

EOG RESOURCES, INC.
BARLOW 34 FED COM NO. 704H

1. GEOLOGIC NAME OF SURFACE FORMATION:

Permian

2. ESTIMATED TOPS OF IMPORTANT GEOLOGICAL MARKERS:

| | |
|-----------------------------------|---------|
| Rustler | 805' |
| Top of Salt | 1,135' |
| Base of Salt / Top Anhydrite | 4,765' |
| Base Anhydrite | 5,010' |
| Lamar | 5,010' |
| Bell Canyon | 5,035' |
| Cherry Canyon | 6,080' |
| Brushy Canyon | 7,660' |
| Bone Spring Lime | 9,215' |
| 1 st Bone Spring Sand | 10,155' |
| 2 nd Bone Spring Shale | 10,345' |
| 2 nd Bone Spring Sand | 10,660' |
| 3 rd Bone Spring Carb | 11,130' |
| 3 rd Bone Spring Sand | 11,730' |
| Wolfcamp | 12,200' |
| TD | 12,420' |

3. ESTIMATED DEPTHS OF ANTICIPATED FRESH WATER, OIL OR GAS:

| | | |
|-----------------------------------|---------|-------------|
| Upper Permian Sands | 0- 400' | Fresh Water |
| Cherry Canyon | 6,080' | Oil |
| Brushy Canyon | 7,660' | Oil |
| 1 st Bone Spring Sand | 10,155' | Oil |
| 2 nd Bone Spring Shale | 10,345' | Oil |
| 2 nd Bone Spring Sand | 10,660' | Oil |
| 3 rd Bone Spring Carb | 11,130' | Oil |
| 3 rd Bone Spring Sand | 11,730' | Oil |
| Wolfcamp | 12,200' | Oil |

No other Formations are expected to give up oil, gas or fresh water in measurable quantities. Surface fresh water sands will be protected by setting 10.75" casing at 830' and circulating cement back to surface.

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4. CASING PROGRAM - NEW

| Hole Size | Interval | Csg OD | Weight | Grade | Conn | DF _{min} Collapse | DF _{min} Burst | DF _{min} Tension |
|-----------|-------------------|--------|--------|---------|--------------|----------------------------|-------------------------|---------------------------|
| 14.75" | 0 – 830' | 10.75" | 40.5# | J55 | STC | 1.125 | 1.25 | 1.60 |
| 9.875" | 0 – 1,000' | 7.625" | 29.7# | HCP-110 | LTC | 1.125 | 1.25 | 1.60 |
| 9.875" | 1,000' – 3,000' | 7.625" | 29.7# | P-110EC | SLIJ II | 1.125 | 1.25 | 1.60 |
| 8.75" | 3,000' – 11,300' | 7.625" | 29.7# | HCP-110 | FlushMax III | 1.125 | 1.25 | 1.60 |
| 6.75" | 0' – 10,800' | 5.5" | 20# | P-110EC | DWC/C-IS MS | 1.125 | 1.25 | 1.60 |
| 6.75" | 10,800' - 17,104' | 5.5" | 20# | P-110EC | VAM SFC | 1.125 | 1.25 | 1.60 |

Variance is requested to wave the centralizer requirements for the 7-5/8" FJ casing in the 8-3/4" hole size. An expansion additive will be utilized, in the cement slurry, for the entire length of the 8-3/4" hole interval to maximize cement bond and zonal isolation.

Variance is also requested to wave any centralizer requirements for the 5-1/2" FJ casing in the 6-3/4" hole size. An expansion additive will be utilized, in the cement slurry, for the entire length of the 6-3/4" hole interval to maximize cement bond and zonal isolation.

Cementing Program:

| Depth | No. Sacks | Wt. ppg | Yld Ft ³ /ft | Mix Water Gal/sk | Slurry Description |
|----------------|-----------|---------|-------------------------|------------------|---|
| 10-3/4" 830' | 325 | 13.5 | 1.73 | 9.13 | Class C + 4.0% Bentonite + 0.6% CD-32 + 0.5% CaCl ₂ + 0.25 lb/sk Cello-Flake (TOC @ Surface) |
| | 200 | 14.8 | 1.34 | 6.34 | Class C + 0.6% FL-62 + 0.25 lb/sk Cello-Flake + 0.2% Sodium Metasilicate |
| 7-5/8" 11,300' | 250 | 14.8 | 1.38 | 6.48 | Class C + 5% Gypsum + 3% CaCl ₂ pumped via Bradenhead (TOC @ Surface) |
| | 2000 | 14.8 | 1.38 | 6.48 | Class C + 5% Gypsum + 3% CaCl ₂ pumped via Bradenhead |
| | 550 | 14.4 | 1.20 | 4.81 | 50:50 Class H:Poz + 0.25% CPT20A + 0.40% CPT49 + 0.20% CPT35 + 0.80% CPT16A + 0.25% CPT503P pumped Conventionally |
| 5-1/2" 17,104' | 850 | 14.1 | 1.26 | 5.80 | Class H + 0.1% C-20 + 0.05% CSA-1000 + 0.20% C-49 + 0.40% C-17 (TOC @ 10,800') |

Note: Cement volumes based on bit size plus at least 25% excess in the open hole plus 10% excess in the cased-hole overlap section.

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5. MINIMUM SPECIFICATIONS FOR PRESSURE CONTROL:

Variance is requested to use a co-flex line between the BOP and choke manifold (instead of using a 4" OD steel line).

The minimum blowout preventer equipment (BOPE) shown in Exhibit #1 will consist of a single ram, mud cross and double ram-type (10,000 psi WP) preventer and an annular preventer (5000-psi WP). Both units will be hydraulically operated and the ram-type will be equipped with blind rams on bottom and drill pipe rams on top. All BOPE will be tested in accordance with Onshore Oil & Gas order No. 2.

Before drilling out of the surface casing, the ram-type BOP and accessory equipment will be tested to 5000/ 250 psig and the annular preventer to 3500/ 250 psig. The surface casing will be tested to 1500 psi for 30 minutes.

Before drilling out of the intermediate casing, the ram-type BOP and accessory equipment will be tested to 5000/ 250 psig and the annular preventer to 3500/ 250 psig. The intermediate casing will be tested to 2000 psi for 30 minutes.

Pipe rams will be operationally checked each 24-hour period. Blind rams will be operationally checked on each trip out of the hole. These checks will be noted on the daily tour sheets.

A hydraulically operated choke will be installed prior to drilling out of the intermediate casing shoe.

6. TYPES AND CHARACTERISTICS OF THE PROPOSED MUD SYSTEM:

During this procedure we plan to use a Closed-Loop System and haul contents to the required disposal.

The applicable depths and properties of the drilling fluid systems are as follows.

| Depth | Type | Weight (ppg) | Viscosity | Water Loss |
|------------------------------|-------------|--------------|-----------|------------|
| 0 - 830' | Fresh - Gel | 8.6-8.8 | 28-34 | N/c |
| 830' - 11,300' | Brine | 8.8-10.0 | 28-34 | N/c |
| 11,300' - 17,104' Lateral | Oil Base | 10.0-14.0 | 58-68 | 3 - 6 |

The highest mud weight needed to balance formation is expected to be 11.5 ppg. In order to maintain hole stability, mud weights up to 14.0 ppg may be utilized.

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An electronic pit volume totalizer (PVT) will be utilized on the circulating system, to monitor pit volume, flow rate, pump pressure and stroke rate.

Sufficient mud materials to maintain mud properties and meet minimum lost circulation and weight increase requirements will be kept at the wellsite at all times.

7. AUXILIARY WELL CONTROL AND MONITORING EQUIPMENT:

- (A) A kelly cock will be kept in the drill string at all times.
- (B) A full opening drill pipe-stabbing valve (inside BOP) with proper drill pipe connections will be on the rig floor at all times.
- (C) H₂S monitoring and detection equipment will be utilized from surface casing point to TD.

8. LOGGING, TESTING AND CORING PROGRAM:

Open-hole logs are not planned for this well.

GR-CCL Will be run in cased hole during completions phase of operations.

9. ABNORMAL CONDITIONS, PRESSURES, TEMPERATURES AND POTENTIAL HAZARDS:

The estimated bottom-hole temperature (BHT) at TD is 181 degrees F with an estimated maximum bottom-hole pressure (BHP) at TD of 7427 psig (based on 11.5 ppg MW). No hydrogen sulfide or other hazardous gases or fluids have been encountered, reported or are known to exist at this depth in this area. Severe loss circulation is expected from 7,300' to Intermediate casing point.

10. ANTICIPATED STARTING DATE AND DURATION OF OPERATIONS:

The drilling operation should be finished in approximately one month. If the well is productive, an additional 60-90 days will be required for completion and testing before a decision is made to install permanent facilities.

- (A) EOG Resources requests the option to contract a Surface Rig to drill, set surface casing, and cement on the subject well. If the timing between rigs is such that EOG Resources would not be able to preset the surface, the Primary Rig will MIRU and drill the well in its entirety per the APD.

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11. WELLHEAD:

A multi-bowl wellhead system will be utilized.

After running the 10-3/4" surface casing, a 13-5/8" BOP/BOPE system with a minimum working pressure of 5000 psi will be installed on the wellhead system and will be pressure tested to 250 psi low followed by a 5000 psi pressure test. This pressure test will be repeated at least every 30 days, as per Onshore Order No. 2

The minimum working pressure of the BOP and related BOPE required for drilling below the surface casing shoe shall be 5000 psi.

The multi-bowl wellhead will be installed by vendor's representative(s). A copy of the installation instructions for the Stream Flo FBD100 Multi-Bowl WH system has been sent to the NM BLM office in Carlsbad, NM.

The wellhead will be installed by a third party welder while being monitored by WH vendor's representative.

All BOP equipment will be tested utilizing a conventional test plug. Not a cup or J-packer type.

A solid steel body pack-off will be utilized after running and cementing the intermediate casing. After installation the pack-off and lower flange will be pressure tested to 5000 psi.

Both the surface and intermediate casing strings will be tested as per Onshore Order No. 2 to at least 0.22 psi/ft or 1500 psi, whichever is greater.

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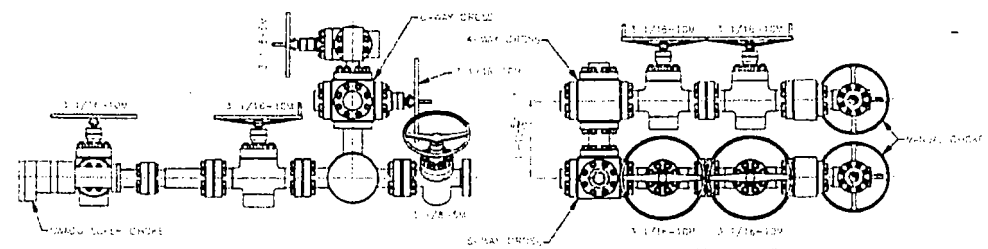
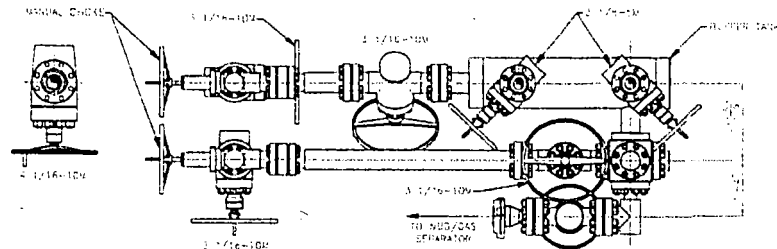
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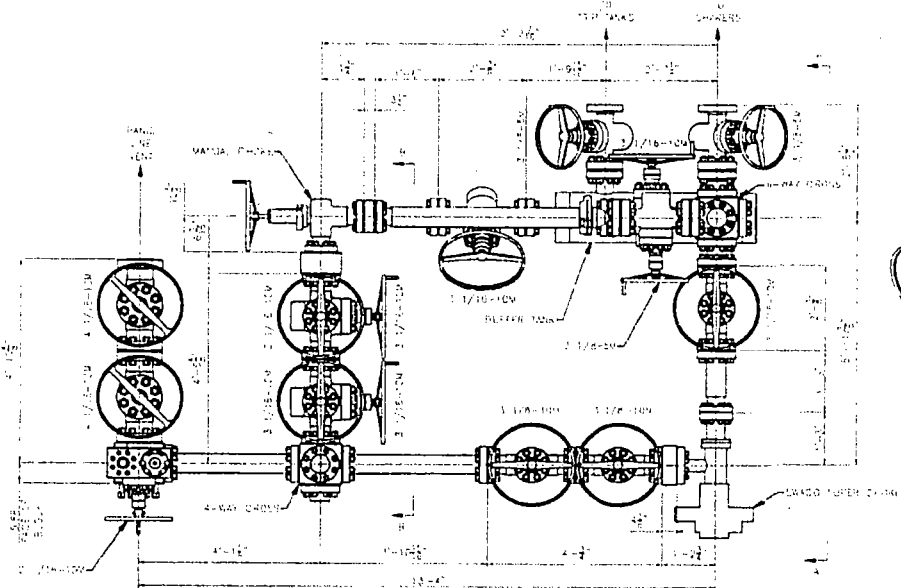
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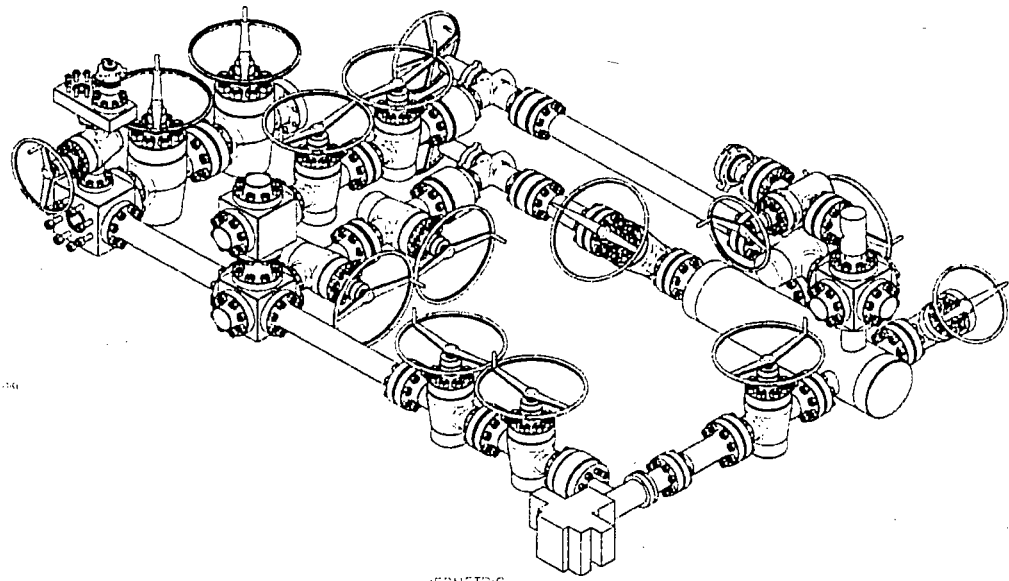


VIEW A-A

SECTION B-B



PLAN VIEW



ISOMETRIC

| | | | |
|--|--|--|--|
| STANDARD DIMENSIONS 1. FABRICATED DIMENSIONS 2. MANUFACTURED DIMENSIONS | | 3. STANDARD DIMENSIONS 4. DIMENSIONS 5. DIMENSIONS 6. DIMENSIONS 7. DIMENSIONS 8. DIMENSIONS 9. DIMENSIONS 10. DIMENSIONS | |
| ISSUED FOR FABRICATION February 10, 2014 CRAFTSMAN ENGINEER | | HELMERICH & PAYNE INTERNATIONAL DRILLING CO. 3 CHOKE, 3 LEVEL, 10M CHOKE MANIFOLD G.A. | |
| CUSTOMER PROJECT LOCATION SCALE | | DATE SHEET HP-D1254 | |

PROPRIETARY
 THIS DRAWING AND THE DATA AND INFORMATION INCLUDED HEREIN
 ARE PROPRIETARY AND ARE NOT TO BE REPRODUCED
 OR USED IN ANY MANNER WITHOUT THE PRIOR
 WRITTEN CONSENT OF A QUALIFIED OFFICER
 OF HELMERICH & PAYNE INTERNATIONAL DRILLING CO.

ISSUED FOR FABRICATION
 February 10, 2014
 CRAFTSMAN
 ENGINEER

Exhibit 1

EOG Resources

10M BOPE

Rig Floor

1. 13 5/8" Rotating Head
2. Hydril 13 5/8" 10,000 PSI WP GK Angular Preventor
3. 13 5/8" Cameron Type "U" 10,000 PSI WP Ram Preventors
4. 2 1/16" - 10,000 PSI WP Check Valve
5. 10,000 PSI WP - 1502 Union to kill line
6. 2 1/16" - 10,000 PSI WP Manual Valves
7. 13 5/8" 3,000 PSI WP x 13 5/8" 5,000 PSI WP Spacer Spool
8. 4 1/16" 10,000 PSI WP HCR Valve
9. 4 1/16" 10,000 PSI WP Manual Valve
10. 6" OD x 3" ID 10,000 PSI WP Steel Armoured Flex Choke Line
11. DSA - 13 5/8" 10,000 PSI WP x 13 5/8" 5,000 PSI WP
12. Mud Cross - 13 5/8" 10,000 PSI WP
13. Blind Rams
14. Pipe Rams
15. 13 5/8" Cameron Type "U" 10,000 PSI WP Pipe Rams
16. Flow Line
17. 2" Fill Line

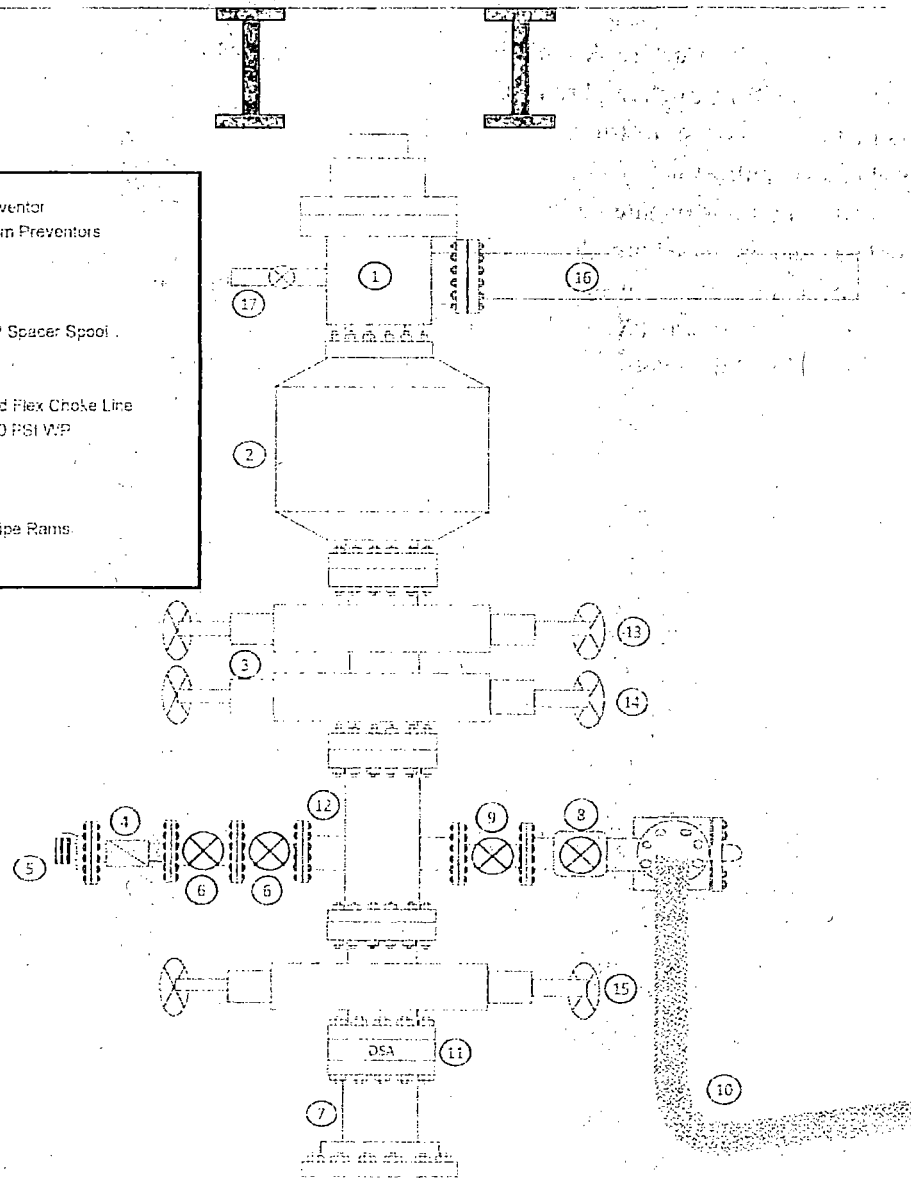


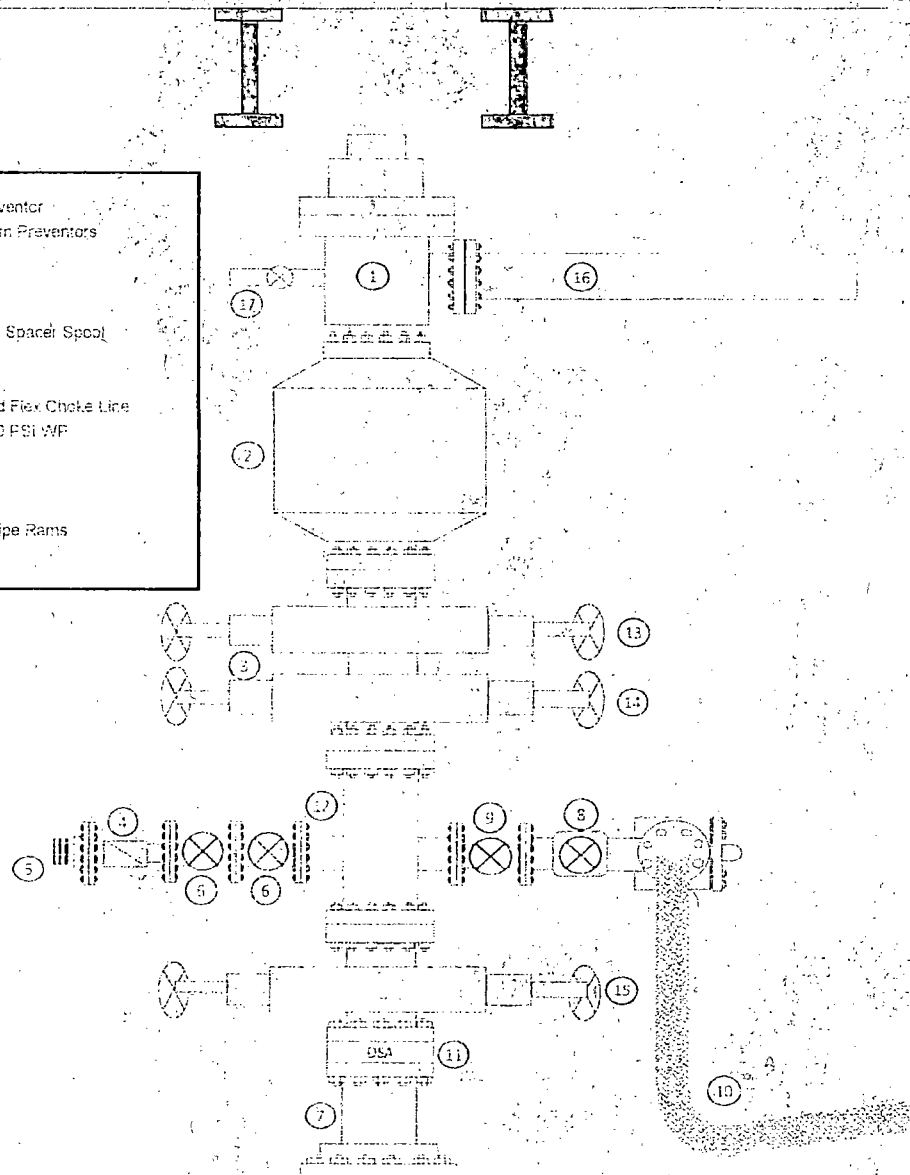
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10M BOPE

Rig Floor

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3. 13 5/8" Cameron Type "U" 10,000 PSI WP Ram Preventors
4. 2 1/16" - 10,000 PSI WP Check Valve
5. 10,000 PSI WP - 4502 Union to Fill Line
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7. 13 5/8" 3,000 PSI WP x 13 5/8" 5,000 PSI WP Spacer Spool
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13. Blind Rams
14. Pipe Rams
15. 13 5/8" Cameron Type "U" 10,000 PSI WP Pipe Rams
16. Flow Line
17. 2" Fill Line



Issued on: 24 Jan. 2017

VAM® SLIJ-II

Connection Data Sheet

| OD | Weight | Wall Th. | Grade | API Drift | Connection |
|-----------|-------------|-----------|-----------|-----------|--------------|
| 7 5/8 in. | 29.70 lb/ft | 0.375 in. | VM 110 HC | 6.750 in. | VAM® SLIJ-II |

PIPE PROPERTIES

| | |
|--------------------------------|---------------|
| Nominal OD | 7.625 in. |
| Nominal ID | 6.875 in. |
| Nominal Cross Section Area | 8.541 sqin. |
| Grade Type | High Collapse |
| Min. Yield Strength | 110 ksi |
| Max. Yield Strength | 140 ksi |
| Min. Ultimate Tensile Strength | 125 ksi |

CONNECTION PROPERTIES

| | |
|------------------------------|-----------------------------|
| Connection Type | Premium integral semi-flush |
| Connection OD (nom) | 7.711 in. |
| Connection ID (nom) | 6.820 in. |
| Make-up Loss | 4.822 in. |
| Critical Cross Section | 5.912 sqin. |
| Tension Efficiency | 69.2 % of pipe |
| Compression Efficiency | 48.5 % of pipe |
| Internal Pressure Efficiency | 100 % of pipe |
| External Pressure Efficiency | 100 % of pipe |

CONNECTION PERFORMANCES

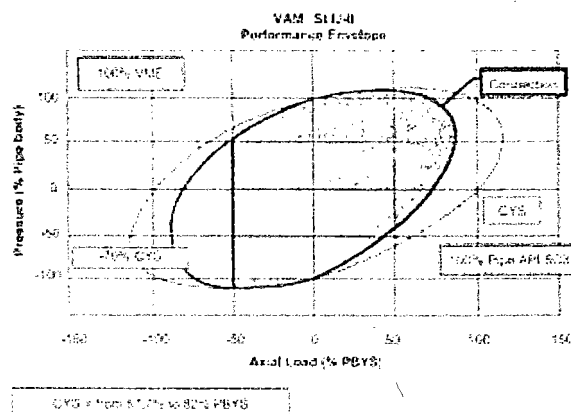
| | |
|------------------------------|-------------|
| Tensile Yield Strength | 651 klb |
| Compression Resistance | 455 klb |
| Internal Yield Pressure | 9470 psi |
| Uniaxial Collapse Pressure | 7890 psi |
| Max. Bending Capacity | TDB |
| Max Bending with Sealability | 20 °/100 ft |

FIELD TORQUE VALUES

| | |
|----------------------|-------------|
| Min. Make-up torque | 11300 ft.lb |
| Opti. Make-up torque | 12600 ft.lb |
| Max. Make-up torque | 13900 ft.lb |

VAM® SLIJ-II is a semi-flush integral premium connection for all casing applications. It combines a near flush design with high performances in tension, compression and gas sealability.

VAM® SLIJ-II has been validated according to the most stringent tests protocols, and has an excellent performance history in the world's most prolific HPHT wells.



Do you need help on this product? - Remember no one knows VAM® like VAM

canada@vamfieldservice.com
usa@vamfieldservice.com
mexico@vamfieldservice.com
brazil@vamfieldservice.com

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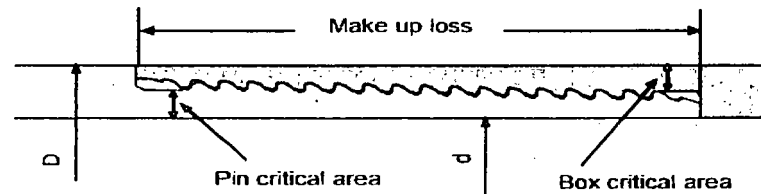
Over 140 VAM® Specialists available worldwide 24/7 for Rig Site Assistance

Other Connection Data Sheets are available at: www.vamservices.com

Vallourec Group

vallourec

**FLUSHMAX-III
Connection Data Sheet**



| Pipe Body | Imperial | | S.I. | |
|-------------------------|----------|-----------------|--------|-----------------|
| Grade | P110 | | P110 | |
| Pipe OD (D) | 7 5/8 | in | 193.68 | mm |
| Weight | 29.7 | lb/ft | 44.25 | kg/m |
| Actual weight | 29.0 | lb/ft | 43.26 | kg/m |
| Wall thickness (t) | 0.375 | in | 9.53 | mm |
| Pipe ID (d) | 6.875 | in | 174.63 | mm |
| Pipe body cross section | 8.537 | in ² | 5.508 | mm ² |
| Drift Dia. | 6.750 | in | 171.45 | mm |

| Connection | | | | |
|-----------------------|------------------------|-----------------|--------|-----------------|
| Box OD (W) | 7.625 | in | 193.68 | mm |
| PIN ID | 6.875 | in | 174.63 | mm |
| Pin critical area | 4.420 | in ² | 2.852 | mm ² |
| Box critical area | 4.424 | in ² | 2.854 | mm ² |
| Joint load efficiency | 60 | % | 60 | % |
| Make up loss | 3.040 | in | 77.22 | mm |
| Thread taper | 1/16 (3/4 in per ft) | | | |
| Number of threads | 5 thread per in. | | | |

Connection Performance Properties

| | | | | |
|--------------------|-------|------|-------|-----|
| Tensile Yield load | 563.4 | kips | 2,506 | kN |
| M.I.Y.P. | 7,574 | psi | 52.2 | MPa |
| Collapse strength | 5,350 | psi | 36.9 | MPa |

Note

M.I.Y.P. = Minimum Internal Yield Pressure of the connection

Torque Recommended

| | | | | |
|------------------|--------|-------|--------|-----|
| Min. | 8,700 | ft-lb | 11,700 | N-m |
| Opti. | 9,700 | ft-lb | 13,100 | N-m |
| Max. | 10,700 | ft-lb | 14,500 | N-m |
| Operational Max. | 23,600 | ft-lb | 32,000 | N-m |

Note : Operational Max. torque can be applied for high torque application

EOG RESOURCES, INC.
BARLOW 34 FED COM NO. 704H

1. GEOLOGIC NAME OF SURFACE FORMATION:

Permian

2. ESTIMATED TOPS OF IMPORTANT GEOLOGICAL MARKERS:

| | |
|-----------------------------------|---------|
| Rustler | 805' |
| Top of Salt | 1,135' |
| Base of Salt / Top Anhydrite | 4,765' |
| Base Anhydrite | 5,010' |
| Lamar | 5,010' |
| Bell Canyon | 5,035' |
| Cherry Canyon | 6,080' |
| Brushy Canyon | 7,660' |
| Bone Spring Lime | 9,215' |
| 1 st Bone Spring Sand | 10,155' |
| 2 nd Bone Spring Shale | 10,345' |
| 2 nd Bone Spring Sand | 10,660' |
| 3 rd Bone Spring Carb | 11,130' |
| 3 rd Bone Spring Sand | 11,730' |
| Wolfcamp | 12,200' |
| TD | 12,420' |

3. ESTIMATED DEPTHS OF ANTICIPATED FRESH WATER, OIL OR GAS:

| | | |
|-----------------------------------|---------|-------------|
| Upper Permian Sands | 0- 400' | Fresh Water |
| Cherry Canyon | 6,080' | Oil |
| Brushy Canyon | 7,660' | Oil |
| 1 st Bone Spring Sand | 10,155' | Oil |
| 2 nd Bone Spring Shale | 10,345' | Oil |
| 2 nd Bone Spring Sand | 10,660' | Oil |
| 3 rd Bone Spring Carb | 11,130' | Oil |
| 3 rd Bone Spring Sand | 11,730' | Oil |
| Wolfcamp | 12,200' | Oil |

No other Formations are expected to give up oil, gas or fresh water in measurable quantities. Surface fresh water sands will be protected by setting 10.75" casing at 830' and circulating cement back to surface.

EOG RESOURCES, INC.
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4. CASING PROGRAM - NEW

| Hole Size | Interval | Csg OD | Weight | Grade | Conn | DF _{min} Collapse | DF _{min} Burst | DF _{min} Tension |
|-----------|------------------|--------|--------|---------|--------------|----------------------------|-------------------------|---------------------------|
| 14.75" | 0 – 830' | 10.75" | 40.5# | J55 | STC | 1.125 | 1.25 | 1.60 |
| 9.875" | 0 – 1,000' | 7.625" | 29.7# | HCP-110 | LTC | 1.125 | 1.25 | 1.60 |
| 9.875" | 1,000' – 3,000' | 7.625" | 29.7# | P-110EC | SLIJ II | 1.125 | 1.25 | 1.60 |
| 8.75" | 3,000' – 11,300' | 7.625" | 29.7# | HCP-110 | FlushMax III | 1.125 | 1.25 | 1.60 |
| 6.75" | 0' – 10,800' | 5.5" | 20# | P-110EC | DWC/C-IS MS | 1.125 | 1.25 | 1.60 |
| 6.75" | 10,800'–17,104' | 5.5" | 20# | P-110EC | VAM SFC | 1.125 | 1.25 | 1.60 |

Variance is requested to wave the centralizer requirements for the 7-5/8" FJ casing in the 8-3/4" hole size. An expansion additive will be utilized, in the cement slurry, for the entire length of the 8-3/4" hole interval to maximize cement bond and zonal isolation.

Variance is also requested to wave any centralizer requirements for the 5-1/2" FJ casing in the 6-3/4" hole size. An expansion additive will be utilized, in the cement slurry, for the entire length of the 6-3/4" hole interval to maximize cement bond and zonal isolation.

Cementing Program:

| Depth | No. Sacks | Wt. ppg | Yld Ft ³ /ft | Mix Water Gal/sk | Slurry Description |
|-------------------|-----------|---------|-------------------------|------------------|---|
| 10-3/4" 830' | 325 | 13.5 | 1.73 | 9.13 | Class C + 4.0% Bentonite + 0.6% CD-32 + 0.5% CaCl ₂ + 0.25 lb/sk Cello-Flake (TOC @ Surface) |
| | 200 | 14.8 | 1.34 | 6.34 | Class C + 0.6% FL-62 + 0.25 lb/sk Cello-Flake + 0.2% Sodium Metasilicate |
| 7-5/8" 11,300' | 250 | 14.8 | 1.38 | 6.48 | Class C + 5% Gypsum + 3% CaCl ₂ pumped via Bradenhead (TOC @ Surface) |
| | 2000 | 14.8 | 1.38 | 6.48 | Class C + 5% Gypsum + 3% CaCl ₂ pumped via Bradenhead |
| | 550 | 14.4 | 1.20 | 4.81 | 50:50 Class H:Poz + 0.25% CPT20A + 0.40% CPT49 + 0.20% CPT35 + 0.80% CPT16A + 0.25% CPT503P pumped Conventionally |
| 5-1/2" 17,104' | 850 | 14.1 | 1.26 | 5.80 | Class H + 0.1% C-20 + 0.05% CSA-1000 + 0.20% C-49 + 0.40% C-17 (TOC @ 10,800') |

Note: Cement volumes based on bit size plus at least 25% excess in the open hole plus 10% excess in the cased-hole overlap section.

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5. MINIMUM SPECIFICATIONS FOR PRESSURE CONTROL:

Variance is requested to use a co-flex line between the BOP and choke manifold (instead of using a 4" OD steel line).

The minimum blowout preventer equipment (BOPE) shown in Exhibit #1 will consist of a single ram, mud cross and double ram-type (10,000 psi WP) preventer and an annular preventer (5000-psi WP). Both units will be hydraulically operated and the ram-type will be equipped with blind rams on bottom and drill pipe rams on top. All BOPE will be tested in accordance with Onshore Oil & Gas order No. 2.

Before drilling out of the surface casing, the ram-type BOP and accessory equipment will be tested to 5000/ 250 psig and the annular preventer to 3500/ 250 psig. The surface casing will be tested to 1500 psi for 30 minutes.

Before drilling out of the intermediate casing, the ram-type BOP and accessory equipment will be tested to 5000/ 250 psig and the annular preventer to 3500/ 250 psig. The intermediate casing will be tested to 2000 psi for 30 minutes.

Pipe rams will be operationally checked each 24-hour period. Blind rams will be operationally checked on each trip out of the hole. These checks will be noted on the daily tour sheets.

A hydraulically operated choke will be installed prior to drilling out of the intermediate casing shoe.

6. TYPES AND CHARACTERISTICS OF THE PROPOSED MUD SYSTEM:

During this procedure we plan to use a Closed-Loop System and haul contents to the required disposal.

The applicable depths and properties of the drilling fluid systems are as follows.

| Depth | Type | Weight (ppg) | Viscosity | Water Loss |
|------------------------------|-------------|--------------|-----------|------------|
| 0 – 830' | Fresh - Gel | 8.6-8.8 | 28-34 | N/c |
| 830' – 11,300' | Brine | 8.8-10.0 | 28-34 | N/c |
| 11,300' – 17,104' Lateral | Oil Base | 10.0-14.0 | 58-68 | 3 - 6 |

The highest mud weight needed to balance formation is expected to be 11.5 ppg. In order to maintain hole stability, mud weights up to 14.0 ppg may be utilized.

EOG RESOURCES, INC.
BARLOW 34 FED COM NO. 704H

An electronic pit volume totalizer (PVT) will be utilized on the circulating system, to monitor pit volume, flow rate, pump pressure and stroke rate.

Sufficient mud materials to maintain mud properties and meet minimum lost circulation and weight increase requirements will be kept at the wellsite at all times.

7. AUXILIARY WELL CONTROL AND MONITORING EQUIPMENT:

- (A) A kelly cock will be kept in the drill string at all times.
- (B) A full opening drill pipe-stabbing valve (inside BOP) with proper drill pipe connections will be on the rig floor at all times.
- (C) H₂S monitoring and detection equipment will be utilized from surface casing point to TD.

8. LOGGING, TESTING AND CORING PROGRAM:

Open-hole logs are not planned for this well.

GR-CCL Will be run in cased hole during completions phase of operations.

9. ABNORMAL CONDITIONS, PRESSURES, TEMPERATURES AND POTENTIAL HAZARDS:

The estimated bottom-hole temperature (BHT) at TD is 181 degrees F with an estimated maximum bottom-hole pressure (BHP) at TD of 7427 psig (based on 11.5 ppg MW). No hydrogen sulfide or other hazardous gases or fluids have been encountered, reported or are known to exist at this depth in this area. Severe loss circulation is expected from 7,300' to Intermediate casing point.

10. ANTICIPATED STARTING DATE AND DURATION OF OPERATIONS:

The drilling operation should be finished in approximately one month. If the well is productive, an additional 60-90 days will be required for completion and testing before a decision is made to install permanent facilities.

- (A) EOG Resources requests the option to contract a Surface Rig to drill, set surface casing, and cement on the subject well. If the timing between rigs is such that EOG Resources would not be able to preset the surface, the Primary Rig will MIRU and drill the well in its entirety per the APD.

EOG RESOURCES, INC.
BARLOW 34 FED COM NO. 704H

11. WELLHEAD:

A multi-bowl wellhead system will be utilized.

After running the 10-3/4" surface casing, a 13-5/8" BOP/BOPE system with a minimum working pressure of 5000 psi will be installed on the wellhead system and will be pressure tested to 250 psi low followed by a 5000 psi pressure test. This pressure test will be repeated at least every 30 days, as per Onshore Order No. 2

The minimum working pressure of the BOP and related BOPE required for drilling below the surface casing shoe shall be 5000 psi.

The multi-bowl wellhead will be installed by vendor's representative(s). A copy of the installation instructions for the Stream Flo FBD100 Multi-Bowl WH system has been sent to the NM BLM office in Carlsbad, NM.

The wellhead will be installed by a third party welder while being monitored by WH vendor's representative.

All BOP equipment will be tested utilizing a conventional test plug. Not a cup or J-packer type.

A solid steel body pack-off will be utilized after running and cementing the intermediate casing. After installation the pack-off and lower flange will be pressure tested to 5000 psi.

Both the surface and intermediate casing strings will be tested as per Onshore Order No. 2 to at least 0.22 psi/ft or 1500 psi, whichever is greater.

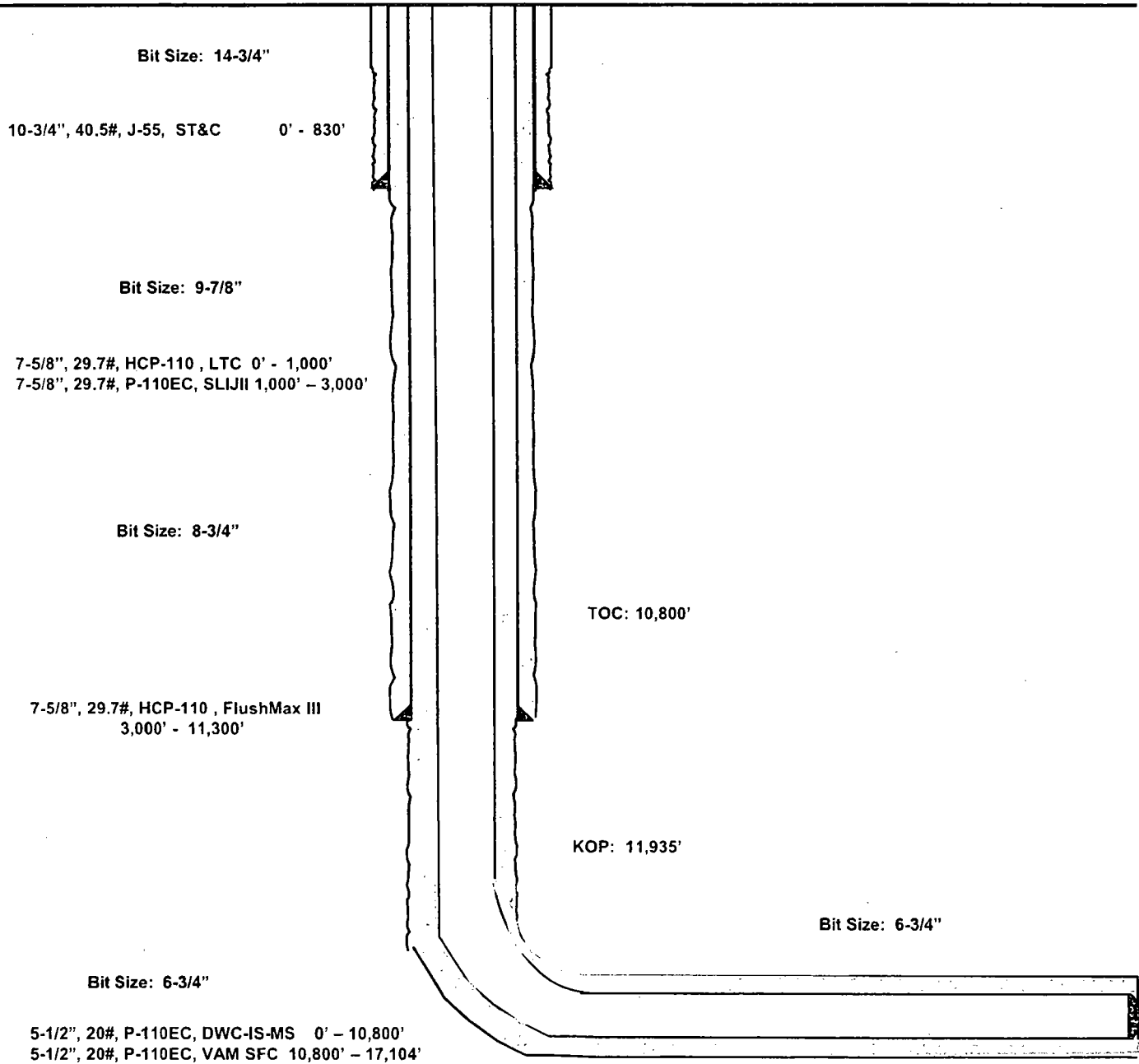
Barlow 34 Fed Com #704H

**Lea County, New Mexico
Proposed Wellbore**

**300' FSL
1615' FWL
Section 34
T-26-S, R-33-E**

API: 30-025-*****

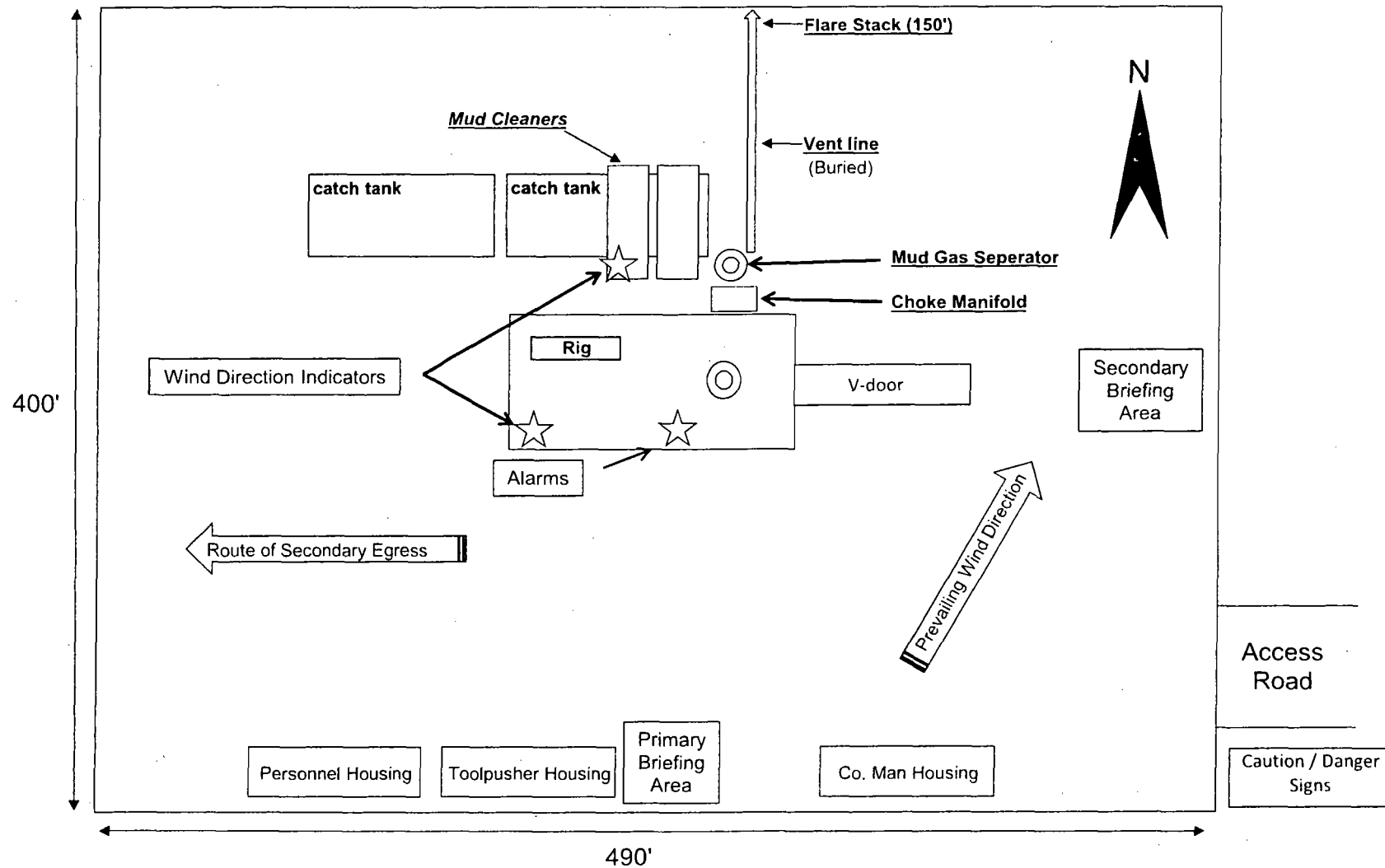
**KB: 3,305'
GL: 3,380'**



Lateral: 17,104' MD, 12,420' TVD
Upper Most Perf:
330' FSL & 1362' FWL Sec. 34
Lower Most Perf:
2323' FSL & 1357' FWL Sec. 27
BH Location: 2423' FSL & 1356' FWL
Section 27
T-26-S, R-33-E

Exhibit 4
EOG Resources
Barlow 34 Fed Com #704H

Well Site Diagram



Manufacturer: Midwest Hose & Specialty

Serial Number: SN#90067

Length: 35'

Size: OD = 8" ID = 4"

Ends: Flanges Size: 4-1/16"

WP Rating: 10,000 psi Anchors required by manufacturer: No

**MIDWEST
HOSE AND SPECIALTY INC.**

| INTERNAL HYDROSTATIC TEST REPORT | | |
|---|------------------------------------|--|
| Customer: CACTUS | | P.O. Number: RIG #123 Asset # M10761 |
| HOSE SPECIFICATIONS | | |
| Type: CHOKER LINE | | Length: 35' |
| I.D. 4" INCHES | | O.D. 8" INCHES |
| WORKING PRESSURE 10,000 PSI | TEST PRESSURE 15,000 PSI | BURST PRESSURE PSI |
| COUPLINGS | | |
| Type of End Fitting 4 1/16 10K FLANGE | | |
| Type of Coupling: SWEDGED | | MANUFACTURED BY MIDWEST HOSE & SPECIALTY |
| PROCEDURE | | |
| <i>Hose assembly pressure tested with water at ambient temperature.</i> | | |
| TIME HELD AT TEST PRESSURE 1 MIN. | | ACTUAL BURST PRESSURE: 0 PSI |
| COMMENTS: SN#90067 M10761 Hose is covered with stainless steel armour cover and wrapped with fire resistant vermiculite coated fiberglass insulation rated for 1500 degrees complete with lifting eyes | | |
| Date: 6/6/2011 | Tested By: BOBBY FINK | Approved: MENDI JACKSON |



Midwest Hose
& Specialty, Inc.

Internal Hydrostatic Test Graph

Customer: CACTUS

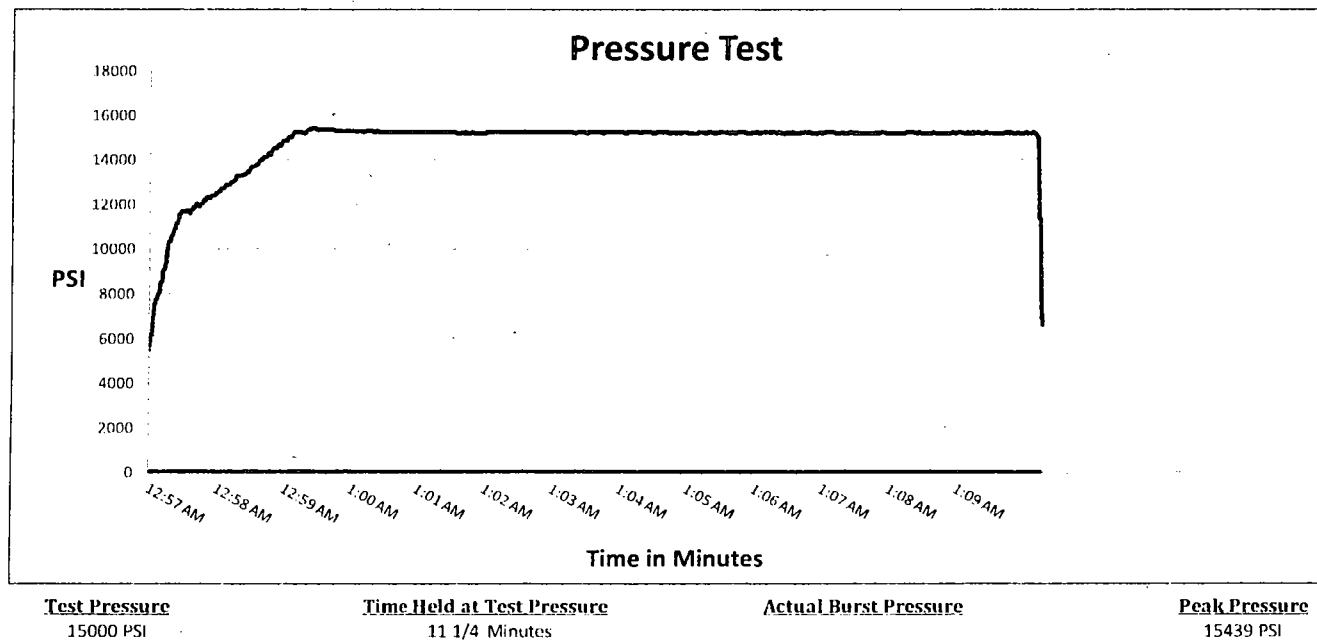
SALES ORDER# 90067

Hose Specifications

| | |
|-------------------------|------------------------------------|
| <u>Hose Type</u> | <u>Length</u> |
| C & K | 35' |
| <u>I.D.</u> | <u>O.D.</u> |
| 4" | 8" |
| <u>Working Pressure</u> | <u>Burst Pressure</u> |
| 10000 PSI | Standard Safety Multiplier Applies |

Verification

| | |
|------------------------|-------------------------------|
| <u>Type of Fitting</u> | <u>Coupling Method</u> |
| 4 1/16 10K | Swage |
| <u>Die Size</u> | <u>Final O.D.</u> |
| 6.62" | 6.68" |
| <u>Hose Serial #</u> | <u>Hose Assembly Serial #</u> |
| | 90067 |



Comments: Hose assembly pressure tested with water at ambient temperature.

Tested By: Bobby Fink

Approved By: Mendi Jackson



U.S. Department of the Interior
BUREAU OF LAND MANAGEMENT

SUPO Data Report

09/28/2017

APD ID: 10400009087

Submission Date: 03/14/2017

Highlighted data
reflects the most
recent changes

Operator Name: EOG RESOURCES INCORPORATED

Well Name: BARLOW 34 FED COM

Well Number: 704H

[Show Final Text](#)

Well Type: OIL WELL

Well Work Type: Drill

Section 1 - Existing Roads

Will existing roads be used? YES

Existing Road Map:

BARLOW_34_FED_COM_704H_vicinity_03-09-2017.pdf

Existing Road Purpose: ACCESS, FLUID TRANSPORT

Row(s) Exist? NO

ROW ID(s)

ID:

Do the existing roads need to be improved? NO

Existing Road Improvement Description:

Existing Road Improvement Attachment:

Section 2 - New or Reconstructed Access Roads

Will new roads be needed? YES

New Road Map:

Barlow_34_Fed_Com_infrastructure_03-09-2017.pdf

BARLOW_34_FED_COM_704H_wellsite_03-09-2017.pdf

New road type: RESOURCE

Length: 2803

Feet

Width (ft.): 24

Max slope (%): 2

Max grade (%): 20

Army Corp of Engineers (ACOE) permit required? NO

ACOE Permit Number(s):

New road travel width: 24

New road access erosion control: Newly constructed or reconstructed roads will be constructed as outlined in the BLM "Gold Book" and to meet the standards of the anticipated traffic flow and all anticipated weather requirements as needed. Construction will include ditching, draining, crowning and capping or sloping and dipping the roadbed as necessary to provide a well-constructed and safe road. We plan to grade and water twice a year.

New road access plan or profile prepared? NO

New road access plan attachment:



United States Department of the Interior

BUREAU OF LAND MANAGEMENT
CARLSBAD FIELD OFFICE
620 E. GREENE ST.
CARLSBAD, NM 88220
BLM_NM_CFO_APD@BLM.GOV



In Reply To:
3160 (Office Code)
[NMNM02965A]

05/18/2017

Attn: STAN WAGNER
EOG RESOURCES INC
1111 BAGBY SKY LOBBY2
HOUSTON, TX 77002

Re: Receipt and Acceptability of Application for Permit to Drill (APD)

FEDERAL - NMNM02965A

Well Name / Number: **BARLOW 34 FED COM / 704H**
Legal Description: **T26S, R33E, SEC 34, LOT 3**
County, State: **LEA, NM**
Date APD Received: **03/14/2017**

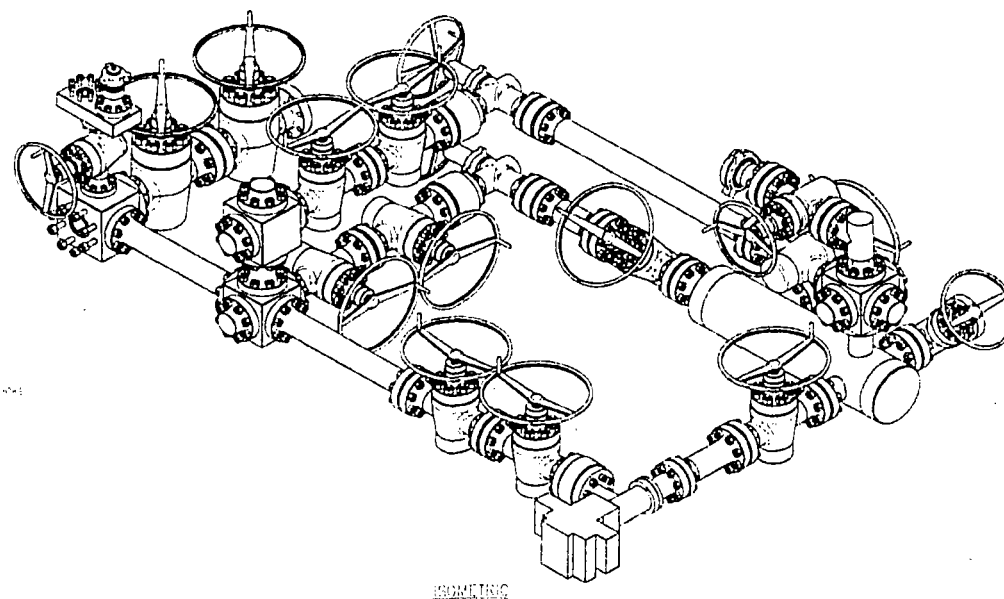
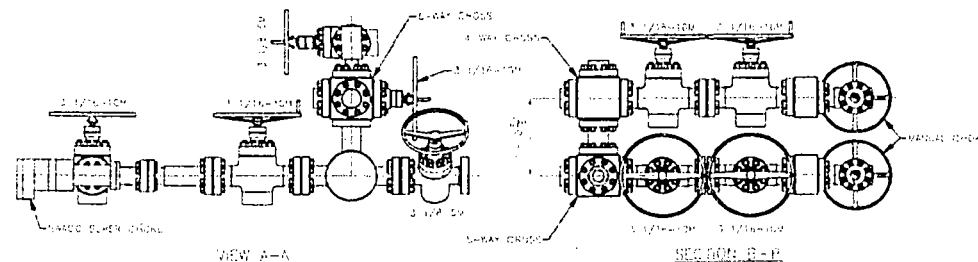
Dear Operator:


The BLM received your Application for Permit to Drill (APD), for the referenced well, on 03/14/2017. The BLM reviewed the APD package pursuant to part III.D of Onshore Oil and Gas Order No.1 and it is:

1. ☒ Incomplete/Deficient *(The BLM cannot process the APD until you submit the identified items within 45 calendar days of the date of this notice or the BLM will return your APD.)*

- ☐ Well Plat
- ☒ Drilling Plan
- ☒ Surface Use Plan of Operations (SUPO)
- ☐ Certification of Private Surface Owner Access Agreement
- ☐ Bonding
- ☐ Onsite (The BLM has scheduled the onsite to be on _____)
This requirement is exempt of the 45-day timeframe to submit deficiencies. This requirement will be satisfied on the date of the onsite.
- ☐ Other

{Please See Addendum for further clarification of deficiencies}



| | | | |
|--------------------------------|---|---|--|
| STANDARD SPECIFICATIONS | |  HELMERICH & PAYN INTERNATIONAL DRILLING CO. | |
| 1. PARTS LIST AND DESCRIPTIONS | A. TOOLS B. SUPPLIES C. EQUIPMENT D. MATERIALS E. OTHERS | F. QUANTITY G. UNIT H. PRICE I. TOTAL | 3 CHOKE, 3 LEVEL, 10M CHOKE MANIFOLD G.A. |
| 2. MACHINE INSTRUCTIONS | J. OPERATING INSTRUCTIONS K. MAINTENANCE INSTRUCTIONS L. SAFETY INSTRUCTIONS M. OTHERS | N. DATE O. BY | |