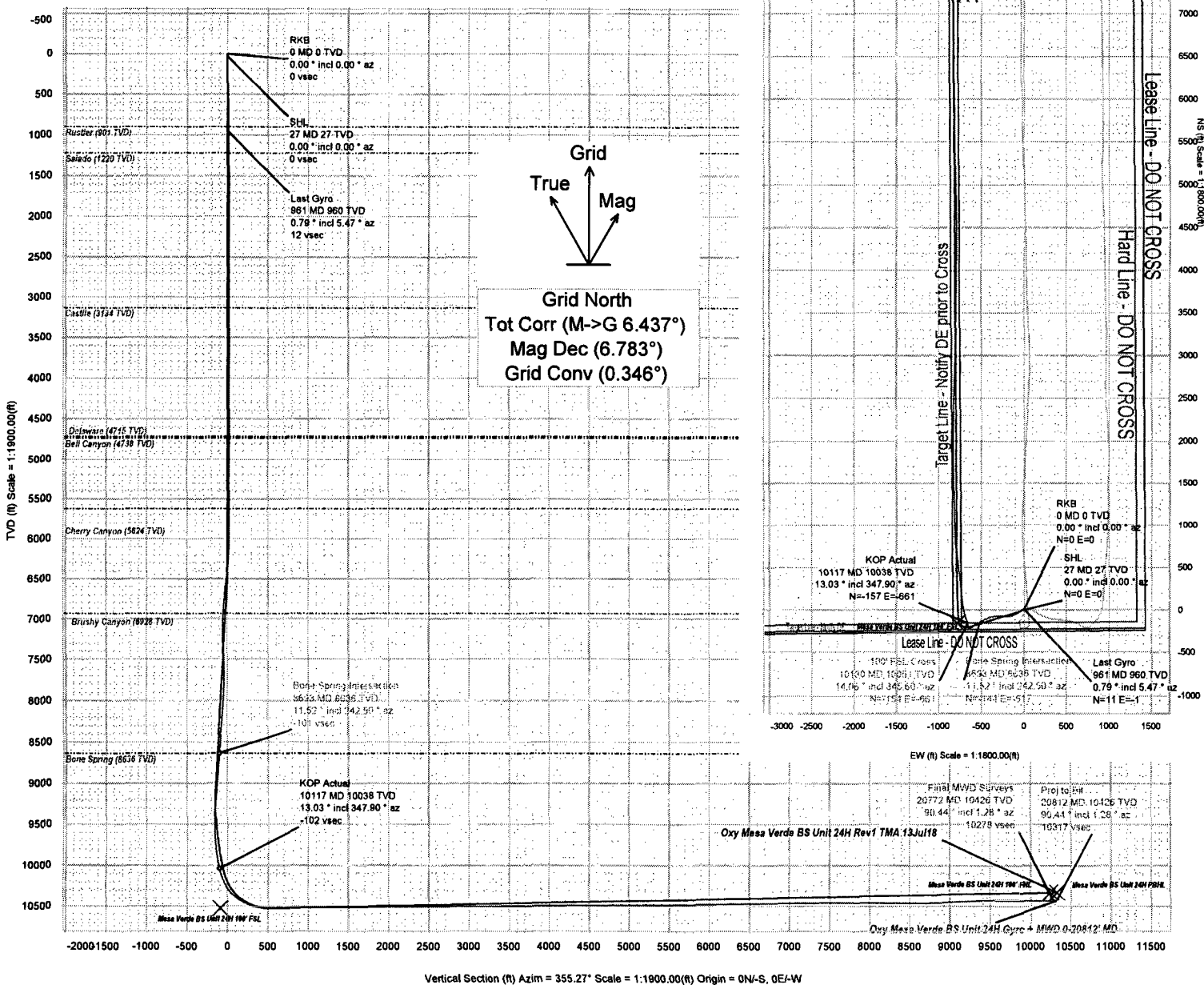


Borehole:		Well:	Field:	Structure:
Original Borehole		Mesa Verde BS Unit 24H	NM Lea County (NAD 83)	Oxy Mesa Verde BS Unit 24H

Gravity & Magnetic Parameters				Surface Location				Miscellaneous			
Model:	yDOM 2018	Dip:	58.968°	Date:	10-Sep-2018	Lat:	N 32 12 38.43	Northing:	441084.780US	Grid Conv:	0.348°
MagDec:	6.783°	FS:	47945.988nT	Gravity FS:	998.432mgm (8.80466 Based)	Lon:	W 103 41 3.22	Easting:	742092.680US	Scale Fact:	0.99995525
								Slat: Mesa Verde BS Unit 24H			
								TVD Ref: RKB=26.8 (3895.88 above MSL)			
								Plan: Oxy Mesa Verde BS Unit 24H Gyro + MWD 0-20812' MD			

Critical Points							
Critical Point	MD	INCL	AZIM	TVD	VSEC	N(+)/S(-)	E(+)/W(-)
RKB	0.00	0.00	0.00	0.00	0.00	0.00	0.00
SHL	26.50	0.00	0.00	26.50	0.00	0.00	0.00
Last Gyro	960.50	0.79	5.47	960.42	11.53	11.49	-0.97
Bone Spring Intersection	8698.00	11.52	242.50	8635.55	-101.06	-144.19	-516.81
KOP Actual	10117.00	13.03	347.90	10038.49	-102.34	-157.39	-660.73
100' FSL Cross	10130.00	14.06	345.60	10051.13	-99.33	-154.43	-661.43
100' FNL	20737.00	90.37	1.45	10426.45	10242.80	10207.15	-853.94
Final MWD Surveys	20772.00	90.44	1.28	10426.21	10277.60	10242.14	-853.10
Proj to Bit	20812.00	90.44	1.28	10425.90	10317.38	10282.13	-852.21



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 ° ' ")
	20550.00	90.51	2.06	10427.84	10056.97	10020.23	-859.34	0.55	451104.47	741233.36	N 32 14 18.63	W 103 41 12.52
	20844.00	90.41	1.55	10427.09	10150.36	10114.18	-856.38	0.55	451198.41	741238.32	N 32 14 19.56	W 103 41 12.47
100' FNL	20737.00	90.37	1.45	10426.45	10242.80	10207.15	-853.94	0.11	451291.37	741238.76	N 32 14 20.48	W 103 41 12.44
	20739.00	90.37	1.45	10426.44	10244.79	10209.15	-853.69	0.11	451293.37	741238.81	N 32 14 20.50	W 103 41 12.44
Final MWD Surveys	20772.00	90.44	1.28	10426.21	10277.60	10242.14	-853.10	0.56	451326.36	741239.60	N 32 14 20.82	W 103 41 12.43
Proj to Bit	20812.00	90.44	1.28	10425.90	10317.38	10282.13	-852.21	0.00	451366.35	741240.49	N 32 14 21.22	W 103 41 12.41

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	1/96.425	30.000	30.000	NAL_NSG+MSHOT-Depth Only	Original Borehole / Oxy Mesa Verde BS Unit 24H Gyro + MWD 0-20812' MD
	1	26.500	26.500	Act Stns	30.000	30.000	NAL_NSG+MSHOT-Depth Only	Original Borehole / Oxy Mesa Verde BS Unit 24H Gyro + MWD 0-20812' MD
	1	26.500	866.000	Act Stns	30.000	30.000	NAL_NSG+MSHOT	Original Borehole / Oxy Mesa Verde BS Unit 24H Gyro + MWD
	1	866.000	4611.000	Act Stns	30.000	30.000	NAL_MWD_PLUS_0.5_DEG	Original Borehole / Oxy Mesa Verde BS Unit 24H Gyro + MWD
	1	4611.000	20812.000	Act Stns	30.000	30.000	NAL_MWD_IFR1+MS	Original Borehole / Oxy Mesa Verde BS Unit 24H Gyro + MWD

Oilfield Services, Central U.S. Land
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

October 19, 2018

OXY USA INC
5 GREENWAY PLAZA, SUITE 110
HOUSTON, TX 77046

HOBBS OCD

FEB 20 2019

RECEIVED

Re:

16, 24S, 32E, LEA NM
-32.21095 -103.68423

CLIENT: OXY USA INC
WELL: MESA VERDE BS Unit 24H
FIELD: MESA VERDE BONE SPRING

RIG: H&P 617
COUNTY: LEA
API NO: 3002544561
JOB NO: 18MLD3928

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>
Banks Kintang FE	MESA VERDE BS Unit 24H Original Hole	960.00 Ft to 20772.00 Ft	August 6, 2018 to September 26, 2018	TelePacer/SlimPulse Third Party Corrected

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

Cody Nelms
Field Service Manager

Oilfield Services, Central U.S. Land
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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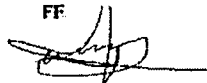
Schlumberger

Well Reference:

16, 24S, 32E, LEA NM
-32.21095 -103.68423

I, Banks Kintang certify that: I am employed by Drilling & Measurements, a division of Schlumberger Technology Corporation; that I did on the day(s) of August 06, 2018 through September 26, 2018, conduct or supervise the taking of the TelePacer/Slimpulse & Third Party Corrected surveys from a depth of 960.00 feet to a depth of 20772.00 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 24H Well (Original Hole) API No. 3002544561 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.

Banks Kintang
FF



Subscribed and Sworn to before me this 19th day of October (month) 2018 (yr)

My Commission expires:

2-16-2022

D. Adams
Notary Public

(signature)

Adams County Colorado
(County State)

