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

Form C-101
August 1, 2011

Permit 338655

APPLICATION FOR PERMIT TO DRILL, RE-ENTER, DEEPEN, PLUGBACK, OR ADD A ZONE

1. Operator Name and Address	2. OGRID Number
Tascosa Energy Partners, L.L.C 901 W. Missouri Ave Midland, TX 79701	329748
	3. API Number 30-015-53736

4. Property Code	5. Property Name	6. Well No.
333128	Bonneville 16 State	204H

7. Surface Location

UL - Lot	Section	Township	Range	Lot Idn	Feet From	N/S Line	Feet From	E/W Line	County
M	16	20S	27E		1320	S	250	W	Eddy

8. Proposed Bottom Hole Location

UL - Lot	Section	Township	Range	Lot Idn	Feet From	N/S Line	Feet From	E/W Line	County
P	16	20S	27E	P	660	S	100	E	Eddy

9. Pool Information

AVALON;BONE SPRING, NORTH	3712

Additional Well Information

11. Work Type	12. Well Type	13. Cable/Rotary	14. Lease Type	15. Ground Level Elevation
New Well	OIL		State	3256
16. Multiple	**17. Proposed Depth**	**18. Formation**	**19. Contractor**	**20. Spud Date**
N	11499	2nd Bone Spring Sand		4/23/2023
Depth to Ground water		Distance from nearest fresh water well		Distance to nearest surface water

☒ **We will be using a closed-loop system in lieu of lined pits**

21. Proposed Casing and Cement Program

Type	Hole Size	Casing Size	Casing Weight/ft	Setting Depth	Sacks of Cement	Estimated TOC
Surf	17.5	13.375	48	500	734	0
Int1	12.25	9.625	36	3000	1153	0
Prod	8.75	5.5	17	11499	1868	0

Casing/Cement Program: Additional Comments

22. Proposed Blowout Prevention Program

Type	Working Pressure	Test Pressure	Manufacturer
Annular	5000	5000	CTI
Pipe	5000	5000	CTI
Blind	5000	5000	CTI

23. I hereby certify that the information given above is true and complete to the best of my knowledge and belief.
I further certify I have complied with 19.15.14.9 (A) NMAC ☐ and/or 19.15.14.9 (B) NMAC ☒, if applicable.

Signature:

OIL CONSERVATION DIVISION

Printed Name:	Electronically filed by Kelly M Hardy	Approved By:	John Harrison
Title:	Land Manager	Title:	Petroleum Specialist A
Email Address:	khardy@tascosaep.com	Approved Date:	4/27/2023
Date:	4/20/2023 Phone: 432-695-6970	Conditions of Approval Attached	Expiration Date: 4/27/2025

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

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

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

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number	Pool Code	Pool Name
30-015-53736	~~96381~~ 3712	AVALON;BONE SPRING NORTH

Property Code	Property Name	Well Number
333128	BONNEVILLE 16 STATE	#204H

OGRID No.	Operator Name	Elevation
329748	TASCOSA ENERGY PARTNERS, LLC	3256'

Surface Location

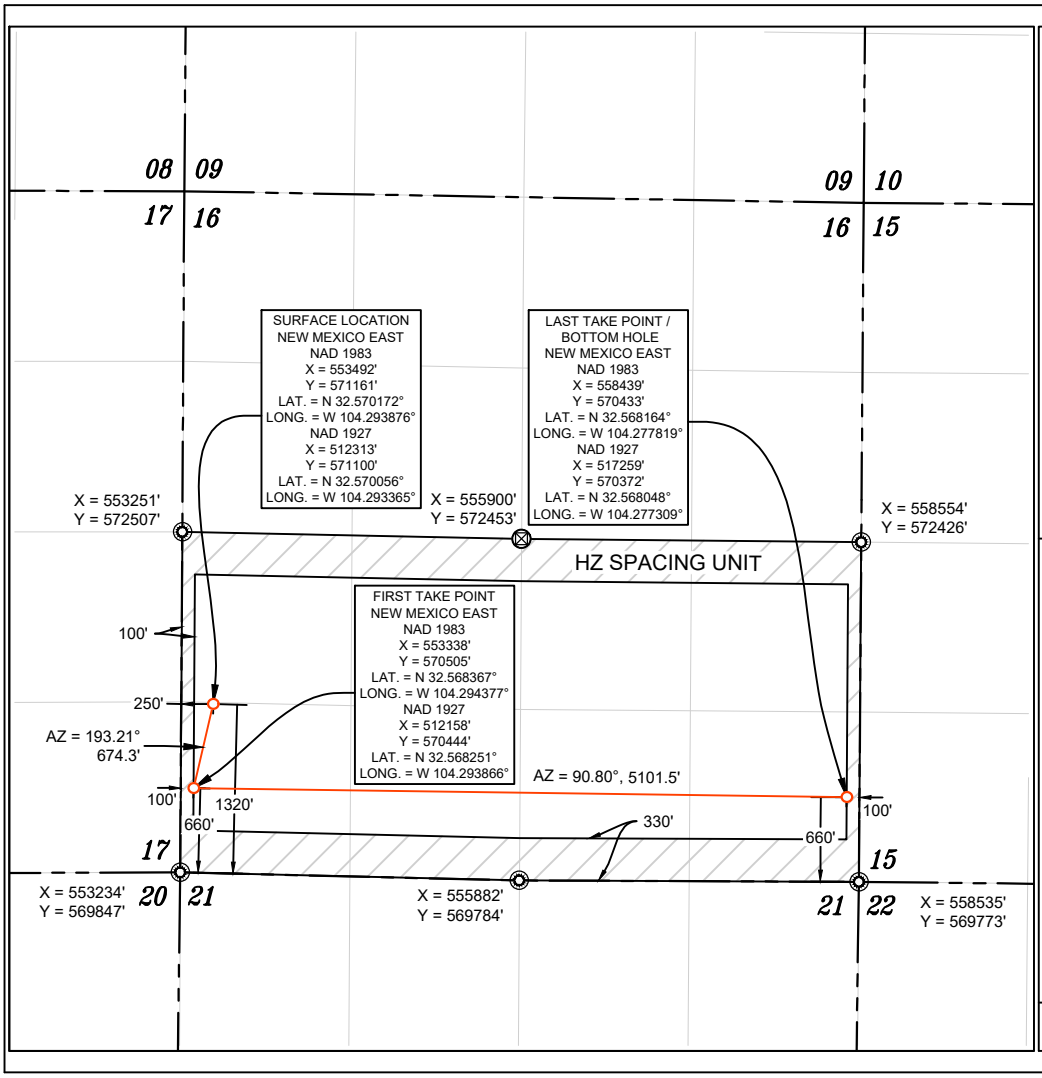
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
M	16	20 S	27 E		1320	SOUTH	250	WEST	EDDY

Bottom Hole Location If Different From Surface

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
P	16	20 S	27 E		660	SOUTH	100	EAST	EDDY

Dedicated Acres	Joint or Infill	Consolidation Code	Order No.
320.00			

No allowable will be assigned to this completion until all interests have been consolidated or a non-standard unit has been approved by the division.



OPERATOR CERTIFICATION

I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or unleased mineral interest in the land including the proposed bottom hole location or has a right to drill this well at this location pursuant to a contract with an owner of such a mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.

Alyssa McNear — 4/15/2023
Signature — Date

Alyssa McNear
Printed Name

adavanzo@tascosaep.com
E-mail Address

SURVEYOR CERTIFICATION

I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief.

January 30, 2023
Date of Survey

Signature and Seal of Professional Surveyor:

MATTHEW B. TOMERLIN
NEW MEXICO
23203
PROFESSIONAL SURVEYOR

Job No.: 22-05-1990
MATTHEW B. TOMERLIN, N.M.P.L.S.
Certificate Number 23203

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

Form APD Conditions

Permit 338655

PERMIT CONDITIONS OF APPROVAL

Operator Name and Address:	API Number:
Tascosa Energy Partners, L.L.C [329748] 901 W. Missouri Ave Midland, TX 79701	30-015-53736
	Well: Bonneville 16 State #204H

OCD Reviewer	Condition
john.harrison	Notify OCD 24 hours prior to casing & cement
john.harrison	Will require a File As Drilled C-102 and a Directional Survey with the C-104
john.harrison	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
john.harrison	Cement is required to circulate on both surface and intermediate1 strings of casing
john.harrison	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

LONG's METHOD OF SURVEY COMPUTATION

OBLIQUE CIRCULAR ARC INTERPOLATION

	MD OF INTERPOLATION DEPTH,(feet)
#N/A	TVD COORDINATE OF THE DEPTH (feet)
#N/A	N/S COORDINATE OF DEPTH (feet)
#N/A	E/W COORDINATE OF DEPTH (feet)

DISTANCE TABLE

STATION A	STATION B
3 D DISTANCE BETWEEN STATION A AND STATION B	0.00 ft
Calculator =	

TABLE OF SURVEY STATIONS

STA #	ΔMD ft	INCL deg	AZIM deg	MD ft	TVD ft	N+/S- ft	E+/W- ft	DLS deg/100FT
1	TIE POINT =>	0	0	1500.00	1500.00	0.00	0.00	-
2	100	3	213.7	1600.00	1599.95	-2.18	-1.45	3.00
3	100	6	213.7	1700.00	1699.63	-8.70	-5.81	3.00
4	100	9	213.7	1800.00	1798.77	-19.56	-13.05	3.00
5	100	10	213.7	1900.00	1897.40	-33.29	-22.20	1.00
6	100	10	213.7	2000.00	1995.88	-47.74	-31.84	0.00
7	1420	10	213.7	3420.00	3394.30	-252.88	-168.65	0.00
8	100	10	213.7	3520.00	3492.78	-267.33	-178.29	0.00
9	100	9	213.7	3620.00	3591.41	-281.06	-187.44	1.00
10	100	6	213.7	3720.00	3690.54	-291.92	-194.69	3.00
11	100	3	213.7	3820.00	3790.22	-298.45	-199.04	3.00
12	100	0	213.7	3920.00	3890.18	-300.62	-200.49	3.00
13	2005	0	0	5925.00	5895.18	-300.62	-200.49	0.00
14	100	0	93.68	6025.00	5995.18	-300.62	-200.49	0.00
15	100	10	93.68	6125.00	6094.67	-301.18	-191.80	10.00
16	100	20	93.68	6225.00	6191.14	-302.84	-166.01	10.00
17	100	30	93.68	6325.00	6281.66	-305.55	-123.89	10.00
18	100	40	93.68	6425.00	6363.47	-309.23	-66.72	10.00
19	100	50	93.68	6525.00	6434.09	-313.76	3.75	10.00
20	100	60	93.68	6625.00	6491.37	-319.01	85.40	10.00
21	100	70	93.68	6725.00	6533.58	-324.82	175.73	10.00
22	100	80	93.68	6825.00	6559.43	-331.01	272.00	10.00
23	78	87.1	93.68	6903.00	6568.19	-335.98	349.29	9.10
24	100	87.1	93.68	7003.00	6573.25	-342.39	448.96	0.00
25	100	87.1	93.68	7103.00	6578.31	-348.80	548.63	0.00
26	4200	87.1	93.68	11303.00	6790.80	-618.03	4734.60	0.00
27	100	87.1	93.68	11403.00	6795.86	-624.44	4834.26	0.00
28	96	87.1	93.68	11499.00	6800.71	-630.60	4929.94	0.00
29								
30								
31								
32								
33								
34								
35								
36								
37								
38								
39								
40								
41								
42								
43								
44								
45								
46								
47								

Well name: **Bonneville 16 State #204H**

Operator: **Tascosa Energy Partners, LLC**

String type: **Surface Casing (500)**

Eddy County, New Mexico. SHL= 1,320 FSL & 250 FWL, Sec 16, T20S, R27E
BHL = 660 FSL & 100 FEL, Sec 16, T20S, R27E,

Design parameters:

Collapse

Mud weight: 9.00 ppg

Design is based on evacuated pipe.

Burst

Max anticipated surface pressure = 250.00 psi

Internal gradient: = 0.12 psi/ft

Calculated BHP = 310.00 psi

No backup mud specified.

Minimum design factors:

Collapse:

DF 1.125

Burst:

DF 1.10

Tension:

8 Rd STC: 1.80 (J)

8 Rd LTC: 1.80 (J)

Buttress: 1.60 (J)

Premium: 1.50 (J)

Body yield: 1.50 (B)

Tension is based on buoyed wgt.

Neutral pt: 453.00 ft

Maximum Lift using 14.8 ppg cmt to surface with 8.5 ppg mud filled csg= 23,014 lbs lift. String wgt = 24,600 lbs. Chain down casing prior to cmt job for Safety.

Environment:

H2S considered? No

Surface temperature: 75.00 °F

BHTemp 79 °F

Temp gradient: 0.80 °F/100ft

Minimum sec length: 500 ft

Minimum Drift: 12.25 in

Cement top: Surface

Non-directional string.

Re subsequent strings:

Next setting depth: 3,000.00 ft

Next mud weight: 10.00 ppg

Next setting BHP: 1,482.00 psi

Fracture mud wt: 11.00 ppg

Safety Factor Injection 1.00 ppg

Fracture depth: 500.00 ft

Injection pressure 312.00 psi

Run Seq	Segment Length (ft)	Size (in)	Nominal Weight (lbs/ft)	Grade	End Finish	True Vert Depth (ft)	Measured Depth (ft)	Drift Diameter (in)	Internal Capacity (ft^3)	Internal Capacity (bbls)
1	45	13.375	48.00	H-40	ST&C	500	500	12.59	440.9	78.54

Run Seq	Collapse Load (psi)	Collapse Strength (psi)	Collapse Design Factor	Burst Load (psi)	Burst Strength (psi)	Burst Design Factor	Tension Load (Kips)	Tension Strength (Kips)	Tension Design Factor
1	234	740	3.16	312	1730	5.54	24	322	13.417

Prepared by: Richard Wright

Phone: (432) 695 6970

FAX: (432) 695 6973

Date: 05/02/22

Midland, Texas

Remarks:

Collapse is based on a vertical depth of 500 ft, a mud weight of 9.0 ppg The casing is considered to be evacuated for collapse purposes.

Collapse strength is based on the Westcott, Dunlop & Kemler method of biaxial correction for tension.

Burst strength is not adjusted for tension.

Well name: **Bonneville 16 State #204H**

Operator: **Tascosa Energy Partners, LLC**

String type: **Intermediate Casing (3,000)**

Eddy County, New Mexico. SHL= 1,320 FSL & 250 FWL, Sec 16, T20S, R27E
BHL = 660 FSL & 100 FEL, Sec 16, T20S, R27E,

Design parameters:

Collapse

Mud weight: 9.50 ppg

Design is based on evacuated pipe.

Burst

Max anticipated surface pressure: 1,902.00 psi

Internal gradient: 0.12 psi/ft

Calculated BHP 2,262.00 psi

No backup mud specified.

Minimum design factors:

Collapse:

DF 1.125

Burst:

DF 1.15

Tension:

8 Rd STC: 1.80 (J)

8 Rd LTC: 1.80 (J)

Buttress: 1.60 (J)

Premium: 1.50 (J)

Body yield: 1.50 (B)

Tension is based on buoyed wgt.

Neutral pt: ± 2578 ft

Environment:

H2S considered? No

Surface temperature: 75.00 °F

BH Temp 99 °F

Temp Gradient 0.80 °F/100ft

Minimum Sec Length 1500 ft

Minimum Drift: 8.75 in

Cement top: Surface

Non-directional string.

Re subsequent strings:

Next setting depth: 12,818 ft MD

Next setting depth: 7,880 ft TVD

Next mud weight: 9.5 ppg

Next setting BHP: 3,893 psi

Fracture mud wt: 13.5 ppg

Safety Factor-Injection 1 ppg

Fracture depth: 3000 ft

Injection pressure 2,262 psi

Run Seq	Segment Length (ft)	Size (in)	Nominal Weight (lbs/ft)	Grade	End Finish	True Vert Depth (ft)	Measured Depth (ft)	Drift Diameter (in)	ID Diameter (in)	Internal Capacity (bbls)
1	3000	9.625	36	J-55	LT&C	3000	3000	8.796	8.921	232

Run Seq	Collapse Load (psi)	Collapse Strength (psi)	Collapse Design Factor	Burst Load (psi)	Burst Strength (psi)	Burst Design Factor	Tension Load (Kips)	Tension Strength (Kips)	Tension Design Factor
1	1482	2020	1.36	1902	3520	1.85	108	453	4.19 J

Prepared by: Richard Wright

Phone: (432) 695 6970

FAX: (432) 695 6973

Date: 05/02/22

Midland, Texas

Remarks:

Collapse is based on a vertical depth of 3,000 ft, a mud weight of 9.5 ppg The casing is considered to be evacuated for collapse purposes.

Collapse strength is based on the Westcott, Dunlop & Kemler method of biaxial correction for tension.

Burst strength is not adjusted for tension.

Well name: **Bonneville 16 State #204H**

Operator: **Tascosa Energy Partners, LLC**

String type: **Production Casing (± 11,499 ft MD) "FRAC"**

Eddy County, New Mexico. SHL= 1,320 FSL & 250 FWL, Sec 16, T20S, R27E
BHL = 660 FSL & 100 FEL, Sec 16, T20S, R27E,

Design parameters:

Collapse

Mud weight: 9.50 ppg

Design is based on evacuated pipe.

Burst

Max anticipated surface pressure FRAC @ RATE: 10,000.00 psi
Internal gradient: 0.000 psi/ft
Calculated BHP 10,000.00 psi
backup mud specified. 0.000 psi/ft
Net Injection Pressure Surface 10,000.00 psi
Net Injection Pressure TVD 5,580.00 psi
Annular surface PSI 0 psi
Frac Gradient 12.50 ppg
Frac Gradient 0.65 psi/ft

Minimum design factors:

Collapse: DF 1.125

Burst: DF 1.12

Tension:

8 Rd STC:	1.80	(J)
8 Rd LTC:	1.80	(J)
Buttress:	1.60	(J)
Premium:	1.50	(J)
Body yield:	1.50	(B)

Tension is based on buoyed weight. (.85474 factor)
Neutral pt: **± 5,554 ft assumes no friction calc from mid pt of curve**

Environment:

H2S considered?	No
Surface temperature:	75.00 °F
Bottom hole temp:	141 °F
Temperature gradient:	0.80 °F/100ft
Minimum section lgth:	2,500 ft
Minimum Drift:	4.653 in
Cement top:	Surface ft

Directional Info - Build & Hold

KOP #1 ±	1,500 ft
KOP #2 ±	6,025 ft
Departure at shoe:	4,969 ft
Maximum dogleg:	10 °/100ft
Inclination at shoe:	87.1 °

Run Seq	Segment Length (ft)	Size (in)	Nominal Weight (lbs/ft)	Grade	End Finish	True Vert Depth (ft)	Measured Depth (ft)	Drift Diameter (in)	ID Diameter (in)	Internal Capacity (bbls)
1	11,499	5.5	17	P110RY	GEOCONN-SC	6,800	11,499	4.767	4.892	267.3

Run Seq	Collapse Load (psi)	Collapse Strength (psi)	Collapse Design Factor	Burst Load (psi)	Burst Strength (psi)	Burst Design Factor	Tension Load (Kips)	Tension Strength (Kips)	Tension Design Factor
1	3,977	7480	1.88	10000	11550	1.155	355.6	546	1.54 yield

Prepared by: Richard Wright
Phone: (432) 695 6970
FAX: (432) 695 6973
Date: 05/02/22
Midland, Texas

Remarks:
Collapse is based on a vertical depth of 6,800 ft, a mud weight of 9.5 ppg The casing is considered to be evacuated for collapse purposes.
Collapse strength is based on the Westcott, Dunlop & Kemler method of biaxial correction for tension.

Burst strength is not adjusted for tension.
Collapse strength is (biaxially) derated for doglegs in directional wells by multiplying the tensile stress by the cross section area to calculate a tensile load which is added to the axial load

Bonneville 16 State # 204H "Cement Program"

SL=1320 FSL & 250 FWL, Section 16, T20S, R27E, Eddy County, New Mexico.
BHL = 660 FSL & 100 FEL, Sec 16, T20S, R27E, Eddy County, New Mexico
Bone Springs Horizontal Test_TVD ± 6,800'
.80° F Temp Gradient per 100 ft + 75° F surface

1. **Surface hole depth = 500 ft. (79°F) TOC @surface** w/ 200% W/O
   Surface hole = 17.5 inch
   Surface casing = 13.375" 48# H-40 STC
   Float Collar "PDC Drillable" 1 jts up.
   Hardware needed = 8 spring centralizers-(6) first 6 jts_(1) every 3rd jt to surface
   1 Guide shoe PDC Drillable
   1 Float Collar (1 jt Up) PDC Drillable
   2 thread lock
   (2) collar stops (15' up from shoe) + (15' up from FC)

   Engineering Data "Surface":
   500 ft 17.5 inch hole x 13.375" csg = .6946 cuft/ft X 500 X 3.0 excess = 1042 cu ft
   44 ft 13.375" 54.5 # casing volume= .8679 X 44 ft = 38 cu ft
   Total Cement volume required = 1080 cu ft.

   Lead slurry "Scavenger" Anticipated Coverage (200-surf) = 417 cu ft "C" 61:26 poz w/ 1% CaCl2, 12.8 ppg yield 1.68 cu ft/sk **= (271 sks)**

   Slurry 1 Cement Tested @ 80°F
   Thickening Time 4hr 37 min
   Compressive Strength = 8:53_ 500 psi; 24:00_815 psi
   .07% FW in 2 hrs
   FL = NC
   Gel Strength = 10 sec 10.3; 10 min 26.2
   PV = 16.2
   YP = 18.3

   Tail Slurry Anticipated Coverage (500'-200) = 625 cu ft Class "C" w/ 2% CaCl2 14.8 ppg yield 1.35 cu ft / sk **= (463 sks)**

   Slurry 2 Cement Tested @ 79°F
   Thickening Time 2hr 08 min
   Compressive Strength = 5:53_ 500 psi; 36:00_1818 psi
   0% FW in 2 hrs
   FL = 100 ml/30 min

Gel Strength = 10 sec 15.3; 10 min 19.9
PV = 24
YP = 17.8
Include 350 sks class "C" neat for top out + sack Calcium Chloride for mixing water (3%) if needed.

2. **Intermediate hole depth=3,000 ft. (99° F) TOC @ Surface** w/ 150% W/O open hole
Intermediate hole = 12.25 inch
Intermediate Casing = 9.625" 36# J-55 LTC
Float Collar 1 jts up.
Hardware needed = 12 spring cent space equally every 4 jts to 450 ft
1 Guide Shoe
1 float collar (1 jt up)
4 thread lock
Casing Packer

Engineering Data "Intermediate":
2500 ft 12 1/4inch open hole x 9.625 csg = .3132 cuft/ft X 2500 X 2.5 excess = **1958 cu ft**
500 ft 9.625 x 13.375" casing =.3765 cu ft/ft X 500 = **188 cu ft**
44 ft 9.625"36 # casing volume= .4340 X 44 ft = **19 cu ft**
Total Cement volume required = 2165 cu ft.

Lead Slurry Anticipated Coverage (2019-Surface) = 1754 cu ft "C" 61/26 poz w/ 2% Calcium Chloride 12.0 ppg yield 2.07 cu ft/sk **= (847 sks)**

Lead Slurry Tested @ 99°F
Thickening Time 5hr 59 min
Compressive Strength = 24:00 hrs _ 349 psi
.2% in 2 hrs (2.5 ml/250 ml)
Gel Strength = 10 Sec 17.6; 10 min 25.1
PV = 13.3
YP = 16.1

Tail Slurry Anticipated Coverage (3000-2500) = 411 cu ft Class "C" w/ 1% CaCl2 14.8 ppg yield 1.34 cu ft / sk **= (306 sks)**

Slurry 2 Cement Tested @ 100°F
Thickening Time 1hr 56 min
Compressive Strength = 3:31_ 500 psi; 36:0_ 2229 psi
.8% FW in 2 hrs
FL = 100 ml/30 min
Gel Strength = 10 sec 16.6; 10 min 16.7

PV = .7
YP = 17.5

Include 350 sks class "C" neat for top out + sack Calcium Chloride for mixing water (3%) if needed.

3. **Production Hole Depth = ± 11,499 ft.** "± 6,800" TVD Max. **(Temp 121° F)** **TOC @ surface w/ 50% (W/O) OPEN HOLE** ***(1 stage cmt job). NEED 18 HR SERVICE TIME TO PUMP JOB !***
   Production Hole Part 1 = 8.5 inch 7003 – 11,499 ft. (4,496') x 1.5 x.2290=**1544 cuft**
   Production Hole Part 2 = 8.75" 3,000-7,003 ft. (4,003) x 1.5 x .2526 = **1,517 cuft**
   Production Hole Part 2 = 9.625 36# Csg x 5.5"Csg (3000') x .2691 **= 807 cuft**
   Shoe Jt. 45 ft x .1245 = NA
   Total Cmt = 3,868 cu ft (1,868 sks)

   5.5" seat = 11,499' MD. TOC calculated to Surface w/ 50% Washout open hole.

   Production Casing = 5.5 inch 20 # RY 110 w/ GBDC or Equivalent Connections
   Hardware Needed = 70 spring Centralizers every 3rd jt. 9700 to surface
   76 Rigid standoff Centralizers (1 every 3rd jt in lateral & Curve.
   Wet Float Shoe
   8 thread lock

   Engineering Data "Production Casing Cement":

   Slurry 1 Coverage = (5,000-Surface ft)
   8.75" OH x 5.5" Csg = 2,000' x .2526 cu ft / ft x 1.5 = **758 cu ft.**
   5.5" Csg x 9-5/8 36# csg = 3,000' x .2691 cu ft / ft = **807 cu ft.**
   Slurry 1 Total = 1,565 cu ft.

   Total Slurry 1 Recipe = (1,565 cu ft) (353 sacks) class "C" 50/50 poz 10.5 ppg yield 4.43 cu ft/sk w/ 10% bentonite + 10% Silica Fume + 1.5% Sodium Metasilicate + 5 pps LCM.

   Slurry 1 Cement Tested @ 121°F
   Thickening Time 8hr 02 min
   Compressive Strength = 10:41_ 50 psi; 15:29_ 100 psi; 72 hr_346 psi
   1% in 2 hrs (2.5 ml/250 ml)
   Gel Strength = 10 Sec 22; 10 min 32
   PV = 5.8
   YP = 19

Slurry 2 Coverage = (11,499-5,000 ft)
2,003 ft 8-3/4 OH x 5.5" Csg = 2,003 x .2526 cu ft/ ft x 1.5 = **759 cu ft**
4,496 ft 8-1/2" OH x 5.5" Csg = 4,496 x .2290 cu ft / ft x 1.5= **1,544 cu ft**
Shoe jt 45 x .1245 **= NA**
Slurry 2 Total = 2,303 cuft

Total Slurry 2 Recipe = (2,303 cu ft) (1,515 sacks) class "H" 50/50 poz 13.2 ppg yield 1.52 cu ft/sk w/ 4% bentonite + .2% Sodium Metasilicate + 3 BWOW NaCl + .4% Fluid Loss Gas Migration Additive. 7.21 GPS H2O.

Slurry 2 Cement Tested @ 120°F
Thickening Time 6hr 37 min
Compressive Strength = 9:34_ 50 psi; 20:08_ 500 psi; 72 hr_1,622 psi
0% FW in 2 hrs
FL = 100 ml/30 min
Gel Strength = 10 sec 4; 10 min 8
PV = 120.9
YP = 13.2

Well name: **Bonneville 16 State #204H**

Operator: **Tascosa Energy Partners, LLC**

String type: **Surface Casing (500)**

Eddy County, New Mexico. SHL= 1,320 FSL & 250 FWL, Sec 16, T20S, R27E
BHL = 660 FSL & 100 FEL, Sec 16, T20S, R27E,

Design parameters:

Collapse

Mud weight: 9.00 ppg

Design is based on evacuated pipe.

Burst

Max anticipated surface pressure = 250.00 psi

Internal gradient: = 0.12 psi/ft

Calculated BHP = 310.00 psi

No backup mud specified.

Minimum design factors:

Collapse:

DF 1.125

Burst:

DF 1.10

Tension:

8 Rd STC: 1.80 (J)

8 Rd LTC: 1.80 (J)

Buttress: 1.60 (J)

Premium: 1.50 (J)

Body yield: 1.50 (B)

Tension is based on buoyed wgt.

Neutral pt: 453.00 ft

Maximum Lift using 14.8 ppg cmt to surface with 8.5 ppg mud filled csg= 23,014 lbs lift. String wgt = 24,600 lbs. Chain down casing prior to cmt job for Safety.

Environment:

H2S considered? No

Surface temperature: 75.00 °F

BHTemp 79 °F

Temp gradient: 0.80 °F/100ft

Minimum sec length: 500 ft

Minimum Drift: 12.25 in

Cement top: Surface

Non-directional string.

Re subsequent strings:

Next setting depth: 3,000.00 ft

Next mud weight: 10.00 ppg

Next setting BHP: 1,482.00 psi

Fracture mud wt: 11.00 ppg

Safety Factor Injection 1.00 ppg

Fracture depth: 500.00 ft

Injection pressure 312.00 psi

Run Seq	Segment Length (ft)	Size (in)	Nominal Weight (lbs/ft)	Grade	End Finish	True Vert Depth (ft)	Measured Depth (ft)	Drift Diameter (in)	Internal Capacity (ft^3)	Internal Capacity (bbls)
1	45	13.375	48.00	H-40	ST&C	500	500	12.59	440.9	78.54

Run Seq	Collapse Load (psi)	Collapse Strength (psi)	Collapse Design Factor	Burst Load (psi)	Burst Strength (psi)	Burst Design Factor	Tension Load (Kips)	Tension Strength (Kips)	Tension Design Factor
1	234	740	3.16	312	1730	5.54	24	322	13.417

Prepared by: Richard Wright

Phone: (432) 695 6970

FAX: (432) 695 6973

Date: 05/02/22

Midland, Texas

Remarks:

Collapse is based on a vertical depth of 500 ft, a mud weight of 9.0 ppg The casing is considered to be evacuated for collapse purposes.

Collapse strength is based on the Westcott, Dunlop & Kemler method of biaxial correction for tension.

Burst strength is not adjusted for tension.

Well name: **Bonneville 16 State #204H**

Operator: **Tascosa Energy Partners, LLC**

String type: **Intermediate Casing (3,000)**

Eddy County, New Mexico. SHL= 1,320 FSL & 250 FWL, Sec 16, T20S, R27E
BHL = 660 FSL & 100 FEL, Sec 16, T20S, R27E,

Design parameters:

Collapse

Mud weight: 9.50 ppg

Design is based on evacuated pipe.

Burst

Max anticipated surface pressure: 1,902.00 psi

Internal gradient: 0.12 psi/ft

Calculated BHP 2,262.00 psi

No backup mud specified.

Minimum design factors:

Collapse:

DF 1.125

Burst:

DF 1.15

Tension:

8 Rd STC: 1.80 (J)

8 Rd LTC: 1.80 (J)

Buttress: 1.60 (J)

Premium: 1.50 (J)

Body yield: 1.50 (B)

Tension is based on buoyed wgt.

Neutral pt: ± 2578 ft

Environment:

H2S considered? No

Surface temperature: 75.00 °F

BH Temp 99 °F

Temp Gradient 0.80 °F/100ft

Minimum Sec Length 1500 ft

Minimum Drift: 8.75 in

Cement top: Surface

Non-directional string.

Re subsequent strings:

Next setting depth: 12,818 ft MD

Next setting depth: 7,880 ft TVD

Next mud weight: 9.5 ppg

Next setting BHP: 3,893 psi

Fracture mud wt: 13.5 ppg

Safety Factor-Injection 1 ppg

Fracture depth: 3000 ft

Injection pressure 2,262 psi

Run Seq	Segment Length (ft)	Size (in)	Nominal Weight (lbs/ft)	Grade	End Finish	True Vert Depth (ft)	Measured Depth (ft)	Drift Diameter (in)	ID Diameter (in)	Internal Capacity (bbls)
1	3000	9.625	36	J-55	LT&C	3000	3000	8.796	8.921	232

Run Seq	Collapse Load (psi)	Collapse Strength (psi)	Collapse Design Factor	Burst Load (psi)	Burst Strength (psi)	Burst Design Factor	Tension Load (Kips)	Tension Strength (Kips)	Tension Design Factor
1	1482	2020	1.36	1902	3520	1.85	108	453	4.19 J

Prepared by: Richard Wright

Phone: (432) 695 6970

FAX: (432) 695 6973

Date: 05/02/22

Midland, Texas

Remarks:

Collapse is based on a vertical depth of 3,000 ft, a mud weight of 9.5 ppg The casing is considered to be evacuated for collapse purposes.

Collapse strength is based on the Westcott, Dunlop & Kemler method of biaxial correction for tension.

Burst strength is not adjusted for tension.

Well name: **Bonneville 16 State #204H**

Operator: **Tascosa Energy Partners, LLC**

String type: **Production Casing (± 11,499 ft MD) "FRAC"**

Eddy County, New Mexico. SHL= 1,320 FSL & 250 FWL, Sec 16, T20S, R27E
BHL = 660 FSL & 100 FEL, Sec 16, T20S, R27E,

Design parameters:

Collapse

Mud weight: 9.50 ppg

Design is based on evacuated pipe.

Burst

Max anticipated surface pressure FRAC @ RATE: 10,000.00 psi
Internal gradient: 0.000 psi/ft
Calculated BHP 10,000.00 psi
backup mud specified. 0.000 psi/ft
Net Injection Pressure Surface 10,000.00 psi
Net Injection Pressure TVD 5,580.00 psi
Annular surface PSI 0 psi
Frac Gradient 12.50 ppg
Frac Gradient 0.65 psi/ft

Minimum design factors:

Collapse: DF 1.125

Burst: DF 1.12

Tension:

8 Rd STC:	1.80	(J)
8 Rd LTC:	1.80	(J)
Buttress:	1.60	(J)
Premium:	1.50	(J)
Body yield:	1.50	(B)

Tension is based on buoyed weight. (.85474 factor)
Neutral pt: **± 5,554 ft assumes no friction calc from mid pt of curve**

Environment:

H2S considered?	No
Surface temperature:	75.00 °F
Bottom hole temp:	141 °F
Temperature gradient:	0.80 °F/100ft
Minimum section lgth:	2,500 ft
Minimum Drift:	4.653 in
Cement top:	Surface ft

Directional Info - Build & Hold

KOP #1 ±	1,500 ft
KOP #2 ±	6,025 ft
Departure at shoe:	4,969 ft
Maximum dogleg:	10 °/100ft
Inclination at shoe:	87.1 °

Run Seq	Segment Length (ft)	Size (in)	Nominal Weight (lbs/ft)	Grade	End Finish	True Vert Depth (ft)	Measured Depth (ft)	Drift Diameter (in)	ID Diameter (in)	Internal Capacity (bbls)
1	11,499	5.5	17	P110RY	GEOCONN-SC	6,800	11,499	4.767	4.892	267.3

Run Seq	Collapse Load (psi)	Collapse Strength (psi)	Collapse Design Factor	Burst Load (psi)	Burst Strength (psi)	Burst Design Factor	Tension Load (Kips)	Tension Strength (Kips)	Tension Design Factor
1	3,162	7480	2.37	10000	11550	1.155	355.6	546	1.54 yield

Prepared by: Richard Wright
Phone: (432) 695 6970
FAX: (432) 695 6973
Date: 05/02/22
Midland, Texas

Remarks:
Collapse is based on a vertical depth of 6,800 ft, a mud weight of 9.5 ppg The casing is considered to be evacuated for collapse purposes.
Collapse strength is based on the Westcott, Dunlop & Kemler method of biaxial correction for tension.

Burst strength is not adjusted for tension.
Collapse strength is (biaxially) derated for doglegs in directional wells by multiplying the tensile stress by the cross section area to calculate a tensile load which is added to the axial load

Tascosa Energy Partners, LLC
Bonneville 16 State
Hydrogen Sulfide Contingency Plan
For Drilling/Workover/Facility
SEC 16, T20S, R27E, Eddy County, New Mexico

Bonneville 16 State wells and their anticipated facility are not expected to have Hydrogen Sulfide releases. However, there may be Hydrogen Sulfide production in the nearby area. There are no occupied dwellings within a mile of the area but a contingency plan has been orchestrated. Tascosa Energy Partners, LLC will have a Company Representative living on location throughout the drilling and completion of this well. If Hydrogen Sulfide is detected or suspected, monitoring equipment will be available for monitoring and/or testing. An un-manned H2S safety trailer and monitoring equipment will also be station on location during the drilling operation below the Surface Casing depth of ± 500 ft. to total drilling depth of ± 13,000 ft.

Tascosa Energy Partners, LLC
Bonneville 16 State
Hydrogen Sulfide Contingency Plan
For Drilling/Workover/Facility
SEC 16, T20S, R27E, Eddy County, New Mexico

EMERGENCY CALL LIST: (Start and continue until ONE of these people have been contacted)

	OFFICE	MOBILE	HOME
Tascosa Energy ,LLC.	432 695-6970		
Alyssa McNear		720 244 4417	
Jeff Birkelbach	432 695-6970	432 553 0391	
Brian Kirkland		432 770-2325	
Kevin Herrmann	432 695-6970	432 254-9106	

EMERGENCY RESPONSE NUMBERS:

State Police:	Eddy County		575 748 9718
State Police:	Lea County		575 392 5588
Sheriff	Eddy County		575 746 2701
Sheriff	Lea County		
Emergency Medical Ser	Eddy County		911 or 575 746 2701
(Ambulance)	Lea County	Eunice	911 or 575 394 3258
Emergency Response	Eddy County SERC		575 476 9620
Artesia Police Dept			575 746 5001
Artesia Fire Dept			575 746 5001
Carlsbad Police Dept			575 885 2111
Carlsbad Fire Dept			575 885 3125
Loco Hills Police Dept			575 677 2349
Jal Police Dept			575 395 2501
Jal Fire Dept			575 395 2221
Jal ambulance			575 395 2221
Eunice Police Dept			575 394 0112
Eunice Fire Dept			575 394 3258

Tascosa Energy Partners, LLC
Bonneville 16 State
Hydrogen Sulfide Contingency Plan
For Drilling/Workover/Facility
SEC 16, T20S, R27E, Eddy County, New Mexico

Eunice Ambulance		**575 394 3258**
Hobbs Police Dept		
NMOCD	**District 1 (Lea, Roosevelt, Curry)**	**575 393 6161**
	District 2 (Eddy Chavez)	**575 748 1283**
BLM Carlsbad		**575 234 5972**
BLM Hobbs		**575 393 3612**
Lea County Information		**575 393 8203**
Midland Safety	**Lea/Eddy County**	**432 520 3838**
		888 262 4964
American Safety	**Lea/Eddy County**	**575 746 1096**
		575 393 3093
Halliburton	**Artesia**	**800 844 8451**
	Hobbs	**800 844 8451**
	Midland	**800 844 8451**
Wild Well Control	**Midland**	**281 784 4700**
		281 443 4873

Tascosa Energy Partners, LLC
Bonneville 16 State
Hydrogen Sulfide Contingency Plan
For Drilling/Workover/Facility
SEC 16, T20S, R27E, Eddy County, New Mexico

TABLE OF CONTENTS

Tascosa Energy Partners, LLC
Bonneville 16 State
Hydrogen Sulfide Contingency Plan
For Drilling/Workover/Facility
SEC 16, T20S, R27E, Eddy County, New Mexico

1. Hydrogen Sulfide Training

All personnel, whether regularly assigned, contracted, or employed on an unscheduled basis, will receive training from a qualified instructor in the following areas prior to commencing drilling operations on this well

1. **The hazards and characteristics of hydrogen sulfide (H2S)**
2. **The proper use and maintenance of personal protective equipment and life support systems.**
3. **The proper use of H2S detectors, alarms, warning systems, briefing areas, evacuation procedures and prevailing winds.**
4. **The proper techniques for first aid and rescue procedures**

In addition, supervisory personnel will be trained in the following areas:

1. The effects of H2S on metal components. If high tensile tubulars are to be used, personnel will be trained in the special maintenance requirements.
2. Corrective action and shut-in procedures when drilling or reworking a well and blowout prevention and well control procedures.
3. The contents and requirements of H2S Drilling Operations Plan and the Public Protection plan.

There will be an initial training session just prior to encountering a known or probable H2S zone (within 3 days or 500 feet) and weekly H2S and well control drills for all personnel in each crew. The initial training session shall include a review of the site specific H2S Drilling Operations Plan and the Public Protection Plan. This plan shall be available at the well site. All personnel will be required to carry documentation that they have received the proper training.

2. H2S Safety Equipment and Systems

Note: All H2S safety equipment and systems will be installed, tested and operational when drilling reaches a depth of 500 feet above, or three days prior to penetrating the first zone containing or reasonably expected to contain H2S. If H2S greater than 100 ppm is encountered in the gas stream we will shut-in and install H2S equipment.

1. Well Control Equipment:
    a. Flare Line
    b. Choke manifold with remotely operated choke
    c. Blind rams and pipe rams to accommodate all pipe sizes with properly sized closing unit.

Tascosa Energy Partners, LLC
Bonneville 16 State
Hydrogen Sulfide Contingency Plan
For Drilling/Workover/Facility
SEC 16, T20S, R27E, Eddy County, New Mexico

   d. Auxiliary equipment to include; annular preventer, mud gas separator, rotating head.
2. Protective equipment for essential personnel:
   a. Mark II Survive air 30 minute units located in the dog house and at the briefing areas.
3. H2S detection and monitoring equipment:
   a. 2-portable H2S monitor positioned on location for best coverage and response. These units have warning lights and audible sirens when H2S levels of 20 ppm are reached.
4. Visual warning systems:
   a. Caution/Danger signs shall be posted on roads providing direct access to the location. Signs will be painted a high visibility yellow with black lettering of sufficient size to be readable at a reasonable distance from the immediate location. Bilingual signs will be used, when appropriate.
5. Mud Program:
   a. The mud program has been designed to minimize the volume of H2S circulated to the surface.
6. Metallurgy:
   a. All drill strings, casing, tubing, wellhead, blowout preventers, drilling spool, kill lines, choke manifold and lines, and valves shall be suitable for H2S service.
7. Communications:
   a. Company vehicles equipped with cellular telephone.

Tascosa Energy Partners, LLC has conducted a review to determine if an H2S contingency plan is required for the subject well. We were able to conclude that any potential hazardous volume would be minimal. H2S concentrations of wells in this area from surface to TD are low enough; therefore, **we do not believe that an H2S contingency plan is necessary**

General H2S Emergency Actions:

1. All personnel will immediately evacuate to an up-wind and if possible up-hill “safe area”
2. If for any reason a person must enter the hazardous area, they must wear a SCBA (Self Contained Breathing Apparatus)
3. Always use the “buddy system”
4. Isolate the well/problem if possible
5. Account for all personnel
6. Display the proper colors warning all unsuspecting personnel of the danger at hand.
7. Contact the Company personnel as soon as possible if not at the location. (use the enclosed call list as instructed

Tascosa Energy Partners, LLC
Bonneville 16 State
Hydrogen Sulfide Contingency Plan
For Drilling/Workover/Facility
SEC 16, T20S, R27E, Eddy County, New Mexico

At this point the company representative will evaluate the situation and coordinate the necessary duties to bring the situation under control, and if necessary, the notification of the emergency response agencies and nearby residents.

EMERGENCY PROCEDURES FOR AN UNCONTROLLABLE RELEASE OF H2S

1. All personnel will wear the self-contained breathing apparatus.
2. Remove all personnel to the "safe area". (always use the buddy system).
3. Contact company personnel if not on location.
4. Set in motion the steps to protect and or remove the general public to an upwind "safe area". Maintain strict security & safety procedures while dealing with the source.
5. No entry to any unauthorized personnel.
6. Notify the appropriate agencies: City Police-City Street (s)
   State Police- State Rd
   County Sheriff – County Rd.
7. Call the BLM &/or NMOCD

PROTECTION OF THE GENERAL PUBLIC (Radius of Exposure):

- 100 ppm at any public area (any place not associated with this site)
- 500 ppm at any public road (any road which the general public may travel)
- 100 ppm radius of ¼ mile in New Mexico will be assumed if there is insufficient data to do the calculations, and there is a reasonable expectation that H2S could be present in concentrations greater than 100 ppm in the gas mixture

CALCULATIONS FOR THE 100 PPM (ROE) "Pasquill-Gifford equation"

X = [(1.589) (mole fraction) (Q- volume in std cu ft)] to the power of (0.6258)

CALCULATION FOR THE 500 PPM ROE:

Tascosa Energy Partners, LLC
Bonneville 16 State
Hydrogen Sulfide Contingency Plan
For Drilling/Workover/Facility
SEC 16, T20S, R27E, Eddy County, New Mexico

X = [(.4546) (mole fraction) (Q- volume in std cu ft)] to the power of (0.6258)

Example:

If a well/facility has been determined to have 150 / 500 ppm H2S in the gas mixture and the well/facility is producing at a gas rate of 100 MCFPD then:

150 ppm X= [(1.589) (.00015) (100,000 cfd)] to the power of (.6258)
X= 7 ft

500 ppm X= [(.4546) (.0005) (100,000 cfd)] to the power of (.6258)
X = 3.3 ft.
(These calculations will be forwarded to the appropriate District NMOCD office when Applicable)

PUBLIC EVACUATION PLAN:

- 1. Notification of the emergency response agencies of the hazardous condition and implement evacuation procedures.
- A trained person in H2S safety, shall monitor with detection equipment the H2S concentration, wind and area exposure (ROE). This person will determine the outer perimeter of the hazardous area. The extent of the evacuation area will be determined from the data being collected. Monitoring shall continue until the situation has been resolved. **(All monitoring equipment shall be UL approved, for use in class 1 groups A,B,C & D, Division 1, hazardous locations. All monitor will have a minimum capability of measuring H2S, oxygen, and flammable values).**
- Law enforcement shall be notified to set up necessary barriers and maintain such for the duration of the situation as well as aid in the evacuation procedure.

- The company supervising personnel shall stay in communication with all agencies throughout the duration of the situation and inform such agencies when the situation has been contained and the affected area(s) is safe to enter.

PROCEDURE FOR IGNITING AN UNCONTROLABLE CONDITION:

- 1. Human life and/or property are in danger
- 2. There is no hope of bringing the situation under control with the prevailing conditions at the site.

INSTRUCTION FOR IGNITION:

- 1. Two people are required. They must be equipped with positive pressure, “self - contained breathing apparatus” and a “D” ring style full body, OSHA approved safety harness. Nonflammable rope will be attached.

Tascosa Energy Partners, LLC
Bonneville 16 State
Hydrogen Sulfide Contingency Plan
For Drilling/Workover/Facility
SEC 16, T20S, R27E, Eddy County, New Mexico

- 2. One of the people will be qualified safety person who will test the atmosphere for H2S, Oxygen & LFL. The other person will be the company supervisor; he is responsible for igniting the well.

- 3. Ignite up wind from a distance no closer than necessary. Make sure that where you ignite from has the maximum escape avenue available. A 25 mm flare gun shall be used, with a ± 500 ft. range to ignite the gas.

- 4. Prior to ignition, make a final check for combustible gases.

- 5. Following ignition, continue with the emergency actions & procedures as before.

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

B. Briefing Area: two perpendicular areas will be designated by signs and readily accessible.

C. Required Emergency Equipment:

■ Well control equipment
  a. Flare line 100' from wellhead to be ignited by flare gun or automatic striker.
  b. Choke manifold with a remotely operated choke.
  c. Mud/gas separator

■ Protective equipment for essential personnel.

  Breathing apparatus:
  a. Rescue Packs (SCBA) — 1 unit shall be placed at each breathing area, 2 shall be stored in the safety trailer.
  b. Work/Escape packs —4 packs shall be stored on the rig floor th sufficient air hose not to restrict work activity.
  c. Emergency Escape Packs —4 packs shall be stored in the doghouse for emergency evacuation.

  Auxiliary Rescue Equipment:
  a. Stretcher
  b. Two OSHA full body harness
  c. 100 ft 5/8inch OSHA approved rope
  d. 1-20# class ABC fire extinguisher

■ H2S detection and monitoring equipment:

Tascosa Energy Partners, LLC
Bonneville 16 State
Hydrogen Sulfide Contingency Plan
For Drilling/Workover/Facility
SEC 16, T20S, R27E, Eddy County, New Mexico

The stationary detector with three sensors will be placed in the upper dog house if equipped, set to visually alarm @ 10 ppm and audible @ 14 ppm. Calibrate a minimum of every 30 days or as needed. The sensors will be placed in the following places: Rig floor / Bell nipple / End of flow line or where well bore fluid is being discharged.
(Gas sample tubes will be stored in the safety trailer)

- Visual warning systems.
  a. One color code condition sign will be placed at the entrance to the site reflecting the possible conditions at the site.
  b. A colored condition flag will be on display, reflecting the current condition at the site at the time.
  c. Two wind socks will be placed in strategic locations, visible from all angles.

- Mud program: **Only utilized if H2S has been detected**
  The mud program has been designed to minimize the volume of H2S circulated to surface. The operator will have the necessary mud products to minimize hazards while drilling in H2S bearing zones.

- Metallurgy: **Only utilized if H2S has been detected**
  a. All drill strings, casings, tubing, wellhead, blowout preventer, drilling spool, kill lines, choke manifold and lines, and valves shall be suitable for H2S service.
  b. All elastomers used for packing and seals shall be H2S trim.

- Communication: **Only utilized if H2S has been detected**
  Communication will be via two way radio in emergency and company vehicles. Cell phones and land lines where available.

USING SELF CONTAINED BREATHING AIR EQUIPMENT (SCBA):

- (SCBA) SHOULD BE WORN WHEN ANY OF THE FOLLOWING ARE PERFORMED: **Only utilized if H2S has been detected**

  - Working near the top or on top of a tank
  - Disconnecting any line where H2S can reasonably be expected
  - Sampling air in the area to determine if toxic concentrations of H2S exist.
  - Working in areas where over 10 ppm on H2S has been detected.
  - At any time there is a doubt as the level of H2S in the area.

- All personnel shall be trained in the use of SCBA prior to working in a potentially hazardous location.

- Facial hair and standard eyeglasses are not allowed with SCBA.
- Contact lenses are never allowed with SCBA.

Tascosa Energy Partners, LLC
Bonneville 16 State
Hydrogen Sulfide Contingency Plan
For Drilling/Workover/Facility
SEC 16, T20S, R27E, Eddy County, New Mexico

- Air quality shall be continuously be checked during the entire operation.
- After each use, the SCBA unit shall be cleaned, disinfected, serviced and inspected
- All SCBA shall be inspected monthly.

RESCUE AND FIRST AID FOR VICTIMS OF HYDROGEN SULFIDE (H2S) POISONING:

- Do not panic
- Remain Calm & think
- Get on the breathing apparatus
- Remove the victim to the safe breathing area as quickly as possible. Up wind an uphill from source or cross wind to achieve upwind.
- Notify emergency response personnel.
- Provide artificial respiration and or CPR, as necessary
- Remove all contaminated clothing to avoid further exposure.
- A minimum of two personnel on location shall be trained in CPR and First Aid.

Tascosa Energy Partners, LLC
Bonneville 16 State
Hydrogen Sulfide Contingency Plan
For Drilling/Workover/Facility

SEC 16, T20S, R27E, Eddy County, New Mexico

Hydrogen Sulfide (H2S) Toxic Effects

H2S is extremely toxic. The acceptable ceiling for eight hours of exposure is 10 ppm, which is .001% by volume. H2S is approximately 20% heavier than air (Sp. Gr= 1.19)(Air = 1) and H2S is colorless. It forms an explosive mixture with air between 4.3% and 46%. By volume hydrogen sulfide is almost as toxic as hydrogen cyanide and 5-6 times more toxic than carbon monoxide.

Various Gases

COMMON NAME	CHEMICAL ABBREV.	SPECIFIC GRVTY.	THRESHOLD LIMITS	HAZARDOUS LIMITS	LETHAL CONCENTRATIONS
Hydrogen Sulfide	H2S	1.19	10ppm 15 ppm	100 ppm/hr	600 ppm
Hydrogen Cyanide	HCN	0.94	10 ppm	150 ppm/hr	300 ppm
Sulfur Dioxide	SO2	2.21	2 ppm	N/A	1000 ppm
Chlorine	CL2	2.45	1 ppm	4 ppm/hr	1000 ppm
Carbon Monoxide	CO	0.97	50 ppm	400 ppm/hr	1000 ppm
Carbon Dioxide	CO2	1.52	5000 ppm	5%	10%
Methane	CH4	0.55	90,000	Combustible@ 5%	N/A

Threshold Limit: Concentrations at which it is believed that all workers may be repeatedly exposed, day after day without adverse effects.
Hazardous Limit: Concentrations that may cause death.
Lethal Concentrations: Concentrations that will cause death with short term exposure.
Threshold Limit- 10 ppm: NIOSH guide to chemical hazards.

PHYSICAL EFFECTS OF HYDROGEN SULFIDE:

CONCENTRATION		PHYSICAL EFFECTS
.001%	10 PPM	Obvious and unpleasant odor. Safe for 8 hour exposure
.005%	50 ppm	Can cause some flu like symptoms and can cause pneumonia
.01%	100 ppm	Kills the sense of smell in 3-15 minutes. May irritate the eyes and throat.
.02%	200 ppm	Kills the sense of smell rapidly. Severly irritates the eyes and throat. Severe flu like symptoms after 4 or more hours. May cause lung damage and or death.
.06%	600 ppm	Loss of consciousness quickly, death will result if not rescued promptly.

Bonneville 16 State #204H – Natural Gas Management Plan

VI. Separation Equipment:

Tascosa has sized a FWKO and a high pressure, 3-phase separator to allow for complete separation at our anticipated rates, with adequate retention times. Tank vapors will also be captured through two vapor recovery units and sent to the Durango sales line through a compressor at the Bonneville Facility.

VII. Operational Practices:

a. Drilling Operations – Tascosa will ensure that a flare stack is set at least 100' from the wellbore during drilling operations. This flare stack will be properly sized to handle the maximum expected release, ensuring that all natural gas produced during drilling operations can be flared (unless there is an equipment malfunction or if venting is necessary for safety reasons).
b. Completion Operations – Prior to flowback, Tascosa will ensure that the well is connected to a gathering system that can handle the expected gas volumes. During flowback, natural gas will be separated and flared until it is within the specs of the contracted gathering system (Durango).
c. Production Operations – Tascosa will conduct weekly AVO inspections and tackle equipment failures with haste. The emergency flare on location will be equipped with an auto-ignition, capable of handling the maximum expected release. Sight glasses will be installed on all tanks to eliminate gas releases due to gauging through thief hatches. A VRU will also be installed to capture tank vapors and reduce waste. In preparation of a VRU failure or planned maintenance, a backup combustor will be placed at the facility.
d. Performance Standards –
    a. Tascosa will design completion and production equipment for maximum expected output and pressure to eliminate venting.
    b. A properly sized flare stack will be placed at the facility with an automatic ignitor.
    c. AVO inspections will be conducted at least once a week to prevent releases due to equipment failure. These inspections will be recorded for future review.
    d. Tascosa is obligated to eliminate waste and will repair equipment failures as soon as possible.
e. Measurement and Estimation – A meter will be placed on the combustor and the flare stack to ensure combusted gas readings are accurate during a release event. If for any reason a meter reading is unavailable, released volumes will be estimated and reported.

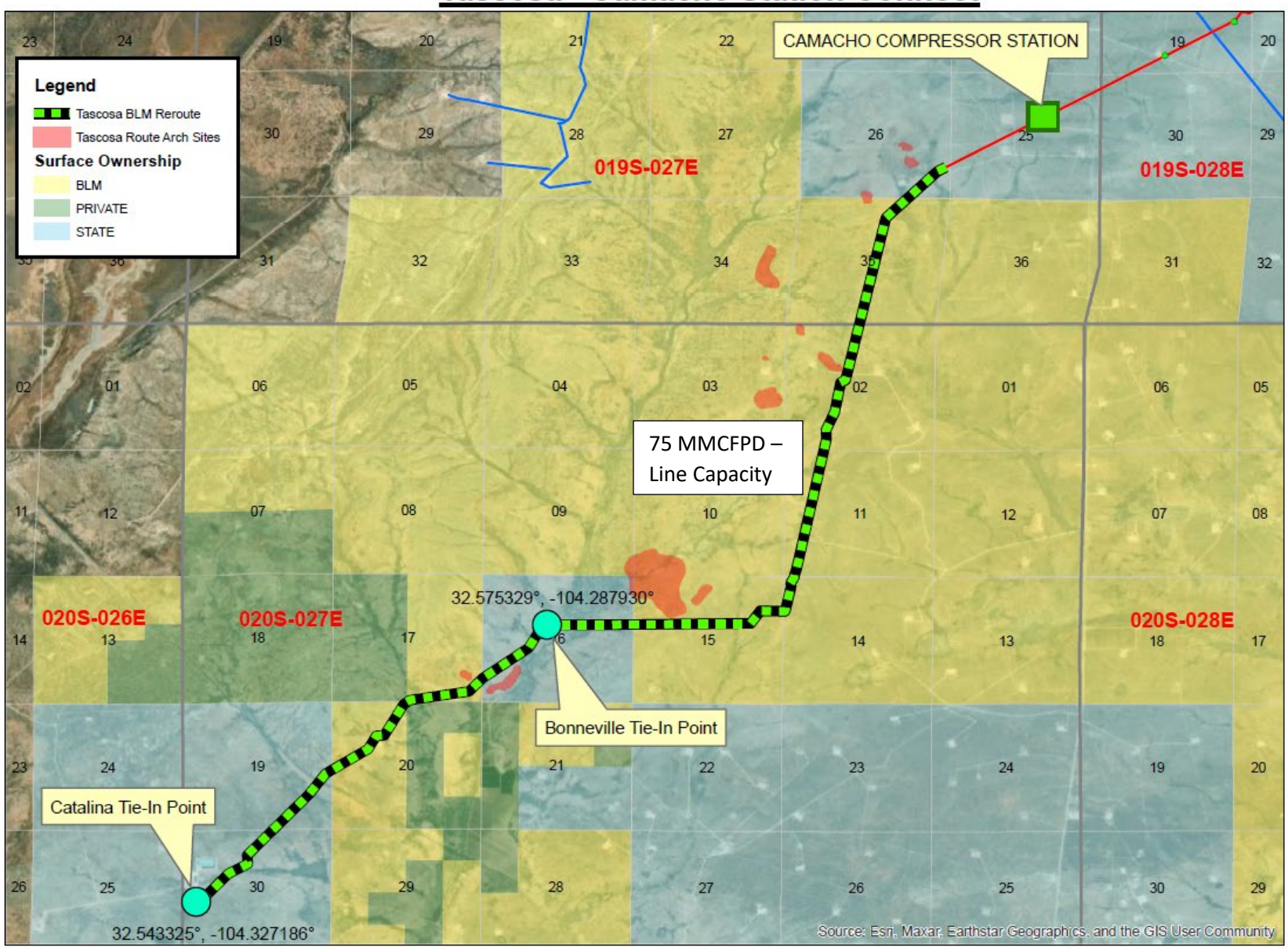
VIII. Best Management Practices:

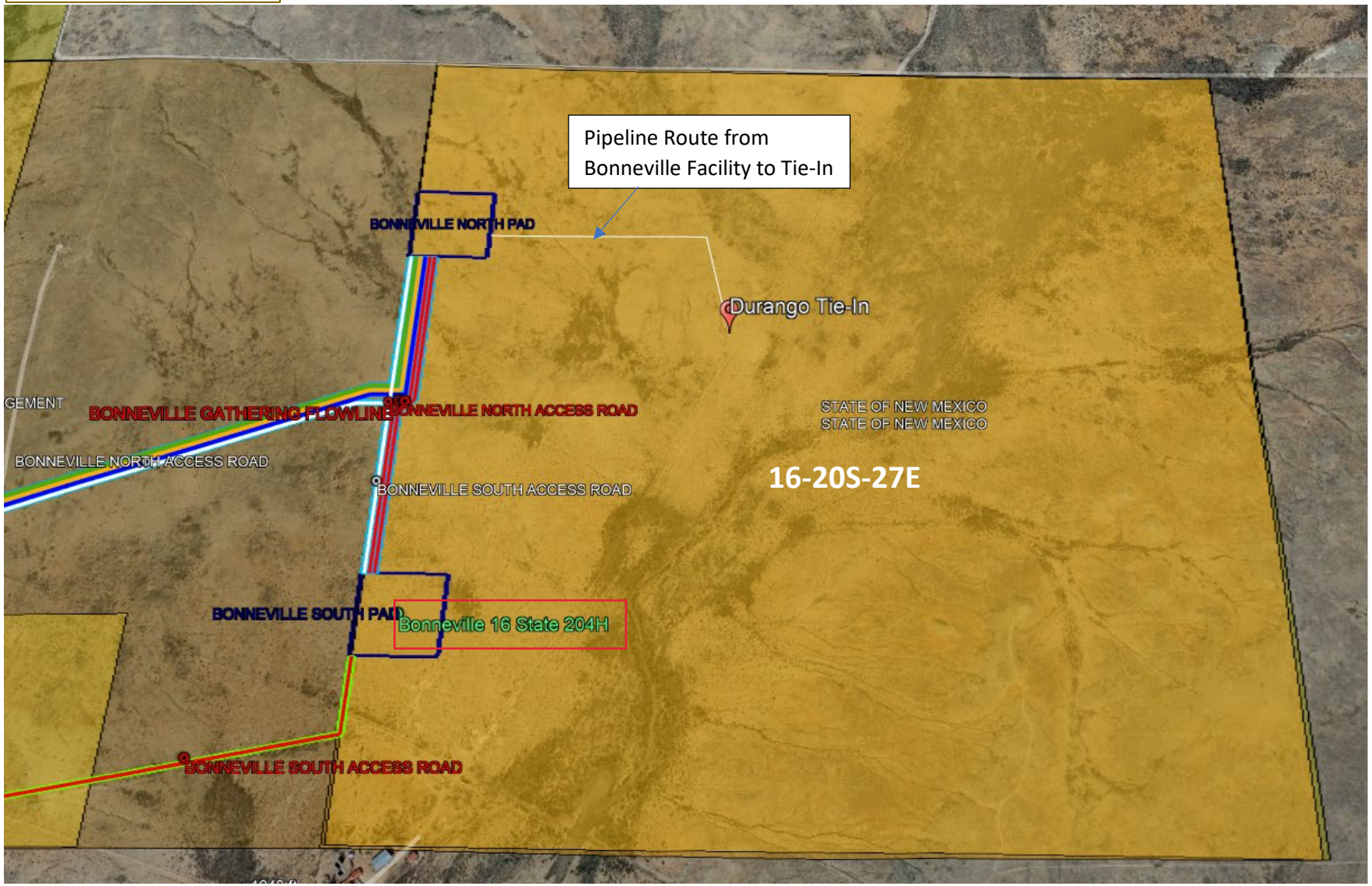
Tascosa will aim to conduct surface maintenance without venting or flaring as much as possible. If planned maintenance is prolonged due to wait times for labor and equipment, Tascosa will shut in the producing well to prevent excess emissions. Tascosa will also minimized venting during downhole operations.

XI. Maps:

TEP

Tascosa - Camacho Station Connect




Pipeline Route from
Bonneville Facility to Tie-In
BONNEVILLE NORTH PAD
Durango Tie-In
GEMENT
BONNEVILLE GATHERING FLOWLINE
BONNEVILLE NORTH ACCESS ROAD
STATE OF NEW MEXICO
STATE OF NEW MEXICO
BONNEVILLE NORTH ACCESS ROAD
BONNEVILLE SOUTH ACCESS ROAD
16-20S-27E
BONNEVILLE SOUTH PAD
Bonneville 16 State 204H
BONNEVILLE SOUTH ACCESS ROAD

XIII. Line Pressure:

Tascosa does not have any existing wells connected to the Durango pipeline shown in the maps above. However, Tascosa is planning for increases in line pressure as the Camacho Compressor Station experiences higher volumes from other operators. Tascosa has rented two additional compressors to prevent downtime or flaring when line pressure does increase. These compressors are rated for discharge pressures of up to 1200 psi, which is the maximum operating line pressure of the Durango gas gathering line.

State of New Mexico
Energy, Minerals and Natural Resources Department

Submit Electronically
Via E-permitting

Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

NATURAL GAS MANAGEMENT PLAN

This Natural Gas Management Plan must be submitted with each Application for Permit to Drill (APD) for a new or recompleted well.

Section 1 – Plan Description
Effective May 25, 2021

I. Operator: Tascosa Energy Partners, LLC. **OGRID:** 329784 **Date:** 03/29/2023

II. Type: ☒ Original ☐ Amendment due to ☐ 19.15.27.9.D(6)(a) NMAC ☐ 19.15.27.9.D(6)(b) NMAC ☐ Other.

If Other, please describe: _____

III. Well(s): Provide the following information for each new or recompleted well or set of wells proposed to be drilled or proposed to be recompleted from a single well pad or connected to a central delivery point.

Well Name	API	ULSTR	Footages	Anticipated Oil BBL/D	Anticipated Gas MCF/D	Anticipated Produced Water BBL/D
Bonneville 16 St. #204H		16-20S-27E		700	2800	800

IV. Central Delivery Point Name: Tascosa 16 [See 19.15.27.9(D)(1) NMAC]

V. Anticipated Schedule: Provide the following information for each new or recompleted well or set of wells proposed to be drilled or proposed to be recompleted from a single well pad or connected to a central delivery point.

Well Name	API	Spud Date	TD Reached Date	Completion Commencement Date	Initial Flow Back Date	First Production Date
Bonneville 16 St. #204H		5/1/2023	5/21/2023	8/1/2023	8/15/2023	8/31/2023

VI. Separation Equipment: ☒ Attach a complete description of how Operator will size separation equipment to optimize gas capture.

VII. Operational Practices: ☒ Attach a complete description of the actions Operator will take to comply with the requirements of Subsection A through F of 19.15.27.8 NMAC.

VIII. Best Management Practices: ☒ Attach a complete description of Operator's best management practices to minimize venting during active and planned maintenance.

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
Bonneville 16 St. #204H		2800	692,000

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
Durango Midstream	Dagger Draw	16-20S-27E	8/1/2023	75 MMCFPD

XI. Map. ☒ 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 ☒ will ☐ 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 X does ☐ 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: ☐ 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.

Section 3 - Certifications

Effective May 25, 2021

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

☐ 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. ☒ 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. ☐ 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.

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:	Alyssa McNear
Printed Name:	Alyssa McNear
Title:	Engineering Manager
E-mail Address:	adavanzo@tascosaep.com
Date:	4/14/2023
Phone:	(720) 244-4417

OIL CONSERVATION DIVISION
(Only applicable when submitted as a standalone form)

Approved By:	
Title:	
Approval Date:	
Conditions of Approval:	