

A Gyrodata Directional Survey

for



BENNETT EXPLORATION AND PRODUCTION, CO

WELL: BENNETT FEDERAL 1-19X, 2 7/8" DRILLPIPE

Location: LEED #87, TOPONAS, COLORADO

Job Number: M0798600690

Run Date: 11-Jul-98 11:50:52

Surveyor: KIRK KIMBRELL

Calculation Method: MINIMUM CURVATURE

Survey Latitude: 40.000000 deg. N



Azimuth Correction:

Remarks: Bearings are Relative to True North

Proposed Well Direction: 30.000 deg

Vertical Section Calculated from Well Head Location

Closure Calculated from Well Head Location

Horizontal Coordinates Calculated from Local Horizontal Reference

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STAT NO.	MEASURED DEPTH feet	I N C L deg.	AZIMUTH deg.	BORE HOLE BEARING deg. min.	GYRO TOOL FACE deg.
0	0.0	0.00	0.00	N 0 0 E	0.00

 RATE GYROSCOPIC WHIPSTOCK AND MOTOR ORIENTATION RUN IN 2 7/8" DRILLPIPE
 ALL MEASURED DEPTHS AND COORDINATES REFERENCED TO LEED #87 R.K.B.

79	2135.0	1.23	127.67	S 52 20 E	48.01
85	2140.0	1.46	90.66	S 89 21 E	13.14
89	2146.0	1.90	81.74	N 81 45 E	62.25
94	2155.0	5.86	54.39	N 54 23 E	52.47
101	2172.0	12.37	58.99	N 58 59 E	117.29
119	2177.0	14.25	53.41	N 53 24 E	39.95
125	2189.0	17.34	60.92	N 60 55 E	73.27

24 Jul 1998

Bennet Exploration

Egeria Creek Federal

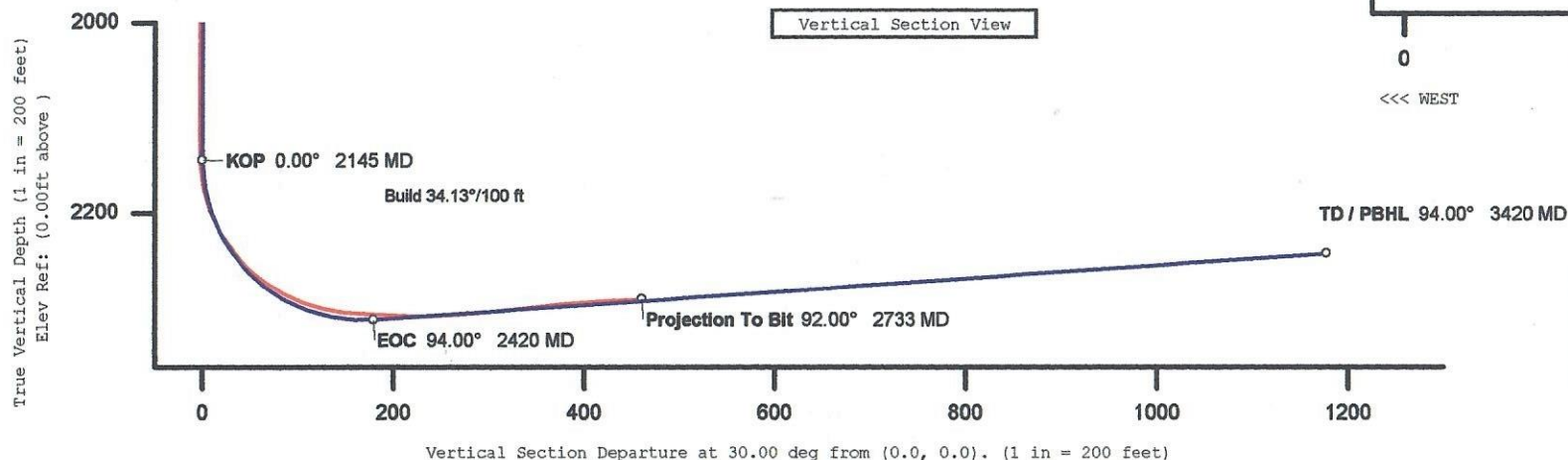
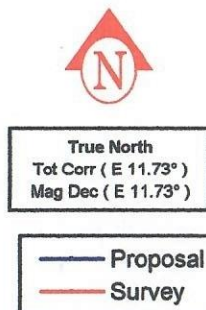
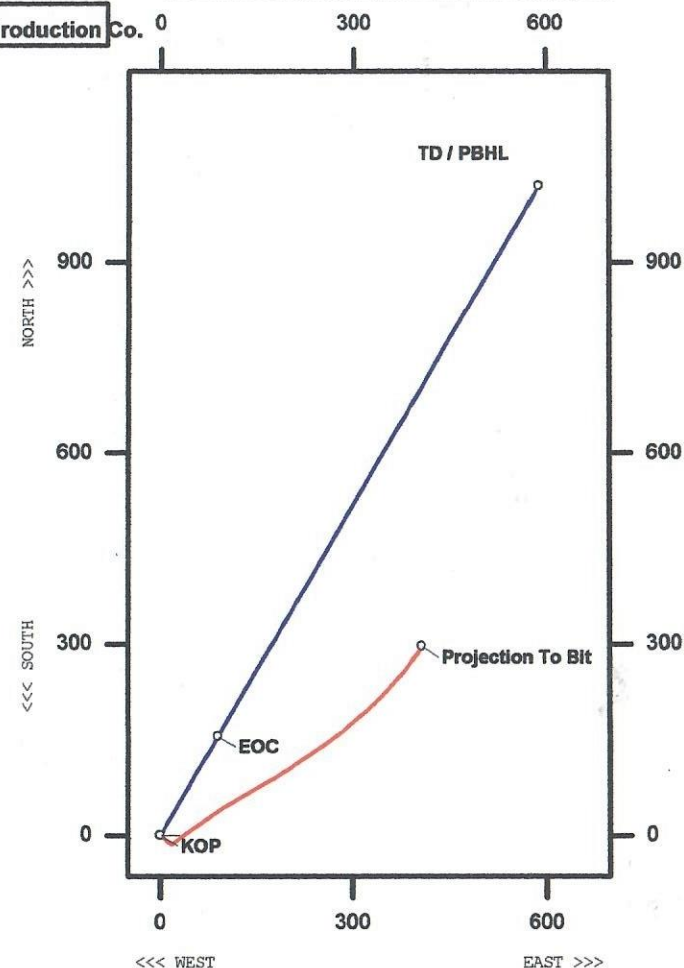
Measured	Vertical				Relative Coordinates			
DEPTH	DEPTH	DRIFT	BEARING (MAG.)		EAST/WEST	NORTH/SOUTH	DISPLACEMENT	DOG LEG
ft	ft	deg	M.deg N		ft	ft	ft	deg/100ft
2177.00	2176.44	14.20	41.61	N41.61E	23.75 E	6.37 S	24.59	
2185.01	2184.15	17.00	42.25	N42.25E	25.19 E	4.77 S	25.64	113.2
2220.01	2216.31	29.19	41.50	N41.50E	34.32 E	5.45 N	34.75	112.5
2252.00	2242.42	41.06	43.13	N43.13E	46.72 E	19.01 N	50.44	120.2
2283.01	2263.65	52.31	43.25	N43.25E	62.14 E	35.43 N	71.53	117.2
2314.99	2280.87	62.38	43.75	N43.75E	80.66 E	54.93 N	97.59	101.7
2346.00	2293.37	70.06	47.38	N47.38E	100.91 E	74.76 N	125.59	87.1
2377.99	2301.94	78.88	47.38	N47.38E	123.57 E	95.61 N	156.24	89.0
2406.99	2305.61	86.50	47.75	N47.75E	144.79 E	115.00 N	184.90	84.9
2437.01	2307.28	87.13	44.63	N44.63E	166.41 E	135.75 N	214.76	34.2
2469.00	2308.63	88.06	44.88	N44.88E	188.92 E	158.44 N	246.56	9.7
2500.00	2308.96	90.69	43.38	N43.38E	210.50 E	180.69 N	277.42	31.5
2531.00	2307.71	93.88	41.00	N41.00E	231.30 E	203.64 N	308.17	41.4
2560.99	2305.31	95.31	37.88	N37.88E	250.29 E	226.72 N	337.71	36.9
2594.00	2302.13	95.75	36.63	N36.63E	270.17 E	252.87 N	370.05	12.9
2625.00	2298.92	96.13	33.75	N33.75E	287.94 E	278.07 N	400.29	30.1
2654.99	2296.00	95.00	30.38	N30.38E	303.78 E	303.36 N	429.31	38.1
2685.01	2293.70	93.81	26.88	N26.88E	318.12 E	329.62 N	458.10	39.7

Schlumberger
Anadrill

Bennett Exploration & Production Co.

WELL Egeria Creek Federal 1-19X	FIELD CO, Routt County	STRUCTURE Bennett Exploration & Production Co.
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PLAN VIEW Scale (1 in = 300 feet)



Quality Control
Date Drawn: 07-Aug-1998
Drawn by: K Sullivan
Checked by: _____
Client OK: _____

Company **BENNETT PETROLEUM**

Well Egeria Creek fed#1-19XH

Field

Rig LEED #87

Anadrill D.D. Russell / Brent

Tgt Inc.	94.0
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Mag. Decl. **11.79**

Target TVD 2312

Target Az. 30

Tgt. Coor. 1

Date	No.	DEPTH	INC.	AZM	C.L.	T.V.D.	V.S.	N/S	E/W	DLS	B/D.	BHA
Tie - In												
	1	2135	1.2	127.6	2135	2134.84	-2.96	13.64 S	17.71 E	0.06	0.06	1
	2	2155	5.9	54.8	20	2154.80	-2.05	13.18 S	18.72 E	28.31	23.50	
	3	2172	12.4	59.0	17	2171.58	0.34	11.73 S	21.00 E	38.41	38.24	
	4	2177	14.2	53.4	5	2176.45	1.37	11.09 S	21.95 E	44.23	36.00	1
	5	2185	17.0	54.0	8	2184.15	3.34	9.82 S	23.68 E	35.06	35.00	2
	6	2220	29.2	53.3	35	2216.28	15.89	1.68 S	34.68 E	34.87	34.86	
	7	2252	41.1	54.9	32	2242.40	32.65	9.08 N	49.57 E	37.30	37.19	
	8	2283	52.3	55.0	31	2263.63	53.05	22.01 N	67.98 E	36.13	36.13	2
	9	2315	62.4	55.5	32	2280.87	77.37	37.34 N	90.06 E	31.59	31.56	2
	10	2345	70.1	59.2	30	2292.95	101.71	52.12 N	113.15 E	28.03	25.67	3
	11	2363	75.3	59.4	18	2298.30	116.69	60.89 N	127.92 E	28.91	28.89	3
	12	2378	78.9	59.2	15	2301.65	129.44	68.36 N	140.49 E	24.04	24.00	4
	13	2407	86.5	59.5	29	2305.33	154.49	83.01 N	165.20 E	26.23	26.21	
	14	2437	87.1	56.4	30	2307.00	180.94	98.90 N	190.58 E	10.51	2.00	
	15	2469	88.1	56.7	32	2308.34	209.54	116.52 N	217.26 E	3.26	3.13	4
	16	2500	90.7	55.2	31	2308.67	237.41	133.88 N	242.93 E	9.68	8.39	
	17	2531	93.9	52.8	31	2307.42	265.70	152.08 N	267.98 E	12.90	10.32	
	18	2561	95.3	49.7	30	2305.02	293.56	170.80 N	291.30 E	11.31	4.67	4
	19	2592	95.8	48.4	31	2302.02	322.73	191.02 N	314.60 E	4.47	1.61	
	20	2625	96.1	45.5	33	2298.60	354.12	213.42 N	338.58 E	8.79	0.91	
	21	2655	95.0	42.2	30	2295.70	383.10	234.95 N	359.26 E	11.55	-3.67	4
	22	2686	93.8	38.5	31	2293.32	413.50	258.50 N	379.26 E	12.51	-3.87	
PROJ.	23	2733	92.0	32.9	47	2290.94	460.18	296.61 N	406.63 E	12.53	-3.87	4