Form 3160-3 (June 2015)		FORM APPROVED OMB No. 1004-0137
UNITED STATES	5	Expires: January 31, 2018
DEPARTMENT OF THE I	NTERIOR	5. Lease Serial No.
BUREAU OF LAND MANA	AGEMENT	
APPLICATION FOR PERMIT TO D	RILL OR REENTER	6. If Indian, Allotee or Tribe Name
1a. Type of work: DRILL R	EENTER	7. If Unit or CA Agreement, Name and No.
1h Type of Well:	ther	
		8. Lease Name and Well No.
ic. Type of Completion: Hydraulic Fracturing	Ingle Zone Multiple Zone	[219012]
		[516012]
2 Name of Operator		9 APLWell No. 20 025 50410
[372]	165]	30-025-50410
3a. Address	3b. Phone No. (include area code)	10. Field and Pool, or Exploratory [9643 XXXXXXXXXXXXXX
4. Location of Well (Report location clearly and in accordance of	with any State requirements.*)	11. Sec., T. R. M. or Blk. and Survey or Area
At surface		
At proposed prod. zone		_
14. Distance in miles and direction from nearest town or post off	ice*	12. County or Parish 13. State
15. Distance from proposed*	16. No of acres in lease 17. Spaci	ng Unit dedicated to this well
location to nearest		<b>F</b>
(Also to nearest drig. unit line, if any)		
18. Distance from proposed location*	19. Proposed Depth 20, BLM	BIA Bond No. in file
to nearest well, drilling, completed, applied for, on this lease, ft.		
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 o (as applicable)	f Onshore Oil and Gas Order No. 1, and the H	Iydraulic Fracturing rule per 43 CFR 3162.3-3
1. Well plat certified by a registered surveyor.	4. Bond to cover the operation	is unless covered by an existing bond on file (see
2. A Drilling Plan.	Item 20 above).	
3. A Surface Use Plan (if the location is on National Forest Syste	m Lands, the 5. Operator certification.	mation and/or plans as may be requested by the
SOPO must be med with the appropriate Polest Service Once	BLM.	mation and/or plans as may be requested by the
25. Signature	Name (Printed/Typed)	Date
Title		I
Approved by (Signature)	Name (Printed/Typed)	Date
Title	Office	
Application approval does not warrant or certify that the application	t 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, n of the United States any false, fictitious or fraudulent statements	nake it a crime for any person knowingly and or representations as to any matter within its	willfully to make to any department or agency jurisdiction.
NGMP Rec 06/29/2022		

SL (Continued on page 2)





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#### **WAFMSS**

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

Submission Date: 12/17/2020

**Operator Name: CENTENNIAL RESOURCE PRODUCTION LLC** 

Well Name: JULIET FEDERAL COM

Well Type: OIL WELL

**APD ID:** 10400066803

Well Number: 312H Well Work Type: Drill Highlighted data reflects the most recent changes

Show Final Text

Section 1 - General		
APD ID: 10400066803	Tie to previous NOS? N	Submission Date: 12/17/2020
BLM Office: Carlsbad	User: KANICIA SCHLICHTING	Title: Sr. Regulatory Analyst
Federal/Indian APD: FED	Is the first lease penetrated for	production Federal or Indian? FED
Lease number: NMNM77090	Lease Acres:	
Surface access agreement in place?	Allotted? Rese	rvation:
Agreement in place? NO	Federal or Indian agreement:	
Agreement number:		
Agreement name:		
Keep application confidential? Y		
Permitting Agent? NO	APD Operator: CENTENNIAL RE	SOURCE 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)441-5515
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: JULIET FEDERAL COM	Well Number: 312H	Well API Number:						
Field/Pool or Exploratory? Field and Pool	Field Name: AVALON A	<b>Pool Name:</b> OJO CHISO, BONE SPRING						

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



Well Name: JULIET FEDERAL COM

Well Number: 312H

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

Is the propos	ed well in a Helium produ	ction area? N	Use Existing Well Pad?	N	New surface disturbance?
Type of Well	Pad: MULTIPLE WELL		Multiple Well Pad Name	):	Number: 1
Well Class: H	IORIZONTAL		JULIET FED 27 SENW Number of Legs: 1		
Well Work Ty	<b>/pe:</b> Drill				
Well Type: O	IL WELL				
Describe We	II Туре:				
Well sub-Typ	e: INFILL				
Describe sub	o-type:				
Distance to t	own: 20 Miles	Distance to ne	arest well: 30 FT	Distanc	e to lease line: 2146 FT
Reservoir we	ell spacing assigned acres	Measurement:	240 Acres		
Well plat:	Juliet_Fed_Com_312H_Lea	ase_C102_2020	1217101026.pdf		
	Juliet_Fed_Com_312H_C1	02_2020121710	01028.pdf		
Well work sta	art Date: 12/30/2022		Duration: 45 DAYS		

#### **Section 3 - Well Location Table**

Survey Type: RECTANGULAR

Describe Survey Type:

Datum: NAD83

Survey number: 23782

Vertical Datum: NAVD88

#### Reference Datum: GROUND LEVEL

																			nce
								ract							-D				prod se?
		ator		ator				ot/T		Θ					qun				well leas
bore	-oot	ndic	Foot	India	0	ge	ion	lot/L	nde	jitud	Jt	0	dian	Type	N N	atior			this '
Well	NS-F	NSI	Ę	МШ	Tws	Rang	Sect	Aliqu	Latit	Long	Coul	State	Meri	-ease	Leas	Elev	ДМ		Will † from
SHL	203	FNL	214	FW	24S	34E	27	Aliquot	32.19018	-	LEA	NEW	NEW	F	FEE	346	0	0	Y
Leg	9		6	L				SENW	1	103.4594		MEXI	MEXI			8			
#1										32		co	co						
KOP	203	FNL	214	FW	24S	34E	27	Aliquot	32.19018	-	LEA	NEW	NEW	F	FEE	-	106	102	Y
Leg	9		6	L				SENW	1	103.4594		MEXI	MEXI			679	08	60	
#1										32		co	co			2			

Well Name: JULIET FEDERAL COM

Well Number: 312H

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	253	FNL	217	FW	24S	34E	27	Aliquot	32.18880	-	LEA	NEW	NEW	F	FEE	-	988	952	Y
Leg	9		8	L				SENW	6	103.4593		MEXI	MEXI			606	5	9	
#1-1										27		CO	co			1			
EXIT	100	FNL	217	FW	24S	34E	22	Aliquot	32.21001	-	LEA	NEW	NEW	F	NMNM	-	177	102	Y
Leg			8	L				NENW	3	103.4593		MEXI	MEXI		77090	679	49	60	
#1										5		co	co			2			
BHL	100	FNL	217	FW	24S	34E	22	Aliquot	32.21001	-	LEA	NEW	NEW	F	NMNM	-	177	102	Y
Leg			8	L				NENW	3	103.4593		MEXI	MEXI		77090	679	49	60	
#1										5		CO	co			2			

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

Well Name: JULIET FEDERAL COM



03/31/2022

**APD ID:** 10400066803

AFMSS

Submission Date: 12/17/2020

Operator Name: CENTENNIAL RESOURCE PRODUCTION LLC

Highlighted data reflects the most recent changes

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Well Type: OIL WELL

Well Work Type: Drill

Well Number: 312H

## **Section 1 - Geologic Formations**

Formation		Flourisa	True Vertical	Measured	Little Le sie e		Producing
U	Formation Name	Elevation	Depth	Depth	Lithologies	Mineral Resources	Formation
1236850	RUSTLER	3468	1079	1079	SANDSTONE	NONE	N
1236851	SALADO	1770	1698	1698	ANHYDRITE, SALT	USEABLE WATER	N
1236852	LAMAR	-1891	5359	5359	SHALE	USEABLE WATER	N
1236853	BELL CANYON	-1963	5431	5431	SANDSTONE	NATURAL GAS, OIL	N
1236854	CHERRY CANYON	-2863	6331	6331	SANDSTONE	NATURAL GAS, OIL	N
1236855	BRUSHY CANYON	-4418	7886	7886	SANDSTONE	NATURAL GAS, OIL	N
1236856	BONE SPRING LIME	-5808	9276	9276	OTHER : Carbonate	NATURAL GAS, OIL	N
1236857	AVALON SAND	-5829	9297	9297	SHALE	CO2, NATURAL GAS, OIL	Ν
1236858	FIRST BONE SPRING SAND	-6771	10239	10239	SANDSTONE	NATURAL GAS, OIL	Y
1236859	BONE SPRING 2ND	-6972	10440	10440	SHALE	NATURAL GAS, OIL	N
1236860	BONE SPRING 3RD	-7798	11266	11266	SANDSTONE	NATURAL GAS, OIL	N

## **Section 2 - Blowout Prevention**

#### Pressure Rating (PSI): 5M

Rating Depth: 10260

**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

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#### **Operator Name: CENTENNIAL RESOURCE PRODUCTION LLC**

Well Name: JULIET FEDERAL COM

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 H&P choke manifold for the Juliet Fed Com 113H well. The Flex Hose specifications are listed on the following pages.

**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 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:** 

HP489\_10M\_Choke\_Manifold\_20201101220449.pdf

#### **BOP Diagram Attachment:**

CDEV\_Well\_Control\_Plan\_20201101230926.pdf

HP489\_BOP\_Schematic\_CoFlex\_Choke\_5K\_2019\_1\_29\_20201101220457.pdf

#### **Section 3 - Casing**

Casing ID	String Type	Hole Size	Csg Size	Condition	2 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	Veight	Joint Type	Collapse SF	Burst SF	Joint SF Type	Joint SF	Body SF Type	Body SF
1	OR	26	20.0	NEVV	API	IN	0	120	0	120	3468	3348	120	H-40	94	weld						
2	SURFACE	17.5	13.375	NEW	API	N	0	1150	0	1150	3468	2318	1150	J-55	54.5	OTHER - BTC	1.99	27.3 4	DRY	13.6 1	DRY	13.6 1
3	INTERMED IATE	12.2 5	9.625	NEW	API	N	0	5400	0	5388	3468	-1920	5400	J-55	40	LT&C	1.3	8.44	DRY	2.41	DRY	2.92
4	PRODUCTI ON	8.75	5.5	NEW	API	N	0	10608	0	10260	3468	-6792	10608	T-95	23	OTHER - VA roughneck AC	2.08	14.1 8	DRY	2.72	DRY	2.72
5	PRODUCTI ON	8.5	5.5	NEW	API	N	10608	17749	10260	10260	-6792	-6792	7141	T-95	23	OTHER - VA roughneck AC	2.08	14.1 8	DRY	2.72	DRY	2.72

IET FEDERAL COM

Well Number: 312H

Well Name: JULIET FEDERAL COM

#### **Casing Attachments**

Casing ID: 1	String Type: CONDUCTOR
ousing ib.	oung rype.conbooron

**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):

Casing ID: 3 String Type: INTERMEDIATE

**Inspection Document:** 

**Spec Document:** 

**Tapered String Spec:** 

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

CASING\_ASSUMPTIONS\_WORKSHEET\_20201101222024.pdf

Well Name: JULIET FEDERAL COM

Well Number: 312H

#### **Casing Attachments**

Casing ID: 4 String Type: PRODUCTION

Inspection Document:

Spec Document:

**Tapered String Spec:** 

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

CASING\_ASSUMPTIONS\_WORKSHEET\_20201101221404.pdf

 $5.5 in \_x\_23 ppf\_T95\_VAroughneck\_20201217143652.pdf$ 

Casing ID: 5 String Type: PRODUCTION

Inspection Document:

Spec Document:

**Tapered String Spec:** 

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

CASING\_ASSUMPTIONS\_WORKSHEET\_20201101221651.pdf

5.5in\_x\_23ppf\_T95\_VAroughneck\_20201217143809.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	0	0

Well Name: JULIET FEDERAL COM

Well Number: 312H

String Type	Lead/Tail	Stage Tool Depth	Top MD	Bottom MD	Quantity(sx)	Yield	Density	Cu Ft	Excess%	Cement type	Additives
SURFACE	Lead		0	650	519	1.74	13.5	903	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		650	1150	518	1.34	14.8	695	100	Class C Premium	C-45 Econolite 0.10%, CaCl 1.0%
INTERMEDIATE	Lead		0	4900	1157	3.44	10.7	3979	150	TX 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		4900	5400	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	9709	952	3.41	10.6	3245	30	TXI Lightweight	Salt 8.98#/sk, STE 6.00%, Citric acid 0.20%, CSA-1000 0.23%, C47B 0.10%, C- 503P 0.30%
PRODUCTION	Tail		9709	1775 0	1878	1.24	14.2	2329	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** 

Well Name: JULIET FEDERAL COM

Well Number: 312H

Top Depth	Bottom Depth	Mud Type	Min Weight (lbs/gal)	Max Weight (Ibs/gal)	Density (lbs/cu ft)	Gel Strength (lbs/100 sqft)	НА	Viscosity (CP)	Salinity (ppm)	Filtration (cc)	Additional Characteristics
0	1150	OTHER : FW	8.6	9.5							
1150	5400	OTHER : Brine	9	10							
5400	1774 9	OTHER : Brine/OBM	8.8	10							

### Section 6 - Test, Logging, Coring

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

Will utilize MWD (Gamma Ray logging) from intermediate hole to TD of the well.

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

DIRECTIONAL SURVEY, GAMMA RAY LOG,

Coring operation description for the well: N/A

#### **Section 7 - Pressure**

Anticipated Bottom Hole Pressure: 5335

Anticipated Surface Pressure: 3077

Anticipated Bottom Hole Temperature(F): 170

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

Describe:

Contingency Plans geoharzards description:

Contingency Plans geohazards attachment:

Hydrogen Sulfide drilling operations plan required? YES

Hydrogen sulfide drilling operations plan:

H2S\_Plan\_20201217144419.docx

Well Name: JULIET FEDERAL COM

Well Number: 312H

#### **Section 8 - Other Information**

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

JULIET\_FED\_COM\_312H\_\_\_DIRECTIONAL\_PLAN\_20201217144509.pdf

#### Other proposed operations facets description:

Gas Capture, WBD, Geo prog attached.

#### Other proposed operations facets attachment:

CRD\_Batch\_Setting\_Procedures\_20201101230021.pdf GEOPROG\_Juliet\_Fed\_312H\_PRELIM\_20201217144533.pdf CDEV\_Well\_Control\_Plan\_Bonesprings\_20201217144606.pdf Wellhead\_Schematic\_20201217144623.pdf WBD\_20201217144623.pdf Multibowl\_Procedure\_20201217144641.pdf Juliet\_113H\_514H\_Gas\_Capture\_Plan\_20201217144753.pdf

#### Other Variance attachment:

H\_P\_489\_Flex\_Hose\_Specs\_Continental\_Hose\_SN\_67255\_20201101230253.pdf



## **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	10M
		Lower VBR: 3.5 – 5.5	
Heavyweight Drillpipe	5	Upper VBR: 3.5 – 5.5	10M
		Lower VBR: 3.5 – 5.5	
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	10M
_		Lower VBR: 3.5 – 5.5	
All	0-135/8	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. <u>General Procedures While Drilling:</u>

- 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: Ι.

- 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.
  - Call Centennial drilling engineer i.
  - Read and record: j.
    - i. SIDPP and SICP
    - ii. Pit gain
    - iii. Time
- Regroup and identify forward plan Π.

#### 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
- 11. Regroup and identify forward plan

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

- 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.

# H&P 489



#### CASING ASSUMPTIONS WORKSHEET:

#### Centralizer Program:

Surface:	<ul> <li>- 3 welded bow spring centralizers, one on each of the bottom 3 joints, plus one on the shoe joint (4 minimum)</li> <li>- No Cement baskets will be run</li> </ul>
Production:	<ul> <li>1 welded bow spring centralizer on a stop ring 6' above float shoe</li> <li>1 centralizer every other joint to the top of the tail cement</li> <li>1 centralizer every 4 joints to 500' below the top of the lead cement</li> <li>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.</li> </ul>

• 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.

## **TECHNICAL DATA SHEET**

Connection: VAroughneckA	C				
Size: 5 1/2 in X 23.00 lb/ft		Ma	aterial:	US Customary	Metric
Drift: standard			Yield Strength Min.	95,000 psi	655 Mpa
Bevel: standard			Yield Strength Max.	110,000 psi	758 Mpa
			Tensile Strength Min.	105,000 psi	724 Mpa
Pipe:					
	US Customary	Metric		US Customary	Metric
Nominal OD:	5.500 in	139.70 mm	Wall Thickness:	0.415 in	10.54 mm
Nominal ID:	4.670 in	118.62 mm	Standard Drift:	4.545 in	115.44 mm
Nominal Weight:	23.00 lb/ft	34.38 kg/m	Pipe Body Yield Strength:	630 klb	2,800 kN
Pipe Cross Section:	6.630 in <sup>2</sup>	4,277.41 mm <sup>2</sup>			
Connection:					
	US Customary	Metric			
OD:	6.300 in	160.02 mm	Threads per inch:	5 Threads	
ID:	4.669 in	118.60 mm			
Length:	8.976 in	228.00 mm			
<b>Connection Performance</b>	(Uniaxial Load):				
	US Customary	Metric		US Customary	Metric
Joint Strength:	630 klb	2,800 kN	Tension Efficiency:	> 100.0 %	
Collapse Resistance:.	12,940 psi	89.20 Mpa	Displacement:	1.242 gal/ft	15.43 l/m
Internal Yield Pressure:	12,550 psi	86.50 Mpa	Production:	0.890 gal/ft	11.05 l/m
Load on Coupling Face:	542 klb	2,410 kN			
Field Make Up (Friction Fa	actor = 1.0):				
	US Customary	Metric	_	US Customary	Metric
Minimum Torque:	16,150 ft.lb	21,890 Nm	Make-Up Loss:	4.370 in	111.00 mm
Optimum Torque:	17,940 ft.lb	24,320 Nm	Yield Torque:	22,420 ft.lb	30,400 Nm
Maximum Torque:	19,730 ft.lb	26,750 Nm			
Min. Torque on Shoulder:	%				



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## LOAD ENVELOPE



The graph is calculated under consideration of the requirements of EN ISO 13679 and API 5C3. The combined loads are calculated without the consideration of wall thickness tolerances and differ from the values in the data sheet, which are calculated with tolerances determined by API. Any printout is NOT SUBJECT TO REGULAR REVISION. The generated performance envelope shall solely be used as a tool to facilitate the comparison of performance properties under combined loads, of different grades, sizes and connections of voestalpine Tubulars products. Field-specific safety/design factors as well as other loads are not considered. Thus the results shall by no means be used to replace the own string design or to justify any warranty/guaranty cases.

20.00 °/100ft

Bending:

#### CASING ASSUMPTIONS WORKSHEET:

#### Centralizer Program:

Surface:	<ul> <li>- 3 welded bow spring centralizers, one on each of the bottom 3 joints, plus one on the shoe joint (4 minimum)</li> <li>- No Cement baskets will be run</li> </ul>
Production:	<ul> <li>1 welded bow spring centralizer on a stop ring 6' above float shoe</li> <li>1 centralizer every other joint to the top of the tail cement</li> <li>1 centralizer every 4 joints to 500' below the top of the lead cement</li> <li>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.</li> </ul>

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Connection: VAroughneckA	C	9			
Size: 5 1/2 in X 23.00 lb/ft		Ma	aterial:	US Customary	Metric
Drift: standard			Yield Strength Min.	95,000 psi	655 Mpa
Bevel: standard			Yield Strength Max.	110,000 psi	758 Mpa
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Nominal OD:	5.500 in	139.70 mm	Wall Thickness:	0.415 in	10.54 mm
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	US Customary	Metric			
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ID:	4.669 in	118.60 mm			
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	US Customary	Metric		US Customary	Metric
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Minimum Torque:	16,150 ft.lb	21,890 Nm	Make-Up Loss:	4.370 in	111.00 mm
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20.00 °/100ft

Bending:

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# **NEW MEXICO**

LEA JULIET FEDERAL COM JULIET FED COM 312H

JULIET FED COM 312H

Plan: PWP0

## **Standard Survey Report**

15 October, 2020

#### Received by OCD: 6/28/2022 4:11:27 PM

#### **Centennial Resource Development**

Survey Report

Company: Project: Site: Well: Wellbore: Design:	NEW MEXIC LEA JULIET FED JULIET FED JULIET FED PWP0	O ERAL COM COM 312H COM 312H			Local Co-o TVD Referen MD Referen North Refer Survey Cal Database	rdinate Referen ence: nce: rence: culation Metho	nce: od:	Well JULIET FE RKB=3465.2+26 RKB=3465.2+26 True Minimum Curva Compass	D COM 312H 5 @ 3491.2ft 5 @ 3491.2ft ture		
Broight					Dulubuse.			Compace			_
Project Map System: Geo Datum: Map Zone:	Universal North Am Zone 13N	l Transverse M erican Datum I (108 W to 10	/lercator (US S 1983 )2 W)	urvey Feet)	System D	Datum:		Mean Sea Leve	1		
Site	JULIET	FEDERAL CO	M								
Site Position: From: Position Uncertai	Map nty:	0.0	North Eastii ft Slot F	ing: ng: Radius:		0.00 m 0.00 m 13.200 in	Latitude: Longitude Grid Conv	e: vergence:		0° 0' 0 109° 29' 19. 0.0	.000 N 478 W 0 °
Well	JULIET	FED COM 31:	2H								
Well Position Position Uncertai	+N/-S +E/-W	0 0 0	0.0 ft No 0.0 ft Ea 0.0 ft W	orthing: asting: ellhead Elevati	ion:	3,562,556.3 645,221.3	7 m 5 m ft	Latitude: Longitude: Ground Level:		32° 11' 24 103° 27' 33. 3,465	.652 N .955 W 5.2 ft
Wellbore	JULIET	FED COM 3	12H								
Magnotics	Mo	dol Namo	Sampl	la Data	Docli	nation	n	in Anglo	Field	Strongth	
Magnetics	MO	Jei Naille	Samp	le Dale	Decin	°)	U	(°)	Field	(nT)	
		IGRF200510		12/31/2009		7.70		60.23	48	3,784.55125044	
Design	PWP0										
Audit Notes:			Phas								0.0
Version: Vertical Section:			riidə	- D	ROTOTVPE	т	ia On Danth				
		C	Depth From (T	ie: P VD)	ROTOTYPE +N/-S	т	ie On Depth: ∙E/-W		Direction		0.0
		Ľ	Depth From (T (ft)	e: P VD)	ROTOTYPE +N/-S (ft)	: т +	ie On Depth: E/-W (ft)		Direction (°)		0.0
			Depth From (T' (ft)	e: P VD) 0.0	PROTOTYPE +N/-S (ft) 0	.0	ie On Depth: E/-W (ft) 0.0		Direction (°)	0.20	0.0
Survey Tool Prog	ram	[  Date	Depth From (T' (ft) 10/15/2020	e: P VD) 0.0	ROTOTYPE +N/-S (ft) 0	.0	ie On Depth: E/-W (ft) 0.0		Direction (°)	0.20	0.0
Survey Tool Prog From (ft)	ram To (ft)	[ Date Survey	Depth From (T (ft) 10/15/2020 (Wellbore)	e: P VD) 0.0	ROTOTYPE +N/-S (ft) 0	.0 Tool Name	ie On Depth: E/-W (ft) 0.0	Description	Direction (°)	0.20	0.0
Survey Tool Prog From (ft)	ram To (ft) 0.0 17,	Date Survey 749.5 PWP0 (	Depth From (T (ft) 10/15/2020 (Wellbore) (JULIET FED C	е: Р VD) 0.0 СОМ 312Н)	ROTOTYPE +N/-S (ft) 0	.0 Fool Name WWD+IFR1+MS	ie On Depth: E/-W (ft) 0.0	Description OWSG_Rev2_	Direction (°) MWD + IFR1 +	0.20 Multi-Station Cor	rection
Survey Tool Prog From (ft) Planned Survey Measured Depth (ft)	ram To (ft) ).0 17, d Inclina (°)	tion Azin	Depth From (T (ft) 10/15/2020 (Wellbore) (JULIET FED C (JULIET FED C vei nuth D	e: P VD) 0.0 COM 312H) rtical epth + (ft)	ROTOTYPE +N/-S (ft) 0	.0 Fool Name MWD+IFR1+MS +E/-W (ft)	E/-W (ft) 0.0 S Vertical Section (ft)	Description OWSG_Rev2_ Dogleg Rate (°/100ft)	Direction (°) MWD + IFR1 + Build Rate (°/100ft)	0.20 Multi-Station Cor Turn Rate (°/100ft)	rection
Survey Tool Prog From (ft) (7) Planned Survey Measured Depth (ft) (7,750 8,250 7,750 8,250 9,708 10,608 13,848	ram To (ft) ).0 17, 1 Inclina (°) ).0 ).0 ).0 ).0 ).0 ).0 ).0 ).0 ).0 ).	tion Azin (************************************	Depth From (T (ft) 10/15/2020 (Wellbore) (JULIET FED C 0.00 0.00 176.30 176.30 176.30 0.00 0.40 359.77	e: P VD) 0.0 COM 312H) rtical epth (ft) 0.0 2,000.0 2,499.4 7,729.4 8,228.8 9,687.3 10,260.0 10,260.0	ROTOTYPE +N/-S (ft) 0 N/-S (ft) 0.0 0.0 -21.8 -478.4 -500.1 -500.1 72.6 3,313.8	Tool Name ////////////////////////////////////	e On Depth: E/-W (ft) 0.0 5 Vertical Section (ft) 0.0 -21.8 -478.3 -500.0 72.7 3,313.9	Description OWSG_Rev2_ Dogleg Rate (°/100ft) 0.00 1.00 0.00 1.00 0.00 1.00 0.00 1.00 0.00	Direction (°) MWD + IFR1 + Build Rate (°/100ft) 0.00 1.00 0.00 -1.00 0.00 10.00 0.00	0.20 Multi-Station Cor Rate (°/100ft) 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.	rection

10/15/2020 5:37:56PM

#### **Centennial Resource Development**

Survey Report

Company: Project: Site: Well: Wellbore: Design:	mpany:NEW MEXICOIoject:LEATe:JULIET FEDERAL COMIill:JULIET FED COM 312HIollbore:JULIET FED COM 312HSsign:PWP0I			Local Co-ordinate Reference:Well JULIET FEITVD Reference:RKB=3465.2+26MD Reference:RKB=3465.2+26North Reference:TrueSurvey Calculation Method:Minimum CurvatDatabase:Compass			FED COM 312H +26 @ 3491.2ft +26 @ 3491.2ft rvature	D COM 312H 5 @ 3491.2ft 3 @ 3491.2ft ture		
Design Targets Target Name - hit/miss targ - Shape	et	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (m)	Easting (m)	Latitude	Longitude
LTP/BHL - JULIE - plan hits tar - Circle (radiu FTP - JULIET FE - plan misses - Circle (radiu	T FED get cer is 50.0) D COW target is 50.0)	0.00 nter ) 0.00 center by 237	0.00 0.00 .3ft at 10158	10,260.0 10,260.0 .3ft MD (100	7,214.1 -500.2 92.2 TVD, -3	25.3 32.5 332.4 N, 33.5 E)	3,564,755.13 3,562,404.08	645,197.57 645,233.43	32° 12' 36.047 N 32° 11' 19.702 N	103° 27' 33.660 W 103° 27' 33.577 W
Checked By:					Approved	d By:			Date:	

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

## > Avalon and Bone Springs Formations

<u>13-3/8"</u> 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

<u>13-3/8" Surface Casing</u> - 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.

<u>Intermediate Casing</u> – CRD intends to Batch set all intermediate casing strings to a depth approved in the APD, typically set 100' above KOP in the 3<sup>rd</sup> 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.



Illustration 2-2

<u>Production Casing</u> – 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.

## **GEOLOGIC PROG**

•

			WELL NAME		Juliet Fed Com	312H	10/10/2020	
	-0-		AR	EA	Solomon	API		
CENI			HZ TA	RGET	FBSG Sand	WI %		
LEIN		NIAL	LAT LE	NGTH	7,700	AFE#		
RESOURC	E DEVELOPM	ent, llc	TRRC P	ERMIT		COUNTY	Le	а
	TWNP	RNG	SECT	TION	FOOTAGE	COMMENT		
SHL	24S	34E	2	7	2039' FNL 2146' FWL	On le	ease. Drill S t	to N.
FTP/PP	24S	34E	2	7	2539' FNL 2178' FWL			
LTP	24S	34E	2	2	100' FNL 2178' FWL			
BHL	24S	34E	2	2	100' FNL 2178' FWL			
			GROUN	D LEVEL	3,465' <b>RIG KB</b>	26'	KB ELEV	3,491'
GEOLOGIST	Isabel I	Harper	isa	bel.harper(	<u>@cdevinc.com</u>	(3	03) 589-884	1
LOGG	ING				No open hole logging			
		M	IWD GR fro	m drill out	of surface casing to TD	0.		
MUDLO	GGING			Standard m	ud logging and mud ga	as detectior	<b>).</b>	
		Mud	loggers on	from drill o	out of surface casing to	TD.		
F	ORMATION		TVD	SSTVD	THICKNESS	FINAL MD	FINAL TVD	DELTA
	D. atlas		4.070	2 442	6101			
	Rustier		1,079	2,412	619			
		h	1,698	1,793	2,042			
BX BLIVI (I	-letcher Ani	nyarite)	3,740	-249	1,619			
			5,359	-1,808	72			
Ch			5,451 6 221'	-1,940	900 219'			
Ma	nzanita Lim		6 5/0'	-2,040	1 227'			
Bri	ishy Canyor	n	7 886'	-4 395'	1,337			
Bon	e Spring Lin	ne	9 276'	-5 785'	21'			
	Avalon		9.297'	-5.806'	942'			
First B	one Spring S	Sand	10.239'	-6.748'	201'			
Second	Bone Spring	g Shale	10,440'	-6,949'	826'			
Third E	Bone Spring	Carb	11,266'	-7,775'	546'			
Third B	one Spring	Sand	11,812'	-8,321'	385'			
	Wolfcamp		12,197'	-8,706'				
Targ	et Top at 0'	VS	10,240'	-6,749'	40'			
Targe	et Base at O'	' VS	10,280'	-6,789'				
HZ TA	ARGET AT 0	' VS	10,260'	-6,769'				
TARGET:	KBTVD = 10	0260' at VS	, INC = 90.0	deg				
	Target Win	dow +10/-	10'					
COMMENT:			Curren	tly Designe	ed as Upper FBSG Sand	Target		

Page	35	of	°93

	0	FFSET TY	PE WELL	S					
	DRILLIN	G WELL	Julie	t Fed Com	312H	10/10	/2020		
	HZ TA	RGET	FBSG	Sand	AREA	Solo	mon		
~ENTENNIAI	PRIN	/IARY TYPE	LOG		SECO	NDARY TYP	E LOG		
	Madera	a 8706 JV-P	Com 1		Madera	'B' 8706 JV-	P Com 1		
RESOURCE DEVELOPMENT, LLC	3	0-025-2991	7		30	30-025-30179			
LOCATION	24S 34E Se	c27/ 1980 FN	NL 660 FWL		24S 34E Sec	:22/ 660' FSL	. 1650' FWL		
DISTANCE	146	0' West of	SHL		290	2900' North of SHL			
DIRECTION SURVEY		No				No			
KB ELEV		3,493'				3,531'			
FORMATION	TVD	SSTVD	DELTA		TVD	SSTVD	DELTA		
Rustler	1,091'	2,402'	619'		1,161'	2,370'			
Salado	1,710'	1,783'	2,042'		1,778'	1,753'			
BX BLM (Fletcher Anhydrite)	3,752'	-259'	1,619'		3,831'	-300'	1,570'		
Lamar	5,371'	-1,878'	72'		5,401'	-1,870'	55'		
Bell Canyon	5,443'	-1,950'	900'		5,456'	-1,925'	915'		
Cherry Canyon	6,343'	-2,850'	218'		6,371'	-2,840'	211'		
Manzanita Lime	6,561'	-3,068'	1,337'		6,582'	-3,051'	1,287'		
Brushy Canyon	7,898'	-4,405'	1,390'		7,869'	-4,338'	1,411'		
Bone Spring Lime	9,288'	-5,795'	21'		9,280'	-5,749'	28'		
Avalon	9,309'	-5,816'	942'		9,308'	-5,777'	1,015'		
First Bone Spring Sand	10,251'	-6,758'	201'		10,323'	-6,792'	200'		
Second Bone Spring Shale	10,452'	-6,959'	826'		10,523'	-6,992'	821'		
Third Bone Spring Carb	11,278'	-7,785'	546'		11,344'	-7,813'	537'		
Third Bone Spring Sand	11,824'	-8,331'	385'		11,881'	-8,350'	398'		
Wolfcamp	12,209'	-8,716'			12,279'	-8,748'			
Reservoir Top	10,252'	-6,759'	40'		10,324'	-6,793'	40'		
Reservoir Base	10,292'	-6,799'			10,364'	-6,833'			
omments									

## **GEOLOGIC PROG**


### GEOLOGIC PROG



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GEOPHYSICAL DATA			
POTENTIAL GEOHAZARDS			
SEISMIC DISPLAYS			

Page 3	9 oj	f 93
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MUD LOG DISTRIBUTION DETAILS						
	WELL	NAME	Julie	t Fed Com	312H	10/10/2020
	AR	REA	Solo	mon	API	
CENITENINI	HZ TA	ARGET	FBSG	Sand	WI %	
CENTENNIA		ENGTH	77	00	AFE#	
RESOURCE DEVELOPMENT, LLC	TRRC F	PERMIT			COUNTY	Lea
GEOLOGIST Isabel Harper	isa	bel.harper(	@cdevinc.co	om	(3	03) 589-8841
	N	Aud Loggin	g Company		•	•
		No	ne			
TBD		TE	<u>3D</u>			TBD
Contact 2		err	nail		phone	
Contact 3		err	nail			phone
	Daily distributi	ion data reo	quirements	and proto	col	
geodata@cdevinc.com; joe.woods	ke@cdevinc.cor	n; drilling@c	devinc.com;	dawn.billest	oach@cdevi	nc.com,
	Dai	ily email dis	stribution li	st		
	Final distribution data requirements					
		Final distril	bution list			
Contact Information	Reports	Hard (	Copies	Digita	I data	Cuttings
Centennial Resource	email	2 copies	of 5" MD			
Development, c/o Joe Woodsk	(e, final set	Vertical, 2	copies of	email f	inal set	
1001 17th street, Suite 1800	,	5" Horizo	ontal and			
SCAL, Inc., 2613 South Count	У					No Dried Samples to
Road 1257, Midland, TX 7970	6					be Collected
MWD Only: Centennial Resour	ce	2 copies	of the 5″			
Development, c/o Sarah	final set	MD verti	cal logs 2	email f	inal set	
Ferreyros, 1001 17th street, Su	ite	copies c	of the 5"			
					- ·	
Project Geologist: Isabel H	larper		P	roduction:	Brandon N	/lorin
Operations Geologist: Joe Wo	OOSKE		Sur	Tace Land:	Balley Jop	
Drilling: Ronny l	HISE		Mir	neral Land:	Gavin Smi	tn

#### **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	10M
		Lower VBR: 3.5 – 5.5	
Heavyweight Drillpipe	5	Upper VBR: 3.5 – 5.5	10M
		Lower VBR: 3.5 – 5.5	
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	10M
		Lower VBR: 3.5 – 5.5	
All	0-135/8	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. <u>General Procedures While Drilling:</u>

- 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

Ι.

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

- 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 availiable:

- 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.



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#### Juliet Fed Com 312H

#### **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 Cactus 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.
- 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.
- 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.
- 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.



ContiTech

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

QUA INSPECTION	LITY CON	TROL CERTIFIC	ATE	CERT. N	lº:	504	
PURCHASER:	ContiTech (	Dil & Marine Co	orp.	P.O. N°:		4500409659	
CONTITECH RUBBER order N	ECH RUBBER order N°: 538236 HOSE TYPE: 3" ID Choke and Kill Hose			Kill Hose			
HOSE SERIAL Nº:	67255	NOMINAL / ACT	UAL LENGTH	:	10,67 m	/ 10,77 m	
W.P. 68,9 MPa 1	0000 psi	T.P. 103,4	MPa 150	00 psi	Duration:	60	min.
Pressure test with water at ambient temperature See attachment. (1 page ) $\uparrow$ 10 mm = 10 Min. $\rightarrow$ 10 mm = 20 MPa							
COUPLINGS Ty	pe	Serial	N°	Q	uality	Heat N°	
3" coupling wit	n	9251	9254	AIS	il 4130	A0579N	
4 1/16" 10K API b.w. FI	ange end			AIS	SI 4130	035608	
Not Designed I	Not Designed For Well Testing API Spec 16 C						
Temperature rate:"B"							
All metal parts are flawless WE CERTIFY THAT THE ABOVI INSPECTED AND PRESSURE T	E HOSE HAS BE	EN MANUFACTUR			H THE TERMS	OF THE ORDER	
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: 20. March 2014.	Inspector		Quality Contr	ol	Contribute 7 Industria Quality Contr (2)	Rubber 1.Kft. oi Davi David Ju	L

ATTACHMENT OF QUALITY CONTROL INSPECTION AND TEST CERTIFICATE

No: 501, 504, 505 Page: 1/1

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A conservation and a conservation of a conservation and a conservati	Contra Rubber
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HL +1053. bar CN +21.15 CC	01:20
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BL +1057- bor GN +21-38 9C	00 50 00 48
BL +1059. bdr GN +21.38 9C	881 48 861 48 861 88
RD +21.42 90 BL +1061 bar GN +21.35 90	00 90 00 80 00 20
BL +1064- bar	00120 00120
0 10 20 30 40	
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CONTITECH RUBBER	No:QC-DB- 210/ 2014
Industrial Kft.	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

#### Received by OCD: 6/28/2022 4:11:27 PM

#### AFMSS

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

APD ID: 10400066803 Submission Date: 12/17/2020 Highlighted data **Operator Name: CENTENNIAL RESOURCE PRODUCTION LLC** Well Name: JULIET FEDERAL COM Well Number: 312H Well Type: OIL WELL Well Work Type: Drill

#### **Section 1 - Existing Roads**

Will existing roads be used? YES

**Existing Road Map:** 

JULIET\_FEDERAL\_COM\_\_113H\_\_\_Existing\_Roads\_20201101231331.pdf

Existing Road Purpose: ACCESS, FLUID TRANSPORT

Row(s) Exist? NO

ROW ID(s)

ID:

Do the existing roads need to be improved? NO

**Existing Road Improvement Description:** 

**Existing Road Improvement Attachment:** 

#### Section 2 - New or Reconstructed Access Roads Will new roads be needed? YES New Road Map: JULIET\_FEDERAL\_COM\_113H\_\_\_Proposed\_Roads\_20201101231408.pdf New road type: COLLECTOR Length: 264 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 intergrity, and to protect the surrounding native topography. New road access plan or profile prepared? N New road access plan attachment:

Access road engineering design? N

Access road engineering design attachment:

03/31/2022

reflects the most recent changes

SUPO Data Repor

Show Final Text

**Operator Name: CENTENNIAL RESOURCE PRODUCTION LLC** 

Well Name: JULIET FEDERAL COM

Well Number: 312H

Turnout? N

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:

Access miscellaneous information: FEE/FEE/FED Caliche will be hauled from the existing Basin pit located in the NW/4, Sec 6, T25S, R35E}. Pit has been identified for use in the attached exhibit.

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 road intergrity, and to protect the surrounding native topography. **Road Drainage Control Structures (DCS) attachment:** 

#### **Access Additional Attachments**

Additional Attachment(s):

Juliet\_Caliche\_Freshwater\_Route\_20201101233440.pdf

**Section 3 - Location of Existing Wells** 

Existing Wells Map? YES

Attach Well map:

JULIET\_FEDERAL\_COM\_\_113H\_\_\_Well\_Proximity\_Map\_20201101233535.pdf

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

#### Submit or defer a Proposed Production Facilities plan? SUBMIT

**Production Facilities description:** Production facility will be located on the N2 of Sec. 27, T24S-R34E where oil and gas sales will take place. Facility pad is 300' x 500'.

Production Facilities map:

ROMEO\_JULIET\_CTB\_REV\_07\_22\_20\_20201101234109.pdf

Romeo\_Juliet\_CTB\_Layout\_\_1\_\_20201101233618.pdf

**Operator Name: CENTENNIAL RESOURCE PRODUCTION LLC** 

Well Name: JULIET FEDERAL COM

Well Number: 312H

Section 5 - Location a	nd Types of Water	Supply
Water Source Tab	le	
Water source type: GW WELL		
Water source use type:	STIMULATION	
Source latitude:		
Source datum:		
Water source permit type:	PRIVATE CONTRACT	
Water source transport method:	PIPELINE	
Source land ownership: PRIVATE		
Source transportation land owner	ship: PRIVATE	
Water source volume (barrels): 22	25000	
Source volume (gal): 9450000		

#### Water source and transportation map:

Juliet\_Caliche\_Freshwater\_Route\_20201101235057.pdf

Water source comments: Temporary surface lines, 2.35 miles, will be used to transport water for drilling and completion operations from private pit to Juliet development.- Existing freshwater pit in Sec 16-T24S-R34E will be utilized for fresh water and source location for recycled water is tbd. New water well? N

**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: Drill material: **Drilling method:** Grout material: Grout depth: Casing length (ft.): Casing top depth (ft.):

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Well Name: JULIET FEDERAL COM

Well Number: 312H

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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:** Caliche will be hauled from the existing Basin pit located in the NW/4, Sec 6, T25S, R35E}. Pit has been identified for use in the attached exhibit. **Construction Materials source location attachment:** 

Juliet\_Caliche\_Freshwater\_Route\_20201101235256.pdf

#### Section 7 - Methods for Handling Waste

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 Disposal location ownership: COMMERCIAL FACILITY

Disposal type description:

Disposal location description: Haul to state approved 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 Disposal location ownership: COMMERCIAL

FACILITY

Disposal type description:

Disposal location description: Haul to state approve facility.

#### Operator Name: CENTENNIAL RESOURCE PRODUCTION LLC

Well Name: JULIET FEDERAL COM

Well Number: 312H

#### 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 Disposal location ownership: COMMERCIAL

FACILITY Disposal type description:

Disposal location description: Haul to state approved facility.

Waste type: DRILLING

Waste content description: Brine water based drilling fluid.

Amount of waste: 1500 barrels

Waste disposal frequency : Monthly

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

Safe containmant attachment:

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

Operator Name: CENTENNIAL RESOURCE PRODUCTION LLC

Well Name: JULIET FEDERAL COM

Well Number: 312H

**Description of cuttings location** 10205 cubic ft of waste, stored in steel tanks. Hauled off to a commercial state approved facility.

Cuttings area length (ft.)

Cuttings area depth (ft.)

Cuttings area width (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:

Section 9 - Well Site Layout

Well Site Layout Diagram:

JULIET\_FEDERAL\_COM\_\_113H\_\_\_Location\_Layout\_20201102001041.pdf JULIET\_FEDERAL\_COM\_\_113H\_\_\_Rig\_Layout\_20201102001054.pdf Comments: FEE/FEE/FED

**Section 10 - Plans for Surface Reclamation** 

Type of disturbance: New Surface Disturbance

Multiple Well Pad Name: JULIET FED 27 SENW

Multiple Well Pad Number: 1

Recontouring attachment:

JULIET\_FEDERAL\_COM\_\_113H\_\_\_Reclamation\_plat\_20201102001145.pdf

Drainage/Erosion control construction: Culverts will be installed on an as needed basis.

Drainage/Erosion control reclamation: Water breaks will be added if needed, to prevent unnatural erosion and loss of vegetation.

Received by OCD: 6/28/2022 4:11:27 PM		Page 56 of 93
Operator Name: CENTENNIAL RESOL	IRCE PRODUCTION LLC	
Well Name: JULIET FEDERAL COM	Well Number: 312⊢	
Well pad proposed disturbance (acres): 11.696	<b>Well pad interim reclamation (acres):</b> 6.328	Well pad long term disturbance (acres): 5.368
Road proposed disturbance (acres): 0.393	Road interim reclamation (acres): 0	Road long term disturbance (acres): 0.393
Powerline proposed disturbance (acres): 0	Powerline interim reclamation (acres):	Powerline long term disturbance (acres): 0
Pipeline proposed disturbance	Pipeline interim reclamation (acres): 0	Pipeline long term disturbance
Other proposed disturbance (acres): 0	Other interim reclamation (acres): 0	Other long term disturbance (acres): 0
Total proposed disturbance: 12.192	i otal interim reclamation: 6.328	Total long term disturbance: 5.864

**Disturbance Comments:** 

Reconstruction method: This pad will not be reclaimed as it is a drill island.

**Topsoil redistribution:** Topsoil will be stock piled along the north fill slope and south edge of the borrow area. Topsoil along the south edge of borrow area will be redistributed over the borrow area at this is a drill island and will not be reclaimed. **Soil treatment:** Native soil 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:** Surface disturbance will be limited to well site surveyed and extending south to borrow deficit quantities. Topsoil will be stored along the north edge of pad site and south edge of borrow area. **Existing Vegetation at the well pad attachment:** 

**Existing Vegetation Community at the road:** Will be windrowed to the edge of the disturbance and be utilized as a barrier from water run-off.

Existing Vegetation Community at the road attachment:

Existing Vegetation Community at the pipeline: Will be windrowed to the edge of the disturbance and be utilized as a barrier from water run-off.

Existing Vegetation Community at the pipeline attachment:

**Existing Vegetation Community at other disturbances:** Will be windrowed to the edge of the disturbance and be utilized as a barrier from water run-off.

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:

Received by OCD: 6/28/2022 4:11:27 PM

Operator Name: CENTENNIAL RESOURCE PRODUCTION LLC

Well Name: JULIET FEDERAL COM

Well Number: 312H

0 1		
Seed	Manag	lement

**Seed Table** 

Seed Summary	Total pounds/Acre:
--------------	--------------------

Seed Type Pounds/Acre

Seed reclamation attachment:

#### Operator Contact/Responsible Official Contact Info

First Name:

Last Name:

Phone:

Email:

**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? N

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.

Monitoring plan attachment:

**Success standards:** No primary or secondary noxious weed 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: Operator Name: CENTENNIAL RESOURCE PRODUCTION LLC

Well Name: JULIET FEDERAL COM

Well Number: 312H

COE Local Off	ice:
---------------	------

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: Quail Ranch, LLC	Fee Owner Address: One Concho Center, 600 West Illinois	
	Phone: (432)853-2355	Ave. Email: jwood@concho.com	
	Surface use plan certification: YES		
	Surface use plan certification document:		
	Surface access agreement or bond: AGREEMENT		
	Surface Access Agreement Need description: Book 2144 Page 514		
	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? N ROW Type(s): Use APD as ROW?

**ROW Applications** 

SUPO Additional Information: Onsite not required. FEE/FED Use a previously conducted onsite? N Well Name: JULIET FEDERAL COM

Well Number: 312H

Page 59 of 93

#### Previous Onsite information:

#### **Other SUPO Attachment**

Juliet\_Fed\_Com\_113H\_\_114H\_\_312H\_\_513H\_\_514H\_\_713H\_SUPO\_20201102010339.pdf

### JULIET FEDERAL COM 113H, 114H, 312H, 513H, 514H 713H

## SURFACE USE PLAN

#### EXISTING ROADS (ROAD PLAT ATTACHED AS PLAT #1)

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.

#### DRIVING DIRECTIONS (ATTACHED AS PLAT #2)

PROCEED IN A WESTERLY, THEN NORTHWESTERLY, THEN WESTERLY DIRECTION FROM JAL, NEW MEXICO ALONG NM-128 APPROXIMATELY 18.0 MILES TO THE JUNCTION OF THIS ROAD AND AN EXISTING ROAD TO THE SOUTH; TURN LEFT AND PROCEED IN A SOUTHERLY, THEN SOUTHEASTERLY, THEN SOUTHERLY DIRECTION APPROXIMATELY 1.2 MILES TO THE BEGINNING OF THE PROPOSED ROMEO FEDERAL COM 311H, 312H, 111H & 112H ACCESS ROAD TO THE SOUTH; FOLLOW ROAD FLAGS IN A SOUTHERLY DIRECTION APPROXIMATELY 1813' TO THE BEGINNING OF THE PROPOSED ACCESS ROAD "A" TO THE EAST; FOLLOW ROAD FLAGS IN AN EASTERLY DIRECTION APPROXIMATELY 132' TO THE PROPOSED LOCATION.

TOTAL DISTANCE FROM JAL, NEW MEXICO TO THE PROPOSED WELL LOCATION IS APPROXIMATELY 19.6 MILES.

#### NEW OR RECONSTRUCTED ACCESS ROADS (ATTACHED AS PLAT #3) (CONTRUCTION)

- There will be approximately 263.51' of new road construction for the well pad and facilities.
- Road Width: The access roads shall have a driving surface that creates the smallest possible surface disturbance and does not exceed 65'. (see "Access Road ROW" plat attached)
- Maximum Grade: 3% Actual .68%
- Crown Design: Crowning shall be done on the access road driving surface. The road crown shall have a grade of approximately 2%. The road shall conform to cross section and plans for typical road construction found in the BLM Gold Book.
- Ditch Design: Ditching will be constructed on both sides of road.
- Cattle guards: None suggested.
- Major Cuts and Fills: 2:1 during drilling and completions.
- Type of surfacing Material: Caliche.

LOCATION OF EXISTING WELLS (DIAGRAM & SPREADSHEET ATTACHED AS PLAT #4)

- 1-mile radius map and well details attached.

### LOCATION OF EXISTING AND/OR PROPOSED PRODUCTION FACILITIES (WORK AREA DETAIL MAP ATTACHED AS PLAT #5)

- FACILITIES:
  - Production facility will be located on the N2 of Sec. 27, T24S-R34E
     where oil and gas sales will take place.
  - Oil and gas sales pipelines will be built to the north side of the facility pad.
  - Open vent exhaust stacks will be modified to prevent birds or bats from entering, discourage perching, roosting and nesting.
  - Facility will have a secondary containment at least 1.5 times the holding capacity of largest storage tank.

- All above ground structures will be painted non-reflective shale green for blending with the environment.
- The tank battery will be connected to the existing water gathering system in the field for permanent water disposal.

#### LOCATION OF PROPOSED ROW (WELL PLAT ATTACHED AS PLAT #6)

- Pipelines: 1 buried SWD pipeline <12 ¾" OD , approximately 1,475′, will be laid from facility in section 27, going north to an existing SWD line in the SW4 of section 22-T24S-R34E.
  - A ROW will be required for these pipelines.
  - All construction activity will be confined to the approved ROW.
  - Pipeline will stay within approved ROW.
- Powerlines: A powerline, will be installed from the well location to an existing Centennial takepoint tbd within section 22-T24S-R34E.
- Powerline will continue from the facility pad to each of the drill pads located in the N2 of section 27-T24S-R34E.
  - A ROW will be required for all OHE line.
  - All construction activity will be confined to the approved ROW.
  - Powerline will run parallel to the road and will stay within approved ROW.

#### LOCATION AND TYPES OF WATER (PLAT ATTACHED AS PLAT #7)

- Existing freshwater pit in Sec 16-T24S-R34E will be utilized for fresh water and source location for recycled water is tbd.
- Fresh water will be obtained from a private water source.
- Temporary expanding water surface line will be used to transport water for drilling and completion operations from the pipeline to the Juliet location along existing road a total of approx. 11,575' from the well location to the existing frac pond in Sec 16-T24S-R34E.
  - Fresh water line will run parallel to the existing road, then north within an existing pipeline right of way.

#### **CONSTRUCTION MATERIAL (ATTACHED AS PLAT #8)**

- Caliche will be hauled from the existing Basin pit located in the NW/4, Sec 6, 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.
  - 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.

#### METHODS FOR HANDLING WASTE (CONSTRUCTION)

- Drilling fluids and produced oil and water from the well during drilling and completion operations will be stored safely and disposed of properly in an NMOCD approved disposal facility.
- Garbage and trash produced during drilling and completion operations will be collected in a trash container and disposed of properly at a state approved disposal facility. All trash on and around the well site will be collected for disposal.
- Human waste and grey water will be properly contained and disposed of properly at a state approve disposal facility.
- After drilling and completion operations, trash, chemicals, salts frac sand and other waste material will be removed and disposed of properly at a state approved disposal facility.
- The well will be drilled utilizing a closed loop system. Drill cuttings will be properly disposed of into steel tank and taken to an NMOCD approved disposal facility.

#### ANCILLARY FACILITIES

- None

#### WELL SITE LAYOUT (WELL SITE PLAT ATTACHED AS PLAT #9) (CONSTRUCTION)

- Well Site Plat
  - Exterior well pad dimensions are 850' x 535'.
  - Interior well pad dimensions from point of entry (well head) of the westernmost well are N-200', S-650', W-260', E-275'. The length to the east includes 30' spacing for next well on multi-well

pad (six wells). Total disturbance area needed for construction of well pad will be 12.192 acres.

 Topsoil placement is on the south where interim reclamation is planned to be completed upon completion of well and evaluation of best management practices.

#### PROPOSED PAD CUT & FILL (PLAT ATTACHED AS PLAT #10)

- Cut and fill: will be minimal.

#### RIG LAYOUT (ATTACHED AS PLAT #11)

# PLANS FOR SURFACE RECLAMATION (RECLAMATION PLAT ATTACHED AS PLAT #12)

#### **RECLAMATION OBJECTIVES**

- The objective of interim reclamation is to restore vegetative cover and a portion of the landform sufficient to maintain healthy, biologically active topsoil; control erosion; and minimize habitat and forage loss, visual impact, and weed infestation, during the life of the well or facilities.
- The long-term objective of final reclamation is to return the land to a condition similar to what existed prior to disturbance. This includes restoration of the landform and natural vegetative community, hydrologic systems, visual resources, and wildlife habitats. To ensure that the long-term objective will be reached through human and natural processes, actions will be taken to ensure standards are met for site stability, visual quality, hydrological functioning, and vegetative productivity.
- The BLM will be notified at least 3 days prior to commencement of any reclamation procedures.
- IF CIRCUMSTANCES ALLOW, INTERIM RECLAMATION AND/OR FINAL RECLAMATION ACTIONS WILL BE COMPLETED. WE WILL GAIN WRITTEN PERMISSION FROM THE BLM IF MORE TIME IS NEEDED.

RECLAMATION WILL BE PERFORMED BY USING THE FOLLOWING PROCEDURES:

#### INTERIM RECLAMATION PROCEDURES

- Within 6 months, Centennial will contact BLM Surface Management Specialists to devise the best strategies to reduce the size of the location. Current plans for interim reclamation include reducing the pad size to approximately 3.989 acres from the proposed size of 4.870 acres. the well location and surrounding areas will be cleared of, and maintained free of, all materials, trash, and equipment not require for production. A plan will be submitted showing where interim reclamation will be completed to allow for safe operations, protection of the environment outside of drilled well, and following best Management practices found in the BLM "Gold Book".
- In areas planned for interim reclamation, all the surfacing material will be removed and returned to the original mineral pit or recycled to repair or build roads and well pads.
- The areas planned for interim reclamation will then be recontoured to the original contour if feasible, or if not feasible, to an interim contour that blends with the surrounding topography as much as possible.
   Where applicable, the fill material of the well pad will be backfilled into the cut to bring the area back to the original contour. The interim cut and fill slopes prior to res-seeding will not be steeper than a 3:1 ratio, unless the adjacent native topography is steeper. Notice: Constructed slopes may be much steeper during drilling but will be recontoured to the above ratios during interim reclamation.
- Topsoil will be evenly re-spread and aggressively revegetated over the entire disturbed area not needed for all-weather operations including cuts & fills. To seed the area, the proper BLM seed mixture (BLM#2), free of noxious weeds, will be used.
- Proper erosion control methods will be used on the area to control erosion, runoff and siltation of the surrounding area.
- The interim reclamation will be monitored periodically to ensure that vegetation has reestablished.

Final Reclamation (well pad, buried pipelines, and powerlines, etc.)

- Prior to final reclamation procedures, the well pad, road and surrounding area will be cleared of material, trash, and equipment.

- All surfacing material will be removed and returned to the original mineral pit or recycled to repair or build roads and well pads.
- All disturbed areas, including roads, pipelines, pads, production facilities and interim reclaimed areas will be recontoured to the contour existing prior to initial construction or a contour that blends in distinguishably with the surrounding landscape. Topsoil that was spread over the interim reclamation areas will be stockpiled prior to recontouring. The topsoil will be redistributed evenly over the entire disturbed site to ensure successful revegetation.
- After all the disturbed areas have been properly prepared; the areas will be seeded with the proper BLM see mixture (BLM #2), free of noxious weeds.
- Proper erosion control methods will be used on the entire area to control erosion, runoff and siltation of the surrounding areas.

#### SURFACE OWNERSHIP

- Well pad and all other infrastructure is on Fee Surface (Quail Ranch)

#### OTHER INFORMATION (PLATS ATTACHED AS PLAT 13)

- On-site not required. FEE/FEE/FED.
- Erosion / Drainage: Drainage control system shall be constructed on the entire length of road using any of the following: ditches, side hill outsloping and in-sloping, lead-off ditched, culvert installation, or low water crossings.
- Enclosure fencing will be installed around open cellar to prevent livestock or large wildlife from being trapped after installation, or low water crossings.
- Enclosure fencing will be installed around open cellar to prevent livestock or large wildlife from being trapped after installation. Fencing will remain in place while no activity is present and until backfilling takes place.
- Terrain: Landscape is flat
- Soil: Sandy loam
- Vegetation: Vegetation present in surrounding area includes mesquite, shrubs, and grass (needle-grass, burro grass, dropseed).

- Wildlife: No wildlife observed, but it is likely that deer, rabbits, coyotes and rodents pass through the area.
- Surface Water: No surface water concerns.
- Cave Karst: Low Karst area with no cave or visual signs of caves found.
- Watershed Protection: The entire perimeter of the well pad will be bermed to prevent oil, salt and other chemical contaminates from leaving the well pad.

#### Received by OCD: 6/28/2022 4:11:27 PM CENTENNIAL RESOURCE PRODUCTION, LLC JULIET FEDERAL COM 113H, 114H, 312H, 513H, 514H & 713H SECTION 27, T24S, R34E, N.M.P.M. LEA COUNTY, NEW MEXICO

DATE:	DESCRIPTION:			
9/13/2019	COMPLETE PLAT PACKAGE			
9/24/2019	UPDATED DISTURBANCE ACREAGE			
1/13/2020	/13/2020 FTP/PP CHANGES			
2/18/2020	2/18/2020 ADDED RECLAMATION PLAT			
7/13/2020	7/13/2020 SHL & NAME CHANGES (C-102S ONLY)			
7/17/2020	PAD MOVE, NAME CHANGES, ROAD RE-ROUTES & ADD FLOW LINE R-O-W			
8/11/2020	CORRECTED COUNTY ON RIGHT-OF-WAY PLATS			





PHOTO: VIEW FROM CORNER #1 TO LOCATION STAKES

**CAMERA ANGLE: NORTHERLY** 



PHOTO: VIEW FROM BEGINNING OF PROPOSED ACCESS "A"

**CAMERA ANGLE: EASTERLY** 

REV: 1 07-10-20 C.D. (PAD MOVE & ROAD RE-ROUTE) CENTENNIAL RESOURCE PRODUCTION, LLC JULIET FEDERAL COM



UELS, LLC Corporate Office \* 85 South 200 East Vernal, UT 84078 \* (435) 789-1017 

 113H, 114H, 312H, 513H, 514H & 713H

 SE 1/4 NW 1/4, SECTION 27, T24S, R34E, N.M.P.M.

 LEA COUNTY, NEW MEXICO

 TAKEN BY
 N.R.

 07-02-20

 DRAWN BY
 S.T.O.

 LOCATION PHOTOS
 PHOTO

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**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:** 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:

**PWD** disturbance (acres):

**Operator Name: CENTENNIAL RESOURCE PRODUCTION LLC** 

Well Name: JULIET FEDERAL COM

Well Number: 312H

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:

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?

Operator Name: CENTENNIAL RESOURCE PRODUCTION LLC

Well Name: JULIET FEDERAL COM

Well Number: 312H

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:

Other PWD discharge volume (bbl/day):

PWD disturbance (acres):

Operator Name: CENTENNIAL RESOURCE PRODUCTION LLC

Well Name: JULIET FEDERAL COM

Well Number: 312H

Other PWD type description:

Other PWD type attachment:

Have other regulatory requirements been met?

Other regulatory requirements attachment:

# **WAFMSS**

U.S. Department of the Interior BUREAU OF LAND MANAGEMENT Bond Info Data Report 03/31/2022

APD ID: 10400066803	Submission Date: 12/17/2020	Highlighted data
Operator Name: CENTENNIAL RESOURCE PRODUCTION	LLC	reflects the most recent changes
Well Name: JULIET FEDERAL COM	Well Number: 312H	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:



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	Submi Via E-	t Electronically permitting						
	N	ATURAL GA	AS MANA(	GEMENT P	LAN			
This Natural Gas Manaş	gement Plan mu	ist be submitted wi	th each Applicat	ion for Permit to I	Drill (A	PD) for a ne	ew or 1	ecompleted well
		Section Ef	<u>1 – Plan Do</u> fective May 25,	escription 2021				
I. Operator: <u>Centen</u>	nial Resour	ce Prod, LLC	OGRID: <u>37</u>	/2165		Date:	4/ 5	/2022
II. Type: ■ Original [	☐ Amendment	due to □ 19.15.27.	9.D(6)(a) NMA	C 🗆 19.15.27.9.D(	6)(b) N	MAC 🗆 O	ther.	
If Other, please describe	:							
<b>III. Well(s):</b> Provide the be recompleted from a s	e following info ingle well pad	ormation for each 1 or connected to a c	new or recomple entral delivery p	ted well or set of voint.	wells pr	oposed to b	oe drill	ed or proposed to
Well Name	API	ULSTR	Footages	Anticipated Oil BBL/D	Anticipated Antic Gas MCF/D Produce BE		Anticipated oduced Water BBL/D	
Juliet Fed Com 113H		F-27-24S-34E	2109FNL&2111FW	1800 BBL/D	2700	MCF/D	12,240 BBL/D	
Juliet Fed Com 114H	20.025.50.41	F-27-24S-34E	2109FNL&2146FW	4 1800 BBL/D	2700	MCF/D	12,	240 BBL/D
uliet Fed Com 312H IV. Central Delivery P V. Anticipated Schedu	oint Name: le: Provide the	Raider 502/503/7	01 CDP	- 3600 BBL/D	vell or s	[See 19	18 15.27.	9(D)(1) NMAC] ed to be drilled o
proposed to be recomple	eted from a sing	gle well pad or con	nected to a centr	al delivery point.			propos	
Well Name	API	Spud Date	TD Reached Date	Completion Commencement	CompletionInitial Fmmencement DateBack D		ow ite	First Production Date
uliet Fed Com 113H		9/12/2023	9/20/2023	11/16/2023		12/18/202	3	12/18/2023
uliet Fed Com 114H		9/12/2023	9/20/2023	11/16/2023 12/18/202		12/18/202	3	12/18/2023
uliet Fed Com 312H	30-025-50410	8/8/2022	8/16/2022	12/8/2022		12/31/202	2	12/31/2022
/I. Separation Equips /II. Operational Prac Subsection A through F	tices: Attach of 19.15.27.8 N	a complete descrip h a complete descri NMAC.	iption of the act	ions Operator wil	l take t	o comply w	vith the	e requirements of

Page 6

### Section 2 – Enhanced Plan EFFECTIVE APRIL 1, 2022

Beginning April 1, 2022, an operator that is not in compliance with its statewide natural gas capture requirement for the applicable reporting area must complete this section.

• Operator certifies that it is not required to complete this section because Operator is in compliance with its statewide natural gas capture requirement for the applicable reporting area.

#### IX. Anticipated Natural Gas Production:

Well	API	Anticipated Average Natural Gas Rate MCF/D	Anticipated Volume of Natural Gas for the First Year MCF

#### X. Natural Gas Gathering System (NGGS):

Operator	System	ULSTR of Tie-in	Anticipated Gathering Start Date	Available Maximum Daily Capacity of System Segment Tie-in

**XI. Map.**  $\Box$  Attach an accurate and legible map depicting the location of the well(s), the anticipated pipeline route(s) connecting the production operations to the existing or planned interconnect of the natural gas gathering system(s), and the maximum daily capacity of the segment or portion of the natural gas gathering system(s) to which the well(s) will be connected.

**XII. Line Capacity.** The natural gas gathering system  $\Box$  will  $\Box$  will not have capacity to gather 100% of the anticipated natural gas production volume from the well prior to the date of first production.

**XIII.** Line Pressure. Operator  $\Box$  does  $\Box$  does not anticipate that its existing well(s) connected to the same segment, or portion, of the natural gas gathering system(s) described above will continue to meet anticipated increases in line pressure caused by the new well(s).

□ Attach Operator's plan to manage production in response to the increased line pressure.

**XIV. Confidentiality:**  $\Box$  Operator asserts confidentiality pursuant to Section 71-2-8 NMSA 1978 for the information provided in Section 2 as provided in Paragraph (2) of Subsection D of 19.15.27.9 NMAC, and attaches a full description of the specific information for which confidentiality is asserted and the basis for such assertion.

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### <u>Section 3 - Certifications</u> <u>Effective May 25, 2021</u>

Operator certifies that, after reasonable inquiry and based on the available information at the time of submittal:

■ Operator will be able to connect the well(s) to a natural gas gathering system in the general area with sufficient capacity to transport one hundred percent of the anticipated volume of natural gas produced from the well(s) commencing on the date of first production, taking into account the current and anticipated volumes of produced natural gas from other wells connected to the pipeline gathering system; or

 $\Box$  Operator will not be able to connect to a natural gas gathering system in the general area with sufficient capacity to transport one hundred percent of the anticipated volume of natural gas produced from the well(s) commencing on the date of first production, taking into account the current and anticipated volumes of produced natural gas from other wells connected to the pipeline gathering system. *If Operator checks this box, Operator will select one of the following:* 

**Well Shut-In.**  $\Box$  Operator will shut-in and not produce the well until it submits the certification required by Paragraph (4) of Subsection D of 19.15.27.9 NMAC; or

**Venting and Flaring Plan.**  $\Box$  Operator has attached a venting and flaring plan that evaluates and selects one or more of the potential alternative beneficial uses for the natural gas until a natural gas gathering system is available, including:

- (a) power generation on lease;
- (b) power generation for grid;
- (c) compression on lease;
- (d) liquids removal on lease;
- (e) reinjection for underground storage;
- (f) reinjection for temporary storage;
- (g) reinjection for enhanced oil recovery;
- (h) fuel cell production; and
- (i) other alternative beneficial uses approved by the division.

## Section 4 - Notices

1. If, at any time after Operator submits this Natural Gas Management Plan and before the well is spud:

(a) Operator becomes aware that the natural gas gathering system it planned to connect the well(s) to has become unavailable or will not have capacity to transport one hundred percent of the production from the well(s), no later than 20 days after becoming aware of such information, Operator shall submit for OCD's approval a new or revised venting and flaring plan containing the information specified in Paragraph (5) of Subsection D of 19.15.27.9 NMAC; or

(b) Operator becomes aware that it has, cumulatively for the year, become out of compliance with its baseline natural gas capture rate or natural gas capture requirement, no later than 20 days after becoming aware of such information, Operator shall submit for OCD's approval a new or revised Natural Gas Management Plan for each well it plans to spud during the next 90 days containing the information specified in Paragraph (2) of Subsection D of 19.15.27.9 NMAC, and shall file an update for each Natural Gas Management Plan until Operator is back in compliance with its baseline natural gas capture rate or natural gas capture requirement.

2. OCD may deny or conditionally approve an APD if Operator does not make a certification, fails to submit an adequate venting and flaring plan which includes alternative beneficial uses for the anticipated volume of natural gas produced, or if OCD determines that Operator will not have adequate natural gas takeaway capacity at the time a well will be spud.

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I certify that, after reasonable inquiry, the statements in and attached to this Natural Gas Management Plan are true and correct to the best of my knowledge and acknowledge that a false statement may be subject to civil and criminal penalties under the Oil and Gas Act.

Signature:
------------

Stewart MacCallum

Printed Name: Stewart MacCallum

Title: Director of Marketing

E-mail Address: Stewart.MacCallum@cdevinc.com

Date: 5/23/2022

Phone: (720) 499-1458

# OIL CONSERVATION DIVISION

(Only applicable when submitted as a standalone form)

Approved By:

Title:

Approval Date:

Conditions of Approval:

#### Centennial Resource Production, LLC (372165)

#### **Natural Gas Management Plan Descriptions**

#### VI. Separation Equipment:

Centennial utilizes a production forecast from our Reservoir Engineering team to appropriately size each permanent, 3-phase separator and heater treater utilized for production operations. Our goal is to maintain 5 minutes of retention time in the test vessel and 20 minutes in the heater treater at peak production rates. The gas produced is routed from the separator to the gas sales line.

#### VII. Operational Practices:

#### Drilling

During Centennial's drilling operations it is uncommon for venting or flaring to occur. If flaring is needed due to safety concerns, gas will be routed to a flare and volumes will be estimated.

#### Flowback

During completion/recompletion flowback operations, after separation flowback begins and as soon as it is technically feasible, Centennial routes gas though a permanent separator and the controlled facility where the gas is either sold or flared through a high-pressure flare if needed.

#### Production

Per 19.15.27.8.D, Centennial's facilities are designed to minimize waste. Our produced gas will only be vented or flared in an emergency or malfunction situation, except as allowed for normal operations noted in 19.15.27.8.D(2) & (4). All gas that is flared is metered. All gas that may be vented will be estimated.

#### Performance Standards

Centennial utilizes a production forecast from our Reservoir Engineering team to appropriately size each permanent, 3-phase separator and heater treater utilized for production operations.

All of Centennial's permanent storage tanks associated with production operations which are routed to a flare or control device are equipped with an automatic gauging system.

All of Centennial's flare stacks, both currently installed and for future installation, are:

- 1) Appropriately sized and designed to ensure proper combustion efficiency.
- 2) Equipped with an automatic ignitor or continuous pilot.
- 3) Anchored and located at least 100 feet from the well and storage tanks.

Centennial's field operations and HSE teams have implemented an AVO inspection schedule that adheres to the requirements of 19.15.27.8.E(5).

All of our operations and facilities are designed to minimize waste. We routinely employ the following methods and practices:

- Closed-loop systems
- Enclosed and properly sized tanks

- Vapor recovery units to maximize recovery of low-pressure gas streams and potential unauthorized emissions
- Low-emitting or electric engines whenever practical
- Combustors and flare stacks in the event of a malfunction or emergency
- Routine facility inspections to identify leaking components, functioning control devices, such as flares and combustors, and repair / replacement of malfunctioning components where applicable

#### Measurement or estimation

Centennial measures or estimates the volumes of natural gas vented, flared and/or beneficially used for all of our drilling, completing and producing wells. We utilize accepted industry standards and methodology which can be independently verified. Annual GOR testing is completed on our wells and will be submitted as required by the OCD. None of our equipment is designed to allow diversion around metering elements except during inspection, maintenance and repair operations.

#### VIII. Best Management Practices:

Centennial utilizes the following BMPs to minimize venting during active and planned maintenance activities:

- Use a closed-loop process wherever possible during planned maintenance activities, such as blowdowns, liquid removal, and work over operations.
- Employ low-emitting or electric engines for equipment, such as compressors
- Adhere to a strict preventative maintenance program which includes routine facility inspections, identification of component malfunctions, and repairing or replacing components such as hatches, seals, valves, etc. where applicable
- Utilize vapor recovery units (VRU's) to maximize recovery of volumes of low-pressure gas streams and potential unauthorized emissions
- Route low pressure gas and emissions streams to a combustion device to prevent venting where necessary





Vertical Section at 1.06° (400 usft/in)





# Centennial Resources Development, Inc.

Lea County, NM (NAD83 - UTM Zone 13) Juliet Federal Com 312H

OH

Plan: Plan 1 03-30-22

# **Standard Planning Report**

30 March, 2022





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
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	
2,000.00	0.00	0.00	2,000.00	0.00	0.00	0.00	0.00	0.00	0.000	
3,000.00	10.00	160.88	2,994.93	-82.24	28.51	1.00	1.00	0.00	160.883	
4,374.77	10.00	160.88	4,348.82	-307.81	106.69	0.00	0.00	0.00	0.000	
5,374.77	0.00	0.00	5,343.75	-390.05	135.20	1.00	-1.00	0.00	180.000	
9,811.86	0.00	0.00	9,780.84	-390.05	135.20	0.00	0.00	0.00	0.000	
10,561.86	90.00	0.00	10,258.31	87.41	135.21	12.00	12.00	0.00	0.001	
17,799.47	90.00	0.00	10,258.30	7,325.02	135.39	0.00	0.00	0.00	0.000 E	BHL - Juliet Federa

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Planning Report



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#### **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)
0.00 1,077.30	0.00 0.00	0.00 0.00	0.00 1,077.30	0.00 0.00	0.00 0.00	0.00 0.00	0.00 0.00	0.00 0.00	0.00 0.00
Rustler 1,696.30	0.00	0.00	1,696.30	0.00	0.00	0.00	0.00	0.00	0.00
2,000.00	0.00	0.00	2,000.00	0.00	0.00	0.00	0.00	0.00	0.00
2,100.00	1.00	160.88	2,099.99	-0.82	0.29	-0.82	1.00	1.00	0.00
2,200.00 2,300.00 2,400.00 2,500.00 2,600.00	2.00 3.00 4.00 5.00 6.00	160.88 160.88 160.88 160.88 160.88	2,199.96 2,299.86 2,399.68 2,499.37 2,598.90	-3.30 -7.42 -13.19 -20.60 -29.66	1.14 2.57 4.57 7.14 10.28	-3.28 -7.37 -13.10 -20.46 -29.46	1.00 1.00 1.00 1.00 1.00	1.00 1.00 1.00 1.00 1.00	0.00 0.00 0.00 0.00 0.00
2,700.00 2,800.00 2,900.00 3,000.00	7.00 8.00 9.00 10.00	160.88 160.88 160.88 160.88	2,698.26 2,797.40 2,896.30 2,994.93	-40.35 -52.68 -66.65 -82.24	13.99 18.26 23.10 28.51	-40.09 -52.34 -66.21 -81.70	1.00 1.00 1.00 1.00 1.00	1.00 1.00 1.00 1.00 1.00	0.00 0.00 0.00 0.00 0.00
Hold 10.00	° Inc at 160.88	6° Azm	2 002 44	09.65	24.40	00.00	0.00	0.00	0.00
3,200.00 3,300.00 3,400.00 3,500.00 3,600.00	10.00 10.00 10.00 10.00 10.00 10.00	160.88 160.88 160.88 160.88 160.88 160.88	3,191.89 3,290.37 3,388.85 3,487.33 3.585.82	-98.05 -115.06 -131.47 -147.87 -164.28 -180.69	39.88 45.57 51.25 56.94 62.63	-98.00 -114.30 -130.60 -146.90 -163.20 -179.50	0.00 0.00 0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00 0.00 0.00
3,700.00 3,754.84	10.00 10.00	160.88 160.88	3,684.30 3,738.30	-197.10 -206.09	68.31 71.43	-195.80 -204.74	0.00 0.00	0.00 0.00	0.00 0.00
BS BLM (F	letcher Anhyd	lrite)							
3,800.00 3,900.00 4,000.00	10.00 10.00 10.00	160.88 160.88 160.88	3,782.78 3,881.26 3,979.74	-213.50 -229.91 -246.32	74.00 79.69 85.38	-212.10 -228.40 -244.70	0.00 0.00 0.00	0.00 0.00 0.00	0.00 0.00 0.00
4,100.00 4,200.00 4,300.00 4,374.77	10.00 10.00 10.00 10.00	160.88 160.88 160.88 160.88	4,078.22 4,176.70 4,275.18 4,348.82	-262.72 -279.13 -295.54 -307.81	91.06 96.75 102.44 106.69	-261.00 -277.30 -293.59 -305.78	0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00
Begin 1.00	°/100' Drop	160.88	1 373 67	-311 80	108 11	-300.84	1.00	-1.00	0.00
4,500.00 4,600.00 4,700.00 4,800.00 4,900.00	8.75 7.75 6.75 5.75 4.75	160.88 160.88 160.88 160.88 160.88 160.88	4,472.37 4,571.33 4,670.53 4,769.94 4,869.52	-327.08 -340.63 -352.55 -362.83 -371.48	113.37 118.07 122.20 125.76 128.76	-324.93 -338.39 -350.23 -360.45 -369.03	1.00 1.00 1.00 1.00 1.00	-1.00 -1.00 -1.00 -1.00 -1.00	0.00 0.00 0.00 0.00 0.00 0.00
5,000.00 5,100.00 5,200.00 5,300.00 5,374.77	3.75 2.75 1.75 0.75 0.00	160.88 160.88 160.88 160.88 0.00	4,969.24 5,069.08 5,169.00 5,268.98 5,343.75	-378.47 -383.83 -387.53 -389.59 -390.05	131.18 133.04 134.32 135.04 135.20	-375.99 -381.30 -384.98 -387.03 -387.49	1.00 1.00 1.00 1.00 1.00	-1.00 -1.00 -1.00 -1.00 -1.00	0.00 0.00 0.00 0.00 0.00
Begin Vert	Ical Hold					<b>ac</b> =			
5,388.32 Lamar	0.00	0.00	5,357.30	-390.05	135.20	-387.49	0.00	0.00	0.00
5,400.00 5,460.32	0.00 0.00	0.00 0.00	5,368.98 5,429.30	-390.05 -390.05	135.20 135.20	-387.49 -387.49	0.00 0.00	0.00 0.00	0.00
5,500.00	0.00	0.00	5,468.98	-390.05	135.20	-387.49	0.00	0.00	0.00

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COMPASS 5000.15 Build 93A

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Planning Report



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Database:	USA Compass	Local Co-ordinate Reference:	Well 312H
Company:	Centennial Resources Development, Inc.	TVD Reference:	RKB @ 3489.30usft (TBD)
Project:	Lea County, NM (NAD83 - UTM Zone 13)	MD Reference:	RKB @ 3489.30usft (TBD)
Site:	Juliet Federal Com	North Reference:	True
Well:	312H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH	-	
Design:	Plan 1 03-30-22		

#### 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)	
5,600.00	0.00	0.00	5,568.98	-390.05	135.20	-387.49	0.00	0.00	0.00	
5,700.00	0.00	0.00	5,668.98	-390.05	135.20	-387.49	0.00	0.00	0.00	
5,800.00	0.00	0.00	5,768.98	-390.05	135.20	-387.49	0.00	0.00	0.00	
6,000,00	0.00	0.00	5,000.90	-390.05	135.20	-387 49	0.00	0.00	0.00	
6,100.00	0.00	0.00	6,068.98	-390.05	135.20	-387.49	0.00	0.00	0.00	
6 200 00	0.00	0.00	6 169 09	300.05	135 20	397 /0	0.00	0.00	0.00	
6,200.00	0.00	0.00	6 268 98	-390.05	135.20	-387 49	0.00	0.00	0.00	
6,360.32	0.00	0.00	6,329.30	-390.05	135.20	-387.49	0.00	0.00	0.00	
Cherry Ca	nyon									
6,400.00	0.00	0.00	6,368.98	-390.05	135.20	-387.49	0.00	0.00	0.00	
6,500.00	0.00	0.00	6,468.98	-390.05	135.20	-387.49	0.00	0.00	0.00	
6,578.32	0.00	0.00	6,547.30	-390.05	135.20	-387.49	0.00	0.00	0.00	
Manzanita	Lime									
6,600.00	0.00	0.00	6,568.98	-390.05	135.20	-387.49	0.00	0.00	0.00	
6,700.00	0.00	0.00	6,668.98	-390.05	135.20	-387.49	0.00	0.00	0.00	
6,800.00	0.00	0.00	6,768.98	-390.05	135.20	-387.49	0.00	0.00	0.00	
0,900.00	0.00	0.00	0,000.90	-390.05	135.20	-307.49	0.00	0.00	0.00	
7,000.00	0.00	0.00	6,968.98	-390.05	135.20	-387.49	0.00	0.00	0.00	
7,100.00	0.00	0.00	7,068.98	-390.05	135.20	-387.49	0.00	0.00	0.00	
7,200.00	0.00	0.00	7 268 98	-390.05	135.20	-387 49	0.00	0.00	0.00	
7,400.00	0.00	0.00	7,368.98	-390.05	135.20	-387.49	0.00	0.00	0.00	
7 500 00	0.00	0.00	7 468 98	-390.05	135 20	-387 49	0.00	0.00	0.00	
7,600.00	0.00	0.00	7,568.98	-390.05	135.20	-387.49	0.00	0.00	0.00	
7,700.00	0.00	0.00	7,668.98	-390.05	135.20	-387.49	0.00	0.00	0.00	
7,800.00	0.00	0.00	7,768.98	-390.05	135.20	-387.49	0.00	0.00	0.00	
7,900.00	0.00	0.00	7,868.98	-390.05	135.20	-387.49	0.00	0.00	0.00	
7,915.32	0.00	0.00	7,884.30	-390.05	135.20	-387.49	0.00	0.00	0.00	
Brushy Ca	nyon	0.00	7 000 00	000.05	405.00	007.40	0.00	0.00	0.00	
8,000.00	0.00	0.00	7,968.98	-390.05	135.20	-387.49	0.00	0.00	0.00	
8 200 00	0.00	0.00	8 168 98	-390.05	135.20	-387 49	0.00	0.00	0.00	
8,300.00	0.00	0.00	8,268.98	-390.05	135.20	-387.49	0.00	0.00	0.00	
8 400 00	0.00	0.00	8 368 98	-390.05	135 20	-387 49	0.00	0.00	0.00	
8,500.00	0.00	0.00	8,468.98	-390.05	135.20	-387.49	0.00	0.00	0.00	
8,600.00	0.00	0.00	8,568.98	-390.05	135.20	-387.49	0.00	0.00	0.00	
8,700.00	0.00	0.00	8,668.98	-390.05	135.20	-387.49	0.00	0.00	0.00	
8,800.00	0.00	0.00	8,768.98	-390.05	135.20	-387.49	0.00	0.00	0.00	
8,900.00	0.00	0.00	8,868.98	-390.05	135.20	-387.49	0.00	0.00	0.00	
9,000.00	0.00	0.00	8,968.98	-390.05	135.20	-387.49	0.00	0.00	0.00	
9,100.00	0.00	0.00	9,068.98	-390.05	135.20	-387.49	0.00	0.00	0.00	
9,200.00	0.00	0.00	9,100.90	-390.05	135.20	-387.49	0.00	0.00	0.00	
9 305 32	0.00	0.00	0,200.00 0 274 30	-390.05	135.20	-387 49	0.00	0.00	0.00	
Bone Spri	na Lime	0.00	5,274.00	-000.00	100.20	-307.43	0.00	0.00	0.00	
9,326.32	0.00	0.00	9,295.30	-390.05	135.20	-387.49	0.00	0.00	0.00	
Avalon			•							
9,400.00	0.00	0.00	9,368.98	-390.05	135.20	-387.49	0.00	0.00	0.00	
9,500.00	0.00	0.00	9,468.98	-390.05	135.20	-387.49	0.00	0.00	0.00	
9,600.00	0.00	0.00	9,568.98	-390.05	135.20	-387.49	0.00	0.00	0.00	
9,700.00	0.00	0.00	9,668.98	-390.05	135.20	-387.49	0.00	0.00	0.00	
9,800.00	0.00	0.00	9,768.98	-390.05	135.20	-387.49	0.00	0.00	0.00	

#### 3/30/2022 2:26:27PM

COMPASS 5000.15 Build 93A

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Planning Report



Database:	USA Compass	Local Co-ordinate Reference:	Well 312H
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Project:	Lea County, NM (NAD83 - UTM Zone 13)	MD Reference:	RKB @ 3489.30usft (TBD)
Site:	Juliet Federal Com	North Reference:	True
Well:	312H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH	-	
Design:	Plan 1 03-30-22		

#### **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)	
9,811.86	0.00 '00°/100	0.00 Build	9,780.84	-390.05	135.20	-387.49	0.00	0.00	0.00	
9,900.00 10,000.00	10.58 22.58	0.00 0.00	9,868.48 9,964.15	-381.94 -353.46	135.20 135.20	-379.38 -350.90	12.00 12.00	12.00 12.00	0.00 0.00	
10,100.00 10,200.00 10,300.00 10,400.00 10,419.71	34.58 46.58 58.58 70.58 72.94	0.00 0.00 0.00 0.00 0.00	10,051.80 10,127.62 10,188.28 10,231.13 10,237.30	-305.72 -240.79 -161.52 -71.37 -52.65	135.20 135.20 135.20 135.20 135.20	-303.17 -238.25 -158.99 -68.86 -50.14	12.00 12.00 12.00 12.00 12.00	12.00 12.00 12.00 12.00 12.00	0.00 0.00 0.00 0.00 0.00	
First Bone	Spring Sand									
10,423.16	73.36	0.00	10,238.30	-49.35	135.20	-46.84	12.00	12.00	0.00	
10,500.00 10,561.86	82.58 90.00	0.00 0.00	10,254.30 10,258.31	25.72 87.41	135.21 135.21	28.22 89.90	12.00 12.00	12.00 12.00	0.00 0.00	
LP, Hold 9	0.00° Inc at 0.0	0° Azm								
10,600.00 10,700.00	90.00 90.00	0.00 0.00	10,258.31 10,258.30	125.55 225.55	135.21 135.21	128.03 228.01	0.00 0.00	0.00 0.00	0.00 0.00	
10,800.00 10,900.00 11,000.00 11,100.00 11,200.00	90.00 90.00 90.00 90.00 90.00	0.00 0.00 0.00 0.00 0.00	10,258.30 10,258.30 10,258.30 10,258.30 10,258.30 10,258.30	325.55 425.55 525.55 625.55 725.55	135.21 135.22 135.22 135.22 135.22 135.22	327.99 427.98 527.96 627.94 727.92	0.00 0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00 0.00	
11,300.00 11,400.00 11,500.00 11,600.00 11,700.00	90.00 90.00 90.00 90.00 90.00	0.00 0.00 0.00 0.00 0.00	10,258.30 10,258.30 10,258.30 10,258.30 10,258.30 10,258.30	825.55 925.55 1,025.55 1,125.55 1,225.55	135.23 135.23 135.23 135.23 135.23 135.24	827.91 927.89 1,027.87 1,127.86 1,227.84	0.00 0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00 0.00	
11,800.00 11,900.00 12,000.00 12,100.00 12,200.00	90.00 90.00 90.00 90.00 90.00	0.00 0.00 0.00 0.00 0.00	10,258.30 10,258.30 10,258.30 10,258.30 10,258.30	1,325.55 1,425.55 1,525.55 1,625.55 1,725.55	135.24 135.24 135.24 135.25 135.25	1,327.82 1,427.81 1,527.79 1,627.77 1,727.75	0.00 0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00 0.00	
12,300.00 12,400.00 12,500.00 12,600.00 12,700.00	90.00 90.00 90.00 90.00 90.00	0.00 0.00 0.00 0.00 0.00	10,258.30 10,258.30 10,258.30 10,258.30 10,258.30	1,825.55 1,925.55 2,025.55 2,125.55 2,225.55	135.25 135.26 135.26 135.26 135.26	1,827.74 1,927.72 2,027.70 2,127.69 2,227.67	0.00 0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00 0.00	
12,800.00 12,900.00 13,000.00 13,100.00 13,200.00	90.00 90.00 90.00 90.00 90.00	0.00 0.00 0.00 0.00 0.00	10,258.30 10,258.30 10,258.30 10,258.30 10,258.30 10,258.30	2,325.55 2,425.55 2,525.55 2,625.55 2,725.55	135.27 135.27 135.27 135.27 135.28	2,327.65 2,427.63 2,527.62 2,627.60 2,727.58	0.00 0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00 0.00	
13,300.00 13,400.00 13,500.00 13,600.00 13,700.00	90.00 90.00 90.00 90.00 90.00	0.00 0.00 0.00 0.00 0.00	10,258.30 10,258.30 10,258.30 10,258.30 10,258.30 10,258.30	2,825.55 2,925.55 3,025.55 3,125.55 3,225.55	135.28 135.28 135.28 135.29 135.29	2,827.57 2,927.55 3,027.53 3,127.52 3,227.50	0.00 0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00 0.00	
13,800.00 13,900.00 14,000.00 14,100.00 14,200.00	90.00 90.00 90.00 90.00 90.00	0.00 0.00 0.00 0.00 0.00	10,258.30 10,258.30 10,258.30 10,258.30 10,258.30	3,325.55 3,425.55 3,525.55 3,625.55 3,725.55	135.29 135.29 135.30 135.30 135.30	3,327.48 3,427.46 3,527.45 3,627.43 3,727.41	0.00 0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00 0.00	
14,300.00	90.00	0.00	10,258.30	3,825.55	135.30	3,827.40	0.00	0.00	0.00	

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### Received by OCD: 6/28/2022 4:11:27 PM



Planning Report



Database:	USA Compass	Local Co-ordinate Reference:	Well 312H
Company:	Centennial Resources Development, Inc.	TVD Reference:	RKB @ 3489.30usft (TBD)
Project:	Lea County, NM (NAD83 - UTM Zone 13)	MD Reference:	RKB @ 3489.30usft (TBD)
Site:	Juliet Federal Com	North Reference:	True
Well:	312H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan 1 03-30-22		

#### **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)
14,400.00 14,500.00 14,600.00 14,700.00	90.00 90.00 90.00 90.00	0.00 0.00 0.00 0.00	10,258.30 10,258.30 10,258.30 10,258.30	3,925.55 4,025.55 4,125.55 4,225.55	135.31 135.31 135.31 135.31	3,927.38 4,027.36 4,127.35 4,227.33	0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00
14,800.00 14,900.00 15,000.00 15,100.00 15,200.00	90.00 90.00 90.00 90.00 90.00	0.00 0.00 0.00 0.00 0.00	10,258.30 10,258.30 10,258.30 10,258.30 10,258.30	4,325.55 4,425.55 4,525.55 4,625.55 4,725.55	135.32 135.32 135.32 135.32 135.33	4,327.31 4,427.29 4,527.28 4,627.26 4,727.24	0.00 0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00 0.00
15,300.00 15,400.00 15,500.00 15,600.00 15,700.00	90.00 90.00 90.00 90.00 90.00	0.00 0.00 0.00 0.00 0.00	10,258.30 10,258.30 10,258.30 10,258.30 10,258.30	4,825.55 4,925.55 5,025.55 5,125.55 5,225.55	135.33 135.33 135.34 135.34 135.34	4,827.23 4,927.21 5,027.19 5,127.18 5,227.16	0.00 0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00 0.00
15,800.00 15,900.00 16,000.00 16,100.00 16,200.00	90.00 90.00 90.00 90.00 90.00	0.00 0.00 0.00 0.00 0.00	10,258.30 10,258.30 10,258.30 10,258.30 10,258.30 10,258.30	5,325.55 5,425.55 5,525.55 5,625.55 5,725.55	135.34 135.35 135.35 135.35 135.35	5,327.14 5,427.12 5,527.11 5,627.09 5,727.07	0.00 0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00 0.00
16,300.00 16,400.00 16,500.00 16,600.00 16,700.00	90.00 90.00 90.00 90.00 90.00	0.00 0.00 0.00 0.00 0.00	10,258.30 10,258.30 10,258.30 10,258.30 10,258.30 10,258.30	5,825.55 5,925.55 6,025.55 6,125.55 6,225.55	135.36 135.36 135.36 135.36 135.37	5,827.06 5,927.04 6,027.02 6,127.00 6,226.99	0.00 0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00 0.00
16,800.00 16,900.00 17,000.00 17,100.00 17,200.00	90.00 90.00 90.00 90.00 90.00	0.00 0.00 0.00 0.00 0.00	10,258.30 10,258.30 10,258.30 10,258.30 10,258.30 10,258.30	6,325.55 6,425.55 6,525.55 6,625.55 6,725.55	135.37 135.37 135.37 135.38 135.38	6,326.97 6,426.95 6,526.94 6,626.92 6,726.90	0.00 0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00 0.00
17,300.00 17,400.00 17,500.00 17,600.00 17,700.00	90.00 90.00 90.00 90.00 90.00	0.00 0.00 0.00 0.00 0.00	10,258.30 10,258.30 10,258.30 10,258.30 10,258.30 10,258.30	6,825.55 6,925.55 7,025.55 7,125.55 7,225.55	135.38 135.38 135.39 135.39 135.39	6,826.89 6,926.87 7,026.85 7,126.83 7,226.82	0.00 0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00 0.00
17,799.47 <b>TD at 1779</b> 9	90.00 <b>9.47</b>	0.00	10,258.30	7,325.02	135.39	7,326.27	0.00	0.00	0.00

#### Design Targets

Target Name - hit/miss target - Shape	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
BHL - Juliet Federal C - plan hits target c - Rectangle (sides	2 0.00 enter s W0.00 H7,7	0.00 15.07 D20	10,258.30 .00)	7,325.02	135.39	11,695,368.78	2,116,895.6732°	12' 36.044397 N 3'	° 27' 32.379532 W
FTP - Juliet Federal C - plan misses targ	0.00 et center by	180.00 198.39usft	10,258.30 at 10200.0	-390.05 0usft MD (10	135.20 127.62 TVD	11,687,655.58 , -240.79 N, 135	2,117,005.9932° 5.20 E)	' 11' 19.702228 N 3'	° 27' 32.382453 W

- Point

#### Received by OCD: 6/28/2022 4:11:27 PM



**Planning Report** 



Database:	USA Compass	Local Co-ordinate Reference:	Well 312H
Droject	Lea County NM (NAD83 - UTM Zone 13)	IVD Reference:	$RKB \bigoplus 3489.30usit(TBD)$
Site:	Juliet Federal Com	MD Reference:	ККВ (Ш 3469.30usit (ТВD) Тлие
Well <sup>.</sup>	312H	Survey Calculation Method	Minimum Curvature
Wellbore:	OH		
Design:	Plan 1 03-30-22		

Formations

Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)
1,077.30	1,077.30	Rustler			
1,696.30	1,696.30	Salado			
3,754.84	3,738.30	BS BLM (Fletcher Anhydrite)			
5,388.32	5,357.30	Lamar			
5,460.32	5,429.30	Bell Canyon			
6,360.32	6,329.30	Cherry Canyon			
6,578.32	6,547.30	Manzanita Lime			
7,915.32	7,884.30	Brushy Canyon			
9,305.32	9,274.30	Bone Spring Lime			
9,326.32	9,295.30	Avalon			
10,419.71	10,237.30	First Bone Spring Sand			
10,423.16	10,238.30	Target Top at 0' VS			

#### **Plan Annotations**

Measured	Vertical	ical Local Coordinates		
Depth	Depth	+N/-S	+E/-W	Comment
(usft)	(usft)	(usft)	(usft)	
2,000.00	2,000.00	0.00	0.00	KOP, Begin 1.00°/100' Build
3,000.00	2,994.93	-82.24	28.51	Hold 10.00° Inc at 160.88° Azm
4,374.77	4,348.82	-307.81	106.69	Begin 1.00°/100' Drop
5,374.77	5,343.75	-390.05	135.20	Begin Vertical Hold
9,811.86	9,780.84	-390.05	135.20	KOP2, Begin 12.00°/100' Build
10,561.86	10 258 31	87 41	135.21	LP, Hold 90.00° Inc. at 0.00° Azm
17,799.47	10,258.30	7,325.02	135.39	TD at 17799.47

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

Operator:	OGRID:
CENTENNIAL RESOURCE PRODUCTION, LLC	372165
1001 17th Street, Suite 1800	Action Number:
Denver, CO 80202	121236
	Action Type:
	[C-101] BLM - Federal/Indian Land Lease (Form 3160-3)

#### CONDITIONS

Created By	Condition	Condition Date
pkautz	Will require a File As Drilled C-102 and a Directional Survey with the C-104	8/4/2022
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	8/4/2022
pkautz	Oil base muds are not to be used until fresh water zones are cased and cemented providing isolation from the oil or diesel. This includes synthetic oils. Oil based mud, drilling fluids and solids must be contained in a steel closed loop system	8/4/2022
pkautz	Cement is required to circulate on both surface and intermediate1 strings of casing	8/4/2022

CONDITIONS

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Action 121236