

CD 3/24/15
Accepted for record
30-015-41966



Job Number: SVMO-140800
Company: Yates Petroleum Corporation
Lease/Well: Benson Deep BDX Federal 2H
Location: Eddy County, NM
Rig Name: McVay #10
RKB: 18.5'
G.L. or M.S.L.: GL

State/Country: New Mexico/USA
Declination: 7.26°
Grid: East To Grid North
File name: S:\2014SU-1\YATES\MO\BENSON-1\2H.SVY
Date/Time: 16-Jun-14 / 11:28
Curve Name: Surface - 600' M.D. (Rate Gyro)

MS SURVEY

WINSERVE SURVEY CALCULATIONS
Minimum Curvature Method
Vertical Section Plane 86.24
Vertical Section Referenced to Wellhead
Rectangular Coordinates Referenced to Wellhead

We hereby certify that our survey data from
Surface MD to 600' MD is, to the best of
our knowledge a true and accurate account of
the well bore.

James Gally
MS Energy Services

6/16/14
Date

Measured Depth FT	Incl Angle Deg	Drift Direction Deg	True Vertical Depth	N-S FT	E-W FT	Vertical Section FT	CLOSURE		Dogleg Severity Deg/100
							Distance FT	Direction Deg	
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
100.00	.22	212.60	100.00	-.16	-.10	-.11	.19	212.60	.22
200.00	.29	169.43	200.00	-.57	-.16	-.20	.59	195.66	.20
300.00	.25	27.19	300.00	-.63	-.01	-.06	.63	181.31	.51
400.00	1.65	130.48	399.98	-1.37	1.18	1.09	1.81	139.20	1.72
500.00	3.50	131.53	499.88	-4.33	4.56	4.27	6.29	133.49	1.85
Last Survey Depth Recorded									
600.00	3.30	127.94	599.70	-8.12	9.12	8.56	12.21	131.69	.29



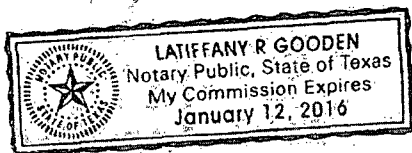
State of New Mexico
County of Eddy

I, Michael K. Baber, certify that I am employed by Terra Directional Services LLC; that I did on the day(s) of 06/09/2014 through 06/28/2014 conduct or supervise the taking of a MWD survey from a depth of 647 feet to a depth 12753 feet, that the data is true, correct, complete and within the limitations of the tool as set forth by Terra Directional Services LLC; that I am authorized and qualified to make this report; that this survey was conducted at the request of Yates Petroleum for the Benson Deep BDX Federal #2H Well API 30-015-41966 in Eddy County, New Mexico; and that I have reviewed this report and find that it conforms to the principles and procedures as set forth by Terra Directional Services LLC.

Michael K. Baber
MWD Operations Manager

State of Texas
County of Montgomery

Before me, a notary public, on this day personally appeared Michael K. Baber, known to me to be the person whose name is subscribed to the foregoing document and, being by me first duly sworn, declared that the statements therein contained are true and correct.


Notary Public's Signature



Customer Name: Yates Petroleum Corp
 Well Name: Benson Deep BDX Fe
 API Number: 30-015-41966-00-X1
 County / Parish: Eddy Co. New Mexico

M.W.D. Operator: Bob Gary
 Directional Driller: Jack Chance
 Total Magnetic Correction: 7.26
 Job #: NM-445

Vertical Section: 86.24

Tie In Survey(s) Provided By:

Meas. Depth	Inc.	Azm.	T.V.D.	Ver. Sect.	+N/-S	+E/-W	Dist.	Angle	DLS
Tie = In									
0	600.00	3.30	127.94	599.70	8.56	-8.12	9.12	0.00	0.00
1	647.00	3.30	112.20	646.62	6.54	-9.46	11.44	129.60	1.92
2	737.00	1.10	78.30	736.55	9.72	-10.27	14.68	124.96	2.74
3	825.00	0.70	21.80	824.54	10.79	-9.60	15.71	121.42	1.05
4	921.00	0.70	343.20	920.54	10.91	-8.49	15.76	118.31	0.48
5	1016.00	0.50	353.70	1015.53	10.76	-7.52	15.55	115.82	0.24
6	1110.00	0.70	346.00	1109.53	10.64	-6.56	15.36	113.12	0.23
7	1205.00	0.80	343.00	1204.52	10.39	-5.36	15.03	109.63	0.11
8	1300.00	1.00	352.10	1299.51	10.18	-3.91	14.72	104.86	0.26
9	1395.00	1.10	357.90	1394.49	10.14	-2.17	14.57	98.48	0.15
10	1490.00	1.10	12.50	1489.47	10.42	-0.37	14.74	91.44	0.29
11	1585.00	1.30	9.70	1584.45	15.19	1.58	15.12	84.03	0.22
12	1680.00	0.50	240.00	1679.45	15.07	2.44	14.94	80.74	1.75
13	1775.00	0.40	243.30	1774.44	14.39	2.08	14.28	81.71	0.11
14	1869.00	0.50	252.80	1868.44	13.69	1.81	13.60	82.41	0.13
15	1964.00	0.40	253.20	1963.44	12.96	1.59	12.88	82.95	0.11
16	2014.00	0.50	273.40	2013.44	12.57	1.56	12.50	82.91	0.37
17	2073.00	0.50	282.00	2072.43	12.07	1.62	11.99	82.29	0.13
18	2169.00	0.70	255.60	2168.43	11.09	1.57	11.01	81.91	0.35
19	2264.00	1.10	254.40	2263.42	9.63	1.18	9.57	83.00	0.42
20	2358.00	0.70	248.10	2357.40	8.20	0.72	8.17	84.97	0.44
21	2453.00	0.80	253.40	2452.40	7.00	0.31	7.00	87.44	0.18
22	2548.00	0.50	265.00	2547.39	5.94	0.09	5.95	89.16	0.34
23	2643.00	0.90	257.60	2642.38	4.79	-0.11	4.81	91.30	0.43
24	2738.00	0.90	273.60	2737.37	3.31	-0.22	3.33	93.81	0.26
25	2833.00	1.00	272.00	2832.36	1.75	-0.15	1.76	94.76	0.11
26	2929.00	1.00	258.60	2928.34	0.08	-0.28	0.10	160.16	0.24
27	3023.00	1.10	257.90	3022.33	-1.62	-0.63	-1.58	248.19	0.11
28	3118.00	1.10	257.90	3117.31	-3.43	-1.02	-3.37	253.21	0.00
29	3213.00	1.10	269.90	3212.29	-5.24	-1.21	-5.17	256.84	0.24
30	3307.00	1.30	270.10	3306.27	-7.20	-1.21	-7.14	260.39	0.21
31	3403.00	1.10	260.60	3402.25	-9.21	-1.36	-9.14	261.55	0.29
32	3498.00	1.30	257.00	3497.23	-11.18	-1.75	-11.09	261.04	0.22
33	3593.00	1.60	262.30	3592.20	-13.57	-2.17	-13.45	260.84	0.35
34	3687.00	0.50	267.40	3686.18	-15.28	-2.36	-15.16	261.14	1.17
35	3782.00	0.50	243.90	3781.18	-16.08	-2.56	-15.95	260.87	0.21
36	3877.00	1.00	253.90	3876.17	-17.28	-2.98	-17.12	260.13	0.54
37	3971.00	1.10	249.80	3970.16	-18.94	-3.52	-18.75	259.38	0.13
38	4066.00	1.00	257.60	4065.14	-20.64	-4.01	-20.42	258.89	0.18
39	4161.00	1.10	256.50	4160.12	-22.35	-4.40	-22.11	258.75	0.11
40	4256.00	2.60	267.20	4255.07	-25.41	-4.72	-25.15	259.38	1.61
41	4351.00	4.20	269.20	4349.90	-31.04	-4.87	-30.78	261.01	1.69
42	4446.00	5.20	269.20	4444.58	-38.81	-4.98	-38.57	262.64	1.05
43	4539.00	5.20	271.30	4537.20	-47.22	-4.94	-46.99	264.00	0.20
44	4634.00	4.60	270.40	4631.85	-55.31	-4.82	-55.11	265.00	0.64



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[Signature]

45	4729.00	4.30	267.60	4726.56	-62.67	-4.94	-62.48	62.67	265.48	0.39
46	4823.00	4.20	262.10	4820.31	-69.62	-5.56	-69.41	69.63	265.42	0.45
47	4918.00	3.70	260.40	4915.08	-76.14	-6.55	-75.87	76.16	265.06	0.54
48	5013.00	3.40	260.60	5009.90	-81.99	-7.52	-81.68	82.02	264.74	0.32
49	5108.00	3.30	263.90	5104.74	-87.53	-8.27	-87.17	87.57	264.58	0.23
50	5203.00	2.50	260.70	5199.61	-92.32	-8.90	-91.94	92.37	264.47	0.86
51	5298.00	2.20	253.70	5294.53	-96.17	-9.75	-95.73	96.23	264.19	0.44
52	5393.00	1.10	279.00	5389.49	-98.83	-10.11	-98.38	98.90	264.13	1.36
53	5488.00	1.00	293.30	5484.48	-100.46	-9.64	-100.05	100.51	264.49	0.29
54	5584.00	1.40	283.90	5577.46	-102.27	-9.05	-101.89	102.29	264.92	0.48
55	5679.00	1.50	286.60	5670.43	-104.49	-8.43	-104.16	104.50	265.37	0.13
56	5766.00	0.80	296.20	5762.41	-106.18	-7.80	-105.89	106.18	265.79	0.79
57	5860.00	0.10	310.50	5856.40	-106.80	-7.46	-106.54	106.80	266.00	0.75
58	5952.00	0.30	154.00	5948.40	-106.77	-7.62	-106.50	106.77	265.91	0.43
59	6046.00	0.50	183.90	6042.40	-106.73	-8.25	-106.42	106.74	265.57	0.30
60	6140.00	0.40	193.60	6136.40	-106.88	-8.98	-106.52	106.90	265.18	0.13
61	6233.00	0.90	212.40	6229.39	-107.41	-9.91	-106.99	107.45	264.71	0.58
62	6325.00	0.70	209.80	6321.38	-108.15	-11.01	-107.66	108.22	264.16	0.22
63	6417.00	1.10	235.40	6413.37	-109.22	-12.00	-108.66	109.33	263.70	0.61
64	6510.00	1.80	250.00	6506.34	-111.39	-13.01	-110.77	111.53	263.30	0.85
65	6602.00	1.50	261.30	6598.30	-113.97	-13.68	-113.32	114.14	263.11	0.48
66	6693.00	1.70	272.70	6689.27	-116.50	-13.80	-115.85	116.67	263.21	0.41
67	6787.00	1.10	302.70	6783.24	-118.61	-13.25	-118.00	118.74	263.59	0.99
68	6879.00	1.20	291.10	6875.22	-120.20	-12.42	-119.64	120.28	264.07	0.27
69	6971.00	1.20	287.30	6967.20	-121.97	-11.79	-121.46	122.03	264.46	0.09
70	7064.00	1.10	306.40	7060.19	-123.56	-10.97	-123.11	123.60	264.91	0.42
71	7159.00	0.90	289.00	7155.17	-124.95	-10.19	-124.55	124.97	265.32	0.38
72	7251.00	0.40	293.40	7247.16	-125.90	-9.83	-125.53	125.91	265.52	0.55
73	7345.00	0.40	305.40	7341.16	-126.45	-9.51	-126.10	126.46	265.69	0.09
74	7439.00	0.60	294.80	7435.16	-127.14	-9.11	-126.81	127.14	265.89	0.23
75	7535.00	0.60	274.30	7531.15	-128.08	-8.87	-127.77	128.08	266.03	0.22
76	7628.00	0.70	294.50	7624.15	-129.06	-8.59	-128.77	129.06	266.18	0.27
77	7723.00	0.90	277.30	7719.14	-130.30	-8.26	-130.04	130.30	266.37	0.33
78	7799.00	1.10	240.70	7795.13	-131.55	-8.54	-131.27	131.55	266.28	0.86
79	7861.00	0.90	143.30	7857.12	-131.82	-9.22	-131.50	131.82	265.99	2.43
80	7891.00	5.90	100.60	7887.06	-130.20	-9.69	-129.84	130.20	265.73	17.58
81	7922.00	11.20	94.60	7917.71	-125.67	-10.23	-125.27	125.69	265.33	17.31
82	7953.00	14.90	93.70	7947.90	-118.74	-10.73	-118.29	118.77	264.82	11.95
83	7984.00	18.20	91.50	7977.61	-109.96	-11.11	-109.47	110.03	264.20	10.83
84	8015.00	20.00	89.00	8006.91	-99.85	-11.15	-99.33	99.95	263.60	6.38
85	8045.00	22.00	88.10	8034.91	-89.10	-10.87	-88.58	89.25	263.00	6.75
86	8077.00	23.60	88.30	8064.41	-76.71	-10.48	-76.19	76.91	262.17	5.01
87	8109.00	24.40	88.80	8093.64	-63.71	-10.15	-63.18	63.99	260.87	2.58
88	8140.00	26.20	86.00	8121.67	-50.46	-9.54	-49.95	50.85	259.18	6.97
89	8171.00	28.70	84.10	8149.18	-36.18	-8.30	-35.71	36.66	256.92	8.54
90	8202.00	31.70	83.50	8175.97	-20.60	-6.61	-20.21	21.27	251.89	9.73
91	8233.00	34.60	84.60	8201.92	-3.67	-4.86	-3.35	5.91	214.61	9.55
92	8264.00	37.60	84.40	8226.96	14.59	-3.11	14.82	15.15	104.84	9.68
93	8295.00	41.90	84.30	8250.79	34.40	-1.16	34.55	34.57	91.92	13.87
94	8327.00	45.80	84.80	8273.87	56.55	0.94	56.61	56.62	89.04	12.24
95	8357.00	51.10	85.30	8293.76	78.99	2.88	78.97	79.02	87.91	17.71
96	8389.00	56.20	86.00	8312.72	104.75	4.83	104.66	104.77	87.36	16.03
97	8421.00	61.30	86.90	8329.34	132.10	6.51	131.96	132.12	87.17	16.12
98	8453.00	66.20	87.10	8343.46	160.79	8.01	160.61	160.81	87.14	15.32
99	8485.00	70.70	86.70	8355.21	190.54	9.62	190.32	190.56	87.10	14.11
100	8516.00	74.40	85.30	8364.51	220.11	11.69	219.82	220.13	86.96	12.69
101	8547.00	80.20	83.70	8371.32	250.32	14.59	249.90	250.33	86.66	19.37
102	8576.00	83.90	84.10	8375.33	279.01	17.64	278.46	279.02	86.37	12.83



103	8607.00	87.30	84.30	8377.71	309.90	20.77	309.20	309.90	86.16	10.99
104	8671.00	87.30	84.80	8380.72	373.80	26.84	372.84	373.84	85.88	0.78
105	8763.00	89.60	85.30	8383.21	465.74	34.77	464.46	465.76	85.72	2.56
106	8855.00	89.20	85.00	8384.18	557.72	42.55	556.12	557.75	85.62	0.54
107	8948.00	89.90	85.10	8384.91	650.69	50.58	648.77	650.74	85.54	0.76
108	9040.00	90.70	86.00	8384.42	742.68	57.71	740.49	742.74	85.54	1.31
109	9131.00	91.10	85.80	8382.99	833.67	64.22	831.25	833.73	85.58	0.49
110	9225.00	91.40	86.20	8380.94	927.65	70.77	925.00	927.70	85.62	0.53
111	9317.00	90.00	87.90	8379.82	1019.63	75.51	1016.86	1019.66	85.75	2.39
112	9410.00	89.80	87.60	8379.98	1112.59	79.16	1109.79	1112.61	85.92	0.39
113	9502.00	89.80	87.80	8380.30	1204.56	82.85	1201.72	1204.57	86.06	0.22
114	9597.00	89.80	87.90	8380.64	1299.53	86.42	1296.65	1299.53	86.19	0.11
115	9689.00	89.10	86.90	8381.52	1391.50	90.59	1388.55	1391.50	86.27	1.33
116	9783.00	89.20	86.70	8382.91	1485.49	95.84	1482.39	1485.49	86.30	0.24
117	9877.00	89.30	87.10	8384.14	1579.47	100.92	1576.25	1579.47	86.34	0.44
118	9973.00	89.50	87.20	8385.15	1675.45	105.69	1672.12	1675.46	86.38	0.23
119	10066.00	89.80	87.20	8385.72	1768.44	110.23	1765.01	1768.45	86.43	0.32
120	10161.00	88.40	85.80	8387.21	1863.42	116.03	1859.82	1863.43	86.43	2.08
121	10257.00	88.50	86.00	8389.81	1959.38	122.89	1955.53	1959.39	86.40	0.23
122	10352.00	88.90	86.00	8391.96	2054.36	129.52	2050.28	2054.37	86.39	0.42
123	10446.00	89.10	84.40	8393.60	2148.33	137.38	2143.93	2148.33	86.33	1.72
124	10541.00	89.30	84.60	8394.93	2243.27	146.49	2238.49	2243.27	86.26	0.30
125	10636.00	89.30	84.40	8396.09	2338.22	155.59	2333.04	2338.22	86.18	0.21
126	10731.00	89.20	84.40	8397.33	2433.17	164.86	2427.58	2433.17	86.11	0.11
127	10826.00	89.30	84.10	8398.58	2528.10	174.38	2522.09	2528.11	86.04	0.33
128	10921.00	89.50	85.30	8399.57	2623.06	183.15	2616.68	2623.08	86.00	1.28
129	11017.00	89.00	86.70	8400.83	2719.05	189.85	2712.44	2719.07	86.00	1.55
130	11112.00	89.00	86.40	8402.49	2814.03	195.57	2807.25	2814.05	86.01	0.32
131	11207.00	89.30	86.20	8403.89	2909.02	201.70	2902.04	2909.04	86.02	0.38
132	11302.00	88.80	86.90	8405.47	3004.00	207.41	2996.85	3004.02	86.04	0.91
133	11396.00	89.30	86.70	8407.03	3097.99	212.66	3090.69	3098.00	86.06	0.57
134	11490.00	89.60	86.00	8407.93	3191.98	218.64	3184.50	3192.00	86.07	0.81
135	11584.00	89.50	86.50	8408.67	3285.98	224.79	3278.29	3285.99	86.08	0.54
136	11678.00	88.50	86.30	8410.31	3379.94	229.05	3372.18	3379.95	86.11	2.19
137	11787.00	88.70	87.90	8412.97	3488.85	232.67	3481.08	3488.85	86.18	0.41
138	11882.00	89.00	87.90	8414.88	3583.79	236.15	3576.00	3583.79	86.22	0.32
139	11977.00	89.50	87.80	8416.12	3678.74	239.71	3670.93	3678.74	86.26	0.54
140	12072.00	88.50	86.00	8417.78	3773.72	244.85	3765.77	3773.72	86.28	2.17
141	12167.00	88.90	86.00	8419.94	3868.69	251.47	3860.51	3868.69	86.27	0.42
142	12262.00	89.30	86.20	8421.43	3963.68	257.93	3955.28	3963.68	86.27	0.47
143	12357.00	89.80	86.20	8422.17	4058.68	264.23	4050.07	4058.68	86.27	0.53
144	12452.00	88.50	85.80	8423.58	4153.66	270.85	4144.82	4153.66	86.26	1.43
145	12547.00	88.40	85.80	8426.15	4248.63	277.81	4239.53	4248.63	86.25	0.11
146	12642.00	88.70	85.70	8428.56	4343.59	284.85	4334.24	4343.59	86.24	0.33
147	12695.00	88.90	85.10	8429.67	4396.57	289.10	4387.06	4396.57	86.23	1.19
PROJ	12753.00	88.90	85.10	8430.78	4454.55	294.05	4444.84	4454.55	86.22	0.00



**McVAY DRILLING COMPANY**

P.O. Box 2450
Hobbs, New Mexico 88241
(575) 397-3311
FAX: 39-DRILL

Well Name and Num: Benson Deep BDX Federal #2H
Location: Sec 33, T18S, R30E
Operator: Yates
Drilling Contractor: McVay Drilling Company

The undersigned certifies that he is an authorized representative of the drilling contractor who drilled the above described well and that he has conducted deviation tests and obtained the following results:

<u>Degrees @</u>	<u>Depth</u>	<u>Degrees @</u>	<u>Depth</u>	<u>Degrees @</u>	<u>Depth</u>
0.84	390	1.50	5674	89.30	11207
4.20	559	0.80	5766	88.99	11977
1.10	737	0.90	6233	88.90	12695
0.80	1205	1.70	6693		
0.50	1680	1.20	6973		
0.40	1964	0.60	7439		
0.50	2073	0.90	7723		
0.90	2643	1.10	7789		
1.10	3118	18.20	7984		
1.10	3403	37.60	8264		
1.10	4161	45.80	8327		
5.20	4446	50.20	8547		
4.30	4729	89.60	8753		
3.20	4918	89.80	9502		
3.30	5158	89.30	9877		
2.00	5298	89.10	10362		
1.10	5393	89.20	10731		

By: *Henry Eram*

Subscribed and sworn to before me this 15th day of July, 2014

Tina Flemens
Notary Public, Lea County, New Mexico

