

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

HOBBS OCD

JUN 12 2012

NMOCB - Hobbs

FORM APPROVED
OMB No. 1004-0135
Expires January 31, 2004

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill or to re-enter abandoned well. Use Form 3160-3 (APD) for such proposals.

SUBMIT IN TRIPLICATE- Other instructions on reverse side.

1 Type of Well
☐ Oil Well ☐ Gas Well ☒ Other

2 Name of Operator **Frontier Field Services**

3a Address
4200 Skelly Dr., St. 700, Tulsa OK 74135

3b Phone No. (include area code)
918-388-8408

4 Location of Well (Footage, Sec, T, R, M, or Survey Description)
**130' FSL, 1813' FEL Sec. 21, T 17 S, R 32 E, NMPM, Lea Co. NM
Acid Gas Injection Well, Unorthodox Location**

5 Lease Serial No
LC 029509B

6 If Indian, Allottee or Tribe Name
N/A

7 If Unit or CA/Agreement, Name and/or No
N/A

8 Well Name and No.
Maljamar AGI #1

9. API Well No
3002540420

10 Field and Pool, or Exploratory Area
Exploratory (Lower Wolfcamp)

11 County or Parish, State
Lea

12. CHECK APPROPRIATE BOX(ES) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION			
<input checked="" type="checkbox"/> Notice of Intent	<input type="checkbox"/> Acidize	<input type="checkbox"/> Deepen	<input type="checkbox"/> Production (Start/Resume)	<input type="checkbox"/> Water Shut-Off
<input type="checkbox"/> Subsequent Report	<input type="checkbox"/> Alter Casing	<input type="checkbox"/> Fracture Treat	<input type="checkbox"/> Reclamation	<input type="checkbox"/> Well Integrity
<input type="checkbox"/> Final Abandonment Notice	<input type="checkbox"/> Casing Repair	<input type="checkbox"/> New Construction	<input type="checkbox"/> Recomplete	<input type="checkbox"/> Other
	<input checked="" type="checkbox"/> Change Plans	<input type="checkbox"/> Plug and Abandon	<input type="checkbox"/> Temporarily Abandon	
	<input type="checkbox"/> Convert to Injection	<input type="checkbox"/> Plug Back	<input type="checkbox"/> Water Disposal	

13 Describe Proposed or Completed Operation (clearly state all pertinent details, including estimated starting date of any proposed work and approximate duration thereof. If the proposal is to deepen directionally or recompleat horizontally, give subsurface locations and measured and true vertical depths of all pertinent markers and zones. Attach the Bond under which the work will be performed or provide the Bond No. on file with BLM/BIA. Required subsequent reports shall be filed within 30 days following completion of the involved operations. If the operation results in a multiple completion or recompleat in a new interval, a Form 3160-4 shall be filed once testing has been completed. Final Abandonment Notices shall be filed only after all requirements, including reclamation, have been completed, and the operator has determined that the site is ready for final inspection.)

Operator proposes a revised cement program to enhance cement job quality for 7 5/8" hole - 5 1/2" long string casing given actual hole conditions at TD. Both the original approved cement program and the new enhanced cement program are detailed below:

Originally-approved cement program:

Stage 1: Corrosion Resistant Cement (CorrosaCem and/or Thermalock) from ~10,000' (TD) to ~5,000'
Stage 2: Class H Cement ~5,000' to Surface

Requested enhanced cementation program modification:

Stage 1: Corrosion resistant cement (CorrosaCem) from 10,183' (TD) to DV#1 at 9,800' - injection zone; basal cap rock zone; seal
Stage 2: Corrosion resistant cement (Thermalock) from 9,800' to DV#2 at 9,330' - top cap rock zone; seal
Stage 3: Class H cement from 9,330' (DV#2) to surface

The corrosion-resistant alloy (CRA) casing joint and packer will be installed from 9500'-9520'(in the middle of a 100' thick cap rock zone) and we anticipate perforating the casing below 9,580' at perforation intervals yet to be finalized based on log and sidewall core analyses.

This proposed enhanced 3 stage cementing program will better protect the underlying Cisco, the basal cap rock, the CRA casing joint and packer, the top cap rock and the overlying Leonard, Abo and remaining uphole section. Details of cement job attached as separate sheet.

14 I hereby certify that the foregoing is true and correct
Name (Printed/Typed)

Alberto A. Gutierrez, RG

Title **Consultant to Frontier/Aka Energy; President, Geolox, Inc.**

Signature

Date

06/10/2012

THIS SPACE FOR FEDERAL OR STATE OFFICE USE

Approved by

PETROLEUM ENGINEER

Date

Conditions of approval, if any, are attached. Approval of this notice does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.

Office

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any officer or employee of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

(Instructions on page 2)

APPROVED
JUN 11 2012
BUREAU OF LAND MANAGEMENT
CARLSBAD FIELD OFFICE

JUN 13 2012

MALJAMAR AGI#1 30-025-40420
CEMENT JOB INPUT DATA SHEET

Company: PB ENERGY	Serv. Ctr: Hobbs	Proposal No:
Frontier	Jamie Gonzales, Eric Elliot, Pete Garza,	
Lease/OCS-G: Maljamar AGI	Serv. Coord: Louis Sosa	Time Req:
Well/Block: 1	Town or City: Hobbs	Customer: Andrew Park
County/Parish: Lea	Bulk Plant: Hobbs	Acct. Rep: Jim Cooper
State: New Mexico	Mileage: 40	Bulk 20
		Operator:
		Drive Pipe Depth: 40
		Size & Wall Thick:

Casing Type	Cond.	Surf.	Int. Csg.	Production	Production	Production	
Discount		45%	45%	45%	ThermaLock	45%	
Depth (MD)	40	850	4,200	9800-10000	9320-9800	0-9320	
Depth (TVD)				DV Job-Stg 1	DV Job-Stg 2	DV Job-Stg 3	
Casing Size	20	13 3/8	8 5/8	5 1/2	5 1/2	5 1/2	
Casing Weight	94	48	32	17	17	17	
Casing Thread		STC	LTC	LTC	LTC	LTC	
Casing Grade		H-40	J-55	L-80	L-80	L-80	
Hole Size		17 1/2	12 1/4	7 7/8	7 7/8	7 7/8	
Shoe Joint (Ft)		40	40	40	40		
		JOBS WILL BE PUMPED DOWN A 5" DRILL PIPE INNERSTRING		PUMP DOWN CSG	PUMP DOWN CSG	PUMP DOWN CSG	
TOC Lead		0	0			0	
TOC Tail		550	3,800	9,800	9,320	8,650	
HOC Lead		550	3,800			8,650	
HOC Tail		300	400	200	480	929	
Top of Liner							
Tack Fill							
Squeeze Amt.							
OH Cmt. Excess		50%	50%	25%	0%	25%	
CSG Cmt. Excess		10%	10%	10%	10%	10%	
Mud Weight		8.9	10.1	9.1	9.1	9.1	
Mud Type		WBM	WBM	WBM	WBM	WBM	
BHST		85	107	144	144	138	
Spacer Vol.		20 bbls	20 bbls	50 BBLS	50 BBLS	20 bbls	
Spacer Type		Gelled Spacer	Gelled Spacer	TS III	TS III	Gelled Spacer	
Spacer Density		8.34	8.34	12	12	8.34	

SLURRY DATA/COMMENTS

Mix Wtr. Type
Fresh

Gelled Spacer 2 5# / bbl WG-19

SURF	Weight-Lead	13.5	Water-Lead	9.18	Yield-Lead	1.75
	Weight-Tail	14.8	Water-Tail	6.37	Yield-Tail	1.34

Lead 330 sks ExtendaCem-C + 125 lb/sk Poly Flake
Tail 265 sks HalCem Premium Plus, 1% CACL
Top Out Cmt SwiftCem Premium Plus, 2% CACL 100 SKS

INT CSG

Lead	Weight-Lead	13.2	Water-Lead	8.377	Yield-Lead	1.611
Tail	Weight-Tail	14.8	Water-Tail	6.37	Yield-Tail	1.34

Lead 1236 sks ExtendaCem C + 3% Econolite + 5% LAP-1 + 5% CFR-3 + 1 lb/sk Salt + 25 lb/sk Poly-E-Flake + 2% HR-800 + 25 lb/sk D-Air 3000
Tail 200 sks Premium Plus Neat
Top Out Cmt

PROD CSG

	Weight-Stg 1	14.8	Water		Yield	1.15
	Weight-Stg 2	15.5	Water	3.38	Yield	0.88
	Weight-Stg 3-Lead	12.7	Water	10.26	Yield	1.87
	Weight-Stg 3-Tail	15.8	Water	5.15	Yield	1.16

Stg 1 - Cement 241 sks CorrosaCem-H + 1 #/sk LAP-1 + 3% CFR-3 + 3% Salt + 5% GasStop
Stg 2 - Cement 246 sks 15.5 ppg ThermaLock + 8% FE-2 (if Needed)
Stg 3 - Lead 941 sks EconoCem HLH (65% H, 35% Poz, 6% Gel) + 5% LAP-1 + 25% D-Air 5000
Stg 3 - Tail 100 sks Premium Cement + 5% LAP-1 + 25% D-Air 5000

Add. Charges - 3rd party SkyTrack Forklift Rental - for loading Thermalock
3rd party water transport or FE-2 if needed
3rd party "pod" cleanout to ready for Thermalock

The Road to Excellence Starts with Safety			
Sold To #: 304429	Ship To #: 2915495	Primary Sales Order #: 9391873	
Customer: PB ENERGY STORAGE SERVICES INC		Job Purpose: Cement Multiple Stages	
Well Name: Frontier Maljamar AGI		Well #: 1	API/UWI #: 30-025-40420
Field:	City: MALJAMAR	County/Parish: Lea	State/Prov: New Mexico
Legal Description: Section 21 Township 17S Range 32E			
Customer Rep: Ardoin, Gerald Mobile:432-400-2384			
Ordered By: Ardoin, Gerald Mobile:432-400-2384			
Contractor: PRECISION;			
Rig/Platform Name/Num: Precision 33			Location: Land
Sales Person: COOPER, JAMES		Status: Pending/Will-Call	
PPE, Safety Huddles, JSA's, HOC & Near Miss Reporting, BBP Observations			
Distance/Mileage(1 way) Srvc:	30.0 miles	Distance/Mileage(1 way) Mtls:	30.0 miles
Call Taken By:	LOUIS SOSA	Call Taken Date/Time:	
		Rqstd Job Start Date/Time:	10-Apr-2012 00:00 GMT
HSE Information			
H2S Present:	Unknown	CO2 Present:	Unknown
Drive Safely, Lights On for Safety, Wear Seat Belts, Observe all HES / Customer Safety Policies.			
Directions: On 62/180 to 529 turn right for 23 miles to MM7 (Maljamar Rd) turn right for 1.8 miles to Conoco Rd rig will be on the right.			
Remarks			
General: (See Attachment)- SERVICE SUPERVISORS, YOU NEED TO MAKE SURE TICKET IS ACCURATE BEFORE RECEIVING CUSTOMER SIGNATURE. IF YOU HAVE ANY DOUBT IN YOUR MIND THAT YOU ARE NOT SURE OF PRICING, PLEASE CONTACT A COORDINATOR IF NO SERVICE LEADER IS ON LOCATION.			
WILL CALL TO SPOT AND LOAD			
6/9/12 1500 Need to get a mud sample from location and get to the lab so we can design the TSIII, Engineers need a TSIII request put in and results by 0800 6/10/12. - Eric			
6/10/12 1000 Need to spot and load all 2nd stage lead by 2359 6/10/12, also make sure that you send the Thermalock artoons to dispatch we are wtil waiting on the ok from JC on the thermalock. - Eric			
*****SS We will have to use 2 different pumps for 1st and 2nd stage before you leave for the job need to talk with a coordiinator to make sure we are all on the same page, we will run red dye in spacers on all three stages take 3 bottles and behind as normal half bottle per stage*****			
6/10/12 1630 these ae final volumes still waiting on the blessing for the thermalock (2nd stage primary) and the 1st stage primary cement job is now a 3 stage. Have bulk plant load all 3rd stage lead on bin previous instructions said the 875 it is now 940sks- Eric			
6/10/12 1733 updated salt conc in 1st stage primary cement. - Eric			

Pumping Equipment (Generic)

Description	Qty	Comments	Description	Qty	Comments
PICK UP TRUCK	1		RCM PUMP TRUCK	1	
FIELD STORAGE BIN	1		WINCH TRUCKS	1	
BOOSTER PUMP	1		BULK TRUCKS	3	
100 BBL BATCH MIXER	1		STAND-BY UNIT	1	Must have no exceptions

Surface Equipment (Generic)

Description	Qty	Comments	Description	Qty	Comments
SWAGE	1		PLUG CONTAINER	1	
QUICK-LATCH ATTACHMENT	1				

Job Info./Well Data

Job Depth (MD) ft	Job Depth (TVD) ft	Max Pressure psig	Well Fluid Type	Well Fluid Weight lbm/gal	Displacement Fluid	Displ Fluid Weight lbm/gal
10000.0	10000.0					

Job Tubulars/Tools

Description	Size in	Weight lbm/ft	ID in	Thread	Grade	Top MD ft	Btm MD ft	Top TVD ft	Btm TVD ft	Shoe Jnt ft	% Excess
Intermediate Casing	8.625	32.	7.921	LTC	J-55	0.0	4,200.0			40.0	10
DV Tool						9,320.0	9,320.0				0
DV Tool						9,800.0	9,800.0				
Production Casing	5.5	17.	4.892	LTC	L-80	0.0	10,000.0			40.0	0
7-5/8" Hole			7.625			4,200.0	10,000.0				25

Tie on Connection

Size: 5 1/2 in	Thread: 8 RD (LT&C)	Type: Casing	Cross Over Required: No
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Materials

Stage/Plug #: 1

Fluid #	Fluid Name	Package/SBM/Material Name	Rqstd Del Qty	UOM	Density lbm/gal	Yield ft3/sk	Mix Fluid Gal/sk	Rate bbl/min	Fluid+Liq AddGal/sk
1	MUD FLUSH III	MUD FLUSH III - SBM (528788)	20.00	bbl	8.4				
2	Gel Spacer		0.48	bbl					
2.5 lbm/bbl		WG-19, 50 LB BAG (100003638) Pre-Mix Wet							
3	1st Stage Primary CorrosaCem - H	CORROSACEM (TM) SYSTEM (452967)	140	sacks	14.8	1.17	5.14		5.14
1 lbm		LAP-1 (100012766) Pre-Mix Dry							
0.3 %		CFR-3, W/O DEFOAMER, 50 LB SK (100003653) Pre-Mix Dry							
3 %		SALT, BULK (100003695) Pre-Mix Dry							
0.5 %		GASSTOP, 25 LB SK (100003701) Pre-Mix Dry							
5.141 Gal		FRESH WATER Mix-On-Fly to Slurry							

Stage/Plug #: 2

Fluid #	Fluid Name	Package/SBM/Material Name	Rqstd Del Qty	UOM	Density lbm/gal	Yield ft3/sk	Mix Fluid Gal/sk	Rate bbl/min	Fluid+Liq AddGal/sk
1	TUNED SPACER III Engineer to Design		25.00	bbl	12.0				

Stage/Plug #: 2

Fluid #	Fluid Name	Package/SBM/Material Name	Rqstd Del Qty	UOM	Density lbm/gal	Yield ft3/sk	Mix Fluid Gal/sk	Rate bbl/min	Fluid+Liq AddGal/sk
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Sold To #: 304429

Ship To #: 2915495

Lab Project #:

Sales Order #: 9391873

SUMMIT Version: 7.3.0030

Sunday, June 10, 2012 17:34:00

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Stage/Plug #: 2									
2	2nd Stage Primary Thermalock TL	2nd Stage Primary Thermalock TL	246	sacks	15.5	.87	3.33		3.33
73 lbm		CMT - THERMALOCK CEMENT, 2000 LB SK (101004756) Pre-Mix Dry							
3.332 Gal		FRESH WATER Mix-On-Fly to Slurry							
Stage/Plug #: 3									
Fluid #	Fluid Name	Package/SBM/Material Name	Rqstd Del Qty	UOM	Density lbm/gal	Yield ft3/sk	Mix Fluid Gal/sk	Rate bbl/min	Fluid+Liq AddGal/sk
1	Gel Spacer		20.00	Gal					
2.5 lbm/bbl		WG-19, 50 LB BAG (100003638) Pre-Mix Wet							
Fluid #	Fluid Name	Package/SBM/Material Name	Rqstd Del Qty	UOM	Density lbm/gal	Yield ft3/sk	Mix Fluid Gal/sk	Rate bbl/min	Fluid+Liq AddGal/sk
2	3rd Stage Lead EconoCem - HLH	ECONOCER (TM) SYSTEM (452992)	940	sacks	12.7	1.86	10.11		10.11
10.109 Gal		FRESH WATER Mix-On-Fly to Slurry							
Fluid #	Fluid Name	Package/SBM/Material Name	Rqstd Del Qty	UOM	Density lbm/gal	Yield ft3/sk	Mix Fluid Gal/sk	Rate bbl/min	Fluid+Liq AddGal/sk
3	3rd Stage Tail HalCem - H	HALCEM (TM) SYSTEM (452986)	100	sacks	15.8	1.16	5.15		5.15
5.148 Gal		FRESH WATER Mix-On-Fly to Slurry							
Packaged Materials									
SAP #	Material	Qty	UOM	Comments					
101633304	MUD FLUSH III, 40 LB SACK	80.0	lbm						
100003638	WG-19, 50 LB BAG	2.38	lbm						
Sales/Rental/3 rd Party									
SAP #	Description	Qty	Qty uom	Supplier	Comments/ Tech ID #				
100008028	SUGAR, GRANULATED, IMPERIAL	600	LB						
45	SPEC EQUIP CHRG, NO PRICE ESTABLISHED ZI	1	EA						
101201084	RHODAMINE RED LIQ DYE (2)	6	LB						