OCD Rec Owing May BP

NEW MEXICO ENERGY, MINERALS & NATURAL RESOURCES DEPARTMENT

OIL CONSERVATION DIVISION
AZTEC DISTRICT OFFICE
1000 RIO BRAZOS ROAD
AZTEC NM 87410
(505) 334-6178 FAX: (505) 334-6170
http://emnrd.state.nm.us/ocd/District III/3district.htm

# BRADENHEAD TEST REPORT

(submit 1 copy to above address)

Date of Test 9-4-12 Operator Four Star Oil & Gas API #30-045-06714

Property Name Charley Path Well No 2 Location: Unit ___ Section 12 Township 27 Range 9

Well Status (Shut-In or (Producing)) Initial PSI: Tubing 88.1 Intermediate N/A Casing 373 Bradenhead 23.1

OPEN BRADENHEAD AND INTERMEDIATE TO ATMOSPHERE INDIVIDUALLY FOR 15 MINUTES EACH

PRESSURE

| Testing | Bradenhead BH | Bradenhead Int | Bradenhead Csg | INTERM Int | INTERM Csg |
|---|---|---|---|---|---|
| TIME 5 min | Trickle | N/A | 54.6 | | |
| 10 min | Trickle | | 55.1 | | |
| 15 min | Drips | | 56.7 | | |
| 20 min | Drip | | 56.8 | | |
| 25 min | Drip | | 56.8 | | |
| 30 min | | | | | |

FLOW CHARACTERISTICS

| | BRADENHEAD | INTERMEDIATE |
|---|---|---|
| Steady Flow | X | |
| Surges | | |
| Down to Nothing | | |
| Nothing | | |
| Gas | | |
| Gas & Water | | |
| Water | X Trickle | |

**If bradenhead flowed water, check all of the descriptions that apply below:**

CLEAR X FRESH ___ SALTY ___ SULFUR ___ BLACK ___

**5 MINUTE SHUT-IN PRESSURE** BRADENHEAD 0.6 INTERMEDIATE X

REMARKS:

Upon opening, Blew down To 0 in 3sec, flowed water at a ~~Trickle~~ Trickle for 12 min Then Just dripping. Recover APProx 1½ gal in 30 min water sample pulled from Bdhd and production

By Randy Calvert Witness ___

Calvar Source
(Position)

E-mail address Randy.c@Calvarsource.com

# BAKER HUGHES

## Farmington District Lab
## Water Analysis Report

Test # 2099

### Customer/Well Information

| | | | |
|---|---|---|---|
| **Company:** | Chevron | **Date:** | 9/17/2012 |
| **Well Name:** | Various | **Prepared for:** | |
| **Location:** | | **Submitted by:** | Allen Eaker |
| **State:** | County, New Mexico | **Prepared by:** | Daniel Capehart |
| **Formation:** | | **Water Type:** | Produced |
| **Depth:** | | **Tank # :** | **CharlesPah2 Bradenhead** |

### Background Information

**Reason for Testing:**
**Completion type:**
**Well History:**
**Comments:**

### Sample Characteristics

| | | | |
|---|---|---|---|
| **Sample Temp:** | 78 (°F) | **Viscosity:** | 1 cp |
| **pH:** | 6.00 | **Color:** | Clear |
| **Specific Gravity:** | 1.001 | **Odor:** | None |
| **S.G. (Corrected):** | 1.005 @ 60 °F | **Turbidity:** | Clear |
| **Resistivity (Calc):** | 1.53 Ω-m | **Filtrates:** | None |

### Sample Composition

**CATIONS**

| | mg/l | me/l | ppm |
|---|---|---|---|
| **Sodium (calc.)** | **891** | **38.7** | **890** |
| **Calcium** | **76** | **3.8** | **76** |
| **Magnesium** | **2** | **0.2** | **2** |
| **Barium** | **0** | **0.0** | **0** |
| **Potassium** | **100** | **2.6** | **100** |
| **Iron** | **0.00** | **0.0** | **0.00** |

**ANIONS**

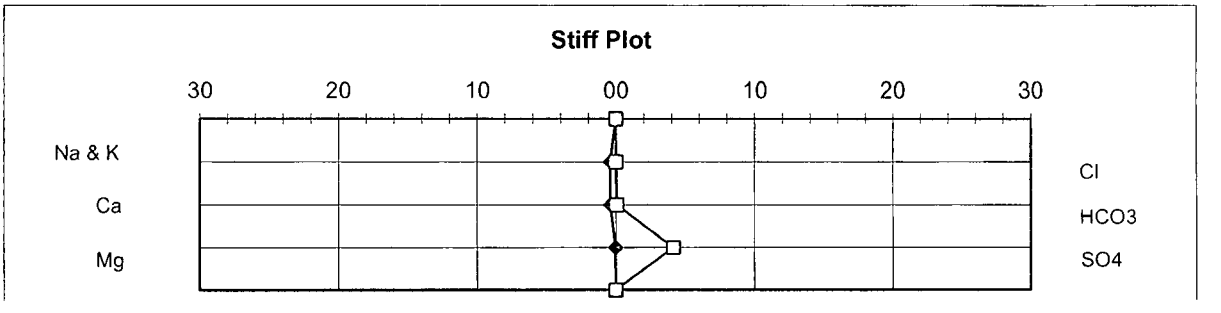
| | | | |
|---|---|---|---|
| **Chloride** | **100** | **2.8** | **100** |
| **Sulfate** | **2000** | **41.6** | **1998** |
| **Hydroxide** | **0** | **0.0** | **0** |
| **Carbonate** | **< 1** | **----** | **----** |
| **Bicarbonate** | **61** | **1.0** | **61** |

**SUMMARY**

| | | | |
|---|---|---|---|
| **Total Dissolved Solids(calc.)** | **3130** | | **3127** |
| **Total Hardness as CaCO3** | **200** | **4.0** | **200** |

### Scaling Tendencies

| | | |
|---|---|---|
| CaCO3 Factor | 4647.59 | Calcium Carbonate Scale Probability --> REMOTE |
| CaSO4 Factor | 152380 | Calcium Sulfate Scale Probability -------> REMOTE |



# BAKER HUGHES

## Farmington District Lab
## Water Analysis Report

Test # 2099

### Customer/Well Information

| | | | |
|---|---|---|---|
| **Company:** | Chevron | **Date:** | 9/17/2012 |
| **Well Name:** | Various | **Prepared for:** | |
| **Location:** | | **Submitted by:** | Allen Eaker |
| **State:** | County, New Mexico | **Prepared by:** | Daniel Capehart |
| **Formation:** | | **Water Type:** | Produced |
| **Depth:** | | **Tank # :** | **CharlesPah2 Produced** |

### Background Information

**Reason for Testing:**
**Completion type:**
**Well History:**
**Comments:**

### Sample Characteristics

| | | | |
|---|---|---|---|
| **Sample Temp:** | **78 (°F)** | **Viscosity:** | 1 cp |
| **pH:** | **6.00** | **Color:** | Clear |
| **Specific Gravity:** | **1.006** | **Odor:** | None |
| **S.G. (Corrected):** | **1.010 @ 60 °F** | **Turbidity:** | Clear |
| **Resistivity (Calc):** | **0.55 Ω-m** | **Filtrates:** | None |

### Sample Composition

**CATIONS**

| | mg/l | me/l | ppm |
|---|---|---|---|
| **Sodium (calc.)** | **2841** | **123.6** | **2824** |
| **Calcium** | **401** | **20.0** | **399** |
| **Magnesium** | **< .5** | **----** | **----** |
| **Barium** | **0** | **0.0** | **0** |
| **Potassium** | **0** | **0.0** | **0** |
| **Iron** | **0.00** | **0.0** | **0.00** |

**ANIONS**

| | | | |
|---|---|---|---|
| **Chloride** | **200** | **5.6** | **199** |
| **Sulfate** | **6600** | **137.4** | **6561** |
| **Hydroxide** | **0** | **0.0** | **0** |
| **Carbonate** | **< 1** | **----** | **----** |
| **Bicarbonate** | **61** | **1.0** | **61** |

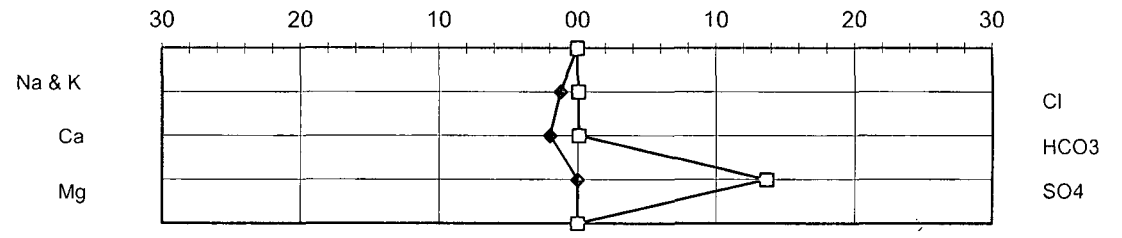
**SUMMARY**

| | | | |
|---|---|---|---|
| **Total Dissolved Solids(calc.)** | **10103** | | **10042** |
| **Total Hardness as CaCO3** | **1001** | **20.0** | **995** |

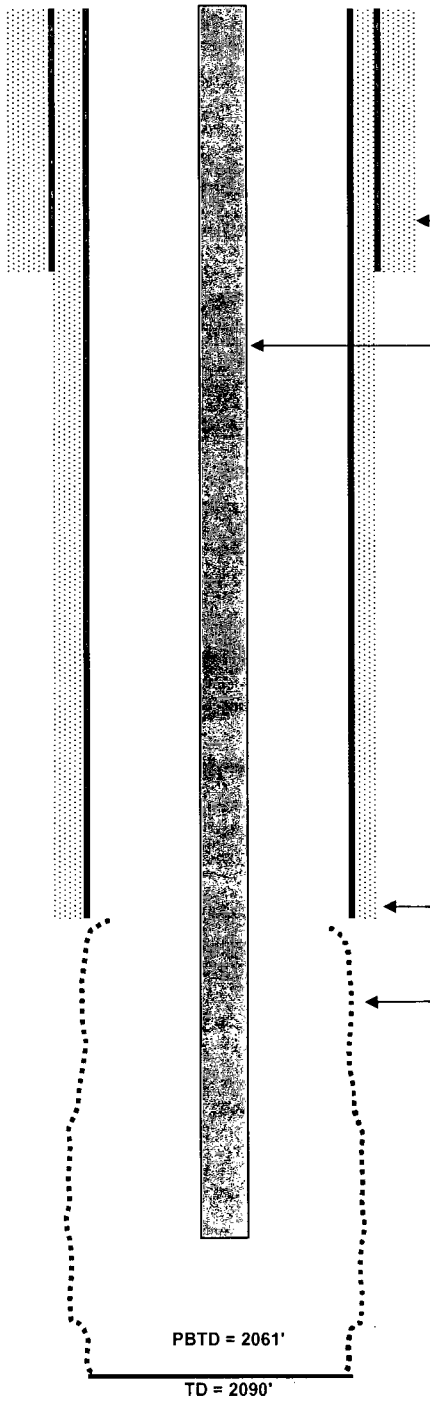
### Scaling Tendencies

| | | |
|---|---|---|
| CaCO3 Factor | 24461 | Calcium Carbonate Scale Probability --> REMOTE |
| CaSO4 Factor | 2646600 | Calcium Sulfate Scale Probability -------> REMOTE |

**Stiff Plot**



# Charley Pah 2
## San Juan, New Mexico
## Current Well Schematic as of 6-7-10




| | |
|---|---|
| API: | 30-045-06714 |
| Legals: | Sec 12 - T 27N - R 9W |
| Field: | Blanco South Pictured Cliffs |
| SPUD: | 5/29/1954 |
| KB | |
| KB Elev | 5909' |
| Gr Elev | 5903' |

| Geologic Tops: | |
|---|---|
| Ojo Alamo | |
| Kirtland | 1151 |
| Fruitland FM | 1772 |
| Pictured Cliffs | 2005 |
| Lewis | 2071 |

Surface Casing:
10-3/4", 40.5#, J-55, Set @ 172' in 15" Hole
TOC = 0' (circulated) w/ 175 sks

Tubing Details:
1.315" @ 2013'

Production Casing:
7", 20#, J-55, Set @ 2008' in 8-3/4" Hole
TOC = 0' (circulated) w/ 200 sks

OH section from 2008' - 2061'
Hole Size = 6-1/4"

Completion Details
Frac w/ 40000# 10/20 sd & 42,961 gals water

2/18/1983
Acidized w/ 200 gallons 7.5% HCl w/ 2 gal/1000 gals Cla Sta,
2 gal/1000 gal inhibitor & 600 scf/bbl N2

Prepared by: Jarrod Sparks
Date: 6/7/2010

Revised by:
Date: