RESUBMITTAL

OCD-ARTESIA

I-06-38 6/20/06

Form 3160-3
(April 2004)

1033

FORM APPROVED
OMB No. 1004-0137
Expires March 31, 2007

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL OR REENTER

RECEIVED
AUG 2006
OCD - ARTESIA

1a. Type of work: ☑ DRILL ☐ REENTER	5. Lease Serial No. NMNM34216
	6. If Indian, Allotee or Tribe Name
	7. If Unit or CA Agreement, Name and No.
1b. Type of Well: ☐ Oil Well ☑ Gas Well ☐ Other ☑ Single Zone ☐ Multiple Zone	8. Lease Name and Well No. 2872 Amoco 19 Federal 5
2. Name of Operator Devon Energy Production Company, LP 4137	9. API Well No. 30-015-35066
3a. Address 20 North Broadway, Oklahoma City, Oklahoma City 73102-8260	3b. Phone No. (include area code) 405-552-7802
	10. Field and Pool, or Exploratory Happy Valley; Morrow
4. Location of Well (Report location clearly and in accordance with any State requirements.*) At surface NESE 2430' FSL & 1054' FEL; At proposed prod. zone NESE 1880' FSL & 990' FEL. Subject to Like Approval By State	11. Sec., T. R. M. or Blk. and Survey or Area Sec 19-T22S-R26E
14. Distance in miles and direction from nearest town or post office* Approximately 5 miles west of Carlsbad, New Mexico.	12. County or Parish Eddy County; 13. State NM

15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any)	16. No. of acres in lease 318	17. Spacing Unit dedicated to this well 318
18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft.	19. Proposed Depth 11,600'	20. BLM/BIA Bond No. on file CO-1104
21. Elevations (Show whether DF, KDB, RT, GL, etc.) 3351'	22. Approximate date work will start* 06/15/2006	23. Estimated duration 45 days

24. Attachments

The following, completed in accordance with the requirements of Onshore Oil and Gas Order No.1, shall be attached to this form:

1. Well plat certified by a registered surveyor.
2. A Drilling Plan.
3. A Surface Use Plan (if the location is on National Forest System Lands, the SUPO shall be filed with the appropriate Forest Service Office).
4. Bond to cover the operations unless covered by an existing bond on file (see Item 20 above).
5. Operator certification
6. Such other site specific information and/or plans as may be required by the authorized officer.

25. Signature	Name (Printed/Typed) Stephanie A. Ysasaga	Date 05/31/2006
Title Sr. Staff Engineering Technician		
Approved by (Signature) /s/ Tony J. Herrell	Name (Printed/Typed) /s/ Tony J. Herrell	Date JUL 30 2006
Title FIELD MANAGER	Office CARLSBAD FIELD OFFICE	

Application approval does not warrant or certify that the applicant holds legal or equitable title t conduct operations thereon.
Conditions of approval, if any, are attached.

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person know States any false, fictitious or fraudulent statements or representations as to any matter within its ju

If earthen pits are used in association with the drilling of this well, an OCD pit permit must be obtained prior to pit construction.

(Instructions on page 2)

NOTE: CAVE/KARST

CARLSBAD CONTROLLED WATER BASIN

ACO. 6/22/06

APPROVAL SUBJECT TO GENERAL REQUIREMENTS AND SPECIAL STIPULATIONS ATTACHED

Witness Surface Casing & Intermediate Casing

Additional Operator Remarks:

Devon Energy Production Company, LP proposes to drill a Happy Valley; Morrow well to 11,600' for commercial quantities of oil and gas. If the well is deemed noncommercial, the wellbore will be plugged and abandoned per Federal regulations. Devon Energy Production Co., LP plans to drill the well per the currently attached Drilling and Surface Use Plan.

Directions:

From Carlsbad go 2.0 miles South on Hwy 62/180 to Hildago. Go 4.0 miles and turn right at CR429 or McKitrick Road. Go 3.5 miles, as the road changes from NW to West, the proposed well pad will on the right (North) side of the road.

Access Road:

Access to this location will not required any construction, see C-102.

H2S:

No H2S is expected to be encountered.

I-06-38
6/20/06

DISTRICT I
P.O. Box 1980, Hobbs, NM 88241-1980

DISTRICT II
P.O. Drawer DD, Artesia, NM 88211-0719

DISTRICT III
1000 Rio Brazos Rd., Aztec, NM 87410

DISTRICT IV
P.O. BOX 2088, SANTA FE, N.M. 87504-2088

State of New Mexico
Energy, Minerals and Natural Resources Department

OIL CONSERVATION DIVISION
P.O. Box 2088
Santa Fe, New Mexico 87504-2088

Form C-102
Revised February 10, 1994
Submit to Appropriate District Office
State Lease - 4 Copies
Fee Lease - 3 Copies

WELL LOCATION AND ACREAGE DEDICATION PLAT

☐ AMENDED REPORT

API Number	Pool Code	Pool Name
	78060	HAPPY VALLEY: MORROW

Property Code	Property Name	Well Number
	AMOCO 19 FEDERAL	5

OGRID No.	Operator Name	Elevation
6137	DEVON ENERGY PRODUCTION COMPANY, L.P.	3351'

Surface Location

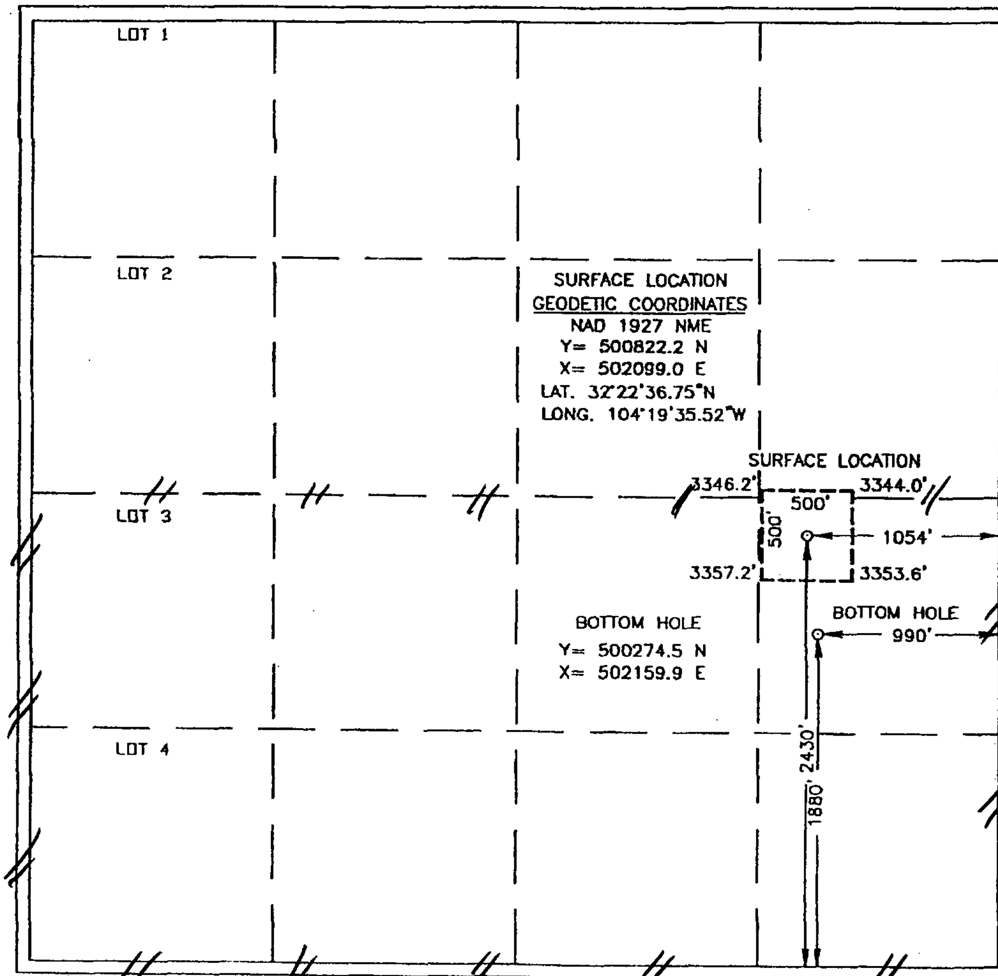
UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
I	19	22-S	26-E		2430'	SOUTH	1054'	EAST	EDDY

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
I	19	22-S	26-E		1880'	SOUTH	990'	EAST	EDDY

Dedicated Acres	Joint or Infill	Consolidation Code	Order No.
318			

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



OPERATOR CERTIFICATION

I hereby certify the the information contained herein is true and complete to the best of my knowledge and belief.

Signature

Printed Name: Stephanie A. Ysasaga

Title: Sr. Staff Engineering Tech

Date: 5/31/06

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 supervison, and that the same is true and correct to the best of my belief.

June 23, 2003

Date Surveyed AWB

Signature & Seal of Professional Surveyor

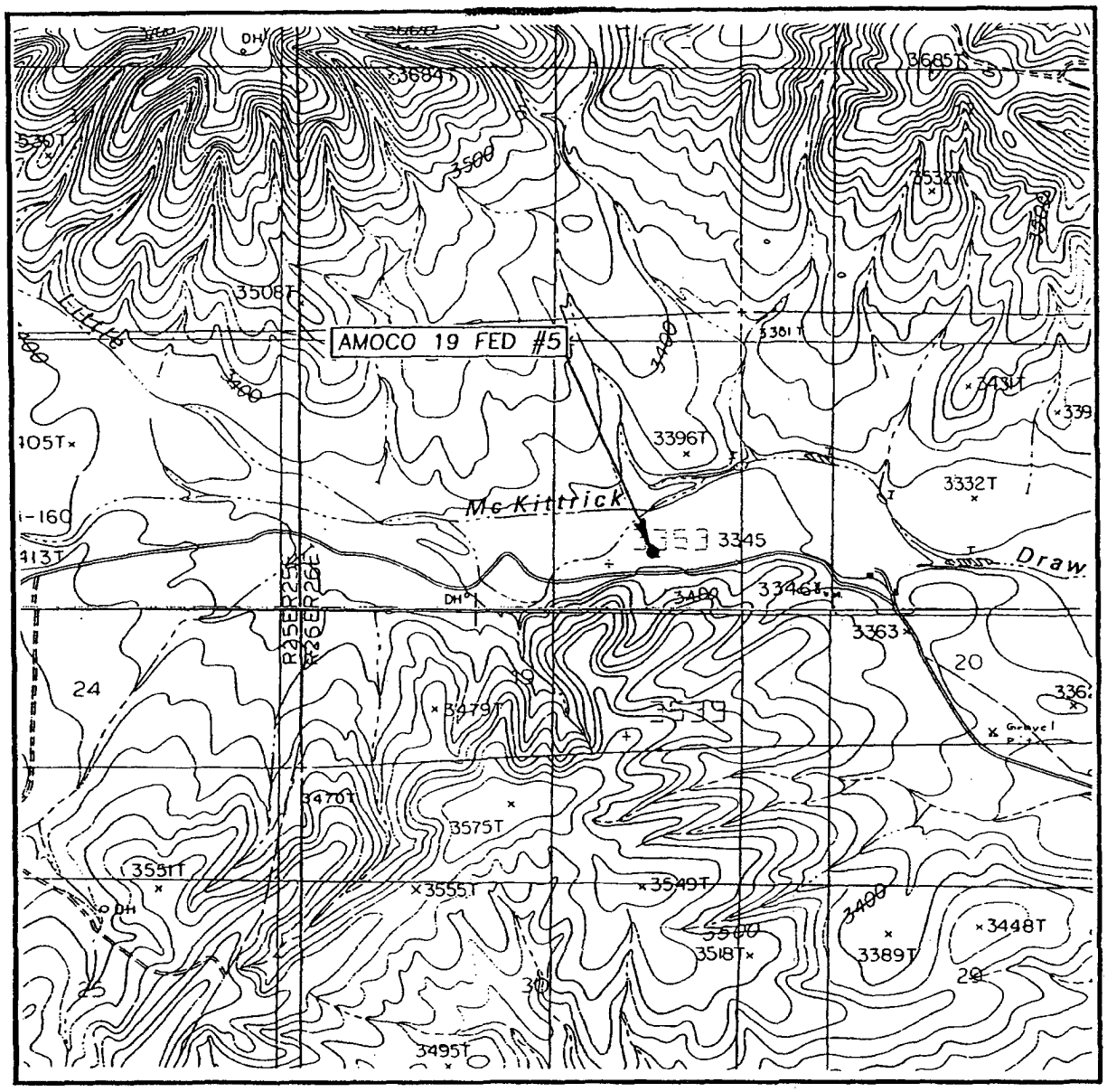
Gary G. Eidson 6/25/03

GARY G. EIDSON NEW MEXICO REGISTERED PROFESSIONAL SURVEYOR

03.11.0572

Certificate No. RONALD J. EIDSON 3239
GARY EIDSON 12641

LOCATION VERIFICATION MAP



SCALE: 1" = 2000'

CONTOUR INTERVAL: 20'
KITCHEN COVE, N.M.
SUP: 10'

SEC. 19 TWP. 22-S RGE. 26-E

SURVEY N.M.P.M.

COUNTY EDDY

DESCRIPTION 2430' FSL & 1054' FEL

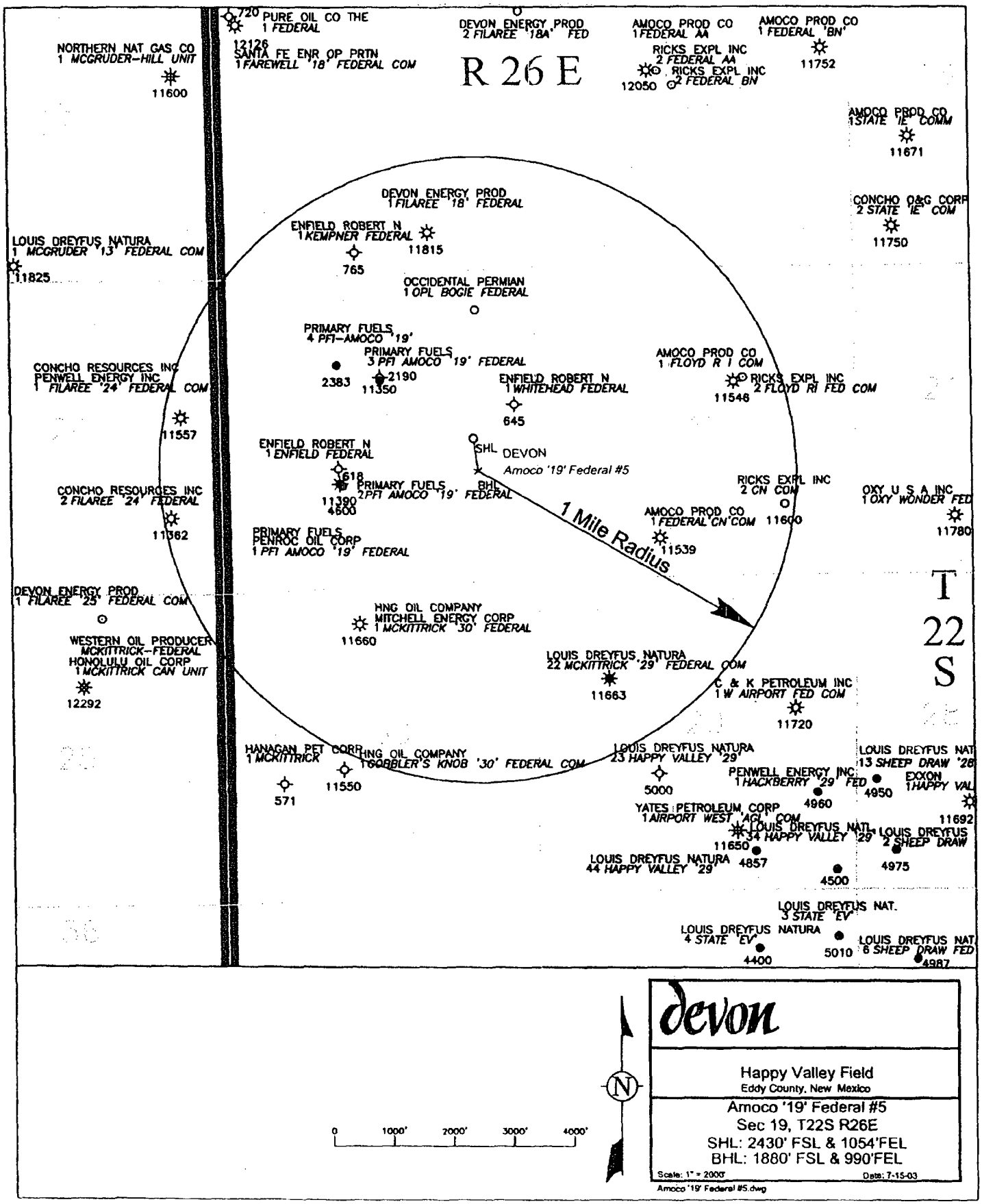
ELEVATION 3351'

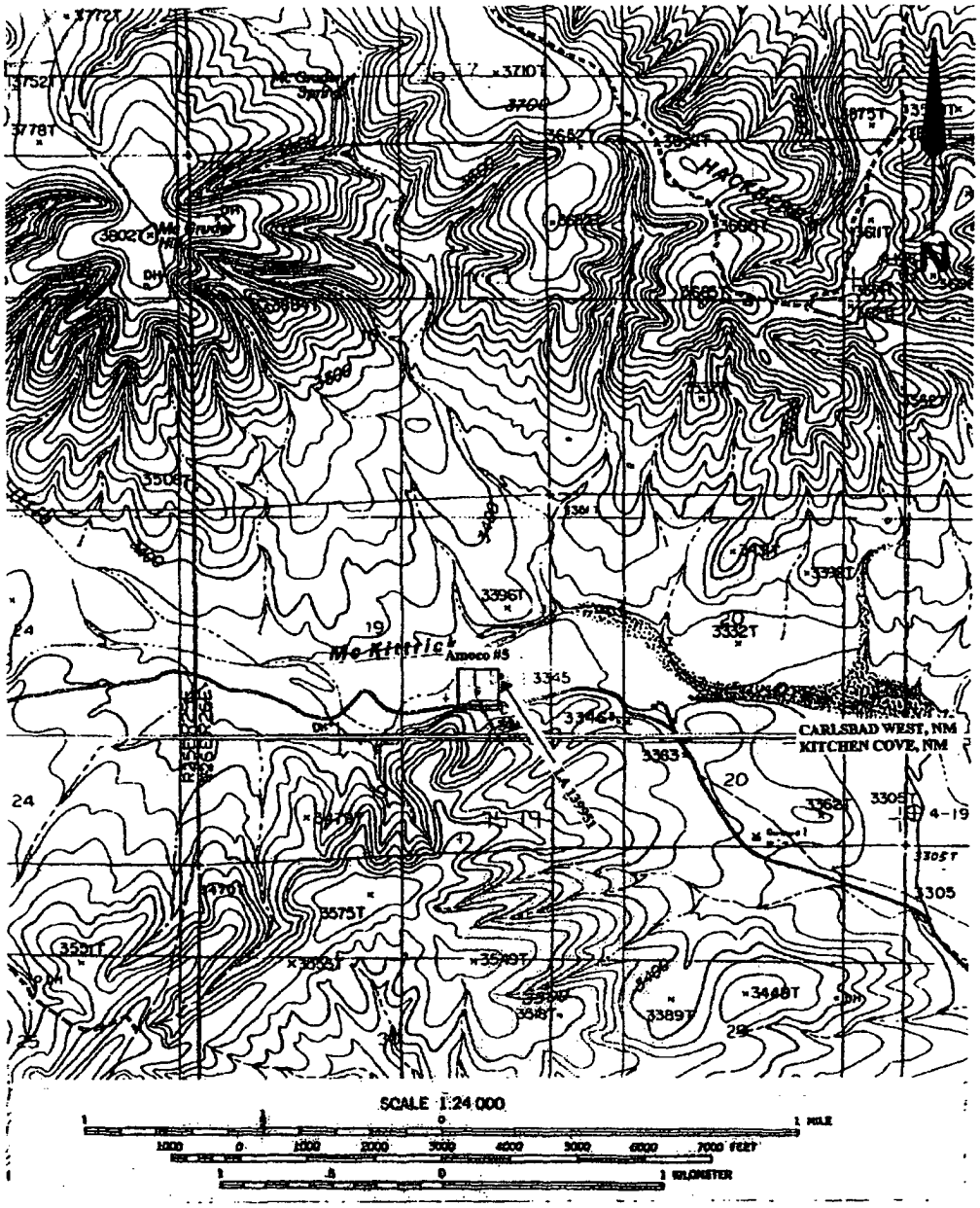
OPERATOR DEVON ENERGY PROD. CO. L.P.

LEASE AMOCO 19 FEDERAL

U.S.G.S. TOPOGRAPHIC MAP
KITCHEN COVE, N.M.

JOHN WEST SURVEYING
HOBBS, NEW MEXICO
(505) 393-3117


R 26 E
T 22 S
1 Mile Radius
SHL DEVON
Amoco '19' Federal #5
BHL
720 PURE OIL CO THE 1 FEDERAL
12126 SANTA FE ENR OP PRTN 1 FAREWELL '18' FEDERAL COM
DEVON ENERGY PROD 2 FILAREE '18A' FED
AMOCO PROD CO 1 FEDERAL AA
AMOCO PROD CO 1 FEDERAL 'BN'
RICKS EXPL INC 2 FEDERAL AA
RICKS EXPL INC 2 FEDERAL BN
12050
11752
NORTHERN NAT GAS CO 1 MCGRUDER-HILL UNIT
11600
AMOCO PROD CO 1 STATE 'IE' COMM
11671
DEVON ENERGY PROD 1 FILAREE '18' FEDERAL
CONCHO O&G CORP 2 STATE 'IE' COM
11750
ENFIELD ROBERT N 1 KEMPNER FEDERAL
11815
765
LOUIS DREYFUS NATURA 1 MCGRUDER '13' FEDERAL COM
11825
OCCIDENTAL PERMIAN 1 OPL BOGIE FEDERAL
PRIMARY FUELS 4 PFI-AMOCO '19'
PRIMARY FUELS 3 PFI AMOCO '19' FEDERAL
2383
2190
11350
AMOCO PROD CO 1 FLOYD R I COM
RICKS EXPL INC 2 FLOYD RI FED COM
11548
CONCHO RESOURCES INC
PENWELL ENERGY INC 1 FILAREE '24' FEDERAL COM
11557
ENFIELD ROBERT N 1 WHITEHEAD FEDERAL
645
ENFIELD ROBERT N 1 ENFIELD FEDERAL
618
PRIMARY FUELS 2PFI AMOCO '19' FEDERAL
11390
4600
RICKS EXPL INC 2 CN COM
11600
OXY U S A INC 1 OXY WONDER FED
11780
CONCHO RESOURCES INC 2 FILAREE '24' FEDERAL
11382
AMOCO PROD CO 1 FEDERAL CN COM
11539
PRIMARY FUELS PENROC OIL CORP 1 PFI AMOCO '19' FEDERAL
DEVON ENERGY PROD 1 FILAREE '25' FEDERAL COM
HNG OIL COMPANY MITCHELL ENERGY CORP 1 MCKITTRICK '30' FEDERAL
11660
WESTERN OIL PRODUCER MCKITTRICK-FEDERAL
HONOLULU OIL CORP 1 MCKITTRICK CAN UNIT
12292
LOUIS DREYFUS NATURA 22 MCKITTRICK '29' FEDERAL COM
11663
C & K PETROLEUM INC 1 W AIRPORT FED COM
11720
HANAGAN PET CORP 1 MCKITTRICK
571
HNG OIL COMPANY 1 GOBBLER'S KNOB '30' FEDERAL COM
11550
LOUIS DREYFUS NATURA 23 HAPPY VALLEY '29'
5000
LOUIS DREYFUS NAT 13 SHEEP DRAW '26
PENWELL ENERGY INC 1 HACKBERRY '29' FED
4960
4950
EXXON 1 HAPPY VAL
11692
YATES PETROLEUM CORP 1 AIRPORT WEST ACI COM
LOUIS DREYFUS NATL 34 HAPPY VALLEY '29'
11650
LOUIS DREYFUS 2 SHEEP DRAW
4975
LOUIS DREYFUS NATURA 44 HAPPY VALLEY '29'
4857
4500
LOUIS DREYFUS NAT. 3 STATE 'EV'
LOUIS DREYFUS NATURA 4 STATE 'EV'
4400
5010
LOUIS DREYFUS NAT 6 SHEEP DRAW FED
4987
0 1000' 2000' 3000' 4000'
N
devon
Happy Valley Field
Eddy County, New Mexico
Amoco '19' Federal #5
Sec 19, T22S R26E
SHL: 2430' FSL & 1054'FEL
BHL: 1880' FSL & 990'FEL
Scale: 1" = 2000'
Date: 7-15-03
Amoco '19' Federal #5.dwg



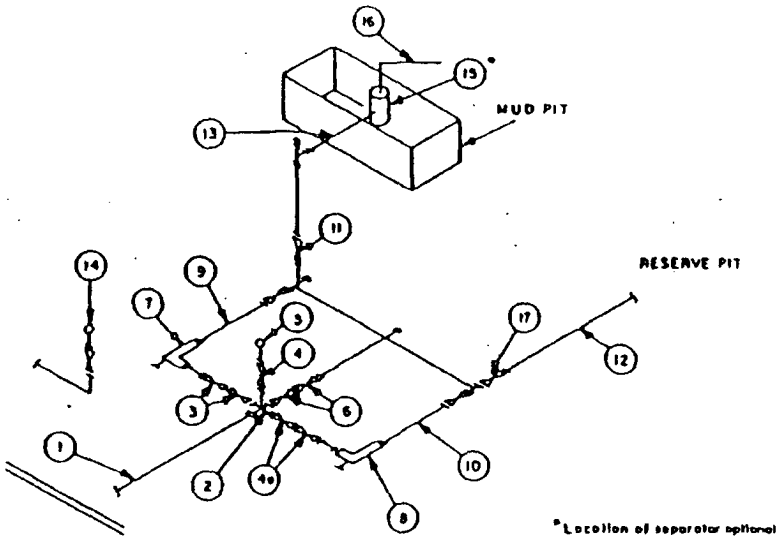
Location map of Devon Energy Production Company, L.P.'s proposed pad for the Amoco 19 Federal well No. 5 in Section 19, T 22 S, R 26 E, NMPM EDDY County, NM.
Map reference 7.5' Series, CARLSBAD WEST, NM (Prov. Ed. 1985) 32104 D3

BAS

MINIMUM CHOKE MANIFOLD
-,000, 5,000 and 10,000 PSI Working Pressure

3 MWP - 5 MWP - 10 MWP

EXHIBIT # 1



BEYOND SUBSTRUCTURE

MINIMUM REQUIREMENTS										
		3,000 MWP			5,000 MWP			10,000 MWP		
No.		I.D.	NOMINAL	RATING	I.D.	NOMINAL	RATING	I.D.	NOMINAL	RATING
1	Line from drilling spool		3"	3,000		3"	5,000		3"	10,000
2	Cross 3"x3"x3"x2"			3,000			5,000			
	Cross 3"x3"x3"x3"									10,000
3	Valves(1) Gate ☐ Plug ☐(2)	3-1/8"		3,000	3-1/8"		5,000	3-1/8"		10,000
4	Valve Gate ☐ Plug ☐(2)	1-13/16"		3,000	1-13/16"		5,000	1-13/16"		10,000
4a	Valves(1)	2-1/16"		3,000	2-1/16"		5,000	3-1/8"		10,000
5	Pressure Gauge			3,000			5,000			10,000
6	Valves Gate ☐ Plug ☐(2)	3-1/8"		3,000	3-1/8"		5,000	3-1/8"		10,000
7	Adjustable Choke(3)	2"		3,000	2"		5,000	2"		10,000
8	Adjustable Choke	1"		3,000	1"		5,000	2"		10,000
9	Line		3"	3,000		3"	5,000		3"	10,000
10	Line		2"	3,000		2"	5,000		3"	10,000
11	Valves Gate ☐ Plug ☐(2)	3-1/8"		3,000	3-1/8"		5,000	3-1/8"		10,000
12	Lines		3"	1,000		3"	1,000		3"	2,000
13	Lines		3"	1,000		3"	1,000		3"	2,000
14	Remote reading compound standpipe pressure gauge			3,000			5,000			10,000
15	Gas Separator		2"x5'			2"x5'			2"x5'	
16	Line		4"	1,000		4"	1,000		4"	2,000
17	Valves Gate ☐ Plug ☐(2)	3-1/8"		3,000	3-1/8"		5,000	3-1/8"		10,000

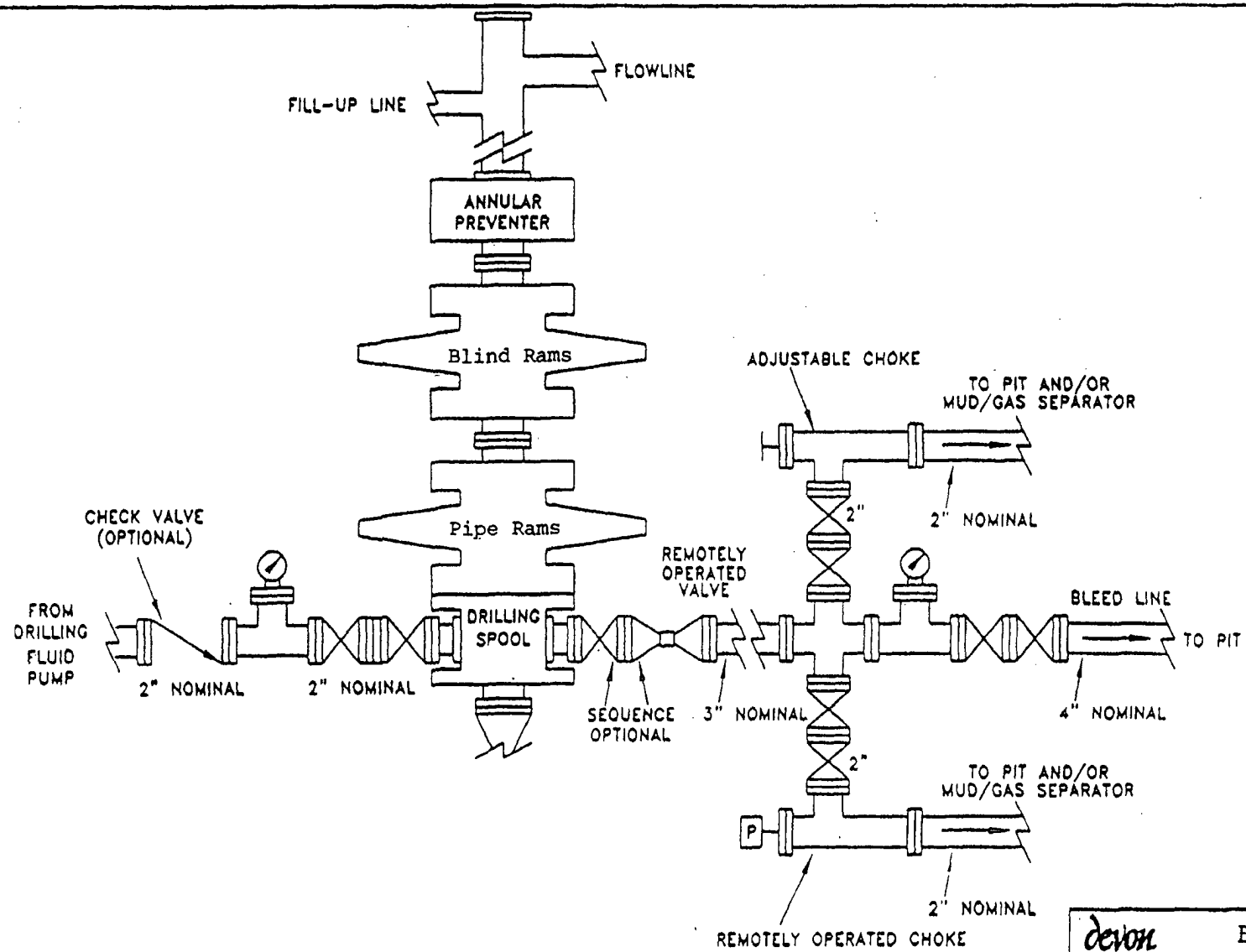
(1) Only one required in Class 3M.

(2) Gate valves only shall be used for Class 10M.

(3) Remote operated hydraulic choke required on 5,000 psi and 10,000 psi for drilling.

EQUIPMENT SPECIFICATIONS AND INSTALLATION INSTRUCTIONS

1. All connections in choke manifold shall be welded, studded, flanged or Cameron clamp of comparable rating.
2. All flanges shall be API 6B or 6BX and ring gaskets shall be API RX or BX. Use only BX for 10 MWP.
3. All lines shall be securely anchored.
4. Chokes shall be equipped with tungsten carbide seats and needles, and replacements shall be available.
5. Choke manifold pressure and standpipe pressure gauges shall be available at the choke manifold to assist in regulating chokes. As an alternate with automatic chokes, a choke manifold pressure gauge shall be located on the rig floor in conjunction with the standpipe pressure gauge.
6. Line from drilling spool to choke manifold should be as straight as possible. Lines downstream from chokes shall make turns by large bends or 90° bends using bull plugged tees.
7. Discharge lines from chokes, choke bypass and from top of gas separator should vent as far as practical from the well.



devon

EXHIBIT 1

AREA NAME

COUNTY, STATE

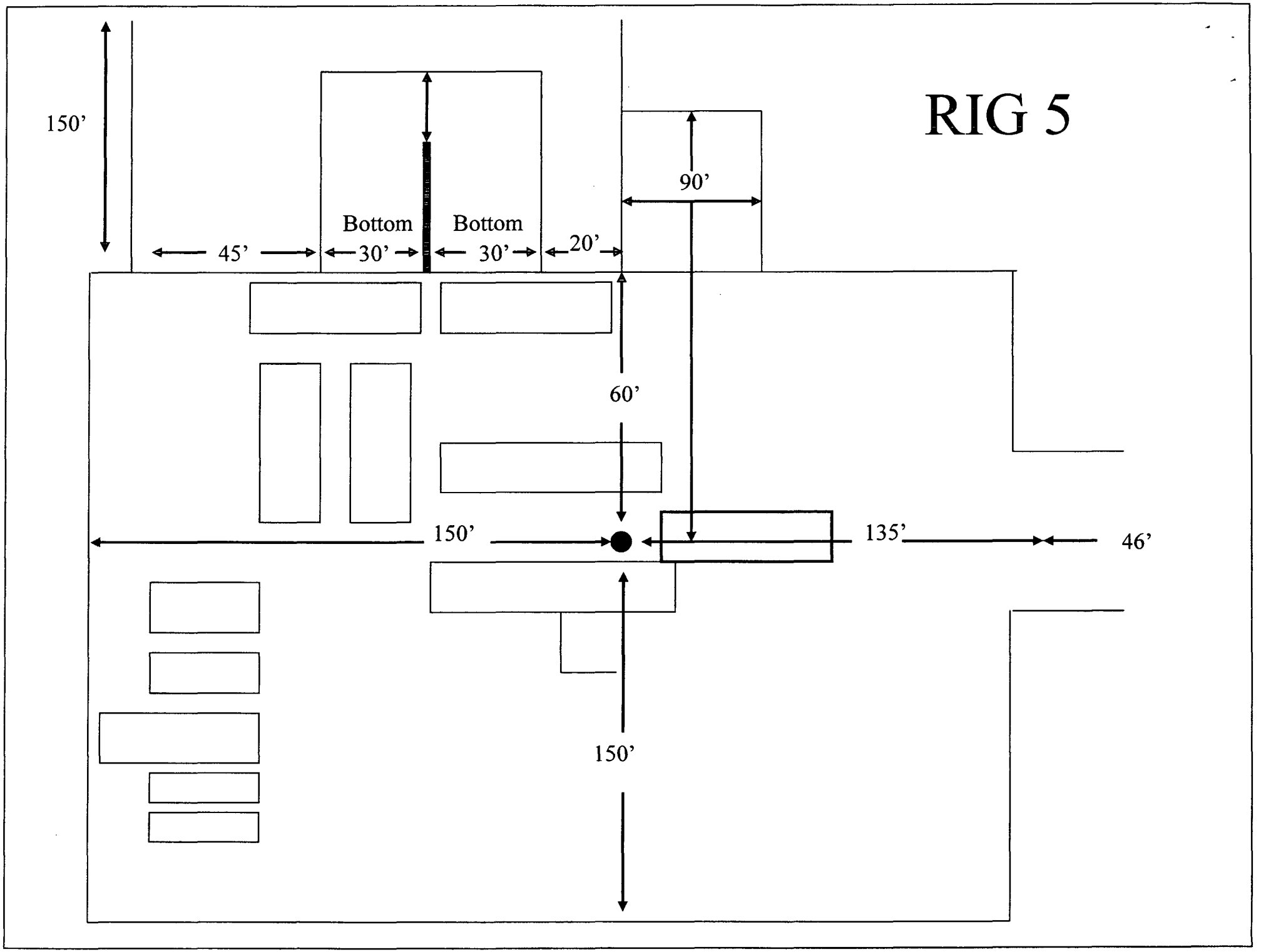
SCHEMATIC

PROPOSED 5-M BOPE AND CHOKE ARRANGEMENT

s:\..\nm\plats
5mbope.dwg

SC

10/00


RIG 5
150'
45'
Bottom
30'
Bottom
30'
20'
90'
60'
150'
135'
46'
150'

DRILLING PROGRAM

Devon Energy Production Company, LP
Amoco 19 Federal #5
Surface Location: 2430' FSL & 1054' FEL, Unit I, Sec 19 T22S R26E, Eddy, NM
Bottom hole Location: 1880' FSL & 990' FEL, Unit I, sec 19 T22S R26E, Eddy, NM

1. **Geologic Name of Surface Formation**

   a. Quaternery Aeolian Deposits

2. **Estimated tops of geological markers:**

a.	Delaware	2,350'
b.	Bone Spring Lm	4,725'
c.	Wolfcamp Lm	8,360'
d.	Strawn Lm	9,900'
e.	Atoka	10,035'
f.	U. Morrow Clastics	10,875'
g.	M. Morrow Lm Mkr	11,100'
h.	Lwr Morrw Shale Mkr.	11,300'
i.	Barnett Shale	11,470'
j.	PTD	11,600'

3. **Estimated Depths of Anticipated Fresh Water, Oil or Gas**

a.	Water:	Random Fresh water from surface to approximately 350'
b.	Oil:	Bone Spring, Wolfcamp
c.	Gas:	Cisco, Strawn, Atoka, Morrow

4. **Casing Program:**

Hole Size	Interval	OD Csg	Weight	Collar	Grade	
17 ½"	0' – 500'	13 3/8"	48#	ST&C	H-40	WITNESS
12 ¼"	0' – ~~2,400'~~ 2200'	9 5/8"	36#	ST&C	J-55	WITNESS
8 ¾"	0 ' – 11,600'	5 ½"	17#	LT&C	HCP-110	

5. **Cement & Setting Depth:**

a.	13 3/8"	Surface	Cement to surface – with approximately 650 sx Class C
b.	9 5/8"	Intermediate	Cement to surface – with approximately 200 Sx C + 950 sx Class C Lite + 200 sx Class C w/2% CaCl2
c.	5 ½"	Production	Cement to surface with approximately 1100 sx Super H + 1050 sx Class C Lite + 200 sx Class C neat-

The cement volumes for the 5 ½" casing will be revised pending the caliper measurement from the open hole logs.

6. **Pressure Control Equipment:**

   a. The blowout preventer equipment (BOP) shown in Exhibit #1 will consist of a (5M system) double ram type (5000 psi WP) preventer and a bag-type (Hydril) preventer (3000 psi WP).

Both units will be hydraulically operated and the ram type preventer will be equipped with blind rams on top and drill pipe rams on bottom. Both BOP's will be installed on the 9 5/8" surface casing and utilized continuously until total depth is reached. As per BLM Drilling Order #2, prior to drilling out the casing shoe, the BOP's and Hydril will be function tested.

b. Pipe rams will be operated and checked each 24-hour period and each time the drill pipe is out of the hole. These functional tests will be documented on the daily drillers log. A 2" kill line and 3" choke line will be incorporated in the drilling spool below the ram-type BOP. Other accessory BOP equipment will include a Kelly cock, floor safety valve, choke lines an choke manifold having 5000 psi WP rating.

7. **Proposed Mud Circulation System**

Depth	Mud Wt.	Visc	Fluid Loss	Type System
0' – 500' 2200'	9.5	29-34	NC	Fresh Water
500' – ~~2400'~~	8.5 – 10.5	29-34	NC	Fresh Water
2200' ~~2400'~~ – 11,600'	10.2–10.6	29-34	NC	Cut Brine

Sufficient mud materials will be kept on location at all times in order to combat lost circulation, or unexpected kicks. In order to run DST's, open hole logs, & casing the viscosity and/or water loss may have to be adjusted to meet these needs.

8. **Auxiliary Well Control and Monitoring Equipment:**
   a. A Kelly cock will be in the drill string at all times.
   b. A full opening drill pipe stabbing valve having the appropriate connections will be on the rig floor at all times.
   c. Hydrogen sulfide detection equipment will be in operations after drilling out the 13 3/8" casing shoe until the 8 5/8" casing is cemented. Breathing equipment will be on location upon drilling the 13 3/8" shoe until total depth is reached.

9. **Logging, Coring, and Testing Program:**
   a. No cores or drill stem tests are planned at this time.
   b. The open hole electrical logging program will be as follows
      i. Platform Express Azimuthal Laterlog/MCFL/NGT and Three Detector Litho-Density Compensated Neutron/NGT logs from TD to base of surface casing.
      ii. A formation pressure testing tool and a formation imaging tool may be run
   c. Additional testing will be initiated subsequent to setting the 5 ½" production casing. Specific intervals will be targeted based on log evaluation, geological sample shows and drill stem tests.

10. **Potential Hazards:**
   a. No abnormal pressures or temperatures are foreseen. The anticipated bottom hole temperature at total depth is 170° and maximum bottom hole pressure is 5500 psig. Hydrogen sulfide gas may be encountered in this area. See attached "Hydrogen Sulfide Operations Plan". Lost circulation intervals have been encountered in adjacent wells.

11. Anticipated Starting Date and Duration of Operations:

a. Road and location construction will begin after the BLM has approved the APD. Anticipated spud date will be as soon after BLM approval and as soon as a rig will be available. Move in operations and drilling is expected to take 40-45 days. If production casing is run then an additional 30 days will be needed to complete well and construct surface facilities and/or lay flow lines in order to place well on production.

HYDROGEN SULFIDE DRILLING OPERATIONS PLAN

1. All Company and Contract personnel admitted on location must be trained by a qualified H2S safety instructor to the following:
   a. Characteristics of H2S
   b. Physical effects and hazards
   c. Proper use of safety equipment and life support systems.
   d. Principle and operation of H2S detectors, warning system and briefing areas
   e. Evacuation procedures, routes and first aid.
   f. Proper use of 30-minute pressure demand air pack.

2. H2S Detection and Alarm System
   a. H2S detectors and audio alarm system to be located at bell nipple, end of blooie line (mud pit) and on derrick floor or doghouse.

3. Windsock and/or wind streamers
   a. Windsock at mud pit area should be high enough to be visible
   b. Windsock at briefing area should be high enough to be visible
   c. There should be a windsock at entrance to location

4. Condition Flags and Signs
   a. Warning Sign on access road to location
   b. Flags to be displayed on sign at entrance to location. Green flag, normal safe condition. Yellow flag indicates potential pressure and danger. Red flag, danger, H2S present in dangerous concentration. Only emergency personnel admitted to location.

5. Well Control Equipment
   a. See Exhibit "E" & "E-1"

6. Communication
   a. While working under masks chalkboards will be used for communication.
   b. Hand signals will be used where chalk board is inappropriate
   c. Two way radio will be used to communicate off location in case of emergency help is required. In most cases cellular telephones will be available at most drilling foreman's trailer or living quarters.

7. Drill stem Testing
   a. Exhausts will be watered
   b. Flare line will be equipped with an electric igniter or a propane pilot light in case gas reaches the surface.
   c. If the location is near to a dwelling a closed DST will be performed.

8. Drilling contractor supervisor will be required to be familiar with the effects H2S has on tubular goods and other mechanical equipment.
9. If H2S is encountered, mud system will be altered if necessary to maintain control or formation. A mud gas separator will be brought into service along with H2S scavengers if necessary.

SURFACE USE PLAN

Devon Energy Production Company, LP

Amoco 19 Federal #5

Surface Location: 2430' FSL & 1054' FEL, Unit I, Sec 19 T22S R26E, Eddy, NM

Bottom hole Location: 1880' FSL & 990' FEL, Unit I, sec 19 T22S R26E, Eddy, NM

1. **Existing Roads:**
   a. The well site and elevation plat for the proposed are reflected on Exhibit 2. John West Surveying staked the well.
   b. All roads into the location are depicted on Exhibit 3.
   c. Directions to Location: From Carlsbad go 2.0 miles South on Hwy 62/180 to Hildago. Go 4.0 miles and turn right at CR429 or McKitrick rd. Go 3.5 miles, as the road changes from NW to W, the proposed well pad will be on the right (North) side of the road.
2. **Access Road**
   a. Exhibit #3 shows the existing lease road. Access to this location will not require any construction.
   b. No cattle guards, grates or fence cuts will be required. No turnouts are planned.
3. **Location of Existing and/or Proposed Facilities**
   a. In the event the well is found productive, a tank battery would be constructed and the necessary production equipment will be installed at the well site.
   b. If necessary, the well will be operated by means of an electric prime mover. Electric power poles will be set along side of the access road. w/prior Sundry Notice approval. TSO
   c. The tank battery, all connections and all lines will adhere to API standards.
4. **If the well is productive, rehabilitation plans are as follows.**
   a. The reserve pit will be back-filled after the contents of the pit are dry (within 120 days after completion, weather permitting).
   b. The original topsoil from the well site will be returned to the location. The drill site will then be contoured as close as possible to the original natural state.
5. **Methods of Handling Waste Material:**
   a. Drill cuttings will be disposed of in the reserve pits.
   b. All trash, junk and other waste material will be contained in trash cages or trash bins to prevent scattering. When the job is completed all contents will be removed and disposed of in an approved sanitary landfill.
   c. The supplier, including broken sacks, will pick up salts remaining after completion of well.
   d. Wastewater from living quarters will be drained into hole with a minimum of 10'. These holes will be covered during drilling and will be back filled when the well is completed. A Porto-john will be provided for the rig crews. This equipment will be properly maintained during the drilling and completion operations and will be removed when all operations are complete
   e. Remaining drilling fluids will be allowed to evaporate in the reserve pits until the pits are dry enough to be broken out for further drying. If the drilling fluids do not evaporate in a reasonable time they will be hauled off by transports to a state approved disposal site. Later pits will be broken out to speed dry. Water produced during completion will be put in reserve pits. Oil and condensate produced will be put in a storage tank and sold.
6. **Well Site Layout**
   a. Exhibit D Shows the proposed well site layout.
   b. This exhibit indicated proposed location of reserve and sump pits and living facilities.

c. Mud pits in the active circulating system will be steel pits & the reserve pits is proposed to be unlined unless subsurface condition encountered during pit construction indicate that lining is needed for lateral containment of fluids.
d. If needed, the reserve pit is to be lined with polyethylene. The pit liner will be 6 mils thick. Pit liner will extend a minimum 2'00" over the reserve pits dikes where the liner will b anchored down.
e. The reserve pit will be fenced on three sides with four strands of barbed wire during drilling and completion phases. The fourth side will be fenced after all drilling operations have ceased. If the well is a producer, the reserve pit fence will be torn down. The reserve pit and those areas of the location not essential to production facilities will be reclaimed and seeded per BLM requirements.

7. **Other Information:**
a. Topography Project is on an alluvial fan that has a slight but steady slope to the north toward nearby Little McKittrick Draw. Overall ground cover is approx. 10% creosotebush, acacia, tarbush, mesquite, prickly pear cactus, stick cholla cactus, broom snakeweed, Christmas cholla cactus, althorn, assorted grasses and other flora.
b. The surface and minerals are owned by the US Government and is administered by the Bureau of Land Management. The surface is of limited use except for the grazing of livestock and the production of oil and gas.
c. An archaeological survey will be conducted of the well pad location and the results will be filed with the Bureau of Land Management in Carlsbad Field office.
d. There are no dwellings within 2 miles of location.

Operators Representative:

The Devon Energy Production Company, L.P. representatives responsible for ensuring compliance of the surface use plan are listed below.

Wyatt Abbitt
Operations Engineer Advisor

Devon Energy Production Company, L.P.
20 North Broadway, Suite 1500
Oklahoma City, OK 73102-8260

(405) 552-8137 (office)
(405) 245-3471 (Cellular)

Don Mayberry
Superintendent

Devon Energy Production Company, L.P.
Post Office Box 250
Artesia, NM 88211-0250

(505) 748-3371 (office)
(505) 746-4945 (home)

Certification

I hereby certify that I, or persons under my direct supervision, have inspected the proposed drill site and access road; that I am familiar with the conditions that presently exist; that the statements made in this plan are, to the best of my knowledge, true and correct; and that the work associated with the operations proposed herein will be performed by Devon Energy Production Company, L.P. and its contractors and subcontractors in conformity with this plan and the terms and conditions under which it is approved.

Signed: _____ Date: May 31st, 2006

Stephanie A. Ysasaga
Sr. Staff Engineering Technician

Attachment to Exhibit #1
NOTES REGARDING BLOWOUT PREVENTERS
Devon Energy Production Company, LP
Amoco 19 Federal #5
Surface Location: 2430' FSL & 1054' FEL, Unit I, Sec 19 T22S R26E, Eddy, NM
Bottom hole Location: 1880' FSL & 990' FEL, Unit I, sec 19 T22S R26E, Eddy, NM

1. Drilling nipple will be constructed so it can be removed mechanically without the aid of a welder. The minimum internal diameter will equal BOP bore.

2. Wear ring will be properly installed in head.

3. Blowout preventer and all associated fittings will be in operable condition to withstand a minimum 5000 psi working pressure.

4. All fittings will be flanged.

5. A full bore safety valve tested to a minimum 5000 psi WP with proper thread connections will be available on the rotary rig floor at all times.

6. All choke lines will be anchored to prevent movement.

7. All BOP equipment will be equal to or larger in bore than the internal diameter of the last casing string.

8. Will maintain a kelly cock attached to the kelly.

9. Hand wheels and wrenches will be properly installed and tested for safe operation.

10. Hydraulic floor control for blowout preventer will be located as near in proximity to driller's controls as possible.

11. All BOP equipment will meet API standards and include a minimum 40 gallon accumulator having two independent means of power to initiate closing operation.

UNITED STATES DEPARTMENT OF THE INTERIOR
Bureau of Land Management
Roswell Field Office
2909 West Second Street
Roswell, New Mexico 88201-1287

Statement Accepting Responsibility for Operations

Operator Name:	**Devon Energy Production Company, LP**
Street or Box:	**20 North Broadway, Suite 1500**
City, State:	**Oklahoma City, Oklahoma**
Zip Code:	**73102-8260**

The undersigned accepts all applicable terms, conditions, stipulations and restrictions concerning operations conducted on the leased land or portion thereof, as described below.

Lease Name:	Amoco 19 Federal 5
Lease No.:	NMNM34246
Legal Description of Land:	318 acres 19-T22S-R26E
Formation(s):	Morrow
Bond Coverage:	Nationwide
BLM Bond File No.:	CO-1104
Authorized Signature:	Stephanie A. Ysasaga
Title:	Sr. Staff Engineering Technician
Date:	05/31/06

devon Energy Corp

2401 Pecos Ave
Artesia NM 88210

Hydrogen Sulfide (H_2S) Contingency Plan

For

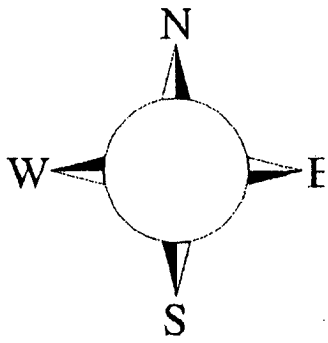
Amoco 19 Federal Well #5

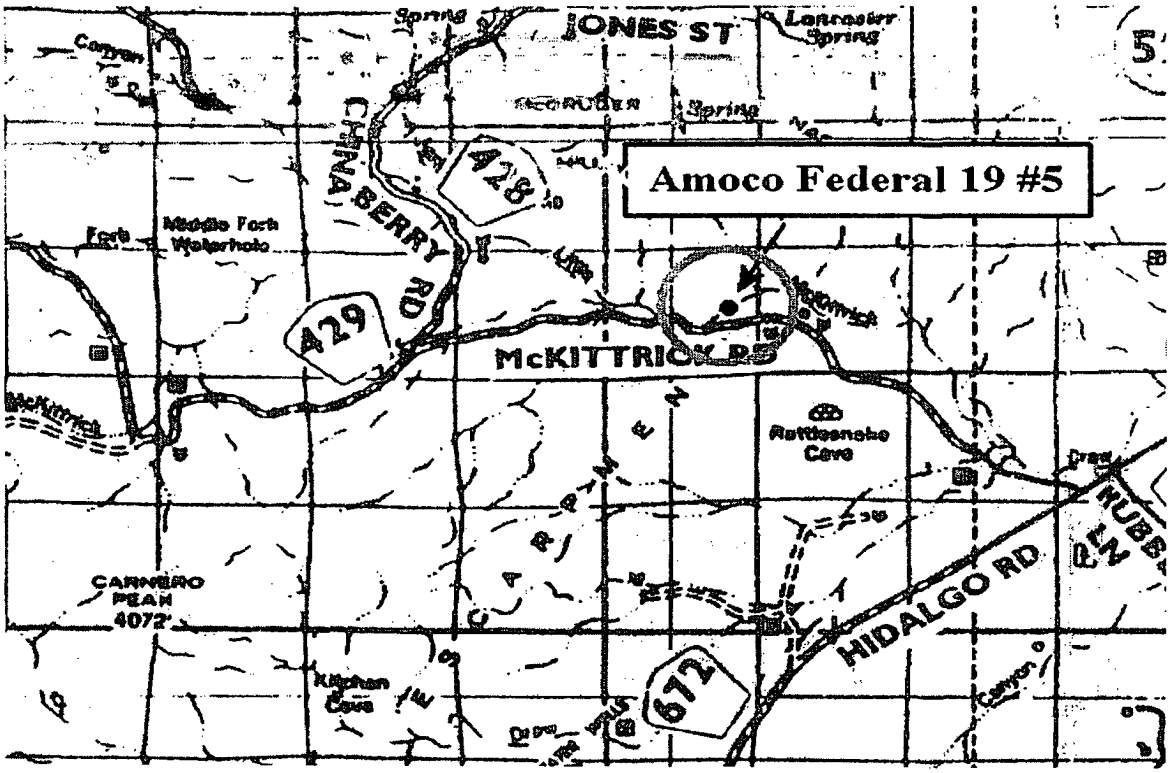
2430' FSL, 1054' FEL
Sec-19, T-22S, R-26E

Eddy County NM

Amoco 19 Federal Well #5 Location

This is an open drilling site. H_2S monitoring equipment and emergency response equipment will be used within 500' of zones known to contain H_2S, including warning signs, wind indicators and H_2S monitor.





Assumed 100 ppm ROE = 3000'
100 ppm H2S concentration shall trigger activation of this plan.

Emergency Procedures

In the case of a release of gas containing H_2S, the first responder(s) must isolate the area and prevent entry by other persons into the 100 ppm ROE. Additionally the first responder(s) must evacuate any public places encompassed by the 100 ppm ROE. First responder(s) must take care not to injure themselves during this operation. Company and/or local officials must be contacted to aid in this operation. Evacuation of the public should be beyond the 100 ppm ROE. **This includes traffic control on McKittrick Road.**

All responders must have training in the detection of H_2S, measures for protection against the gas, equipment used for protection and emergency response. Additionally, responders must be equipped with H_2S monitors and air packs in order to control the release. Use the "buddy system' to ensure no injuries during the response.

Ignition of Gas Source

Should control of the well be considered lost and ignition considered, take care to protect against exposure to Sulfur Dioxide (SO_2). Intentional ignition must be coordinated with the NMOCD and local officials. Additionally the NM State Police may become involved. NM State Police shall be the Incident Command on scene of any major release. Take care to protect downwind whenever there is an ignition of the gas

Characteristics of H_2S and SO_2

Common Name	Chemical Formula	Specific Gravity	Threshold Limit	Hazardous Limit	Lethal Concentr-ation
Hydrogen Sulfide	H_2S	1.189 Air = 1	10 ppm	100 ppm/hr	600 ppm
Sulfur Dioxide	SO_2	2.21 Air = 1	2 ppm	N/A	1000 ppm

Contacting Authorities

Devon Energy Corp. personnel must liaison with local and state agencies to ensure a proper response to a major release. Additionally, the OCD must be notified of the release as soon as possible but no later than 4 hours. Agencies will ask for information such as type and volume of release, wind direction, location of release, etc. Be prepared with all information available. The following call list of essential and potential responders has been prepared for use during a release. Devon Energy Corp. Company response must be in coordination with the State of New Mexico's 'Hazardous Materials Emergency Response Plan' (HMER)

Devon Energy Corp. Company Call List

Artesia (505)	Cellular	Office	Home
Foreman – BJ Cathey	390-5893	748-0176	887-6026
Asst. Foreman – Bobby Jones	748-7447	748-0176	746-3194
Cecil Thurmond	748-7180	748-0171	887-1479
David Purdy	(432)631-2969	(432)495-7279	(432)683-0735
Engineer – Tom Pepper	(405) 203-2242	(405) 552-4513	(405) 728-8641

Agency Call List

Eddy County (505)

Artesia

State Police	746-2703
City Police	746-2703
Sheriff's Office	746-9888
Ambulance	911
Fire Department	746-2701
LEPC (Local Emergency Planning Committee)	746-2122
NMOCD	748-1283

Carlsbad

State Police	885-3137
City Police	885-2111
Sheriff's Office	887-7551
Ambulance	911
Fire Department	885-2111
LEPC (Local Emergency Planning Committee)	887-3798
US Bureau of Land Management	887-6544

New Mexico Emergency Response Commission (Santa Fe)	(505)476-9600
24 HR	(505) 827-9126
National Emergency Response Center (Washington, DC)	(800) 424-8802

Other

Boots & Coots IWC	1-800-256-9688 or (281) 931-8884
Cudd Pressure Control	(915) 699-0139 or (915) 563-3356
Halliburton	(505) 746-2757
B. J. Services	(505) 746-3569

Flight For Life -4000 24th St, Lubbock, TX	(806) 743-9911
Aerocare -Rr 3 Box 49f, Lubbock, TX	(806) 747-8923
Med Flight Air Amb 2301 Yale Blvd SE #D3, Albuq, NM	(505) 842-4433
S B Air Med Svc 2505 Clark Carr Loop SE, Albuq, NM	(505) 842-4949

Prepared in conjunction with
Wade Rohloff of;

Compliance Services
PO Box 2734 Hobbs NM 88240 (505) 631-4561

devon

Wellpath Design Summary Report

Wellpath: **Plan #1**

BAKER HUGHES INTEQ

REFERENCE WELLPATH IDENTIFICATION			
Operator	**Devon Energy Production Co.**	Slot	**Directional Profile**
Area	**Eddy County, NM**	Well	**Amoco 19 Federal #5**
Field	**Happy Valley Morrow**	Wellbore	**Plan Proposal**
Facility	**Amoco 19 Federal**		

REPORT SETUP INFORMATION			
Projection System	**NAD27 / TM New Mexico State Planes, Eastern Zone (3001), US feet**	Software System	**WellArchitect™ 1.2**
North Reference	**Grid**	User	**Gomeoscr**
Scale	**0.999909**	Report Generated	**06/12/06 at 16:41:29**
Wellbore last revised	**06/12/06**	Database/Source file	**WellArchitectDB/Plan_**

WELLPATH LOCATION	Local coordinates		Grid coordinates		Geographic coordinates	
	North [feet]	East [feet]	Easting [US feet]	Northing [US feet]	Latitude [°]	Longitude [°]
Slot Location	**0.00**	**0.00**	502099.00	500822.20	32 22 36.750N	104 19 35.523W
Facility Reference Pt			**502099.00**	**500822.20**	32 22 36.750N	104 19 35.523W
Field Reference Pt			**502099.00**	**500822.20**	32 22 36.750N	104 19 35.523W

WELLPATH DATUM			
Calculation method	**Minimum curvature**	Rig on Directional Profile (RT) to Facility Vertical Datum	**0.00 feet**
Horizontal Reference Pt	**Facility Center**	Rig on Directional Profile (RT) to RKB	**0.00 feet**
Vertical Reference Pt	**Rig on Directional Profile (RT)**	Facility Vertical Datum to Mud Line (Facility)	**0.00 feet**
MD Reference Pt	**Rig on Directional Profile (RT)**		
Field Vertical Reference	**RKB**		

WELLPATH DATA (4 stations)

MD [feet]	Inclination [°]	Azimuth [°]	TVD [feet]	Vert Sect [feet]	North [feet]	East [feet]	DLS [°/100ft]	Design Comments
0.00	0.000	173.655	0.00	0.00	0.00	0.00	0.00	Tie On
4750.00	0.000	173.655	4750.00	0.00	0.00	0.00	0.00	KOP
4905.08	4.652	173.655	4904.91	6.29	-6.25	0.70	3.00	EOB
11622.30	4.652	173.655	11600.00	551.13	-547.75	60.91	0.00	BHL

TARGETS

Name	MD [feet]	TVD [feet]	North [feet]	East [feet]	Grid East [us survey feet]	Grid North [us survey feet]	Latitude [°]	Longitude [°]	Shape
1) BHL	11622.30	11600.00	-547.75	60.91	502159.90	500274.50	32 22 31.330N	104 19 34.814W	point

Devon Energy Production Co.

Location: Eddy County, NM
Field: Happy Valley Morrow
Facility: Amoco 19 Federal

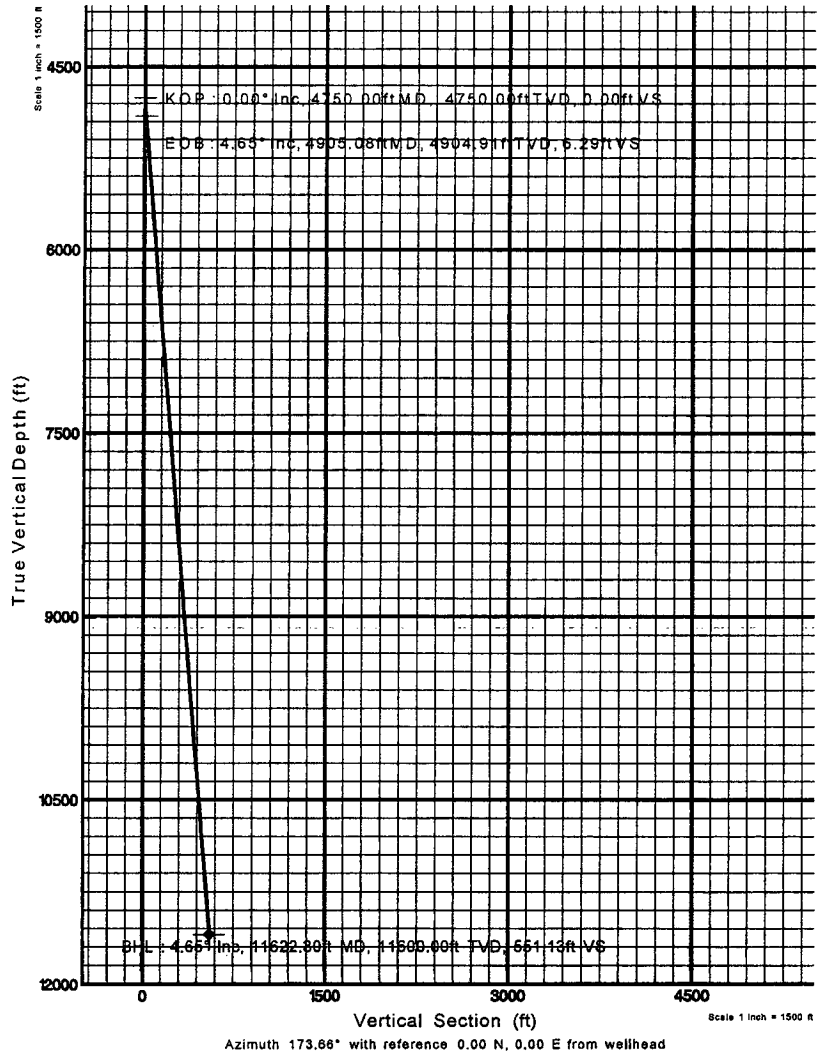
Slot: Directional Profile
Well: Amoco 19 Federal #5
Wellbore: Plan Proposal

BAKER HUGHES INTEQ

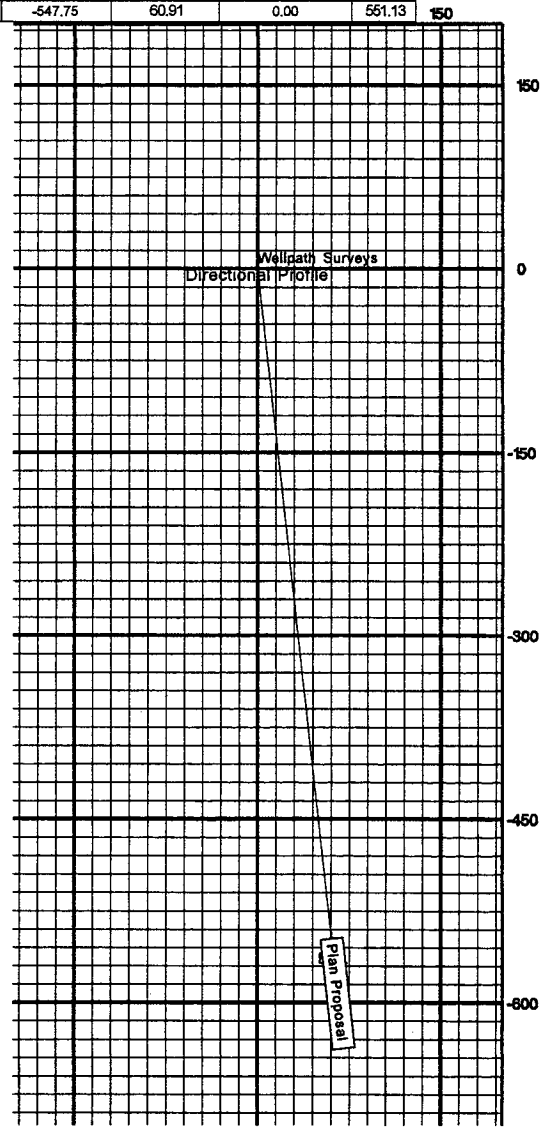
Plot reference wellpath is Plan #1	
True vertical depths are referenced to Rig on Directional Profile (RT)	Grid System: NAD27 / TM New Mexico State Planes, Eastern Zone (3001), US feet
Measured depths are referenced to Rig on Directional Profile (RT)	North Reference: Grid north
Rig on Directional Profile (RT) to RKB: 0 feet	Scale: True distance
RKB to Mud line (Facility - Amoco 19 Federal): 0 feet	Depths are in feet
Coordinates are in feet referenced to Facility Center	Created by: gomeoscr on 6/12/2006

Well Profile Data

Design Comment	MD (ft)	Inc (°)	Az (°)	TVD (ft)	Local N (ft)	Local E (ft)	DLS (°/100ft)	VS (ft)
Tie On	0.00	0.000	173.655	0.00	0.00	0.00	0.00	0.00
KOP	4750.00	0.000	173.655	4750.00	0.00	0.00	0.00	0.00
EOB	4905.08	4.652	173.655	4904.91	-6.25	0.70	3.00	6.29
BHL	11622.30	4.652	173.655	11600.00	-547.75	60.91	0.00	551.13



Azimuth 173.66° with reference 0.00 N, 0.00 E from wellhead



Conditions of Approval
Cave and Karst

EA#: NM-080-06-1033
Lease #: NM-34246
Devon Energy Production Company, L.P.
Amoco 19 Fed. #5

Cave/Karst Surface Mitigation
The following stipulations will be applied to minimize impacts during construction, drilling and production.

All production structures and appurtenances will be painted Shale Green and be low profile <8 feet in height.

Berming:
Any tank batteries will be constructed and bermed large enough to contain any spills that may occur.

Bermed areas will be lined with rip-stop padding to prevent tears or punctures in liners and lined with a permanent 40 mil plastic liner.

Closed Mud System with Cuttings Removed:
A closed mud system or steel tanks will be utilized to drill the well. All fluids and cuttings will be hauled off site for disposal. No reserve pits or cuttings pits allowed.

Cave/Karst Subsurface Mitigation
The following stipulations will be applied to protect cave/karst and ground water concerns:

Rotary Drilling with Fresh Water:
Rotary drilling techniques in cave or karst areas will include the use of fresh water as a circulating medium in zones where caves or karst features are expected. See geologist report for depth.

Florescene Dye Orange (Eosin Y):
Sixteen ounces of Orange (Eosin Y) Florescene dye will be added to the drilling fluid during the drilling of the first 2,500 feet of the well.

Directional Drilling:
Kick off for directional drilling will occur at least 100 feet below the bottom of the cave occurrence zone as identified in the geologic report.

Casing:
All casing will meet or exceed National Association of Corrosion Engineers specifications pertaining to the geology of the location and be run to American Petroleum Institute and BLM standards.

Cementing:
All casing strings will be cemented to the surface.

Lost Circulation:
ALL lost circulation zones from the surface to the base of the cave occurrence zone will be logged and reported.

Regardless of the type of drilling machinery used, if a bit drops of four feet or more and circulation losses greater then 75 percent occur simultaneously while drilling in any cave-bearing zone, drilling operations will immediately stop and the BLM will be notified by the operator. The BLM will assess the consequences of the situation and work with operator on corrective actions to resolve the problem.

Delayed Blasting:
Any blasting will be a phased and time delayed.

Abandonment Cementing:
Upon well abandonment the well bore will be cemented completely from 100 feet below the bottom of the cave bearing zone to the surface.

Pressure Tests:
Annual pressure tests will be performed by the Operator on all casing annuli. If the test results indicated a casing failure, remedial actions approved by the BLM will be undertaken to correct the problem.

Differential Shut-off Systems:
A leak detection system and differential shut off systems will be installed for pipelines and tanks used in production or drilling.

Record Keeping:
The Operator will track customary drilling activities, including the rate of penetration, pump pressure, weight on bit, bit drops, percent of mud returns, and presence of absence of cuttings returning to the surface. As part of customary record keeping, each detectable void or sudden increase in the rate of penetration not attributable to a change in the formation type should be documented and evaluated as it is encountered.

CONDITIONS OF APPROVAL - DRILLING

Operator's Name:	**Devon Energy Production Company, L.P.**
Well Name & No.	**Amoco 19 Federal #5 - RESUBMITTAL**
SH Location:	**2430' FSL, 1054' FEL, Section 19, T. 22 S., R. 26 E., Eddy County, New Mexico**
BH Location:	**1880' FSL, 990' FEL, Section 19, T. 22 S., R. 26 E., Eddy County, New Mexico**
Lease:	**NM-34246**

I. DRILLING OPERATIONS REQUIREMENTS:

1. The Bureau of Land Management (BLM) is to be notified at the Carlsbad Field Office, 620 East Greene St., Carlsbad, NM 88220, (505) 361-2822 for wells in Eddy County in sufficient time for a representative to witness:

   A. Well spud

   B. Cementing casing: **13-3/8** inch **9-5/8** inch **5-1/2** inch

   C. BOP tests

2. Unless the production casing has been run and cemented or the well has been properly plugged, the drilling rig shall not be removed from over the hole without prior approval.

3. Submit a Sundry Notice (Form 3160-5, one original and five copies) for each casing string, describing the casing and cementing operations. Include pertinent information such as; spud date, hole size, casing (size, weight, grade and thread type), cement (type, quantity and top), water zones and problems or hazards encountered. The Sundry shall be submitted within 15 days of completion of each casing string. The reports may be combined into the same Sundry if they fall within the same 15-day time frame.

4. The API No. assigned to the well by NMOCD shall be included on the subsequent report of setting the first casing string.

II. CASING:

1. The **13-3/8** inch surface casing shall be set at **500 feet** and cement circulated to the surface. If cement does not circulate to the surface the appropriate BLM office shall be notified and a temperature survey or cement bond log shall be run to verify the top of the cement. Remedial cementing shall be completed prior to drilling out that string.

2. The minimum required fill of cement behind the **9-5/8** inch intermediate casing is **to be circulated to the surface**.

3. The minimum required fill of cement behind the **5-1/2** inch production casing is **to be circulated to the surface**.

III. PRESSURE CONTROL:

1. All BOP systems and related equipment shall comply with well control requirements as described in Onshore Oil and Gas Order No. 2. The BOP and related equipment shall be installed and operational before drilling below the **13-3/8** inch casing shoe and shall be tested as described in Onshore Order No. 2. Any equipment failing to test satisfactorily shall be repaired or replaced.

2. Minimum working pressure of the blowout preventer and related equipment (BOPE) shall be **5000** psi.

3. The appropriate BLM office shall be notified in sufficient time for a representative to witness the tests.

- The tests shall be done by an independent service company.
- The results of the test shall be reported to the appropriate BLM office.
- Testing fluid must be water or an appropriate clear liquid suitable for sub-freezing temperatures. Use of drilling mud for testing is not permitted since it can mask small leaks.

- Testing must be done in a safe workman-like manner. Hard line connections shall be required.

IV. DRILLING MUD:

Mud system monitoring equipment, with derrick floor indicators and visual and audio alarms, shall be operating before drilling into the **Wolfcamp** formation, and shall be used until production casing is run and cemented. Monitoring equipment shall consist of the following:

- Recording pit level indicator to indicate volume gains and losses.
- Mud measuring device for accurately determining the mud volumes necessary to fill the hole during trips.
- Flow-sensor on the flow-line to warn of abnormal mud returns from the well.

9/23/03
6/27/06 - rev
acs

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

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

Form C-144
June 1, 2004

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: _Devon Energy Production Company, L.P._____Telephone: _(405)-552-7802_____e-mail address: Stephanie.Ysasaga@dvn.com _____
Address: _P.O. Box 250 Artesia, NM 88211_____
Facility or well name: ___Amoco 19 Federal 5_____API #: ___30-015-~~33140~~ 35066 U/L or Qtr/Qtr __I__ Sec __19__ T __22S__ R __26E____
County: _Eddy _____ Latitude _____ Longitude _____ NAD: 1927 ☐ 1983 ☐
Surface Owner: Federal ☒ State ☐ Private ☐ Indian ☐

RECEIVED
JUL 25 2006
OCD-ARTESIA

Pit	**Below-grade tank**	
Type: Drilling ☒ Production ☐ Disposal ☐ Workover ☐ Emergency ☐ Lined ☒ Unlined ☐ Liner type: Synthetic ☒ Thickness _12__mil Clay ☐ Pit Volume _____bbl	Volume: _____bbl Type of fluid: _____ Construction material: _____ Double-walled, with leak detection? Yes ☐ If not, explain why not.	
Depth to ground water (vertical distance from bottom of pit to seasonal high water elevation of ground water.)	Less than 50 feet ~~50 feet or more~~, but less than 100 feet 100 feet or more	(20 points) (10 points) (0 points)
Wellhead protection area: (Less than 200 feet from a private domestic water source, or less than 1000 feet from all other water sources.)	Yes No	(20 points) (0 points)
Distance to surface water: (horizontal distance to all wetlands, playas, irrigation canals, ditches, and perennial and ephemeral watercourses.)	Less than 200 feet 200 feet or more, but less than 1000 feet 1000 feet or more	(20 points) (10 points) (0 points)
	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: ___07/21/06_____
Printed Name/Title _Stephanie A. Ysasaga / Sr. Staff Engineering Technician_ Signature _____

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:
Printed Name/Title Jim W. Gum District II Supervisor Signature _____ Date: 8/2/06