Form 3160-3
(June 2015)

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

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL OR REENTER

5. Lease Serial No.: NMNM84B

6. If Indian, Allotee or Tribe Name:

1a. Type of work: ☑ DRILL ☐ REENTER

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

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

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

8. Lease Name and Well No.: GTO 30 FED COM 605H

2. Name of Operator: TASCOSA ENERGY PARTNERS LLC

9. API Well No.: 30-015-54889

3a. Address: 901 W MISSOURI AVE, MIDLAND, TX 79701

3b. Phone No. *(include area code)*: (432) 695-6970

10. Field and Pool, or Exploratory: AVALON/BONE SPRING

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

At surface: LOT 3 / 1761 FSL / 629 FWL / LAT 32.447934 / LONG -104.338849

At proposed prod. zone: NESE / 2320 FSL / 100 FEL / LAT 32.449972 / LONG -104.323793

11. Sec., T. R. M. or Blk. and Survey or Area: SEC 30/T21S/R26E/NMP

14. Distance in miles and direction from nearest town or post office*: 5 miles

12. County or Parish: EDDY

13. State: NM

15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any): 441 feet

16. No of acres in lease:

17. Spacing Unit dedicated to this well: 319.0

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

19. Proposed Depth: 8282 feet / 13295 feet

20. BLM/BIA Bond No. in file: FED: NMB001812

21. Elevations (Show whether DF, KDB, RT, GL, etc.): 3400 feet

22. Approximate date work will start*: 01/02/2024

23. Estimated duration: 60 days

24. Attachments

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

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

25. Signature	Name *(Printed/Typed)*	Date
(Electronic Submission)	BRIAN WOOD / Ph: (432) 695-6970	08/09/2023

Title: Permitting Agent

Approved by *(Signature)*	Name *(Printed/Typed)*	Date
(Electronic Submission)	CODY LAYTON / Ph: (575) 234-5959	03/07/2024

Title	Office
Assistant Field Manager Lands & Minerals	Carlsbad Field Office

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

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

APPROVED WITH CONDITIONS

(Continued on page 2)

*(Instructions on page 2)

Approval Date: 03/07/2024

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- 54889	96381	AVALON; BONE SPRING

Property Code	Property Name	Well Number
335655	GTO 30 FED COM	#605H

OGRID No.	Operator Name	Elevation
329748	TASCOSA ENERGY PARTNERS, LLC	3400'

Surface Location

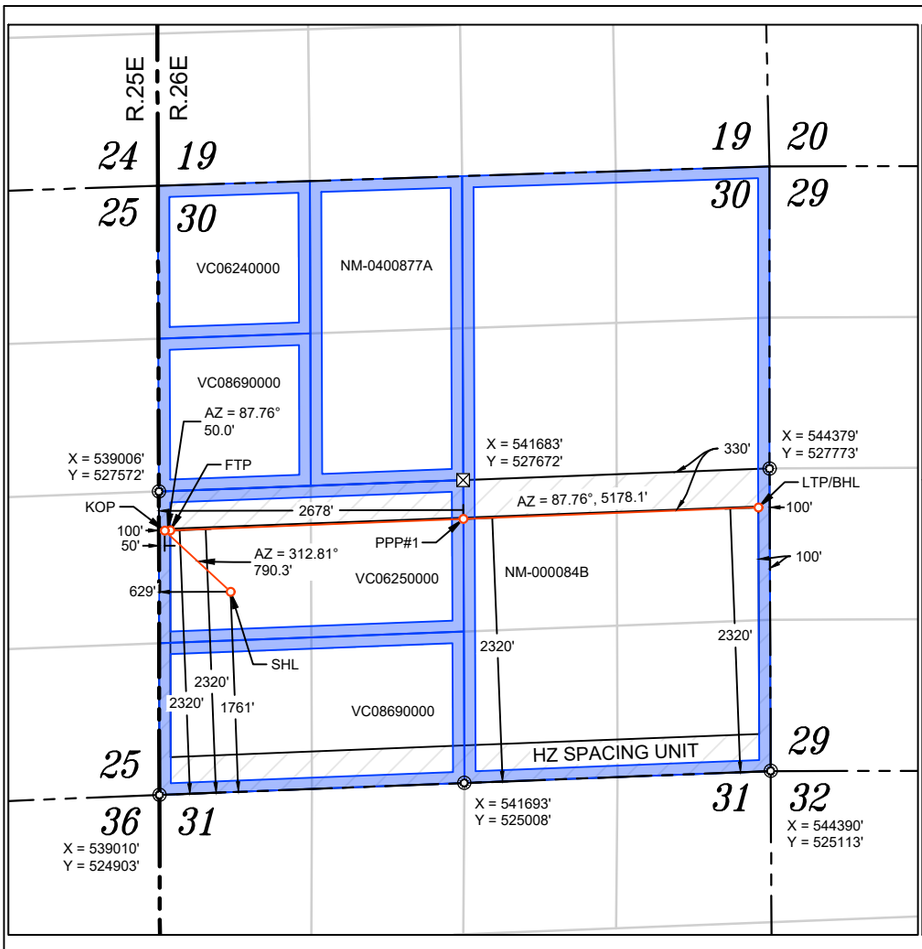
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
LOT 3	30	21 S	26 E		1761	SOUTH	629	WEST	EDDY

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
I	30	21 S	26 E		2320	SOUTH	100	EAST	EDDY

Dedicated Acres	Joint or Infill	Consolidation Code	Order No.
319.00			

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.

Cory Walk — 08-01-23
Signature — Date

Cory Walk
Printed Name

cory@permitswest.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.

JUNE 12, 2023
Date of Survey

Signature and Seal of Professional Surveyor:

MATTHEW B. TOMERLIN
NEW MEXICO
23203
PROFESSIONAL SURVEYOR

Job No.: 23-03-2913
MATTHEW B. TOMERLIN, N.M.P.L.S.
Certificate Number 23203

NAD 83 (SHL) 1761' FSL & 629' FWL
LATITUDE = 32.447934°
LONGITUDE = -104.338849°
NAD 27 (SURFACE HOLE LOCATION)
LATITUDE = 32.447818°
LONGITUDE = -104.338339°
STATE PLANE NAD 83 (N.M. EAST)
N: 526689.29' E: 539635.99'
STATE PLANE NAD 27 (N.M. EAST)
N: 526629.75' E: 498455.71'

NAD 83 (KOP) 2320' FSL & 50' FWL
LATITUDE = 32.449410°
LONGITUDE = -104.340729°
NAD 27 (KOP)
LATITUDE = 32.449294°
LONGITUDE = -104.340219°
STATE PLANE NAD 83 (N.M. EAST)
N: 527226.28' E: 539056.20'
STATE PLANE NAD 27 (N.M. EAST)
N: 527166.73' E: 497875.95'

NAD 83 (FTP) 2320' FSL & 100' FWL
LATITUDE = 32.449415°
LONGITUDE = -104.340567°
NAD 27 (FTP)
LATITUDE = 32.449299°
LONGITUDE = -104.340057°
STATE PLANE NAD 83 (N.M. EAST)
N: 527228.24' E: 539106.20'
STATE PLANE NAD 27 (N.M. EAST)
N: 527168.69' E: 497925.95'

NAD 83 (PPP#1) 2320' FSL & 2678' FWL
LATITUDE = 32.449693°
LONGITUDE = -104.332209°
NAD 27 (PPP#1)
LATITUDE = 32.449577°
LONGITUDE = -104.331699°
STATE PLANE NAD 83 (N.M. EAST)
N: 527329.17' E: 541684.42'
STATE PLANE NAD 27 (N.M. EAST)
N: 527269.57' E: 500504.11'

NAD 83 (LTP/BHL) 2320' FSL & 100' FEL
LATITUDE = 32.449972°
LONGITUDE = -104.323793°
NAD 27 (LTP/BHL)
LATITUDE = 32.449856°
LONGITUDE = -104.323284°
STATE PLANE NAD 83 (N.M. EAST)
N: 527430.80' E: 544280.33'
STATE PLANE NAD 27 (N.M. EAST)
N: 527371.15' E: 503099.96'

APPROXIMATE WELL BORE DISTANCE FROM FTP TO LTP	
SECTION 30	5178.10'
TOTAL	5178.10'

NOTES

1. ALL COORDINATES, BEARINGS, AND DISTANCES CONTAINED HEREIN ARE GRID, BASED UPON THE NEW MEXICO STATE PLANE COORDINATES SYSTEM, NORTH AMERICAN DATUM 83, NEW MEXICO EAST (3001), NAVD 88.

2. THIS DOCUMENT IS BASED UPON AN ON THE GROUND SURVEY PERFORMED DURING JUNE, 2023. CERTIFICATION OF THIS DOCUMENT IS ONLY TO THE LOCATION OF THIS EASEMENT IN RELATION TO RECORDED MONUMENT OF DEEDS PROVIDED BY THE CLIENT.

3. ELEVATIONS MSL, DERIVED FROM G.N.S.S. OBSERVATION AND DERIVED FROM SAID ON-THE-GROUND SURVEY.

◎ FND. U.S.G.L.O. MON. UNLESS OTHERWISE NOTED
☒ CALC. CORNER
○ SHL/ KOP/ PPP/ LTP / BHL
OIL & GAS LEASE
HORIZONTAL SPACING UNIT

0' 1500' 3000'
SCALE: 1" = 1500'

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:** _329748_____ **Date:** _3/15/2024_

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
GTO 30 Fed Com #605H		30-21S-26E	1761 FSL, 629 FWL	800	1500	2500
GTO 30 Fed Com #307H		30-21S-26E	1678 FSL, 668 FWL	800	1500	2500
GTO 30 Fed Com #608H		30-21S-26E	1623 FSL, 694 FWL	800	1500	2500

IV. Central Delivery Point Name: _____Tascosa Chieftain Meter_____ [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
GTO 30 Fed Com #605H		4/15/2024	5/05/2024	7/1/2024	8/1/2024	8/15/2024
GTO 30 Fed Com #307H		4/17/2024	5/25/2024	7/1/2024	8/1/2024	8/15/2024
GTO 30 Fed Com #608H		4/19/2024	6/15/2024	7/1/2024	8/1/2024	8/15/2024

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
GTO 30 Fed Com #605H		1500	547,500
GTO 30 Fed Com #307H		1500	547,500
GTO 30 Fed Com #608H		1500	547,500

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
Enterprise Field Services	Mentone	18-21S-26E	8/1/2024	>10 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 ☒ 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: Operations Manager
E-mail Address: adavanzo@tascosaep.com
Date: 3/15/2024
Phone: 720-244-4417

OIL CONSERVATION DIVISION **(Only applicable when submitted as a standalone form)**
Approved By:
Title:
Approval Date:
Conditions of Approval:

GTO 30 Federal Com – Natural Gas Management Plan

VI. Separation Equipment:

Tascosa has sized a FWKO and several 3-phase separators 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 Enterprise sales line through a compressor at the GTO Facility.

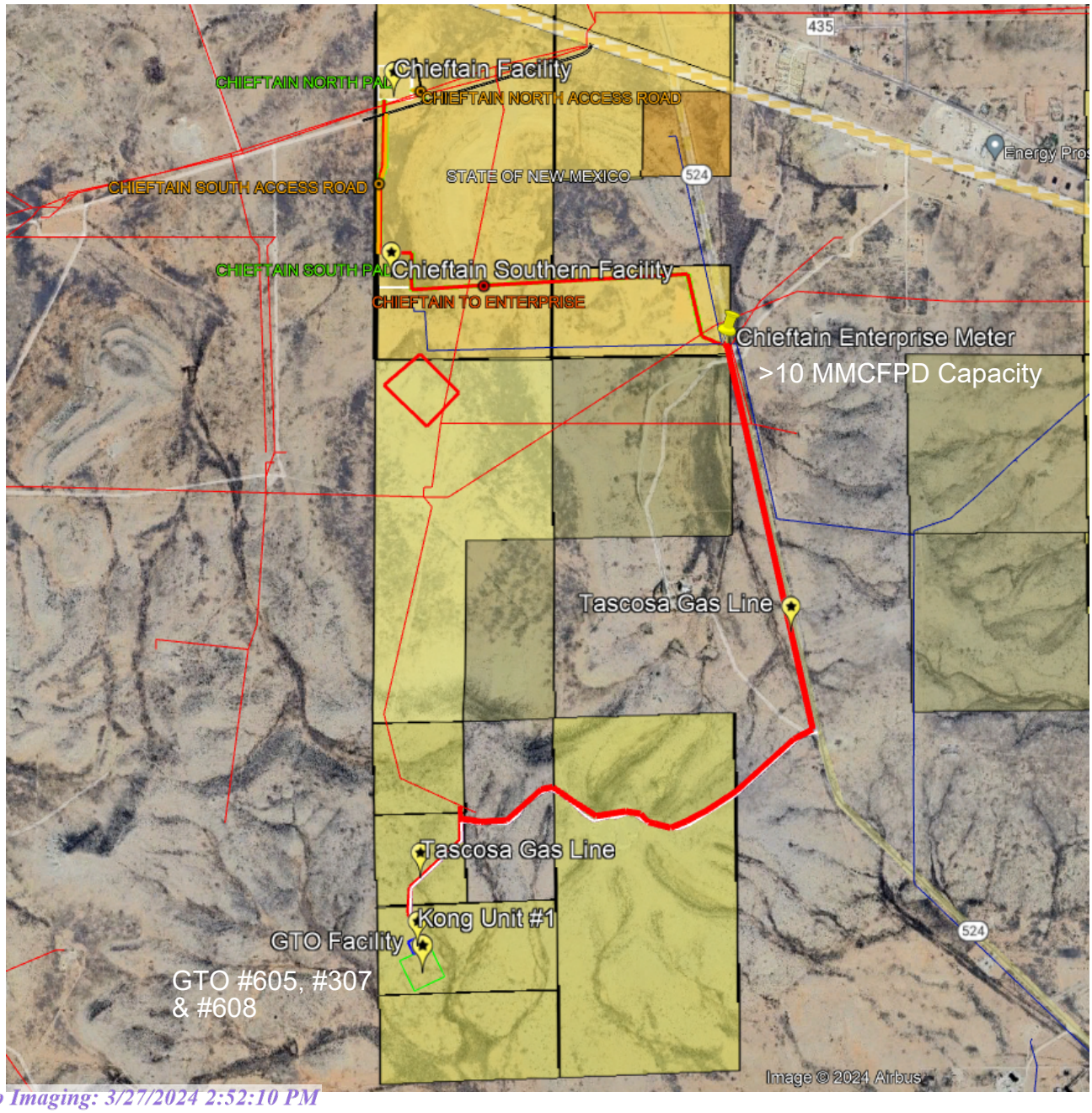
VII. Operational Practices:

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 (Enterprise).
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 and automation will be installed on all tanks to eliminate gas releases due to gauging through thief hatches. A VRU and VRT will also be installed to capture tank vapors and reduce waste.
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. Map:



XIII. Line Pressure:

Tascosa has one well connected to the Enterprise meter shown in the map above, Chieftain 18 #601H. Tascosa is planning for increases in line pressure as the compressor Station experiences higher volumes from other operators. Tascosa has rented a 2 stage, WAW-7044 compressor to prevent downtime or flaring when line pressure does increase. This compressor is rated for a discharge pressure of up to 1000 psi, which is the maximum operating line pressure of the Enterprise gas gathering line.

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

Drilling Plan Data Report
03/07/2024

APD ID: 10400093808
Submission Date: 08/09/2023

Operator Name: TASCOSA ENERGY PARTNERS LLC

Well Name: GTO 30 FED COM
Well Number: 605H

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	Measured Depth	Lithologies	Mineral Resources	Producing Formatio
13055335	TANSILL	3400	0	0	OTHER : None	NONE	N
13055333	YATES	3187	213	213	SANDSTONE	NONE	N
13055334	SEVEN RIVERS	2908	492	492	SANDSTONE	NONE	N
13055336	CAPITAN REEF	2487	913	913	DOLOMITE	USEABLE WATER	N
13055337	DELAWARE	1182	2218	2218	SANDSTONE	NATURAL GAS, OIL	N
13055338	BRUSHY CANYON	491	2909	2911	SANDSTONE	NATURAL GAS, OIL	N
13055339	BONE SPRING LIME	-1073	4473	4518	LIMESTONE	NATURAL GAS, OIL	N
13055340	BONE SPRING 1ST	-2288	5688	5771	SANDSTONE	NATURAL GAS, OIL	N
13055341	BONE SPRING 2ND	-2837	6237	6326	SANDSTONE	NATURAL GAS, OIL	N
13055342	BONE SPRING 3RD	-4353	7753	7842	SANDSTONE	NATURAL GAS, OIL	Y

Section 2 - Blowout Prevention

Pressure Rating (PSI): 5M
Rating Depth: 10000

Equipment: A 5,000 psi minimum BOP stack consisting of 3 rams with 2 pipe rams, 1 blind ram and 1 annular preventer will be used below surface casing to Total Depth. See attachments for BOP and choke manifold diagrams. Also present will be an accumulator that meets the requirements of 43 CFR 3172 for the pressure rating of the BOP stack. A rotating head will also be installed as needed. BOPE will be inspected and operated as recommended in 43 CFR 3172. A top drive check valve and sub equipped with a full opening valve sized to fit the drill pipe and collars will be available on the rig floor in the open position. The wellhead will be a multi-bowl speed head.

Requesting Variance? YES

Variance request: Tascosa request a variance to run a multi bowl speed head for setting the Intermediate and production strings. Tascosa requests a variance to drill this well using a co—flex line between the BOP and choke manifold. Certification for the proposed co-flex hose is attached. The hose is not required by the manufacturer to be anchored. In the event the specific hose is not available, one of equal or higher rating will

Operator Name: TASCOSA ENERGY PARTNERS LLC

Well Name: GTO 30 FED COM **Well Number:** 605H

be used. Tascosa request a variance to have the option of batch drilling this well with other wells on the same pad. In the event that this well is batched drilled, after drilling surface and the intermediate hole section a 5000 psi minimum dry hole cap with bleed off valve will be installed. The rig will then walk to another well on the pad. When the rig returns to this well and BOPs are installed, the operator will perform a full BOPE test. Tascosa request approval to possibly utilize a spudder rig to drill and set casing for the surface interval on this well. The spudder rig will be possibly utilized to reduce cost and save time. The wellhead will be installed and tested as soon as the surface casing is cut off per the existing COAs. A blind flange with the same pressure rating as the wellhead will be installed on the well. Once the spudder rig is removed, Tascosa will secure the wellhead area by placing a guard rail around the cellar. Pressure will be monitored and a means for intervention will be maintained while the drilling rig is not over the well. Spudder operations are expected to take 2-3 days per well. Six wells on the pad will have surface casing set by the spudder rig as a part of this operation. The BLM will be notified 24 hours prior to commencing spudder rig operations. Within 90 days of the departure of the spudder rig, drilling operations will recommence on these wells. This rig will have a BOP stack equal or greater to the pressure rating required in the COAs. The BLM will be notified 24 hours before the larger rig moves on the pre-set wells. Tascosa will have supervision on the spudder rig to ensure compliance with all BLM and NMOCD regulations.

Testing Procedure: After surface casing is set and the BOP is nippled up, the BOP pressure test will be made with a third party tester to 250 psi low, 5000 psi high, and the annular preventer will be tested to 2500 psi. The BOPE will be tested in this manner after nipple-up if any break of the stack occurs.

Choke Diagram Attachment:

Choke_Manifold_v3_20230806140958.pdf

BOP Diagram Attachment:

BOP_Schematic_v2_20230806141007.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	SURFACE	17.5	13.375	NEW	API	N	0	875	0	875	3400	2525	875	J-55	48	ST&C	1.8	3.17	DRY	3.83	DRY	3.83
2	INTERMEDIATE	12.25	9.625	NEW	API	N	0	2175	0	2175	0	1225	2175	J-55	36	LT&C	1.88	2.55	DRY	3.53	DRY	3.53
3	PRODUCTION	8.75	5.5	NEW	API	N	0	8633	0	8182	0	-4782	8633	OTHER	17	BUTT	1.65	1.16	DRY	1.68	DRY	1.68
4	PRODUCTION	8.5	5.5	NEW	API	N	8633	13295	8182	8282	-4782	-4882	4662	OTHER	17	BUTT	1.65	1.16	DRY	1.68	DRY	1.68

Casing Attachments

Operator Name: TASCOSA ENERGY PARTNERS LLC

Well Name: GTO 30 FED COM **Well Number:** 605H

Casing Attachments

Casing ID: 1 **String** SURFACE

Inspection Document:

Spec Document:

Tapered String Spec:

Casing Design Assumptions and Worksheet(s):

GTO_605H_Casing_Design_Assumptions_20230806141044.pdf

Casing ID: 2 **String** INTERMEDIATE

Inspection Document:

Spec Document:

Tapered String Spec:

Casing Design Assumptions and Worksheet(s):

GTO_605H_Casing_Design_Assumptions_20230806141117.pdf

Casing ID: 3 **String** PRODUCTION

Inspection Document:

Spec Document:

Tapered String Spec:

Casing Design Assumptions and Worksheet(s):

GTO_605H_Casing_Design_Assumptions_20230806141138.pdf

Operator Name: TASCOSA ENERGY PARTNERS LLC

Well Name: GTO 30 FED COM **Well Number:** 605H

Casing Attachments

Casing ID: 4 **String** PRODUCTION

Inspection Document:

Spec Document:

Tapered String Spec:

Casing Design Assumptions and Worksheet(s):

GTO_605H_Casing_Design_Assumptions_20230806141223.pdf

Section 4 - Cement

String Type	Lead/Tail	Stage Tool Depth	Top MD	Bottom MD	Quantity(sx)	Yield	Density	Cu Ft	Excess%	Cement type	Additives
SURFACE	Lead		0	575	643	1.68	12.8	1080	200	C	2% CaCl2 + LCM
SURFACE	Tail		575	875	484	1.35	14.8	653	200	C	2% CaCl2 + LCM
INTERMEDIATE	Lead		0	1775	500	2.07	12	1034	150	C	2% CaCl2 + Poz + LCM
INTERMEDIATE	Tail		1775	2175	248	1.34	14.8	332	150	C	1% CaCl2
PRODUCTION	Lead		0	5000	374	4.43	10.5	1655	50	C	Poz + Bentonite+Sodium Metasilicate + LCM + Silica Fume
PRODUCTION	Tail		5000	13295	1959	1.52	13.2	2977	50	H	Poz + Bentonite + Sodium Metasilicate + LCM + NaCl + FL/Gas Migration additive

Operator Name: TASCOSA ENERGY PARTNERS LLC

Well Name: GTO 30 FED COM **Well Number:** 605H

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: All necessary mud products (e.g. Barite, LCM) for weight addition and fluid loss control will always be on site. Mud program is subject to change due to hole conditions.
Describe the mud monitoring system utilized: Electronic Pason mud monitor system complying with 43 CFR 3172 will be used.

Circulating Medium Table

Top Depth	Bottom Depth	Mud Type	Min Weight (lbs/gal)	Max Weight (lbs/gal)	Density (lbs/cu ft)	Gel Strength (lbs/100 sqft)	PH	Viscosity (CP)	Salinity (ppm)	Filtration (cc)	Additional Characteristics
0	875	OTHER : Fresh Water Spud Mud	8.5	8.8							
875	2175	OTHER : Fresh Water Native Gel	8.4	8.5							
2175	8633	OTHER : Fresh Water Gel Polymer	8.4	8.8							
8633	13295	OIL-BASED MUD	8.7	9							

Operator Name: TASCOSA ENERGY PARTNERS LLC

Well Name: GTO 30 FED COM **Well Number:** 605H

Section 6 - Test, Logging, Coring

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

Electric Logging Program. No open-hole logs are planned at this time for the lateral or vertical portion of this well. A cased hole Neutron log (Porosity) will be run from as far as gravity will let it fall in the curve to surface as required by NMOCD prior to stimulation. GR will be collected while drilling through the MWD tools from KOP 1 to the conclusion of the well. A 2-person Mud Logging program will be used from intermediate casing shoe to TD. CBL w/ CCL + CNL from as far as gravity will let it fall to TOC.

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

GAMMA RAY LOG,CEMENT BOND LOG,MUD LOG/GEOLOGICAL LITHOLOGY LOG,

Coring operation description for the well:

No DSTs or cores are planned at this time.

Section 7 - Pressure

Anticipated Bottom Hole Pressure: 3500 **Anticipated Surface Pressure:** 1677

Anticipated Bottom Hole Temperature(F): 150

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

Describe:

Contingency Plans geoharzards description:

Contingency Plans geohazards

Hydrogen Sulfide drilling operations plan required? YES

Hydrogen sulfide drilling operations

GTO_H2S_Plan_20230806141355.pdf

Section 8 - Other Information

Proposed horizontal/directional/multi-lateral plan submission:

GTO_605H_Directional_Plan_20230806141411.pdf

Other proposed operations facets description:

Other proposed operations facets attachment:

GTO_605H_Anticollision_Report_20230806141431.pdf
Wellhead_Diagram_v2_20230806141449.pdf
Coflex_Certs_RDC_20230806141511.pdf
GTO_605H_Drill_Plan_v3_20240206111039.pdf

Other Variance attachment:

Tascosa Energy Partners, LLC.

TEP
TASCOSA ENERGY PARTNERS, LLC

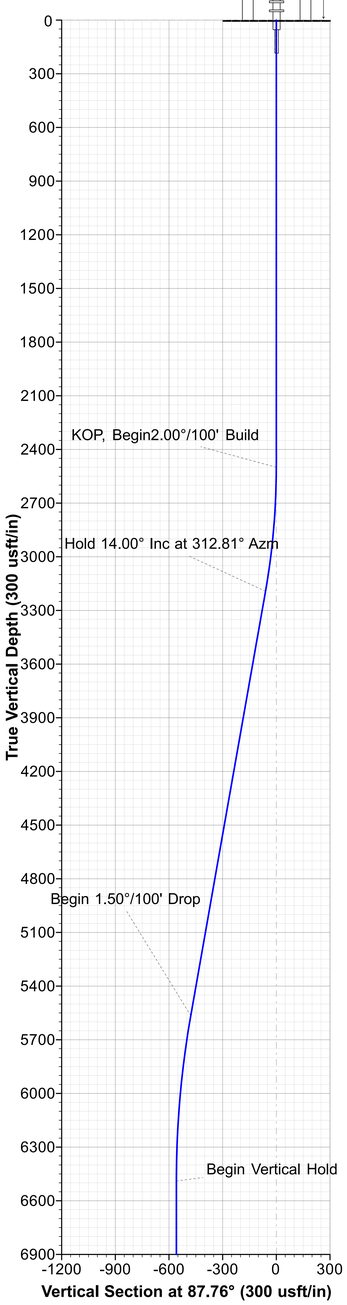
Project: Eddy County, NM (NAD 83 - NME)
Site: GTO 30 Fed Com
Well: GTO 30 Fed Com #605H
Wellbore: OH
Design: Plan 1 07-18-23
Rig:

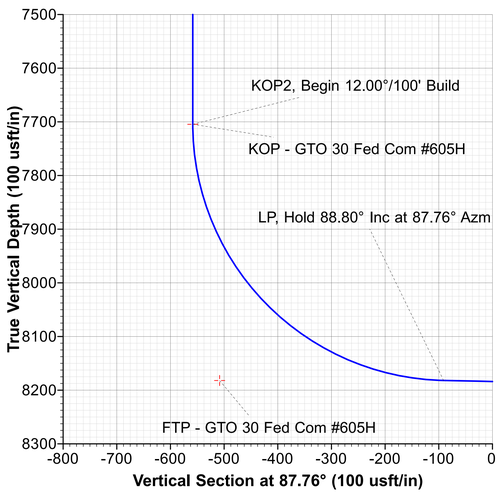
PHOENIX TECHNOLOGY SERVICES

Azimuths to Grid North
True North: 0.00°
Magnetic North: 6.86°

Magnetic Field
Strength: 47474.8nT
Dip Angle: 59.98°
Date: 2023-09-01
Model: MVHD

RKB @ 3423.00usft
Ground Level: 3397.00





WELL DETAILS

Ground Level: 3397.00

+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
0.00	0.00	526689.29	539635.99	32° 26' 52.560963 N	104° 20' 19.857377 W

SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	DLeg	TFace	VSect	Target	Annotation
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.00		
2	2500.00	0.00	0.00	2500.00	0.00	0.00	0.00	0.000	0.00		KOP, Begin2.00°/100' Build
3	3200.09	14.00	312.81	3193.14	57.84	-62.45	2.00	312.805	-60.14		Hold 14.00° Inc at 312.81° Azm
4	5645.41	14.00	312.81	5565.81	459.87	-496.52	0.00	0.000	-478.17		Begin 1.50°/100' Drop
5	6578.87	0.00	0.00	6490.00	536.99	-579.79	1.50	180.000	-558.36		Begin Vertical Hold
6	7793.51	0.00	0.00	7704.64	536.99	-579.79	0.00	0.000	-558.36		KOP2, Begin 12.00°/100' Build
7	8533.48	88.80	87.76	8182.00	555.28	-112.71	12.00	87.758	-90.92		LP, Hold 88.80° Inc at 87.76° Azm
8	13295.22	88.80	87.76	8282.00	741.51	4644.34	0.00	0.000	4669.77	LTP/BHL - GTO 30 Fed Com #605H	TD at 13295.22

DESIGN TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
KOP - GTO 30 Fed Com #605H	7704.64	536.99	-579.79	527226.28	539056.20	32° 26' 57.874515 N	104° 20' 26.624217 W
FTP - GTO 30 Fed Com #605H	8182.00	538.95	-529.79	527228.24	539106.20	32° 26' 57.893944 N	104° 20' 26.040687 W
PPP #1 - GTO 30 Fed Com #605H	8227.43	639.88	2048.43	527329.17	541684.42	32° 26' 58.893448 N	104° 19' 55.951211 W
LTP/BHL - GTO 30 Fed Com #605H	8282.00	741.51	4644.34	527430.80	544280.33	32° 26' 59.897866 N	104° 19' 25.655095 W

Map System: US State Plane 1983
Datum: North American Datum 1983
Ellipsoid: GRS 1980
Zone Name: New Mexico Eastern Zone

Local Origin: Well GTO 30 Fed Com #605H, Grid North

Latitude: 32° 26' 52.560963 N
Longitude: 104° 20' 19.857377 W

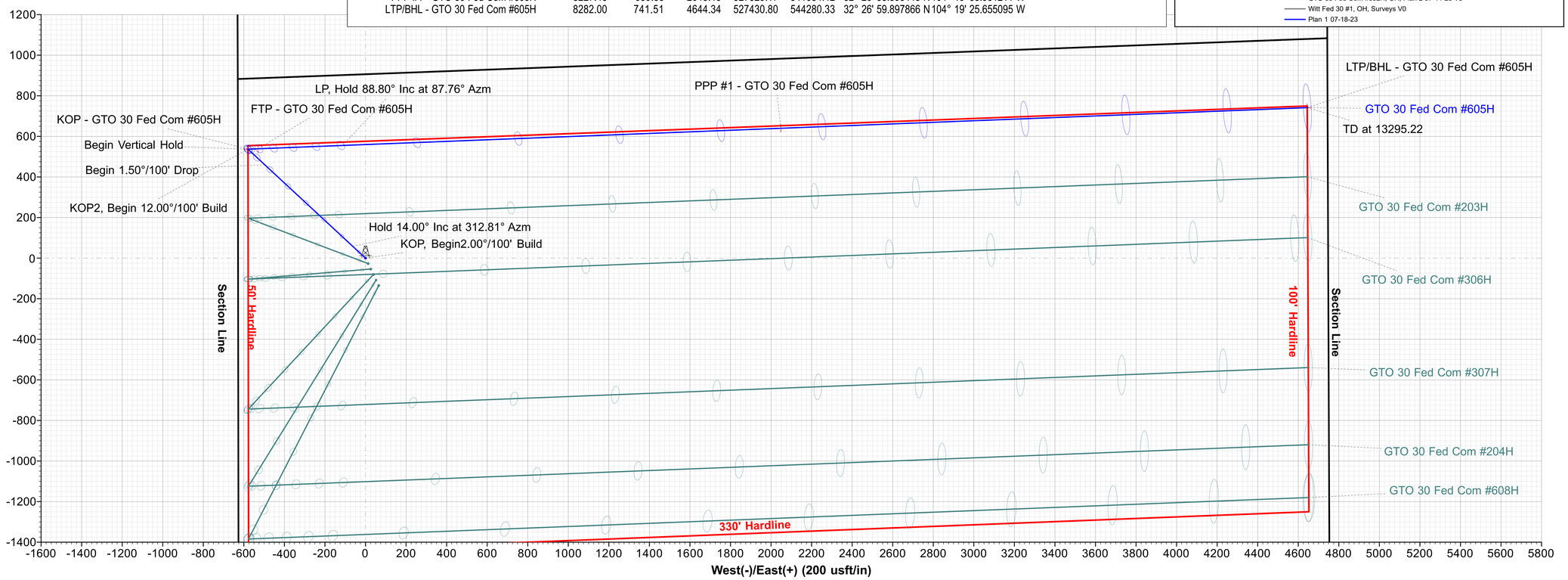
Grid East: 539635.99
Grid North: 526689.29
Scale Factor: 1.000

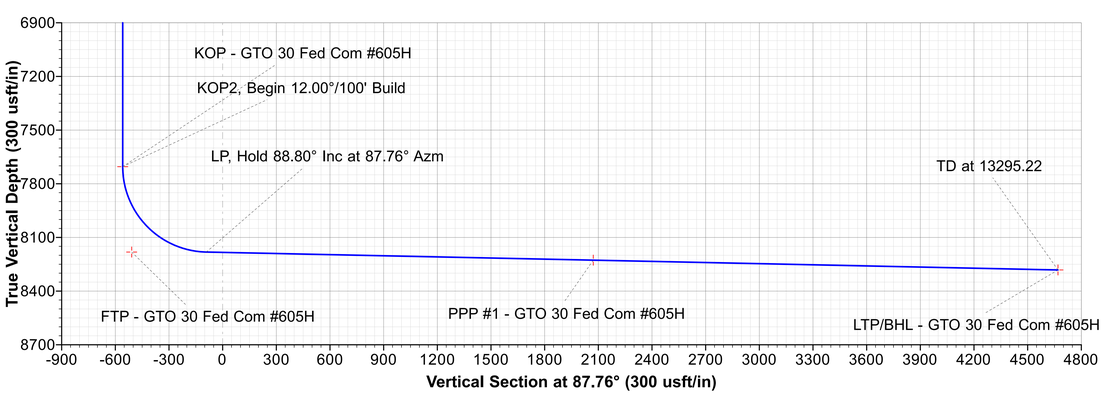
Geomagnetic Model: MVHD
Sample Date: 01-Sep-23
Magnetic Declination: 6.857°
Dip Angle from Horizontal: 59.976°
Magnetic Field Strength: 47474.81646409nT

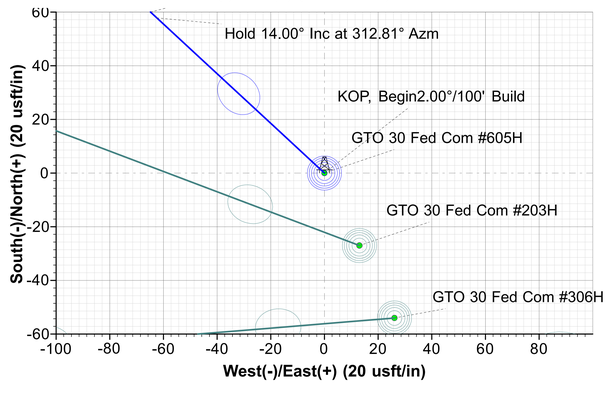
To convert a Magnetic Direction to a Grid Direction, Add 6.860°
To convert a Magnetic Direction to a True Direction, Add 6.857° East
To convert a True Direction to a Grid Direction, Add 0.003°

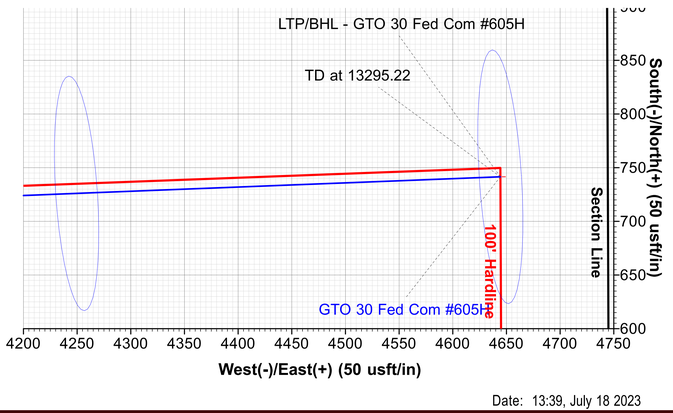
LEGEND

- GTO 30 Fed Com #203H, OH, Plan 1 07-18-23 V0
- GTO 30 Fed Com #306H, OH, Plan 1 07-18-23 V0
- GTO 30 Fed Com #303H, OH, Plan 2 07-14-23 V0
- GTO 30 Fed Com #304H, OH, Plan 1 07-14-23 V0
- GTO 30 Fed Com #307H, OH, Plan 1 07-18-23 V0
- GTO 30 Fed Com #608H, OH, Plan 1 07-18-23 V0
- GTO 30 Fed Com #204H, OH, Plan 1 07-18-23 V0
- GTO 30 Fed Com #602H, OH, Plan 2 07-14-23 V0
- Witt Fed 30 #1, OH, Surveys V0
- Plan 1 07-18-23









Date: 13:39, July 18 2023

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Tascosa Energy Partners, LLC.

Eddy County, NM (NAD 83 - NME)
GTO 30 Fed Com
GTO 30 Fed Com #605H

OH

Plan: Plan 1 07-18-23

Standard Planning Report

18 July, 2023

TEP
TASCOSA ENERGY PARTNERS, LLC

PHOENIX TECHNOLOGY SERVICES

Phoenix

Planning Report

Database:	USAEDMDB	**Local Co-ordinate Reference:**	Well GTO 30 Fed Com #605H
Company:	Tascosa Energy Partners, LLC.	**TVD Reference:**	RKB @ 3423.00usft
Project:	Eddy County, NM (NAD 83 - NME)	**MD Reference:**	RKB @ 3423.00usft
Site:	GTO 30 Fed Com	**North Reference:**	Grid
Well:	GTO 30 Fed Com #605H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	OH		
Design:	Plan 1 07-18-23		

Project Eddy County, NM (NAD 83 - NME)

Map System:	US State Plane 1983	**System Datum:**	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	New Mexico Eastern Zone		

Site GTO 30 Fed Com

Site Position:		**Northing:**	529,995.50 usft	**Latitude:**	32° 27' 25.278034 N
From:	Map	**Easting:**	539,261.89 usft	**Longitude:**	104° 20' 24.225722 W
Position Uncertainty:	0.00 usft	**Slot Radius:**	13-3/16 "		

Well GTO 30 Fed Com #605H

Well Position	**+N/-S**	0.00 usft	**Northing:**	526,689.29 usft	**Latitude:**	32° 26' 52.560963 N
	+E/-W	0.00 usft	**Easting:**	539,635.99 usft	**Longitude:**	104° 20' 19.857377 W
Position Uncertainty		1.00 usft	**Wellhead Elevation:**	usft	**Ground Level:**	3,397.00 usft
Grid Convergence:		-0.003 °				

Wellbore OH

Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	MVHD	2023-09-01	6.857	59.976	47,474.81646408

Design Plan 1 07-18-23

Audit Notes:

Version:		**Phase:**	PLAN	**Tie On Depth:**	0.00

Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)
	0.00	0.00	0.00	87.76

Plan Survey Tool Program **Date** 2023-07-18

	Depth From (usft)	Depth To (usft)	Survey (Wellbore)	Tool Name	Remarks
1	0.00	13,295.22	Plan 1 07-18-23 (OH)	MWD+HRGM	
				OWSG MWD + HRGM	

Plan Sections

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	TFO (°)	Target
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	
2,500.00	0.00	0.00	2,500.00	0.00	0.00	0.00	0.00	0.00	0.000	
3,200.09	14.00	312.81	3,193.14	57.84	-62.45	2.00	2.00	0.00	312.805	
5,645.41	14.00	312.81	5,565.81	459.87	-496.52	0.00	0.00	0.00	0.000	
6,578.87	0.00	0.00	6,490.00	536.99	-579.79	1.50	-1.50	0.00	180.000	
7,793.51	0.00	0.00	7,704.64	536.99	-579.79	0.00	0.00	0.00	0.000	
8,533.48	88.80	87.76	8,182.00	555.28	-112.71	12.00	12.00	11.86	87.758	
13,295.22	88.80	87.76	8,282.00	741.51	4,644.34	0.00	0.00	0.00	0.000	LTP/BHL - GTO 30

PHOENIX TECHNOLOGY SERVICES

Phoenix

Planning Report

TEP TASCOSA ENERGY PARTNERS, LLC

Database:	USAEDMDB	**Local Co-ordinate Reference:**	Well GTO 30 Fed Com #605H
Company:	Tascosa Energy Partners, LLC.	**TVD Reference:**	RKB @ 3423.00usft
Project:	Eddy County, NM (NAD 83 - NME)	**MD Reference:**	RKB @ 3423.00usft
Site:	GTO 30 Fed Com	**North Reference:**	Grid
Well:	GTO 30 Fed Com #605H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	OH		
Design:	Plan 1 07-18-23		

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2,500.00	0.00	0.00	2,500.00	0.00	0.00	0.00	0.00	0.00	0.00
KOP, Begin2.00°/100' Build									
2,600.00	2.00	312.81	2,599.98	1.19	-1.28	-1.23	2.00	2.00	0.00
2,700.00	4.00	312.81	2,699.84	4.74	-5.12	-4.93	2.00	2.00	0.00
2,800.00	6.00	312.81	2,799.45	10.66	-11.51	-11.09	2.00	2.00	0.00
2,900.00	8.00	312.81	2,898.70	18.94	-20.45	-19.70	2.00	2.00	0.00
3,000.00	10.00	312.81	2,997.47	29.57	-31.93	-30.75	2.00	2.00	0.00
3,100.00	12.00	312.81	3,095.62	42.54	-45.93	-44.23	2.00	2.00	0.00
3,200.00	14.00	312.81	3,193.06	57.82	-62.43	-60.12	2.00	2.00	0.00
3,200.09	14.00	312.81	3,193.14	57.84	-62.45	-60.14	2.00	2.00	0.00
Hold 14.00° Inc at 312.81° Azm									
3,300.00	14.00	312.81	3,290.08	74.26	-80.18	-77.22	0.00	0.00	0.00
3,400.00	14.00	312.81	3,387.11	90.71	-97.94	-94.32	0.00	0.00	0.00
3,500.00	14.00	312.81	3,484.14	107.15	-115.69	-111.41	0.00	0.00	0.00
3,600.00	14.00	312.81	3,581.17	123.59	-133.44	-128.51	0.00	0.00	0.00
3,700.00	14.00	312.81	3,678.20	140.03	-151.19	-145.60	0.00	0.00	0.00
3,800.00	14.00	312.81	3,775.23	156.47	-168.94	-162.70	0.00	0.00	0.00
3,900.00	14.00	312.81	3,872.26	172.91	-186.69	-179.79	0.00	0.00	0.00
4,000.00	14.00	312.81	3,969.29	189.35	-204.44	-196.89	0.00	0.00	0.00
4,100.00	14.00	312.81	4,066.31	205.79	-222.19	-213.98	0.00	0.00	0.00
4,200.00	14.00	312.81	4,163.34	222.23	-239.95	-231.08	0.00	0.00	0.00
4,300.00	14.00	312.81	4,260.37	238.67	-257.70	-248.17	0.00	0.00	0.00
4,400.00	14.00	312.81	4,357.40	255.11	-275.45	-265.27	0.00	0.00	0.00
4,500.00	14.00	312.81	4,454.43	271.56	-293.20	-282.36	0.00	0.00	0.00
4,600.00	14.00	312.81	4,551.46	288.00	-310.95	-299.46	0.00	0.00	0.00
4,700.00	14.00	312.81	4,648.49	304.44	-328.70	-316.55	0.00	0.00	0.00
4,800.00	14.00	312.81	4,745.52	320.88	-346.45	-333.65	0.00	0.00	0.00
4,900.00	14.00	312.81	4,842.54	337.32	-364.20	-350.74	0.00	0.00	0.00
5,000.00	14.00	312.81	4,939.57	353.76	-381.96	-367.84	0.00	0.00	0.00
5,100.00	14.00	312.81	5,036.60	370.20	-399.71	-384.93	0.00	0.00	0.00
5,200.00	14.00	312.81	5,133.63	386.64	-417.46	-402.03	0.00	0.00	0.00
5,300.00	14.00	312.81	5,230.66	403.08	-435.21	-419.12	0.00	0.00	0.00
5,400.00	14.00	312.81	5,327.69	419.52	-452.96	-436.22	0.00	0.00	0.00
5,500.00	14.00	312.81	5,424.72	435.96	-470.71	-453.31	0.00	0.00	0.00
5,600.00	14.00	312.81	5,521.75	452.41	-488.46	-470.41	0.00	0.00	0.00
5,645.41	14.00	312.81	5,565.81	459.87	-496.52	-478.17	0.00	0.00	0.00
Begin 1.50°/100' Drop									
5,700.00	13.18	312.81	5,618.87	468.59	-505.94	-487.24	1.50	-1.50	0.00
5,800.00	11.68	312.81	5,716.52	483.22	-521.73	-502.45	1.50	-1.50	0.00
5,900.00	10.18	312.81	5,814.70	496.11	-535.65	-515.85	1.50	-1.50	0.00
6,000.00	8.68	312.81	5,913.35	507.24	-547.67	-527.43	1.50	-1.50	0.00
6,100.00	7.18	312.81	6,012.39	516.62	-557.80	-537.18	1.50	-1.50	0.00
6,200.00	5.68	312.81	6,111.75	524.23	-566.02	-545.09	1.50	-1.50	0.00
6,300.00	4.18	312.81	6,211.38	530.08	-572.32	-551.17	1.50	-1.50	0.00
6,400.00	2.68	312.81	6,311.20	534.14	-576.72	-555.40	1.50	-1.50	0.00
6,500.00	1.18	312.81	6,411.14	536.44	-579.19	-557.78	1.50	-1.50	0.00
6,578.87	0.00	0.00	6,490.00	536.99	-579.79	-558.36	1.50	-1.50	0.00
Begin Vertical Hold									
7,793.51	0.00	0.00	7,704.64	536.99	-579.79	-558.36	0.00	0.00	0.00
KOP2, Begin 12.00°/100' Build									
7,800.00	0.78	87.76	7,711.13	536.99	-579.75	-558.31	12.00	12.00	0.00
7,900.00	12.78	87.76	7,810.25	537.45	-567.97	-546.53	12.00	12.00	0.00

PHOENIX TECHNOLOGY SERVICES

Phoenix

Planning Report

Database:	USAEDMDB	**Local Co-ordinate Reference:**	Well GTO 30 Fed Com #605H
Company:	Tascosa Energy Partners, LLC.	**TVD Reference:**	RKB @ 3423.00usft
Project:	Eddy County, NM (NAD 83 - NME)	**MD Reference:**	RKB @ 3423.00usft
Site:	GTO 30 Fed Com	**North Reference:**	Grid
Well:	GTO 30 Fed Com #605H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	OH		
Design:	Plan 1 07-18-23		

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
8,000.00	24.78	87.76	7,904.76	538.71	-535.86	-514.40	12.00	12.00	0.00
8,100.00	36.78	87.76	7,990.51	540.71	-484.82	-463.32	12.00	12.00	0.00
8,200.00	48.78	87.76	8,063.78	543.36	-417.08	-395.52	12.00	12.00	0.00
8,300.00	60.78	87.76	8,121.35	546.55	-335.60	-313.98	12.00	12.00	0.00
8,400.00	72.78	87.76	8,160.70	550.14	-243.94	-222.25	12.00	12.00	0.00
8,500.00	84.78	87.76	8,180.12	553.97	-146.10	-124.34	12.00	12.00	0.00
8,533.48	88.80	87.76	8,182.00	555.28	-112.71	-90.92	12.00	12.00	0.00
LP, Hold 88.80° Inc at 87.76° Azm									
8,600.00	88.80	87.76	8,183.40	557.88	-46.25	-24.41	0.00	0.00	0.00
8,700.00	88.80	87.76	8,185.50	561.79	53.65	75.56	0.00	0.00	0.00
8,800.00	88.80	87.76	8,187.60	565.70	153.55	175.54	0.00	0.00	0.00
8,900.00	88.80	87.76	8,189.70	569.61	253.45	275.52	0.00	0.00	0.00
9,000.00	88.80	87.76	8,191.80	573.52	353.35	375.50	0.00	0.00	0.00
9,100.00	88.80	87.76	8,193.90	577.43	453.25	475.48	0.00	0.00	0.00
9,200.00	88.80	87.76	8,196.00	581.34	553.15	575.45	0.00	0.00	0.00
9,300.00	88.80	87.76	8,198.10	585.25	653.06	675.43	0.00	0.00	0.00
9,400.00	88.80	87.76	8,200.20	589.17	752.96	775.41	0.00	0.00	0.00
9,500.00	88.80	87.76	8,202.30	593.08	852.86	875.39	0.00	0.00	0.00
9,600.00	88.80	87.76	8,204.40	596.99	952.76	975.37	0.00	0.00	0.00
9,700.00	88.80	87.76	8,206.50	600.90	1,052.66	1,075.34	0.00	0.00	0.00
9,800.00	88.80	87.76	8,208.60	604.81	1,152.56	1,175.32	0.00	0.00	0.00
9,900.00	88.80	87.76	8,210.70	608.72	1,252.46	1,275.30	0.00	0.00	0.00
10,000.00	88.80	87.76	8,212.80	612.63	1,352.37	1,375.28	0.00	0.00	0.00
10,100.00	88.80	87.76	8,214.90	616.54	1,452.27	1,475.26	0.00	0.00	0.00
10,200.00	88.80	87.76	8,217.00	620.45	1,552.17	1,575.23	0.00	0.00	0.00
10,300.00	88.80	87.76	8,219.10	624.37	1,652.07	1,675.21	0.00	0.00	0.00
10,400.00	88.80	87.76	8,221.20	628.28	1,751.97	1,775.19	0.00	0.00	0.00
10,500.00	88.80	87.76	8,223.30	632.19	1,851.87	1,875.17	0.00	0.00	0.00
10,600.00	88.80	87.76	8,225.40	636.10	1,951.77	1,975.15	0.00	0.00	0.00
10,700.00	88.80	87.76	8,227.50	640.01	2,051.68	2,075.12	0.00	0.00	0.00
10,800.00	88.80	87.76	8,229.60	643.92	2,151.58	2,175.10	0.00	0.00	0.00
10,900.00	88.80	87.76	8,231.70	647.83	2,251.48	2,275.08	0.00	0.00	0.00
11,000.00	88.80	87.76	8,233.80	651.74	2,351.38	2,375.06	0.00	0.00	0.00
11,100.00	88.80	87.76	8,235.90	655.65	2,451.28	2,475.03	0.00	0.00	0.00
11,200.00	88.80	87.76	8,238.00	659.56	2,551.18	2,575.01	0.00	0.00	0.00
11,300.00	88.80	87.76	8,240.10	663.48	2,651.08	2,674.99	0.00	0.00	0.00
11,400.00	88.80	87.76	8,242.20	667.39	2,750.99	2,774.97	0.00	0.00	0.00
11,500.00	88.80	87.76	8,244.30	671.30	2,850.89	2,874.95	0.00	0.00	0.00
11,600.00	88.80	87.76	8,246.40	675.21	2,950.79	2,974.92	0.00	0.00	0.00
11,700.00	88.80	87.76	8,248.50	679.12	3,050.69	3,074.90	0.00	0.00	0.00
11,800.00	88.80	87.76	8,250.60	683.03	3,150.59	3,174.88	0.00	0.00	0.00
11,900.00	88.80	87.76	8,252.70	686.94	3,250.49	3,274.86	0.00	0.00	0.00
12,000.00	88.80	87.76	8,254.80	690.85	3,350.39	3,374.84	0.00	0.00	0.00
12,100.00	88.80	87.76	8,256.90	694.76	3,450.30	3,474.81	0.00	0.00	0.00
12,200.00	88.80	87.76	8,259.00	698.68	3,550.20	3,574.79	0.00	0.00	0.00
12,300.00	88.80	87.76	8,261.10	702.59	3,650.10	3,674.77	0.00	0.00	0.00
12,400.00	88.80	87.76	8,263.20	706.50	3,750.00	3,774.75	0.00	0.00	0.00
12,500.00	88.80	87.76	8,265.30	710.41	3,849.90	3,874.73	0.00	0.00	0.00
12,600.00	88.80	87.76	8,267.40	714.32	3,949.80	3,974.70	0.00	0.00	0.00
12,700.00	88.80	87.76	8,269.50	718.23	4,049.70	4,074.68	0.00	0.00	0.00
12,800.00	88.80	87.76	8,271.60	722.14	4,149.61	4,174.66	0.00	0.00	0.00
12,900.00	88.80	87.76	8,273.70	726.05	4,249.51	4,274.64	0.00	0.00	0.00
13,000.00	88.80	87.76	8,275.80	729.96	4,349.41	4,374.62	0.00	0.00	0.00

PHOENIX TECHNOLOGY SERVICES

Phoenix
Planning Report

Database:	USAEDMDB	**Local Co-ordinate Reference:**	Well GTO 30 Fed Com #605H
Company:	Tascosa Energy Partners, LLC.	**TVD Reference:**	RKB @ 3423.00usft
Project:	Eddy County, NM (NAD 83 - NME)	**MD Reference:**	RKB @ 3423.00usft
Site:	GTO 30 Fed Com	**North Reference:**	Grid
Well:	GTO 30 Fed Com #605H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	OH		
Design:	Plan 1 07-18-23		

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
13,100.00	88.80	87.76	8,277.90	733.87	4,449.31	4,474.59	0.00	0.00	0.00
13,200.00	88.80	87.76	8,280.00	737.79	4,549.21	4,574.57	0.00	0.00	0.00
13,295.22	88.80	87.76	8,282.00	741.51	4,644.34	4,669.77	0.00	0.00	0.00
TD at 13295.22									

Design Targets

Target Name - hit/miss target - Shape	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
KOP - GTO 30 Fed C - plan hits target center - Point	0.00	0.01	7,704.64	536.99	-579.79	527,226.28	539,056.20	32° 26' 57.874515 N	4° 20' 26.624217 W
FTP - GTO 30 Fed Cc - plan misses target center by 163.40usft at 8200.00usft MD (8063.78 TVD, 543.36 N, -417.08 E) - Point	0.00	0.01	8,182.00	538.95	-529.79	527,228.24	539,106.20	32° 26' 57.893944 N	4° 20' 26.040687 W
PPP #1 - GTO 30 Fed - plan hits target center - Point	0.00	0.01	8,227.43	639.88	2,048.43	527,329.17	541,684.42	32° 26' 58.893448 N	4° 19' 55.951211 W
LTP/BHL - GTO 30 Fe - plan hits target center - Point	0.00	0.01	8,282.00	741.51	4,644.34	527,430.80	544,280.33	32° 26' 59.897867 N	4° 19' 25.655095 W

Plan Annotations

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates +N/-S (usft)	Local Coordinates +E/-W (usft)	Comment
2,500.00	2,500.00	0.00	0.00	KOP, Begin2.00°/100' Build
3,200.09	3,193.14	57.84	-62.45	Hold 14.00° Inc at 312.81° Azm
5,645.41	5,565.81	459.87	-496.52	Begin 1.50°/100' Drop
6,578.87	6,490.00	536.99	-579.79	Begin Vertical Hold
7,793.51	7,704.64	536.99	-579.79	KOP2, Begin 12.00°/100' Build
8,533.48	8,182.00	555.28	-112.71	LP, Hold 88.80° Inc at 87.76° Azm
13,295.22	8,282.00	741.51	4,644.34	TD at 13295.22

PECOS DISTRICT
DRILLING CONDITIONS OF APPROVAL

OPERATOR'S NAME:	Tascosa Energy Partners LLC
WELL NAME & NO.:	GTO 30 Fed Com 605H
LOCATION:	Sec 30-21S-26E-NMP
COUNTY:	Eddy County, New Mexico

COA

H_2S	○ No	○ Yes		
Potash / WIPP	◉ None	○ Secretary	○ R-111-P	☐ WIPP
Cave / Karst	○ Low	○ Medium	○ High	◉ Critical
Wellhead	○ Conventional	◉ Multibowl	○ Both	○ Diverter
Cementing	☐ Primary Squeeze	☐ Cont. Squeeze	☐ EchoMeter	☐ DV Tool
Special Req	☐ Break Testing	☐ Water Disposal	☑ COM	☐ Unit
Variance	☑ Flex Hose	☐ Casing Clearance	☐ Pilot Hole	☑ Capitan Reef
Variance	☐ Four-String	☐ Offline Cementing	☐ Fluid-Filled	☐ Open Annulus
☐ **Batch APD / Sundry**				

A. HYDROGEN SULFIDE

Hydrogen Sulfide (H2S) monitors shall be installed prior to drilling out the surface shoe. If H2S is detected in concentrations greater than 100 ppm, the Hydrogen Sulfide area shall meet 43 CFR 3176 requirements, which includes equipment and personnel/public protection items. If Hydrogen Sulfide is encountered, provide measured values and formations to the BLM.

B. CASING

1. The **13-3/8** inch surface casing shall be set at approximately 875 feet (a minimum of 70 feet (Eddy County) into the Rustler Anhydrite, above the salt, and below usable fresh water) and cemented to the surface.

    a. If cement does not circulate to the surface, the appropriate BLM office shall be notified and a temperature survey utilizing an electronic type temperature survey with surface log readout will be used or a cement bond log shall be run to verify the top of the cement. Temperature survey will be run a minimum of six hours after pumping cement and ideally between 8-10 hours after completing the cement job.
    b. Wait on cement (WOC) time for a primary cement job will be a minimum of **8 hours** or 500 pounds compressive strength, whichever is greater. (This is to include the lead cement)
    c. Wait on cement (WOC) time for a remedial job will be a minimum of 4 hours after bringing cement to surface or 500 pounds compressive strength, whichever is greater.

Approval Date: 03/07/2024

d. If cement falls back, remedial cementing will be done prior to drilling out that string.

2. The minimum required fill of cement behind the **9-5/8** inch intermediate casing is:
    - Cement to surface. If cement does not circulate see B.1.a, c-d above. **Wait on cement (WOC) time for a primary cement job is to include the lead cement slurry due to cave/karst, Capitan Reef, or potash.**

❖ In Critical Cave/Karst Areas cement must come to surface on the first three casing strings.

❖ In Capitan Reef Areas if cement does not circulate to surface on the first two casing strings, the cement on the 3rd casing string must come to surface.

❖ **Special Capitan Reef requirements.** If lost circulation (50% or greater) occurs below the Base of the Salt, the operator shall do the following:
- Switch to fresh water mud to protect the Capitan Reef and use fresh water mud until setting the intermediate casing. The appropriate BLM office is to be notified for a PET to witness the switch to fresh water.
- Daily drilling reports from the Base of the Salt to the setting of the intermediate casing are to be submitted to the BLM CFO engineering staff via e-mail by 0800 hours each morning. Any lost circulation encountered is to be recorded on these drilling reports. The daily drilling report should show mud volume per shift/tour. Failure to submit these reports will result in an Incidence of Non-Compliance being issued for failure to comply with the Conditions of Approval. If not already planned, the operator shall run a caliper survey for the intermediate well bore and submit to the appropriate BLM office.

3. The minimum required fill of cement behind the **5-1/2** inch production casing is:
    - Cement to surface. If cement does not circulate, contact the appropriate BLM office. **Wait on cement (WOC) time for a primary cement job is to include the lead cement slurry due to cave/karst, Capitan Reef, or potash.**

C. PRESSURE CONTROL

1. Variance approved to use flex line from BOP to choke manifold. Manufacturer's specification to be readily available. No external damage to flex line. Flex line to be installed as straight as possible (no hard bends).

2. Operator has proposed a multi-bowl wellhead assembly. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the surface casing shoe shall be **5000 (5M)** psi.

    a. Wellhead shall be installed by manufacturer's representatives, submit documentation with subsequent sundry.

b. If the welding is performed by a third party, the manufacturer's representative shall monitor the temperature to verify that it does not exceed the maximum temperature of the seal.
c. Manufacturer representative shall install the test plug for the initial BOP test.
d. If the cement does not circulate and one inch operations would have been possible with a standard wellhead, the well head shall be cut off, cementing operations performed and another wellhead installed.
e. Whenever any seal subject to test pressure is broken, all the tests in 43 CFR 3172 must be followed.

D. SPECIAL REQUIREMENT (S)

Communitization Agreement

- The operator will submit a Communitization Agreement to the Santa Fe Office, 301 Dinosaur Trail Santa Fe, New Mexico 87508, at least 90 days before the anticipated date of first production from a well subject to a spacing order issued by the New Mexico Oil Conservation Division. The Communitization Agreement will include the signatures of all working interest owners in all Federal and Indian leases subject to the Communitization Agreement (i.e., operating rights owners and lessees of record), or certification that the operator has obtained the written signatures of all such owners and will make those signatures available to the BLM immediately upon request.
- The operator will submit an as-drilled survey well plat of the well completion, but are not limited to, those specified in 43 CFR 3171 and 3172.
- If the operator does not comply with this condition of approval, the BLM may take enforcement actions that include, but are not limited to, those specified in 43 CFR 3163.1.
- In addition, the well sign shall include the surface and bottom hole lease numbers. When the Communitization Agreement number is known, it shall also be on the sign.

GENERAL REQUIREMENTS

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

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

Eddy County (API No. / US Well No. contains 30-015-#####)
Email **or** call the Carlsbad Field Office, 620 East Greene St., Carlsbad, NM 88220,
BLM_NM_CFO_DrillingNotifications@blm.gov; (575) 361-2822

Lea County (API No. / US Well No. contains 30-025-#####)
Call the Hobbs Field Station, 414 West Taylor, Hobbs NM 88240; (575) 689-5981

1. Unless the production casing has been run and cemented or the well has been properly plugged, the drilling rig shall not be removed from over the hole without prior approval.

a. In the event the operator has proposed to drill multiple wells utilizing a skid/walking rig. Operator shall secure the wellbore on the current well, after installing and testing the wellhead, by installing a blind flange of like pressure rating to the wellhead and a pressure gauge that can be monitored while drilling is performed on the other well(s).
b. When the operator proposes to set surface casing with Spudder Rig
   - Notify the BLM when moving in and removing the Spudder Rig.
   - Notify the BLM when moving in the 2nd Rig. Rig to be moved in within 90 days of notification that Spudder Rig has left the location.
   - BOP/BOPE test to be conducted per **43 CFR part 3170 Subpart 3172** as soon as 2nd Rig is rigged up on well.

2. Floor controls are required for 3M or Greater systems. These controls will be on the rig floor, unobstructed, readily accessible to the driller and will be operational at all times during drilling and/or completion activities. Rig floor is defined as the area immediately around the rotary table; the area immediately above the substructure on which the draw works are located, this does not include the dog house or stairway area.
3. The record of the drilling rate along with the GR/N well log run from TD to surface (horizontal well – vertical portion of hole) shall be submitted to the BLM office as well as all other logs run on the borehole 30 days from completion. If available, a digital copy of the logs is to be submitted in addition to the paper copies. The Rustler top and top and bottom of Salt are to be recorded on the Completion Report.

A. CASING

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

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

4. Provide compressive strengths including hours to reach required 500 pounds compressive strength prior to cementing each casing string. Have well specific cement details onsite prior to pumping the cement for each casing string.
5. No pea gravel permitted for remedial or fall back remedial without prior authorization from the BLM engineer.
6. On that portion of any well approved for a 5M BOPE system or greater, a pressure integrity test of each casing shoe shall be performed. Formation at the shoe shall be tested to a minimum of the mud weight equivalent anticipated to control the formation pressure to the next casing depth or at total depth of the well. This test shall be performed before drilling more than 20 feet of new hole.
7. If hardband drill pipe is rotated inside casing, returns will be monitored for metal. If metal is found in samples, drill pipe will be pulled and rubber protectors which have a larger diameter than the tool joints of the drill pipe will be installed prior to continuing drilling operations.
8. Whenever a casing string is cemented in the R-111-P potash area, the NMOCD requirements shall be followed.

B. PRESSURE CONTROL

1. All blowout preventer (BOP) and related equipment (BOPE) shall comply with well control requirements as described in **43 CFR part 3170 Subpart 3172** and **API STD 53 Sec. 5.3**.
2. If a variance is approved for a flexible hose to be installed from the BOP to the choke manifold, the following requirements apply: The flex line must meet the requirements of API 16C. Check condition of flexible line from BOP to choke manifold, replace if exterior is damaged or if line fails test. Line to be as straight as possible with no hard bends and is to be anchored according to Manufacturer's requirements. The flexible hose can be exchanged with a hose of equal size and equal or greater pressure rating. Anchor requirements, specification sheet and hydrostatic pressure test certification matching the hose in service, to be onsite for review. These documents shall be posted in the company man's trailer and on the rig floor.
3. 5M or higher system requires an HCR valve, remote kill line and annular to match. The remote kill line is to be installed prior to testing the system and tested to stack pressure.
4. If the operator has proposed a multi-bowl wellhead assembly in the APD. The following requirements must be met:
    a. Wellhead shall be installed by manufacturer's representatives, submit documentation with subsequent sundry.

b. If the welding is performed by a third party, the manufacturer's representative shall monitor the temperature to verify that it does not exceed the maximum temperature of the seal.
c. Manufacturer representative shall install the test plug for the initial BOP test.
d. Whenever any seal subject to test pressure is broken, all the tests in **43 CFR part 3170 Subpart 3172** must be followed.
e. If the cement does not circulate and one inch operations would have been possible with a standard wellhead, the well head shall be cut off, cementing operations performed and another wellhead installed.

5. The appropriate BLM office shall be notified a minimum of 4 hours in advance for a representative to witness the tests.
   a. In a water basin, for all casing strings utilizing slips, these are to be set as soon as the crew and rig are ready and any fallback cement remediation has been done. The casing cut-off and BOP installation can be initiated four hours after installing the slips, which will be approximately six hours after bumping the plug. For those casing strings not using slips, the minimum wait time before cut-off is eight hours after bumping the plug. BOP/BOPE testing can begin after cut-off or once cement reaches 500 psi compressive strength (including lead cement), whichever is greater. However, if the float does not hold, cut-off cannot be initiated until cement reaches 500 psi compressive strength (including lead when specified).
   b. In potash areas, for all casing strings utilizing slips, these are to be set as soon as the crew and rig are ready and any fallback cement remediation has been done. For all casing strings, casing cut-off and BOP installation can be initiated at twelve hours after bumping the cement plug. The BOPE test can be initiated after bumping the cement plug with the casing valve open. (only applies to single stage cement jobs, prior to the cement setting up.)
   c. The tests shall be done by an independent service company utilizing a test plug not a cup or J-packer and can be initiated immediately with the casing valve open. The operator also has the option of utilizing an independent tester to test without a plug (i.e. against the casing) pursuant to **43 CFR part 3170 Subpart 3172** with the pressure not to exceed 70% of the burst rating for the casing. Any test against the casing must meet the WOC time for water basin (8 hours) or potash (24 hours) or 500 pounds compressive strength, whichever is greater, prior to initiating the test (see casing segment as lead cement may be critical item).
   d. The test shall be run on a 5000 psi chart for a 2-3M BOP/BOP, on a 10000 psi chart for a 5M BOP/BOPE and on a 15000 psi chart for a 10M BOP/BOPE. If a linear chart is used, it shall be a one hour chart. A circular chart shall have a maximum 2 hour clock. If a twelve hour or twenty-four hour chart is used, tester shall make a notation that it is run with a two hour clock.
   e. The results of the test shall be reported to the appropriate BLM office.

f. All tests are required to be recorded on a calibrated test chart. A copy of the BOP/BOPE test chart and a copy of independent service company test will be submitted to the appropriate BLM office.
g. The BOP/BOPE test shall include a low pressure test from 250 to 300 psi. The test will be held for a minimum of 10 minutes if test is done with a test plug and 30 minutes without a test plug. This test shall be performed prior to the test at full stack pressure.
h. BOP/BOPE must be tested by an independent service company within 500 feet of the top of the Wolfcamp formation if the time between the setting of the intermediate casing and reaching this depth exceeds 20 days. This test does not exclude the test prior to drilling out the casing shoe as per **43 CFR part 3170 Subpart 3172**.

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

D. **WASTE MATERIAL AND FLUIDS:** All waste (i.e. drilling fluids, trash, salts, chemicals, sewage, gray water, etc.) created as a result of drilling operations and completion operations shall be safely contained and disposed of properly at a waste disposal facility. No waste material or fluid shall be disposed of on the well location or surrounding area. Porto-johns and trash containers will be on-location during fracturing operations or any other crew-intensive operations.

Tascosa Energy Partners, LLC
GTO 30 Fed Com North/South Pads
Hydrogen Sulfide Contingency Plan
For Drilling/Workover/Facility
Surface Site SEC 30, T21S, R26E, Eddy County, New Mexico

These 6 wells and their anticipated facility are <u>not</u> expected to have Hydrogen Sulfide releases. However, there may be Hydrogen Sulfide production in the nearby area. There are no occupied dwellings in 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. Until all Drilling and Completion Equipment have departed the location site.

Tascosa Energy Partners, LLC
GTO 30 Fed Com North/South Pads
Hydrogen Sulfide Contingency Plan
For Drilling/Workover/Facility
Surface Site SEC 30, T21S, R26E, 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**		
Jeff Birkelbach	**432 695-6970**	**432 553-0391**	
Alyssa D McNear		**720 244 4417**	
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**

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Eunice Police Dept		**575 394 0112**
Eunice Fire Dept		**575 394 3258**
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**
Halliburton Services		**800 844 8451**
Wild Well Control	**Midland**	**281 784 4700**
		281 443 4873

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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.

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   d. Auxiliary equipment to include; annular preventer, mud gas separator, rotating head.
2. Protective equipment for essential personnel:
   a. Mark II Survivor air 30minute units located in the doghouse 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**

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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

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

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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:

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.

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- 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.

- 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.

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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 5/8 inch OSHA approved rope
  d. 1-20# class ABC fire extinguisher

- H2S detection and monitoring equipment:
  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.

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- 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.

- 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.

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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.

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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

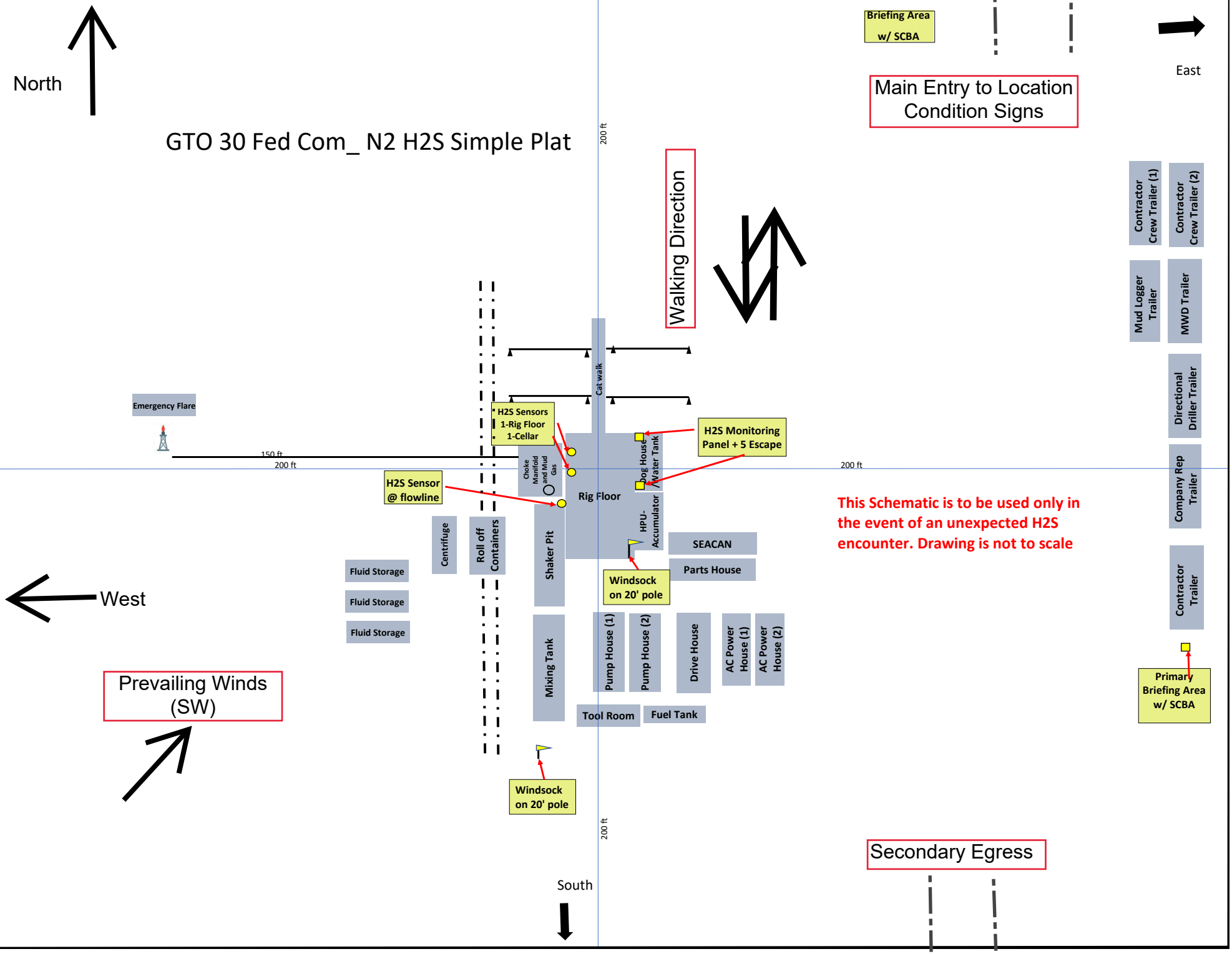
COMMON NAME	CHEMICAL ABBREV.	SPECIFIC GRVTY.	THRESHOLD LIMITS	HAZARDOUS LIMITS	LETHAL CONCENTRATIONS
Hydrogen Sulfide	H2S	1.19	10ppm 15 ppm	100 ppm/hr	600 ppm
Hydrogen Cyanide	HCN	0.94	10 ppm	150 ppm/hr	300 ppm
Sulfur Dioxide	SO2	2.21	2 ppm	N/A	1000 ppm
Chlorine	CL2	2.45	1 ppm	4 ppm/hr	1000 ppm
Carbon 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.

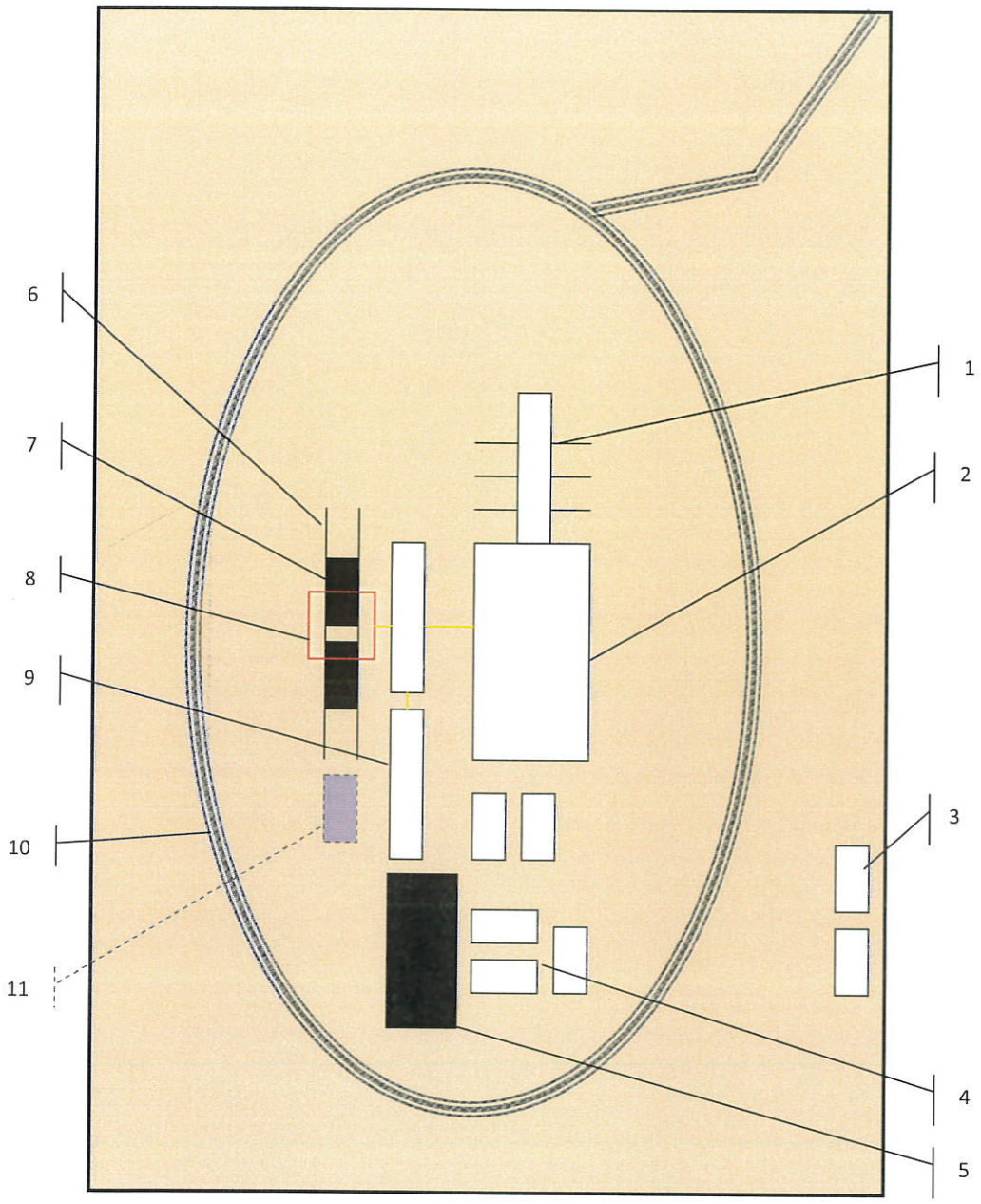
PHYSICAL EFFECTS OF HYDROGEN SULFIDE:

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.

GTO 30 Fed Com_ N2 H2S Simple Plat



This Schematic is to be used only in the event of an unexpected H2S encounter. Drawing is not to scale



Schematic Closed Loop Drilling Rig*

1. Pipe Rack
2. Drill Rig
3. House Trailers/ Offices
4. Generator/Fuel/Storage
5. Overflow-Frac Tank
6. Skids
7. Roll Offs
8. Hopper or Centrifuge
9. Mud Tanks
10. Loop Drive
11. Generator (only for use with centrifuge)

*Not drawn to scale: Closed loop system requires at least 30 feet beyond mud tanks. Ideally 60 feet would be available

Above: Centrifugal Closed Loop System

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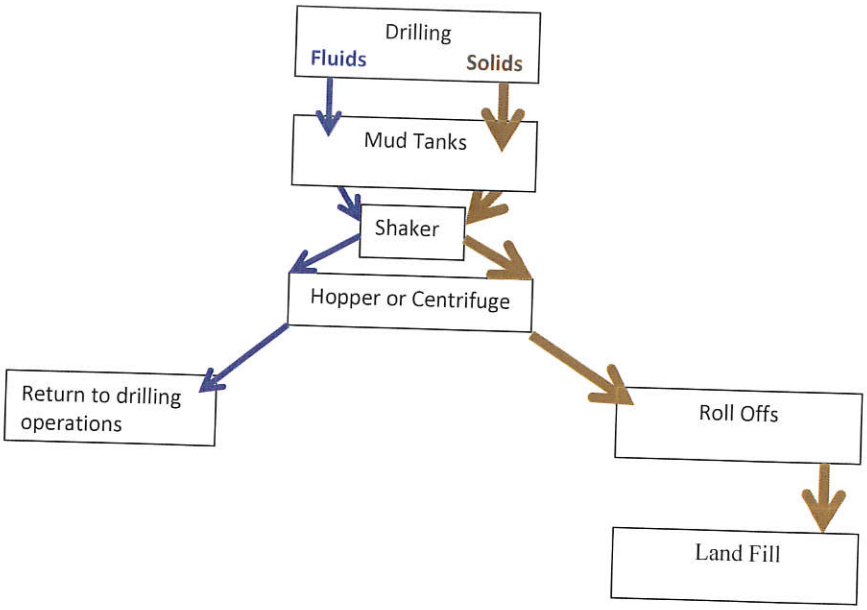
37Verano Loop, Santa Fe, New Mexico 87508 (505) 466-8120

Closed Loop Drilling System: Mud tanks to right (1)
Hopper in air to settle out solids (2)
Water return pipe (3)
Shaker between hopper and mud tanks (4)
Roll offs on skids (5)

Flow Chart for Drilling Fluids and Solids



Photos Courtesy of Gandy Corporation Oil Field Service

PERMITS WEST, INC.
PROVIDING PERMITS for LAND USERS
37Verano Loop, Santa Fe, New Mexico 87508 (505) 466-8120

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

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

CONDITIONS

Action 323780

CONDITIONS

Operator: Tascosa Energy Partners, L.L.C 901 W. Missouri Ave Midland, TX 79701	OGRID: 329748
	Action Number: 323780
	Action Type: [C-101] BLM - Federal/Indian Land Lease (Form 3160-3)

CONDITIONS

Created By	Condition	Condition Date
ward.rikala	Notify OCD 24 hours prior to casing & cement	3/27/2024
ward.rikala	Will require a File As Drilled C-102 and a Directional Survey with the C-104	3/27/2024
ward.rikala	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	3/27/2024
ward.rikala	Cement is required to circulate on both surface and intermediate1 strings of casing	3/27/2024
ward.rikala	If cement does not circulate on any string, a CBL is required for that string of casing	3/27/2024
ward.rikala	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	3/27/2024