

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

November 20, 2018

OXY USA INC.

RECEIVED

MAY 15 2019

DISTRICT II-ARTESIA O.C.D.

Re:

34, 23S, 31E, Eddy NM
32.26788 103.76025

CLIENT: OXY USA INC.
WELL: Platinum MDP1 34-3 Fed Com 5H
FIELD: COTTON DRAW BONE SPRING

RIG: H&P 556
COUNTY: Eddy
API NO: 3001545171
JOB NO: 18MLD3526

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>
A. Alshuker FE	Platinum MDP1 34-3 Fed Com 5H Original Hole	740.00 Ft to 20485.00 Ft	October 17, 2018 to November 9, 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)
Fax : (432) 742-5606 (Shared)

Schlumberger

Well Reference:

34, 23S, 31E, Eddy NM
32.26788 103.76025

I, A. Alshuker certify that; I am employed by Drilling & Measurements, a division of Schlumberger Technology Corporation; that I did on the day(s) of October 17, 2018 through November 09, 2018, conduct or supervise the taking of the Telepacer&SlimPulse & Third Party Corrected surveys from a depth of 740.00 feet to a depth of 20485.00 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 MDPI 34-3 Fed Com 5H Well (Original Hole) API No. 3001545171 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
A. Alshuker
FE



Subscribed and Sworn to before me this 20th day of November (month) 2018 (yr)

My Commission expires:

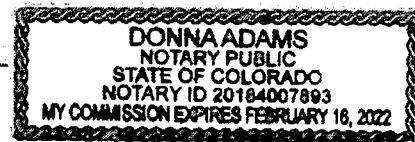
2-16-2022

D. Adams

(signature)

Notary Public

Adams County Colorado
(County State)





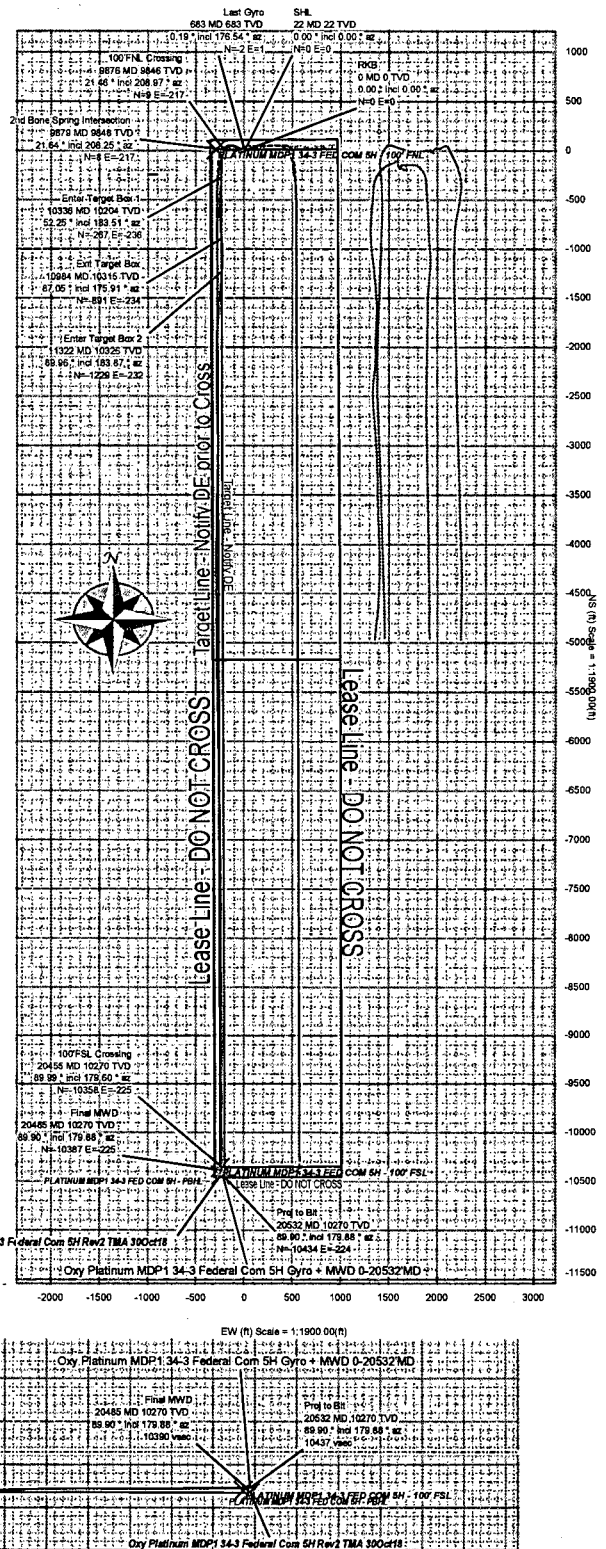
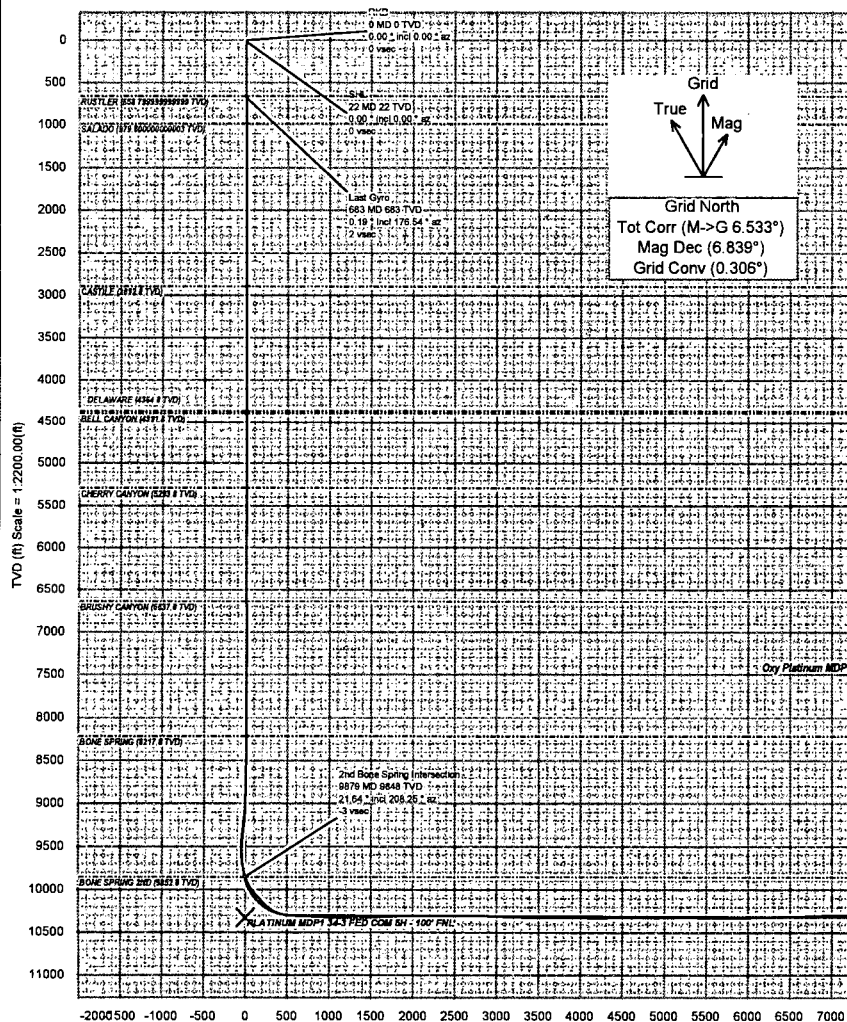
OXY



Borehole:	Well:	Field:	Structure:
Original Borehole	Oxy Platinum MDP1 34-3 Federal Com 5H	NM Eddy County (NAD 83)	Oxy Platinum MDP1 34-3 Federal Com 5H

Gravity & Magnetic Parameters			Surface Location			NAD83 New Mexico State Plane, Eastern Zone, US Feet			Miscellaneous		
Model:	IFR1	Dip: 59.99°	Date: 30-Oct-2018	Lat: N 32 16 4.39	Northing: 481662.95USFt	Grid Conv: 0.306°	Skot: Oxy Platinum	TVD Ref: RKB(3473.6ft above MSL)			
MagDec: 8.33°	FS: 480.34nT	Gravity FS: 998.446mgn (8.0665 Based)	Lon: W 103 45 34.92	Eastng: 716467.85USFt	Scale Fact: 0.99994302	Plan: Oxy Platinum MDPH 34-3	Federal Com SH				
						Oxy Platinum MDPH 34-3 Federal Com SH Gyro + MWD 0-20532WD					

Critical Points								
Critical Point	MD	INCL	AZIM	TVD	VSEC	N(+)/S(-)	E(+)/W(-)	DLS
RKB	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
SHL	22.00	0.00	0.00	22.00	0.00	0.00	0.00	0.00
Last Gyro	683.23	0.19	176.54	683.22	1.83	-1.87	1.46	0.18
100'FNL Crossing	9876.22	21.46	208.97	9845.59	-4.02	9.05	-216.71	12.33
2nd Bone Spring Intersection	9878.81	21.64	208.25	9848.00	-3.17	8.21	-217.17	12.33
Enter Target Box 1	10335.50	52.25	183.51	10204.26	272.64	-267.23	-236.18	7.81
Exit Target Box	10983.50	87.05	175.91	10315.20	896.27	-891.08	-233.78	2.15
Enter Target Box 2	11321.50	89.96	183.87	10326.34	1233.63	-1226.57	-232.48	2.59
100'FSL Crossing	20455.44	89.99	179.60	10269.71	10360.06	-10357.63	-224.69	1.00
Final MWD	20485.00	89.90	179.88	10269.73	10389.61	-10387.19	-224.56	1.00
Proj to Bit	20532.00	89.90	179.88	10269.82	10436.59	-10434.19	-224.46	0.00



Vertical Section (ft) Azim = 181.33° Scale = 1:2200.00(ft) Origin = 0N/-S, 0E/-W



Oxy Platinum MDP1 34-3 Federal Com 5H Gyro + MWD 0-20532' MD Survey **Geodetic Report** **(Def Survey)**

Report Date:	November 09, 2018 - 04:44 PM	Survey / DLS Computation:	Minimum Curvature / Lubinski
Client:	OXY	Vertical Section Azimuth:	181.330 ° (Grid North)
Field:	NM Eddy County (NAD 83)	Vertical Section Origin:	0,000 ft, 0,000 ft
Structure / Slot:	Oxy Platinum MDP1 34-3 Federal Com 5H / Oxy Platinum MDP1 34-3 Federal Com 5H	TVD Reference Datum:	RKB
Well:	Oxy Platinum MDP1 34-3 Federal Com 5H	TVD Reference Elevation:	3473.800 ft above MSL
Borehole:	Original Borehole	Seabed / Ground Elevation:	3443.800 ft above MSL
UWI / AP#:	Unknown / 30-015-45171	Magnetic Declination:	6.839 °
Survey Name:	Oxy Platinum MDP1 34-3 Federal Com 5H Gyro + MWD 0-20532' MD	Total Gravity Field Strength:	998.4461mgn (9.80665 Based)
Survey Date:	October 03, 2018	Gravity Model:	GARM
Tort / AHD / DDI / ERD Ratio:	232.863 ° / 10721.221 ft / 6.696 / 1.038	Total Magnetic Field Strength:	48038.200 nT
Coordinate Reference System:	NAD83 New Mexico State Plane, Eastern Zone, US Feet	Magnetic Dip Angle:	59.998 °
Location Lat / Long:	N 32° 16' 4.39003", W 103° 45' 36.91714"	Declination Date:	October 30, 2018
Location Grid N/E Y/X:	N 461662.950 RUS, E 718467.850 RUS	Magnetic Declination Model:	IFR1
CRS Grid Convergence Angle:	0.3060 °	North Reference:	Grid North
Grid Scale Factor:	0.99994502	Grid Convergence Used:	0.3060 °
Version / Patch:	2.10.740.0	Total Corr Mag North->Grid North:	6.5330 °
		Local Coord Referenced To:	Well Head

Comments	MD (ft)	Incl (°)	Azim Grid (°)	TVD (ft)	VSEC (ft)	NS (ft)	EW (ft)	DLS (°/100ft)	Northing (RUS)	Easting (RUS)	Latitude (N/S ° ' ")	Longitude (E/W ° ' ")
RKB	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A	461662.95	718467.85	N 32 16 4.39	W 103 45 36.92
SHL	22.00	0.00	0.00	22.00	0.00	0.00	0.00	0.00	461662.95	718467.85	N 32 16 4.39	W 103 45 36.92
	123.53	0.40	120.82	123.53	0.17	-0.18	0.30	0.39	461662.77	718468.15	N 32 16 4.39	W 103 45 36.91
	213.48	0.36	124.13	213.48	0.48	-0.50	0.81	0.05	461662.45	718468.66	N 32 16 4.39	W 103 45 36.91
	304.89	0.38	88.01	304.89	0.62	-0.65	1.35	0.25	461662.30	718469.20	N 32 16 4.38	W 103 45 36.90
	399.37	0.03	276.12	399.36	0.60	-0.64	1.64	0.43	461662.31	718469.49	N 32 16 4.38	W 103 45 36.90
	493.78	0.31	185.06	493.77	0.85	-0.89	1.59	0.33	461662.06	718469.44	N 32 16 4.38	W 103 45 36.90
	588.30	0.35	191.18	588.29	1.39	-1.43	1.51	0.06	461661.52	718469.36	N 32 16 4.38	W 103 45 36.90
	683.23	0.19	176.54	683.22	1.83	-1.87	1.46	0.18	461661.08	718469.31	N 32 16 4.37	W 103 45 36.90
	740.00	0.04	55.42	739.99	1.92	-1.95	1.49	0.38	461661.00	718469.34	N 32 16 4.37	W 103 45 36.90
	831.00	0.04	230.81	830.99	1.92	-1.95	1.49	0.09	461661.00	718469.34	N 32 16 4.37	W 103 45 36.90
	1014.00	0.04	210.42	1013.99	2.02	-2.05	1.41	0.01	461660.90	718469.26	N 32 16 4.37	W 103 45 36.90
	1105.00	0.04	295.47	1104.99	2.03	-2.06	1.36	0.06	461660.89	718469.21	N 32 16 4.37	W 103 45 36.90
	1195.00	0.09	100.88	1194.99	2.03	-2.06	1.40	0.14	461660.89	718469.25	N 32 16 4.37	W 103 45 36.90
	1287.00	0.04	259.93	1286.99	2.05	-2.08	1.44	0.14	461660.87	718469.29	N 32 16 4.37	W 103 45 36.90
	1377.00	0.04	14.36	1376.99	2.02	-2.06	1.42	0.07	461660.89	718469.27	N 32 16 4.37	W 103 45 36.90
	1566.00	0.04	239.34	1565.99	1.99	-2.03	1.38	0.04	461660.92	718469.23	N 32 16 4.37	W 103 45 36.90
	1661.00	0.04	176.50	1660.99	2.05	-2.08	1.35	0.04	461660.87	718469.20	N 32 16 4.37	W 103 45 36.90
	1755.00	0.04	156.55	1754.99	2.11	-2.14	1.37	0.01	461660.81	718469.22	N 32 16 4.37	W 103 45 36.90
	1850.00	0.04	210.94	1849.99	2.17	-2.20	1.36	0.04	461660.75	718469.21	N 32 16 4.37	W 103 45 36.90
	1944.00	0.04	209.85	1943.99	2.22	-2.26	1.33	0.00	461660.69	718469.18	N 32 16 4.37	W 103 45 36.90
	2039.00	0.04	19.56	2038.99	2.22	-2.25	1.32	0.08	461660.70	718469.17	N 32 16 4.37	W 103 45 36.90
	2133.00	0.04	339.85	2132.99	2.16	-2.19	1.32	0.03	461660.76	718469.17	N 32 16 4.37	W 103 45 36.90
	2228.00	0.04	260.26	2227.99	2.14	-2.17	1.28	0.05	461660.78	718469.13	N 32 16 4.37	W 103 45 36.90
	2322.00	0.04	116.13	2321.99	2.16	-2.19	1.28	0.08	461660.76	718469.13	N 32 16 4.37	W 103 45 36.90
	2511.00	0.09	23.90	2510.99	2.05	-2.08	1.40	0.05	461660.87	718469.25	N 32 16 4.37	W 103 45 36.90
	2605.00	0.04	305.81	2604.99	1.96	-1.99	1.40	0.10	461660.96	718469.25	N 32 16 4.37	W 103 45 36.90
	2700.00	0.09	92.00	2699.99	1.94	-1.98	1.45	0.13	461660.97	718469.30	N 32 16 4.37	W 103 45 36.90
	2889.00	0.04	94.12	2888.99	1.95	-1.99	1.66	0.03	461660.96	718469.51	N 32 16 4.37	W 103 45 36.90
	2983.00	0.04	89.54	2982.99	1.95	-1.99	1.73	0.00	461660.96	718469.58	N 32 16 4.37	W 103 45 36.90
	3078.00	0.09	135.27	3077.99	2.00	-2.04	1.81	0.07	461660.91	718469.66	N 32 16 4.37	W 103 45 36.90
	3172.00	0.04	99.29	3171.99	2.05	-2.10	1.90	0.07	461660.85	718469.75	N 32 16 4.37	W 103 45 36.90
	3266.00	0.04	187.17	3265.99	2.09	-2.14	1.93	0.06	461660.81	718469.78	N 32 16 4.37	W 103 45 36.89
	3361.00	0.04	7.69	3360.99	2.09	-2.14	1.93	0.08	461660.81	718469.78	N 32 16 4.37	W 103 45 36.89
	3456.00	0.09	156.26	3455.99	2.13	-2.17	1.96	0.13	461660.78	718469.81	N 32 16 4.37	W 103 45 36.89
	3550.00	0.14	180.28	3549.99	2.31	-2.35	1.99	0.07	461660.60	718469.84	N 32 16 4.37	W 103 45 36.89
	3739.00	0.09	217.88	3738.99	2.66	-2.70	1.90	0.05	461660.25	718469.75	N 32 16 4.36	W 103 45 36.90
	3834.00	0.15	161.83	3833.99	2.83	-2.88	1.89	0.13	461660.07	718469.70	N 32 16 4.36	W 103 45 36.90
	3929.00	0.11	243.23	3928.99	2.99	-3.04	1.85	0.18	461659.91	718469.70	N 32 16 4.36	W 103 45 36.90
	4023.00	0.15	217.11	4022.99	3.14	-3.18	1.69	0.07	461659.77	718469.54	N 32 16 4.36	W 103 45 36.90
	4118.00	0.04	194.00	4117.99	3.27	-3.31	1.61	0.12	461659.64	718469.46	N 32 16 4.36	W 103 45 36.90
	4213.00	0.09	270.64	4212.99	3.30	-3.34	1.53	0.09	461659.61	718469.38	N 32 16 4.36	W 103 45 36.90
	4307.00	0.09	167.91	4306.99	3.38	-3.41	1.47	0.15	461659.54	718469.32	N 32 16 4.36	W 103 45 36.90
	4354.00	0.09	219.15	4353.99	3.44	-3.48	1.45	0.17	461659.47	718469.30	N 32 16 4.36	W 103 45 36.90
	4519.00	0.03	288.35	4518.99	3.53	-3.56	1.33	0.05	461659.39	718469.18	N 32 16 4.35	W 103 45 36.90
	4708.00	0.05	150.08	4707.99	3.59	-3.62	1.32	0.04	461659.33	718469.17	N 32 16 4.35	W 103 45 36.90
	4802.00	0.05	141.38	4801.99	3.65	-3.69	1.37	0.09	461659.26	718469.22	N 32 16 4.35	W 103 45 36.90
	4991.00	0.12	291.26	4990.99	3.65	-3.68	1.24	0.01	461659.27	718469.09	N 32 16 4.35	W 103 45 36.90
	5180.00	0.14	311.21	5179.99	3.43	-3.45	0.88	0.03	461659.50	718468.73	N 32 16 4.36	W 103 45 36.91
	5369.00	0.05	106.87	5368.99	3.31	-3.33	0.78	0.10	461659.62	718468.63	N 32 16 4.36	W 103 45 36.91
	5464.00	0.14	242.25	5463.99	3.38	-3.39	0.72	0.19	461659.56	718468.57	N 32 16 4.36	W 103 45 36.91
	5557.00	0.12	230.03	5556.99	3.49	-3.51	0.55	0.04	461659.44	718468.40	N 32 16 4.36	W 103 45 36.91
	5746.00	0.12	7.78	5745.99	3.43	-3.44	0.42	0.12	461659.51	718468.27	N 32 16 4.36	W 103 45 36.91
	5840.00	0.05	247.90	5839.99	3.35	-3.36	0.40	0.16	461659.59	718468.25	N 32 16 4.36	W 103 45 36.91
	5935.00	0.14	58.19	5934.99	3.30	-3.31	0.46	0.20	461659.64	718468.31	N 32 16 4.36	W 103 45 36.91
	6029.00	0.09	303.99	6028.99	3.20	-3.21	0.50	0.21	461659.74	718468.35	N 32 16 4.36	W 103 45 36.91
	6123.00	0.20	205.83	6122.99	3.31	-3.32	0.36	0.25	461659.63	718468.21	N 32 16 4.36	W 103 45 36.91
	6312.00	0.12	139.39	6311.99	3.76	-3.77	0.35	0.10	461659.18	718468.20	N 32 16 4.35	W 103 45 36.91
	6407.00	0.03	277.10	6406.99	3.83	-3.84	0.39	0.15	461659.11	718468.24	N 32 16 4.35	W 103 45 36.91
	6501.00	0.19	126.16	6500.99	3.92	-3.93	0.49	0.23	461659.02	718468.34	N 32 16 4.35	W 103 45 36.91
	6690.00	1.22	131.96	6689.97	5.40	-5.46	2.24	0.55	461657.49	718470.09	N 32 16 4.34	W 103 45 36.89
	6787.00	0.94	169.85	6786.95	6.86	-6.93	3.15	0.77	461656.02	718471.00	N 32 16 4.32	W 103 45 36.88
	6881.00	0.36	178.83	6880.95	7.91	-7.99	3.29	0.62	461654.96	718471.14	N 32 16 4.31	W 103 45 36.88
	6976.00	0.07	307.81	6975.95	8.17	-8.25	3.25	0.43	461654.70	718471.10	N 32 16 4.31	W 103 45 36.88
	7070.00	0.07	299.53	7069.95	8.11	-8.19	3.15	0.01	461654.76	718471.00	N 32 16 4.31	W 103 45 36.88
	7164.00	0.09	35.26	7163.95	8.02	-8.10	3.15	0.13	461654.85	718471.00	N 32 16 4.31	W 103 45 36.88
	7259.00	0.07	47.91	7258.95	7.92	-8.00	3.23	0.03	461654.95	718471.08	N 32 16 4.31	W 103 45 36.88
	7353.00	0.09	245.98	7352.95	7.91	-7.99	3.21	0.17	461654.96	718471.06	N 32 16 4.31	W 103 45 36.88
	7541.00	0.06	251.33	7540.95	8.01	-8.08	2.98	0.02	461654.87	718470.83	N 32 16 4.31	W 103 45 36.88
	7636.00	0.09	165.51	7635.95	8.10	-8.17	2.95	0.11	461654.78	718470.80	N 32 16 4.31	W 103 45 36.88
	7729.00	0.07	179.71	7728.95	8.22	-8.30	2.97	0.03	461654.65	718470.82	N 32 16 4.31	W 103 45 36.88
	7823.00	0.07	141.50	7822.95	8.33	-8.40	3.01	0.05	461654.55	718470.86	N 32 16 4.31	W 103 45 36.88
	7917.00	0.13	177.75	7916.95	8.48	-8.55	3.05	0.09	461654.40	718470.90	N 32 16 4.31	W 103 45 36.88
	8012.00	0.13	223.62	8011.95	8.66	-8.74	2.98	0.11	461654.21	718470.83	N 32 16 4.30	W 103 45 36.88
	8106.00	0.09	3.45	8105.95	8.67	-8.74	2.91	0.22	461654.21	718470.76	N 32 16 4.30	W 103 45 36.88
	8200.00	0.06	326.03	8199.95	8.56	-8.62	2.88	0.06	461654.33	718470.73	N 32 16 4.30	W 103 45 36.88
	8294.00	0.44	310.60	8293.94	8.29	-8.35	2.58	0.41	461654.60	718470.43	N 32 16 4.31	W 103 45 36.88

Comments	MD (ft)	Incl (°)	Azlm Grid (°)	TVD (ft)	VSEC (ft)	NS (ft)	EW (ft)	DLS (ft/100ft)	Northling (ft)	Easting (ft)	Latitude (N/S ° ' '')	Longitude (E/W ° ' '')
	8389.00	1.48	326.88	8389.93	7.04	-7.08	1.63	1.12	461655.87	718468.48	N 32 16 4.32 W 103 45 36.90	
	8483.00	2.34	331.94	8482.88	4.37	-4.37	0.07	0.93	461658.58	718467.92	N 32 16 4.35 W 103 45 36.92	
	8577.00	2.35	305.07	8576.80	1.63	-1.57	-2.41	1.16	461661.38	718465.44	N 32 16 4.37 W 103 45 36.95	
	8671.00	2.72	300.98	8670.71	-0.55	0.68	-5.90	0.44	461663.63	718461.95	N 32 16 4.40 W 103 45 36.99	
	8766.00	2.97	296.97	8765.59	-2.73	2.96	-10.03	0.34	461665.91	718457.82	N 32 16 4.42 W 103 45 37.03	
	8860.00	3.32	290.59	8859.45	-4.68	5.02	-12.75	0.53	461667.97	718453.11	N 32 16 4.44 W 103 45 37.09	
	8982.00	4.68	291.98	8981.15	-7.60	8.13	-24.67	1.12	461671.08	718445.18	N 32 16 4.47 W 103 45 37.18	
	9077.00	7.97	298.44	9075.56	-11.97	12.71	-32.06	3.54	461675.66	718435.80	N 32 16 4.52 W 103 45 37.29	
	9171.00	12.56	299.87	9168.03	-19.82	20.91	-46.66	4.89	461683.86	718421.20	N 32 16 4.60 W 103 45 37.46	
	9265.00	15.13	297.08	9259.29	-30.04	31.59	-66.45	2.82	461694.54	718401.41	N 32 16 4.71 W 103 45 37.69	
	9358.00	15.54	298.78	9348.98	-41.05	43.11	-88.17	0.65	461706.06	718379.68	N 32 16 4.82 W 103 45 37.94	
	9452.00	15.96	286.47	9439.48	-50.24	52.84	-111.61	3.58	461715.79	718356.25	N 32 16 4.92 W 103 45 38.21	
	9547.00	16.66	268.61	9530.71	-53.00	56.22	-137.76	5.31	461719.16	718330.09	N 32 16 4.95 W 103 45 38.52	
	9641.00	16.60	250.64	9620.84	-47.62	51.43	-163.92	5.45	461714.38	718303.94	N 32 16 4.91 W 103 45 38.82	
	9706.00	16.37	237.57	9683.19	-39.24	43.44	-180.42	5.71	461706.39	718287.44	N 32 16 4.83 W 103 45 39.02	
	9772.00	15.54	235.80	9746.65	-28.95	33.50	-195.59	1.44	461696.45	718272.27	N 32 16 4.73 W 103 45 39.19	
	9867.00	20.85	211.63	9836.99	-6.93	11.92	-215.03	9.63	461674.87	718252.83	N 32 16 4.52 W 103 45 39.42	
100'FNL Crossing 2nd Bone Spring Intersection	9876.22	21.46	208.97	9845.59	-4.02	9.05	-216.71	12.33	461672.00	718251.15	N 32 16 4.49 W 103 45 39.44	
	9878.81	21.64	208.25	9848.00	-3.17	8.21	-217.17	12.33	461671.16	718250.70	N 32 16 4.48 W 103 45 39.45	
Enter Target Box 1	9961.00	28.55	190.57	9922.49	29.81	-24.53	-227.97	12.33	461638.42	718239.89	N 32 16 4.16 W 103 45 39.57	
	10056.00	35.53	181.41	10003.02	79.91	-74.53	-232.82	8.93	461588.42	718235.04	N 32 16 3.66 W 103 45 39.63	
	10150.00	42.05	179.92	10076.25	138.76	-133.38	-233.45	7.01	461529.58	718234.41	N 32 16 3.08 W 103 45 39.64	
	10245.00	45.56	180.50	10144.80	204.50	-199.13	-233.70	3.72	461463.83	718234.16	N 32 16 2.43 W 103 45 39.65	
	10335.00	52.25	183.51	10204.26	272.64	-267.23	-236.18	7.81	461395.73	718231.68	N 32 16 1.76 W 103 45 39.68	
	10339.00	52.51	183.62	10206.40	275.41	-270.00	-236.35	7.81	461392.97	718231.51	N 32 16 1.73 W 103 45 39.69	
	10433.00	64.07	186.12	10255.73	355.07	-349.52	-243.24	12.50	461313.45	718224.62	N 32 16 0.94 W 103 45 39.77	
	10527.00	77.15	187.04	10286.87	443.18	-437.41	-253.41	13.95	461225.56	718214.46	N 32 16 0.08 W 103 45 39.90	
	10622.00	87.45	181.83	10299.59	537.02	-531.12	-260.62	12.12	461131.86	718207.24	N 32 15 59.15 W 103 45 39.99	
	10716.00	87.79	174.93	10303.50	630.76	-624.94	-257.97	7.34	461038.04	718209.90	N 32 15 58.22 W 103 45 39.96	
	10865.00	87.59	174.34	10309.50	778.62	-773.17	-244.05	0.42	460889.83	718223.82	N 32 15 56.75 W 103 45 39.81	
	10959.00	87.01	175.38	10313.93	871.92	-866.68	-235.64	1.27	460796.31	718232.23	N 32 15 55.83 W 103 45 39.72	
Exit Target Box	10953.50	87.05	175.91	10315.20	896.27	-891.08	-233.78	2.15	460771.92	718234.09	N 32 15 55.59 W 103 45 39.70	
	11052.00	87.15	177.38	10318.67	964.45	-959.37	-229.77	2.15	460703.63	718238.08	N 32 15 54.91 W 103 45 39.65	
	11146.00	87.52	179.50	10323.04	1058.22	-1053.23	-227.22	2.29	460509.78	718240.65	N 32 15 53.98 W 103 45 39.63	
	11239.00	89.18	181.88	10325.72	1151.17	-1146.18	-228.34	3.12	460516.84	718239.53	N 32 15 53.06 W 103 45 39.65	
Enter Target Box 2	11321.50	89.96	183.87	10326.34	1233.63	-1228.57	-232.48	2.59	460434.45	718235.39	N 32 15 52.25 W 103 45 39.70	
	11333.00	90.07	184.15	10326.33	1245.12	-1240.04	-233.28	2.59	460422.98	718234.58	N 32 15 52.13 W 103 45 39.71	
	11426.00	90.86	184.66	10325.58	1337.98	-1332.76	-240.42	1.01	460330.27	718227.44	N 32 15 51.22 W 103 45 39.80	
	11520.00	92.17	185.65	10323.09	1431.73	-1426.34	-248.87	1.75	460236.69	718219.00	N 32 15 50.29 W 103 45 39.90	
	11706.00	92.27	184.44	10315.89	1617.20	-1611.48	-265.21	0.65	460051.56	718202.66	N 32 15 48.46 W 103 45 40.11	
	11800.00	92.68	183.41	10311.83	1711.02	-1705.17	-271.64	1.18	459957.88	718196.23	N 32 15 47.53 W 103 45 40.19	
	11887.00	91.51	181.64	10304.99	1897.84	-1891.85	-279.87	1.13	459771.21	718188.00	N 32 15 45.69 W 103 45 40.29	
	12080.00	91.89	181.50	10302.23	1990.80	-1984.78	-282.42	0.44	459678.28	718185.84	N 32 15 44.77 W 103 45 40.33	
	12174.00	91.00	180.46	10299.86	2084.76	-2078.73	-284.02	1.46	459564.34	718183.84	N 32 15 43.84 W 103 45 40.35	
	12267.00	89.93	179.92	10299.11	2177.74	-2171.73	-284.33	1.29	459491.35	718183.53	N 32 15 42.92 W 103 45 40.36	
	12360.00	90.07	180.05	10299.11	2270.71	-2264.73	-284.31	0.21	459398.35	718183.56	N 32 15 42.00 W 103 45 40.37	
	12455.00	90.10	179.52	10298.97	2365.68	-2359.72	-283.95	0.56	459303.36	718183.92	N 32 15 41.06 W 103 45 40.37	
	12549.00	89.59	178.98	10299.22	2459.62	-2453.72	-282.72	0.79	459209.37	718185.15	N 32 15 40.13 W 103 45 40.36	
	12643.00	90.48	179.30	10299.16	2553.55	-2547.70	-281.31	1.01	459115.39	718186.56	N 32 15 39.20 W 103 45 40.35	
	12738.00	89.59	178.56	10299.11	2648.46	-2642.69	-279.54	1.22	459020.42	718188.33	N 32 15 38.26 W 103 45 40.34	
	12833.00	88.45	177.94	10300.73	2743.31	-2737.63	-276.63	1.37	458925.48	718191.23	N 32 15 37.32 W 103 45 40.31	
	12927.00	87.35	177.99	10304.17	2837.08	-2831.50	-273.30	1.17	458831.61	718194.57	N 32 15 36.39 W 103 45 40.28	
	13022.00	87.66	178.65	10308.31	2931.86	-2926.37	-270.52	0.77	458736.75	718197.35	N 32 15 35.45 W 103 45 40.25	
	13211.00	87.80	180.52	10315.80	3120.62	-3115.21	-269.15	0.99	458547.92	718198.72	N 32 15 33.58 W 103 45 40.25	
	13400.00	88.59	182.05	10321.75	3309.52	-3304.06	-273.39	0.91	458359.08	718194.48	N 32 15 31.71 W 103 45 40.31	
	13494.00	89.48	181.69	10323.33	3403.50	-3398.00	-276.45	1.02	458265.15	718191.41	N 32 15 30.78 W 103 45 40.35	
	13589.00	89.17	180.65	10324.45	3498.49	-3492.97	-278.39	1.14	458170.18	718189.47	N 32 15 29.84 W 103 45 40.38	
	13684.00	89.66	181.44	10325.42	3593.48	-3587.95	-280.12	0.98	458075.21	718187.74	N 32 15 28.90 W 103 45 40.40	
	13778.00	89.86	180.64	10325.82	3687.48	-3681.93	-281.83	0.88	457981.23	718186.04	N 32 15 27.97 W 103 45 40.43	
	13873.00	89.83	180.92	10326.07	3782.47	-3776.92	-283.12	0.30	457886.25	718184.74	N 32 15 27.03 W 103 45 40.45	
	13968.00	90.89	181.75	10325.48	3877.47	-3871.89	-285.34	1.42	457791.28	718182.53	N 32 15 26.09 W 103 45 40.48	
	14063.00	89.07	181.12	10325.51	3972.46	-3966.86	-287.72	2.03	457696.32	718180.15	N 32 15 25.15 W 103 45 40.51	
	14157.00	88.49	180.97	10327.51	4066.44	-4060.82	-289.43	0.64	457602.36	718178.44	N 32 15 24.22 W 103 45 40.54	
	14252.00	90.17	180.92	10328.62	4161.43	-4155.79	-291.00	1.77	457507.39	718176.87	N 32 15 23.28 W 103 45 40.56	
	14347.00	90.07	178.82	10328.42	4256.41	-4250.79	-291.61	1.16	457412.40	718176.26	N 32 15 22.34 W 103 45 40.58	
	14441.00	91.10	179.21	10327.46	4350.36	-4344.78	-290.81	1.27	457318.42	718177.05	N 32 15 21.41 W 103 45 40.57	
	14535.00	89.86	179.01	10326.68	4444.29	-4438.76	-289.35	1.34	457224.44	718178.51	N 32 15 20.48 W 103 45 40.56	
	14630.00	89.72	178.88	10327.02	4539.20	-4533.75	-287.61	0.20	457129.46	718180.26	N 32 15 19.54 W 103 45 40.55	
	14724.00	90.62	179.61	10326.75	4633.14	-4627.74	-286.37	1.23	457035.48	718181.50	N 32 15 18.61 W 103 45 40.54	
	14819.00	90.55	179.47	10325.78	4728.09	-4722.73	-285.60	0.16	456940.49	718182.26	N 32 15 17.67 W 103 45 40.54	
	14913.00	90.93	179.21	10324.56	4822.02	-4816.72	-284.52	0.49	456846.51	718183.34	N 32 15 16.74 W 103 45 40.53	
	15008.00	90.17	179.43	10323.65	4916.96	-4911.70	-283.39	0.83	456751.53	718184.47	N 32 15 15.80 W 103 45 40.52	
	15102.00	91.27	179.66	10322.47	5010.90	-5005.69	-282.65	1.20	456657.54	718185.22	N 32 15 14.87 W 103 45 40.52	
	15197.00	90.41	179.61	10321.08	5105.85	-5100.68	-282.04	0.91	456562.56	718185.82	N 32 15 13.93 W 103 45 40.52	
	15292.00	89.93	179.20	10320.79	5200.80	-5195.67	-281.06	0.66	456467.57	718186.81	N 32 15 12.99 W 103 45 40.51	
	15387.00	90.10	178.77	10320.77	5295.72	-5290.66	-279.37	0.49	456372.59	718188.49	N 32 15 12.05 W 103 45 40.5	

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 ° ° °)
	18320.00	90.65	179.48	10278.79	8225.76	-8222.46	-237.92	0.25	453440.96	718229.94	N 32 14 43.04	W 103 45 40.20
	18415.00	90.69	179.07	10278.68	8320.70	-8317.44	-236.72	0.43	453345.98	718231.14	N 32 14 42.10	W 103 45 40.19
	18510.00	90.10	179.31	10278.03	8415.63	-8412.43	-235.38	0.67	453251.00	718232.49	N 32 14 41.16	W 103 45 40.18
	18700.00	89.48	179.18	10278.72	8605.50	-8602.41	-232.87	0.33	453061.03	718234.99	N 32 14 39.28	W 103 45 40.16
	18795.00	90.86	179.84	10278.44	8700.45	-8697.40	-232.06	1.61	452966.04	718235.80	N 32 14 38.34	W 103 45 40.16
	18890.00	90.34	179.55	10277.45	8795.40	-8792.40	-231.56	0.63	452871.05	718236.31	N 32 14 37.40	W 103 45 40.16
	18985.00	89.38	179.33	10277.68	8890.35	-8887.39	-230.63	1.04	452776.06	718237.24	N 32 14 36.46	W 103 45 40.15
	19080.00	89.34	179.59	10278.74	8985.29	-8982.38	-229.73	0.28	452681.08	718238.13	N 32 14 35.52	W 103 45 40.15
	19175.00	89.41	179.67	10279.78	9080.25	-9077.37	-229.12	0.11	452586.09	718238.74	N 32 14 34.58	W 103 45 40.15
	19270.00	89.62	180.00	10280.58	9175.21	-9172.37	-228.85	0.41	452491.10	718239.02	N 32 14 33.64	W 103 45 40.15
	19365.00	91.44	180.60	10279.70	9270.19	-9267.36	-229.34	2.02	452396.12	718239.52	N 32 14 32.70	W 103 45 40.16
	19460.00	90.00	179.86	10278.51	9365.16	-9362.35	-229.72	1.70	452301.13	718238.14	N 32 14 31.76	W 103 45 40.17
	19554.00	90.17	180.09	10278.37	9459.13	-9456.35	-229.68	0.30	452207.14	718238.18	N 32 14 30.83	W 103 45 40.18
	19649.00	90.41	180.48	10277.89	9554.11	-9551.35	-230.16	0.48	452112.15	718237.71	N 32 14 29.89	W 103 45 40.19
	19743.00	90.89	179.95	10276.82	9648.09	-9645.34	-230.51	0.76	452018.16	718237.36	N 32 14 28.96	W 103 45 40.20
	19838.00	89.76	179.71	10276.28	9743.05	-9740.34	-230.23	1.22	451923.17	718237.64	N 32 14 28.02	W 103 45 40.20
	20027.00	91.96	180.99	10273.45	9931.99	-9929.29	-231.38	1.35	451734.22	718236.48	N 32 14 26.15	W 103 45 40.23
	20121.00	90.38	178.78	10271.53	10025.93	-10023.27	-231.19	2.89	451640.25	718236.67	N 32 14 25.22	W 103 45 40.23
	20311.00	90.41	178.71	10270.22	10215.73	-10213.22	-227.03	0.04	451450.32	718240.83	N 32 14 23.34	W 103 45 40.20
	20406.00	90.14	179.13	10269.76	10310.65	-10308.20	-225.24	0.53	451355.34	718242.62	N 32 14 22.40	W 103 45 40.18
100'FSL	20455.44	89.99	179.60	10269.71	10360.06	-10357.63	-224.69	1.00	451305.91	718243.17	N 32 14 21.91	W 103 45 40.18
Crossing												
Final MWD	20485.00	89.90	179.88	10269.73	10389.61	-10387.19	-224.56	1.00	451276.35	718243.31	N 32 14 21.62	W 103 45 40.18
Proj to Bit	20532.00	89.90	179.88	10269.82	10436.59	-10434.19	-224.46	0.00	451229.35	718243.40	N 32 14 21.16	W 103 45 40.18

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	Casing Diameter (in)	Survey Tool Type	Borehole / Survey
	1	0.000	22.000	1/98.425	30.000	30.000	NAL_NSG+MSHOT-Depth Only	Original Borehole / Oxy Platinum MDP1 34-3 Federal Com 5H Gyro + MWD 0-20532MD
	1	22.000	30.000	Act Stns	30.000	30.000	NAL_NSG+MSHOT-Depth Only	Original Borehole / Oxy Platinum MDP1 34-3 Federal Com 5H Gyro + MWD 0-20532MD
	1	30.000	588.300	Act Stns	30.000	30.000	NAL_NSG+MSHOT	Original Borehole / Oxy Platinum MDP1 34-3 Federal Com 5H Gyro
	1	588.300	20532.000	Act Stns	30.000	30.000	NAL_MWD_IFR1+MS	Original Borehole / Oxy Platinum MDP1 34-3 Federal Com 5H Gyro

...Original Borehole/Oxy Platinum MDP1 34-3 Federal Com 5H Gyro + MWD 0-20532MD