

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL OR REENTER

FORM APPROVED  
OMB No. 1004-0137  
Expires October 31, 2014

1a. Type of work: <input checked="" type="checkbox"/> DRILL <input type="checkbox"/> REENTER		5. Lease Serial No. NMNM82799
1b. Type of Well: <input checked="" type="checkbox"/> Oil Well <input type="checkbox"/> Gas Well <input type="checkbox"/> Other <input checked="" type="checkbox"/> Single Zone <input type="checkbox"/> Multiple Zone		6. If Indian, Allottee or Tribe Name
2. Name of Operator BTA OIL PRODUCERS LLC (260297)		7. If Unit or CA Agreement, Name and No.
3a. Address 104 S. Pecos Midland TX 79701	3b. Phone No. (include area code) (432)682-3753	8. Lease Name and Well No. GRAMA 8817 16-9 FEDERAL CO 3H
4. Location of Well (Report location clearly and in accordance with any State requirements.) At surface SESW / 200 FSL / 1980 FWL / LAT 32.385007 / LONG -103.47713 At proposed prod. zone NENW / 200 FNL / 1980 FWL / LAT 32.412928 / LONG -103.477079		9. API Well No. 30-025-43869
11. Sec., T. R. M. or Blk. and Survey or Area SEC 16 / T2S / R34E / NMP		10. Field and Pool, or Exploratory WC-025 G-06 922742L; B5 (97922)
14. Distance in miles and direction from nearest town or post office* 20 miles		12. County or Parish LEA
15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any) 200 feet		13. State NM
16. No. of acres in lease 640		17. Spacing Unit dedicated to this well 320
18. Distance from proposed location* to nearest well, drilling, completed, 1465 feet applied for, on this lease, ft.		20. BLM/BIA Bond No. on file FED: NMB000849
19. Proposed Depth 10425 feet / 20337 feet		21. Elevations (Show whether DF, KDB, RT, GL, etc.) 3480 feet
22. Approximate date work will start* 02/01/2017		23. Estimated duration 45 days

24. Attachments

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

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

25. Signature (Electronic Submission)	Name (Printed/Typed) Kayla McConnell / Ph: (432)682-3753	Date 11/14/2016
Title Regulatory Analyst		
Approved by (Signature) (Electronic Submission)	Name (Printed/Typed) Cody Layton / Ph: (575)234-5959	Date 06/06/2017
Title Supervisor Multiple Resources		
Office HOBBS		

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.

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.

(Continued on page 2)

\*(Instructions on page 2)

**APPROVED WITH CONDITIONS**

KZ  
06/16/17

Double sided

## INSTRUCTIONS

**GENERAL:** This form is designed for submitting proposals to perform certain well operations, as indicated on Federal and Indian lands and leases for action by appropriate Federal agencies, pursuant to applicable Federal laws and regulations. Any necessary special instructions concerning the use of this form and the number of copies to be submitted, particularly with regard to local, area, or regional procedures and practices, either are shown below or will be issued by, or may be obtained from local Federal offices.

**ITEM 1:** If the proposal is to redrill to the same reservoir at a different subsurface location or to a new reservoir, use this form with appropriate notations. Consult applicable Federal regulations concerning subsequent work proposals or reports on the well.

**ITEM 4:** Locations on Federal or Indian land should be described in accordance with Federal requirements. Consult local Federal offices for specific instructions.

**ITEM 14:** Needed only when location of well cannot readily be found by road from the land or lease description. A plat, or plats, separate or on the reverse side, showing the roads to, and the surveyed location of, the well, and any other required information, should be furnished when required by Federal agency offices.

**ITEMS 15 AND 18:** If well is to be, or has been directionally drilled, give distances for subsurface location of hole in any present or objective productive zone.

**ITEM 22:** Consult applicable Federal regulations, or appropriate officials, concerning approval of the proposal before operations are started.

## NOTICES

The Privacy Act of 1974 and regulation in 43 CFR 2.48(d) provide that you be furnished the following information in connection with information required by this application.

**AUTHORITY:** 30 U.S.C. 181 et seq., 25 U.S.C. 396; 43 CFR 31.60

**PRINCIPAL PURPOSES:** The information will be used to: (1) process and evaluate your application for a permit to drill a new oil, gas, or service well or to reenter a plugged and abandoned well; and (2) document, for administrative use, information for the management, disposal and use of National Resource Lands and resources including (a) analyzing your proposal to discover and extract the Federal or Indian resources encountered; (b) reviewing procedures and equipment and the projected impact on the land involved; and (c) evaluating the effects of the proposed operation on the surface and subsurface water and other environmental impacts.

**ROUTINE USE:** Information from the record and/or the record will be transferred to appropriate Federal, State, and local or foreign agencies, when relevant to civil, criminal or regulatory investigations or prosecution, in connection with congressional inquiries and for regulatory responsibilities.

**EFFECT OF NOT PROVIDING INFORMATION:** Filing of this application and disclosure of the information is mandatory only if you elect to initiate a drilling or reentry operation on an oil and gas lease.

The Paperwork Reduction Act of 1995 requires us to inform you that:

The BLM collects this information to allow evaluation of the technical, safety, and environmental factors involved with drilling for oil and/or gas on Federal and Indian oil and gas leases. This information will be used to analyze and approve applications.

Response to this request is mandatory only if the operator elects to initiate drilling or reentry operations on an oil and gas lease.

The BLM would like you to know that you do not have to respond to this or any other Federal agency-sponsored information collection unless it displays a currently valid OMB control number.

**BURDEN HOURS STATEMENT:** Public reporting burden for this form is estimated to average 8 hours per response, including the time for reviewing instructions, gathering and maintaining data, and completing and reviewing the form. Direct comments regarding the burden estimate or any other aspect of this form to U.S. Department of the Interior, Bureau of Land Management (1004-0137), Bureau Information Collection Clearance Officer (WO-630), 1849 C Street, N.W., Mail Stop 401 LS, Washington, D.C. 20240.

## Additional Operator Remarks

### Location of Well

I-SHL: SESW / 200 FSL / 1980 FWL / TWSP: 22S / RANGE: 34E / SECTION: 16 / LAT: 32.385007 / LONG: -103.47713 ( TVD: 0 feet, MD: 0 feet )

PPP: SESW / 330 FSL / 1980 FWL / TWSP: 22S / RANGE: 34E / SECTION: 16 / LAT: 32.385364 / LONG: -103.477129 ( TVD: 10425 feet, MD: 10752 feet )

BHL: NENW / 200 FNL / 1980 FWL / TWSP: 22S / RANGE: 34E / SECTION: 9 / LAT: 32.412928 / LONG: -103.477079 ( TVD: 10425 feet, MD: 20337 feet )

### BLM Point of Contact

Name: Melissa Agee

Title: Legal Instruments Examiner

Phone: 5752345937

Email: magee@blm.gov

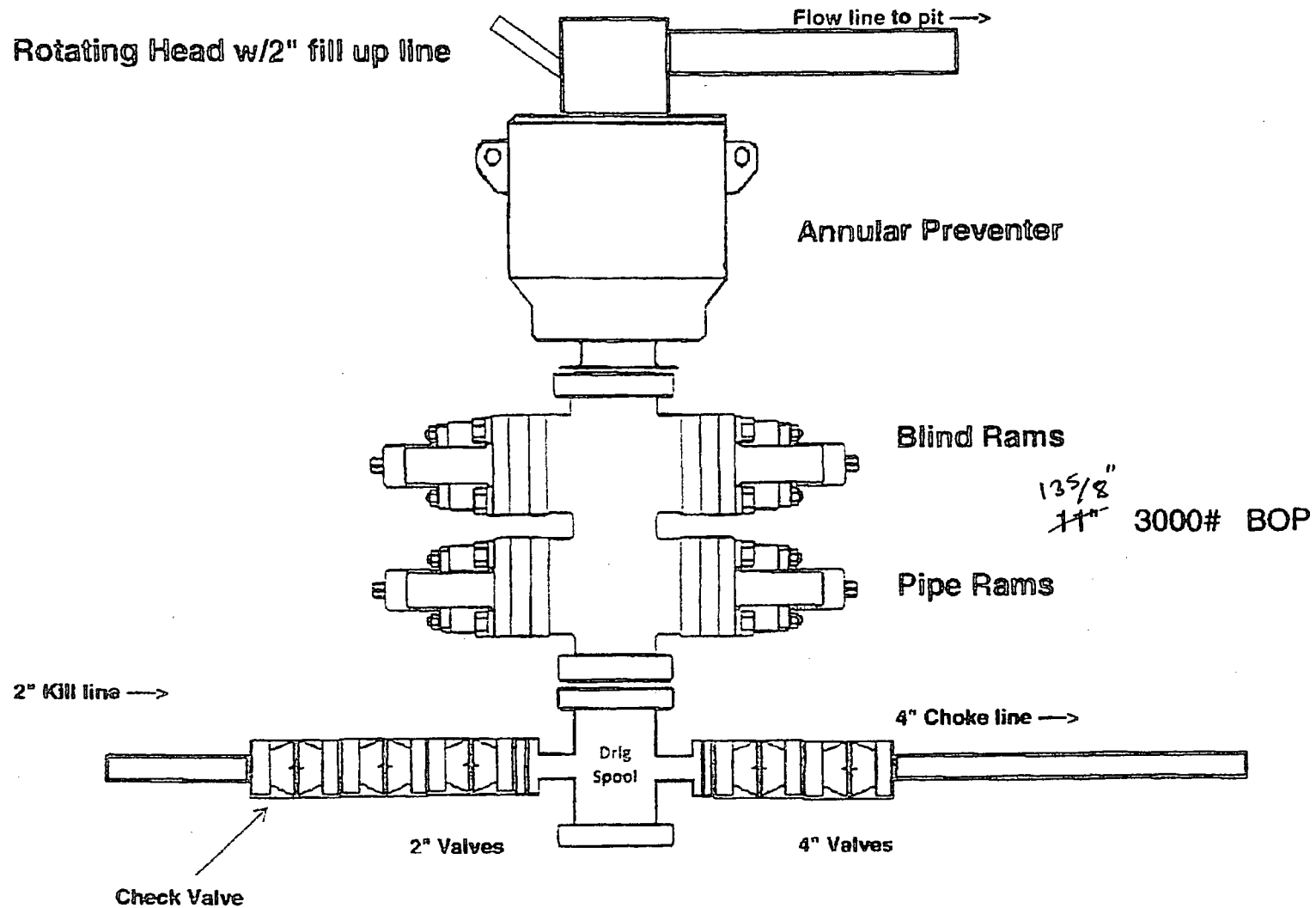
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### **Review and Appeal Rights**

A person contesting a decision shall request a State Director review. This request must be filed within 20 working days of receipt of the Notice with the appropriate State Director (see 43 CFR 3165.3). The State Director review decision may be appealed to the Interior Board of Land Appeals, 801 North Quincy Street, Suite 300, Arlington, VA 22203 (see 43 CFR 3165.4). Contact the above listed Bureau of Land Management office for further information.

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## 3,000 psi BOP Schematic





U.S. Department of the Interior  
BUREAU OF LAND MANAGEMENT

## Application Data Report

06/07/2017

APD ID: 10400007080

Submission Date: 11/14/2016

Operator Name: BTA OIL PRODUCERS LLC

Well Name: GRAMA 8817 16-9 FEDERAL COM

Well Number: 3H

Well Type: OIL WELL

Well Work Type: Drill

### Section 1 - General

APD ID: 10400007080

Tie to previous NOS?

Submission Date: 11/14/2016

BLM Office: HOBBS

User: Kayla McConnell

Title: Regulatory Analyst

Federal/Indian APD: FED

Is the first lease penetrated for production Federal or Indian? FED

Lease number: NMNM82799

Lease Acres: 640

Surface access agreement in place?

Allotted?

Reservation:

Agreement in place? NO

Federal or Indian agreement:

Agreement number:

Agreement name:

Keep application confidential? YES

Permitting Agent? NO

APD Operator: BTA OIL PRODUCERS LLC

Operator letter of designation:

Keep application confidential? YES

### Operator Info

Operator Organization Name: BTA OIL PRODUCERS LLC

Operator Address: 104 S. Pecos

Zip: 79701

Operator PO Box:

Operator City: Midland

State: TX

Operator Phone: (432)682-3753

Operator Internet Address: pinskeep@btaoil.com

### Section 2 - Well Information

Well in Master Development Plan? NO

Master Development Plan name:

Well in Master SUPO? NO

Master SUPO name:

Well in Master Drilling Plan? NO

Master Drilling Plan name:

Well Name: GRAMA 8817 16-9 FEDERAL COM

Well Number: 3H

Well API Number:

Field/Pool or Exploratory? Field and Pool

Field Name: GRAMA RIDGE

Pool Name: BONE SPRING,  
WEST

**Operator Name:** BTA OIL PRODUCERS LLC

**Well Name:** GRAMA 8817 16-9 FEDERAL COM

**Well Number:** 3H

**Is the proposed well in an area containing other mineral resources?** USEABLE WATER

**Describe other minerals:**

**Is the proposed well in a Helium production area?** N

**Use Existing Well Pad?** NO

**New surface disturbance?**

**Type of Well Pad:** SINGLE WELL

**Multiple Well Pad Name:**

**Number:**

**Well Class:** HORIZONTAL

**Number of Legs:**

**Well Work Type:** Drill

**Well Type:** OIL WELL

**Describe Well Type:**

**Well sub-Type:** EXPLORATORY (WILDCAT)

**Describe sub-type:**

**Distance to town:** 20 Miles

**Distance to nearest well:** 1465 FT

**Distance to lease line:** 200 FT

**Reservoir well spacing assigned acres Measurement:** 320 Acres

**Well plat:** GRAMA 8817 16-9 FED COM 3H C102\_11-14-2016.pdf

**Well work start Date:** 02/01/2017

**Duration:** 45 DAYS

### Section 3 - Well Location Table

**Survey Type:** RECTANGULAR

**Describe Survey Type:**

**Datum:** NAD83

**Vertical Datum:** NGVD29

**Survey number:**

**STATE:** NEW MEXICO

**Meridian:** NEW MEXICO PRINCIPAL **County:** LEA

**Latitude:** 32.385007

**Longitude:** -103.47713

**SHL**

**Elevation:** 3480

**MD:** 0

**TVD:** 0

**Leg #: 1**

**Lease Type:** STATE

**Lease #:** STATE

**NS-Foot:** 200

**NS Indicator:** FSL

**EW-Foot:** 1980

**EW Indicator:** FWL

**Twsp:** 22S

**Range:** 34E

**Section:** 16

**Aliquot:** SESW

**Lot:**

**Tract:**

**Operator Name:** BTA OIL PRODUCERS LLC  
**Well Name:** GRAMA 8817 16-9 FEDERAL COM

**Well Number:** 3H

**KOP**  
**Leg #: 1**

<b>STATE:</b> NEW MEXICO	<b>Meridian:</b> NEW MEXICO PRINCIPAL	<b>County:</b> LEA
<b>Latitude:</b> 32.385007	<b>Longitude:</b> -103.47713	
<b>Elevation:</b> -6420	<b>MD:</b> 9900	<b>TVD:</b> 9900
<b>Lease Type:</b> STATE	<b>Lease #:</b> STATE	
<b>NS-Foot:</b> 200	<b>NS Indicator:</b> FSL	
<b>EW-Foot:</b> 1980	<b>EW Indicator:</b> FWL	
<b>Twsp:</b> 22S	<b>Range:</b> 34E	<b>Section:</b> 16
<b>Aliquot:</b> SESW	<b>Lot:</b>	<b>Tract:</b>

**PPP**  
**Leg #: 1**

<b>STATE:</b> NEW MEXICO	<b>Meridian:</b> NEW MEXICO PRINCIPAL	<b>County:</b> LEA
<b>Latitude:</b> 32.385364	<b>Longitude:</b> -103.477129	
<b>Elevation:</b> -6945	<b>MD:</b> 10752	<b>TVD:</b> 10425
<b>Lease Type:</b> STATE	<b>Lease #:</b> STATE	
<b>NS-Foot:</b> 330	<b>NS Indicator:</b> FSL	
<b>EW-Foot:</b> 1980	<b>EW Indicator:</b> FWL	
<b>Twsp:</b> 22S	<b>Range:</b> 34E	<b>Section:</b> 16
<b>Aliquot:</b> SESW	<b>Lot:</b>	<b>Tract:</b>

**EXIT**  
**Leg #: 1**

<b>STATE:</b> NEW MEXICO	<b>Meridian:</b> NEW MEXICO PRINCIPAL	<b>County:</b> LEA
<b>Latitude:</b> 32.412571	<b>Longitude:</b> -103.477079	
<b>Elevation:</b> -6945	<b>MD:</b> 20200	<b>TVD:</b> 10425
<b>Lease Type:</b> FEDERAL	<b>Lease #:</b> NMNM82799	
<b>NS-Foot:</b> 330	<b>NS Indicator:</b> FNL	
<b>EW-Foot:</b> 1980	<b>EW Indicator:</b> FWL	
<b>Twsp:</b> 22S	<b>Range:</b> 34E	<b>Section:</b> 9
<b>Aliquot:</b> NENW	<b>Lot:</b>	<b>Tract:</b>

**BHL**  
**Leg #: 1**

<b>STATE:</b> NEW MEXICO	<b>Meridian:</b> NEW MEXICO PRINCIPAL	<b>County:</b> LEA
<b>Latitude:</b> 32.412928	<b>Longitude:</b> -103.477079	
<b>Elevation:</b> -6945	<b>MD:</b> 20337	<b>TVD:</b> 10425
<b>Lease Type:</b> FEDERAL	<b>Lease #:</b> NMNM82799	
<b>NS-Foot:</b> 200	<b>NS Indicator:</b> FNL	
<b>EW-Foot:</b> 1980	<b>EW Indicator:</b> FWL	



Injection well type:

Injection well number:

Injection well name:

Assigned injection well API number?

Injection well API number:

Injection well new surface disturbance (acres):

Minerals protection information:

Mineral protection attachment:

Underground Injection Control (UIC) Permit?

UIC Permit attachment:

### **Section 5 - Surface Discharge**

Would you like to utilize Surface Discharge PWD options? NO

Produced Water Disposal (PWD) Location:

PWD surface owner:

PWD disturbance (acres):

Surface discharge PWD discharge volume (bbl/day):

Surface Discharge NPDES Permit?

Surface Discharge NPDES Permit attachment:

Surface Discharge site facilities information:

Surface discharge site facilities map:

### **Section 6 - Other**

Would you like to utilize Other PWD options? NO

Produced Water Disposal (PWD) Location:

PWD surface owner:

PWD disturbance (acres):

Other PWD discharge volume (bbl/day):

Other PWD type description:

Other PWD type attachment:

Have other regulatory requirements been met?

Other regulatory requirements attachment:



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## Operator Certification Data Report

06/07/2017

### Operator Certification

*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.*

**NAME:** Kayla McConnell

**Signed on:** 11/09/2016

**Title:** Regulatory Analyst

**Street Address:** 104 S. Pecos

**City:** Midland

**State:** TX

**Zip:** 79701

**Phone:** (432)682-3753

**Email address:** kmccconnell@btaoil.com

### Field Representative

**Representative Name:** Nick Eaton

**Street Address:** 104 South Pecos

**City:** Midland

**State:** NM

**Zip:** 79701

**Phone:** (432)682-3753

**Email address:** neaton@btaoil.com



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PWD Data Report

06/07/2017

## Section 1 - General

Would you like to address long-term produced water disposal? NO

## Section 2 - Lined Pits

Would you like to utilize Lined Pit PWD options? NO

Produced Water Disposal (PWD) Location:

PWD surface owner:

PWD disturbance (acres):

Lined pit PWD on or off channel:

Lined pit PWD discharge volume (bbl/day):

Lined pit specifications:

Pit liner description:

Pit liner manufacturers information:

Precipitated solids disposal:

Describe precipitated solids disposal:

Precipitated solids disposal permit:

Lined pit precipitated solids disposal schedule:

Lined pit precipitated solids disposal schedule attachment:

Lined pit reclamation description:

Lined pit reclamation attachment:

Leak detection system description:

Leak detection system attachment:

Lined pit Monitor description:

Lined pit Monitor attachment:

Lined pit: do you have a reclamation bond for the pit?

Is the reclamation bond a rider under the BLM bond?

Lined pit bond number:

Lined pit bond amount:

Additional bond information attachment:



U.S. Department of the Interior  
BUREAU OF LAND MANAGEMENT

## Drilling Plan Data Report

06/07/2017

APD ID: 10400007080

Submission Date: 11/14/2016

Operator Name: BTA OIL PRODUCERS LLC

Well Name: GRAMA 8817 16-9 FEDERAL COM

Well Number: 3H

Well Type: OIL WELL

Well Work Type: Drill

### Section 1 - Geologic Formations

ID: Surface formation

Name: UNKNOWN

Lithology(ies):

ALLUVIUM

Elevation: 3480

True Vertical Depth: 0

Measured Depth: 0

Mineral Resource(s):

NONE

Is this a producing formation? N

ID: Formation 1

Name: RUSTLER ANHYDRITE

Lithology(ies):

Elevation: 1880

True Vertical Depth: 1600

Measured Depth: 1600

Mineral Resource(s):

NONE

Is this a producing formation? N

ID: Formation 2

Name: BASE OF SALT

Lithology(ies):

Elevation: 15

True Vertical Depth: 3465

Measured Depth: 3465

Mineral Resource(s):

NONE

Is this a producing formation? N

**Operator Name:** BTA OIL PRODUCERS LLC

**Well Name:** GRAMA 8817 16-9 FEDERAL COM

**Well Number:** 3H

**ID:** Formation 3

**Name:** CAPITAN REEF

**Lithology(ies):**

**Elevation:** -601

**True Vertical Depth:** 4081

**Measured Depth:** 4081

**Mineral Resource(s):**

NONE

**Is this a producing formation?** N

**ID:** Formation 4

**Name:** DELAWARE

**Lithology(ies):**

**Elevation:** -1825

**True Vertical Depth:** 5305

**Measured Depth:** 5305

**Mineral Resource(s):**

NONE

**Is this a producing formation?** N

**ID:** Formation 5

**Name:** CHERRY CANYON

**Lithology(ies):**

**Elevation:** -2505

**True Vertical Depth:** 5985

**Measured Depth:** 5985

**Mineral Resource(s):**

NATURAL GAS

OIL

**Is this a producing formation?** N

**ID:** Formation 6

**Name:** BRUSHY CANYON

**Lithology(ies):**

**Elevation:** -3375

**True Vertical Depth:** 6855

**Measured Depth:** 6855

**Mineral Resource(s):**

NATURAL GAS

**Operator Name:** BTA OIL PRODUCERS LLC

**Well Name:** GRAMA 8817 16-9 FEDERAL COM

**Well Number:** 3H

OIL

**Is this a producing formation?** N

**ID:** Formation 7

**Name:** BONE SPRING LOWER

**Lithology(ies):**

**Elevation:** -5015

**True Vertical Depth:** 8495

**Measured Depth:** 8495

**Mineral Resource(s):**

NATURAL GAS

OIL

**Is this a producing formation?** N

**ID:** Formation 8

**Name:** BONE SPRING 2ND

**Lithology(ies):**

**Elevation:** -6945

**True Vertical Depth:** 10425

**Measured Depth:** 10752

**Mineral Resource(s):**

NATURAL GAS

OIL

**Is this a producing formation?** Y

## Section 2 - Blowout Prevention

**Pressure Rating (PSI):** 3M

**Rating Depth:** 1100

**Equipment:** The blowout preventer equipment (BOP) shown in Exhibit A will consist of a (3M system) double ram type (3000 psi WP) preventer and a bag-type (Hydril) preventer (3000 psi WP). Both units will be hydraulically operated and the ram type preventer will be equipped with blind rams on top and 4-½" drill pipe rams on bottom. The BOP's will be installed on the 13 3/8" surface casing and utilized continuously until total depth is reached. All BOP's and associated equipment will be tested as per BLM drilling Operations Order No. 2. A 2" kill line and 3" choke line will be incorporated in the drilling spool below the ram-type BOP. Other accessory BOP equipment will include a Kelly cock, floor safety valve, choke lines, and choke manifold having a 3000 psi WP rating.

**Requesting Variance?** YES

**Variance request:** A Choke Hose Variance is requested. See attached test chart and spec.

**Testing Procedure:** Pipe rams will be operated and checked each 24-hour period and each time the drill pipe is out of the hole. These functional tests will be documented on the daily driller's log.

**Choke Diagram Attachment:**

Grama 8817 16-9 Fed Com 3H 3M Choke Manifold\_11-14-2016.pdf

**Operator Name:** BTA OIL PRODUCERS LLC

**Well Name:** GRAMA 8817 16-9 FEDERAL COM

**Well Number:** 3H

Choke Hose - Test Chart and Specs\_02-22-2017.pdf

**BOP Diagram Attachment:**

Grama 8817 16-9 Fed Com 3H 3M BOP Schematic\_11-14-2016.pdf

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### Section 3 - Casing

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**String Type:** INTERMEDIATE

**Other String Type:**

**Hole Size:** 12.25

**Top setting depth MD:** 0

**Top setting depth TVD:** 0

**Top setting depth MSL:** 3480

**Bottom setting depth MD:** 5300

**Bottom setting depth TVD:** 5300

**Bottom setting depth MSL:** -1820

**Calculated casing length MD:** 5300

**Casing Size:** 9.625

**Other Size**

**Grade:** J-55

**Other Grade:**

**Weight:** 40

**Joint Type:** LTC

**Other Joint Type:**

**Condition:** NEW

**Inspection Document:**

**Standard:** API

**Spec Document:**

**Tapered String?:** N

**Tapered String Spec:**

### Safety Factors

**Collapse Design Safety Factor:** 1.6

**Burst Design Safety Factor:** 1.4

**Joint Tensile Design Safety Factor type:** DRY

**Joint Tensile Design Safety Factor:** 2.1

**Body Tensile Design Safety Factor type:** DRY

**Body Tensile Design Safety Factor:** 2.9

**Casing Design Assumptions and Worksheet(s):**

Grama 8817 16-9 Fed Com 3H Casing Assumption\_11-09-2016.pdf

**Operator Name:** BTA OIL PRODUCERS LLC

**Well Name:** GRAMA 8817 16-9 FEDERAL COM

**Well Number:** 3H

**String Type:** PRODUCTION

**Other String Type:**

**Hole Size:** 8.75

**Top setting depth MD:** 0

**Top setting depth TVD:** 0

**Top setting depth MSL:** 3480

**Bottom setting depth MD:** 20337

**Bottom setting depth TVD:** 10425

**Bottom setting depth MSL:** -6945

**Calculated casing length MD:** 20337

**Casing Size:** 5.5

**Other Size**

**Grade:** P-110

**Other Grade:**

**Weight:** 17

**Joint Type:** LTC

**Other Joint Type:**

**Condition:** NEW

**Inspection Document:**

**Standard:** API

**Spec Document:**

**Tapered String?:** N

**Tapered String Spec:**

### **Safety Factors**

**Collapse Design Safety Factor:** 1.5

**Burst Design Safety Factor:** 2.1

**Joint Tensile Design Safety Factor type:** DRY

**Joint Tensile Design Safety Factor:** 2.5

**Body Tensile Design Safety Factor type:** DRY

**Body Tensile Design Safety Factor:** 3.1

**Casing Design Assumptions and Worksheet(s):**

Grama 8817 16-9 Fed Com 3H Casing Assumption\_11-09-2016.pdf



**Operator Name:** BTA OIL PRODUCERS LLC

**Well Name:** GRAMA 8817 16-9 FEDERAL COM

**Well Number:** 3H

**String Type:** SURFACE

**Other String Type:**

**Hole Size:** 17.5

**Top setting depth MD:** 0

**Top setting depth TVD:** 0

**Top setting depth MSL:** 3480

**Bottom setting depth MD:** 1650

**Bottom setting depth TVD:** 1650

**Bottom setting depth MSL:** 1830

**Calculated casing length MD:** 1650

**Casing Size:** 13.375

**Other Size**

**Grade:** J-55

**Other Grade:**

**Weight:** 54.5

**Joint Type:** STC

**Other Joint Type:**

**Condition:** NEW

**Inspection Document:**

**Standard:** API

**Spec Document:**

**Tapered String?:** N

**Tapered String Spec:**

### **Safety Factors**

**Collapse Design Safety Factor:** 1.6

**Burst Design Safety Factor:** 3.86

**Joint Tensile Design Safety Factor type:** DRY

**Joint Tensile Design Safety Factor:** 5.7

**Body Tensile Design Safety Factor type:** DRY

**Body Tensile Design Safety Factor:** 9.5

**Casing Design Assumptions and Worksheet(s):**

Grama 8817 16-9 Fed Com 3H Casing Assumption\_11-09-2016.pdf

### **Section 4 - Cement**

**Casing String Type:** SURFACE

Operator Name: BTA OIL PRODUCERS LLC

Well Name: GRAMA 8817 16-9 FEDERAL COM

Well Number: 3H

**Stage Tool Depth:**

Lead

Top MD of Segment: 0

Bottom MD Segment: 1265

Cement Type: Class C

Additives: 4% Gel

Quantity (sks): 1035

Yield (cu.ff./sk): 1.75

Density: 13.5

Volume (cu.ft.): 1811

Percent Excess: 81

Tail

Top MD of Segment: 1265

Bottom MD Segment: 1650

Cement Type: Class C

Additives: 6% Gel

Quantity (sks): 200

Yield (cu.ff./sk): 1.34

Density: 14.8

Volume (cu.ft.): 268

Percent Excess: 81

Casing String Type: INTERMEDIATE

**Stage Tool Depth:**

Lead

Top MD of Segment: 0

Bottom MD Segment: 4240

Cement Type: Class C

Additives: 6% Gel

Quantity (sks): 1085

Yield (cu.ff./sk): 2.18

Density: 12.7

Volume (cu.ft.): 2365

Percent Excess: 61

Tail

Top MD of Segment: 4240

Bottom MD Segment: 5300

Cement Type: Class C

Additives: 0.004 GPS cf-41L

Quantity (sks): 250

Yield (cu.ff./sk): 1.33

Density: 14.8

Volume (cu.ft.): 332

Percent Excess: 61

Casing String Type: PRODUCTION

**Stage Tool Depth:**

Lead

Top MD of Segment: 3800

Bottom MD Segment: 8896

Cement Type: 50:50H

Additives: 0.004 GPS cf-41L

Quantity (sks): 415

Yield (cu.ff./sk): 4.43

Density: 10.5

Volume (cu.ft.): 1838

Percent Excess: 42

Tail

Top MD of Segment: 8896

Bottom MD Segment: 20337

Cement Type: 50:50H

Additives: 2% Gel

Quantity (sks): 2725

Yield (cu.ff./sk): 1.22

Density: 14.4

Volume (cu.ft.): 3324

Percent Excess: 15

**Operator Name:** BTA OIL PRODUCERS LLC

**Well Name:** GRAMA 8817 16-9 FEDERAL COM

**Well Number:** 3H

### Section 5 - Circulating Medium

**Mud System Type:** Closed

**Will an air or gas system be Used?** NO

**Description of the equipment for the circulating system in accordance with Onshore Order #2:**

**Diagram of the equipment for the circulating system in accordance with Onshore Order #2:**

**Describe what will be on location to control well or mitigate other conditions:** Sufficient mud materials to maintain mud properties and meet minimum lost circulation and weight increase requirements will be kept on location at all times.

**Describe the mud monitoring system utilized:** PVT/Pason/Visual Monitoring

### Circulating Medium Table

**Top Depth:** 5300

**Bottom Depth:** 10425

**Mud Type:** OTHER

Cut Brine

**Min Weight (lbs./gal.):** 8.6

**Max Weight (lbs./gal.):** 9.2

**Density (lbs/cu.ft.):**

**Gel Strength (lbs/100 sq.ft.):**

**PH:**

**Viscosity (CP):**

**Filtration (cc):**

**Salinity (ppm):**

**Additional Characteristics:**

**Top Depth:** 0

**Bottom Depth:** 1650

**Mud Type:** SPUD MUD

**Min Weight (lbs./gal.):** 8.3

**Max Weight (lbs./gal.):** 8.4

**Density (lbs/cu.ft.):**

**Gel Strength (lbs/100 sq.ft.):**

**PH:**

**Viscosity (CP):**

**Filtration (cc):**

**Salinity (ppm):**

**Additional Characteristics:**

**Operator Name:** BTA OIL PRODUCERS LLC

**Well Name:** GRAMA 8817 16-9 FEDERAL COM

**Well Number:** 3H

**Top Depth:** 1650

**Bottom Depth:** 5300

**Mud Type:** SALT SATURATED

**Min Weight (lbs./gal.):** 10

**Max Weight (lbs./gal.):** 10.2

**Density (lbs/cu.ft.):**

**Gel Strength (lbs/100 sq.ft.):**

**PH:**

**Viscosity (CP):**

**Filtration (cc):**

**Salinity (ppm):**

**Additional Characteristics:**

---

## **Section 6 - Test, Logging, Coring**

**List of production tests including testing procedures, equipment and safety measures:**

Drill Stem Tests will be based on geological sample shows.

**List of open and cased hole logs run in the well:**

CBL,GR,MUDLOG

**Coring operation description for the well:**

None planned

## **Section 7 - Pressure**

**Anticipated Bottom Hole Pressure:** 4987

**Anticipated Surface Pressure:** 2693.5

**Anticipated Bottom Hole Temperature(F):** 167

**Anticipated abnormal pressures, temperatures, or potential geologic hazards?** NO

**Describe:**

**Contingency Plans geohazards description:**

**Contingency Plans geohazards attachment:**

**Hydrogen Sulfide drilling operations plan required?** NO

**Hydrogen sulfide drilling operations plan:**

**Operator Name:** BTA OIL PRODUCERS LLC

**Well Name:** GRAMA 8817 16-9 FEDERAL COM

**Well Number:** 3H

## **Section 8 - Other Information**

**Proposed horizontal/directional/multi-lateral plan submission:**

Grama 8817 16-9 Fed Com 3H Wall Plot\_11-14-2016.pdf

Grama 8817 16-9 Fed Com 3H Directional Plan\_01-04-2017.pdf

**Other proposed operations facets description:**

A variance is requested for a Multi Bowl Wellhead. See the attached schematic and running procedure.

**Other proposed operations facets attachment:**

Grama 8817 16-9 Fed Com 3H - H2S Equipment Schematic\_01-04-2017.pdf

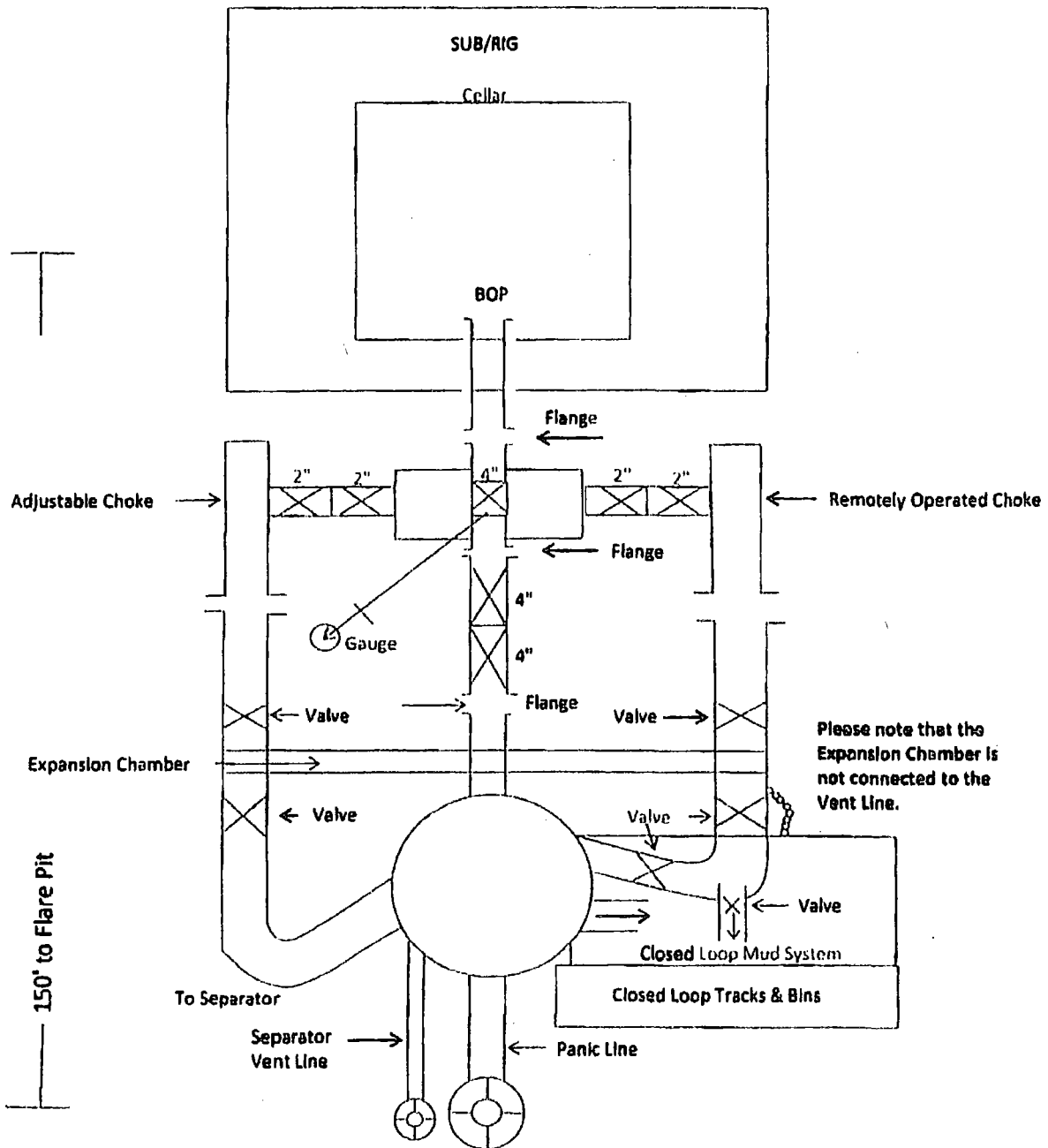
Grama 8817 16-9 Fed Com 3H - H2S Plan\_01-04-2017.pdf

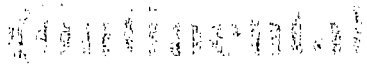
**Other Variance attachment:**

Grama 8817 16-9 Fed Com 3H - Wellhead System and Testing\_01-04-2017.pdf

Grama 8817 16-9 Fed Com 3M Multi Bowl Wellhead Schematic\_01-04-2017.pdf

# 3M Choke Manifold Equipment





ContiTech

CONTITECH RUBBER Industrial Kit.	No: QC-DB-599/2014 Page: 16 / 176
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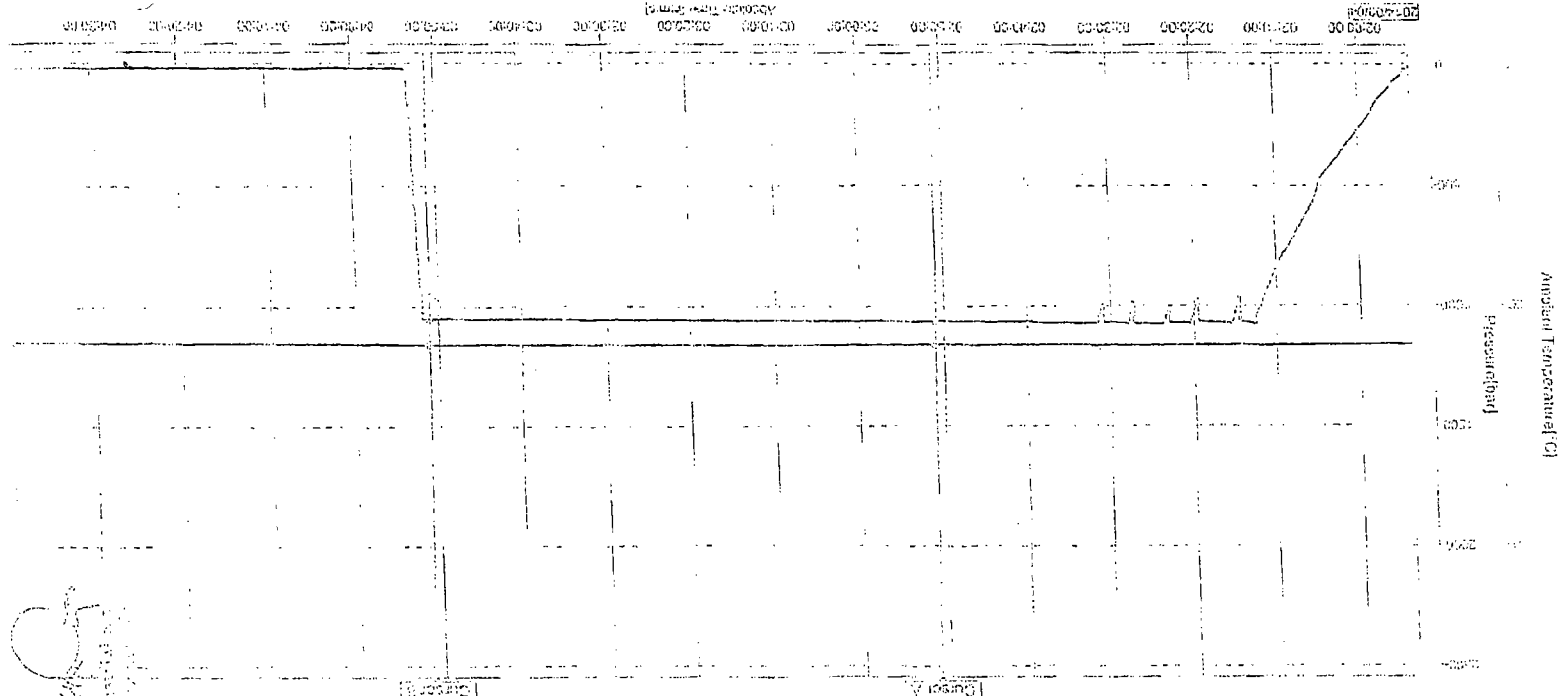
Rig 94

Asset 24455

<b>QUALITY CONTROL INSPECTION AND TEST CERTIFICATE</b>				CERT. N°: 1592	
PURCHASER: ContiTech Oil & Marine Corp.				P.O. N°: 4500461753	
CONTITECH ORDER N°: 539225		HOSE TYPE: 3" ID Choke & Kill Hose			
HOSE SERIAL N°: 168547		NOMINAL / ACTUAL LENGTH: 7,62 m / 7,66 m			
W.P. 68,9 MPa 10000 psi		T.P. 103,4 MPa 15000 psi		Duration: 60 min.	
Pressure test with water at ambient temperature					
See attachment. ( 1 page )					
↑ 10 Min. 50 MPa					
COUPLINGS Type		Serial N°		Quality	
3" coupling with 4 1/16" 10K API Swivel Flange and Hub		2574 5533		AISI 4130 AISI 4130 AISI 4130	
				Heat N° A1582N H8572 59855 A1199N A1423N	
Not Designed For Well Testing				API Spec 16 C	
Fire Rated				Temperature rate: "B"	
All metal parts are flawless					
WE CERTIFY THAT THE ABOVE HOSE HAS BEEN MANUFACTURED IN ACCORDANCE WITH THE TERMS OF THE ORDER INSPECTED AND PRESSURE TESTED AS ABOVE WITH SATISFACTORY RESULT.					
STATEMENT OF CONFORMITY: We hereby certify that the above items/equipment supplied by us are in conformity with the terms, conditions and specifications of the above Purchaser Order and that these items/equipment were fabricated, inspected and tested in accordance with the referenced standards, codes and specifications and meet the relevant acceptance criteria and design requirements.					
Date:		Inspector		Quality Control	
04 September 2014.					

# ATTACHMENT OF QUALITY CONTROL INSPECTION AND TEST CERTIFICATE No: 1588, 1590, 1592

Page: 1 / 1



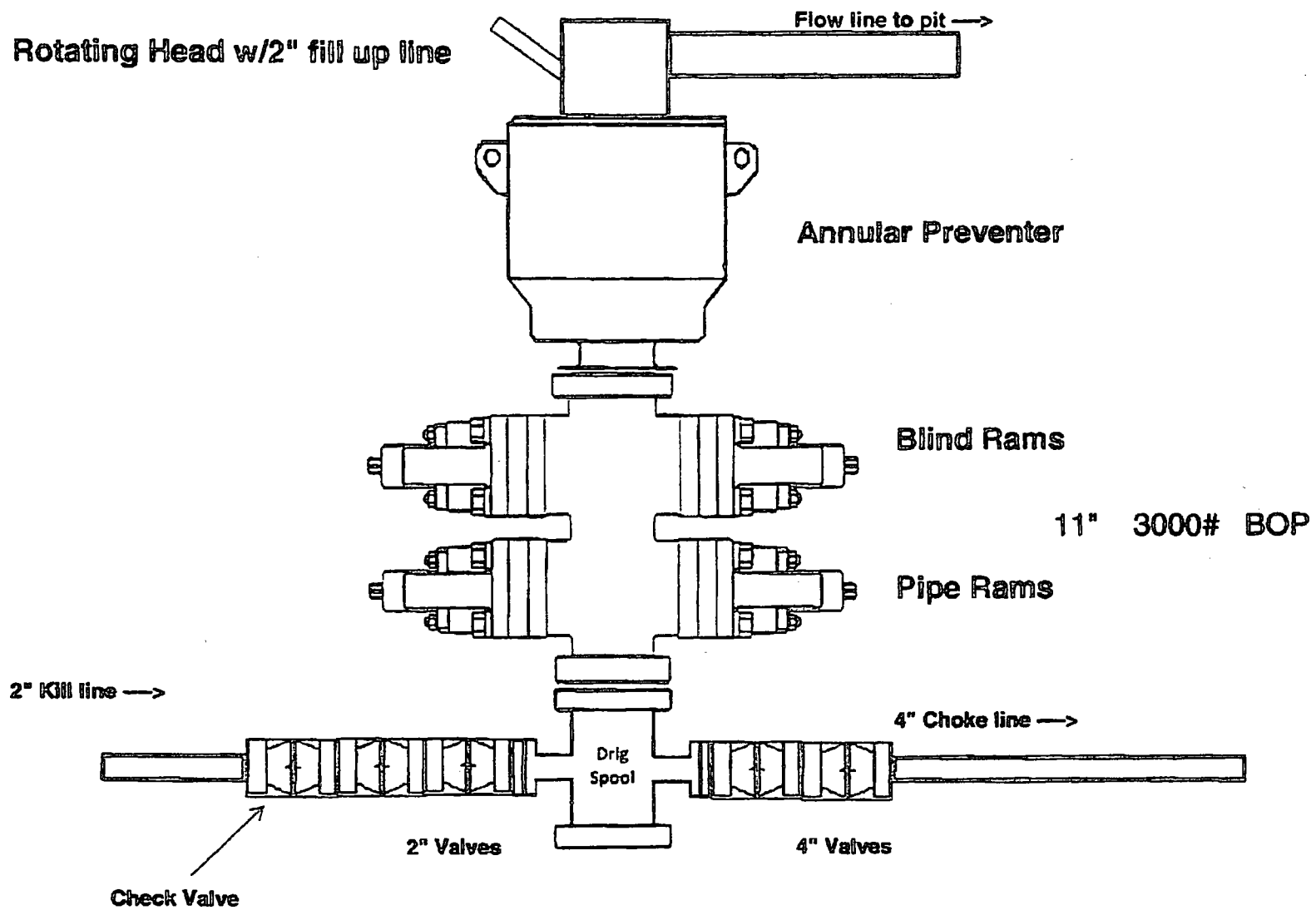
File Name	File Message	Device Type	Serial No.	Data Count	Param Group	Param Range	Comment
000220_68543.68545.547.GEV	000220_68543.68545.547.GEV	OX10	50F006399	9648	Process Temp	2014/09/04 00:00:00 - 2014/09/04 01:59:59.000	
000220_68543.68545.547.GEV	000220_68543.68545.547.GEV	OX10	50F006399	9648	Process Temp	2014/09/04 00:00:00 - 2014/09/04 01:59:59.000	
000220_68543.68545.547.GEV	000220_68543.68545.547.GEV	OX10	50F006399	9648	Process Temp	2014/09/04 00:00:00 - 2014/09/04 01:59:59.000	

Sampling Int: 1.000 sec  
 Start Time: 2014/09/04 00:00:00.000  
 Stop Time: 2014/09/04 01:59:59.000

*[Handwritten Signature]*  
 [Illegible Text]



## 3,000 psi BOP Schematic





BTA Oil Producers, LLC

Well: Grama 8817 16-9 Federal Com #3H

Casing Assumption

Hole Size	Csg.Size	From (MD)	To (MD)	From (TVD)	To (TVD)	Tapered String	Weight (lbs)	Grade	Conn.	Collapse	Burst	Body Tension	Joint Tension	Dry/Buoyant	Mud Weight (ppg)
17.50	13.375	0	1650	0	1650	No	54.5	J-55	STC	1.6	3.86	9.5	5.7	Dry	8.4
12.25	9.625	0	5300	0	5300	No	40.0	J-55	LTC	1.6	1.4	2.9	2.1	Dry	10.0
8.75	5.50	0	20337	0	10425	No	17.0	P-110	LTC	1.5	2.1	3.1	2.5	Dry	9.2



BTA Oil Producers, LLC

Well: Grama 8817 16-9 Federal Com #3H

Casing Assumption

Hole Size	Csg.Size	From (MD)	To (MD)	From (TVD)	To (TVD)	Tapered String	Weight (lbs)	Grade	Conn.	Collapse	Burst	Body Tension	Joint Tension	Dry/Buoyant	Mud Weight (ppg)
17.50	13.375	0	1650	0	1650	No	54.5	J-55	STC	1.6	3.86	9.5	5.7	Dry	8.4
12.25	9.625	0	5300	0	5300	No	40.0	J-55	LTC	1.6	1.4	2.9	2.1	Dry	10.0
8.75	5.50	0	20337	0	10425	No	17.0	P-110	LTC	1.5	2.1	3.1	2.5	Dry	9.2



BTA Oil Producers, LLC

Well: Grama 8817 16-9 Federal Com #3H

Casing Assumption

Hole Size	Csg.Size	From (MD)	To (MD)	From (TVD)	To (TVD)	Tapered String	Weight (lbs)	Grade	Conn.	Collapse	Burst	Body Tension	Joint Tension	Dry/Buoyant	Mud Weight (ppg)
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8.75	5.50	0	20337	0	10425	No	17.0	P-110	LTC	1.5	2.1	3.1	2.5	Dry	9.2

# BTA

## Planning Report - Geographic

**Database:** EDM 5000.1 Single User Db  
**Company:** BTA Oil Producers, LLC  
**Project:** Lea County, NM  
**Site:** Grama  
**Well:** Grama #3H  
**Wellbore:** Wellbore #1  
**Design:** Design #1

**Local Co-ordinate Reference:**  
**TVD Reference:**  
**MD Reference:**  
**North Reference:**  
**Survey Calculation Method:**

Well Grama #3H  
KB @ 3505.0usft (Nomac 94)  
KB @ 3505.0usft (Nomac 94)  
Grid  
Minimum Curvature

### **Section 3 - Unlined Pits**

Would you like to utilize Unlined Pit PWD options? NO

Produced Water Disposal (PWD) Location:

PWD surface owner:

PWD disturbance (acres):

Unlined pit PWD on or off channel:

Unlined pit PWD discharge volume (bbl/day):

Unlined pit specifications:

Precipitated solids disposal:

Describe precipitated solids disposal:

Precipitated solids disposal permit:

Unlined pit precipitated solids disposal schedule:

Unlined pit precipitated solids disposal schedule attachment:

Unlined pit reclamation description:

Unlined pit reclamation attachment:

Unlined pit Monitor description:

Unlined pit Monitor attachment:

Do you propose to put the produced water to beneficial use?

Beneficial use user confirmation:

Estimated depth of the shallowest aquifer (feet):

Does the produced water have an annual average Total Dissolved Solids (TDS) concentration equal to or less than that of the existing water to be protected?

TDS lab results:

Geologic and hydrologic evidence:

State authorization:

Unlined Produced Water Pit Estimated percolation:

Unlined pit: do you have a reclamation bond for the pit?

Is the reclamation bond a rider under the BLM bond?

Unlined pit bond number:

Unlined pit bond amount:

Additional bond information attachment:

### **Section 4 - Injection**

Would you like to utilize Injection PWD options? NO

Produced Water Disposal (PWD) Location:

PWD surface owner:

PWD disturbance (acres):

Injection PWD discharge volume (bbl/day):

Injection well mineral owner:

**Operator Name:** BTA OIL PRODUCERS LLC

**Well Name:** GRAMA 8817 16-9 FEDERAL COM

**Well Number:** 3H

### Section 12 - Other Information

**Right of Way needed?** NO

**Use APD as ROW?**

**ROW Type(s):**

#### ROW Applications

**SUPO Additional Information:**

**Use a previously conducted onsite?** YES

**Previous Onsite information:** Onsite was conducted Wednesday, October 26, 2016 by Jeffery Robertson.

#### Other SUPO Attachment

**Operator Name:** BTA OIL PRODUCERS LLC

**Well Name:** GRAMA 8817 16-9 FEDERAL COM

**Well Number:** 3H

**Existing invasive species?** NO

**Existing invasive species treatment description:**

**Existing invasive species treatment attachment:**

**Weed treatment plan description:** No invasive species present. Standard regular maintenance to maintain a clear location and road.

**Weed treatment plan attachment:**

**Monitoring plan description:** Identify areas supporting weeds prior to construction; prevent the introduction and spread of weeds from construction equipment during construction; and contain weed seeds and propagules by preventing segregated topsoil from being spread to adjacent areas. No invasive species present. Standard regular maintenance to maintain a clear location and road.

**Monitoring plan attachment:**

**Success standards:** To maintain all disturbed areas as per Gold Book standards.

**Pit closure description:** N/A

**Pit closure attachment:**

## **Section 11 - Surface Ownership**

**Disturbance type:** WELL PAD

**Describe:**

**Surface Owner:** STATE GOVERNMENT

**Other surface owner description:**

**BIA Local Office:**

**BOR Local Office:**

**COE Local Office:**

**DOD Local Office:**

**NPS Local Office:**

**State Local Office:** STATE OF NEW MEXICO, COMMISSIONER OF PUBLIC LANDS

**Military Local Office:**

**USFWS Local Office:**

**Other Local Office:**

**USFS Region:**

**USFS Forest/Grassland:**

**USFS Ranger District:**





U.S. Department of the Interior  
BUREAU OF LAND MANAGEMENT

## Bond Info Data Report

06/07/2017

### Bond Information

Federal/Indian APD: FED

BLM Bond number: NMB000849

BIA Bond number:

Do you have a reclamation bond? NO

Is the reclamation bond a rider under the BLM bond?

Is the reclamation bond BLM or Forest Service?

BLM reclamation bond number:

Forest Service reclamation bond number:

Forest Service reclamation bond attachment:

Reclamation bond number:

Reclamation bond amount:

Reclamation bond rider amount:

Additional reclamation bond information attachment: