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1000 Rio Brazos Rd., Aztec, NM 87410
District IV - (505) 476-3460
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy, Minerals and Natural Resources

Form C-103
Revised July 18, 2013

OIL CONSERVATION DIVISION
1220 South St. Francis Dr.
Santa Fe, NM 87505

WELL API NO. 30-025-55854
5. Indicate Type of Lease STATE [X] FEE []
6. State Oil & Gas Lease No.
7. Lease Name or Unit Agreement Name Quail 16 State Com
8. Well Number 504H
9. OGRID Number 332947
10. Pool name or Wildcat [37580] LEA; BONE SPRING, SOUTH
11. Elevation (Show whether DR, RKB, RT, GR, etc.) 3638 GL

SUNDRY NOTICES AND REPORTS ON WELLS
(DO NOT USE THIS FORM FOR PROPOSALS TO DRILL OR TO DEEPEN OR PLUG BACK TO A DIFFERENT RESERVOIR. USE "APPLICATION FOR PERMIT" (FORM C-101) FOR SUCH PROPOSALS.)
1. Type of Well: Oil Well [] Gas Well [X] Other
2. Name of Operator Avant Operating II, LLC
3. Address of Operator 1515 Wynkoop Street, Suite 700. Denver, CO 80202.
4. Well Location Unit Letter P : 263 feet from the South line and 984 feet from the East line
Section 16 Township 20S Range 34E NMPM County Lea
11. Elevation (Show whether DR, RKB, RT, GR, etc.) 3638 GL

12. Check Appropriate Box to Indicate Nature of Notice, Report or Other Data

NOTICE OF INTENTION TO:
PERFORM REMEDIAL WORK [] PLUG AND ABANDON []
TEMPORARILY ABANDON [] CHANGE PLANS [X]
PULL OR ALTER CASING [] MULTIPLE COMPL []
DOWNHOLE COMMINGLE []
CLOSED-LOOP SYSTEM []
OTHER: []
SUBSEQUENT REPORT OF:
REMEDIAL WORK [] ALTERING CASING []
COMMENCE DRILLING OPNS. [] P AND A []
CASING/CEMENT JOB []
OTHER: []

13. Describe proposed or completed operations. (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work). SEE RULE 19.15.7.14 NMAC. For Multiple Completions: Attach wellbore diagram of proposed completion or recompletion.

Avant Operating II, LLC would like to make the following changes to the subject well:

- 1. Update surface casing from 10-3/4" to 11-3/4.
2. Surface casing weight from 40.5# to 42#.
3. Increase intermediate hole size from 9-7/8" to 10-5/8".
4. Intermediate casing connection will either be BK or BTC SCC based on what is available.
5. Surface cement sacks from 765sx to 615sx.
6. intermediate cement sacks from 830sx to 1330x.

Updated wellbore diagram & cement proposal attached to reflect these changes.

Spud Date: []

Rig Release Date: []

I hereby certify that the information above is true and complete to the best of my knowledge and belief.

SIGNATURE [Signature] TITLE Contract Regulatory Analyst DATE 2/17/2026

Type or print name Meghan Twele E-mail address: mtwele@outlook.com PHONE: 720-339-6880

For State Use Only

APPROVED BY: [] TITLE [] DATE []

Conditions of Approval (if any):

AFE: NM1371



Quail 16 State Com #504H

API: 30-025-55854
 REGULATORY: NM State
 PERMIT #

Bone Springs

Lea County, NM

RIG:
 KB: 3664.5 (26.5')
 GL: 3638'

Sec. 16, T-20S, R-34E; 263 FSL, 984 FEL

SHL:

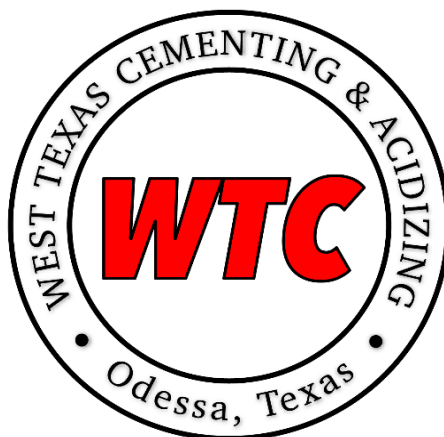
Lat: 32.566597, Long: -103.559853 (NAD83)

HOLE SIZE	MD	FORMATION	TVD	MUD	CASING	CEMENT	SPECIAL INSTRUCTIONS
14 3/4 "	120	20" Conductor	120	SPUD MW 8.4 ppg	11 3/4 "	LEAD: 12.8 PPG Top of Lead: 0 50% Excess	Circ cement to surface is a NMOCD requirement Casing must be set 25' into the Rustler MUD: Fresh water only
	1,552	Rustler	1,552	Fresh	42# J-55 BTC +/- 13 Bowsprings 1 20' pup jt	TAIL: 14.8 PPG Top of Tail: 1262' 20% Excess	
	1,577	SURF CSG PT	1,577	9.9 ppg	1 joint shoe track		
10 5/8 "	1,881	Solado	1,881	DRLOUT MW 10 ppg	8 5/8 "	2 STAGE CEMENT	
	3,410	Yates	3,410	Brine		1st STAGE	LEAD: 12.5 PPG Top of Lead: 0' 20% excess TAIL: 14.5 PPG Top of Tail: 4284' 20% Excess
	3,800	DV TOOL & PACKER	3,800				
	4,021	Capitan Reef	4,012		1 20' pup jt		
	5,306	Base of Capitan	5,269	TD MW 10 ppg	2nd STAGE	LEAD: 12.5 PPG Top of Lead: 0' 20% Excess TAIL: 14.2 PPG Top of Tail: 3200' no excess	
5,356	INTRM CSG PT	5,319					
7 7/8 " VERTICAL	5,602	Cherry Canyon	5,559	DRLOUT MW 9		R-111-Q FIGURE B Set production cement >500' short of Int1 shoe and perform post-frac bullhead cement job.	
	6,687	Brushy Canyon	6,620	Cut Brine			
	8,463	Bone Spring	8,357	KOP MW 9.2			
	8,879	Avalon	8,764	EOC MW 9.2			
7 7/8 " CURVE	9,613	1st BS Sand	9,490	OBM 9.2	Lat MW 9.2		
	9,712	KOP	9,590		OBM	TD MW 9.2	
	10,249	2nd BS Sand	10,020				
7 7/8 " LATERAL	10,462	EOC	10,067				15,103 ' MD
				EOC VS = 276' Lat. Azi = VS Azi. = 359.58° Est BHST = 166°F, Est BHCT = 149°F			4,917 ' VS
				BHL: 100 FNL, 2178 FEL			10,067 ' TVD
DIRECTIONAL PLAN							
MD	INC	INC	TVD	ANNOTATION	5 1/2 "	LEAD: 10.7 PPG Top of Lead: 6400 0% Excess	Expected BH Pressure: 4631
					20# P-110 HC GBCD	TAIL: 14.8 PPG Top of Tail: 9712 0% Excess	POST FRAC: SQUEEZE CEMENT TO TIE IN 5.5" STRING. FINAL TOP OF CEMENT 500' ABOVE PREVIOUS SHOE WITH ≈47BBLs
					1 15' pup jt 2 20' Marker Jts +/- 35 Bowsprings +/- 27 Doublebows +/- 110 Solid Bodies	All aqueous fluids (spacer and disp) left inside or outside of pipe must have biocide & corrosion inhibitor	

PRELIMINARY

DIRECTIONS TO LOCATION:

PROPOSAL#: 251230154429-B



CEMENT PROCEDURE & PROPOSAL

PREPARED FOR:

Mr. Ryan Harris
EMAIL: ryan@avantnr.com
PHONE NUMBER: 406-853-6490

Avant Operating II Quail 16 State Com #504H Lea County, NM

API Number: 30-025-55854
AFE Number: NM1371

Service Point

Odessa
1400 S JBS Parkway Odessa, TX 79766
432-701-8955

Technical Writer

Thomas Shao
thomas.shao@wtcementers.com
720-854-9550

WTC Representative

Jon Reynolds
jon@wtcementers.com
432-257-1234

.Disclaimer Notice:

The ability of West Texas Cementing & Acidizing to complete this work is subject to the availability of the raw materials required to complete the job.
This information is presented in good faith, but no warranty is given by and West Texas Cementers LLC assumes no liability for advice or recommendations made concerning results to be obtained from the use of any product or service. The results given are estimates based on calculations produced by a computer model including various assumptions on the well, reservoir and treatment. The results depend on input data provided by the Operator and estimates as to unknown data and can be no more accurate than the model, the assumptions and such input data. The information presented is WTC LLC's best estimate of the actual results that may be achieved and should be used for comparison purposes rather than absolute values. The quality of input data, and hence results, may be improved through the use of certain tests and procedures which West Texas Cementers LLC can assist in selecting. The Operator has superior knowledge of the well, the reservoir, the field and conditions affecting them. If the Operator is aware of any conditions whereby a neighboring well or wells might be affected by the treatment proposed herein it is the Operator's responsibility to notify the owner or owners of the well or wells accordingly. Prices quoted are estimates only and are good for 30 days from the date of issue. Actual charges may vary depending upon time, equipment, and material ultimately required to perform these services. Freedom from infringement of patents of West Texas Cementers LLC or others is not to be inferred.

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VERSION: v0.29d

Avant Operating II
 Quail 16 State Com #504H
 Lea County, NM

Surface



PROPOSAL#: 251230154429-B

WELL INFORMATION						
MUD	8.4# Fresh Water					
PREVIOUS PIPE	20" 94# CSG to 120					
OPEN HOLE	14.75" OH to 1577					
CASING/INJECTION	11.75" 42# J-55/BTC to 1577					
MD	1577					
TVD	1577					
EST BHST/BHCT	93-F / 86-F (0.8-F/100-FT)					
NOTES	Standby charges start after WTC has been on location for more than 4-hrs.					
VOLUMES						
FLUID NAME	LENGTH (ft)	OD (in.)	ID (in.)	XS (%)	FACTOR (bbl/ft)	VOLUME (bbl)
Lead	120	19.124	11.75		0.2211	26.5
Lead	1142	14.75	11.75	50%	0.1158	132.3
Tail	315	14.75	11.75	20%	0.0927	29.2
SHOE JOINT	40	11.75	11.084		0.1193	4.8
FLUIDS						
SPACER						
Fresh Water						
VOLUME	20-bbl					
Lead						
35% B_Poz+65% Class C+6% Gel+5% SALT+0.25PPS Pol-E-Flake+0.5PPS TCA100						
VOLUME	470-SX		Slurry Volume: 159-bbls			
DENSITY	12.8-ppg		Mix Water Required: 115-bbls			
YIELD	1.9-cf/sx					
MIX WATER	10.19-gps					
TOP OF CEMENT	Surface					
EXCESS	50%					

Avant Operating II
Quail 16 State Com #504H
Lea County, NM

Surface



PROPOSAL#: 251230154429-B

Tail		
	100% Class C+0.5% CaCl ₂ +0.25PPS TCA100	
VOLUME	145-SX	Slurry Volume: 34.3-bbls
DENSITY	14.8-ppg	Mix Water Required: 22-bbls
YIELD	1.33-cf/sx	
MIX WATER	6.33-gps	
TOP OF CEMENT	1262-ft	
EXCESS	20%	
DISPLACEMENT		
	Displacement	
VOLUME	183.4-bbl	

Avant Operating II
 Quail 16 State Com #504H
 Lea County, NM

Multi-Stage Intermediate



PROPOSAL#: 251230154429-B

WELL INFORMATION						
MUD	10# Brine					
PREVIOUS PIPE	11.75" 42# CSG to 1577					
OPEN HOLE	10.625" OH to 5356					
CASING/INJECTION	8.625" 32# L-80 HC BK to 5356					
MD	5356					
TVD	5319					
EST BHST/BHCT	123-F / 107-F (0.8-F/100-FT)					
DV TOOL	3800					
EST BHST/BHCT STG2	111-F / 98-F (0.8-F/100-FT)					
NOTES	Standby charges start after WTC has been on location for more than 8-hrs.					
VOLUMES						
FLUID NAME	LENGTH (ft)	OD (in.)	ID (in.)	XS (%)	FACTOR (bbl/ft)	VOLUME (bbl)
Stage 1 Lead	1577	11.084	8.625		0.0471	74.2
Stage 1 Lead	2707	10.625	8.625	20%	0.0449	121.5
Stage 1 Tail	1072	10.625	8.625	20%	0.0449	48.1
Stage 2 Lead	1577	11.084	8.625		0.0471	74.2
Stage 2 Lead	1623	10.625	8.625	20%	0.0449	72.8
Stage 2 Tail	600	10.625	8.625	0%	0.0374	22.4
SHOE JOINT	40	8.625	7.921		0.0609	2.4
FLUIDS						
SPACER						
Fresh Water						
VOLUME	25-bbl					
Stage 1 Lead						
35% B_Poz+65% Class C+10% SALT+1% SMS+0.25PPS Pol-E-Flake+0.5PPS TCA100						
VOLUME	580-SX		Slurry Volume: 196.3-bbls			
DENSITY	12.8-ppg		Mix Water Required: 141-bbls			
YIELD	1.9-cf/sx					
MIX WATER	10.21-gps					
TOP OF CEMENT	Surface					
EXCESS	20%					

Avant Operating II
 Quail 16 State Com #504H
 Lea County, NM

Multi-Stage Intermediate



PROPOSAL#: 251230154429-B

Stage 1 Tail		
100% Class C+0.005GPS NoFoam V1A		
VOLUME	215-SX	Slurry Volume: 50.9-bbls
DENSITY	14.8-ppg	Mix Water Required: 33-bbls
YIELD	1.33-cf/sx	
MIX WATER	6.32-gps	
TOP OF CEMENT	4284-ft	
EXCESS	20%	
DISPLACEMENT		
Displacement		
VOLUME	324-bbl	
SPACER		
Fresh Water		
VOLUME	20-bbl	
Stage 2 Lead		
35% B_Poz+65% Class C+10% SALT+1% SMS+0.25PPS Pol-E-Flake+0.5PPS TCA100		
VOLUME	435-SX	Slurry Volume: 147.2-bbls
DENSITY	12.8-ppg	Mix Water Required: 106-bbls
YIELD	1.9-cf/sx	
MIX WATER	10.21-gps	
TOP OF CEMENT	Surface	
EXCESS	20%	
Stage 2 Tail		
100% Class C+0.005GPS NoFoam V1A		
VOLUME	100-SX	Slurry Volume: 23.7-bbls
DENSITY	14.8-ppg	Mix Water Required: 16-bbls
YIELD	1.33-cf/sx	
MIX WATER	6.32-gps	
TOP OF CEMENT	3200-ft	
EXCESS	0%	
DISPLACEMENT		
Displacement		
VOLUME	231.6-bbl	

Avant Operating II
 Quail 16 State Com #504H
 Lea County, NM

Production



PROPOSAL#: 251230154429-B

WELL INFORMATION						
MUD	9.2# OBM					
PREVIOUS PIPE	8.625" 32# CSG to 5356					
OPEN HOLE	7.875" OH to 15103					
CASING/INJECTION	5.5" 20# P-110 HC GBCD to 15103					
MD	15103					
TVD	10067					
EST BHST/BHCT	166-F / 166-F (0.85-F/100-FT)					
KOP	9712					
NOTES	Standby charges start after WTC has been on location for more than 8-hrs.					
VOLUMES						
FLUID NAME	LENGTH (ft)	OD (in.)	ID (in.)	XS (%)	FACTOR (bbl/ft)	VOLUME (bbl)
Lead	3312	7.875	5.5	0%	0.0309	102.2
Tail	5391	7.875	5.5	0%	0.0309	166.3
SHOE JOINT	80	5.5	4.778		0.0222	1.8
FLUIDS						
SPACER						
Wt. Spacer 37.97GPB Water+8PPB PolyScrub 4320+73.68PPB Barite+1GPB HoleScrub 4311+1PPB R-1300+1PPB TCA100						
VOLUME	40-bbl					
DENSITY	9.7-ppg					
Lead						
100% ProLite+5PPS Plexcrete STE+2% SMS+0.65% R-1300+0.5% FL-24+3PPS Gilsonite+0.5PPS TCA100						
VOLUME	170-SX		Slurry Volume: 102.9-bbls			
DENSITY	10.7-ppg		Mix Water Required: 86-bbls			
YIELD	3.4-cf/sx					
MIX WATER	21.14-gps					
TOP OF CEMENT	6400-ft					
EXCESS	0%					

Avant Operating II
Quail 16 State Com #504H
Lea County, NM

Production



PROPOSAL#: 251230154429-B

Tail

50% B_Poz+50% Class H+5% SALT+0.3% SMS+0.4% CRT-201+0.5% FL-24+0.5PPS TCA100

VOLUME	780-SX	Slurry Volume: 169.5-bbls
DENSITY	14.5-ppg	Mix Water Required: 99-bbls
YIELD	1.22-cf/sx	
MIX WATER	5.3-gps	
TOP OF CEMENT	9712-ft	
EXCESS	0%	

DISPLACEMENT

Fresh Water+ 0.25GPT Plexicide 24L+1GPT Corplex

VOLUME	333.1-bbl
DENSITY	8.34-ppg

Avant Operating II
 Quail 16 State Com #504H
 Lea County, NM

Bradenhead Squeeze



PROPOSAL#: 251230154429-B

WELL INFORMATION						
MUD	9# Brine					
PREVIOUS PIPE	8.625" 32# CSG to 5356					
OPEN HOLE	7.875" OH to 15103					
CASING/INJECTION	5.5" 20# P-110 HC GBCD to 15103					
MD	6400					
EST BHST/BHCT	132-F / 114-F (0.8-F/100-FT)					
NOTES	Standby charges start after WTC has been on location for more than 6-hrs. Squeeze will be pumped down the backside.					
VOLUMES						
FLUID NAME	LENGTH (ft)	OD (in.)	ID (in.)	XS (%)	FACTOR (bbl/ft)	VOLUME (bbl)
Tail	500	7.921	5.5		0.0316	15.8
Tail	1044	7.875	5.5	0%	0.0309	32.2
FLUIDS						
SPACER						
Fresh Water						
VOLUME	20-bbl					
Tail						
100% Class C+0.5% CaCl2+0.25PPS TCA100						
VOLUME	205-SX				Slurry Volume: 48.6-bbls	
DENSITY	14.8-ppg				Mix Water Required: 31-bbls	
YIELD	1.33-cf/sx					
MIX WATER	6.33-gps					
TOP OF CEMENT	4856-ft					
EXCESS	0%					
DISPLACEMENT						
Fresh Water+ 0.25GPT Plexicide 24L+1GPT Complex						
VOLUME	153.3-bbl					
DENSITY	8.34-ppg					

CHEMICAL DESCRIPTIONS		
CHEMICAL NAME	CODE	DESCRIPTION
B_Poz	WTC228	Poz - Fly Ash, Extender
Class H	WTC101	API Cement
Class C	WTC100	API Cement
M_Poz	WTC280	Poz - Fly Ash, Extender
ProLite		Blended Based Cement
Plexcrete SFA	WTC129	Cement Strength Enhancer
Gel	WTC102	Extender
GB-52	WTC008	Microspheres, Extender
Micro Shell	WTC209	Cement Strength Enhancer
WTC1	WTC250	Extender
CS-9	WTC285	Cement Strength Enhancer
Plexcrete STE	WTC127	Cement Strength Enhancer
CSE-NP	WTC236	Cement Strength Enhancer
Gypsum	WTC111	Free Water Control, Extender
CaCl2	WTC112	Accelerator
SMS	WTC115	Free Water Control, Extender
RCKCAS-100	WTC276	Free Water Control, Anti-Settling Agent
R-1300	WTC201	Low Temperature Retarder
CR-150	WTC275	Lignosulfonate Retarder
CRT-201	WTC278	Lignosulfonate Retarder
CD-22	WTC290	Dispersant, Friction Reducer
CFL-312	WTC265	Fluid Loss and Gas Migration Control
FL-24	WTC277	Fluid Loss (polymers/copolymers - 300-F max)
FL-17	WTC130	Fluid Loss and Gas Migration Control (400-F max)
MagBond	WTC271	Expanding Agent
Gilsonite	WTC003	Premium Lost Circulation Material, Free Water Control
Pol-E-Flake	WTC106	Lost Circulation Material
Web Seal	WTC133	Premium Fiber Lost Circulation Material
TCA100	WTC284	Powdered Defoamer
NoFoam V1A	WTC105	Liquid Defoamer
Water		Fresh Water
PolyScrub 4320	WTC232	Spacer Gelling Agent
RCKCAS-100	WTC276	Free Water Control, Anti-Settling Agent
Barite	WTC116	Weighting Agent
HoleScrub 4311	WTC281	Surfactant
HoleScrub 4305	WTC213	Surfactant
Soda Ash	WTC164	pH Control
R-1300	WTC201	Low Temperature Retarder
RCKCAS-100	WTC276	Free Water Control, Anti-Settling Agent
Sugar	WTC119	Retarder
TCA100	WTC284	Powdered Defoamer
Plexcide 24L	WTC166	Biocide
Complex	WTC134	Corrosion Inhibitor
Clay Max	WTC096	KCL Substitute
Zone Seal	WTC207	Premium Lost Circulation Material

Sante Fe Main Office
Phone: (505) 476-3441

General Information
Phone: (505) 629-6116

Online Phone Directory
<https://www.emnrd.nm.gov/ocd/contact-us>

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

CONDITIONS

Action 554937

CONDITIONS

Operator: Avant Operating II, LLC 1515 Wynkoop Street Denver, CO 80202	OGRID: 332947
	Action Number: 554937
	Action Type: [C-103] NOI Change of Plans (C-103A)

CONDITIONS

Created By	Condition	Condition Date
matthew.gomez	If cement does not circulate to surface on any string, a Cement Bond Log (CBL) is required for that string of casing. If strata isolation is not achieved, remediation will be required before further operations may commence.	3/30/2026
matthew.gomez	All conducted logs must be submitted to the OCD.	3/30/2026
matthew.gomez	Cement must be in place for at least eight hours AND achieve a minimum compressive strength of 500 PSI before performing any further operations on the well.	3/30/2026
matthew.gomez	All previous COA's still apply.	3/30/2026