

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 7, 2018

OXY USA Inc.

Re:

17, 24S, 32E, Lea NM

CLIENT: OXY USA Inc.
WELL: Mesa Verde BS Unit 6H
FIELD: Mesa Verde Bone Spring

RIG: H&P 657
COUNTY: Lea
API NO: 30-025-44042
JOB NO: 18MLD2275

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>
Cen Chen	Mesa Verde BS Unit			
FE	6H	10038.00 Ft to	February 22, 2018 to	TelePacer
	Original Hole	20414.00 Ft	March 2, 2017	SlimPulse

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

Cody Nelms
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)
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Schlumberger

Well Reference:
17, 24S, 32E, Lea NM

I, Cen Chen certify that; I am employed by Drilling & Measurements, a division of Schlumberger Technology Corporation; that I did on the day(s) of February 22, 2018 through March 02, 2017, conduct or supervise the taking of the TelePacer & SlimPulse surveys from a depth of 10038.00 feet to a depth of 20414.00 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 6H Well (Original Hole) API No. 30-025-44042 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
Cen Chen
FE



Subscribed and Sworn to before me this 9th day of March (month) 2018 (yr)

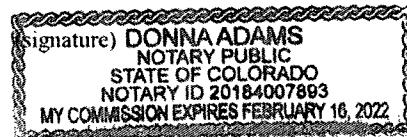
My Commission expires:

2-16-2022

D. Adams

Notary Public

Adams County Colorado
(County State)



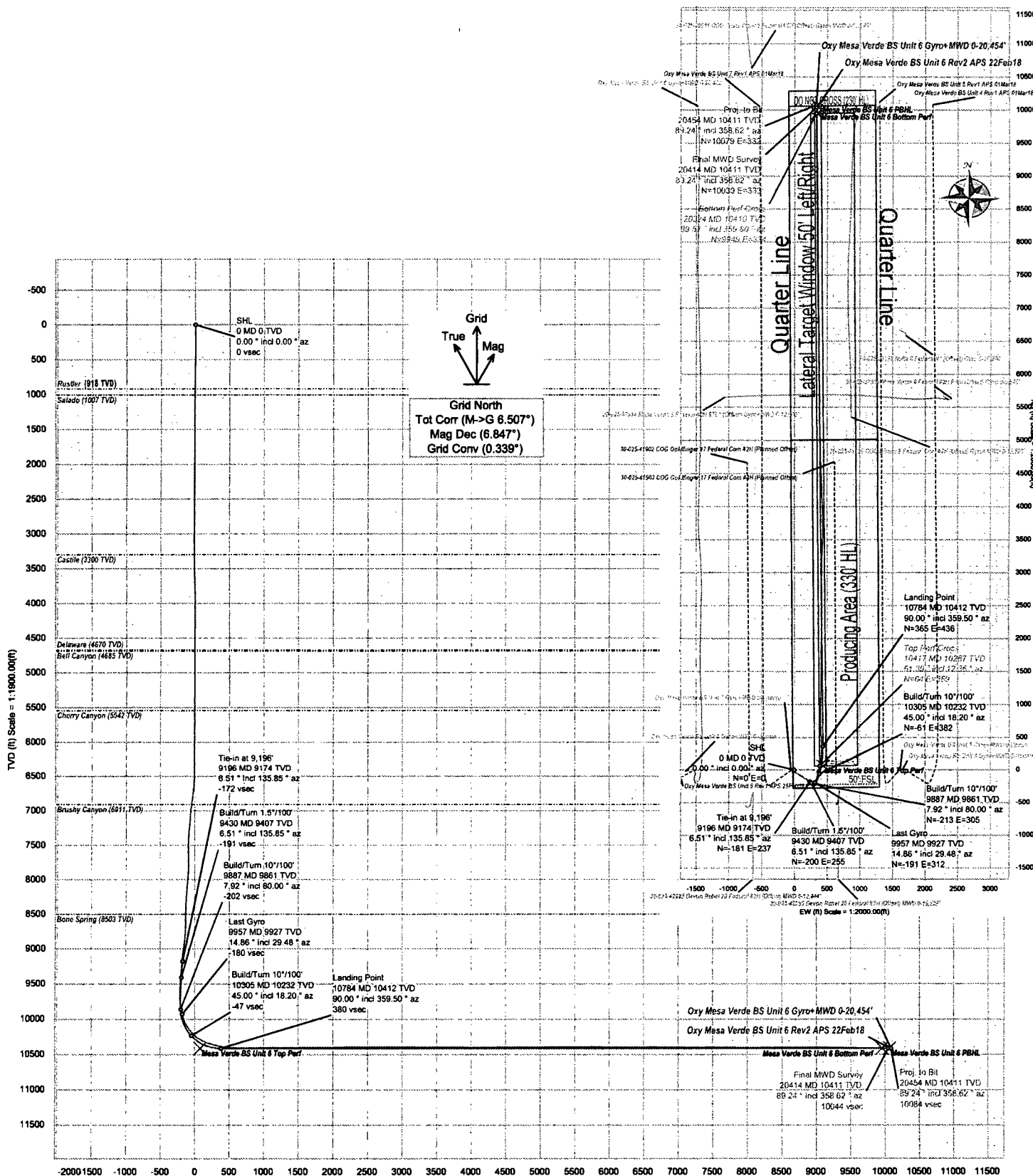


OXY



Borehole:		Well:		Field:		Structure:	
Original Borehole		Oxy Mesa Verde BS Unit 6		NM Lea County (NAD 83)		Oxy Mesa Verde BS Unit 6	

Gravity & Magnetic Parameters				Surface Location				NAD83 New Mexico State Plane, Eastern Zone, US Feet				Miscellaneous			
Model:	HDGM 2017	DI:	69.534"	Date:	16-Feb-2018	Lat:	N 32 12 39.56	Northing:	441674.844US	Grid Conv:	0.5334"	Stat:	Oxy Mesa Verde	TVD Ref:	RWD-26.5 (3596.1ft above MSL)
MagDec:	6.847°	FI:	48031.497nT	Gravity FI:	998.432mgm (9.80665 Based)	Lon:	W 103 41 48.02	Eastng:	738243.711US	Scale Fact:	0.9999530	ES Unit:	ft	Plan:	Oxy Mesa Verde BS Unit 6 Rev'd AP0 22Feb18



Vertical Section (ft) Azim = 2.00° Scale = 1:1900.00(ft) Origin = 0N/-S, 0E/-W



Oxy Mesa Verde BS Unit 6 Gyro+MWD 0-20,454' Survey Geodetic Report

(Def Survey)

Report Date: March 05, 2018 - 12:03 PM
 Client: OXY
 Field: NM Les County (NAD 83)
 Structure / Slot: Oxy Mesa Verde BS Unit 6 / Oxy Mesa Verde BS Unit 8
 Well: Oxy Mesa Verde BS Unit 6
 Borehole: Original Borehole
 UWI / API#: Unknown / 30-025-44042
 Survey Name: Oxy Mesa Verde BS Unit 6 Gyro+MWD 0-20,454'
 Survey Date: February 16, 2018
 Tort / AHD / DDI / ERD Ratio: 258.074' / 10760.823 ft / 6.737 / 1.034
 Coordinate Reference System: NAD83 New Mexico State Plane, Eastern Zone, US Feet
 Location Lat / Long: N 32° 12' 39.55655", W 103° 41' 48.01564"
 Location Grid N/E Y/X: N 441074.840 RUS, E 738243.710 RUS
 CRS Grid Convergence Angle: 0.3394 °
 Grid Scale Factor: 0.999535
 Version / Patch: 2.10.706.0

Survey / DLS Computation: Minimum Curvature / Lubinski
 Vertical Section Azimuth: 2.003 ° (Grid North)
 Vertical Section Origin: 0.000 ft, 0.000 ft
 TVD Reference Datum: RKB=-26.5'
 TVD Reference Elevation: 3586.100 ft above MSL
 Seabed / Ground Elevation: 3559.500 ft above MSL
 Magnetic Declination: 8.847 °
 Total Gravity Field Strength: 998.4318mg (9.80665 Based)
 Gravity Model: GARM
 Total Magnetic Field Strength: 48031.897 nT
 Magnetic Dip Angle: 59.934 °
 Declination Date: February 16, 2018
 Magnetic Declination Model: HDGM 2017
 North Reference: Grid North
 Grid Convergence Used: 0.3394 °
 Total Corr Mag North->Grid: 6.5072 °
 North: Well Head
 Local Coord Referenced To: Well Head

HOBBS OCD
 AUG 10 2018
 RECEIVED

Comments	MD (ft)	Incl (°)	Azin Grid (°)	TVD (ft)	VSEC (ft)	NS (ft)	EW (ft)	DLS (°/100ft)	Northing (ft)	Easting (ft)	Latitude (N/S ° ' ")	Longitude (E/W ° ' ")
SHL	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A	441074.64	738243.71	N 32 12 39.56	W 103 41 48.02
RKB	26.50	0.00	0.00	26.50	0.00	0.00	0.00	0.00	441074.64	738243.71	N 32 12 39.56	W 103 41 48.02
	82.10	0.37	303.45	82.10	0.09	0.10	-0.15	0.87	441074.74	738243.56	N 32 12 39.56	W 103 41 48.02
	174.20	0.34	286.90	174.20	0.32	0.34	-0.68	0.12	441074.98	738243.05	N 32 12 39.56	W 103 41 48.02
	266.30	0.30	280.54	266.30	0.43	0.47	-1.16	0.08	441075.11	738242.55	N 32 12 39.56	W 103 41 48.03
	358.30	0.37	266.94	358.29	0.43	0.49	-1.89	0.11	441075.13	738242.02	N 32 12 39.56	W 103 41 48.04
	450.50	0.46	256.71	450.49	0.31	0.39	-2.35	0.13	441075.03	738241.36	N 32 12 39.56	W 103 41 48.04
	542.60	0.80	238.29	542.59	-0.14	-0.03	-3.26	0.43	441074.61	738240.45	N 32 12 39.56	W 103 41 48.05
	634.80	1.12	232.01	634.77	-1.08	-0.92	-4.51	0.36	441073.72	738239.20	N 32 12 39.55	W 103 41 48.07
	726.90	1.08	230.36	726.86	-2.24	-2.03	-5.89	0.06	441072.81	738237.82	N 32 12 39.54	W 103 41 48.08
	819.00	1.17	214.58	818.94	-3.80	-3.36	-7.09	0.35	441071.28	738236.82	N 32 12 39.52	W 103 41 48.10
	911.10	0.87	236.41	911.02	-4.80	-4.52	-8.21	0.53	441070.12	738235.50	N 32 12 39.51	W 103 41 48.11
	1005.40	0.57	234.90	1005.32	-5.50	-5.19	-9.19	0.32	441069.45	738234.52	N 32 12 39.51	W 103 41 48.12
	1099.70	0.58	228.42	1099.61	-8.12	-5.77	-9.93	0.07	441068.87	738233.78	N 32 12 39.50	W 103 41 48.13
	1193.90	0.57	239.65	1193.81	-6.69	-6.32	-10.69	0.12	441068.32	738233.02	N 32 12 39.49	W 103 41 48.14
	1288.10	0.51	248.92	1288.00	-7.11	-6.71	-11.49	0.11	441067.93	738232.22	N 32 12 39.49	W 103 41 48.15
	1382.20	0.42	266.11	1382.10	-7.31	-6.89	-12.22	0.18	441067.75	738231.49	N 32 12 39.49	W 103 41 48.16
	1476.30	0.28	276.55	1476.20	-7.33	-6.88	-12.79	0.16	441067.76	738230.92	N 32 12 39.49	W 103 41 48.17
	1570.50	0.28	288.20	1570.40	-7.24	-6.79	-13.24	0.06	441067.85	738230.47	N 32 12 39.49	W 103 41 48.17
	1664.50	0.29	304.94	1664.40	-7.05	-6.58	-13.65	0.09	441068.06	738230.06	N 32 12 39.49	W 103 41 48.18
	1758.70	0.17	333.31	1758.60	-6.80	-6.32	-13.91	0.17	441068.32	738229.80	N 32 12 39.49	W 103 41 48.18
	1852.90	0.07	346.44	1852.80	-6.82	-6.14	-13.99	0.11	441068.50	738229.72	N 32 12 39.50	W 103 41 48.18
	2041.30	0.11	200.76	2041.20	-6.88	-6.19	-14.08	0.09	441068.45	738229.63	N 32 12 39.50	W 103 41 48.18
	2135.50	0.14	246.75	2135.40	-6.82	-6.32	-14.22	0.11	441068.32	738229.49	N 32 12 39.49	W 103 41 48.18
	2229.50	0.09	224.27	2229.40	-6.92	-6.42	-14.38	0.07	441068.22	738229.34	N 32 12 39.49	W 103 41 48.18
	2323.70	0.21	203.30	2323.59	-7.13	-6.63	-14.49	0.14	441068.01	738229.22	N 32 12 39.49	W 103 41 48.18
	2417.90	0.32	202.56	2417.79	-7.54	-7.03	-14.66	0.12	441067.81	738229.05	N 32 12 39.49	W 103 41 48.19
	2512.00	0.29	235.07	2511.89	-7.93	-7.41	-14.96	0.18	441067.23	738228.75	N 32 12 39.48	W 103 41 48.19
	2606.20	0.33	244.44	2606.09	-8.20	-7.67	-15.40	0.07	441066.97	738228.31	N 32 12 39.48	W 103 41 48.20
	2700.30	0.37	247.91	2700.19	-8.45	-7.90	-15.93	0.05	441066.74	738227.78	N 32 12 39.48	W 103 41 48.20
	2794.40	0.29	237.73	2794.29	-8.71	-8.14	-16.41	0.11	441066.50	738227.30	N 32 12 39.48	W 103 41 48.21
	2882.70	0.34	244.31	2882.59	-9.24	-8.64	-17.32	0.03	441066.00	738226.40	N 32 12 39.47	W 103 41 48.22
	3076.80	0.38	245.92	3076.68	-9.50	-8.88	-17.85	0.04	441065.76	738225.86	N 32 12 39.47	W 103 41 48.22
	3265.30	0.61	245.43	3265.18	-10.23	-9.56	-18.34	0.12	441065.08	738224.38	N 32 12 39.46	W 103 41 48.24
	3359.50	0.15	308.86	3359.37	-10.37	-9.69	-18.89	0.80	441064.95	738223.82	N 32 12 39.46	W 103 41 48.25
	3453.70	0.42	342.42	3453.57	-9.97	-9.28	-20.09	0.32	441065.36	738223.63	N 32 12 39.47	W 103 41 48.25
	3547.70	1.11	99.80	3547.57	-9.77	-9.10	-19.29	1.44	441065.54	738224.42	N 32 12 39.47	W 103 41 48.24
	3641.80	1.83	31.31	3641.64	-8.59	-7.98	-17.61	1.87	441066.66	738226.10	N 32 12 39.48	W 103 41 48.22
	3735.90	2.43	30.62	3735.68	-5.52	-4.97	-15.82	0.64	441069.67	738227.89	N 32 12 39.51	W 103 41 48.20
	3830.00	2.17	35.02	3829.70	-2.28	-1.80	-13.78	0.33	441072.84	738229.93	N 32 12 39.54	W 103 41 48.18
	3924.20	2.22	64.82	3923.83	0.05	0.44	-11.10	1.20	441075.08	738232.61	N 32 12 39.56	W 103 41 48.14
	4018.20	1.95	171.20	4017.80	-0.69	-0.37	-9.21	3.56	441074.27	738234.50	N 32 12 39.55	W 103 41 48.12
	4112.20	0.53	57.34	4111.78	-2.01	-1.71	-8.60	2.36	441072.93	738235.11	N 32 12 39.54	W 103 41 48.12
	4206.50	0.36	163.89	4206.08	-2.05	-1.76	-8.15	0.76	441072.88	738235.56	N 32 12 39.54	W 103 41 48.11
	4300.60	0.36	160.51	4300.18	-2.60	-2.33	-7.97	0.02	441072.31	738235.74	N 32 12 39.53	W 103 41 48.11
	4394.70	0.30	169.49	4394.28	-3.12	-2.85	-7.83	0.08	441071.79	738235.88	N 32 12 39.53	W 103 41 48.11
	4488.90	0.32	156.96	4488.47	-3.80	-3.33	-7.68	0.07	441071.31	738236.03	N 32 12 39.52	W 103 41 48.11
	4582.90	0.28	93.08	4582.47	-3.84	-3.59	-7.35	0.34	441071.05	738236.36	N 32 12 39.52	W 103 41 48.10
	4677.00	0.18	79.70	4676.57	-3.81	-3.57	-6.97	0.12	441071.07	738236.74	N 32 12 39.52	W 103 41 48.10
	4771.20	0.28	121.82	4770.77	-3.90	-3.67	-6.63	0.20	441070.97	738237.08	N 32 12 39.52	W 103 41 48.09
	4865.40	0.20	133.91	4864.97	-4.12	-3.90	-6.32	0.10	441070.74	738237.39	N 32 12 39.52	W 103 41 48.09
	4959.50	0.21	125.20	4959.07	-4.32	-4.12	-6.06	0.03	441070.53	738237.65	N 32 12 39.52	W 103 41 48.09
	5053.80	0.22	133.46	5053.37	-4.54	-4.34	-5.78	0.03	441070.30	738237.93	N 32 12 39.51	W 103 41 48.08
	5147.90	0.21	126.91	5147.47	-4.76	-4.57	-5.51	0.03	441070.07	738238.20	N 32 12 39.51	W 103 41 48.08
	5242.20	0.24	121.65	5241.77	-4.95	-4.77	-5.21	0.04	441069.87	738238.50	N 32 12 39.51	W 103 41 48.08
	5336.40	0.21	132.16	5335.97	-5.16	-4.99	-4.91	0.05	441069.65	738238.80	N 32 12 39.51	W 103 41 48.07
	5430.60	0.19	122.50	5430.17	-5.35	-5.19	-4.65	0.04	441069.45	738239.06	N 32 12 39.51	W 103 41 48.07
	5524.90	0.18	135.77	5524.47	-5.53	-5.38	-4.42	0.05	441069.24	738239.29	N 32 12 39.50	W 103 41 48.07
	5619.10	0.19	256.91	5618.67	-5.68	-5.53	-4.47	0.34	441069.11	738239.44	N 32 12 39.50	W 103 41 48.07
	5713.40	0.20	253.27	5712.97	-5.77	-5.61	-4.78	0.02	441068.93	738239.63	N 32 12 39.50	W 103 41 48.07
	5807.80	0.18	257.26	5807.37	-5.86	-5.69	-5.08	0.03	441068.95	738239.83	N 32 12 39.50	W 103 41 48.08
	5902.00	0.21	253.66	5901.56	-5.95	-5.77	-5.39	0.03	441068.87	738239.99	N 32 12 39.50	W 103 41 48.08
	5996.20	0.19	248.81	5995.76	-6.07	-5.87	-5.70	0.03	441068.77	738240.17	N 32 12 39.50	W 103 41 48.08
	6090.50	0.21	246.15	6090.06	-6.20	-6.00	-6.01	0.03	441068.64	738239.70	N 32 12 39.50	W 103 41 48.09
	6184.70	0.22	242.16	6184.26	-6.37	-6.15	-6.32	0.02	441068.49	738239.39	N 32 12 39.50	W 103 41 48.09
	6279.10	0.58	307.21	6278.66	-6.18	-5.95	-6.86	0.56	441068.69	738239.65	N 32 12 39.50	W 103 41 48.10
	6373.30	0.44	224.07	6372.86	-6.18	-5.92	-7.50	0.73	441068.72	738239.21	N 32 12 39.50	W 103 41 48.10
	6467.30	1.37	179.78	6466.85	-7.57	-7.30	-7.74	1.17	441067.34	738235.97	N 32 12 39.48	W 103 41 48.11
	6561.60	3.03	153.77	6561.08	-10.89	-10.66	-6.64	2.01	441063.98	738237.07	N 32 12 39.45	W 103 41 48.09
	6655.60	5.34	147.54	6654.82	-16.68	-16.58	-3.19	2.50	441058.06	738240.52	N 32 12 39.39	W 103 41 48.05
	6749.50	8.12	144.97	6748.06	-25.58	-25.70	2.96	2.98	441048.94	738246.67	N 32 12 39.30	W 103 41 47.98
	6843.70	10.51	141.00	6841.02	-37.38	-37.83	12.19	2.63	441036.81	738255.90	N 32 12 39.18	W 103 41 47.88
	6938.00	11.35	126.05	6933.62	-49.07	-49.98	25.11	3.13	441024.67	738268.82	N 32 12 39.08	W 103 41 47.73
	7032.20	11.05	117.36	7026.03	-58.12	-58.58	40.62	1.82	441015.06	738284.33	N 32 12 38.96	W 103 41 47.55
	7126.30	9.69	122.51</									

Comments	MD (ft)	Incl (°)	Azim Grid (°)	TVD (ft)	VSEC (ft)	NS (ft)	EW (ft)	DLS (ft/100ft)	Northing (ft)	Easting (ft)	Latitude (N/S ° ' '')	Longitude (E/W ° ' '')
	7597.00	2.54	66.75	7585.02	-92.11	-85.89	106.56	2.68	440978.75	738350.27	N 32 12 38.60	W 103 41 46.78
	7691.30	1.48	38.26	7679.27	-90.21	-84.09	109.20	1.56	440980.56	738352.91	N 32 12 38.62	W 103 41 46.75
	7785.30	2.96	106.01	7773.21	-89.74	-93.71	112.02	2.72	440980.94	738355.72	N 32 12 38.62	W 103 41 46.72
	7879.30	4.18	137.00	7867.05	-92.69	-98.62	116.45	2.49	440977.83	738360.15	N 32 12 38.59	W 103 41 46.87
	7973.30	5.27	142.18	7960.73	-98.42	-102.73	121.43	1.24	440977.91	738365.14	N 32 12 38.53	W 103 41 46.81
	8067.50	6.19	148.15	8054.46	-105.97	-110.46	126.77	1.16	440964.18	738370.47	N 32 12 38.46	W 103 41 46.55
	8161.40	6.25	142.61	8147.81	-114.12	-118.82	132.54	0.64	440955.82	738376.24	N 32 12 38.37	W 103 41 46.48
	8255.50	6.62	135.85	8241.32	-121.84	-126.79	139.43	0.90	440947.86	738383.13	N 32 12 38.29	W 103 41 46.40
	8349.70	6.22	110.97	8334.94	-127.26	-132.51	147.98	2.96	440942.14	738391.68	N 32 12 38.21	W 103 41 46.30
	8443.80	5.52	100.43	8428.55	-129.58	-135.15	157.19	1.36	440935.49	738400.89	N 32 12 38.20	W 103 41 46.20
	8537.90	4.75	86.87	8522.28	-129.89	-135.76	165.83	1.52	440938.89	738409.23	N 32 12 38.18	W 103 41 46.10
	8632.10	4.43	103.83	8616.18	-130.29	-136.42	172.96	1.47	440938.23	738416.66	N 32 12 38.20	W 103 41 46.01
	8726.30	5.28	126.03	8710.05	-133.46	-139.84	180.00	2.17	440934.81	738423.70	N 32 12 38.18	W 103 41 45.93
	8820.30	6.87	130.43	8803.54	-139.27	-145.92	187.65	1.56	440928.73	738431.35	N 32 12 38.10	W 103 41 45.84
	8914.60	6.27	139.61	8897.04	-147.69	-154.84	196.22	2.11	440920.01	738439.62	N 32 12 38.01	W 103 41 45.74
	9008.90	9.99	145.77	8990.14	-159.29	-166.57	205.21	2.10	440908.08	738448.91	N 32 12 37.90	W 103 41 45.64
	9103.20	7.91	141.77	9083.29	-170.85	-178.43	213.83	2.30	440896.22	738457.53	N 32 12 37.78	W 103 41 45.54
	9197.50	5.91	132.55	9176.90	-178.98	-186.81	221.42	2.42	440887.84	738465.12	N 32 12 37.70	W 103 41 45.45
	9291.80	7.31	135.85	9270.57	-186.27	-194.40	229.16	1.54	440880.25	738472.88	N 32 12 37.62	W 103 41 45.36
	9385.90	8.88	133.78	9363.73	-195.26	-203.72	236.59	1.70	440870.93	738482.29	N 32 12 37.53	W 103 41 45.25
	9480.00	9.08	121.28	9456.69	-203.73	-212.80	250.16	2.08	440862.05	738493.88	N 32 12 37.44	W 103 41 45.12
	9574.30	7.98	108.84	9549.95	-209.26	-218.58	262.74	2.27	440856.07	738506.44	N 32 12 37.38	W 103 41 44.97
	9668.30	6.77	90.09	9643.19	-210.97	-220.70	274.46	2.85	440853.96	738518.15	N 32 12 37.38	W 103 41 44.84
	9762.50	6.87	74.14	9736.73	-209.05	-219.16	285.43	2.01	440855.49	738529.13	N 32 12 37.37	W 103 41 44.71
	9856.60	12.70	44.71	9829.47	-199.71	-210.26	298.14	7.98	440864.39	738541.83	N 32 12 37.46	W 103 41 44.66
	9957.20	14.86	29.48	9927.20	-180.13	-191.17	312.27	4.18	440883.48	738555.97	N 32 12 37.65	W 103 41 44.39
Last Gyro	10038.00	20.87	22.44	10004.08	-157.43	-168.82	322.88	7.89	440905.83	738568.57	N 32 12 37.87	W 103 41 44.27
	10133.00	33.36	22.88	10088.47	-117.01	-128.96	339.56	13.15	440945.69	738583.25	N 32 12 38.26	W 103 41 44.07
	10229.00	41.28	15.05	10164.80	-61.38	-73.94	358.08	9.80	441000.71	738601.78	N 32 12 38.80	W 103 41 43.85
	10323.00	47.36	11.63	10232.03	2.89	-10.06	373.12	6.95	441084.58	738616.81	N 32 12 39.44	W 103 41 43.67
	10418.00	61.54	12.37	10287.12	78.90	65.34	389.19	14.94	441139.98	738632.88	N 32 12 40.18	W 103 41 43.48
	10512.00	70.18	9.38	10325.54	163.58	149.50	405.28	9.64	441224.13	738648.97	N 32 12 41.01	W 103 41 43.29
	10607.00	74.26	0.29	10354.60	253.80	239.52	412.82	10.07	441314.15	738656.51	N 32 12 41.90	W 103 41 43.19
	10701.00	76.69	1.37	10378.17	344.77	330.50	414.14	2.81	441405.12	738657.83	N 32 12 42.80	W 103 41 43.17
	10795.00	82.93	358.30	10394.80	437.16	422.95	413.85	7.37	441497.57	738657.54	N 32 12 43.72	W 103 41 43.17
	10889.00	87.90	357.02	10402.31	530.56	516.54	410.02	5.46	441591.16	738653.71	N 32 12 44.64	W 103 41 43.21
	10981.00	88.45	355.91	10404.60	602.19	588.37	405.58	1.72	441682.98	738649.27	N 32 12 45.35	W 103 41 43.25
	11066.00	90.45	356.79	10405.51	696.71	683.17	399.54	2.30	441757.77	738643.23	N 32 12 46.29	W 103 41 43.32
	11245.00	90.28	1.43	10404.31	885.42	872.09	386.60	2.46	441948.69	738640.28	N 32 12 48.18	W 103 41 43.34
	11343.00	90.28	1.43	10403.39	1073.41	1060.00	402.33	0.34	442134.59	738646.02	N 32 12 50.02	W 103 41 43.26
	11622.00	90.24	0.79	10402.53	1262.40	1248.93	407.03	0.87	442323.51	738650.72	N 32 12 51.89	W 103 41 43.19
	11717.00	90.52	0.46	10401.90	1357.37	1343.93	408.06	0.46	442418.50	738651.75	N 32 12 52.83	W 103 41 43.17
	11811.00	90.41	1.10	10401.14	1451.34	1437.91	409.34	0.69	442512.48	738653.03	N 32 12 53.76	W 103 41 43.15
	11906.00	90.48	0.34	10400.40	1546.31	1532.90	410.54	0.80	442607.47	738654.23	N 32 12 54.70	W 103 41 43.13
	12000.00	90.45	359.51	10399.64	1640.25	1626.90	410.41	0.88	442701.46	738654.10	N 32 12 55.63	W 103 41 43.13
	12095.00	89.97	0.91	10399.29	1735.20	1721.89	410.76	1.56	442798.45	738654.45	N 32 12 56.57	W 103 41 43.12
	12189.00	90.31	1.21	10399.06	1828.19	1815.88	412.50	0.48	442890.43	738656.19	N 32 12 57.50	W 103 41 43.09
	12284.00	90.17	1.89	10398.86	1924.18	1910.84	415.07	0.73	442985.39	738658.76	N 32 12 58.44	W 103 41 43.05
	12378.00	91.41	2.39	10397.37	2018.17	2004.77	418.58	1.42	443079.31	738662.27	N 32 12 59.37	W 103 41 43.01
	12473.00	90.79	359.95	10393.74	2207.10	2193.68	422.44	1.33	443268.21	738668.13	N 32 13 1.24	W 103 41 42.95
	12561.00	89.80	359.70	10393.17	2301.03	2287.67	422.15	0.98	443362.20	738665.84	N 32 13 2.17	W 103 41 42.94
	12756.00	89.79	359.61	10393.43	2395.95	2382.87	421.58	0.15	443457.19	738665.27	N 32 13 3.11	W 103 41 42.94
	12850.00	89.97	359.19	10393.63	2489.85	2476.86	420.59	0.49	443551.18	738664.28	N 32 13 4.04	W 103 41 42.95
	12945.00	89.83	358.42	10393.79	2584.70	2571.84	418.61	0.82	443646.16	738662.30	N 32 13 4.98	W 103 41 42.97
	13039.00	90.03	359.74	10393.91	2678.58	2665.63	417.10	1.42	443740.14	738660.79	N 32 13 5.91	W 103 41 42.98
	13134.00	89.97	359.46	10393.91	2773.50	2760.63	416.44	0.30	443835.13	738660.13	N 32 13 6.85	W 103 41 42.98
	13228.00	90.45	359.99	10393.56	2867.42	2854.62	415.99	0.76	443929.13	738659.68	N 32 13 7.78	W 103 41 42.98
	13406.00	89.82	0.85	10393.45	3045.35	3032.82	417.29	0.87	444107.11	738660.98	N 32 13 9.54	W 103 41 42.95
	13500.00	89.55	0.71	10394.13	3139.32	3126.60	418.57	0.17	444201.09	738662.26	N 32 13 10.47	W 103 41 42.93
	13595.00	89.76	2.13	10394.71	3234.32	3221.57	420.93	1.51	444296.06	738664.62	N 32 13 11.41	W 103 41 42.89
	13689.00	90.27	2.54	10394.68	3328.31	3315.49	424.76	0.70	444389.97	738668.45	N 32 13 12.34	W 103 41 42.84
	13787.00	89.41	2.26	10395.21	3517.31	3504.32	432.67	0.48	444578.79	738676.38	N 32 13 14.21	W 103 41 42.74
	13973.00	89.76	0.49	10395.90	3612.29	3599.29	434.95	1.90	444673.76	738678.64	N 32 13 15.15	W 103 41 42.70
	14067.00	89.59	0.21	10396.43	3706.25	3693.29	435.52	0.35	444767.75	738679.21	N 32 13 16.08	W 103 41 42.69
	14161.00	89.82	0.21	10397.08	3800.20	3787.28	435.67	0.03	444861.74	738679.56	N 32 13 17.01	W 103 41 42.68
	14256.00	89.48	358.35	10397.82	3895.09	3882.27	434.68	1.96	444956.72	738678.36	N 32 13 17.95	W 103 41 42.69
	14350.00	89.72	358.17	10398.48	3988.89	3976.22	431.82	0.32	445050.67	738675.51	N 32 13 18.88	W 103 41 42.71
	14445.00	90.14	357.40	10398.60	4083.63	4071.15	428.15	0.92	445145.59	738671.84	N 32 13 19.82	W 103 41 42.75
	14634.00	90.14	357.59	10398.13	4272.04	4259.97	419.89	0.10	445334.40	738663.58	N 32 13 21.68	W 103 41 42.83
	14728.00	90.45	357.12	10397.85	4365.73	4353.87	415.55	0.60	445428.30	738659.24	N 32 13 22.61	W 103 41 42.88
	14823.00	90.21	357.13	10397.10	4460.39	4448.75	410.79	0.25	445523.17	738654.48	N 32 13 23.55	W 103 41 42.93
	15012.00	89.80	356.39	10396.82	4648.60	4637.44	400.10	0.42	445711.86	738643.80	N 32 13 25.42	W 103 41 43.04
	15201.00	90.41	358.72	10396.41	4837.01	4826.26	390.04	1.26	445900.66	738633.73	N 32 13 27.29	W 103 41 43.12
	15295.00	90.28	358.66	10395.84	4930.90	4920.25	390.71	1.01	445994.85	738634.40	N 32 13 28.22	W 103 41 43.13
	15390.00	91.24	359.76	10394.58	5025.81	5015.23	390.23	1.02	446089.63	738633.92	N 32 13 29.16	W 103 41 43.13
	15484.00	90.34	359.10	10393.29	5118.70	5109.22	389.30	1.19	446183.61	738632.		

Comments	MD (ft)	Incl (°)	Azlm Grid (°)	TVD (ft)	VSEC (ft)	NS (ft)	EW (ft)	DLS ("/100ft)	Northing (ftUS)	Easting (ftUS)	Latitude (N/S ° ' ")	Longitude (E/W ° ' ")
	18358.00	90.07	0.85	10399.06	8989.07	8982.65	340.85	1.18	450056.85	738584.54	N 32 14 8.42	W 103 41 43.43
	19452.00	89.14	359.41	10399.71	9083.02	9076.64	341.06	1.82	450150.84	738584.75	N 32 14 9.35	W 103 41 43.42
	19547.00	88.69	358.72	10401.50	9177.88	9171.61	339.51	0.87	450245.81	738583.20	N 32 14 10.29	W 103 41 43.43
	19841.00	89.62	359.50	10402.89	9271.74	9265.59	338.05	1.29	450339.78	738581.74	N 32 14 11.22	W 103 41 43.44
	19830.00	88.73	359.50	10405.61	9460.54	9454.56	336.40	0.47	450528.74	738580.09	N 32 14 13.09	W 103 41 43.45
	19925.00	89.55	359.47	10407.04	9555.44	9549.55	335.55	0.86	450623.72	738579.24	N 32 14 14.03	W 103 41 43.45
	20019.00	89.31	359.59	10407.97	9649.35	9643.54	334.78	0.29	450717.71	738578.47	N 32 14 14.98	W 103 41 43.45
	20113.00	89.69	359.96	10408.79	9743.27	9737.53	334.41	0.56	450811.70	738578.10	N 32 14 15.89	W 103 41 43.45
	20302.00	89.62	359.89	10409.93	9932.14	9926.53	334.16	0.05	451000.69	738577.85	N 32 14 17.76	W 103 41 43.44
	20397.00	89.42	359.49	10410.73	10027.06	10021.52	333.64	0.47	451095.68	738577.34	N 32 14 18.70	W 103 41 43.44
Final MWD	20414.00	89.24	358.62	10410.93	10044.04	10038.52	333.36	5.23	451112.67	738577.06	N 32 14 18.87	W 103 41 43.44
Survey												
Proj. to Bit	20454.00	89.24	358.62	10411.46	10083.97	10078.51	332.40	0.00	451152.66	738576.09	N 32 14 19.26	W 103 41 43.45

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	26.500	1/98.425	30.000	30.000 NAL_NSG+MSHOT-Depth Only	Original Borehole / Oxy Mesa Verde BS Unit 6 Gyro+MWD 0-20,454'
	1	26.500	26.500	Act Strs	30.000	30.000 NAL_NSG+MSHOT-Depth Only	Original Borehole / Oxy Mesa Verde BS Unit 6 Gyro+MWD 0-20,454'
	1	26.500	9957.200	Act Strs	30.000	30.000 NAL_NSG+MSHOT	Original Borehole / Oxy Mesa Verde BS Unit 6 Gyro+MWD 0-9957.200'
	1	9957.200	20454.000	Act Strs	30.000	30.000 NAL_MWD_PLUS_0.5_DEG	Original Borehole / Oxy Mesa Verde BS Unit 6 Gyro+MWD 0-20454.000'

OXY USA Inc.
MESA VERDE BS UNIT 6H
API No. 30-025-44042

