NM OIL CONSERVATION
ARTESIA DISTRICT

FEB 26 2018

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Form 3160-3
(March 2012)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

FORM APPROVED
OMB No. 1004-0137
Expires October 31, 2014

APPLICATION FOR PERMIT TO DRILL OR REENTER

1a. Type of work: ☑ DRILL ☐ REENTER	5. Lease Serial No. NMNM89057
	6. If Indian, Allotee or Tribe Name
	7. If Unit or CA Agreement, Name and No.
1b. Type of Well: ☑ Oil Well ☐ Gas Well ☐ Other ☑ Single Zone ☐ Multiple Zone	8. Lease Name and Well No. SNAPPING 12-1 FED 523H 320804
2. Name of Operator DEVON ENERGY PRODUCTION COMPANY LP 6137	9. API Well No. 30-015-44758
3a. Address 333 West Sheridan Avenue Oklahoma City OK 3b. Phone No. (include area code) (405)552-6571	10. Field and Pool, or Exploratory JENNINGS, WEST / BONE SPRING
4. Location of Well (Report location clearly and in accordance with any State requirements.*) At surface SENW / 2325 FNL / 1880 FWL / LAT 32.0584866 / LONG -103.7342229 At proposed prod. zone NENW / 330 FNL / 2310 FWL / LAT 32.0786162 / LONG -103.7327979	11. Sec., T. R. M. or Blk. and Survey or Area SEC 12 / T26S / R31E / NMP
14. Distance in miles and direction from nearest town or post office*	12. County or Parish EDDY / 13. State NM
15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any) 330 feet	16. No. of acres in lease 2160 / 17. Spacing Unit dedicated to this well 240
18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft. 2500 feet	19. Proposed Depth 8773 feet / 16198 feet / 20. BLM/BIA Bond No. on file FED: CO1104
21. Elevations (Show whether DF, KDB, RT, GL, etc.) 3237 feet	22. Approximate date work will start* 04/21/2018 / 23. Estimated duration 30 days

24. Attachments

The following, completed in accordance with the requirements of Onshore Oil and Gas Order No.1, must be attached to this form:

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 required by the BLM.

25. Signature (Electronic Submission)	Name (Printed/Typed) Erin Workman / Ph: (405)552-7970	Date 10/02/2017
Title Regulatory Compliance Professional		
Approved by (Signature) (Electronic Submission)	Name (Printed/Typed) Cody Layton / Ph: (575)234-5959	Date 02/08/2018
Title Supervisor Multiple Resources	Office CARLSBAD	

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.

(Continued on page 2)

*(Instructions on page 2)

APPROVED WITH CONDITIONS

Approval Date: 02/08/2018

RWP 2-28-18

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 1: 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 well, 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 directionally 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.

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 well 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 will 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 collects this information to allow 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 Collection Clearance Officer (WO-630), 1849 C Street, N.W., Mail Stop 401 LS, Washington, D.C. 20240.

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Additional Operator Remarks

Location of Well

1. SHL: SENW / 2325 FNL / 1880 FWL / TWSP: 26S / RANGE: 31E / SECTION: 12 / LAT: 32.0584866 / LONG: -103.7342229 (TVD: 0 feet, MD: 0 feet)
   PPP: SENW / 2128 FNL / 2310 FWL / TWSP: 26S / RANGE: 31E / SECTION: 12 / LAT: 32.0584866 / LONG: -103.7342229 (TVD: 8773 feet, MD: 9070 feet)
   BHL: NENW / 330 FNL / 2310 FWL / TWSP: 26S / RANGE: 31E / SECTION: 1 / LAT: 32.0786162 / LONG: -103.7327979 (TVD: 8773 feet, MD: 16198 feet)

BLM Point of Contact

Name: Sipra Dahal
Title: Legal Instruments Examiner
Phone: 5752345983
Email: sdahal@blm.gov

Approval Date: 02/08/2018

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.

DRILLING
CONDITIONS OF APPROVAL

OPERATOR'S NAME:	**Devon Energy Production, L.P.**
LEASE NO.:	**NMNM-89057**
WELL NAME & NO.:	**Snapping 12-1 Fed 523H**
SURFACE HOLE FOOTAGE:	**2325' FNL & 1880' FWL**
BOTTOM HOLE FOOTAGE	**0330' FNL & 2310' FWL Sec. 01, T. 26 S., R 31 E.**
LOCATION:	**Section 12, T. 26 S., R 31 E., NMPM**
COUNTY:	**County, New Mexico**

I. DRILLING

A. DRILLING OPERATIONS 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

1. A Hydrogen Sulfide (H2S) Drilling Plan shall be activated 500 feet prior to drilling into the **Delaware** formation. **As a result, the Hydrogen Sulfide area must meet Onshore Order 6 requirements, which includes equipment and personnel/public protection items. If Hydrogen Sulfide is encountered, please provide measured values and formations to the BLM.**

2. 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. **If the drilling rig is removed without approval – an Incident of Non-Compliance will be written and will be a "Major" violation.**

3. Option – Setting surface casing with Spudder Rig

   a. Notify the BLM when removing the Spudder Rig.

   b. Notify the BLM when moving in the H&P Flex Rig. Rig to be moved in within 60 days of notification that Ashton Oilfield Services Rig has left the location. Failure to notify or have rig on location within 60 days will result in an Incident of Non-Compliance.

c. Once the H&P Flex Rig is on location, it shall not be removed from over the hole without prior approval unless the production casing has been run and cemented or the well has been properly plugged. **If the drilling rig is removed without approval – an Incident of Non-Compliance will be written and will be a "Major" violation.**

d. BOP/BOPE test to be conducted per Onshore Oil and Gas Order No. 2 as soon as H&P Flex Rig is rigged up on well. CIT for the surface casing shall be performed and results recorded on subsequent sundry – pressure to be 1200 psi.

4. 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 is located, this does not include the dog house or stairway area.

5. **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.**

B. CASING

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.

Centralizers required on surface casing per Onshore Order 2.III.B.1.f.

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.

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.

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

High Cave/Karst
Possibility of water flows in the Salado and Castile.
Possibility of lost circulation in the Rustler, Red Beds, and Delaware.
Abnormal pressures may be encountered upon penetrating the 3rd Bone Spring Sandstone and all subsequent formations.

A MINIMUM OF TWO CASING STRINGS CEMENTED TO SURFACE IS REQUIRED IN HIGH CAVE/KARST AREAS. THE CEMENT MUST BE IN A SOLID SHEATH. THEREFORE, ONE INCH OPERATIONS ARE NOT SUFFICIENT TO PROTECT CAVE KARST RESOURCES. A CASING DESIGN THAT HAS A ONE INCH JOB PERFORMED DOES NOT COUNT AS A SOLID SHEATH. IF THE PRIMARY CEMENT JOB ON THE SURFACE CASING DOES NOT CIRCULATE, THEN THE NEXT TWO CASING STRINGS MUST BE CEMENTED TO SURFACE.

1. The **13-3/8** inch surface casing shall be set at approximately **1070** feet (a minimum of 25 feet into the Rustler Anhydrite and above the salt) and cemented to the surface. **If salt is encountered, set casing at least 25 feet above the salt.**

    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 is to include the lead cement slurry.**

    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 **9-5/8** inch intermediate casing is:

☐ 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. Excess calculates to 22% - Additional cement may be required.**

Centralizers required on horizontal leg, must be type for horizontal service and a minimum of one every other joint.

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

☐ Cement should tie-back at least 200 feet into previous casing string. Operator shall provide method of verification. .

4. 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.

C. 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 53.

2. Variance approved to use flex line from BOP to choke manifold. 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.** If the BLM inspector questions the straightness of the hose, a BLM engineer will be contacted and will review in the field or via picture supplied by inspector to determine if changes are required (operator shall expect delays if this occurs).

3. **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 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. **Operator shall perform the intermediate casing integrity test to 70% of the casing burst. This will test the multi-bowl seals.**
    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.**

4. The appropriate BLM office shall be notified a minimum of 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).

    a. The tests shall be done by an independent service company utilizing a test plug **not a cup or J-packer**.

    b. 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.

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

    d. 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.**

e. 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.

D. DRILL STEM TEST

If drill stem tests are performed, Onshore Order 2.III.D shall be followed.

E. 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.

JAM 020218

PECOS DISTRICT
SURFACE USE
CONDITIONS OF APPROVAL

OPERATOR'S NAME:	Devon Energy Production
LEASE NO.:	NMNM 089057
WELL NAME & NO.:	523H-Snapping 12-1 FED
SURFACE HOLE FOOTAGE:	2325'/N & 1880'/W
BOTTOM HOLE FOOTAGE	330'/N & 2310'/W
LOCATION:	Section12, R.31E, T 26S, NMPM
COUNTY:	Eddy County, New Mexico.

TABLE OF CONTENTS

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.

Approval Date: 02/08/2018

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)

These Pads are build as you go no grading whole area.

Surface disturbance will not be allowed within up to 200 meters of active heronries or by delaying activity for up to 120 days, or a combination of both.

Exhaust noise from pump jack engines must be muffled or otherwise controlled so as not to exceed 75 db. measured at 30 ft. from the source of the noise.

Power lines shall be constructed and designed in accordance to standards outlined in "Suggested Practices for Avian Protection on Power lines: The State of the Art in 2006" Edison Electric Institute, APLIC, and the California Energy Commission 2006. The holder shall assume the burden and expense of proving that pole designs not shown in the above publication deter raptor perching, roosting, and nesting. Such proof shall be provided by a raptor expert approved by the Authorized Officer. The BLM reserves the right to require modification or additions to all power line structures placed on this right-of-way, should they be necessary to ensure the safety of large perching birds. The holder without liability or expense shall make such modifications and/or additions to the United States.

Trenches-Escape Ramps

Devon would need to construct and maintain escape ramps according to the following criteria:

- Earthen escape ramps would be required to be constructed to sufficiently support livestock at no more than a 30-degree slope and spaced no more than 500 feet apart.
- If trench is left open under an 8-hour time period, it would not be required to have an escape ramp; however, before the trench is backfilled, Devon would inspect the trench for wildlife and remove any species that are trapped at a distance of at least 100 yards away from the trench.

Cave and Karst Conditions of Approval for APDs

** Depending on location, additional Drilling, Casing, and Cementing procedures may be required by engineering to protect critical karst groundwater recharge areas.

Cave/Karst Surface Mitigation

The following stipulations will be applied to minimize impacts during construction, drilling and production.

Construction:

In the advent that any underground voids are opened up during construction activities, construction activities will be halted and the BLM will be notified immediately.

No Blasting:

No blasting will be utilized for pad construction. The pad will be constructed and leveled by adding the necessary fill and caliche.

Pad Berming:

The entire perimeter of the well pad 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 high with impermeable mineral material (e.g., caliche).
- No water flow from the uphill side(s) of the pad shall be allowed to enter the well pad.
- The topsoil stockpile shall be located outside the bermed well pad.
- Topsoil, either from the well pad or surrounding area, shall not be used to construct the berm.
- No storm drains, tubing or openings shall be placed in the berm.
- 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.
- 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 access road entering the well pad shall be constructed so that the integrity of the berm height surrounding the well pad is not compromised. (Any access road crossing the berm cannot be lower than the berm height.)
- Following a rain event, all fluids will vacuumed off of the pad and hauled off-site and disposed at a proper disposal facility.

Tank Battery Liners and Berms:
Tank battery locations and all facilities will be lined and bermed. A 20 mil permanent liner will be installed with a 4 oz. felt backing, or equivalent, to prevent tears or punctures. Tank battery berms must be large enough to contain 1 ½ times the content of the largest tank.

Leak Detection System:
A method of detecting leaks is required. The method could incorporate gauges to measure loss, situating values and lines so they can be visually inspected, or installing electronic sensors to alarm when a leak is present. Leak detection plan will be submitted to BLM for approval.

Automatic Shut-off Systems:
Automatic shut off, check values, or similar systems will be installed for pipelines and tanks to minimize the effects of catastrophic line failures used in production or drilling.

Cave/Karst Subsurface Mitigation

The following stipulations will be applied to protect cave/karst and ground water concerns:

Rotary Drilling with Fresh Water:
Fresh water will be used as a circulating medium in zones where caves or karst features are expected. SEE ALSO: Drilling COAs for this well.

Directional Drilling:

Kick off for directional drilling will occur at least 100 feet below the bottom of the cave occurrence zone. SEE ALSO: Drilling COAs for this well.

Lost Circulation:
ALL lost circulation zones from the surface to the base of the cave occurrence zone will be logged and reported in the drilling report.

Regardless of the type of drilling machinery used, if a void of four feet or more and circulation losses greater than 70 percent occur simultaneously while drilling in any cave-bearing zone, the BLM will be notified immediately by the operator. The BLM will assess the situation and work with the operator on corrective actions to resolve the problem.

Abandonment Cementing:
Upon well abandonment in high cave karst areas additional plugging conditions of approval may be required. The BLM will assess the situation and work with the operator to ensure proper plugging of the wellbore.

Pressure Testing:
Annual pressure monitoring will be performed by the operator on all casing annuli and reported in a sundry notice. If the test results indicated a casing failure has occurred, remedial action will be undertaken to correct the problem to the BLM's approval.

Cattle Guard Requirement

Where entry is granted across a fence line for an access road, the fence must be braced and tied off on both sides of the passageway with H-braces prior to cutting. Once the work is completed, the fence will be restored to its prior condition with an appropriately sized cattle guard sufficient to carry out the project. Any new or existing cattle guards on the access route shall be repaired or replaced if they are damaged or have deteriorated beyond practical use. Devon shall be responsible for the condition of the existing cattle guards that are in place and are utilized during lease operations. Once the road is abandoned, the fence would be restored to its prior condition, or better. Devon shall notify the private surface landowner or the grazing allotment holder prior to crossing any fences.

During construction, Devon shall minimize disturbance to existing fences, water lines, troughs, windmills, and other improvements on public lands. Devon 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 grazing permittee/allottee prior to disturbing any range improvement projects. 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.

- The entire well pad will be bermed to prevent oil, salt, and other chemical contaminants from leaving the well pad. 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 berm shall be maintained through the life of the well and after interim reclamation has been completed.

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 (14) feet in width. The maximum width of surface disturbance, when constructing the access road, shall not exceed twenty-five (25) 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 14' 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.

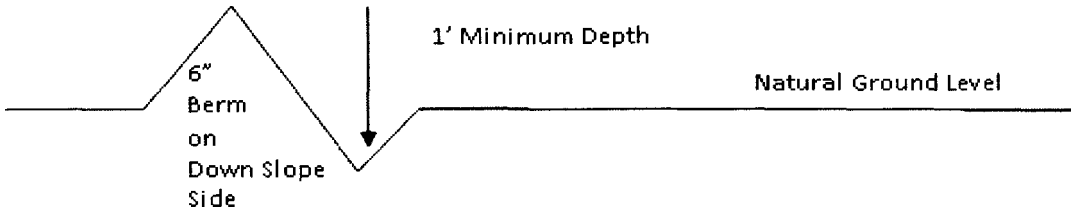
Turnouts
Vehicle turnouts shall be constructed on the road. Turnouts shall be intervisible with interval spacing distance less than 1000 feet. Turnouts shall conform to Figure 1; cross section and plans for typical road construction.

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:

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

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

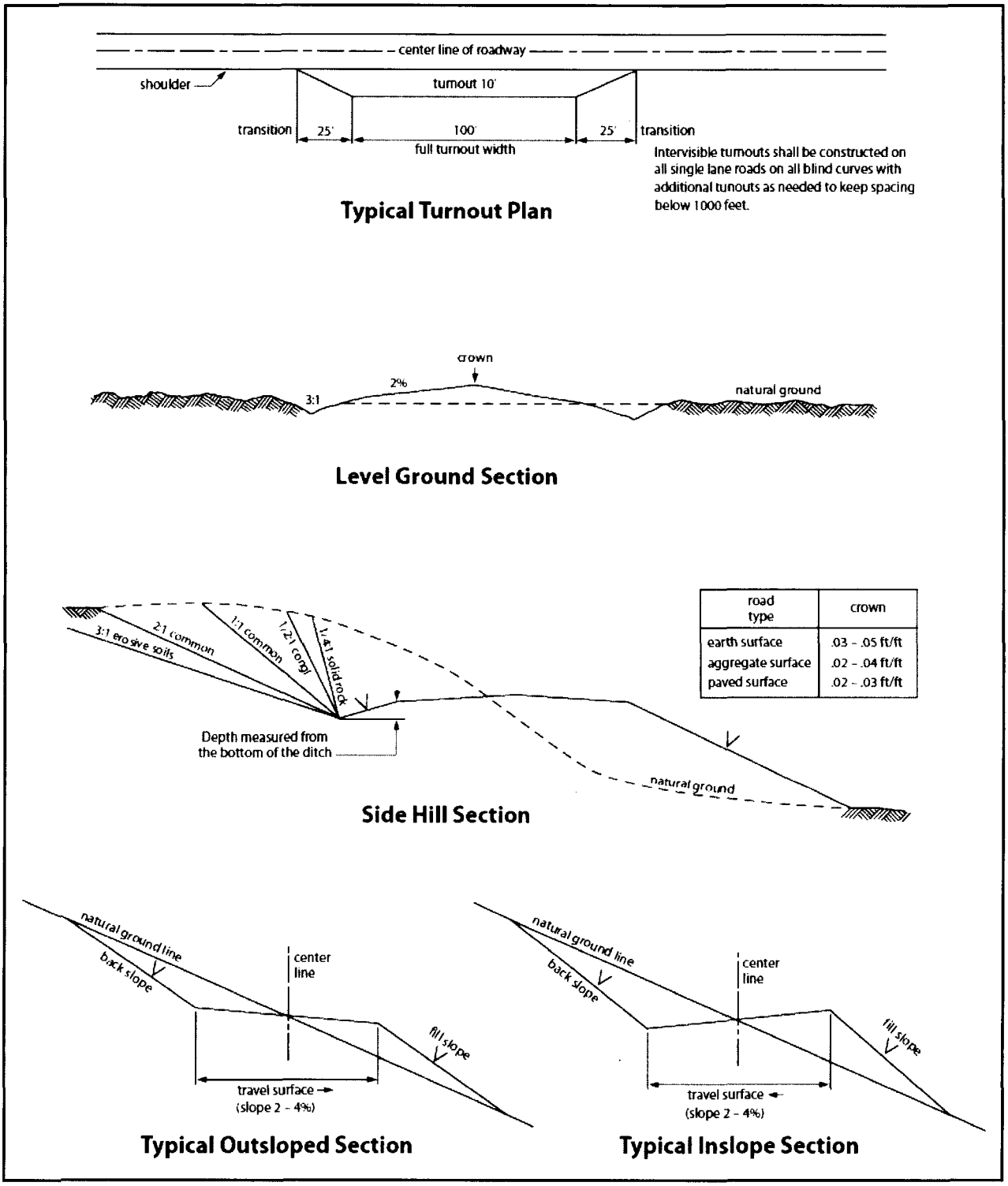


Figure 1. Cross-sections and plans for typical road sections representative of BLM resource or FS local and higher-class roads.

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 **20** 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.

(X) seed mixture 1	( ) seed mixture 3
( ) seed mixture 2	( ) seed mixture 4
( ) 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.

C. ELECTRIC LINES

STANDARD STIPULATIONS FOR OVERHEAD ELECTRIC DISTRIBUTION LINES

A copy of the grant and attachments, including stipulations, 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. There will be no clearing or blading of the right-of-way unless otherwise agreed to in writing by the Authorized Officer.

5. Power lines shall be constructed and designed in accordance to standards outlined in "Suggested Practices for Avian Protection on Power lines: The State of the Art in 2006" Edison Electric Institute, APLIC, and the California Energy Commission 2006 . The holder shall assume the burden and expense of proving that pole designs not shown in the above publication deter raptor perching, roosting, and nesting. Such proof shall be provided by a raptor expert approved by the Authorized Officer. The BLM reserves the right to require modification or additions to all powerline structures placed on this right-of-way, should they be necessary to ensure the safety of large perching birds. Such modifications and/or additions shall be made by the holder without liability or expense to the United States.

Raptor deterrence will consist of but not limited to the following: triangle perch discouragers shall be placed on each side of the cross arms and a nonconductive perching deterrence shall be placed on all vertical poles that extend past the cross arms.

6. 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 the fence. No permanent gates will be allowed unless approved by the Authorized Officer.

7. The BLM serial number assigned to this authorization shall be posted in a permanent, conspicuous manner where the power line crosses roads and at all serviced facilities. Numbers will be at least two inches high and will be affixed to the pole nearest the road crossing and at the facilities served.

8. Upon cancellation, relinquishment, or expiration of this grant, the holder shall comply with those abandonment procedures as prescribed by the Authorized Officer.

9. All surface structures (poles, lines, transformers, etc.) shall be removed within 180 days of abandonment, relinquishment, or termination of use of the serviced facility or facilities or within 180 days of abandonment, relinquishment, cancellation, or expiration of this grant, whichever comes first. This will not apply where the power line extends service to an active, adjoining facility or facilities.

10. Any cultural and/or paleontological resource (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.

11. Special Stipulations:
    - For reclamation remove poles, lines, transformer, etc. and dispose of properly.
    - Fill in any holes from the poles removed.

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 1 for Loamy Sites

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 shall 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 shall be either certified or registered seed. The seed container shall be tagged in accordance with State law(s) and available for inspection by the Authorized Officer.

Seed shall be planted using a drill equipped with a depth regulator to ensure proper depth regulator to ensure proper depth of planting where drilling is possible. The seed mixture shall be evenly and uniformly planted over the disturbed area (small/heavier seeds have a tendency to drop the bottom of the drill and are planted first). Holder shall take appropriate measures to ensure this does not occur. Where drilling is not possible, seed shall be broadcast and the area shall be raked or chained to cover the seed. When broadcasting the seed, the pounds per acre shall be doubled. The seeding shall be repeated until a satisfactory stand is established as determined by the Authorized Officer. Evaluation of growth may 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 lovegrass (Eragrostis intermedia)	0.5
Sand dropseed (Sporobolus cryptandrus)	1.0
Sideoats grama (Bouteloua curtipendula)	5.0
Plains bristlegrass (Setaria macrostachya)	2.0

*Pounds of pure live seed:

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

PECOS DISTRICT
SURFACE USE
CONDITIONS OF APPROVAL

OPERATOR'S NAME:	Devon Energy Production
LEASE NO.:	NMNM 089057
WELL NAME & NO.:	523H-Snapping 12-1 FED
SURFACE HOLE FOOTAGE:	2325'/N & 1880'/W
BOTTOM HOLE FOOTAGE	330'/N & 2310'/W
LOCATION:	Section12, R.31E, T 26S, NMPM
COUNTY:	Eddy County, New Mexico.

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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.

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)

These Pads are build as you go no grading whole area.

Surface disturbance will not be allowed within up to 200 meters of active heronries or by delaying activity for up to 120 days, or a combination of both.

Exhaust noise from pump jack engines must be muffled or otherwise controlled so as not to exceed 75 db. measured at 30 ft. from the source of the noise.

Power lines shall be constructed and designed in accordance to standards outlined in "Suggested Practices for Avian Protection on Power lines: The State of the Art in 2006" Edison Electric Institute, APLIC, and the California Energy Commission 2006. The holder shall assume the burden and expense of proving that pole designs not shown in the above publication deter raptor perching, roosting, and nesting. Such proof shall be provided by a raptor expert approved by the Authorized Officer. The BLM reserves the right to require modification or additions to all power line structures placed on this right-of-way, should they be necessary to ensure the safety of large perching birds. The holder without liability or expense shall make such modifications and/or additions to the United States.

Trenches-Escape Ramps

Devon would need to construct and maintain escape ramps according to the following criteria:

- Earthen escape ramps would be required to be constructed to sufficiently support livestock at no more than a 30-degree slope and spaced no more than 500 feet apart.
- If trench is left open under an 8-hour time period, it would not be required to have an escape ramp; however, before the trench is backfilled, Devon would inspect the trench for wildlife and remove any species that are trapped at a distance of at least 100 yards away from the trench.

Cave and Karst Conditions of Approval for APDs

** Depending on location, additional Drilling, Casing, and Cementing procedures may be required by engineering to protect critical karst groundwater recharge areas.

Cave/Karst Surface Mitigation

The following stipulations will be applied to minimize impacts during construction, drilling and production.

Construction:

In the advent that any underground voids are opened up during construction activities, construction activities will be halted and the BLM will be notified immediately.

No Blasting:

No blasting will be utilized for pad construction. The pad will be constructed and leveled by adding the necessary fill and caliche.

Pad Berming:

The entire perimeter of the well pad 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 high with impermeable mineral material (e.g., caliche).
- No water flow from the uphill side(s) of the pad shall be allowed to enter the well pad.
- The topsoil stockpile shall be located outside the bermed well pad.
- Topsoil, either from the well pad or surrounding area, shall not be used to construct the berm.
- No storm drains, tubing or openings shall be placed in the berm.
- 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.
- 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 access road entering the well pad shall be constructed so that the integrity of the berm height surrounding the well pad is not compromised. (Any access road crossing the berm cannot be lower than the berm height.)
- Following a rain event, all fluids will vacuumed off of the pad and hauled off-site and disposed at a proper disposal facility.

Tank Battery Liners and Berms:
Tank battery locations and all facilities will be lined and bermed. A 20 mil permanent liner will be installed with a 4 oz. felt backing, or equivalent, to prevent tears or punctures. Tank battery berms must be large enough to contain 1 ½ times the content of the largest tank.

Leak Detection System:
A method of detecting leaks is required. The method could incorporate gauges to measure loss, situating values and lines so they can be visually inspected, or installing electronic sensors to alarm when a leak is present. Leak detection plan will be submitted to BLM for approval.

Automatic Shut-off Systems:
Automatic shut off, check values, or similar systems will be installed for pipelines and tanks to minimize the effects of catastrophic line failures used in production or drilling.

Cave/Karst Subsurface Mitigation

The following stipulations will be applied to protect cave/karst and ground water concerns:

Rotary Drilling with Fresh Water:
Fresh water will be used as a circulating medium in zones where caves or karst features are expected. SEE ALSO: Drilling COAs for this well.

Directional Drilling:

Kick off for directional drilling will occur at least 100 feet below the bottom of the cave occurrence zone. SEE ALSO: Drilling COAs for this well.

Lost Circulation:
ALL lost circulation zones from the surface to the base of the cave occurrence zone will be logged and reported in the drilling report.

Regardless of the type of drilling machinery used, if a void of four feet or more and circulation losses greater than 70 percent occur simultaneously while drilling in any cave-bearing zone, the BLM will be notified immediately by the operator. The BLM will assess the situation and work with the operator on corrective actions to resolve the problem.

Abandonment Cementing:
Upon well abandonment in high cave karst areas additional plugging conditions of approval may be required. The BLM will assess the situation and work with the operator to ensure proper plugging of the wellbore.

Pressure Testing:
Annual pressure monitoring will be performed by the operator on all casing annuli and reported in a sundry notice. If the test results indicated a casing failure has occurred, remedial action will be undertaken to correct the problem to the BLM's approval.

Cattle Guard Requirement

Where entry is granted across a fence line for an access road, the fence must be braced and tied off on both sides of the passageway with H-braces prior to cutting. Once the work is completed, the fence will be restored to its prior condition with an appropriately sized cattle guard sufficient to carry out the project. Any new or existing cattle guards on the access route shall be repaired or replaced if they are damaged or have deteriorated beyond practical use. Devon shall be responsible for the condition of the existing cattle guards that are in place and are utilized during lease operations. Once the road is abandoned, the fence would be restored to its prior condition, or better. Devon shall notify the private surface landowner or the grazing allotment holder prior to crossing any fences.

During construction, Devon shall minimize disturbance to existing fences, water lines, troughs, windmills, and other improvements on public lands. Devon 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 grazing permittee/allottee prior to disturbing any range improvement projects. 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.

- The entire well pad will be bermed to prevent oil, salt, and other chemical contaminants from leaving the well pad. 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 berm shall be maintained through the life of the well and 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 corrected within two weeks and proper measures will be taken to prevent future erosion.

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 (14) feet in width. The maximum width of surface disturbance, when constructing the access road, shall not exceed twenty-five (25) 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 14' 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.

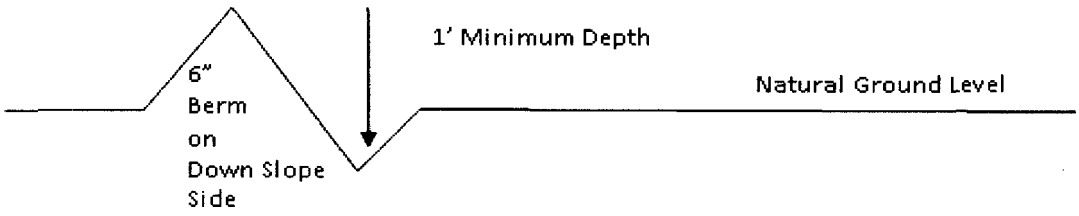
Turnouts
Vehicle turnouts shall be constructed on the road. Turnouts shall be intervisible with interval spacing distance less than 1000 feet. Turnouts shall conform to Figure 1; cross section and plans for typical road construction.

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

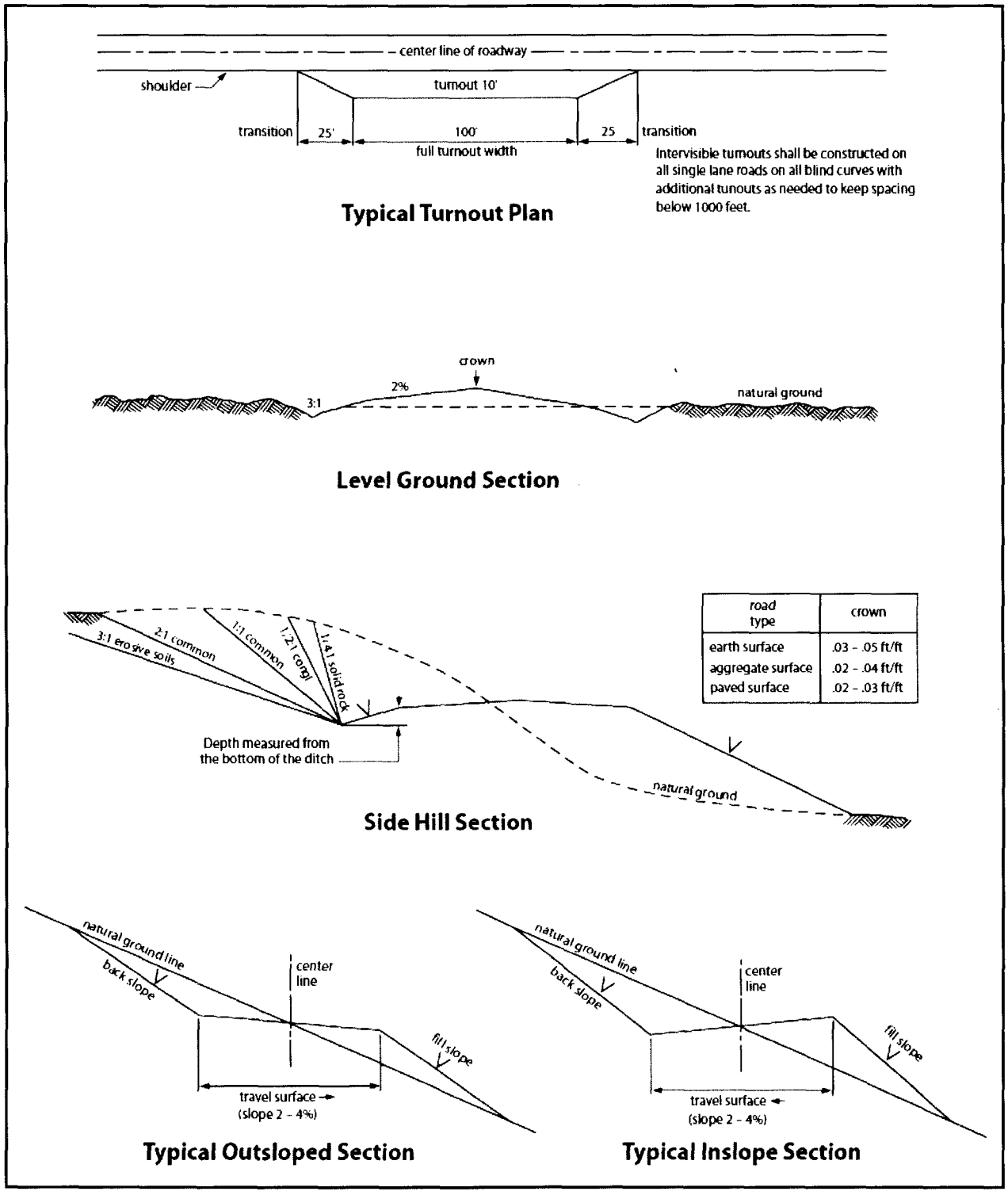


Figure 1. Cross-sections and plans for typical road sections representative of BLM resource or FS local and higher-class roads.

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 **20** 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.

(X) seed mixture 1	( ) seed mixture 3
( ) seed mixture 2	( ) seed mixture 4
( ) 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.

C. ELECTRIC LINES

STANDARD STIPULATIONS FOR OVERHEAD ELECTRIC DISTRIBUTION LINES

A copy of the grant and attachments, including stipulations, 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. There will be no clearing or blading of the right-of-way unless otherwise agreed to in writing by the Authorized Officer.

5. Power lines shall be constructed and designed in accordance to standards outlined in "Suggested Practices for Avian Protection on Power lines: The State of the Art in 2006" Edison Electric Institute, APLIC, and the California Energy Commission 2006 . The holder shall assume the burden and expense of proving that pole designs not shown in the above publication deter raptor perching, roosting, and nesting. Such proof shall be provided by a raptor expert approved by the Authorized Officer. The BLM reserves the right to require modification or additions to all powerline structures placed on this right-of-way, should they be necessary to ensure the safety of large perching birds. Such modifications and/or additions shall be made by the holder without liability or expense to the United States.

Raptor deterrence will consist of but not limited to the following: triangle perch discouragers shall be placed on each side of the cross arms and a nonconductive perching deterrence shall be placed on all vertical poles that extend past the cross arms.

6. 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 the fence. No permanent gates will be allowed unless approved by the Authorized Officer.

7. The BLM serial number assigned to this authorization shall be posted in a permanent, conspicuous manner where the power line crosses roads and at all serviced facilities. Numbers will be at least two inches high and will be affixed to the pole nearest the road crossing and at the facilities served.

8. Upon cancellation, relinquishment, or expiration of this grant, the holder shall comply with those abandonment procedures as prescribed by the Authorized Officer.

9. All surface structures (poles, lines, transformers, etc.) shall be removed within 180 days of abandonment, relinquishment, or termination of use of the serviced facility or facilities or within 180 days of abandonment, relinquishment, cancellation, or expiration of this grant, whichever comes first. This will not apply where the power line extends service to an active, adjoining facility or facilities.

10. Any cultural and/or paleontological resource (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.

11. Special Stipulations:
    - For reclamation remove poles, lines, transformer, etc. and dispose of properly.
    - Fill in any holes from the poles removed.

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 1 for Loamy Sites

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 shall 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 shall be either certified or registered seed. The seed container shall be tagged in accordance with State law(s) and available for inspection by the Authorized Officer.

Seed shall be planted using a drill equipped with a depth regulator to ensure proper depth regulator to ensure proper depth of planting where drilling is possible. The seed mixture shall be evenly and uniformly planted over the disturbed area (small/heavier seeds have a tendency to drop the bottom of the drill and are planted first). Holder shall take appropriate measures to ensure this does not occur. Where drilling is not possible, seed shall be broadcast and the area shall be raked or chained to cover the seed. When broadcasting the seed, the pounds per acre shall be doubled. The seeding shall be repeated until a satisfactory stand is established as determined by the Authorized Officer. Evaluation of growth may 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 lovegrass (Eragrostis intermedia)	0.5
Sand dropseed (Sporobolus cryptandrus)	1.0
Sideoats grama (Bouteloua curtipendula)	5.0
Plains bristlegrass (Setaria macrostachya)	2.0

*Pounds of pure live seed:

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

AFMSS

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

rator Certification Data Report

02/09/2018

Operator 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.

NAME: Erin Workman **Signed on:** 10/02/2017

Title: Regulatory Compliance Professional

Street Address: 333 West Sheridan Avenue

City: Oklahoma City **State:** OK **Zip:** 73102

Phone: (405)552-7970

Email address: Erin.Workman@dvn.com

Field Representative

Representative Name: Ray Vaz

Street Address: 6488 Seven Rivers Hwy

City: Artesia **State:** NM **Zip:** 88210

Phone: (575)748-1871

Email address: ray.vaz@dvn.com

AFMSS

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

Application Data Report
02/09/2018

APD ID: 10400022571 **Submission Date:** 10/02/2017

Operator Name: DEVON ENERGY PRODUCTION COMPANY LP

Well Name: SNAPPING 12-1 FED **Well Number:** 523H

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

Highlighted data reflects the most recent changes

Show Final Text

Section 1 - General

APD ID: 10400022571 **Tie to previous NOS?** 10400017085 **Submission Date:** 10/02/2017

BLM Office: CARLSBAD **User:** Erin Workman **Title:** Regulatory Compliance Professional

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

Lease number: NMNM89057 **Lease Acres:** 2160

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

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

Agreement number:

Agreement name:

Keep application confidential? YES

Permitting Agent? NO **APD Operator:** DEVON ENERGY PRODUCTION COMPANY LP

Operator letter of designation:

Operator Info

Operator Organization Name: DEVON ENERGY PRODUCTION COMPANY LP

Operator Address: 333 West Sheridan Avenue **Zip:** 73102

Operator PO Box:

Operator City: Oklahoma City **State:** OK

Operator Phone: (405)552-6571

Operator Internet Address: aletha.dewbre@dvn.com

Section 2 - Well Information

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

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

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

Well Name: SNAPPING 12-1 FED **Well Number:** 523H **Well API Number:**

Field/Pool or Exploratory? Field and Pool **Field Name:** JENNINGS, WEST **Pool Name:** BONE SPRING

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

Operator Name: DEVON ENERGY PRODUCTION COMPANY LP

Well Name: SNAPPING 12-1 FED **Well Number:** 523H

Describe other minerals:

Is the proposed well in a Helium production area? N **Use Existing Well Pad?** NO **New surface disturbance?**

Type of Well Pad: MULTIPLE WELL **Multiple Well Pad Name:** SNAPPING 12 WELLPAD **Number:** 2

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

Well Work Type: Drill

Well Type: OIL WELL

Describe Well Type:

Well sub-Type: OTHER

Describe sub-type: DEVELOPMENT

Distance to town: **Distance to nearest well:** 2500 FT **Distance to lease line:** 330 FT

Reservoir well spacing assigned acres Measurement: 240 Acres

Well plat: Snapping_12_1_Fed_523H_C_102_signed_20170927063835.pdf

Well work start Date: 04/21/2018 **Duration:** 30 DAYS

Section 3 - Well Location Table

Survey Type: RECTANGULAR

Describe Survey Type:

Datum: NAD83 **Vertical Datum:** NAVD88

Survey number: 5440B

	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
SHL Leg #1	2325	FNL	1880	FWL	26S	31E	12	Aliquot SENW	32.0584866	-103.7342229	EDDY	NEW MEXICO	NEW MEXICO	F	NMNM 89057	3237	0	0
KOP Leg #1	2605	FNL	2281	FWL	26S	31E	12	Aliquot SENW	32.0584866	-103.7342229	EDDY	NEW MEXICO	NEW MEXICO	F	NMNM 89057	-5058	8320	8295
PPP Leg #1	2128	FNL	2310	FWL	26S	31E	12	Aliquot SENW	32.0584866	-103.7342229	EDDY	NEW MEXICO	NEW MEXICO	F	NMNM 89057	-5536	9070	8773

Operator Name: DEVON ENERGY PRODUCTION COMPANY LP

Well Name: SNAPPING 12-1 FED **Well Number:** 523H

	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
EXIT Leg #1	330	FNL	2310	FWL	26S	31E	1	Aliquot NENW	32.0786162	-103.7327979	EDDY	NEW MEXICO	NEW MEXICO	F	NMNM 89057	-5536	16198	8773
BHL Leg #1	330	FNL	2310	FWL	26S	31E	1	Aliquot NENW	32.0786162	-103.7327979	EDDY	NEW MEXICO	NEW MEXICO	F	NMNM 89057	-5536	16198	8773

Operator Name: DEVON ENERGY PRODUCTION COMPANY LP

Well Name: SNAPPING 12-1 FED **Well Number:** 523H

Pressure Rating (PSI): 5M **Rating Depth:** 4150

Equipment: BOP/BOPE will be installed per Onshore Oil & Gas Order #2 requirements prior to drilling below 13-3/8" surface casing, a 13-5/8" BOP/BOPE system with a minimum rating of 3M will be installed on the wellhead system. BOP/BOPE will be tested by an independent service company per Onshore Oil & Gas Order #2 requirements and MASP (Maximum Anticipated Surface Pressure) calculations. If the system is upgraded, all the components installed will be functional and tested.

Requesting Variance? YES

Variance request: A variance is requested for the use of a flexible choke line from the BOP stack to the choke manifold. See attached for specs for hydrostatic test chart.

Testing Procedure: A multibowl wellhead may be used. The BOP will be tested per Onshore Order #2 after installation on the surface casing which will cover testing requirements for a maximum of 30 days. If any seal subject to test pressure is broken the system must be tested.

Choke Diagram Attachment:

Snapping_12_1_Fed_533H_5M_BOPE___Ck_20171002133507.pdf

BOP Diagram Attachment:

Snapping_12_1_Fed_533H_5M_BOPE___Ck_20171002133539.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	17.5	13.375	NEW	API	N	0	960	0	960			960	H-40	48	STC	1.74	2.45	DRY	4.13	BUOY	4.13
2	INTERMEDIATE	12.25	9.625	NEW	API	N	0	4150	0	4150			4150	J-55	40	LTC	1.19	1.42	BUOY	3.98	BUOY	3.98
3	PRODUCTION	8.75	5.5	NEW	API	N	0	16198	0	8773			16198	P-105	17	BUTT	2.18	2.7	BUOY	3.21	BUOY	3.21

Casing Attachments

Operator Name: DEVON ENERGY PRODUCTION COMPANY LP

Well Name: SNAPPING 12-1 FED **Well Number:** 523H

Casing Attachments

Casing ID: 1 **String Type:** SURFACE

Inspection Document:

Spec Document:

Tapered String Spec:

Casing Design Assumptions and Worksheet(s):

Snapping_12_1_Fed_533H_SurfCsg_Ass_20171002133918.pdf

Casing ID: 2 **String Type:** INTERMEDIATE

Inspection Document:

Spec Document:

Tapered String Spec:

Casing Design Assumptions and Worksheet(s):

Snapping_12_1_Fed_533H_Int_Csg_Ass_20171002134038.pdf

Casing ID: 3 **String Type:** PRODUCTION

Inspection Document:

Spec Document:

Tapered String Spec:

Casing Design Assumptions and Worksheet(s):

Snapping_12_1_Fed_533H_ProdCasing_Ass_20171002134158.pdf

Section 4 - Cement

Operator Name: DEVON ENERGY PRODUCTION COMPANY LP

Well Name: SNAPPING 12-1 FED **Well Number:** 523H

String Type	Lead/Tail	Stage Tool Depth	Top MD	Bottom MD	Quantity(sx)	Yield	Density	Cu Ft	Excess%	Cement type	Additives
SURFACE	Lead		0	960	747	1.34	14.8	1000	50	C	1% Calcium Chloride
INTERMEDIATE	Lead		0	3150	694	1.85	12.9	1283	30	C	Poz (Fly Ash): 6% BWOC Bentonite + 5% BWOW Sodium Chloride + 0.125 lbs/sks Poly-E-Flake
INTERMEDIATE	Tail		3150	4150	306	1.33	14.8	407	30	C	0.125 lbs/sks Poly-R-Flake
PRODUCTION	Lead		3950	8700	459	3.27	9	1500	25	TUNED	N/A
PRODUCTION	Tail		8700	16198	1972	1.2	14.5	2633	25	H	Poz (Fly Ash) + 0.5% bwoc HALAD-344 + 0.4% bwoc CFR-3 + 0.2% BWOC HR-601 + 2% bwoc Bentonite

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

Describe the mud monitoring system utilized: PVT/Pason/Visual Monitoring

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: DEVON ENERGY PRODUCTION COMPANY LP

Well Name: SNAPPING 12-1 FED **Well Number:** 523H

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
960	4150	SALT SATURATED	10	11							
4150	16198	WATER-BASED MUD	8.5	9.3							
0	960	WATER-BASED MUD	8.5	9							

Section 6 - Test, Logging, Coring

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

Will run GR/CNL fromTD to surface (horizontal well – vertical portion of hole). Stated logs run will be in the Completion Report and submitted to the BLM.

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

CBL,DS,GR,MUDLOG

Coring operation description for the well:

N/A

Section 7 - Pressure

Anticipated Bottom Hole Pressure: 3948 **Anticipated Surface Pressure:** 2017.94

Anticipated Bottom Hole Temperature(F): 149

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

Describe:

Contingency Plans geoharzards description:

Contingency Plans geohazards attachment:

Hydrogen Sulfide drilling operations plan required? YES

Hydrogen sulfide drilling operations plan:

Snapping_12_1_Fed_523H_H2S_Plan_20170927064217.pdf

Operator Name: DEVON ENERGY PRODUCTION COMPANY LP

Well Name: SNAPPING 12-1 FED **Well Number:** 523H

Section 8 - Other Information

Proposed horizontal/directional/multi-lateral plan submission:

Snapping_12_1_Fed_533H_AC_Rpt_20171002140514.pdf

Snapping_12_1_Fed_533H_Dir_Plan_20171002140526.pdf

Other proposed operations facets description:

CLOSED LOOP DESIGN
MULTI-BOWL VERBIAGE
MULTI-BOWL WELLHEAD
DRILLING PLAN

Other proposed operations facets attachment:

Snapping_12_1_Fed_523H_Clsd_Loop_20170927064401.pdf

Snapping_12_1_Fed_523H_MB_Verb_20170927064707.pdf

Snapping_12_1_Fed_523H_MB_Wellhd_20170927064720.pdf

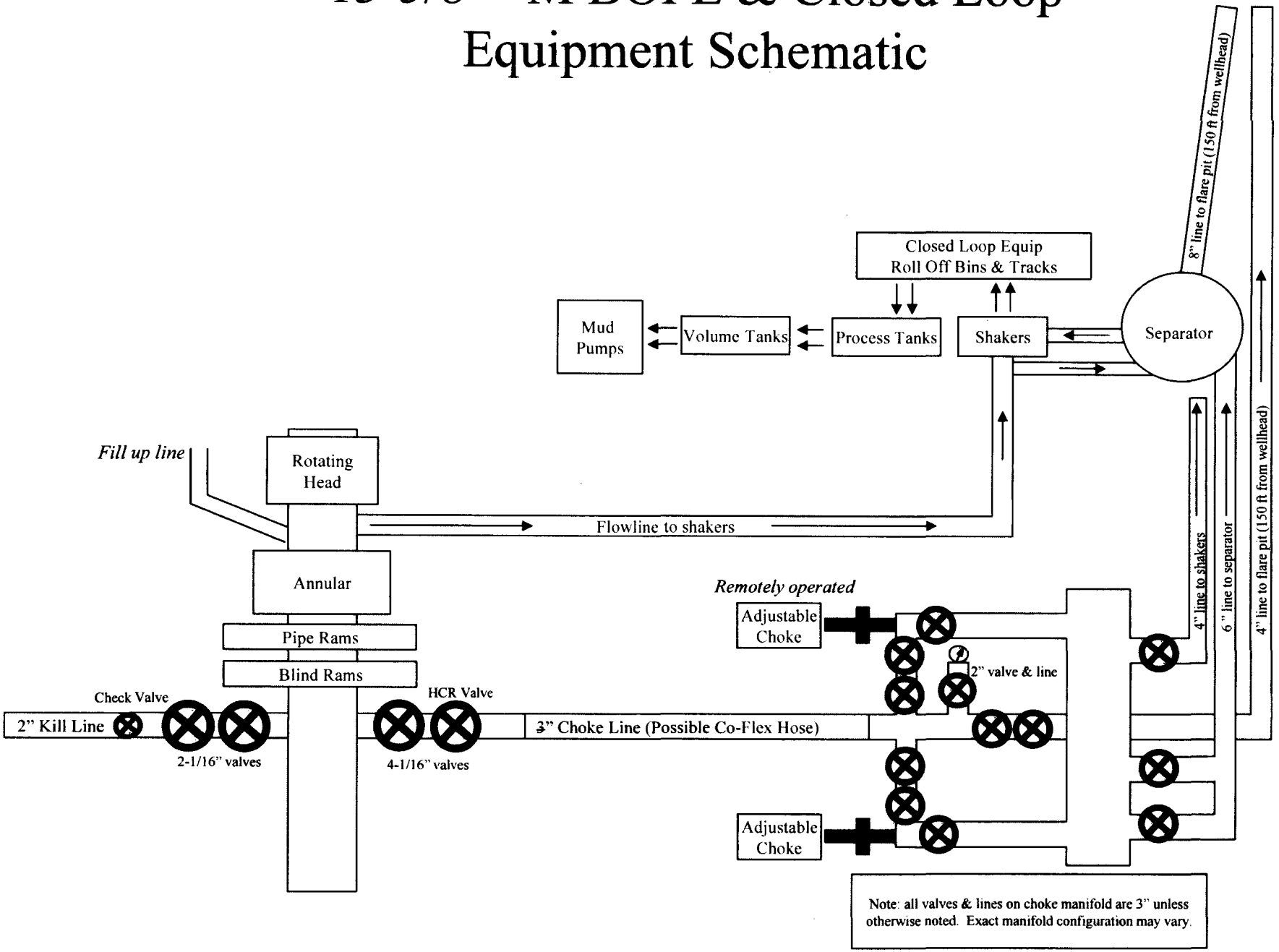
Snapping_12_1_Fed_533H_Drilling_Plan_20171002140537.pdf

Other Variance attachment:

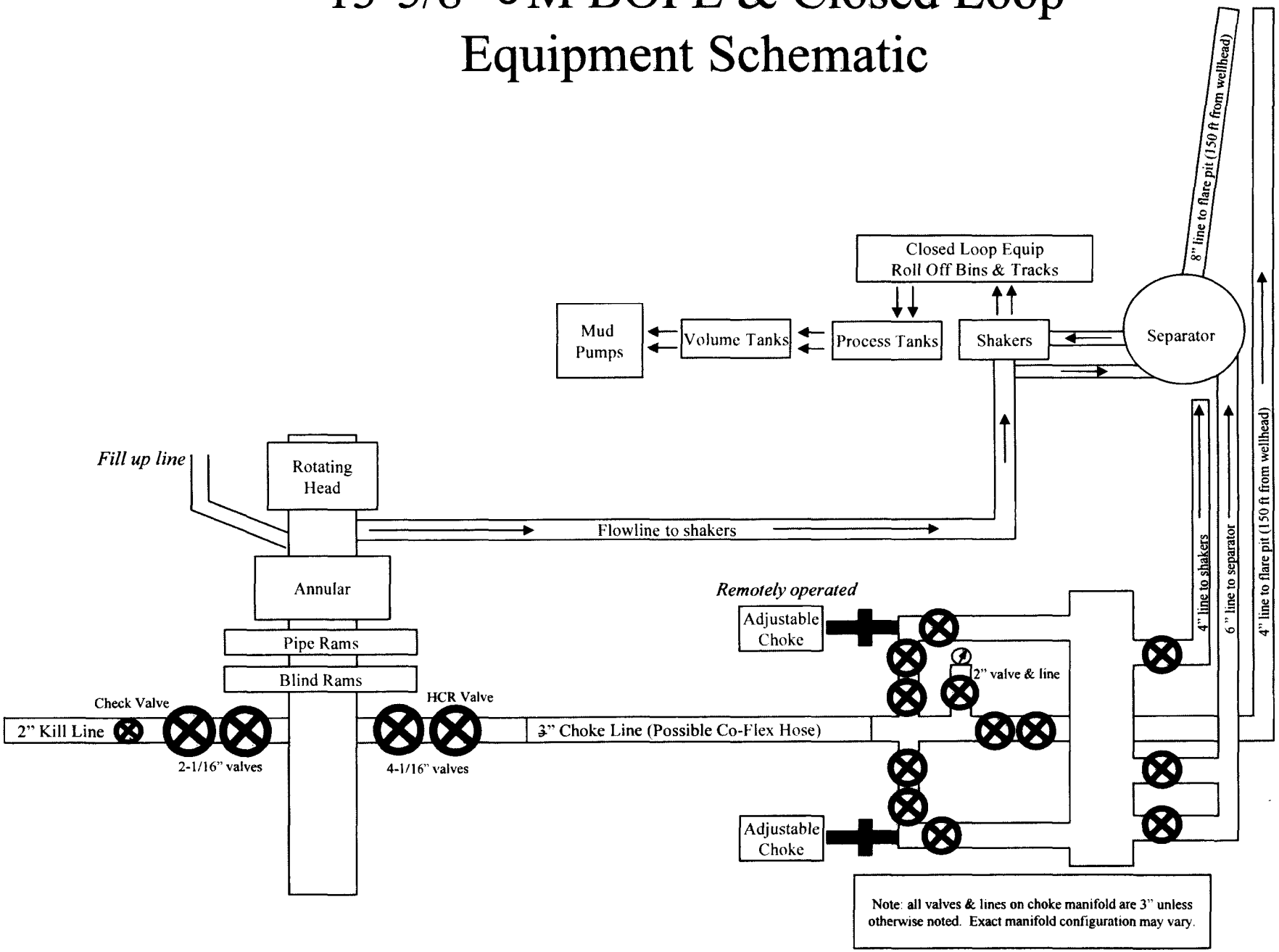
Snapping_12_1_Fed_523H_Co_flex_20170927064734.pdf

Snapping_12_1_Fed_523H_Spudder_Rig_20170927064752.pdf

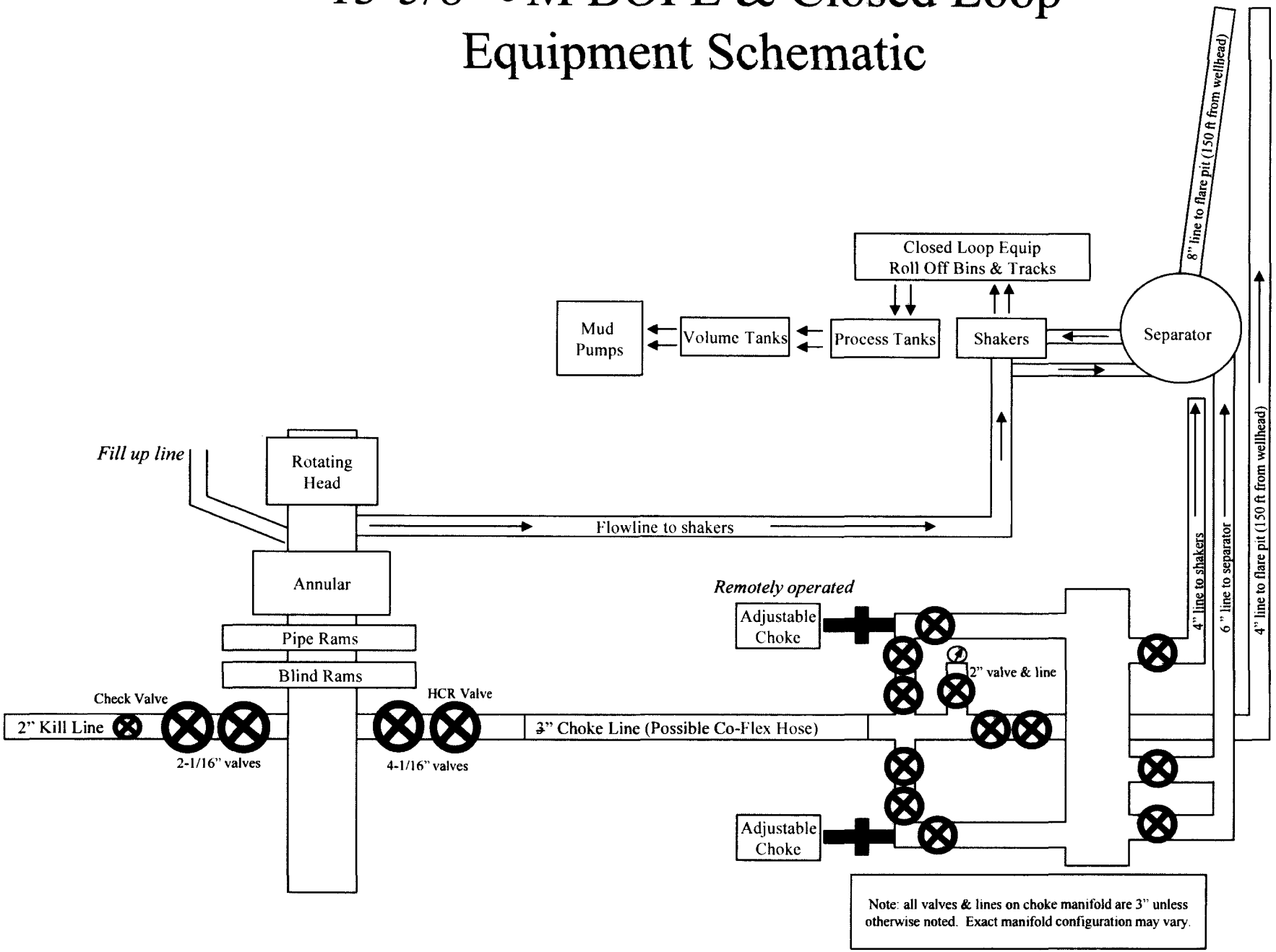
13-5/8" 5M BOPE & Closed Loop Equipment Schematic



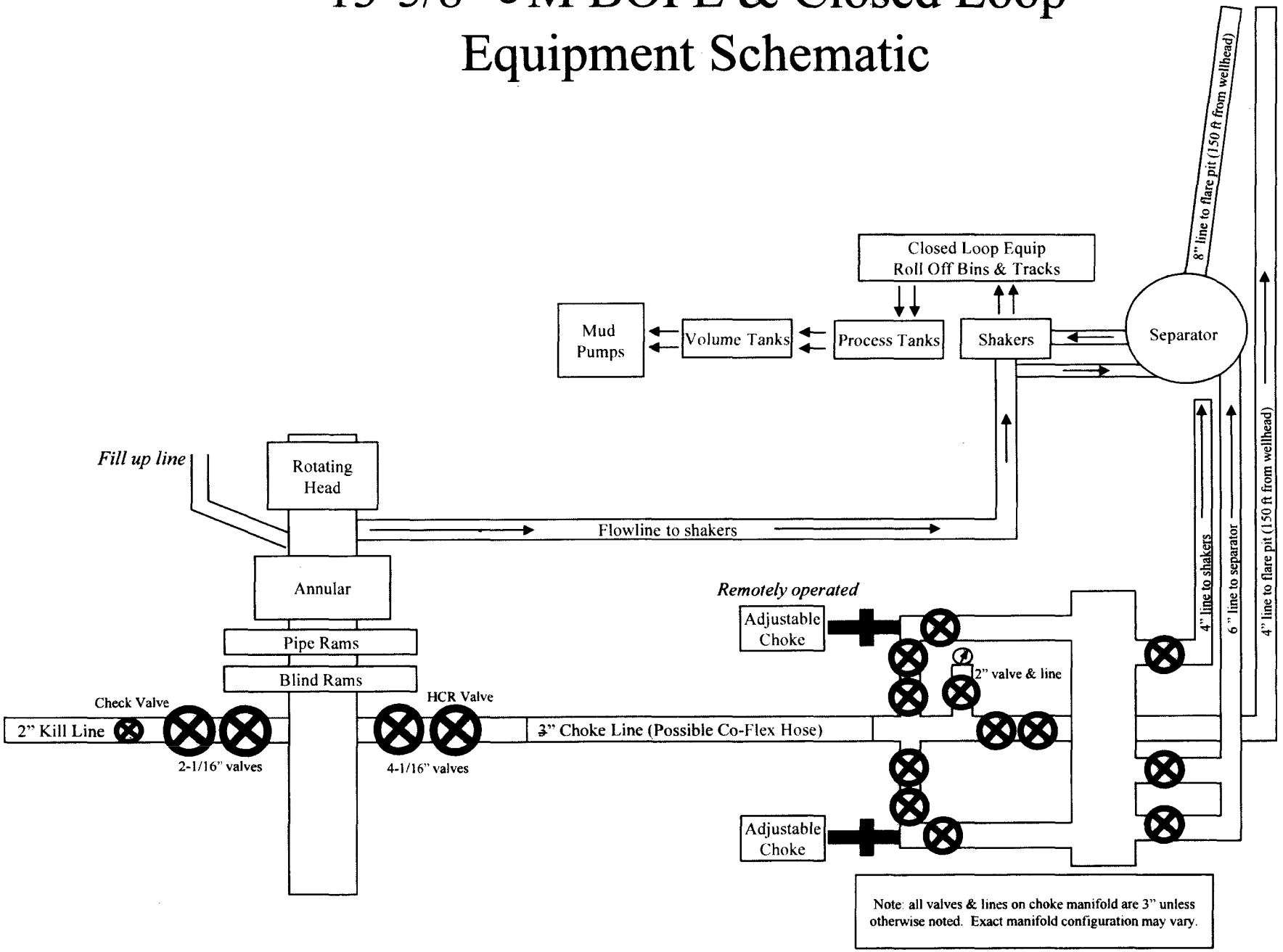
13-5/8" 5M BOPE & Closed Loop Equipment Schematic



13-5/8" 5M BOPE & Closed Loop Equipment Schematic



13-5/8" 5M BOPE & Closed Loop Equipment Schematic



Casing Assumptions and Load Cases

Surface

All casing design assumptions were ran in Stress Check to determine safety factor which meet or exceed both Devon Energy and BLM minimum requirements. All casing strings will be filled while running in hole in order to not exceed collapse rating of the pipe.

Surface Casing Burst Design		
Load Case	**External Pressure**	**Internal Pressure**
Pressure Test	Formation Pore Pressure	Max mud weight of next hole-section plus Test psi
Drill Ahead	Formation Pore Pressure	Max mud weight of next hole section
Displace to Gas	Formation Pore Pressure	Dry gas from next casing point

Surface Casing Collapse Design		
Load Case	**External Pressure**	**Internal Pressure**
Full Evacuation	Water gradient in cement, mud above TOC	None
Cementing	Wet cement weight	Water (8.33ppg)

Surface Casing Tension Design	
Load Case	**Assumptions**
Overpull	100kips
Runing in hole	3 ft/s
Service Loads	N/A

Casing Assumptions and Load Cases

Intermediate

All casing design assumptions were ran in Stress Check to determine safety factor which meet or exceed both Devon Energy and BLM minimum requirements. All casing strings will be filled while running in hole in order to not exceed collapse rating of the pipe.

Intermediate Casing Burst Design		
Load Case	**External Pressure**	**Internal Pressure**
Pressure Test	Formation Pore Pressure	Max mud weight of next hole-section plus Test psi
Drill Ahead	Formation Pore Pressure	Max mud weight of next hole section
Fracture @ Shoe	Formation Pore Pressure	Dry gas

Intermediate Casing Collapse Design		
Load Case	**External Pressure**	**Internal Pressure**
Full Evacuation	Water gradient in cement, mud above TOC	None
Cementing	Wet cement weight	Water (8.33ppg)

Intermediate Casing Tension Design	
Load Case	**Assumptions**
Overpull	100kips
Runing in hole	2 ft/s
Service Loads	N/A

Casing Assumptions and Load Cases

Production

All casing design assumptions were ran in Stress Check to determine safety factor which meet or exceed both Devon Energy and BLM minimum requirements. All casing strings will be filled while running in hole in order to not exceed collapse rating of the pipe.

Production Casing Burst Design		
Load Case	**External Pressure**	**Internal Pressure**
Pressure Test	Formation Pore Pressure	Fluid in hole (water or produced water) + test psi
Tubing Leak	Formation Pore Pressure	Packer @ KOP, leak below surface 8.6 ppg packer fluid
Stimulation	Formation Pore Pressure	Max frac pressure with heaviest frac fluid

Production Casing Collapse Design		
Load Case	**External Pressure**	**Internal Pressure**
Full Evacuation	Water gradient in cement, mud above TOC.	None
Cementing	Wet cement weight	Water (8.33ppg)

Production Casing Tension Design	
Load Case	**Assumptions**
Overpull	100kips
Runing in hole	2 ft/s
Service Loads	N/A

devon

Devon Energy Center
333 West Sheridan Avenue
Oklahoma City, Oklahoma 73102-5015

Hydrogen Sulfide (H_2S) Contingency Plan

For

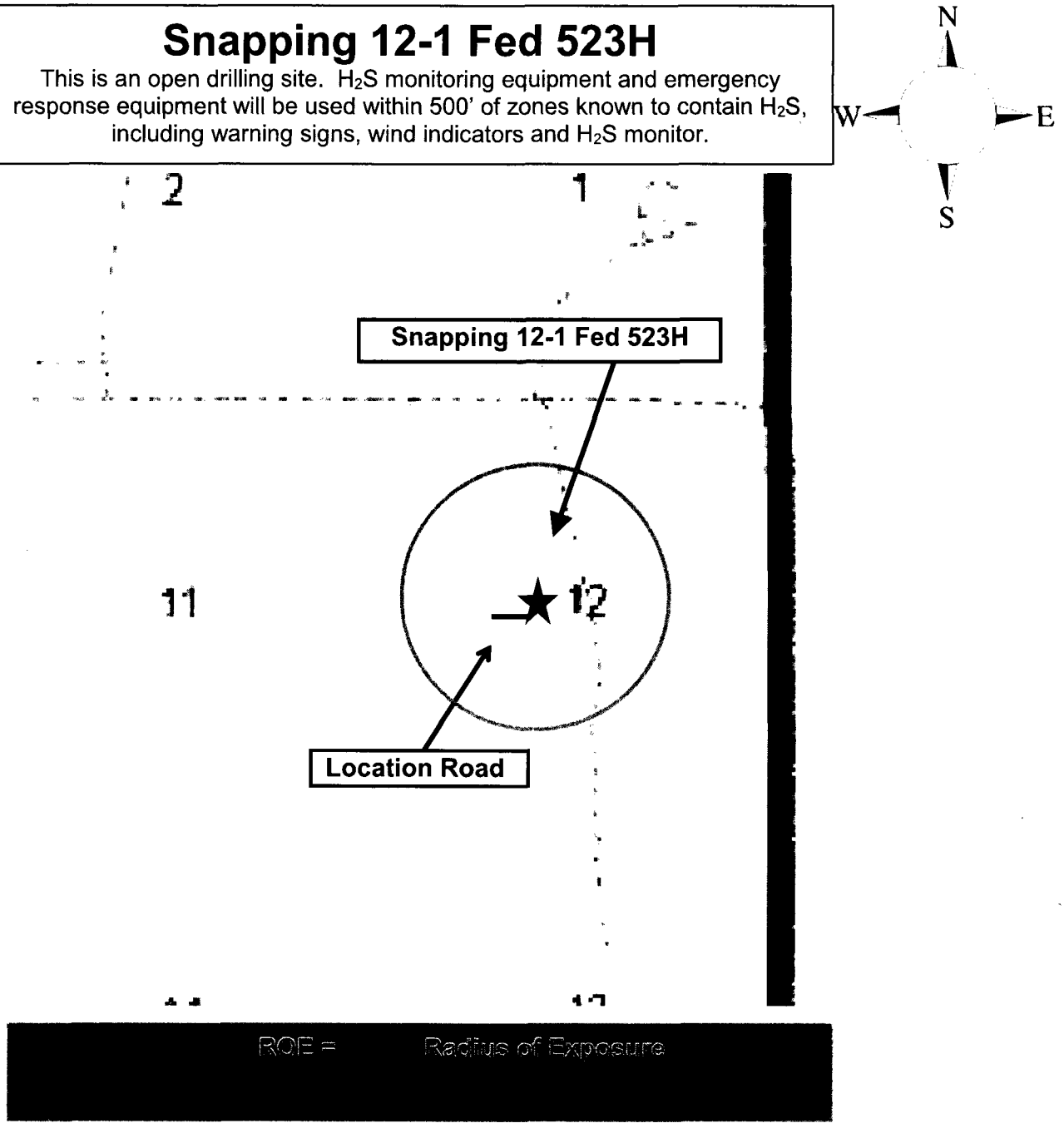
Snapping 12-1 Fed 523H

Sec-12 T-26S R-31E
2325 FNL & 1880' FWL
LAT. = 32.0584866' N (NAD83)
LONG = 103.7342229' W

Eddy County NM

Snapping 12-1 Fed 523H

This is an open drilling site. H_2S monitoring equipment and emergency response equipment will be used within 500' of zones known to contain H_2S, including warning signs, wind indicators and H_2S monitor.



Escape

Crews shall escape upwind of escaping gas in the event of an emergency release of gas. Escape can be facilitated from the location entrance road. Crews should then block the entrance to the location from the lease road so as not to allow anyone traversing into a hazardous area. The blockade should be at a safe distance outside of the ROE. There are no homes or buildings in or near the ROE.

Assumed 100 ppm ROE = 3000'

100 ppm H_2S concentration shall trigger activation of this plan.

Emergency Procedures

In the event of a release of gas containing H_2S, the first responder(s) must

- **Isolate the area and prevent entry by other persons into the 100 ppm ROE.**
- **Evacuate any public places encompassed by the 100 ppm ROE.**
- **Be equipped with H_2S monitors and air packs in order to control the release.**
- **Use the "buddy system" to ensure no injuries occur during the response**
- **Take precautions to avoid personal injury during this operation.**
- **Contact operator and/or local officials to aid in operation. See list of phone numbers attached.**
- **Have received training in the**
  - **Detection of H_2S, and**
  - **Measures for protection against the gas,**
  - **Equipment used for protection and emergency response.**

Ignition of Gas Source

Should control of the well be considered lost and ignition considered, take care to protect against exposure to Sulfur Dioxide (SO_2). Intentional ignition must be coordinated with the NMOCD and local officials. Additionally the NM State Police may become involved. NM State Police shall be the Incident Command on scene of any major release. Take care to protect downwind whenever there is an ignition of the gas

Characteristics of H_2S and SO_2

Common Name	Chemical Formula	Specific Gravity	Threshold Limit	Hazardous Limit	Lethal Concentration
Hydrogen Sulfide	H_2S	1.189 Air = 1	10 ppm	100 ppm/hr	600 ppm
Sulfur Dioxide	SO_2	2.21 Air = 1	2 ppm	N/A	1000 ppm

Contacting Authorities

Devon Energy Corp. personnel must liaison with local and state agencies to ensure a proper response to a major release. Additionally, the OCD must be notified of the release as soon as possible but no later than 4 hours. Agencies will ask for information such as type and volume of release, wind direction, location of release, etc. Be prepared with all information available. The following call list of essential and potential responders has been prepared for use during a release. Devon Energy Corp. Company response must be in coordination with

the State of New Mexico's 'Hazardous Materials Emergency Response Plan' (HMER)

Hydrogen Sulfide Drilling Operation Plan

I. HYDROGEN SULFIDE (H_2S) TRAINING

All personnel, whether regularly assigned, contracted, or employed on an unscheduled basis, will receive training from a qualified instructor in the following areas prior to commencing drilling operations on this well:

1. The hazards and characteristics of hydrogen sulfide (H_2S)
2. The proper use and maintenance of personal protective equipment and life support systems.
3. The proper use of H_2S detectors, alarms, warning systems, briefing areas, evacuation procedures, and prevailing winds.
4. The proper techniques for first aid and rescue procedures.

In addition, supervisory personnel will be trained in the following areas:

1. The effects of H_2S metal components. If high tensile tubulars are to be used, personnel will be trained in their special maintenance requirements.
2. Corrective action and shut-in procedures when drilling or reworking a well and blowout prevention and well control procedures.
3. The contents and requirements of the H_2S Drilling Operations Plan and Public Protection Plan.

There will be an initial training session just prior to encountering a known or probable H_2S zone (within 3 days or 500 feet) and weekly H_2S and well control drills for all personnel in each crew. The initial training session shall include a review of the site specific H_2S Drilling Operations Plan and the Public Protection Plan.

II. HYDROGEN SULFIDE TRAINING

Note: All H_2S safety equipment and systems will be installed, tested, and operational when drilling reaches a depth of 500 feet above, or three days prior to penetrating the first zone containing or reasonably expected to contain H_2S.

1. **Well Control Equipment**

   A. Flare line

   B. Choke manifold – Remotely Operated

   C. Blind rams and pipe rams to accommodate all pipe sizes with properly sized closing unit

   D. Auxiliary equipment may include if applicable: annular preventer and rotating head.

   E. Mud/Gas Separator

2. **Protective equipment for essential personnel:**

   30-minute SCBA units located at briefing areas, as indicated on well site diagram, with one escape unit available in the top doghouse. As it may be difficult to communicate audibly while wearing these units, hand signals shall be utilized.

3. **H_2S detection and monitoring equipment:**

   Portable H_2S monitors positioned on location for best coverage and response. These units have warning lights which activate when H_2S levels reach 10 ppm and audible sirens which activate at 10 ppm. Sensor locations:

   - Bell nipple
   - Shale shaker
   - Trip tank
   - Suction pit
   - Rig floor
   - Cellar
   - Choke manifold
   - Living Quarters (usually the company man's trailer stairs.)

   Visual warning systems:

   A. Wind direction indicators as shown on well site diagram

   B. Caution/ Danger signs shall be posted on roads providing direct access to locations. Signs will be painted a high visibility yellow with black lettering of sufficient size to be reasonable distance from the immediate location. Bilingual signs will be used when appropriate.

4. **Mud program:**

   The mud program has been designed to minimize the volume of H_2S circulated to surface. Proper mud weight, safe drilling practices and the use of H_2S scavengers will minimize hazards when penetrating H_2S bearing zones.

5. **Metallurgy:**

   A. All drill strings, casings, tubing, wellhead, blowout preventer, drilling spool, kill lines, choke manifold lines, and valves shall be H_2S trim.

   B. All elastomers used for packing and seals shall be H_2S trim.

6. **Communication:**

   A. Company personnel have/use cellular telephones in the field.

   B. Land line (telephone) communications at Office

7. **Well testing:**

   A. There will be no drill stem testing.

Devon Energy Corp. Company Call List		
Drilling Supervisor – Basin – Mark Kramer		405-823-4796
Jerry Matthews – Day: 575-748-0161 Cell: 575-748-5234		
EHS Professional – Jason Robison		405-541-2841

Agency Call List

Lea County (575)	**Hobbs**		
	Lea County Communication Authority		393-3981
	State Police		392-5588
	City Police		397-9265
	Sheriff's Office		393-2515
	Ambulance		**911**
	Fire Department		397-9308
	LEPC (Local Emergency Planning Committee)		393-2870
	NMOCD		393-6161
	US Bureau of Land Management		393-3612
Eddy County (575)	**Carlsbad**		
	State Police		885-3137
	City Police		885-2111
	Sheriff's Office		887-7551
	Ambulance		**911**
	Fire Department		885-3125
	LEPC (Local Emergency Planning Committee)		887-3798
	US Bureau of Land Management		887-6544
	NM Emergency Response Commission (Santa Fe)		(505) 476-9600
	24 HR		(505) 827-9126
	National Emergency Response Center		(800) 424-8802
	National Pollution Control Center: Direct		(703) 872-6000
	For Oil Spills		(800) 280-7118
	Emergency Services		
	Wild Well Control		(281) 784-4700
	Cudd Pressure Control	(915) 699-0139	(915) 563-3356
	Halliburton		(575) 746-2757
	B. J. Services		(575) 746-3569
Give GPS position:	Native Air – Emergency Helicopter – Hobbs		(575) 392-6429
	Flight For Life - Lubbock, TX		(806) 743-9911
	Aerocare - Lubbock, TX		(806) 747-8923
	Med Flight Air Amb - Albuquerque, NM		(575) 842-4433
	Lifeguard Air Med Svc. Albuquerque, NM		(800) 222-1222
	Poison Control (24/7)		(575) 272-3115
	Oil & Gas Pipeline 24 Hour Service		(800) 364-4366
	NOAA – Website - www.nhc.noaa.gov		

Prepared in conjunction with
Dave Small SHARP COMMUNICATIONS & CONSULTING, LLC

Devon Energy

Eddy County, New Mexico (NAD 83)
Snapping 12-1 FED
533H

OH
Plan 1

Anticollision Report

28 September, 2017

Anticollision Report

Company:	Devon Energy	**Local Co-ordinate Reference:**	Well 533H
Project:	Eddy County, New Mexico (NAD 83)	**TVD Reference:**	GL 3280 + 23' KB @ 3303.00usft
Reference Site:	Snapping 12-1 FED	**MD Reference:**	GL 3280 + 23' KB @ 3303.00usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	533H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.00 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OH	**Database:**	EDM 5000.14 Single User Db
Reference Design:	Plan 1	**Offset TVD Reference:**	Offset Datum

Reference	Plan 1		
Filter type:	NO GLOBAL FILTER: Using user defined selection & filtering criteria		
Interpolation Method:	MD Interval 100.00usft	**Error Model:**	ISCWSA
Depth Range:	Unlimited	**Scan Method:**	Closest Approach 3D
Results Limited by:	Maximum center-center distance of 1,834.38 usft	**Error Surface:**	Pedal Curve
Warning Levels Evaluated at:	2.00 **Sigma**	**Casing Method:**	Not applied

Survey Tool Program **Date** 9/28/2017

From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description
0.00	16,378.88	Plan 1 (OH)	MWD	OWSG MWD - Standard

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
Snapping 12-1 FED						
522H - OH - Plan 1	1,200.00	1,200.00	59.95	51.79	7.345	CC, ES
522H - OH - Plan 1	16,379.26	16,170.10	755.98	516.51	3.157	SF
523H - OH - Plan 1	1,000.00	1,000.00	30.02	23.29	4.462	CC, ES
523H - OH - Plan 1	16,379.26	16,196.45	294.09	116.15	1.653	SF
623H - OH - Plan 1	1,471.76	1,472.75	24.26	14.29	2.433	CC
623H - OH - Plan 1	8,501.95	8,503.08	70.83	10.56	1.175	Level 2, ES, SF

Offset Design Snapping 12-1 FED - 522H - OH - Plan 1 — **Offset Site Error:** 0.00 usft

Survey Program: 0-MWD — **Offset Well Error:** 0.00 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
0.00	0.00	0.00	0.00	0.00	0.00	-90.28	-0.29	-59.95	59.95				
100.00	100.00	100.00	100.00	0.14	0.14	-90.28	-0.29	-59.95	59.95	59.67	0.28	217.194	
200.00	200.00	200.00	200.00	0.50	0.50	-90.28	-0.29	-59.95	59.95	58.96	0.99	60.375	
300.00	300.00	300.00	300.00	0.85	0.85	-90.28	-0.29	-59.95	59.95	58.24	1.71	35.061	
400.00	400.00	400.00	400.00	1.21	1.21	-90.28	-0.29	-59.95	59.95	57.52	2.43	24.703	
500.00	500.00	500.00	500.00	1.57	1.57	-90.28	-0.29	-59.95	59.95	56.81	3.14	19.070	
600.00	600.00	600.00	600.00	1.93	1.93	-90.28	-0.29	-59.95	59.95	56.09	3.86	15.528	
700.00	700.00	700.00	700.00	2.29	2.29	-90.28	-0.29	-59.95	59.95	55.37	4.58	13.096	
800.00	800.00	800.00	800.00	2.65	2.65	-90.28	-0.29	-59.95	59.95	54.66	5.29	11.323	
900.00	900.00	900.00	900.00	3.01	3.01	-90.28	-0.29	-59.95	59.95	53.94	6.01	9.973	
1,000.00	1,000.00	1,000.00	1,000.00	3.36	3.36	-90.28	-0.29	-59.95	59.95	53.22	6.73	8.910	
1,100.00	1,100.00	1,100.00	1,100.00	3.72	3.72	-90.28	-0.29	-59.95	59.95	52.51	7.45	8.052	
1,200.00	1,200.00	1,200.00	1,200.00	4.08	4.08	-90.28	-0.29	-59.95	59.95	51.79	8.16	7.345	CC, ES
1,300.00	1,299.99	1,299.99	1,299.99	4.42	4.44	138.96	-0.29	-59.95	60.70	51.84	8.86	6.848	
1,400.00	1,399.95	1,399.95	1,399.95	4.76	4.80	140.74	-0.29	-59.95	63.01	53.45	9.55	6.594	
1,500.00	1,499.82	1,499.82	1,499.82	5.10	5.16	143.43	-0.29	-59.95	66.97	56.72	10.25	6.534	
1,600.00	1,599.57	1,598.52	1,598.51	5.44	5.50	146.12	-0.86	-60.74	73.44	62.51	10.93	6.720	
1,700.00	1,699.16	1,696.91	1,696.86	5.79	5.82	148.10	-2.56	-63.11	83.14	71.54	11.60	7.170	
1,800.00	1,798.62	1,794.91	1,794.74	6.14	6.15	149.27	-5.39	-67.03	95.46	83.19	12.26	7.783	
1,900.00	1,898.07	1,892.59	1,892.19	6.50	6.49	149.44	-9.32	-72.50	109.17	96.24	12.94	8.440	
2,000.00	1,997.52	1,989.88	1,989.09	6.87	6.82	148.93	-14.35	-79.48	124.22	110.62	13.61	9.129	

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

Anticollision Report

Company:	Devon Energy	**Local Co-ordinate Reference:**	Well 533H
Project:	Eddy County, New Mexico (NAD 83)	**TVD Reference:**	GL 3280 + 23' KB @ 3303.00usft
Reference Site:	Snapping 12-1 FED	**MD Reference:**	GL 3280 + 23' KB @ 3303.00usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	533H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.00 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OH	**Database:**	EDM 5000.14 Single User Db
Reference Design:	Plan 1	**Offset TVD Reference:**	Offset Datum

Offset Design Snapping 12-1 FED - 522H - OH - Plan 1 — **Offset Site Error:** 0.00 usft

Survey Program: 0-MWD — **Offset Well Error:** 0.00 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
2,100.00	2,096.97	2,087.99	2,086.67	7.23	7.17	148.08	-20.28	-87.73	140.33	126.03	14.29	9.817	
2,200.00	2,196.42	2,186.65	2,184.79	7.60	7.52	147.37	-26.31	-96.10	156.53	141.54	14.99	10.441	
2,300.00	2,295.87	2,285.31	2,282.91	7.98	7.88	146.80	-32.34	-104.48	172.75	157.05	15.69	11.007	
2,400.00	2,395.33	2,383.98	2,381.04	8.35	8.23	146.33	-38.37	-112.85	188.98	172.58	16.40	11.522	
2,500.00	2,494.78	2,482.64	2,479.16	8.73	8.60	145.93	-44.40	-121.23	205.23	188.12	17.11	11.993	
2,600.00	2,594.23	2,581.30	2,577.28	9.11	8.96	145.58	-50.42	-129.60	221.48	203.66	17.83	12.425	
2,700.00	2,693.68	2,679.96	2,675.40	9.49	9.33	145.29	-56.45	-137.98	237.74	219.20	18.54	12.821	
2,800.00	2,793.13	2,778.62	2,773.52	9.87	9.69	145.03	-62.48	-146.35	254.01	234.75	19.26	13.187	
2,900.00	2,892.58	2,877.29	2,871.64	10.25	10.06	144.81	-68.51	-154.73	270.28	250.29	19.98	13.525	
3,000.00	2,992.03	2,975.95	2,969.76	10.64	10.44	144.61	-74.54	-163.10	286.55	265.84	20.71	13.838	
3,100.00	3,091.49	3,074.61	3,067.88	11.02	10.81	144.43	-80.57	-171.48	302.83	281.39	21.43	14.129	
3,200.00	3,190.94	3,173.27	3,166.01	11.41	11.18	144.27	-86.59	-179.85	319.11	296.95	22.16	14.400	
3,300.00	3,290.39	3,271.94	3,264.13	11.79	11.56	144.12	-92.62	-188.23	335.39	312.50	22.89	14.653	
3,400.00	3,389.84	3,370.60	3,362.25	12.18	11.94	143.99	-98.65	-196.60	351.67	328.05	23.62	14.889	
3,500.00	3,489.29	3,469.26	3,460.37	12.57	12.31	143.87	-104.68	-204.98	367.96	343.61	24.35	15.111	
3,600.00	3,588.74	3,567.92	3,558.49	12.96	12.69	143.76	-110.71	-213.35	384.24	359.16	25.08	15.319	
3,700.00	3,688.19	3,666.59	3,656.61	13.35	13.07	143.66	-116.74	-221.73	400.53	374.71	25.82	15.515	
3,800.00	3,787.65	3,765.25	3,754.73	13.74	13.45	143.57	-122.76	-230.10	416.82	390.27	26.55	15.699	
3,900.00	3,887.10	3,863.91	3,852.85	14.13	13.83	143.48	-128.79	-238.48	433.11	405.82	27.29	15.873	
4,000.00	3,986.55	3,962.57	3,950.97	14.52	14.21	143.40	-134.82	-246.85	449.40	421.38	28.02	16.037	
4,100.00	4,086.00	4,061.23	4,049.10	14.91	14.59	143.33	-140.85	-255.23	465.69	436.93	28.76	16.193	
4,200.00	4,185.45	4,159.90	4,147.22	15.30	14.98	143.26	-146.88	-263.60	481.98	452.49	29.50	16.340	
4,300.00	4,284.90	4,258.56	4,245.34	15.69	15.36	143.19	-152.91	-271.98	498.28	468.04	30.23	16.480	
4,400.00	4,384.35	4,357.22	4,343.46	16.08	15.74	143.13	-158.93	-280.35	514.57	483.60	30.97	16.613	
4,500.00	4,483.80	4,455.88	4,441.58	16.47	16.13	143.08	-164.96	-288.73	530.86	499.15	31.71	16.740	
4,600.00	4,583.31	4,554.62	4,539.77	16.86	16.51	143.07	-170.99	-297.11	546.71	514.26	32.45	16.847	
4,700.00	4,682.99	4,653.56	4,638.18	17.24	16.90	142.96	-177.04	-305.51	561.03	527.85	33.19	16.905	
4,800.00	4,782.81	4,752.70	4,736.77	17.61	17.28	142.74	-183.10	-313.92	573.78	539.86	33.92	16.916	
4,900.00	4,882.73	4,851.98	4,835.50	17.97	17.67	142.39	-189.16	-322.35	584.96	550.31	34.65	16.883	
5,000.00	4,982.71	4,951.36	4,934.34	18.32	18.06	141.93	-195.24	-330.79	594.60	559.23	35.37	16.811	
5,100.00	5,082.71	5,050.81	5,033.24	18.64	18.45	-87.26	-201.31	-339.23	602.95	566.87	36.08	16.713	
5,200.00	5,182.71	5,150.26	5,132.15	18.97	18.84	-87.87	-207.39	-347.67	611.18	574.41	36.78	16.618	
5,300.00	5,282.71	5,249.71	5,231.05	19.30	19.22	-88.47	-213.47	-356.11	619.49	582.01	37.48	16.528	
5,400.00	5,382.71	5,349.16	5,329.96	19.62	19.61	-89.04	-219.54	-364.55	627.86	589.68	38.18	16.443	
5,500.00	5,482.71	5,448.61	5,428.87	19.95	20.00	-89.60	-225.62	-373.00	636.29	597.41	38.89	16.363	
5,600.00	5,582.71	5,548.07	5,527.77	20.28	20.39	-90.15	-231.70	-381.44	644.78	605.20	39.59	16.287	
5,700.00	5,682.71	5,647.52	5,626.68	20.61	20.78	-90.68	-237.77	-389.88	653.33	613.04	40.29	16.214	
5,800.00	5,782.71	5,746.97	5,725.58	20.94	21.17	-91.20	-243.85	-398.32	661.94	620.94	41.00	16.146	
5,900.00	5,882.71	5,846.42	5,824.49	21.27	21.56	-91.71	-249.92	-406.76	670.59	628.89	41.70	16.081	
6,000.00	5,982.71	5,945.87	5,923.40	21.61	21.95	-92.20	-256.00	-415.21	679.30	636.89	42.41	16.019	
6,100.00	6,082.71	6,045.32	6,022.30	21.94	22.34	-92.68	-262.08	-423.65	688.06	644.94	43.11	15.960	
6,200.00	6,182.71	6,153.15	6,129.59	22.28	22.76	-93.17	-268.37	-432.39	696.48	652.60	43.88	15.873	
6,300.00	6,282.71	6,266.27	6,242.35	22.61	23.19	-93.56	-273.60	-439.65	703.17	658.50	44.67	15.742	
6,400.00	6,382.71	6,379.74	6,355.64	22.95	23.61	-93.84	-277.34	-444.85	707.95	662.51	45.44	15.579	
6,500.00	6,482.71	6,493.45	6,469.28	23.28	24.02	-94.00	-279.57	-447.95	710.81	664.61	46.20	15.386	
6,600.00	6,582.71	6,607.26	6,583.09	23.62	24.40	-94.05	-280.29	-448.95	711.73	664.80	46.93	15.167	
6,603.60	6,586.32	6,611.37	6,587.19	23.63	24.41	-94.05	-280.29	-448.95	711.73	664.77	46.95	15.159	
6,700.00	6,682.71	6,706.89	6,682.71	23.96	24.72	-94.05	-280.29	-448.95	711.73	664.13	47.60	14.953	
6,800.00	6,782.71	6,806.89	6,782.71	24.30	25.05	-94.05	-280.29	-448.95	711.73	663.46	48.27	14.745	
6,900.00	6,882.71	6,906.89	6,882.71	24.64	25.37	-94.05	-280.29	-448.95	711.73	662.78	48.94	14.542	
7,000.00	6,982.71	7,006.89	6,982.71	24.98	25.70	-94.05	-280.29	-448.95	711.73	662.11	49.62	14.344	
7,100.00	7,082.71	7,106.89	7,082.71	25.32	26.02	-94.05	-280.29	-448.95	711.73	661.43	50.30	14.150	

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

Company:	Devon Energy	**Local Co-ordinate Reference:**	Well 533H
Project:	Eddy County, New Mexico (NAD 83)	**TVD Reference:**	GL 3280 + 23' KB @ 3303.00usft
Reference Site:	Snapping 12-1 FED	**MD Reference:**	GL 3280 + 23' KB @ 3303.00usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	533H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.00 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OH	**Database:**	EDM 5000.14 Single User Db
Reference Design:	Plan 1	**Offset TVD Reference:**	Offset Datum

Offset Design Snapping 12-1 FED - 522H - OH - Plan 1 — **Offset Site Error:** 0.00 usft

Survey Program: 0-MWD — **Offset Well Error:** 0.00 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
7,200.00	7,182.71	7,206.89	7,182.71	25.66	26.35	-94.05	-280.29	-448.95	711.73	660.75	50.98	13.962	
7,300.00	7,282.71	7,306.89	7,282.71	26.00	26.68	-94.05	-280.29	-448.95	711.73	660.07	51.65	13.779	
7,400.00	7,382.71	7,406.89	7,382.71	26.34	27.01	-94.05	-280.29	-448.95	711.73	659.39	52.33	13.600	
7,500.00	7,482.71	7,506.89	7,482.71	26.68	27.34	-94.05	-280.29	-448.95	711.73	658.71	53.02	13.425	
7,600.00	7,582.71	7,606.89	7,582.71	27.02	27.67	-94.05	-280.29	-448.95	711.73	658.03	53.70	13.254	
7,700.00	7,682.71	7,706.89	7,682.71	27.37	28.00	-94.05	-280.29	-448.95	711.73	657.35	54.38	13.088	
7,800.00	7,782.71	7,806.89	7,782.71	27.71	28.33	-94.05	-280.29	-448.95	711.73	656.66	55.06	12.925	
7,900.00	7,882.71	7,906.89	7,882.71	28.05	28.66	-94.05	-280.29	-448.95	711.73	655.98	55.75	12.767	
8,000.00	7,982.71	8,006.89	7,982.71	28.40	28.99	-94.05	-280.29	-448.95	711.73	655.29	56.43	12.612	
8,100.00	8,082.71	8,106.89	8,082.71	28.74	29.33	-94.05	-280.29	-448.95	711.73	654.61	57.12	12.460	
8,200.00	8,182.71	8,206.89	8,182.71	29.09	29.66	-94.05	-280.29	-448.95	711.73	653.92	57.81	12.312	
8,300.00	8,282.71	8,307.73	8,283.55	29.43	30.00	-94.05	-280.22	-448.95	711.72	653.23	58.50	12.167	
8,400.00	8,382.71	8,417.08	8,391.73	29.78	30.34	-92.90	-265.94	-448.95	710.92	651.73	59.19	12.012	
8,500.00	8,482.71	8,515.32	8,483.89	30.12	30.59	-90.20	-232.43	-448.95	709.96	650.14	59.82	11.869	
8,506.14	8,488.85	8,520.85	8,488.85	30.14	30.60	-90.00	-229.99	-448.95	709.95	650.10	59.85	11.862	
8,600.00	8,582.64	8,598.55	8,555.24	30.46	30.75	-86.74	-189.78	-448.95	711.49	651.15	60.34	11.791	
8,700.00	8,680.39	8,675.00	8,613.36	30.78	30.86	-83.22	-140.24	-448.95	716.27	655.61	60.66	11.808	
8,800.00	8,771.82	8,747.17	8,660.31	31.04	30.93	-79.91	-85.52	-448.95	723.31	662.57	60.74	11.909	
8,900.00	8,852.92	8,816.75	8,697.28	31.24	30.97	-76.90	-26.66	-448.95	731.49	670.87	60.62	12.068	
9,000.00	8,920.15	8,884.34	8,724.65	31.38	30.98	-74.32	35.09	-448.95	739.75	679.35	60.40	12.248	
9,100.00	8,970.57	8,950.00	8,742.63	31.49	30.97	-72.25	98.19	-448.96	747.15	686.95	60.20	12.410	
9,200.00	9,001.97	9,015.76	8,751.79	31.65	31.00	-70.73	163.25	-448.96	752.95	692.79	60.16	12.516	
9,300.00	9,012.99	9,097.17	8,753.00	31.90	31.23	-69.89	244.63	-448.96	756.05	695.65	60.40	12.517	
9,400.00	9,013.00	9,197.17	8,753.00	32.20	31.58	-69.89	344.63	-448.96	756.05	695.07	60.99	12.397	
9,500.00	9,013.00	9,297.17	8,753.00	32.59	32.01	-69.89	444.63	-448.96	756.05	694.32	61.73	12.248	
9,600.00	9,013.00	9,397.17	8,753.00	33.05	32.50	-69.89	544.63	-448.96	756.05	693.43	62.62	12.074	
9,700.00	9,013.00	9,497.17	8,753.00	33.58	33.07	-69.89	644.63	-448.96	756.05	692.40	63.65	11.878	
9,800.00	9,013.00	9,597.17	8,753.00	34.19	33.70	-69.89	744.63	-448.96	756.05	691.23	64.82	11.663	
9,900.00	9,013.00	9,697.17	8,753.00	34.85	34.40	-69.89	844.63	-448.97	756.05	689.93	66.12	11.434	
10,000.00	9,013.00	9,797.17	8,753.00	35.59	35.17	-69.89	944.63	-448.97	756.05	688.51	67.54	11.194	
10,100.00	9,013.00	9,897.17	8,753.00	36.38	35.99	-69.89	1,044.63	-448.97	756.04	686.97	69.07	10.945	
10,200.00	9,013.00	9,997.17	8,753.00	37.23	36.86	-69.89	1,144.63	-448.97	756.04	685.33	70.71	10.691	
10,300.00	9,013.00	10,097.17	8,753.00	38.12	37.79	-69.89	1,244.63	-448.97	756.04	683.59	72.45	10.435	
10,400.00	9,013.00	10,197.17	8,753.00	39.07	38.76	-69.89	1,344.63	-448.97	756.04	681.75	74.29	10.177	
10,500.00	9,013.00	10,297.17	8,753.00	40.07	39.77	-69.89	1,444.63	-448.97	756.04	679.83	76.20	9.921	
10,600.00	9,013.00	10,397.17	8,753.00	41.10	40.83	-69.89	1,544.63	-448.98	756.04	677.84	78.20	9.668	
10,700.00	9,013.00	10,497.17	8,753.00	42.17	41.93	-69.89	1,644.63	-448.98	756.04	675.76	80.27	9.418	
10,800.00	9,013.00	10,597.17	8,753.00	43.29	43.06	-69.89	1,744.63	-448.98	756.04	673.62	82.41	9.174	
10,900.00	9,013.00	10,697.17	8,753.00	44.43	44.22	-69.89	1,844.63	-448.98	756.03	671.42	84.61	8.935	
11,000.00	9,013.00	10,797.17	8,753.00	45.60	45.41	-69.89	1,944.63	-448.98	756.03	669.16	86.87	8.703	
11,100.00	9,013.00	10,897.17	8,753.00	46.81	46.63	-69.89	2,044.63	-448.98	756.03	666.85	89.19	8.477	
11,200.00	9,013.00	10,997.17	8,753.00	48.04	47.88	-69.89	2,144.63	-448.99	756.03	664.48	91.55	8.258	
11,300.00	9,013.00	11,097.17	8,753.00	49.29	49.15	-69.89	2,244.63	-448.99	756.03	662.07	93.96	8.047	
11,400.00	9,013.00	11,197.17	8,753.00	50.57	50.44	-69.89	2,344.63	-448.99	756.03	659.62	96.41	7.842	
11,500.00	9,013.00	11,297.17	8,753.00	51.86	51.75	-69.89	2,444.63	-448.99	756.03	657.13	98.90	7.644	
11,600.00	9,013.00	11,397.17	8,753.00	53.18	53.08	-69.89	2,544.63	-448.99	756.02	654.60	101.42	7.454	
11,700.00	9,013.00	11,497.17	8,753.00	54.52	54.43	-69.89	2,644.63	-448.99	756.02	652.04	103.98	7.271	
11,800.00	9,013.00	11,597.17	8,753.00	55.87	55.80	-69.88	2,744.63	-448.99	756.02	649.45	106.58	7.094	
11,900.00	9,013.00	11,697.17	8,753.00	57.24	57.17	-69.88	2,844.63	-449.00	756.02	646.82	109.20	6.923	
12,000.00	9,013.00	11,797.17	8,753.00	58.62	58.57	-69.88	2,944.63	-449.00	756.02	644.17	111.84	6.760	
12,100.00	9,013.00	11,897.17	8,753.00	60.01	59.97	-69.88	3,044.63	-449.00	756.02	641.50	114.52	6.602	
12,200.00	9,013.00	11,997.17	8,753.00	61.42	61.39	-69.88	3,144.63	-449.00	756.02	638.80	117.21	6.450	

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

Anticollision Report

Company:	Devon Energy	**Local Co-ordinate Reference:**	Well 533H
Project:	Eddy County, New Mexico (NAD 83)	**TVD Reference:**	GL 3280 + 23' KB @ 3303.00usft
Reference Site:	Snapping 12-1 FED	**MD Reference:**	GL 3280 + 23' KB @ 3303.00usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	533H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.00 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OH	**Database:**	EDM 5000.14 Single User Db
Reference Design:	Plan 1	**Offset TVD Reference:**	Offset Datum

Offset Design Snapping 12-1 FED - 522H - OH - Plan 1 — **Offset Site Error:** 0.00 usft

Survey Program: 0-MWD — **Offset Well Error:** 0.00 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
12,300.00	9,013.00	12,097.17	8,753.00	62.84	62.82	-69.88	3,244.63	-449.00	756.01	636.08	119.93	6.304	
12,400.00	9,013.00	12,197.17	8,753.00	64.27	64.26	-69.88	3,344.63	-449.00	756.01	633.34	122.67	6.163	
12,500.00	9,013.00	12,297.17	8,753.00	65.71	65.71	-69.88	3,444.63	-449.00	756.01	630.59	125.43	6.028	
12,600.00	9,013.00	12,397.17	8,753.00	67.16	67.17	-69.88	3,544.63	-449.01	756.01	627.81	128.20	5.897	
12,700.00	9,013.00	12,497.17	8,753.00	68.62	68.64	-69.88	3,644.63	-449.01	756.01	625.02	130.99	5.771	
12,800.00	9,013.00	12,597.17	8,753.00	70.09	70.11	-69.88	3,744.63	-449.01	756.01	622.21	133.80	5.650	
12,900.00	9,013.00	12,697.17	8,753.00	71.57	71.60	-69.88	3,844.63	-449.01	756.01	619.38	136.62	5.534	
13,000.00	9,013.00	12,797.17	8,753.00	73.05	73.09	-69.88	3,944.63	-449.01	756.00	616.55	139.46	5.421	
13,100.00	9,013.00	12,897.17	8,753.00	74.54	74.58	-69.88	4,044.63	-449.01	756.00	613.70	142.31	5.312	
13,200.00	9,013.00	12,997.17	8,753.00	76.04	76.09	-69.88	4,144.63	-449.01	756.00	610.83	145.17	5.208	
13,300.00	9,013.00	13,097.17	8,753.00	77.54	77.60	-69.88	4,244.63	-449.02	756.00	607.96	148.04	5.107	
13,400.00	9,013.00	13,197.17	8,753.00	79.05	79.11	-69.88	4,344.63	-449.02	756.00	605.08	150.92	5.009	
13,500.00	9,013.00	13,297.17	8,753.00	80.56	80.63	-69.88	4,444.63	-449.02	756.00	602.18	153.82	4.915	
13,600.00	9,013.00	13,397.17	8,753.00	82.08	82.16	-69.88	4,544.63	-449.02	756.00	599.28	156.72	4.824	
13,700.00	9,013.00	13,497.17	8,753.00	83.61	83.69	-69.88	4,644.63	-449.02	756.00	596.36	159.63	4.736	
13,800.00	9,013.00	13,597.17	8,753.00	85.14	85.22	-69.88	4,744.63	-449.02	755.99	593.44	162.55	4.651	
13,900.00	9,013.00	13,697.17	8,753.00	86.67	86.76	-69.88	4,844.63	-449.02	755.99	590.51	165.48	4.568	
14,000.00	9,013.00	13,797.17	8,753.00	88.21	88.30	-69.88	4,944.63	-449.03	755.99	587.57	168.42	4.489	
14,100.00	9,013.00	13,897.17	8,753.00	89.75	89.85	-69.88	5,044.63	-449.03	755.99	584.63	171.36	4.412	
14,200.00	9,013.00	13,997.17	8,753.00	91.30	91.40	-69.88	5,144.63	-449.03	755.99	581.67	174.32	4.337	
14,300.00	9,013.00	14,097.17	8,753.00	92.85	92.95	-69.88	5,244.63	-449.03	755.99	578.71	177.27	4.265	
14,400.00	9,013.00	14,197.17	8,753.00	94.40	94.51	-69.88	5,344.63	-449.03	755.99	575.75	180.24	4.194	
14,500.00	9,013.00	14,297.17	8,753.00	95.95	96.07	-69.88	5,444.63	-449.03	755.98	572.78	183.21	4.126	
14,600.00	9,013.00	14,397.17	8,753.00	97.51	97.63	-69.88	5,544.63	-449.03	755.98	569.80	186.18	4.060	
14,700.00	9,013.00	14,497.17	8,753.00	99.07	99.19	-69.88	5,644.63	-449.04	755.98	566.82	189.16	3.996	
14,800.00	9,013.00	14,597.17	8,753.00	100.64	100.76	-69.88	5,744.63	-449.04	755.98	563.83	192.15	3.934	
14,900.00	9,013.00	14,697.17	8,753.00	102.21	102.33	-69.88	5,844.63	-449.04	755.98	560.84	195.14	3.874	
15,000.00	9,013.00	14,797.17	8,753.00	103.78	103.91	-69.88	5,944.63	-449.04	755.98	557.84	198.14	3.815	
15,100.00	9,013.00	14,897.17	8,753.00	105.35	105.48	-69.88	6,044.63	-449.04	755.98	554.84	201.14	3.758	
15,200.00	9,013.00	14,997.17	8,753.00	106.92	107.06	-69.88	6,144.63	-449.04	755.97	551.83	204.14	3.703	
15,300.00	9,013.00	15,097.17	8,753.00	108.50	108.64	-69.88	6,244.63	-449.04	755.97	548.82	207.15	3.649	
15,400.00	9,013.00	15,197.17	8,753.00	110.08	110.22	-69.88	6,344.63	-449.05	755.97	545.81	210.17	3.597	
15,500.00	9,013.00	15,297.17	8,753.00	111.66	111.80	-69.88	6,444.63	-449.05	755.97	542.79	213.18	3.546	
15,600.00	9,013.00	15,397.17	8,753.00	113.24	113.39	-69.88	6,544.63	-449.05	755.97	539.77	216.20	3.497	
15,700.00	9,013.00	15,497.17	8,753.00	114.83	114.98	-69.88	6,644.63	-449.05	755.97	536.74	219.23	3.448	
15,800.00	9,013.00	15,597.17	8,753.00	116.41	116.57	-69.88	6,744.63	-449.05	755.97	533.71	222.25	3.401	
15,900.00	9,013.00	15,697.17	8,753.00	118.00	118.16	-69.88	6,844.63	-449.05	755.96	530.68	225.29	3.356	
16,000.00	9,013.00	15,797.17	8,753.00	119.59	119.75	-69.88	6,944.63	-449.05	755.96	527.64	228.32	3.311	
16,100.00	9,013.00	15,897.17	8,753.00	121.18	121.34	-69.88	7,044.63	-449.06	755.96	524.61	231.36	3.268	
16,200.00	9,013.00	15,997.17	8,753.00	122.78	122.94	-69.88	7,144.63	-449.06	755.96	521.57	234.39	3.225	
16,300.00	9,013.00	16,097.17	8,753.00	124.37	124.54	-69.88	7,244.63	-449.06	755.96	518.52	237.44	3.184	
16,370.47	9,013.00	16,167.64	8,753.00	125.37	125.54	-69.88	7,315.11	-449.06	755.96	516.64	239.32	3.159	
16,379.26	9,013.00	16,170.10	8,753.00	125.49	125.58	-69.88	7,317.56	-449.06	755.98	516.51	239.47	3.157 SF	

Anticollision Report

Company:	Devon Energy	**Local Co-ordinate Reference:**	Well 533H
Project:	Eddy County, New Mexico (NAD 83)	**TVD Reference:**	GL 3280 + 23' KB @ 3303.00usft
Reference Site:	Snapping 12-1 FED	**MD Reference:**	GL 3280 + 23' KB @ 3303.00usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	533H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.00 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OH	**Database:**	EDM 5000.14 Single User Db
Reference Design:	Plan 1	**Offset TVD Reference:**	Offset Datum

Offset Design Snapping 12-1 FED - 523H - OH - Plan 1 — **Offset Site Error:** 0.00 usft

Survey Program: 0-MWD — **Offset Well Error:** 0.00 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
0.00	0.00	0.00	0.00	0.00	0.00	89.60	0.21	30.02	30.02				
100.00	100.00	100.00	100.00	0.14	0.14	89.60	0.21	30.02	30.02	29.74	0.28	108.762	
200.00	200.00	200.00	200.00	0.50	0.50	89.60	0.21	30.02	30.02	29.03	0.99	30.233	
300.00	300.00	300.00	300.00	0.85	0.85	89.60	0.21	30.02	30.02	28.31	1.71	17.557	
400.00	400.00	400.00	400.00	1.21	1.21	89.60	0.21	30.02	30.02	27.59	2.43	12.370	
500.00	500.00	500.00	500.00	1.57	1.57	89.60	0.21	30.02	30.02	26.88	3.14	9.549	
600.00	600.00	600.00	600.00	1.93	1.93	89.60	0.21	30.02	30.02	26.16	3.86	7.776	
700.00	700.00	700.00	700.00	2.29	2.29	89.60	0.21	30.02	30.02	25.44	4.58	6.558	
800.00	800.00	800.00	800.00	2.65	2.65	89.60	0.21	30.02	30.02	24.73	5.29	5.670	
900.00	900.00	900.00	900.00	3.01	3.01	89.60	0.21	30.02	30.02	24.01	6.01	4.994	
1,000.00	1,000.00	1,000.00	1,000.00	3.36	3.36	89.60	0.21	30.02	30.02	23.29	6.73	4.462	CC, ES
1,100.00	1,100.00	1,099.50	1,099.49	3.72	3.71	90.67	-0.36	30.83	30.84	23.41	7.43	4.151	
1,200.00	1,200.00	1,198.92	1,198.86	4.08	4.04	93.55	-2.06	33.28	33.36	25.24	8.12	4.109	
1,300.00	1,299.99	1,298.23	1,298.05	4.42	4.38	-34.75	-4.90	37.34	36.88	28.09	8.79	4.195	
1,400.00	1,399.95	1,397.46	1,397.04	4.76	4.72	-32.50	-8.86	43.01	40.58	31.13	9.45	4.293	
1,500.00	1,499.82	1,496.62	1,495.79	5.10	5.07	-30.88	-13.95	50.30	44.43	34.31	10.12	4.390	
1,600.00	1,599.57	1,596.35	1,594.98	5.44	5.43	-30.03	-19.88	58.79	47.88	37.08	10.80	4.433	
1,700.00	1,699.16	1,696.33	1,694.42	5.79	5.79	-30.40	-25.86	67.36	49.66	38.17	11.50	4.320	
1,800.00	1,798.62	1,796.32	1,793.86	6.14	6.16	-31.57	-31.85	75.93	50.25	38.05	12.20	4.119	
1,900.00	1,898.07	1,896.31	1,893.31	6.50	6.53	-32.74	-37.83	84.50	50.81	37.91	12.91	3.936	
2,000.00	1,997.52	1,996.31	1,992.75	6.87	6.91	-33.89	-43.82	93.07	51.40	37.78	13.62	3.773	
2,100.00	2,096.97	2,096.30	2,092.20	7.23	7.28	-35.01	-49.80	101.65	52.01	37.66	14.34	3.626	
2,200.00	2,196.42	2,196.29	2,191.64	7.60	7.66	-36.11	-55.79	110.22	52.63	37.56	15.07	3.493	
2,300.00	2,295.87	2,296.29	2,291.09	7.98	8.04	-37.18	-61.77	118.79	53.27	37.48	15.80	3.372	
2,400.00	2,395.33	2,396.28	2,390.53	8.35	8.43	-38.22	-67.76	127.36	53.94	37.40	16.53	3.263	
2,500.00	2,494.78	2,496.27	2,489.98	8.73	8.81	-39.23	-73.74	135.93	54.62	37.35	17.27	3.163	
2,600.00	2,594.23	2,596.26	2,589.42	9.11	9.19	-40.23	-79.73	144.50	55.31	37.30	18.01	3.071	
2,700.00	2,693.68	2,696.26	2,688.87	9.49	9.58	-41.19	-85.71	153.07	56.03	37.27	18.76	2.987	
2,800.00	2,793.13	2,796.25	2,788.31	9.87	9.97	-42.13	-91.70	161.64	56.75	37.25	19.50	2.910	
2,900.00	2,892.58	2,896.24	2,887.76	10.25	10.35	-43.05	-97.68	170.21	57.50	37.24	20.25	2.839	
3,000.00	2,992.03	2,996.24	2,987.20	10.64	10.74	-43.95	-103.66	178.78	58.25	37.25	21.01	2.773	
3,100.00	3,091.49	3,096.23	3,086.65	11.02	11.13	-44.82	-109.65	187.35	59.03	37.26	21.76	2.712	
3,200.00	3,190.94	3,196.22	3,186.09	11.41	11.52	-45.67	-115.63	195.92	59.81	37.29	22.52	2.656	
3,300.00	3,290.39	3,296.22	3,285.54	11.79	11.91	-46.49	-121.62	204.50	60.61	37.33	23.28	2.603	
3,400.00	3,389.84	3,396.21	3,384.98	12.18	12.30	-47.30	-127.60	213.07	61.42	37.37	24.04	2.554	
3,500.00	3,489.29	3,496.20	3,484.43	12.57	12.69	-48.08	-133.59	221.64	62.24	37.43	24.81	2.509	
3,600.00	3,588.74	3,596.19	3,583.87	12.96	13.08	-48.84	-139.57	230.21	63.07	37.49	25.58	2.466	
3,700.00	3,688.19	3,696.19	3,683.32	13.35	13.47	-49.59	-145.56	238.78	63.91	37.57	26.34	2.426	
3,800.00	3,787.65	3,796.18	3,782.77	13.74	13.86	-50.31	-151.54	247.35	64.77	37.65	27.11	2.389	
3,900.00	3,887.10	3,896.17	3,882.21	14.13	14.25	-51.02	-157.53	255.92	65.63	37.75	27.89	2.354	
4,000.00	3,986.55	3,996.17	3,981.66	14.52	14.64	-51.70	-163.51	264.49	66.51	37.85	28.66	2.321	
4,100.00	4,086.00	4,096.16	4,081.10	14.91	15.04	-52.37	-169.49	273.06	67.39	37.95	29.43	2.289	
4,200.00	4,185.45	4,196.15	4,180.55	15.30	15.43	-53.02	-175.48	281.63	68.28	38.07	30.21	2.260	
4,300.00	4,284.90	4,296.15	4,279.99	15.69	15.82	-53.66	-181.46	290.20	69.18	38.19	30.99	2.233	
4,400.00	4,384.35	4,396.14	4,379.44	16.08	16.21	-54.27	-187.45	298.77	70.09	38.33	31.77	2.206	
4,500.00	4,483.80	4,496.13	4,478.88	16.47	16.61	-54.88	-193.43	307.34	71.01	38.46	32.55	2.182	
4,600.00	4,583.31	4,596.12	4,578.32	16.86	17.00	-55.10	-199.42	315.92	72.25	38.94	33.31	2.169	
4,700.00	4,682.99	4,696.08	4,677.74	17.24	17.39	-54.11	-205.40	324.48	74.62	40.58	34.04	2.192	
4,800.00	4,782.81	4,795.98	4,777.08	17.61	17.79	-52.02	-211.38	333.05	78.23	43.50	34.73	2.252	
4,900.00	4,882.73	4,895.76	4,876.32	17.97	18.18	-49.06	-217.35	341.60	83.24	47.85	35.39	2.352	
5,000.00	4,982.71	4,995.40	4,975.41	18.32	18.57	-45.54	-223.31	350.14	89.84	53.83	36.01	2.495	
5,100.00	5,082.71	5,094.87	5,074.34	18.64	18.96	89.57	-229.27	358.66	98.03	61.42	36.61	2.678	

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

Anticollision Report

Company:	Devon Energy	**Local Co-ordinate Reference:**	Well 533H
Project:	Eddy County, New Mexico (NAD 83)	**TVD Reference:**	GL 3280 + 23' KB @ 3303.00usft
Reference Site:	Snapping 12-1 FED	**MD Reference:**	GL 3280 + 23' KB @ 3303.00usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	533H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.00 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OH	**Database:**	EDM 5000.14 Single User Db
Reference Design:	Plan 1	**Offset TVD Reference:**	Offset Datum

Offset Design Snapping 12-1 FED - 523H - OH - Plan 1 — **Offset Site Error:** 0.00 usft

Survey Program: 0-MWD — **Offset Well Error:** 0.00 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
5,200.00	5,182.71	5,194.32	5,173.25	18.97	19.35	92.81	-235.22	367.19	106.74	69.52	37.22	2.868	
5,300.00	5,282.71	5,293.77	5,272.15	19.30	19.75	95.56	-241.17	375.71	115.74	77.90	37.84	3.059	
5,400.00	5,382.71	5,393.23	5,371.06	19.62	20.14	97.91	-247.12	384.24	124.97	86.49	38.48	3.248	
5,500.00	5,482.71	5,492.68	5,469.97	19.95	20.53	99.93	-253.08	392.76	134.37	95.25	39.13	3.434	
5,600.00	5,582.71	5,592.13	5,568.87	20.28	20.92	101.69	-259.03	401.29	143.93	104.14	39.78	3.618	
5,700.00	5,682.71	5,691.99	5,668.19	20.61	21.32	103.23	-264.99	409.83	153.58	113.13	40.45	3.797	
5,800.00	5,782.71	5,794.61	5,770.37	20.94	21.71	104.46	-270.37	417.53	162.12	120.97	41.15	3.940	
5,900.00	5,882.71	5,897.57	5,873.07	21.27	22.10	105.33	-274.55	423.51	168.78	126.94	41.84	4.034	
6,000.00	5,982.71	6,000.79	5,976.16	21.61	22.48	105.90	-277.52	427.77	173.53	131.00	42.52	4.081	
6,100.00	6,082.71	6,104.18	6,079.51	21.94	22.84	106.23	-279.27	430.27	176.32	133.13	43.20	4.082	
6,200.00	6,182.71	6,207.39	6,182.71	22.28	23.18	106.32	-279.79	431.02	177.16	133.31	43.85	4.040	
6,300.00	6,282.71	6,307.39	6,282.71	22.61	23.50	106.32	-279.79	431.02	177.16	132.64	44.52	3.979	
6,400.00	6,382.71	6,407.39	6,382.71	22.95	23.82	106.32	-279.79	431.02	177.16	131.96	45.20	3.920	
6,500.00	6,482.71	6,507.39	6,482.71	23.28	24.14	106.32	-279.79	431.02	177.16	131.29	45.87	3.862	
6,600.00	6,582.71	6,607.39	6,582.71	23.62	24.46	106.32	-279.79	431.02	177.16	130.61	46.55	3.806	
6,700.00	6,682.71	6,707.39	6,682.71	23.96	24.78	106.32	-279.79	431.02	177.16	129.94	47.22	3.751	
6,800.00	6,782.71	6,807.39	6,782.71	24.30	25.10	106.32	-279.79	431.02	177.16	129.26	47.90	3.698	
6,900.00	6,882.71	6,907.39	6,882.71	24.64	25.43	106.32	-279.79	431.02	177.16	128.58	48.58	3.647	
7,000.00	6,982.71	7,007.39	6,982.71	24.98	25.75	106.32	-279.79	431.02	177.16	127.90	49.26	3.596	
7,100.00	7,082.71	7,107.39	7,082.71	25.32	26.08	106.32	-279.79	431.02	177.16	127.22	49.94	3.547	
7,200.00	7,182.71	7,207.39	7,182.71	25.66	26.41	106.32	-279.79	431.02	177.16	126.53	50.63	3.499	
7,300.00	7,282.71	7,307.39	7,282.71	26.00	26.73	106.32	-279.79	431.02	177.16	125.85	51.31	3.453	
7,400.00	7,382.71	7,407.39	7,382.71	26.34	27.06	106.32	-279.79	431.02	177.16	125.17	51.99	3.407	
7,500.00	7,482.71	7,507.39	7,482.71	26.68	27.39	106.32	-279.79	431.02	177.16	124.48	52.68	3.363	
7,600.00	7,582.71	7,607.39	7,582.71	27.02	27.72	106.32	-279.79	431.02	177.16	123.79	53.37	3.320	
7,700.00	7,682.71	7,707.39	7,682.71	27.37	28.05	106.32	-279.79	431.02	177.16	123.11	54.05	3.278	
7,800.00	7,782.71	7,807.39	7,782.71	27.71	28.38	106.32	-279.79	431.02	177.16	122.42	54.74	3.236	
7,900.00	7,882.71	7,907.39	7,882.71	28.05	28.72	106.32	-279.79	431.02	177.16	121.73	55.43	3.196	
8,000.00	7,982.71	8,007.39	7,982.71	28.40	29.05	106.32	-279.79	431.02	177.16	121.04	56.12	3.157	
8,100.00	8,082.71	8,107.39	8,082.71	28.74	29.38	106.32	-279.79	431.02	177.16	120.35	56.81	3.119	
8,200.00	8,182.71	8,207.39	8,182.71	29.09	29.72	106.32	-279.79	431.02	177.16	119.66	57.50	3.081	
8,300.00	8,282.71	8,307.39	8,282.71	29.43	30.05	106.32	-279.79	431.02	177.16	118.97	58.19	3.045	
8,400.00	8,382.71	8,416.23	8,390.90	29.78	30.40	103.29	-270.17	431.02	174.89	116.09	58.80	2.974	
8,500.00	8,482.71	8,517.19	8,486.97	30.12	30.66	93.28	-239.73	431.02	170.35	110.62	59.73	2.852	
8,525.79	8,508.50	8,540.96	8,508.50	30.21	30.72	90.00	-229.67	431.02	170.02	110.00	60.02	2.833	
8,600.00	8,582.64	8,603.71	8,562.66	30.46	30.85	79.53	-198.07	431.02	173.73	113.20	60.53	2.870	
8,700.00	8,680.39	8,682.94	8,624.37	30.78	30.97	66.71	-148.51	431.02	188.48	128.84	59.64	3.160	
8,800.00	8,771.82	8,757.94	8,674.47	31.04	31.05	56.39	-92.81	431.01	209.64	152.52	57.12	3.670	
8,900.00	8,852.92	8,829.89	8,713.79	31.24	31.09	48.63	-32.63	431.01	232.66	178.78	53.88	4.318	
9,000.00	8,920.15	8,900.00	8,742.98	31.38	31.10	43.03	31.04	431.01	254.39	203.66	50.73	5.015	
9,100.00	8,970.57	8,967.85	8,762.07	31.49	31.09	39.17	96.09	431.01	272.83	224.65	48.18	5.662	
9,200.00	9,001.97	9,034.98	8,771.70	31.65	31.11	36.64	162.47	431.00	286.74	240.04	46.70	6.140	
9,300.00	9,012.99	9,117.19	8,773.00	31.90	31.34	35.31	244.65	431.00	294.11	247.63	46.48	6.328	
9,400.00	9,013.00	9,217.19	8,773.00	32.20	31.69	35.31	344.65	431.00	294.12	247.11	47.00	6.257	
9,500.00	9,013.00	9,317.19	8,773.00	32.59	32.12	35.31	444.65	430.99	294.12	246.48	47.64	6.174	
9,600.00	9,013.00	9,417.19	8,773.00	33.05	32.61	35.31	544.65	430.99	294.12	245.75	48.37	6.081	
9,700.00	9,013.00	9,517.19	8,773.00	33.58	33.18	35.31	644.65	430.99	294.12	244.92	49.20	5.978	
9,800.00	9,013.00	9,617.19	8,773.00	34.19	33.81	35.31	744.65	430.98	294.11	244.00	50.12	5.868	
9,900.00	9,013.00	9,717.19	8,773.00	34.85	34.51	35.31	844.65	430.98	294.11	242.99	51.13	5.753	
10,000.00	9,013.00	9,817.19	8,773.00	35.59	35.27	35.31	944.65	430.97	294.11	241.90	52.21	5.633	
10,100.00	9,013.00	9,917.19	8,773.00	36.38	36.08	35.31	1,044.65	430.97	294.11	240.73	53.38	5.510	
10,200.00	9,013.00	10,017.19	8,773.00	37.23	36.95	35.31	1,144.65	430.97	294.11	239.49	54.62	5.385	

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

Anticollision Report

Company:	Devon Energy	**Local Co-ordinate Reference:**	Well 533H
Project:	Eddy County, New Mexico (NAD 83)	**TVD Reference:**	GL 3280 + 23' KB @ 3303.00usft
Reference Site:	Snapping 12-1 FED	**MD Reference:**	GL 3280 + 23' KB @ 3303.00usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	533H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.00 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OH	**Database:**	EDM 5000.14 Single User Db
Reference Design:	Plan 1	**Offset TVD Reference:**	Offset Datum

Offset Design Snapping 12-1 FED - 523H - OH - Plan 1 — **Offset Site Error:** 0.00 usft

Survey Program: 0-MWD — **Offset Well Error:** 0.00 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
10,300.00	9,013.00	10,117.19	8,773.00	38.12	37.87	35.31	1,244.65	430.96	294.11	238.19	55.92	5.259	
10,400.00	9,013.00	10,217.19	8,773.00	39.07	38.84	35.31	1,344.65	430.96	294.11	236.82	57.29	5.134	
10,500.00	9,013.00	10,317.19	8,773.00	40.07	39.86	35.31	1,444.65	430.96	294.11	235.40	58.72	5.009	
10,600.00	9,013.00	10,417.19	8,773.00	41.10	40.91	35.31	1,544.65	430.95	294.11	233.92	60.20	4.886	
10,700.00	9,013.00	10,517.19	8,773.00	42.17	42.00	35.31	1,644.65	430.95	294.11	232.39	61.73	4.765	
10,800.00	9,013.00	10,617.19	8,773.00	43.29	43.13	35.31	1,744.65	430.95	294.11	230.81	63.30	4.646	
10,900.00	9,013.00	10,717.19	8,773.00	44.43	44.29	35.31	1,844.65	430.94	294.11	229.19	64.92	4.530	
11,000.00	9,013.00	10,817.19	8,773.00	45.60	45.48	35.31	1,944.65	430.94	294.11	227.53	66.58	4.417	
11,100.00	9,013.00	10,917.19	8,773.00	46.81	46.70	35.31	2,044.65	430.93	294.11	225.83	68.28	4.308	
11,200.00	9,013.00	11,017.19	8,773.00	48.04	47.94	35.31	2,144.65	430.93	294.11	224.10	70.01	4.201	
11,300.00	9,013.00	11,117.19	8,773.00	49.29	49.21	35.31	2,244.65	430.93	294.11	222.34	71.77	4.098	
11,400.00	9,013.00	11,217.19	8,773.00	50.57	50.50	35.31	2,344.65	430.92	294.11	220.55	73.56	3.998	
11,500.00	9,013.00	11,317.19	8,773.00	51.86	51.81	35.31	2,444.65	430.92	294.11	218.73	75.38	3.902	
11,600.00	9,013.00	11,417.19	8,773.00	53.18	53.13	35.31	2,544.65	430.92	294.11	216.88	77.23	3.808	
11,700.00	9,013.00	11,517.19	8,773.00	54.52	54.48	35.31	2,644.65	430.91	294.11	215.01	79.10	3.718	
11,800.00	9,013.00	11,617.19	8,773.00	55.87	55.84	35.31	2,744.65	430.91	294.11	213.12	80.99	3.632	
11,900.00	9,013.00	11,717.19	8,773.00	57.24	57.22	35.31	2,844.65	430.90	294.11	211.21	82.90	3.548	
12,000.00	9,013.00	11,817.19	8,773.00	58.62	58.61	35.31	2,944.65	430.90	294.11	209.28	84.83	3.467	
12,100.00	9,013.00	11,917.19	8,773.00	60.01	60.01	35.31	3,044.65	430.90	294.10	207.33	86.78	3.389	
12,200.00	9,013.00	12,017.19	8,773.00	61.42	61.43	35.31	3,144.65	430.89	294.10	205.36	88.74	3.314	
12,300.00	9,013.00	12,117.19	8,773.00	62.84	62.86	35.31	3,244.65	430.89	294.10	203.38	90.72	3.242	
12,400.00	9,013.00	12,217.19	8,773.00	64.27	64.30	35.31	3,344.65	430.89	294.10	201.38	92.72	3.172	
12,500.00	9,013.00	12,317.19	8,773.00	65.71	65.74	35.31	3,444.65	430.88	294.10	199.37	94.73	3.105	
12,600.00	9,013.00	12,417.19	8,773.00	67.16	67.20	35.31	3,544.65	430.88	294.10	197.35	96.75	3.040	
12,700.00	9,013.00	12,517.19	8,773.00	68.62	68.67	35.31	3,644.65	430.88	294.10	195.32	98.78	2.977	
12,800.00	9,013.00	12,617.19	8,773.00	70.09	70.14	35.31	3,744.65	430.87	294.10	193.27	100.83	2.917	
12,900.00	9,013.00	12,717.19	8,773.00	71.57	71.62	35.31	3,844.65	430.87	294.10	191.21	102.89	2.859	
13,000.00	9,013.00	12,817.19	8,773.00	73.05	73.11	35.31	3,944.65	430.86	294.10	189.15	104.95	2.802	
13,100.00	9,013.00	12,917.19	8,773.00	74.54	74.61	35.31	4,044.65	430.86	294.10	187.07	107.03	2.748	
13,200.00	9,013.00	13,017.19	8,773.00	76.04	76.11	35.31	4,144.65	430.86	294.10	184.99	109.11	2.695	
13,300.00	9,013.00	13,117.19	8,773.00	77.54	77.62	35.31	4,244.65	430.85	294.10	182.89	111.21	2.645	
13,400.00	9,013.00	13,217.19	8,773.00	79.05	79.13	35.31	4,344.65	430.85	294.10	180.79	113.31	2.596	
13,500.00	9,013.00	13,317.19	8,773.00	80.56	80.65	35.31	4,444.65	430.85	294.10	178.68	115.42	2.548	
13,600.00	9,013.00	13,417.19	8,773.00	82.08	82.17	35.31	4,544.65	430.84	294.10	176.57	117.53	2.502	
13,700.00	9,013.00	13,517.19	8,773.00	83.61	83.70	35.31	4,644.65	430.84	294.10	174.44	119.65	2.458	
13,800.00	9,013.00	13,617.19	8,773.00	85.14	85.24	35.31	4,744.65	430.84	294.10	172.32	121.78	2.415	
13,900.00	9,013.00	13,717.19	8,773.00	86.67	86.77	35.31	4,844.65	430.83	294.10	170.18	123.92	2.373	
14,000.00	9,013.00	13,817.19	8,773.00	88.21	88.31	35.31	4,944.65	430.83	294.10	168.04	126.06	2.333	
14,100.00	9,013.00	13,917.19	8,773.00	89.75	89.86	35.31	5,044.65	430.82	294.10	165.89	128.20	2.294	
14,200.00	9,013.00	14,017.19	8,773.00	91.30	91.41	35.31	5,144.65	430.82	294.10	163.74	130.35	2.256	
14,300.00	9,013.00	14,117.19	8,773.00	92.85	92.96	35.31	5,244.65	430.82	294.09	161.59	132.51	2.219	
14,400.00	9,013.00	14,217.19	8,773.00	94.40	94.52	35.31	5,344.65	430.81	294.09	159.42	134.67	2.184	
14,500.00	9,013.00	14,317.19	8,773.00	95.95	96.08	35.31	5,444.65	430.81	294.09	157.26	136.84	2.149	
14,600.00	9,013.00	14,417.19	8,773.00	97.51	97.64	35.31	5,544.65	430.81	294.09	155.09	139.01	2.116	
14,700.00	9,013.00	14,517.19	8,773.00	99.07	99.20	35.31	5,644.65	430.80	294.09	152.91	141.18	2.083	
14,800.00	9,013.00	14,617.19	8,773.00	100.64	100.77	35.31	5,744.65	430.80	294.09	150.74	143.36	2.051	
14,900.00	9,013.00	14,717.19	8,773.00	102.21	102.34	35.31	5,844.65	430.79	294.09	148.56	145.54	2.021	
15,000.00	9,013.00	14,817.19	8,773.00	103.78	103.91	35.31	5,944.65	430.79	294.09	146.37	147.72	1.991	
15,100.00	9,013.00	14,917.19	8,773.00	105.35	105.49	35.31	6,044.65	430.79	294.09	144.18	149.91	1.962	
15,200.00	9,013.00	15,017.19	8,773.00	106.92	107.06	35.31	6,144.65	430.78	294.09	141.99	152.10	1.934	
15,300.00	9,013.00	15,117.19	8,773.00	108.50	108.64	35.31	6,244.65	430.78	294.09	139.80	154.30	1.906	
15,400.00	9,013.00	15,217.19	8,773.00	110.08	110.22	35.31	6,344.65	430.78	294.09	137.60	156.49	1.879	

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

Company:	Devon Energy	**Local Co-ordinate Reference:**	Well 533H
Project:	Eddy County, New Mexico (NAD 83)	**TVD Reference:**	GL 3280 + 23' KB @ 3303.00usft
Reference Site:	Snapping 12-1 FED	**MD Reference:**	GL 3280 + 23' KB @ 3303.00usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	533H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.00 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OH	**Database:**	EDM 5000.14 Single User Db
Reference Design:	Plan 1	**Offset TVD Reference:**	Offset Datum

Offset Design Snapping 12-1 FED - 523H - OH - Plan 1 — **Offset Site Error:** 0.00 usft

Survey Program: 0-MWD — **Offset Well Error:** 0.00 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
15,500.00	9,013.00	15,317.19	8,773.00	111.66	111.81	35.31	6,444.65	430.77	294.09	135.40	158.69	1.853	
15,600.00	9,013.00	15,417.19	8,773.00	113.24	113.39	35.31	6,544.65	430.77	294.09	133.19	160.90	1.828	
15,700.00	9,013.00	15,517.19	8,773.00	114.83	114.98	35.31	6,644.65	430.77	294.09	130.99	163.10	1.803	
15,800.00	9,013.00	15,617.19	8,773.00	116.41	116.57	35.31	6,744.65	430.76	294.09	128.78	165.31	1.779	
15,900.00	9,013.00	15,717.19	8,773.00	118.00	118.16	35.31	6,844.65	430.76	294.09	126.57	167.52	1.756	
16,000.00	9,013.00	15,817.19	8,773.00	119.59	119.75	35.31	6,944.65	430.75	294.09	124.36	169.73	1.733	
16,100.00	9,013.00	15,917.19	8,773.00	121.18	121.34	35.31	7,044.65	430.75	294.09	122.14	171.95	1.710	
16,200.00	9,013.00	16,017.19	8,773.00	122.78	122.94	35.31	7,144.65	430.75	294.09	119.92	174.16	1.689	
16,300.00	9,013.00	16,117.19	8,773.00	124.37	124.53	35.30	7,244.65	430.74	294.09	117.70	176.38	1.667	
16,379.26	9,013.00	16,196.45	8,773.00	125.49	125.80	35.30	7,323.91	430.74	294.09	116.15	177.93	1.653 SF	

Anticollision Report

Company:	Devon Energy	**Local Co-ordinate Reference:**	Well 533H
Project:	Eddy County, New Mexico (NAD 83)	**TVD Reference:**	GL 3280 + 23' KB @ 3303.00usft
Reference Site:	Snapping 12-1 FED	**MD Reference:**	GL 3280 + 23' KB @ 3303.00usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	533H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.00 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OH	**Database:**	EDM 5000.14 Single User Db
Reference Design:	Plan 1	**Offset TVD Reference:**	Offset Datum

Offset Design Snapping 12-1 FED - 623H - OH - Plan 1 — **Offset Site Error:** 0.00 usft

Survey Program: 0-MWD — **Offset Well Error:** 0.00 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
0.00	0.00	0.00	0.00	0.00	0.00	-90.34	-0.18	-29.99	29.99				
100.00	100.00	100.00	100.00	0.14	0.14	-90.34	-0.18	-29.99	29.99	29.71	0.28	108.652	
200.00	200.00	200.00	200.00	0.50	0.50	-90.34	-0.18	-29.99	29.99	29.00	0.99	30.203	
300.00	300.00	300.00	300.00	0.85	0.85	-90.34	-0.18	-29.99	29.99	28.28	1.71	17.539	
400.00	400.00	400.00	400.00	1.21	1.21	-90.34	-0.18	-29.99	29.99	27.56	2.43	12.358	
500.00	500.00	500.00	500.00	1.57	1.57	-90.34	-0.18	-29.99	29.99	26.85	3.14	9.540	
600.00	600.00	600.00	600.00	1.93	1.93	-90.34	-0.18	-29.99	29.99	26.13	3.86	7.768	
700.00	700.00	700.00	700.00	2.29	2.29	-90.34	-0.18	-29.99	29.99	25.41	4.58	6.551	
800.00	800.00	800.00	800.00	2.65	2.65	-90.34	-0.18	-29.99	29.99	24.70	5.29	5.664	
900.00	900.00	900.00	900.00	3.01	3.01	-90.34	-0.18	-29.99	29.99	23.98	6.01	4.989	
1,000.00	1,000.00	1,000.00	1,000.00	3.36	3.36	-90.34	-0.18	-29.99	29.99	23.26	6.73	4.457	
1,100.00	1,100.00	1,100.38	1,100.37	3.72	3.71	-91.85	-0.95	-29.33	29.35	21.92	7.43	3.950	
1,200.00	1,200.00	1,200.67	1,200.62	4.08	4.04	-96.76	-3.24	-27.35	27.55	19.43	8.12	3.393	
1,300.00	1,299.99	1,300.86	1,300.68	4.42	4.38	124.17	-7.06	-24.07	25.64	16.84	8.80	2.913	
1,400.00	1,399.95	1,400.97	1,400.53	4.76	4.72	115.20	-12.40	-19.47	24.51	15.03	9.48	2.586	
1,471.76	1,471.63	1,472.75	1,472.04	5.00	4.97	108.26	-17.17	-15.37	24.26	14.29	9.97	2.433 CC	
1,500.00	1,499.82	1,500.99	1,500.14	5.10	5.07	105.49	-19.25	-13.57	24.30	14.14	10.17	2.390	
1,600.00	1,599.57	1,600.93	1,599.54	5.44	5.43	97.29	-27.14	-6.78	25.05	14.18	10.87	2.305	
1,700.00	1,699.16	1,700.91	1,698.97	5.79	5.79	93.97	-35.07	0.04	26.35	14.77	11.58	2.276	
1,800.00	1,798.62	1,800.90	1,798.42	6.14	6.16	93.86	-43.00	6.86	27.79	15.49	12.30	2.259	
1,900.00	1,898.07	1,900.89	1,897.86	6.50	6.53	93.86	-50.93	13.69	29.23	16.19	13.03	2.243	
2,000.00	1,997.52	2,000.88	1,997.30	6.87	6.90	93.87	-58.85	20.51	30.67	16.90	13.77	2.227	
2,100.00	2,096.97	2,100.87	2,096.74	7.23	7.28	93.87	-66.78	27.33	32.11	17.59	14.51	2.212	
2,200.00	2,196.42	2,200.86	2,196.18	7.60	7.66	93.87	-74.71	34.16	33.55	18.29	15.26	2.198	
2,300.00	2,295.87	2,300.85	2,295.62	7.98	8.04	93.88	-82.63	40.98	34.99	18.97	16.01	2.185	
2,400.00	2,395.33	2,400.84	2,395.06	8.35	8.42	93.88	-90.56	47.80	36.43	19.66	16.77	2.172	
2,500.00	2,494.78	2,500.83	2,494.50	8.73	8.80	93.88	-98.49	54.63	37.87	20.34	17.53	2.160	
2,600.00	2,594.23	2,600.82	2,593.94	9.11	9.19	93.88	-106.42	61.45	39.31	21.01	18.29	2.149	
2,700.00	2,693.68	2,700.81	2,693.39	9.49	9.57	93.89	-114.34	68.27	40.75	21.69	19.06	2.138	
2,800.00	2,793.13	2,800.80	2,792.83	9.87	9.96	93.89	-122.27	75.09	42.19	22.36	19.83	2.128	
2,900.00	2,892.58	2,900.79	2,892.27	10.25	10.35	93.89	-130.20	81.92	43.63	23.03	20.60	2.118	
3,000.00	2,992.03	3,000.78	2,991.71	10.64	10.73	93.89	-138.12	88.74	45.07	23.70	21.37	2.109	
3,100.00	3,091.49	3,100.77	3,091.15	11.02	11.12	93.89	-146.05	95.56	46.51	24.37	22.14	2.101	
3,200.00	3,190.94	3,200.75	3,190.59	11.41	11.51	93.89	-153.98	102.39	47.95	25.03	22.91	2.092	
3,300.00	3,290.39	3,300.74	3,290.03	11.79	11.90	93.89	-161.91	109.21	49.39	25.70	23.69	2.085	
3,400.00	3,389.84	3,400.73	3,389.47	12.18	12.29	93.90	-169.83	116.03	50.83	26.36	24.47	2.077	
3,500.00	3,489.29	3,500.72	3,488.91	12.57	12.68	93.90	-177.76	122.86	52.27	27.02	25.24	2.070	
3,600.00	3,588.74	3,600.71	3,588.36	12.96	13.07	93.90	-185.69	129.68	53.71	27.68	26.02	2.064	
3,700.00	3,688.19	3,700.70	3,687.80	13.35	13.46	93.90	-193.61	136.50	55.15	28.34	26.80	2.058	
3,800.00	3,787.65	3,800.69	3,787.24	13.74	13.85	93.90	-201.54	143.32	56.59	29.00	27.58	2.052	
3,900.00	3,887.10	3,900.68	3,886.68	14.13	14.25	93.90	-209.47	150.15	58.03	29.66	28.36	2.046	
4,000.00	3,986.55	4,000.67	3,986.12	14.52	14.64	93.90	-217.40	156.97	59.47	30.32	29.15	2.040	
4,100.00	4,086.00	4,100.66	4,085.56	14.91	15.03	93.90	-225.32	163.79	60.91	30.98	29.93	2.035	
4,200.00	4,185.45	4,200.65	4,185.00	15.30	15.42	93.90	-233.25	170.62	62.35	31.63	30.71	2.030	
4,300.00	4,284.90	4,300.64	4,284.44	15.69	15.82	93.90	-241.18	177.44	63.79	32.29	31.49	2.025	
4,400.00	4,384.35	4,400.63	4,383.88	16.08	16.21	93.90	-249.10	184.26	65.23	32.95	32.28	2.021	
4,500.00	4,483.80	4,500.62	4,483.33	16.47	16.60	93.91	-257.03	191.09	66.67	33.60	33.06	2.016	
4,600.00	4,583.31	4,600.68	4,582.88	16.86	16.99	93.85	-264.60	197.60	68.03	34.19	33.84	2.010	
4,700.00	4,682.99	4,700.77	4,682.64	17.24	17.37	93.77	-270.72	202.87	69.14	34.54	34.60	1.998	
4,800.00	4,782.81	4,800.86	4,782.55	17.61	17.74	93.70	-275.33	206.84	69.97	34.62	35.34	1.980	
4,900.00	4,882.73	4,900.97	4,882.57	17.97	18.10	93.62	-278.41	209.49	70.52	34.46	36.06	1.956	
5,000.00	4,982.71	5,001.07	4,982.66	18.32	18.45	93.54	-279.97	210.83	70.80	34.04	36.76	1.926	

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

Anticollision Report

Company:	Devon Energy	**Local Co-ordinate Reference:**	Well 533H
Project:	Eddy County, New Mexico (NAD 83)	**TVD Reference:**	GL 3280 + 23' KB @ 3303.00usft
Reference Site:	Snapping 12-1 FED	**MD Reference:**	GL 3280 + 23' KB @ 3303.00usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	533H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.00 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OH	**Database:**	EDM 5000.14 Single User Db
Reference Design:	Plan 1	**Offset TVD Reference:**	Offset Datum

Offset Design Snapping 12-1 FED - 623H - OH - Plan 1 — **Offset Site Error:** 0.00 usft

Survey Program: 0-MWD — **Offset Well Error:** 0.00 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
5,100.00	5,082.71	5,101.13	5,082.71	18.64	18.78	-135.11	-280.18	211.01	70.83	33.42	37.41	1.893	
5,200.00	5,182.71	5,201.13	5,182.71	18.97	19.10	-135.11	-280.18	211.01	70.83	32.77	38.06	1.861	
5,300.00	5,282.71	5,301.13	5,282.71	19.30	19.42	-135.11	-280.18	211.01	70.83	32.13	38.71	1.830	
5,400.00	5,382.71	5,401.13	5,382.71	19.62	19.74	-135.11	-280.18	211.01	70.83	31.48	39.36	1.800	
5,500.00	5,482.71	5,501.13	5,482.71	19.95	20.06	-135.11	-280.18	211.01	70.83	30.82	40.01	1.770	
5,600.00	5,582.71	5,601.13	5,582.71	20.28	20.39	-135.11	-280.18	211.01	70.83	30.17	40.66	1.742	
5,700.00	5,682.71	5,701.13	5,682.71	20.61	20.71	-135.11	-280.18	211.01	70.83	29.51	41.32	1.714	
5,800.00	5,782.71	5,801.13	5,782.71	20.94	21.04	-135.11	-280.18	211.01	70.83	28.86	41.98	1.687	
5,900.00	5,882.71	5,901.13	5,882.71	21.27	21.37	-135.11	-280.18	211.01	70.83	28.20	42.64	1.661	
6,000.00	5,982.71	6,001.13	5,982.71	21.61	21.70	-135.11	-280.18	211.01	70.83	27.53	43.30	1.636	
6,100.00	6,082.71	6,101.13	6,082.71	21.94	22.03	-135.11	-280.18	211.01	70.83	26.87	43.96	1.611	
6,200.00	6,182.71	6,201.13	6,182.71	22.28	22.36	-135.11	-280.18	211.01	70.83	26.20	44.63	1.587	
6,300.00	6,282.71	6,301.13	6,282.71	22.61	22.69	-135.11	-280.18	211.01	70.83	25.54	45.29	1.564	
6,400.00	6,382.71	6,401.13	6,382.71	22.95	23.02	-135.11	-280.18	211.01	70.83	24.87	45.96	1.541	
6,500.00	6,482.71	6,501.13	6,482.71	23.28	23.36	-135.11	-280.18	211.01	70.83	24.20	46.63	1.519	
6,600.00	6,582.71	6,601.13	6,582.71	23.62	23.69	-135.11	-280.18	211.01	70.83	23.53	47.30	1.497	Level 3
6,700.00	6,682.71	6,701.13	6,682.71	23.96	24.02	-135.11	-280.18	211.01	70.83	22.86	47.98	1.476	Level 3
6,800.00	6,782.71	6,801.13	6,782.71	24.30	24.36	-135.11	-280.18	211.01	70.83	22.18	48.65	1.456	Level 3
6,900.00	6,882.71	6,901.13	6,882.71	24.64	24.69	-135.11	-280.18	211.01	70.83	21.51	49.32	1.436	Level 3
7,000.00	6,982.71	7,001.13	6,982.71	24.98	25.03	-135.11	-280.18	211.01	70.83	20.83	50.00	1.417	Level 3
7,100.00	7,082.71	7,101.13	7,082.71	25.32	25.37	-135.11	-280.18	211.01	70.83	20.15	50.68	1.398	Level 3
7,200.00	7,182.71	7,201.13	7,182.71	25.66	25.71	-135.11	-280.18	211.01	70.83	19.48	51.36	1.379	Level 3
7,300.00	7,282.71	7,301.13	7,282.71	26.00	26.04	-135.11	-280.18	211.01	70.83	18.80	52.03	1.361	Level 3
7,400.00	7,382.71	7,401.13	7,382.71	26.34	26.38	-135.11	-280.18	211.01	70.83	18.12	52.72	1.344	Level 3
7,500.00	7,482.71	7,501.13	7,482.71	26.68	26.72	-135.11	-280.18	211.01	70.83	17.43	53.40	1.327	Level 3
7,600.00	7,582.71	7,601.13	7,582.71	27.02	27.06	-135.11	-280.18	211.01	70.83	16.75	54.08	1.310	Level 3
7,700.00	7,682.71	7,701.13	7,682.71	27.37	27.40	-135.11	-280.18	211.01	70.83	16.07	54.76	1.293	Level 3
7,800.00	7,782.71	7,801.13	7,782.71	27.71	27.74	-135.11	-280.18	211.01	70.83	15.38	55.45	1.277	Level 3
7,900.00	7,882.71	7,901.13	7,882.71	28.05	28.08	-135.11	-280.18	211.01	70.83	14.70	56.13	1.262	Level 3
8,000.00	7,982.71	8,001.13	7,982.71	28.40	28.42	-135.11	-280.18	211.01	70.83	14.01	56.82	1.247	Level 2
8,100.00	8,082.71	8,101.13	8,082.71	28.74	28.77	-135.11	-280.18	211.01	70.83	13.33	57.50	1.232	Level 2
8,200.00	8,182.71	8,201.13	8,182.71	29.09	29.11	-135.11	-280.18	211.01	70.83	12.64	58.19	1.217	Level 2
8,300.00	8,282.71	8,301.13	8,282.71	29.43	29.45	-135.11	-280.18	211.01	70.83	11.95	58.88	1.203	Level 2
8,400.00	8,382.71	8,401.13	8,382.71	29.78	29.80	-135.11	-280.18	211.01	70.83	11.26	59.57	1.189	Level 2
8,500.00	8,482.71	8,501.13	8,482.71	30.12	30.14	-135.11	-280.18	211.01	70.83	10.58	60.26	1.176	Level 2
8,501.95	8,484.66	8,503.08	8,484.66	30.13	30.15	-135.11	-280.18	211.01	70.83	10.56	60.27	1.175	Level 2, ES, SF
8,600.00	8,582.64	8,601.05	8,582.64	30.46	30.48	-136.27	-280.18	211.01	72.50	11.56	60.94	1.190	Level 2
8,700.00	8,680.39	8,698.81	8,680.39	30.78	30.82	-144.18	-280.18	211.01	88.22	26.65	61.56	1.433	Level 3
8,800.00	8,771.82	8,790.24	8,771.82	31.04	31.13	-152.97	-280.18	211.01	123.33	61.27	62.06	1.987	
8,900.00	8,852.92	8,871.34	8,852.92	31.24	31.41	-158.62	-280.18	211.01	178.09	115.63	62.46	2.851	
9,000.00	8,920.15	8,938.56	8,920.15	31.38	31.65	-160.98	-280.18	211.01	249.77	186.98	62.79	3.978	
9,100.00	8,970.57	8,988.98	8,970.57	31.49	31.82	-159.87	-280.18	211.01	334.62	271.61	63.01	5.310	
9,200.00	9,001.97	9,020.39	9,001.97	31.65	31.93	-151.20	-280.18	211.01	428.54	365.40	63.14	6.787	
9,300.00	9,012.99	9,031.41	9,012.99	31.90	31.97	-93.55	-280.18	211.01	527.20	464.03	63.17	8.346	
9,400.00	9,013.00	9,031.42	9,013.00	32.20	31.97	-90.00	-280.18	211.01	626.82	563.66	63.15	9.925	
9,500.00	9,013.00	9,031.42	9,013.00	32.59	31.97	-90.00	-280.18	211.01	726.54	663.40	63.15	11.506	
9,600.00	9,013.00	9,031.42	9,013.00	33.05	31.97	-90.00	-280.18	211.01	826.33	763.19	63.14	13.087	
9,700.00	9,013.00	9,031.42	9,013.00	33.58	31.97	-90.00	-280.18	211.01	926.17	863.03	63.14	14.668	
9,800.00	9,013.00	9,031.42	9,013.00	34.19	31.97	-90.00	-280.18	211.01	1,026.04	962.89	63.15	16.249	
9,900.00	9,013.00	9,031.42	9,013.00	34.85	31.97	-90.00	-280.18	211.01	1,125.93	1,062.78	63.15	17.829	
10,000.00	9,013.00	9,031.42	9,013.00	35.59	31.97	-90.00	-280.18	211.01	1,225.84	1,162.68	63.16	19.409	
10,100.00	9,013.00	9,031.42	9,013.00	36.38	31.97	-90.00	-280.18	211.01	1,325.76	1,262.60	63.17	20.989	

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

Company:	Devon Energy	**Local Co-ordinate Reference:**	Well 533H
Project:	Eddy County, New Mexico (NAD 83)	**TVD Reference:**	GL 3280 + 23' KB @ 3303.00usft
Reference Site:	Snapping 12-1 FED	**MD Reference:**	GL 3280 + 23' KB @ 3303.00usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	533H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.00 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OH	**Database:**	EDM 5000.14 Single User Db
Reference Design:	Plan 1	**Offset TVD Reference:**	Offset Datum

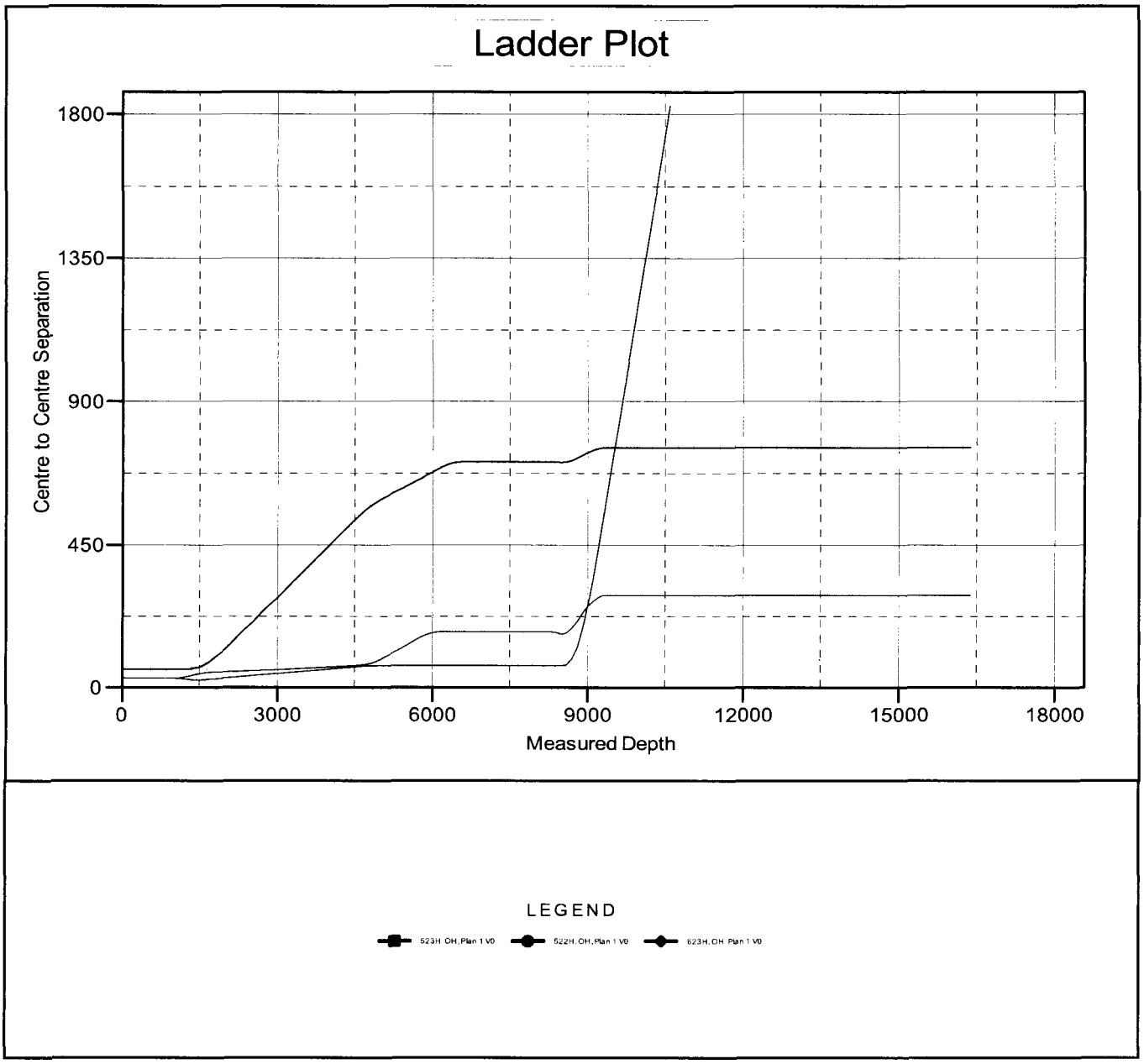
Offset Design Snapping 12-1 FED - 623H - OH - Plan 1 — **Offset Site Error:** 0.00 usft

Survey Program: 0-MWD — **Offset Well Error:** 0.00 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
10,200.00	9,013.00	9,031.42	9,013.00	37.23	31.97	-90.00	-280.18	211.01	1,425.70	1,362.52	63.17	22.567	
10,300.00	9,013.00	9,031.42	9,013.00	38.12	31.97	-90.00	-280.18	211.01	1,525.64	1,462.45	63.19	24.145	
10,400.00	9,013.00	9,031.42	9,013.00	39.07	31.97	-90.00	-280.18	211.01	1,625.59	1,562.39	63.20	25.722	
10,500.00	9,013.00	9,031.42	9,013.00	40.07	31.97	-90.00	-280.18	211.01	1,725.54	1,662.33	63.21	27.298	
10,600.00	9,013.00	9,031.42	9,013.00	41.10	31.97	-90.00	-280.18	211.01	1,825.50	1,762.28	63.23	28.872	

Company:	Devon Energy	**Local Co-ordinate Reference:**	Well 533H
Project:	Eddy County, New Mexico (NAD 83)	**TVD Reference:**	GL 3280 + 23' KB @ 3303.00usft
Reference Site:	Snapping 12-1 FED	**MD Reference:**	GL 3280 + 23' KB @ 3303.00usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	533H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.00 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OH	**Database:**	EDM 5000.14 Single User Db
Reference Design:	Plan 1	**Offset TVD Reference:**	Offset Datum

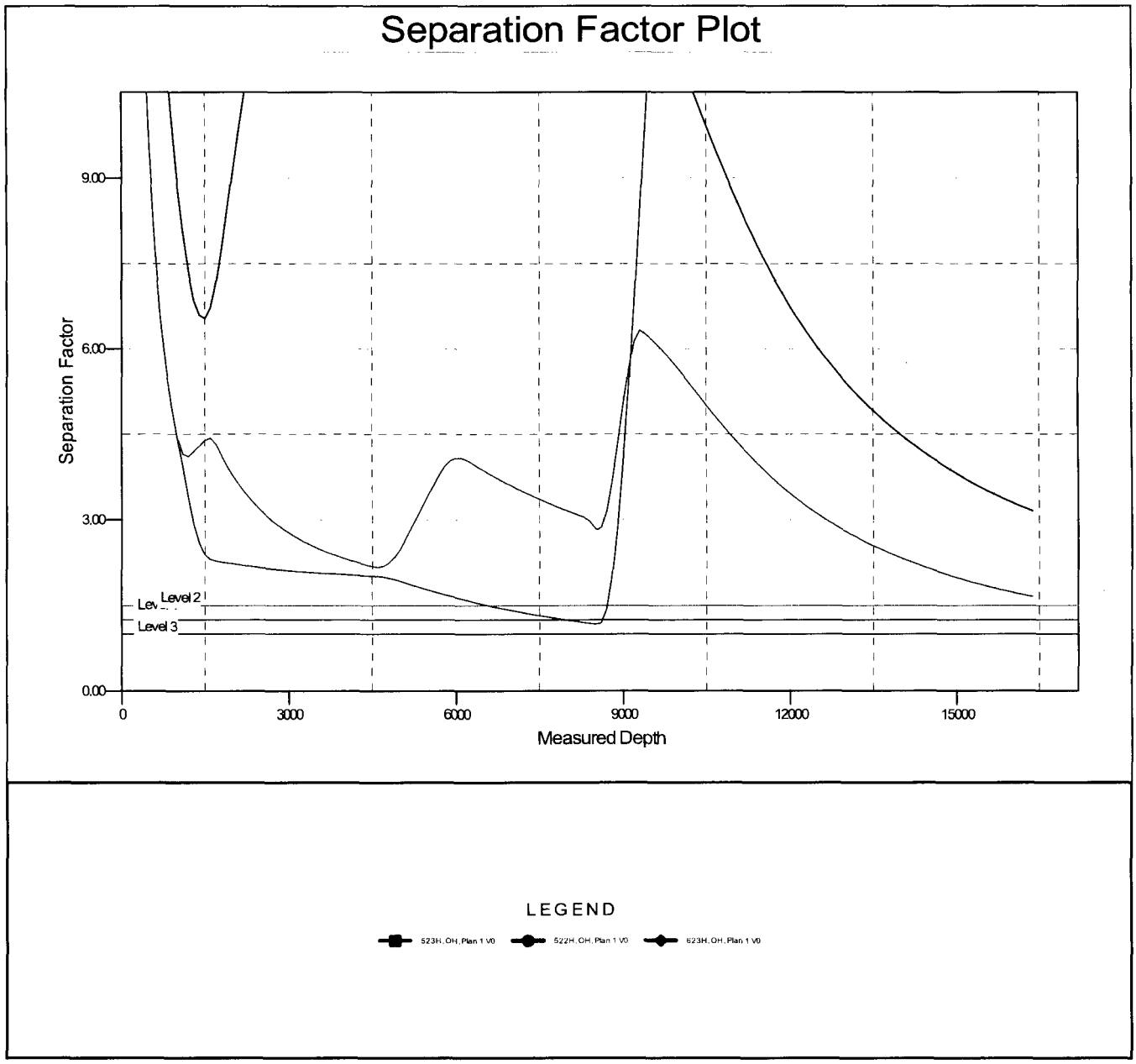
Reference Depths are relative to GL 3280 + 23' KB @ 3303.00usft	Coordinates are relative to: 533H
Offset Depths are relative to Offset Datum	Coordinate System is US State Plane 1983, New Mexico Eastern Zone
Central Meridian is -104.333334	Grid Convergence at Surface is: 0.32°



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

Company:	Devon Energy	**Local Co-ordinate Reference:**	Well 533H
Project:	Eddy County, New Mexico (NAD 83)	**TVD Reference:**	GL 3280 + 23' KB @ 3303.00usft
Reference Site:	Snapping 12-1 FED	**MD Reference:**	GL 3280 + 23' KB @ 3303.00usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	533H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.00 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OH	**Database:**	EDM 5000.14 Single User Db
Reference Design:	Plan 1	**Offset TVD Reference:**	Offset Datum

Reference Depths are relative to GL 3280 + 23' KB @ 3303.00usft	Coordinates are relative to: 533H
Offset Depths are relative to Offset Datum	Coordinate System is US State Plane 1983, New Mexico Eastern Zone
Central Meridian is -104.333334	Grid Convergence at Surface is: 0.32°



devon

Company: Devon Energy
Field: Eddy County, New Mexico (NAD 83)
Location: Snapping 12-1 FED
Well: 533H
OH
Plan: Plan 1
GL 3280 + 23' KB @ 3303.00usft

Azimuths to Grid North
True North: -0.32°
Magnetic North: 6.67°

Magnetic Field
Strength: 47794.8snT
Dip Angle: 59.88°
Date: 9/27/2017
Model: IGRF2015

To convert a Magnetic Direction to a Grid Direction, Add 6.67°

LEGACY DIRECTIONAL

PROJECT DETAILS: Eddy County, New Mexico (NAD 83)

Geodetic System: US State Plane 1983
Datum: North American Datum 1983
Ellipsoid: GRS 1980
Zone: New Mexico Eastern Zone

System Datum: Mean Sea Level

WELL DETAILS: 533H

GL 3280 + 23' KB @ 3303.00usft

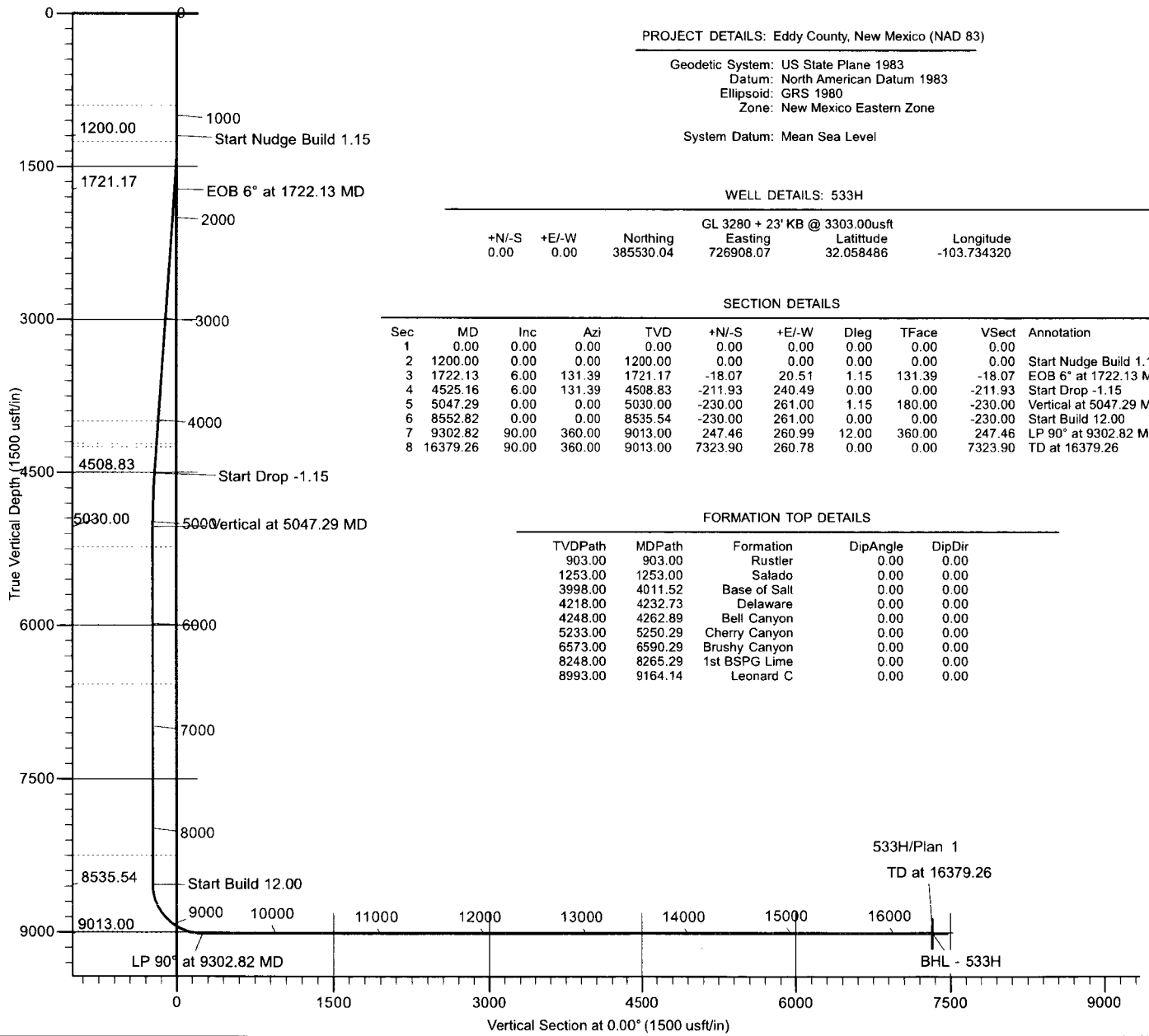
+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
0.00	0.00	385530.04	726908.07	32.058486	-103.734320

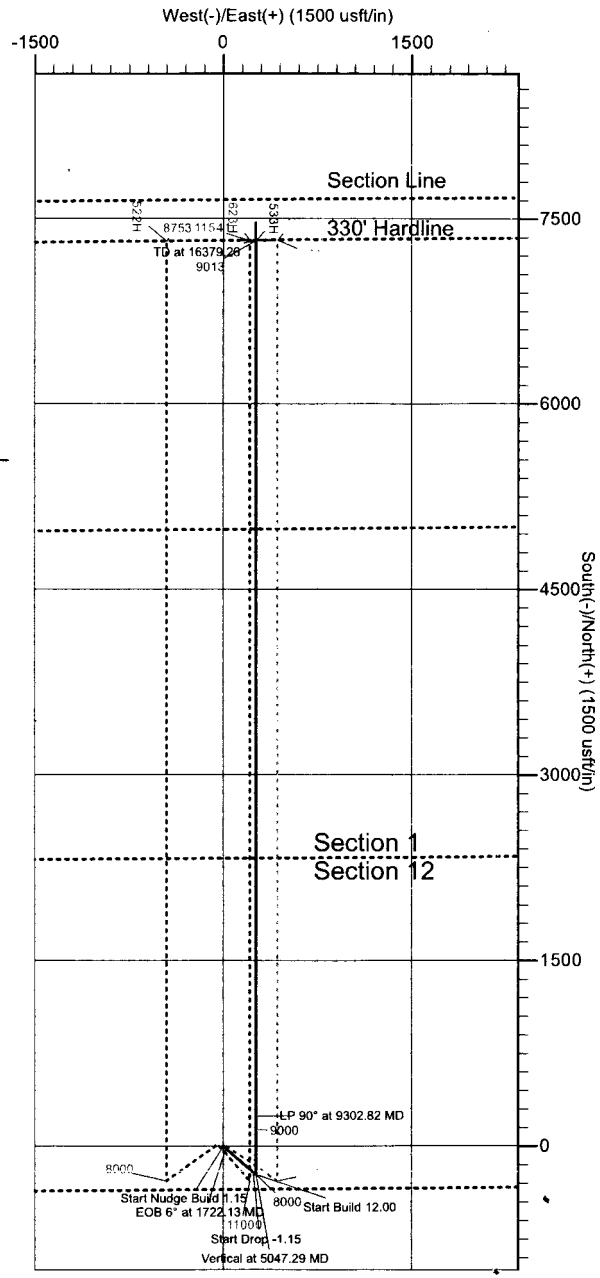
SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSect	Annotation
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
2	1200.00	0.00	0.00	1200.00	0.00	0.00	0.00	0.00	0.00	Start Nudge Build 1.15
3	1722.13	6.00	131.39	1721.17	-18.07	20.51	1.15	131.39	-18.07	EOB 6° at 1722.13 MD
4	4525.16	6.00	131.39	4508.83	-211.93	240.49	0.00	0.00	-211.93	Start Drop -1.15
5	5047.29	0.00	0.00	5030.00	-230.00	261.00	1.15	180.00	-230.00	Vertical at 5047.29 MD
6	8552.82	0.00	0.00	8535.54	-230.00	261.00	0.00	0.00	-230.00	Start Build 12.00
7	9302.82	90.00	360.00	9013.00	247.46	260.99	12.00	360.00	247.46	LP 90° at 9302.82 MD
8	16379.26	90.00	360.00	9013.00	7323.90	260.78	0.00	0.00	7323.90	TD at 16379.26

FORMATION TOP DETAILS

TVDPath	MDPath	Formation	DipAngle	DipDir
903.00	903.00	Rustler	0.00	0.00
1253.00	1253.00	Salado	0.00	0.00
3998.00	4011.52	Base of Salt	0.00	0.00
4218.00	4232.73	Delaware	0.00	0.00
4248.00	4262.89	Bell Canyon	0.00	0.00
5233.00	5250.29	Cherry Canyon	0.00	0.00
6573.00	6590.29	Brushy Canyon	0.00	0.00
8248.00	8265.29	1st BSPG Lime	0.00	0.00
8993.00	9164.14	Leonard C	0.00	0.00





Created By: Jenise Kirkpatrick Date: 10:45, September 28 2017

devon

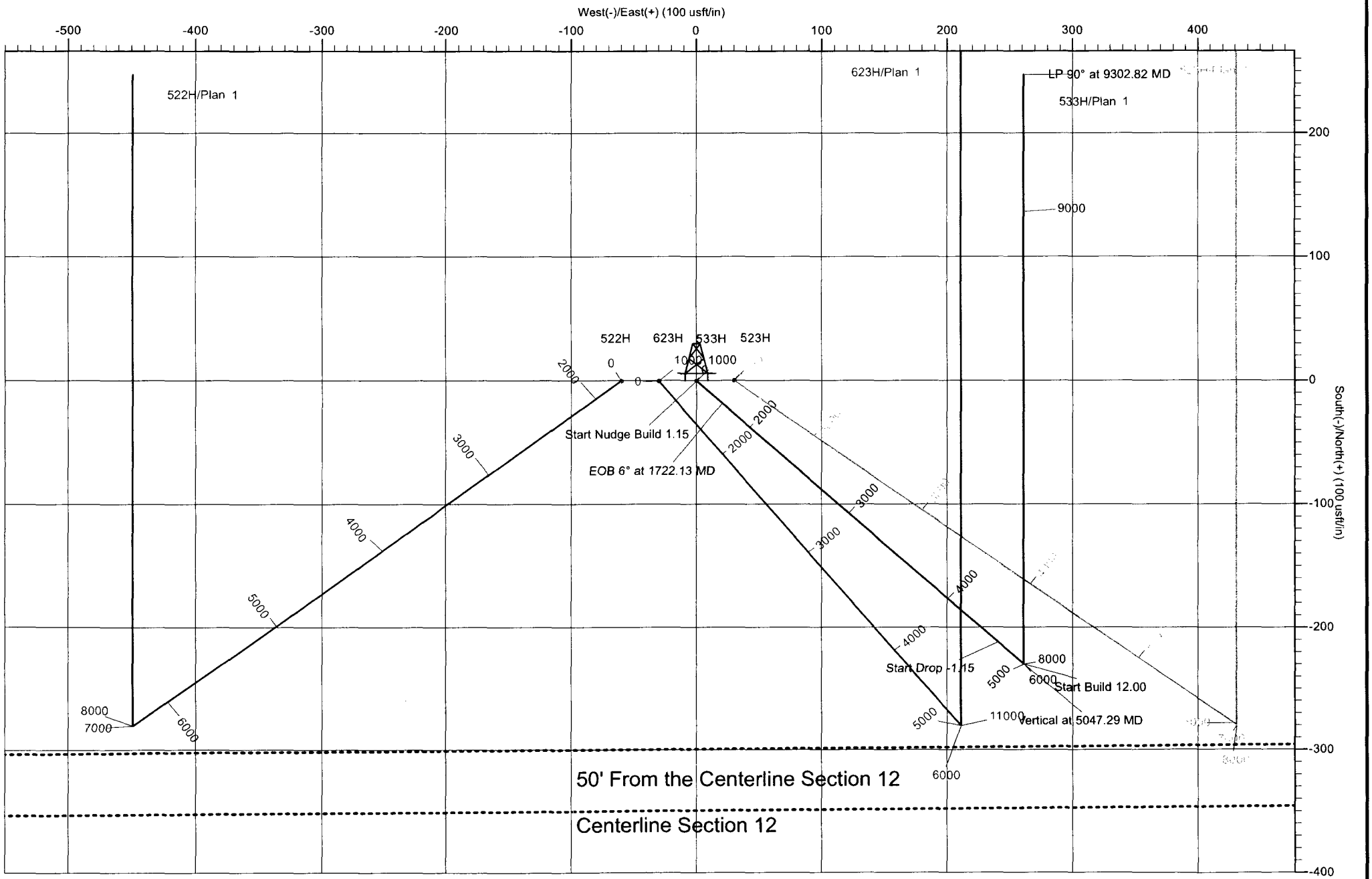
Company: Devon Energy
Field: Eddy County, New Mexico (NAD 83)
Location: Snapping 12-1 FED
Well: 533H
OH
Plan: Plan 1
GL 3280 + 23' KB @ 3303.00usft

T G M

Azimuths to Grid North
True North: -0.32°
Magnetic North: 6.67°

Magnetic Field
Strength: 47794.8snT
Dip Angle: 59.88°
Date: 9/27/2017
Model: IGRF2015

LEGACY DIRECTIONAL



Created By Jenise Kirkpatrick Date: 10:49, September 28 2017

Devon Energy

Eddy County, New Mexico (NAD 83)
Snapping 12-1 FED
533H

OH

Plan: Plan 1

Standard Planning Report

28 September, 2017

Database:	EDM 5000.14 Single User Db	**Local Co-ordinate Reference:**	Well 533H
Company:	Devon Energy	**TVD Reference:**	GL 3280 + 23' KB @ 3303.00usft
Project:	Eddy County, New Mexico (NAD 83)	**MD Reference:**	GL 3280 + 23' KB @ 3303.00usft
Site:	Snapping 12-1 FED	**North Reference:**	Grid
Well:	533H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	OH		
Design:	Plan 1		

Project	Eddy County, New Mexico (NAD 83)		
Map System:	US State Plane 1983	**System Datum:**	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	New Mexico Eastern Zone		

Site Snapping 12-1 FED

Site Position:		**Northing:**	385,529.86 usft	**Latitude:**	32.058487
From:	Map	**Easting:**	726,878.08 usft	**Longitude:**	-103.734417
Position Uncertainty:	0.00 usft	**Slot Radius:**	13-3/16 "	**Grid Convergence:**	0.32 °

Well 533H

Well Position	**+N/-S**	0.18 usft	**Northing:**	385,530.04 usft	**Latitude:**	32.058487
	+E/-W	29.99 usft	**Easting:**	726,908.07 usft	**Longitude:**	-103.734320
Position Uncertainty		0.00 usft	**Wellhead Elevation:**		**Ground Level:**	3,280.00 usft

Wellbore OH

Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2015	9/27/2017	6.99	59.88	47,794.81446663

Design Plan 1

Audit Notes:

Version:		**Phase:**	PLAN	**Tie On Depth:**	0.00

Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)
	0.00	0.00	0.00	0.00

Plan Survey Tool Program **Date** 9/28/2017

	Depth From (usft)	Depth To (usft)	Survey (Wellbore)	Tool Name	Remarks
1	0.00	16,378.88	Plan 1 (OH)	MWD	
				OWSG MWD - Standard	

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
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,200.00	0.00	0.00	1,200.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,722.13	6.00	131.39	1,721.17	-18.07	20.51	1.15	1.15	0.00	131.39	
4,525.16	6.00	131.39	4,508.83	-211.93	240.49	0.00	0.00	0.00	0.00	
5,047.29	0.00	0.00	5,030.00	-230.00	261.00	1.15	-1.15	0.00	180.00	
8,552.82	0.00	0.00	8,535.54	-230.00	261.00	0.00	0.00	0.00	0.00	
9,302.82	90.00	360.00	9,013.00	247.46	260.99	12.00	12.00	0.00	360.00	
16,379.26	90.00	360.00	9,013.00	7,323.90	260.78	0.00	0.00	0.00	0.00	BHL - 533H

Database:	EDM 5000.14 Single User Db	**Local Co-ordinate Reference:**	Well 533H
Company:	Devon Energy	**TVD Reference:**	GL 3280 + 23' KB @ 3303.00usft
Project:	Eddy County, New Mexico (NAD 83)	**MD Reference:**	GL 3280 + 23' KB @ 3303.00usft
Site:	Snapping 12-1 FED	**North Reference:**	Grid
Well:	533H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	OH		
Design:	Plan 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)
1,200.00	0.00	0.00	1,200.00	0.00	0.00	0.00	0.00	0.00	0.00
1,300.00	1.15	131.39	1,299.99	-0.66	0.75	-0.66	1.15	1.15	0.00
1,400.00	2.30	131.39	1,399.95	-2.65	3.01	-2.65	1.15	1.15	0.00
1,500.00	3.45	131.39	1,499.82	-5.97	6.77	-5.97	1.15	1.15	0.00
1,600.00	4.60	131.39	1,599.57	-10.61	12.04	-10.61	1.15	1.15	0.00
1,700.00	5.75	131.39	1,699.16	-16.57	18.81	-16.57	1.15	1.15	0.00
1,722.13	6.00	131.39	1,721.17	-18.07	20.51	-18.07	1.15	1.15	0.00
1,800.00	6.00	131.39	1,798.62	-23.46	26.62	-23.46	0.00	0.00	0.00
1,900.00	6.00	131.39	1,898.07	-30.37	34.47	-30.37	0.00	0.00	0.00
2,000.00	6.00	131.39	1,997.52	-37.29	42.32	-37.29	0.00	0.00	0.00
2,100.00	6.00	131.39	2,096.97	-44.21	50.16	-44.21	0.00	0.00	0.00
2,200.00	6.00	131.39	2,196.42	-51.12	58.01	-51.12	0.00	0.00	0.00
2,300.00	6.00	131.39	2,295.87	-58.04	65.86	-58.04	0.00	0.00	0.00
2,400.00	6.00	131.39	2,395.33	-64.95	73.71	-64.95	0.00	0.00	0.00
2,500.00	6.00	131.39	2,494.78	-71.87	81.56	-71.87	0.00	0.00	0.00
2,600.00	6.00	131.39	2,594.23	-78.78	89.40	-78.78	0.00	0.00	0.00
2,700.00	6.00	131.39	2,693.68	-85.70	97.25	-85.70	0.00	0.00	0.00
2,800.00	6.00	131.39	2,793.13	-92.62	105.10	-92.62	0.00	0.00	0.00
2,900.00	6.00	131.39	2,892.58	-99.53	112.95	-99.53	0.00	0.00	0.00
3,000.00	6.00	131.39	2,992.03	-106.45	120.80	-106.45	0.00	0.00	0.00
3,100.00	6.00	131.39	3,091.49	-113.36	128.64	-113.36	0.00	0.00	0.00
3,200.00	6.00	131.39	3,190.94	-120.28	136.49	-120.28	0.00	0.00	0.00
3,300.00	6.00	131.39	3,290.39	-127.20	144.34	-127.20	0.00	0.00	0.00
3,400.00	6.00	131.39	3,389.84	-134.11	152.19	-134.11	0.00	0.00	0.00
3,500.00	6.00	131.39	3,489.29	-141.03	160.04	-141.03	0.00	0.00	0.00
3,600.00	6.00	131.39	3,588.74	-147.94	167.88	-147.94	0.00	0.00	0.00
3,700.00	6.00	131.39	3,688.19	-154.86	175.73	-154.86	0.00	0.00	0.00
3,800.00	6.00	131.39	3,787.65	-161.78	183.58	-161.78	0.00	0.00	0.00
3,900.00	6.00	131.39	3,887.10	-168.69	191.43	-168.69	0.00	0.00	0.00
4,000.00	6.00	131.39	3,986.55	-175.61	199.28	-175.61	0.00	0.00	0.00
4,100.00	6.00	131.39	4,086.00	-182.52	207.13	-182.52	0.00	0.00	0.00
4,200.00	6.00	131.39	4,185.45	-189.44	214.97	-189.44	0.00	0.00	0.00
4,300.00	6.00	131.39	4,284.90	-196.36	222.82	-196.36	0.00	0.00	0.00
4,400.00	6.00	131.39	4,384.35	-203.27	230.67	-203.27	0.00	0.00	0.00
4,500.00	6.00	131.39	4,483.80	-210.19	238.52	-210.19	0.00	0.00	0.00
4,525.16	6.00	131.39	4,508.83	-211.93	240.49	-211.93	0.00	0.00	0.00
4,600.00	5.14	131.39	4,583.31	-216.73	245.95	-216.73	1.15	-1.15	0.00
4,700.00	3.99	131.39	4,682.99	-222.00	251.92	-222.00	1.15	-1.15	0.00
4,800.00	2.84	131.39	4,782.81	-225.94	256.40	-225.94	1.15	-1.15	0.00
4,900.00	1.69	131.39	4,882.73	-228.56	259.37	-228.56	1.15	-1.15	0.00
5,000.00	0.54	131.39	4,982.71	-229.85	260.83	-229.85	1.15	-1.15	0.00
5,047.29	0.00	0.00	5,030.00	-230.00	261.00	-230.00	1.15	-1.15	0.00
5,100.00	0.00	0.00	5,082.71	-230.00	261.00	-230.00	0.00	0.00	0.00
5,200.00	0.00	0.00	5,182.71	-230.00	261.00	-230.00	0.00	0.00	0.00
5,300.00	0.00	0.00	5,282.71	-230.00	261.00	-230.00	0.00	0.00	0.00
5,400.00	0.00	0.00	5,382.71	-230.00	261.00	-230.00	0.00	0.00	0.00
5,500.00	0.00	0.00	5,482.71	-230.00	261.00	-230.00	0.00	0.00	0.00
5,600.00	0.00	0.00	5,582.71	-230.00	261.00	-230.00	0.00	0.00	0.00
5,700.00	0.00	0.00	5,682.71	-230.00	261.00	-230.00	0.00	0.00	0.00
5,800.00	0.00	0.00	5,782.71	-230.00	261.00	-230.00	0.00	0.00	0.00
5,900.00	0.00	0.00	5,882.71	-230.00	261.00	-230.00	0.00	0.00	0.00
6,000.00	0.00	0.00	5,982.71	-230.00	261.00	-230.00	0.00	0.00	0.00
6,100.00	0.00	0.00	6,082.71	-230.00	261.00	-230.00	0.00	0.00	0.00

Database:	EDM 5000.14 Single User Db	**Local Co-ordinate Reference:**	Well 533H
Company:	Devon Energy	**TVD Reference:**	GL 3280 + 23' KB @ 3303.00usft
Project:	Eddy County, New Mexico (NAD 83)	**MD Reference:**	GL 3280 + 23' KB @ 3303.00usft
Site:	Snapping 12-1 FED	**North Reference:**	Grid
Well:	533H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	OH		
Design:	Plan 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)
6,200.00	0.00	0.00	6,182.71	-230.00	261.00	-230.00	0.00	0.00	0.00
6,300.00	0.00	0.00	6,282.71	-230.00	261.00	-230.00	0.00	0.00	0.00
6,400.00	0.00	0.00	6,382.71	-230.00	261.00	-230.00	0.00	0.00	0.00
6,500.00	0.00	0.00	6,482.71	-230.00	261.00	-230.00	0.00	0.00	0.00
6,600.00	0.00	0.00	6,582.71	-230.00	261.00	-230.00	0.00	0.00	0.00
6,700.00	0.00	0.00	6,682.71	-230.00	261.00	-230.00	0.00	0.00	0.00
6,800.00	0.00	0.00	6,782.71	-230.00	261.00	-230.00	0.00	0.00	0.00
6,900.00	0.00	0.00	6,882.71	-230.00	261.00	-230.00	0.00	0.00	0.00
7,000.00	0.00	0.00	6,982.71	-230.00	261.00	-230.00	0.00	0.00	0.00
7,100.00	0.00	0.00	7,082.71	-230.00	261.00	-230.00	0.00	0.00	0.00
7,200.00	0.00	0.00	7,182.71	-230.00	261.00	-230.00	0.00	0.00	0.00
7,300.00	0.00	0.00	7,282.71	-230.00	261.00	-230.00	0.00	0.00	0.00
7,400.00	0.00	0.00	7,382.71	-230.00	261.00	-230.00	0.00	0.00	0.00
7,500.00	0.00	0.00	7,482.71	-230.00	261.00	-230.00	0.00	0.00	0.00
7,600.00	0.00	0.00	7,582.71	-230.00	261.00	-230.00	0.00	0.00	0.00
7,700.00	0.00	0.00	7,682.71	-230.00	261.00	-230.00	0.00	0.00	0.00
7,800.00	0.00	0.00	7,782.71	-230.00	261.00	-230.00	0.00	0.00	0.00
7,900.00	0.00	0.00	7,882.71	-230.00	261.00	-230.00	0.00	0.00	0.00
8,000.00	0.00	0.00	7,982.71	-230.00	261.00	-230.00	0.00	0.00	0.00
8,100.00	0.00	0.00	8,082.71	-230.00	261.00	-230.00	0.00	0.00	0.00
8,200.00	0.00	0.00	8,182.71	-230.00	261.00	-230.00	0.00	0.00	0.00
8,300.00	0.00	0.00	8,282.71	-230.00	261.00	-230.00	0.00	0.00	0.00
8,400.00	0.00	0.00	8,382.71	-230.00	261.00	-230.00	0.00	0.00	0.00
8,500.00	0.00	0.00	8,482.71	-230.00	261.00	-230.00	0.00	0.00	0.00
8,552.82	0.00	0.00	8,535.54	-230.00	261.00	-230.00	0.00	0.00	0.00
8,600.00	5.66	360.00	8,582.64	-227.67	261.00	-227.67	12.00	12.00	0.00
8,700.00	17.66	360.00	8,680.39	-207.50	261.00	-207.50	12.00	12.00	0.00
8,800.00	29.66	360.00	8,771.82	-167.44	261.00	-167.44	12.00	12.00	0.00
8,900.00	41.66	360.00	8,852.92	-109.24	261.00	-109.24	12.00	12.00	0.00
9,000.00	53.66	360.00	8,920.15	-35.46	260.99	-35.46	12.00	12.00	0.00
9,100.00	65.66	360.00	8,970.57	50.69	260.99	50.69	12.00	12.00	0.00
9,200.00	77.66	360.00	9,001.97	145.43	260.99	145.43	12.00	12.00	0.00
9,300.00	89.66	360.00	9,012.99	244.64	260.99	244.64	12.00	12.00	0.00
9,302.82	90.00	360.00	9,013.00	247.46	260.99	247.46	12.00	12.00	0.00
9,400.00	90.00	360.00	9,013.00	344.64	260.98	344.64	0.00	0.00	0.00
9,500.00	90.00	360.00	9,013.00	444.64	260.98	444.64	0.00	0.00	0.00
9,600.00	90.00	360.00	9,013.00	544.64	260.98	544.64	0.00	0.00	0.00
9,700.00	90.00	360.00	9,013.00	644.64	260.97	644.64	0.00	0.00	0.00
9,800.00	90.00	360.00	9,013.00	744.64	260.97	744.64	0.00	0.00	0.00
9,900.00	90.00	360.00	9,013.00	844.64	260.97	844.64	0.00	0.00	0.00
10,000.00	90.00	360.00	9,013.00	944.64	260.97	944.64	0.00	0.00	0.00
10,100.00	90.00	360.00	9,013.00	1,044.64	260.96	1,044.64	0.00	0.00	0.00
10,200.00	90.00	360.00	9,013.00	1,144.64	260.96	1,144.64	0.00	0.00	0.00
10,300.00	90.00	360.00	9,013.00	1,244.64	260.96	1,244.64	0.00	0.00	0.00
10,400.00	90.00	360.00	9,013.00	1,344.64	260.95	1,344.64	0.00	0.00	0.00
10,500.00	90.00	360.00	9,013.00	1,444.64	260.95	1,444.64	0.00	0.00	0.00
10,600.00	90.00	360.00	9,013.00	1,544.64	260.95	1,544.64	0.00	0.00	0.00
10,700.00	90.00	360.00	9,013.00	1,644.64	260.95	1,644.64	0.00	0.00	0.00
10,800.00	90.00	360.00	9,013.00	1,744.64	260.94	1,744.64	0.00	0.00	0.00
10,900.00	90.00	360.00	9,013.00	1,844.64	260.94	1,844.64	0.00	0.00	0.00
11,000.00	90.00	360.00	9,013.00	1,944.64	260.94	1,944.64	0.00	0.00	0.00
11,100.00	90.00	360.00	9,013.00	2,044.64	260.93	2,044.64	0.00	0.00	0.00
11,200.00	90.00	360.00	9,013.00	2,144.64	260.93	2,144.64	0.00	0.00	0.00
11,300.00	90.00	360.00	9,013.00	2,244.64	260.93	2,244.64	0.00	0.00	0.00

Database:	EDM 5000.14 Single User Db	**Local Co-ordinate Reference:**	Well 533H
Company:	Devon Energy	**TVD Reference:**	GL 3280 + 23' KB @ 3303.00usft
Project:	Eddy County, New Mexico (NAD 83)	**MD Reference:**	GL 3280 + 23' KB @ 3303.00usft
Site:	Snapping 12-1 FED	**North Reference:**	Grid
Well:	533H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	OH		
Design:	Plan 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)
11,400.00	90.00	360.00	9,013.00	2,344.64	260.93	2,344.64	0.00	0.00	0.00
11,500.00	90.00	360.00	9,013.00	2,444.64	260.92	2,444.64	0.00	0.00	0.00
11,600.00	90.00	360.00	9,013.00	2,544.64	260.92	2,544.64	0.00	0.00	0.00
11,700.00	90.00	360.00	9,013.00	2,644.64	260.92	2,644.64	0.00	0.00	0.00
11,800.00	90.00	360.00	9,013.00	2,744.64	260.91	2,744.64	0.00	0.00	0.00
11,900.00	90.00	360.00	9,013.00	2,844.64	260.91	2,844.64	0.00	0.00	0.00
12,000.00	90.00	360.00	9,013.00	2,944.64	260.91	2,944.64	0.00	0.00	0.00
12,100.00	90.00	360.00	9,013.00	3,044.64	260.90	3,044.64	0.00	0.00	0.00
12,200.00	90.00	360.00	9,013.00	3,144.64	260.90	3,144.64	0.00	0.00	0.00
12,300.00	90.00	360.00	9,013.00	3,244.64	260.90	3,244.64	0.00	0.00	0.00
12,400.00	90.00	360.00	9,013.00	3,344.64	260.90	3,344.64	0.00	0.00	0.00
12,500.00	90.00	360.00	9,013.00	3,444.64	260.89	3,444.64	0.00	0.00	0.00
12,600.00	90.00	360.00	9,013.00	3,544.64	260.89	3,544.64	0.00	0.00	0.00
12,700.00	90.00	360.00	9,013.00	3,644.64	260.89	3,644.64	0.00	0.00	0.00
12,800.00	90.00	360.00	9,013.00	3,744.64	260.88	3,744.64	0.00	0.00	0.00
12,900.00	90.00	360.00	9,013.00	3,844.64	260.88	3,844.64	0.00	0.00	0.00
13,000.00	90.00	360.00	9,013.00	3,944.64	260.88	3,944.64	0.00	0.00	0.00
13,100.00	90.00	360.00	9,013.00	4,044.64	260.88	4,044.64	0.00	0.00	0.00
13,200.00	90.00	360.00	9,013.00	4,144.64	260.87	4,144.64	0.00	0.00	0.00
13,300.00	90.00	360.00	9,013.00	4,244.64	260.87	4,244.64	0.00	0.00	0.00
13,400.00	90.00	360.00	9,013.00	4,344.64	260.87	4,344.64	0.00	0.00	0.00
13,500.00	90.00	360.00	9,013.00	4,444.64	260.86	4,444.64	0.00	0.00	0.00
13,600.00	90.00	360.00	9,013.00	4,544.64	260.86	4,544.64	0.00	0.00	0.00
13,700.00	90.00	360.00	9,013.00	4,644.64	260.86	4,644.64	0.00	0.00	0.00
13,800.00	90.00	360.00	9,013.00	4,744.64	260.86	4,744.64	0.00	0.00	0.00
13,900.00	90.00	360.00	9,013.00	4,844.64	260.85	4,844.64	0.00	0.00	0.00
14,000.00	90.00	360.00	9,013.00	4,944.64	260.85	4,944.64	0.00	0.00	0.00
14,100.00	90.00	360.00	9,013.00	5,044.64	260.85	5,044.64	0.00	0.00	0.00
14,200.00	90.00	360.00	9,013.00	5,144.64	260.84	5,144.64	0.00	0.00	0.00
14,300.00	90.00	360.00	9,013.00	5,244.64	260.84	5,244.64	0.00	0.00	0.00
14,400.00	90.00	360.00	9,013.00	5,344.64	260.84	5,344.64	0.00	0.00	0.00
14,500.00	90.00	360.00	9,013.00	5,444.64	260.83	5,444.64	0.00	0.00	0.00
14,600.00	90.00	360.00	9,013.00	5,544.64	260.83	5,544.64	0.00	0.00	0.00
14,700.00	90.00	360.00	9,013.00	5,644.64	260.83	5,644.64	0.00	0.00	0.00
14,800.00	90.00	360.00	9,013.00	5,744.64	260.83	5,744.64	0.00	0.00	0.00
14,900.00	90.00	360.00	9,013.00	5,844.64	260.82	5,844.64	0.00	0.00	0.00
15,000.00	90.00	360.00	9,013.00	5,944.64	260.82	5,944.64	0.00	0.00	0.00
15,100.00	90.00	360.00	9,013.00	6,044.64	260.82	6,044.64	0.00	0.00	0.00
15,200.00	90.00	360.00	9,013.00	6,144.64	260.81	6,144.64	0.00	0.00	0.00
15,300.00	90.00	360.00	9,013.00	6,244.64	260.81	6,244.64	0.00	0.00	0.00
15,400.00	90.00	360.00	9,013.00	6,344.64	260.81	6,344.64	0.00	0.00	0.00
15,500.00	90.00	360.00	9,013.00	6,444.64	260.81	6,444.64	0.00	0.00	0.00
15,600.00	90.00	360.00	9,013.00	6,544.64	260.80	6,544.64	0.00	0.00	0.00
15,700.00	90.00	360.00	9,013.00	6,644.64	260.80	6,644.64	0.00	0.00	0.00
15,800.00	90.00	360.00	9,013.00	6,744.64	260.80	6,744.64	0.00	0.00	0.00
15,900.00	90.00	360.00	9,013.00	6,844.64	260.79	6,844.64	0.00	0.00	0.00
16,000.00	90.00	360.00	9,013.00	6,944.64	260.79	6,944.64	0.00	0.00	0.00
16,100.00	90.00	360.00	9,013.00	7,044.64	260.79	7,044.64	0.00	0.00	0.00
16,200.00	90.00	360.00	9,013.00	7,144.64	260.79	7,144.64	0.00	0.00	0.00
16,300.00	90.00	360.00	9,013.00	7,244.64	260.78	7,244.64	0.00	0.00	0.00
16,379.26	90.00	360.00	9,013.00	7,323.90	260.78	7,323.90	0.00	0.00	0.00

Database:	EDM 5000.14 Single User Db	**Local Co-ordinate Reference:**	Well 533H
Company:	Devon Energy	**TVD Reference:**	GL 3280 + 23' KB @ 3303.00usft
Project:	Eddy County, New Mexico (NAD 83)	**MD Reference:**	GL 3280 + 23' KB @ 3303.00usft
Site:	Snapping 12-1 FED	**North Reference:**	Grid
Well:	533H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	OH		
Design:	Plan 1		

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
BHL - 533H - plan hits target center - Point	0.00	0.00	9,013.00	7,323.90	260.78	392,853.94	727,168.85	32.078615	-103.733347

Formations

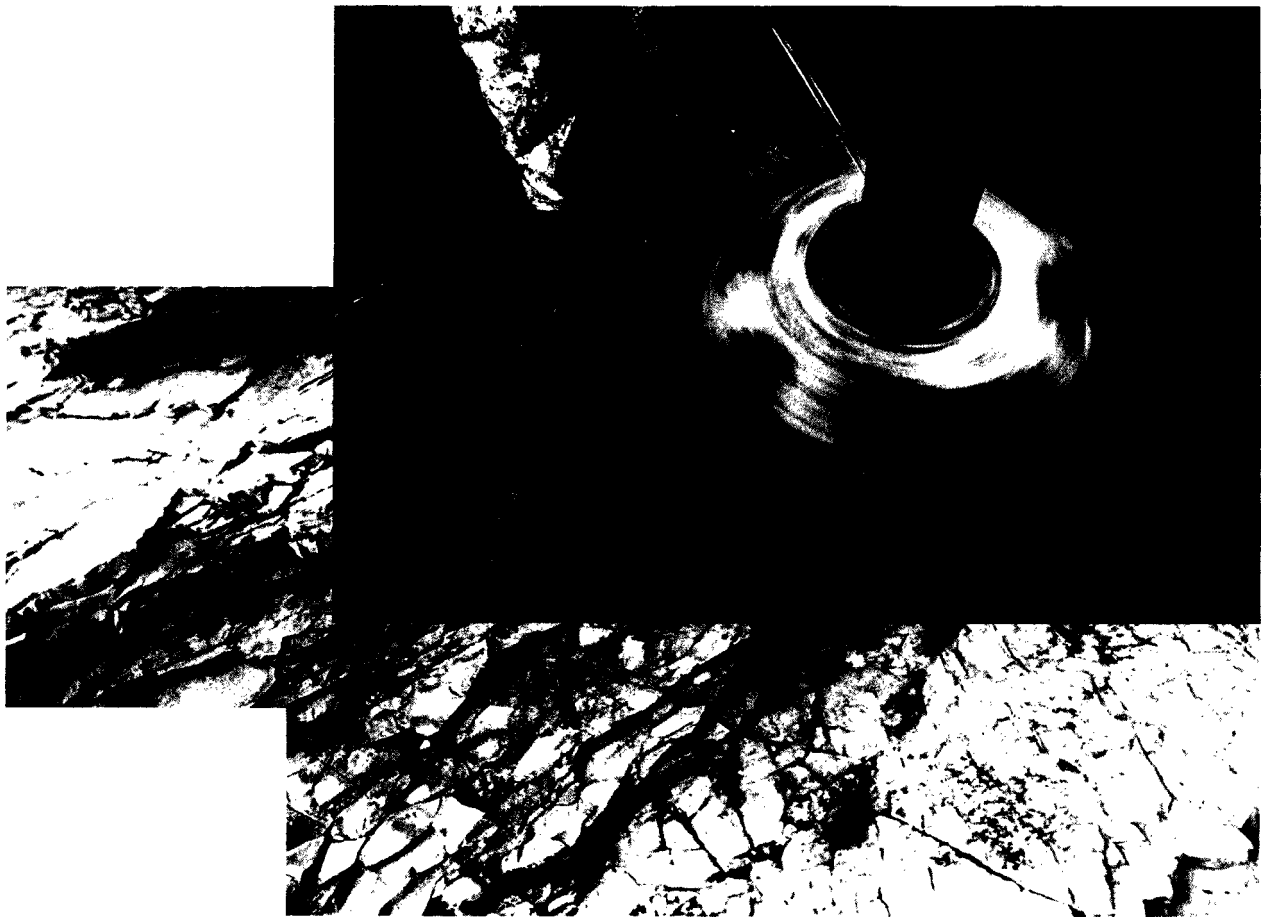
Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)
903.00	903.00	Rustler		0.00	0.00
1,253.00	1,253.00	Salado		0.00	0.00
4,011.52	3,998.00	Base of Salt		0.00	0.00
4,232.73	4,218.00	Delaware		0.00	0.00
4,262.89	4,248.00	Bell Canyon		0.00	0.00
5,250.29	5,233.00	Cherry Canyon		0.00	0.00
6,590.29	6,573.00	Brushy Canyon		0.00	0.00
8,265.29	8,248.00	1st BSPG Lime		0.00	0.00
9,164.14	8,993.00	Leonard C		0.00	0.00

Plan Annotations

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates +N/-S (usft)	Local Coordinates +E/-W (usft)	Comment
1,200.00	1,200.00	0.00	0.00	Start Nudge Build 1.15
1,722.13	1,721.17	-18.07	20.51	EOB 6° at 1722.13 MD
4,525.16	4,508.83	-211.93	240.49	Start Drop -1.15
5,047.29	5,030.00	-230.00	261.00	Vertical at 5047.29 MD
8,552.82	8,535.54	-230.00	261.00	Start Build 12.00
9,302.82	9,013.00	247.46	260.99	LP 90° at 9302.82 MD
16,379.26	9,013.00	7,323.90	260.78	TD at 16379.26

devon

Commitment Runs Deep



Design Plan
Operation and Maintenance Plan
Closure Plan

SENM - Closed Loop Systems
June 2010

I. Design Plan

Devon uses MI SWACO closed loop system (CLS). The MI SWACO CLS is designed to maintain drill solids at or below 5%. The equipment is arranged to progressively remove solids from the largest to the smallest size. Drilling fluids can thus be reused and savings is realized on mud and disposal costs. Dewatering may be required with the centrifuges to insure removal of ultra fine solids.

The drilling location is constructed to allow storm water to flow to a central sump normally the cellar. This insures no contamination leaves the drilling pad in the event of a spill. Storm water is reused in the mud system or stored in a reserve fluid tank farm until it can be reused. All lubricants, oils, or chemicals are removed immediately from the ground to prevent the contamination of storm water. An oil trap is normally installed on the sump if an oil spill occurs during a storm.

A tank farm is utilized to store drilling fluids including fresh water and brine fluids. The tank farm is constructed on a 20 ml plastic lined, bermed pad to prevent the contamination of the drilling site during a spill. Fluids from other sites may be stored in these tanks for processing by the solids control equipment and reused in the mud system. At the end of the well the fluids are transported from the tank farm to an adjoining well or to the next well for the rig.

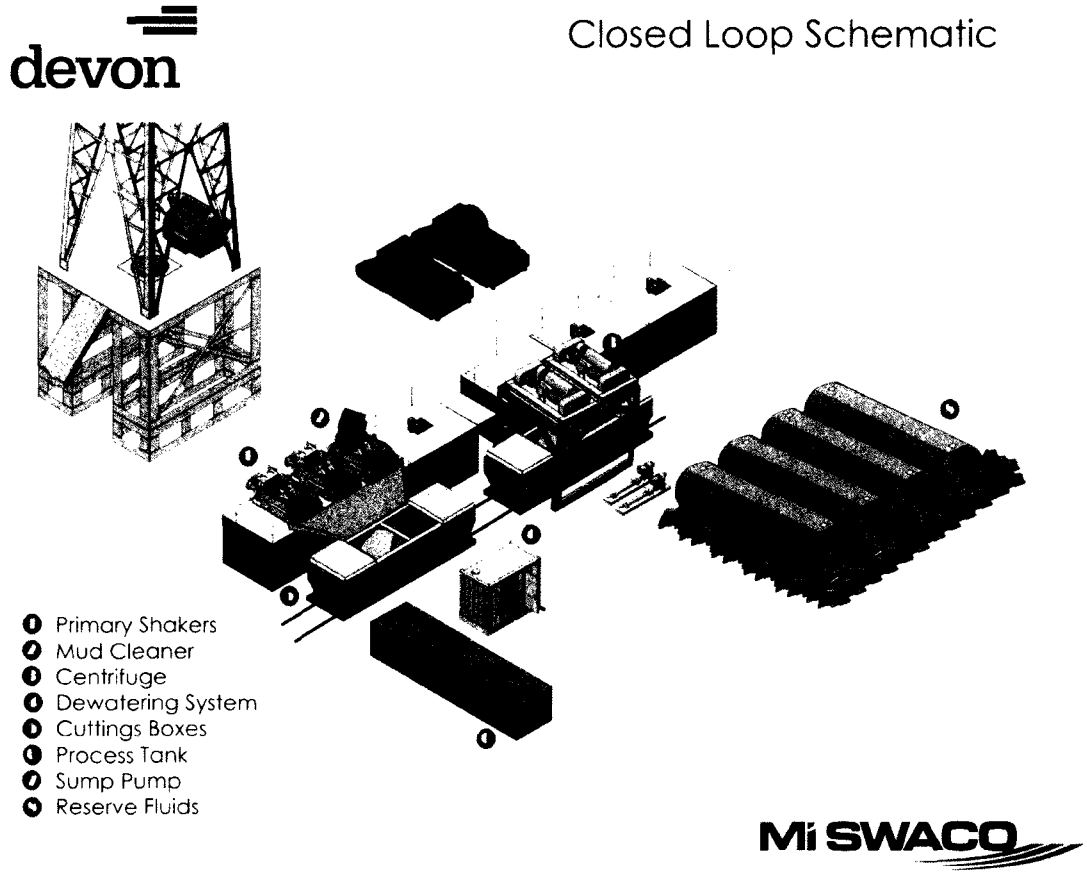
Prior to installing a closed-loop system on site, the topsoil, if present, will be stripped and stockpiled for use as the final cover or fill at the time of closure.

Signs will be posted on the fence surrounding the closed-loop system unless the closed-loop system is located on a site where there is an existing well, that is operated by Devon.

II. Operations and Maintenance Plan

Primary Shakers: The primary shakers make the first removal of drill solids from the drilling mud as it leaves the well bore. The shakers are sized to handle maximum drilling rate at optimal screen size. The shakers normally remove solids down to 74 microns.

Mud Cleaner: The Mud Cleaner cleans the fluid after it leaves the shakers. A set of hydrocyclones are sized to handle 1.25 to 1.5 times the maximum circulating rate. This ensures all the fluid is being processed to an average cut point of 25 microns. The wet discharged is dewatered on a shaker equipped with ultra fine mesh screens and generally cut at 40 microns.



Centrifuges: The centrifuges can be one or two in number depending on the well geometry or depth of well. The centrifuges are sized to maintain low gravity solids at 5% or below. They may or may not need a dewatering system to enhance the removal rates. The centrifuges can make a cut point of 8-10 microns depending on bowl speed, feed rate, solids loading and other factors.

The centrifuge system is designed to work on the active system and be flexible to process incoming fluids from other locations. This set-up is also dependant on well factors.

Dewatering System: The dewatering system is a chemical mixing and dosing system designed to enhance the solids removal of the centrifuge. Not commonly used in shallow wells. It may contain pH adjustment, coagulant mixing and dosing, and polymer mixing and dosing. Chemical flocculation binds ultra fine solids into a mass that is within the centrifuge operating design. The

dewatering system improves the centrifuge cut point to infinity or allows for the return of clear water or brine fluid. This ability allows for the ultimate control of low gravity solids.

Cuttings Boxes: Cuttings boxes are utilized to capture drill solids that are discarded from the solids control equipment. These boxes are set upon a rail system that allows for the removal and replacement of a full box of cuttings with an empty one. They are equipped with a cover that insures no product is spilled into the environment during the transportation phase.

Process Tank: (Optional) The process tank allows for the holding and process of fluids that are being transferred into the mud system. Additionally, during times of lost circulation the process tank may hold active fluids that are removed for additional treatment. It can further be used as a mixing tank during well control conditions.

Sump and Sump Pump: The sump is used to collect storm water and the pump is used to transfer this fluid to the active system or to the tank for to hold in reserve. It can also be used to collect fluids that may escape during spills. The location contains drainage ditches that allow the location fluids to drain to the sump.

Reserve Fluids (Tank Farm): A series of frac tanks are used to replace the reserve pit. These are steel tanks that are equipped with a manifold system and a transfer pump. These tanks can contain any number of fluids used during the drilling process. These can include fresh water, cut brine, and saturated salt fluid. The fluid can be from the active well or reclaimed fluid from other locations. A 20 ml liner and berm system is employed to ensure the fluids do not migrate to the environment during a spill.

If a leak develops, the appropriate division district office will be notified within 48 hours of the discovery and the leak will be addressed. Spill prevention is accomplished by maintaining pump packing, hoses, and pipe fittings to insure no leaks are occurring. During an upset condition the source of the spill is isolated and repaired as soon as it is discovered. Free liquid is removed by a diaphragm pump and returned to the mud system. Loose topsoil may be used to stabilize the spill and the contaminated soil is excavated and placed in the cuttings boxes. After the well is finished and the rig has moved, the entire location is scrapped and testing will be performed to determine if a release has occurred.

All trash is kept in a wire mesh enclosure and removed to an approved landfill when full. All spent motor oils are kept in separate containers and they are removed and sent to an approved recycling center. Any spilled lubricants, pipe

dope, or regulated chemicals are removed from soil and sent to landfills approved for these products.

These operations are monitored by Mi Swaco service technicians. Daily logs are maintained to ensure optimal equipment operation and maintenance. Screen and chemical use is logged to maintain inventory control. Fluid properties are monitored and recorded and drilling mud volumes are accounted for in the mud storage farm. This data is kept for end of well review to insure performance goals are met. Lessons learned are logged and used to help with continuous improvement.

A MI SWACO field supervisor manages from 3-5 wells. They are responsible for training personnel, supervising installations, and inspecting sites for compliance of MI SWACO safety and operational policy.

III. Closure Plan

A maximum 340' X 340' caliche pad is built per well. All of the trucks and steel tanks fit on this pad. All fluid cuttings go to the steel tanks to be hauled by various trucking companies to an agency approved disposal.

A multibowl wellhead may be used. The BOP will be tested per Onshore Order #2 after installation on the surface casing which will cover testing requirements for a maximum of 30 days. If any seal subject to test pressure is broken the system must be tested.

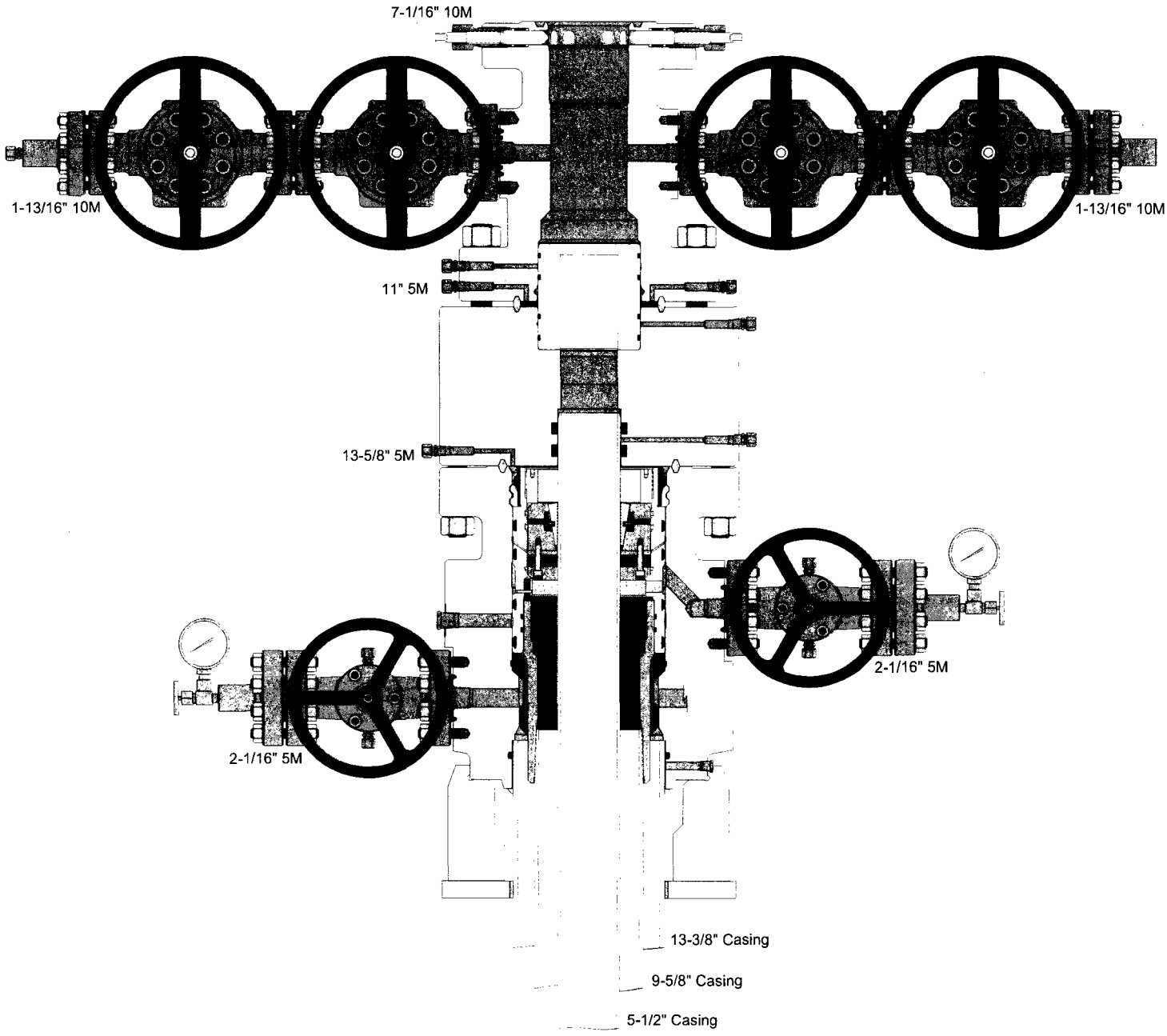
Devon proposes using a multi-bowl wellhead assembly. This assembly will only be tested when installed on the surface casing. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the surface casing shoe shall be 3000 (3M) psi.

- Wellhead will be installed by wellhead representatives.
- If the welding is performed by a third party, the wellhead representative will monitor the temperature to verify that it does not exceed the maximum temperature of the seal.
- Wellhead representative will install the test plug for the initial BOP test.
- Wellhead company will install a solid steel body pack-off to completely isolate the lower head after cementing intermediate casing. After installation of the pack-off, the pack-off and the lower flange will be tested to 3M, as shown on the attached schematic. Everything above the pack-off will not have been altered whatsoever from the initial nipple up. Therefore the BOP components will not be retested at that time.
- If the cement does not circulate and one inch operations would have been possible with a standard wellhead, the well head will be cut and top out operations will be conducted.
- Devon will pressure test all seals above and below the mandrel (but still above the casing) to full working pressure rating.
- Devon will test the casing to 0.22 psi/ft or 1500 psi, whichever is greater, as per Onshore Order #2.

After running the 13-3/8" surface casing, a 13-5/8" BOP/BOPE system with a minimum rating of 3M will be installed on the wellhead system and will undergo a 250 psi low pressure test followed by a 3,000 psi high pressure test. The 3,000 psi high and 250 psi low test will cover testing requirements a maximum of 30 days, as per Onshore Order #2. If the well is not complete within 30 days of this BOP test, another full BOP test will be conducted, as per Onshore Order #2.
After running the 9-5/8' intermediate casing with a mandrel hanger, the 13-5/8" BOP/BOPE system with a minimum rating of 3M will already be installed on the wellhead.

The pipe rams will be operated and checked each 24 hour period and each time the drill pipe is out of the hole. These tests will be logged in the daily driller's log. A 2" kill line and 3" choke line will be incorporated into the drilling spool below the ram BOP. In addition to the rams and annular preventer, additional BOP accessories include a kelly cock, floor safety valve, choke lines, and choke manifold rated at 3,000 psi WP.

Devon's proposed wellhead manufactures will be FMC Technologies, Cactus Wellhead, or Cameron.


7-1/16" 10M
1-13/16" 10M
1-13/16" 10M
11" 5M
13-5/8" 5M
2-1/16" 5M
2-1/16" 5M
13-3/8" Casing
9-5/8" Casing
5-1/2" Casing

Devon Energy Prod. Co., L.P./Snapping 12-1 Fed 533H

1. Geologic Formations

TVD of target	9,013	Pilot hole depth	
MD at TD:	16,379	Deepest expected fresh water:	400

Basin

Formation	Depth (TVD) from KB	Water/Mineral Bearing/ Target Zone?	Hazards*
Quaternary Fill	Surface	Water	
Rustler	900	Water	
Top of Salt	1250	Salt	
Delaware Group	4215	Oil/Gas	
Bone Spring	8250	Target Zone	

*H2S, water flows, loss of circulation, abnormal pressures, etc.

2. Casing Program

Hole Size	Casing Interval From	Casing Interval To	Csg. Size	Weight (lbs)	Grade	Conn.	SF Collapse	SF Burst	SF Tension
17.5"	0	960'	13.375"	48	H-40	STC	1.74	2.45	4.13
12.25"	0	4,150'	9.625"	40	J-55	LTC	1.19	1.42	3.98
8.75"	0	16,379'	5.5"	17	P110	BTC	2.18	2.7	3.21
				BLM Minimum Safety Factor			1.125	1	1.6 Dry 1.8 Wet

All casing strings will be tested in accordance with Onshore Oil and Gas Order #2 III.B.1.h

Must have table for contingency casing

	Y or N
Is casing new? If used, attach certification as required in Onshore Order #1	Y
Does casing meet API specifications? If no, attach casing specification sheet.	Y
Is premium or uncommon casing planned? If yes attach casing specification sheet.	N
Does the above casing design meet or exceed BLM's minimum standards? If not provide justification (loading assumptions, casing design criteria).	Y
Will the intermediate pipe be kept at a minimum 1/3 fluid filled to avoid approaching the collapse pressure rating of the casing?	Y
Is well located within Capitan Reef?	N
If yes, does production casing cement tie back a minimum of 50' above the Reef?	
Is well within the designated 4 string boundary.	
Is well located in SOPA but not in R-111-P?	N
If yes, are the first 2 strings cemented to surface and 3rd string cement tied back 500' into previous casing?	
Is well located in R-111-P and SOPA?	N
If yes, are the first three strings cemented to surface?	
Is 2nd string set 100' to 600' below the base of salt?	
Is well located in high Cave/Karst?	N
If yes, are there two strings cemented to surface?	
(For 2 string wells) If yes, is there a contingency casing if lost circulation occurs?	
Is well located in critical Cave/Karst?	N
If yes, are there three strings cemented to surface?	

3. Cementing Program

Casing	# Sks	Wt. lb/ gal	H_2O gal/sk	Yld ft3/ sack	500# Comp. Strength (hours)	Slurry Description
13-3/8" Surface	747	14.8	6.34	1.34	6	Tail: Class C Cement + 1% Calcium Chloride
9-5/8" Inter.	694	12.9	9.81	1.85	14	Lead: (65:35) Class C Cement: Poz (Fly Ash): 6% BWOC Bentonite + 5% BWOW Sodium Chloride + 0.125 lbs/sack Poly-E-Flake
	306	14.8	6.32	1.33	6	Tail: Class C Cement + 0.125 lbs/sack Poly-E-Flake
5-1/2" Prod	478	9	13.5	3.27	21	Lead: Tuned Light® Cement
	1967	14.5	5.31	1.2	25	Tail: (50:50) Class H Cement: Poz (Fly Ash) + 0.5% bwoc HALAD-344 + 0.4% bwoc CFR-3 + 0.2% BWOC HR-601 + 2% bwoc Bentonite

Casing String	TOC	% Excess
13-3/8" Surface	0'	50%
9-5/8" Intermediate	0'	30%
5-1/2" Production Casing	3950'	25%

4. Pressure Control Equipment

	A variance is requested for the use of a diverter on the surface casing. See attached for schematic.

BOP installed and tested before drilling which hole?	Size?	Min. Required WP	Type	✓	Tested to:
12-1/4"	13-5/8"	3M	Annular	x	50% of working pressure
			Blind Ram		3M
			Pipe Ram		
			Double Ram		
			Other*		
8-3/4"	13-5/8"	3M	Annular	x	50% testing pressure
			Blind Ram	x	3M
			Pipe Ram	x	
			Double Ram		
			Other *		
			Annular		
			Blind Ram		
			Pipe Ram		
			Double Ram		
			Other *		

*Specify if additional ram is utilized.

BOP/BOPE will be tested by an independent service company to 250 psi low and the high pressure indicated above per Onshore Order 2 requirements. The System may be upgraded to a higher pressure but still tested to the working pressure listed in the table above. If the system is upgraded all the components installed will be functional and tested.

Pipe rams will be operationally checked each 24 hour period. Blind rams will be operationally checked on each trip out of the hole. These checks will be noted on the daily tour sheets. Other accessories to the BOP equipment will include a Kelly cock and floor safety valve (inside BOP) and choke lines and choke manifold. See attached schematics.

X	Formation integrity test will be performed per Onshore Order #2.

	On Exploratory wells or 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. Will be tested in accordance with Onshore Oil and Gas Order #2 III.B.1.i.
	A variance is requested for the use of a flexible choke line from the BOP to Choke Manifold. See attached for specs and hydrostatic test chart.
	Y /N | Are anchors required by manufacturer?
	A multibowl wellhead is being used. The BOP will be tested per Onshore Order #2 after installation on the surface casing which will cover testing requirements for a maximum of 30 days. If any seal subject to test pressure is broken the system must be tested. • Provide description here See attached schematic.

5. Mud Program

Depth		Type	Weight (ppg)	Viscosity	Water Loss
From	To				
0	960	FW Gel	8.6-8.8	28-34	N/C
725	4150	Saturated Brine	10.0-10.2	28-34	N/C
4350	16379	Cut Brine	8.5-9.3	28-34	N/C

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

What will be used to monitor the loss or gain of fluid?	PVT/Pason/Visual Monitoring

6. Logging and Testing Procedures

Logging, Coring and Testing.	
x	Will run GR/CNL fromTD to surface (horizontal well – vertical portion of hole). Stated logs run will be in the Completion Report and submitted to the BLM.
	No Logs are planned based on well control or offset log information.
	Drill stem test? If yes, explain
	Coring? If yes, explain

Additional logs planned		Interval
	Resistivity	Int. shoe to KOP
	Density	Int. shoe to KOP
x	CBL	Production casing
X	Mud log	Intermediate shoe to TD

	PEX	

7. Drilling Conditions

Condition	Specify what type and where?
BH Pressure at deepest TVD	4056 psi
Abnormal Temperature	No

Mitigation measure for abnormal conditions. Describe. Lost circulation material/sweeps/mud scavengers.

Hydrogen Sulfide (H2S) monitors will be installed prior to drilling out the surface shoe. If H2S is detected in concentrations greater than 100 ppm, the operator will comply with the provisions of Onshore Oil and Gas Order #6. If Hydrogen Sulfide is encountered, measured values and formations will be provided to the BLM.	
	H2S is present
	H2S Plan attached

8. Other facets of operation

Is this a walking operation? If yes, describe.
Will be pre-setting casing? If yes, describe.

Attachments
___ Directional Plan
___ Other, describe

Continental CONTITECH

Fluid Technology

ContiTech Beattie Corp.
Website: www.contitechbeattie.com

Monday, June 14, 2010

RE: Drilling & Production Hoses
Lifting & Safety Equipment

To Helmerich & Payne,

A Continental ContiTech hose assembly can perform as intended and suitable for the application regardless of whether the hose is secured or unsecured in its configuration. As a manufacturer of High Pressure Hose Assemblies for use in Drilling & Production, we do offer the corresponding lifting and safety equipment, this has the added benefit of easing the lifting and handling of each hose assembly whilst affording hose longevity by ensuring correct handling methods and procedures as well as securing the hose in the unlikely event of a failure; but in no way does the lifting and safety equipment affect the performance of the hoses providing the hoses have been handled and installed correctly It is good practice to use lifting & safety equipment but not mandatory

Should you have any questions or require any additional information/clarifications then please do not hesitate to contact us.

ContiTech Beattie is part of the Continental AG Corporation and can offer the full support resources associated with a global organization.

Best regards,

Robin Hodgson
Sales Manager
ContiTech Beattie Corp

ContiTech Beattie Corp,
11535 Brittmoore Park Drive,
Houston, TX 77041
Phone: +1 (832) 327-0141
Fax: +1 (832) 327-0148
www.contitechbeattie.com

RIG 212

PHOENIX

QUALITY DOCUMENT

PHOENIX RUBBER INDUSTRIAL LTD.

6728 Szeged, Budapesti út 10. Hungary • H-6701 Szeged, P. O. Box 152
Phone: (3662) 566-737 • Fax: (3662) 566-738

SALES & MARKETING: H-1092 Budapest, Ráday u. 42-44. Hungary • H-1440 Budapest, P. O. Box 26
Phone: (361) 456-4200 · Fax: (361) 217-2972, 456-4273 · www.taurusemerge.hu

QUALITY CONTROL INSPECTION AND TEST CERTIFICATE				CERT. N°:	552	
PURCHASER:	Phoenix Beattie Co.			P.O. N°:	1519FA-871	
PHOENIX RUBBER order N°:	170466	HOSE TYPE:	3" ID	Choke and Kill Hose		
HOSE SERIAL N°:	34128	NOMINAL / ACTUAL LENGTH:		11,43 m		
W.P. 68,96 MPa	10000 psi	T.P. 103,4 MPa	15000 psi	Duration:	60	min.

Pressure test with water at ambient temperature

See attachment. (1 page)

↑ 10 mm = 10 Min.

→ 10 mm = 25 MPa

COUPLINGS

Type	Serial N°	Quality	Heat N°
3" coupling with	720 719	AISI 4130	C7626
4 1/16" Flange end		AISI 4130	47357

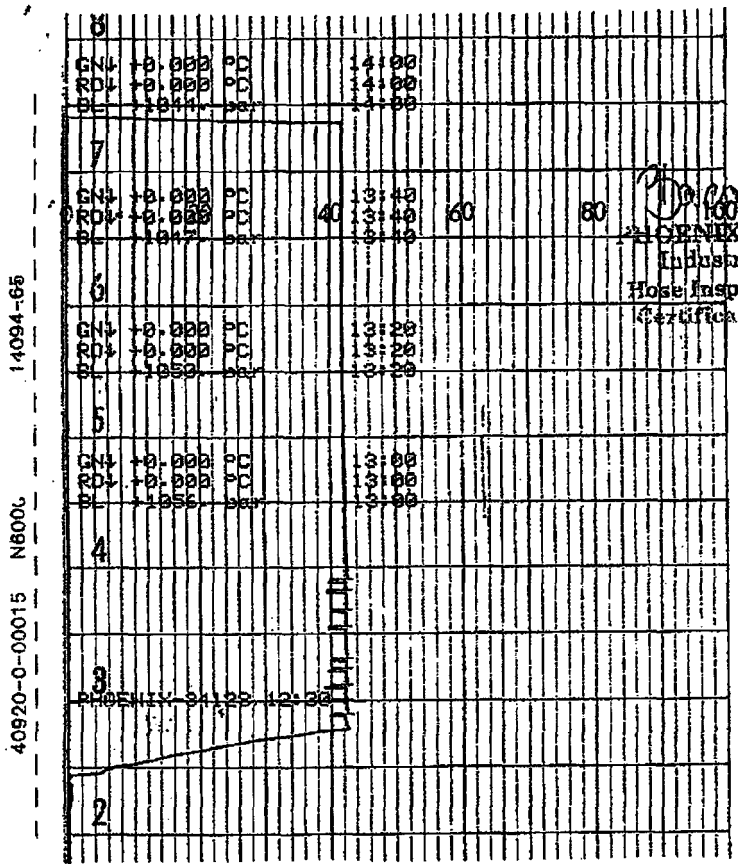
API Spec 16 C
Temperature rate:"B"

All metal parts are flawless

WE CERTIFY THAT THE ABOVE HOSE HAS BEEN MANUFACTURED IN ACCORDANCE WITH THE TERMS OF THE ORDER AND PRESSURE TESTED AS ABOVE WITH SATISFACTORY RESULT.

Date:	Inspector	Quality Control
29. April. 2002.		PHOENIX RUBBER Industrial Ltd. Hose Inspection and Verification Dept.

VERIFIED TRUE COPY
PHOENIX RUBBER Q.C.



PHOENIX RUBBER
Industrial Ltd.
Hose Inspection and
Certification Dept.

VERIFIED TRUE CO.
PHOENIX RUBBER C.C.

Devon Energy
APD VARIANCE DATA

OPERATOR NAME: Devon Energy

1. SUMMARY OF Variance:

Devon Energy respectfully requests approval for the following additions to the drilling plan:

1. Potential utilization of a spudder rig to pre-set surface casing.

2. Description of Operations

1. A spudder rig contractor may move in their rig to drill the surface hole section and pre-set surface casing on this well.
    a. After drilling the surface hole section, the rig will run casing and cement following all of the applicable rules and regulations (OnShore Order 2, all COAs and NMOCD regulations).
    b. Rig will utilize fresh water based mud to drill surface hole to TD.
2. The wellhead will be installed and tested once the surface casing is cut off and the WOC time has been reached.
3. A blind flange with the same pressure rating as the wellhead will be installed to seal the wellbore. Pressure will be monitored with needle valves installed on two wingvalves.
    a. A means for intervention will be maintained while the drilling rig is not over the well.
4. The BLM will be contacted and notified 24 hours prior to commencing spudder rig operations.
5. Drilling operation will be performed with the big rig. At that time an approved BOP stack will be nippled up and tested on the wellhead before drilling operations commences on each well.
    a. The BLM will be contacted / notified 24 hours before the big rig moves back on to the pad with the pre-set surface casing.
6. Devon Energy will have supervision on the rig to ensure compliance with all BLM and NMOCD regulations and to oversee operations.
7. Once the rig is removed, Devon Energy will secure the wellhead area by placing a guard rail around the cellar area.

APD ID: 10400022571 **Submission Date:** 10/02/2017

Operator Name: DEVON ENERGY PRODUCTION COMPANY LP

Well Name: SNAPPING 12-1 FED **Well Number:** 523H

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:

Snapping_12_1_Fed_523H_Ex_Access_Rd_20170927064930.pdf

Existing Road Purpose: ACCESS,FLUID TRANSPORT **Row(s) Exist?** NO

ROW ID(s)

ID:

Do the existing roads need to be improved? YES

Existing Road Improvement Description: Improve road to accommodate Drilling and Completion operations.

Existing Road Improvement Attachment:

Section 2 - New or Reconstructed Access Roads

Will new roads be needed? YES

New Road Map:

Snapping_12_1_Fed_523H_Main_Access_Rd_20170927065109.pdf
Snapping_12_1_Fed_523H_ACCESS_Rd_20171222115905.pdf

New road type: COLLECTOR,RESOURCE

Length: 2843 Feet **Width (ft.):** 30

Max slope (%): 6 **Max grade (%):** 4

Army Corp of Engineers (ACOE) permit required? NO

ACOE Permit Number(s):

New road travel width: 30

New road access erosion control: Water Drainage Ditch

New road access plan or profile prepared? YES

New road access plan attachment:

Snapping_12_1_Fed_523H_ACCESS_Rd_20171222115923.pdf

Access road engineering design? YES

Access road engineering design attachment:

Snapping_12_1_Fed_523H_ACCESS_Rd_20171222115952.pdf

Access surfacing type: GRAVEL

Access topsoil source: ONSITE

Access surfacing type description:

Access onsite topsoil source depth: 6

Offsite topsoil source description:

Onsite topsoil removal process: See Interim Reclamation diagram under SUPO Section 10

Access other construction information:

Access miscellaneous information:

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

Drainage Control

New road drainage crossing: OTHER

Drainage Control comments: N/A

Road Drainage Control Structures (DCS) description: N/A

Road Drainage Control Structures (DCS) attachment:

Access Additional Attachments

Additional Attachment(s):

Section 3 - Location of Existing Wells

Existing Wells Map? YES

Attach Well map:

Snapping_12_1_Fed_523H_1Mile_Map_20170922082343.pdf

Existing Wells description:

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

Submit or defer a Proposed Production Facilities plan? DEFER

Estimated Production Facilities description: All Flow lines will be buried going to the Snapping 12 CTB 2, located in Sec 12-26S-31E.

Operator Name: DEVON ENERGY PRODUCTION COMPANY LP

Well Name: SNAPPING 12-1 FED **Well Number:** 523H

Section 5 - Location and Types of Water Supply

Water Source Table

Water source use type: STIMULATION **Water source type:** RECYCLED

Describe type:

Source latitude: **Source longitude:**

Source datum:

Water source permit type: OTHER

Source land ownership: FEDERAL

Water source transport method: PIPELINE,TRUCKING

Source transportation land ownership: FEDERAL

Water source volume (barrels): 135000 **Source volume (acre-feet):** 17.400568

Source volume (gal): 5670000

Water source and transportation map:

Snapping_12_1_Fed_523H_Wtr_Xfr_Map_01_17_18_20180118151813.pdf

Water source comments: The attached Water Transfer Map is a proposal only and the final route and documentation will be provided by a Devon contractor prior to installation. When available Devon will always follow existing disturbance.
New water well? NO

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:**

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

Construction Materials description: Dirt fill and caliche will be used to construct well pad.

Construction Materials source location attachment:

Snapping_12_1_Fed_523H_Caliche_Pit_20170927065715.pdf

Section 7 - Methods for Handling Waste

Waste type: PRODUCED WATER

Waste content description: Produced water during production operations. This amount is a daily average during the first year of production (BWPD)
Amount of waste: 1000 barrels

Waste disposal frequency : One Time Only

Safe containment description: N/A

Safe containmant attachment:

Waste disposal type: ON-LEASE INJECTION **Disposal location ownership:** PRIVATE

Disposal type description:

Disposal location description: One of three company owned SWD facilities in the area: CDU 181, CDU 89, CDU 84.

Waste type: FLOWBACK

Waste content description: Produced water during flowback operations. This amount is a daily average during flowback (BWPD).
Amount of waste: 1500 barrels

Waste disposal frequency : Daily

Safe containment description: N/A

Safe containmant attachment:

Waste disposal type: ON-LEASE INJECTION **Disposal location ownership:** PRIVATE

Disposal type description:

Disposal location description: One of three company owned SWD facilities in the area: CDU 181, CDU 89, CDU 84.

Waste type: COMPLETIONS/STIMULATION

Waste content description: Flow back water during completion operations.

Amount of waste: 3000 barrels

Waste disposal frequency : One Time Only

Safe containment description: N/A

Safe containmant attachment:

Operator Name: DEVON ENERGY PRODUCTION COMPANY LP

Well Name: SNAPPING 12-1 FED **Well Number:** 523H

Waste disposal type: HAUL TO COMMERCIAL FACILITY **Disposal location ownership:** COMMERCIAL

Disposal type description:

Disposal location description: All cuttings will be disposed of at R360, Sundance or Equivalent.

Waste type: DRILLING

Waste content description: Water Based Cuttings

Amount of waste: 1810 barrels

Waste disposal frequency : Daily

Safe containment description: N/A

Safe containmant attachment:

Waste disposal type: HAUL TO COMMERCIAL FACILITY **Disposal location ownership:** COMMERCIAL

Disposal type description:

Disposal location description: All cuttings will disposed of at R360, Sundance, or equivalent.

Reserve Pit

Reserve Pit being used? NO

Temporary disposal of produced water into reserve pit?

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? NO

Description of cuttings location

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

Section 8 - Ancillary Facilities

Are you requesting any Ancillary Facilities?: NO

Ancillary Facilities attachment:

Comments:

Section 9 - Well Site Layout

Well Site Layout Diagram:

Snapping_12_1_Fed_523H_Rig_Layout_20170927070551.pdf

Comments:

Section 10 - Plans for Surface Reclamation

Type of disturbance: New Surface Disturbance **Multiple Well Pad Name:** SNAPPING 12 WELLPAD

Multiple Well Pad Number: 2

Recontouring attachment:

Snapping_12_1_Fed_523H_Reclamation_20170927071039.pdf

Drainage/Erosion control construction: All areas disturbed shall be reclaimed as early and as nearly as practicable to their original condition or their final land use and shall be maintained to control dust and minimize erosion to the extent practicable.
Drainage/Erosion control reclamation: Topsoils and subsoils shall be replaced to their original relative positions and contoured so as to achieve erosion control, long-term stability and preservation of surface water flow patterns. The disturbed area then shall be reseeded in the first favorable growing season.

Wellpad long term disturbance (acres): 2.489 **Wellpad short term disturbance (acres):** 4.752

Access road long term disturbance (acres): 1.958 **Access road short term disturbance (acres):** 1.958

Pipeline long term disturbance (acres): 0.44075757 **Pipeline short term disturbance (acres):** 0.44075757

Other long term disturbance (acres): 5.739 **Other short term disturbance (acres):** 5.739

Total long term disturbance: 10.626758 **Total short term disturbance:** 12.889757

Reconstruction method: Operator will use Best Management Practices"BMP" to mechanically recontour to obtain the desired outcome.
Topsoil redistribution: Topsoils shall be replaced to their original relative positions and contoured so as to achieve erosion control, long-term stability and preservation of surface water flow patterns.
Soil treatment: Topsoils shall be replaced to their original relative positions and contoured so as to achieve erosion control, long-term stability and preservation of surface water flow patterns.
Existing Vegetation at the well pad:

Existing Vegetation at the well pad attachment:

Existing Vegetation Community at the road:

Existing Vegetation Community at the road attachment:

Existing Vegetation Community at the pipeline:

Existing Vegetation Community at the pipeline attachment:

Existing Vegetation Community at other disturbances:

Existing Vegetation Community at other disturbances attachment:

Non native seed used? NO

Non native seed description:

Seedling transplant description:

Will seedlings be transplanted for this project? NO

Seedling transplant description attachment:

Will seed be harvested for use in site reclamation? NO

Seed harvest description:

Seed harvest description attachment:

Seed Management

Seed Table

Seed type: **Seed source:**

Seed name:

Source name: **Source address:**

Source phone:

Seed cultivar:

Seed use location:

PLS pounds per acre: **Proposed seeding season:**

Total pounds/Acre:

Seed Summary

Seed Type	Pounds/Acre

Seed reclamation attachment:

Operator Contact/Responsible Official Contact Info

Operator Name: DEVON ENERGY PRODUCTION COMPANY LP

Well Name: SNAPPING 12-1 FED **Well Number:** 523H

First Name: Jacob **Last Name:** Ochoa

Phone: (575)748-9934 **Email:** jacob.ochoa@dvn.com

Seedbed prep:

Seed BMP:

Seed method:

Existing invasive species? NO

Existing invasive species treatment description:

Existing invasive species treatment attachment:

Weed treatment plan description: Maintain weeks on a as need basis.

Weed treatment plan attachment:

Monitoring plan description: Monitor as needed.

Monitoring plan attachment:

Success standards: N/A

Pit closure description: N/A

Pit closure attachment:

Section 11 - Surface Ownership

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: DEVON ENERGY PRODUCTION COMPANY LP

Well Name: SNAPPING 12-1 FED **Well Number:** 523H

Fee Owner: Baker Ranch **Fee Owner Address:** P.O. Box 24

Phone: (575)746-9540 **Email:**

Surface use plan certification:

Surface use plan certification document:

Surface access agreement or bond:

Surface Access Agreement Need description:

Surface Access Bond BLM or Forest Service:

BLM Surface Access Bond number:

USFS Surface access bond number:

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:**

Operator Name: DEVON ENERGY PRODUCTION COMPANY LP

Well Name: SNAPPING 12-1 FED **Well Number:** 523H

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:**

Disturbance type: PIPELINE

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: DEVON ENERGY PRODUCTION COMPANY LP

Well Name: SNAPPING 12-1 FED **Well Number:** 523H

Section 12 - Other Information

Right of Way needed? NO **Use APD as ROW?**

ROW Type(s):

ROW Applications

SUPO Additional Information: BATTERY CONNECT CTB CTB ELECTRIC ELECTRIC FLOWLINE GAS CAPTURE PLAN GRADING & X SEC MISC PLATS
Use a previously conducted onsite? NO

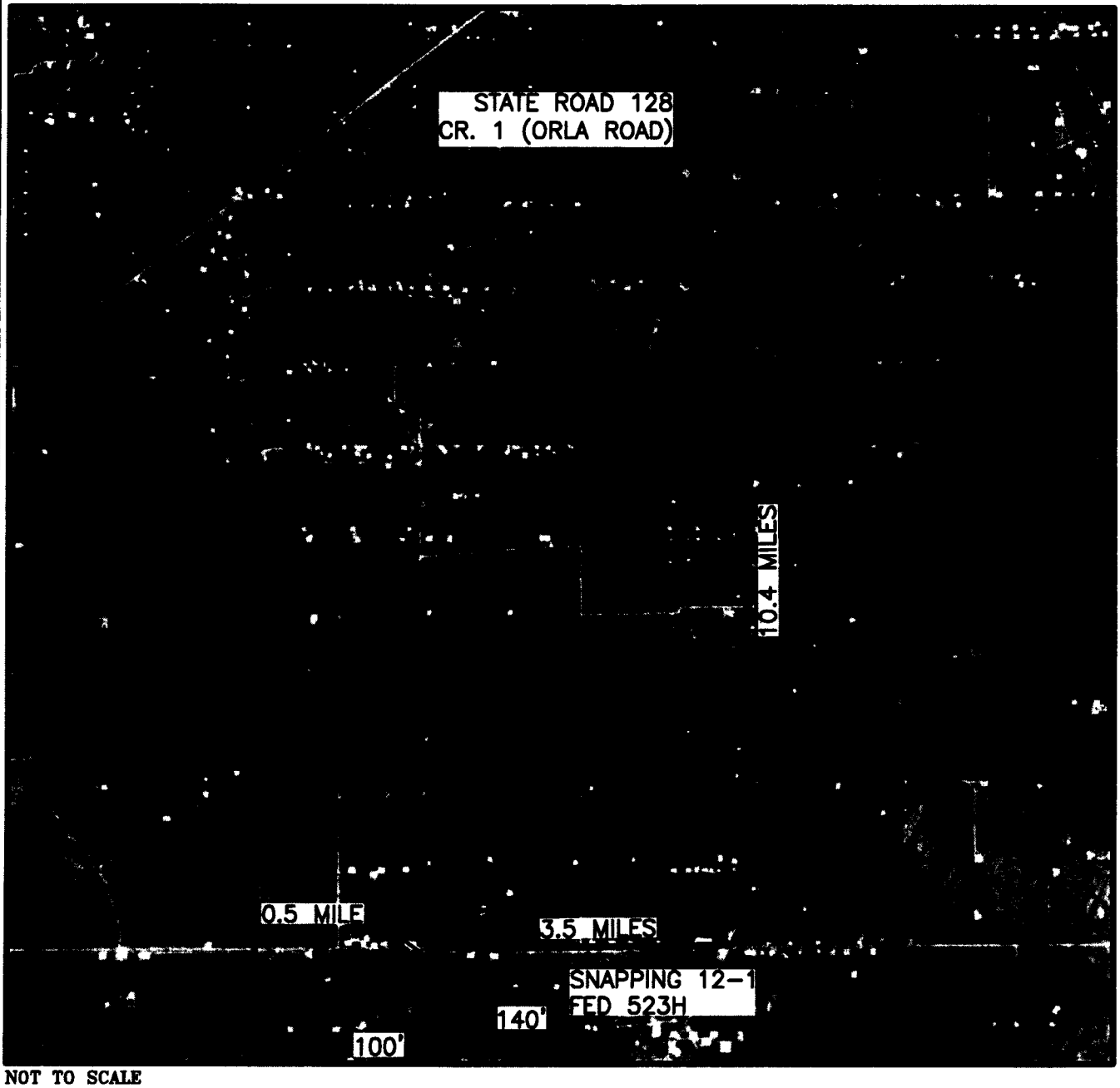
Previous Onsite information:

Other SUPO Attachment

Snapping_12_1_Fed_523H_GasCapturePlan_20170927072224.pdf
Snapping_12_1_Fed_523H_Grading___X_Sec_20170927072239.pdf
Snapping_12_1_Fed_523H_Misc_Plats_20170927072254.pdf
Snapping_12_1_Fed_523H_CTB_2_Flowline_20171222120239.pdf
Snapping_12_1_Fed_523H_CTB_2_PAD_P_20171222120242.pdf
Snapping_12_1_Fed_523H_BATTERY_EL_20171222120243.pdf
Snapping_12_1_Fed_523H_CTB_2_BATTCONNWater_20171222120245.pdf
Snapping_12_1_Fed_523H_CTB_2_BATTCONNGas_20171222120244.pdf
Snapping_12_1_Fed_523H_WP_2_EL_20171222120246.PDF

SECTION 12, TOWNSHIP 26 SOUTH, RANGE 31 EAST, N.M.P.M.
EDDY COUNTY, STATE OF NEW MEXICO

AERIAL ACCESS ROUTE MAP



NOT TO SCALE
AERIAL PHOTO:
GOOGLE EARTH
NOV. 2015

DEVON ENERGY PRODUCTION COMPANY, L.P.

SNAPPING 12-1 FED 523H

LOCATED 2325 FT. FROM THE NORTH LINE
AND 1880 FT. FROM THE WEST LINE OF
SECTION 12, TOWNSHIP 26 SOUTH,
RANGE 31 EAST, N.M.P.M.
EDDY COUNTY, STATE OF NEW MEXICO

SEPTEMBER 18, 2017

SURVEY NO. 5440B

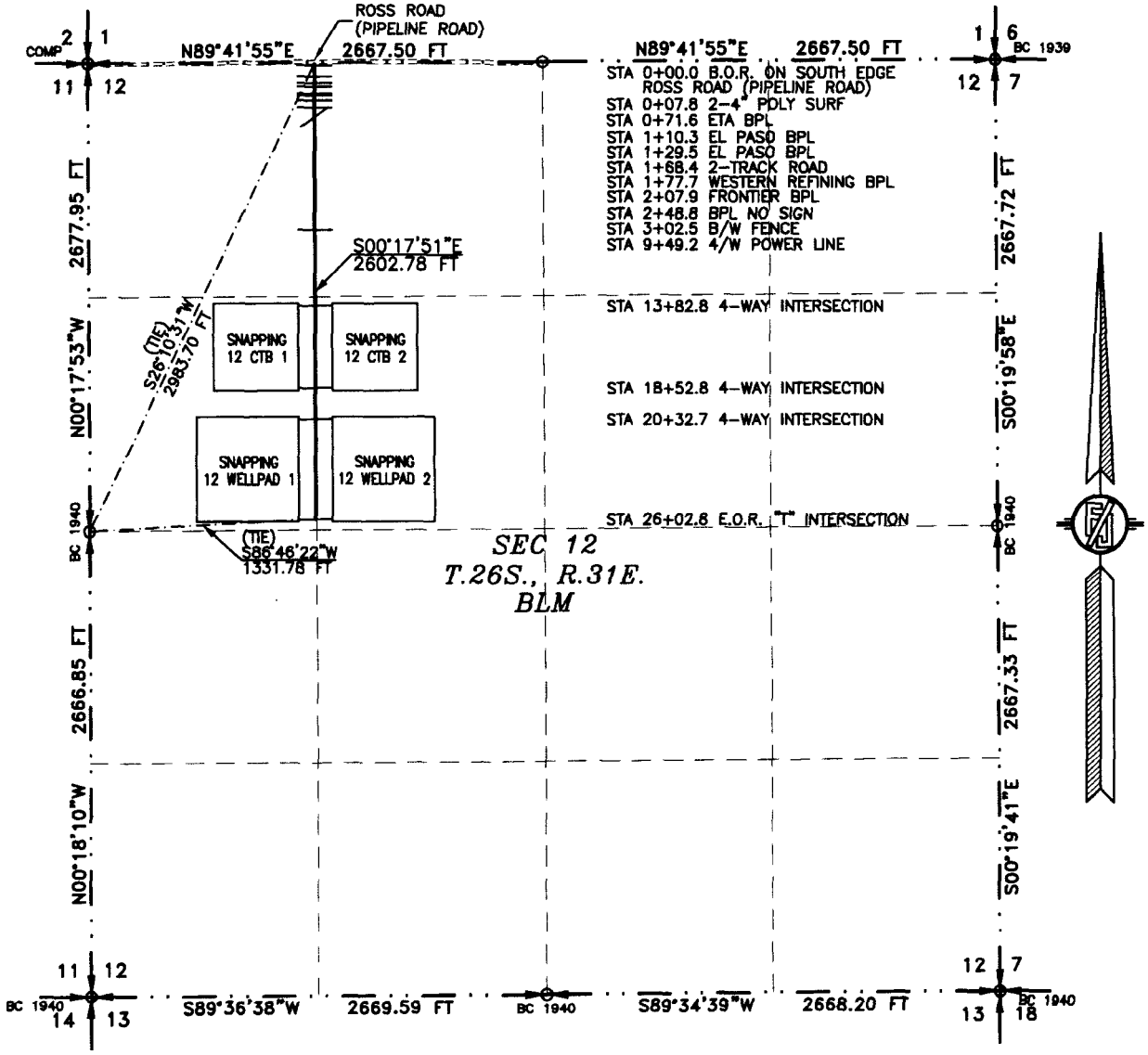
MADRON SURVEYING, INC. 301 SOUTH CANAL (575) 234-3341 CARLSBAD, NEW MEXICO

ACCESS ROAD PLAT

ACCESS ROAD FOR SNAPPING 12 PADS AND CTBS

DEVON ENERGY PRODUCTION COMPANY, L.P.

CENTERLINE SURVEY OF AN ACCESS ROAD CROSSING
SECTION 12, TOWNSHIP 26 SOUTH, RANGE 31 EAST, N.M.P.M.
EDDY COUNTY, STATE OF NEW MEXICO
SEPTEMBER 18, 2017



SEE NEXT SHEET (2-4) FOR DESCRIPTION

1000 0 1000
Scale: 1" = 1000'

GENERAL NOTES

1.) THE INTENT OF THIS ROUTE SURVEY IS TO ACQUIRE AN EASEMENT.

2.) BASIS OF BEARING AND DISTANCE IS NMSP EAST (NAD83) MODIFIED TO SURFACE COORDINATES. NAD 83 (FEET) AND NAVD 88 (FEET) COORDINATE SYSTEMS USED IN THE SURVEY.

SURVEYOR CERTIFICATE

I, FILIMON F. JARAMILLO, A NEW MEXICO PROFESSIONAL SURVEYOR NO. 12797, HEREBY CERTIFY THAT I HAVE CONDUCTED AND AM RESPONSIBLE FOR THIS SURVEY, THAT THIS SURVEY IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF, AND THAT THIS SURVEY AND PLAT MEET THE MINIMUM STANDARDS FOR LAND SURVEYING IN THE STATE OF NEW MEXICO.

IN WITNESS WHEREOF, THIS CERTIFICATE IS EXECUTED AT CARLSBAD, NEW MEXICO, THIS 25 DAY OF SEPTEMBER 2017

MADRON SURVEYING, INC.
301 SOUTH CANAL
CARLSBAD, NEW MEXICO 88220
Phone (575) 234-3341

FILIMON F. JARAMILLO PLS 12797

301 SOUTH CANAL
(575) 234-3341

SHEET: 1-4

SURVEY NO. 5503

MADRON SURVEYING, INC. CARLSBAD, NEW MEXICO

ACCESS ROAD PLAT

ACCESS ROAD FOR SNAPPING 12 PADS AND CTBS

DEVON ENERGY PRODUCTION COMPANY, L.P.

CENTERLINE SURVEY OF AN ACCESS ROAD CROSSING
SECTION 12, TOWNSHIP 26 SOUTH, RANGE 31 EAST, N.M.P.M.
EDDY COUNTY, STATE OF NEW MEXICO
SEPTEMBER 18, 2017

DESCRIPTION

A STRIP OF LAND 30 FEET WIDE CROSSING BUREAU OF LAND MANAGEMENT LAND IN SECTION 12, TOWNSHIP 26 SOUTH, RANGE 31 EAST, N.M.P.M., EDDY COUNTY, STATE OF NEW MEXICO AND BEING 15 FEET EACH SIDE OF THE FOLLOWING DESCRIBED CENTERLINE SURVEY:

BEGINNING AT A POINT WITHIN THE NW/4 NW/4 OF SAID SECTION 12, TOWNSHIP 26 SOUTH, RANGE 31 EAST, N.M.P.M., WHENCE THE WEST QUARTER CORNER OF SAID SECTION 12, TOWNSHIP 26 SOUTH, RANGE 31 EAST, N.M.P.M. BEARS S26°10'31"W, A DISTANCE OF 2983.70 FEET;
THENCE S00°17'51"E A DISTANCE OF 2602.78 FEET THE TERMINUS OF THIS CENTERLINE SURVEY, WHENCE THE WEST QUARTER CORNER OF SAID SECTION 12, TOWNSHIP 26 SOUTH, RANGE 31 EAST, N.M.P.M. BEARS S86°46'22"W, A DISTANCE OF 1331.78 FEET;

SAID STRIP OF LAND BEING 2602.78 FEET OR 157.74 RODS IN LENGTH, CONTAINING 1.793 ACRES MORE OR LESS AND BEING ALLOCATED BY FORTIES AS FOLLOWS:

NW/4 NW/4	1330.51 L.F.	80.64 RODS	0.916 ACRES
SW/4 NW/4	1272.27 L.F.	77.11 RODS	0.876 ACRES

GENERAL NOTES

1.) THE INTENT OF THIS ROUTE SURVEY IS TO ACQUIRE AN EASEMENT.

2.) BASIS OF BEARING AND DISTANCE IS NMSP EAST (NAD83) MODIFIED TO SURFACE COORDINATES. NAD 83 (FEET) AND NAVD 88 (FEET) COORDINATE SYSTEMS USED IN THE SURVEY.

SURVEYOR CERTIFICATE

I, FILIMON F. JARAMILLO, A NEW MEXICO PROFESSIONAL SURVEYOR NO. 12797, HEREBY CERTIFY THAT I HAVE CONDUCTED AND AM RESPONSIBLE FOR THIS SURVEY, THAT THIS SURVEY IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF, AND THAT THIS SURVEY AND PLAT MEET THE MINIMUM STANDARDS FOR LAND SURVEYING IN THE STATE OF NEW MEXICO.

IN WITNESS WHEREOF, THIS CERTIFICATE IS EXECUTED AT CARLSBAD, NEW MEXICO, THIS 25 DAY OF SEPTEMBER 2017

MADRON SURVEYING, INC.
301 SOUTH CANAL
CARLSBAD, NEW MEXICO 88220
Phone (575) 234-3341

FILIMON F. JARAMILLO PLS, 12797

301 SOUTH CANAL
(575) 234-3341

SHEET: 2-4

SURVEY NO. 5503

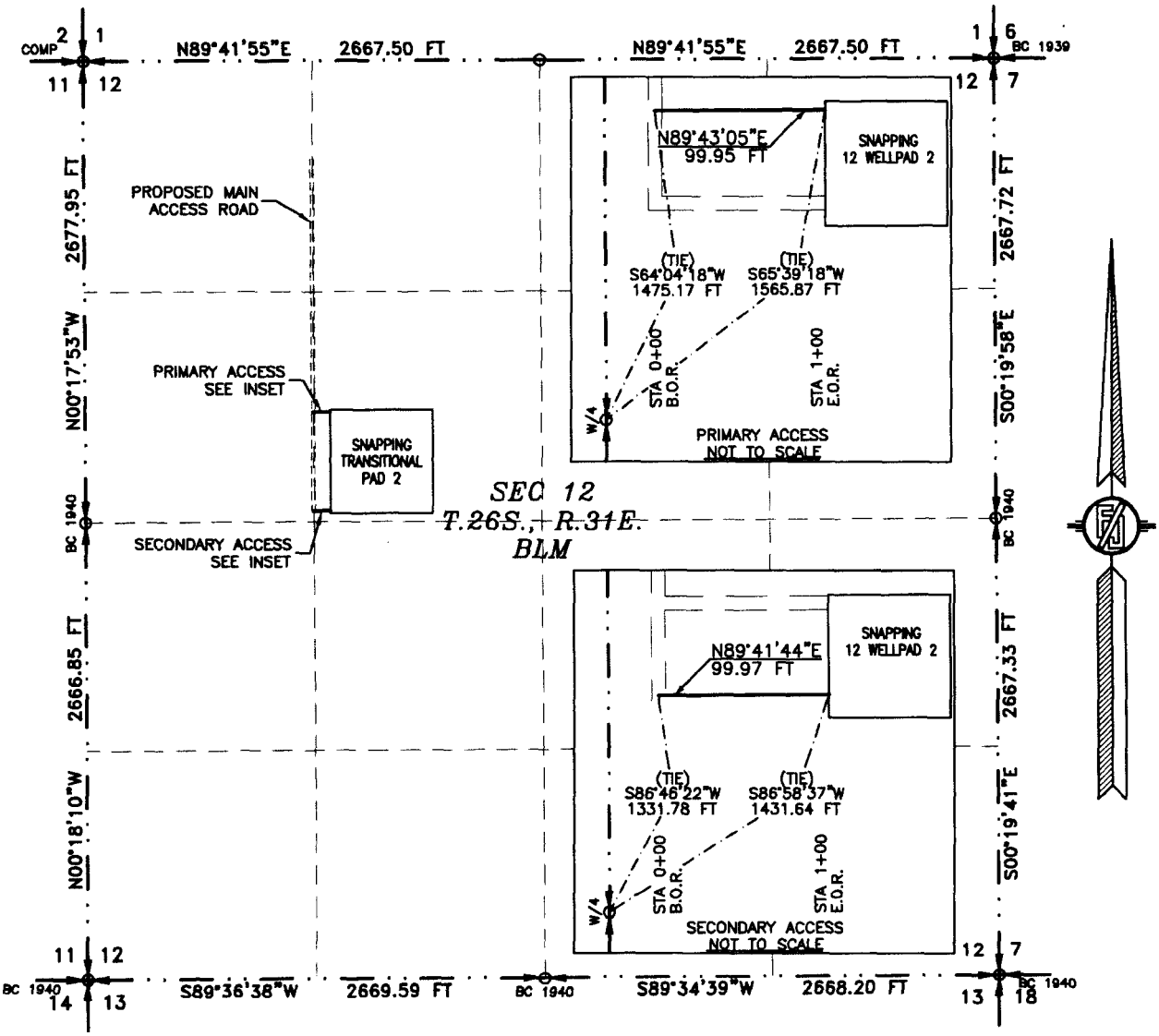
MADRON SURVEYING, INC. CARLSBAD, NEW MEXICO

ACCESS ROAD PLAT

PRIMARY AND SECONDARY ACCESS ROADS FOR SNAPPING 12 WELLPAD 2

DEVON ENERGY PRODUCTION COMPANY, L.P.

CENTERLINE SURVEY OF AN ACCESS ROAD CROSSING
SECTION 12, TOWNSHIP 26 SOUTH, RANGE 31 EAST, N.M.P.M.
EDDY COUNTY, STATE OF NEW MEXICO
SEPTEMBER 18, 2017



SEE NEXT SHEET (2-2) FOR DESCRIPTION

1000 0 1000
Scale: 1" = 1000'

GENERAL NOTES

1.) THE INTENT OF THIS ROUTE SURVEY IS TO ACQUIRE AN EASEMENT.

2.) BASIS OF BEARING AND DISTANCE IS NMSP EAST (NAD83) MODIFIED TO SURFACE COORDINATES. NAD 83 (FEET) AND NAVD 88 (FEET) COORDINATE SYSTEMS USED IN THE SURVEY.

SURVEYOR CERTIFICATE

I, FILIMON F. JARAMILLO, A NEW MEXICO PROFESSIONAL SURVEYOR NO. 12797, HEREBY CERTIFY THAT I HAVE CONDUCTED AND AM RESPONSIBLE FOR THIS SURVEY, THAT THIS SURVEY IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF, AND THAT THIS SURVEY AND PLAT MEET THE MINIMUM STANDARDS FOR LAND SURVEYING IN THE STATE OF NEW MEXICO.

IN WITNESS WHEREOF, THIS CERTIFICATE IS EXECUTED AT CARLSBAD, NEW MEXICO, THIS 18 DAY OF SEPTEMBER 2017

MADRON SURVEYING, INC.
301 SOUTH CANAL
CARLSBAD, NEW MEXICO 88220
Phone (575) 234-3341

FILIMON F. JARAMILLO PLS. 12797
301 SOUTH CANAL
(575) 234-3341

SHEET: 1-2

SURVEY NO. 5377A

MADRON SURVEYING, INC. CARLSBAD, NEW MEXICO

ACCESS ROAD PLAT

PRIMARY AND SECONDARY ACCESS ROADS FOR SNAPPING 12 WELLPAD 2

DEVON ENERGY PRODUCTION COMPANY, L.P.

CENTERLINE SURVEY OF AN ACCESS ROAD CROSSING
SECTION 12, TOWNSHIP 26 SOUTH, RANGE 31 EAST, N.M.P.M.
EDDY COUNTY, STATE OF NEW MEXICO
SEPTEMBER 18, 2017

DESCRIPTION

A STRIP OF LAND 30 FEET WIDE CROSSING BUREAU OF LAND MANAGEMENT LAND IN SECTION 12, TOWNSHIP 26 SOUTH, RANGE 31 EAST, N.M.P.M., EDDY COUNTY, STATE OF NEW MEXICO AND BEING 15 FEET EACH SIDE OF THE FOLLOWING DESCRIBED CENTERLINE SURVEY:

PRIMARY ACCESS ROAD
BEGINNING AT A POINT WITHIN THE SW/4 NW/4 OF SAID SECTION 12, TOWNSHIP 26 SOUTH, RANGE 31 EAST, N.M.P.M., WHENCE THE WEST QUARTER CORNER OF SAID SECTION 12, TOWNSHIP 26 SOUTH, RANGE 31 EAST, N.M.P.M. BEARS S64°04'18"W, A DISTANCE OF 1475.17 FEET;
THENCE N89°43'05"E A DISTANCE OF 99.95 FEET THE TERMINUS OF THIS CENTERLINE SURVEY, WHENCE THE WEST QUARTER CORNER OF SAID SECTION 12, TOWNSHIP 26 SOUTH, RANGE 31 EAST, N.M.P.M. BEARS S65°39'18"W, A DISTANCE OF 1565.87 FEET;

SAID STRIP OF LAND BEING 99.95 FEET OR 6.06 RODS IN LENGTH, CONTAINING 0.069 ACRES MORE OR LESS AND BEING ALLOCATED BY FORTIES AS FOLLOWS:

SW/4 NW/4	4.21 L.F.	0.26 RODS	0.003 ACRES
SE/4 NW/4	95.74 L.F.	5.80 RODS	0.066 ACRES

SECONDARY ACCESS ROAD
BEGINNING AT A POINT WITHIN THE SW/4 NW/4 OF SAID SECTION 12, TOWNSHIP 26 SOUTH, RANGE 31 EAST, N.M.P.M., WHENCE THE WEST QUARTER CORNER OF SAID SECTION 12, TOWNSHIP 26 SOUTH, RANGE 31 EAST, N.M.P.M. BEARS S86°46'22"W, A DISTANCE OF 1331.78 FEET;
THENCE N89°41'44"E A DISTANCE OF 99.97 FEET THE TERMINUS OF THIS CENTERLINE SURVEY, WHENCE THE WEST QUARTER CORNER OF SAID SECTION 12, TOWNSHIP 26 SOUTH, RANGE 31 EAST, N.M.P.M. BEARS S86°58'37"W, A DISTANCE OF 1431.64 FEET;

SAID STRIP OF LAND BEING 99.97 FEET OR 6.06 RODS IN LENGTH, CONTAINING 0.069 ACRES MORE OR LESS AND BEING ALLOCATED BY FORTIES AS FOLLOWS:

SW/4 NW/4	4.32 L.F.	0.26 RODS	0.003 ACRES
SE/4 NW/4	95.65 L.F.	5.80 RODS	0.066 ACRES

GENERAL NOTES

1.) THE INTENT OF THIS ROUTE SURVEY IS TO ACQUIRE AN EASEMENT.

2.) BASIS OF BEARING AND DISTANCE IS NMSP EAST (NAD83) MODIFIED TO SURFACE COORDINATES. NAD 83 (FEET) AND NAVD 88 (FEET) COORDINATE SYSTEMS USED IN THE SURVEY.

SURVEYOR CERTIFICATE

I, FILIMON F. JARAMILLO, A NEW MEXICO PROFESSIONAL SURVEYOR NO. 12797, HEREBY CERTIFY THAT I HAVE CONDUCTED AND AM RESPONSIBLE FOR THIS SURVEY, THAT THIS SURVEY IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF, AND THAT THIS SURVEY AND PLAT MEET THE MINIMUM STANDARDS FOR LAND SURVEYING IN THE STATE OF NEW MEXICO.

IN WITNESS WHEREOF, THIS CERTIFICATE IS EXECUTED AT CARLSBAD, NEW MEXICO, THIS 18 DAY OF SEPTEMBER, 2017

FILIMON F. JARAMILLO PLS. 12797

MADRON SURVEYING, INC.
301 SOUTH CANAL
CARLSBAD, NEW MEXICO 88220
Phone (575) 234-3341

SHEET: 2-2

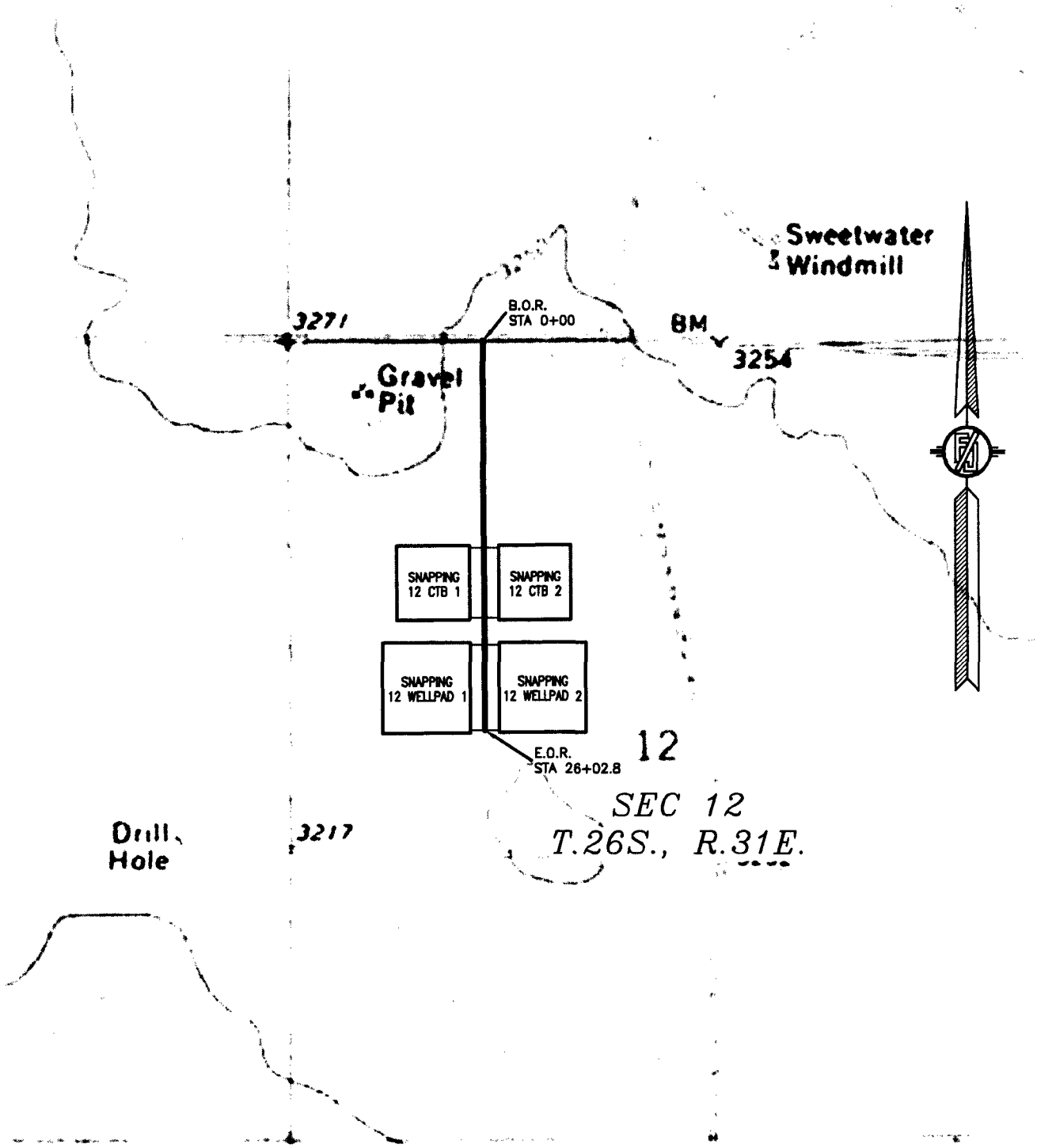
SURVEY NO. 5377A

ACCESS ROAD PLAT

ACCESS ROAD FOR SNAPPING 12 PADS AND CTBS

DEVON ENERGY PRODUCTION COMPANY, L.P.

CENTERLINE SURVEY OF AN ACCESS ROAD CROSSING
SECTION 12, TOWNSHIP 26 SOUTH, RANGE 31 EAST, N.M.P.M.
EDDY COUNTY, STATE OF NEW MEXICO
SEPTEMBER 18, 2017



SHEET: 3-4

SURVEY NO. 5503

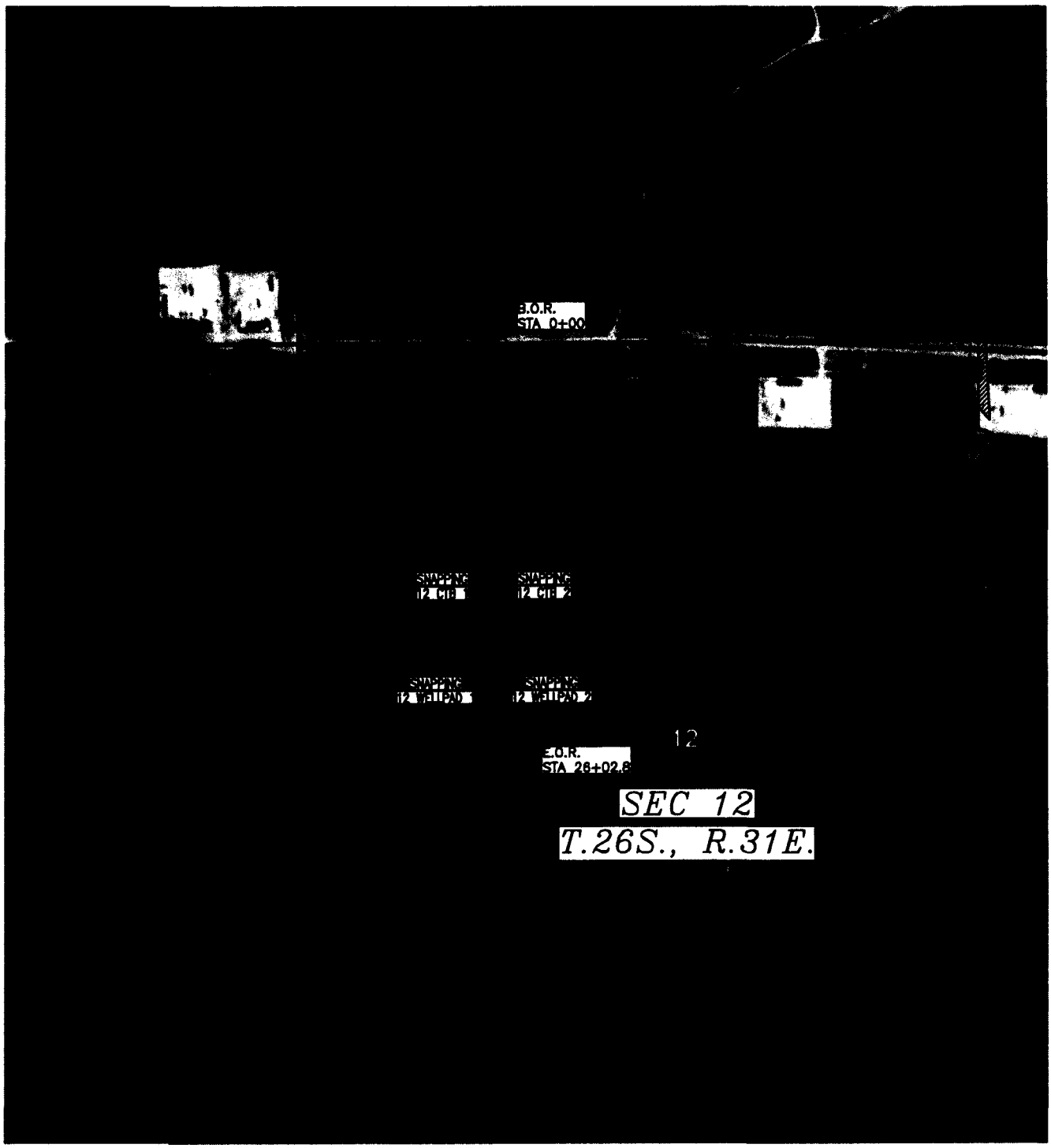
MADRON SURVEYING, INC. 301 SOUTH CANAL (575) 234-3341 CARLSBAD, NEW MEXICO

ACCESS ROAD PLAT

ACCESS ROAD FOR SNAPPING 12 PADS AND CTBS

DEVON ENERGY PRODUCTION COMPANY, L.P.

CENTERLINE SURVEY OF AN ACCESS ROAD CROSSING
SECTION 12, TOWNSHIP 26 SOUTH, RANGE 31 EAST, N.M.P.M.
EDDY COUNTY, STATE OF NEW MEXICO
SEPTEMBER 18, 2017



SHEET: 4-4

SURVEY NO. 5503

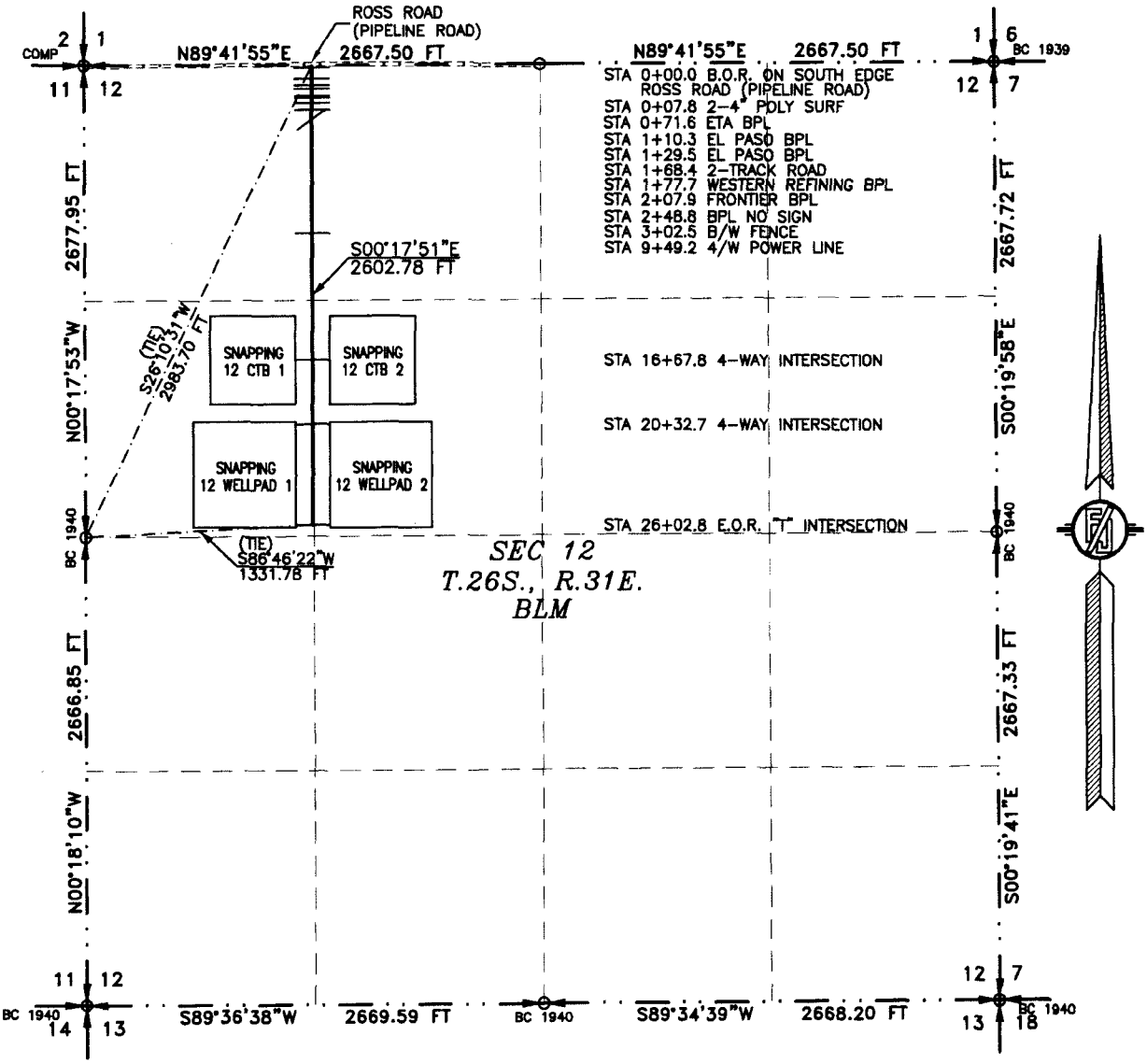
MADRON SURVEYING, INC. 301 SOUTH CANAL (575) 234-3341 CARLSBAD, NEW MEXICO

ACCESS ROAD PLAT

ACCESS ROAD FOR SNAPPING 12 PADS AND CTBS

DEVON ENERGY PRODUCTION COMPANY, L.P.

CENTERLINE SURVEY OF AN ACCESS ROAD CROSSING
SECTION 12, TOWNSHIP 26 SOUTH, RANGE 31 EAST, N.M.P.M.
EDDY COUNTY, STATE OF NEW MEXICO
DECEMBER 7, 2017



SEE NEXT SHEET (2-4) FOR DESCRIPTION

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Scale: 1" = 1000'

GENERAL NOTES

1.) THE INTENT OF THIS ROUTE SURVEY IS TO ACQUIRE AN EASEMENT.

2.) BASIS OF BEARING AND DISTANCE IS NMSP EAST (NAD83) MODIFIED TO SURFACE COORDINATES. NAD 83 (FEET) AND NAVD 88 (FEET) COORDINATE SYSTEMS USED IN THE SURVEY.

SURVEYOR CERTIFICATE

I, FILIMON F. JARAMILLO, A NEW MEXICO PROFESSIONAL SURVEYOR NO. 12797, HEREBY CERTIFY THAT I HAVE CONDUCTED AND AM RESPONSIBLE FOR THIS SURVEY, THAT THIS SURVEY IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF, AND THAT THIS SURVEY AND PLAT MEET THE MINIMUM STANDARDS FOR LAND SURVEYING IN THE STATE OF NEW MEXICO.

IN WITNESS WHEREOF, THIS CERTIFICATE IS EXECUTED AT CARLSBAD, NEW MEXICO, THIS 8 DAY OF DECEMBER 2017

MADRON SURVEYING, INC.
301 SOUTH CANAL
CARLSBAD, NEW MEXICO 88220
Phone (575) 234-3341

FILIMON F. JARAMILLO, P.L.S. 12797

MADRON SURVEYING, INC. CARLSBAD, NEW MEXICO

ACCESS ROAD PLAT

ACCESS ROAD FOR SNAPPING 12 PADS AND CTBS

DEVON ENERGY PRODUCTION COMPANY, L.P.

CENTERLINE SURVEY OF AN ACCESS ROAD CROSSING
SECTION 12, TOWNSHIP 26 SOUTH, RANGE 31 EAST, N.M.P.M.
EDDY COUNTY, STATE OF NEW MEXICO
DECEMBER 7, 2017

DESCRIPTION

A STRIP OF LAND 30 FEET WIDE CROSSING BUREAU OF LAND MANAGEMENT LAND IN SECTION 12, TOWNSHIP 26 SOUTH, RANGE 31 EAST, N.M.P.M., EDDY COUNTY, STATE OF NEW MEXICO AND BEING 15 FEET EACH SIDE OF THE FOLLOWING DESCRIBED CENTERLINE SURVEY:

BEGINNING AT A POINT WITHIN THE NW/4 NW/4 OF SAID SECTION 12, TOWNSHIP 26 SOUTH, RANGE 31 EAST, N.M.P.M., WHENCE THE WEST QUARTER CORNER OF SAID SECTION 12, TOWNSHIP 26 SOUTH, RANGE 31 EAST, N.M.P.M. BEARS S26°10'31"W, A DISTANCE OF 2983.70 FEET;
THENCE S00°17'51"E A DISTANCE OF 2602.78 FEET THE TERMINUS OF THIS CENTERLINE SURVEY, WHENCE THE WEST QUARTER CORNER OF SAID SECTION 12, TOWNSHIP 26 SOUTH, RANGE 31 EAST, N.M.P.M. BEARS S86°46'22"W, A DISTANCE OF 1331.78 FEET;

SAID STRIP OF LAND BEING 2602.78 FEET OR 157.74 RODS IN LENGTH, CONTAINING 1.793 ACRES MORE OR LESS AND BEING ALLOCATED BY FORTIES AS FOLLOWS:

NW/4 NW/4	1330.51 L.F.	80.64 RODS	0.916 ACRES
SW/4 NW/4	1272.27 L.F.	77.11 RODS	0.876 ACRES

GENERAL NOTES

1.) THE INTENT OF THIS ROUTE SURVEY IS TO ACQUIRE AN EASEMENT.

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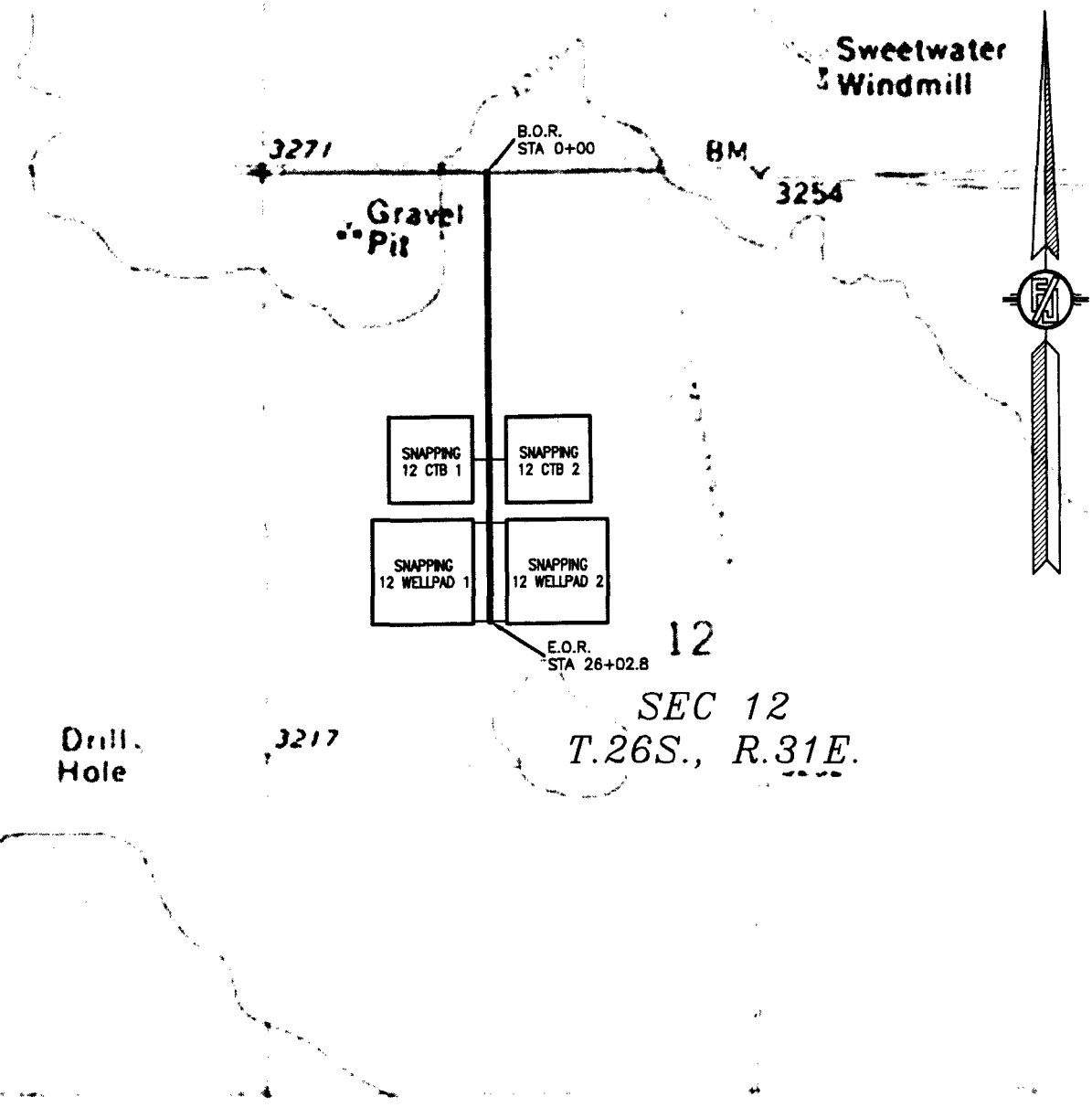
FILIMON F. JARAMILLO PLS. 12797

MADRON SURVEYING, INC.
301 SOUTH CANAL
CARLSBAD, NEW MEXICO 88220
Phone (575) 234-3341

ACCESS ROAD PLAT

ACCESS ROAD FOR SNAPPING 12 PADS AND CTBS

DEVON ENERGY PRODUCTION COMPANY, L.P.
CENTERLINE SURVEY OF AN ACCESS ROAD CROSSING
SECTION 12, TOWNSHIP 26 SOUTH, RANGE 31 EAST, N.M.P.M.
EDDY COUNTY, STATE OF NEW MEXICO
DECEMBER 7, 2017



SHEET: 3-4

SURVEY NO. 5503A

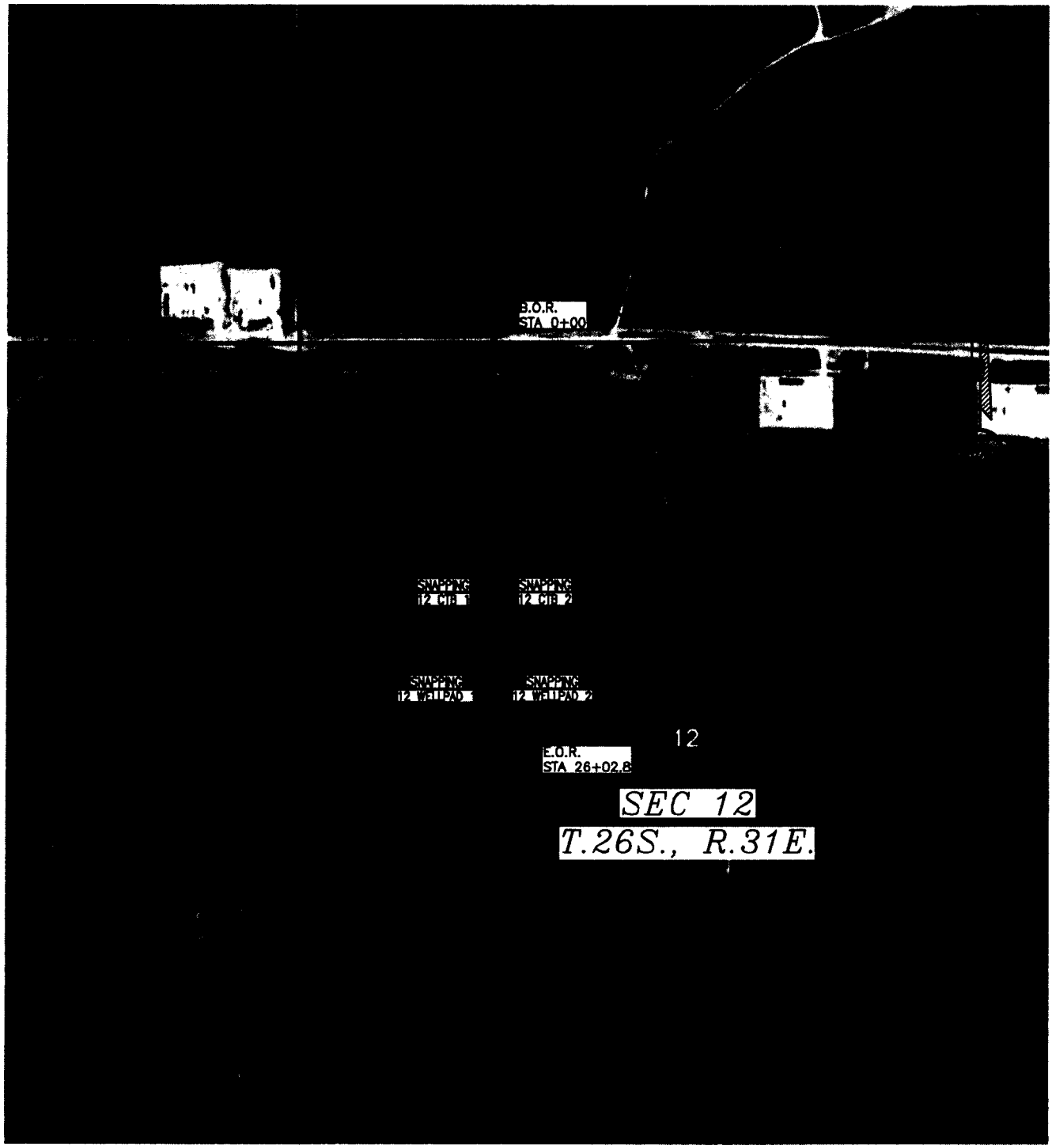
MADRON SURVEYING, INC. 301 SOUTH CANAL (575) 234-3341 *CARLSBAD, NEW MEXICO*

ACCESS ROAD PLAT

ACCESS ROAD FOR SNAPPING 12 PADS AND CTBS

DEVON ENERGY PRODUCTION COMPANY, L.P.

CENTERLINE SURVEY OF AN ACCESS ROAD CROSSING
SECTION 12, TOWNSHIP 26 SOUTH, RANGE 31 EAST, N.M.P.M.
EDDY COUNTY, STATE OF NEW MEXICO
DECEMBER 7, 2017



SHEET: 4-4

SURVEY NO. 5503A

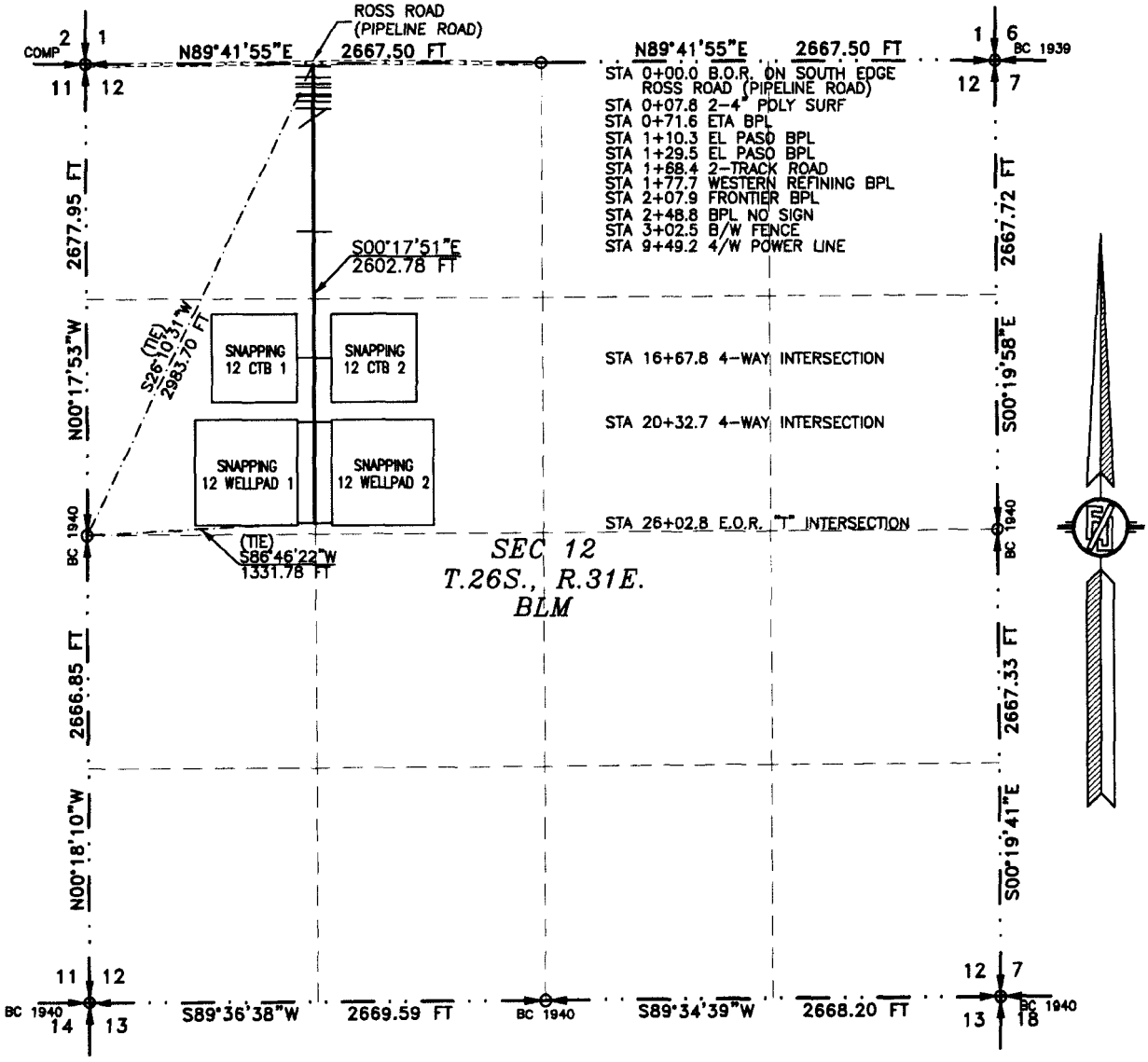
MADRON SURVEYING, INC. 301 SOUTH CANAL (575) 234-3341 CARLSBAD, NEW MEXICO

ACCESS ROAD PLAT

ACCESS ROAD FOR SNAPPING 12 PADS AND CTBS

DEVON ENERGY PRODUCTION COMPANY, L.P.

CENTERLINE SURVEY OF AN ACCESS ROAD CROSSING
SECTION 12, TOWNSHIP 26 SOUTH, RANGE 31 EAST, N.M.P.M.
EDDY COUNTY, STATE OF NEW MEXICO
DECEMBER 7, 2017



SEE NEXT SHEET (2-4) FOR DESCRIPTION

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Scale: 1" = 1000'

GENERAL NOTES

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IN WITNESS WHEREOF, THIS CERTIFICATE IS EXECUTED AT CARLSBAD, NEW MEXICO, THIS 8 DAY OF DECEMBER 2017

MADRON SURVEYING, INC.
301 SOUTH CANAL
CARLSBAD, NEW MEXICO 88220
Phone (575) 234-3341

FILIMON F. JARAMILLO, P.L.S. 12797
301 SOUTH CANAL
(575) 234-3341

SHEET: 1-4

SURVEY NO. 5503A

MADRON SURVEYING, INC. CARLSBAD, NEW MEXICO

ACCESS ROAD PLAT

ACCESS ROAD FOR SNAPPING 12 PADS AND CTBS

DEVON ENERGY PRODUCTION COMPANY, L.P.

CENTERLINE SURVEY OF AN ACCESS ROAD CROSSING
SECTION 12, TOWNSHIP 26 SOUTH, RANGE 31 EAST, N.M.P.M.
EDDY COUNTY, STATE OF NEW MEXICO
DECEMBER 7, 2017

DESCRIPTION

A STRIP OF LAND 30 FEET WIDE CROSSING BUREAU OF LAND MANAGEMENT LAND IN SECTION 12, TOWNSHIP 26 SOUTH, RANGE 31 EAST, N.M.P.M., EDDY COUNTY, STATE OF NEW MEXICO AND BEING 15 FEET EACH SIDE OF THE FOLLOWING DESCRIBED CENTERLINE SURVEY:

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THENCE S00°17'51"E A DISTANCE OF 2602.78 FEET THE TERMINUS OF THIS CENTERLINE SURVEY, WHENCE THE WEST QUARTER CORNER OF SAID SECTION 12, TOWNSHIP 26 SOUTH, RANGE 31 EAST, N.M.P.M. BEARS S86°46'22"W, A DISTANCE OF 1331.78 FEET;

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SW/4 NW/4	1272.27 L.F.	77.11 RODS	0.876 ACRES

GENERAL NOTES

1.) THE INTENT OF THIS ROUTE SURVEY IS TO ACQUIRE AN EASEMENT.

2.) BASIS OF BEARING AND DISTANCE IS NMSP EAST (NAD83) MODIFIED TO SURFACE COORDINATES. NAD 83 (FEET) AND NAVD 88 (FEET) COORDINATE SYSTEMS USED IN THE SURVEY.

SURVEYOR CERTIFICATE

I, FILIMON F. JARAMILLO, A NEW MEXICO PROFESSIONAL SURVEYOR NO. 12797, HEREBY CERTIFY THAT I HAVE CONDUCTED AND AM RESPONSIBLE FOR THIS SURVEY, THAT THIS SURVEY IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF, AND THAT THIS SURVEY AND PLAT MEET THE MINIMUM STANDARDS FOR LAND SURVEYING IN THE STATE OF NEW MEXICO.

IN WITNESS WHEREOF, THIS CERTIFICATE IS EXECUTED AT CARLSBAD, NEW MEXICO, THIS 8 DAY OF DECEMBER 2017

FILIMON F. JARAMILLO PLS. 12797

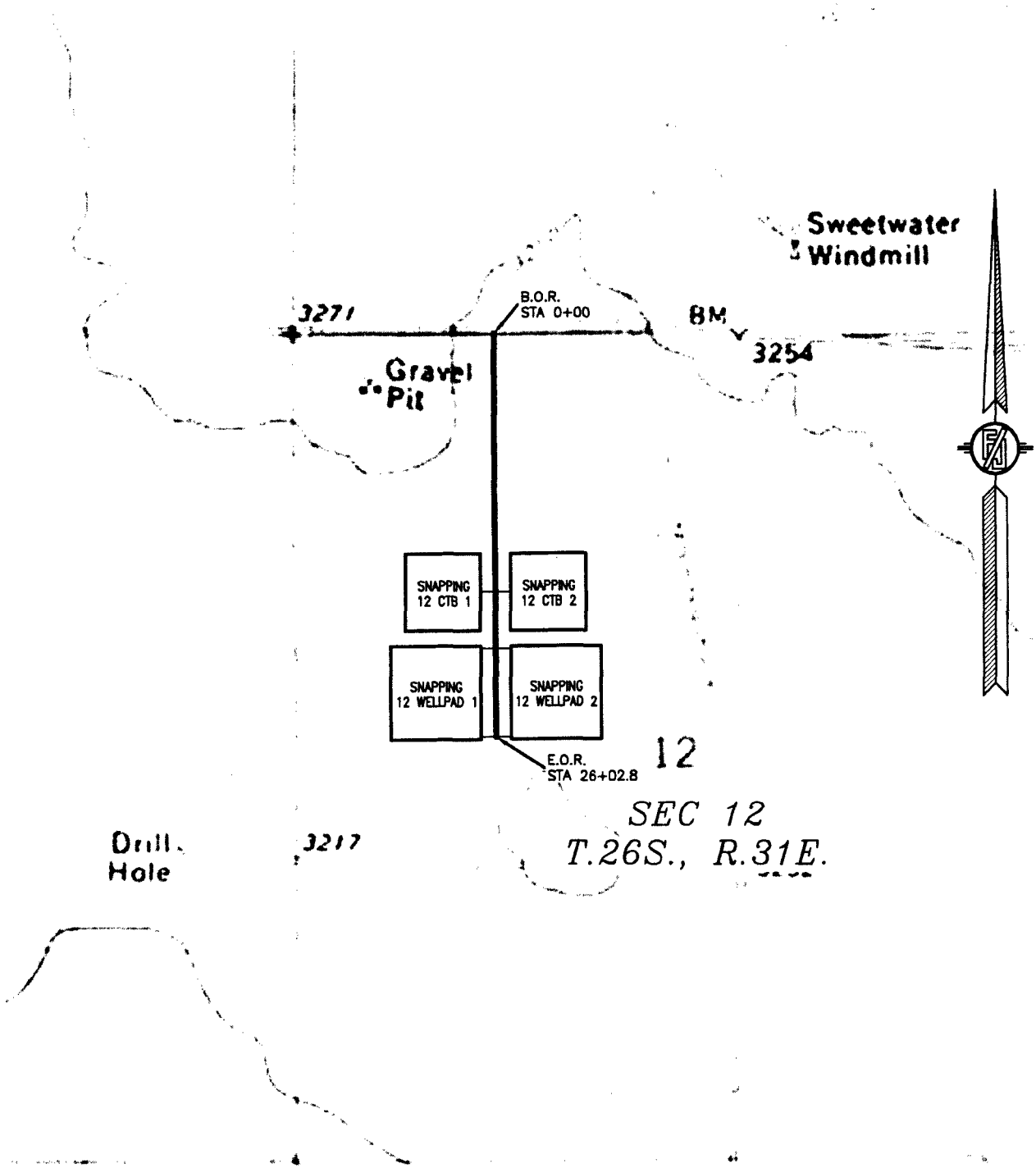
MADRON SURVEYING, INC.
301 SOUTH CANAL
CARLSBAD, NEW MEXICO 88220
Phone (575) 234-3341

ACCESS ROAD PLAT

ACCESS ROAD FOR SNAPPING 12 PADS AND CTBS

DEVON ENERGY PRODUCTION COMPANY, L.P.

CENTERLINE SURVEY OF AN ACCESS ROAD CROSSING
SECTION 12, TOWNSHIP 26 SOUTH, RANGE 31 EAST, N.M.P.M.
EDDY COUNTY, STATE OF NEW MEXICO
DECEMBER 7, 2017



SHEET: 3-4

SURVEY NO. 5503A

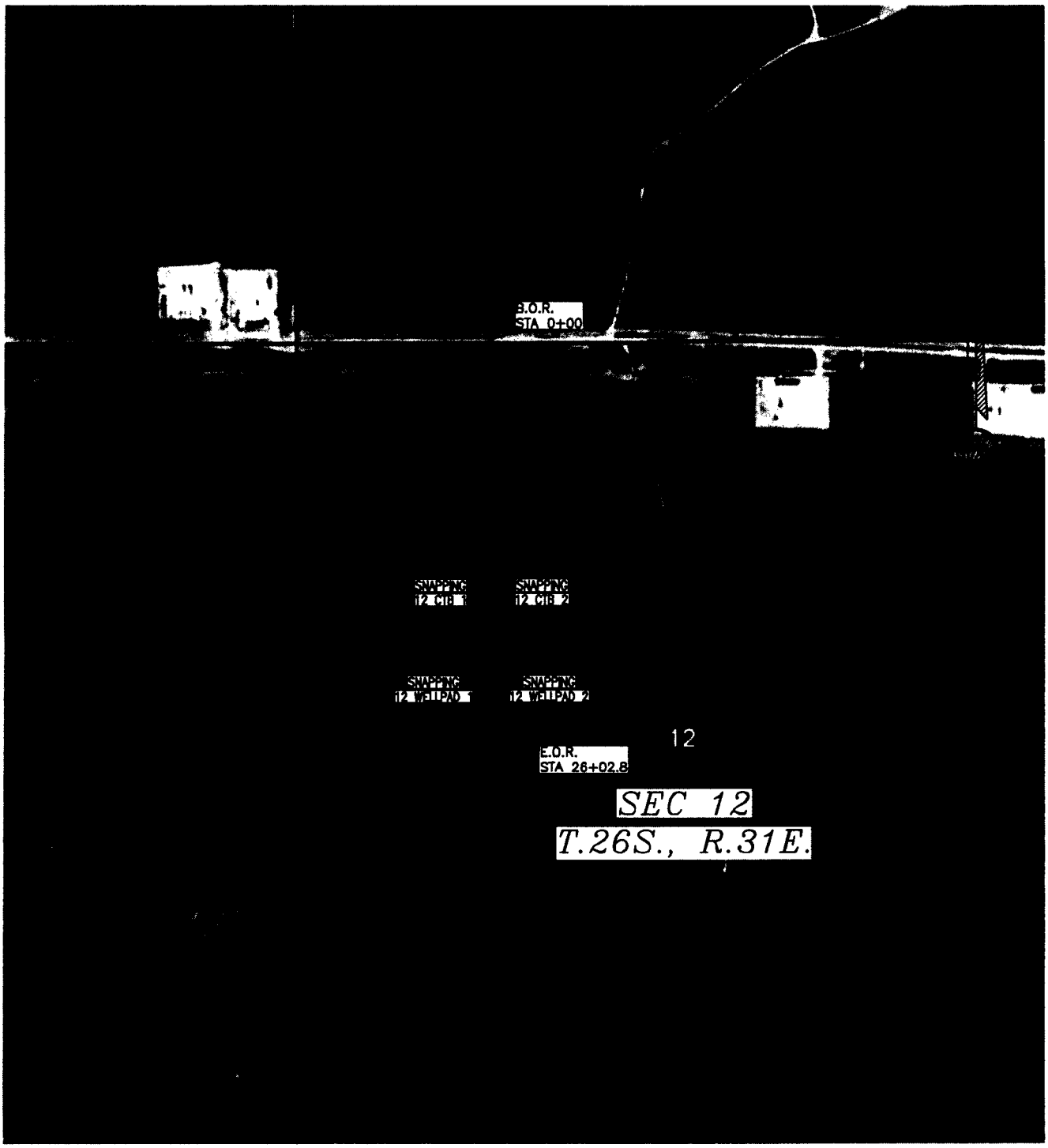
MADRON SURVEYING, INC. 301 SOUTH CANAL (575) 234-3341 *CARLSBAD, NEW MEXICO*

ACCESS ROAD PLAT

ACCESS ROAD FOR SNAPPING 12 PADS AND CTBS

DEVON ENERGY PRODUCTION COMPANY, L.P.

CENTERLINE SURVEY OF AN ACCESS ROAD CROSSING
SECTION 12, TOWNSHIP 26 SOUTH, RANGE 31 EAST, N.M.P.M.
EDDY COUNTY, STATE OF NEW MEXICO
DECEMBER 7, 2017



SHEET: 4-4 *SURVEY NO. 5503A*

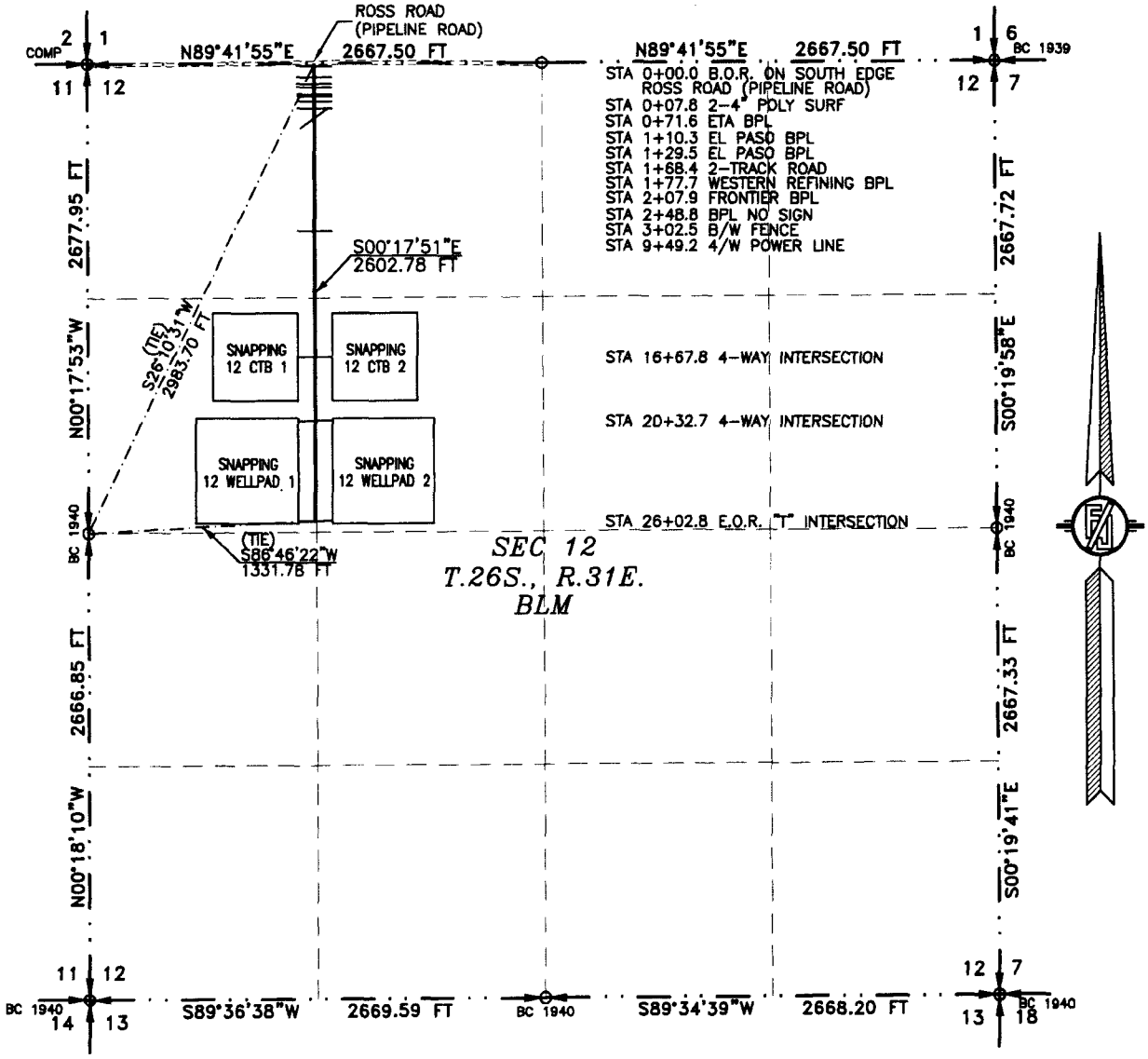
MADRON SURVEYING, INC. 301 SOUTH CANAL (575) 234-3341 *CARLSBAD, NEW MEXICO*

ACCESS ROAD PLAT

ACCESS ROAD FOR SNAPPING 12 PADS AND CTBS

DEVON ENERGY PRODUCTION COMPANY, L.P.

CENTERLINE SURVEY OF AN ACCESS ROAD CROSSING
SECTION 12, TOWNSHIP 26 SOUTH, RANGE 31 EAST, N.M.P.M.
EDDY COUNTY, STATE OF NEW MEXICO
DECEMBER 7, 2017



SEE NEXT SHEET (2-4) FOR DESCRIPTION

1000 0 1000

Scale: 1" = 1000'

GENERAL NOTES

1.) THE INTENT OF THIS ROUTE SURVEY IS TO ACQUIRE AN EASEMENT.

2.) BASIS OF BEARING AND DISTANCE IS NMSP EAST (NAD83) MODIFIED TO SURFACE COORDINATES. NAD 83 (FEET) AND NAVD 88 (FEET) COORDINATE SYSTEMS USED IN THE SURVEY.

SURVEYOR CERTIFICATE

I, FILIMON F. JARAMILLO, A NEW MEXICO PROFESSIONAL SURVEYOR NO. 12797, HEREBY CERTIFY THAT I HAVE CONDUCTED AND AM RESPONSIBLE FOR THIS SURVEY, THAT THIS SURVEY IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF, AND THAT THIS SURVEY AND PLAT MEET THE MINIMUM STANDARDS FOR LAND SURVEYING IN THE STATE OF NEW MEXICO.

IN WITNESS WHEREOF, THIS CERTIFICATE IS EXECUTED AT CARLSBAD, NEW MEXICO, THIS 8 DAY OF DECEMBER 2017

MADRON SURVEYING, INC.
301 SOUTH CANAL
CARLSBAD, NEW MEXICO 88220
Phone (575) 234-3341

FILIMON F. JARAMILLO PLS. 12797

301 SOUTH CANAL
(575) 234-3341

SHEET: 1-4

SURVEY NO. 5503A

MADRON SURVEYING, INC. CARLSBAD, NEW MEXICO

ACCESS ROAD PLAT

ACCESS ROAD FOR SNAPPING 12 PADS AND CTBS

DEVON ENERGY PRODUCTION COMPANY, L.P.

CENTERLINE SURVEY OF AN ACCESS ROAD CROSSING
SECTION 12, TOWNSHIP 26 SOUTH, RANGE 31 EAST, N.M.P.M.
EDDY COUNTY, STATE OF NEW MEXICO
DECEMBER 7, 2017

DESCRIPTION

A STRIP OF LAND 30 FEET WIDE CROSSING BUREAU OF LAND MANAGEMENT LAND IN SECTION 12, TOWNSHIP 26 SOUTH, RANGE 31 EAST, N.M.P.M., EDDY COUNTY, STATE OF NEW MEXICO AND BEING 15 FEET EACH SIDE OF THE FOLLOWING DESCRIBED CENTERLINE SURVEY:

BEGINNING AT A POINT WITHIN THE NW/4 NW/4 OF SAID SECTION 12, TOWNSHIP 26 SOUTH, RANGE 31 EAST, N.M.P.M., WHENCE THE WEST QUARTER CORNER OF SAID SECTION 12, TOWNSHIP 26 SOUTH, RANGE 31 EAST, N.M.P.M. BEARS S26°10'31"W, A DISTANCE OF 2983.70 FEET;
THENCE S00°17'51"E A DISTANCE OF 2602.78 FEET THE TERMINUS OF THIS CENTERLINE SURVEY, WHENCE THE WEST QUARTER CORNER OF SAID SECTION 12, TOWNSHIP 26 SOUTH, RANGE 31 EAST, N.M.P.M. BEARS S86°46'22"W, A DISTANCE OF 1331.78 FEET;

SAID STRIP OF LAND BEING 2602.78 FEET OR 157.74 RODS IN LENGTH, CONTAINING 1.793 ACRES MORE OR LESS AND BEING ALLOCATED BY FORTIES AS FOLLOWS:

NW/4 NW/4	1330.51 L.F.	80.64 RODS	0.916 ACRES
SW/4 NW/4	1272.27 L.F.	77.11 RODS	0.876 ACRES

GENERAL NOTES

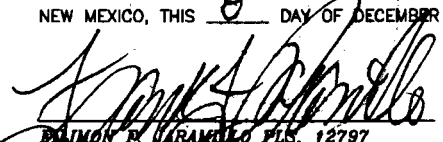
1.) THE INTENT OF THIS ROUTE SURVEY IS TO ACQUIRE AN EASEMENT.

2.) BASIS OF BEARING AND DISTANCE IS NMSP EAST (NAD83) MODIFIED TO SURFACE COORDINATES. NAD 83 (FEET) AND NAVD 88 (FEET) COORDINATE SYSTEMS USED IN THE SURVEY.

SURVEYOR CERTIFICATE

I, FILIMON F. JARAMILLO, A NEW MEXICO PROFESSIONAL SURVEYOR NO. 12797, HEREBY CERTIFY THAT I HAVE CONDUCTED AND AM RESPONSIBLE FOR THIS SURVEY, THAT THIS SURVEY IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF, AND THAT THIS SURVEY AND PLAT MEET THE MINIMUM STANDARDS FOR LAND SURVEYING IN THE STATE OF NEW MEXICO.

IN WITNESS WHEREOF, THIS CERTIFICATE IS EXECUTED AT CARLSBAD, NEW MEXICO, THIS 8 DAY OF DECEMBER 2017



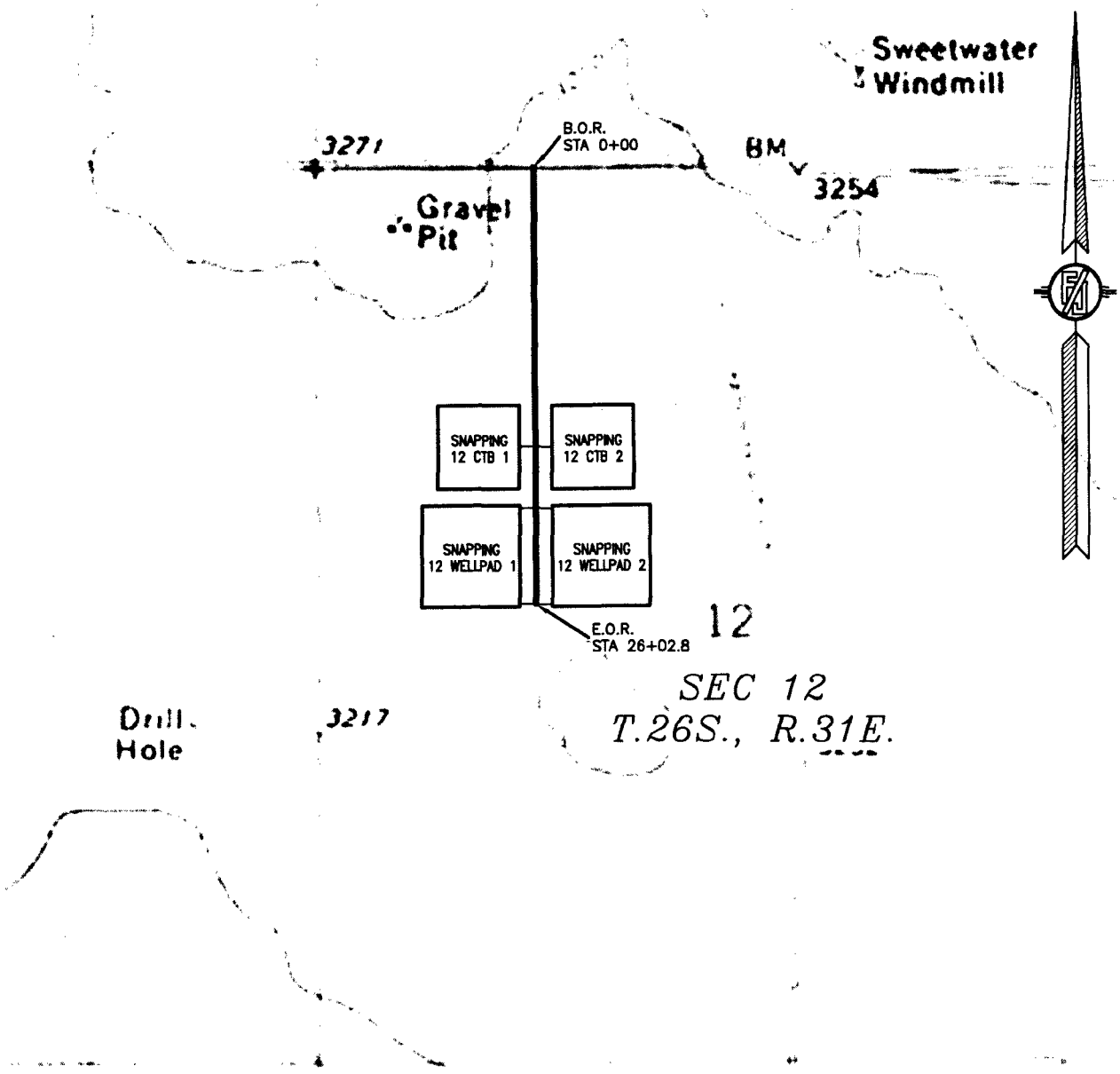
FILIMON F. JARAMILLO PLS. 12797

MADRON SURVEYING, INC.
301 SOUTH CANAL
CARLSBAD, NEW MEXICO 88220
Phone (575) 234-3341

ACCESS ROAD PLAT

ACCESS ROAD FOR SNAPPING 12 PADS AND CTBS

DEVON ENERGY PRODUCTION COMPANY, L.P.
CENTERLINE SURVEY OF AN ACCESS ROAD CROSSING
SECTION 12, TOWNSHIP 26 SOUTH, RANGE 31 EAST, N.M.P.M.
EDDY COUNTY, STATE OF NEW MEXICO
DECEMBER 7, 2017



SHEET: 3-4

SURVEY NO. 5503A

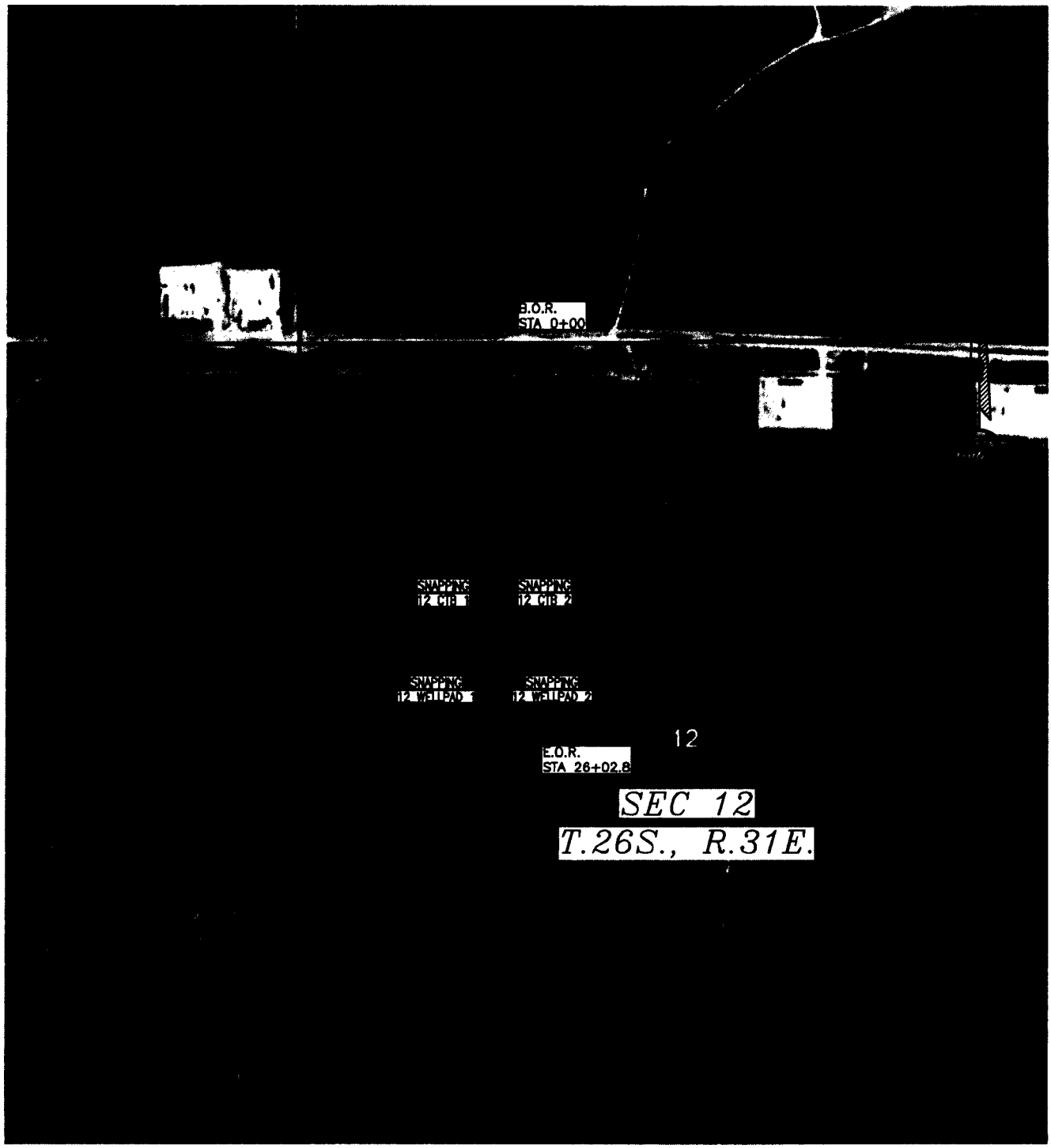
MADRON SURVEYING, INC. 301 SOUTH CANAL (575) 234-3341 *CARLSBAD, NEW MEXICO*

ACCESS ROAD PLAT

ACCESS ROAD FOR SNAPPING 12 PADS AND CTBS

DEVON ENERGY PRODUCTION COMPANY, L.P.

CENTERLINE SURVEY OF AN ACCESS ROAD CROSSING
SECTION 12, TOWNSHIP 26 SOUTH, RANGE 31 EAST, N.M.P.M.
EDDY COUNTY, STATE OF NEW MEXICO
DECEMBER 7, 2017



SHEET: 4-4 *SURVEY NO. 5503A*

MADRON SURVEYING, INC. 301 SOUTH CANAL (575) 234-3341 *CARLSBAD, NEW MEXICO*

PLAT

One Mile Radius Map

devon

This map is for illustrative purposes only and is neither a legally recorded map nor a survey and is not intended to be used as one. Devon makes no warranty,representation, or guarantee of any kind regarding this map.

GCS North American 1983
Datum: North American 1983; Units: Degree
Created by: lemois
Map is current as of 9/20/2017.

N

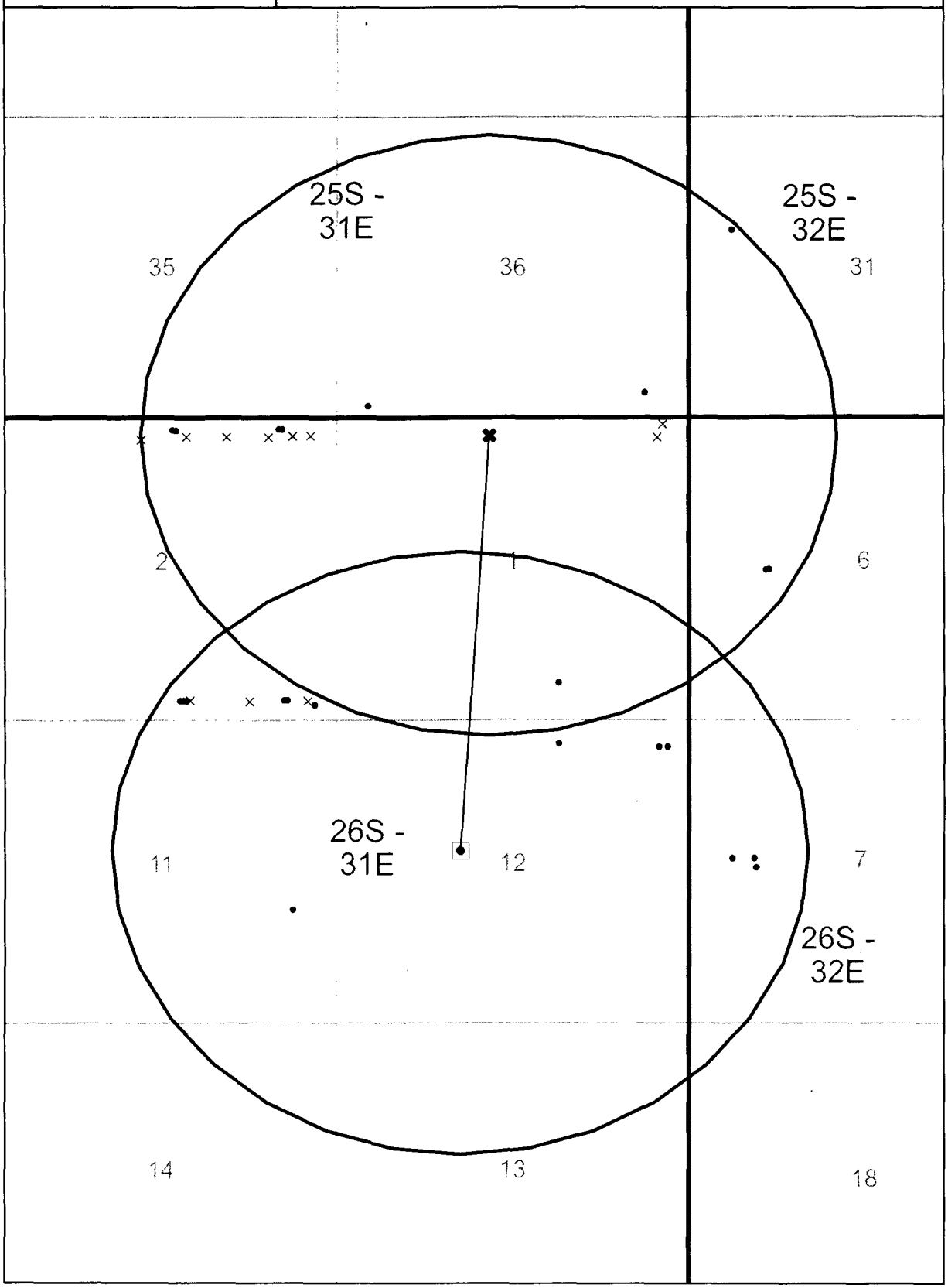
Miles
0 0.3
1 inch = 0 miles

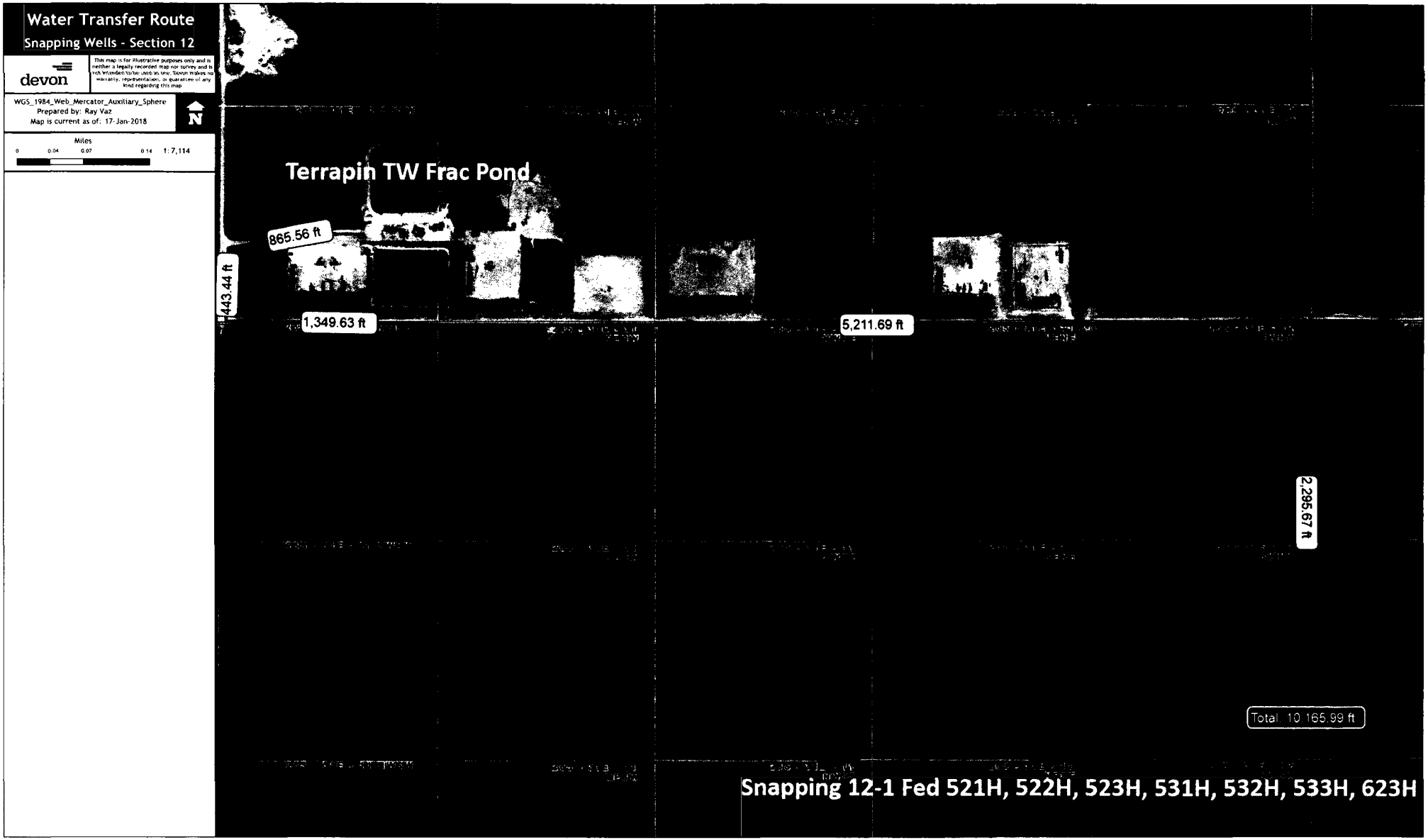
SNAPPING 12-1 FED 523H
WA017056727

BIG SINKS 1 A3OB FEE 2H
Nearest wellbore to SHL: 2369 ft.

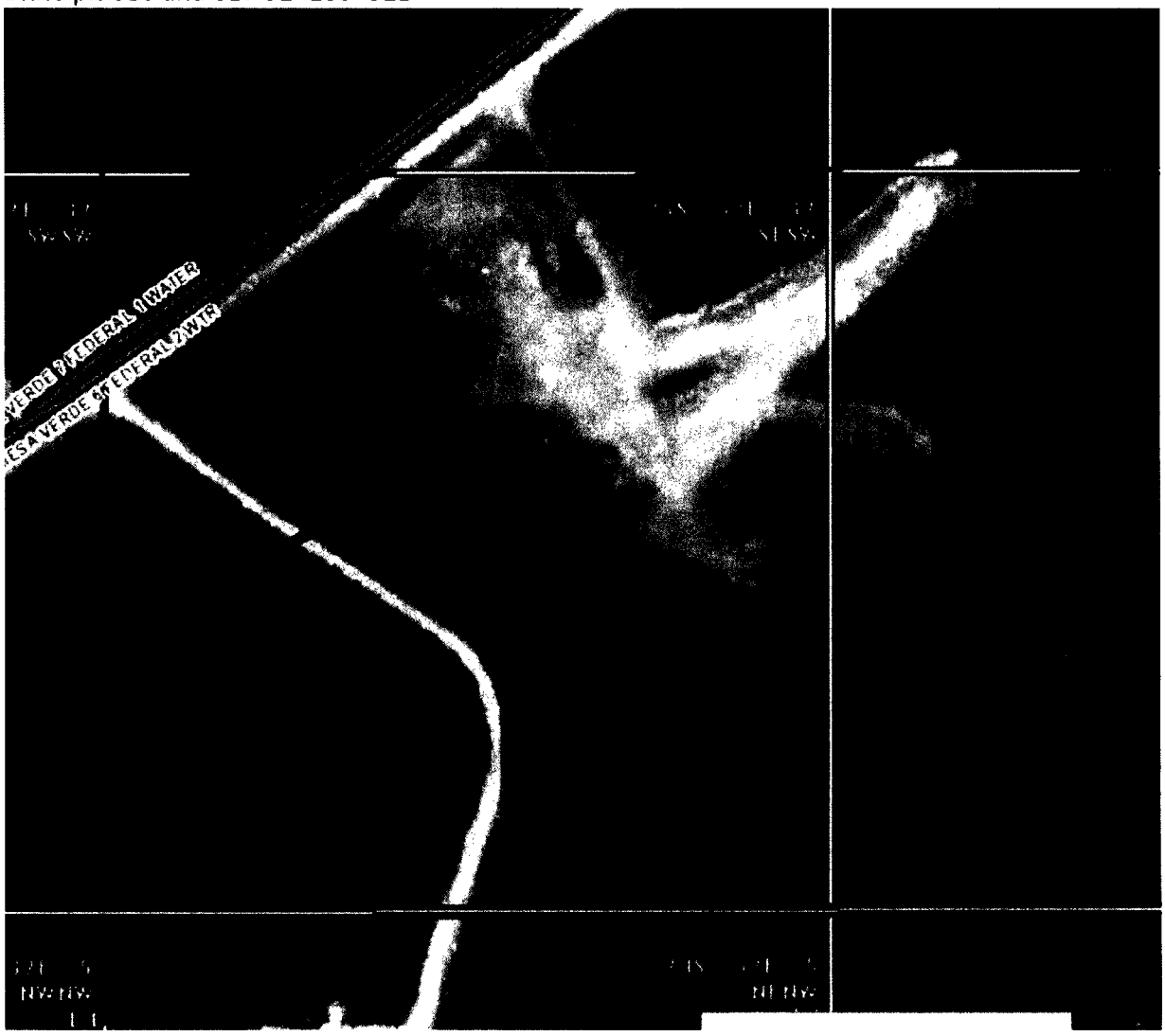
BIG SINKS 1 A3OB FEE 2H
Nearest wellbore to BHL: 747 ft.

• SHL
× BHL

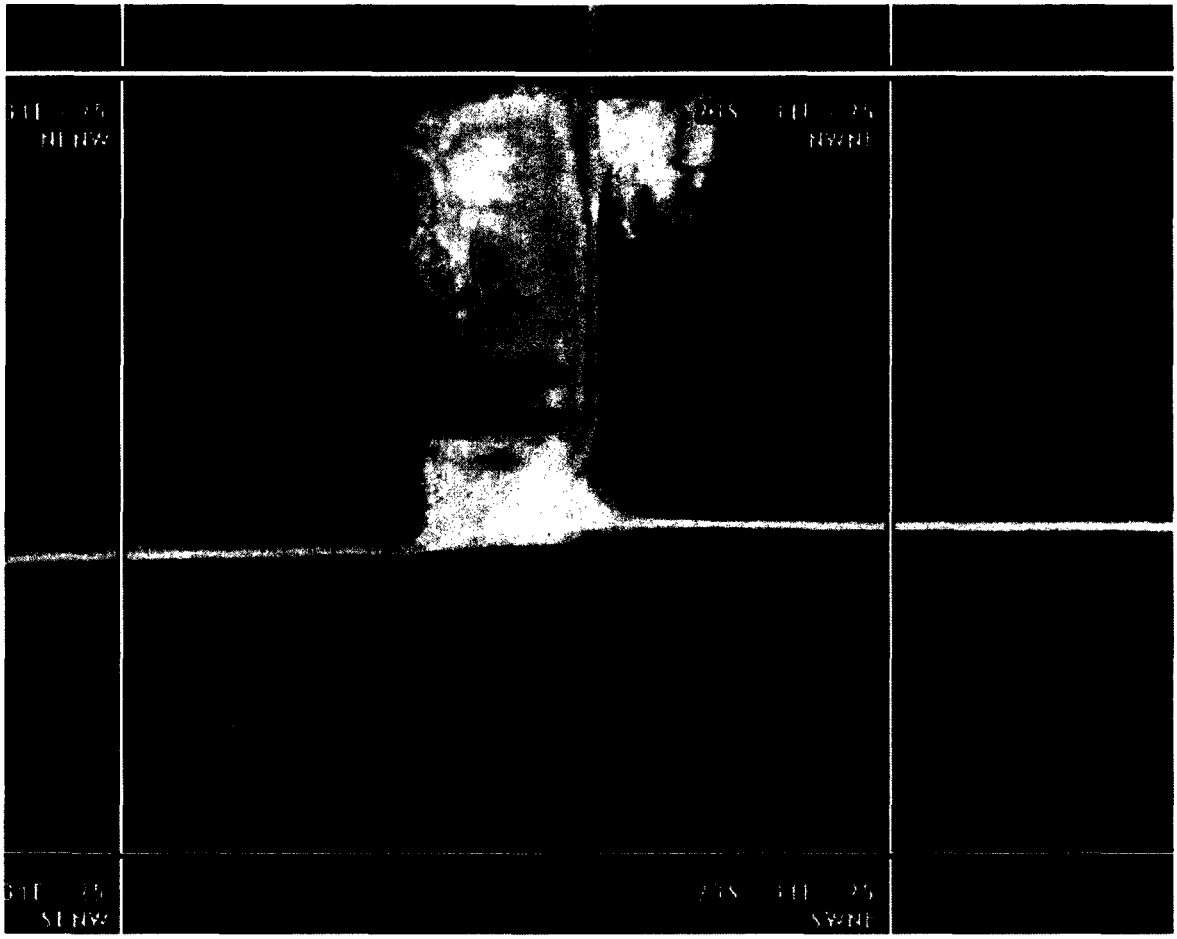



Water Transfer Route
Snapping Wells - Section 12
devon
This map is for illustrative purposes only and is neither a legally recorded map nor survey and is not intended to be used as one. Devon makes no warranty, representation, or guarantee of any kind regarding this map
WGS_1984_Web_Mercator_Auxiliary_Sphere
Prepared by: Ray Vaz
Map is current as of: 17-Jan-2018
N
Miles
0 0.04 0.07 0.14
1:7,114
Terrapin TW Frac Pond
865.56 ft
443.44 ft
1,349.63 ft
5,211.69 ft
2,285.67 ft
Total: 10,165.99 ft
Snapping 12-1 Fed 521H, 522H, 523H, 531H, 532H, 533H, 623H

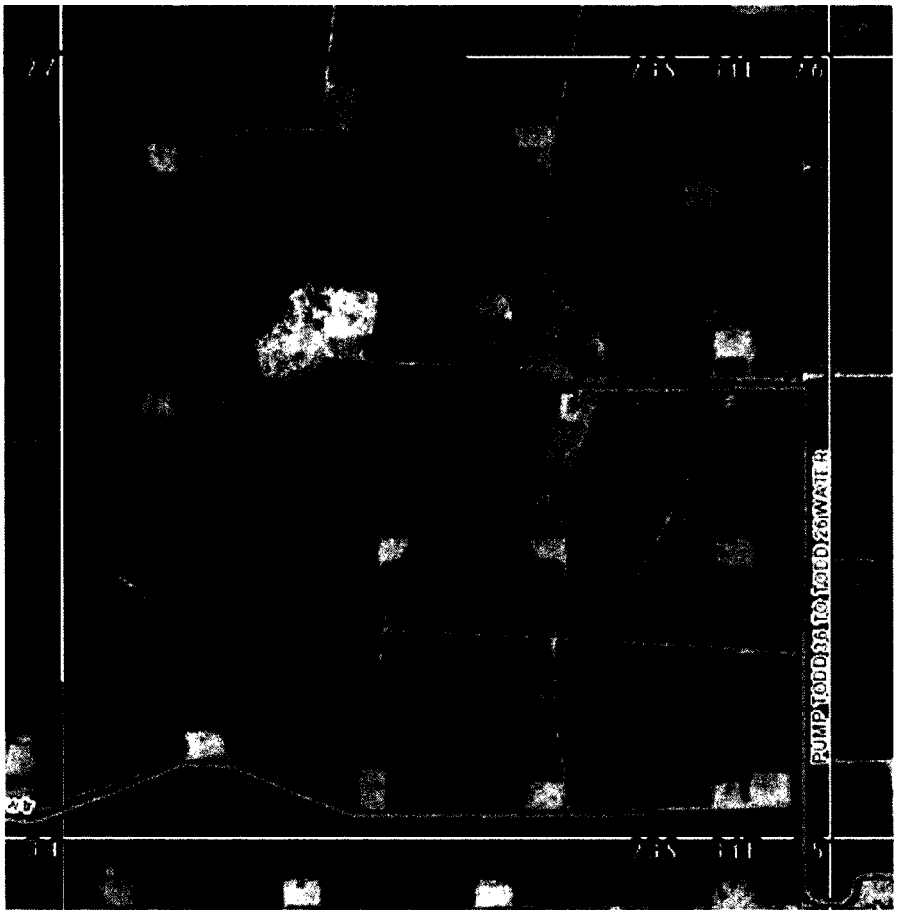
- State pit 616 and 617 32- 23S- 32E



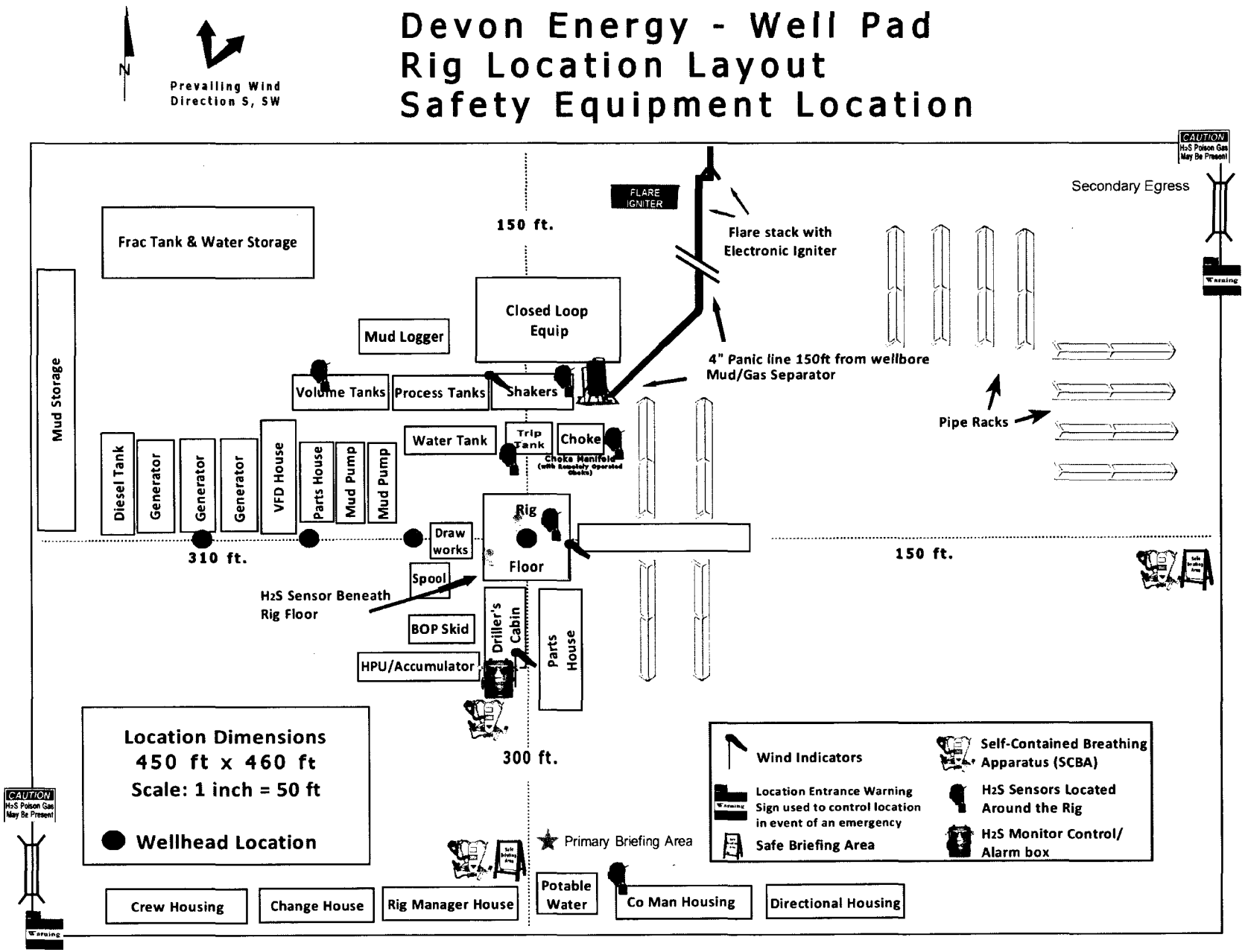
- Fed pit 25- 23S- 31E

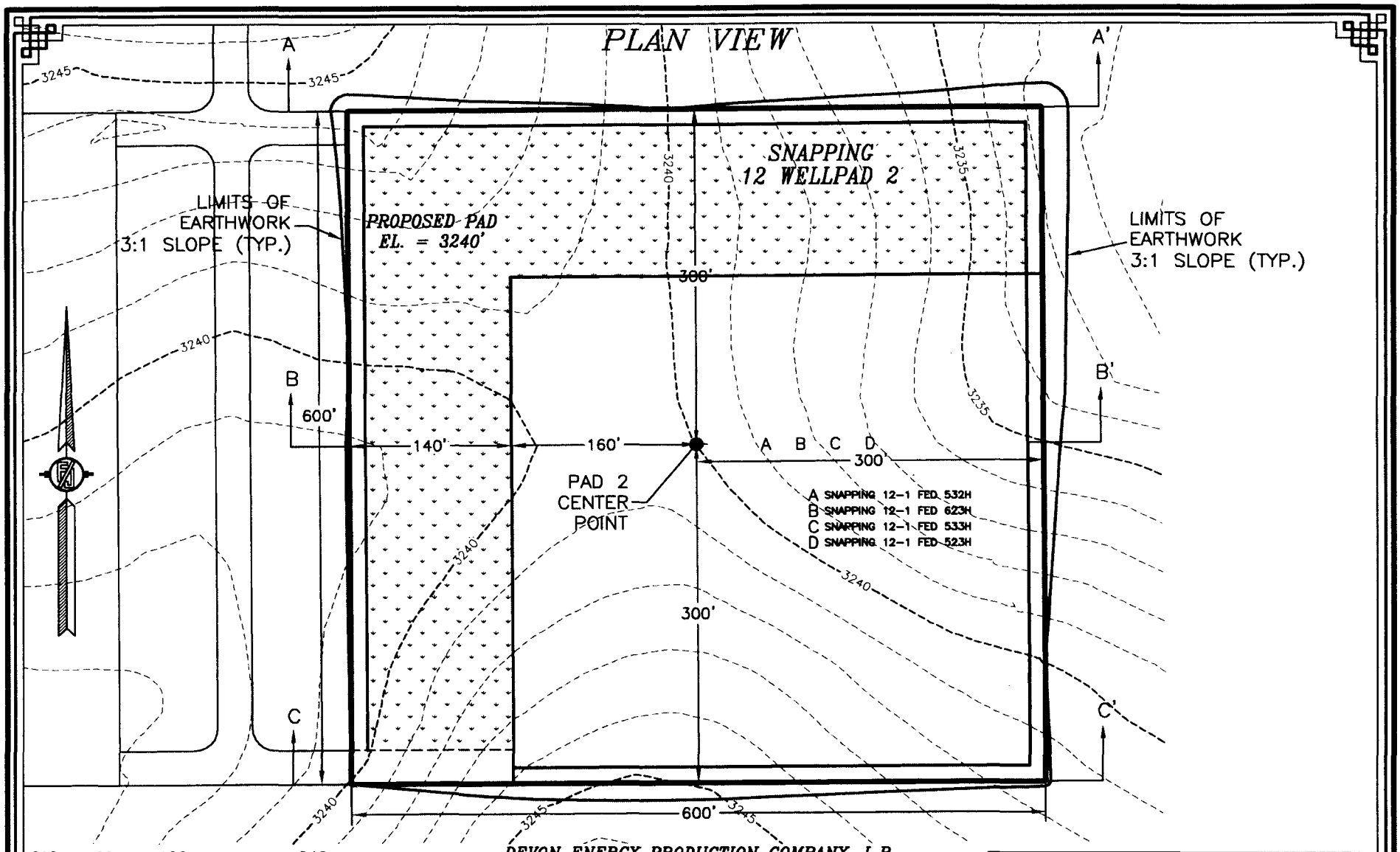


- Private pit 26- 23S- 31E


PUMP TODD 36 10 16 E D 26 WATER

Devon Energy - Well Pad
Rig Location Layout
Safety Equipment Location





CUT	FILL	NET
12067 CU. YD	15342 CU. YD	3275 CU. YD (FILL)

EARTHWORK QUANTITIES ARE ESTIMATED

DEVON ENERGY PRODUCTION COMPANY, L.P.
PAD GRADING AND CROSS SECTIONS
FOR SNAPPING 12-1 FED 523H
SECTION 12, TOWNSHIP 26 SOUTH,
RANGE 31 EAST, N.M.P.M.
EDDY COUNTY, STATE OF NEW MEXICO

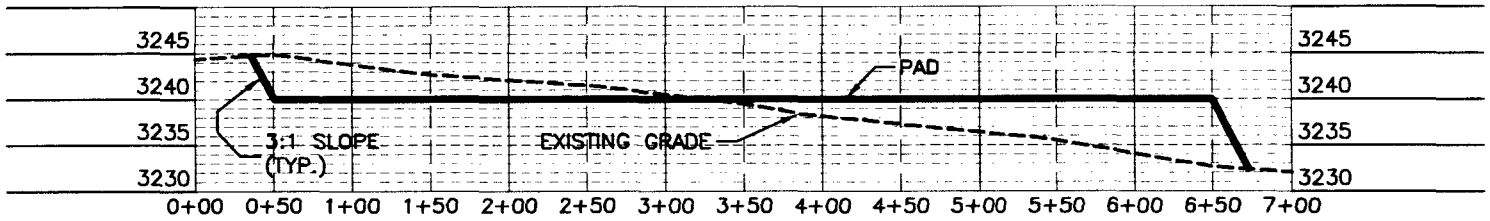
SEPTEMBER 18, 2017

MADRON SURVEYING, INC. 301 SOUTH CANAL (575) 234-3341 *CARLSBAD, NEW MEXICO*

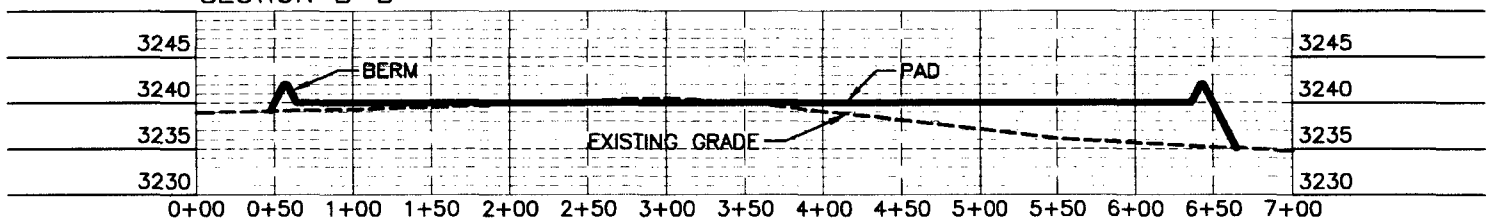
SHEET 1-2
SURVEY NO. 5440B

CROSS-SECTIONS

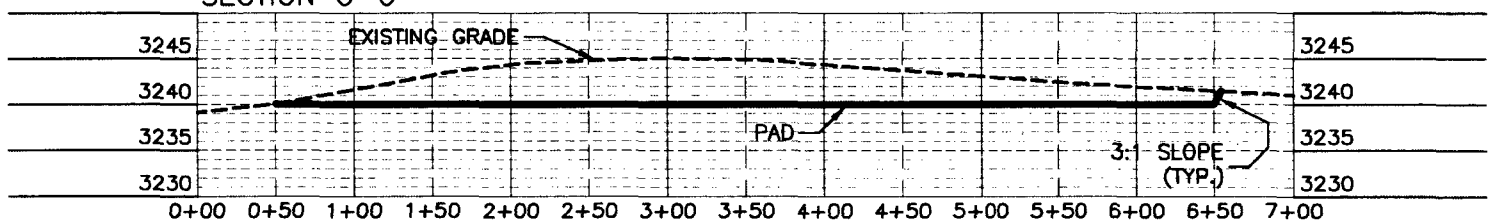
SECTION A-A'



SECTION B-B'



SECTION C-C'



012 60 120 240

SCALE 1" = 120' - 1" = 20' VER

DEVON ENERGY PRODUCTION COMPANY, L.P.
PAD GRADING AND CROSS SECTIONS
FOR SNAPPING 12-1 FED 523H
SECTION 12, TOWNSHIP 26 SOUTH,
RANGE 31 EAST, N.M.P.M.
EDDY COUNTY, STATE OF NEW MEXICO

CUT	FILL	NET
12067 CU. YD	15342 CU. YD	3275 CU. YD (FILL)

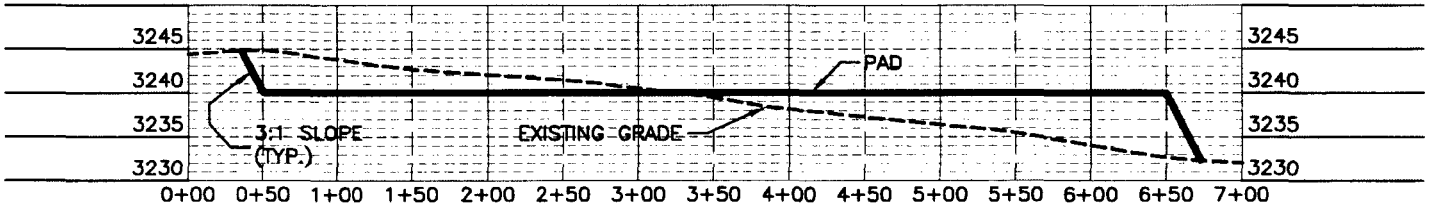
EARTHWORK QUANTITIES ARE ESTIMATED

SEPTEMBER 18, 2017

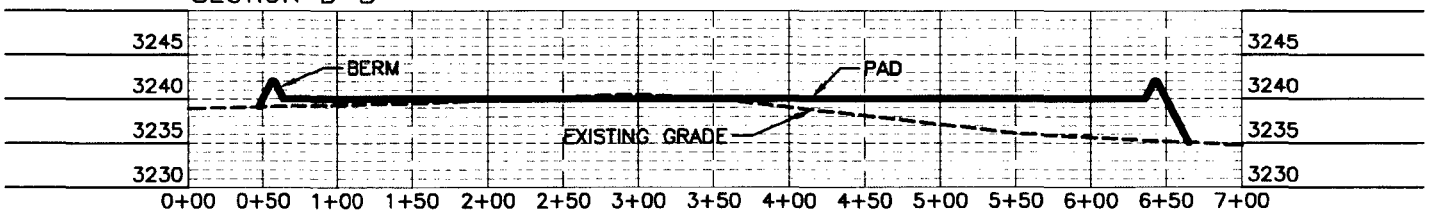
MADRON SURVEYING, INC. 301 SOUTH CANAL (575) 234-3341 *CARLSBAD, NEW MEXICO*

CROSS-SECTIONS

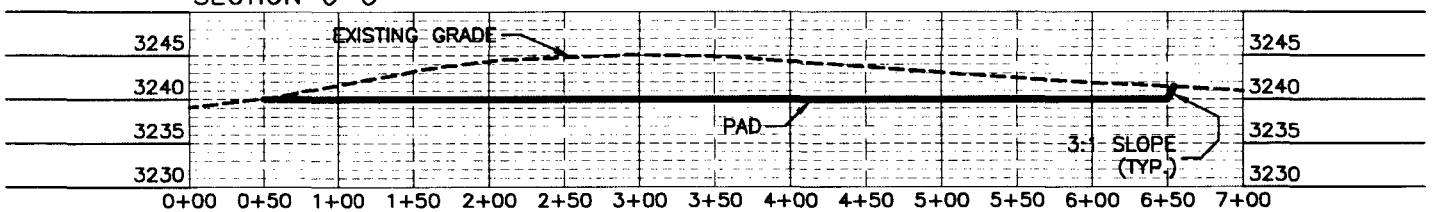
SECTION A-A'



SECTION B-B'



SECTION C-C'



012 60 120 240

SCALE 1" = 120' - 1" = 20' VER

DEVON ENERGY PRODUCTION COMPANY, L.P.
PAD GRADING AND CROSS SECTIONS
FOR SNAPPING 12-1 FED 523H
SECTION 12, TOWNSHIP 26 SOUTH,
RANGE 31 EAST, N.M.P.M.
EDDY COUNTY, STATE OF NEW MEXICO

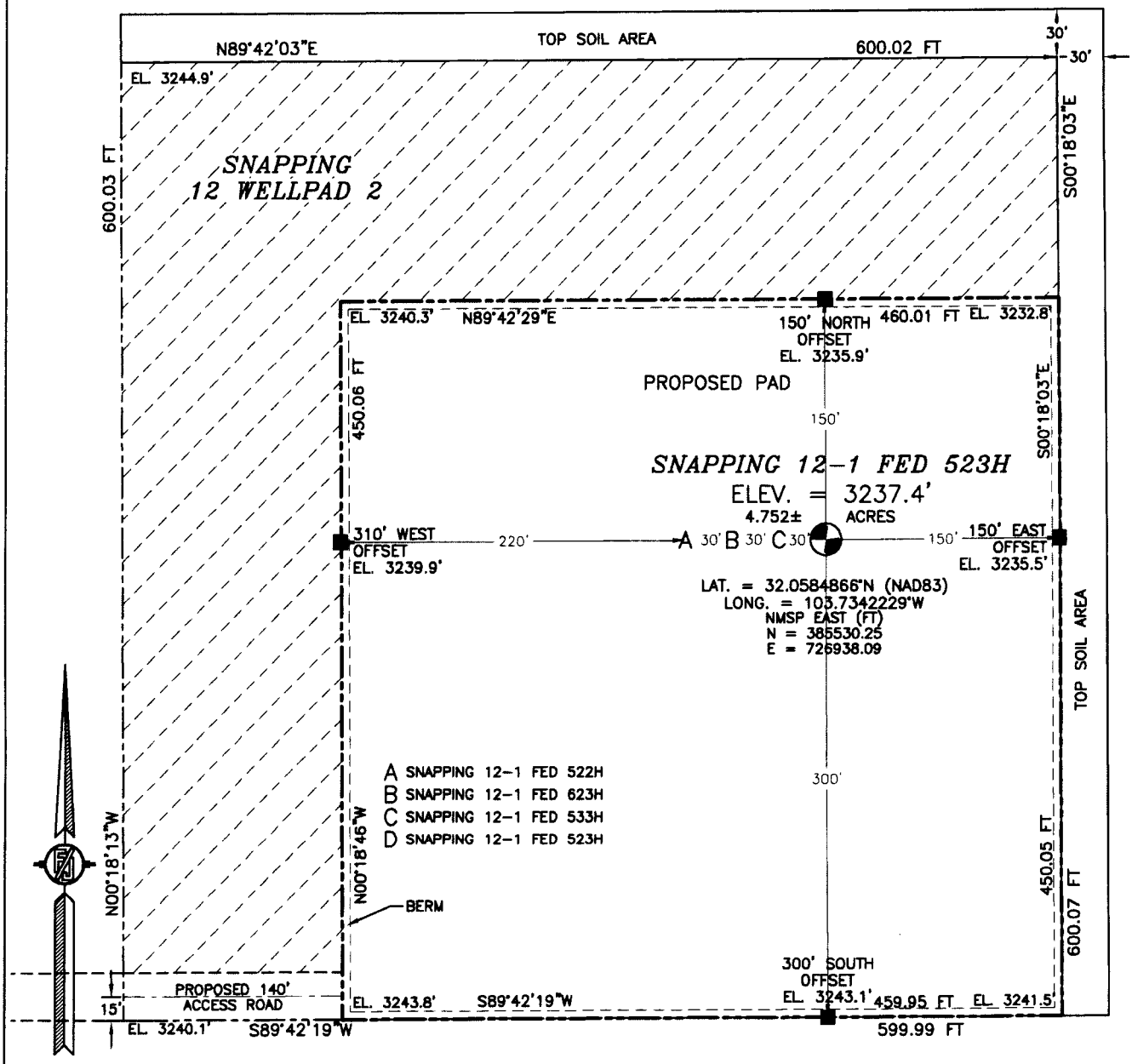
CUT	FILL	NET
12067 CU. YD	15342 CU. YD	3275 CU. YD (FILL)

EARTHWORK QUANTITIES ARE ESTIMATED

AUGUST 30, 2017

MADRON SURVEYING, INC. 301 SOUTH CANAL (575) 234-3341 *CARLSBAD, NEW MEXICO*

SECTION 12, TOWNSHIP 26 SOUTH, RANGE 31 EAST, N.M.P.M.
EDDY COUNTY, STATE OF NEW MEXICO
SITE MAP



010 50 100 200

SCALE 1" = 100'

DIRECTIONS TO LOCATION

FROM STATE ROAD 128 AND CR. 1 (ORLA ROAD) GO SOUTH ON CR. 1 10.4 MILES, TURN RIGHT ON CALICHE PIPELINE ROAD (ROSS ROAD) AND GO WEST 3.5 MILES TO A PROPOSED ROAD SURVEY AND FOLLOW FLAGS SOUTH 0.5 MILE TO A PROPOSED ROAD "T" AND GO EAST 100' TO THE SOUTHWEST PAD CORNER FOR SNAPPING TRANSITIONAL PAD 2, FOLLOW ROAD FLAGS EAST 140' THE SOUTHWEST PAD CORNER FOR THIS LOCATION.

DEVON ENERGY PRODUCTION COMPANY, L.P.

SNAPPING 12-1 FED 523H

LOCATED 2325 FT. FROM THE NORTH LINE AND 1880 FT. FROM THE WEST LINE OF SECTION 12, TOWNSHIP 26 SOUTH, RANGE 31 EAST, N.M.P.M. EDDY COUNTY, STATE OF NEW MEXICO

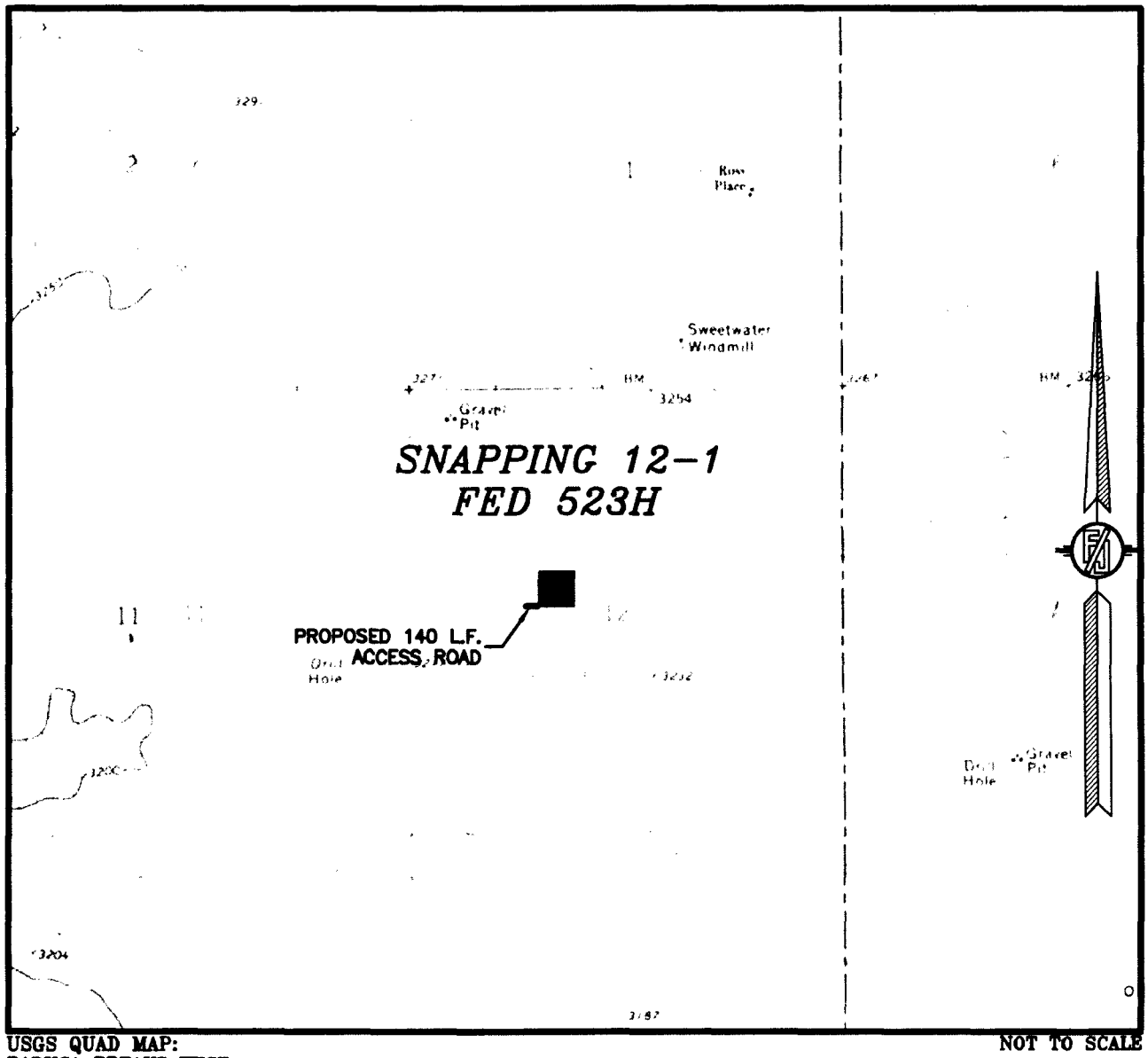
SEPTEMBER 18, 2017

SURVEY NO. 5440B

MADRON SURVEYING, INC. 301 SOUTH CANAL (575) 234-3341 *CARLSBAD, NEW MEXICO*

SECTION 12, TOWNSHIP 26 SOUTH, RANGE 31 EAST, N.M.P.M.
EDDY COUNTY, STATE OF NEW MEXICO

LOCATION VERIFICATION MAP



USGS QUAD MAP:
PADUCA BREAKS WEST

NOT TO SCALE

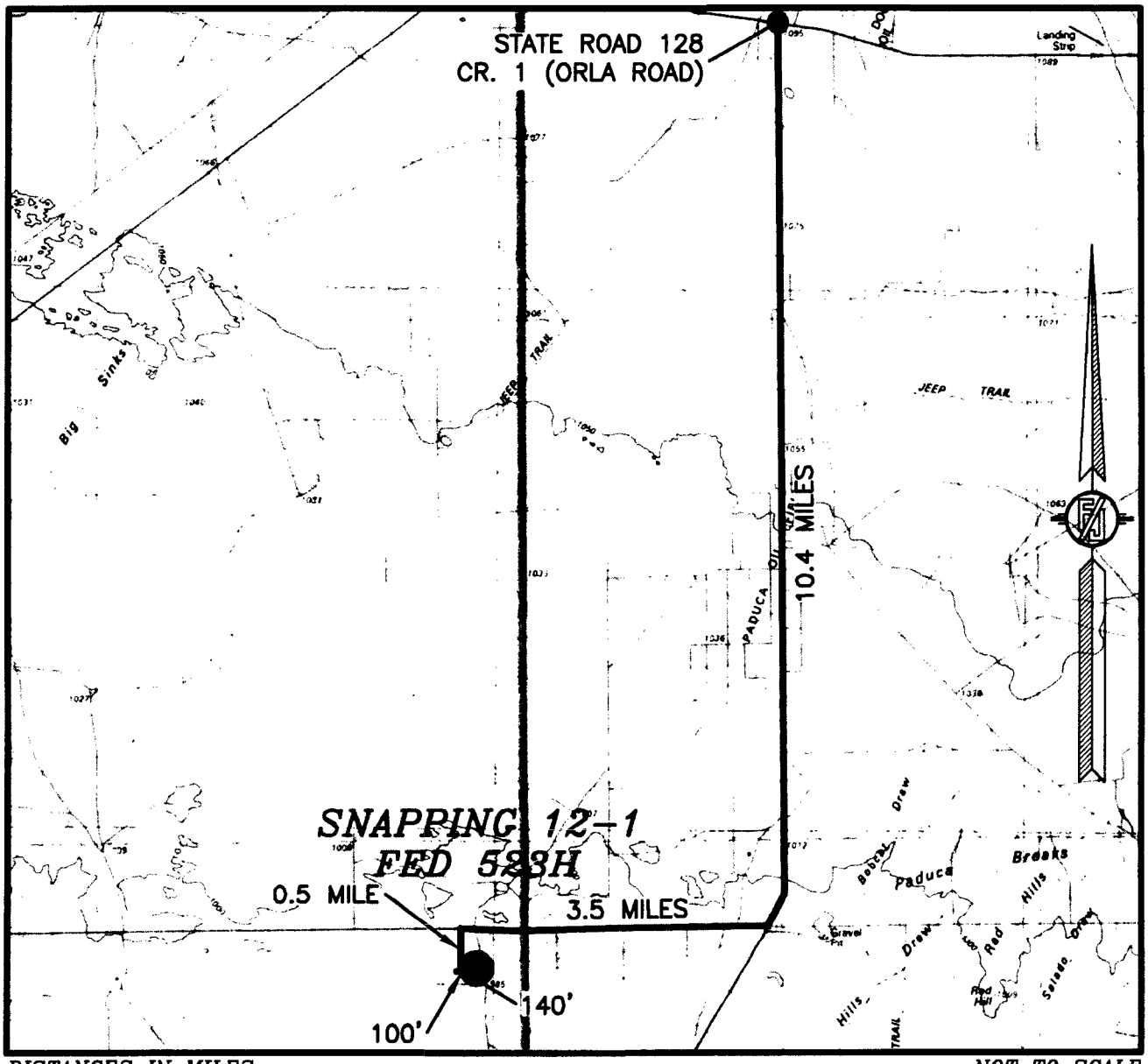
DEVON ENERGY PRODUCTION COMPANY, L.P.
SNAPPING 12-1 FED 523H
LOCATED 2325 FT. FROM THE NORTH LINE
AND 1880 FT. FROM THE WEST LINE OF
SECTION 12, TOWNSHIP 26 SOUTH,
RANGE 31 EAST, N.M.P.M.
EDDY COUNTY, STATE OF NEW MEXICO

SEPTEMBER 18, 2017

SURVEY NO. 5440B

MADRON SURVEYING, INC. 301 SOUTH CANAL (575) 234-3341 *CARLSBAD, NEW MEXICO*

SECTION 12, TOWNSHIP 26 SOUTH, RANGE 31 EAST, N.M.P.M.
EDDY COUNTY, STATE OF NEW MEXICO
VICINITY MAP



DISTANCES IN MILES *NOT TO SCALE*

DIRECTIONS TO LOCATION
FROM STATE ROAD 128 AND CR. 1 (ORLA ROAD) GO SOUTH ON CR. 1 10.4 MILES, TURN RIGHT ON CALICHE PIPELINE ROAD (ROSS ROAD) AND GO WEST 3.5 MILES TO A PROPOSED ROAD SURVEY AND FOLLOW FLAGS SOUTH 0.5 MILE TO A PROPOSED ROAD "T" AND GO EAST 100' TO THE SOUTHWEST PAD CORNER FOR SNAPPING TRANSITIONAL PAD 2, FOLLOW ROAD FLAGS EAST 140' THE SOUTHWEST PAD CORNER FOR THIS LOCATION.

DEVON ENERGY PRODUCTION COMPANY, L.P.
SNAPPING 12-1 FED 523H
LOCATED 2325 FT. FROM THE NORTH LINE
AND 1880 FT. FROM THE WEST LINE OF
SECTION 12, TOWNSHIP 26 SOUTH,
RANGE 31 EAST, N.M.P.M.
EDDY COUNTY, STATE OF NEW MEXICO

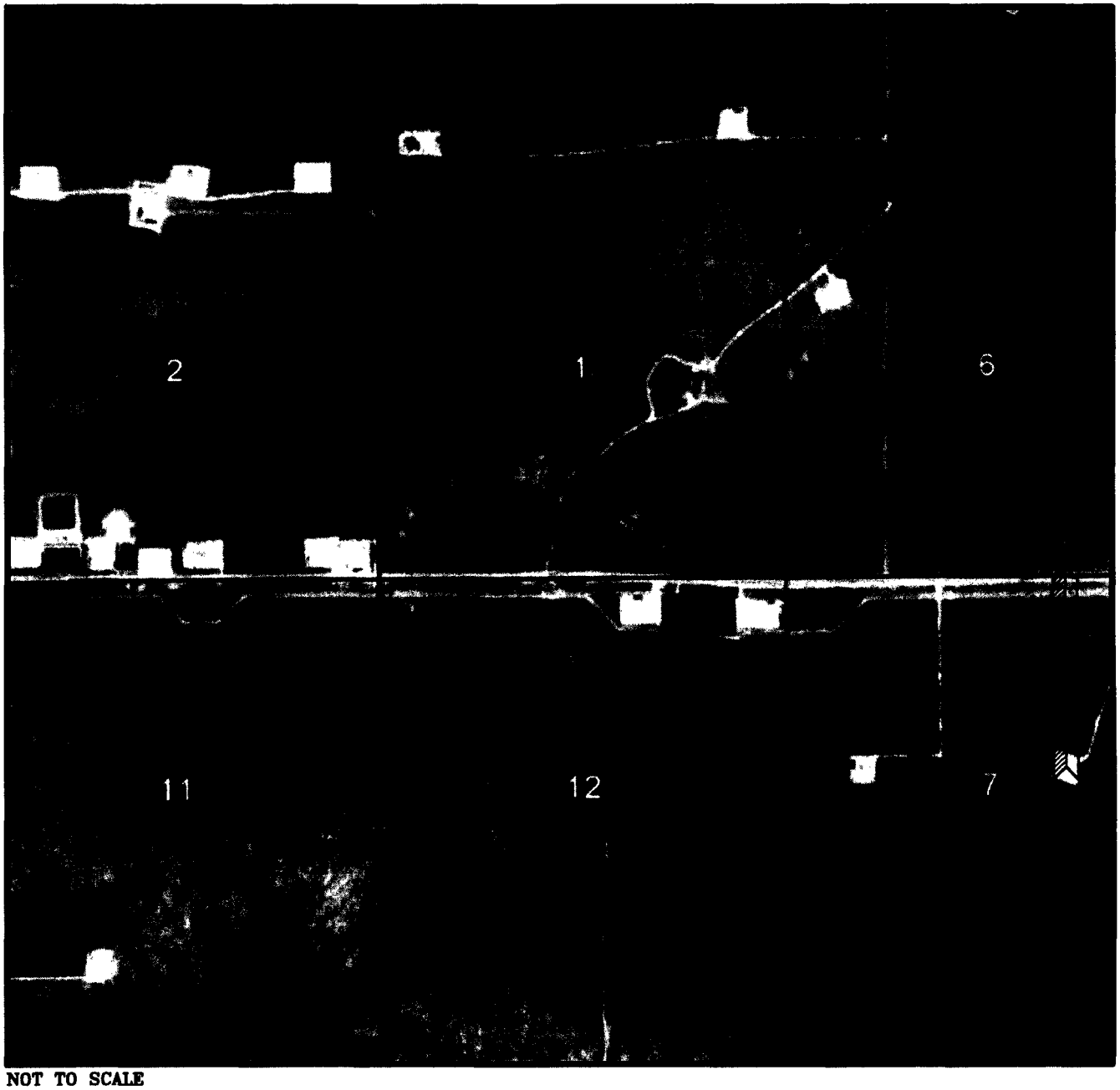
SEPTEMBER 18, 2017

SURVEY NO. 5440B

MADRON SURVEYING, INC. 301 SOUTH CANAL (575) 234-3341 *CARLSBAD, NEW MEXICO*

SECTION 12, TOWNSHIP 26 SOUTH, RANGE 31 EAST, N.M.P.M.
EDDY COUNTY, STATE OF NEW MEXICO

AERIAL PHOTO



NOT TO SCALE
AERIAL PHOTO:
GOOGLE EARTH
NOV. 2015

DEVON ENERGY PRODUCTION COMPANY, L.P.

SNAPPING 12-1 FED 523H

LOCATED 2325 FT. FROM THE NORTH LINE
AND 1880 FT. FROM THE WEST LINE OF
SECTION 12, TOWNSHIP 26 SOUTH,
RANGE 31 EAST, N.M.P.M.
EDDY COUNTY, STATE OF NEW MEXICO

SEPTEMBER 18, 2017

SURVEY NO. 5440B

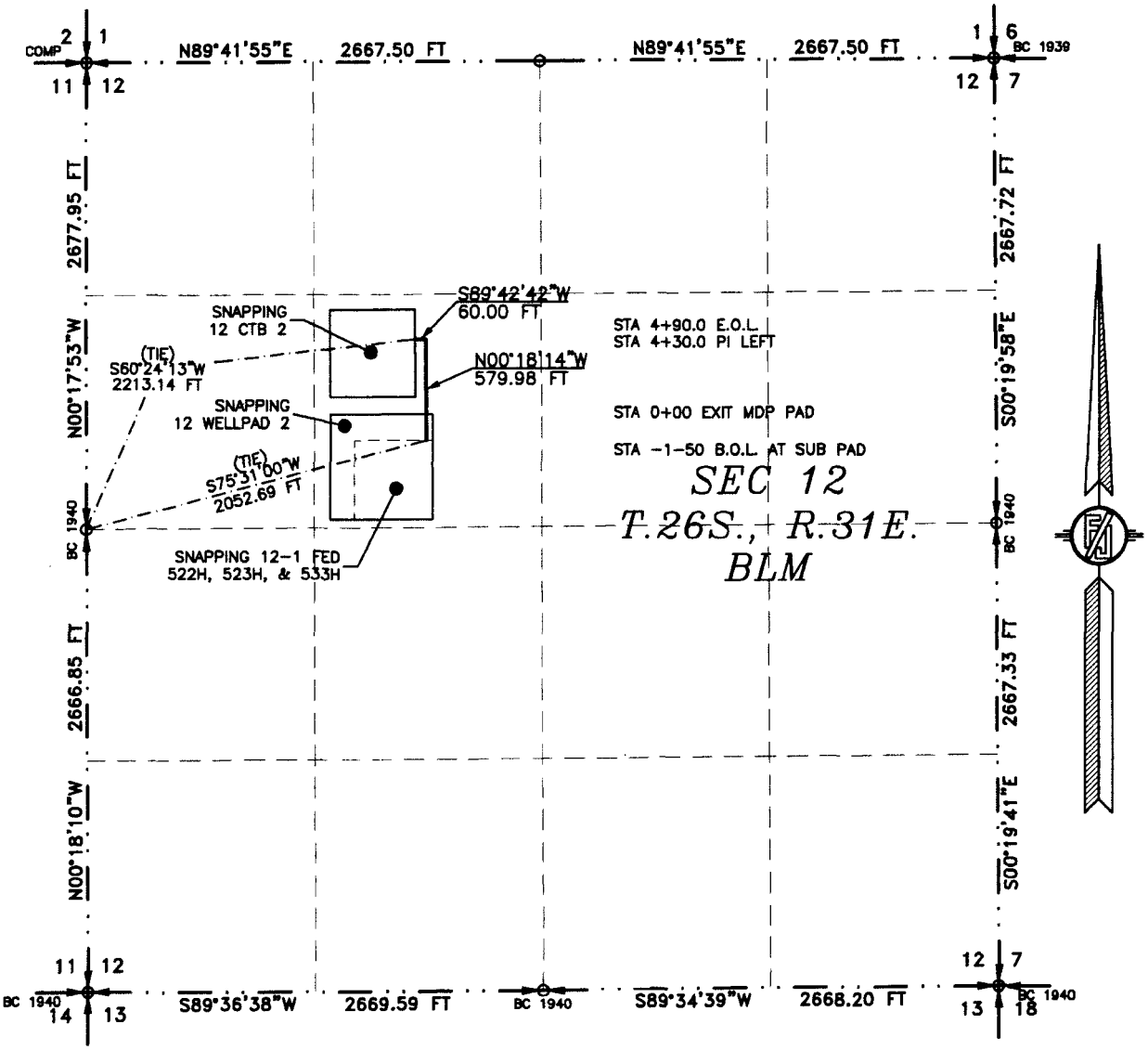
MADRON SURVEYING, INC. 301 SOUTH CANAL (575) 234-3341 *CARLSBAD, NEW MEXICO*

FLOWLINE PLAT

THREE–4" POLY FLOWLINES AND ONE–6" GAS LIFT LINE BURIED IN THE SAME DITCH FROM SNAPPING 12 WELLPAD 2 (SNAPPING 12–1 FED 522H, 523H, & 533H) TO SNAPPING 12 CTB 2

DEVON ENERGY PRODUCTION COMPANY, L.P.

CENTERLINE SURVEY OF A PIPELINE CROSSING
SECTION 12, TOWNSHIP 26 SOUTH, RANGE 31 EAST, N.M.P.M.
EDDY COUNTY, STATE OF NEW MEXICO
DECEMBER 7, 2017



SEE NEXT SHEET (2–4) FOR DESCRIPTION

1000 0 1000
Scale: 1" = 1000'

GENERAL NOTES

1.) THE INTENT OF THIS ROUTE SURVEY IS TO ACQUIRE AN EASEMENT.

2.) BASIS OF BEARING AND DISTANCE IS NMSP EAST (NAD83) MODIFIED TO SURFACE COORDINATES. NAD 83 (FEET) AND NAVD 88 (FEET) COORDINATE SYSTEMS USED IN THE SURVEY.

SURVEYOR CERTIFICATE

I, FILIMON F. JARAMILLO, A NEW MEXICO PROFESSIONAL SURVEYOR NO. 12797, HEREBY CERTIFY THAT I HAVE CONDUCTED AND AM RESPONSIBLE FOR THIS SURVEY, THAT THIS SURVEY IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF, AND THAT THIS SURVEY AND PLAT MEET THE MINIMUM STANDARDS FOR LAND SURVEYING IN THE STATE OF NEW MEXICO.

IN WITNESS WHEREOF, THIS CERTIFICATE IS EXECUTED AT CARLSBAD, NEW MEXICO, THIS 8 DAY OF DECEMBER 2017

MADRON SURVEYING, INC.
301 SOUTH CANAL
CARLSBAD, NEW MEXICO 88220
Phone (575) 234–3341

FILIMON F. JARAMILLO PLS. 12797

SHEET: 1–4

SURVEY NO. 5570B

FLOWLINE PLAT

THREE-4" POLY FLOWLINES AND ONE-6" GAS LIFT LINE BURIED IN THE SAME DITCH FROM SNAPPING 12 WELLPAD 2 (SNAPPING 12-1 FED 522H, 523H, & 533H) TO SNAPPING 12 CTB 2

DEVON ENERGY PRODUCTION COMPANY, L.P.

CENTERLINE SURVEY OF A PIPELINE CROSSING
SECTION 12, TOWNSHIP 26 SOUTH, RANGE 31 EAST, N.M.P.M.
EDDY COUNTY, STATE OF NEW MEXICO
DECEMBER 7, 2017

DESCRIPTION

A STRIP OF LAND 30 FEET WIDE CROSSING BUREAU OF LAND MANAGEMENT LAND IN SECTION 12, TOWNSHIP 26 SOUTH, RANGE 31 EAST, N.M.P.M., EDDY COUNTY, STATE OF NEW MEXICO AND BEING 15 FEET EACH SIDE OF THE FOLLOWING DESCRIBED CENTERLINE SURVEY:

BEGINNING AT A POINT WITHIN THE SE/4 NW/4 OF SAID SECTION 12, TOWNSHIP 26 SOUTH, RANGE 31 EAST, N.M.P.M., WHENCE THE WEST QUARTER CORNER OF SAID SECTION 12, TOWNSHIP 26 SOUTH, RANGE 31 EAST, N.M.P.M. BEARS S75°31'00"W, A DISTANCE OF 2052.69 FEET;
THENCE N00°18'14"W A DISTANCE OF 579.98 FEET TO AN ANGLE POINT OF THE LINE HEREIN DESCRIBED;
THENCE S89°42'42"W A DISTANCE OF 60.00 FEET THE TERMINUS OF THIS CENTERLINE SURVEY, WHENCE THE WEST QUARTER CORNER OF SAID SECTION 12, TOWNSHIP 26 SOUTH, RANGE 31 EAST, N.M.P.M. BEARS S60°24'13"W, A DISTANCE OF 2213.14 FEET;

SAID STRIP OF LAND BEING 639.98 FEET OR 38.79 RODS IN LENGTH, CONTAINING 0.441 ACRES MORE OR LESS AND BEING ALLOCATED BY FORTIES AS FOLLOWS:

SE/4 NW/4	639.98 L.F.	38.79 RODS	0.441 ACRES

GENERAL NOTES

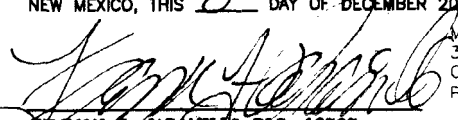
1.) THE INTENT OF THIS ROUTE SURVEY IS TO ACQUIRE AN EASEMENT.

2.) BASIS OF BEARING AND DISTANCE IS NMSP EAST (NAD83) MODIFIED TO SURFACE COORDINATES. NAD 83 (FEET) AND NAVD 88 (FEET) COORDINATE SYSTEMS USED IN THE SURVEY.

SURVEYOR CERTIFICATE

I, FILIMON F. JARAMILLO, A NEW MEXICO PROFESSIONAL SURVEYOR NO. 12797, HEREBY CERTIFY THAT I HAVE CONDUCTED AND AM RESPONSIBLE FOR THIS SURVEY, THAT THIS SURVEY IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF, AND THAT THIS SURVEY AND PLAT MEET THE MINIMUM STANDARDS FOR LAND SURVEYING IN THE STATE OF NEW MEXICO.

IN WITNESS WHEREOF, THIS CERTIFICATE IS EXECUTED AT CARLSBAD, NEW MEXICO, THIS 8 DAY OF DECEMBER 2017



FILIMON F. JARAMILLO PLS. 12797

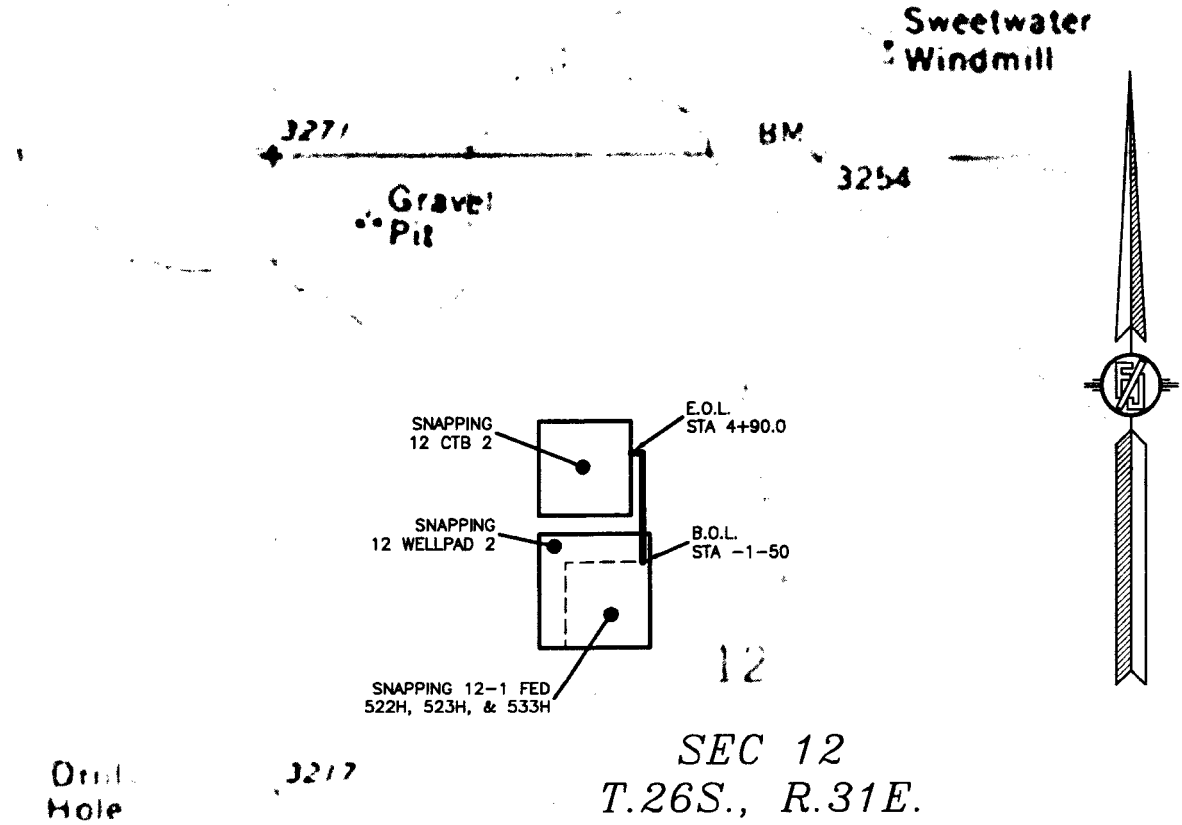
MADRON SURVEYING, INC.
301 SOUTH CANAL
CARLSBAD, NEW MEXICO 88220
Phone (575) 234-3341

FLOWLINE PLAT

THREE-4" POLY FLOWLINES AND ONE-6" GAS LIFT LINE BURIED IN THE SAME DITCH FROM SNAPPING 12 WELLPAD 2 (SNAPPING 12-1 FED 522H, 523H, & 533H) TO SNAPPING 12 CTB 2

DEVON ENERGY PRODUCTION COMPANY, L.P.

CENTERLINE SURVEY OF A PIPELINE CROSSING
SECTION 12, TOWNSHIP 26 SOUTH, RANGE 31 EAST, N.M.P.M.
EDDY COUNTY, STATE OF NEW MEXICO
DECEMBER 7, 2017



SEC 12
T.26S., R.31E.

SHEET: 3-4

SURVEY NO. 5570B

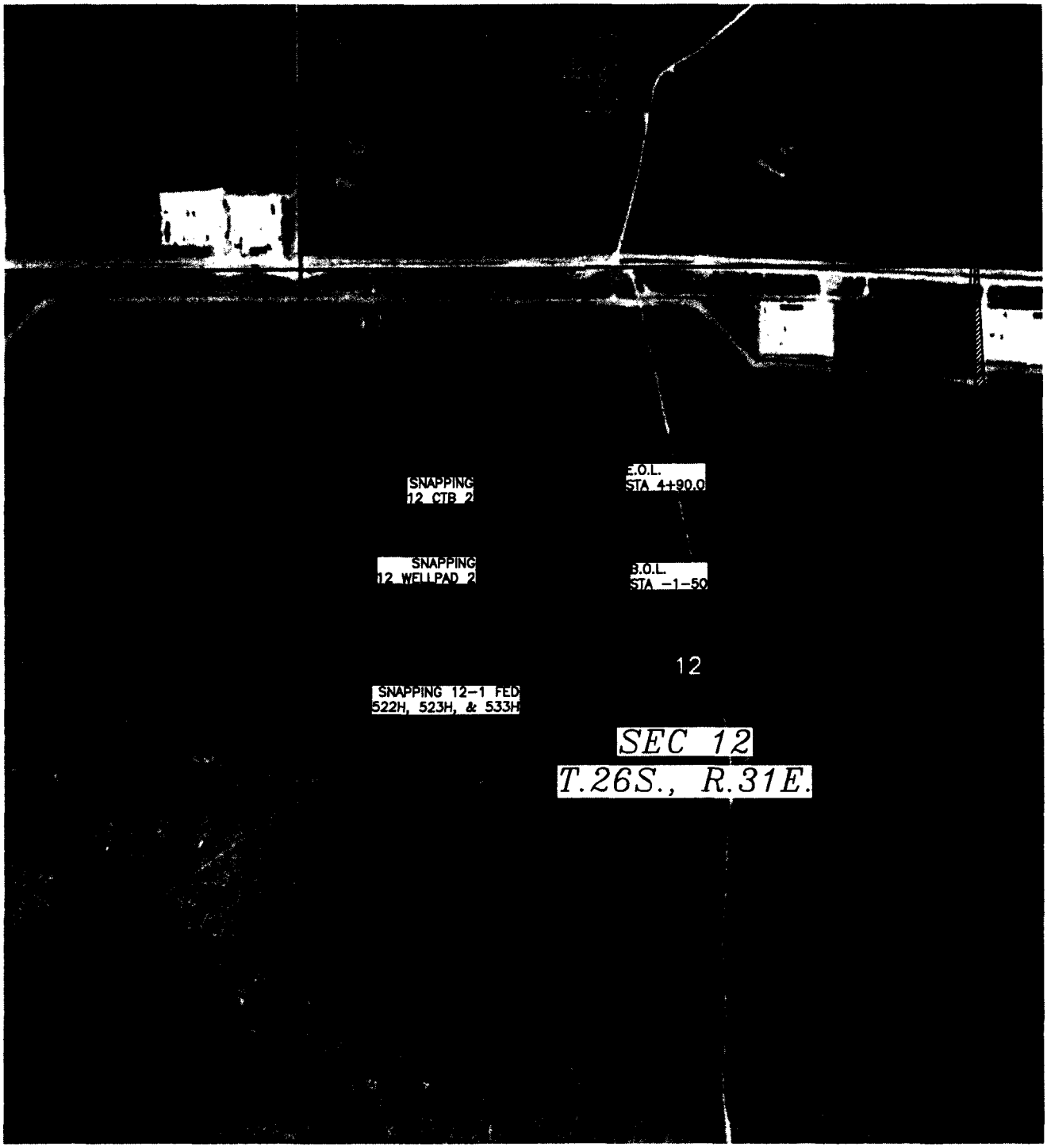
MADRON SURVEYING, INC. 301 SOUTH CANAL (575) 234-3341 CARLSBAD, NEW MEXICO

FLOWLINE PLAT

THREE-4" POLY FLOWLINES AND ONE-6" GAS LIFT LINE BURIED IN THE SAME DITCH FROM SNAPPING 12 WELLPAD 2 (SNAPPING 12-1 FED 522H, 523H, & 533H) TO SNAPPING 12 CTB 2

DEVON ENERGY PRODUCTION COMPANY, L.P.

CENTERLINE SURVEY OF A PIPELINE CROSSING
SECTION 12, TOWNSHIP 26 SOUTH, RANGE 31 EAST, N.M.P.M.
EDDY COUNTY, STATE OF NEW MEXICO
DECEMBER 7, 2017



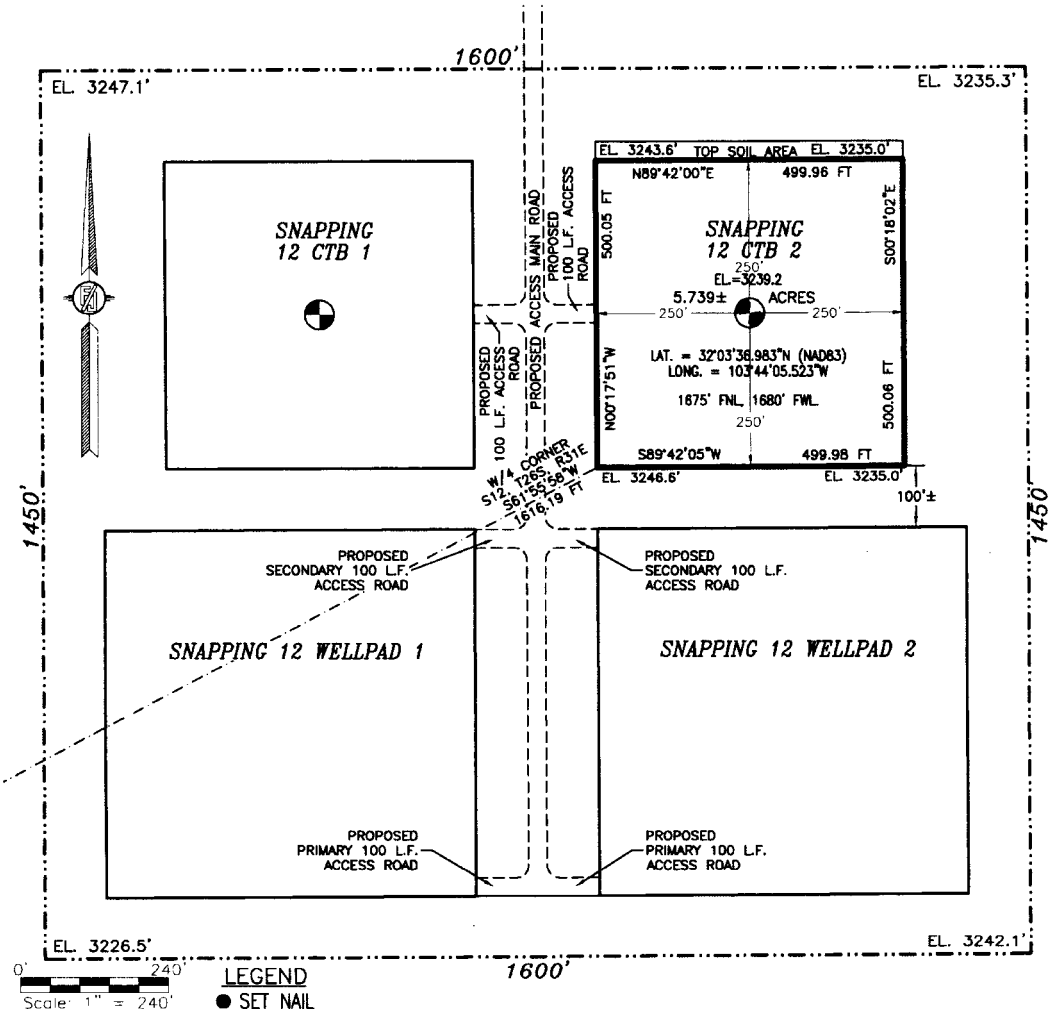
SHEET: 4-4 *SURVEY NO. 5570B*

MADRON SURVEYING, INC. 301 SOUTH CANAL (575) 234-3341 *CARLSBAD, NEW MEXICO*

SNAPPING 12 CTB 2

DEVON ENERGY PRODUCTION COMPANY, L.P.
IN THE N/2 SE/4 NW/4 OF
SECTION 12, TOWNSHIP 26 SOUTH, RANGE 31 EAST, N.M.P.M.
EDDY COUNTY, STATE OF NEW MEXICO

DECEMBER 8, 2017



DESCRIPTION

A CERTAIN PIECE OR PARCEL OF LAND AND REAL ESTATE LYING IN BUREAU OF LAND MANAGEMENT LAND IN THE N/2 SE/4 NW/4 OF SECTION 12, TOWNSHIP 26 SOUTH, RANGE 31 EAST, N.M.P.M., EDDY COUNTY, NEW MEXICO.

BEGINNING AT THE SOUTHWEST CORNER OF THE PARCEL, WHENCE THE WEST QUARTER CORNER OF SECTION 12, TOWNSHIP 26 SOUTH, RANGE 31 EAST, N.M.P.M. BEARS S61°55'58"E, A DISTANCE OF 1616.19 FEET;
THENCE N00°17'51"W A DISTANCE OF 500.05 FEET TO THE NORTHWEST CORNER OF THE PARCEL;
THENCE N89°42'00"E A DISTANCE OF 499.96 FEET TO THE NORTHEAST CORNER OF THE PARCEL;
THENCE S00°18'02"E A DISTANCE OF 500.06 FEET TO THE SOUTHEAST CORNER OF THE PARCEL;
THENCE S89°42'05"W A DISTANCE OF 499.98 FEET TO THE SOUTHWEST CORNER OF THE PARCEL, THE POINT OF BEGINNING;
CONTAINING 5.739 ACRES MORE OR LESS.

GENERAL NOTES

1.) THE INTENT OF THIS SURVEY IS TO ACQUIRE A BUSINESS LEASE FOR THE PURPOSE OF BUILDING A CENTRAL TANK BATTERY

2.) BASIS OF BEARING IS NEW MEXICO STATE PLANE EAST ZONE MODIFIED TO THE SURFACE (NAD83), COORDINATES ARE NAD 83, ELEVATIONS ARE NAVD 88

DRIVING DIRECTIONS: FROM STATE ROAD 128 AND CR. 1 (ORLA ROAD) GO SOUTH ON CR. 1 10.4 MILES, TURN RIGHT ON CALICHE PIPELINE ROAD (ROSS ROAD) AND GO WEST 3.5 MILES TO A PROPOSED ROAD SURVEY AND FOLLOW FLAGS SOUTH 1644' SOUTH TO A PROPOSED ROAD "T" AND GO EAST 100' TO THE WEST EDGE OF PAD FOR THIS LOCATION.

SURVEYOR CERTIFICATE

I, FILIMON F. JARAMILLO, A NEW MEXICO PROFESSIONAL SURVEYOR NO. 12797, HEREBY CERTIFY THAT I HAVE CONDUCTED AND AM RESPONSIBLE FOR THIS SURVEY, THAT THIS SURVEY IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF, AND THAT THIS SURVEY AND PLAT MEET THE MINIMUM STANDARDS FOR LAND SURVEYING IN THE STATE OF NEW MEXICO.

IN WITNESS WHEREOF, THIS CERTIFICATE IS EXECUTED AT CARLSBAD, NEW MEXICO, THIS 8 DAY OF DECEMBER 2017

MADRON SURVEYING, INC.
301 SOUTH CANAL
CARLSBAD, NEW MEXICO 88220
Phone (575) 234-3341

FILIMON F. JARAMILLO PLS. 12797

301 SOUTH CANAL
(575) 234-3341

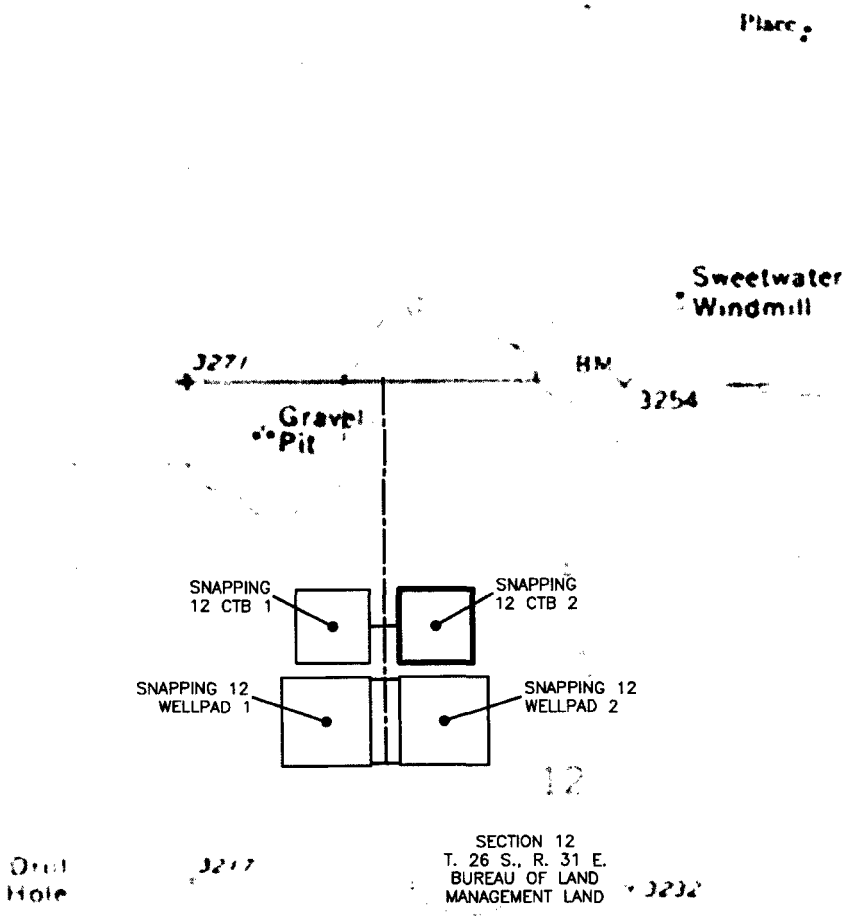
SNAPPING 12 CTB 2

DEVON ENERGY PRODUCTION COMPANY, L.P.

IN THE N/2 SE/4 NW/4 OF
SECTION 12, TOWNSHIP 26 SOUTH, RANGE 31 EAST, N.M.P.M.
EDDY COUNTY, STATE OF NEW MEXICO

DECEMBER 8, 2017

QUAD MAP



SHEET: 2-3

SURVEY NO. 5380C

MADRON SURVEYING, INC. 301 SOUTH CANAL (575) 234-3341 CARLSBAD, NEW MEXICO

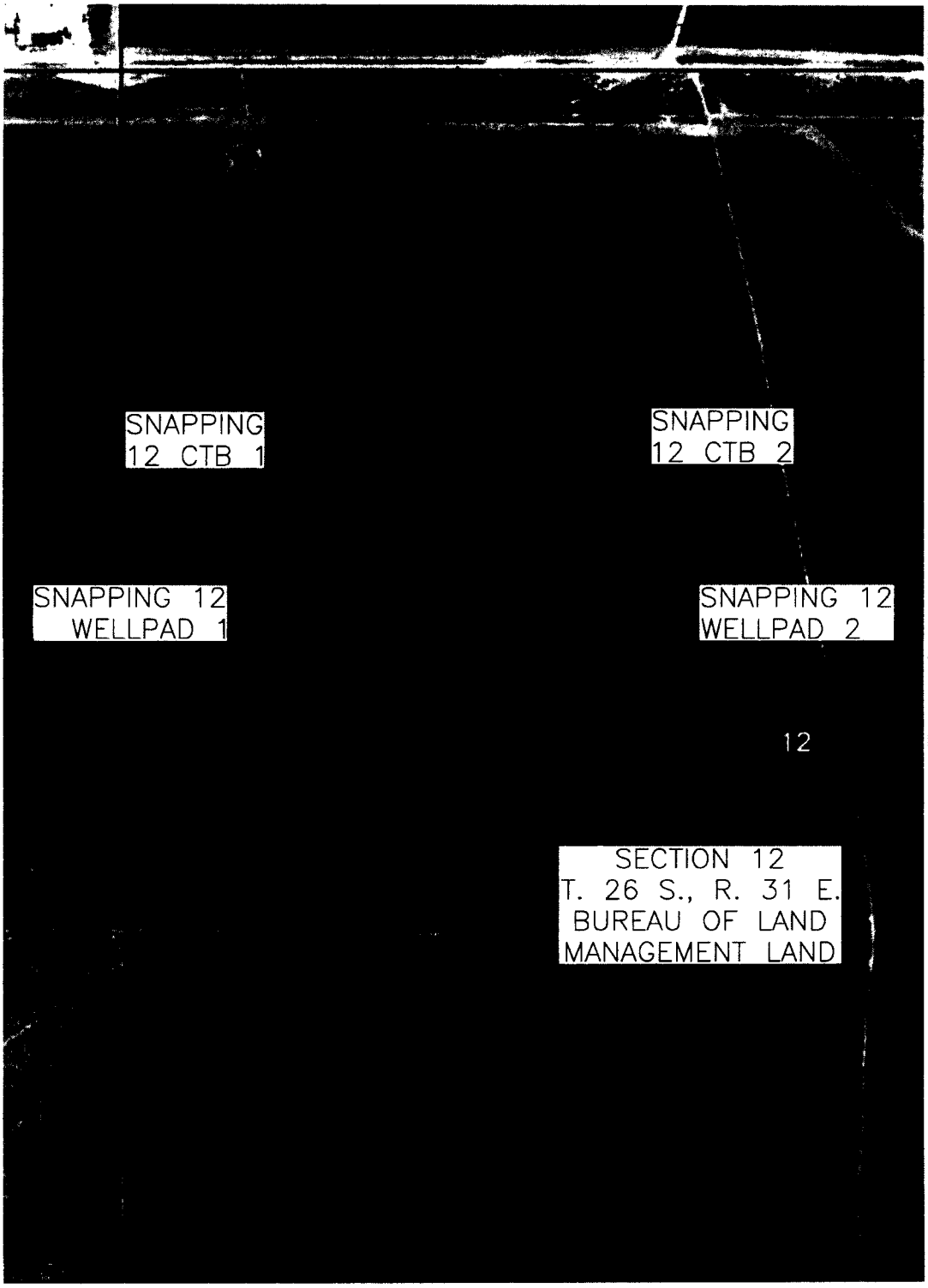
SNAPPING 12 CTB 2

DEVON ENERGY PRODUCTION COMPANY, L.P.

IN THE N/2 SE/4 NW/4 OF
SECTION 12, TOWNSHIP 26 SOUTH, RANGE 31 EAST, N.M.P.M.
EDDY COUNTY, STATE OF NEW MEXICO

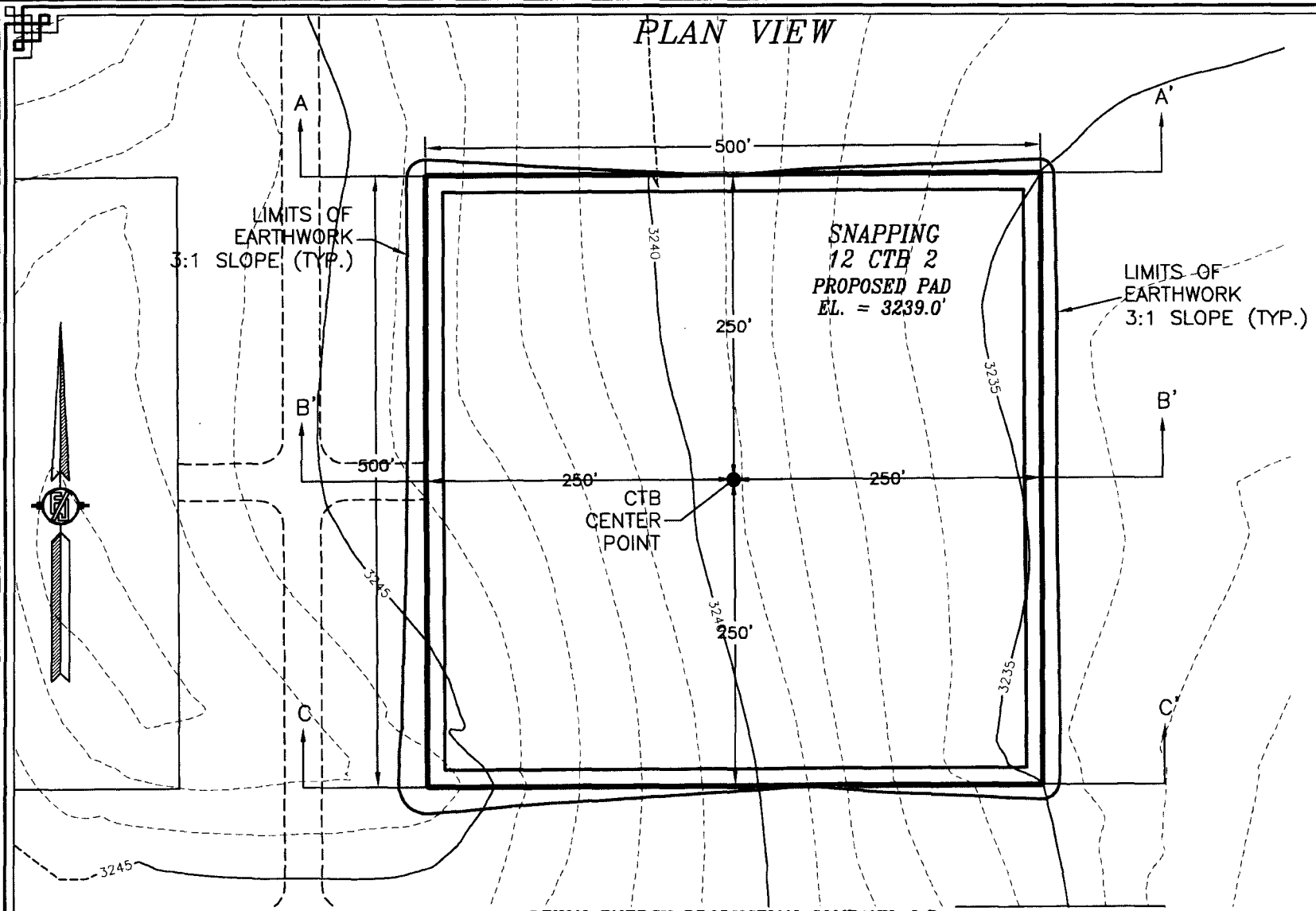
DECEMBER 8, 2017

AERIAL PHOTO



MADRON SURVEYING, INC. 301 SOUTH CANAL (575) 234-3341 CARLSBAD, NEW MEXICO

PLAN VIEW



012 60 120 240

SCALE 1" = 120'

DEVON ENERGY PRODUCTION COMPANY, L.P.
PAD ELEVATIONS AND CROSS SECTIONS
FOR SNAPPING 12 CTB 2
SECTION 12, TOWNSHIP 26 SOUTH,
RANGE 31 EAST, N.M.P.M.
EDDY COUNTY, STATE OF NEW MEXICO

CUT	FILL	NET
14155 CU. YD	11584 CU. YD	2571 CU. YD (CUT)

EARTHWORK QUANTITIES ARE ESTIMATED

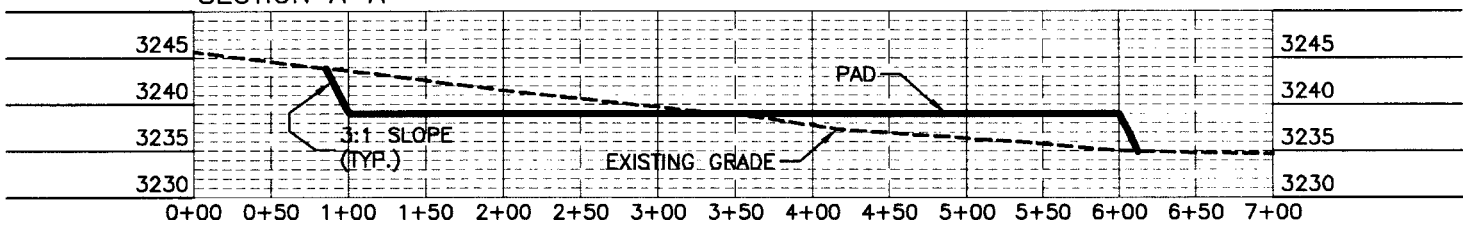
DECEMBER 8, 2017

MADRON SURVEYING, INC. 301 SOUTH CANAL (575) 234-3341 *CARLSBAD, NEW MEXICO*

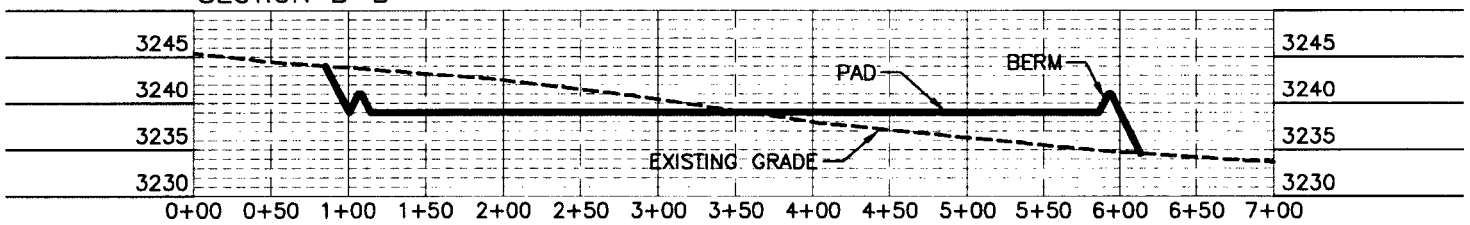
SHEET 1-2
SURVEY NO. 5380C

CROSS-SECTIONS

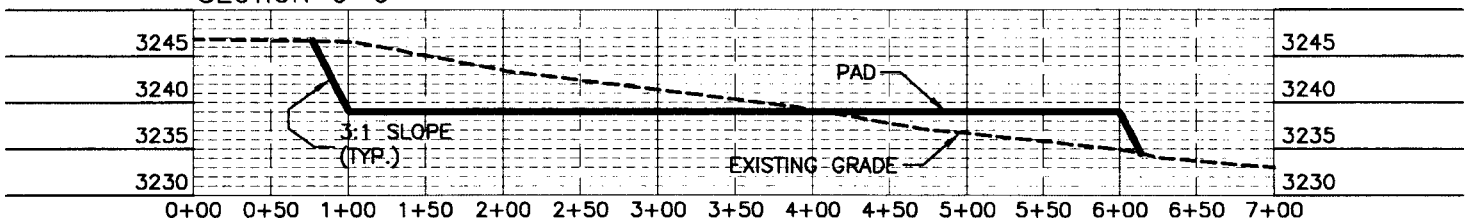
SECTION A-A'



SECTION B-B'



SECTION C-C'



012 60 120 240

SCALE 1" = 120' - 1" = 20' VER

DEVON ENERGY PRODUCTION COMPANY, L.P.
PAD ELEVATIONS AND CROSS SECTIONS
FOR SNAPPING 12 CTB 2
SECTION 12, TOWNSHIP 26 SOUTH,
RANGE 31 EAST, N.M.P.M.
EDDY COUNTY, STATE OF NEW MEXICO

CUT	FILL	NET
14155 CU. YD	11584 CU. YD	2571 CU. YD (CUT)

EARTHWORK QUANTITIES ARE ESTIMATED

DECEMBER 8, 2017

MADRON SURVEYING, INC. 301 SOUTH CANAL (575) 234-3341 *CARLSBAD, NEW MEXICO*

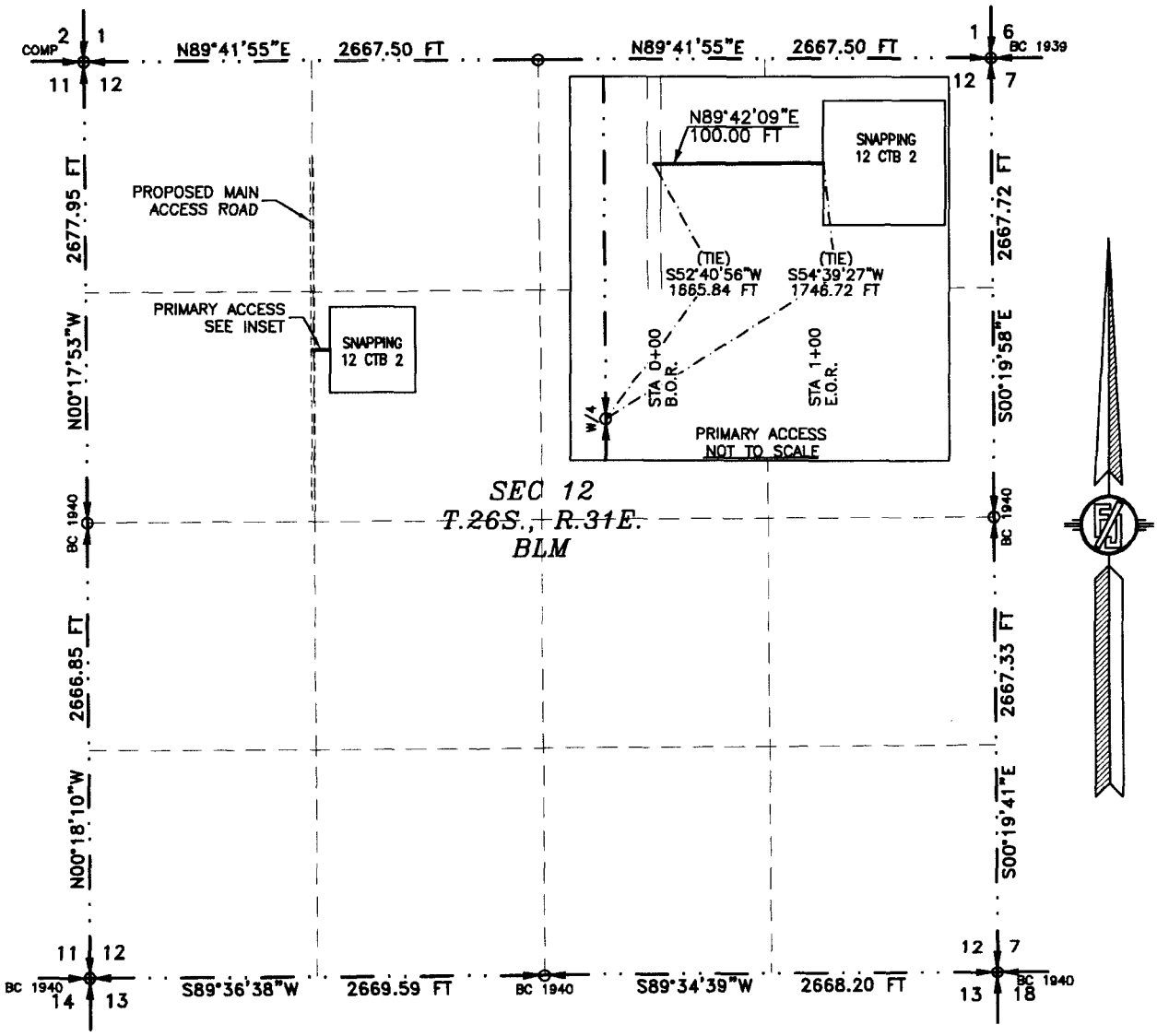
SHEET 2-2
SURVEY NO. 5380C

ACCESS ROAD PLAT

PRIMARY ACCESS ROAD FOR SNAPPING 12 CTB 2

DEVON ENERGY PRODUCTION COMPANY, L.P.

CENTERLINE SURVEY OF AN ACCESS ROAD CROSSING
SECTION 12, TOWNSHIP 26 SOUTH, RANGE 31 EAST, N.M.P.M.
EDDY COUNTY, STATE OF NEW MEXICO
DECEMBER 8, 2017



SEE NEXT SHEET (2-2) FOR DESCRIPTION

1000 0 1000

Scale: 1" = 1000'

GENERAL NOTES

1.) THE INTENT OF THIS ROUTE SURVEY IS TO ACQUIRE AN EASEMENT.

2.) BASIS OF BEARING AND DISTANCE IS NMSP EAST (NAD83) MODIFIED TO SURFACE COORDINATES. NAD 83 (FEET) AND NAVD 88 (FEET) COORDINATE SYSTEMS USED IN THE SURVEY.

SURVEYOR CERTIFICATE

I, FILIMON F. JARAMILLO, A NEW MEXICO PROFESSIONAL SURVEYOR NO. 12797, HEREBY CERTIFY THAT I HAVE CONDUCTED AND AM RESPONSIBLE FOR THIS SURVEY, THAT THIS SURVEY IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF, AND THAT THIS SURVEY AND PLAT MEET THE MINIMUM STANDARDS FOR LAND SURVEYING IN THE STATE OF NEW MEXICO.

IN WITNESS WHEREOF, THIS CERTIFICATE IS EXECUTED AT CARLSBAD, NEW MEXICO, THIS 8 DAY OF DECEMBER 2017

MADRON SURVEYING, INC.
301 SOUTH CANAL
CARLSBAD, NEW MEXICO 88220
Phone (575) 234-3341

FILIMON F. JARAMILLO PLS. 12797

SHEET: 1-2

SURVEY NO. 5380C

ACCESS ROAD PLAT

PRIMARY ACCESS ROAD FOR SNAPPING 12 CTB 2

DEVON ENERGY PRODUCTION COMPANY, L.P.

CENTERLINE SURVEY OF AN ACCESS ROAD CROSSING
SECTION 12, TOWNSHIP 26 SOUTH, RANGE 31 EAST, N.M.P.M.
EDDY COUNTY, STATE OF NEW MEXICO
DECEMBER 8, 2017

DESCRIPTION

A STRIP OF LAND 30 FEET WIDE CROSSING BUREAU OF LAND MANAGEMENT LAND IN SECTION 12, TOWNSHIP 26 SOUTH, RANGE 31 EAST, N.M.P.M., EDDY COUNTY, STATE OF NEW MEXICO AND BEING 15 FEET EACH SIDE OF THE FOLLOWING DESCRIBED CENTERLINE SURVEY:

PRIMARY ACCESS ROAD
BEGINNING AT A POINT WITHIN THE SW/4 NW/4 OF SAID SECTION 12, TOWNSHIP 26 SOUTH, RANGE 31 EAST, N.M.P.M., WHENCE THE WEST QUARTER CORNER OF SAID SECTION 12, TOWNSHIP 26 SOUTH, RANGE 31 EAST, N.M.P.M. BEARS S52°40'56"W, A DISTANCE OF 1665.84 FEET;
THENCE N89°42'09"E A DISTANCE OF 100.00 FEET THE TERMINUS OF THIS CENTERLINE SURVEY, WHENCE THE WEST QUARTER CORNER OF SAID SECTION 12, TOWNSHIP 26 SOUTH, RANGE 31 EAST, N.M.P.M. BEARS S54°39'27"W, A DISTANCE OF 1746.72 FEET;

SAID STRIP OF LAND BEING 100.00 FEET OR 6.06 RODS IN LENGTH, CONTAINING 0.069 ACRES MORE OR LESS AND BEING ALLOCATED BY FORTIES AS FOLLOWS:

SW/4 NW/4	4.09 L.F.	0.25 RODS	0.003 ACRES
SE/4 NW/4	95.91 L.F.	5.81 RODS	0.066 ACRES

GENERAL NOTES

1.) THE INTENT OF THIS ROUTE SURVEY IS TO ACQUIRE AN EASEMENT.

2.) BASIS OF BEARING AND DISTANCE IS NMSP EAST (NAD83) MODIFIED TO SURFACE COORDINATES. NAD 83 (FEET) AND NAVD 88 (FEET) COORDINATE SYSTEMS USED IN THE SURVEY.

SURVEYOR CERTIFICATE

I, FILIMON F. JARAMILLO, A NEW MEXICO PROFESSIONAL SURVEYOR NO. 12797, HEREBY CERTIFY THAT I HAVE CONDUCTED AND AM RESPONSIBLE FOR THIS SURVEY, THAT THIS SURVEY IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF, AND THAT THIS SURVEY AND PLAT MEET THE MINIMUM STANDARDS FOR LAND SURVEYING IN THE STATE OF NEW MEXICO.

IN WITNESS WHEREOF, THIS CERTIFICATE IS EXECUTED AT CARLSBAD, NEW MEXICO, THIS 8 DAY OF DECEMBER 2017

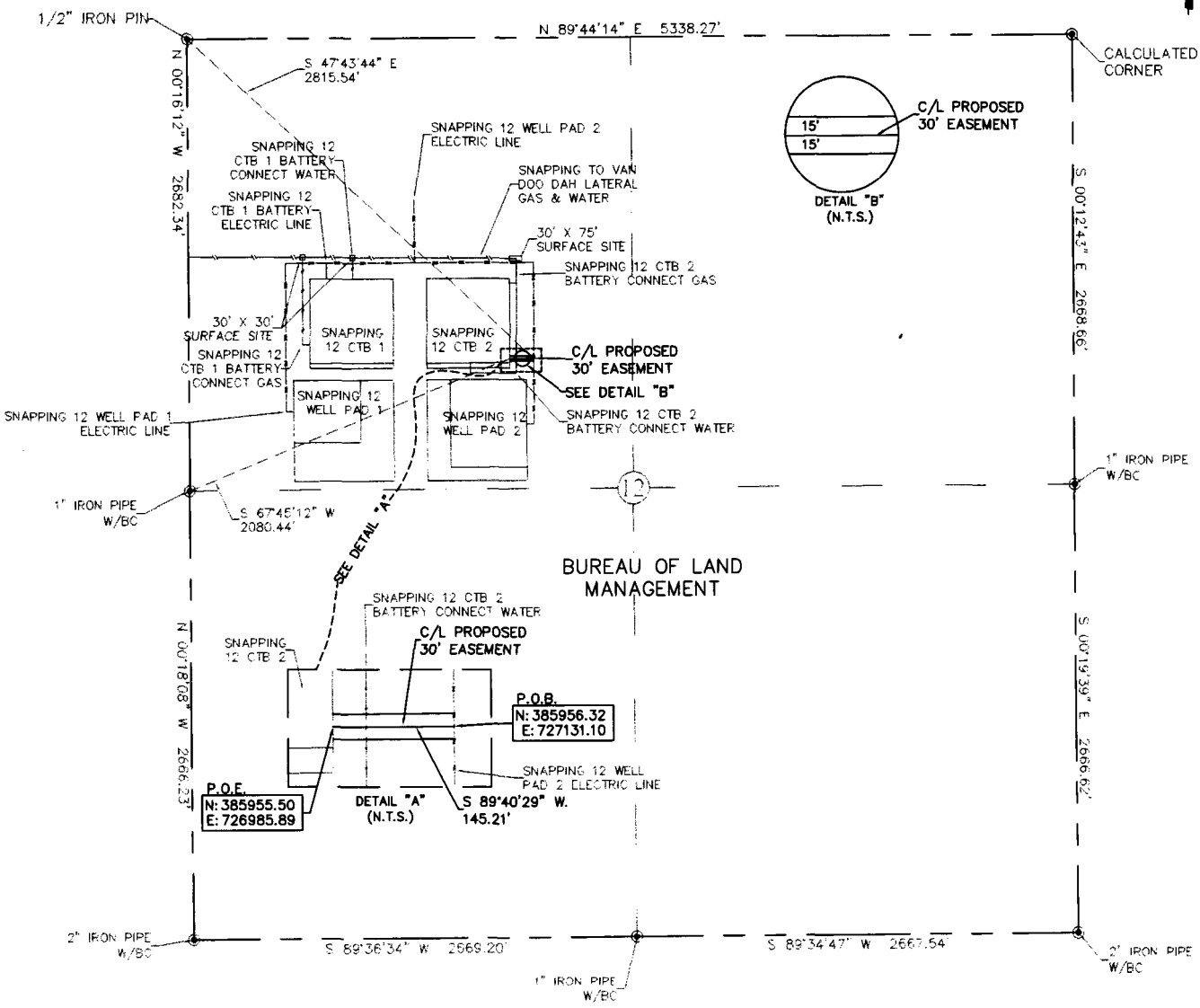
MADRON SURVEYING, INC.
301 SOUTH CANAL
CARLSBAD, NEW MEXICO 88220
Phone (575) 234-3341

FILIMON F. JARAMILLO PLS. 12797

SHEET: 2-2

SURVEY NO. 5380C

EXHIBIT "A"
PAGE 1 of 4
ELECTRIC LINE PLAT
SECTION 12, T26S–R31E, N.M.P.M.
EDDY COUNTY, NEW MEXICO



30' EASEMENT AREA = 0.100 ACRE(S)
145.21 FEET OR 8.80 RODS

0+00.0 P.O.B./SNAPPING 12 WELL PAD 2 ELECTRIC LINE
1+05.8 SNAPPING 12 CTB 2 BATTERY CONNECT WATER
1+45.2 P.O.E./SNAPPING 12 CTB 2

SEE THE ATTACHED LEGAL DESCRIPTION

Note: All bearings recited herein are based on the New Mexico State Plane Coordinate System, NAD 83, New Mexico East Zone 3001, US Survey Feet, all distances are grid.

I, B.L. Laman, New Mexico PLS No. 22404, hereby certify this survey to reflect an actual survey made on the ground under my supervision, this survey meets the minimum standards for surveying in New Mexico.

LAMAN — NEW MEXICO — 22404 — PROFESSIONAL SURVEYOR

B.L. Laman PLS #22404
Date Signed: 12-19-2017
P.O. Box 548, Dry Creek, La.
(903) 388-3045 70637
Employee of Horizonrow, LLC

0 1000 2000

HORIZON ROW LLC	DEVON ENERGY PRODUCTION COMPANY, L.P.	LINE NUMBER: EL8078
Drawn for: devon	SNAPPING 12 CTB 2 BATTERY ELECTRIC LINE	WBS NUMBER: CC-123117.19
		SCALE: 1" = 1000'
Drawn by: CHRIS MAAS	Date: 09/20/2017	PROPOSED 30' EASEMENT ON THE PROPERTY OF BUREAU OF LAND MANAGEMENT SECTION 12, T26S–R31E, N.M.P.M.	REVISIONS: 12-18-17 CMAAS
			SHEET: 1 OF 4

SECTION 12, T26S-R31E, N.M.P.M.,
EDDY COUNTY, NEW MEXICO

ELECTRIC LINE PLAT

LEGAL DESCRIPTION

FOR

DEVON ENERGY PRODUCTION COMPANY, L.P.

BUREAU OF LAND MANAGEMENT

30' EASEMENT DESCRIPTION:

BEING an easement thirty (30) feet in width lying fifteen (15) feet on the right side and fifteen (15) feet on the left side of the survey centerline described below, being out of the northwest quarter (NW ¼) of Section 12, Township 26 South, Range 31 East, N.M.P.M., Eddy County, New Mexico, and being out of a parcel of land owned by the Bureau of Land Management. Said centerline of easement being more particularly described as follows:

Commencing from a 1/2" iron pin found for the northwest corner of Section 12, T26S-R31E, N.M.P.M., Eddy County, New Mexico;

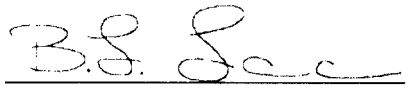
Thence S 47°43'44" E a distance of 2815.54' to the **Point of Beginning** of this easement having coordinates of Northing=385956.32, Easting=727131.10 feet and continuing the following course;

Thence S 89°40'29" W a distance of 145.21' to the **Point of Ending** having coordinates of Northing= 385955.50, Easting= 726985.89 feet, from said point a 1" iron pipe w/BC for the west quarter corner of Section 12, T26S-R31E, bears S 67°45'12" W a distance of 2080.44', covering **145.21' or 8.80' rods** and having an area of **0.100 acre**.

NOTES:

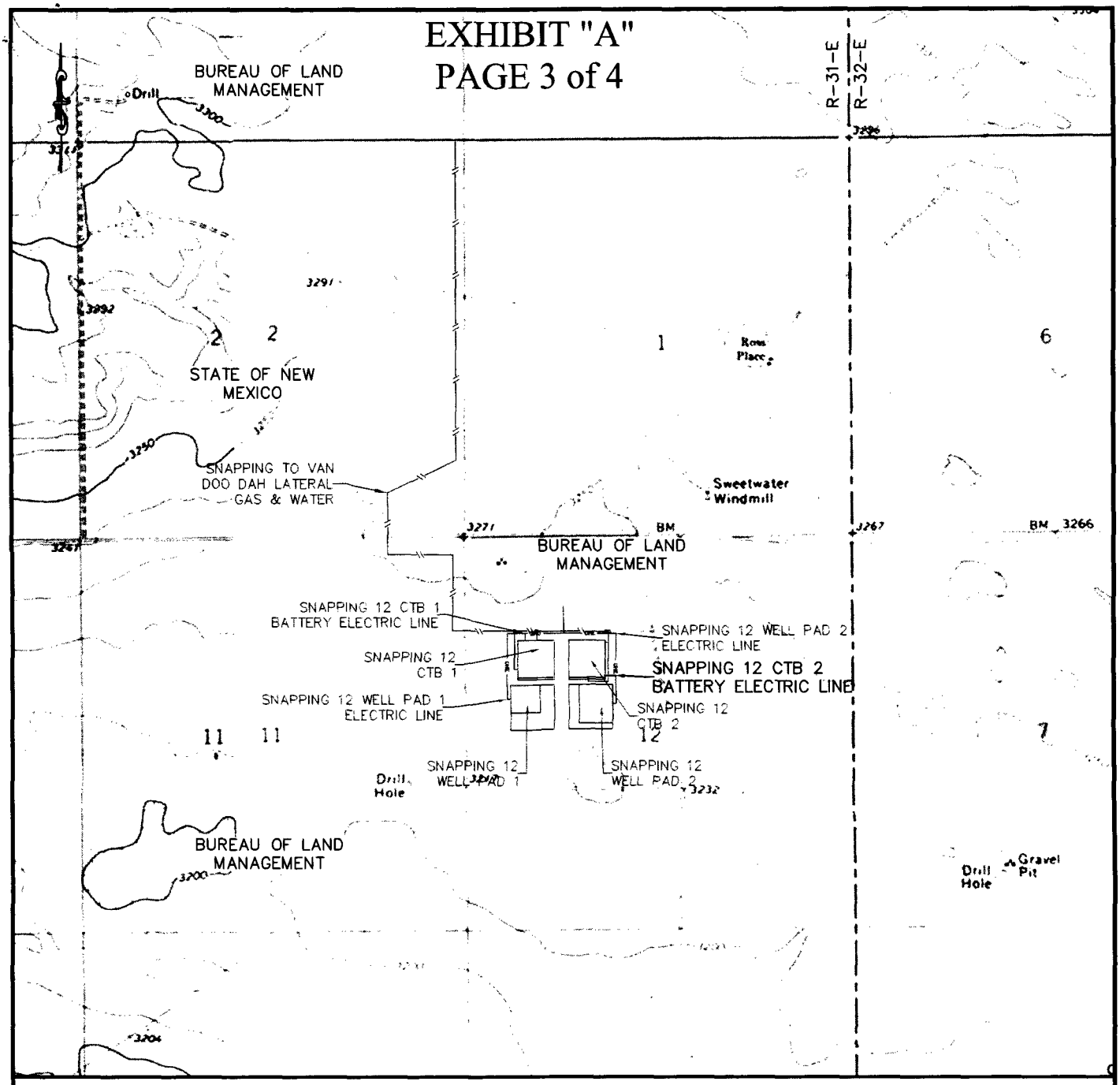
Bearings, distances and coordinates shown herein are based on New Mexico State Plane Coordinate System, NAD 83, East Zone 3001, US Survey Feet, all distances are grid.

I, B.L. Laman, New Mexico PLS No. 22404, hereby certify this survey to reflect an actual survey made on the ground under my supervision. This survey meets the minimum standards for surveying in New Mexico.



B.L. Laman PLS# 22404
Date Signed: 12-19-2017
Horizon Row, LLC
P.O. Box 548, Dry Creek, La.
(903) 388-3045 70637
Employee of Horizon Row, LLC

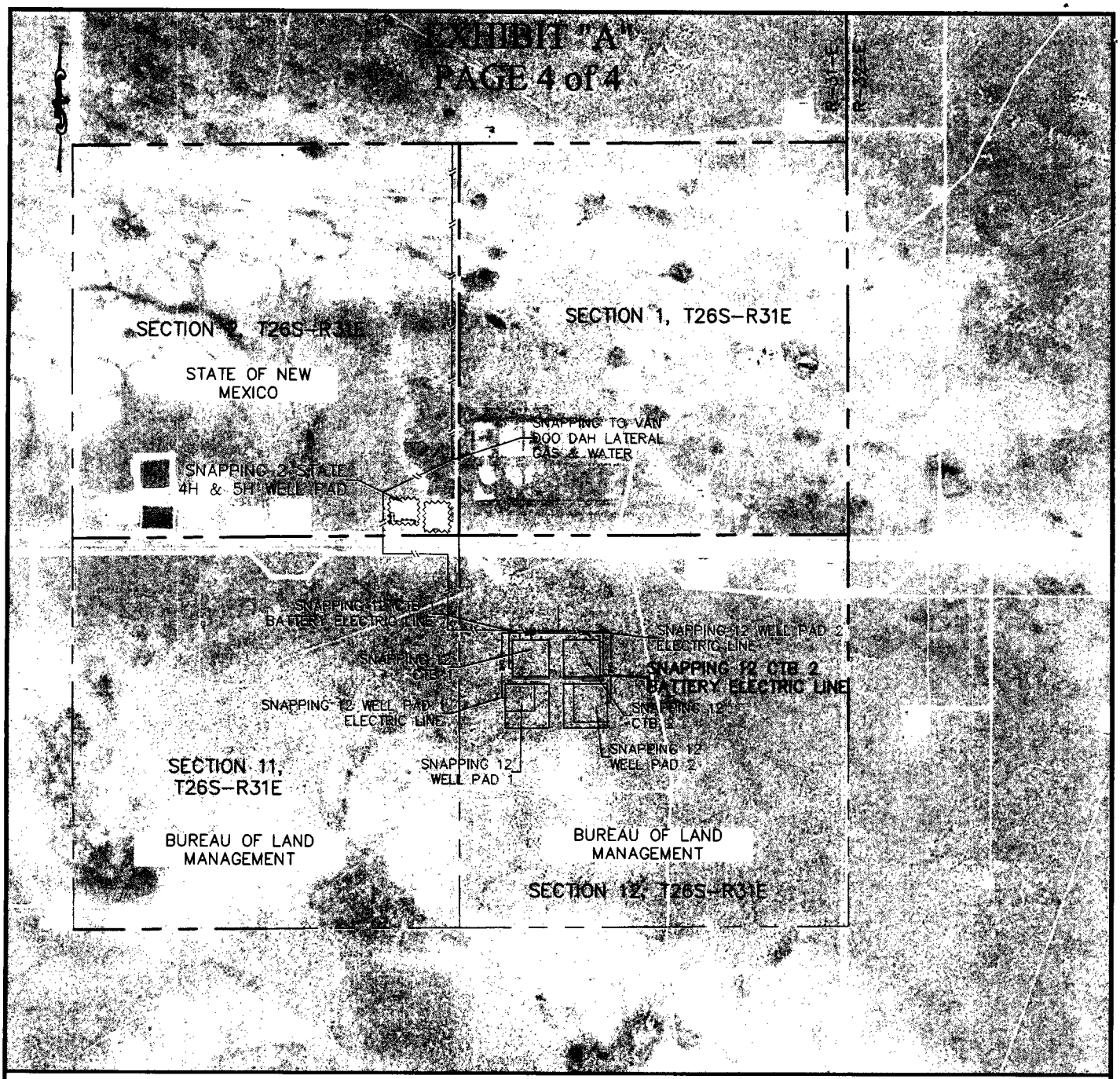
EXHIBIT "A"
PAGE 3 of 4



QUAD MAP

SECTION 12, T26S-R31E, N.M.P.M.
EDDY COUNTY, NEW MEXICO

HORIZON ROW LLC	Drawn for: devon	LINE NUMBER: EL8078	
DEVON ENERGY PRODUCTION CO., L.P.		WBS NUMBER: CC-123117.19	
PROPOSED 30' EASEMENT		SCALE: 1" = 2000'	
Drawn by: CHRIS MAAS / Date: 09/20/2017		REVISIONS: 12-18-17 CMAAS	
		SHEET: 3 OF 4	

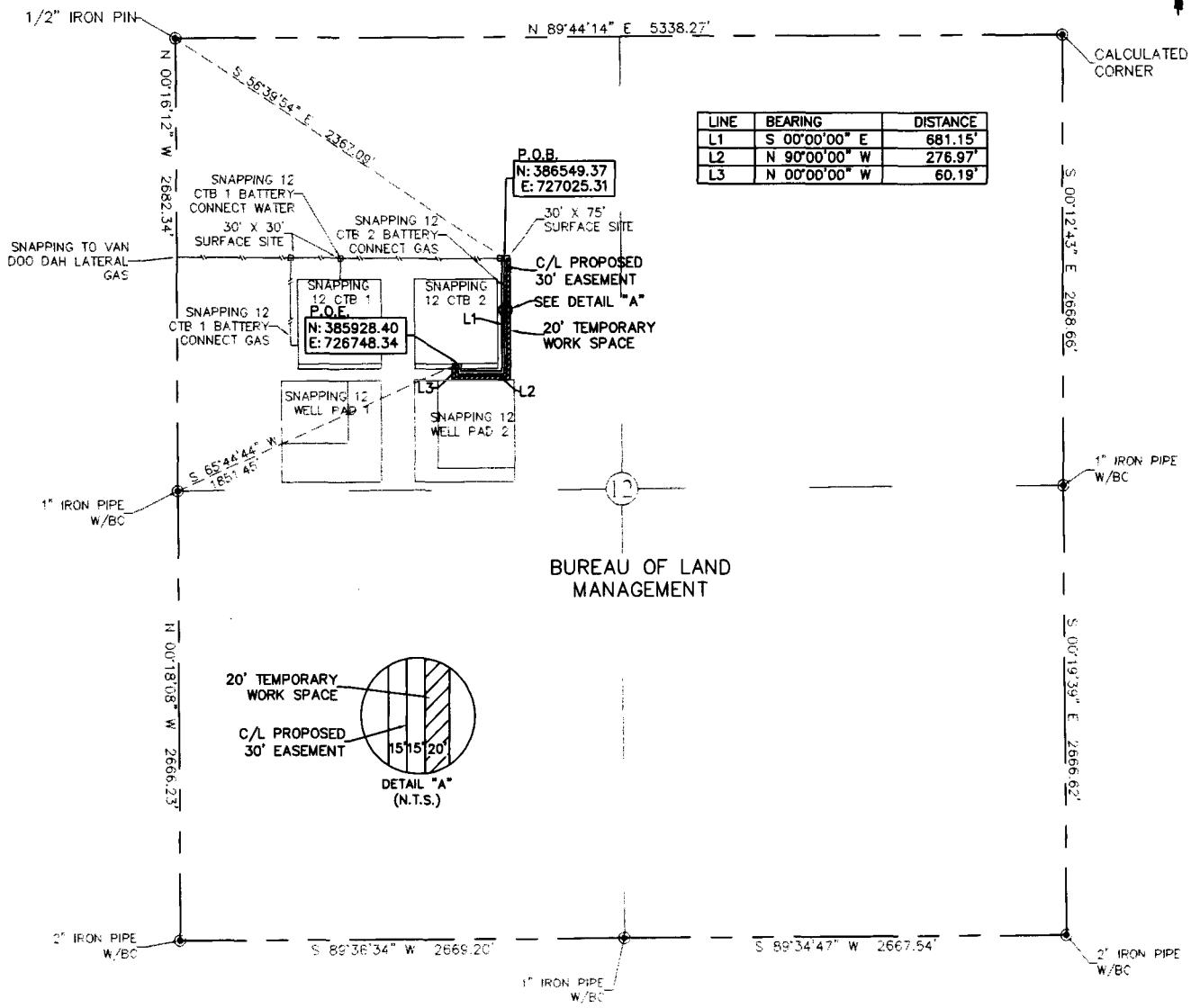


AERIAL MAP

SECTION 12, T26S-R31E, N.M.P.M.
EDDY COUNTY, NEW MEXICO

HORIZON ROW LLC	Drawn for: devon		LINE NUMBER: EL8078
DEVON ENERGY PRODUCTION CO., L.P.			WBS NUMBER: CC-123117.19
PROPOSED 30' EASEMENT			SCALE: 1" = 2000'
Drawn by: CHRIS MAAS	Date: 09/20/2017		REVISIONS: 12-18-17 CMAAS
			SHEET: 4 OF 4

EXHIBIT "A"
PAGE 1 of 4
SECTION 12, T26S–R31E, N.M.P.M.
EDDY COUNTY, NEW MEXICO



LINE	BEARING	DISTANCE
L1	S 00°00'00" E	681.15'
L2	N 90°00'00" W	276.97'
L3	N 00°00'00" W	60.19'

20' TEMPORARY WORK SPACE EASEMENT AREA = 0.513 ACRE(S)
30' EASEMENT AREA = 0.701 ACRE(S)
1018.31 FEET OR 61.72 RODS

0+00.0 P.O.B./SNAPPING TO VAN DOO DAH LATERAL GAS
0+15.0 EXIT 30' X 75' SURFACE SITE
1+45.7 P.O.I./SNAPPING 12 CTB 2 BATTERY CONNECT GAS
10+18.3 P.O.E./ENTER SNAPPING 12 CTB 2

SEE THE ATTACHED LEGAL DESCRIPTION

Note: All bearings recited herein are based on the New Mexico State Plane Coordinate System, NAD 83, New Mexico East Zone 3001, US Survey Feet, all distances are grid.

I, B.L. Laman, New Mexico PLS No. 22404, hereby certify this survey to reflect an actual survey made on the ground under my supervision, this survey meets the minimum standards of surveying in New Mexico.

B.L. LAMAN NEW MEXICO 22404 PROFESSIONAL SURVEYOR

B.L. Laman PLS #22404
Date Signed: 12-19-2017
P.O. Box 548, Dry Creek, La.
(903) 388-3045 70637
Employee of Horizonrow, LLC

0 1000 2000

HORIZON ROW LLC Drawn for: devon	DEVON ENERGY PRODUCTION COMPANY, L.P. SNAPPING 12 CTB 2 BATTERY CONNECT WATER	LINE NUMBER: 7620010Z WBS NUMBER: CC-126150.AL SCALE: 1" = 1000'
Drawn by: CHRIS MAAS Date: 09/19/2017	PROPOSED 30' EASEMENT ON THE PROPERTY OF BUREAU OF LAND MANAGEMENT SECTION 12, T26S–R31E, N.M.P.M.	REVISIONS: 12-18-17 CMAAS SHEET: 1 OF 4

SECTION 12, T26S-R31E, N.M.P.M.,
EDDY COUNTY, NEW MEXICO

LEGAL DESCRIPTION

FOR

DEVON ENERGY PRODUCTION COMPANY, L.P.

BUREAU OF LAND MANAGEMENT

30' EASEMENT DESCRIPTION:

BEING an easement thirty (30) feet in width lying fifteen (15) feet on the right side and fifteen (15) feet on the left side of the survey centerline described below, being out of the northwest quarter (NW ¼) of Section 12, Township 26 South, Range 31 East, N.M.P.M., Eddy County, New Mexico, and being out of a parcel of land owned by the Bureau of Land Management. Said centerline of easement being more particularly described as follows:

Commencing from a 1/2" iron pin found for the northwest corner of Section 12, T26S-R31E, N.M.P.M., Eddy County, New Mexico;

Thence S 56°39'54" E a distance of 2367.09' to the **Point of Beginning** of this easement having coordinates of Northing=386549.37, Easting=727025.31 feet and continuing the following courses;

Thence S 00°00'00" E a distance of 681.15' to an angle point;

Thence N 90°00'00" W a distance of 276.97' to an angle point;

Thence N 00°00'00" W a distance of 60.19' to the **Point of Ending** having coordinates of Northing= 385928.40, Easting= 726748.34 feet, from said point a 1" iron pipe w/BC for the west quarter corner of Section 12, T26S-R31E, bears S 65°44'44" W a distance of 1851.45', covering **1018.31' or 61.72' rods** and having an area of **0.701 acre**.

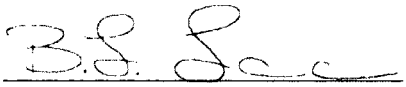
20' TEMPORARY WORK SPACE DESCRIPTION:

Being a temporary work space twenty (20) feet in width lying on the left side and adjoining the left side of the above described thirty (30) feet easement, having a total area of **0.513 acres.**

NOTES:

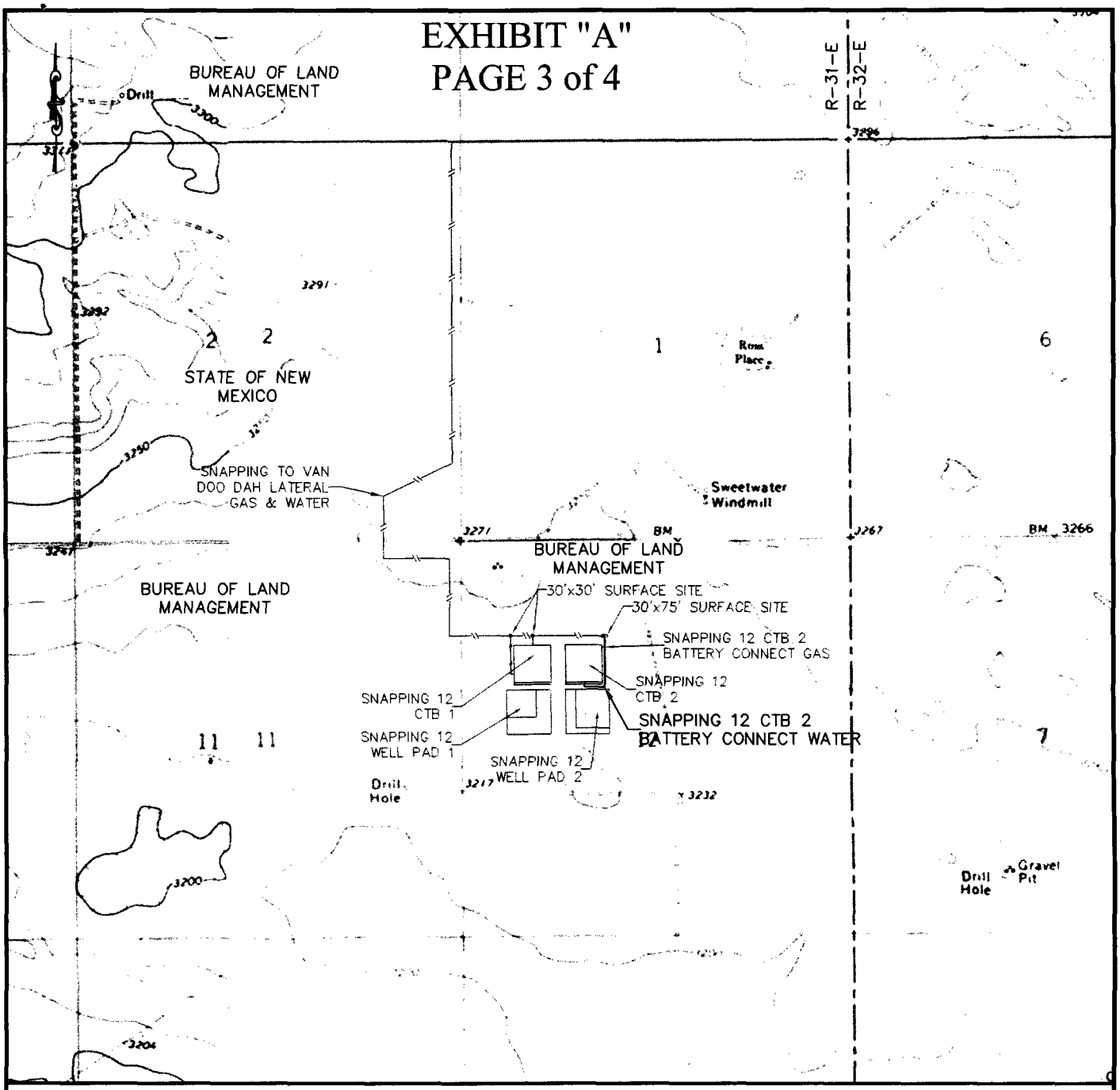
Bearings, distances and coordinates shown herein are based on New Mexico State Plane Coordinate System, NAD 83, East Zone 3001, US Survey Feet, all distances are grid.

I, B.L. Laman, New Mexico PLS No. 22404, hereby certify this survey to reflect an actual survey made on the ground under my supervision. This survey meets the minimum standards for surveying in New Mexico.



B.L. Laman PLS# 22404
Date Signed: 12-19-2017
Horizon Row, LLC
P.O. Box 548, Dry Creek, La.
(903) 388-3045 70637
Employee of Horizon Row, LLC

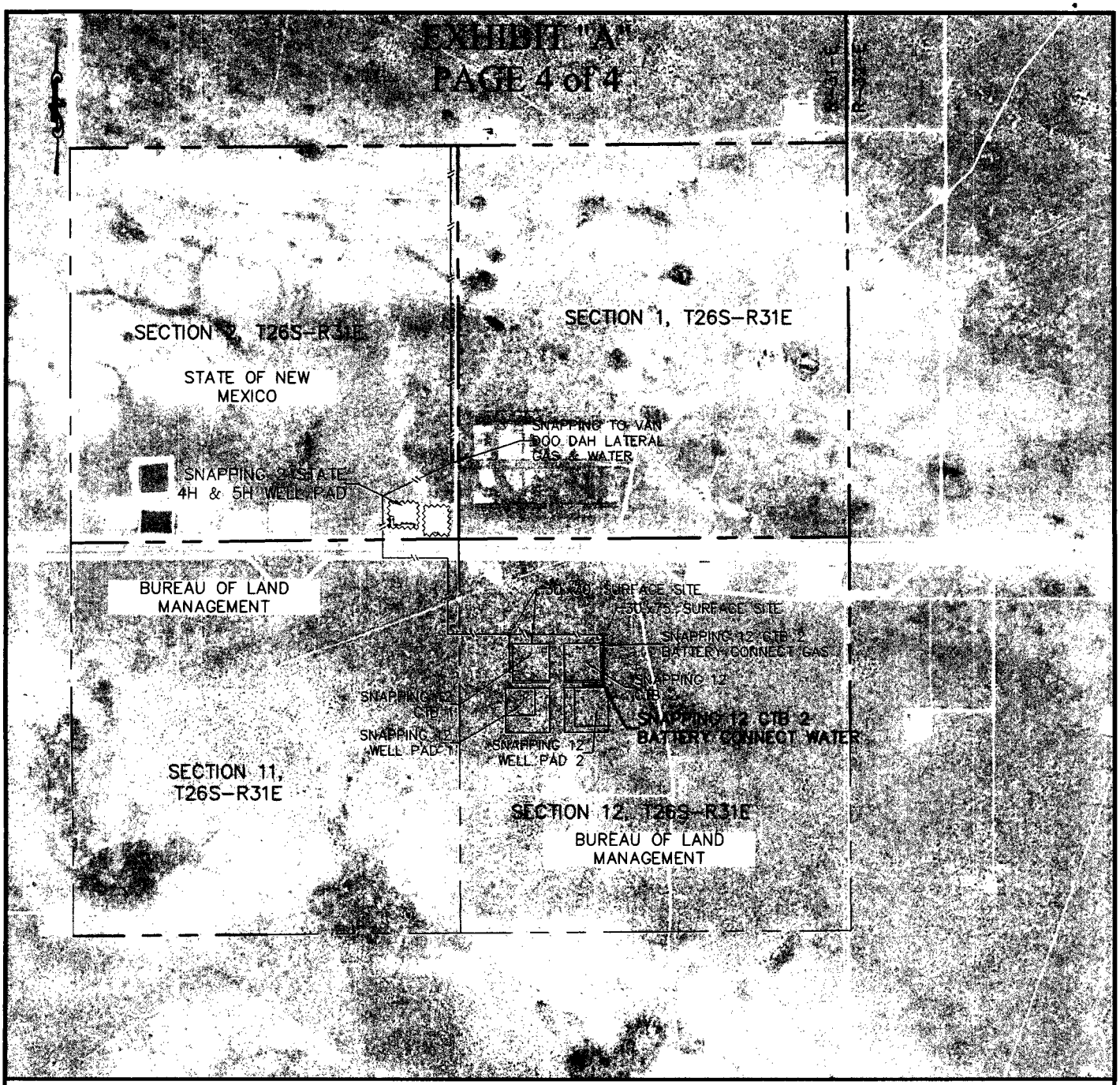
EXHIBIT "A"
PAGE 3 of 4



QUAD MAP

SECTION 12, T26S-R31E, N.M.P.M.
EDDY COUNTY, NEW MEXICO

HORIZON ROW LLC	Drawn for: devon	LINE NUMBER: 7620010Z	
DEVON ENERGY PRODUCTION CO., L.P.		WBS NUMBER: CC-126150.AL	
PROPOSED 30' EASEMENT		SCALE: 1" = 2000'	
Drawn by: CHRIS MAAS / Date: 09/19/2017		REVISIONS: 12-18-17 CMAAS	
		SHEET: 3 OF 4	

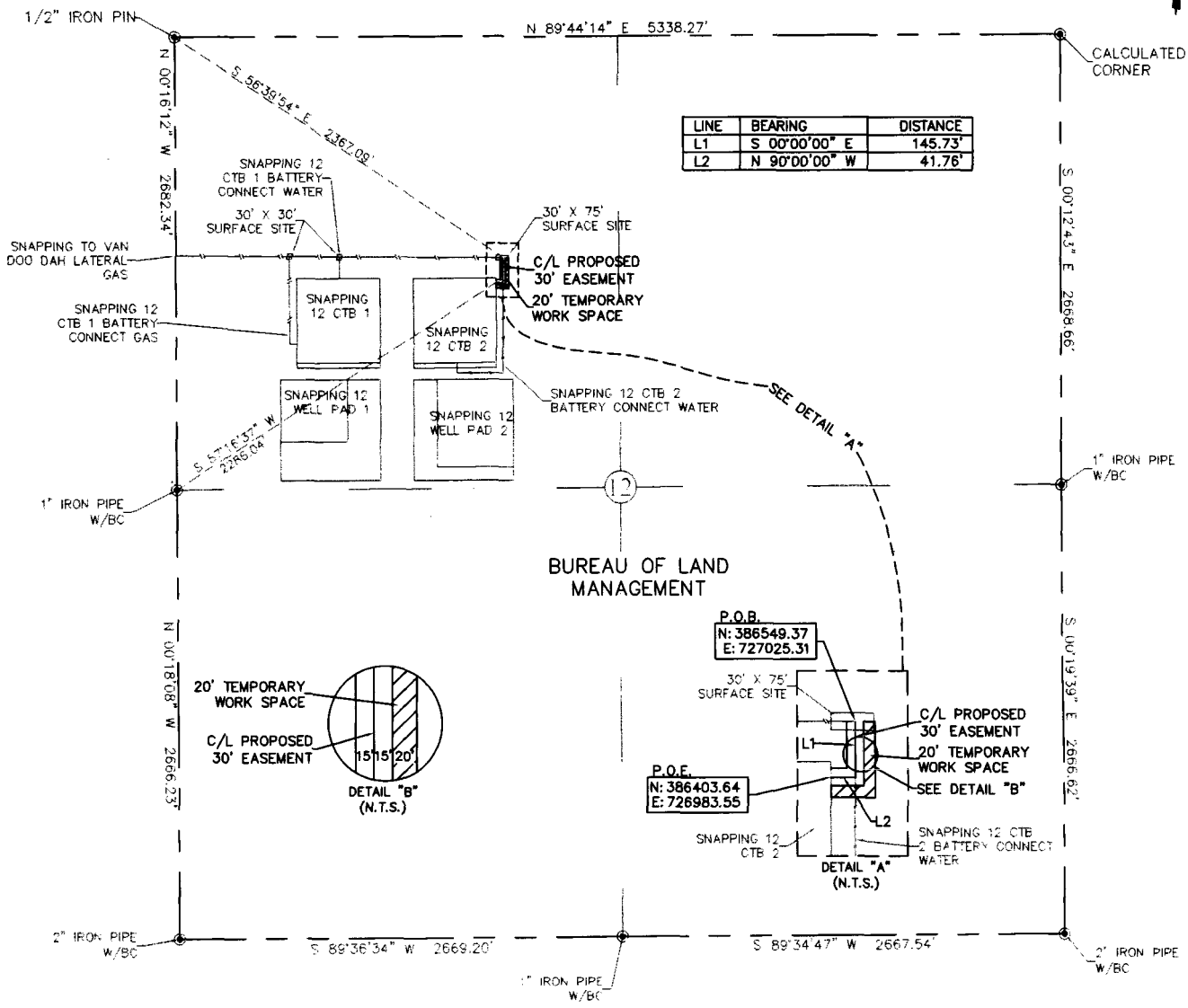


AERIAL MAP

SECTION 12, T26S-R31E, N.M.P.M.
EDDY COUNTY, NEW MEXICO

HORIZON ROW LLC	Drawn for:		LINE NUMBER: 7620010Z
DEVON ENERGY PRODUCTION CO., L.P.			WBS NUMBER: CC-126150.AL
PROPOSED 30' EASEMENT			SCALE: 1" = 2000'
Drawn by: CHRIS MAAS / Date: 09/19/2017			REVISIONS: 12-18-17 CMAAS
			SHEET: 4 OF 4

EXHIBIT "A"
PAGE 1 of 4
SECTION 12, T26S–R31E, N.M.P.M.
EDDY COUNTY, NEW MEXICO



LINE	BEARING	DISTANCE
L1	S 00°00'00" E	145.73'
L2	N 90°00'00" W	41.76'

20' TEMPORARY WORK SPACE EASEMENT AREA = 0.109 ACRE(S)
30' EASEMENT AREA = 0.129 ACRE(S)
187.49 FEET OR 11.36 RODS

0+00.0 P.O.B./SNAPPING TO VAN DOO DAH LATERAL GAS
0+15.0 EXIT 30' X 75' SURFACE SITE
1+45.7 P.O.I./SNAPPING 12 CTB 2 BATTERY CONNECT WATER
1+87.5 P.O.E./SNAPPING 12 CTB 2

SEE THE ATTACHED LEGAL DESCRIPTION

Note: All bearings recited herein are based on the New Mexico State Plane Coordinate System, NAD 83, New Mexico East Zone 3001, US Survey Feet, all distances are grid.

I, B.L. Laman, New Mexico PLS No. 22404, hereby certify this survey to reflect an actual survey made on the ground under my supervision, this survey meets the minimum standards for surveying in New Mexico.

LAMAN NEW MEXICO 22404 PROFESSIONAL SURVEYOR

B.L. Laman PLS #22404
Date Signed: 12-19-2017
P.O. Box 548, Dry Creek, La.
(903) 388-3045 70637
Employee of Horizonrow, LLC

0 1000 2000

HORIZON ROW LLC
Drawn for: devon
Drawn by: CHRIS MAAS
Date: 09/19/2017

DEVON ENERGY PRODUCTION COMPANY, L.P.
SNAPPING 12 CTB 2
BATTERY CONNECT GAS
PROPOSED 30' EASEMENT
ON THE PROPERTY OF
BUREAU OF LAND MANAGEMENT
SECTION 12, T26S–R31E, N.M.P.M.

LINE NUMBER: 7620010X
WBS NUMBER: CC–126150.AL
SCALE: 1" = 1000'
REVISIONS: 12–18–17 CMAAS
SHEET: 1 OF 4

SECTION 12, T26S-R31E, N.M.P.M.,
EDDY COUNTY, NEW MEXICO

LEGAL DESCRIPTION

FOR

DEVON ENERGY PRODUCTION COMPANY, L.P.

BUREAU OF LAND MANAGEMENT

30' EASEMENT DESCRIPTION:

BEING an easement thirty (30) feet in width lying fifteen (15) feet on the right side and fifteen (15) feet on the left side of the survey centerline described below, being out of the northwest quarter (NW ¼) of Section 12, Township 26 South, Range 31 East, N.M.P.M., Eddy County, New Mexico, and being out of a parcel of land owned by the Bureau of Land Management. Said centerline of easement being more particularly described as follows:

Commencing from a 1/2" iron pin found for the northwest corner of Section 12, T26S-R31E, N.M.P.M., Eddy County, New Mexico;

Thence S 56°39'54" E a distance of 2367.09' to the **Point of Beginning** of this easement having coordinates of Northing=386549.37, Easting=727025.31 feet and continuing the following courses;

Thence S 00°00'00" E a distance of 145.73' to an angle point;

Thence N 90°00'00" W a distance of 41.76' to the **Point of Ending** having coordinates of Northing= 386403.64, Easting= 726983.55 feet, from said point a 1" iron pipe w/BC for the west quarter corner of Section 12, T26S-R31E, bears S 57°16'37" W a distance of 2286.04', covering **187.49' or 11.36' rods** and having an area of **0.129 acre**.

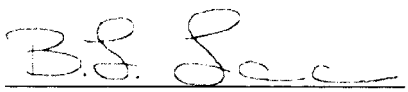
20' TEMPORARY WORK SPACE DESCRIPTION:

Being a temporary work space twenty (20) feet in width lying on the left side and adjoining the left side of the above described thirty (30) feet easement, having a total area of **0.109 acres.**

NOTES:

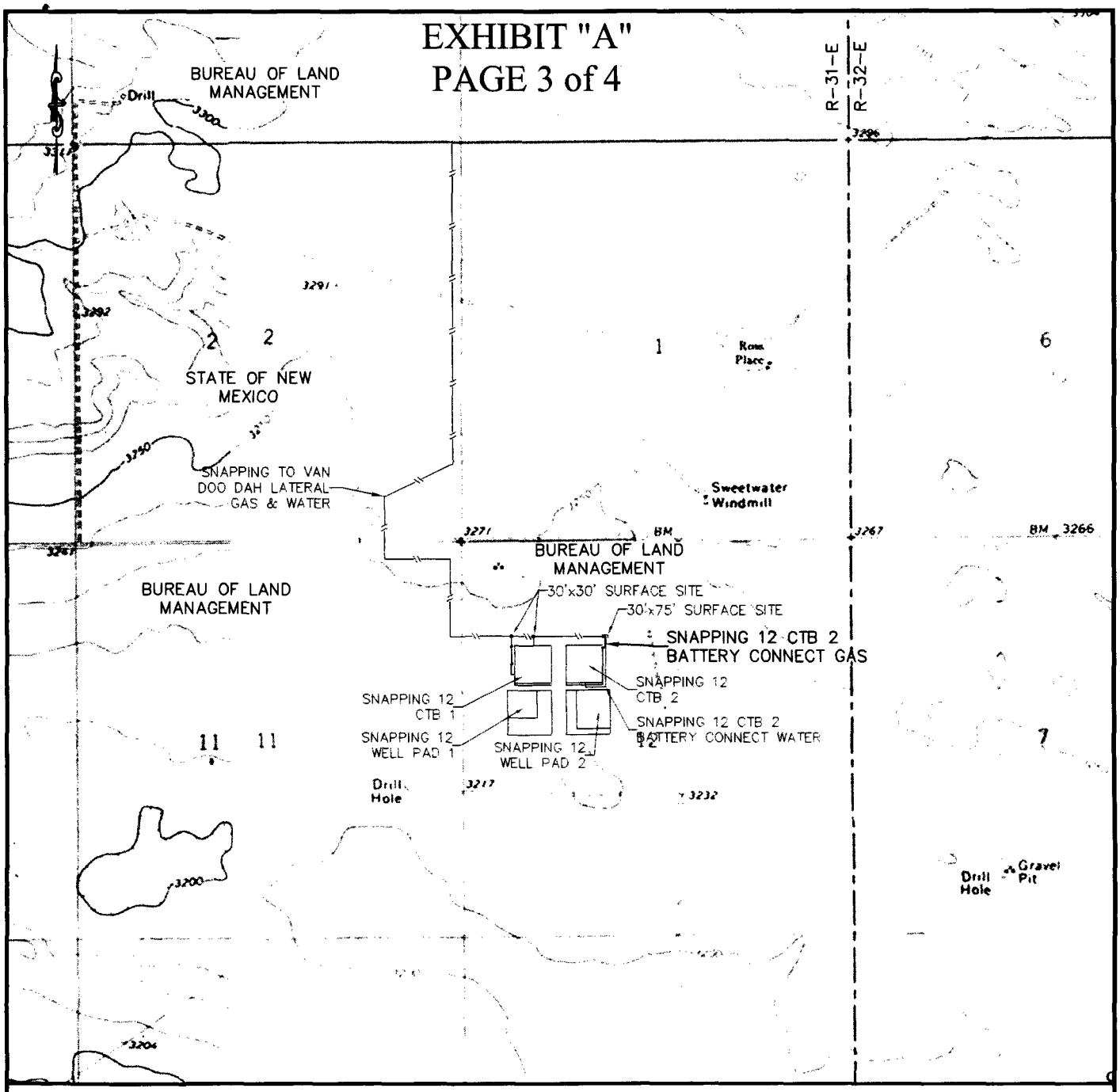
Bearings, distances and coordinates shown herein are based on New Mexico State Plane Coordinate System, NAD 83, East Zone 3001, US Survey Feet, all distances are grid.

I, B.L. Laman, New Mexico PLS No. 22404, hereby certify this survey to reflect an actual survey made on the ground under my supervision. This survey meets the minimum standards for surveying in New Mexico.



B.L. Laman PLS# 22404
Date Signed: 12-19-2017
Horizon Row, LLC
P.O. Box 548, Dry Creek, La.
(903) 388-3045 70637
Employee of Horizon Row, LLC

EXHIBIT "A"
PAGE 3 of 4

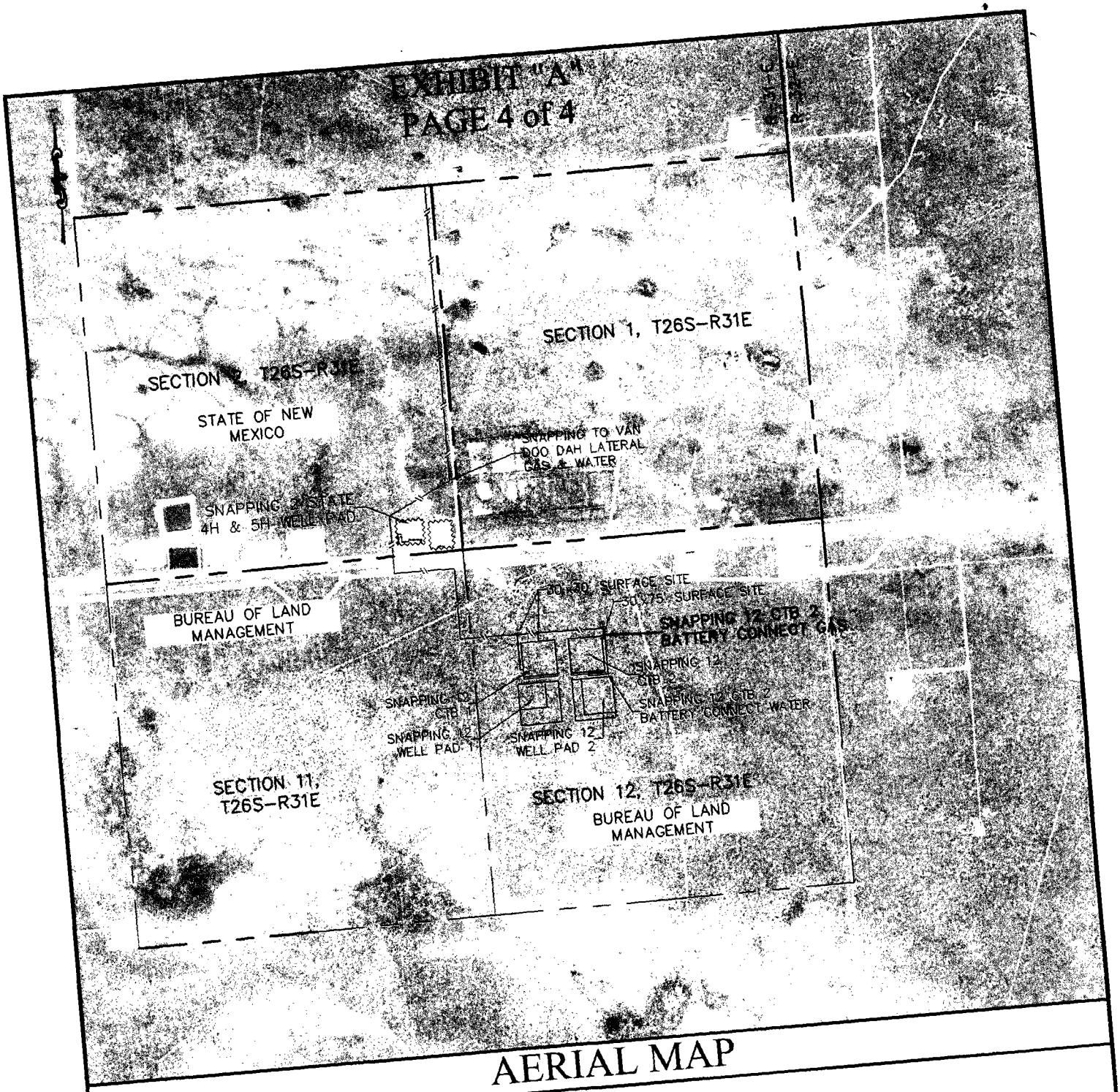


QUAD MAP

SECTION 12, T26S-R31E, N.M.P.M.
EDDY COUNTY, NEW MEXICO

HORIZON ROW LLC		Drawn for: devon	LINE NUMBER: 7620010X
DEVON ENERGY PRODUCTION CO., L.P.			WBS NUMBER: CC-126150.AL
PROPOSED 30' EASEMENT			SCALE: 1" = 2000'
Drawn by: CHRIS MAAS	Date: 09/19/2017		REVISIONS: 12-18-17 CMAAS
			SHEET: 3 OF 4

EXHIBIT "A"
PAGE 4 of 4

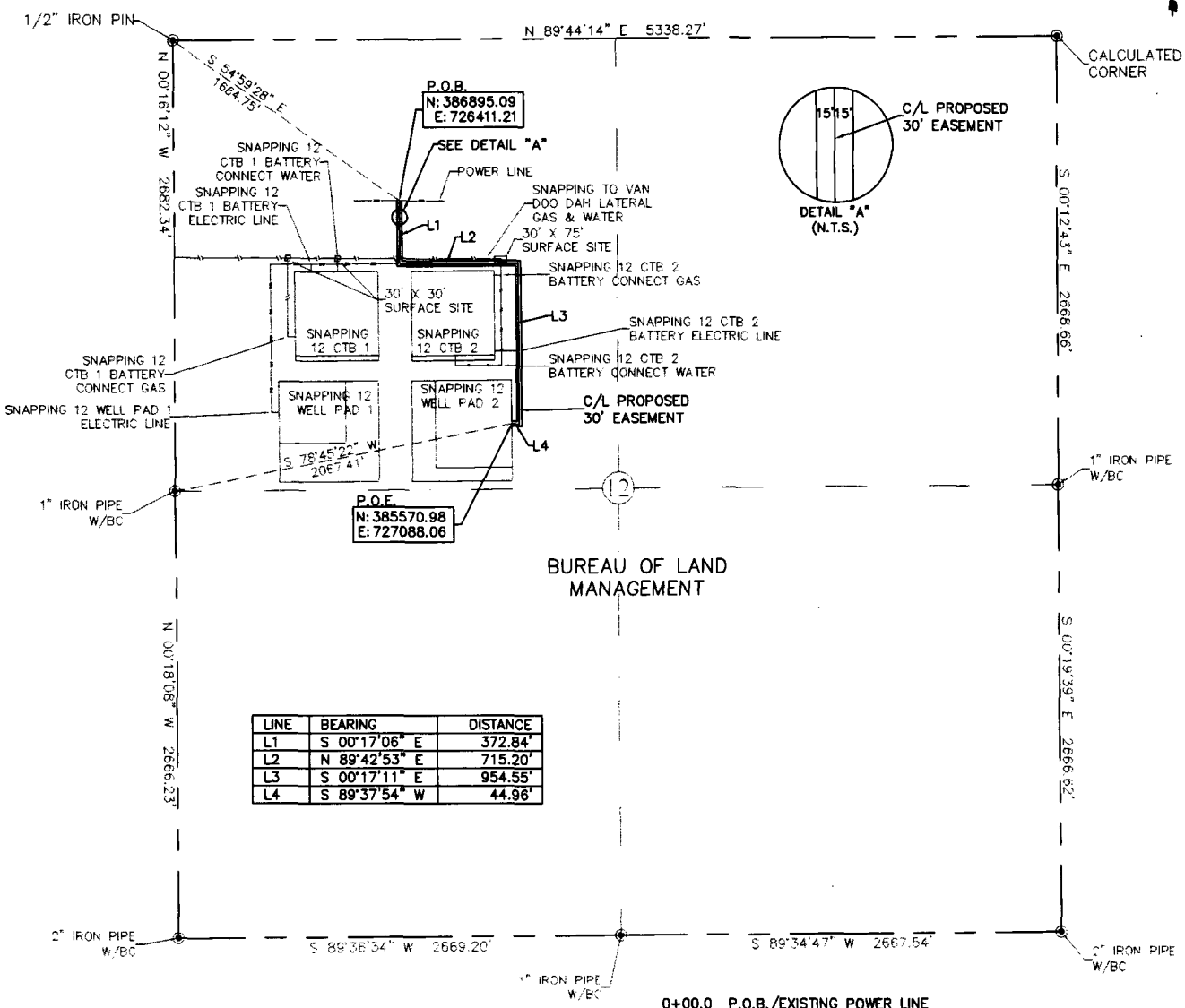


AERIAL MAP

SECTION 12, T26S-R31E, N.M.P.M.
EDDY COUNTY, NEW MEXICO

HORIZON ROW LLC	Drawn for: devon	LINE NUMBER: 7620010X
DEVON ENERGY PRODUCTION CO., L.P.		WBS NUMBER: CC-126150.AL
PROPOSED 30' EASEMENT		SCALE: 1" = 2000'
Drawn by: CHRIS MAAS / Date: 09/19/2017		REVISIONS: 12-18-17 CMAAS
		SHEET: 4 OF 4

EXHIBIT "A"
PAGE 1 of 4
ELECTRIC LINE PLAT
SECTION 12, T26S–R31E, N.M.P.M.
EDDY COUNTY, NEW MEXICO



LINE	BEARING	DISTANCE
L1	S 00°17'06" E	372.84'
L2	N 89°42'53" E	715.20'
L3	S 00°17'11" E	954.55'
L4	S 89°37'54" W	44.96'

0+00.0 P.O.B./EXISTING POWER LINE
1+86.0 STAKED POWER POLE
3+43.5 SNAPPING TO VAN DOO DAH LATERAL GAS & WATER
3+72.8 P.O.I./SNAPPING 12 WELL PAD 1 ELECTRIC LINE
6+11.0 STAKED POWER POLE
8+49.7 STAKED POWER POLE
9+85.1 SNAPPING 12 CTB 2 BATTERY CONNECT GAS & WATER
10+88.0 STAKED POWER POLE
13+27.1 STAKED POWER POLE
15+65.1 STAKED POWER POLE
16+07.5 SNAPPING 12 CTB 2 BATTERY ELECTRIC LINE
18+04.0 STAKED POWER POLE
20+42.6 STAKED POWER POLE
20+87.6 P.O.E./SNAPPING 12 WELL PAD 2

30' EASEMENT AREA = 1.438 ACRE(S)
2087.55 FEET OR 126.52 RODS

SEE THE ATTACHED LEGAL DESCRIPTION

Note: All bearings recited herein are based on the New Mexico State Plane Coordinate System, NAD 83, New Mexico East Zone 3001, US Survey Feet, all distances are grid.

I, B.L. Laman, New Mexico PLS No. 22404, hereby certify this survey to reflect an actual survey made on the ground under my supervision. This survey meets the minimum standards for surveying in New Mexico.

B.L. LAMAN NEW MEXICO 22404 PROFESSIONAL SURVEYOR

B.L. Laman PLS #22404
Date Signed: 09-21-2017
924 Richardson Dr. Jasper, TX.
(903) 388-3045 75951
Employee of Horizonrow, LLC

0 1000 2000

HORIZON ROW LLC	DEVON ENERGY PRODUCTION COMPANY, L.P.		LINE NUMBER: EL8080
Drawn for: devon	SNAPPING 12 WELL PAD 2 ELECTRIC LINE		WBS NUMBER: CC-123117.19
	PROPOSED 30' EASEMENT ON THE PROPERTY OF BUREAU OF LAND MANAGEMENT SECTION 12, T26S–R31E, N.M.P.M.		SCALE: 1" = 1000'
			REVISIONS:
Drawn by: CHRIS MAAS	Date: 09/21/2017		SHEET: 1 OF 4

SECTION 12, T26S-R31E, N.M.P.M.,
EDDY COUNTY, NEW MEXICO

ELECTRIC LINE PLAT

LEGAL DESCRIPTION

FOR

DEVON ENERGY PRODUCTION COMPANY, L.P.

BUREAU OF LAND MANAGEMENT

30' EASEMENT DESCRIPTION:

BEING an easement thirty (30) feet in width lying fifteen (15) feet on the right side and fifteen (15) feet on the left side of the survey centerline described below, being out of the northwest quarter (NW ¼) of Section 12, Township 26 South, Range 31 East, N.M.P.M., Eddy County, New Mexico, and being out of a parcel of land owned by the Bureau of Land Management. Said centerline of easement being more particularly described as follows:

Commencing from a 1/2" iron pin found for the northwest corner of Section 12, T26S-R31E, N.M.P.M., Eddy County, New Mexico;

Thence S 54°59'28" E a distance of 1664.75' to the **Point of Beginning** of this easement having coordinates of Northing=386895.09, Easting=726411.21 feet and continuing the following courses;

Thence S 00°17'06" E a distance of 372.84' to an angle point;

Thence N 89°42'53" E a distance of 715.20' to an angle point;

Thence S 00°17'11" E a distance of 954.55' to an angle point;

Thence S 89°37'54" W a distance of 44.96' to the **Point of Ending** having coordinates of Northing= 385570.98, Easting= 727088.06 feet, from said point a 1" iron pipe w/BC for the west quarter corner of Section 12, T26S-R31E, bears S 78°45'22" W a distance of 2067.41', covering **2087.55' or 126.52' rods** and having an area of **1.438 acre**.

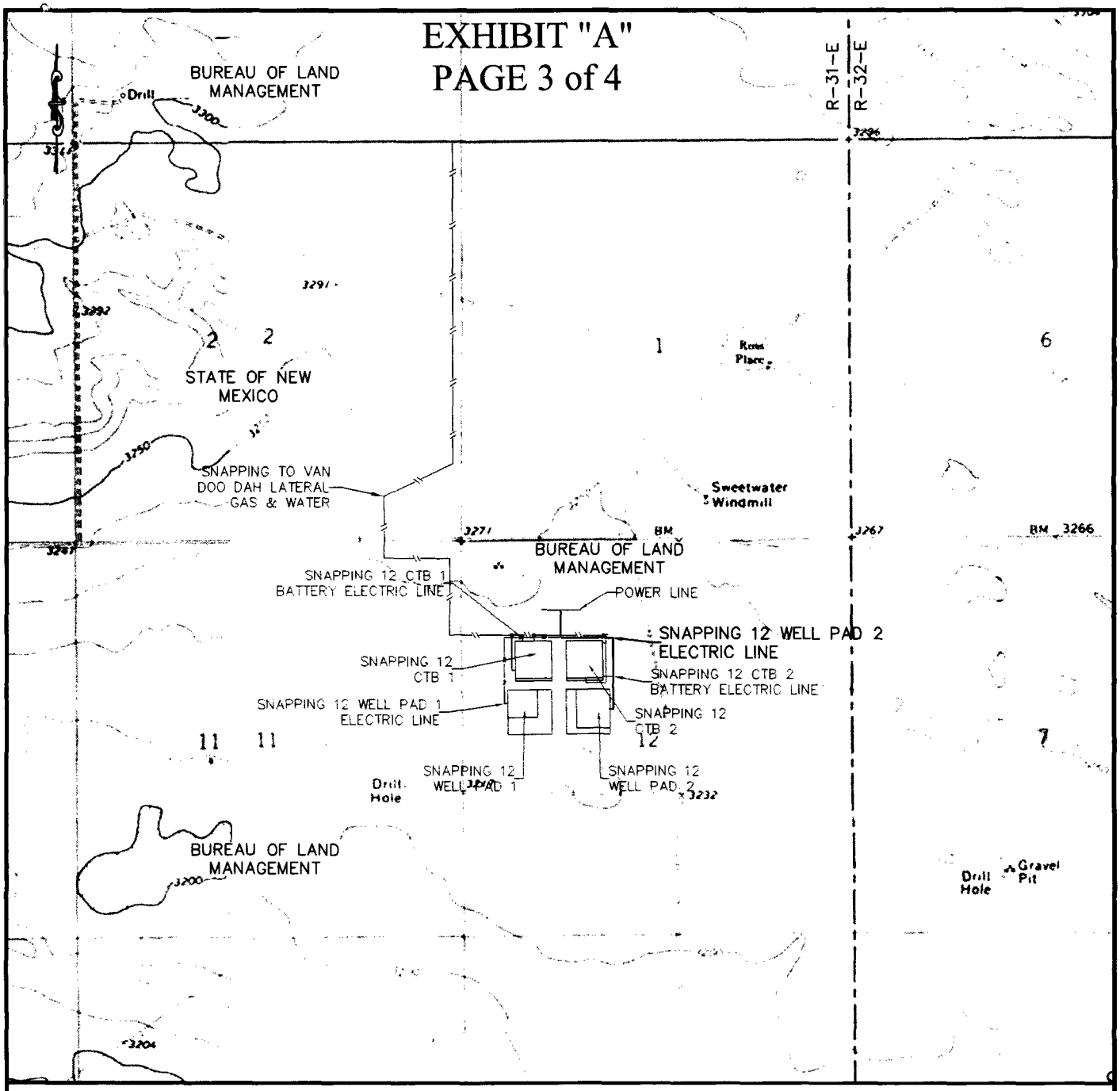
NOTES:

Bearings, distances and coordinates shown herein are based on New Mexico State Plane Coordinate System, NAD 83, East Zone 3001, US Survey Feet, all distances are grid.

I, B.L. Laman, New Mexico PLS No. 22404, hereby certify this survey to reflect an actual survey made on the ground under my supervision. This survey meets the minimum standards for surveying in New Mexico.

B.L. Laman PLS# 22404
Date Signed: 09-21-2017
Horizon Row, LLC
924 Richardson Dr., Jasper, Tx
(903) 388-3045 75951
Employee of Horizon Row, LLC

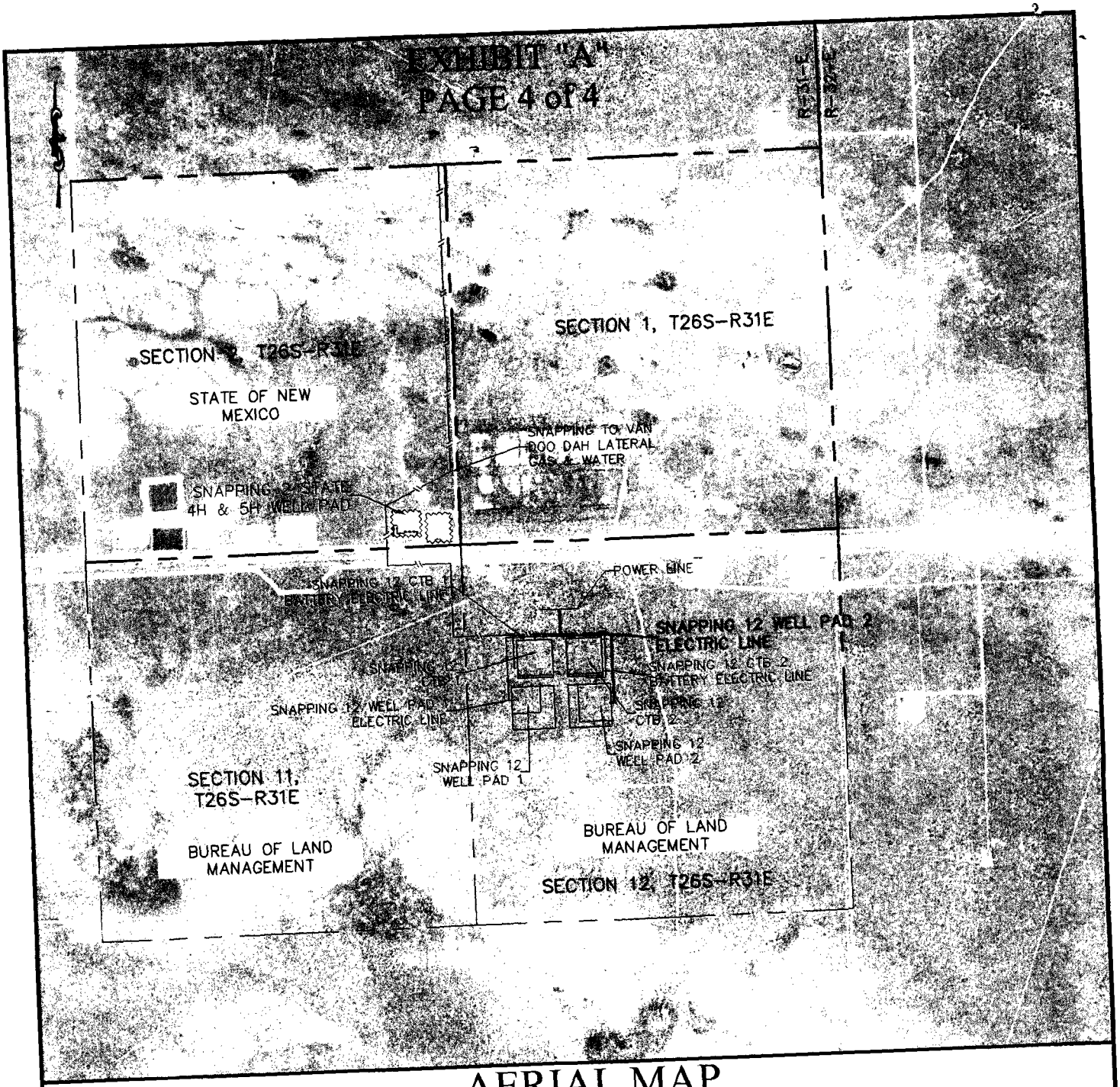
EXHIBIT "A"
PAGE 3 of 4



QUAD MAP

SECTION 12, T26S-R31E, N.M.P.M.
EDDY COUNTY, NEW MEXICO

HORIZON ROW LLC	Drawn for: devon		LINE NUMBER: EL8080
DEVON ENERGY PRODUCTION CO., L.P.			WBS NUMBER: CC-123117.19
PROPOSED 30' EASEMENT			SCALE: 1" = 2000'
Drawn by: CHRIS MAAS	Date: 09/21/2017		REVISIONS:
			SHEET: 3 OF 4



AERIAL MAP

SECTION 12, T26S-R31E, N.M.P.M.
EDDY COUNTY, NEW MEXICO

HORIZON ROW LLC	Drawn for: devon	LINE NUMBER: EL8080
DEVON ENERGY PRODUCTION CO., L.P.		WBS NUMBER: CC-123117.19
PROPOSED 30' EASEMENT		SCALE: 1" = 2000'
Drawn by: CHRIS MAAS / Date: 09/21/2017		REVISIONS:
		SHEET: 4 OF 4

Section 1 - General

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

Section 2 - Lined Pits

Would you like to utilize Lined Pit PWD options? NO

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 specifications:

Pit liner description:

Pit liner manufacturers information:

Precipitated solids disposal:

Decribe precipitated solids disposal:

Precipitated solids disposal permit:

Lined pit precipitated solids disposal schedule:

Lined pit precipitated solids disposal schedule attachment:

Lined pit reclamation description:

Lined pit reclamation attachment:

Leak detection system description:

Leak detection system attachment:

Lined pit Monitor description:

Lined pit Monitor attachment:

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 attachment:

Section 3 - Unlined Pits

Would you like to utilize Unlined Pit PWD options? NO

Produced Water Disposal (PWD) Location:

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

Unlined pit PWD on or off channel:

Unlined pit PWD discharge volume (bbl/day):

Unlined pit specifications:

Precipitated solids disposal:

Decribe precipitated solids disposal:

Precipitated solids disposal permit:

Unlined pit precipitated solids disposal schedule:

Unlined pit precipitated solids disposal schedule attachment:

Unlined pit reclamation description:

Unlined pit reclamation attachment:

Unlined pit Monitor description:

Unlined pit Monitor attachment:

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

Beneficial use user confirmation:

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 evidence:

State authorization:

Unlined Produced Water Pit Estimated percolation:

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

Is the reclamation bond a rider under the BLM bond?

Unlined pit bond number:

Unlined pit bond amount:

Additional bond information attachment:

Section 4 - Injection

Would you like to utilize Injection PWD options? NO

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 attachment:

Underground Injection Control (UIC) Permit?

UIC Permit attachment:

Section 5 - Surface Discharge

Would you like to utilize Surface Discharge PWD options? NO

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 - Other

Would you like to utilize Other PWD options? NO

Produced Water Disposal (PWD) Location:

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

Other PWD discharge volume (bbl/day):

Other PWD type description:

Other PWD type attachment:

Have other regulatory requirements been met?

Other regulatory requirements attachment:

AFMSS

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

Bond Info Data Report

02/09/2018

Bond Information

Federal/Indian APD: FED

BLM Bond number: CO1104

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 attachment:

Reclamation bond number:

Reclamation bond amount:

Reclamation bond rider amount:

Additional reclamation bond information attachment: