

Oilfield Services, Inc.
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

July 16, 2018

OXY USA Inc.
P.O. BOX 2289
Houston, TX 77252

HOBBS OCD
NOV 06 2018
RECEIVED

18, 24S, 32E, Eddy NM
N 32.21132 W -103.70865

Re: CLIENT: OXY USA Inc.
WELL: Mesa Verde BS Unit 10H
FIELD: Mesa Verde Bone Spring

RIG: H&P 556
COUNTY: Lea
API NO: 30-025-44188
JOB NO: 18MLD2648

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>
Kamonporn Rimkheeree FE	Mesa Verde BS Unit 10H Original Hole	1056.00 Ft to 20723.00 Ft	June 3, 2018 to June 21, 2018	TelePacer SlimPulse

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

Mike Stephens
Field Service Manager

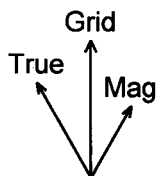


OXY

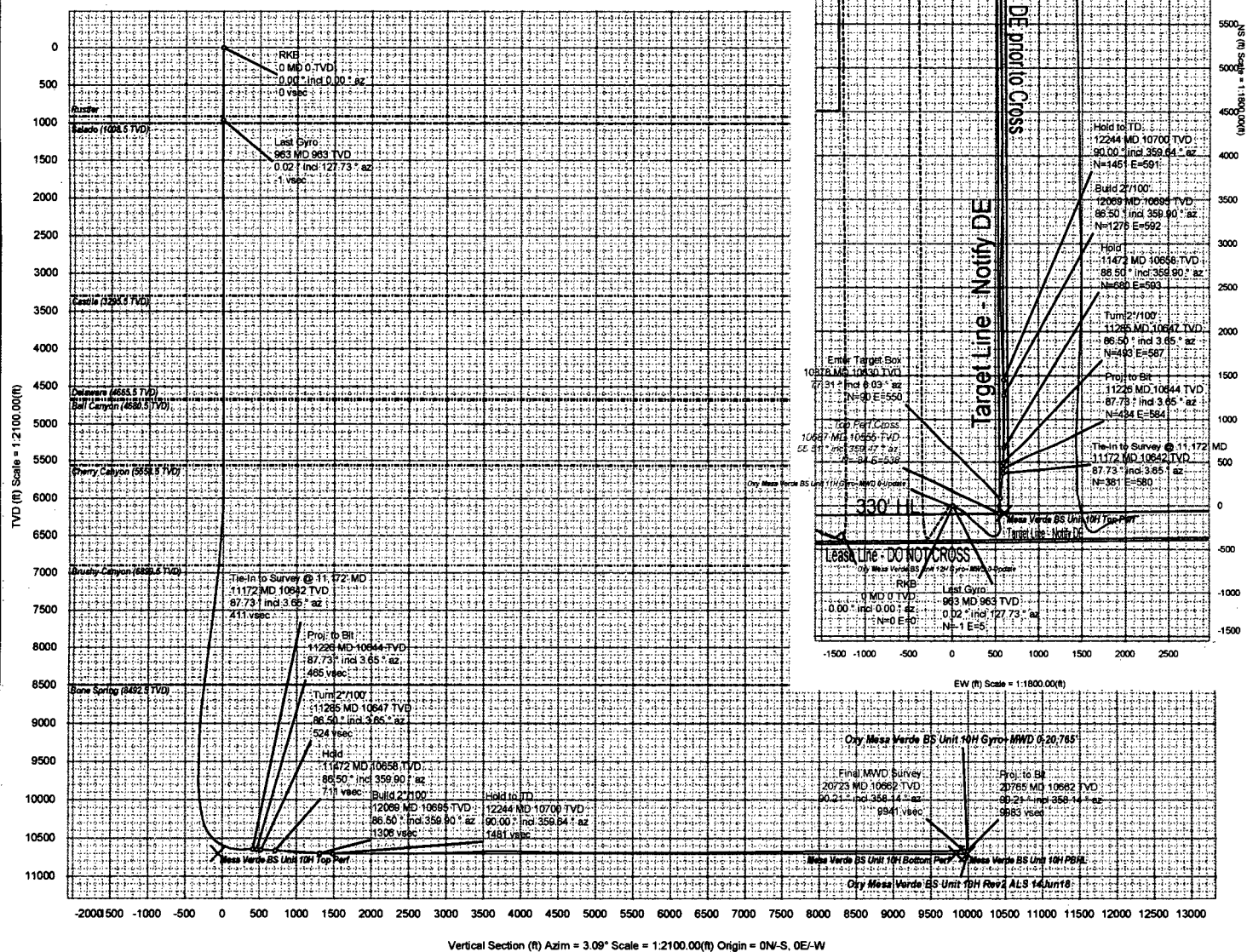


Borehole:		Well:		Field:		Structure:	
Original Borehole		Oxy Mesa Verde BS Unit 10H		NM Lea County (NAD 83)		Oxy Mesa Verde BS Unit 10H	

Gravity & Magnetic Parameters				Surface Location				NAD83 New Mexico State Plane, Eastern Zone, US Feet				Miscellaneous			
Model:	HDOM 2018	Dp:	59.923"	Date:	01-Jun-2018	Lat:	N 32 12 40.74	Northing:	441172.47RUS	Grid Conv:	0.333"	Slot:	Oxy Mesa Verde BS Unit 10H	TVD Ref:	Rd=37(3600.1ft above MSL)
MagDec:	8.821°	FS:	47996.934nT	Gravity FS:	996.423mgm (8.00005 Based)	Lon:	W 103 42 31.16	Eastings:	734537.26RUS	Scale Fact:	0.999995194	Plan:	Oxy Mesa Verde BS Unit 10H Rev2 ALS 14Jun18		



Grid North
Tot Corr (M->G 6.488°)
Mag Dec (6.821°)
Grid Conv (0.333°)



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Schlumberger

Well Reference:
18, 24S, 32E, Eddy NM
N 32.21132 W -103.70865

I, Kamonporn Rimkheeree certify that; I am employed by Drilling & Measurements, a division of Schlumberger Technology Corporation; that I did on the day(s) of June 03, 2018 through June 21, 2018, conduct or supervise the taking of the TelePacer & SlimPulse surveys from a depth of 1056.00 feet to a depth of 20723.00 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 10H Well (Original Hole) API No. 30-025-44188 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 Kamonporn Rimkheeree
Kamonporn Rimkheeree
FE

Subscribed and Sworn to before me this 16th day of JULY (month) 2018 (yr)

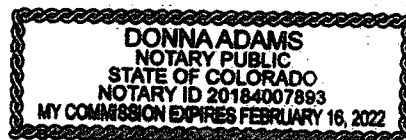
My Commission expires:

2-16-2022

Notary Public

Adams County Colorado
(County State)

(signature)



Oxy Mesa Verde BS Unit 10H Gyro+MWD 0-20,765' Survey Geodetic Report

(Def Survey)



Report Date: June 21, 2018 - 11:15 AM
Client: OXY
Field: NM Lea County (NAD 83)
Structure / Slot: Oxy Mesa Verde BS Unit 10H / Oxy Mesa Verde BS Unit 10H
Well: Oxy Mesa Verde BS Unit 10H
Borehole: Original Borehole
UWI / API#: Unknown / 30-025-44188
Survey Name: Oxy Mesa Verde BS Unit 10H Gyro+MWD 0-20,765'
Survey Date: June 01, 2018
Tort / AHD / DDI / ERD Ratio: 226.337' / 10967.451 ft / 6.683 / 1.025
Coordinate Reference System: NAD83 New Mexico State Plane, Eastern Zone, US Feet
Location Lat / Long: N 32° 12' 40.73983", W 103° 42' 31.14992"
Location Grid N/E Y/X: N 441172.470 NUS, E 734537.250 NUS
CRS Grid Convergence Angle: 0.3330 °
Grid Scale Factor: 0.99995184
Version / Patch: 2.10.720.0

Survey / DLS Computation: Minimum Curvature / Lubinski
Vertical Section Azimuth: 3.087 ° (Grid North)
Vertical Section Origin: 0.000 ft, 0.000 ft
TVD Reference Datum: RKB=30'
TVD Reference Elevation: 3600.100 ft above MSL
Seabed / Ground Elevation: 3570.100 ft above MSL
Magnetic Declination: 6.821 °
Total Gravity Field Strength: 998.4295mgm (9.80665 Based)
Gravity Model: GARM
Total Magnetic Field Strength: 47988.934 nT
Magnetic Dip Angle: 59.923 °
Declination Date: June 01, 2018
Magnetic Declination Model: HDGM 2018
North Reference: Grid North
Grid Convergence Used: 0.3330 °
Total Corr Mag North->Grid North: 6.4876 °
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	441172.47	734537.25	N 32 12 40.74	W 103 42 31.15
SHL	30.00	0.00	0.00	30.00	0.00	0.00	0.00	0.00	441172.47	734537.25	N 32 12 40.74	W 103 42 31.15
	62.70	0.61	131.11	62.70	-0.11	-0.11	0.13	1.87	441172.36	734537.38	N 32 12 40.74	W 103 42 31.15
	97.70	0.75	122.37	97.70	-0.33	-0.36	0.47	0.50	441172.11	734537.71	N 32 12 40.74	W 103 42 31.14
	127.10	0.62	116.06	127.09	-0.49	-0.53	0.77	0.51	441171.94	734538.02	N 32 12 40.73	W 103 42 31.14
	157.20	0.59	103.69	157.19	-0.58	-0.64	1.07	0.44	441171.83	734538.32	N 32 12 40.73	W 103 42 31.14
	185.50	0.64	101.01	185.49	-0.63	-0.71	1.36	0.20	441171.76	734538.61	N 32 12 40.73	W 103 42 31.13
	216.30	0.61	97.73	216.29	-0.67	-0.76	1.70	0.15	441171.71	734538.95	N 32 12 40.73	W 103 42 31.13
	247.50	0.66	97.54	247.49	-0.70	-0.81	2.04	0.16	441171.66	734539.29	N 32 12 40.73	W 103 42 31.13
	278.00	0.64	99.23	277.99	-0.73	-0.86	2.38	0.09	441171.61	734539.63	N 32 12 40.73	W 103 42 31.12
	305.80	0.65	97.15	305.78	-0.75	-0.90	2.69	0.09	441171.57	734539.94	N 32 12 40.73	W 103 42 31.12
	337.50	0.64	94.16	337.48	-0.77	-0.94	3.04	0.11	441171.53	734540.29	N 32 12 40.73	W 103 42 31.11
	369.10	0.58	91.79	369.08	-0.77	-0.95	3.38	0.21	441171.52	734540.63	N 32 12 40.73	W 103 42 31.11
	400.70	0.56	88.67	400.68	-0.76	-0.96	3.70	0.11	441171.51	734540.94	N 32 12 40.73	W 103 42 31.11
	432.60	0.53	90.70	432.58	-0.74	-0.95	4.00	0.11	441171.52	734541.25	N 32 12 40.73	W 103 42 31.10
	464.30	0.45	90.34	464.28	-0.73	-0.96	4.27	0.25	441171.51	734541.52	N 32 12 40.73	W 103 42 31.10
	495.90	0.40	88.49	495.88	-0.71	-0.96	4.50	0.16	441171.51	734541.75	N 32 12 40.73	W 103 42 31.10
	527.60	0.37	90.12	527.57	-0.70	-0.95	4.72	0.10	441171.52	734541.97	N 32 12 40.73	W 103 42 31.10
	559.30	0.30	86.52	559.27	-0.68	-0.95	4.90	0.23	441171.52	734542.15	N 32 12 40.73	W 103 42 31.09
	590.20	0.29	78.80	590.17	-0.65	-0.93	5.06	0.13	441171.54	734542.31	N 32 12 40.73	W 103 42 31.09
	621.80	0.09	78.26	621.77	-0.63	-0.91	5.16	0.63	441171.56	734542.41	N 32 12 40.73	W 103 42 31.09
	653.70	0.06	94.10	653.67	-0.62	-0.90	5.20	0.11	441171.57	734542.45	N 32 12 40.73	W 103 42 31.09
	685.10	0.05	85.50	685.07	-0.62	-0.90	5.23	0.04	441171.57	734542.48	N 32 12 40.73	W 103 42 31.09
	716.70	0.05	93.94	716.67	-0.62	-0.90	5.26	0.02	441171.57	734542.51	N 32 12 40.73	W 103 42 31.09
	748.40	0.06	107.47	748.37	-0.62	-0.91	5.29	0.05	441171.56	734542.54	N 32 12 40.73	W 103 42 31.09
	780.10	0.05	116.61	780.07	-0.63	-0.92	5.32	0.04	441171.55	734542.57	N 32 12 40.73	W 103 42 31.09
	811.80	0.05	111.71	811.77	-0.64	-0.93	5.34	0.01	441171.54	734542.59	N 32 12 40.73	W 103 42 31.09
	843.40	0.04	121.27	843.37	-0.65	-0.94	5.37	0.04	441171.53	734542.62	N 32 12 40.73	W 103 42 31.09
	875.10	0.04	115.24	875.07	-0.66	-0.95	5.39	0.01	441171.52	734542.64	N 32 12 40.73	W 103 42 31.09
	906.70	0.03	102.09	906.67	-0.67	-0.96	5.40	0.04	441171.51	734542.65	N 32 12 40.73	W 103 42 31.09
	938.40	0.03	103.67	938.37	-0.67	-0.96	5.42	0.00	441171.51	734542.67	N 32 12 40.73	W 103 42 31.09
	963.40	0.02	127.73	963.37	-0.67	-0.97	5.43	0.06	441171.50	734542.68	N 32 12 40.73	W 103 42 31.09
	1056.00	0.06	114.91	1055.97	-0.70	-1.00	5.49	0.04	441171.47	734542.74	N 32 12 40.73	W 103 42 31.09
	1241.00	0.08	51.86	1240.97	-0.65	-0.96	5.68	0.04	441171.51	734542.93	N 32 12 40.73	W 103 42 31.08
	1431.00	0.13	263.37	1430.97	-0.60	-0.90	5.57	0.11	441171.57	734542.82	N 32 12 40.73	W 103 42 31.09
	1620.00	0.13	0.86	1619.97	-0.42	-0.71	5.36	0.10	441171.76	734542.61	N 32 12 40.73	W 103 42 31.09
	1714.00	0.12	98.31	1713.97	-0.32	-0.62	5.46	0.20	441171.85	734542.71	N 32 12 40.73	W 103 42 31.09
	1809.00	0.13	27.71	1808.97	-0.24	-0.54	5.60	0.15	441171.93	734542.85	N 32 12 40.73	W 103 42 31.08
	1998.00	0.11	151.30	1997.97	-0.20	-0.51	5.79	0.11	441171.96	734543.04	N 32 12 40.73	W 103 42 31.08
	2093.00	0.11	30.47	2092.97	-0.19	-0.51	5.88	0.20	441171.96	734543.13	N 32 12 40.73	W 103 42 31.08
	2188.00	0.13	46.36	2187.97	-0.03	-0.36	6.01	0.04	441172.11	734543.25	N 32 12 40.74	W 103 42 31.08
	2377.00	0.06	265.71	2376.97	0.11	-0.22	6.06	0.10	441172.25	734543.31	N 32 12 40.74	W 103 42 31.08
	2472.00	0.11	37.81	2471.97	0.18	-0.15	6.07	0.16	441172.32	734543.32	N 32 12 40.74	W 103 42 31.08
	2661.00	0.06	24.34	2660.97	0.42	0.09	6.22	0.03	441172.56	734543.47	N 32 12 40.74	W 103 42 31.08
	2756.00	0.13	91.80	2755.97	0.47	0.13	6.35	0.13	441172.60	734543.60	N 32 12 40.74	W 103 42 31.08
	2850.00	0.16	126.80	2849.97	0.40	0.05	6.56	0.10	441172.52	734543.81	N 32 12 40.74	W 103 42 31.07
	3040.00	0.06	244.49	3039.97	0.20	-0.16	6.68	0.10	441172.31	734543.93	N 32 12 40.74	W 103 42 31.07
	3135.00	0.13	195.87	3134.97	0.08	-0.28	6.61	0.11	441172.19	734543.86	N 32 12 40.74	W 103 42 31.07
	3324.00	0.13	345.26	3323.97	0.07	-0.28	6.49	0.13	441172.19	734543.74	N 32 12 40.74	W 103 42 31.07
	3513.00	0.20	82.75	3512.97	0.33	-0.03	6.77	0.13	441172.44	734544.02	N 32 12 40.74	W 103 42 31.07
	3702.00	0.08	257.25	3701.97	0.36	-0.02	6.97	0.15	441172.45	734544.22	N 32 12 40.74	W 103 42 31.07
	3797.00	0.23	40.62	3796.97	0.49	0.11	7.03	0.31	441172.58	734544.28	N 32 12 40.74	W 103 42 31.07
	3892.00	0.30	135.78	3891.97	0.47	0.08	7.32	0.41	441172.55	734544.57	N 32 12 40.74	W 103 42 31.06
	3986.00	0.38	153.20	3985.97	0.04	-0.38	7.64	0.14	441172.09	734544.89	N 32 12 40.74	W 103 42 31.06
	4081.00	0.08	40.52	4080.97	-0.18	-0.61	7.82	0.44	441171.86	734545.07	N 32 12 40.73	W 103 42 31.06
	4270.00	0.34	159.70	4269.97	-0.59	-1.03	8.10	0.20	441171.44	734545.35	N 32 12 40.73	W 103 42 31.06
	4365.00	0.28	168.97	4364.96	-1.08	-1.52	8.24	0.08	441170.95	734545.49	N 32 12 40.72	W 103 42 31.05
	4459.00	0.06	147.19	4458.96	-1.34	-1.79	8.31	-0.24	441170.68	734545.56	N 32 12 40.72	W 103 42 31.05
	4554.00	0.08	326.95	4553.96	-1.33	-1.78	8.30	0.15	441170.69	734545.55	N 32 12 40.72	W 103 42 31.05
	4597.00	0.00	124.31	4596.96	-1.30	-1.75	8.29	0.19	441170.72	734545.54	N 32 12 40.72	W 103 42 31.05
	4742.00	0.16	26.66	4741.96	-1.12	-1.57	8.38	0.11	441170.90	734545.63	N 32 12 40.72	W 103 42 31.05
	4816.00	0.11	20.34	4815.96	-0.96	-1.41	8.45	0.07	441171.06	734545.70	N 32 12 40.73	W 103 42 31.05
	4911.00	0.06	298.15	4910.96	-0.85	-1.30	8.44	0.12	441171.17	734545.69	N 32 12 40.73	W 103 42 31.05
	5100.00	0.06	79.98	5099.96	-0.78	-1.24	8.45	0.06	441171.23	734545.70	N 32 12 40.73	W 103 42 31.05
	5194.00	0.06	273.45	5193.96	-0.77	-1.23	8.45	0.13	441171.24	734545.70	N 32 12 40.73	W 103 42 31.05
	5289.00	0.06	145.29	5288.96	-0.81	-1.27	8.43	0.11	441171.20	734545.68	N 32 12 40.73	W 103 42 31.05
	5384.00	0.00	275.01	5383.96	-0.85	-1.31	8.45	0.06	441171.16	734545.70	N 32 12 40.73	W 103 42 31.05
	5573.00	0.06	69.05	5572.96	-0.81	-1.27	8.55	0.03	441171.20	734545.80	N 32 12 40.73	W 103 42 31.05
	5762.00	0.06	55.12	5761.96	-0.71	-1.18	8.72	0.01	441171.29	734545.97	N 32 12 40.73	W 103 42 31.05
	5857.00	0.00	278.63	5856.96	-0.68	-1.15	8.76	0.06	441171.32	734546.01	N 32 12 40.73	W 103 42 31.05
	6046.00	2.93	115.86	6045.88	-2.55	-3.26	13.11	1.55	441169.21	734550.36	N 32 12 40.71	W 103 42 31.00
	6141.00	4.39	115.95	6140.68	-4.90	-5.91	18.56	1.54	441166.56	734555.81	N 32 12 40.68	W 103 42 30.93
	6236.00	6.01	117.15	6235.29	-8.34	-9.77	26.26	1.71	441162.70	734563.51	N 32 12 40.64	W 103 42 30.84
	6425.00	8.70	117.50	6422.72	-18.29	-20.89	47.75	1.42	441151.58	734584.99	N 32 12 40.53	W 103 42 30.60
	6520.00	10.14	117.93	6516.43	-24.77	-28.12	61.51	1.52	441144.35	734598.75	N 32 12 40.46	W 103 42 30.44
	6614.00	10.46	117									

Comments	MD (ft)	Incl (°)	Azim (°)	Grid (ft)	TVD (ft)	VSEC (ft)	NS (ft)	EW (ft)	DLS (ft/100ft)	Northing (NUS)	Easting (EUS)	Latitude (N/S ° ' ")	Longitude (E/W ° ' ")
	7276.00	10.21	135.84	7260.41	-91.64	-101.12	173.19	0.59	441071.36	734710.43	N 32 12 39.73	W 103 42 29.14	
	7370.00	10.57	136.56	7352.87	-103.23	-113.35	184.92	0.41	441059.12	734722.16	N 32 12 39.61	W 103 42 29.01	
	7464.00	9.97	137.02	7445.36	-114.81	-125.57	196.40	0.64	441046.91	734733.64	N 32 12 39.49	W 103 42 28.87	
	7559.00	10.16	137.26	7538.90	-126.35	-137.74	207.69	0.20	441034.74	734744.93	N 32 12 39.36	W 103 42 28.74	
	7654.00	11.17	135.24	7632.26	-138.37	-150.43	219.86	1.13	441022.05	734757.09	N 32 12 39.24	W 103 42 28.60	
	7748.00	11.13	133.23	7724.49	-150.33	-163.11	232.88	0.42	441009.37	734770.12	N 32 12 39.11	W 103 42 28.45	
	7843.00	11.27	132.36	7817.68	-162.11	-175.64	246.42	0.23	440996.84	734783.66	N 32 12 38.99	W 103 42 28.29	
	7938.00	11.21	130.82	7910.85	-173.64	-187.93	260.27	0.32	440984.55	734797.50	N 32 12 38.87	W 103 42 28.13	
	8032.00	10.93	131.58	8003.10	-184.78	-199.82	273.85	0.34	440972.66	734811.08	N 32 12 38.75	W 103 42 27.98	
	8127.00	11.04	131.31	8096.36	-196.01	-211.80	287.42	0.13	440960.68	734824.65	N 32 12 38.63	W 103 42 27.82	
	8221.00	10.78	131.19	8188.67	-207.01	-223.53	300.79	0.28	440948.95	734838.03	N 32 12 38.51	W 103 42 27.66	
	8316.00	10.98	131.67	8281.96	-218.13	-235.40	314.24	0.23	440937.09	734851.47	N 32 12 38.39	W 103 42 27.51	
	8411.00	11.27	131.74	8375.17	-229.57	-247.59	327.92	0.31	440924.89	734865.15	N 32 12 38.27	W 103 42 27.35	
	8505.00	10.75	131.55	8467.44	-240.76	-259.52	341.34	0.55	440912.96	734878.57	N 32 12 38.15	W 103 42 27.19	
	8600.00	10.25	132.81	8560.85	-251.68	-271.14	354.17	0.58	440901.34	734891.40	N 32 12 38.04	W 103 42 27.05	
	8695.00	10.09	132.90	8654.36	-262.41	-282.55	366.46	0.17	440889.93	734903.69	N 32 12 37.92	W 103 42 26.90	
	8789.00	9.71	133.09	8748.96	-272.77	-293.57	378.28	0.41	440878.91	734915.52	N 32 12 37.81	W 103 42 26.77	
	8884.00	8.43	131.66	8840.77	-282.27	-303.67	389.34	1.37	440868.81	734926.57	N 32 12 37.71	W 103 42 26.64	
	8978.00	8.29	129.98	8933.77	-290.63	-312.61	399.68	0.30	440859.88	734936.91	N 32 12 37.62	W 103 42 26.52	
	9073.00	7.79	128.51	9027.84	-298.47	-321.02	409.96	0.57	440851.47	734947.19	N 32 12 37.54	W 103 42 26.40	
	9168.00	5.45	121.99	9122.20	-304.39	-327.42	418.83	2.58	440845.07	734956.06	N 32 12 37.48	W 103 42 26.30	
	9262.00	3.92	118.91	9215.88	-307.94	-331.34	425.43	1.65	440841.15	734962.66	N 32 12 37.44	W 103 42 26.22	
	9357.00	3.65	118.19	9310.67	-310.64	-334.33	430.94	0.29	440838.15	734968.17	N 32 12 37.41	W 103 42 26.16	
	9451.00	3.82	121.09	9404.47	-313.38	-337.36	436.26	0.27	440835.12	734973.48	N 32 12 37.38	W 103 42 26.10	
	9546.00	5.20	105.52	9499.18	-315.79	-340.15	443.11	1.93	440832.34	734980.34	N 32 12 37.35	W 103 42 26.02	
	9640.00	8.04	106.03	9592.54	-318.18	-343.11	453.54	3.02	440829.38	734990.77	N 32 12 37.32	W 103 42 25.89	
	9735.00	9.26	95.05	9686.47	-319.93	-345.61	467.54	2.16	440826.87	735004.77	N 32 12 37.29	W 103 42 25.73	
	9830.00	10.05	80.97	9780.14	-318.45	-344.99	483.34	2.61	440827.50	735020.57	N 32 12 37.30	W 103 42 25.55	
	9923.00	10.85	74.17	9871.60	-313.91	-341.32	499.78	1.58	440831.16	735037.00	N 32 12 37.33	W 103 42 25.36	
	9996.00	10.79	67.00	9943.30	-308.68	-336.78	512.68	1.84	440835.71	735049.90	N 32 12 37.38	W 103 42 25.21	
	10036.00	10.79	63.65	9982.59	-305.19	-333.65	519.48	1.57	440838.83	735056.70	N 32 12 37.41	W 103 42 25.13	
	10131.00	12.08	34.87	10075.78	-292.36	-321.54	533.14	6.09	440850.94	735070.37	N 32 12 37.53	W 103 42 24.97	
	10225.00	10.81	30.69	10167.91	-276.19	-305.89	543.27	1.61	440866.60	735080.49	N 32 12 37.68	W 103 42 24.85	
	10320.00	14.27	19.72	10260.64	-257.07	-287.20	551.77	4.41	440885.29	735088.99	N 32 12 37.87	W 103 42 24.75	
	10415.00	24.19	352.92	10350.40	-226.56	-256.73	553.33	13.73	440915.75	735090.55	N 32 12 38.17	W 103 42 24.73	
	10509.00	35.33	346.92	10431.88	-181.10	-210.80	545.70	12.03	440961.68	735082.93	N 32 12 38.62	W 103 42 24.81	
	10604.00	46.94	358.30	10503.37	-119.52	-148.88	539.37	13.81	441023.66	735076.59	N 32 12 39.24	W 103 42 24.88	
	10699.00	56.75	359.62	10591.99	-45.20	-74.28	538.07	10.38	441098.19	735075.30	N 32 12 39.87	W 103 42 24.89	
	10793.00	68.64	4.30	10605.06	38.13	9.01	541.17	13.40	441181.48	735078.33	N 32 12 40.80	W 103 42 24.85	
	10888.00	78.33	8.45	10632.04	128.93	96.38	551.29	11.02	441271.85	735088.61	N 32 12 41.69	W 103 42 24.73	
	10983.00	85.49	6.97	10645.40	222.62	192.53	563.88	7.69	441364.99	735101.11	N 32 12 42.61	W 103 42 24.67	
	11077.00	95.65	4.57	10644.47	316.38	285.92	573.32	11.11	441458.37	735110.55	N 32 12 43.54	W 103 42 24.46	
	11172.00	87.73	3.65	10641.67	411.24	380.55	580.12	8.39	441553.01	735117.34	N 32 12 44.47	W 103 42 24.37	
	11233.00	86.52	3.42	10644.73	472.16	441.36	583.88	2.02	441613.81	735121.10	N 32 12 45.07	W 103 42 24.32	
	11281.00	86.11	2.80	10647.81	520.07	489.19	586.48	1.55	441661.64	735123.70	N 32 12 45.55	W 103 42 24.29	
	11375.00	86.25	2.12	10654.08	613.85	582.89	590.50	0.74	441755.34	735127.72	N 32 12 46.47	W 103 42 24.24	
	11470.00	86.42	1.69	10660.15	708.64	677.65	593.66	0.49	441850.08	735130.88	N 32 12 47.41	W 103 42 24.19	
	11564.00	86.21	1.12	10666.19	802.40	771.42	595.96	0.65	441943.86	735133.18	N 32 12 48.34	W 103 42 24.16	
	11658.00	86.25	1.04	10672.37	896.14	865.20	597.72	0.09	442037.63	735134.94	N 32 12 49.27	W 103 42 24.13	
	11752.00	86.21	0.76	10678.55	989.87	958.99	599.20	0.30	442131.41	735136.42	N 32 12 50.19	W 103 42 24.11	
	11840.00	87.90	359.55	10688.21	1177.36	1148.73	599.70	1.11	442319.14	735136.92	N 32 12 52.05	W 103 42 24.09	
	12035.00	88.49	359.08	10691.20	1272.11	1241.68	598.57	0.79	442414.08	735135.79	N 32 12 52.99	W 103 42 24.10	
	12129.00	89.21	358.64	10693.09	1365.83	1335.64	596.70	0.90	442508.04	735133.92	N 32 12 53.92	W 103 42 24.11	
	12224.00	89.52	358.28	10694.14	1460.52	1430.60	594.15	0.50	442603.00	735131.37	N 32 12 54.86	W 103 42 24.14	
	12318.00	88.66	357.66	10695.63	1554.13	1524.52	590.82	1.13	442696.92	735128.04	N 32 12 55.79	W 103 42 24.17	
	12508.00	89.28	357.94	10699.05	1743.29	1714.35	583.52	0.36	442886.74	735120.74	N 32 12 57.67	W 103 42 24.24	
	12697.00	89.59	357.48	10700.91	1931.45	1903.19	575.97	0.29	443075.57	735113.19	N 32 12 59.54	W 103 42 24.32	
	12886.00	91.65	357.50	10698.87	2119.53	2091.99	567.70	1.09	443264.35	735104.92	N 32 13 1.41	W 103 42 24.40	
	12981.00	90.14	357.44	10697.38	2214.06	2188.88	563.50	1.59	443359.24	735100.72	N 32 13 2.35	W 103 42 24.44	
	13076.00	89.38	357.44	10697.78	2308.59	2281.79	559.26	0.80	443454.14	735096.48	N 32 13 3.29	W 103 42 24.49	
	13170.00	89.48	357.79	10698.72	2402.16	2375.70	555.35	0.39	443548.05	735092.57	N 32 13 4.22	W 103 42 24.53	
	13265.00	89.66	359.74	10699.43	2496.88	2470.67	553.30	2.06	443643.02	735090.52	N 32 13 5.16	W 103 42 24.54	
	13360.00	91.44	1.06	10698.52	2591.77	2565.66	553.96	2.33	443738.00	735091.19	N 32 13 6.10	W 103 42 24.53	
	13454.00	90.69	1.92	10696.77	2685.71	2659.61	556.41	1.21	443831.94	735093.63	N 32 13 7.02	W 103 42 24.49	
	13643.00	90.83	2.52	10694.26	2874.67	2848.45	563.73	0.33	444020.78	735100.95	N 32 13 8.89	W 103 42 24.40	
	13831.00	91.99	1.21	10689.64	3062.57	3036.29	569.85	0.93	444208.60	735107.07	N 32 13 10.75	W 103 42 24.31	
	14019.00	91.07	0.45	10684.62	3250.35	3224.20	572.57	0.63	444396.50	735109.79	N 32 13 12.61	W 103 42 24.27	
	14113.00	92.99	1.63	10681.29	3344.23	3318.11	574.27	2.40	444490.42	735111.49	N 32 13 13.54	W 103 42 24.24	
	14302.00	92.99	359.84	10671.43	3532.80	3506.83	576.69	0.95	444679.13	735113.91	N 32 13 15.41	W 103 42 24.20	
	14406.00	91.13	359.08	10667.69	3636.52	3610.76	575.71	1.93	444783.05	735112.93	N 32 13 16.44	W 103 42 24.20	
	14532.00	89.52	357.34	10666.98	3762.05	3736.68	571.78	1.88	444908.97	735109.00	N 32 13 17.68	W 103 42 24.24	
	14690.00	88.38	0.37	10669.87	3919.58	3894.61	568.62	2.05	445066.88	735105.84	N 32 13 19.24	W 103 42 24.27	
	14880.00	88.48	2.47	10675.08	4109.41	4084.46	573.33	1.11	445256.73	735110.55	N 32 13 21.12	W 103 42 24.20	
	14974.00	89.35	0.55	10676.86	4203.36	4178.41	575.80	2.24	445350.67	735113.02	N 32 13 22.05	W 103 42 24.16	
	15069.00	89.31	358.86	10677.97	4298.18	4273.40	575.31	1.78	445445.65	735112.53	N 32 13 22.99	W 103 42 24.16	
	15164.00	90.48	359.69	10678.14	4392.97	4368.39	574.11	1.51	445540.64	735111.33	N 3		

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 ° ' ")
	20176.00	90.03	359.40	10664.38	9395.20	9379.45	545.25	0.61	450551.45	735082.47	N 32 14 13.52 W 103 42 24.17	
	20270.00	90.07	359.72	10664.30	9489.03	9473.45	544.52	0.34	450645.44	735081.75	N 32 14 14.45 W 103 42 24.17	
	20365.00	90.24	359.35	10664.04	9583.84	9568.44	543.75	0.43	450740.43	735080.98	N 32 14 15.39 W 103 42 24.17	
	20555.00	90.41	359.88	10662.96	9773.49	9758.44	542.48	0.29	450930.42	735079.70	N 32 14 17.27 W 103 42 24.17	
	20649.00	90.21	358.65	10662.45	9867.28	9852.43	541.27	1.33	451024.40	735078.49	N 32 14 18.20 W 103 42 24.18	
Final MWD Survey	20723.00	90.21	358.14	10662.18	9941.03	9926.40	539.20	0.69	451098.37	735076.42	N 32 14 18.93 W 103 42 24.20	
Proj. to Bit	20765.00	90.21	358.14	10662.03	9982.87	9968.37	537.83	0.00	451140.34	735075.06	N 32 14 19.35 W 103 42 24.21	

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	30.000	1/98.425	30.000	30.000	NAL_NSG+MSHOT-Depth Only	Original Borehole / Oxy Mesa Verde BS Unit 10H Gyro+MWD 0- 20,765'
	1	30.000	30.000	Act Stns	30.000	30.000	NAL_NSG+MSHOT-Depth Only	Original Borehole / Oxy Mesa Verde BS Unit 10H Gyro+MWD 0- 20,765'
	1	30.000	963.400	Act Stns	30.000	30.000	NAL_NSG+MSHOT	Original Borehole / Oxy Mesa Verde BS Unit 10H Gyro+MWD 0- Original Borehole / Oxy Mesa
	1	963.400	20765.000	Act Stns	30.000	30.000	NAL_MWD_PLUS_0.5_DEG	Verde BS Unit 10H Gyro+MWD 0-

...Oxy Mesa Verde BS Unit 10H\Original Borehole\Oxy Mesa Verde BS Unit 10H Gyro+MWD 0-20,765'

OXY USA Inc.
Mesa Verde BS Unit 10H
API No. 30-025-44188

