

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

May 30, 2018

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

**NM OIL CONSERVATION
ARTESIA DISTRICT**

AUG 03 2018

RECEIVED

Re:

12, 24S, 30E, Eddy NM
N 32.22619 W -103.82847

CLIENT: OXY USA Inc.
WELL: Nimitz MDP1 12 Federal Com 7H
FIELD: Cotton Draw Bone Spring

RIG: H&P 656
COUNTY: Eddy
API NO: 30-015-44529
JOB NO: 18MLD2961

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>
Robert Hargrave FE	Nimitz MDP1 12 Federal Com 7H Original Hole	9886.00 Ft to 19969.00 Ft	May 1, 2018 to May 9, 2018	TelePacer SlimPulse

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

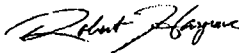
Mike Stephens
Field Service Manager

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:
12, 24S, 30E, Eddy NM
N 32.22619 W -103.82847

I, Robert Hargrave certify that: I am employed by Drilling & Measurements, a division of Schlumberger Technology Corporation; that I did on the day(s) of May 01, 2018 through May 09, 2018, conduct or supervise the taking of the TelePacer & SlimPulse surveys from a depth of 9886.00 feet to a depth of 19969.00 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 Nimitz MDP1 12 Federal Com 7H Well (Original Hole) API No. 30-015-44529 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 
Robert Hargrave
FE

Subscribed and Sworn to before me this 30th day of May (month) 2018 (yr)

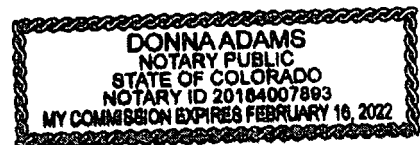
My Commission expires:

2-16-2022

D. Adams
Notary Public

(signature)

Adams County Colorado
(County State)



Oxy Nimitz MDP1 12 Federal Com 7H Gyro+MWD 0-20,009' Survey Geodetic Report (Def Survey)



Report Date: May 09, 2018 - 09:50 AM
Client: OXY
Field: NM Eddy County (NAD 83)
Structure / Slot: Oxy Nimitz MDP1 12 Federal Com 7H / Oxy Nimitz MDP1 12 Federal Com 7H
Well: Oxy Nimitz MDP1 12 Federal Com 7H
Borehole: Original Borehole
UWI / APB: Unknown / 30-015-44529
Survey Name: Oxy Nimitz MDP1 12 Federal Com 7H Gyro+MWD 0-20,009'
Survey Date: April 24, 2018
Tort / AHD / DDI / ERD Ratio: 199.646 * / 10941.239 R / 6.639 / 1.084
Coordinate Reference System: NAD83 New Mexico State Plane, Eastern Zone, US Feet
Location Lat / Long: N 32° 13' 34.26965", W 103° 49' 42.45983"
Location Grid N/E Y/X: N 446387.060 RUS, E 697453.900 RUS
CRS Grid Convergence Angle: 0.2692 *
Grid Scale Factor: 0.999937
Version / Patch: 2.10.720.0

Survey / DLS Computations:

Vertical Section Azimuth: 357.470 * (Grid North)
Vertical Section Origin: 0.000 R, 0.000 R

TVD Reference Datum:

TVD Reference Elevation: 3552.400 R above MSL
Seabed / Ground Elevation: 3523.900 R above MSL
Magnetic Declination: 6.921 *
Total Gravity Field Strength: 998.4284mgal (9.80665 Based)
Gravity Model: GARM
Total Magnetic Field Strength: 48024.740 nT

Declination Date:

April 24, 2018

Magnetic Dip Angle:

59.978 *

North Reference:

Grid North

Grid Convergence Used:

0.2692 *

Local Coord Referenced To:

Well Head

Comments	MD	Incl	Azim Grid	TVD	VSEC	NS	EW	DLS	Northing	Easting	Latitude	Longitude
RKB	SHL								(RUS)	(RUS)	(N/S ° ° '")	(E/W ° ° '")
	26.50	0.00	0.00	0.00	0.00	0.00	0.00	N/A	446387.06	697453.90	N 32° 13' 34.27" W 103° 49' 42.50"	
	34.00	0.21	216.16	26.50	-0.01	0.00	-0.01	2.80	446387.06	697453.89	N 32° 13' 34.27" W 103° 49' 42.50"	
	128.00	0.17	206.21	34.00	-0.27	-0.01	-0.01	0.06	446387.05	697453.88	N 32° 13' 34.27" W 103° 49' 42.50"	
	222.00	0.15	166.06	128.00	-0.51	-0.28	-0.20	0.12	446386.78	697453.70	N 32° 13' 34.26" W 103° 49' 42.50"	
	316.00	0.11	166.06	222.00	-0.70	-0.71	-0.23	0.12	446386.54	697453.67	N 32° 13' 34.26" W 103° 49' 42.50"	
	410.00	0.12	328.36	316.00	-0.69	-0.70	-0.23	0.20	446386.35	697453.67	N 32° 13' 34.26" W 103° 49' 42.50"	
	504.00	0.35	357.68	410.00	-0.31	-0.33	-0.34	0.27	446386.36	697453.57	N 32° 13' 34.26" W 103° 49' 42.50"	
	598.00	0.36	13.36	504.00	0.26	0.24	-0.34	0.10	446386.73	697453.50	N 32° 13' 34.27" W 103° 49' 42.50"	
	692.00	0.17	6.18	598.00	0.68	0.67	-0.26	0.06	446387.30	697453.56	N 32° 13' 34.27" W 103° 49' 42.50"	
	786.00	0.13	23.71	692.00	0.91	0.91	-0.20	0.05	446387.73	697453.64	N 32° 13' 34.28" W 103° 49' 42.50"	
	880.00	0.15	7.57	786.00	1.13	1.13	-0.14	0.06	446388.19	697453.70	N 32° 13' 34.28" W 103° 49' 42.50"	
	952.00	0.18	352.72	880.00	1.34	1.33	-0.14	0.07	446388.39	697453.78	N 32° 13' 34.28" W 103° 49' 42.50"	
	1046.00	0.16	16.32	952.00	1.81	1.83	-0.12	0.08	446388.66	697453.86	N 32° 13' 34.29" W 103° 49' 42.50"	
	1140.00	0.10	23.56	1046.00	1.81	1.81	-0.05	0.01	446388.86	697453.85	N 32° 13' 34.29" W 103° 49' 42.50"	
	1235.00	0.13	17.03	1140.00	1.98	1.98	0.08	0.03	446389.04	697453.91	N 32° 13' 34.29" W 103° 49' 42.50"	
	1329.00	0.13	22.79	1235.00	2.18	2.18	0.13	0.05	446389.24	697454.03	N 32° 13' 34.29" W 103° 49' 42.50"	
	1424.00	0.14	3.55	1329.00	2.39	2.40	0.13	0.01	446389.46	697454.05	N 32° 13' 34.30" W 103° 49' 42.50"	
	1518.00	0.15	5.46	1424.00	2.63	2.64	0.15	0.01	446389.70	697454.09	N 32° 13' 34.30" W 103° 49' 42.50"	
	1612.00	0.16	9.19	1518.00	2.88	2.89	0.18	0.02	446389.95	697454.19	N 32° 13' 34.30" W 103° 49' 42.50"	
	1707.00	0.15	40.48	1612.00	3.10	3.11	0.29	0.09	446390.17	697454.31	N 32° 13' 34.30" W 103° 49' 42.50"	
	1801.00	0.15	20.18	1707.00	3.30	3.32	0.41	0.06	446390.38	697454.42	N 32° 13' 34.30" W 103° 49' 42.50"	
	1895.00	0.16	31.86	1801.00	3.52	3.55	0.82	0.04	446390.61	697454.52	N 32° 13' 34.30" W 103° 49' 42.50"	
	1986.00	0.18	11.13	1895.00	3.78	3.81	0.73	0.06	446390.87	697454.57	N 32° 13' 34.31" W 103° 49' 42.50"	
	2080.00	0.14	11.95	1986.00	4.02	4.05	0.67	0.02	446391.11	697454.61	N 32° 13' 34.31" W 103° 49' 42.50"	
	2184.00	0.15	6.89	2080.00	4.25	4.28	0.71	0.01	446391.34	697454.63	N 32° 13' 34.31" W 103° 49' 42.50"	
	2279.00	0.15	2.63	2184.00	4.49	4.74	0.75	0.02	446391.59	697454.65	N 32° 13' 34.31" W 103° 49' 42.50"	
	2373.00	0.16	14.47	2279.00	4.74	5.03	0.81	0.02	446391.84	697454.71	N 32° 13' 34.32" W 103° 49' 42.50"	
	2467.00	0.13	7.74	2373.00	4.98	5.03	0.81	0.02	446392.08	697454.75	N 32° 13' 34.32" W 103° 49' 42.50"	
	2562.00	0.15	6.16	2467.00	5.22	5.26	0.85	0.04	446392.32	697454.78	N 32° 13' 34.32" W 103° 49' 42.50"	
	2656.00	0.15	10.54	2562.00	5.44	5.49	0.88	0.02	446392.55	697454.80	N 32° 13' 34.32" W 103° 49' 42.50"	
	2751.00	0.16	341.79	2656.00	5.68	5.73	0.92	0.02	446392.79	697454.82	N 32° 13' 34.32" W 103° 49' 42.50"	
	2845.00	0.16	12.03	2751.00	5.92	6.19	0.86	0.09	446393.02	697454.86	N 32° 13' 34.33" W 103° 49' 42.50"	
	2939.00	0.13	0.56	2845.00	6.15	6.41	0.90	0.03	446393.25	697454.89	N 32° 13' 34.33" W 103° 49' 42.50"	
	3034.00	0.14	340.56	2939.00	6.37	6.65	0.86	0.05	446393.47	697454.90	N 32° 13' 34.33" W 103° 49' 42.50"	
	3128.00	0.15	352.94	3034.00	6.60	6.85	0.79	0.04	446393.69	697454.92	N 32° 13' 34.34" W 103° 49' 42.50"	
	3222.00	0.18	356.76	3128.00	6.86	6.90	0.79	0.04	446393.90	697454.93	N 32° 13' 34.34" W 103° 49' 42.50"	
	3317.00	0.19	356.76	3222.00	7.17	7.21	0.73	0.02	446394.11	697454.94	N 32° 13' 34.34" W 103° 49' 42.50"	
	3411.00	0.18	349.31	3317.00	7.47	7.79	0.70	0.02	446394.33	697454.95	N 32° 13' 34.34" W 103° 49' 42.50"	
	3506.00	0.02	316.00	3411.00	7.75	7.79	0.67	0.13	446394.55	697454.97	N 32° 13' 34.35" W 103° 49' 42.50"	
	3600.00	0.16	349.31	3506.00	8.09	7.83	0.55	0.14	446394.77	697454.98	N 32° 13' 34.35" W 103° 49' 42.50"	
	3694.00	0.13	228.15	3600.00	8.30	7.65	0.38	0.09	446394.99	697455.00	N 32° 13' 34.35" W 103° 49' 42.50"	
	3789.00	0.20	211.44	3694.00	8.51	7.39	0.20	0.05	446395.21	697455.02	N 32° 13' 34.34" W 103° 49' 42.50"	
	3883.00	0.18	223.35	3789.00	8.71	7.17	-0.01	0.02	446395.43	697455.04	N 32° 13' 34.34" W 103° 49' 42.50"	
	3977.00	0.20	220.05	3883.00	8.91	6.79	-0.55	0.45	446395.65	697455.06	N 32° 13' 34.34" W 103° 49' 42.50"	
	4072.00	0.87	240.12	3977.00	9.11	6.17	-1.70	0.38	446395.87	697455.08	N 32° 13' 34.33" W 103° 49' 42.50"	
	4167.00	0.91	242.35	4072.00	9.31	5.52	-3.70	0.77	446396.09	697455.10	N 32° 13' 34.32" W 103° 49' 42.50"	
	4261.00	1.61	257.79	4167.00	9.51	4.82	-6.83	0.73	446396.31	697455.12	N 32° 13' 34.32" W 103° 49' 42.50"	
	4355.00	2.30	257.02	4261.00	9.71	4.29	-10.96	0.57	446396.53	697455.14	N 32° 13' 34.31" W 103° 49' 42.50"	
	4450.00	2.84	255.69	4355.00	9.91	3.81	-16.17	1.03	446396.75	697455.16	N 32° 13' 34.31" W 103° 49' 42.50"	
	4544.00	3.78	251.85	4450.00	10.11	3.29	-22.37	0.83	446396.97	697455.18	N 32° 13' 34.29" W 103° 49' 42.50"	
	4638.00	4.34	243.98	4544.00	10.31	2.79	-28.24	0.80	446397.19	697455.20	N 32° 13' 34.27" W 103° 49' 42.50"	
	4732.00	4.93	238.18	4638.00	10.51	2.29	-34.85	0.75	446397.41	697455.22	N 32° 13' 34.26" W 103° 49' 42.50"	
	4826.00	5.66	235.08	4732.00	10.71	1.79	-43.85	0.63	446397.63	697455.24	N 32° 13' 34.25" W 103° 49' 42.50"	
	4920.00	6.23	231.04	4826.00	10.91	1.29	-51.70	0.51	446397.85	697455.26	N 32° 13' 34.24" W 103° 49' 42.50"	
	5016.00	6.80	227.39	4920.00	11.11	0.79	-59.76	0.41	446398.07	697455.28	N 32° 13' 34.23" W 103° 49' 42.50"	
	5110.00	7.20	225.26	5016.00	11.31	0.29	-68.04	0.35	446398.29	697455.30	N 32° 13' 34.21" W 103° 49' 42.50"	
	5204.00	7.70	222.68	5110.00	11.51	-0.21	-76.58	0.25	446398.51	697455.32	N 32° 13' 34.20" W 103° 49' 42.50"	
	5298.00	8.24	220.32	5204.00	11.71	-0.71	-84.98	0.25	446398.73	697455.34	N 32° 13' 34.19" W 103° 49' 42.50"	
	5393.00	8.54	218.22	5298.00	11.91	-1.21	-93.44	0.18	446398.95	697455.36	N 32° 13' 34.18" W 103° 49' 42.50"	
	5487.00	8.96	216.39	5393.00	12.11	-1.71	-102.33	0.12	446399.17	697455.38	N 32° 13' 34.17" W 103° 49' 42.50"	
	5582.00	9.24	214.16	5487.00	12.31	-2.21	-111.33	0.08	446399.39	697455.40	N 32° 13' 34.16" W 103° 49' 42.50"	
	5676.00	9.68	211.04	5582.00	12.51	-2.71	-120.45	0.05	446399.61	697455.42	N 32° 13' 34.15" W 103° 49' 42.50"	
	5770.00	10.03	206.06	5676.00	12.71	-3.21	-129.03	0.02	446399.83	697455.44	N 32° 13' 34.14" W 103° 49' 42.50"	
	5865.00	9.22	205.23	5770.00	12.91	-3.71	-138.20	0.01	446399.95	697455.46	N 32° 13' 34.13" W 103° 49' 42.50"	
	5959.00	8.30	205.23	5865.00	13.11	-4.21	-147.56	0.01	446400.17	697455.48	N 32° 13' 34.12" W 103° 49' 42.50"	
	6054.00	7.73	196.39	5959.00	13.31	-4.71	-156.40	0.01	446400.39	697455.50	N 32° 13' 34.11" W 103° 49' 42.50"	
	6148.00	7.43	191.02	6054.00	13.51	-5.21	-165.40	0.01	446400.61	697455.52	N 32° 13' 34.10" W 103° 49' 42.50"	
	6242.00	7.62	185.08	6148.00	13.71	-5.71	-174.56	0.01	446400.83	697455.54	N 32° 13' 34.09" W 103° 49' 42.50"	
	6337.00	7.50	177.49	6242.00	13.91	-6.21	-183.68	0.01	446401.05	697455.56	N 32° 13' 34.08" W 103° 49' 42.50"	
	6431.00	7.51	178.97	6337.00	14.11	-6.71	-192.84	0.01	446401.27	697455.58	N 32° 13' 34.07" W 103° 49' 42.50"	
	6526.00	7.50	179.53	6431.00	14.31	-7.21	-202.00	0.01	446401.49	697455.60	N 32° 13' 34.06" W 103° 49' 42.50"	
	6620.00	7.46	179.53	6526.00	14.51	-7.71	-211.16	0.01	446401.71	697455.62	N 32° 13' 34.05" W 103° 49' 42.50"	
	6714.00	7.46	181.99	6620.00	14.71	-8.21	-220.32	0.01	446401.93	697455.64	N 32° 13' 34.04" W 103° 49' 42.50"	
	6809.00	7.46	184.44	6714.00	14.91	-8.71	-229.58	0.01	446402.15	697455.66	N 32° 13' 34.03" W 103° 49' 42.50"	
	6903.00	7.46	186.93	6809.00	15.11	-9.21	-238.84	0.01	446402.37	697455.68	N 32° 13' 34.02" W 103° 49' 42.50"	

Comments	MD	Incl	Adm Grd	TWD	VSEC	NS	EW	DLS	Nothing	Easting	Latitude	Longitude
	(N)	(°)		(N)	(N)	(N)	(N)		(N/S)	(N/S)	(N/S+°)	(E/W+°)
	7186.00	7.06	253.36	7165.64	-230.98	-239.45	-186.44	0.56	446141.63	697267.47	N 32 13 51.97	W 103 49 44.68
	7218.00	8.22	259.31	7239.87	-233.63	-242.61	-198.17	0.72	446144.46	697265.75	N 32 13 51.88	W 103 49 44.82
	7219.00	8.12	258.21	7259.21	-235.80	-241.86	-210.83	0.76	446141.73	697269.08	N 32 13 51.85	W 103 49 44.97
	7264.00	8.13	258.61	7344.06	-242.61	-254.92	-227.03	0.20	446136.10	697229.99	N 32 13 51.83	W 103 49 45.12
	7264.00	8.07	258.61	7344.06	-242.61	-254.92	-227.03	0.06	446136.16	697264.00	N 32 13 51.74	W 103 49 45.42
	72732.00	8.09	256.47	7282.18	-247.80	-250.33	-262.78	0.03	446130.02	697204.00	N 32 13 51.71	W 103 49 45.57
	7647.00	8.05	254.11	7503.20	-254.12	-263.62	-300.80	0.11	446126.75	697181.16	N 32 13 51.71	W 103 49 45.72
	8035.00	8.02	254.83	8006.42	-254.12	-263.62	-300.80	0.11	446126.75	697181.16	N 32 13 51.71	W 103 49 45.72
	8234.00	7.37	233.44	8100.58	-259.71	-273.78	-319.94	2.18	446108.46	697142.12	N 32 13 51.50	W 103 49 46.74
	8319.00	5.12	210.74	8328.10	-274.95	-286.00	-328.46	1.41	446091.07	697128.40	N 32 13 51.36	W 103 49 46.76
	8431.00	3.83	206.91	8382.10	-286.17	-296.00	-331.80	0.64	446085.86	697119.48	N 32 13 51.26	W 103 49 46.78
	8507.00	3.27	210.44	8475.82	-286.17	-305.44	-334.34	0.51	446081.97	697112.35	N 32 13 51.27	W 103 49 46.86
	8602.00	2.79	210.44	8592.78	-289.39	-305.44	-334.34	0.51	446081.97	697112.35	N 32 13 51.27	W 103 49 46.86
	8696.00	1.72	211.19	8656.71	-289.39	-310.62	-336.23	1.14	446078.46	697116.75	N 32 13 51.21	W 103 49 46.44
	8791.00	0.83	195.33	8759.68	-285.40	-310.59	-337.18	0.91	446072.66	697116.75	N 32 13 51.20	W 103 49 46.45
	8885.00	0.45	254.11	8853.66	-286.21	-311.42	-337.78	0.65	446072.66	697116.75	N 32 13 51.20	W 103 49 46.45
	8979.00	0.24	97.50	8947.68	-286.21	-311.42	-337.78	0.22	446072.66	697116.75	N 32 13 51.20	W 103 49 46.45
	9074.00	0.44	100.13	9042.68	-286.21	-311.42	-337.78	0.21	446072.66	697116.75	N 32 13 51.20	W 103 49 46.45
	9169.00	0.28	125.54	9136.67	-286.21	-311.42	-337.78	0.24	446072.66	697116.75	N 32 13 51.20	W 103 49 46.45
	9263.00	0.32	189.56	9231.67	-287.07	-312.24	-336.65	0.34	446072.66	697116.75	N 32 13 51.20	W 103 49 46.45
	9357.00	2.03	1.55	9325.66	-287.07	-312.24	-336.65	2.50	446072.66	697116.75	N 32 13 51.20	W 103 49 46.45
	9451.00	14.39	334.94	9418.53	-283.17	-288.54	-341.57	13.41	446088.54	697097.98	N 32 13 51.33	W 103 49 46.88
	9546.00	20.41	325.61	9505.16	-283.17	-278.15	-345.94	6.59	446144.60	697078.42	N 32 13 51.89	W 103 49 46.88
	9640.00	26.31	330.42	9576.96	-282.66	-242.47	-375.50	4.52	446827.45	697033.16	N 32 13 56.71	W 103 49 47.38
	9735.00	35.42	342.67	9679.96	-180.15	-187.75	-394.15	11.61	446188.33	697035.69	N 32 13 56.71	W 103 49 47.38
	9826.00	41.82	351.35	9778.94	-122.55	-140.66	-407.00	8.91	446246.41	697036.96	N 32 13 56.71	W 103 49 47.38
	9898.00	50.31	355.16	9878.94	-81.66	-98.94	-411.72	15.65	446281.13	697042.50	N 32 13 56.71	W 103 49 47.38
	9981.00	60.21	359.54	9944.03	-3.73	-22.07	-415.15	11.08	446356.99	697028.84	N 32 13 54.92	W 103 49 47.34
	10075.00	70.90	359.21	9982.87	81.89	63.37	-416.08	11.38	446356.99	697028.84	N 32 13 54.92	W 103 49 47.34
	10169.00	77.09	359.33	9980.77	171.97	153.66	-418.04	6.65	446350.71	697035.69	N 32 13 56.71	W 103 49 47.38
	10264.00	82.82	359.33	9982.34	285.46	247.13	-420.76	6.03	446340.17	697033.16	N 32 13 56.71	W 103 49 47.38
	10359.00	85.45	359.33	9982.34	285.46	247.13	-420.76	4.52	446827.45	697035.69	N 32 13 56.71	W 103 49 47.38
	10453.00	86.62	1.68	9933.86	453.48	435.44	-418.23	3.35	446827.45	697035.69	N 32 13 56.71	W 103 49 47.38
	10464.00	89.17	1.26	9940.46	453.48	435.44	-418.23	1.80	446833.45	697036.96	N 32 13 56.71	W 103 49 47.38
	10570.00	89.45	2.28	9941.46	570.15	552.38	-414.87	1.23	446833.45	697036.96	N 32 13 56.71	W 103 49 47.38
	10655.00	89.28	4.02	9942.54	664.68	647.22	-409.65	1.64	447104.24	697040.96	N 32 13 40.69	W 103 49 47.23
	10760.00	89.17	4.05	9943.83	759.05	741.98	-402.97	0.12	447128.99	697050.96	N 32 13 42.96	W 103 49 47.15
	10846.00	89.35	3.75	9944.28	852.45	835.75	-396.57	0.37	447222.72	697051.06	N 32 13 43.96	W 103 49 47.07
	10945.00	89.16	0.77	9944.28	946.10	929.66	-392.87	3.18	447316.66	697052.28	N 32 13 44.43	W 103 49 47.02
	11043.00	89.38	0.70	9944.28	1040.94	1029.66	-391.65	0.26	447411.64	697052.28	N 32 13 44.43	W 103 49 47.02
	11137.00	89.21	0.07	9944.67	1134.81	1118.64	-391.62	0.69	447505.61	697052.28	N 32 13 44.43	W 103 49 47.02
	11231.00	88.97	359.85	9950.16	1232.61	1212.62	-391.62	0.35	447599.61	697052.28	N 32 13 44.43	W 103 49 47.02
	11328.00	88.07	359.85	9951.78	1328.61	1307.61	-391.33	0.11	447599.61	697052.28	N 32 13 44.43	W 103 49 47.02
	11420.00	89.14	0.33	9953.25	1417.50	1401.60	-391.18	0.52	447599.61	697052.28	N 32 13 44.43	W 103 49 47.02
	11514.00	89.21	359.83	9954.61	1511.39	1493.59	-390.97	0.43	447599.61	697052.28	N 32 13 44.43	W 103 49 47.02
	11609.00	88.48	359.74	9955.97	1608.30	1590.58	-391.24	0.21	447599.61	697052.28	N 32 13 44.43	W 103 49 47.02
	11703.00	89.48	0.03	9957.11	1700.21	1684.57	-391.43	0.48	447599.61	697052.28	N 32 13 44.43	W 103 49 47.02
	11788.00	89.28	359.33	9958.13	1795.13	1779.56	-391.86	0.77	448168.51	697061.96	N 32 13 52.83	W 103 49 46.97
	11862.00	89.35	359.36	9959.26	1889.07	1877.55	-393.04	0.08	448260.49	697059.95	N 32 13 53.78	W 103 49 46.97
	11968.00	89.42	359.49	9960.31	1983.01	1967.54	-393.88	0.16	448344.47	697059.95	N 32 13 53.78	W 103 49 46.97
	12060.00	89.31	359.37	9961.31	2076.95	2061.53	-394.81	0.09	448344.47	697059.95	N 32 13 53.78	W 103 49 46.97
	12160.00	89.24	359.49	9962.31	2265.94	2249.53	-397.26	0.17	448344.47	697059.95	N 32 13 53.78	W 103 49 46.97
	12260.00	89.37	359.49	9963.31	2459.94	2443.53	-400.14	0.36	448344.47	697059.95	N 32 13 53.78	W 103 49 46.97
	12360.00	89.31	359.49	9964.31	2649.94	2633.53	-401.74	0.19	448344.47	697059.95	N 32 13 53.78	W 103 49 46.97
	12460.00	89.37	359.49	9965.31	2839.94	2823.53	-403.20	0.33	448344.47	697059.95	N 32 13 53.78	W 103 49 46.97
	12560.00	89.31	359.49	9966.31	3029.94	3013.53	-404.74	0.19	448344.47	697059.95	N 32 13 53.78	W 103 49 46.97
	12660.00	89.37	359.49	9967.31	3219.94	3203.53	-406.20	0.33	448344.47	697059.95	N 32 13 53.78	W 103 49 46.97
	12760.00	89.31	359.49	9968.31	3409.94	3393.53	-407.74	0.19	448344.47	697059.95	N 32 13 53.78	W 103 49 46.97
	12860.00	89.37	359.49	9969.31	3599.94	3583.53	-409.20	0.33	448344.47	697059.95	N 32 13 53.78	W 103 49 46.97
	12960.00	89.31	359.49	9970.31	3789.94	3773.53	-410.74	0.19	448344.47	697059.95	N 32 13 53.78	W 103 49 46.97
	13060.00	89.37	359.49	9971.31	3979.94	3963.53	-412.20	0.33	448344.47	697059.95	N 32 13 53.78	W 103 49 46.97
	13160.00	89.31	359.49	9972.31	4169.94	4153.53	-413.74	0.19	448344.47	697059.95	N 32 13 53.78	W 103 49 46.97
	13260.00	89.37	359.49	9973.31	4359.94	4343.53	-415.20	0.33	448344.47	697059.95	N 32 13 53.78	W 103 49 46.97
	13360.00	89.31	359.49	9974.31	4549.94	4533.53	-416.74	0.19	448344.47	697059.95	N 32 13 53.78	W 103 49 46.97
	13460.00	89.37	359.49	9975.31	4739.94	4723.53	-418.20	0.33	448344.47	697059.95	N 32 13 53.78	W 103 49 46.97
	13560.00	89.31	359.49	9976.31	4929.94	4913.53	-419.74	0.19	448344.47	697059.95	N 32 13 53.78	W 103 49 46.97
	13660.00	89.37	359.49	9977.31	5119.94	5103.53	-421.20	0.33	448344.47	697059.95	N 32 13 53.78	W 103 49 46.97
	13760.00	89.31	359.49	9978.31	5309.94	5293.53	-422.74	0.19	448344.47	697059.95	N 32 13 53.78	W 103 49 46.97
	13860.00	89.37	359.49	9979.31	5499.94	5483.53	-424.20	0.33	448344.47	697059.95	N 32 13 53.78	W 103 49 46.97
	13960.00	89.31	359.49	9980.31	5689.94	5673.53	-425.74	0.19	448344.47	697059.95	N 32 13 53.78	W 103 49 46.97
	14060.00	89.37	359.49	9981.31	5879.94	5863.53	-427.20	0.33	448344.47	697059.95	N 32 13 53.78	W 103 49 46.97
	14160.00	89.31	359.49	9982.31	6069.94	6053.53	-428.74	0.19	448344.47	697059.95	N 32 13 53.78	W 103 49 46.97
	14260.00	89.37	359.49	9983.31	6259.94	6243.53	-430.20	0.33	448344.47	697059.95	N 32 13 53.78	W 103 49 46.97
	14360.00	89.31	359.49	9984.31	6449.94	6433.53	-431.74	0.19	448344.47	697059.95	N 32 13 53.78	W 103 49 46.97
	14460.00	89.37	359.49	9985.31	6639.94	6623.53	-433.20	0.33	448344.47	697059.95	N 32 13 53.78	W 103 49 46.97
	14560.00	89.31	359.									

Comments	MD	Incl	Azim Grd	TVD	VSEC	NS	EW	DLS	Northng	Eastng	Latitude	Longitude
	(ft)	(°)	(°)	(ft)	(ft)	(ft)	(ft)	(1/100ft)	(ftUS)	(ftUS)	(N/S ° ' '')	(E/W ° ' '')
	17939.00	89.45	359.96	9978.67	7929.84	7918.88	-420.96	0.87	454305.52	697032.96	N 32 14 52.65	W 103 49 46.97
	18033.00	89.66	0.05	9979.40	8023.75	8012.88	-420.96	0.24	454399.52	697032.97	N 32 14 53.58	W 103 49 46.96
	18128.00	90.65	0.05	9979.14	8118.65	8107.87	-420.87	1.04	454494.51	697033.05	N 32 14 54.52	W 103 49 46.96
	18317.00	89.72	359.57	9978.53	8307.49	8298.97	-421.50	0.55	454683.49	697032.43	N 32 14 56.39	W 103 49 46.95
	18412.00	89.42	359.67	9978.25	8402.42	8391.97	-421.13	0.33	454778.48	697031.90	N 32 14 57.33	W 103 49 46.96
	18506.00	90.45	359.69	9978.35	8498.35	8485.96	-422.85	1.10	454872.47	697031.27	N 32 14 58.26	W 103 49 46.96
	18601.00	89.11	359.08	9978.72	8591.29	8580.95	-423.67	1.55	454967.46	697030.25	N 32 14 59.20	W 103 49 46.96
	18695.00	89.48	359.00	9980.88	8685.25	8674.93	-425.25	0.40	455061.43	697028.66	N 32 15 0.13	W 103 49 46.96
	18790.00	89.55	359.14	9981.68	8780.21	8769.92	-426.79	0.16	455156.41	697027.14	N 32 15 1.00	W 103 49 46.96
	18884.00	88.80	359.62	9983.03	8874.15	8863.90	-428.61	0.95	455250.38	697025.72	N 32 15 2.84	W 103 49 46.96
	18979.00	88.73	0.07	9985.08	8963.04	8952.86	-428.66	0.46	455345.35	697024.30	N 32 15 3.81	W 103 49 46.96
	19074.00	88.86	0.25	9987.06	9052.92	9042.86	-427.45	0.24	455439.30	697022.87	N 32 15 4.74	W 103 49 46.96
	19168.00	88.93	0.17	9988.89	9141.79	9131.82	-427.45	0.10	455534.28	697021.45	N 32 15 5.74	W 103 49 46.96
	19262.00	88.00	359.80	9990.59	9231.56	9221.60	-427.45	0.33	455628.26	697020.02	N 32 15 6.68	W 103 49 46.96
	19357.00	88.78	0.28	9992.44	9320.57	9310.60	-427.45	0.56	455723.26	697018.59	N 32 15 7.61	W 103 49 46.96
	19451.00	89.00	0.09	9994.28	9410.45	9400.45	-427.45	0.33	455818.21	697017.16	N 32 15 8.55	W 103 49 46.96
	19546.00	88.97	359.83	9995.96	9500.34	9490.37	-427.32	0.38	455913.21	697015.73	N 32 15 9.49	W 103 49 46.95
	19641.00	88.93	359.99	9997.71	9590.24	9580.26	-427.43	0.17	456008.19	697014.30	N 32 15 10.43	W 103 49 46.95
	19736.00	88.93	359.86	9999.46	9680.14	9670.14	-427.43	0.12	456103.17	697012.87	N 32 15 11.37	W 103 49 46.94
	19831.00	88.87	0.01	10003.11	9770.02	9760.02	-427.61	0.08	456201.12	697011.44	N 32 15 12.30	W 103 49 46.94
Final MWD	19926.00	89.07	359.98	10003.90	9859.87	9849.70	-427.62	0.08	456303.11	697009.31	N 32 15 13.13	W 103 49 46.93
Survey	20020.00	89.07	359.98	10004.55	9949.83	9939.83	-427.63	0.00	456405.10	697007.30	N 32 15 13.13	W 103 49 46.93
Proj. to Bit												

Survey Type: Def Survey

Survey Error Model: ISWISA Rev 0 ~ 3-D 95.000% Confidence 2.7955 sigma

Survey Program:

Description	Part	MD From	MD To	EOU Freq	Hole Size	Casing Diameter	Survey Tool Type	Borehole / Survey
	1	0.000	26.500	1/98.425	30.000	NAL_NSG+MSHOT-Depth Only	NAL_NSG+MSHOT-Depth Only	Original Borehole / Oxy Nimitz MDP1 12 Federal Com 7H
	1	26.500	26.500	Act Strs	30.000	NAL_NSG+MSHOT-Depth Only	NAL_NSG+MSHOT-Depth Only	Gyro MWD 0-20,009' Original Borehole / Oxy Nimitz MDP1 12 Federal Com 7H
	1	26.500	9829.000	Act Strs	30.000	NAL_NSG+MSHOT	NAL_NSG+MSHOT	Gyro MWD 0-20,009' Original Borehole / Oxy Nimitz MDP1 12 Federal Com 7H
	1	9829.000	20009.000	Act Strs	30.000	NAL_MWD_PLUS_0.5_DEG	NAL_MWD_PLUS_0.5_DEG	Original Borehole / Oxy Nimitz MDP1 12 Federal Com 7H