

OCD-ARTESIA

Form 3160-4
(April 2004)UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
WELL COMPLETION OR RECOMPLETION REPORT AND LOGFORM APPROVED
OMB NO. 1004-0137
Expires: March 31, 2007

5. Lease Serial No. **NM 32636 0542015**

6. If Indian, Allottee or Tribe Name
N/A

7. Unit or CA Agreement Name and No.
N/A

8. Lease Name and Well No.
SCB 13 Federal #8

9. API Well No.
30-015-33645

10. Field and Pool, or Exploratory
Loving Delaware, North

11. Sec., T., R., M., on Block and
Survey or Area **Sec 13, T23S, R28E**

12. County or Parish
Eddy

13. State
NM

14. Date Spudded
02/09/2005

15. Date T.D. Reached
02/18/2005

16. Date Completed
04/13/2005
☐ D & A ☒ Ready to Prod.

17. Elevations (DF, RKB, RT, GL)*
GL 2975'

18. Total Depth: MD **6484'**
TVD

19. Plug Back T.D.: MD **6392'**
TVD

20. Depth Bridge Plug Set: MD
TVD

21. Type Electric & Other Mechanical Logs Run (Submit copy of each)
SDL / DSN / DLL / MGRD

22. Was well cored? ☒ No ☐ Yes (Submit analysis)
Was DST run? ☒ No ☐ Yes (Submit report)
Directional Survey? ☐ No ☒ Yes (Submit copy)

23. Casing and Liner Record (Report all strings set in well)

Hole Size	Size/Grade	Wt. (#/ft.)	Top (MD)	Bottom (MD)	Stage Cementer Depth	No. of Sk. & Type of Cement	Slurry Vol. (BBL)	Cement Top*	Amount Pulled
12 1/4	8 5/8J-55	24		595		650 sx 'C'		Surface	
7 7/8	5 1/2J-55	6.5		6476		1250 sx 'C'		Surface	

24. Tubing Record

Size	Depth Set (MD)	Packer Depth (MD)	Size	Depth Set (MD)	Packer Depth (MD)	Size	Depth Set (MD)	Packer Depth (MD)
2 7/8	6047							

25. Producing Intervals

Formation	Top	Bottom	Perforated Interval	Size	No. Holes	Perf. Status
A) Brushy Canyon 'AA'	6188'	6208'	6188'-6208'	0.40	20	Producing
B) Brushy Canyon 'C'	6170'	6180'	6170'-6180'	0.40	20	Producing
C)			6149'-6152'	0.40	20	Producing
D)						

27. Acid, Fracture, Treatment, Cement Squeeze, etc.

Depth Interval	Amount and Type of Material
6149' - 6208'	Acidize w/ 42 gal 2% KCL Spacer, 1008 gal 15% NEFE HCL acid & 1,470 gal 2% KCL Acid Flush. Frac w/ 17,623 bbls 20# gel w/ 53,240# Ottawa & resin sand.

28. Production - Interval A

Date First Produced	Test Date	Hours Tested	Test Production	Oil BBL	Gas MCF	Water BBL	Oil Gravity Corr. API	Gas Gravity	Production Method
04/16/2005	04/17/2005	24	→	14	63	209	48.9		Pumping
Choke Size	Thg. Press. Flwg. SI	Csg. Press. SI	24 Hr. Rate	Oil BBL	Gas MCF	Water BBL	Gas/Oil Ratio	Well Status	
64/64	100	100	→	14	63	209	450	Producing	

28a. Production - Interval B

Date First Produced	Test Date	Hours Tested	Test Production	Oil BBL	Gas MCF	Water BBL	Oil Gravity Corr. API	Gas Gravity	Production Method
			→						
Choke Size	Thg. Press. Flwg. SI	Csg. Press. SI	24 Hr. Rate	Oil BBL	Gas MCF	Water BBL	Gas/Oil Ratio	Well Status	
			→						

*(See instructions and spaces for additional data on page 2)

ACCEPTED FOR RECORD

MAY 21 2007

BUREAU OF LAND MANAGEMENT
CARLSBAD FIELD OFFICE

28b. Production - Interval C

Date First Produced	Test Date	Hours Tested	Test Production →	Oil BBL	Gas MCF	Water BBL	Oil Gravity Corr. API	Gas Gravity	Production Method <i>Pumping</i>
Choke Size	Tbg. Press. Flwg. SI	Csg. Press.	24 Hr. Rate →	Oil BBL	Gas MCF	Water BBL	Gas/Oil Ratio	Well Status	

28c. Production - Interval D

Date First Produced	Test Date	Hours Tested	Test Production →	Oil BBL	Gas MCF	Water BBL	Oil Gravity Corr. API	Gas Gravity	Production Method
Choke Size	Tbg. Press. Flwg. SI	Csg. Press.	24 Hr. Rate →	Oil BBL	Gas MCF	Water BBL	Gas/Oil Ratio	Well Status	

29. Disposition of Gas (Sold, used for fuel, vented, etc.)

Sold

30. Summary of Porous Zones (Include Aquifers):

Show all important zones of porosity and contents thereof: Cored intervals and all drill-stem tests, including depth interval tested, cushion used, time tool open, flowing and shut-in pressures and recoveries.

31. Formation (Log) Markers

Formation	Top	Bottom	Descriptions, Contents, etc.	Name	Top Meas. Depth
Delaware Sand	2675	3403	SS, Water	Delaware	2675
Cherry Canyon	3403	4687	SS, Water	Cherry Canyon	3403
Brushy Canyon	4687	6253	SS, Gas, Oil & Water	Brushy Canyon	4687
				Bone Spring	6253

32. Additional remarks (include plugging procedure):

33. Indicate which items have been attached by placing a check in the appropriate boxes:

- ☒ Electrical/Mechanical Logs (1 full set req'd.)
 ☐ Geologic Report
 ☐ DST Report
 ☒ Directional Survey
☐ Sundry Notice for plugging and cement verification
 ☐ Core Analysis
 ☐ Other:

34. I hereby certify that the foregoing and attached information is complete and correct as determined from all available records (see attached instructions)*

Name (please print) Linda C. StilesTitle Sr. Engineering TechSignature Date 05/17/2005

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 department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

COMPLETION

LOCATION: 660' FNL & 2310' FWL
Section 13, T23S, R28E
Eddy County, New Mexico

MISC. INFO.: KB- 2988.5' (13.5'), GL- 2975', TD- 6,476'

TUBULARS: 8-5/8", 24#, J-55, ST&C Csg set @ 595'
5-1/2", 15.5#, J-55, LT&C Csg set @ 6,476'
2-7/8", 6.5#, J-55, EUE-8rd Tbg

PRESSURE: 5-1/2" Csg: Burst - 4,810 psig, Collapse - 4,040 psig
2-7/8" Tbg: Burst - 7,260 psig, Collapse - 7,680 psig

CAPACITIES: 2-7/8" Tbg: 0.2431 gpf, 0.00579 bpf, Drift= 2.347"
5-1/2" Csg: 0.9997 gpf, 0.02380 bpf, Drift= 4.825"

STATUS: Waiting on completion.

PURPOSE: Perforate & Frac the Brushy Canyon "C" individually and then frac the "AA", "A", "B" together.

PROCEDURE:

1. Dress off location. Install 5,000 psi flange. NU 5,000 psi full opening master valve.
2. MIRU WOR. NU BOP. PU & TIH with bit & scrapper, no drill collars on 2 7/8" tubing. Drill out DV tool @ +/- 3,510'. Clean to FC @ +/- 6,400'. Circulate hole clean with fresh water. TOOH standing in derrick.
3. NU frac tree. NU kill truck, load hole and test casing and master valve to 3,800 psi and hold for 30 min (as per OCD rules).
4. MIRU WLU. PU CCL, 3 3/8" expendable gamma gun loaded 2 spf, 180 deg phase with at least 20 gm charges and an EHD of at least 0.37". Pull strip to get on depth and perforate the following interval(s):

6,188' to 6,208'
6,170' to 6,180'
6,149' to 6,152'

5. POOH. RDMO WLU. Breakdown perforations at 2 to 5 bpm with 20 bbls of fluid. SD, record ISIP and pressure every 5 min for 30 min. RDMO kill truck.
6. MI 3 clean frac tanks filled with 500 bbls each of Carlsbad city water.
7. MIRU Schlumberger frac equipment and frac Brushy Canyon "C" sand as per frac design.
8. RDMO frac equipment and WLU. Flow well to tank until it dies.
9. TIH with sub-pump and hang off with pump 50' above the top perforation. RDMO WOR. Set pump for 500 bpd total fluid. Isolate 3 frac tanks for test. Test with sub-pump until well is pumped-off and steady rate established.
10. MIRU WOR. TOOH with tubing and sub-pump standing in derrick.
11. MIRU WLU. PU & RIH with 5 1/2" CIBP and set @ +/- 6100'. POOH. PU CL, 3 3/8" expendable gamma gun loaded 2 spf, 180 deg phase with at least 20 gm charges and an EHD of at least 0.37". Pull strip to get on depth and perforate the following intervals:

Intervals TBD

12. POOH. RDMO WLU. PU & TIH with 5 1/2" packer and RBP. Set RBP @ +/- 6,xxx' and set packer @ +/- 6,xxx'. Test casing to 500 psi. Breakdown perforations at 2 to 5 bpm with 20 bbls of fluid. SD, record ISIP. Flowback or swab test interval to determine cut.
13. When testing complete release packer and RBP. Reset RBP @ +/- 6,xxx' and set packer @ +/- 5,9xx'. Test casing to 500 psi. Breakdown perforations at 2 to 5 bpm with 20 bbls of fluid. SD, record ISIP. Flowback or swab test interval to determine cut.
14. When testing complete release packer and RBP. Reset RBP @ +/- 5,9xx' and set packer @ +/- 5,8xx'. Test casing to 500 psi. Breakdown perforations at 2 to 5 bpm with 20 bbls of fluid. SD, record ISIP. Flowback or swab test interval to determine cut.
15. When testing complete release packer and RBP. Reset RBP @ +/- 5,8xx' and set packer @ +/- 5,8xx'. Test casing to 500 psi. Breakdown perforations at 2 to 5 bpm with 20 bbls of fluid. SD, record ISIP. Flowback or swab test interval to determine cut.
16. When testing complete release packer and RBP and POOH standing up.
17. MI 3 clean frac tanks filled with 500 bbls each of Carlsbad city water.

18. MIRU Protechnics RA tracer and Schlumberger frac equipment and frac Brushy Canyon "AA", "A", and "B" sands as per frac design.
19. RDMO frac equipment. Flow well to tank until it dies.
20. TIH with sub-pump and hang off with pump 100' above the top perforation. RDMO WOR. Set pump for 500 bpd total fluid. Isolate 3 frac tanks for test. Test with sub-pump until well is pumped-off and steady rate established.
21. Set pumping unit while testing with sub-pump.
22. MIRU WOR. TOOH with tubing and sub-pump standing in derrick. TIH with bailer above bit, drill and bail CIBP. Clean to PBTD. TOOH.
23. TIH with TAC on 2 7/8" tubing and SN (set SN 20' above top perforation). ND BOP and NU pumping tee. Run pump, rods with scrapers on top 2200' of 7/8" rods, rotator and POP. (obtain pump and rod design for proper installation)

Hobbs, NM 88240

Grand Avenue, Artesia, NM 88210

Rio Brazos Rd., Aztec, NM 87410

District IV

1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy, Minerals & Natural ResourcesOil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505Submit to Appropriate District Office
5 Copies☐ AMENDED REPORT

I. REQUEST FOR ALLOWABLE AND AUTHORIZATION TO TRANSPORT

¹ Operator name and Address Range Operating New Mexico Inc. 777 Main Street Suite 800 Fort Worth TX 76102		² OGRID Number 227588
		³ Reason for Filing Code/ Effective Date 4-13-2005
⁴ API Number 30 - 015-33645	⁵ Pool Name Loving Delaware, North	⁶ Pool Code 40360
⁷ Property Code	⁸ Property Name SCB 13 Federal	⁹ Well Number 8

II. ¹⁰ Surface Location

UL or lot no C.	Section 13	Township 23S	Range 28E	Lot Idn	Feet from the 660	North/South Line North	Feet from the 2310	East/West line West	County Eddy
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¹¹ Bottom Hole Location

UL or lot no C.	Section 13	Township 23S	Range 28E	Lot Idn	Feet from the 660	North/South line North	Feet from the 2310	East/West line West	County Eddy
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¹² Lse Code	¹³ Producing Method Code	¹⁴ Gas Connection Date	¹⁵ C-129 Permit Number	¹⁶ C-129 Effective Date	¹⁷ C-129 Expiration Date
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III. Oil and Gas Transporters

¹⁸ Transporter OGRID	¹⁹ Transporter Name and Address	²⁰ POD	²¹ O/G	²² POD ULSTR Location and Description
209700	BP Pipeline North America, Inc.		O	
020809	Sid Richardson Gas		G	

IV. Produced Water

²³ POD	²⁴ POD ULSTR Location and Description
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V. Well Completion Data

²⁵ Spud Date 2-9-2005	²⁶ Ready Date 4-13-2005	²⁷ TD 6484	²⁸ PBDT 6392	²⁹ Perforations 6149-6208	³⁰ DHC, MC
³¹ Hole Size 12 1/4	³² Casing & Tubing Size 8 5/8	³³ Depth Set 595	³⁴ Sacks Cement 650 sx 'C'		
7 7/8	5 1/2	6476	1250 sx 'C'		

VI. Well Test Data

³⁵ Date New Oil 3-8-2005	³⁶ Gas Delivery Date 4-13-2005	³⁷ Test Date 4-15-2005	³⁸ Test Length 24	³⁹ Tbg. Pressure 250	⁴⁰ Csg. Pressure
⁴¹ Choke Size 64/64	⁴² Oil 20	⁴³ Water 315	⁴⁴ Gas 100	⁴⁵ AOF	⁴⁶ Test Method

⁴⁷ I hereby certify that the rules of the Oil Conservation Division have been complied with and that the information given above is true and complete to the best of my knowledge and belief.

Signature: *Linda C. Stiles*

Printed name:

Linda C. Stiles

Title:

Sr Engineering Tech

E-mail Address:

lstiles@rangeresources.com

Date:

05-17-2005

Phone:

(817) 810-1908

OIL CONSERVATION DIVISION

Approved by:

Title:

Approval Date:

OPERATOR RANGE PRODUCTION
WELL/LEASE SCB 13 #8
COUNTY EDDY, NM

065-0053

STATE OF NEW MEXICO
DEVIATION REPORT

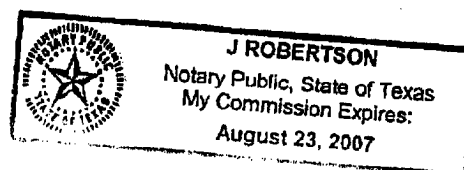
258	1/2
553	1 3/4
569	1 3/4
1,069	2 3/4
1,289	2 3/4
1,614	2 3/4
1,864	2 1/2
2,102	1 3/4
2,381	2
2,632	3
2,919	2 3/4
3,168	2 3/4
3,664	2
4,162	1 3/4
4,660	2 1/4
5,158	2
5,220	1 1/4
5,708	1
6,203	2 1/4
6,484	1

BY: 

STATE OF TEXAS
COUNTY OF MIDLAND

The foregoing instrument was acknowledged before me February 24, 2005, by Steve Moore on behalf of Patterson - UTI Drilling Company, LP, LLLP.


Notary Public for Midland County, Texas
My Commission Expires: 8/23/07



OPERATOR: RANGE PRODUCTION
WELL/LEASE: SCB 23 #8
COUNTY: EDDY, NM

065-0050

STATE OF NEW MEXICO
DEVIATION REPORT

300	1/4
757	1
1,275	1 1/2
1,778	1/4
2,281	4 1/4
2,376	4 1/2
2,534	3
2,784	2
3,258	1/2
3,754	1/4
4,253	1/2
4,813	1
5,310	1 1/4
5,806	1
6,083	2
6,390	2

By: 

STATE OF TEXAS
COUNTY OF MIDLAND

The foregoing instrument was acknowledged before me on December 27th, 2004, by
Steve Moore on behalf of Patterson-UTI Drilling Company LP, LLLP.


Notary Public for Midland County, Texas
My Commission Expires: 8/23/2007



J ROBERTSON
Notary Public, State of Texas
My Commission Expires:
August 23, 2007

OPERATOR: RANGE PRODUCTION
WELL/LEASE: SCB 23 #8
COUNTY: EDDY, NM

065-0050

STATE OF NEW MEXICO
DEVIATION REPORT

300	1/4
757	1
1,275	1 1/2
1,778	1/4
2,281	4 1/4
2,376	4 1/2
2,534	3
2,784	2
3,258	1/2
3,754	1/4
4,253	1/2
4,813	1
5,310	1 1/4
5,806	1
6,083	2
6,390	2

By: 

STATE OF TEXAS
COUNTY OF MIDLAND

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Notary Public for Midland County, Texas
My Commission Expires: 8/23/2007

