Form 3160-3
(June 2015)

OCD Hobbs

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

HOBBS OCD

APPLICATION FOR PERMIT TO DRILL OR REENTER

DEC 12 2018

RECEIVED

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

5. Lease Serial No.
NMNM117125

6. If Indian, Allotee or Tribe Name

1a. Type of work: ☑ DRILL ☐ REENTER

1b. Type of Well: ☑ Oil Well ☐ Gas Well ☐ Other

1c. Type of Completion: ☐ Hydraulic Fracturing ☑ Single Zone ☐ Multiple Zone

7. If Unit or CA Agreement, Name and No.

8. Lease Name and Well No.
SHEBA FEDERAL COM 506H (318028)

2. Name of Operator
CENTENNIAL RESOURCE PRODUCTION LLC (372165)

9. API Well No.
30-025-45404

3a. Address
1001 17th Street, Suite 1800 Denver CO 80202

3b. Phone No. *(include area code)*
(720)499-1400

10. Field and Pool, or Exploratory
RED HILLS BONE SPRING, NORTH (96434)

4. Location of Well *(Report location clearly and in accordance with any State requirements.*)*

At surface LOT O / 300 FSL / 1785 FEL / LAT 32.196606 / LONG -103.455053

At proposed prod. zone LOT A / 330 FNL / 1225 FEL / LAT 32.209375 / LONG -103.453237

11. Sec., T. R. M. or Blk. and Survey or Area
SEC 22 / T24S / R34E / NMP

14. Distance in miles and direction from nearest town or post office*
19.5 miles

12. County or Parish
LEA

13. State
NM

15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any)
461 feet

16. No of acres in lease
400

17. Spacing Unit dedicated to this well
53.33

18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft.
30 feet

19. Proposed Depth
11241 feet / 15870 feet

20. BLM/BIA Bond No. in file
FED: NMB001471

21. Elevations (Show whether DF, KDB, RT, GL, etc.)
3495 feet

22. Approximate date work will start*
12/15/2018

23. Estimated duration
21 days

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.
2. A Drilling Plan.
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).
4. Bond to cover the operations unless covered by an existing bond on file (see Item 20 above).
5. Operator certification.
6. Such other site specific information and/or plans as may be requested by the BLM.

25. Signature	Name *(Printed/Typed)*	Date
(Electronic Submission)	Katie Biersmith / Ph: (720)499-1522	03/15/2018
Title: Regulatory Analyst		
Approved by *(Signature)* (Electronic Submission)	Name *(Printed/Typed)* Cody Layton / Ph: (575)234-5959	Date 11/21/2018
Title: Assistant Field Manager Lands & Minerals	Office: CARLSBAD	

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 12/12/18

KZ 12/14/18

REQUIRES NSL

Double sided

APPROVED WITH CONDITIONS

Approval Date: 11/21/2018

(Continued on page 2)

*(Instructions on page 2)

INSTRUCTIONS

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

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

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

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

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

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

ITEM 24: If the proposal will involve hydraulic fracturing operations, you must comply with 43 CFR 3162.3-3, including providing information about the protection of usable water. Operators should provide the best available information about all formations containing water and their depths. This information could include data and interpretation of resistivity logs run on nearby wells. Information may also be obtained from state or tribal regulatory agencies and from local BLM offices.

NOTICES

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

AUTHORITY: 30 U.S.C. 181 et seq., 25 U.S.C. 396; 43 CFR 3160

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

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

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

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

The BLM conects this information to anow evaluation of the technical, safety, and environmental factors involved with drilling for oil and/or gas on Federal and Indian oil and gas leases. This information will be used to analyze and approve applications. Response to this request is mandatory only if the operator elects to initiate drilling or reentry operations on an oil and gas lease. The BLM would like you to know that you do not have to respond to this or any other Federal agency-sponsored information collection unless it displays a currently valid OMB control number.

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

(Continued on page 3)

Additional Operator Remarks

Location of Well

1. SHL: LOT O / 300 FSL / 1785 FEL / TWSP: 24S / RANGE: 34E / SECTION: 22 / LAT: 32.196606 / LONG: -103.455053 (TVD: 0 feet, MD: 0 feet)
   PPP: LOT P / 350 FSL / 1225 FEL / TWSP: 24S / RANGE: 34E / SECTION: 22 / LAT: 32.196742 / LONG: -103.453243 (TVD: 10956 feet, MD: 11000 feet)
   BHL: LOT A / 330 FNL / 1225 FEL / TWSP: 24S / RANGE: 34E / SECTION: 22 / LAT: 32.209375 / LONG: -103.453237 (TVD: 11241 feet, MD: 15870 feet)

BLM Point of Contact

Name: Priscilla Perez
Title: Legal Instruments Examiner
Phone: 5752345934
Email: pperez@blm.gov

Review and Appeal Rights

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

AFMSS

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

Operator Certification Data Report

11/25/2018

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: Katie Biersmith **Signed on:** 03/15/2018

Title: Regulatory Analyst

Street Address: 1001 17th Street, Suite 1800

City: Denver **State:** CO **Zip:** 80202

Phone: (720)499-1522

Email address: Katie.Biersmith@cdevinc.com

Field Representative

Representative Name:

Street Address:

City: **State:** **Zip:**

Phone:

Email address:

AFMSS

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

Application Data Report

11/25/2018

APD ID: 10400028353 **Submission Date:** 03/15/2018

Operator Name: CENTENNIAL RESOURCE PRODUCTION LLC

Well Name: SHEBA FEDERAL COM **Well Number:** 506H

Well Type: OIL WELL **Well Work Type:** Drill

Show Final Text

Section 1 - General

APD ID: 10400028353 **Tie to previous NOS?** **Submission Date:** 03/15/2018

BLM Office: CARLSBAD **User:** Katie Biersmith **Title:** Regulatory Analyst

Federal/Indian APD: FED **Is the first lease penetrated for production Federal or Indian?** FED

Lease number: NMNM117125 **Lease Acres:** 400

Surface access agreement in place? **Allotted?** **Reservation:**

Agreement in place? NO **Federal or Indian agreement:**

Agreement number:

Agreement name:

Keep application confidential? YES

Permitting Agent? NO **APD Operator:** 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 **Mater Development Plan name:**

Well in Master SUPO? NO **Master SUPO name:**

Well in Master Drilling Plan? NO **Master Drilling Plan name:**

Well Name: SHEBA FEDERAL COM **Well Number:** 506H **Well API Number:**

Field/Pool or Exploratory? Field and Pool **Field Name:** RED HILLS BONE SPRING, NORTH **Pool Name:**

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

Operator Name: CENTENNIAL RESOURCE PRODUCTION LLC

Well Name: SHEBA FEDERAL COM **Well Number:** 506H

Describe other minerals:

Is the proposed well in a Helium production area? N **Use Existing Well Pad?** NO **New surface disturbance?**

Type of Well Pad: MULTIPLE WELL **Multiple Well Pad Name:** SHEBA **Number:** 1

Well Class: HORIZONTAL **Number of Legs:** 1

Well Work Type: Drill

Well Type: OIL WELL

Describe Well Type:

Well sub-Type: EVALUATION

Describe sub-type:

Distance to town: 19.5 Miles **Distance to nearest well:** 30 FT **Distance to lease line:** 461 FT

Reservoir well spacing assigned acres Measurement: 53.33 Acres

Well plat: Submitted_SHEBA_FEDERAL_COM_506H_Application_Well_Plat_03.15.18_20180315145424.pdf

[redacted] **Duration:** 21 DAYS

Section 3 - Well Location Table

Survey Type: RECTANGULAR

Describe Survey Type:

Datum: NAD83 **Vertical Datum:** NAVD88

Survey number: 23782

	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
SHL Leg #1	300	FSL	1785	FEL	24S	34E	22	Lot O	32.196606	-103.455053	LEA	NEW MEXICO	NEW MEXICO	F	FEE	3495	0	0
KOP Leg #1	300	FSL	1785	FEL	24S	34E	22	Lot O	32.196606	-103.455053	LEA	NEW MEXICO	NEW MEXICO	F	FEE	-7173	10697	10668
PPP Leg #1	350	FSL	1225	FEL	24S	34E	22	Lot P	32.196742	-103.453243	LEA	NEW MEXICO	NEW MEXICO	F	NMNM 117125	-7461	11000	10956

Operator Name: CENTENNIAL RESOURCE PRODUCTION LLC

Well Name: SHEBA FEDERAL COM **Well Number:** 506H

	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
EXIT Leg #1	330	FNL	1225	FEL	24S	34E	22	Lot A	32.209375	-103.453237	LEA	NEW MEXICO	NEW MEXICO	F	NMNM 117125	-7746	15870	11241
BHL Leg #1	330	FNL	1225	FEL	24S	34E	22	Lot A	32.209375	-103.453237	LEA	NEW MEXICO	NEW MEXICO	F	NMNM 117125	-7746	15870	11241

APD ID: 10400028353 **Submission Date:** 03/15/2018

Operator Name: CENTENNIAL RESOURCE PRODUCTION LLC

Well Name: SHEBA FEDERAL COM **Well Number:** 506H

Well Type: OIL WELL **Well Work Type:** Drill

Show Final Text

Section 1 - Geologic Formations

Formation ID	Formation Name	Elevation	True Vertical Depth	Measured Depth	Lithologies	Mineral Resources	Producing Formation
1	RUSTLER	-1989	1160	1160	SANDSTONE	NONE	No
2	BELL CANYON	-7489	5500	5500	SANDSTONE	NONE	No
3	AVALON SAND	-11367	9378	9378	SHALE	OIL	No
4	FIRST BONE SPRING SAND	-12379	10390	10390	SANDSTONE	OIL	No
5	BONE SPRING 2ND	-12919	10930	11380	SANDSTONE	OIL	Yes

Section 2 - Blowout Prevention

Pressure Rating (PSI): 5M **Rating Depth:** 11350

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 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 is requesting a variance to use a flex hose on the choke manifold for the Sheba Federal Com 506H well. Please see Section 8 for hose specs attachment.
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 50% of its working pressure. 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:

Choke_Diagram_5K_20181004115058.pdf

BOP Diagram Attachment:

BOP_Diagram_5M_20181004115107.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	3494	3374	120	H-40	94	OTHER - Weld						
2	SURFACE	17.5	13.375	NEW	API	N	0	1300	0	1300	3494	2194	1300	J-55	54.5	OTHER - BTC	1.76	4.26	DRY	7.25	DRY	12.04
3	INTERMEDIATE	12.25	9.625	NEW	API	N	0	5510	0	5510	3494	-2016	5510	J-55	40	LTC	1.27	1.38	DRY	2.36	DRY	2.86
4	PRODUCTION	8.75	5.5	NEW	API	N	0	15870	0	11241	3494	-7856	15870	HCP-110	20	OTHER - TMK UP DQX	1.88	2.14	DRY	2.82	DRY	2.82

Casing Attachments

Operator Name: CENTENNIAL RESOURCE PRODUCTION LLC

Well Name: SHEBA FEDERAL COM **Well Number:** 506H

Casing Attachments

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

Inspection Document:

Spec Document:

Tapered String Spec:

3._TMK_UP_DQX_5_x_18_P110_HC_20180312104503.pdf

Casing Design Assumptions and Worksheet(s):

CASING_ASSUMPTIONS_WORKSHEET_20180312104529.pdf

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

Inspection Document:

Spec Document:

Tapered String Spec:

Casing Design Assumptions and Worksheet(s):

CASING_ASSUMPTIONS_WORKSHEET_20180312104421.pdf

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

Inspection Document:

Spec Document:

Tapered String Spec:

3._TMK_UP_DQX_5.5_x_20_P110_HC_20180312104220.pdf

Casing Design Assumptions and Worksheet(s):

CASING_ASSUMPTIONS_WORKSHEET_20180301090851.pdf

Operator Name: CENTENNIAL RESOURCE PRODUCTION LLC

Well Name: SHEBA FEDERAL COM **Well Number:** 506H

Casing Attachments

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

Inspection Document:

Spec Document:

Tapered String Spec:

Casing Design Assumptions and Worksheet(s):

CASING_ASSUMPTIONS_WORKSHEET_20180315104637.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
CONDUCTOR	Lead		0	120	121	1.49	12.9	181		GROUT	Bentonite 4% BWOC, Cellophane #/sx, CaCl2 2% BWOC.
SURFACE	Lead		0	800	639	1.74	13.5	1111	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		800	1300	518	1.34	14.8	695	100	Class C Premium	C-45 Econolite 0.10%, CaCl 1.%
INTERMEDIATE	Lead		0	5010	1140	3.44	10.7	3923	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		5010	5510	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	10848	862	3.41	10.6	2941	30	TXI Lightweight	Salt 8.98#/sk, STE 6.00%, Citric acid 0.20%, CSA-1000

Operator Name: CENTENNIAL RESOURCE PRODUCTION LLC

Well Name: SHEBA FEDERAL COM **Well Number:** 506H

String Type	Lead/Tail	Stage Tool Depth	Top MD	Bottom MD	Quantity(sx)	Yield	Density	Cu Ft	Excess%	Cement type	Additives
											0.23%, C47B 0.10%, C-503P 0.30%
PRODUCTION	Tail		10848	15870	1279	1.24	14.2	1586	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. Surface interval will employ fresh water mud mix. The intermediate hole will utilize a diesel emulsified brine fluid to inhibit salt washout and preventing severe fluid losses. The production hole will employ oil base fluid of the appropriate density to maintain well control.
Describe the mud monitoring system utilized: Centrifuge separation system. Open tank monitoring will be used for drilling fluids, cuttings and all returns; drill fluids, cement, etc.

Circulating Medium Table

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	1300	OTHER : Fresh Water	8.6	9.5							
1300	5510	OTHER : Brine	9	10							
5510	15870	OIL-BASED MUD	8.8	10							

Operator Name: CENTENNIAL RESOURCE PRODUCTION LLC

Well Name: SHEBA FEDERAL COM **Well Number:** 506H

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:

GR

Coring operation description for the well:

n/a

Section 7 - Pressure

Anticipated Bottom Hole Pressure: 5845 **Anticipated Surface Pressure:** 3371.98

Anticipated Bottom Hole Temperature(F): 165

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

Describe:

Contingency Plans geoharzards description:

Contingency Plans geohazards attachment:

Hydrogen Sulfide drilling operations plan required? NO

Hydrogen sulfide drilling operations plan:

Section 8 - Other Information

Proposed horizontal/directional/multi-lateral plan submission:

H_P_650___Sheba_Federal_Com_506H_Plan__1_20180315105057.pdf

Other proposed operations facets description:

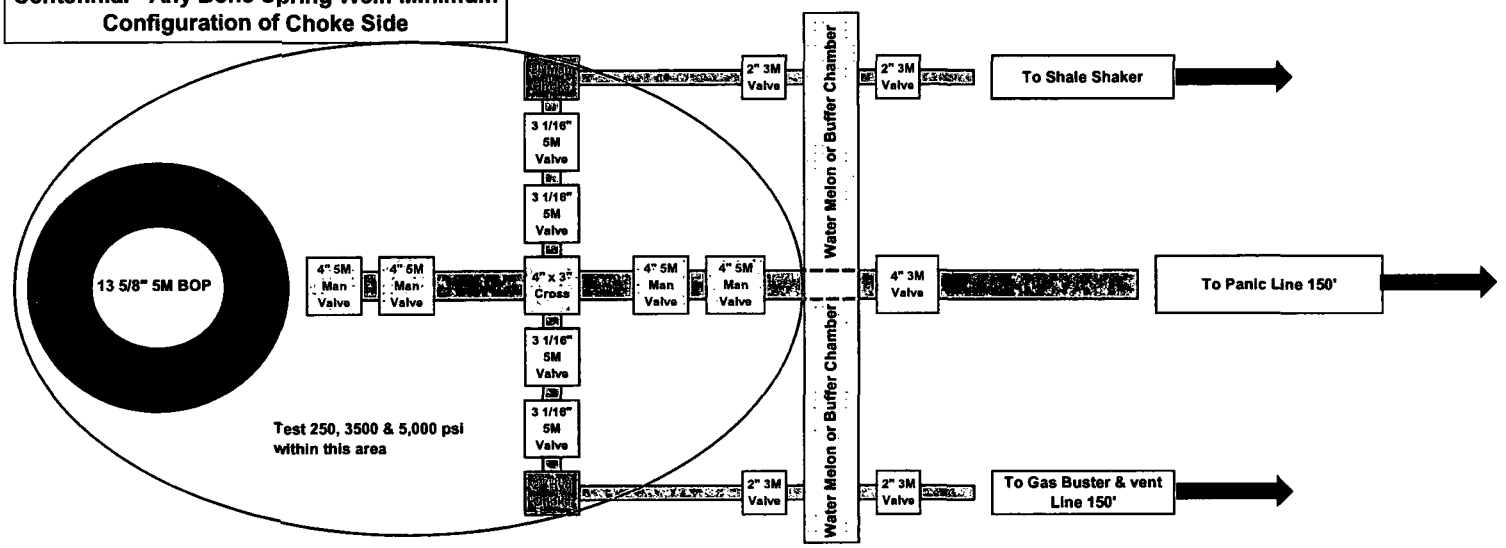
Other proposed operations facets attachment:

Flex_Hose_Specs_20181004143323.pdf

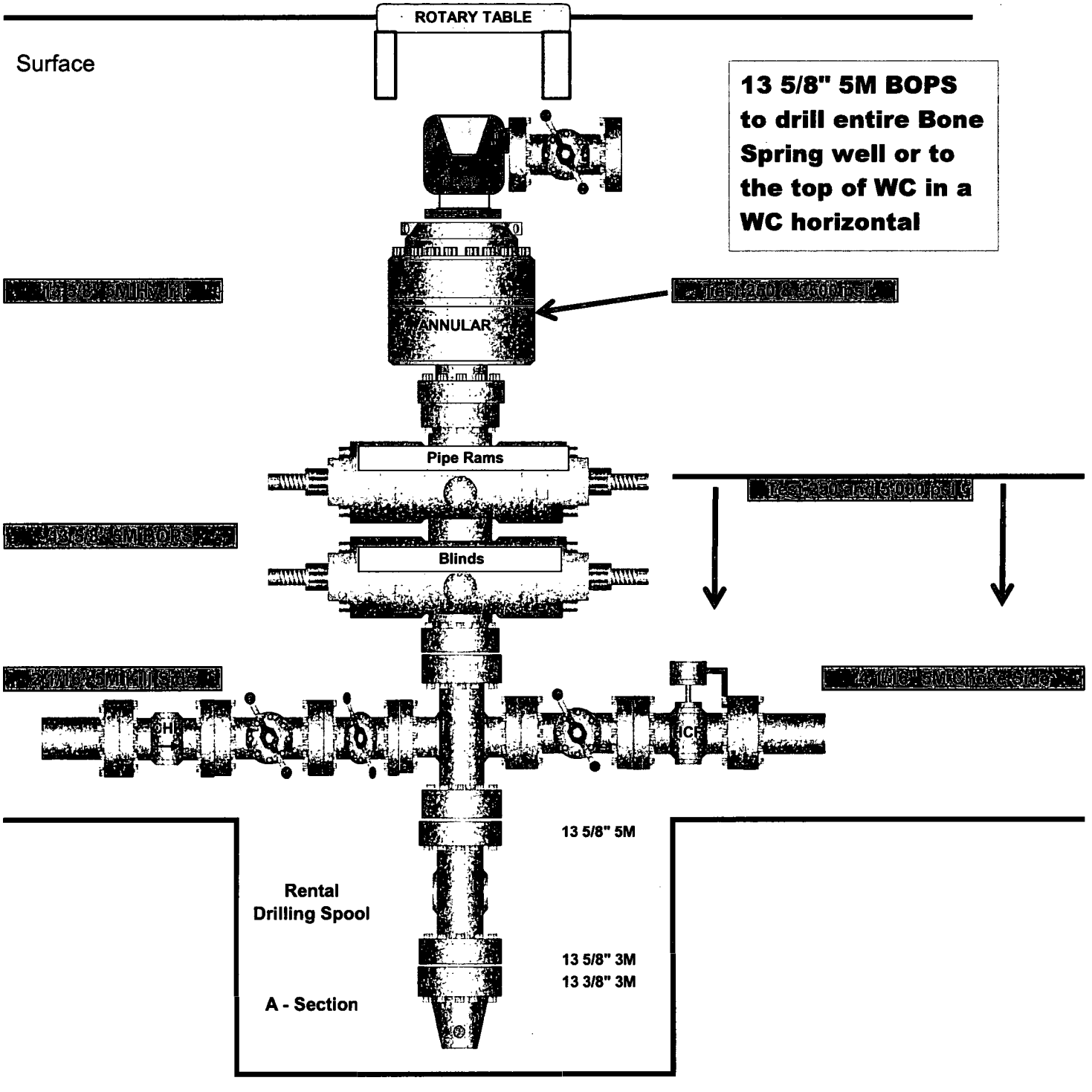
GasCapturePlanShebaPad_20181030135002.pdf

Other Variance attachment:

Centennial - Any Bone Spring Well: Minimum Configuration of Choke Side



Well Name:

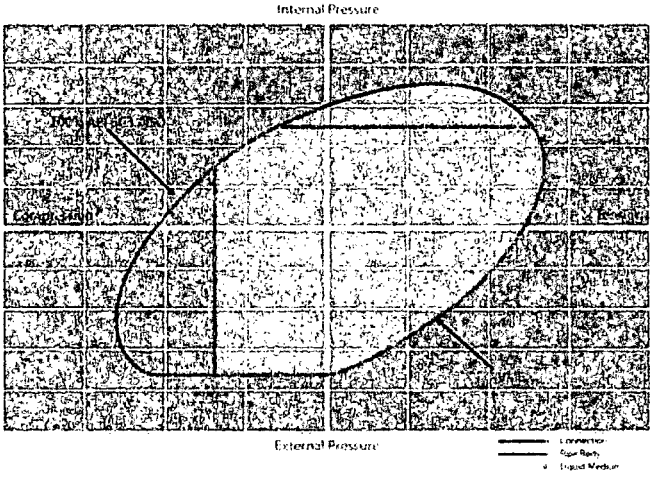

ROTARY TABLE
Surface
13 5/8" 5M BOPS to drill entire Bone Spring well or to the top of WC in a WC horizontal
ANNULAR
Pipe Rams
Blinds
H
IC
13 5/8" 5M
Rental Drilling Spool
13 5/8" 3M
13 3/8" 3M
A - Section

TECHNICAL DATA SHEET TMK UP DQX 5.5 X 20 P110 HC

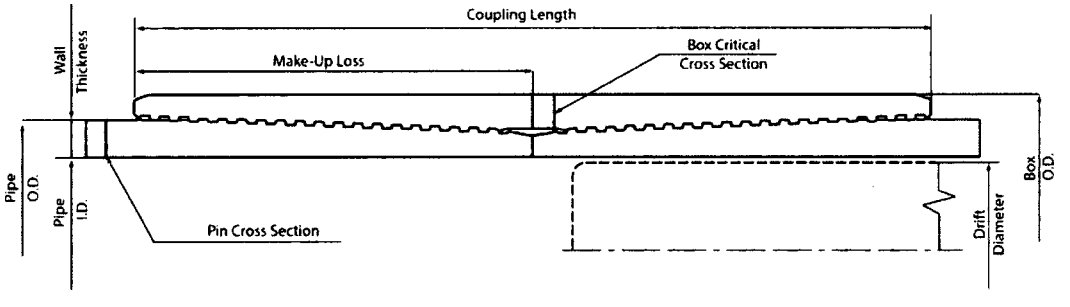
TUBULAR PARAMETERS	
Nominal OD, (inch)	5.500
Wall Thickness, (inch)	0.361
Pipe Grade	P110 HC
Coupling	Regular
Coupling Grade	P110 HC
Drift	Standard

CONNECTION PARAMETERS	
Connection OD (inch)	6.05
Connection ID, (inch)	4.778
Make-Up Loss, (inch)	4.122
Connection Critical Area, (sq inch)	5.828
Yield Strength in Tension, (klbs)	641
Yeld Strength in Compression, (klbs)	641
Tension Efficiency	100%
Compression Efficiency	100%
Min. Internal Yield Pressure, (psi)	12 640
Collapse Pressure, (psi)	12 780
Uniaxial Bending (deg/100ft)	91.7

PIPE BODY PROPERTIES	
PE Weight, (lbs/ft)	19.81
Nominal Weight, (lbs/ft)	20.00
Nominal ID, (inch)	4.778
Drift Diameter, (inch)	4.653
Nominal Pipe Body Area, (sq inch)	5.828
Yield Strength in Tension, (klbs)	641
Min. Internal Yield Pressure, (psi)	12 640
Collapse Pressure, (psi)	12 780



MAKE-UP TORQUES	
Yield Torque, (ft-lb)	20 600
Minimum Make-Up Torque, (ft-lb)	11 600
Optimum Make-Up Torque, (ft-lb)	12 900
Maximum Make-Up Torque, (ft-lb)	14 100



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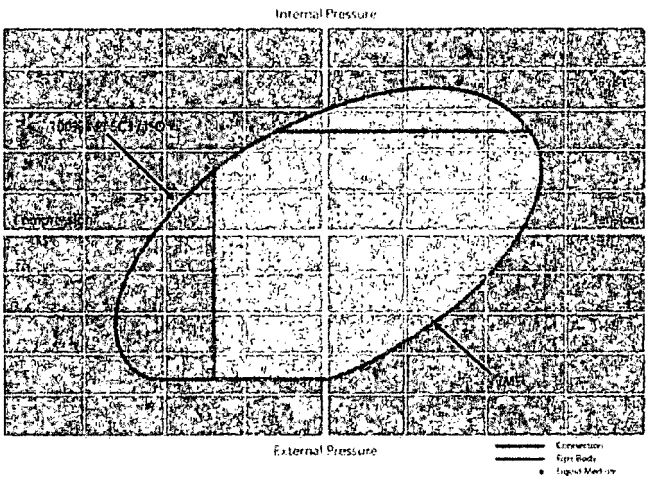
TECHNICAL DATA SHEET TMK UP DQX 5 X 18 P110 HC

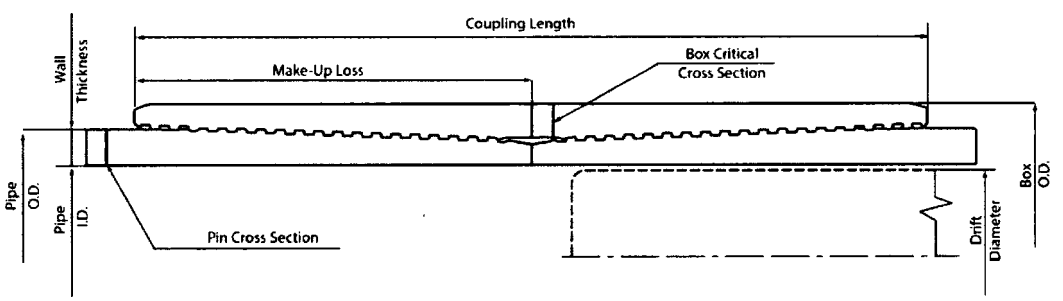
TUBULAR PARAMETERS	
Nominal OD, (inch)	5.000
Wall Thickness, (inch)	0.362
Pipe Grade	P110 HC
Coupling	Regular
Coupling Grade	P110 HC
Drift	Standard

CONNECTION PARAMETERS	
Connection OD (inch)	5.56
Connection ID, (inch)	4.276
Make-Up Loss, (inch)	4.097
Connection Critical Area, (sq inch)	5.275
Yield Strength in Tension, (klbs)	580
Yeld Strength in Compression, (klbs)	580
Tension Efficiency	100%
Compression Efficiency	100%
Min. Internal Yield Pressure, (psi)	13 940
Collapse Pressure, (psi)	14 820
Uniaxial Bending (deg/100ft)	100.9

PIPE BODY PROPERTIES	
PE Weight, (lbs/ft)	17.93
Nominal Weight, (lbs/ft)	18.00
Nominal ID, (inch)	4.276
Drift Diameter, (inch)	4.151
Nominal Pipe Body Area, (sq inch)	5.275
Yield Strength in Tension, (klbs)	580
Min. Internal Yield Pressure, (psi)	13 940
Collapse Pressure, (psi)	14 820



MAKE-UP TORQUES	
Yield Torque, (ft-lb)	17 500
Minimum Make-Up Torque, (ft-lb)	9 800
Optimum Make-Up Torque, (ft-lb)	10 900
Maximum Make-Up Torque, (ft-lb)	11 900



NOTE: The content of this Technical Data Sheet is for general information only and does not guarantee performance or imply fitness for a particular purpose, which only a competent drilling professional can determine considering the specific installation and operation parameters. This information supersede all prior versions for this connection. Information that is printed or downloaded is no longer controlled by TMK and might not be the latest information. Anyone using the information herein does so at their own risk. To verify that you have the latest technical information, please contact PAO "TMK" Technical Sales in Russia (Tel: +7 (495) 775-76-00, Email: techsales@tmk-group.com) and TMK IPSCO in North America (Tel: +1 (281)949-1044, Email: techsales@tmk-ipsco.com).

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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.

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CENTENNIAL
RESOURCE DEVELOPMENT INC

Centennial Resource Development, Inc.

Lea Co., NM (NAD83)
Sheba Federal Com
506H

OH

Plan: Plan #1

Standard Planning Report

19 February, 2018

LATITUDE
ENERGY PARTNERS

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

See attachment. (1 page)

↑ 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"

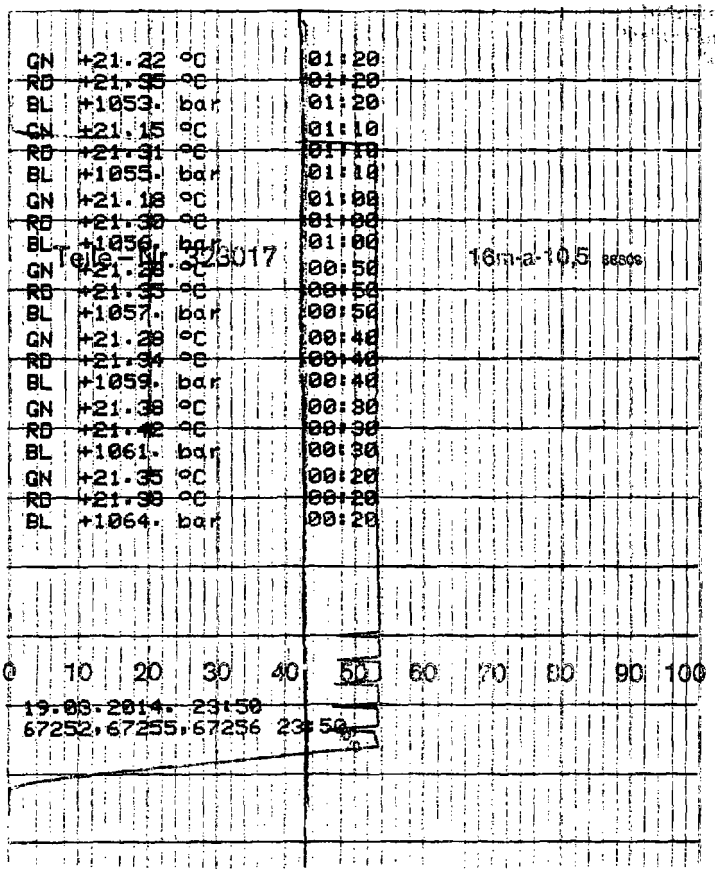
All metal parts are flawless

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.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GN +21.15 °C 01:10
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Access road engineering design? NO

Access road engineering design attachment:

Access surfacing type: OTHER

Access topsoil source: ONSITE

Access surfacing type description: Caliche

Access onsite topsoil source depth: 4

Offsite topsoil source description:

Onsite topsoil removal process: Equipment will be used to strip 4 inches in depth and stockpile, utilizing berms for run-off

Access other construction information: Raptor nest is pictured in the plats. A biological survey will be conducted two weeks prior to construction activities.
Access miscellaneous information: Raptor nest identified in plats

Number of access turnouts: **Access turnout map:**

Drainage Control

New road drainage crossing: CULVERT

Drainage Control comments: Will be using 16" CMP for the culverts.

Road Drainage Control Structures (DCS) description: Please see attached.

Road Drainage Control Structures (DCS) attachment:

TYPICAL_ACCESS_CROSS_SECTIONS_20180301121953.pdf

Access Additional Attachments

Additional Attachment(s):

Section 3 - Location of Existing Wells

Existing Wells Map? YES

Attach Well map:

Submitted_Sheba_Federal_506H_1MI_Radius_SHL_BHL_Offset_Wells_03.15.18_20180315105908.pdf

Existing Wells description:

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:

Operator Name: CENTENNIAL RESOURCE PRODUCTION LLC

Well Name: SHEBA FEDERAL COM **Well Number:** 506H

Submitted_Sheba_Federal_506H_Facility_Layout_03.15.2018_20180315110140.pdf

Section 5 - Location and Types of Water Supply

Water Source Table

Water source use type: DUST CONTROL, SURFACE CASING **Water source type:** OTHER

Describe type: EOG Jolly Roger Fresh Water Pit: Located in SWNW Sec. 16, T24S, R34E

Source latitude: **Source longitude:**

Source datum:

Water source permit type: PRIVATE CONTRACT

Source land ownership: PRIVATE

Water source transport method: PIPELINE

Source transportation land ownership: PRIVATE

Water source volume (barrels): 350000 **Source volume (acre-feet):** 45.112583

Source volume (gal): 14700000

Water source and transportation map:

Sheba_Water_Source_Map_Jolly_Roger_03.09.18_20180312112118.pdf

Water source comments: Temporary surface lines will be used to transport water for drilling and completion operation from the EOG Jolly Roger fresh water pit to the Sheba Pad.

New water well? NO

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:

Operator Name: CENTENNIAL RESOURCE PRODUCTION LLC

Well Name: SHEBA FEDERAL COM **Well Number:** 506H

State appropriation permit:

Additional information attachment:

Section 6 - Construction Materials

Construction Materials description: Caliche will be hauled from the existing "Madera Pit" located in SENW, Section 06, T25S R35E. 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.
Construction Materials source location attachment:

Sheba_Caliche_Source_Map_Solomon_Caliche_Pit_03.12.18_20180312121913.pdf

Section 7 - Methods for Handling Waste

Waste type: DRILLING

Waste content description: Drill Fluids

Amount of waste: 1200 barrels

Waste disposal frequency : One Time Only

Safe containment description: Steel tanks lined with polymer lining

Safe containmant attachment:

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

Disposal location description: State approved disposal facility

Waste type: SEWAGE

Waste content description: Grey water and human waste

Amount of waste: 6000 barrels

Waste disposal frequency : Weekly

Safe containment description: Steel tanks lined with polymer lining

Safe containmant attachment:

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

Disposal location description: Haul to stat approved disposal facility

Waste type: GARBAGE

Waste content description: Trash/garbage

Amount of waste: 3500 pounds

Waste disposal frequency : Weekly

Safe containment description: Trash Trailer

Safe containmant attachment:

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

Disposal location description: Haul to state approved facility

Reserve Pit

Reserve Pit being used? NO

Temporary disposal of produced water into reserve pit?

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? NO

Description of cuttings location

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?: NO

Ancillary Facilities attachment:

Comments:

Section 9 - Well Site Layout

Well Site Layout Diagram:

Submitted_SHEBA_FEDERAL_COM_506H_Location_Layout_03.15.18_20180315110759.pdf

Comments:

Section 10 - Plans for Surface Reclamation

Type of disturbance: New Surface Disturbance **Multiple Well Pad Name:** SHEBA

Multiple Well Pad Number: 1

Recontouring attachment:

Submitted_SHEBA_FEDERAL_COM_506H_Reclamation_Diagram_03.15.18_20180315110916.pdf

Drainage/Erosion control construction: Drainage and erosion will be constantly monitored to prevent compromising the well site integrity, an to protect the surrounding native topography.
Drainage/Erosion control reclamation: Upon reclamation, well site will be returned to its native contour. Water breaks will be added if needed, to prevent unnatural erosion and loss of vegetation.

Well pad proposed disturbance (acres): 9.79	**Well pad interim reclamation (acres):** 1.69	**Well pad long term disturbance (acres):** 8.1
Road proposed disturbance (acres): 5.99	**Road interim reclamation (acres):** 0	**Road long term disturbance (acres):** 5.99
Powerline proposed disturbance (acres): 0	**Powerline interim reclamation (acres):** 0	**Powerline long term disturbance (acres):** 0
Pipeline proposed disturbance (acres): 12.17	**Pipeline interim reclamation (acres):** 0	**Pipeline long term disturbance (acres):** 12.17
Other proposed disturbance (acres): 0	**Other interim reclamation (acres):** 0	**Other long term disturbance (acres):** 0
Total proposed disturbance: 27.95	**Total interim reclamation:** 1.69	**Total long term disturbance:** 26.26

Disturbance Comments:

Reconstruction method: Come back in with heavy equipment, remove caliche in the reclamation area, and replace with native topsoil. Reconstruction of pad will occur once all wells on location have been drilled and completed.
Topsoil redistribution: Surface disturbance will be limited to well site surveyed dimensions. Topsoil will be stored along the west edge of the pad site.
Soil treatment: Native caliche 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.
Existing Vegetation at the well pad:

Existing Vegetation at the well pad attachment:

Existing Vegetation Community at the road:

Existing Vegetation Community at the road attachment:

Existing Vegetation Community at the pipeline:

Existing Vegetation Community at the pipeline attachment:

Existing Vegetation Community at other disturbances:

Existing Vegetation Community at other disturbances attachment:

Non native seed used?

Non native seed description:

Seedling transplant description:

Will seedlings be transplanted for this project?

Seedling transplant description attachment:

Will seed be harvested for use in site reclamation? NO

Seed harvest description:

Seed harvest description attachment:

Seed Management

Seed Table

Seed type:

Seed source:

Seed name:

Source name:

Source address:

Source phone:

Seed cultivar:

Seed use location:

PLS pounds per acre:

Proposed seeding season:

Seed Summary	
Seed Type	**Pounds/Acre**

Total pounds/Acre:

Seed reclamation attachment:

Operator Contact/Responsible Official Contact Info

First Name: Melissa **Last Name:** Luke

Phone: (720)499-1482 **Email:** melissa.luke@cdevinc.com

Seedbed prep: Prepare a 3-5 inch deep seedbed, with the top 3-4 inches consisting of topsoil

Seed BMP: Seeding will be done in the proper season, and monitored for the re-establishment of native vegetation.

Seed method: Broadcast

Existing invasive species? NO

Existing invasive species treatment description:

Existing invasive species treatment attachment:

Weed treatment plan description: Spray for noxious weeds and bare ground as needed

Weed treatment plan attachment:

Monitoring plan description: All disturbed areas will be closely monitored for any primary or secondary noxious weeds. Should any be found, chemical spraying in accordance with state regulations will be implemented.
Monitoring plan attachment:

Success standards: No primary or secondary noxious weeds will be allowed. Vegetation will be returned to its native standard.
Pit closure description: No open pits will be constructed.

Pit closure attachment:

Section 11 - Surface Ownership

Disturbance type: WELL PAD

Describe:

Surface Owner: PRIVATE OWNERSHIP

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: SHEBA FEDERAL COM **Well Number:** 506H

Fee Owner: Bert Madera **Fee Owner Address:** 125 Bella Via Circle Ruidoso, NM 88345-9719

Phone: (575)631-4444 **Email:**

Surface use plan certification: NO

Surface use plan certification document:

Surface access agreement or bond: Agreement

Surface Access Agreement Need description: SUA with Private Surface Owner

Surface Access Bond BLM or Forest Service:

BLM Surface Access Bond number:

USFS Surface access bond number:

Disturbance type: NEW ACCESS ROAD

Describe:

Surface Owner: PRIVATE OWNERSHIP

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: SHEBA FEDERAL COM **Well Number:** 506H

Fee Owner: Bert Madera

Fee Owner Address: 125 Bella Via Circle Ruidoso, NM 88345-9719

Phone: (575)631-4444

Email:

Surface use plan certification: NO

Surface use plan certification document:

Surface access agreement or bond: Agreement

Surface Access Agreement Need description: SUA with Private Surface Owner

Surface Access Bond BLM or Forest Service:

BLM Surface Access Bond number:

USFS Surface access bond number:

Disturbance type: EXISTING ACCESS ROAD

Describe:

Surface Owner: PRIVATE OWNERSHIP

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:**

Fee Owner: Bert Madera
Phone: (575)631-4444
Fee Owner Address: 125 Bella Via Circle Ruidoso, NM 88345-9719
Email:

Surface use plan certification: NO

Surface use plan certification document:

Surface access agreement or bond: Agreement

Surface Access Agreement Need description: SUA with Private Surface Owner

Surface Access Bond BLM or Forest Service:

BLM Surface Access Bond number:

USFS Surface access bond number:

Section 12 - Other Information

Right of Way needed? NO

Use APD as ROW?

ROW Type(s):

ROW Applications

SUPO Additional Information:

Use a previously conducted onsite? YES

Previous Onsite information: Onsite conducted with Colleen Cepero-Rios on 1/18/2018 as the proposed Davy Jones 22 Fed Com 709H well. Name has since changed to Sheba Federal Com 506H.

Other SUPO Attachment

Arch_Survey_Romeo__Juliet__Sheba____Solomon_20180312115334.pdf

Submitted_SHEBA_FEDERAL_COM_506H_Addl_Atchmnts_Rig_Layout_Arch_Boundary_Cross_Section_03.15.18_20180315111449.pdf

Section 1 - General

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

Section 2 - Lined Pits

Would you like to utilize Lined Pit PWD options? NO

Produced Water Disposal (PWD) Location:

PWD surface owner:

PWD disturbance (acres):

Lined pit PWD on or off channel:

Lined pit PWD discharge volume (bbl/day):

Lined pit specifications:

Pit liner description:

Pit liner manufacturers information:

Precipitated solids disposal:

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:

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? NO

Produced Water Disposal (PWD) Location:

PWD surface owner: **PWD disturbance (acres):**

Unlined pit PWD on or off channel:

Unlined pit PWD discharge volume (bbl/day):

Unlined pit specifications:

Precipitated solids disposal:

Decribe precipitated solids disposal:

Precipitated solids disposal permit:

Unlined pit precipitated solids disposal schedule:

Unlined pit precipitated solids disposal schedule attachment:

Unlined pit reclamation description:

Unlined pit reclamation attachment:

Unlined pit Monitor description:

Unlined pit Monitor attachment:

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

Beneficial use user confirmation:

Estimated depth of the shallowest aquifer (feet):

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

TDS lab results:

Geologic and hydrologic evidence:

State authorization:

Unlined Produced Water Pit Estimated percolation:

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

Is the reclamation bond a rider under the BLM bond?

Unlined pit bond number:

Unlined pit bond amount:

Additional bond information attachment:

Section 4 - Injection

Would you like to utilize Injection PWD options? NO

Produced Water Disposal (PWD) Location:

PWD surface owner: **PWD disturbance (acres):**

Injection PWD discharge volume (bbl/day):

Injection well mineral owner:

Injection well type:

Injection well number: **Injection well name:**

Assigned injection well API number? **Injection well API number:**

Injection well new surface disturbance (acres):

Minerals protection information:

Mineral protection attachment:

Underground Injection Control (UIC) Permit?

UIC Permit attachment:

Section 5 - Surface Discharge

Would you like to utilize Surface Discharge PWD options? NO

Produced Water Disposal (PWD) Location:

PWD surface owner: **PWD disturbance (acres):**

Surface discharge PWD discharge volume (bbl/day):

Surface Discharge NPDES Permit?

Surface Discharge NPDES Permit attachment:

Surface Discharge site facilities information:

Surface discharge site facilities map:

Section 6 - Other

Would you like to utilize Other PWD options? NO

Produced Water Disposal (PWD) Location:

PWD surface owner: **PWD disturbance (acres):**

Other PWD discharge volume (bbl/day):

Other PWD type description:

Other PWD type attachment:

Have other regulatory requirements been met?

Other regulatory requirements attachment:

AFMSS

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

Bond Info Data Report

11/25/2018

Bond Information

Federal/Indian APD: FED

BLM Bond number: NMB001471

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:

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

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

APD ID: 10400028353 **Submission Date:** 03/15/2018

Operator Name: CENTENNIAL RESOURCE PRODUCTION LLC

Well Name: SHEBA FEDERAL COM **Well Number:** 506H

Well Type: OIL WELL **Well Work Type:** Drill

Show Final Text

Section 1 - Existing Roads

Will existing roads be used? YES

Existing Road Map:

Submitted_SHEBA_FEDERAL_COM_506H_Access_Roads_Map_03.15.18_20180315105229.pdf

Existing Road Purpose: ACCESS **Row(s) Exist?** NO

ROW ID(s)

ID:

Do the existing roads need to be improved? YES

Existing Road Improvement Description: Will need to improve on existing two track. Road will be constructed to a 20' wide finished surface. using caliche from designated barrow pits.

Existing Road Improvement Attachment:

TYPICAL_ACCESS_CROSS_SECTIONS_20180312110653.pdf

Section 2 - New or Reconstructed Access Roads

Will new roads be needed? YES

New Road Map:

Submitted_SHEBA_FEDERAL_COM_506H_Access_Roads_Map_03.15.18_20180315105356.pdf

New road type: COLLECTOR

Length: 8157 Feet **Width (ft.):** 32

Max slope (%): 2 **Max grade (%):** 4

Army Corp of Engineers (ACOE) permit required? NO

ACOE Permit Number(s):

New road travel width: 20

New road access erosion control: Please see attached.

New road access plan or profile prepared? YES

New road access plan attachment:

TYPICAL_ACCESS_CROSS_SECTIONS_20180301121942.pdf