

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

June 21, 2019

Chevron USA Incorporated
6301 Deauville Blvd.
Midland, TX 79706

HOBBS OCD

MAR 12 2020

RECEIVED

S29, T26S, R33 E Lea, NM
N 32.021226 W 103.600135

Re:

CLIENT: Chevron USA Incorporated
WELL: SD EA 29 32 Fed Com P11 13H
FIELD: Upper Wolfcamp

RIG: Nabors X30
COUNTY: Lea
API NO: 30-025-44333
JOB NO: 19MLD4334

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>
Sulaiman Aloosi FE	SD EA 29 32 Fed Com P11 13H Original Hole	877.00 Ft to 19739.00 Ft	April 20, 2019 to May 7, 2019	Telepacer

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

Field Service Manager

Schlumberger-Private

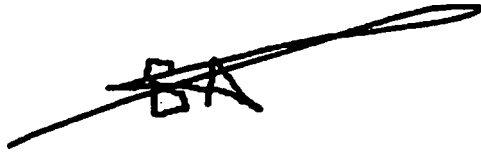
Schlumberger Drilling and Measurements
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Schlumberger

Well Reference:
S29, T26S, R33 E Lea, NM
N 32.021226 W 103.600135

I, Sulaiman Aloosi certify that; I am employed by Drilling & Measurements, a division of Schlumberger Technology Corporation; that I did on the day(s) of April 20, 2019 through May 07, 2019, conduct or supervise the taking of the Telepacer surveys from a depth of 877.00 feet to a depth of 19739.00 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 SD EA 29 32 Fed Com P11 13H Well (Original Hole) API No. 30-025-44333 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.

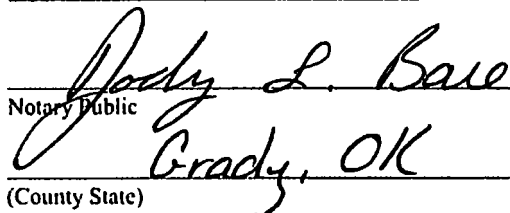
By
Sulaiman Aloosi
FE



Subscribed and Sworn to before me this 24 day of June (month) 2019 (yr)

My Commission expires:

05-22-2023


Notary Public
Grady, OK
(County State)

(signature)
JODY LEON BARE
Notary Public, State of Oklahoma
Commission # 19005260
My Commission Expires 05-22-2023

Chevron SD EA 29 32 Fed Com P11 13H MWD to 19790ft Survey Geodetic Report (Def Survey)



Report Date: May 19, 2019 - 07:47 AM
 Client: Chevron
 Field: NM Lea County (NAD 27)
 Structure / Slot: Chevron SD EA 29 32 Fed Com P11 Pad / 13H
 Well: SD EA 29 32 Fed Com P11 13H
 Borehole: SD EA 29 32 Fed Com P11 13H
 UWI / API#: Unknown / Unknown
 Survey Name: Chevron SD EA 29 32 Fed Com P11 13H MWD to 19790ft
 Survey Date: May 19, 2019
 Tort / AHD / DDI / ERD Ratio: 226.710' / 8259.836 ft / 6.478' / 0.670
 Coordinate Reference System: NAD27 New Mexico State Plane, Eastern Zone, US Feet
 Location Lat / Long: N 32° 1' 15.96413", W 103° 35' 58.80470"
 Location Grid N/E Y/X: N 372175.000 ftUS, E 727383.000 ftUS
 CRS Grid Convergence Angle: 0.3890°
 Grid Scale Factor: 0.99996831
 Version / Patch: 2.10.760.0

Survey / DLS Computation: Minimum Curvature / Lubinski
 Vertical Section Azimuth: 179.530° (Grid North)
 Vertical Section Origin: 0.053 ft, -0.043 ft
 RKB = 32.6ft
 TVD Reference Elevation: 3247.600 ft above
 Seabed / Ground Elevation: 3215.000 ft above
 Magnetic Declination: 6.673°
 Total Gravity Field Strength: 998.4335mgm (9.80665 Based)
 Gravity Model: GARM
 Total Magnetic Field Strength: 47676.162 nT
 Magnetic Dip Angle: 59.826°
 Declination Date: May 19, 2019
 Magnetic Declination Model: HDGM 2019
 North Reference: Grid North
 Grid Convergence Used: 0.3890°
 Total Corr Mag North-Grid North: 6.2840°

Local Coord Referenced To: Structure Reference Point

Comments	MD (ft)	Incl (°)	Azim Grid (°)	TVD (ft)	VSEC (ft)	NS (ft)	EW (ft)	DLS (ft/100ft)	Northing (ftUS)	Easting (ftUS)	Latitude (N/S ° ° ' ")	Longitude (E/W ° ° ' ")
Surface	0.00	0.00	0.00	0.00	0.00	0.05	-0.04	N/A	372175.00	727383.00	N 32° 1' 15.96"	W 103° 35' 58.80"
Adjusted KB	33.00	0.00	0.00	33.00	0.00	0.05	-0.04	0.00	372175.00	727383.00	N 32° 1' 15.96"	W 103° 35' 58.80"
First 3rd Party Survey	165.00	0.00	58.36	165.00	0.00	0.05	-0.04	0.00	372175.00	727383.00	N 32° 1' 15.96"	W 103° 35' 58.80"
	253.00	0.60	351.39	253.00	-0.48	0.51	-0.11	0.68	372175.46	727382.93	N 32° 1' 15.97"	W 103° 35' 58.81"
	343.00	0.60	220.87	343.00	-0.57	0.62	-0.49	1.21	372175.57	727382.55	N 32° 1' 15.97"	W 103° 35' 58.81"
	444.00	1.06	336.97	443.99	-1.03	1.08	-1.20	1.42	372176.03	727381.84	N 32° 1' 15.97"	W 103° 35' 58.82"
	529.00	0.26	342.95	528.98	-1.95	1.99	-1.57	0.94	372176.93	727381.48	N 32° 1' 15.98"	W 103° 35' 58.82"
	614.00	0.79	256.38	613.98	-2.00	2.03	-2.19	0.96	372176.98	727380.85	N 32° 1' 15.98"	W 103° 35' 58.83"
	698.00	1.50	311.04	697.97	-2.59	2.62	-3.59	1.46	372177.56	727379.46	N 32° 1' 15.99"	W 103° 35' 58.85"
	784.00	0.10	220.61	783.96	-3.28	3.30	-4.48	1.75	372178.25	727378.56	N 32° 1' 16.00"	W 103° 35' 58.86"
	803.00	0.40	17.75	802.96	-3.33	3.35	-4.47	2.60	372178.30	727378.57	N 32° 1' 16.00"	W 103° 35' 58.86"
	877.00	0.84	315.92	876.95	-3.97	3.99	-4.77	1.00	372178.93	727378.27	N 32° 1' 16.00"	W 103° 35' 58.86"
Last 3rd Party Survey	974.00	2.13	310.58	973.82	-5.67	5.67	-6.64	1.34	372180.62	727376.41	N 32° 1' 16.02"	W 103° 35' 58.88"
	1068.00	3.98	311.75	1067.78	-9.01	8.98	-10.40	1.97	372183.93	727372.65	N 32° 1' 16.05"	W 103° 35' 58.92"
	1162.00	6.12	304.76	1161.41	-14.09	14.01	-16.95	2.38	372188.95	727368.10	N 32° 1' 16.10"	W 103° 35' 59.00"
	1255.00	6.77	300.74	1253.82	-19.79	19.64	-25.73	0.85	372194.58	727357.31	N 32° 1' 16.16"	W 103° 35' 59.10"
	1348.00	6.73	300.94	1346.18	-25.47	25.24	-35.12	0.05	372200.19	727347.93	N 32° 1' 16.22"	W 103° 35' 59.21"
	1442.00	6.70	300.83	1439.53	-31.19	30.88	-44.55	0.03	372205.83	727338.49	N 32° 1' 16.27"	W 103° 35' 59.32"
	1536.00	7.42	298.43	1532.82	-36.79	36.39	-54.69	0.96	372211.34	727328.35	N 32° 1' 16.33"	W 103° 35' 59.44"
	1629.00	7.98	292.70	1624.98	-42.05	41.56	-68.03	0.81	372216.50	727317.02	N 32° 1' 16.38"	W 103° 35' 59.57"
	1723.00	7.92	294.26	1718.08	-47.32	46.74	-77.95	0.24	372221.68	727305.09	N 32° 1' 16.43"	W 103° 35' 59.71"
	1817.00	8.49	288.84	1811.12	-52.33	51.64	-90.42	1.02	372226.58	727292.62	N 32° 1' 16.48"	W 103° 35' 59.85"
First SLB MWD Survey	1910.00	8.80	285.72	1903.06	-56.58	55.78	-103.77	0.60	372230.73	727279.28	N 32° 1' 16.52"	W 103° 35' 59.85"
	2004.00	8.53	286.53	1995.99	-60.62	59.72	-117.37	0.32	372234.66	727265.67	N 32° 1' 16.56"	W 103° 35' 59.85"
	2099.00	8.47	286.59	2089.94	-64.74	63.72	-130.83	0.06	372238.68	727252.22	N 32° 1' 16.60"	W 103° 35' 59.85"
	2193.00	8.19	285.51	2182.95	-68.61	67.48	-143.92	0.34	372242.43	727239.13	N 32° 1' 16.64"	W 103° 35' 59.87"
	2286.00	8.53	289.70	2274.87	-72.81	71.58	-156.80	0.75	372246.53	727226.25	N 32° 1' 16.68"	W 103° 35' 59.87"
	2381.00	8.57	292.28	2369.11	-77.98	76.64	-169.98	0.41	372251.58	727213.07	N 32° 1' 16.73"	W 103° 35' 59.77"
	2474.00	8.51	292.48	2460.88	-83.34	81.90	-182.75	0.07	372256.84	727200.30	N 32° 1' 16.79"	W 103° 35' 59.82"
	2567.00	8.44	293.73	2552.86	-88.82	87.27	-195.36	0.21	372262.22	727187.69	N 32° 1' 16.84"	W 103° 35' 59.87"
	2661.00	8.25	294.43	2645.87	-94.48	92.84	-207.81	0.23	372267.78	727175.24	N 32° 1' 16.90"	W 103° 35' 59.85"
	2756.00	8.20	295.40	2739.89	-100.31	98.56	-220.14	0.16	372273.50	727162.91	N 32° 1' 16.95"	W 103° 35' 59.85"
2851.00	8.09	296.23	2833.93	-106.27	104.42	-232.25	0.17	372279.37	727150.80	N 32° 1' 17.01"	W 103° 35' 59.85"	
2944.00	7.21	291.03	2926.11	-111.35	109.41	-243.57	1.20	372284.35	727139.48	N 32° 1' 17.06"	W 103° 35' 59.85"	
3037.00	7.00	290.92	3018.39	-115.56	113.53	-254.31	0.23	372288.47	727128.74	N 32° 1' 17.10"	W 103° 35' 59.85"	
3130.00	6.58	292.78	3110.74	-119.73	117.61	-264.52	0.51	372292.56	727118.53	N 32° 1' 17.15"	W 103° 35' 59.85"	
3221.00	6.27	293.27	3201.17	-123.78	121.60	-273.89	0.35	372296.54	727109.16	N 32° 1' 17.19"	W 103° 35' 59.85"	
3314.00	5.98	294.89	3293.64	-127.90	125.64	-282.95	0.36	372300.58	727100.10	N 32° 1' 17.23"	W 103° 35' 59.85"	
3409.00	5.38	296.04	3388.17	-132.01	129.68	-291.44	0.64	372304.62	727091.61	N 32° 1' 17.27"	W 103° 35' 59.85"	
3503.00	4.57	298.41	3481.81	-135.79	133.39	-298.69	0.89	372308.34	727084.36	N 32° 1' 17.30"	W 103° 35' 59.85"	
3597.00	3.78	295.94	3575.57	-138.47	136.03	-304.97	1.28	372310.97	727078.09	N 32° 1' 17.33"	W 103° 35' 59.85"	
3691.00	3.56	279.80	3669.37	-139.87	137.38	-310.82	0.48	372312.32	727072.23	N 32° 1' 17.34"	W 103° 35' 59.85"	
3785.00	2.90	288.06	3763.22	-141.14	138.61	-315.96	0.88	372313.55	727067.09	N 32° 1' 17.36"	W 103° 35' 59.85"	
3879.00	2.79	291.22	3857.11	-142.74	140.17	-320.35	0.20	372315.12	727062.70	N 32° 1' 17.37"	W 103° 35' 59.85"	
3974.00	2.42	292.72	3952.01	-144.39	141.79	-324.36	0.40	372316.73	727058.70	N 32° 1' 17.39"	W 103° 35' 59.85"	
4068.00	2.13	294.66	4045.94	-145.91	143.28	-327.78	0.32	372318.22	727055.28	N 32° 1' 17.40"	W 103° 35' 59.85"	
4162.00	1.60	300.75	4139.89	-147.33	144.68	-330.49	0.60	372319.62	727052.56	N 32° 1' 17.42"	W 103° 35' 59.85"	
4256.00	0.92	300.75	4233.88	-148.40	145.74	-332.27	0.72	372320.68	727050.79	N 32° 1' 17.43"	W 103° 35' 59.85"	
4350.00	1.74	293.55	4327.84	-149.38	146.69	-334.23	0.89	372321.64	727048.83	N 32° 1' 17.44"	W 103° 35' 59.85"	
4446.00	2.02	287.46	4423.78	-150.49	147.78	-337.18	0.36	372322.73	727045.88	N 32° 1' 17.45"	W 103° 35' 59.85"	
4539.00	1.36	280.79	4516.74	-151.21	148.48	-339.82	0.74	372323.42	727043.23	N 32° 1' 17.46"	W 103° 35' 59.85"	
4634.00	0.91	268.99	4611.73	-151.42	148.68	-341.68	0.53	372323.62	727041.37	N 32° 1' 17.46"	W 103° 35' 59.85"	
4728.00	0.80	268.23	4705.71	-151.40	148.65	-343.09	0.12	372323.59	727039.97	N 32° 1' 17.46"	W 103° 35' 59.85"	
4821.00	1.40	279.68	4798.70	-151.59	148.82	-344.86	0.68	372323.76	727038.20	N 32° 1' 17.46"	W 103° 35' 59.85"	
4915.00	1.87	281.76	4892.66	-152.11	149.32	-347.49	0.50	372324.26	727035.57	N 32° 1' 17.46"	W 103° 35' 59.85"	
5009.00	1.68	279.97	4986.61	-152.69	149.87	-350.35	0.21	372324.82	727032.71	N 32° 1' 17.47"	W 103° 35' 59.85"	
5103.00	1.40	284.87	5080.58	-153.24	150.41	-352.82	0.33	372325.35	727030.24	N 32° 1' 17.48"	W 103° 35' 59.85"	
5198.00	1.21	281.36	5175.55	-153.76	150.90	-354.92	0.22	372325.84	727028.14	N 32° 1' 17.48"	W 103° 35' 59.85"	
5291.00	1.06	288.21	5268.54	-154.23	151.37	-356.70	0.22	372326.31	727026.36	N 32° 1' 17.49"	W 103° 35' 59.85"	
5386.00	0.91	289.68	5363.52	-154.77	151.89	-358.25	0.16	372326.84	727024.81	N 32° 1' 17.49"	W 103° 35' 59.85"	
5480.00	1.26	283.77	5457.51	-155.28	152.39	-359.95	0.39	372327.33	727023.10	N 32° 1' 17.50"	W 103° 35' 59.85"	
5573.00	1.67	280.00	5550.48	-155.78	152.87	-362.28	0.45	372327.81	727020.78	N 32° 1' 17.50"	W 103° 35' 59.85"	
5668.00	1.55	282.07	5645.44	-156.31	153.38	-364.90	0.14	372328.32	727018.16	N 32° 1' 17.51"	W 103° 35' 59.85"	
5761.00	1.47	280.27	5738.41	-156.81	153.85	-367.30	0.10	372328.80	727015.75	N 32° 1' 17.51"	W 103° 35' 59.85"	
5855.00	1.28	279.38	5832.38	-157.21	154.24	-369.53	0.20	372329.18	727013.53	N 32° 1' 17.51"	W 103° 35' 59.85"	
5949.00	1.17	272.08	5926.36	-157.43	154.45	-371.52	0.20	372329.39	727011.54	N 32° 1' 17.52"	W 103° 35' 59.85"	
6043.00	1.14	275.63	6020.34	-157.58	154.57	-373.41	0.08	372329.51	727009.65	N 32° 1' 17.52"	W 103° 35' 59.85"	
6138.00	1.18	271.70	6115.32	-157.71	154.69	-375.33	0.09	372329.64	727007.73	N 32° 1' 17.52"	W 103° 35' 59.85"	
6232.00	1.11	267.72	6209.30	-157.72	154.69	-377.21	0.11	372329.63	727005.85	N 32° 1' 17.52"	W 103° 35' 59.85"	
6327.00	1.03	275.33	6304.28	-157.78	154.73	-378.97	0.17	372329.67	727004.08	N 32° 1' 17.52"	W 103° 35' 59.85"	
6422.00	0.91	275.52	6399.27	-157.94	154.88	-380.58	0.13	372329.82	727002.48	N 32° 1' 17.52"	W 103° 35' 59.85"	
6517.00	1.37	278.04	6494.25	-158.19	155.11	-382.45	0.49	372330.05	727000.61	N 32° 1' 17.52		

Comments	MD (ft)	Incl (°)	Azlm Grid (°)	TVD (ft)	VSEC (ft)	NS (ft)	EW (ft)	DLS (ft/100ft)	Northing (ft)	Easting (ft)	Latitude (N/S ° ' '')	Longitude (E/W ° ' '')
	7365.00	1.41	259.23	7341.95	-160.46	157.20	-404.63	0.41	372332.14	726978.43	N 32 117.55	W 103 36 3.49
	7458.00	1.39	239.68	7434.93	-159.69	156.41	-406.73	0.51	372331.35	726976.33	N 32 117.54	W 103 36 3.52
	7531.00	1.47	236.92	7527.60	-158.49	155.19	-408.70	0.11	372330.13	726974.36	N 32 117.53	W 103 36 3.54
	7646.00	1.56	227.87	7622.86	-156.97	153.66	-410.68	0.27	372328.60	726972.38	N 32 117.51	W 103 36 3.56
	7740.00	1.53	220.77	7716.83	-155.18	151.85	-412.45	0.21	372326.79	726970.61	N 32 117.49	W 103 36 3.58
	7833.00	1.40	206.52	7809.80	-153.23	149.89	-413.76	0.41	372324.84	726968.26	N 32 117.47	W 103 36 3.60
	7927.00	1.37	212.32	7903.77	-151.26	147.92	-414.88	0.15	372322.86	726966.18	N 32 117.46	W 103 36 3.61
	8021.00	1.28	203.05	7997.75	-149.35	146.00	-415.89	0.25	372320.94	726964.17	N 32 117.44	W 103 36 3.62
	8116.00	1.46	186.13	8092.72	-147.18	143.82	-416.43	0.46	372318.76	726962.62	N 32 117.41	W 103 36 3.63
	8210.00	1.41	204.19	8188.69	-144.94	141.58	-417.04	0.46	372316.52	726960.02	N 32 117.39	W 103 36 3.64
	8304.00	1.23	209.70	8280.67	-143.02	139.65	-418.01	0.23	372314.59	726958.05	N 32 117.37	W 103 36 3.65
	8399.00	1.40	203.96	8375.64	-141.08	137.70	-418.99	0.23	372312.64	726956.07	N 32 117.35	W 103 36 3.66
	8491.00	1.43	208.20	8467.61	-139.05	135.66	-419.99	0.12	372310.60	726954.07	N 32 117.33	W 103 36 3.67
	8585.00	1.42	198.33	8561.59	-136.92	133.52	-420.91	0.26	372308.46	726952.15	N 32 117.31	W 103 36 3.68
	8679.00	1.43	211.39	8655.56	-134.82	131.41	-421.88	0.34	372306.36	726950.17	N 32 117.29	W 103 36 3.69
	8772.00	1.58	209.62	8748.52	-132.72	129.31	-423.12	0.17	372304.25	726948.17	N 32 117.27	W 103 36 3.71
	8865.00	1.46	204.70	8841.49	-130.54	127.12	-424.25	0.19	372302.06	726946.18	N 32 117.25	W 103 36 3.72
	8959.00	1.20	221.18	8935.47	-128.72	125.29	-425.40	0.49	372300.23	726944.17	N 32 117.23	W 103 36 3.74
	9053.00	1.20	234.56	9029.45	-127.42	123.98	-426.85	0.30	372298.92	726942.15	N 32 117.22	W 103 36 3.75
	9147.00	1.11	242.54	9123.43	-126.44	122.99	-428.46	0.20	372297.93	726940.15	N 32 117.21	W 103 36 3.77
	9241.00	1.51	265.04	9217.40	-125.93	122.46	-430.50	0.69	372297.40	726938.15	N 32 117.20	W 103 36 3.79
	9327.00	2.01	272.61	9303.36	-125.93	122.43	-433.14	0.64	372297.37	726936.15	N 32 117.20	W 103 36 3.83
	9420.00	1.77	277.94	9396.31	-126.22	122.70	-436.19	0.32	372297.65	726934.17	N 32 117.21	W 103 36 3.86
	9514.00	1.67	278.58	9490.27	-126.60	123.06	-438.99	0.11	372298.00	726932.15	N 32 117.21	W 103 36 3.89
	9607.00	0.58	273.31	9583.25	-126.80	123.24	-440.80	1.17	372298.19	726930.15	N 32 117.21	W 103 36 3.91
	9699.00	0.40	202.76	9675.25	-126.54	122.97	-441.39	0.64	372297.92	726928.15	N 32 117.21	W 103 36 3.92
	9792.00	0.30	214.48	9768.25	-126.04	122.47	-441.65	0.13	372297.42	726926.15	N 32 117.21	W 103 36 3.92
	9886.00	0.72	229.54	9862.24	-125.46	121.89	-442.24	0.47	372296.83	726924.15	N 32 117.20	W 103 36 3.93
	9979.00	0.88	220.65	9955.23	-124.54	120.97	-443.15	0.22	372295.91	726922.15	N 32 117.19	W 103 36 3.94
	10073.00	0.91	267.38	10049.22	-123.97	120.38	-444.37	0.76	372295.33	726920.15	N 32 117.18	W 103 36 3.96
	10167.00	1.03	289.08	10143.21	-124.23	120.63	-445.91	0.41	372295.57	726918.15	N 32 117.19	W 103 36 3.97
	10261.00	1.17	279.56	10237.19	-124.68	121.06	-447.68	0.24	372296.01	726916.15	N 32 117.19	W 103 36 3.99
	10357.00	1.18	269.37	10333.17	-124.84	121.21	-449.61	0.22	372296.16	726914.15	N 32 117.19	W 103 36 4.02
	10451.00	1.15	278.37	10427.15	-124.99	121.34	-451.51	0.20	372296.28	726912.15	N 32 117.19	W 103 36 4.04
	10546.00	1.08	304.78	10522.14	-125.65	121.99	-453.19	0.54	372296.93	726910.15	N 32 117.20	W 103 36 4.06
	10641.00	1.18	307.84	10617.12	-126.77	123.10	-454.70	0.12	372298.04	726908.15	N 32 117.21	W 103 36 4.08
	10735.00	1.29	295.98	10711.09	-127.84	124.16	-456.42	0.30	372299.10	726906.15	N 32 117.22	W 103 36 4.10
	10829.00	0.83	289.98	10805.08	-128.55	124.85	-458.01	0.50	372299.80	726904.15	N 32 117.23	W 103 36 4.11
	10924.00	0.81	282.92	10900.07	-128.95	125.24	-459.31	0.11	372300.18	726902.15	N 32 117.23	W 103 36 4.13
	11017.00	0.87	256.14	10993.06	-128.94	125.22	-460.63	0.42	372300.16	726900.15	N 32 117.23	W 103 36 4.14
	11112.00	1.07	267.04	11088.05	-128.73	125.00	-462.22	0.29	372299.94	726898.15	N 32 117.23	W 103 36 4.16
	11205.00	1.02	275.20	11181.03	-128.78	125.03	-463.91	0.17	372299.97	726896.15	N 32 117.23	W 103 36 4.18
	11299.00	1.45	269.87	11275.01	-129.27	125.51	-465.86	0.58	372300.45	726894.15	N 32 117.24	W 103 36 4.21
	11393.00	1.36	306.63	11368.98	-130.34	126.56	-467.89	0.42	372301.51	726892.15	N 32 117.25	W 103 36 4.23
	11488.00	1.51	313.29	11463.95	-131.87	128.08	-469.72	0.26	372303.02	726890.15	N 32 117.26	W 103 36 4.25
	11584.00	1.48	301.44	11551.93	-132.70	128.90	-470.79	0.60	372303.84	726888.15	N 32 117.27	W 103 36 4.26
	11680.00	1.29	294.62	11645.90	-133.98	130.15	-473.13	0.23	372305.10	726886.15	N 32 117.28	W 103 36 4.29
	11784.00	1.20	298.71	11739.89	-134.31	130.49	-474.78	0.37	372305.43	726884.15	N 32 117.29	W 103 36 4.30
	11884.00	3.07	179.16	11833.29	-133.29	128.46	-476.20	8.10	372304.41	726882.15	N 32 117.28	W 103 36 4.30
	11978.00	8.35	170.58	11725.82	-128.66	124.83	-477.62	11.35	372303.44	726880.15	N 32 117.23	W 103 36 4.30
	12073.00	12.20	176.39	11799.86	-120.33	118.51	-478.75	8.47	372301.81	726878.15	N 32 117.15	W 103 36 4.29
	12172.00	18.25	171.79	11845.41	-108.85	105.04	-471.50	8.94	372279.98	726811.56	N 32 117.03	W 103 36 4.27
	12273.00	19.99	177.22	11888.28	-95.54	91.74	-470.28	9.53	372288.68	726812.78	N 32 116.90	W 103 36 4.26
	12374.00	20.43	177.73	11890.97	-93.81	90.01	-470.20	9.53	372284.96	726812.85	N 32 116.89	W 103 36 4.26
	12475.00	22.91	175.60	11934.64	-76.48	72.69	-469.18	5.53	372247.64	726813.88	N 32 116.71	W 103 36 4.25
	12576.00	28.83	172.69	12020.09	-35.26	31.50	-464.84	6.37	372206.44	726818.22	N 32 116.31	W 103 36 4.20
	12677.00	38.63	168.88	12098.18	16.21	-19.90	-456.27	10.66	372155.05	726826.79	N 32 115.80	W 103 36 4.11
	12778.00	48.47	169.01	12168.95	80.47	-84.06	-443.73	10.36	372090.89	726839.33	N 32 115.16	W 103 36 3.96
	12879.00	60.62	172.35	12221.38	156.00	-159.49	-431.52	13.24	372015.48	726951.54	N 32 114.41	W 103 36 3.83
	12980.00	72.13	175.61	12259.40	242.48	-245.90	-422.52	12.51	371929.08	726960.54	N 32 113.56	W 103 36 3.73
	13081.00	83.48	178.37	12279.44	335.08	-338.47	-417.70	12.28	371836.49	726965.36	N 32 112.64	W 103 36 3.68
	13182.00	90.72	181.35	12284.24	429.88	-433.27	-417.47	8.24	371741.69	726965.58	N 32 111.70	W 103 36 3.69
	13283.00	88.04	183.14	12285.26	523.76	-527.18	-421.15	3.43	371647.78	726961.90	N 32 110.78	W 103 36 3.74
	13384.00	88.18	183.23	12289.31	618.44	-612.98	-427.98	0.14	371552.05	726955.07	N 32 110.56	W 103 36 3.83
	13485.00	87.87	184.88	12292.59	711.09	-704.63	-434.70	1.77	371430.35	726948.38	N 32 110.62	W 103 36 3.91
	13586.00	87.94	185.06	12296.02	804.60	-798.21	-442.84	0.21	371336.77	726940.22	N 32 110.70	W 103 36 4.01
	13687.00	88.66	182.60	12298.81	898.29	-891.95	-449.11	2.73	371243.03	726933.95	N 32 110.67	W 103 36 4.09
	13788.00	88.21	182.25	12301.41	992.13	-985.83	-453.13	0.60	371148.15	726929.93	N 32 110.63	W 103 36 4.15
	13889.00	90.38	181.08	12303.73	1086.17	-1079.72	-458.62	1.30	370959.27	726924.44	N 32 110.59	W 103 36 4.23
	13990.00	89.83	179.98	12305.56	1180.66	-1173.68	-464.94	1.31	370865.28	726923.57	N 32 110.53	W 103 36 4.24
	14091.00	89.76	181.61	12303.90	1275.93	-1268.93	-470.79	1.74	370771.29	726922.27	N 32 110.50	W 103 36 4.27
	14192.00	90.28	179.22	12303.86	1371.91	-1364.83	-476.70	2.60	370677.30	726921.58	N 32 110.47	W 103 36 4.28
	14293.00	90.10	180.32	12303.24	1468.90	-1462.82	-482.72	0.59	370489.32	726922.34	N 32 110.44	W 103 36 4.29
	14394.00	89.31	179.02	12304.21	1566.88	-1560.86	-488.74	0.81	370301.33	726923.42	N 32 110.41	W 103 36 4.29
	14495.00	89.21	180.37	12305.85	1664.86	-1662.84	-494.76	1.07	370117.35	726924.10	N 32 110.38	W 103 36 4.29
	14596.00	89.62	179.10	12306.48	1762.84	-1760.82	-500.78	2.15	370012.38	726924.38	N 32 110.35	W 103 36 4.29
	14697.00	89.31	178.86	12307.36	1860.82	-1858.80	-506.79	0.42	370018.38	726924.66	N 32 110.32	W 103 36 4.28
	14798.00	89.69	178.17	12308.18	1958.8							

Comments	MD (ft)	Incl (°)	Azim Grid (°)	TVD (ft)	VSEC (ft)	NS (ft)	EW (ft)	DLS (ft/100ft)	Northing (ftUS)	Easting (ftUS)	Latitude (N/S ° ' '')	Longitude (E/W ° ' '')
	17757.00	89.66	180.21	12321.44	5554.24	-5557.89	-429.20	1.18	366617.24	726953.86	N 32 0 20.99	W 103 36 4.23
	17852.00	90.34	179.53	12321.44	5649.23	-5652.89	-428.99	1.01	366522.25	726954.07	N 32 0 20.05	W 103 36 4.23
	17946.00	90.24	178.12	12320.97	5743.22	-5746.87	-427.06	1.50	366428.27	726956.00	N 32 0 19.12	W 103 36 4.22
	18041.00	89.38	178.25	12321.28	5838.20	-5841.82	-424.05	0.92	366333.33	726959.01	N 32 0 18.18	W 103 36 4.19
	18230.00	90.48	179.72	12321.51	6027.18	-6030.78	-420.70	0.97	366144.37	726962.36	N 32 0 16.31	W 103 36 4.16
	18325.00	90.28	180.58	12320.88	6122.17	-6125.78	-420.95	0.93	366049.38	726962.11	N 32 0 15.37	W 103 36 4.18
	18419.00	89.17	179.34	12321.33	6216.16	-6219.77	-420.89	1.77	365955.38	726962.17	N 32 0 14.44	W 103 36 4.18
	18514.00	91.31	180.50	12320.94	6311.15	-6314.76	-420.75	2.56	365860.40	726962.30	N 32 0 13.50	W 103 36 4.19
	18608.00	90.72	178.95	12319.27	6405.13	-6408.74	-420.30	1.76	365766.42	726962.76	N 32 0 12.57	W 103 36 4.19
	18703.00	90.38	178.60	12318.36	6500.12	-6503.72	-418.27	0.51	365671.45	726964.79	N 32 0 11.63	W 103 36 4.17
	18891.00	90.14	178.50	12317.51	6688.09	-6691.66	-413.51	0.14	365483.52	726969.54	N 32 0 9.77	W 103 36 4.13
	18983.00	90.14	178.21	12317.28	6780.07	-6783.62	-410.87	0.32	365391.56	726972.18	N 32 0 8.86	W 103 36 4.11
	19079.00	90.21	178.60	12316.99	6876.05	-6879.58	-408.20	0.41	365295.60	726974.86	N 32 0 7.91	W 103 36 4.09
	19173.00	90.03	180.62	12316.79	6970.05	-6973.57	-407.56	2.18	365201.81	726975.50	N 32 0 6.98	W 103 36 4.09
	19267.00	90.03	182.67	12316.74	7063.98	-7067.53	-410.26	2.18	365107.68	726972.80	N 32 0 6.05	W 103 36 4.13
	19455.00	89.00	184.34	12318.33	7251.51	-7255.18	-421.75	1.04	364920.03	726961.31	N 32 0 4.20	W 103 36 4.27
	19644.00	90.55	182.61	12319.08	7440.05	-7443.80	-433.21	1.23	364731.40	726949.85	N 32 0 2.33	W 103 36 4.42
Toe HL Cross	19737.00	90.41	181.86	12318.29	7532.94	-7536.72	-436.83	0.82	364638.48	726946.23	N 32 0 1.41	W 103 36 4.47
Last SLB MWD Survey	19739.00	90.41	181.84	12318.28	7534.94	-7538.72	-436.89	0.82	364636.48	726946.16	N 32 0 1.39	W 103 36 4.47
Projection to Bit	19790.00	90.41	181.84	12317.91	7585.90	-7589.70	-438.53	0.00	364585.51	726944.53	N 32 0 0.89	W 103 36 4.49

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	32.600	1/98.425	30.000	30.000	A001Ma_MWD-Depth Only	SD EA 29 32 Fed Com P11 13H / Chevron SD EA 29 32 Fed Com
	1	32.600	32.600	Act Strs	30.000	30.000	A001Ma_MWD-Depth Only	SD EA 29 32 Fed Com P11 13H / Chevron SD EA 29 32 Fed Com
	1	32.600	803.000	Act Strs	30.000	30.000	A001Ma_MWD	SD EA 29 32 Fed Com P11 13H / Chevron SD EA 29 32 Fed Com
	1	803.000	19790.000	Act Strs	30.000	30.000	B001Ma_MWD+HDGM	SD EA 29 32 Fed Com P11 13H / Chevron SD EA 29 32 Fed Com

...SD EA 29 32 Fed Com P11 13H/Chevron SD EA 29 32 Fed Com P11 13H MWD to 19790ft