



2030 Afton Place  
Farmington, NM 87401  
(505) 325-6622

Analysis No: WP170052  
Cust No: 85500-12860

30-045' 32024

### Well/Lease Information

Customer Name: WPX ENERGY PRODUCTION, LLC  
Well Name: NM 32-11 COM #1B; INT  
County/State: SAN JUAN NM  
Location:  
Field:  
Formation: DK / MESA VERDE  
Cust. Stn. No.:

Source: INTERMEDIATE  
Pressure: PSIG  
Sample Temp: DEG. F  
Well Flowing: Y  
Date Sampled: 04/18/2017  
Sampled By: RICK CONAWAY  
Foreman/Engr.: DARREN ROWLEY

Remarks: SAMPLE RAN ON 05/04/2017

### Analysis

| Component:: | Mole%:  | **GPM:  | *BTU:   | *SP Gravity: |
|-------------|---------|---------|---------|--------------|
| Nitrogen    | 2.131   | 0.2350  | 0.00    | 0.0206       |
| CO2         | 0.003   | 0.0010  | 0.00    | 0.0000       |
| Methane     | 82.212  | 13.9830 | 830.34  | 0.4554       |
| Ethane      | 4.755   | 1.2760  | 84.15   | 0.0494       |
| Propane     | 6.160   | 1.7030  | 154.99  | 0.0938       |
| Iso-Butane  | 2.094   | 0.6870  | 68.10   | 0.0420       |
| N-Butane    | 1.341   | 0.4240  | 43.75   | 0.0269       |
| I-Pentane   | 0.635   | 0.2330  | 25.41   | 0.0158       |
| N-Pentane   | 0.254   | 0.0920  | 10.18   | 0.0063       |
| Hexane Plus | 0.415   | 0.1860  | 21.88   | 0.0137       |
| Total       | 100.000 | 18.8200 | 1238.79 | 0.7240       |

\* @ 14.730 PSIA DRY & UNCORRECTED FOR COMPRESSIBILITY

\*\*@ 14.730 PSIA & 60 DEG. F.

COMPRESSIBILITY FACTOR (1/Z): 1.0035  
BTU/CU.FT (DRY) CORRECTED FOR (1/Z): 1246.0  
BTU/CU.FT (WET) CORRECTED FOR (1/Z): 1224.3  
REAL SPECIFIC GRAVITY: 0.7262

GPM, BTU, and SPG calculations as shown  
above are based on current GPA factors.

DRY BTU @ 14.650: 1239.2  
DRY BTU @ 14.696: 1243.1  
DRY BTU @ 14.730: 1246.0  
DRY BTU @ 15.025: 1271.0

CYLINDER #: 6200  
CYLINDER PRESSURE: 105 PSIG  
DATE RUN: 4/18/17 12:00 AM  
ANALYSIS RUN BY: PATRICIA KING



WPX ENERGY PRODUCTION, LLC  
WELL ANALYSIS COMPARISON

Lease: NM 32-11 COM #1B; INT  
Stn. No.:  
Mtr. No.:

INTERMEDIATE  
DK / MESA VERDE

05/08/2017  
85500-12860

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Smpl Date: 04/18/2017  
Test Date: 04/18/2017  
Run No: WP170052  
Nitrogen: 2.131  
CO2: 0.003  
Methane: 82.212  
Ethane: 4.755  
Propane: 6.160  
I-Butane: 2.094  
N-Butane: 1.341  
I-Pentane: 0.635  
N-Pentane: 0.254  
Hexane+: 0.415  
BTU: 1246.0  
GPM: 18.8200  
SPG: 0.7262

# NEW MEXICO 32-11 COM #1B

## MV / DK Commingle

### Location:

1820' FSL and 2380' FEL  
NW/4 SE/4 Sec 20(J), T32N R11W  
San Juan, New Mexico  
Elevation: 6628' GR

API: 30-045-32024

Spud: 03/30/04

Completed: 04/30/04

Re-completed MV/DK: 9/2/2005

1st Delivery: 06/14/04

**7-5/8" Casing:** 66 jts, 26.4#, J-55, N-80 csg. Landed @ 2794'.

| Top             | Depth |
|-----------------|-------|
| Fruitland       | 2870  |
| Pictured Cliffs | 3290' |
| Cliff House     | 5058' |
| Menefee         | 5220' |
| Point Lookout   | 5600' |
| Mancos          | 5926' |
| Dakota          | 7788' |

8 jts 10-3/4", 40.5#, J-55, ST&C csg.  
Landed @ 348'.

**Prod Tbg:** 231 jts 2 3/8" (223 jts 2 3/8" 4.7#, J-55, EUE, & 7 jts 2 3/8" 4.7#, CS Hydril) set @ 7501' as follows: 7' perforated pup jt, 1.18" F-Nipple @ 7494', 7 jts 2 3/8" CS, 223 jts 2 3/8" EUE, 10' & 6' pup jts, 1 full jt.

J-LNR Hgr 3-1/2" x 5-1/2" w/ packoff @ 7526'

Top of Whipstock @ 7660'  
Bottom of Whipstock @ 7667'

Perforated intervals 7792' - 8005' with 3 spf, 0.32" dia, 24.68" penetration w/ 120 deg phasing.

**5-1/2" Casing:** 186 jts, 17#, N-80 csg with 6-1/4" bit and X over on bottom. Set @ 7723'.

**Liner Casing:** 17 jts 3-1/2", 9.3#, FL4S, ran guide shoe, 9.7' shoe jt, float collar. Set @ 7526'-8024'.

### Stimulation:

Dakota; frac with 60,000 lbs 20/40 carbolite in 539 bbls 60Q foam

Point Lookout; frac with 9440 lbs liteprop 125 and 4240 lbs 20/40 brown in 98,406 gals slickwater

Menefee; frac with 10440 lbs liteprop 125 and 4240 lbs 20/40 brown in 76,696 gals slickwater

Cliff House; frac with 10660 lbs liteprop 125 and 4300 lbs 20/40 brown in 71,568 gals slickwater

### Sidetrack

Lost Hammer bit & retaining rings in hole when drilling 3-3/4" hole out of 5-1/2" casing. Set whipstock and sidetracked.

| Hole Size | Casing         | Cement | Volume        |
|-----------|----------------|--------|---------------|
| 14-3/4"   | 10-3/4", 40.5# | 280 sx | 252.7 cu. ft. |
| 9-7/8"    | 7-5/8", 26.4#  | 480 sx | 937.6 cu. ft. |
| 6-3/4"    | 5-1/2", 15.5#  | 270 sx | 602 cu. Ft.   |
| 4-3/4"    | 3-1/2", 9.3#   | 50 sx  | 106 cu. ft.   |

RML  
04/10/08