

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

State of New Mexico
Energy Minerals and Natural Resources

Form C-101
May 27, 2004

Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

Submit to appropriate District Office

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☐ AMENDED REPORT

JUL 11 2005

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

¹ Operator Name and Address MURCHISON OIL & GAS, INC. 1100 MIRA VISTA BLVD. PLANO, TX. 75093-4698		² OGRID Number 015363
³ Property Code 34953	⁴ Property Name MUDCAT STATE COM	⁵ APL Number 30 - 015 - 34206
⁶ Proposed Pool 1 Empire, Morrow, South 76400		⁷ Proposed Pool 2

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
P	11	17S	28E		1300	SOUTH	810	EAST	EDDY

⁸ Proposed 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

Additional Well Information

¹¹ Work Type Code N	¹² Well Type Code G	¹³ Cable/Rotary R	¹⁴ Lease Type Code S	¹⁵ Ground Level Elevation 3579'
¹⁶ Multiple N	¹⁷ Proposed Depth 10500	¹⁸ Formation MORROW	¹⁹ Contractor PATTERSON	²⁰ Spud Date 8/1/2005
Depth to Groundwater		Distance from nearest fresh water well		Distance from nearest surface water
Pit: Liner: Synthetic <input checked="" type="checkbox"/> _____ mils thick Clay <input type="checkbox"/> Pit Volume: 30,000 bbls Drilling Method: Closed-Loop System <input type="checkbox"/> Fresh Water <input checked="" type="checkbox"/> Brine <input type="checkbox"/> Diesel/Oil-based <input type="checkbox"/> Gas/Air <input type="checkbox"/>				

²¹ Proposed Casing and Cement Program

Hole Size	Casing Size	Casing weight/foot	Setting Depth	Sacks of Cement	Estimated TOC
17-1/2"	13-3/8	61 #/FT	200'	420 SXS	SURFACE
12-1/4"	9-5/8	47 #/FT	2200'	600 SXS	SURFACE
7-7/8"	5-1/2	17 #/FT	10500'	640 SXS	EST TOC 6500

²² Describe the proposed program. If this application is to DEEPEN or PLUG BACK, give the data on the present productive zone and proposed new productive zone. Describe the blowout prevention program, if any. Use additional sheets if necessary.

DRILL, CASE & COMPLETE WELL IN MORROW FORMATION

BOP'S INCLUDE

- 1) HYDRILL DOUBLE RAM 11" x 3000 PSI
- 2) CHOKE MANIFOLD 11" x 5000 PSI FLANGED CONNECTIONS
- 3) SIX STATION ACCUMULATOR CLOSING UNIT W/ REMOTE CONTROL

CEMENT TO COVER ALL OIL,
GAS AND WATER BEARING
ZONES

²³ 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 NMOCD guidelines ☒, a general permit ☐, or an (attached) alternative OCD approval plan ☐.

Printed name: MICHAEL S. DAUGHERTY

Title: VICE PRESIDENT OPERATIONS

E-mail Address: mdaugherty@jdmii.com

Date: 7/7/2005

Phone: (972) 931-0700

OIL COI

Approved by:

Jim W. Green
District II Supervisor

Title:

Approval Date: JUL 14 2005

Expiration Date:

JUL 14 2006

Conditions of Approval Attached ☐

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State of New Mexico
Energy Minerals and Natural Resources

Form C-144
June 1, 2004

Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

For drilling and production facilities, submit to appropriate NMOCD District Office.
For downstream facilities, submit to Santa Fe office

Pit or Below-Grade Tank Registration or Closure

Is pit or below-grade tank covered by a "general plan"? Yes ☐ No ☒

Type of action: Registration of a pit or below-grade tank ☒ Closure of a pit or below-grade tank ☐

Operator: MURCHISON OIL & GAS, INC. Telephone: (972) 931-0700 e-mail address: mdaugherty@jdmii.com
Address: 1100 MIRA VISTA BLVD., PLANO, TX. 75093-4698
Facility or well name: MUDCAT STATE #1 API #: _____ U/L or Qtr/Qtr P Sec 11 T 17S R 28E
County: EDDY Latitude _____ Longitude _____ NAD: 1927 ☐ 1983 ☐ Surface Owner: Federal ☐ State ☒ Private ☐ Indian ☐

Pit
Type: Drilling ☒ Production ☐ Disposal ☐
Workover ☐ Emergency ☐
Lined ☒ Unlined ☐
Liner type: Synthetic ☒ Thickness 12 mil Clay ☐
Pit Volume 30000 bbl

Below-grade tank

Volume: _____ bbl Type of fluid: _____
Construction material: _____
Double-walled, with leak detection? Yes ☐ If not, explain why not. _____

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JUL 11 2005

ODD-ARTESEM

Depth to ground water (vertical distance from bottom of pit to seasonal high water elevation of ground water.)	Less than 50 feet	(20 points)	
	50 feet or more, but less than 100 feet	(10 points)	
	100 feet or more X	(0 points)	0
Wellhead protection area: (Less than 200 feet from a private domestic water source, or less than 1000 feet from all other water sources.)	Yes	(20 points)	
	No X	(0 points)	0
Distance to surface water: (horizontal distance to all wetlands, playas, irrigation canals, ditches, and perennial and ephemeral watercourses.)	Less than 200 feet	(20 points)	
	200 feet or more, but less than 1000 feet	(10 points)	
	1000 feet or more X	(0 points)	0
Ranking Score (Total Points)			

If this is a pit closure: (1) Attach a diagram of the facility showing the pit's relationship to other equipment and tanks. (2) Indicate disposal location: (check the onsite box if you are burying in place) onsite ☐ offsite ☐ If offsite, name of facility _____. (3) Attach a general description of remedial action taken including remediation start date and end date. (4) Groundwater encountered: No ☐ Yes ☐ If yes, show depth below ground surface _____ ft. and attach sample results. (5) Attach soil sample results and a diagram of sample locations and excavations.

Additional Comments:

I hereby certify that the information above is true and complete to the best of my knowledge and belief. I further certify that the above-described pit or below-grade tank has been/will be constructed or closed according to NMOCD guidelines ☒, a general permit ☐, or an (attached) alternative OCD-approved plan ☐.

Date: 7/7/2005

Printed Name/Title MICHAEL S. DAUGHERTY, V P OPERATIONS Signature Michael S. Daugherty

Your certification and NMOCD approval of this application/closure does not relieve the operator of liability should the contents of the pit or tank contaminate ground water or otherwise endanger public health or the environment. Nor does it relieve the operator of its responsibility for compliance with any other federal, state, or local laws and/or regulations.

Approval:

Field Supervisor

Printed Name/Title _____

Signature _____

JUL 12 2005
Date: _____

Revised June 10, 2003

Submit to Appropriate District Office

State Lease - 4 Copies

Fee Lease - 3 Copies

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

OIL CONSERVATION DIVISION

1220 South St. Francis Dr.

Santa Fe, NM 87505

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number	Pool Code 7640	Pool Name SOUTH EMPIRE MORROW
Property Code	Property Name MUD CAT STATE COM	Well Number 1
OGRID No. 015363	Operation Name MURCHISON OIL & GAS, INC.	Elevation 3579

Surface Location

UL or Lot No.	Section	Township	Range	Lot Idn.	Feet from the	North/South line	Feet from the	East/West line	County
P	11	17-S	28-E		1300	SOUTH	810	EAST	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

Dedicated Acres 320	Joint or Infill	Consolidation Code	Order No.
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NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTEREST HAVE BEEN CONSOLIDATED OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION

	OPERATOR CERTIFICATION I HEREBY CERTIFY THAT THE INFORMATION CONTAINED HEREIN IS TRUE AND COMPLETE TO THE BEST OF MY KNOWLEDGE AND BELIEF. Signature MICHAEL S. DAUGHERTY Printed Name V P OPERATIONS Title and E-mail Address 7/7/2005 Date	
	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 KNOWLEDGE AND BELIEF. JUNE 28, 2005 Date of Survey Signature 5412 NM P.E. 5412 Certificate Number	
	SPACING UNIT LAT N32°50'47.4" LON W104°08'28.5" 810' 1300'	

WELL LOCATION SKETCH

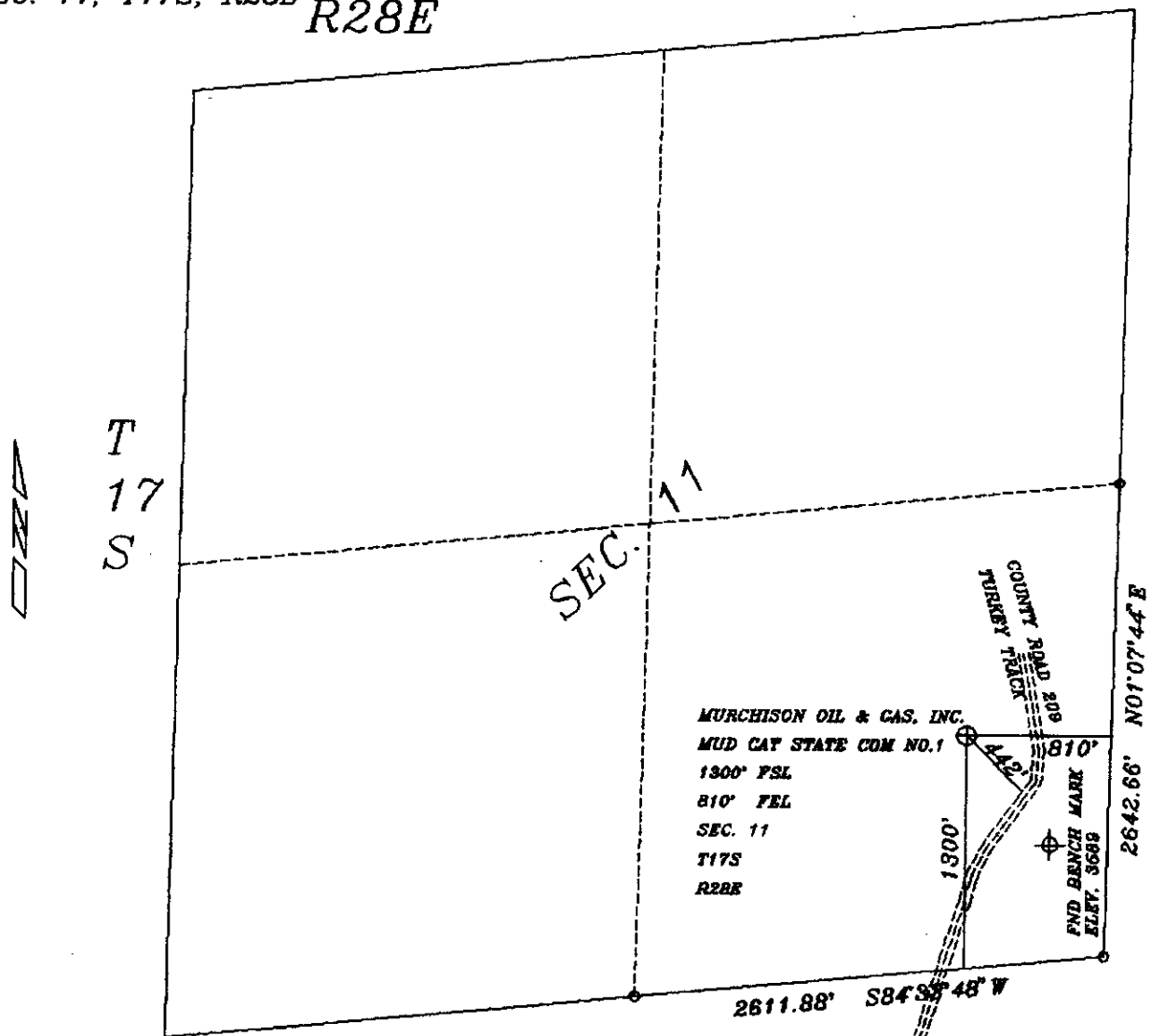
MUD CAT STATE COM NO.1

1300' FSL

810' FEL

SEC. 11, T17S, R28E

R28E



Scale 1" = 1000 ft

◊ GLO BRASS CAP FOUND

⊕ NGS BENCH MARK (SEE TOPO MAP)

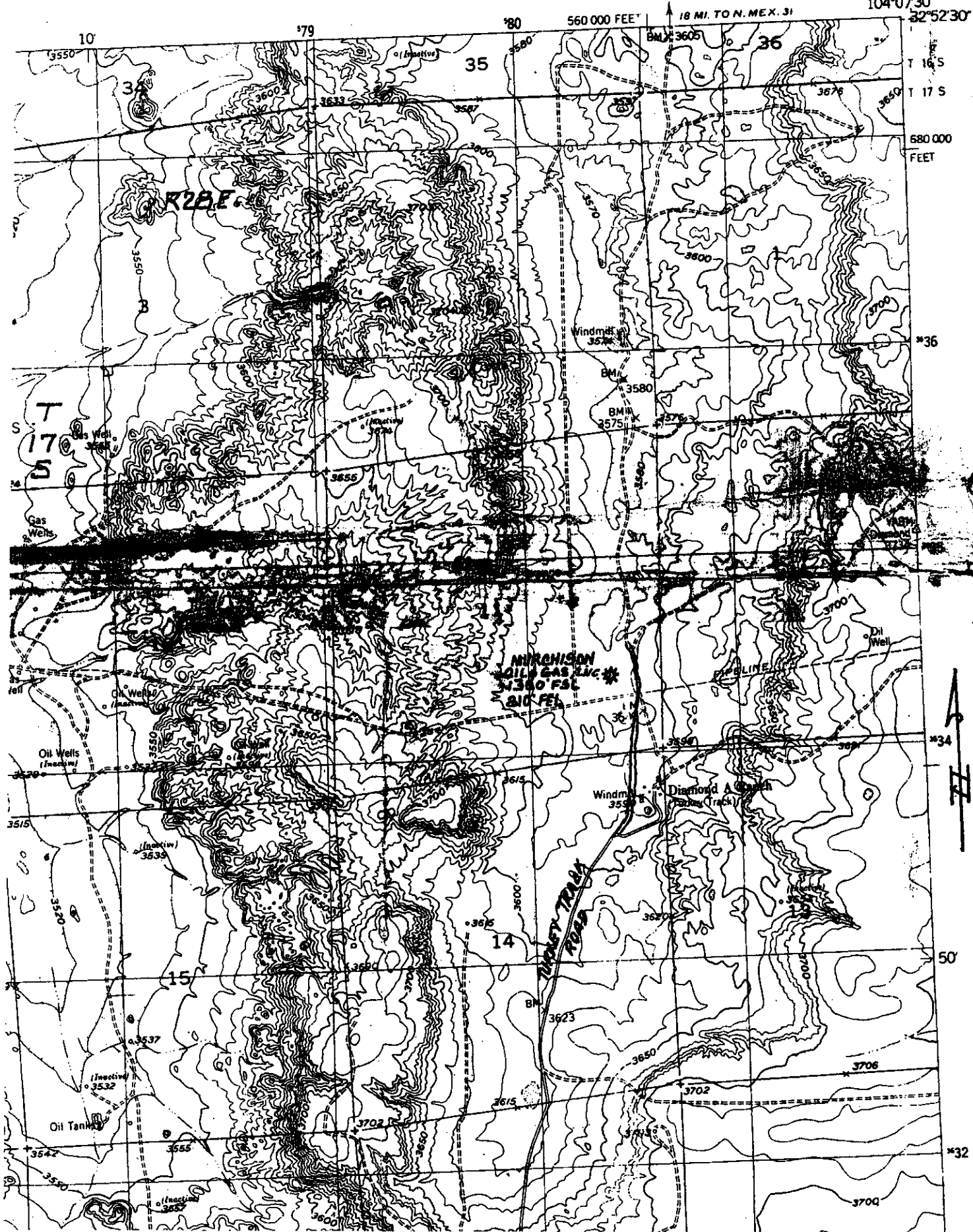
PREPARED FOR: MURCHISON OIL & GAS, INC.

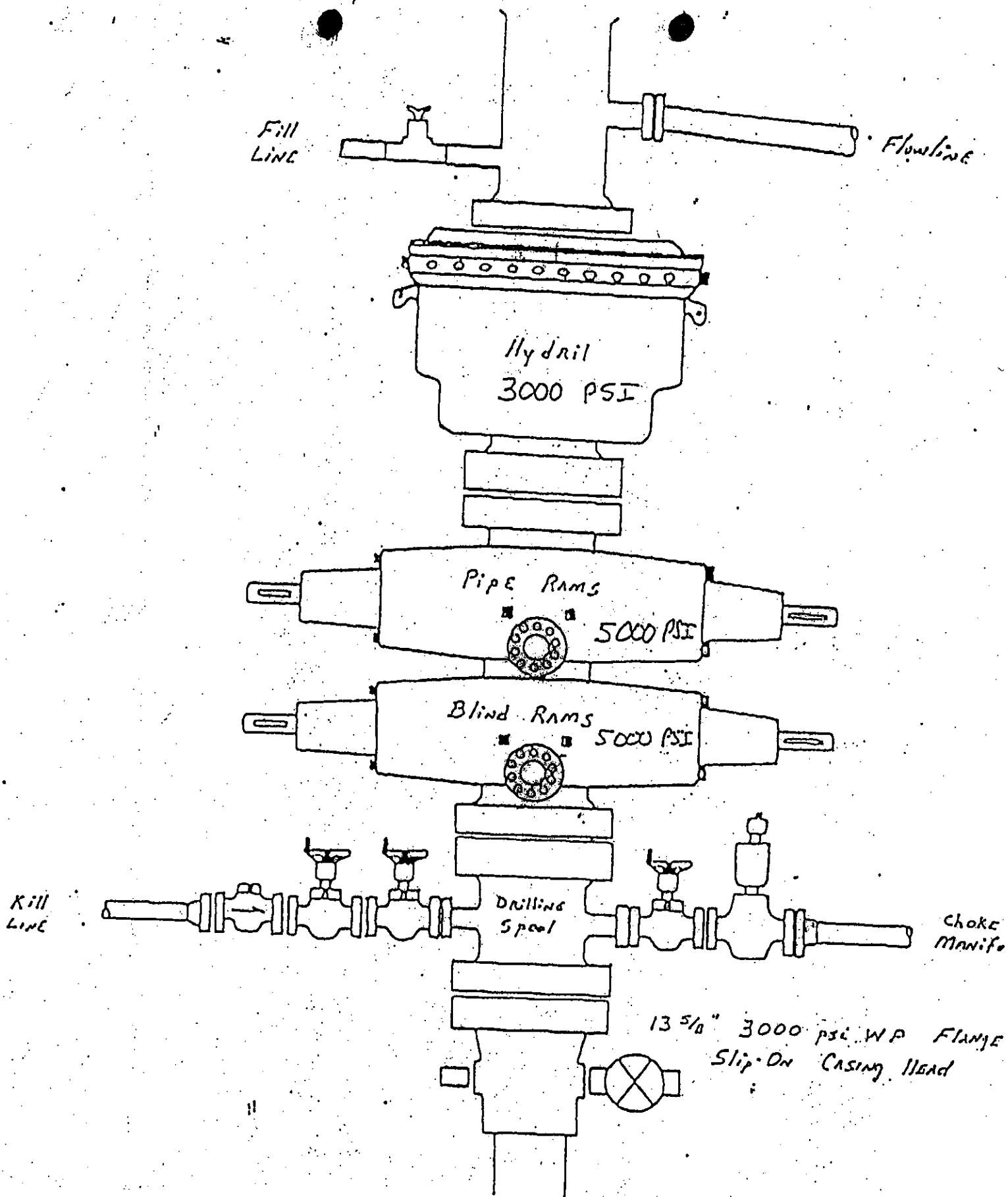
PREPARED BY: DAN R. REDDY, NM PE&PS #5412

DATE 6/28/05

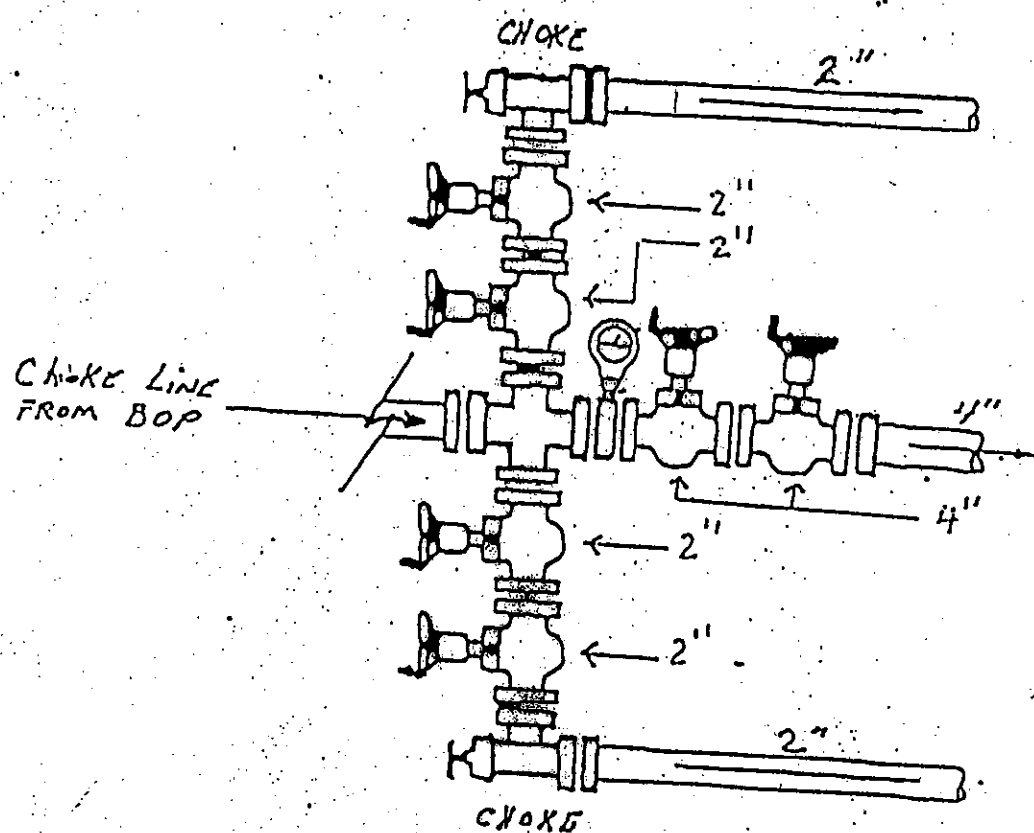
RED LAKE QUADRANGLE
NEW MEXICO-EDDY CO.
7.5 MINUTE SERIES (TOPOGRAPHIC)

5149 1 NE
(BASIN WELL)





MUDCAT STATE #1
1300' FSL & 810' FEL
SEC. 11, T17S, R28E
EDDY CO., NM.



MUDCAT STATE #1
 1300' FSL & 810' FEL
 SEC. 11, T17S, R28E
 EDDY CO., NM.

MURCHISON OIL & GAS, INC.

**MUDCAT STATE #1
SEC. 11, T17S, R28E
1300' FSL & 810' FEL
EDDY CO., NM.**

MUD PROGRAM

<u>DEPTH</u>	<u>WEIGHT</u>	<u>CHLORIDES</u>	<u>VISCOSITY</u>	<u>FILTRATE</u>
0' – 200'	8.4	0 – 51K	32 – 36	NO CONTROL
200' – 2,200'	8.4 – 10.0	0 – 200K	28 – 29	NO CONTROL
2,200' – 6,800'	8.4 – 8.8	0 – 10K	28 – 29	NO CONTROL
6,800' – 9,500'	8.6 – 8.8	40 – 60K	28 – 29	25 WL
9,500' – 10,500'	8.8 – 9.4	50 – 70K	28 – 29	6 – 8 WL

PH to be maintained at 10 or above



July 7, 2005

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

RECEIVED
JUL 11 2005
OCD-ARTESIA


**RE: MUDCAT STATE #1
1300' FSL & 810' FEL
SEC. 11, T17S, R28E
EDDY CO., NM.**

Dear Bryan:

This letter is in reference to the OCD's requirements for H2S contingency plan for the above captioned well. No H2S is expected in the drilling of the above captioned well. H2S detection equipment will be installed prior to the top of the Delaware formation as a precautionary measure.

Very truly yours,

MURCHISON OIL & GAS, INC.


Michael S. Daugherty
Vice President Operations

MSD/ct/MudcatSt#1-OCDH2S