

**NM OIL CONSERVATION
ARTESIA DISTRICT**

OCT 24 2018

Form C-103

Revised July 18, 2013

Submit 1 Copy To Appropriate District Office
District I - (575) 393-6161
 1625 N. French Dr., Hobbs, NM 88240
District II - (575) 748-1283
 811 S. First St., Artesia, NM 88210
District III - (505) 334-6178
 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

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

WELL ARING RECEIVED 30-013-45043 45043	
5. Indicate Type of Lease STATE ☐ FEE ☒	
6. State Oil & Gas Lease No.	
7. Lease Name or Unit Agreement Name Cass Draw 10-23-27	
8. Well Number 401H	
9. OGRID Number 246289	
10. Pool name or Wildcat Purple Sage; Wolfcamp (gas) 98220	

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 ☒ Other	
2. Name of Operator RKI Exploration & Production, LLC	
3. Address of Operator 3500 One Williams Center, MD 35, Tulsa, OK 74172	
4. Well Location Unit Letter <u>H</u> : <u>2619</u> feet from the <u>North</u> line and <u>338</u> feet from the <u>East</u> line Section <u>9</u> Township <u>23S</u> Range <u>27E</u> NMPM County <u>Eddy</u>	
11. Elevation (Show whether DR, RKB, RT, GR, etc.) 3116 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 ☐ 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: ☐	
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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.

Please be advised, RKI Exploration & Production, LLC spud and set surface casing.

Summary of operations is as follows:

Spud - 10/22/2018
 Set surface casing and cement - 10/22/2018
 13.375" csg, 54.5#, J55, depth 0'-351', 355 sacks tail, 14.8 ppg
 Bump Plug and increase pressure to 817 psi, held, floats-good, 1/2 BBL bled back
 Cement to Surface 33 bbls (138 sacks)
 100% Returns Thru Cement Job

Spud Date:	<u>10/22/2018</u>	Rig Release Date:	<u> </u>
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I hereby certify that the information above is true and complete to the best of my knowledge and belief.

SIGNATURE <u>Ashlee Fechino</u>	TITLE <u>Regulatory Team Lead</u>	DATE <u>10/23/2018</u>
Type or print name <u>Ashlee Fechino</u>	E-mail address: <u>ashlee.fechino@wpenergy.com</u>	PHONE: <u>539-573-0212</u>
For State Use Only		
APPROVED BY: <u>Rusty Hefner</u>	TITLE <u>Business Ops Spec A</u>	DATE <u>10-24-2018</u>
Conditions of Approval (if any):		

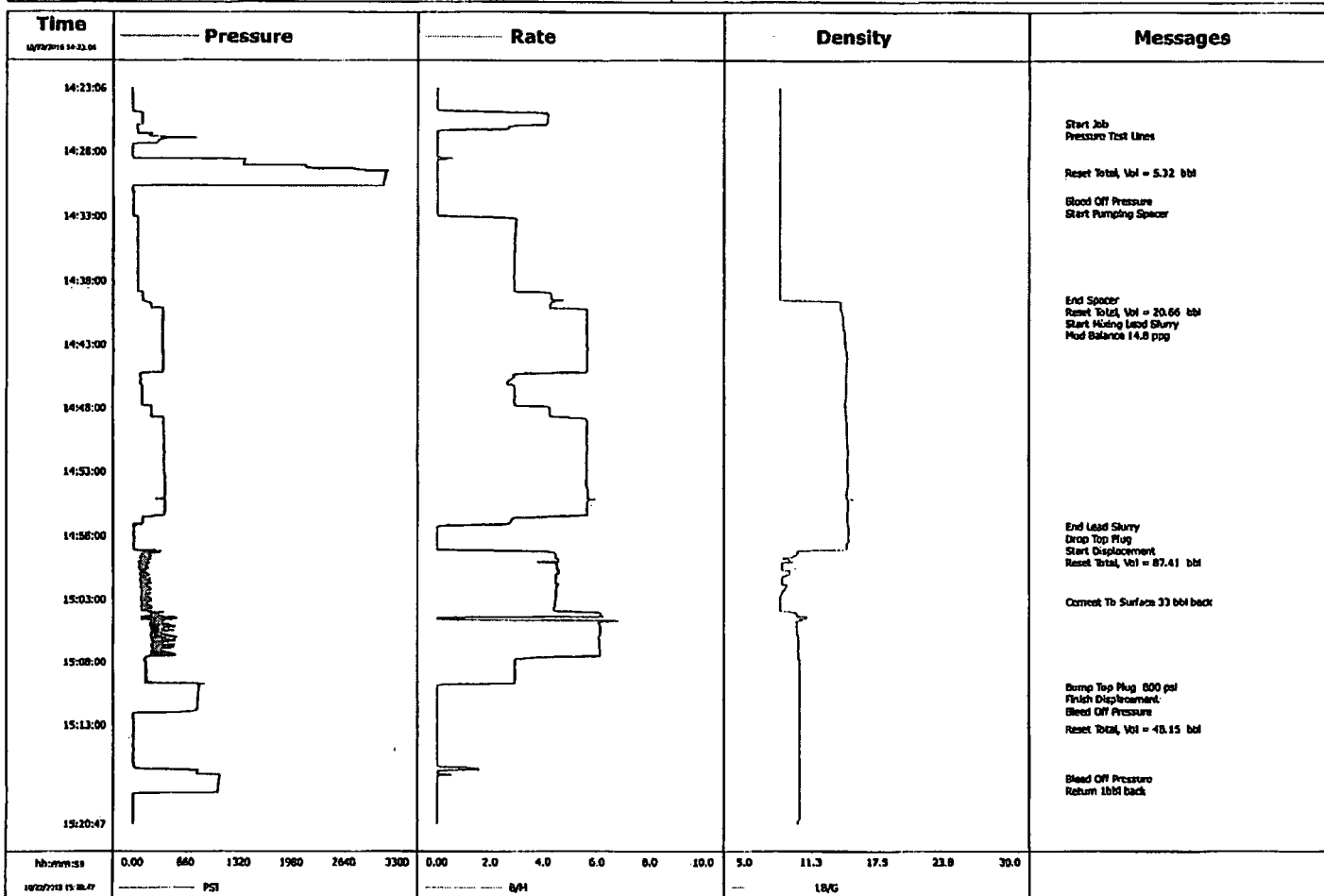
ENTERED



Cementing Job Report

CemCAT v1.7

Well	CASS DRAW 10-23-27 401H	Client	WPX ENERGY
Field	PHANTOM	SIR No.	2834379
Engineer	Jesus Herrera	Job Type	SURFACE
Country	United States	Job Date	10/22/2018



10/22/2018 16:08:21



Cementing Service Report

Customer WPX ENERGY				Job Number 2834379			
Well CASS DRAW 10-23-27 401H 1H			Location (Legal) HOBBS		Schlumberger Location Hobbs		Job Start Oct/22/2018
Field PHANTOM		Formation Name/Type		Deviation 0 deg	Bit Size 17.5 in	Well MD 351.0 ft	Well TVD 355.0 ft
Country EDDY	State/Province New Mexico		BHP psi	BHST 95 degF	BHCT 100 degF	Pore Press. Gradient lb/gal	
Well Master 2834379	API/UWI 30015450430000						
Rig Name ROBINSON DRILLING #12	Drilled For Oil	Service Via Land	Casing/Liner				
Offshore Zone	Well Class New	Well Type Development	Depth, ft	Size, in	Weight, lb/ft	Grade	Thread
			351.0	13.4	54.5	J55	BUTT
			0.0	0.0	0.0		
Drilling Fluid Type		Max. Density 8.30 lb/gal	Plastic Viscosity 0.000 cP	Tubing/Drill Pipe			
Service Line Cementing		Job Type SURFACE		T/D	Depth, ft	Size, in	Weight, lb/ft
Max. Allowed Tub. Press psi		Max. Allowed Ann. Press psi	WH Connection Single Cement head	Perforations/Open Hole			
				Top, ft	Bottom, ft	shot/ft	No. of Shots
				ft	ft		Total Interval ft
				ft	ft		Diameter in
				ft	ft		
Service Instructions Provide crew, equipment and materials to perform a casing 13 3/8 using 355 sks of tail cement				Treat Down Casing	Displacement 47.2 bbl	Packer Type	Packer Depth ft
				Tubing Vol. bbl	Casing Vol. 54.0 bbl	Annular Vol. 50.0 bbl	Openhole Vol. 40.0 bbl
Casing/Tubing Secured ☐		1 Hole Vol. Circulated prior to Cement ☐		Casing Tools		Squeeze Job	
LIFT Pressure 300 psi				Shoe Type Guide	Squeeze Type		
Pipe Rotated ☐		Pipe Reciprocated ☐		Shoe Depth 351.0 ft	Tool Type		
No. Centralizers	Top Plugs 1	Bottom Plugs		Stage Tool Type	Tool Depth ft		
Cement Head Type Single				Stage Tool Depth ft	Tail Pipe Size in		
Job Scheduled For Oct/22/2018 04:30	Arrived on Location Oct/22/2018 04:30	Leave Location Oct/22/2018 16:00		Collar Type Float	Tail Pipe Depth ft		
				Collar Depth 305.0 ft	Seq. Total Vol. bbl		
Date	Time 24-hr clock	Treating Pressure PSI	Flow Rate gpm	Density lb/g	Volume BBL	CPF1_TTL_STAGE BBL	Message
10/22/2018	14:23:06	4	0.0	8.39	0.0	0.0	Started Acquisition
10/22/2018	14:24:06	5	0.0	8.39	0.0	0.0	
10/22/2018	14:25:06	122	4.1	8.39	0.7	0.6	
10/22/2018	14:25:47	124	4.2	8.39	3.5	3.4	Start Job
10/22/2018	14:26:05	57	2.7	8.39	4.6	4.6	Pressure Test Lines
10/22/2018	14:26:06	58	2.7	8.39	4.7	4.6	
10/22/2018	14:27:06	342	0.0	8.39	5.3	5.3	
10/22/2018	14:28:06	5	0.0	8.39	5.3	5.3	
10/22/2018	14:29:06	2162	0.0	8.39	5.3	5.3	
10/22/2018	14:29:37	3158	0.0	8.39	5.3	5.3	Reset Total, Vol = 5.32 bbl
10/22/2018	14:30:06	3140	0.0	8.39	0.0	0.0	
10/22/2018	14:31:06	4	0.0	8.39	0.0	0.0	
10/22/2018	14:31:48	15	0.0	8.39	0.0	0.0	Bleed Off Pressure
10/22/2018	14:31:55	12	0.0	8.39	0.0	0.0	Start Pumping Spacer
10/22/2018	14:32:06	15	0.0	8.39	0.0	0.0	
10/22/2018	14:33:06	68	2.1	8.39	0.1	0.1	
10/22/2018	14:34:06	68	2.9	8.39	3.0	3.0	
10/22/2018	14:35:06	68	2.9	8.39	6.0	5.9	
10/22/2018	14:36:06	68	2.9	8.38	8.9	8.8	
10/22/2018	14:37:06	65	2.9	8.38	11.8	11.7	
10/22/2018	14:38:06	67	2.9	8.38	14.7	14.6	

Well	CASS DRAW 10-23-27 40H 3H		Field	PHANTOM		Job Start	Customer	WPX ENERGY	Job Number
Date	Time 24-hr clock	Treating Pressure PSI	Flow Rate B/H	Density LB/G	Volume BBL	COPY_LTL_STAGE BBL	Message		
10/22/2018	14:39:27	125	4.3	8.38	19.4	19.3	End Spacer		
10/22/2018	14:39:28	125	4.3	8.38	19.5	19.4	Reset Total, Vol = 20.66 bbl		
10/22/2018	14:39:29	122	4.3	8.38	19.5	19.5	Start Mixing Load Slurry		
10/22/2018	14:40:06	241	4.2	14.09	22.2	1.5			
10/22/2018	14:40:11	371	5.2	14.10	22.6	1.9	Mud Balance 14.8 ppg		
10/22/2018	14:41:06	378	5.6	14.38	27.7	7.0			
10/22/2018	14:42:06	378	5.6	14.53	33.4	12.6			
10/22/2018	14:43:06	367	5.6	14.52	39.0	18.2			
10/22/2018	14:44:06	388	5.6	14.74	44.6	23.9			
10/22/2018	14:45:06	368	5.6	14.64	50.2	29.5			
10/22/2018	14:46:06	100	2.6	14.63	53.5	32.8			
10/22/2018	14:47:06	119	2.9	14.59	56.4	35.7			
10/22/2018	14:48:06	236	4.2	14.57	59.6	38.9			
10/22/2018	14:49:06	387	5.6	14.85	64.3	43.6			
10/22/2018	14:50:06	397	5.6	14.72	70.0	49.2			
10/22/2018	14:51:06	368	5.6	14.75	75.6	54.8			
10/22/2018	14:52:06	399	5.6	14.76	81.2	60.4			
10/22/2018	14:53:06	397	5.6	14.77	86.8	66.1			
10/22/2018	14:54:06	403	5.6	14.81	92.4	71.7			
10/22/2018	14:55:06	402	5.7	14.68	98.1	77.3			
10/22/2018	14:56:06	398	5.6	14.78	103.7	82.9			
10/22/2018	14:57:06	120	2.7	14.77	107.8	87.1			
10/22/2018	14:57:17	18	0.1	14.85	108.0	87.4	End Load Slurry		
10/22/2018	14:57:18	19	0.1	14.86	108.0	87.4	Drop Top Plug		
10/22/2018	14:58:06	20	0.0	14.85	108.1	87.4			
10/22/2018	14:58:54	20	0.0	14.67	108.1	87.4	Start Displacement		
10/22/2018	14:58:59	19	0.0	14.68	108.1	87.4	Reset Total, Vol = 87.41 bbl		
10/22/2018	14:59:06	12	0.0	14.64	108.1	0.0			
10/22/2018	15:00:06	78	3.9	8.95	112.1	4.0			
10/22/2018	15:01:06	197	4.5	9.04	116.6	8.5			
10/22/2018	15:02:06	132	4.5	8.86	121.1	13.0			
10/22/2018	15:03:06	108	4.5	8.43	125.6	17.5			
10/22/2018	15:03:11	159	4.4	8.43	126.0	17.8	Cement To Surface 33 bbl back		
10/22/2018	15:04:06	239	5.8	9.73	130.1	21.9			
10/22/2018	15:05:06	308	6.1	10.01	134.6	26.5			
10/22/2018	15:06:06	523	6.0	10.12	140.7	32.6			
10/22/2018	15:07:06	288	6.1	10.13	146.8	38.6			
10/22/2018	15:08:06	160	2.9	10.23	151.4	43.3			
10/22/2018	15:09:06	158	2.9	10.23	154.3	46.2			
10/22/2018	15:09:57	834	0.0	10.25	156.2	48.1	Bump Top Plug 800 psi		
10/22/2018	15:10:00	832	0.0	10.25	156.2	48.1	Finish Displacement		
10/22/2018	15:10:06	832	0.0	10.25	156.2	48.1			
10/22/2018	15:11:06	817	0.0	10.25	156.2	48.1			
10/22/2018	15:11:49	776	0.0	10.24	156.2	48.2	Bleed Off Pressure		
10/22/2018	15:12:06	14	0.0	10.24	156.2	48.2			
10/22/2018	15:13:06	13	0.0	10.24	156.2	48.2			
10/22/2018	15:13:18	14	0.0	10.24	156.2	48.2	Reset Total, Vol = 48.15 bbl		
10/22/2018	15:14:06	12	0.0	10.24	156.2	0.0			
10/22/2018	15:15:06	13	0.0	10.24	156.2	0.0			
10/22/2018	15:16:06	12	0.0	10.24	156.2	0.0			
10/22/2018	15:17:06	1088	0.0	10.24	156.7	0.4			
10/22/2018	15:17:15	1085	0.0	10.24	156.7	0.4	Bleed Off Pressure		
10/22/2018	15:17:17	1086	0.0	10.24	156.7	0.4	Return 1bbl back		
10/22/2018	15:18:06	1073	0.0	10.24	156.7	0.4			

Well CASS DRAW 10-23-27 401H 1H	Field PHANTOM	Job Start Oct/22/2018	Customer WPX ENERGY	Job Number 2834379
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Post Job Summary

Average Pump Rates, bbl/min					Volume of Fluid Injected, bbl			
Slurry 3.0	N2	Mud	Maximum Rate 6.5	Total Slurry 84.0	Mud 0.0	Spacer 20.0	N2	
Treating Pressure Summary, psi					Breakdown Fluid			
Maximum 3000	Final 800	Average 400	Bump Plug to 800	Breakdown	Type Fresh Water	Volume 20.0 bbl	Density 8.34 lb/gal	
Avg. N2 Percent %	Designed Slurry Volume 84.0 bbl	Displacement 47.2 bbl	Mix Water Temp 40 degF	Cement Circulated to Surface? ☐	Volume 33.0 bbl			
				Washed Thru Perfs ☐	To ft			
Customer or Authorized Representative Chris Jones		Schlumberger Supervisor Jesus Herrera		Circulation Lost ☐	Job Completed ☒			
				-	-			

Laboratory Cement Test Report Surface Tail Field Blend Hobbs District Laboratory Service Order Number: 2834379

Fluid No : HNM180748-FT001	Client : WPX	Rig : H&P 265	Signatures
Date : Oct-17-2018	Well Name : Cass Draw 10-23-27 Fee 401H		Report created by: P. Pappas
			Design input by: J. Baran, LT1

Job Type	Surface	Depth	351.0 ft	TVD	351.0 ft
BHST	83 degF	BHCT	90 degF	BHP	250 psi
Starting Temp.	80 degF	Time to Temp.	00:10 hr:mn	Heating Rate	1.00 degF/min
Starting Pressure	97 psi	Time to Pressure	00:10 hr:mn	Schedule	9.2-1

Composition

Slurry Density	14.80 lb/gal	Yield	1.33 ft ³ /sk	Mix Fluid	6.352 gal/sk
Solid Vol. Fraction	38.0 %	Porosity	64.0 %	Slurry type	Conventional

Code	Concentration	Sack Reference	Component	Blend Density	Lot Number
D903		94 lb of BLEND	Blend	197.27 lb/ft ³	6320
Rig Water	6.352 gal/sk		Base Fluid		Rig
D130	0.130 lb/sk		Lost circ		Bulk

Rheology R1B1 F1.0 S/N: 383

Temperature	70 degF			90 degF		
(rpm)	Up (deg)	Down (deg)	Average (deg)	Up (deg)	Down (deg)	Average (deg)
300	54.0	54.0	54.0	63.0	63.0	63.0
200	46.0	46.0	46.5	57.0	56.0	56.5
100	39.0	38.0	38.5	48.0	47.0	47.5
60	34.0	33.0	33.5	43.0	42.0	42.5
30	30.0	29.0	29.5	37.0	36.0	36.5
6	19.0	20.0	19.5	22.0	21.0	21.5
3	18.0	19.0	17.5	15.0	16.0	15.5

Total Time to add solids to mix water/fluid: 00:16 mn:sc

Vortex Quality: Good, Visible

Slurry Conditioned at Atmospheric Pressure for 30 Minutes after reaching 90 degF

10 sec Gel	20 deg - 21.35 lb/100R2	15 deg - 16.01 lb/100R2
10 min Gel	22 deg - 23.48 lb/100R2	18 deg - 17.08 lb/100R2

Rheo. computed	Viscosity: 25.674 cP Yield Point: 28.18 lb/100R2	Viscosity: 26.453 cP Yield Point: 37.65 lb/100R2
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Thickening Time S/N: 752

Set Conditions - Cement Thick (gelled)

Consistency	Time	Temp
POD	02:35 hr:mn	90 degF
30 Bc	03:05 hr:mn	90 degF
50 Bc	03:29 hr:mn	90 degF
70 Bc	03:48 hr:mn	90 degF

Free Fluid

(0.4%) 1.0 mL/250mL in 2 hrs
At 90 degF and 0 deg incl
Conditioned at Atmos Press for 30 Minutes @ 90 degF
Sedimentation: None
Tube Dimensions:
250mL: 35.5mmX254mm

UCA Compressive Strength S/N: 944-R MBB18-0925PT002

Time	CS	Temp
03:45 hr:mn	50 psi	90 degF
07:31 hr:mn	600 psi	80 degF
24:00 hr:mn	1980 psi	90 degF
72:00 hr:mn	2869 psi	90 degF

Comments

Meets Testing Requirements: P. Pappas
All slurries prepared and tested in accordance with API RB10B-2 (unless otherwise noted)
Slurry Density Verified by Pressurized Fluid Balance: 14.8 ppg (S/N 860210)
Trailer number: 0528

Thickening Time Graph

