

30-015-37211



Job Number: SVCO-110961

Company: Yates Petroleum Corporation

Lease/Well: FEDERAL AB 13H

Location: Eddy County, NM

Rig Name: Patterson #101

RKB: 19'

G.L. or M.S.L.: GL

State/Country: New Mexico/USA

Declination: 8.13°

Grid: East To Grid

File name: F:\SURVEY\2011\SU-1\YATES\FEDAB13H.SVY

Date/Time: 08-Aug-11 / 16:57

Curve Name: Surface - 2000' M.D. (Gyroscopic)

RECEIVED
OCT 25 2011
NMOCD ARTESIA

WINSERVE SURVEY CALCULATIONS
Minimum Curvature Method
Vertical Section Plane .00
Vertical Section Referenced to Wellhead
Rectangular Coordinates Referenced to Wellhead

We hereby certify that our survey data from
Surface MD to 2000 MD is, to the best of
our knowledge a true and accurate account of
the well bore.
Dana Autte 8-10-11
MS Energy Services Date

Measured Depth FT	Incl Angle Deg	Drift Direction Deg	True Vertical Depth	N-S FT	E-W FT	Vertical Section FT	CLOSURE Distance FT	Direction Deg	Dogleg Severity Deg/100
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
200.00	.50	267.33	200.00	-.04	-.87	-.04	.87	267.33	.25
400.00	.25	244.11	399.99	-.27	-2.14	-.27	2.15	262.75	.14
600.00	.50	149.90	599.99	-1.22	-2.09	-1.22	2.42	239.79	.29
800.00	.25	96.68	799.99	-2.02	-1.22	-2.02	2.36	211.09	.20
1000.00	.50	92.46	999.98	-2.11	.09	-2.11	2.11	177.68	.13
1200.00	.50	98.69	1199.97	-2.28	1.82	-2.28	2.92	141.41	.03
1400.00	.50	92.47	1399.97	-2.45	3.55	-2.45	4.32	124.58	.03
1600.00	.75	133.26	1599.96	-3.38	5.38	-3.38	6.36	122.18	.25
1800.00	.75	132.04	1799.94	-5.16	7.30	-5.16	8.94	125.23	.01

Measured Depth FT	Incl Angle Deg	Drift Direction Deg	True Vertical Depth	N-S FT	E-W FT	Vertical Section FT	C L O S U R E		Dogleg Severity Deg/100
							Distance FT	Direction Deg	
Last Survey Depth Recorded									
2000.00	.75	110.60	1999.92	-6.50	9.50	-6.50	11.51	124.35	.14