

Operator Name Chief Drilling Co., Inc. Lease Name Heier Well # 1

Sec 28 Twp 10S Rge 24 East West County Graham

WELL LOG

INSTRUCTIONS: Show important tops and base of formations penetrated. Detail all cores. Report all drill stem tests giving interval tested, time tool open and closed, flowing and shut-in pressures, whether shut-in pressure reached static level, hydrostatic pressures, bottom hole temperature, fluid recovery, and flow rates if gas to surface during test. Attach extra sheet if more space is needed. Attach copy of log.

Drill Stem Tests Taken [X] Yes [] No
Samples Sent to Geological Survey [X] Yes [] No
Cores Taken [] Yes [X] No

Formation Description [X] Log [X] Sample

12-27-84 DST #1 3726-3788 (Toronto Lans. top & 35' zone) 30-30-45-60 wk. blow bldg., Rec. 120' GIP; 40' C1 GO, 62' HOCCM, IBHP: 1137# FBHP: 1119#, IFP: 62-80, FFP: 99-107 DST #2 3763-3788 (Lans. 35') 60-45-60-45 fair blow, increasing to good, Rec. 120' GIP, 30' CO, 40' gravity, @ 42%, 62' HOCCM, IBHP: 715#, FBHP: 804#, IFP: 62-80, FFP: 99-105 DST #3 3786-3815 (Lans. 50 zone) 30-30-30-30 wk. blow died in 7 min., Rec. 5' mud, IBHP: 53#, FBHP: 44#, IFP: 44-44 FFP: 44-44
12-28-84 DST #4 3814-3840 (Lans. 70-90) 60-45-60-45 fair blow bldg. to strong, Rec. 60' C1 O, 30' HOCCM, 30' SI OCM, IBHP: 715 FBHP: 625 IFP: 53-80 FFP: 89-107
12-29-84 DST #5 3856-3915 (Lans. 140-160 zone) 30-30-45-60 wk. blow bldg. to fair blow, Rec. 60' C1 O, 60' HOCCM, 60' OCM, IBHP: 375-401 IFP: 89-116, FFP: 133-160 DST #6 3914-3940 (Lans. 180' zone) 30-30-30-30 very wk. blow died, Rec. 20' C1 O, 20' HOCCM, IBHP: 625 FBHP: 223, IFP: 53-53 FFP: 62-62
12-30-84 DST #7 3936-3970 (Lans. 200 zone) 30-30-30-30 Rec. 20' O spotted M, IBHP: 71 FBHP: 71 IFP: 62-62 FFP: 62-62

Table with columns: Name, Top, Bottom. Includes FORMATION TOPS (Anhydrite, Base Anhyd., Heebner, Toronto, Lansing, Muncie Cr., Stark, Hush Puckney, RTD) and E-LOG TOPS (Anhydrite, Heebner, Toronto, Lansing, Muncie Cr., Stark, Hush Puckney, LTD).

Well log table with columns: Name, Top, Bottom. Rows include Sand, Sand/clay, Shale, Anhydrite, Shale, Shale/lime, Lime, RTD.

RELEASED

CASING RECORD [X] New [] Used

Report all strings set-conductor, surface, intermediate, production, etc.

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Table with columns: Purpose of String, Size Hole, Size Casing, Weight, Setting, Type of Cement, #Sacks Used, Type and Percent Additives. Includes handwritten notes like '3% C.G. 2% gel' and '2% gel, 500 gall AMP mud'.

PERFORATION RECORD

Acid, Fracture, Shot, Cement Squeeze Record

Table with columns: Shots Per Foot, Specify Footage of Each Interval Perforated, (Amount and Kind of Material Used), Depth. Includes handwritten entries for 4 shots at various intervals with 250 gall INS and 1500 gall CRA.

TUBING RECORD table with columns: Size, Set At, Packer at, Liner Run, Yes/No.

Date of First Production and Producing Method table.

Estimated Production table with columns: Oil, Gas, Water, Gas-Oil Ratio, Gravity. Includes handwritten values: 22.53 Oil bbls, 16.02 Water bbls, 35.

Disposition of gas: [] Vented [X] Sold [] Used on Lease [] Open hole [X] Perforation [] Other (Specify) [] Dually Completed [] Commingled [X] single

3924-3773.....