Form 3160-5 (August 2007)

### UNITED STATES DEPARTMENT OF THE INTERIOR **BUREAU OF LAND MANAGEMENT**

OCD Artesia	FORM APPROVED
	OMB No 1004-0137
	Expires July 31 2010

5	Lease	Serial	No
N	MMM	25494	1

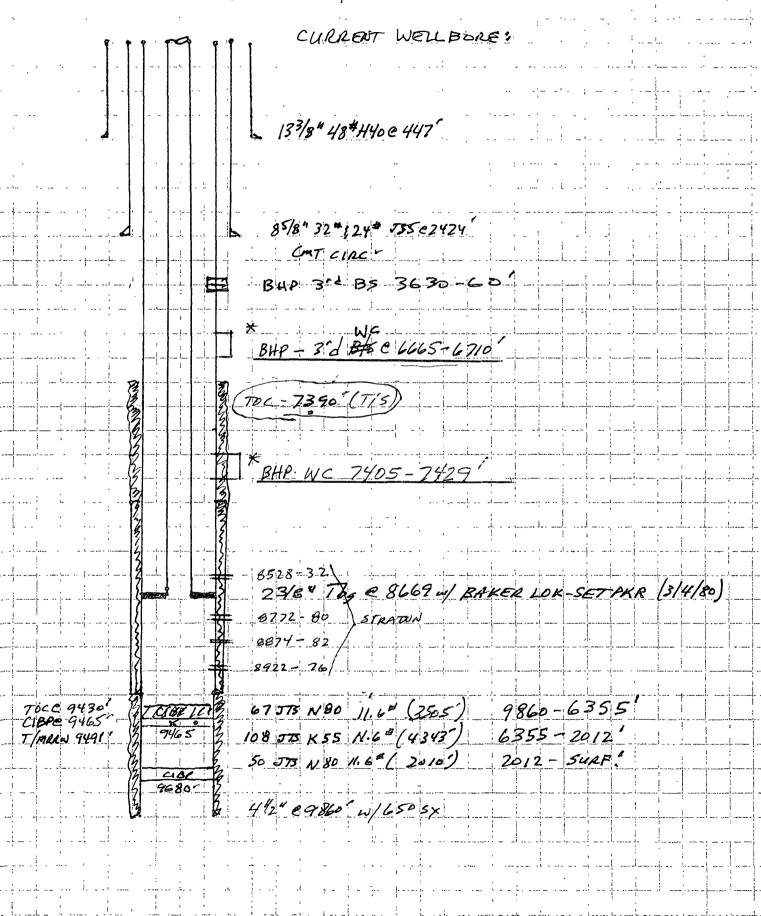
			NMNM 25494				
			6 If Indian, Allottee or	Tribe Name			
Do not use this form for proposals to drill or to re-enter an abandoned well. Use Form 3160-3 (APD) for such proposals.					<u>.</u>		
SUBMIT IN TRIPLICATE – Other instructions on page 2.			7 If Unit of CA/Agreement, Name and/or No				
1 Type of Well					NMNM72117		
Oil Well Gas W	ell Other				8 Well Name and No SHELL FEDERAL #	1	
2. Name of Operator THREE RIVERS OPERATING CO.,	LLC				9. API Well No. 30-015-22232		
3a. Address 1122 S. Capital of TX Hwy , #325 Austin, TX 78746		3b. Phone No 512-706-9849	(ınclude area co )	ode)	10. Field and Pool or E INDIAN BASIN; STR	•	
4. Location of Well (Footage, Sec., T., I 1980 FEL & 1980 FSL J-06-21S-24E	R,M., or Survey Description	)			11. Country or Parish, S EDDY COUNTY, NM		
12 CHEC	K THE APPROPRIATE BO	X(ES) TO INDI	CATE NATUR	E OF NOTIC	E, REPORT OR OTHE	ER DATA	
TYPE OF SUBMISSION				PE OF ACT	ION		
✓ Notice of Intent	Acidize Alter Casing	Deepe	en ure Treat	=	uction (Start/Resume)	Water Shut-O Well Integrity	
Subsequent Report	Casing Repair Change Plans	=	Construction and Abandon	=	mplete oorarily Abandon	Other	
Final Abandonment Notice	Convert to Injection	Plug B			r Disposal		
Attach the Bond under which the w following completion of the involvitesting has been completed. Final adetermined that the site is ready for Plug back from Strawn (8525'-8976' PROCEDURE:  1. Prepare location; check anchors. 2. Set frac tanks, closed loop system and the site of the	ed operations. If the operation Abandonment Notices must final inspection.)  ) & recomplete in the Wolf m. of t	on results in a mbe filed only afte framp (7405'-74'), with acid/chem 390').	ultiple completion all requirement 429').  NMO  NICTION SEE A	tor recompits, including	cord RE	CEIVED PR 12 2012 CD ARTES!	t be filed once operator has
TOM STRATTON	ue and correct Maine (Frime	агтуреа)	Title OPERA	TIONS MAN	JAGER		
21						ROVED	
Signature / DM /			Date 02/27/2			- CVLD	
	THIS SPACE	FOR FEDE	RAL OR ST	ATE OF	1 1	6 2012	
Approved by					Al-YI	6 2012	
Conditions of approval, if any, are attached that the applicant holds legal or equitable tentitle the applicant to conduct operations	itle to those rights in the subje				WESLEY	W. INGRAM JM ENGINEER	
Title 18 U S C Section 1001 and Title 43	U.S.C. Section 1212, make it	a crime for any pe	rson knowingly a	and willfully to	make to any departmen	t or agency of the Uni	ted States any false.

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

# SHELL FEDERAL #1 API # 30-015-22232 3160-5 page 2

- 14. Perforate 7405'-7410', 7414'-7419', 7425'-7429' w/ 2 jspf (28 holes.)
- 15. RIH w/ tbg & arrow set 1 pkr to 7450'.
- 16. Spot 250 gals 15% Hcl NEFE.
- 17. Set pkr @ 7350', pressure up on csg to 500#.
- 18. Pressure up on tbg to breakdown perfs 7405'-7429'.
- 19. Swab well & evaluate zone for production & stimulation.

3 RIVERS - SHELL FEDERAL #1 API 30-015-22232 SEC 6 - 215-24 E INDIANBASIN, STRANN NW (GAS) EDDY CO. NM



MARKO"



By: Travis Kinley Date: 2/17/2012

# **RECOMPLETION GEOLOGICAL PROGNOSIS**

Well Name:	SHELL FEDERAL-1		API #:	30-015-22232
Field / Prospect Area:	CEMET	ARY	GL:	3,779'
Location (NAD 27):	County:	Eddy	State:	NM
US State Plane NAD27	Footage Calls:	1980 FSL 1980 FEL	Lon.:	-104.5356200
New Mexico East 3001	Section:	6	Lat:	32.5064700
	Township:	215		
	Range:	24E		
Current Total Depth:	9,850'	Target Formation:		Cisco
Nearest Producing Well:			7	
Well Type:	OAP - Recompletion			

Primary Contact	Travis Kinley	Seconday Contact	Barry Smith
Office	512-706-9845	Office	512-600-3184
Cell	817-437-3857	Cell	214-226-9955
Email	tkinley@3rnr.com	Email	bsmith@3rnr.com

### KB (open-hole Logs) 3,791'

Formation Tops	<u>TVD</u> ·	Mail Logs To:
San Andres	785'	Travis Kinley
Glorietta	2,456'	Three Rivers Operating Co.
Bone Spring (top of Lime)	3,229'	1123 S. Capital of Texas Hwy., Suite 325
Wolfcamp	6,498'	Austin, TX 78747
Cisco	7,096'	
Canyon	7,863'	
Strawn	8,648'	Synthia Prescott
Atoka ·	9,138'	Three Rivers Operating Co.
Morrow	9,491'	10717.Hwy. 191, Suite 9
TD	9,850'	Midland, TX 79708

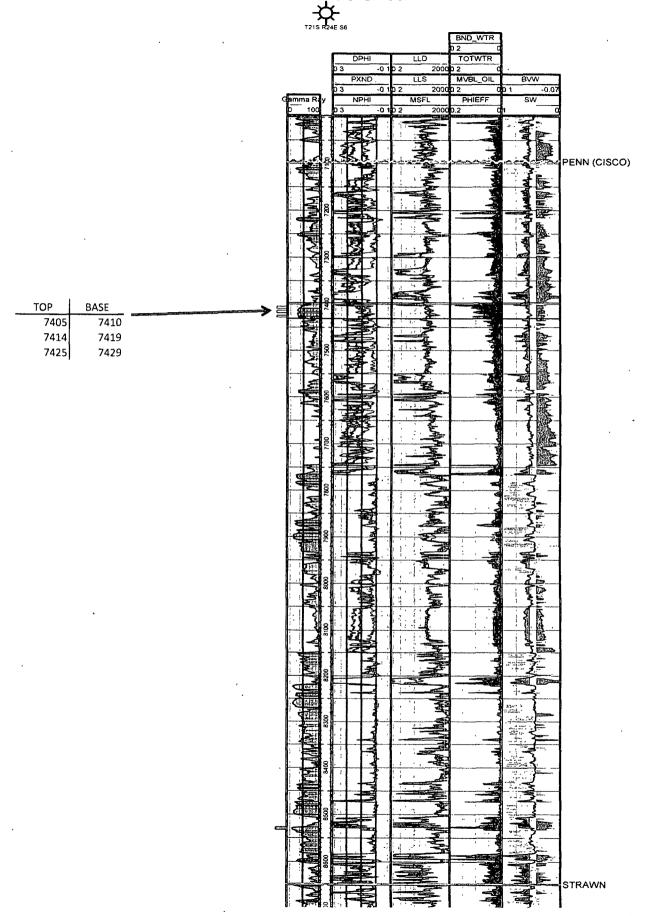
#### **Recommendation:**

Perf, acidize & frac the proposed Cisco sand at 7,401'-7,430.

This particular sand has not been tested in the area. However, it is found to be fairly extensive in the immediate offsets. The proposed zone calculates well (ave true measured  $\Phi$  = 13%, Sw = 28%), and a significant show was documented on the mudlog in this well and in one of the offsets.

	Gross ft	Net ft	Cutoffs	Lithology
7401' - 7430'	29	14	XPHI > 8%	Sandstone

<sup>\*\*</sup> Porosity converted from limestone matrix 9% = 13% sandstone matrix.



# **Conditions of Approval**

# Three Rivers Operating Co., LLC Shell Federal #1 API 3001522232

April 6, 2012

- 1. A C-102 shall be submitted when completing to another formation.
- 2. According to operator's geological prognosis, the recompletion is actually in the Cisco.
- 3. BLM contact phone numbers: 575-200-7902/575-361-2822. If no answer, leave a voice mail with the API#, work over purpose, and a call back phone number. Make arrangements 24 hours before plug back procedures to be witnessed.
- 4. Surface disturbance beyond the existing pad must have prior approval.
- 5. A closed loop system is required. The operator shall properly dispose of drilling contents at an authorized disposal site. Tanks are required for all operations, no excavated pits.
- 6. H<sub>2</sub>S monitoring equipment to be used on location and functional.
- 7. A minimum of 5000 (5M) BOPE is to be used. All blowout preventer (BOP) and related equipment (BOPE) shall comply with reasonable well control requirements. A two ram system with a blind ram and a pipe ram designed for the size of the work string shall be adequate. Tapered work strings will require an additional pipe ram. The manifold shall comply with Onshore Oil and Gas Order #2 Attachment I (5M) Diagrams of Choke Manifold Equipment). The accumulator system shall have an immediately available power source to close the rams and retain 200 psi above pre-charge. The pre-charge test shall follow requirements in Onshore Order #2.
- 8. All waste (i.e. trash, salts, chemicals, sewage, gray water, etc.) created as a result of work over operations shall be safely contained and disposed of properly at a waste disposal facility. No waste material or fluid shall be disposed of on the well location or surrounding area. Porto-johns and trash containers will be on-location during fracturing operations or any other crew-intensive operations.
- 9. Current top of cement for the 4-1/2" production casing is 7390' based on a temperature survey. This is not adequate protection for the casing above for any pressure treatment of the perforations and definitely not for a fracture treatment only 15 feet from top perforation to top of cement. Operator shall perform a remedial cement job to provide a minimum of 200' of protected casing above the uppermost perforation. Also, the current top of cement will not enable proper plugging of the well with either a CIBP or cement plug.
- 10. Tag the CIBP at 9500' with tubing. If tag does not indicate a minimum of 35' of cement, operator shall pump a 25 sack Class "H" (mixed 15.6lb/gal, 1.18ft³/sx, and 5.2g/sx) cement plug.

- 11. Operator shall WOC a minimum of 4 hours and then spot 20bbl mud to above 8500. Minimum requirement for mud placed between plugs is 25 sacks of salt water gel per 100 barrels in 9 lb/gal brine.
- 12. Spot a minimum of a 25 sack Class "H" (mixed 15.6lb/gal, 1.18ft³/sx, and 5.2g/sx) cement plug on the CIBP to be set at 8500. Any plug that requires a tag or pressure test will have a minimum WOC time of 4 hours.
- 13. After setting the above plug and before perforating, BLM PET to witness the proposed 2500 psig casing integrity test. Test to be charted. Pressure leak off will require review and possible correction prior to perforating. Include a copy of the chart in the subsequent sundry for this work over.
- 14. Operator to submit copy of log run in operator's step 13.
- 15. File a **subsequent sundry** Form 3160-**5** within 30 days of the plug back and acid treatment. Include an updated wellbore diagram.
- 16. Submit the BLM Form 3160-4 Recompletion Report within 30 days of the date all BLM approved procedures are complete.
- 17. Work over approval is good for 90 days (completion to be within 90 days of approval). A legitimate request is necessary for extension of that date.

PRS 032912/WWI 040612

## NM Fed Regs & Forms - http://www.blm.gov/nm/st/en/prog/energy/oil and gas.html

Use of Form 3160-5 "Sundry Notices and Reports on Wells"

### § 43 CFR 3162.3-2 Subsequent Well Operations.

- a) A proposal for further well operations shall be submitted by the operator on Form 3160–5 for approval by the authorized officer prior to commencing operations to redrill, deepen, perform casing repairs, plug-back, alter casing, perform nonroutine fracturing jobs, recomplete in a different interval, perform water shut off, commingling production between intervals and/or conversion to injection. If there is additional surface disturbance, the proposal shall include a surface use plan of operations. A subsequent report on these operations also will be filed on Form 3160–5. The authorized officer may prescribe that each proposal contain all or a portion of the information set forth in §3162.3–1 of this title.
- (b) Unless additional surface disturbance is involved and if the operations conform to the standard of prudent operating practice, prior approval is not required for routine fracturing or acidizing jobs, or recompletion in the same interval; however, a subsequent report on these operations must be filed on Form 3160–5.

(c) No prior approval or a subsequent report is required for well cleanout work, routine well maintenance, or bottom hole pressure surveys.

[47 FR 47765, Oct. 27, 1982. Redesigned and amended at 48 FR 36583–36586, Aug. 12, 1983, further amended at 52 FR 5391, Feb. 20, 1987; 53 FR 17363, May 16, 1988; 53 FR 22847, June 17, 1988]

### § 43 CFR 3160.0-9 (c)(1) Information collection.

(c)(1) The information collection requirements contained in part 3160 have been approved by the Office of Management and Budget under 44 U.S.C. 3507 and assigned the following Clearance Numbers:

### **Operating Forms**

Form No.	Name and filing date	OMB No.
3160–3	Application for Permit to Drill, Deepen, or Plug Back—Filed 30 days prior to planned action	1004– 0136
3160-4	With Completion of Recompletion Report and Log—Due 30 days after well completion	1004– 0137
3160–5	Sundry Notice and Reports on Wells—Subsequent report due 30 days after operations completed	1004– 0135

The information will be used to manage Federal and Indian oil and gas leases. It will be used to allow evaluation of the technical, safety, and environmental factors involved with drilling and producing oil and gas on Federal and Indian oil and gas leases. Response is mandatory only if the operator elects to initiate drilling, completion, or subsequent operations on an oil and gas well, in accordance with 30 U.S.C. 181 *et seq*.

#### § 3162.4-1 (c) Well records and reports.

Not later than the 5th business day after any well begins production on which royalty is due anywhere on a lease site or allocated to a lease site, or resumes production in the case of a well which has been off production for more than 90 days, the operator shall notify the authorized officer by letter or sundry notice, Form 3160–5, or orally to be followed by a letter or sundry notice, of the date on which such production has begun or resumed.