



**Pumping
Service Report**

9193722

| | | | | |
|---|--|-------------------------|-------------------------------|-----------------------|
| Client Name Anadarko Petroleum Corporation | Well Name HSR-Federal 15-36 | Rig BWS | Job Date August 05,2014 | Call Sheet 1045123 |
| Client Representative Mike Koch | Surface Well Location SW SE Sec 36:T3N:R66W | Down Hole Well Location | Job Type Abandonment Plugs | |

Well Profile

| | |
|--|----------|
| Well Type: | Oil |
| Maximum Treating Pressure (psi): | --- |
| Predicted Bottom Hole Static Temperature (°F): | --- @ -- |
| Bottom Hole Circulating Temperature (°F): | --- @ -- |
| Bottom Hole Logged Temperature (°F): | --- @ -- |

| Open Hole | Size (in) | Excess (%) | TMD From (ft) | TMD To (ft) | TVD From (ft) | TVD To (ft) |
|-----------|-----------|------------|---------------|-------------|---------------|-------------|
| | 8.000 | 20.000 | 763.000 | 1,520.830 | -- | -- |

| Casing | Size | Weight | Grade | Collapse Pressure | Internal Yield Pressure | Capacity | I.D. | O.D. | Depth From | Depth To |
|--------|-------|---------|-------|-------------------|-------------------------|----------|-------|-------|------------|----------|
| | (in) | (lb/ft) | | (psi) | (psi) | (bbl) | (in) | (in) | (ft) | (ft) |
| | 8.625 | 24.000 | J-55 | 1,370.0 | 2,950.0 | 48.59 | 8.097 | 9.625 | 0.0 | 763.0 |

| Tubing | Size | Weight | Grade | Collapse Pressure | Capacity | I.D. | O.D. | Depth From | Depth To |
|--------|-------|---------|-------|-------------------|----------|-------|-------|------------|-----------|
| | (in) | (lb/ft) | | (psi) | (bbl) | (in) | (in) | (ft) | (ft) |
| | 1.660 | 2.300 | J-55 | 8,490.000 | 2.810 | 1.380 | 2.054 | 0.000 | 1,520.830 |

Products

Stage 1

From Depth (ft): 400

To Depth (ft): 1520.83

Acids/Blends/Fluids :

Tail: 215 Sacks of 0:1:0 Type III, Density = 14.8 lb/gal, Volume Pumped = 49 (bbl)
Water Temperature(°F) = 70 , Bulk Temperature(°F) = 85 , Slurry Temperature(°F) = 83
+ 0.5 % of CaCl₂ (Preblend),
+ 0.25 lb/sack of Polyflake (Preblend),
+ 0.3 % of CFR-2 (Preblend),
+ 0.3 % of CFL-3 (Preblend)

Fluid & Cement Data

Expected Cement Top: Depth (ft): 400

Wellbore Fluid

| Fluid Type | Viscosity (cP) | Density (lbs/gal) | Yield Point (psi) | Temperature (°F) | Recorded@ |
|------------|----------------|-------------------|-------------------|------------------|--------------------|
| Water | -- | 8.400 | -- | -- | Jul 31, 2014 08:14 |



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Units & Personnel

Units

| <u>Truck Unit No.</u> | <u>Main Type</u> | <u>Sub Type</u> | <u>Tractor Unit No.</u> | <u>Main Type</u> | <u>Sub Type</u> | <u>Time On Location</u> | <u>Time Off Location</u> |
|-----------------------|------------------|-----------------|-------------------------|------------------|-----------------|-------------------------|--------------------------|
| 201274 | PICKUP | 3/4 Ton | | | | 08/05/2014 13:30 | 08/05/2014 17:00 |
| 740069 | BODY JOB | C & A | | | | 08/05/2014 13:30 | 08/05/2014 17:00 |
| 746506 | BODY JOB | Baby Bulker | | | | 08/05/2014 13:30 | 08/05/2014 17:00 |
| 201266 | PICKUP | 1/2 Ton | | | | 08/05/2014 13:30 | 08/05/2014 17:00 |

Crew and Bonuses

| <u>Employee</u> | <u>Start Shift</u> | <u>End Shift</u> | <u>Second Start Shift</u> | <u>Second End Shift</u> |
|--------------------|--------------------|------------------|---------------------------|-------------------------|
| Schneider, Patrick | 08/05/2014 13:30 | 08/05/2014 17:00 | | |
| Laeger, Kacey | 08/05/2014 13:30 | 08/05/2014 17:00 | | |
| Byczynski, Michael | 08/05/2014 13:30 | 08/05/2014 17:00 | | |
| Phillips, James | 08/05/2014 13:30 | 08/05/2014 17:00 | | |
| Prock, Jason | 08/05/2014 13:30 | 08/05/2014 17:00 | | |

Treatment Reports & Remarks

Treatment Report

| <u>Event #</u> | <u>Event Time</u> | <u>Event Description</u> | <u>Fluid Type</u> | <u>Rate</u> (bbl/min) | <u>Tubular Pressure</u> (psi) | <u>Annular Pressure</u> (psi) | <u>Stage Volume</u> (bbl) | <u>Total Volume</u> (bbl) |
|----------------|-------------------|---|-------------------|--------------------------|----------------------------------|----------------------------------|------------------------------|------------------------------|
| 1 | Aug 05,2014 13:30 | Arrive On Location | --- | -- | -- | -- | -- | 0.00 |
| 2 | Aug 05,2014 13:35 | Tailgate Meeting | --- | -- | -- | -- | -- | 0.00 |
| 3 | Aug 05,2014 13:45 | Rig In | --- | -- | -- | -- | -- | 0.00 |
| 4 | Aug 05,2014 14:15 | Safety Meeting | --- | -- | -- | -- | -- | 0.00 |
| 5 | Aug 05,2014 14:45 | Sign-off on Safety | --- | -- | -- | -- | -- | 0.00 |
| 6 | Aug 05,2014 14:50 | Pressure Test Lines | Water | -- | 2,000.0 | -- | -- | 0.00 |
| | | Remarks: good pressure test | | | | | | |
| 7 | Aug 05,2014 14:57 | Establish Circulation | Water | 2.00 | 550.0 | -- | 4.00 | 4.00 |
| 8 | Aug 05,2014 15:00 | Mix Cement | 0:1:0 Type III | 2.00 | 950.0 | -- | 49.00 | 53.00 |
| | | Remarks: tail cement @ 14.8 ppg yield = 1.33 h2o req = 6.31 | | | | | | |
| 9 | Aug 05,2014 15:29 | Displace Fluid | Water | 2.00 | 100.0 | -- | 0.80 | 53.80 |
| | | Remarks: displace to balance | | | | | | |
| 10 | Aug 05,2014 15:30 | Finish Displacement | Water | -- | 0.0 | -- | -- | 53.80 |
| 11 | Aug 05,2014 15:35 | Rig Out | --- | -- | -- | -- | -- | 0.00 |
| 12 | Aug 05,2014 16:00 | Job Complete | --- | -- | -- | -- | -- | 0.00 |
| 13 | Aug 05,2014 16:45 | Pre-Departure Meeting | --- | -- | -- | -- | -- | 0.00 |
| 14 | Aug 05,2014 17:00 | Leave Location | --- | -- | -- | -- | -- | 0.00 |

Did Float Hold: Not Applicable

Fluid Returns : Not Expected

Type :

Volume (bbl) :

Temperature (°F) : --

FDAS Functioning Correctly : Yes

Was the Program Followed As Per Design? : Yes