Form C-101

August 1, 2011 Permit 298289

<u>District I</u> 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

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

	APPLICATION FOR PERMIT TO DRILL, RE-ENTER, DEEPEN, PLUGBACK, OR ADD A ZONE										
1. Operator Nan	1. Operator Name and Address 2. OGRID Number										
Taso	osa Energy Partne	rs, L.L.C						329748			
901	W. Missouri Ave						3	B. API Number			
Midla	and, TX 79701							30-015-48	3736		
4. Property Cod	е	5	5. Property Name				6	6. Well No.			
3312	220		CATALINA 25 H	STATE				001H			
				7. Sur	face Location						
UL - Lot	Section	Township	Range	Lot Idn	Feet From	N/S Line	Feet From	E/W Line	Co	ounty	
E	30	20S	S 27E	2	1881	N	201	l W		Eddy	
	8. Proposed Bottom Hole Location										
UL - Lot	Section	Township	Range	Lot Idn	Feet From	N/S Line	Feet From	E/W Line	Co	ounty	
E	25	208	S 26E	Е	1980	N	100) W		Eddy	
			•	•	•	•					

9. Pool Information

AVALON; BONE SPRING				96381				
Additional Well Information								
11. Work Type New Well	12. Well Type OIL	13. Cable/Rotary	14. Lease Type State	15. Ground Level Elevation 3243				
16. Multiple N	17. Proposed Depth 13113	18. Formation Bone Spring	19. Contractor	20. Spud Date 9/1/2021				
Depth to Ground water		Distance from nearest fresh water we	II	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 Size Casing Weight/ft		Sacks of Cement	Estimated TOC
Surf	17.5	13.375	48	500	730	0
Int1	11	8.625	32	2500	827	0
Prod	7.875	5.5	20	13113	1595	0

Casing/Cement Program: Additional Comments

Production casing is 5.5" CYP110. Tascosa will use cut brine as the fluid system from 2,500'-KOP (7247'), at which point the system will change to a high performance water based mud.

22. Proposed Blowout Prevention Program

==::::p:::::::::::::::::::::::::::::::									
Туре	Working Pressure	Test Pressure	Manufacturer						
Annular	5000	5000	CTI						
Blind	5000	5000	CTI						
Pipe	5000	5000	CTI						

knowledge and be	elief.	strue and complete to the best of my NMAC and/or 19.15.14.9 (B) NMAC		OIL CONSERVATIO	on division	
Printed Name:	Printed Name: Electronically filed by Kelly M Hardy			Kurt Simmons		
Title:	Land Manager		Title:	Petroleum Specialist - A		
Email Address:	khardy@tascosaep.com		Approved Date:	8/6/2021	Expiration Date: 8/6/2023	
Date:	7/28/2021	Phone: 432-695-6970	Conditions of Appr	roval Attached		

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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

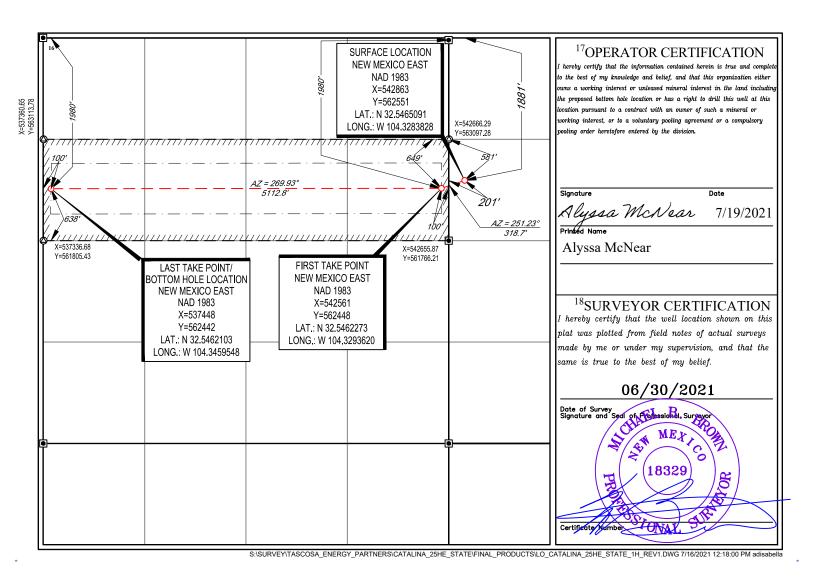
WELL LOCATION AND ACREAGE DEDICATION PLAT

¹ API Number		² Pool Code 96381	Avalon, Bone Spring			
⁴ Property Code		⁶ Well Number				
		1 H				
⁷ OGRID No.		⁸ Operator Name				
329748 –		3243'				
		10 C., ref	face I coation	-		

¹⁰Surface Location

UL or lot no.	30	Z0-S	27-E	Lot Idn —	Feet from the 1881'	NORTH	201'	WEST	EDDY			
	¹¹ 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			
E	25	20-S	26-E	_	1980'	NORTH	100'	WEST	EDDY			
12Dedicated Acre	s ¹³ Joint or	Infill 14Cc	onsolidation Co	de ¹⁵ Ord	er No.							
160												

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.



Permit 298289

Form APD Comments

<u>District I</u> 1625 N. French Dr., Hobbs, NM 88240 Phone:(575) 393-6161 Fax:(575) 393-0720 District II

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District III
1000 Rio Brazos Rd., Aztec, NM 87410 Phone:(505) 334-6178 Fax:(505) 334-6170

1220 S. St Francis Dr., Santa Fe, NM 87505 Phone:(505) 476-3470 Fax:(505) 476-3462

Energy, Minerals and Natural Resources Oil Conservation Division 1220 S. St Francis Dr. **Santa Fe, NM 87505**

State of New Mexico

PERMIT COMMENTS

Operator Name and Address:	API Number:		
Tascosa Energy Partners, L.L.C [329748]	30-015-48736		
901 W. Missouri Ave	Well:		
Midland, TX 79701	CATALINA 25 HE STATE #001H		

Created By	Comment	Comment
		Date
a.davanzo	H2S concentrations of wells in this area from surface to TD are low enough that a contingency plan is not required.	7/19/2021
kpickford	This APD has been rejected due to being an incomplete submission. The submission is missing the "Natural Gas Management Plan" which has replaced the	7/28/2021
	"Gas Capture Plan". See OCD Notice "Waste Rule C129 NGMP Final Forms" dated May 21, 2021 for further details. When resubmitting, please fill out the pool	
	information on the C-102 Avalon Bone Spring 96381	

Form APD Conditions

Permit 298289

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

PERMIT CONDITIONS OF APPROVAL

Operator Name and Address:	API Number:
Tascosa Energy Partners, L.L.C [329748]	30-015-48736
901 W. Missouri Ave	Well:
Midland, TX 79701	CATALINA 25 HE STATE #001H

OCD Reviewer	Condition
ksimmons	Notify OCD 24 hours prior to casing & cement
ksimmons	Will require a File As Drilled C-102 and a Directional Survey with the C-104
ksimmons	The Operator is to notify NMOCD by sundry (Form C-103) within ten (10) days of the well being spud
kpickford	Surface casing must be set 25' below top of Rustler Anhydrite or salt in order to seal off protectable water
kpickford	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
kpickford	Cement is required to circulate on both surface and intermediate1 strings of casing
kpickford	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



Catalina 25 HE State # 1H Closed Loop Drilling System

Operations and Maintenance Plan

Closed Loop equipment will be inspected and monitored closely (on a daily basis) by each drilling rig tour and by those hired specifically to operate the equipment. Any leak or release detected will be repaired immediately and the proper NMOCD official will be notified within the 48 hr requirement. A large release will require Tascosa Energy Partners, LLC representatives to contact NMOCD immediately at the Artesia office 575 748 1283 as stated by NMOCD rule 116. Mike Bratcher 575 626 0857 secondary contact.

Closure Plan

During and after drilling operations, liquids (which apply), all drill cuttings and drilling fluids will be hauled and disposed of at the R-360 Disposal (permit number NM-01-0006) located about 30 miles East of Carlsbad, New Mexico. An alternate approved disposal site has been selected "Parabo" NM 01-0003 which is 3 miles East of Eunice. The Second site would only be used in the event of problems with CRI disposal.

Well name:

Catalina 25 HE State # 1H

Operator: Tascosa Energy Partners, LLC

String type: Surface Casing (500)

Location: Eddy County, New Mexico. 1881 FNL & 201 FWL, Sec 30, T20S, R27E

BHL Planned: 1980 FNL & 330 FWL, Sec 25, T20S, R26E

Design parameters:	Minimum design factors:			Environment:				
<u>Collapse</u>				Collapse:		H2S considered?	No	
Mud weight:		9.00	ppg	DF	1.125	Surface temperature:	75.0	00 °F
Design is based on evacuated pi	pe.					BHTemp	7	'9 °F
						Temp gradient:	8.0	80 °F/100ft
						Minimum sec length:	50	00 ft
				Burst:		Minimum Drift:	12.2	25 in
				DF	1.10	Cement top:	Surface	
<u>Burst</u>								
Max anticipated surface								
pressure	=	252	psi					
Internal gradient:	=	0.12	psi/ft	Tension:		Non-directional string.		
Calculated BHP	=	312	psi	8 Rd STC:	1.80	(J)		
				8 Rd LTC:	1.80	(J)		
No backup mud specified.				Buttress:	1.60	(J)		
				Premium:	1.50	(J)		
				Body yield:	1.50	(B) Re subsec	quent strings	:
						Next setting depth:	2,500	ft
			Tension is	based on buoye	ed wgt.	Next mud weight:	10.00	ppg
			Neutral pt:	434.00 ft	t	Next setting BHP:	1,300.00	psi
Maximum Lift using 14.8 ppg cmt	5 ppg mud fil	led csg=		Fracture mud wt:	11.00	ppg		
23,014 lbs lift. String wgt = 24,000	n casing prior to cmt job			Safety Factor Injection	1.00	ppg		
for Safety. Strg could be lig	ht as 9	86 lbs				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 (ft³)	Internal Capacity (bbls)
1	500	13.375	48.00	H-40	ST&C	500	500	12.559	440.9	78.54
Run Seq	Collapse Load (psi) 210	Collapse Strength (psi)	Collapse Design Factor 3.5	Burst Load (psi) 227	Burst Strength (psi) 1730	Burst Design Factor 7.62	Tension Load (Kips) 21.6	Tension Strength (Kips)	Tension Design Factor 14.9	Inside Diameter (in) 12.717

Prepared Phone: (432) 695 6970 Date: 06/22/21 by: Richard Wright FAX: (432) 695 6973 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:

Catalina 25 HE State # 1H

Operator: **T**

Tascosa Energy Partners, LLC

String type:

Intermediate Casing (2500 ft)

Location:

Eddy County, New Mexico. 1881 FNL & 201 FWL, Sec 30, T20S, R27E

BHL Planned: 1980 FNL & 330 FWL, Sec 25, T20S, R26E

Design pa	rameters:			Minimum	design fact	ors:	Environme H2S conside		No	
Collapse Mud weight:			9.50	ppg	Collapse: DF	1.125	Surface tem		75.00	°F
•	sed on evacu	ated nine	9.50	ppg	ы	1.120	BH Temp	perature.	99	°F
Design to bu	oca on evaca	atou pipo.					Temp Gradi	ent	0.80	°F/100ft
							Minimum Se		2500	ft
					Burst:		Minimum Dr	U	8.75	in
					DF	1.15	Cement top		Surface	
Burst							٠, ١٠, ١٠, ١٠, ١٠, ١٠, ١٠, ١٠, ١٠, ١٠, ١	•		
Max anticipa	ted surface									
pressure:	ited surface		1,585.00	psi						
Internal grad	liont:		0.12	psi/ft	Tension:		Non-direction	nal etrina		
Calculated E			1,885.00	psi/it	8 Rd STC:	1.80	(J)	mai sumg.		
Calculated L) II		1,000.00	ры	8 Rd LTC:	1.80	(J)			
No backup r	nud specified				Buttress:	1.60	(J)			
140 baokap i	naa opeemea	•			Premium:	1.50	(J)			
					Body yield:	1.50	(B)	Re subsequ	uent strings	<u>.</u>
					204, 7.0.4.		Next setting	-	12,888	
				Tension is	based on buov	ed wat.	Next setting	•	,	ft TVD
				Neutral pt:	± 2147	ft	Next mud w	•	9.5	ppg
				·			Next setting		3,720	
							Fracture mu			ppg
							Safety Factor	or-Injection	1	ppg
							Fracture de	oth:	2500	
							Injection pre	essure	1,885	psi
Run	Segment		Nominal		End	True Vert	Measured	Drift	ID	Internal
Seq	Length	Size	Weight	Grade	Finish	Depth	Depth	Diameter	Diameter	Capacity
904	(ft)	(in)	(lbs/ft)	0.000		(ft)	(ft)	(in)	(in)	(bbls)
1	2500	8.625	32	J-55	LT&C	2500	2500	7.796	7.921	152.36
Run	Collapse	Collapse	Collapse	Burst	Burst	Burst	Tension	Tension	Tension	
Seq	Load	Strength	Design	Load	Strength	Design	Load	Strength	Design	
	(psi)	(psi)	Factor	(psi)	(psi)	Factor	(Kips)	(Kips)	Factor	
1	1235	2530	2.04	1585	3930	2.48	80	417	5.2J	
	Prepared				Phone: (432) 695 6970	Date:	06/22/21		
	by:	Richard Wrig	ght		FAX: (432) 6	95 6973		Midland, Te	xas	

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:

Design parameters:

Catalina 25 HE State # 1H

Minimum design factors:

Environment:

Operator: Tascosa Energy Partners, LLC

String type: Production Casing (± 13,113 MD) "FRAC"

Location: Eddy County, New Mexico. 1881 FNL & 201 FWL, Sec 30, T20S, R27E

BHL Planned: 1980 FNL & 330 FWL, Sec 25, T20S, R26E

<u>Collapse</u>			Collapse	<u>):</u>	H2S considered?	No
Mud weight:		9.50 ppg	D	F 1.125	Surface temperature:	75.00 °F
Design is based on evacuated pi	pe.				Bottom hole temp:	138.6 °F
					Temperature gradient:	0.80 °F/100ft
					Minimum section lgth:	2,000 ft
			<u>Burs</u>	<u>t:</u>	Minimum Drift:	4.653 in
			D	F 1.125	Cement top:	Surface ft
<u>Burst</u>						
Max anticipated surface						
pressure FRAC @ RATE:	10,000.00 psi					
Internal gradient:	0.434 psi/ft	Tension:			Directional Info - Build & I	Hold
Calculated BHP at rate	13,348.00 psi	8 Rd STC:	1.80	(J)	KOP ±	7,247 ft
backup fluid specified.	0.434 psi/ft	8 Rd LTC:	1.80	(J)	Departure at shoe:	5,100 ft
Net Injection Pressure Surface	10,000.00 psi	Buttress:	1.60	(J)	Maximum dogleg:	12 °/100ft
Net Injection Pressure TVD	5,817.00 psi	Premium:	1.50	(J)	Inclination at shoe:	90.88 °
Annular surface PSI	0 psi	Body yield:	1.50	(B)		
FG projected =	13.50 ppg					
1 ppg SF	14.5 ppg	Tension is ba	ased on bu	loyed weigh	nt. (.85474 factor)	
		Neutral pt:	± 6706 ft a	assumes n	o friction (mid pt of curve 7	,650'md)

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	13,113	5.5	20	CYP-110	GBCD BTC	7,715	13,113	4.653	4.778	284.9
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	4,012	12200	3.04	10000	12360	1.236	257.46	667	2.59 J	
	Prepare b	ed y: Richard Wri	ght		Phone: (432 FAX: (432) 6	,	Date:	06/22/21 Midland, Te	xas	

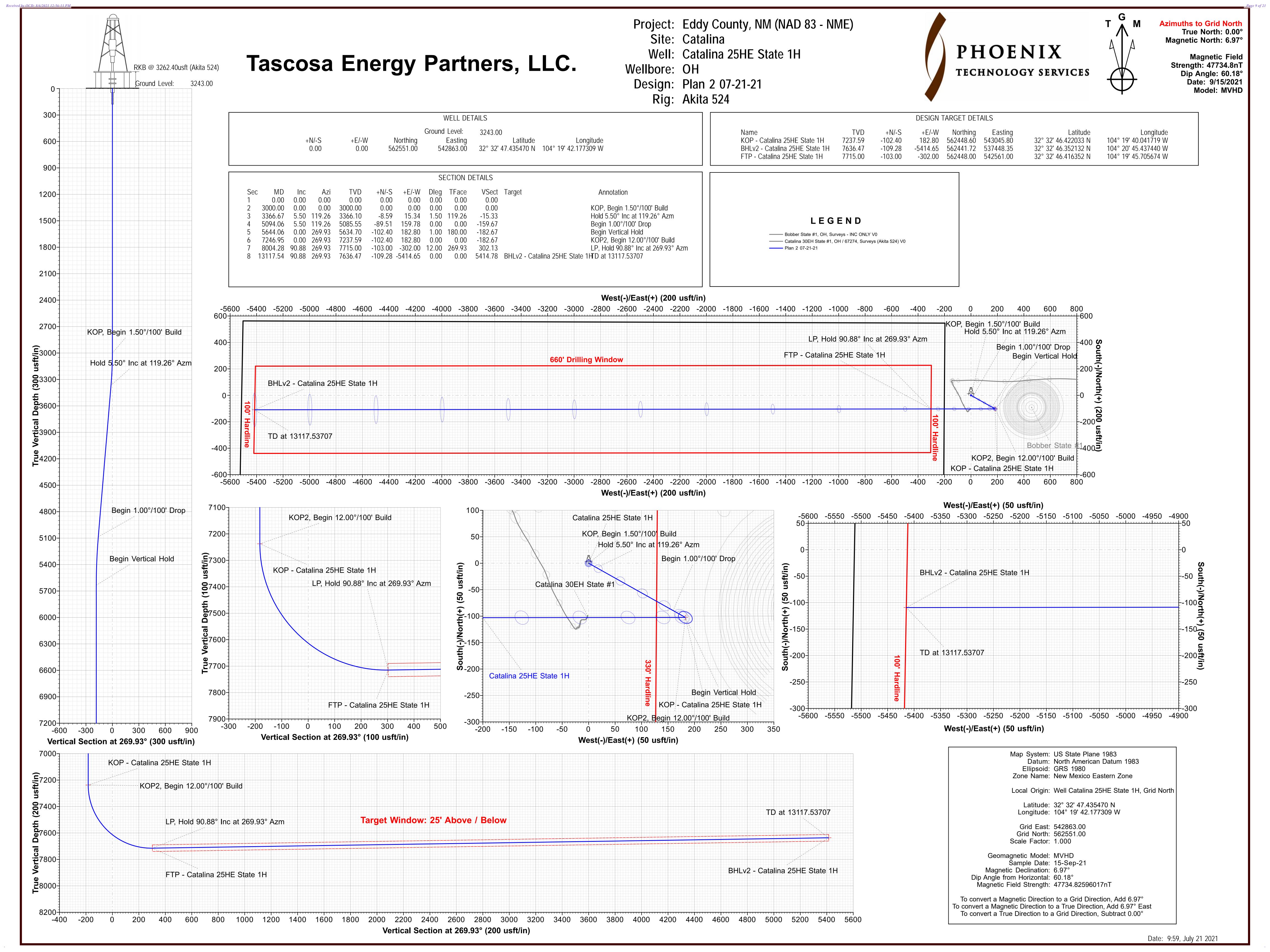
Remarks

Collapse is based on a vertical depth of 7,715 ft, a mud weight of 10.0 ppg Brine. 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.

Tension load = pipe weight in air at mid point in curve + 100K overpull

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.

Eddy County, NM (NAD 83 - NME) Catalina Catalina 25HE State 1H

OH

Plan: Plan 2 07-21-21

Standard Planning Report

21 July, 2021



Phoenix Planning Report

USA Compass Database:

Company: Tascosa Energy Partners, LLC. Project: Eddy County, NM (NAD 83 - NME)

Site:

Catalina Catalina 25HE State 1H

OH

Well: Wellbore:

Design: Plan 2 07-21-21 Local Co-ordinate Reference:

TVD Reference: MD Reference: North Reference:

Survey Calculation Method:

Well Catalina 25HE State 1H

RKB @ 3262.40usft (Akita 524) RKB @ 3262.40usft (Akita 524)

Minimum Curvature

Project Eddy County, NM (NAD 83 - NME)

Map System: Geo Datum: Map Zone:

US State Plane 1983 North American Datum 1983 New Mexico Eastern Zone

System Datum:

Mean Sea Level

Catalina Site

Northing: 562,451.52 usft Site Position: Latitude: 32° 32' 46.451040 N From: Lat/Long Easting: 542,861.25 usft Longitude: 104° 19' 42.197880 W 13-3/16 " **Position Uncertainty:** 1.00 usft **Slot Radius:** 0.00°

Grid Convergence:

Well Catalina 25HE State 1H

Well Position +N/-S 99.48 usft Northing: 562,551.00 usft Latitude: 32° 32' 47.435470 N +E/-W 1.76 usft Easting: 542,863.00 usft Longitude: 104° 19' 42.177309 W

Position Uncertainty 0.00 usft Wellhead Elevation: **Ground Level:** 3,243.00 usft

Wellbore ОН

Declination Field Strength Magnetics **Model Name** Sample Date **Dip Angle** (°) (°) (nT) 9/15/2021 47.734.82596017 **MVHD** 6.97 60.18

Design Plan 2 07-21-21

Audit Notes:

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

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

(usft) (usft) (usft) (°) 0.00 0.00 0.00 269.93

Plan Survey Tool Program Date 7/21/2021

Depth From Depth To

(usft) (usft) Survey (Wellbore) **Tool Name** Remarks

0.00 MWD+HRGM 13,117.54 Plan 2 07-21-21 (OH)

OWSG MWD + HRGM

Plan Sections Vertical Build Measured Dogleg Turn Depth Inclination **Azimuth** Depth +N/-S +E/-W Rate Rate Rate **TFO** (usft) (usft) (°/100usft) (°/100usft) (°/100usft) (usft) (usft) (°) (°) (°) Target 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 3,000.00 0.00 0.00 3,000.00 0.00 0.00 0.00 0.00 0.00 0.00 3,366.10 -8.59 15.34 0.00 3,366.67 5.50 119.26 1.50 1.50 119.26 5.085.55 5.094.06 5.50 119.26 -89.51 159.78 0.00 0.00 0.00 0.00 0.00 -102 40 182.80 1 00 -1 00 0.00 180.00 5.644.06 269.93 5.634.70 -102.40 0.00 0.00 7,246.95 0.00 269.93 7,237.59 182.80 0.00 0.00 8,004.28 90.88 269.93 7,715.00 -103.00-302.00 12.00 12.00 0.00 269.93 13,117.54 90.88 269.93 7,636.47 -109.28-5,414.65 0.00 0.00 0.00 0.00 BHLv2 - Catalina 25

PHOENIX

Phoenix Planning Report

Database: Company: Project:

USA Compass

Tascosa Energy Partners, LLC. Eddy County, NM (NAD 83 - NME)

Catalina

Site: Well: Wellbore:

Catalina 25HE State 1H

OH

Design: Plan 2 07-21-21 Local Co-ordinate Reference:

TVD Reference: MD Reference: North Reference:

Survey Calculation Method:

Well Catalina 25HE State 1H RKB @ 3262.40usft (Akita 524)

RKB @ 3262.40usft (Akita 524)

Minimum Curvature

d 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 3,000.00	0.00	0.00 0.00	0.00 3,000.00	0.00 0.00	0.00 0.00	0.00 0.00	0.00 0.00	0.00 0.00	0.00 0.00
3,100.00 3,200.00 3,300.00	3.00	119.26 119.26 119.26	3,099.99 3,199.91 3,299.69	-0.64 -2.56 -5.75	1.14 4.57 10.27	-1.14 -4.56 -10.27	1.50 1.50 1.50	1.50 1.50 1.50	0.00 0.00 0.00
3,366.67		119.26	3,366.10	-8.59	15.34	-15.33	1.50	1.50	0.00
	° Inc at 119.26°								
3,400.00 3,500.00 3,600.00 3,700.00	5.50 5.50	119.26 119.26 119.26 119.26	3,399.28 3,498.82 3,598.36 3,697.90	-10.16 -14.84 -19.52 -24.21	18.13 26.49 34.85 43.21	-18.12 -26.47 -34.83 -43.18	0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00
3,800.00 3,900.00 4,000.00 4,100.00 4,200.00	5.50 5.50 5.50	119.26 119.26 119.26 119.26 119.26	3,797.44 3,896.98 3,996.52 4,096.06 4,195.60	-28.89 -33.58 -38.26 -42.95 -47.63	51.58 59.94 68.30 76.66 85.02	-51.54 -59.90 -68.25 -76.61 -84.97	0.00 0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00 0.00
4,300.00 4,400.00 4,500.00 4,600.00 4,700.00	5.50 5.50 5.50	119.26 119.26 119.26 119.26 119.26	4,295.14 4,394.68 4,494.22 4,593.76 4,693.30	-52.32 -57.00 -61.68 -66.37 -71.05	93.39 101.75 110.11 118.47 126.83	-93.32 -101.68 -110.03 -118.39 -126.75	0.00 0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00 0.00
4,800.00 4,900.00 5,000.00 5,094.06	5.50 5.50 5.50	119.26 119.26 119.26 119.26	4,792.84 4,892.38 4,991.92 5,085.55	-75.74 -80.42 -85.11 -89.51	135.20 143.56 151.92 159.78	-135.10 -143.46 -151.81 -159.67	0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00
	0°/100' Drop	440.00	5 004 40	20.70	400.00	100.17	4.00	4.00	0.00
5,100.00 5,200.00 5,300.00 5,400.00 5,500.00 5,600.00	4.44 3.44 2.44 1.44	119.26 119.26 119.26 119.26 119.26 119.26	5,091.46 5,191.08 5,290.85 5,390.71 5,490.66 5,590.64	-89.79 -94.00 -97.36 -99.86 -101.52 -102.32	160.28 167.79 173.79 178.26 181.22 182.65	-160.17 -167.68 -173.67 -178.14 -181.09 -182.52	1.00 1.00 1.00 1.00 1.00 1.00	-1.00 -1.00 -1.00 -1.00 -1.00 -1.00	0.00 0.00 0.00 0.00 0.00 0.00
5,644.06	0.00	269.93	5,634.70	-102.40	182.80	-182.67	1.00	-1.00	0.00
•	tical Hold		, -						
7,246.95	0.00	0.00	7,237.59	-102.40	182.80	-182.67	0.00	0.00	0.00
KOP2, Be 7,300.00 7,400.00 7,500.00	18.37	269.93 269.93 269.93	7,290.53 7,388.03 7,478.96	-102.41 -102.43 -102.48	179.85 158.48 117.30	-179.73 -158.35 -117.17	12.00 12.00 12.00	12.00 12.00 12.00	0.00 0.00 0.00
7,600.00 7,700.00 7,800.00 7,900.00 8,000.00	42.37 54.37 66.37 78.37	269.93 269.93 269.93 269.93 269.93	7,559.34 7,625.65 7,675.01 7,705.25 7,715.05	-102.56 -102.65 -102.76 -102.87 -102.99	58.11 -16.49 -103.25 -198.38 -297.72	-57.98 16.62 103.38 198.51 297.84	12.00 12.00 12.00 12.00 12.00	12.00 12.00 12.00 12.00 12.00	0.00 0.00 0.00 0.00 0.00
8,004.28	90.88	269.93	7,715.00	-103.00	-302.00	302.13	12.00	12.00	0.00
	90.88° Inc at 26								
8,100.00 8,200.00 8,300.00 8,400.00	90.88 90.88 90.88	269.93 269.93 269.93 269.93	7,713.53 7,711.99 7,710.46 7,708.92	-103.12 -103.24 -103.36 -103.49	-397.70 -497.69 -597.68 -697.67	397.83 497.82 597.81 697.80	0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00
8,500.00 8,600.00		269.93 269.93	7,707.39 7,705.85	-103.61 -103.73	-797.66 -897.65	797.78 897.77	0.00 0.00	0.00 0.00	0.00 0.00

PHOENIX TECHNOLOGY SERVICES

PhoenixPlanning Report

Database: USA Compass

Company: Tascosa Energy Partners, LLC.
Project: Eddy County, NM (NAD 83 - NME)

Site: Catalina

Well: Catalina 25HE State 1H

Wellbore: OH

Design: Plan 2 07-21-21

Local Co-ordinate Reference:

TVD Reference: MD Reference: North Reference:

Survey Calculation Method:

Well Catalina 25HE State 1H RKB @ 3262.40usft (Akita 524) RKB @ 3262.40usft (Akita 524)

Grid

Minimum Curvature

Measured Depth (usft) 8,700.00 8,800.00 8,900.00 9,000.00 9,100.00 9,200.00 9,300.00 9,400.00 9,500.00 9,600.00 9,700.00 9,800.00	90.88 90.88 90.88 90.88 90.88 90.88 90.88 90.88 90.88 90.88	Azimuth (°) 269.93 269.93 269.93 269.93 269.93 269.93 269.93 269.93 269.93	Vertical Depth (usft) 7,704.32 7,702.78 7,701.24 7,699.71 7,698.17 7,696.64 7,695.10 7,693.57	+N/-S (usft) -103.85 -103.85 -104.10 -104.22 -104.35 -104.47 -104.59 -104.71	+E/-W (usft) -997.63 -1,097.62 -1,197.61 -1,297.60 -1,397.59 -1,497.57	Vertical Section (usft) 997.76 1,097.75 1,197.74 1,297.72 1,397.71	Dogleg Rate (°/100usft) 0.00 0.00 0.00 0.00	Build Rate (°/100usft) 0.00 0.00 0.00 0.00	Turn Rate (°/100usft) 0.00 0.00 0.00 0.00
Depth (usft) 8,700.00 8,800.00 8,900.00 9,000.00 9,100.00 9,200.00 9,300.00 9,400.00 9,500.00 9,600.00 9,700.00	90.88 90.88 90.88 90.88 90.88 90.88 90.88 90.88 90.88	(°) 269.93 269.93 269.93 269.93 269.93 269.93 269.93 269.93	Depth (usft) 7,704.32 7,702.78 7,701.24 7,699.71 7,696.64 7,695.10 7,693.57	-103.85 -103.98 -104.10 -104.22 -104.35 -104.47 -104.59	-997.63 -1,097.62 -1,197.61 -1,297.60 -1,397.59 -1,497.57	997.76 1,097.75 1,197.74 1,297.72 1,397.71	Rate (°/100usft) 0.00 0.00 0.00 0.00	Rate (°/100usft) 0.00 0.00 0.00 0.00	Rate (°/100usft) 0.00 0.00 0.00 0.00
8,800.00 8,900.00 9,000.00 9,100.00 9,200.00 9,300.00 9,400.00 9,500.00 9,600.00 9,700.00	90.88 90.88 90.88 90.88 90.88 90.88 90.88 90.88	269.93 269.93 269.93 269.93 269.93 269.93 269.93	7,702.78 7,701.24 7,699.71 7,698.17 7,696.64 7,695.10 7,693.57	-103.98 -104.10 -104.22 -104.35 -104.47 -104.59	-1,097.62 -1,197.61 -1,297.60 -1,397.59 -1,497.57	1,097.75 1,197.74 1,297.72 1,397.71	0.00 0.00 0.00	0.00 0.00 0.00	0.00 0.00 0.00
9,100.00 9,200.00 9,300.00 9,400.00 9,500.00 9,600.00 9,700.00	90.88 90.88 90.88 90.88 90.88 90.88	269.93 269.93 269.93 269.93	7,698.17 7,696.64 7,695.10 7,693.57	-104.35 -104.47 -104.59	-1,397.59 -1,497.57	1,397.71			
9,600.00 9,700.00	90.88 90.88		7 600 00	-104.71	-1,597.56 -1,697.55	1,497.70 1,597.69 1,697.68	0.00 0.00 0.00	0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00
9,900.00	90.88	269.93 269.93 269.93	7,692.03 7,690.49 7,688.96 7,687.42 7,685.89	-104.84 -104.96 -105.08 -105.21 -105.33	-1,797.54 -1,897.53 -1,997.51 -2,097.50 -2,197.49	1,797.67 1,897.65 1,997.64 2,097.63 2,197.62	0.00 0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00 0.00
10,000.00 10,100.00 10,200.00 10,300.00 10,400.00	90.88 90.88 90.88 90.88 90.88	269.93 269.93 269.93 269.93 269.93	7,684.35 7,682.82 7,681.28 7,679.74 7,678.21	-105.45 -105.57 -105.70 -105.82 -105.94	-2,297.48 -2,397.47 -2,497.46 -2,597.44 -2,697.43	2,297.61 2,397.59 2,497.58 2,597.57 2,697.56	0.00 0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00 0.00
10,500.00 10,600.00 10,700.00 10,800.00 10,900.00	90.88 90.88 90.88 90.88 90.88	269.93 269.93 269.93 269.93 269.93	7,676.67 7,675.14 7,673.60 7,672.06 7,670.53	-106.07 -106.19 -106.31 -106.43 -106.56	-2,797.42 -2,897.41 -2,997.40 -3,097.38 -3,197.37	2,797.55 2,897.54 2,997.52 3,097.51 3,197.50	0.00 0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00 0.00
11,000.00 11,100.00 11,200.00 11,300.00 11,400.00	90.88 90.88 90.88 90.88 90.88	269.93 269.93 269.93 269.93 269.93	7,668.99 7,667.46 7,665.92 7,664.39 7,662.85	-106.68 -106.80 -106.93 -107.05 -107.17	-3,297.36 -3,397.35 -3,497.34 -3,597.32 -3,697.31	3,297.49 3,397.48 3,497.47 3,597.45 3,697.44	0.00 0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00 0.00
11,500.00 11,600.00 11,700.00 11,800.00 11,900.00	90.88 90.88 90.88 90.88 90.88	269.93 269.93 269.93 269.93 269.93	7,661.31 7,659.78 7,658.24 7,656.71 7,655.17	-107.29 -107.42 -107.54 -107.66 -107.79	-3,797.30 -3,897.29 -3,997.28 -4,097.27 -4,197.25	3,797.43 3,897.42 3,997.41 4,097.39 4,197.38	0.00 0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00 0.00
12,000.00 12,100.00 12,200.00 12,300.00 12,400.00	90.88 90.88 90.88 90.88 90.88	269.93 269.93 269.93 269.93 269.93	7,653.64 7,652.10 7,650.56 7,649.03 7,647.49	-107.91 -108.03 -108.15 -108.28 -108.40	-4,297.24 -4,397.23 -4,497.22 -4,597.21 -4,697.19	4,297.37 4,397.36 4,497.35 4,597.34 4,697.32	0.00 0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00 0.00
12,500.00 12,600.00 12,700.00 12,800.00 12,900.00	90.88 90.88 90.88 90.88 90.88	269.93 269.93 269.93 269.93	7,645.96 7,644.42 7,642.89 7,641.35 7,639.81	-108.52 -108.65 -108.77 -108.89 -109.01	-4,797.18 -4,897.17 -4,997.16 -5,097.15 -5,197.13	4,797.31 4,897.30 4,997.29 5,097.28 5,197.26	0.00 0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00 0.00
13,000.00 13,100.00 13,117.54 TD at 13117.5	90.88 90.88 90.88	269.93 269.93 269.93	7,638.28 7,636.74 7,636.47	-109.14 -109.26 -109.28	-5,297.12 -5,397.11 -5,414.65	5,297.25 5,397.24 5,414.78	0.00 0.00 0.00	0.00 0.00 0.00	0.00 0.00 0.00

PHOENIX TECHNOLOGY SERVICES

PhoenixPlanning Report

Database: USA Compass

Company: Tascosa Energy Partners, LLC.
Project: Eddy County, NM (NAD 83 - NME)

Site:

Catalina

Well: Catalina 25HE State 1H

Wellbore: OH

Design: Plan 2 07-21-21

Local Co-ordinate Reference:

TVD Reference: MD Reference: North Reference:

Survey Calculation Method:

Well Catalina 25HE State 1H

RKB @ 3262.40usft (Akita 524) RKB @ 3262.40usft (Akita 524)

Grid

Minimum Curvature

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 - Catalina 25HE - plan hits target ce - Point	0.00 enter	0.00	7,237.59	-102.40	182.80	562,448.60	543,045.8032°	32' 46.422033 N 4°	° 19' 40.041719 W
BHLv2 - Catalina 25H - plan hits target ce - Rectangle (sides V			7,636.47 .00)	-109.28	-5,414.65	562,441.72	537,448.3632°	32' 46.352132 N 4°	° 20' 45.437440 W
FTP - Catalina 25HE : - plan hits target ce - Point	0.00 enter	0.00	7,715.00	-103.00	-302.00	562,448.00	542,561.00329	' 32' 46.416352 N 4°	° 19' 45.705674 W

Plan Annotations				
Measured	Vertical	Local Coor	dinates	Comment
Depth	Depth	+N/-S	+E/-W	
(usft)	(usft)	(usft)	(usft)	
3,000.00	3,000.00	0.00	0.00	KOP, Begin 1.50°/100' Build
3,366.67	3,366.10	-8.59	15.34	Hold 5.50° Inc at 119.26° Azm
5,094.06	5,085.55	-89.51	159.78	Begin 1.00°/100' Drop
5,644.06	5,634.70	-102.40	182.80	Begin Vertical Hold
7,246.95	7,237.59	-102.40	182.80	KOP2, Begin 12.00°/100' Build
8,004.28	7,715.00	-103.00	-302.00	LP, Hold 90.88° Inc at 269.93° Azm
13,117.54	7,636.47	-109.28	-5,414.65	TD at 13117.53707

Intent		As Dril	led											
API#														
Ope	rator Nar	ne:				Prope	erty N	lame:						Well Number
Kick C	off Point	(KOP)												
UL	Section	Township	Range	Lot	Feet	F	From N	I/S	Feet		From	n E/W	County	
Latitu	de				Longitu	ıde							NAD	
First T	ake Poin	t (FTP)												
UL	Section	Township	Range	Lot	Feet	F	From N	I/S	Feet		Fron	n E/W	County	
Latitu	de de				Longitu	ıde							NAD	
Last T	ake Poin	t (LTP)												
UL	Section	Township	Range	Lot	Feet	From	N/S	Feet		From I	E/W	Count	У	
Latitu	de				Longitu	ıde		ı				NAD		
ls this If infil	well an i	defining vinfill well?						_	vell ni	umber	for [Definir	ng well fo	r Horizontal
Ope	rator Nar	ne:	I			Prope	erty N	lame	:					Well Number
Estim	ated For	mation Top	os											
Form	ation:				Тор:		For	matio	n:					Тор:

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:Tas	scosa Energy Pa	rtners, LLC	OGRID:	329748	Date:	07 / 28 / 202	1_
II. Type: 🛛 Original	☐ Amendment	due to 19.15.27.9	9.D(6)(a) NMA	C □ 19.15.27.9.D((6)(b) NMAC □	Other.	
If Other, please descri	be:						
III. Well(s): Provide be recompleted from					wells proposed to	be drilled or pr	coposed to
Well Name	API	ULSTR	Footages	Anticipated Oil BBL/D	Anticipated Gas MCF/D	Anticipa Produced BBL/I	Water
Catalina 25 HE St #1	Н	E S30, 20S, 27E	1881 FNL 201 FWL	700	1500	750	
V. Anticipated Scheo proposed to be recom	lule: Provide the	e following informat			vell or set of wells	Flow First Pi	-
Catalina 25 HE State #1	Н	9/15/2021	10/10/2021	11/30/2021	12/15/2		1/2021
VI. Separation Equivalent VII. Operational Pr Subsection A through VIII. Best Management during active and plan	pment: Attac actices: Attac F of 19.15.27.8	h a complete descrip th a complete descr NMAC. X Attach a complet	otion of how Op	erator will size sep	paration equipments	at to optimize ga	as capture.

Section 2 – Enhanced Plan EFFECTIVE APRIL 1, 2022

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

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

IX. Anticipated Natural Gas Production:

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

X. Natural Gas Gathering System (NGGS):

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

XI. Map. \square 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 \square v	vill □ will not have	capacity to gather	100% of the anticipated	natural gas
production volume from the well p	prior to the date of first pro	oduction.			

XIII. Line Pressure. Operator \square does \square 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 we	

\neg	A 44 1 4	o , ,	1 .		1 4	•	4 41	1.1"	
	- Апаси (Operator	s blan i	ro manage	production	in response	to the increa	sed line press	ure

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 informati	on
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. \boxtimes 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: 07/28/2021
Phone: 432-695-6970
OIL CONSERVATION DIVISION
(Only applicable when submitted as a standalone form)
Approved By:
Title:
Approval Date:
Conditions of Approval:



Catalina 25HE State #1 – 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 a vapor recovery unit and sent to the Enterprise sales line through a compressor on location.

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 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.