



Operator Name PV Properties Lease Name Spangenberg Well# 1 SEC 10 TWP 22 RGE 12  East  West

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  Yes  No
Samples Sent to Geological Survey  Yes  No
Cores Taken  Yes  No

Formation Description
 Log  Sample

DST #1 3342-3390
45-45-45-45
Blow: gts in 1 min., gauged 1,600,000
CFG to 2,100,000 CFG on 1st open and
2,600,000 to 3,000,000 CFG on 2nd open
Recovery: 1' gassy mud
IFP: 598-572 FFP: 590-590
ISIP: 1156 FSIP: 1156
DST #2 3419-3470
45-45-45-45
Blow: strong blow off bottom
Recovery: 2200' gip, 180' ocgm, 240'
socgmw, 480' water
IFP: 83-240 FFP: 375-804
ISIP: 807 FSIP: 804
DST #3 3481-3515
45-45-45-45
Blow: strong, off bottom of bucket
Recovery: 1900' sulfur water
IFP: 273-832 FFP: 832-832
ISIP: 832 FSIP: 832
DST #4 3592-3661
45-45-45-45
Blow: weak blow
Recovery: 40' mud
IFP: 39-42 FFP: 44-46
ISIP: 74 FSIP: 69
DST #5 3659-3664

Table with 3 columns: Name, Top, Bottom. Rows include Anhy (647-675), Heebner (3143), Toronto (3159), Douglas (3178), Br. Lime (3277), Lansing (3295), Viola (3548), Simpson Shale (3598), Arbuckle (3657), RTD (3664).

DST #5 Con't.
45-45-45-45
Blow: 1" bldg to 3"
Rec: 110' sulfur water
IFP: 35-46 FFP: 48-51
ISIP: 862 FSIP: 852

CASING RECORD table with columns: Purpose of string, size hole drilled, size casing set, weight lbs/ft., setting depth, type of cement, # sacks used, type and percent additives.

PERFORATION RECORD table with columns: shots per foot, specify footage of each interval perforated, Acid, Fracture, Shot, Cement Squeeze Record (amount and kind of material used), Depth.

TUBING RECORD table with columns: size, set at, packer at, Liner Run, Date of First Production, Producing method, Estimated Production Per 24 Hours, Oil, Gas, Water, Gas-Oil Ratio, Gravity.

METHOD OF COMPLETION: Disposition of gas (vented, sold, used on lease), open hole, perforation, other (specify), Dually Completed, Commingled. PRODUCTION INTERVAL.