

Oilfield Services, Central U.S. Land
Schlumberger Drilling and Measurements
Drilling Group
Geo Market Area: South West Texas Basin
7220 W I-II 20
Midland, Texas 79706
Phone : (432) 742-5400 (Main)
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**NM OIL CONSERVATION
ARTESIA DISTRICT**

SEP 27 2018

RECEIVED

Schlumberger

30-015-44580

Well Reference:
13, 24S, 30E, EDDY NM
N 32.22392 W 103.83723

I, RYLAND MATTHEWS certify that; I am employed by Drilling & Measurements, a division of Schlumberger Technology Corporation; that I did on the day(s) of April 29, 2018 through May 27, 2018, conduct or supervise the taking of the TelePacer & SlimPulse surveys from a depth of 9866.00 feet to a depth of 20384.00 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 INCORPORATED for the Nimitz MDPI 12 Federal 211 Well (Original Hole) API No. 30-015-44580 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
RYLAND MATTHEWS
FE

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

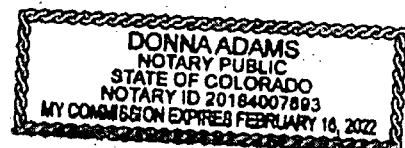
My Commission expires:

2-16-2018

D. Adams
Notary Public

(signature)

Adams County Colorado
(County State)



Schlumberger

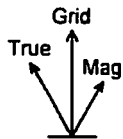
OXY



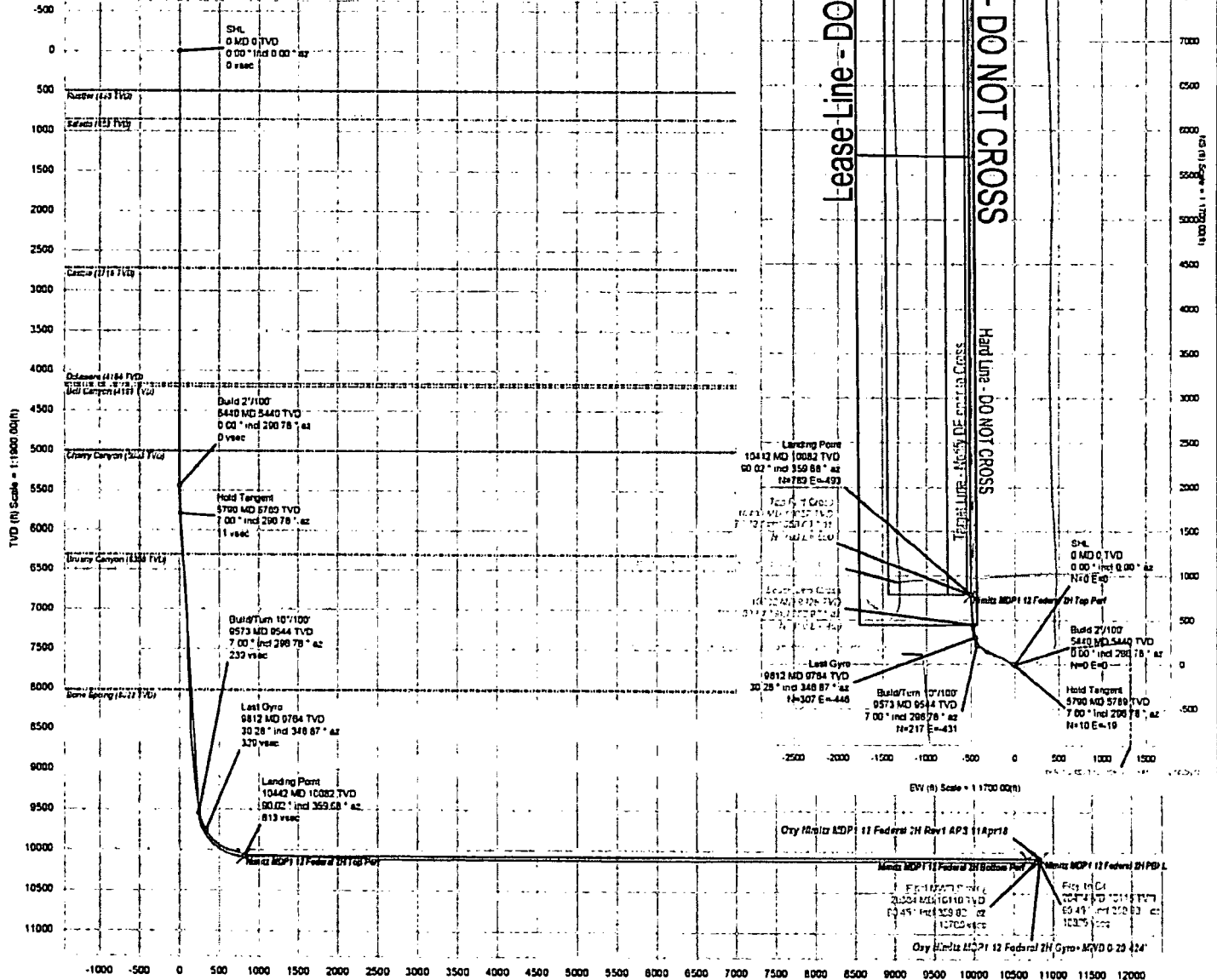
Borehole: Original Borehole Well: Oxy Nimitz MDP1 12 Federal 2H Field: NM Eddy County (NAD 83) Structure: Oxy Nimitz MDP1 12 Federal 2H

Gravity & Magnetic Parameters: Model: MAGNET 2016 Op: 10.077 Date: 15-May-2016 Surface Location: NAD83 New Mexico State Plane, Eastern Zone, US Feet Miscellaneours: Dry Nimitz MDP1 12 TVD Ref: NAD 83 117118.10 above HSL
MagDec: 6.921° PS: 48916.822m Gravity PS: PSI 43.1mgs (1.0245 Gauss) Lat: N 32 13 28.18 Northing: 44549.280m Easting: 694789.800m Scale Fact: 0.9998395 East: Federal 2H Plan: Dry Nimitz MDP1 12 Federal 2H Rev1 APS 11Apr18

Oxy Nimitz MDP1 12 Federal 2H Rev1 APS 11Apr18
Dry Nimitz MDP1 12 Federal 2H Gyro-MWD 0-20.424'



Grid North
Tot Corr (M->G 6.656°)
Mag Dec (6.921°)
Grid Conv (0.265°)





Schlumberger

Oxy Nimitz MDP1 12 Federal 2H Gyro+MWD 0-20.424' Survey Geodetic Report (Del Survey)

Report Date: May 30, 2018 - 09:25 AM
Client: OXY
Field: FM Eddy County (MD 83)
Structure / Shot: Oxy Nimitz MDP1 12 Federal 2H / Oxy Nimitz MDP1 12 Federal 2H
Well: Oxy Nimitz MDP1 12 Federal 2H
Borehole: Original Borehole
Survey Name: Unknown / 50-015-44580
Survey Date: May 15, 2018
Ten / ABD / DOI / ERD Ratio: 190.667 / 1.1095 54 ft / 6.620 / 1.095
Coordinate Reference System: NAD83 New Mexico State Plane, Eastern Zone, US Foot
Location Lat / Long: N 32° 13' 20.10304", W 103° 50' 14.01251"
Location Grid NE V/L: N 445549 240 NUS, E 694750 880 NUS
CRS Grid Convergence Angle: 0.2645°
CRS Scale Factor: 0.9992605
Version / Patch: 2.10.720.0

Survey / DLS Computation: Minimum Curvature / Lennu
Vertical Section Arimuth: 357.101° (Grid North)
Vertical Section Origin: 0.000 ft, 0.000 ft
TVD Reference Datum: RKB-26.5'
TVD Reference Elevation: 3518.100 ft above NSL
Saddle / Ground Elevation: 2461.600 ft above NSL
Magnetic Declination: 6.921°
Total Gravity Field Strength: 998.4310mg (9.80665 Based)
Gravity Model: GARM
Total Magnetic Field Strength: 48018.832 nT
Magnetic Dip Angle: 59.975°
Declination Date: May 15, 2018
Magnetic Declination Model: ICDGM 2018
North Reference: Grid North
Grid Convergence Used: 0.2645°
Total Corr Mag North-Grid North: 6.6504°
Local Coord Referenced To: Well Head

Comments	MD	Incl	Azim CHD	TVD	VSEC	NS	EW	DLS	Merging	Easting	Latitude	Longitude
RKB	(ft)	(°)	(°)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(NUS+1)	(EW+1)
SHL	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A	445549.24	694750.06	N 32° 13' 26.10" W 103° 50' 14.01"	
	26.50	0.00	0.00	26.50	0.00	0.00	0.00	0.00	445549.24	694750.06	N 32° 13' 26.10" W 103° 50' 14.01"	
	80.41	0.23	225.13	60.41	-0.07	-0.08	-0.08	0.43	445549.16	694750.08	N 32° 13' 26.10" W 103° 50' 14.01"	
	172.79	0.43	228.22	172.79	-0.41	-0.43	-0.47	0.22	445549.16	694750.29	N 32° 13' 26.10" W 103° 50' 14.02"	
	285.34	0.50	233.11	265.34	-0.85	-0.90	-1.06	0.08	445548.81	694749.80	N 32° 13' 26.08" W 103° 50' 14.03"	
	357.77	0.36	245.04	357.70	-1.18	-1.27	-1.64	0.18	445547.97	694749.82	N 32° 13' 26.08" W 103° 50' 14.03"	
	450.32	0.43	267.22	450.31	-1.20	-1.31	-2.25	0.18	445547.83	694748.61	N 32° 13' 26.08" W 103° 50' 14.04"	
	542.80	0.55	274.63	542.78	-1.20	-1.37	-4.07	0.40	445547.87	694747.58	N 32° 13' 26.08" W 103° 50' 14.05"	
	635.32	0.13	274.63	635.30	-1.12	-1.33	-4.78	0.78	445547.91	694746.79	N 32° 13' 26.08" W 103° 50' 14.06"	
	727.88	0.02	261.33	727.86	-1.15	-1.38	-4.17	0.14	445547.86	694746.69	N 32° 13' 26.08" W 103° 50' 14.06"	
	820.40	0.04	205.06	820.38	-1.19	-1.41	-4.19	0.03	445547.83	694746.67	N 32° 13' 26.08" W 103° 50' 14.06"	
	914.92	0.02	68.30	914.90	-1.22	-1.43	-4.19	0.06	445547.81	694746.67	N 32° 13' 26.08" W 103° 50' 14.06"	
	1009.42	0.02	60.35	1009.42	-1.20	-1.42	-4.16	0.00	445547.82	694746.67	N 32° 13' 26.08" W 103° 50' 14.06"	
	1104.03	0.02	25.65	1104.01	-1.18	-1.39	-4.14	0.01	445547.85	694746.72	N 32° 13' 26.08" W 103° 50' 14.06"	
	1198.70	0.04	23.77	1198.68	-1.14	-1.35	-4.12	0.02	445547.89	694746.74	N 32° 13' 26.08" W 103° 50' 14.06"	
	1293.46	0.04	21.50	1293.46	-1.08	-1.29	-4.09	0.00	445547.95	694746.77	N 32° 13' 26.08" W 103° 50' 14.06"	
	1388.01	0.03	32.43	1387.99	-1.03	-1.23	-4.06	0.01	445548.01	694746.80	N 32° 13' 26.08" W 103° 50' 14.06"	
	1482.68	0.06	37.26	1482.66	-0.97	-1.07	-3.86	0.03	445548.04	694746.84	N 32° 13' 26.08" W 103° 50' 14.06"	
	1577.47	0.05	41.37	1577.45	-0.90	-1.10	-3.68	0.01	445548.17	694746.84	N 32° 13' 26.08" W 103° 50' 14.06"	
	1672.11	0.04	8.13	1672.09	-0.84	-1.04	-3.33	0.03	445548.20	694746.80	N 32° 13' 26.08" W 103° 50' 14.06"	
	1766.89	0.05	17.17	1766.87	-0.77	-0.97	-3.32	0.01	445548.27	694746.83	N 32° 13' 26.08" W 103° 50' 14.06"	
	1861.50	0.03	335.60	1861.58	-0.71	-0.90	-3.31	0.03	445548.34	694746.85	N 32° 13' 26.08" W 103° 50' 14.06"	
	1956.36	0.03	318.97	1956.36	-0.66	-0.86	-3.32	0.02	445548.38	694746.92	N 32° 13' 26.08" W 103° 50' 14.06"	
	2051.09	0.03	187.83	2051.07	-0.67	-0.87	-3.34	0.06	445548.32	694746.91	N 32° 13' 26.08" W 103° 50' 14.06"	
	2145.87	0.03	168.22	2145.85	-0.71	-0.92	-3.35	0.00	445548.34	694746.92	N 32° 13' 26.08" W 103° 50' 14.06"	
	2240.71	0.03	175.34	2240.71	-0.76	-0.97	-3.34	0.01	445548.23	694746.94	N 32° 13' 26.08" W 103° 50' 14.06"	
	2335.35	0.03	162.28	2335.33	-0.81	-1.01	-3.33	0.00	445548.13	694746.93	N 32° 13' 26.08" W 103° 50' 14.06"	
	2429.64	0.03	170.61	2429.62	-0.86	-1.00	-3.32	0.01	445548.08	694746.97	N 32° 13' 26.08" W 103° 50' 14.06"	
	2524.28	0.04	156.77	2524.24	-0.91	-1.11	-3.32	0.02	445548.00	694747.00	N 32° 13' 26.08" W 103° 50' 14.06"	
	2619.09	0.03	138.21	2619.07	-0.96	-1.16	-3.60	0.02	445548.08	694747.00	N 32° 13' 26.08" W 103° 50' 14.06"	
	2713.87	0.03	169.15	2713.85	-1.01	-1.21	-3.60	0.02	445548.00	694747.00	N 32° 13' 26.08" W 103° 50' 14.06"	
	2808.65	0.01	194.60	2808.63	-1.04	-1.24	-3.60	0.02	445548.00	694747.00	N 32° 13' 26.08" W 103° 50' 14.06"	
	2903.42	0.03	187.83	2902.98	-1.07	-1.26	-3.64	0.03	445547.96	694747.02	N 32° 13' 26.08" W 103° 50' 14.06"	
	3008.88	0.01	124.91	3002.98	-1.07	-1.28	-3.64	0.02	445547.96	694747.04	N 32° 13' 26.08" W 103° 50' 14.06"	
	3097.42	0.01	118.19	2997.40	-1.09	-1.29	-3.80	0.02	445547.95	694747.06	N 32° 13' 26.08" W 103° 50' 14.06"	
	3188.29	0.01	107.91	3091.80	-1.10	-1.29	-3.85	0.09	445547.88	694747.06	N 32° 13' 26.08" W 103° 50' 14.06"	
	3186.29	0.08	206.67	3180.27	-1.06	-1.20	-3.97	0.01	445548.09	694746.99	N 32° 13' 26.08" W 103° 50' 14.06"	
	3280.70	0.09	205.31	3280.68	-0.98	-1.18	-4.09	0.05	445548.09	694746.99	N 32° 13' 26.08" W 103° 50' 14.06"	
	3375.21	0.07	270.64	3375.19	-0.94	-1.15	-4.35	0.06	445548.00	694746.96	N 32° 13' 26.08" W 103° 50' 14.06"	
	3469.10	0.10	275.04	3469.10	-0.99	-1.20	-4.20	0.08	445548.00	694746.96	N 32° 13' 26.08" W 103° 50' 14.06"	
	3569.15	0.11	255.26	3564.08	-1.06	-1.28	-4.35	0.06	445547.90	694746.96	N 32° 13' 26.08" W 103° 50' 14.06"	
	3656.58	0.08	240.28	3656.58	-1.10	-1.33	-4.50	0.03	445547.91	694746.96	N 32° 13' 26.08" W 103° 50' 14.06"	
	3753.10	0.07	312.13	3753.08	-1.10	-1.33	-4.50	0.03	445547.88	694746.95	N 32° 13' 26.08" W 103° 50' 14.06"	
	3842.34	0.07	312.14	3842.08	-1.10	-1.38	-4.65	0.03	445547.88	694746.95	N 32° 13' 26.08" W 103° 50' 14.07	
	3934.10	0.03	282.34	3934.06	-1.26	-1.51	-4.91	0.06	445547.72	694745.95	N 32° 13' 26.08" W 103° 50' 14.07	
	4026.38	0.03	281.35	4026.36	-1.28	-1.54	-4.88	0.04	445547.74	694745.88	N 32° 13' 26.08" W 103° 50' 14.07	
	4120.65	0.05	4120.63	4120.63	-1.24	-1.50	-5.03	0.04	445547.70	694745.88	N 32° 13' 26.08" W 103° 50' 14.07	
	4225.27	0.02	312.31	4225.25	-1.19	-1.45	-5.00	0.03	445547.79	694745.80	N 32° 13' 26.08" W 103° 50' 14.07	
	4318.76	0.02	65.28	4318.74	-1.17	-1.43	-4.88	0.03	445547.81	694745.88	N 32° 13' 26.08" W 103° 50' 14.07	
	4414.26	0.07	91.66	4414.24	-1.17	-1.43	-4.88	0.06	445547.81	694745.88	N 32° 13' 26.08" W 103° 50' 14.07	
	4508.82	0.05	85.00	4508.80	-1.17	-1.42	-4.88	0.02	445547.82	694745.88	N 32° 13' 26.08" W 103° 50' 14.07	
	4603.44	0.04	79.03	4603.42	-1.17	-1.41	-4.88	0.01	445547.82	694745.88	N 32° 13' 26.08" W 103° 50' 14.07	
	4702.91	0.03	62.41	4702.89	-1.15	-1.40	-4.75	0.01	445547.84	694746.11	N 32° 13' 26.08" W 103° 50' 14.07	
	4807.45	0.04	67.93	4797.89	-1.13	-1.37	-4.70	0.01	445547.90	694746.23	N 32° 13' 26.08" W 103° 50' 14.07	
	4981.64	0.05	59.20	4881.43	-1.10	-1.30	-4.63	0.01	445547.90	694746.30	N 32° 13' 26.08" W 103° 50' 14.07	
	5070.38	0.04	55.01	4981.02	-1.07	-1.24	-4.57	0.01	445547.98	694746.34	N 32° 13' 26.08" W 103° 50' 14.07	
	5171.00	0.02	55.51	5070.98	-1.03	-1.26	-4.42	0.00	445548.08	694746.38	N 32° 13' 26.08" W 103° 50' 14.07	
	5269.60	0.04	65.40	5170.98	-1.01	-1.24	-4.38	0.02	445548.10	694746.41	N 32° 13' 26.08" W 103° 50' 14.06	
	5369.67	0.30	322.22	5369.54	-0.75	-0.98	-4.45	0.31	445548.20	694746.41	N 32° 13' 26.08" W 103° 50' 14.06	
	5464.98	0.09	306.82	5464.92	-0.75	-0.98	-4.45	0.03	445548.20	694746.41	N 32° 13' 26.08" W 103° 50' 14.06	
	5569.57	1.87	306.82	5564.92	-0.75	-0.98	-4.45	0.93	445548.20	694746.41	N 32° 13' 26.08" W 103° 50' 14.06	
	5669.57	2.74	300.88	5654.92	-0.75	-0.98	-4.45	0.94	445548.20	694746.41	N 32° 13' 26.08" W 103° 50' 14.06	
	5769.57	3.30	294.81	5748.06	-0.75	-0.98	-4.45	0.68	445548.20	694746.40	N 32° 13' 26.08" W 103° 50' 14.06	
	5869.57	3.80	293.11	5738.03	-0.75	-0.98	-4.45	0.54	445548.20	694746.40	N 32° 13' 26.08" W 103° 50' 14.06	
	5969.57	4.40	292.26	5823.20	-0.75	-0.98	-4.45	0.49	445548.20	694746.40	N 32° 13' 26.08" W 103° 50' 14.06	
	6069.57	4.47	291.04	5823.20	-0.75	-0.98	-4.45	0.44	445548.20	694746.40	N 32° 13' 26.08" W 103° 50' 14.06	
	6169.57	5.04	291.04	5823.20	-0.75	-0.98	-4.45	0.44	445548.20	694746.40	N 32° 13' 26.08" W 103° 50' 14.06	
	6269.57	6.12	291.04	5823.20	-0.75	-0.98	-4.45	0.44	445548.20	694746.40	N 32° 13' 26.08" W 103° 50' 14.06	
	6369.57	7.65	291.04	5823.20	-0.75	-0.98	-4.45	0.44	445548.20	694746.40	N 32° 13' 26.08" W 103° 50' 14.06	
	6469.57	9.25	291.04	5823.20	-0.75	-0.98	-4.45	0.44	445548.20	694746.40	N 32° 13' 26.08" W 103° 50' 14.06	
	6569.57	10.55	291.04	5823.20	-0.75	-0.98	-4.45	0.44	445548.20	694746.40	N 32° 13' 26.08" W 103° 50' 14.06	
	6669.57	12.12	291.04	5823.20	-0.75	-0.98	-4.45	0.44	445548.20	694746.40	N 32° 13' 26.08" W 103° 50' 14.06	
	6769.57	13.80	291.04	5823.20	-0.75	-0.98	-4.45	0.44	445548.20	694746.40	N 32° 13' 26.08" W 103° 50' 14.06	
	6869.57	15.55	291.04	5823.20	-0.75	-0.98	-4.45	0.44	445548.20	694746.40	N 32° 13' 26.08" W 103° 50' 14.06	
	6969.57											

MD	Incl	Azim	Grd	TWD	VSEC	NS	EW	DLS	Northing	Easting	Latitude	Longitude	Comments
7543.29	5.88	280.13	7355.05	1020.00	83.71	-184.43	44563.82	0.53	44563.82	69420.81	N 32 13 27.0 W 103 50 18.27		
7443.03	5.50	278.80	7492.52	1030.80	84.47	-203.88	44563.81	0.53	44563.81	69420.81	N 32 13 27.0 W 103 50 18.27		
7527.66	5.47	272.78	7523.52	1051.12	84.47	-212.89	44563.81	0.51	44563.81	69420.81	N 32 13 27.0 W 103 50 18.27		
7632.20	4.92	287.40	7617.62	1069.87	95.80	-221.26	44563.81	0.51	44563.81	69420.81	N 32 13 27.0 W 103 50 18.27		
7712.01	4.82	280.54	7712.01	1111.07	95.80	-228.81	44563.81	0.51	44563.81	69420.81	N 32 13 27.0 W 103 50 18.27		
7821.75	5.25	317.11	7808.55	1116.87	105.17	-234.05	44563.81	0.67	44563.81	69420.81	N 32 13 27.0 W 103 50 18.27		
7915.59	5.25	316.58	7901.01	1233.99	111.31	-239.81	44563.81	0.34	44563.81	69420.81	N 32 13 27.0 W 103 50 18.27		
8011.28	4.63	314.84	7995.35	129.42	117.15	-245.50	44563.81	0.67	44563.81	69420.81	N 32 13 27.0 W 103 50 18.27		
8106.08	4.31	314.84	7995.35	129.42	117.15	-245.50	44563.81	0.67	44563.81	69420.81	N 32 13 27.0 W 103 50 18.27		
8200.67	6.06	293.96	8089.84	139.58	128.70	-250.87	44563.81	0.42	44563.81	69420.81	N 32 13 27.0 W 103 50 18.27		
8299.40	7.32	272.88	8278.18	142.45	129.03	-260.78	44563.81	0.09	44563.81	69420.81	N 32 13 27.0 W 103 50 18.27		
8393.01	7.47	264.81	8371.98	142.75	128.70	-260.78	44563.81	0.09	44563.81	69420.81	N 32 13 27.0 W 103 50 18.27		
8484.67	8.32	270.42	8455.76	142.88	128.18	-260.78	44563.81	1.18	44563.81	69420.81	N 32 13 27.0 W 103 50 18.27		
8575.23	8.58	287.04	8559.39	145.48	130.13	-260.78	44563.81	2.50	44563.81	69420.81	N 32 13 27.0 W 103 50 18.27		
8673.60	7.87	300.38	8683.02	151.10	135.23	-317.31	44563.81	0.61	44563.81	69420.81	N 32 13 27.0 W 103 50 18.27		
8766.01	7.06	309.87	8740.76	158.41	142.09	-325.49	44563.81	0.73	44563.81	69420.81	N 32 13 27.0 W 103 50 18.27		
8862.47	7.72	310.67	8840.44	175.82	149.89	-352.63	44563.81	0.75	44563.81	69420.81	N 32 13 27.0 W 103 50 18.27		
8956.92	6.76	315.61	8902.88	184.25	168.39	-352.63	44563.81	0.75	44563.81	69420.81	N 32 13 27.0 W 103 50 18.27		
9051.26	6.76	314.11	9027.88	193.82	175.54	-352.63	44563.81	2.10	44563.81	69420.81	N 32 13 27.0 W 103 50 18.27		
9145.72	8.74	313.84	9121.27	205.40	188.75	-372.44	44563.81	2.19	44563.81	69420.81	N 32 13 27.0 W 103 50 18.27		
9243.39	10.81	313.84	9214.56	218.47	199.18	-388.44	44563.81	0.34	44563.81	69420.81	N 32 13 27.0 W 103 50 18.27		
9343.92	11.13	313.84	9307.37	230.82	211.03	-388.44	44563.81	1.59	44563.81	69420.81	N 32 13 27.0 W 103 50 18.27		
9443.56	8.63	314.23	9400.84	241.50	227.64	-409.05	44563.81	1.82	44563.81	69420.81	N 32 13 27.0 W 103 50 18.27		
9543.74	16.23	323.15	9587.07	254.56	237.64	-433.12	44563.81	6.57	44563.81	69420.81	N 32 13 27.0 W 103 50 18.27		
9643.44	7.01	323.05	9676.40	287.48	265.81	-433.12	44563.81	8.55	44563.81	69420.81	N 32 13 27.0 W 103 50 18.27		
9744.14	22.40	323.05	9764.04	324.18	300.99	-433.12	44563.81	8.57	44563.81	69420.81	N 32 13 27.0 W 103 50 18.27		
9844.95	30.28	324.87	9844.04	357.82	335.39	-433.12	44563.81	8.57	44563.81	69420.81	N 32 13 27.0 W 103 50 18.27		
9944.95	34.51	350.65	9944.04	401.67	365.23	-433.12	44563.81	8.57	44563.81	69420.81	N 32 13 27.0 W 103 50 18.27		
10044.95	45.88	353.38	9944.04	451.67	468.45	-433.12	44563.81	12.11	44563.81	69420.81	N 32 13 27.0 W 103 50 18.27		
10144.95	56.38	354.20	9944.04	517.65	550.09	-433.12	44563.81	11.10	44563.81	69420.81	N 32 13 27.0 W 103 50 18.27		
10244.95	65.60	354.32	9944.04	662.02	629.11	-433.12	44563.81	9.84	44563.81	69420.81	N 32 13 27.0 W 103 50 18.27		
10344.95	75.52	354.32	9944.04	751.67	729.68	-433.12	44563.81	10.44	44563.81	69420.81	N 32 13 27.0 W 103 50 18.27		
10444.95	78.49	359.21	10041.87	845.35	821.08	-433.12	44563.81	11.72	44563.81	69420.81	N 32 13 27.0 W 103 50 18.27		
10544.95	89.55	359.21	10072.25	898.48	875.41	-433.12	44563.81	1.26	44563.81	69420.81	N 32 13 27.0 W 103 50 18.27		
10644.95	89.88	359.40	10072.25	998.48	975.41	-433.12	44563.81	1.00	44563.81	69420.81	N 32 13 27.0 W 103 50 18.27		
10744.95	90.17	358.40	10072.25	1088.48	1074.40	-433.12	44563.81	1.00	44563.81	69420.81	N 32 13 27.0 W 103 50 18.27		
10844.95	89.31	358.40	10072.25	1182.38	1168.37	-433.12	44563.81	1.38	44563.81	69420.81	N 32 13 27.0 W 103 50 18.27		
10944.95	88.07	357.88	10072.25	1287.34	1263.30	-433.12	44563.81	0.82	44563.81	69420.81	N 32 13 27.0 W 103 50 18.27		
11044.95	88.25	359.52	10068.02	1416.15	1482.15	-433.12	44563.81	1.11	44563.81	69420.81	N 32 13 27.0 W 103 50 18.27		
11144.95	88.35	359.52	10068.02	1570.67	1547.10	-433.12	44563.81	0.62	44563.81	69420.81	N 32 13 27.0 W 103 50 18.27		
11244.95	88.38	359.52	10068.02	1730.67	1736.02	-433.12	44563.81	0.30	44563.81	69420.81	N 32 13 27.0 W 103 50 18.27		
11344.95	87.76	359.52	10068.02	1849.41	1895.83	-433.12	44563.81	0.30	44563.81	69420.81	N 32 13 27.0 W 103 50 18.27		
11444.95	87.69	359.52	10068.02	2043.27	2019.83	-433.12	44563.81	0.36	44563.81	69420.81	N 32 13 27.0 W 103 50 18.27		
11544.95	87.69	359.52	10068.02	2243.27	2229.09	-433.12	44563.81	0.64	44563.81	69420.81	N 32 13 27.0 W 103 50 18.27		
11644.95	87.69	359.52	10068.02	2443.27	2438.57	-433.12	44563.81	0.53	44563.81	69420.81	N 32 13 27.0 W 103 50 18.27		
11744.95	87.69	359.52	10068.02	2643.27	2638.57	-433.12	44563.81	1.42	44563.81	69420.81	N 32 13 27.0 W 103 50 18.27		
11844.95	88.20	359.52	10068.02	2843.27	2838.57	-433.12	44563.81	1.08	44563.81	69420.81	N 32 13 27.0 W 103 50 18.27		
11944.95	88.20	359.52	10068.02	3043.27	3038.57	-433.12	44563.81	0.85	44563.81	69420.81	N 32 13 27.0 W 103 50 18.27		
12044.95	88.20	359.52	10068.02	3243.27	3238.57	-433.12	44563.81	1.14	44563.81	69420.81	N 32 13 27.0 W 103 50 18.27		
12144.95	88.20	359.52	10068.02	3443.27	3438.57	-433.12	44563.81	1.29	44563.81	69420.81	N 32 13 27.0 W 103 50 18.27		
12244.95	88.20	359.52	10068.02	3643.27	3638.57	-433.12	44563.81	0.87	44563.81	69420.81	N 32 13 27.0 W 103 50 18.27		
12344.95	88.20	359.52	10068.02	3843.27	3838.57	-433.12	44563.81	0.74	44563.81	69420.81	N 32 13 27.0 W 103 50 18.27		
12444.95	88.20	359.52	10068.02	4043.27	4038.57	-433.12	44563.81	0.50	44563.81	69420.81	N 32 13 27.0 W 103 50 18.27		
12544.95	88.20	359.52	10068.02	4243.27	4238.57	-433.12	44563.81	0.54	44563.81	69420.81	N 32 13 27.0 W 103 50 18.27		
12644.95	88.20	359.52	10068.02	4443.27	4438.57	-433.12	44563.81	0.54	44563.81	69420.81	N 32 13 27.0 W 103 50 18.27		
12744.95	88.20	359.52	10068.02	4643.27	4638.57	-433.12	44563.81	0.54	44563.81	69420.81	N 32 13 27.0 W 103 50 18.27		
12844.95	88.20	359.52	10068.02	4843.27	4838.57	-433.12	44563.81	0.54	44563.81	69420.81	N 32 13 27.0 W 103 50 18.27		
12944.95	88.20	359.52	10068.02	5043.27	5038.57	-433.12	44563.81	0.54	44563.81	69420.81	N 32 13 27.0 W 103 50 18.27		
13044.95	88.20	359.52	10068.02	5243.27	5238.57	-433.12	44563.81	0.54	44563.81	69420.81	N 32 13 27.0 W 103 50 18.27		
13144.95	88.20	359.52	10068.02	5443.27	5438.57	-433.12	44563.81	0.54	44563.81	69420.81	N 32 13 27.0 W 103 50 18.27		
13244.95	88.20	359.52	10068.02	5643.27	5638.57	-433.12	44563.81	0.54	44563.81	69420.81	N 32 13 27.0 W 103 50 18.27		
13344.95	88.20	359.52	10068.02	5843.27	5838.57	-433.12	44563.81	0.54	44563.81	69420.81	N 32 13 27.0 W 103 50 18.27		
13444.95	88.20	359.52	10068.02	6043.27	6038.57	-433.12	44563.81	0.54	44563.81	69420.81	N 32 13 27.0 W 103 50 18.27		
13544.95	88.20	359.52	10068.02	6243.27	6238.57	-433.12	44563.81	0.54	44563.81	69420.81	N 32 13 27.0 W 103 50 18.27		
13644.95	88.20	359.52	10068.02	6443.27	6438.57	-433.12	44563.81	0.54	44563.81	69420.81	N 32 13 27.0 W 103 50 18.27		
13744.95	88.20	359.52	10068.02	6643.27	6638.57	-433.12	44563.81	0.54	44563.81	69420.81	N 32 13 27.0 W 103 50 18.27		
13844.95	88.20	359.52	10068.02	6843.27	6838.57	-433.12	44563.81	0.54	44563.81	69420.81	N 32 13 27.0 W 103 50 18.27		
13944.95	88.20	359.52	10068.02	7043.27	7038.57	-433.12	44563.81	0.54	44563.81	69420.81	N 32 13 27.0 W 103 50 18.27		
14044.95	88.20	359.52	10068.02	7243.27	7238.57	-433.12	44563.81	0.54	44563.81	69420.81	N 32 13 27.0 W 103 50 18.27		
14144.95	88.20	359.52	10068.02	7443.27	7438.57	-433.12	44563.81	0.54	44563.81	69420.81	N 32 1		

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 ° ° °)
Proj. to Bit	20424.00	90.45	358.82	10115.34	10825.24	10811.02	-554.91	0.00	458359.54	694195.89	N 32 15 13.10 W	103 50 19.89

Survey Type: Def Survey

Survey Error Model: ISCWSA Rev 0 *** 3-D 95.000% Confidence 2.7555 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	28.500	1/98.425	30.000	30.000	NAL_NSQ+MSHOT-Depth Only	Original Borehole / Oxy Nimitz MDP1 12 Federal 2H Gyro+MWD 0-20.424'
	1	28.500	28.500	Act Sins	30.000	30.000	NAL_NSQ+MSHOT-Depth Only	Original Borehole / Oxy Nimitz MDP1 12 Federal 2H Gyro+MWD 0-20.424'
	1	28.500	9811.950	Act Sins	30.000	30.000	NAL_NSQ+MSHOT	Original Borehole / Oxy Nimitz MDP1 12 Federal 2H Gyro+MWD
	1	9811.950	20424.000	Act Sins	30.000	30.000	NAL_MWD_PLUS_0.5_DEG	Original Borehole / Oxy Nimitz MDP1 12 Federal 2H Gyro+MWD