator Name and well number for Defining well for Horizontal Spacing Unit.

API # 30-015-45177			
Operator Name: CHEVRON USA INC		Property Name: SND 12 01 FED 004	Well Number 3H

KZ 06/29/2018

Oilfield Services, Central U.S. Land
Schlumberger Drilling and Measurements
Drilling Group
Geo Market Area: South West Texas Basin
7220 W I-H 20
Midland, Texas 79706
Phone : (432) 742-5400 (Main)
Fax : (432) 742-5606 (Shared)



June 11, 2019

Chevron USA Incorporated
6301 Deauville Blvd.
Midland, TX, 79706

Re:

S12, T24S, R31E Eddy NM
N 32° 13' 31.84296" W 103° 43'25.43229"

CLIENT: Chevron USA Incorporated
WELL: SND 12 01 Fed 004 2H
FIELD: Purple Sage/Wolfcamp

RIG: Patterson 816
COUNTY: Eddy
API NO: 30-015-45176
JOB NO: 18MLD3965

Enclosed, please find the original copy of the survey performed on the referenced well by Drilling & Measurements, a division of Schlumberger Technology Corporation (P-5 No. 754900).
Other information required by your office is as follows.

<u>Name & Title of Surveyor</u>	<u>Drainhole Number</u>	<u>Surveyed Depths</u>	<u>Dates Performed</u>	<u>Type of Survey</u>
Orlando Rendon FE	SND 12 01 Fed 004 2H Original Hole	238.00 Ft to 22012.00 Ft	September 18, 2018 to June 8, 2019	TelePacer SlimPulse

If any other information is required, please contact the undersigned at the above letterhead and phone number.
Sincerely,

Dana Lasher
Field Service Manager

Oilfield Services, Central U.S. Land
Schlumberger Drilling and Measurements
Drilling Group
Geo Market Area: South West Texas Basin
7220 W I-H 20
Midland, Texas 79706
Phone : (432) 742-5400 (Main)
Fax : (432) 742-5606 (Shared)

Schlumberger

Well Reference:

S12, T24S, R31E Eddy NM
N 32° 13' 31.84296" W 103° 43' 25.43229"

I, Orlando Rendon certify that; I am employed by Drilling & Measurements, a division of Schlumberger Technology Corporation; that I did on the day(s) of September 18, 2018 through June 08, 2019, conduct or supervise the taking of the TelePacer & SlimPulse surveys from a depth of 238.00 feet to a depth of 22012.00 feet referenced to driller's depth; that the data is true, correct, complete and within the limitations of the tool as set forth by Drilling & Measurements, a division of Schlumberger Technology Corporation; that I am authorized and qualified to make this report; that this survey was conducted at the request of Chevron USA Incorporated for the SND 12 01 Fed 004 2H Well (Original Hole) API No. 30-015-45176 in New Mexico; and that I have reviewed this report and find that it conforms to the principals and procedures as set forth by Drilling & Measurements, a division of Schlumberger Technology Corporation.

By
Orlando Rendon
FE



Subscribed and Sworn to before me this 12 day of June (month) 2019 (yr)

My Commission expires:

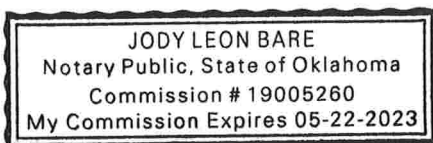
5-22-2023



(signature)

Notary Public

Grady, Oklahoma
(County State)





Chevron SND 12 01 FED 004 2H MWD to 22057ft Survey Geodetic Report

(Def Survey)

Report Date: June 09, 2019 - 12:13 PM
Client: Chevron
Field: NM Eddy County (NAD 27)
Structure / Slot: Chevron SND 12 01 FED 004 2H / Chevron SND 12 01 FED 001 2H
Well: Chevron SND 12 01 FED 004 2H
Borehole: Original Borehole
UWI / API#: Unknown / Unknown
Survey Name: Chevron SND 12 01 FED 004 2H MWD to 22057ft
Survey Date: June 08, 2019
Tort / AHD / DDI / ERD Ratio: 232.702' / 10743.344 ft / 6.660 / 0.891
Coordinate Reference System: NAD27 New Mexico State Plane, Eastern Zone, US Feet
Location Lat / Long: N 32° 13' 31.84296", W 103° 43' 25.43229"
Location Grid N/E Y/X: N 446295.000 ftUS, E 688511.000 ftUS
CRS Grid Convergence Angle: 0.3251°
Grid Scale Factor: 0.99994979
Version / Patch: 2.10.760.0

Survey / DLS Computation: Minimum Curvature / Lubinski
Vertical Section Azimuth: 359.690° (Grid North)
Vertical Section Origin: 0.000 ft, 0.000 ft
TVD Reference Datum: RKB = 28ft
TVD Reference Elevation: 3615.000 ft above MSL
Seabed / Ground Elevation: 3587.000 ft above MSL
Magnetic Declination: 6.728°
Total Gravity Field Strength: 998.4293mgn (9.80665 Based)
Gravity Model: GARM
Total Magnetic Field Strength: 47904.756 nT
Magnetic Dip Angle: 59.898°
Declination Date: June 08, 2019
Magnetic Declination Model: HDGM 2019
North Reference: Grid North
Grid Convergence Used: 0.3251°
Total Corr Mag North->Grid North: 6.4030°
Local Coord Referenced To: Well Head

Comments	MD (ft)	Incl (°)	Azim Grid (°)	TVD (ft)	VSEC (ft)	NS (ft)	EW (ft)	DLS (°/100ft)	Northing (ftUS)	Easting (ftUS)	Latitude (N/S ° ' ")	Longitude (E/W ° ' ")
Surface	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A	446295.00	688511.00	N 32 13 31.84	W 103 43 25.43
First SLB MWD Survey	238.00	1.29	235.73	237.98	-1.50	-1.51	-2.21	0.54	446293.49	688508.79	N 32 13 31.83	W 103 43 25.46
	328.00	1.21	240.54	327.96	-2.53	-2.55	-3.88	0.15	446292.45	688507.12	N 32 13 31.82	W 103 43 25.48
	419.00	1.09	242.17	418.94	-3.39	-3.42	-5.48	0.14	446291.58	688505.52	N 32 13 31.81	W 103 43 25.50
	515.00	1.14	244.81	514.92	-4.22	-4.26	-7.15	0.07	446290.74	688503.85	N 32 13 31.80	W 103 43 25.52
	608.00	1.04	241.11	607.91	-5.01	-5.06	-8.73	0.13	446289.94	688502.27	N 32 13 31.79	W 103 43 25.53
	700.00	1.10	234.63	699.89	-5.92	-5.97	-10.18	0.15	446289.03	688500.82	N 32 13 31.78	W 103 43 25.55
	802.00	1.01	229.49	801.87	-7.06	-7.12	-11.66	0.13	446287.88	688499.34	N 32 13 31.77	W 103 43 25.57
	968.00	2.08	207.21	967.81	-10.68	-10.75	-14.15	0.73	446284.25	688496.85	N 32 13 31.74	W 103 43 25.60
	1063.00	4.45	205.06	1062.65	-15.54	-15.62	-16.50	2.50	446279.38	688494.50	N 32 13 31.69	W 103 43 25.63
	1159.00	5.87	197.19	1158.26	-23.58	-23.69	-19.53	1.65	446271.31	688491.47	N 32 13 31.61	W 103 43 25.66
	1254.00	7.44	192.88	1252.62	-34.20	-34.33	-22.34	1.73	446260.68	688488.06	N 32 13 31.50	W 103 43 25.69
	1350.00	8.89	192.95	1347.64	-47.48	-47.62	-25.38	1.51	446247.39	688485.62	N 32 13 31.37	W 103 43 25.73
	1446.00	8.87	191.68	1442.49	-61.94	-62.09	-28.55	0.21	446232.91	688482.46	N 32 13 31.23	W 103 43 25.77
	1541.00	8.47	193.91	1536.40	-75.88	-76.06	-31.71	0.55	446218.95	688479.29	N 32 13 31.09	W 103 43 25.81
	1733.00	8.06	195.05	1726.41	-102.57	-102.78	-38.60	0.23	446192.23	688472.40	N 32 13 30.83	W 103 43 25.89
	1828.00	8.08	193.94	1820.47	-115.46	-115.69	-41.94	0.17	446179.31	688469.06	N 32 13 30.70	W 103 43 25.93
	1924.00	7.98	194.24	1915.53	-128.45	-128.70	-45.21	0.11	446166.31	688465.80	N 32 13 30.57	W 103 43 25.97
	2020.00	7.92	196.76	2010.61	-141.22	-141.49	-48.75	0.37	446153.52	688462.25	N 32 13 30.45	W 103 43 26.01
	2114.00	7.66	195.87	2103.74	-153.43	-153.72	-52.33	0.30	446141.29	688458.67	N 32 13 30.32	W 103 43 26.05
	2210.00	7.15	197.43	2198.94	-165.27	-165.57	-55.87	0.57	446129.44	688455.13	N 32 13 30.21	W 103 43 26.09
	2306.00	7.85	198.93	2294.12	-177.15	-177.47	-59.79	0.76	446117.54	688451.21	N 32 13 30.09	W 103 43 26.14
	2401.00	8.56	200.83	2388.14	-189.87	-190.22	-64.41	0.80	446104.79	688446.60	N 32 13 29.96	W 103 43 26.19
	2497.00	7.41	204.15	2483.21	-202.17	-202.54	-69.48	1.29	446092.47	688441.52	N 32 13 29.84	W 103 43 26.25
	2593.00	6.42	204.34	2578.51	-212.68	-213.08	-74.23	1.03	446081.93	688436.78	N 32 13 29.74	W 103 43 26.31
	2689.00	5.91	199.84	2673.96	-222.20	-222.62	-78.12	0.73	446072.39	688432.89	N 32 13 29.64	W 103 43 26.36
	2784.00	4.62	200.50	2768.55	-230.37	-230.81	-81.12	1.36	446064.20	688429.89	N 32 13 29.56	W 103 43 26.39
	2881.00	2.75	199.76	2865.35	-236.20	-236.66	-83.27	1.93	446058.35	688427.73	N 32 13 29.51	W 103 43 26.42
	2977.00	1.33	221.51	2961.29	-239.20	-239.66	-84.79	1.66	446055.35	688426.22	N 32 13 29.48	W 103 43 26.44
	3073.00	0.73	337.42	3057.28	-239.46	-239.93	-85.76	1.85	446055.08	688425.24	N 32 13 29.47	W 103 43 26.45
	3169.00	1.39	19.73	3153.26	-237.80	-238.27	-86.60	1.02	446056.74	688425.40	N 32 13 29.49	W 103 43 26.44
	3263.00	0.13	114.92	3247.25	-236.78	-237.24	-85.12	1.50	446057.77	688425.88	N 32 13 29.50	W 103 43 26.44
	3360.00	0.70	189.26	3344.25	-237.41	-237.87	-85.12	0.70	446057.14	688425.89	N 32 13 29.49	W 103 43 26.44
	3456.00	1.38	324.78	3440.24	-237.04	-237.51	-85.88	2.02	446057.51	688425.13	N 32 13 29.50	W 103 43 26.45
	3552.00	1.82	329.83	3536.20	-234.77	-235.24	-87.31	0.48	446059.77	688423.69	N 32 13 29.52	W 103 43 26.46
	3647.00	0.62	19.54	3631.18	-232.98	-233.45	-87.90	1.57	446061.56	688423.11	N 32 13 29.54	W 103 43 26.47
	3743.00	0.50	71.23	3727.18	-232.35	-232.83	-87.33	0.52	446062.18	688423.68	N 32 13 29.54	W 103 43 26.46
	3839.00	0.39	356.07	3823.18	-231.90	-232.37	-86.95	0.57	446062.64	688424.05	N 32 13 29.55	W 103 43 26.46
	3934.00	0.28	10.10	3918.18	-231.34	-231.82	-86.93	0.14	446063.19	688424.07	N 32 13 29.55	W 103 43 26.46
	4029.00	0.64	94.72	4013.17	-231.16	-231.63	-86.36	0.71	446063.38	688424.64	N 32 13 29.56	W 103 43 26.45
	4125.00	0.44	106.35	4109.17	-231.32	-231.78	-85.48	0.24	446063.23	688425.53	N 32 13 29.55	W 103 43 26.44
	4221.00	0.64	133.04	4205.16	-231.79	-232.25	-84.73	0.33	446062.76	688426.27	N 32 13 29.55	W 103 43 26.43
	4316.00	0.84	149.23	4300.16	-232.75	-233.21	-83.99	0.30	446061.80	688427.02	N 32 13 29.54	W 103 43 26.43
	4412.00	0.41	185.55	4396.15	-233.70	-234.16	-83.66	0.59	446060.85	688427.34	N 32 13 29.53	W 103 43 26.42
	4508.00	0.24	249.40	4492.15	-234.11	-234.57	-83.88	0.39	446060.44	688427.12	N 32 13 29.53	W 103 43 26.42
	4603.00	0.06	199.25	4587.15	-234.23	-234.69	-84.08	0.22	446060.32	688426.92	N 32 13 29.53	W 103 43 26.43
	4699.00	0.28	240.20	4683.15	-234.39	-234.85	-84.30	0.25	446060.16	688426.70	N 32 13 29.52	W 103 43 26.43
	4794.00	0.50	296.39	4778.15	-234.32	-234.78	-84.88	0.44	446060.23	688426.13	N 32 13 29.52	W 103 43 26.44
	4890.00	0.76	267.68	4874.14	-234.15	-234.62	-85.89	0.42	446060.39	688425.12	N 32 13 29.53	W 103 43 26.45
	4986.00	0.58	259.42	4970.13	-234.26	-234.74	-87.00	0.21	446060.28	688424.00	N 32 13 29.53	W 103 43 26.46
	5081.00	0.55	240.86	5065.13	-234.57	-235.05	-87.87	0.19	446059.96	688423.13	N 32 13 29.52	W 103 43 26.47
5176.00	0.35	221.88	5160.13	-235.00	-235.49	-88.46	0.26	446059.53	688422.54	N 32 13 29.52	W 103 43 26.48	
5271.00	0.33	248.09	5255.13	-235.32	-235.80	-88.91	0.16	446059.21	688422.09	N 32 13 29.51	W 103 43 26.48	
5367.00	0.25	288.50	5351.12	-235.35	-235.84	-89.37	0.22	446059.17	688421.64	N 32 13 29.51	W 103 43 26.49	
5463.00	0.80	76.74	5447.12	-235.14	-235.62	-88.91	1.06	446059.39	688422.09	N 32 13 29.52	W 103 43 26.48	
5558.00	1.10	69.97	5542.11	-234.68	-235.16	-87.41	0.34	446059.86	688423.59	N 32 13 29.52	W 103 43 26.47	
5654.00	0.95	62.90	5638.09	-234.01	-234.48	-85.84	0.20	446060.53	688425.17	N 32 13 29.53	W 103 43 26.45	
5749.00	0.60	66.14	5733.08	-233.46	-233.92	-84.68	0.37	446061.09	688426.32	N 32 13 29.53	W 103 43 26.43	
5844.00	0.67	55.16	5828.08	-232.94	-233.40	-83.77	0.15	446061.61	688427.23	N 32 13 29.54	W 103 43 26.42	
5939.00	0.46	61.81	5923.07	-232.45	-232.90	-82.98	0.23	446062.11	688428.03	N 32 13 29.54	W 103 43 26.41	
6034.00	0.35	55.17	6018.07	-232.11	-232.56	-82.40	0.13	446062.46	688428.60	N 32 13 29.55	W 103 43 26.41	
6130.00	0.16	0.31	6114.07	-231.81	-232.25	-82.16	0.30	446062.76	688428.84	N 32 13 29.55	W 103 43 26.40	
6224.00	0.23	74.43	6208.07	-231.63	-232.07	-81.98	0.26	446062.94	688429.02	N 32 13 29.55	W 103 43 26.40	
6320.00	0.22	66.93	6304.07	-231.50	-231.95	-81.63	0.03	446063.06	688429.38	N 32 13 29.55	W 103 43 26.40	
6415.00	0.11	183.93	6399.07	-231.52	-231.97	-81.46	0.30	446063.04	688429.54	N 32 13 29.55	W 103 43 26.40	
6510.00	0.13	4.62	6494.07	-231.51	-231.95	-81.46	0.25	446063.06	688429.54	N 32 13 29.55	W 103 43 26.40	
6605.00	0.16	334.23	6589.07	-231.28	-231.72	-81.51	0.09	446063.29	688429.49	N 32 13 29.55	W 103 43 26.40	
6700.00	0.25	101.84	6684.07	-231.20	-231.65	-81.37	0.39	446063.36	688429.64	N 32 13 29.56	W 103 43 26.39	
6795.00	0.06	122.97	6779.07	-231.28	-231.72	-81.12	0.21	446063.29	688429.88	N 32 13 29.55	W 103 43 26.39	
6890.00	0.11	217.67	6874.07	-231.37	-231.82	-81.13	0.14	446063.20	688429.87	N 32 13 29.55	W 103 43 26.39	
6985.00	0.46	184.83	6969.07	-231.83	-232.27	-81.22	0.39	446062.74	688429.78	N 32 13 29.55	W 103 43 26.39	
7081.00	0.60	222.16	7065.06	-232.58	-233.03	-81.59	0.38	446061.99	688429.41	N 32 13 29.54	W 103 43 26.40	
7176.00	0.57	215.76	7160.06	-233.33	-233.78	-82.20	0.08	446061.23	688428.80	N 32 13 29.53	W 103 43 26.40	
7272.00	0.40	232.55	7256.05	-233.9								

Comments	MD (ft)	Incl (°)	Azim Grid (°)	TVD (ft)	VSEC (ft)	NS (ft)	EW (ft)	DLS (°/100ft)	Northing (ftUS)	Easting (ftUS)	Latitude (N/S ° ' ")	Longitude (E/W ° ' ")
	7846.00	0.61	207.18	7830.03	-237.90	-238.37	-86.65	0.17	446056.64	688425.35	N 32 13 29.49	W 103 43 26.45
	7941.00	0.64	218.72	7925.03	-238.76	-239.23	-86.21	0.14	446055.78	688424.79	N 32 13 29.48	W 103 43 26.45
	8037.00	0.52	238.42	8021.02	-239.40	-239.88	-86.92	0.24	446055.13	688424.08	N 32 13 29.47	W 103 43 26.46
	8133.00	0.76	211.42	8117.02	-240.17	-240.65	-87.62	0.39	446054.36	688423.38	N 32 13 29.47	W 103 43 26.47
	8229.00	0.80	209.41	8213.01	-241.30	-241.78	-88.29	0.05	446053.24	688422.72	N 32 13 29.46	W 103 43 26.48
	8324.00	0.68	199.20	8308.00	-242.40	-242.89	-88.80	0.19	446052.13	688422.21	N 32 13 29.44	W 103 43 26.48
	8420.00	0.81	221.34	8403.99	-243.45	-243.93	-89.43	0.33	446051.08	688421.57	N 32 13 29.43	W 103 43 26.49
	8516.00	1.01	212.61	8499.98	-244.66	-245.16	-90.34	0.25	446049.86	688420.67	N 32 13 29.42	W 103 43 26.50
	8611.00	1.11	230.62	8594.96	-245.95	-246.45	-91.50	0.36	446048.57	688419.51	N 32 13 29.41	W 103 43 26.51
	8706.00	1.18	239.77	8689.94	-247.02	-247.52	-93.06	0.21	446047.49	688417.95	N 32 13 29.40	W 103 43 26.53
	8801.00	1.03	247.47	8784.93	-247.83	-248.34	-94.69	0.22	446046.67	688416.32	N 32 13 29.39	W 103 43 26.55
	8897.00	1.01	219.38	8880.91	-248.80	-249.33	-96.02	0.52	446045.69	688414.98	N 32 13 29.38	W 103 43 26.57
	8992.00	1.15	191.62	8975.90	-250.38	-250.91	-96.75	0.56	446044.11	688414.26	N 32 13 29.37	W 103 43 26.58
	9094.00	1.15	192.72	9077.88	-252.38	-252.91	-97.18	0.02	446042.10	688413.83	N 32 13 29.35	W 103 43 26.58
	9189.00	1.35	246.94	9172.86	-253.74	-254.28	-98.42	1.21	446040.74	688412.59	N 32 13 29.33	W 103 43 26.59
	9284.00	2.07	283.71	9267.82	-253.76	-254.31	-101.11	1.34	446040.70	688409.89	N 32 13 29.33	W 103 43 26.63
	9380.00	3.27	288.37	9363.71	-252.46	-253.03	-105.40	1.27	446041.98	688405.61	N 32 13 29.35	W 103 43 26.68
	9475.00	3.34	280.89	9458.55	-251.06	-251.66	-110.69	0.46	446043.36	688400.32	N 32 13 29.36	W 103 43 26.74
	9569.00	3.51	260.23	9552.39	-251.00	-251.63	-116.21	1.32	446043.38	688394.80	N 32 13 29.36	W 103 43 26.80
	9665.00	3.61	253.66	9648.20	-252.31	-252.98	-122.01	0.44	446042.04	688389.00	N 32 13 29.35	W 103 43 26.87
	9760.00	3.24	255.44	9743.03	-253.80	-254.49	-127.48	0.41	446040.52	688383.53	N 32 13 29.33	W 103 43 26.93
	9855.00	3.00	254.55	9837.89	-255.11	-255.83	-132.47	0.26	446039.18	688378.54	N 32 13 29.32	W 103 43 26.99
	9950.00	3.50	259.96	9932.74	-256.25	-257.00	-137.72	0.62	446038.01	688373.29	N 32 13 29.31	W 103 43 27.05
	10045.00	3.66	266.95	10027.55	-256.89	-257.67	-143.60	0.49	446037.35	688367.40	N 32 13 29.30	W 103 43 27.12
	10139.00	3.74	271.29	10121.36	-256.94	-257.76	-148.67	0.31	446037.26	688361.34	N 32 13 29.30	W 103 43 27.19
	10237.00	2.48	279.88	10219.21	-256.48	-257.32	-154.95	1.37	446037.69	688356.06	N 32 13 29.31	W 103 43 27.25
	10332.00	1.80	273.06	10314.15	-256.03	-256.89	-158.47	0.76	446038.12	688352.54	N 32 13 29.31	W 103 43 27.29
	10427.00	1.04	278.19	10409.12	-255.81	-256.69	-160.81	0.81	446038.33	688350.20	N 32 13 29.31	W 103 43 27.32
	10523.00	0.83	260.22	10505.10	-255.80	-256.68	-162.36	0.37	446038.33	688348.65	N 32 13 29.31	W 103 43 27.34
	10618.00	0.76	147.70	10600.10	-256.45	-257.33	-162.70	1.39	446037.68	688348.31	N 32 13 29.31	W 103 43 27.34
	10713.00	1.14	143.14	10695.09	-257.74	-258.62	-161.79	0.41	446036.40	688349.21	N 32 13 29.29	W 103 43 27.33
	10809.00	1.56	155.50	10791.06	-259.70	-260.57	-160.68	0.53	446034.44	688350.33	N 32 13 29.27	W 103 43 27.32
	10905.00	1.64	159.69	10887.02	-262.18	-263.05	-159.66	0.15	446031.96	688351.35	N 32 13 29.25	W 103 43 27.31
	11001.00	1.77	156.68	10982.98	-264.84	-265.70	-158.60	0.16	446029.32	688352.41	N 32 13 29.22	W 103 43 27.30
	11097.00	2.25	153.16	11078.92	-267.89	-268.74	-157.16	0.52	446026.27	688353.85	N 32 13 29.19	W 103 43 27.28
	11192.00	1.98	145.63	11173.85	-270.92	-271.76	-155.39	0.41	446023.25	688355.62	N 32 13 29.16	W 103 43 27.26
	11307.00	1.94	143.99	11288.79	-274.14	-274.97	-153.12	0.06	446020.04	688357.88	N 32 13 29.13	W 103 43 27.23
	11380.00	3.77	36.24	11361.73	-273.22	-274.04	-150.98	6.49	446020.98	688360.03	N 32 13 29.14	W 103 43 27.21
	11428.00	11.64	29.42	11409.26	-267.74	-268.54	-147.66	16.48	446026.48	688363.35	N 32 13 29.19	W 103 43 27.17
	11476.00	17.41	30.75	11455.71	-257.37	-258.14	-141.61	12.04	446036.87	688369.40	N 32 13 29.30	W 103 43 27.10
	11524.00	20.45	30.93	11501.10	-244.05	-244.77	-133.62	6.33	446050.24	688377.38	N 32 13 29.43	W 103 43 27.00
	11571.00	25.44	28.42	11544.37	-228.16	-228.84	-124.59	10.82	446066.17	688386.41	N 32 13 29.59	W 103 43 26.90
	11619.00	29.06	25.18	11587.04	-208.59	-209.22	-114.72	8.15	446085.79	688396.28	N 32 13 29.78	W 103 43 26.78
	11667.00	30.03	24.69	11628.80	-187.18	-187.75	-104.74	2.08	446107.26	688406.26	N 32 13 29.99	W 103 43 26.66
	11715.00	31.11	22.02	11670.13	-164.83	-165.34	-95.08	3.61	446129.67	688415.93	N 32 13 30.21	W 103 43 26.55
	11763.00	35.62	19.00	11710.21	-140.15	-140.62	-85.87	10.01	446154.39	688425.13	N 32 13 30.46	W 103 43 26.44
	11811.00	40.19	18.07	11748.07	-112.25	-112.66	-76.51	9.59	446182.34	688434.49	N 32 13 30.73	W 103 43 26.33
	11858.00	43.02	14.79	11783.22	-82.37	-82.73	-67.71	7.60	446212.27	688443.29	N 32 13 31.03	W 103 43 26.23
	11906.00	46.08	15.16	11817.42	-49.89	-50.21	-59.01	6.40	446244.79	688451.99	N 32 13 31.35	W 103 43 26.12
Heel HL Cross	11925.00	46.74	15.74	11830.52	-36.64	-36.94	-55.34	4.14	446256.66	688455.66	N 32 13 31.48	W 103 43 26.08
	11954.00	47.76	16.61	11850.21	-16.22	-16.49	-49.41	4.14	446278.51	688461.59	N 32 13 31.68	W 103 43 26.01
	12002.00	50.44	14.68	11881.63	18.66	18.44	-39.64	6.36	446313.44	688471.36	N 32 13 32.03	W 103 43 25.89
	12050.00	53.81	11.75	11911.10	55.49	55.32	-31.00	8.51	446350.32	688480.00	N 32 13 32.39	W 103 43 25.79
	12098.00	59.92	10.09	11937.33	94.89	94.77	-23.41	13.05	446389.76	688487.59	N 32 13 32.78	W 103 43 25.70
	12146.00	64.86	9.71	11959.57	136.74	136.66	-16.10	10.32	446431.65	688494.90	N 32 13 33.20	W 103 43 25.61
	12194.00	67.03	8.35	11979.13	179.99	179.94	-9.23	5.21	446474.93	688501.77	N 32 13 33.62	W 103 43 25.53
	12241.00	70.13	7.58	11996.29	223.28	223.27	-3.17	6.77	446518.26	688507.83	N 32 13 34.05	W 103 43 25.45
	12289.00	74.96	7.70	12010.69	268.62	268.64	2.92	10.07	446563.62	688513.92	N 32 13 34.50	W 103 43 25.38
	12337.00	77.84	7.10	12021.97	314.85	314.90	8.92	6.12	446609.88	688519.92	N 32 13 34.96	W 103 43 25.31
	12385.00	81.24	6.44	12030.69	361.68	361.77	14.49	7.21	446656.75	688525.48	N 32 13 35.42	W 103 43 25.24
	12433.00	84.48	6.20	12036.65	408.98	409.10	19.73	6.77	446704.08	688530.73	N 32 13 35.89	W 103 43 25.18
	12485.00	87.49	4.63	12040.29	460.59	460.73	24.62	6.52	446755.71	688535.62	N 32 13 36.40	W 103 43 25.12
	12528.00	87.01	3.99	12042.36	503.40	503.56	27.85	1.86	446798.53	688538.85	N 32 13 36.82	W 103 43 25.07
	12624.00	86.07	3.94	12048.15	598.96	599.15	34.47	0.98	446894.12	688545.47	N 32 13 37.77	W 103 43 24.99
	12672.00	86.32	4.15	12051.33	646.71	646.93	37.85	0.68	446941.89	688548.85	N 32 13 38.24	W 103 43 24.95
	12768.00	88.90	2.45	12055.34	742.43	742.67	43.37	3.22	447037.64	688554.37	N 32 13 39.19	W 103 43 24.88
	12863.00	89.48	0.98	12056.68	837.36	837.62	46.21	1.66	447132.58	688557.21	N 32 13 40.13	W 103 43 24.84
	12959.00	89.86	0.42	12057.23	933.34	933.61	47.39	0.70	447228.56	688558.38	N 32 13 41.08	W 103 43 24.82
	13055.00	89.76	358.87	12057.55	1029.34	1029.60	46.79	1.62	447324.55	688557.79	N 32 13 42.03	W 103 43 24.82
	13150.00	89.69	357.79	12058.01	1124.31	1124.56	44.02	1.14	447419.50	688555.02	N 32 13 42.97	W 103 43 24.85
	13246.00	90.17	357.51	12058.13	1220.25	1220.48	40.09	0.58	447515.42	688551.09	N 32 13 43.92	W 103 43 24.89
	13341.00	90.24	357.27	12057.79	1315.17	1315.38	35.76	0.26	447610.31	688546.76	N 32 13 44.86	W 103 43 24.93
	13437.00	90.27	358.64	12057.36	1411.12	1411.32	32.34	1.43	447706.24	688543.33	N 32 13 45.81	W 103 43 24.96
	13532.00	90.14	359.42	12057.02	1506.11	1506.30	30.73	0.83	447801.22	688541.73	N 32 13 46.75	W 103 43 24.98
	13628.00	89.76	359.81	12057.10	1602.11	1602.30	30.08	0.57	447897.22	688541.08	N 32 13 47.70	W 103 43 24.98
	13723.00	90.21	0.29	12057.13	1697.11	1697.30	30.17	0.69	447992.21	688541.16	N 32 13 48.64	W 103 43 24.97
	13827.00	90.24	359.94	12056.72	1801.11</							

Comments	MD (ft)	Incl (°)	Azim Grid (°)	TVD (ft)	VSEC (ft)	NS (ft)	EW (ft)	DLS (°/100ft)	Northing (ftUS)	Easting (ftUS)	Latitude (N/S ° ' ")	Longitude (E/W ° ' ")
	17340.00	90.03	1.96	12039.67	5312.96	5313.11	12.84	0.38	451607.83	688523.84	N 32 14 24.42	W 103 43 24.93
	17435.00	90.03	1.77	12039.62	5407.89	5408.06	15.94	0.20	451702.78	688526.94	N 32 14 25.36	W 103 43 24.89
	17531.00	89.69	0.50	12039.85	5503.86	5504.04	17.84	1.37	451798.75	688528.84	N 32 14 26.31	W 103 43 24.86
	17626.00	89.62	359.59	12040.43	5598.86	5599.03	17.91	0.96	451893.74	688528.91	N 32 14 27.25	W 103 43 24.85
	17816.00	88.35	357.23	12043.79	5788.76	5788.91	12.64	1.41	452083.61	688523.64	N 32 14 29.13	W 103 43 24.90
	17912.00	89.69	356.26	12045.43	5884.62	5884.74	7.19	1.72	452179.43	688518.19	N 32 14 30.07	W 103 43 24.96
	18007.00	89.83	355.98	12045.83	5979.43	5979.52	0.76	0.33	452274.21	688511.76	N 32 14 31.01	W 103 43 25.03
	18103.00	90.28	357.63	12045.74	6075.31	6075.37	-4.59	1.78	452370.05	688506.41	N 32 14 31.96	W 103 43 25.08
	18198.00	90.31	358.94	12045.25	6170.27	6170.32	-7.43	1.38	452465.00	688503.57	N 32 14 32.90	W 103 43 25.11
	18293.00	89.52	359.52	12045.39	6265.27	6265.31	-8.71	1.03	452559.99	688502.29	N 32 14 33.84	W 103 43 25.12
	18388.00	90.76	0.55	12045.16	6360.26	6360.31	-8.65	1.70	452654.98	688502.35	N 32 14 34.78	W 103 43 25.11
	18482.00	90.03	359.61	12044.51	6454.26	6454.31	-8.52	1.27	452748.97	688502.48	N 32 14 35.71	W 103 43 25.10
	18577.00	90.69	0.38	12043.91	6549.25	6549.30	-8.52	1.07	452843.96	688502.48	N 32 14 36.65	W 103 43 25.10
	18671.00	89.52	359.87	12043.74	6643.25	6643.30	-8.32	1.36	452937.95	688502.68	N 32 14 37.58	W 103 43 25.09
	18765.00	89.17	359.59	12044.82	6737.24	6737.29	-8.76	0.48	453031.94	688502.24	N 32 14 38.51	W 103 43 25.09
	18859.00	89.76	359.91	12045.69	6831.24	6831.29	-9.17	0.71	453125.93	688501.83	N 32 14 39.44	W 103 43 25.09
	18953.00	89.07	359.67	12046.65	6925.23	6925.28	-9.52	0.78	453219.92	688501.48	N 32 14 40.37	W 103 43 25.09
	19047.00	88.52	358.96	12048.63	7019.21	7019.25	-10.64	0.96	453313.89	688500.36	N 32 14 41.30	W 103 43 25.09
	19142.00	89.14	359.30	12050.57	7114.18	7114.22	-12.08	0.74	453408.85	688498.92	N 32 14 42.24	W 103 43 25.10
	19236.00	89.55	0.09	12051.65	7208.18	7208.21	-12.58	0.95	453502.84	688498.42	N 32 14 43.17	W 103 43 25.10
	19350.00	88.90	358.64	12053.19	7322.16	7322.19	-13.85	1.39	453616.81	688497.15	N 32 14 44.30	W 103 43 25.11
	19424.00	89.97	0.08	12053.92	7396.15	7396.18	-14.67	2.42	453690.80	688496.33	N 32 14 45.03	W 103 43 25.11
	19519.00	89.04	359.63	12054.74	7491.15	7491.18	-14.91	1.09	453785.79	688496.09	N 32 14 45.97	W 103 43 25.11
	19613.00	89.93	0.27	12055.58	7585.14	7585.17	-15.00	1.17	453879.78	688496.01	N 32 14 46.90	W 103 43 25.11
	19708.00	89.55	359.73	12056.01	7680.14	7680.17	-15.00	0.70	453974.77	688496.01	N 32 14 47.84	W 103 43 25.10
	19803.00	90.90	359.82	12055.64	7775.14	7775.17	-15.37	1.42	454069.76	688495.63	N 32 14 48.78	W 103 43 25.10
	19898.00	90.10	0.17	12054.81	7870.13	7870.16	-15.38	0.92	454164.75	688495.62	N 32 14 49.72	W 103 43 25.09
	19993.00	89.66	0.45	12055.01	7965.12	7965.16	-14.86	0.55	454259.74	688496.14	N 32 14 50.66	W 103 43 25.08
	20088.00	89.52	0.28	12055.69	8060.11	8060.16	-14.26	0.23	454354.73	688496.74	N 32 14 51.60	W 103 43 25.07
	20183.00	89.28	359.30	12056.69	8155.11	8155.15	-14.61	1.06	454449.72	688496.40	N 32 14 52.54	W 103 43 25.06
	20278.00	90.28	0.03	12057.05	8250.11	8250.14	-15.16	1.30	454544.71	688495.84	N 32 14 53.48	W 103 43 25.06
	20373.00	90.03	359.91	12056.79	8345.10	8345.14	-15.21	0.29	454639.71	688495.79	N 32 14 54.42	W 103 43 25.06
	20468.00	90.17	359.60	12056.63	8440.10	8440.14	-15.62	0.36	454734.70	688495.38	N 32 14 55.36	W 103 43 25.06
	20564.00	91.03	1.17	12055.62	8536.09	8536.13	-14.97	1.86	454830.69	688496.03	N 32 14 56.31	W 103 43 25.04
	20659.00	90.41	0.43	12054.43	8631.06	8631.11	-13.65	1.02	454925.66	688497.35	N 32 14 57.25	W 103 43 25.02
	20755.00	90.38	0.37	12053.77	8727.05	8727.11	-12.98	0.07	455021.65	688498.03	N 32 14 58.20	W 103 43 25.01
	20851.00	90.10	0.28	12053.36	8823.04	8823.11	-12.43	0.31	455117.65	688498.57	N 32 14 59.15	W 103 43 24.99
	20947.00	90.14	0.06	12053.16	8919.04	8919.11	-12.15	0.23	455213.64	688498.85	N 32 15 0.10	W 103 43 24.98
	21042.00	90.24	359.90	12052.85	9014.04	9014.11	-12.18	0.20	455308.63	688498.82	N 32 15 1.04	W 103 43 24.98
	21138.00	90.45	0.49	12052.27	9110.03	9110.10	-11.85	0.65	455404.63	688499.15	N 32 15 1.99	W 103 43 24.97
	21234.00	90.48	359.78	12051.49	9206.03	9206.10	-11.63	0.74	455500.62	688499.37	N 32 15 2.94	W 103 43 24.96
	21330.00	90.34	0.28	12050.80	9302.02	9302.10	-11.58	0.54	455596.61	688499.42	N 32 15 3.89	W 103 43 24.95
	21425.00	90.17	359.63	12050.38	9397.02	9397.09	-11.65	0.71	455691.60	688499.35	N 32 15 4.83	W 103 43 24.95
	21521.00	90.07	359.25	12050.18	9493.02	9493.09	-12.59	0.41	455787.59	688498.41	N 32 15 5.78	W 103 43 24.95
	21617.00	89.72	358.31	12050.36	9589.00	9589.07	-14.63	1.04	455883.57	688496.37	N 32 15 6.73	W 103 43 24.97
	21713.00	90.21	359.39	12050.41	9684.99	9685.04	-16.56	1.24	455979.54	688494.44	N 32 15 7.68	W 103 43 24.99
	21809.00	90.31	359.38	12049.98	9780.99	9781.04	-17.59	0.10	456075.53	688493.41	N 32 15 8.63	W 103 43 24.99
Toe HL Cross	21896.00	89.87	359.40	12049.84	9867.99	9868.03	-18.52	0.51	456162.52	688492.48	N 32 15 9.49	W 103 43 25.00
	21904.00	89.83	359.40	12049.86	9875.99	9876.03	-18.60	0.51	456170.52	688492.40	N 32 15 9.57	W 103 43 25.00
	22000.00	90.10	359.75	12049.92	9971.99	9972.03	-19.31	0.46	456266.51	688491.69	N 32 15 10.52	W 103 43 25.00
Last SLB MWD Survey	22012.00	90.21	359.87	12049.89	9983.99	9984.03	-19.35	1.36	456278.51	688491.65	N 32 15 10.64	W 103 43 25.00
Projection to Bit	22057.00	90.21	359.87	12049.72	10028.99	10029.03	-19.46	0.00	456323.51	688491.55	N 32 15 11.08	W 103 43 25.00

Survey Type: Def Survey

Survey Error Model: ISCWSA Rev 3 *** 3-D 97.071% Confidence 3.0000 sigma
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	28.000	1/98.425	30.000	30.000	B001Ma_MWD+HDGM-Depth Only	Original Borehole / Chevron SND 12 01 FED 004 2H MWD to 22057ft
	1	28.000	28.000	Act Stns	30.000	30.000	B001Ma_MWD+HDGM-Depth Only	Original Borehole / Chevron SND 12 01 FED 004 2H MWD to 22057ft
	1	28.000	22057.000	Act Stns	30.000	30.000	B001Ma_MWD+HDGM	Original Borehole / Chevron SND 12 01 FED 004 2H MWD to