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MAR 18 2010

Form 3160-5
(August 20) POBBSOCD UNITED STATES
(August 20) POBBSOCD EPARTMENT OF THE INTERIOR UNITED STATES OCT - HOPBS BUREAU OF LAND MANAGEMENT

FORM APPROVED OMB No 1004-0137 Expires: July 31, 2010

5 Lease Serial No

			<b>₽</b>	JM0631
	OTICES AND REPORT		6 If Indian, Allottee o	r Tribe Name
	orm for proposals to d Use Form 3160-3 (APD			
ubundoned wen.		Tor such proposal.		
	IN TRIPLICATE - Other inst	ructions on page 2.	/. If Unit of CA/Agree	ement, Name and/or No
1. Type of Well	_ ✓		8. Well Name and No	
Oil Well Gas	ell Other		FEDERAL 11-20-34	1 #3 /
2. Name of Operator Samson Resources Company			9. API Well No. 30-025-30424	/
3a Address 200 N LORAINE SUITE 1010 MIDLAND, TX 79701	1	Phone No. (include area cod 2-683-7063	(le) 10. Field and Pool or LEA DELAWARE, N	•
4 Location of Well (Footage, Sec., T., UNIT LETTER - L 1890' FSL & 660' FWL SECTION 11 T20S R34E	R ,M., or Survey Description)		11. Country or Parish, LEA COUNTY, NM	State
12. CHEC	K THE APPROPRIATE BOX(E	S) TO INDICATE NATURE	E OF NOTICE, REPORT OR OTH	ER DATA
TYPE OF SUBMISSION		TY	PE OF ACTION	
✓ Notice of Intent	Acidize Alter Casing	Deepen Fracture Treat	Production (Start/Resume) Reclamation	Water Shut-Off Well Integrity
	Casing Repair	New Construction	Recomplete	Other
Subsequent Report	Change Plans	Plug and Abandon	Temporarily Abandon	
Final Abandonment Notice	Convert to Injection	Plug Back	Water Disposal	
testing has been completed. Final determined that the site is ready fo Water is stored in tank battery on le	Abandonment Notices must be fir final inspection.)	led only after all requirement	s, including reclamation, have been	l, a Form 3160-4 must be filed once in completed and the operator has
14. I hereby certify that the foregoing is t	rue and correct. Name (Printed/Ty	ped)		
KENNY KRAWIETZ		Title OPERA	TIONS MANAGER	
Signature Volency V	leaves S	Date 02/09/20	010	
V	THIS SPACE FO	R FEDERAL OR ST	ATE OFFICE USE	
Approved by		JETRO!	EUM ENGINAEU	MAR 2 2 2010
Conditions of approval, if any, are attached that the applicant holds legal or equitable entitle the applicant to conduct operations.	title to those rights in the subject leathereon.	warrant or certify ase which would Office	Kr	Date ent or agency of the United States any false,
THIS TO U.S.C. SECTION 1001 AND THE 43	O.O.C OCCUON 1212, Make it a tri	no tot any person knowingly a	ing minimum to make to any departing	or approxy or the orthog planes any laise,

fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

# ATTACHMENT to Incident of Noncompliance # 11M-02(-10

The following information is needed before your disposal of produced water can be approved, per Onshore Oil & Gas Order #7.

You may attach this information to your Sundry Notice (3160-5). Submit all required information as per this attachment, submit a Sundry Notice(3160-5), one original and five copies to this office within the required time.

1.	Name(s) of all formation(s) producing water on the lease. Bone Spring
<sub>-</sub> 2.	Amount of water produced from all formations in barrels per day. 15 (Average)
<b>/</b> 3.	A CURRENT water analysis of produced water from all zones showing at least the total dissolved solids, pl and the concentrations of chlorides and sulfates.
4.	How water is stored on the lease. Water Jank battery
5.	How water is moved to the disposal facility. Trucked out by Key. Energy Services
]	Identify the Disposal Facility by:  A. Operators' Name Samson Resources  3. Well Name Federal 11-20-34  C. Well type and well number 905 #3  D. Location by quarter/quarter, section, township, and range 1890' FSL + 660' FWL  11- T205- R34E

7. A copy of the Underground Injection Control Permit - issued for the injection well by the Environmental Protection Agency or New Mexico Oil Conservation Division where the State has achieved primacy.

# Water Analysis

Analysis #: 15.2

Company: Samson

Lease: Fedomai 10-20-34

Location:

Date: May 1, 2007

Attention: Jake Hammond

Description: Well: ₫3

Sample Point: Header Treater



PRODUCTION CHEMICALS

#### **DISSOLVED SOLIDS**

mg/l	meq/l
63,412.38	2,757.06
640.00	31.84
99.55	8.16
23.66	0.34
9.97	0.54
	63,412.38 640.00 99.55 23.66

ANIONS	<u>mg/l</u>	meq/i
Hydroxyl, OH		
Carbonate, CO3		
Bicarbonate, HCO3	531.00	8.69
Sulfate, SO4	1,400.00	28.69
Chloride, Cl	98,000.00	2,760.56
Sulfide S		

# **OTHER PROPERTIES**

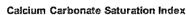
pH		6.40
Specific Gravity		1.114
Dissolved Oxygen, (Mg/I)		***************************************
Dissolved Carbon Dioxide	HAMMAN	202.00
Sulfide as H2S, (ppm)		0.00
Sample Temp	F.	74 C. 23
CO2 in Gas Phase (Mg/I)	******	
H2S in Gas Phase (Mg/i)	***************************************	**************************************
Total Hardness (Me/I)	•	40.00

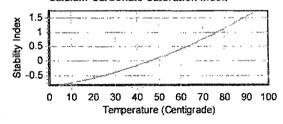
164,117
2.8413
2,086.52
42.33
0.52

#### Conclusion:

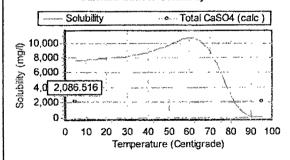
Calcium Carbonate scaling index is positive above 46 degrees Centigrade.
Calcium Sulfate scale is indicated. See appropriate chart for temperature ranges. Barium Sulfate scale is indicated at all temperatures.

# Scaling Indices vs. Temperature

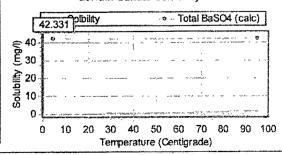


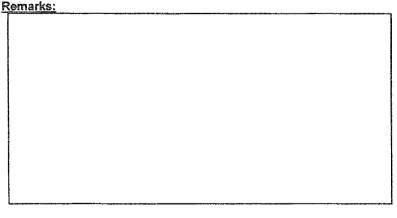


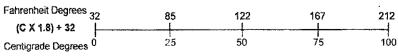
# Calcium Sulfate Solubility



### Barium Sulfate Solubility







# **WATER DISPOSAL ONSHORE ORDER #7**

The following information is needed before your method of water disposal can be considered for approval.

How	water is stored on the lease.			
How	water is moved to disposal facility.			
a	Lease name or well name and number _  Location by ¼ ¼ Section, Township, and			
	The appropriate NMOCD permit number	#	40le1-	Main