

District I
1625 N. French Dr., Hobbs, NM 88240
District II
1301 W. Grand Avenue, Artesia, NM 88210
District III
1000 Rio Brazos Rd., Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy, Minerals & Natural Resources Department
OIL CONSERVATION DIVISION
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-102
Revised June 10, 2003
Submit to Appropriate District Office
State Lease - 4 Copies
Fee Lease - 3 Copies

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

¹ API Number 30-015-34803	² Pool Code 97489	³ Pool Name WILDCAT WOLFCAMP
⁴ Property Code 35615	⁵ Property Name HACKBERRY STATE	⁶ Well Number 1
⁷ OGRID No. 015363	⁸ Operator Name MURCHISON OIL & GAS, INC.	⁹ Elevation 3996

10 Surface Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
O	17	18-S	23-E		660	SOUTH	1980	EAST	EDDY

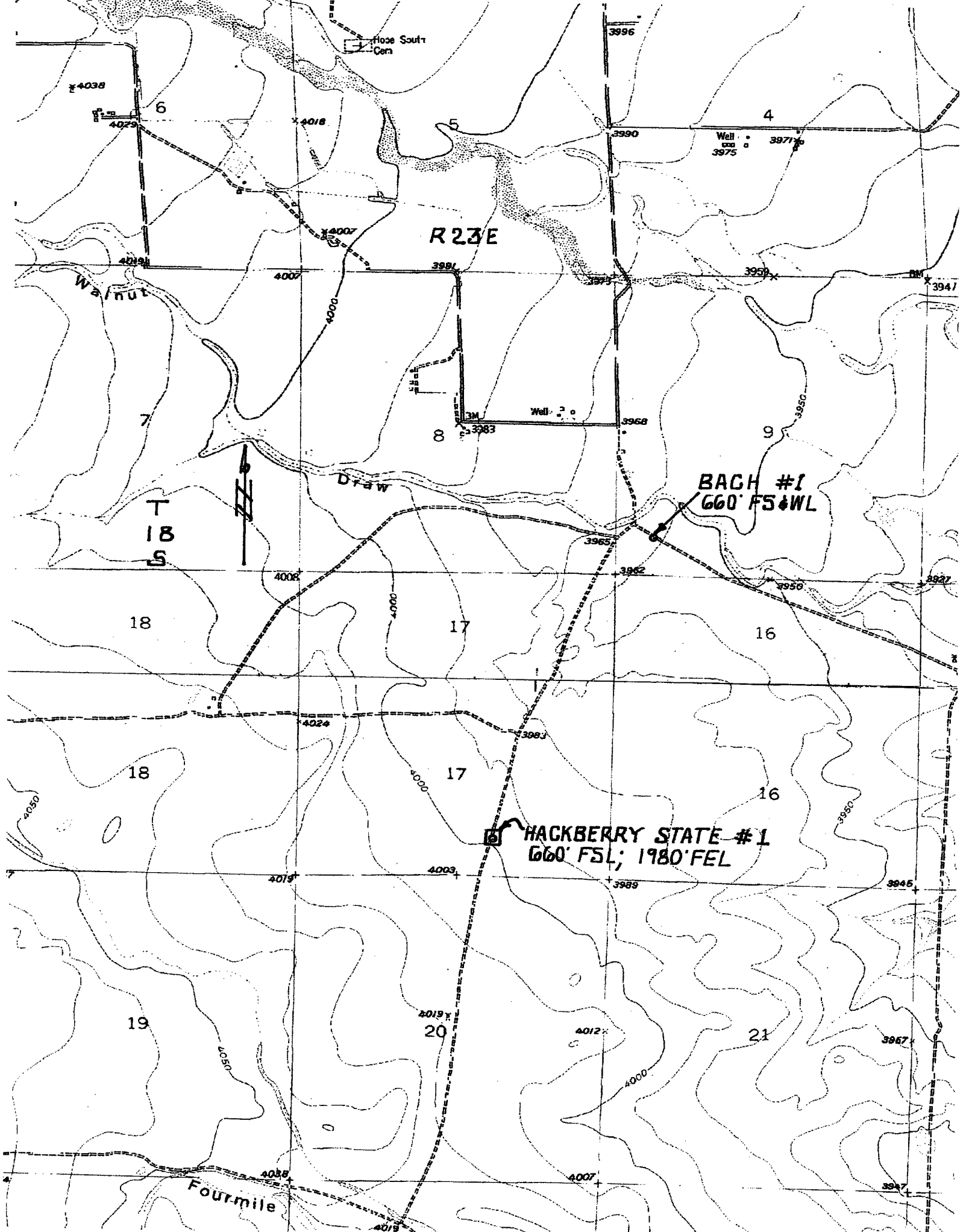
11 Bottom Hole Location If Different From Surface

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
B	17	18-S	23E		760	NORTH	1880	EAST	EDDY

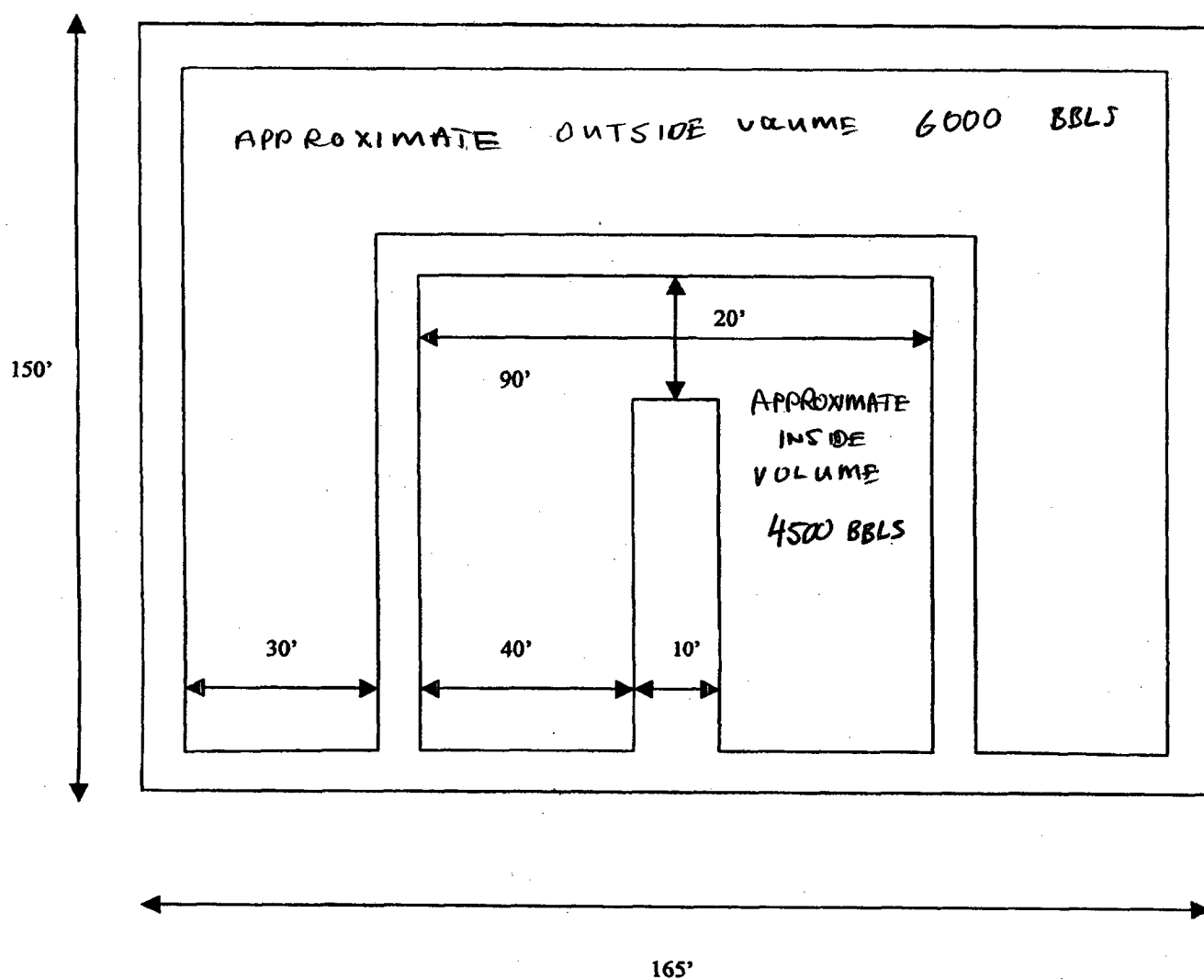
¹² Dedicated Acre 320	¹³ Joint or Infill	¹⁴ Consolidation Code	¹⁵ Order No.
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No allowable will be assigned to this completion until all interests have been consolidated or a non-standard unit has been approved by the division.

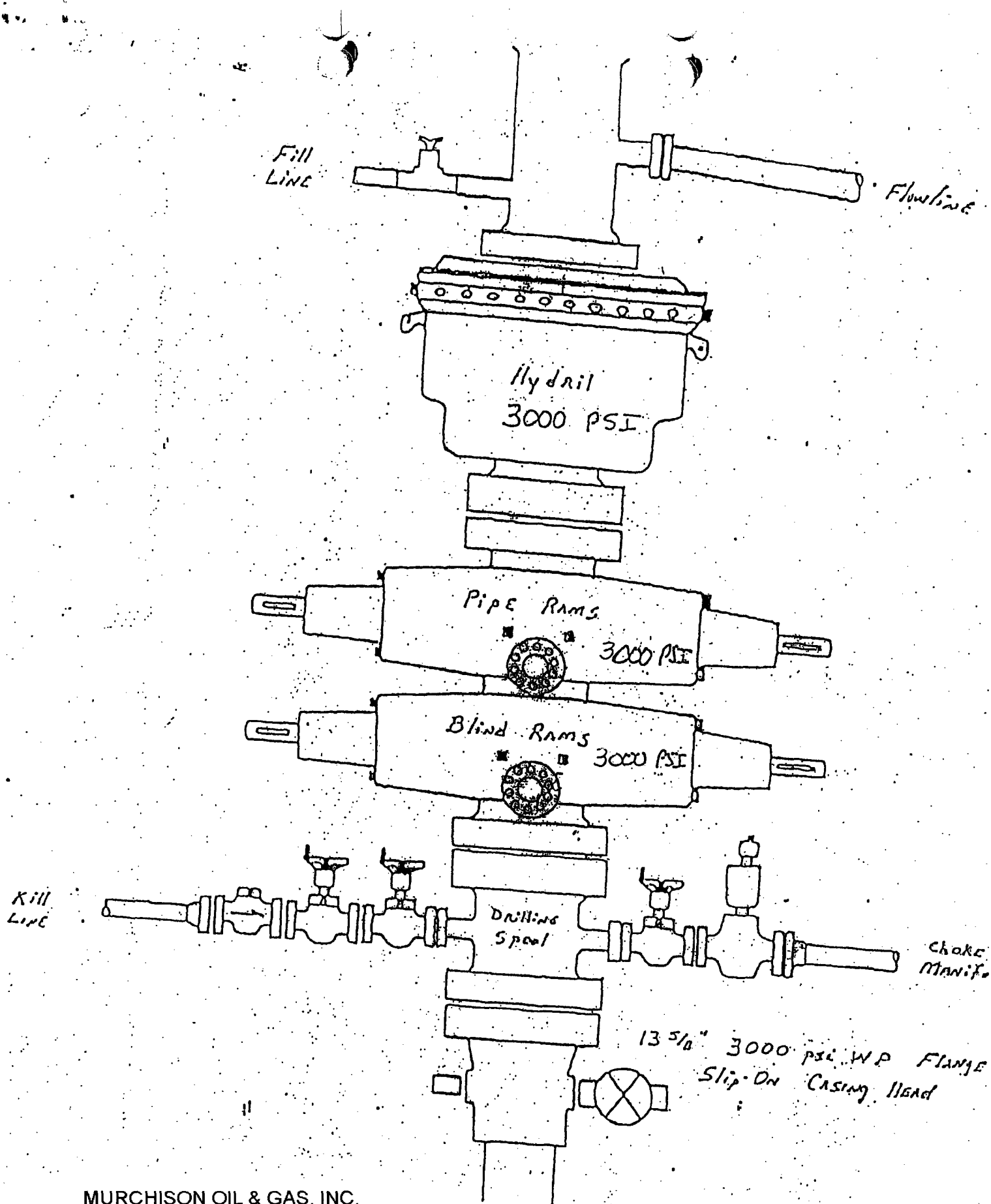
16 TERMINUS 760' 1880' 3860' 1980' PRODUCING AREA RECEIVED APR 19 2006 OCU-ARTESIA LAT 32.74247 LON W104.71104 SURFACE LOCATION	17 OPERATOR CERTIFICATION I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest 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 working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division. Signature Date 4/18/2006 MICHAEL S. DAUGHERTY Printed Name
	18 SURVEYOR CERTIFICATION 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. MARCH 21, 2006 Date of Survey Signature and Seal of Professional Surveyor Certificate Number DAN R. REDDY NM PLS NO. 5412



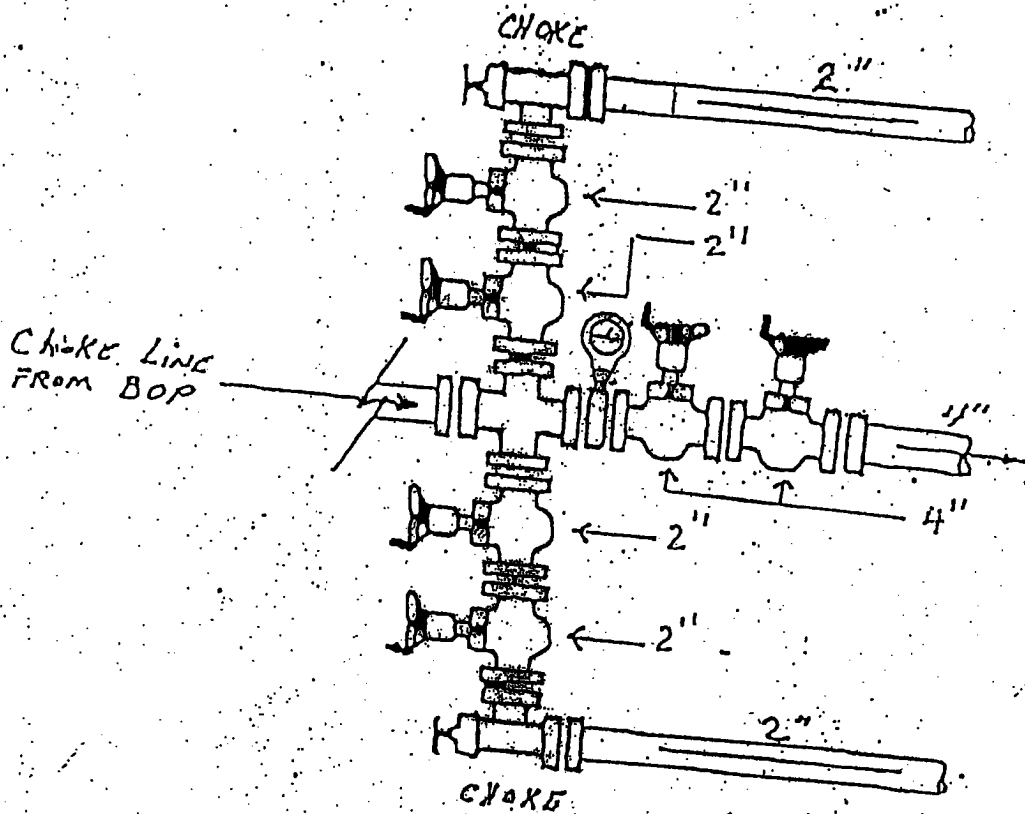
RESERVE PIT DESIGN



MURCHISON OIL & GAS, INC.
HACKBERRY ST #1
660' FSL & 1980' FEL
SEC. 17, T18S, R23E
EDDY CO., NM.



MURCHISON OIL & GAS, INC.
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 HACKBERRY ST #1
 660' FSL & 1980' FEL
 SEC. 17, T18S, R23E
 EDDY CO., NM.

PathFinder

Planning Report

Company: Murchison Oil & Gas
 Field: Hackberry State
 Site: Hackberry State #1
 Well: Hackberry State #1
 Wellpath: Original Hole

Date: 4/10/2006 Time: 17:02:14 Page: 1
 Co-ordinate(NE) Reference: Well: Hackberry State #1, True North
 Vertical (TVD) Reference: System: Mean Sea Level
 Section (VS) Reference: Well (0.00N,0.00E,1.48Azi)
 Plan: Plan #1

Field: Hackberry State
 Section 17; T18S; R23E

Map System: US State Plane Coordinate System 1927
 Geo Datum: NAD27 (Clarke 1866)
 Sys Datum: Mean Sea Level

Map Zone: New Mexico, Eastern Zone
 Coordinate System: Well Centre
 Geomagnetic Model: igrf2005

Site: Hackberry State #1

Section 17; T18S; R23E

Site Position: Northing: ft Latitude:
 From: Lease Line Easting: ft Longitude:
 Position Uncertainty: 0.00 ft North Reference: True
 Ground Level: 3996.00 ft Grid Convergence: -0.20 deg

Well: Hackberry State #1

Slot Name:

Well Position: +N/-S 0.00 ft Northing: 634028.46 ft Latitude: 32 44 32.891 N
 +E/-W 0.00 ft Easting: 383865.97 ft Longitude: 104 42 39.743 W
 Position Uncertainty: 0.00 ft

Wellpath: Original Hole

Current Datum:	Mean Sea Level	Height	0.00 ft	Drilled From:	Surface
Magnetic Data:	4/10/2006			Tie-on Depth:	0.00 ft
Field Strength:	49354 nT			Above System Datum:	Mean Sea Level
Vertical Section:	Depth From (TVD)	+N/-S		Declination:	8.74 deg
	ft	ft		Mag Dip Angle:	60.59 deg
				+E/-W	Direction
				ft	deg
	0.00	0.00		0.00	1.48

Plan: Plan #1

Date Composed: 4/10/2006
 Version: 1
 Tied-to: From Surface

Principal: Yes

Plan Section Information

MD ft	Incl deg	Azim deg	TVD ft	+N/-S ft	+E/-W ft	DLS deg/100ft	Build deg/100ft	Turn deg/100ft	TFO deg	Target
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
4130.00	0.00	0.00	4130.00	0.00	0.00	0.00	0.00	0.00	0.00	
4925.51	92.90	9.30	4620.00	508.68	83.30	11.68	11.68	0.00	9.30	
5113.82	92.90	0.02	4610.45	695.92	98.56	4.92	0.00	-4.93	270.24	
8281.97	92.91	0.03	4450.00	3860.00	100.00	0.00	0.00	0.00	63.55	PBHL Hackberry

Section 1 : Start Hold

MD ft	Incl deg	Azim deg	TVD ft	+N/-S ft	+E/-W ft	VS ft	DLS deg/100ft	Build deg/100ft	Turn deg/100ft	TFO deg
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4000.00	0.00	0.00	4000.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4130.00	0.00	0.00	4130.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Section 2 : Start Build 11.68

MD ft	Incl deg	Azim deg	TVD ft	+N/-S ft	+E/-W ft	VS ft	DLS deg/100ft	Build deg/100ft	Turn deg/100ft	TFO deg
4200.00	8.17	9.30	4199.76	4.92	0.81	4.94	11.68	11.68	0.00	0.00
4400.00	31.53	9.30	4386.58	71.48	11.71	71.76	11.68	11.68	0.00	0.00
4600.00	54.89	9.30	4531.34	205.68	33.68	206.48	11.68	11.68	0.00	0.00
4800.00	78.24	9.30	4610.34	385.52	63.13	387.02	11.68	11.68	0.00	0.00
4925.00	92.84	9.30	4620.03	508.17	83.22	510.15	11.68	11.68	0.00	0.00
4925.51	92.90	9.30	4620.00	508.68	83.30	510.66	11.68	11.68	0.00	0.00

PathFinder

Planning Report

Company: Murchison Oil & Gas
Field: Hackberry State
Site: Hackberry State #1
Well: Hackberry State #1
Wellpath: Original Hole

Date: 4/10/2006 Time: 17:02:14 Page: 2
Co-ordinate(NE) Reference: Well: Hackberry State #1, True North
Vertical (TVD) Reference: System: Mean Sea Level
Section (VS) Reference: Well (0.00N,0.00E,1.48Azi)
Plan: Plan #1

Section 3 : Start Turn -4.93

MD ft	Incl deg	Azim deg	TVD ft	+N-S ft	+E-W ft	VS ft	DLS deg/100ft	Build deg/100ft	Turn deg/100ft	TFO deg
5000.00	92.91	5.63	4616.22	582.43	92.96	584.63	4.92	0.01	-4.93	-89.76
5113.82	92.90	0.02	4610.45	695.92	98.56	698.23	4.92	-0.01	-4.93	-89.95

Section 4 : Start DLS 0.00 TFO 63.55

MD ft	Incl deg	Azim deg	TVD ft	+N-S ft	+E-W ft	VS ft	DLS deg/100ft	Build deg/100ft	Turn deg/100ft	TFO deg
5114.00	92.90	0.02	4610.44	696.10	98.56	698.41	0.00	0.00	0.00	0.00
5200.00	92.90	0.02	4606.09	781.99	98.59	784.27	0.00	0.00	0.00	63.55
5400.00	92.90	0.02	4595.97	981.73	98.66	983.95	0.00	0.00	0.00	63.55
5600.00	92.90	0.02	4585.85	1181.47	98.74	1183.63	0.00	0.00	0.00	63.55
5800.00	92.90	0.02	4575.73	1381.22	98.82	1383.31	0.00	0.00	0.00	63.55
6000.00	92.90	0.02	4565.60	1580.96	98.90	1582.99	0.00	0.00	0.00	63.55
6200.00	92.90	0.02	4555.48	1780.70	98.98	1782.67	0.00	0.00	0.00	63.55
6400.00	92.90	0.02	4545.35	1980.45	99.06	1982.35	0.00	0.00	0.00	63.55
6600.00	92.90	0.03	4535.23	2180.19	99.15	2182.02	0.00	0.00	0.00	63.55
6800.00	92.90	0.03	4525.10	2379.93	99.24	2381.70	0.00	0.00	0.00	63.55
7000.00	92.90	0.03	4514.97	2579.68	99.34	2581.38	0.00	0.00	0.00	63.55
7200.00	92.90	0.03	4504.83	2779.42	99.43	2781.06	0.00	0.00	0.00	63.55
7400.00	92.90	0.03	4494.70	2979.16	99.53	2980.74	0.00	0.00	0.00	63.55
7600.00	92.90	0.03	4484.57	3178.91	99.63	3180.42	0.00	0.00	0.00	63.55
7800.00	92.91	0.03	4474.43	3378.65	99.74	3380.10	0.00	0.00	0.00	63.55
8000.00	92.91	0.03	4464.29	3578.39	99.84	3579.78	0.00	0.00	0.00	63.55
8200.00	92.91	0.03	4454.16	3778.14	99.95	3779.46	0.00	0.00	0.00	63.55
8281.97	92.91	0.03	4450.00	3860.00	100.00	3861.30	0.00	0.00	0.00	63.55

Survey

MD ft	Incl deg	Azim deg	TVD ft	+N-S ft	+E-W ft	VS ft	DLS deg/100ft	Build deg/100ft	Turn deg/100ft	Tool/Comment
4000.00	0.00	0.00	4000.00	0.00	0.00	0.00	0.00	0.00	0.00	
4130.00	0.00	0.00	4130.00	0.00	0.00	0.00	0.00	0.00	0.00	Start 12° /100' Build Rat
4200.00	8.17	9.30	4199.76	4.92	0.81	4.94	11.68	11.68	0.00	
4400.00	31.53	9.30	4386.58	71.48	11.71	71.76	11.68	11.68	0.00	
4600.00	54.89	9.30	4531.34	205.68	33.68	206.48	11.68	11.68	0.00	
4800.00	78.24	9.30	4610.34	385.52	63.13	387.02	11.68	11.68	0.00	
4925.00	92.84	9.30	4620.03	508.17	83.22	510.15	11.68	11.68	0.00	Start of 5°/ 100' Turn
4925.51	92.90	9.30	4620.00	508.68	83.30	510.66	11.68	11.68	0.00	
5000.00	92.91	5.63	4616.22	582.43	92.96	584.63	4.92	0.01	-4.93	
5113.82	92.90	0.02	4610.45	695.92	98.56	698.23	4.92	-0.01	-4.93	
5114.00	92.90	0.02	4610.44	696.10	98.56	698.41	0.00	0.00	0.00	End of Turn @ 0° Azm 5114
5200.00	92.90	0.02	4606.09	781.99	98.59	784.27	0.00	0.00	0.00	
5400.00	92.90	0.02	4595.97	981.73	98.66	983.95	0.00	0.00	0.00	
5600.00	92.90	0.02	4585.85	1181.47	98.74	1183.63	0.00	0.00	0.00	
5800.00	92.90	0.02	4575.73	1381.22	98.82	1383.31	0.00	0.00	0.00	
6000.00	92.90	0.02	4565.60	1580.96	98.90	1582.99	0.00	0.00	0.00	
6200.00	92.90	0.02	4555.48	1780.70	98.98	1782.67	0.00	0.00	0.00	
6400.00	92.90	0.02	4545.35	1980.45	99.06	1982.35	0.00	0.00	0.00	
6600.00	92.90	0.03	4535.23	2180.19	99.15	2182.02	0.00	0.00	0.00	
6800.00	92.90	0.03	4525.10	2379.93	99.24	2381.70	0.00	0.00	0.00	
7000.00	92.90	0.03	4514.97	2579.68	99.34	2581.38	0.00	0.00	0.00	
7200.00	92.90	0.03	4504.83	2779.42	99.43	2781.06	0.00	0.00	0.00	
7400.00	92.90	0.03	4494.70	2979.16	99.53	2980.74	0.00	0.00	0.00	
7600.00	92.90	0.03	4484.57	3178.91	99.63	3180.42	0.00	0.00	0.00	
7800.00	92.91	0.03	4474.43	3378.65	99.74	3380.10	0.00	0.00	0.00	
8000.00	92.91	0.03	4464.29	3578.39	99.84	3579.78	0.00	0.00	0.00	
8200.00	92.91	0.03	4454.16	3778.14	99.95	3779.46	0.00	0.00	0.00	
8281.97	92.91	0.03	4450.00	3860.00	100.00	3861.30	0.00	0.00	0.00	PBHL Hackberry

PathFinder

Planning Report

Company: Murchison Oil & Gas
Field: Hackberry State
Site: Hackberry State #1
Well: Hackberry State #1
Wellpath: Original Hole

Date: 4/10/2006 **Time:** 17:02:14 **Page:** 3
Co-ordinate(NE) Reference: Well: Hackberry State #1, True North
Vertical (TVD) Reference: System: Mean Sea Level
Section (VS) Reference: Well (0.00N,0.00E,1.48Azi)
Plan: Plan #1

Targets

Name	Description Dip. Dir.	TVD ft	+N/-S ft	+E/-W ft	Map Northing ft	Map Easting ft	← Latitude → Deg Min Sec			← Longitude → Deg Min Sec		
PBHL Hackberry		4450.00	3860.00	100.00	637888.08	383979.73	32	45	11.087 N	104	42	38.572 W

Annotation

MD ft	TVD ft	
4130.00	4130.00	KOP @ 4130' MD 4130' TVD
4130.00	4130.00	Start 12° /100' Build Rate
4925.00	4620.03	End of Build @ 92.9° Inc 4925' MD 4620' TVD
4925.00	4620.03	Start of 5° / 100' Turn
5114.00	4610.44	End of Turn @ 0° Azm 5114' MD 4610' TVD

PATHFINDER ENERGY SERVICES

SECTION DETAILS											
	Sao	MD	Inc	Asd	TVD	-N/S	-E/W	DLeg	TFac	VSec	Target
1		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
2		4130.00	0.00	0.00	4130.00	0.00	0.00	0.00	0.00	0.00	
3		4925.51	92.90	9.30	4620.00	508.68	83.30	11.68	0.30	510.66	
4		5113.82	92.90	0.02	4610.45	693.92	98.56	4.92	270.24	698.23	
5		5281.97	92.91	0.03	4430.00	3860.00	100.00	0.00	63.55	3861.10	PSBH Hackberry

SECTION DETAILS											
	Sao	MD	Inc	Asd	TVD	-N/S	-E/W	DLeg	TFac	VSec	Target
1		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
2		4130.00	0.00	0.00	4130.00	0.00	0.00	0.00	0.00	0.00	
3		4925.51	92.90	9.30	4620.00	508.68	83.30	11.68	0.30	510.66	
4		5113.82	92.90	0.02	4610.45	693.92	98.56	4.92	270.24	698.23	
5		5281.97	92.91	0.03	4430.00	3860.00	100.00	0.00	63.55	3861.10	PSHL Hackberry

Murchison Oil & Gas

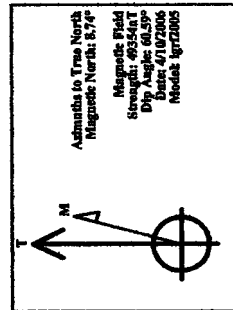
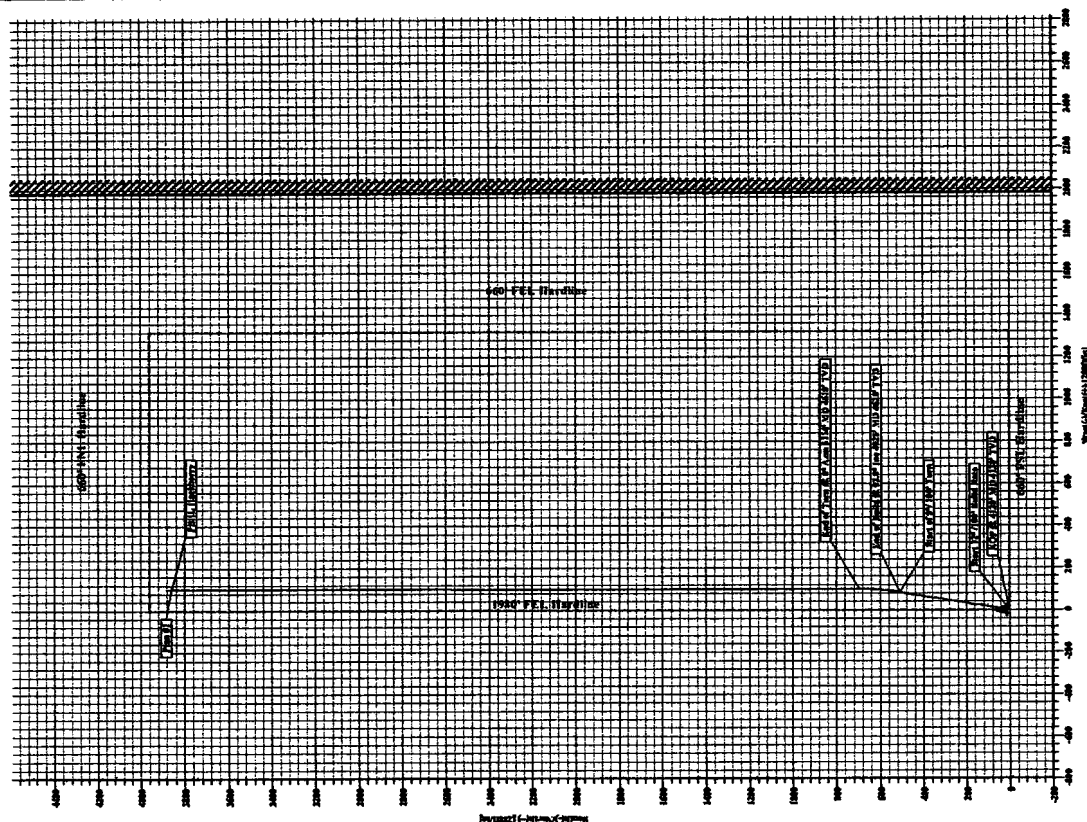
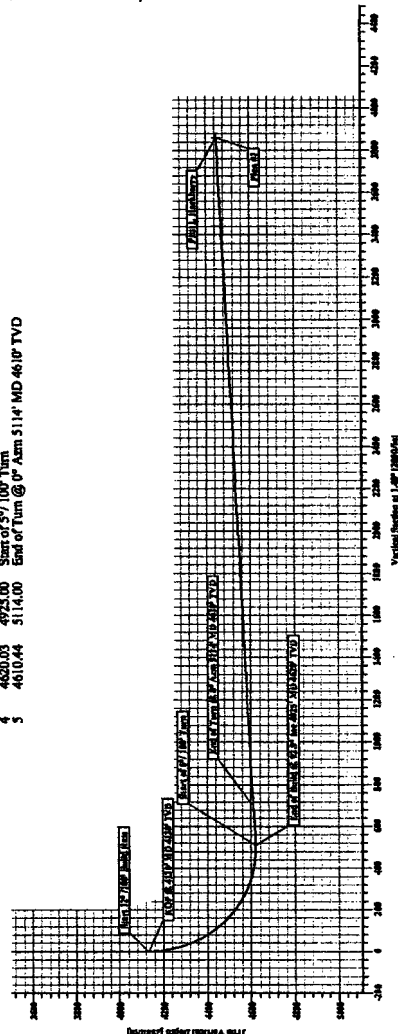
ENTER DETAIL S

Hackberry Stone #1
Location 17: T18S, R23E

Ground Level: 3996.00
Positional Uncertainty: 0.00
Convergence: -0.20

Information

No.	TVD	MD	Anisocenter
1	4130.00	4130.00	KOP @ 4130' MD 4130' TVD
2	4130.00	4130.00	Start 12" / 100' Build Rate
3	4120.00	4925.00	End of Build @ 92' Inc
4	4120.00	4925.00	Start of 5" / 100' Turn
5	4610.44	5114.00	End of Turn @ 1st Arm 5114'
6	4610.44	5114.00	MD 4610' TVD



MURCHISON OIL & GAS, INC.

**HACKBERRY ST #1
SEC. 17, T18S, R23E
660' FSL & 1980' FEL
EDDY CO., NM.**

MUD PROGRAM

<u>DEPTH</u>	<u>WEIGHT</u>	<u>CHLORIDES</u>	<u>VISCOSITY</u>	<u>FILTRATE</u>
0' – 1000'	8.6 – 8.8	0 – 10K	28 – 34	NO CONTROL
1000' – 4,400'	8.8 – 9.2	0 – 10K	28 – 34	NO CONTROL
4,400' – 5,100'	8.8 – 9.2	0 – 40K	28 – 34	10-15 WL
4,200' – 8,981'	9.0 – 9.4	40 – 60K	40 – 45	10-20 WL

PH to be maintained at 10 or above



April 18, 2006

Mr. Bryan Arrant
State of New Mexico
Oil Conservation Commission
1301 W. Grand Avenue
Artesia, New Mexico 88210

**RE: HACKBERRY ST #1
660' FSL & 1980' FEL
SEC. 17, T18S, R23E
EDDY CO., NM.**

RECEIVED
APR 19 2006
OCD-ARTESIA

Dear Bryan:

I am writing to request a waiver for the inclusion of an H2S Contingency Plan for the Hackberry St #1. The current plan is to complete this well in the Wolfcamp, which is sweet, and I do not anticipate encountering any H2S bearing formations during drilling operations.

Very truly yours,

MURCHISON OIL & GAS, INC.

Michael S. Daugherty
Vice President Operations

MSD/ct/Bach#1-OCDH2S