

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 August 1, 2011

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

WELL API NO. 30-015-26764
5. Indicate Type of Lease STATE ☐ FEE ☒
6. State Oil & Gas Lease No.
7. Lease Name or Unit Agreement Name EAST LOVING SWD
8. Well Number 1
9. OGRID Number 4323
10. Pool name or Wildcat LOVING; DELAWARE EAST
11. Elevation (Show whether DR, RKB, RT, GR, etc.)

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 SWD

2. Name of Operator
CHEVRON U.S.A. INC.

3. Address of Operator
15 SMITH ROAD, MIDLAND, TEXAS 79705

4. Well Location

Unit Letter A : 1157 feet from the NORTH line and 491 feet from the EAST line

Section 15 Township 23-S Range 28-E NMPM County EDDY

11. Elevation (Show whether DR, RKB, RT, GR, etc.)

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 ☐

SUBSEQUENT REPORT OF:

REMEDIAL WORK ☐ ALTERING CASING ☐
COMMENCE DRILLING OPNS. ☐ P AND A ☐
CASING/CEMENT JOB ☐

OTHER: RUN STEP RATE TEST & STIMULATION

OTHER

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 recomplete

CHEVRON U.S.A. INC. REQUESTS APPROVAL TO CONDUCT A STEP RATE TEST ON THE SUBJECT WELL.

PLEASE FIND ATTACHED, THE INTENDED PROCEDURE, WELLBORE DIAGRAM, AND C-144 INFORMATION.

Spud Date:

Rig Release Date:

RECEIVED

FEB 06 2013

NMOCD ARTESIA

I hereby certify that the information above is true and complete to the best of my knowledge and belief.

SIGNATURE

Denise Pinkerton

TITLE: REGULATORY SPECIALIST

DATE: 02-04-2013

Type or print name: DENISE PINKERTON

E-mail address: leakejd@chevron.com

PHONE: 432-687-7375

For State Use Only

APPROVED BY:

Paula Inae

TITLE COMPLIANCE OFFICER

DATE 2/7/13

Conditions of Approval (if any):

API # 3001526764

SEC 15-23S-28E, 1157 FNL & 491 FEL

Job: Conduct Step-Rate Test

Well Data:

- Currently injecting approximately 200-300 bbls at 1,066 psi
- Max surface pressure is 1,150 psi as per IPI approved by NMOCD in April of 2007
- Perforations from 4216'-4537'
- TD @ 4600'

Procedure:

1. *This procedure is based on the most recent information regarding wellbore configuration and equipment that could be found in the Midland Office well files and computer databases as of 2/4/2010. Verify what is in the hole with the well file in the Eunice Field office. Discuss w/ WEO Engineer, Workover Rep, OS, ALS, and FS prior to rigging up on well regarding any hazards or unknown issues pertaining to the well.*
2. Ensure that the well has been shut in for 2 days prior to the test. For verification call Production Engineer, Alyssa Davanzo, at (720) 244-4417 or (432) 687-7659.
3. MIRU step rate test control trailer. RU pump truck and transport.
4. NU lubricator and test to 4500 psi.
5. RIH BH pressure gauge using slickline operations to ~4377', the midpoint of the perforations.
6. Begin conducting step rate test. Maintain a stable rate of 100 BWIPD for 10 minutes and wait for the pressure to stabilize before continuing the test.
7. Pump each 10 minute interval at the following injection rates: 250 BPD, 500 BPD, 1000 BPD, 1500 BPD, 2000 BPD, 2500 BPD and 3000 BPD. Injection rates may vary based on collected data from the previous step and the estimated frac pressure. Three data points above and below the frac pressure are required for a complete test. Pump approximately 80 bbls total, assuming each stage is 10 minutes.

Potential Pumping Schedule (10 min/Stage)				
Stage	BWIPD	BWIPM	Volume/Stage	Rounded Volume/Stage
1	100	0.07	0.69	1.00
2	250	0.17	1.74	2.00
3	500	0.35	3.47	4.00
4	1000	0.69	6.94	7.00
5	1500	1.04	10.42	11.00
6	2000	1.39	13.89	14.00
7	2500	1.74	17.36	18.00
8	3000	2.08	20.83	21.00
		Total bbls	75.35	80.00

8. Record stabilized pressure and injection rate for each step and chart results.
9. POOH with BH pressure gauge.
10. ND lubricator.
11. RDMO step rate test equipment and pump truck.

Current Wellbore Schematic

WELL (PN): EAST LOVING SWD 1(CVX) (891227)
 FIELD OFFICE: BRG - BRG PETROLEUM
 FIELD: East Loving
 STATE / COUNTY: NEW MEXICO / EDDY
 LOCATION: SEC 15-23S-28E, 1157 FNL & 491 FEL
 ROUTE: HOB-NM-ROUTE 22- DAVID CHAVARIA
 ELEVATION: GL: 3,001.0 KB: 3,014.0 KB Height: 13.0
 DEPTHS: TD: 4,600.0



API #: 3001526764

Serial #:

SPUD DATE: 6/24/1991

RIG RELEASE: 6/24/1991

FIRST SALES:

Original Hole, 10/19/2012 2:04:53 PM		Surface Casing; Set @ 425.0 ftKB ; Original Hole												
Vertical schematic (actual)		Zones		Set Tension (kips)		Mud Weight		Cut Pull Date		Depth Cut Pull (ftKB)				
20" Conductor pipe set w/ redi mix 10 3/4" 40.5# J-55 Buttress Surface Csg 10 3/4 in; 40.50 lb/ft; K-55; 425.0 ftKB Cmt w/ 350 sx. Circ w/ 75 sx Tubing; 2 7/8 in; 4,057.0 ftKB On-Off Tool; 2 7/8 in; 4,058.0 ftKB Packer; 6.30 in; 4,060.0 ftKB Sand Frac; 4,216.0-4,399.0 ftKB; 9/13/1991 Acidizing; 4,216.0-4,537.0 ftKB; 9/13/1991 Acidizing; 4,216.0-4,537.0 ftKB; 8/13/2005 Acidizing; 4,216.0-4,537.0 ftKB; 6/26/1992 Acidizing; 4,216.0-4,537.0 ftKB; 7/5/1993 Acidizing; 4,216.0-4,537.0 ftKB; 12/10/2004 Acidizing; 4,216.0-4,537.0 ftKB; 11/13/2003 Acidizing; 4,407.0-4,537.0 ftKB; 7/13/1991 Plug Back Total Depth; 4,556.0 ftKB 7" 23# J-55 LT&C Prod Csg 7 in; 23.00 lb/ft; J-55; 4,600.0 ftKB Cmt w/ 1100 sx, tail w/ 200 sx. Circ w/ 190 sx				Set Tension (kips)		Mud Weight		Cut Pull Date		Depth Cut Pull (ftKB)				
				Item Des		OD (in)	ID (in)	Drift (in)	Wt (lb/ft)	Grade	Top Thread	Top (ftKB)	Btm (ftKB)	Len (ft)
				Casing Joints		10 3/4	10.050	9.894	40.50	K-55	Buttress	13.0	424.0	411.00
		Float Shoe		10 3/4					Buttress	424.0	425.0	1.00		
Production Casing; Set @ 4,600.0 ftKB ; Original Hole														
		Set Tension (kips)		Mud Weight		Cut Pull Date		Depth Cut Pull (ftKB)						
		Item Des		OD (in)	ID (in)	Drift (in)	Wt (lb/ft)	Grade	Top Thread	Top (ftKB)	Btm (ftKB)	Len (ft)		
		Casing Joints		7	6.366	6.241	23.00	J-55	LT&C	13.0	4,599.0	4,586.00		
		Float Shoe		7					LT&C	4,599.0	4,600.0	1.00		
Description: Surface Casing Cement 13.0-425.0														
Top of Cement (ftKB): 13.0 Top Measurement Method:														
		Fluid	Pump Start Date	Amount (sacks)	Class	Dens (lb/gal)	Vol Pumped (bbl)	Yield (ft ³ /sack)						
			6/25/1991	350	C									
Description: Production Casing Cement 13.0-4,600.0														
Top of Cement (ftKB): 13.0 Top Measurement Method:														
		Fluid	Pump Start Date	Amount (sacks)	Class	Dens (lb/gal)	Vol Pumped (bbl)	Yield (ft ³ /sack)						
		Lead	7/1/1991	1,100	C									
		Tail	7/1/1991	200	C									
Tubing String: Tubing - Production														
		Set Depth (ftKB)	Wellbore	Run Date	Pull Date	Cut Pull Date	Depth Cut Pull (ft...)							
		4,064.0	Original Hole	10/17/2011										
		Item Des	OD (in)	ID (in)	Drift (in)	Wt (lb/ft)	Grade	Top (ftKB)	Btm (ftKB)	Len (ft)	Jts			
		Tubing	2 7/8	2.250	2.347		J-55	7.1	19.1	12.00	2			
		Tubing	2 7/8					19.1	4,055.8	4,036.72	129			
		On-Off Tool	3 1/2	2.250				4,055.8	4,057.8	2.00	1			
		Packer	7					4,057.8	4,064.0	6.20	1			
Perforations														
		Date	Zone	Top (ftKB)	Btm (ftKB)	Shot Dens (shots/ft)	Current Status							
		9/13/1991		4,216.0	4,230.0	1.0								
		9/13/1991		4,280.0	4,298.0	1.0								
		9/13/1991		4,327.0	4,352.0	1.0								
		9/13/1991		4,377.0	4,399.0	1.0								
		7/12/1991		4,407.0	4,415.0	2.0								
		7/12/1991		4,428.0	4,454.0	2.0								
		7/12/1991		4,462.0	4,470.0	2.0								
		7/12/1991		4,482.0	4,496.0	2.0								
		7/12/1991		4,503.0	4,512.0	2.0								
		7/12/1991		4,517.0	4,537.0	2.0								
Stimulations & Treatments														
<Zone/Formation?>, <Stage Number?>, Acidizing, 8/13/2005														
		Min Top Dep...	Max Btm De...	Total Clean...	Avg Treat Pr...	Q Treat Avg...	Post ISIP (psi)	Comment						
		4,216.0	4,537.0	95.24	1,600.0		825.0							

Current Wellbore Schematic

WELL (PN): EAST LOVING SWD 1(CVX) (891227)
 FIELD OFFICE: BRG - BRG PETROLEUM
 FIELD: East Loving
 STATE / COUNTY: NEW MEXICO / EDDY
 LOCATION: SEC 15-23S-28E, 1157 FNL & 491 FEL
 ROUTE: HOB-NM-ROUTE 22- DAVID CHAVARIA
 ELEVATION: GL: 3,001.0 KB: 3,014.0 KB Height: 13.0
 DEPTHS: TD: 4,600.0



API #: 3001526764

Serial #:

SPUD DATE: 6/24/1991

RIG RELEASE: 6/24/1991

FIRST SALES:

Original Hole, 10/19/2012 2:04:54 PM		Stimulations & Treatments							
Vertical schematic (actual)		Zones							
		<Zone/Formation?>, <Stage Number?>, Acidizing, 12/10/2004							
		Min Top Dep...	Max Btm De...	Total Clean...	Avg Treat Pr...	Q Treat Avg...	Post ISIP (psi)	Comment	
		4,216.0	4,537.0	47.62			1,350.0		
		<Zone/Formation?>, <Stage Number?>, Acidizing, 11/13/2003							
		Min Top Dep...	Max Btm De...	Total Clean...	Avg Treat Pr...	Q Treat Avg...	Post ISIP (psi)	Comment	
		4,216.0	4,537.0	47.62			1,100.0		
		<Zone/Formation?>, <Stage Number?>, Acidizing, 7/5/1993							
		Min Top Dep...	Max Btm De...	Total Clean...	Avg Treat Pr...	Q Treat Avg...	Post ISIP (psi)	Comment	
		4,216.0	4,537.0	23.81					
		<Zone/Formation?>, <Stage Number?>, Acidizing, 6/26/1992							
		Min Top Dep...	Max Btm De...	Total Clean...	Avg Treat Pr...	Q Treat Avg...	Post ISIP (psi)	Comment	
		4,216.0	4,537.0	71.43					
		<Zone/Formation?>, <Stage Number?>, Acidizing, 9/13/1991							
		Min Top Dep...	Max Btm De...	Total Clean...	Avg Treat Pr...	Q Treat Avg...	Post ISIP (psi)	Comment	
		4,216.0	4,537.0	95.24					
		<Zone/Formation?>, <Stage Number?>, Sand Frac, 9/13/1991							
		Min Top Dep...	Max Btm De...	Total Clean...	Avg Treat Pr...	Q Treat Avg...	Post ISIP (psi)	Comment	
		4,216.0	4,399.0	1678.57			1,220.0		
		Sand Size		Type		Amount		Conc (lb/gal)	
		20/40		Brown Sand		88,000.0			
		12/20		Brown Sand		20,000.0			
		<Zone/Formation?>, <Stage Number?>, Acidizing, 7/13/1991							
		Min Top Dep...	Max Btm De...	Total Clean...	Avg Treat Pr...	Q Treat Avg...	Post ISIP (psi)	Comment	
		4,407.0	4,537.0	119.05			900.0		