

RECEIVED  
OCD Hobbs  
OCT 27 2016  
HOBBS OCD

ATS-16 470

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

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT  
APPLICATION FOR PERMIT TO DRILL OR REENTER

1a. Type of Work: <input checked="" type="checkbox"/> DRILL <input type="checkbox"/> REENTER		5. Lease Serial No.  NMNM0005792
1b. Type of Well: <input checked="" type="checkbox"/> Oil Well <input type="checkbox"/> Gas Well <input type="checkbox"/> Other <input type="checkbox"/> Single Zone <input checked="" type="checkbox"/> Multiple Zone		6. If Indian, Allottee or Tribe Name ---
2. Name of Operator BTA OIL PRODUCERS, LLC		7. If Unit or CA Agreement, Name and No. ---
3a. Address 104 South Pecos Midland, TX 79701		8. Lease Name and Well No. (317069) Rojo E 7811 JV-P Federal #4H
3b. Phone No. (include area code) 432-682-3753		9. API Well No. 30-025-43464
4. Location of Well (Report location clearly and in accordance with any State requirements. *) At surface 50' FSL & 230' FWL Unit Letter M (SWSW) SHL Sec 34-T25S-R33E At proposed prod. Zone 330' FNL & 330' FWL Unit Letter D (NWNW) BHL Sec 34-T25S-R33E		10. Field and Pool, or Exploratory (97900) Red Hills; Upper Bone Spring Shale
14. Distance in miles and direction from nearest town or post office* Approximately 21 miles from Jal		11. Sec., T.R.M. or Blk and Survey or Area Section 34 - T25S - R33E
15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig. Unit line, if any) 50'	16. No. of acres in lease 680	17. Spacing Unit dedicated to this well 160
18. Distance from location* to nearest well, drilling, completed, applied for, on this lease, ft. SHL: 5018' BHL: 1180'	19. Proposed Depth TVD: 9,369' MD: 14,097'	20. BLM/BIA Bond No. on file NM1195 & NMB000849
21. Elevations (Show whether DF, KDB, RT, GL, etc.) 3318' GL	22. Approximate date work will start* 11/1/2015	23. Estimated duration 30 days

24. Attachments

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

- 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 shall 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 authorized officer.

25. Signature 	Name (Printed/Typed) Pam Inskeep	Date 10/2/2015
-------------------	-------------------------------------	-------------------

Title

Regulatory Administrator

Approved by (Signature) <b>/s/Cody Layton</b>	Name (Printed/Typed)	Date <b>OCT 19 2016</b>
Title <b>FIELD MANAGER</b>	Office <b>CARLSBAD FIELD OFFICE</b>	

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 YEARS

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)

Carlsbad Controlled Water Basin

Approval Subject to General Requirements  
& Special Stipulations Attached

SEE ATTACHED FOR  
CONDITIONS OF APPROVAL

KZ  
10/27/16



# BTA Oil Producers LLC – Rojo E 7811 JV-P Federal 4H

## 1. Geologic Formations

TVD of target	9369'	Pilot hole depth	NA
MD at TD:	14,097'	Deepest expected fresh water:	650

### Basin

Formation	Depth (TVD) from KB	Water/Mineral Bearing/ Target Zone?	Hazards*
Quaternary Fill	Surface	Water	
Rustler	930	Water	
Top of Salt	1275	Salt	
Base of Salt	4847	Salt	
Lamar	4964	Barren	
Bell Canyon	5000	Oil/Gas	
Cherry Canyon	6000	Oil/Gas	
Brushy Canyon	7516	Oil/Gas	
Bone Spring Lime	9029	Oil/Gas	
U. Avalon Shale	9090	Oil/Gas Target Zone	
L. Avalon Shale	9482	Not Penetrated	
1 <sup>st</sup> Bone Spring Sand	10,004	Not Penetrated	

\*H2S, water flows, loss of circulation, abnormal pressures, etc.

## 2. Casing Program - See COA

Hole Size	Casing Interval		Csg. Size	Weight (lbs)	Grade	Conn.	SF Collapse	SF Burst	SF Tension
	From	To							
17.5"	0	<del>955</del> 1020'	13.375"	54.5	J55	STC	1.537	1.139	9.87
12.25"	0	4300	9.625"	40	J55	LTC	1.127	1.13	2.61
12.25"	4300	4970'	9.625"	40	N80	LTC	1.15	1.64	3.657
8.75"	0	14,097	5.5"	17	P110	LTC	1.683	2.28	3.04
BLM Minimum Safety Factor							1.125	1	1.6 Dry 1.8 Wet

All casing strings will be tested in accordance with Onshore Oil and Gas Order #2 III.B.1.h Intermediate and Production Burst based on Pore Pressure (9.1 ppge) at Lateral TVD minus Gas Gradient (0.1 psi/ft).

Intermediate casing will always be kept 1/3 full while running as additional collapse protection.

	Y or N
Is casing new? If used, attach certification as required in Onshore Order #1	Y
Does casing meet API specifications? If no, attach casing specification sheet.	Y
Is premium or uncommon casing planned? If yes attach casing specification sheet.	N
Does the above casing design meet or exceed BLM's minimum standards? If not provide justification (loading assumptions, casing design criteria).	Y
Will the intermediate pipe be kept at a minimum 1/3 fluid filled to avoid approaching the collapse pressure rating of the casing?	Y
Is well located within Capitan Reef?	N



# BTA Oil Producers LLC – Rojo E 7811 JV-P Federal 4H

If yes, does production casing cement tie back a minimum of 50' above the Reef?	
Is well within the designated 4 string boundary.	
Is well located in SOPA but not in R-111-P?	N
If yes, are the first 2 strings cemented to surface and 3 <sup>rd</sup> string cement tied back 500' into previous casing?	
Is well located in R-111-P and SOPA?	N
If yes, are the first three strings cemented to surface?	
Is 2 <sup>nd</sup> string set 100' to 600' below the base of salt?	
Is well located in high Cave/Karst?	N
If yes, are there two strings cemented to surface?	
(For 2 string wells) If yes, is there a contingency casing if lost circulation occurs?	
Is well located in critical Cave/Karst?	N
If yes, are there three strings cemented to surface?	

## 3. Cementing Program - See COA

Casing	# Sks	Wt. lb/ gal	Yld ft3/ sack	H <sub>2</sub> O gal/s k	500# Comp. Strength (hours)	Slurry Description
Surf.	405	13.5	1.75	9	12	Lead: Class C + 4% Gel + 2% CaCl <sub>2</sub>
	350	14.8	1.34	4.8	8	Tail: Class C + 2% CaCl <sub>2</sub>
Inter.	1120	12.7	1.99	10	12	1 <sup>st</sup> stage Lead: Econocem HLC 65:35:6 + 5% Salt
	250	14.8	1.34	6.4	8	1 <sup>st</sup> stage Tail: Class C + 2% CaCl
Prod.	460	10.3	3.62	21.9	72	1 <sup>st</sup> Lead: Halliburton Tune Lite Blend
	1225	14.4	1.24	5.7	20	1 <sup>st</sup> Tail: Versacem 50:50:2 Class H + 1% Salt

Lab reports with the 500 psi compressive strength time for the cement will be onsite for review.

Casing String	TOC	% Excess
Surface	0'	75%
Intermediate	0'	75%
Production	3970'	17% OH in Lateral (KOP to EOL) – 40% OH in Vertical (to KOP) - Tie In 1000' Inside 9-5/8" Casing Shoe @ 4970'

Low  
Cement -  
See COA



**BTA Oil Producers LLC – Rojo E 7811 JV-P Federal 4H**

**4. Pressure Control Equipment - See COA**

N	A variance is requested for the use of a diverter on the surface casing. See attached for schematic.
---	--

BOP installed and tested before drilling which hole?	Size?	Min. Required WP	Type	✓	Tested to:
12-1/4"	13-5/8"	2M	Annular	x	2000 psi
			Blind Ram		2M
			Pipe Ram		
			Double Ram		
			Other*		
8-3/4"	11"	3M	Annular	x	50% testing pressure
			Blind Ram	x	3M
			Pipe Ram	x	
			Double Ram		
			Other*		

\*Specify if additional ram is utilized.

BOP/BOPE will be tested by an independent service company to 250 psi low and the high pressure indicated above per Onshore Order 2 requirements. The System may be upgraded to a higher pressure but still tested to the working pressure listed in the table above. If the system is upgraded all the components installed will be functional and tested.

Pipe rams will be operationally checked each 24 hour period. Blind rams will be operationally checked on each trip out of the hole. These checks will be noted on the daily tour sheets. Other accessories to the BOP equipment will include a Kelly cock and floor safety valve (inside BOP) and choke lines and choke manifold. See attached schematics.

X	Formation integrity test will be performed per Onshore Order #2. On Exploratory wells or on that portion of any well approved for a 5M BOPE system or greater, a pressure integrity test of each casing shoe shall be performed. Will be tested in accordance with Onshore Oil and Gas Order #2 III.B.1.i.
Y	A variance is requested for the use of a flexible choke line from the BOP to Choke Manifold. See attached for specs and hydrostatic test chart.
	N Are anchors required by manufacturer?
N	A multibowl wellhead is being used. The BOP will be tested per Onshore Order #2 after installation on the surface casing which will cover testing requirements for a maximum of 30 days. If any seal subject to test pressure is broken the system must be tested.

See  
COA



## BTA Oil Producers LLC – Rojo E 7811 JV-P Federal 4H

### 5. Mud Program

Depth		Type	Weight (ppg)	Viscosity	Water Loss
From	To				
0	Surf. Shoe	FW Gel	8.6-8.8	28-34	N/C
Surf csg	Int shoe	Saturated Brine	10.0-10.2	28-34	N/C
Int shoe	TD@14,097	Cut Brine	8.5-9.3	28-34	N/C

Sufficient mud materials to maintain mud properties and meet minimum lost circulation and weight increase requirements will be kept on location at all times.

What will be used to monitor the loss or gain of fluid?	PVT/Pason/Visual Monitoring
---	-----------------------------

### 6. Logging and Testing Procedures - See COA

Logging, Coring and Testing.	
Y	Will run GR/CNL from TD to surface (horizontal well – vertical portion of hole). Stated logs run will be in the Completion Report and submitted to the BLM.
N	No Logs are planned based on well control or offset log information.
N	Drill stem test? If yes, explain
N	Coring? If yes, explain

Additional logs planned	Interval
N	Resistivity
N	Density
Y	CBL Production casing (If cement not circulated to surface)
Y	Mud log Intermediate shoe to TD
N	PEX

### 7. Drilling Conditions

Condition	Specify what type and where?
BH Pressure at deepest TVD	4433 psi at 9369' TVD
Abnormal Temperature	NO (150 DEG. F)

Sufficient supplies of Paper/LCM for periodic sweeps to control seepage and losses will be maintained on location.

Hydrogen Sulfide (H <sub>2</sub> S) monitors will be installed prior to drilling out the surface shoe. If H <sub>2</sub> S is detected in concentrations greater than 100 ppm, the operator will comply with the provisions of Onshore Oil and Gas Order #6. If Hydrogen Sulfide is encountered, measured values and formations will be provided to the BLM.	
N	H <sub>2</sub> S is present
Y	H <sub>2</sub> S Plan attached



**OPERATOR CERTIFICATION**

**BTA OIL PRODUCERS LLC  
Rojo E 7811 JV-P #4H  
Section 34, T25S-R33E  
Lea County, NM**

**STATEMENT ACCEPTING RESPONSIBILITY FOR OPERATIONS**

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

Date: October 2, 2015

Lease #: SHL: NMNM015091 UL "M"  
Rojo E 7811 JV-P #4H

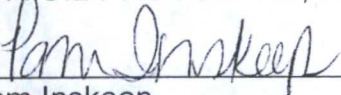
Legal Description: Sec. 34 – T25S – R33E  
Lea County, New Mexico

Formation(s): Bone Spring

Bond Coverage: Statewide

BLM Bond File #: NM1195 & NMB000849

BTA OIL PRODUCERS, LLC

  
\_\_\_\_\_  
Pam Inskeep  
Regulatory Administrator



**8. Other facets of operation**

Is this a walking operation? NO If yes, describe.

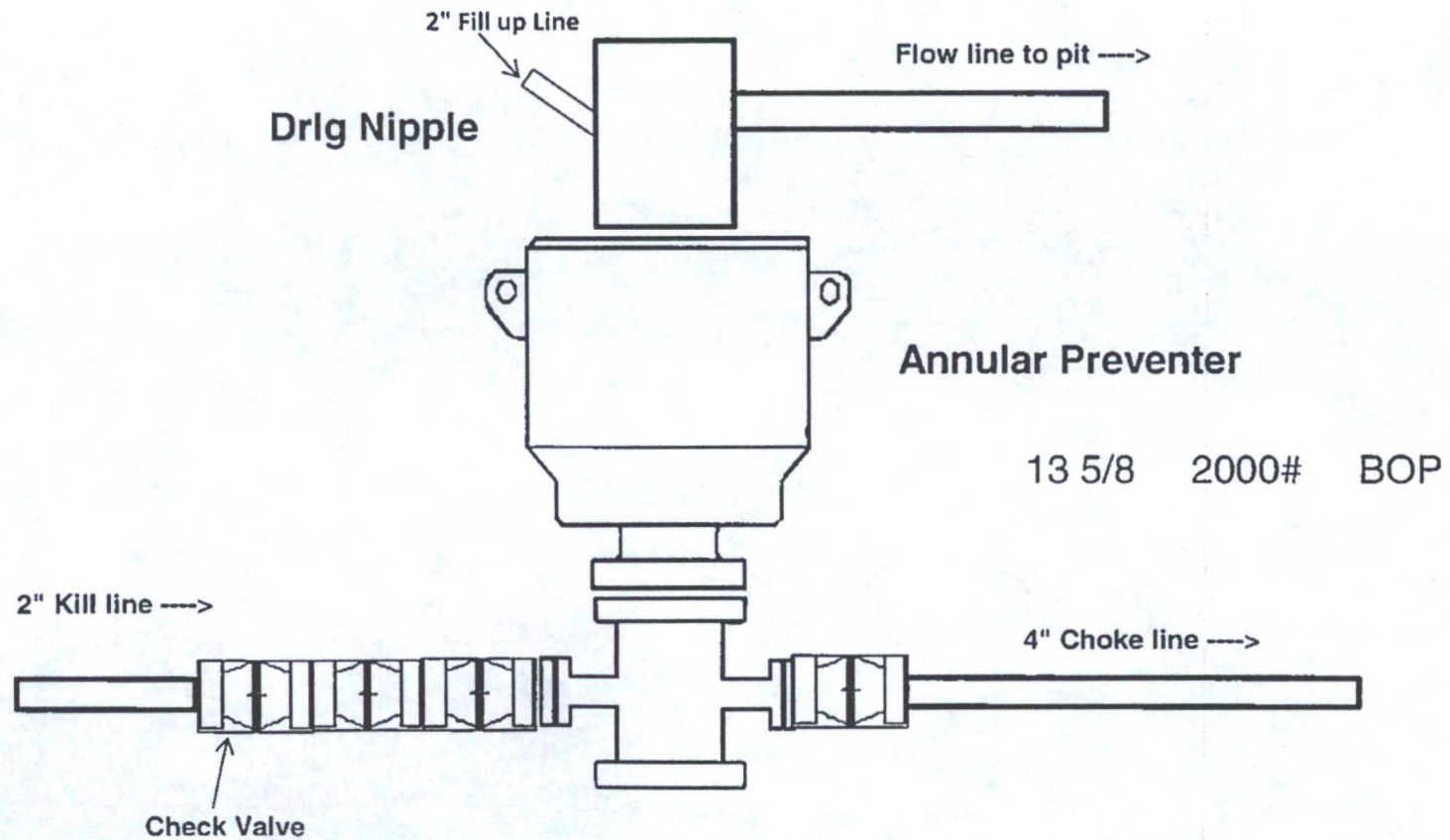
Will be pre-setting casing? NO If yes, describe.

Attachments

- BOP & Choke Schematics
- Directional plan
- C102 and supporting maps
- Rig plat
- H2S schematic
- H2S contingency plan
- Interim reclamation plat
- Flex Hose Variance

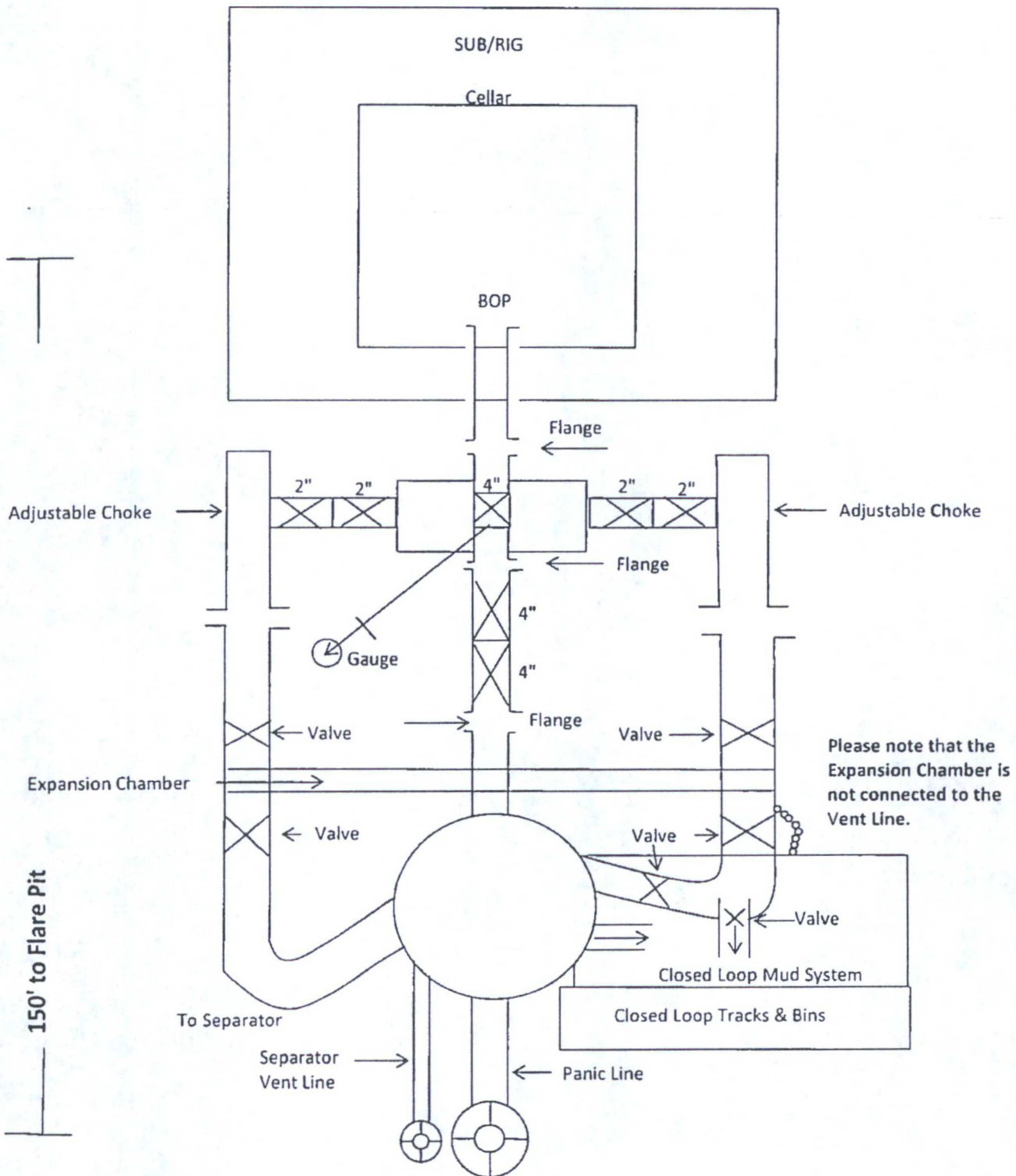


## 2,000 psi BOP Schematic



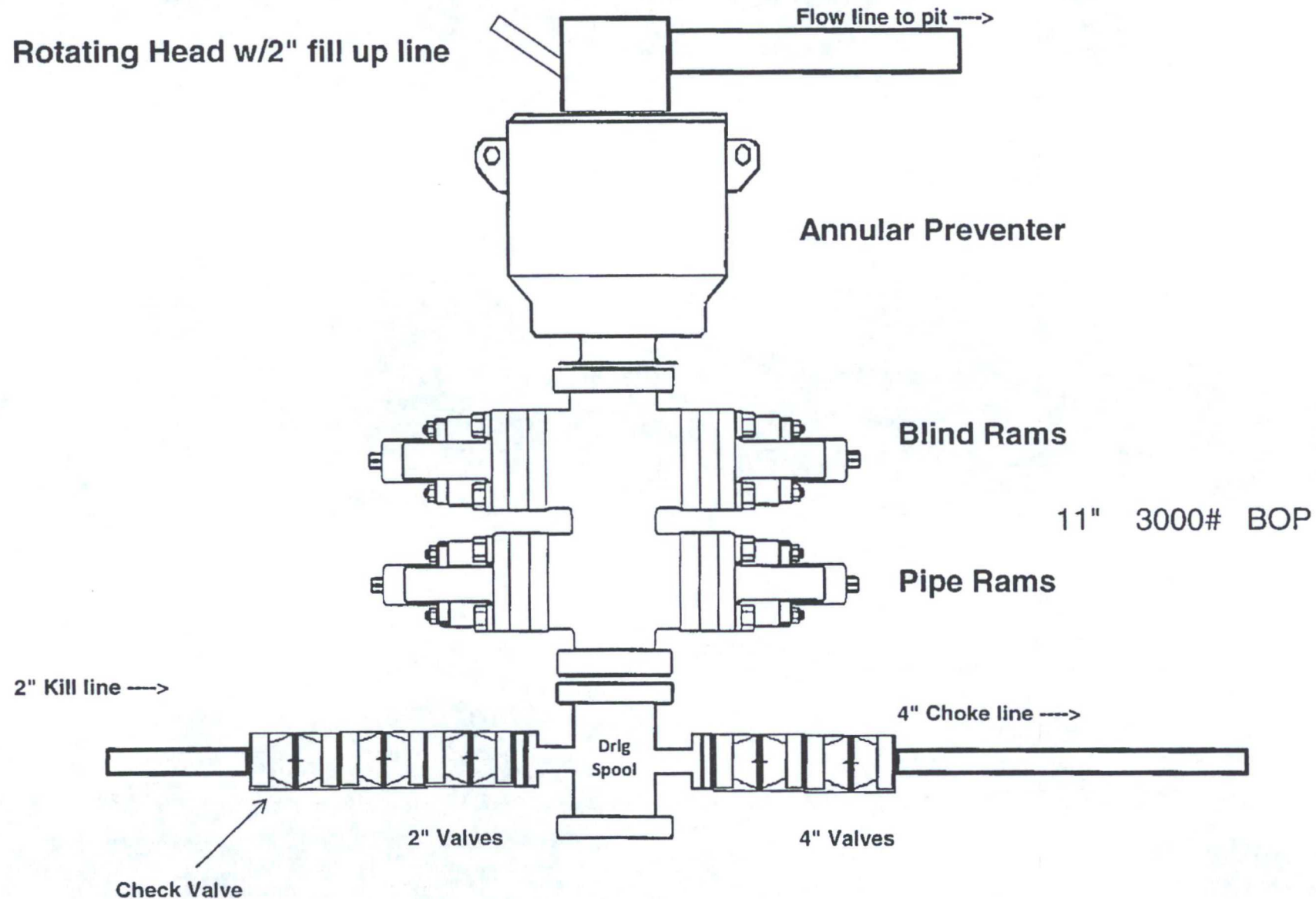


## 2M Choke Manifold Equipment



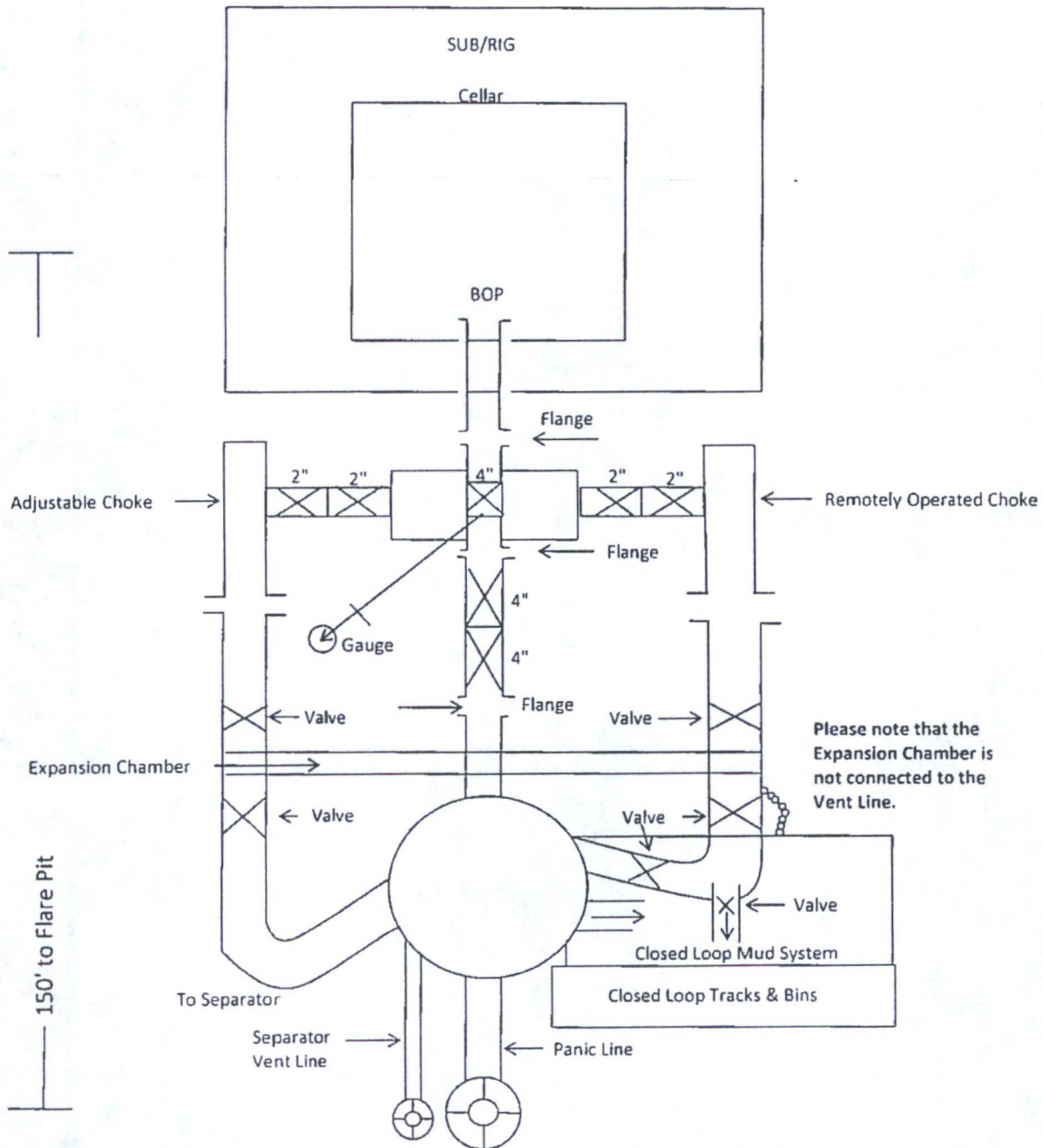


# 3,000 psi BOP Schematic





# 3M Choke Manifold Equipment

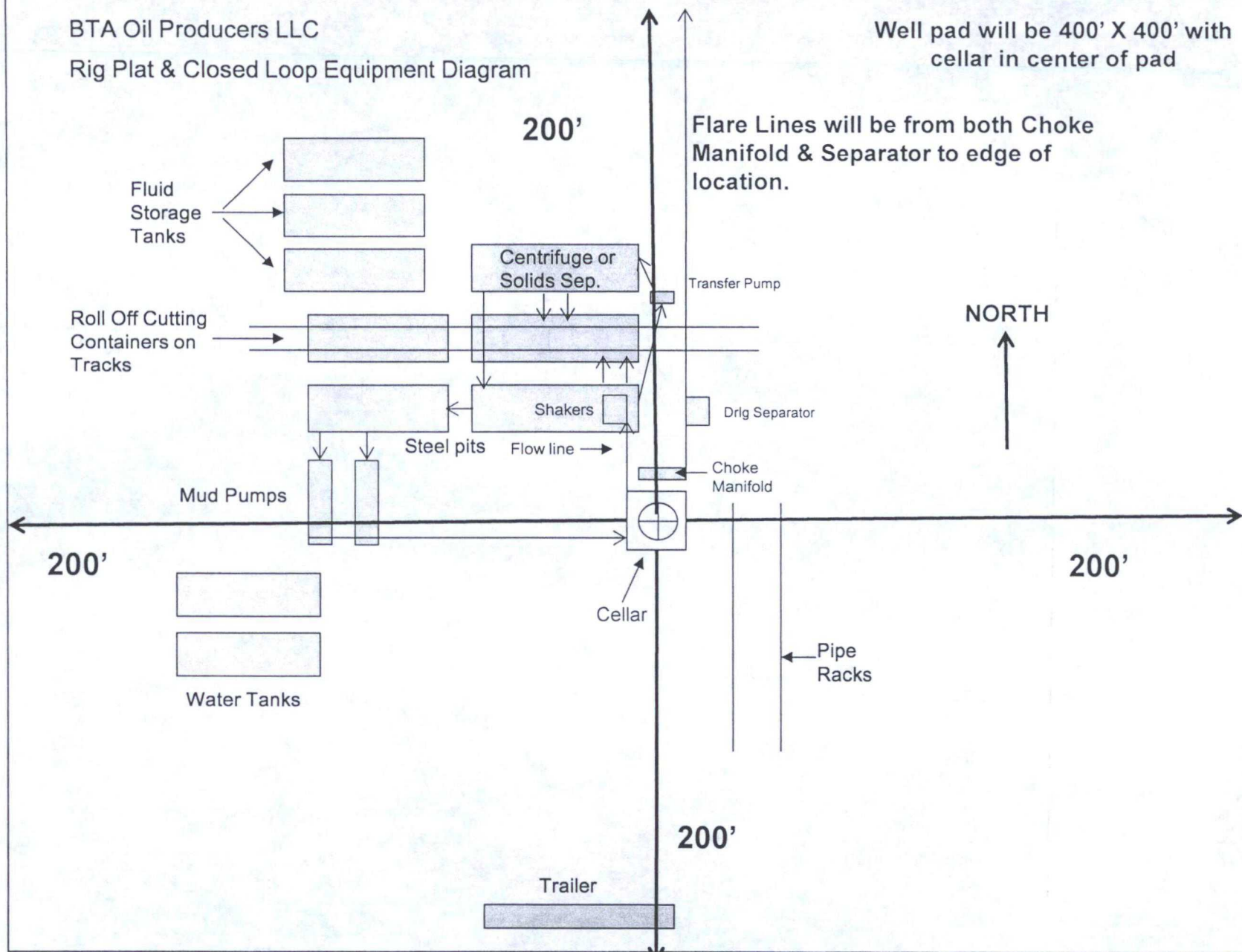




BTA Oil Producers LLC

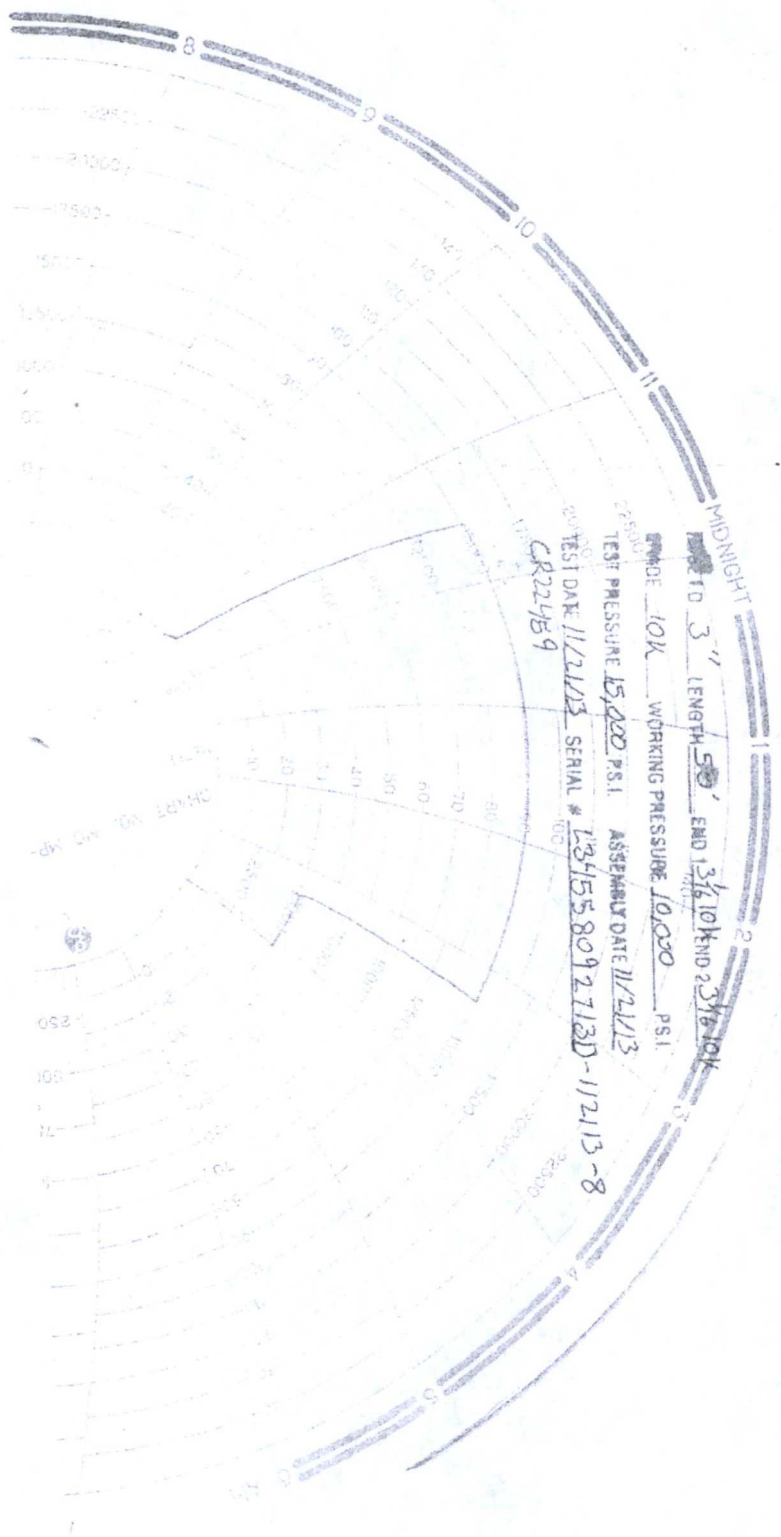
# Rig Plat & Closed Loop Equipment Diagram

Well pad will be 400' X 400' with  
cellar in center of pad



"I further certify that COG will comply with Rule 19.15.17  
NMAC by using a Closed Loop System."





TO 3" LENGTH 50' END 1 3/16 10 KEND 2 3/16 10K  
GRADE 10K WORKING PRESSURE 10,000 PSI  
TEST PRESSURE 15,000 PSI ASSEMBLY DATE 11/21/13  
TEST DATE 11/21/13 SERIAL # 134558092713D-11/21/13-8  
CR2459

CHART NO. 40 MP.



GATES E & S NORTH AMERICA, INC  
DU-TEX  
134 44TH STREET  
CORPUS CHRISTI, TEXAS 78405

PHONE: 361-887-9807  
FAX: 361-887-0812  
EMAIL: crpe&s@gates.com  
WEB: www.gates.com

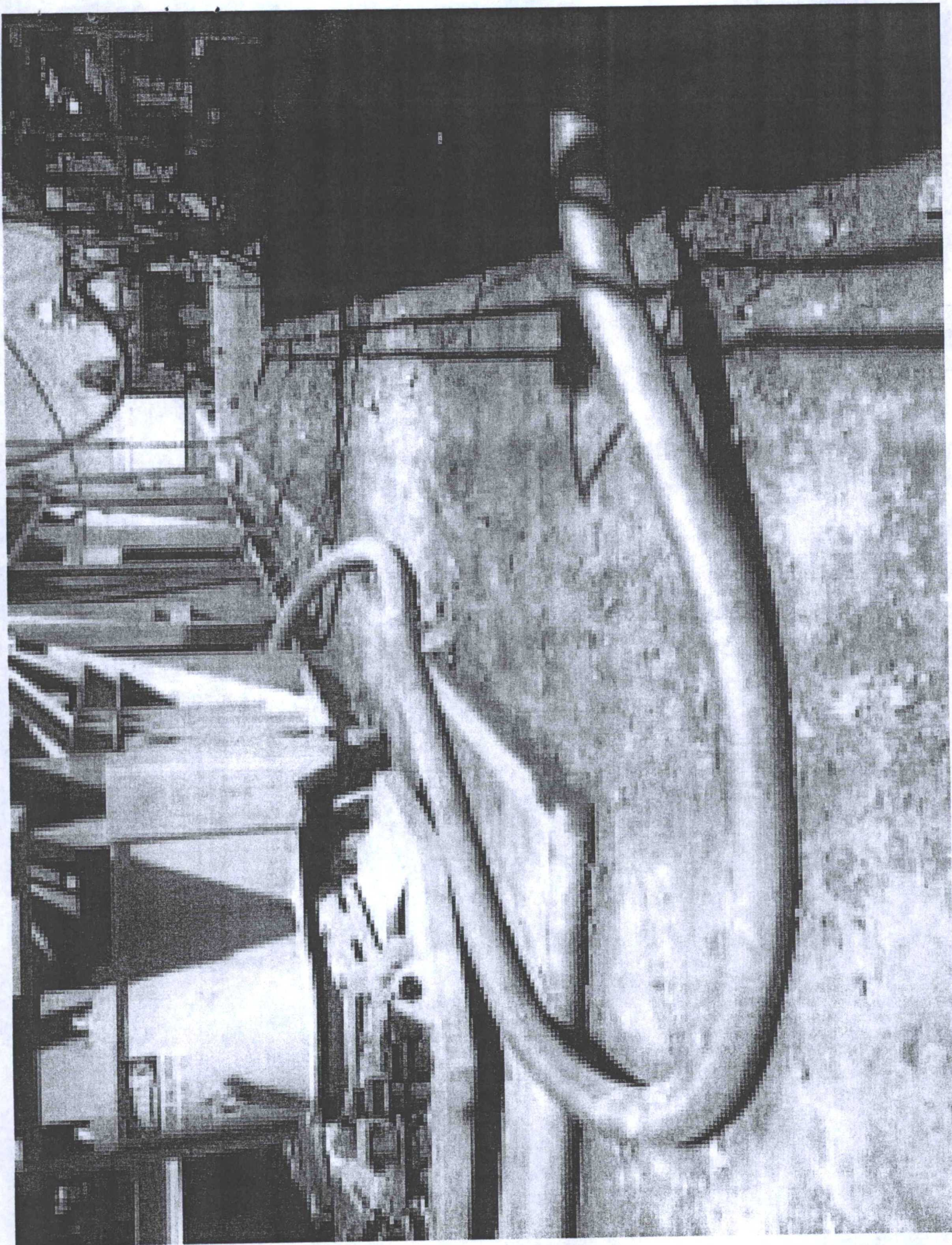
# 10K CHOKE & KILL ASSEMBLY PRESSURE TEST CERTIFICATE

Customer :	SPECIALTY SALES, INC.	Test Date:	11/21/2013
Customer Ref. :	49680-S	Hose Serial No.:	D-112113-8
Invoice No. :	197465	Created By:	Norma M.
Product Description:	10K3.050.0CK31/1610KFLGE/E		
End Fitting 1 :	3 1/16 10K FLG	End Fitting 2 :	3 1/16 10K FLG
Gates Part No. :	47773-4290	Assembly Code :	L34558092713D-112113-8
Working Pressure :	10,000 PSI	Test Pressure :	15,000 PSI

Gates E & S North America, Inc. certifies that the following hose assembly has been tested to the Gates Oilfield Roughneck Agreement/Specification requirements and passed the 15 minute hydrostatic test per API Spec 7K/Q1, Fifth Edition, June 2010, Test pressure 9.6.7 and per Table 9 to 15,000 psi in accordance with this product number. Hose burst pressure 9.6.7.2 exceeds the minimum of 2.5 times the working pressure per Table 9.

Quality Manager :	QUALITY	Technical Supervisor :	PRODUCTION
Date :	11/22/2013	Date :	11/22/2013
Signature :		Signature :	















---

*New Mexico Office of the State Engineer*  
**Water Column/Average Depth to Water**

---

No records found.

**PLSS Search:**

Section(s): 34

Township: 25S

Range: 33E

---

The data is furnished by the NMOSE/ISC and is accepted by the recipient with the expressed understanding that the OSE/ISC make no warranties, expressed or implied, concerning the accuracy, completeness, reliability, usability, or suitability for any particular purpose of the data.

---

9/18/15 8:59 AM

Page 1 of 1

WATER COLUMN/ AVERAGE  
DEPTH TO WATER





# New Mexico Office of the State Engineer Water Column/Average Depth to Water

(A CLW##### in the  
POD suffix indicates the  
POD has been replaced  
& no longer serves a  
water right file.)

(R=POD has  
been replaced,  
O=orphaned,

C=the file is (quarters are 1=NW 2=NE 3=SW 4=SE)

closed) (quarters are smallest to largest) (NAD83 UTM in meters) (In feet)

POD Number	POD		Q Q Q				Sec	Tws	Rng	X	Y	Depth Well	Depth Water	Water Column
	Sub-	Code basin	64	16	4	4								
C 02312		LE	1	2	1	05	25S	33E		632241	3559687*	150	90	60
C 02313		LE	2	3	3	26	25S	33E		636971	3552098*	150	110	40
C 02373 CLW317846	O	LE	2	1	1	13	25S	33E		638518	3556544*	625	185	440
C 02373 S		LE	1	2	1	13	25S	33E		638721	3556549*	625	185	440

Average Depth to Water: 142 feet

Minimum Depth: 90 feet

Maximum Depth: 185 feet

Record Count: 4

PLSS Search:

Township: 25S

Range: 33E

\*UTM location was derived from PLSS - see Help

The data is furnished by the NMOSE/ISC and is accepted by the recipient with the expressed understanding that the OSE/ISC make no warranties, expressed or implied, concerning the accuracy, completeness, reliability, usability, or suitability for any particular purpose of the data.

## EMERGENCY CALL LIST

	<u>OFFICE</u>	<u>MOBILE</u>
BTA Oil Producers LLC OFFICE	432-682-3753	
BEN GRIMES, Operations	432-682-3753	432-559-4309
NICK EATON, Drilling	432-682-3753	432-260-7841
CONCHO RESOURCES OFFICE	575-748-6940	
SHERYL BAKER	575-748-6940	432-934-1873
SETH WILD	432-683-7443	432-528-3633
WALTER ROYE	575-748-6940	432-934-1886

## EMERGENCY RESPONSE NUMBERS

	<u>OFFICE</u>
STATE POLICE	575-748-9718
EDDY COUNTY SHERIFF	575-746-2701
EMERGENCY MEDICAL SERVICES (AMBULANCE)	911 or 575-746-2701
EDDY COUNTY EMERGENCY MANAGEMENT (HARRY BURGESS)	575-887-9511
STATE EMERGENCY RESPONSE CENTER (SERC)	575-476-9620
CARLSBAD POLICE DEPARTMENT	575-885-2111
CARLSBAD FIRE DEPARTMENT	575-885-3125
NEW MEXICO OIL CONSERVATION DIVISION	575-748-1283
INDIAN FIRE & SAFETY	800-530-8693
HALLIBURTON SERVICES	800-844-8451