

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

30.015-45229

January 22, 2019

OXY USA INC.

Re:

CLIENT: OXY USA INC.
WELL: Platinum MDP1 34-3 Federal Com 4H
FIELD: Cotton Draw Bone Spring

RIG: HP 556
COUNTY: EDDY
API NO: 3001545229
JOB NO: 18MLD4277

34, 23S, 31E, Eddy NM
32.26709 103.76571

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>
Mahmood Al Sabti FE	Platinum MDP1 34-3 Federal Com 4H Original Hole	635.00 Ft to 20348.00 Ft	December 1, 2018 to December 29, 2018	TelePacer/SlimPulse Third Party Corrected

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

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)
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Schlumberger

Well Reference:
34, 23S, 31E, Eddy NM
32.26709 103.76571

I, Mahmood Al Sabti certify that; I am employed by Drilling & Measurements, a division of Schlumberger Technology Corporation; that I did on the day(s) of December 01, 2018 through December 29, 2018, conduct or supervise the taking of the TelePacer/SlimPulse & Third Party Corrected surveys from a depth of 635.00 feet to a depth of 20348.00 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 OXY USA INC. for the Platinum MDP1 34-3 Federal Com 4H Well (Original Hole) API No. 3001545229 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 M.S. [Signature]
Mahmood Al Sabti
FE

Subscribed and Sworn to before me this 22nd day of January (month) 2019 (yr)

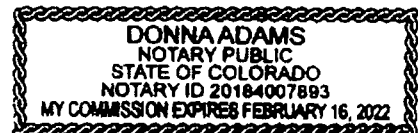
My Commission expires:

2-16-2022

Donna Adams
Notary Public

Adams County Colorado
(County State)

(signature)





Oxy Platinum MDP1 34-3 Federal Com 4H Gyro+MWD 0-20391ft MD Survey
Geodetic Report
(Def Survey)

Report Date:	December 31, 2018 - 10:14 AM	Survey / DLS Computation:	Minimum Curvature / Lubinski
Client:	OXY	Vertical Section Azimuth:	177.169 ° (Grid North)
Field:	NM Eddy County (NMD 83)	Vertical Section Origin:	0.000 R, 0.000 R
Structure / Sheet:	Oxy Platinum MDP1 34-3 Federal Com 4H / Oxy Platinum MDP1 34-3	TVD Reference Datum:	RXC - 30'
Well:	Federal Com 4H	TVD Reference Elevation:	3457.600 R above MSL
Borehole:	Platinum MDP1 34-3 Federal Com 4H	Seacheat / Ground Elevation:	3462.600 R above MSL
UW / API#:	Original Borehole	Magnetic Declination:	6.534 °
Survey Name:	H&P 556 / 30-015-45228	Total Gravity Field Strength:	986.447mgm (g.80665 Beaud)
Survey Date:	Oxy Platinum MDP1 34-3 Federal Com 4H Gyro+MWD 0-20391ft MD	Gravity Model:	GARM
Tort / AND / DD / ERD Ratio:	November 21, 2018	Total Magnetic Field Strength:	48023.900 nT
Coordinate Reference System:	286.061 ° / 11110.818 R / 6.820 / 1.104	Magnetic Dip Angle:	59.994 °
Location Lat / Long:	NAD83 New Mexico State Plane, Eastern Zone, US Feet	Declination Date:	December 14, 2018
Location Grid NE V/A:	N 32° 16' 1.511327" W 103° 45' 56.547795"	Magnetic Declination Model:	IFR1
CMS Grid Convergence Angle:	N 461363.090 RUS, E 716783.920 RUS	Grid Convergence:	Grid North
Grid Scale Factor:	0.3030	Grid Convergence Used:	0.3030 °
Version / Patch:	0.859434	North:	North
	2.10.753.0	Local Coord Referenced To:	Well Head

Comments	MD	Incl	Attn Grid	TVD	VSEC	NS	EW	DLS	Heading			Latitude	Longitude
									Mag	True	Grid		
ARP	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A	481353.09	716783.92	N 32 16 1.51	W 103 45 56.55	
SHL	30.00	0.51	240.68	30.00	0.14	-0.15	-0.27	0.75	481363.09	716783.82	N 32 16 1.51	W 103 45 56.55	
	100.00	0.50	215.83	100.00	0.60	-0.64	-1.42	0.20	481362.94	716783.65	N 32 16 1.50	W 103 45 56.56	
	186.00	0.80	215.83	186.00	1.10	-1.17	-1.44	0.30	481361.92	716782.47	N 32 16 1.50	W 103 45 56.56	
	273.00	0.60	241.57	272.89	1.37	-1.58	-3.34	0.07	481361.41	716781.58	N 32 16 1.49	W 103 45 56.56	
	367.00	0.68	238.78	366.89	2.11	-1.58	-3.36	0.11	481360.81	716781.58	N 32 16 1.49	W 103 45 56.59	
	462.00	0.76	240.69	461.98	2.89	-3.42	-4.59	0.14	481360.27	716780.56	N 32 16 1.48	W 103 45 56.60	
	556.00	0.73	251.46	554.96	3.81	-3.08	-5.42	0.06	481360.01	716779.50	N 32 16 1.48	W 103 45 56.61	
	650.00	0.71	254.64	649.86	4.82	-3.22	-6.06	0.67	481359.87	716777.86	N 32 16 1.48	W 103 45 56.62	
	741.00	0.03	352.31	740.86	5.82	-3.14	-6.01	0.09	481359.86	716777.89	N 32 16 1.48	W 103 45 56.62	
	832.00	0.10	353.16	831.86	6.82	-3.05	-6.03	0.16	481360.04	716777.89	N 32 16 1.48	W 103 45 56.62	
	923.00	0.06	260.76	922.98	7.79	-3.05	-6.17	0.05	481360.04	716777.84	N 32 16 1.48	W 103 45 56.62	
	1012.00	0.03	260.76	1011.96	8.74	-3.05	-6.14	0.08	481360.06	716777.88	N 32 16 1.48	W 103 45 56.62	
	1104.00	0.03	65.48	1103.98	9.68	-3.05	-6.14	0.08	481360.06	716777.84	N 32 16 1.48	W 103 45 56.62	
	1203.00	0.07	78.81	1202.96	10.62	-2.90	-6.08	0.02	481360.28	716777.79	N 32 16 1.48	W 103 45 56.62	
	1303.00	0.07	354.01	1302.96	11.57	-2.80	-6.04	0.04	481360.28	716777.90	N 32 16 1.48	W 103 45 56.62	
	1404.00	0.11	295.85	1403.96	12.50	-2.81	-6.13	0.10	481360.28	716777.71	N 32 16 1.48	W 103 45 56.62	
	1504.00	0.08	155.86	1503.96	13.42	-2.83	-6.21	0.18	481360.28	716777.90	N 32 16 1.48	W 103 45 56.62	
	1604.00	0.15	175.76	1603.96	14.34	-2.80	-6.21	0.11	481360.41	716776.07	N 32 16 1.48	W 103 45 56.61	
	1704.00	0.10	194.96	1703.96	15.26	-2.88	-6.35	0.07	481360.31	716776.20	N 32 16 1.48	W 103 45 56.61	
	1804.00	0.08	353.27	1803.96	16.18	-2.81	-5.72	0.11	481360.31	716776.51	N 32 16 1.48	W 103 45 56.61	
	1904.00	0.20	78.24	1903.96	17.10	-2.62	-5.41	0.11	481360.47	716776.80	N 32 16 1.48	W 103 45 56.61	
	2004.00	0.10	2129.96	2129.96	18.02	-2.41	-5.02	0.10	481360.68	716776.83	N 32 16 1.48	W 103 45 56.61	
	2104.00	0.20	288.96	2203.96	18.94	-2.23	-5.29	0.13	481360.84	716776.42	N 32 16 1.48	W 103 45 56.61	
	2204.00	0.07	274.07	2303.96	19.86	-2.25	-5.50	0.15	481360.73	716776.33	N 32 16 1.48	W 103 45 56.61	
	2304.00	0.11	155.64	2403.96	20.78	-2.36	-5.51	0.13	481360.73	716776.45	N 32 16 1.48	W 103 45 56.61	
	2404.00	0.05	178.69	2503.96	21.70	-2.48	-5.48	0.07	481360.53	716776.35	N 32 16 1.48	W 103 45 56.61	
	2504.00	0.03	3170.96	2603.96	22.62	-2.56	-5.53	0.05	481360.42	716776.33	N 32 16 1.48	W 103 45 56.61	
	2607.00	0.10	229.93	2606.96	23.54	-2.62	-5.41	0.09	481360.47	716776.51	N 32 16 1.48	W 103 45 56.61	
	2697.00	0.20	274.07	2703.96	24.46	-2.67	-5.41	0.10	481360.68	716776.80	N 32 16 1.48	W 103 45 56.61	
	2807.00	0.07	242.15	2806.96	25.38	-2.78	-5.40	0.13	481360.84	716776.42	N 32 16 1.48	W 103 45 56.61	
	2907.00	0.07	3070.96	2906.96	26.30	-2.81	-5.48	0.13	481360.73	716776.45	N 32 16 1.48	W 103 45 56.61	
	3076.00	0.11	155.64	3075.96	27.22	-2.83	-5.53	0.07	481360.53	716776.35	N 32 16 1.48	W 103 45 56.61	
	3265.00	0.08	232.30	3264.96	28.14	-2.89	-5.49	0.05	481360.53	716776.33	N 32 16 1.48	W 103 45 56.61	
	3453.00	0.03	117.22	3452.96	29.06	-2.81	-5.40	0.05	481360.42	716776.51	N 32 16 1.48	W 103 45 56.61	
	3643.00	0.20	153.86	3642.96	30.00	-2.81	-5.14	0.05	481360.10	716776.14	N 32 16 1.47	W 103 45 56.61	
	3834.00	0.23	145.86	3833.96	30.92	-2.89	-5.40	0.09	481360.10	716776.18	N 32 16 1.47	W 103 45 56.61	
	4023.00	0.09	257.86	4022.96	31.84	-2.82	-4.81	0.15	481359.50	716776.11	N 32 16 1.47	W 103 45 56.61	
	4213.00	0.09	301.86	4212.96	32.76	-2.81	-4.74	0.03	481359.87	716776.11	N 32 16 1.47	W 103 45 56.61	
	4386.00	0.07	4513.96	4385.96	33.68	-2.82	-4.81	0.05	481358.52	716776.18	N 32 16 1.47	W 103 45 56.61	
	4574.00	0.09	4513.96	4573.96	34.60	-2.81	-4.81	0.05	481358.54	716776.18	N 32 16 1.47	W 103 45 56.61	
	4762.00	0.07	4513.96	4761.96	35.52	-2.81	-4.81	0.05	481358.54	716776.18	N 32 16 1.47	W 103 45 56.61	
	4950.00	0.09	4513.96	4949.96	36.44	-2.81	-4.81	0.05	481358.54	716776.18	N 32 16 1.47	W 103 45 56.61	
	5138.00	0.09	4513.96	5137.96	37.36	-2.81	-4.81	0.05	481358.54	716776.18	N 32 16 1.47	W 103 45 56.61	
	5326.00	0.09	4513.96	5325.96	38.28	-2.81	-4.81	0.05	481358.54	716776.18	N 32 16 1.47	W 103 45 56.61	
	5514.00	0.09	4513.96	5513.96	39.20	-2.81	-4.81	0.05	481358.54	716776.18	N 32 16 1.47	W 103 45 56.61	
	5702.00	0.09	4513.96	5701.96	40.12	-2.81	-4.81	0.05	481358.54	716776.18	N 32 16 1.47	W 103 45 56.61	
	5890.00	0.09	4513.96	5889.96	41.04	-2.81	-4.81	0.05	481358.54	716776.18	N 32 16 1.47	W 103 45 56.61	
	6078.00	0.09	4513.96	6077.96	41.96	-2.81	-4.81	0.05	481358.54	716776.18	N 32 16 1.47	W 103 45 56.61	
	6266.00	0.09	4513.96	6265.96	42.88	-2.81	-4.81	0.05	481358.54	716776.18	N 32 16 1.47	W 103 45 56.61	
	6454.00	0.09	4513.96	6453.96	43.80	-2.81	-4.81	0.05	481358.54	716776.18	N 32 16 1.47	W 103 45 56.61	
	6642.00	0.09	4513.96	6641.96	44.72	-2.81	-4.81	0.05	481358.54	716776.18	N 32 16 1.47	W 103 45 56.61	
	6830.00	0.09	4513.96	6829.96	45.64	-2.81	-4.81	0.05	481358.54	716776.18	N 32 16 1.47	W 103 45 56.61	
	7018.00	0.09	4513.96	7017.96	46.56	-2.81	-4.81	0.05	481358.54	716776.18	N 32 16 1.47	W 103 45 56.61	
	7206.00	0.09	4513.96	7205.96	47.48	-2.81	-4.81	0.05	481358.54	716776.18	N 32 16 1.47	W 103 45 56.61	
	7394.00	0.09	4513.96	7393.96	48.40	-2.81	-4.81	0.05	481358.54	716776.18	N 32 16 1.47	W 103 45 56.61	
	7582.00	0.09	4513.96	7581.96	49.32	-2.81	-4.81	0.05	481358.54	716776.18	N 32 16 1.47	W 103 45 56.61	
	7770.00	0.09	4513.96	7769.96	50.24	-2.81	-4.81	0.05	481358.54	716776.18	N 32 16 1.47	W 103 45 56.61	
	7958.00	0.09	4513.96	7957.96	51.16	-2.81	-4.81	0.05	481358.54	716776.18	N 32 16 1.47	W 103 45 56.61	
	8146.00	0.09	4513.96	8145.96	52.08	-2.81	-4.81	0.05	481358.54	716776.18	N 32 16 1.47	W 103 45 56.61	
	8334.00	0.09	4513.96	8333.96	53.00	-2.81	-4.81	0.05	481358.54	716776.18	N 32 16 1.47	W 103 45 56.61	
	8522.00	0.09	4513.96	8521.96	53.92	-2.81	-4.81	0.05	481358.54	716776.18	N 32 16 1.47	W 103 45 56.61	
	8710.00	0.09	4513.96	8709.96	54.84	-2.81	-4.81	0.05	481358.54	716776.18	N 32 16 1.47	W 103 45 56.61	
	8898.00	0.09	4513.96	8897.96	55.76	-2.81	-4.81	0.05	481358.54	716776.18	N 32 16 1.47	W 103 45 56.61	
	9086.00	0.09	4513.96	9085.96	56.68	-2.81	-4.81	0.05	481358.54	716776.18	N 32 16 1.47	W 103 45 56.61	
	9274.00	0.09	4513.96	9273.96	57.60	-2.81	-4.81	0.05	481358.54	716776.18	N 32 16 1.47	W 103 45 56.61	
	9462.00	0.09	4513.96	9461.96	58.52	-2.81	-4.81	0.05	481358.54	716776.18	N 32 16 1.47	W 103 45 56.61	
	9650.00	0.09	4513.96	9649.96	59.44	-2.81	-4.81	0.05	481358.54	716776.18	N 32 16 1.47	W 103 45 56.61	
	9838.00	0.09	4513.96	9837.96	60.36	-2.81	-4.81	0.05	481358.54	716776.18	N 32 16 1.47	W 103 45 56.61	
	10026.00	0.09	4513.96	10025.96	61.28	-2.81	-4.81	0.05	481358.54	716776.18	N 32 16 1.47	W 103 45 56.61	
	10214.00	0.09	4513.96	10213.96	62.20	-2.81	-4.81	0.05	481358.54	716776.18	N 32 16 1.47	W 103 45 56.61	
	10402.00	0.09	4513.96	10401.96	63.12	-2.81	-4.81	0.05	481358.54	716776.18	N 32 16 1.47	W 103 45 56.61	
	10590.00	0.09	4513.96	10589.96	64.04	-2.81	-4.81	0.05	481358.54	716776.18	N 32 16 1.47	W 103 45 56.61	
	10778.00	0.09	4513.96	10777.96	64.96	-2.81	-4.81	0.05	481358.54	716776.18	N 32 16 1.47	W 103 45 56.61	
	10966.00	0.09	4513.96	10965.96	65.88	-2.81	-4.81	0.05	481358.54	716776.18	N 32 16 1.47	W 103 45 56.61	
	11154.00												

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 ° ' ")
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Survey Type: Def Survey

Survey Error Model: ISCWSA Rev 0 *** 3-D 95.000% Confidence 2.7955 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	30.000	1/88.425	30.000	30.000	NAL_NSG+MSHOT-Depth Only	Original Borehole / Oxy Platinum MDP1 34-3 Federal Com 4H Gyro+MWD 0-20391ft MD
	1	30.000	30.000	Act Strs	30.000	30.000	NAL_NSG+MSHOT-Depth Only	Original Borehole / Oxy Platinum MDP1 34-3 Federal Com 4H Gyro+MWD 0-20391ft MD
	1	30.000	635.000	Act Strs	30.000	30.000	NAL_NSG+MSHOT	Original Borehole / Oxy Platinum MDP1 34-3 Federal Com 4H
	1	635.000	20391.000	Act Strs	30.000	30.000	NAL_MWD_IFR1+MS	Original Borehole / Oxy Platinum MDP1 34-3 Federal Com 4H



Vertical Section (ft) Azim = 177.17° Scale = 1:1700.00(ft) Origin = 0N-LS, 0E-W