UNITED ST	TATES	OCD Artesia	3	FORM A OMB No Expires Oc	APPROVED 0. 1004-0137 tober 31, 2014
DEPARTMENT OF A	THE IN Mana	VTERIOR GEMENT		NM-9402, Fee, & V	-8103 70
APPLICATION FOR PERMIT	TO D	RILL OR REENTER		6. If Indian, Allotee of N/A	or Tribe Name 2/12
la. Type of work: DRILL	REENTER	3		7. If Unit or CA Agree CA-NM124254	ment, Name and No.
Ib. Type of Well: Oil Well Gas Well Othe	r	Single Zone Multig	ole Zone	8. Lease Name and W Cottonwood KI Fed.	<sup>/ell No.</sup> Com #3H
2. Name of Operator YATES PETROLEUM CORPOR	ATION			9. API Well No.	1 Que
		2-25575	7	30-015-	41085
3a. Address 105 South Fourth Street / Artesia, NM 88210	3	575-748-4347		10. Field and Pool, of E	Wolfcamp < 252
4. Location of Well ( <i>Report location clearly and in accordance</i> At surface 1880' FSL & 260' FEL, Lot #3, NW/SW	e with cony	State requirements.*)		11. Sec., T. R. M. or Bll Section 18, T16S-R	k. and Survey or Area 25E
At proposed prod. zone 1880' FSL & 660' FWL, Ut. 1	_tr. L, NE	ESE			
14. Distance in miles and direction from nearest town or post of Approximately six (6) miles northwest of Artesia, Ne	fice* w¦Mexic	0	r	12. County or Parish Eddy	13. State NM
15. Distance from proposed* 260' location to nearest property or lease line, ft. (Also to nearest drig, unit line, if any)		16. No. of acres in lease NM-9402 - 478.81 & Fee- 182.36 & VO-8103-80	17. Spacii S/2 <b>,320</b>	ng Unit dedicated to this w Pacres 313.36 319.36	ell ?
18. Distance from proposed location* 550' to nearest well, drilling, completed.		19. Proposed Depth	20. BLM	BIA Bond No. on file	00424
applied for, on this lease, ft.		1 VD 4886 & MD 9042	Individu	ual BondNMB000920	
21. Elevations (Show whether DF, KDB, RT, GL, etc.) 3554' GL		22 Approximate date work will sta 10/18/2012	rt*	23. Estimated duration 60 days	``````````````````````````````````````
		24. Attachments			
The following, completed in accordance with the requirements of 1. Well plat certified by a registered surveyor.	of Onshore	Oil and Gas Order No.1, must be a 4. Bond to cover t	ttached to the operation	his form: ons unless covered by an e	existing bond on file (see
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**DISTRICK I** 

1625 N. Franch Dr., Eobbs, NU 08240

DISTRICT II 1301 W. Grand Avenue, Arteria, NH 63210

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

DISTRICT IV 1220 S. St. Frencis Dr., Santa Fe, NH 87505 OIL CONSERVATION DIVISION

1220 South St. Francis Dr.

Santa Fe, New Mexico 87505

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

□ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT API Numbe Pool Name Pool Code 75260 7525 0 Cottonwood Creek; Wolfcamp Well Number Property Code **Property** Name 12157COTTONWOOD "KI" FEDERAL COM. 3H Elevation OGRID No. Operator Name 025575 3554 YATES PETROLEUM CORP. Surface Location North/South line East/West line UL or lot No. Section Township Range Lot Idn Feet from the Feet from the County SOUTH 260 EAST EDDY 25 E 1880 18 16 S Bottom Hole Location If Different From Surface UL or lot No. Section Feet from the North/South line Feet from the East/West line County Township Range Lot Idn EDDY SOUTH WEST 25 E 1880 660 18 16 S Dedicated/Acres Joint or Infill **Consolidation** Code Order No. 318 . 36 NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION **OPERATOR CERTIFICATION** I hereby certify 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 orfer heretoforo entered by the divisi Penetration Point: 1880' FSL and 660' FEL 10/5/12 Signatus Date Project Area SURFACE LOCATION Lat - N32'55'15.46" BOTTOM HOLE LOCATION Lat - N32'55'15.41" Cy. Cowan Production Area Long - W104'31'01.36' Printed Name Long - W104'31'52.93" SPC- N.: 698829.552 SPC- N.: 698831.813 E.: 484965.767 E.: 480570.173 (NAD-83) SURVEYOR CERTIFICATION (NAD-83) I hereby certify that the well location shown 9402 FEE on this plat was plotted from field notes of 3553.1 3551 actual surveys made by me or under my OAC supervison and that the same is true and correct to the best of my belief. 0260 -4395 6'-FEDRUAR 2008 and the second 3557.2 35 Date Surve Ē HRA Signatur 1. 38. 66 A2 Professi **8** y B80 Ŵ 7977 Certificate No. Gary L. Jones BASIN SURVEYS

## CERTIFICATION YATES PETROLEUM CORPORATION Cottonwood KI Federal Com. #3H

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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; and an someone under employment of Yates Petroleum Corporation has 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 day of day of, 2012
Signature <u>Marine</u>
Name Cy Cowan
Position Title Land Regulatory Agent
Address 105 South Fourth Street, Artesia, New Mexico 88210
Telephone (575) 748-4372
Field Representative (if not above signatory) Tim Bussell, Drilling Supervisor
Address (if different from above) Same as above.
Telephone (if different from above) (505) 748-4221
E-mail (optional)

#### YATES PETROLEUM CORPORATION Cottonwood KI Federal Com. #3H 1880' FSL and 260' FEL (Surface Hole Location) 1880' FSL and 660' FWL (Bottom Hole Location) Section 18, T16S-R25E Eddy County, New Mexico

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

Formation	TVD	Formation	TVD	MD
Penrose	210'	Tubb	3115' Oil	
Grayburg	450'	Abo	3815' Oil	
San Andres	565' Oil	TVD Kick-Off	4409'	
Glorietta	1815' Oil	Wolfcamp	5081' Gas	
Yeso	1985' Oil	Lateral Hole	4818' Gas	9042' Gas

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

Water: 41' Oil or Gas: Wolfcamp

3. Pressure Control Equipment: BOPE with a 13 5/8 opening will be installed on the 13 3/8" 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 Preventer controls will be installed prior to drilling the surface plug and will remain in use until the well is completed or abandoned. Preventers 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:

Hole Size	Casing Size	<u>Wt./Ft</u>	Grade	Thread	Interval	Length
17 ½"	13 3/8"	48#	H-40	ST&C	0-400'	400'
12 1/4"	8 5/8"	24#	J-55	ST&C	0-1000'	1000'
7 7/8"	5 1/2"	17#	P-110	LT&C	0-5400' MD	5400'
7 7/8"	5 1/2"	17#	L-80	LT&C	5400'-9042'	3642'

A. Casing Program: (All New)

Well will be drilled vertically to 4409. At 4409' the well will be directionally drilled at 12 degrees per 100' with a 77/8" hole until horizontal. The lateral will then be drilled to a TVD of 4815' with a MD of 9042' where 5 1/2" will be set and cemented.

## Cottonwood KI Federal Com. #3H Page Two

### **B.** CEMENTING PROGRAM:

Surface Casing: 425 sacks Class "C" with CaCl2 (WT 14.80 YLD 1.34). Cement designed with 100% excess. TOC is surface.

Intermediate Casing: lead with 300 sacks Class C Lite with CaCl2 (Wt. 12.50 Yld. 2.00). Tail in 200 sacks Clas C with CaCl2 (Wt. 14.80 Yld. 1.35). Cement designed with 100% excess. TOC is surface.

Production Casing: Lead w/ 675 sacks C Lite with CaCl2 (WT 12.50 YLD 2.05). Tail in with 675 sacks Acid Sol with D151-CaCO3; D174-Expanding Ce;; D046-Antifoam; D800-Retarder; D112-Fluid Loss; D-208-Viscosifier (WT 11.15 YLD 2.60). Cement designed with 35% excess. TOC is Surface.

# 5. MUD PROGRAM AND AUXILIARY EQUIPMENT:

Interval	Туре	Weight	Viscosity	Fluid Loss
Spud to 400'	Fresh Water Gel	8.6-8.8	32-32	N/C
400' to 1000'	' Fresh Water	8.4-8.4	28-32	N/C
1000'-4409'	Cut Brine	8.8-9.2	28-32	N/C
4409' to 9042'	Cut Brine (Horizontal Section)	8.8-9.2	36-38	<15

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. Mud will be checked hourly by rig personnel.

# 6. EVALUATION PROGRAM: See [Cor]

Samples: 10' out from under Surface casing to TD. Logging: Horizontal MWD-GR Coring: None anticipated. DST's: None anticipated Mudlogging: Yes. Surface casing to TD.

# 7. ABNORMAL CONDITIONS, BOTTOM HOLE PRESSURE AND POTENTAL HAZARDS:

#### Anticipated BHP:

From:	0.	TO	1000'	Anticipated Max. BHP: 460	PSI
From:	1000'	TO	4815' TVD	Anticipated Max. BHP: 2335	PSI

Abnormal Pressures Anticipated: None Lost Circulation Zones Anticipated: None H2S Zones Anticipated: None Anticipated Maximum Bottom Hole Temperature: 120° 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 30 days.

<b>MAX MIDSES</b>	a Inclination	<b>S</b> Azimuthina	PEDTV D 2011	ANNELS THE	Male HW Shi	M DIESAR	alicolface.	着闭后给Ref[HS/GN]W	
0	0	0	0	0	0	0			
565	0	0	565	0	0	0			SAN ANDRES
1815	0	0	1815	0	0	0			GLORIETA
3115	0	0	3115	0	0	0			TUBB
3815	0	0	3815	0	0	0			ABO
4409	0	0	4409	0	0	12	270	GN	KOP
4425	1.92	270	4425	0	-0.27	12	0	HS	
4450	4.92	270	4449.95	0	-1.76	12	0	HS	
4475	7.92	270	4474.79	0	<del>-</del> 4.55	12	0	HS	
4500	10.92	270	4499.45	0	-8.65	12	0	HS	
4525	13.92	270	4523.86	0	-14.02	12	0	HS	
4550	16.92	270	4547.96	0	-20.67	12	0	HS	
4575	19.92	270	4571.68	0	-28.57	12	0	HS	
4600	22.92	270	4594.95	0	-37.7	12	0	HS	
4625	25.92	270	4617,71	0	-48.03	12	0	HS	
4650	28.92	270	4639.9	0	-59.54	12	0	HS	
4675	31.92	270	4661.45	0	-72.2	12	0	HS	
4700	34.92	· 270	4682.32	0	-85,97	12	0	HS	
4725	37.92	270	4702.43	0	-100.81	12	0	HS	
4750	40.92	270	4721.74	0	-116.68	12	0	HS	
4775	43.92	270	4740.2	0	-133.54	12	0	HS	
4800	46.92	270	4757.74	0	-151.35	12	0	HS	
4825	49.92	270	4774.33	0	-170.05	12	0	HS	
4850	52.92	270	4789.92	0	-189.59	12	0	HS	
4875	55.92	270	4804.46	0	-209.92	12	0	HS	
4900	58.92	270	4817.92	0	-230.98	12	0	HS	
4925	61.92	270	4830.26	0	-252.72	12	0	HS	
4950	64.92	270	4841.45	0	-275.08	12	0	HS	
4975	67.92	270	4851.45	0	-297.99	12	0	HS	
5000	70.92	270	4860.23	0	-321.39	12	0	HS	
5025	73.92	270	4867.78	0	-345.22	12	0	HS	
5050	76.92	270	4874.08	0	-369.41	12	0	HS	
5075	79.92	270	4879.1	0	-393.9	12	0	HS	
5081	80.64	270	4880	0	-400	12	0	HS	WOLFCAMP
5100	82.92	270	4882.82	0	-418.61	12	0	HS	•
5125	85.92	270	4885.26	0	-443.49	12	0	HS	
5150	88.92	270	4886.38	0	-468.47	12	0	HS	
5167.8	91.06	270	4886.38	0	-486.26	12	0	HS	
9042.19		270	4815	0	-4360				LATERAL TD

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\*

Well will be drilled vertically to 4409'. At 4409' the well will be directionally drilled at 12 degrees per 100' with a 7 7/8" hole until horizontal. The lateral will then be drilled to a TVD of 4815' with a MD of 9042' where 5 1/2" casing will be set and cemented.









# YATES PETROLEUM CORPORATION

Piping from Choke Manifold to the Closed Loop Drilling Mud System



The flare discharge must be 100' from wellhead for non H2S wells and 150' from wellhead for wells expected to encounter H2S.

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# Yates Petroleum Corporation 105 S. Fourth Street Artesia, NM 88210

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# Hydrogen Sulfide (H<sub>2</sub>S) Contingency Plan

# For

Cottonwood KI Federal Com #3H 1880' FSL and 260' FEL Section 18, T-16-S, R-25-E Eddy County, NM



YPC H2S Contingency Plan. Page 2

### **Emergency Procedures**

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

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

## Ignition of Gas Source

Should control of the well be considered lost and ignition considered, take care to protect against exposure to Sulfur Dioxide (SO<sub>2</sub>). Intentional ignition must be coordinated with the NMOCD and local officials. Additionally the NM State Police may become involved. NM State Police shall be the Incident Command on scene of any major release. Take care to protect downwind whenever there is an ignition of the gas

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

## Characteristics of H<sub>2</sub>S and SO<sub>2</sub>

## **Contacting Authorities**

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

# Yates Petroleum Corporation Phone Numbers

YPC Office	
Pinson McWhorter/Operations Ma	nager
Wade Bennett/Prod Superintenden	t
LeeRoy Richards/Assistant Prod S	uperintendent (575) 748-4228
Mike Larkin/Drilling	(575) 748-4222
Paul Hanes/Prod. Foreman/Roswel	
Tim Bussell/Drilling Superintende	nt(575) 748-4221
Artesia Answering Service	(575) 748-4302
(During non-office hours)	

# **Agency Call List**

#### Eddy County (575)

#### Artesia

State Police	
City Police	
Sheriff's Office	
Ambulance	
Fire Department	
LEPC (Local Emergency Plann	ing Committee)
NMOCD	

#### Carlsbad

State Police		885-3137
City Police		885-2111
Sheriff's Office		887-7551
Ambulance		911
Fire Department		885-2111
LEPC (Local Emergency Pla	nning Committee)	887-3798
US Bureau of Land Manager	nent	887-6544
New Mexico Emergency Res	sponse Commission (Santa Fe)	(505)476-9600
24 HR		(505) 827-9126
New Mexico State Emergend	y Operations Center	(505) 476-9635
National Emergency Respon	se Center (Washington, DC)	(800) 424-8802

#### Other

Boots & Coots IWC	1-800-256-9688 or (281) 931-8884	
Cudd Pressure Control	(915) 699-0139 or (915) 563-3356	
Halliburton	(575) 746-2757	
B. J. Services	(575) 746-3569	

# YATES PETROLEUM CORPORATION



# Yates Petroleum Corporation

# Hydrogen Sulfide Drilling Operation Plan

# I. HYDROGEN SULFIDE TRAINING

All personnel, whether regularly assigned, contracted, or employed on an unscheduled basis, will receive training from a qualified instructor in the following areas prior to commencing drilling operations on this well:

- 1. The hazards and characteristics of hydrogen sulfide (H2S).
- 2. The proper use and maintenance of personal protective equipment and life support systems.
- 3. The proper use of H2S detectors, alarms, warning systems, briefing areas, evacuation procedures, and prevailing winds.
- 4. The proper techniques for first aid and rescue procedures.

In addition, supervisory personnel will be trained in the following areas:

- 1. The effects of H2S on metal components. If high tensile tubular are to be used, personnel well be trained in their special maintenance requirements.
- 2. Corrective action and shut-in procedures when drilling or reworking a well and blowout prevention and well control procedures.
- 3. The contents and requirements of the H2S Drilling Operations Plan and H2S Contingency Plan.

There will be an initial training session just prior to encountering a known or probable H2S zone (within 3 days or 500 feet) and weekly H2S and well control drills for all personnel in each crew. The initial training session shall include a review of the site specific H2S Drilling Operation Plan and the H2S Contingency Plan. The location of this well does not require a Public Protection Plan.

# **II. H2S SAFETY EQUIPMENT AND SYSTEMS**

NOTE: All H2S safety equipment and systems will be installed, tested, and operational when drilling reaches a depth of 500 feet above, or three days prior to penetrating the first zone containing or reasonably expected to contain H2S.

#### 1. Well Control Equipment:

- A. Flare line
- B. Choke manifold
- C. Blind rams and pipe rams to accommodate all pipe sizes with properly sized closing unit
- D. Auxiliary equipment may include if applicable: annular preventer & rotating head.

#### 2. Protective equipment for essential personnel:

A. Mark II Survive Air (or equivalent) 30-minute units located in the doghouse and at briefing areas, as indicated on well site diagram.

#### 3. H2S detection and monitoring equipment:

A. 3 portable H2S monitors positioned at: Shale Shaker, Bell Nipple, and Rig Floor. These units have warning lights and audible sirens when H2S levels of 10 PPM are reached.

#### 4. Visual warning systems:

- A. Wind direction indicators as shown on well site diagram (attached).
- B. Caution/Danger signs (attached) shall be posted on roads providing direct access to location. Signs will be painted with high visibility yellow with black lettering of a sufficient size to be readable at a reasonable distance from the immediate location. Bilingual signs will be used, when appropriate. See example attached.

#### 5. Mud program:

A. The mud program has been designed to minimize the volume of H2S circulated to the surface. Proper mud weight, safe drilling practices and the use of H2S scavengers will minimize hazards when penetrating H2S bearing zones.

#### 6. Metallurgy:

- A. All drill strings, casings, tubing, wellhead, blowout preventer, drilling spool, kill lines, choke manifold and lines, and valves shall be suitable for H2S service.
- B. All elastomers used for packing and seals shall be H2S trim.

7. Communication:

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- A. Cellular communications in company vehicles.
- B. Land line (telephone) communication at the Office.
- 8. Well testing:
  - A. There will be no drill stem testing.

# EXHIBIT

	DANGER
	POISONS GAS
H	YDROGEN SULFIDE
NOR	MAL OPERATIONS
(GREEN)	
CAU1 (YELLOW)	TION POTENTIAL DANGER
DAN	GER POISONS GAS ENCOUNTERED
(RED) AUTI	IORIZED PERSONAL ONLY.
LOC	ATION SECURED.
	1-575-746-1096
	1-877-879-8899

EDDY COUNTY EMERGENCY NUMBERS NUMBERS ARTESIA FIRE DEPT. 575-746-5050 9308 ARTESIA POLICE DEPT. 575-746-5000 9285 EDDY CO. SHERIFF DEPT. 575-746-9888 396-1196 LEA COUNTY EMERGENCY

HOBBS FIRE DEPT. 575-397-

HOBBS POLICE DEPT. 575-397-

LEA CO. SHERIFF DEPT. 575-



# PECOS DISTRICT CONDITIONS OF APPROVAL

OPERATOR'S NAME:	YATES PETEROLEUM CORPORATION
LEASE NO.:	NM9402
WELL NAME & NO.:	3H-COTTONWOOD KI FEDERAL COM
SURFACE HOLE FOOTAGE:	1880'/S. & 260'/E.
BOTTOM HOLE FOOTAGE	1880'/S. & 660'/W.
LOCATION:	Section 18, T. 16 S., R. 25 E., NMPM
COUNTY:	Eddy County, New Mexico

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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.

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Archaeology, Paleontology, and Historical Sites
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