

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

March 20, 2018

OXY USA INC.

HOBBS OCD
AUG 10 2018
RECEIVED Re:

17, 24S, 32E, Lea NM
32.21100 103.69600

CLIENT: OXY USA INC.
WELL: Mesa Verde BS Unit 7H
FIELD: Mesa Verde Bone Spring

RIG: HP 657
COUNTY: Lea
API NO: 30-025-44065
JOB NO: 17MLD2550

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	Mesa Verde BS Unit 7H Original Hole	10042.00 Ft to 20501.00 Ft	March 7, 2018 to March 16, 2018	SlimPulse

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

Field Service Manager

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:
17, 24S, 32E, Lea NM
32.21100 103.69600

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 March 07, 2018 through March 16, 2018, conduct or supervise the taking of the SlimPulse surveys from a depth of 10042.00 feet to a depth of 20501.00 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 Mesa Verde BS Unit 7H Well (Original Hole) API No. 30-025-44065 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 21st day of March (month) 2018 (yr)

My Commission expires:

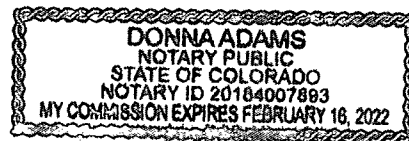
2-16-2022

D. Adams

Notary Public

Adams County Colorado
(County State)

(signature)





Vertical Section (ft) Azim = 357.23° Scale = 1:1900.00(ft) Origin = 0N/-S, 0E/-W



Oxy Mesa Verde BS Unit 7 Gyro+MWD 0-20,541' Survey Geodetic Report

(Def Survey)

Report Date: March 16, 2018 - 09:55 AM
 Client: OXY
 Field: NM Lea County (NAD 83)
 Structure / Slot: Oxy Mesa Verde BS Unit 7 / Oxy Mesa Verde BS Unit 7
 Well: Oxy Mesa Verde BS Unit 7
 Borehole: Original Borehole
 UWI / API#: Unknown / 30-025-44065
 Survey Name: Oxy Mesa Verde BS Unit 7 Gyro+MWD 0-20,541'
 Survey Date: March 02, 2018
 Tort / AHD / DDI / ERD Ratio: 224.970' / 10788.864 ft / 6.878 / 1.031
 Coordinate Reference System: NAD83 New Mexico State Plane, Eastern Zone, US Feet
 Location Lat / Long: N 32° 12' 39.56435", E 103° 41' 48.48159"
 Location Grid N/E Y/X: N 441074.180 RUS, E 738203.680 RUS
 CRS Grid Convergence Angle: 0.3393°
 Grid Scale Factor: 0.99995348
 Version / Patch: 2.10.706.0

Survey / DLS Computation: Minimum Curvature / Lubinski
 Vertical Section Azimuth: 357.226° (Grid North)
 Vertical Section Origin: 0.000 ft, 0.000 ft
 TVD Reference Datum: RKB=26.5'
 TVD Reference Elevation: 3586.400 ft above MSL
 Seabed / Ground Elevation: 3559.900 ft above MSL
 Magnetic Declination: 6.838°
 Total Gravity Field Strength: 998.4317mgn (9.80665 Based)
 Gravity Model: GARM
 Total Magnetic Field Strength: 48027.535 nT
 Magnetic Dip Angle: 59.931°
 Declination Date: March 02, 2018
 Magnetic Declination Model: HDGM 2018
 North Reference: Grid North
 Grid Convergence Used: 0.3393°
 Total Corr Mag North->Grid: 6.4985°
 North: 6.4985°
 Local Coord Referenced To: Well Head

Comments	MD (ft)	Incl (°)	Azim Grid (°)	TVD (ft)	VSEC (ft)	NS (ft)	EW (ft)	DLS (ft/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	441074.18	738203.68	N 32 12 39.55 W 103 41 48.48	
SHL	26.50			26.50	0.00	0.00	0.00	0.00	441074.18	738203.68	N 32 12 39.55 W 103 41 48.48	
	78.40	0.38	295.82	78.40	0.08	0.07	-0.15	0.69	441074.25	738203.53	N 32 12 39.56 W 103 41 48.48	
	170.90	0.56	345.93	170.90	0.66	0.64	-0.52	0.46	441074.82	738203.16	N 32 12 39.56 W 103 41 48.49	
	263.30	0.54	331.76	263.29	1.50	1.46	-0.83	0.15	441075.64	738202.85	N 32 12 39.57 W 103 41 48.49	
	355.60	0.54	304.54	355.59	2.15	2.09	-1.40	0.28	441076.27	738202.28	N 32 12 39.58 W 103 41 48.50	
	448.00	0.48	279.15	447.99	2.50	2.40	-2.14	0.25	441076.58	738201.54	N 32 12 39.58 W 103 41 48.51	
	540.50	0.59	256.08	540.48	2.48	2.34	-2.98	0.26	441076.52	738200.70	N 32 12 39.58 W 103 41 48.52	
	633.00	0.76	252.05	632.97	2.23	2.04	-4.03	0.19	441076.22	738199.65	N 32 12 39.57 W 103 41 48.53	
	725.40	0.93	249.94	725.36	1.85	1.59	-5.32	0.19	441075.77	738198.36	N 32 12 39.57 W 103 41 48.54	
	817.70	0.95	244.48	817.65	1.33	1.01	-6.71	0.10	441075.19	738196.97	N 32 12 39.56 W 103 41 48.56	
	910.10	0.58	264.73	910.04	1.01	0.63	-7.87	0.49	441074.81	738196.81	N 32 12 39.56 W 103 41 48.57	
	1004.70	0.39	236.57	1004.64	0.83	0.41	-8.61	0.32	441074.59	738196.07	N 32 12 39.56 W 103 41 48.58	
	1099.30	0.37	237.03	1099.24	0.51	0.07	-9.14	0.02	441074.25	738194.54	N 32 12 39.56 W 103 41 48.59	
	1193.80	0.34	257.28	1193.74	0.31	-0.16	-8.67	0.14	441074.02	738194.01	N 32 12 39.55 W 103 41 48.59	
	1288.30	0.24	277.84	1288.24	0.30	-0.19	-10.14	0.15	441073.99	738193.54	N 32 12 39.55 W 103 41 48.60	
	1382.80	0.13	271.63	1382.74	0.34	-0.16	-10.44	0.12	441074.02	738193.24	N 32 12 39.55 W 103 41 48.60	
	1477.20	0.15	290.36	1477.14	0.40	-0.12	-10.66	0.05	441074.06	738193.02	N 32 12 39.55 W 103 41 48.61	
	1571.60	0.14	286.25	1571.53	0.48	-0.04	-10.89	0.02	441074.14	738192.79	N 32 12 39.55 W 103 41 48.61	
	1666.00	0.14	272.05	1665.93	0.53	-0.01	-11.12	0.04	441074.17	738192.56	N 32 12 39.55 W 103 41 48.61	
	1760.50	0.15	264.90	1760.43	0.54	-0.01	-11.35	0.02	441074.17	738192.33	N 32 12 39.55 W 103 41 48.61	
	1855.00	0.16	265.79	1854.93	0.53	-0.03	-11.61	0.01	441074.15	738192.07	N 32 12 39.55 W 103 41 48.62	
	1949.60	0.15	252.65	1949.53	0.49	-0.08	-11.86	0.04	441074.10	738191.82	N 32 12 39.55 W 103 41 48.62	
	2044.00	0.18	263.52	2043.93	0.45	-0.13	-12.12	0.05	441074.05	738191.56	N 32 12 39.55 W 103 41 48.62	
	2138.50	0.15	266.44	2138.43	0.44	-0.16	-12.40	0.03	441074.02	738191.29	N 32 12 39.55 W 103 41 48.63	
	2232.80	0.15	265.89	2232.73	0.44	-0.18	-12.64	0.00	441074.00	738191.04	N 32 12 39.55 W 103 41 48.63	
	2327.40	0.17	258.63	2327.33	0.42	-0.21	-12.90	0.03	441073.97	738190.78	N 32 12 39.55 W 103 41 48.63	
	2421.80	0.17	258.66	2421.73	0.38	-0.26	-13.18	0.00	441073.92	738190.50	N 32 12 39.55 W 103 41 48.63	
	2516.20	0.17	248.62	2516.13	0.31	-0.34	-13.45	0.03	441073.84	738190.23	N 32 12 39.55 W 103 41 48.64	
	2610.70	0.15	262.18	2610.63	0.25	-0.41	-13.70	0.05	441073.77	738189.98	N 32 12 39.55 W 103 41 48.64	
	2705.10	0.16	233.59	2705.03	0.17	-0.50	-13.93	0.08	441073.68	738189.75	N 32 12 39.55 W 103 41 48.64	
	2799.60	0.17	249.56	2799.53	0.08	-0.63	-14.17	0.05	441073.55	738189.52	N 32 12 39.55 W 103 41 48.65	
	2894.00	0.17	258.58	2893.93	-0.01	-0.71	-14.43	0.03	441073.47	738189.25	N 32 12 39.55 W 103 41 48.65	
	2988.50	0.16	262.64	2988.43	-0.04	-0.75	-14.70	0.02	441073.43	738188.98	N 32 12 39.55 W 103 41 48.65	
	3082.80	0.20	260.06	3082.73	-0.07	-0.80	-14.99	0.04	441073.38	738188.69	N 32 12 39.55 W 103 41 48.66	
	3177.40	0.24	272.30	3177.33	-0.07	-0.82	-15.36	0.07	441073.36	738188.33	N 32 12 39.55 W 103 41 48.66	
	3272.00	0.23	277.31	3271.93	-0.02	-0.79	-15.74	0.02	441073.39	738187.94	N 32 12 39.55 W 103 41 48.66	
	3366.50	0.10	275.86	3366.43	0.02	-0.75	-16.01	0.14	441073.43	738187.67	N 32 12 39.55 W 103 41 48.67	
	3461.00	0.05	256.28	3460.93	0.03	-0.75	-16.13	0.06	441073.43	738187.55	N 32 12 39.55 W 103 41 48.67	
	3555.30	0.12	36.00	3555.23	0.10	-0.68	-16.12	0.17	441073.50	738187.56	N 32 12 39.55 W 103 41 48.67	
	3649.70	0.33	30.74	3649.63	0.40	-0.37	-15.92	0.22	441073.81	738187.76	N 32 12 39.55 W 103 41 48.67	
	3744.10	0.60	29.94	3744.02	1.04	0.29	-15.53	0.29	441074.47	738188.15	N 32 12 39.56 W 103 41 48.68	
	3838.50	0.34	73.25	3838.42	1.53	0.80	-15.02	0.45	441074.98	738188.66	N 32 12 39.56 W 103 41 48.68	
	3933.00	0.28	181.77	3932.92	1.36	0.65	-14.76	0.53	441074.83	738188.92	N 32 12 39.56 W 103 41 48.65	
	4027.30	0.43	220.67	4027.22	0.88	0.15	-14.99	0.29	441074.33	738188.69	N 32 12 39.56 W 103 41 48.66	
	4121.70	0.56	226.12	4121.61	0.32	-0.44	-15.56	0.15	441073.74	738188.12	N 32 12 39.56 W 103 41 48.66	
	4216.20	0.44	218.45	4216.11	-0.26	-1.04	-16.12	0.15	441073.14	738187.56	N 32 12 39.54 W 103 41 48.67	
	4310.60	0.38	220.88	4310.51	-0.76	-1.56	-16.55	0.07	441072.82	738187.13	N 32 12 39.54 W 103 41 48.67	
	4405.10	0.46	221.39	4405.01	-1.26	-2.08	-17.00	0.08	441072.10	738186.68	N 32 12 39.53 W 103 41 48.68	
	4499.50	0.31	223.41	4499.40	-1.71	-2.55	-17.43	0.16	441071.63	738186.25	N 32 12 39.53 W 103 41 48.68	
	4593.80	0.25	229.19	4593.70	-2.01	-2.87	-17.76	0.07	441071.31	738185.92	N 32 12 39.53 W 103 41 48.69	
	4688.20	0.21	257.56	4688.10	-2.17	-3.04	-18.08	0.13	441071.14	738185.60	N 32 12 39.53 W 103 41 48.69	
	4782.70	0.15	264.57	4782.60	-2.20	-3.09	-18.38	0.07	441071.09	738185.30	N 32 12 39.52 W 103 41 48.70	
	4877.20	0.12	253.39	4877.10	-2.23	-3.13	-18.59	0.04	441071.05	738185.09	N 32 12 39.52 W 103 41 48.70	
	4971.70	0.15	250.78	4971.60	-2.29	-3.20	-18.81	0.03	441070.98	738184.87	N 32 12 39.52 W 103 41 48.70	
	5066.30	0.14	245.09	5066.20	-2.37	-3.29	-19.03	0.02	441070.89	738184.65	N 32 12 39.52 W 103 41 48.70	
	5160.70	0.14	248.06	5160.60	-2.45	-3.38	-19.24	0.01	441070.80	738184.44	N 32 12 39.52 W 103 41 48.71	
	5255.30	0.15	258.30	5255.20	-2.51	-3.45	-19.47	0.03	441070.73	738184.21	N 32 12 39.52 W 103 41 48.71	
	5349.80	0.13	254.84	5349.70	-2.55	-3.51	-19.69	0.02	441070.67	738183.99	N 32 12 39.52 W 103 41 48.71	
	5444.30	0.13	246.84	5444.20	-2.61	-3.58	-19.89	0.02	441070.60	738183.78	N 32 12 39.52 W 103 41 48.71	
	5538.90	0.13	245.95	5538.80	-2.69	-3.66	-20.08	0.00	441070.52	738183.59	N 32 12 39.52 W 103 41 48.72	
	5633.40	0.14	267.88	5633.30	-2.72	-3.71	-20.30	0.06	441070.47	738183.38	N 32 12 39.52 W 103 41 48.72	
	5728.00	0.13	256.98	5727.90	-2.74	-3.74	-20.52	0.03	441070.44	738183.16	N 32 12 39.52 W 103 41 48.72	
	5822.70	0.14	263.93	5822.60	-2.77	-3.78	-20.74	0.02	441070.40	738182.94	N 32 12 39.52 W 103 41 48.72	
	5917.20	0.14	262.15	5917.10	-2.78	-3.80	-20.97	0.00	441070.38	738182.71	N 32 12 39.52 W 103 41 48.73	
	6011.80	0.13	247.24	6011.70	-2.83	-3.86	-21.19	0.04	441070.32	738182.49	N 32 12 39.52 W 103 41 48.73	
	6106.40	0.13	243.28	6106.30	-2.91	-3.95	-21.38	0.01	441070.23	738182.30	N 32 12 39.52 W 103 41 48.73	
	6200.90	0.14	255.95	6200.80	-2.98	-4.03	-21.59	0.03	441070.15	738182.09	N 32 12 39.52 W 103 41 48.73	
	6295.60	0.21	179.08	6295.50	-3.17	-4.23	-21.70	0.24	441069.85	738181.98	N 32 12 39.51 W 103 41 48.73	
	6390.10	0.98	168.83	6389.99	-4.15	-5.19	-21.54	0.82	441068.99	738182.14	N 32 12 39.50 W 103 41 48.73	
	6484.40	1.38	205.30	6484.27	-5.95	-7.01	-21.87	0.88	441067.17	738181.81	N 32 12 39.49 W 103 41 48.74	
	6578.90	1.91	229.78	6578.73	-7.91	-9.06	-23.56	0.92	441065.12	738180.12	N 32 12 39.47 W 103 41 48.76	
	6673.30	2.57	240.80	6673.06	-9.81	-11.11	-26.61	0.83	441063.07	738177.07	N 32 12 39.45 W 103 41 48.79	
	6767.50	3.54	248.70	6767.13	-11.67	-13.19	-31.16	1.12	441060.99	738172.52	N 32 12 39.43 W 103 41 48.85	
	6862.00	4.43	251.27	6861.40	-13.60</							

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/°/')
	7334.40	8.63	247.06	7330.84	-28.47	-32.69	-86.35	1.24	441041.49	738117.34	N 32 12 39.24 W 103 41 49.49	
	7428.80	9.59	244.53	7424.05	-33.95	-38.83	-99.97	1.10	441035.35	738103.72	N 32 12 39.18 W 103 41 49.65	
	7523.20	9.41	241.00	7517.16	-40.39	-45.98	-113.82	0.65	441028.23	738089.87	N 32 12 39.11 W 103 41 49.81	
	7617.70	9.35	237.08	7610.39	-47.66	-53.67	-127.02	0.68	441020.31	738076.87	N 32 12 39.03 W 103 41 49.96	
	7712.30	9.41	233.56	7703.73	-55.81	-62.64	-139.69	0.61	441011.54	738064.00	N 32 12 38.94 W 103 41 50.11	
	7806.60	9.49	228.81	7796.75	-64.91	-72.34	-151.74	0.83	441001.84	738051.94	N 32 12 38.85 W 103 41 50.25	
	7901.00	9.25	224.39	7889.89	-74.91	-82.89	-162.91	0.80	440991.30	738040.78	N 32 12 38.74 W 103 41 50.38	
	7995.30	9.32	220.82	7982.96	-85.59	-94.08	-173.20	0.62	440980.10	738030.49	N 32 12 38.63 W 103 41 50.50	
	8089.70	9.44	218.22	8076.10	-96.97	-105.95	-182.99	0.47	440968.24	738020.70	N 32 12 38.52 W 103 41 50.62	
	8184.00	9.33	214.02	8169.13	-108.93	-118.36	-192.05	0.74	440955.82	738011.64	N 32 12 38.39 W 103 41 50.72	
	8278.40	9.04	214.70	8262.32	-120.94	-130.80	-200.55	0.33	440943.39	738003.14	N 32 12 38.27 W 103 41 50.82	
	8372.80	9.24	220.84	8356.53	-132.31	-142.63	-208.73	1.05	440931.55	737993.96	N 32 12 38.16 W 103 41 50.93	
	8467.30	8.96	225.59	8448.88	-142.53	-153.35	-218.77	0.99	440920.84	737983.92	N 32 12 38.05 W 103 41 51.05	
	8561.70	8.22	231.67	8542.26	-151.18	-162.51	-230.14	1.05	440911.68	737973.55	N 32 12 37.96 W 103 41 51.17	
	8656.20	8.31	238.67	8635.78	-158.37	-170.25	-241.28	1.07	440903.94	737962.42	N 32 12 37.88 W 103 41 51.30	
	8750.60	8.11	239.58	8729.21	-164.72	-177.17	-252.85	0.25	440897.02	737950.85	N 32 12 37.82 W 103 41 51.44	
	8845.00	7.96	242.02	8822.88	-170.60	-183.61	-264.36	0.39	440890.58	737939.33	N 32 12 37.75 W 103 41 51.57	
	8939.60	8.08	238.83	8916.36	-176.85	-190.41	-275.65	0.92	440883.77	737928.05	N 32 12 37.69 W 103 41 51.70	
	9034.20	8.29	229.04	9010.00	-184.53	-198.62	-286.30	1.05	440875.57	737917.40	N 32 12 37.61 W 103 41 51.83	
	9128.20	7.95	222.31	9103.08	-193.31	-207.87	-295.79	1.07	440866.32	737907.90	N 32 12 37.51 W 103 41 51.94	
	9223.40	7.90	217.34	9187.35	-202.96	-217.94	-304.19	0.72	440856.25	737899.50	N 32 12 37.42 W 103 41 52.04	
	9318.00	8.03	216.79	9291.04	-213.03	-228.40	-312.09	0.16	440845.79	737891.81	N 32 12 37.31 W 103 41 52.13	
	9412.40	5.88	235.12	9384.75	-220.67	-238.44	-319.99	3.26	440837.75	737883.70	N 32 12 37.23 W 103 41 52.22	
	9508.90	3.70	269.11	9478.33	-223.14	-239.24	-327.00	3.87	440834.95	737876.89	N 32 12 37.21 W 103 41 52.30	
	9601.40	1.55	353.87	9573.35	-221.76	-238.02	-330.19	4.10	440836.17	737873.51	N 32 12 37.22 W 103 41 52.34	
	9695.70	1.99	82.95	9687.52	-220.37	-236.55	-328.70	2.85	440837.64	737875.00	N 32 12 37.23 W 103 41 52.32	
	9790.30	1.30	132.49	9782.14	-222.06	-238.08	-325.18	2.49	440836.11	737876.51	N 32 12 37.22 W 103 41 52.28	
	9884.60	2.29	122.30	9866.34	-224.96	-240.81	-321.71	0.99	440833.38	737881.99	N 32 12 37.19 W 103 41 52.24	
	9978.10	7.16	326.38	9947.54	-221.10	-237.03	-323.33	10.16	440837.16	737880.37	N 32 12 37.23 W 103 41 52.28	
	10042.00	16.12	319.95	10012.12	-210.27	-226.58	-331.50	13.72	440847.81	737872.19	N 32 12 37.33 W 103 41 52.38	
	10136.00	26.58	331.99	10099.48	-180.50	-197.67	-349.98	12.42	440876.52	737853.72	N 32 12 37.62 W 103 41 52.57	
	10230.00	36.70	340.32	10179.29	-134.20	-152.26	-369.51	11.33	440921.92	737834.19	N 32 12 38.07 W 103 41 52.79	
	10325.00	48.72	346.58	10248.97	-71.70	-90.56	-387.43	13.41	440983.63	737816.27	N 32 12 38.68 W 103 41 53.00	
	10419.00	62.79	351.71	10301.76	5.04	-14.42	-401.73	15.63	441059.76	737801.97	N 32 12 39.44 W 103 41 53.16	
	10514.00	71.06	355.33	10338.97	92.16	72.33	-411.50	9.38	441146.51	737792.20	N 32 12 40.29 W 103 41 53.27	
	10608.00	77.66	358.03	10384.30	182.62	162.94	-420.70	7.56	441238.81	737787.00	N 32 12 41.19 W 103 41 53.32	
	10703.00	79.98	357.77	10382.72	275.80	255.77	-426.12	2.46	441328.94	737783.58	N 32 12 42.11 W 103 41 53.35	
	10797.00	82.41	357.30	10397.11	368.69	348.67	-424.11	2.63	441420.73	737779.59	N 32 12 43.03 W 103 41 53.39	
	10893.00	85.28	358.48	10404.18	434.29	414.14	-426.53	4.70	441486.30	737771.17	N 32 12 43.88 W 103 41 53.42	
	10981.00	87.07	357.78	10410.72	532.08	511.86	-428.72	1.96	441586.02	737773.98	N 32 12 44.64 W 103 41 53.45	
	11150.00	89.72	357.42	10416.01	720.98	700.60	-437.63	1.41	441774.75	737768.07	N 32 12 46.51 W 103 41 53.53	
	11244.00	89.86	357.33	10416.36	814.98	794.51	-441.93	0.18	441868.65	737761.77	N 32 12 47.44 W 103 41 53.57	
	11339.00	90.00	357.22	10416.48	909.98	889.40	-446.45	0.19	441963.53	737757.25	N 32 12 48.38 W 103 41 53.62	
	11433.00	89.96	357.10	10416.51	1003.98	983.28	-451.11	0.13	442057.41	737752.59	N 32 12 49.31 W 103 41 53.66	
	11527.00	90.41	356.50	10416.20	1097.98	1077.13	-456.36	0.80	442151.26	737747.35	N 32 12 50.24 W 103 41 53.72	
	11622.00	90.38	357.26	10416.55	1192.95	1171.99	-461.53	0.80	442248.11	737742.18	N 32 12 51.18 W 103 41 53.77	
	11717.00	90.34	356.85	10414.95	1287.95	1266.86	-466.41	0.43	442340.98	737737.30	N 32 12 52.12 W 103 41 53.82	
	11811.00	90.21	357.33	10414.50	1381.95	1360.74	-471.18	0.53	442434.85	737732.52	N 32 12 53.05 W 103 41 53.87	
	11905.00	89.72	356.72	10414.56	1475.95	1454.81	-476.06	0.83	442528.72	737727.85	N 32 12 53.98 W 103 41 53.92	
	12000.00	89.72	357.25	10415.02	1570.95	1549.48	-481.05	0.56	442623.59	737722.65	N 32 12 54.91 W 103 41 53.97	
	12094.00	89.83	357.03	10415.39	1664.94	1643.36	-485.74	0.26	442717.46	737717.96	N 32 12 55.84 W 103 41 54.02	
	12189.00	89.79	358.05	10415.71	1759.93	1738.30	-488.99	2.13	442812.40	737714.71	N 32 12 56.78 W 103 41 54.05	
	12283.00	89.86	358.85	10415.99	1853.89	1832.29	-490.72	0.23	442908.38	737712.99	N 32 12 57.71 W 103 41 54.07	
	12378.00	89.93	359.11	10416.17	1948.84	1927.27	-492.41	0.28	443001.36	737711.30	N 32 12 58.65 W 103 41 54.08	
	12472.00	89.86	358.40	10416.34	2042.81	2021.25	-494.45	0.76	443095.33	737709.26	N 32 12 59.58 W 103 41 54.10	
	12567.00	89.86	358.32	10416.57	2137.79	2116.21	-497.17	0.08	443190.28	737706.54	N 32 13 0.52 W 103 41 54.12	
	12661.00	89.80	359.86	10416.77	2231.74	2210.19	-498.66	1.64	443284.27	737705.04	N 32 13 1.45 W 103 41 54.13	
	12755.00	89.76	0.84	10417.05	2325.59	2304.19	-498.09	1.05	443378.26	737705.62	N 32 13 2.38 W 103 41 54.12	
	12850.00	90.03	1.04	10417.22	2420.40	2399.18	-496.53	0.35	443473.24	737707.18	N 32 13 3.32 W 103 41 54.10	
	13039.00	90.03	0.76	10417.12	2509.01	2508.15	-493.56	0.15	443568.21	737710.14	N 32 13 5.19 W 103 41 54.05	
	13133.00	89.83	1.23	10417.24	2702.80	2682.14	-491.93	0.54	443756.19	737711.78	N 32 13 6.12 W 103 41 54.02	
	13228.00	89.79	0.99	10417.55	2797.58	2777.12	-490.09	0.26	443851.17	737713.62	N 32 13 7.06 W 103 41 53.99	
	13417.00	89.45	1.22	10418.81	2986.15	2966.08	-486.44	0.22	444040.12	737717.26	N 32 13 8.93 W 103 41 53.94	
	13511.00	89.35	1.28	10418.79	3079.91	3060.05	-484.39	0.12	444134.08	737719.31	N 32 13 9.86 W 103 41 53.91	
	13605.00	89.41	0.52	10420.81	3173.71	3154.03	-482.92	0.81	444228.06	737720.79	N 32 13 10.79 W 103 41 53.89	
	13794.00	89.48	1.11	10422.64	3362.33	3343.01	-480.23	0.31	444417.02	737723.48	N 32 13 12.66 W 103 41 53.84	
	13983.00	89.24	1.32	10424.75	3550.86	3531.95	-476.22	0.17	444605.96	737727.48	N 32 13 14.53 W 103 41 53.78	
	14078.00	89.24	1.00	10426.01	3645.63	3626.92	-474.30	0.34	444700.93	737729.41	N 32 13 15.47 W 103 41 53.75	
	14172.00	89.41	1.58	10427.12	3739.38	3720.89	-472.18	0.64	444794.89	737731.52	N 32 13 16.40 W 103 41 53.72	
	14266.00	89.34	0.82	10428.14	3833.15	3814.87	-470.21	0.81	444888.86	737733.49	N 32 13 17.33 W 103 41 53.69	
	14361.00	89.21	0.77	10429.35	3927.98	3909.85	-468.89	0.15	444983.94	737734.81	N 32 13 18.27 W 103 41 53.67	
	14455.00	89.31	1.15	10431.79	4116.54	4098.81	-465.73	0.21	445172.79	737737.97	N 32 13 20.14 W 103 41 53.62	
	14644.00	89.24	0.78	10432.98	4210.34	4192.79	-464.14	0.40	445266.76	737739.56	N 32 13 21.07 W 103 41 53.60	
	14739.00	89.17	0.77	10434.29	4305.14	4287.77	-462.86	0.07	445361.74	737740.84	N 32 13 22.01 W 103 41 53.57	
	14833.00	89.38	0.49	10435.48	4398.97	4381.75	-461.83	0.37	445455.72	737741.88	N 32 13 22.94 W 103 41 53.56	
	14928.00	89.52	0.56	10436.40	4493.81	4476.75	-460.96	0.16	445550.71	737742.75	N 32 13 23.88 W 103 41 53.54	
	15022.00	89.35	0.67	10437.32	4587.64							

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 ° ' ")
	18608.00	90.82	358.98	10453.86	8169.45	8154.49	-506.66	1.47	449228.27	737697.04	N 32 14 0.27 W	103 41 53.82
	18703.00	90.69	1.28	10452.57	8264.28	8249.47	-505.62	1.37	449323.25	737698.09	N 32 14 1.21 W	103 41 53.80
	18797.00	90.48	1.56	10451.61	8358.02	8343.44	-503.29	0.37	449417.22	737700.42	N 32 14 2.14 W	103 41 53.77
	18892.00	90.93	1.62	10450.44	8452.74	8438.40	-500.65	0.48	449512.17	737703.05	N 32 14 3.08 W	103 41 53.73
	18986.00	90.69	1.95	10449.11	8546.43	8532.34	-497.73	0.43	449606.11	737705.98	N 32 14 4.01 W	103 41 53.69
	19081.00	90.55	1.53	10448.09	8641.13	8627.29	-494.84	0.47	449701.05	737708.86	N 32 14 4.95 W	103 41 53.65
	19270.00	92.23	4.60	10443.50	8829.07	8815.94	-484.74	1.85	449889.69	737718.96	N 32 14 8.82 W	103 41 53.52
	19454.00	91.56	3.12	10437.38	9011.73	9000.00	-472.36	0.88	450073.15	737731.34	N 32 14 8.63 W	103 41 53.36
	19548.00	91.20	2.33	10435.10	9105.27	9093.28	-467.90	0.93	450167.02	737735.81	N 32 14 9.56 W	103 41 53.30
	19642.00	91.13	0.17	10433.19	9199.01	9187.23	-465.85	2.30	450260.96	737737.86	N 32 14 10.49 W	103 41 53.27
	19831.00	90.72	358.32	10430.14	9387.88	9376.18	-468.34	1.00	450449.90	737735.37	N 32 14 12.36 W	103 41 53.29
	19926.00	90.14	358.04	10428.43	9482.84	9471.13	-471.35	0.68	450544.85	737732.35	N 32 14 13.30 W	103 41 53.32
	20020.00	88.90	358.35	10428.40	9576.83	9565.08	-474.31	0.42	450638.80	737729.39	N 32 14 14.23 W	103 41 53.34
	20115.00	88.87	358.95	10428.50	9671.80	9660.05	-476.55	0.64	450733.77	737727.15	N 32 14 15.17 W	103 41 53.36
	20304.00	90.03	358.41	10428.50	9860.74	9849.00	-480.91	0.29	450922.71	737722.80	N 32 14 17.04 W	103 41 53.40
	20398.00	90.07	358.67	10428.42	9954.71	9942.97	-483.30	0.28	451016.67	737720.40	N 32 14 17.97 W	103 41 53.42
Final MWD Survey	20501.00	90.21	358.56	10429.17	10057.88	10045.94	-485.79	0.17	451119.64	737717.91	N 32 14 18.99 W	103 41 53.44
Proj. to Bit	20541.00	90.21	358.56	10429.02	10097.67	10085.93	-486.80	0.00	451159.62	737716.91	N 32 14 19.38 W	103 41 53.45

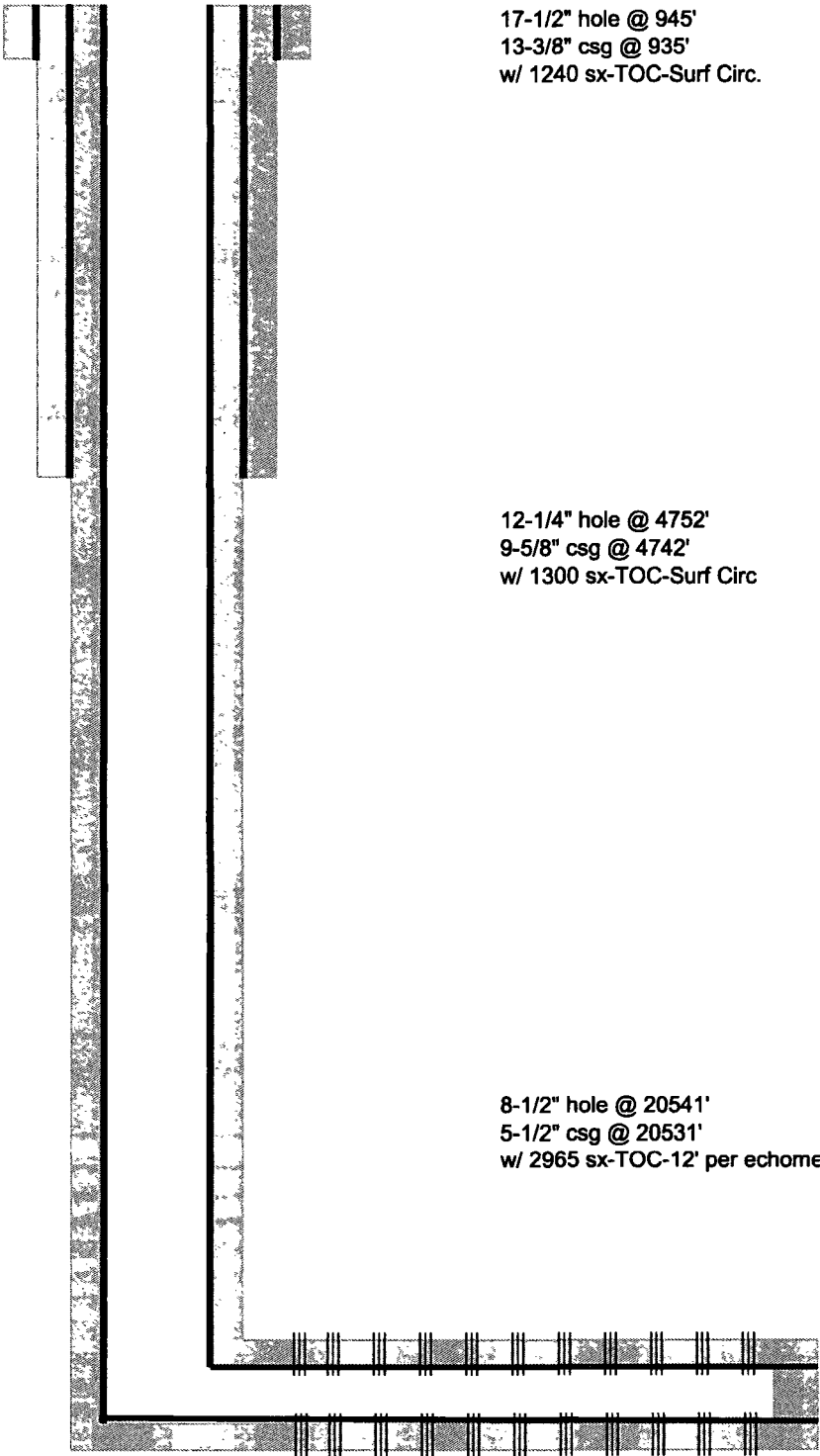
Survey Type: Def Survey

Survey Error Model: ISCWSA Rev 0 *** 3-D 95.000% Confidence 2.7956 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	26.500	1/98.425	30.000	30.000 NAL_NSG+MSHOT-Depth Only	Original Borehole / Oxy Mesa Verde BS Unit 7 Gyro+MWD 0-20,541'
	1	26.500	26.500	Act Strs	30.000	30.000 NAL_NSG+MSHOT-Depth Only	Original Borehole / Oxy Mesa Verde BS Unit 7 Gyro+MWD 0-20,541'
	1	26.500	9976.100	Act Strs	30.000	30.000 NAL_NSG+MSHOT	Original Borehole / Oxy Mesa Verde BS Unit 7 Gyro+MWD 0-
	1	9976.100	20541.000	Act Strs	30.000	30.000 NAL_MWD_PLUS_0.5_DEG	Original Borehole / Oxy Mesa Verde BS Unit 7 Gyro+MWD 0-

OXY USA Inc.
MESA VERDE BS UNIT 7H
API No. 30-025-44065



Perfs @ 10619'-20370'

TD- 20541'M/10429' V