

|              |  |  |
|--------------|--|--|
| DISTRIBUTION |  |  |
| SANTA FE     |  |  |
| FILE         |  |  |
| U.S.G.S.     |  |  |
| LAND OFFICE  |  |  |
| OPERATOR     |  |  |

**NEW MEXICO OIL-CONSERVATION COMMISSION  
WELL COMPLETION OR RECOMPLETION REPORT AND LOG**

Form O-100  
Revised 1-1-65

|   |                              |
|---|------------------------------|
| 5a. Indicate Type of Lease                |                              |
| State <input checked="" type="checkbox"/> | Fee <input type="checkbox"/> |
| 5. State Oil & Gas Lease No.              |                              |
| B-1000-1                                  |                              |

|  |                                    |
|--|------------------------------------|
| 1a. TYPE OF WELL                             |                                    |
| OIL WELL <input type="checkbox"/>            | GAS WELL <input type="checkbox"/>  |
| DRY <input type="checkbox"/>                 | OTHER <u>Injection</u>             |
| b. TYPE OF COMPLETION                        |                                    |
| NEW WELL <input checked="" type="checkbox"/> | WORK OVER <input type="checkbox"/> |
| DEEPEN <input type="checkbox"/>              | PLUG BACK <input type="checkbox"/> |
| DIFF. RESVR. <input type="checkbox"/>        | OTHER <input type="checkbox"/>     |

|                        |
|------------------------|
| 7. Unit Agreement Name |
| <u>Vacuum Grayburg</u> |
| <u>San Andres Unit</u> |
| 8. Farm or Lease Name  |
| <u>Vacuum Grayburg</u> |
| <u>San Andres Unit</u> |

|                     |
|---------------------|
| 2. Name of Operator |
| <u>TEXACO Inc.</u>  |

|             |
|-------------|
| 9. Well No. |
| <u>33</u>   |

|   |
|---|
| 3. Address of Operator                        |
| <u>P. O. Box 721, Hobbs, New Mexico 88240</u> |

|                                |
|--------------------------------|
| 10. Field and Pool, or Wildcat |
| <u>Vacuum Grayburg</u>         |
| <u>San Andres</u>              |

|   |
|---|
| 4. Location of Well   |
| UNIT LETTER <u>B</u> LOCATED <u>2530</u> FEET FROM THE <u>North</u> LINE AND <u>1310</u> FEET FROM THE <u>West</u> LINE OF SEC. <u>2</u> TWP. <u>1N-3</u> RGE. <u>34-E</u> NMPM |

|              |
|--------------|
| 12. County   |
| <u>Texas</u> |

|                  |                       |                                  |  |                      |
|------------------|-----------------------|----------------------------------|--|----------------------|
| 15. Date Spudded | 16. Date T.D. Reached | 17. Date Compl. (Ready to Prod.) | 18. Elevations (DF, RKB, RT, GR, etc.) | 19. Elev. Casinghead |
| <u>1-25-73</u>   | <u>2-1-73</u>         |                                  | <u>3093' GR</u>                        | <u>3072'</u>         |

|                 |                    |                                  |                          |              |             |
|-----------------|--------------------|----------------------------------|--------------------------|--------------|-------------|
| 20. Total Depth | 21. Plug Back T.D. | 22. If Multiple Compl., How Many | 23. Intervals Drilled By | Rotary Tools | Cable Tools |
| <u>4000'</u>    | <u>4790'</u>       |                                  | <u>Rotary</u>            | <u>4000'</u> |             |

|   |                                 |
|---|---------------------------------|
| 24. Producing Interval(s), of this completion - Top, Bottom, Name | 25. Was Directional Survey Made |
|   | <u>No</u>                       |

|                                      |                    |
|--------------------------------------|--------------------|
| 26. Type Electric and Other Logs Run | 27. Was Well Cored |
|                                      | <u>No</u>          |

|  |                |             |                |                  |               |
|--|----------------|-------------|----------------|------------------|---------------|
| 28. CASING RECORD (Report all strings set in well) |                |             |                |                  |               |
| CASING SIZE  | WEIGHT LB./FT. | DEPTH SET   | HOLE SIZE      | CEMENTING RECORD | AMOUNT PULLED |
| <u>5 1/2"</u>                                      | <u>20</u>      | <u>301</u>  | <u>12 1/4"</u> | <u>100 SL.</u>   |               |
| <u>4 1/2"</u>                                      | <u>19.5</u>    | <u>4000</u> | <u>11 7/8"</u> | <u>500 SL.</u>   |               |

|                  |     |        |              |        |                   |             |             |
|------------------|-----|--------|--------------|--------|-------------------|-------------|-------------|
| 29. LINER RECORD |     |        |              |        | 30. TUBING RECORD |             |             |
| SIZE             | TOP | BOTTOM | SACKS CEMENT | SCREEN | SIZE              | DEPTH SET   | PACKER SET  |
|                  |     |        |              |        | <u>2 3/4"</u>     | <u>4355</u> | <u>4355</u> |

|  |  |  |  |  |  |
|--|--|--|--|--|--|
| 31. Perforation Record (Interval, size and number)   |  |  |  | 32. ACID, SHOT, FRACTURE, CEMENT SQUEEZE, ETC. |  |
| <u>2 JSPI @ 4355, 43, 52, 56, 77, 84, 4335, 50, 52, 57, 72, 84, 91, 95, 4305, 12, 15, 20, 30, 40, 51, 52 &amp; 4722'</u> |  |  |  | DEPTH INTERVAL                                 |  |
|  |  |  |  | <u>435-4722</u>                                |  |
|  |  |  |  | AMOUNT AND KIND MATERIAL USED                  |  |
|  |  |  |  | <u>5000 gals. 20%</u>                          |  |

|                       |                 |   |                         |            |              |                                |                 |
|-----------------------|-----------------|---|-------------------------|------------|--------------|--------------------------------|-----------------|
| 33. PRODUCTION        |                 |   |                         |            |              |                                |                 |
| Date First Production |                 | Production Method (Flowing, gas lift, pumping - Size and type pump) |                         |            |              | Well Status (Prod. or Shut-in) |                 |
| Date of Test          | Hours Tested    | Choke Size  | Prod'n. For Test Period | Oil - Bbl. | Gas - MCF    | Water - Bbl.                   | Gas - Oil Ratio |
| Flow Tubing Press.    | Casing Pressure | Calculated 24-Hour Rate   | Oil - Bbl.              | Gas - MCF  | Water - Bbl. | Oil Gravity - API (Corr.)      |                 |

|  |                   |
|--|-------------------|
| 34. Disposition of Gas (Sold, used for fuel, vented, etc.) | Test Witnessed By |
|  |                   |

|                         |
|-------------------------|
| 35. List of Attachments |
|                         |

|   |                                |                    |
|---|--------------------------------|--------------------|
| 36. I hereby certify that the information shown on both sides of this form is true and complete to the best of my knowledge and belief. |                                |                    |
| SIGNED <u>[Signature]</u>   | TITLE <u>Asst. Dist. Supt.</u> | DATE <u>2-7-73</u> |

## INSTRUCTIONS

This form is to be filed with the appropriate District Office of the Commission not later than 20 days after the completion of any newly-drilled or deepened well. It shall be accompanied by one copy of all electrical and radio-activity logs run on the well and a summary of all special tests conducted, including drill stem tests. All depths reported shall be measured depths. In the case of directionally drilled wells, true vertical depths shall also be reported. For multiple completions, Items 30 through 34 shall be reported for each zone. The form is to be filed in quintuplicate except on state land, where six copies are required. See Rule 1105.

**INDICATE FORMATION TOPS IN CONFORMANCE WITH GEOGRAPHICAL SECTION OF STATE**

## Southeastern New Mexico

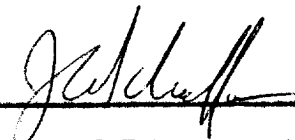
## Northwestern New Mexico

|                          |                        |                             |                         |
|--------------------------|------------------------|-----------------------------|-------------------------|
| T. Anhy _____            | T. Canyon _____        | T. Ojo Alamo _____          | T. Penn. "B" _____      |
| T. Salt _____            | T. Strawn _____        | T. Kirtland-Fruitland _____ | T. Penn. "C" _____      |
| B. Salt _____            | T. Atoka _____         | T. Pictured Cliffs _____    | T. Penn. "D" _____      |
| T. Yates _____           | T. Miss _____          | T. Cliff House _____        | T. Leadville _____      |
| T. 7 Rivers _____        | T. Devonian _____      | T. Menefee _____            | T. Madison _____        |
| T. Queen _____           | T. Silurian _____      | T. Point Lookout _____      | T. Elbert _____         |
| T. Grayburg _____        | T. Montoya _____       | T. Mancos _____             | T. McCracken _____      |
| T. San Andres _____      | T. Simpson _____       | T. Gallup _____             | T. Ignacio Qtzite _____ |
| T. Glorieta _____        | T. McKee _____         | Base Greenhorn _____        | T. Granite _____        |
| T. Paddock _____         | T. Ellenburger _____   | T. Dakota _____             | T. _____                |
| T. Blinebry _____        | T. Gr. Wash _____      | T. Morrison _____           | T. _____                |
| T. Tubb _____            | T. Granite _____       | T. Todilto _____            | T. _____                |
| T. Drinkard _____        | T. Delaware Sand _____ | T. Entrada _____            | T. _____                |
| T. Abo _____             | T. Bone Springs _____  | T. Wingate _____            | T. _____                |
| T. Wolfcamp _____        | T. _____               | T. Chinle _____             | T. _____                |
| T. Penn. _____           | T. _____               | T. Permian _____            | T. _____                |
| T. Cisco (Bough C) _____ | T. _____               | T. Penn. "A" _____          | T. _____                |

FORMATION RECORD (Attach additional sheets if necessary)


| From | To   | Thickness<br>in Feet | Formation            | From | To | Thickness<br>in Feet | Formation |
|------|------|----------------------|----------------------|------|----|----------------------|-----------|
| 0    | 1500 | 1500                 | Redbeds              |      |    |                      |           |
| 1500 | 3000 | 1500                 | Anhydrite & Salt     |      |    |                      |           |
| 3000 | 4500 | 1500                 | Dolomite & Anhydrite |      |    |                      |           |

I, J. A. Schaffer, being of lawful age and being the Assistant District Superintendent for TEXACO Inc., do state that the deviation record which appears on this form is true and correct to the best of my knowledge.

  
\_\_\_\_\_

Subscribed and sworn to before me this 9th day of February, 1973.

My commission expires February 24, 1973

  
B. F. Hohimer - Notary Public  
in and for Lea County, State of  
New Mexico

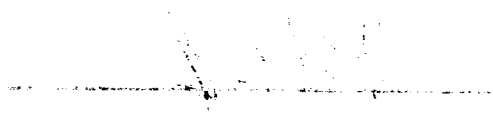
Lease - New Mexico 'M' State Well No. 11

DEVIATION RECORD

| <u>DEPTH</u> | <u>DEGREES OFF</u> |
|--------------|--------------------|
| 361          | 3/4                |
| 849          | 3/4                |
| 1,348        | 1/2                |
| 1,805        | 1                  |
| 2,300        | 1                  |
| 2,795        | 2                  |
| 3,290        | 2                  |
| 3,725        | 2                  |
| 4,047        | 1-3/4              |
| 4,800        | 1-1/2              |

The first part of the paper is devoted to the study of the  
 properties of the function  $f(x)$  defined by the equation  

$$f(x) = \int_0^x \frac{1}{1+t^2} dt$$



It is easy to see that the function  $f(x)$  is increasing and concave down.

The second part of the paper is devoted to the study of the  
 properties of the function  $g(x)$  defined by the equation  

$$g(x) = \int_0^x \frac{t}{1+t^2} dt$$

It is easy to see that the function  $g(x)$  is increasing and concave up.

### REFERENCES

1. J. D. M. J. J.

- 1. J. D. M. J. J.
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- 3. J. D. M. J. J.
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 Ministry of Education for the  
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