

District I
1625 N. French Dr., Hobbs, NM 88240
Phone: (575) 393-6161 Fax: (575) 393-0720
District II
811 S. First St., Artesia, NM 88210
Phone: (575) 748-1283 Fax: (575) 748-9720
District III
1000 Rio Brazos Road, Aztec, NM 87410
Phone: (505) 334-6178 Fax: (505) 334-6170
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505
Phone: (505) 476-3460 Fax: (505) 476-3462

State of New Mexico

Form C-101
Revised December 16, 2011

Energy Minerals and Natural Resources

Oil Conservation Division

Permit

1220 South St. Francis Dr.

Santa Fe, NM 87505

APPLICATION FOR PERMIT TO DRILL, RE-ENTER, DEEPEN, PLUGBACK, OR ADD A ZONE

¹ Operator Name and Address Yates Petroleum Corporation 105 S. Fourth Street Artesia, NM 88210		² OGRID Number 025575
		³ API Number 30-015-40949
⁴ Property Code 35384	⁵ Property Name Doc BHU State	⁶ Well No 4H

⁷ Surface Location

UL - Lot	Section	Township	Range	Lot Idn	Feet from	N/S Line	Feet From	E/W Line	County
M	5	25S	30E	M	330	S	660	W	Eddy

⁸ Pool Information

PIERCE CROSSING; BONE SPRING, EAST	96473
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Additional Well Information

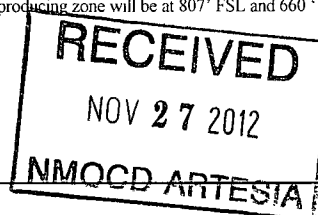
⁹ Work Type N	¹⁰ Well Type Oil	¹¹ Cable/Rotary	¹² Lease Type S	¹³ Ground Level Elevation 3184'
¹⁴ Multiple N	¹⁵ Proposed Depth 9626'	¹⁶ Formation Bone Spring	¹⁷ Contractor	¹⁸ Spud Date ASAP
Depth to Ground water		Distance from nearest fresh water well		Distance to nearest surface water

¹⁹ Proposed Casing and Cement Program

Type	Hole Size	Casing Size	Casing Weight/ft	Setting Depth	Sacks of Cement	Estimated TOC
Surf	17.5"	13.375"	48#	650'	525	0
Int1	12.25"	9.625"	40#	3550'	950	0
Int2	8.75"	7"	26#	8123'	850	3000
Prod	7.875"	5.5"	11.6#	9626'	650	6800

Casing/Cement Program: Additional Comments

Yates Petroleum Corporation proposes to drill/test the Bone Spring and intermediate formations. Well will be drilled vertically to 7373'. At 7373' well will be kicked off at 12 degrees per 100' with an 8 3/4" hole to 8123' MD (7850' TVD). If hole conditions dictate, 7" casing will be set. A 6 1/8" hole will then be drilled to 9626' MD (7850' TVD) where 4 1/2" casing will be set and cemented. If 7" is not set, then hole size will be reduced to 7 7/8" and drilled to 9626' MD (7850' TVD) where 5 1/2" casing will be set and cemented. Penetration point of producing zone will be at 807' FSL and 660' FWL, 5-25S-30E. Deepest TVD in the well is 7850' in the lateral.
MUD PROGRAM: 0-650' Fresh Water; 650'-3550' Brine Water; 3550'-7373' Cut Brine; 7373'-9626' Cut Brine (lateral).
H2S is not anticipated.
C-144 Attached.
C-102 Attached.
Contingency Casing Design and Directional Drilling Plan Attached.
Previously Approved.



Proposed Blowout Prevention Program

Type	Working Pressure	Test Pressure	Manufacturer
Double Ram	3000	3000	

I hereby certify that the information given above is true and complete to the best of my knowledge and belief.

I further certify that the drilling pit will be constructed according to NMOC D guidelines ☒, a general permit ☐, or an (attached) alternative OCD-approved plan ☐.

Signature: *Lori Flores*

Printed name: Lori Flores

Title: Land Regulatory Technician

E-mail Address: lorif@yatespetroleum.com

Date: 11/27/2012

Phone: 575-748-4448

OIL CONSERVATION DIVISION

Approved By:

BR Dade

Title: *Dist # Supervisor*

Approved Date: *1/10/13*

Expiration Date: *1/10/2015*

Conditions of Approval Attached

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State of New Mexico
Energy, Minerals and Natural Resources Department

Form C-102
Revised October 15, 2009

Submit one copy to appropriate
District Office

OIL CONSERVATION DIVISION
1220 South St. Francis Dr.
Santa Fe, New Mexico 87505

WELL LOCATION AND ACREAGE DEDICATION PLAT

☐ AMENDED REPORT

API Number	Pool Code	Pool Name Pierce Crossing Bone Spring, North East
Property Code	Property Name DOC "BHU" STATE	Well Number 4H
OGRID No.	Operator Name YATES PETROLEUM CORP.	Elevation 3184'

Surface Location

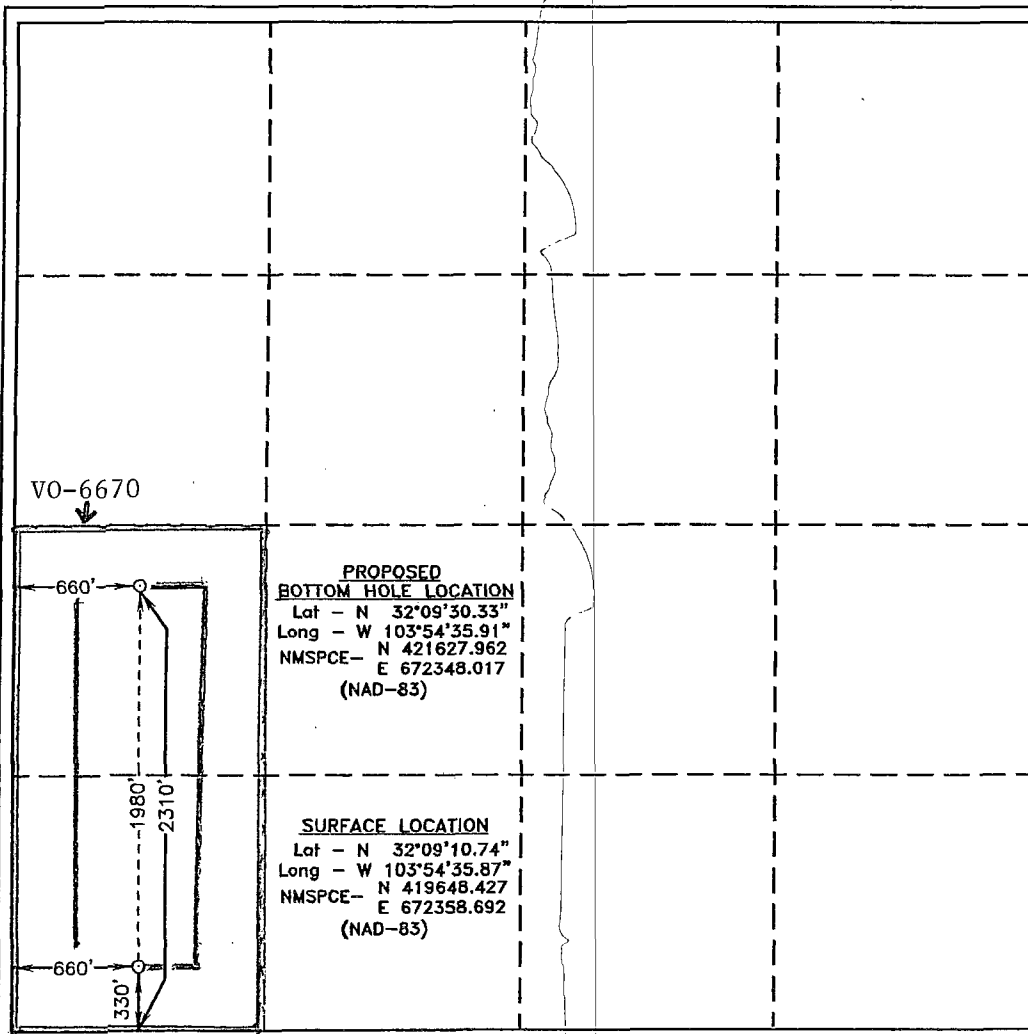
UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
M	5	25 S	30 E		330	SOUTH	660	WEST	EDDY

Bottom Hole Location If Different From Surface

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
L	5	25 S	30 E		2310	SOUTH	660	WEST	EDDY

Dedicated Acres 80	Joint or Infill	Consolidation Code	Order No.
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NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED
OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION

	<p>OPERATOR CERTIFICATION</p> <p>I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or unleased mineral interest in the land including the proposed bottom hole location or has a right to drill this well at this location pursuant to a contract with an owner of such a mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.</p> <p><i>Clifton May</i> 11-22-09 Signature Date</p> <p>Clifton May Printed Name</p> <p>SURVEYOR CERTIFICATION</p> <p>I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief.</p> <p>NOVEMBER 22, 2009 Date Surveyed</p> <p><i>Gary L. Jones</i> Signature & Seal of Professional Surveyor</p> <p>Certificate No. Gary L. Jones 7977</p> <p>BASIN SURVEYS</p>
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WELL LOCATION AND ACREAGE DEDICATION PLAT

☐ AMENDED REPORT

API Number	Pool Code	Pool Name
		Pierce Crossing Bone Spring, North East
Property Code	Property Name	Well Number
	DOC "BHU" STATE	4H
GRID No.	Operator Name	Elevation
	YATES PETROLEUM CORP.	3184'

Surface Location

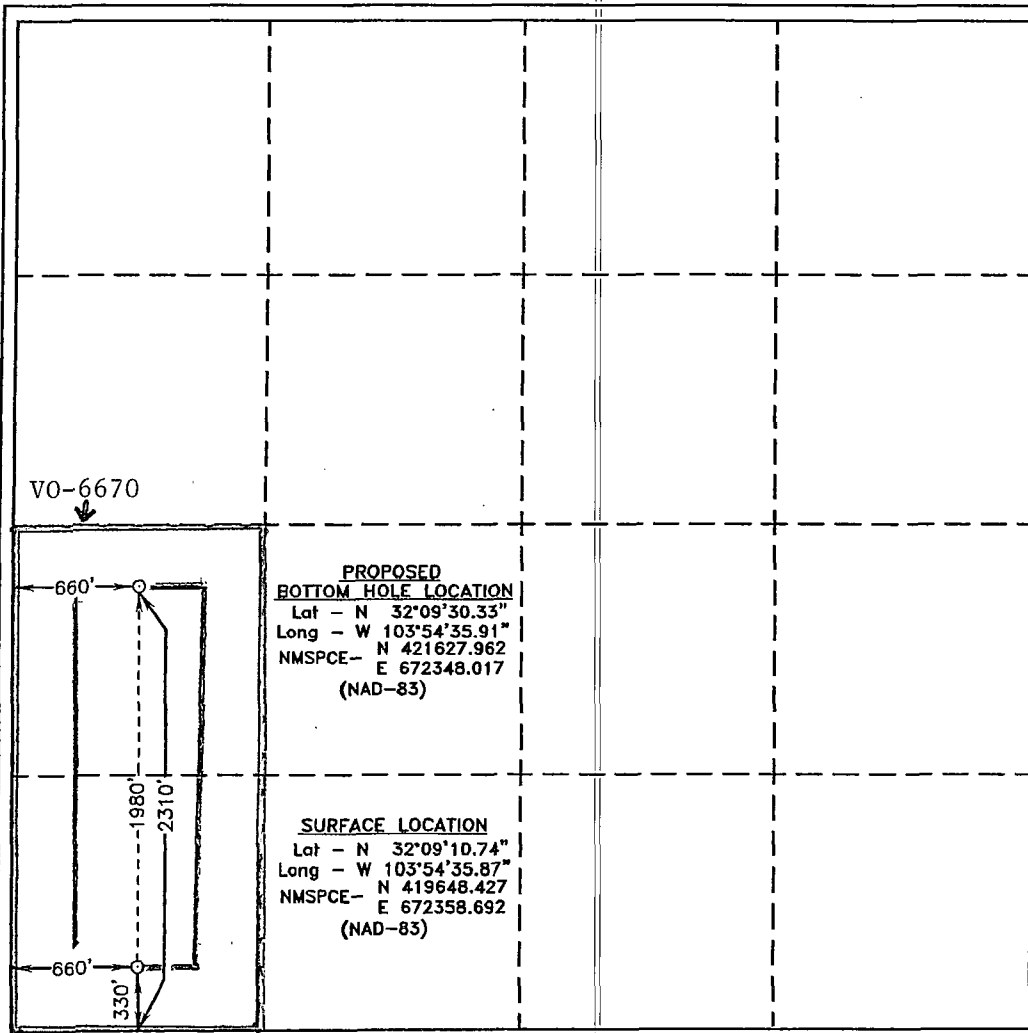
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M	5	25 S	30 E		330	SOUTH	660	WEST	EDDY

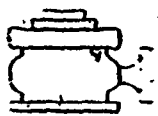
Bottom Hole Location If Different From Surface

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
L	5	25 S	30 E		2310	SOUTH	660	WEST	EDDY

Dedicated Acres	Joint or Infill	Consolidation Code	Order No.
80			

NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED
OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION

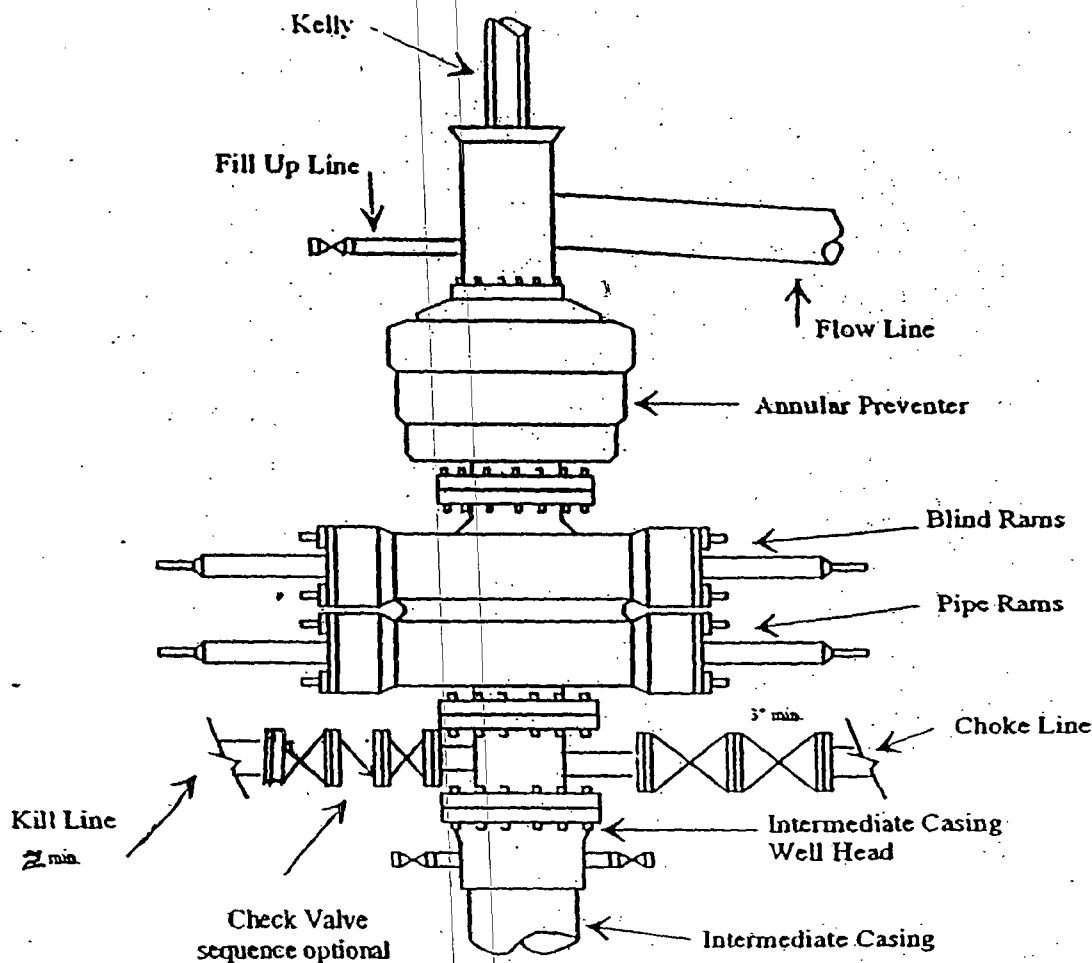
	<p>OPERATOR CERTIFICATION</p> <p>I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or unleased mineral interest in the land including the proposed bottom hole location or has a right to drill this well at this location pursuant to a contract with an owner of such a mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the Division.</p> <p><i>Clifton May</i> 11-22-09 Signature Date</p> <p>Clifton May Printed Name</p> <p>SURVEYOR CERTIFICATION</p> <p>I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief.</p> <p>NOVEMBER 19, 2009 Date Surveyed Signature & Seal of Professional Surveyor 7977 Certificate No. Gary L. Jones 7977</p> <p>BASIN SURVEYS</p>
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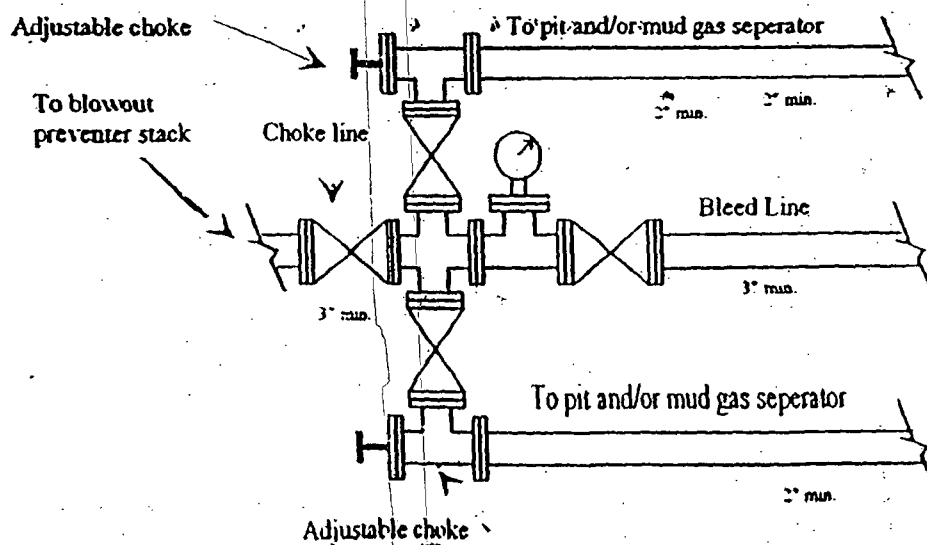
Yates Petroleum Corporation

BOP-3

Typical 3,000 psi Pressure System Schematic Annular with Double Ram Preventer Stack



Typical 3,000 psi choke manifold assembly with at least these minimum features



Doc BHU State #4H

Contingency Casing Design

If hole conditions dictate, 7" casing will be set at 8,123' MD (7,850' TVD). A 6 1/8" hole will then be drilled to 9,626' MD (7,850' TVD) where 4 1/2" casing will be set and cemented with one stage up to dv tool. After completion procedures, the 4 1/2" casing will be cut and pulled at 7300'.

2nd Intermediate

0 ft to 100 ft				Make up Torque ft-lbs			Total ft = 100
O.D.	Weight	Grade	Threads	opt.	min.	mx.	
7 inches	26 #/ft	J-55	LT&C	3570	2750	4590	
Collapse Resistance	Internal Yield	Joint Strength		Body Yield		Drift	
4,320 psi	4,980 psi	367,000 #		415,000 #		6.151	

100 ft to 5,700 ft				Make up Torque ft-lbs			Total ft = 5,600
O.D.	Weight	Grade	Threads	opt.	min.	mx.	
7 inches	23 #/ft	J-55	LT&C	3130	2350	3910	
Collapse Resistance	Internal Yield	Joint Strength		Body Yield		Drift	
3,270 psi	4,360 psi	313,000 #		366,000 #		6.25	

5,700 ft to 8,123 ft				Make up Torque ft-lbs			Total ft = 2,423
O.D.	Weight	Grade	Threads	opt.	min.	mx.	
7 inches	26 #/ft	J-55	LT&C	3570	2750	4590	
Collapse Resistance	Internal Yield	Joint Strength		Body Yield		Drift	
4,320 psi	4,980 psi	367,000 #		415,000 #		6.151	

DV tool placed at 6800'

Stage I: Cemented w/300sx PVL (YLD 1.41 Wt 13) TOC= 6800'

Stage II: Cemented w/810sx PVL (YLD 1.41 Wt 13) TOC= 3000'

Production

0 ft to 9,626 ft				Make up Torque ft-lbs			Total ft = 9,626
O.D.	Weight	Grade	Threads	opt.	min.	mx.	
4.5 inches	11.6 #/ft	HCP-110	LT&C	3020	2270	3780	
Collapse Resistance	Internal Yield	Joint Strength		Body Yield		Drift	
8,650 psi	10,890 psi	279,000 #		367,000 #		3.875	

DV tool placed at approx. 7300' and cemented with one stage up to dv tool. After completion procedures, the 4 1/2" casing will be cut and pulled at 7300'.

Cemented w/310sx PVL (YLD 1.41 Wt 13) TOC= 7300'

CASING DESIGN AND CEMENT PROGRAM					
CASING DESIGN FACTORS: BURST 1.0 TENSILE 1.8 COLLAPSE 1.125					
CASING DESIGN (TOP TO BOTTOM)					
STRING	INTERVAL(FT)	SIZE (IN)	#S/FT	GRADE	T&C
SURFACE	0 - 650	13 3/8	48	H-40	ST&C
INTERMEDIATE	0 - 100	9 5/8	40	J-55	ST&C
	100 - 3300	9 5/8	36	J-55	ST&C
	3300 - 3550	9 5/8	40	J-55	ST&C
PRODUCTION	0 - 8200	5 1/2	17	HCP-110	LT&C
	8200 - 9626	5 1/2	17	L-80	LT&C
CEMENT:					
SURFACE: lead w/325sx C Lite (YLD 1.64 WT 14.8) tail w/200sx Class C (YLD 1.34 WT 14.8) TOC= Surface					
INTERMEDIATE: lead w/750sx Poz C(YLD 1.96WT 12.6) tail w/200sx Class C(YLD 1.32 WT 14.8)TOC=Surface					
PRODUCTION: Production cement to be done in two stages with stage tools at approx. 6800'.					
Stage I from 6800'-9626': cement w/850sx Pecos Valley Lite (YLD 1.41 WT 13) TOC=6800'					
Stage II from 3000'-6800': lead w/550sx Lite crete(YLD 3.19 Wt 9.9),					
tail w/100sx Pecos Valley Lite (YLD 1.41 WT 13) TOC=3000'					

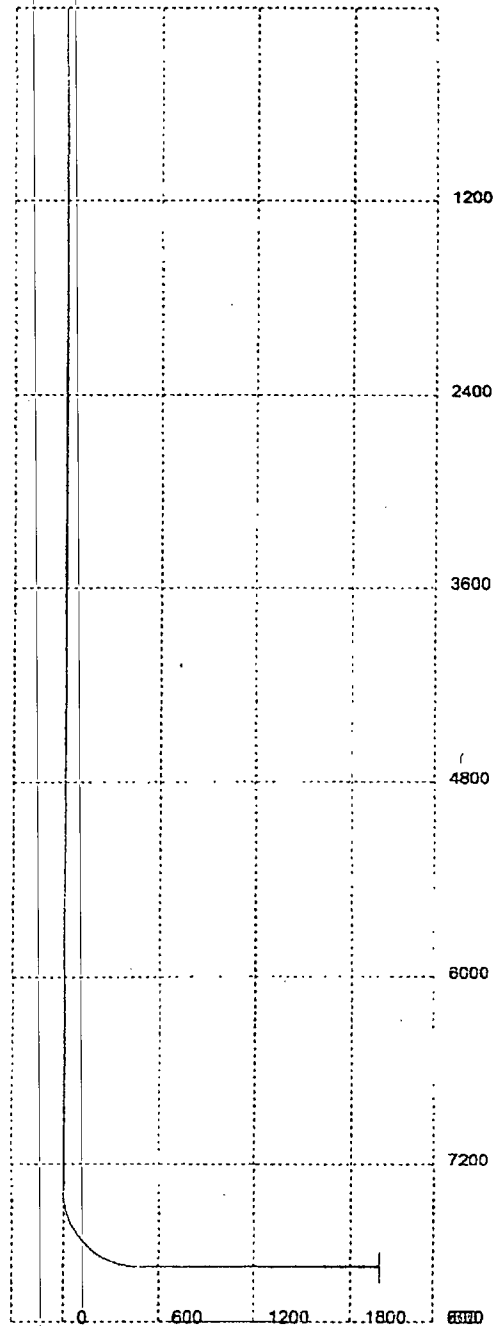
M.D.	Inclination	Azimuth	T.V.D.	N/S	E/W	D.S.	Tool Face	T.F. Ref (HS/GN)	
0	0	0	0	0	0	0			
625	0	0	625	0	0	0			RUSTLER
695	0	0	695	0	0	0			TOP OF SALT
3,455	0	0	3,455	0	0	0			BASE OF SALT
4,065	0	0	4,065	0	0	0			BELL CANYON
5,430	0	0	5,430	0	0	0			CHERRY CANYON
6,670	0	0	6,670	0	0	0			BRUSHY CANYON
7,240	0	0	7,240	0	0	0			BRUSHY CANYON MARKER
7373	0	0	7373	0	0	12	0	GN	KOP
7375	0.24	0	7375	0	0	12	0	HS	
7400	3.24	0	7399.99	0.76	0	12	0	HS	
7425	6.24	0	7424.9	2.83	0	12	0	HS	BONE SPRINGS
7450	9.24	0	7449.67	6.2	0	12	0	HS	
7475	12.24	0	7474.23	10.85	0	12	0	HS	
7500	15.24	0	7498.51	16.79	0	12	0	HS	
7525	18.24	0	7522.45	23.99	0	12	0	HS	
7550	21.24	0	7545.97	32.43	0	12	0	HS	
7575	24.24	0	7569.03	42.1	0	12	0	HS	
7600	27.24	0	7591.54	52.95	0	12	0	HS	
7625	30.24	0	7613.46	64.97	0	12	0	HS	
7650	33.24	0	7634.72	78.12	0	12	0	HS	
7675	36.24	0	7655.26	92.37	0	12	0	HS	
7700	39.24	0	7675.03	107.67	0	12	0	HS	
7725	42.24	0	7693.97	123.98	0	12	0	HS	
7750	45.24	0	7712.03	141.26	0	12	0	HS	
7775	48.24	0	7729.16	159.47	0	12	0	HS	
7800	51.24	0	7745.32	178.54	0	12	0	HS	
7825	54.24	0	7760.45	198.44	0	12	0	HS	
7850	57.24	0	7774.52	219.1	0	12	0	HS	
7875	60.24	0	7787.49	240.46	0	12	0	HS	
7900	63.24	0	7799.33	262.48	0	12	0	HS	
7925	66.24	0	7810	285.09	0	12	0	HS	
7950	69.24	0	7819.47	308.22	0	12	0	HS	
7975	72.24	0	7827.71	331.82	0	12	0	HS	
8000	75.24	0	7834.71	355.82	0	12	0	HS	
8025	78.24	0	7840.45	380.15	0	12	0	HS	
8050	81.24	0	7844.9	404.75	0	12	0	HS	
8075	84.24	0	7848.06	429.54	0	12	0	HS	
8100	87.24	0	7849.91	454.47	0	12	0	HS	
8123.15	90.02	0	7850.47	477.61	0	12	0	HS	BONE SPRINGS PAY
9625.54	90.02	0	7850	1980	0	0			LATERAL TD

Well will be drilled vertically to 7373'. At 7373' well will be kicked off at 12 degrees per 100' with an 8 3/4" hole to 8123' MD (7,850' TVD). If hole conditions dictate, 7" casing will be set. A 6 1/8" hole will then be drilled to 9,626' MD (7,850' TVD) where 4 1/2" casing will be set and cemented. If 7" is not set, then hole size will be reduced to 7 7/8" and drilled to 9,626' MD (7,850' TVD) where 5 1/2" casing will be set and cemented. Penetration point of producing zone will be at 807' FSL and 660' FWL, 5-25S-30E. Deepest TVD in the well is 7850' in the lateral.

3D Directional Drilling Planner - 3D View

Company: Yates Petroleum Corporation

Vell: Doc BHU State #4H



3D^d Directional Drilling Planner - 3D View

Company: Yates Petroleum Corporation
Well: Doc BHU State #4H

