

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

FORM APPROVED  
OMB NO. 1004-0137  
Expires: January 31, 2018

**SUNDRY NOTICES AND REPORTS ON WELLS**  
*Do not use this form for proposals to drill or to re-enter an abandoned well. Use form 3160-3 (APD) for such proposals.*

**SUBMIT IN TRIPLICATE - Other instructions on page 2**

1. Type of Well <input type="checkbox"/> Oil Well <input checked="" type="checkbox"/> Gas Well <input type="checkbox"/> Other		5. Lease Serial No. NMNM03358
2. Name of Operator BP AMERICA PRODUCTION CO		6. If Indian, Allottee or Tribe Name
Contact: TOYA COLVIN E-Mail: Toya.Colvin@bp.com		7. If Unit or CA/Agreement, Name and/or No.
3a. Address PO BOX 3092 HOUSTON, TX 77253	3b. Phone No. (include area code) Ph: 281.892.5369	8. Well Name and No. NEBU 602 COM 1H
4. Location of Well (Footage, Sec., T., R., M., or Survey Description) Sec 12 T31N R7W NWNW 674FNL 825FWL 36.919422 N Lat, 107.528473 W Lon		9. API Well No. 30-045-35775-00-X1
		10. Field and Pool or Exploratory Area BASIN MANCOS
		11. County or Parish, State SAN JUAN COUNTY, NM

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

TYPE OF SUBMISSION	TYPE OF ACTION			
<input 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 checked="" type="checkbox"/> Subsequent Report	<input type="checkbox"/> Alter Casing	<input type="checkbox"/> Hydraulic Fracturing	<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 checked="" type="checkbox"/> Other
	<input type="checkbox"/> Change Plans	<input type="checkbox"/> Plug and Abandon	<input type="checkbox"/> Temporarily Abandon	Drilling Operations
	<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 must 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 must be filed once testing has been completed. Final Abandonment Notices must be filed only after all requirements, including reclamation, have been completed and the operator has determined that the site is ready for final inspection.

Please see the attached completion operations performed on the subject well.

In accordance with NMOCD Rule 19.15.7.16.C, BP respectfully requests confidential status of the 3160-5 drilling report sundry, 3160-4 completion report, directional surveys, and C-102 plats for our Northeast Blanco Unit 602 Com #1H well. Please see attached letter of our request.

\*\* Please note due to its completion, the "As Drilled" surface location for the subject well is:  
Sec 12 T31N R07W NWNW 674 FNL & 823 FWL

C-102 attached

OIL CONS. DIV/DIST. 3  
JUN 12 2017

14. I hereby certify that the foregoing is true and correct. <b>Electronic Submission #378028 verified by the BLM Well Information System For BP AMERICA PRODUCTION CO, sent to the Farmington Committed to AFMSS for processing by JACK SAVAGE on 06/07/2017 (17JWS0109SE)</b>	
Name (Printed/Typed) TOYA COLVIN	Title REGULATORY ANALYST
Signature (Electronic Submission)	Date 06/06/2017

**THIS SPACE FOR FEDERAL OR STATE OFFICE USE**

Approved By <b>ACCEPTED</b>	JACK SAVAGE Title PETROLEUM ENGINEER	Date 06/07/2017
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 Farmington

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.

(Instructions on page 2)

**\*\* BLM REVISED \*\* BLM REVISED \*\* BLM REVISED \*\* BLM REVISED \*\* BLM REVISED \*\***

NMOCD

1



**Toya Colvin**

Regulatory Analyst – West BU

BP America Production Company  
737 N. Eldridge Pkwy  
Houston, TX 77079

Direct: 281-892-5369  
Email: Toya.Colvin@bp.com

June 01, 2017

Bureau of Land Management  
Farmington District  
6251 College Blvd. Suite A  
Farmington, NM 87402  
**Attention: District Supervisor**

**Re: Request for Confidentiality  
Northeast Blanco Unit 602 Com 1H (API 30-045-35775)  
(3160-5 Completion-Drilling Ops Subsequent Report, 3160-4 Well Completion  
Report and Directional Surveys)  
San Juan County, New Mexico**

Hello:

In accordance with NMOCD Rule 19.15.7.16.C, BP America Production Company respectfully requests confidential status for our proposed Northeast Blanco Unit 602 Com #1H well.

Should you have questions or require additional information, please contact me at (281) 892-5369 or Toya.Colvin@bp.com.

Sincerely,

Toya Colvin  
Regulatory Analyst



All clusters perforated with 3 1/8" EXP-3321-421T guns; 60 deg phasing; 4 spf  
8 holes / cluster

JUN 12 2017

Stage	Cluster #1		Cluster #2		Cluster #3		Cluster #4		Cluster #5		Cluster #6		Holes / Stage
	top	bottom	top	bottom	top	bottom	top	bottom	top	bottom	top	bottom	
1	17,304	17,306	17,280	17,282	17,256	17,258	17,232	17,234	17,208	17,210			40
2	17,178	17,180	17,154	17,156	17,130	17,132	17,106	17,108	17,082	17,084	17,058	17,060	48
3	17,028	17,030	17,004	17,006	16,980	16,982	16,956	16,958	16,932	16,934	16,908	16,910	48
4	16,873	16,875	16,854	16,856	16,830	16,832	16,806	16,808	16,782	16,784	16,758	16,760	48
5	16,728	16,730	16,704	16,706	16,680	16,682	16,656	16,658	16,632	16,634	16,608	16,610	48
6	16,578	16,580	16,554	16,556	16,530	16,532	16,506	16,508	16,482	16,484	16,456	16,458	48
7	16,428	16,430	16,404	16,406	16,380	16,382	16,356	16,358	16,332	16,334	16,308	16,310	48
8	16,278	16,280	16,254	16,256	16,230	16,232	16,206	16,208	16,182	16,184	16,158	16,160	48
9	16,128	16,130	16,104	16,106	16,080	16,082	16,056	16,058	16,032	16,034	16,008	16,010	48
10	15,978	15,980	15,954	15,956	15,930	15,932	15,906	15,908	15,882	15,884	15,858	15,860	48
11	15,828	15,830	15,804	15,806	15,780	15,782	15,756	15,758	15,732	15,734	15,708	15,710	48
12	15,678	15,680	15,654	15,656	15,630	15,632	15,606	15,608	15,582	15,584	15,558	15,560	48
13	15,528	15,530	15,507	15,509	15,480	15,482	15,456	15,458	15,432	15,434	15,408	15,410	48
14	15,375	15,377	15,354	15,356	15,330	15,332	15,306	15,308	15,282	15,284	15,258	15,260	48
15	15,228	15,230	15,206	15,208	15,180	15,182	15,156	15,158	15,132	15,134	15,108	15,110	48
16	15,078	15,080	15,054	15,056	15,030	15,032	15,006	15,008	14,982	14,984	14,958	14,960	48
17	14,928	14,930	14,904	14,906	14,882	14,884	14,856	14,858	14,832	14,834	14,808	14,810	48
18	14,778	14,780	14,754	14,756	14,730	14,732	14,706	14,708	14,682	14,684	14,658	14,660	48
19	14,626	14,628	14,604	14,606	14,580	14,582	14,556	14,558	14,532	14,534	14,510	14,512	48
20	14,478	14,480	14,454	14,456	14,430	14,432	14,406	14,408	14,385	14,387	14,358	14,360	48
21	14,328	14,330	14,304	14,306	14,280	14,282	14,260	14,262	14,232	14,234	14,208	14,210	48
22	14,178	14,180	14,156	14,158	14,130	14,132	14,106	14,108	14,082	14,084	14,058	14,060	48
23	14,024	14,026	14,004	14,006	13,980	13,982	13,956	13,958	13,932	13,934	13,908	13,910	48
24	13,878	13,880	13,854	13,856	13,830	13,832	13,806	13,808	13,782	13,784	13,758	13,760	48
25	13,728	13,730	13,704	13,706	13,680	13,682	13,658	13,660	13,632	13,634	13,608	13,610	48
26	13,578	13,580	13,554	13,556	13,534	13,536	13,506	13,508	13,482	13,484	13,458	13,460	48
27	13,428	13,430	13,401	13,403	13,380	13,382	13,356	13,358	13,332	13,334	13,308	13,310	48
28	13,276	13,278	13,254	13,256	13,230	13,232	13,206	13,208	13,182	13,184	13,160	13,162	48
29	13,128	13,130	13,104	13,106	13,080	13,082	13,056	13,058	13,034	13,036	13,008	13,010	48
30	12,974	12,976	12,954	12,956	12,930	12,932	12,902	12,904	12,882	12,884	12,858	12,860	48
31	12,828	12,830	12,804	12,806	12,778	12,780	12,756	12,758	12,732	12,734	12,708	12,710	48
32	12,678	12,680	12,654	12,656	12,630	12,632	12,606	12,608	12,582	12,584	12,558	12,560	48
33	12,528	12,530	12,504	12,506	12,480	12,482	12,456	12,458	12,432	12,434	12,411	12,413	48
34	12,378	12,380	12,354	12,356	12,330	12,332	12,306	12,308	12,286	12,288	12,258	12,260	48
35	12,228	12,230	12,204	12,206	12,180	12,182	12,154	12,156	12,132	12,134	12,108	12,110	48
36	12,078	12,080	12,054	12,056	12,030	12,032	12,006	12,008	11,982	11,984	11,958	11,960	48
37	11,928	11,930	11,904	11,906	11,880	11,882	11,856	11,858	11,832	11,834	11,808	11,810	48
38	11,778	11,780	11,754	11,756	11,730	11,732	11,706	11,708	11,682	11,684	11,656	11,658	48
39	11,628	11,630	11,604	11,606	11,580	11,582	11,556	11,558	11,532	11,534	11,508	11,510	48
40	11,478	11,480	11,454	11,456	11,430	11,432	11,406	11,408	11,382	11,384	11,358	11,360	48
41	11,324	11,326	11,304	11,306	11,280	11,282	11,256	11,258	11,232	11,234	11,208	11,210	48



42	11,178	11,180	11,154	11,156	11,130	11,132	11,106	11,108	11,082	11,084	11,058	11,060	48
43	11,028	11,030	11,004	11,006	10,980	10,982	10,956	10,958	10,932	10,934	10,906	10,908	48
44	10,878	10,880	10,854	10,856	10,832	10,834	10,806	10,808	10,782	10,784	10,758	10,760	48
45	10,728	10,730	10,706	10,708	10,680	10,682	10,656	10,658	10,632	10,634	10,608	10,610	48
46	10,574	10,576	10,554	10,556	10,530	10,532	10,506	10,508	10,482	10,484	10,458	10,460	48
47	10,428	10,430	10,404	10,406	10,380	10,382	10,356	10,358	10,332	10,334			40
48	10,278	10,280	10,254	10,256	10,230	10,232	10,208	10,210	10,182	10,184	10,158	10,160	48
49	10,128	10,130	10,104	10,106	10,084	10,086	10,056	10,058	10,032	10,034	10,008	10,010	48
50	9,978	9,980	9,952	9,954	9,930	9,932	9,906	9,908	9,882	9,884	9,858	9,860	48
51	9,826	9,828	9,804	9,806	9,780	9,782	9,756	9,758	9,732	9,734	9,710	9,712	48
52	9,678	9,680	9,654	9,656	9,630	9,632	9,606	9,608	9,586	9,588	9,558	9,560	48
53	9,528	9,530	9,504	9,506	9,480	9,482	9,454	9,456	9,432	9,434	9,408	9,410	48
54	9,378	9,380	9,354	9,356	9,330	9,332	9,306	9,308	9,282	9,284	9,258	9,260	48
55	9,228	9,230	9,204	9,206	9,180	9,182	9,156	9,158	9,132	9,134	9,108	9,110	48
56	9,078	9,080	9,054	9,056	9,030	9,032	9,006	9,008	8,982	8,984	8,958	8,960	48
57	8,928	8,930	8,904	8,906	8,880	8,882	8,856	8,858	8,832	8,834	8,808	8,810	48
58	8,778	8,780	8,754	8,756	8,730	8,732	8,706	8,708	8,682	8,684	8,658	8,660	48
59	8,628	8,630	8,604	8,606	8,580	8,582	8,556	8,558	8,532	8,534	8,508	8,510	48
60	8,478	8,480	8,454	8,456	8,430	8,432	8,406	8,408	8,382	8,384	8,358	8,360	48
61	8,328	8,330	8,304	8,306	8,280	8,282	8,256	8,258	8,232	8,234	8,208	8,210	48
62	8,178	8,180	8,154	8,156	8,130	8,132	8,106	8,108	8,082	8,084	8,058	8,060	48
63	8,028	8,030	8,004	8,006	7,980	7,982	7,956	7,958	7,932	7,934	7,908	7,910	48
64	7,878	7,880	7,854	7,856	7,830	7,832	7,806	7,808	7,782	7,784	7,760	7,762	48

**CONFIDENTIAL**

**District I**  
1625 N. French Dr., Hobbs, NM 88240  
Phone (575) 393-6161 Fax (575) 393-0720

**District II**  
811 S. First St., Artesia, NM 88210  
Phone (575) 748-1283 Fax (575) 748-9720

**District III**  
1000 Rio Brazos Road, Aztec, NM 87410  
Phone (505) 334-6178 Fax (505) 334-6170

**District IV**  
1220 S. St. Francis Dr., Santa Fe, NM 87505  
Phone (505) 476-3460 Fax (505) 476-3462

State of New Mexico  
Energy, Minerals & Natural Resources Department  
OIL CONSERVATION DIVISION  
1220 South St. Francis Dr.  
Santa Fe, NM 87505

Form C-102  
Revised August 1, 2011  
Submit one copy to appropriate  
District Office

☐ AMENDED REPORT  
OIL CONS. DIV DIST.

JUN 12 2011

WELL LOCATION AND ACREAGE DEDICATION PLAT

<sup>1</sup> API Number 30-045-35775	<sup>2</sup> Pool Code 97232	<sup>3</sup> Pool Name Mancos Gas
<sup>4</sup> Property Code	<sup>5</sup> Property Name Northeast Blanco Unit 602 Com	<sup>6</sup> Well Number 1H
<sup>7</sup> OGRID No. 000778	<sup>8</sup> Operator Name BP America Production Company	<sup>9</sup> Elevation 6522

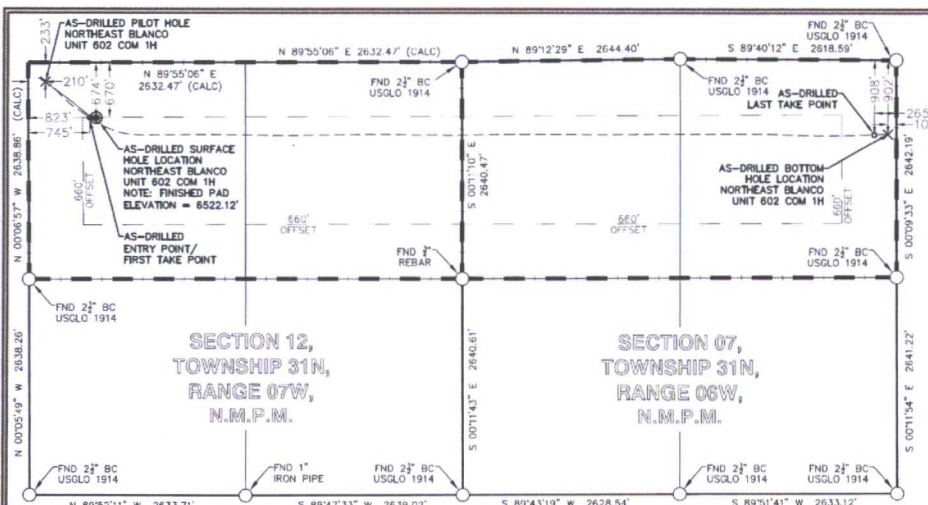
<sup>10</sup> Surface Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
D	12	31N	07W		674	North	823	West	San Juan

<sup>11</sup> Bottom Hole Location If Different From Surface

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
A	07	31N	06W		902	North	104	East	San Juan

<sup>12</sup> Dedicated Acres 640.02 N/2—SEC. 12 N/2—SEC. 07	<sup>13</sup> Joint or Infill	<sup>14</sup> Consolidation Code	<sup>15</sup> Order No.
No allowable will be assigned to this completion until all interests have been consolidated or a non-standard unit has been approved by the division.			



**LEGEND**  
FOUND MONUMENT O  
AS-DRILLED SURFACE HOLE LOCATION  
AS-DRILLED BOTTOM HOLE LOCATION X

<sup>17</sup> OPERATOR CERTIFICATION

I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or undivided mineral interest in the land including the proposed bottom hole location or has a right to drill this well at this location pursuant to a contract with an owner of such a mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.

Signature: *Toya Colvin* Date: 5/23/17

Printed Name

Toya Colvin

E-mail Address

toya.colvin@bp.com

<sup>18</sup> SURVEYOR CERTIFICATION

I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief.

Signature: *Marshall W. Linden* Date of Survey: 5-4-17

Signature and Seal of Professional Surveyor



17078  
Certificate Number

NEBU 602 COM 1H	NMWZ NAD'83	NAD'83	TIES
AS-DRILLED SURFACE HOLE LOCATION (SHL)	N (Y) = 2,154,140.48' E (X) = 2,812,206.34'	LAT. = 36.91942457°N LON. = 107.52847637°W	FNL = 674' FWL = 823'
AS-DRILLED PILOT HOLE	N (Y) = 2,154,580.88' E (X) = 2,811,591.68'	LAT. = 36.92063960°N LON. = 107.53057428°W	FNL = 233' FWL = 210'
AS-DRILLED ENTRY POINT (EP)/FIRST TAKE POINT (FTP)	N (Y) = 2,154,144.83' E (X) = 2,812,127.44'	LAT. = 36.91943721°N LON. = 107.52874623°W	FNL = 670' FWL = 745'
AS-DRILLED LAST TAKE POINT (LTP)	N (Y) = 2,153,936.33' E (X) = 2,821,646.24'	LAT. = 36.91877656°N LON. = 107.49618588°W	FNL = 908' FEL = 265'
AS-DRILLED BOTTOM HOLE LOCATION (BHL)	N (Y) = 2,153,941.47' E (X) = 2,821,807.90'	LAT. = 36.91878911°N LON. = 107.49563280°W	FNL = 902' FEL = 104'



(COMPLETION) Frac Report for the NEBU 602 Com 1H – May 2017

May 2017

**05/12/2017- 05/27/2017- FRAC PERF STAGE 1 (17306- 17208):** WITH 1000 GAL 15% NEFE ACID, AND 9872 BBLS TREATED SLICK WATER. PUMPED 89871# 100 MESH AND 284629# 40/70 WHITE. MAX RATE: 80.5 BPM, AVG RATE: 79.9 BPM, MAX P: 8306 PSI, AVG P: 6914 PSI.

**FRAC PERF STAGE 2 (17180- 17058):** WITH 1000 GAL 15% NEFE ACID, AND 10,546 BBLS TREATED SLICK WATER. PUMPED 90,310# 100 MESH AND 212,300# 40/70 WHITE.

**FRAC PERF STAGE 3 (17030- 16908):** WITH 1000 GAL 15% NEFE ACID, AND 12102 BBLS TREATED SLICK WATER. PUMPED 89400# 100 MESH AND 287700# 40/70 WHITE.

**FRAC PERF STAGE 4 (16875- 16758):** WITH 1000 GAL 15% NEFE ACID, AND 10,382 BBLS TREATED SLICK WATER. PUMPED 89,750# 100 MESH AND 280,750# 40/70 WHITE.

**FRAC PERF STAGE 5 (16730- 16608):** WITH 1000 GAL 15% NEFE ACID, AND 10,111 BBLS TREATED SLICK WATER. PUMPED 90,720# 100 MESH AND 284,280# 40/70 WHITE.

**FRAC PERF STAGE 6 (16580- 16456):** WITH 1000 GAL 15% NEFE ACID, AND 10091 BBLS TREATED SLICK WATER. PUMPED 94900# 100 MESH AND 279600# 40/70 WHITE.

**FRAC PERF STAGE 7 (16430- 16308):** WITH 1000 GAL 15% NEFE ACID, AND 10213 BBLS TREATED SLICK WATER. PUMPED 93930# 100 MESH AND 275000# 40/70 WHITE.

**FRAC PERF STAGE 8 (16280- 16158):** WITH 1000 GAL 15% NEFE ACID, AND 10237 BBLS TREATED SLICK WATER. PUMPED 92500# 100 MESH AND 278900# 40/70 WHITE.

**FRAC PERF STAGE 9 (16130- 16008):** WITH 1000 GAL 15% NEFE ACID, AND 10,053 BBLS TREATED SLICK WATER. PUMPED 89810# 100 MESH AND 282190# 40/70 WHITE.

**FRAC PERF STAGE 10 (15980- 15858):** WITH 1000 GAL 15% NEFE ACID, AND 9,762 BBLS TREATED SLICK WATER. PUMPED 92,090# 100 MESH AND 280,160# 40/70 WHITE.

**FRAC PERF STAGE 11 (15830- 15708):** WITH 1000 GAL 15% NEFE ACID, AND 10842 BBLS TREATED SLICK WATER. PUMPED 93470# 100 MESH AND 278200# 40/70 WHITE.

**FRAC PERF STAGE 12 (15680- 15558):** WITH 1000 GAL 15% NEFE ACID, AND 9700 BBLS TREATED SLICK WATER. PUMPED 87348# 100 MESH AND 280000# 40/70 WHITE.

**FRAC PERF STAGE 13 (15530- 15408):** WITH 1000 GAL 15% NEFE ACID, AND 9934 BBLS TREATED SLICK WATER. PUMPED 89830# 100 MESH AND 280200# 40/70 WHITE.

**FRAC PERF STAGE 14 (15377- 15258):** WITH 1000 GAL 15% NEFE ACID, AND 10,069 BBLS TREATED SLICK WATER. PUMPED 89,990# 100 MESH AND 281,010# 40/70 WHITE.

**FRAC PERF STAGE 15 (15230- 15108):** WITH 1000 GAL 15% NEFE ACID, AND 10,132 BBLS TREATED SLICK WATER. PUMPED 89,670# 100 MESH AND 281,230# 40/70 WHITE.

**FRAC PERF STAGE 16 (15080- 14958):** WITH 1000 GAL 15% NEFE ACID, AND 10787 BBLS TREATED SLICK WATER. PUMPED 93202# 100 MESH AND 266798# 40/70 WHITE.

**FRAC PERF STAGE 17 (14930- 14808):** WITH 1000 GAL 15% NEFE ACID, AND 11031 BBLS TREATED SLICK WATER. PUMPED 89860# 100 MESH AND 277140# 40/70 WHITE 14000# 30/80 FRAC BLAC.

**FRAC PERF STAGE 18 (14780- 14658):** WITH 1000 GAL 15% NEFE ACID, AND 11,309 BBLS TREATED SLICK WATER. PUMPED 90,010# 100 MESH AND 281,090# 40/70 WHITE 14,000# 30/80 FRAC BLAC.

**FRAC PERF STAGE 19 (14628- 14510):** WITH 1000 GAL 15% NEFE ACID, AND 10,008 BBLS TREATED SLICK WATER. PUMPED 89,910# 100 MESH AND 280,590# 40/70 WHITE 14000# 30/80 FRAC BLAC.

**FRAC PERF STAGE 20 (14480- 14358):** WITH 1000 GAL 15% NEFE ACID, AND 11863 BBLS TREATED SLICK WATER. PUMPED 83550# 100 MESH AND 277000# 40/70 WHITE 14000# 30/80 FRAC BLAC.

**FRAC PERF STAGE 21 (14330- 14208):** WITH 1000 GAL 15% NEFE ACID, AND 11392 BBLS TREATED SLICK WATER. PUMPED 90440# 100 MESH AND 263600# 40/70 WHITE 12000# 30/80 FRAC BLAC.

**FRAC PERF STAGE 22 (14180- 14058):** WITH 1000 GAL 15% HCL ACID, AND 10,483 BBLS TREATED SLICK WATER. PUMPED 90480# 100 MESH AND 281,120# 40/70 WHITE 14,000# 30/80 FRAC BLAC.

**FRAC PERF STAGE 23 (14026- 13908):** WITH 1000 GAL 15% HCL ACID, AND 10,256 BBLS TREATED SLICK WATER. PUMPED 94,000# 100 MESH AND 279,600# 40/70 WHITE 14,000# 30/80 FRAC BLAC.

**FRAC PERF STAGE 24 (13880- 13758):** WITH 1000 GAL 15% HCL ACID, AND 9445 BBLS TREATED SLICK WATER. PUMPED 88560# 100 MESH AND 275300# 40/70 WHITE 14,000# 30/80 FRAC BLAC.

**FRAC PERF STAGE 25 (13730- 13608):** WITH 1000 GAL 15% HCL ACID, AND 9994 BBLS TREATED SLICK WATER. PUMPED 89195# 100 MESH AND 277405# 40/70 WHITE 14,000# 30/80 FRAC BLAC.

**FRAC PERF STAGE 26 (13580- 13458):** WITH 1000 GAL 15% HCL ACID, AND 9,990 BBLS TREATED SLICK WATER. PUMPED 90,220# 100 MESH AND 279,580# 40/70 WHITE 14,000# 30/80 FRAC BLAC.

**FRAC PERF STAGE 27 (13430- 13308):** WITH 1000 GAL 15% HCL ACID, AND 10,829 BBLS TREATED SLICK WATER. PUMPED 98,038# 100 MESH AND 317,850# 40/70 WHITE 18,000# 30/80 FRAC BLAC.

**FRAC PERF STAGE 28 (13278- 13160):** WITH 1000 GAL 15% HCL ACID, AND 11180 BBLS TREATED SLICK WATER. PUMP BIO VERT DIVERter SPACER PUMPED 89423# 100 MESH AND 281677# 40/70 WHITE 18,000# 30/80 FRAC BLAC.

**FRAC PERF STAGE 29 (13130- 13008):** WITH 1000 GAL 15% HCL ACID, AND 11589 BBLS TREATED SLICK WATER. PUMP BIO VERT DIVERter SPACER PUMPED 73195# 100 MESH AND 295005# 40/70 WHITE 4500# 30/80 FRAC BLAC.

**FRAC PERF STAGE 30 (12976- 12858):** WITH 1000 GAL 15% HCL ACID, AND 10,264 BBLS TREATED SLICK WATER. PUMP BIO VERT DIVERter SPACER PUMPED 89,707# 100 MESH AND 280,493# 40/70 WHITE 4,500# 30/80 FRAC BLAC.

**FRAC PERF STAGE 31 (12830- 12708):** WITH 1000 GAL 15% HCL ACID, AND 10,161 BBLS TREATED SLICK WATER. PUMP BIO VERT DIVERter SPACER PUMPED 91,628# 100 MESH AND 278,200# 40/70 WHITE 5,500# 30/80 FRAC BLAC.  
**FRAC PERF STAGE 32 (12680- 12558):** WITH 2000 GAL 15% HCL ACID, AND 12873 BBLS TREATED SLICK WATER. PUMPED 86010# 100 MESH AND 283050# 40/70 WHITE  
**FRAC PERF STAGE 33 (12530- 12411):** WITH 1000 GAL 15% HCL ACID, AND 11063 BBLS TREATED SLICK WATER. PUMP BIO VERT DIVERter SPACER PUMPED 88600# 100 MESH AND 280800# 40/70 WHITE.  
**FRAC PERF STAGE 34 (12380- 12258):** WITH 1000 GAL 15% HCL ACID, AND 11,198 BBLS TREATED SLICK WATER. PUMP 75 LBS BIO VERT DIVERter SPACER PUMPED 90,302# 100 MESH AND 280,330# 40/70 WHITE.  
**FRAC PERF STAGE 35 (12230- 12108):** WITH 1000 GAL 15% HCL ACID, AND 12,211 BBLS TREATED SLICK WATER. PUMP 75 LBS BIO VERT DIVERter SPACER PUMPED 92,350# 100 MESH AND 277,430# 40/70 WHITE.  
**FRAC PERF STAGE 36 (12080- 11958):** WITH 1000 GAL 15% HCL ACID, AND 11284 BBLS TREATED SLICK WATER. PUMP 150 LBS BIO VERT DIVERter SPACER PUMPED 89866# 100 MESH AND 278114# 40/70 WHITE.  
**FRAC PERF STAGE 37 (11930- 11808):** WITH 1000 GAL 15% HCL ACID, AND 9625 BBLS TREATED SLICK WATER. PUMPED 90000# 100 MESH AND 279200# 40/70 WHITE.  
**FRAC PERF STAGE 38 (11780- 11656):** WITH 1000 GAL 15% HCL ACID, AND 11128 BBLS TREATED SLICK WATER. PUMP 150 LBS BIO VERT DIVERter SPACER PUMPED 90570# 100 MESH AND 278700# 40/70 WHITE.  
**FRAC PERF STAGE 39 (11630- 11508):** WITH 1000 GAL 15% HCL ACID, AND 10,841 BBLS TREATED SLICK WATER. PUMP 150 LBS BIO VERT DIVERter SPACER PUMPED 89,638# 100 MESH AND 279,562# 40/70 WHITE.  
**FRAC PERF STAGE 40 (11480- 11358):** WITH 1000 GAL 15% HCL ACID, AND 10,858 BBLS TREATED SLICK WATER. PUMP 150 LBS BIO VERT DIVERter SPACER PUMPED 92,150# 100 MESH AND 279,450# 40/70 WHITE.  
**FRAC PERF STAGE 41 (11326- 11208):** WITH 1000 GAL 15% HCL ACID, AND 10353 BBLS TREATED SLICK WATER. PUMP 200 LBS BIO VERT DIVERter SPACER PUMPED 90196# 100 MESH AND 279920# 40/70 WHITE.  
**FRAC PERF STAGE 42 (11180- 11058):** WITH 1000 GAL 15% HCL ACID, AND 10575 BBLS TREATED SLICK WATER. PUMPED 90913# 100 MESH AND 279327# 40/70 WHITE.  
**FRAC PERF STAGE 43 (11030- 10906):** WITH 1000 GAL 15% HCL ACID, AND 10,577 BBLS TREATED SLICK WATER. 200#LB'S BIO VERT PUMPED 90,100# 100 MESH AND 280,100# 40/70 WHITE.  
**FRAC PERF STAGE 44 (10880- 10758):** WITH 1000 GAL 15% HCL ACID, AND 10,004 BBLS TREATED SLICK WATER. 200#LB'S BIO VERT PUMPED 90,100# 100 MESH AND 280,500# 40/70 WHITE.  
**FRAC PERF STAGE 45 (10730- 10608):** WITH 1000 GAL 15% HCL ACID, AND 10,380 BBLS TREATED SLICK WATER. 250#LB'S BIO VERT PUMPED 89,900# 100 MESH AND 279,800# 40/70 WHITE.  
**FRAC PERF STAGE 46 (10576- 10458):** WITH 1000 GAL 15% HCL ACID, AND 10362 BBLS TREATED SLICK WATER. 250#LB'S BIO VERT PUMPED 90202# 100 MESH AND 279798# 40/70 WHITE.  
**FRAC PERF STAGE 47 (10430- 10332):** WITH 1000 GAL 15% HCL ACID, AND 10756 BBLS TREATED SLICK WATER. 200#LB'S BIO VERT PUMPED 90521# 100 MESH AND 278879# 40/70 WHITE.  
**FRAC PERF STAGE 48 (10280- 10158):** WITH 1000 GAL 15% HCL ACID, AND 10415 BBLS TREATED SLICK WATER. 250#LB'S BIO VERT PUMPED 90186# 100 MESH AND 278755# 40/70 WHITE.  
**FRAC PERF STAGE 49 (10130- 10008):** WITH 1000 GAL 15% HCL ACID, AND 8,617 BBLS TREATED SLICK WATER. NO BIO VERT PUMPED 45,000# 100 MESH AND 279,500# 40/70 WHITE.  
**FRAC PERF STAGE 50 (9980- 9858):** WITH 1000 GAL 15% HCL ACID, AND 10697 BBLS TREATED SLICK WATER. NO BIO VERT PUMPED 45000# 100 MESH AND 280000# 40/70 WHITE.  
**FRAC PERF STAGE 51 (9828- 9710):** WITH 1000 GAL 15% HCL ACID, AND 10506 BBLS TREATED SLICK WATER. 250# BIO VERT PUMPED 89621# 100 MESH AND 280079# 40/70 WHITE.  
**FRAC PERF STAGE 52 (9680- 9558):** WITH 1000 GAL 15% HCL ACID, AND 11195 BBLS TREATED SLICK WATER. 250# BIO VERT PUMPED 89884# 100 MESH AND 279516# 40/70 WHITE.  
**FRAC PERF STAGE 53 (9530- 9408):** WITH 1000 GAL 15% HCL ACID, AND 8,662 BBLS TREATED SLICK WATER. 250# BIO VERT PUMPED 89,500# 100 MESH AND 281,000# 40/70 WHITE  
**FRAC PERF STAGE 54 (9380- 9258):** WITH 1000 GAL 15% HCL ACID, AND 8808 BBLS TREATED SLICK WATER. 250# BIO VERT PUMPED 90,000# 100 MESH AND 280,000# 40/70 WHITE.  
**FRAC PERF STAGE 55 (9230- 9108):** WITH 1000 GAL 15% HCL ACID, AND 10,249 BBLS TREATED SLICK WATER. 250# BIO VERT PUMPED 90,100# 100 MESH AND 279,000# 40/70 WHITE.  
**FRAC PERF STAGE 56 (9080- 8958):** WITH 1000 GAL 15% HCL ACID, AND 10685 BBLS TREATED SLICK WATER. 250# BIO VERT PUMPED 89817# 100 MESH AND 280283# 40/70 WHITE.  
**FRAC PERF STAGE 57 (8930- 8808):** WITH 1000 GAL 15% HCL ACID, AND 10494 BBLS TREATED SLICK WATER. 250# BIO VERT PUMPED 89944# 100 MESH AND 280356# 40/70 WHITE.  
**FRAC PERF STAGE 58 (8780- 8658):** WITH 1000 GAL 15% HCL ACID, AND 10423 BBLS TREATED SLICK WATER. 250# BIO VERT PUMPED 90653# 100 MESH AND 278704# 40/70 WHITE.  
**FRAC PERF STAGE 59 (8630- 8508):** WITH 1000 GAL 15% HCL ACID, AND 9,692 BBLS TREATED SLICK WATER. 250# BIO VERT PUMPED 90,200# 100 MESH AND 240,600# 40/70 WHITE.  
**FRAC PERF STAGE 60 (8480- 8358):** WITH 1000 GAL 15% HCL ACID, AND 11,396 BBLS TREATED SLICK WATER. 300# BIO VERT PUMPED 77,728# 100 MESH AND 263,280# 40/70 WHITE.  
**FRAC PERF STAGE 61 (8330- 8208):** WITH 1000 GAL 15% HCL ACID, AND 5233 BBLS TREATED SLICK WATER. 200# BIO VERT PUMPED 32223# 100 MESH AND 90100# 40/70 WHITE.  
**FRAC PERF STAGE 62 (8180- 8058):** WITH 1000 GAL 15% HCL ACID, AND 11896 BBLS TREATED SLICK WATER. NO BIO VERT PUMPED 119560# 100 MESH AND 370030# 40/70 WHITE.  
**FRAC PERF STAGE 63 (8030- 7908):** WITH 1000 GAL 15% HCL ACID, AND 14095 BBLS TREATED SLICK WATER. NO BIO VERT PUMPED 119700# 100 MESH AND 442300# 40/70 WHITE.  
**FRAC PERF STAGE 64 (7880- 7760):** WITH 1000 GAL 15% HCL ACID, AND 11842 BBLS TREATED SLICK WATER. NO BIO VERT PUMPED 115130# 100 MESH AND 338500# 40/70 WHITE 43020# 20/40.  
**05/28/2017- RU FLOWBACK LINE PT-PASSED, CLEAN OUT WELL, W/O TEST C-104 APPROVAL**