HOBBS OCD Carlsbad Field Office OCD Hobbs

AUG 16 2018

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Form 3160-3
(March 2012)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

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

APPLICATION FOR PERMIT TO DRILL OR REENTER

5. Lease Serial No. NMNM092199	
6. If Indian, Allotee or Tribe Name	
7. If Unit or CA Agreement, Name and No.	
8. Lease Name and Well No. (40024) COPPERLINE WEST 29 FEDERAL 6H	
9. API Well No. 30-025-45097	
10. Field and Pool, or Exploratory 97565 WOLFCAMP / WC-025 G-09 S243308L	
11. Sec., T. R. M. or Blk. and Survey or Area SEC 29 / T23S / R34E / NMP	
12. County or Parish LEA	13. State NM

1a. Type of work: ☑ DRILL ☐ REENTER

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

2. Name of Operator CAZA OPERATING LLC (249099)

3a. Address 200 N. Loraine Street, Suite 1550 Midland TX

3b. Phone No. *(include area code)* (432)682-7424

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

At surface NWNW / 55 FNL / 775 FWL / LAT 32.282701 / LONG -103.498114

At proposed prod. zone SWSW / 335 FSL / 970 FWL / LAT 32.269269 / LONG -103.497461

14. Distance in miles and direction from nearest town or post office* 18.5 miles		
15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any) 130 feet	16. No. of acres in lease 560	17. Spacing Unit dedicated to this well 160
18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft. 140 feet	19. Proposed Depth 11641 feet / 16300 feet	20. BLM/BIA Bond No. on file FED: NMB000471
21. Elevations (Show whether DF, KDB, RT, GL, etc.) 3562 feet	22. Approximate date work will start* 04/04/2017	23. Estimated duration 30 days

24. Attachments

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

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

25. Signature (Electronic Submission)	Name *(Printed/Typed)* Tony B Sam / Ph: (432)682-7424	Date 10/27/2016
Title VP Operations		
Approved by *(Signature)* (Electronic Submission)	Name *(Printed/Typed)* Cody Layton / Ph: (575)234-5959	Date 08/04/2018
Title Assistant Field Manager Lands & Minerals	Office HOBBS	

Application approval does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.
Conditions of approval, if any, are attached.

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

(Continued on page 2)

*(Instructions on page 2)

GCP Rec 08/16/18

APPROVED WITH CONDITIONS

PM

Approval Date: 08/04/2018

KR 08/16/18

Double sided

INSTRUCTIONS

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

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

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

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

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

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

NOTICES

The Privacy Act of 1974 and regulation in 43 CFR 2.48(d) provide that you be furnished the following information in connection with information required by this application.
AUTHORITY: 30 U.S.C. 181 et seq., 25 U.S.C. 396; 43 CFR 3160
PRINCIPAL PURPOSES: The information will be used to: (1) process and evaluate your application for a permit to drill a new oil, gas, or service well or to reenter a plugged and abandoned well; and (2) document, for administrative use, information for the management, disposal and use of National Resource Lands and resources including (a) analyzing your proposal to discover and extract the Federal or Indian resources encountered; (b) reviewing procedures and equipment and the projected impact on the land involved; and (c) evaluating the effects of the proposed operation on the surface and subsurface water and other environmental impacts.
ROUTINE USE: Information from the record and/or the record will be transferred to appropriate Federal, State, and local or foreign agencies, when relevant to civil, criminal or regulatory investigations or prosecution, in connection with congressional inquiries and for regulatory responsibilities.
EFFECT OF NOT PROVIDING INFORMATION: Filing of this application and disclosure of the information is mandatory only if you elect to initiate a drilling or reentry operation on an oil and gas lease.

The Paperwork Reduction Act of 1995 requires us to inform you that:
The BLM collects this information to allow evaluation of the technical, safety, and environmental factors involved with drilling for oil and/or gas on Federal and Indian oil and gas leases. This information will be used to analyze and approve applications. Response to this request is mandatory only if the operator elects to initiate drilling or reentry operations on an oil and gas lease. The BLM would like you to know that you do not have to respond to this or any other Federal agency-sponsored information collection unless it displays a currently valid OMB control number.

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

(Continued on page 3)

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Additional Operator Remarks

Location of Well

1. SHL: NWNW / 55 FNL / 775 FWL / TWSP: 23S / RANGE: 34E / SECTION: 29 / LAT: 32.282701 / LONG: -103.498114 (TVD: 0 feet, MD: 0 feet)
   PPP: NWNW / 275 FNL / 970 FWL / TWSP: 23S / RANGE: 34E / SECTION: 29 / LAT: 32.282092 / LONG: -103.497487 (TVD: 11493 feet, MD: 11561 feet)
   BHL: SWSW / 335 FSL / 970 FWL / TWSP: 23S / RANGE: 34E / SECTION: 29 / LAT: 32.269269 / LONG: -103.497461 (TVD: 11641 feet, MD: 16300 feet)

BLM Point of Contact

Name: Sipra Dahal
Title: Legal Instruments Examiner
Phone: 5752345983
Email: sdahal@blm.gov

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Review and Appeal Rights

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

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AFMSS

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

Application Data Report

08/07/2018

APD ID: 10400006128 **Submission Date:** 10/27/2016

Operator Name: CAZA OPERATING LLC

Well Name: COPPERLINE WEST 29 FEDERAL **Well Number:** 6H

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

Highlighted data reflects the most recent changes

Show Final Text

Section 1 - General

APD ID: 10400006128 **Tie to previous NOS?** **Submission Date:** 10/27/2016

BLM Office: HOBBS **User:** Tony B Sam **Title:** VP Operations

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

Lease number: NMNM092199 **Lease Acres:** 560

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

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

Agreement number:

Agreement name:

Keep application confidential? YES

Permitting Agent? YES **APD Operator:** CAZA OPERATING LLC

Operator letter of designation:

Operator Info

Operator Organization Name: CAZA OPERATING LLC

Operator Address: 200 N. Loraine Street, Suite 1550 **Zip:** 79701

Operator PO Box:

Operator City: Midland **State:** TX

Operator Phone: (432)682-7424

Operator Internet Address:

Section 2 - Well Information

Well in Master Development Plan? NO **Mater Development Plan name:**

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

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

Well Name: COPPERLINE WEST 29 FEDERAL **Well Number:** 6H **Well API Number:**

Field/Pool or Exploratory? Field and Pool **Field Name:** WOLFCAMP **Pool Name:** WC-025 G-09 S243336I; UPPER WOLFCAMP

Is the proposed well in an area containing other mineral resources? NONE

Operator Name: CAZA OPERATING LLC

Well Name: COPPERLINE WEST 29 FEDERAL **Well Number:** 6H

Describe other minerals:

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

Type of Well Pad: MULTIPLE WELL **Multiple Well Pad Name:** COPPERLINE WEST 29 FEDERAL **Number:** 4H

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

Well Work Type: Drill

Well Type: OIL WELL

Describe Well Type:

Well sub-Type: APPRAISAL

Describe sub-type:

Distance to town: 18.5 Miles **Distance to nearest well:** 140 FT **Distance to lease line:** 130 FT

Reservoir well spacing assigned acres Measurement: 160 Acres

Well plat: Copperline_West_29_Fed_6H_C_102___signed_20180428082345.pdf

Well work start Date: 04/04/2017 **Duration:** 30 DAYS

Section 3 - Well Location Table

Survey Type: RECTANGULAR

Describe Survey Type:

Datum: NAD83 **Vertical Datum:** NAVD88

Survey number: 16.11.0356

	NS-Foot	NS Indicator	EW-Foot	EW Indicator	Twsp	Range	Section	Aliquot/Lot/Tract	Latitude	Longitude	County	State	Meridian	Lease Type	Lease Number	Elevation	MD	TVD
SHL Leg #1	55	FNL	775	FWL	23S	34E	29	Aliquot NWNW	32.282701	-103.498114	LEA	NEW MEXICO	NEW MEXICO	F	FEE	3562	0	0
KOP Leg #1	55	FNL	775	FWL	23S	34E	29	Aliquot NWNW	32.282701	-103.498114	LEA	NEW MEXICO	NEW MEXICO	F	FEE	-6138	9700	9700
PPP Leg #1	275	FNL	970	FWL	23S	34E	29	Aliquot NWNW	32.282092	-103.497487	LEA	NEW MEXICO	NEW MEXICO	F	FEE	-7931	11561	11493

APD ID: 10400006128 **Submission Date:** 10/27/2016

Operator Name: CAZA OPERATING LLC

Well Name: COPPERLINE WEST 29 FEDERAL **Well Number:** 6H

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

Highlighted data reflects the most recent changes

Show Final Text

Section 1 - Geologic Formations

Formation ID	Formation Name	Elevation	True Vertical Depth	Measured Depth	Lithologies	Mineral Resources	Producing Formation
1	RUSTLER	3580	1023	1023		NONE	No
2	TOP SALT	2357	1223	1223		NONE	No
3	BASE OF SALT	877	2703	2703		NONE	No
4	DELAWARE	-1533	5113	5113		OIL	No
5	BRUSHY CANYON	-3528	7108	7108		OIL	No
6	BONE SPRING	-5088	8668	8668		OIL	No
7	FIRST BONE SPRING SAND	-6173	9753	9753		OIL	No
8	BONE SPRING 2ND	-6718	10298	10301		OIL	No
9	BONE SPRING 3RD	-7678	11258	11271		OIL	No
10	WOLFCAMP	-7913	11493	11572		OIL	Yes

Section 2 - Blowout Prevention

Pressure Rating (PSI): 5M **Rating Depth:** 15000

Equipment: Rotating head Remote kill line Mud/ Gas Separator

Requesting Variance? YES

Variance request: Variance is requested for the use of a coflex hose for the choke line to from the BOP to the choke manifold. A variance is requested to use 1502(15,000psi working pressure) hammer unions downstream of the Choke Manifold used to connect the mud/gas separator and panic line. See choke manifold diagram.
Testing Procedure: Minimum Working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the 13-3/8 inch casing shoe shall be 5000 (5M) psi. 5M system requires an HCR valve, remote kill line and annular to match. The remote kill line is to be installed prior to testing the system and tested to stack pressure. The appropriate BLM office shall be notified a minimum of 4 hours in advance for a representative to witness the tests. In a water basin, for all casing strings utilizing slips, these are to be set as soon as the crew and rig are ready and any fallback cement remediation has been done. The casing cut-off and BOP installation can be initiated four hours after installing the slips, which will be approximately six hours after bumping the plug. For those casing strings not using slips the minimum wait time before

cut-off is eight hours after bumping the pug. BOP/BOPE testing can begin after cut-off or once cement reaches 500PSI compressive strength (including lead when specified), whichever is greater. However, if the float does not hold, cut-off cannot be initiated until cement reaches 500 psi compressive strength (including lead when specified). The tests shall be done by an independent service company utilizing a test plug not a cup or J-packer. The operator also has the option of utilizing an independent tester to test without a plug (i.e. against the casing) pursuant to Onshore Order 2 with the pressure not to exceed 70% of the burst rating for the casing. Any test against the casing must meet the WOC time for water basin (18 hours) or potash (24 hours) or 500 pounds compressive strength, whichever is greater prior to initiating the test (see casing segment as lead cement may be critical item). a. The results of the test shall be reported to the appropriate BLM office. b. All Tests are required to be recorded on a calibrated test chart. A copy of the BOP/BOPE test chart and a copy of independent service company test will be submitted to the appropriate BLM office. c. The BOP/BOPE test shall include a low pressure test from 250 to 300 psi. The test will be held for a minimum of 10 minutes if test is done with a test plug and 30 minutes without a test plug.

Choke Diagram Attachment:

Choke Schematic_09-27-2016.docx

BOP Diagram Attachment:

Copperline_West_29_Fed_6H_BOP_Schematic_20180428081323.pdf

Copperline_West_29_Fed_6H_Coflex_Hose_Cert_20180503133521.pdf

Section 3 - Casing

Casing ID	String Type	Hole Size	Csg Size	Condition	Standard	Tapered String	Top Set MD	Bottom Set MD	Top Set TVD	Bottom Set TVD	Top Set MSL	Bottom Set MSL	Calculated casing length MD	Grade	Weight	Joint Type	Collapse SF	Burst SF	Joint SF Type	Joint SF	Body SF Type	Body SF
1	CONDUCTOR	24	20.0	NEW	API	N	0	120	0	120	-8079	-8199	120	H-40	94	STC						
2	SURFACE	17.5	13.375	NEW	API	N	0	1055	0	1055	-8079	-9134	1055	J-55	54.5	STC	2.32	1.81	DRY	1.56	DRY	14.84
3	INTERMEDIATE	12.25	9.625	NEW	API	N	0	5045	0	5045	3562	-1483	5045	L-80	40	LTC	1.18	1.95	DRY	0.81	DRY	20.01
4	PRODUCTION	8.75	5.5	NEW	API	N	0	16271	0	11640	3652	-8078	16271	P-110	17	BUTT	1.52	3.62	DRY	1.35	DRY	2.76

Casing Attachments

Operator Name: CAZA OPERATING LLC

Well Name: COPPERLINE WEST 29 FEDERAL **Well Number:** 6H

Casing Attachments

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

Inspection Document:

Spec Document:

Tapered String Spec:

Casing Design Assumptions and Worksheet(s):

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

Inspection Document:

Spec Document:

Tapered String Spec:

Casing Design Assumptions and Worksheet(s):

Casing and Cement Design_10-27-2016.xlsx

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

Inspection Document:

Spec Document:

Tapered String Spec:

Casing Design Assumptions and Worksheet(s):

Casing and Cement Design_10-27-2016.xlsx

Operator Name: CAZA OPERATING LLC

Well Name: COPPERLINE WEST 29 FEDERAL **Well Number:** 6H

Casing Attachments

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

Inspection Document:

Spec Document:

Tapered String Spec:

Casing Design Assumptions and Worksheet(s):

Casing and Cement Design_10-27-2016.xlsx

Section 4 - Cement

String Type	Lead/Tail	Stage Tool Depth	Top MD	Bottom MD	Quantity(sx)	Yield	Density	Cu Ft	Excess%	Cement type	Additives
CONDUCTOR	Lead		0	120	76	1.93	13.5	1110	50	Class C CaCl2	+ 4% bwoc Bentonite II + 2% bwoc Calcium Chloride + 0.25 lbs/sack Cello Flake + 0.005% bwoc Static Free + 0.005 gps FP- 6L
SURFACE	Lead		0	765	407	1.93	13.5	786	50	Class C	4% bwoc Bentonite II + 2% bwoc Calcium Chloride + 0.25 lbs/sack Cello Flake + 0.005% bwoc Static Free + 0.005 gps FP-6L
SURFACE	Tail		765	1035	284	1.34	14.8	512	50	Class C	1.5% bwoc Calcium Chloride + 0.005 lbs/sack Static Free + 0.005 gps FP-6L
INTERMEDIATE	Lead		0	4546	1340	2.13	12.6	806	50	Class C	(35:65) + Poz (Fly Ash) + 4% bwoc Bentonite II + 5% bwoc MPA-5 + 0.25% bwoc FL-52 + 5 lbs/sack LCM-1 + 0.125 lbs/sack Cello Flake + 0.005 lbs/sack Static Free + 0.005 gps

Operator Name: CAZA OPERATING LLC

Well Name: COPPERLINE WEST 29 FEDERAL **Well Number:** 6H

String Type	Lead/Tail	Stage Tool Depth	Top MD	Bottom MD	Quantity(sx)	Yield	Density	Cu Ft	Excess%	Cement type	Additives
											FP-6L + 1.2% bwoc Sodium Metasilicate + 5% bwow Sodium Chloride
INTERMEDIATE	Tail		4545	5045	176	1.33	14.8	235	50	Class C	none
PRODUCTION	Lead		0	11965	1304	2.38	11.9	4503	50	Class H	(50:50) + Poz (Fly Ash) + 10% bwoc Bentonite II + 5% bwow Sodium Chloride + 5 lbs/sack LCM-1 + 0.005 lbs/sack Static Free + 0.005 gps FP-6L
PRODUCTION	Tail		11965	16271	840	1.62	13.5	1360	25	Class H	(10:61:11) Poz (Fly Ash):Class H Cement:CSE-2 + 4% bwow Sodium Chloride + 3 lbs/sk LCM-1 + 0.6% bwoc FL-25 + 0.005 gps FP-6L + 0.005% bwoc Static

Section 5 - Circulating Medium

Mud System Type: Closed

Will an air or gas system be Used? NO

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

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

Describe what will be on location to control well or mitigate other conditions: Sufficient mud will be on location to control any abnormal conditions encountered. Such as but not limited to a kick, lost circulation and hole sloughing.

Describe the mud monitoring system utilized: A Pason PVT system will be rigged up prior to spudding the well. A volume monitoring system that measures, calculates, and displays readings from the mud system on the rig to alert the rig crew of impending gas kicks and lost circulation issues. Components a) PVT Pit Bull monitor: Acts as the heart of the system, containing all the controls, switches, and alarms. Typically, it is mounted near the driller's console. b) Junction box: Provides a safe, convenient place for making the wiring connections. c) Mud probes: Measure the volume of drilling fluid in each individual tank. d) Flow sensor: Measures the relative amount of mud flowing in the return line.

Circulating Medium Table

Operator Name: CAZA OPERATING LLC

Well Name: COPPERLINE WEST 29 FEDERAL **Well Number:** 6H

Top Depth	Bottom Depth	Mud Type	Min Weight (lbs/gal)	Max Weight (lbs/gal)	Density (lbs/cu ft)	Gel Strength (lbs/100 sqft)	PH	Viscosity (CP)	Salinity (ppm)	Filtration (cc)	Additional Characteristics
1055	1055	SPUD MUD	8.4	8.9	66	0.12	9.5	5	0	0	
1055	5045	SALT SATURATED	9.8	10	75	0.1	9.5	2	150000	0	
5045	16271	SALT SATURATED	8.6	9.1	71	0.4	9.5	6	125000	18	

Section 6 - Test, Logging, Coring

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

no production tests

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

DS,GR,MWD,MUDLOG

Coring operation description for the well:

no coring

Section 7 - Pressure

Anticipated Bottom Hole Pressure: 3500 **Anticipated Surface Pressure:** 938.98

Anticipated Bottom Hole Temperature(F): 162

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

Describe:

Contingency Plans geoharzards description:

Contingency Plans geohazards attachment:

Hydrogen Sulfide drilling operations plan required? NO

Hydrogen sulfide drilling operations plan:

Operator Name: CAZA OPERATING LLC

Well Name: COPPERLINE WEST 29 FEDERAL **Well Number:** 6H

Section 8 - Other Information

Proposed horizontal/directional/multi-lateral plan submission:

160719 West Copperline 29 Fed 6H Directional Plan_10-27-2016.pdf

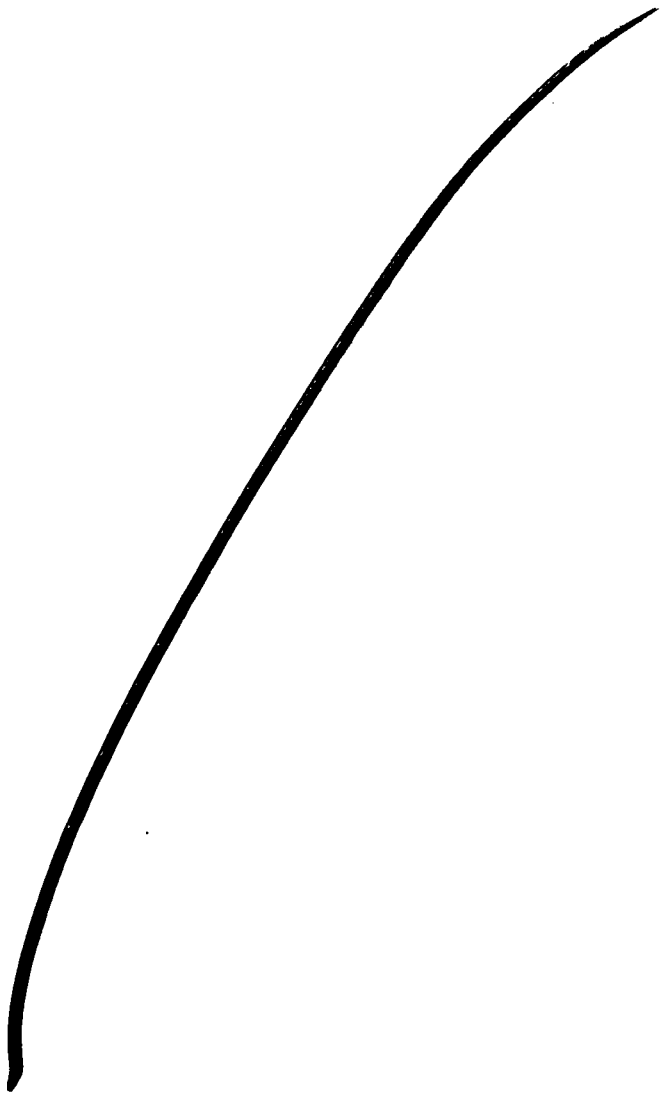
Other proposed operations facets description:

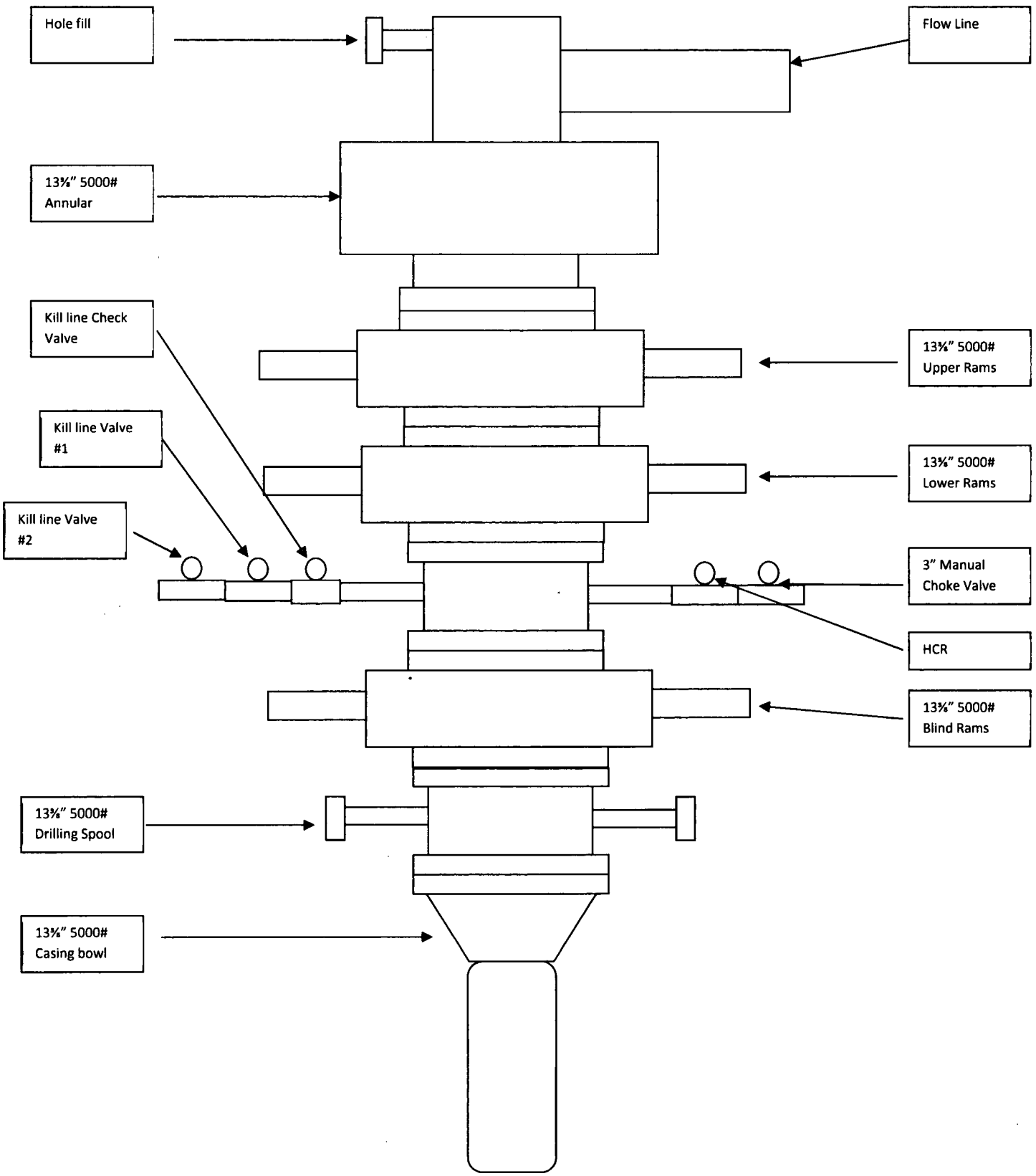
H2S Plan
Gas Capture Plan

Other proposed operations facets attachment:

Copperline_West_29_Fed_6H_H2S_plan_20180428082517.pdf
Copperline_West_29_Fed_6H_Gas_Capture_Plan_20180503132957.pdf

Other Variance attachment:




Hole fill
Flow Line
13⅝" 5000# Annular
Kill line Check Valve
13⅝" 5000# Upper Rams
Kill line Valve #1
13⅝" 5000# Lower Rams
Kill line Valve #2
3" Manual Choke Valve
HCR
13⅝" 5000# Blind Rams
13⅝" 5000# Drilling Spool
13⅝" 5000# Casing bowl

COPPER STATE RUBBER
VISUAL INSPECTION / HYDROSTATIC TEST REPORT
CHOKE & KILL HOSE
10,000 P.S.I. W/P X 15,000 P.S.I. T/P
SPEC: 090-1915 HS
H2S SUITABLE

SHOP ORDER NO.: 16454 SIZE: 4" I.D.

SERIAL NO.: 22199 LENGTH 50 FT. IN.

CONNECTIONS: 4-1/16" 10,000 PSI API FLANGES

HT-X1840

VISUAL INSPECTION

(A) END CAPS / SLEEVE RECESS: OK
(B) EXTERIOR / COVER / BRANDING: OK
(C) INTERIOR TUBE: OK

HYDROSTATIC TEST

5 MIN. @ 10,000 PSI

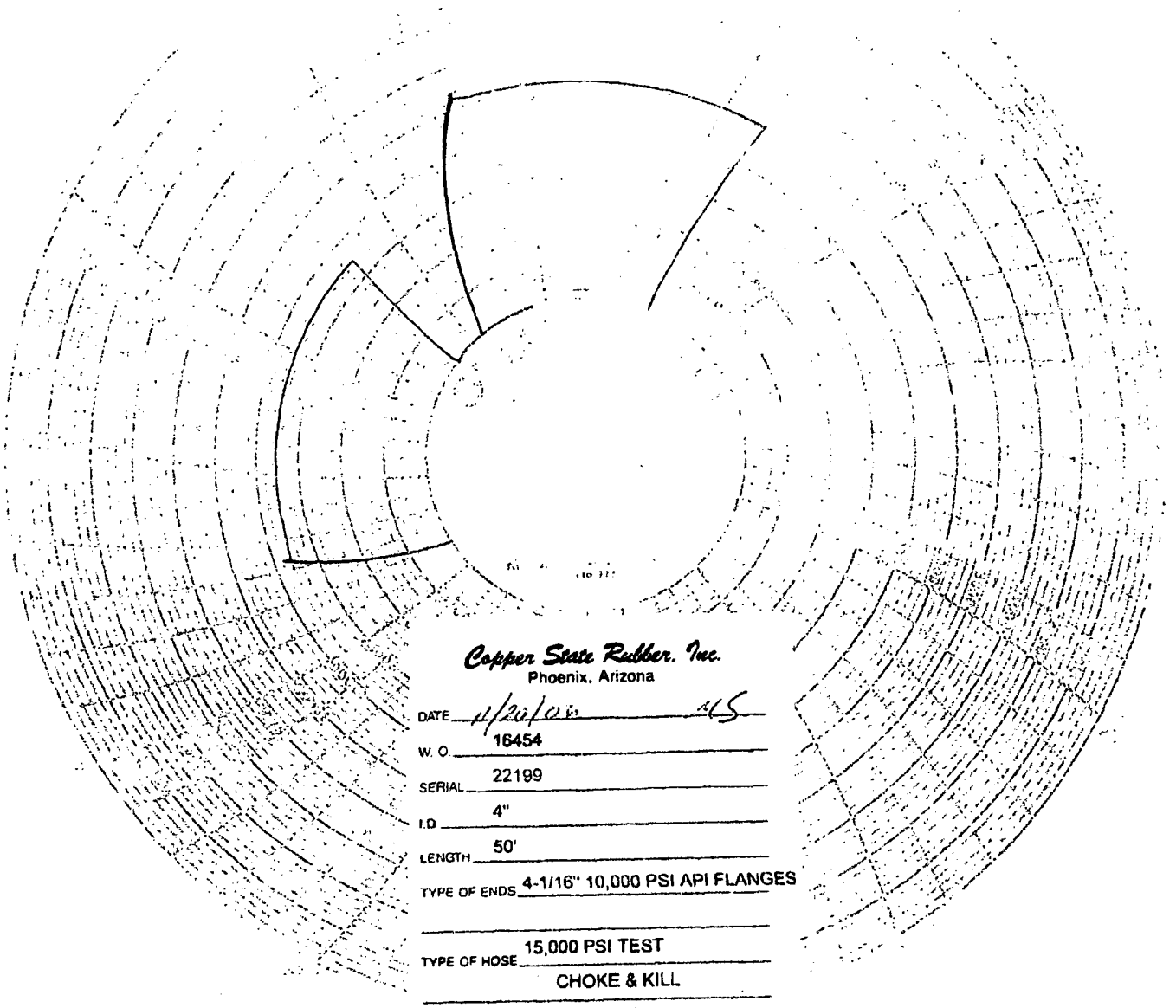
2 MIN. @ 0 PSI 51' OAL

3 MIN. @ 15,000 PSI

WITNESSED BY:

DATE November 20, 2006

FORM QA-21- REV-2
3-22-00



Copper State Rubber, Inc.
Phoenix, Arizona

DATE 11/20/01 AS

W. O. 16454

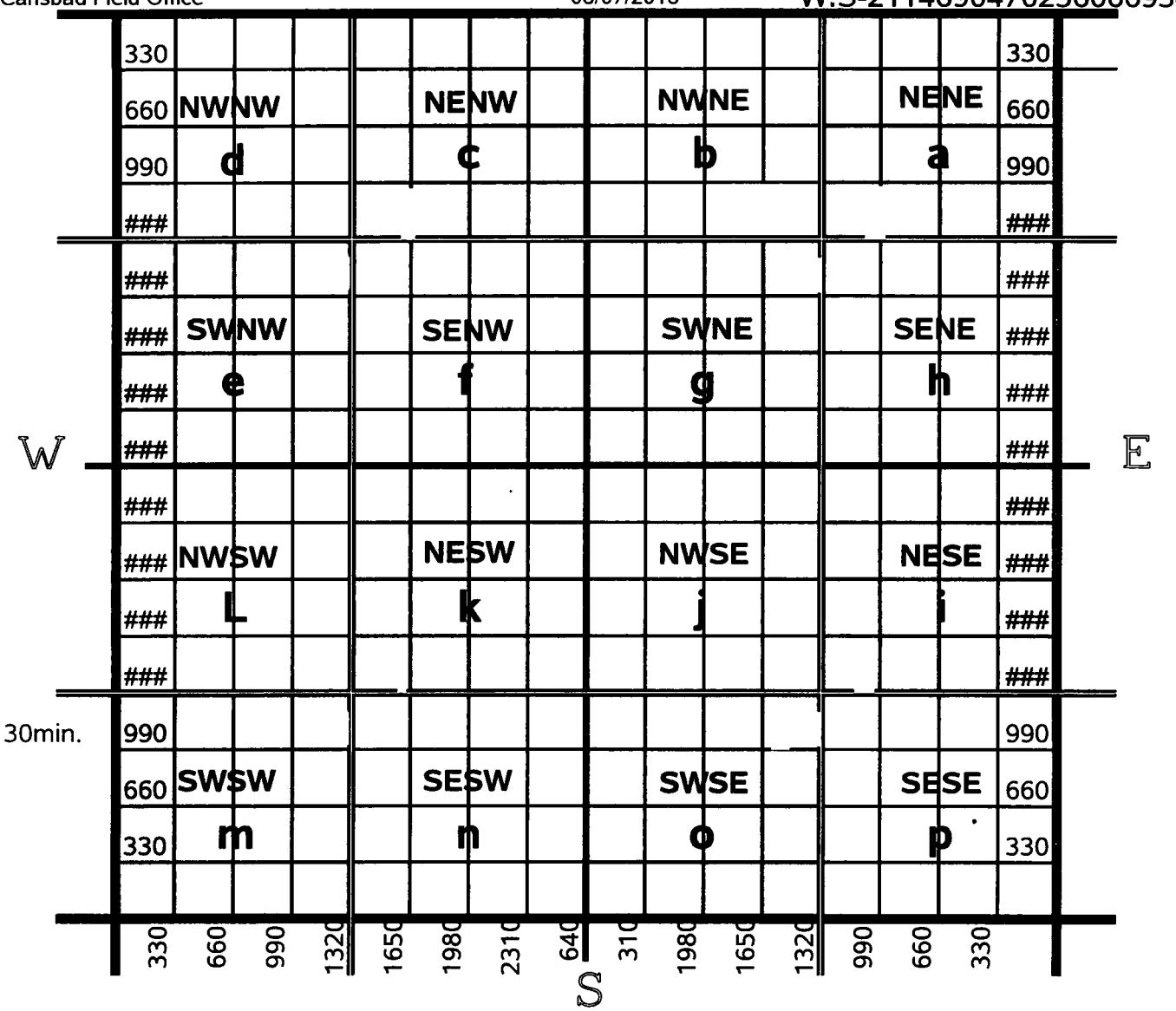
SERIAL 22199

I.D. 4"

LENGTH 50'

TYPE OF ENDS 4-1/16" 10,000 PSI API FLANGES

TYPE OF HOSE 15,000 PSI TEST
CHOKE & KILL



6	5	4	3	2	1
7	8	9	10	11	12
18	17	16	15	14	13
19	20	21	22	23	24
30	29	28	27	26	25
31	32	33	34	35	36

Township Section No's

#NAME?

13 3/8	surface csg in a	17 1/2	inch hole.	Design Factors			SURFACE	
Segment	**#/ft**	**Grade**	**Coupling**	**Joint**	**Collapse**	**Burst**	**Length**	**Weight**
"A"	54.50	J 55	ST&C	8.94	2.32	1.04	1,055	57,498
"B"							**0**	**0**
w/8.4#/g mud, 30min Sfc Csg Test psig: 1,451			**Tail Cmt does not circ to sfc**			Totals:	1,055	57,498

Comparison of Proposed to Minimum Required Cement Vol

Hole Size	Annular Volume	1 Stage Cmt Sx	1 Stage CuFt Cmt	Min Cu Ft	1 Stage % Excess	Drilling Mud Wt	Calc MASP	Req'd BOPE	Min Dist Hole-Cplg
17 1/2	0.6946	**748**	1346	**806**	67	**8.90**	1511	**2M**	1.56

9 5/8	casing inside the	13 3/8	_	Design Factors			INTERMEDIATE	
Segment	**#/ft**	**Grade**	**Coupling**	**Joint**	**Collapse**	**Burst**	**Length**	**Weight**
"A"	40.00	J 55	LT&C	2.58	1.27	0.72	3,900	156,000
"B"	**40.00**	**L 80**	**LT&C**	15.87	**1.18**	**1.04**	**1,145**	**45,800**
w/8.4#/g mud, 30min Sfc Csg Test psig: 1,063						Totals:	5,045	201,800

ment volume(s) are intended to achieve a top of 0 't from surface or a 1055 overlap.

Hole Size	Annular Volume	1 Stage Cmt Sx	1 Stage CuFt Cmt	Min Cu Ft	1 Stage % Excess	Drilling Mud Wt	Calc MASP	Req'd BOPE	Min Dist Hole-Cplg
12 1/4	0.3132	**1712**	3469	**1651**	110	**10.00**	2942	**3M**	0.81
Setting Depths for D V Tool(s):		**3100**					sum of sx	Σ CuFt	Σ%excess
excess cmt by stage % :		**193**	44				1636	3309	100

Class 'C' tail cmt yld > 1.35

Burst Frac Gradient(s) for Segment(s): A, B, C, D = 1.01, b, c, d All > 0.70, OK.

5 1/2	casing inside the	9 5/8	_	Design Factors			PRODUCTION	
Segment	**#/ft**	**Grade**	**Coupling**	**Body**	**Collapse**	**Burst**	**Length**	**Weight**
"A"	17.00	P 110	BUTT	2.76	1.52	1.93	10,425	177,225
"B"	**17.00**	**P 110**	**BUTT**	9.93	**1.29**	**1.93**	**5,846**	**99,382**
w/8.4#/g mud, 30min Sfc Csg Test psig: 2,294						Totals:	16,271	276,607

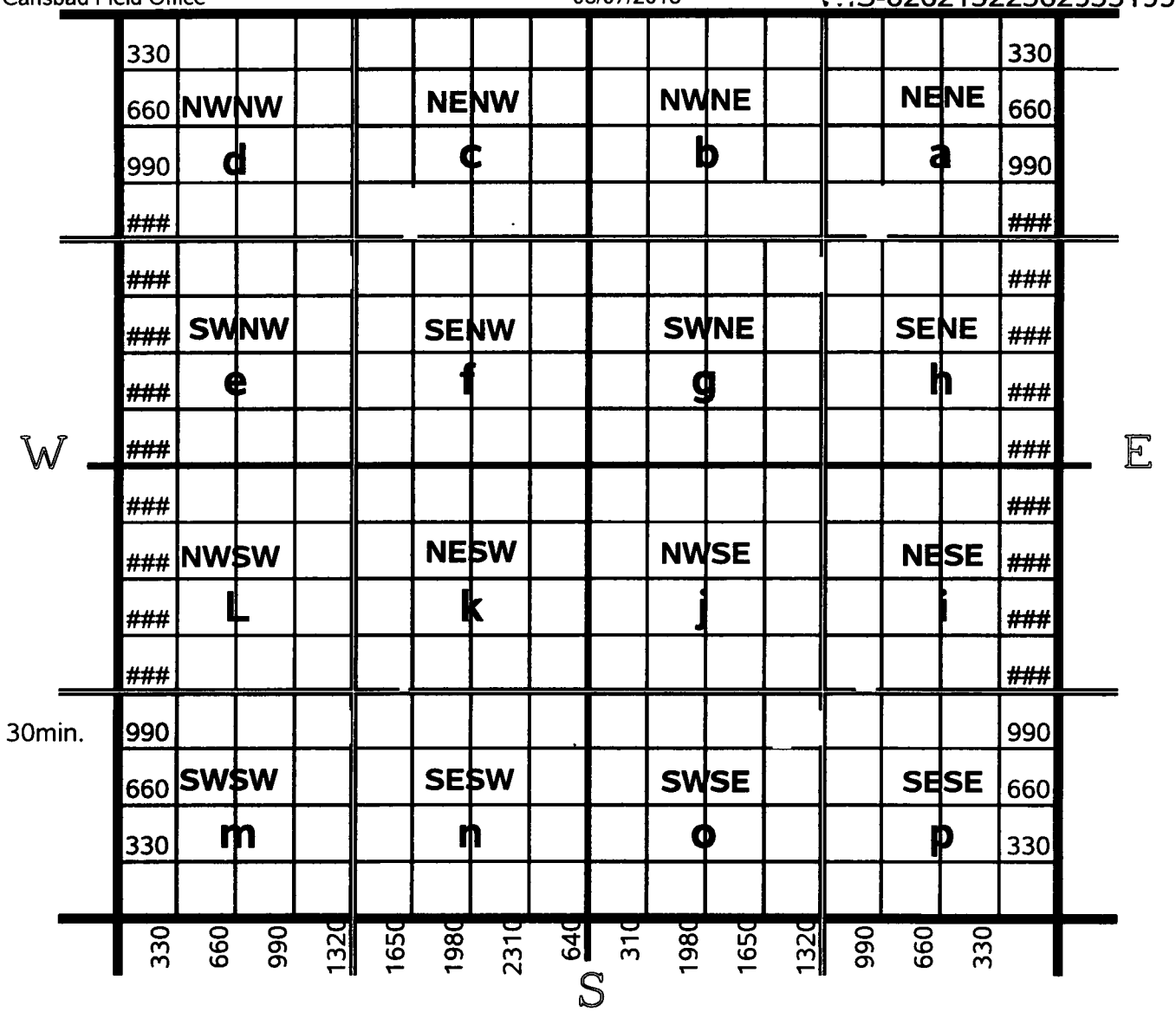
B Segment Design Factors would be: 26.427744 1.36 if it were a vertical wellbore.

No Pilot Hole Planned	MTD	Max VTD	Csg VD	Curve KOP	Dogleg°	Severity°	MEOC
	16271	11640	11640	10425	90	6	11965

ment volume(s) are intended to achieve a top of 0 't from surface or a 5045 overlap.

Hole Size	Annular Volume	1 Stage Cmt Sx	1 Stage CuFt Cmt	Min Cu Ft	1 Stage % Excess	Drilling Mud Wt	Calc MASP	Req'd BOPE	Min Dist Hole-Cplg
8 3/4	0.2526	**3500**	7646	**4157**	84	**9.10**			1.35

Class 'H' tail cmt yld > 1.20



6	5	4	3	2	1
7	8	9	10	11	12
18	17	16	15	14	13
19	20	21	22	23	24
30	29	28	27	26	25
31	32	33	34	35	36

Township Section No's

#NAME?

13 3/8	surface csg in a	17 1/2	inch hole.	Design Factors			SURFACE	
Segment	#/ft	Grade	Coupling	Joint	Collapse	Burst	Length	Weight
"A"	54.50	J 55	ST&C	8.94	2.32	1.04	1,055	57,498
"B"							**0**	**0**
w/8.4#/g mud, 30min Sfc Csg Test psig: 1,451			**Tail Cmt does not circ to sfc**			Totals:	1,055	57,498

Comparison of Proposed to Minimum Required Cement Vol

Hole Size	Annular Volume	1 Stage Cmt Sx	1 Stage CuFt Cmt	Min Cu Ft	1 Stage % Excess	Drilling Mud Wt	Calc MASP	Req'd BOPE	Min Dist Hole-Cplg
17 1/2	0.6946	**748**	1346	**806**	67	**8.90**	1511	**2M**	1.56

9 5/8	casing inside the	13 3/8	_	Design Factors			INTERMEDIATE	
Segment	#/ft	Grade	Coupling	Joint	Collapse	Burst	Length	Weight
"A"	40.00	J 55	LT&C	2.58	1.27	0.72	3,900	156,000
"B"	**40.00**	**L 80**	**LT&C**	15.87	**1.18**	**1.04**	**1,145**	**45,800**
w/8.4#/g mud, 30min Sfc Csg Test psig: 1,063						Totals:	5,045	201,800

ment volume(s) are intended to achieve a top of 0 t from surface or a 1055 overlap.

Hole Size	Annular Volume	1 Stage Cmt Sx	1 Stage CuFt Cmt	Min Cu Ft	1 Stage % Excess	Drilling Mud Wt	Calc MASP	Req'd BOPE	Min Dist Hole-Cplg
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B Segment Design Factors would be: 26.427744 1.36 if it were a vertical wellbore.

No Pilot Hole Planned	MTD	Max VTD	Csg VD	Curve KOP	Dogleg°	Severity°	MEOC
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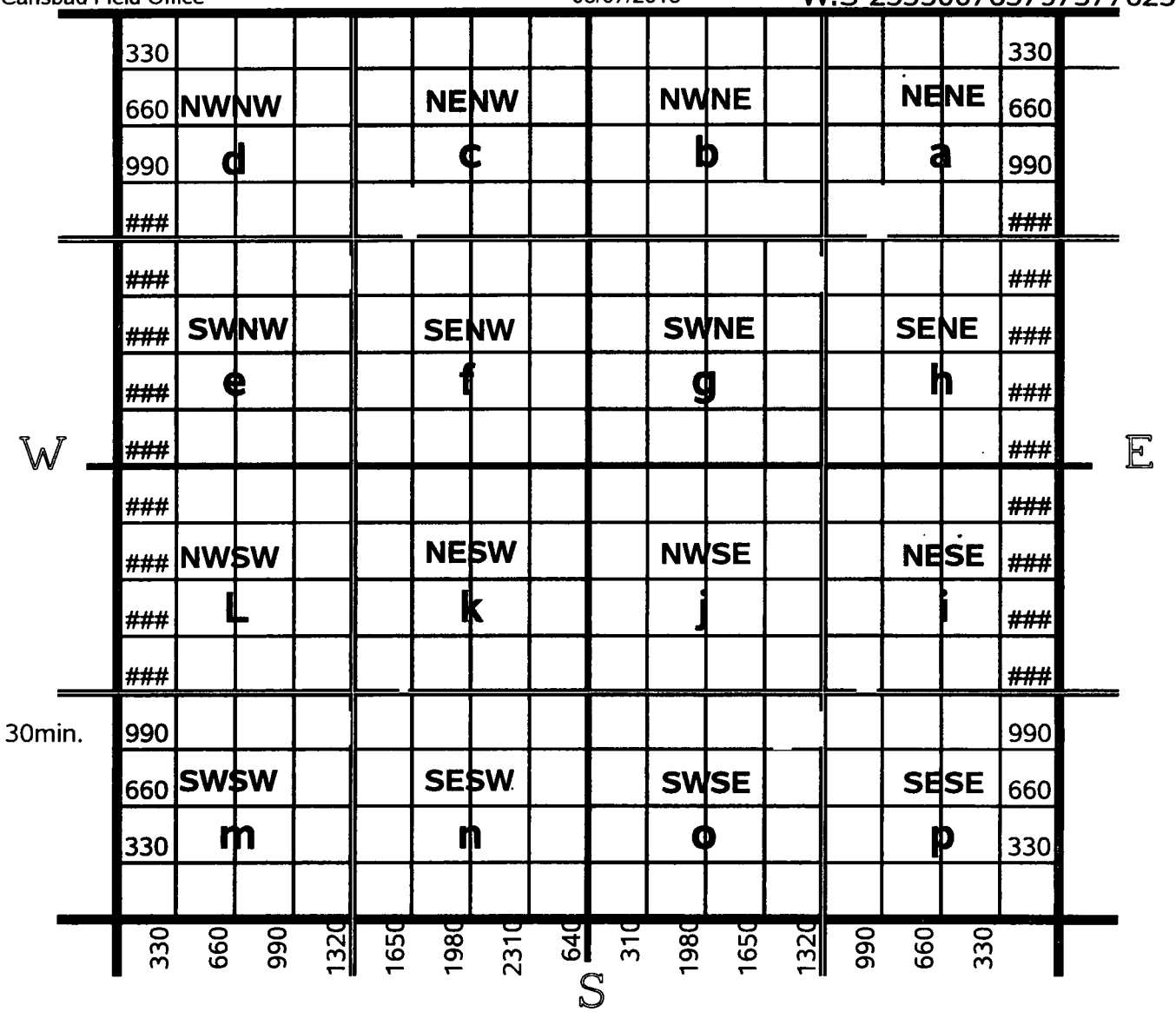
ment volume(s) are intended to achieve a top of 0 t from surface or a 5045 overlap.

Hole Size	Annular Volume	1 Stage Cmt Sx	1 Stage CuFt Cmt	Min Cu Ft	1 Stage % Excess	Drilling Mud Wt	Calc MASP	Req'd BOPE	Min Dist Hole-Cplg
8 3/4	0.2526	**3500**	7646	**4157**	84	**9.10**			1.35

Class 'H' tail cmt yld > 1.20



6	5	4	3	2	1
7	8	9	10	11	12
18	17	16	15	14	13
19	20	21	22	23	24
30	29	28	27	26	25
31	32	33	34	35	36

Township Section No's

APD ID: 10400006128 **Submission Date:** 10/27/2016

Operator Name: CAZA OPERATING LLC

Well Name: COPPERLINE WEST 29 FEDERAL **Well Number:** 6H

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

Highlighted data reflects the most recent changes

Show Final Text

Section 1 - Existing Roads

Will existing roads be used? YES

Existing Road Map:

0356 Well Site Plan_10-27-2016.pdf

Existing Road Purpose: ACCESS **Row(s) Exist?** YES

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? NO

Section 3 - Location of Existing Wells

Existing Wells Map? YES

Attach Well map:

6H One Mile Circles_10-27-2016.jpg

Operator Name: CAZA OPERATING LLC

Well Name: COPPERLINE WEST 29 FEDERAL **Well Number:** 6H

Existing Wells description:

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

Submit or defer a Proposed Production Facilities plan? SUBMIT

Production Facilities description: There is an existing production facility that is used for the Copperline West 29 Fed 1H and 3H wells. This facility and containment will be used for the 5H. Tankage and a metered 3 phase separator will be added to the existing facility.

Production Facilities map:

Production Facility_10-27-2016.docx

Section 5 - Location and Types of Water Supply

Water Source Table

Water source use type: INTERMEDIATE/PRODUCTION CASING, STIMULATION, SURFACE CASING

Water source type: GW WELL

Describe type:

Source latitude:

Source longitude:

Source datum: NAD83

Water source permit type: WATER WELL

Source land ownership: PRIVATE

Water source transport method: TRUCKING

Source transportation land ownership: FEDERAL

Water source volume (barrels): 140000

Source volume (acre-feet): 18.045033

Source volume (gal): 5880000

Water source and transportation map:

water supply map_10-27-2016.docx

POD_10-27-2016.pdf

Water source comments: Water will be supplied by the surface tenant's water well, Limestone Livestock LLC. Bill Angell Limestone Livestock, LLC 76 Angell Road Lovington, NM 88260 575-369-6303

New water well? NO

New Water Well Info

Well latitude: **Well Longitude:** **Well datum:**

Well target aquifer:

Est. depth to top of aquifer(ft): **Est thickness of aquifer:**

Aquifer comments:

Aquifer documentation:

Well depth (ft):

Well casing type:

Well casing outside diameter (in.):

Well casing inside diameter (in.):

New water well casing?

Used casing source:

Drilling method:

Drill material:

Grout material:

Grout depth:

Casing length (ft.):

Casing top depth (ft.):

Well Production type:

Completion Method:

Water well additional information:

State appropriation permit:

Additional information attachment:

Section 6 - Construction Materials

Construction Materials description: caliche from pit at T20S R34E Section 35

Construction Materials source location attachment:

Copperline_West_29_Fed_6H_Caliche_Map_20180428080817.pdf

Section 7 - Methods for Handling Waste

Waste type: DRILLING

Waste content description: Drill cuttings

Amount of waste: 1165000 pounds

Waste disposal frequency : Daily

Safe containment description: roll off bins

Safe containmant attachment:

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

Disposal type description:

Disposal location description: R360 commercial disposal facility

Waste type: DRILLING

Waste content description: Drill fluids

Amount of waste: 2500 barrels

Waste disposal frequency : Weekly

Safe containment description: rig mud tanks

Safe containmant attachment:

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

Disposal type description:

Disposal location description: Siana SWD

Reserve Pit

Reserve Pit being used? NO

Temporary disposal of produced water into reserve pit?

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

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

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

Reserve pit liner

Reserve pit liner specifications and installation description

Cuttings Area

Cuttings Area being used? NO

Are you storing cuttings on location? NO

Description of cuttings location

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

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

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

WCuttings area liner

Cuttings area liner specifications and installation description

Section 8 - Ancillary Facilities

Are you requesting any Ancillary Facilities?: NO

Ancillary Facilities attachment:

Comments:

Section 9 - Well Site Layout

Well Site Layout Diagram:

162611 6H location map_11-26-2016.docx

Operator Name: CAZA OPERATING LLC

Well Name: COPPERLINE WEST 29 FEDERAL **Well Number:** 6H

Comments:

Section 10 - Plans for Surface Reclamation

Type of disturbance: New Surface Disturbance **Multiple Well Pad Name:** COPPERLINE WEST 29 FEDERAL

Multiple Well Pad Number: 4H

Recontouring attachment:

Drainage/Erosion control construction: Per BLM insturctions as identified during onsite

Drainage/Erosion control reclamation: Per BLM insturctions as identified during onsite

Wellpad long term disturbance (acres): 0

Wellpad short term disturbance (acres): 0.5

Access road long term disturbance (acres): 0.03

Access road short term disturbance (acres): 0.03

Pipeline long term disturbance (acres): 0

Pipeline short term disturbance (acres): 0

Other long term disturbance (acres): 0

Other short term disturbance (acres): 0

Total long term disturbance: 0.03

Total short term disturbance: 0.53

Disturbance Comments:

Reconstruction method: Interim reclamation as identified during onsite

Topsoil redistribution: Interim reclamation as identified during onsite

Soil treatment: Interim reclamation as identified during onsite

Existing Vegetation at the well pad: Sage brush and native grasses.

Existing Vegetation at the well pad attachment:

Existing Vegetation Community at the road: Sage brush and native grasses.

Existing Vegetation Community at the road attachment:

Existing Vegetation Community at the pipeline: Sage brush and native grasses.

Existing Vegetation Community at the pipeline attachment:

Existing Vegetation Community at other disturbances: Sage brush and native grasses.

Existing Vegetation Community at other disturbances attachment:

Non native seed used? NO

Non native seed description:

Seedling transplant description:

Will seedlings be transplanted for this project? NO

Seedling transplant description attachment:

Will seed be harvested for use in site reclamation? NO

Seed harvest description:

Seed harvest description attachment:

Seed Management

Seed Table

Seed type:

Seed source:

Seed name:

Source name:

Source address:

Source phone:

Seed cultivar:

Seed use location:

PLS pounds per acre:

Proposed seeding season:

Seed Summary

Total pounds/Acre:

Seed Type	Pounds/Acre

Seed reclamation attachment:

Operator Contact/Responsible Official Contact Info

First Name:

Last Name:

Phone:

Email:

Seedbed prep:

Seed BMP:

Seed method:

Existing invasive species? NO

Existing invasive species treatment description:

Existing invasive species treatment attachment:

Weed treatment plan description: Spray for cheat grass

Weed treatment plan attachment:

Monitoring plan description: Visual inspection in spring and late fall.

Monitoring plan attachment:

Operator Name: CAZA OPERATING LLC

Well Name: COPPERLINE WEST 29 FEDERAL **Well Number:** 6H

Success standards: 80% coverage by 2nd growing season of native species with less than 5% invasive species

Pit closure description: No pits to be used

Pit closure attachment:

Section 11 - Surface Ownership

Disturbance type: WELL PAD

Describe:

Surface Owner: BUREAU OF LAND MANAGEMENT

Other surface owner description:

BIA Local Office:

BOR Local Office:

COE Local Office:

DOD Local Office:

NPS Local Office:

State Local Office:

Military Local Office:

USFWS Local Office:

Other Local Office:

USFS Region:

USFS Forest/Grassland: **USFS Ranger District:**

Section 12 - Other Information

Right of Way needed? NO **Use APD as ROW?**

ROW Type(s):

ROW Applications

SUPO Additional Information:

Use a previously conducted onsite? YES

Previous Onsite information: Copperline West 29 Federal 4H

Operator Name: CAZA OPERATING LLC

Well Name: COPPERLINE WEST 29 FEDERAL **Well Number:** 6H

Other SUPO Attachment

Copperline_West_29_Fed_6H_Interim_Reclamation_Plat_20180428081127.pdf

Section 1 - General

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

Section 2 - Lined Pits

Would you like to utilize Lined Pit PWD options? NO

Produced Water Disposal (PWD) Location:

PWD surface owner:

PWD disturbance (acres):

Lined pit PWD on or off channel:

Lined pit PWD discharge volume (bbl/day):

Lined pit specifications:

Pit liner description:

Pit liner manufacturers information:

Precipitated solids disposal:

Decribe precipitated solids disposal:

Precipitated solids disposal permit:

Lined pit precipitated solids disposal schedule:

Lined pit precipitated solids disposal schedule attachment:

Lined pit reclamation description:

Lined pit reclamation attachment:

Leak detection system description:

Leak detection system attachment:

Lined pit Monitor description:

Lined pit Monitor attachment:

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

Is the reclamation bond a rider under the BLM bond?

Lined pit bond number:

Lined pit bond amount:

Additional bond information attachment:

Section 3 - Unlined Pits

Would you like to utilize Unlined Pit PWD options? NO

Produced Water Disposal (PWD) Location:

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

Unlined pit PWD on or off channel:

Unlined pit PWD discharge volume (bbl/day):

Unlined pit specifications:

Precipitated solids disposal:

Decribe precipitated solids disposal:

Precipitated solids disposal permit:

Unlined pit precipitated solids disposal schedule:

Unlined pit precipitated solids disposal schedule attachment:

Unlined pit reclamation description:

Unlined pit reclamation attachment:

Unlined pit Monitor description:

Unlined pit Monitor attachment:

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

Beneficial use user confirmation:

Estimated depth of the shallowest aquifer (feet):

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

TDS lab results:

Geologic and hydrologic evidence:

State authorization:

Unlined Produced Water Pit Estimated percolation:

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

Is the reclamation bond a rider under the BLM bond?

Unlined pit bond number:

Unlined pit bond amount:

Additional bond information attachment:

Section 4 - Injection

Would you like to utilize Injection PWD options? NO

Produced Water Disposal (PWD) Location:

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

Injection PWD discharge volume (bbl/day):

Injection well mineral owner:

Injection well type:

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

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

Injection well new surface disturbance (acres):

Minerals protection information:

Mineral protection attachment:

Underground Injection Control (UIC) Permit?

UIC Permit attachment:

Section 5 - Surface Discharge

Would you like to utilize Surface Discharge PWD options? NO

Produced Water Disposal (PWD) Location:

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

Surface discharge PWD discharge volume (bbl/day):

Surface Discharge NPDES Permit?

Surface Discharge NPDES Permit attachment:

Surface Discharge site facilities information:

Surface discharge site facilities map:

Section 6 - Other

Would you like to utilize Other PWD options? NO

Produced Water Disposal (PWD) Location:

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

Other PWD discharge volume (bbl/day):

Other PWD type description:

Other PWD type attachment:

Have other regulatory requirements been met?

Other regulatory requirements attachment:

AFMSS

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

Bond Info Data Report

08/07/2018

Bond Information

Federal/Indian APD: FED

BLM Bond number: NMB000471

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:

Operator Name: CAZA OPERATING LLC

Well Name: COPPERLINE WEST 29 FEDERAL **Well Number:** 6H

	NS-Foot	NS Indicator	EW-Foot	EW Indicator	Twsp	Range	Section	Aliquot/Lot/Tract	Latitude	Longitude	County	State	Meridian	Lease Type	Lease Number	Elevation	MD	TVD
EXIT Leg #1	335	FSL	970	FWL	23S	34E	29	Aliquot SWSW	32.269269	-103.497461	LEA	NEW MEXICO	NEW MEXICO	F	NMNM 092199	-8079	16300	11641
BHL Leg #1	335	FSL	970	FWL	23S	34E	29	Aliquot SWSW	32.269269	-103.497461	LEA	NEW MEXICO	NEW MEXICO	F	NMNM 092199	-8079	16300	11641

AFMSS

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

Operator Certification Data Report

08/07/2018

Operator Certification

I hereby certify that I, or someone under my direct supervision, have inspected the drill site and access route proposed herein; that I am familiar with the conditions which currently exist; that I have full knowledge of state and Federal laws applicable to this operation; that the statements made in this APD package are, to the best of my knowledge, true and correct; and that the work associated with the operations proposed herein will be performed in conformity with this APD package and the terms and conditions under which it is approved. I also certify that I, or the company I represent, am responsible for the operations conducted under this application. These statements are subject to the provisions of 18 U.S.C. 1001 for the filing of false statements.

NAME: Tony B Sam **Signed on:** 10/27/2016

Title: VP Operations

Street Address: 200 N. Loraine Street, Suite 1550

City: Midland **State:** TX **Zip:** 79701

Phone: (432)682-7424

Email address: steve.morris@morcorengineering.com

Field Representative

Representative Name: Kevin Garrett

Street Address: 200 N. Lorraine St

City: Midland **State:** TX **Zip:** 79701

Phone: (432)556-8508

Email address: kgarrett@cazapetro.com