Form 3160-3 (August 1999)

OMB No. 1004-0136 Expires November 30, 2000

5. Lease Serial No.

	· ODINEINI		14141-0201	U
APPLICATION FOR PERMITT	6. If Indian, Allottee or Tribe	Name		
1a. Type of Work: X DRILL	EENTER		7. If Unit or CA Agreement,	Name and No.
			8. Lease Name and Well No.	11202
b. Type of Well:	Single Zone	Multiple Zone	Belco AlA Fed	* <i>N</i>
Name of Operator Yates Petroleum Co	orporation <2	55 75)	9. API Well No. 30 · 025 - 3	38719
3A. Address 105 South Fourth Street	3b. Phone No. (include area cod	le)	10. Field and Pool, or Explora	atory
Artesia, New Mexico 88210	(505) 748-147	71	Wildeat Dela	ware
4. Location of Well (Report location clearly and in accordance with a	, ,		11. Sec., T., R., M., or Blk, a	nd Survey or Area
At surface 1980' FSL & 1830'	FEL, NESE Pilot Hole	Unit J		
At proposed prod. Zone 330' FNL & 2310'	FEL, NENE Bottom Hole	& finu	Section 14-T20	S-R32E
14. Distance in miles and direction from nearest town or post office*			12. County or Parish	13. State
			Lea	NM
15. Distance from proposed* location to nearest	16. No. of Acres in lease	17. Spacing Ur	nit dedicated to this well	
property or lease line, ft. (Also to nearest drig. unit line, if any)	640		120	
 Distance from proposed location* to nearest well, drilling, completed, 	19 Proposed Depth	20. BLM/BIA	Bond No. on file	
applied for, on this lease, ft.	-5400° 77771		NMB000434	
21. Elevations (Show whether DF, KDB, RT, GL, etc.)	22. Approximate date work will	start*	23. Estimated duration	
3529' GL	ASAP		45 days	
	24. Attachments			
The following, completed in accordance with the requirements of Onsh	ore Oil and Gas Order No. 1, shall b	e attached to this	form.	
1. Well plat certified by a registered surveyor.	4. Bond to cove	er the operations	unless covered by an existing b	ond on file (see
2. A Drilling Plan	Item 20 abov	/e).		
3 A Surface Lice Plan (if the location is on National Forest System La	ification			

Name (Printed/Typed)

NM STATE OFFICE

Such other site specific information and/or plans as may be required by the authorized office

Regulatory Agent Approved by (Signature) Name (Printed/Typed) JAN 16 2008 Title 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 conduct operations thereon.

Conditions of approval, if any, are attached.

APPROVAL FOR TWO YEA

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 United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

*(Instructions on reverse)

C-144 attached

SUPO shall be filed with the appropriate Forest Service Office

SEE ATTACHED FOR **CONDITIONS OF APPROVAL**

Capitan Controlled Water Basin

APPROVAL SUBJECT TO GENERAL REQUIREMENTS AND SPECIAL STIPULATIONS **ATTACHED**

DISTRICT I 1625 N. French Dr., Hobbe, NM 88240 DISTRICT II

State of New Mexico
Energy, Minerals and Natural Resources Department

Form C-102 Revised October 12, 2005

Submit to Appropriate District Office

State Lease - 4 Copies Fee Lease - 3 Copies

1301 W. Grand Avenue, Artesia, NM 68210
DISTRICT III
1000 Rio Brazos Rd., Aztec, NM 87410

DISTRICT IV 1220 S. St. Francis Dr., Santa Fe, NM 87505 OIL CONSERVATION DIVISION

1220 South St. Francis Division

Santa Fe, New Mexico. 12503. V

☐ AMENDED REPORT

JAN 22 2008

	WELL LOCATION AND	ACREAGE DEDICATION PLAT	
30-025-38719	Pool Code 53565	30 Hilloware Delaware	

30-025 - 38719	53565 Salvildeat Delaware	
Property Code	Property Name	Well Number
12027	BELCO AIA FEDERAL	3H
OGRID No.	Operator Name	Elevation
025575	YATES PETROLEUM CORP.	3529'

Surface Location

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
J	14	20 S	32 E		1980	SOUTH	1830	EAST	LEA

Bottom Hole Location If Different From Surface

UL or lot No.	Section 14	Township 20 S	Range 32 E	Lot Idn	Feet from the	North/South line	Feet from the 2310	East/West line EAST	County LEA
Dedicated Acres		r Infill Co	nsolidation	Code Or	der No.				

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 Lat - N32*34'46.67" Long - W103*44'09.18" SPC- N.: 575092.489 E.: 725378.550 (NAD-83)	330'	2310'-	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
		3021.4	Producing Area	compulsory pooling order heretofore entered by the division. Clifton R. May Printed Name
		1	l	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
	SURFACE LOCATION Lat - N32'34'17.16" Long - W103'44'03.56" SPC- N.: 572113.040 E.: 725876.344 (NAD-83)	#(1830'	supervison, and that the same is true and correct to the best of my belief. AUGUST 6. 2007 Date Surveyor 5. 5. 5. 5. 5. 5. 5. 5. 5. 5. 5. 5. 5.
		1980.		W. Certificate No. Ggry L. Jones 7977
#2H				Basin surveyS

DISTRICT I 1625 N. French Dr., Hobbs, NM 88240 DISTRICT II 1301 W. Grand Avenue, Artesia, NM 88210

State of New Monico Energy, Minerals and Natural Resources Donariment Subr

Form C-102 Revised October 12, 2005

Submit to Appropriate District Office

State Lease - 4 Copies
Fee Lease - 3 Copies

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

DISTRICT IV 1220 S. St. Francis Dr., Santa Fe, NM 67505 OIL CONSERVATION DIVISION

1220 South St. Francis, Dr.? 2 2008

Santa Fe, New Mexico 977005

HOBBS OCU

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number	Pool Code	Pool Name
Property Code	Property Name BELCO AIA FEDERAL	Well Number 3H
ogrid No. 025575	Operator Name YATES PETROLEUM CORI	Blevation 3529'

Surface Location

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
J	14	20 S	32 E		1980	SOUTH	1830	EAST	LEA

Bottom Hole Location If Different From Surface

UL or lot No.	Section 14	Township 20 S	Range 32 E	Lot Idn	Feet from the	North/South line	Feet from the	East/West line EAST	County LEA
Dedicated Acre	s Joint o	r Infill Co	nsolidation	Code Or	der No.				

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 Lof - N32"34"46.67" Long - W103"44"09.18" SPC - N.: 575092.489 E.: 725378.550 (NAD-83)	2310'-	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 computory pooling order heretofore entered by the division.
	5021.4.	Signature Date Printed Name SURVEYOR CERTIFICATION
SURFACE LOCATION Lot - N32'34'17.16" Long - W103'44'03.56" SPC- N.: 572113.040 E.: 725876.344 (NAD-83)	1830'	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. AUGUST 6 2007 Date Surveyor 18 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
	086	Signature See of the Professional Surveyor W. Certificate No. Gary L. Jones 7977
Li		Basin surveyS

Form 3 160-5 (August 1999)

FORM APPROVED OMB No 1004-0135 Expires Inovember 30, 2000

5 Lease Serial No

NM-63016

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill or reported an abandoned well. Use Form 3160-3 (APD) for such proposals.

If Indian. Allottee or Tribe Name

		.e. edon proposar	S' MI AL	10
SUBMIT IN TRIPL	ICATE = Other instruc	HOBB:	e side	7 If Unit or CA/Agreement, Name and/
1. Type of Well	The second secon		<u> </u>	
Oıl Well Gas Well	Other			8 Well Name and No
2 Name of Operator				Belco AIA Federal #3-H
	ates Petroleum Corpora			9. API Well No
^{3a.} Add 105 South Fourth Street,	1.	3b. Phone No (include	,	
4. Location of Well (Footage, Sec.,	T. R. M. or Survey Description	(505) 748	-1471	10 Field and Pool, or Exploratory Area
	FEL, 14-T20S-R32E, NE		ation	Salt Laker Delaware
330' FNL & 2319	FEL, 14-T20S-R32E, N	IENE Bottom Ho	nons le	11. County or Parish, State
				Lea County, New Mexico
	PRIATE BOX(ES) TO INDI	CATE NATURE OF	NOTICE, REPO	ORT, OR OTHER DATA
TYPE OF SUBMISSION		TYPE	OF ACTION	
Notice of Intent	Acidize [Deepen Fracture Treat	Production Reclamation	(Start/Resume) Water Shut-Off
Subsequent Report	Casing Repair	New Construction	Recomplete	- Well Integrity
	Change Plans	Plug and Abandon	Temporarily	
Final Abandonment Notice	Convert to Injection	Plug Back	Water Dispo	
Yates Petroleum Corporation	n wishes to change the f 980' FSL & 1730' FEL to	footages of the su o the new BLM re	ırface locatior quested locat	posed work and approximate duration thereof call depths of all pertinent markers and zones, sequent reports shall be filed within 30 days w interval, a Form 3160-4 shall be filed once in, have been completed, and the operator has in that was sent in on the Notice iton of 1980' FSL & 1830' FEL.
14. I hereby certify that the foregoing Name (Printed/Typed) Clifton I	is true and correct	Title		
Signature (2 /) A (2)	200	Date	Regulat	ory Agent
Clifta R.	Ylay		August	9, 2007
	THIS SPACE FOR	FEDERAL OR STAT	E USE	
Approved by Tony	J Herrel	ACCT	DIRECTOR	Date JAN 1 6 2008
Conditions of approval, if any, are attached certify that the applicant holds legal or equit which would entitle the applicant to conduct	able title to those rights in the subject operations thereon	t lease		TE OFFICE
Title 18 U.S C Section 1001, make falses fictious or fraudulent statem	it a crime for any person kno ents or representations as to	owingly and willfully any matter within its	to make to any c jurisdiction.	department or agency of the United

NOTICE OF STAKING		5: Lease Number				
(Not to be used in place of						
Application for Permit to Drill Form 3160-	3)	NM-63016				
1. Oil Well Gas Well	6. If Indian, Allottee or Tribe	e Name				
Gas Well Gas Well	Other	N/A				
2. Name of Operator		7. Unit Agreement Name				
•		N//				
YATES PETRULEUM CORP	PORATION					
3. Address of Operator or Agent	`	8. Farm or Lease Name BELCO AIA FED	EPAI			
105 South FOURTH STREET, AR	resul NM 88210	<u>'</u>				
- 105 outif touchtaine		9. Well No.				
Surface Location of Well		3-H				
(Governmental 1/4 or 1/4 1/4)	,	10. Field or Wildcat Name				
1980'FSL & 1830'FEL, NWSL		SALT LAKE DELAWARE				
		11. Sec., T., R., M., or				
Attach: Topographical or other accept		Blk. and Survey or Area				
showing location, access road,	······································	SECTION 14-T205	5-R32E			
15. Formation Objective(s)	16. Estimated Well Depth					
DELAWARE	5200	12. County or Parish	13. State			
40.7.1.0		LEA	N/M			
 To be Completed by Operator Prior to a. Location must be staked 	Onsite					
b. Access road flagged						
 c. Sketch and/or map of location, show (To be provided at onsite) 	ving road, pad dimensions, reserv	e pit, cuts, and fills				
(10 be provided at offsite)						
17. To be Considered by Operators Prior to	o Onsite					
a. H ₂ S Potential						
b. Private Surface Ownership	3,					
c. Cultural Resources (Archaeology)						
d. Federal Right of Way						
18. Additional Information						

THIS WELL IS ON FEDERAL LAND LEASED TO KENNY SMITH FOR GRAZING.

THIS IS A HORIZONAL WELL WITH THE BOTTOM HOLE LOCATION TO BE 330 FALG 2310 FEL, SECTION 14-TROS-RBRE, UNITHETTER B, NWNE.

THIS WELL WILL SHARE APORTION OF THE #1 WELL PAD. CENTER HOLE ABOUT 150 FROM THE WELL BORE OF THE #1 WELL PAD. CENTER HOLE ABOUT

JAN 22 2008

14.	Signed Clix	Hu R.	M ay	Title	REQULATORY AGENT	Date 8/9/2007	— '
				•	1012 4 000		

YATES PETROLEUM CORPORATION Belco AIA Federal #3-H

1980' FSL & 1830' FEL (Pilot Hole) 330' FNL & 2310' FEL (Bottom Hole) Section 14-T20S-R32E Lea County, New Mexico

JAN 2.2 2008 HOBBS OCD

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

 Rustler
 1500'
 Cherry Canyon
 4915'

 Capitan Reef
 3420'
 Belco Sand
 4925'

 Lamar Line
 4655'
 TD
 5400'

 Delaware
 4750'

2. The estimated depths at which anticipated water, oil or gas formations are expected to be encountered:

Water: 125

Oil or Gas: Delaware formations: Cherry Canyon & Belco Sand.

3. Pressure Control Equipment: BOPE will be installed on the 13 3/8" and 9 5/8" casing and 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)

8/23/67	•	,					
per operator	Hole Size	Casing Size	Wt./Ft	<u>Grade</u>	Coupling	<u>Interval</u>	<u>Length</u>
		20"	94#	H-40	ST&C	0-58'	58'
133/8 J-55 1001 5 13-16 J-55 1001 5	17.5"	13.325"	48#	H-40	ST&C	0-1500'	1500' 🥆 😹ee
13% J-30 1300 7	ີ້ເຂົ້ ² 12.25"	9.625"	36#	J-55	ST&C	0-3370'	1500' See 3370' COA
11 H-40 1300 1	17 8.75"	7"	26#	J-55	LT&C	0-4678'	4678'
11 3-50	8.75"	4.5"	11.6#	HCP	LT&C	4475-7772'	3222'

- 1. Minimum Casing Design Factors: Collapse 1.125, Burst 1.0, and Tensile Strength 1.8
- 2. A 3,000 psi BOP will be nippled up on the 13 3/8" and 9 5/8" casing and tested to 3000 psi.

B. CEMENTING PROGRAM:

Surface Casing: Cement with 900 sx C Lite (YLD 1.99 WT 12.6). Tail in with 200 sx class "C" (YLD 1.32 WT 14.8). TOC-Surface

Intermediate Casing: 950 SX Hal LtPr+C (YLD 1.99 WT 12.6) and tail in with 200 sx class C (YLD 1.32 WT 14.8). TOC-Surface.

Intermediate Casing 2: 525 SX C Lite (YLD 1.99 WT 12.6) and tail in with 275 SX C (YLD 1.32 WT 14.8). TOC surface.

⇒ Production (Liner)Casing: 425 SX Super C (YLD 1.51 WT 13). TOC 4475'.

5. MUD PROGRAM AND AUXILIARY EQUIPMENT:

	Interval	<u>Type</u>	<u>Weight</u>	<u>Viscosity</u>	<u>Fluid Loss</u>
	0-1500'	Fresh Water Gel	8.4-8.90	32-34	N/C
	1500'-3370'	Brine Water	10.0-10.0	28-29	N/C
الشسسة ٥	3370'-5400'	Cut Brine	8.7-9.0	28-32	N/C
see -	4762'-7772'	Cut Brine	8.7-8.7	28-29	N/C
2011	Lateral Sectio	n			
	4545'-4678'	Cut Brine	8.7-9.0	28-28	N/C
	4678'-7772'	Cut Brine	8.7-9.2	28-32	15.0

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 surface casing.

Logging: Platform Express-CMR FMI for dips

Coring: None

DST's: As warranted

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

Anticipated BHP:

Anticipated Max. BHP: 695 PSI TO: 1500' From: Anticipated Max. BHP: 1753 PSI 3370' From: 1500' TO: Anticipated Max. BHP: 2190 PSI From: 3370 TO: 4675 Anticipated Max. BHP: 2443 PSI 4675' TO: 5400' From:

Abnormal Pressures Anticipated: None

Lost Circulation Zones Anticipated: None.

H2S Zones Anticipated: None Anticipated JAN 2 2 2008

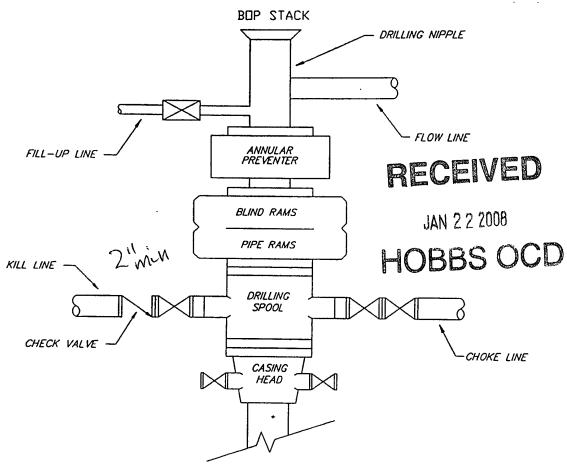
Maximum Bottom Hole Temperature: 99 F

8. ANTICIPATED STARTING DATE:

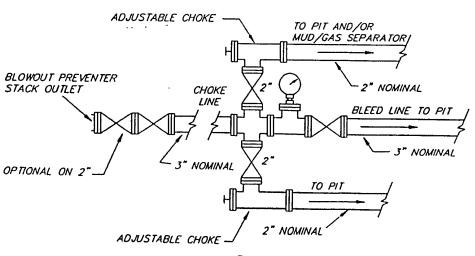
Plans are to drill this well as soon as possible after receiving approval. It should take approximately 45 days to drill the well with completion taking another 40 days.

YATES PETROLEUM CORPORATION

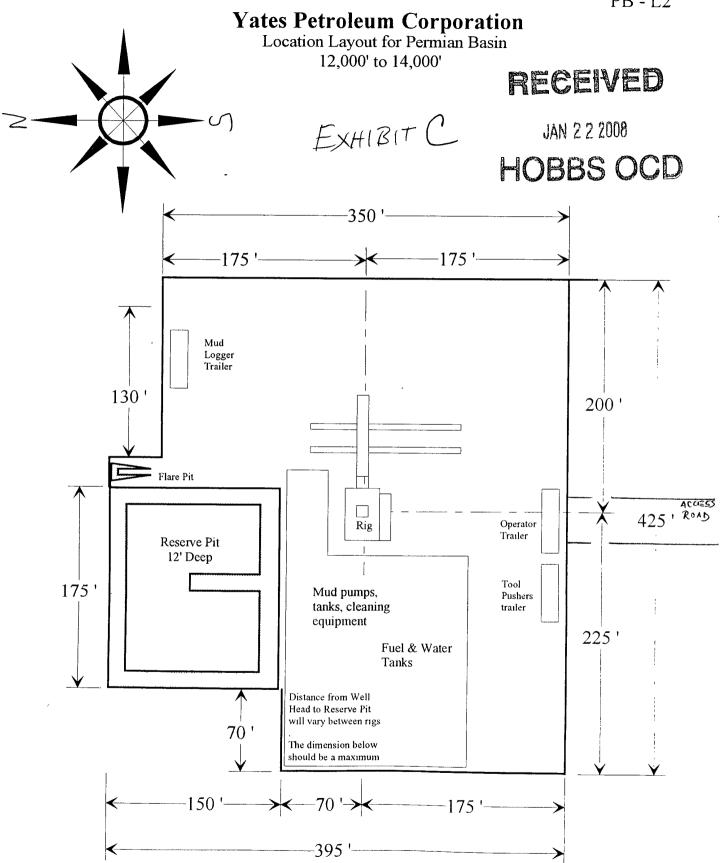
TYPICAL 3,000 p.s.i. BLOWOUT PREVENTER SCHEMATIC



TYPICAL 3,000 p.s.i. CHOKE MANIFOLD SCHEMATIC



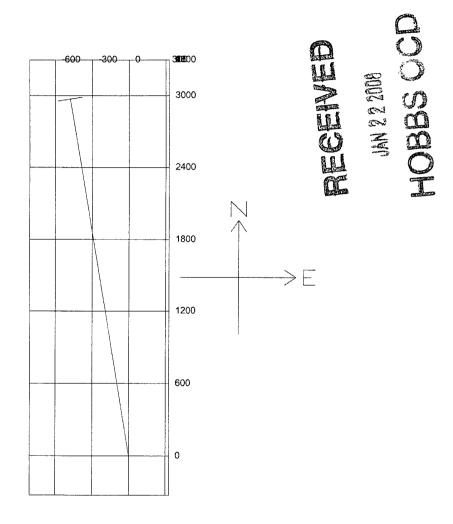
EXHIBITB



	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	4545.00	0.00	0.00	4545.00	0.00	0.00	15.00	351	GN
3	4550.00	0.75	350.82	4550.00	0.03	-0.01	15.00	360	HS
4	4575.00	4.50	350.82	4574.97	1.16	-0.19	15.00	360	HS
5	4600.00	8.25	350.82	4599.81	3.90	-0.63	15.00	360	HS
6	4625.00	12.00	350.82	4624.42	8.24	-1.33	15.00	0	HS
7	4650.00	15.75	350.82	4648.68	14.16	-2.29	15.00	360	HS
8	4675.00	19.50	350.82	4672.51	21.63	-3.50	15.00	360	HS
9	4700.00	23.25	350.82	4695.78	30.62	-4.95	15.00	360	HS
10	4725.00	27.00	350.82	4718.41	41.10	-6.64	15.00	0	HS
11	4750.00	30.75	350.82	4740.30	53.01	-8.57	15.00	360	HS
12	4775.00	34.50	350.82	4761.35	66.32	-10.72	15.00	360	HS
13	4800.00	38.25	350.82	4781.48	80.95	-13.08	15.00	0	HS
14	4825.00	42.00	350.82	4800.59	96.85	-15.65	15.00	0	HS
15	4850.00	45.75	350.82	4818.61	113.96	-18.42	15.00	360	HS
16	4875.00	49.50	350.82	4835.45	132.19	-21.36	15.00	360	HS
17	4900.00	53.25	350.82	4851.06	151.46	-24.48	15.00	360	HS
18	4925.00	57.00	350.82	4865.35	171.71	-27.75	15.00	360	HS
19	4950.00	60.75	350.82	4878.27	192.83	-31.16	15.00	0	HS
20	4975.00	64.50	350.82	4889.76	214.74	-34.71	15.00	0	HS
21	5000.00	68.25	350.82	4899.78	237.35	-38.36	15.00	360	HS
22	5025.00	72.00	350.82	4908.28	260.56	-42.11	15.00	360	HS
23	5050.00	75.75	350.82	4915.22	284.26	-45.94	15.00	360	HS
24	5075.00	79.50	350.82	4920.58	308.36	-49.84	15.00	0	HS
25	5100.00	83.25	350.82	4924.32	332.76	-53.78	15.00	0	HS
26	5125.00	87.00	350.82	4926.45	357.34	-57.75	15.00	0	HS
27	5145.29	90.04	350.82	4926.97	377.36	-60.99	15.00	360	HS
28	7771.57	90.04	350.82	4925.00	2970.00	-480.00	0.00		

3D³ Directional Drilling Planner - 3D View

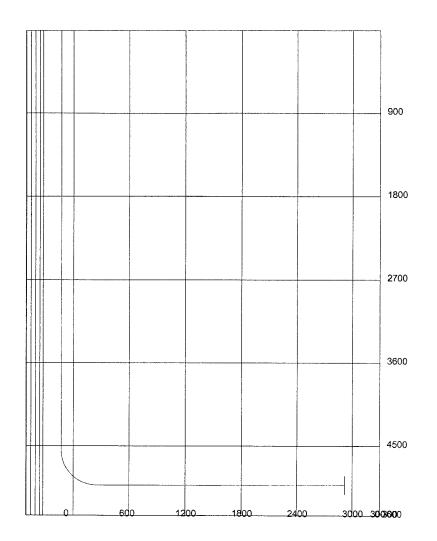
Company: Yates Petroleum Corporation Well: Belco AIA Federal #3H



File: C:\Program Files\Drilling Toolbox 2001\Templates\Visual Wellbore\belco3h.wpp

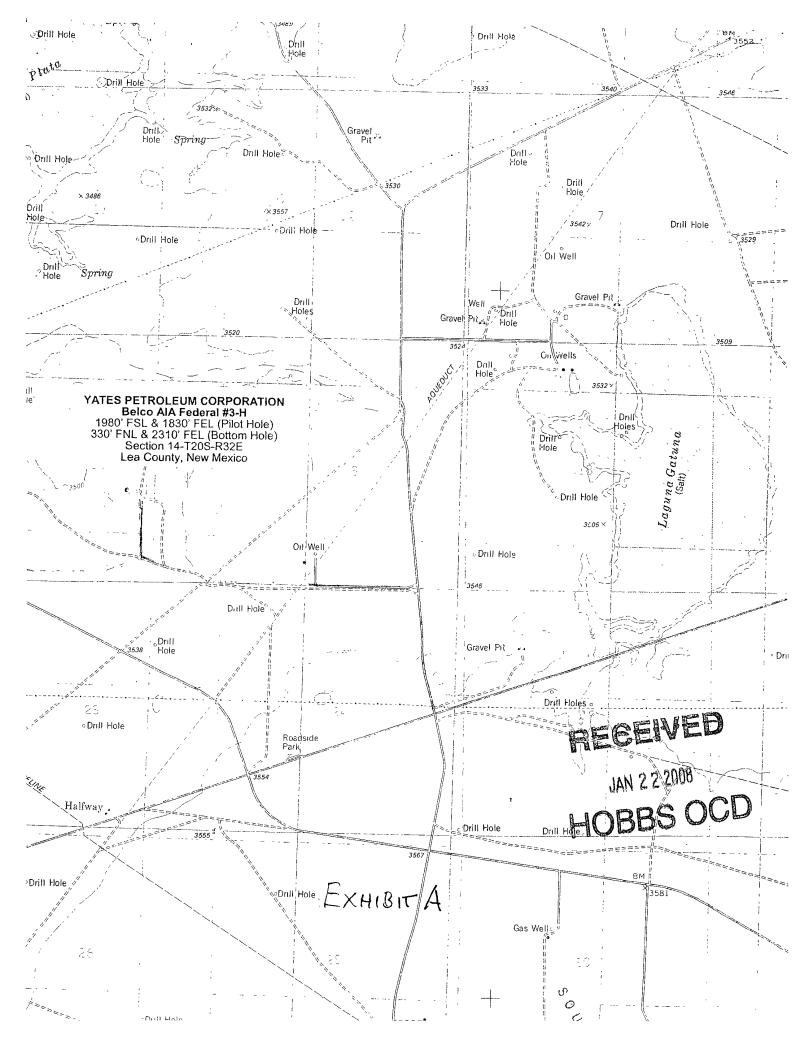
Company: Yates Petroleum Corporation

Well: Belco AlA Federal #3H

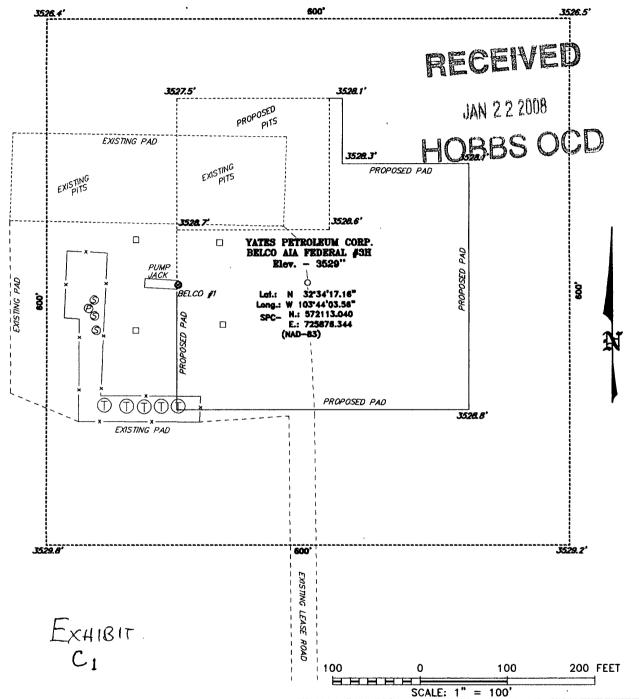


TOBBS OCH

File: C:\Program Files\Drilling Toolbox 2001\Templates\Visual Wellbore\belco3h.wpp



SECTION 14, TOWNSHIP 20 SOUTH, RANGE 32 EAST, N.M.P.M., LEA COUNTY.



Directions to Location:

FROM THE JUNCTION OF U.S. HWY 62-180 AND CO. RD. 55 (LAGUNA), GO NORTH ON CO. RD. 55 FOR APPROX. 0.5 MILES TO LEASE ROAD, ON LEASE ROAD GO WEST APPROX 1.0 MILES TO LEASE ROAD, ON LEASE ROAD GO NORTH APPROX. 0.6 MILES TO PROPOSED LOCATION.

BASIN SURVEYS P.O. BOX 1786-HOBBS, NEW MEXICO

Date: 08-06-2007 Disk: 18406W JMS

YATES PETROLEUM CORP.

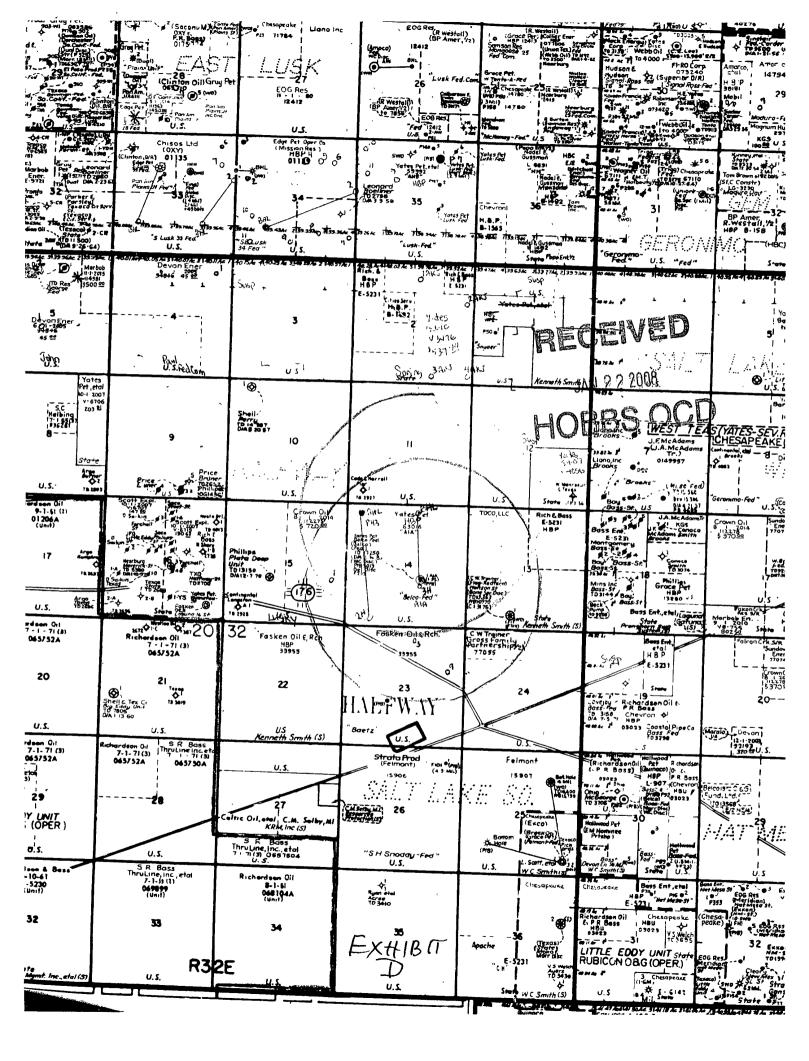
REF: BELCO AIA FEDERAL #3H / WELL PAD TOPO

THE BELCO AIA FEDERAL #3H LOCATED 1980'

FROM THE SOUTH LINE AND 1830' FROM THE EAST LINE OF SECTION 14, TOWNSHIP 20 SOUTH, RANGE 32 EAST,

N.M.P.M., LEA COUNTY, NEW MEXICO.

Survey Date: 08-06-2007 Sheet 1 of 1 Sheets



PECOS DISTRICT CONDITIONS OF APPROVAL

OPERATOR'S NAME:	YATES PETROLEUM CORPORATION
LEASE NO.:	NM63016
WELL NAME & NO.:	3H-BELCO AIA FEDERAL
SÙRFACE HOLE FOOTAGE:	1980' FSL & 1830' FEL
BOTTOM HOLE FOOTAGE	330' FNL & 2310' FEL
LOCATION:	Section 14, T. 20 S., R 32E., NMPM
COUNTY:	Lee 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.

		-
	General Provisions	
	ermit Expiration	
	Archaeology, Paleontology, and Historical Sites	
	Voxious Weeds	
\square S	pecial Requirements	
	Lesser Prairie Chicken	
	Sand Dune Lizard	
•	Aplomado Falcon	
	Cave/Karst	CENED
	VRM	RECEIVED
	Cultural	n in the
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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.

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V. SPECIAL REQUIREMENT(S)

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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 170' X 150' on the North side of the well pad.

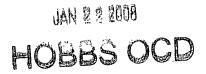
The reserve pit shall be constructed, so that upon completion of drilling operations, the dried pit contents shall be buried a minimum depth of three feet below ground level. Should the pit content level not meet the three foot minimum depth requirement, the excess contents shall be removed until the 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.

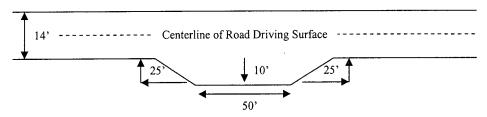
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Turnouts

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

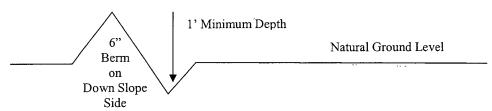


Drainage

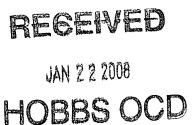
Drainage control systems shall be constructed on the entire length of road (e.g. ditches, sidehill outsloping and insloping, lead-off ditches, culvert installation, and low water crossings).

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:

400 foot road with 4% road slope:
$$\frac{400'}{4\%}$$
 + 100' = 200' 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.

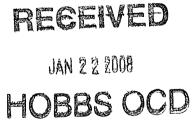
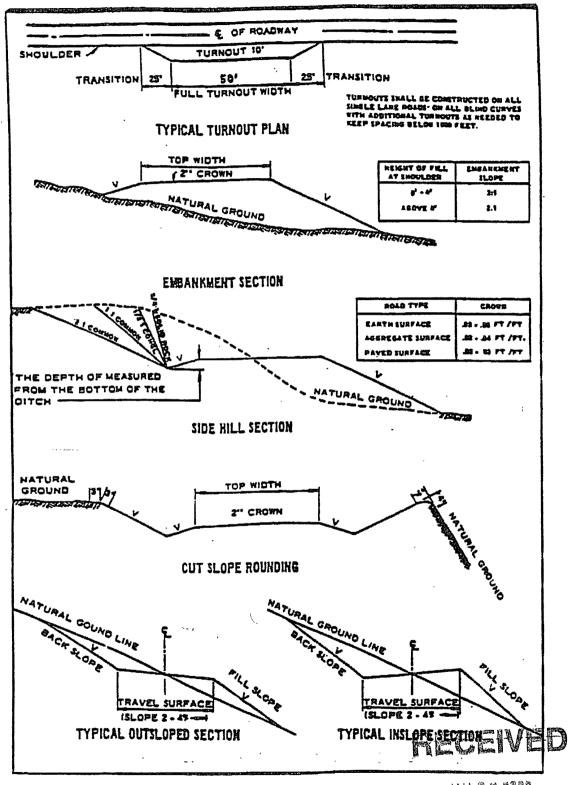


Figure 1 - Cross Sections and Plans For Typical Road Sections



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VII. DRILLING

A. DRILLING OPERATIONS REQUIREMENTS

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

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

\times Lea County

Call the Hobbs Field Station, 414 West Taylor, Hobbs NM 88240, (505) 393-3612

- 1. Although Hydrogen Sulfide has not been reported in this section, it has been reported in the township to the north measuring 200-3000 ppm in gas streams and 200-3000 ppm in STVs. These measurements have been from the Yates and Delaware formations.
- 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. When floor controls are required, (3M or Greater) 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.
- 4. Gamma-Ray/Neutron logs shall be run from the base of the Salado formation to the surface. The logs shall be run at a speed which allows the logs to be legible and no faster than manufactures of the logging tools recommended speed. (R-111-P area only)

B. CASING

- 1. The 13-3/8 inch surface casing shall be set a minimum of 25 feet into the Rustler Anhydrite and above the salt at approximately 1500 feet and cemented to the surface. BLM geologist is picking the Rustler Anhydrite at approximately 900 feet based on wells located in Section 15.
 - 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).
- 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.
- 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.
 - BLM geologist is picking the Basal Anhydrite above the Capitan Reef at approximately 3100'. Intermediate casing is to be set in this formation to properly isolate the Capitan Reef.
 - Fresh water mud to be used drilling between set point of 9-5/8" casing and setting of 7" casing.
- 3. The minimum required fill of cement behind the 7 inch production casing is:
 - Cement to surface. If cement does not circulate see B.1.a-d above.
 - The 7 inch casing is to be set in the Lamar Limestone to isolate the Capitan Reef at approximately 4670 feet.
- 4. The minimum required fill of cement behind the 4-1/2 inch production liner is:
 - Cement to come to top of liner. Operator shall provide method of verification.
 - Additional cement will probably be needed to achieve this.
- 5. 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.
- 6. Whenever a casing string is cemented in the R-111-P potash area the requirements shall be followed.

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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. 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.

D. DRILL STEM TEST

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

Engineer on call phone (after hours): Carlsbad: (505) 706-2779

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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

- B. PIPELINES
- C. ELECTRIC LINES

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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:

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Seed Mixture 1, for Loamy Sites

The holder shall seed all disturbed areas with the seed mixture listed below. The seed mixture shall be planted in the amounts specified in pounds of pure live seed (PLS)* per acre. There shall be no primary or secondary noxious weeds in the seed mixture. Seed will be tested and the viability testing of seed will be done in accordance with State law(s) and within nine (9) months prior to purchase. Commercial seed will be either certified or registered seed. The seed container will be tagged in accordance with State law(s) and available for inspection bye the authorized officer.

Seed will be planted using a drill equipped with a depth regulator to ensure proper depth regulator to ensure proper depth of planting where drilling is possible. The seed mixture will be evenly and uniformly planted over the disturbed area (small/heavier seeds have a tendency to drop the bottom of the drill and are planted first). The holder shall take appropriate measures to ensure this does not occur. Where drilling is not possible, seed will be broadcast and the area shall be raked or chained to cover the seed. When broadcasting the seed, the pounds per acre are to be doubled. The seeding will be repeated until a satisfactory stand is established as determined by the authorized officer. Evaluation of growth will not be made before completion of at least one full growing season after seeding.

Species to be planted in pounds of pure live seed* per acre:

Species	<u>lb/acre</u>
Plains lovegrass (Eragrostis intermedia)	0.5
Sand dropseed (Sporobolus cryptandrus)	1.0
Sideoats grama (Bouteloua curtipendula)	5.0

^{*}Pounds of pure live seed:

Pounds of seed x percent purity x percent gemination = pounds pure live seed (Insert Seed Mixture Here)



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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.

