

New Well.....  
Workover.....  
Re-Test.....  
Reclassified.....  
Oil to Gas.....

RAILROAD COMMISSION OF TEXAS  
OIL AND GAS DIVISION

Form GWT-1  
Back Pressure Test  
for Gas Wells

RRC Dist. .... Field. .... Reservoir. .... County. ....  
Well Owner. **Jalnet** Lease. **Iates** Well No. ....  
Section. **Sinclair Oil & Gas Co.** Survey. **State 157 W.B.** Location. **2**  
Date of Test. **520 East Broadway Street** Hobbs, New Mexico  
Gravity (Raw **1-20-56** Avg. **160** In-Temp. .... Hole Temp. .... @  
Size CSG. .... t./Ft. .... Lbs. I. D. **5.68** Set at **565** **3589**  
Size TBG. **7"** Wt./Ft. **24** Lbs. I. D. TBG. **6.336** Set at **3730**  
Prod. Section **2.5** Som. **6.5** **2.441** Avg. Prod. Length **3601**  
Elevation. **3539** Date **9698** Completion. .... Producing through Tubing. .... through Casing. ....

Packer **0 3599'** **12-21-56** DATA **X**

| Run No. | Time of Run Min. | Choke Size | Coefficient | Choke Press PSIA | Choke Temp. °F | Wellhead Press Pw PSIA | Wellhead Flow Temp. °F | P <sub>w</sub> <sup>2</sup> (Thousands) |
|---------|------------------|------------|-------------|------------------|----------------|------------------------|------------------------|-----------------------------------------|
| Shut-In |                  |            |             |                  |                |                        |                        |                                         |
| 1       |                  |            |             |                  |                |                        |                        |                                         |
| 2       | <b>72 Hours</b>  |            |             |                  |                | <b>1154</b>            | <b>70</b>              | <b>1332</b>                             |
| 3       | <b>180</b>       |            |             |                  |                | <b>1028</b>            | <b>70</b>              | <b>1057</b>                             |
| 4       | <b>180</b>       |            |             |                  |                | <b>955</b>             | <b>70</b>              | <b>912</b>                              |
| 5       | <b>180</b>       |            |             |                  |                | <b>880</b>             | <b>70</b>              | <b>774</b>                              |
|         |                  |            |             |                  |                | <b>777</b>             | <b>70</b>              | <b>604</b>                              |

VOLUME CALCULATIONS

| Run No. | Size Line Fig.-Tap | Size Orifice | Meter Coeff. 24 Hrs. | Static Pm   | Diff. hw | Flow Temp. °F | Temp. Factor F <sub>T</sub> | Gravity Factor F <sub>G</sub> | Compress Factor F <sub>cp</sub> | Volume MCF/Day |
|---------|--------------------|--------------|----------------------|-------------|----------|---------------|-----------------------------|-------------------------------|---------------------------------|----------------|
| 1       |                    |              |                      |             |          |               |                             |                               |                                 |                |
| 2       | <b>2" CFD</b>      | <b>5/16"</b> | <b>2.153</b>         | <b>1028</b> |          | <b>70</b>     | <b>.9905</b>                | <b>.9470</b>                  | <b>1.116</b>                    | <b>2317</b>    |
| 3       |                    | <b>3/8"</b>  | <b>3.064</b>         | <b>955</b>  |          | <b>70</b>     | <b>.9905</b>                | <b>.9470</b>                  | <b>1.108</b>                    | <b>3041</b>    |
| 4       |                    | <b>7/16"</b> | <b>4.390</b>         | <b>880</b>  |          | <b>70</b>     | <b>.9905</b>                | <b>.9470</b>                  | <b>1.100</b>                    | <b>3986</b>    |
| 5       |                    | <b>1/2"</b>  | <b>5.512</b>         | <b>777</b>  |          | <b>70</b>     | <b>.9905</b>                | <b>.9470</b>                  | <b>1.088</b>                    | <b>4367</b>    |

Gas Liquid Hydrocarbon Ratio..... MCF per Bbl.  
Gravity of Liquid Hydrocarbons..... Deg.  
Gas produced into pipe line during test..... MCF.

PRESSURE CALCULATIONS

$$(D E_{ff})^{8/3} = \frac{1118 \times (D E_{ff})^{10.806}}{\sqrt{T}} = \frac{12081.108}{23.41} = 516.066$$
$$C = \frac{1118 \times (D E_{ff})^{10.806}}{\sqrt{T}} = \frac{12081.108}{23.41} = 516.066$$
$$\sqrt{G L} = \frac{12081.108}{23.41} = 516.066$$
$$G_{mix} = \frac{12081.108}{48.66} = 248.108$$
$$\frac{\sqrt{G L}}{C} = \frac{516.066}{48.66} = 10.606$$
$$.0943$$

| Run No. | R            | (Thousands)  | P <sub>i</sub> | R <sub>w</sub> /P <sub>i</sub> | F           | K            | S = 1/Z      | E <sup>KS</sup> | R <sub>f</sub> a | P <sub>f</sub> <sup>2</sup> a | P <sub>f</sub> <sup>2</sup> - P <sub>s</sub> <sup>2</sup> |
|---------|--------------|--------------|----------------|--------------------------------|-------------|--------------|--------------|-----------------|------------------|-------------------------------|-----------------------------------------------------------|
| Shut-In |              |              |                |                                |             |              |              |                 |                  |                               |                                                           |
| 1       |              |              |                |                                |             |              |              |                 |                  |                               |                                                           |
| 2       | <b>218.3</b> | <b>47.7</b>  | <b>1051</b>    | <b>.978</b>                    | <b>.989</b> | <b>.0810</b> | <b>1.250</b> | <b>1.107</b>    | <b>1277</b>      | <b>1631</b>                   |                                                           |
| 3       | <b>286.5</b> | <b>82.1</b>  | <b>997</b>     | <b>.958</b>                    | <b>.979</b> | <b>.0801</b> | <b>1.237</b> | <b>1.104</b>    | <b>1160</b>      | <b>1346</b>                   | <b>285</b>                                                |
| 4       | <b>375.2</b> | <b>140.8</b> | <b>956</b>     | <b>.921</b>                    | <b>.961</b> | <b>.0793</b> | <b>1.228</b> | <b>1.102</b>    | <b>1099</b>      | <b>1208</b>                   | <b>423</b>                                                |
| 5       | <b>411.8</b> | <b>169.6</b> | <b>880</b>     | <b>.883</b>                    | <b>.943</b> | <b>.0778</b> | <b>1.221</b> | <b>1.100</b>    | <b>1052</b>      | <b>1107</b>                   | <b>524</b>                                                |
|         |              |              |                |                                |             | <b>.0764</b> | <b>1.206</b> | <b>1.097</b>    | <b>965</b>       | <b>931</b>                    | <b>700</b>                                                |

OPEN FLOW TEST:

|                            |         |                   |         |
|----------------------------|---------|-------------------|---------|
| Shut-In Press .....        |         | Psig              |         |
| Time Shut-In .....         |         | Hrs.              |         |
| Producing Through .....    |         |                   |         |
| In. H <sub>2</sub> O ..... |         | In. Hg..... Psig. |         |
| Time                       | Reading | Time              | Reading |
| 15                         |         | 25                |         |
| 20                         |         | 30                |         |

Absolute Open Flow..... MCF/Day

Comm: **7,800**  
**@ 15.025**

Conn: .....

Co: .....

Other: .....

Signatures

(See Reverse Side)

REMARKS:

AFFIDAVIT

STATE OF TEXAS

COUNTY OF.....

BEFORE me, the undersigned authority, on this day personally appeared.....  
....., known to me to be the person whose name is subscribed to this instru-  
ment, who, after being by me duly sworn on oath, states that he is employed by or associated with.....  
..... in the capacity of.....;  
that these tests were made by affiant or under the supervision of affiant; that the test data and factual data  
shown hereon are true and correct; and that no pertinent matter inquired about in said report has been  
omitted.

Subscribed and Sworn to before me on this the.....day of....., 19.....

Notary Public in and for.....  
County, Texas