

[illegible]

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

1. The first step in the process of the investigation of the case of the disappearance of the ship "SS. ...".

1. The first part of the document is a letter from the President of the United States to the President of the Senate, dated January 1, 1901. The letter is signed by William McKinley and is addressed to John D. Long. The letter is a copy of a letter that was sent to the President of the Senate by the President of the United States.

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It is of the greatest importance to have a complete history of the well. Please state in detail the dates of redrilling, together with the reasons for the work and its results. If there were any changes made in the casing, state fully, and if any casing was "sidetracked" or left in the well, give its size and location. If the well has been dynamited, give date, size, position, and number of shots. If pigs or bridges were put in to test for water, state kind of material used, position, and results of pumping or burning.

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2100 - 2100

Humble Oil & Refining Company
Box 1268, Farmington, N. M.

Jicarilla Apache Tribe of Indians "K" No. 1

HISTORY OF OIL OR GAS WELL

This well was drilled to a total depth of 6255' with a completion depth of 6230'.

Set 528', 8-5/8" casing at 543' w/550 sks. cement. Pressured up to test casing - would not hold. Set drillable retainer at 466' and squeezed w/440 sacks neat cement w/500# pr.

Core No. 1 from 3908' to 3959' and recovered 51' - 6' shale w/6" coal seam at 3910'; 45' light gray fine tight sand, no apparent odor but w/slight ~~matrix~~ bleeding gas on a fresh break.

Core No. 2 from 5559' to 5611' and recovered 52' - 52' light gray fine sand, very weak scattered gas odors, trace of bleeding gas on fresh breaks, appears to have higher than usual water saturation. Vertical fractures 5582 - 83 $\frac{1}{2}$, 5585 - 87, 5603 - 06.

Core No. 3 from 5611' to 5632' and recovered 19' - 12' light gray fine damp sand, slight trace of bleeding gas on fresh break; 7' same as above w/vertical fractures; 2' no recovery.

Core No. 4 from 6064' to 6100' and recovered 36' - 3' gray sand, slight gas odor; 2' dark gray shale; 5' gray sand, slight gas odor; 7' gray shaley sand; 12' gray fine to medium sand w/fine gas odor; 7' shaley sand and sandy shale.

Core No. 5 from 6100' to 6142' and recovered 42' - 42' gray fine sand w/trace to slight gas odor and slight bleeding gas on a fresh break.

Core No. 6 from 6145' to 6194' and recovered 49' - 16' light gray ~~xx~~ medium sand, good gas odor, very tight vertical fractures 6155 - 59; 1 $\frac{1}{2}$ ' light gray tight sand; 4 $\frac{1}{2}$ ' black shale; 18' light gray tight sand w/fair bleeding of gas; 3' gray shaley sand; 4' black shale, fractured; 2' gray shaley sand, ~~xx~~ tight slight bleeding oil and gas.

Core No. 7 from 6194' to 6235' and recovered 41' - 3' gray brown medium sand, fair sweet rich gas odor, slightly flour.; 5' brown fine tight sand, fair gas odor; 2' brown fine tight sand, black shale partings; 3' brown fine tight sand vertical fractures, slight gas odor; 28' black shale w/occasional silt streaks.

Set 6242', 5-1/2" casing at 6255'. Baker 2 stage tool set at 4748'. Cemented 1st. stage w/325 sks. neat cement. Opened stage tool w/10% returns. Cemented w/350 sks. 8% gel.

Ran Lane-Wells logs and temperature surveys. Temperatures survey found top of cement of 2nd. stage at 3710', 1st. stage at 4690'.

Perforated 5-1/2" casing 6076' to 6088', 6140' - 6164', 6172' to 6190', 6195' to 6208' w/6 bullets shots per foot. Aquafaced perforations w/20,000 gals. water and 22,500# sand. Ave. inj. rate 60 bbls/min. at 1500#.

Set 2" tubing at 6051'.

Moved in swabbing unit and swabbed well in.

Pulled tubing. Set Baker CI bridge plug at 6000' on Lane-Wells wire line. Dumped 5 sks. cement on top of plug.

Perforated lower zone Cliff House (Mesa Verde) 5608' to 5624' w/6 bullet shots per foot. Perforated upper zone Cliff House 5584' to 5598' w/6 bullet shots per foot. Aquafaced upper and lower zones w/26,000 gals. water and 33,000# sand. Ave. inj. rate 44.4 bbls./min. at 1500#.

Swabbed well in.

After 3 hour blowdown test, casing pressure 475#. Produced gas at rate of 1641 MCF/day.

Flowing gas well from Cliff House formation through perforations in 5-1/2" casing from 5584' to 5599' and 5608' to 5624'.

Well shut in.

1. The first part of the paper is devoted to a general discussion of the problem.

2. The second part is devoted to a detailed analysis of the results.

3. The third part is devoted to a summary of the results.

4. The fourth part is devoted to a conclusion.

5. The fifth part is devoted to a discussion of the results.

6. The sixth part is devoted to a detailed analysis of the results.

7. The seventh part is devoted to a summary of the results.

8. The eighth part is devoted to a conclusion.

9. The ninth part is devoted to a discussion of the results.

10. The tenth part is devoted to a detailed analysis of the results.

11. The eleventh part is devoted to a summary of the results.

12. The twelfth part is devoted to a conclusion.

13. The thirteenth part is devoted to a discussion of the results.

14. The fourteenth part is devoted to a detailed analysis of the results.

15. The fifteenth part is devoted to a summary of the results.

16. The sixteenth part is devoted to a conclusion.

17. The seventeenth part is devoted to a discussion of the results.

18. The eighteenth part is devoted to a detailed analysis of the results.

19. The nineteenth part is devoted to a summary of the results.

20. The twentieth part is devoted to a conclusion.

21. The twenty-first part is devoted to a discussion of the results.

22. The twenty-second part is devoted to a detailed analysis of the results.

23. The twenty-third part is devoted to a summary of the results.

24. The twenty-fourth part is devoted to a conclusion.