NATIONAL OILWELL VARCO

FloSurvey - Real Time Survey Tool
1200 Cypress Creek Road
Cedar Park, TX 78613
Phone: (512)340-5000
Fax: (512)340-5441

May 9, 2014

Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

CLIENT: OXY
WELL: AFYU #26
FIELD: N/A
RIG: H&P 344
COUNTY: Eddy
API NO: 30-015-41336

We hereby certify that the enclosed field survey data performed on the referenced well by National Oilwel Varco, contained in this report represents to the best of our knowledge, a true and accurate survey of the surveyed section of the well at the time the survey was run.

Other information required by your office is as follows.

Name & Title of Surveyor	Drainhole Number	Surveyed Depths		Dates Performed		Type of Survey
Jose Olivas Field Service Technician	AFYU #26 Original Hole	499.00 Ft 4896.00 Ft	to	May-6-2014 May-8-2014	to	FloSurvey

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

Tyler Andreason
Field Service Manager

CC: OXY
Enclosures: [2]
County of Eddy
State of New Mexico

Attn: Linsay Earle
5 Greenway Plaza, Suite 110
Houston, Texas 77406

Attn: Ryan Yeatman
5 Greenway Plaza, Suite 110
Houston, Texas 77406

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I, Jose Olivas certify that; I am employed by National Oilwell Varco, L.P.; that the surveys taken on the day(s) of May-6-2014 through May-8-2014, from a depth of 499.00 Ft feet to a depth of 4896 feet; are to the best of my knowledge, the data is true, correct, complete and within the limitations of the tool as set forth by National Oilwell Varco, L.P.; that I am authorized and qualified to make this report; that this survey was conducted at the request of OXY for the AFYU #26 Well (Original Hole) API No. 30-015-41336 in Eddy County, New Mexico; and that I have reviewed this report and find that it conforms to the principals and procedures as set forth by National Oilwell Varco, L.P.

Signature

Jose Olivas
Field Service Technician

OXY USA
Eddy County
AYFU #26
Surveys: 499`MD - 4896`MD
UWI No. 30-015-41336

National Oilwell Varco
Survey Report

09 May 2014

UWI No. 30-015-41336

Surface Coordinates: 663568.50 N, 542459.10 E (32° 49' 26.9783" N, 104° 11' 42.4163" W)
Grid Coordinate System: NAD27 New Mexico State Planes, Eastern Zone, US Foot

Surface Coordinates relative to Map Coordinates: 663568.50 N, 542459.10 E (Grid)
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Kelly Bushing Elevation: 3647.30ft above Mean Sea Level
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Kelly Bushing Elevation: 16.80ft above Ground Level
Ground Level: 3630.50ft

Survey Ref: svy62

Survey Depth (ft)	Incl (°)	(Grid) Azim (°)	Vertical Depth (ft)	Northings (ft)	Eastings (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)
0.00	0.000	0.000	0.00	0.00 N	0.00 E	0.00	
499.00	0.210	26.630	499.00	0.82 N	0.41 E	0.32	0.042
803.00	0.290	11.730	803.00	2.07 N	0.82 E	0.97	0.034
1097.00	0.270	12.040	1096.99	3.47 N	1.11 E	1.80	0.007
1366.00	0.370	336.020	1365.99	4.89 N	0.89 E	2.99	0.082
1629.00	0.650	299.560	1628.98	6.40 N	0.75 W	5.22	0.158
1860.00	0.610	307.150	1859.96	7.79 N	2.87 W	7.67	0.040
1904.00	0.660	294.240	1903.96	8.03 N	3.29 W	8.14	0.344
2124.00	0.630	306.980	2123.95	9.28 N	5.41 W	10.49	0.066
2268.00	0.570	316.290	2267.94	10.28 N	6.54 W	11.99	0.079
2449.00	0.560	324.790	2448.93	11.65 N	7.67 W	13.77	0.047
2577.00	0.660	335.870	2576.92	12.83 N	8.33 W	15.08	0.120
2718.00	0.840	322.570	2717.91	14.40 N	9.29 W	16.88	0.177
2804.00	0.850	327.850	2803.90	15.44 N	10.02 W	18.14	0.091
2942.00	0.630	317.170	2941.89	16.86 N	11.08 W	19.90	0.187
3830.00	0.720	305.350	3829.83	23.67 N	18.95 W	30.24	0.019
4010.00	0.820	292.130	4009.81	24.81 N	21.06 W	32.51	0.113
4150.00	0.570	291.710	4149.80	25.44 N	22.64 W	34.05	0.179
4376.00	0.080	303.810	4375.80	25.95 N	23.81 W	35.22	0.218
4896.00	0.450	317.850	4895.79	27.66 N	25.48 W	37.61	0.072

All data is in Feet (US Survey) unless otherwise stated. Directions and coordinates are relative to Grid North.
Vertical depths are relative to AYFU #26. Northings and Eastings are relative to AYFU #26.

The dogleg severity is in Degrees per 100 feet (US Survey).
Vertical Section is from AYFU #26 calculated along an azimuth of 317.347° (Grid).

Based upon minimum curvature calculations, at a measured depth of 4896.00ft,
the bottom hole displacement is 37.61ft, in the direction of 317.347° (Grid).

The along-hole displacement is 40.60ft. The total accumulated dogleg is 3.319°.
The measured tortuosity is 0.069°/100ft. The directional difficulty index is 1.6.

Survey Tool Program for AYFU #26, Surveys: 499`MD - 4896`MD

From Measured Depth (ft)	From Vertical Depth (ft)	To Measured Depth (ft)	To Vertical Depth (ft)	Survey Tool Description
0.00	0.00	4896.00	4895.79	FloSurvey TiltOnlyMEM

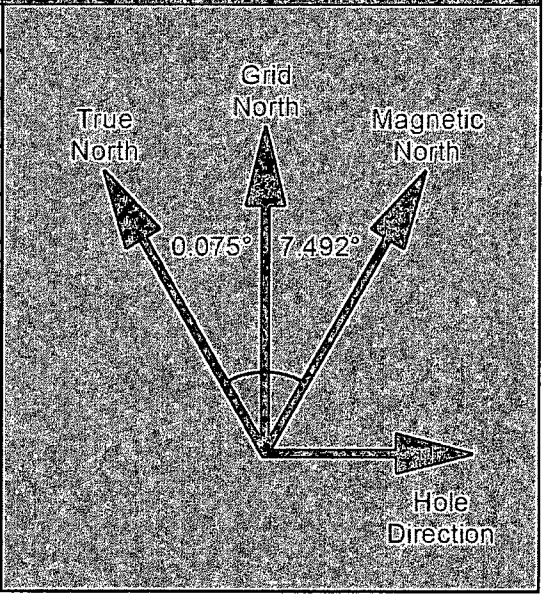
REFERENCE DATA			
Ellipsoid	Clarke - 1866	Unit System	Feet (Us Survey)
Coord. System	NAD27 New Mexico State Planes, Eastern Zone, US Foc	North Ref.	Grid North
Mag. Model	igrf2010.dat	Vertical Ref.	Mean Sea Level
Calc. Date	02 May, 2014		

LOCATION DATA			
RKB Elevation	3647.30ft above MSL	Total Field	48618.2 nT
Map North	663568.50 N	Magnetic Dip	60.564°
Map East	542459.10 E	Declination	7.567°
Latitude	32° 49' 26.9783" N	Convergence	0.075°
Longitude	104° 11' 42.4163" W		

NORTH REFERENCE DATA	
Magnetic Model	igrf2010.dat
Calculation Date	Friday, May 02, 2014
Declination	7.567°
Inclination/Dip	60.564°
Horizontal Component	23894.0 nT
Northerly Component	23686.6 nT
Easterly Component	3145.9 nT
Vertical Component	42341.5 nT
Total Field Strength	48618.2 nT

Grid North is 0.075 degrees East of True North (Grid Convergence)
Magnetic North is 7.567 degrees East of True North (Magnetic Declination)
Magnetic North is 7.492 degrees East of Grid North (Magnetic Convergence)

To convert a True Direction to a Grid Direction, Subtract 0.075 degrees.
To convert a Magnetic Direction to a True Direction, Add 7.567 degrees.
To convert a Magnetic Direction to a Grid Direction, Add 7.492 degrees.



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