

District I
1625 N. ... 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 and Natural Resources

Form C-101
Revised July 18, 2013

Oil Conservation Division NM OIL CONSERVATION DIVISION
1220 South St. Francis Dr. ARTESIA DISTRICT
Santa Fe, NM 87505

NOV 14 2018

RECEIVED

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

1. Operator Name and Address Shackelford Oil Co. 11417 W County Rd 33 Midland, TX 79707		2. OGRID Number 20595
3. API Number 30-015-33851		
4. Property Code 34488 320066	5. Property Name State CW	6. Well No. #2

7. Surface Location

UL - Lot	Section	Township	Range	Lot Idn	Feet from	N/S Line	Feet From	E/W Line	County
H	19	20S	28E		1500'	FNL	1310'	FEL	EDDY

8. Proposed Bottom Hole Location

UL - Lot	Section	Township	Range	Lot Idn	Feet from	N/S Line	Feet From	E/W Line	County

9. Pool Information

Pool Name <i>Penlon Bone Spring East</i>	Pool Code <i>96213</i>
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Additional Well Information

11. Work Type P	12. Well Type G	13. Cable/Rotary N/A	14. Lease Type S	15. Ground Level Elevation 3310'
16. Multiple NO	17. Proposed Depth 8765'	18. Formation BONE SPRINGS	19. Contractor	20. Spud Date 11/15/2018
Depth to Ground water 33'		Distance from nearest fresh water well		Distance to nearest surface water 4 miles

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

21. Proposed Casing and Cement Program

Type	Hole Size	Casing Size	Casing Weight/ft	Setting Depth	Sacks of Cement	Estimated TOC
	17 1/2"	13 3/8"	48# H-40 ST&C	499'	452	SURFACE
	11"	9 5/8"	36# J-55 LT&C	2817'	1080 POZ C&H	SURFACE
	8 3/4"	5 1/2"	17# P-110LT&C	11411'	2500 POZ C&H	3800'

Casing/Cement Program: Additional Comments

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22. Proposed Blowout Prevention Program

Type	Working Pressure	Test Pressure	Manufacturer
HYDRAULIC	3000#		

23. I hereby certify that the information given above is true and complete to the best of my knowledge and belief. I further certify that I have complied with 19.15.14.9 (A) NMAC ☐ and/or 19.15.14.9 (B) NMAC ☐ , if applicable. Signature: <i>[Signature]</i>		OIL CONSERVATION DIVISION	
Printed name: BRADY SHACKELFORD		Approved By: <i>[Signature]</i>	
Title: CFO		Title: <i>Geologist</i>	
E-mail Address: brady@choctawservices.com		Approved Date: <i>11/14/18</i>	Expiration Date: <i>11/14/20</i>
Date: 11/9/2018	Phone: (432) 682-9784	Conditions of Approval Attached	

State CW #2 (Recompletion to Avalon Sand @ 5010-36')

Procedures

1. MIRU. ND Production tree and NU and test BOP's. Test tbg to 8500#
2. MIRU WL Unit RIH w/gauge ring to 9850'. Note any tite spots
3. RIH w/CIBP set at 9820' POOH. RIH and dump bail 35' cement on top of CIBP to abandon Canyon Lime.
4. RIH w/CIBP set at 8800' POOH. RIH and dump bail 35' cement on top of CIBP to abandon Wolfcamp (no perfs)
5. RIH w/CCL and perf guns, perf 5010-36' 4spf RD WL Unit
6. RIH w/5 1/2" 17# production packer on 2 7/8" tubing set at 4950', acidize well w/2,000 gals of 15% NEFE Acid
7. Swab test well to determine if frac job is necessary.
8. Frac well as proposed w/60,000 # of 20/40 sand

OIL CONSERVATION
ARTESIA DISTRICT

NOV 14 2018

Form C-102

Revised August 1, 2011

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

RECEIVED
Submit one copy to appropriate
District Office

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number 30-015-33851		Pool Code 96213	Pool Name Penton Bone Spring, East
Property Code 330066	Property Name State CW		Well Number 2
OGRID No. 20595	Operator Name Shackelford Oil Company		Elevation 3310

Surface Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
H	19	20S	20E		1500	North	1310	East	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

Dedicated Acres 160	Joint or Infill	Consolidation Code	Order No.
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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 undivided 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. Signature: Brady Shackelford Date: 11/16/18 Printed Name: Brady Shackelford E-mail Address: brady@choctawservices.com	
	"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. Refer to Original Plat Date of Survey Signature and Seal of Professional Surveyor:	
	Certificate Number	

Last Updated: 10/23/2018 10:13 AM

Field Name		Lease Name		Well No.
State CW		State CW		2
County		State		API No.
Eddy		New Mexico		30015338510000
Version		Version Tag		
1				
GL (ft)	KB (ft)	Section	Township/Block	Range/Survey
		19	20S	28E
Operator		Well Status		Latitude
Shackelford Oil Company				
Dist. N/S (ft)		N/S Line	Dist. E/W (ft)	E/W Line
1500		FNL	1310	FEL
Footage From				
Prop Num		Spud Date		Comp. Date
		2/5/2005		
Additional Information				
Acquired From Devon 2018				
Brady Shackelford 10/23/2018				
Other 1		Other 2		Other 3
Prepared By		Updated By		Last Updated
Shackelford		Shackelford		10/23/2018 10:13 AM

Hole Summary

Date	O.D. (in)	Tc (ft)	Bottom (MD ft)	Comments
	17.500	0	499	
	12.250	0	2,817	
	8.750	0	11,407	

Tubular Summary

Date	Description	O.D. (in)	Wt (lb/ft)	Grade	Top (MD ft)	Bottom (MD ft)
	Surface Casing	13.375	48.00		0	499
	Intermediate Casing	9.625	36.00	J55	0	2,817
	Production Casing	5.500	17.00	P110	0	11,407

Casing Cement Summary

Date	No. Sx	Csg. O.D. (in)	Top (MD ft)	Bottom (MD ft)	Comments
	452	13.375	0	499	Cement to Surface
	1,180	9.625	0	2,817	Cement to Surface
	2,500	5.500	3,800	11,407	TOC @ 3800 (CBL - 3/16/2005)

Tools/Problems Summary

Date	Tool Type	O.D. (in)	I.D. (in)	Top (MD ft)	Bottom (MD ft)
8/8/2011	CIBP	5.500	0.000	10,200	0
9/16/2008	CIBP	5.500	0.000	10,980	0
6/27/2008	CIBP	5.500	0.000	11,075	0

Cement Plug Summary

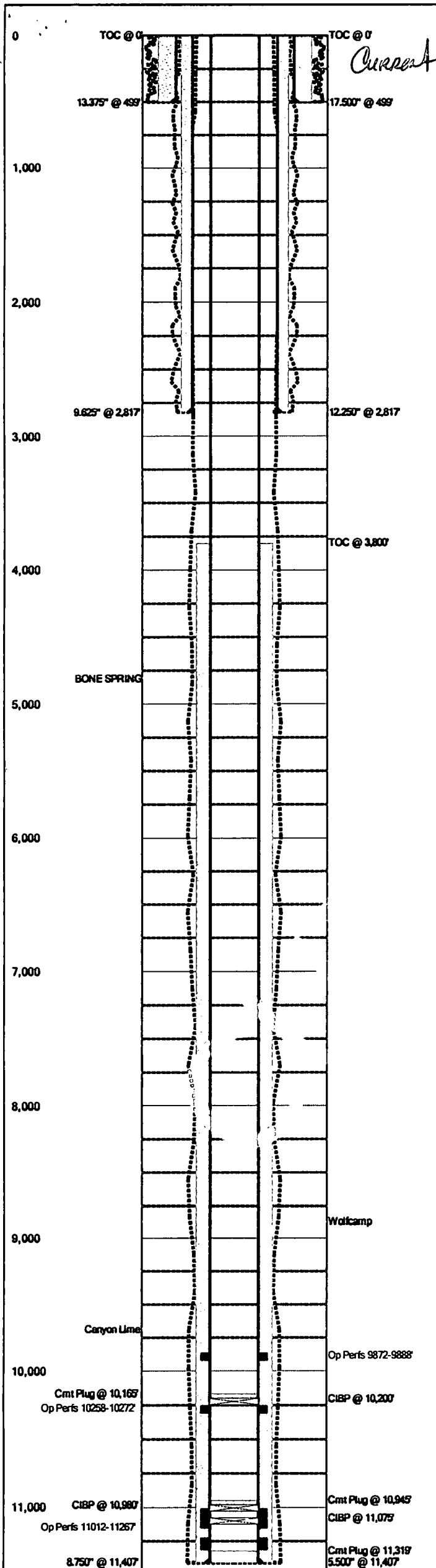
Date	No. Sx	O.D. (in)	Top (MD ft)	Bottom (MD ft)	Comments
8/8/2011		5.500	10,165	10,200	
9/15/2008		5.500	10,945	10,980	
		5.500	11,319	11,411	

Perforation Summary

C	Date	Perf. Status	Formation	OA Top (MD ft)	OA Bottom (MD ft)	Shots
		Open		9,872	9,888	
		Open	Strawn	10,258	10,272	42
		Open	Morrow	11,012	11,267	170

Formation Tops Summary

Formation	Top (TVD ft)	Comments
BONE SPRING	4,804	
Wolfcamp	8,875	
Canyon Lime	9,682	



Field Name		Lease Name		Well No.	County	State	API No.	
State CW		State CW		2	Eddy	New Mexico	30015338510000	
Version	Version Tag				Spud Date	Comp. Date	GL (ft)	KB (ft)
1					2/5/2005			
Section	Township/Block	Range/Survey	Dist. N/S (ft)	N/S Line	Dist. E/W (ft)	E/W Line	Footage From	
19	20S	28E	1,500	FNL	1,310	FEL		
Operator			Well Status		Latitude		Longitude	Prop Num
Shackelford Oil Company								
Other 1		Other 2		Other 3		Other 4		
Last Updated		Prepared By			Updated By			
10/23/2018 10:13 AM		Shackelford			Shackelford			
Additional Information								
Acquired From Devon 2018								
Brady Shackelford 10/23/2018								

Hole Summary

Date	O.D. (in)	Top (MD ft)	Bottom (MD ft)	Comments
	17.500	0	499	
	12.250	0	2,817	
	8.750	0	11,407	

Tubular Summary

Date	Description	No. Jts	O.D. (in)	Wt (lb/ft)	Grade	Top (MD ft)	Bottom (MD ft)	Comments
	Surface Casing		13.375	48.00		0	499	
	Intermediate Casing		9.625	36.00	J55	0	2,817	
	Production Casing		5.500	17.00	P110	0	11,407	

Casing Cement Summary

C	Date	No. Sx	Yield (ft ³ /sk)	Vol. (ft ³)	Csg. O.D. (in)	Top (MD ft)	Bottom (MD ft)	Description	Comments
		452	1.00	452	13.375	0	499	252 sks lead, 200 sks tail	Cement to Surface
		1,180	1.00	1,180	9.625	0	2,817	1080 sks, Topped w/ 100 sks	Cement to Surface
		2,500	1.00	2,500	5.500	3,800	11,407	1st stage - 700 sks, 2nd stage - 1800 sks	TOC @ 3800 (CBL - 3/16/2005)

Tools/Problems Summary

Date	Tool Type	O.D. (in)	I.D. (in)	Top (MD ft)	Bottom (MD ft)	Description	Comments
8/8/2011	Cast Iron Bridge Plug	5.500	0.000	10,200	0		
9/16/2008	Cast Iron Bridge Plug	5.500	0.000	10,980	0		
6/27/2008	Cast Iron Bridge Plug	5.500	0.000	11,075	0		

Cement Plug Summary

Date	No. Sx	O.D. (in)	Top (MD ft)	Bottom (MD ft)	Comments
8/8/2011		5.500	10,165	10,200	
9/15/2008		5.500	10,945	10,980	
		5.500	11,319	11,411	

Perforation Summary

C	Date	Perf. Status	Formation		Comments		
		Open	Strawn		Acidize w/ 1500 gal 7 5% HCL (9/17/2008) Fraced w/ 34285# 20/40 (9/19/2008)		
	Top (MD ft)	Bottom (MD ft)	SPF	Shots	Phasing (deg)	Interval Comments	
	10,258	10,272	3	42			

C	Date	Perf. Status	Formation		Comments		
		Open	Morrow		Acidize w/ 4500 gals 7 5% HCL (3/29/2005) Frac'd (4/2/2005)		
	Top (MD ft)	Bottom (MD ft)	SPF	Shots	Phasing (deg)	Interval Comments	
	11,012	11,032	1	20			
	11,054	11,056	3	6			
	11,101	11,103	3	6			
	11,230	11,248	6	108			
	11,262	11,267	6	30			

C	Date	Perf. Status	Formation		Comments		
		Open			Acidize w/ 4000 gal 7.5% HCL		
	Top (MD ft)	Bottom (MD ft)	SPF	Shots	Phasing (deg)	Interval Comments	
	9,872	9,888					

Formation Top Summary

Formation Name	Top(TVD ft)	Comments
BONE SPRING	4,804	
Wolfcamp	8,875	
Canyon Lime	9,682	

Last Updated: 11/7/2018 10:01 AM

Field Name		Lease Name		Well No.
State CW		State CW		2
County		State		API No.
Eddy		New Mexico		30015338510000
Version		Version Tag		
2		Proposed		
GL (ft)	KB (ft)	Section	Township/Block	Range/Survey
		19	20S	28E
Operator		Well Status		Latitude
Shackelford Oil Company				
Dist. N/S (ft)		N/S Line	Dist. E/W (ft)	E/W Line
1500		FNL	1310 FEL	
Footage From				
Prop Num		Spud Date		Comp. Date
		2/5/2005		
Additional Information				
Acquired From Devon 2018				
Brady Shackelford 10/23/2018				
Other 1		Other 2		Other 3
				Other 4
Prepared By		Updated By		Last Updated
Shackelford		Shackelford		11/7/2018 10:01 AM

Date	O.D. (in)	Top (MD ft)	Bottom (MD ft)	Comments
	17.500	0	499	
	12.250	0	2,817	
	8.750	0	11,407	

Date	Description	O.D. (in)	Wt (lb/ft)	Grade	Top (MD ft)	Bottom (MD ft)
	Surface Casing	13.375	48.00		0	499
	Intermediate Casing	9.625	36.00	J55	0	2,817
	Production Casing	5.500	17.00	P110	0	11,407
	Tubing	2.875	17.00		0	4,950

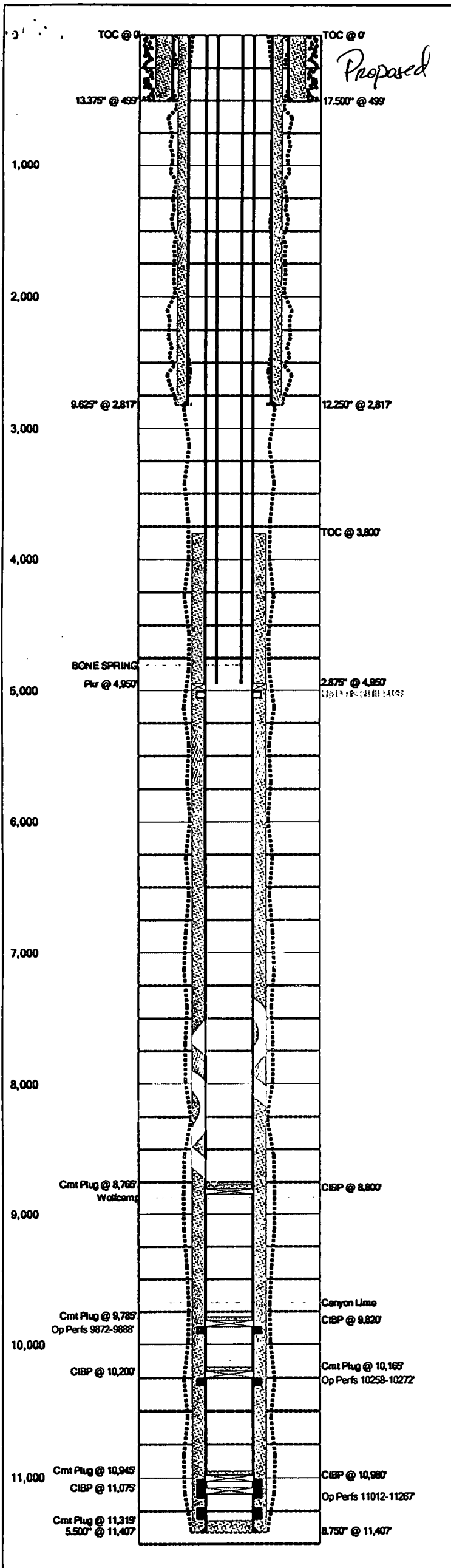
C	Date	No. Sx	Csg. O.D. (in)	Top (MD ft)	Bottom (MD ft)	Comments
		452	13.375	0	499	Cement to Surface
		1,180	9.625	0	2,817	Cement to Surface
		2,500	5.500	3,800	11,407	TOC @ 3800 (CBL - 3/16/2005)

Date	Tool Type	O.D. (in)	I.D. (in)	Top (MD ft)	Bottom (MD ft)
	Pkr	8.750	5.500	4,950	0
	CIBP	5.500	0.000	8,800	0
	CIBP	5.500	0.000	9,820	0
8/8/2011	CIBP	5.500	0.000	10,200	0
9/16/2008	CIBP	5.500	0.000	10,980	0
6/27/2008	CIBP	5.500	0.000	11,075	0

Date	No. Sx	O.D. (in)	Top (MD ft)	Bottom (MD ft)	Comments
		5.500	8,765	8,800	
		5.500	9,785	9,820	Bail
8/8/2011		5.500	10,165	10,200	
9/15/2008		5.500	10,945	10,980	
		5.500	11,319	11,411	

C	Date	Perf. Status	Formation	OA Top (MD ft)	OA Bottom (MD ft)	Shots
		Open		5,010	5,036	104
		Open		9,872	9,888	
		Open	Strawn	10,258	10,272	42
		Open	Morrow	11,012	11,267	170

Formation	Top (TVD ft)	Comments
BONE SPRING	4,804	
Wolfcamp	8,875	
Canyon Lime	9,682	



Field Name		Lease Name		Well No.	County	State		API No.	
State CW		State CW		2	Eddy	New Mexico		30015338510000	
Version	Version Tag				Spud Date		Comp. Date	GL (ft)	KB (ft)
2		Proposed			2/5/2005				
Section	Township/Block	Range/Survey		Dist. N/S (ft)	N/S Line	Dist. E/W (ft)	E/W Line	Footage From	
19	20S	28E		1,500	FNL	1,310	FEL		
Operator			Well Status		Latitude		Longitude		Prop Num
Shackelford Oil Company									
Other 1		Other 2		Other 3			Other 4		
Last Updated		Prepared By			Updated By				
11/07/2018 10:01 AM		Shackelford			Shackelford				

Additional Information

Acquired From Devon 2018
Brady Shackelford 10/23/2018

Hole Summary

Date	O.D. (in)	Top (MD ft)	Bottom (MD ft)	Comments
	17.500	0	499	
	12.250	0	2,817	
	8.750	0	11,407	

Tubular Summary

Date	Description	No. Jts	O.D. (in)	Wt (lb/ft)	Grade	Top (MD ft)	Bottom (MD ft)	Comments
	Surface Casing		13.375	48.00		0	499	
	Intermediate Casing		9.625	36.00	J55	0	2,817	
	Production Casing		5.500	17.00	P110	0	11,407	
	Tubing		2.875	17.00		0	4,950	Proposed

Casing Cement Summary

C	Date	No. Sx	Yield (ft3/sk)	Vol. (ft3)	Csg. O.D. (in)	Top (MD ft)	Bottom (MD ft)	Description	Comments
		452	1.00	452	13.375	0	499		Cement to Surface
		1,180	1.00	1,180	9.625	0	2,817		Cement to Surface
		2,500	1.00	2,500	5.500	3,800	11,407		TOC @ 3800 (CBL - 3/16/2005)

Tools/Problems Summary

Date	Tool Type	O.D. (in)	I.D. (in)	Top (MD ft)	Bottom (MD ft)	Description	Comments
	Packer	8.750	5.500	4,950	0	5 1/2" 17# Production Packer	
	Cast Iron Bridge Plug	5.500	0.000	8,800	0		
	Cast Iron Bridge Plug	5.500	0.000	9,820	0		
8/8/2011	Cast Iron Bridge Plug	5.500	0.000	10,200	0		
9/16/2008	Cast Iron Bridge Plug	5.500	0.000	10,980	0		
6/27/2008	Cast Iron Bridge Plug	5.500	0.000	11,075	0		

Cement Plug Summary

Date	No. Sx	O.D. (in)	Top (MD ft)	Bottom (MD ft)	Comments
		5.500	8,765	8,800	
		5.500	9,785	9,820	Bail
8/8/2011		5.500	10,165	10,200	
9/15/2008		5.500	10,945	10,980	
		5.500	11,319	11,411	

Perforation Summary

C	Date	Perf. Status	Formation		Comments	
		Open	Strawn		Acidize w/ 1500 gal 7 5% HCL (9/17/2018) Fraced w/ 34285# 20/40 (9/19/2008)	
	Top (MD ft)	Bottom (MD ft)	SPF	Shots	Phasing (deg)	Interval Comments
	10,258	10,272	3	42		
C	Date	Perf. Status	Formation		Comments	
		Open	Morrow		Acidize w/ 4500 gals 7 5% HCL (3/29/2005) Frac'd (4/2/2005)	
	Top (MD ft)	Bottom (MD ft)	SPF	Shots	Phasing (deg)	Interval Comments
	11,012	11,032	1	20		
	11,054	11,056	3	6		
	11,101	11,103	3	6		
	11,230	11,248	6	108		
	11,262	11,267	6	30		
C	Date	Perf. Status	Formation		Comments	
		Open				
	Top (MD ft)	Bottom (MD ft)	SPF	Shots	Phasing (deg)	Interval Comments
	9,872	9,888				
C	Date	Perf. Status	Formation		Comments	
		Open			Proposed	

C	Date	Perf. Status	Formation		Comments	
Top (MD ft)		Bottom (MD ft)	SPF	Shots	Phasing (deg)	Interval Comments
5,010		5,036	4	104		
Formation Top Summary						
Formation Name		Top(TVD ft)	Comments			
BONE SPRING		4,804				
Wolfcamp		8,875				
Canyon Lime		9,682				