

Form 3160-3
(June 2015)

FORM APPROVED
OMB No. 1004-0137
Expires: January 31, 2018

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

1a. Type of work: <input type="checkbox"/> DRILL <input type="checkbox"/> REENTER		5. Lease Serial No.
1b. Type of Well: <input type="checkbox"/> Oil Well <input type="checkbox"/> Gas Well <input type="checkbox"/> Other		6. If Indian, Allottee or Tribe Name
1c. Type of Completion: <input type="checkbox"/> Hydraulic Fracturing <input type="checkbox"/> Single Zone <input type="checkbox"/> Multiple Zone		7. If Unit or CA Agreement, Name and No.
2. Name of Operator [372165]		8. Lease Name and Well No. [330440]
3a. Address	3b. Phone No. (include area code)	9. API Well No. 30-025-48616
4. Location of Well (Report location clearly and in accordance with any State requirements. *) At surface At proposed prod. zone		10. Field and Pool, or Exploratory [5695]
14. Distance in miles and direction from nearest town or post office*		11. Sec., T. R. M. or Blk. and Survey or Area
15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any)		12. County or Parish
16. No of acres in lease		13. State
17. Spacing Unit dedicated to this well		
18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft.		20. BLM/BIA Bond No. in file
21. Elevations (Show whether DF, KDB, RT, GL, etc.)	22. Approximate date work will start*	23. Estimated duration
24. Attachments		

The following, completed in accordance with the requirements of Onshore Oil and Gas Order No. 1, and the Hydraulic Fracturing rule per 43 CFR 3162.3-3 (as applicable)

- | | |
|--|---|
| 1. Well plat certified by a registered surveyor. | 4. Bond to cover the operations unless covered by an existing bond on file (see Item 20 above). |
| 2. A Drilling Plan. | 5. Operator certification. |
| 3. A Surface Use Plan (if the location is on National Forest System Lands, the SUPO must be filed with the appropriate Forest Service Office). | 6. Such other site specific information and/or plans as may be requested by the BLM. |

25. Signature	Name (Printed/Typed)	Date
Title		
Approved by (Signature)	Name (Printed/Typed)	Date
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.

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.

GCP Rec 04/07/2021

KZ
04/09/2021



REQUIRES NSL

NSL
(Continued on page 2)

*(Instructions on page 2)

PECOS DISTRICT DRILLING CONDITIONS OF APPROVAL

OPERATOR'S NAME:	CENTENNIAL RESOURCE PRODUCTION, LLC
LEASE NO.:	NMNM131588
WELL NAME & NO.:	GOUDA FED COM 604H
SURFACE HOLE FOOTAGE:	757'/S & 1245'/E
BOTTOM HOLE FOOTAGE:	100'/N & 1484'/E
LOCATION:	Section 5, T.22 S., R.32 E., NMPM
COUNTY:	LEA County, New Mexico

COA

H2S	<input type="radio"/> Yes	<input checked="" type="radio"/> No	
Potash	<input type="radio"/> None	<input checked="" type="radio"/> Secretary	<input type="radio"/> R-111-P
Cave/Karst Potential	<input checked="" type="radio"/> Low	<input type="radio"/> Medium	<input type="radio"/> High
Cave/Karst Potential	<input type="radio"/> Critical		
Variance	<input type="radio"/> None	<input checked="" type="radio"/> Flex Hose	<input type="radio"/> Other
Wellhead	<input type="radio"/> Conventional	<input checked="" type="radio"/> Multibowl	<input type="radio"/> Both
Other	<input type="checkbox"/> 4 String Area	<input type="checkbox"/> Capitan Reef	<input type="checkbox"/> WIPP
Other	<input checked="" type="checkbox"/> Fluid Filled	<input type="checkbox"/> Cement Squeeze	<input type="checkbox"/> Pilot Hole
Special Requirements	<input type="checkbox"/> Water Disposal	<input checked="" type="checkbox"/> COM	<input type="checkbox"/> Unit

A. HYDROGEN SULFIDE

Hydrogen Sulfide (H2S) monitors shall be installed prior to drilling out the surface shoe. If H2S is detected in concentrations greater than 100 ppm, the Hydrogen Sulfide area shall meet Onshore Order 6 requirements, which includes equipment and personnel/public protection items. If Hydrogen Sulfide is encountered, provide measured values and formations to the BLM.

B. CASING

1. The **13-3/8** inch surface casing shall be set at approximately **750** feet (a minimum of **25 feet (Lea County)** into the Rustler Anhydrite and above the salt) and cemented to the surface.
 - 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 surface log readout will be used or a cement bond log shall be run to verify the top of the cement. Temperature survey will be run a minimum of six hours after pumping cement and ideally between 8-10 hours after completing the cement job.
 - b. Wait on cement (WOC) time for a primary cement job will be a minimum of

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 cementing will be done prior to drilling out that string.

Intermediate casing must be kept fluid filled to meet BLM minimum collapse requirement.

2. The minimum required fill of cement behind the **9-5/8** inch intermediate casing, which shall be set at **4700** ft is:
 - Cement to surface. If cement does not circulate, contact the appropriate BLM office.
Wait on cement (WOC) time for a primary cement job is to include the lead cement slurry due to cave/karst or potash.
 - ❖ In Secretary Potash Areas if cement does not circulate to surface on the first two casing strings, the cement on the 3rd casing string must come to surface.
3. The minimum required fill of cement behind the **5-1/2** inch production casing is:
 - Cement should tie-back at least **500 feet** into previous casing string. Operator shall provide method of verification.

C. PRESSURE CONTROL

1. Variance approved to use flex line from BOP to choke manifold. Manufacturer's specification to be readily available. No external damage to flex line. Flex line to be installed as straight as possible (no hard bends).'
2. Operator has proposed a multi-bowl wellhead assembly. This assembly will only be tested when installed on the surface casing. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the surface casing shoe shall be **5000 (5M)** psi.
 - a. Wellhead shall be installed by manufacturer's representatives, submit documentation with subsequent sundry.
 - b. If the welding is performed by a third party, the manufacturer's representative shall monitor the temperature to verify that it does not exceed the maximum temperature of the seal.
 - c. Manufacturer representative shall install the test plug for the initial BOP test.
 - d. If the cement does not circulate and one inch operations would have been possible with a standard wellhead, the well head shall be cut off, cementing operations performed and another wellhead installed.

- e. Whenever any seal subject to test pressure is broken, all the tests in OOGO2.III.A.2.i must be followed.

D. SPECIAL REQUIREMENT (S)

Communitization Agreement

- The operator will submit a Communitization Agreement to the Santa Fe Office, 301 Dinosaur Trail Santa Fe, New Mexico 87508, at least 90 days before the anticipated date of first production from a well subject to a spacing order issued by the New Mexico Oil Conservation Division. The Communitization Agreement will include the signatures of all working interest owners in all Federal and Indian leases subject to the Communitization Agreement (i.e., operating rights owners and lessees of record), or certification that the operator has obtained the written signatures of all such owners and will make those signatures available to the BLM immediately upon request.
- If the operator does not comply with this condition of approval, the BLM may take enforcement actions that include, but are not limited to, those specified in 43 CFR 3163.1.
- In addition, the well sign shall include the surface and bottom hole lease numbers. When the Communitization Agreement number is known, it shall also be on the sign.

JJP11042020

GENERAL REQUIREMENTS

The BLM is to be notified in advance for a representative to witness:

- a. Spudding well (minimum of 24 hours)
- b. Setting and/or Cementing of all casing strings (minimum of 4 hours)
- c. BOPE tests (minimum of 4 hours)

Eddy County

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

Lea County

Call the Hobbs Field Station, 414 West Taylor, Hobbs NM 88240, (575)
393-3612

1. 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.
 - a. In the event the operator has proposed to drill multiple wells utilizing a skid/walking rig. Operator shall secure the wellbore on the current well, after

- installing and testing the wellhead, by installing a blind flange of like pressure rating to the wellhead and a pressure gauge that can be monitored while drilling is performed on the other well(s).
- b. When the operator proposes to set surface casing with Spudder Rig
 - Notify the BLM when moving in and removing the Spudder Rig.
 - Notify the BLM when moving in the 2nd Rig. Rig to be moved in within 90 days of notification that Spudder Rig has left the location.
 - BOP/BOPE test to be conducted per Onshore Oil and Gas Order No. 2 as soon as 2nd Rig is rigged up on well.
2. Floor controls are required for 3M or Greater systems. These controls will be on the rig floor, unobstructed, readily accessible to the driller and will be operational at all times during drilling and/or completion activities. Rig floor is defined as the area immediately around the rotary table; the area immediately above the substructure on which the draw works are located, this does not include the dog house or stairway area.
 3. The record of the drilling rate along with the GR/N well log run from TD to surface (horizontal well – vertical portion of hole) shall be submitted to the BLM office as well as all other logs run on the borehole 30 days from completion. If available, a digital copy of the logs is to be submitted in addition to the paper copies. The Rustler top and top and bottom of Salt are to be recorded on the Completion Report.

A. CASING

1. Changes to the approved APD casing program need prior approval if the items substituted are of lesser grade or different casing size or are Non-API. The Operator can exchange the components of the proposal with that of superior strength (i.e. changing from J-55 to N-80, or from 36# to 40#). Changes to the approved cement program need prior approval if the altered cement plan has less volume or strength or if the changes are substantial (i.e. Multistage tool, ECP, etc.). The initial wellhead installed on the well will remain on the well with spools used as needed.
2. Wait on cement (WOC) for Potash Areas: After cementing but before commencing any tests, the casing string shall stand cemented under pressure until both of the following conditions have been met: 1) cement reaches a minimum compressive strength of 500 psi for all cement blends, 2) until cement has been in place at least 24 hours. WOC time will be recorded in the driller's log. The casing integrity test can be done (prior to the cement setting up) immediately after bumping the plug.
3. Wait on cement (WOC) for Water Basin: After cementing but before commencing any tests, the casing string shall stand cemented under pressure until both of the following conditions have been met: 1) cement reaches a minimum compressive strength of 500 psi at the shoe, 2) until cement has been in place at least 8 hours. WOC time will be recorded in the driller's log. See individual casing strings for

details regarding lead cement slurry requirements. The casing integrity test can be done (prior to the cement setting up) immediately after bumping the plug.

4. Provide compressive strengths including hours to reach required 500 pounds compressive strength prior to cementing each casing string. Have well specific cement details onsite prior to pumping the cement for each casing string.
5. No pea gravel permitted for remedial or fall back remedial without prior authorization from the BLM engineer.
6. 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. Formation at the shoe shall be tested to a minimum of the mud weight equivalent anticipated to control the formation pressure to the next casing depth or at total depth of the well. This test shall be performed before drilling more than 20 feet of new hole.
7. 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.
8. Whenever a casing string is cemented in the R-111-P potash area, the NMOCD requirements shall be followed.

B. 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. If a variance is approved for a flexible hose to be installed from the BOP to the choke manifold, the following requirements apply: The flex line must meet the requirements of API 16C. Check condition of flexible line from BOP to choke manifold, replace if exterior is damaged or if line fails test. Line to be as straight as possible with no hard bends and is to be anchored according to Manufacturer's requirements. The flexible hose can be exchanged with a hose of equal size and equal or greater pressure rating. Anchor requirements, specification sheet and hydrostatic pressure test certification matching the hose in service, to be onsite for review. These documents shall be posted in the company man's trailer and on the rig floor.
3. 5M or higher system requires an HCR valve, remote kill line and annular to match. The remote kill line is to be installed prior to testing the system and tested to stack pressure.
4. If the operator has proposed a multi-bowl wellhead assembly in the APD. The following requirements must be met:

- a. Wellhead shall be installed by manufacturer's representatives, submit documentation with subsequent sundry.
 - b. If the welding is performed by a third party, the manufacturer's representative shall monitor the temperature to verify that it does not exceed the maximum temperature of the seal.
 - c. Manufacturer representative shall install the test plug for the initial BOP test.
 - d. Whenever any seal subject to test pressure is broken, all the tests in OOGO2.III.A.2.i must be followed.
 - e. If the cement does not circulate and one inch operations would have been possible with a standard wellhead, the well head shall be cut off, cementing operations performed and another wellhead installed.
5. The appropriate BLM office shall be notified a minimum of 4 hours in advance for a representative to witness the tests.
- a. In a water basin, for all casing strings utilizing slips, these are to be set as soon as the crew and rig are ready and any fallback cement remediation has been done. The casing cut-off and BOP installation can be initiated four hours after installing the slips, which will be approximately six hours after bumping the plug. For those casing strings not using slips, the minimum wait time before cut-off is eight hours after bumping the plug. BOP/BOPE testing can begin after cut-off or once cement reaches 500 psi compressive strength (including lead when specified), whichever is greater. However, if the float does not hold, cut-off cannot be initiated until cement reaches 500 psi compressive strength (including lead when specified).
 - b. In potash areas, for all casing strings utilizing slips, these are to be set as soon as the crew and rig are ready and any fallback cement remediation has been done. For all casing strings, casing cut-off and BOP installation can be initiated at twelve hours after bumping the plug. However, **no tests** shall commence until the cement has had a minimum of 24 hours setup time, except the casing pressure test can be initiated immediately after bumping the plug (only applies to single stage cement jobs).
 - c. The tests shall be done by an independent service company utilizing a test plug not a cup or J-packer. The operator also has the option of utilizing an independent tester to test without a plug (i.e. against the casing) pursuant to Onshore Order 2 with the pressure not to exceed 70% of the burst rating for the casing. Any test against the casing must meet the WOC time for water basin (8 hours) or potash (24 hours) or 500 pounds compressive strength, whichever is greater, prior to initiating the test (see casing segment as lead cement may be critical item).
 - d. The test shall be run on a 5000 psi chart for a 2-3M BOP/BOP, on a 10000 psi chart for a 5M BOP/BOPE and on a 15000 psi chart for a 10M BOP/BOPE.

If a linear chart is used, it shall be a one hour chart. A circular chart shall have a maximum 2 hour clock. If a twelve hour or twenty-four hour chart is used, tester shall make a notation that it is run with a two hour clock.

- e. The results of the test shall be reported to the appropriate BLM office.
- f. 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.
- g. 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. This test shall be performed prior to the test at full stack pressure.
- h. BOP/BOPE must be tested by an independent service company within 500 feet of the top of the Wolfcamp formation if the time between the setting of the intermediate casing and reaching this depth exceeds 20 days. This test does not exclude the test prior to drilling out the casing shoe as per Onshore Order No. 2.

C. DRILLING MUD

Mud system monitoring equipment, with derrick floor indicators and visual and audio alarms, shall be operating before drilling into the Wolfcamp formation, and shall be used until production casing is run and cemented.

D. WASTE MATERIAL AND FLUIDS

All waste (i.e. drilling fluids, trash, salts, chemicals, sewage, gray water, etc.) created as a result of drilling operations and completion operations shall be safely contained and disposed of properly at a waste disposal facility. No waste material or fluid shall be disposed of on the well location or surrounding area.

Porto-johns and trash containers will be on-location during fracturing operations or any other crew-intensive operations.



Operator Certification Data Report

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

04/07/2021

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: Michelle Gonzales-Nguyen

Signed on: 06/08/2020

Title: Regulatory Analyst

Street Address: 1001 17th Street, Suite 1800

City: Denver

State: CO

Zip: 80202

Phone: (720)499-1565

Email address: Michelle.Gonzales@cdevinc.com

Field Representative

Representative Name:

Street Address:

City:

State:

Zip:

Phone:

Email address:



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

Application Data Report

04/07/2021

APD ID: 10400055666

Submission Date: 06/08/2020

Highlighted data
reflects the most
recent changes

Operator Name: CENTENNIAL RESOURCE PRODUCTION LLC

Well Name: GOUDA FEDERAL COM

Well Number: 604H

[Show Final Text](#)

Well Type: OIL WELL

Well Work Type: Drill

Section 1 - General

APD ID: 10400055666

Tie to previous NOS? N

Submission Date: 06/08/2020

BLM Office: CARLSBAD

User: Michelle Gonzales-Nguyen

Title: Regulatory Analyst

Federal/Indian APD: FED

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

Lease number: NMNM131588

Lease Acres:

Surface access agreement in place?

Allotted?

Reservation:

Agreement in place? NO

Federal or Indian agreement:

Agreement number:

Agreement name:

Keep application confidential? Y

Permitting Agent? NO

APD Operator: CENTENNIAL RESOURCE PRODUCTION LLC

Operator letter of designation:

Operator Info

Operator Organization Name: CENTENNIAL RESOURCE PRODUCTION LLC

Operator Address: 1001 17th Street, Suite 1800

Zip: 80202

Operator PO Box:

Operator City: Denver

State: CO

Operator Phone: (720)499-1400

Operator Internet Address:

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: GOUDA FEDERAL COM

Well Number: 604H

Well API Number:

Field/Pool or Exploratory? Field and Pool

Field Name: Sanders Tank

Pool Name: BILBREY BASIN,
BONE SPRING

Is the proposed well in an area containing other mineral resources? NATURAL GAS,OIL

Operator Name: CENTENNIAL RESOURCE PRODUCTION LLC

Well Name: GOUDA FEDERAL COM

Well Number: 604H

Is the proposed well in an area containing other mineral resources? NATURAL GAS,OIL

Is the proposed well in a Helium production area? N **Use Existing Well Pad?** N **New surface disturbance?**

Type of Well Pad: MULTIPLE WELL

Multiple Well Pad Name: Gouda **Number:** 1

Well Class: HORIZONTAL

32 SESE

Number of Legs: 1

Well Work Type: Drill

Well Type: OIL WELL

Describe Well Type:

Well sub-Type: INFILL

Describe sub-type:

Distance to town: 44 Miles

Distance to nearest well: 30 FT

Distance to lease line: 757 FT

Reservoir well spacing assigned acres Measurement: 320 Acres

Well plat: Gouda_Fed_Com_604H_Revised_C102_20200608115145.pdf

Gouda_Fed_Com_604H_Revised_Lease_C102_20200608135327.pdf

Well work start Date: 03/15/2021

Duration: 25 DAYS

Section 3 - Well Location Table

Survey Type: RECTANGULAR

Describe Survey Type:

Datum: NAD83

Vertical Datum: NAVD88

Survey number: 23782

Reference Datum: GROUND LEVEL

Wellbore	NS-Foot	NS Indicator	EW-Foot	EW Indicator	Twsp	Range	Section	Aliquot/Lot/Tract	Latitude	Longitude	County	State	Meridian	Lease Type	Lease Number	Elevation	MD	TVD	Will this well produce from this lease?
SHL Leg #1	757	FSL	124 5	FEL	22S	32E	5	Aliquot SWSE	32.41548 7	- 103.6922 99	LEA	NEW MEXI CO	NEW MEXI CO	F	FEE	369 5	0	0	Y
KOP Leg #1	100	FSL	148 4	FEL	22S	32E	5	Aliquot SESE	32.41367 9	- 103.6922 99	LEA	NEW MEXI CO	NEW MEXI CO	F	FEE	- 741 0	111 57	111 05	Y

Operator Name: CENTENNIAL RESOURCE PRODUCTION LLC

Well Name: GOUDA FEDERAL COM

Well Number: 604H

Wellbore	NS-Foot	NS Indicator	EW-Foot	EW Indicator	Twsp	Range	Section	Aliquot/Lot/Tract	Latitude	Longitude	County	State	Meridian	Lease Type	Lease Number	Elevation	MD	TVD	Will this well produce from this lease?
PPP Leg #1-1	100	FSL	1484	FEL	22S	32E	5	Aliquot SWSE	32.413679	-103.69307	LEA	NEW MEXICO	NEW MEXICO	F	FEE	-8005	12091	11700	Y
PPP Leg #1-2	2528	FNL	1483	FEL	22S	32E	5	Aliquot SWNE	32.420666	-103.693078	LEA	NEW MEXICO	NEW MEXICO	F	NMNM 131588	-8005	12091	11700	Y
EXIT Leg #1	100	FNL	1484	FEL	21S	32E	32	Aliquot NWNE	32.442135	-103.6931	LEA	NEW MEXICO	NEW MEXICO	S	STATE	-8005	21852	11700	Y
BHL Leg #1	100	FNL	1484	FEL	21S	32E	32	Aliquot NWNE	32.442135	-103.6931	LEA	NEW MEXICO	NEW MEXICO	S	STATE	-8005	21852	11700	Y

District I
1625 N. French Dr., Hobbs, NM 88240
Phone: (575) 393-6161 Fax: (575) 393-0720
District II
811 S. First St., Artesia, NM 88210
Phone: (575) 748-1283 Fax: (575) 748-9720
District III
1000 Rio Brazos Road, Aztec, NM 87410
Phone: (505) 334-6178 Fax: (505) 334-6170
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505
Phone: (505) 476-3460 Fax: (505) 476-3462

State of New Mexico
Energy, Minerals & Natural Resources Department
OIL CONSERVATION DIVISION
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-102
Revised August 1, 2011
Submit one copy to appropriate
District Office

AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

¹ API Number 30-025-48616		² Pool Code 5695		³ Pool Name Bilbrey Basin; Bone Spring	
⁴ Property Code 330440		⁵ Property Name GOUDA FEDERAL COM			⁶ Well Number 604H
⁷ OGRID No. 372165		⁸ Operator Name CENTENNIAL RESOURCE PRODUCTION, LLC			⁹ Elevation 3694.8'

¹⁰ Surface Location

UL or lot no. P	Section 5	Township 22S	Range 32E	Lot Idn	Feet from the 757	North/South line SOUTH	Feet from the 1245	East/West line EAST	County LEA
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¹¹ Bottom Hole Location If Different From Surface

UL or lot no. B	Section 32	Township 21S	Range 32E	Lot Idn	Feet from the 100	North/South line NORTH	Feet from the 1484	East/West line EAST	County LEA
¹² Dedicated Acres 319.67		¹³ Joint or Infill		¹⁴ Consolidation Code		¹⁵ Order 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.

¹⁶

NAD 83 (SHL/PP)
LATITUDE = 32°24'55.75" (32.415487°)
LONGITUDE = 103°41'32.28" (103.692299°)
STATE PLANE NAD 83 (N.M. EAST)
Y: 515478.71' X: 739151.06'
UTM, NAD 83 (ZONE 13)
Y: 11769146.84' X: 2043840.09'

NAD 83 (FIRST TAKE POINT)
LATITUDE = 32°24'49.24" (32.413679°)
LONGITUDE = 103°41'35.05" (103.693070°)
STATE PLANE NAD 83 (N.M. EAST)
Y: 514819.28' X: 738916.82'
UTM, NAD 83 (ZONE 13)
Y: 11768486.08' X: 2043610.01'

NAD 83 (FPP)
LATITUDE = 32°25'14.40" (32.420666°)
LONGITUDE = 103°41'35.08" (103.693078°)
STATE PLANE NAD 83 (N.M. EAST)
Y: 517361.17' X: 738899.32'
UTM, NAD 83 (ZONE 13)
Y: 11771027.38' X: 2043576.66'

NAD 83 (LTP/BHL)
LATITUDE = 32°26'31.68" (32.442135°)
LONGITUDE = 103°41'35.16" (103.693100°)
STATE PLANE NAD 83 (N.M. EAST)
Y: 525171.56' X: 738845.56'
UTM, NAD 83 (ZONE 13)
Y: 11778835.97' X: 2043474.17'

NOTE:

- Distances referenced on plat to section lines are perpendicular.
- Basis of Bearing is a Transverse Mercator Projection with a Central Meridian of W103°53'00"

¹⁷ 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 or has a right to drill this well at this location pursuant to a contract with an owner of such a mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.

K. Schlichting 6/8/2020
Signature Date

Kanicia Schlichting
Printed Name

kanicia.schlichting@cdevinc.com
E-mail Address

¹⁸ 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 supervision, and that the same is true and correct to the best of my belief.

June 13, 2019
Date of Survey

Signature and Seal of Professional Surveyor:

Certificate Number:

LINE TABLE

LINE	DIRECTION	LENGTH
L1	S19°47'51"W	699.92'
L2	N00°09'11"W	2542.41'
L3	S89°37'22"W	2642.53'
L4	S89°38'36"W	2642.16'

● = SURFACE HOLE LOCATION / PENETRATION POINT
 ◆ = FIRST TAKE POINT / FEDERAL PENETRATION POINT
 ○ = LAST TAKE POINT / BOTTOM HOLE LOCATION
 ▲ = SECTION CORNER LOCATED

SCALE
DRAWN BY: S.T.O. 06-17-19
REV: 2 C.D.L. 06-03-20 (ADD FLP)

District I
1625 N. French Dr., Hobbs, NM 88240
Phone: (575) 393-6161 Fax: (575) 393-0720
District II
811 S. First St., Artesia, NM 88210
Phone: (575) 748-1283 Fax: (575) 748-9720
District III
1000 Rio Brazos Road, Aztec, NM 87410
Phone: (505) 334-6178 Fax: (505) 334-6170
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505
Phone: (505) 476-3460 Fax: (505) 476-3462

State of New Mexico
Energy, Minerals & Natural Resources Department
OIL CONSERVATION DIVISION
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-102
Revised August 1, 2011
Submit one copy to appropriate
District Office

AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

1 API Number		2 Pool Code		3 Pool Name	
4 Property Code		5 Property Name GOUDA FEDERAL COM			6 Well Number 604H
7 OGRID No.		8 Operator Name CENTENNIAL RESOURCE PRODUCTION, LLC			9 Elevation 3694.8'

10 Surface Location

UL or lot no. P	Section 5	Township 22S	Range 32E	Lot Idn	Feet from the 757	North/South line SOUTH	Feet from the 1245	East/West line EAST	County LEA
--------------------	--------------	-----------------	--------------	---------	----------------------	---------------------------	-----------------------	------------------------	---------------

11 Bottom Hole Location If Different From Surface

UL or lot no. B	Section 32	Township 21S	Range 32E	Lot Idn	Feet from the 100	North/South line NORTH	Feet from the 1484	East/West line EAST	County LEA
12 Dedicated Acres 319.67		13 Joint or Infill		14 Consolidation Code		15 Order 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.

16

NAD 83 (SHL/PP)	
LATITUDE = 32°24'55.75" (32.415487°)	
LONGITUDE = 103°41'32.28" (103.692299°)	
STATE PLANE NAD 83 (N.M. EAST)	
Y: 515478.71' X: 739151.06'	
UTM, NAD 83 (ZONE 13)	
Y: 11769146.84' X: 204384.09'	

NAD 83 (FIRST TAKE POINT)	
LATITUDE = 32°24'49.24" (32.413679°)	
LONGITUDE = 103°41'35.05" (103.693070°)	
STATE PLANE NAD 83 (N.M. EAST)	
Y: 514819.28' X: 738916.82'	
UTM, NAD 83 (ZONE 13)	
Y: 11768486.08' X: 2043610.01'	

NAD 83 (FPP)	
LATITUDE = 32°25'14.40" (32.420666°)	
LONGITUDE = 103°41'35.08" (103.693078°)	
STATE PLANE NAD 83 (N.M. EAST)	
Y: 517361.17' X: 738899.32'	
UTM, NAD 83 (ZONE 13)	
Y: 11771027.38' X: 2043576.66'	

NAD 83 (LTP/BHL)	
LATITUDE = 32°26'31.68" (32.442135°)	
LONGITUDE = 103°41'35.16" (103.693100°)	
STATE PLANE NAD 83 (N.M. EAST)	
Y: 525171.56' X: 738845.56'	
UTM, NAD 83 (ZONE 13)	
Y: 11778835.97' X: 2043474.17'	

LINE TABLE		
LINE	DIRECTION	LENGTH
L1	S19°47'51"W	699.92'
L2	N00°09'11"W	2542.41'
L3	S89°37'22"W	2642.53'
L4	S89°38'36"W	2642.16'

NOTE:

- Distance referenced on plat to section lines are perpendicular.
- Basis of bearing is a Transverse Mercator Projection with a Central Meridian of W103°53'00"

17 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 or has a right to drill this well at this location pursuant to a contract with an owner of such a mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.

Signature _____ Date _____

Printed Name _____

E-mail Address _____

18 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 supervision, and that the same is true and correct to the best of my belief.

June 13, 2019

Date of Survey _____
Signature and Seal of Professional Surveyor: _____

Certificate Number: _____

● = SURFACE HOLE LOCATION/PENETRATION POINT
 ◆ = FIRST TAKE POINT/FEDERAL PENETRATION POINT
 ○ = LAST TAKE POINT/BOTTOM HOLE LOCATION
 ▲ = SECTION CORNER LOCATED

SCALE
DRAWN BY: S.T.O. 06-17-19
REV: 2 C.D.L. 06-03-20 (ADD FLP)



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

Drilling Plan Data Report

04/07/2021

APD ID: 10400055666

Submission Date: 06/08/2020

Highlighted data
reflects the most
recent changes

Operator Name: CENTENNIAL RESOURCE PRODUCTION LLC

Well Name: GOUDA FEDERAL COM

Well Number: 604H

Show Final Text

Well Type: OIL WELL

Well Work Type: Drill

Section 1 - Geologic Formations

Formation ID	Formation Name	Elevation	True Vertical Depth	Measured Depth	Lithologies	Mineral Resources	Producing Formation
724428	RUSTLER	0	734	734	SANDSTONE	NONE	N
1108884	SALADO	-907	907	907	SALT	NONE	N
1108885	LAMAR	-4675	4675	4675	ANHYDRITE	NONE	N
724430	BELL CANYON	-4742	4742	4742	SANDSTONE	NATURAL GAS, OIL	N
724431	CHERRY CANYON	-5578	5578	5578	SANDSTONE	NATURAL GAS, OIL	N
724432	BRUSHY CANYON	-6918	6918	6918	SANDSTONE	NATURAL GAS, OIL	N
724433	BONE SPRING LIME	-8619	8619	8619	OTHER : Carbonate	NATURAL GAS, OIL	N
724434	AVALON SAND	-8811	8811	8811	SHALE	CO2, NATURAL GAS, OIL	N
724435	BONE SPRING 1ST	-9725	9725	9725	SANDSTONE	NATURAL GAS, OIL	N
724436	BONE SPRING 2ND	-9725	9725	9725	OTHER, SHALE : Carbonate (2nd Bone Bone Spring Shale)	NATURAL GAS, OIL	N
724437	BONE SPRING 3RD	-11383	11383	11383	SANDSTONE	NATURAL GAS, OIL	Y

Section 2 - Blowout Prevention

Pressure Rating (PSI): 5M

Rating Depth: 11700

Equipment: The BOP and related equipment will meet or exceed the requirements of a 5M-psi system as set forth in On Shore Order No. 2. See attached BOP Schematic. A. Casinghead: 13 5/8 5,000 psi SOW x 13 5,000 psi WP Intermediate Spool: 13 5,000 psi WP x 11 5,000 psi WP Tubinghead: 11 5,000 psi WP x 7 1/16" 15,000 psi WP B. Minimum Specified Pressure Control Equipment Annular preventer One Pipe ram, One blind ram Drilling spool, or blowout preventer with 2 side outlets. Choke side will be a 3-inch minimum diameter, kill line shall be at least 2-inch diameter 3 inch diameter choke line 2 3 inch choke line valves 2 inch kill line 2 chokes with 1 remotely controlled from rig floor (see Figure 2) 2 2 inch kill line valves and a check valve Upper kelly cock valve with handle available When the expected pressures approach working pressure of the system, 1 remote kill line tested to stack pressure (which shall run to the outer edge of the substructure and be unobstructed) Lower kelly cock valve with handle available Safety valve(s) and subs to fit all drill string connections in use Inside BOP or float sub available Pressure gauge on choke manifold All BOPE connections subjected to well pressure shall be flanged, welded, or clamped Fill-up line above the uppermost preventer. C. Auxiliary Equipment Audio and visual mud

Page 1 of 7

Operator Name: CENTENNIAL RESOURCE PRODUCTION LLC

Well Name: GOUDA FEDERAL COM

Well Number: 604H

monitoring equipment shall be placed to detect volume changes indicating loss or gain of circulating fluid volume. (OOS 1, III.C.2) Gas Buster will be used below intermediate casing setting depth. Upper and lower kelly cocks with handles, safety valve and subs to fit all drill string connections and a pressure gauge installed on choke manifold.

Requesting Variance? YES

Variance request: Centennial Resource Production, LLC hereby requests to use a flex hose on the choke manifold for this well. Please see attached multi bowl procedure.

Testing Procedure: The BOP test shall be performed before drilling out of the surface casing shoe and will occur at a minimum: a. when initially installed b. whenever any seal subject to test pressure is broken c. following related repairs d. at 30 day intervals e. checked daily as to mechanical operating conditions. The ram type preventer(s) will be tested using a test plug to 250 psi (low) and 5,000 psi (high) (casinghead WP) with a test plug upon its installation onto the 13 surface casing. If a test plug is not used, the ram type preventer(s) shall be tested to 70% of the minimum internal yield pressure of the casing. The annular type preventer(s) shall be tested to 3500 psi. Pressure will be maintained for at least 10 minutes or until provisions of the test are met, whichever is longer. A Sundry Notice (Form 3160 5), along with a copy of the BOP test report, shall be submitted to the local BLM office within 5 working days following the test. If the bleed line is connected into the buffer tank (header), all BOP equipment including the buffer tank and associated valves will be rated at the required BOP pressure. The BLM office will be provided with a minimum of four (4) hours notice of BOP testing to allow witnessing. The BOP Configuration, choke manifold layout, and accumulator system, will be in compliance with Onshore Order 2 for a 5,000 psi system. A remote accumulator will be used. Pressures, capacities, and specific placement and use of the manual and/or hydraulic controls, accumulator controls, bleed lines, etc., will be identified at the time of the BLM 'witnessed BOP test. Any remote controls will be capable of both opening and closing all preventers and shall be readily accessible

Choke Diagram Attachment:

HP_10M_Choke_Manifold_20200608121929.pdf

BOP Diagram Attachment:

HP_BOP_Schematic_CoFlex_Choke_10K_20200608121941.pdf

Section 3 - Casing

Casing ID	String Type	Hole Size	Csg Size	Condition	Standard	Tapered String	Top Set MD	Bottom Set MD	Top Set TVD	Bottom Set TVD	Top Set MSL	Bottom Set MSL	Calculated casing length MD	Grade	Weight	Joint Type	Collapse SF	Burst SF	Joint SF Type	Joint SF	Body SF Type	Body SF	
1	CONDUCTOR	26	20.0	NEW	API	N	0	120	0	120	3695	3575	120	H-40	94	OTHER - WELD							
2	SURFACE	17.5	13.375	NEW	API	N	0	750	0	750	3695	2945	750	J-55	54.5	OTHER - BTC	3.05	7.38	DRY	20.87	DRY	20.87	
3	INTERMEDIATE	12.25	9.625	NEW	API	N	0	4726	0	4700	3695	-1005	4726	J-55	40	LT&C	1.52	1.62	DRY	2.77	DRY	3.35	
4	PRODUCTION	8.75	5.5	NEW	API	N	0	11157	0	11105	3695	-7410	11157	P-110	20	OTHER - TCBC-HT	1.75	1.99	DRY	2.89	DRY	2.89	
5	PRODUCTION	8.5	5.5	NEW	API	N	11157	21851	11105	11700	-7410	-8005	10694	P-110	20	OTHER - TCBC-HT	1.66	1.89	DRY	2.74	DRY	2.74	

Operator Name: CENTENNIAL RESOURCE PRODUCTION LLC

Well Name: GOUDA FEDERAL COM

Well Number: 604H

Casing Attachments

Casing ID: 1 **String Type:** CONDUCTOR

Inspection Document:

Spec Document:

Tapered String Spec:

Casing Design Assumptions and Worksheet(s):

Casing ID: 2 **String Type:** SURFACE

Inspection Document:

Spec Document:

Tapered String Spec:

Casing Design Assumptions and Worksheet(s):

CDEV_CASING_ASSUMPTIONS_WORKSHEET_20200424150206.pdf

Casing ID: 3 **String Type:** INTERMEDIATE

Inspection Document:

Spec Document:

Tapered String Spec:

Casing Design Assumptions and Worksheet(s):

CDEV_CASING_ASSUMPTIONS_WORKSHEET_20200424151819.pdf

Operator Name: CENTENNIAL RESOURCE PRODUCTION LLC

Well Name: GOUDA FEDERAL COM

Well Number: 604H

Casing Attachments

Casing ID: 4 **String Type:** PRODUCTION

Inspection Document:

Spec Document:

Tapered String Spec:

Casing Design Assumptions and Worksheet(s):

CDEV_CASING_ASSUMPTIONS_WORKSHEET_20200424152118.pdf

Technical_Data_Sheet_HIS_TCBC_HT_5.5_20_P110RY_20200921092418.pdf

Casing ID: 5 **String Type:** PRODUCTION

Inspection Document:

Spec Document:

Tapered String Spec:

Casing Design Assumptions and Worksheet(s):

CDEV_CASING_ASSUMPTIONS_WORKSHEET_20200424152302.pdf

Technical_Data_Sheet_HIS_TCBC_HT_5.5_20_P110RY_20200921092441.pdf

Section 4 - Cement

String Type	Lead/Tail	Stage Tool Depth	Top MD	Bottom MD	Quantity(sx)	Yield	Density	Cu Ft	Excess%	Cement type	Additives
PRODUCTION	Lead		0	0	0	0	0	0	0	NA	NA

CONDUCTOR	Lead		0	120	121	1.49	12.9	181		Grout	Bentonite 4% BWOC, Cellophane #/sx, CaCl2 2% BWOC.
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Operator Name: CENTENNIAL RESOURCE PRODUCTION LLC

Well Name: GOUDA FEDERAL COM

Well Number: 604H

String Type	Lead/Tail	Stage Tool Depth	Top MD	Bottom MD	Quantity(sx)	Yield	Density	Cu Ft	Excess%	Cement type	Additives
SURFACE	Lead		0	250	200	1.74	13.5	347	100	Class C Premium	Premium Gel Bentonite 4%, C-45 Econolite 0.25%, Phenoseal 0.25#/sk, CaCl 1%, Defoamer C-41P 0.75%
SURFACE	Tail		250	750	518	1.34	14.8	695	100	Class C Premium	C-45 Econolite 0.10%, CaCl 1.0%
INTERMEDIATE	Lead		0	4226	989	3.44	10.7	3402	150	TXI Lightweight	Salt 1.77/sk, C-45 Econolite 2.25%, STE 6.00%, Citric Acid 0.18%, C-19 0.10%, CSA-1000 0.20%, C-530P 0.30%, CTB-15 LCM 7#/sk, Gyp Seal 8#/sk
INTERMEDIATE	Tail		4226	4726	141	1.33	14.8	188	20	Class C Premium	C-45 Econolite 0.10%, Citric acid 0.05%, C503P 0.25%
PRODUCTION	Lead		0	1115 7	1089	3.41	10.6	3714	30	TXI Light Weight	Salt 8.98#/sk, STE 6.00%, Citric acid 0.20%, CSA-1000 0.23%, C47B 0.10%, C-503P 0.30%
PRODUCTION	Tail		1115 7	2185 2	2470	1.24	14.2	3062	25	50:25:25 Class H: Poz: CPO18	Citric acid 0.03%, CSA-1000 0.05%, C47B 0.25%, C-503P 0.30%

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 quantities of mud materials will be on the well site at all times for the purpose of assuring well control and maintaining wellbore integrity. Surface interval will employ fresh water mud. The intermediate hole will utilize a diesel emulsified brine fluid to inhibit salt washout and prevent severe fluid losses. The production hole will employ oil base fluid to inhibit formation reactivity and of the appropriate density to maintain well control.

Describe the mud monitoring system utilized: Centrifuge separation system. Open tank monitoring with EDR will be used for drilling fluids and return volumes. Open tank monitoring will be used for cement and cuttings return volumes. Mud properties will be monitored at least every 24 hours using industry accepted mud check practices.

Circulating Medium Table

Operator Name: CENTENNIAL RESOURCE PRODUCTION LLC

Well Name: GOUDA FEDERAL COM

Well Number: 604H

Top Depth	Bottom Depth	Mud Type	Min Weight (lbs/gal)	Max Weight (lbs/gal)	Density (lbs/cu ft)	Gel Strength (lbs/100 sqft)	PH	Viscosity (CP)	Salinity (ppm)	Filtration (cc)	Additional Characteristics
0	750	OTHER : Freshwater	8.6	9.5							
750	4726	OTHER : Brine	9.5	10							
4726	2185 1	OTHER : Brine/Oil Based Mud	9.2	11							

Section 6 - Test, Logging, Coring

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

Will utilize MWD/LWD (gamma ray logging) from intermediate hole to TD of the well.

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

GAMMA RAY LOG,DIRECTIONAL SURVEY,

Coring operation description for the well:

N/A

Section 7 - Pressure

Anticipated Bottom Hole Pressure: 6692

Anticipated Surface Pressure: 4117

Anticipated Bottom Hole Temperature(F): 165

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

Describe:

Contingency Plans geohazards description:

Contingency Plans geohazards attachment:

Hydrogen Sulfide drilling operations plan required? YES

Hydrogen sulfide drilling operations plan:

H2S_Plan_Gouda_Fed_Com_604H_20200424160221.pdf

Operator Name: CENTENNIAL RESOURCE PRODUCTION LLC

Well Name: GOUDA FEDERAL COM

Well Number: 604H

Section 8 - Other Information

Proposed horizontal/directional/multi-lateral plan submission:

Gouda_Federal_Com_604H_Dir_AC_Plot_20200427092054.pdf

Other proposed operations facets description:

GCP Attached, Geo prog w/BX BLM top attached. WBD attached.

Other proposed operations facets attachment:

Gouda_Federal_Com_604H_Drilling_Program_Multibowl_Wellhead_20200427104535.pdf

CRD_Batch_Setting_Procedures_20200608123420.pdf

Gas_Capture_Plan_Gouda_Fed_Com_604H_605H_20200608140717.pdf

Gouda_Fed_Com_604H_WBD_20201026093109.pdf

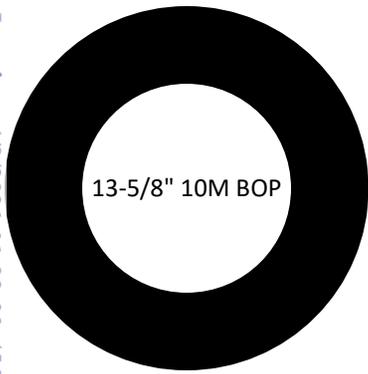
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Other Variance attachment:

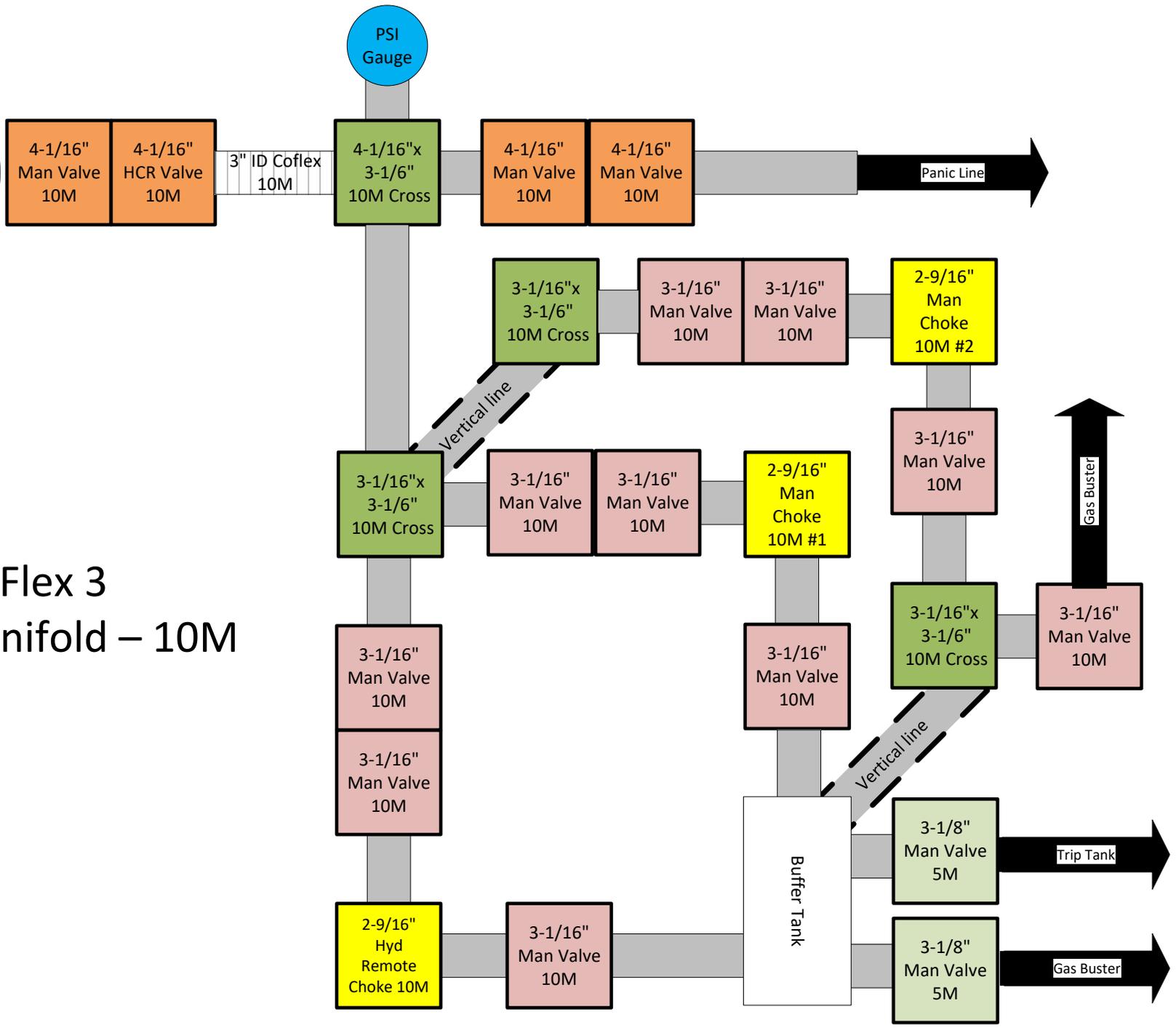
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CDEV_Well_Control_Plan_Bonesprings_20200608123340.pdf

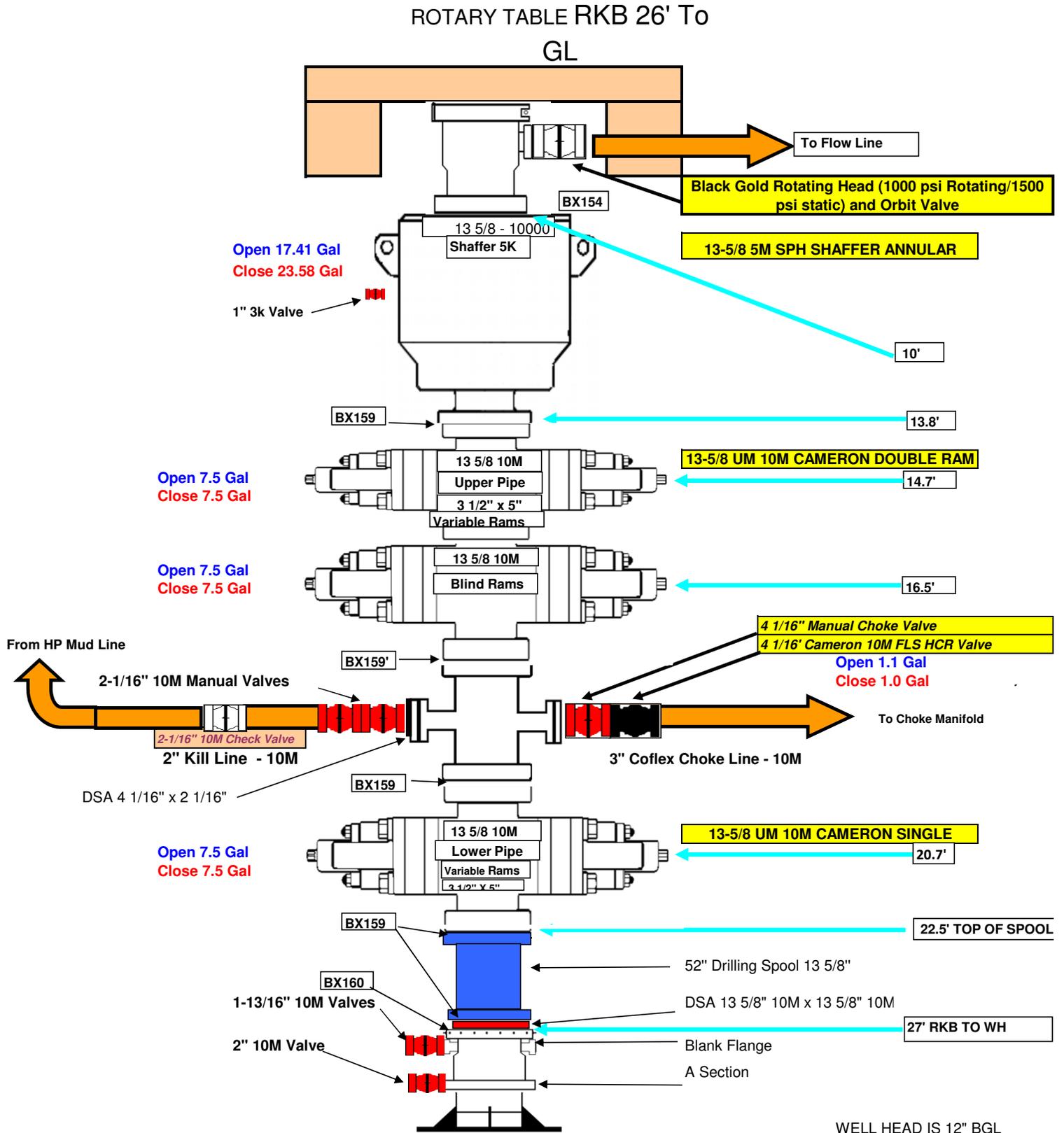
CONFIDENTIAL



H&P – Flex 3 Choke Manifold – 10M



H&P-Flex3



WELL HEAD IS 12" BGL

CASING ASSUMPTIONS WORKSHEET:

Centralizer Program:

Surface: - 3 welded bow spring centralizers, one on each of the bottom 3 joints, plus one on the shoe joint (4 minimum)
 - No Cement baskets will be run

Production: - 1 welded bow spring centralizer on a stop ring 6' above float shoe
 - 1 centralizer every other joint to the top of the tail cement
 - 1 centralizer every 4 joints to 500' below the top of the lead cement
 - The actual number and placement of centralizers will be determined from hole deviation and potential production zones. Centralizers will be run for maximum practical standoff and through all potential productive zones.

- All casing strings below the conductor shall be tested, prior to drilling out the casing shoe, to 0.22 psi/ft of casing string length or 1500 psi, whichever is greater, but not to exceed 70% of the internal yield pressure of the casing. If pressure declines more than 10 percent in 30 minutes, corrective action will be taken.

No freshly hard banded pipe will be rotated in the surface casing

- CENTENNIAL RESOURCE DEVELOPOMENT will not employ an air-drill rig for the surface casing. The casing shoe will be tested by drilling 5'-10' out from under the shoe and pressure testing to the maximum expected mud weight equivalent as shown in the mud program listed in the drilling plan.

CASING ASSUMPTIONS WORKSHEET:

Centralizer Program:

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CASING ASSUMPTIONS WORKSHEET:

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- CENTENNIAL RESOURCE DEVELOPMENT will not employ an air-drill rig for the surface casing. The casing shoe will be tested by drilling 5'-10' out from under the shoe and pressure testing to the maximum expected mud weight equivalent as shown in the mud program listed in the drilling plan.



Size	5.5
Grade	P110 RY
Weight	20

TCBC-HT

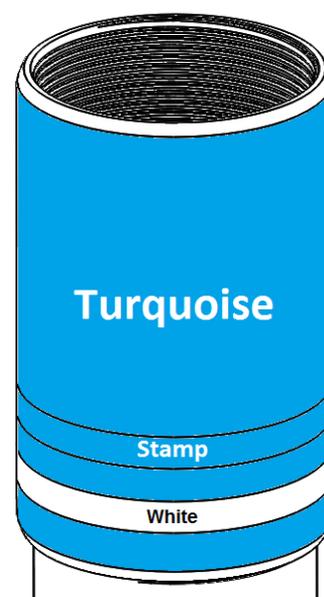
SeAH Steel

Coupling and Pipe Dimensions (in)						
	Outer Diameter	Inner Diameter	Coupling Length	Make-up Loss	Wall Thickness	Drift Diameter
Coupling	6.300	5.383				
Pipe		4.778	8.250	4.125	0.361	4.653
Pin		4.778				

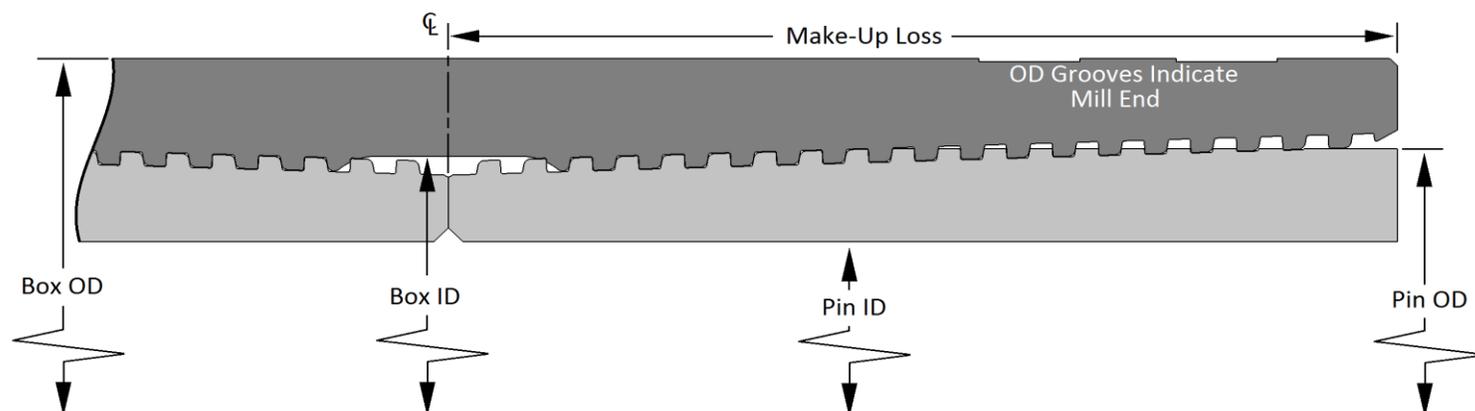
Torque Values (ft-lbs)				
Field End Make-Up			Max. Working Torque ¹	Yield Torque
Minimum	Optimum ²	Maximum		
10,000	13,500	18,500	22,250	25,200

Yield Stress (x1000 lbs.)	
Tensile	Compressive
100%	100%

Maximum Pressure (psi)	
Internal	External
100%	100%



- ¹ Max. Working Torque value is not to be exceeded during operation.
- ² If Optimum Torque does not meet the Base of Triangle Stamp, M/U to the Base of Triangle.



*Data are for information purposes only. Though HIS has made efforts to ensure accuracy, HIS makes no warranty for loss or damage due to its use.



5.5" 20# .361" P-110 Restricted Yield (RY)

Dimensions (Nominal)

Outside Diameter	5.500	in.
Wall	0.361	in.
Inside Diameter	4.778	in.
Drift	4.653	in.
Weight, T&C	20.000	lbs/ft
Weight, PE	19.830	lbs/ft

Performance Properties (Minimum)

Minimum Yield Strength	110000	psi
Maximum Yield Strength	125000	psi
Collapse, PE	11100	psi
Internal Yield Pressure		
PE	12630	psi
LTC	12360	psi
BTC	12360	psi
Yield Strength, Pipe Body	641	1000 lbs
Joint Strength		
LTC	548	1000 lbs
BTC	667	1000 lbs

Note: SeAH Steel has produced this specification sheet for general information only. SeAH does not assume liability or responsibility for any loss or injury resulting from the use of information or data contained herein. All applications for the material described are at the customer's own risk and responsibility.

CASING ASSUMPTIONS WORKSHEET:

Centralizer Program:

Surface: - 3 welded bow spring centralizers, one on each of the bottom 3 joints, plus one on the shoe joint (4 minimum)
 - No Cement baskets will be run

Production: - 1 welded bow spring centralizer on a stop ring 6' above float shoe
 - 1 centralizer every other joint to the top of the tail cement
 - 1 centralizer every 4 joints to 500' below the top of the lead cement
 - The actual number and placement of centralizers will be determined from hole deviation and potential production zones. Centralizers will be run for maximum practical standoff and through all potential productive zones.

- All casing strings below the conductor shall be tested, prior to drilling out the casing shoe, to 0.22 psi/ft of casing string length or 1500 psi, whichever is greater, but not to exceed 70% of the internal yield pressure of the casing. If pressure declines more than 10 percent in 30 minutes, corrective action will be taken.

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Size	5.5
Grade	P110 RY
Weight	20

TCBC-HT

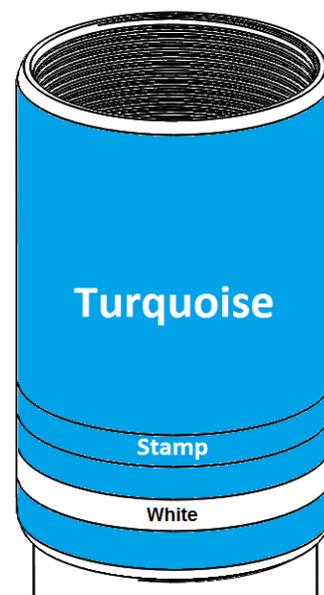
SeAH Steel

Coupling and Pipe Dimensions (in)						
	Outer Diameter	Inner Diameter	Coupling Length	Make-up Loss	Wall Thickness	Drift Diameter
Coupling	6.300	5.383				
Pipe		4.778	8.250	4.125	0.361	4.653
Pin		4.778				

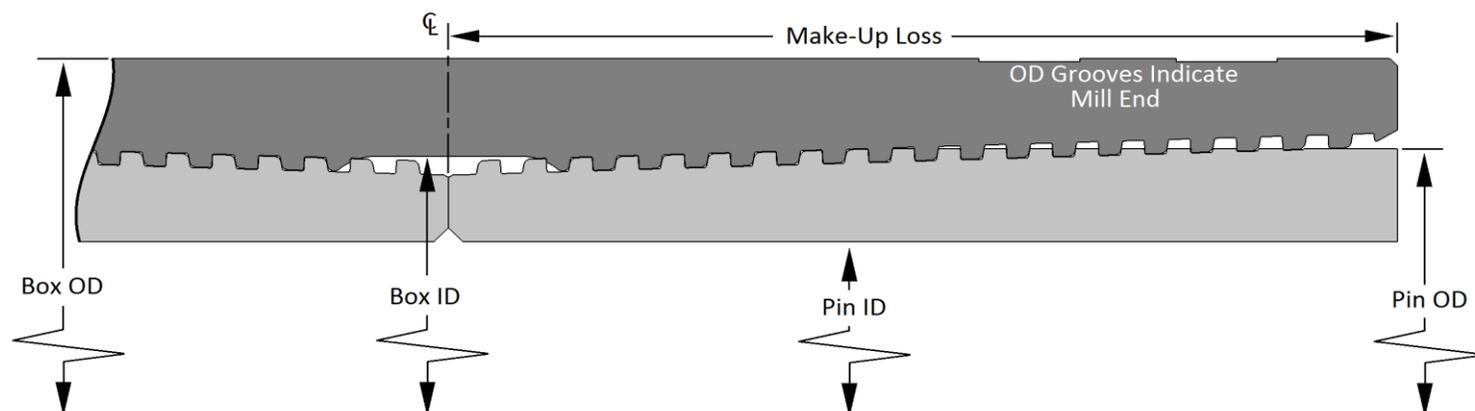
Torque Values (ft-lbs)				
Field End Make-Up			Max. Working Torque ¹	Yield Torque
Minimum	Optimum ²	Maximum		
10,000	13,500	18,500	22,250	25,200

Yield Stress (x1000 lbs.)	
Tensile	Compressive
100%	100%

Maximum Pressure (psi)	
Internal	External
100%	100%



- ¹ Max. Working Torque value is not to be exceeded during operation.
- ² If Optimum Torque does not meet the Base of Triangle Stamp, M/U to the Base of Triangle.



*Data are for information purposes only. Though HIS has made efforts to ensure accuracy, HIS makes no warranty for loss or damage due to its use.



5.5" 20# .361" P-110 Restricted Yield (RY)

Dimensions (Nominal)

Outside Diameter	5.500	in.
Wall	0.361	in.
Inside Diameter	4.778	in.
Drift	4.653	in.
Weight, T&C	20.000	lbs/ft
Weight, PE	19.830	lbs/ft

Performance Properties (Minimum)

Minimum Yield Strength	110000	psi
Maximum Yield Strength	125000	psi
Collapse, PE	11100	psi
Internal Yield Pressure		
PE	12630	psi
LTC	12360	psi
BTC	12360	psi
Yield Strength, Pipe Body	641	1000 lbs
Joint Strength		
LTC	548	1000 lbs
BTC	667	1000 lbs

Note: SeAH Steel has produced this specification sheet for general information only. SeAH does not assume liability or responsibility for any loss or injury resulting from the use of information or data contained herein. All applications for the material described are at the customer's own risk and responsibility.



HYDROGEN SULFIDE CONTINGENCY PLAN

Gouda Federal Com 604H

Section 5

T 22S R 32E

Lea County, NM

Initial Date: 3/4/18

Revision Date:

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Page 4: Directions to Location

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Page 6: Drill Site Location Setup

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Page 10: H₂S Required Equipment

Page 11: Determination of Radius of Exposure

Page 12: Emergency Contact List

INTRODUCTION

This plan specifies precautionary measures, safety equipment, emergency procedures, responsibilities, duties, and the compliance status pertaining to the production operations of Hydrogen Sulfide producing wells on:

Centennial Resource Development, Inc.

This plan will be in full effect prior to and continuing with all drilling operations for all wells producing potential Hydrogen Sulfide on the

Gouda Federal Com 604H

This plan was developed in response to the potential hazards involved when producing formations that may contain Hydrogen Sulfide (H₂S) It has been written in compliance with current New Mexico Oil Conservation Division Rule 118 and Bureau of Land Management 43 CFR 3160 Onshore Order No. 6.

All personnel shall receive proper H₂S training in accordance with Onshore Order III.C.3.a

This plan shall require the full cooperation and efforts of all individuals participating in the production of potential H₂S wells.

Each individual is required to know their assigned responsibilities and duties in regard to normal production operations and emergency procedures.

Each person should thoroughly understand and be able to use all safety related equipment on the production facility.

Each person should become familiar with the location of all safety equipment and become involved in ensuring that all equipment is properly stored, easily accessible, and routinely maintained.

An ongoing training program will remain in effect with regular training, equipment inspections, and annual certifications for all personnel.

Centennial Resource Development, Inc. shall make every reasonable effort to provide all possible safeguards to protect all personnel, both on this location and in the immediate vicinity, from the harmful effects of H₂S exposure, if a release to the atmosphere should occur.

DIRECTIONS TO LOCATION

Gouda Federal Com 604H

Section 5

T 22S R 32E

Lea County, NM

PROCEED IN A NORTHEASTERLY, THEN EASTERLY DIRECTION FROM CARLSBAD, NEW MEXICO ALONG U.S. HIGHWAY 62 APPROXIMATELY 31.1 MILES TO THE JUNCTION OF THIS ROAD AND CAMPBELL ROAD TO THE SOUTH; TURN RIGHT AND PROCEED IN A SOUTHERLY, THEN SOUTHEASTERLY, THEN SOUTHERLY DIRECTION APPROXIMATELY 9.0 MILES TO THE JUNCTION OF THIS ROAD AND AN EXISTING ROAD TO THE EAST; TURN LEFT AND PROCEED IN AN EASTERLY, THEN NORTHERLY, THEN EASTERLY DIRECTION APPROXIMATELY 1.6 MILES TO THE JUNCTION OF THIS ROAD AND AN EXISTING ROAD TO THE SOUTH; TURN RIGHT AND PROCEED IN A SOUTHERLY DIRECTION APPROXIMATELY 1.3 MILES TO THE BEGINNING OF THE ACCESS ROAD FOR THE CHEDDAR FACILITY SITE TO THE EAST; FOLLOW ROAD FLAGS IN A EASTERLY DIRECTION APPROXIMATELY 19' TO THE CHEDDAR FACILITY SITE; FOLLOW ROAD FLAGS IN AN EASTERLY, THEN NORTHEASTERLY, THEN EASTERLY, THEN SOUTHEASTERLY DIRECTION APPROXIMATELY 3,136' TO THE PROPOSED LOCATION.

TOTAL DISTANCE FROM CARLSBAD, NEW MEXICO TO THE PROPOSED WELL LOCATION IS APPROXIMATELY 43.6 MILES.

SAFE BRIEFING AREAS

Two areas will be designated as “SAFE BRIEFING AREAS”.

The Primary Safe Briefing Area

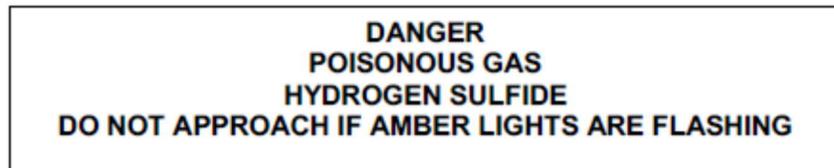
If the Primary Safe Briefing Area cannot be used due to wind conditions; the designated secondary safe briefing area will be used.

These two areas are so designated for accessibility reasons related to self-contained safe breathing air device locations, evacuation muster point utility, and for ease of overall communication, organizational support, as well as the all-important prevailing wind directions. Drawings of the facility denoting these locations are included on Page 15.

If H₂S is detected in concentrations equal to or in excess of 15 PPM, all personnel not assigned emergency duties are to assemble in the appropriate “SAFE BRIEFING AREA” for instructions.

Wind Direction Indicators: A windsock, shall be positioned, allowing the wind direction to be observed from anywhere on the charted facility location.

Warning-DANGER SIGNS for Approaching Traffic: All signs shall also be illuminated under conditions of poor visibility.



An amber strobe light system will be activated for H₂S concentrations of 10 PPM or greater and an audible alarm will sound when H₂S exceeds 15 ppm, and. This condition will exist until the all clear is given.

DRILL SITE LOCATION:

1. The drilling rig should be situated on location such that the prevailing winds blow across the rig toward the reserve pit or at right angles to a line from the rig to the reserve pit.
2. The entrance to the location should be designated so that it can be barricaded if Hydrogen Sulfide emergency conditions arise. An auxiliary exit (or entrance) should be available in case of a catastrophe; a shift in wind direction would not preclude escape from the location. Appropriate warning signs and flags should be placed at all location entrances.
3. Once H2S safety procedures are established on location, no beards or facial hair, which will interfere with face seal or mask, will be allowed on location.
4. A minimum of two BRIEFING AREAS will be established, no less than 250 feet from the wellhead and in such location that at least one area will be up-wind from the well at all times. Upon recognition of an emergency situation, all personnel should assemble at the designated briefing areas for instructions.
5. A safety equipment trailer will be station at one of the briefing areas.
6. Windssocks will be installed and wind streamers (6 to 8 feet above ground level) placed at the location entrance. Windssocks shall be illuminated for nighttime operations. Personnel should develop wind direction consciousness.
7. The mud-logging trailer will be located so as to minimize the danger from the gas that breaks out of the drilling fluid.
8. Shale shaker mud tanks will be located so as to minimize the danger from gas that breaks out of the drilling fluid.
9. Electric power plant(s) will be located as far from the well bore as practical so that it may be used under conditions where it otherwise would have to be shut down.
10. When approaching depth where Hydrogen Sulfide may be encountered, appropriate warning signs will be posted on all access roads to the location and at the foot of all stairways to the derrick floor.
11. Appropriate smoking areas will be designated, and smoking will be prohibited elsewhere.

The table below lists various poisonous gases and the concentrations at which they become dangerous.

TOXICITY OF VARIOUS GASES

TOXICITY OF GASES					
(Taken from API RP-49 September 1974 – Re-issued August 1978)					
Common Name	Chemical Formula	Gravity (Air = 1)	Threshold 1 Limit	Hazardous 2 Limit	Lethal 3 Limit
Hydrogen Sulfide	H ₂ S	1.18	10 ppm	250 ppm/1hr	600 ppm
Sulfur Dioxide	SO ₂	2.21	20 ppm	---	1000 ppm
Carbon Monoxide	CO	0.97	50 ppm	400 ppm/1hr	1000 ppm
Carbon Dioxide	CO ₂	1.52	5000 ppm	5%	10%
Methane	CH ₄	0.55	90000 ppm	Combustible Above 5% in Air	

1. Threshold concentration at which it is believed that all workers may repeatedly be exposed day after day, without adverse effect	2. Hazardous concentration that may cause death	3. Lethal concentration that will cause death with short-term exposure
---	---	--

Properties of Gases

The produced gas will probably be a mixture of Carbon Dioxide, Hydrogen Sulfide, and Methane.

Carbon Dioxide

Carbon Dioxide (CO₂) is usually considered inert and is commonly used to extinguish fires.

It is heavier than air (1.52 times) and it will concentrate in low areas of still air.

Humans cannot breathe air containing more than 10% CO₂ without losing consciousness. Air containing 5% CO₂ will cause disorientation in a few minutes.

Continued exposures to CO₂ after being affected will cause convulsions, coma, and respiratory failure.

The threshold limit of CO₂ is 5000 ppm.

Short-term exposure to 50,000 PPM (5%) is reasonable. This gas is colorless and odorless and can be tolerated in relatively high concentrations.

Hydrogen Sulfide

Hydrogen Sulfide (H₂S) itself is a colorless, transparent gas and is flammable. It is heavier than air and, hence, may accumulate in low places.

Although the slightest presence of H₂S in the air is normally detectable by its characteristic “rotten egg” odor, it is dangerous to rely on the odor as a means of detecting excessive concentrations because the sense of smell is rapidly lost, allowing lethal concentrations to be accumulated without warning. The following table indicates the poisonous nature of Hydrogen Sulfide.

HYDROGEN SULFIDE TOXICITY			
Concentration			Effects
%H ₂ S	PPM	GR/100 SCF 1	
0.001	10	0.65	Safe for 8 hours without respirator. Obvious and unpleasant odor.
0.002	20	1.30	Burning in eyes and irritation of respiratory tract after on hour.
0.01	100	6.48	Kills smell in 3 to 15 minutes; may sting eyes and throat.
0.02	200	12.96	Kills smell shortly; stings eyes and throat.
0.05	500	32.96	Dizziness; breathing ceases in a few minutes; need prompt artificial respiration.
0.07	700	45.92	Unconscious quickly; death will result if not rescued promptly
0.10	1000	64.80	DEATH!
Note: 1 grain per 100 cubic feet			

Sulfur Dioxide

Sulfur Dioxide is a colorless, transparent gas and is non-flammable.

Sulfur Dioxide (SO₂) is produced during the burning of H₂S. Although SO₂ is heavier than air, it will be picked up by a breeze and carried downwind at elevated temperatures. Since Sulfur Dioxide is extremely irritating to the eyes and mucous membranes of the upper respiratory tract, it has exceptionally good warning powers in this respect. The following table indicates the toxic nature of the gas.

SULFUR DIOXIDE TOXICITY		
Concentration		Effects
%SO₂	PPM	
0.0005	3 to 5	Pungent odor-normally a person can detect SO ₂ in this range.
0.0012	12	Throat irritation, coughing, and constriction of the chest tearing and smarting of eyes.
0.15	150	So irritating that it can only be endured for a few minutes.
0.05	500	Causes a sense of suffocation, even with first breath.

H₂S REQUIRED EQUIPMENT LIST

RESPIRATORY SAFETY SYSTEMS

- Working cascade system available on rig floor and pit system & 750' of air line hose
- Four (4) breathing air manifolds
- Four (4) 30-minute rescue packs
- Five (5) work/Escape units
- Five (5) escape units
- One (1) filler hose for the work/escape/rescue units

DETECTION AND ALARM SYSTEM

- 4 channel H₂S monitor
- 4 wireless H₂S monitors
- H₂S alarm system (Audible/Red strobe)
- Personal gas monitor for each person on location
- Gas sample tubes

WELL CONTROL EQUIPMENT

- Flare line with remote ignitor and backup flare gun, placed 150' from wellhead
- Choke manifold with remotely operated choke
- Mud gas separator

VISUAL WARNING SYSTEMS

- One color code condition sign will be placed at each entrance reflecting possible conditions at the site
- A colored condition flag will be on display, reflecting current condition at the site at the time
- At least 4 wind socks placed on location, visible at all angles and locations

MUD PROGRAM

- Mud will contain sufficient weight and additives to control and minimize H₂S

METALLURGY

- All drill strings, casing, tubing, wellhead, BOP, spools, kill lines, choke manifold and lines, and valves shall be suitable for anticipated H₂S volume and pressure

COMMUNICATION

- Cell phones, intercoms, and satellite phones will be available on location

ADDITIONAL SAFETY RELATED ITEMS

- Stretcher
- 2 OSHA full body harness
- 20# class ABC fire extinguisher

DETERMINATION OF RADIUS OF EXPOSURE

Potentially hazardous volume means a volume of gas of such H2S concentration and flow rate that it may result in radius of exposure-calculated ambient concentrations of 100 ppm H2S at any occupied residence, school, church, park, school bus stop, place of business or other area where the public could reasonably be expected to frequent, or 500 ppm H2S at any Federal, State, County or municipal road or highway.

Currently there are no residence located within the ROE

Radius of exposure means the calculation resulting from using the Pasquill -Gifford derived equation, or by such other method(s) that may be approved by the authorized officer. Advanced Fire and Safety has provided the Pasquill-Gifford formula in excel format for simple calculations.

NEW MEXICO OIL & GAS CONSERVATION DIVISION 118

Gouda Federal Com 604H

H2S Concentration- 100 PPM

Maximum Escape Volume- 5000 MCF/Day

100 PPM Radius of Exposure - 65
(Formula= 1.589 x (100/1000000) x (5000 x 1000) ^ .6258

500 PPM Radius of Exposure - 30
Formula= .4546 x (100/1000000) x (5000 x 1000) ^ .6258

EMERGENCY CONTACT LIST

911 is available in the area			
NAME	POSITION	COMPANY	NUMBER
Centennial Contacts			
Dennis Hartwig	<u>Drilling Engineer</u>	CDEV	720-530-6723
Wayne Miller/John Helm	<u>Superintendent</u>	CDEV	432-305-1068
Mike Ponder/Zach Gavin	<u>Field Superintendent</u>	CDEV	432-287-3003
Brett Thompson	<u>Drilling Manager</u>	CDEV	720-656-7027
Derrick Melton	<u>HSE Manager</u>	CDEV	432-638-3380
H&P 650 Drilling Office	<u>Drilling Supervisor</u>	CDEV	432-538-3343
Local Emergency Response			
Fire Department			575-395-2511
Jal Community Hospital			505-395-2511
State Police			505-827-9000
Lea County Sheriff			575-396-3611
Safety Contractor			
Advanced Safety	<u>Office</u>	Advanced Safety	833-296-3913
Joe Gadway	<u>Permian Supervisor</u>	Advanced Safety	318-446-3716
Clint Hudson	<u>Operations Manager</u>	Advanced Safety	337-552-8330
Well Control Company			
Wild Well Control			866-404-9564
Contractors			
Tommy E Lee	<u>Pump Trucks</u>		432-813-7140
Paul Smith	<u>Drilling Fluids</u>	<u>Momentum</u>	307-258-6254
Compass Coordinators	<u>Cement</u>	<u>Compass</u>	432-561-5970

NEW MEXICO

LEA

GOUDA

GOUDA FEDERAL COM 604H

GOUDA FEDERAL COM 604H

Plan: PWP0

Standard Planning Report

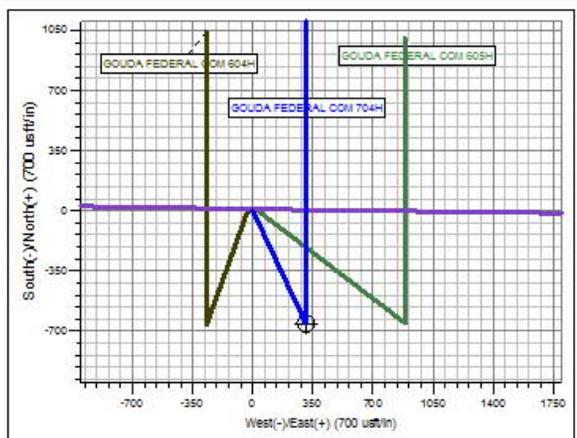
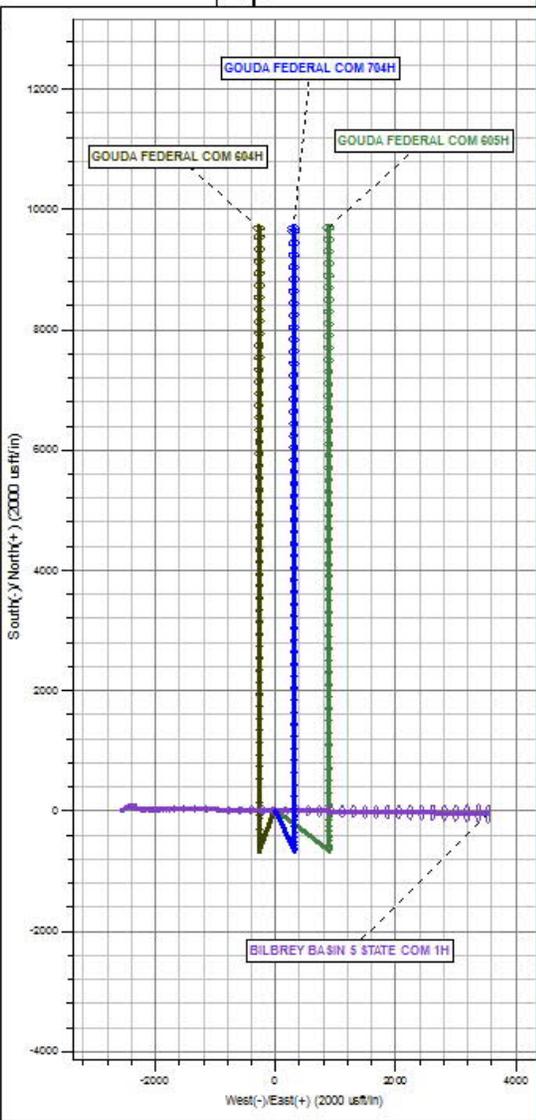
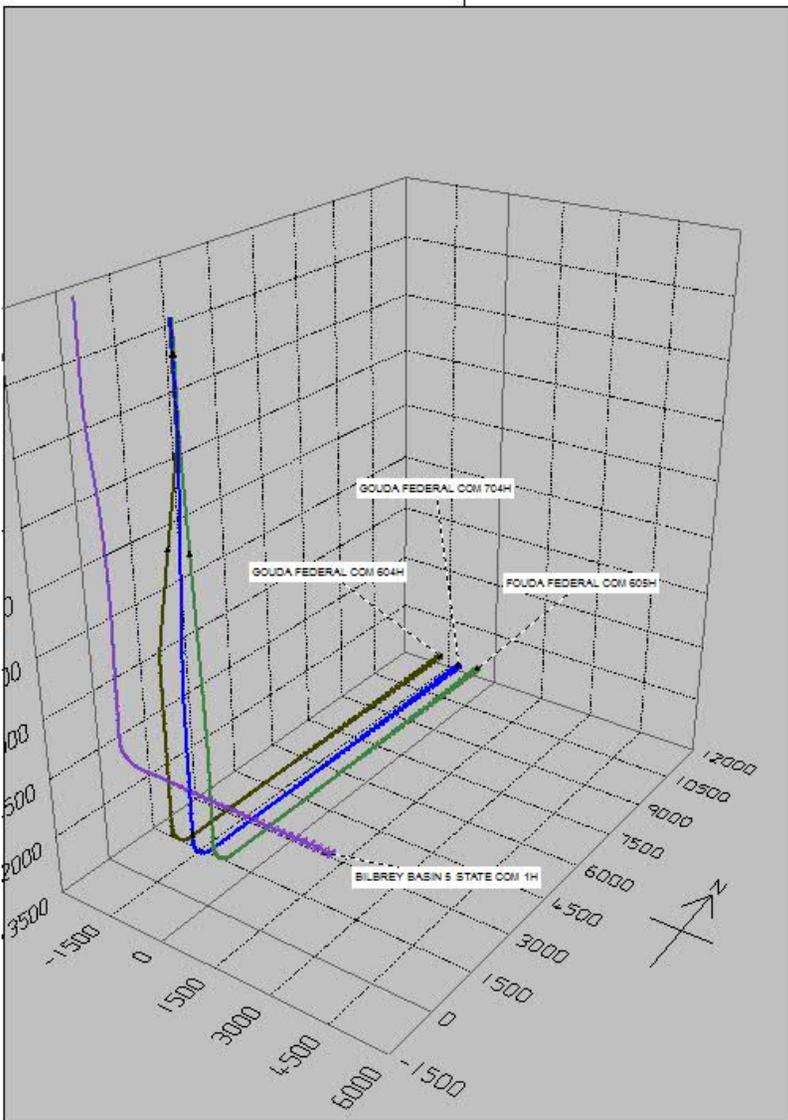
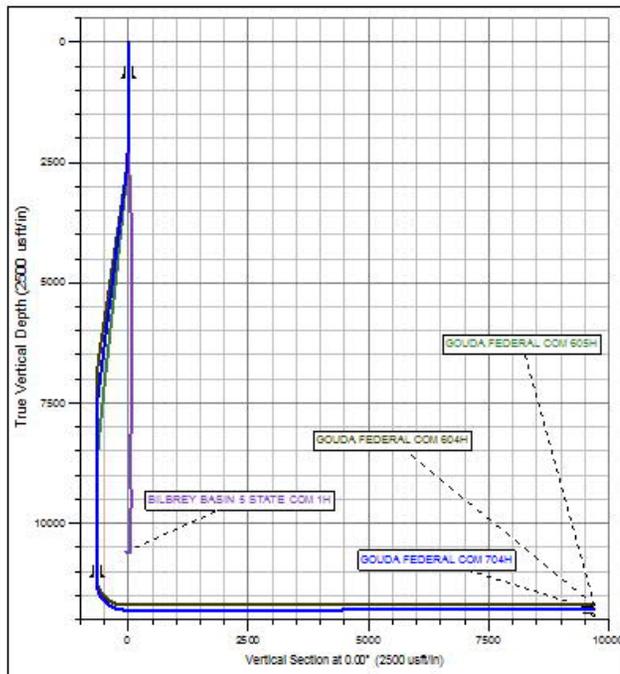
09 August, 2019



Project: HALLE BERRY FEDERAL
 Site: GOUDA
 Wells: GOUDA FEDERAL COM 704H
 Design: PWP0
 RKB: 3695.9

PROJECT DETAILS: LEA COUNTY
 Geodetic System: Universal Transverse Mercator (US Survey Feet)
 Datum: North American Datum 1983
 Ellipsoid: GRS 1980
 Zone: Zone 13N (108 W to 102 W)
 System Datum: Mean Sea Level

T
M
 Azimuths to True North
 Magnetic North: 7.82°
 Magnetic Field
 Strength: 48893.06nT
 Dip Angle: 60.40°
 Date: 11/6/2018
 Model: IGRF200510



LGC
Planning Report

Database:	Centennial EDM SQL Server	Local Co-ordinate Reference:	Well GOUDA FEDERAL COM 604H
Company:	NEW MEXICO	TVD Reference:	H&P650 @ 3722.4usft (H&P 650 26.5+3695.9)
Project:	LEA	MD Reference:	H&P650 @ 3722.4usft (H&P 650 26.5+3695.9)
Site:	GOUDA	North Reference:	True
Well:	GOUDA FEDERAL COM 604H	Survey Calculation Method:	Minimum Curvature
Wellbore:	GOUDA FEDERAL COM 604H		
Design:	PWPO		

Project	LEA		
Map System:	Universal Transverse Mercator (US Survey Feet)	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	Zone 13N (108 W to 102 W)		

Site	GOUDA		
Site Position:		Northing:	0.00 usft
From:	Map	Easting:	0.00 usft
Position Uncertainty:	0.0 usft	Slot Radius:	13-3/16 "
		Latitude:	0° 0' 0.000 N
		Longitude:	109° 29' 19.478 W
		Grid Convergence:	0.00 °

Well	GOUDA FEDERAL COM 604H					
Well Position	+N/-S	11,769,155.0 usft	Northing:	11,769,146.84 usft	Latitude:	32° 24' 55.754 N
	+E/-W	2,043,793.1 usft	Easting:	2,043,840.09 usft	Longitude:	103° 41' 32.275 W
Position Uncertainty		0.0 usft	Wellhead Elevation:		Ground Level:	3,695.9 usft

Wellbore	GOUDA FEDERAL COM 604H				
Magnetics	Model Name	Sample Date	Declination	Dip Angle	Field Strength
	IGRF200510	12/31/2009	(°)	(°)	(nT)
			7.82	60.40	48,893.04235422

Design	PWPO			
Audit Notes:				
Version:	Phase:	PLAN	Tie On Depth:	0.0
Vertical Section:	Depth From (TVD)	+N/-S	+E/-W	Direction
	(usft)	(usft)	(usft)	(°)
	0.0	0.0	0.0	358.54

Plan Survey Tool Program		Date	8/9/2019		
Depth From	Depth To	Survey (Wellbore)	Tool Name	Remarks	
(usft)	(usft)				
1	0.0	21,851.5	PWPO (GOUDA FEDERAL COM	MWD+IFR1+MS	
				OWSG_Rev2_ MWD + IFR1 +	

LGC
Planning Report

Database:	Centennial EDM SQL Server	Local Co-ordinate Reference:	Well GOUDA FEDERAL COM 604H
Company:	NEW MEXICO	TVD Reference:	H&P650 @ 3722.4usft (H&P 650 26.5+3695.9)
Project:	LEA	MD Reference:	H&P650 @ 3722.4usft (H&P 650 26.5+3695.9)
Site:	GOUDA	North Reference:	True
Well:	GOUDA FEDERAL COM 604H	Survey Calculation Method:	Minimum Curvature
Wellbore:	GOUDA FEDERAL COM 604H		
Design:	PWPO		

Plan Sections										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N-S (usft)	+E-W (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	TFO (°)	Target
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.00	0.00	
2,000.0	0.00	0.00	2,000.0	0.0	0.0	0.00	0.00	0.00	0.00	
2,900.0	9.00	199.90	2,896.3	-66.3	-24.0	1.00	1.00	0.00	199.90	
6,500.0	9.00	199.90	6,452.0	-595.9	-215.7	0.00	0.00	0.00	0.00	
7,400.0	0.00	0.00	7,348.3	-662.2	-239.7	1.00	-1.00	0.00	180.00	
11,157.0	0.00	0.00	11,105.3	-662.2	-239.7	0.00	0.00	0.00	0.00	
12,091.2	90.00	359.96	11,700.0	-67.5	-240.1	9.63	9.63	0.00	359.96	
21,851.5	90.00	359.96	11,700.0	9,692.9	-246.9	0.00	0.00	0.00	0.00	LTP/BHL - FOUDA FE

LGC
Planning Report

Database:	Centennial EDM SQL Server	Local Co-ordinate Reference:	Well GOUDA FEDERAL COM 604H
Company:	NEW MEXICO	TVD Reference:	H&P650 @ 3722.4usft (H&P 650 26.5+3695.9)
Project:	LEA	MD Reference:	H&P650 @ 3722.4usft (H&P 650 26.5+3695.9)
Site:	GOUDA	North Reference:	True
Well:	GOUDA FEDERAL COM 604H	Survey Calculation Method:	Minimum Curvature
Wellbore:	GOUDA FEDERAL COM 604H		
Design:	PWPO		

Planned Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	
0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.00	0.00	0.00	
100.0	0.00	0.00	100.0	0.0	0.0	0.0	0.00	0.00	0.00	
200.0	0.00	0.00	200.0	0.0	0.0	0.0	0.00	0.00	0.00	
300.0	0.00	0.00	300.0	0.0	0.0	0.0	0.00	0.00	0.00	
400.0	0.00	0.00	400.0	0.0	0.0	0.0	0.00	0.00	0.00	
500.0	0.00	0.00	500.0	0.0	0.0	0.0	0.00	0.00	0.00	
600.0	0.00	0.00	600.0	0.0	0.0	0.0	0.00	0.00	0.00	
700.0	0.00	0.00	700.0	0.0	0.0	0.0	0.00	0.00	0.00	
750.0	0.00	0.00	750.0	0.0	0.0	0.0	0.00	0.00	0.00	
13 3/8"										
800.0	0.00	0.00	800.0	0.0	0.0	0.0	0.00	0.00	0.00	
900.0	0.00	0.00	900.0	0.0	0.0	0.0	0.00	0.00	0.00	
1,000.0	0.00	0.00	1,000.0	0.0	0.0	0.0	0.00	0.00	0.00	
1,100.0	0.00	0.00	1,100.0	0.0	0.0	0.0	0.00	0.00	0.00	
1,200.0	0.00	0.00	1,200.0	0.0	0.0	0.0	0.00	0.00	0.00	
1,300.0	0.00	0.00	1,300.0	0.0	0.0	0.0	0.00	0.00	0.00	
1,400.0	0.00	0.00	1,400.0	0.0	0.0	0.0	0.00	0.00	0.00	
1,500.0	0.00	0.00	1,500.0	0.0	0.0	0.0	0.00	0.00	0.00	
1,600.0	0.00	0.00	1,600.0	0.0	0.0	0.0	0.00	0.00	0.00	
1,700.0	0.00	0.00	1,700.0	0.0	0.0	0.0	0.00	0.00	0.00	
1,800.0	0.00	0.00	1,800.0	0.0	0.0	0.0	0.00	0.00	0.00	
1,900.0	0.00	0.00	1,900.0	0.0	0.0	0.0	0.00	0.00	0.00	
2,000.0	0.00	0.00	2,000.0	0.0	0.0	0.0	0.00	0.00	0.00	
2,100.0	1.00	199.90	2,100.0	-0.8	-0.3	-0.8	1.00	1.00	0.00	
2,200.0	2.00	199.90	2,200.0	-3.3	-1.2	-3.3	1.00	1.00	0.00	
2,300.0	3.00	199.90	2,299.9	-7.4	-2.7	-7.3	1.00	1.00	0.00	
2,400.0	4.00	199.90	2,399.7	-13.1	-4.8	-13.0	1.00	1.00	0.00	
2,500.0	5.00	199.90	2,499.4	-20.5	-7.4	-20.3	1.00	1.00	0.00	
2,600.0	6.00	199.90	2,598.9	-29.5	-10.7	-29.2	1.00	1.00	0.00	
2,700.0	7.00	199.90	2,698.3	-40.2	-14.5	-39.8	1.00	1.00	0.00	
2,800.0	8.00	199.90	2,797.4	-52.4	-19.0	-51.9	1.00	1.00	0.00	
2,900.0	9.00	199.90	2,896.3	-66.3	-24.0	-65.7	1.00	1.00	0.00	
3,000.0	9.00	199.90	2,995.1	-81.0	-29.3	-80.3	0.00	0.00	0.00	
3,100.0	9.00	199.90	3,093.8	-95.7	-34.7	-94.8	0.00	0.00	0.00	
3,200.0	9.00	199.90	3,192.6	-110.5	-40.0	-109.4	0.00	0.00	0.00	
3,300.0	9.00	199.90	3,291.4	-125.2	-45.3	-124.0	0.00	0.00	0.00	
3,400.0	9.00	199.90	3,390.1	-139.9	-50.6	-138.5	0.00	0.00	0.00	
3,500.0	9.00	199.90	3,488.9	-154.6	-56.0	-153.1	0.00	0.00	0.00	
3,600.0	9.00	199.90	3,587.7	-169.3	-61.3	-167.7	0.00	0.00	0.00	
3,700.0	9.00	199.90	3,686.5	-184.0	-66.6	-182.2	0.00	0.00	0.00	
3,800.0	9.00	199.90	3,785.2	-198.7	-71.9	-196.8	0.00	0.00	0.00	
3,900.0	9.00	199.90	3,884.0	-213.4	-77.3	-211.4	0.00	0.00	0.00	
4,000.0	9.00	199.90	3,982.8	-228.1	-82.6	-226.0	0.00	0.00	0.00	
4,100.0	9.00	199.90	4,081.5	-242.8	-87.9	-240.5	0.00	0.00	0.00	
4,200.0	9.00	199.90	4,180.3	-257.6	-93.2	-255.1	0.00	0.00	0.00	
4,300.0	9.00	199.90	4,279.1	-272.3	-98.6	-269.7	0.00	0.00	0.00	
4,400.0	9.00	199.90	4,377.8	-287.0	-103.9	-284.2	0.00	0.00	0.00	
4,500.0	9.00	199.90	4,476.6	-301.7	-109.2	-298.8	0.00	0.00	0.00	
4,600.0	9.00	199.90	4,575.4	-316.4	-114.5	-313.4	0.00	0.00	0.00	
4,700.0	9.00	199.90	4,674.1	-331.1	-119.9	-327.9	0.00	0.00	0.00	
4,726.2	9.00	199.90	4,700.0	-334.9	-121.2	-331.8	0.00	0.00	0.00	
9 5/8"										

LGC
Planning Report

Database:	Centennial EDM SQL Server	Local Co-ordinate Reference:	Well GOUDA FEDERAL COM 604H
Company:	NEW MEXICO	TVD Reference:	H&P650 @ 3722.4usft (H&P 650 26.5+3695.9)
Project:	LEA	MD Reference:	H&P650 @ 3722.4usft (H&P 650 26.5+3695.9)
Site:	GOUDA	North Reference:	True
Well:	GOUDA FEDERAL COM 604H	Survey Calculation Method:	Minimum Curvature
Wellbore:	GOUDA FEDERAL COM 604H		
Design:	PWPO		

Planned Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	
4,800.0	9.00	199.90	4,772.9	-345.8	-125.2	-342.5	0.00	0.00	0.00	
4,900.0	9.00	199.90	4,871.7	-360.5	-130.5	-357.1	0.00	0.00	0.00	
5,000.0	9.00	199.90	4,970.4	-375.2	-135.8	-371.6	0.00	0.00	0.00	
5,100.0	9.00	199.90	5,069.2	-389.9	-141.2	-386.2	0.00	0.00	0.00	
5,200.0	9.00	199.90	5,168.0	-404.6	-146.5	-400.8	0.00	0.00	0.00	
5,300.0	9.00	199.90	5,266.8	-419.4	-151.8	-415.4	0.00	0.00	0.00	
5,400.0	9.00	199.90	5,365.5	-434.1	-157.1	-429.9	0.00	0.00	0.00	
5,500.0	9.00	199.90	5,464.3	-448.8	-162.5	-444.5	0.00	0.00	0.00	
5,600.0	9.00	199.90	5,563.1	-463.5	-167.8	-459.1	0.00	0.00	0.00	
5,700.0	9.00	199.90	5,661.8	-478.2	-173.1	-473.6	0.00	0.00	0.00	
5,800.0	9.00	199.90	5,760.6	-492.9	-178.4	-488.2	0.00	0.00	0.00	
5,900.0	9.00	199.90	5,859.4	-507.6	-183.8	-502.8	0.00	0.00	0.00	
6,000.0	9.00	199.90	5,958.1	-522.3	-189.1	-517.3	0.00	0.00	0.00	
6,100.0	9.00	199.90	6,056.9	-537.0	-194.4	-531.9	0.00	0.00	0.00	
6,200.0	9.00	199.90	6,155.7	-551.7	-199.7	-546.5	0.00	0.00	0.00	
6,300.0	9.00	199.90	6,254.4	-566.4	-205.1	-561.0	0.00	0.00	0.00	
6,400.0	9.00	199.90	6,353.2	-581.2	-210.4	-575.6	0.00	0.00	0.00	
6,500.0	9.00	199.90	6,452.0	-595.9	-215.7	-590.2	0.00	0.00	0.00	
6,600.0	8.00	199.90	6,550.9	-609.8	-220.7	-603.9	1.00	-1.00	0.00	
6,700.0	7.00	199.90	6,650.0	-622.0	-225.2	-616.1	1.00	-1.00	0.00	
6,800.0	6.00	199.90	6,749.4	-632.7	-229.0	-626.6	1.00	-1.00	0.00	
6,900.0	5.00	199.90	6,848.9	-641.7	-232.3	-635.6	1.00	-1.00	0.00	
7,000.0	4.00	199.90	6,948.6	-649.1	-235.0	-642.9	1.00	-1.00	0.00	
7,100.0	3.00	199.90	7,048.4	-654.8	-237.0	-648.6	1.00	-1.00	0.00	
7,200.0	2.00	199.90	7,148.3	-658.9	-238.5	-652.6	1.00	-1.00	0.00	
7,300.0	1.00	199.90	7,248.3	-661.4	-239.4	-655.1	1.00	-1.00	0.00	
7,400.0	0.00	0.00	7,348.3	-662.2	-239.7	-655.9	1.00	-1.00	0.00	
7,500.0	0.00	0.00	7,448.3	-662.2	-239.7	-655.9	0.00	0.00	0.00	
7,600.0	0.00	0.00	7,548.3	-662.2	-239.7	-655.9	0.00	0.00	0.00	
7,700.0	0.00	0.00	7,648.3	-662.2	-239.7	-655.9	0.00	0.00	0.00	
7,800.0	0.00	0.00	7,748.3	-662.2	-239.7	-655.9	0.00	0.00	0.00	
7,900.0	0.00	0.00	7,848.3	-662.2	-239.7	-655.9	0.00	0.00	0.00	
8,000.0	0.00	0.00	7,948.3	-662.2	-239.7	-655.9	0.00	0.00	0.00	
8,100.0	0.00	0.00	8,048.3	-662.2	-239.7	-655.9	0.00	0.00	0.00	
8,200.0	0.00	0.00	8,148.3	-662.2	-239.7	-655.9	0.00	0.00	0.00	
8,300.0	0.00	0.00	8,248.3	-662.2	-239.7	-655.9	0.00	0.00	0.00	
8,400.0	0.00	0.00	8,348.3	-662.2	-239.7	-655.9	0.00	0.00	0.00	
8,500.0	0.00	0.00	8,448.3	-662.2	-239.7	-655.9	0.00	0.00	0.00	
8,600.0	0.00	0.00	8,548.3	-662.2	-239.7	-655.9	0.00	0.00	0.00	
8,700.0	0.00	0.00	8,648.3	-662.2	-239.7	-655.9	0.00	0.00	0.00	
8,800.0	0.00	0.00	8,748.3	-662.2	-239.7	-655.9	0.00	0.00	0.00	
8,900.0	0.00	0.00	8,848.3	-662.2	-239.7	-655.9	0.00	0.00	0.00	
9,000.0	0.00	0.00	8,948.3	-662.2	-239.7	-655.9	0.00	0.00	0.00	
9,100.0	0.00	0.00	9,048.3	-662.2	-239.7	-655.9	0.00	0.00	0.00	
9,200.0	0.00	0.00	9,148.3	-662.2	-239.7	-655.9	0.00	0.00	0.00	
9,300.0	0.00	0.00	9,248.3	-662.2	-239.7	-655.9	0.00	0.00	0.00	
9,400.0	0.00	0.00	9,348.3	-662.2	-239.7	-655.9	0.00	0.00	0.00	
9,500.0	0.00	0.00	9,448.3	-662.2	-239.7	-655.9	0.00	0.00	0.00	
9,600.0	0.00	0.00	9,548.3	-662.2	-239.7	-655.9	0.00	0.00	0.00	
9,700.0	0.00	0.00	9,648.3	-662.2	-239.7	-655.9	0.00	0.00	0.00	
9,800.0	0.00	0.00	9,748.3	-662.2	-239.7	-655.9	0.00	0.00	0.00	
9,900.0	0.00	0.00	9,848.3	-662.2	-239.7	-655.9	0.00	0.00	0.00	

LGC
Planning Report

Database:	Centennial EDM SQL Server	Local Co-ordinate Reference:	Well GOUDA FEDERAL COM 604H
Company:	NEW MEXICO	TVD Reference:	H&P650 @ 3722.4usft (H&P 650 26.5+3695.9)
Project:	LEA	MD Reference:	H&P650 @ 3722.4usft (H&P 650 26.5+3695.9)
Site:	GOUDA	North Reference:	True
Well:	GOUDA FEDERAL COM 604H	Survey Calculation Method:	Minimum Curvature
Wellbore:	GOUDA FEDERAL COM 604H		
Design:	PWPO		

Planned Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	
10,000.0	0.00	0.00	9,948.3	-662.2	-239.7	-655.9	0.00	0.00	0.00	
10,100.0	0.00	0.00	10,048.3	-662.2	-239.7	-655.9	0.00	0.00	0.00	
10,200.0	0.00	0.00	10,148.3	-662.2	-239.7	-655.9	0.00	0.00	0.00	
10,300.0	0.00	0.00	10,248.3	-662.2	-239.7	-655.9	0.00	0.00	0.00	
10,400.0	0.00	0.00	10,348.3	-662.2	-239.7	-655.9	0.00	0.00	0.00	
10,500.0	0.00	0.00	10,448.3	-662.2	-239.7	-655.9	0.00	0.00	0.00	
10,600.0	0.00	0.00	10,548.3	-662.2	-239.7	-655.9	0.00	0.00	0.00	
10,700.0	0.00	0.00	10,648.3	-662.2	-239.7	-655.9	0.00	0.00	0.00	
10,800.0	0.00	0.00	10,748.3	-662.2	-239.7	-655.9	0.00	0.00	0.00	
10,900.0	0.00	0.00	10,848.3	-662.2	-239.7	-655.9	0.00	0.00	0.00	
11,000.0	0.00	0.00	10,948.3	-662.2	-239.7	-655.9	0.00	0.00	0.00	
11,100.0	0.00	0.00	11,048.3	-662.2	-239.7	-655.9	0.00	0.00	0.00	
11,157.0	0.00	0.00	11,105.3	-662.2	-239.7	-655.9	0.00	0.00	0.00	
11,200.0	4.14	359.96	11,148.2	-660.6	-239.7	-654.3	9.63	9.63	0.00	
11,300.0	13.78	359.96	11,246.9	-645.1	-239.7	-638.8	9.63	9.63	0.00	
11,400.0	23.41	359.96	11,341.6	-613.2	-239.7	-606.9	9.63	9.63	0.00	
11,500.0	33.05	359.96	11,429.6	-566.0	-239.8	-559.7	9.63	9.63	0.00	
11,600.0	42.68	359.96	11,508.4	-504.7	-239.8	-498.4	9.63	9.63	0.00	
11,700.0	52.31	359.96	11,575.9	-431.1	-239.9	-424.8	9.63	9.63	0.00	
11,800.0	61.95	359.96	11,630.1	-347.2	-239.9	-340.9	9.63	9.63	0.00	
11,900.0	71.58	359.96	11,669.5	-255.4	-240.0	-249.2	9.63	9.63	0.00	
12,000.0	81.22	359.96	11,693.0	-158.3	-240.1	-152.1	9.63	9.63	0.00	
12,091.2	90.00	359.96	11,700.0	-67.5	-240.1	-61.3	9.63	9.63	0.00	
12,100.0	90.00	359.96	11,700.0	-58.7	-240.1	-52.5	0.00	0.00	0.00	
12,200.0	90.00	359.96	11,700.0	41.3	-240.2	47.4	0.00	0.00	0.00	
12,300.0	90.00	359.96	11,700.0	141.3	-240.3	147.4	0.00	0.00	0.00	
12,400.0	90.00	359.96	11,700.0	241.3	-240.3	247.4	0.00	0.00	0.00	
12,500.0	90.00	359.96	11,700.0	341.3	-240.4	347.4	0.00	0.00	0.00	
12,600.0	90.00	359.96	11,700.0	441.3	-240.5	447.3	0.00	0.00	0.00	
12,700.0	90.00	359.96	11,700.0	541.3	-240.6	547.3	0.00	0.00	0.00	
12,800.0	90.00	359.96	11,700.0	641.3	-240.6	647.3	0.00	0.00	0.00	
12,900.0	90.00	359.96	11,700.0	741.3	-240.7	747.2	0.00	0.00	0.00	
13,000.0	90.00	359.96	11,700.0	841.3	-240.8	847.2	0.00	0.00	0.00	
13,100.0	90.00	359.96	11,700.0	941.3	-240.8	947.2	0.00	0.00	0.00	
13,200.0	90.00	359.96	11,700.0	1,041.3	-240.9	1,047.1	0.00	0.00	0.00	
13,300.0	90.00	359.96	11,700.0	1,141.3	-241.0	1,147.1	0.00	0.00	0.00	
13,400.0	90.00	359.96	11,700.0	1,241.3	-241.0	1,247.1	0.00	0.00	0.00	
13,500.0	90.00	359.96	11,700.0	1,341.3	-241.1	1,347.1	0.00	0.00	0.00	
13,600.0	90.00	359.96	11,700.0	1,441.3	-241.2	1,447.0	0.00	0.00	0.00	
13,700.0	90.00	359.96	11,700.0	1,541.3	-241.2	1,547.0	0.00	0.00	0.00	
13,800.0	90.00	359.96	11,700.0	1,641.3	-241.3	1,647.0	0.00	0.00	0.00	
13,900.0	90.00	359.96	11,700.0	1,741.3	-241.4	1,746.9	0.00	0.00	0.00	
14,000.0	90.00	359.96	11,700.0	1,841.3	-241.5	1,846.9	0.00	0.00	0.00	
14,100.0	90.00	359.96	11,700.0	1,941.3	-241.5	1,946.9	0.00	0.00	0.00	
14,200.0	90.00	359.96	11,700.0	2,041.3	-241.6	2,046.8	0.00	0.00	0.00	
14,300.0	90.00	359.96	11,700.0	2,141.3	-241.7	2,146.8	0.00	0.00	0.00	
14,400.0	90.00	359.96	11,700.0	2,241.3	-241.7	2,246.8	0.00	0.00	0.00	
14,500.0	90.00	359.96	11,700.0	2,341.3	-241.8	2,346.7	0.00	0.00	0.00	
14,600.0	90.00	359.96	11,700.0	2,441.3	-241.9	2,446.7	0.00	0.00	0.00	
14,700.0	90.00	359.96	11,700.0	2,541.3	-241.9	2,546.7	0.00	0.00	0.00	
14,800.0	90.00	359.96	11,700.0	2,641.3	-242.0	2,646.7	0.00	0.00	0.00	
14,900.0	90.00	359.96	11,700.0	2,741.3	-242.1	2,746.6	0.00	0.00	0.00	

LGC
Planning Report

Database:	Centennial EDM SQL Server	Local Co-ordinate Reference:	Well GOUDA FEDERAL COM 604H
Company:	NEW MEXICO	TVD Reference:	H&P650 @ 3722.4usft (H&P 650 26.5+3695.9)
Project:	LEA	MD Reference:	H&P650 @ 3722.4usft (H&P 650 26.5+3695.9)
Site:	GOUDA	North Reference:	True
Well:	GOUDA FEDERAL COM 604H	Survey Calculation Method:	Minimum Curvature
Wellbore:	GOUDA FEDERAL COM 604H		
Design:	PWPO		

Planned Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	
15,000.0	90.00	359.96	11,700.0	2,841.3	-242.2	2,846.6	0.00	0.00	0.00	
15,100.0	90.00	359.96	11,700.0	2,941.3	-242.2	2,946.6	0.00	0.00	0.00	
15,200.0	90.00	359.96	11,700.0	3,041.3	-242.3	3,046.5	0.00	0.00	0.00	
15,300.0	90.00	359.96	11,700.0	3,141.3	-242.4	3,146.5	0.00	0.00	0.00	
15,400.0	90.00	359.96	11,700.0	3,241.3	-242.4	3,246.5	0.00	0.00	0.00	
15,500.0	90.00	359.96	11,700.0	3,341.3	-242.5	3,346.4	0.00	0.00	0.00	
15,600.0	90.00	359.96	11,700.0	3,441.3	-242.6	3,446.4	0.00	0.00	0.00	
15,700.0	90.00	359.96	11,700.0	3,541.3	-242.6	3,546.4	0.00	0.00	0.00	
15,800.0	90.00	359.96	11,700.0	3,641.3	-242.7	3,646.3	0.00	0.00	0.00	
15,900.0	90.00	359.96	11,700.0	3,741.3	-242.8	3,746.3	0.00	0.00	0.00	
16,000.0	90.00	359.96	11,700.0	3,841.3	-242.9	3,846.3	0.00	0.00	0.00	
16,100.0	90.00	359.96	11,700.0	3,941.3	-242.9	3,946.3	0.00	0.00	0.00	
16,200.0	90.00	359.96	11,700.0	4,041.3	-243.0	4,046.2	0.00	0.00	0.00	
16,300.0	90.00	359.96	11,700.0	4,141.3	-243.1	4,146.2	0.00	0.00	0.00	
16,400.0	90.00	359.96	11,700.0	4,241.3	-243.1	4,246.2	0.00	0.00	0.00	
16,500.0	90.00	359.96	11,700.0	4,341.3	-243.2	4,346.1	0.00	0.00	0.00	
16,600.0	90.00	359.96	11,700.0	4,441.3	-243.3	4,446.1	0.00	0.00	0.00	
16,700.0	90.00	359.96	11,700.0	4,541.3	-243.3	4,546.1	0.00	0.00	0.00	
16,800.0	90.00	359.96	11,700.0	4,641.3	-243.4	4,646.0	0.00	0.00	0.00	
16,900.0	90.00	359.96	11,700.0	4,741.3	-243.5	4,746.0	0.00	0.00	0.00	
17,000.0	90.00	359.96	11,700.0	4,841.3	-243.6	4,846.0	0.00	0.00	0.00	
17,100.0	90.00	359.96	11,700.0	4,941.3	-243.6	4,945.9	0.00	0.00	0.00	
17,200.0	90.00	359.96	11,700.0	5,041.3	-243.7	5,045.9	0.00	0.00	0.00	
17,300.0	90.00	359.96	11,700.0	5,141.3	-243.8	5,145.9	0.00	0.00	0.00	
17,400.0	90.00	359.96	11,700.0	5,241.3	-243.8	5,245.9	0.00	0.00	0.00	
17,500.0	90.00	359.96	11,700.0	5,341.3	-243.9	5,345.8	0.00	0.00	0.00	
17,600.0	90.00	359.96	11,700.0	5,441.3	-244.0	5,445.8	0.00	0.00	0.00	
17,700.0	90.00	359.96	11,700.0	5,541.3	-244.0	5,545.8	0.00	0.00	0.00	
17,800.0	90.00	359.96	11,700.0	5,641.3	-244.1	5,645.7	0.00	0.00	0.00	
17,900.0	90.00	359.96	11,700.0	5,741.3	-244.2	5,745.7	0.00	0.00	0.00	
18,000.0	90.00	359.96	11,700.0	5,841.3	-244.3	5,845.7	0.00	0.00	0.00	
18,100.0	90.00	359.96	11,700.0	5,941.3	-244.3	5,945.6	0.00	0.00	0.00	
18,200.0	90.00	359.96	11,700.0	6,041.3	-244.4	6,045.6	0.00	0.00	0.00	
18,300.0	90.00	359.96	11,700.0	6,141.3	-244.5	6,145.6	0.00	0.00	0.00	
18,400.0	90.00	359.96	11,700.0	6,241.3	-244.5	6,245.5	0.00	0.00	0.00	
18,500.0	90.00	359.96	11,700.0	6,341.3	-244.6	6,345.5	0.00	0.00	0.00	
18,600.0	90.00	359.96	11,700.0	6,441.3	-244.7	6,445.5	0.00	0.00	0.00	
18,700.0	90.00	359.96	11,700.0	6,541.3	-244.7	6,545.5	0.00	0.00	0.00	
18,800.0	90.00	359.96	11,700.0	6,641.3	-244.8	6,645.4	0.00	0.00	0.00	
18,900.0	90.00	359.96	11,700.0	6,741.3	-244.9	6,745.4	0.00	0.00	0.00	
19,000.0	90.00	359.96	11,700.0	6,841.3	-244.9	6,845.4	0.00	0.00	0.00	
19,100.0	90.00	359.96	11,700.0	6,941.3	-245.0	6,945.3	0.00	0.00	0.00	
19,200.0	90.00	359.96	11,700.0	7,041.3	-245.1	7,045.3	0.00	0.00	0.00	
19,300.0	90.00	359.96	11,700.0	7,141.3	-245.2	7,145.3	0.00	0.00	0.00	
19,400.0	90.00	359.96	11,700.0	7,241.3	-245.2	7,245.2	0.00	0.00	0.00	
19,500.0	90.00	359.96	11,700.0	7,341.3	-245.3	7,345.2	0.00	0.00	0.00	
19,600.0	90.00	359.96	11,700.0	7,441.3	-245.4	7,445.2	0.00	0.00	0.00	
19,700.0	90.00	359.96	11,700.0	7,541.3	-245.4	7,545.1	0.00	0.00	0.00	
19,800.0	90.00	359.96	11,700.0	7,641.3	-245.5	7,645.1	0.00	0.00	0.00	
19,900.0	90.00	359.96	11,700.0	7,741.3	-245.6	7,745.1	0.00	0.00	0.00	
20,000.0	90.00	359.96	11,700.0	7,841.3	-245.6	7,845.1	0.00	0.00	0.00	
20,100.0	90.00	359.96	11,700.0	7,941.3	-245.7	7,945.0	0.00	0.00	0.00	

LGC
Planning Report

Database:	Centennial EDM SQL Server	Local Co-ordinate Reference:	Well GOUDA FEDERAL COM 604H
Company:	NEW MEXICO	TVD Reference:	H&P650 @ 3722.4usft (H&P 650 26.5+3695.9)
Project:	LEA	MD Reference:	H&P650 @ 3722.4usft (H&P 650 26.5+3695.9)
Site:	GOUDA	North Reference:	True
Well:	GOUDA FEDERAL COM 604H	Survey Calculation Method:	Minimum Curvature
Wellbore:	GOUDA FEDERAL COM 604H		
Design:	PWPO		

Planned Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	
20,200.0	90.00	359.96	11,700.0	8,041.3	-245.8	8,045.0	0.00	0.00	0.00	
20,300.0	90.00	359.96	11,700.0	8,141.3	-245.9	8,145.0	0.00	0.00	0.00	
20,400.0	90.00	359.96	11,700.0	8,241.3	-245.9	8,244.9	0.00	0.00	0.00	
20,500.0	90.00	359.96	11,700.0	8,341.3	-246.0	8,344.9	0.00	0.00	0.00	
20,600.0	90.00	359.96	11,700.0	8,441.3	-246.1	8,444.9	0.00	0.00	0.00	
20,700.0	90.00	359.96	11,700.0	8,541.3	-246.1	8,544.8	0.00	0.00	0.00	
20,800.0	90.00	359.96	11,700.0	8,641.3	-246.2	8,644.8	0.00	0.00	0.00	
20,900.0	90.00	359.96	11,700.0	8,741.3	-246.3	8,744.8	0.00	0.00	0.00	
21,000.0	90.00	359.96	11,700.0	8,841.3	-246.3	8,844.7	0.00	0.00	0.00	
21,100.0	90.00	359.96	11,700.0	8,941.3	-246.4	8,944.7	0.00	0.00	0.00	
21,200.0	90.00	359.96	11,700.0	9,041.3	-246.5	9,044.7	0.00	0.00	0.00	
21,300.0	90.00	359.96	11,700.0	9,141.3	-246.6	9,144.7	0.00	0.00	0.00	
21,400.0	90.00	359.96	11,700.0	9,241.3	-246.6	9,244.6	0.00	0.00	0.00	
21,500.0	90.00	359.96	11,700.0	9,341.3	-246.7	9,344.6	0.00	0.00	0.00	
21,600.0	90.00	359.96	11,700.0	9,441.3	-246.8	9,444.6	0.00	0.00	0.00	
21,700.0	90.00	359.96	11,700.0	9,541.3	-246.8	9,544.5	0.00	0.00	0.00	
21,800.0	90.00	359.96	11,700.0	9,641.3	-246.9	9,644.5	0.00	0.00	0.00	
21,851.5	90.00	359.96	11,700.0	9,692.8	-246.9	9,696.0	0.00	0.00	0.00	
5 1/2"										

Design Targets										
Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude	
FTP - GOUDA FED COM - hit/miss target - Shape	0.00	0.00	11,700.0	-657.9	-238.1	11,768,486.08	2,043,610.01	32° 24' 49.243 N	103° 41' 35.054 W	- plan misses target center by 243.6usft at 11616.5usft MD (11520.4 TVD, -493.3 N, -239.8 E) - Circle (radius 50.0)
LTP/BHL - FOUDA FED - plan misses target center by 0.4usft at 21851.5usft MD (11700.0 TVD, 9692.8 N, -246.9 E) - Point	0.00	0.00	11,700.0	9,692.9	-247.3	11,778,835.97	2,043,474.17	32° 26' 31.684 N	103° 41' 35.161 W	
FTP - GOUDA FED COM - plan misses target center by 1179.9usft at 11620.0usft MD (11522.9 TVD, -490.9 N, -239.8 E) - Circle (radius 50.0)	0.00	0.00	11,700.0	-652.4	915.4	11,768,505.73	2,044,763.45	32° 24' 49.298 N	103° 41' 21.594 W	
LTP/BHL - GOUDA FED - plan misses target center by 1153.2usft at 21851.5usft MD (11700.0 TVD, 9692.8 N, -246.9 E) - Point	0.00	0.00	11,700.0	9,698.0	906.3	11,778,855.22	2,044,627.62	32° 26' 31.735 N	103° 41' 21.698 W	
LTP/BHL - GOUDA FED - plan misses target center by 585.0usft at 21851.5usft MD (11700.0 TVD, 9692.8 N, -246.9 E) - Point	0.00	0.00	11,800.0	9,695.5	329.5	11,778,845.60	2,044,050.89	32° 26' 31.710 N	103° 41' 28.430 W	
FTP - GOUDA FED COM - plan misses target center by 659.0usft at 11685.9usft MD (11567.2 TVD, -442.1 N, -239.9 E) - Circle (radius 50.0)	0.00	0.00	11,800.0	-655.1	338.6	11,768,495.90	2,044,186.73	32° 24' 49.270 N	103° 41' 28.324 W	

LGC
Planning Report

Database:	Centennial EDM SQL Server	Local Co-ordinate Reference:	Well GOUDA FEDERAL COM 604H
Company:	NEW MEXICO	TVD Reference:	H&P650 @ 3722.4usft (H&P 650 26.5+3695.9)
Project:	LEA	MD Reference:	H&P650 @ 3722.4usft (H&P 650 26.5+3695.9)
Site:	GOUDA	North Reference:	True
Well:	GOUDA FEDERAL COM 604H	Survey Calculation Method:	Minimum Curvature
Wellbore:	GOUDA FEDERAL COM 604H		
Design:	PWPO		

Casing Points					
Measured Depth (usft)	Vertical Depth (usft)	Name	Casing Diameter (")	Hole Diameter (")	
750.0	750.0	13 3/8"	13-3/8	17-1/2	
4,726.2	4,700.0	9 5/8"	9-5/8	12-1/4	
21,851.5	11,700.0	5 1/2"	5-1/2	8-1/2	

NEW MEXICO

LEA

GOUDA

GOUDA FEDERAL COM 604H

GOUDA FEDERAL COM 604H

PWP0

Anticollision Summary Report

09 August, 2019

LGC
Anticollision Summary Report

Company:	NEW MEXICO	Local Co-ordinate Reference:	Well GOUDA FEDERAL COM 604H
Project:	LEA	TVD Reference:	H&P650 @ 3722.4usft (H&P 650 26.5+3695.9)
Reference Site:	GOUDA	MD Reference:	H&P650 @ 3722.4usft (H&P 650 26.5+3695.9)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	GOUDA FEDERAL COM 604H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	GOUDA FEDERAL COM 604H	Database:	Centennial EDM SQL Server
Reference Design:	PWP0	Offset TVD Reference:	Reference Datum

Reference	PWP0		
Filter type:	NO GLOBAL FILTER: Using user defined selection & filtering criteria		
Interpolation Method:	MD Interval 100.0usft	Error Model:	ISCWSA
Depth Range:	Unlimited	Scan Method:	Closest Approach 3D
Results Limited by:	Maximum center-center distance of 2,395.2 usft	Error Surface:	Pedal Curve
Warning Levels Evaluated at:	2.00 Sigma	Casing Method:	Not applied

Survey Tool Program	Date	8/9/2019		
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description
0.0	21,851.5	PWP0 (GOUDA FEDERAL COM 604H)	MWD+IFR1+MS	OWSG_Rev2_ MWD + IFR1 + Multi-Station Correction

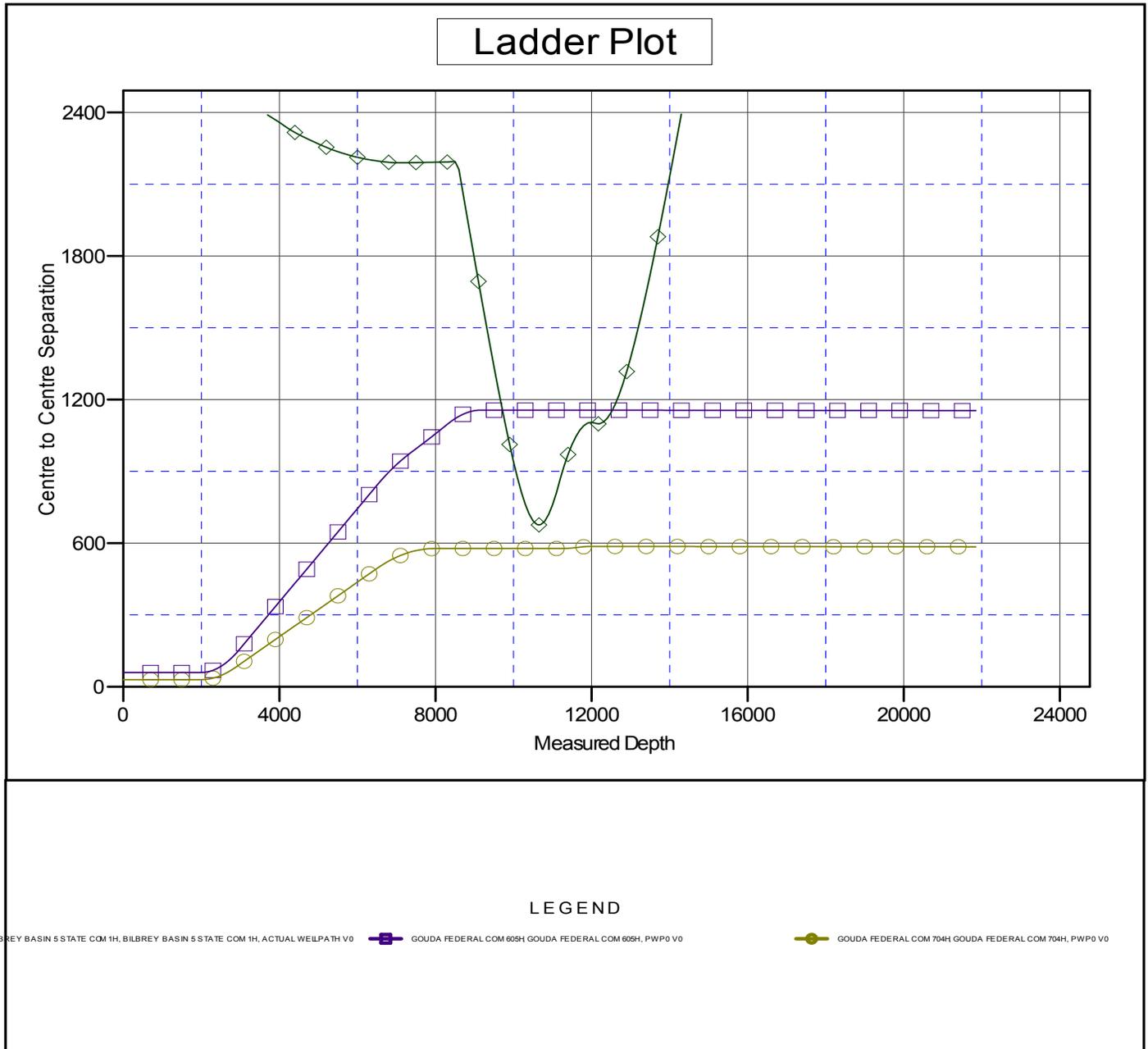
Summary						
Site Name Offset Well - Wellbore - Design	Reference	Offset	Distance		Separation Factor	Warning
	Measured Depth (usft)	Measured Depth (usft)	Between Centres (usft)	Between Ellipses (usft)		
CHEDDAR						
BILBREY BASIN 5 STATE COM 1H - BILBREY BASIN 5	10,653.0	12,437.2	676.4	575.9	6.726	CC, ES, SF
GOUDA						
GOUDA FEDERAL COM 605H - GOUDA FEDERAL COM	2,000.0	2,000.0	60.0	46.1	4.320	CC, ES
GOUDA FEDERAL COM 605H - GOUDA FEDERAL COM	2,100.0	2,099.2	61.0	46.4	4.186	SF
GOUDA FEDERAL COM 704H - GOUDA FEDERAL COM	2,000.0	2,000.0	30.0	16.1	2.160	CC
GOUDA FEDERAL COM 704H - GOUDA FEDERAL COM	2,100.0	2,099.8	30.7	16.1	2.105	ES, SF

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

LGC Anticollision Summary Report

Company:	NEW MEXICO	Local Co-ordinate Reference:	Well GOUDA FEDERAL COM 604H
Project:	LEA	TVD Reference:	H&P650 @ 3722.4usft (H&P 650 26.5+3695.9)
Reference Site:	GOUDA	MD Reference:	H&P650 @ 3722.4usft (H&P 650 26.5+3695.9)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	GOUDA FEDERAL COM 604H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	GOUDA FEDERAL COM 604H	Database:	Centennial EDM SQL Server
Reference Design:	PWP0	Offset TVD Reference:	Reference Datum

Reference Depths are relative to H&P650 @ 3722.4usft (H&P 650 26.5) Coordinates are relative to: GOUDA FEDERAL COM 604H
 Offset Depths are relative to Offset Datum Coordinate System is Universal Transverse Mercator (US Survey Feet), Zone 13N
 Central Meridian is 105° 0' 0.000 W Grid Convergence at Surface is: 0.70°



CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

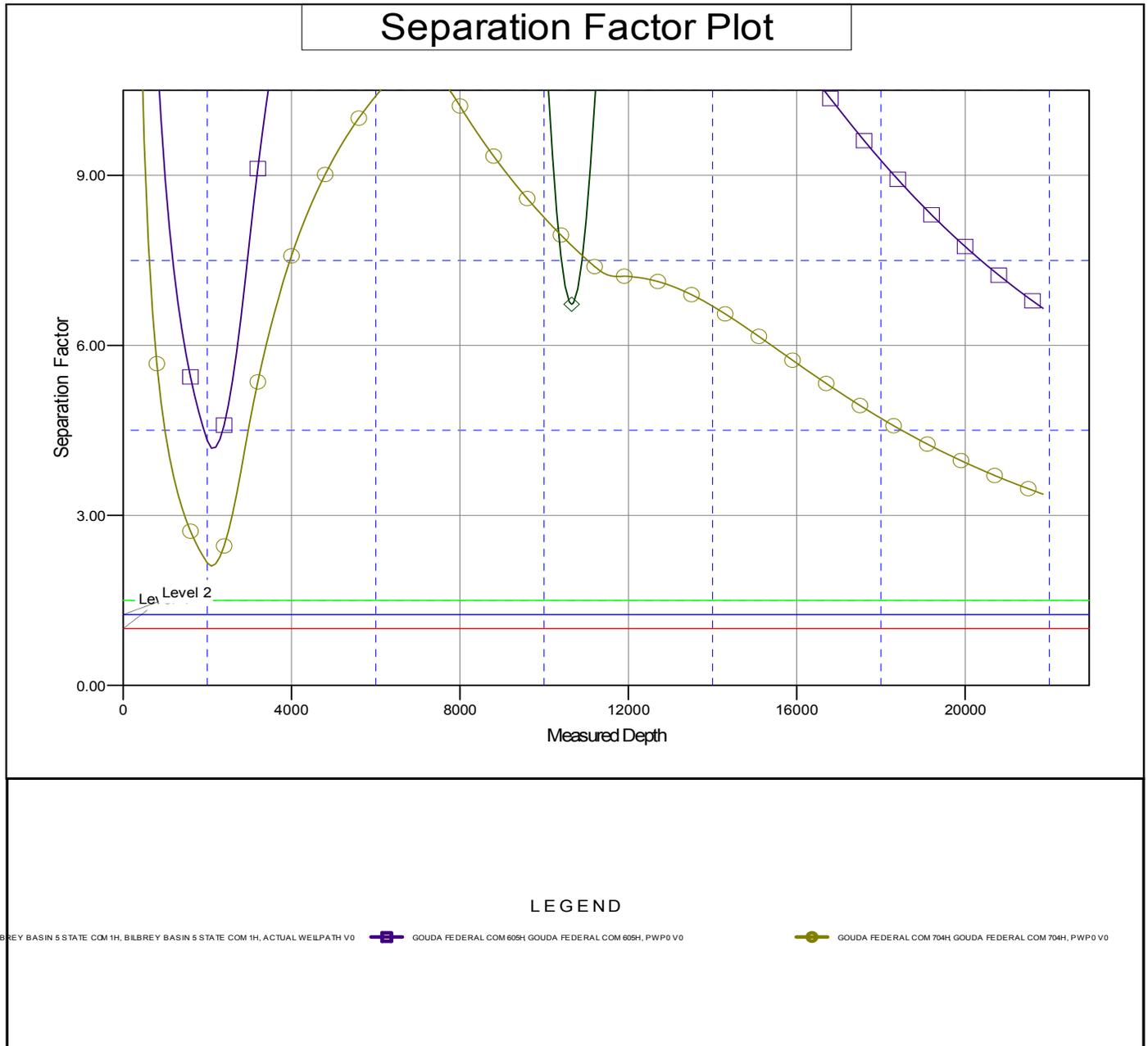
LGC

Anticollision Summary Report

Company:	NEW MEXICO	Local Co-ordinate Reference:	Well GOUDA FEDERAL COM 604H
Project:	LEA	TVD Reference:	H&P650 @ 3722.4usft (H&P 650 26.5+3695.9)
Reference Site:	GOUDA	MD Reference:	H&P650 @ 3722.4usft (H&P 650 26.5+3695.9)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	GOUDA FEDERAL COM 604H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	GOUDA FEDERAL COM 604H	Database:	Centennial EDM SQL Server
Reference Design:	PWPO	Offset TVD Reference:	Reference Datum

Reference Depths are relative to H&P650 @ 3722.4usft (H&P 650 26.5)
 Offset Depths are relative to Offset Datum
 Central Meridian is 105° 0' 0.000 W

Coordinates are relative to: GOUDA FEDERAL COM 604H
 Coordinate System is Universal Transverse Mercator (US Survey Feet), Zone 13N
 Grid Convergence at Surface is: 0.70°



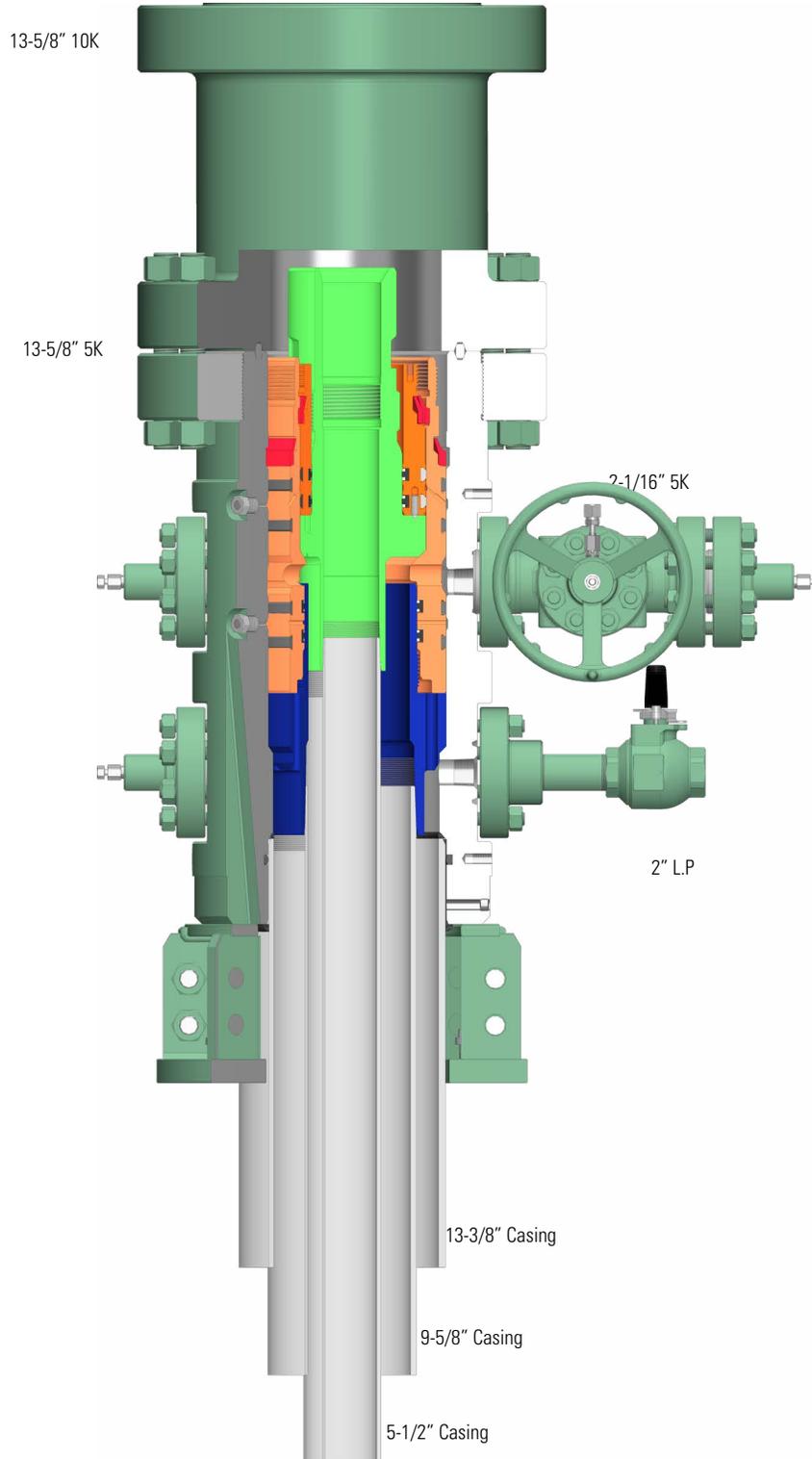
CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Gouda Federal Com 604H

Centennial Drilling Plan for 3-Casing String Bone Springs Formation

13-3/8" x 9-5/8" x 5-1/2" Casing Design

1. Drill 17-1/2" surface hole to Total Depth with Spudder Rig and perform wellbore cleanup cycles.
2. Run and land 13-3/8" casing to Depth.
3. Cement 13-3/8" casing – cement to surface.
4. Cut / Dress Conductor and 13-3/8" casing as needed, weld on Cameron Multi-bowl system with baseplate supported by 20" conductor.
5. Test Weld to 70% of 13-3/8" casing collapse. Place nightcap with Pressure Gauge on wellhead and test seals to 70% of Casing Collapse.
6. Bleed Pressure if necessary and remove nightcap. Nipple up and test BOPE with test plug per Onshore Order 2.
7. Test casing per COA WOC timing (.22 psi/ft or 1500 psi whichever is greater) - not to exceed 70% casing burst. Cement must have achieved 500psi compressive strength prior to test.
8. Install wear bushing then drill out 13-3/8" shoe-track plus 20' and conduct FIT to minimum of the MW equivalent anticipated to control the formation pressure to the next casing point.
9. Drill 12-1/4" Intermediate hole to 9-5/8" casing point. (Base Capitan Reef).
10. Remove wear bushing then run and land 9-5/8" Intermediate Casing with mandrel hanger in wellhead.
11. Cement 9-5/8 casing – cement to surface.
12. Washout stack then run wash tool in wellhead and wash hanger and pack-off setting area.
13. Install pack-off and test to 5000 psi for 15 minutes.
 - a. Test casing per COA WOC timing (.22 psi/ft or 1500 psi whichever is greater) - not to exceed 70% casing burst. Cement must have achieved 500psi compressive strength prior to test.
14. Install wear bushing then drill out 9-5/8" shoe-track plus 20' and conduct FIT to minimum MW equivalent to control the formation pressure to TD of well.
15. Drill 8-3/4" Vertical hole to KOP – Trip out for Curve BHA.
16. Drill 8-3/4" Curve, landing in production interval – Trip for Lateral BHA.
17. Drill 8-1/2" Lateral to Permitted BHL, perform cleanup cycles and trip out to run 5-1/2" Production Casing.
18. Remove wear bushing then run 5-1/2" production casing to TD landing casing mandrel in wellhead.
19. Cement 5-1/2" Production string to surface.
20. Run in with wash tool and wash wellhead area – install pack-off and test to 5000psi for 15 minutes.
21. Install BPV in 5-1/2" mandrel hanger – Nipple down BOPE and install nightcap.
22. Test nightcap void to 5000psi for 30 minutes.



CAMERON CONFIDENTIAL INFORMATION			
DO NOT SCALE		 A Schlumberger Company	Surface Systems
Drawn by: C.Moore	Date: 7/1/19		13-5/8" 10k MN-DS
Checked by: V.Atwell	Date: 7/1/19	02	
Drawing No: 1655807-A			

Centennial Resource Development New Mexico Multi-Well Pad Drilling Batch Setting Procedures

➤ Avalon and Bone Springs Formations

13-3/8" Surface Casing - CRD intends to preset 13-3/8" casing to a depth approved in the APD. 17-1/2" Surface Holes will be batch drilled by a Surface Preset rig. Appropriate notifications will be made prior to spudding the well, running and cementing casing and prior to skidding to the rig to the next well on pad.

1. Drill 17-1/2" Surface hole to Approved Depth with Surface Preset Rig and perform wellbore cleanup cycles. Trip out and rack back drilling BHA.
2. Run and land 13-3/8" 54.5# J55 BTC casing to depth approved in APD.
3. Cement 13-3/8" casing with cement to surface and floats holding.
4. Cut / Dress 20" Conductor and 13-3/8" casing as needed, weld on Cameron Multi-bowl system with baseplate supported by 20" conductor (see [Illustration 1-1 Below](#)). Weld performed per Cameron weld procedure.
5. Test Weld to 70% of 13-3/8" casing collapse or ~ 790psi.
6. Install nightcap with Pressure Gauge on wellhead. Nightcap is shown on final wellhead Stack up [Illustration #2-2 page 3](#).
7. Skid Rig to adjacent well to drill Surface hole.
8. Surface casing test will be performed by the Big Rig in order to allow ample time for Cement to develop 500psi compressive strength. Casing test to 0.22 psi/ft or 1500 psi whichever is greater - not to exceed 70% casing burst.

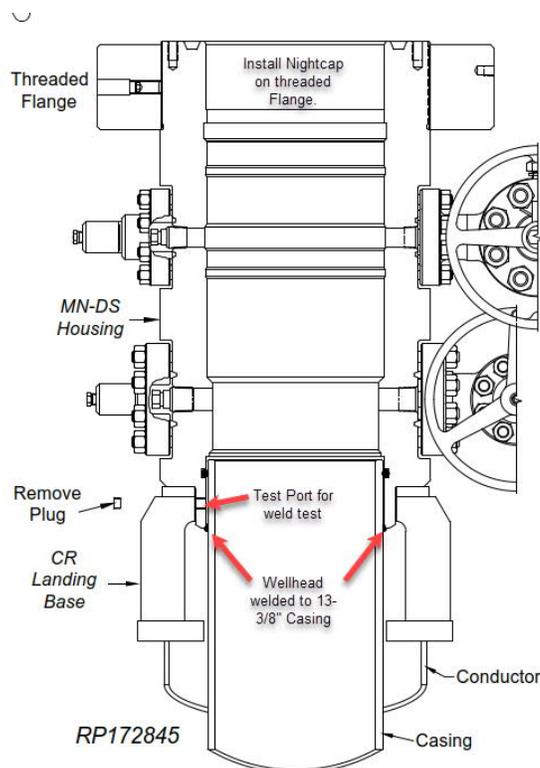


Illustration 1-1

- Intermediate and Production Casing – For all subsequent Intermediate and Production Casing Strings, the Big Rig will remove the nightcap and install and test BOPE. Prior to drill out the 13-3/8" Casing will be tested to 0.22psi/ft or 1500psi whichever is greater. The well will be drilled below 13-3/8" to its intended final TD in the Avalon or Bonesprings formations. Batch drilling will not be executed for casing strings below the 13-3/8". Appropriate notifications will be made prior Testing BOPE, and prior to running/cementing all casing strings. The

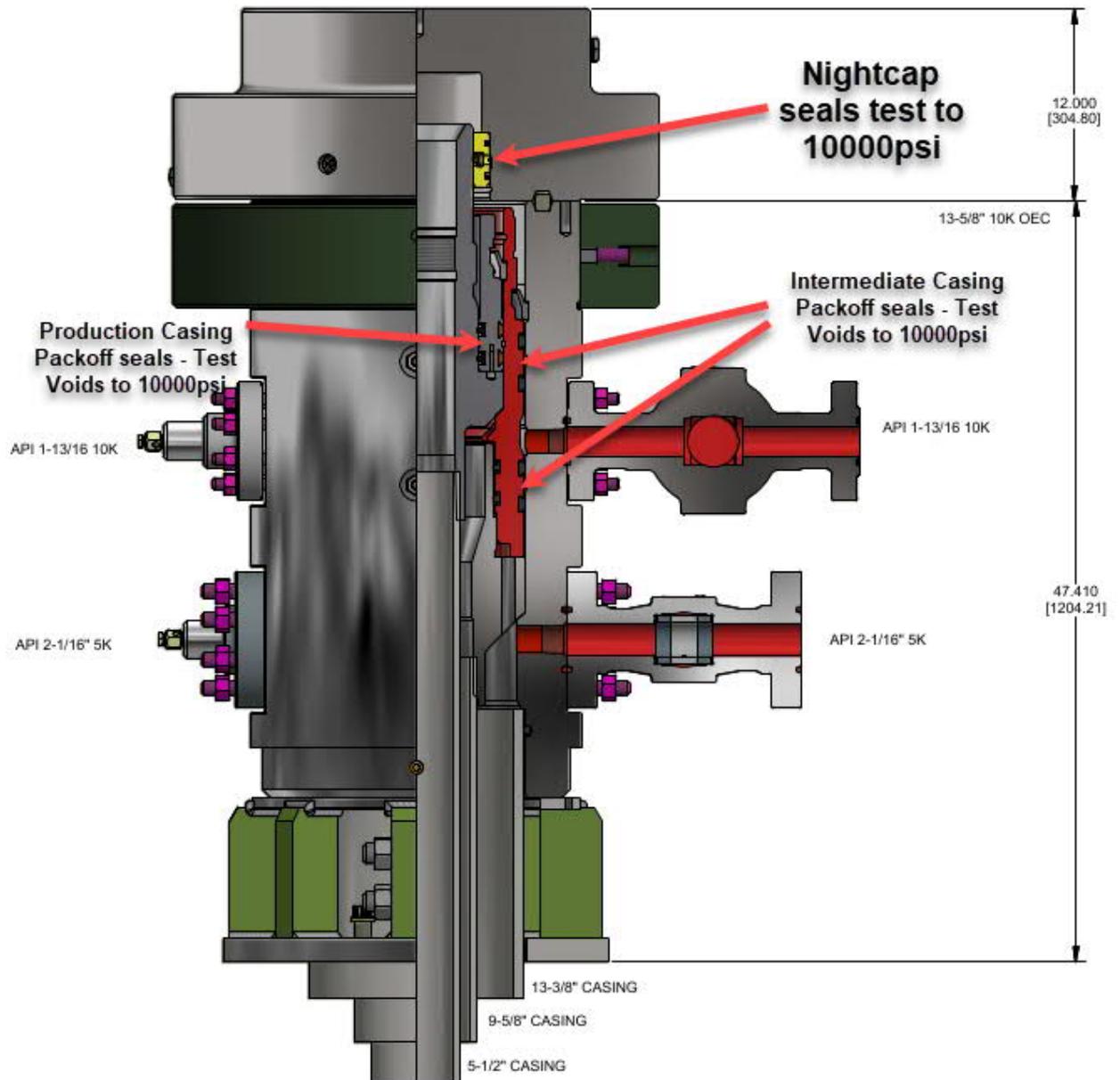
➤ Wolfcamp Formations

13-3/8" Surface Casing - CRD intends to preset 13-3/8" casing to a depth approved in the APD. Surface Holes will be batch set by a Surface Preset rig. Appropriate notifications will be made prior to spudding the well, running and cementing casing and prior to skidding to the rig to the next well on pad.

1. Drill 17-1/2" Surface hole to Approved Depth with Surface Preset Rig and perform wellbore cleanup cycles. Trip out and rack back drilling BHA.
2. Run and land 13-3/8" 54.5# J55 BTC casing to depth approved in APD.
3. Cement 13-3/8" casing with cement to surface and floats holding.
4. Cut / Dress 20" Conductor and 13-3/8" casing as needed, weld on Cameron Multi-bowl system with baseplate supported by 20" conductor (see [Illustration 1-1](#)). Weld performed per Cameron weld procedure.
5. Test Weld to 70% of 13-3/8" casing collapse or ~ 790psi.
6. Install nightcap with Pressure Gauge on wellhead. Nightcap is shown on final wellhead Stack up [Illustration #2-2 on page 3](#).
7. Subsequent casing test will be performed by the Big Rig in order to allow ample time for Cement to develop 500psi compressive strength. Casing test to 0.22 psi/ft or 1500 psi whichever is greater - not to exceed 70% casing burst.

Intermediate Casing – CRD intends to Batch set all intermediate casing strings to a depth approved in the APD, typically set 100' above KOP in the 3rd Bonesprings Carbonate. For the last intermediate section drilled on pad, the associated production interval will immediately follow. Appropriate notifications will be made prior Testing BOPE, and prior to running/cementing all casing strings.

1. Big Rig will remove the nightcap and install and test BOPE.
2. Test Surface casing per COA WOC timing (.22 psi/ft or 1500 psi whichever is greater) - not to exceed 70% casing burst. Cement must have achieved 500psi compressive strength prior to test.
3. Install wear bushing then drill out 13-3/8" shoe-track plus 20' and conduct FIT to minimum of the MW equivalent anticipated to control the formation pressure to the next casing point.
4. Drill Intermediate hole to approved casing point. Trip out of hole with BHA to run Casing.
5. Remove wear bushing then run and land Intermediate Casing with mandrel hanger in wellhead.
6. Cement casing to surface with floats holding.
7. Washout stack then run wash tool in wellhead and wash hanger and pack-off setting area.
8. Install pack-off and test void to 10000 psi for 15 minutes. Nightcap shown on final wellhead stack up [illustration 2-2 on page 3](#).
9. Test casing per COA WOC timing (.22 psi/ft or 1500 psi whichever is greater) - not to exceed 70% casing burst. Cement must have achieved 500psi compressive strength prior to test.
10. Install nightcap – skid rig to adjacent well to drill Intermediate hole.



WITH CAP

Illustration 2-2

Production Casing – CRD intends to Batch set all Production casings, except for the last intermediate hole. In this case the production interval will immediately follow the intermediate section on that well. Appropriate notifications will be made prior Testing BOPE, and prior to running/cementing all casing strings.

1. Big Rig will remove the nightcap and install and test BOPE.
2. Install wear bushing then drill Intermediate shoe-track plus 20' and conduct FIT to minimum MW equivalent to control the formation pressure to TD of well.
3. Drill Vertical hole to KOP – Trip out for Curve BHA.
4. Drill Curve, landing in production interval – Trip for Lateral BHA.

5. Drill Lateral / Production hole to Permitted BHL, perform cleanup cycles and trip out to run 5-1/2" Production Casing.
6. Remove wear bushing then run 5-1/2" production casing to TD landing casing mandrel in wellhead.
7. Cement 5-1/2" Production string to surface with floats holding.
8. Run in with wash tool and wash wellhead area – install pack-off and test void to 10000psi for 15 minutes.
9. Install BPV in 5-1/2" mandrel hanger – Nipple down BOPE and install nightcap.
10. Test nightcap void to 10000psi for 30 minutes per [illustration 2-2 page 3](#).
11. Skid rig to adjacent well on pad to drill production hole.

District I
1625 N. French Dr., Hobbs, NM 88240
District II
811 S. First St., Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy, Minerals and Natural Resources Department
Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

Submit Original
to Appropriate
District Office

GAS CAPTURE PLAN

Date: 04/27/20

Original Operator & OGRID No.: Centennial Resource Production, LLC #372165
 Amended - Reason for Amendment: _____

This Gas Capture Plan outlines actions to be taken by the Operator to reduce well/production facility flaring/venting for new completion (new drill, recomple to new zone, re-frac) activity.

Note: Form C-129 must be submitted and approved prior to exceeding 60 days allowed by Rule (Subsection A of 19.15.18.12 NMAC).

Well(s)/Production Facility – Juliet Federal Pad Facility

The well(s) that will be located at the production facility are shown in the table below.

Well Name	API	Well Location (ULSTR)	Footages	Expected MCF/D	Flared or Vented	Comments
Gouda Federal Com 604H	Pending 30-025-48616	P-5-22S-32E	757 FSL & 1245 FEL	2.4M	Neither	New Well
Gouda Federal Com 605H	Pending	P-5-22S-32E	757 FSL & 1185 FEL	2.4M	Neither	New Well

Gathering System and Pipeline Notification

Well(s) will be connected to a production facility after flowback operations are complete, if gas transporter system is in place. The gas produced from production facility is dedicated to Lucid Energy and will be connected to Lucid's low/high pressure gathering system located in Lea County, New Mexico. It will require 0' of new pipeline to connect the facility to low/high pressure gathering system. Centennial Resource Production, LLC provides (periodically) to Lucid a drilling, completion and estimated first production date for wells that are scheduled to be drilled in the foreseeable future. In addition, Centennial Resource Production, LLC and Lucid Energy have periodic conference calls to discuss changes to drilling and completion schedules. Gas from these wells will be processed at Lucid's Red Hills Processing Plant located in Sec. 13, Twn. 24S, Rng. 33E, Lea County, New Mexico. The actual flow of the gas will be based on compression operating parameters and gathering system pressures.

Flowback Strategy

After the fracture treatment/completion operations, well(s) will be produced to temporary production tanks and gas will be flared or vented. During flowback, the fluids and sand content will be monitored. When the produced fluids contain minimal sand, the wells will be turned to production facilities. Gas sales should start as soon as the wells start flowing through the production facilities, unless there are operational issues on Lucid's system at that time. Based on current information, it is Centennial's belief the system can take this gas upon completion of the well(s).

Safety requirements during cleanout operations from the use of underbalanced air cleanout systems may necessitate that sand and non-pipeline quality gas be vented and/or flared rather than sold on a temporary basis.

Alternatives to Reduce Flaring

Below are alternatives considered from a conceptual standpoint to reduce the amount of gas flared.

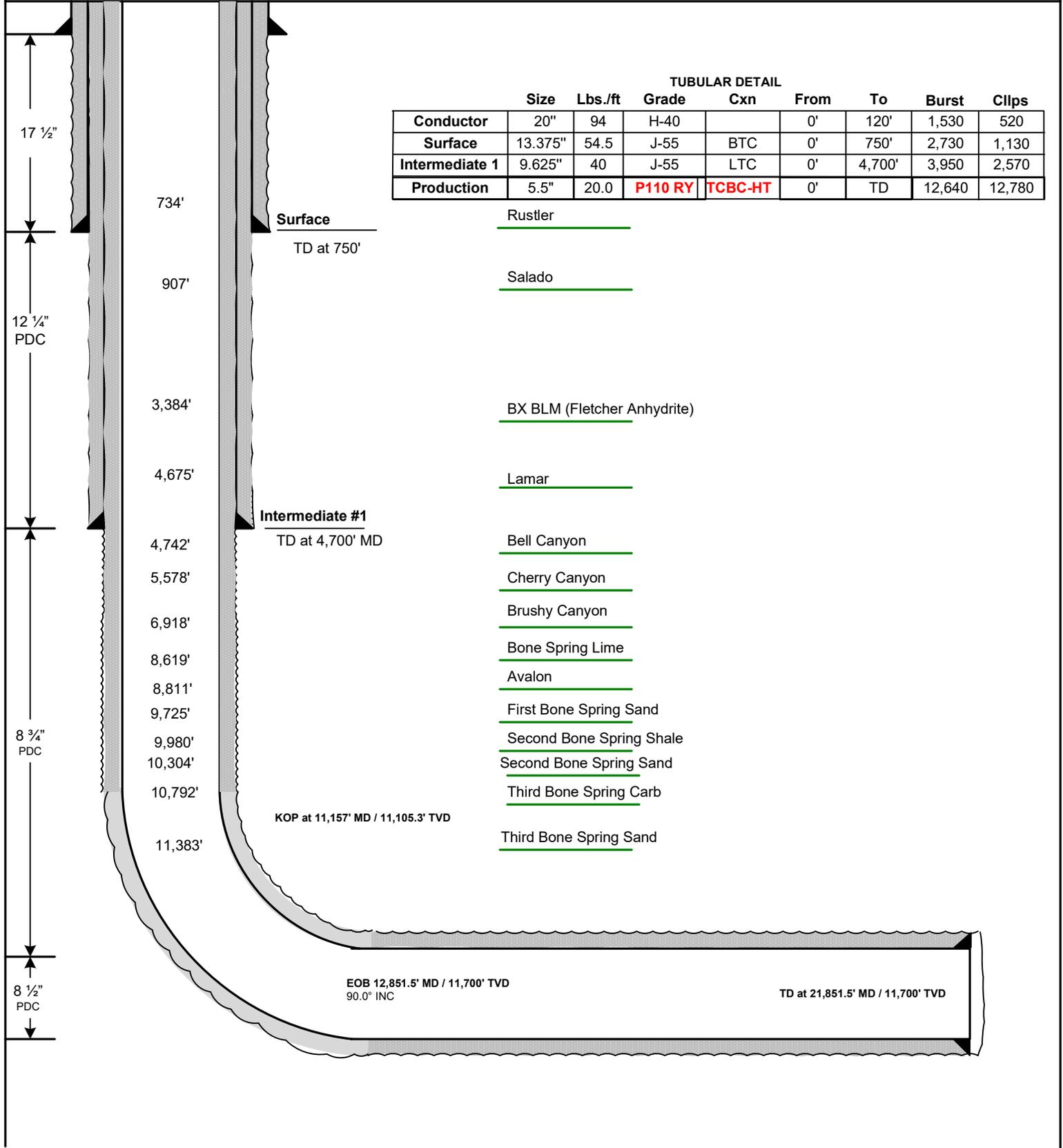
- Power Generation – On lease
 - Only a portion of gas is consumed operating the generator, remainder of gas will be flared
- Compressed Natural Gas – On lease
 - Gas flared would be minimal, but might be uneconomical to operate when gas volume declines
- NGL Removal – On lease

- Plants are expensive, residue gas is still flared, and uneconomical to operate when gas volume declines

CENTENNIAL

WBD

Well : Gouda Federal Com 604H
 Area : Burratta FM tgt: 3rd BSS
 County : Lea State : NM
 Location : Lot P Section 5, T22S, R32E; 757' FSL & 1,245' FEL
 BHL : Lot B, Section 32, T21S, R32E; 100' FNL & 1,400' FEL
 KB Elev : 3,721.3' MSL KB : 26.5' AGL GL Elev : 3,694.8' MSL



TUBULAR DETAIL								
	Size	Lbs./ft	Grade	Cxn	From	To	Burst	Clips
Conductor	20"	94	H-40		0'	120'	1,530	520
Surface	13.375"	54.5	J-55	BTC	0'	750'	2,730	1,130
Intermediate 1	9.625"	40	J-55	LTC	0'	4,700'	3,950	2,570
Production	5.5"	20.0	P110 RY	TCBC-HT	0'	TD	12,640	12,780

GEOLOGIC PROG

			WELL NAME		Gouda Federal Com 604H		9/10/2020		
			AREA		Burratta		API		
			HZ TARGET		TBSG Sand		WI %		
			LAT LENGTH		10,000		AFE#		
			TRRC PERMIT				COUNTY		Lea
	TWNP	RNG	SECTION	FOOTAGE		COMMENT			
SHL	22S	32E	5	757' FSL, 1245' FEL		On lease. Drill S to N.			
FTP/ P	22S	32E	5	100' FSL, 1484' FEL					
LTP	21S	32E	32	100' FNL, 1484' FEL					
BHL	21S	32E	32	100' FNL, 1484' FEL					
			GROUND LEVEL	3,696'	RIG KB	26'	KB ELEV	3,722'	
GEOLOGIST	Isabel Harper		isabel.harper@cdevinc.com			(303) 589-8841			
LOGGING		No open hole logging. MWD GR from drill out of surface casing to TD.							
MUDLOGGING		Standard mud logging and mud gas detection. Mud loggers on from drill out of surface casing to TD.							
FORMATION	TVD	SSTVD	THICKNESS	FINAL MD	FIN L TVD	DELT			
Rustler	734'	2,988'	173'						
Salado	907'	2,815'	2,477'						
BX BLM (Fletcher Anhydrite)	3,384'	338'	1,291'						
Lamar	4,675'	-953'	67'						
Bell Canyon	4,742'	-1,020'	836'						
Cherry Canyon	5,578'	-1,856'	235'						
Manzanita Lime	5,813'	-2,091'	1,105'						
Brushy Canyon	6,918'	-3,196'	1,701'						
Bone Spring Lime	8,619'	-4,897'	192'						
Avalon	8,811'	-5,089'	914'						
FBSG Sand	9,725'	-6,003'	255'						
SBSG Shale	9,980'	-6,258'	324'						
SBSG Sand	10,304'	-6,582'	488'						
TBSG Carb	10,792'	-7,070'	591'						
TBSG Sand	11,383'	-7,661'							
Target Top at 0'VS	11,738'	-8,016'	48'						
Target Base at 0' VS	11,786'	-8,064'							
HZ TARGET AT 0' VS	11,762'	-8,040'							
TAR ET: KBTVD = 11,762' at VS, INC = 90.0 deg Target Window +10/-10'									
COMMENT:									

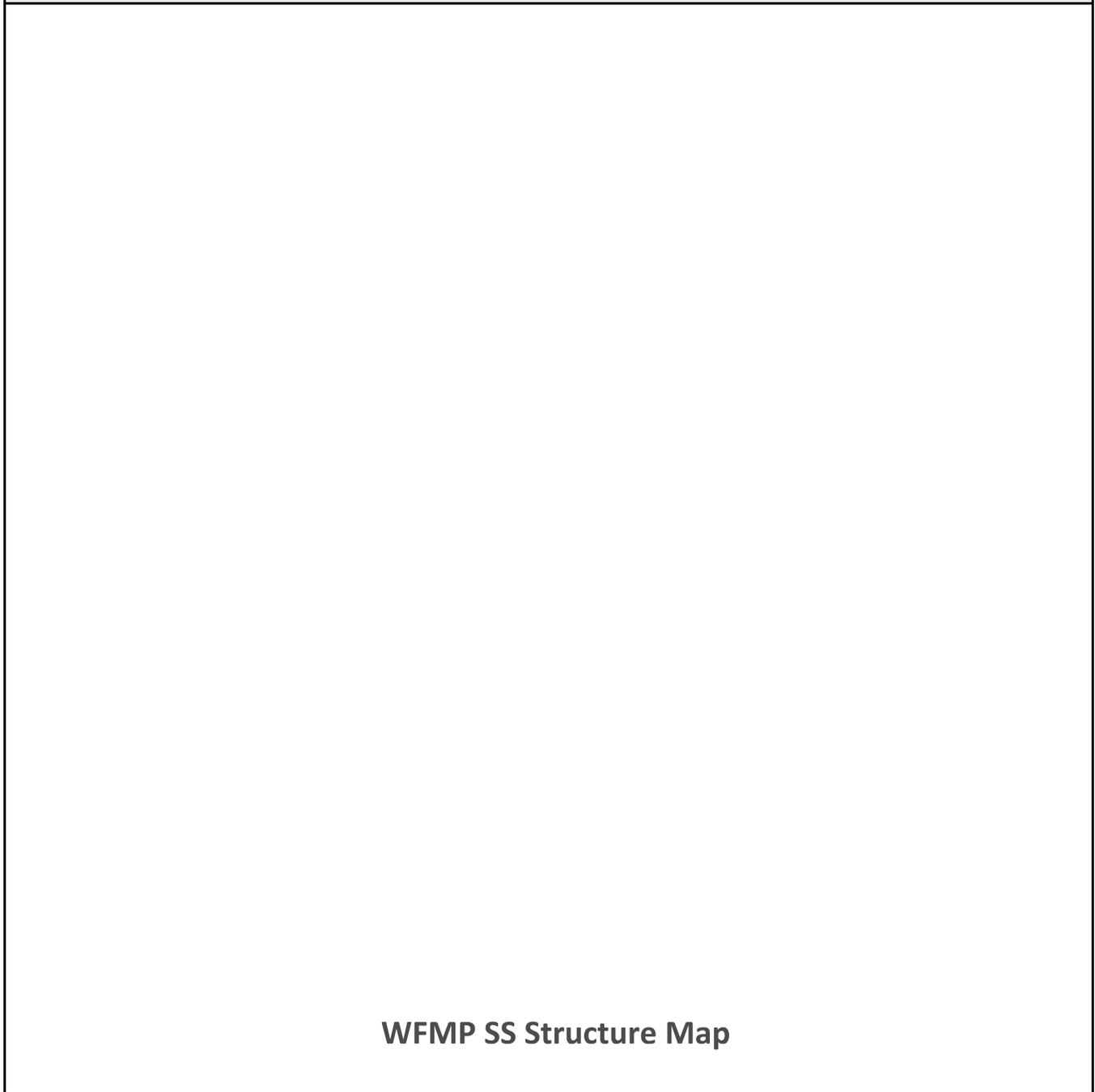
GEOLOGIC PROG

OFFSET TYPE WELLS							
	DRILLING WELL		Gouda Federal Com 604H		9/10/2020		
	HZ TARGET		TBSG Sand		AREA		
	SECONDARY TYPE LOG				PRIMARY TYPE LOG		
	CHEDDAR 3BS FEDERAL 001H				FEDERAL 8 1		
	30-025-44692				30-025-32709		
	LOCATION		22S/32E/5; 244' FSL/370' FWL		22S/32E/8; 1980' FNL/1980' FEL		
	DISTANCE		3728' W of SHL		2830' SW of SHL		
	DIRECTION SURVEY		Y		N		
	KB ELEV		3,694'		3,748'		
	FORMATION		TVD	SSTVD	DELTA	TVD	SST D
Rustler	746'	2,948'		722'	3,026'		
Salado	919'	2,775'		894'	2,854'		
Lamar	4,646'	-952'		4,701'	-953'		
Bell Canyon	4,730'	-1,036'	797'	4,768'	-1,020'	836'	
Cherry Canyon	5,527'	-1,833'	230'	5,604'	-1,856'	235'	
Manzanita Lime	5,757'	-2,063'	1,100'	5,839'	-2,091'	1,105'	
Brushy Canyon	6,857'	-3,163'	1,727'	6,944'	-3,196'	1,701'	
Bone Spring Lime	8,584'	-4,890'	152'	8,645'	-4,897'	192'	
Avalon	8,736'	-5,042'	887'	8,837'	-5,089'	914'	
FBSG Sand	9,623'	-5,929'	264'	9,751'	-6,003'	255'	
SBSG Shale	9,887'	-6,193'	405'	10,006'	-6,258'	324'	
SBSG Sand	10,292'	-6,598'	454'	10,330'	-6,582'	488'	
TBSG Carb	10,746'	-7,052'	581'	10,818'	-7,070'	591'	
TBSG Sand	11,327'	-7,633'		11,409'	-7,661'	423'	
WFMP				11,832'	-8,084'		
Casing Details							
13 3/8	728'			13 3/8	818'		
9 5/8	4,501'			9 5/8	4,560'		
5 1/2	21,661'			7	12,555'		
Reservoir Top	10,764'	-7,070'	45'		11,773'	-8,025'	48'
Reservoir Base	10,809'	-7,115'			11,821'	-8,073'	
Comments							

GEOLOGIC PROG

OFFSET TYPE WELLS				
	DRILLING WELL	Gouda Federal Com 604H		9/10/2020
	HZ TARGET	TBSG Sand	AREA	Burratta
	SECONDARY TYPE LOG		PRIMARY TYPE LOG	
	CHEDDAR 3BS FEDERAL 001H		FEDERAL 8 1	
	30-025-44692		30-025-32709	
LOCATION	22S/32E/5; 244' FSL/370' FWL		22S/32E/8; 1980' FNL/1980' FEL	
DISTANCE	3728' W of SHL		2830' SW of SHL	
DIRECTION SURVEY	Y		N	
KB ELEV	3,694'		3,748'	

LOCATION & STRUCTURE MAP

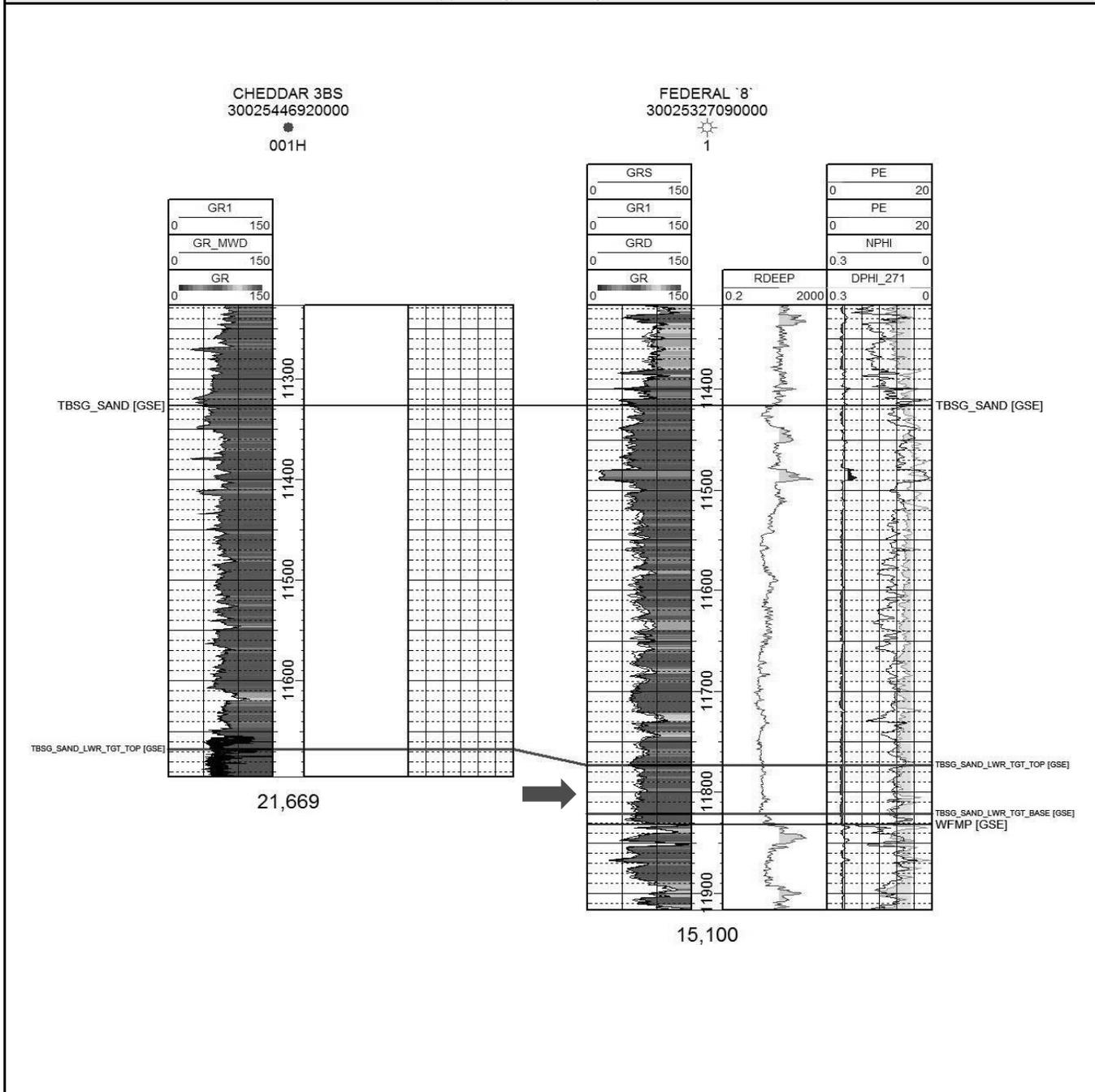


WFMP SS Structure Map

GEOLOGIC PROG

OFFSET TYPE SECTION			
	DRILLING WELL	Gouda Federal Com 604H	
	HZ TARGET	TBSG Sand	AREA
	SECONDARY TYPE LOG	PRIMARY TYPE LOG	
	CHEDDAR 3BS FEDERAL 001H	FEDERAL 8 1	
	30-025-44692	30-025-32709	
LOCATION	22S/32E/5; 244' FSL/370' FWL	22S/32E/8; 1980' FNL/1980' FEL	
DISTANCE	3728' W of SHL	2830' SW of SHL	
DIRECTION SURVEY	Y	N	
KB ELEV	3,694'	3,748'	

Type Log and Targer Zone



GEOLOGIC PROG

GEOPHYSICAL DATA

POTENTIAL GEOHAZARDS

SEISMIC DISPLAYS

GEOLOGIC PROG

MUD LOG DISTRIBUTION DETAILS				
 <p>CENTENNIAL RESOURCE DEVELOPMENT, LLC</p>	WELL NAME	Gouda Federal Com 604H		9/10/2020
	AREA	Burratta	I	
	HZ TARGET	TBSG Sand	I %	
	LAT LENGTH	10000	FE#	
	TRRC PERMIT		COUNTY	Lea
GEOLOGIST	Isabel Harper	isabel.harper@cdevinc.com	(303) 589-8841	
Mud Logging Company				
TBD				
TBD	TBD		TBD	
Contact 2	email		phone	
Contact 3	email		phone	
Daily distribution data requirements and protocol				
geodata@cdevinc.com; joe.woodske@cdevinc.com; drilling@cdevinc.com; dawn.billesbach@cdevinc.com, Andrew.welshhans@cdevinc.com; nick.daniele@cdevinc.com; Isabel.Harper@cdevinc.com				
Daily email distribution list				
Final distribution data requirements				
Final distribution list				
Contact Information	Reports	Hard Copies	Digital data	Cuttings
Centennial Resource Development, c/o Joe Woodske, 1001 17th street, Suite 1800,	email final set	2 copies of 5" MD Vertical, 2 copies of 5" Horizontal and	email final set	
SCAL, Inc., 2613 South County Road 1257, Midland, TX 79706				No Dried Samples to be Collected
MWD Only: Centennial Resource Development, c/o Sarah Ferreyros, 1001 17th street, Suite	email final set	2 copies of the 5" MD vertical logs 2 copies of the 5"	email final set	
Project Geologist:	Isabel Harper		Production:	Brandon Morin
Operations Geologist:	Joe Woodske		Surface Land:	Bailey Joplim
Drilling:	Ronny Hise		Mineral Land:	Gavin Smith

Centennial Resource Production, LLC hereby requests to use a flex hose on H&P 650's choke manifold for the Gouda Federal Com 604H well. The Flex Hose specifications are listed on the following pages.



ContiTech

CONTITECH RUBBER Industrial Kft.	No:QC-DB- 210/ 2014
	Page: 9 / 113

QUALITY CONTROL INSPECTION AND TEST CERTIFICATE		CERT. N°: 504	
PURCHASER: ContiTech Oil & Marine Corp.		P.O. N°: 4500409659	
CONTITECH RUBBER order N°: 538236	HOSE TYPE: 3" ID	Choke and Kill Hose	
HOSE SERIAL N°: 67255	NOMINAL / ACTUAL LENGTH: 10,67 m / 10,77 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 <p style="text-align: center;">See attachment. (1 page)</p>			
↑ 10 mm = 10 Min. → 10 mm = 20 MPa			
COUPLINGS Type	Serial N°	Quality	Heat N°
3" coupling with	9251 9254	AISI 4130	A0579N
4 1/16" 10K API b.w. Flange end		AISI 4130	035608
Not Designed For Well Testing		API Spec 16 C	
		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.			
COUNTRY OF ORIGIN HUNGARY/EU			
Date:	Inspector	Quality Control	
20. March 2014.		ContiTech Rubber Industrial Kft. Quality Control Dept. 	



CONTITECH RUBBER Industrial Kft.	No:QC-DB- 210/ 2014
	Page: 15 / 113

ContiTech

Hose Data Sheet

CRI Order No.	538236
Customer	ContiTech Oil & Marine Corp.
Customer Order No	4500409659
Item No.	1
Hose Type	Flexible Hose
Standard	API SPEC 16 C
Inside dia in inches	3
Length	35 ft
Type of coupling one end	FLANGE 4.1/16" 10K API SPEC 6A TYPE 6BX FLANGE C/W BX155 R.GR.SOUR
Type of coupling other end	FLANGE 4.1/16" 10K API SPEC 6A TYPE 6BX FLANGE C/W BX155 R.GR.SOUR
H2S service NACE MR0175	Yes
Working Pressure	10 000 psi
Design Pressure	10 000 psi
Test Pressure	15 000 psi
Safety Factor	2,25
Marking	USUAL PHOENIX
Cover	NOT FIRE RESISTANT
Outside protection	St.steel outer wrap
Internal stripwound tube	No
Lining	OIL + GAS RESISTANT SOUR
Safety clamp	No
Lifting collar	No
Element C	No
Safety chain	No
Safety wire rope	No
Max.design temperature [°C]	100
Min.design temperature [°C]	-20
Min. Bend Radius operating [m]	0,90
Min. Bend Radius storage [m]	0,90
Electrical continuity	The Hose is electrically continuous
Type of packing	WOODEN CRATE ISPM-15

Centennial Resource Development - Well Control Plan

A. Component and Preventer Compatibility Table

Component	OD (inches)	Preventer	RWP
Drillpipe	5	Upper VBR: 3.5 – 5.5 Lower VBR: 3.5 – 5.5	10M
Heavyweight Drillpipe	5	Upper VBR: 3.5 – 5.5 Lower VBR: 3.5 – 5.5	10M
Drill collars and MWD tools	6 ¾	Annular	5M
Mud Motor	6 ¾	Annular	5M
Production Casing	5-1/2	Upper VBR: 3.5 – 5.5 Lower VBR: 3.5 – 5.5	10M
All	0 – 13 5/8	Annular	5M
Open-hole	-	Blind rams	10M

VBR = Variable Bore Rams

RWP = Rated Working Pressure

MWD = Measurement While Drilling (directional tools)

B. Well Control Procedures

I. General Procedures While Drilling:

1. Sound alarm (alert crew).
2. Space out drill-string.
3. Shut down pumps and stop rotary.
4. Open HCR
5. Shut-in well – utilizing upper VBRs.
6. Close choke
7. Confirm shut-in.
8. Notify rig manager and Centennial company representative.
9. Call Centennial drilling engineer
10. Read and record
 - I. Shut-in drillpipe pressure (SIDPP) and shut-in casing pressure (SCIP).
 - II. Pit gain
 - III. Time
11. Regroup, identify forward plan

II. General Procedure While Tripping

1. Sound alarm (alert crew).
2. Stab full opening safety valve and close
3. Space out drillstring.
4. Open HCR
5. Shut-in well – utilizing upper VBRs
6. Close choke
7. Confirm shut-in.
8. Notify rig manager and Centennial company representative.
9. Call Centennial drilling engineer
10. Read and record:
 - I. SIDPP AND SICP
 - II. Pit gain
 - III. Time
11. Regroup and identify forward plan.

III. General Procedure While Running Casing

1. Sound alarm (alert crew)
2. Stab full opening safety valve and close
3. Space out string.
4. Open HCR
5. Shut-in well – utilizing upper VBRs.
6. Close choke
7. Confirm shut-in.
8. Notify rig manager and Centennial company representative.
9. Call Centennial drilling engineer
10. Read and record:
 - I. SIDPP AND SICP
 - II. Pit gain
 - III. Time
11. Regroup and identify forward plan.

IV. General Procedure With No Pipe In Hole (Open Hole)

1. Sound alarm (alert crew)
2. Open HCR
3. Shut-in with blind rams
4. Close choke
5. Confirm shut-in
6. Notify rig manager and Centennial company representative.
7. Call Centennial drilling engineer
8. Read and record:
 - I. SIDPP AND SICP
 - II. Pit gain
 - III. Time
9. Regroup and identify forward plan.

V. General Procedures While Pulling BHA Thru BOP Stack

1. Prior to pulling last joint of drillpipe thru stack:

- I. Perform flow check, if flowing
 - a. Sound alarm, alert crew
 - b. Stab full opening safety valve and close
 - c. Space out drillstring with tool joint just beneath the upper pipe ram.
 - d. Open HCR
 - e. Shut-in utilizing upper VBRs
 - f. Close choke
 - g. Confirm shut-in
 - h. Notify rig manager and Centennial company representative.
 - i. Call Centennial drilling engineer
 - j. Read and record:
 - i. SIDPP and SICP
 - ii. Pit gain
 - iii. Time
- II. Regroup and identify forward plan

2. With BHA in the BOP stack and compatible ram preventer and pipe combo immediately available:

- a. Sound alarm, alert crew
- b. Stab full opening safety valve and close
- c. Space out drillstring with tool joint just beneath the upper pipe ram.
- d. Open HCR
- e. Shut-in utilizing upper VBRs
- f. Close choke
- g. Confirm shut-in
- h. Notify rig manager and Centennial company representative.
- i. Call Centennial drilling engineer
- j. Read and record:
 - i. SIDPP and SICP
 - ii. Pit gain
 - iii. Time
- II. Regroup and identify forward plan

3. With BHA in the BOP stack and no compatible ram preventer and pipe combo immediately available:

- I. Sound alarm, alert crew.
- II. If possible to pick up high enough, pull string clear of the stack and follow Open Hole (III) scenario.
- III. If impossible to pick up high enough to pull the string clear of the stack:
 - a. Stab crossover, make up one joint/stand of drill pipe and full opening safety valve and close.
 - b. Space out drillstring with tool joint just beneath the upper pipe ram.
 - c. Open HCR
 - d. Shut-in utilizing upper VBRs.
 - e. Close choke
 - f. Confirm shut-in
 - g. Notify rig manager and Centennial company representative.
 - h. Call Centennial drilling engineer
 - i. Read and record:
 - i. SIDPP and SICP
 - ii. Pit gain
 - iii. Time
- IV. Regroup and identify forward plan.

**** If annular is used to shut-in well and pressure builds to OR is expected to get to 50% of RWP, confirm space-out and swap to upper VBRs for shut-in.**



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

SUPO Data Report

04/07/2021

APD ID: 10400055666

Submission Date: 06/08/2020

Highlighted data reflects the most recent changes

Operator Name: CENTENNIAL RESOURCE PRODUCTION LLC

Well Name: GOUDA FEDERAL COM

Well Number: 604H

[Show Final Text](#)

Well Type: OIL WELL

Well Work Type: Drill

Section 1 - Existing Roads

Will existing roads be used? YES

Existing Road Map:

Existing_Roads_Map_20200427105850.pdf

Existing Road Purpose: ACCESS,FLUID TRANSPORT

Row(s) Exist? NO

ROW ID(s)

ID:

Do the existing roads need to be improved? YES

Existing Road Improvement Description: - The operator will improve or maintain existing road in a condition the same as or better than before operations begin. The operator will repair pot holes, clear ditches, repair the crown, etc. All existing structures on the entire access route such as cattle guards, other range improvement projects, culverts, etc. will be properly repaired or replaced if they are damaged or have deteriorated beyond practical use. We will prevent and abate fugitive dust as needed, whether created by vehicular traffic, equipment operations, or wind events. BLM written approval will be acquired before application of surfactants, binding agents, or the dust suppression chemicals on roadways.

Existing Road Improvement Attachment:

Section 2 - New or Reconstructed Access Roads

Will new roads be needed? YES

New Road Map:

New_Roads_Map_20200427122617.pdf

New road type: COLLECTOR

Length: 3136 Feet

Width (ft.): 65

Max slope (%): 2

Max grade (%): 8

Army Corp of Engineers (ACOE) permit required? N

ACOE Permit Number(s):

New road travel width: 20

New road access erosion control: Drainage and erosion will be constantly monitored to prevent compromising the road integrity and to protect the surrounding native topography.

New road access plan or profile prepared? Y

Operator Name: CENTENNIAL RESOURCE PRODUCTION LLC

Well Name: GOUDA FEDERAL COM

Well Number: 604H

New road access plan attachment:

New_Roads_Map_20200427173437.pdf

Access road engineering design? N

Access road engineering design attachment:

Turnout? N

Access surfacing type: OTHER

Access topsoil source: BOTH

Access surfacing type description: Caliche

Access onsite topsoil source depth: 4

Offsite topsoil source description: Caliche will be hauled from the existing limestone pit located in NE4 NE4, Sec 21, T23S, R34E. The Pit has been identified for use in the attached exhibit. Any native caliche on the proposed site can be used by "flipping" the location and using all native soils. Notification shall be given to BLM at 575 234-5909 at least 2 working days prior to commencing construction of access road and/or well pad.

Onsite topsoil removal process: Native soils will be used in the initial construction of the well pad; Pad will be compacted using fresh water, dust control measures will be implemented as needed; topsoil placement is on the south where interrim reclamation is planned to be completed upon completion of well and evaluation of best management practices.

Access other construction information:

Access miscellaneous information:

Number of access turnouts:

Access turnout map:

Drainage Control

New road drainage crossing: CULVERT

Drainage Control comments: Will be monitored and repaired as necessary.

Road Drainage Control Structures (DCS) description: Drainage and erosion will be constantly monitored to prevent compromising the well site integrity, and to protect the surrounding native topography.

Road Drainage Control Structures (DCS) attachment:

Access Additional Attachments

Section 3 - Location of Existing Wells

Existing Wells Map? YES

Attach Well map:

Well_Proximity_Map_20200427182134.pdf

Gouda_604H__605H__704H_SUPO_20200427182154.docx

Operator Name: CENTENNIAL RESOURCE PRODUCTION LLC

Well Name: GOUDA FEDERAL COM

Well Number: 604H

Section 4 - Location of Existing and/or Proposed Production Facilities

Submit or defer a Proposed Production Facilities plan? SUBMIT

Production Facilities description:

Production Facilities map:

Location_Layout_plats_20200427182239.pdf

Gouda_Federal_Com_604H_605H_704H_Comingle_FAC_Layout_20200427182259.pdf

GOUDA_FEDERL_COM_AREA_CTB__REV_11_18_19_20200608140305.pdf

Section 5 - Location and Types of Water Supply

Water Source Table

Water source type: OTHER

Describe type: Private

Water source use type: SURFACE CASING
STIMULATION
DUST CONTROL
INTERMEDIATE/PRODUCTION CASING

Source latitude:

Source longitude:

Source datum:

Water source permit type: PRIVATE CONTRACT

Water source transport method: PIPELINE

Source land ownership: STATE

Source transportation land ownership: PRIVATE

Water source volume (barrels): 450000

Source volume (acre-feet): 58.00189335

Source volume (gal): 18900000

Water source and transportation map:

Water_Source__Transportation_20200429141512.pdf

Water source comments:

New water well? N

Operator Name: CENTENNIAL RESOURCE PRODUCTION LLC

Well Name: GOUDA FEDERAL COM

Well Number: 604H

New Water Well Info

Well latitude:

Well Longitude:

Well datum:

Well target aquifer:

Est. depth to top of aquifer(ft):

Est thickness of aquifer:

Aquifer comments:

Aquifer documentation:

Well depth (ft):

Well casing type:

Well casing outside diameter (in.):

Well casing inside diameter (in.):

New water well casing?

Used casing source:

Drilling method:

Drill material:

Grout material:

Grout depth:

Casing length (ft.):

Casing top depth (ft.):

Well Production type:

Completion Method:

Water well additional information:

State appropriation permit:

Additional information attachment:

Section 6 - Construction Materials

Using any construction materials: YES

Construction Materials description: BLM leased by Stacey Mills in SW4 NE4 Section 4-T22S-R32E

Construction Materials source location attachment:

Caliche_Source___Route_map_20200429142941.pdf

Section 7 - Methods for Handling Waste

Waste type: DRILLING

Waste content description: Drill cuttings, PER WELL

Amount of waste: 2075 barrels

Waste disposal frequency : One Time Only

Safe containment description: Steel tanks that will be disposed of per well

Safe containmant attachment:

Waste disposal type: HAUL TO COMMERCIAL FACILITY **Disposal location ownership:** COMMERCIAL FACILITY

Disposal type description:

Disposal location description: Drill cuttings will be properly disposed of into steel tanks and taken to an NMOCD approved disposal facility.

Operator Name: CENTENNIAL RESOURCE PRODUCTION LLC

Well Name: GOUDA FEDERAL COM

Well Number: 604H

Waste type: DRILLING

Waste content description: Fresh water based drilling fluid

Amount of waste: 1500 barrels

Waste disposal frequency : Weekly

Safe containment description: Steel tanks with plastic lined containment berms.

Safe containmant attachment:

Waste disposal type: HAUL TO COMMERCIAL FACILITY **Disposal location ownership:** COMMERCIAL FACILITY

Disposal type description:

Disposal location description: state approved disposal facility

Waste type: SEWAGE

Waste content description: Grey water/human waste

Amount of waste: 5000 gallons

Waste disposal frequency : Weekly

Safe containment description: approved waste storage tanks with containment

Safe containmant attachment:

Waste disposal type: HAUL TO COMMERCIAL FACILITY **Disposal location ownership:** COMMERCIAL FACILITY

Disposal type description:

Disposal location description: state approved disposal facility.

Waste type: GARBAGE

Waste content description: General trash/garbage

Amount of waste: 5000 pounds

Waste disposal frequency : Weekly

Safe containment description: Enclosed trash trailer

Safe containmant attachment:

Waste disposal type: HAUL TO COMMERCIAL FACILITY **Disposal location ownership:** COMMERCIAL FACILITY

Disposal type description:

Disposal location description: State approved disposal facility.

Waste type: DRILLING

Waste content description: Brine water based drilling fluid

Amount of waste: 1500 barrels

Waste disposal frequency : Monthly

Operator Name: CENTENNIAL RESOURCE PRODUCTION LLC

Well Name: GOUDA FEDERAL COM

Well Number: 604H

Safe containment description: Steel tanks with plastic-lined containment berms

Safe containmant attachment:

Waste disposal type: HAUL TO COMMERCIAL FACILITY **Disposal location ownership:** COMMERCIAL FACILITY

Disposal type description:

Disposal location description: state approved disposal facility

Reserve Pit

Reserve Pit being used? NO

Temporary disposal of produced water into reserve pit? NO

Reserve pit length (ft.) **Reserve pit width (ft.)**

Reserve pit depth (ft.) **Reserve pit volume (cu. yd.)**

Is at least 50% of the reserve pit in cut?

Reserve pit liner

Reserve pit liner specifications and installation description

Cuttings Area

Cuttings Area being used? NO

Are you storing cuttings on location? Y

Description of cuttings location Drill cuttings will be stored on location and properly disposed of into a steel tank and taken to an NMOCD approved facility.

Cuttings area length (ft.) **Cuttings area width (ft.)**

Cuttings area depth (ft.) **Cuttings area volume (cu. yd.)**

Is at least 50% of the cuttings area in cut?

WCuttings area liner

Cuttings area liner specifications and installation description

Section 8 - Ancillary Facilities

Are you requesting any Ancillary Facilities?: N

Ancillary Facilities attachment:

Comments:

Operator Name: CENTENNIAL RESOURCE PRODUCTION LLC

Well Name: GOUDA FEDERAL COM

Well Number: 604H

Section 9 - Well Site Layout

Well Site Layout Diagram:

Location_Layout_plats_20200429143152.pdf

Comments:

Section 10 - Plans for Surface Reclamation

Type of disturbance: New Surface Disturbance

Multiple Well Pad Name: Gouda 32 SESE

Multiple Well Pad Number: 1

Recontouring attachment:

Drainage/Erosion control construction: Fee/Fee/Fed

Drainage/Erosion control reclamation: Fee/Fee/Fed

Well pad proposed disturbance (acres): 4.913	Well pad interim reclamation (acres): 3.01	Well pad long term disturbance (acres): 1.903
Road proposed disturbance (acres): 2.7	Road interim reclamation (acres): 0	Road long term disturbance (acres): 0
Powerline proposed disturbance (acres): 2.193	Powerline interim reclamation (acres): 0	Powerline long term disturbance (acres): 0
Pipeline proposed disturbance (acres):	Pipeline interim reclamation (acres): 0	Pipeline long term disturbance (acres): 0
Other proposed disturbance (acres): 0.366	Other interim reclamation (acres): 0	Other long term disturbance (acres): 0
Total proposed disturbance: 10.172	Total interim reclamation: 3.01	Total long term disturbance: 1.903

Disturbance Comments:

Reconstruction method: Fee/Fee/Fed

Topsoil redistribution: Fee/Fee/Fed

Soil treatment: Fee/Fee/Fed

Existing Vegetation at the well pad: Fee/Fee/Fed

Existing Vegetation at the well pad attachment:

Existing Vegetation Community at the road: Fee/Fee/Fed

Existing Vegetation Community at the road attachment:

Existing Vegetation Community at the pipeline: Fee/Fee/Fed

Existing Vegetation Community at the pipeline attachment:

Operator Name: CENTENNIAL RESOURCE PRODUCTION LLC

Well Name: GOUDA FEDERAL COM

Well Number: 604H

Existing Vegetation Community at other disturbances: Fee/Fee/Fed

Existing Vegetation Community at other disturbances attachment:

Non native seed used? N

Non native seed description:

Seedling transplant description:

Will seedlings be transplanted for this project? N

Seedling transplant description attachment:

Will seed be harvested for use in site reclamation? N

Seed harvest description:

Seed harvest description attachment:

Seed Management

Seed Table

Seed Summary	
Seed Type	Pounds/Acre

Total pounds/Acre:

Seed reclamation attachment:

Operator Contact/Responsible Official Contact Info

First Name:

Last Name:

Phone:

Email:

Seedbed prep:

Seed BMP:

Seed method:

Existing invasive species? N

Existing invasive species treatment description:

Existing invasive species treatment attachment:

Weed treatment plan description: Fee/Fee/Fed

Weed treatment plan attachment:

Operator Name: CENTENNIAL RESOURCE PRODUCTION LLC

Well Name: GOUDA FEDERAL COM

Well Number: 604H

Monitoring plan description: Fee/Fee/Fed

Monitoring plan attachment:

Success standards: Fee/Fee/Fed

Pit closure description: Fee/Fee/Fed

Pit closure attachment:

Section 11 - Surface Ownership

Disturbance type: WELL PAD

Describe:

Surface Owner:

Other surface owner description:

BIA Local Office:

BOR Local Office:

COE Local Office:

DOD Local Office:

NPS Local Office:

State Local Office:

Military Local Office:

USFWS Local Office:

Other Local Office:

USFS Region:

USFS Forest/Grassland:

USFS Ranger District:

Disturbance type: NEW ACCESS ROAD

Describe:

Surface Owner:

Other surface owner description:

BIA Local Office:

BOR Local Office:

COE Local Office:

DOD Local Office:

Operator Name: CENTENNIAL RESOURCE PRODUCTION LLC

Well Name: GOUDA FEDERAL COM

Well Number: 604H

NPS Local Office:

State Local Office:

Military Local Office:

USFWS Local Office:

Other Local Office:

USFS Region:

USFS Forest/Grassland:

USFS Ranger District:

Disturbance type: NEW ACCESS ROAD

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 LAND OFFICE

Military Local Office:

USFWS Local Office:

Other Local Office:

USFS Region:

USFS Forest/Grassland:

USFS Ranger District:

Disturbance type: NEW ACCESS ROAD

Describe:

Surface Owner:

Other surface owner description:

BIA Local Office:

Operator Name: CENTENNIAL RESOURCE PRODUCTION LLC

Well Name: GOUDA FEDERAL COM

Well Number: 604H

BOR Local Office:

COE Local Office:

DOD Local Office:

NPS Local Office:

State Local Office:

Military Local Office:

USFWS Local Office:

Other Local Office:

USFS Region:

USFS Forest/Grassland:

USFS Ranger District:

Disturbance type: PIPELINE

Describe:

Surface Owner:

Other surface owner description:

BIA Local Office:

BOR Local Office:

COE Local Office:

DOD Local Office:

NPS Local Office:

State Local Office:

Military Local Office:

USFWS Local Office:

Other Local Office:

USFS Region:

USFS Forest/Grassland:

USFS Ranger District:

Operator Name: CENTENNIAL RESOURCE PRODUCTION LLC

Well Name: GOUDA FEDERAL COM

Well Number: 604H

Disturbance type: PIPELINE

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 LAND OFFICE

Military Local Office:

USFWS Local Office:

Other Local Office:

USFS Region:

USFS Forest/Grassland:

USFS Ranger District:

Section 12 - Other Information

Right of Way needed? N

Use APD as ROW?

ROW Type(s):

ROW Applications

SUPO Additional Information:

Use a previously conducted onsite? N

Previous Onsite information:

Other SUPO Attachment

Gouda_604H__605H__704H_SUPO_20200608150530.pdf



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

PWD Data Report

04/07/2021

APD ID: 10400055666

Submission Date: 06/08/2020

Operator Name: CENTENNIAL RESOURCE PRODUCTION LLC

Well Name: GOUDA FEDERAL COM

Well Number: 604H

Well Type: OIL WELL

Well Work Type: Drill

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? N

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:

Decribe 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:

Operator Name: CENTENNIAL RESOURCE PRODUCTION LLC

Well Name: GOUDA FEDERAL COM

Well Number: 604H

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:

Section 3 - Unlined Pits

Would you like to utilize Unlined Pit PWD options? N

Produced Water Disposal (PWD) Location:

PWD disturbance (acres):

PWD surface owner:

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?

Operator Name: CENTENNIAL RESOURCE PRODUCTION LLC

Well Name: GOUDA FEDERAL COM

Well Number: 604H

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? N

Produced Water Disposal (PWD) Location:

PWD surface owner:

PWD disturbance (acres):

Injection PWD discharge volume (bbl/day):

Injection well mineral owner:

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? N

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? N

Produced Water Disposal (PWD) Location:

PWD surface owner:

PWD disturbance (acres):

Other PWD discharge volume (bbl/day):

Operator Name: CENTENNIAL RESOURCE PRODUCTION LLC

Well Name: GOUDA FEDERAL COM

Well Number: 604H

Other PWD type description:

Other PWD type attachment:

Have other regulatory requirements been met?

Other regulatory requirements attachment:



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

Bond Info Data Report

04/07/2021

APD ID: 10400055666

Submission Date: 06/08/2020

Highlighted data reflects the most recent changes

Operator Name: CENTENNIAL RESOURCE PRODUCTION LLC

Well Name: GOUDA FEDERAL COM

Well Number: 604H

[Show Final Text](#)

Well Type: OIL WELL

Well Work Type: Drill

Bond Information

Federal/Indian APD: FED

BLM Bond number: NMB001841

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:

District I
 1625 N. French Dr., Hobbs, NM 88240
 Phone:(575) 393-6161 Fax:(575) 393-0720
District II
 811 S. First St., Artesia, NM 88210
 Phone:(575) 748-1283 Fax:(575) 748-9720
District III
 1000 Rio Brazos Rd., Aztec, NM 87410
 Phone:(505) 334-6178 Fax:(505) 334-6170
District IV
 1220 S. St Francis Dr., Santa Fe, NM 87505
 Phone:(505) 476-3470 Fax:(505) 476-3462

State of New Mexico
Energy, Minerals and Natural Resources
Oil Conservation Division
1220 S. St Francis Dr.
Santa Fe, NM 87505

CONDITIONS

Action 23295

CONDITIONS OF APPROVAL

Operator:	CENTENNIAL RESOURCE PRODUCTION	1001 17th Street, Suite 1800	Denver, CO80202	OGRID:	372165	Action Number:	23295	Action Type:	FORM 3160-3
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OCD Reviewer	Condition
pkautz	Will require a File As Drilled C-102 and a Directional Survey with the C-104
pkautz	Once the well is spud, to prevent ground water contamination through whole or partial conduits from the surface, the operator shall drill without interruption through the fresh water zone or zones and shall immediately set in cement the water protection string