AFMSS

U.S. Department of the Interior
Bureau of Land Management

Application for Permit to Drill

APD Package Report

Date Printed:

APD ID:	Well Status:
APD Received Date:	Well Name:
Operator:	Well Number:

APD Package Report Contents

- Form 3160-3

- Operator Certification Report

- Application Report
- Application Attachments
  -- Well Plat: 1 file(s)

- Drilling Plan Report
- Drilling Plan Attachments
  -- Blowout Prevention Choke Diagram Attachment: 1 file(s)
  -- Blowout Prevention BOP Diagram Attachment: 1 file(s)
  -- Casing Spec Documents: 3 file(s)
  -- Casing Design Assumptions and Worksheet(s): 5 file(s)
  -- Hydrogen sulfide drilling operations plan: 1 file(s)
  -- Proposed horizontal/directional/multi-lateral plan submission: 1 file(s)
  -- Other Facets: 5 file(s)
  -- Other Variances: 1 file(s)

- SUPO Report
- SUPO Attachments
  -- Existing Road Map: 1 file(s)
  -- New Road Map: 1 file(s)
  -- Attach Well map: 1 file(s)
  -- Production Facilities map: 1 file(s)
  -- Water source and transportation map: 1 file(s)
  -- Construction Materials source location attachment: 1 file(s)
  -- Well Site Layout Diagram: 1 file(s)
  -- Recontouring attachment: 2 file(s)
  -- Other SUPO Attachment: 1 file(s)

- PWD Report
- PWD Attachments

-- None

- Bond Report
- Bond Attachments
  -- None

Form 3160-3
(June 2015)

FORM APPROVED
OMB No. 1004-0137
Expires: January 31, 2018

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL OR REENTER

5. Lease Serial No.

6. If Indian, Allotee or Tribe Name

1a. Type of work: ☐ DRILL ☐ REENTER

1b. Type of Well: ☐ Oil Well ☐ Gas Well ☐ Other

1c. Type of Completion: ☐ Hydraulic Fracturing ☐ Single Zone ☐ Multiple Zone

7. If Unit or CA Agreement, Name and No.

8. Lease Name and Well No.

2. Name of Operator

9. API Well No.

3a. Address	3b. Phone No. *(include area code)*	10. Field and Pool, or Exploratory

4. Location of Well *(Report location clearly and in accordance with any State requirements.*)*

At surface

At proposed prod. zone

11. Sec., T. R. M. or Blk. and Survey or Area

14. Distance in miles and direction from nearest town or post office*	12. County or Parish	13. State

15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any)	16. No of acres in lease	17. Spacing Unit dedicated to this well

18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft.	19. Proposed Depth	20. BLM/BIA Bond No. in file

21. Elevations (Show whether DF, KDB, RT, GL, etc.)	22. Approximate date work will start*	23. Estimated duration

24. Attachments

The following, completed in accordance with the requirements of Onshore Oil and Gas Order No. 1, and the Hydraulic Fracturing rule per 43 CFR 3162.3-3 (as applicable)

1. Well plat certified by a registered surveyor.
2. A Drilling Plan.
3. A Surface Use Plan (if the location is on National Forest System Lands, the SUPO must be filed with the appropriate Forest Service Office).
4. Bond to cover the operations unless covered by an existing bond on file (see Item 20 above).
5. Operator certification.
6. Such other site specific information and/or plans as may be requested by the BLM.

25. Signature	Name *(Printed/Typed)*	Date

Title

Approved by *(Signature)*	Name *(Printed/Typed)*	Date

Title	Office

Application approval does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.
Conditions of approval, if any, are attached.

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.

APPROVED WITH CONDITIONS

(Continued on page 2)

*(Instructions on page 2)

Approval Date: 10/15/2021

INSTRUCTIONS

GENERAL: This form is designed for submitting proposals to perform certain well operations, as indicated on Federal and Indian lands and leases for action by appropriate Federal agencies, pursuant to applicable Federal laws 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, either are shown below or will be issued by, or may be obtained from local Federal offices.

ITEM I: If the proposal is to redrill to the same reservoir at a different subsurface location or to a new reservoir, use this form with appropriate notations. Consult applicable Federal regulations concerning subsequent work proposals or reports on the well.

ITEM 4: Locations on Federal or Indian land should be described in accordance with Federal requirements. Consult local Federal offices for specific instructions.

ITEM 14: Needed only when location of well cannot readily be found by road from the land or lease description. A plat, or plats, separate or on the reverse side, showing the roads to, and the surveyed location of, the wen, and any other required information, should be furnished when required by Federal agency offices.

ITEMS 15 AND 18: If well is to be, or has been directionany drilled, give distances for subsurface location of hole in any present or objective productive zone.

ITEM 22: Consult applicable Federal regulations, or appropriate officials, concerning approval of the proposal before operations are started.

ITEM 24: 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 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., 25 U.S.C. 396; 43 CFR 3160

PRINCIPAL PURPOSES: The information will be used to: (1) process and evaluate your application for a permit to drill a new oil, gas, or service wen or to reenter a plugged and abandoned well; and (2) document, for administrative use, information for the management, disposal and use of National Resource Lands and resources including (a) analyzing your proposal to discover and extract the Federal or Indian resources encountered; (b) reviewing procedures and equipment and the projected impact on the land involved; and (c) evaluating the effects of the proposed operation on the surface and subsurface water and other environmental impacts.

ROUTINE USE: Information from the record and/or the record win be transferred to appropriate Federal, State, and local or foreign agencies, when relevant to civil, criminal or regulatory investigations or prosecution, in connection with congressional inquiries and for regulatory responsibilities.

EFFECT OF NOT PROVIDING INFORMATION: Filing of this application and disclosure of the information is mandatory only if you elect to initiate a drilling or reentry operation on an oil and gas lease.

The Paperwork Reduction Act of 1995 requires us to inform you that:
The BLM conects this information to anow evaluation of the technical, safety, and environmental factors involved with drilling for oil and/or gas on Federal and Indian oil and gas leases. This information will be used to analyze and approve applications. Response to this request is mandatory only if the operator elects to initiate drilling or reentry operations on an oil and gas lease. 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 Conection Clearance Officer (WO-630), 1849 C Street, N.W., Mail Stop 401 LS, Washington, D.C. 20240.

Additional Operator Remarks

Location of Well

0. SHL: LOT 3 / 180 FNL / 2287 FWL / TWSP: 22S / RANGE: 32E / SECTION: 2 / LAT: 32.427547 / LONG: -103.646543 (TVD: 0 feet, MD: 0 feet)

PPP: LOT 3 / 290 FNL / 2332 FWL / TWSP: 22S / RANGE: 32E / SECTION: 2 / LAT: 32.4274581 / LONG: -103.6463972 (TVD: 11844 feet, MD: 11865 feet)

PPP: SESW / 0 FSL / 2310 FWL / TWSP: 21S / RANGE: 32E / SECTION: 35 / LAT: 32.42806 / LONG: -103.64645 (TVD: 12037 feet, MD: 12236 feet)

PPP: SENW / 2640 FNL / 2310 FWL / TWSP: 21S / RANGE: 32E / SECTION: 35 / LAT: 32.435323 / LONG: -103.646477 (TVD: 12050 feet, MD: 14869 feet)

BHL: SESW / 1220 FSL / 2310 FWL / TWSP: 21S / RANGE: 32E / SECTION: 26 / LAT: 32.44592 / LONG: -103.646455 (TVD: 12050 feet, MD: 18729 feet)

BLM Point of Contact

Name: PRISCILLA PEREZ
Title: Legal Instruments Examiner
Phone: (575) 234-5934
Email: PPEREZ@BLM.GOV

Review and Appeal Rights

A person contesting a decision shall request a State Director review. This request must be filed within 20 working days of receipt of the Notice with the appropriate State Director (see 43 CFR 3165.3). The State Director review decision may be appealed to the Interior Board of Land Appeals, 801 North Quincy Street, Suite 300, Arlington, VA 22203 (see 43 CFR 3165.4). Contact the above listed Bureau of Land Management office for further information.

PECOS DISTRICT
SURFACE USE
CONDITIONS OF APPROVAL

Anderson Federal Com Pad B Wells (503H, 555H, 556H, 603H), Pad C Wells (502H, 553H, 554H, 602H), Pad D Wells (501H, 551H, 552H, 601H) and Access Road

Advance Energy Partners, LLC
Serial Lease Nos. NMNM 106696/NMNM 12968

Anderson Federal Com 503H
Surface Hole Location: 180 ft. FNL and 2281 ft. FEL; Section 2, T. 22 S., R. 32 E.
Bottom Hole Location: 1220 ft. FSL and 1650 ft. FEL; Section 26, T. 21 S., R. 32 E.

Anderson Federal Com 555H
Surface Hole Location: 180 ft. FNL and 2380 ft. FEL; Section 2, T. 22 S., R. 32 E.
Bottom Hole Location: 1220 ft. FSL and 2310 ft. FEL; Section 26, T. 21 S., R. 32 E.

Anderson Federal Com 556H
Surface Hole Location: 180 ft. FNL and 2314 ft. FEL; Section 2, T. 22 S., R. 32 E.
Bottom Hole Location: 1220 ft. FSL and 1650 ft. FEL; Section 26, T. 21 S., R. 32 E

Anderson Federal Com 603H
Surface Hole Location: 180 ft. FNL and 2347 ft. FEL; Section 2, T. 22 S., R. 32 E.
Bottom Hole Location: 1220 ft. FSL and 2310 ft. FEL; Section 26, T. 21 S., R. 32 E

Anderson Federal Com 502H
Surface Hole Location: 180 ft. FNL and 2221 ft. FWL; Section 2, T. 22 S., R. 32 E.
Bottom Hole Location: 1220 ft. FSL and 2310ft. FWL; Section 26, T. 21 S., R. 32 E

Anderson Federal Com 553H
Surface Hole Location: 180 ft. FNL and 2188 ft. FWL; Section 2, T. 22 S., R. 32 E.
Bottom Hole Location: 1220 ft. FSL and 1650 ft. FWL; Section 26, T. 21 S., R. 32 E

Anderson Federal Com 554H
Surface Hole Location: 180 ft. FNL and 2254 ft. FWL; Section 2, T. 22 S., R. 32 E.
Bottom Hole Location: 1220 ft. FSL and 2310 ft. FWL; Section 26, T. 21 S., R. 32 E

Anderson Federal Com 602H
Surface Hole Location: 180 ft. FNL and 2155 ft. FWL; Section 2, T. 22 S., R. 32 E.
Bottom Hole Location: 1220 ft. FSL and 1650 ft. FWL; Section 26, T. 21 S., R. 32 E

Approval Date: 10/15/2021

Anderson Federal Com 501H
Surface Hole Location: 180 ft. FNL and 710 ft. FWL; Section 2, T. 22 S., R. 32 E.
Bottom Hole Location: 2540 ft. FSL and 990 ft. FWL; Section 26, T. 21 S., R. 32 E

Anderson Federal Com 551H
Surface Hole Location: 180 ft. FNL and 677 ft. FWL; Section 2, T. 22 S., R. 32 E.
Bottom Hole Location: 2540 ft. FSL and 330 ft. FWL; Section 26, T. 21 S., R. 32 E

Anderson Federal Com 552H
Surface Hole Location: 180 ft. FNL and 743 ft. FWL; Section 2, T. 22 S., R. 32 E.
Bottom Hole Location: 2540 ft. FSL and 990 ft. FWL; Section 26, T. 21 S., R. 32 E

Anderson Federal Com 601H
Surface Hole Location: 180 ft. FNL and 644 ft. FWL; Section 2, T. 22 S., R. 32 E.
Bottom Hole Location: 2540 ft. FSL and 330 ft. FWL; Section 26, T. 21 S., R. 32 E

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Standard Conditions of Approval (COA) apply to this APD. If any deviations to these standards exist or special COAs are required, the section with the deviation or requirement will be checked below.

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I. GENERAL PROVISIONS

The approval of the Application For Permit To Drill (APD) is in compliance with all applicable laws and regulations: 43 Code of Federal Regulations 3160, the lease terms, Onshore Oil and Gas Orders, Notices To Lessees, New Mexico Oil Conservation Division (NMOCD) Rules, National Historical Preservation Act As Amended, and instructions and orders of the Authorized Officer. Any request for a variance shall be submitted to the Authorized Officer on Form 3160-5, Sundry Notices and Report on Wells.

II. PERMIT EXPIRATION

If the permit terminates prior to drilling and drilling cannot be commenced within 60 days after expiration, an operator is required to submit Form 3160-5, Sundry Notices and Reports on Wells, requesting surface reclamation requirements for any surface disturbance. However, if the operator will be able to initiate drilling within 60 days after the expiration of the permit, the operator must have set the conductor pipe in order to allow for an extension of 60 days beyond the expiration date of the APD. (Filing of a Sundry Notice is required for this 60 day extension.)

III. ARCHAEOLOGICAL, PALEONTOLOGY & HISTORICAL SITES

Any cultural and/or paleontological resource discovered by the operator or by any person working on the operator's behalf shall immediately report such findings to the Authorized Officer. The operator is fully accountable for the actions of their contractors and subcontractors. The operator shall suspend all operations in the immediate area of such discovery until written authorization to proceed is issued by the Authorized Officer. An evaluation of the discovery shall be made by the Authorized Officer to determine the appropriate actions that shall be required to prevent the loss of significant cultural or scientific values of the discovery. The operator shall be held responsible for the cost of the proper mitigation measures that the Authorized Officer assesses after consultation with the operator on the evaluation and decisions of the discovery. Any unauthorized collection or disturbance of cultural or paleontological resources may result in a shutdown order by the Authorized Officer.

IV. NOXIOUS WEEDS

The operator shall be held responsible if noxious weeds become established within the areas of operations. Weed control shall be required on the disturbed land where noxious weeds exist, which includes the roads, pads, associated pipeline corridor, and adjacent land affected by the establishment of weeds due to this action. The operator shall consult with the Authorized Officer for acceptable weed control methods, which include following EPA and BLM requirements and policies.

V. SPECIAL REQUIREMENT(S)

Timing Limitation Stipulation / Condition of Approval for lesser prairie-chicken: Oil and gas activities including 3-D geophysical exploration, and drilling will not be allowed in lesser prairie-chicken habitat during the period from March 1st through June 15th annually. During that period, other activities that produce noise or involve human activity, such as the maintenance of oil and gas facilities, pipeline, road, and well pad construction, will be allowed except between 3:00 am and 9:00 am. The 3:00 am to 9:00 am restriction will not apply to normal, around-the-clock operations, such as venting, flaring, or pumping, which do not require a human presence during this period. Additionally, no new drilling will be allowed within up to 200 meters of leks known at the time of permitting. Normal vehicle use on existing roads will not be restricted. Exhaust noise from pump jack engines must be muffled or otherwise controlled so as not to exceed 75 db measured at 30 feet from the source of the noise.

Timing Limitation Exceptions:
The Carlsbad Field Office will publish an annual map of where the LPC timing and noise stipulations and conditions of approval (Limitations) will apply for the identified year (between March 1 and June 15) based on the latest survey information. The LPC Timing Area map will identify areas which are Habitat Areas (HA), Isolated Population Area (IPA), and Primary Population Area (PPA). The LPC Timing Area map will also have an area in red crosshatch. The red crosshatch area is the only area where an operator is required to submit a request for exception to the LPC Limitations. If an operator is operating outside the red crosshatch area, the LPC Limitations do not apply for that year and an exception to LPC Limitations is not required.

Ground-level Abandoned Well Marker to avoid raptor perching: Upon the plugging and subsequent abandonment of the well, the well marker will be installed at ground level on a plate containing the pertinent information for the plugged well. For more installation details, contact the Carlsbad Field Office at 575-234-5972.

Hydrology:
The entire well pad(s) will be bermed to prevent oil, salt, and other chemical contaminants from leaving the well pad. The compacted berm shall be constructed at a minimum of 12 inches with impermeable mineral material (e.g. caliche). Topsoil shall not be used to construct the berm. No water flow from the uphill side(s) of the pad shall be allowed to enter the well pad. The integrity of the berm shall be maintained around the surfaced pad throughout the life of the well and around the downsized pad after interim reclamation has been completed. Any water erosion that may occur due to the construction of the well pad during the life of the well will be quickly corrected and proper measures will be taken to prevent future erosion. Stockpiling of topsoil is required. The top soil shall be stockpiled in an appropriate location to prevent loss of soil due to water or wind erosion and not used for berming or erosion control. If fluid collects within the bermed area, the fluid must be vacuumed into a safe container and disposed of properly at a state approved facility.

Tank battery locations will be lined and bermed. A 20 mil permanent liner will be installed with a 4 oz. felt backing to prevent tears or punctures. Tank battery berms must be large enough to contain 1 ½ times the content of the largest tank or 24 hour production, whichever is greater. Automatic shut off, check valves, or similar systems will be installed for tanks to minimize the effects of catastrophic line failures used in production or drilling.

When crossing ephemeral drainages the pipeline(s) will be buried to a minimum depth of 48 inches from the top of pipe to ground level. Erosion control methods such as gabions and/or rock aprons should be placed on both up and downstream sides of the pipeline crossing. In addition, curled (weed free) wood/straw fiber wattles/logs and/or silt fences should be placed on the downstream side for sediment control during construction and maintained until soils and vegetation have stabilized. Water bars should be placed within the ROW to divert and dissipate surface runoff. A pipeline access road is not permitted to cross these ephemeral drainages. Traffic should be diverted to a preexisting route. Additional seeding may be required in floodplains and drainages to restore energy dissipating vegetation.

Prior to pipeline installation/construction a leak detection plan will be developed. The method(s) could incorporate gauges to detect pressure drops, situating valves and lines so they can be visually inspected periodically or installing electronic sensors to alarm when a leak is present. The leak detection plan will incorporate an automatic shut off system that will be installed for proposed pipelines to minimize the effects of an undesirable event.

Any water erosion that may occur due to the construction of overhead electric line and during the life of the power line will be quickly corrected and proper measures will be taken to prevent future erosion. A power pole should not be placed in drainages, playas, wetlands, riparian areas, or floodplains and must span across the features at a distance away that would not promote further erosion.

Potash Resources

Lessees must comply with the 2012Secretarial Potash Order. The Order is designed to manage the efficient development of oil, gas, and potash resources. Section 6 of the Order provides general provisions which must be followed to minimize conflict between the industries and ensure the safety of operations.
To minimize impacts to potash resources, the proposed well is confined within the boundaries of the established Anderson Drill Island.

VI. CONSTRUCTION

A. NOTIFICATION

The BLM shall administer compliance and monitor construction of the access road and well pad. Notify the Carlsbad Field Office at (575) 234-5909 at least 3 working days prior to commencing construction of the access road and/or well pad.

When construction operations are being conducted on this well, the operator shall have the approved APD and Conditions of Approval (COA) on the well site and they shall be made available upon request by the Authorized Officer.

B. TOPSOIL

The operator shall strip the top portion of the soil (root zone) from the entire well pad area and stockpile the topsoil along the edge of the well pad as depicted in the APD. The root zone is typically six (6) inches in depth. All the stockpiled topsoil will be redistributed over the interim reclamation areas. Topsoil shall not be used for berming the pad or facilities. For final reclamation, the topsoil shall be spread over the entire pad area for seeding preparation.

Other subsoil (below six inches) stockpiles must be completely segregated from the topsoil stockpile. Large rocks or subsoil clods (not evident in the surrounding terrain) must be buried within the approved area for interim and final reclamation.

C. CLOSED LOOP SYSTEM

Tanks are required for drilling operations: No Pits.

The operator shall properly dispose of drilling contents at an authorized disposal site.

D. FEDERAL MINERAL MATERIALS PIT

Payment shall be made to the BLM prior to removal of any federal mineral materials. Call the Carlsbad Field Office at (575) 234-5972.

E. WELL PAD SURFACING

Surfacing of the well pad is not required.

If the operator elects to surface the well pad, the surfacing material may be required to be removed at the time of reclamation. The well pad shall be constructed in a manner which creates the smallest possible surface disturbance, consistent with safety and operational needs.

F. EXCLOSURE FENCING (CELLARS & PITS)

Exclosure Fencing
The operator will install and maintain exclosure fencing for all open well cellars to prevent access to public, livestock, and large forms of wildlife before and after drilling operations until the pit is free of fluids and the operator initiates backfilling. (For examples of exclosure fencing design, refer to BLM's Oil and Gas Gold Book, Exclosure Fence Illustrations, Figure 1, Page 18.)

G. ON LEASE ACCESS ROADS

Road Width
The access road shall have a driving surface that creates the smallest possible surface disturbance and does not exceed fourteen (24) feet in width. The maximum width of surface disturbance, when constructing the access road, shall not exceed thirty (30) feet.

Surfacing
Surfacing material is not required on the new access road driving surface. If the operator elects to surface the new access road or pad, the surfacing material may be required to be removed at the time of reclamation.

Where possible, no improvements should be made on the unsurfaced access road other than to remove vegetation as necessary, road irregularities, safety issues, or to fill low areas that may sustain standing water.

The Authorized Officer reserves the right to require surfacing of any portion of the access road at any time deemed necessary. Surfacing may be required in the event the road deteriorates, erodes, road traffic increases, or it is determined to be beneficial for future field development. The surfacing depth and type of material will be determined at the time of notification.

Crowning
Crowning shall be done on the access road driving surface. The road crown shall have a grade of approximately 2% (i.e., a 1" crown on a 24' wide road). The road shall conform to Figure 1; cross section and plans for typical road construction.

Ditching
Ditching shall be required on both sides of the road.

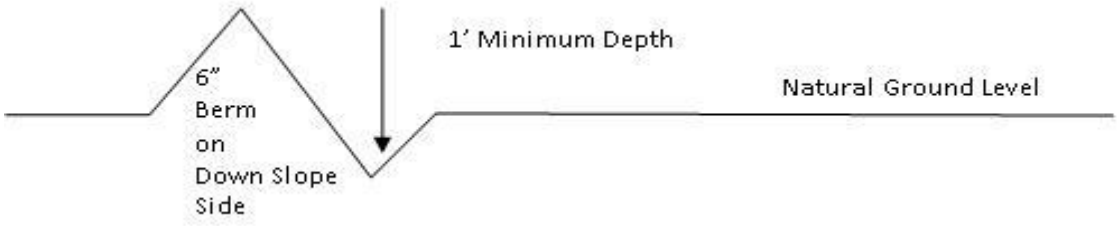
Turnouts
Vehicle turnouts shall be constructed on the road. Turnouts shall be intervisible with interval spacing distance less than 1000 feet. Turnouts shall conform to Figure 1; cross section and plans for typical road construction.

Drainage

Drainage control systems shall be constructed on the entire length of road (e.g. ditches, sidehill outsloping and insloping, lead-off ditches, culvert installation, and low water crossings).

A typical lead-off ditch has a minimum depth of 1 foot below and a berm of 6 inches above natural ground level. The berm shall be on the down-slope side of the lead-off ditch.

Cross Section of a Typical Lead-off Ditch



All lead-off ditches shall be graded to drain water with a 1 percent minimum to 3 percent maximum ditch slope. The spacing interval are variable for lead-off ditches and shall be determined according to the formula for spacing intervals of lead-off ditches, but may be amended depending upon existing soil types and centerline road slope (in %);

Formula for Spacing Interval of Lead-off Ditches

Example - On a 4% road slope that is 400 feet long, the water flow shall drain water into a lead-off ditch. Spacing interval shall be determined by the following formula:

400 foot road with 4% road slope: $\frac{400'}{4\%}$ + 100' = 200' lead-off ditch interval

Cattle guards

An appropriately sized cattle guard sufficient to carry out the project shall be installed and maintained at fence/road crossings. Any existing cattle guards on the access road route shall be repaired or replaced if they are damaged or have deteriorated beyond practical use. The operator shall be responsible for the condition of the existing cattle guards that are in place and are utilized during lease operations.

Fence Requirement

Where entry is granted across a fence line, the fence shall be braced and tied off on both sides of the passageway prior to cutting. The operator shall notify the private surface landowner or the grazing allotment holder prior to crossing any fences.

Public Access

Public access on this road shall not be restricted by the operator without specific written approval granted by the Authorized Officer.

Construction Steps

1. Salvage topsoil
2. Construct road
3. Redistribute topsoil
4. Revegetate slopes

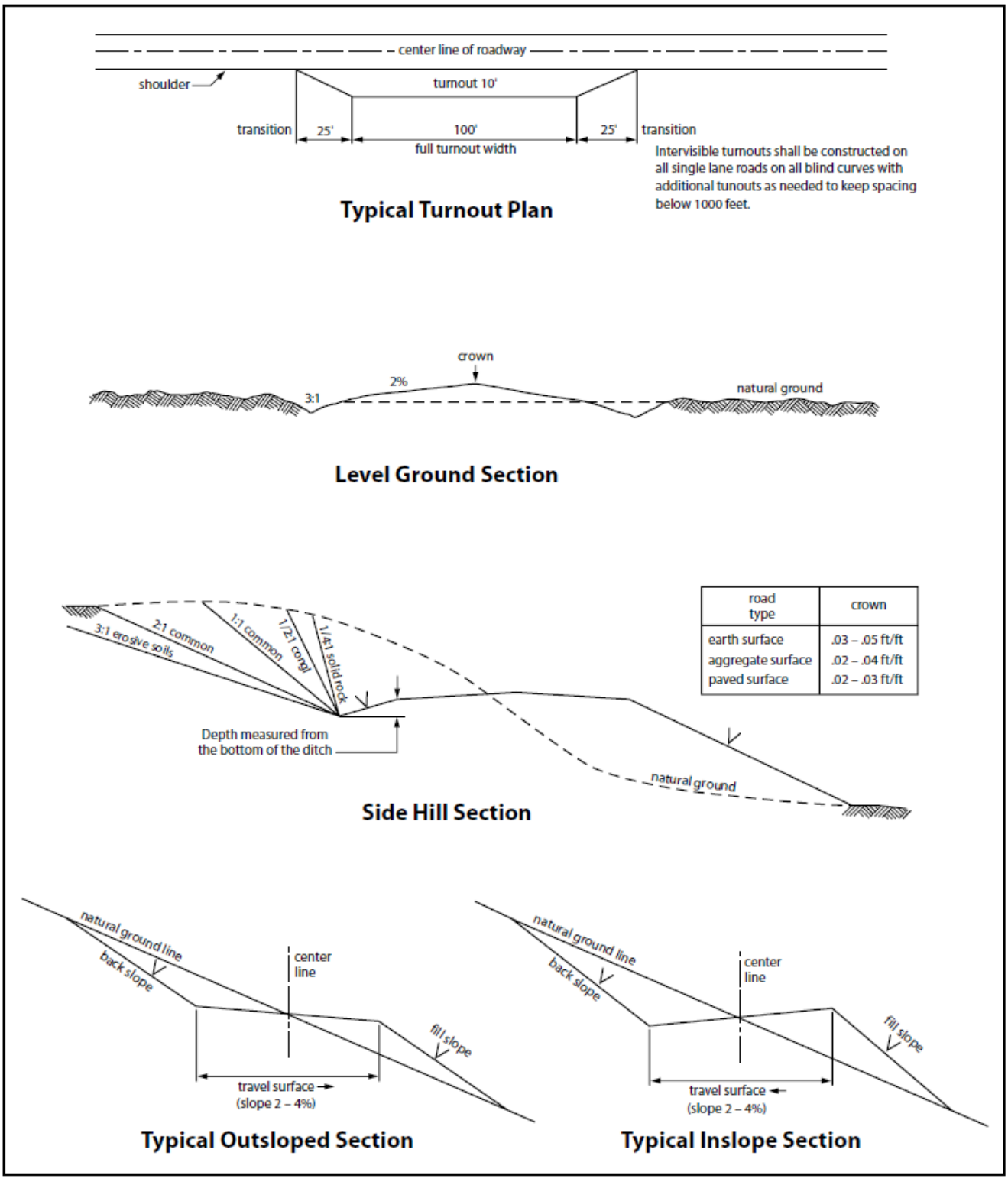


Figure 1. Cross-sections and plans for typical road sections representative of BLM resource or FS local and higher-class roads.

Approval Date: 10/15/2021

VII. PRODUCTION (POST DRILLING)

A. WELL STRUCTURES & FACILITIES

Placement of Production Facilities
Production facilities should be placed on the well pad to allow for maximum interim recontouring and revegetation of the well location.

Exclosure Netting (Open-top Tanks)
Immediately following active drilling or completion operations, the operator will take actions necessary to prevent wildlife and livestock access, including avian wildlife, to all open-topped tanks that contain or have the potential to contain salinity sufficient to cause harm to wildlife or livestock, hydrocarbons, or Resource Conservation and Recovery Act of 1976-exempt hazardous substances. At a minimum, the operator will net, screen, or cover open-topped tanks to exclude wildlife and livestock and prevent mortality. If the operator uses netting, the operator will cover and secure the open portion of the tank to prevent wildlife entry. The operator will net, screen, or cover the tanks until the operator removes the tanks from the location or the tanks no longer contain substances that could be harmful to wildlife or livestock. Use a maximum netting mesh size of 1 ½ inches. The netting must not be in contact with fluids and must not have holes or gaps.

Chemical and Fuel Secondary Containment and Exclosure Screening
The operator will prevent all hazardous, poisonous, flammable, and toxic substances from coming into contact with soil and water. At a minimum, the operator will install and maintain an impervious secondary containment system for any tank or barrel containing hazardous, poisonous, flammable, or toxic substances sufficient to contain the contents of the tank or barrel and any drips, leaks, and anticipated precipitation. The operator will dispose of fluids within the containment system that do not meet applicable state or U. S. Environmental Protection Agency livestock water standards in accordance with state law; the operator must not drain the fluids to the soil or ground. The operator will design, construct, and maintain all secondary containment systems to prevent wildlife and livestock exposure to harmful substances. At a minimum, the operator will install effective wildlife and livestock exclosure systems such as fencing, netting, expanded metal mesh, lids, and grate covers. Use a maximum netting mesh size of 1 ½ inches.

Open-Vent Exhaust Stack Exclosures
The operator will construct, modify, equip, and maintain all open-vent exhaust stacks on production equipment to prevent birds and bats from entering, and to discourage perching, roosting, and nesting. (*Recommended exclosure structures on open-vent exhaust stacks are in the shape of a cone*.) Production equipment includes, but may not be limited to, tanks, heater-treaters, separators, dehydrators, flare stacks, in-line units, and compressor mufflers.

Containment Structures

Proposed production facilities such as storage tanks and other vessels will have a secondary containment structure that is constructed to hold the capacity of 1.5 times the largest tank, plus freeboard to account for precipitation, unless more stringent protective requirements are deemed necessary.

Painting Requirement
All above-ground structures including meter housing that are not subject to safety requirements shall be painted a flat non-reflective paint color, **Shale Green** from the BLM Standard Environmental Color Chart (CC-001: June 2008).

B. PIPELINES

BURIED PIPELINE STIPULATIONS

A copy of the application (Grant, APD, or Sundry Notice) and attachments, including conditions of approval, survey plat and/or map, will be on location during construction. BLM personnel may request to you a copy of your permit during construction to ensure compliance with all stipulations.

Holder agrees to comply with the following stipulations to the satisfaction of the Authorized Officer:

1. The Holder shall indemnify the United States against any liability for damage to life or property arising from the occupancy or use of public lands under this grant.

2. The Holder shall comply with all applicable Federal laws and regulations existing or hereafter enacted or promulgated. In any event, the holder shall comply with the Toxic Substances Control Act of 1976 as amended, 15 USC 2601 et seq. (1982) with regards to any toxic substances that are used, generated by or stored on the right-of-way or on facilities authorized under this right-of-way grant. (See 40 CFR Part 702-799 and especially, provisions on polychlorinated biphenyls, 40 CFR 761.1-761.193.) Additionally, any release of toxic substances (leaks, spills, etc.) in excess of the reportable quantity established by 40 CFR Part 117 shall be reported as required by the Comprehensive Environmental Response, Compensation, and Liability Act, section 102b. A copy of any report required or requested by any Federal agency or State government as a result of a reportable release or spill of any toxic substances shall be furnished to the authorized officer concurrent with the filing of the reports to the involved Federal agency or State government.

3. The holder agrees to indemnify the United States against any liability arising from the release of any hazardous substance or hazardous waste (as these terms are defined in the Comprehensive Environmental Response, Compensation and Liability Act of 1980, 42 U.S.C. 9601, et seq. or the Resource Conservation and Recovery Act, 42 U.S.C.6901, et seq.) on the Right-of-Way (unless the release or threatened release is wholly unrelated to the Right-of-Way holder's activity on the Right-of-Way), or resulting from the activity of the Right-of-Way holder on the Right-of-Way. This agreement applies without regard to whether a release is caused by the holder, its agent, or unrelated third parties.

4. If, during any phase of the construction, operation, maintenance, or termination of the pipeline, any oil or other pollutant should be discharged from the pipeline system, impacting Federal lands, the control and total removal, disposal, and cleaning up of such oil or other pollutant, wherever found, shall be the responsibility of holder, regardless of fault. Upon failure of holder to control, dispose of, or clean up such discharge on or affecting Federal lands, or to repair all damages resulting therefrom, on the Federal lands, the Authorized Officer may take such measures as he deems necessary to control and clean up the discharge and restore the area, including where appropriate, the aquatic environment and fish and wildlife habitats, at the full expense of the holder. Such action by the Authorized Officer shall not relieve holder of any responsibility as provided herein.

5. All construction and maintenance activity will be confined to the authorized right-of-way.

6. The pipeline will be buried with a minimum cover of **36** inches between the top of the pipe and ground level.

7. The maximum allowable disturbance for construction in this right-of-way will be **30** feet:

- Blading of vegetation within the right-of-way will be allowed: maximum width of blading operations will not exceed **30** feet. The trench is included in this area. (*Blading is defined as the complete removal of brush and ground vegetation.*)

- Clearing of brush species within the right-of-way will be allowed: maximum width of clearing operations will not exceed **30** feet. The trench and bladed area are included in this area. (*Clearing is defined as the removal of brush while leaving ground vegetation (grasses, weeds, etc.) intact. Clearing is best accomplished by holding the blade 4 to 6 inches above the ground surface.*)

- The remaining area of the right-of-way (if any) shall only be disturbed by compressing the vegetation. (*Compressing can be caused by vehicle tires, placement of equipment, etc.*)

8. The holder shall stockpile an adequate amount of topsoil where blading is allowed. The topsoil to be stripped is approximately ___6___ inches in depth. The topsoil will be segregated from other spoil piles from trench construction. The topsoil will be evenly distributed over the bladed area for the preparation of seeding.

9. The holder shall minimize disturbance to existing fences and other improvements on public lands. The holder is required to promptly repair improvements to at least their former state. Functional use of these improvements will be maintained at all times. The holder will contact the owner of any improvements prior to disturbing them. When necessary to pass through a fence line, the fence shall be braced on both sides of the passageway prior to cutting of the fence. No permanent gates will be allowed unless approved by the Authorized Officer.

10. Vegetation, soil, and rocks left as a result of construction or maintenance activity will be randomly scattered on this right-of-way and will not be left in rows, piles, or berms, unless otherwise approved by the Authorized Officer. The entire right-of-way shall be recontoured to match the surrounding landscape. The backfilled soil shall be compacted and a 6 inch berm will be left over the ditch line to allow for settling back to grade.

11. In those areas where erosion control structures are required to stabilize soil conditions, the holder will install such structures as are suitable for the specific soil conditions being encountered and which are in accordance with sound resource management practices.

12. The holder will reseed all disturbed areas. Seeding will be done according to the attached seeding requirements, using the following seed mix.

( ) seed mixture 1	( ) seed mixture 3
( ) seed mixture 2	( ) seed mixture 4
(X) seed mixture 2/LPC	( ) Aplomado Falcon Mixture

13. All above-ground structures not subject to safety requirements shall be painted by the holder to blend with the natural color of the landscape. The paint used shall be color which simulates "Standard Environmental Colors" – **Shale Green**, Munsell Soil Color No. 5Y 4/2.

14. The pipeline will be identified by signs at the point of origin and completion of the right-of-way and at all road crossings. At a minimum, signs will state the holder's name, BLM serial number, and the product being transported. All signs and information thereon will be posted in a permanent, conspicuous manner, and will be maintained in a legible condition for the life of the pipeline.

15. The holder shall not use the pipeline route as a road for purposes other than routine maintenance as determined necessary by the Authorized Officer in consultation with the holder before maintenance begins. The holder will take whatever steps are necessary to ensure that the pipeline route is not used as a roadway. As determined necessary during the life of the pipeline, the Authorized Officer may ask the holder to construct temporary deterrence structures.

16. Any cultural and/or paleontological resources (historic or prehistoric site or object) discovered by the holder, or any person working on his behalf, on public or Federal land shall be immediately reported to the Authorized Officer. Holder shall suspend all operations in the immediate area of such discovery until written authorization to proceed is issued by the Authorized Officer. An evaluation of the discovery will be made by the Authorized Officer to determine appropriate actions to prevent the loss of significant cultural or scientific values. The holder will be responsible for the cost of evaluation and any decision as to proper mitigation measures will be made by the Authorized Officer after consulting with the holder.

17. The operator shall be held responsible if noxious weeds become established within the areas of operations. Weed control shall be required on the disturbed land where noxious weeds exist, which includes associated roads, pipeline corridor and adjacent land affected by the establishment of weeds due to this action. The operator shall consult with the Authorized Officer for acceptable weed control methods, which include following EPA and BLM requirements and policies.

18. Escape Ramps - The operator will construct and maintain pipeline/utility trenches [that are not otherwise fenced, screened, or netted] to prevent livestock, wildlife, and humans from becoming entrapped. At a minimum, the operator will construct and maintain escape ramps, ladders, or other methods of avian and terrestrial wildlife escape in the trenches according to the following criteria:

a. Any trench left open for eight (8) hours or less is not required to have escape ramps; however, before the trench is backfilled, the contractor/operator shall inspect the trench for wildlife, remove all trapped wildlife, and release them at least 100 yards from the trench.
b. For trenches left open for eight (8) hours or more, earthen escape ramps (built at no more than a 30 degree slope and spaced no more than 500 feet apart) shall be placed in the trench.

VIII. INTERIM RECLAMATION

During the life of the development, all disturbed areas not needed for active support of production operations should undergo interim reclamation in order to minimize the environmental impacts of development on other resources and uses.

Within six (6) months of well completion, operators should work with BLM surface management specialists (Jim Amos: 575-234-5909) to devise the best strategies to reduce the size of the location. Interim reclamation should allow for remedial well operations, as well as safe and efficient removal of oil and gas.

During reclamation, the removal of caliche is important to increasing the success of revegetating the site. Removed caliche that is free of contaminants may be used for road repairs, fire walls or for building other roads and locations. In order to operate the well or complete workover operations, it may be necessary to drive, park and operate on restored interim vegetation within the previously disturbed area. Disturbing revegetated areas for production or workover operations will be allowed. If there is significant disturbance and loss of vegetation, the area will need to be revegetated. Communicate with the appropriate BLM office for any exceptions/exemptions if needed.

All disturbed areas after they have been satisfactorily prepared need to be reseeded with the seed mixture provided below.

Upon completion of interim reclamation, the operator shall submit a Sundry Notices and Reports on Wells, Subsequent Report of Reclamation (Form 3160-5).

IX. FINAL ABANDONMENT & RECLAMATION

At final abandonment, well locations, production facilities, and access roads must undergo "final" reclamation so that the character and productivity of the land are restored.

Earthwork for final reclamation must be completed within six (6) months of well plugging. All pads, pits, facility locations and roads must be reclaimed to a satisfactory revegetated, safe, and stable condition, unless an agreement is made with the landowner or BLM to keep the road and/or pad intact.

After all disturbed areas have been satisfactorily prepared, these areas need to be revegetated with the seed mixture provided below. Seeding should be accomplished by drilling on the contour whenever practical or by other approved methods. Seeding may need to be repeated until revegetation is successful, as determined by the BLM.

Operators shall contact a BLM surface protection specialist prior to surface abandonment operations for site specific objectives (Jim Amos: 575-234-5909).

Seed Mixture for LPC Sand/Shinnery Sites

The holder shall seed all disturbed areas with the seed mixture listed below. The seed mixture shall be planted in the amounts specified in pounds of pure live seed (PLS)* per acre. There shall be no primary or secondary noxious weeds in the seed mixture. Seed will be tested and the viability testing of seed will be done in accordance with State law(s) and within nine (9) months prior to purchase. Commercial seed will be either certified or registered seed. The seed container will be tagged in accordance with State law(s) and available for inspection by the authorized officer.

Seed will be planted using a drill equipped with a depth regulator to ensure proper depth of planting where drilling is possible. The seed mixture will be evenly and uniformly planted over the disturbed area (smaller/heavier seeds have a tendency to drop the bottom of the drill and are planted first). The holder shall take appropriate measures to ensure this does not occur. Where drilling is not possible, seed will be broadcast and the area shall be raked or chained to cover the seed. When broadcasting the seed, the pounds per acre are to be doubled. The seeding will be repeated until a satisfactory stand is established as determined by the authorized officer. Evaluation of growth will not be made before completion of at least one full growing season after seeding.

Species to be planted in pounds of pure live seed* per acre:

Species	lb/acre
Plains Bristlegrass	5lbs/A
Sand Bluestem	5lbs/A
Little Bluestem	3lbs/A
Big Bluestem	6lbs/A
Plains Coreopsis	2lbs/A
Sand Dropseed	1lbs/A

*Pounds of pure live seed:

Pounds of seed **x** percent purity **x** percent germination = pounds pure live seed

PECOS DISTRICT
DRILLING CONDITIONS OF APPROVAL

OPERATOR'S NAME:	**Advance Energy Partners Hat Mesa LLC**
LEASE NO.:	**NMNM120905**
LOCATION:	Section 2, T.22 S., R.32 E., NMPM
COUNTY:	Lea County, New Mexico

WELL NAME & NO.:	Anderson Fed Com 701H
SURFACE HOLE FOOTAGE:	180'/N & 776'/W
BOTTOM HOLE FOOTAGE	2540'/S & 990'/W

WELL NAME & NO.:	Anderson Fed Com 702H
SURFACE HOLE FOOTAGE:	180'/N & 2287'/W
BOTTOM HOLE FOOTAGE	1220'/S & 2310'/W

WELL NAME & NO.:	Anderson Fed Com 703H
SURFACE HOLE FOOTAGE:	180'/N & 2248'/E
BOTTOM HOLE FOOTAGE	1220'/S & 1650'/E

WELL NAME & NO.:	Anderson Fed Com 705H
SURFACE HOLE FOOTAGE:	630'/N & 892'/E
BOTTOM HOLE FOOTAGE	1220'/S & 330'/E

COA

H2S	☐ Yes	☒ No	
Potash	☐ None	☒ Secretary	☐ R-111-P
Cave/Karst Potential	☒ Low	☐ Medium	☐ High
Cave/Karst Potential	☐ Critical		
Variance	☐ None	☒ Flex Hose	☐ Other
Wellhead	☐ Conventional	☒ Multibowl	☐ Both
Other	☐ 4 String Area	☐ Capitan Reef	☐ WIPP
Other	☐ Fluid Filled	☐ Cement Squeeze	☐ Pilot Hole
Special Requirements	☐ Water Disposal	☑ COM	☐ Unit

A. HYDROGEN SULFIDE

Hydrogen Sulfide (H2S) monitors shall be installed prior to drilling out the surface shoe. If H2S is detected in concentrations greater than 100 ppm, the Hydrogen Sulfide area shall meet Onshore Order 6 requirements, which includes equipment and personnel/public protection items. If Hydrogen Sulfide is encountered, provide measured values and formations to the BLM.

Approval Date: 10/15/2021

B. CASING

1. The **10-3/4** inch surface casing shall be set at approximately **1194 feet** (a minimum of **25 feet (Lea County)** into the Rustler Anhydrite and above the salt) and cemented to the surface.

    a. If cement does not circulate to the surface, the appropriate BLM office shall be notified and a temperature survey utilizing an electronic type temperature survey with surface log readout will be used or a cement bond log shall be run to verify the top of the cement. Temperature survey will be run a minimum of six hours after pumping cement and ideally between 8-10 hours after completing the cement job.
    b. Wait on cement (WOC) time for a primary cement job will be a minimum of **24 hours in the Potash Area** or 500 pounds compressive strength, whichever is greater. (This is to include the lead cement)

    c. Wait on cement (WOC) time for a remedial job will be a minimum of 4 hours after bringing cement to surface or 500 pounds compressive strength, whichever is greater.
    d. If cement falls back, remedial cementing will be done prior to drilling out that string.

2. The minimum required fill of cement behind the **7-5/8** inch intermediate casing is:

    Option 1 (Single Stage):

    - Cement to surface. If cement does not circulate see B.1.a, c-d above. **Wait on cement (WOC) time for a primary cement job is to include the lead cement slurry due to cave/karst or potash.**

    Option 2:

    Operator has proposed a DV tool, the depth may be adjusted as long as the cement is changed proportionally. The DV tool may be cancelled if cement circulates to surface on the first stage.

    a. First stage to DV tool: Cement to circulate. If cement does not circulate off the DV tool, contact the appropriate BLM office before proceeding with second stage cement job.

    b. Second stage above DV tool:

    - Cement to surface. If cement does not circulate, contact the appropriate BLM office.
      Wait on cement (WOC) time for a primary cement job is to include the lead cement slurry due to cave/karst or potash.

- ❖ In Secretary Potash Areas if cement does not circulate to surface on the first two casing strings, the cement on the 3rd casing string must come to surface.

3. The minimum required fill of cement behind the **5-1/2** inch production casing is:

    - Cement should tie-back at least **500 feet** into previous casing string. Operator shall provide method of verification.

C. PRESSURE CONTROL

1. Variance approved to use flex line from BOP to choke manifold. Manufacturer's specification to be readily available. No external damage to flex line. Flex line to be installed as straight as possible (no hard bends).'

2. Operator has proposed a multi-bowl wellhead assembly. This assembly will only be tested when installed on the surface casing. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the surface casing shoe shall be **5000 (5M)** psi.

    a. Wellhead shall be installed by manufacturer's representatives, submit documentation with subsequent sundry.
    b. If the welding is performed by a third party, the manufacturer's representative shall monitor the temperature to verify that it does not exceed the maximum temperature of the seal.
    c. Manufacturer representative shall install the test plug for the initial BOP test.
    d. If the cement does not circulate and one inch operations would have been possible with a standard wellhead, the well head shall be cut off, cementing operations performed and another wellhead installed.
    e. Whenever any seal subject to test pressure is broken, all the tests in OOGO2.III.A.2.i must be followed.

D. SPECIAL REQUIREMENT (S)

Communitization Agreement

- The operator will submit a Communitization Agreement to the Santa Fe Office, 301 Dinosaur Trail Santa Fe, New Mexico 87508, at least 90 days before the anticipated date of first production from a well subject to a spacing order issued by the New Mexico Oil Conservation Division. The Communitization Agreement will include the signatures of all working interest owners in all Federal and Indian leases subject to the Communitization Agreement (i.e., operating rights owners and lessees of record), or certification that the operator has obtained the written signatures of all such owners and will make those signatures available to the BLM immediately upon request.
- If the operator does not comply with this condition of approval, the BLM may take enforcement actions that include, but are not limited to, those specified in 43 CFR 3163.1.

- In addition, the well sign shall include the surface and bottom hole lease numbers. When the Communitization Agreement number is known, it shall also be on the sign.

GENERAL REQUIREMENTS

The BLM is to be notified in advance for a representative to witness:

a. Spudding well (minimum of 24 hours)
b. Setting and/or Cementing of all casing strings (minimum of 4 hours)
c. BOPE tests (minimum of 4 hours)

☒ Eddy County
Call the Carlsbad Field Office, 620 East Greene St., Carlsbad, NM 88220, (575) 361-2822

☒ Lea County
Call the Hobbs Field Station, 414 West Taylor, Hobbs NM 88240, (575) 393-3612

1. Unless the production casing has been run and cemented or the well has been properly plugged, the drilling rig shall not be removed from over the hole without prior approval.

   a. In the event the operator has proposed to drill multiple wells utilizing a skid/walking rig. Operator shall secure the wellbore on the current well, after installing and testing the wellhead, by installing a blind flange of like pressure rating to the wellhead and a pressure gauge that can be monitored while drilling is performed on the other well(s).
   b. When the operator proposes to set surface casing with Spudder Rig
      - Notify the BLM when moving in and removing the Spudder Rig.
      - Notify the BLM when moving in the 2nd Rig. Rig to be moved in within 90 days of notification that Spudder Rig has left the location.
      - BOP/BOPE test to be conducted per Onshore Oil and Gas Order No. 2 as soon as 2nd Rig is rigged up on well.

2. Floor controls are required for 3M or Greater systems. These controls will be on the rig floor, unobstructed, readily accessible to the driller and will be operational at all times during drilling and/or completion activities. Rig floor is defined as the area immediately around the rotary table; the area immediately above the substructure on which the draw works are located, this does not include the dog house or stairway area.

3. The record of the drilling rate along with the GR/N well log run from TD to surface (horizontal well – vertical portion of hole) shall be submitted to the BLM office as well as all other logs run on the borehole 30 days from completion. If available, a digital copy of the logs is to be submitted in addition to the paper copies. The Rustler top and top and bottom of Salt are to be recorded on the Completion Report.

A. CASING

1. Changes to the approved APD casing program need prior approval if the items substituted are of lesser grade or different casing size or are Non-API. The Operator can exchange the components of the proposal with that of superior strength (i.e. changing from J-55 to N-80, or from 36# to 40#). Changes to the approved cement program need prior approval if the altered cement plan has less volume or strength or if the changes are substantial (i.e. Multistage tool, ECP, etc.). The initial wellhead installed on the well will remain on the well with spools used as needed.

2. Wait on cement (WOC) for Potash Areas: After cementing but before commencing any tests, the casing string shall stand cemented under pressure until both of the following conditions have been met: 1) cement reaches a minimum compressive strength of 500 psi for all cement blends, 2) until cement has been in place at least 24 hours. WOC time will be recorded in the driller's log. The casing intergrity test can be done (prior to the cement setting up) immediately after bumping the plug.

3. Wait on cement (WOC) for Water Basin: After cementing but before commencing any tests, the casing string shall stand cemented under pressure until both of the following conditions have been met: 1) cement reaches a minimum compressive strength of 500 psi at the shoe, 2) until cement has been in place at least 8 hours. WOC time will be recorded in the driller's log. See individual casing strings for details regarding lead cement slurry requirements. The casing intergrity test can be done (prior to the cement setting up) immediately after bumping the plug.

4. Provide compressive strengths including hours to reach required 500 pounds compressive strength prior to cementing each casing string. Have well specific cement details onsite prior to pumping the cement for each casing string.

5. No pea gravel permitted for remedial or fall back remedial without prior authorization from the BLM engineer.

6. On that portion of any well approved for a 5M BOPE system or greater, a pressure integrity test of each casing shoe shall be performed. Formation at the shoe shall be tested to a minimum of the mud weight equivalent anticipated to control the formation pressure to the next casing depth or at total depth of the well. This test shall be performed before drilling more than 20 feet of new hole.

7. If hardband drill pipe is rotated inside casing, returns will be monitored for metal. If metal is found in samples, drill pipe will be pulled and rubber protectors which have a larger diameter than the tool joints of the drill pipe will be installed prior to continuing drilling operations.
8. Whenever a casing string is cemented in the R-111-P potash area, the NMOCD requirements shall be followed.

B. PRESSURE CONTROL

1. All blowout preventer (BOP) and related equipment (BOPE) shall comply with well control requirements as described in Onshore Oil and Gas Order No. 2 and API RP 53 Sec. 17.

2. If a variance is approved for a flexible hose to be installed from the BOP to the choke manifold, the following requirements apply: The flex line must meet the requirements of API 16C. Check condition of flexible line from BOP to choke manifold, replace if exterior is damaged or if line fails test. Line to be as straight as possible with no hard bends and is to be anchored according to Manufacturer's requirements. The flexible hose can be exchanged with a hose of equal size and equal or greater pressure rating. Anchor requirements, specification sheet and hydrostatic pressure test certification matching the hose in service, to be onsite for review. These documents shall be posted in the company man's trailer and on the rig floor.

3. 5M or higher system requires an HCR valve, remote kill line and annular to match. The remote kill line is to be installed prior to testing the system and tested to stack pressure.

4. If the operator has proposed a multi-bowl wellhead assembly in the APD. The following requirements must be met:

    a. Wellhead shall be installed by manufacturer's representatives, submit documentation with subsequent sundry.
    b. If the welding is performed by a third party, the manufacturer's representative shall monitor the temperature to verify that it does not exceed the maximum temperature of the seal.
    c. Manufacturer representative shall install the test plug for the initial BOP test.
    d. Whenever any seal subject to test pressure is broken, all the tests in OOGO2.III.A.2.i must be followed.
    e. If the cement does not circulate and one inch operations would have been possible with a standard wellhead, the well head shall be cut off, cementing operations performed and another wellhead installed.

5. The appropriate BLM office shall be notified a minimum of 4 hours in advance for a representative to witness the tests.

    a. In a water basin, for all casing strings utilizing slips, these are to be set as soon as the crew and rig are ready and any fallback cement remediation has been done. The casing cut-off and BOP installation can be initiated four hours after installing the slips, which will be approximately six hours after bumping the plug. For those casing strings not using slips, the minimum wait time before cut-off is eight hours after bumping the plug. BOP/BOPE testing can begin after cut-off or once cement reaches 500 psi compressive strength (including lead when specified), whichever is greater. However, if the float does not

hold, cut-off cannot be initiated until cement reaches 500 psi compressive strength (including lead when specified).

b. In potash areas, for all casing strings utilizing slips, these are to be set as soon as the crew and rig are ready and any fallback cement remediation has been done. For all casing strings, casing cut-off and BOP installation can be initiated at twelve hours after bumping the plug. However, **no tests** shall commence until the cement has had a minimum of 24 hours setup time, except the casing pressure test can be initiated immediately after bumping the plug (only applies to single stage cement jobs).

c. The tests shall be done by an independent service company utilizing a test plug not a cup or J-packer. The operator also has the option of utilizing an independent tester to test without a plug (i.e. against the casing) pursuant to Onshore Order 2 with the pressure not to exceed 70% of the burst rating for the casing. Any test against the casing must meet the WOC time for water basin (8 hours) or potash (24 hours) or 500 pounds compressive strength, whichever is greater, prior to initiating the test (see casing segment as lead cement may be critical item).

d. The test shall be run on a 5000 psi chart for a 2-3M BOP/BOP, on a 10000 psi chart for a 5M BOP/BOPE and on a 15000 psi chart for a 10M BOP/BOPE. If a linear chart is used, it shall be a one hour chart. A circular chart shall have a maximum 2 hour clock. If a twelve hour or twenty-four hour chart is used, tester shall make a notation that it is run with a two hour clock.

e. The results of the test shall be reported to the appropriate BLM office.

f. All tests are required to be recorded on a calibrated test chart. A copy of the BOP/BOPE test chart and a copy of independent service company test will be submitted to the appropriate BLM office.

g. The BOP/BOPE test shall include a low pressure test from 250 to 300 psi. The test will be held for a minimum of 10 minutes if test is done with a test plug and 30 minutes without a test plug. This test shall be performed prior to the test at full stack pressure.

h. BOP/BOPE must be tested by an independent service company within 500 feet of the top of the Wolfcamp formation if the time between the setting of the intermediate casing and reaching this depth exceeds 20 days. This test does not exclude the test prior to drilling out the casing shoe as per Onshore Order No. 2.

C. DRILLING MUD

Mud system monitoring equipment, with derrick floor indicators and visual and audio alarms, shall be operating before drilling into the Wolfcamp formation, and shall be used until production casing is run and cemented.

D. WASTE MATERIAL AND FLUIDS

All waste (i.e. drilling fluids, trash, salts, chemicals, sewage, gray water, etc.) created as a result of drilling operations and completion operations shall be safely contained and disposed of properly at a waste disposal facility. No waste material or fluid shall be disposed of on the well location or surrounding area.

Porto-johns and trash containers will be on-location during fracturing operations or any other crew-intensive operations.

AFMSS

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

Operator Certification Data Report

11/13/2024

Operator

I hereby certify that I, or someone under my direct supervision, have inspected the drill site and access route proposed herein; that I am familiar with the conditions which currently exist; that I have full knowledge of state and Federal laws applicable to this operation; that the statements made in this APD package are, to the best of my knowledge, true and correct; and that the work associated with the operations proposed herein will be performed in conformity with this APD package and the terms and conditions under which it is approved. I also certify that I, or the company I represent, am responsible for the operations conducted under this application. These statements are subject to the provisions of 18 U.S.C. 1001 for the filing of false statements.

NAME: BRIAN WOOD **Signed on:** 03/22/2021

Title: Permitting Agent

Street Address: 37 VERANO LOOP

City: SANTA FE **State:** NM **Zip:** 87508

Phone: (505)466-8120

Email address: AFMSS@PERMITSWEST.COM

Field

Representative Name:

Street Address:

City: **State:** **Zip:**

Phone:

Email address:

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

Application Data
11/13/2024

APD ID: 10400070997 **Submission Date:** 03/22/2021

Operator Name: ADVANCE ENERGY PARTNERS HAT MESA LLC

Well Name: ANDERSON FED COM **Well Number:** 702H

Well Type: OIL WELL **Well Work Type:** Drill

Highlighted data reflects the most recent changes
Show Final Text

Section 1 - General

APD ID: 10400070997 **Tie to previous NOS?** N **Submission Date:** 03/22/2021

BLM Office: Carlsbad **User:** BRIAN WOOD **Title:** Permitting Agent

Federal/Indian APD: FED **Is the first lease penetrated for production Federal or Indian?** FED

Lease number: NMNM120905 **Lease Acres:**

Surface access agreement in place? **Allotted?** **Reservation:**

Agreement in place? NO **Federal or Indian agreement:**

Agreement number:

Agreement name:

Keep application confidential? N

Permitting Agent? YES **APD Operator:** ADVANCE ENERGY PARTNERS HAT MESA LLC

Operator letter of

Operator Info

Operator Organization Name: ADVANCE ENERGY PARTNERS HAT MESA LLC

Operator Address: 11490 Westheimer Rd, Suite 950 **Zip:** 77707

Operator PO Box:

Operator City: Houston **State:** TX

Operator Phone: (346)444-9739

Operator Internet Address:

Section 2 - Well Information

Well in Master Development Plan? NO **Master Development Plan name:**

Well in Master SUPO? NO **Master SUPO name:**

Well in Master Drilling Plan? NO **Master Drilling Plan name:**

Well Name: ANDERSON FED COM **Well Number:** 702H **Well API Number:**

Field/Pool or Exploratory? Field and Pool **Field Name:** WC-025 G-10 S2133280 **Pool Name:** WOLFCAMP

Operator Name: ADVANCE ENERGY PARTNERS HAT MESA LLC

Well Name: ANDERSON FED COM **Well Number:** 702H

Is the proposed well in an area containing other mineral resources? USEABLE WATER,NATURAL GAS,OIL

Is the proposed well in a Helium production area? N **Use Existing Well Pad?** Y **New surface disturbance?** N

Type of Well Pad: MULTIPLE WELL **Multiple Well Pad Name:** ANDERSON FED COM **Number:** Pad C

Well Class: HORIZONTAL **Number of Legs:** 1

Well Work Type: Drill

Well Type: OIL WELL

Describe Well Type:

Well sub-Type: INFILL

Describe sub-type:

Distance to town: 26 Miles **Distance to nearest well:** 33 FT **Distance to lease line:** 180 FT

Reservoir well spacing assigned acres Measurement: 200 Acres

Well plat: Anderson_702H_C102_GCP_20210317101750.pdf

Well work start Date: 06/01/2021 **Duration:** 90 DAYS

Section 3 - Well Location Table

Survey Type: RECTANGULAR

Describe Survey Type:

Datum: NAD83 **Vertical Datum:** NAVD88

Survey number: 7977 **Reference Datum:** KELLY BUSHING

Wellbore	NS-Foot	NS Indicator	EW-Foot	EW Indicator	Twsp	Range	Section	Aliquot/Lot/Tract	Latitude	Longitude	County	State	Meridian	Lease Type	Lease Number	Elevation	MD	TVD	Will this well produce from this
SHL Leg #1	180	FNL	2287	FWL	22S	32E	2	Lot 3	32.427547	-103.646543	LEA	NEW MEXICO	NEW MEXICO	F	NMNM 109758	3667	0	0	N
KOP Leg #1	375	FNL	2337	FWL	22S	32E	2	Lot 3	32.427013	-103.646381	LEA	NEW MEXICO	NEW MEXICO	F	NMNM 109758	-7906	11576	11573	N
PPP Leg #1-1	290	FNL	2332	FWL	22S	32E	2	Lot 3	32.427458 1	-103.6463 972	LEA	NEW MEXICO	NEW MEXICO	F	NMNM 109758	-8177	11865	11844	N

Operator Name: ADVANCE ENERGY PARTNERS HAT MESA LLC

Well Name: ANDERSON FED COM **Well Number:** 702H

Wellbore	NS-Foot	NS Indicator	EW-Foot	EW Indicator	Twsp	Range	Section	Aliquot/Lot/Tract	Latitude	Longitude	County	State	Meridian	Lease Type	Lease Number	Elevation	MD	TVD	Will this well produce from this
PPP Leg #1-2	0	FSL	2310	FWL	21S	32E	35	Aliquot SESW	32.42806	-103.64645	LEA	NEW MEXICO	NEW MEXICO	F	FEE	-8370	12236	12037	Y
PPP Leg #1-3	2640	FNL	2310	FWL	21S	32E	35	Aliquot SENW	32.435323	-103.646477	LEA	NEW MEXICO	NEW MEXICO	F	NMNM 120905	-8383	14869	12050	Y
EXIT Leg #1	1220	FSL	2310	FWL	21S	32E	26	Aliquot SESW	32.44592	-103.646455	LEA	NEW MEXICO	NEW MEXICO	F	NMNM 126968	-8383	18729	12050	Y
BHL Leg #1	1220	FSL	2310	FWL	21S	32E	26	Aliquot SESW	32.44592	-103.646455	LEA	NEW MEXICO	NEW MEXICO	F	NMNM 126968	-8383	18729	12050	Y

DISTRICT I
1625 N. French Dr., Hobbs, NM 88240
Phone (575) 393-6161 Fax: (575) 393-0720
DISTRICT II
811 S. First St., Artesia, NM 88210
Phone (575) 748-1283 Fax: (575) 748-9720
DISTRICT III
1000 Rio Brazos Rd., Aztec, NM 87410
Phone (505) 334-6178 Fax: (505) 334-6170
DISTRICT IV
1220 S. St. Francis Dr., Santa Fe, NM 87505
Phone (505) 476-3460 Fax: (505) 476-3462

State of New Mexico
Energy, Minerals and Natural Resources Department

OIL CONSERVATION DIVISION

1220 South St. Francis Dr.
Santa Fe, New Mexico 87505

Form C-102
Revised August 4, 2011

Submit one copy to appropriate District Office

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number	Pool Code	Pool Name
30-025-	98033	WC-025 G-10 S213328O; Wolfcamp

Property Code	Property Name	Well Number
	ANDERSON FED COM	702H

OGRID No.	Operator Name	Elevation
372417	ADVANCE ENERGY PARTNERS HAT MESA, LLC	3667'

Surface Location

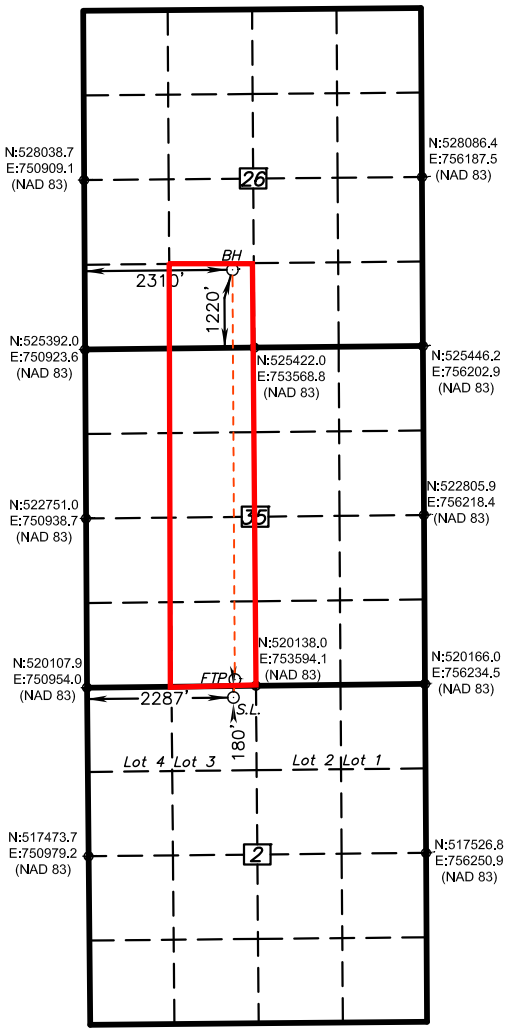
UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	SOUTH/South line	Feet from the	East/West line	County
LOT 3	2	22 S	32 E		180	NORTH	2287	WEST	LEA

Bottom Hole Location If Different From Surface

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	SOUTH/South line	Feet from the	East/West line	County
N	26	21 S	32 E		1220	SOUTH	2310	WEST	LEA

Dedicated Acres	Joint or Infill	Consolidation Code	Order No.
200.00		C	

NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION



PROPOSED BOTTOM HOLE LOCATION
Lat – N 32.445920°
Long – W 103.646455°
NMSPCE– N 526638.2
E 753226.8
(NAD-83)

FIRST TAKE POINT
100' FSL & 2310' FWL
Lat – N 32.428317°
Long – W 103.646470°
NMSPCE– N 520234.2
E 753263.3
(NAD-83)

SURFACE LOCATION
Lat – N 32.427547°
Long – W 103.646543°
NMSPCE– N 519954.0
E 753242.5
(NAD-83)

OPERATOR CERTIFICATION

I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or unLEAsed mineral interest in the land including the proposed bottom hole location or has a right to drill this well at this location pursuant to a contract with an owner of such a mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.

Cory Walk 3-4-21
Signature Date

Cory Walk
Printed Name

cory@permitswest.com
Email Address

SURVEYOR CERTIFICATION

I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervison, and that the same is true and correct to the best of my belief.

JULY 22, 2020
Date Surveyed

Signature & Seal of Professional Surveyor

GARY L. JONES NEW MEXICO 7977 REGISTERED PROFESSIONAL LAND SURVEYOR

Certificate No. Gary L. Jones 7977
BASIN SURVEYS

0' 1500' 3000' 4500' 6000' N
SCALE: 1" = 3000'
WO Num.: 35114

District I
1625 N. French Dr., Hobbs, NM 88240
District II
811 S. First St., Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy, Minerals and Natural Resources Department

Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

Submit Original to Appropriate District Office

GAS CAPTURE PLAN

Date: 03-05-20

X Original Operator & OGRID No.: Advance Energy Partners Hat Mesa, LLC (372417)
☐ Amended - Reason for Amendment: _____

This Gas Capture Plan outlines actions to be taken by the Advance Energy Partners Hat Mesa, LLC to reduce well/production facility flaring/venting for new completion (new drill, recomplete to new zone, re-frac) activity.

Note: Form C-129 must be submitted and approved prior to exceeding 60 days allowed by Rule (Subsection A of 19.15.18.12 NMAC).

Well(s)/Production Facility – Name of facility

The well(s) that will be located at the production facility are shown in the table below.

Well Name	API	SHL (ULSTR)	SHL Footages	Expected MCF/D	Flared or Vented	Comments
Anderson Fed Com 702H	30-025-	C-2-22s-32e	180' FNL & 2287' FWL	425	≈30 days	flare until well clean, then connect

Gathering System and Pipeline Notification

Well will be connected to a production facility after flowback operations are complete, if gas transporter system is in place. Gas produced from this production facility has not yet been dedicated. One possible outlet is DCP Operating Company, LP (36785). DCP connects existing wells ¼ mile northwest in M-35-21s-32e. Advance Energy Partners Hat Mesa, LLC will provide (periodically) to DCP or other transporter a drilling, completion and estimated first production date for wells that are scheduled to be drilled in the foreseeable future. In addition, Advance Energy Partners Hat Mesa, LLC and DCP or other transporter will have periodic conference calls to discuss changes to drilling and completion schedules. Gas from these wells will be processed at a DCP or other transporter processing plant at an as yet undetermined location. The actual flow of the gas will be based on compression operating parameters and gathering system pressures.

Flowback Strategy

After the fracture treatment/completion operations, well(s) will be produced to temporary production tanks and gas will be flared or vented. During flowback, the fluids and sand content will be monitored. When the produced fluids contain minimal sand, the wells will be turned to production facilities. Gas sales should start as soon as the wells start flowing through the production facilities, unless there are operational issues on DCP or other transporter system at that time. Based on current information, it is Advance Energy Partners Hat Mesa, LLC 's belief the system ultimately can take this gas upon completion of the well.

Safety requirements during cleanout operations from the use of underbalanced air cleanout systems may necessitate that sand and non-pipeline quality gas be vented and/or flared rather than sold on a temporary basis.

Alternatives to Reduce Flaring

Below are alternatives considered from a conceptual standpoint to reduce the amount of gas flared.

- Power Generation – On lease
  - Only a portion of gas is consumed operating the generator, remainder of gas will be flared
- Compressed Natural Gas – On lease
  - Gas flared would be minimal, but might be uneconomical to operate when gas volume declines
- NGL Removal – On lease
  - Plants are expensive, residue gas is still flared, and uneconomical to operate when gas volume declines

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

Drilling Plan Data Report
11/13/2024

APD ID: 10400070997 **Submission Date:** 03/22/2021

Operator Name: ADVANCE ENERGY PARTNERS HAT MESA LLC

Well Name: ANDERSON FED COM **Well Number:** 702H

Well Type: OIL WELL **Well Work Type:** Drill

Highlighted data reflects the most recent changes

Show Final Text

Section 1 - Geologic Formations

Formation ID	Formation Name	Elevation	True Vertical	Measured Depth	Lithologies	Mineral Resources	Producing Formatio
7696965	UNKNOWN	3667	0	0	OTHER : Quaternary Caliche (Quaternary is not in the AFMSS drop-down menu)	USEABLE WATER	N
7696966	RUSTLER ANHYDRITE	2498	1169	1169	ANHYDRITE	NONE	N
7696967	SALADO	2410	1257	1257	SALT	OTHER : Salt	N
7696968	BELL CANYON	-1080	4747	4747	SANDSTONE	NONE	N
7696969	BRUSHY CANYON LOWER	-4727	8394	8396	SANDSTONE	NATURAL GAS, OIL	N
7696971	BONE SPRING LIME	-5087	8754	8754	LIMESTONE	NATURAL GAS, OIL	N
7696972	AVALON	-5247	8914	8916	SHALE	NATURAL GAS, OIL	N
7696973	BONE SPRING 1ST	-6114	9781	9784	SANDSTONE	NATURAL GAS, OIL	N
7696970	BONE SPRING 2ND	-6702	10369	10373	SANDSTONE	NATURAL GAS, OIL	N
7696974	BONE SPRING 3RD	-7280	10947	10951	OTHER : Carbonate	NATURAL GAS, OIL	N
7696975	BONE SPRING 3RD	-7827	11494	11498	SANDSTONE	NATURAL GAS, OIL	N
7696976	WOLFCAMP	-8177	11844	11865	OTHER : Carbonate	NATURAL GAS, OIL	Y

Section 2 - Blowout Prevention

Pressure Rating (PSI): 5M **Rating Depth:** 12000

Equipment: See attached Helmerich & Payne BOP Testing BLM manual for equipment and procedures for a 5000-psi system.
Requesting Variance? YES

Variance request: Variance is requested to use a co-flex hose between the BOP and choke instead of a steel line. See attached 3" I. D. x 10K test certificate. If this hose is unavailable, then a hose of equal or higher-pressure rating will be used. Variance is requested to use a speed head (aka, multi-bowl wellhead) after

Operator Name: ADVANCE ENERGY PARTNERS HAT MESA LLC

Well Name: ANDERSON FED COM **Well Number:** 702H

setting intermediate 1. Advance has drilled >50 wells in immediate area to depths >5,000' and never encountered any type of flows. This will allow Advance to land the intermediate 1 and use the current proposed wellhead design. Advance will then NU BOPE on the 10.75" and continue using the BOPE to the completion of the well.

Testing Procedure: See attached Helmerich & Payne BOP Testing BLM manual for equipment and procedures for a 5000-psi system.

Choke Diagram Attachment:

Choke_Diagram_20210317103308.pdf

BOP Diagram Attachment:

BOP_Diagram_20210317103318.pdf

Section 3 - Casing

Casing ID	String Type	Hole Size	Csg Size	Condition	Standard	Tapered String	Top Set MD	Bottom Set MD	Top Set TVD	Bottom Set TVD	Top Set MSL	Bottom Set MSL	Calculated casing length MD	Grade	Weight	Joint Type	Collapse SF	Burst SF	Joint SF Type	Joint SF	Body SF Type	Body SF
1	SURFACE	14.75	10.75	NEW	API	N	0	1194	0	1194	3667	2473	1194	J-55	40.5	BUTT	1.125	1.125	DRY	1.6	DRY	1.6
2	PRODUCTION	6.75	5.5	NEW	NON API	N	0	10112	0	10100	3667	-6433	10112	HCP-110	20	OTHER - CDC	1.125	1.125	DRY	1.6	DRY	1.6
3	INTERMEDIATE	9.875	7.625	NEW	API	N	0	10612	0	10600	3667	-6933	10612	HCP-110	29.7	LT&C	1.125	1.125	DRY	1.6	DRY	1.6
4	PRODUCTION	6.75	5.5	NEW	NON API	N	10112	10612	10100	10600	-6433	-6933	500	HCP-110	20	OTHER - VAM SFC	1.125	1.125	DRY	1.6	DRY	1.6
5	PRODUCTION	6.75	5.5	NEW	NON API	N	10612	18729	10600	12050	-6933	-8383	8117	HCP-110	20	OTHER - CDC	1.125	1.125	DRY	1.6	DRY	1.6

Casing Attachments

Operator Name: ADVANCE ENERGY PARTNERS HAT MESA LLC

Well Name: ANDERSON FED COM **Well Number:** 702H

Casing Attachments

Casing ID: 1 **String** SURFACE

Inspection Document:

Spec Document:

Tapered String Spec:

Casing Design Assumptions and Worksheet(s):

Casing_Design_Assumptions_Wolfcamp_20210317103439.pdf

Casing ID: 2 **String** PRODUCTION

Inspection Document:

Spec Document:

5.5in_CDC_Casing_Spec_Sheet_20210908151205.pdf

Tapered String Spec:

Casing Design Assumptions and Worksheet(s):

Casing_Design_Assumptions_Wolfcamp_20210317103649.pdf

Casing ID: 3 **String** PRODUCTION

Inspection Document:

Spec Document:

5.5in_VAM_Casing_Spec_Sheet_20210908151312.pdf

Tapered String Spec:

Casing Design Assumptions and Worksheet(s):

Casing_Design_Assumptions_Wolfcamp_20210908151351.pdf

Operator Name: ADVANCE ENERGY PARTNERS HAT MESA LLC

Well Name: ANDERSON FED COM **Well Number:** 702H

Casing Attachments

Casing ID: 4 **String** INTERMEDIATE

Inspection Document:

Spec Document:

Tapered String Spec:

Casing Design Assumptions and Worksheet(s):

Casing_Design_Assumptions_Wolfcamp_20210317103534.pdf

Casing ID: 5 **String** PRODUCTION

Inspection Document:

Spec Document:

5.5in_CDC_Casing_Spec_Sheet_20210908151442.pdf

Tapered String Spec:

Casing Design Assumptions and Worksheet(s):

Casing_Design_Assumptions_Wolfcamp_20210908151512.pdf

Section 4 - Cement

String Type	Lead/Tail	Stage Tool Depth	Top MD	Bottom MD	Quantity(sx)	Yield	Density	Cu Ft	Excess%	Cement type	Additives
SURFACE	Lead		0	894	410	1.99	12.8	816	50	Class C	2% Gypsum + 2% SMS + 0.25PPS Pol-EFlake + 0.005GPS NoFoam V1A
SURFACE	Tail		894	1194	170	1.34	14.8	228	20	Class C	1% CaCl2 + 0.005GPS NoFoam V1A
INTERMEDIATE	Lead	2800	0	2185	835	1.83	12.8	1528	484	B Poz + C	2% Gel + 5% SALT + 0.25PPS Pol-EFlake + 0.005GPS NoFoam V1A
INTERMEDIATE	Tail		2185	2800	100	1.33	14.8	133	0	Class C	2% Gel + 5% SALT + 0.25PPS Pol-EFlake +

Operator Name: ADVANCE ENERGY PARTNERS HAT MESA LLC

Well Name: ANDERSON FED COM **Well Number:** 702H

String Type	Lead/Tail	Stage Tool Depth	Top MD	Bottom MD	Quantity(sx)	Yield	Density	Cu Ft	Excess%	Cement type	Additives
											0.005GPS NoFoam V1A
INTERMEDIATE	Lead	2800	2800	8489	2305	1.86	12.8	4287	250	B Poz + H	3% Gel + 5% SALT + 0.3% SMS + 0.5% C-20 + 0.1% C-37 + 0.005GPS NoFoam
INTERMEDIATE	Tail		8489	10612	470	1.19	15.6	559	20	Class H	0.05% SuspendaCem 6302 + 0.35% C- 20 + 0.2% C-47B + 0.005GPS NoFoam V1A
PRODUCTION	Lead		0	11576	715	1.81	12.8	1294	278	B Poz + H	5% Gel + 0.5% SMS + 0.33% R-33 + 0.2% C-47B + 0.005GPS NoFoam V1A
PRODUCTION	Tail		11576	18729	460	1.59	13.2	731	20	B Poz + C	5PPS Plexcrete STE + 0.25% SMS + 0.5% C-20 + 0.1% C-37 + 0.5% C-47B + 0.005GPS NoFoam V1A

Section 5 - Circulating Medium

Mud System Type: Closed

Will an air or gas system be Used? NO

Description of the equipment for the circulating system in accordance with Onshore Order #2:

Diagram of the equipment for the circulating system in accordance with Onshore Order #2:

Describe what will be on location to control well or mitigate other conditions: All necessary additives (e. g., barite, bentonite, LCM) to maintain mud properties and meet minimum lost circulation and weight increase needs will be on site at all times. Mud program may change due to hole conditions.
Describe the mud monitoring system utilized: An electronic pit volume totalizer (PVT) will be used to monitor volume, flow rate, pump pressure, and stroke rate.

Circulating Medium Table

Top Depth	Bottom Depth	Mud Type	Min Weight (lbs/gal)	Max Weight (lbs/gal)	Density (lbs/cu ft)	Gel Strength (lbs/100 sqft)	PH	Viscosity (CP)	Salinity (ppm)	Filtration (cc)	Additional Characteristics

Operator Name: ADVANCE ENERGY PARTNERS HAT MESA LLC

Well Name: ANDERSON FED COM **Well Number:** 702H

Top Depth	Bottom Depth	Mud Type	Min Weight (lbs/gal)	Max Weight (lbs/gal)	Density (lbs/cu ft)	Gel Strength (lbs/100 sqft)	PH	Viscosity (CP)	Salinity (ppm)	Filtration (cc)	Additional Characteristics
0	1194	OTHER : Fresh Water Spud Mud	8.4	10							
1194	10612	OTHER : Brine Water	10	10.5							
10612	12326	OTHER : Cut Brine	9	9.5							
12326	18729	OIL-BASED MUD	10.5	11.5							

Section 6 - Test, Logging, Coring

List of production tests including testing procedures, equipment and safety measures:

No core, drill stem test, or open hole log is planned.

List of open and cased hole logs run in the well:

OTHER,

Other log type(s):

None

Coring operation description for the well:

No core, drill stem test, or open hole log is planned.

Section 7 - Pressure

Anticipated Bottom Hole Pressure: 5427 **Anticipated Surface Pressure:** 2776

Anticipated Bottom Hole Temperature(F): 241

Anticipated abnormal pressures, temperatures, or potential geologic hazards? NO

Describe:

Contingency Plans geoharzards description:

Contingency Plans geohazards

Hydrogen Sulfide drilling operations plan required? YES

Hydrogen sulfide drilling operations

Operator Name: ADVANCE ENERGY PARTNERS HAT MESA LLC

Well Name: ANDERSON FED COM **Well Number:** 702H

Anderson_PadC_H2S_Plan_v2_20210317104637.pdf

Section 8 - Other Information

Proposed horizontal/directional/multi-lateral plan submission:

Anderson_702H_Horizontal_Plan_20210317104650.pdf

Other proposed operations facets description:

Bow spring centralizers will be installed on the surface (10 bowsprings) and intermediate (59 bowsprings) casing strings.

Production casing clearance is for the casing body and not the collars.

Other proposed operations facets attachment:

Anderson_702H_Anticollision_Report_20210317104701.pdf

Closed_Loop_20210317104709.pdf

Wellhead_10.75_20210317104711.pdf

CoFlex_Certs_20210317104712.pdf

Anderson_702H_Drill_Plan_v3_20210915155330.pdf

Other Variance attachment:

Casing_Cementing_Variance_Request_20210317103853.pdf

Drawing Appendix

OFFLINE CHOKE MANIFOLD TEST

TEST 1

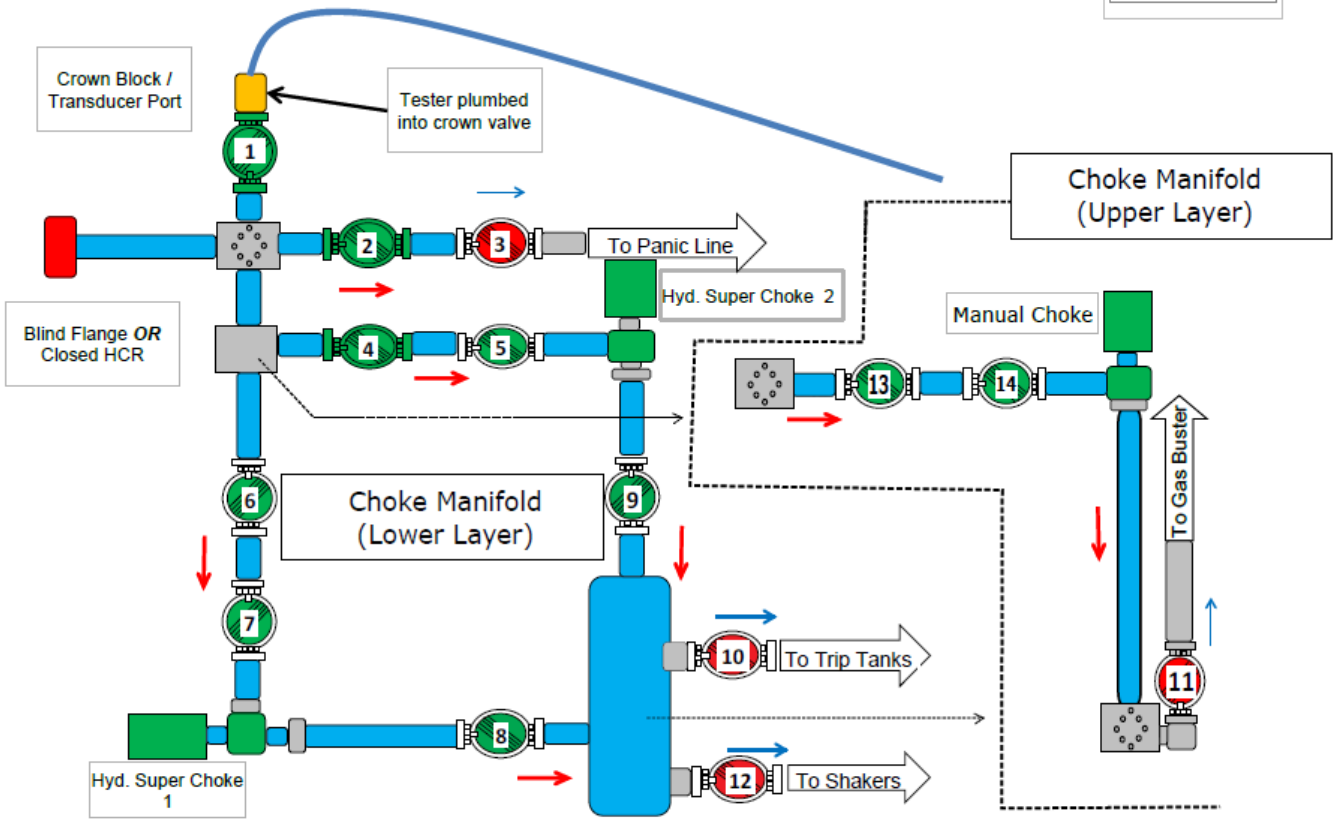
NOTE: Verify Test Pressure With Company Representative. Initial Test to RWP of BOP if utilizing test plug.

Duration:
10 min low
10 min high

KEY

- Applied Pressure
- Pressure Path
- Leak Path
- Open
- Closed
- Test Unit / Test Equipment

Post Test: Close upstream valve in subsequent test, prior to opening previously tested valve.



NOTE: Valves 10, 11 & 12 are 5K valves. Test to 75% RWP.

Closed:

X Choke Manifold Valves 3, 10, 11, 12

Leak Paths:

☐ Gas Buster
☐ Trip Tanks
☐ Shakers
☐ Panic Line

Figure 1: Choke Manifold Test 1

OFFLINE CHOKE MANIFOLD TEST

TEST 2

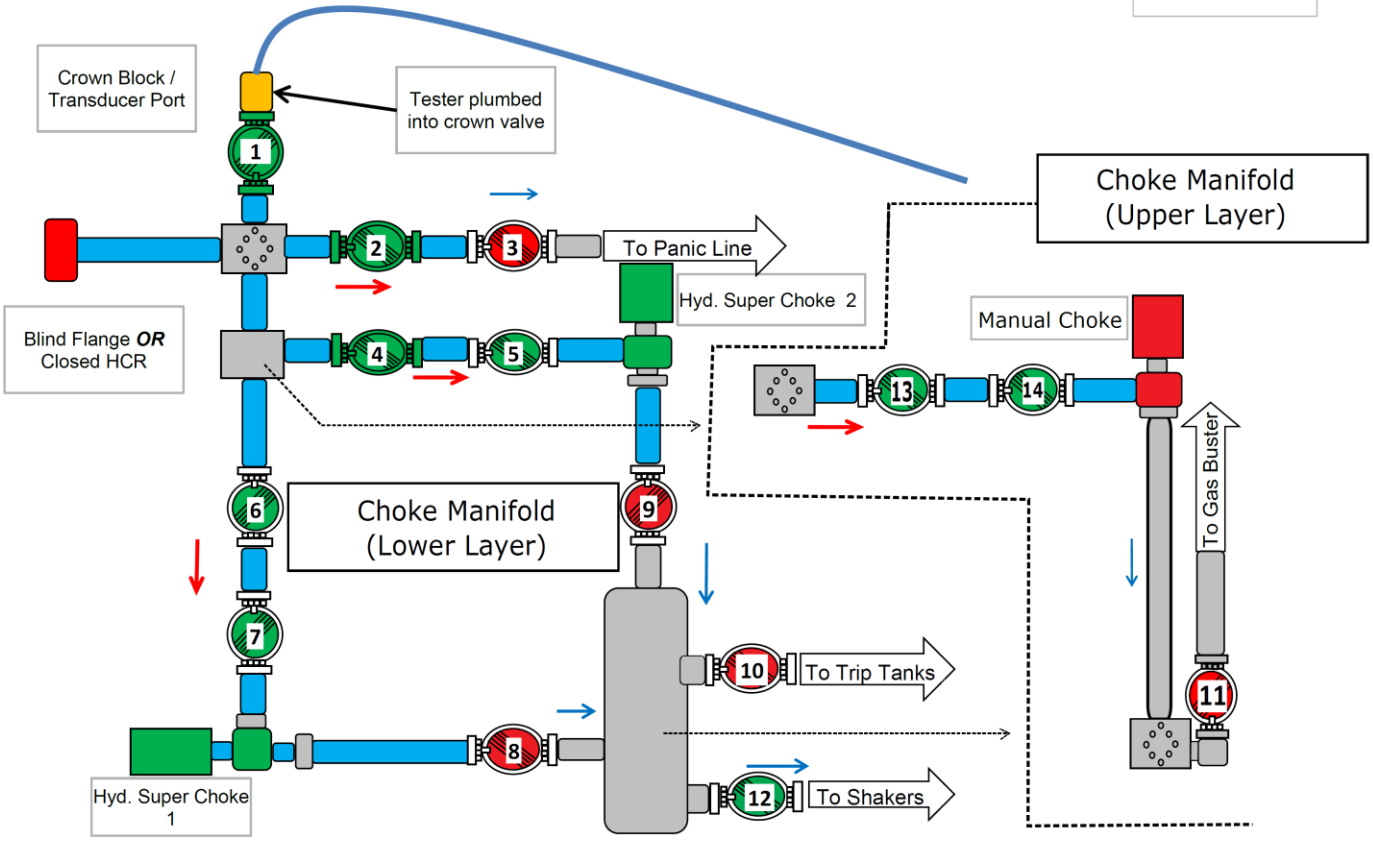
NOTE: Verify Test Pressure With Company Representative. Initial Test to RWP of BOP if utilizing test plug.

Duration:
10 min low
10 min high

KEY

- Applied Pressure
- Pressure Path
- Leak Path
- Open
- Closed
- Test Unit / Test Equipment

Post Test: Close upstream valve in subsequent test, prior to opening previously tested valve.



Closed:
X Choke Manifold Valves 3, 8, 9, 10, 11
X Manual Choke

Leak Paths:
☐ Shakers
☐ Panic Line

**Test Manual Choke only at request of Operator. If not requested, close valve 14.

Figure 2: Choke Manifold Test 2

OFFLINE CHOKE MANIFOLD TEST

TEST 3

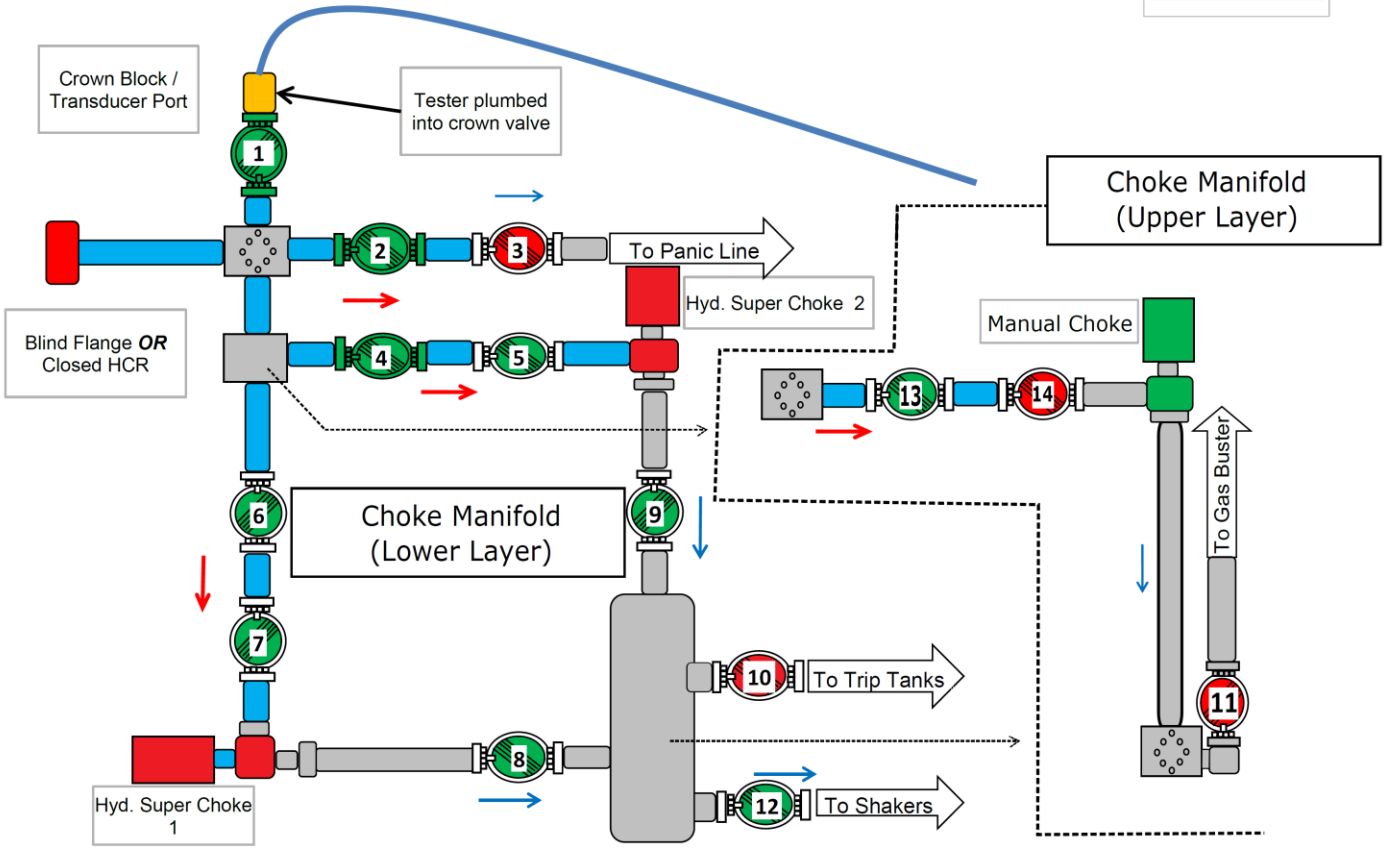
NOTE: Verify Test Pressure With Company Representative. Initial Test to RWP of BOP if utilizing test plug.

Duration:
10 min low
10 min high

KEY

- Applied Pressure
- Pressure Path
- Leak Path
- Open
- Closed
- Test Unit / Test Equipment

Post Test: Close upstream valve in subsequent test, prior to opening previously tested valve.



Closed:
X Choke Manifold Valves 3, 10, 11, 14
X Hydraulic Super Choke 1 and 2

Leak Paths:
☐ Shakers
☐ Panic Line

**Test Hydraulic Chokes only at request of Operator.
If not requested, skip to Test 4.

Figure 3: Choke Manifold Test 3

OFFLINE CHOKE MANIFOLD TEST

TEST 4

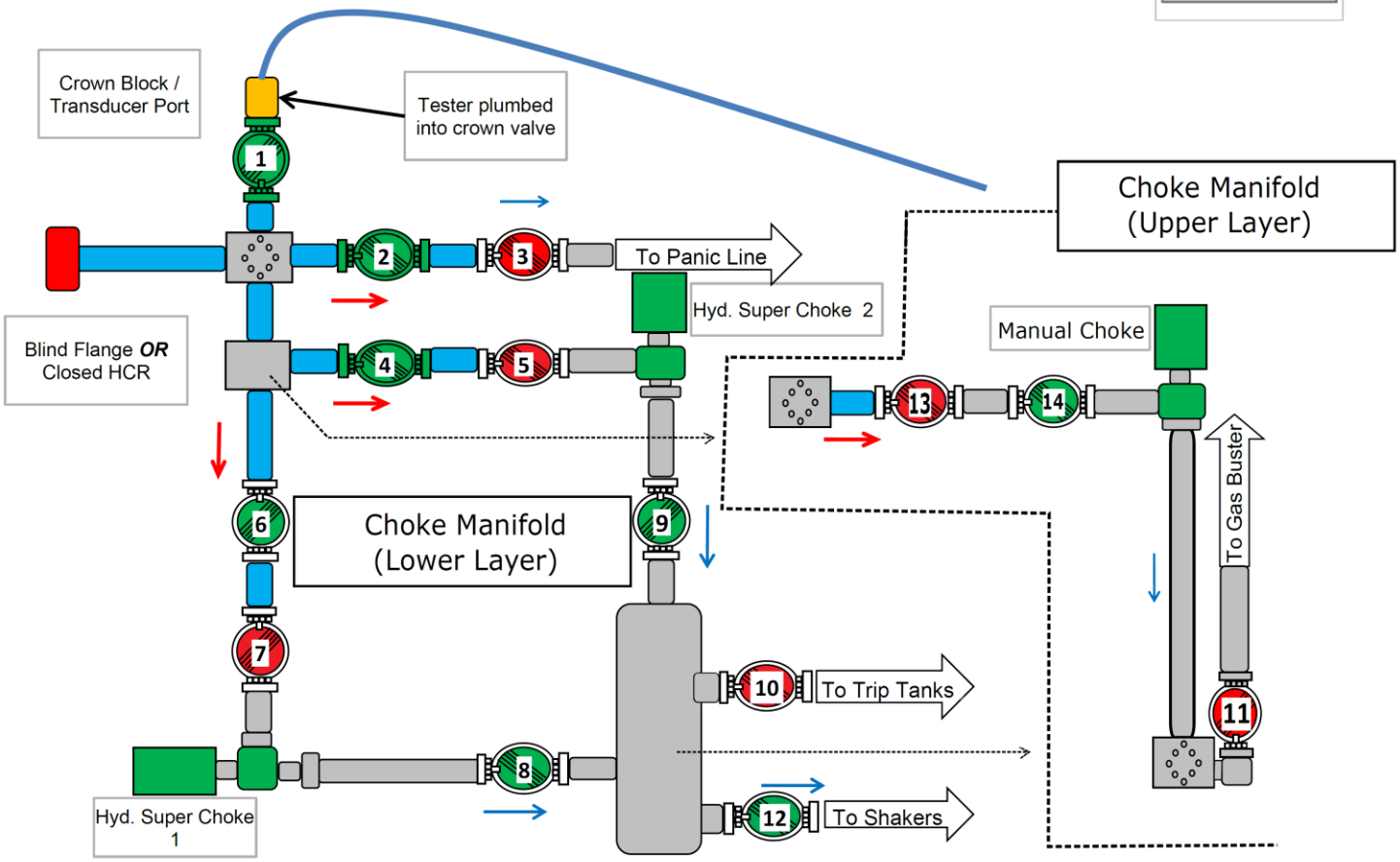
NOTE: Verify Test Pressure With Company Representative. Initial Test to RWP of BOP if utilizing test plug.

Duration:
10 min low
10 min high

KEY

- Applied Pressure
- Pressure Path
- Leak Path
- Open
- Closed
- Test Unit / Test Equipment

Post Test: Close upstream valve in subsequent test, prior to opening previously tested valve.



Closed:
X Choke Manifold Valves 3, 5, 7, 10, 11, 13

Leak Paths:
- Shakers
- Panic Line

Figure 4: Choke Manifold Test 4

OFFLINE CHOKE MANIFOLD TEST

TEST 5

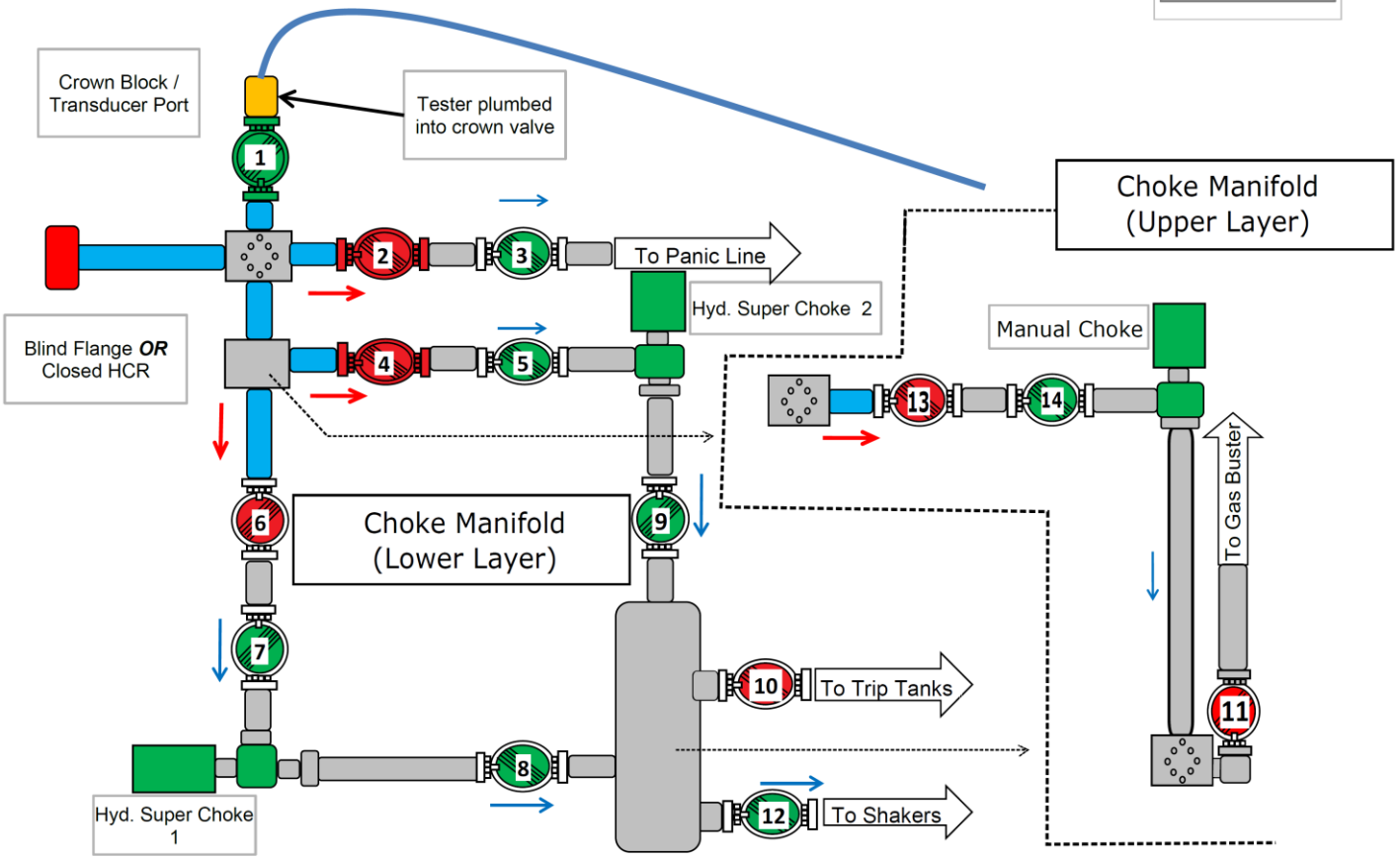
NOTE: Verify Test Pressure With Company Representative. Initial Test to RWP of BOP if utilizing test plug.

Duration:
10 min low
10 min high

KEY

- Applied Pressure
- Pressure Path
- Leak Path
- Open
- Closed
- Test Unit / Test Equipment

Post Test: Close upstream valve in subsequent test, prior to opening previously tested valve.



Closed:
X Choke Manifold Valves 2, 4, 6, 10, 11, 13

Leak Paths:
- Shakers
- Panic Line

Figure 5: Choke Manifold Test 5

Rev. 03/05/18

BOP Testing - BLM

Online BOP (Offline Choke Manifold)

2-String (VBR) Procedure

Job Step List

5000 psi

THESE PROCEDURES WERE DEVELOPED FOR THE HELMERICH & PAYNE FLEX 3 AND FLEX 5 STANDARD CONFIGURATION RIGS. IF THE BOP BEING TESTED IS NOT ON A FLEX 3 OR FLEX 5 STANDARD CONFIGURATION RIG (OR IF YOU DO NOT KNOW HOW THE RIG YOU ARE WORKING ON IS CONFIGURED), YOU ARE REQUIRED TO CONSULT WITH THE RIG MANAGER IN ORDER TO DETERMINE IF CHANGES TO THESE PROCEDURES ARE APPROPRIATE.

Job Steps

Below is a detailed document containing the job steps that need to be taken by H&P personnel overseeing online BOP and Offline Choke testing. While overseeing the project, H&P personnel should take detailed notes and make recommendations to optimize and improve future tests.

Recommended windows to test choke and floor subs offline:

1. Test the floor subs as soon as practical – if there is an issue with the testing unit or any of the tester's equipment, this will allow time to get the new equipment to the rig. This will help to eliminate NPT due to waiting on testing companies.

    a. Recommended times to test floor subs
        i. While pumping cement (ensure to have 1 FOSV on the rig floor while pumping)
        ii. While WOC
        iii. Any time before drilling out shoe track.

    b. Verify floor sub test pressures with company representative.

2. Testing the choke manifold offline:
    a. After casing slips are set and tested, you can either:
        i. Remove coflex choke line from choke manifold side and install a blind flange to test choke manifold against.
        ii. Or leave coflex choke line connected, and test against HCR. The 20' pressure testing buffer zone must still be maintained around **ALL** lines under pressure.

    b. The optimal time to test the choke manifold offline is up to the DSV and rig manager's discretion. Recommended time periods are as follows:
        i. During inflow test, after casing slips are set and tested. Ensure buffer zone is maintained.
        ii. During rig up on new well, as time allows.
        iii. At any point before drilling out cased hole:
            1. While picking up BHA
            2. While tripping in cased hole.

    c. Keep in mind there are 2 tests in the Online BOP Test Procedure that test back to the choke manifold. If you have not finished testing the choke manifold, you can utilize these online tests to test the remaining choke manifold valves.

    d. If ready to perform the Online BOP Test before the choke manifold has been tested, that is ok. Perform the Online BOP Test and then you can finish testing the choke manifold at any point before drilling out the shoe track.

Rig up to Test Choke Manifold Offline:

- Inspect all 3rd party equipment
  - *RM or driller ~ 0.25 hours*
- Rig up test unit to crown valve (choke manifold valve #1)
  - *1 employee ~ 0.25 hours*
- Before beginning test, tester must pump through both super chokes one at a time. This is to verify both super chokes are functioning and neither are plugged.

Test Choke Manifold Offline:

- Test choke manifold per the 5 step test displayed in Figure 1 through 5 in Drawing Appendix. The components being tested are listed beneath each test.
  Note: Never pump down the panic line. Doing so will cause a spill of drilling fluid on side of location.
- **Choke Manifold Test 1** – Figure 1. (Test Valves 10, 11, 12 to 50% of RWP)
  - Choke valves # 3, 10, 11, 12
- **Choke Manifold Test 2** – Figure 2.
  - Choke valves # 3, 8, 9
  - Manual Choke
  Note: Manual choke test done per request of operator only. If not requested close valve 14.
- **Choke Manifold Test 3** – Figure 3.
  Note: Super **choke test done per request of operator only. If not requested skip to test 4.**
  - Hydraulic Super choke #1 & 2
  - Choke valve #14
- **Choke Manifold Test 4** – Figure 4.
  - Choke valve #5, 7, 13
- **Choke Manifold Test 5** – Figure 5.
  - Choke valves # 2, 4, 6

Prep to Test BOP:

- Install test plug in wellhead before skidding and beginning nipple up on new well.
  Note: Confined space entry permit may be required.
  - *2 employees ~ 0.25 hours*
- Inspect all 3rd party equipment.
  - *RM or driller ~ 0.25 hours*
- Spot test unit and load 3rd party equipment to PDS/rig floor.
  - *2 employees ~ 0.25 hours*
- Fill BOP with water and connect test hoses.
  - *2 employees ~ 0.25 hours*
- Verify sequence to open, close, test, and bleed off with tester.
  - *Driller and 1 employee ~ 0.25 hours*

Test BOP:

- Test BOP components per the 7 step test displayed in Figure 6 through 13. The components being tested are listed beneath each test.
  Note: Keep all high pressure areas barricaded and labeled. Always have a knowledgeable rig team member with tester to verify open/close sequence.
  Note: All tests are 10 minutes in duration. Be sure to bleed off completely between each test.

- **High Pressure Mud Line Test** – Figure 6.
  - Upper Hydraulic IBOP
  - Mud pump 4" valves
  - 2" bleed off valve on the rig floor

- Line up to pump water from rig tank with mud pumps. **Set pressure alarm to 150 psi above rig "zero" and fill lines with water through top drive using mud pumps. Do not exceed 15 SPM at any time.** Pump until returns are received down flowline; this will verify the weep hole is not plugged.
  - **BOP Test 1** - Figure 7.
    - Blind rams
    - 2" bleed off valve on rig floor
    - 4" standpipe valve
    - 2" bleed off at mud pump
- Make up pump-in sub to joint of drill pipe and lower joint into test plug. Make up joint to test plug.
  - **BOP Test 2** – Figure 8.
    Note: In Test 2, open crown valve at choke to verify manual gauge, choke panel gauge, and electronic sensor on driller screen. Record on test chart.
    - Upper pipe rams – smaller size of DP
    - Upper Hydraulic IBOP valve
    - Outside kill valve
    - Crown valve gauge on choke manifold (Valve #1)
  - **BOP Test 3** – Figure 9.
    - Inside kill valve
    - Hydraulic HCR
    - Lower Manual IBOP valve
  - **BOP Test 4** – Figure 11.
    - Lower pipe rams
  - **BOP Test 5 –** Figure 10.
    - Annular – smaller size of DP

    Note: Test annular to 50% of RWP of element
  - **BOP Test 6** – Figure 12.
    - Annular – 2nd and larger size of DP

    Note: Install Check valve and cap while change DP sizes
  - **BOP Test 7** – Figure 13.
    - Upper pipe rams (VBR's) – 2nd and larger size of DP
    - Check valve on kill line
    - Inside choke valve (manual HCR)

Rig Down

- R/D and L/D test joint and plug; remove test equipment from rig floor and load 3rd party truck.
  - *3 employees ~ 0.5 hours*
- Close casing valve and re-align / verify correct alignment of all other valves. Verify that check valve on kill side has been re-installed.
  Note: Confined space entry permit may be required.
  - *2 employees ~ 0.25 hours*

OFFLINE MUD LINE TEST

TEST 1

CAN BE PERFORMED DURING NIPPLE UP OPERATIONS

NOTE: Verify Test Pressure With Company Representative.
Initial test to RWP of BOP if utilizing test plug.

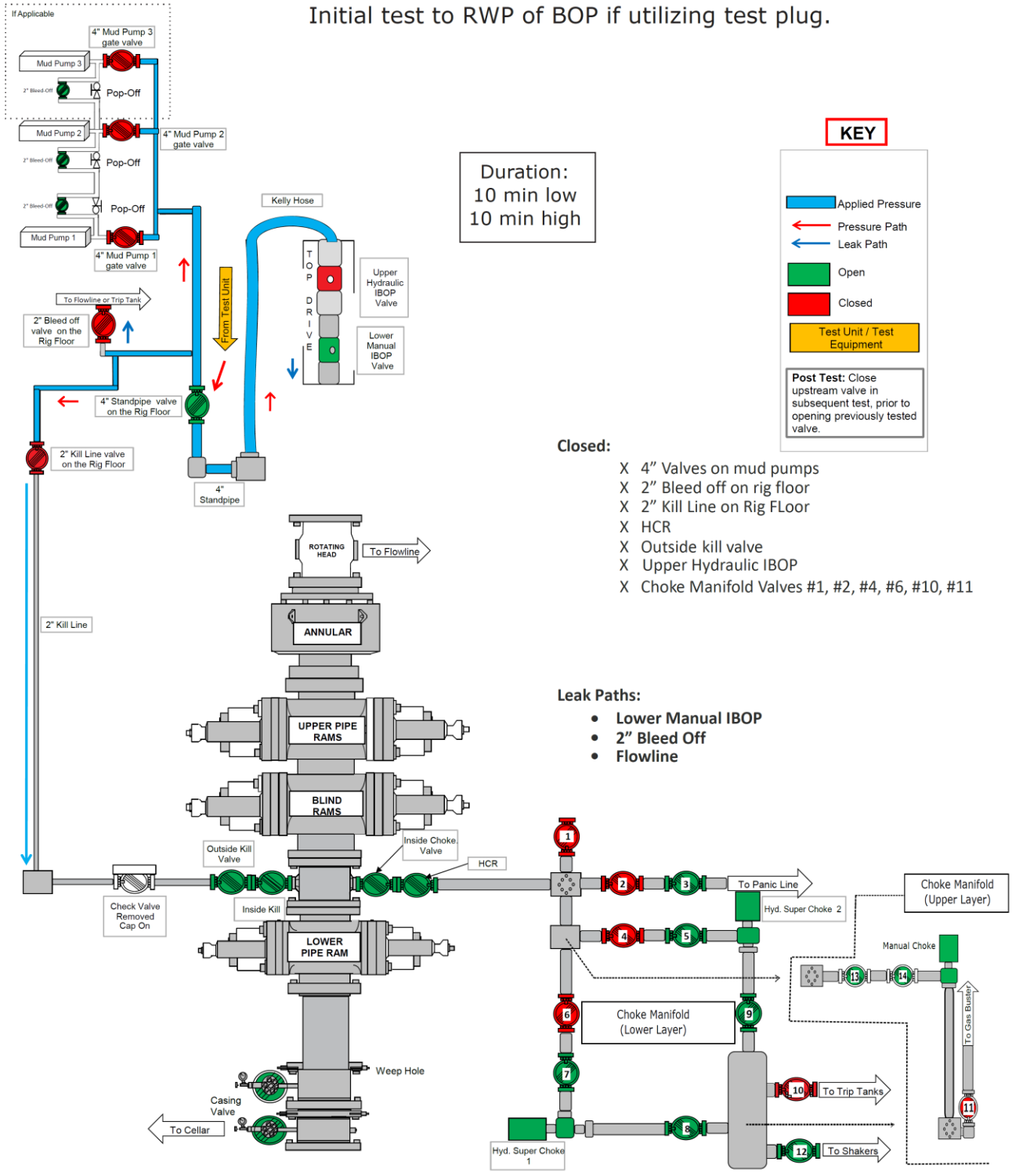


Figure 6: High Pressure Mud Line Test

ONLINE BOP TEST

TEST 1

NOTE: Verify Test Pressure With Company Representative.
Initial test to RWP of BOP if utilizing test plug.

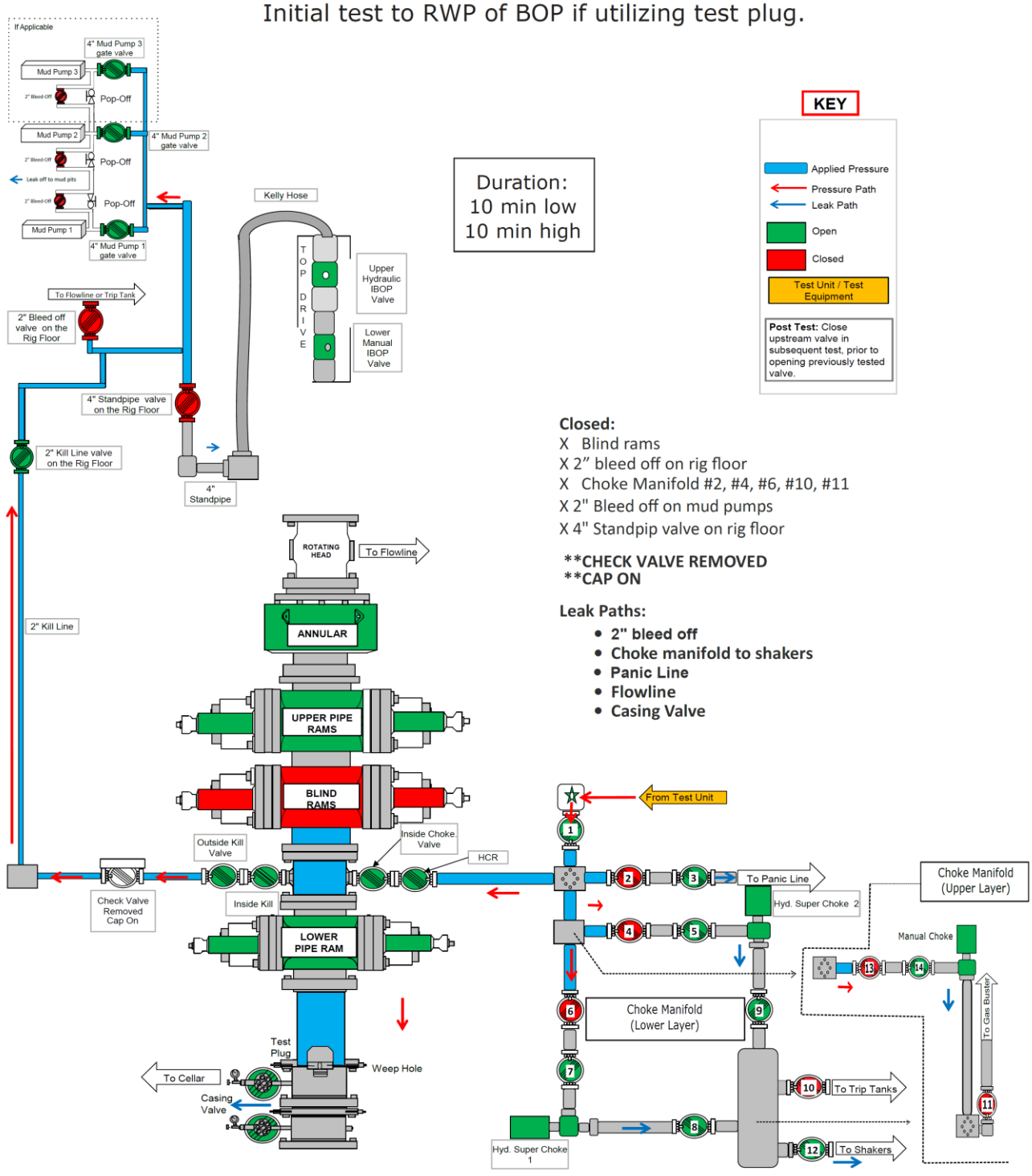


Figure 7: BOP Test 1

ONLINE BOP TEST

TEST 2

NOTE: Verify Test Pressure With Company Representative.
Initial test to RWP of BOP if utilizing test plug.

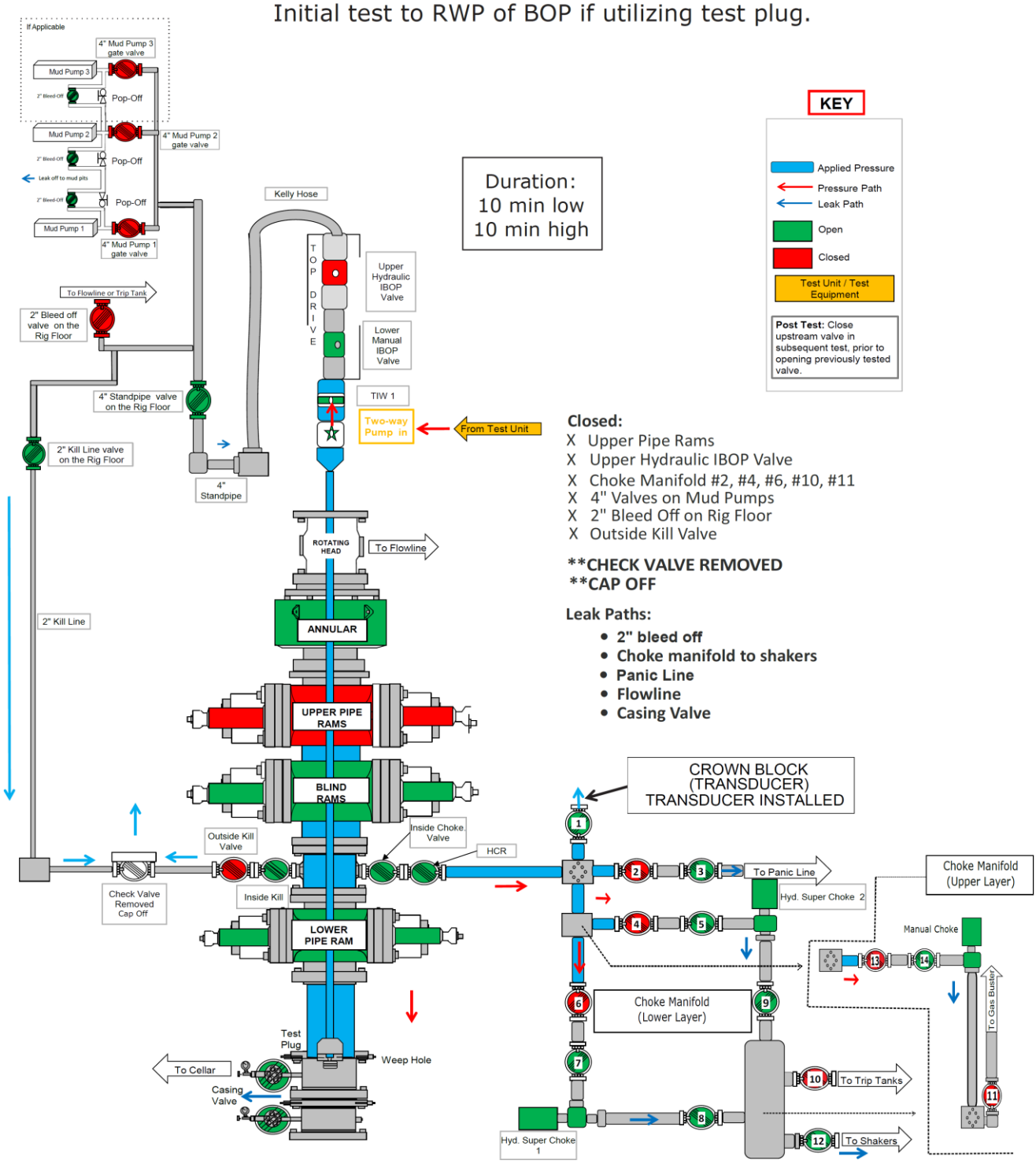


Figure 8: BOP Test 2

ONLINE BOP TEST

TEST 3

NOTE: Verify Test Pressure With Company Representative.
Initial test to RWP of BOP if utilizing test plug.

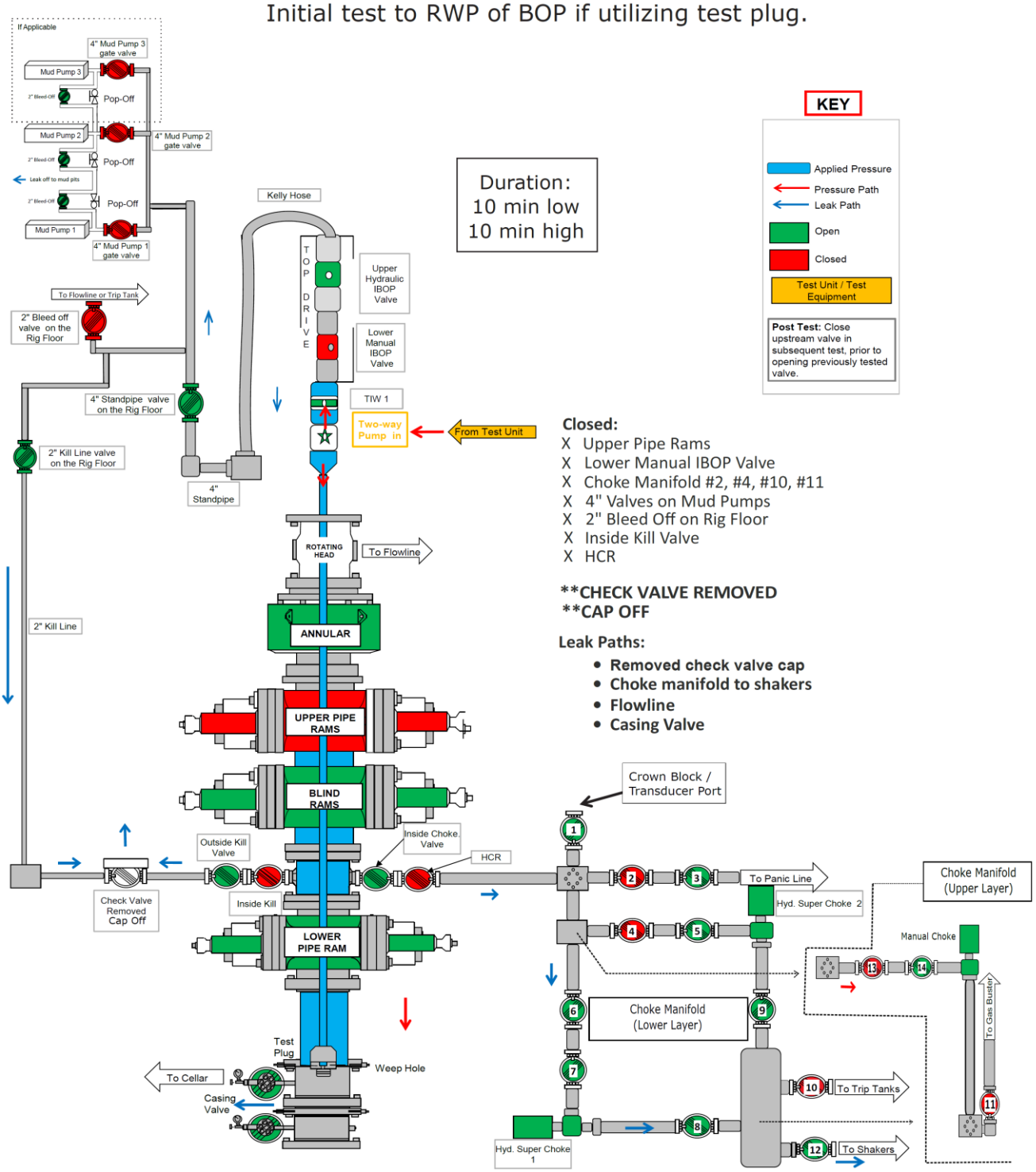


Figure 9: BOP Test 3

ONLINE BOP TEST

TEST 4

NOTE: Verify Test Pressure With Company Representative.
Initial test to RWP of BOP if utilizing test plug.

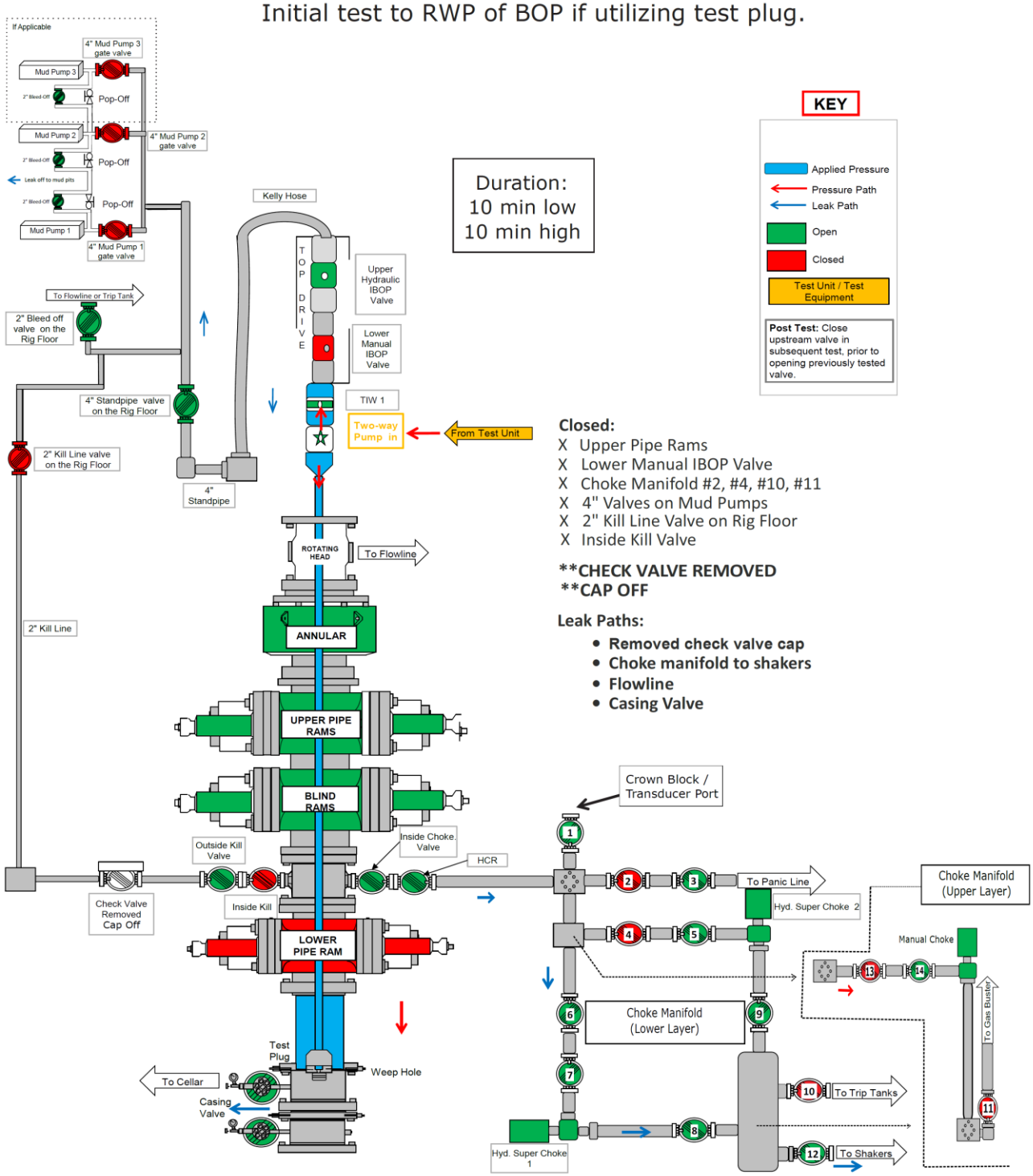


Figure 10: BOP Test 4

ONLINE BOP TEST

TEST 5

NOTE: Verify Test Pressure With Company Representative.
Annular Test to 50% RWP of Annular.

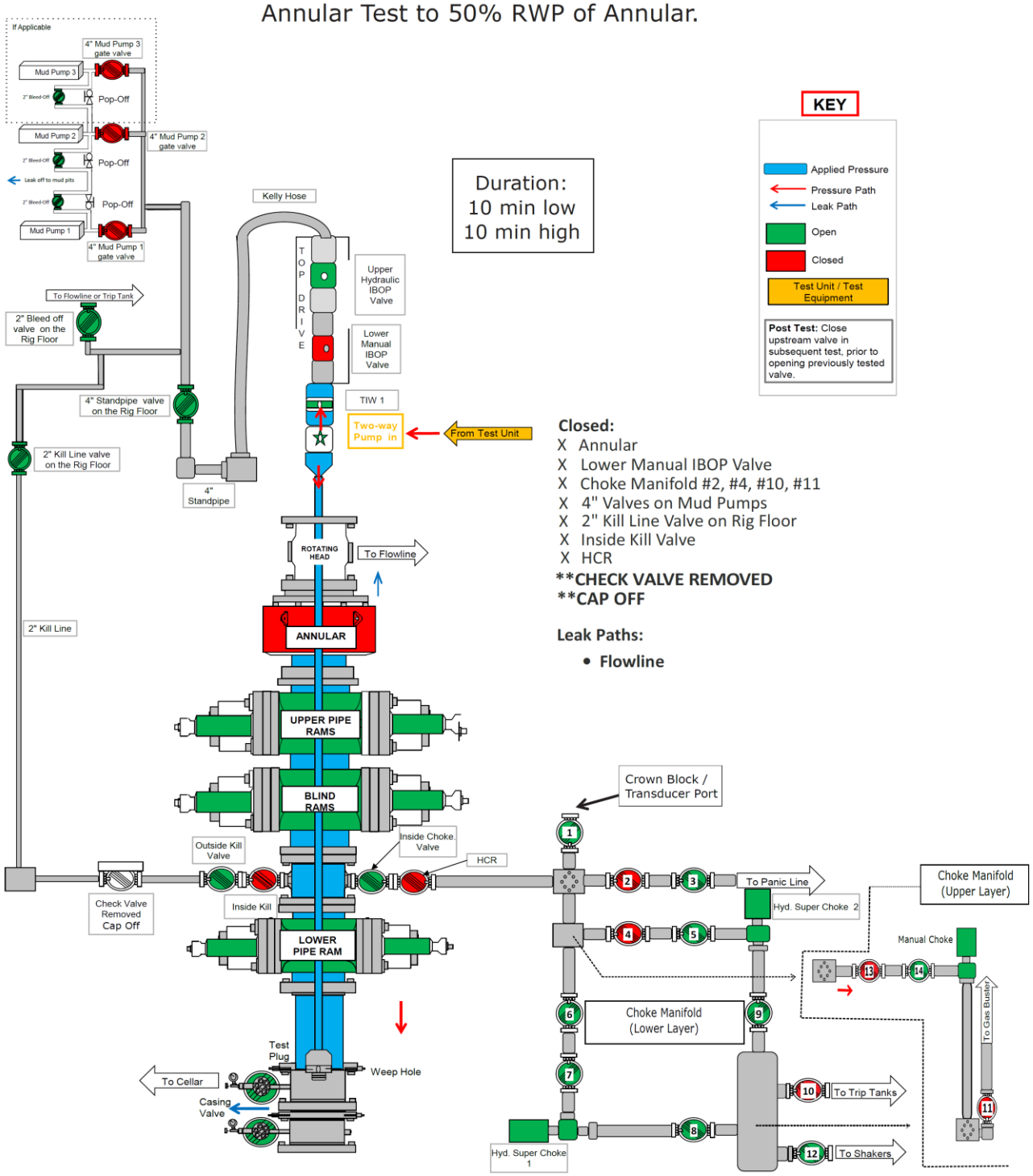


Figure 11: BOP Test 5

ONLINE BOP TEST

TEST 6

Utilize second (larger) size of drill pipe for this test.

NOTE: Verify Test Pressure With Company Representative.
Annular Test to 50% RWP of Annular.

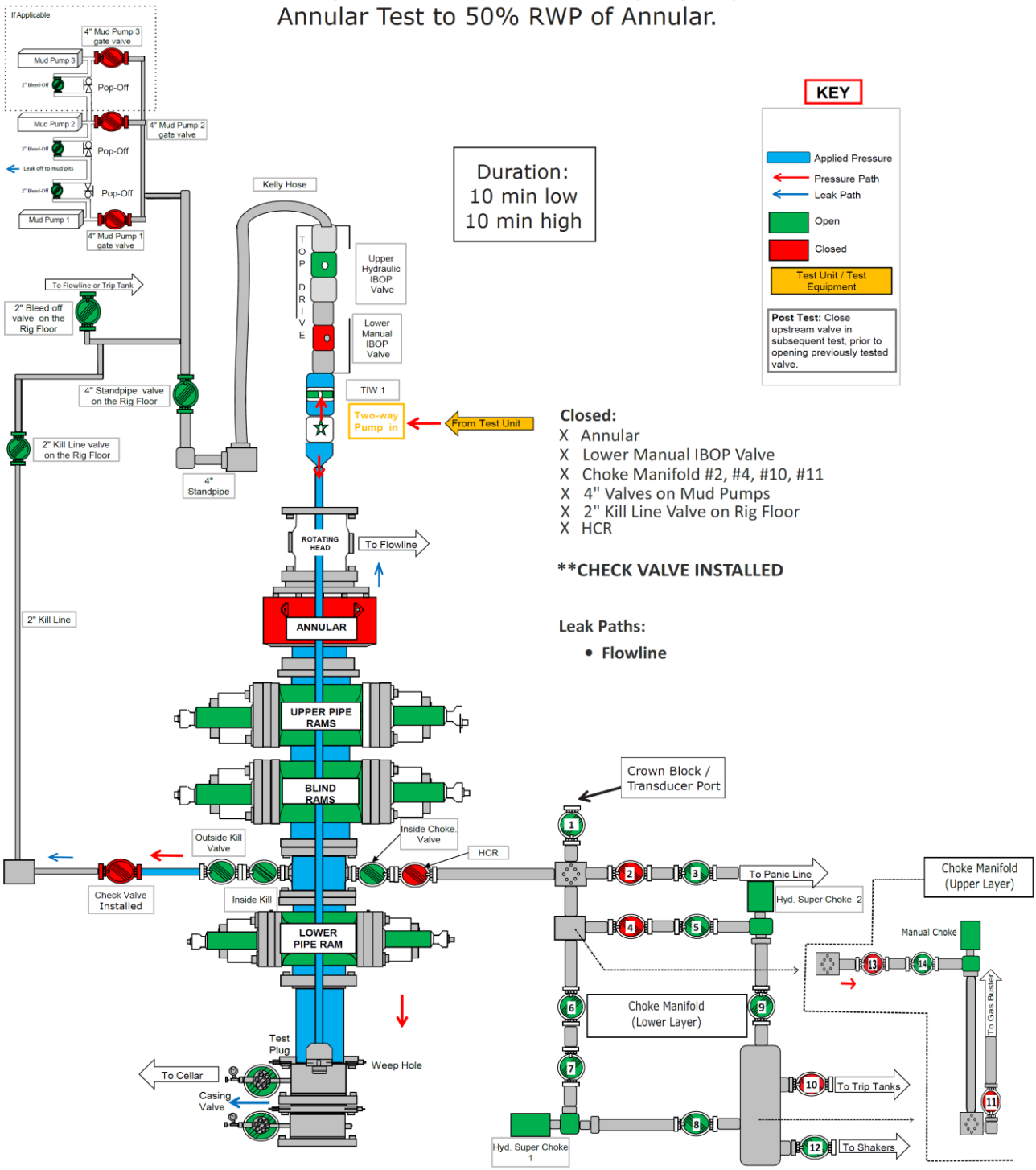


Figure 12: BOP Test 6

CONNECTION DATASHEET

generated on 08/26/2021

OD	Weight	Wall Th.	Grade	Drift	Connection
5.5 in.	20.0 lb/ft	0.361 in.	VM 110 HC	API Drift	VAM® SLIJ-II

PIPE PROPERTIES		
Nominal OD	5.500	in
Nominal ID	4.778	in
Nominal Cross Section Area	5.828	sq in
Grade Type	High Collapse	
Min. Yield Strength	110	ksi
Max. Yield Strength	140	ksi
Min. Ultimate Tensile Strength	125	ksi
Drift Value	4.653	in

CONNECTION PROPERTIES		
Connection Type	Semi-flush	
Connection OD (nom)	5.594	in
Connection ID (nom)	4.719	in
Make-up Loss	4.538	in
Critical Cross Section	4.125	sq in
Tension Efficiency	70.8	%
Structural Compression Efficiency	70.8	%
Compression Efficiency with API Sealability	49.5	%
Internal Pressure Efficiency	100	%
External Pressure Efficiency	100	%

CONNECTION PERFORMANCES		
Tensile Yield Strength	454	klb
Structural Compression Resistance	454	klb
Compression Resistance with API Sealability	318	klb
Internal Yield Pressure	12,640	psi
Uniaxial Collapse Pressure	13,340	psi
Max. Structural Bending	65	°/100 ft
Max. Bending with API Sealability	10	°/100 ft

FIELD TORQUE VALUES		
Min. Make-up Torque	5,800	ft.lb
Opti. Make-up Torque	6,500	ft.lb
Max. Make-up Torque	7,200	ft.lb
Min. Shouldering Torque	330	ft.lb
Max. Shouldering Torque	5,200	ft.lb
Max. Delta Turn	0.100	Turns

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

U. S. Steel Tubular Products

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5.500" 20.00lb/ft (0.361" Wall) P110 HC USS-CDC®

MECHANICAL PROPERTIES	Pipe	USS-CDC®		--
Minimum Yield Strength	110,000	--	psi	--
Maximum Yield Strength	140,000	--	psi	--
Minimum Tensile Strength	125,000	--	psi	--
DIMENSIONS	**Pipe**	**USS-CDC®**		**--**
Outside Diameter	5.500	6.050	in.	--
Wall Thickness	0.361	--	in.	--
Inside Diameter	4.778	4.778	in.	--
Standard Drift	4.653	4.653	in.	--
Alternate Drift	--	--	in.	--
Nominal Linear Weight, T&C	20.00	--	lb/ft	--
Plain End Weight	19.83	--	lb/ft	--
SECTION AREA	**Pipe**	**USS-CDC®**		**--**
Critical Area	5.828	5.828	sq. in.	--
Joint Efficiency	--	100.0	%	--
PERFORMANCE	**Pipe**	**USS-CDC®**		**--**
Minimum Collapse Pressure	12,200	12,200	psi	--
External Pressure Leak Resistance	--	9,760	psi	--
Minimum Internal Yield Pressure	12,640	12,370	psi	--
Minimum Pipe Body Yield Strength	641,000	--	lb	--
Joint Strength	--	667,000	lb	--
Compression Rating	--	400,000	lb	--
Reference Length	--	22,233	ft	--
Maximum Uniaxial Bend Rating	--	57.2	deg/100 ft	--
MAKE-UP DATA	**Pipe**	**USS-CDC®**		**--**
Make-Up Loss	--	4.63	in.	--
Minimum Make-Up Torque	--	10,500	ft-lb	--
Maximum Make-Up Torque	--	13,000	ft-lb	--
Connection Yield Torque	--	16,100	ft-lb	--

Notes

1. Other than proprietary collapse and connection values, performance properties have been calculated using standard equations defined by API 5C3 and do not incorporate any additional design or safety factors. Calculations assume nominal pipe OD, nominal wall thickness and Specified Minimum Yield Strength (SMYS).
2. Uniaxial bending rating shown is structural only, and equal to compression efficiency.
3. Torques have been calculated assuming a thread compound friction factor of 1.0 and are recommended only. Field make-up torques may require adjustment based on actual field conditions (e.g. make-up speed, temperature, thread compound, etc.).
4. Reference length is calculated by joint strength divided by nominal threaded and coupled weight with 1.5 safety factor.
5. Connection external pressure leak resistance has been verified to 80% API pipe body collapse pressure following the guidelines of API 5C5 Call II.

U. S. Steel Tubular Products
460 Wildwood Forest Drive, Suite 300S
Spring, Texas 77380

1-877-893-9461
connections@uss.com
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9/7/2021 3:13:55 PM

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MECHANICAL PROPERTIES	Pipe	USS-CDC®		--
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Maximum Yield Strength	140,000	--	psi	--
Minimum Tensile Strength	125,000	--	psi	--
DIMENSIONS	**Pipe**	**USS-CDC®**		**--**
Outside Diameter	5.500	6.050	in.	--
Wall Thickness	0.361	--	in.	--
Inside Diameter	4.778	4.778	in.	--
Standard Drift	4.653	4.653	in.	--
Alternate Drift	--	--	in.	--
Nominal Linear Weight, T&C	20.00	--	lb/ft	--
Plain End Weight	19.83	--	lb/ft	--
SECTION AREA	**Pipe**	**USS-CDC®**		**--**
Critical Area	5.828	5.828	sq. in.	--
Joint Efficiency	--	100.0	%	--
PERFORMANCE	**Pipe**	**USS-CDC®**		**--**
Minimum Collapse Pressure	12,200	12,200	psi	--
External Pressure Leak Resistance	--	9,760	psi	--
Minimum Internal Yield Pressure	12,640	12,370	psi	--
Minimum Pipe Body Yield Strength	641,000	--	lb	--
Joint Strength	--	667,000	lb	--
Compression Rating	--	400,000	lb	--
Reference Length	--	22,233	ft	--
Maximum Uniaxial Bend Rating	--	57.2	deg/100 ft	--
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Notes

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CASING DESIGN CRITERIA & LOAD CASE ASSUMPTIONS

SURFACE CASING:

SIZE (in)	SURFACE CASING	ID (in)	DRIFT (in)	BURST (psi)	COLLAPSE (psi)	TENSION (k-lbs)	JOINT STRENGTH (k-lbs)	DEPTHS
10.75"	40.5# J-55 BTC	10.05	9.894	3130	1580	629	700	0' – 1,425'

Collapse: $DF_C = 1.25$

- Full internal evacuation: Collapse force equal to the mud gradient in which the casing will be ran.
- Cementing: Collapse force equal to the gradient of the planned cement slurries to planned depths and an internal force equal to the fluid gradient of displacement fluid.

Burst: $DF_B = 1.25$

- Pressure Test: Casing test per Onshore Oil and Gas Order No. 2 with an external force equal to the gradient in which the casing will be ran.

Tension: $DF_T = 1.6$

- Overpull: A downward force of 100,000 lbs is applied at the shoe along with the weight of the casing string, without considering buoyancy.

INTERMEIDATE CASING:

SIZE (in)	INTERMEDIATE CASING	ID (in)	DRIFT (in)	BURST (psi)	COLLAPSE (psi)	TENSION (k-lbs)	JOINT STRENGTH (k-lbs)	DEPTHS
7-5/8"	29.7# HCP-110 LTC	6.875	6.75	9470	7150	940	769	0' – 10,600'

Collapse: $DF_C = 1.25$

- Full Internal Evacuation: Collapse force equal to the mud gradient in which the casing will be ran.
- Cementing: Collapse force equal to the gradient of planned cement slurries to planned depths and an internal force equal to fluid gradient of displacement fluid.

Burst: $DF_B = 1.25$

- Pressure Test: Casing test per Onshore Oil and Gas Order No. 2 with an external force equal to the mud gradient in which the casing will be ran.
- Gas Kick Profile: Internal burst force at the shoe will be fracture pressure at that depth. Surface burst pressure will be fracture gradient at setting depth less a gas gradient to equivalent height of 50 bbl kick with Drill Pipe inside casing and mud gradient with which the next hole section will be ran above that. External force will be equal to the mud gradient in which the casing will be ran.

- Fracture at Shoe with 1/3 BHP at Surface: Internal burst force at the shoe will be fracture pressure at setting depth. Internal burst force at surface will be 1/3 of pore pressure at setting depth. External force will be equal to the mud gradient in which the casing will be ran.

Tension: $DF_T = 1.6$

- Overpull: A downward force of 100,000 lbs is applied at the shoe along with the weight of the casing string, without considering buoyancy.

PRODUCTION CASING:

SIZE (in)	PRODUCTION CASING	ID (in)	DRIFT (in)	BURST (psi)	COLLAPSE (psi)	TENSION (k-lbs)	JOINT TENSION (k-lbs)	DEPTHS
5-1/2"	20# HCP-110 C7S	4.778	4.653	12,630	12,090	641	641	0' – 18,800'

Collapse: $DF_C = 1.25$

- Partial Internal Evacuation: Collapse force equal to the mud gradient in which the casing will be ran. Internal force equal to gas gradient over one-third of setting depth and mud gradient with which the next hole section will be ran below that.
- Cementing: Collapse force equal to the gradient of planned cement slurries to planned depths and mud gradient in which the casing will be ran above that and an internal force equal to the fluid gradient of displacement fluid.

Burst: $DF_B = 1.25$

- Pressure Test: 80% of burst casing test with an external force equal to the mud gradient in which the casing will be ran.
- Injection Down Casing: 9800 psi surface injection pressure plus an internal pressure gradient of with an external force equal to the mud gradient in which the casing will be ran.

Tension: $DF_T = 1.6$

- Overpull: A downward force of 100,000 lbs is applied at the shoe along with the weight of the casing string, without considering buoyancy.

CASING DESIGN CRITERIA & LOAD CASE ASSUMPTIONS

SURFACE CASING:

SIZE (in)	SURFACE CASING	ID (in)	DRIFT (in)	BURST (psi)	COLLAPSE (psi)	TENSION (k-lbs)	JOINT STRENGTH (k-lbs)	DEPTHS
10.75"	40.5# J-55 BTC	10.05	9.894	3130	1580	629	700	0' – 1,425'

Collapse: $DF_C = 1.25$

- Full internal evacuation: Collapse force equal to the mud gradient in which the casing will be ran.
- Cementing: Collapse force equal to the gradient of the planned cement slurries to planned depths and an internal force equal to the fluid gradient of displacement fluid.

Burst: $DF_B = 1.25$

- Pressure Test: Casing test per Onshore Oil and Gas Order No. 2 with an external force equal to the gradient in which the casing will be ran.

Tension: $DF_T = 1.6$

- Overpull: A downward force of 100,000 lbs is applied at the shoe along with the weight of the casing string, without considering buoyancy.

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- Fracture at Shoe with 1/3 BHP at Surface: Internal burst force at the shoe will be fracture pressure at setting depth. Internal burst force at surface will be 1/3 of pore pressure at setting depth. External force will be equal to the mud gradient in which the casing will be ran.

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- Overpull: A downward force of 100,000 lbs is applied at the shoe along with the weight of the casing string, without considering buoyancy.

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SIZE (in)	PRODUCTION CASING	ID (in)	DRIFT (in)	BURST (psi)	COLLAPSE (psi)	TENSION (k-lbs)	JOINT TENSION (k-lbs)	DEPTHS
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Tension: $DF_T = 1.6$

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CASING DESIGN CRITERIA & LOAD CASE ASSUMPTIONS

SURFACE CASING:

SIZE (in)	SURFACE CASING	ID (in)	DRIFT (in)	BURST (psi)	COLLAPSE (psi)	TENSION (k-lbs)	JOINT STRENGTH (k-lbs)	DEPTHS
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Collapse: $DF_C = 1.25$

- Full internal evacuation: Collapse force equal to the mud gradient in which the casing will be ran.
- Cementing: Collapse force equal to the gradient of the planned cement slurries to planned depths and an internal force equal to the fluid gradient of displacement fluid.

Burst: $DF_B = 1.25$

- Pressure Test: Casing test per Onshore Oil and Gas Order No. 2 with an external force equal to the gradient in which the casing will be ran.

Tension: $DF_T = 1.6$

- Overpull: A downward force of 100,000 lbs is applied at the shoe along with the weight of the casing string, without considering buoyancy.

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SIZE (in)	INTERMEDIATE CASING	ID (in)	DRIFT (in)	BURST (psi)	COLLAPSE (psi)	TENSION (k-lbs)	JOINT STRENGTH (k-lbs)	DEPTHS
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Collapse: $DF_C = 1.25$

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- Cementing: Collapse force equal to the gradient of planned cement slurries to planned depths and an internal force equal to fluid gradient of displacement fluid.

Burst: $DF_B = 1.25$

- Pressure Test: Casing test per Onshore Oil and Gas Order No. 2 with an external force equal to the mud gradient in which the casing will be ran.
- Gas Kick Profile: Internal burst force at the shoe will be fracture pressure at that depth. Surface burst pressure will be fracture gradient at setting depth less a gas gradient to equivalent height of 50 bbl kick with Drill Pipe inside casing and mud gradient with which the next hole section will be ran above that. External force will be equal to the mud gradient in which the casing will be ran.

- Fracture at Shoe with 1/3 BHP at Surface: Internal burst force at the shoe will be fracture pressure at setting depth. Internal burst force at surface will be 1/3 of pore pressure at setting depth. External force will be equal to the mud gradient in which the casing will be ran.

Tension: $DF_T = 1.6$

- Overpull: A downward force of 100,000 lbs is applied at the shoe along with the weight of the casing string, without considering buoyancy.

PRODUCTION CASING:

SIZE (in)	PRODUCTION CASING	ID (in)	DRIFT (in)	BURST (psi)	COLLAPSE (psi)	TENSION (k-lbs)	JOINT TENSION (k-lbs)	DEPTHS
5-1/2"	20# HCP-110 C7S	4.778	4.653	12,630	12,090	641	641	0' – 18,800'

Collapse: $DF_C = 1.25$

- Partial Internal Evacuation: Collapse force equal to the mud gradient in which the casing will be ran. Internal force equal to gas gradient over one-third of setting depth and mud gradient with which the next hole section will be ran below that.
- Cementing: Collapse force equal to the gradient of planned cement slurries to planned depths and mud gradient in which the casing will be ran above that and an internal force equal to the fluid gradient of displacement fluid.

Burst: $DF_B = 1.25$

- Pressure Test: 80% of burst casing test with an external force equal to the mud gradient in which the casing will be ran.
- Injection Down Casing: 9800 psi surface injection pressure plus an internal pressure gradient of with an external force equal to the mud gradient in which the casing will be ran.

Tension: $DF_T = 1.6$

- Overpull: A downward force of 100,000 lbs is applied at the shoe along with the weight of the casing string, without considering buoyancy.

CASING DESIGN CRITERIA & LOAD CASE ASSUMPTIONS

SURFACE CASING:

SIZE (in)	SURFACE CASING	ID (in)	DRIFT (in)	BURST (psi)	COLLAPSE (psi)	TENSION (k-lbs)	JOINT STRENGTH (k-lbs)	DEPTHS
10.75"	40.5# J-55 BTC	10.05	9.894	3130	1580	629	700	0' – 1,425'

Collapse: $DF_C = 1.25$

- Full internal evacuation: Collapse force equal to the mud gradient in which the casing will be ran.
- Cementing: Collapse force equal to the gradient of the planned cement slurries to planned depths and an internal force equal to the fluid gradient of displacement fluid.

Burst: $DF_B = 1.25$

- Pressure Test: Casing test per Onshore Oil and Gas Order No. 2 with an external force equal to the gradient in which the casing will be ran.

Tension: $DF_T = 1.6$

- Overpull: A downward force of 100,000 lbs is applied at the shoe along with the weight of the casing string, without considering buoyancy.

INTERMEIDATE CASING:

SIZE (in)	INTERMEDIATE CASING	ID (in)	DRIFT (in)	BURST (psi)	COLLAPSE (psi)	TENSION (k-lbs)	JOINT STRENGTH (k-lbs)	DEPTHS
7-5/8"	29.7# HCP-110 LTC	6.875	6.75	9470	7150	940	769	0' – 10,600'

Collapse: $DF_C = 1.25$

- Full Internal Evacuation: Collapse force equal to the mud gradient in which the casing will be ran.
- Cementing: Collapse force equal to the gradient of planned cement slurries to planned depths and an internal force equal to fluid gradient of displacement fluid.

Burst: $DF_B = 1.25$

- Pressure Test: Casing test per Onshore Oil and Gas Order No. 2 with an external force equal to the mud gradient in which the casing will be ran.
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PRODUCTION CASING:

SIZE (in)	PRODUCTION CASING	ID (in)	DRIFT (in)	BURST (psi)	COLLAPSE (psi)	TENSION (k-lbs)	JOINT TENSION (k-lbs)	DEPTHS
5-1/2"	20# HCP-110 C7S	4.778	4.653	12,630	12,090	641	641	0' – 18,800'

Collapse: $DF_C = 1.25$

- Partial Internal Evacuation: Collapse force equal to the mud gradient in which the casing will be ran. Internal force equal to gas gradient over one-third of setting depth and mud gradient with which the next hole section will be ran below that.
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- Overpull: A downward force of 100,000 lbs is applied at the shoe along with the weight of the casing string, without considering buoyancy.

CASING DESIGN CRITERIA & LOAD CASE ASSUMPTIONS

SURFACE CASING:

SIZE (in)	SURFACE CASING	ID (in)	DRIFT (in)	BURST (psi)	COLLAPSE (psi)	TENSION (k-lbs)	JOINT STRENGTH (k-lbs)	DEPTHS
10.75"	40.5# J-55 BTC	10.05	9.894	3130	1580	629	700	0' – 1,425'

Collapse: $DF_C = 1.25$

- Full internal evacuation: Collapse force equal to the mud gradient in which the casing will be ran.
- Cementing: Collapse force equal to the gradient of the planned cement slurries to planned depths and an internal force equal to the fluid gradient of displacement fluid.

Burst: $DF_B = 1.25$

- Pressure Test: Casing test per Onshore Oil and Gas Order No. 2 with an external force equal to the gradient in which the casing will be ran.

Tension: $DF_T = 1.6$

- Overpull: A downward force of 100,000 lbs is applied at the shoe along with the weight of the casing string, without considering buoyancy.

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Tension: $DF_T = 1.6$

- Overpull: A downward force of 100,000 lbs is applied at the shoe along with the weight of the casing string, without considering buoyancy.

H_2S Drilling Operations Plan

a. All personnel will be trained in H_2S working conditions as required by Onshore Order 6 before drilling out of the surface casing.

b. Two briefing areas will be established. Each briefing area will be ≥150' from the wellhead, perpendicular from one another, and easily entered and exited. See H_2S page 5 for more details.

c. H_2S Safety Equipment/Systems:

i. Well Control Equipment

- Flare line will be ≥150' from the wellhead and ignited by a flare gun.
- Beware of SO_2 created by flaring.
- Choke manifold will have a remotely operated choke.
- Mud gas separator

ii. Protective Equipment for Personnel

- Every person on site will wear a personal H_2S and SO_2 monitor at all times while on site. Monitors will not be worn on hard hats. Monitors will be worn on the front of the waist or chest.
- One self-contained breathing apparatus (SCBA) 30-minute rescue pack will be at each briefing area. Two 30-minute SCBA packs will be stored in the safety trailer.
- Four work/escape packs will be on the rig floor. Each pack will have a sufficiently long hose to allow unimpaired work activity.
- Four emergency escape packs will be in the doghouse for emergency evacuation.
- Hand signals will be used when wearing protective breathing apparatus.
- Stokes litter or stretcher
- Two full OSHA compliant body harnesses
- A 100' long x 5/8" OSHA compliant rope
- One 20-pound ABC fire extinguisher

iii. H_2S Detection & Monitoring Equipment

- Every person on site will wear a personal H_2S and SO_2 monitor at all times while on site. Monitors will not be worn on hard hats. Monitors will be worn on the front of the waist or chest.
- A stationary detector with three sensors will be in the doghouse.
- Sensors will be installed on the rig floor, bell nipple, and at the end of the flow line or where drilling fluids are discharged.
- Visual alarm will be triggered at 10 ppm.
- Audible alarm will be triggered at 10 ppm.
- Calibration will occur at least every 30 days. Gas sample tubes will be kept in the safety trailer.

iv. Visual Warning System

- A color-coded H_2S condition sign will be set at each pad entrance.
- Color-coded condition flag will be installed to indicate current H_2S conditions.
- Two wind socks will be installed that will be visible from all sides.

v. Mud Program

- A water based mud with a pH of $\geq$10 will be maintained to control corrosion, H_2S gas returns to the surface, and minimize sulfide stress cracking and embrittlement.
- Drilling mud containing H_2S gas will be degassed at an optimum location for the rig configuration.
- This gas will be piped into the flare system.
- Enough mud additives will be on location to scavenge and/or neutralize H_2S where formation pressures are unknown.

vi. Metallurgy

- All equipment that has the potential to be exposed to H_2S will be suitable for H_2S service.
- Equipment that will meet these metallurgical standards include the drill string, casing, wellhead, BOP assembly, casing head and spool, rotating head, kill lines, choke, choke manifold and lines, valves, mud-gas separators, DST tools, test units, tubing, flanges, and other related equipment (elastomer packings and seals).

vii. Communication from well site

- Cell phones and/or two-way radios will be used to communicate from the well site.

d. A remote-controlled choke, mud-gas separator, and a rotating head will be installed before drilling or testing any formation expected to contain H_2S.

Company Personnel to be Notified

Braden Harris, Drilling Manager	Office: (832) 672-4700
	Mobile: (406) 600-3310

Local & County Agencies

Monument Fire Department	911 or (575) 393-4339
Eunice Fire & Ambulance Dept.	(575) 394-3258
Hobbs Fire Marshal	(575) 391-8185
Lea County Sheriff (Lovington)	911 or (575) 396-3611
Lea County Emergency Management (Lovington)	(575) 396-8602
Lea Regional Medical Center Hospital (Hobbs)	(575) 492-5000

State Agencies

NM State Police (Hobbs)	(575) 392-5588
NM Oil Conservation (Hobbs)	(575) 370-3186
NM Oil Conservation (Santa Fe)	(505) 476-3440
NM Dept. of Transportation (Roswell)	(575) 637-7201

Federal Agencies

BLM Carlsbad Field Office	(575) 234-5972

BLM Hobbs Field Station	(575) 393-3612
National Response Center	(800) 424-8802
US EPA Region 6 (Dallas)	(800) 887-6063
	(214) 665-6444

Veterinarians

Dal Paso Animal Hospital (Hobbs)	(575) 397-2286
Hobbs Animal Clinic & Pet Care (Hobbs)	(575) 392-5563
Great Plains Veterinary Clinic & Hospital (Hobbs)	(575) 392-5513

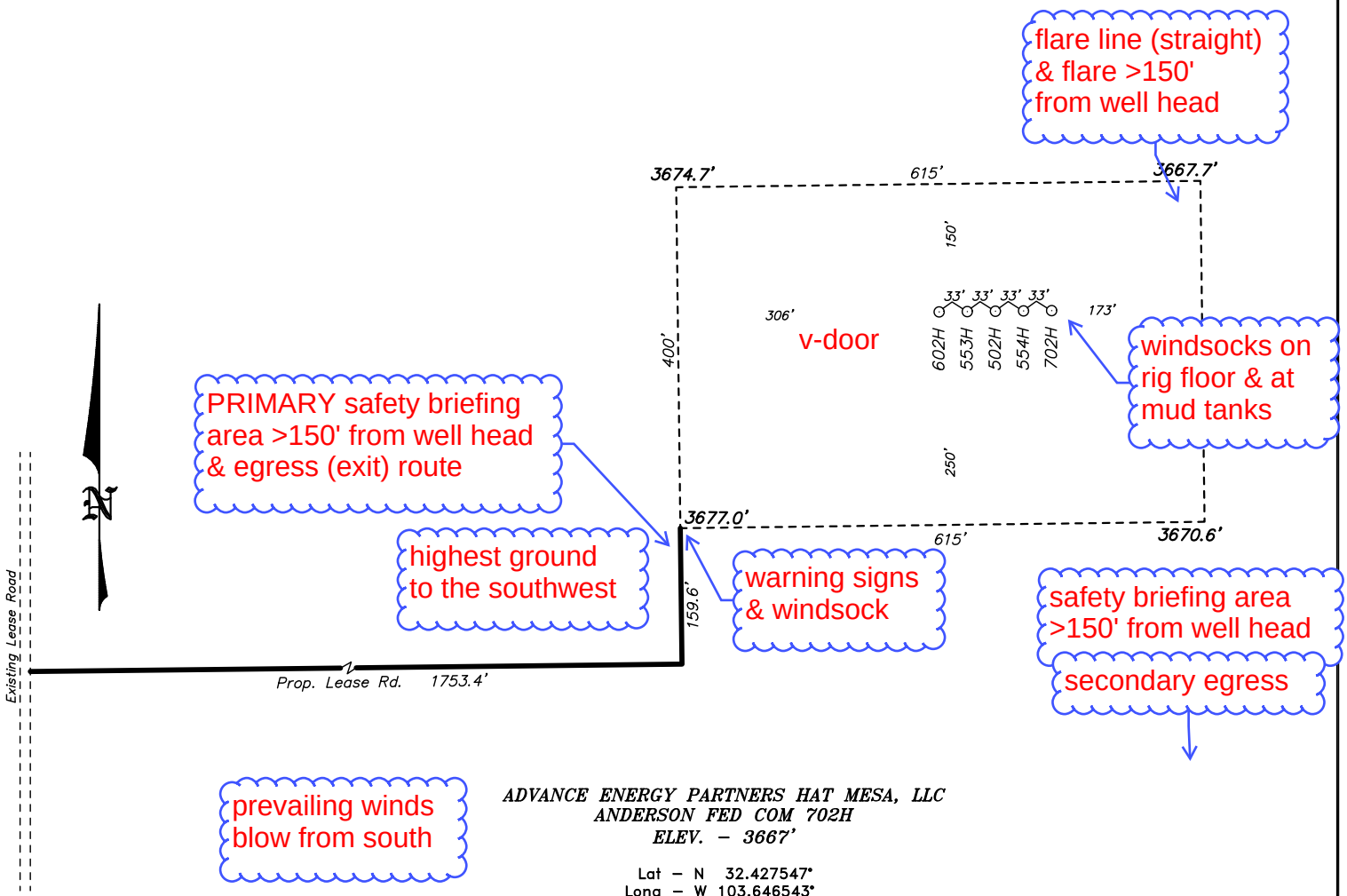
Residents within 2 miles

No residents are within 2 miles.

Air Evacuation

Med Flight Air Ambulance (Albuquerque)	(800) 842-4431
Lifeguard (Albuquerque)	(888) 866-7256

SECTION 2, TOWNSHIP 22 SOUTH, RANGE 32 EAST. N.M.P.M.,
LEA COUNTY, NEW MEXICO.



ADVANCE ENERGY PARTNERS HAT MESA, LLC
ANDERSON FED COM 702H
ELEV. – 3667'

Lat – N 32.427547°
Long – W 103.646543°
NMSPCE– N 519954.0
E 753242.5
(NAD–83)

EUNICE, NM IS ±28 MILES TO THE EAST OF LOCATION.

200 0 200 400 FEET
SCALE: 1" = 200'

GARY L. JONES
NEW MEXICO
7977
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Hobbs, New Mexico 88241
(575) 393–7316 – Office
(575) 392–2206 – Fax
basinsurveys.com

ADVANCE ENERGY PARTNERS HAT MESA, LLC

REF: ANDERSON FED COM 702H / WELL PAD TOPO

THE ANDERSON FED COM 702H LOCATED 180' FROM THE NORTH LINE AND 2287' FROM THE WEST LINE OF SECTION 2, TOWNSHIP 22 SOUTH, RANGE 32 EAST. N.M.P.M., LEA COUNTY, NEW MEXICO.

W.O. Number: 35277	Drawn By: K. GOAD	Date: 01–19–2021	Survey Date: 01–18–2021	Sheet 1 of 1 Sheets

Advance Energy Partners Hat Mesa, LLC

Anderson Fed Com Pad C
H_2S Contingency Plan:
Radius Map

Section 02, Township 22S, Range 32E
Lea County, New Mexico

Surface Hole Location

1:27,000

0 0.25 0.5 1

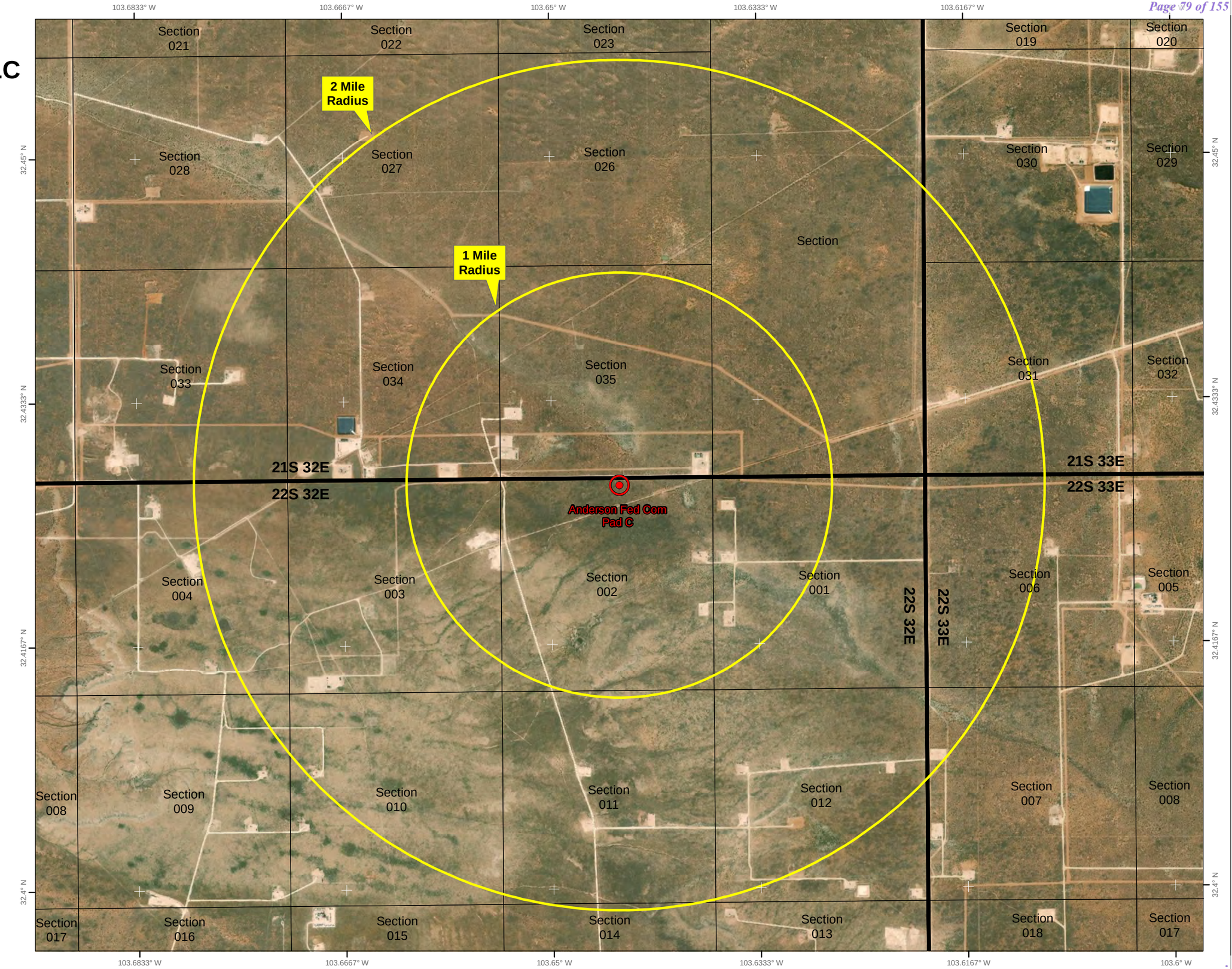
Miles

N

NAD 1983 New Mexico State Plane East
FIPS 3001 Feet

PERMITS WEST

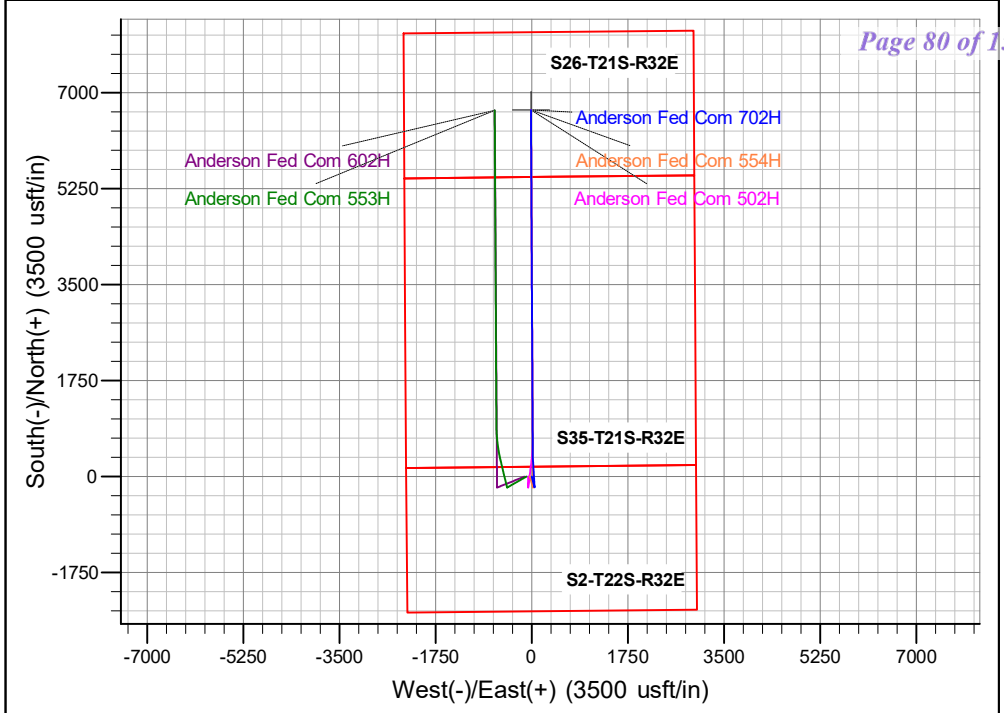
Prepared by Permits West, Inc., September 4, 2020
for Advance Energy Partners Hat Mesa, LLC



ADVANCE ENERGY PARTNERS

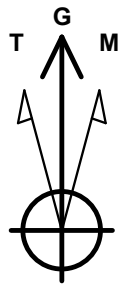
WELL DETAILS: Anderson Fed Com 702H					
Ground Elev: 3667.0		KB: 3699.5			
+N/-S	+E/-W	Northing	Easting	Latittude	Longitude
0.0	0.0	519953.79	753242.64	32° 25' 39.169 N	103° 38' 47.555 W

PROJECT DETAILS: Hat Mesa	
Geodetic System:	US State Plane 1983
Datum:	North American Datum 1983
Ellipsoid:	GRS 1980
Zone:	New Mexico Eastern Zone
System Datum:	Mean Sea Level



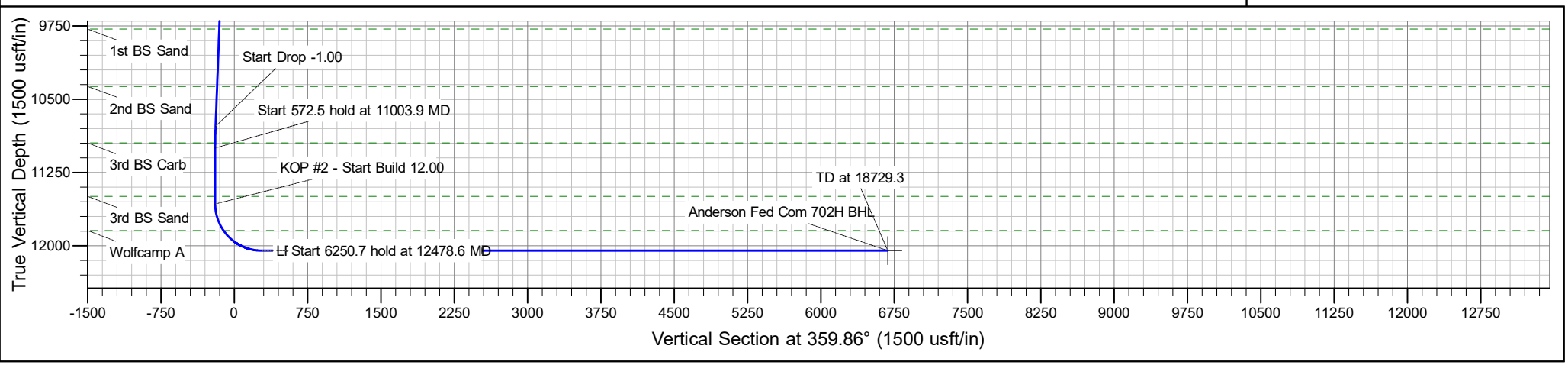
SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSect	Annotation
1	0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.0	
2	5600.0	0.00	0.00	5600.0	0.0	0.0	0.00	0.00	0.0	KOP - Start Build 1.00
3	5822.7	2.23	165.62	5822.6	-4.2	1.1	1.00	165.62	-4.2	Start 4958.5 hold at 5822.7 MD
4	10781.2	2.23	165.62	10777.4	-190.8	48.9	0.00	0.00	-190.9	Start Drop -1.00
5	11003.9	0.00	0.00	11000.0	-195.0	50.0	1.00	180.00	-195.1	Start 572.5 hold at 11003.9 MD
6	11576.4	0.00	0.00	11572.5	-195.0	50.0	0.00	0.00	-195.1	KOP #2 - Start Build 12.00
7	12326.4	90.00	356.67	12050.0	281.7	22.2	12.00	356.67	281.6	LP - Start 0.8 hold at 12326.4 MD
8	12327.2	90.00	356.67	12050.0	282.5	22.2	0.00	0.00	282.4	LP - Start 0.8 hold at 12326.4 MD
9	12478.6	90.00	359.70	12050.0	433.8	17.4	2.00	90.00	433.7	Start 6250.7 hold at 12478.6 MD
10	18729.3	90.00	359.70	12050.0	6684.4	-15.8	0.00	0.00	6684.4	TD at 18729.3



Azimuths to Grid North
True North: -0.37°
Magnetic North: 6.25°

Magnetic Field
Strength: 47681.0nT
Dip Angle: 60.19°
Date: 1/12/2021
Model: IGRF2015



Advance Energy Partners

Hat Mesa
Anderson Fed Com - Pad C
Anderson Fed Com 702H

Anderson Fed Com 702H

Plan: Anderson Fed Com 702H - Prelim 1

Standard Planning Report

11 February, 2021

ADVANCE ENERGY PARTNERS

Planning Report

Database:	EDM 5000.16 Single User Db	**Local Co-ordinate Reference:**	Well Anderson Fed Com 702H
Company:	Advance Energy Partners	**TVD Reference:**	WELL @ 3699.5usft (Original Well Elev.)
Project:	Hat Mesa	**MD Reference:**	WELL @ 3699.5usft (Original Well Elev.)
Site:	Anderson Fed Com - Pad C	**North Reference:**	Grid
Well:	Anderson Fed Com 702H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Anderson Fed Com 702H		
Design:	Anderson Fed Com 702H - Prelim 1		

Project Hat Mesa, Lea County, NM

Map System:	US State Plane 1983	**System Datum:**	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	New Mexico Eastern Zone		

Site Anderson Fed Com - Pad C

Site Position:		**Northing:**	519,952.78 usft	**Latitude:**	32° 25' 39.166 N
From:	Lat/Long	**Easting:**	753,142.98 usft	**Longitude:**	103° 38' 48.718 W
Position Uncertainty:	0.0 usft	**Slot Radius:**	13-3/16 "		

Well Anderson Fed Com 702H

Well Position	**+N/-S**	0.0 usft	**Northing:**	519,953.79 usft	**Latitude:**	32° 25' 39.169 N
	+E/-W	0.0 usft	**Easting:**	753,242.64 usft	**Longitude:**	103° 38' 47.555 W
Position Uncertainty		0.0 usft	**Wellhead Elevation:**	usft	**Ground Level:**	3,667.0 usft
Grid Convergence:		0.37 °				

Wellbore Anderson Fed Com 702H

Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2015	1/12/2021	6.61	60.19	47,680.98314102

Design Anderson Fed Com 702H - Prelim 1

Audit Notes:

Version:	**Phase:**	PROTOTYPE	**Tie On Depth:**	0.0

Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)
	0.0	0.0	0.0	359.86

Plan Survey Tool Program **Date** 2/11/2021

	Depth From (usft)	Depth To (usft)	Survey (Wellbore)	Tool Name	Remarks
1	0.0	18,729.3	Anderson Fed Com 702H - Prelim	MWD+HRGM	
				OWSG MWD + HRGM	

ADVANCE ENERGY PARTNERS

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Site:	Anderson Fed Com - Pad C	**North Reference:**	Grid
Well:	Anderson Fed Com 702H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Anderson Fed Com 702H		
Design:	Anderson Fed Com 702H - Prelim 1		

Plan Sections

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	TFO (°)	Target
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.00	0.00	
5,600.0	0.00	0.00	5,600.0	0.0	0.0	0.00	0.00	0.00	0.00	
5,822.7	2.23	165.62	5,822.6	-4.2	1.1	1.00	1.00	0.00	165.62	
10,781.2	2.23	165.62	10,777.4	-190.8	48.9	0.00	0.00	0.00	0.00	
11,003.9	0.00	0.00	11,000.0	-195.0	50.0	1.00	-1.00	0.00	180.00	
11,576.4	0.00	0.00	11,572.5	-195.0	50.0	0.00	0.00	0.00	0.00	
12,326.4	90.00	356.67	12,050.0	281.7	22.2	12.00	12.00	0.00	356.67	
12,327.2	90.00	356.67	12,050.0	282.5	22.2	0.00	0.00	0.00	0.00	
12,478.6	90.00	359.70	12,050.0	433.8	17.4	2.00	0.00	2.00	90.00	
18,729.3	90.00	359.70	12,050.0	6,684.4	-15.8	0.00	0.00	0.00	0.00	Anderson Fed Com 7

ADVANCE ENERGY PARTNERS

Planning Report

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Well:	Anderson Fed Com 702H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Anderson Fed Com 702H		
Design:	Anderson Fed Com 702H - Prelim 1		

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)
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
800.0	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	0.00	0.00	1,100.0	0.0	0.0	0.0	0.00	0.00	0.00
1,169.0	0.00	0.00	1,169.0	0.0	0.0	0.0	0.00	0.00	0.00
Rustler									
1,200.0	0.00	0.00	1,200.0	0.0	0.0	0.0	0.00	0.00	0.00
1,300.0	0.00	0.00	1,300.0	0.0	0.0	0.0	0.00	0.00	0.00
1,400.0	0.00	0.00	1,400.0	0.0	0.0	0.0	0.00	0.00	0.00
1,500.0	0.00	0.00	1,500.0	0.0	0.0	0.0	0.00	0.00	0.00
1,600.0	0.00	0.00	1,600.0	0.0	0.0	0.0	0.00	0.00	0.00
1,700.0	0.00	0.00	1,700.0	0.0	0.0	0.0	0.00	0.00	0.00
1,800.0	0.00	0.00	1,800.0	0.0	0.0	0.0	0.00	0.00	0.00
1,900.0	0.00	0.00	1,900.0	0.0	0.0	0.0	0.00	0.00	0.00
2,000.0	0.00	0.00	2,000.0	0.0	0.0	0.0	0.00	0.00	0.00
2,100.0	0.00	0.00	2,100.0	0.0	0.0	0.0	0.00	0.00	0.00
2,200.0	0.00	0.00	2,200.0	0.0	0.0	0.0	0.00	0.00	0.00
2,300.0	0.00	0.00	2,300.0	0.0	0.0	0.0	0.00	0.00	0.00
2,400.0	0.00	0.00	2,400.0	0.0	0.0	0.0	0.00	0.00	0.00
2,500.0	0.00	0.00	2,500.0	0.0	0.0	0.0	0.00	0.00	0.00
2,600.0	0.00	0.00	2,600.0	0.0	0.0	0.0	0.00	0.00	0.00
2,700.0	0.00	0.00	2,700.0	0.0	0.0	0.0	0.00	0.00	0.00
2,800.0	0.00	0.00	2,800.0	0.0	0.0	0.0	0.00	0.00	0.00
2,900.0	0.00	0.00	2,900.0	0.0	0.0	0.0	0.00	0.00	0.00
3,000.0	0.00	0.00	3,000.0	0.0	0.0	0.0	0.00	0.00	0.00
3,100.0	0.00	0.00	3,100.0	0.0	0.0	0.0	0.00	0.00	0.00
3,200.0	0.00	0.00	3,200.0	0.0	0.0	0.0	0.00	0.00	0.00
3,300.0	0.00	0.00	3,300.0	0.0	0.0	0.0	0.00	0.00	0.00
3,400.0	0.00	0.00	3,400.0	0.0	0.0	0.0	0.00	0.00	0.00
3,500.0	0.00	0.00	3,500.0	0.0	0.0	0.0	0.00	0.00	0.00
3,600.0	0.00	0.00	3,600.0	0.0	0.0	0.0	0.00	0.00	0.00
3,700.0	0.00	0.00	3,700.0	0.0	0.0	0.0	0.00	0.00	0.00
3,800.0	0.00	0.00	3,800.0	0.0	0.0	0.0	0.00	0.00	0.00
3,900.0	0.00	0.00	3,900.0	0.0	0.0	0.0	0.00	0.00	0.00
4,000.0	0.00	0.00	4,000.0	0.0	0.0	0.0	0.00	0.00	0.00
4,100.0	0.00	0.00	4,100.0	0.0	0.0	0.0	0.00	0.00	0.00
4,200.0	0.00	0.00	4,200.0	0.0	0.0	0.0	0.00	0.00	0.00
4,300.0	0.00	0.00	4,300.0	0.0	0.0	0.0	0.00	0.00	0.00
4,400.0	0.00	0.00	4,400.0	0.0	0.0	0.0	0.00	0.00	0.00
4,500.0	0.00	0.00	4,500.0	0.0	0.0	0.0	0.00	0.00	0.00
4,600.0	0.00	0.00	4,600.0	0.0	0.0	0.0	0.00	0.00	0.00
4,700.0	0.00	0.00	4,700.0	0.0	0.0	0.0	0.00	0.00	0.00
4,747.0	0.00	0.00	4,747.0	0.0	0.0	0.0	0.00	0.00	0.00
Base of Limestone/Bell Canyon									
4,800.0	0.00	0.00	4,800.0	0.0	0.0	0.0	0.00	0.00	0.00
4,900.0	0.00	0.00	4,900.0	0.0	0.0	0.0	0.00	0.00	0.00

ADVANCE ENERGY PARTNERS

Planning Report

Database:	EDM 5000.16 Single User Db	**Local Co-ordinate Reference:**	Well Anderson Fed Com 702H
Company:	Advance Energy Partners	**TVD Reference:**	WELL @ 3699.5usft (Original Well Elev.)
Project:	Hat Mesa	**MD Reference:**	WELL @ 3699.5usft (Original Well Elev.)
Site:	Anderson Fed Com - Pad C	**North Reference:**	Grid
Well:	Anderson Fed Com 702H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Anderson Fed Com 702H		
Design:	Anderson Fed Com 702H - Prelim 1		

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)
5,000.0	0.00	0.00	5,000.0	0.0	0.0	0.0	0.00	0.00	0.00
5,100.0	0.00	0.00	5,100.0	0.0	0.0	0.0	0.00	0.00	0.00
5,200.0	0.00	0.00	5,200.0	0.0	0.0	0.0	0.00	0.00	0.00
5,300.0	0.00	0.00	5,300.0	0.0	0.0	0.0	0.00	0.00	0.00
5,400.0	0.00	0.00	5,400.0	0.0	0.0	0.0	0.00	0.00	0.00
5,500.0	0.00	0.00	5,500.0	0.0	0.0	0.0	0.00	0.00	0.00
5,600.0	0.00	0.00	5,600.0	0.0	0.0	0.0	0.00	0.00	0.00
KOP - Start Build 1.00									
5,700.0	1.00	165.62	5,700.0	-0.8	0.2	-0.8	1.00	1.00	0.00
5,800.0	2.00	165.62	5,800.0	-3.4	0.9	-3.4	1.00	1.00	0.00
5,822.7	2.23	165.62	5,822.6	-4.2	1.1	-4.2	1.00	1.00	0.00
Start 4958.5 hold at 5822.7 MD									
5,900.0	2.23	165.62	5,899.9	-7.1	1.8	-7.1	0.00	0.00	0.00
6,000.0	2.23	165.62	5,999.8	-10.9	2.8	-10.9	0.00	0.00	0.00
6,100.0	2.23	165.62	6,099.7	-14.6	3.8	-14.6	0.00	0.00	0.00
6,200.0	2.23	165.62	6,199.7	-18.4	4.7	-18.4	0.00	0.00	0.00
6,300.0	2.23	165.62	6,299.6	-22.2	5.7	-22.2	0.00	0.00	0.00
6,400.0	2.23	165.62	6,399.5	-25.9	6.6	-25.9	0.00	0.00	0.00
6,500.0	2.23	165.62	6,499.4	-29.7	7.6	-29.7	0.00	0.00	0.00
6,600.0	2.23	165.62	6,599.4	-33.4	8.6	-33.5	0.00	0.00	0.00
6,700.0	2.23	165.62	6,699.3	-37.2	9.5	-37.2	0.00	0.00	0.00
6,800.0	2.23	165.62	6,799.2	-41.0	10.5	-41.0	0.00	0.00	0.00
6,900.0	2.23	165.62	6,899.1	-44.7	11.5	-44.8	0.00	0.00	0.00
7,000.0	2.23	165.62	6,999.1	-48.5	12.4	-48.5	0.00	0.00	0.00
7,100.0	2.23	165.62	7,099.0	-52.3	13.4	-52.3	0.00	0.00	0.00
7,200.0	2.23	165.62	7,198.9	-56.0	14.4	-56.1	0.00	0.00	0.00
7,300.0	2.23	165.62	7,298.8	-59.8	15.3	-59.8	0.00	0.00	0.00
7,400.0	2.23	165.62	7,398.8	-63.6	16.3	-63.6	0.00	0.00	0.00
7,500.0	2.23	165.62	7,498.7	-67.3	17.3	-67.4	0.00	0.00	0.00
7,600.0	2.23	165.62	7,598.6	-71.1	18.2	-71.1	0.00	0.00	0.00
7,700.0	2.23	165.62	7,698.5	-74.8	19.2	-74.9	0.00	0.00	0.00
7,800.0	2.23	165.62	7,798.5	-78.6	20.2	-78.7	0.00	0.00	0.00
7,900.0	2.23	165.62	7,898.4	-82.4	21.1	-82.4	0.00	0.00	0.00
8,000.0	2.23	165.62	7,998.3	-86.1	22.1	-86.2	0.00	0.00	0.00
8,100.0	2.23	165.62	8,098.2	-89.9	23.1	-90.0	0.00	0.00	0.00
8,200.0	2.23	165.62	8,198.1	-93.7	24.0	-93.7	0.00	0.00	0.00
8,300.0	2.23	165.62	8,298.1	-97.4	25.0	-97.5	0.00	0.00	0.00
8,396.0	2.23	165.62	8,394.0	-101.0	25.9	-101.1	0.00	0.00	0.00
Lower Brushy									
8,400.0	2.23	165.62	8,398.0	-101.2	25.9	-101.3	0.00	0.00	0.00
8,500.0	2.23	165.62	8,497.9	-105.0	26.9	-105.0	0.00	0.00	0.00
8,600.0	2.23	165.62	8,597.8	-108.7	27.9	-108.8	0.00	0.00	0.00
8,700.0	2.23	165.62	8,697.8	-112.5	28.8	-112.5	0.00	0.00	0.00
8,800.0	2.23	165.62	8,797.7	-116.2	29.8	-116.3	0.00	0.00	0.00
8,900.0	2.23	165.62	8,897.6	-120.0	30.8	-120.1	0.00	0.00	0.00
8,916.4	2.23	165.62	8,914.0	-120.6	30.9	-120.7	0.00	0.00	0.00
Avalon									
9,000.0	2.23	165.62	8,997.5	-123.8	31.7	-123.8	0.00	0.00	0.00
9,100.0	2.23	165.62	9,097.5	-127.5	32.7	-127.6	0.00	0.00	0.00
9,200.0	2.23	165.62	9,197.4	-131.3	33.7	-131.4	0.00	0.00	0.00
9,300.0	2.23	165.62	9,297.3	-135.1	34.6	-135.1	0.00	0.00	0.00
9,400.0	2.23	165.62	9,397.2	-138.8	35.6	-138.9	0.00	0.00	0.00
9,500.0	2.23	165.62	9,497.2	-142.6	36.6	-142.7	0.00	0.00	0.00

ADVANCE ENERGY PARTNERS

Planning Report

Database:	EDM 5000.16 Single User Db	**Local Co-ordinate Reference:**	Well Anderson Fed Com 702H
Company:	Advance Energy Partners	**TVD Reference:**	WELL @ 3699.5usft (Original Well Elev.)
Project:	Hat Mesa	**MD Reference:**	WELL @ 3699.5usft (Original Well Elev.)
Site:	Anderson Fed Com - Pad C	**North Reference:**	Grid
Well:	Anderson Fed Com 702H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Anderson Fed Com 702H		
Design:	Anderson Fed Com 702H - Prelim 1		

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)
9,600.0	2.23	165.62	9,597.1	-146.4	37.5	-146.4	0.00	0.00	0.00
9,700.0	2.23	165.62	9,697.0	-150.1	38.5	-150.2	0.00	0.00	0.00
9,784.0	2.23	165.62	9,781.0	-153.3	39.3	-153.4	0.00	0.00	0.00
1st BS Sand									
9,800.0	2.23	165.62	9,796.9	-153.9	39.5	-154.0	0.00	0.00	0.00
9,900.0	2.23	165.62	9,896.9	-157.6	40.4	-157.7	0.00	0.00	0.00
10,000.0	2.23	165.62	9,996.8	-161.4	41.4	-161.5	0.00	0.00	0.00
10,100.0	2.23	165.62	10,096.7	-165.2	42.4	-165.3	0.00	0.00	0.00
10,200.0	2.23	165.62	10,196.6	-168.9	43.3	-169.0	0.00	0.00	0.00
10,300.0	2.23	165.62	10,296.6	-172.7	44.3	-172.8	0.00	0.00	0.00
10,372.5	2.23	165.62	10,369.0	-175.4	45.0	-175.5	0.00	0.00	0.00
2nd BS Sand									
10,400.0	2.23	165.62	10,396.5	-176.5	45.2	-176.6	0.00	0.00	0.00
10,500.0	2.23	165.62	10,496.4	-180.2	46.2	-180.3	0.00	0.00	0.00
10,600.0	2.23	165.62	10,596.3	-184.0	47.2	-184.1	0.00	0.00	0.00
10,700.0	2.23	165.62	10,696.3	-187.8	48.1	-187.9	0.00	0.00	0.00
10,781.2	2.23	165.62	10,777.4	-190.8	48.9	-190.9	0.00	0.00	0.00
Start Drop -1.00									
10,800.0	2.04	165.62	10,796.2	-191.5	49.1	-191.6	1.00	-1.00	0.00
10,900.0	1.04	165.62	10,896.1	-194.1	49.8	-194.2	1.00	-1.00	0.00
10,950.9	0.53	165.62	10,947.0	-194.8	49.9	-194.9	1.00	-1.00	0.00
3rd BS Carb									
11,000.0	0.04	165.62	10,996.1	-195.0	50.0	-195.1	1.00	-1.00	0.00
11,003.9	0.00	0.00	11,000.0	-195.0	50.0	-195.1	1.00	-1.00	0.00
Start 572.5 hold at 11003.9 MD									
11,100.0	0.00	0.00	11,096.1	-195.0	50.0	-195.1	0.00	0.00	0.00
11,200.0	0.00	0.00	11,196.1	-195.0	50.0	-195.1	0.00	0.00	0.00
11,300.0	0.00	0.00	11,296.1	-195.0	50.0	-195.1	0.00	0.00	0.00
11,400.0	0.00	0.00	11,396.1	-195.0	50.0	-195.1	0.00	0.00	0.00
11,497.9	0.00	0.00	11,494.0	-195.0	50.0	-195.1	0.00	0.00	0.00
3rd BS Sand									
11,500.0	0.00	0.00	11,496.1	-195.0	50.0	-195.1	0.00	0.00	0.00
11,576.4	0.00	0.00	11,572.5	-195.0	50.0	-195.1	0.00	0.00	0.00
KOP #2 - Start Build 12.00									
11,600.0	2.83	356.67	11,596.1	-194.4	50.0	-194.5	12.00	12.00	0.00
11,700.0	14.83	356.67	11,694.8	-179.1	49.1	-179.2	12.00	12.00	0.00
11,800.0	26.83	356.67	11,788.1	-143.7	47.0	-143.8	12.00	12.00	0.00
11,865.1	34.65	356.67	11,844.0	-110.5	45.1	-110.6	12.00	12.00	0.00
Wolfcamp A									
11,900.0	38.83	356.67	11,871.9	-89.6	43.9	-89.8	12.00	12.00	0.00
12,000.0	50.83	356.67	11,942.7	-19.4	39.8	-19.5	12.00	12.00	0.00
12,100.0	62.83	356.67	11,997.3	64.0	34.9	63.9	12.00	12.00	0.00
12,200.0	74.83	356.67	12,033.4	156.9	29.5	156.9	12.00	12.00	0.00
12,300.0	86.83	356.67	12,049.3	255.3	23.8	255.3	12.00	12.00	0.00
12,326.4	90.00	356.67	12,050.0	281.7	22.2	281.6	12.00	12.00	0.00
LP - Start 0.8 hold at 12326.4 MD									
12,327.2	90.00	356.67	12,050.0	282.5	22.2	282.4	0.00	0.00	0.00
Start DLS 2.00 TFO 90.00									
12,400.0	90.00	358.12	12,050.0	355.2	18.9	355.1	2.00	0.00	2.00
12,478.6	90.00	359.70	12,050.0	433.8	17.4	433.7	2.00	0.00	2.00
Start 6250.7 hold at 12478.6 MD									
12,500.0	90.00	359.70	12,050.0	455.2	17.3	455.1	0.00	0.00	0.00
12,600.0	90.00	359.70	12,050.0	555.2	16.8	555.1	0.00	0.00	0.00

ADVANCE ENERGY PARTNERS

Planning Report

Database:	EDM 5000.16 Single User Db	**Local Co-ordinate Reference:**	Well Anderson Fed Com 702H
Company:	Advance Energy Partners	**TVD Reference:**	WELL @ 3699.5usft (Original Well Elev.)
Project:	Hat Mesa	**MD Reference:**	WELL @ 3699.5usft (Original Well Elev.)
Site:	Anderson Fed Com - Pad C	**North Reference:**	Grid
Well:	Anderson Fed Com 702H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Anderson Fed Com 702H		
Design:	Anderson Fed Com 702H - Prelim 1		

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)
12,700.0	90.00	359.70	12,050.0	655.2	16.2	655.1	0.00	0.00	0.00
12,800.0	90.00	359.70	12,050.0	755.2	15.7	755.1	0.00	0.00	0.00
12,900.0	90.00	359.70	12,050.0	855.2	15.2	855.1	0.00	0.00	0.00
13,000.0	90.00	359.70	12,050.0	955.2	14.6	955.1	0.00	0.00	0.00
13,100.0	90.00	359.70	12,050.0	1,055.2	14.1	1,055.1	0.00	0.00	0.00
13,200.0	90.00	359.70	12,050.0	1,155.2	13.6	1,155.1	0.00	0.00	0.00
13,300.0	90.00	359.70	12,050.0	1,255.2	13.0	1,255.1	0.00	0.00	0.00
13,400.0	90.00	359.70	12,050.0	1,355.2	12.5	1,355.1	0.00	0.00	0.00
13,500.0	90.00	359.70	12,050.0	1,455.2	12.0	1,455.1	0.00	0.00	0.00
13,600.0	90.00	359.70	12,050.0	1,555.2	11.4	1,555.1	0.00	0.00	0.00
13,700.0	90.00	359.70	12,050.0	1,655.2	10.9	1,655.1	0.00	0.00	0.00
13,800.0	90.00	359.70	12,050.0	1,755.2	10.4	1,755.1	0.00	0.00	0.00
13,900.0	90.00	359.70	12,050.0	1,855.2	9.8	1,855.1	0.00	0.00	0.00
14,000.0	90.00	359.70	12,050.0	1,955.1	9.3	1,955.1	0.00	0.00	0.00
14,100.0	90.00	359.70	12,050.0	2,055.1	8.8	2,055.1	0.00	0.00	0.00
14,200.0	90.00	359.70	12,050.0	2,155.1	8.2	2,155.1	0.00	0.00	0.00
14,300.0	90.00	359.70	12,050.0	2,255.1	7.7	2,255.1	0.00	0.00	0.00
14,400.0	90.00	359.70	12,050.0	2,355.1	7.2	2,355.1	0.00	0.00	0.00
14,500.0	90.00	359.70	12,050.0	2,455.1	6.7	2,455.1	0.00	0.00	0.00
14,600.0	90.00	359.70	12,050.0	2,555.1	6.1	2,555.1	0.00	0.00	0.00
14,700.0	90.00	359.70	12,050.0	2,655.1	5.6	2,655.1	0.00	0.00	0.00
14,800.0	90.00	359.70	12,050.0	2,755.1	5.1	2,755.1	0.00	0.00	0.00
14,900.0	90.00	359.70	12,050.0	2,855.1	4.5	2,855.1	0.00	0.00	0.00
15,000.0	90.00	359.70	12,050.0	2,955.1	4.0	2,955.1	0.00	0.00	0.00
15,100.0	90.00	359.70	12,050.0	3,055.1	3.5	3,055.1	0.00	0.00	0.00
15,200.0	90.00	359.70	12,050.0	3,155.1	2.9	3,155.1	0.00	0.00	0.00
15,300.0	90.00	359.70	12,050.0	3,255.1	2.4	3,255.1	0.00	0.00	0.00
15,400.0	90.00	359.70	12,050.0	3,355.1	1.9	3,355.1	0.00	0.00	0.00
15,500.0	90.00	359.70	12,050.0	3,455.1	1.3	3,455.1	0.00	0.00	0.00
15,600.0	90.00	359.70	12,050.0	3,555.1	0.8	3,555.1	0.00	0.00	0.00
15,700.0	90.00	359.70	12,050.0	3,655.1	0.3	3,655.1	0.00	0.00	0.00
15,800.0	90.00	359.70	12,050.0	3,755.1	-0.3	3,755.1	0.00	0.00	0.00
15,900.0	90.00	359.70	12,050.0	3,855.1	-0.8	3,855.1	0.00	0.00	0.00
16,000.0	90.00	359.70	12,050.0	3,955.1	-1.3	3,955.1	0.00	0.00	0.00
16,100.0	90.00	359.70	12,050.0	4,055.1	-1.9	4,055.1	0.00	0.00	0.00
16,200.0	90.00	359.70	12,050.0	4,155.1	-2.4	4,155.1	0.00	0.00	0.00
16,300.0	90.00	359.70	12,050.0	4,255.1	-2.9	4,255.1	0.00	0.00	0.00
16,400.0	90.00	359.70	12,050.0	4,355.1	-3.4	4,355.1	0.00	0.00	0.00
16,500.0	90.00	359.70	12,050.0	4,455.1	-4.0	4,455.1	0.00	0.00	0.00
16,600.0	90.00	359.70	12,050.0	4,555.1	-4.5	4,555.1	0.00	0.00	0.00
16,700.0	90.00	359.70	12,050.0	4,655.1	-5.0	4,655.1	0.00	0.00	0.00
16,800.0	90.00	359.70	12,050.0	4,755.1	-5.6	4,755.1	0.00	0.00	0.00
16,900.0	90.00	359.70	12,050.0	4,855.1	-6.1	4,855.1	0.00	0.00	0.00
17,000.0	90.00	359.70	12,050.0	4,955.1	-6.6	4,955.1	0.00	0.00	0.00
17,100.0	90.00	359.70	12,050.0	5,055.1	-7.2	5,055.1	0.00	0.00	0.00
17,200.0	90.00	359.70	12,050.0	5,155.1	-7.7	5,155.1	0.00	0.00	0.00
17,300.0	90.00	359.70	12,050.0	5,255.1	-8.2	5,255.1	0.00	0.00	0.00
17,400.0	90.00	359.70	12,050.0	5,355.1	-8.8	5,355.1	0.00	0.00	0.00
17,500.0	90.00	359.70	12,050.0	5,455.1	-9.3	5,455.1	0.00	0.00	0.00
17,600.0	90.00	359.70	12,050.0	5,555.1	-9.8	5,555.1	0.00	0.00	0.00
17,700.0	90.00	359.70	12,050.0	5,655.1	-10.4	5,655.1	0.00	0.00	0.00
17,800.0	90.00	359.70	12,050.0	5,755.1	-10.9	5,755.1	0.00	0.00	0.00
17,900.0	90.00	359.70	12,050.0	5,855.1	-11.4	5,855.1	0.00	0.00	0.00
18,000.0	90.00	359.70	12,050.0	5,955.1	-12.0	5,955.1	0.00	0.00	0.00

ADVANCE ENERGY PARTNERS

Planning Report

Database:	EDM 5000.16 Single User Db	**Local Co-ordinate Reference:**	Well Anderson Fed Com 702H
Company:	Advance Energy Partners	**TVD Reference:**	WELL @ 3699.5usft (Original Well Elev.)
Project:	Hat Mesa	**MD Reference:**	WELL @ 3699.5usft (Original Well Elev.)
Site:	Anderson Fed Com - Pad C	**North Reference:**	Grid
Well:	Anderson Fed Com 702H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Anderson Fed Com 702H		
Design:	Anderson Fed Com 702H - Prelim 1		

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)
18,100.0	90.00	359.70	12,050.0	6,055.1	-12.5	6,055.1	0.00	0.00	0.00
18,200.0	90.00	359.70	12,050.0	6,155.1	-13.0	6,155.1	0.00	0.00	0.00
18,300.0	90.00	359.70	12,050.0	6,255.1	-13.5	6,255.1	0.00	0.00	0.00
18,400.0	90.00	359.70	12,050.0	6,355.1	-14.1	6,355.1	0.00	0.00	0.00
18,500.0	90.00	359.70	12,050.0	6,455.1	-14.6	6,455.1	0.00	0.00	0.00
18,600.0	90.00	359.70	12,050.0	6,555.1	-15.1	6,555.1	0.00	0.00	0.00
18,700.0	90.00	359.70	12,050.0	6,655.1	-15.7	6,655.1	0.00	0.00	0.00
18,729.3	90.00	359.70	12,050.0	6,684.4	-15.8	6,684.4	0.00	0.00	0.00
TD at 18729.3 - Anderson Fed Com 702H BHL									

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
Anderson Fed Com 702I - plan hits target center - Point	0.00	0.00	12,050.0	6,684.4	-15.8	526,638.14	753,226.81	32° 26' 45.312 N	103° 38' 47.238 W

Casing Points

Measured Depth (usft)	Vertical Depth (usft)	Name	Casing Diameter (")	Hole Diameter (")
12,326.4	12,050.0	LP	5-1/2	5-1/2

Formations

Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)
1,169.0	1,169.0	Rustler		0.00	
4,747.0	4,747.0	Base of Limestone/Bell Canyon		0.00	
8,396.0	8,394.0	Lower Brushy		0.00	
8,916.4	8,914.0	Avalon		0.00	
9,784.0	9,781.0	1st BS Sand		0.00	
10,372.5	10,369.0	2nd BS Sand		0.00	
10,950.9	10,947.0	3rd BS Carb		0.00	
11,497.9	11,494.0	3rd BS Sand		0.00	
11,865.1	11,844.0	Wolfcamp A		0.00	

ADVANCE ENERGY PARTNERS

Planning Report

Database:	EDM 5000.16 Single User Db	**Local Co-ordinate Reference:**	Well Anderson Fed Com 702H
Company:	Advance Energy Partners	**TVD Reference:**	WELL @ 3699.5usft (Original Well Elev.)
Project:	Hat Mesa	**MD Reference:**	WELL @ 3699.5usft (Original Well Elev.)
Site:	Anderson Fed Com - Pad C	**North Reference:**	Grid
Well:	Anderson Fed Com 702H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Anderson Fed Com 702H		
Design:	Anderson Fed Com 702H - Prelim 1		

Plan Annotations

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates +N/-S (usft)	Local Coordinates +E/-W (usft)	Comment
5,600.0	5,600.0	0.0	0.0	KOP - Start Build 1.00
5,822.7	5,822.6	-4.2	1.1	Start 4958.5 hold at 5822.7 MD
10,781.2	10,777.4	-190.8	48.9	Start Drop -1.00
11,003.9	11,000.0	-195.0	50.0	Start 572.5 hold at 11003.9 MD
11,576.4	11,572.5	-195.0	50.0	KOP #2 - Start Build 12.00
12,326.4	12,050.0	281.7	22.2	LP - Start 0.8 hold at 12326.4 MD
12,327.2	12,050.0	282.5	22.2	Start DLS 2.00 TFO 90.00
12,478.6	12,050.0	433.8	17.4	Start 6250.7 hold at 12478.6 MD
18,729.3	12,050.0	6,684.4	-15.8	TD at 18729.3

Advance Energy Partners

Hat Mesa
Anderson Fed Com - Pad C
Anderson Fed Com 702H

Anderson Fed Com 702H
Anderson Fed Com 702H - Prelim 1

Anticollision Report

11 February, 2021

ADVANCE ENERGY PARTNERS

Anticollision Report

Company:	Advance Energy Partners	**Local Co-ordinate Reference:**	Well Anderson Fed Com 702H
Project:	Hat Mesa	**TVD Reference:**	WELL @ 3699.5usft (Original Well Elev.)
Reference Site:	Anderson Fed Com - Pad C	**MD Reference:**	WELL @ 3699.5usft (Original Well Elev.)
Site Error:	0.0 usft	**North Reference:**	Grid
Reference Well:	Anderson Fed Com 702H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0 usft	**Output errors are at**	2.79 sigma
Reference Wellbore	Anderson Fed Com 702H	**Database:**	EDM 5000.16 Single User Db
Reference Design:	Anderson Fed Com 702H - Prelim 1	**Offset TVD Reference:**	Offset Datum

Reference Anderson Fed Com 702H - Prelim 1

Filter type:	NO GLOBAL FILTER: Using user defined selection & filtering criteria		
Interpolation Method:	Stations	**Error Model:**	ISCWSA
Depth Range:	Unlimited	**Scan Method:**	Closest Approach 3D
Results Limited by:	Maximum centre distance of 1,000.0usft	**Error Surface:**	Pedal Curve
Warning Levels Evaluated at:	2.79 **Sigma**	**Casing Method:**	Not applied

Survey Tool Program **Date** 2/11/2021

From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description
0.0	18,729.3	Anderson Fed Com 702H - Prelim 1 (Ande	MWD+HRGM	OWSG MWD + HRGM

Summary

Site Name Offset Well - Wellbore - Design	Reference Measured Depth (usft)	Offset Measured Depth (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Separation Factor	Warning
Anderson Fed Com - Pad C						
Anderson Fed Com 502H - Anderson Fed Com 502H - A	5,400.2	5,399.2	66.0	38.7	2.412	CC
Anderson Fed Com 502H - Anderson Fed Com 502H - A	5,600.0	5,598.9	66.1	38.3	2.378	ES, SF
Anderson Fed Com 553H - Anderson Fed Com 553H - A	5,200.0	5,199.0	99.7	72.9	3.725	CC, ES
Anderson Fed Com 553H - Anderson Fed Com 553H - A	5,300.0	5,297.5	100.4	73.4	3.718	SF
Anderson Fed Com 554H - Anderson Fed Com 554H - A	10,997.4	10,995.6	28.7	-9.1	0.759	Level 3, CC
Anderson Fed Com 554H - Anderson Fed Com 554H - A	11,100.0	11,092.8	38.1	-13.9	0.733	Level 3, ES, SF
Anderson Fed Com 602H - Anderson Fed Com 602H - A	5,000.0	4,998.0	133.0	106.9	5.090	CC, ES
Anderson Fed Com 602H - Anderson Fed Com 602H - A	18,729.3	18,499.7	704.9	434.1	2.603	SF

Offset Design: Anderson Fed Com - Pad C - Anderson Fed Com 502H - Anderson Fed Com 502H - Anderson Fed Com 502H - Prelim 1

Offset Site Error: 0.0 usft

Survey Program: 0-MWD+HRGM

Offset Well Error: 0.0 usft

Rule Assigned:

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
0.0	0.0	0.0	0.0	0.0	0.0	-90.37	-0.4	-66.0	66.0				
100.0	100.0	99.0	99.0	0.5	0.6	-90.37	-0.4	-66.0	66.0	64.9	1.11	59.568	
200.0	200.0	199.0	199.0	1.7	1.7	-90.37	-0.4	-66.0	66.0	62.6	3.44	19.195	
300.0	300.0	299.0	299.0	2.4	2.4	-90.37	-0.4	-66.0	66.0	61.2	4.84	13.654	
400.0	400.0	399.0	399.0	3.0	3.0	-90.37	-0.4	-66.0	66.0	60.1	5.92	11.155	
500.0	500.0	499.0	499.0	3.4	3.4	-90.37	-0.4	-66.0	66.0	59.2	6.84	9.653	
600.0	600.0	599.0	599.0	3.8	3.8	-90.37	-0.4	-66.0	66.0	58.4	7.66	8.623	
700.0	700.0	699.0	699.0	4.2	4.2	-90.37	-0.4	-66.0	66.0	57.6	8.40	7.859	
800.0	800.0	799.0	799.0	4.5	4.5	-90.37	-0.4	-66.0	66.0	56.9	9.09	7.263	
900.0	900.0	899.0	899.0	4.9	4.9	-90.37	-0.4	-66.0	66.0	56.3	9.74	6.781	
1,000.0	1,000.0	999.0	999.0	5.2	5.2	-90.37	-0.4	-66.0	66.0	55.7	10.35	6.381	
1,100.0	1,100.0	1,099.0	1,099.0	5.5	5.5	-90.37	-0.4	-66.0	66.0	55.1	10.93	6.042	
1,200.0	1,200.0	1,199.0	1,199.0	5.7	5.7	-90.37	-0.4	-66.0	66.0	54.5	11.49	5.749	
1,300.0	1,300.0	1,299.0	1,299.0	6.0	6.0	-90.37	-0.4	-66.0	66.0	54.0	12.02	5.493	
1,400.0	1,400.0	1,399.0	1,399.0	6.3	6.3	-90.37	-0.4	-66.0	66.0	53.5	12.54	5.267	
1,500.0	1,500.0	1,499.0	1,499.0	6.5	6.5	-90.37	-0.4	-66.0	66.0	53.0	13.04	5.065	
1,600.0	1,600.0	1,599.0	1,599.0	6.8	6.8	-90.37	-0.4	-66.0	66.0	52.5	13.52	4.883	
1,700.0	1,700.0	1,699.0	1,699.0	7.0	7.0	-90.37	-0.4	-66.0	66.0	52.0	13.99	4.718	
1,800.0	1,800.0	1,799.0	1,799.0	7.2	7.2	-90.37	-0.4	-66.0	66.0	51.6	14.46	4.568	
1,900.0	1,900.0	1,899.0	1,899.0	7.4	7.5	-90.37	-0.4	-66.0	66.0	51.1	14.90	4.430	

CC - Min centre to center distance or covergent point, SF - min separation factor, ES - min ellipse separation

ADVANCE ENERGY PARTNERS

Anticollision Report

Company:	Advance Energy Partners	**Local Co-ordinate Reference:**	Well Anderson Fed Com 702H
Project:	Hat Mesa	**TVD Reference:**	WELL @ 3699.5usft (Original Well Elev.)
Reference Site:	Anderson Fed Com - Pad C	**MD Reference:**	WELL @ 3699.5usft (Original Well Elev.)
Site Error:	0.0 usft	**North Reference:**	Grid
Reference Well:	Anderson Fed Com 702H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0 usft	**Output errors are at**	2.79 sigma
Reference Wellbore	Anderson Fed Com 702H	**Database:**	EDM 5000.16 Single User Db
Reference Design:	Anderson Fed Com 702H - Prelim 1	**Offset TVD Reference:**	Offset Datum

Offset Design: Anderson Fed Com - Pad C - Anderson Fed Com 502H - Anderson Fed Com 502H - Anderson Fed Com 502H - Prelim 1

Offset Site Error: 0.0 usft

Survey Program: 0-MWD+HRGM

Rule Assigned:

Offset Well Error: 0.0 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
2,000.0	2,000.0	1,999.0	1,999.0	7.7	7.7	-90.37	-0.4	-66.0	66.0	50.7	15.34	4.303	
2,100.0	2,100.0	2,099.0	2,099.0	7.9	7.9	-90.37	-0.4	-66.0	66.0	50.3	15.78	4.186	
2,200.0	2,200.0	2,199.0	2,199.0	8.1	8.1	-90.37	-0.4	-66.0	66.0	49.8	16.20	4.077	
2,300.0	2,300.0	2,299.0	2,299.0	8.3	8.3	-90.37	-0.4	-66.0	66.0	49.4	16.61	3.975	
2,400.0	2,400.0	2,399.0	2,399.0	8.5	8.5	-90.37	-0.4	-66.0	66.0	49.0	17.02	3.880	
2,500.0	2,500.0	2,499.0	2,499.0	8.7	8.7	-90.37	-0.4	-66.0	66.0	48.6	17.42	3.790	
2,600.0	2,600.0	2,599.0	2,599.0	8.9	8.9	-90.37	-0.4	-66.0	66.0	48.2	17.82	3.706	
2,700.0	2,700.0	2,699.0	2,699.0	9.1	9.1	-90.37	-0.4	-66.0	66.0	47.8	18.21	3.627	
2,800.0	2,800.0	2,799.0	2,799.0	9.3	9.3	-90.37	-0.4	-66.0	66.0	47.4	18.59	3.552	
2,900.0	2,900.0	2,899.0	2,899.0	9.5	9.5	-90.37	-0.4	-66.0	66.0	47.1	18.97	3.481	
3,000.0	3,000.0	2,999.0	2,999.0	9.7	9.7	-90.37	-0.4	-66.0	66.0	46.7	19.34	3.414	
3,100.0	3,100.0	3,099.0	3,099.0	9.9	9.9	-90.37	-0.4	-66.0	66.0	46.3	19.71	3.350	
3,200.0	3,200.0	3,199.0	3,199.0	10.0	10.0	-90.37	-0.4	-66.0	66.0	46.0	20.08	3.289	
3,300.0	3,300.0	3,299.0	3,299.0	10.2	10.2	-90.37	-0.4	-66.0	66.0	45.6	20.44	3.230	
3,400.0	3,400.0	3,399.0	3,399.0	10.4	10.4	-90.37	-0.4	-66.0	66.0	45.2	20.80	3.175	
3,500.0	3,500.0	3,499.0	3,499.0	10.6	10.6	-90.37	-0.4	-66.0	66.0	44.9	21.15	3.122	
3,600.0	3,600.0	3,599.0	3,599.0	10.7	10.8	-90.37	-0.4	-66.0	66.0	44.5	21.50	3.071	
3,700.0	3,700.0	3,699.0	3,699.0	10.9	10.9	-90.37	-0.4	-66.0	66.0	44.2	21.85	3.022	
3,800.0	3,800.0	3,799.0	3,799.0	11.1	11.1	-90.37	-0.4	-66.0	66.0	43.8	22.19	2.975	
3,900.0	3,900.0	3,899.0	3,899.0	11.3	11.3	-90.37	-0.4	-66.0	66.0	43.5	22.54	2.930	
4,000.0	4,000.0	3,999.0	3,999.0	11.4	11.4	-90.37	-0.4	-66.0	66.0	43.2	22.87	2.887	
4,100.0	4,100.0	4,099.0	4,099.0	11.6	11.6	-90.37	-0.4	-66.0	66.0	42.8	23.21	2.845	
4,200.0	4,200.0	4,199.0	4,199.0	11.8	11.8	-90.37	-0.4	-66.0	66.0	42.5	23.54	2.805	
4,300.0	4,300.0	4,299.0	4,299.0	11.9	11.9	-90.37	-0.4	-66.0	66.0	42.2	23.87	2.766	
4,400.0	4,400.0	4,399.0	4,399.0	12.1	12.1	-90.37	-0.4	-66.0	66.0	41.8	24.20	2.728	
4,500.0	4,500.0	4,499.0	4,499.0	12.3	12.3	-90.37	-0.4	-66.0	66.0	41.5	24.53	2.692	
4,600.0	4,600.0	4,599.0	4,599.0	12.4	12.4	-90.37	-0.4	-66.0	66.0	41.2	24.85	2.657	
4,700.0	4,700.0	4,699.0	4,699.0	12.6	12.6	-90.37	-0.4	-66.0	66.0	40.9	25.17	2.623	
4,800.0	4,800.0	4,799.0	4,799.0	12.7	12.7	-90.37	-0.4	-66.0	66.0	40.5	25.49	2.590	
4,900.0	4,900.0	4,899.0	4,899.0	12.9	12.9	-90.37	-0.4	-66.0	66.0	40.2	25.81	2.558	
5,000.0	5,000.0	4,999.0	4,999.0	13.1	13.1	-90.37	-0.4	-66.0	66.0	39.9	26.13	2.527	
5,100.0	5,100.0	5,099.0	5,099.0	13.2	13.2	-90.37	-0.4	-66.0	66.0	39.6	26.44	2.497	
5,200.0	5,200.0	5,199.0	5,199.0	13.4	13.4	-90.37	-0.4	-66.0	66.0	39.3	26.75	2.468	
5,300.0	5,300.0	5,299.0	5,299.0	13.5	13.5	-90.37	-0.4	-66.0	66.0	39.0	27.07	2.440	
5,400.0	5,400.0	5,399.0	5,399.0	13.7	13.7	-90.37	-0.4	-66.0	66.0	38.7	27.37	2.412	
5,400.2	5,400.2	5,399.2	5,399.2	13.7	13.7	-90.37	-0.4	-66.0	66.0	38.7	27.38	2.412	CC
5,500.0	5,500.0	5,499.0	5,499.0	13.8	13.8	-91.11	-1.3	-66.0	66.0	38.4	27.61	2.392	
5,600.0	5,600.0	5,598.9	5,598.9	14.0	13.8	-93.36	-3.9	-66.0	66.1	38.3	27.81	2.378	ES, SF
5,700.0	5,700.0	5,698.8	5,698.7	14.1	13.9	98.12	-8.1	-66.0	66.6	38.8	27.89	2.390	
5,800.0	5,800.0	5,798.8	5,798.5	14.1	13.9	96.42	-12.7	-66.0	67.5	39.6	27.98	2.414	
5,822.7	5,822.6	5,821.4	5,821.2	14.1	14.0	96.25	-13.8	-66.0	67.8	39.8	27.98	2.423	
5,900.0	5,899.9	5,898.8	5,898.4	14.2	14.0	95.79	-17.3	-66.0	68.6	40.6	28.03	2.448	
6,000.0	5,999.8	5,998.7	5,998.3	14.2	14.2	95.23	-21.9	-66.0	69.7	41.6	28.14	2.477	
6,100.0	6,099.7	6,098.7	6,098.2	14.4	14.3	94.68	-26.5	-66.0	70.8	42.5	28.25	2.506	
6,200.0	6,199.7	6,198.7	6,198.1	14.5	14.5	94.14	-31.1	-66.0	71.9	43.5	28.37	2.534	
6,300.0	6,299.6	6,298.7	6,298.0	14.6	14.6	93.62	-35.8	-66.0	73.0	44.5	28.49	2.562	
6,400.0	6,399.5	6,398.7	6,397.8	14.7	14.8	93.12	-40.4	-66.0	74.1	45.5	28.61	2.590	
6,500.0	6,499.4	6,498.7	6,497.7	14.9	15.0	92.63	-45.0	-66.0	75.2	46.5	28.74	2.617	
6,600.0	6,599.4	6,598.7	6,597.6	15.1	15.2	92.16	-49.6	-66.0	76.3	47.5	28.87	2.644	
6,700.0	6,699.3	6,698.7	6,697.5	15.2	15.4	91.70	-54.2	-66.0	77.5	48.4	29.01	2.670	
6,800.0	6,799.2	6,798.7	6,797.4	15.4	15.6	91.25	-58.8	-66.0	78.6	49.4	29.15	2.696	
6,900.0	6,899.1	6,898.7	6,897.3	15.6	15.9	90.82	-63.4	-66.0	79.7	50.4	29.29	2.721	

CC - Min centre to center distance or covergent point, SF - min separation factor, ES - min ellipse separation

ADVANCE ENERGY PARTNERS

Anticollision Report

Company:	Advance Energy Partners	**Local Co-ordinate Reference:**	Well Anderson Fed Com 702H
Project:	Hat Mesa	**TVD Reference:**	WELL @ 3699.5usft (Original Well Elev.)
Reference Site:	Anderson Fed Com - Pad C	**MD Reference:**	WELL @ 3699.5usft (Original Well Elev.)
Site Error:	0.0 usft	**North Reference:**	Grid
Reference Well:	Anderson Fed Com 702H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0 usft	**Output errors are at**	2.79 sigma
Reference Wellbore	Anderson Fed Com 702H	**Database:**	EDM 5000.16 Single User Db
Reference Design:	Anderson Fed Com 702H - Prelim 1	**Offset TVD Reference:**	Offset Datum

Offset Design: Anderson Fed Com - Pad C - Anderson Fed Com 502H - Anderson Fed Com 502H - Anderson Fed Com 502H - Prelim 1

Offset Site Error: 0.0 usft

Survey Program: 0-MWD+HRGM

Offset Well Error: 0.0 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
7,000.0	6,999.1	6,998.7	6,997.2	15.8	16.1	90.40	-68.0	-66.0	80.9	51.4	29.44	2.746	
7,100.0	7,099.0	7,098.7	7,097.0	16.0	16.4	89.99	-72.6	-66.0	82.0	52.4	29.60	2.771	
7,200.0	7,198.9	7,198.6	7,196.9	16.3	16.6	89.59	-77.2	-66.0	83.1	53.4	29.75	2.794	
7,300.0	7,298.8	7,298.6	7,296.8	16.5	16.9	89.20	-81.8	-66.0	84.3	54.4	29.92	2.818	
7,400.0	7,398.8	7,398.6	7,396.7	16.8	17.2	88.82	-86.4	-66.0	85.5	55.4	30.08	2.841	
7,500.0	7,498.7	7,498.6	7,496.6	17.0	17.5	88.46	-91.0	-66.0	86.6	56.4	30.26	2.863	
7,600.0	7,598.6	7,598.6	7,596.5	17.3	17.8	88.10	-95.6	-66.0	87.8	57.3	30.43	2.884	
7,700.0	7,698.5	7,698.6	7,696.4	17.5	18.1	87.75	-100.3	-66.0	88.9	58.3	30.61	2.905	
7,800.0	7,798.5	7,798.6	7,796.2	17.8	18.4	87.41	-104.9	-66.0	90.1	59.3	30.80	2.926	
7,900.0	7,898.4	7,898.6	7,896.1	18.1	18.7	87.08	-109.5	-66.0	91.3	60.3	30.99	2.945	
8,000.0	7,998.3	7,998.6	7,996.0	18.4	19.0	86.76	-114.1	-66.0	92.4	61.3	31.19	2.964	
8,100.0	8,098.2	8,098.6	8,095.9	18.7	19.3	86.44	-118.7	-66.0	93.6	62.2	31.39	2.983	
8,200.0	8,198.1	8,198.6	8,195.8	19.0	19.7	86.14	-123.3	-66.0	94.8	63.2	31.59	3.001	
8,300.0	8,298.1	8,298.6	8,295.7	19.3	20.0	85.84	-127.9	-66.0	96.0	64.2	31.81	3.018	
8,400.0	8,398.0	8,398.6	8,395.6	19.6	20.4	85.55	-132.5	-66.0	97.2	65.1	32.02	3.034	
8,500.0	8,497.9	8,498.5	8,495.4	19.9	20.7	85.26	-137.1	-66.0	98.4	66.1	32.24	3.050	
8,600.0	8,597.8	8,598.5	8,595.3	20.2	21.1	84.99	-141.7	-66.0	99.5	67.1	32.47	3.066	
8,700.0	8,697.8	8,698.5	8,695.2	20.6	21.4	84.72	-146.3	-66.0	100.7	68.0	32.70	3.081	
8,800.0	8,797.7	8,798.5	8,795.1	20.9	21.8	84.45	-150.9	-66.0	101.9	69.0	32.94	3.095	
8,900.0	8,897.6	8,898.5	8,895.0	21.2	22.2	84.19	-155.5	-66.0	103.1	70.0	33.18	3.108	
9,000.0	8,997.5	8,998.5	8,994.9	21.6	22.5	83.94	-160.2	-66.0	104.3	70.9	33.43	3.121	
9,100.0	9,097.5	9,098.5	9,094.8	21.9	22.9	83.69	-164.8	-66.0	105.5	71.9	33.68	3.133	
9,200.0	9,197.4	9,198.5	9,194.6	22.3	23.3	83.45	-169.4	-66.0	106.7	72.8	33.94	3.145	
9,300.0	9,297.3	9,298.5	9,294.5	22.6	23.6	83.22	-174.0	-66.0	107.9	73.7	34.20	3.156	
9,400.0	9,397.2	9,398.5	9,394.4	23.0	24.0	82.98	-178.6	-66.0	109.1	74.7	34.46	3.167	
9,500.0	9,497.2	9,498.5	9,494.3	23.3	24.4	82.76	-183.2	-66.0	110.3	75.6	34.73	3.177	
9,600.0	9,597.1	9,598.5	9,594.2	23.7	24.8	82.54	-187.8	-66.0	111.6	76.5	35.01	3.186	
9,700.0	9,697.0	9,698.4	9,694.1	24.1	25.2	82.32	-192.4	-66.0	112.8	77.5	35.29	3.195	
9,800.0	9,796.9	9,798.9	9,794.4	24.4	25.6	82.25	-196.7	-66.0	113.9	78.4	35.51	3.207	
9,900.0	9,896.9	9,899.6	9,895.1	24.8	25.9	82.92	-199.5	-66.0	114.4	78.7	35.62	3.211	
10,000.0	9,996.8	10,000.3	9,995.8	25.2	26.1	84.42	-200.4	-66.0	114.3	78.7	35.57	3.213	
10,100.0	10,096.7	10,100.2	10,095.7	25.5	26.1	86.37	-200.4	-66.0	114.0	78.5	35.47	3.213	
10,200.0	10,196.6	10,200.2	10,195.6	25.9	26.2	88.32	-200.4	-66.0	113.8	78.4	35.40	3.214	
10,286.0	10,282.6	10,286.1	10,281.6	26.2	26.3	90.00	-200.4	-66.0	113.7	78.4	35.39	3.214	
10,300.0	10,296.6	10,300.1	10,295.6	26.3	26.3	90.27	-200.4	-66.0	113.7	78.4	35.39	3.214	
10,400.0	10,396.5	10,402.8	10,398.2	26.7	26.2	92.92	-199.1	-65.9	113.4	78.1	35.34	3.209	
10,500.0	10,496.4	10,506.1	10,499.6	27.1	25.9	104.32	-180.5	-63.5	109.8	74.1	35.69	3.077	
10,529.8	10,526.2	10,534.5	10,526.6	27.2	25.8	109.52	-171.6	-62.4	109.4	73.0	36.34	3.009	
10,600.0	10,596.3	10,596.3	10,583.1	27.5	25.5	123.38	-146.9	-59.3	113.4	73.6	39.78	2.851	
10,700.0	10,696.3	10,670.7	10,646.1	27.8	25.2	141.78	-107.8	-54.4	139.0	92.0	47.00	2.957	
10,781.2	10,777.4	10,720.2	10,684.3	28.1	25.1	152.70	-76.6	-50.5	177.2	125.8	51.34	3.451	
10,800.0	10,796.2	10,730.4	10,691.8	28.2	25.0	154.77	-69.7	-49.6	187.8	135.7	52.08	3.605	
10,900.0	10,896.1	10,775.0	10,722.6	28.6	24.9	162.70	-37.8	-45.6	251.6	196.6	54.99	4.575	
11,003.9	11,000.0	10,819.4	10,750.2	28.7	24.7	-25.45	-3.2	-41.3	327.1	270.4	56.69	5.770	
11,100.0	11,096.1	10,850.0	10,767.2	28.8	24.7	-22.10	21.9	-38.1	402.9	345.0	57.89	6.960	
11,200.0	11,196.1	10,875.0	10,779.9	28.8	24.6	-19.72	43.3	-35.4	486.3	427.3	58.95	8.249	
11,300.0	11,296.1	10,900.0	10,791.5	28.9	24.5	-17.61	65.3	-32.6	572.9	513.1	59.82	9.578	
11,400.0	11,396.1	10,925.0	10,801.9	29.0	24.5	-15.76	87.9	-29.8	662.1	601.5	60.57	10.930	
11,500.0	11,496.1	10,933.7	10,805.2	29.0	24.5	-15.16	95.8	-28.8	752.8	691.4	61.44	12.253	
11,576.4	11,572.5	10,950.0	10,811.1	29.0	24.5	-14.11	110.9	-26.9	823.3	761.3	61.95	13.289	
11,600.0	11,596.1	10,950.0	10,811.1	29.0	24.5	-9.63	110.9	-26.9	844.9	782.8	62.15	13.595	
11,625.0	11,621.1	10,950.0	10,811.1	28.9	24.5	-8.64	110.9	-26.9	867.4	805.1	62.36	13.911	

CC - Min centre to center distance or covergent point, SF - min separation factor, ES - min ellipse separation

ADVANCE ENERGY PARTNERS

Anticollision Report

Company:	Advance Energy Partners	**Local Co-ordinate Reference:**	Well Anderson Fed Com 702H
Project:	Hat Mesa	**TVD Reference:**	WELL @ 3699.5usft (Original Well Elev.)
Reference Site:	Anderson Fed Com - Pad C	**MD Reference:**	WELL @ 3699.5usft (Original Well Elev.)
Site Error:	0.0 usft	**North Reference:**	Grid
Reference Well:	Anderson Fed Com 702H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0 usft	**Output errors are at**	2.79 sigma
Reference Wellbore	Anderson Fed Com 702H	**Database:**	EDM 5000.16 Single User Db
Reference Design:	Anderson Fed Com 702H - Prelim 1	**Offset TVD Reference:**	Offset Datum

Offset Design: Anderson Fed Com - Pad C - Anderson Fed Com 502H - Anderson Fed Com 502H - Anderson Fed Com 502H - Prelim 1

Offset Site Error: 0.0 usft

Survey Program: 0-MWD+HRGM

Rule Assigned:

Offset Well Error: 0.0 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
11,650.0	11,645.9	10,950.0	10,811.1	28.9	24.5	-7.84	110.9	-26.9	889.5	826.9	62.57	14.217	
11,675.0	11,670.4	10,959.5	10,814.2	28.8	24.4	-6.85	119.8	-25.8	911.0	848.3	62.70	14.529	
11,700.0	11,694.8	10,964.0	10,815.7	28.7	24.4	-6.19	124.0	-25.3	931.9	869.0	62.88	14.822	
11,725.0	11,718.8	10,975.0	10,819.0	28.6	24.4	-5.47	134.4	-24.0	952.3	889.3	63.00	15.116	
11,750.0	11,742.3	10,975.0	10,819.0	28.5	24.4	-5.12	134.4	-24.0	972.0	908.8	63.23	15.374	
11,775.0	11,765.5	10,975.0	10,819.0	28.4	24.4	-4.81	134.4	-24.0	991.2	927.7	63.45	15.621	

ADVANCE ENERGY PARTNERS

Anticollision Report

Company:	Advance Energy Partners	**Local Co-ordinate Reference:**	Well Anderson Fed Com 702H
Project:	Hat Mesa	**TVD Reference:**	WELL @ 3699.5usft (Original Well Elev.)
Reference Site:	Anderson Fed Com - Pad C	**MD Reference:**	WELL @ 3699.5usft (Original Well Elev.)
Site Error:	0.0 usft	**North Reference:**	Grid
Reference Well:	Anderson Fed Com 702H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0 usft	**Output errors are at**	2.79 sigma
Reference Wellbore	Anderson Fed Com 702H	**Database:**	EDM 5000.16 Single User Db
Reference Design:	Anderson Fed Com 702H - Prelim 1	**Offset TVD Reference:**	Offset Datum

Offset Design: Anderson Fed Com - Pad C - Anderson Fed Com 553H - Anderson Fed Com 553H - Anderson Fed Com 553H - Prelim 1

Offset Site Error: 0.0 usft

Survey Program: 0-MWD+HRGM

Rule Assigned:

Offset Well Error: 0.0 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
0.0	0.0	0.0	0.0	0.0	0.0	-90.58	-1.0	-99.7	99.7				
100.0	100.0	99.0	99.0	0.5	0.6	-90.58	-1.0	-99.7	99.7	98.6	1.11	89.909	
200.0	200.0	199.0	199.0	1.7	1.7	-90.58	-1.0	-99.7	99.7	96.2	3.44	28.972	
300.0	300.0	299.0	299.0	2.4	2.4	-90.58	-1.0	-99.7	99.7	94.8	4.84	20.608	
400.0	400.0	399.0	399.0	3.0	3.0	-90.58	-1.0	-99.7	99.7	93.7	5.92	16.837	
500.0	500.0	499.0	499.0	3.4	3.4	-90.58	-1.0	-99.7	99.7	92.8	6.84	14.571	
600.0	600.0	599.0	599.0	3.8	3.8	-90.58	-1.0	-99.7	99.7	92.0	7.66	13.015	
700.0	700.0	699.0	699.0	4.2	4.2	-90.58	-1.0	-99.7	99.7	91.3	8.40	11.862	
800.0	800.0	799.0	799.0	4.5	4.5	-90.58	-1.0	-99.7	99.7	90.6	9.09	10.962	
900.0	900.0	899.0	899.0	4.9	4.9	-90.58	-1.0	-99.7	99.7	89.9	9.74	10.235	
1,000.0	1,000.0	999.0	999.0	5.2	5.2	-90.58	-1.0	-99.7	99.7	89.3	10.35	9.631	
1,100.0	1,100.0	1,099.0	1,099.0	5.5	5.5	-90.58	-1.0	-99.7	99.7	88.7	10.93	9.119	
1,200.0	1,200.0	1,199.0	1,199.0	5.7	5.7	-90.58	-1.0	-99.7	99.7	88.2	11.49	8.677	
1,300.0	1,300.0	1,299.0	1,299.0	6.0	6.0	-90.58	-1.0	-99.7	99.7	87.6	12.02	8.291	
1,400.0	1,400.0	1,399.0	1,399.0	6.3	6.3	-90.58	-1.0	-99.7	99.7	87.1	12.54	7.949	
1,500.0	1,500.0	1,499.0	1,499.0	6.5	6.5	-90.58	-1.0	-99.7	99.7	86.6	13.04	7.645	
1,600.0	1,600.0	1,599.0	1,599.0	6.8	6.8	-90.58	-1.0	-99.7	99.7	86.1	13.52	7.370	
1,700.0	1,700.0	1,699.0	1,699.0	7.0	7.0	-90.58	-1.0	-99.7	99.7	85.7	13.99	7.122	
1,800.0	1,800.0	1,799.0	1,799.0	7.2	7.2	-90.58	-1.0	-99.7	99.7	85.2	14.46	6.895	
1,900.0	1,900.0	1,899.0	1,899.0	7.4	7.5	-90.58	-1.0	-99.7	99.7	84.8	14.90	6.687	
2,000.0	2,000.0	1,999.0	1,999.0	7.7	7.7	-90.58	-1.0	-99.7	99.7	84.3	15.34	6.495	
2,100.0	2,100.0	2,099.0	2,099.0	7.9	7.9	-90.58	-1.0	-99.7	99.7	83.9	15.78	6.318	
2,200.0	2,200.0	2,199.0	2,199.0	8.1	8.1	-90.58	-1.0	-99.7	99.7	83.5	16.20	6.153	
2,300.0	2,300.0	2,299.0	2,299.0	8.3	8.3	-90.58	-1.0	-99.7	99.7	83.1	16.61	5.999	
2,400.0	2,400.0	2,399.0	2,399.0	8.5	8.5	-90.58	-1.0	-99.7	99.7	82.6	17.02	5.856	
2,500.0	2,500.0	2,499.0	2,499.0	8.7	8.7	-90.58	-1.0	-99.7	99.7	82.2	17.42	5.721	
2,600.0	2,600.0	2,599.0	2,599.0	8.9	8.9	-90.58	-1.0	-99.7	99.7	81.8	17.82	5.594	
2,700.0	2,700.0	2,699.0	2,699.0	9.1	9.1	-90.58	-1.0	-99.7	99.7	81.5	18.21	5.474	
2,800.0	2,800.0	2,799.0	2,799.0	9.3	9.3	-90.58	-1.0	-99.7	99.7	81.1	18.59	5.361	
2,900.0	2,900.0	2,899.0	2,899.0	9.5	9.5	-90.58	-1.0	-99.7	99.7	80.7	18.97	5.254	
3,000.0	3,000.0	2,999.0	2,999.0	9.7	9.7	-90.58	-1.0	-99.7	99.7	80.3	19.34	5.152	
3,100.0	3,100.0	3,099.0	3,099.0	9.9	9.9	-90.58	-1.0	-99.7	99.7	80.0	19.71	5.056	
3,200.0	3,200.0	3,199.0	3,199.0	10.0	10.0	-90.58	-1.0	-99.7	99.7	79.6	20.08	4.964	
3,300.0	3,300.0	3,299.0	3,299.0	10.2	10.2	-90.58	-1.0	-99.7	99.7	79.2	20.44	4.876	
3,400.0	3,400.0	3,399.0	3,399.0	10.4	10.4	-90.58	-1.0	-99.7	99.7	78.9	20.80	4.792	
3,500.0	3,500.0	3,499.0	3,499.0	10.6	10.6	-90.58	-1.0	-99.7	99.7	78.5	21.15	4.712	
3,600.0	3,600.0	3,599.0	3,599.0	10.7	10.8	-90.58	-1.0	-99.7	99.7	78.2	21.50	4.635	
3,700.0	3,700.0	3,699.0	3,699.0	10.9	10.9	-90.58	-1.0	-99.7	99.7	77.8	21.85	4.561	
3,800.0	3,800.0	3,799.0	3,799.0	11.1	11.1	-90.58	-1.0	-99.7	99.7	77.5	22.19	4.490	
3,900.0	3,900.0	3,899.0	3,899.0	11.3	11.3	-90.58	-1.0	-99.7	99.7	77.1	22.54	4.422	
4,000.0	4,000.0	3,999.0	3,999.0	11.4	11.4	-90.58	-1.0	-99.7	99.7	76.8	22.87	4.357	
4,100.0	4,100.0	4,099.0	4,099.0	11.6	11.6	-90.58	-1.0	-99.7	99.7	76.5	23.21	4.294	
4,200.0	4,200.0	4,199.0	4,199.0	11.8	11.8	-90.58	-1.0	-99.7	99.7	76.1	23.54	4.233	
4,300.0	4,300.0	4,299.0	4,299.0	11.9	11.9	-90.58	-1.0	-99.7	99.7	75.8	23.87	4.174	
4,400.0	4,400.0	4,399.0	4,399.0	12.1	12.1	-90.58	-1.0	-99.7	99.7	75.5	24.20	4.118	
4,500.0	4,500.0	4,499.0	4,499.0	12.3	12.3	-90.58	-1.0	-99.7	99.7	75.1	24.53	4.063	
4,600.0	4,600.0	4,599.0	4,599.0	12.4	12.4	-90.58	-1.0	-99.7	99.7	74.8	24.85	4.010	
4,700.0	4,700.0	4,699.0	4,699.0	12.6	12.6	-90.58	-1.0	-99.7	99.7	74.5	25.17	3.959	
4,800.0	4,800.0	4,799.0	4,799.0	12.7	12.7	-90.58	-1.0	-99.7	99.7	74.2	25.49	3.909	
4,900.0	4,900.0	4,899.0	4,899.0	12.9	12.9	-90.58	-1.0	-99.7	99.7	73.9	25.81	3.861	
5,000.0	5,000.0	4,999.0	4,999.0	13.1	13.1	-90.58	-1.0	-99.7	99.7	73.5	26.13	3.814	
5,100.0	5,100.0	5,099.0	5,099.0	13.2	13.2	-90.58	-1.0	-99.7	99.7	73.2	26.44	3.769	

CC - Min centre to center distance or covergent point, SF - min separation factor, ES - min ellipse separation

ADVANCE ENERGY PARTNERS

Anticollision Report

Company:	Advance Energy Partners	**Local Co-ordinate Reference:**	Well Anderson Fed Com 702H
Project:	Hat Mesa	**TVD Reference:**	WELL @ 3699.5usft (Original Well Elev.)
Reference Site:	Anderson Fed Com - Pad C	**MD Reference:**	WELL @ 3699.5usft (Original Well Elev.)
Site Error:	0.0 usft	**North Reference:**	Grid
Reference Well:	Anderson Fed Com 702H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0 usft	**Output errors are at**	2.79 sigma
Reference Wellbore	Anderson Fed Com 702H	**Database:**	EDM 5000.16 Single User Db
Reference Design:	Anderson Fed Com 702H - Prelim 1	**Offset TVD Reference:**	Offset Datum

Offset Design: Anderson Fed Com - Pad C - Anderson Fed Com 553H - Anderson Fed Com 553H - Anderson Fed Com 553H - Prelim 1

Offset Site Error: 0.0 usft

Survey Program: 0-MWD+HRGM

Rule Assigned:

Offset Well Error: 0.0 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
5,200.0	5,200.0	5,199.0	5,199.0	13.4	13.4	-90.58	-1.0	-99.7	99.7	72.9	26.75	3.725	CC, ES
5,300.0	5,300.0	5,297.5	5,297.5	13.5	13.5	-90.81	-1.4	-100.4	100.4	73.4	27.01	3.718	SF
5,400.0	5,400.0	5,395.9	5,395.9	13.7	13.6	-91.49	-2.7	-102.6	102.6	75.4	27.25	3.767	
5,500.0	5,500.0	5,494.3	5,494.1	13.8	13.7	-92.56	-4.8	-106.2	106.4	78.9	27.49	3.871	
5,600.0	5,600.0	5,592.4	5,592.1	14.0	13.8	-93.94	-7.7	-111.3	111.8	84.0	27.75	4.028	
5,700.0	5,700.0	5,690.4	5,689.8	14.1	13.9	99.19	-11.4	-117.9	118.9	91.0	27.94	4.256	
5,800.0	5,800.0	5,790.0	5,789.1	14.1	14.1	98.68	-15.6	-125.2	127.1	99.0	28.12	4.520	
5,822.7	5,822.6	5,812.6	5,811.6	14.1	14.1	98.67	-16.6	-126.9	129.0	100.8	28.15	4.583	
5,900.0	5,899.9	5,889.7	5,888.4	14.2	14.2	98.79	-19.8	-132.6	135.5	107.2	28.29	4.789	
6,000.0	5,999.8	5,989.3	5,987.6	14.2	14.4	98.93	-24.1	-140.0	143.8	115.3	28.52	5.043	
6,100.0	6,099.7	6,089.0	6,086.9	14.4	14.7	99.05	-28.3	-147.4	152.2	123.4	28.77	5.290	
6,200.0	6,199.7	6,188.6	6,186.2	14.5	14.9	99.15	-32.5	-154.8	160.6	131.5	29.04	5.530	
6,300.0	6,299.6	6,288.3	6,285.5	14.6	15.1	99.25	-36.7	-162.1	168.9	139.6	29.32	5.762	
6,400.0	6,399.5	6,387.9	6,384.8	14.7	15.4	99.34	-40.9	-169.5	177.3	147.7	29.62	5.988	
6,500.0	6,499.4	6,487.6	6,484.1	14.9	15.7	99.42	-45.1	-176.9	185.7	155.8	29.93	6.205	
6,600.0	6,599.4	6,587.2	6,583.4	15.1	16.0	99.49	-49.3	-184.3	194.1	163.8	30.25	6.416	
6,700.0	6,699.3	6,686.9	6,682.6	15.2	16.3	99.56	-53.6	-191.6	202.4	171.9	30.59	6.619	
6,800.0	6,799.2	6,786.5	6,781.9	15.4	16.6	99.62	-57.8	-199.0	210.8	179.9	30.93	6.816	
6,900.0	6,899.1	6,886.2	6,881.2	15.6	16.9	99.68	-62.0	-206.4	219.2	187.9	31.29	7.005	
7,000.0	6,999.1	6,985.8	6,980.5	15.8	17.3	99.73	-66.2	-213.8	227.6	195.9	31.66	7.188	
7,100.0	7,099.0	7,085.5	7,079.8	16.0	17.6	99.78	-70.4	-221.1	236.0	203.9	32.04	7.364	
7,200.0	7,198.9	7,185.1	7,179.1	16.3	18.0	99.82	-74.6	-228.5	244.3	211.9	32.43	7.533	
7,300.0	7,298.8	7,284.8	7,278.4	16.5	18.3	99.86	-78.9	-235.9	252.7	219.9	32.83	7.697	
7,400.0	7,398.8	7,384.4	7,377.6	16.8	18.7	99.90	-83.1	-243.3	261.1	227.8	33.24	7.854	
7,500.0	7,498.7	7,484.1	7,476.9	17.0	19.1	99.94	-87.3	-250.7	269.5	235.8	33.66	8.005	
7,600.0	7,598.6	7,583.7	7,576.2	17.3	19.5	99.98	-91.5	-258.0	277.8	243.8	34.09	8.151	
7,700.0	7,698.5	7,683.4	7,675.5	17.5	19.9	100.01	-95.7	-265.4	286.2	251.7	34.52	8.291	
7,800.0	7,798.5	7,783.0	7,774.8	17.8	20.3	100.04	-99.9	-272.8	294.6	259.6	34.96	8.426	
7,900.0	7,898.4	7,882.6	7,874.1	18.1	20.7	100.07	-104.1	-280.2	303.0	267.6	35.41	8.556	
8,000.0	7,998.3	7,982.3	7,973.4	18.4	21.1	100.10	-108.4	-287.5	311.3	275.5	35.86	8.682	
8,100.0	8,098.2	8,081.9	8,072.6	18.7	21.5	100.12	-112.6	-294.9	319.7	283.4	36.32	8.802	
8,200.0	8,198.1	8,181.6	8,171.9	19.0	21.9	100.15	-116.8	-302.3	328.1	291.3	36.79	8.918	
8,300.0	8,298.1	8,281.2	8,271.2	19.3	22.4	100.17	-121.0	-309.7	336.5	299.2	37.26	9.030	
8,400.0	8,398.0	8,380.9	8,370.5	19.6	22.8	100.20	-125.2	-317.0	344.9	307.1	37.74	9.137	
8,500.0	8,497.9	8,480.5	8,469.8	19.9	23.2	100.22	-129.4	-324.4	353.2	315.0	38.23	9.240	
8,600.0	8,597.8	8,580.2	8,569.1	20.2	23.7	100.24	-133.7	-331.8	361.6	322.9	38.72	9.340	
8,700.0	8,697.8	8,679.8	8,668.3	20.6	24.1	100.26	-137.9	-339.2	370.0	330.8	39.21	9.436	
8,800.0	8,797.7	8,779.5	8,767.6	20.9	24.6	100.28	-142.1	-346.6	378.4	338.7	39.71	9.529	
8,900.0	8,897.6	8,879.1	8,866.9	21.2	25.0	100.29	-146.3	-353.9	386.7	346.5	40.21	9.618	
9,000.0	8,997.5	8,978.8	8,966.2	21.6	25.5	100.31	-150.5	-361.3	395.1	354.4	40.72	9.704	
9,100.0	9,097.5	9,078.4	9,065.5	21.9	25.9	100.33	-154.7	-368.7	403.5	362.3	41.23	9.786	
9,200.0	9,197.4	9,178.1	9,164.8	22.3	26.4	100.34	-159.0	-376.1	411.9	370.1	41.75	9.866	
9,300.0	9,297.3	9,277.7	9,264.1	22.6	26.9	100.36	-163.2	-383.4	420.3	378.0	42.27	9.943	
9,400.0	9,397.2	9,377.4	9,363.3	23.0	27.3	100.37	-167.4	-390.8	428.6	385.8	42.79	10.017	
9,500.0	9,497.2	9,477.0	9,462.6	23.3	27.8	100.39	-171.6	-398.2	437.0	393.7	43.32	10.089	
9,600.0	9,597.1	9,576.7	9,561.9	23.7	28.3	100.40	-175.8	-405.6	445.4	401.5	43.85	10.158	
9,700.0	9,697.0	9,676.3	9,661.2	24.1	28.8	100.41	-180.0	-412.9	453.8	409.4	44.38	10.225	
9,800.0	9,796.9	9,776.0	9,760.5	24.4	29.2	100.43	-184.2	-420.3	462.1	417.2	44.91	10.289	
9,900.0	9,896.9	9,875.6	9,859.8	24.8	29.7	100.44	-188.5	-427.7	470.5	425.1	45.45	10.352	
10,000.0	9,996.8	9,979.1	9,962.9	25.2	30.2	100.46	-192.7	-435.2	478.7	432.7	45.97	10.413	
10,100.0	10,096.7	10,087.1	10,070.6	25.5	30.7	100.58	-196.3	-441.4	485.4	439.0	46.48	10.444	
10,200.0	10,196.6	10,195.2	10,178.6	25.9	31.1	100.79	-198.9	-445.9	490.5	443.5	46.96	10.444	

CC - Min centre to center distance or covergent point, SF - min separation factor, ES - min ellipse separation

ADVANCE ENERGY PARTNERS

Anticollision Report

Company:	Advance Energy Partners	**Local Co-ordinate Reference:**	Well Anderson Fed Com 702H
Project:	Hat Mesa	**TVD Reference:**	WELL @ 3699.5usft (Original Well Elev.)
Reference Site:	Anderson Fed Com - Pad C	**MD Reference:**	WELL @ 3699.5usft (Original Well Elev.)
Site Error:	0.0 usft	**North Reference:**	Grid
Reference Well:	Anderson Fed Com 702H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0 usft	**Output errors are at**	2.79 sigma
Reference Wellbore	Anderson Fed Com 702H	**Database:**	EDM 5000.16 Single User Db
Reference Design:	Anderson Fed Com 702H - Prelim 1	**Offset TVD Reference:**	Offset Datum

Offset Design: Anderson Fed Com - Pad C - Anderson Fed Com 553H - Anderson Fed Com 553H - Anderson Fed Com 553H - Prelim 1

Offset Site Error: 0.0 usft

Survey Program: 0-MWD+HRGM

Offset Well Error: 0.0 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Rule Assigned: Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
10,300.0	10,296.6	10,303.5	10,286.8	26.3	31.6	101.11	-200.5	-448.7	493.8	446.4	47.40	10.418	
10,400.0	10,396.5	10,411.7	10,395.1	26.7	31.9	101.53	-201.0	-449.7	495.5	447.8	47.74	10.380	
10,500.0	10,496.4	10,512.0	10,495.4	27.1	31.9	101.97	-201.0	-449.7	496.3	448.4	47.87	10.369	
10,600.0	10,596.3	10,612.0	10,595.3	27.5	32.0	102.41	-201.0	-449.7	497.1	449.1	48.01	10.355	
10,700.0	10,696.3	10,707.8	10,691.2	27.8	32.0	102.87	-200.7	-449.7	498.1	449.9	48.16	10.343	
10,781.2	10,777.4	10,775.0	10,757.9	28.1	31.9	103.98	-193.5	-451.5	500.7	452.4	48.29	10.370	
10,800.0	10,796.2	10,787.8	10,770.5	28.2	31.9	104.32	-191.1	-452.0	501.7	453.4	48.32	10.384	
10,900.0	10,896.1	10,862.0	10,841.7	28.6	31.8	106.89	-170.9	-456.9	510.0	461.4	48.61	10.493	
11,003.9	11,000.0	10,930.9	10,904.1	28.7	31.7	-84.19	-142.7	-463.7	525.0	475.8	49.15	10.681	
11,100.0	11,096.1	10,986.5	10,951.0	28.8	31.7	-81.14	-113.9	-470.6	546.3	496.3	50.00	10.926	
11,200.0	11,196.1	11,035.8	10,989.5	28.8	31.7	-78.12	-83.9	-477.9	577.3	526.0	51.25	11.264	
11,300.0	11,296.1	11,075.0	11,017.7	28.9	31.6	-75.57	-57.5	-484.2	617.5	564.6	52.82	11.689	
11,400.0	11,396.1	11,112.8	11,042.7	29.0	31.7	-73.03	-30.0	-490.8	666.3	611.8	54.46	12.234	
11,500.0	11,496.1	11,142.6	11,060.8	29.0	31.7	-71.01	-6.9	-496.4	722.9	666.7	56.16	12.871	
11,576.4	11,572.5	11,162.4	11,072.0	29.0	31.7	-69.67	8.9	-500.2	770.6	713.2	57.41	13.423	
11,600.0	11,596.1	11,175.0	11,078.8	29.0	31.7	-63.35	19.3	-502.7	786.0	728.3	57.69	13.623	
11,625.0	11,621.1	11,175.0	11,078.8	28.9	31.7	-61.13	19.3	-502.7	802.0	743.8	58.15	13.792	
11,650.0	11,645.9	11,175.0	11,078.8	28.9	31.7	-58.97	19.3	-502.7	818.0	759.4	58.59	13.960	
11,675.0	11,670.4	11,188.1	11,085.5	28.8	31.7	-56.27	30.2	-505.3	833.7	774.8	58.88	14.158	
11,700.0	11,694.8	11,200.0	11,091.3	28.7	31.7	-53.82	40.3	-507.8	849.2	790.0	59.18	14.349	
11,725.0	11,718.8	11,200.0	11,091.3	28.6	31.7	-51.99	40.3	-507.8	864.4	804.7	59.61	14.500	
11,750.0	11,742.3	11,209.5	11,095.8	28.5	31.8	-49.94	48.4	-509.7	879.2	819.3	59.93	14.671	
11,775.0	11,765.5	11,216.9	11,099.2	28.4	31.8	-48.11	54.8	-511.3	893.7	833.4	60.27	14.830	
11,800.0	11,788.1	11,225.0	11,102.8	28.3	31.8	-46.40	61.9	-513.0	907.8	847.2	60.59	14.983	
11,825.0	11,810.1	11,225.0	11,102.8	28.2	31.8	-44.99	61.9	-513.0	921.5	860.5	60.99	15.109	
11,850.0	11,831.4	11,239.8	11,109.0	28.1	31.8	-43.39	75.0	-516.1	934.6	873.4	61.24	15.261	
11,875.0	11,852.1	11,250.0	11,113.0	27.9	31.8	-42.03	84.1	-518.3	947.3	885.8	61.53	15.395	
11,900.0	11,871.9	11,250.0	11,113.0	27.8	31.8	-40.92	84.1	-518.3	959.5	897.6	61.91	15.498	
11,925.0	11,891.0	11,263.6	11,118.1	27.8	31.9	-39.74	96.4	-521.3	971.1	908.9	62.17	15.621	
11,950.0	11,909.2	11,275.0	11,122.1	27.7	31.9	-38.70	106.7	-523.8	982.1	919.7	62.44	15.730	
11,975.0	11,926.4	11,275.0	11,122.1	27.6	31.9	-37.85	106.7	-523.8	992.6	929.8	62.79	15.808	

ADVANCE ENERGY PARTNERS

Anticollision Report

Company:	Advance Energy Partners	**Local Co-ordinate Reference:**	Well Anderson Fed Com 702H
Project:	Hat Mesa	**TVD Reference:**	WELL @ 3699.5usft (Original Well Elev.)
Reference Site:	Anderson Fed Com - Pad C	**MD Reference:**	WELL @ 3699.5usft (Original Well Elev.)
Site Error:	0.0 usft	**North Reference:**	Grid
Reference Well:	Anderson Fed Com 702H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0 usft	**Output errors are at**	2.79 sigma
Reference Wellbore	Anderson Fed Com 702H	**Database:**	EDM 5000.16 Single User Db
Reference Design:	Anderson Fed Com 702H - Prelim 1	**Offset TVD Reference:**	Offset Datum

Offset Design: Anderson Fed Com - Pad C - Anderson Fed Com 554H - Anderson Fed Com 554H - Anderson Fed Com 554H - Prelim 1

Offset Site Error: 0.0 usft

Survey Program: 0-MWD+HRGM

Rule Assigned:

Offset Well Error: 0.0 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
0.0	0.0	0.0	0.0	0.0	0.0	-90.37	-0.2	-33.6	33.7				
100.0	100.0	98.0	98.0	0.5	0.6	-90.37	-0.2	-33.6	33.6	32.5	1.10	30.501	
200.0	200.0	198.0	198.0	1.7	1.7	-90.37	-0.2	-33.6	33.6	30.2	3.43	9.810	
300.0	300.0	298.0	298.0	2.4	2.4	-90.37	-0.2	-33.6	33.6	28.8	4.83	6.964	
400.0	400.0	398.0	398.0	3.0	3.0	-90.37	-0.2	-33.6	33.6	27.7	5.91	5.687	
500.0	500.0	498.0	498.0	3.4	3.4	-90.37	-0.2	-33.6	33.6	26.8	6.84	4.920	
600.0	600.0	598.0	598.0	3.8	3.8	-90.37	-0.2	-33.6	33.6	26.0	7.65	4.394	
700.0	700.0	698.0	698.0	4.2	4.2	-90.37	-0.2	-33.6	33.6	25.2	8.40	4.005	
800.0	800.0	798.0	798.0	4.5	4.5	-90.37	-0.2	-33.6	33.6	24.5	9.09	3.701	
900.0	900.0	898.0	898.0	4.9	4.9	-90.37	-0.2	-33.6	33.6	23.9	9.73	3.455	
1,000.0	1,000.0	998.0	998.0	5.2	5.2	-90.37	-0.2	-33.6	33.6	23.3	10.35	3.251	
1,100.0	1,100.0	1,098.0	1,098.0	5.5	5.5	-90.37	-0.2	-33.6	33.6	22.7	10.93	3.078	
1,200.0	1,200.0	1,198.0	1,198.0	5.7	5.7	-90.37	-0.2	-33.6	33.6	22.1	11.48	2.929	
1,300.0	1,300.0	1,298.0	1,298.0	6.0	6.0	-90.37	-0.2	-33.6	33.6	21.6	12.02	2.798	
1,400.0	1,400.0	1,398.0	1,398.0	6.3	6.3	-90.37	-0.2	-33.6	33.6	21.1	12.53	2.683	
1,500.0	1,500.0	1,498.0	1,498.0	6.5	6.5	-90.37	-0.2	-33.6	33.6	20.6	13.03	2.580	
1,600.0	1,600.0	1,598.0	1,598.0	6.8	6.8	-90.37	-0.2	-33.6	33.6	20.1	13.52	2.488	
1,700.0	1,700.0	1,698.0	1,698.0	7.0	7.0	-90.37	-0.2	-33.6	33.6	19.6	13.99	2.404	
1,800.0	1,800.0	1,798.0	1,798.0	7.2	7.2	-90.37	-0.2	-33.6	33.6	19.2	14.45	2.327	
1,900.0	1,900.0	1,898.0	1,898.0	7.4	7.5	-90.37	-0.2	-33.6	33.6	18.7	14.90	2.257	
2,000.0	2,000.0	1,998.0	1,998.0	7.7	7.7	-90.37	-0.2	-33.6	33.6	18.3	15.34	2.192	
2,100.0	2,100.0	2,098.0	2,098.0	7.9	7.9	-90.37	-0.2	-33.6	33.6	17.9	15.77	2.132	
2,200.0	2,200.0	2,198.0	2,198.0	8.1	8.1	-90.37	-0.2	-33.6	33.6	17.4	16.20	2.077	
2,300.0	2,300.0	2,298.0	2,298.0	8.3	8.3	-90.37	-0.2	-33.6	33.6	17.0	16.61	2.025	
2,400.0	2,400.0	2,398.0	2,398.0	8.5	8.5	-90.37	-0.2	-33.6	33.6	16.6	17.02	1.976	
2,500.0	2,500.0	2,498.0	2,498.0	8.7	8.7	-90.37	-0.2	-33.6	33.6	16.2	17.42	1.931	
2,600.0	2,600.0	2,598.0	2,598.0	8.9	8.9	-90.37	-0.2	-33.6	33.6	15.8	17.81	1.888	
2,700.0	2,700.0	2,698.0	2,698.0	9.1	9.1	-90.37	-0.2	-33.6	33.6	15.4	18.20	1.848	
2,800.0	2,800.0	2,798.0	2,798.0	9.3	9.3	-90.37	-0.2	-33.6	33.6	15.0	18.59	1.809	
2,900.0	2,900.0	2,898.0	2,898.0	9.5	9.5	-90.37	-0.2	-33.6	33.6	14.7	18.97	1.773	
3,000.0	3,000.0	2,998.0	2,998.0	9.7	9.7	-90.37	-0.2	-33.6	33.6	14.3	19.34	1.739	
3,100.0	3,100.0	3,098.0	3,098.0	9.9	9.9	-90.37	-0.2	-33.6	33.6	13.9	19.71	1.706	
3,200.0	3,200.0	3,198.0	3,198.0	10.0	10.0	-90.37	-0.2	-33.6	33.6	13.6	20.08	1.675	
3,300.0	3,300.0	3,298.0	3,298.0	10.2	10.2	-90.37	-0.2	-33.6	33.6	13.2	20.44	1.646	
3,400.0	3,400.0	3,398.0	3,398.0	10.4	10.4	-90.37	-0.2	-33.6	33.6	12.8	20.80	1.617	
3,500.0	3,500.0	3,498.0	3,498.0	10.6	10.6	-90.37	-0.2	-33.6	33.6	12.5	21.15	1.590	
3,600.0	3,600.0	3,598.0	3,598.0	10.7	10.8	-90.37	-0.2	-33.6	33.6	12.1	21.50	1.564	
3,700.0	3,700.0	3,698.0	3,698.0	10.9	10.9	-90.37	-0.2	-33.6	33.6	11.8	21.85	1.539	
3,800.0	3,800.0	3,798.0	3,798.0	11.1	11.1	-90.37	-0.2	-33.6	33.6	11.4	22.19	1.515	
3,900.0	3,900.0	3,898.0	3,898.0	11.3	11.3	-90.37	-0.2	-33.6	33.6	11.1	22.53	1.492	Level 3
4,000.0	4,000.0	3,998.0	3,998.0	11.4	11.4	-90.37	-0.2	-33.6	33.6	10.8	22.87	1.470	Level 3
4,100.0	4,100.0	4,098.0	4,098.0	11.6	11.6	-90.37	-0.2	-33.6	33.6	10.4	23.21	1.449	Level 3
4,200.0	4,200.0	4,198.0	4,198.0	11.8	11.8	-90.37	-0.2	-33.6	33.6	10.1	23.54	1.429	Level 3
4,300.0	4,300.0	4,298.0	4,298.0	11.9	11.9	-90.37	-0.2	-33.6	33.6	9.8	23.87	1.409	Level 3
4,400.0	4,400.0	4,398.0	4,398.0	12.1	12.1	-90.37	-0.2	-33.6	33.6	9.4	24.20	1.390	Level 3
4,500.0	4,500.0	4,498.0	4,498.0	12.3	12.3	-90.37	-0.2	-33.6	33.6	9.1	24.53	1.371	Level 3
4,600.0	4,600.0	4,598.0	4,598.0	12.4	12.4	-90.37	-0.2	-33.6	33.6	8.8	24.85	1.353	Level 3
4,700.0	4,700.0	4,698.0	4,698.0	12.6	12.6	-90.37	-0.2	-33.6	33.6	8.5	25.17	1.336	Level 3
4,800.0	4,800.0	4,798.0	4,798.0	12.7	12.7	-90.37	-0.2	-33.6	33.6	8.1	25.49	1.319	Level 3
4,900.0	4,900.0	4,898.0	4,898.0	12.9	12.9	-90.37	-0.2	-33.6	33.6	7.8	25.81	1.303	Level 3
5,000.0	5,000.0	4,998.0	4,998.0	13.1	13.1	-90.37	-0.2	-33.6	33.6	7.5	26.13	1.287	Level 3
5,100.0	5,100.0	5,098.1	5,098.1	13.2	13.2	-91.76	-1.0	-33.4	33.4	7.1	26.37	1.268	Level 3

CC - Min centre to center distance or covergent point, SF - min separation factor, ES - min ellipse separation

ADVANCE ENERGY PARTNERS

Anticollision Report

Company:	Advance Energy Partners	**Local Co-ordinate Reference:**	Well Anderson Fed Com 702H
Project:	Hat Mesa	**TVD Reference:**	WELL @ 3699.5usft (Original Well Elev.)
Reference Site:	Anderson Fed Com - Pad C	**MD Reference:**	WELL @ 3699.5usft (Original Well Elev.)
Site Error:	0.0 usft	**North Reference:**	Grid
Reference Well:	Anderson Fed Com 702H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0 usft	**Output errors are at**	2.79 sigma
Reference Wellbore	Anderson Fed Com 702H	**Database:**	EDM 5000.16 Single User Db
Reference Design:	Anderson Fed Com 702H - Prelim 1	**Offset TVD Reference:**	Offset Datum

Offset Design: Anderson Fed Com - Pad C - Anderson Fed Com 554H - Anderson Fed Com 554H - Anderson Fed Com 554H - Prelim 1

Offset Site Error: 0.0 usft

Survey Program: 0-MWD+HRGM

Offset Well Error: 0.0 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
5,200.0	5,200.0	5,198.2	5,198.2	13.4	13.2	-96.14	-3.5	-32.7	32.9	6.3	26.58	1.238	Level 3
5,300.0	5,300.0	5,298.2	5,298.1	13.5	13.3	-102.68	-7.1	-31.7	32.5	5.8	26.76	1.215	Level 3
5,340.6	5,340.6	5,338.7	5,338.6	13.6	13.3	-105.38	-8.6	-31.3	32.5	5.6	26.84	1.210	Level 3
5,400.0	5,400.0	5,398.1	5,397.9	13.7	13.4	-109.33	-10.8	-30.7	32.6	5.6	26.97	1.207	Level 3
5,500.0	5,500.0	5,498.0	5,497.8	13.8	13.5	-115.88	-14.4	-29.7	33.0	5.8	27.19	1.215	Level 3
5,600.0	5,600.0	5,598.0	5,597.6	14.0	13.6	-122.16	-18.1	-28.7	33.9	6.5	27.42	1.238	Level 3
5,700.0	5,700.0	5,697.9	5,697.5	14.1	13.7	67.62	-21.7	-27.7	34.9	7.3	27.58	1.264	Level 3
5,800.0	5,800.0	5,797.9	5,797.4	14.1	13.9	65.83	-25.4	-26.7	35.3	7.5	27.72	1.272	Level 3
5,822.7	5,822.6	5,820.6	5,820.1	14.1	13.9	65.79	-26.2	-26.5	35.3	7.5	27.74	1.271	Level 3
5,900.0	5,899.9	5,897.9	5,897.4	14.2	14.1	65.88	-29.0	-25.7	35.2	7.4	27.81	1.265	Level 3
6,000.0	5,999.8	5,997.9	5,997.3	14.2	14.2	66.00	-32.6	-24.7	35.1	7.1	27.95	1.255	Level 3
6,100.0	6,099.7	6,097.9	6,097.2	14.4	14.4	66.11	-36.3	-23.7	35.0	6.9	28.10	1.245	Level 3
6,200.0	6,199.7	6,197.9	6,197.1	14.5	14.6	66.23	-39.9	-22.7	34.9	6.6	28.26	1.234	Level 3
6,300.0	6,299.6	6,297.9	6,297.1	14.6	14.9	66.34	-43.6	-21.7	34.8	6.4	28.42	1.223	Level 3
6,400.0	6,399.5	6,397.9	6,397.0	14.7	15.1	66.46	-47.2	-20.7	34.7	6.1	28.59	1.213	Level 3
6,500.0	6,499.4	6,497.9	6,496.9	14.9	15.3	66.58	-50.9	-19.7	34.6	5.8	28.76	1.202	Level 3
6,600.0	6,599.4	6,597.9	6,596.9	15.1	15.5	66.69	-54.5	-18.7	34.5	5.5	28.93	1.191	Level 3
6,700.0	6,699.3	6,697.9	6,696.8	15.2	15.8	66.81	-58.2	-17.7	34.4	5.2	29.11	1.180	Level 3
6,800.0	6,799.2	6,797.9	6,796.7	15.4	16.1	66.93	-61.8	-16.7	34.3	5.0	29.30	1.169	Level 3
6,900.0	6,899.1	6,897.9	6,896.6	15.6	16.3	67.05	-65.4	-15.7	34.2	4.7	29.49	1.158	Level 3
7,000.0	6,999.1	6,997.9	6,996.6	15.8	16.6	67.17	-69.1	-14.7	34.1	4.4	29.68	1.148	Level 3
7,100.0	7,099.0	7,097.9	7,096.5	16.0	16.9	67.29	-72.7	-13.7	34.0	4.1	29.88	1.137	Level 3
7,200.0	7,198.9	7,197.9	7,196.4	16.3	17.2	67.42	-76.4	-12.7	33.9	3.8	30.08	1.126	Level 3
7,300.0	7,298.8	7,297.9	7,296.4	16.5	17.5	67.54	-80.0	-11.7	33.8	3.5	30.28	1.115	Level 3
7,400.0	7,398.8	7,397.9	7,396.3	16.8	17.8	67.66	-83.7	-10.7	33.7	3.2	30.48	1.104	Level 3
7,500.0	7,498.7	7,497.9	7,496.2	17.0	18.1	67.79	-87.3	-9.7	33.6	2.9	30.69	1.093	Level 3
7,600.0	7,598.6	7,597.9	7,596.1	17.3	18.4	67.91	-91.0	-8.7	33.5	2.5	30.90	1.082	Level 3
7,700.0	7,698.5	7,697.9	7,696.1	17.5	18.7	68.04	-94.6	-7.7	33.4	2.2	31.12	1.072	Level 3
7,800.0	7,798.5	7,797.9	7,796.0	17.8	19.0	68.17	-98.2	-6.7	33.3	1.9	31.34	1.061	Level 3
7,900.0	7,898.4	7,897.9	7,895.9	18.1	19.3	68.30	-101.9	-5.7	33.2	1.6	31.56	1.051	Level 3
8,000.0	7,998.3	7,997.9	7,995.9	18.4	19.7	68.42	-105.5	-4.7	33.1	1.3	31.78	1.040	Level 3
8,100.0	8,098.2	8,097.9	8,095.8	18.7	20.0	68.55	-109.2	-3.7	33.0	1.0	32.00	1.030	Level 3
8,200.0	8,198.1	8,197.9	8,195.7	19.0	20.4	68.68	-112.8	-2.7	32.9	0.6	32.23	1.019	Level 3
8,300.0	8,298.1	8,297.9	8,295.6	19.3	20.7	68.81	-116.5	-1.7	32.8	0.3	32.45	1.009	Level 3
8,400.0	8,398.0	8,397.9	8,395.6	19.6	21.1	68.95	-120.1	-0.7	32.7	0.0	32.68	0.999	Level 3
8,500.0	8,497.9	8,497.9	8,495.5	19.9	21.4	69.08	-123.8	0.3	32.6	-0.4	32.91	0.989	Level 3
8,600.0	8,597.8	8,597.9	8,595.4	20.2	21.8	69.21	-127.4	1.3	32.5	-0.7	33.14	0.979	Level 3
8,700.0	8,697.8	8,697.9	8,695.4	20.6	22.1	69.34	-131.0	2.3	32.4	-1.0	33.38	0.969	Level 3
8,800.0	8,797.7	8,797.9	8,795.3	20.9	22.5	69.48	-134.7	3.3	32.3	-1.4	33.61	0.960	Level 3
8,900.0	8,897.6	8,897.9	8,895.2	21.2	22.8	69.62	-138.3	4.4	32.2	-1.7	33.85	0.950	Level 3
9,000.0	8,997.5	8,997.9	8,995.1	21.6	23.2	69.75	-142.0	5.4	32.1	-2.0	34.08	0.941	Level 3
9,100.0	9,097.5	9,097.9	9,095.1	21.9	23.6	69.89	-145.6	6.4	32.0	-2.4	34.32	0.931	Level 3
9,200.0	9,197.4	9,197.9	9,195.0	22.3	24.0	70.03	-149.3	7.4	31.9	-2.7	34.56	0.922	Level 3
9,300.0	9,297.3	9,297.9	9,294.9	22.6	24.3	70.17	-152.9	8.4	31.8	-3.0	34.80	0.913	Level 3
9,400.0	9,397.2	9,397.9	9,394.9	23.0	24.7	70.31	-156.6	9.4	31.7	-3.4	35.03	0.904	Level 3
9,500.0	9,497.2	9,497.9	9,494.8	23.3	25.1	70.45	-160.2	10.4	31.6	-3.7	35.27	0.895	Level 3
9,600.0	9,597.1	9,597.9	9,594.7	23.7	25.5	70.59	-163.9	11.4	31.5	-4.0	35.51	0.886	Level 3
9,700.0	9,697.0	9,697.9	9,694.6	24.1	25.9	70.73	-167.5	12.4	31.4	-4.4	35.75	0.878	Level 3
9,800.0	9,796.9	9,797.9	9,794.6	24.4	26.2	70.87	-171.1	13.4	31.3	-4.7	35.99	0.869	Level 3
9,900.0	9,896.9	9,897.9	9,894.5	24.8	26.6	71.02	-174.8	14.4	31.2	-5.0	36.23	0.861	Level 3
10,000.0	9,996.8	9,997.9	9,994.4	25.2	27.0	71.16	-178.4	15.4	31.1	-5.4	36.47	0.852	Level 3
10,100.0	10,096.7	10,097.9	10,094.4	25.5	27.4	71.31	-182.1	16.4	31.0	-5.7	36.71	0.844	Level 3

CC - Min centre to center distance or covergent point, SF - min separation factor, ES - min ellipse separation

ADVANCE ENERGY PARTNERS

Anticollision Report

Company:	Advance Energy Partners	**Local Co-ordinate Reference:**	Well Anderson Fed Com 702H
Project:	Hat Mesa	**TVD Reference:**	WELL @ 3699.5usft (Original Well Elev.)
Reference Site:	Anderson Fed Com - Pad C	**MD Reference:**	WELL @ 3699.5usft (Original Well Elev.)
Site Error:	0.0 usft	**North Reference:**	Grid
Reference Well:	Anderson Fed Com 702H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0 usft	**Output errors are at**	2.79 sigma
Reference Wellbore	Anderson Fed Com 702H	**Database:**	EDM 5000.16 Single User Db
Reference Design:	Anderson Fed Com 702H - Prelim 1	**Offset TVD Reference:**	Offset Datum

Offset Design: Anderson Fed Com - Pad C - Anderson Fed Com 554H - Anderson Fed Com 554H - Anderson Fed Com 554H - Prelim 1

Offset Site Error: 0.0 usft

Survey Program: 0-MWD+HRGM

Rule Assigned:

Offset Well Error: 0.0 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
10,200.0	10,196.6	10,197.9	10,194.3	25.9	27.8	71.46	-185.7	17.4	30.9	-6.1	36.95	0.836	Level 3
10,300.0	10,296.6	10,297.9	10,294.2	26.3	28.2	71.61	-189.4	18.4	30.8	-6.4	37.19	0.828	Level 3
10,400.0	10,396.5	10,397.9	10,394.1	26.7	28.6	71.75	-193.0	19.4	30.7	-6.7	37.42	0.820	Level 3
10,500.0	10,496.4	10,497.9	10,494.1	27.1	29.0	71.92	-196.6	20.4	30.6	-7.0	37.64	0.813	Level 3
10,600.0	10,596.3	10,598.1	10,594.2	27.5	29.3	74.00	-199.3	21.1	30.2	-7.2	37.38	0.809	Level 3
10,700.0	10,696.3	10,698.1	10,694.3	27.8	29.5	79.43	-200.2	21.4	29.5	-6.9	36.46	0.810	Level 3
10,781.2	10,777.4	10,779.3	10,775.4	28.1	29.6	85.54	-200.2	21.4	29.1	-6.7	35.86	0.812	Level 3
10,800.0	10,796.2	10,798.1	10,794.2	28.2	29.6	86.91	-200.2	21.4	29.1	-6.7	35.80	0.812	Level 3
10,850.3	10,846.4	10,848.3	10,844.4	28.4	29.6	90.00	-200.2	21.4	29.0	-6.8	35.82	0.810	Level 3
10,900.0	10,896.1	10,898.0	10,894.1	28.6	29.6	92.20	-200.2	21.4	29.1	-6.9	35.96	0.808	Level 3
10,997.4	10,993.5	10,995.6	10,991.5	28.7	29.4	103.97	-195.2	21.3	28.7	-9.1	37.74	0.759	Level 3, CC
11,003.9	11,000.0	11,002.0	10,997.9	28.7	29.4	-88.48	-194.2	21.3	28.7	-9.5	38.22	0.750	Level 3
11,100.0	11,096.1	11,092.8	11,085.6	28.8	29.1	-50.80	-171.5	21.2	38.1	-13.9	51.99	0.733	Level 3, ES, SF
11,200.0	11,196.1	11,175.0	11,160.0	28.8	28.7	-26.52	-136.9	21.0	73.3	15.2	58.14	1.261	Level 3
11,300.0	11,296.1	11,244.7	11,217.7	28.9	28.4	-16.75	-98.0	20.8	126.9	67.3	59.54	2.131	
11,400.0	11,396.1	11,300.0	11,259.2	29.0	28.2	-12.40	-61.4	20.6	192.2	131.6	60.61	3.171	
11,500.0	11,496.1	11,350.0	11,292.7	29.0	28.0	-9.83	-24.3	20.4	265.7	204.2	61.45	4.323	
11,576.4	11,572.5	11,375.0	11,308.0	29.0	27.9	-8.86	-4.5	20.3	325.7	263.3	62.37	5.223	
11,600.0	11,596.1	11,384.0	11,313.2	29.0	27.9	-4.90	2.8	20.3	344.5	281.9	62.57	5.506	
11,625.0	11,621.1	11,393.0	11,318.3	28.9	27.9	-4.36	10.2	20.2	363.9	301.1	62.80	5.795	
11,650.0	11,645.9	11,400.0	11,322.2	28.9	27.9	-3.94	16.0	20.2	382.8	319.7	63.09	6.067	
11,675.0	11,670.4	11,411.5	11,328.4	28.8	27.8	-3.50	25.7	20.1	401.1	337.8	63.26	6.340	
11,700.0	11,694.8	11,425.0	11,335.3	28.7	27.8	-3.10	37.3	20.1	418.9	355.5	63.39	6.608	
11,725.0	11,718.8	11,425.0	11,335.3	28.6	27.8	-2.95	37.3	20.1	436.1	372.2	63.89	6.826	
11,750.0	11,742.3	11,440.2	11,342.7	28.5	27.7	-2.62	50.5	20.0	452.6	388.6	63.99	7.072	
11,775.0	11,765.5	11,450.0	11,347.3	28.4	27.7	-2.39	59.2	20.0	468.6	404.3	64.24	7.294	
11,800.0	11,788.1	11,459.8	11,351.7	28.3	27.7	-2.19	68.0	19.9	483.9	419.4	64.50	7.503	
11,825.0	11,810.1	11,475.0	11,358.1	28.2	27.7	-1.96	81.8	19.8	498.7	434.1	64.64	7.716	
11,850.0	11,831.4	11,475.0	11,358.1	28.1	27.7	-1.89	81.8	19.8	512.8	447.7	65.13	7.874	
11,875.0	11,852.1	11,489.8	11,364.0	27.9	27.6	-1.70	95.4	19.8	526.2	460.9	65.29	8.060	
11,900.0	11,871.9	11,500.0	11,367.8	27.8	27.6	-1.57	104.8	19.7	539.0	473.5	65.56	8.222	
11,925.0	11,891.0	11,510.1	11,371.3	27.8	27.6	-1.45	114.3	19.7	551.2	485.3	65.83	8.372	
11,950.0	11,909.2	11,525.0	11,376.2	27.7	27.6	-1.31	128.4	19.6	562.6	496.6	66.02	8.523	
11,975.0	11,926.4	11,525.0	11,376.2	27.6	27.6	-1.28	128.4	19.6	573.4	506.9	66.49	8.624	
12,000.0	11,942.7	11,541.0	11,380.9	27.5	27.6	-1.15	143.6	19.5	583.4	516.7	66.66	8.752	
12,025.0	11,958.0	11,550.0	11,383.4	27.4	27.5	-1.07	152.3	19.5	592.8	525.8	66.96	8.852	
12,050.0	11,972.2	11,561.8	11,386.3	27.3	27.5	-0.98	163.7	19.4	601.4	534.2	67.22	8.947	
12,075.0	11,985.3	11,575.0	11,389.3	27.3	27.5	-0.89	176.6	19.3	609.3	541.9	67.45	9.034	
12,100.0	11,997.3	11,582.7	11,390.8	27.2	27.5	-0.83	184.1	19.3	616.5	548.7	67.77	9.097	
12,125.0	12,008.2	11,600.0	11,393.9	27.2	27.5	-0.73	201.2	19.2	623.1	555.1	67.95	9.170	
12,150.0	12,017.8	11,600.0	11,393.9	27.1	27.5	-0.72	201.2	19.2	628.7	560.4	68.37	9.196	
12,175.0	12,026.2	11,614.2	11,396.0	27.1	27.5	-0.64	215.2	19.1	633.7	565.1	68.60	9.238	
12,200.0	12,033.4	11,625.0	11,397.2	27.0	27.5	-0.58	225.9	19.1	638.0	569.1	68.87	9.264	
12,225.0	12,039.3	11,635.3	11,398.2	27.0	27.5	-0.53	236.2	19.0	641.5	572.3	69.14	9.278	
12,250.0	12,043.9	11,650.0	11,399.3	27.0	27.5	-0.46	250.9	18.9	644.3	574.9	69.36	9.289	
12,275.0	12,047.2	11,650.0	11,399.3	27.0	27.5	-0.45	250.9	18.9	646.3	576.6	69.73	9.269	
12,300.0	12,049.3	11,667.1	11,399.9	27.0	27.5	-0.37	267.9	18.8	647.5	577.6	69.93	9.259	
12,326.4	12,050.0	11,680.8	11,400.0	27.0	27.5	-0.31	281.6	18.8	648.0	577.8	70.18	9.234	
12,327.2	12,050.0	11,681.6	11,400.0	27.0	27.5	-0.30	282.5	18.8	648.0	577.8	70.18	9.233	
12,400.0	12,050.0	11,754.3	11,400.0	27.0	27.6	-0.05	355.2	18.4	648.0	577.5	70.47	9.195	
12,422.5	12,050.0	11,776.8	11,400.0	27.0	27.6	0.00	377.7	18.2	648.0	577.4	70.56	9.183	
12,478.6	12,050.0	11,832.9	11,400.0	27.1	27.7	0.05	433.8	17.9	648.0	577.2	70.81	9.151	

CC - Min centre to center distance or covergent point, SF - min separation factor, ES - min ellipse separation

ADVANCE ENERGY PARTNERS

Anticollision Report

Company:	Advance Energy Partners	**Local Co-ordinate Reference:**	Well Anderson Fed Com 702H
Project:	Hat Mesa	**TVD Reference:**	WELL @ 3699.5usft (Original Well Elev.)
Reference Site:	Anderson Fed Com - Pad C	**MD Reference:**	WELL @ 3699.5usft (Original Well Elev.)
Site Error:	0.0 usft	**North Reference:**	Grid
Reference Well:	Anderson Fed Com 702H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0 usft	**Output errors are at**	2.79 sigma
Reference Wellbore	Anderson Fed Com 702H	**Database:**	EDM 5000.16 Single User Db
Reference Design:	Anderson Fed Com 702H - Prelim 1	**Offset TVD Reference:**	Offset Datum

Offset Design: Anderson Fed Com - Pad C - Anderson Fed Com 554H - Anderson Fed Com 554H - Anderson Fed Com 554H - Prelim 1

Offset Site Error: 0.0 usft

Survey Program: 0-MWD+HRGM

Rule Assigned:

Offset Well Error: 0.0 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
12,500.0	12,050.0	11,854.3	11,400.0	27.1	27.7	0.05	455.2	17.8	648.0	577.1	70.91	9.138	
12,600.0	12,050.0	11,954.3	11,400.0	27.3	27.9	0.05	555.2	17.3	648.0	576.6	71.42	9.073	
12,700.0	12,050.0	12,054.3	11,400.0	27.5	28.1	0.05	655.2	16.7	648.0	576.0	71.99	9.001	
12,800.0	12,050.0	12,154.3	11,400.0	27.8	28.5	0.05	755.2	16.2	648.0	575.4	72.63	8.922	
12,900.0	12,050.0	12,254.3	11,400.0	28.4	29.0	0.04	855.2	15.7	648.0	574.7	73.33	8.837	
13,000.0	12,050.0	12,354.3	11,400.0	29.3	29.8	0.04	955.2	15.1	648.0	573.9	74.08	8.747	
13,100.0	12,050.0	12,454.3	11,400.0	30.5	30.9	0.04	1,055.2	14.6	648.0	573.1	74.89	8.653	
13,200.0	12,050.0	12,554.3	11,400.0	31.8	32.1	0.04	1,155.2	14.0	648.0	572.2	75.76	8.554	
13,300.0	12,050.0	12,654.3	11,400.0	33.3	33.5	0.04	1,255.2	13.5	648.0	571.3	76.68	8.451	
13,400.0	12,050.0	12,754.3	11,400.0	34.9	35.1	0.04	1,355.2	13.0	648.0	570.4	77.65	8.346	
13,500.0	12,050.0	12,854.3	11,400.0	36.6	36.7	0.04	1,455.2	12.4	648.0	569.3	78.66	8.238	
13,600.0	12,050.0	12,954.3	11,400.0	38.3	38.3	0.04	1,555.2	11.9	648.0	568.3	79.73	8.128	
13,700.0	12,050.0	13,054.3	11,400.0	40.0	40.1	0.04	1,655.2	11.3	648.0	567.2	80.84	8.016	
13,800.0	12,050.0	13,154.3	11,400.0	41.8	41.8	0.04	1,755.2	10.8	648.0	566.0	81.99	7.903	
13,900.0	12,050.0	13,254.3	11,400.0	43.5	43.6	0.04	1,855.2	10.3	648.0	564.8	83.19	7.789	
14,000.0	12,050.0	13,354.3	11,400.0	45.4	45.4	0.04	1,955.2	9.7	648.0	563.6	84.43	7.675	
14,100.0	12,050.0	13,454.3	11,400.0	47.2	47.2	0.04	2,055.2	9.2	648.0	562.3	85.70	7.561	
14,200.0	12,050.0	13,554.3	11,400.0	49.0	49.0	0.03	2,155.1	8.6	648.0	561.0	87.01	7.447	
14,300.0	12,050.0	13,654.3	11,400.0	50.9	50.9	0.03	2,255.1	8.1	648.0	559.6	88.36	7.334	
14,400.0	12,050.0	13,754.3	11,400.0	52.7	52.8	0.03	2,355.1	7.6	648.0	558.3	89.73	7.221	
14,500.0	12,050.0	13,854.3	11,400.0	54.6	54.6	0.03	2,455.1	7.0	648.0	556.9	91.14	7.110	
14,600.0	12,050.0	13,954.3	11,400.0	56.5	56.5	0.03	2,555.1	6.5	648.0	555.4	92.58	6.999	
14,700.0	12,050.0	14,054.3	11,400.0	58.4	58.4	0.03	2,655.1	5.9	648.0	553.9	94.05	6.890	
14,800.0	12,050.0	14,154.3	11,400.0	60.3	60.3	0.03	2,755.1	5.4	648.0	552.5	95.55	6.782	
14,900.0	12,050.0	14,254.3	11,400.0	62.2	62.2	0.03	2,855.1	4.9	648.0	550.9	97.07	6.675	
15,000.0	12,050.0	14,354.3	11,400.0	64.1	64.2	0.03	2,955.1	4.3	648.0	549.4	98.62	6.571	
15,100.0	12,050.0	14,454.3	11,400.0	66.1	66.1	0.03	3,055.1	3.8	648.0	547.8	100.19	6.468	
15,200.0	12,050.0	14,554.3	11,400.0	68.0	68.0	0.03	3,155.1	3.2	648.0	546.2	101.79	6.366	
15,300.0	12,050.0	14,654.3	11,400.0	69.9	70.0	0.03	3,255.1	2.7	648.0	544.6	103.40	6.267	
15,400.0	12,050.0	14,754.3	11,400.0	71.9	71.9	0.03	3,355.1	2.2	648.0	543.0	105.04	6.169	
15,500.0	12,050.0	14,854.3	11,400.0	73.8	73.8	0.02	3,455.1	1.6	648.0	541.3	106.70	6.073	
15,600.0	12,050.0	14,954.3	11,400.0	75.8	75.8	0.02	3,555.1	1.1	648.0	539.6	108.37	5.979	
15,700.0	12,050.0	15,054.3	11,400.0	77.7	77.7	0.02	3,655.1	0.5	648.0	537.9	110.07	5.887	
15,800.0	12,050.0	15,154.3	11,400.0	79.7	79.7	0.02	3,755.1	0.0	648.0	536.2	111.78	5.797	
15,900.0	12,050.0	15,254.3	11,400.0	81.6	81.7	0.02	3,855.1	-0.5	648.0	534.5	113.51	5.709	
16,000.0	12,050.0	15,354.3	11,400.0	83.6	83.6	0.02	3,955.1	-1.1	648.0	532.7	115.25	5.623	
16,100.0	12,050.0	15,454.3	11,400.0	85.6	85.6	0.02	4,055.1	-1.6	648.0	531.0	117.01	5.538	
16,200.0	12,050.0	15,554.3	11,400.0	87.5	87.5	0.02	4,155.1	-2.2	648.0	529.2	118.78	5.455	
16,300.0	12,050.0	15,654.3	11,400.0	89.5	89.5	0.02	4,255.1	-2.7	648.0	527.4	120.57	5.375	
16,400.0	12,050.0	15,754.3	11,400.0	91.5	91.5	0.02	4,355.1	-3.2	648.0	525.6	122.37	5.296	
16,500.0	12,050.0	15,854.3	11,400.0	93.4	93.5	0.02	4,455.1	-3.8	648.0	523.8	124.18	5.218	
16,600.0	12,050.0	15,954.3	11,400.0	95.4	95.4	0.02	4,555.1	-4.3	648.0	522.0	126.00	5.143	
16,700.0	12,050.0	16,054.3	11,400.0	97.4	97.4	0.02	4,655.1	-4.9	648.0	520.2	127.84	5.069	
16,800.0	12,050.0	16,154.3	11,400.0	99.4	99.4	0.01	4,755.1	-5.4	648.0	518.3	129.68	4.997	
16,900.0	12,050.0	16,254.3	11,400.0	101.3	101.4	0.01	4,855.1	-5.9	648.0	516.5	131.54	4.926	
17,000.0	12,050.0	16,354.3	11,400.0	103.3	103.3	0.01	4,955.1	-6.5	648.0	514.6	133.41	4.857	
17,100.0	12,050.0	16,454.3	11,400.0	105.3	105.3	0.01	5,055.1	-7.0	648.0	512.7	135.28	4.790	
17,200.0	12,050.0	16,554.3	11,400.0	107.3	107.3	0.01	5,155.1	-7.6	648.0	510.8	137.17	4.724	
17,300.0	12,050.0	16,654.3	11,400.0	109.3	109.3	0.01	5,255.1	-8.1	648.0	508.9	139.06	4.660	
17,400.0	12,050.0	16,754.3	11,400.0	111.2	111.3	0.01	5,355.1	-8.6	648.0	507.0	140.97	4.597	
17,500.0	12,050.0	16,854.3	11,400.0	113.2	113.3	0.01	5,455.1	-9.2	648.0	505.1	142.88	4.535	
17,600.0	12,050.0	16,954.3	11,400.0	115.2	115.2	0.01	5,555.1	-9.7	648.0	503.2	144.80	4.475	

CC - Min centre to center distance or covergent point, SF - min separation factor, ES - min ellipse separation

ADVANCE ENERGY PARTNERS

Anticollision Report

Company:	Advance Energy Partners	**Local Co-ordinate Reference:**	Well Anderson Fed Com 702H
Project:	Hat Mesa	**TVD Reference:**	WELL @ 3699.5usft (Original Well Elev.)
Reference Site:	Anderson Fed Com - Pad C	**MD Reference:**	WELL @ 3699.5usft (Original Well Elev.)
Site Error:	0.0 usft	**North Reference:**	Grid
Reference Well:	Anderson Fed Com 702H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0 usft	**Output errors are at**	2.79 sigma
Reference Wellbore	Anderson Fed Com 702H	**Database:**	EDM 5000.16 Single User Db
Reference Design:	Anderson Fed Com 702H - Prelim 1	**Offset TVD Reference:**	Offset Datum

Offset Design: Anderson Fed Com - Pad C - Anderson Fed Com 554H - Anderson Fed Com 554H - Anderson Fed Com 554H - Prelim 1

Offset Site Error: 0.0 usft

Survey Program: 0-MWD+HRGM

Rule Assigned:

Offset Well Error: 0.0 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
17,700.0	12,050.0	17,054.3	11,400.0	117.2	117.2	0.01	5,655.1	-10.3	648.0	501.3	146.72	4.416	
17,800.0	12,050.0	17,154.3	11,400.0	119.2	119.2	0.01	5,755.1	-10.8	648.0	499.3	148.66	4.359	
17,900.0	12,050.0	17,254.3	11,400.0	121.2	121.2	0.01	5,855.1	-11.3	648.0	497.4	150.60	4.303	
18,000.0	12,050.0	17,354.3	11,400.0	123.2	123.2	0.01	5,955.1	-11.9	648.0	495.5	152.55	4.248	
18,100.0	12,050.0	17,454.3	11,400.0	125.2	125.2	0.00	6,055.1	-12.4	648.0	493.5	154.50	4.194	
18,200.0	12,050.0	17,554.3	11,400.0	127.2	127.2	0.00	6,155.1	-13.0	648.0	491.5	156.46	4.142	
18,300.0	12,050.0	17,654.3	11,400.0	129.2	129.2	0.00	6,255.1	-13.5	648.0	489.6	158.43	4.090	
18,400.0	12,050.0	17,754.3	11,400.0	131.1	131.2	0.00	6,355.1	-14.1	648.0	487.6	160.40	4.040	
18,500.0	12,050.0	17,854.3	11,400.0	133.1	133.2	0.00	6,455.1	-14.6	648.0	485.6	162.38	3.991	
18,600.0	12,050.0	17,954.3	11,400.0	135.1	135.2	0.00	6,555.1	-15.1	648.0	483.6	164.36	3.943	
18,700.0	12,050.0	18,054.3	11,400.0	137.1	137.2	0.00	6,655.1	-15.7	648.0	481.7	166.35	3.895	
18,729.3	12,050.0	18,083.6	11,400.0	137.7	137.7	0.00	6,684.4	-15.8	648.0	481.1	166.93	3.882	

ADVANCE ENERGY PARTNERS

Anticollision Report

Company:	Advance Energy Partners	**Local Co-ordinate Reference:**	Well Anderson Fed Com 702H
Project:	Hat Mesa	**TVD Reference:**	WELL @ 3699.5usft (Original Well Elev.)
Reference Site:	Anderson Fed Com - Pad C	**MD Reference:**	WELL @ 3699.5usft (Original Well Elev.)
Site Error:	0.0 usft	**North Reference:**	Grid
Reference Well:	Anderson Fed Com 702H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0 usft	**Output errors are at**	2.79 sigma
Reference Wellbore	Anderson Fed Com 702H	**Database:**	EDM 5000.16 Single User Db
Reference Design:	Anderson Fed Com 702H - Prelim 1	**Offset TVD Reference:**	Offset Datum

Offset Design: Anderson Fed Com - Pad C - Anderson Fed Com 602H - Anderson Fed Com 602H - Anderson Fed Com 602H - Prelim 1

Offset Site Error: 0.0 usft

Survey Program: 0-MWD+HRGM

Rule Assigned:

Offset Well Error: 0.0 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
0.0	0.0	0.0	0.0	0.0	0.0	-90.52	-1.2	-133.0	133.0				
100.0	100.0	98.0	98.0	0.5	0.6	-90.52	-1.2	-133.0	133.0	131.9	1.10	120.606	
200.0	200.0	198.0	198.0	1.7	1.7	-90.52	-1.2	-133.0	133.0	129.6	3.43	38.789	
300.0	300.0	298.0	298.0	2.4	2.4	-90.52	-1.2	-133.0	133.0	128.2	4.83	27.538	
400.0	400.0	398.0	398.0	3.0	3.0	-90.52	-1.2	-133.0	133.0	127.1	5.91	22.488	
500.0	500.0	498.0	498.0	3.4	3.4	-90.52	-1.2	-133.0	133.0	126.2	6.84	19.455	
600.0	600.0	598.0	598.0	3.8	3.8	-90.52	-1.2	-133.0	133.0	125.3	7.65	17.376	
700.0	700.0	698.0	698.0	4.2	4.2	-90.52	-1.2	-133.0	133.0	124.6	8.40	15.835	
800.0	800.0	798.0	798.0	4.5	4.5	-90.52	-1.2	-133.0	133.0	123.9	9.09	14.633	
900.0	900.0	898.0	898.0	4.9	4.9	-90.52	-1.2	-133.0	133.0	123.3	9.73	13.662	
1,000.0	1,000.0	998.0	998.0	5.2	5.2	-90.52	-1.2	-133.0	133.0	122.6	10.35	12.855	
1,100.0	1,100.0	1,098.0	1,098.0	5.5	5.5	-90.52	-1.2	-133.0	133.0	122.1	10.93	12.171	
1,200.0	1,200.0	1,198.0	1,198.0	5.7	5.7	-90.52	-1.2	-133.0	133.0	121.5	11.48	11.581	
1,300.0	1,300.0	1,298.0	1,298.0	6.0	6.0	-90.52	-1.2	-133.0	133.0	121.0	12.02	11.065	
1,400.0	1,400.0	1,398.0	1,398.0	6.3	6.3	-90.52	-1.2	-133.0	133.0	120.5	12.53	10.609	
1,500.0	1,500.0	1,498.0	1,498.0	6.5	6.5	-90.52	-1.2	-133.0	133.0	120.0	13.03	10.203	
1,600.0	1,600.0	1,598.0	1,598.0	6.8	6.8	-90.52	-1.2	-133.0	133.0	119.5	13.52	9.836	
1,700.0	1,700.0	1,698.0	1,698.0	7.0	7.0	-90.52	-1.2	-133.0	133.0	119.0	13.99	9.504	
1,800.0	1,800.0	1,798.0	1,798.0	7.2	7.2	-90.52	-1.2	-133.0	133.0	118.5	14.45	9.202	
1,900.0	1,900.0	1,898.0	1,898.0	7.4	7.5	-90.52	-1.2	-133.0	133.0	118.1	14.90	8.924	
2,000.0	2,000.0	1,998.0	1,998.0	7.7	7.7	-90.52	-1.2	-133.0	133.0	117.6	15.34	8.668	
2,100.0	2,100.0	2,098.0	2,098.0	7.9	7.9	-90.52	-1.2	-133.0	133.0	117.2	15.77	8.431	
2,200.0	2,200.0	2,198.0	2,198.0	8.1	8.1	-90.52	-1.2	-133.0	133.0	116.8	16.20	8.211	
2,300.0	2,300.0	2,298.0	2,298.0	8.3	8.3	-90.52	-1.2	-133.0	133.0	116.4	16.61	8.006	
2,400.0	2,400.0	2,398.0	2,398.0	8.5	8.5	-90.52	-1.2	-133.0	133.0	116.0	17.02	7.814	
2,500.0	2,500.0	2,498.0	2,498.0	8.7	8.7	-90.52	-1.2	-133.0	133.0	115.6	17.42	7.634	
2,600.0	2,600.0	2,598.0	2,598.0	8.9	8.9	-90.52	-1.2	-133.0	133.0	115.2	17.81	7.465	
2,700.0	2,700.0	2,698.0	2,698.0	9.1	9.1	-90.52	-1.2	-133.0	133.0	114.8	18.20	7.305	
2,800.0	2,800.0	2,798.0	2,798.0	9.3	9.3	-90.52	-1.2	-133.0	133.0	114.4	18.59	7.154	
2,900.0	2,900.0	2,898.0	2,898.0	9.5	9.5	-90.52	-1.2	-133.0	133.0	114.0	18.97	7.011	
3,000.0	3,000.0	2,998.0	2,998.0	9.7	9.7	-90.52	-1.2	-133.0	133.0	113.6	19.34	6.876	
3,100.0	3,100.0	3,098.0	3,098.0	9.9	9.9	-90.52	-1.2	-133.0	133.0	113.3	19.71	6.747	
3,200.0	3,200.0	3,198.0	3,198.0	10.0	10.0	-90.52	-1.2	-133.0	133.0	112.9	20.08	6.624	
3,300.0	3,300.0	3,298.0	3,298.0	10.2	10.2	-90.52	-1.2	-133.0	133.0	112.5	20.44	6.507	
3,400.0	3,400.0	3,398.0	3,398.0	10.4	10.4	-90.52	-1.2	-133.0	133.0	112.2	20.80	6.395	
3,500.0	3,500.0	3,498.0	3,498.0	10.6	10.6	-90.52	-1.2	-133.0	133.0	111.8	21.15	6.288	
3,600.0	3,600.0	3,598.0	3,598.0	10.7	10.8	-90.52	-1.2	-133.0	133.0	111.5	21.50	6.185	
3,700.0	3,700.0	3,698.0	3,698.0	10.9	10.9	-90.52	-1.2	-133.0	133.0	111.1	21.85	6.087	
3,800.0	3,800.0	3,798.0	3,798.0	11.1	11.1	-90.52	-1.2	-133.0	133.0	110.8	22.19	5.992	
3,900.0	3,900.0	3,898.0	3,898.0	11.3	11.3	-90.52	-1.2	-133.0	133.0	110.5	22.53	5.902	
4,000.0	4,000.0	3,998.0	3,998.0	11.4	11.4	-90.52	-1.2	-133.0	133.0	110.1	22.87	5.814	
4,100.0	4,100.0	4,098.0	4,098.0	11.6	11.6	-90.52	-1.2	-133.0	133.0	109.8	23.21	5.730	
4,200.0	4,200.0	4,198.0	4,198.0	11.8	11.8	-90.52	-1.2	-133.0	133.0	109.4	23.54	5.649	
4,300.0	4,300.0	4,298.0	4,298.0	11.9	11.9	-90.52	-1.2	-133.0	133.0	109.1	23.87	5.571	
4,400.0	4,400.0	4,398.0	4,398.0	12.1	12.1	-90.52	-1.2	-133.0	133.0	108.8	24.20	5.495	
4,500.0	4,500.0	4,498.0	4,498.0	12.3	12.3	-90.52	-1.2	-133.0	133.0	108.5	24.53	5.422	
4,600.0	4,600.0	4,598.0	4,598.0	12.4	12.4	-90.52	-1.2	-133.0	133.0	108.1	24.85	5.351	
4,700.0	4,700.0	4,698.0	4,698.0	12.6	12.6	-90.52	-1.2	-133.0	133.0	107.8	25.17	5.283	
4,800.0	4,800.0	4,798.0	4,798.0	12.7	12.7	-90.52	-1.2	-133.0	133.0	107.5	25.49	5.217	
4,900.0	4,900.0	4,898.0	4,898.0	12.9	12.9	-90.52	-1.2	-133.0	133.0	107.2	25.81	5.152	
5,000.0	5,000.0	4,998.0	4,998.0	13.1	13.1	-90.52	-1.2	-133.0	133.0	106.9	26.13	5.090	CC, ES
5,100.0	5,100.0	5,095.9	5,095.9	13.2	13.2	-90.65	-1.5	-133.7	133.8	107.4	26.39	5.069	

CC - Min centre to center distance or covergent point, SF - min separation factor, ES - min ellipse separation

ADVANCE ENERGY PARTNERS

Anticollision Report

Company:	Advance Energy Partners	**Local Co-ordinate Reference:**	Well Anderson Fed Com 702H
Project:	Hat Mesa	**TVD Reference:**	WELL @ 3699.5usft (Original Well Elev.)
Reference Site:	Anderson Fed Com - Pad C	**MD Reference:**	WELL @ 3699.5usft (Original Well Elev.)
Site Error:	0.0 usft	**North Reference:**	Grid
Reference Well:	Anderson Fed Com 702H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0 usft	**Output errors are at**	2.79 sigma
Reference Wellbore	Anderson Fed Com 702H	**Database:**	EDM 5000.16 Single User Db
Reference Design:	Anderson Fed Com 702H - Prelim 1	**Offset TVD Reference:**	Offset Datum

Offset Design: Anderson Fed Com - Pad C - Anderson Fed Com 602H - Anderson Fed Com 602H - Anderson Fed Com 602H - Prelim 1

Offset Site Error: 0.0 usft

Survey Program: 0-MWD+HRGM

Offset Well Error: 0.0 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Rule Assigned: Warning
5,200.0	5,200.0	5,193.7	5,193.7	13.4	13.3	-91.03	-2.4	-136.0	136.1	109.5	26.64	5.110	
5,300.0	5,300.0	5,291.4	5,291.3	13.5	13.4	-91.63	-4.0	-139.9	140.1	113.2	26.90	5.208	
5,400.0	5,400.0	5,389.0	5,388.7	13.7	13.5	-92.41	-6.1	-145.2	145.7	118.5	27.17	5.362	
5,500.0	5,500.0	5,486.3	5,485.7	13.8	13.7	-93.34	-8.9	-152.1	152.9	125.4	27.45	5.569	
5,600.0	5,600.0	5,583.9	5,582.9	14.0	13.8	-94.36	-12.2	-160.5	161.7	134.0	27.72	5.834	
5,700.0	5,700.0	5,683.5	5,682.0	14.1	14.0	99.24	-15.9	-169.6	171.2	143.2	27.96	6.122	
5,800.0	5,800.0	5,783.0	5,781.0	14.1	14.2	99.07	-19.5	-178.6	181.0	152.7	28.22	6.413	
5,822.7	5,822.6	5,805.5	5,803.5	14.1	14.2	99.11	-20.3	-180.6	183.2	155.0	28.26	6.483	
5,900.0	5,899.9	5,882.5	5,880.0	14.2	14.4	99.35	-23.1	-187.6	190.9	162.5	28.45	6.712	
6,000.0	5,999.8	5,982.0	5,979.1	14.2	14.7	99.64	-26.7	-196.6	200.9	172.2	28.73	6.992	
6,100.0	6,099.7	6,081.5	6,078.1	14.4	14.9	99.89	-30.3	-205.6	210.9	181.9	29.04	7.261	
6,200.0	6,199.7	6,181.0	6,177.1	14.5	15.2	100.13	-33.9	-214.7	220.9	191.5	29.37	7.521	
6,300.0	6,299.6	6,280.5	6,276.1	14.6	15.5	100.34	-37.5	-223.7	230.9	201.2	29.71	7.771	
6,400.0	6,399.5	6,380.0	6,375.2	14.7	15.8	100.54	-41.1	-232.7	240.9	210.8	30.06	8.012	
6,500.0	6,499.4	6,479.5	6,474.2	14.9	16.1	100.72	-44.7	-241.7	250.9	220.4	30.43	8.244	
6,600.0	6,599.4	6,579.0	6,573.2	15.1	16.5	100.89	-48.3	-250.7	260.9	230.1	30.81	8.466	
6,700.0	6,699.3	6,678.4	6,672.2	15.2	16.8	101.04	-51.9	-259.8	270.9	239.7	31.21	8.680	
6,800.0	6,799.2	6,777.9	6,771.2	15.4	17.2	101.19	-55.5	-268.8	280.9	249.3	31.61	8.885	
6,900.0	6,899.1	6,877.4	6,870.3	15.6	17.5	101.32	-59.1	-277.8	290.9	258.8	32.03	9.082	
7,000.0	6,999.1	6,976.9	6,969.3	15.8	17.9	101.44	-62.8	-286.8	300.9	268.4	32.46	9.271	
7,100.0	7,099.0	7,076.4	7,068.3	16.0	18.3	101.56	-66.4	-295.8	310.9	278.0	32.89	9.452	
7,200.0	7,198.9	7,175.9	7,167.3	16.3	18.7	101.67	-70.0	-304.9	320.9	287.6	33.34	9.625	
7,300.0	7,298.8	7,275.4	7,266.3	16.5	19.1	101.77	-73.6	-313.9	330.9	297.1	33.79	9.792	
7,400.0	7,398.8	7,374.9	7,365.4	16.8	19.5	101.87	-77.2	-322.9	340.9	306.7	34.26	9.951	
7,500.0	7,498.7	7,474.4	7,464.4	17.0	19.9	101.96	-80.8	-331.9	350.9	316.2	34.73	10.104	
7,600.0	7,598.6	7,573.9	7,563.4	17.3	20.4	102.05	-84.4	-340.9	360.9	325.7	35.21	10.251	
7,700.0	7,698.5	7,673.4	7,662.4	17.5	20.8	102.13	-88.0	-350.0	371.0	335.3	35.70	10.391	
7,800.0	7,798.5	7,772.9	7,761.4	17.8	21.2	102.21	-91.6	-359.0	381.0	344.8	36.19	10.526	
7,900.0	7,898.4	7,872.4	7,860.5	18.1	21.7	102.28	-95.2	-368.0	391.0	354.3	36.70	10.655	
8,000.0	7,998.3	7,971.9	7,959.5	18.4	22.1	102.35	-98.8	-377.0	401.0	363.8	37.20	10.779	
8,100.0	8,098.2	8,071.4	8,058.5	18.7	22.6	102.42	-102.4	-386.0	411.0	373.3	37.72	10.897	
8,200.0	8,198.1	8,170.9	8,157.5	19.0	23.0	102.48	-106.0	-395.1	421.0	382.8	38.24	11.011	
8,300.0	8,298.1	8,270.4	8,256.5	19.3	23.5	102.54	-109.7	-404.1	431.0	392.3	38.76	11.121	
8,400.0	8,398.0	8,369.9	8,355.6	19.6	23.9	102.60	-113.3	-413.1	441.1	401.8	39.29	11.225	
8,500.0	8,497.9	8,469.4	8,454.6	19.9	24.4	102.65	-116.9	-422.1	451.1	411.3	39.83	11.326	
8,600.0	8,597.8	8,568.9	8,553.6	20.2	24.9	102.70	-120.5	-431.1	461.1	420.7	40.37	11.423	
8,700.0	8,697.8	8,668.4	8,652.6	20.6	25.4	102.75	-124.1	-440.2	471.1	430.2	40.91	11.515	
8,800.0	8,797.7	8,767.9	8,751.6	20.9	25.8	102.80	-127.7	-449.2	481.1	439.7	41.46	11.604	
8,900.0	8,897.6	8,867.4	8,850.7	21.2	26.3	102.85	-131.3	-458.2	491.2	449.1	42.02	11.690	
9,000.0	8,997.5	8,966.9	8,949.7	21.6	26.8	102.89	-134.9	-467.2	501.2	458.6	42.57	11.772	
9,100.0	9,097.5	9,066.4	9,048.7	21.9	27.3	102.94	-138.5	-476.2	511.2	468.1	43.14	11.851	
9,200.0	9,197.4	9,165.9	9,147.7	22.3	27.8	102.98	-142.1	-485.2	521.2	477.5	43.70	11.927	
9,300.0	9,297.3	9,265.3	9,246.8	22.6	28.3	103.02	-145.7	-494.3	531.2	487.0	44.27	12.000	
9,400.0	9,397.2	9,364.8	9,345.8	23.0	28.8	103.06	-149.3	-503.3	541.3	496.4	44.84	12.070	
9,500.0	9,497.2	9,464.3	9,444.8	23.3	29.3	103.09	-152.9	-512.3	551.3	505.9	45.42	12.137	
9,600.0	9,597.1	9,563.8	9,543.8	23.7	29.7	103.13	-156.6	-521.3	561.3	515.3	46.00	12.202	
9,700.0	9,697.0	9,663.3	9,642.8	24.1	30.2	103.16	-160.2	-530.3	571.3	524.7	46.58	12.265	
9,800.0	9,796.9	9,762.8	9,741.9	24.4	30.8	103.19	-163.8	-539.4	581.3	534.2	47.17	12.325	
9,900.0	9,896.9	9,862.3	9,840.9	24.8	31.3	103.23	-167.4	-548.4	591.4	543.6	47.76	12.383	
10,000.0	9,996.8	9,961.8	9,939.9	25.2	31.8	103.26	-171.0	-557.4	601.4	553.0	48.35	12.439	
10,100.0	10,096.7	10,061.3	10,038.9	25.5	32.3	103.29	-174.6	-566.4	611.4	562.5	48.94	12.492	
10,200.0	10,196.6	10,160.8	10,137.9	25.9	32.8	103.32	-178.2	-575.4	621.4	571.9	49.54	12.544	

CC - Min centre to center distance or covergent point, SF - min separation factor, ES - min ellipse separation

ADVANCE ENERGY PARTNERS

Anticollision Report

Company:	Advance Energy Partners	**Local Co-ordinate Reference:**	Well Anderson Fed Com 702H
Project:	Hat Mesa	**TVD Reference:**	WELL @ 3699.5usft (Original Well Elev.)
Reference Site:	Anderson Fed Com - Pad C	**MD Reference:**	WELL @ 3699.5usft (Original Well Elev.)
Site Error:	0.0 usft	**North Reference:**	Grid
Reference Well:	Anderson Fed Com 702H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0 usft	**Output errors are at**	2.79 sigma
Reference Wellbore	Anderson Fed Com 702H	**Database:**	EDM 5000.16 Single User Db
Reference Design:	Anderson Fed Com 702H - Prelim 1	**Offset TVD Reference:**	Offset Datum

Offset Design: Anderson Fed Com - Pad C - Anderson Fed Com 602H - Anderson Fed Com 602H - Anderson Fed Com 602H - Prelim 1

Offset Site Error: 0.0 usft

Survey Program: 0-MWD+HRGM

Rule Assigned:

Offset Well Error: 0.0 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
10,300.0	10,296.6	10,260.3	10,237.0	26.3	33.3	103.34	-181.8	-584.5	631.4	581.3	50.14	12.594	
10,400.0	10,396.5	10,359.8	10,336.0	26.7	33.8	103.37	-185.4	-593.5	641.5	590.7	50.74	12.642	
10,500.0	10,496.4	10,459.3	10,435.0	27.1	34.3	103.40	-189.0	-602.5	651.5	600.1	51.34	12.689	
10,600.0	10,596.3	10,564.1	10,539.3	27.5	34.8	103.43	-192.7	-611.8	661.3	609.4	51.94	12.734	
10,700.0	10,696.3	10,675.8	10,650.7	27.8	35.4	103.52	-196.0	-620.0	669.7	617.1	52.52	12.751	
10,781.2	10,777.4	10,766.8	10,741.5	28.1	35.8	103.64	-198.1	-625.3	675.1	622.1	52.96	12.746	
10,800.0	10,796.2	10,787.9	10,762.6	28.2	35.9	103.68	-198.5	-626.3	676.2	623.1	53.06	12.744	
10,900.0	10,896.1	10,900.2	10,874.8	28.6	36.4	103.83	-200.2	-630.5	680.6	627.0	53.57	12.705	
11,003.9	11,000.0	11,017.0	10,991.5	28.7	36.8	-90.51	-201.1	-632.7	682.8	628.8	53.98	12.647	
11,100.0	11,096.1	11,119.6	11,094.1	28.8	36.9	-90.52	-201.2	-633.0	683.0	628.9	54.15	12.612	
11,200.0	11,196.1	11,219.6	11,194.1	28.8	36.9	-90.52	-201.2	-633.0	683.0	628.7	54.28	12.584	
11,300.0	11,296.1	11,319.6	11,294.1	28.9	37.0	-90.52	-201.2	-633.0	683.0	628.6	54.40	12.555	
11,371.8	11,368.0	11,391.5	11,366.0	28.9	36.9	-90.36	-199.2	-633.0	683.0	628.5	54.46	12.541	
11,400.0	11,396.1	11,419.4	11,393.6	29.0	36.9	-90.08	-195.9	-633.0	683.0	628.5	54.47	12.538	
11,500.0	11,496.1	11,513.4	11,484.6	29.0	36.7	-88.14	-172.9	-633.2	683.6	629.1	54.50	12.542	
11,576.4	11,572.5	11,577.5	11,543.3	29.0	36.6	-85.99	-147.1	-633.3	685.5	631.0	54.55	12.567	
11,600.0	11,596.1	11,596.0	11,559.6	29.0	36.6	-81.84	-138.2	-633.4	686.5	631.9	54.57	12.580	
11,625.0	11,621.1	11,615.3	11,576.1	28.9	36.6	-80.98	-128.3	-633.4	687.6	633.0	54.60	12.594	
11,650.0	11,645.9	11,634.4	11,592.1	28.9	36.5	-80.15	-117.9	-633.5	688.8	634.2	54.63	12.608	
11,675.0	11,670.4	11,653.2	11,607.4	28.8	36.5	-79.34	-107.0	-633.6	690.1	635.4	54.68	12.621	
11,700.0	11,694.8	11,671.8	11,622.1	28.7	36.5	-78.55	-95.6	-633.6	691.4	636.7	54.73	12.633	
11,725.0	11,718.8	11,690.1	11,636.1	28.6	36.4	-77.78	-83.8	-633.7	692.8	638.0	54.80	12.642	
11,750.0	11,742.3	11,708.3	11,649.6	28.5	36.4	-77.05	-71.6	-633.8	694.1	639.3	54.88	12.649	
11,775.0	11,765.5	11,725.0	11,661.6	28.4	36.4	-76.37	-60.0	-633.9	695.5	640.5	54.98	12.650	
11,800.0	11,788.1	11,744.2	11,674.8	28.3	36.4	-75.65	-46.1	-633.9	696.9	641.8	55.07	12.654	
11,825.0	11,810.1	11,761.9	11,686.5	28.2	36.4	-74.99	-32.8	-634.0	698.2	643.0	55.19	12.650	
11,850.0	11,831.4	11,779.4	11,697.6	28.1	36.4	-74.37	-19.2	-634.1	699.5	644.2	55.32	12.643	
11,875.0	11,852.1	11,800.0	11,710.0	27.9	36.4	-73.69	-2.8	-634.2	700.7	645.3	55.44	12.639	
11,900.0	11,871.9	11,814.1	11,718.1	27.8	36.4	-73.21	8.8	-634.3	701.9	646.3	55.63	12.616	
11,925.0	11,891.0	11,831.3	11,727.5	27.8	36.4	-72.69	23.2	-634.4	703.0	647.2	55.81	12.596	
11,950.0	11,909.2	11,850.0	11,737.0	27.7	36.4	-72.16	39.2	-634.5	704.0	648.0	55.99	12.575	
11,975.0	11,926.4	11,865.5	11,744.5	27.6	36.4	-71.74	52.8	-634.6	704.9	648.7	56.21	12.542	
12,000.0	11,942.7	11,882.4	11,752.1	27.5	36.4	-71.31	67.9	-634.7	705.7	649.3	56.42	12.508	
12,025.0	11,958.0	11,900.0	11,759.5	27.4	36.4	-70.92	83.9	-634.8	706.4	649.8	56.65	12.471	
12,050.0	11,972.2	11,916.0	11,765.7	27.3	36.4	-70.58	98.6	-634.8	707.0	650.1	56.90	12.426	
12,075.0	11,985.3	11,932.8	11,771.7	27.3	36.4	-70.27	114.3	-634.9	707.4	650.3	57.15	12.378	
12,100.0	11,997.3	11,950.0	11,777.2	27.2	36.5	-69.99	130.6	-635.0	707.7	650.3	57.41	12.328	
12,125.0	12,008.2	11,966.0	11,781.9	27.2	36.5	-69.77	146.0	-635.1	707.9	650.2	57.68	12.271	
12,150.0	12,017.8	11,982.6	11,786.1	27.1	36.5	-69.57	162.0	-635.2	707.9	649.9	57.96	12.212	
12,175.0	12,026.2	12,000.0	11,790.0	27.1	36.6	-69.41	178.9	-635.3	707.7	649.5	58.24	12.151	
12,200.0	12,033.4	12,015.7	11,792.9	27.0	36.6	-69.30	194.3	-635.4	707.4	648.9	58.54	12.084	
12,225.0	12,039.3	12,032.2	11,795.5	27.0	36.7	-69.22	210.6	-635.5	706.9	648.1	58.84	12.015	
12,250.0	12,043.9	12,050.0	11,797.6	27.0	36.7	-69.18	228.3	-635.6	706.3	647.2	59.13	11.945	
12,275.0	12,047.2	12,065.1	11,798.9	27.0	36.8	-69.19	243.4	-635.7	705.5	646.1	59.44	11.870	
12,300.0	12,049.3	12,081.5	11,799.7	27.0	36.8	-69.24	259.8	-635.8	704.6	644.8	59.74	11.794	
12,326.4	12,050.0	12,099.3	11,800.0	27.0	36.9	-69.33	277.6	-636.0	703.4	643.3	60.06	11.712	
12,327.2	12,050.0	12,100.2	11,800.0	27.0	36.9	-69.33	278.4	-636.0	703.3	643.3	60.07	11.710	
12,400.0	12,050.0	12,172.9	11,800.0	27.0	37.2	-69.26	351.1	-636.4	700.7	639.7	60.98	11.491	
12,476.1	12,050.0	12,248.9	11,800.0	27.1	37.6	-69.24	427.2	-636.9	699.7	637.6	62.10	11.268	
12,478.6	12,050.0	12,251.5	11,800.0	27.1	37.7	-69.24	429.7	-636.9	699.7	637.6	62.14	11.261	
12,500.0	12,050.0	12,272.9	11,800.0	27.1	37.8	-69.24	451.1	-637.0	699.7	637.3	62.45	11.205	
12,600.0	12,050.0	12,372.9	11,800.0	27.3	38.4	-69.25	551.1	-637.7	699.8	635.8	64.06	10.924	

CC - Min centre to center distance or covergent point, SF - min separation factor, ES - min ellipse separation

ADVANCE ENERGY PARTNERS

Anticollision Report

Company:	Advance Energy Partners	**Local Co-ordinate Reference:**	Well Anderson Fed Com 702H
Project:	Hat Mesa	**TVD Reference:**	WELL @ 3699.5usft (Original Well Elev.)
Reference Site:	Anderson Fed Com - Pad C	**MD Reference:**	WELL @ 3699.5usft (Original Well Elev.)
Site Error:	0.0 usft	**North Reference:**	Grid
Reference Well:	Anderson Fed Com 702H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0 usft	**Output errors are at**	2.79 sigma
Reference Wellbore	Anderson Fed Com 702H	**Database:**	EDM 5000.16 Single User Db
Reference Design:	Anderson Fed Com 702H - Prelim 1	**Offset TVD Reference:**	Offset Datum

Offset Design: Anderson Fed Com - Pad C - Anderson Fed Com 602H - Anderson Fed Com 602H - Anderson Fed Com 602H - Prelim 1

Offset Site Error: 0.0 usft

Survey Program: 0-MWD+HRGM

Rule Assigned:

Offset Well Error: 0.0 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
12,700.0	12,050.0	12,472.9	11,800.0	27.5	39.1	-69.25	651.1	-638.3	699.9	634.0	65.88	10.624	
12,800.0	12,050.0	12,572.9	11,800.0	27.8	39.9	-69.25	751.1	-638.9	700.0	632.1	67.88	10.313	
12,900.0	12,050.0	12,672.9	11,800.0	28.4	40.8	-69.25	851.1	-639.5	700.1	630.1	70.03	9.997	
13,000.0	12,050.0	12,772.9	11,800.0	29.3	41.7	-69.26	951.1	-640.1	700.2	627.8	72.33	9.681	
13,100.0	12,050.0	12,872.9	11,800.0	30.5	42.7	-69.26	1,051.1	-640.8	700.2	625.5	74.75	9.367	
13,200.0	12,050.0	12,972.9	11,800.0	31.8	43.8	-69.26	1,151.1	-641.4	700.3	623.0	77.30	9.060	
13,300.0	12,050.0	13,072.9	11,800.0	33.3	45.0	-69.26	1,251.1	-642.0	700.4	620.5	79.95	8.761	
13,400.0	12,050.0	13,172.9	11,800.0	34.9	46.2	-69.27	1,351.1	-642.6	700.5	617.8	82.69	8.471	
13,500.0	12,050.0	13,272.9	11,800.0	36.6	47.4	-69.27	1,451.1	-643.2	700.6	615.1	85.52	8.192	
13,600.0	12,050.0	13,372.9	11,800.0	38.3	48.7	-69.27	1,551.1	-643.9	700.7	612.2	88.43	7.924	
13,700.0	12,050.0	13,472.9	11,800.0	40.0	50.1	-69.27	1,651.1	-644.5	700.7	609.3	91.40	7.667	
13,800.0	12,050.0	13,572.9	11,800.0	41.8	51.4	-69.28	1,751.1	-645.1	700.8	606.4	94.43	7.421	
13,900.0	12,050.0	13,672.9	11,800.0	43.5	52.9	-69.28	1,851.1	-645.7	700.9	603.4	97.53	7.187	
14,000.0	12,050.0	13,772.9	11,800.0	45.4	54.3	-69.28	1,951.1	-646.3	701.0	600.3	100.67	6.963	
14,100.0	12,050.0	13,872.9	11,800.0	47.2	55.8	-69.28	2,051.1	-647.0	701.1	597.2	103.86	6.750	
14,200.0	12,050.0	13,972.9	11,800.0	49.0	57.4	-69.29	2,151.1	-647.6	701.2	594.1	107.09	6.547	
14,300.0	12,050.0	14,072.9	11,800.0	50.9	58.9	-69.29	2,251.1	-648.2	701.2	590.9	110.36	6.354	
14,400.0	12,050.0	14,172.9	11,800.0	52.7	60.5	-69.29	2,351.1	-648.8	701.3	587.7	113.67	6.170	
14,500.0	12,050.0	14,272.9	11,800.0	54.6	62.1	-69.29	2,451.1	-649.4	701.4	584.4	117.01	5.994	
14,600.0	12,050.0	14,372.9	11,800.0	56.5	63.8	-69.30	2,551.1	-650.1	701.5	581.1	120.38	5.827	
14,700.0	12,050.0	14,472.9	11,800.0	58.4	65.4	-69.30	2,651.1	-650.7	701.6	577.8	123.78	5.668	
14,800.0	12,050.0	14,572.9	11,800.0	60.3	67.1	-69.30	2,751.1	-651.3	701.7	574.5	127.20	5.516	
14,900.0	12,050.0	14,672.9	11,800.0	62.2	68.8	-69.30	2,851.1	-651.9	701.7	571.1	130.64	5.371	
15,000.0	12,050.0	14,772.9	11,800.0	64.1	70.5	-69.31	2,951.1	-652.5	701.8	567.7	134.11	5.233	
15,100.0	12,050.0	14,872.9	11,800.0	66.1	72.2	-69.31	3,051.1	-653.2	701.9	564.3	137.60	5.101	
15,200.0	12,050.0	14,972.9	11,800.0	68.0	74.0	-69.31	3,151.1	-653.8	702.0	560.9	141.10	4.975	
15,300.0	12,050.0	15,072.9	11,800.0	69.9	75.7	-69.31	3,251.1	-654.4	702.1	557.5	144.62	4.855	
15,400.0	12,050.0	15,172.9	11,800.0	71.9	77.5	-69.32	3,351.1	-655.0	702.2	554.0	148.16	4.739	
15,500.0	12,050.0	15,272.9	11,800.0	73.8	79.3	-69.32	3,451.1	-655.6	702.2	550.5	151.71	4.629	
15,600.0	12,050.0	15,372.9	11,800.0	75.8	81.1	-69.32	3,551.0	-656.3	702.3	547.0	155.28	4.523	
15,700.0	12,050.0	15,472.9	11,800.0	77.7	82.9	-69.32	3,651.0	-656.9	702.4	543.6	158.86	4.422	
15,800.0	12,050.0	15,572.9	11,800.0	79.7	84.7	-69.33	3,751.0	-657.5	702.5	540.0	162.45	4.324	
15,900.0	12,050.0	15,672.9	11,800.0	81.6	86.5	-69.33	3,851.0	-658.1	702.6	536.5	166.05	4.231	
16,000.0	12,050.0	15,772.9	11,800.0	83.6	88.3	-69.33	3,951.0	-658.7	702.7	533.0	169.67	4.141	
16,100.0	12,050.0	15,872.9	11,800.0	85.6	90.2	-69.34	4,051.0	-659.4	702.7	529.5	173.29	4.055	
16,200.0	12,050.0	15,972.9	11,800.0	87.5	92.0	-69.34	4,151.0	-660.0	702.8	525.9	176.93	3.972	
16,300.0	12,050.0	16,072.9	11,800.0	89.5	93.9	-69.34	4,251.0	-660.6	702.9	522.3	180.57	3.893	
16,400.0	12,050.0	16,172.9	11,800.0	91.5	95.7	-69.34	4,351.0	-661.2	703.0	518.8	184.22	3.816	
16,500.0	12,050.0	16,272.9	11,800.0	93.4	97.6	-69.35	4,451.0	-661.9	703.1	515.2	187.88	3.742	
16,600.0	12,050.0	16,372.9	11,800.0	95.4	99.5	-69.35	4,551.0	-662.5	703.2	511.6	191.54	3.671	
16,700.0	12,050.0	16,472.9	11,800.0	97.4	101.4	-69.35	4,651.0	-663.1	703.2	508.0	195.22	3.602	
16,800.0	12,050.0	16,572.9	11,800.0	99.4	103.2	-69.35	4,751.0	-663.7	703.3	504.4	198.90	3.536	
16,900.0	12,050.0	16,672.9	11,800.0	101.3	105.1	-69.36	4,851.0	-664.3	703.4	500.8	202.58	3.472	
17,000.0	12,050.0	16,772.9	11,800.0	103.3	107.0	-69.36	4,951.0	-665.0	703.5	497.2	206.28	3.410	
17,100.0	12,050.0	16,872.9	11,800.0	105.3	108.9	-69.36	5,051.0	-665.6	703.6	493.6	209.97	3.351	
17,200.0	12,050.0	16,972.9	11,800.0	107.3	110.8	-69.36	5,151.0	-666.2	703.7	490.0	213.68	3.293	
17,300.0	12,050.0	17,072.9	11,800.0	109.3	112.7	-69.37	5,251.0	-666.8	703.7	486.4	217.38	3.237	
17,400.0	12,050.0	17,172.9	11,800.0	111.2	114.6	-69.37	5,351.0	-667.4	703.8	482.7	221.10	3.183	
17,500.0	12,050.0	17,272.9	11,800.0	113.2	116.5	-69.37	5,451.0	-668.1	703.9	479.1	224.82	3.131	
17,600.0	12,050.0	17,372.9	11,800.0	115.2	118.5	-69.37	5,551.0	-668.7	704.0	475.5	228.54	3.080	
17,700.0	12,050.0	17,472.9	11,800.0	117.2	120.4	-69.38	5,651.0	-669.3	704.1	471.8	232.26	3.031	
17,800.0	12,050.0	17,572.9	11,800.0	119.2	122.3	-69.38	5,751.0	-669.9	704.2	468.2	236.00	2.984	

CC - Min centre to center distance or covergent point, SF - min separation factor, ES - min ellipse separation

ADVANCE ENERGY PARTNERS

Anticollision Report

Company:	Advance Energy Partners	**Local Co-ordinate Reference:**	Well Anderson Fed Com 702H
Project:	Hat Mesa	**TVD Reference:**	WELL @ 3699.5usft (Original Well Elev.)
Reference Site:	Anderson Fed Com - Pad C	**MD Reference:**	WELL @ 3699.5usft (Original Well Elev.)
Site Error:	0.0 usft	**North Reference:**	Grid
Reference Well:	Anderson Fed Com 702H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0 usft	**Output errors are at**	2.79 sigma
Reference Wellbore	Anderson Fed Com 702H	**Database:**	EDM 5000.16 Single User Db
Reference Design:	Anderson Fed Com 702H - Prelim 1	**Offset TVD Reference:**	Offset Datum

Offset Design: Anderson Fed Com - Pad C - Anderson Fed Com 602H - Anderson Fed Com 602H - Anderson Fed Com 602H - Prelim 1

Offset Site Error: 0.0 usft

Survey Program: 0-MWD+HRGM

Rule Assigned:

Offset Well Error: 0.0 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
17,900.0	12,050.0	17,672.9	11,800.0	121.2	124.2	-69.38	5,851.0	-670.5	704.2	464.5	239.73	2.938	
18,000.0	12,050.0	17,772.9	11,800.0	123.2	126.2	-69.38	5,951.0	-671.2	704.3	460.9	243.47	2.893	
18,100.0	12,050.0	17,872.9	11,800.0	125.2	128.1	-69.39	6,051.0	-671.8	704.4	457.2	247.21	2.849	
18,200.0	12,050.0	17,972.9	11,800.0	127.2	130.0	-69.39	6,151.0	-672.4	704.5	453.5	250.95	2.807	
18,300.0	12,050.0	18,072.9	11,800.0	129.2	132.0	-69.39	6,251.0	-673.0	704.6	449.9	254.70	2.766	
18,400.0	12,050.0	18,172.9	11,800.0	131.1	133.9	-69.39	6,351.0	-673.6	704.7	446.2	258.45	2.726	
18,500.0	12,050.0	18,272.9	11,800.0	133.1	135.8	-69.40	6,451.0	-674.3	704.7	442.5	262.21	2.688	
18,600.0	12,050.0	18,372.9	11,800.0	135.1	137.8	-69.40	6,551.0	-674.9	704.8	438.9	265.96	2.650	
18,700.0	12,050.0	18,472.9	11,800.0	137.1	139.7	-69.40	6,651.0	-675.5	704.9	435.2	269.72	2.613	
18,729.3	12,050.0	18,499.7	11,800.0	137.7	140.3	-69.40	6,677.8	-675.7	704.9	434.1	270.83	2.603 SF	

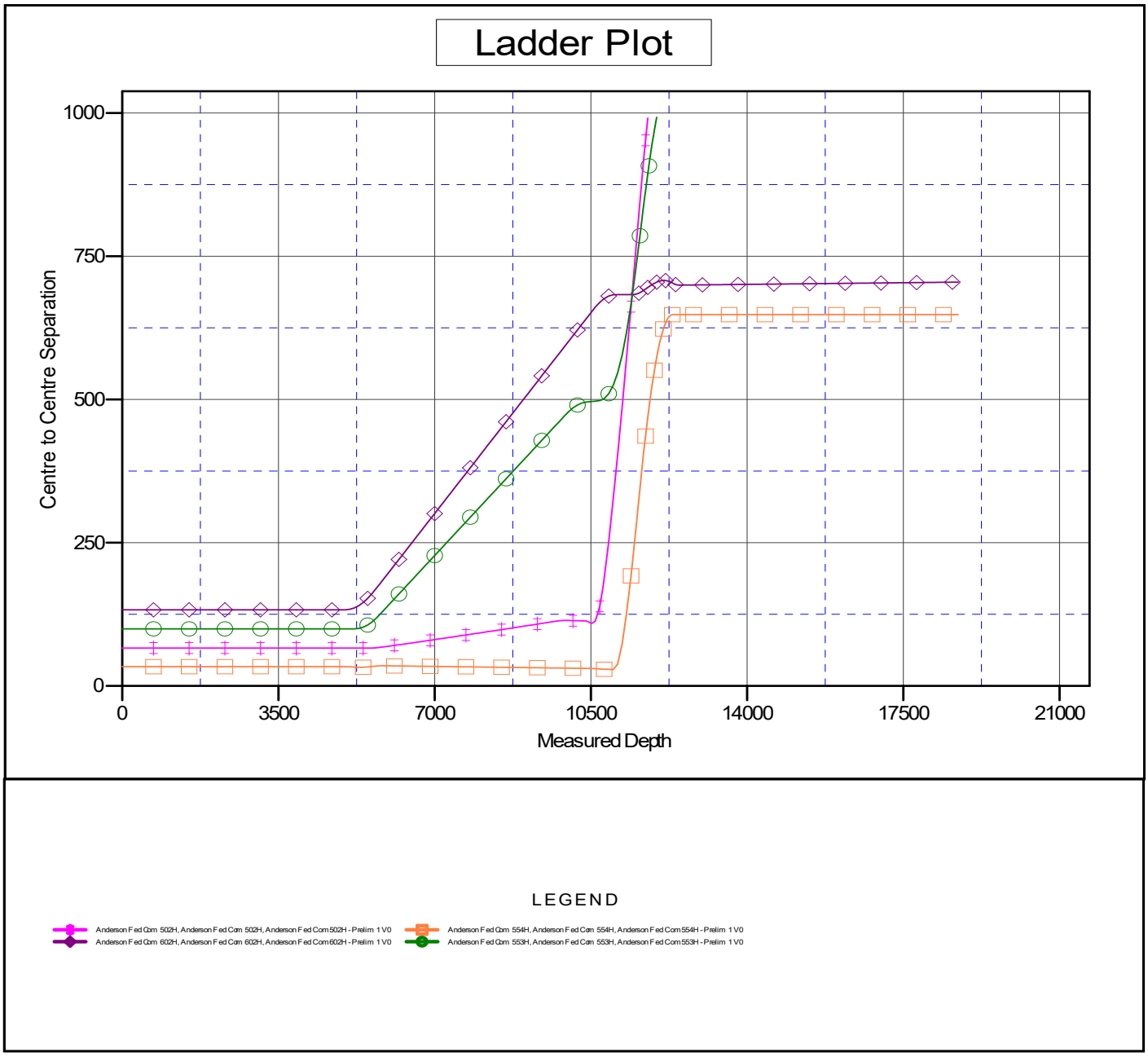
ADVANCE ENERGY PARTNERS

Anticollision Report

Company:	Advance Energy Partners	**Local Co-ordinate Reference:**	Well Anderson Fed Com 702H
Project:	Hat Mesa	**TVD Reference:**	WELL @ 3699.5usft (Original Well Elev.)
Reference Site:	Anderson Fed Com - Pad C	**MD Reference:**	WELL @ 3699.5usft (Original Well Elev.)
Site Error:	0.0 usft	**North Reference:**	Grid
Reference Well:	Anderson Fed Com 702H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0 usft	**Output errors are at**	2.79 sigma
Reference Wellbore	Anderson Fed Com 702H	**Database:**	EDM 5000.16 Single User Db
Reference Design:	Anderson Fed Com 702H - Prelim 1	**Offset TVD Reference:**	Offset Datum

Reference Depths are relative to WELL @ 3699.5usft (Original Well Ele
Offset Depths are relative to Offset Datum
Central Meridian is 104° 20' 0.000 W

Coordinates are relative to: Anderson Fed Com 702H
Coordinate System is US State Plane 1983, New Mexico Eastern Zone
Grid Convergence at Surface is: 0.37°



ADVANCE ENERGY PARTNERS

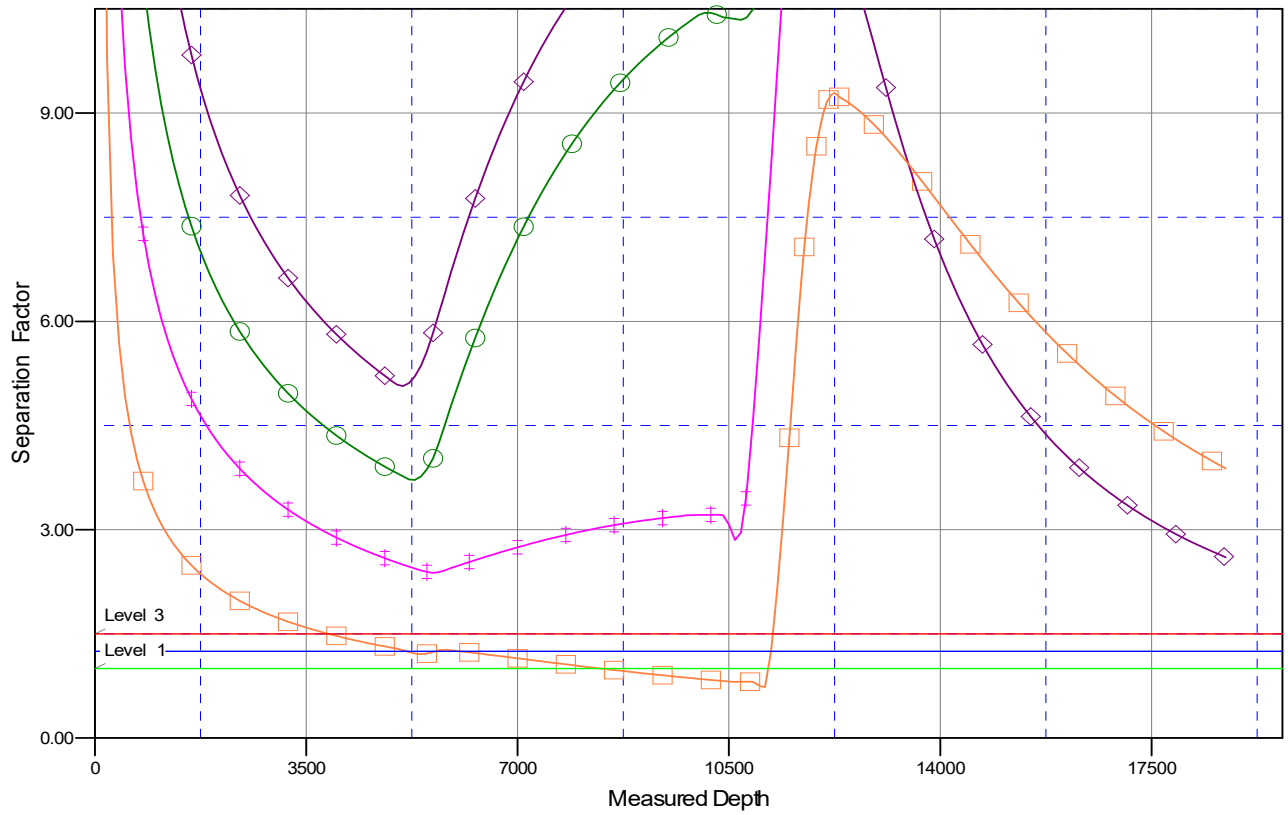
Anticollision Report

Company:	Advance Energy Partners	**Local Co-ordinate Reference:**	Well Anderson Fed Com 702H
Project:	Hat Mesa	**TVD Reference:**	WELL @ 3699.5usft (Original Well Elev.)
Reference Site:	Anderson Fed Com - Pad C	**MD Reference:**	WELL @ 3699.5usft (Original Well Elev.)
Site Error:	0.0 usft	**North Reference:**	Grid
Reference Well:	Anderson Fed Com 702H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0 usft	**Output errors are at**	2.79 sigma
Reference Wellbore	Anderson Fed Com 702H	**Database:**	EDM 5000.16 Single User Db
Reference Design:	Anderson Fed Com 702H - Prelim 1	**Offset TVD Reference:**	Offset Datum

Reference Depths are relative to WELL @ 3699.5usft (Original Well Ele
Offset Depths are relative to Offset Datum
Central Meridian is 104° 20' 0.000 W

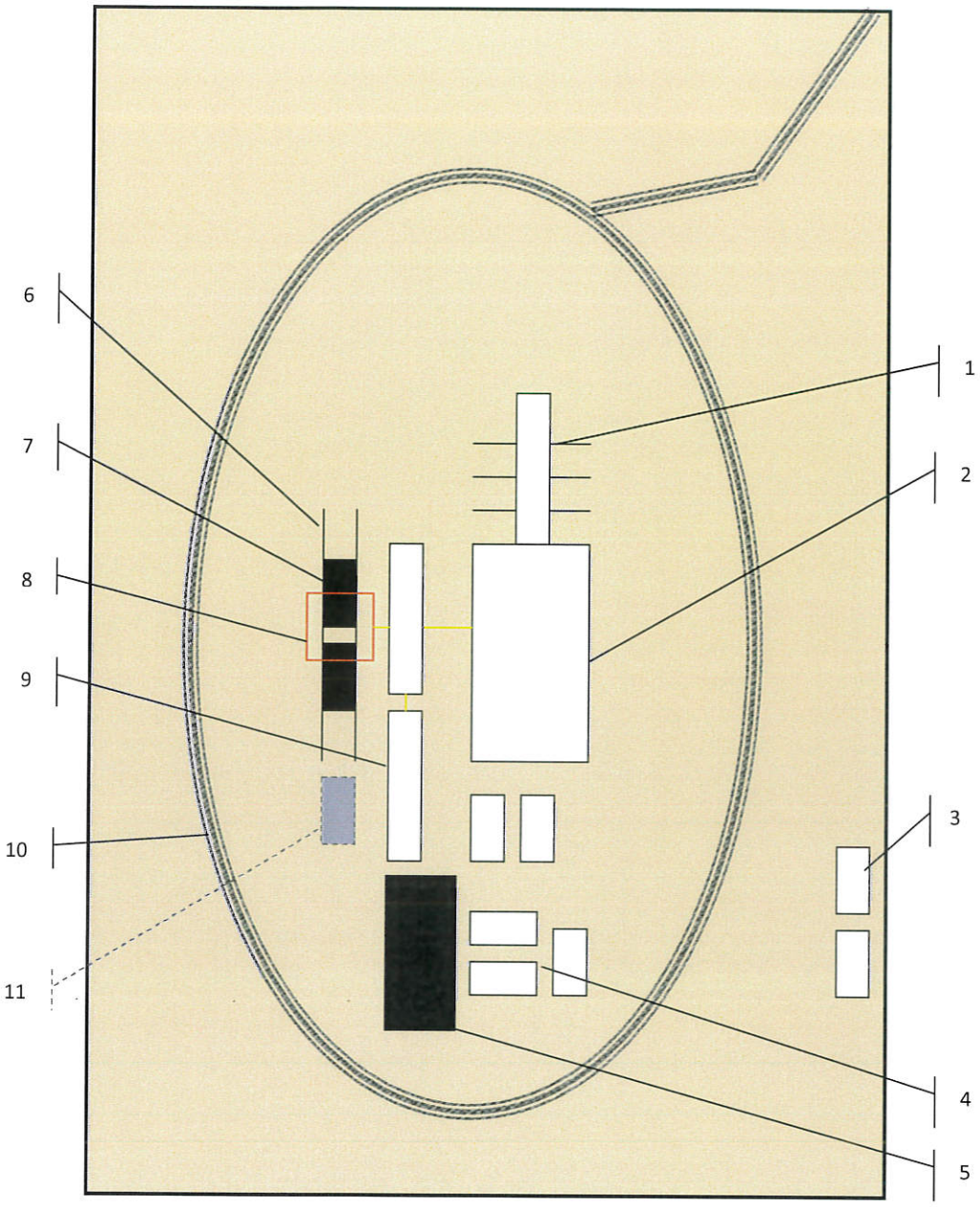
Coordinates are relative to: Anderson Fed Com 702H
Coordinate System is US State Plane 1983, New Mexico Eastern Zone
Grid Convergence at Surface is: 0.37°

Separation Factor Plot



LEGEND

Anderson Fed Com 502H, Anderson Fed Com 502H, Anderson Fed Com 502H - Prelim 1 V0
Anderson Fed Com 602H, Anderson Fed Com 602H, Anderson Fed Com 602H - Prelim 1 V0
Anderson Fed Com 554H, Anderson Fed Com 554H, Anderson Fed Com 554H - Prelim 1 V0
Anderson Fed Com 553H, Anderson Fed Com 553H, Anderson Fed Com 553H - Prelim 1 V0



Schematic Closed Loop Drilling Rig*

1. Pipe Rack
2. Drill Rig
3. House Trailers/ Offices
4. Generator/Fuel/Storage
5. Overflow-Frac Tank
6. Skids
7. Roll Offs
8. Hopper or Centrifuge
9. Mud Tanks
10. Loop Drive
11. Generator (only for use with centrifuge)

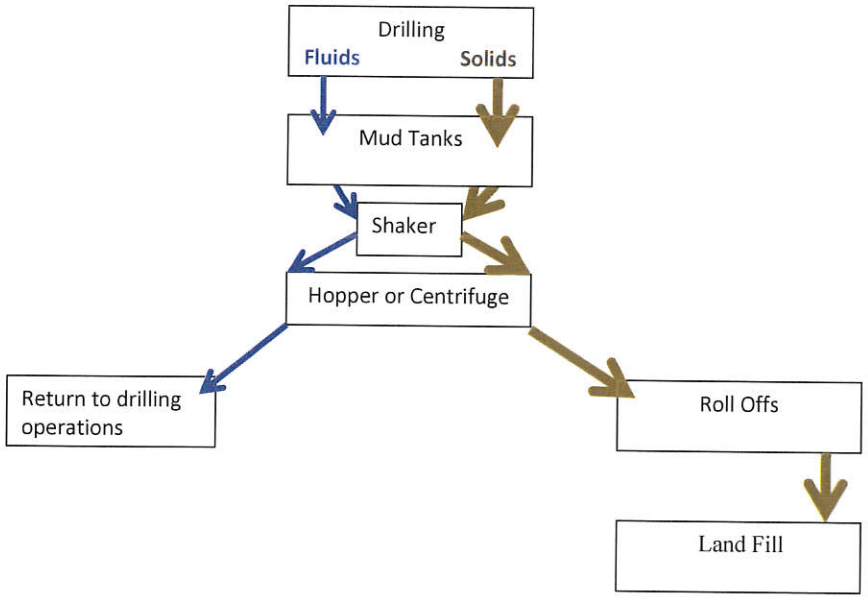
*Not drawn to scale: Closed loop system requires at least 30 feet beyond mud tanks. Ideally 60 feet would be available

Above: Centrifugal Closed Loop System

PERMITS WEST, INC.
PROVIDING PERMITS for LAND USERS
37Verano Loop, Santa Fe, New Mexico 87508 (505) 466-8120

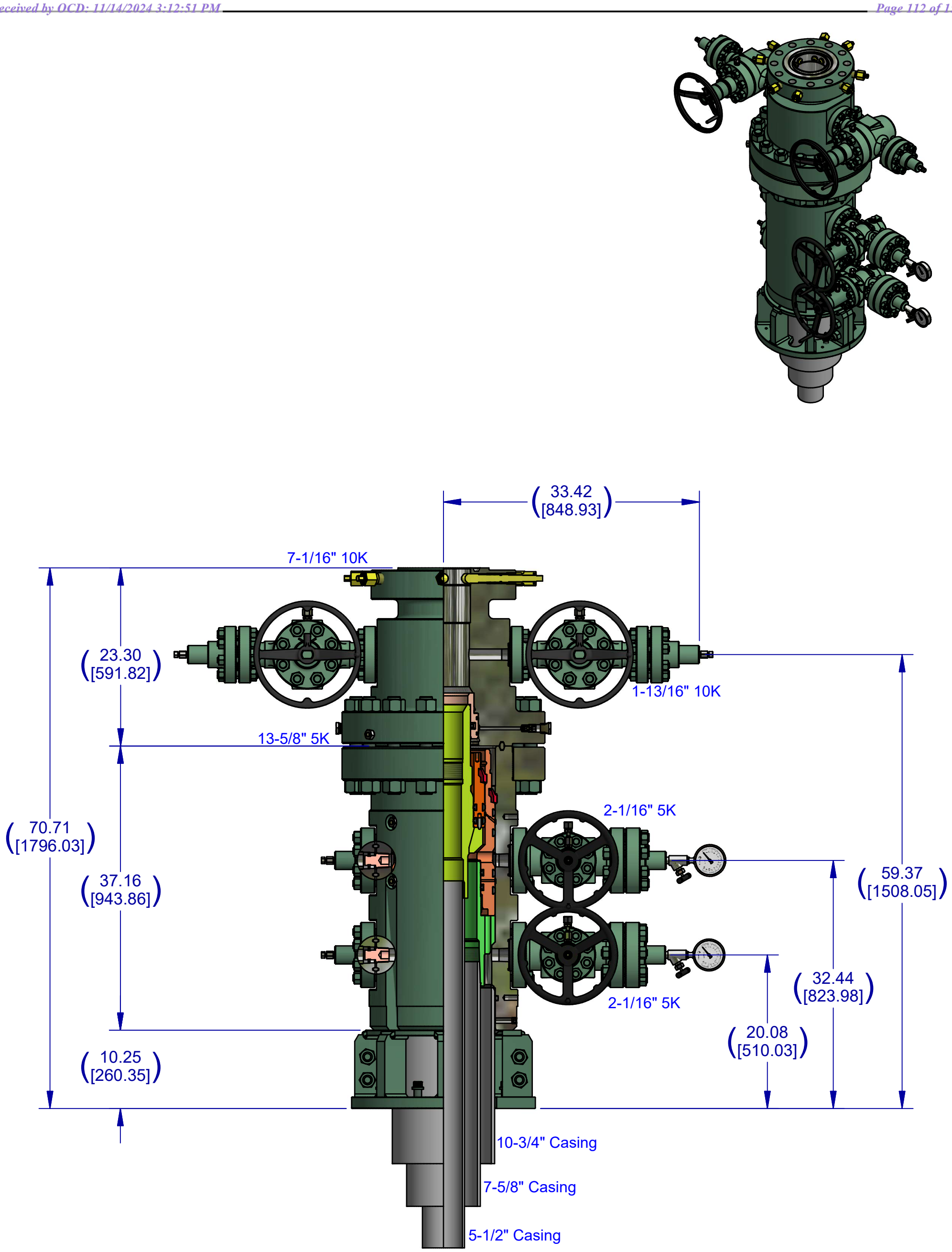
Closed Loop Drilling System: Mud tanks to right (1)
Hopper in air to settle out solids (2)
Water return pipe (3)
Shaker between hopper and mud tanks (4)
Roll offs on skids (5)

Flow Chart for Drilling Fluids and Solids



Photos Courtesy of Gandy Corporation Oil Field Service

PERMITS WEST, INC.
PROVIDING PERMITS for LAND USERS
37 Verano Loop, Santa Fe, New Mexico 87508 (505) 466-8120



NOTE: This is a proposal drawing and dimensions shown are subject to change during the final design process.

CAMERON CONFIDENTIAL INFORMATION			
DO NOT SCALE		CAMERON A Schlumberger Company	SURFACE SYSTEMS
DRAWN BY: L. FERRER	DATE: 06/23/2020		
CHECKED BY: M. IKU	DATE: 06/23/2020	10-3/4" 5K 3-String MN-DS	
DRAWING NO: QD-08-00057	REV: 01		

Hydrostatic Test Certificate

ContiTech

Certificate Number	COM Order Reference	Customer Name & Address
953233	953233	HELMERICH & PAYNE DRILLING CO 1434 SOUTH BOULDER AVE TULSA, OK 74119 USA
Customer Purchase Order No:	740053080	
Project:		

Test Center Address	Accepted by COM Inspection	Accepted by Client Inspection
ContiTech Oil & Marine Corp. 11535 Brittmoore Park Drive Houston, TX 77041 USA	Roger Suarez Signed: Date: 4/21/17	

We certify that the goods detailed hereon have been inspected as described below by our Quality Management System, and to the best of our knowledge are found to conform the requirements of the above referenced purchase order as issued to ContiTech Oil & Marine Corporation.

Item	Part No.	Description	Qnty	Serial Number	Work. Press.	Test Press.	Test Time (minutes)
10		RECERTIFICATION - 3" ID 10K Choke and Kill Hose x 35 ft OAL	1	54503	10,000 psi	15,000 psi	60
20		RECERTIFICATION - 3" ID 10K Choke and Kill Hose x 35 ft OAL	1	62414	10,000 psi	15,000 psi	60

Certificate of Conformity

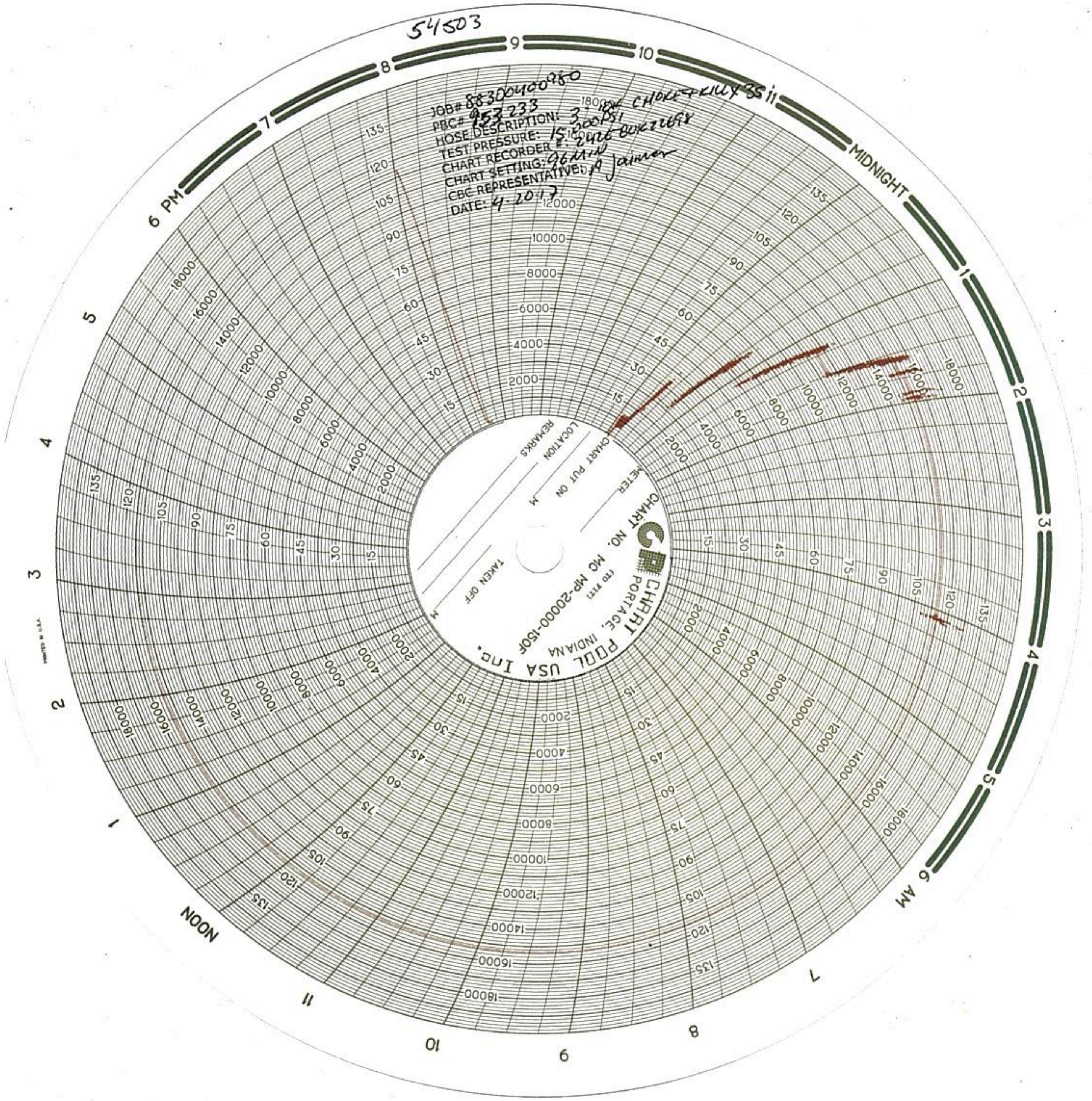
ContiTech

Certificate Number	COM Order Reference	Customer Name & Address
953233	953233	HELMERICH & PAYNE DRILLING CO 1434 SOUTH BOULDER AVE TULSA, OK 74119 USA
Customer Purchase Order No:	740053080	
Project:		

Test Center Address	Accepted by COM Inspection	Accepted by Client Inspection
ContiTech Oil & Marine Corp. 11535 Brittmoore Park Drive Houston, TX 77041 USA	Signed: Roger Suarez Date: 4/21/17	

We certify that the items detailed below meet the requirements of the customer's Purchase Order referenced above, and are in conformance with the specifications given below.

Item	Part No.	Description	Qnty	Serial Number	Specifications
10		RECERTIFICATION - 3" ID 10K Choke and Kill Hose x 35 ft OAL	1	54503	ContiTech Standard
20		RECERTIFICATION - 3" ID 10K Choke and Kill Hose x 35 ft OAL	1	62414	ContiTech Standard


54503
JOB# 8830040080
PBC# 953233
HOSE DESCRIPTION:
TEST PRESSURE: 15,000 PSI
CHART RECORDER #:
CHART SETTING: 96 MIN
CBC REPRESENTATIVE:
DATE: 4-20-17
MIDNIGHT
6 AM
NOON
6 PM
CHART NO. MC MP-20000-150F
CHART POOL USA Inc.
PORTAGE, INDIANA
METER
CHART PUT ON
LOCATION
REMARKS
TAKEN OFF

Hose Inspection Report

ContiTech Oil & Marine

Customer	Customer Reference #	COM Reference #	COM Inspector	Date of Inspection
H&P Drilling	740053080	953233	A. Jaimes	04/20/2017

Hose Manufacturer	Contitech Rubber Industrial

Hose Serial #	54503	**Date of Manufacture**	01/2009
Hose I.D.	3"	**Working Pressure**	10000PSI
Hose Type	Choke and Kill	**Test Pressure**	15000PSI
Manufacturing Standard	API 16C		

Connections

End A: 4.1/16" 10Kpsi API Spec 6A Type 6BX Flange	**End B:** 4.1/16" 10Kpsi API Spec 6A Type 6BX Flange
• No damage	• No damage
Material: Carbon Steel	**Material:** Carbon Steel
Seal Face: BX155	**Seal Face:** BX155
Length Before Hydro Test: 35'	**Length After Hydro test:** 35'

Conclusion: Hose #54503 passed the external inspection with no damage to the hose armor. Internal borescope of the hose showed no damage to the liner. Hose #54503 passed the hydrostatic pressure test by holding a pressure of 15,000PSI for 60 minutes. **Hose #54503 is suitable for continued service.**

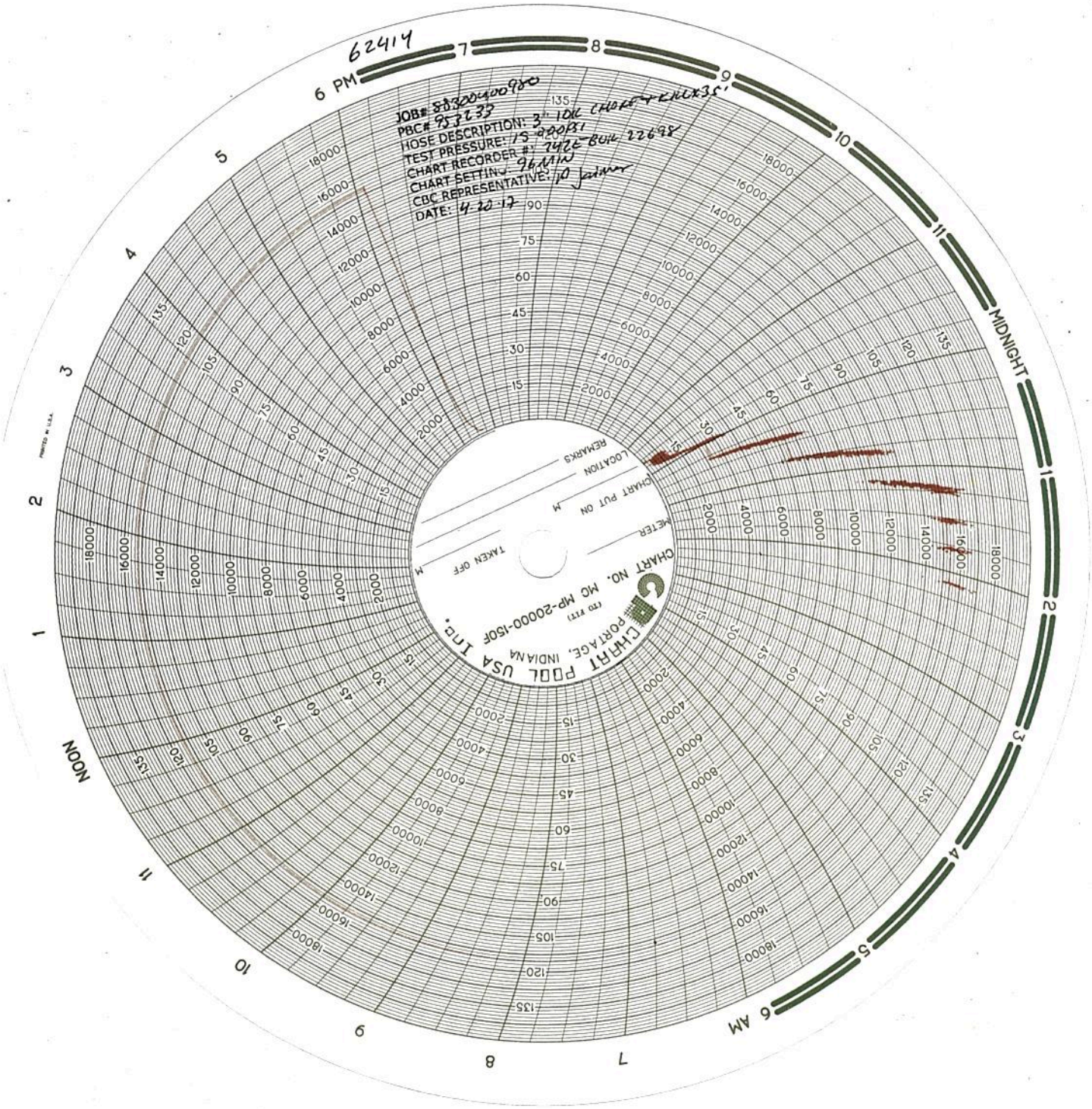
Recommendations: In general the hose should be inspected on a regular on-going basis. The frequency and degree of the inspection should as a minimum follow these guidelines:

Visual inspection: Every 3 to 6 months (or during installation/removal)
Annual: In-situ pressure test (in addition to the 3 to 6 monthly inspections)
Initial 5 years service: Major inspection
2nd Major inspection: Following subsequent 3 year life cycle
(Detailed description of test regime available upon request, QCP 206-1)

**NOTE: There are a number of critical elements in the hose that cannot be thoroughly checked through standard inspection techniques. Away from dissecting the hose body, the best way to evaluate the condition of the hose is through review of the operating conditions recorded during the hose service life, in particular maximums and peak conditions.

Issued By: Alejandro Jaimes
Date: 04/21/2017

Checked By: Gerson Mejia-Lazo
Date: 04/21/2017


62414
JOB# 880200400980
PBC# 953233
HOSE DESCRIPTION: 3" 10K CHOKE & KILL X 35'
TEST PRESSURE: 15,000 PSI
CHART RECORDER #: 7426 BOIL 22698
CHART SETTING: 96 MIN
CBC REPRESENTATIVE: JD Jalmer
DATE: 4-22-17
6 PM
MIDNIGHT
6 AM
NOON
CHART POOL USA INC.
PORTAGE, INDIANA
CHART NO. MC MP-20000-15OF
METER
CHART PUT ON
LOCATION
REMARKS
TAKEN OFF

Hose Inspection Report

ContiTech Oil & Marine

Customer	Customer Reference #	COM Reference #	COM Inspector	Date of Inspection
H&P Drilling	740053080	953233	A. Jaimes	04/20/2017

Hose Manufacturer	Contitech Rubber Industrial

Hose Serial #	62414	**Date of Manufacture**	06/2012
Hose I.D.	3"	**Working Pressure**	10000PSI
Hose Type	Choke and Kill	**Test Pressure**	15000PSI
Manufacturing Standard	API 16C		

Connections

End A: 4.1/16" 10Kpsi API Spec 6A Type 6BX Flange	**End B:** 4.1/16" 10Kpsi API Spec 6A Type 6BX Flange
• No damage	• No damage
Material: Carbon Steel	**Material:** Carbon Steel
Seal Face: BX155	**Seal Face:** BX155
Length Before Hydro Test: 35'	**Length After Hydro test:** 35'

Conclusion: Hose #62414 passed the external inspection with no damage to the hose armor. Internal borescope of the hose showed no damage to the liner. Hose #62414 passed the hydrostatic pressure test by holding a pressure of 15,000PSI for 60 minutes. **Hose #62414 is suitable for continued service.**

Recommendations: In general the hose should be inspected on a regular on-going basis. The frequency and degree of the inspection should as a minimum follow these guidelines:

Visual inspection: Every 3 to 6 months (or during installation/removal)
Annual: In-situ pressure test (in addition to the 3 to 6 monthly inspections)
Initial 5 years service: Major inspection
2nd Major inspection: Following subsequent 3 year life cycle
(Detailed description of test regime available upon request, QCP 206-1)

**NOTE: There are a number of critical elements in the hose that cannot be thoroughly checked through standard inspection techniques. Away from dissecting the hose body, the best way to evaluate the condition of the hose is through review of the operating conditions recorded during the hose service life, in particular maximums and peak conditions.

Issued By: Alejandro Jaimes
Date: 04/21/2017

Checked By: Gerson Mejia-Lazo
Date: 04/21/2017

Advance Energy Partners Hat Mesa, LLC DRILL PLAN PAGE 1
Anderson Fed Com 702H
SHL 180' FNL & 2287' FWL Section 2, T22S, R32E
BHL 1220' FSL & 2310' FWL Section 26, T21S, R32E
Lea County, NM

Drilling Program

1. ESTIMATED TOPS

Formation Name	TVD	MD	Bearing
Quaternary caliche	000'	000'	water
Rustler anhydrite (surface csg set @ 1194')	1169'	1169'	N/A
Salado salt	1257'	1257'	Salt
Bell Canyon sandstone	4747'	4747'	N/A
Lower Brushy Canyon sandstone	8394'	8396'	hydrocarbons
Bone Spring Lime	8754'	8754'	hydrocarbons
Avalon shale	8914'	8916'	Hydrocarbons
1st Bone Spring sandstone	9781'	9784'	hydrocarbons
2nd Bone Spring sandstone (Int csg set @ TVD 10600')	10369'	10373'	hydrocarbons
3rd Bone Spring carbonate	10947'	10951'	hydrocarbons
3rd Bone Spring sandstone	11494'	11498'	hydrocarbons
KOP	11573'	11576'	hydrocarbons
Wolfcamp carbonate	11844'	11865'	hydrocarbons
TD	12050'	18729'	hydrocarbons

2. NOTABLE ZONES

Wolfcamp carbonate is the goal. Closest water well (CP 02821) is 2.48 miles southwest. Depth to water was reported at 410' in the 540' deep well.

3. PRESSURE CONTROL

See attached Helmerich & Payne BOP Testing – BLM manual for equipment and procedures for a 5000-psi system.

Advance Energy Partners Hat Mesa, LLC DRILL PLAN PAGE 2
Anderson Fed Com 702H
SHL 180' FNL & 2287' FWL Section 2, T22S, R32E
BHL 1220' FSL & 2310' FWL Section 26, T21S, R32E
Lea County, NM

Variance is requested to use a co-flex hose between the BOP and choke instead of a steel line. See attached 3" I. D. x 10K test certificate. If this hose is unavailable, then a hose of equal or higher-pressure rating will be used.

Variance is requested to use a speed head (aka, multi-bowl wellhead) after setting intermediate 1. Advance has drilled >50 wells in immediate area to depths >5,000' and never encountered any type of flows. This will allow Advance to land the intermediate 1 and use the current proposed wellhead design. Advance will then NU BOPE on the 10.75" and continue using the BOPE to the completion of the well.

4. CASING & CEMENT

Name	Hole OD	Casing OD	Tapered	Top MD	Bottom MD	Top TVD	BTM TVD	Grade	Weight	Thread	Collapse	Burst	Tension
Surface	14.75"	10.75"	No	0	1194	0	1194	J-55	40.5	BTC	1.125	1.125	1.6
1st Intermediate	9.875"	7.625"	No	0	10612	0	10600	HCP-110	29.7	LTC	1.125	1.125	1.6
Production	6.75"	5.5"	No	0	10112	0	10100	HCP-110	20	CDC	1.125	1.125	1.6
	6.75"	5.5"	No	10112	10612	10100	10600	HCP-110	20	VAM SFC	1.125	1.125	1.6
	6.75"	5.5"	No	10612	18729	10600	12050	HCP-110	20	CDC	1.125	1.125	1.6

All casing will be API and new. See attached casing assumption worksheet.

Bow spring centralizers will be installed on the surface (10 bowsprings) and intermediate (59 bowsprings) casing strings.

Variance is requested for an option to use a surface rig to drill the surface hole and set and cement the surface casing. If time between rigs would not be allow presetting the surface casing, then the primary rig will drill all of the well.

Cement additive names in following table are West Texas Cementers trade names. They, or equivalent, products will be used.

Advance Energy Partners Hat Mesa, LLC DRILL PLAN PAGE 3
Anderson Fed Com 702H
SHL 180' FNL & 2287' FWL Section 2, T22S, R32E
BHL 1220' FSL & 2310' FWL Section 26, T21S, R32E
Lea County, NM

Name	Type	Top MD	Sacks	Yield	Cu. Ft	Weight	Excess	Cement	Additives
Surface	Lead	0	410	1.99	816	12.8	50%	C	2% Gypsum + 2% SMS + 0.25PPS Pol-E-Flake + 0.005GPS NoFoam V1A
	Tail	894	170	1.34	228	14.8	20%	C	1% CaCl2 + 0.005GPS NoFoam V1A
1st Intermediate (stage 1)	Lead	2800	2305	1.86	4287	12.8	250%	B Poz + H	3% Gel + 5% SALT + 0.3% SMS + 0.5% C-20 + 0.1% C-37 + 0.005GPS NoFoam
	Tail	8489	470	1.19	559	15.6	20%	H	0.05% SuspendaCem 6302 + 0.35% C-20 + 0.2% C-47B + 0.005GPS NoFoam V1A
1st Intermediate (stage 2)	Lead	0	835	1.83	1528	12.8	484%	B Poz + C	2% Gel + 5% SALT + 0.25PPS Pol-E-Flake + 0.005GPS NoFoam V1A
	Tail	2185	100	1.33	133	14.8	0%	C	0.005GPS NoFoam V1A
Production	Lead	0	715	1.81	1294	12.8	278%	B Poz + H	5% Gel + 0.5% SMS + 0.33% R-33 + 0.2% C-47B + 0.005GPS NoFoam V1A
	Tail	11576	460	1.59	731	13.2	20%	B Poz + C	5PPS Plexcrete STE + 0.25% SMS + 0.5% C-20 + 0.1% C-37 + 0.5% C-47B + 0.005GPS NoFoam V1A

Note: Intermediate 1 is a two-stage cement job. DVT will be placed at approximately 2,800'.

5. MUD PROGRAM

An electronic pit volume totalizer (PVT) will be used to monitor volume, flow rate, pump pressure, and stroke rate. All necessary additives (e. g., barite, bentonite, LCM) to maintain mud properties and meet minimum lost circulation and weight increase needs will be on site at all times. Mud program may change due to hole conditions. A closed loop system will be used.

Name	Top	Bottom	Type	Mud Weight (ppg)	Visc	Fluid Loss
Surface	0	1194	FW Spud Mud	8.4 - 10.0	28 - 36	NC
Intermediate 1	1194	10612	Brine Water	10.0 - 10.5	28 - 29	NC
Production	10612	12326	Cut Brine	9.0 - 9.5	28 - 30	NC
Production	12326	18729	OBM	10.5 - 11.5	55 - 65	6 - 8

6. CORES, TESTS, & LOGS

No core, drill stem test, or open hole log is planned.

7. DOWN HOLE CONDITIONS

No abnormal pressure or temperature is expected. Maximum expected bottom hole pressure is ≈5427 psi. Expected bottom hole temperature is ≈241˚ F.

H2S monitoring and detection equipment will be used from surface casing point to TD.

8. OTHER INFORMATION

Anticipated spud date is upon approval. It is expected it will take ≈3-4 months to drill and complete the well.

Casing/Cementing Variance Request

A variance is requested for an option to use a surface rig to drill the surface hole and set and cement the surface casing. If time between rigs would not be allow presetting the surface casing, then the primary rig will drill all of the well.

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

SUPO Data Report
11/13/2024

APD ID: 10400070997 **Submission Date:** 03/22/2021

Operator Name: ADVANCE ENERGY PARTNERS HAT MESA LLC

Well Name: ANDERSON FED COM **Well Number:** 702H

Well Type: OIL WELL **Well Work Type:** Drill

Highlighted data reflects the most recent changes
Show Final Text

Section 1 - Existing Roads

Will existing roads be used? YES

Existing Road Map:

Anderson_Existing_Roads_Map_20210317104723.pdf

Existing Road Purpose: ACCESS **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:

Anderson_PadC_New_Road_Map_Plat_v2_20210317105831.pdf

New road type: RESOURCE

Length: 1913 Feet **Width (ft.):** 30

Max slope (%): 0 **Max grade (%):** 2

Army Corp of Engineers (ACOE) permit required? N

ACOE Permit Number(s):

New road travel width: 14

New road access erosion control: Crowned and ditched

New road access plan or profile prepared? N

New road access plan

Operator Name: ADVANCE ENERGY PARTNERS HAT MESA LLC

Well Name: ANDERSON FED COM **Well Number:** 702H

Access road engineering design? N

Access road engineering design

Turnout? N

Access surfacing type: OTHER

Access topsoil source: ONSITE

Access surfacing type description: Caliche

Access onsite topsoil source depth: 6

Offsite topsoil source description:

Onsite topsoil removal process: Grader

Access other construction information: Three existing surface pipelines (two 3" poly + one 16" lay flat) will be crossed and padded.

Access miscellaneous information:

Number of access turnouts: **Access turnout map:**

Drainage Control

New road drainage crossing: OTHER

Drainage Control comments: Crowned and ditched

Road Drainage Control Structures (DCS) description: None

Road Drainage Control Structures (DCS) attachment:

Access Additional Attachments

Section 3 - Location of Existing Wells

Existing Wells Map? YES

Attach Well map:

Anderson_PadC_1mi_Well_Map_20210317104944.pdf

Section 4 - Location of Existing and/or Proposed Production Facilities

Submit or defer a Proposed Production Facilities plan? SUBMIT

Production Facilities description: Process equipment and tanks will be set on the south side of the pad. Flare and/or CBU will be set on the northeast corner of the pad. No power line or off pad pipeline is planned at this time.

Production Facilities map:

Anderson_PadC_Production_Facilities_v2_20210317105009.pdf

Operator Name: ADVANCE ENERGY PARTNERS HAT MESA LLC

Well Name: ANDERSON FED COM **Well Number:** 702H

Section 5 - Location and Types of Water Supply

Water Source Table

Water source type: GW WELL

Water source use type: DUST CONTROL
SURFACE CASING
INTERMEDIATE/PRODUCTION CASING
STIMULATION

Source latitude: **Source longitude:**

Source datum:

Water source permit type: WATER WELL

Water source transport method: TRUCKING

Source land ownership: PRIVATE

Source transportation land ownership: PRIVATE

Water source volume (barrels): 19000 **Source volume (acre-feet):** 2.44896883

Source volume (gal): 798000

Water source and transportation

Anderson_Water_Source_Map_v1_20210317105059.pdf

Water source comments: Water will be trucked from an existing water station on private land. Berrys water station (CP 00802) is in NWNE 2-21s-33e.
New water well? N

New Water Well Info

Well latitude: **Well Longitude:** **Well datum:**

Well target aquifer:

Est. depth to top of aquifer(ft): **Est thickness of aquifer:**

Aquifer comments:

Aquifer documentation:

Well depth (ft): **Well casing type:**

Well casing outside diameter (in.): **Well casing inside diameter (in.):**

New water well casing? **Used casing source:**

Operator Name: ADVANCE ENERGY PARTNERS HAT MESA LLC

Well Name: ANDERSON FED COM **Well Number:** 702H

Drilling method:

Drill material:

Grout material:

Grout depth:

Casing length (ft.):

Casing top depth (ft.):

Well Production type:

Completion Method:

Water well additional information:

State appropriation permit:

Additional information attachment:

Section 6 - Construction Materials

Using any construction materials: YES

Construction Materials description: NM One Call (811) will be notified before construction starts. Top 6" of soil and brush will be stockpiled east and west of the well pad. V-door will face west. Closed loop drilling system will be used. Caliche will be hauled from an existing caliche pit on private (Mills) land in Lot 1 and SENE 3-22s-32e.

Construction Materials source location

Anderson_Caliche_Source_Map_20210317105109.pdf

Section 7 - Methods for Handling

Waste type: DRILLING

Waste content description: Drill cuttings, mud, salts, and other chemicals

Amount of waste: 550 barrels

Waste disposal frequency : Daily

Safe containment description: Steel mud tanks

Safe containmant attachment:

Waste disposal type: HAUL TO COMMERCIAL FACILITY

Disposal location ownership: PRIVATE

Disposal type description:

Disposal location description: Mud tanks will be hauled to R360s state approved (NM-01-0006) disposal site at Halfway, NM.

Waste type: SEWAGE

Waste content description: Black and grey water

Amount of waste: 5 barrels

Waste disposal frequency : Daily

Safe containment description: Plastic holding tanks and chemical toilets

Safe containmant attachment:

Waste disposal type: OTHER

Disposal location ownership: OTHER

Disposal type description: Public

Operator Name: ADVANCE ENERGY PARTNERS HAT MESA LLC

Well Name: ANDERSON FED COM **Well Number:** 702H

Disposal location description: Hobbs wastewater treatment plant

Waste type: GARBAGE

Waste content description: Trash

Amount of waste: 10 barrels

Waste disposal frequency : Daily

Safe containment description: Portable trash cage

Safe containmant attachment:

Waste disposal type: OTHER **Disposal location ownership:** OTHER

Disposal type description: Public

Disposal location description: Lea County landfill

Reserve Pit

Reserve Pit being used? NO

Temporary disposal of produced water into reserve pit? NO

Reserve pit length (ft.) **Reserve pit width (ft.)**

Reserve pit depth (ft.) **Reserve pit volume (cu. yd.)**

Is at least 50% of the reserve pit in cut?

Reserve pit liner

Reserve pit liner specifications and installation description

Cuttings Area

Cuttings Area being used? NO

Are you storing cuttings on location? Y

Description of cuttings location Steel tanks on pad

Cuttings area length (ft.) **Cuttings area width (ft.)**

Cuttings area depth (ft.) **Cuttings area volume (cu. yd.)**

Is at least 50% of the cuttings area in cut?

WCuttings area liner

Cuttings area liner specifications and installation description

Operator Name: ADVANCE ENERGY PARTNERS HAT MESA LLC

Well Name: ANDERSON FED COM **Well Number:** 702H

Section 8 - Ancillary

Are you requesting any Ancillary Facilities?: N

Ancillary Facilities

Comments:

Section 9 - Well Site

Well Site Layout Diagram:

Anderson_PadC_Well_Site_Layout_v2_20210317105409.pdf

Comments:

Section 10 - Plans for Surface Reclamation

Type of disturbance: New Surface Disturbance **Multiple Well Pad Name:** ANDERSON FED COM

Multiple Well Pad Number: Pad C

Recontouring

Anderson_PadC_Recontour_Plats_v2_20210317105425.pdf

Anderson_PadC_Interim_Rec_v2_20210317105421.pdf

Drainage/Erosion control construction: Crowned and ditched

Drainage/Erosion control reclamation: Harrowed on the contour

Well pad proposed disturbance (acres): 5.65	**Well pad interim reclamation (acres):** 1	**Well pad long term disturbance (acres):** 4.65
Road proposed disturbance (acres): 1.32	**Road interim reclamation (acres):** 0	**Road long term disturbance (acres):** 1.32
Powerline proposed disturbance (acres): 0	**Powerline interim reclamation (acres):** 0	**Powerline long term disturbance (acres):** 0
Pipeline proposed disturbance (acres): 0	**Pipeline interim reclamation (acres):** 0	**Pipeline long term disturbance (acres):** 0
Other proposed disturbance (acres): 0	**Other interim reclamation (acres):** 0	**Other long term disturbance (acres):** 0
Total proposed disturbance: 6.970000000000001	**Total interim reclamation:** 1	**Total long term disturbance:** 5.970000000000001

Disturbance Comments:

Reconstruction method: Interim reclamation will consist of reclaiming a 125' x 350' area on the west side of the pad. Once the last well is plugged, then the pad and new road will be reclaimed within 6 months of plugging. Disturbed areas will be contoured to match pre-construction grades.
Topsoil redistribution: Soil and brush will be evenly spread over disturbed areas and harrowed on the contour. Disturbed areas will be seeded in accordance with BLM requirements. Road will be blocked. Noxious weeds will be controlled

Soil treatment: None

Existing Vegetation at the well pad: Mesquite and/or Creosote bush

Operator Name: ADVANCE ENERGY PARTNERS HAT MESA LLC

Well Name: ANDERSON FED COM **Well Number:** 702H

Existing Vegetation at the well pad

Existing Vegetation Community at the road: Mesquite and/or Creosote bush

Existing Vegetation Community at the road

Existing Vegetation Community at the pipeline: Mesquite and/or Creosote bush

Existing Vegetation Community at the pipeline

Existing Vegetation Community at other disturbances: Mesquite and/or Creosote bush

Existing Vegetation Community at other disturbances

Non native seed used? N

Non native seed description:

Seedling transplant description:

Will seedlings be transplanted for this project? N

Seedling transplant description

Will seed be harvested for use in site reclamation? N

Seed harvest description:

Seed harvest description attachment:

Seed

Seed Table

Seed Summary

Total pounds/Acre:

Seed Type	Pounds/Acre

Seed reclamation

Operator Contact/Responsible Official

First Name: **Last Name:**

Phone: **Email:**

Seedbed prep:

Seed BMP:

Operator Name: ADVANCE ENERGY PARTNERS HAT MESA LLC

Well Name: ANDERSON FED COM **Well Number:** 702H

Seed method:

Existing invasive species? N

Existing invasive species treatment description:

Existing invasive species treatment

Weed treatment plan description: To BLM satisfaction

Weed treatment plan

Monitoring plan description: To BLM satisfaction

Monitoring plan

Success standards: To BLM standards

Pit closure description: No pit

Pit closure attachment:

Section 11 - Surface Ownership

Disturbance type: WELL PAD

Describe:

Surface Owner: BUREAU OF LAND MANAGEMENT

Other surface owner description:

BIA Local Office:

BOR Local Office:

COE Local Office:

DOD Local Office:

NPS Local Office:

State Local Office:

Military Local Office:

USFWS Local Office:

Other Local Office:

USFS Region:

USFS Forest/Grassland: **USFS Ranger District:**

Operator Name: ADVANCE ENERGY PARTNERS HAT MESA LLC

Well Name: ANDERSON FED COM **Well Number:** 702H

Disturbance type: EXISTING ACCESS ROAD

Describe:

Surface Owner: BUREAU OF LAND MANAGEMENT

Other surface owner description:

BIA Local Office:

BOR Local Office:

COE Local Office:

DOD Local Office:

NPS Local Office:

State Local Office:

Military Local Office:

USFWS Local Office:

Other Local Office:

USFS Region:

USFS Forest/Grassland: **USFS Ranger District:**

Disturbance type: NEW ACCESS ROAD

Describe:

Surface Owner: BUREAU OF LAND MANAGEMENT

Other surface owner description:

BIA Local Office:

BOR Local Office:

COE Local Office:

DOD Local Office:

NPS Local Office:

State Local Office:

Military Local Office:

USFWS Local Office:

Other Local Office:

USFS Region:

USFS Forest/Grassland: **USFS Ranger District:**

Operator Name: ADVANCE ENERGY PARTNERS HAT MESA LLC

Well Name: ANDERSON FED COM **Well Number:** 702H

Section 12 - Other

Right of Way needed? N **Use APD as ROW?**

ROW Type(s):

ROW

SUPO Additional Information: Advance will contribute to the archaeology fund.

Use a previously conducted onsite? N

Previous Onsite information:

Other SUPO

Anderson_PadC_SUPO_v2_20210317105739.pdf

Advance Energy, LLC

Anderson Fed Com
Drive Map

Sec. 2, Township 22S, Range 32E
Lea County, New Mexico

Proposed Pad

Proposed Road

State Trust Lands

BLM Lands

Private Lands

1:60,000

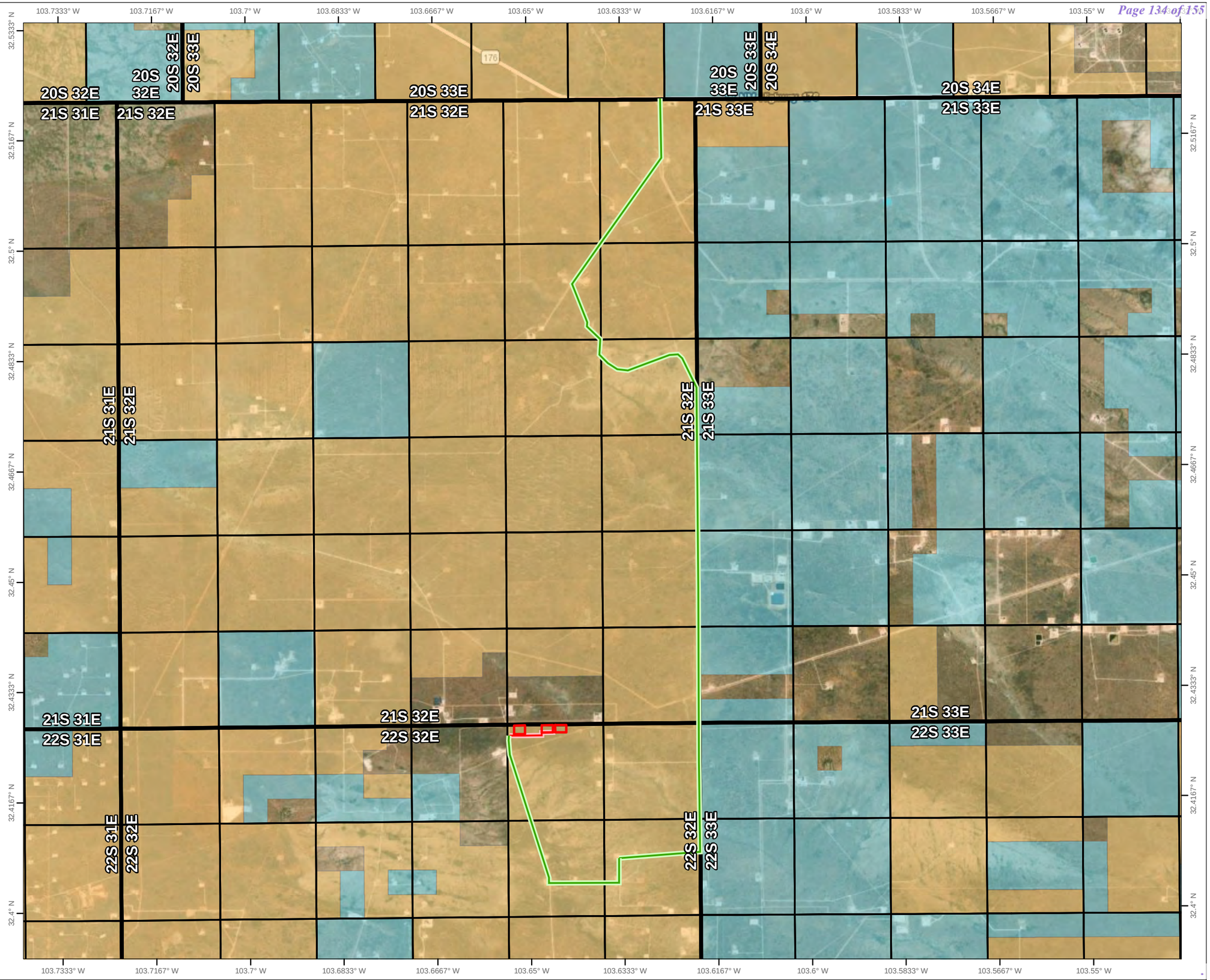
0 2,900 5,800
Feet

N

NAD 1983 New Mexico State Plane East
FIPS 3001 Feet

PERMITS WEST

Prepared by Permits West, Inc., September 25, 2020
for Advance Energy, LLC



Advance Energy, LLC

Anderson Fed Com Pad C
Plan of Development Map

Sec. 2, Township 22S, Range 32E
Lea County, New Mexico

- Proposed Pad
- Proposed Road
- State Trust Lands
- BLM Lands
- Private Lands

1:5,000

0 250 500
Feet

N

NAD 1983 New Mexico State Plane East
FIPS 3001 Feet

PERMITS WEST

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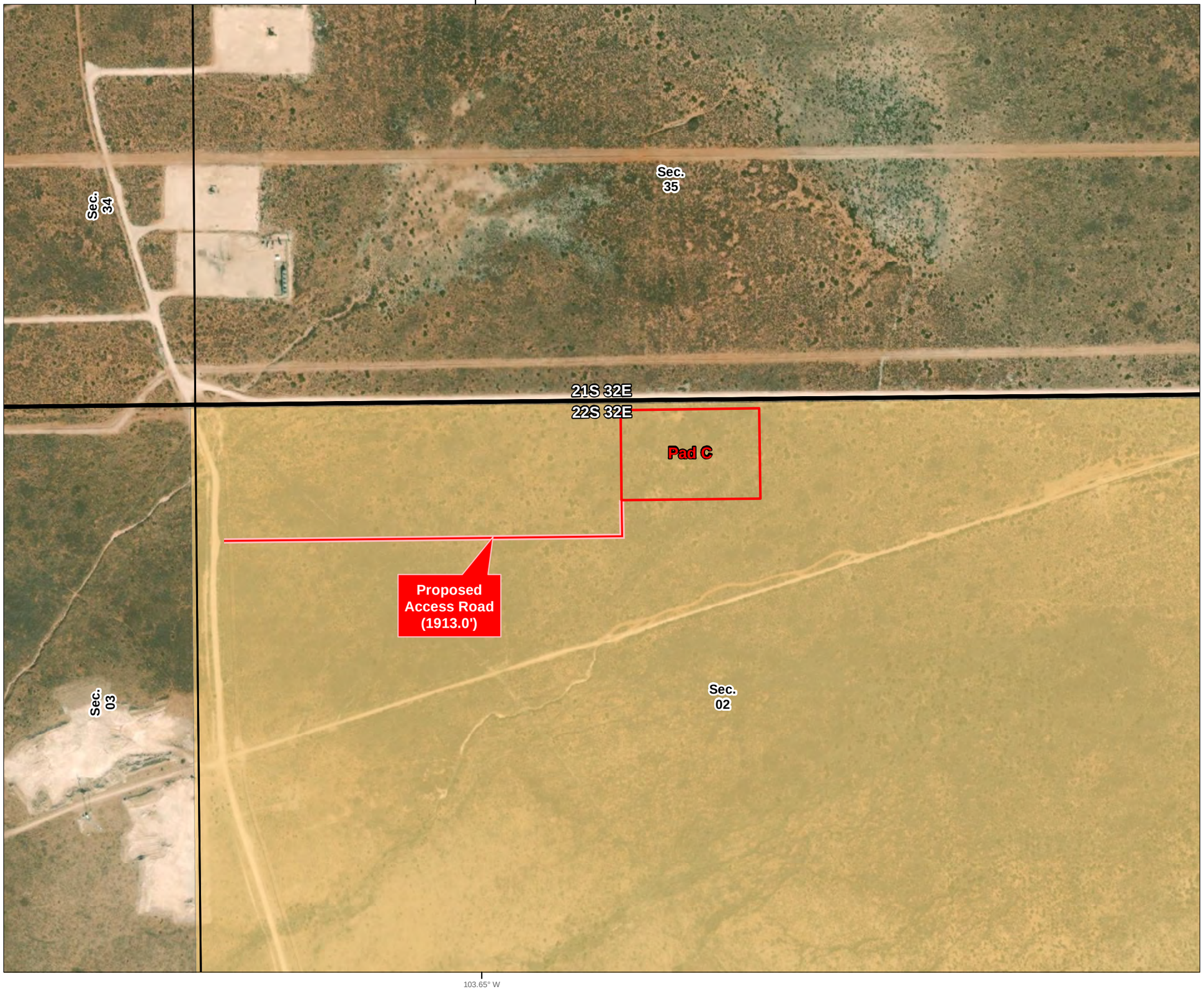
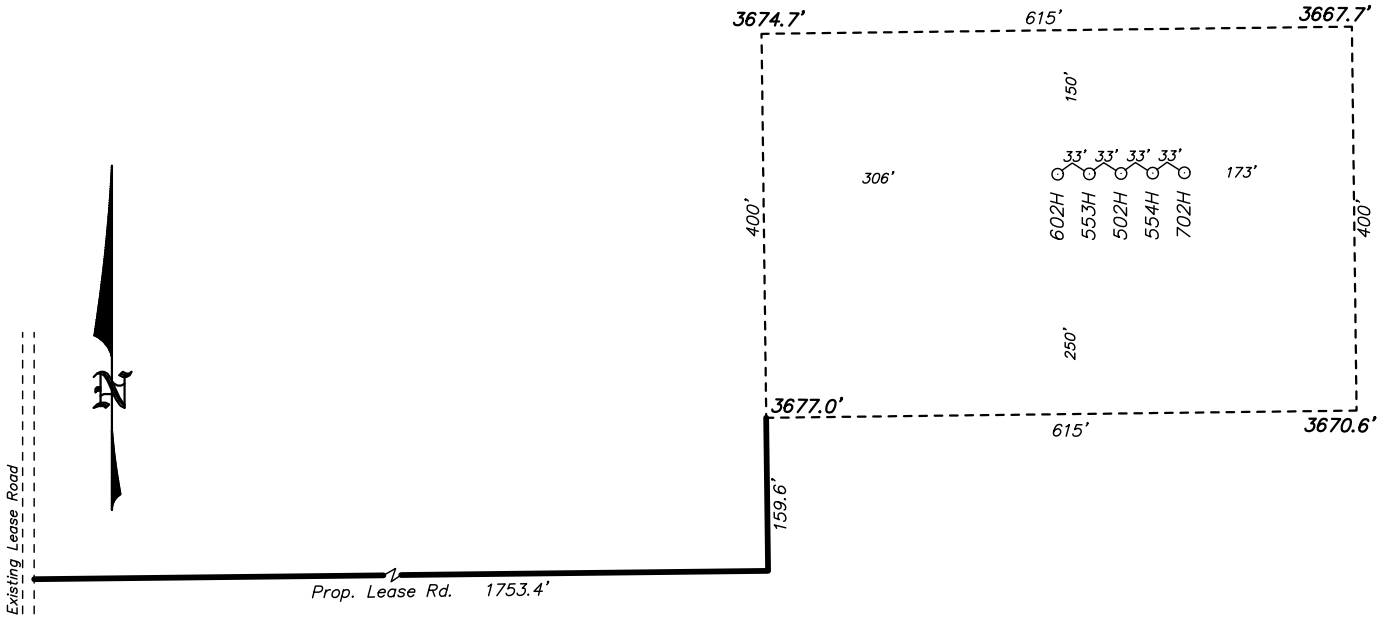


SECTION 2, TOWNSHIP 22 SOUTH, RANGE 32 EAST. N.M.P.M.,
LEA COUNTY, NEW MEXICO.



ADVANCE ENERGY PARTNERS HAT MESA, LLC
ANDERSON FED COM 702H
ELEV. – 3667'

Lat – N 32.427547°
Long – W 103.646543°
NMSPCE– N 519954.0
E 753242.5
(NAD–83)

EUNICE, NM IS ±28 MILES TO THE EAST OF LOCATION.

200 0 200 400 FEET
SCALE: 1" = 200'

GARY L. JONES
NEW MEXICO
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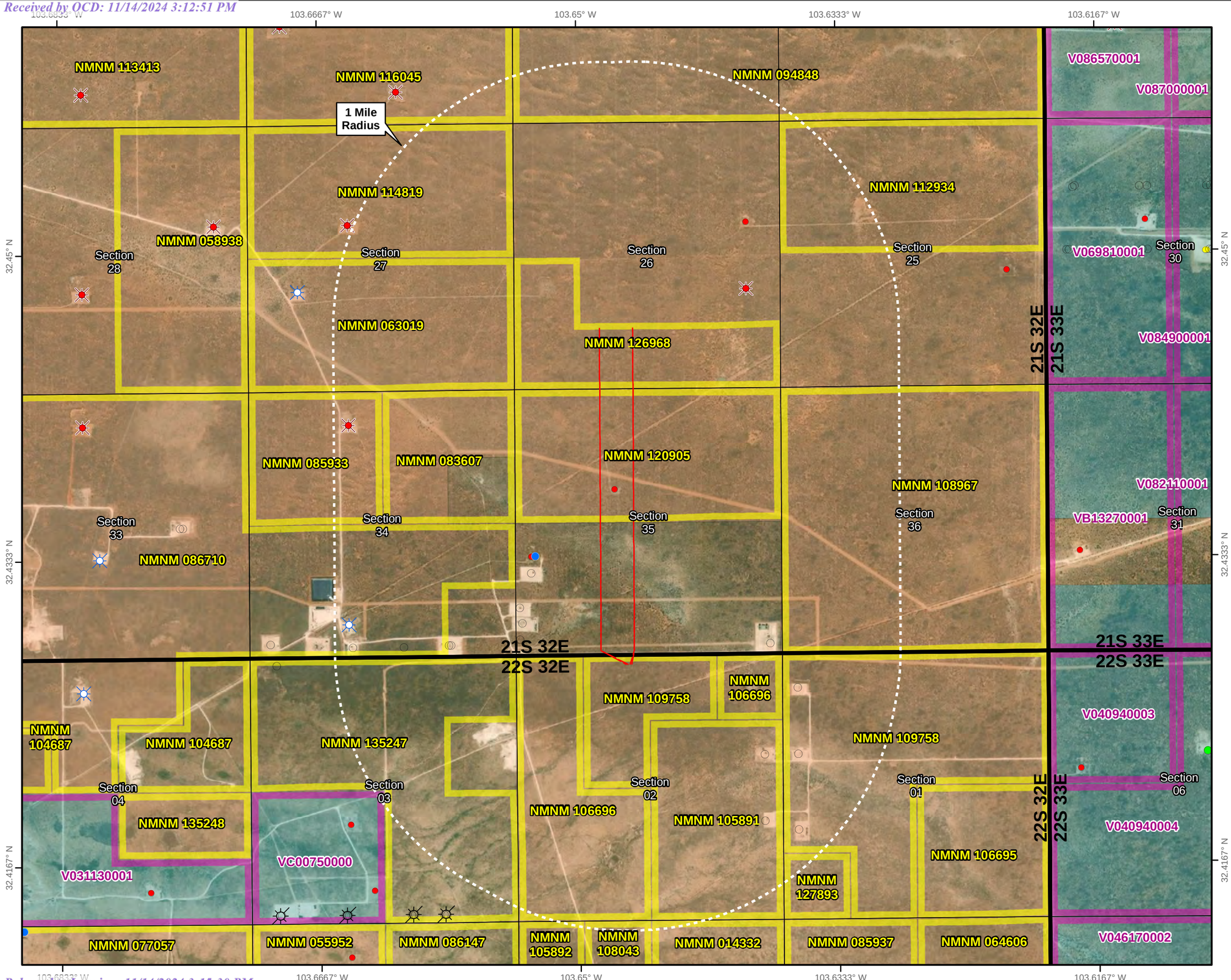
ADVANCE ENERGY PARTNERS HAT MESA, LLC

REF: ANDERSON FED COM 702H / WELL PAD TOPO

THE ANDERSON FED COM 702H LOCATED 180' FROM THE NORTH LINE AND 2287' FROM THE WEST LINE OF SECTION 2, TOWNSHIP 22 SOUTH, RANGE 32 EAST. N.M.P.M., LEA COUNTY, NEW MEXICO.

W.O. Number: 35277	Drawn By: K. GOAD	Date: 01–19–2021	Survey Date: 01–18–2021	Sheet 1 of 1 Sheets



Advance Energy, LLC

Anderson Fed Com Pad C
Well Vicinity & Lease Map

Section 2, Township 22S, Range 32E
Lea County, New Mexico

- Oil - Active
- Oil - New
- Oil - TA
- Oil - P&A
- Gas - Active
- Gas - New
- Gas - P&A
- SWD - Active
- NMOSE wells
- Proposed Well Bore
- BLM
- STATE
- PRIVATE
- State Leases
- Federal Leases

1:22,000

0 0.25 0.5
Miles

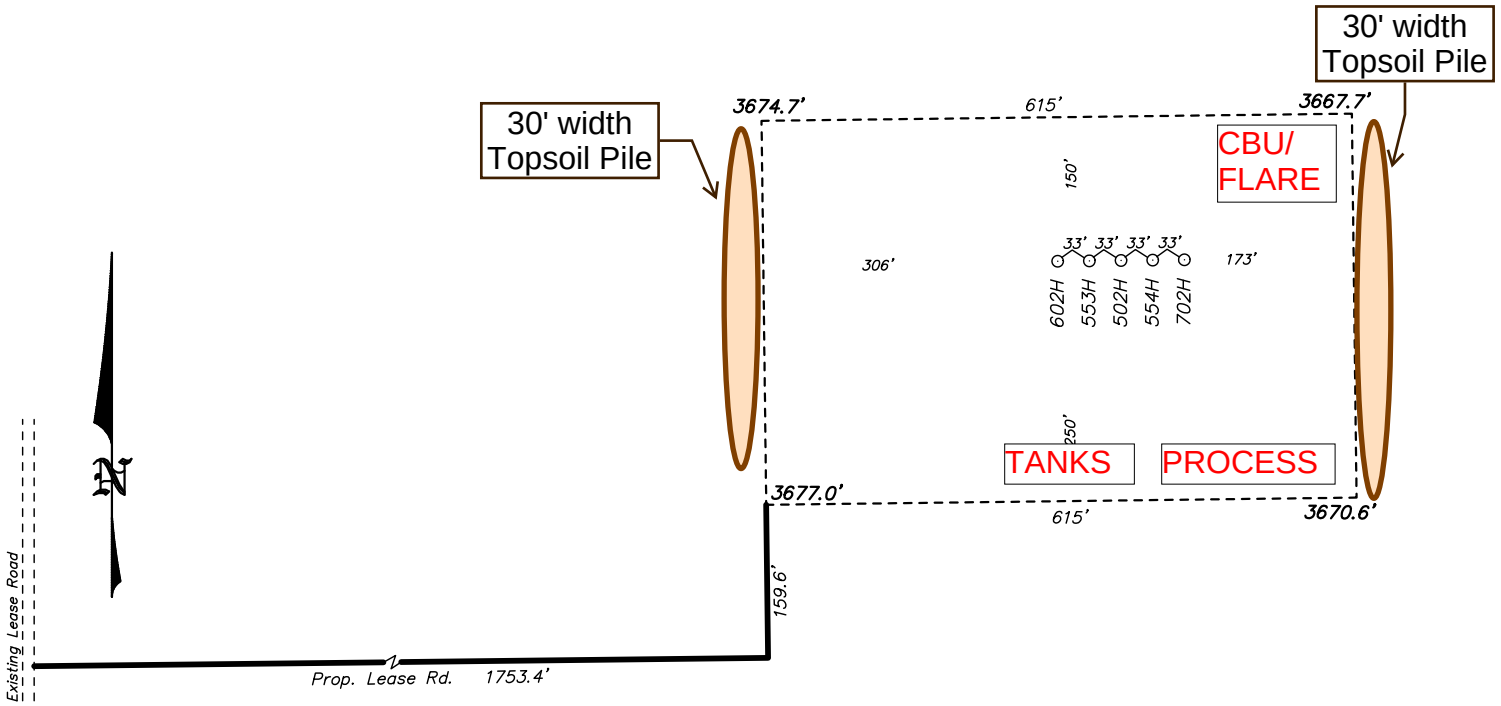
NAD 1983 NM State Plane East Feet

PERMITS WEST

Prepared by Permits West, Inc., Septermber 25, 2020
for Advance Energy, LLC

SECTION 2, TOWNSHIP 22 SOUTH, RANGE 32 EAST. N.M.P.M.,

LEA COUNTY, NEW MEXICO.



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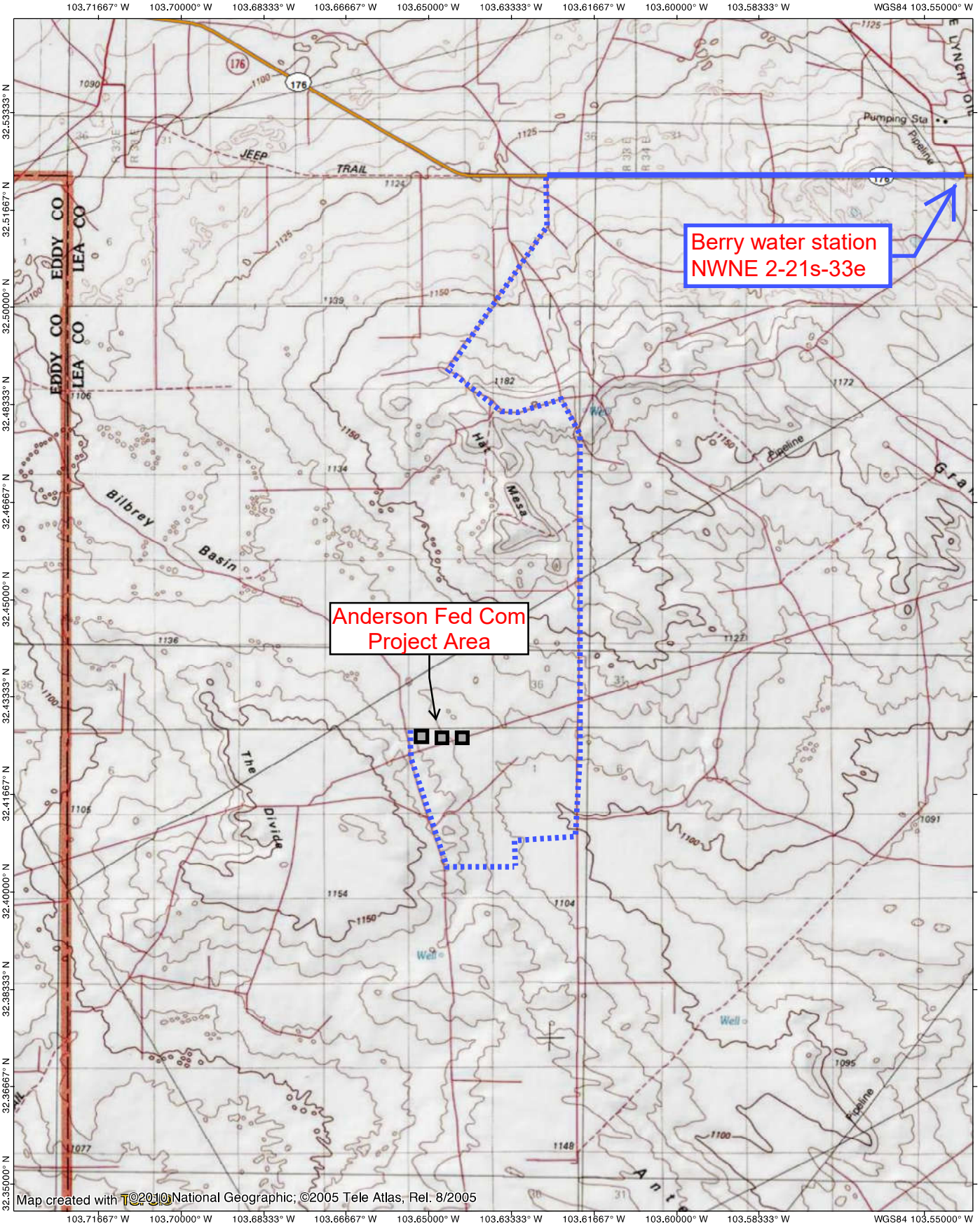
TOPO! map printed on 06/12/18 from "Untitled.tpo"



NATIONAL GEOGRAPHIC

0.0 0.5 1.0 1.5 2.0 2.5 3.0 miles
0 1 2 3 4 5 km

TN ★ MN
7°
06/12/18

Advance Energy, LLC

Anderson Fed Com
Caliche Source Map

Sec. 2, Township 22S, Range 32E
Lea County, New Mexico

Proposed Pad

Proposed Road

State Trust Lands

BLM Lands

Private Lands

1:5,000

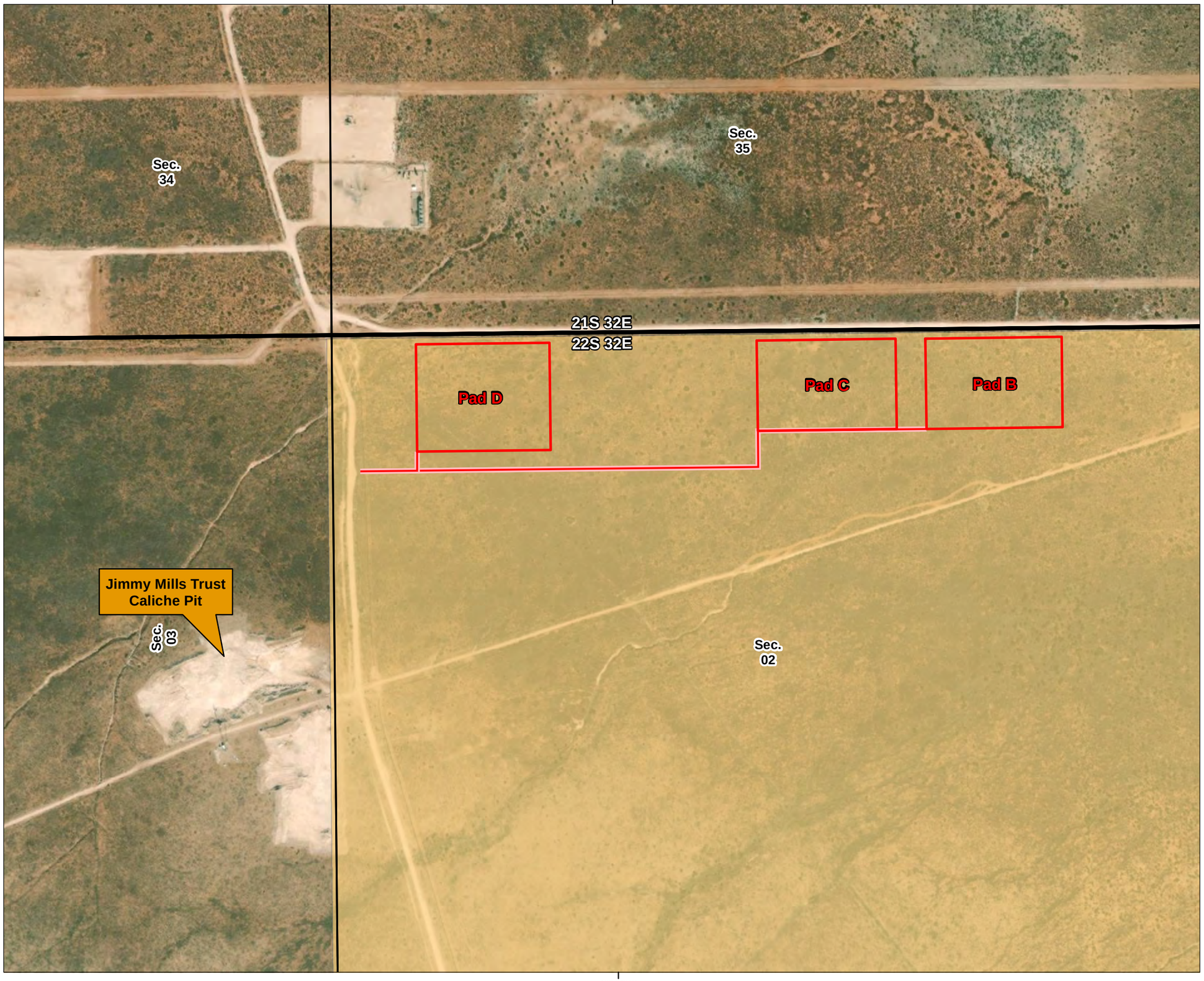
0 250 500
Feet

N

NAD 1983 New Mexico State Plane East
FIPS 3001 Feet

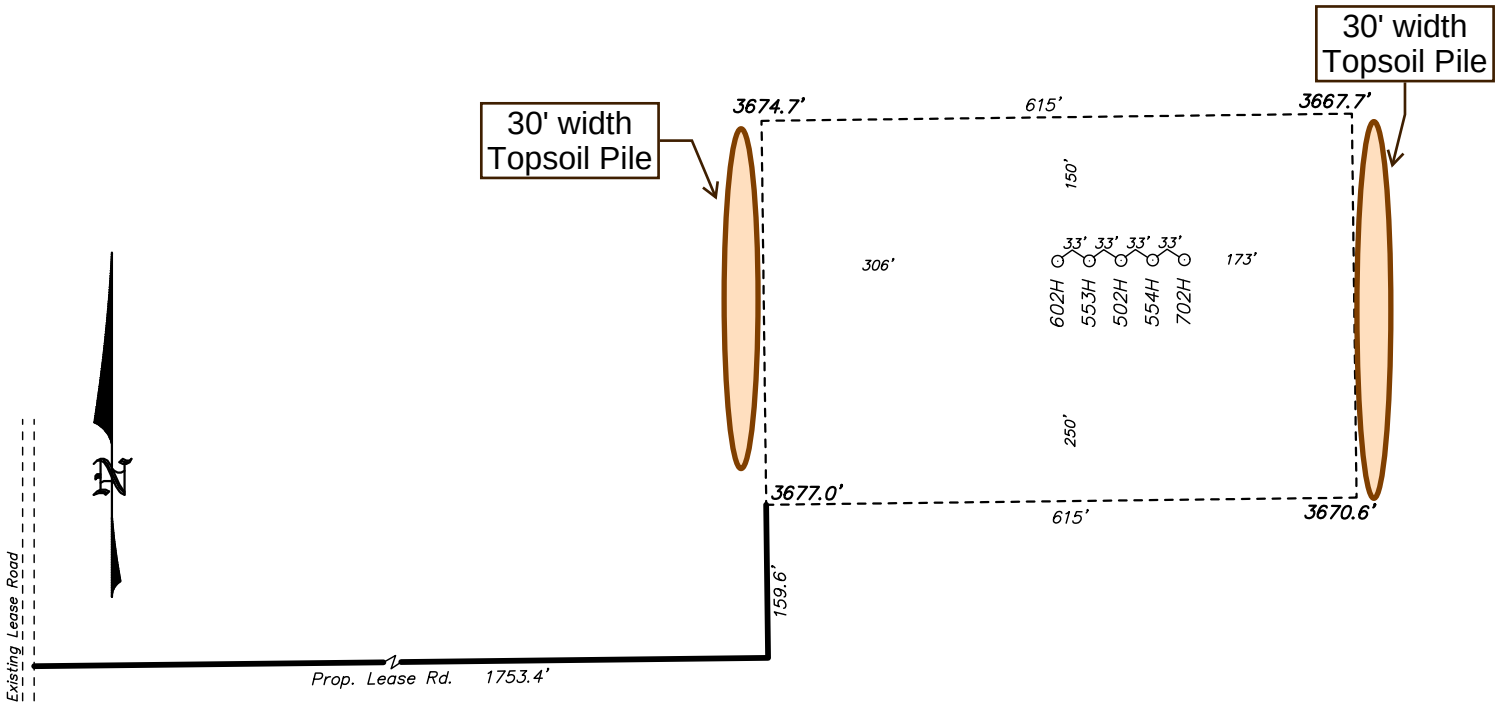
PERMITS WEST

Prepared by Permits West, Inc., September 25, 2020
for Advance Energy, LLC



SECTION 2, TOWNSHIP 22 SOUTH, RANGE 32 EAST. N.M.P.M.,

LEA COUNTY, NEW MEXICO.



ADVANCE ENERGY PARTNERS HAT MESA, LLC
ANDERSON FED COM 702H
ELEV. – 3667'

Lat – N 32.427547°
Long – W 103.646543°
NMSPCE– N 519954.0
E 753242.5
(NAD–83)

EUNICE, NM IS ±28 MILES TO THE EAST OF LOCATION.

200 0 200 400 FEET

SCALE: 1" = 200'

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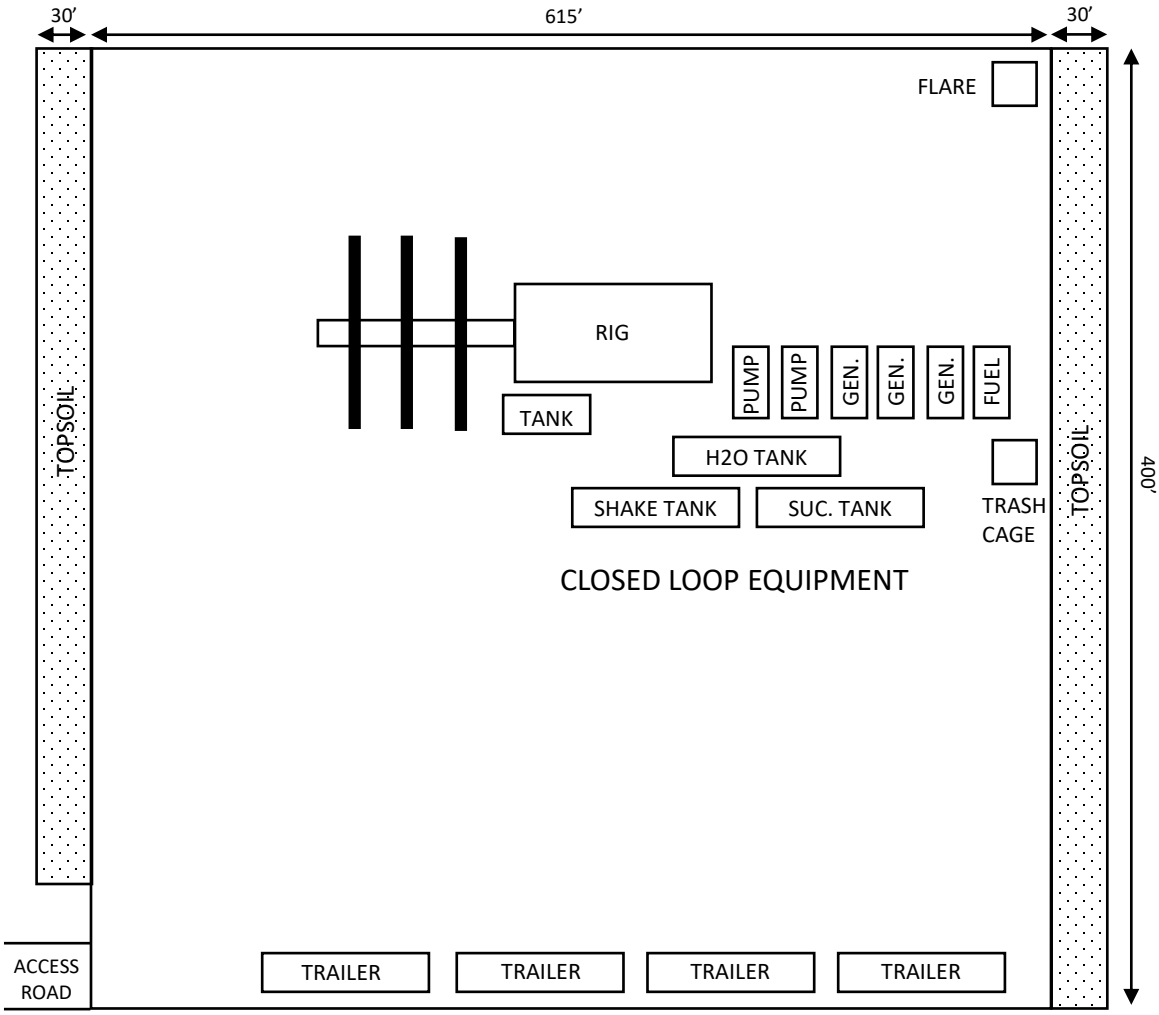
W.O. Number: 35277	Drawn By: K. GOAD	Date: 01–19–2021	Survey Date: 01–18–2021	Sheet 1 of 1 Sheets

Advance Energy's Anderson Fed Com Pad C Rig Diagram

NORTH

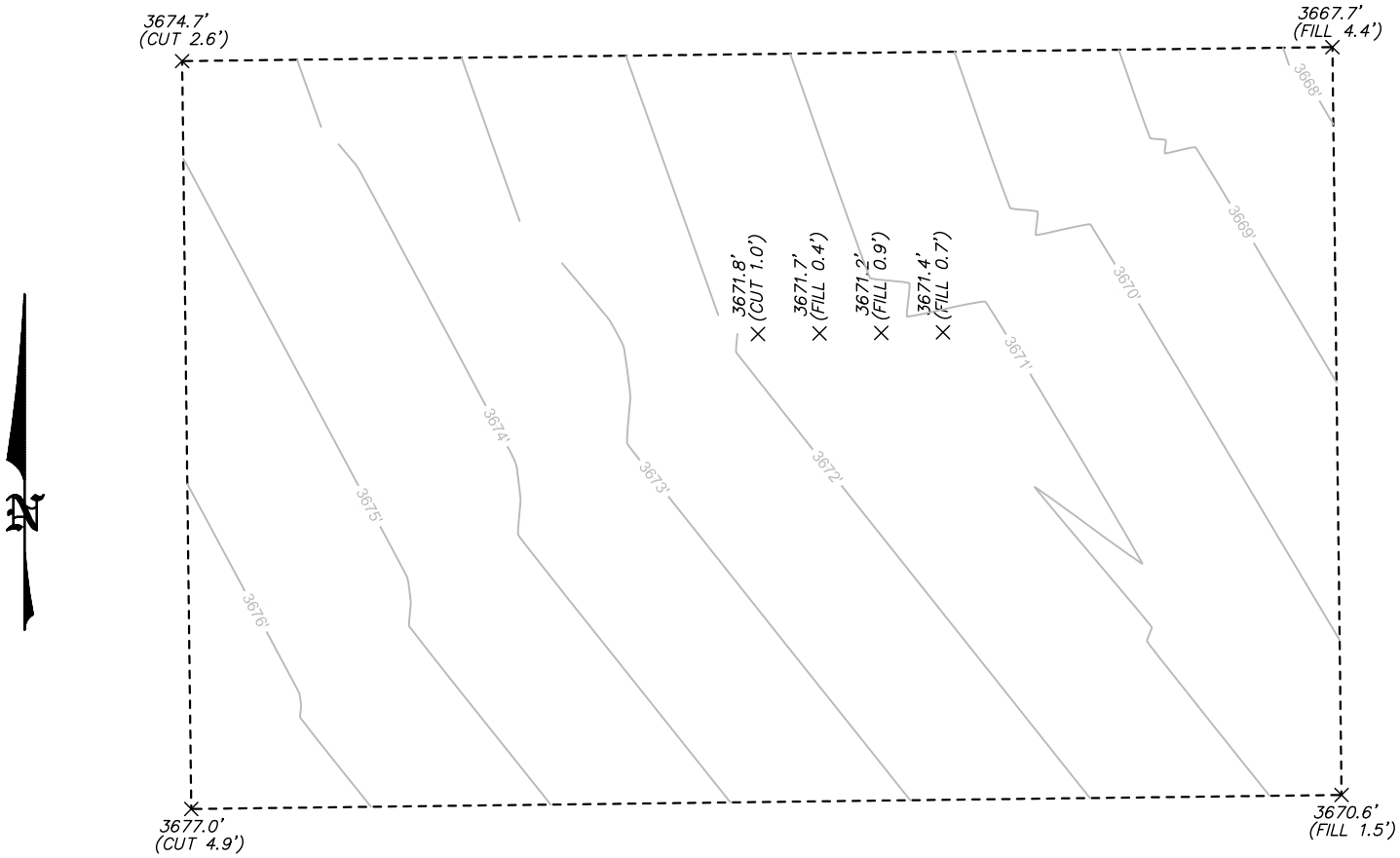


* Not to scale

PERMITS WEST

SECTION 2, TOWNSHIP 22 SOUTH, RANGE 32 EAST. N.M.P.M.,

LEA COUNTY, NEW MEXICO.



100 0 100 200 FEET

SCALE: 1" = 100'

ADVANCE ENERGY PARTNERS HAT MESA, LLC

REF: ANDERSON FED COM PAD C / CUT & FILL

THE ANDERSON FED COM PAD C LOCATED IN

SECTION 2, TOWNSHIP 22 SOUTH, RANGE 32 EAST.

N.M.P.M., LEA COUNTY, NEW MEXICO.

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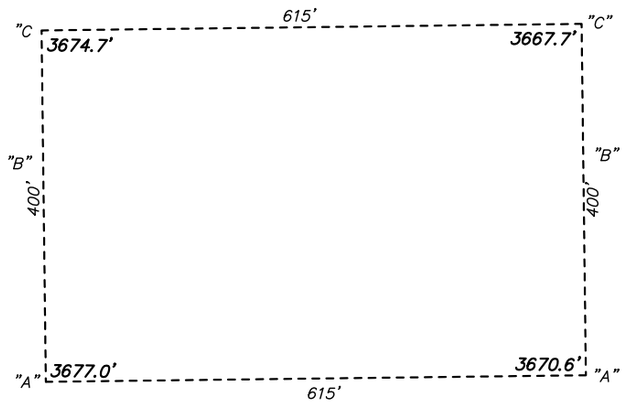
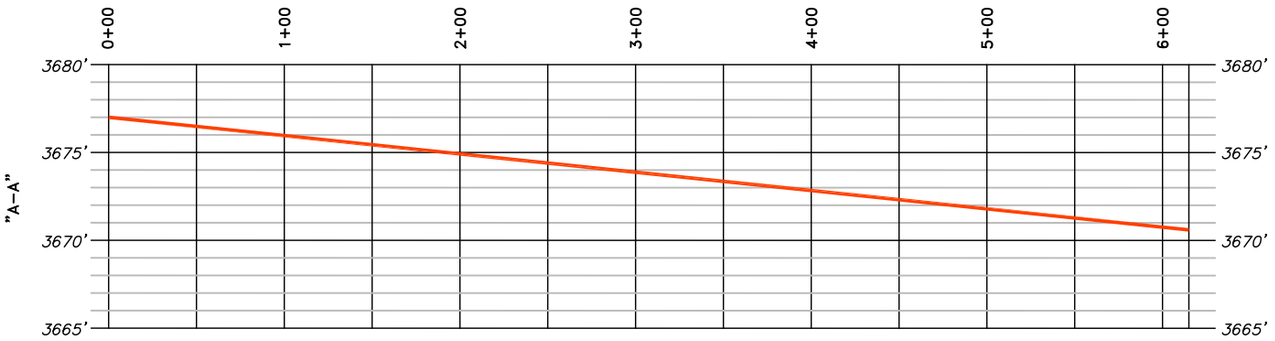
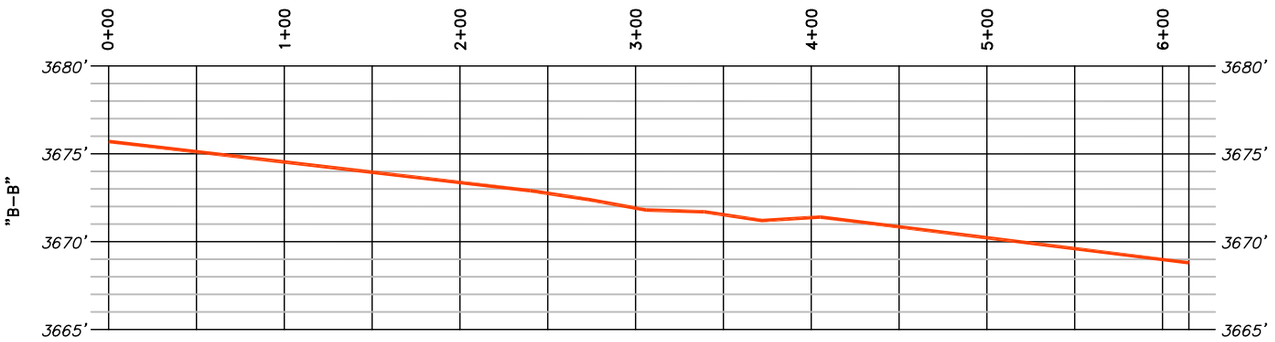
W.O. Number: 35114	Drawn By: K. GOAD	Date: 07-23-2020	Survey Date: 07-22-2020	Sheet 1 of 1 Sheets

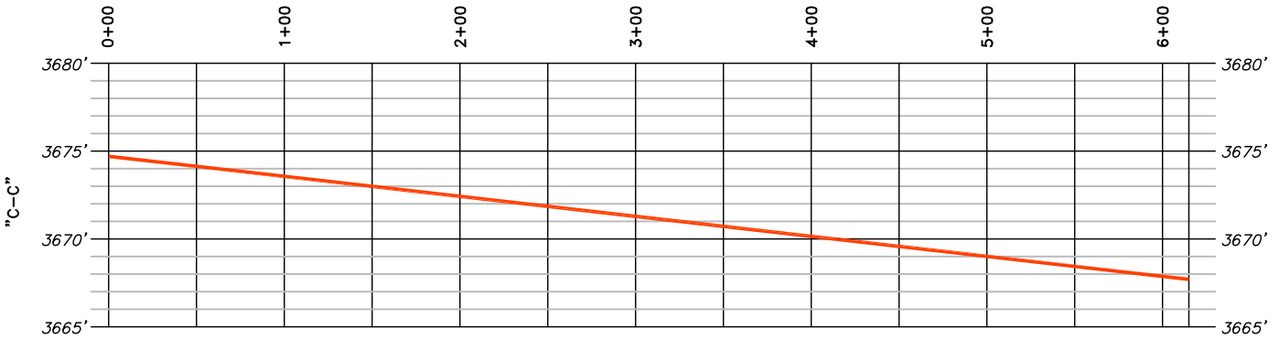
SECTION 2, TOWNSHIP 22 SOUTH, RANGE 32 EAST. N.M.P.M.,
LEA COUNTY, NEW MEXICO.



SCALE: 1" = 200'







CROSS SECTION
HORIZONTAL 1"=100'
VERTICAL 1"=50'

I HEREBY CERTIFY THAT THIS PLAT WAS PREPARED FROM FIELD NOTES OF AN ACTUAL SURVEY AND MEETS OR EXCEEDS ALL REQUIREMENTS FOR LAND SURVEYS AS SPECIFIED BY THIS STATE.

GARY L. JONES N.M. P.S. No. 7977
TEXAS P.S. No. 5074

GARY L. JONES NEW MEXICO 7977 REGISTERED PROFESSIONAL LAND SURVEYOR

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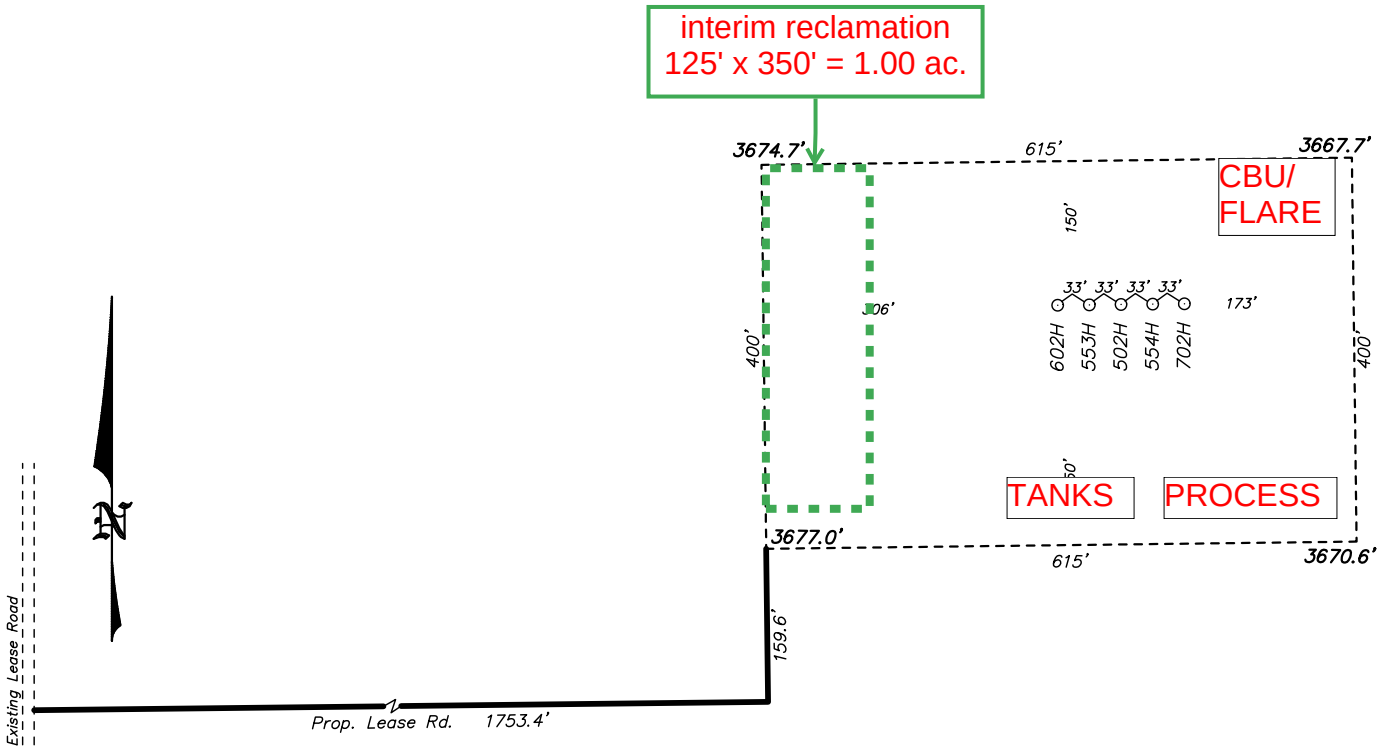
ADVANCE ENERGY PARTNERS HAT MESA, LLC

REF: ANDERSON FED COM PAD C / CROSS-SECTION

THE ANDERSON FED COM PAD C LOCATED IN
SECTION 2, TOWNSHIP 22 SOUTH, RANGE 32 EAST.
N.M.P.M., LEA COUNTY, NEW MEXICO.

W.O. Number: 35112	Drawn By: K. GOAD	Date: 07-23-2020	Survey Date: 07-22-2020	Sheet 1 of 1 Sheets

SECTION 2, TOWNSHIP 22 SOUTH, RANGE 32 EAST. N.M.P.M.,
LEA COUNTY, NEW MEXICO.



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Long – W 103.646543°
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SCALE: 1" = 200'

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ADVANCE ENERGY PARTNERS HAT MESA, LLC

REF: ANDERSON FED COM 702H / WELL PAD TOPO

THE ANDERSON FED COM 702H LOCATED 180' FROM THE NORTH LINE AND 2287' FROM THE WEST LINE OF SECTION 2, TOWNSHIP 22 SOUTH, RANGE 32 EAST. N.M.P.M., LEA COUNTY, NEW MEXICO.

W.O. Number: 35277	Drawn By: K. GOAD	Date: 01–19–2021	Survey Date: 01–18–2021	Sheet 1 of 1 Sheets

Advance Energy Partners Hat Mesa, LLC **SURFACE PLAN PAGE 1**
Anderson Fed Com Pad C
T. 22 S., R. 32 E., Lea County NM

Surface Use Plan – Pad C

Anderson Fed Com 502H
Anderson Fed Com 553H
Anderson Fed Com 554H
Anderson Fed Com 602H
Anderson Fed Com 702H

1. ROAD DIRECTIONS & DESCRIPTIONS

From the junction of US 285 and US 62/180 in Carlsbad…
Go NE 32.8 miles on US 62/180 to the equivalent of Mile Post 67.8
Then turn right and go East 6.4 miles on paved NM 176
Then turn right and go South 0.6 mile on a caliche road to a junction
Then bear right and go SW 1.6 miles on a caliche road
Then turn left and go SE 0.85 mile on a caliche road
Then turn left at a caliche pit and go E 1.3 miles on a caliche road
Then bear right and go S 4.8 miles on a caliche road
Then turn right and go WSW 0.85 miles on a caliche road
Then turn left and go S ¼ mile on a caliche road
Then turn right and go W ¾ mile on a caliche road to a battery
Then turn right and go NNW 1.6 mile on a caliche road
Then turn right and go East 1753.4’ cross-country
Then turn left and go North 159.6’ cross-country to the proposed pad

Non-state roads will be maintained as needed to Gold Book standards. This includes pulling ditches, preserving the crown, and cleaning culverts. This will be done at least once a year, and more often as needed.

2. ROAD TO BE BUILT OR UPGRADED

The **1913.0’** of new resource road will be crowned and ditched, have a 14’ wide driving surface, and be surfaced with caliche. Maximum disturbed width = 30’. Maximum grade = 2%. Maximum cut or fill = 3’. No culvert, cattle guard, or vehicle turn out is needed. Three existing surface pipelines (two 3” poly + one 16” lay flat) will be crossed and padded. Upgrade will consist of filling potholes with caliche.

PERMITS WEST

3. EXISTING WELLS

Existing oil, gas, water, and P & A wells are within a mile. No injection well is within a mile radius.

4. PROPOSED PRODUCTION FACILITIES

Process equipment and tanks will be set on the south side of the pad. Flare and/or CBU will be set on the northeast corner of the pad. No power line or off pad pipeline is planned at this time.

5. WATER SUPPLY

Water will be trucked from an existing water station on private land. Berry's water station (CP 00802) is in NWNE 2-21s-33e.

6. CONSTRUCTION MATERIALS & METHODS

NM One Call (811) will be notified before construction starts. Top ≈6" of soil and brush will be stockpiled east and west of the well pad. V-door will face west. Closed loop drilling system will be used. Caliche will be hauled from an existing caliche pit on private (Mills) land in Lot 1 and SENE 3-22s-32e.

7. WASTE DISPOSAL

All trash will be placed in a portable trash cage. It will be hauled to the Lea County landfill. There will be no trash burning. Contents (drill cuttings, mud, salts, and other chemicals) of the mud tanks will be hauled to R360's state approved (NM-01-0006) disposal site at Halfway. Human waste will be disposed of in chemical toilets and hauled to the Hobbs wastewater treatment plant.

8. ANCILLARY FACILITIES

There will be no airstrip or camp. Camper trailers will be on location for the company man, tool pusher, and mud logger.

PERMITS WEST

9. WELL SITE LAYOUT

Also see Rig Layout diagram for depictions of the well pad, trash cage, access onto the location, parking, living facilities, and rig orientation.

10. RECLAMATION

Interim reclamation will consist of reclaiming a 125' x 350' area on the west side of the pad. Once the last well is plugged, then the pad and new road will be reclaimed within 6 months of plugging. Disturbed areas will be contoured to match pre-construction grades. Soil and brush will be evenly spread over disturbed areas and harrowed on the contour. Disturbed areas will be seeded in accordance with BLM requirements. Road will be blocked. Noxious weeds will be controlled.

Land use:

30' x 1913' road = 1.32 acres
+ 400' x 605' pad = 5.65 acres
6.97 acres short term
- 125' x 350' = 1.00 acres interim pad reclamation
5.97 acres long term

11. SURFACE OWNER

All construction will be on BLM. BLM office is the Carlsbad Field Office, 620 E. Greene, Carlsbad NM 88220. Phone is 575 234-5972.

12. OTHER INFORMATION

Advance will contribute to the archaeology fund.

PERMITS WEST

Advance Energy Partners Hat Mesa, LLC **SURFACE PLAN PAGE 4**
Anderson Fed Com Pad C
T. 22 S., R. 32 E., Lea County NM

CERTIFICATION

I hereby certify that I, or someone under my direct supervision, have inspected the drill site and access route proposed herein; that I am familiar with the conditions which currently exist; that I have full knowledge of state and Federal laws applicable to this operation; that the statements made in this APD package are, to the best of my knowledge, true and correct; and that the work associated with the operations proposed herein will be performed in conformity with this APD package and the terms and conditions under which it is approved. I also certify that I, or the company I represent, am responsible for the operations conducted under this application. These statements are subject to the provisions of 18 U. S. C. 1001 for the filing of false statements. Executed this 29th day of September, 2020.

_____

Cory Walk, Consultant
Permits West, Inc.
37 Verano Loop, Santa Fe, NM 87508
(505) 466-8120 FAX: (505) 466-9682

Field representative will be:

Braden Harris, Drilling Manager
Advance Energy Partners Hat Mesa, LLC
11490 Westheimer Rd., Suite 950, Houston TX 77077
Office: (832) 672-4700 Cell: (406) 600-3310

PERMITS WEST

AFMSS

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

PWD Data Report

11/13/2024

APD ID: 10400070997 **Submission Date:** 03/22/2021

Operator Name: ADVANCE ENERGY PARTNERS HAT MESA LLC

Well Name: ANDERSON FED COM **Well Number:** 702H

Well Type: OIL WELL **Well Work Type:** Drill

Section 1 - General

Would you like to address long-term produced water disposal? NO

Section 2 - Lined

Would you like to utilize Lined Pit PWD options? N

Produced Water Disposal (PWD) Location:

PWD surface owner: **PWD disturbance (acres):**

Lined pit PWD on or off channel:

Lined pit PWD discharge volume (bbl/day):

Lined pit

Pit liner description:

Pit liner manufacturers

Precipitated solids disposal:

Decribe precipitated solids disposal:

Precipitated solids disposal

Lined pit precipitated solids disposal schedule:

Lined pit precipitated solids disposal schedule

Lined pit reclamation description:

Lined pit reclamation

Leak detection system description:

Leak detection system

Operator Name: ADVANCE ENERGY PARTNERS HAT MESA LLC

Well Name: ANDERSON FED COM **Well Number:** 702H

Lined pit Monitor description:

Lined pit Monitor

Lined pit: do you have a reclamation bond for the pit?

Is the reclamation bond a rider under the BLM bond?

Lined pit bond number:

Lined pit bond amount:

Additional bond information

Section 3 - Unlined

Would you like to utilize Unlined Pit PWD options? N

Produced Water Disposal (PWD) Location:

PWD disturbance (acres): **PWD surface owner:**

Unlined pit PWD on or off channel:

Unlined pit PWD discharge volume (bbl/day):

Unlined pit

Precipitated solids disposal:

Decribe precipitated solids disposal:

Precipitated solids disposal

Unlined pit precipitated solids disposal schedule:

Unlined pit precipitated solids disposal schedule

Unlined pit reclamation description:

Unlined pit reclamation

Unlined pit Monitor description:

Unlined pit Monitor

Do you propose to put the produced water to beneficial use?

Beneficial use user

Estimated depth of the shallowest aquifer (feet):

Does the produced water have an annual average Total Dissolved Solids (TDS) concentration equal to or less than that of the existing water to be protected?

TDS lab results:

Geologic and hydrologic

State

Unlined Produced Water Pit Estimated

Unlined pit: do you have a reclamation bond for the pit?

Operator Name: ADVANCE ENERGY PARTNERS HAT MESA LLC

Well Name: ANDERSON FED COM **Well Number:** 702H

Is the reclamation bond a rider under the BLM bond?

Unlined pit bond number:

Unlined pit bond amount:

Additional bond information

Section 4 -

Would you like to utilize Injection PWD options? N

Produced Water Disposal (PWD) Location:

PWD surface owner: **PWD disturbance (acres):**

Injection PWD discharge volume (bbl/day):

Injection well mineral owner:

Injection well type:

Injection well number: **Injection well name:**

Assigned injection well API number? **Injection well API number:**

Injection well new surface disturbance (acres):

Minerals protection information:

Mineral protection

Underground Injection Control (UIC) Permit?

UIC Permit

Section 5 - Surface

Would you like to utilize Surface Discharge PWD options? N

Produced Water Disposal (PWD) Location:

PWD surface owner: **PWD disturbance (acres):**

Surface discharge PWD discharge volume (bbl/day):

Surface Discharge NPDES Permit?

Surface Discharge NPDES Permit attachment:

Surface Discharge site facilities information:

Surface discharge site facilities map:

Section 6 -

Would you like to utilize Other PWD options? N

Produced Water Disposal (PWD) Location:

PWD surface owner: **PWD disturbance (acres):**

Other PWD discharge volume (bbl/day):

Operator Name: ADVANCE ENERGY PARTNERS HAT MESA LLC

Well Name: ANDERSON FED COM **Well Number:** 702H

Other PWD type description:

Other PWD type

Have other regulatory requirements been met?

Other regulatory requirements

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

Bond Info Data
11/13/2024

APD ID: 10400070997 **Submission Date:** 03/22/2021

Operator Name: ADVANCE ENERGY PARTNERS HAT MESA LLC

Well Name: ANDERSON FED COM **Well Number:** 702H

Well Type: OIL WELL **Well Work Type:** Drill

Highlighted data reflects the most recent changes
Show Final Text

Bond

Federal/Indian APD: FED

BLM Bond number:

BIA Bond number:

Do you have a reclamation bond? NO

Is the reclamation bond a rider under the BLM bond?

Is the reclamation bond BLM or Forest Service?

BLM reclamation bond number:

Forest Service reclamation bond number:

Forest Service reclamation bond

Reclamation bond number:

Reclamation bond amount:

Reclamation bond rider amount:

Additional reclamation bond information

Sante Fe Main Office
Phone: (505) 476-3441

General Information
Phone: (505) 629-6116

Online Phone Directory
https://www.emnrd.nm.gov/ocd/contact-us

State of New Mexico
Energy, Minerals and Natural Resources
Oil Conservation Division
1220 S. St Francis Dr.
Santa Fe, NM 87505

CONDITIONS

Operator: MATADOR PRODUCTION COMPANY One Lincoln Centre Dallas, TX 75240	OGRID: 228937
	Action Number: 403493
	Action Type: [C-103] NOI Change of Plans (C-103A)

CONDITIONS

Created By	Condition	Condition Date
matthew.gomez	None	11/14/2024