Form 3160-5 (June 2019)

UNITED STATES DEPARTMENT OF THE INTERIOR BUREAU OF LAND MANAGEMENT

| FORM APPROVED |
|--------------------------|
| OMB No. 1004-0137 |
| Expires: October 31, 202 |

| DOK | EAU OF LAND MANAGEMENT | | N | NMNM00090 |
|---|---|-------------------------------|--|--------------------------------------|
| Do not use this t | NOTICES AND REPORTS ON W form for proposals to drill or to Use Form 3160-3 (APD) for suc | re-enter an | 6. If Indian, Allottee | or Tribe Name |
| | TRIPLICATE - Other instructions on page | · · | 7. If Unit of CA/Agre | eement, Name and/or No. |
| 1. Type of Well | | | - | |
| ✓ Oil Well Gas V | Vell Other | | 8. Well Name and No | . AMAZING 19 FED/602H |
| 2. Name of Operator EOG RESOURO | CES INCORPORATED | | 9. API Well No. 30-0 | 25-51186 |
| 3a. Address 1111 BAGBY SKY LOB | BBY 2, HOUSTON, TX 77(3b. Phone No. (713) 651-700 | | 10. Field and Pool or WC-025 G-09 S22 | Exploratory Area 23219D; WOLFCAMP |
| 4. Location of Well (Footage, Sec., T., F SEC 19/T22S/R32E/NMP | R.,M., or Survey Description) | | 11. Country or Parish LEA/NM | , State |
| 12. CHE | CK THE APPROPRIATE BOX(ES) TO INI | DICATE NATURE OF NOT | ICE, REPORT OR OT | HER DATA |
| TYPE OF SUBMISSION | | TYPE OF AC | TION | |
| V Notice of Intent | Acidize Deep Alter Casing Hydr | | luction (Start/Resume) | Water Shut-Off Well Integrity |
| Subsequent Report | Casing Repair New | Construction Reco | omplete | Other |
| | | | porarily Abandon | |
| Final Abandonment Notice | Convert to Injection Plug Deperation: Clearly state all pertinent details, in | | er Disposal | |
| completed. Final Abandonment No is ready for final inspection.) EOG respectfully requests an the following changes: Amazing 19 Fed 714H (FKA 6 Change name from Amazing 1 Change BHL from T-22-S, R-3 to T-22-S, R-32-E, Sec 30, 10 | 19 Fed 602H to Amazing 19 Fed 714H. 32-E, Sec 30, 100' FSL, 1980' FEL, Lea 0 0' FSL, 2310' FEL, Lea Co., N.M. | s, including reclamation, hav | | |
| Change target formation to We Continued on page 3 additional | · | | | |
| | true and correct. Name (Printed/Typed) | | | |
| STAR HARRELL / Ph: (432) 848-9 | 161 | Regulatory Special | st | |
| Signature | | Date | 04/19/2 | 2023 |
| | THE SPACE FOR FEDI | ERAL OR STATE OF | ICE USE | |
| Approved by | | | | |
| CHRISTOPHER WALLS / Ph: (57 | 5) 234-2234 / Approved | Petroleum Eng Title | | 05/19/2023 Date |
| | hed. Approval of this notice does not warrantequitable title to those rights in the subject lenduct operations thereon. | | | |
| | | | | |

Title 18 U.S.C Section 1001 and Title 43 U.S.C Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

(Instructions on page 2)

GENERAL INSTRUCTIONS

This form is designed for submitting proposals to perform certain well operations and reports of such operations when completed as indicated on Federal and Indian lands pursuant to applicable Federal law and regulations. Any necessary special instructions concerning the use of this form and the number of copies to be submitted, particularly with regard to local area or regional procedures and practices, are either shown below, will be issued by or may be obtained from the local Federal office.

SPECIFIC INSTRUCTIONS

Item 4 - Locations on Federal or Indian land should be described in accordance with Federal requirements. Consult the local Federal office for specific instructions.

Item 13: Proposals to abandon a well and subsequent reports of abandonment should include such special information as is required by the local Federal office. In addition, such proposals and reports should include reasons for the abandonment; data on any former or present productive zones or other zones with present significant fluid contents not sealed off by cement or otherwise; depths (top and bottom) and method of placement of cement plugs; mud or other material placed below, between and above plugs; amount, size, method of parting of any casing, liner or tubing pulled and the depth to the top of any tubing left in the hole; method of closing top of well and date well site conditioned for final inspection looking for approval of the abandonment. If the proposal will involve **hydraulic fracturing operations**, you must comply with 43 CFR 3162.3-3, including providing information about the protection of usable water. Operators should provide the best available information about all formations containing water and their depths. This information could include data and interpretation of resistivity logs run on nearby wells. Information may also be obtained from state or tribal regulatory agencies and from local BLM offices.

NOTICES

The privacy Act of 1974 and the regulation in 43 CFR 2.48(d) provide that you be furnished the following information in connection with information required by this application.

AUTHORITY: 30 U.S.C. 181 et seq., 351 et seq., 25 U.S.C. 396; 43 CFR 3160.

PRINCIPAL PURPOSE: The information is used to: (1) Evaluate, when appropriate, approve applications, and report completion of subsequent well operations, on a Federal or Indian lease; and (2) document for administrative use, information for the management, disposal and use of National Resource lands and resources, such as: (a) evaluating the equipment and procedures to be used during a proposed subsequent well operation and reviewing the completed well operations for compliance with the approved plan; (b) requesting and granting approval to perform those actions covered by 43 CFR 3162.3-2, 3162.3-3, and 3162.3-4; (c) reporting the beginning or resumption of production, as required by 43 CFR 3162.4-1(c)and (d) analyzing future applications to drill or modify operations in light of data obtained and methods used.

ROUTINE USES: Information from the record and/or the record will be transferred to appropriate Federal, State, local or foreign agencies, when relevant to civil, criminal or regulatory investigations or prosecutions in connection with congressional inquiries or to consumer reporting agencies to facilitate collection of debts owed the Government.

EFFECT OF NOT PROVIDING THE INFORMATION: Filing of this notice and report and disclosure of the information is mandatory for those subsequent well operations specified in 43 CFR 3162.3-2, 3162.3-4.

The Paperwork Reduction Act of 1995 requires us to inform you that:

The BLM collects this information to evaluate proposed and/or completed subsequent well operations on Federal or Indian oil and gas leases.

Response to this request is mandatory.

The BLM would like you to know that you do not have to respond to this or any other Federal agency-sponsored information collection unless it displays a currently valid OMB control number.

BURDEN HOURS STATEMENT: Public reporting burden for this form is estimated to average 8 hours per response, including the time for reviewing instructions, gathering and maintaining data, and completing and reviewing the form. Direct comments regarding the burden estimate or any other aspect of this form to U.S. Department of the Interior, Bureau of Land Management (1004-0137), Bureau Information Collection Clearance Officer (WO-630), 1849 C St., N.W., Mail Stop 401 LS, Washington, D.C. 20240

(Form 3160-5, page 2)

Additional Information

Additional Remarks

Update casing and cement program to current design.

Update the Pool as reflected in the C-102.

Location of Well

 $0. \ SHL: TR \ B \ / \ 885 \ FNL \ / \ 2111 \ FEL \ / \ TWSP: 22S \ / \ RANGE: 32E \ / \ SECTION: 19 \ / \ LAT: 32.381857 \ / \ LONG: -103.712177 \ (\ TVD: 0 \ feet, MD: 0 \ feet)$ PPP: TR B \ / \ 100 \ FNL \ / \ 1980 \ FEL \ / \ TWSP: 22S \ / \ RANGE: 32E \ / \ SECTION: 19 \ / \ LAT: 32.384017 \ / \ LONG: -103.711753 \ (\ TVD: 11606 \ feet, MD: 11649 \ feet) BHL: TR O \ / \ 100 \ FSL \ / \ 1980 \ FEL \ / \ TWSP: 22S \ / \ RANGE: 32E \ / \ SECTION: 30 \ / \ LAT: 32.355551 \ / \ LONG: -103.711722 \ (\ TVD: 11735 \ feet, MD: 22095 \ feet)

API Number

: (575) 393-6161 Fax: (575) 393-0720 DISTRICT II . First St., Artesia, ivivi 66216 e: (575) 748-1283 Fax: (575) 748-9720 DISTRICT III Phone: (505) 334-6178 Fax: (505) 334-6170 DISTRICT IV

Star L Harrell

E-mail Address

star_harrell@eogresources.com

State of New Mexico Energy, Minerals & Natural Resources Department OIL CONSERVATION DIVISION 1220 South St. Francis Dr. Santa Fe, New Mexico 87505

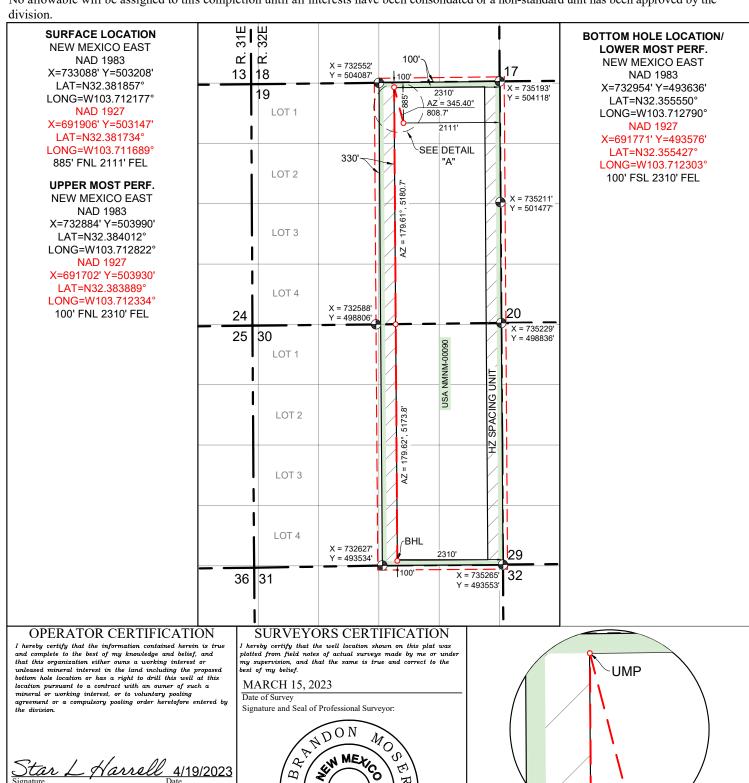
Form C-102 Revised August 1, 2011 Submit one copy to appropriate District Office

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

| 30-025-5° | 1186 | | | 98296 | | WC-025 | D; Wolfcamp | | |
|-----------------|-------------------------|----------|------------------|---|----------------------------|-------------------|---------------|----------------|--------|
| | Property Code 333115 | | | | Property Name AMAZING 19 I | FED | | Well Nun | |
| OGRID 1 7377 | | | | Operator Name Elevation EOG RESOURCES, INC. 3635' | | | | | |
| | | • | Surface Location | | | | | | |
| UL or lot no. | Section | Township | Range | Lot Idn | Feet from the | North/South line | Feet from the | East/West line | County |
| В | 19 | 22 S | 32 E | | 885 | NORTH | 2111 | EAST | LEA |
| | | | Bott | om Hole | Location If Diff | erent From Surfac | ee | | |
| UL or lot no. | Section | Township | Range | Lot Idn | Feet from the | North/South line | Feet from the | East/West line | County |
| 0 | 30 | 22 S | 32 E | E 100 SOUTH 2310 | | | | EAST | LEA |
| Dedicated Acres | Joint or | Infill | Consolidated Co | de Orde | er No. | • | • | • | - |
| 640 | | | | PENDING COM AGREEMENT | | | | | |

No allowable will be assigned to this completion until all interests have been consolidated or a non-standard unit has been approved by the



STONAL

Released to Imaging: 7/26/2023 10:19:15 Aurificate Number 22502 BRANDON MOSER, N.M.P.L.S. Job No.: EOG_B200015

DETAIL "A"

N.T.S.



Revised Permit Information 03/09/2023:

Well Name: Amazing 19 Fed 714H

Location: SHL: 885' FNL & 2111' FEL, Section 19, T-22-S, R-32-E, Lea Co., N.M. BHL: 100' FSL & 2310' FEL, Section 30, T-22-S, R-32-E, Lea Co., N.M.

Casing Program:

| Hole | Interv | al MD | Interval TVD | | Csg | | | |
|---------|-----------|---------|--------------|---------|--------|--------|---------|---------------|
| Size | From (ft) | To (ft) | From (ft) | To (ft) | OD | Weight | Grade | Conn |
| 12-1/4" | 0 | 920 | 0 | 920 | 9-5/8" | 36# | J-55 | LTC |
| 8-3/4" | 0 | 10,946 | 0 | 10,910 | 7-5/8" | 29.7# | HCP-110 | FXL |
| 6-3/4" | 0 | 10,446 | 0 | 10,410 | 5-1/2" | 20# | P110-EC | DWC/C IS MS |
| 6-3/4" | 10,446 | 10,946 | 10,410 | 10,910 | 5-1/2" | 20# | P110-EC | Vam Sprint SF |
| 6-3/4" | 10,946 | 22,265 | 10,910 | 12,030 | 5-1/2" | 20# | P110-EC | DWC/C IS MS |

Variance is requested to waive the centralizer requirements for the 7-5/8" 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 waive any centralizer requirements for the 5-1/2" 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.

Variance is also requested to waive the annular clearance requirements for the 5-1/2" casing by 7-5/8" casing annulus to the proposed top of cement.

EOG requests permission to allow deviation from the 0.422" annulus clearance requirement from Onshore Order #2 under the following conditions:

- Annular clearance to meet or exceed 0.422" between intermediate casing ID and production casing coupling only on the first 500' overlap between both casing strings.
- Annular clearance less than 0.422" is acceptable for the production open hole section.

Cementing Program:

| | 0 | Wt. | Yld | Slummy Description |
|---------|-----------|------|--------|---|
| Depth | No. Sacks | ppg | Ft3/sk | Slurry Description |
| 920' | 270 | 13.5 | 1.73 | Lead: Class C + 4.0% Bentonite Gel + 0.5% CaCl2 + 0.25 lb/sk Cello- |
| 9-5/8'' | | | | Flake (TOC @ Surface) |
| | 80 | 14.8 | 1.34 | Tail: Class C + 0.6% FL-62 + 0.25 lb/sk Cello-Flake + 0.2% Sodium |
| | | | | Metasilicate (TOC @ 720') |
| 10,910' | 470 | 14.2 | 1.11 | 1st Stage (Tail): Class C + 0.6% Halad-9 + 0.45% HR-601 + 3% |
| 7-5/8'' | | | | Microbond (TOC @ 6,900') |
| | 1180 | 14.8 | 1.5 | 2nd Stage (Bradenhead squeeze): Class C + 3% Salt + 1% PreMag- |
| | | | | M + 6% Bentonite Gel (TOC @ surface) |
| 22,265' | 1010 | 13.2 | 1.31 | Lead: Class H + 0.4% Halad-344 + 0.35% HR-601 + 3% Microbond |
| 5-1/2'' | | | | (TOC @ 10,410') |



| Additive | Purpose | | | | |
|---------------------|---|--|--|--|--|
| Bentonite Gel | Lightweight/Lost circulation prevention | | | | |
| Calcium Chloride | Accelerator | | | | |
| Cello-flake | Lost circulation prevention | | | | |
| Sodium Metasilicate | Accelerator | | | | |
| MagOx | Expansive agent | | | | |
| Pre-Mag-M | Expansive agent | | | | |
| Sodium Chloride | Accelerator | | | | |
| FL-62 | Fluid loss control | | | | |
| Halad-344 | Fluid loss control | | | | |
| Halad-9 | Fluid loss control | | | | |
| HR-601 | Retarder | | | | |
| Microbond | Expansive Agent | | | | |

EOG requests variance from minimum standards to pump a two stage cement job on the 7-5/8" intermediate casing string with the first stage being pumped conventionally with the calculated top of cement at the Brushy Canyon (7,096') and the second stage performed as a 1000 sack bradenhead squeeze with planned cement from the Brushy Canyon to surface. If necessary, a top out consisting of 180 sacks of Class C cement + 3% Salt + 1% PreMag-M + 6% Bentonite Gel (2.30 yld, 12.91 ppg) will be executed as a contingency. Top will be verified by Echo-meter.

EOG will include the Echo-meter verified fluid top and the volume of displacement fluid above the cement slurry in the annulus in all post-drill sundries on wells utilizing this cement program.

EOG will report to the BLM the volume of fluid (limited to 5 bbls) used to flush intermediate casing valves following backside cementing procedures.

Mud Program:

| Measured Depth | Type | Weight (ppg) | Viscosity | Water Loss |
|------------------------------|-------------|--------------|-----------|------------|
| 0 – 920' | Fresh - Gel | 8.6-8.8 | 28-34 | N/c |
| 920' – 10,910' | Brine | 10.0-10.2 | 28-34 | N/c |
| 10,910' – 11,615' | Oil Base | 8.7-9.4 | 58-68 | N/c - 6 |
| 11,615' – 22,265' Lateral | Oil Base | 10.0-14.0 | 58-68 | 4 - 6 |



Wellhead & Offline Cementing:

EOG Resources Inc. (EOG) respectfully requests a variance from the minimum standards for well control equipment testing of Onshore Order No. 2 (item III.A.2.a.i) to allow a testing schedule of the blow out preventer (BOP) and blow out prevention equipment (BOPE) along with Batch Drilling & Offline cement operations to include the following:

- Full BOPE test at first installation on the pad.
- Full BOPE test every 21 days per Onshore Order No. 2.
- Function test BOP elements per Onshore Order No. 2.
- Break testing BOP and BOPE coupled with batch drilling operations and option to offline cement and/or remediate (if needed) any surface or intermediate sections, according to attached offline cementing support documentation.
- After the well section is secured, the BOP will be disconnected from the wellhead and walked with the rig to another well on the pad.
- TA cap will also be installed per Wellhead vendor procedure and pressure inside the casing will be monitored via the valve on the TA cap as per standard batch drilling ops.
- See attached "EOG BLM Variance 3a -Offline Cement Intermediate Operational Procedure"



TUBING REQUIREMENTS

EOG respectively requests an exception to the following NMOCD rule:

• 19.15.16.10 Casing AND TUBING RQUIREMENTS: J (3): "The operator shall set tubing as near the bottom as practical and tubing perforations shall not be more than 250 feet above top of pay zone."

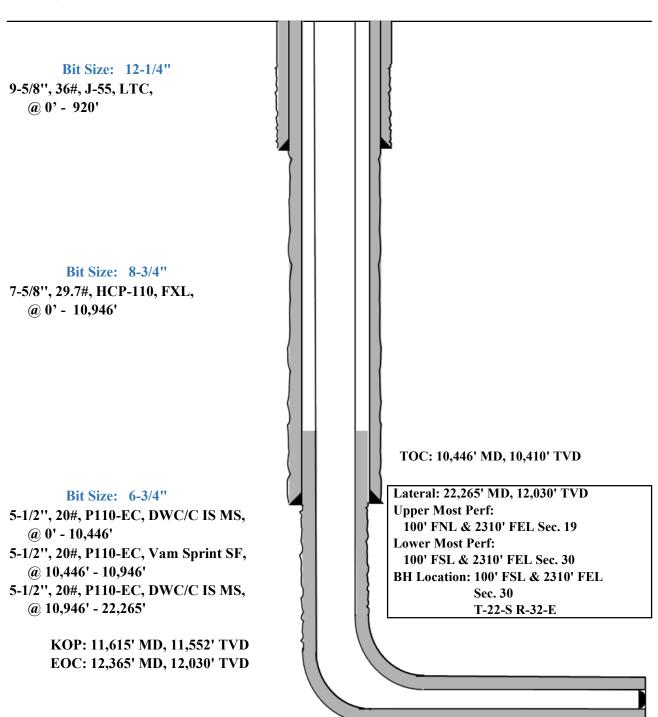
With horizontal flowing and gas lifted wells an end of tubing depth placed at or slightly above KOP is a conservative way to ensure the tubing stays clean from debris, plugging, and allows for fewer well interventions post offset completion. The deeper the tubulars are run into the curve, the higher the probability is that the tubing will become stuck in sand and or well debris as the well produces over time. An additional consideration for EOT placement during artificial lift installations is avoiding the high dog leg severity and inclinations found in the curve section of the wellbore to help improve reliability and performance. Dog leg severity and inclinations tend not to hamper gas lifted or flowing wells, but they do effect other forms of artificial lift like rod pump or ESP (electric submersible pump). Keeping the EOT above KOP is an industry best practice for those respective forms of artificial lift.



885' FNL Revised Wellbore KB: 3660' 2111' FEL GL: 3635'

Section 19

T-22-S, R-32-E API: 30-025-51186





Design B

4. CASING PROGRAM

| Hole | Interv | erval MD In | | Interval TVD | | | | |
|--------|-----------|-------------|-----------|--------------|---------|--------|---------|------------|
| Size | From (ft) | To (ft) | From (ft) | To (ft) | OD | Weight | Grade | Conn |
| 13" | 0 | 920 | 0 | 920 | 10-3/4" | 40.5# | J-55 | STC |
| 9-7/8" | 0 | 10,946 | 0 | 10,910 | 8-3/4" | 38.5# | P110-EC | SLIJ II NA |
| 7-7/8" | 0 | 22,265 | 0 | 12,030 | 6" | 22.3# | P110-EC | DWC/C IS |

Variance is requested to waive the centralizer requirements for the 8-3/4" casing in the 9-7/8" hole size. An expansion additive will be utilized, in the cement slurry, for the entire length of the 9-7/8" hole interval to maximize cement bond and zonal isolation.

Variance is also requested to waive any centralizer requirements for the 6" casing in the 7-7/8" hole size. An expansion additive will be utilized, in the cement slurry, for the entire length of the 7-7/8" hole interval to maximize cement bond and zonal isolation.

Variance is also requested to waive the annular clearance requirements for the 6" casing by 8-3/4" casing annulus to the proposed top of cement.

EOG requests permission to allow deviation from the 0.422" annulus clearance requirement from Onshore Order #2 under the following conditions:

- Annular clearance to meet or exceed 0.422" between intermediate casing ID and production casing coupling only on the first 500" overlap between both casing strings.
- Annular clearance less than 0.422" is acceptable for the production open hole section.

Cementing Program:

| <u>-cumen</u> | ting I rogi | | | |
|---------------|-------------|------|--------|--|
| | | Wt. | Yld | Slurry Description |
| Depth | No. Sacks | ppg | Ft3/sk | Starry Bescription |
| 920' | 250 | 13.5 | 1.73 | Lead: Class C + 4.0% Bentonite Gel + 0.5% CaCl2 + 0.25 lb/sk |
| 10-3/4" | | | | Cello-Flake (TOC @ Surface) |
| | 70 | 14.8 | 1.34 | Tail: Class C + 0.6% FL-62 + 0.25 lb/sk Cello-Flake + 0.2% |
| | | | | Sodium Metasilicate (TOC @ 720') |
| 10,910' | 540 | 14.2 | 1.11 | 1st Stage (Tail): Class C + 0.6% Halad-9 + 0.45% HR-601 + 3% |
| 8-3/4" | | | | Microbond (TOC @ 6,900') |
| | 1340 | 14.8 | 1.5 | 2nd Stage (Bradenhead squeeze): Class C + 3% Salt + 1% PreMag- |
| | | | | M + 6% Bentonite Gel (TOC @ surface) |
| 22,265' | 1650 | 13.2 | 1.31 | Lead: Class H + 0.4% Halad-344 + 0.35% HR-601 + 3% Microbond |
| 6" | | | | (TOC @ 10,410') |



EOG requests variance from minimum standards to pump a two stage cement job on the 8-3/4" intermediate casing string with the first stage being pumped conventionally with the calculated top of cement at the Brushy Canyon (7,096') and the second stage performed as a 1000 sack bradenhead squeeze with planned cement from the Brushy Canyon to surface. If necessary, a top out consisting of 338 sacks of Class C cement + 3% Salt + 1% PreMag-M + 6% Bentonite Gel (2.30 yld, 12.91 ppg) will be executed as a contingency. Top will be verified by Echo-meter.

EOG will include the Echo-meter verified fluid top and the volume of displacement fluid above the cement slurry in the annulus in all post-drill sundries on wells utilizing this cement program.

EOG will report to the BLM the volume of fluid (limited to 5 bbls) used to flush intermediate casing valves following backside cementing procedures.

Wellhead & Offline Cementing:

EOG Resources Inc. (EOG) respectfully requests a variance from the minimum standards for well control equipment testing of Onshore Order No. 2 (item III.A.2.a.i) to allow a testing schedule of the blow out preventer (BOP) and blow out prevention equipment (BOPE) along with Batch Drilling & Offline cement operations to include the following:

- Full BOPE test at first installation on the pad.
- Full BOPE test every 21 days per Onshore Order No. 2.
- Function test BOP elements per Onshore Order No. 2.
- Break testing BOP and BOPE coupled with batch drilling operations and option to
 offline cement and/or remediate (if needed) any surface or intermediate sections,
 according to attached offline cementing support documentation.
- After the well section is secured, the BOP will be disconnected from the wellhead and walked with the rig to another well on the pad.
- TA cap will also be installed per Wellhead vendor procedure and pressure inside the casing will be monitored via the valve on the TA cap as per standard batch drilling ops.
- See attached "EOG BLM Variance 3a -Offline Cement Intermediate Operational Procedure"



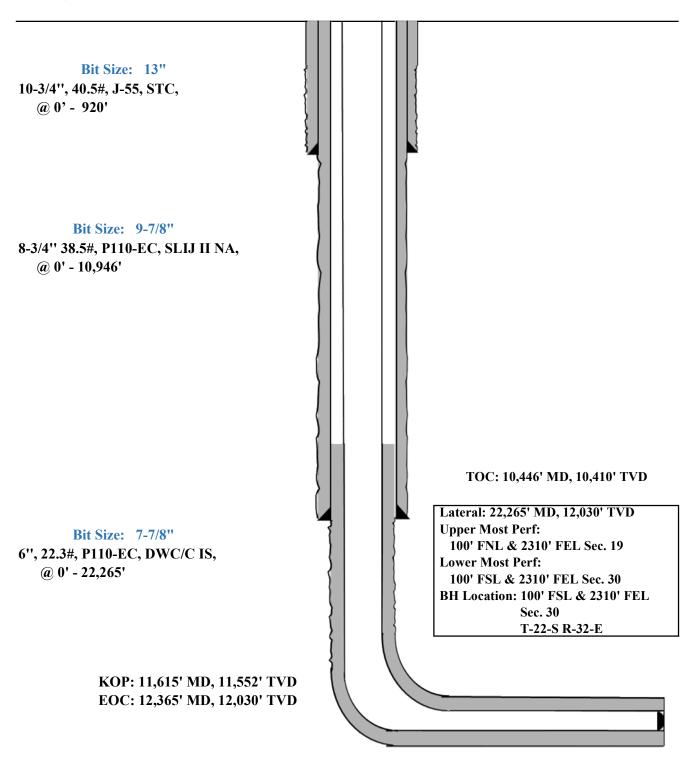
885' FNL 2111' FEL **Proposed Wellbore**

KB: 3660' GL: 3635'

Section 19

T-22-S, R-32-E

API: 30-025-51186





Midland

Lea County, NM (NAD 83 NME) Amazing 19 Fed #714H

OH

Plan: Plan #0.2

Standard Planning Report

18 April, 2023



Database: Company: PEDM

Midland

Project: Lea County, NM (NAD 83 NME)

Amazing 19 Fed Site: Well: #714H

Wellbore: OH Plan #0.2 Design:

Local Co-ordinate Reference:

TVD Reference: MD Reference: North Reference:

Survey Calculation Method:

Well #714H

kb = 25' @ 3660.0usft kb = 25' @ 3660.0usft

Grid

Minimum Curvature

Project

Lea County, NM (NAD 83 NME)

Map System: Geo Datum:

Map Zone:

US State Plane 1983 North American Datum 1983 New Mexico Fastern Zone

System Datum:

Mean Sea Level

Amazing 19 Fed Site

Site Position: From:

Мар

Northing: Easting:

503,794.00 usft 734,151.00 usft

Latitude: Longitude:

32° 23' 0.425 N 103° 42' 31.400 W

Slot Radius: 13-3/16 " **Position Uncertainty:** 0.0 usft

Well #714H

Well Position +N/-S

+E/-W

0.0 usft 0.0 usft 0.0 usft

Northing: Easting:

Wellhead Elevation:

503,208.00 usft Latitude: 733,088.00 usft Longitude: usft

32° 22' 54.687 N 103° 42' 43.836 W

Ground Level: 3,635.0 usft

Grid Convergence: 0.33 °

Wellbore

Position Uncertainty

ОН

Plan #0.2

Magnetics **Model Name** Declination Dip Angle Field Strength Sample Date (°) (°) (nT) 47,664.94996562 IGRF2020 7/22/2020 6.73 60.05

Design

Audit Notes:

Version:

Phase:

PLAN

Tie On Depth:

0.0

Vertical Section: Depth From (TVD) +N/-S +E/-W Direction (usft) (usft) (usft) (°) 0.0 0.0 0.0 180.80

Plan Survey Tool Program

4/18/2023 Date

Depth From Depth To (usft) (usft)

0.0 22,264.5 Survey (Wellbore)

Plan #0.2 (OH)

Tool Name

Remarks

MWD + IFR1

EOG MWD+IFR1

Plan Sections Dogleg Vertical Build Measured Turn Depth Inclination Azimuth Depth +N/-S +E/-W Rate Rate Rate TFO (usft) (°) (°) (usft) (usft) (usft) (°/100usft) (°/100usft) (°/100usft) (°) Target 0.0 0.00 0.00 0.0 0.0 0.0 0.00 0.00 0.00 0.00 1,000.0 0.00 0.00 1,000.0 0.0 0.0 0.00 0.00 0.00 0.00 1,237.4 4.75 346.22 1,237.1 9.5 -2.3 2.00 2.00 0.00 346.22 11,350.4 4.75 346.22 11,315.4 822.5 -201.7 0.00 0.00 0.00 0.00 11,587.7 0.00 0.00 11,552.5 832.0 -204.0 2.00 -2.00 0.00 180.00 KOP(Amazing 19 Fed 11,765.2 180.00 FTP(Amazing 19 Fed 11,808.2 26.46 180.00 782.0 -204.0 12.00 12.00 -81.65 12,337.7 90.00 179.61 12,029.9 354.5 -202.0 12.00 12.00 -0.07 12,030.0 -9,572.0 -134.0 22,264.5 90.00 179.61 0.00 0.00 0.00 0.00 PBHL(Amazing 19 Fe



Database: PEDM Company: Midland

Project: Lea County, NM (NAD 83 NME)

Site: Amazing 19 Fed Well: #714H

Wellbore: OH
Design: Plan #0.2

Local Co-ordinate Reference:

TVD Reference:
MD Reference:
North Reference:

Survey Calculation Method:

Well #714H

kb = 25' @ 3660.0usft kb = 25' @ 3660.0usft

Grid

| Measured Depth (usft) | Inclination (°) | Azimuth (°) | Vertical Depth (usft) | +N/-S (usft) | +E/-W (usft) | Vertical Section (usft) | Dogleg Rate (°/100usft) | Build Rate (°/100usft) | Turn Rate (°/100usft) |
|-----------------------------|--------------------|----------------|-----------------------------|-----------------|-----------------|-------------------------------|-------------------------------|------------------------------|-----------------------------|
| 0.0 | 0.00 | 0.00 | 0.0 | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 |
| 100.0 | 0.00 | 0.00 | 100.0 | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 |
| 200.0 | 0.00 | 0.00 | 200.0 | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 |
| 300.0 | 0.00 | 0.00 | 300.0 | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 |
| 400.0 | 0.00 | 0.00 | 400.0 | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 |
| | | | | | | | | | |
| 500.0 | 0.00 | 0.00 | 500.0 | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 |
| 600.0 | 0.00 | 0.00 | 600.0 | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 |
| 700.0 | 0.00 | 0.00 | 700.0 | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 |
| 0.008 | 0.00 | 0.00 | 800.0 | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 |
| 900.0 | 0.00 | 0.00 | 900.0 | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 |
| 1,000.0 | 0.00 | 0.00 | 1,000.0 | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 |
| 1,100.0 | 2.00 | 346.22 | 1,100.0 | 1.7 | -0.4 | -1.7 | 2.00 | 2.00 | 0.00 |
| | | | | | | | | | |
| 1,200.0 | 4.00 | 346.22 | 1,199.8 | 6.8 | -1.7 | -6.8 | 2.00 | 2.00 | 0.00 |
| 1,237.4 | 4.75 | 346.22 | 1,237.1 | 9.5 | -2.3 | -9.5 | 2.00 | 2.00 | 0.00 |
| 1,300.0 | 4.75 | 346.22 | 1,299.5 | 14.6 | -3.6 | -14.5 | 0.00 | 0.00 | 0.00 |
| 1,400.0 | 4.75 | 346.22 | 1,399.2 | 22.6 | -5.5 | -22.5 | 0.00 | 0.00 | 0.00 |
| 1,500.0 | 4.75 | 346.22 | 1,498.8 | 30.7 | -7.5 | -30.5 | 0.00 | 0.00 | 0.00 |
| 1,600.0 | 4.75 | 346.22 | 1,598.5 | 38.7 | -9.5 | -38.6 | 0.00 | 0.00 | 0.00 |
| 1,700.0 | 4.75 | 346.22 | 1,698.1 | 46.7 | -11.5 | -46.6 | 0.00 | 0.00 | 0.00 |
| 1,800.0 | 4.75 | 346.22 | 1,797.8 | 54.8 | -13.4 | -54.6 | 0.00 | 0.00 | 0.00 |
| | | | | | | | | | |
| 1,900.0 | 4.75 | 346.22 | 1,897.5 | 62.8 | -15.4 | -62.6 | 0.00 | 0.00 | 0.00 |
| 2,000.0 | 4.75 | 346.22 | 1,997.1 | 70.8 | -17.4 | -70.6 | 0.00 | 0.00 | 0.00 |
| 2,100.0 | 4.75 | 346.22 | 2,096.8 | 78.9 | -19.3 | -78.6 | 0.00 | 0.00 | 0.00 |
| 2,200.0 | 4.75 | 346.22 | 2,196.4 | 86.9 | -21.3 | -86.6 | 0.00 | 0.00 | 0.00 |
| 2,300.0 | 4.75 | 346.22 | 2,296.1 | 95.0 | -23.3 | -94.6 | 0.00 | 0.00 | 0.00 |
| 2,400.0 | 4.75 | 346.22 | 2,395.7 | 103.0 | -25.3 | -102.6 | 0.00 | 0.00 | 0.00 |
| 2,500.0 | 4.75 | 346.22 | 2,495.4 | 111.0 | -27.2 | -110.6 | 0.00 | 0.00 | 0.00 |
| 2,600.0 | 4.75 | 346.22 | 2,595.1 | 119.1 | -29.2 | -118.7 | 0.00 | 0.00 | 0.00 |
| 2,700.0 | 4.75 | 346.22 | 2,694.7 | 127.1 | -31.2 | -126.7 | 0.00 | 0.00 | 0.00 |
| 2,800.0 | 4.75 | 346.22 | 2,794.4 | 135.2 | -33.1 | -134.7 | 0.00 | 0.00 | 0.00 |
| | | | | | | | | | |
| 2,900.0 | 4.75 | 346.22 | 2,894.0 | 143.2 | -35.1 | -142.7 | 0.00 | 0.00 | 0.00 |
| 3,000.0 | 4.75 | 346.22 | 2,993.7 | 151.2 | -37.1 | -150.7 | 0.00 | 0.00 | 0.00 |
| 3,100.0 | 4.75 | 346.22 | 3,093.3 | 159.3 | -39.1 | -158.7 | 0.00 | 0.00 | 0.00 |
| 3,200.0 | 4.75 | 346.22 | 3,193.0 | 167.3 | -41.0 | -166.7 | 0.00 | 0.00 | 0.00 |
| 3,300.0 | 4.75 | 346.22 | 3,292.7 | 175.3 | -43.0 | -174.7 | 0.00 | 0.00 | 0.00 |
| 3,400.0 | 4.75 | 346.22 | 3,392.3 | 183.4 | -45.0 | -182.7 | 0.00 | 0.00 | 0.00 |
| 3,500.0 | 4.75 | 346.22 | 3,492.0 | 191.4 | -46.9 | -190.7 | 0.00 | 0.00 | 0.00 |
| 3,600.0 | 4.75 | 346.22 | 3,591.6 | 199.5 | -48.9 | -190.7 | 0.00 | 0.00 | 0.00 |
| 3,700.0 | | 346.22 | | 207.5 | | -196.6 | | | |
| 3,700.0 | 4.75 | | 3,691.3 | | -50.9 -52.8 | | 0.00 0.00 | 0.00 0.00 | 0.00 0.00 |
| | 4.75 | 346.22 | 3,790.9 | 215.5 | | -214.8 | | | |
| 3,900.0 | 4.75 | 346.22 | 3,890.6 | 223.6 | -54.8 | -222.8 | 0.00 | 0.00 | 0.00 |
| 4,000.0 | 4.75 | 346.22 | 3,990.3 | 231.6 | -56.8 | -230.8 | 0.00 | 0.00 | 0.00 |
| 4,100.0 | 4.75 | 346.22 | 4,089.9 | 239.7 | -58.8 | -238.8 | 0.00 | 0.00 | 0.00 |
| 4,200.0 | 4.75 | 346.22 | 4,189.6 | 247.7 | -60.7 | -246.8 | 0.00 | 0.00 | 0.00 |
| 4,300.0 | 4.75 | 346.22 | 4,289.2 | 255.7 | -62.7 | -254.8 | 0.00 | 0.00 | 0.00 |
| 4,400.0 | | 346.22 | 4,388.9 | | -64.7 | | 0.00 | | 0.00 |
| | 4.75 | | | 263.8 | | -262.8 | | 0.00 | |
| 4,500.0 | 4.75 | 346.22 | 4,488.5 | 271.8 | -66.6 | -270.8 | 0.00 | 0.00 | 0.00 |
| 4,600.0 | 4.75 | 346.22 | 4,588.2 | 279.8 | -68.6 | -278.9 | 0.00 | 0.00 | 0.00 |
| 4,700.0 | 4.75 | 346.22 | 4,687.8 | 287.9 | -70.6 | -286.9 | 0.00 | 0.00 | 0.00 |
| 4,800.0 | 4.75 | 346.22 | 4,787.5 | 295.9 | -72.6 | -294.9 | 0.00 | 0.00 | 0.00 |
| 4,900.0 | 4.75 | 346.22 | 4,887.2 | 304.0 | -74.5 | -302.9 | 0.00 | 0.00 | 0.00 |
| 5,000.0 | 4.75 | 346.22 | 4,986.8 | 312.0 | -76.5 | -310.9 | 0.00 | 0.00 | 0.00 |
| 5,100.0 | 4.75 | 346.22 | 5,086.5 | 320.0 | -78.5 | -318.9 | 0.00 | 0.00 | 0.00 |
| 5,200.0 | 4.75 | 346.22 | 5,186.1 | 328.1 | -80.4 | -326.9 | 0.00 | 0.00 | 0.00 |

eog resources

Planning Report

Database: PEDM Company: Midland

Project: Lea County, NM (NAD 83 NME)

Plan #0.2

 Site:
 Amazing 19 Fed

 Well:
 #714H

 Wellbore:
 OH

Design:

Local Co-ordinate Reference:

TVD Reference:
MD Reference:
North Reference:

North Reference: Survey Calculation Method: Well #714H

kb = 25' @ 3660.0usft kb = 25' @ 3660.0usft

Grid

| esign: | Plan #0.2 | | | | | | | | |
|-----------------------------|--------------------|----------------|-----------------------------|-----------------|-----------------|-------------------------------|-------------------------------|------------------------------|-----------------------------|
| Planned Survey | | | | | | | | | |
| Measured Depth (usft) | Inclination (°) | Azimuth (°) | Vertical Depth (usft) | +N/-S (usft) | +E/-W (usft) | Vertical Section (usft) | Dogleg Rate (°/100usft) | Build Rate (°/100usft) | Turn Rate (°/100usft) |
| 5,300.0 | 4.75 | 346.22 | 5,285.8 | 336.1 | -82.4 | -334.9 | 0.00 | 0.00 | 0.00 |
| 5,400.0 | 4.75 | 346.22 | 5,385.4 | 344.1 | -84.4 | -342.9 | 0.00 | 0.00 | 0.00 |
| 5,500.0 | 4.75 | 346.22 | 5,485.1 | 352.2 | -86.4 | -350.9 | 0.00 | 0.00 | 0.00 |
| 5,600.0 | 4.75 | 346.22 | 5,584.8 | 360.2 | -88.3 | -359.0 | 0.00 | 0.00 | 0.00 |
| 5,700.0 | 4.75 | 346.22 | 5,684.4 | 368.3 | -90.3 | -367.0 | 0.00 | 0.00 | 0.00 |
| 5,800.0 | 4.75 | 346.22 | 5,784.1 | 376.3 | -92.3 | -375.0 | 0.00 | 0.00 | 0.00 |
| 5.900.0 | 4.75 | 346.22 | 5,883.7 | 384.3 | -94.2 | -383.0 | 0.00 | 0.00 | 0.00 |
| 6,000.0 | 4.75 | 346.22 | 5,983.4 | 392.4 | -96.2 | -391.0 | 0.00 | 0.00 | 0.00 |
| 6,100.0 | 4.75 | 346.22 | 6,083.0 | 400.4 | -98.2 | -399.0 | 0.00 | 0.00 | 0.00 |
| 6,200.0 | 4.75 | 346.22 | 6,182.7 | 408.5 | -100.1 | -407.0 | 0.00 | 0.00 | 0.00 |
| 6,300.0 | 4.75 | 346.22 | 6,282.4 | 416.5 | -102.1 | -415.0 | 0.00 | 0.00 | 0.00 |
| 6,400.0 | 4.75 | 346.22 | 6,382.0 | 424.5 | -104.1 | -423.0 | 0.00 | 0.00 | 0.00 |
| 6,500.0 | 4.75 | 346.22 | 6,481.7 | 432.6 | -106.1 | -431.0 | 0.00 | 0.00 | 0.00 |
| 6,600.0 | 4.75 | 346.22 | 6,581.3 | 440.6 | -108.0 | -439.1 | 0.00 | 0.00 | 0.00 |
| 6,700.0 | 4.75 | 346.22 | 6,681.0 | 448.6 | -110.0 | -447.1 | 0.00 | 0.00 | 0.00 |
| 6,800.0 | 4.75 | 346.22 | 6,780.6 | 456.7 | -112.0 | -455.1 | 0.00 | 0.00 | 0.00 |
| 6,900.0 | 4.75 | 346.22 | 6,880.3 | 464.7 | -113.9 | -463.1 | 0.00 | 0.00 | 0.00 |
| 7,000.0 | 4.75 | 346.22 | 6,980.0 | 472.8 | -115.9 | -471.1 | 0.00 | 0.00 | 0.00 |
| 7,100.0 | 4.75 | 346.22 | 7,079.6 | 480.8 | -117.9 | -479.1 | 0.00 | 0.00 | 0.00 |
| 7,200.0 | 4.75 | 346.22 | 7,179.3 | 488.8 | -119.9 | -487.1 | 0.00 | 0.00 | 0.00 |
| 7,300.0 | 4.75 | 346.22 | 7,278.9 | 496.9 | -121.8 | -495.1 | 0.00 | 0.00 | 0.00 |
| 7,400.0 | 4.75 | 346.22 | 7,378.6 | 504.9 | -123.8 | -503.1 | 0.00 | 0.00 | 0.00 |
| 7,500.0 | 4.75 | 346.22 | 7,478.2 | 513.0 | -125.8 | -511.1 | 0.00 | 0.00 | 0.00 |
| 7,600.0 | 4.75 | 346.22 | 7,577.9 | 521.0 | -127.7 | -519.2 | 0.00 | 0.00 | 0.00 |
| 7,700.0 | 4.75 | 346.22 | 7,677.6 | 529.0 | -129.7 | -527.2 | 0.00 | 0.00 | 0.00 |
| 7,800.0 | 4.75 | 346.22 | 7,777.2 | 537.1 | -131.7 | -535.2 | 0.00 | 0.00 | 0.00 |
| 7,900.0 | 4.75 | 346.22 | 7,876.9 | 545.1 | -133.7 | -543.2 | 0.00 | 0.00 | 0.00 |
| 8,000.0 | 4.75 | 346.22 | 7,976.5 | 553.1 | -135.6 | -551.2 | 0.00 | 0.00 | 0.00 |
| 8,100.0 | 4.75 | 346.22 | 8,076.2 | 561.2 | -137.6 | -559.2 | 0.00 | 0.00 | 0.00 |
| 8,200.0 | 4.75 | 346.22 | 8,175.8 | 569.2 | -139.6 | -567.2 | 0.00 | 0.00 | 0.00 |
| 8,300.0 | 4.75 | 346.22 | 8,275.5 | 577.3 | -141.5 | -575.2 | 0.00 | 0.00 | 0.00 |
| 8,400.0 | 4.75 | 346.22 | 8,375.2 | 585.3 | -143.5 | -583.2 | 0.00 | 0.00 | 0.00 |
| 8,500.0 | 4.75 | 346.22 | 8,474.8 | 593.3 | -145.5 | -591.2 | 0.00 | 0.00 | 0.00 |
| 8,600.0 | 4.75 | 346.22 | 8,574.5 | 601.4 | -147.5 | -599.2 | 0.00 | 0.00 | 0.00 |
| 8,700.0 | 4.75 | 346.22 | 8,674.1 | 609.4 | -149.4 | -607.3 | 0.00 | 0.00 | 0.00 |
| 8,800.0 | 4.75 | 346.22 | 8,773.8 | 617.4 | -151.4 | -615.3 | 0.00 | 0.00 | 0.00 |
| 8,900.0 | 4.75 | 346.22 | 8,873.4 | 625.5 | -153.4 | -623.3 | 0.00 | 0.00 | 0.00 |
| 9,000.0 | 4.75 | 346.22 | 8,973.1 | 633.5 | -155.3 | -631.3 | 0.00 | 0.00 | 0.00 |
| 9,100.0 | 4.75 | 346.22 | 9,072.8 | 641.6 | -157.3 | -639.3 | 0.00 | 0.00 | 0.00 |
| 9,200.0 | 4.75 | 346.22 | 9,172.4 | 649.6 | -159.3 | -647.3 | 0.00 | 0.00 | 0.00 |
| 9,300.0 | 4.75 | 346.22 | 9,272.1 | 657.6 | -161.2 | -655.3 | 0.00 | 0.00 | 0.00 |
| 9,400.0 | 4.75 | 346.22 | 9,371.7 | 665.7 | -163.2 | -663.3 | 0.00 | 0.00 | 0.00 |
| 9,500.0 | 4.75 | 346.22 | 9,471.4 | 673.7 | -165.2 | -671.3 | 0.00 | 0.00 | 0.00 |
| 9,600.0 | 4.75 | 346.22 | 9,571.0 | 681.8 | -167.2 | -679.3 | 0.00 | 0.00 | 0.00 |
| 9,700.0 | 4.75 | 346.22 | 9,670.7 | 689.8 | -169.1 | -687.4 | 0.00 | 0.00 | 0.00 |
| 9,800.0 | 4.75 | 346.22 | 9,770.4 | 697.8 | -171.1 | -695.4 | 0.00 | 0.00 | 0.00 |
| 9,900.0 | 4.75 | 346.22 | 9,870.0 | 705.9 | -173.1 | -703.4 | 0.00 | 0.00 | 0.00 |
| 10,000.0 | 4.75 | 346.22 | 9,969.7 | 713.9 | -175.0 | -711.4 | 0.00 | 0.00 | 0.00 |
| 10,100.0 | 4.75 | 346.22 | 10,069.3 | 721.9 | -177.0 | -719.4 | 0.00 | 0.00 | 0.00 |
| 10,200.0 | 4.75 | 346.22 | 10,169.0 | 730.0 | -179.0 | -727.4 | 0.00 | 0.00 | 0.00 |
| 10,300.0 | 4.75 | 346.22 | 10,268.6 | 738.0 | -181.0 | -735.4 | 0.00 | 0.00 | 0.00 |
| 10,400.0 | 4.75 | 346.22 | 10,368.3 | 746.1 | -182.9 | -743.4 | 0.00 | 0.00 | 0.00 |
| 10,500.0 | 4.75 | 346.22 | 10,468.0 | 754.1 | -184.9 | -751.4 | 0.00 | 0.00 | 0.00 |
| 10,600.0 | 4.75 | 346.22 | 10,567.6 | 762.1 | -186.9 | -759.4 | 0.00 | 0.00 | 0.00 |

eog resources

Planning Report

Database: PEDM Company: Midland

Project: Lea County, NM (NAD 83 NME)

Site: Amazing 19 Fed

 Well:
 #714H

 Wellbore:
 OH

 Design:
 Plan #0.2

Local Co-ordinate Reference:

TVD Reference:
MD Reference:
North Reference:

Survey Calculation Method:

Well #714H

kb = 25' @ 3660.0usft kb = 25' @ 3660.0usft

Grid

| esign: | FIAII #0.2 | | | | | | | | |
|-----------------------------|--------------------|------------------|-----------------------------|------------------|------------------|-------------------------------|-------------------------------|------------------------------|-----------------------------|
| lanned Survey | | | | | | | | | |
| Measured Depth (usft) | Inclination (°) | Azimuth (°) | Vertical Depth (usft) | +N/-S (usft) | +E/-W (usft) | Vertical Section (usft) | Dogleg Rate (°/100usft) | Build Rate (°/100usft) | Turn Rate (°/100usft) |
| 10,700.0 | 4.75 | 346.22 | 10,667.3 | 770.2 | -188.8 | -767.5 | 0.00 | 0.00 | 0.00 |
| 10,800.0 | 4.75 | 346.22 | 10,766.9 | 778.2 | -190.8 | -775.5 | 0.00 | 0.00 | 0.00 |
| 10,900.0 | 4.75 | 346.22 | 10,866.6 | 786.3 | -192.8 | -783.5 | 0.00 | 0.00 | 0.00 |
| 11,000.0 | 4.75 | 346.22 | 10,966.2 | 794.3 | -194.8 | -791.5 | 0.00 | 0.00 | 0.00 |
| 11,100.0 | 4.75 | 346.22 | 11,065.9 | 802.3 | -196.7 | -799.5 | 0.00 | 0.00 | 0.00 |
| 11,200.0 | 4.75 | 346.22 | 11,165.5 | 810.4 | -198.7 | -807.5 | 0.00 | 0.00 | 0.00 |
| 11,300.0 | 4.75 | 346.22 | 11,265.2 | 818.4 | -200.7 | -815.5 | 0.00 | 0.00 | 0.00 |
| 11,350.4 | 4.75 | 346.22 | 11,315.4 | 822.5 | -201.7 | -819.6 | 0.00 | 0.00 | 0.00 |
| 11,400.0 | 3.75 | 346.22 | 11,364.9 | 826.0 | -202.5 | -823.1 | 2.00 | -2.00 | 0.00 |
| 11,500.0 | 1.75 | 346.22 | 11,464.8 | 830.7 | -203.7 | -827.8 | 2.00 | -2.00 | 0.00 |
| 11,587.7 | 0.00 | 0.00 | 11,552.5 | 832.0 | -204.0 | -829.1 | 2.00 | -2.00 | 0.00 |
| 11,600.0 | 1.47 | 180.00 | 11,564.8 | 831.8 | -204.0 | -828.9 | 12.00 | 12.00 | 0.00 |
| 11,625.0 | 4.47 | 180.00 | 11,589.7 | 830.5 | -204.0 | -827.6 | 12.00 | 12.00 | 0.00 |
| 11,650.0 | 7.47 | 180.00 | 11,614.6 | 827.9 | -204.0 | -825.0 | 12.00 | 12.00 | 0.00 |
| 11,675.0 | 10.47 | 180.00 | 11,639.3 | 824.0 | -204.0 | -821.1 | 12.00 | 12.00 | 0.00 |
| 11,700.0 | 13.47 | 180.00 | 11,663.7 | 818.9 | -204.0 | -815.9 | 12.00 | 12.00 | 0.00 |
| 11,725.0 | 16.47 | 180.00 | 11,687.9 | 812.4 | -204.0 | -809.5 | 12.00 | 12.00 | 0.00 |
| 11,750.0 | 19.47 | 180.00 | 11,711.7 | 804.7 | -204.0 | -801.8 | 12.00 | 12.00 | 0.00 |
| 11,775.0 | 22.47 | 180.00 | 11,735.0 | 795.7 | -204.0 | -792.8 | 12.00 | 12.00 | 0.00 |
| 11,800.0 | 25.47 | 180.00 | 11,757.8 | 785.6 | -204.0 | -782.7 | 12.00 | 12.00 | 0.00 |
| 11,808.2 | 26.46 | 180.00 | 11,765.2 | 782.0 | -204.0 | -779.1 | 12.00 | 12.00 | 0.00 |
| 11,825.0 | 28.47 | 179.97 | 11,780.1 | 774.2 | -204.0 | -771.3 | 12.00 | 12.00 | -0.19 |
| 11,850.0 | 31.47 | 179.93 | 11,801.8 | 761.8 | -204.0 | -758.8 | 12.00 | 12.00 | -0.16 |
| 11,875.0 | 31.47 34.47 | 179.93 | 11,822.7 | 748.2 | -204.0 -204.0 | -756.6 -745.2 | 12.00 | 12.00 | -0.16 -0.14 |
| 11,900.0 | 34.47 37.47 | 179.86 | 11,843.0 | 733.5 | -204.0 | -745.2 -730.5 | 12.00 | 12.00 | -0.14 |
| 11,925.0 | 40.47 | 179.84 | 11,862.4 | 717.7 | -203.9 | -730.3 -714.8 | 12.00 | 12.00 | -0.12 |
| 11,950.0 | 43.47 | 179.81 | 11,881.0 | 701.0 | -203.8 | -698.1 | 12.00 | 12.00 | -0.09 |
| | | | | | | | | | |
| 11,975.0 | 46.47 | 179.79 | 11,898.7 11,915.4 | 683.4 664.8 | -203.8 -203.7 | -680.4 -661.9 | 12.00 | 12.00 12.00 | -0.08 |
| 12,000.0 12,025.0 | 49.47 52.47 | 179.77 179.76 | 11,931.1 | 645.4 | -203.7 -203.6 | -642.5 | 12.00 12.00 | 12.00 | -0.07 -0.07 |
| 12,025.0 | 55.47 55.47 | 179.76 | 11,945.8 | 625.2 | -203.5 | -622.2 | 12.00 | 12.00 | -0.06 |
| 12,075.0 | 58.47 | 179.73 | 11,959.5 | 604.2 | -203.4 | -601.3 | 12.00 | 12.00 | -0.06 |
| 10 100 0 | | 170 71 | 11 072 0 | | 202.2 | F70.7 | 12.00 | | 0.05 |
| 12,100.0 12,125.0 | 61.47 64.47 | 179.71 179.70 | 11,972.0 11,983.3 | 582.6 560.3 | -203.3 -203.2 | -579.7 -557.4 | 12.00 12.00 | 12.00 12.00 | -0.05 -0.05 |
| 12,125.0 | 67.47 | 179.70 | 11,963.5 | 537.5 | -203.2 -203.1 | -534.6 | 12.00 | 12.00 | -0.05 -0.05 |
| 12,175.0 | 70.47 | 179.68 | 12,002.5 | 514.1 | -203.1 | -534.0 -511.2 | 12.00 | 12.00 | -0.05 |
| 12,200.0 | 73.47 | 179.67 | 12,010.2 | 490.4 | -202.8 | -487.5 | 12.00 | 12.00 | -0.05 |
| | | | | | | | | | |
| 12,225.0 | 76.47 | 179.65 | 12,016.7 | 466.2 | -202.7 | -463.3 | 12.00 | 12.00 | -0.04 |
| 12,250.0 | | 179.64 | 12,021.9 12,025.8 | 441.8 417.1 | -202.5 -202.4 | -438.9 -414.2 | 12.00 | 12.00 12.00 | -0.04 -0.04 |
| 12,275.0 12,300.0 | 82.47 85.47 | 179.63 179.62 | 12,025.6 | 417.1 392.2 | -202.4 -202.2 | -414.2 -389.4 | 12.00 12.00 | 12.00 | -0.04 -0.04 |
| 12,300.0 | 88.47 | 179.61 | 12,020.5 | 367.3 | -202.2 | -364.4 | 12.00 | 12.00 | -0.04 |
| | | | | | | | | | |
| 12,337.7 | 90.00 | 179.61 | 12,029.9 | 354.5 | -202.0 | -351.7 | 12.00 | 12.00 | -0.04 |
| 12,400.0 12,500.0 | 90.00 90.00 | 179.61 179.61 | 12,029.9 12,029.9 | 292.3 192.3 | -201.5 -200.9 | -289.4 -189.4 | 0.00 0.00 | 0.00 0.00 | 0.00 0.00 |
| 12,500.0 | 90.00 | 179.61 | 12,029.9 | 92.3 | -200.9 -200.2 | -189.4 -89.5 | 0.00 | 0.00 | 0.00 |
| 12,700.0 | 90.00 | 179.61 | 12,029.9 | -7.7 | -200.2 -199.5 | 10.5 | 0.00 | 0.00 | 0.00 |
| | | | | | | | | | |
| 12,800.0 | 90.00 | 179.61 | 12,029.9 | -107.7 | -198.8 | 110.5 | 0.00 | 0.00 | 0.00 |
| 12,900.0 | 90.00 | 179.61 | 12,029.9 | -207.7 | -198.1 | 210.5 | 0.00 | 0.00 | 0.00 |
| 13,000.0 | 90.00 | 179.61 | 12,029.9 12,029.9 | -307.7 | -197.4 | 310.5 | 0.00 | 0.00 | 0.00 |
| 13,100.0 13,200.0 | 90.00 90.00 | 179.61 179.61 | 12,029.9 | -407.7 -507.7 | -196.8 -196.1 | 410.4 510.4 | 0.00 0.00 | 0.00 0.00 | 0.00 0.00 |
| | | | | | | | | | |
| 13,300.0 | 90.00 | 179.61 | 12,030.0 | -607.7 | -195.4 | 610.4 | 0.00 | 0.00 | 0.00 |
| 13,400.0 | 90.00 | 179.61 | 12,030.0 | -707.7 | -194.7 | 710.4 | 0.00 | 0.00 | 0.00 |



Database: PEDM Company: Midland

Project: Lea County, NM (NAD 83 NME)

Site: Amazing 19 Fed
Well: #714H

Wellbore: OH
Design: Plan #0.2

Local Co-ordinate Reference:

TVD Reference:
MD Reference:
North Reference:

Survey Calculation Method:

Well #714H

kb = 25' @ 3660.0usft kb = 25' @ 3660.0usft

Grid

| sign: | | | | | | | | | |
|-----------------------------|--------------------|----------------|-----------------------------|-----------------|-----------------|-------------------------------|-------------------------------|------------------------------|-----------------------------|
| anned Survey | | | | | | | | | |
| Measured Depth (usft) | Inclination (°) | Azimuth (°) | Vertical Depth (usft) | +N/-S (usft) | +E/-W (usft) | Vertical Section (usft) | Dogleg Rate (°/100usft) | Build Rate (°/100usft) | Turn Rate (°/100usft) |
| 13,500.0 | 90.00 | 179.61 | 12,030.0 | -807.7 | -194.0 | 810.3 | 0.00 | 0.00 | 0.00 |
| 13,600.0 | 90.00 | 179.61 | 12,030.0 | -907.7 | -193.3 | 910.3 | 0.00 | 0.00 | 0.00 |
| 13,700.0 | 90.00 | 179.61 | 12,030.0 | -1,007.7 | -192.6 | 1,010.3 | 0.00 | 0.00 | 0.00 |
| 13,700.0 | 90.00 | 179.01 | 12,030.0 | -1,007.7 | -192.0 | 1,010.3 | 0.00 | 0.00 | 0.00 |
| 13,800.0 | 90.00 | 179.61 | 12,030.0 | -1,107.7 | -192.0 | 1,110.3 | 0.00 | 0.00 | 0.00 |
| 13,900.0 | 90.00 | 179.61 | 12,030.0 | -1,207.7 | -191.3 | 1,210.3 | 0.00 | 0.00 | 0.00 |
| 14,000.0 | 90.00 | 179.61 | 12,030.0 | -1,307.7 | -190.6 | 1,310.2 | 0.00 | 0.00 | 0.00 |
| | | | 12,030.0 | | | | | | |
| 14,100.0 | 90.00 | 179.61 | | -1,407.7 | -189.9 | 1,410.2 | 0.00 | 0.00 | 0.00 |
| 14,200.0 | 90.00 | 179.61 | 12,030.0 | -1,507.7 | -189.2 | 1,510.2 | 0.00 | 0.00 | 0.00 |
| 14,300.0 | 90.00 | 179.61 | 12,030.0 | -1,607.7 | -188.5 | 1,610.2 | 0.00 | 0.00 | 0.00 |
| 14,400.0 | 90.00 | 179.61 | 12,030.0 | -1,707.7 | -187.9 | 1,710.2 | 0.00 | 0.00 | 0.00 |
| 14,500.0 | 90.00 | 179.61 | 12,030.0 | -1,807.7 | -187.2 | 1,810.1 | 0.00 | 0.00 | 0.00 |
| | | | | | | | | | |
| 14,600.0 | 90.00 | 179.61 | 12,030.0 | -1,907.7 | -186.5 | 1,910.1 | 0.00 | 0.00 | 0.00 |
| 14,700.0 | 90.00 | 179.61 | 12,030.0 | -2,007.7 | -185.8 | 2,010.1 | 0.00 | 0.00 | 0.00 |
| 14,800.0 | 90.00 | 179.61 | 12,030.0 | -2,107.7 | -185.1 | 2,110.1 | 0.00 | 0.00 | 0.00 |
| 14,900.0 | 90.00 | 179.61 | 12,030.0 | -2,207.7 | -184.4 | 2,210.0 | 0.00 | 0.00 | 0.00 |
| | | | 12,030.0 | | -104.4 | | | | |
| 15,000.0 | 90.00 | 179.61 | | -2,307.7 | | 2,310.0 | 0.00 | 0.00 | 0.00 |
| 15,100.0 | 90.00 | 179.61 | 12,030.0 | -2,407.7 | -183.1 | 2,410.0 | 0.00 | 0.00 | 0.00 |
| 15,200.0 | 90.00 | 179.61 | 12,030.0 | -2,507.7 | -182.4 | 2,510.0 | 0.00 | 0.00 | 0.00 |
| 15,300.0 | 90.00 | 179.61 | 12,030.0 | -2,607.7 | -181.7 | 2,610.0 | 0.00 | 0.00 | 0.00 |
| | 90.00 | | 12,030.0 | , | -181.0 | 2,709.9 | | 0.00 | |
| 15,400.0 | | 179.61 | | -2,707.7 | | | 0.00 | | 0.00 |
| 15,500.0 | 90.00 | 179.61 | 12,030.0 | -2,807.7 | -180.3 | 2,809.9 | 0.00 | 0.00 | 0.00 |
| 15,600.0 | 90.00 | 179.61 | 12,030.0 | -2,907.7 | -179.6 | 2,909.9 | 0.00 | 0.00 | 0.00 |
| 15,700.0 | 90.00 | 179.61 | 12,030.0 | -3,007.7 | -179.0 | 3,009.9 | 0.00 | 0.00 | 0.00 |
| 15 000 0 | 00.00 | 170.61 | 12.020.0 | -3,107.7 | 170.0 | 2 100 0 | 0.00 | 0.00 | 0.00 |
| 15,800.0 | 90.00 | 179.61 | 12,030.0 | , | -178.3 | 3,109.8 | 0.00 | 0.00 | |
| 15,900.0 | 90.00 | 179.61 | 12,030.0 | -3,207.7 | -177.6 | 3,209.8 | 0.00 | 0.00 | 0.00 |
| 16,000.0 | 90.00 | 179.61 | 12,030.0 | -3,307.7 | -176.9 | 3,309.8 | 0.00 | 0.00 | 0.00 |
| 16,100.0 | 90.00 | 179.61 | 12,030.0 | -3,407.6 | -176.2 | 3,409.8 | 0.00 | 0.00 | 0.00 |
| 16,200.0 | 90.00 | 179.61 | 12,030.0 | -3,507.6 | -175.5 | 3,509.8 | 0.00 | 0.00 | 0.00 |
| 40,000,0 | 00.00 | 470.04 | 40.000.0 | 0.007.0 | 474.0 | 0.000.7 | 0.00 | 0.00 | 0.00 |
| 16,300.0 | 90.00 | 179.61 | 12,030.0 | -3,607.6 | -174.8 | 3,609.7 | 0.00 | 0.00 | 0.00 |
| 16,400.0 | 90.00 | 179.61 | 12,030.0 | -3,707.6 | -174.2 | 3,709.7 | 0.00 | 0.00 | 0.00 |
| 16,500.0 | 90.00 | 179.61 | 12,030.0 | -3,807.6 | -173.5 | 3,809.7 | 0.00 | 0.00 | 0.00 |
| 16,600.0 | 90.00 | 179.61 | 12,030.0 | -3,907.6 | -172.8 | 3,909.7 | 0.00 | 0.00 | 0.00 |
| 16,700.0 | 90.00 | 179.61 | 12,030.0 | -4,007.6 | -172.1 | 4,009.7 | 0.00 | 0.00 | 0.00 |
| | | | | | | | | | |
| 16,800.0 | 90.00 | 179.61 | 12,030.0 | -4,107.6 | -171.4 | 4,109.6 | 0.00 | 0.00 | 0.00 |
| 16,900.0 | 90.00 | 179.61 | 12,030.0 | -4,207.6 | -170.7 | 4,209.6 | 0.00 | 0.00 | 0.00 |
| 17,000.0 | 90.00 | 179.61 | 12,030.0 | -4,307.6 | -170.0 | 4,309.6 | 0.00 | 0.00 | 0.00 |
| 17,100.0 | 90.00 | 179.61 | 12,030.0 | -4,407.6 | -169.4 | 4,409.6 | 0.00 | 0.00 | 0.00 |
| 17,200.0 | 90.00 | 179.61 | 12,030.0 | -4,507.6 | -168.7 | 4,509.5 | 0.00 | 0.00 | 0.00 |
| | | | | | | | | | |
| 17,300.0 | 90.00 | 179.61 | 12,030.0 | -4,607.6 | -168.0 | 4,609.5 | 0.00 | 0.00 | 0.00 |
| 17,400.0 | 90.00 | 179.61 | 12,030.0 | -4,707.6 | -167.3 | 4,709.5 | 0.00 | 0.00 | 0.00 |
| 17,500.0 | 90.00 | 179.61 | 12,030.0 | -4,807.6 | -166.6 | 4,809.5 | 0.00 | 0.00 | 0.00 |
| 17,600.0 | 90.00 | 179.61 | 12,030.0 | -4,907.6 | -165.9 | 4,909.5 | 0.00 | 0.00 | 0.00 |
| 17,700.0 | 90.00 | 179.61 | 12,030.0 | -5,007.6 | -165.3 | 5,009.4 | 0.00 | 0.00 | 0.00 |
| | | | | | | | | | |
| 17,800.0 | 90.00 | 179.61 | 12,030.0 | -5,107.6 | -164.6 | 5,109.4 | 0.00 | 0.00 | 0.00 |
| 17,900.0 | 90.00 | 179.61 | 12,030.0 | -5,207.6 | -163.9 | 5,209.4 | 0.00 | 0.00 | 0.00 |
| 18,000.0 | 90.00 | 179.61 | 12,030.0 | -5,307.6 | -163.2 | 5,309.4 | 0.00 | 0.00 | 0.00 |
| 18,100.0 | 90.00 | 179.61 | 12,030.0 | -5,407.6 | -162.5 | 5,409.3 | 0.00 | 0.00 | 0.00 |
| 18,200.0 | 90.00 | 179.61 | 12,030.0 | -5,507.6 | -161.8 | 5,509.3 | 0.00 | 0.00 | 0.00 |
| | | | | | | | | | |
| 18,300.0 | 90.00 | 179.61 | 12,030.0 | -5,607.6 | -161.1 | 5,609.3 | 0.00 | 0.00 | 0.00 |
| 18,400.0 | 90.00 | 179.61 | 12,030.0 | -5,707.6 | -160.5 | 5,709.3 | 0.00 | 0.00 | 0.00 |
| 18,500.0 | 90.00 | 179.61 | 12,030.0 | -5,807.6 | -159.8 | 5,809.3 | 0.00 | 0.00 | 0.00 |
| 18,600.0 | 90.00 | 179.61 | 12,030.0 | -5,907.6 | -159.1 | 5,909.2 | 0.00 | 0.00 | 0.00 |
| 18,700.0 | 90.00 | 179.61 | 12,030.0 | -6,007.6 | -158.4 | 6,009.2 | 0.00 | 0.00 | 0.00 |
| | | | | | | | | | |
| 18,800.0 | 90.00 | 179.61 | 12,030.0 | -6,107.6 | -157.7 | 6,109.2 | 0.00 | 0.00 | 0.00 |



Database: Company: PEDM Midland

Lea County, NM (NAD 83 NME)

Project: Lea County, NM Site: Amazing 19 Fed

 Well:
 #714H

 Wellbore:
 OH

 Design:
 Plan #0.2

Local Co-ordinate Reference:

TVD Reference:
MD Reference:
North Reference:

Survey Calculation Method:

Well #714H

kb = 25' @ 3660.0usft kb = 25' @ 3660.0usft

Grid

| ed Survey | | | | | | | | | |
|-----------------------------|--------------------|----------------|-----------------------------|-----------------|-----------------|-------------------------------|-------------------------------|------------------------------|-----------------------------|
| Measured Depth (usft) | Inclination (°) | Azimuth (°) | Vertical Depth (usft) | +N/-S (usft) | +E/-W (usft) | Vertical Section (usft) | Dogleg Rate (°/100usft) | Build Rate (°/100usft) | Turn Rate (°/100usft) |
| 18,900.0 | 90.00 | 179.61 | 12,030.0 | -6,207.6 | -157.0 | 6,209.2 | 0.00 | 0.00 | 0.00 |
| 19,000.0 | 90.00 | 179.61 | 12,030.0 | -6,307.6 | -156.4 | 6,309.2 | 0.00 | 0.00 | 0.00 |
| 19,100.0 | 90.00 | 179.61 | 12,030.0 | -6,407.6 | -155.7 | 6,409.1 | 0.00 | 0.00 | 0.00 |
| 19,200.0 | 90.00 | 179.61 | 12,030.0 | -6,507.6 | -155.0 | 6,509.1 | 0.00 | 0.00 | 0.00 |
| 19,300.0 | 90.00 | 179.61 | 12,030.0 | -6,607.6 | -154.3 | 6,609.1 | 0.00 | 0.00 | 0.00 |
| 19,400.0 | 90.00 | 179.61 | 12,030.0 | -6,707.6 | -153.6 | 6,709.1 | 0.00 | 0.00 | 0.00 |
| 19,500.0 | 90.00 | 179.61 | 12,030.0 | -6,807.6 | -152.9 | 6,809.0 | 0.00 | 0.00 | 0.00 |
| 19,600.0 | 90.00 | 179.61 | 12,030.0 | -6,907.6 | -152.2 | 6,909.0 | 0.00 | 0.00 | 0.00 |
| 19,700.0 | 90.00 | 179.61 | 12,030.0 | -7,007.6 | -151.6 | 7,009.0 | 0.00 | 0.00 | 0.00 |
| 19,800.0 | 90.00 | 179.61 | 12,030.0 | -7,107.6 | -150.9 | 7,109.0 | 0.00 | 0.00 | 0.00 |
| 19,900.0 | 90.00 | 179.61 | 12,030.0 | -7,207.6 | -150.2 | 7,209.0 | 0.00 | 0.00 | 0.00 |
| 20,000.0 | 90.00 | 179.61 | 12,030.0 | -7,307.6 | -149.5 | 7,308.9 | 0.00 | 0.00 | 0.00 |
| 20,100.0 | 90.00 | 179.61 | 12,030.0 | -7,407.6 | -148.8 | 7,408.9 | 0.00 | 0.00 | 0.00 |
| 20,200.0 | 90.00 | 179.61 | 12,030.0 | -7,507.6 | -148.1 | 7,508.9 | 0.00 | 0.00 | 0.00 |
| 20,300.0 | 90.00 | 179.61 | 12,030.0 | -7,607.6 | -147.5 | 7,608.9 | 0.00 | 0.00 | 0.00 |
| 20,400.0 | 90.00 | 179.61 | 12,030.0 | -7,707.5 | -146.8 | 7,708.8 | 0.00 | 0.00 | 0.00 |
| 20,500.0 | 90.00 | 179.61 | 12,030.0 | -7,807.5 | -146.1 | 7,808.8 | 0.00 | 0.00 | 0.00 |
| 20,600.0 | 90.00 | 179.61 | 12,030.0 | -7,907.5 | -145.4 | 7,908.8 | 0.00 | 0.00 | 0.00 |
| 20,700.0 | 90.00 | 179.61 | 12,030.0 | -8,007.5 | -144.7 | 8,008.8 | 0.00 | 0.00 | 0.00 |
| 20,800.0 | 90.00 | 179.61 | 12,030.0 | -8,107.5 | -144.0 | 8,108.8 | 0.00 | 0.00 | 0.00 |
| 20,900.0 | 90.00 | 179.61 | 12,030.0 | -8,207.5 | -143.3 | 8,208.7 | 0.00 | 0.00 | 0.00 |
| 21,000.0 | 90.00 | 179.61 | 12,030.0 | -8,307.5 | -142.7 | 8,308.7 | 0.00 | 0.00 | 0.00 |
| 21,100.0 | 90.00 | 179.61 | 12,030.0 | -8,407.5 | -142.0 | 8,408.7 | 0.00 | 0.00 | 0.00 |
| 21,200.0 | 90.00 | 179.61 | 12,030.0 | -8,507.5 | -141.3 | 8,508.7 | 0.00 | 0.00 | 0.00 |
| 21,300.0 | 90.00 | 179.61 | 12,030.0 | -8,607.5 | -140.6 | 8,608.7 | 0.00 | 0.00 | 0.00 |
| 21,400.0 | 90.00 | 179.61 | 12,030.0 | -8,707.5 | -139.9 | 8,708.6 | 0.00 | 0.00 | 0.00 |
| 21,500.0 | 90.00 | 179.61 | 12,030.0 | -8,807.5 | -139.2 | 8,808.6 | 0.00 | 0.00 | 0.00 |
| 21,600.0 | 90.00 | 179.61 | 12,030.0 | -8,907.5 | -138.6 | 8,908.6 | 0.00 | 0.00 | 0.00 |
| 21,700.0 | 90.00 | 179.61 | 12,030.0 | -9,007.5 | -137.9 | 9,008.6 | 0.00 | 0.00 | 0.00 |
| 21,800.0 | 90.00 | 179.61 | 12,030.0 | -9,107.5 | -137.2 | 9,108.5 | 0.00 | 0.00 | 0.00 |
| 21,900.0 | 90.00 | 179.61 | 12,030.0 | -9,207.5 | -136.5 | 9,208.5 | 0.00 | 0.00 | 0.00 |
| 22,000.0 | 90.00 | 179.61 | 12,030.0 | -9,307.5 | -135.8 | 9,308.5 | 0.00 | 0.00 | 0.00 |
| 22,100.0 | 90.00 | 179.61 | 12,030.0 | -9,407.5 | -135.1 | 9,408.5 | 0.00 | 0.00 | 0.00 |
| 22,200.0 | 90.00 | 179.61 | 12,030.0 | -9,507.5 | -134.4 | 9,508.5 | 0.00 | 0.00 | 0.00 |
| 22,264.5 | 90.00 | 179.61 | 12,030.0 | -9,572.0 | -134.0 | 9,572.9 | 0.00 | 0.00 | 0.00 |

| Design Targets | | | | | | | | | |
|--|------------------|-----------------|---------------|-----------------|-----------------|--------------------|-------------------|------------------|-------------------|
| Target Name - hit/miss target - Shape | Dip Angle (°) | Dip Dir. (°) | TVD (usft) | +N/-S (usft) | +E/-W (usft) | Northing (usft) | Easting (usft) | Latitude | Longitude |
| KOP(Amazing 19 Fed - plan hits target co | | 0.01 | 11,552.5 | 832.0 | -204.0 | 504,040.00 | 732,884.00 | 32° 23' 2.932 N | 103° 42' 46.158 W |
| FTP(Amazing 19 Fed # - plan hits target co - Point | | 0.00 | 11,765.2 | 782.0 | -204.0 | 503,990.00 | 732,884.00 | 32° 23' 2.437 N | 103° 42' 46.162 W |
| PBHL(Amazing 19 Fed - plan hits target co - Point | | 0.01 | 12,030.0 | -9,572.0 | -134.0 | 493,636.00 | 732,954.00 | 32° 21' 19.978 N | 103° 42' 46.046 W |



Database: PEDM Company: Midland

Project: Lea County, NM (NAD 83 NME)

Site: Amazing 19 Fed

 Well:
 #714H

 Wellbore:
 OH

 Design:
 Plan #0.2

Local Co-ordinate Reference:

TVD Reference:
MD Reference:
North Reference:

Survey Calculation Method:

Well #714H

kb = 25' @ 3660.0usft kb = 25' @ 3660.0usft

Grid



1200

1600-

2000-

2800-

7200-

7600

8400-

8800-

9600-

10000

10400

10800-

Azimuths to Grid North True North: -0.33° Magnetic North: 6.40°

Magnetic Field Strength: 47664.9nT Dip Angle: 60.05° Date: 7/22/2020 Model: IGRF2020

To convert a Magnetic Direction to a Grid Direction, Add 6.40° To convert a Magnetic Direction to a True Direction, Add 6.73° East To convert a True Direction to a Grid Direction, Subtract 0.33°

503208.00

Lea County, NM (NAD 83 NME)

Amazing 19 Fed #714H

Plan #0.2

PROJECT DETAILS: Lea County, NM (NAD 83 NME)

Geodetic System: US State Plane 1983 **Datum: North American Datum 1983** Ellipsoid: GRS 1980

Zone: New Mexico Eastern Zone System Datum: Mean Sea Level

WELL DETAILS: #714H

3635.0

kb = 25' @ 3660.0usft

Northing **Easting** Latittude 32° 22' 54.687 N

733088.00

Longitude 103° 42' 43.836 W

| SECTION DETAILS | | | | | | | | | | |
|-----------------|---------|-------|--------|---------|---------|--------|-------|--------|--------|----------------------------|
| Sec | MD | Inc | Azi | TVD | +N/-S | +E/-W | Dleg | TFace | VSect | Target |
| 1 | 0.0 | 0.00 | 0.00 | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.0 | |
| 2 | 1000.0 | 0.00 | 0.00 | 1000.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.0 | |
| 3 | 1237.4 | 4.75 | 346.22 | 1237.1 | 9.5 | -2.3 | 2.00 | 346.22 | -9.5 | |
| 4 | 11350.4 | 4.75 | 346.22 | 11315.4 | 822.5 | -201.7 | 0.00 | 0.00 | -819.6 | |
| 5 | 11587.7 | 0.00 | 0.00 | 11552.5 | 832.0 | -204.0 | 2.00 | 180.00 | -829.1 | KOP(Amazing 19 Fed #701H) |
| 6 | 11808.2 | 26.46 | 180.00 | 11765.2 | 782.0 | -204.0 | 12.00 | 180.00 | -779.1 | FTP(Amazing 19 Fed #701H) |
| 7 | 12337.7 | 90.00 | 179.61 | 12029.9 | 354.5 | -202.0 | 12.00 | -0.44 | -351.7 | |
| 8 | 22264.5 | 90.00 | 179.61 | 12030.0 | -9572.0 | -134.0 | 0.00 | 0.00 | 9572.9 | PBHL(Amazing 19 Fed #701H) |
| | | | | | | | | | | |

CASING DETAILS No casing data is available

WELLBORE TARGET DETAILS (MAP CO-ORDINATES)

Northing **Easting** KOP(Amazing 19 Fed #701H) 832.0 -204.0 -204.0 11552.5 504040.00 732884.00 FTP(Amazing 19 Fed #701H)
PBHL(Amazing 19 Fed #701H) 782.0 503990.00 11765.2 732884.00 -9572.0 -134.0 12030.0 493636.00 732954.00

-350 -1050 -1400--2100 -2450 -2800 -3150 -3500 -5250 -6300 -6650 -7000 **-7350** -7700 -8400 -8750 -9100 -9450 Amazing 19 Fed/#714H/Plan #0.2 -1400 -1050 West(-)/East(+)

West(-)/East(+)

700-

350-

11600-12000 -------------+++++-3150 4500

Vertical Section at 180.80°

Lea County, NM (NAD 83 NME) Amazing 19 Fed #714H 14:10, April 18 2023



2/24/2022

Cement Program

1. No changes to the cement program will take place for offline cementing.

Summarized Operational Procedure for Intermediate Casing

- 1. Run casing as per normal operations. While running casing, conduct negative pressure test and confirm integrity of the float equipment back pressure valves.
 - a. Float equipment is equipped with two back pressure valves rated to a minimum of 5,000 psi.
- 2. Land production casing on mandrel hanger through BOP.
 - a. If casing is unable to be landed with a mandrel hanger, then the casing will be cemented online.
- 3. Break circulation and confirm no restrictions.
 - a. Ensure no blockage of float equipment and appropriate annular returns.
 - b. Perform flow check to confirm well is static.
- 4. Set pack-off
 - a. If utilizing a fluted/ported mandrel hanger, ensure well is static on the annulus and inside the casing by filling the pipe with kill weight fluid, remove landing joint, and set annular packoff through BOP. Pressure test to 5,000 psi for 10 min.
 - b. If utilizing a solid mandrel hanger, ensure well is static on the annulus and inside the casing by filling the pipe with kill weight fluid. Pressure test seals to 5,000 psi for 10 min. Remove landing joint through BOP.
- 5. After confirmation of both annular barriers and the two casing barriers, install TA plug and pressure test to 5,000 psi for 10 min. Notify the BLM with intent to proceed with nipple down and offline cementing.
 - a. Minimum 4 hrs notice.
- 6. With the well secured and BLM notified, nipple down BOP and secure on hydraulic carrier or cradle.
 - a. Note, if any of the barriers fail to test, the BOP stack will not be nippled down until after the cement job has concluded and both lead and tail slurry have reached 500 psi.
- 7. Skid/Walk rig off current well.
- 8. Confirm well is static before removing TA Plug.
 - a. Cementing operations will not proceed until well is under control. (If well is not static, notify BLM and proceed to kill)
 - b. Casing outlet valves will provide access to both the casing ID and annulus. Rig or third party pump truck will kill well prior to cementing.
 - c. Well control plan can be seen in Section B, Well Control Procedures.
 - d. If need be, rig can be moved back over well and BOP nippled back up for any further remediation.



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- e. Diagram for rig positioning relative to offline cementing can be seen in Figure 4.
- 9. Rig up return lines to take returns from wellhead to pits and rig choke.
 - a. Test all connections and lines from wellhead to choke manifold to 5,000 psi high for 10 min.
 - b. If either test fails, perform corrections and retest before proceeding.
 - c. Return line schematics can be seen in Figure 3.
- 10. Remove TA Plug from the casing.
- 11. Install offline cement tool.
 - a. Current offline cement tool schematics can be seen in Figure 1 (Cameron) and Figure 2 (Cactus).
- 12. Rig up cement head and cementing lines.
 - a. Pressure test cement lines against cement head to 80% of casing burst for 10 min.
- 13. Break circulation on well to confirm no restrictions.
 - a. If gas is present on circulation, well will be shut in and returns rerouted through gas buster.
 - b. Max anticipated time before circulating with cement truck is 6 hrs.
- 14. Pump cement job as per plan.
 - a. At plug bump, test casing to 0.22 psi/ft or 1500 psi, whichever is greater.
 - b. If plug does not bump on calculated, shut down and wait 8 hrs or 500 psi compressive strength, whichever is greater before testing casing.
- 15. Confirm well is static and floats are holding after cement job.
 - a. With floats holding and backside static:
 - i. Remove cement head.
 - b. If floats are leaking:
 - i. Shut-in well and WOC (Wait on Cement) until tail slurry reaches 500 psi compressive strength and the casing is static prior to removing cement head.
 - c. If there is flow on the backside:
 - i. Shut in well and WOC until tail slurry reaches 500 psi compressive strength. Ensure that the casing is static prior to removing cement head.
- 16. Remove offline cement tool.
- 17. Install night cap with pressure gauge for monitoring.
- 18. Test night cap to 5,000 psi for 10 min.



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Example Well Control Plan Content

A. Well Control Component Table

The table below, which covers the cementing of the <u>5M MASP (Maximum Allowable Surface Pressure) portion of the well</u>, outlines the well control component rating in use. This table, combined with the mud program, documents that two barriers to flow can be maintained at all times, independent of the BOP nippled up to the wellhead.

Intermediate hole section, 5M requirement

| Component | RWP |
|--------------------------|-----|
| Pack-off | 10M |
| Casing Wellhead Valves | 10M |
| Annular Wellhead Valves | 5M |
| TA Plug | 10M |
| Float Valves | 5M |
| 2" 1502 Lo-Torque Valves | 15M |

B. Well Control Procedures

Well control procedures are specific to the rig equipment and the operation at the time the kick occurs. Below are the minimal high-level tasks prescribed to assure a proper shut-in while circulating and cementing through the Offline Cement Adapter.

General Procedure While Circulating

- 1. Sound alarm (alert crew).
- 2. Shut down pumps.
- 3. Shut-in Well (close valves to rig pits and open valve to rig choke line. Rig choke will already be in the closed position).
- 4. Confirm shut-in.
- 5. Notify tool pusher/company representative.

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- 6. Read and record the following:
 - a. SICP (Shut in Casing Pressure) and AP (Annular Pressure)
 - b. Pit gain
 - c. Time
 - d. Regroup and identify forward plan to continue circulating out kick via rig choke and mud/gas separator. Circulate and adjust mud density as needed to control well.

General Procedure While Cementing

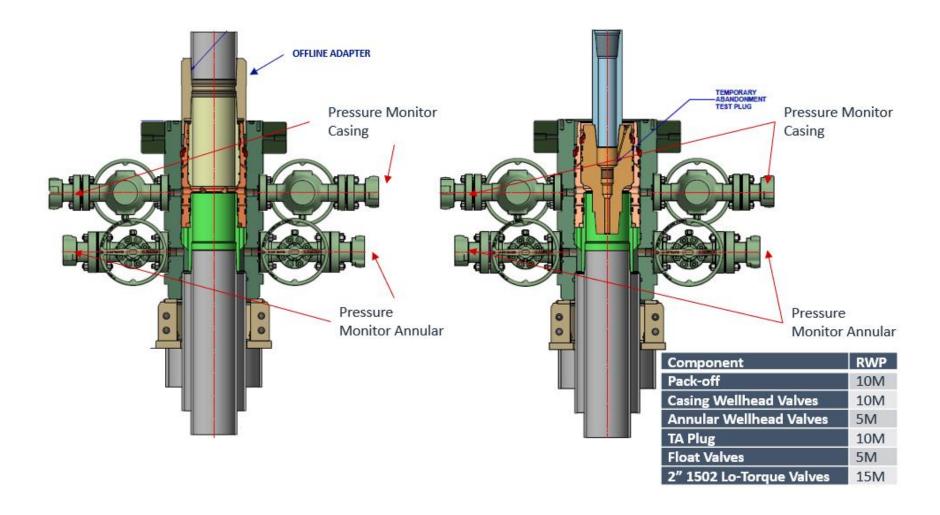
- 1. Sound alarm (alert crew).
- 2. Shut down pumps.
- 3. Shut-in Well (close valves to rig pits and open valve to rig choke line. Rig choke will already be in the closed position).
- 4. Confirm shut-in.
- 5. Notify tool pusher/company representative.
- 6. Open rig choke and begin pumping again taking returns through choke manifold and mud/gas separator.
- 7. Continue to place cement until plug bumps.
- 8. At plug bump close rig choke and cement head.
- 9. Read and record the following
 - a. SICP and AP
 - b. Pit gain
 - c. Time
 - d. Shut-in annulus valves on wellhead

General Procedure After Cementing

- 1. Sound alarm (alert crew).
- 2. Shut-in Well (close valves to rig pits and open valve to rig choke line. Rig choke will already be in the closed position).
- 3. Confirm shut-in.
- 4. Notify tool pusher/company representative.
- 5. Read and record the following:
 - a. SICP and AP
 - b. Pit gain
 - c. Time
 - d. Shut-in annulus valves on wellhead

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Figure 1: Cameron TA Plug and Offline Adapter Schematic

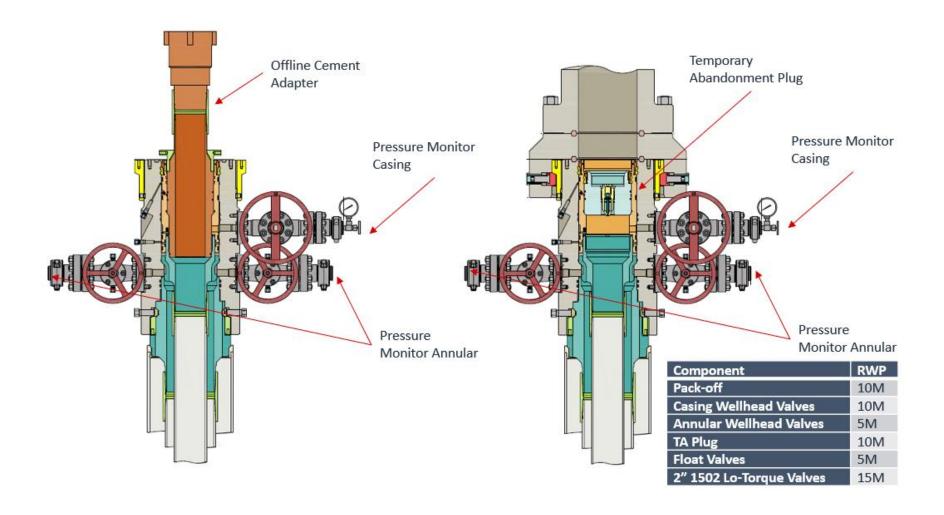


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Figure 2: Cactus TA Plug and Offline Adapter Schematic

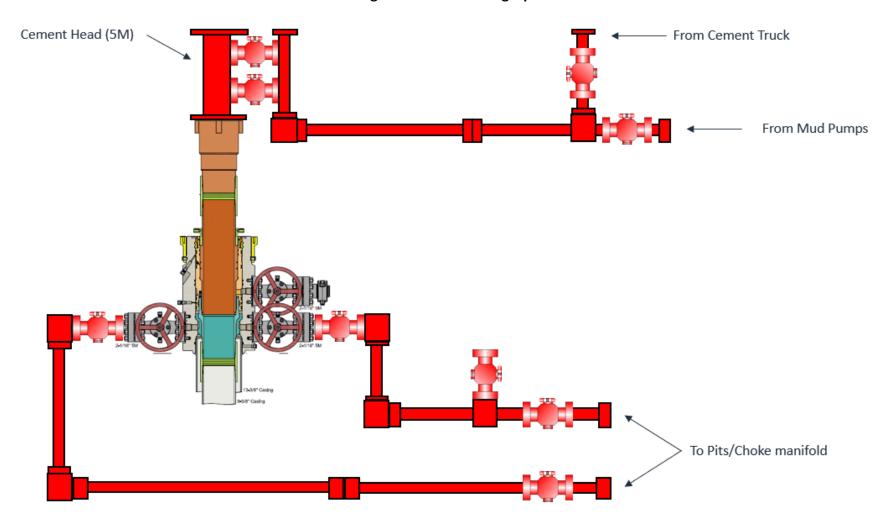


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Figure 3: Back Yard Rig Up



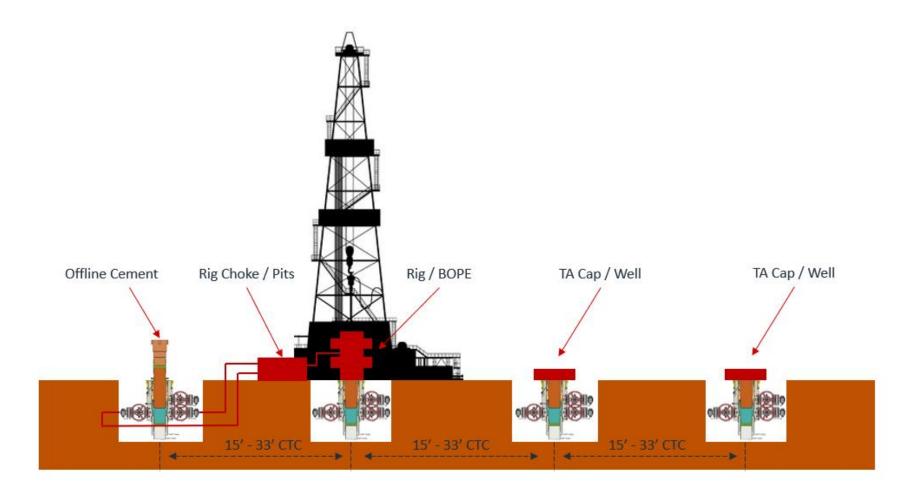
*** All Lines 10M rated working pressure

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Figure 4: Rig Placement Diagram



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CONDITIONS

Action 218933

CONDITIONS

| Operator: | OGRID: |
|-------------------|--------------------------------------|
| EOG RESOURCES INC | 7377 |
| P.O. Box 2267 | Action Number: |
| Midland, TX 79702 | 218933 |
| | Action Type: |
| | [C-103] NOI Change of Plans (C-103A) |

CONDITIONS

| Created By | | Condition Date |
|---------------|------|-------------------|
| pkautz | None | 7/26/2023 |