

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

Form C-103
 Revised July 18, 2013

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

WELL API NO. 30-015-43841
5. Indicate Type of Lease STATE <input checked="" type="checkbox"/> FEE <input type="checkbox"/>
6. State Oil & Gas Lease No.
7. Lease Name or Unit Agreement Name Cavern State 16
8. Well Number 1H
9. OGRID Number 246289
10. Pool name or Wildcat
11. Elevation (Show whether DR, RKB, RT, GR, etc.) 3157 GR

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 and Production, LLC

3. Address of Operator
3500 One Williams Center MD 35 Tulsa, OK 74172

4. Well Location
 Unit Letter U : 2310 feet from the S line and 200 feet from the W line
 Section 16 Township 23S Range 27E NMPM Eddy County

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

NOTICE OF INTENTION TO:		SUBSEQUENT REPORT OF:	
PERFORM REMEDIAL WORK <input type="checkbox"/>	PLUG AND ABANDON <input type="checkbox"/>	REMEDIAL WORK <input type="checkbox"/>	ALTERING CASING <input type="checkbox"/>
TEMPORARILY ABANDON <input type="checkbox"/>	CHANGE PLANS <input type="checkbox"/>	COMMENCE DRILLING OPNS. <input type="checkbox"/>	P AND A <input type="checkbox"/>
PULL OR ALTER CASING <input type="checkbox"/>	MULTIPLE COMPL <input type="checkbox"/>	CASING/CEMENT JOB <input checked="" type="checkbox"/>	
DOWNHOLE COMMINGLE <input type="checkbox"/>			
CLOSED-LOOP SYSTEM <input type="checkbox"/>			
OTHER: <input checked="" type="checkbox"/>		OTHER: <input type="checkbox"/>	

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.

Deep intermediate casing set 8/21/2016

PJR attached

Hole size: 8 3/4"; Casing size: 7"; Depth 9467'; Weight: 40; Grade: HCP-110
 680 sxks lead @ 11.2 ppg; 200 sxks tail @15.6 ppg

NM OIL CONSERVATION
 ARTESIA DISTRICT
 AUG 26 2016
 RECEIVED

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 A. Fechino TITLE Regulatory Specialist DATE 8/23/2016

Type or print name Ashlee Fechino E-mail address: ashlee.fechino@wpenergy.com PHONE: 539.573.0212

For State Use Only

APPROVED BY Karen Sharp TITLE Bus Oper Spec-Adv DATE 8-30-16
 Conditions of Approval (if any):

PAR  FIVE
ENERGY SERVICES LLC

DESIGN - EXECUTE - EVALUATE - REPORT

DEEP INTERMEDIATE

WPX ENERGY

Cavern State 16 #1H

Eddy County New Mexico

PRIMARY PUMP: 2002 Josh Casillas
SECONDARY PUMP:

PREPARED BY: Ruben Sanchez Jr

SERVICE SUPERVISOR

ARTESIA DISTRICT

1-575-748-8610

NM OIL CONSERVATION
ARTESIA DISTRICT
AUG 26 2016

RECEIVED

8/21/2016

WELL SUMMARY



WELL/CASING DATA

JOB TYPE: DEEP INTERMEDIATE		HOLE SIZE: 8.75	
TOTAL DEPTH: 9467	PREVIOUS CASING SIZE: 9.625	PREVIOUS CASING LB/FT: 40	PREVIOUS CASING DEPTH: 2134
CASING SIZE: 7			
CASING LB/FT: 29	CASING GRADE: HCP-110		
FLOAT COLLAR DEPTH: 9361.1	SHOE JOINT LENGTH: 88		
DV TOOL DEPTH: n/a	SECOND DV TOOL DEPTH: n/a		
TOTAL DEPTH: 9467	TOTAL CASING : 9449.1		

TUBULAR DATA

TBG/D.P. SIZE:	TBG/D.P. DEPTH:
TBG/D.P. LB/FT:	TOOL DEPTH:
PACKER OR RETAINER:	PERF/HOLE DEPTH:

SURFACE EQUIPMENT

CEMENT HEAD SIZE: 7 INCH	QUICK CONNECT SIZE: 7 INCH
DRILL PIN SIZE/TYPE:	THREAD: 8 ROUND
TUBING SWEDGE SIZE:	TAKE 2 -2 INCH REGULAR TUBING SWEDGES

CHEMICALS NEEDED

TAKE 200 # SUGAR

EQUIPMENT

SUPERVISOR: Ruben Sanchez	FIELD REPRESENTATIVE: Travis Kelsey
PUMP OPERATOR: Josh Castillas	UNIT NUMBER: 2002
E/O: David Ramos	UNIT NUMBER: 2038
E/O:	UNIT NUMBER:
E/O:	UNIT NUMBER:
E/O:	UNIT NUMBER:

FLUID DATA

1ST SLURRY: PVL + 10% PF20 Bentonite + 8% PF60 Plexcrete FPZ + .8% PF13 Retarder + .7% PF606 Fluidloss + .4 pps PF45 Defoamer							
DENSITY: 11.2	YIELD: 2.64	MIX H2O: 15.726	SACKS: 680				
2ND SLURRY: H + .2% PF13 Retarder							
DENSITY: 15.6	YIELD: 1.18	MIX H2O: 5.216	SACKS: 200				
3RD SLURRY:							
DENSITY:	YIELD:	MIX H2O:	SACKS:				
4TH SLURRY:							
DENSITY:	YIELD:	MIX H2O:	SACKS:				
5TH SLURRY:							
DENSITY:	YIELD:	MIX H2O:	SACKS:				
DISPLACEMENT TYPE: MUD	DISPLACEMENT VOLUME: 347.7	MUD WEIGHT: 12.5					

WELL SUMMARY



COMPANY NAME: WPX ENERGY	DATE: 8/21/2016	
LEASE NAME: CAVERNS STATE 16 #	OPERATOR NAME: WPX ENERGY	
WELL NUMBER: 1H	TICKET NUMBER: 5657	
API NUMBER: 30-015-43841	AFE NUMBER:	
SECTION: 16	TOWNSHIP: 23S	RANGE: 27E
COUNTY: EDDY	STATE: NEW MEXICO	
RIG NAME: ORION 10	COMPANY REP: PRESTON WRAY	PHONE#: 281-436-6380

DIRECTIONS

US 285 to 62/180 stay on 62/180 T/L at Derrick Rd. T/R at Old Cavern Hwy for 2miles T/L thru locked Chevron gate (combo 1462) go 1 mile T/L 0.1 mile T/R 0.3 miles to location.

NOTES

UPDATED BY SHANE WHITE 8/11/16
TAKE 4 1/2 8 ROUND AND BUTTRESS FOR NEXT STRING

HSE

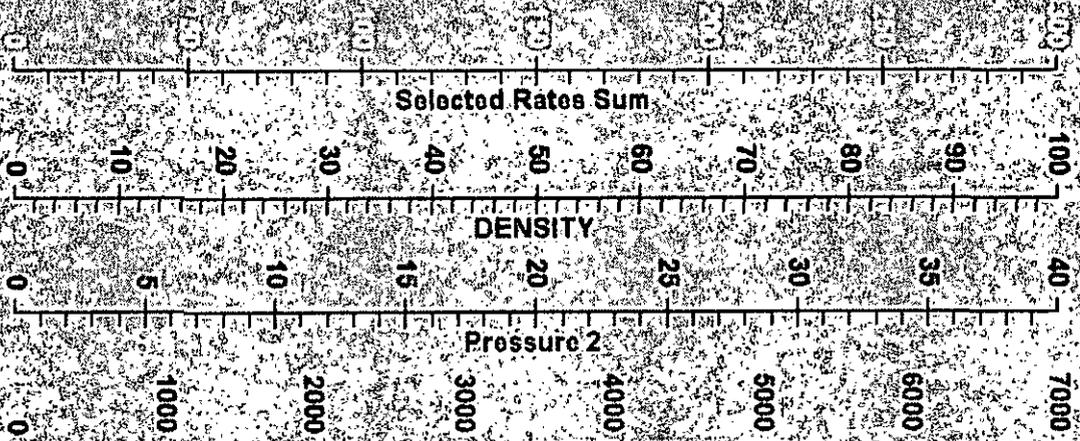
MAKE SURE ALL EMPLOYEES HAVE PROPER PPE

JOB PROCEDURE

PUMP 20 BBLS FRESH WATER SPACER
PUMP 830 SACKS LEAD SLURRY @11.2 PPG
PUMP 200 SACKS TAIL SLURRY @ 15.6 PPG
SHUT DOWN DROP PLUG
DISPLACE WELL

21 Sun Aug 2015

Subgrain/Grain Data



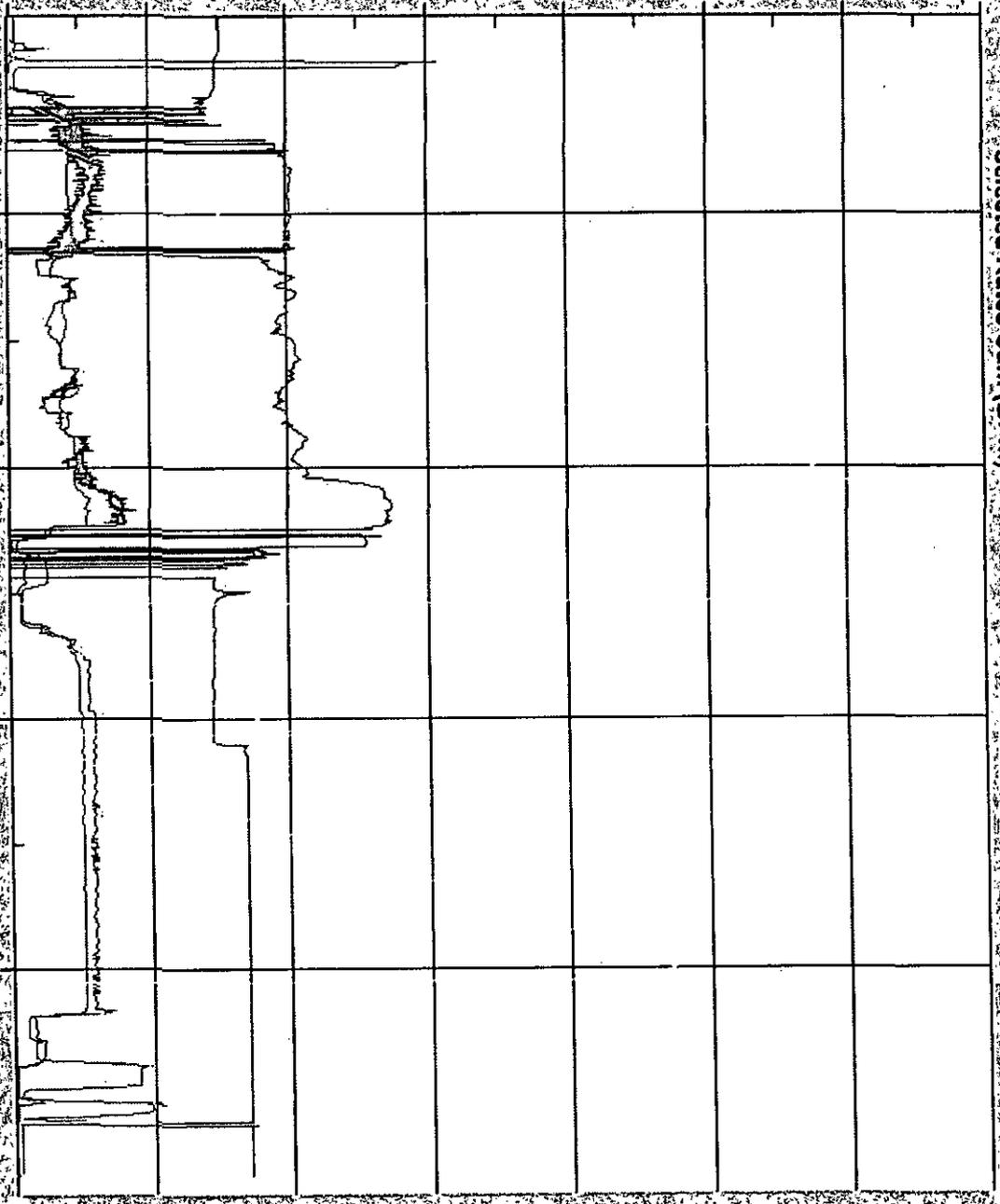
Plot

Pressure 2 (PSI)

Selected Rates Sum (BPM)

DENSITY (PSI)

Selected Rates Grand Total (BBL)



Time

15:00

15:30

16:00

16:30



Par Five Energy Services, LLC
 11279 Lovington Hwy
 Artesia, NM
 Phone(575)748-8610 Fax:(575) 748-8625

AUG 19 2016 *H 0930*
 ART16-6454-01PA

Customer: WPX Energy	MD: 9368	Report Date: August 18 2016
Well Name: Cavern State 16 #1H	TVD: 9055	Stage: Lead
County: Eddy State: NM	BHST: 152	String: 2nd Intermediate
Rig: Orion 10	BHCT: 109	Blend Type: Pilot Blend
Salesman: Chris DeLeon		Reported By: Rodriguez, Sonny

Slurry Information

Density: 11.20 ppg Yield: 2.63 cuft/sk Mix Fluid: 15.711 gal/sk

Slurry Composition

Cement Blend: PVL

Additive	Conc	Design	Description	Lot Number
PF-020	10.00% %	BWOB	Bentonite Gel	Bulk
PF-060	8.00% %	BWOB	FPZ Strength Enhancer	
PF-013	0.40% %	BWOB	Retarder	MM02C-2752BK
PF-606	0.70% %	BWOB	Fluid Loss	GS20121C01-26
PF-045	0.400 lb/sk	BWOB	Defoamer	201304AC

Rheology (Average Readings)

Temp	3	6	100	200	300	PV	YP
80 °F	1	1	6	11	15	13.5	1.5
109 °F	1	1	7	12	17	15	2

Thickening Time

Temp	POD	30 Bc	50 Bc	70 Bc	100 Bc	Batch Time
109 °F	1:47	3:53	5:13	6:00		0

Thickening Time does not include batch time.

Free Fluid

Temp	Incl.	ml Collected	Start Time	Stop Time
109 °F	0	0 ml/250	1:32	3:32

Fluid Loss

Temp	PSI	ml Collected	Minutes	API (Calc)
109 °F	1000	60 ml	At 30	120

UCA Compressive Strength

Temp	50 psi	500 psi	12 hr.	24 hr.	48 hr.	72 hr.
152	7:57	18:49	203	596		

Comments

The above data is for informational purposes, and Par Five Energy Services LLC, makes no guarantees or warranties, either expressed or implied, with respect to the accuracy or use of these data and interpretations.



Par Five Energy Services, LLC
 11279 Lovington Hwy
 Artesia, NM
 Phone(575)748-8610 Fax: (575) 748-8625

AUG 19 2016 09:50
 ART16-6454-02P

Customer: WPX Energy	MD: 9368	Report Date: August 18 2016
Well Name: Cavern State 16 #1H	TVD: 9055	Stage: Tail
County: Eddy State: NM	BHST: 152	String: 2nd Intermediate
Rig: Orlon 10	BHCT: 109	Blend Type: Pilot Blend
Salesman: Chris DeLeon		Reported By: Elliot, Isaac

Slurry Information

Density: 15.60 ppg Yield: 1.18 cuft/sk Mix Fluid: 5.216 gal/sk

Slurry Composition

Cement Blend: Class H

Additive	Conc	Design	Description	Lot Number
PF-013	0.20% %	BWOB	Retarder	MM02C-2752BK

Rheology (Average Readings)

Temp	3	6	100	200	300	PV	YP
80 °F	1	1.5	9	16	22	19.5	2.5
109 °F	7.5	9	18.5	25	34	23.25	10.75

Thickening Time

Temp	POD	30 Bc	50 Bc	70 Bc	100 Bc	Batch Time
109 °F	2:46	3:36	4:09	4:36		0

Thickening Time does not include batch time.

Free Fluid

Temp	Incl.	ml Collected	Start Time	Stop Time
109 °F	0	6 ml/250	1:33	2:33

UCA Compressive Strength

Temp	50 psi	500 psi	12 hr	24 hr	48 hr	72 hr
152	4:17	6:26	1291	1838		

Comments

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