ATS-08-287
EA-08-495

S

OCD-ARTESIA

Form 3160-3
(April 2004)

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

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

MAR 13 2008
OCD-ARTESIA

APPLICATION FOR PERMIT TO DRILL OR REENTER

5. Lease Serial No: **NM-104619**

6. If Indian, Allottee or Tribe Name:

If Unit or CA Agreement, Name and No:

1a. Type of Work: [X] DRILL [ ] REENTER

1b Type of Well: [ ] Oil Well [X] Gas Well [ ] Other [ ] Single Zone [X] Multiple Zone

8. Lease Name and Well No.: **Discoman BJS Federal #1H**

2. Name of Operator: **Yates Petroleum Corporation**

9 API Well No.: 30-015-36207

3a. Address: **105 South Fourth Street, Artesia, New Mexico 88210**

3b. Phone No. *(include area code)*: **(505) 748-1471**

10. Field and Pool, or Exploratory: **Wildcat Wolfcamp**

4. Location of well *(Report location clearly and In accordance with any State requirements *)*
At surface: **1970' FSL and 456' FWL Surface Hole Location**
Roswell Controlled Water Basin
At proposed prod. zone: **1970' FSL and 660' FWL Bottom Hole Location**

11 Sec., T., R., M., or Blk And Survey or Area: **Section 20, T19S-R21E SHL. Section 19, T19S-R21E BHL**

14. Distance in miles and direction from the nearest town or post office*: **Approximately 16 miles southwest of Hope, New Mexico**

12. County or Parish: **Eddy**

13. State: **NM**

15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drlg unit line, if any)	16. No. of acres in lease	17 Spacing Unit dedicated to this well
456	**480.00**	**S/2**
18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft.	19. Proposed Depth	20 BLM/ BIA Bond No on file
20'	**4350' Vert/~~8100'~~ 8806 MD Horiz.**	**NATIONWIDE BOND #NMB000434**
21. Elevations (Show whether DF. RT, GR, etc.)	22. Aproximate date work will start*	23. Estimated duration
4485' GL	**ASAP**	**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 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 a authorized officer.

25. Signature	Name *(Printed/ Typed)*	Date
Cy Cowan	**Cy Cowan**	**12/20/2007**

Title: **Regulatory Agent**

Approved By *(Signature)*	Name *(Printed/ Typed)*	Date
/s/ Don Peterson	/s/ Don Peterson	MAR - 7 2008
Title: FIELD MANAGER	Office: CARLSBAD FIELD OFFICE	

Application approval does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to cc 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 knowingly and willfully to make to any department or agency of the Unite States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction

C-144 ATTACHED

SEE ATTACHED FOR CONDITIONS OF APPROVAL

APPROVAL SUBJECT TO GENERAL REQUIREMENTS AND SPECIAL STIPULATIONS ATTACHED

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 and Natural Resources Department

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

Form C-102
Revised October 12, 2005

Submit to Appropriate District Office
State Lease - 4 Copies
Fee Lease - 3 Copies

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number	Pool Code	Pool Name
30-015-36207	97489	Wildcat; Wolfcamp

Property Code	Property Name	Well Number
37057	DISCOMAN BJS FEDERAL	1H

OGRID No.	Operator Name	Elevation
025575	YATES PETROLEUM CORPORATION	4485

Surface Location

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
L	20	19S	21E		1970	SOUTH	456	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 (LOT 3)	19	19S	21E		1970	SOUTH	660	WEST	EDDY

Dedicated Acres	Joint or Infill	Consolidation Code	Order No.
320			

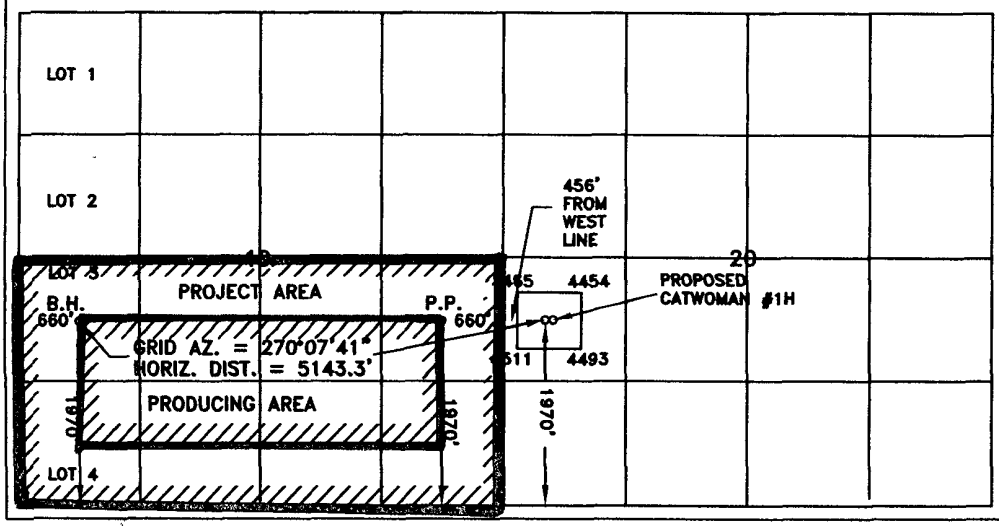
NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED
OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION

BOTTOM HOLE LOCATION
Y=598362.2 N
X=344175.6 E
LAT.=32.643979 N
LONG.=104.839569 W

GEODETIC COORDINATES
NAD 27 NME
SURFACE HOLE LOCATION
Y=598350.8 N
X=349318.9 E
LAT.=32.644000
LONG.=104.822286
(NAD-27)

PENETRATION POINT
Y=598353.3 N
X=348203.7 E

SCALE: 1" = 2000'



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 or unleased mineral interest in the land including the proposed bottom hole 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.

Signature — Date: 5/21/07

Cy Cowan, Regulatory Agent
Printed Name

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.

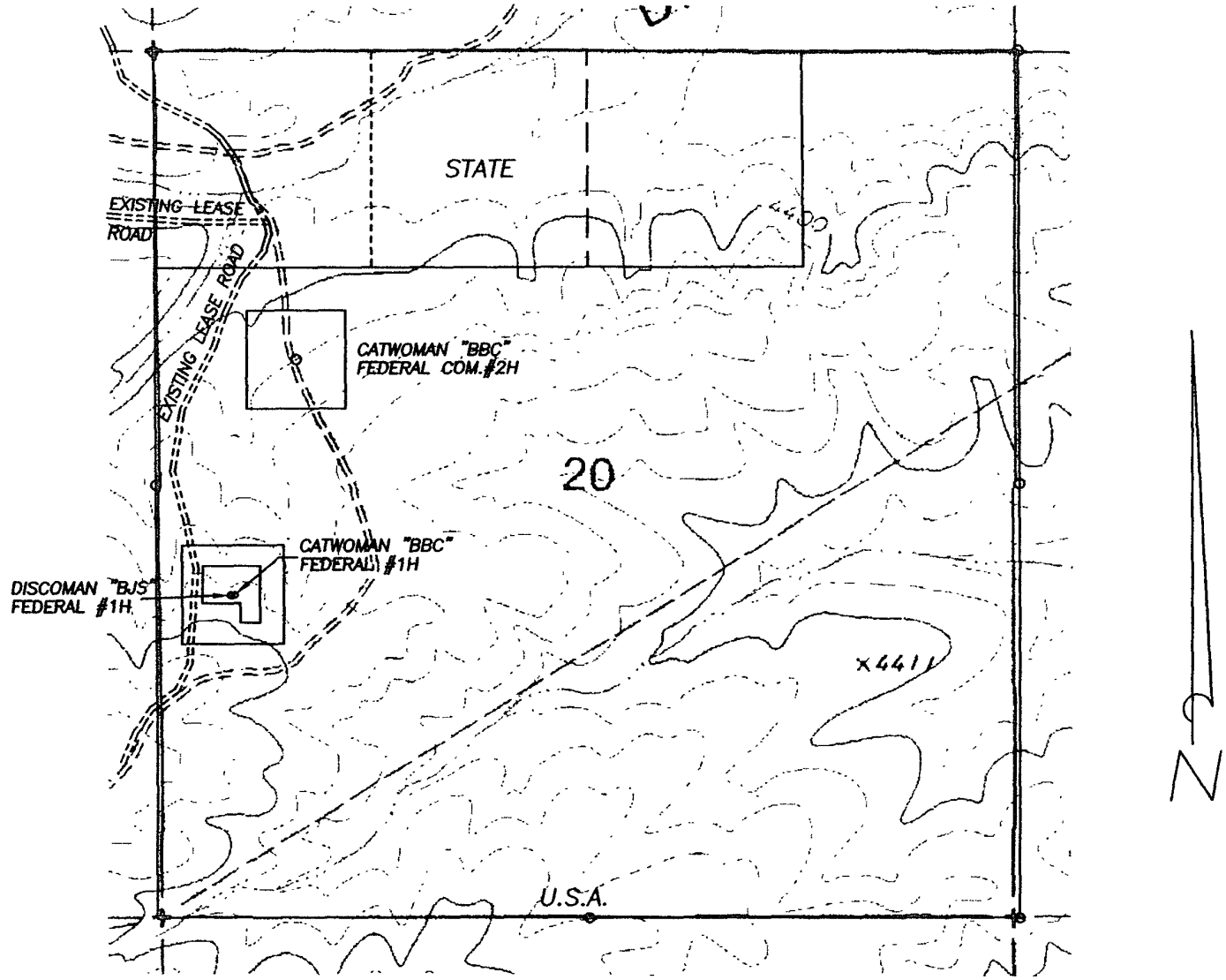
5/10/2007
Date Surveyed

Signature & Seal of Professional Surveyor

HERSCHEL L. JONES
NEW MEXICO
3640
REGISTERED PROFESSIONAL LAND SURVEYOR
GENERAL SURVEYING

Certificate No. Herschel L. Jones 3640

SECTION 20, TOWNSHIP 19 SOUTH, RANGE 21 EAST, NMPM, EDDY COUNTY, NEW MEXICO.



1000' 0 1000' 2000'

Scale 1" = 1000'

THE PREPARATION OF THIS PLAT AND THE PERFORMANCE OF THE SURVEY UPON WHICH IT IS BASED WERE DONE UNDER MY DIRECTION AND THE PLAT ACCURATELY DEPICTS THE RESULTS OF SAID SURVEY AND MEET THE REQUIREMENTS OF THE STANDARDS FOR LAND SURVEYS IN NEW MEXICO AS ADOPTED BY THE NEW MEXICO STATE BOARD OF REGISTRATION FOR PROFESSIONAL ENGINEERS AND NEW MEXICO SURVEYORS.

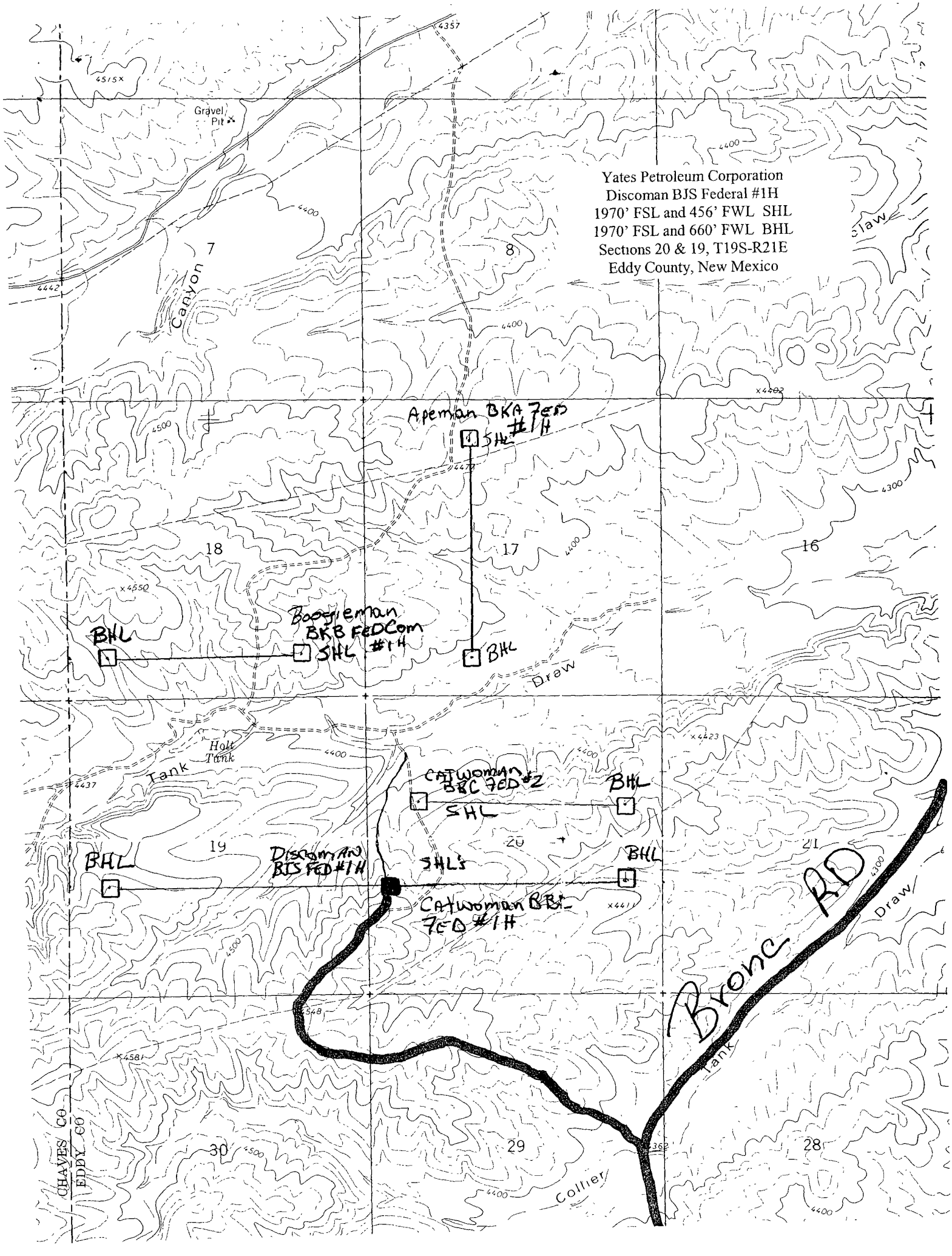
HERSCHEL L. JONES R.P.S. No.3640

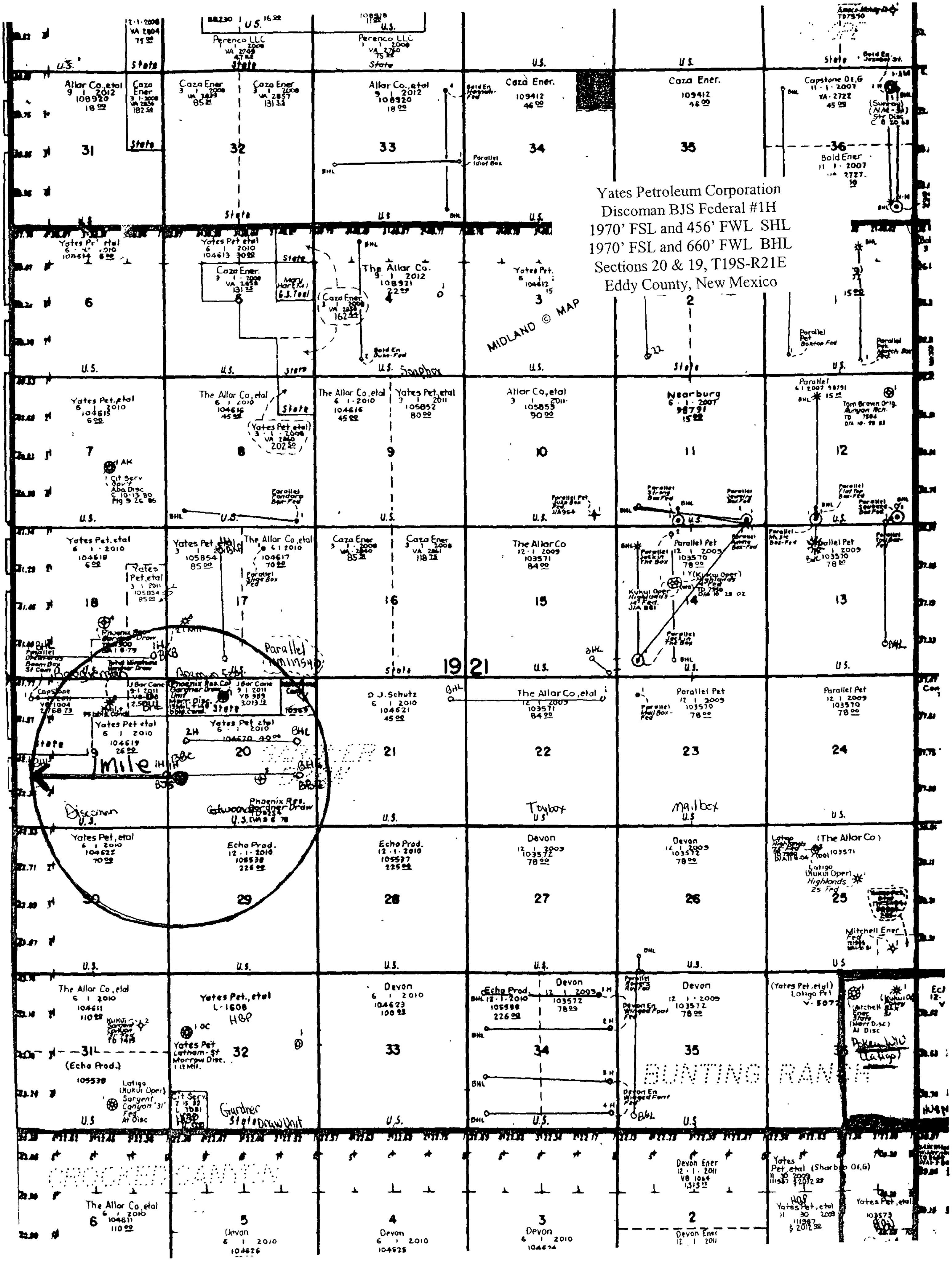
GENERAL SURVEYING COMPANY P.O. BOX 1928
LOVINGTON, NEW MEXICO 88260

YATES PETROLEUM CORP.

LEASE ROAD TO ACCESS THE YATES DISCOMAN BJS FEDERAL #1H, CATWOMAN BBC FEDERAL #1H AND THE CATWOMAN BBC FEDERAL COM.#2H WELLS, LOCATED IN SECTION 20, TOWNSHIP 19 SOUTH, RANGE 21 EAST, NMPM, EDDY COUNTY, NEW MEXICO.

Survey Date: 5/10/2007		Sheet 1 of 1 Sheets	
Drawn By: Ed Blevins		W.O. Number	
Date: 5/13/07		Scale 1" = 1000'	CATWOMAN


Yates Petroleum Corporation
Discoman BJS Federal #1H
1970' FSL and 456' FWL SHL
1970' FSL and 660' FWL BHL
Sections 20 & 19, T19S-R21E
Eddy County, New Mexico
Gravel Pit
Canyon
Apeman BKA Fed #1H
SHL
BHL
Boogieman BKB FEDCom #1H
SHL
BHL
Draw
Holt Tank
Tank
CATwoman BBC FED #2
SHL
BHL
BHL
Discoman BJS FED #1H
SHL's
BHL
CATwoman BBI 7ED #1H
Bronc RD
Draw
Tank
Collier
CHAVES CO
EDDY CO
7
8
18
17
16
19
20
21
30
29
28


Yates Petroleum Corporation
Discoman BJS Federal #1H
1970' FSL and 456' FWL SHL
1970' FSL and 660' FWL BHL
Sections 20 & 19, T19S-R21E
Eddy County, New Mexico
MIDLAND © MAP
19 21
1 mile
Discoman
Caza Ener.
Allar Co., etal
The Allar Co.
Yates Pet. etal
Nearburg
Parallel Pet
Echo Prod.
Devon
Devon Ener
Phoenix Res.
Gardner State Draw Unit
Toybox
Mailbox
Soapbox
BUNTING RANCH
CROOKED CANYON
31
32
33
34
35
36
6
4
3
2
7
8
9
10
11
12
18
17
16
15
14
13
20
22
23
24
30
29
28
27
26
25
5

"Jeremiah Mullen"
<jmullen@YPCNM.COM>
02/15/2008 11:22 AM

To <Wesley_Ingram@nm.blm.gov>
cc
bcc
Subject Discoman BJS Federal #1H

Wesley,
Attached is the contingency casing and cement program for the subject well. I will make sure to talk to our regulatory people about adding the contingency as an attachment to the APD when they send it. Hopefully that will resolve this issue. I am still working on the cement design on the Zingaro #6, and will get with you as soon as I resolve that one. Call me if you have any questions.

Thank-you,

Jeremiah Mullen discoman1h contingency doc

Yates Petroleum Corporation

Jeremiah Mullen (jmullen@ypcnm com)
(505)748-4378
105 S Fourth Street
Artesia, N M 88210

The following is the contingency casing design and cement program for the Discoman BJS Federal #1H:

Size	Wt. (#/ft.)	Grade	Depth	Top of Cement
7"	23#	J-55	0'-4842'	1000'

LTC — per operator 2/25/10

Lead with 425sx C-lite (Yld 2.04 Wt. 12.5#) and tail with 225sx class C (Yld 1.33 Wt. 14.8).

4 ½" liner	11.6#	HCP-110	4500'-8806'	4500'

LTC

325sx Acid Soluble Cement (Yld 2.6 Wt. 11.15).

Thank-you,

Jeremiah Mullen

YATES PETROLEUM CORPORATION
Discoman BJS Federal #1H
1970' FSL & 456' FWL (Pilot Hole)
Section 20, T19S-R21E
1970' FSL & 660' FWL (Bottom Hole)
Section 19, T19S-R21E
Eddy County, New Mexico

1. The estimated tops of geologic markers are as follows:

San Andres	445'	Wolfcamp Pay	4159'
Glorietta	1755'	Base Wolfcamp Pay	4195'
Upper Yeso	1995'	Wolfcamp Shale	4269'
Tubb	2675'	TD (Pilot Hole)	4350'
Lower Yeso	2815'	TD (Lateral Hole)	8100'
Abo	3305'		

2. The estimated depths at which anticipated water, oil or gas formations are expected to be encountered:
   Water: 835'
   Oil or Gas: All potential formations. — only Wolfcamp accepted

3. Pressure Control Equipment: BOPE will be installed on the 9 5/8" casing and the rated for 3000# BOP systems will be consistent with API RP 53. Pressure tests will be conducted before drilling out from under all casing strings, which are set and cemented in place. Blowout Preventor controls will be installed prior to drilling the surface plug and will remain in use until the well is completed or abandoned. Preventors will be inspected and operated at least daily to ensure good mechanical working order, and this inspection recorded on the daily drilling report. See Exhibit B.

   Auxiliary Equipment:

   A. Auxiliary Equipment: Kelly cock, pit level indicators, flow sensor equipment and a sub with full opening valve to fit the drill pipe and collars will be available on the rig floor in the open position at all times for use when kelly is not in use.

4. THE PROPOSED CASING AND CEMENTING PROGRAM:
   A. Casing Program: **(All New)**

Hole Size	Casing Size	Wt./Ft	Grade	Coupling	Interval	Length
17 1/2"	13.3/8"	48#	H-40	ST&C	0- 350'	350'
12 1/4"	9.5/8"	36#	J-55	ST&C	~~0-1100'~~	~~1100'~~
**8 3/4"	7.0"	26#	J-55	ST&C	0-4830'	4830'
7 7/8"	5.5"	17#	HCP-110	LT&C	0-~~8509'~~ MD	~~8509'~~ 8806'

see e-mail → see COA

***Pilot hole will be drilled to 5000'. Well will then be plugged back and kicked off at approximately 4330' at 15 degrees per 100' with an 8 ¾" hole to 4830' MD. If hole conditions warrant, 7" casing will be set and cemented back to previous casing. A 6 1/8" hole will then be drilled to a TD of ~~8509'~~ 8806' and 4 1/2" casing will be set and cement tied back to the 7" casing. If 7" casing in not warranted then hole size will be reduced to 7 7/8" and drilled to ~~8509'~~ 8806'. 5 ½" casing will be set and cemented.

see COA

Yates Petroleum Corporation requests a variance to install a rotating head on the surface casing strings when intermediate casing will be set. If a BOP system is required then we wish to install a 2M system and receive a variance to test the system to 5M# using the rig pumps. The test will be held for 30 minutes on each system component. Components to be tested include pipe rams, blind rams, and annular preventer.

Minimum Casing Design Factors: Collapse 1.125, Burst 1.0, and Tensile Strength 1.8

B. CEMENTING PROGRAM:
Surface Casing: 400 sx 'C' + 2% CaCl2 (YLD 1.35 WT 14.8). TOC-Surface

Intermediate Casing: 225 sx C lite + 2% CaCl2 (YLD 1.98 WT 12.5) Tail in with 200 sx 'C' (YLD 1.34 WT 14.8). TOC-Surface.

Production Casing: Lead with 800 sx lite C (YLD 2.05 WT 12.5). Tail in with 700 sx acid solution (YLD 2.60 WT 11.15).

If 7" casing is run a 6 1/8" hole will be drilled and 4 ½" production casing will be set. (TOC-1000') Lead w/ 775 sx Lite 'C" (YLD 2.05 WT 12.5). Tail in w/1200 sx Magne Plus (YLD1.05 WT 13).

5. MUD PROGRAM AND AUXILIARY EQUIPMENT:

Interval	Type	Weight	Viscosity	Fluid Loss
0-350'	Fresh Water	8.4-8.9	32-36	N/C
350'-1100'	FW Gel/Air Mist	8.4-8.9	28-34	N/C
1100'-5000'	Cut Brine	8.8-9.2	28	N/C
	(Horizontal Section)			
4330'-8509'	Cut Brine	8.8-9.2	28	N/C

Sufficient mud material(s) to maintain mud properties, control lost circulation and contain a blow out will be available at the well site during drilling operations. Rig personnel will check mud hourly.

6. EVALUATION PROGRAM:

Samples: 10' samples out from under intermediate casing.
Logging: Platform Express/HALS, FMI (Pilot Hole).
Coring: Rotary Sidewall Cores (Pilot Hole).
DST's: None Anticipated.

7. ABNORMAL CONDITIONS, BOTTOM HOLE PRESSURE, AND POTENTIAL HAZARDS:

Anticipated BHP:

From:	0	TO:	350'	TVD	Anticipated Max. BHP:	162 PSI
From:	350'	TO:	1100'	TVD	Anticipated Max. BHP:	510 PSI
From:	1100	TO:	5000'	TVD	Anticipated Max. BHP:	2390 PSI

Abnormal Pressures Anticipated: None
Lost Circulation Zones Anticipated: None.
H2S Zones Anticipated: None Anticipated
Maximum Bottom Hole Temperature: 168 F

8. ANTICIPATED STARTING DATE:
Plans are to drill this well as soon as possible after receiving approval. It should take approximately 45 days to drill the well with completion taking another 40 days.

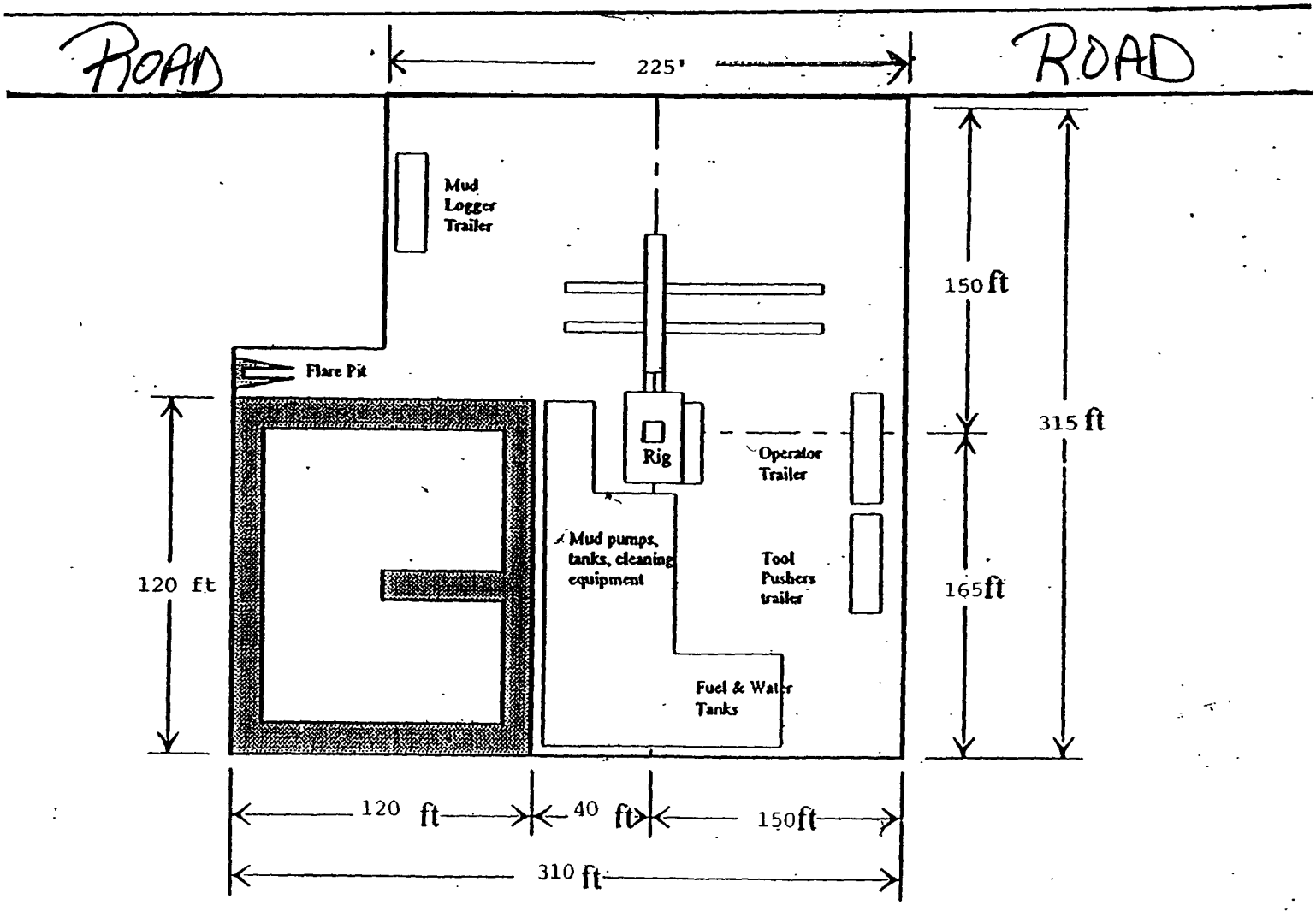
PB - L1

Yates Petroleum Corporation

Location Layout for Permian Basin
Up to 12,000'

W S N E Pits South

Yates Petroleum Corporation
Discoman BJS Federal #1H
1970' FSL and 456' FWL SHL
1970' FSL and 660' FWL BHL
Sections 20 & 19, T19S-R21E
Eddy County, New Mexico



Distance from Well Head to Reserve Pit will vary between rigs

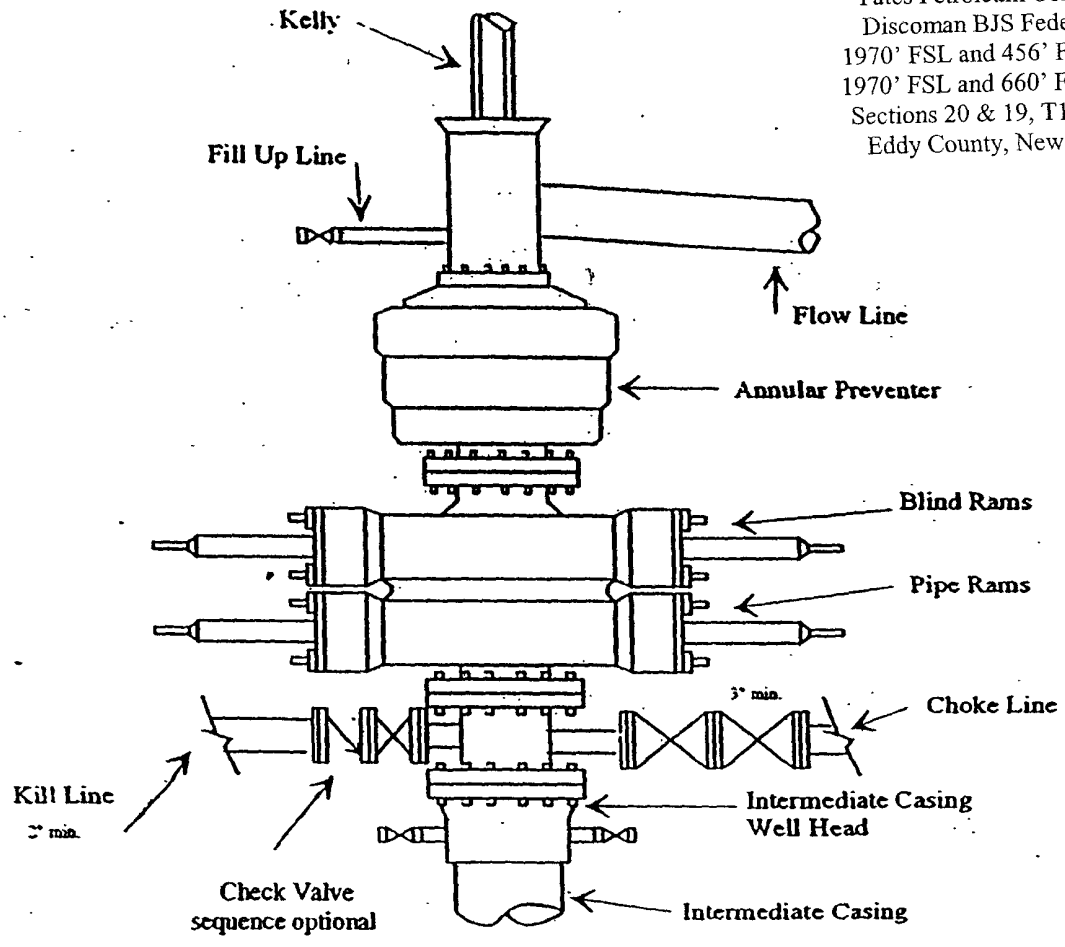
The above dimension should be a maximum

Yates Petroleum Corporation

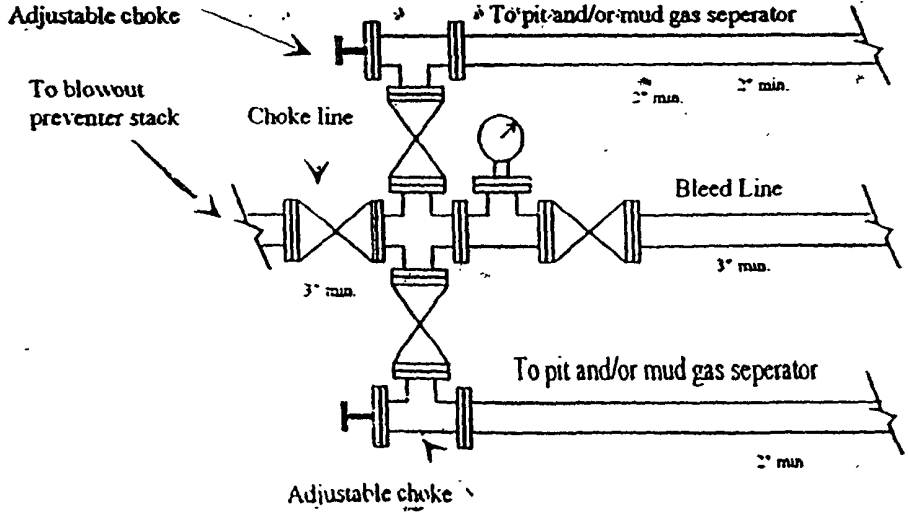
BOP-3

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

Yates Petroleum Corporation
Discoman BJS Federal #1H
1970' FSL and 456' FWL SHL
1970' FSL and 660' FWL BHL
Sections 20 & 19, T19S-R21E
Eddy County, New Mexico

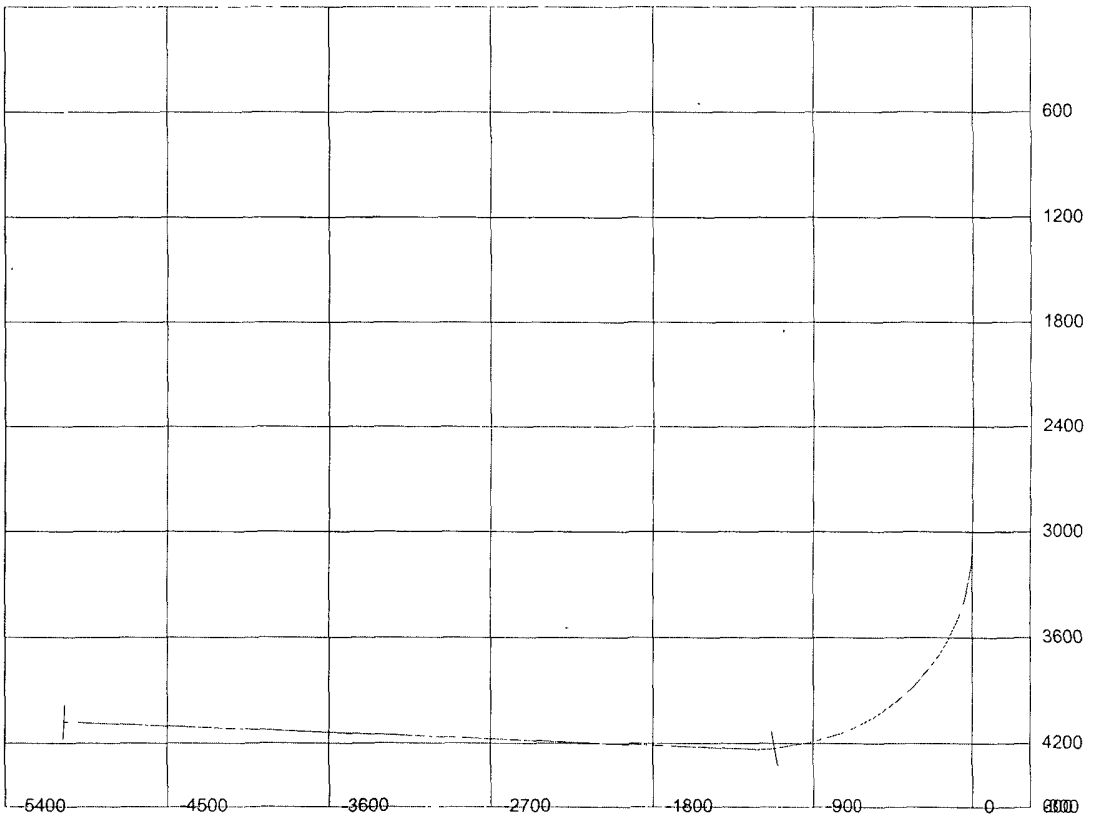


Typical 3,000 psi choke manifold assembly with at least these minimun features



3D³ Directional Drilling Planner - 3D View

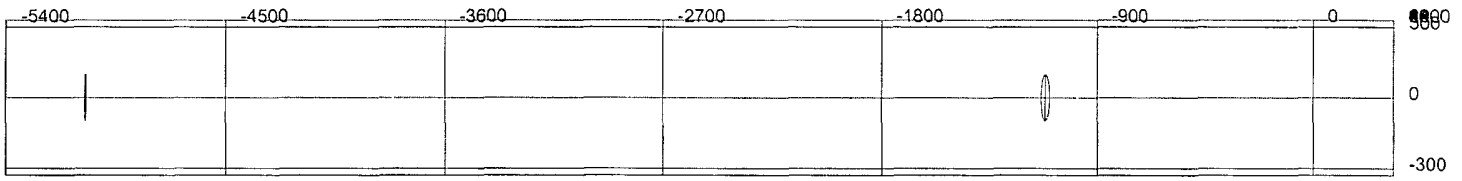
Company: **Yates Petroleum Corporation**
Well: **Discoman BJS Federal #1H**



File: C:\Program Files\Drilling Toolbox 2001\Templates\Visual Wellbore\Horizontal\discoman1h.wpp

3D³ Directional Drilling Planner - 3D View

Company: **Yates Petroleum Corporation**
Well: **Discoman BJS Federal #1H**



File: C:\Program Files\Drilling Toolbox 2001\Templates\Visual Wellbore\Horizontal\discoman1h.wpp

Simulated Survey - C:\Program Files\Drilling Toolbox 2001\Templates\Visual Wellbore\Horizontal\discoman1h.wpp

	M.D. [ft]	Inclination [°]	Azimuth [°]	T.V.D. [ft]	N+/S- [ft]	E+/W- [ft]	D.L.S. [°/100ft]	ToolFace [°]	T.F. Ref. [HS/GN]
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2	3070.00	0.00	0.00	3070.00	0.00	0.00	5.00	270	GN
3	3075.00	0.25	270.00	3075.00	0.00	-0.01	5.00	0	HS
4	3100.00	1.50	270.00	3100.00	0.00	-0.39	5.00	0	HS
5	3125.00	2.75	270.00	3124.98	0.00	-1.32	5.00	0	HS
6	3150.00	4.00	270.00	3149.94	0.00	-2.79	5.00	0	HS
7	3175.00	5.25	270.00	3174.85	0.00	-4.81	5.00	0	HS
8	3200.00	6.50	270.00	3199.72	0.00	-7.37	5.00	0	HS
9	3225.00	7.75	270.00	3224.53	0.00	-10.47	5.00	0	HS
10	3250.00	9.00	270.00	3249.26	0.00	-14.11	5.00	0	HS
11	3275.00	10.25	270.00	3273.91	0.00	-18.29	5.00	0	HS
12	3300.00	11.50	270.00	3298.46	0.00	-23.00	5.00	0	HS
13	3325.00	12.75	270.00	3322.90	0.00	-28.26	5.00	0	HS
14	3350.00	14.00	270.00	3347.22	0.00	-34.04	5.00	0	HS
15	3375.00	15.25	270.00	3371.41	0.00	-40.35	5.00	0	HS
16	3400.00	16.50	270.00	3395.46	0.00	-47.19	5.00	0	HS
17	3425.00	17.75	270.00	3419.35	0.00	-54.55	5.00	0	HS
18	3450.00	19.00	270.00	3443.07	0.00	-62.43	5.00	0	HS
19	3475.00	20.25	270.00	3466.62	0.00	-70.83	5.00	0	HS
20	3500.00	21.50	270.00	3489.98	0.00	-79.74	5.00	0	HS
21	3525.00	22.75	270.00	3513.14	0.00	-89.15	5.00	0	HS
22	3550.00	24.00	270.00	3536.09	0.00	-99.07	5.00	0	HS
23	3575.00	25.25	270.00	3558.81	0.00	-109.49	5.00	0	HS
24	3600.00	26.50	270.00	3581.31	0.00	-120.40	5.00	0	HS
25	3625.00	27.75	270.00	3603.56	0.00	-131.79	5.00	0	HS
26	3650.00	29.00	270.00	3625.55	0.00	-143.68	5.00	0	HS
27	3675.00	30.25	270.00	3647.28	0.00	-156.03	5.00	0	HS
28	3700.00	31.50	270.00	3668.74	0.00	-168.86	5.00	0	HS
29	3725.00	32.75	270.00	3689.91	0.00	-182.16	5.00	0	HS
30	3750.00	34.00	270.00	3710.79	0.00	-195.91	5.00	0	HS
31	3775.00	35.25	270.00	3731.36	0.00	-210.11	5.00	0	HS
32	3800.00	36.50	270.00	3751.62	0.00	-224.76	5.00	0	HS
33	3825.00	37.75	270.00	3771.55	0.00	-239.85	5.00	0	HS
34	3850.00	39.00	270.00	3791.15	0.00	-255.37	5.00	0	HS
35	3875.00	40.25	270.00	3810.40	0.00	-271.32	5.00	0	HS
36	3900.00	41.50	270.00	3829.31	0.00	-287.68	5.00	0	HS

	M.D. [ft]	Inclination [°]	Azimuth [°]	T.V.D. [ft]	N+/S- [ft]	E+/W- [ft]	D.L.S. [°/100ft]	ToolFace [°]	T.F. Ref. [HS/GN]
37	3925.00	42.75	270.00	3847.85	0.00	-304.44	5.00	0	HS
38	3950.00	44.00	270.00	3866.02	0.00	-321.61	5.00	0	HS
39	3975.00	45.25	270.00	3883.81	0.00	-339.17	5.00	0	HS
40	4000.00	46.50	270.00	3901.22	0.00	-357.12	5.00	0	HS
41	4025.00	47.75	270.00	3918.23	0.00	-375.44	5.00	0	HS
42	4050.00	49.00	270.00	3934.83	0.00	-394.13	5.00	0	HS
43	4075.00	50.25	270.00	3951.03	0.00	-413.17	5.00	0	HS
44	4100.00	51.50	270.00	3966.80	0.00	-432.57	5.00	0	HS
45	4125.00	52.75	270.00	3982.15	0.00	-452.30	5.00	0	HS
46	4150.00	54.00	270.00	3997.07	0.00	-472.36	5.00	0	HS
47	4175.00	55.25	270.00	4011.54	0.00	-492.75	5.00	0	HS
48	4200.00	56.50	270.00	4025.56	0.00	-513.44	5.00	0	HS
49	4225.00	57.75	270.00	4039.13	0.00	-534.44	5.00	0	HS
50	4250.00	59.00	270.00	4052.24	0.00	-555.73	5.00	0	HS
51	4275.00	60.25	270.00	4064.88	0.00	-577.29	5.00	0	HS
52	4300.00	61.50	270.00	4077.05	0.00	-599.13	5.00	0	HS
53	4325.00	62.75	270.00	4088.74	0.00	-621.23	5.00	0	HS
54	4350.00	64.00	270.00	4099.94	0.00	-643.58	5.00	0	HS
55	4375.00	65.25	270.00	4110.66	0.00	-666.17	5.00	0	HS
56	4400.00	66.50	270.00	4120.87	0.00	-688.98	5.00	0	HS
57	4425.00	67.75	270.00	4130.59	0.00	-712.02	5.00	0	HS
58	4450.00	69.00	270.00	4139.80	0.00	-735.26	5.00	0	HS
59	4475.00	70.25	270.00	4148.51	0.00	-758.69	5.00	0	HS
60	4500.00	71.50	270.00	4156.70	0.00	-782.31	5.00	0	HS
61	4525.00	72.75	270.00	4164.37	0.00	-806.10	5.00	0	HS
62	4550.00	74.00	270.00	4171.52	0.00	-830.06	5.00	0	HS
63	4575.00	75.25	270.00	4178.15	0.00	-854.16	5.00	0	HS
64	4600.00	76.50	270.00	4184.25	0.00	-878.41	5.00	0	HS
65	4625.00	77.75	270.00	4189.82	0.00	-902.78	5.00	0	HS
66	4650.00	79.00	270.00	4194.86	0.00	-927.26	5.00	0	HS
67	4659.30	79.46	270.00	4196.60	0.00	-936.40	5.00	0	HS
68	4841.98	79.46	270.00	4230.00	0.00	-1116.00	0.00		
69	4841.98	79.46	270.00	4230.00	0.00	-1116.00	15.00	0	HS
70	4850.00	80.67	270.00	4231.38	0.00	-1123.90	15.00	0	HS
71	4875.00	84.42	270.00	4234.63	0.00	-1148.69	15.00	0	HS
72	4900.00	88.17	270.00	4236.24	0.00	-1173.63	15.00	0	HS

	M.D. [ft]	Inclination [°]	Azimuth [°]	T.V.D. [ft]	N+/S- [ft]	E+/W- [ft]	D.L.S. [°/100ft]	ToolFace [°]	T.F. Ref. [HS/GN]
73	4925.00	91.92	270.00	4236.22	0.00	-1198.62	15.00	0	HS
74	4927.60	92.31	270.00	4236.13	0.00	-1201.22	0.00		
75	8805.52	92.31	270.00	4080.00	0.00	-5076.00	0.00		

MULTI-POINT SURFACE USE AND OPERATIONS PLAN
YATES PETROLEUM CORPORATION
Discoman BJS Federal #1H
1970' FSL & 456' FWL (Pilot Hole)
1970' FSL & 660' FWL (Bottom Hole)
Section 20-T19S-R21E
Eddy County, New Mexico

This plan is submitted with Form 3160-3, Application for Permit to Drill, covering the above described well. The purpose of this plan is to describe the location of the proposed well, the proposed construction activities and operations plan, the magnitude of the surface disturbance involved and the procedures to be followed in rehabilitating the surface after completion of the operations, so that a complete appraisal can be made of the environmental effect associated with the operations.

1. EXISTING ROADS:

Exhibit A is a portion of the BLM map showing the well and roads in the vicinity of the proposed location. The proposed well site is located approximately 16 miles southwest of Hope, New Mexico and the access route to the location is indicated in red and green on Exhibit A.

DIRECTIONS:

From Hope, New Mexico go south on Armstrong road for approximately 7 miles to Bronc Road. Turn right on Bronc Road and go approximately 7 miles to an existing lease road on the right side of the road. Turn right here and follow the lease road for approximately 1.9 miles. The well location will be on the right side of the lease road.

2. PLANNED ACCESS ROAD:

A. There will not be any access road to this well
B. There will not be any new access road to this well.
C. N/A
D. The route of the road is visible.
E. Existing roads will be maintained in the same or better condition.

3. LOCATION OF EXISTING WELL:

A. There is drilling activity within a one-mile radius of the well site.
B. An exhibit shows existing wells within a one-mile radius of the proposed wellsite.

4. LOCATION OF EXISTING AND/OR PROPOSED FACILITIES:

A. There are no production facilities on this lease at the present time.
B. In the event that the well is productive, the necessary production facilities will be installed on the drilling pad. If the well is productive oil, a gas or diesel self-contained unit will be used to provide the necessary power. No power will be required if the well is a producing gas well.

5. LOCATION AND TYPE OF WATER SUPPLY:

A. It is planned to drill the proposed well with a fresh water system. The water will be obtained from commercial sources and will be hauled to the location by truck over the existing and proposed roads shown in Exhibit A.

6. SOURCE OF CONSTRUCTION MATERIALS:

The dirt contractor will be responsible for finding a source of material for construction of road and pad and will obtain any permits that may be required.

7. METHODS OF HANDLING WASTE DISPOSAL:

A. Drill cuttings will be disposed of in the reserve pits.
B. The reserve pits will be constructed and reclamation done according to NMOCD guidelines.
C. Drilling fluids will be allowed to evaporate in the reserve pits until the pits are dry.
D. Water produced during operations will be collected in tanks until hauled to an approved disposal system, or separate disposal application will be submitted.
E. Oil produced during operations will be stored in tanks until sold.
F. Current laws and regulations pertaining to the disposal of human waste will be complied with.
G. All trash, junk, and other waste materials will be contained in trash cages or bins to prevent scattering and will be removed and deposited in an approved sanitary landfill. Burial on site is not approved.

8. ANCILLARY FACILITIES: NONE

9. WELLSITE LAYOUT:

A. An exhibit shows the relative location and dimensions of the well pad, the reserve pits, the location of the drilling equipment, rig orientation and access road approach.
B. The reserve pits will be plastic lined. Yates Petroleum Corporation is in full compliance with the OCD General Plan for Drilling Pits approved on April 15, 2004.
C. A 600' x 600' area has been staked and flagged.

10. PLANS FOR RESTORATION:

A. After finishing drilling and/or completion operations, all equipment and other material not needed for further operations will be removed. The location will be cleaned of all trash and junk to leave the well site in as aesthetically pleasing a condition as possible.
B. Unguarded pits, if any, containing fluids will be fenced until they have dried and been leveled.
C. If the proposed well is plugged and abandoned, all rehabilitation and/or vegetation requirements of the Bureau of Land Management will be complied with and will be accomplished as expeditiously as possible. All pits will be reclaimed as required by the Oil Conservation Division.

11. SURFACE OWNERSHIP:

Surface is managed by the Bureau of Land Management, Carlsbad, New Mexico.

12. OTHER INFORMATION:

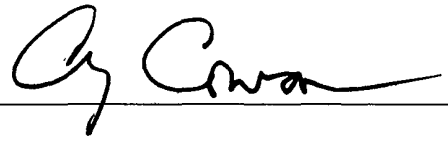
A. Topography: Refer to the existing archaeological report for a description of the topography, flora, fauna, soil characteristics, dwellings, and historical and cultural sites.
B. The primary surface use is for grazing.

CERTIFICATION
YATES PETROLEUM CORPORATION

DISCOMAN BJS FEDERAL 1H

I hereby certify that I, or someone under my direct supervision, have inspected the drill site and access route proposed herein; that I am familiar with the conditions which currently exist; that I have full knowledge of state and federal laws applicable to this operation; that the statements made in this APD package are, to the best of my knowledge, true and correct; and that the work associated with the operations proposed herein will be performed in conformity with this APD package and the terms and conditions under which it is approved. I also certify that I, or the company I represent, am responsible for the operations conducted under this application. These statements are subject to the provisions of 18 U.S.C. 1001 for the filing of false statements.

Executed this 20th day of December, 20 07

Signature 

Name Cy Cowan

Position Title Regulatory Agent

Address 105 South Fourth Street, Artesia, New Mexico 88210

Telephone (505) 748-4372

Field Representative (if not above signatory) Jim Krogman, Drilling Supervisor

Address (if different from above) Same as above.

Telephone (if different from above) (505) 748-4215

E-mail (optional)

PECOS DISTRICT
CONDITIONS OF APPROVAL

OPERATOR'S NAME:	Yates Petroleum Corp.
LEASE NO.:	NM-104619
WELL NAME & NO.:	1H-Discoman BJS Federal
SURFACE HOLE FOOTAGE:	1970' FSL & 456' FWL
BOTTOM HOLE FOOTAGE	1970' FSL & 660' FWL
LOCATION:	Section 20, T. 19 S., R 21 E., NMPM
COUNTY:	Eddy County, New Mexico

TABLE OF CONTENTS

Standard Conditions of Approval (COA) apply to this APD. If any deviations to these standards exist or special COAs are required, the section with the deviation or requirement will be checked below.

I. GENERAL PROVISIONS

The approval of the Application For Permit To Drill (APD) is in compliance with all applicable laws and regulations: 43 Code of Federal Regulations 3160, the lease terms, Onshore Oil and Gas Orders, Notices To Lessees, New Mexico Oil Conservation Division (NMOCD) Rules, National Historical Preservation Act As Amended, and instructions and orders of the Authorized Officer. Any request for a variance shall be submitted to the Authorized Officer on Form 3160-5, Sundry Notices and Report on Wells.

II. PERMIT EXPIRATION

If the permit terminates prior to drilling and drilling cannot be commenced within 60 days after expiration, an operator is required to submit Form 3160-5, Sundry Notices and Reports on Wells, requesting surface reclamation requirements for any surface disturbance. However, if the operator will be able to initiate drilling within 60 days after the expiration of the permit, the operator must have set the conductor pipe in order to allow for an extension of 60 days beyond the expiration date of the APD. (Filing of a Sundry Notice is required for this 60 day extension.)

III. ARCHAEOLOGICAL, PALEONTOLOGY & HISTORICAL SITES

Any cultural and/or paleontological resource discovered by the operator or by any person working on the operator's behalf shall immediately report such findings to the Authorized Officer. The operator is fully accountable for the actions of their contractors and subcontractors. The operator shall suspend all operations in the immediate area of such discovery until written authorization to proceed is issued by the Authorized Officer. An evaluation of the discovery shall be made by the Authorized Officer to determine the appropriate actions that shall be required to prevent the loss of significant cultural or scientific values of the discovery. The operator shall be held responsible for the cost of the proper mitigation measures that the Authorized Officer assesses after consultation with the operator on the evaluation and decisions of the discovery. Any unauthorized collection or disturbance of cultural or paleontological resources may result in a shutdown order by the Authorized Officer.

IV. NOXIOUS WEEDS

The operator shall be held responsible if noxious weeds become established within the areas of operations. Weed control shall be required on the disturbed land where noxious weeds exist, which includes the roads, pads, associated pipeline corridor, and adjacent land affected by the establishment of weeds due to this action. The operator shall consult with the Authorized Officer for acceptable weed control methods, which include following EPA and BLM requirements and policies.

V. SPECIAL REQUIREMENT(S)

Mitigation Measures: The mitigation measures include the special drilling stipulations, the standard stipulations for Visual Resource Management III (VRM III), and the standard stipulations for the Aplomado Falcon.

Stipulations for Drilling in Aplomado Falcon Habitat

The following well pad construction and reclamation measures will be implemented to provide for minimal long-term disturbance:

No Yuccas over 5 feet in height will be damaged by vehicular use or any other activity associated with this project.

Remove all caliche from well pads and roads that are plugged and abandoned. Reclamation will consist of disking, mulching, seeding with a drill (See seed mixture below), and application of water to encourage seed germination.

Well pad size will not exceed 300 ft. x 390 ft. (unless multiple wells are drilled from the same well pad). All unused portions of the well pad associated with producing wells will be reclaimed using the seed mixture below:

Buffalograss (Buchloe dactyloides)	4 lbs/acre
Blue grama (Bouteloua gracilis)	1 lbs/acre
Cane bluestem (Bothriochloa barbinodis)	5 lbs/acre
Sideoats grama (Boutelou curtipendula)	5 lbs/acre
Plains bristlegrass (Setaria macrostachya)	6 lbs/acre

Reserve pits for drilling and disposal are not allowed unless the pit can be effectively netted to the satisfaction of the BLM. Steel tank circulation system must be used if the reserve pit is not netted.

All active raptor nests will be avoided by a minimum of 400 meters by all activities or curtail activities until fledging is complete.

All inactive raptor nests will be avoided by a minimum of 200 meters by all activities.

All roads associated with well development will not exceed 30 ft in width

Discoman BJS Federal # 1: Pits South V-Door West

Visual Resources Management

Visual Resources Stipulations

The proposed project is located within a Class Three Visual Resource Area. The project will be built in a manner to minimize visibility. The proposed project will be an impacting feature to its surrounding natural visual resources.

Painting Requirement
In accordance with notice to lessees (NTL) 87-1 New Mexico, *Painting of Oil Field Facilities to Minimize Visual Impacts*: ALL permanent surface production facilities, including the well-drive control system, treatment, storage, power (except specifically approved electrical transmission lines and poles, or other permanent above-ground facilities not otherwise specifically subject to safety coloring requirements), shall be painted by the holder to blend with the dominant natural color of the surrounding landscape. The paint used shall be one of the "Standard Environmental Colors" designated by the Rocky Mountain Five-State Interagency Committee, and shall be a flat, non-reflective finish. The color specified for this location is:

Standard Environmental Color: Shale Green
Munsell Soil Color Chart Number: # 657

Any exception to this Painting Requirement must be approved by the BLM Authorized Officer in writing prior to implementation.

Surface Mitigation
The following stipulations will apply to minimize impacts during construction, drilling and production.

1. The proposed construction and scenic impacts will be limited to the approved pad size.
2. All facilities will be located away from the fill portion of the pad so the pad can be early reclaimed.
3. Only facilities that solely serve the production from this pad can be added to this action. ie. no compressor station or central storage tanks can be placed on the approved pad.
4. Upon completion of the well and installation of the production facilities (if the well is a producer) the pad will be reclaimed back to a minimal size needed for production operations (approximately 50 ft out from the anchors). The pads edges will be recontoured and the extra caliche and pad material will be hauled off-site. After one year, the BLM may require additional site reclamation.
5. The reclaimed areas will be grid rolled and reseeded with seed mix as indicated in the Special Drilling Stipulations.

VI. CONSTRUCTION

A. NOTIFICATION

The BLM shall administer compliance and monitor construction of the access road and well pad. Notify the Carlsbad Field Office at (505) 234-5972 at least 3 working days prior to commencing construction of the access road and/or well pad.

When construction operations are being conducted on this well, the operator shall have the approved APD and Conditions of Approval (COA) on the well site and they shall be made available upon request by the Authorized Officer.

B. TOPSOIL

The operator shall stockpile the topsoil of the well pad. The topsoil shall not be used to backfill the reserve pit and will be used for interim and final reclamation.

C. RESERVE PITS

The reserve pit shall be constructed and closed in accordance with the NMOCD rules.

The reserve pit shall be constructed 120' X 120' on the South side of the well pad V-Door West.

The reserve pit shall be constructed, so that upon completion of drilling operations, the dried pit contents shall be buried a minimum depth of three feet below ground level. Should the pit content level not meet the three foot minimum depth requirement, the excess contents shall be removed until the required minimum depth of three feet below ground level has been met. The operator shall properly dispose of the excess contents at an authorized disposal site.

The reserve pit shall be constructed and maintained so that runoff water from outside the location is not allowed to enter the pit. The berms surrounding the entire perimeter of the pit shall extend a minimum of two (2) feet above ground level. At no time will standing fluids in the pit be allowed to rise above ground level.

The reserve pit shall be fenced on three (3) sides during drilling operations. The fourth side shall be fenced immediately upon rig release.

D. FEDERAL MINERAL MATERIALS PIT

If the operator elects to surface the access road and/or well pad, mineral materials extracted during construction of the reserve pit may be used for surfacing the well pad and access road and other facilities on the lease.

Payment shall be made to the BLM prior to removal of any additional federal mineral materials from any site other than the reserve pit. Call the Carlsbad Field Office at (505) 234-5972.

E. WELL PAD SURFACING

Surfacing of the well pad is not required.

If the operator elects to surface the well pad, the surfacing material may be required to be removed at the time of reclamation.

The well pad shall be constructed in a manner which creates the smallest possible surface disturbance, consistent with safety and operational needs.

F. ON LEASE ACCESS ROADS

Road Width
The access road shall have a driving surface that creates the smallest possible surface disturbance and does not exceed fourteen (14) feet in width. The maximum width of surface disturbance, when constructing the access road, shall not exceed thirty (30) feet.

Surfacing
Surfacing material is not required on the new access road driving surface. If the operator elects to surface the new access road or pad, the surfacing material may be required to be removed at the time of reclamation.

Where possible, no improvements should be made on the unsurfaced access road other than to remove vegetation as necessary, road irregularities, safety issues, or to fill low areas that may sustain standing water.

The Authorized Officer reserves the right to require surfacing of any portion of the access road at any time deemed necessary. Surfacing may be required in the event the road deteriorates, erodes, road traffic increases, or it is determined to be beneficial for future field development. The surfacing depth and type of material will be determined at the time of notification.

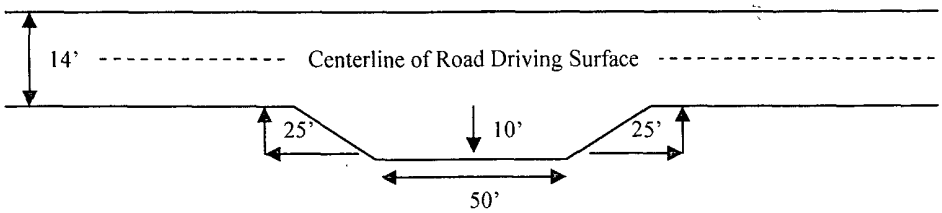
Crowning
Crowning shall be done on the access road driving surface. The road crown shall have a grade of approximately 2% (i.e., a 1" crown on a 14' wide road). The road shall conform to Figure 1; cross section and plans for typical road construction.

Ditching

Ditching shall be required on both sides of the road.

Turnouts
Vehicle turnouts shall be constructed on the road. Turnouts shall be intervisible with interval spacing distance less than 1000 feet. Turnouts shall be constructed on all blind curves. Turnouts shall conform to the following diagram:

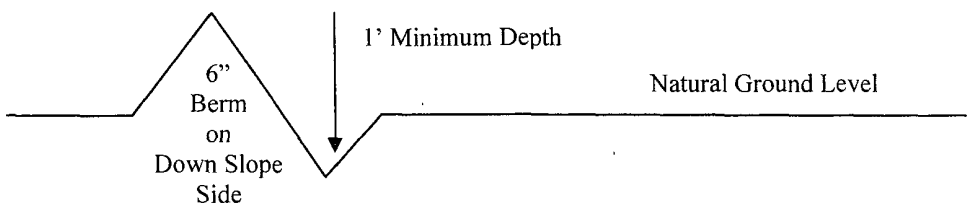
Standard Turnout – Plan View



Drainage
Drainage control systems shall be constructed on the entire length of road (e.g. ditches, sidehill outsloping and insloping, lead-off ditches, culvert installation, and low water crossings).

A typical lead-off ditch has a minimum depth of 1 foot below and a berm of 6 inches above natural ground level. The berm shall be on the down-slope side of the lead-off ditch.

Cross Section of a Typical Lead-off Ditch



All lead-off ditches shall be graded to drain water with a 1 percent minimum to 3 percent maximum ditch slope. The spacing interval are variable for lead-off ditches and shall be determined according to the formula for spacing intervals of lead-off ditches, but may be amended depending upon existing soil types and centerline road slope (in %);

Formula for Spacing Interval of Lead-off Ditches

Example - On a 4% road slope that is 400 feet long, the water flow shall drain water into a lead-off ditch. Spacing interval shall be determined by the following formula:

$$\text{400 foot road with 4\% road slope: } \frac{400'}{4\%} + 100' = 200' \text{ lead-off ditch interval}$$

Culvert Installations
Appropriately sized culvert(s) shall be installed at the deep waterway channel flow crossing.

Cattleguards
An appropriately sized cattleguard(s) sufficient to carry out the project shall be installed and maintained at fence crossing(s).

Any existing cattleguard(s) on the access road shall be repaired or replaced if they are damaged or have deteriorated beyond practical use. The operator shall be responsible for the condition of the existing cattleguard(s) that are in place and are utilized during lease operations.

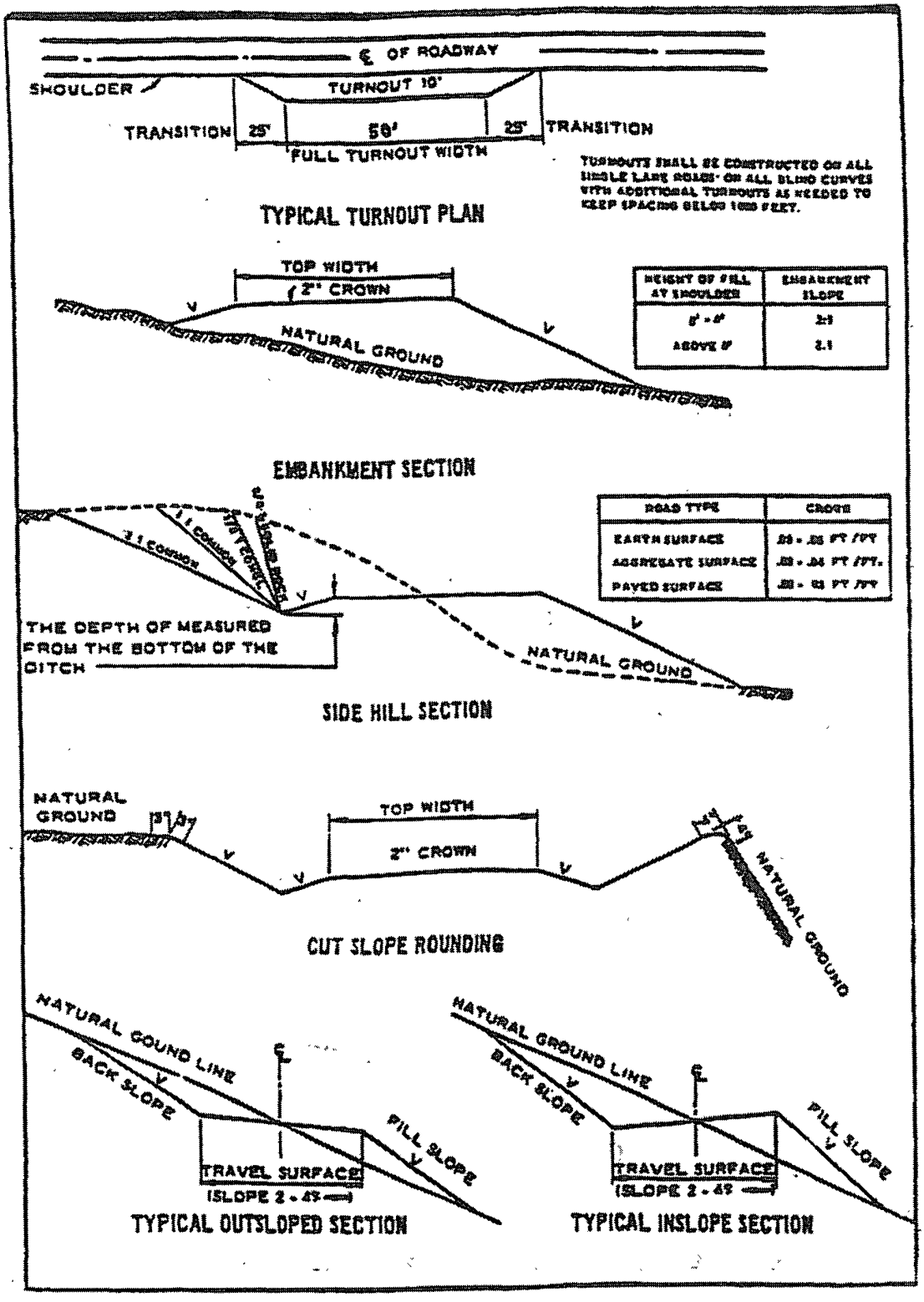
A gate shall be constructed and fastened securely to H-braces.

Fence Requirement
Where entry is required across a fence line, the fence shall be braced and tied off on both sides of the passageway prior to cutting.

The operator shall notify the private surface landowner or the grazing allotment holder prior to crossing any fence(s).

Public Access
Public access on this road shall not be restricted by the operator without specific written approval granted by the Authorized Officer.

Figure 1 – Cross Sections and Plans For Typical Road Sections



VII. DRILLING

A. DRILLING OPERATIONS REQUIREMENTS

The BLM is to be notified a minimum of 4 hours in advance for a representative to witness:

a. Spudding well
b. Setting and/or Cementing of all casing strings
c. BOPE tests

☒ **Eddy County**
Call the Carlsbad Field Office, 620 East Greene St., Carlsbad, NM 88220, (575) 361-2822

1. **There are minor amounts of Hydrogen Sulfide reported, less than 10 ppm. If Hydrogen Sulfide is encountered, please provide measured values to the BLM.**

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. Floor controls are required for 3M or Greater systems. These controls will be on the rig floor, unobstructed, readily accessible to the driller and will be operational at all times during drilling and/or completion activities. Rig floor is defined as the area immediately around the rotary table; the area immediately above the substructure on which the draw works are located, this does not include the dog house or stairway area.

B. CASING

1. The **13-3/8** inch surface casing shall be set at **approximately 350** feet and cemented to the surface. **Centralizers required on surface casing per Onshore Order 2.III.B.1.f.**

   a. If cement does not circulate to the surface, the appropriate BLM office shall be notified and a temperature survey utilizing an electronic type temperature survey with a surface log readout will be used or a cement bond log shall be run to verify the top of the cement.

   b. Wait on cement (WOC) time for a primary cement job will be a minimum 18 hours for a water basin, 24 hours in the potash area, or 500 pounds compressive strength, whichever is greater. (This is to include the lead cement). **Please provide WOC times to inspector for cement slurries.**

c. Wait on cement (WOC) time for a remedial job will be a minimum of 4 hours after bringing cement to surface or 500 pounds compressive strength, whichever is greater.

d. If cement falls back, remedial action will be done prior to drilling out that string.

Medium cave/karst.
Possible lost circulation in the San Andres, Glorietta and Wolfcamp formations.
Possible water flows in the San Andres.

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

☒ Cement to surface. If cement does not circulate see B.1.a-d above. **Please provide WOC times to inspector for cement slurries.**

Casing to be set at 1450' in base of San Andres formation. FW Gel/Air Mist to be used to this setting depth. Approval granted for aerated mud, but not air drilling.

Formation below the 9-5/8" shoe to be tested according to Onshore Order 2.III.B.1.i.

Pilot hole to have a 150' plug at bottom of hole and plug must be tagged. This is in addition to kick off plug.

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

☒ Cement should tie-back at least 200 feet into previous casing string. Operator shall provide method of verification. **Centralizers required on horizontal leg, minimum of one every other joint.**

Contingency casing program:

4. The minimum required fill of cement behind the 7 inch intermediate casing is:

☒ Cement should tie-back at least 200 feet into previous casing string. Operator shall provide method of verification. **Please provide WOC times to inspector for cement slurries.**

Formation below the 7" shoe to be tested according to Onshore Order 2.III.B.1.i.

5. The minimum required fill of cement behind the **4-1/2** inch production casing is:

   ☒ Cement to come to top of liner. Operator shall provide method of verification. **Centralizers required on horizontal leg, minimum of one every other joint.**

6. If hardband drill pipe is rotated inside casing, returns will be monitored for metal. If metal is found in samples, drill pipe will be pulled and rubber protectors which have a larger diameter than the tool joints of the drill pipe will be installed prior to continuing drilling operations.

C. PRESSURE CONTROL

1. All blowout preventer (BOP) and related equipment (BOPE) shall comply with well control requirements as described in Onshore Oil and Gas Order No. 2 and API RP 53 Sec. 17.

2. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the surface casing shoe shall be **2000 (2M)** psi.

3. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the **9-5/8"** intermediate casing shoe shall be **3000 (3M)** psi.

4. The appropriate BLM office shall be notified a minimum of 4 hours in advance for a representative to witness the tests.

   a. The tests shall be done by an independent service company.

   b. The results of the test shall be reported to the appropriate BLM office.

   c. All tests are required to be recorded on a calibrated test chart. A copy of the BOP/BOPE test chart and a copy of independent service company test will be submitted to the appropriate BLM office.

   d. The BOP/BOPE test shall include a low pressure test from 250 to 300 psi. The test will be held for a minimum of 10 minutes if test is done with a test plug and 30 minutes without a test plug.

   e. BOP/BOPE must be tested by an independent service company within 500 feet of the top of the **Wolfcamp** formation **if the time between the setting of the intermediate casing and reaching this depth exceeds 20 days**. This test does not exclude the test prior to drilling out the casing shoe as per Onshore Order No. 2.

f. A variance to test the surface casing and BOP/BOPE to the reduced pressure of **1000** psi with the rig pumps is approved.

D. 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.

E. DRILL STEM TEST

If drill stem tests are performed, Onshore Order 2.III.D shall be followed.

WWI 021508

VIII. PRODUCTION (POST DRILLING)

A. WELL STRUCTURES & FACILITIES

Placement of Production Facilities
Production facilities should be placed on the well pad to allow for maximum interim recontouring and revegetation of the well location.

Containment Structures
The containment structure shall be constructed to hold the capacity of the entire contents of the largest tank, plus 24 hour production, unless more stringent protective requirements are deemed necessary by the Authorized Officer.

Painting Requirement
All above-ground structures including meter housing that are not subject to safety requirements shall be painted a flat non-reflective paint color
Shale Green, Munsell Soil Color Chart # 5Y 4/2

VRM Facility Requirement
Low-profile tanks not greater than eight-feet-high shall be used.

B. PIPELINES

C. ELECTRIC LINES

IX. INTERIM RECLAMATION & RESERVE PIT CLOSURE

A. INTERIM RECLAMATION

If the well is a producer, interim reclamation shall be conducted on the well site in accordance with the orders of the Authorized Officer. The operator shall submit a Sundry Notices and Reports on Wells (Notice of Intent), Form 3160-5, prior to conducting interim reclamation.

During the life of the development, all disturbed areas not needed for active support of production operations should undergo interim reclamation in order to minimize the environmental impacts of development on other resources and uses.

At the time reserve pits are to be reclaimed, operators should work with BLM surface management specialists to devise the best strategies to reduce the size of the location. Any reductions should allow for remedial well operations, as well as safe and efficient removal of oil and gas.

During reclamation, the removal of caliche is important to increasing the success of revegetating the site. Removed caliche may be used for road repairs, fire walls or for building other roads and locations. In order to operate the well or complete workover operations, it may be necessary to drive, park and operate on restored interim vegetation within the previously disturbed area. Disturbing revegetated areas for production or workover operations will be allowed. If there is significant disturbance and loss of vegetation, the area will need to be revegetated. Communicate with the appropriate BLM office for any exceptions/exemptions if needed.

B. RESERVE PIT CLOSURE

The reserve pit, when dried and closed, shall be recontoured, all trash removed, and reseeded as follows:

Aplomado Falcon Habitat Seed Mixture

Buffalograss (Buchloe dactyloides)) ---------- 4 lbs/acre
Blue grama (Bouteloua gracilis) ---------- 1 lb/acre
Cane bluestem (Bothriochloa barbinodis) ---------- 5 lbs/acre
Sideoats grama (Bouteloua curtipendula) ---------- 5 lbs/acre
Plains bristlegrass (Setaria macrostachya) ---------- 6 lbs/acre

X. FINAL ABANDONMENT & REHABILITATION REQUIREMENTS

Upon abandonment of the well and/or when the access road is no longer in service the Authorized Officer shall issue instructions and/or orders for surface reclamation and restoration of all disturbed areas.

On private surface/federal mineral estate land the reclamation procedures on the road and well pad shall be accomplished in accordance with the private surface land owner agreement.