APD Package Report

Date Printed: 09/13/2024 05:28 AM

APD ID:	10400096607	Well Status:	AAPD
APD Received Date:	01/18/2024 08:53 AM	Well Name:	SOUTHERN UTE
Operator:	HILCORP ENERGY COMPANY	Well Number:	704H

APD Package Report Contents

- Form 3160-3

- Operator Certification Report

- Application Report
- Application Attachments
  -- Well Plat: 2 file(s)

- Drilling Plan Report
- Drilling Plan Attachments
  -- Blowout Prevention Choke Diagram Attachment: 1 file(s)
  -- Blowout Prevention BOP Diagram Attachment: 1 file(s)
  -- Casing Design Assumptions and Worksheet(s): 1 file(s)
  -- Diagram of the equipment for the circulating system in accordance with Onshore Order #2: 2 file(s)
  -- Proposed horizontal/directional/multi-lateral plan submission: 4 file(s)
  -- Other Facets: 2 file(s)

- SUPO Report
- SUPO Attachments
  -- Existing Road Map: 1 file(s)
  -- Existing Road Improvement Attachment: 1 file(s)
  -- New Road Map: 1 file(s)
  -- Road Drainage Control Structures (DCS) attachment: 1 file(s)
  -- New road access plan attachment: 1 file(s)
  -- Attach Well map: 2 file(s)
  -- Water source and transportation map: 1 file(s)
  -- Construction Materials source location attachment: 3 file(s)
  -- Well Site Layout Diagram: 1 file(s)
  -- Recontouring attachment: 1 file(s)
  -- Other SUPO Attachment: 3 file(s)

- PWD Report
- PWD Attachments

-- None

- Bond Report
- Bond Attachments
  -- None

Form 3160-3
(June 2015)

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

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL OR REENTER

5. Lease Serial No.: 14201516

6. If Indian, Allotee or Tribe Name: SOUTHERN UTE

1a. Type of work: ☑ DRILL ☐ REENTER

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

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

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

8. Lease Name and Well No.: SOUTHERN UTE 704H

2. Name of Operator: HILCORP ENERGY COMPANY

9. API Well No.:

3a. Address: 1111 TRAVIS STREET, HOUSTON, TX 77002

3b. Phone No. *(include area code)*: (713) 209-2400

10. Field and Pool, or Exploratory: IGNACIO BLANCO/FRUITLAND COAL

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

At surface: NWNW / 816 FNL / 165 FWL / LAT 37.0219339 / LONG -107.6226606

At proposed prod. zone: SENE / 1955 FNL / 722 FEL / LAT 37.0188137 / LONG -107.607548

11. Sec., T. R. M. or Blk. and Survey or Area: SEC 16/T32N/R07W/NMP

14. Distance in miles and direction from nearest town or post office*

12. County or Parish: LA PLATA

13. State: CO

15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any): 132 feet

16. No of acres in lease:

17. Spacing Unit dedicated to this well: 320.0

18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft.: 778 feet

19. Proposed Depth: 2985 feet / 7315 feet

20. BLM/BIA Bond No. in file: IND:

21. Elevations (Show whether DF, KDB, RT, GL, etc.): 6361 feet

22. Approximate date work will start*: 06/30/2024

23. Estimated duration: 45 days

24. Attachments

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

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

25. Signature	Name *(Printed/Typed)*	Date
(Electronic Submission)	AMANDA WALKER / Ph: (713) 209-2400	01/18/2024

Title: Operations/Regulatory Technician

Approved by *(Signature)*	Name *(Printed/Typed)*	Date
(Electronic Submission)	DEREK J PADILLA / Ph: (970) 882-1150	09/12/2024

Title	Office
FIELD MANAGER	Tres Rios Field Office

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

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

APPROVED WITH CONDITIONS

Approval Date: 09/12/2024

(Continued on page 2)

*(Instructions on page 2)

INSTRUCTIONS

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

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

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

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

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

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

ITEM 24: If the proposal will involve hydraulic fracturing operations, you must comply with 43 CFR 3162.3-3, including providing information about the protection of usable water. Operators should provide the best available information about all formations containing water and their depths. This information could include data and interpretation of resistivity logs run on nearby wells. Information may also be obtained from state or tribal regulatory agencies and from local BLM offices.

NOTICES

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

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

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

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

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

The Paperwork Reduction Act of 1995 requires us to inform you that:
The BLM conects this information to anow evaluation of the technical, safety, and environmental factors involved with drilling for oil and/or gas on Federal and Indian oil and gas leases. This information will be used to analyze and approve applications. Response to this request is mandatory only if the operator elects to initiate drilling or reentry operations on an oil and gas lease. The BLM would like you to know that you do not have to respond to this or any other Federal agency-sponsored information collection unless it displays a currently valid OMB control number.

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

(Continued on page 3)

Additional Operator Remarks

Location of Well

0. SHL: NWNW / 816 FNL / 165 FWL / TWSP: 32N / RANGE: 07W / SECTION: 16 / LAT: 37.0219339 / LONG: -107.6226606 (TVD: 0 feet, MD: 0 feet)

PPP: NWNW / 816 FNL / 165 FWL / TWSP: 32N / RANGE: 07W / SECTION: 16 / LAT: 37.0219339 / LONG: -107.6226606 (TVD: 3056 feet, MD: 3583 feet)

BHL: NWNW / 694 FNL / 1213 FEL / TWSP: 32N / RANGE: 07W / SECTION: 16 / LAT: 37.0222809 / LONG: -107.61907 (TVD: 3056 feet, MD: 3583 feet)

PPP: NWNW / 739 FNL / 956 FWL / TWSP: 32N / RANGE: 07W / SECTION: 16 / LAT: 37.0221942 / LONG: -107.619958 (TVD: 2982 feet, MD: 6930 feet)

BHL: NENE / 709 FNL / 727 FEL / TWSP: 32N / RANGE: 07W / SECTION: 16 / LAT: 37.0222345 / LONG: -107.6075341 (TVD: 2982 feet, MD: 6930 feet)

PPP: NWNW / 743 FNL / 918 FWL / TWSP: 32N / RANGE: 07W / SECTION: 16 / LAT: 37.0221826 / LONG: -107.6200874 (TVD: 2985 feet, MD: 7315 feet)

PPP: SENW / 743 FNL / 918 FWL / TWSP: 32N / RANGE: 07W / SECTION: 16 / LAT: 37.0221826 / LONG: -107.6200874 (TVD: 2985 feet, MD: 7315 feet)

BHL: SENE / 1955 FNL / 722 FEL / TWSP: 32N / RANGE: 07W / SECTION: 16 / LAT: 37.0188137 / LONG: -107.607548 (TVD: 2985 feet, MD: 7315 feet)

BLM Point of Contact

Name: BARBARA D TELECKY
Title: Land Law Examiner
Phone: (970) 385-1365
Email: btelecky@blm.gov

Review and Appeal Rights

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

Conditions of Approval - Surface

Well Name:	Southern Ute 704H Gas Well, Pad, Access, and Pipeline
Lease Number:	14-20-151-6 and 14-20-604-4254
Location:	T32N, R7W, Sections 16 and 17, La Plata County, Colorado
Operator:	Hilcorp Energy Company
Application:	Application for Permit to Drill (APD)

The following design features and mitigation measures will be attached to the Applications for Permit to Drill as Conditions of Approval and apply to the Federal action.

NOTIFICATION:

• The BLM Minerals Division Natural Resources Specialist [(970) 385-1353] shall be notified 5 days prior to drilling activities.

• The BLM Minerals Division Natural Resources Specialist [(970) 385-1353] shall be notified at least 48 hours prior to commencement of interim and/or final surface reclamation activities.

• NO SURFACE DISTURBANCE shall begin until the Edge of Disturbance Corners and Midline markers of the permitted area have been re-established and are clearly marked.

General Requirements:

Migratory Birds:

1. If construction occurs between May 1 and July 31, a pre-construction nest survey would be conducted, and Hilcorp would halt construction and consult SUIT WRMD if active nests are found. Additionally, Hilcorp would follow CPW guidelines regarding buffer zones and seasonal restrictions for raptors (CPW, 2020) and consult SUIT WRMD if raptor nests are identified during the pre-construction nest survey.

Cultural Resources:

2. All land-altering activities shall be confined to the area surveyed for cultural resources, and the project sponsor shall control the action of its agents at the job site to ensure that no archaeological sites are disturbed or damaged. Site disturbance or damage to sites on tribal land is a violation of the Archaeological Resources Protection Act (16 U.S.C. § 470ee) which prohibits the excavation, removal, damage, alteration, or defacement, or attempt to excavate, remove, damage, alter, or deface any archaeological resources [cultural

resources] located on Indian lands. Both criminal and civil penalties may be assessed (16 U.S.C. §§ 470ee and 470ff) for violations.

3. In the event of the inadvertent discovery of human remains, activities in the area of the inadvertent discovery must cease; a reasonable effort must be made to protect the human remains and associated funerary objects. Protocols under the Native American Graves Protection and Repatriation Act (25 U.S.C. 3001 et seq.) for the inadvertent discovery of remains on Tribal lands must be followed (43 CFR 10.4(e)).

4. In the event of the inadvertent discovery of cultural resources, the project sponsor shall follow the protocols outlined in the Post-Review Discoveries, Discoveries on Tribal Lands (36 CFR 800.13(d)) section of the National Historic Preservation Act, Section 106 regulations.

Topsoil Salvaging:

5. Topsoil will be stockpiled and segregated adequately from subsoils or fill material and will be reseeded and mulched with continuous excelsior wattles surrounding the stockpile to protect the topsoil from surface water erosion. The topsoil will be stored in a height not greater than 3' tall. A sign will be placed at the base of all topsoil storage areas, facing the pad production zone to denote the presence of topsoil. During interim reclamation, portions of the well pad will be reclaimed with the stored topsoil and these areas would be reseeded. Upon final reclamation of the well pad, the surface will be recontoured and topsoil will be redistributed over the well pad. All areas will then be reseeded with a SUIT approved native seed mix and mulched for vegetation success.

Secondary Containment:

6. The operator shall install storage tanks within an impervious secondary containment structure of sufficient capacity to contain at least 125% of the storage capacity of the largest storage tank. Chemical containers shall be clearly labeled, maintained in good condition, and placed within an impervious secondary containment structure. Small secondary containment basins must be screened to prevent wildlife entry.

Open-topped Tanks:

7. The operator must install and maintain a rigid metal screen over open topped tanks to prevent wildlife or avian entry. The screen cannot have any openings wider than 1-1/2 inches. If the open-topped tank is installed below grade within a pit or open catchment, the space between the tank and pit/catchment edge must be screened with a rigid metal screen, unless the operator can demonstrate appropriate use of escape ramps.

Visual Resources:

8. All long-term, above-ground equipment, piping, and signs onsite would be painted in a flat, nonreflective, earth-toned color (**Juniper Green**) selected from the latest BLM color chart that best allows the facility to blend in with the surrounding landscape. The color shall be maintained throughout the life of the well/facilities. Areas required to be painted a different color to comply with the Occupational Safety and Health Act (OSHA) are excluded.

Fuels:

9. All material from commercial tree species 4 inches in diameter or greater would be cut and hauled to the SUIT Forestry Fuels Yard. All non-commercial tree species and material less than 4 inches in diameter would be chipped onsite and incorporated into the topsoil or otherwise removed and disposed of.

United States Department of the Interior

BUREAU OF LAND MANAGEMENT
Tres Rios Field Office
161 Burnett Drive - Unit 4
Durango, CO 81301-3647

In Reply Refer To:
COA APD ID: 10400096607

HILCORP ENERGYCOMPANY

SOUTHERN UTE 704H

GENERAL REQUIREMENTS FOR OIL AND GAS OPERATIONS ON FEDERAL AND INDIAN LEASES

I. GENERAL

A. Prior approval by the BLM-Authorized Office (Drilling and Production Section) is required for variance from the approved drilling program and before commencing plugging operations, plug back work casing repair work, corrective cementing operations, or suspending drilling operations indefinitely. Emergency approval may be obtained orally, but such approval is contingent upon filing of a notice of intent (on a Sundry Notice, Form 3160-5) within three business days (original and three copies of Federal leases and an original and four copies on Indian leases). **Any changes to the approved plan or any questions regarding drilling operations should be directed to BLM during regular business hours via Sundry Notice. Emergency program changes after hours should be directed to Joe Killins at (970) 759-8988.**

B. Notify this office at least 24 hours in advance prior to the following:

a. Well Spud
b. Running and cementing casing
    i. Submit a cement evaluation log if cement is not circulated to surface.
c. BOP test
    i. In the event a BLM inspector is not present during the initial BOP test, please provide chart record.

C. Each well shall have a well sign in legible condition from spud date to final abandonment. The sign should show the operator's name, lease serial number, or unit name, well number, location of the well, and whether lease is Tribal or Allotted, (See 43 CFR 3162.6(b)).

D. A complete copy of the approved Application for Permit to Drill, along with any conditions of approval, shall be available to authorized personnel at the drill site whenever active drilling operations are under way. All operations will be governed by Onshore Order #2 unless specifically modified prior to operations.

E. From the time drilling operations are initiated and until drilling operations are completed, a member of the drilling crew or the tool pusher shall always maintain rig surveillance, unless the well is secured with blowout preventers or cement plugs.

F. On directional/horizontal wells submit as drilled directional survey from surface to total depth.

G. If Flex hoses are to be used during drilling operations, a variance request via sundry notice must be submitted. Manufacturer specification and test must be submitted with sundry.

II. Site Specific

III. PHONE NUMBERS

Rodney Brasher	**Lead Technician**	**work: 970-385-1347**	**cell: 970-799-1244**
Alan White	**Technician**	**work: 970-385-1201**	**cell: 970-317-0329**
Nathan Willis	**Technician**	**work: 970-385-1349**	**cell: 970-749-1734**
Bryan Clappe	**Technician**	**work: 970-385-1364**	**cell: 970-903-9077**
Joe Killins	**Engineer**	**work: 970-385-1363**	**cell: 970-759-8988**

Approval Date: 09/12/2024

AFMSS

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

Operator Certification Data Report

09/13/2024

Operator

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

NAME: AMANDA WALKER **Signed on:** 01/18/2024

Title: Operations/Regulatory Technician

Street Address: 1111 TRAVIS ST

City: HOUSTON **State:** TX **Zip:** 77002

Phone: (346)237-2177

Email address: MWALKER@HILCORP.COM

Field

Representative Name:

Street Address:

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

Phone:

Email address:

APD ID: 10400096607 **Submission Date:** 01/18/2024

Operator Name: HILCORP ENERGY COMPANY

Well Name: SOUTHERN UTE **Well Number:** 704H

Well Type: COALBED NATURAL GAS WELL **Well Work Type:** Drill

Highlighted data reflects the most recent changes

Show Final Text

Section 1 - General

APD ID: 10400096607 **Tie to previous NOS?** **Submission Date:** 01/18/2024

BLM Office: Durango **User:** AMANDA WALKER **Title:** Operations/Regulatory Technician

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

Lease number: 14201516 **Lease Acres:**

Surface access agreement in place? N **Allotted?** N **Reservation:** SOUTHERN UTE

Agreement in place? N **Federal or Indian agreement:**

Agreement number:

Agreement name:

Keep application confidential? Y

Permitting Agent? NO **APD Operator:** HILCORP ENERGY COMPANY

Operator letter of

Operator Info

Operator Organization Name: HILCORP ENERGY COMPANY

Operator Address: 1111 TRAVIS ST **Zip:** 77002

Operator PO Box:

Operator City: HOUSTON **State:** TX

Operator Phone: (713)209-2400

Operator Internet Address:

Section 2 - Well Information

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

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

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

Well Name: SOUTHERN UTE **Well Number:** 704H **Well API Number:**

Field/Pool or Exploratory? Field and Pool **Field Name:** IGNACIO BLANCO **Pool Name:** FRUITLAND COAL

Operator Name: HILCORP ENERGY COMPANY

Well Name: SOUTHERN UTE **Well Number:** 704H

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

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

Type of Well Pad: SINGLE WELL **Multiple Well Pad Name:** **Number:**

Well Class: MULTI-LATERAL **Number of Legs:** 3

Well Work Type: Drill

Well Type: COALBED NATURAL GAS WELL

Describe Well Type:

Well sub-Type: OTHER

Describe sub-type:

Distance to town: **Distance to nearest well:** 778 FT **Distance to lease line:** 132 FT

Reservoir well spacing assigned acres Measurement: 320 Acres

Well plat: SHEET_A1_20240108064001.pdf

SHEET_C_20240108125101.pdf

Well work start Date: 06/30/2024 **Duration:** 45 DAYS

Section 3 - Well Location Table

Survey Type: RECTANGULAR

Describe Survey Type:

Datum: NAD83 **Vertical Datum:** NAVD88

Survey number: 38275 **Reference Datum:** OTHER

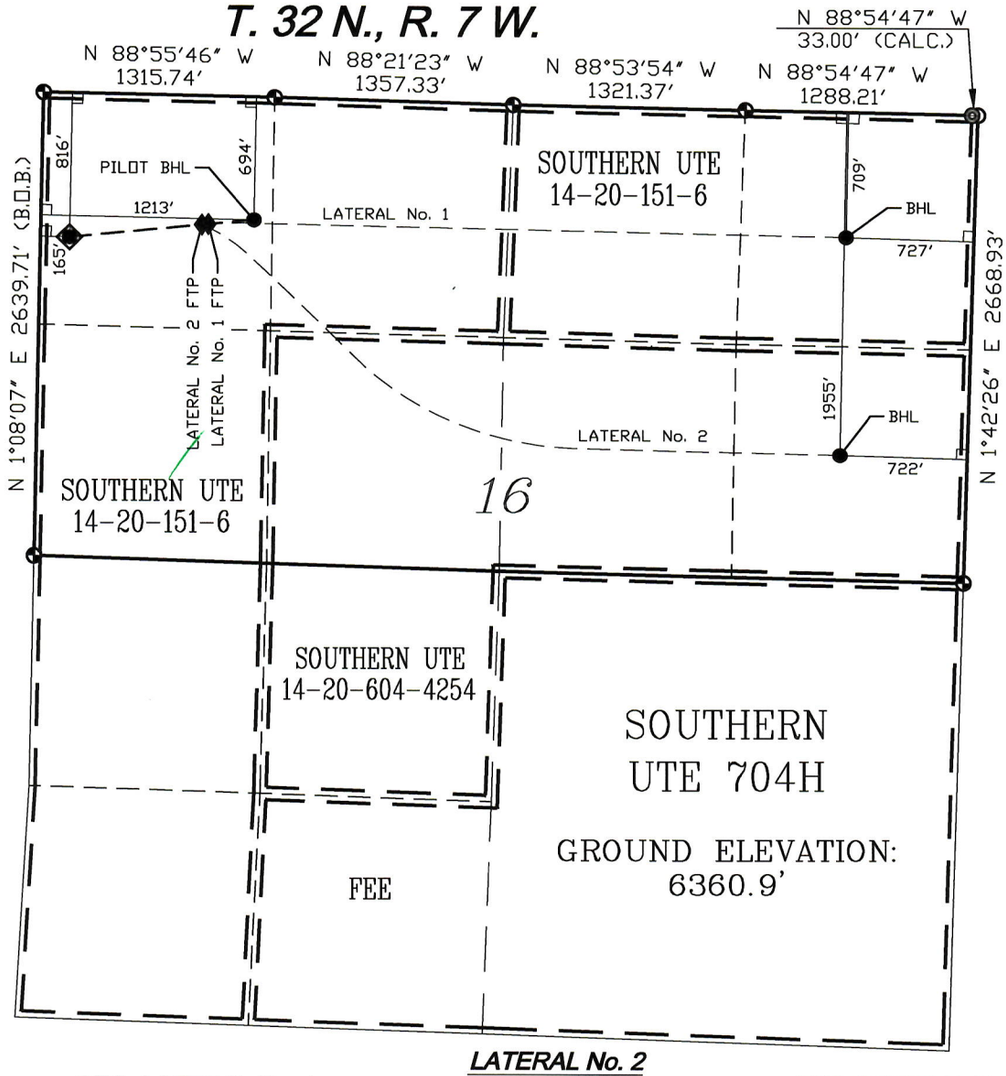
Wellbore	NS-Foot	NS Indicator	EW-Foot	EW Indicator	Twsp	Range	Section	Aliquot/Lot/Tract	Latitude	Longitude	County	State	Meridian	Lease Type	Lease Number	Elevation	MD	TVD	Will this well produce from this
SHL Leg #1	816	FNL	165	FWL	32N	07W	16	Aliquot NWNW	37.0219339	-107.6226606	LA PLATA	COLORADO	NEW MEXICO	I	14201516	6361	0	0	N
KOP Leg #1	816	FNL	165	FWL	32N	07W	16	Aliquot NWNW	37.0219339	-107.6226606	LA PLATA	COLORADO	NEW MEXICO	I	14201516	6361	0	0	N

Operator Name: HILCORP ENERGY COMPANY

Well Name: SOUTHERN UTE **Well Number:** 704H

Wellbore	NS-Foot	NS Indicator	EW-Foot	EW Indicator	Twsp	Range	Section	Aliquot/Lot/Tract	Latitude	Longitude	County	State	Meridian	Lease Type	Lease Number	Elevation	MD	TVD	Will this well produce from this
PPP Leg #1-1	816	FNL	165	FWL	32N	07W	16	Aliquot NWNW	37.0219339	-107.6226606	LA PLATA	COLORADO	NEW MEXICO	I	14201516	3305	3583	3056	N
EXIT Leg #1	694	FNL	1213	FEL	32N	07W	16	Aliquot NWNW	37.0222809	-107.61907	LA PLATA	COLORADO	NEW MEXICO	I	14201516	3305	3583	3056	N
BHL Leg #1	694	FNL	1213	FEL	32N	07W	16	Aliquot NWNW	37.0222809	-107.61907	LA PLATA	COLORADO	NEW MEXICO	I	14201516	3305	3583	3056	N
KOP Leg #2	739	FNL	956	FWL	32N	07W	16	Aliquot NWNW	37.0221942	-107.619958	LA PLATA	COLORADO	NEW MEXICO	I	14201516	3379	6930	2982	Y
PPP Leg #2-1	739	FNL	956	FWL	32N	07W	16	Aliquot NWNW	37.0221942	-107.619958	LA PLATA	COLORADO	NEW MEXICO	I	14201516	3379	6930	2982	Y
EXIT Leg #2	709	FNL	727	FEL	32N	07W	16	Aliquot NENE	37.0222345	-107.6075341	LA PLATA	COLORADO	NEW MEXICO	I	14201516	3379	6930	2982	Y
BHL Leg #2	709	FNL	727	FEL	32N	07W	16	Aliquot NENE	37.0222345	-107.6075341	LA PLATA	COLORADO	NEW MEXICO	I	14201516	3379	6930	2982	Y
KOP Leg #3	743	FNL	918	FWL	32N	07W	16	Aliquot NWNW	37.0221826	-107.6200874	LA PLATA	COLORADO	NEW MEXICO	I	14201516	3376	7315	2985	Y
PPP Leg #3-1	743	FNL	918	FWL	32N	07W	16	Aliquot NWNW	37.0221826	-107.6200874	LA PLATA	COLORADO	NEW MEXICO	I	14201516	3376	7315	2985	Y
PPP Leg #3-2	743	FNL	918	FWL	32N	07W	16	Aliquot SENW	37.0221826	-107.6200874	LA PLATA	COLORADO	NEW MEXICO	I	14206044254	3376	7315	2985	Y
EXIT Leg #3	1955	FNL	722	FEL	32N	07W	16	Aliquot SENE	37.0188137	-107.607548	LA PLATA	COLORADO	NEW MEXICO	I	14206044254	3376	7315	2985	Y
BHL Leg #3	1955	FNL	722	FEL	32N	07W	16	Aliquot SENE	37.0188137	-107.607548	LA PLATA	COLORADO	NEW MEXICO	I	14206044254	3376	7315	2985	Y

T. 32 N., R. 7 W.



NOTE:
DOWNHOLE INFORMATION TAKEN FROM STANDARD PLANNING REPORTS PROVIDED BY HILCORP SAN JUAN, L.P. DATED 8/14/23

GEO. SURFACE VALUES

LATITUDE (NAD 83)
NORTH 37.0219339°
LONGITUDE (NAD 83)
WEST 107.6226606°

LATITUDE (NAD 27)
NORTH 37°01.31581'
LONGITUDE (NAD 27)
WEST 107°37.32292'

NORTHING (NAD 83)
1136402.54
EASTING (NAD 83)
2380317.69

GEO. PILOT BOTTOM HOLE VALUES

LATITUDE (NAD 83)
NORTH 37.0222809°
LONGITUDE (NAD 83)
WEST 107.6190700°

LATITUDE (NAD 27)
NORTH 37°01.33663'
LONGITUDE (NAD 27)
WEST 107°37.10749'

NORTHING (NAD 83)
1136505.05
EASTING (NAD 83)
2381368.60

LATERAL No. 1 FIRST TAKE POINT (FTP) VALUES

LATITUDE (NAD 83)
NORTH 37.0221942°
LONGITUDE (NAD 83)
WEST 107.6199580°

LATITUDE (NAD 27)
NORTH 37°01.33143'
LONGITUDE (NAD 27)
WEST 107°37.16077'

NORTHING (NAD 83)
1136479.37
EASTING (NAD 83)
2381108.72

GEO. LATERAL No. 1 BOTTOM HOLE VALUES

LATITUDE (NAD 83)
NORTH 37.0222345°
LONGITUDE (NAD 83)
WEST 107.6075341°

LATITUDE (NAD 27)
NORTH 37°01.33384'
LONGITUDE (NAD 27)
WEST 107°36.41537'

NORTHING (NAD 83)
1136411.96
EASTING (NAD 83)
2384735.38

LATERAL No. 2 FIRST TAKE POINT (FTP) VALUES

LATITUDE (NAD 83)
NORTH 37.0221826°
LONGITUDE (NAD 83)
WEST 107.6200874°

LATITUDE (NAD 27)
NORTH 37°01.33073'
LONGITUDE (NAD 27)
WEST 107°37.16853'

NORTHING (NAD 83)
1136476.01
EASTING (NAD 83)
2381070.84

GEO. LATERAL No. 2 BOTTOM HOLE VALUES

LATITUDE (NAD 83)
NORTH 37.0188137°
LONGITUDE (NAD 83)
WEST 107.6075480°

LATITUDE (NAD 27)
NORTH 37°01.12859'
LONGITUDE (NAD 27)
WEST 107°36.41621'

NORTHING (NAD 83)
1135166.79
EASTING (NAD 83)
2384703.23

LEGEND

- SURFACE LOCATION (SHL)
- BOTTOM HOLE LOCATION (BHL)
- FIRST TAKE POINT (FTP)
- ALUMINUM CAP - SUIR 1991
- ALUMINUM CAP - SUIR 2003
- CALCULATED POSITION
- DENOTES 90° TIE
- (C) CALCULATED
- (B.D.B.) BASIS OF BEARING

BASIS OF BEARING/DATUM

CO SP SOUTH (1983) - NAVD 88 ELEV., GPS OBSERVATIONS: MONUMENTED WEST LINE OF THE NW 1/4 OF SECTION 16, BASIS OF ELEVATION: AS MEASURED AT SET OPUS ADJUSTED CONTROL POINT LOCATED IN THE SW 1/4 OF SECTION 4, ELEVATION: 6373.9'; T-32-N, R-7-W, N.M.P.M., LA PLATA COUNTY, COLORADO

1000' 500' 0 1000' 2000'

SCALE: 1" = 1000'

-1°18'07" T.N. G.N.

G.N.=GRID NORTH
T.N.=TRUE NORTH
CONVERGENCE AT SURFACE LOCATION

N

SURVEYOR'S STATEMENT:

I, John A. Vukonich, of Farmington, New Mexico, hereby state: This map was made from notes taken during an actual survey under my direct supervision on SEPTEMBER 28, 2023 and it correctly shows the location of SOUTHERN UTE 704H.

COLORADO PLS No. 38275 — DATE 9/13/2023

NOTES

GPS OPERATOR ROBERT GONZALES
OBSERVED A PDOP OF 2.2
ALL GPS OBSERVATIONS ARE IN COMPLIANCE WITH COGCC RULE NO. 215.

HILCORP SAN JUAN, L.P.

UNITED FIELD SERVICES INC.

P.O. BOX 3651
FARMINGTON, NM 87499
OFFICE: (505) 334-0408

BY: C.B. | DWG No. 11735W02 | DATE: 09/12/23

PLAT OF DRILLING LOCATION FOR HILCORP SAN JUAN, L.P.
SOUTHERN UTE 704H
SURFACE: 816' F/NL & 165' F/WL
PILOT BOTTOM HOLE: 694' F/NL & 1213' F/WL
LATERAL No. 1 BOTTOM HOLE: 709' F/NL & 727' F/EL
LATERAL No. 2 BOTTOM HOLE: 1955' F/NL & 722' F/EL
SECTION 16, T. 32 N, R. 7 W, N.M.P.M.
LA PLATA COUNTY, COLORADO

SHEET A1

HILCORP SAN JUAN, L.P.

SOUTHERN UTE 704H

816’ FNL & 165’ FWL (SURFACE)

694’ FNL & 1213’ FWL (PILOT BOTTOM HOLE)

709’ FNL & 727’ FEL (LATERAL 1 BOTTOM HOLE)

1955’ FNL & 722’ FEL (LATERAL 2 BOTTOM HOLE)

LATITUDE: 37.0219339° N

LONGITUDE: 107.6226606° W

NAD 83

SECTION 16, T-32-N, R-7-W, N.M.P.M.

LA PLATA COUNTY, COLORADO

FROM THE INTERSECTION OF LA PLATA COUNTY ROAD 318 AND
COLORADO STATE HIGHWAY 172, SOUTH OF IGNACIO, COLORADO.

TRAVEL SOUTHERLY 5.9 MILES ON COLORADO STATE HIGHWAY 172.
TURN RIGHT, GAIN ACCESS TO LOCKED GATE AND
TRAVEL NORTHWESTERLY 0.4 MILE.
TURN RIGHT AT INTERSECTION AND CONTINUE NORTHWESTERLY 0.3 MILE.
TURN LEFT AND TRAVEL SOUTHWESTERLY 0.5 MILE
ON EXISTING RECLAIMED ROAD TO PROPOSED NEW ACCESS ROAD LEADING TO
PROPOSED SOUTHERN UTE 704H WELL LOCATION.

APD ID: 10400096607 **Submission Date:** 01/18/2024

Operator Name: HILCORP ENERGY COMPANY

Well Name: SOUTHERN UTE **Well Number:** 704H

Well Type: COALBED NATURAL GAS WELL **Well Work Type:** Drill

Highlighted data reflects the most recent changes

Show Final Text

Section 1 - Geologic Formations

Formation ID	Formation Name	Elevation	True Vertical	Measured Depth	Lithologies	Mineral Resources	Producing Formatio
14129733	OJO ALAMO	0	2406	2428	SANDSTONE	USEABLE WATER	N
14129734	KIRTLAND	-2544	2544	2594	SHALE	NONE	N
14129735	FRUITLAND	-2628	2628	2706	COAL	NATURAL GAS	Y
14129736	PICTURED CLIFFS	-3076	3076	3630	SANDSTONE	NONE	N

Section 2 - Blowout Prevention

Pressure Rating (PSI): 3M **Rating Depth:** 5000

Equipment: Rotating head

Requesting Variance? NO

Variance request:

Testing Procedure: BOP Testing: The BOPE will be tested to 250 psi (Low) for 5 minutes and 3,000 psi (High) for 10 minutes. Pressure test surface casing to 600 psi for 30 minutes and intermediate casing to 1,500 psi for 30 minutes

Choke Diagram Attachment:

Pressure_Control_Equipment_20240108095937.pdf

BOP Diagram Attachment:

Pressure_Control_Equipment_20240108093331.pdf

Operator Name: HILCORP ENERGY COMPANY

Well Name: SOUTHERN UTE **Well Number:** 704H

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	12.25	9.625	NEW	API	N	0	320	0	320	6361	6041	320	H-40	32.3	BUTT	11.6	15.2	DRY	35.3	DRY	24.6
2	INTERMEDIATE	8.75	7.0	NEW	API	N	0	3583	0	3056	6361	3305	3583	J-55	23	BUTT	2.1	2.4	DRY	4.4	DRY	3.8
3	LINER	6.25	4.5	NEW	API	N	3295	6930	2934	2982	3427	3379	3635	J-55	11.6	BUTT	1	1	DRY	2.2	DRY	1.9
4	LINER	6.25	4.5	NEW	API	N	3253	7315	2985	2985	3376	3376	4062	J-55	11.6	BUTT	1	1	DRY	2.2	DRY	1.9

Casing Attachments

Casing ID: 1 **String** SURFACE

Inspection Document:

Spec Document:

Tapered String Spec:

Casing Design Assumptions and Worksheet(s):

Casing_Program_20240108093725.pdf

Operator Name: HILCORP ENERGY COMPANY

Well Name: SOUTHERN UTE **Well Number:** 704H

Casing Attachments

Casing ID: 2 **String** INTERMEDIATE

Inspection Document:

Spec Document:

Tapered String Spec:

Casing Design Assumptions and Worksheet(s):

Casing ID: 3 **String** LINER

Inspection Document:

Spec Document:

Tapered String Spec:

Casing Design Assumptions and Worksheet(s):

Casing ID: 4 **String** LINER

Inspection Document:

Spec Document:

Tapered String Spec:

Casing Design Assumptions and Worksheet(s):

Section 4 - Cement

Operator Name: HILCORP ENERGY COMPANY

Well Name: SOUTHERN UTE **Well Number:** 704H

String Type	Lead/Tail	Stage Tool Depth	Top MD	Bottom MD	Quantity(sx)	Yield	Density	Cu Ft	Excess%	Cement type	Additives
SURFACE	Lead		0	320	144	1.39	14.6	200		Type III Cement	2% Calcuim Chloride, 0.25 lbs/sk Cello Flake, 0.2% D-CD 2
INTERMEDIATE	Lead		0	3583	338	2.13	12.5	720		Type III Cement	5% D-CSE, 1.2% D-MPA, 0.3% D-SA, 0.3% D-CD, 0.5% D-FP. 0.3% D-R, 0.25 lbs/sk CelloFlake, 0.25 lbs/sk Phenoseal, 0.125 lbs/sk Plexfiber
INTERMEDIATE	Tail		3083	3583	70	1.7	13.5	120		Type III Cement	5% D-CSE, 1.2% D-MPA, 0.5% D-FP, 0.25 lbs/sk CelloFlake, 0.25 lbs/sk Phenoseal, 0.125 lbs/sk Plexfiber
LINER	Lead		0	6930	0	0	0	0		Uncemented liner	0
LINER	Lead		0	7315	0	0	0	0		Uncemented liner	N/A

Section 5 - Circulating Medium

Mud System Type: Closed

Will an air or gas system be Used? YES

Description of the equipment for the circulating system in accordance with Onshore Order #2: Air assist will be used if returns are lost with drilling fluids

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

Drilling_Fluids_Program_20240108094740.pdf

Aerated_Fluid_Layout_20240108094857.pdf

Describe what will be on location to control well or mitigate other conditions: 400 bbls of 10 lb mud in addition to standard

Describe the mud monitoring system utilized: Parson PVT or Equivalent

Circulating Medium Table

Operator Name: HILCORP ENERGY COMPANY

Well Name: SOUTHERN UTE **Well Number:** 704H

Top Depth	Bottom Depth	Mud Type	Min Weight (lbs/gal)	Max Weight (lbs/gal)	Density (lbs/cu ft)	Gel Strength (lbs/100 sqft)	PH	Viscosity (CP)	Salinity (ppm)	Filtration (cc)	Additional Characteristics
0	300	SPUD MUD	8.3	9.2							
300	3583	LSND/GEL	8.4	9.5							
3295	6930	OTHER : Produced Water Brine (if needed)	8.5	10.5							
3253	7315	OTHER : Produced Water Brine (if needed)	8.5	10.5							

Section 6 - Test, Logging, Coring

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

N/A

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

MEASUREMENT WHILE DRILLING,

Coring operation description for the well:

N/A

Section 7 - Pressure

Anticipated Bottom Hole Pressure: 900 **Anticipated Surface Pressure:** 227

Anticipated Bottom Hole Temperature(F): 140

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

Describe:

Contingency Plans geoharzards description:

Contingency Plans geohazards

Hydrogen Sulfide drilling operations plan required? NO

Hydrogen sulfide drilling operations

Operator Name: HILCORP ENERGY COMPANY

Well Name: SOUTHERN UTE **Well Number:** 704H

Section 8 - Other Information

Proposed horizontal/directional/multi-lateral plan submission:

Southern_Ute_704H_Lateral_2_Packet_20240108095433.pdf
Southern_Ute_704H_Pilot_Packet_20240108095433.pdf
Southern_Ute_704H_Lateral_1_Packet_20240108095434.pdf
Page_2_from_2024_HEC_OPE_Hz_Drill_Wells_WBD_20240108100318.pdf

Other proposed operations facets description:

Other proposed operations facets attachment:

Cement_Program_20240108095456.pdf
Testing_Program_20240108095456.pdf

Other Variance attachment:

Hilcorp Energy Company

Technical Drilling Plan (Rev. 0)

Hilcorp Energy Company proposes to drill and complete the referenced dual lateral horizontal well targeting a coal seam in the Fruitland formation.

Note: This technical drilling plan will be adjusted based upon actual conditions.

1. Location

Date:	October 18, 2023	**Pool:**	Fruitland Coal
Well Name:	Southern Ute 704H	**Ground Elevation (ft. MSL):**	6,360
Surface Hole Location:	37°01.31581' N, 107°37.32292' W	**County, State:**	La Plata County, CO
Lateral #1 Depth (ft.)	6,930' MD / 2,982' TVD	**Lat 1 Bottom Hole Location:**	37°01.33384' N, 107°36.41537' W
Lateral #2 Depth (ft.)	7,315' MD / 2,985' TVD	**Lat 2 Bottom Hole Location:**	37°01.12859' N, 107°36.41621' W

Note: All depths in the directional drilling plan are referenced from an estimated RKB datum of 15' above ground level.

2. Geological Markers

Anticipated formation tops with comments of any possible water, gas or oil shows are indicated below:

Formation	Depth (ft. TVD)	Remarks
Ojo Alamo	2,406'	Water (fresh/useable)
Kirtland	2,544'	None
Fruitland	2,628'	Gas, Coal, Water

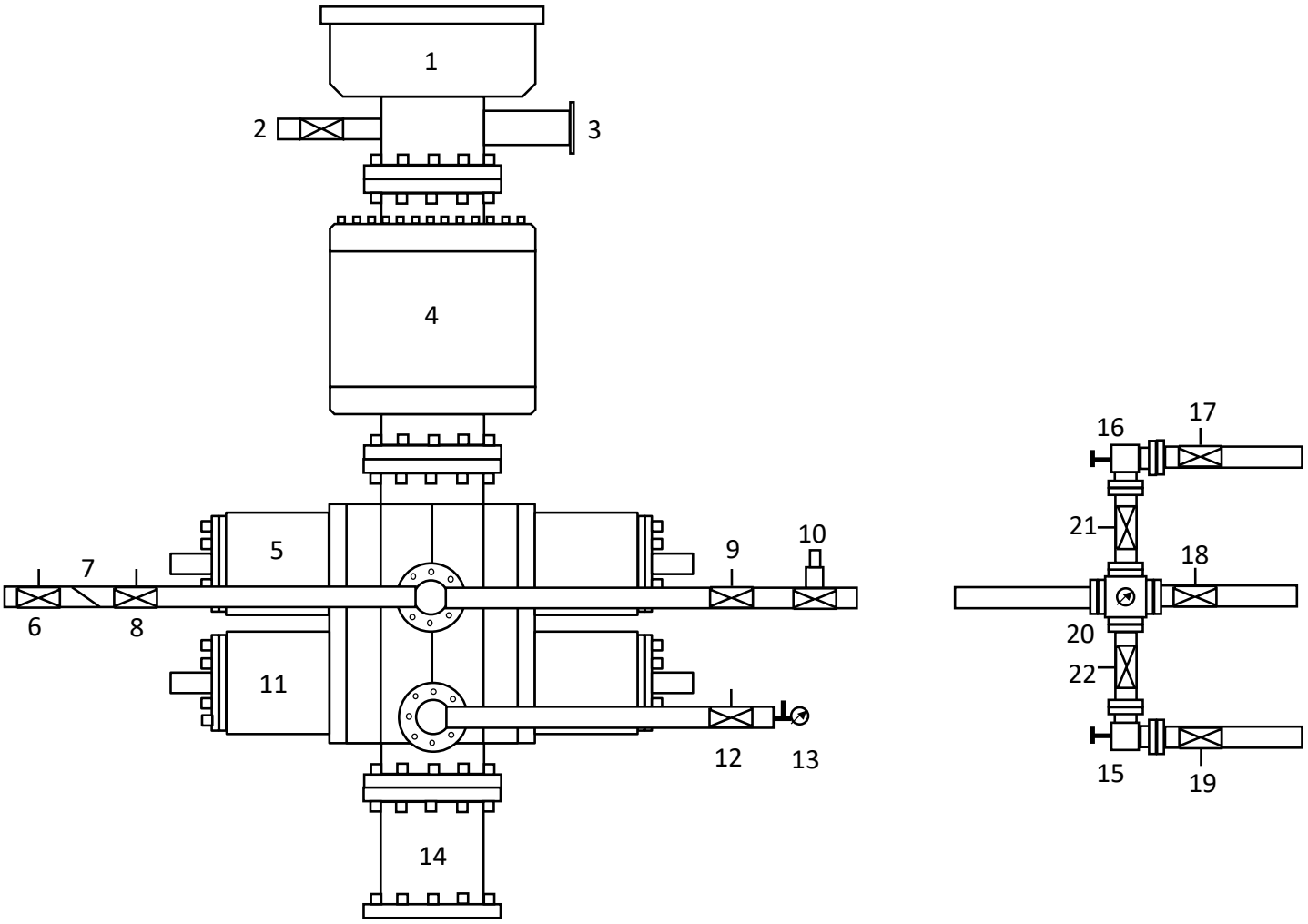
3. Pressure Control Equipment

See attached BOP equipment and choke manifold schematics for a diagram of pressure control equipment.

- BOP equipment will be nippled up on top of the wellhead after surface casing is set and cemented.
- Pressure control configurations will be designed to meet the minimum 2M standards.
- All equipment will have a minimum of 3M pressure rating and will be rated for 5,000' (TVD).
- A rotating head will be installed on top of the annular as seen in the attached diagram.
- BOP Testing: The BOPE will be tested to **250 psi (Low) for 5 minutes and 3,000 psi (High) for 10 minutes.** Pressure test **surface casing to 600 psi for 30 minutes** and **intermediate casing to 1,500 psi for 30 minutes.** Utilize a BOPE Testing Unit with a recording chart and appropriate test plug for testing. BOP equipment will be tested upon installation, every 30 days, and after any repairs are made to the BOP equipment. Annular preventors will be functionally tested at least once per week. Pipe and blind rams will be function tested each trip. **The COGCC and the BLM will be notified 24 hours in advance of testing BOPE**. All tests and inspections will be recorded and logged with time and results. A full BOP test will be conducted if a seal subject to test pressure is broken, following related repairs, and at a minimum of 30-day intervals.

Appendix A

Pressure Control Equipment Configuration



1	Rotating Head	12	Manual Isolation Valve
2	Flow Line	13	Needle Valve & Pressure Gauge
3	Fill-Up Line	14	Spacer Spool (if needed)
4	3M Annular Preventer	15	Manual Choke
5	3M Pipe Rams	16	Manual Choke
6	Manual Isolation Valve	17	Manual Isolation Valve
7	Check Valve	18	Manual Isolation Valve
8	Manual Isolation Valve	19	Manual Isolation Valve
9	Manual Isolation Valve	20	Valve Block & Pressure Gauge
10	High Closing Ratio Valve	21	Manual Isolation Valve
11	3M Blind Rams	22	Manual Isolation Valve

Hilcorp Energy Company

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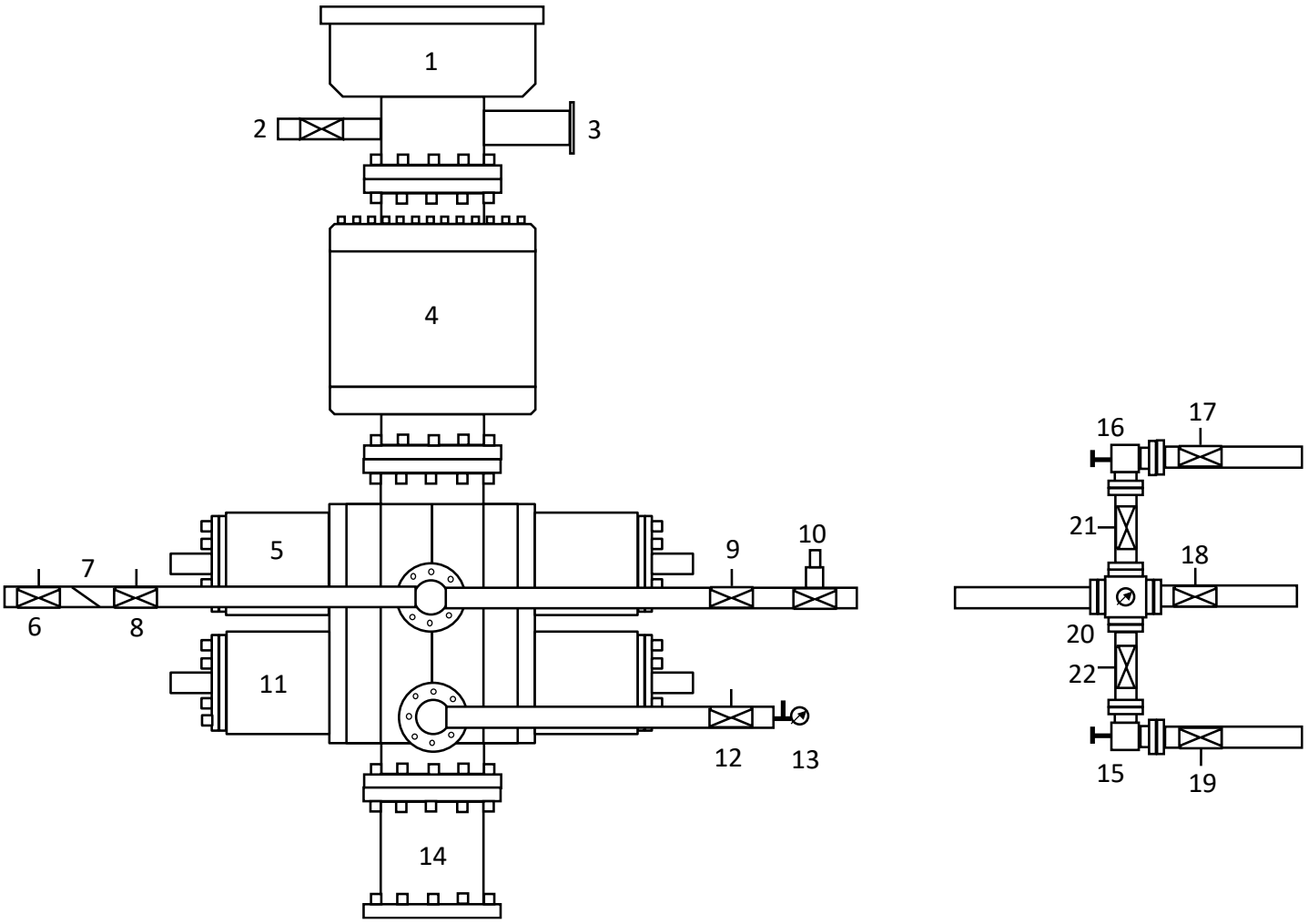

1	Rotating Head	12	Manual Isolation Valve
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3	Fill-Up Line	14	Spacer Spool (if needed)
4	3M Annular Preventer	15	Manual Choke
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6	Manual Isolation Valve	17	Manual Isolation Valve
7	Check Valve	18	Manual Isolation Valve
8	Manual Isolation Valve	19	Manual Isolation Valve
9	Manual Isolation Valve	20	Valve Block & Pressure Gauge
10	High Closing Ratio Valve	21	Manual Isolation Valve
11	3M Blind Rams	22	Manual Isolation Valve

4. Casing & Cement Program

A. Proposed Casing Program:

Proposed Casing Design					
Casing String	**Hole Size**	**Casing Size**	**Weight/Grade**	**Top Depth (MD/TVD)**	**Shoe Depth (MD/TVD)**
Surface	12-1/4"	9-5/8"	32.3# H40 (or equiv.) STC	0'	320' / 320'
Intermediate	8-3/4"	7"	23# J55 (or equiv.) LTC	0'	3,583' / 3,056'
Lateral #1 Production Liner (pre-perforated)	6-1/4"	4-1/2"	11.6# J55 (or equiv.) LTC	3,295' / 2,934'	6,930' / 2,982'
Lateral #2 Production Liner (pre-perforated)	6-1/4"	4-1/2"	11.6# J55 (or equiv.) LTC	3,253' / 2,985'	7,315' / 2,985'

Proposed Casing Design Safety Factors					
Casing String	**Casing Description**	**Burst Design SF**	**Collapse Design SF**	**Joint Tensile Design SF**	**Connection Tensile Design SF**
Surface	9-5/8" 32.3# H40 STC	15.2	11.6	35.3	24.6
Intermediate	7" 23# J55 LTC	2.4	2.1	4.4	3.8
Lateral #1 Production Liner (pre-perforated)	4-1/2" 11.6# J55 LTC	N/A	N/A	2.3	2.0
Lateral #2 Production Liner (pre-perforated)	4-1/2" 11.6# J55 LTC	N/A	N/A	2.2	1.9

Notes:

- The production liners will be pre-perforated and dropped off in the open hole (uncemented). The top of the production liner will be approximately 5'-10' outside of the casing exit (no overlap between liner and 7" casing).
- If the 6-1/4" hole is not drilled to the total planned measured depth, the production liner setting depth and length will be adjusted accordingly.
- The 7" casing will be set across the setback boundary line and with the casing shoe within the drill block.

B. Proposed Centralizer Program:

Proposed Centralizer Program	
Interval	**Centralizers & Placement**
Surface	1 centralizer per joint on bottom 3 joints.
Intermediate	1 centralizer 10' above the shoe with lock collar. 1 centralizer every other joint on bottom 10 joints. 1 centralizer every 4th joint to Ojo Alamo base. 1 Turbolizer at base of Ojo Alamo. 1 centralizer every joint to Ojo Alamo top. 1 Turbolizer placed midway through Ojo Alamo. 1 centralizer every 4th joint from top of Ojo Alamo to surface shoe. 1 centralizer inside the surface casing.
Production	N/A

5. Drilling Fluids Program

A. Proposed Drilling Fluids Program:

Interval	Fluid Type	Density	Fluid Loss	Max Chlorides	Depth
		(ppg)	(mL/30 min)	(mg/L)	(ft. MD)
Surface	Spud Mud	8.3 – 9.2	NC	1,000	0' – 300'
Intermediate	LSND / Gel System	8.4 – 9.5	6-16	1,000	300' – 3,583'
Production Lateral #1	Produced Water Brine (if needed)	8.5 – 10.5	4-14	1,000 400,000 (if CaCl added for density)	3,295' – 6,930'
Production Lateral #2	Produced Water Brine (if needed)	8.5 – 10.5	4-14	1,000 400,000 (if CaCl added for density)	3,253' – 7,315'

Notes:

- In the 6-1/4" production section, CaCl brine will only be utilized if a weighting agent is needed to increase mud weight (for either well control or wellbore stability).
- Lost circulation material may be added to the mud systems to manage fluid losses as hole conditions dictate.
- The well will be drilled utilizing a closed-loop circulating system. Drill cuttings will be transported to an approved disposal site.
- Estimated total volume of drill cuttings for disposal: 581 bbls (3,262 ft^3).

6. Estimated Pressures & Drilling Hazards

A. Estimated Pressures

- Estimated Reservoir Pressure of Fruitland Coal: 600 – 900 psi
- Maximum Anticipated Surface Pressure: 700 psi
- No over-pressured intervals expected.
- There is production from the Fruitland Coal formation in offset wells in the area, which could result in these formations being under-pressured.

B. Water Flows

- Water flows are possible in the intermediate section. Water flows will be mitigated with increased mud weight.

C. Lost Circulation

- Lost circulation is possible in the coal section. Losses will be mitigated by adding LCM to the mud system.

D. Hydrogen Sulfide

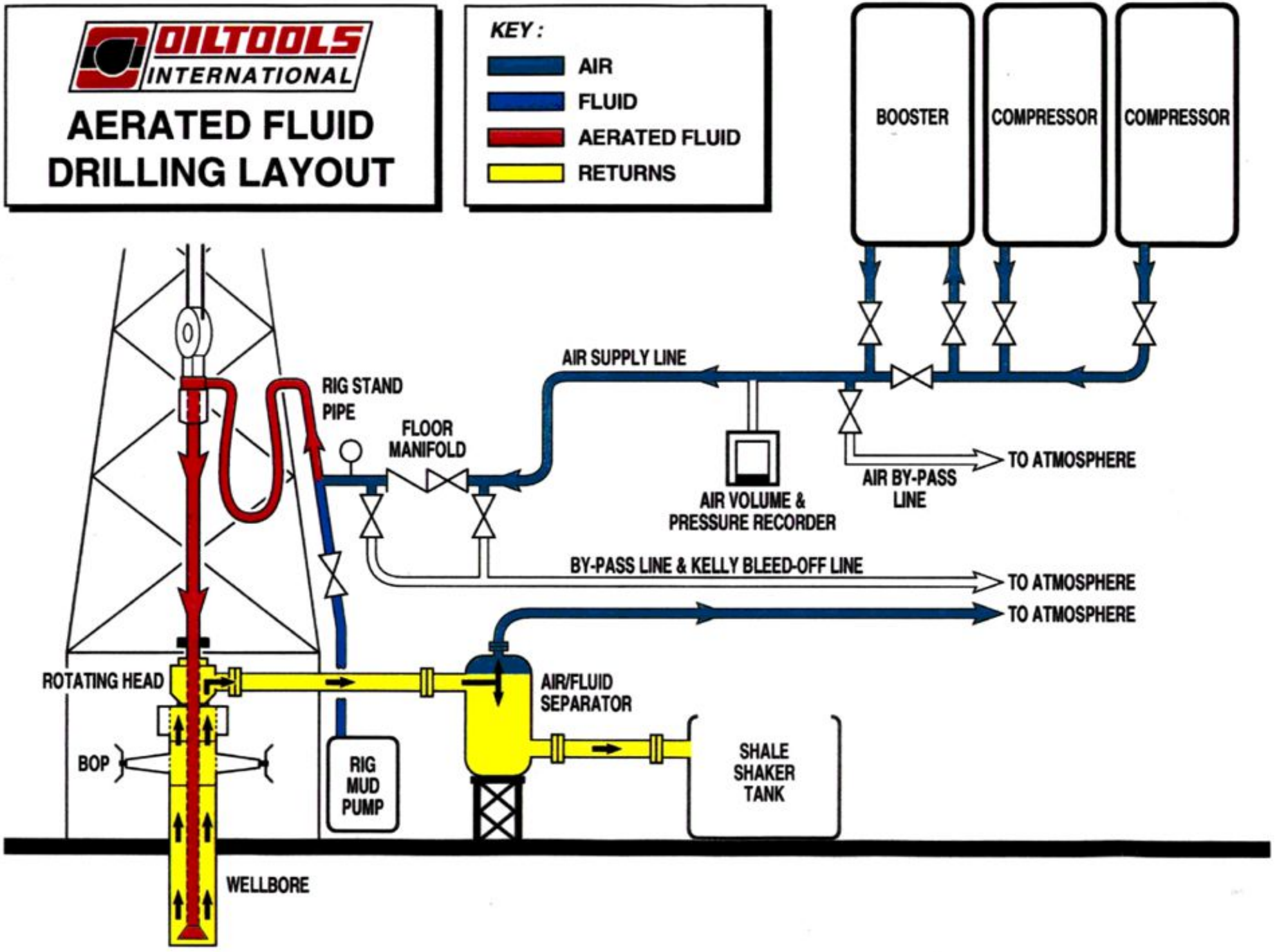
- No hydrogen sulfide is expected to be encountered based on nearby well production.

OILTOOLS INTERNATIONAL

AERATED FLUID DRILLING LAYOUT

KEY :

- AIR
- FLUID
- AERATED FLUID
- RETURNS



HALLIBURTON
Sperry Drilling

Hilcorp Energy Company

Hilcorp

Project: Farmington, NM
Site: San Juan Basin
Well: Southern Ute 704H
Wellbore: Lateral No.2
Design: WP1.3

17:52, August 14 2023

PROJECT DETAILS: Farmington, NM	
Geodetic System:	US State Plane 1927 (Exact solution)
Datum:	NAD 1927 (NADCON CONUS)
Ellipsoid:	Clarke 1866
Zone:	New Mexico West 3003
System Datum:	Mean Sea Level

BHL DETAILS
MD: 7315.1ft
TVD: 2982.0ft
N/S: -1126.0ft
E/W: 4414.7ft
Northing: 2190196.20ft
Easting: 566095.00ft
Latitude: 37° 1' 7.715 N
Longitude: 107° 36' 24.972 W

WP1.3

Surface Location:

Northing	Easting	Latittude	Longitude
2191322.07	561680.67	37° 1' 18.949 N	107° 37' 19.375 W

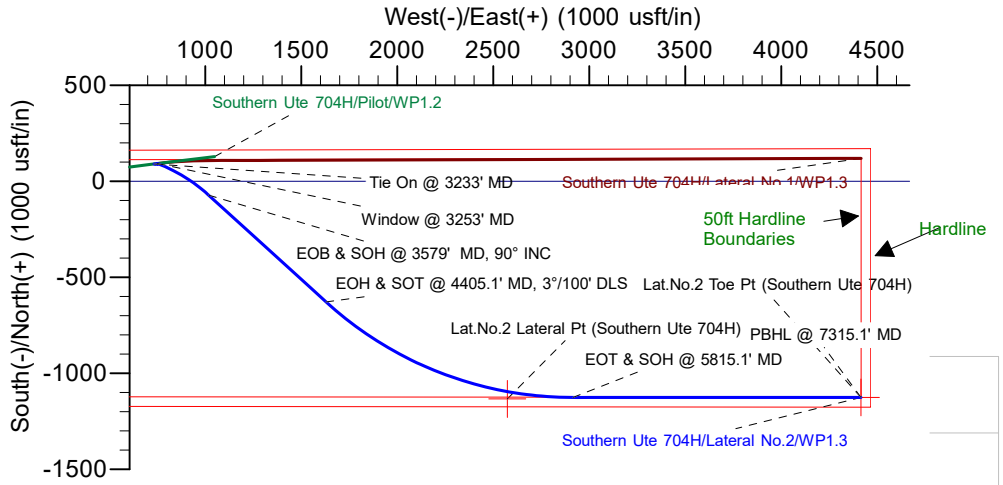
Reference Elev'n: RKB to MSL= 6375usft @ 6375.0usft GL= 6360.0usft

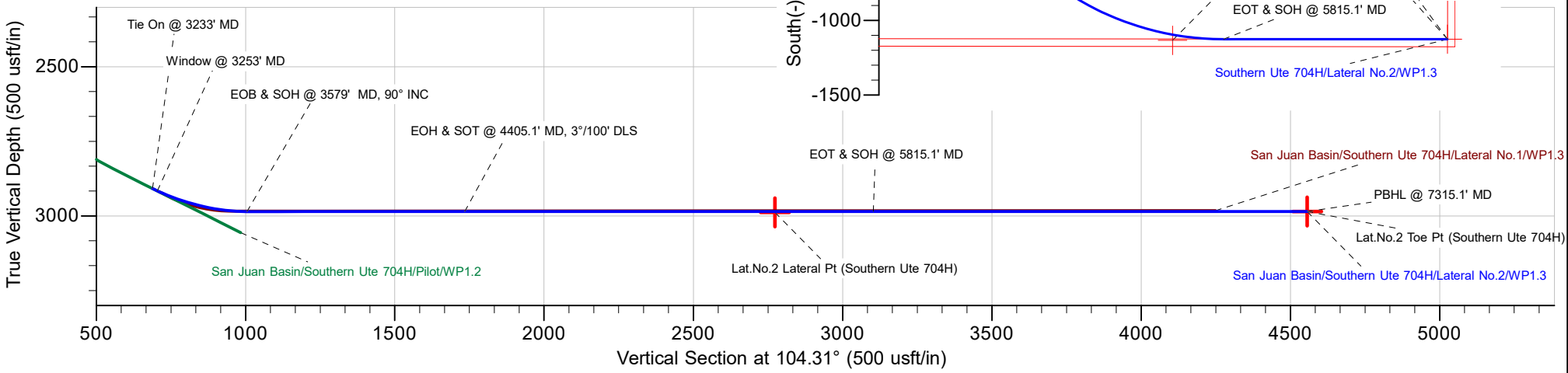
Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSect	Annotation
1	3233.0	65.00	83.00	2908.0	90.0	733.0	0.0	0.0	688.0	Tie On @ 3233' MD
2	3253.0	65.60	110.00	2916.4	92.2	751.0	3.00	0.00	704.9	Window @ 3253' MD
3	3579.0	90.02	132.30	2985.5	-72.7	1018.4	10.00	44.77	1004.7	EOB & SOH @ 3579' MD, 90° INC
4	4405.1	90.02	132.30	2985.3	-628.7	1629.3	0.00	0.00	1734.1	EOH & SOT @ 4405.1' MD, 3°/100' DLS
5	5815.1	90.00	90.00	2985.0	-1126.0	2914.7	3.00	-90.02	3102.5	EOT & SOH @ 5815.1' MD
6	7315.1	90.00	90.00	2985.0	-1126.0	4414.7	0.00	0.00	4556.0	PBHL @ 7315.1' MD

Target Details

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Shape
Lat.No.2 Toe Pt (Southern Ute 704H)	2985.0	-1126.0	4414.7	2190196.20	566095.00	37° 1' 7.715 N	107° 36' 24.972 W	Point
Lat.No.2 Lateral Pt (Southern Ute 704H)	2988.0	-1133.3	2572.8	2190188.90	564253.30	37° 1' 7.686 N	107° 36' 47.683 W	Point

Reference is Grid North





Hilcorp Energy Company

Farmington, NM
San Juan Basin
Southern Ute 704H

Lateral No.2

Plan: WP1.3

Standard Planning Report

14 August, 2023

Database:	EDM 5000.17 Single User Db	**Local Co-ordinate Reference:**	Well Southern Ute 704H
Company:	Hilcorp Energy Company	**TVD Reference:**	RKB to MSL= 6375usft @ 6375.0usft
Project:	Farmington, NM	**MD Reference:**	RKB to MSL= 6375usft @ 6375.0usft
Site:	San Juan Basin	**North Reference:**	Grid
Well:	Southern Ute 704H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Lateral No.2		
Design:	WP1.3		

Project Farmington, NM

Map System:	US State Plane 1927 (Exact solution)	**System Datum:**	Mean Sea Level
Geo Datum:	NAD 1927 (NADCON CONUS)		
Map Zone:	New Mexico West 3003		Using geodetic scale factor

Site San Juan Basin

Site Position:		**Northing:**	2,191,322.07 usft	**Latitude:**	37° 0' 33.264 N
From:	Map	**Easting:**	561,680.67 usft	**Longitude:**	107° 35' 27.852 W
Position Uncertainty:	5.0 usft	**Slot Radius:**	13-3/16 "		

Well Southern Ute 704H

Well Position	**+N/-S**	0.0 usft	**Northing:**	2,191,322.07 usft	**Latitude:**	37° 1' 18.949 N
	+E/-W	0.0 usft	**Easting:**	561,680.67 usft	**Longitude:**	107° 37' 19.375 W
Position Uncertainty		1.0 usft	**Wellhead Elevation:**	usft	**Ground Level:**	6,360.0 usft
Grid Convergence:		0.13 °				

Wellbore Lateral No.2

Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	BGGM2023	8/14/2023	8.64	63.40	49,465.34218527

Design WP1.3

Audit Notes:

Version:	**Phase:**	PLAN	**Tie On Depth:**	3,233.0

Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)
	0.0	0.0	0.0	104.31

Plan Survey Tool Program **Date** 8/14/2023

	Depth From (usft)	Depth To (usft)	Survey (Wellbore)	Tool Name	Remarks
1	3,233.0	7,315.1	WP1.3 (Lateral No.2)	3_MWD+HRGM	
				B001Mb: HRGM declination co	

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
3,233.0	65.00	83.00	2,908.0	90.0	733.0	0.00	0.00	0.00	0.00	
3,253.0	65.60	110.00	2,916.4	92.2	751.0	3.00	3.00	0.00	0.00	
3,579.0	90.02	132.30	2,985.5	-72.7	1,018.4	10.00	7.49	6.84	44.77	
4,405.1	90.02	132.30	2,985.3	-628.7	1,629.3	0.00	0.00	0.00	0.00	
5,815.1	90.00	90.00	2,985.0	-1,126.0	2,914.7	3.00	0.00	-3.00	-90.02	
7,315.1	90.00	90.00	2,985.0	-1,126.0	4,414.7	0.00	0.00	0.00	0.00	Lat.No.2 Toe Pt (Sout

Database:	EDM 5000.17 Single User Db	**Local Co-ordinate Reference:**	Well Southern Ute 704H
Company:	Hilcorp Energy Company	**TVD Reference:**	RKB to MSL= 6375usft @ 6375.0usft
Project:	Farmington, NM	**MD Reference:**	RKB to MSL= 6375usft @ 6375.0usft
Site:	San Juan Basin	**North Reference:**	Grid
Well:	Southern Ute 704H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Lateral No.2		
Design:	WP1.3		

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.00	0.00	0.00
100.0	0.00	0.00	100.0	0.0	0.0	0.0	0.00	0.00	0.00
200.0	0.00	0.00	200.0	0.0	0.0	0.0	0.00	0.00	0.00
300.0	0.00	0.00	300.0	0.0	0.0	0.0	0.00	0.00	0.00
400.0	0.00	0.00	400.0	0.0	0.0	0.0	0.00	0.00	0.00
500.0	0.00	0.00	500.0	0.0	0.0	0.0	0.00	0.00	0.00
600.0	0.00	0.00	600.0	0.0	0.0	0.0	0.00	0.00	0.00
700.0	0.00	0.00	700.0	0.0	0.0	0.0	0.00	0.00	0.00
800.0	0.00	0.00	800.0	0.0	0.0	0.0	0.00	0.00	0.00
900.0	0.00	0.00	900.0	0.0	0.0	0.0	0.00	0.00	0.00
1,000.0	0.00	0.00	1,000.0	0.0	0.0	0.0	0.00	0.00	0.00
1,100.0	0.00	0.00	1,100.0	0.0	0.0	0.0	0.00	0.00	0.00
1,200.0	0.00	0.00	1,200.0	0.0	0.0	0.0	0.00	0.00	0.00
1,300.0	0.00	0.00	1,300.0	0.0	0.0	0.0	0.00	0.00	0.00
1,400.0	0.00	0.00	1,400.0	0.0	0.0	0.0	0.00	0.00	0.00
1,500.0	0.00	0.00	1,500.0	0.0	0.0	0.0	0.00	0.00	0.00
1,600.0	0.00	0.00	1,600.0	0.0	0.0	0.0	0.00	0.00	0.00
1,700.0	0.00	0.00	1,700.0	0.0	0.0	0.0	0.00	0.00	0.00
1,800.0	0.00	0.00	1,800.0	0.0	0.0	0.0	0.00	0.00	0.00
1,900.0	0.00	0.00	1,900.0	0.0	0.0	0.0	0.00	0.00	0.00
2,000.0	5.50	83.00	1,999.8	0.6	4.8	4.5	5.50	5.50	0.00
2,100.0	11.00	83.00	2,098.8	2.3	19.0	17.8	5.50	5.50	0.00
2,200.0	16.50	83.00	2,195.9	5.2	42.6	40.0	5.50	5.50	0.00
2,300.0	22.00	83.00	2,290.2	9.2	75.3	70.7	5.50	5.50	0.00
2,400.0	27.50	83.00	2,381.0	14.3	116.8	109.7	5.50	5.50	0.00
2,500.0	33.00	83.00	2,467.4	20.5	166.8	156.6	5.50	5.50	0.00
2,600.0	38.50	83.00	2,548.5	27.6	224.8	211.0	5.50	5.50	0.00
2,700.0	44.00	83.00	2,623.7	35.6	290.2	272.4	5.50	5.50	0.00
2,800.0	49.50	83.00	2,692.1	44.5	362.5	340.2	5.50	5.50	0.00
2,900.0	55.00	83.00	2,753.3	54.1	440.9	413.9	5.50	5.50	0.00
3,000.0	60.50	83.00	2,806.7	64.4	524.8	492.6	5.50	5.50	0.00
3,100.0	65.00	83.00	2,851.8	75.3	613.4	575.7	4.50	4.50	0.00
3,200.0	65.00	83.00	2,894.1	86.4	703.3	660.2	0.00	0.00	0.00
3,233.0	65.00	83.00	2,908.0	90.0	733.0	688.0	0.00	0.00	0.00
3,253.0	65.60	110.00	2,916.4	92.2	751.0	704.9	122.48	3.00	135.00
3,300.0	68.98	113.54	2,934.5	76.1	791.3	747.9	10.00	7.19	7.54
3,400.0	76.38	120.60	2,964.3	32.6	876.1	840.9	10.00	7.40	7.05
3,500.0	83.96	127.21	2,981.4	-22.3	957.7	933.5	10.00	7.59	6.62
3,579.0	90.02	132.30	2,985.5	-72.7	1,018.4	1,004.7	10.00	7.66	6.44
3,600.0	90.02	132.30	2,985.5	-86.9	1,033.9	1,023.3	0.00	0.00	0.00
3,700.0	90.02	132.30	2,985.5	-154.2	1,107.8	1,111.6	0.00	0.00	0.00
3,800.0	90.02	132.30	2,985.5	-221.5	1,181.8	1,199.9	0.00	0.00	0.00
3,900.0	90.02	132.30	2,985.4	-288.8	1,255.8	1,288.2	0.00	0.00	0.00
4,000.0	90.02	132.30	2,985.4	-356.1	1,329.7	1,376.5	0.00	0.00	0.00
4,100.0	90.02	132.30	2,985.4	-423.4	1,403.7	1,464.8	0.00	0.00	0.00
4,200.0	90.02	132.30	2,985.3	-490.7	1,477.6	1,553.1	0.00	0.00	0.00
4,300.0	90.02	132.30	2,985.3	-558.0	1,551.6	1,641.4	0.00	0.00	0.00
4,400.0	90.02	132.30	2,985.3	-625.3	1,625.6	1,729.7	0.00	0.00	0.00
4,405.1	90.02	132.30	2,985.3	-628.7	1,629.3	1,734.1	0.00	0.00	0.00
4,500.0	90.02	129.45	2,985.2	-690.8	1,701.1	1,819.0	3.00	0.00	-3.00
4,600.0	90.02	126.45	2,985.2	-752.3	1,779.9	1,910.6	3.00	0.00	-3.00
4,700.0	90.02	123.45	2,985.2	-809.6	1,861.9	2,004.2	3.00	0.00	-3.00
4,800.0	90.02	120.45	2,985.1	-862.5	1,946.7	2,099.5	3.00	0.00	-3.00
4,900.0	90.01	117.45	2,985.1	-910.9	2,034.2	2,196.2	3.00	0.00	-3.00

Database:	EDM 5000.17 Single User Db	**Local Co-ordinate Reference:**	Well Southern Ute 704H
Company:	Hilcorp Energy Company	**TVD Reference:**	RKB to MSL= 6375usft @ 6375.0usft
Project:	Farmington, NM	**MD Reference:**	RKB to MSL= 6375usft @ 6375.0usft
Site:	San Juan Basin	**North Reference:**	Grid
Well:	Southern Ute 704H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Lateral No.2		
Design:	WP1.3		

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
5,000.0	90.01	114.45	2,985.1	-954.7	2,124.1	2,294.2	3.00	0.00	-3.00
5,100.0	90.01	111.45	2,985.1	-993.6	2,216.2	2,393.0	3.00	0.00	-3.00
5,200.0	90.01	108.45	2,985.1	-1,027.8	2,310.2	2,492.5	3.00	0.00	-3.00
5,300.0	90.01	105.45	2,985.0	-1,056.9	2,405.8	2,592.4	3.00	0.00	-3.00
5,400.0	90.01	102.45	2,985.0	-1,081.0	2,502.9	2,692.4	3.00	0.00	-3.00
5,500.0	90.00	99.45	2,985.0	-1,100.0	2,601.0	2,792.2	3.00	0.00	-3.00
5,600.0	90.00	96.45	2,985.0	-1,113.9	2,700.1	2,891.6	3.00	0.00	-3.00
5,700.0	90.00	93.45	2,985.0	-1,122.5	2,799.7	2,990.2	3.00	0.00	-3.00
5,800.0	90.00	90.45	2,985.0	-1,125.9	2,899.6	3,087.9	3.00	0.00	-3.00
5,815.1	90.00	90.00	2,985.0	-1,126.0	2,914.7	3,102.5	3.00	0.00	-3.00
5,900.0	90.00	90.00	2,985.0	-1,126.0	2,999.6	3,184.8	0.00	0.00	0.00
6,000.0	90.00	90.00	2,985.0	-1,126.0	3,099.6	3,281.7	0.00	0.00	0.00
6,100.0	90.00	90.00	2,985.0	-1,126.0	3,199.6	3,378.6	0.00	0.00	0.00
6,200.0	90.00	90.00	2,985.0	-1,126.0	3,299.6	3,475.5	0.00	0.00	0.00
6,300.0	90.00	90.00	2,985.0	-1,126.0	3,399.6	3,572.4	0.00	0.00	0.00
6,400.0	90.00	90.00	2,985.0	-1,126.0	3,499.6	3,669.3	0.00	0.00	0.00
6,500.0	90.00	90.00	2,985.0	-1,126.0	3,599.6	3,766.2	0.00	0.00	0.00
6,600.0	90.00	90.00	2,985.0	-1,126.0	3,699.6	3,863.1	0.00	0.00	0.00
6,700.0	90.00	90.00	2,985.0	-1,126.0	3,799.6	3,960.0	0.00	0.00	0.00
6,800.0	90.00	90.00	2,985.0	-1,126.0	3,899.6	4,056.9	0.00	0.00	0.00
6,900.0	90.00	90.00	2,985.0	-1,126.0	3,999.6	4,153.8	0.00	0.00	0.00
7,000.0	90.00	90.00	2,985.0	-1,126.0	4,099.6	4,250.7	0.00	0.00	0.00
7,100.0	90.00	90.00	2,985.0	-1,126.0	4,199.6	4,347.6	0.00	0.00	0.00
7,200.0	90.00	90.00	2,985.0	-1,126.0	4,299.6	4,444.5	0.00	0.00	0.00
7,300.0	90.00	90.00	2,985.0	-1,126.0	4,399.6	4,541.4	0.00	0.00	0.00
7,315.1	90.00	90.00	2,985.0	-1,126.0	4,414.7	4,556.0	0.00	0.00	0.00

Design Targets

Target Name - hit/miss target - Shape	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
Lat.No.2 Toe Pt (Southe - plan hits target center - Point	0.00	0.00	2,985.0	-1,126.0	4,414.7	2,190,196.20	566,095.00	37° 1' 7.715 N	107° 36' 24.972 W
Lat.No.2 Lateral Pt (Sou - plan misses target center by 37.7usft at 5478.6usft MD (2985.0 TVD, -1096.4 N, 2580.0 E) - Point	0.00	0.00	2,988.0	-1,133.3	2,572.8	2,190,188.90	564,253.30	37° 1' 7.686 N	107° 36' 47.683 W

Formations

Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)
3,465.6	2,977.0	Top of Big Blue Seam		0.00	

Database:	EDM 5000.17 Single User Db	**Local Co-ordinate Reference:**	Well Southern Ute 704H
Company:	Hilcorp Energy Company	**TVD Reference:**	RKB to MSL= 6375usft @ 6375.0usft
Project:	Farmington, NM	**MD Reference:**	RKB to MSL= 6375usft @ 6375.0usft
Site:	San Juan Basin	**North Reference:**	Grid
Well:	Southern Ute 704H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Lateral No.2		
Design:	WP1.3		

Plan Annotations

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates +N/-S (usft)	Local Coordinates +E/-W (usft)	Comment
3,233.0	2,908.0	90.0	733.0	Tie On @ 3233' MD
3,253.0	2,916.4	92.2	751.0	Window @ 3253' MD
3,579.0	2,985.5	-72.7	1,018.4	EOB & SOH @ 3579' MD, 90° INC
4,405.1	2,985.3	-628.7	1,629.3	EOH & SOT @ 4405.1' MD, 3°/100' DLS
5,815.1	2,985.0	-1,126.0	2,914.7	EOT & SOH @ 5815.1' MD
7,315.1	2,985.0	-1,126.0	4,414.7	PBHL @ 7315.1' MD

Hilcorp Energy Company

Farmington, NM
San Juan Basin
Southern Ute 704H

Lateral No.2

Plan: WP1.3

Standard Planning Report - Geographic

14 August, 2023

Database:	EDM 5000.17 Single User Db	**Local Co-ordinate Reference:**	Well Southern Ute 704H
Company:	Hilcorp Energy Company	**TVD Reference:**	RKB to MSL= 6375usft @ 6375.0usft
Project:	Farmington, NM	**MD Reference:**	RKB to MSL= 6375usft @ 6375.0usft
Site:	San Juan Basin	**North Reference:**	Grid
Well:	Southern Ute 704H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Lateral No.2		
Design:	WP1.3		

Project Farmington, NM

Map System:	US State Plane 1927 (Exact solution)	**System Datum:**	Mean Sea Level
Geo Datum:	NAD 1927 (NADCON CONUS)		
Map Zone:	New Mexico West 3003		Using geodetic scale factor

Site San Juan Basin

Site Position:		**Northing:**	2,191,322.07 usft	**Latitude:**	37° 0' 33.264 N
From:	Map	**Easting:**	561,680.67 usft	**Longitude:**	107° 35' 27.852 W
Position Uncertainty:	5.0 usft	**Slot Radius:**	13-3/16 "		

Well Southern Ute 704H

Well Position	**+N/-S**	0.0 usft	**Northing:**	2,191,322.07 usft	**Latitude:**	37° 1' 18.949 N
	+E/-W	0.0 usft	**Easting:**	561,680.67 usft	**Longitude:**	107° 37' 19.375 W
Position Uncertainty		1.0 usft	**Wellhead Elevation:**	usft	**Ground Level:**	6,360.0 usft
Grid Convergence:		0.13 °				

Wellbore Lateral No.2

Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	BGGM2023	8/14/2023	8.64	63.40	49,465.34218527

Design WP1.3

Audit Notes:

Version:	**Phase:**	PLAN	**Tie On Depth:**	3,233.0

Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)
	0.0	0.0	0.0	104.31

Plan Survey Tool Program **Date** 8/14/2023

	Depth From (usft)	Depth To (usft)	Survey (Wellbore)	Tool Name	Remarks
1	3,233.0	7,315.1	WP1.3 (Lateral No.2)	3_MWD+HRGM B001Mb: HRGM declination cc	

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
3,233.0	65.00	83.00	2,908.0	90.0	733.0	0.00	0.00	0.00	0.00	
3,253.0	65.60	110.00	2,916.4	92.2	751.0	3.00	3.00	0.00	0.00	
3,579.0	90.02	132.30	2,985.5	-72.7	1,018.4	10.00	7.49	6.84	44.77	
4,405.1	90.02	132.30	2,985.3	-628.7	1,629.3	0.00	0.00	0.00	0.00	
5,815.1	90.00	90.00	2,985.0	-1,126.0	2,914.7	3.00	0.00	-3.00	-90.02	
7,315.1	90.00	90.00	2,985.0	-1,126.0	4,414.7	0.00	0.00	0.00	0.00	Lat.No.2 Toe Pt (Sout

Database:	EDM 5000.17 Single User Db	**Local Co-ordinate Reference:**	Well Southern Ute 704H
Company:	Hilcorp Energy Company	**TVD Reference:**	RKB to MSL= 6375usft @ 6375.0usft
Project:	Farmington, NM	**MD Reference:**	RKB to MSL= 6375usft @ 6375.0usft
Site:	San Juan Basin	**North Reference:**	Grid
Well:	Southern Ute 704H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Lateral No.2		
Design:	WP1.3		

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
0.0	0.00	0.00	0.0	0.0	0.0	2,191,322.07	561,680.67	37° 1' 18.949 N	107° 37' 19.375 W
100.0	0.00	0.00	100.0	0.0	0.0	2,191,322.07	561,680.67	37° 1' 18.949 N	107° 37' 19.375 W
200.0	0.00	0.00	200.0	0.0	0.0	2,191,322.07	561,680.67	37° 1' 18.949 N	107° 37' 19.375 W
300.0	0.00	0.00	300.0	0.0	0.0	2,191,322.07	561,680.67	37° 1' 18.949 N	107° 37' 19.375 W
400.0	0.00	0.00	400.0	0.0	0.0	2,191,322.07	561,680.67	37° 1' 18.949 N	107° 37' 19.375 W
500.0	0.00	0.00	500.0	0.0	0.0	2,191,322.07	561,680.67	37° 1' 18.949 N	107° 37' 19.375 W
600.0	0.00	0.00	600.0	0.0	0.0	2,191,322.07	561,680.67	37° 1' 18.949 N	107° 37' 19.375 W
700.0	0.00	0.00	700.0	0.0	0.0	2,191,322.07	561,680.67	37° 1' 18.949 N	107° 37' 19.375 W
800.0	0.00	0.00	800.0	0.0	0.0	2,191,322.07	561,680.67	37° 1' 18.949 N	107° 37' 19.375 W
900.0	0.00	0.00	900.0	0.0	0.0	2,191,322.07	561,680.67	37° 1' 18.949 N	107° 37' 19.375 W
1,000.0	0.00	0.00	1,000.0	0.0	0.0	2,191,322.07	561,680.67	37° 1' 18.949 N	107° 37' 19.375 W
1,100.0	0.00	0.00	1,100.0	0.0	0.0	2,191,322.07	561,680.67	37° 1' 18.949 N	107° 37' 19.375 W
1,200.0	0.00	0.00	1,200.0	0.0	0.0	2,191,322.07	561,680.67	37° 1' 18.949 N	107° 37' 19.375 W
1,300.0	0.00	0.00	1,300.0	0.0	0.0	2,191,322.07	561,680.67	37° 1' 18.949 N	107° 37' 19.375 W
1,400.0	0.00	0.00	1,400.0	0.0	0.0	2,191,322.07	561,680.67	37° 1' 18.949 N	107° 37' 19.375 W
1,500.0	0.00	0.00	1,500.0	0.0	0.0	2,191,322.07	561,680.67	37° 1' 18.949 N	107° 37' 19.375 W
1,600.0	0.00	0.00	1,600.0	0.0	0.0	2,191,322.07	561,680.67	37° 1' 18.949 N	107° 37' 19.375 W
1,700.0	0.00	0.00	1,700.0	0.0	0.0	2,191,322.07	561,680.67	37° 1' 18.949 N	107° 37' 19.375 W
1,800.0	0.00	0.00	1,800.0	0.0	0.0	2,191,322.07	561,680.67	37° 1' 18.949 N	107° 37' 19.375 W
1,900.0	0.00	0.00	1,900.0	0.0	0.0	2,191,322.07	561,680.67	37° 1' 18.949 N	107° 37' 19.375 W
2,000.0	5.50	83.00	1,999.8	0.6	4.8	2,191,322.65	561,685.43	37° 1' 18.954 N	107° 37' 19.316 W
2,100.0	11.00	83.00	2,098.8	2.3	19.0	2,191,324.40	561,699.67	37° 1' 18.971 N	107° 37' 19.141 W
2,200.0	16.50	83.00	2,195.9	5.2	42.6	2,191,327.30	561,723.25	37° 1' 18.999 N	107° 37' 18.850 W
2,300.0	22.00	83.00	2,290.2	9.2	75.3	2,191,331.31	561,755.96	37° 1' 19.038 N	107° 37' 18.446 W
2,400.0	27.50	83.00	2,381.0	14.3	116.8	2,191,336.41	561,797.49	37° 1' 19.088 N	107° 37' 17.934 W
2,500.0	33.00	83.00	2,467.4	20.5	166.8	2,191,342.55	561,847.47	37° 1' 19.148 N	107° 37' 17.318 W
2,600.0	38.50	83.00	2,548.5	27.6	224.8	2,191,349.67	561,905.43	37° 1' 19.217 N	107° 37' 16.603 W
2,700.0	44.00	83.00	2,623.7	35.6	290.2	2,191,357.70	561,970.85	37° 1' 19.295 N	107° 37' 15.796 W
2,800.0	49.50	83.00	2,692.1	44.5	362.5	2,191,366.57	562,043.11	37° 1' 19.381 N	107° 37' 14.904 W
2,900.0	55.00	83.00	2,753.3	54.1	440.9	2,191,376.20	562,121.55	37° 1' 19.474 N	107° 37' 13.937 W
3,000.0	60.50	83.00	2,806.7	64.4	524.8	2,191,386.50	562,205.45	37° 1' 19.574 N	107° 37' 12.902 W
3,100.0	65.00	83.00	2,851.8	75.3	613.4	2,191,397.37	562,293.98	37° 1' 19.680 N	107° 37' 11.810 W
3,200.0	65.00	83.00	2,894.1	86.4	703.3	2,191,408.42	562,383.93	37° 1' 19.787 N	107° 37' 10.700 W
3,233.0	65.00	83.00	2,908.0	90.0	733.0	2,191,412.06	562,413.61	37° 1' 19.822 N	107° 37' 10.334 W
3,253.0	65.60	110.00	2,916.4	92.2	751.0	2,191,414.28	562,431.64	37° 1' 19.844 N	107° 37' 10.112 W
3,300.0	68.98	113.54	2,934.5	76.1	791.3	2,191,398.19	562,471.88	37° 1' 19.684 N	107° 37' 9.616 W
3,400.0	76.38	120.60	2,964.3	32.6	876.1	2,191,354.70	562,556.71	37° 1' 19.252 N	107° 37' 8.571 W
3,500.0	83.96	127.21	2,981.4	-22.3	957.7	2,191,299.76	562,638.33	37° 1' 18.707 N	107° 37' 7.566 W
3,579.0	90.02	132.30	2,985.5	-72.7	1,018.4	2,191,249.33	562,698.94	37° 1' 18.207 N	107° 37' 6.820 W
3,600.0	90.02	132.30	2,985.5	-86.9	1,033.9	2,191,235.22	562,714.46	37° 1' 18.067 N	107° 37' 6.629 W
3,700.0	90.02	132.30	2,985.5	-154.2	1,107.8	2,191,167.92	562,788.41	37° 1' 17.400 N	107° 37' 5.719 W
3,800.0	90.02	132.30	2,985.5	-221.5	1,181.8	2,191,100.62	562,862.37	37° 1' 16.733 N	107° 37' 4.809 W
3,900.0	90.02	132.30	2,985.4	-288.8	1,255.8	2,191,033.33	562,936.33	37° 1' 16.066 N	107° 37' 3.899 W
4,000.0	90.02	132.30	2,985.4	-356.1	1,329.7	2,190,966.03	563,010.28	37° 1' 15.398 N	107° 37' 2.989 W
4,100.0	90.02	132.30	2,985.4	-423.4	1,403.7	2,190,898.73	563,084.24	37° 1' 14.731 N	107° 37' 2.079 W
4,200.0	90.02	132.30	2,985.3	-490.7	1,477.6	2,190,831.44	563,158.20	37° 1' 14.064 N	107° 37' 1.169 W
4,300.0	90.02	132.30	2,985.3	-558.0	1,551.6	2,190,764.14	563,232.15	37° 1' 13.397 N	107° 37' 0.259 W
4,400.0	90.02	132.30	2,985.3	-625.3	1,625.6	2,190,696.84	563,306.11	37° 1' 12.730 N	107° 36' 59.348 W
4,405.1	90.02	132.30	2,985.3	-628.7	1,629.3	2,190,693.44	563,309.85	37° 1' 12.696 N	107° 36' 59.302 W
4,500.0	90.02	129.45	2,985.2	-690.8	1,701.1	2,190,631.32	563,381.62	37° 1' 12.080 N	107° 36' 58.419 W
4,600.0	90.02	126.45	2,985.2	-752.3	1,779.9	2,190,569.83	563,460.46	37° 1' 11.471 N	107° 36' 57.449 W
4,700.0	90.02	123.45	2,985.2	-809.6	1,861.9	2,190,512.55	563,542.41	37° 1' 10.902 N	107° 36' 56.440 W
4,800.0	90.02	120.45	2,985.1	-862.5	1,946.7	2,190,459.64	563,627.24	37° 1' 10.377 N	107° 36' 55.395 W
4,900.0	90.01	117.45	2,985.1	-910.9	2,034.2	2,190,411.24	563,714.73	37° 1' 9.897 N	107° 36' 54.318 W
5,000.0	90.01	114.45	2,985.1	-954.7	2,124.1	2,190,367.49	563,804.63	37° 1' 9.462 N	107° 36' 53.210 W

Database:	EDM 5000.17 Single User Db	**Local Co-ordinate Reference:**	Well Southern Ute 704H
Company:	Hilcorp Energy Company	**TVD Reference:**	RKB to MSL= 6375usft @ 6375.0usft
Project:	Farmington, NM	**MD Reference:**	RKB to MSL= 6375usft @ 6375.0usft
Site:	San Juan Basin	**North Reference:**	Grid
Well:	Southern Ute 704H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Lateral No.2		
Design:	WP1.3		

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
5,100.0	90.01	111.45	2,985.1	-993.6	2,216.2	2,190,328.50	563,896.69	37° 1' 9.074 N	107° 36' 52.076 W
5,200.0	90.01	108.45	2,985.1	-1,027.8	2,310.2	2,190,294.38	563,990.67	37° 1' 8.735 N	107° 36' 50.918 W
5,300.0	90.01	105.45	2,985.0	-1,056.9	2,405.8	2,190,265.23	564,086.31	37° 1' 8.444 N	107° 36' 49.740 W
5,400.0	90.01	102.45	2,985.0	-1,081.0	2,502.9	2,190,241.12	564,183.34	37° 1' 8.204 N	107° 36' 48.544 W
5,500.0	90.00	99.45	2,985.0	-1,100.0	2,601.0	2,190,222.13	564,281.50	37° 1' 8.014 N	107° 36' 47.334 W
5,600.0	90.00	96.45	2,985.0	-1,113.9	2,700.1	2,190,208.30	564,380.52	37° 1' 7.875 N	107° 36' 46.114 W
5,700.0	90.00	93.45	2,985.0	-1,122.5	2,799.7	2,190,199.66	564,480.12	37° 1' 7.787 N	107° 36' 44.886 W
5,800.0	90.00	90.45	2,985.0	-1,125.9	2,899.6	2,190,196.26	564,580.05	37° 1' 7.751 N	107° 36' 43.653 W
5,815.1	90.00	90.00	2,985.0	-1,126.0	2,914.7	2,190,196.20	564,595.12	37° 1' 7.750 N	107° 36' 43.468 W
5,900.0	90.00	90.00	2,985.0	-1,126.0	2,999.6	2,190,196.20	564,680.04	37° 1' 7.748 N	107° 36' 42.420 W
6,000.0	90.00	90.00	2,985.0	-1,126.0	3,099.6	2,190,196.20	564,780.03	37° 1' 7.746 N	107° 36' 41.187 W
6,100.0	90.00	90.00	2,985.0	-1,126.0	3,199.6	2,190,196.20	564,880.02	37° 1' 7.744 N	107° 36' 39.954 W
6,200.0	90.00	90.00	2,985.0	-1,126.0	3,299.6	2,190,196.20	564,980.01	37° 1' 7.741 N	107° 36' 38.721 W
6,300.0	90.00	90.00	2,985.0	-1,126.0	3,399.6	2,190,196.20	565,080.01	37° 1' 7.739 N	107° 36' 37.488 W
6,400.0	90.00	90.00	2,985.0	-1,126.0	3,499.6	2,190,196.20	565,180.00	37° 1' 7.737 N	107° 36' 36.255 W
6,500.0	90.00	90.00	2,985.0	-1,126.0	3,599.6	2,190,196.20	565,279.99	37° 1' 7.734 N	107° 36' 35.022 W
6,600.0	90.00	90.00	2,985.0	-1,126.0	3,699.6	2,190,196.20	565,379.98	37° 1' 7.732 N	107° 36' 33.789 W
6,700.0	90.00	90.00	2,985.0	-1,126.0	3,799.6	2,190,196.20	565,479.98	37° 1' 7.730 N	107° 36' 32.556 W
6,800.0	90.00	90.00	2,985.0	-1,126.0	3,899.6	2,190,196.20	565,579.97	37° 1' 7.727 N	107° 36' 31.323 W
6,900.0	90.00	90.00	2,985.0	-1,126.0	3,999.6	2,190,196.20	565,679.96	37° 1' 7.725 N	107° 36' 30.090 W
7,000.0	90.00	90.00	2,985.0	-1,126.0	4,099.6	2,190,196.20	565,779.95	37° 1' 7.723 N	107° 36' 28.857 W
7,100.0	90.00	90.00	2,985.0	-1,126.0	4,199.6	2,190,196.20	565,879.94	37° 1' 7.720 N	107° 36' 27.624 W
7,200.0	90.00	90.00	2,985.0	-1,126.0	4,299.6	2,190,196.20	565,979.94	37° 1' 7.718 N	107° 36' 26.391 W
7,300.0	90.00	90.00	2,985.0	-1,126.0	4,399.6	2,190,196.20	566,079.93	37° 1' 7.716 N	107° 36' 25.158 W
7,315.1	90.00	90.00	2,985.0	-1,126.0	4,414.7	2,190,196.20	566,095.00	37° 1' 7.715 N	107° 36' 24.972 W

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
Lat.No.2 Toe Pt (Southe - plan hits target center - Point	0.00	0.00	2,985.0	-1,126.0	4,414.7	2,190,196.20	566,095.00	37° 1' 7.715 N	107° 36' 24.972 W
Lat.No.2 Lateral Pt (Sou - plan misses target center by 37.7usft at 5478.6usft MD (2985.0 TVD, -1096.4 N, 2580.0 E) - Point	0.00	0.00	2,988.0	-1,133.3	2,572.8	2,190,188.90	564,253.30	37° 1' 7.686 N	107° 36' 47.683 W

Formations

Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)
3,465.6	2,977.0	Top of Big Blue Seam		0.00	

Database:	EDM 5000.17 Single User Db	**Local Co-ordinate Reference:**	Well Southern Ute 704H
Company:	Hilcorp Energy Company	**TVD Reference:**	RKB to MSL= 6375usft @ 6375.0usft
Project:	Farmington, NM	**MD Reference:**	RKB to MSL= 6375usft @ 6375.0usft
Site:	San Juan Basin	**North Reference:**	Grid
Well:	Southern Ute 704H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Lateral No.2		
Design:	WP1.3		

Plan Annotations

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates +N/-S (usft)	Local Coordinates +E/-W (usft)	Comment
3,233.0	2,908.0	90.0	733.0	Tie On @ 3233' MD
3,253.0	2,916.4	92.2	751.0	Window @ 3253' MD
3,579.0	2,985.5	-72.7	1,018.4	EOB & SOH @ 3579' MD, 90° INC
4,405.1	2,985.3	-628.7	1,629.3	EOH & SOT @ 4405.1' MD, 3°/100' DLS
5,815.1	2,985.0	-1,126.0	2,914.7	EOT & SOH @ 5815.1' MD
7,315.1	2,985.0	-1,126.0	4,414.7	PBHL @ 7315.1' MD

HALLIBURTON
Sperry Drilling

Hilcorp Energy Company

Project: Farmington, NM
Site: San Juan Basin
Well: Southern Ute 704H
Wellbore: Pilot
Design: WP1.2

17:21, August 14 2023

PROJECT DETAILS: Farmington, NM	
Geodetic System:	US State Plane 1927 (Exact solution)
Datum:	NAD 1927 (NADCON CONUS)
Ellipsoid:	Clarke 1866
Zone:	New Mexico West 3003
System Datum:	Mean Sea Level

WP1.2

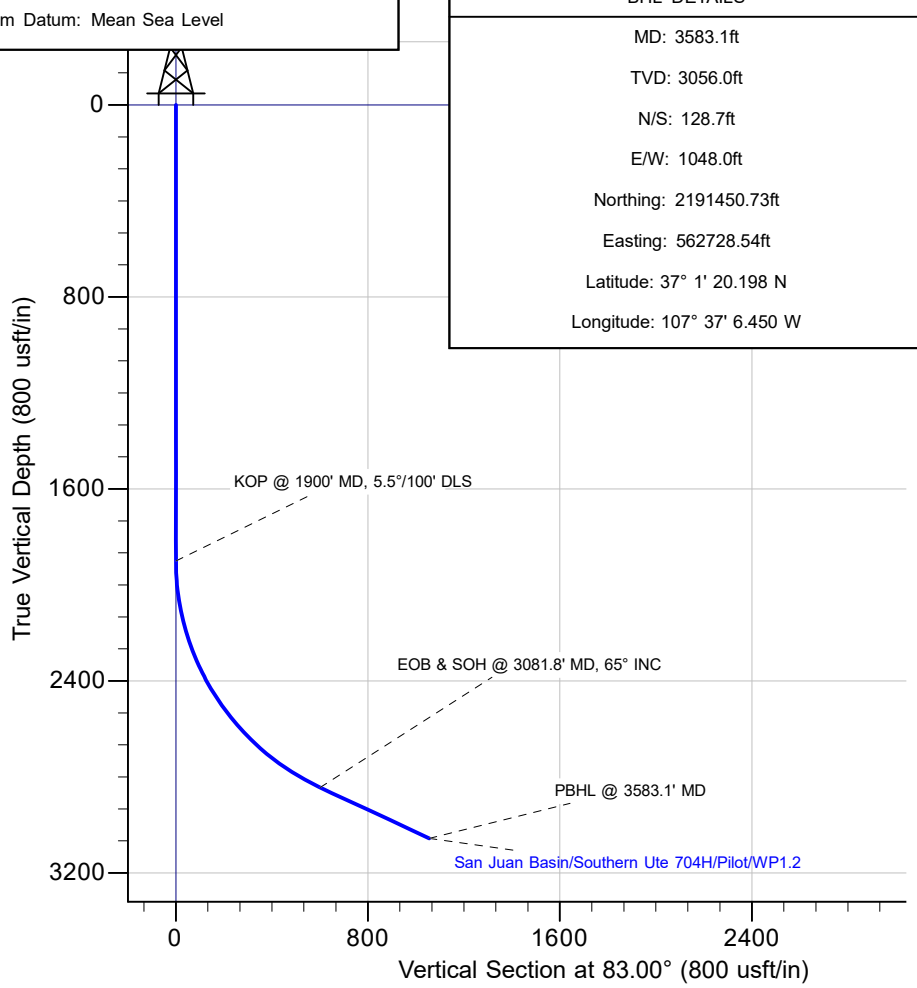
Surface Location:

Northing	Easting	Latittude	Longitude
2191322.07	561680.67	37° 1' 18.949 N	107° 37' 19.375 W

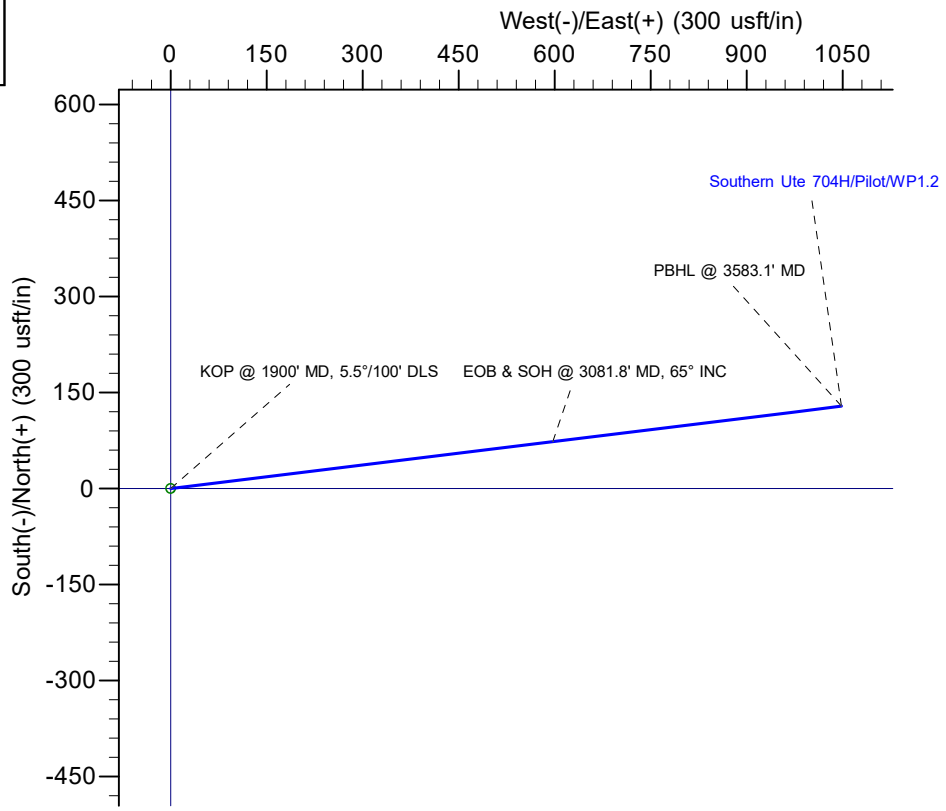
Reference Elev'n: RKB to MSL= 6375usft @ 6375.0usft GL= 6360.0usft

Sec	MD	Inc	i	TVD	+N/-S	+E/-W	DIeg	TFace	VSect	Annotation
1	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.0	
2	1900.0	0.00	0.00	1900.0	0.0	0.0	0.00	0.00	0.0	KOP @ 1900' MD, 5.5°/100' DLS
3	3081.8	65.00	83.00	2844.1	73.3	597.0	5.50	83.00	601.5	EOB & SOH @ 3081.8' MD, 65° INC
4	3583.1	65.00	83.00	3056.0	128.7	1048.0	0.00	0.00	1055.8	PBHL @ 3583.1' MD

BHL DETAILS
MD: 3583.1ft
TVD: 3056.0ft
N/S: 128.7ft
E/W: 1048.0ft
Northing: 2191450.73ft
Easting: 562728.54ft
Latitude: 37° 1' 20.198 N
Longitude: 107° 37' 6.450 W



Reference is Grid North



Hilcorp Energy Company

Farmington, NM
San Juan Basin
Southern Ute 704H

Pilot

Plan: WP1.2

Standard Planning Report

14 August, 2023

Database:	EDM 5000.17 Single User Db	**Local Co-ordinate Reference:**	Well Southern Ute 704H
Company:	Hilcorp Energy Company	**TVD Reference:**	RKB to MSL= 6375usft @ 6375.0usft
Project:	Farmington, NM	**MD Reference:**	RKB to MSL= 6375usft @ 6375.0usft
Site:	San Juan Basin	**North Reference:**	Grid
Well:	Southern Ute 704H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Pilot		
Design:	WP1.2		

Project Farmington, NM

Map System:	US State Plane 1927 (Exact solution)	**System Datum:**	Mean Sea Level
Geo Datum:	NAD 1927 (NADCON CONUS)		
Map Zone:	New Mexico West 3003		Using geodetic scale factor

Site San Juan Basin

Site Position:		**Northing:**	2,191,322.07 usft	**Latitude:**	37° 0' 33.264 N
From:	Map	**Easting:**	561,680.67 usft	**Longitude:**	107° 35' 27.852 W
Position Uncertainty:	5.0 usft	**Slot Radius:**	13-3/16 "		

Well Southern Ute 704H

Well Position	**+N/-S**	0.0 usft	**Northing:**	2,191,322.07 usft	**Latitude:**	37° 1' 18.949 N
	+E/-W	0.0 usft	**Easting:**	561,680.67 usft	**Longitude:**	107° 37' 19.375 W
Position Uncertainty		1.0 usft	**Wellhead Elevation:**	usft	**Ground Level:**	6,360.0 usft
Grid Convergence:		0.13 °				

Wellbore Pilot

Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	BGGM2023	8/14/2023	8.64	63.40	49,465.34218527

Design WP1.2

Audit Notes:

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

Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)
	0.0	0.0	0.0	83.00

Plan Survey Tool Program **Date** 8/14/2023

	Depth From (usft)	Depth To (usft)	Survey (Wellbore)	Tool Name	Remarks
1	0.0	3,583.1	WP1.2 (Pilot)	3_MWD+HRGM	
				B001Mb: HRGM declination co	

Plan Sections

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	TFO (°)	Target
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.00	0.00	
1,900.0	0.00	0.00	1,900.0	0.0	0.0	0.00	0.00	0.00	0.00	
3,081.8	65.00	83.00	2,844.1	73.3	597.0	5.50	5.50	0.00	83.00	
3,583.1	65.00	83.00	3,056.0	128.7	1,048.0	0.00	0.00	0.00	0.00	

Database:	EDM 5000.17 Single User Db	**Local Co-ordinate Reference:**	Well Southern Ute 704H
Company:	Hilcorp Energy Company	**TVD Reference:**	RKB to MSL= 6375usft @ 6375.0usft
Project:	Farmington, NM	**MD Reference:**	RKB to MSL= 6375usft @ 6375.0usft
Site:	San Juan Basin	**North Reference:**	Grid
Well:	Southern Ute 704H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Pilot		
Design:	WP1.2		

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.00	0.00	0.00
100.0	0.00	0.00	100.0	0.0	0.0	0.0	0.00	0.00	0.00
200.0	0.00	0.00	200.0	0.0	0.0	0.0	0.00	0.00	0.00
300.0	0.00	0.00	300.0	0.0	0.0	0.0	0.00	0.00	0.00
400.0	0.00	0.00	400.0	0.0	0.0	0.0	0.00	0.00	0.00
500.0	0.00	0.00	500.0	0.0	0.0	0.0	0.00	0.00	0.00
600.0	0.00	0.00	600.0	0.0	0.0	0.0	0.00	0.00	0.00
700.0	0.00	0.00	700.0	0.0	0.0	0.0	0.00	0.00	0.00
800.0	0.00	0.00	800.0	0.0	0.0	0.0	0.00	0.00	0.00
900.0	0.00	0.00	900.0	0.0	0.0	0.0	0.00	0.00	0.00
1,000.0	0.00	0.00	1,000.0	0.0	0.0	0.0	0.00	0.00	0.00
1,100.0	0.00	0.00	1,100.0	0.0	0.0	0.0	0.00	0.00	0.00
1,200.0	0.00	0.00	1,200.0	0.0	0.0	0.0	0.00	0.00	0.00
1,300.0	0.00	0.00	1,300.0	0.0	0.0	0.0	0.00	0.00	0.00
1,400.0	0.00	0.00	1,400.0	0.0	0.0	0.0	0.00	0.00	0.00
1,500.0	0.00	0.00	1,500.0	0.0	0.0	0.0	0.00	0.00	0.00
1,600.0	0.00	0.00	1,600.0	0.0	0.0	0.0	0.00	0.00	0.00
1,700.0	0.00	0.00	1,700.0	0.0	0.0	0.0	0.00	0.00	0.00
1,800.0	0.00	0.00	1,800.0	0.0	0.0	0.0	0.00	0.00	0.00
1,900.0	0.00	0.00	1,900.0	0.0	0.0	0.0	0.00	0.00	0.00
2,000.0	5.50	83.00	1,999.8	0.6	4.8	4.8	5.50	5.50	0.00
2,100.0	11.00	83.00	2,098.8	2.3	19.0	19.1	5.50	5.50	0.00
2,200.0	16.50	83.00	2,195.9	5.2	42.6	42.9	5.50	5.50	0.00
2,300.0	22.00	83.00	2,290.2	9.2	75.3	75.9	5.50	5.50	0.00
2,400.0	27.50	83.00	2,381.0	14.3	116.8	117.7	5.50	5.50	0.00
2,500.0	33.00	83.00	2,467.4	20.5	166.8	168.1	5.50	5.50	0.00
2,600.0	38.50	83.00	2,548.5	27.6	224.8	226.5	5.50	5.50	0.00
2,700.0	44.00	83.00	2,623.7	35.6	290.2	292.4	5.50	5.50	0.00
2,800.0	49.50	83.00	2,692.1	44.5	362.5	365.2	5.50	5.50	0.00
2,900.0	55.00	83.00	2,753.3	54.1	440.9	444.2	5.50	5.50	0.00
3,000.0	60.50	83.00	2,806.7	64.4	524.8	528.8	5.50	5.50	0.00
3,081.8	65.00	83.00	2,844.1	73.3	597.0	601.5	5.50	5.50	0.00
3,100.0	65.00	83.00	2,851.8	75.3	613.4	618.0	0.00	0.00	0.00
3,200.0	65.00	83.00	2,894.1	86.4	703.3	708.6	0.00	0.00	0.00
3,300.0	65.00	83.00	2,936.3	97.4	793.3	799.2	0.00	0.00	0.00
3,400.0	65.00	83.00	2,978.6	108.4	883.2	889.9	0.00	0.00	0.00
3,500.0	65.00	83.00	3,020.9	119.5	973.2	980.5	0.00	0.00	0.00
3,583.1	65.00	83.00	3,056.0	128.7	1,048.0	1,055.8	0.00	0.00	0.00

Formations

Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)
2,428.4	2,406.0	Ojo Alamo		0.00	
2,594.3	2,544.0	Kirtland		0.00	
2,706.1	2,628.0	Fruitland		0.00	
3,396.2	2,977.0	Top of Big Blue Seam		0.00	
3,438.8	2,995.0	Base of Big Blue Seam		0.00	

Database:	EDM 5000.17 Single User Db	**Local Co-ordinate Reference:**	Well Southern Ute 704H
Company:	Hilcorp Energy Company	**TVD Reference:**	RKB to MSL= 6375usft @ 6375.0usft
Project:	Farmington, NM	**MD Reference:**	RKB to MSL= 6375usft @ 6375.0usft
Site:	San Juan Basin	**North Reference:**	Grid
Well:	Southern Ute 704H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Pilot		
Design:	WP1.2		

Plan Annotations

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates +N/-S (usft)	Local Coordinates +E/-W (usft)	Comment
1,900.0	1,900.0	0.0	0.0	KOP @ 1900' MD, 5.5°/100' DLS
3,081.8	2,844.1	73.3	597.0	EOB & SOH @ 3081.8' MD, 65° INC
3,583.1	3,056.0	128.7	1,048.0	PBHL @ 3583.1' MD

Hilcorp Energy Company

Farmington, NM
San Juan Basin
Southern Ute 704H

Pilot

Plan: WP1.2

Standard Planning Report - Geographic

14 August, 2023

Database:	EDM 5000.17 Single User Db	**Local Co-ordinate Reference:**	Well Southern Ute 704H
Company:	Hilcorp Energy Company	**TVD Reference:**	RKB to MSL= 6375usft @ 6375.0usft
Project:	Farmington, NM	**MD Reference:**	RKB to MSL= 6375usft @ 6375.0usft
Site:	San Juan Basin	**North Reference:**	Grid
Well:	Southern Ute 704H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Pilot		
Design:	WP1.2		

Project Farmington, NM

Map System:	US State Plane 1927 (Exact solution)	**System Datum:**	Mean Sea Level
Geo Datum:	NAD 1927 (NADCON CONUS)		
Map Zone:	New Mexico West 3003		Using geodetic scale factor

Site San Juan Basin

Site Position:		**Northing:**	2,191,322.07 usft	**Latitude:**	37° 0' 33.264 N
From:	Map	**Easting:**	561,680.67 usft	**Longitude:**	107° 35' 27.852 W
Position Uncertainty:	5.0 usft	**Slot Radius:**	13-3/16 "		

Well Southern Ute 704H

Well Position	**+N/-S**	0.0 usft	**Northing:**	2,191,322.07 usft	**Latitude:**	37° 1' 18.949 N
	+E/-W	0.0 usft	**Easting:**	561,680.67 usft	**Longitude:**	107° 37' 19.375 W
Position Uncertainty		1.0 usft	**Wellhead Elevation:**	usft	**Ground Level:**	6,360.0 usft
Grid Convergence:		0.13 °				

Wellbore Pilot

Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	BGGM2023	8/14/2023	8.64	63.40	49,465.34218527

Design WP1.2

Audit Notes:

Version:		**Phase:**	PLAN	**Tie On Depth:**	0.0
Vertical Section:	**Depth From (TVD) (usft)**	**+N/-S (usft)**	**+E/-W (usft)**	**Direction (°)**	
	0.0	0.0	0.0	83.00	

Plan Survey Tool Program **Date** 8/14/2023

	Depth From (usft)	Depth To (usft)	Survey (Wellbore)	Tool Name	Remarks
1	0.0	3,583.1	WP1.2 (Pilot)	3_MWD+HRGM B001Mb: HRGM declination cc	

Plan Sections

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	TFO (°)	Target
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.00	0.00	
1,900.0	0.00	0.00	1,900.0	0.0	0.0	0.00	0.00	0.00	0.00	
3,081.8	65.00	83.00	2,844.1	73.3	597.0	5.50	5.50	0.00	83.00	
3,583.1	65.00	83.00	3,056.0	128.7	1,048.0	0.00	0.00	0.00	0.00	

Database:	EDM 5000.17 Single User Db	**Local Co-ordinate Reference:**	Well Southern Ute 704H
Company:	Hilcorp Energy Company	**TVD Reference:**	RKB to MSL= 6375usft @ 6375.0usft
Project:	Farmington, NM	**MD Reference:**	RKB to MSL= 6375usft @ 6375.0usft
Site:	San Juan Basin	**North Reference:**	Grid
Well:	Southern Ute 704H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Pilot		
Design:	WP1.2		

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
0.0	0.00	0.00	0.0	0.0	0.0	2,191,322.07	561,680.67	37° 1' 18.949 N	107° 37' 19.375 W
100.0	0.00	0.00	100.0	0.0	0.0	2,191,322.07	561,680.67	37° 1' 18.949 N	107° 37' 19.375 W
200.0	0.00	0.00	200.0	0.0	0.0	2,191,322.07	561,680.67	37° 1' 18.949 N	107° 37' 19.375 W
300.0	0.00	0.00	300.0	0.0	0.0	2,191,322.07	561,680.67	37° 1' 18.949 N	107° 37' 19.375 W
400.0	0.00	0.00	400.0	0.0	0.0	2,191,322.07	561,680.67	37° 1' 18.949 N	107° 37' 19.375 W
500.0	0.00	0.00	500.0	0.0	0.0	2,191,322.07	561,680.67	37° 1' 18.949 N	107° 37' 19.375 W
600.0	0.00	0.00	600.0	0.0	0.0	2,191,322.07	561,680.67	37° 1' 18.949 N	107° 37' 19.375 W
700.0	0.00	0.00	700.0	0.0	0.0	2,191,322.07	561,680.67	37° 1' 18.949 N	107° 37' 19.375 W
800.0	0.00	0.00	800.0	0.0	0.0	2,191,322.07	561,680.67	37° 1' 18.949 N	107° 37' 19.375 W
900.0	0.00	0.00	900.0	0.0	0.0	2,191,322.07	561,680.67	37° 1' 18.949 N	107° 37' 19.375 W
1,000.0	0.00	0.00	1,000.0	0.0	0.0	2,191,322.07	561,680.67	37° 1' 18.949 N	107° 37' 19.375 W
1,100.0	0.00	0.00	1,100.0	0.0	0.0	2,191,322.07	561,680.67	37° 1' 18.949 N	107° 37' 19.375 W
1,200.0	0.00	0.00	1,200.0	0.0	0.0	2,191,322.07	561,680.67	37° 1' 18.949 N	107° 37' 19.375 W
1,300.0	0.00	0.00	1,300.0	0.0	0.0	2,191,322.07	561,680.67	37° 1' 18.949 N	107° 37' 19.375 W
1,400.0	0.00	0.00	1,400.0	0.0	0.0	2,191,322.07	561,680.67	37° 1' 18.949 N	107° 37' 19.375 W
1,500.0	0.00	0.00	1,500.0	0.0	0.0	2,191,322.07	561,680.67	37° 1' 18.949 N	107° 37' 19.375 W
1,600.0	0.00	0.00	1,600.0	0.0	0.0	2,191,322.07	561,680.67	37° 1' 18.949 N	107° 37' 19.375 W
1,700.0	0.00	0.00	1,700.0	0.0	0.0	2,191,322.07	561,680.67	37° 1' 18.949 N	107° 37' 19.375 W
1,800.0	0.00	0.00	1,800.0	0.0	0.0	2,191,322.07	561,680.67	37° 1' 18.949 N	107° 37' 19.375 W
1,900.0	0.00	0.00	1,900.0	0.0	0.0	2,191,322.07	561,680.67	37° 1' 18.949 N	107° 37' 19.375 W
2,000.0	5.50	83.00	1,999.8	0.6	4.8	2,191,322.65	561,685.43	37° 1' 18.954 N	107° 37' 19.316 W
2,100.0	11.00	83.00	2,098.8	2.3	19.0	2,191,324.40	561,699.67	37° 1' 18.971 N	107° 37' 19.141 W
2,200.0	16.50	83.00	2,195.9	5.2	42.6	2,191,327.30	561,723.25	37° 1' 18.999 N	107° 37' 18.850 W
2,300.0	22.00	83.00	2,290.2	9.2	75.3	2,191,331.31	561,755.96	37° 1' 19.038 N	107° 37' 18.446 W
2,400.0	27.50	83.00	2,381.0	14.3	116.8	2,191,336.41	561,797.49	37° 1' 19.088 N	107° 37' 17.934 W
2,500.0	33.00	83.00	2,467.4	20.5	166.8	2,191,342.55	561,847.47	37° 1' 19.148 N	107° 37' 17.318 W
2,600.0	38.50	83.00	2,548.5	27.6	224.8	2,191,349.67	561,905.43	37° 1' 19.217 N	107° 37' 16.603 W
2,700.0	44.00	83.00	2,623.7	35.6	290.2	2,191,357.70	561,970.85	37° 1' 19.295 N	107° 37' 15.796 W
2,800.0	49.50	83.00	2,692.1	44.5	362.5	2,191,366.57	562,043.11	37° 1' 19.381 N	107° 37' 14.904 W
2,900.0	55.00	83.00	2,753.3	54.1	440.9	2,191,376.20	562,121.55	37° 1' 19.474 N	107° 37' 13.937 W
3,000.0	60.50	83.00	2,806.7	64.4	524.8	2,191,386.50	562,205.45	37° 1' 19.574 N	107° 37' 12.902 W
3,081.8	65.00	83.00	2,844.1	73.3	597.0	2,191,395.37	562,277.62	37° 1' 19.660 N	107° 37' 12.012 W
3,100.0	65.00	83.00	2,851.8	75.3	613.4	2,191,397.37	562,293.98	37° 1' 19.680 N	107° 37' 11.810 W
3,200.0	65.00	83.00	2,894.1	86.4	703.3	2,191,408.42	562,383.93	37° 1' 19.787 N	107° 37' 10.700 W
3,300.0	65.00	83.00	2,936.3	97.4	793.3	2,191,419.46	562,473.88	37° 1' 19.894 N	107° 37' 9.591 W
3,400.0	65.00	83.00	2,978.6	108.4	883.2	2,191,430.51	562,563.82	37° 1' 20.001 N	107° 37' 8.481 W
3,500.0	65.00	83.00	3,020.9	119.5	973.2	2,191,441.55	562,653.77	37° 1' 20.109 N	107° 37' 7.372 W
3,583.1	65.00	83.00	3,056.0	128.7	1,048.0	2,191,450.73	562,728.54	37° 1' 20.198 N	107° 37' 6.450 W

Formations

Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)
2,428.4	2,406.0	Ojo Alamo		0.00	
2,594.3	2,544.0	Kirtland		0.00	
2,706.1	2,628.0	Fruitland		0.00	
3,396.2	2,977.0	Top of Big Blue Seam		0.00	
3,438.8	2,995.0	Base of Big Blue Seam		0.00	

Database:	EDM 5000.17 Single User Db	**Local Co-ordinate Reference:**	Well Southern Ute 704H
Company:	Hilcorp Energy Company	**TVD Reference:**	RKB to MSL= 6375usft @ 6375.0usft
Project:	Farmington, NM	**MD Reference:**	RKB to MSL= 6375usft @ 6375.0usft
Site:	San Juan Basin	**North Reference:**	Grid
Well:	Southern Ute 704H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Pilot		
Design:	WP1.2		

Plan Annotations

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates +N/-S (usft)	Local Coordinates +E/-W (usft)	Comment
1,900.0	1,900.0	0.0	0.0	KOP @ 1900' MD, 5.5°/100' DLS
3,081.8	2,844.1	73.3	597.0	EOB & SOH @ 3081.8' MD, 65° INC
3,583.1	3,056.0	128.7	1,048.0	PBHL @ 3583.1' MD

HALLIBURTON
Sperry Drilling

Hilcorp Energy Company

Hilcorp

Project: Farmington, NM
Site: San Juan Basin
Well: Southern Ute 704H
Wellbore: Lateral No.1
Design: WP1.3

17:56, August 14 2023

PROJECT DETAILS: Farmington, NM	
Geodetic System:	US State Plane 1927 (Exact solution)
Datum:	NAD 1927 (NADCON CONUS)
Ellipsoid:	Clarke 1866
Zone:	New Mexico West 3003
System Datum:	Mean Sea Level

BHL DETAILS
MD: 6929.7ft
TVD: 2982.0ft
N/S: 119.5ft
E/W: 4415.8ft
Northing: 2191441.60ft
Easting: 566096.10ft
Latitude: 37° 1' 20.030 N
Longitude: 107° 36' 24.922 W

WP1.3

Surface Location:

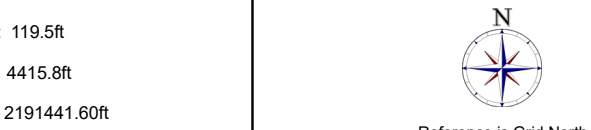
Northing	Easting	Latitude	Longitude
2191322.07	561680.67	37° 1' 18.949 N	107° 37' 19.375 W

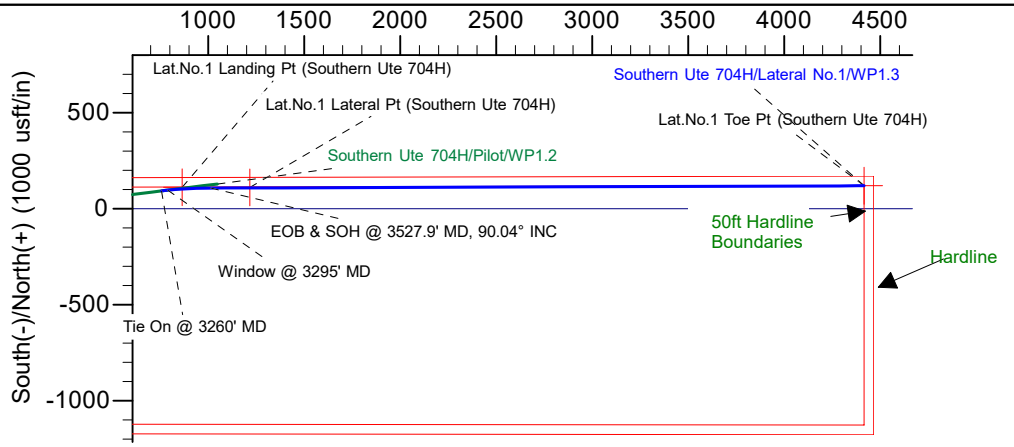
Reference Elev'n: RKB to MSL= 6375usft @ 6375.0usft GL= 6360.0usft

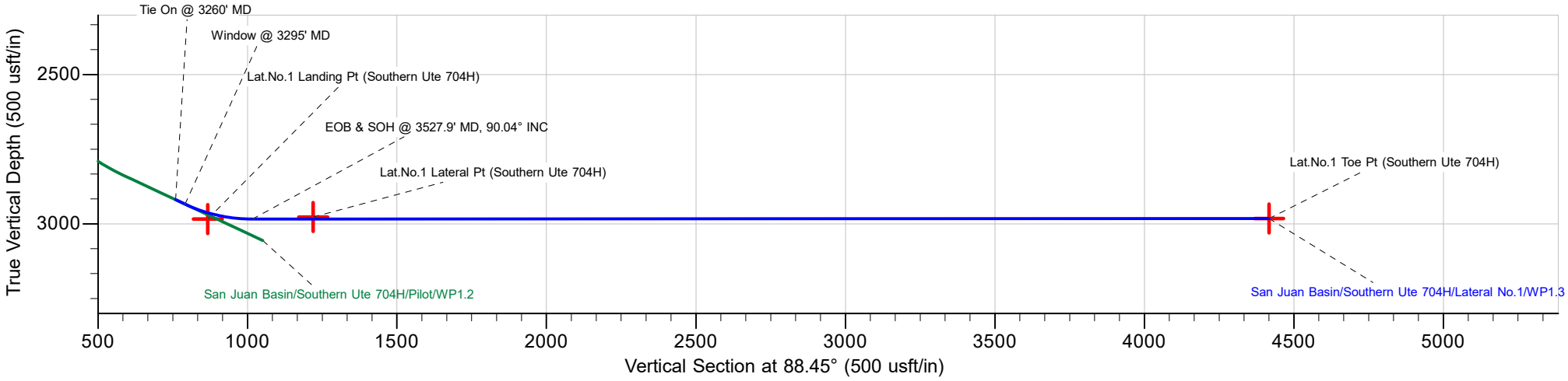
Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSect	Annotation
1	3260.0	65.00	83.00	2919.4	93.0	757.3	0.0	0.0	759.5	Tie On @ 3260' MD
2	3295.0	65.00	84.16	2934.2	96.5	788.8	3.00	90.00	791.1	Window @ 3295' MD
3	3527.9	90.04	89.80	2984.2	107.9	1014.0	11.00	13.15	1016.6	EOB & SOH @ 3527.9' MD, 90.04° INC
4	6929.7	90.04	89.80	2982.0	119.5	4415.8	0.00	0.00	4417.4	PBHL @ 6929.7' MD

Target Details

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Shape
Lat.No.1 Lateral Pt (Southern Ute 704H)	2977.0	110.8	1217.0	2191432.90	562897.60	37° 1' 20.018 N	107° 37' 4.365 W	Point
Lat.No.1 Toe Pt (Southern Ute 704H)	2982.0	119.5	4415.8	2191441.60	566096.10	37° 1' 20.030 N	107° 36' 24.922 W	Point
Lat.No.1 Landing Pt (Southern Ute 704H)	2984.0	111.8	864.5	2191433.90	562545.10	37° 1' 20.035 N	107° 37' 8.712 W	Point







Hilcorp Energy Company

Farmington, NM
San Juan Basin
Southern Ute 704H

Lateral No.1

Plan: WP1.3

Standard Planning Report

14 August, 2023

Database:	EDM 5000.17 Single User Db	**Local Co-ordinate Reference:**	Well Southern Ute 704H
Company:	Hilcorp Energy Company	**TVD Reference:**	RKB to MSL= 6375usft @ 6375.0usft
Project:	Farmington, NM	**MD Reference:**	RKB to MSL= 6375usft @ 6375.0usft
Site:	San Juan Basin	**North Reference:**	Grid
Well:	Southern Ute 704H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Lateral No.1		
Design:	WP1.3		

Project Farmington, NM

Map System:	US State Plane 1927 (Exact solution)	**System Datum:**	Mean Sea Level
Geo Datum:	NAD 1927 (NADCON CONUS)		
Map Zone:	New Mexico West 3003		Using geodetic scale factor

Site San Juan Basin

Site Position:		**Northing:**	2,191,322.07 usft	**Latitude:**	37° 0' 33.264 N
From:	Map	**Easting:**	561,680.67 usft	**Longitude:**	107° 35' 27.852 W
Position Uncertainty:	5.0 usft	**Slot Radius:**	13-3/16 "		

Well Southern Ute 704H

Well Position	**+N/-S**	0.0 usft	**Northing:**	2,191,322.07 usft	**Latitude:**	37° 1' 18.949 N
	+E/-W	0.0 usft	**Easting:**	561,680.67 usft	**Longitude:**	107° 37' 19.375 W
Position Uncertainty		1.0 usft	**Wellhead Elevation:**	usft	**Ground Level:**	6,360.0 usft
Grid Convergence:		0.13 °				

Wellbore Lateral No.1

Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	BGGM2023	8/14/2023	8.64	63.40	49,465.34218527

Design WP1.3

Audit Notes:

Version:	**Phase:**	PLAN	**Tie On Depth:**	3,260.0

Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)
	0.0	0.0	0.0	88.45

Plan Survey Tool Program **Date** 8/14/2023

	Depth From (usft)	Depth To (usft)	Survey (Wellbore)	Tool Name	Remarks
1	3,260.0	6,929.0	WP1.3 (Lateral No.1)	3_MWD+HRGM	
				B001Mb: HRGM declination co	

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
3,260.0	65.00	83.00	2,919.4	93.0	757.3	0.00	0.00	0.00	0.00	
3,295.0	65.00	84.16	2,934.2	96.5	788.8	3.00	0.01	3.31	90.00	
3,527.9	90.04	89.80	2,984.2	107.9	1,014.0	11.00	10.75	2.42	13.15	
6,929.7	90.04	89.80	2,982.0	119.5	4,415.8	0.00	0.00	0.00	0.00	Lat.No.1 Toe Pt (Sout

Database:	EDM 5000.17 Single User Db	**Local Co-ordinate Reference:**	Well Southern Ute 704H
Company:	Hilcorp Energy Company	**TVD Reference:**	RKB to MSL= 6375usft @ 6375.0usft
Project:	Farmington, NM	**MD Reference:**	RKB to MSL= 6375usft @ 6375.0usft
Site:	San Juan Basin	**North Reference:**	Grid
Well:	Southern Ute 704H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Lateral No.1		
Design:	WP1.3		

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.00	0.00	0.00
100.0	0.00	0.00	100.0	0.0	0.0	0.0	0.00	0.00	0.00
200.0	0.00	0.00	200.0	0.0	0.0	0.0	0.00	0.00	0.00
300.0	0.00	0.00	300.0	0.0	0.0	0.0	0.00	0.00	0.00
400.0	0.00	0.00	400.0	0.0	0.0	0.0	0.00	0.00	0.00
500.0	0.00	0.00	500.0	0.0	0.0	0.0	0.00	0.00	0.00
600.0	0.00	0.00	600.0	0.0	0.0	0.0	0.00	0.00	0.00
700.0	0.00	0.00	700.0	0.0	0.0	0.0	0.00	0.00	0.00
800.0	0.00	0.00	800.0	0.0	0.0	0.0	0.00	0.00	0.00
900.0	0.00	0.00	900.0	0.0	0.0	0.0	0.00	0.00	0.00
1,000.0	0.00	0.00	1,000.0	0.0	0.0	0.0	0.00	0.00	0.00
1,100.0	0.00	0.00	1,100.0	0.0	0.0	0.0	0.00	0.00	0.00
1,200.0	0.00	0.00	1,200.0	0.0	0.0	0.0	0.00	0.00	0.00
1,300.0	0.00	0.00	1,300.0	0.0	0.0	0.0	0.00	0.00	0.00
1,400.0	0.00	0.00	1,400.0	0.0	0.0	0.0	0.00	0.00	0.00
1,500.0	0.00	0.00	1,500.0	0.0	0.0	0.0	0.00	0.00	0.00
1,600.0	0.00	0.00	1,600.0	0.0	0.0	0.0	0.00	0.00	0.00
1,700.0	0.00	0.00	1,700.0	0.0	0.0	0.0	0.00	0.00	0.00
1,800.0	0.00	0.00	1,800.0	0.0	0.0	0.0	0.00	0.00	0.00
1,900.0	0.00	0.00	1,900.0	0.0	0.0	0.0	0.00	0.00	0.00
2,000.0	5.50	83.00	1,999.8	0.6	4.8	4.8	5.50	5.50	0.00
2,100.0	11.00	83.00	2,098.8	2.3	19.0	19.1	5.50	5.50	0.00
2,200.0	16.50	83.00	2,195.9	5.2	42.6	42.7	5.50	5.50	0.00
2,300.0	22.00	83.00	2,290.2	9.2	75.3	75.5	5.50	5.50	0.00
2,400.0	27.50	83.00	2,381.0	14.3	116.8	117.2	5.50	5.50	0.00
2,500.0	33.00	83.00	2,467.4	20.5	166.8	167.3	5.50	5.50	0.00
2,600.0	38.50	83.00	2,548.5	27.6	224.8	225.4	5.50	5.50	0.00
2,700.0	44.00	83.00	2,623.7	35.6	290.2	291.1	5.50	5.50	0.00
2,800.0	49.50	83.00	2,692.1	44.5	362.5	363.5	5.50	5.50	0.00
2,900.0	55.00	83.00	2,753.3	54.1	440.9	442.2	5.50	5.50	0.00
3,000.0	60.50	83.00	2,806.7	64.4	524.8	526.4	5.50	5.50	0.00
3,100.0	65.00	83.00	2,851.8	75.3	613.4	615.2	4.50	4.50	0.00
3,200.0	65.00	83.00	2,894.1	86.4	703.3	705.4	0.00	0.00	0.00
3,260.0	65.00	83.00	2,919.4	93.0	757.3	759.5	0.00	0.00	0.00
3,295.0	65.00	84.16	2,934.2	96.5	788.8	791.1	3.00	0.01	3.31
3,300.0	65.54	84.30	2,936.3	97.0	793.3	795.7	11.00	10.71	2.75
3,400.0	76.27	86.85	2,969.0	104.2	887.4	889.9	11.00	10.73	2.55
3,500.0	87.03	89.17	2,983.5	107.6	986.1	988.7	11.00	10.76	2.32
3,527.9	90.04	89.80	2,984.2	107.9	1,014.0	1,016.6	11.00	10.76	2.27
3,600.0	90.04	89.80	2,984.2	108.1	1,086.1	1,088.6	0.00	0.00	0.00
3,700.0	90.04	89.80	2,984.1	108.5	1,186.1	1,188.6	0.00	0.00	0.00
3,800.0	90.04	89.80	2,984.0	108.8	1,286.1	1,288.6	0.00	0.00	0.00
3,900.0	90.04	89.80	2,984.0	109.1	1,386.1	1,388.6	0.00	0.00	0.00
4,000.0	90.04	89.80	2,983.9	109.5	1,486.1	1,488.5	0.00	0.00	0.00
4,100.0	90.04	89.80	2,983.8	109.8	1,586.1	1,588.5	0.00	0.00	0.00
4,200.0	90.04	89.80	2,983.8	110.2	1,686.1	1,688.5	0.00	0.00	0.00
4,300.0	90.04	89.80	2,983.7	110.5	1,786.1	1,788.4	0.00	0.00	0.00
4,400.0	90.04	89.80	2,983.6	110.9	1,886.1	1,888.4	0.00	0.00	0.00
4,500.0	90.04	89.80	2,983.6	111.2	1,986.1	1,988.4	0.00	0.00	0.00
4,600.0	90.04	89.80	2,983.5	111.5	2,086.1	2,088.4	0.00	0.00	0.00
4,700.0	90.04	89.80	2,983.4	111.9	2,186.1	2,188.3	0.00	0.00	0.00
4,800.0	90.04	89.80	2,983.4	112.2	2,286.1	2,288.3	0.00	0.00	0.00
4,900.0	90.04	89.80	2,983.3	112.6	2,386.1	2,388.3	0.00	0.00	0.00
5,000.0	90.04	89.80	2,983.2	112.9	2,486.1	2,488.3	0.00	0.00	0.00

Database:	EDM 5000.17 Single User Db	**Local Co-ordinate Reference:**	Well Southern Ute 704H
Company:	Hilcorp Energy Company	**TVD Reference:**	RKB to MSL= 6375usft @ 6375.0usft
Project:	Farmington, NM	**MD Reference:**	RKB to MSL= 6375usft @ 6375.0usft
Site:	San Juan Basin	**North Reference:**	Grid
Well:	Southern Ute 704H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Lateral No.1		
Design:	WP1.3		

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
5,100.0	90.04	89.80	2,983.2	113.3	2,586.1	2,588.2	0.00	0.00	0.00
5,200.0	90.04	89.80	2,983.1	113.6	2,686.1	2,688.2	0.00	0.00	0.00
5,300.0	90.04	89.80	2,983.1	113.9	2,786.1	2,788.2	0.00	0.00	0.00
5,400.0	90.04	89.80	2,983.0	114.3	2,886.1	2,888.1	0.00	0.00	0.00
5,500.0	90.04	89.80	2,982.9	114.6	2,986.1	2,988.1	0.00	0.00	0.00
5,600.0	90.04	89.80	2,982.9	115.0	3,086.1	3,088.1	0.00	0.00	0.00
5,700.0	90.04	89.80	2,982.8	115.3	3,186.1	3,188.1	0.00	0.00	0.00
5,800.0	90.04	89.80	2,982.7	115.7	3,286.1	3,288.0	0.00	0.00	0.00
5,900.0	90.04	89.80	2,982.7	116.0	3,386.1	3,388.0	0.00	0.00	0.00
6,000.0	90.04	89.80	2,982.6	116.3	3,486.1	3,488.0	0.00	0.00	0.00
6,100.0	90.04	89.80	2,982.5	116.7	3,586.1	3,587.9	0.00	0.00	0.00
6,200.0	90.04	89.80	2,982.5	117.0	3,686.1	3,687.9	0.00	0.00	0.00
6,300.0	90.04	89.80	2,982.4	117.4	3,786.1	3,787.9	0.00	0.00	0.00
6,400.0	90.04	89.80	2,982.3	117.7	3,886.1	3,887.9	0.00	0.00	0.00
6,500.0	90.04	89.80	2,982.3	118.1	3,986.1	3,987.8	0.00	0.00	0.00
6,600.0	90.04	89.80	2,982.2	118.4	4,086.1	4,087.8	0.00	0.00	0.00
6,700.0	90.04	89.80	2,982.1	118.8	4,186.1	4,187.8	0.00	0.00	0.00
6,800.0	90.04	89.80	2,982.1	119.1	4,286.1	4,287.7	0.00	0.00	0.00
6,900.0	90.04	89.80	2,982.0	119.4	4,386.1	4,387.7	0.00	0.00	0.00
6,929.7	90.04	89.80	2,982.0	119.5	4,415.8	4,417.4	0.00	0.00	0.00

Design Targets

Target Name - hit/miss target - Shape	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
Lat.No.1 Lateral Pt (Sou	0.00	0.00	2,977.0	110.8	1,217.0	2,191,432.90	562,897.60	37° 1' 20.018 N	107° 37' 4.365 W
- plan misses target center by 7.4usft at 3730.9usft MD (2984.1 TVD, 108.6 N, 1217.0 E)									
- Point									
Lat.No.1 Toe Pt (Southe	0.00	0.00	2,982.0	119.5	4,415.8	2,191,441.60	566,096.10	37° 1' 20.030 N	107° 36' 24.922 W
- plan hits target center									
- Point									
Lat.No.1 Landing Pt (So	0.00	0.00	2,984.0	111.8	864.5	2,191,433.90	562,545.10	37° 1' 20.035 N	107° 37' 8.712 W
- plan misses target center by 22.1usft at 3383.9usft MD (2964.9 TVD, 103.3 N, 871.8 E)									
- Point									

Formations

Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)
3,439.9	2,977.0	Top of Big Blue Seam		0.00	

Database:	EDM 5000.17 Single User Db	**Local Co-ordinate Reference:**	Well Southern Ute 704H
Company:	Hilcorp Energy Company	**TVD Reference:**	RKB to MSL= 6375usft @ 6375.0usft
Project:	Farmington, NM	**MD Reference:**	RKB to MSL= 6375usft @ 6375.0usft
Site:	San Juan Basin	**North Reference:**	Grid
Well:	Southern Ute 704H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Lateral No.1		
Design:	WP1.3		

Plan Annotations

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates +N/-S (usft)	Local Coordinates +E/-W (usft)	Comment
3,260.0	2,919.4	93.0	757.3	Tie On @ 3260' MD
3,295.0	2,934.2	96.5	788.8	Window @ 3295' MD
3,527.9	2,984.2	107.9	1,014.0	EOB & SOH @ 3527.9' MD, 90.04° INC
6,929.7	2,982.0	119.5	4,415.8	PBHL @ 6929.7' MD

Hilcorp Energy Company

Farmington, NM
San Juan Basin
Southern Ute 704H

Lateral No.1

Plan: WP1.3

Standard Planning Report - Geographic

14 August, 2023

Database:	EDM 5000.17 Single User Db	**Local Co-ordinate Reference:**	Well Southern Ute 704H
Company:	Hilcorp Energy Company	**TVD Reference:**	RKB to MSL= 6375usft @ 6375.0usft
Project:	Farmington, NM	**MD Reference:**	RKB to MSL= 6375usft @ 6375.0usft
Site:	San Juan Basin	**North Reference:**	Grid
Well:	Southern Ute 704H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Lateral No.1		
Design:	WP1.3		

Project Farmington, NM

Map System:	US State Plane 1927 (Exact solution)	**System Datum:**	Mean Sea Level
Geo Datum:	NAD 1927 (NADCON CONUS)		
Map Zone:	New Mexico West 3003		Using geodetic scale factor

Site San Juan Basin

Site Position:		**Northing:**	2,191,322.07 usft	**Latitude:**	37° 0' 33.264 N
From:	Map	**Easting:**	561,680.67 usft	**Longitude:**	107° 35' 27.852 W
Position Uncertainty:	5.0 usft	**Slot Radius:**	13-3/16 "		

Well Southern Ute 704H

Well Position	**+N/-S**	0.0 usft	**Northing:**	2,191,322.07 usft	**Latitude:**	37° 1' 18.949 N
	+E/-W	0.0 usft	**Easting:**	561,680.67 usft	**Longitude:**	107° 37' 19.375 W
Position Uncertainty		1.0 usft	**Wellhead Elevation:**	usft	**Ground Level:**	6,360.0 usft
Grid Convergence:		0.13 °				

Wellbore Lateral No.1

Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	BGGM2023	8/14/2023	8.64	63.40	49,465.34218527

Design WP1.3

Audit Notes:

Version:	**Phase:**	PLAN	**Tie On Depth:**	3,260.0

Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)
	0.0	0.0	0.0	88.45

Plan Survey Tool Program **Date** 8/14/2023

	Depth From (usft)	Depth To (usft)	Survey (Wellbore)	Tool Name	Remarks
1	3,260.0	6,929.0	WP1.3 (Lateral No.1)	3_MWD+HRGM B001Mb: HRGM declination cc	

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
3,260.0	65.00	83.00	2,919.4	93.0	757.3	0.00	0.00	0.00	0.00	
3,295.0	65.00	84.16	2,934.2	96.5	788.8	3.00	0.01	3.31	90.00	
3,527.9	90.04	89.80	2,984.2	107.9	1,014.0	11.00	10.75	2.42	13.15	
6,929.7	90.04	89.80	2,982.0	119.5	4,415.8	0.00	0.00	0.00	0.00	Lat.No.1 Toe Pt (Sout

Database:	EDM 5000.17 Single User Db	**Local Co-ordinate Reference:**	Well Southern Ute 704H
Company:	Hilcorp Energy Company	**TVD Reference:**	RKB to MSL= 6375usft @ 6375.0usft
Project:	Farmington, NM	**MD Reference:**	RKB to MSL= 6375usft @ 6375.0usft
Site:	San Juan Basin	**North Reference:**	Grid
Well:	Southern Ute 704H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Lateral No.1		
Design:	WP1.3		

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
0.0	0.00	0.00	0.0	0.0	0.0	2,191,322.07	561,680.67	37° 1' 18.949 N	107° 37' 19.375 W
100.0	0.00	0.00	100.0	0.0	0.0	2,191,322.07	561,680.67	37° 1' 18.949 N	107° 37' 19.375 W
200.0	0.00	0.00	200.0	0.0	0.0	2,191,322.07	561,680.67	37° 1' 18.949 N	107° 37' 19.375 W
300.0	0.00	0.00	300.0	0.0	0.0	2,191,322.07	561,680.67	37° 1' 18.949 N	107° 37' 19.375 W
400.0	0.00	0.00	400.0	0.0	0.0	2,191,322.07	561,680.67	37° 1' 18.949 N	107° 37' 19.375 W
500.0	0.00	0.00	500.0	0.0	0.0	2,191,322.07	561,680.67	37° 1' 18.949 N	107° 37' 19.375 W
600.0	0.00	0.00	600.0	0.0	0.0	2,191,322.07	561,680.67	37° 1' 18.949 N	107° 37' 19.375 W
700.0	0.00	0.00	700.0	0.0	0.0	2,191,322.07	561,680.67	37° 1' 18.949 N	107° 37' 19.375 W
800.0	0.00	0.00	800.0	0.0	0.0	2,191,322.07	561,680.67	37° 1' 18.949 N	107° 37' 19.375 W
900.0	0.00	0.00	900.0	0.0	0.0	2,191,322.07	561,680.67	37° 1' 18.949 N	107° 37' 19.375 W
1,000.0	0.00	0.00	1,000.0	0.0	0.0	2,191,322.07	561,680.67	37° 1' 18.949 N	107° 37' 19.375 W
1,100.0	0.00	0.00	1,100.0	0.0	0.0	2,191,322.07	561,680.67	37° 1' 18.949 N	107° 37' 19.375 W
1,200.0	0.00	0.00	1,200.0	0.0	0.0	2,191,322.07	561,680.67	37° 1' 18.949 N	107° 37' 19.375 W
1,300.0	0.00	0.00	1,300.0	0.0	0.0	2,191,322.07	561,680.67	37° 1' 18.949 N	107° 37' 19.375 W
1,400.0	0.00	0.00	1,400.0	0.0	0.0	2,191,322.07	561,680.67	37° 1' 18.949 N	107° 37' 19.375 W
1,500.0	0.00	0.00	1,500.0	0.0	0.0	2,191,322.07	561,680.67	37° 1' 18.949 N	107° 37' 19.375 W
1,600.0	0.00	0.00	1,600.0	0.0	0.0	2,191,322.07	561,680.67	37° 1' 18.949 N	107° 37' 19.375 W
1,700.0	0.00	0.00	1,700.0	0.0	0.0	2,191,322.07	561,680.67	37° 1' 18.949 N	107° 37' 19.375 W
1,800.0	0.00	0.00	1,800.0	0.0	0.0	2,191,322.07	561,680.67	37° 1' 18.949 N	107° 37' 19.375 W
1,900.0	0.00	0.00	1,900.0	0.0	0.0	2,191,322.07	561,680.67	37° 1' 18.949 N	107° 37' 19.375 W
2,000.0	5.50	83.00	1,999.8	0.6	4.8	2,191,322.65	561,685.43	37° 1' 18.954 N	107° 37' 19.316 W
2,100.0	11.00	83.00	2,098.8	2.3	19.0	2,191,324.40	561,699.67	37° 1' 18.971 N	107° 37' 19.141 W
2,200.0	16.50	83.00	2,195.9	5.2	42.6	2,191,327.30	561,723.25	37° 1' 18.999 N	107° 37' 18.850 W
2,300.0	22.00	83.00	2,290.2	9.2	75.3	2,191,331.31	561,755.96	37° 1' 19.038 N	107° 37' 18.446 W
2,400.0	27.50	83.00	2,381.0	14.3	116.8	2,191,336.41	561,797.49	37° 1' 19.088 N	107° 37' 17.934 W
2,500.0	33.00	83.00	2,467.4	20.5	166.8	2,191,342.55	561,847.47	37° 1' 19.148 N	107° 37' 17.318 W
2,600.0	38.50	83.00	2,548.5	27.6	224.8	2,191,349.67	561,905.43	37° 1' 19.217 N	107° 37' 16.603 W
2,700.0	44.00	83.00	2,623.7	35.6	290.2	2,191,357.70	561,970.85	37° 1' 19.295 N	107° 37' 15.796 W
2,800.0	49.50	83.00	2,692.1	44.5	362.5	2,191,366.57	562,043.11	37° 1' 19.381 N	107° 37' 14.904 W
2,900.0	55.00	83.00	2,753.3	54.1	440.9	2,191,376.20	562,121.55	37° 1' 19.474 N	107° 37' 13.937 W
3,000.0	60.50	83.00	2,806.7	64.4	524.8	2,191,386.50	562,205.45	37° 1' 19.574 N	107° 37' 12.902 W
3,100.0	65.00	83.00	2,851.8	75.3	613.4	2,191,397.37	562,293.98	37° 1' 19.680 N	107° 37' 11.810 W
3,200.0	65.00	83.00	2,894.1	86.4	703.3	2,191,408.42	562,383.93	37° 1' 19.787 N	107° 37' 10.700 W
3,260.0	65.00	83.00	2,919.4	93.0	757.3	2,191,415.04	562,437.90	37° 1' 19.851 N	107° 37' 10.035 W
3,295.0	65.00	84.16	2,934.2	96.5	788.8	2,191,418.59	562,469.41	37° 1' 19.886 N	107° 37' 9.646 W
3,300.0	65.54	84.30	2,936.3	97.0	793.3	2,191,419.05	562,473.93	37° 1' 19.890 N	107° 37' 9.590 W
3,400.0	76.27	86.85	2,969.0	104.2	887.4	2,191,426.27	562,568.00	37° 1' 19.959 N	107° 37' 8.430 W
3,500.0	87.03	89.17	2,983.5	107.6	986.1	2,191,429.67	562,666.72	37° 1' 19.991 N	107° 37' 7.213 W
3,527.9	90.04	89.80	2,984.2	107.9	1,014.0	2,191,429.92	562,694.63	37° 1' 19.993 N	107° 37' 6.868 W
3,600.0	90.04	89.80	2,984.2	108.1	1,086.1	2,191,430.17	562,766.70	37° 1' 19.994 N	107° 37' 5.980 W
3,700.0	90.04	89.80	2,984.1	108.5	1,186.1	2,191,430.51	562,866.69	37° 1' 19.995 N	107° 37' 4.747 W
3,800.0	90.04	89.80	2,984.0	108.8	1,286.1	2,191,430.86	562,966.68	37° 1' 19.996 N	107° 37' 3.513 W
3,900.0	90.04	89.80	2,984.0	109.1	1,386.1	2,191,431.20	563,066.67	37° 1' 19.997 N	107° 37' 2.280 W
4,000.0	90.04	89.80	2,983.9	109.5	1,486.1	2,191,431.54	563,166.67	37° 1' 19.998 N	107° 37' 1.047 W
4,100.0	90.04	89.80	2,983.8	109.8	1,586.1	2,191,431.89	563,266.66	37° 1' 19.999 N	107° 36' 59.814 W
4,200.0	90.04	89.80	2,983.8	110.2	1,686.1	2,191,432.23	563,366.65	37° 1' 20.000 N	107° 36' 58.581 W
4,300.0	90.04	89.80	2,983.7	110.5	1,786.1	2,191,432.57	563,466.64	37° 1' 20.002 N	107° 36' 57.348 W
4,400.0	90.04	89.80	2,983.6	110.9	1,886.1	2,191,432.92	563,566.63	37° 1' 20.003 N	107° 36' 56.115 W
4,500.0	90.04	89.80	2,983.6	111.2	1,986.1	2,191,433.26	563,666.62	37° 1' 20.004 N	107° 36' 54.882 W
4,600.0	90.04	89.80	2,983.5	111.5	2,086.1	2,191,433.60	563,766.62	37° 1' 20.005 N	107° 36' 53.649 W
4,700.0	90.04	89.80	2,983.4	111.9	2,186.1	2,191,433.95	563,866.61	37° 1' 20.006 N	107° 36' 52.416 W
4,800.0	90.04	89.80	2,983.4	112.2	2,286.1	2,191,434.29	563,966.60	37° 1' 20.007 N	107° 36' 51.183 W
4,900.0	90.04	89.80	2,983.3	112.6	2,386.1	2,191,434.63	564,066.59	37° 1' 20.008 N	107° 36' 49.950 W
5,000.0	90.04	89.80	2,983.2	112.9	2,486.1	2,191,434.98	564,166.58	37° 1' 20.009 N	107° 36' 48.717 W
5,100.0	90.04	89.80	2,983.2	113.3	2,586.1	2,191,435.32	564,266.57	37° 1' 20.011 N	107° 36' 47.484 W

Database:	EDM 5000.17 Single User Db	**Local Co-ordinate Reference:**	Well Southern Ute 704H
Company:	Hilcorp Energy Company	**TVD Reference:**	RKB to MSL= 6375usft @ 6375.0usft
Project:	Farmington, NM	**MD Reference:**	RKB to MSL= 6375usft @ 6375.0usft
Site:	San Juan Basin	**North Reference:**	Grid
Well:	Southern Ute 704H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Lateral No.1		
Design:	WP1.3		

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
5,200.0	90.04	89.80	2,983.1	113.6	2,686.1	2,191,435.66	564,366.56	37° 1' 20.012 N	107° 36' 46.251 W
5,300.0	90.04	89.80	2,983.1	113.9	2,786.1	2,191,436.01	564,466.56	37° 1' 20.013 N	107° 36' 45.017 W
5,400.0	90.04	89.80	2,983.0	114.3	2,886.1	2,191,436.35	564,566.55	37° 1' 20.014 N	107° 36' 43.784 W
5,500.0	90.04	89.80	2,982.9	114.6	2,986.1	2,191,436.69	564,666.54	37° 1' 20.015 N	107° 36' 42.551 W
5,600.0	90.04	89.80	2,982.9	115.0	3,086.1	2,191,437.03	564,766.53	37° 1' 20.016 N	107° 36' 41.318 W
5,700.0	90.04	89.80	2,982.8	115.3	3,186.1	2,191,437.38	564,866.52	37° 1' 20.017 N	107° 36' 40.085 W
5,800.0	90.04	89.80	2,982.7	115.7	3,286.1	2,191,437.72	564,966.51	37° 1' 20.018 N	107° 36' 38.852 W
5,900.0	90.04	89.80	2,982.7	116.0	3,386.1	2,191,438.06	565,066.50	37° 1' 20.019 N	107° 36' 37.619 W
6,000.0	90.04	89.80	2,982.6	116.3	3,486.1	2,191,438.41	565,166.50	37° 1' 20.020 N	107° 36' 36.386 W
6,100.0	90.04	89.80	2,982.5	116.7	3,586.1	2,191,438.75	565,266.49	37° 1' 20.021 N	107° 36' 35.153 W
6,200.0	90.04	89.80	2,982.5	117.0	3,686.1	2,191,439.09	565,366.48	37° 1' 20.022 N	107° 36' 33.920 W
6,300.0	90.04	89.80	2,982.4	117.4	3,786.1	2,191,439.44	565,466.47	37° 1' 20.024 N	107° 36' 32.687 W
6,400.0	90.04	89.80	2,982.3	117.7	3,886.1	2,191,439.78	565,566.46	37° 1' 20.025 N	107° 36' 31.454 W
6,500.0	90.04	89.80	2,982.3	118.1	3,986.1	2,191,440.12	565,666.45	37° 1' 20.026 N	107° 36' 30.221 W
6,600.0	90.04	89.80	2,982.2	118.4	4,086.1	2,191,440.47	565,766.45	37° 1' 20.027 N	107° 36' 28.988 W
6,700.0	90.04	89.80	2,982.1	118.8	4,186.1	2,191,440.81	565,866.44	37° 1' 20.028 N	107° 36' 27.755 W
6,800.0	90.04	89.80	2,982.1	119.1	4,286.1	2,191,441.15	565,966.43	37° 1' 20.029 N	107° 36' 26.521 W
6,900.0	90.04	89.80	2,982.0	119.4	4,386.1	2,191,441.50	566,066.42	37° 1' 20.030 N	107° 36' 25.288 W
6,929.7	90.04	89.80	2,982.0	119.5	4,415.8	2,191,441.60	566,096.10	37° 1' 20.030 N	107° 36' 24.922 W

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
Lat.No.1 Lateral Pt (Sou	0.00	0.00	2,977.0	110.8	1,217.0	2,191,432.90	562,897.60	37° 1' 20.018 N	107° 37' 4.365 W
- plan misses target center by 7.4usft at 3730.9usft MD (2984.1 TVD, 108.6 N, 1217.0 E)									
- Point									
Lat.No.1 Toe Pt (Southe	0.00	0.00	2,982.0	119.5	4,415.8	2,191,441.60	566,096.10	37° 1' 20.030 N	107° 36' 24.922 W
- plan hits target center									
- Point									
Lat.No.1 Landing Pt (So	0.00	0.00	2,984.0	111.8	864.5	2,191,433.90	562,545.10	37° 1' 20.035 N	107° 37' 8.712 W
- plan misses target center by 22.1usft at 3383.9usft MD (2964.9 TVD, 103.3 N, 871.8 E)									
- Point									

Formations

Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)
3,439.9	2,977.0	Top of Big Blue Seam		0.00	

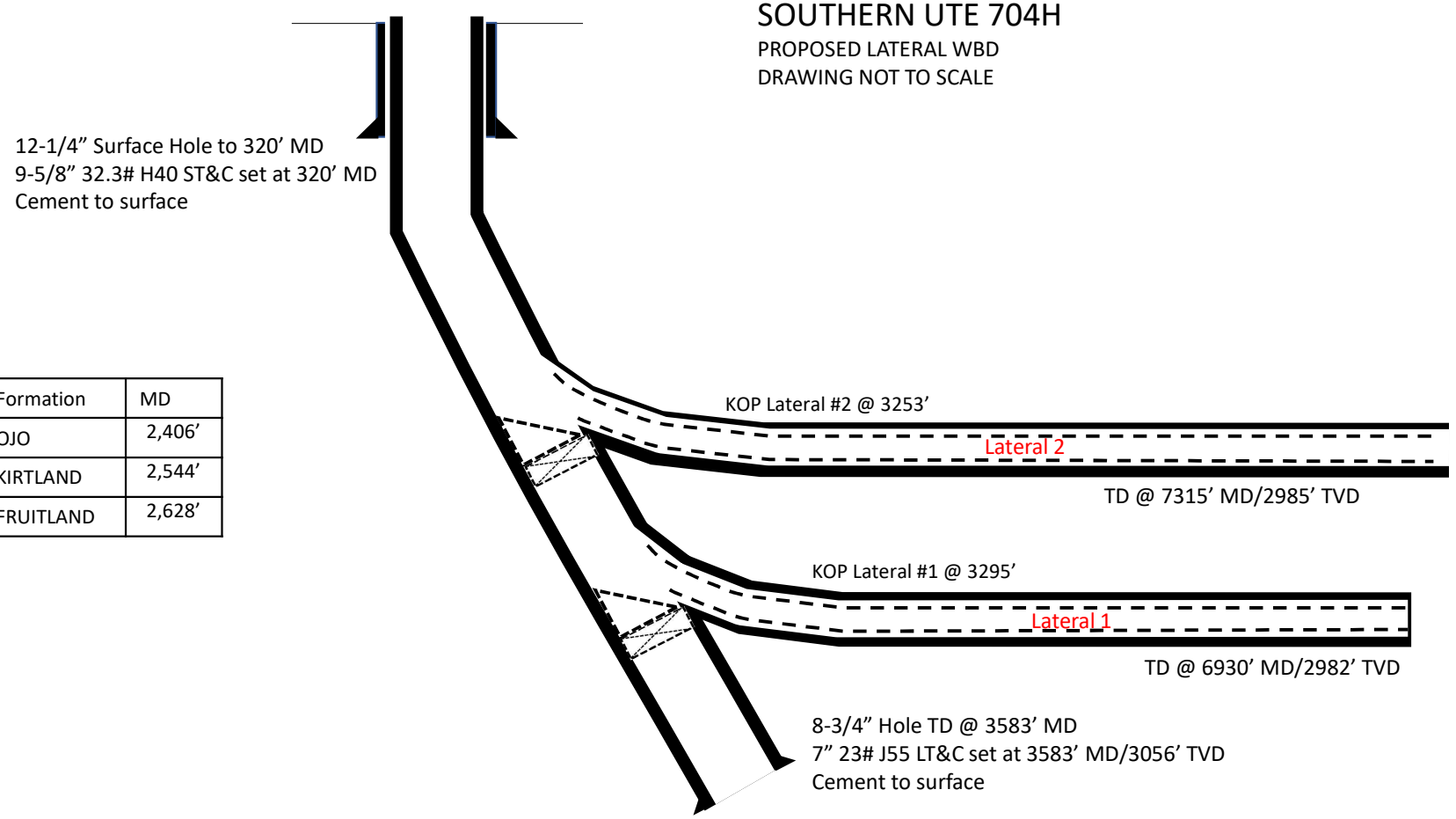
Plan Annotations

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates +N/-S (usft)	Local Coordinates +E/-W (usft)	Comment
3,260.0	2,919.4	93.0	757.3	Tie On @ 3260' MD
3,295.0	2,934.2	96.5	788.8	Window @ 3295' MD
3,527.9	2,984.2	107.9	1,014.0	EOB & SOH @ 3527.9' MD, 90.04° INC
6,929.7	2,982.0	119.5	4,415.8	PBHL @ 6929.7' MD

SOUTHERN UTE 704H

PROPOSED LATERAL WBD
DRAWING NOT TO SCALE

State:	CO
County:	La Plata
API:	
GL:	6360’
KB:	15’



Formation	MD
OJO	2,406’
KIRTLAND	2,544’
FRUITLAND	2,628’

All Laterals:
6-1/4” Hole
4-1/2” 11.6# J55 LT&C casing
Pre-Perforated Drop-off liner

Bore Name	Window Top	Window Bot	Bridge Plug	KOP Method	KOP (MD)	KOP (TVD)	Top of Production T-32-N R-7-W	Top of KOP T-32-N R-7-W	Total Depth MD	Total Depth TVD	Liner Bot	Liner Top	Proposed BHL T-32-N R-7-W
Pilot	N/A	N/A	N/A	Motor	1900	1900	816’ FNL & 165’ FEL (16)	816’ FNL & 165’ FEL (16)	3583	3056	N/A	N/A	694’ FNL & 1213’ FEL (16)
Lateral 1	3285	3295	3310	Whipstock	3295	2934	739’ FNL & 956’ FWL (16)	739’ FNL & 956’ FWL (16)	6930	2982	6930	3310	709’ FNL & 727’ FEL (16)
Lateral 2	3243	3253	3268	Whipstock	3253	2916	743’ FNL & 918’ FWL (16)	743’ FNL & 918’ FWL (16)	7315	2985	7315	3268	1955’ FNL & 722’ FEL (16)

C. Proposed Cement Program:

Proposed Cement Design							
Interval	**Depth (ft. MD)**	**Lead/Tail**	**Volume (ft^3)**	**Sacks**	**Slurry**	**Density**	**Planned TOC**
Surface	320’	Lead	200 ft^3	144	Type III Cement 2% Calcuim Chloride, 0.25 lbs/sk Cello Flake, 0.2% D-CD 2 1.39 ft^3/sk – 6.65 gal/sk	14.6 ppg	Surface
Intermediate	3,583’	Lead	720 ft^3	338	Type III Cement 5% D-CSE, 1.2% D-MPA, 0.3% D-SA, 0.3% D-CD, 0.5% D-FP. 0.3% D-R, 0.25 lbs/sk CelloFlake, 0.25 lbs/sk Phenoseal, 0.125 lbs/sk Plexfiber 2.13 ft^3/sk – 11.957 gal/sk	12.5 ppg	Surface
		Tail	120 ft^3	70	Type III Cement 5% D-CSE, 1.2% D-MPA, 0.5% D-FP, 0.25 lbs/sk CelloFlake, 0.25 lbs/sk Phenoseal, 0.125 lbs/sk Plexfiber 1.71ft^3/sk – 8.86 gal/sk	13.5 ppg	3,083’
Production Lateral #1	6,930’	N/A	N/A	N/A	N/A – Uncemented pre-perforated liner.	N/A	N/A
Production Lateral #2	7,315’	N/A	N/A	N/A	N/A – Uncemented pre-perforated liner.	N/A	N/A

Notes:

- The cement slurry additives may be adjusted to accommodate required pump and compressive test times.
- For the intermediate hole section, a 2-stage cement job may be performed if hole conditions dictate. If needed, the stage tool will be placed at an approximate depth near the top of the Fruitland Coal (3,408’ TVD)
- Cement will be circulated to surface on surface and intermediate casing sections to protect water bearing zones.
- A minimum of 8 hours of wait on cement time will be observed on each hole section to allow adequate time for cement to achieve a minimum of 500 psi of compressive strength. The BOP will not be nippled down, the wellhead will not be installed, the casing will not be tested and the prior casing shoe will not be drilled out until adequate wait on cement time has been observed (8 hours or time to reach 500 psi compressive strength).

7. Testing, Logging, Coring

A. Mud Logging

- Mud loggers will collect formation samples every 30' from the surface casing shoe to both the TD of the pilot hole and TD of the production laterals.

B. MWD

- Measurement while drilling tools will be utilized from the surface casing shoe to both the TD of the pilot hole and TD of the production laterals to measure and record inclination and azimuth.

C. LWD

- Logging while drilling tools (gamma ray) will be utilized in the intermediate section from the surface casing shoe to the pilot hole section TD.

- Logging while drilling tools (gamma ray) will be utilized while drilling the production laterals from the intermediate casing kick-offs to the production laterals' TD to assist in staying in the desired coal seam while drilling the lateral sections.

D. Open Hole Logging

- There are no planned open hole logs post drilling.

E. Coring

- There is no coring or formation testing planned.

F. Cased Hole Logging

- The 7" intermediate casing will be cemented to surface to protect water bearing zones. If cement is not circulated to surface on the intermediate cement job, a temperature survey or a cement bod log will be run to verify top of cement.

8. Directional Drilling Plan

- The directional drilling plans and plots are attached.

- The directional plan is built from geologic targets from offset wells and lease boundaries. The production laterals will be landed and drilled horizontally within the target formation utilizing LWD tools to steer the wellbores. On-site adjustments to the directional plans will be made as formation and wellbore dictate.

APD ID: 10400096607 **Submission Date:** 01/18/2024

Operator Name: HILCORP ENERGY COMPANY

Well Name: SOUTHERN UTE **Well Number:** 704H

Well Type: COALBED NATURAL GAS 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:

SHEET_B1_20240108113429.pdf

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

ROW ID(s)

ID:

Do the existing roads need to be improved? YES

Existing Road Improvement Description: A total of 2,453.6 of the reclaimed roadway will be upgraded. No new topsoil will be needed to upgrade this section of road. Any soil removed from the existing roadway that is not needed during the upgrade will be incorporated into shoulder that is adjacent to and parallel with the bar-ditch.

Existing Road Improvement Attachment:

SHEET_B3_20240108113859.pdf

Section 2 - New or Reconstructed Access Roads

Will new roads be needed? YES

New Road Map:

SHEET_B2_20240108113716.pdf

New road type: RESOURCE

Length: 935 Feet **Width (ft.):** 30

Max slope (%): 8 **Max grade (%):** 8

Army Corp of Engineers (ACOE) permit required? N

ACOE Permit Number(s):

New road travel width: 14

New road access erosion control: crowning and capping

New road access plan or profile prepared? Y

New road access plan

SHEET_B3_20240108114724.pdf

Access road engineering design? N

Access road engineering design

Turnout? N

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: Dozer

Access other construction information:

Access miscellaneous information:

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

Drainage Control

New road drainage crossing: CULVERT

Drainage Control comments: There shall be six 24 x 30 culverts on the proposed access road and culverts as necessary on the reclaimed portion of the access road

Road Drainage Control Structures (DCS) description: crowning and capping

Road Drainage Control Structures (DCS) attachment:

Appendix_B_20240108114503.pdf

Access Additional Attachments

Section 3 - Location of Existing Wells

Existing Wells Map? YES

Attach Well map:

SHEET_D2_20240108114816.pdf

SHEET_D1_20240108114816.pdf

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

Submit or defer a Proposed Production Facilities plan? DEFER

Estimated Production Facilities description: The typical well producing into this formation has the following production facilities. i. Two 80 BBL Produced Water Tanks ii. Separator iii. Production pit iv. Pumping unit v. Meter House vi. Compressor

Operator Name: HILCORP ENERGY COMPANY

Well Name: SOUTHERN UTE **Well Number:** 704H

Section 5 - Location and Types of Water Supply

Water Source Table

Water source type: FRESH WATER LAKE

Water source use type: DUST CONTROL

INTERMEDIATE/PRODUCTION CASING

Source latitude: **Source longitude:**

Source datum:

Water source permit type: OTHER

Water source transport method: TRUCKING

Source land ownership: OTHER **Describe land ownership:** Other

Source transportation land ownership: PRIVATE

Water source volume (barrels): 2000 **Source volume (acre-feet):** 0.25778619

Source volume (gal): 84000

Water source and transportation

SHEET_H_20240108131640.pdf

Water source comments:

New water well? N

New Water Well Info

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

Well target aquifer:

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

Aquifer comments:

Aquifer documentation:

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

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

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

Drilling method: **Drill material:**

Grout material: **Grout depth:**

Casing length (ft.): **Casing top depth (ft.):**

Operator Name: HILCORP ENERGY COMPANY

Well Name: SOUTHERN UTE **Well Number:** 704H

Well Production type: **Completion Method:**

Water well additional information:

State appropriation permit:

Additional information attachment:

Section 6 - Construction Materials

Using any construction materials: YES

Construction Materials description: Construction material will be obtained from the location site

Construction Materials source location

SHEET_F_20240108121848.pdf
SHEET_G1_20240108115333.pdf
SHEET_G2_20240108115333.pdf

Section 7 - Methods for Handling

Waste type: DRILLING

Waste content description: Formation cuttings

Amount of waste: 581 barrels

Waste disposal frequency : Daily

Safe containment description: Roll-off bins

Safe containmant attachment:

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

Disposal type description:

Disposal location description: Bondad Landfill, Envirotech Land Farm

Waste type: SEWAGE

Waste content description: Human Waste

Amount of waste: 500 gallons

Waste disposal frequency : One Time Only

Safe containment description: Portable Toilet(s)

Safe containmant attachment:

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

Disposal type description:

Disposal location description: Peak Energy Services

Operator Name: HILCORP ENERGY COMPANY

Well Name: SOUTHERN UTE **Well Number:** 704H

Waste type: GARBAGE

Waste content description: landfill trash

Amount of waste: 1000 pounds

Waste disposal frequency : Weekly

Safe containment description: Enclosed metal container

Safe containmant attachment:

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

Disposal type description:

Disposal location description: Bondad Landfill

Waste type: CHEMICALS

Waste content description: Engine Oil

Amount of waste: 30 gallons

Waste disposal frequency : Weekly

Safe containment description: Oil Bins

Safe containmant attachment:

Waste disposal type: RECYCLE **Disposal location ownership:** COMMERCIAL

Disposal type description:

Disposal location description: Oil Recycle Center

Waste type: PRODUCED WATER

Waste content description: Produced water during production

Amount of waste: 35 barrels

Waste disposal frequency : Daily

Safe containment description: Tanks and trucks

Safe containmant attachment:

Waste disposal type: OFF-LEASE INJECTION **Disposal location ownership:** FEDERAL

Disposal type description:

Disposal location description: San Juan 32-7 Unit 301 SWD, API 30-045-28549

Reserve Pit

Reserve Pit being used? NO

Temporary disposal of produced water into reserve pit? NO

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

Operator Name: HILCORP ENERGY COMPANY

Well Name: SOUTHERN UTE **Well Number:** 704H

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? N

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

Are you requesting any Ancillary Facilities?: N

Ancillary Facilities

Comments:

Section 9 - Well Site

Well Site Layout Diagram:

SHEET_G3_20240108115501.pdf

Comments:

Operator Name: HILCORP ENERGY COMPANY

Well Name: SOUTHERN UTE **Well Number:** 704H

Section 10 - Plans for Surface Reclamation

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

Multiple Well Pad Number:

Recontouring

Appendix_A_20240108130721.pdf

Drainage/Erosion control construction: Hilcorp will use appropriate erosion control/water management design features within the proposed project area. Hilcorp will use straw wattles as appropriate to limit erosion and sediment transport from any stockpiled soils. Culverts will be placed along the proposed access road for the proper drainage of potential stormwater run-off through the project area. A completed stormwater management plan is on file with the SUIT Department of Natural Resources, Water Resources Division.

Drainage/Erosion control reclamation: Hilcorp will use appropriate erosion control/water management design features within the proposed project area. Hilcorp will use straw wattles as appropriate to limit erosion and sediment transport from any stockpiled soils. Culverts will be placed along the proposed access road for the proper drainage of potential stormwater run-off through the project area. A completed stormwater management plan is on file with the SUIT Department of Natural Resources, Water Resources Division.

Well pad proposed disturbance (acres): 2.22	**Well pad interim reclamation (acres):** 0.64	**Well pad long term disturbance (acres):** 1.58
Road proposed disturbance (acres): 0.429	**Road interim reclamation (acres):** 0	**Road long term disturbance (acres):** 0.429
Powerline proposed disturbance (acres): 0	**Powerline interim reclamation (acres):** 0	**Powerline long term disturbance (acres):** 0
Pipeline proposed disturbance (acres): 0.431	**Pipeline interim reclamation (acres):** 0.431	**Pipeline long term disturbance (acres):** 0
Other proposed disturbance (acres): 0	**Other interim reclamation (acres):** 0	**Other long term disturbance (acres):** 0
Total proposed disturbance: 3.08	**Total interim reclamation:** 1.071	**Total long term disturbance:** 2.009

Disturbance Comments:

Reconstruction method: See attached Appendix A

Topsoil redistribution: See attached Appendix A

Soil treatment: See attached Appendix A

Existing Vegetation at the well pad: See attached Appendix A

Existing Vegetation at the well pad

Existing Vegetation Community at the road: See attached Appendix A

Existing Vegetation Community at the road

Existing Vegetation Community at the pipeline: See attached Appendix A

Existing Vegetation Community at the pipeline

Existing Vegetation Community at other disturbances: See attached Appendix A

Operator Name: HILCORP ENERGY COMPANY

Well Name: SOUTHERN UTE **Well Number:** 704H

Existing Vegetation Community at other disturbances

Non native seed used? N

Non native seed description:

Seedling transplant description:

Will seedlings be transplanted for this project? N

Seedling transplant description

Will seed be harvested for use in site reclamation? N

Seed harvest description:

Seed harvest description attachment:

Seed

Seed Table

Seed Summary

Total pounds/Acre:

Seed Type	Pounds/Acre

Seed reclamation

Operator Contact/Responsible Official

First Name: Joey **Last Name:** Becker

Phone: (505)320-2548 **Email:** jobecker@hilcorp.com

Seedbed prep:

Seed BMP:

Seed method:

Existing invasive species? N

Existing invasive species treatment description:

Existing invasive species treatment

Weed treatment plan description: See attached Appendix A

Weed treatment plan

Monitoring plan description: See attached Appendix A

Monitoring plan

Operator Name: HILCORP ENERGY COMPANY

Well Name: SOUTHERN UTE **Well Number:** 704H

Success standards: See attached Appendix A

Pit closure description: See attached Appendix A

Pit closure attachment:

Section 11 - Surface Ownership

Disturbance type: WELL PAD

Describe:

Surface Owner: BUREAU OF INDIAN AFFAIRS

Other surface owner description:

BIA Local Office: SUIT, IGNACIO

BOR Local Office:

COE Local Office:

DOD Local Office:

NPS Local Office:

State Local Office:

Military Local Office:

USFWS Local Office:

Other Local Office:

USFS Region:

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

Disturbance type: NEW ACCESS ROAD

Describe:

Surface Owner: BUREAU OF INDIAN AFFAIRS

Other surface owner description:

BIA Local Office: SUIT, IGNACIO

BOR Local Office:

COE Local Office:

DOD Local Office:

NPS Local Office:

State Local Office:

Operator Name: HILCORP ENERGY COMPANY

Well Name: SOUTHERN UTE **Well Number:** 704H

Military Local Office:

USFWS Local Office:

Other Local Office:

USFS Region:

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

Section 12 - Other

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

ROW Type(s): 281001 ROW - ROADS,288100 ROW – O&G Pipeline,288101 ROW – O&G Facility Sites,289001 ROW-O&G Well Pad

ROW

SUPO Additional Information:

Use a previously conducted onsite? Y

Previous Onsite information: Onsite conducted on 10/3/2023

Other SUPO

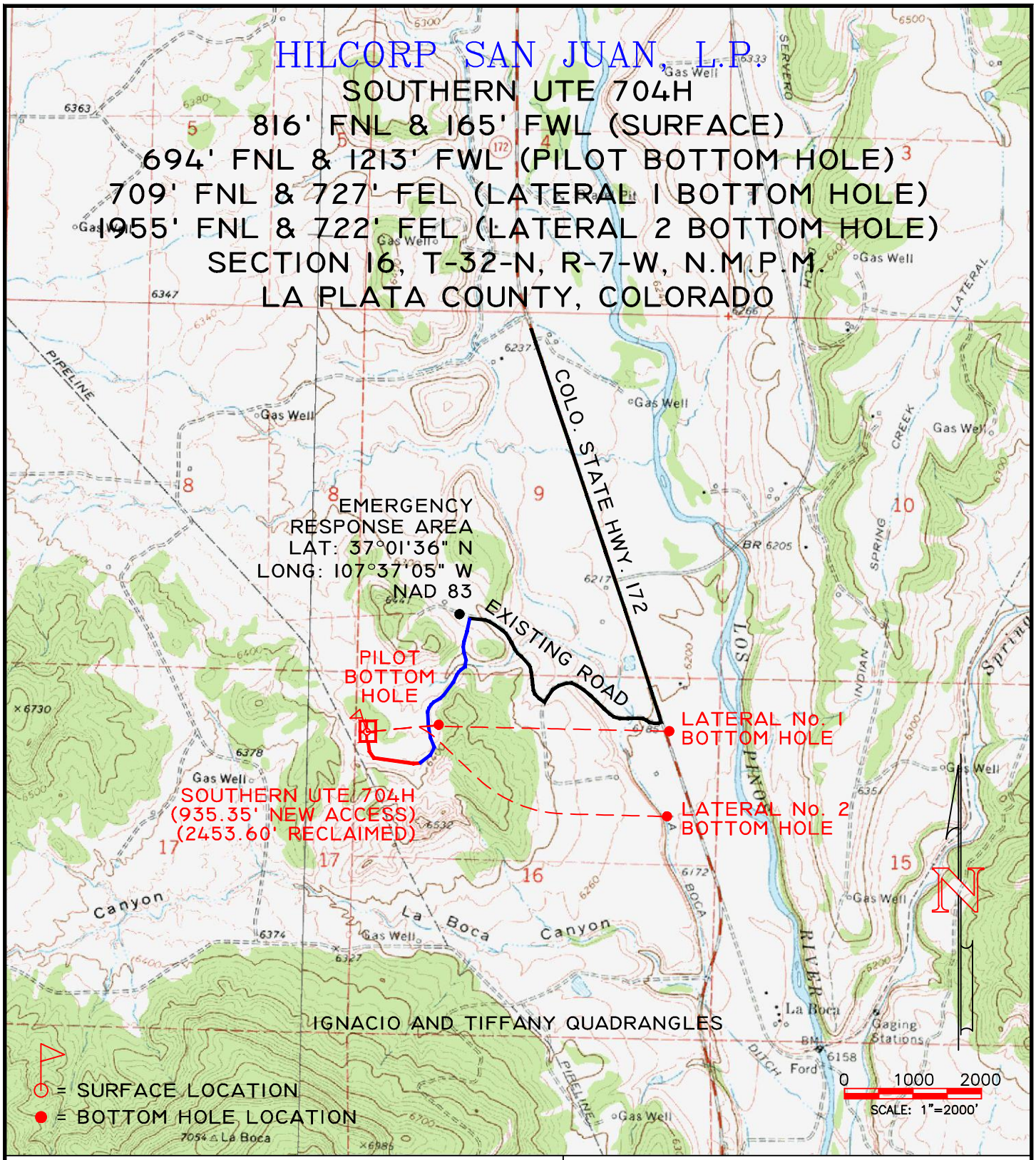
Southern_Ute_704H_SUPO___010423_20240108130741.pdf

SHEET_E_20240108125008.pdf

SHEET_I_20240108125008.pdf

HILCORP SAN JUAN, L.P.

SOUTHERN UTE 704H
816' FNL & 165' FWL (SURFACE)
694' FNL & 1213' FWL (PILOT BOTTOM HOLE)
709' FNL & 727' FEL (LATERAL 1 BOTTOM HOLE)
1955' FNL & 722' FEL (LATERAL 2 BOTTOM HOLE)
SECTION 16, T-32-N, R-7-W, N.M.P.M.
LA PLATA COUNTY, COLORADO



SURFACE TYPE: SOUTHERN UTE INDIAN RESERVATION

FOOTAGES: 816' FNL, 165' FWL (SURFACE)
694' FNL & 1213' FWL (PILOT BOTTOM HOLE)
709' FNL & 727' FEL (LATERAL 1 BOTTOM HOLE)
1955' FNL & 722' FEL (LATERAL 2 BOTTOM HOLE)

SEC. 16 TWN. 32 N RNG. 7 W N.M.P.M.

LAT: N 37.0219339° LONG: W 107.6226606° (NAD 83)

ELEVATION: 6360.9

HILCORP SAN JUAN, L.P.

UNITED FIELD SERVICES INC.

P.O. BOX 3651
FARMINGTON, NM 87499
OFFICE: (505) 334-0408

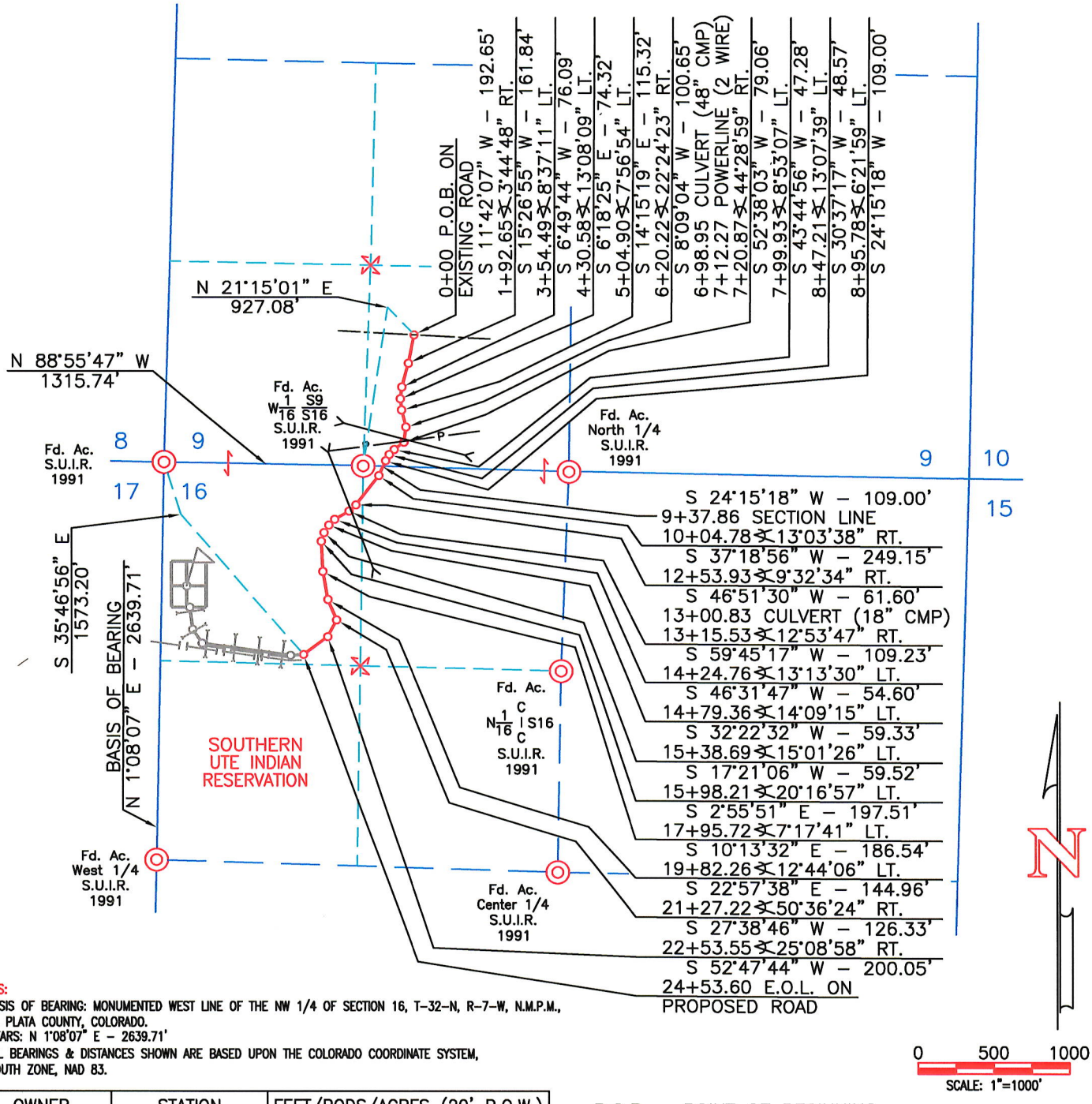
DWG. NO. : 11735-T02		REVISION: 2
DRAWN BY: A.A.D.	DATE DRAWN: 1/26/23	REV. DATE: 10/03/23
SURVEYED: 9/28/14	APP. BY: J.A.V.	SHEET: 1

SHEET B1

HILCORP SAN JUAN, L.P.

SOUTHERN UTE 704H RECLAIMED ACCESS ROAD

SE 1/4 SW 1/4 SEC. 9 & N 1/2 NW 1/4 SEC. 16
T-32-N, R-7-W, N.M.P.M., LA PLATA COUNTY, COLORADO



NOTES:

1. BASIS OF BEARING: MONUMENTED WEST LINE OF THE NW 1/4 OF SECTION 16, T-32-N, R-7-W, N.M.P.M., LA PLATA COUNTY, COLORADO.
   BEARS: N 1°08'07" E - 2639.71'
2. ALL BEARINGS & DISTANCES SHOWN ARE BASED UPON THE COLORADO COORDINATE SYSTEM, SOUTH ZONE, NAD 83.

OWNER	STATION	FEET/RODS/ACRES (20' R.O.W.)
SOUTHERN UTE INDIAN RESERVATION	0+00 TO 24+53.60	2453.60 / 148.703 / 1.127

P.O.B. = POINT OF BEGINNING
E.O.L. = END OF LINE

I, JOHN A. VUKONICH, BEING A PROFESSIONAL LAND SURVEYOR IN THE STATE OF COLORADO, DO HEREBY CERTIFY THAT THE SURVEY REPRESENTED BY THIS PLAT WAS MADE BY ME OR UNDER MY DIRECT SUPERVISION AND THAT THIS PLAT ACCURATELY REPRESENTS THE SURVEY TO THE BEST OF MY KNOWLEDGE AND BELIEF.

COLORADO
JOHN A. VUKONICH
0038275
PROFESSIONAL LAND SURVEYOR

JOHN A. VUKONICH, CO. P.L.S. #38275 — DATE 10/13/2023

HILCORP SAN JUAN, L.P.

SURVEYED: 10/03/23	REV. DATE/BY:	APP. BY J.A.V.
DRAWN BY: C.B.	DATE DRAWN: 10/03/23	FILE NAME: 11735A03

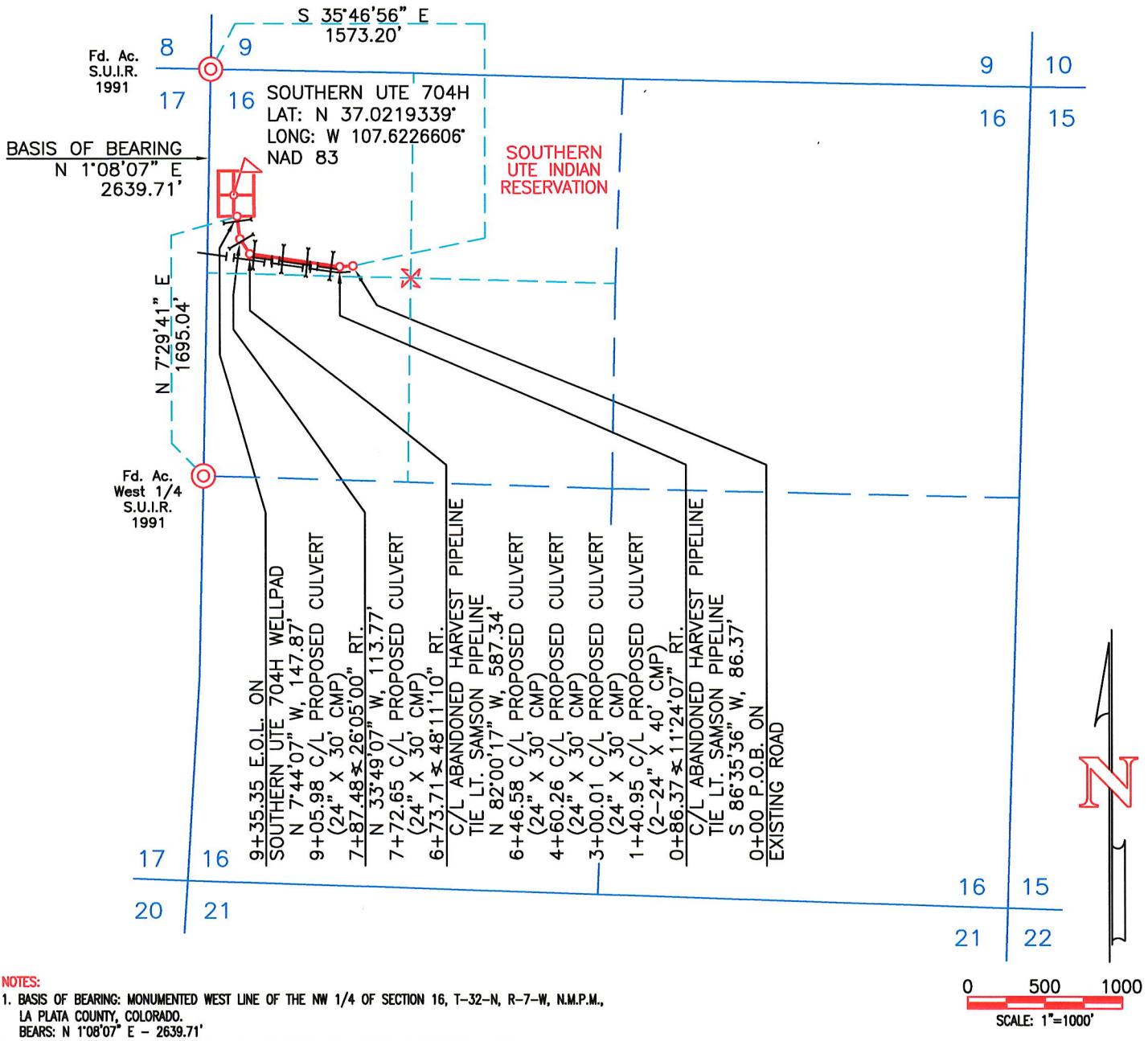
UNITED FIELD SERVICES INC.
P.O. BOX 3651
FARMINGTON, NM 87499
OFFICE: (505) 334-0408

SHEET B3

HILCORP SAN JUAN, L.P.

SOUTHERN UTE 704H PROPOSED ACCESS ROAD

NW 1/4 NW 1/4 SEC. 16, T-32-N, R-7-W, N.M.P.M.
LA PLATA COUNTY, COLORADO



NOTES:

1. BASIS OF BEARING: MONUMENTED WEST LINE OF THE NW 1/4 OF SECTION 16, T-32-N, R-7-W, N.M.P.M., LA PLATA COUNTY, COLORADO.
   BEARS: N 1°08'07" E - 2639.71'
2. ALL BEARINGS & DISTANCES SHOWN ARE BASED UPON THE COLORADO COORDINATE SYSTEM, SOUTH ZONE, NAD 83.

OWNER	STATION	FEET/RODS/ACRES (20' R.O.W.)
SOUTHERN UTE INDIAN RESERVATION	0+00 TO 9+35.35	935.35 / 56.688 / 0.429

P.O.B. = POINT OF BEGINNING
E.O.L. = END OF LINE

I, JOHN A. VUKONICH, BEING A PROFESSIONAL LAND SURVEYOR IN THE STATE OF COLORADO, DO HEREBY CERTIFY THAT THE SURVEY REPRESENTED BY THIS PLAT WAS MADE BY ME OR UNDER MY DIRECT SUPERVISION AND THAT THIS PLAT ACCURATELY REPRESENTS THE SURVEY TO THE BEST OF MY KNOWLEDGE AND BELIEF.

STATE OF COLORADO
JOHN A. VUKONICH
0038275
PROFESSIONAL LAND SURVEYOR

3/2023

JOHN A. VUKONICH, CO. P.L.S. #38275 — DATE

HILCORP SAN JUAN, L.P.

SURVEYED: 01/29/14	REV. DATE/BY: 9/13/23/C.B.	APP. BY J.A.V.
DRAWN BY: A.A.D.	DATE DRAWN: 1/26/23	FILE NAME: 11735-A02

UNITED FIELD SERVICES INC.
P.O. BOX 3651
FARMINGTON, NM 87499
OFFICE: (505) 334-0408

SHEET B3

October 3, 2023

HILCORP SAN JUAN, L.P.

SOUTHERN UTE 704H PROPOSED ACCESS ROAD

LOCATED IN THE NW 1/4 OF

SECTION 16, T-32-N, R-7-W, N.M.P.M.

LA PLATA COUNTY, COLORADO

THE DESCRIPTION OF A 20 FOOT WIDE RIGHT-OF-WAY FOR A PROPOSED ACCESS ROAD, LOCATED IN THE NORTHWEST QUARTER OF SECTION 16, TOWNSHIP 32 NORTH, RANGE 7 WEST, N.M.P.M., LA PLATA COUNTY, COLORADO, BEING 10 FEET ON EACH SIDE AND PERPENDICULAR TO THE FOLLOWING DESCRIBED CENTERLINE:

COMMENCING AT A FOUND 1991 S.U.I.R. ALUMINUM CAP FOR THE NORTHWEST CORNER OF SAID SECTION 16, THENCE SOUTH 35°46'56" EAST A DISTANCE OF 1573.20 FEET TO THE "POINT OF BEGINNING" FOR THIS DESCRIPTION;
THENCE SOUTH 86°35'36" WEST, A DISTANCE OF 86.37 FEET;
THENCE NORTH 82°00'17" WEST, A DISTANCE OF 587.34 FEET;
THENCE NORTH 33°49'07" WEST, A DISTANCE OF 113.77 FEET;
THENCE NORTH 7°44'07" WEST A DISTANCE OF 147.87 FEET TO THE END OF THIS DESCRIPTION AT A POINT IN SAID NORTHWEST QUARTER OF SECTION 16. SAID POINT BEARS NORTH 7°29'41" EAST, A DISTANCE OF 1695.04 FEET FROM A FOUND 1991 S.U.I.R. ALUMINUM CAP FOR THE WEST QUARTER CORNER OF SAID SECTION 16.

THE TOTAL LENGTH OF THE CENTERLINE AS DESCRIBED ABOVE, IS 935.35 FEET, 56.688 RODS OR 0.177 MILE. 20 FOOT RIGHT-OF-WAY CONTAINS 0.429 ACRE, MORE OR LESS.

BASIS OF BEARING - THE MONUMENTED WEST LINE OF THE NORTHWEST QUARTER OF SECTION 16, T-32-N, R-7-W, N.M.P.M., LA PLATA COUNTY, COLORADO. LINE BEARS NORTH 1°08'07" EAST A DISTANCE OF 2639.71 FEET AS MEASURED BY GPS.

SURVEYOR'S CERTIFICATION

I, JOHN A. VUKONICH, BEING A PROFESSIONAL LAND SURVEYOR IN THE STATE OF COLORADO, DO HEREBY CERTIFY THAT THE SURVEY REPRESENTED BY THIS DESCRIPTION WAS MADE BY ME OR UNDER MY DIRECT SUPERVISION AND THAT THIS DESCRIPTION ACCURATELY REPRESENTS THE SURVEY TO THE BEST OF MY KNOWLEDGE AND BELIEF.

COLORADO LICENSED JOHN ANTHONY VUKONICH 0038275 PROFESSIONAL LAND SURVEYOR

JOHN A. VUKONICH, CO. P.L.S. #38275 — DATE 10/13/2023

SHEET B2

October 3, 2023

HILCORP SAN JUAN, L.P.

SOUTHERN UTE 704H RECLAIMED ACCESS ROAD
LOCATED IN THE SE 1/4 SW 1/4 OF SECTION 9 &
THE N 1/2 NW 1/4 OF SECTION 16,
T-32-N, R-7-W, N.M.P.M.
LA PLATA COUNTY, COLORADO

THE DESCRIPTION OF A 20 FOOT WIDE RIGHT-OF-WAY FOR AN EXISTING ACCESS ROAD, LOCATED IN THE SOUTHEAST QUARTER OF THE SOUTHWEST QUARTER OF SECTION 9 AND IN THE NORTH HALF OF THE NORTHWEST QUARTER OF SECTION 16, TOWNSHIP 32 NORTH, RANGE 7 WEST, N.M.P.M., LA PLATA COUNTY, COLORADO, BEING 10 FEET ON EACH SIDE AND PERPENDICULAR TO THE FOLLOWING DESCRIBED CENTERLINE:

COMMENCING AT A FOUND 1991 S.U.I.R. ALUMINUM CAP FOR THE WEST SIXTEENTH CORNER COMMON TO SAID SECTION 9 & SECTION 16, THENCE NORTH 21°15'01" EAST A DISTANCE OF 927.08 FEET TO THE "POINT OF BEGINNING" FOR THIS DESCRIPTION;

THENCE SOUTH 11°42'07" WEST, A DISTANCE OF 192.65 FEET;

THENCE SOUTH 15°26'55" WEST, A DISTANCE OF 161.84 FEET;

THENCE SOUTH 6°49'44" WEST, A DISTANCE OF 76.09 FEET;

THENCE SOUTH 6°18'25" EAST, A DISTANCE OF 74.32 FEET;

THENCE SOUTH 14°15'19" EAST, A DISTANCE OF 115.32 FEET;

THENCE SOUTH 8°09'04" WEST, A DISTANCE OF 100.65 FEET;

THENCE SOUTH 52°38'03" WEST, A DISTANCE OF 79.06 FEET;

THENCE SOUTH 43°44'56" WEST, A DISTANCE OF 47.28 FEET;

THENCE SOUTH 30°37'17" WEST, A DISTANCE OF 48.57 FEET;

THENCE SOUTH 24°15'18" WEST, A DISTANCE OF 109.00 FEET;

THENCE SOUTH 37°18'56" WEST, A DISTANCE OF 249.15 FEET;

THENCE SOUTH 46°51'30" WEST, A DISTANCE OF 61.60 FEET;

THENCE SOUTH 59°45'17" WEST, A DISTANCE OF 109.23 FEET;

THENCE SOUTH 46°31'47" WEST, A DISTANCE OF 54.60 FEET;

THENCE SOUTH 32°22'32" WEST, A DISTANCE OF 59.33 FEET;

THENCE SOUTH 17°21'06" WEST, A DISTANCE OF 59.52 FEET;

THENCE SOUTH 2°55'51" EAST, A DISTANCE OF 197.51 FEET;

THENCE SOUTH 10°13'32" EAST, A DISTANCE OF 186.54 FEET;

THENCE SOUTH 22°57'38" EAST, A DISTANCE OF 144.96 FEET;

THENCE SOUTH 27°38'46" WEST, A DISTANCE OF 126.33 FEET;

THENCE SOUTH 52°47'44" WEST, A DISTANCE OF 200.05 FEET TO THE END OF THIS DESCRIPTION AT A POINT IN THE NORTHWEST QUARTER OF THE NORTHWEST QUARTER OF SAID SECTION 16. SAID POINT BEARS SOUTH 35°46'56" EAST, A DISTANCE OF 1573.20 FEET FROM A FOUND 1991 S.U.I.R. ALUMINUM CAP FOR THE NORTHWEST CORNER OF SAID SECTION 16.

THE TOTAL LENGTH OF THE CENTERLINE AS DESCRIBED ABOVE, IS 2453.60 FEET, 148.703 RODS OR 0.465 MILE. 20 FOOT RIGHT-OF-WAY CONTAINS 1.127 ACRES, MORE OR LESS.

BASIS OF BEARING - THE MONUMENTED WEST LINE OF THE NORTHWEST QUARTER OF SECTION 16, T-32-N, R-7-W, N.M.P.M., LA PLATA COUNTY, COLORADO. LINE BEARS NORTH 1°08'07" EAST A DISTANCE OF 2639.71 FEET AS MEASURED BY GPS.

SURVEYOR'S CERTIFICATION

I, JOHN A. VUKONICH, BEING A PROFESSIONAL LAND SURVEYOR IN THE STATE OF COLORADO, DO HEREBY CERTIFY THAT THE SURVEY REPRESENTED BY THIS DESCRIPTION WAS MADE BY ME OR UNDER MY DIRECT SUPERVISION AND THAT THIS DESCRIPTION ACCURATELY REPRESENTS THE SURVEY TO THE BEST OF MY KNOWLEDGE AND BELIEF.

COLORADO LICENSED JOHN ANTHONY VUKONICH 0038275 PROFESSIONAL LAND SURVEYOR

JOHN A. VUKONICH, CO. P.L.S. #38275 — DATE 10/13/2023

SHEET B2

Hilcorp
Road Maintenance Plan

The following Road Maintenance Plan will be implemented and followed by Hilcorp Energy Company (Hilcorp) for roads utilized in its San Juan Basin Operations. All roads will be constructed and maintained to meet Bureau of Land Management (BLM) Gold Book Standards, BLM Manuals 9113-1 (Roads Design Handbook), and BLM Manuals 9113-2 (Roads National Inventory and Condition Assessment Guidance and Instructions Handbook).

Road Inspections

1. A Hilcorp representative or designated inspector will conduct regular inspections of all newly constructed, reconstructed, and improved roads used for construction, operation, maintenance, and termination of Hilcorp's oil and gas operations.

2. Inspector will examine roads for proper maintenance of key features including: reduction of ruts and holes, maintenance of crowns and sloped areas related to the roads, condition of surface materials, efficacy of culverts and sediment traps, condition of interim reclamation, and presence of noxious weeds.

3. Road inspections will be conducted within 5 business days of major storm events such as major snow melt or prolonged rain, in order to ensure proper operation of drainage systems, and erosion and sediment control structures and features.

4. Inspectors will examine the roadways and document the inspection using the attached checklist during each inspection.

5. Inspection records will be filed and provided to the BLM upon written request.

Maintenance Procedures

For existing County Roads or roads that are considered collector roads, Hilcorp would defer to the county or to the Roads Committee, when formed, for maintenance determinations.

Roads would be maintained to the same or better condition as existed prior to the commencement of operations. Maintenance would continue until final abandonment and reclamation of Hilcorp's related oil and gas operation.

Best management practices (BMPs) for dust abatement and erosion control would be utilized along the roads to reduce fugitive dust on as needed basis. Water application using a rear-spraying truck or other suitable means would be the primary method of dust suppression along the roads.

No routine maintenance activities would be performed during periods when the soil is too wet to adequately support construction equipment. If equipment creates ruts deeper than 6 inches, the soil would be deemed too wet for construction or maintenance.

In addition to regular maintenance, road inspection would be used to identify any additional maintenance needs.

Appendix B

Road and Drainage Structures and Features

1. *Road Crown*
   Maintenance of road crowns will be conducted to rectify ruts, holes, and rough areas and ensure adequate drainage on road features and outslopes. Needed maintenance will be conducted using a maintainer to re-grade and/or resurface the road crown.

2. *Culverts*
   Culverts and silt trap maintenance and/or repair will be conducted on as-needed basis, using hand tools or machinery such as a back hoe. Excavation and debris removal activities will be conducted in accordance to the requirements of the surface management agency and conducted with compliance to applicable Clean Water Act-Best Management Practices, and applicable requirements for passage for aquatic species. If the culvert is damaged by having its inlet or outlet crushed, it would be replaced.

3. *Ditches*
   Road side ditches will be maintained to ensure proper function, on as-needed basis, using maintainer or the appropriate equipment to clear and/or blade as necessary. Maintenance activities will be implemented with consideration of resource objective for soil, water, and visual quality as is feasible with relation to maintenance costs.

4. *Silt Traps and Water Control Structures*
   Silt traps and water control structures will be maintained to ensure proper function, on as-needed basis using maintainer or the appropriate equipment to clear, excavate, and/or blade as necessary. Sediment removed from silt traps and water control structures would be disposed at an approved facility or utilized for construction activities with the approval of the surface management agency.

5. *Replacement of Road Surface Material*
   Road surface material will be maintained and supplemented/replaced on as-needed basis, using the appropriate substrate from an approved source, in order to maintain proper road operation and condition.

6. *Maintenance of Interim Reclamation*
   Disturbance related to maintenance activities will be subject to interim reclamation and stabilizations standards and guidelines, in order to meet objectives outlined in the reclamation plan, as pertaining to projects on case-by-case basis.

7. *Noxious Weeds*
   Should any noxious or invasive weeds be documented during the inspection and/or maintenance activities, the BLM/FFO weed coordinator will provide Hilcorp with specific requirements and instructions for weed treatments, including the period of treatment, list of approved herbicides, required documentation to be submitted to the BLM/FFO after treatment, and any other site-specific instructions that may be applicable.

Appendix B

Hilcorp

Hilcorp Road Inspection and Maintenance Report Form	
Road Inspected (Well ID):	Type of Area:
Title of Inspector:	Access Road to Well Pad:
Name of Inspector:	Type of Inspection:(Monthly/Major Storm/Winter Event)

Site Inspection Information

Road Condition Checklist				
Road Feature:	Good	Poor	Action Needed	Comments
Road Crown				
Surface Condition (slopes/gravel)				
Surface Drainage				
Culvert(s)				
Ditches and Turnouts				
Revegetation				
Noxious Weeds				
Sediment Control:	Good	Poor	Action Needed	Comments
Check Dam				
Silt Trap/Sediment Pond				
Filter Berm				
Sediment Trap				
Sediment Basin				
Wattles				
Silt Fence				

Actions Taken	Date Work Was Preformed

Type of Inspection	Date:	Signature:	

Signature certifying that the site is in compliance (after all the necessary repairs, maintenance, and changes are completed)

Date

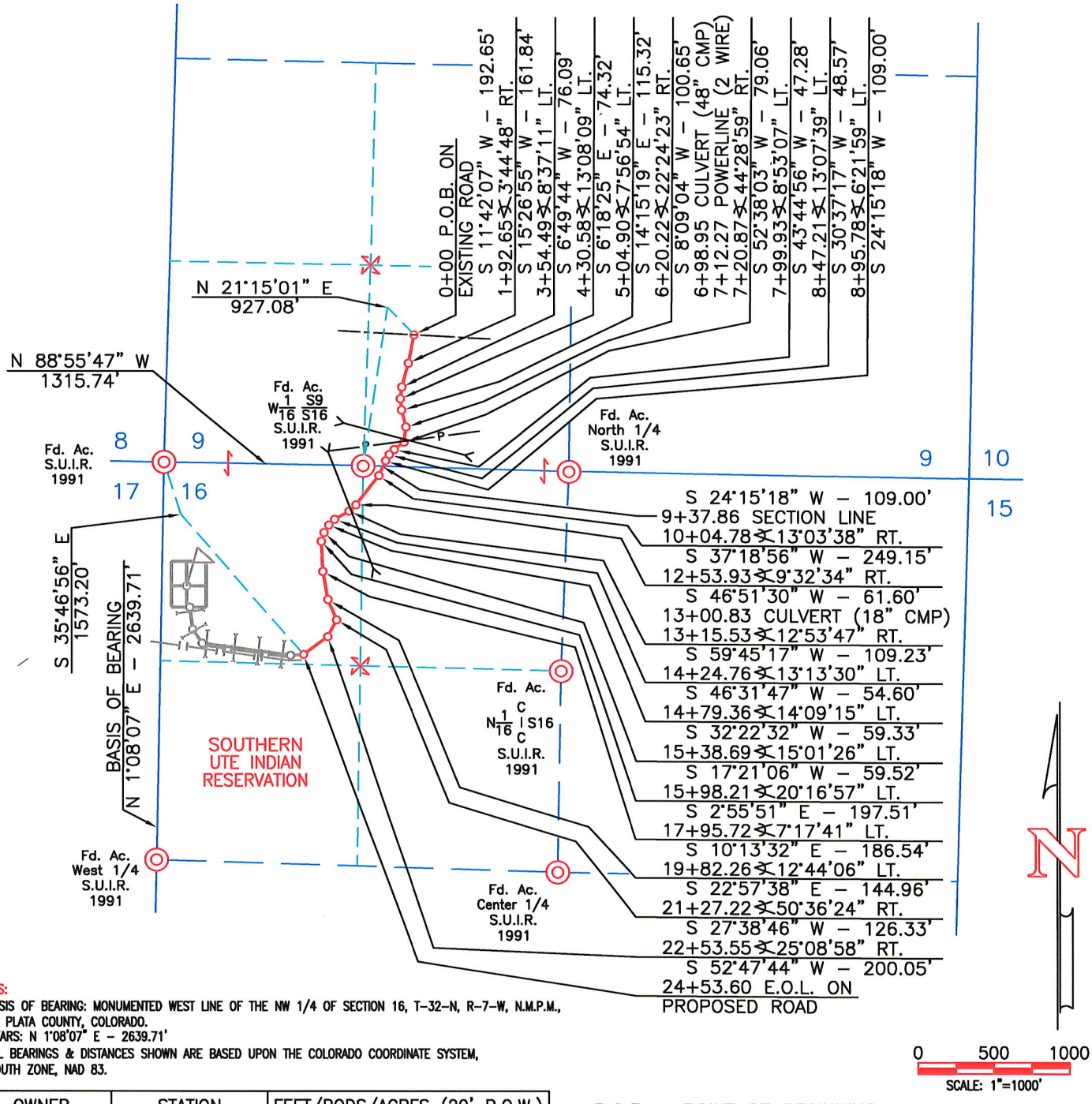
Signature

Appendix B

HILCORP SAN JUAN, L.P.

SOUTHERN UTE 704H RECLAIMED ACCESS ROAD

SE 1/4 SW 1/4 SEC. 9 & N 1/2 NW 1/4 SEC. 16
T-32-N, R-7-W, N.M.P.M., LA PLATA COUNTY, COLORADO



NOTES:

1. BASIS OF BEARING: MONUMENTED WEST LINE OF THE NW 1/4 OF SECTION 16, T-32-N, R-7-W, N.M.P.M., LA PLATA COUNTY, COLORADO.
   BEARS: N 1°08'07" E - 2639.71'
2. ALL BEARINGS & DISTANCES SHOWN ARE BASED UPON THE COLORADO COORDINATE SYSTEM, SOUTH ZONE, NAD 83.

OWNER	STATION	FEET/RODS/ACRES (20' R.O.W.)
SOUTHERN UTE INDIAN RESERVATION	0+00 TO 24+53.60	2453.60 / 148.703 / 1.127

P.O.B. = POINT OF BEGINNING
E.O.L. = END OF LINE

I, JOHN A. VUKONICH, BEING A PROFESSIONAL LAND SURVEYOR IN THE STATE OF COLORADO, DO HEREBY CERTIFY THAT THE SURVEY REPRESENTED BY THIS PLAT WAS MADE BY ME OR UNDER MY DIRECT SUPERVISION AND THAT THIS PLAT ACCURATELY REPRESENTS THE SURVEY TO THE BEST OF MY KNOWLEDGE AND BELIEF.

COLORADO
JOHN A. VUKONICH
0038275
PROFESSIONAL LAND SURVEYOR

JOHN A. VUKONICH, CO. P.L.S. #38275 — DATE 10/13/2023

HILCORP SAN JUAN, L.P.

SURVEYED: 10/03/23	REV. DATE/BY:	APP. BY J.A.V.
DRAWN BY: C.B.	DATE DRAWN: 10/03/23	FILE NAME: 11735A03

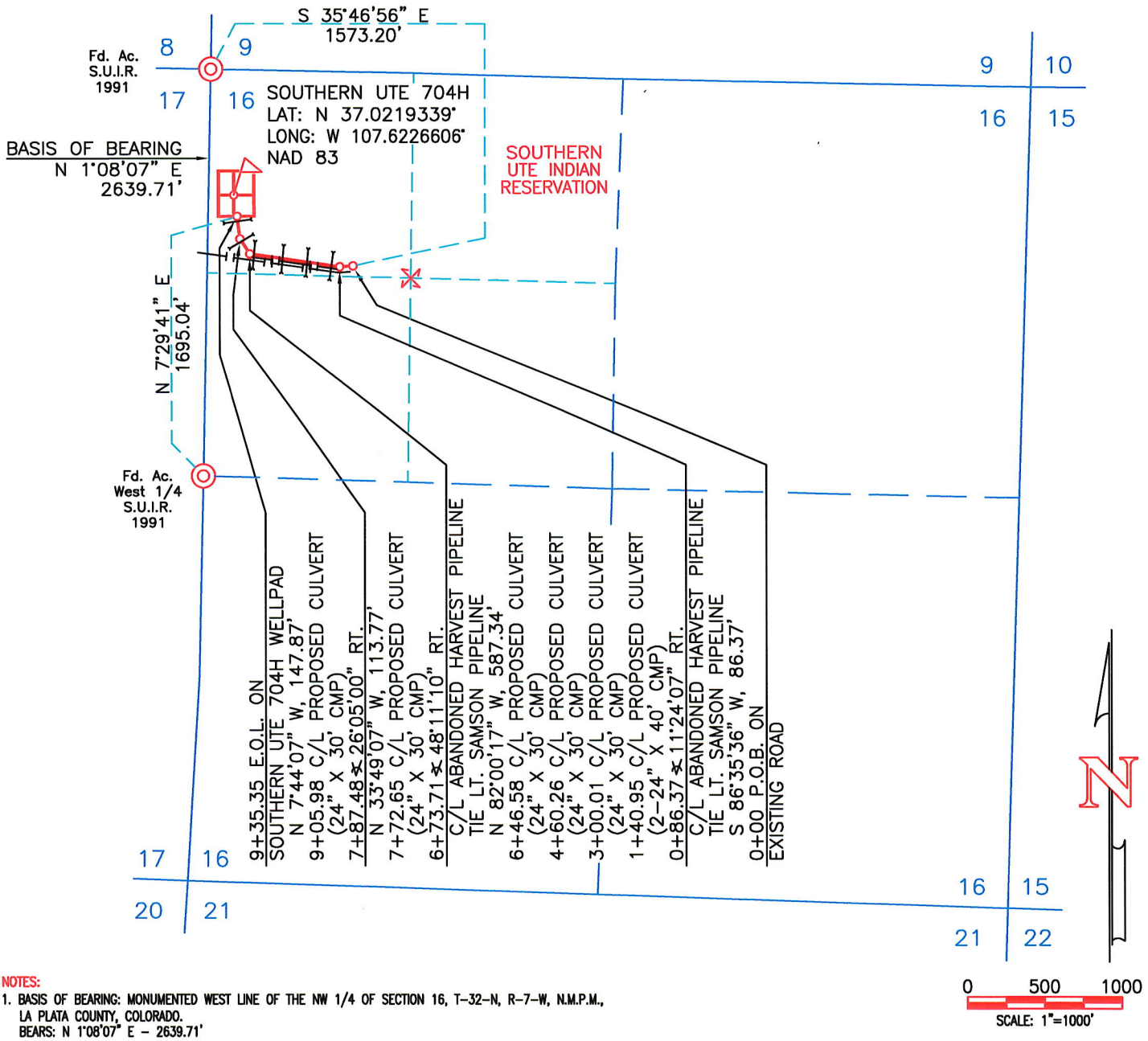
UNITED FIELD SERVICES INC.
P.O. BOX 3651
FARMINGTON, NM 87499
OFFICE: (505) 334-0408

SHEET B3

HILCORP SAN JUAN, L.P.

SOUTHERN UTE 704H PROPOSED ACCESS ROAD

NW 1/4 NW 1/4 SEC. 16, T-32-N, R-7-W, N.M.P.M.
LA PLATA COUNTY, COLORADO



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1. BASIS OF BEARING: MONUMENTED WEST LINE OF THE NW 1/4 OF SECTION 16, T-32-N, R-7-W, N.M.P.M., LA PLATA COUNTY, COLORADO.
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OWNER	STATION	FEET/RODS/ACRES (20' R.O.W.)
SOUTHERN UTE INDIAN RESERVATION	0+00 TO 9+35.35	935.35 / 56.688 / 0.429

P.O.B. = POINT OF BEGINNING
E.O.L. = END OF LINE

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STATE OF COLORADO
JOHN A. VUKONICH
0038275
PROFESSIONAL LAND SURVEYOR

3/2023

JOHN A. VUKONICH, CO. P.L.S. #38275 — DATE

HILCORP SAN JUAN, L.P.

SURVEYED: 01/29/14	REV. DATE/BY: 9/13/23/C.B.	APP. BY J.A.V.
DRAWN BY: A.A.D.	DATE DRAWN: 1/26/23	FILE NAME: 11735-A02

UNITED FIELD SERVICES INC.
P.O. BOX 3651
FARMINGTON, NM 87499
OFFICE: (505) 334-0408

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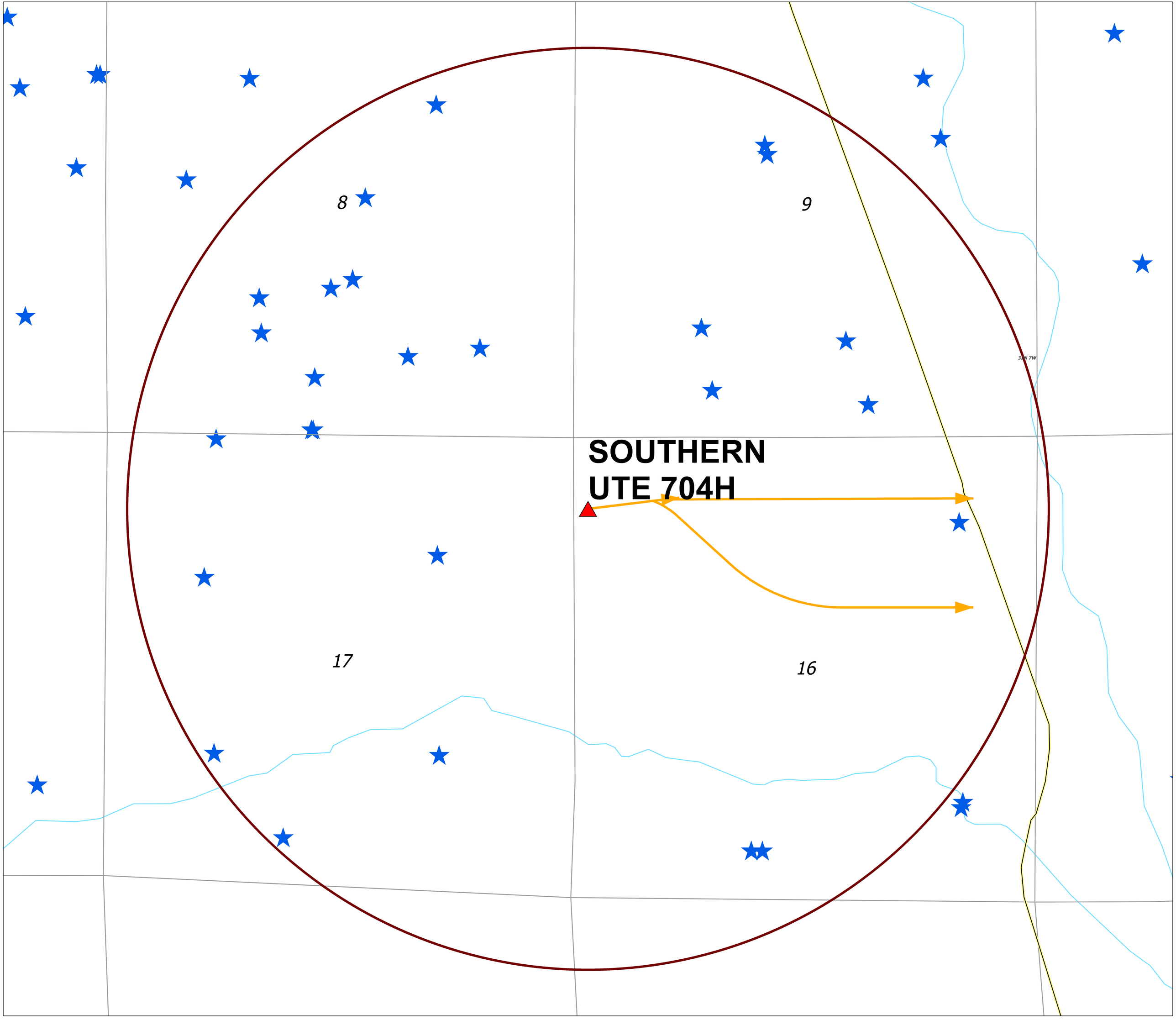

Southern Ute 704H SH
Southern Ute 704H Wellbore
Southern Ute 704H SH 1 mile buffer
CO Water Wells
Waterways
Highways

0 0.05 0.1 0.2 0.3 0.4
Miles

Map Extent

CO
NM

N

Coordinate System:
NAD 1927 StatePlane New Mexico West FIPS 3003
Datum: North American 1927
Units: Foot US

Hilcorp

Southern Ute 704H
1 Mile buffer

Scale	Author	Date
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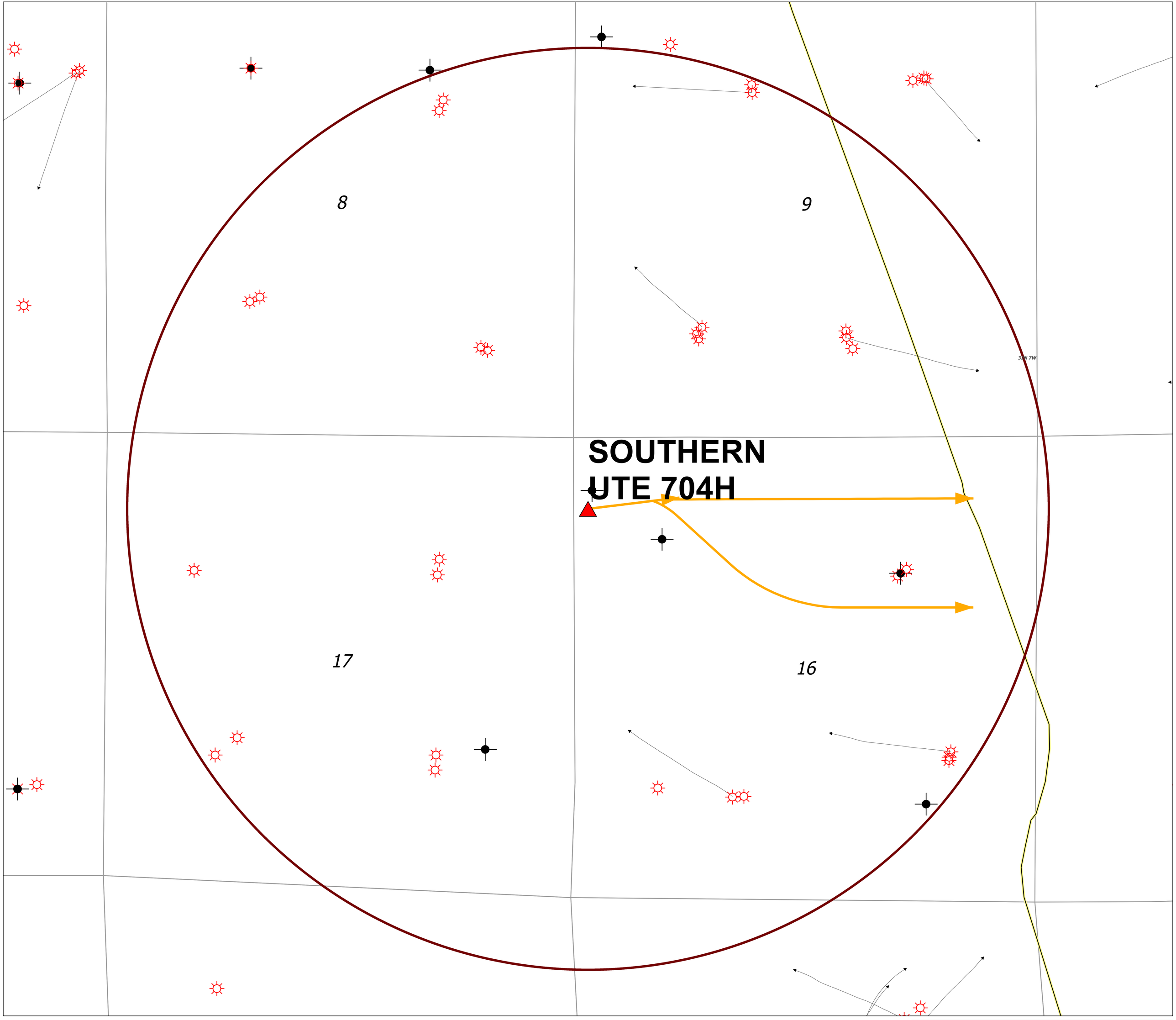
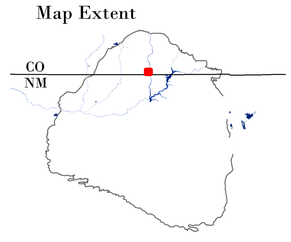


Southern Ute 704H SH
Southern Ute 704H Wellbore
Southern Ute 704H SH 1 mile buffer
Gas Well
Abandoned Loc
Well Paths
Highways

0 0.05 0.1 0.2 0.3 0.4 Miles

Map Extent



N
MN

Hilcorp

Southern Ute 704H
1 Mile buffer

Scale	Author	Date
1:4,494.9	GIS	1/4/2024

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Coordinate System:
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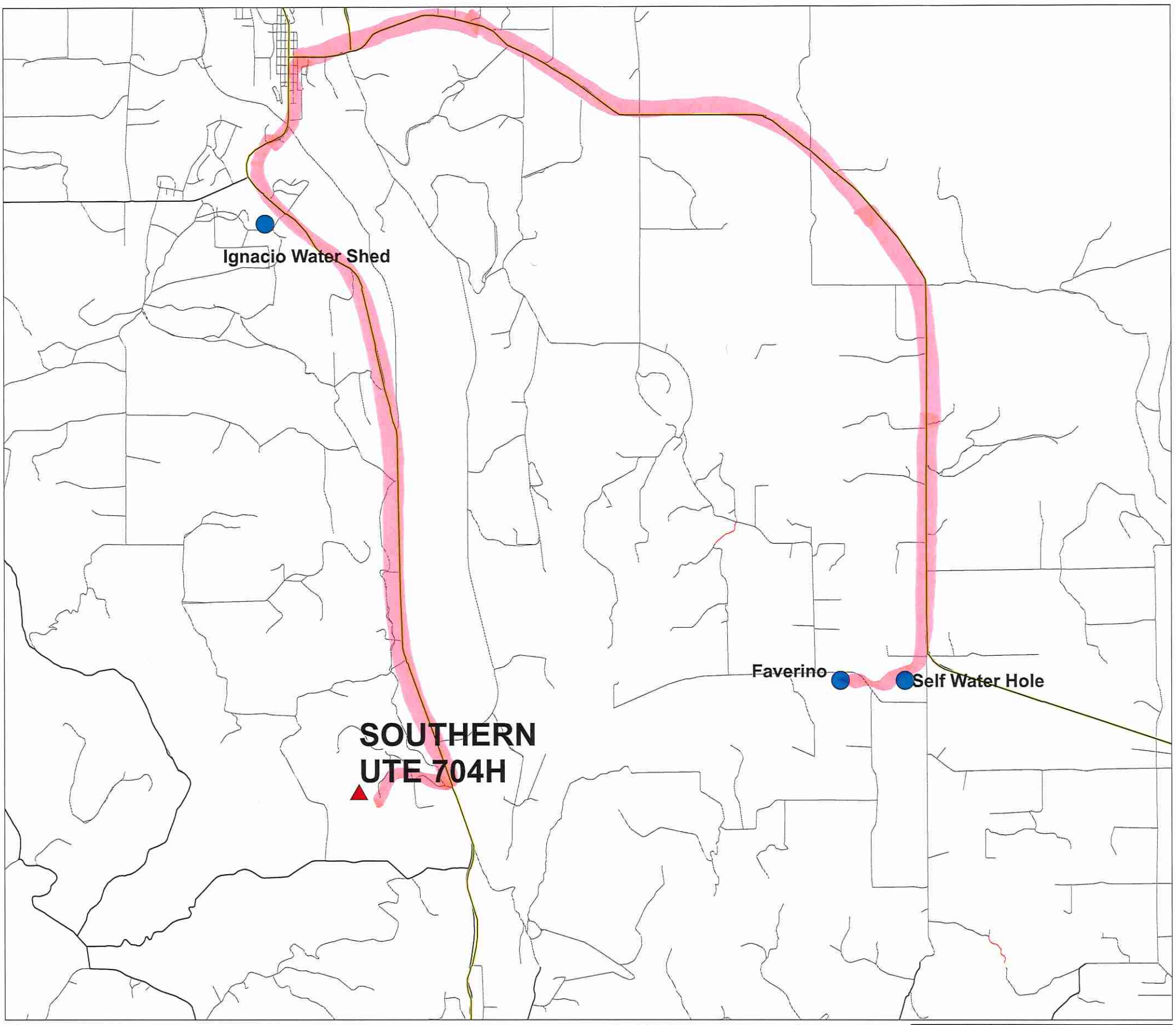
Datum: North American 1927
Units: Foot US

SHEET D1


Ignacio Water Shed
SOUTHERN
UTE 704H
Faverino
Self Water Hole
Southern Ute 704H SH
Highways
No Access
Main Road
Road
Preferred Water
Transportation Route
0 0.275 0.55 1.1 1.65 2.2
Miles
Map Extent
CO
NM
N
MN
Coordinate System:
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Datum: North American 1927
Units: Foot US
Hilcorp
Southern Ute 704H
Water Trucking
Scale
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Author
GIS
Date
1/4/2024
File Path
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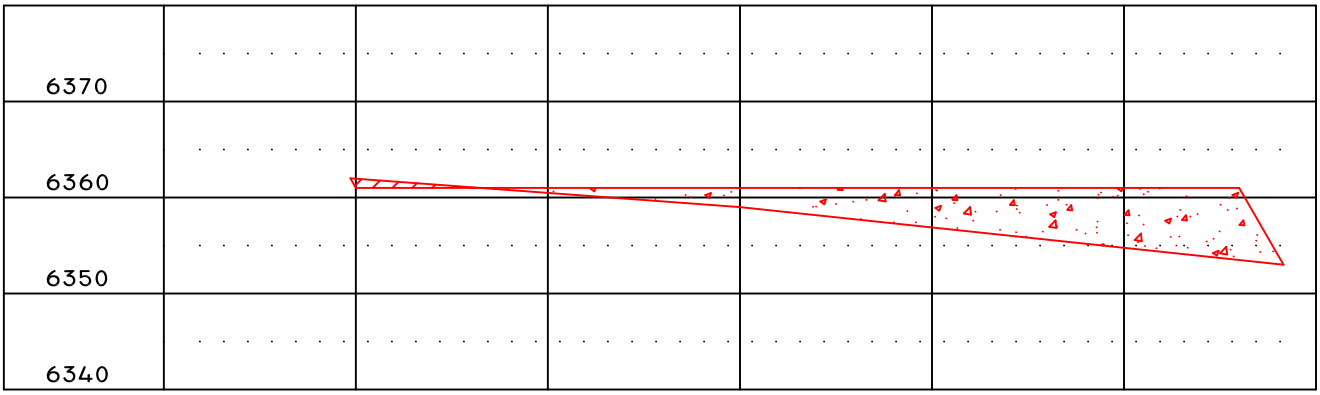
SHEET H

HILCORP SAN JUAN, L.P.

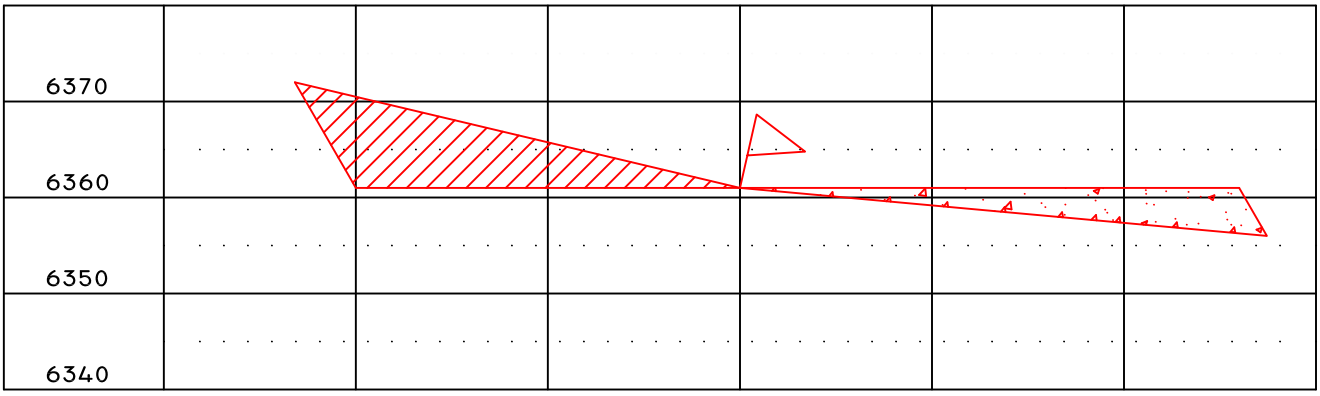
SOUTHERN UTE 704H – 816' FNL & 165' FWL (SURFACE)
694' FNL & 1213' FWL (PILOT BOTTOM HOLE)
709' FNL & 727' FEL (LATERAL 1 BOTTOM HOLE)
1955' FNL & 722' FEL (LATERAL 2 BOTTOM HOLE)

SEC. 16 T–32–N, R–7–W, N.M.P.M., LA PLATA COUNTY, COLO.
GROUND ELECATION: 6360.9 – DATE JANUARY 29, 2014

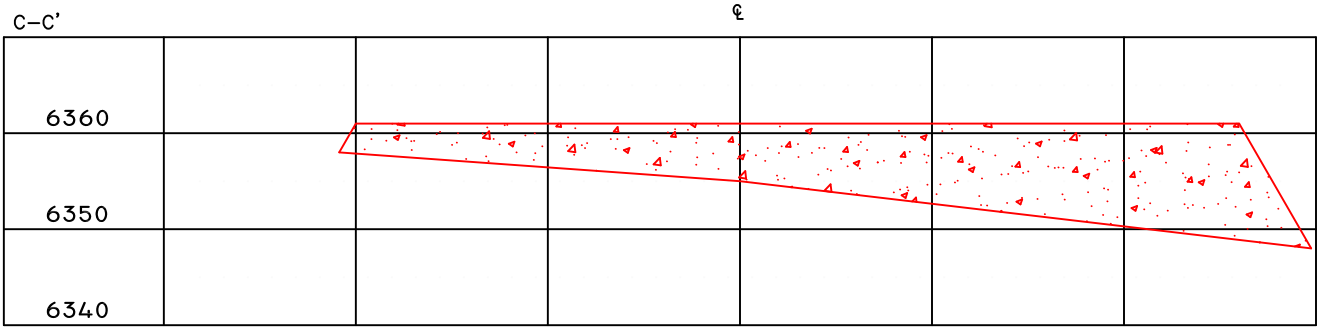
ELEVATION
A–A'



B–B'



C–C'



1" = 50' – HORIZONTAL
1" = 20' – VERTICAL

NOTES:

1.) CONTRACTOR SHALL CONTACT "ONE–CALL" FOR LOCATION OF ANY MARKED OR UNMARKED BURIED PIPELINES OR CABLES ON WELLPAD AND/OR ACCESS ROAD AT LEAST TWO (2) WORKING DAYS PRIOR TO CONSTRUCTION.

2.) UNITED FIELD SERVICES, INC. IS NOT LIABLE FOR UNDERGROUND UTILITIES OR PIPELINES.

HILCORP SAN JUAN, L.P.

SURVEYED: 01/29/14	REV. DATE/BY: 9/13/23/C.B.	APP. BY J.A.V.
DRAWN BY: A.A.D.	DATE DRAWN: 1/26/23	FILE NAME: 11735–C02

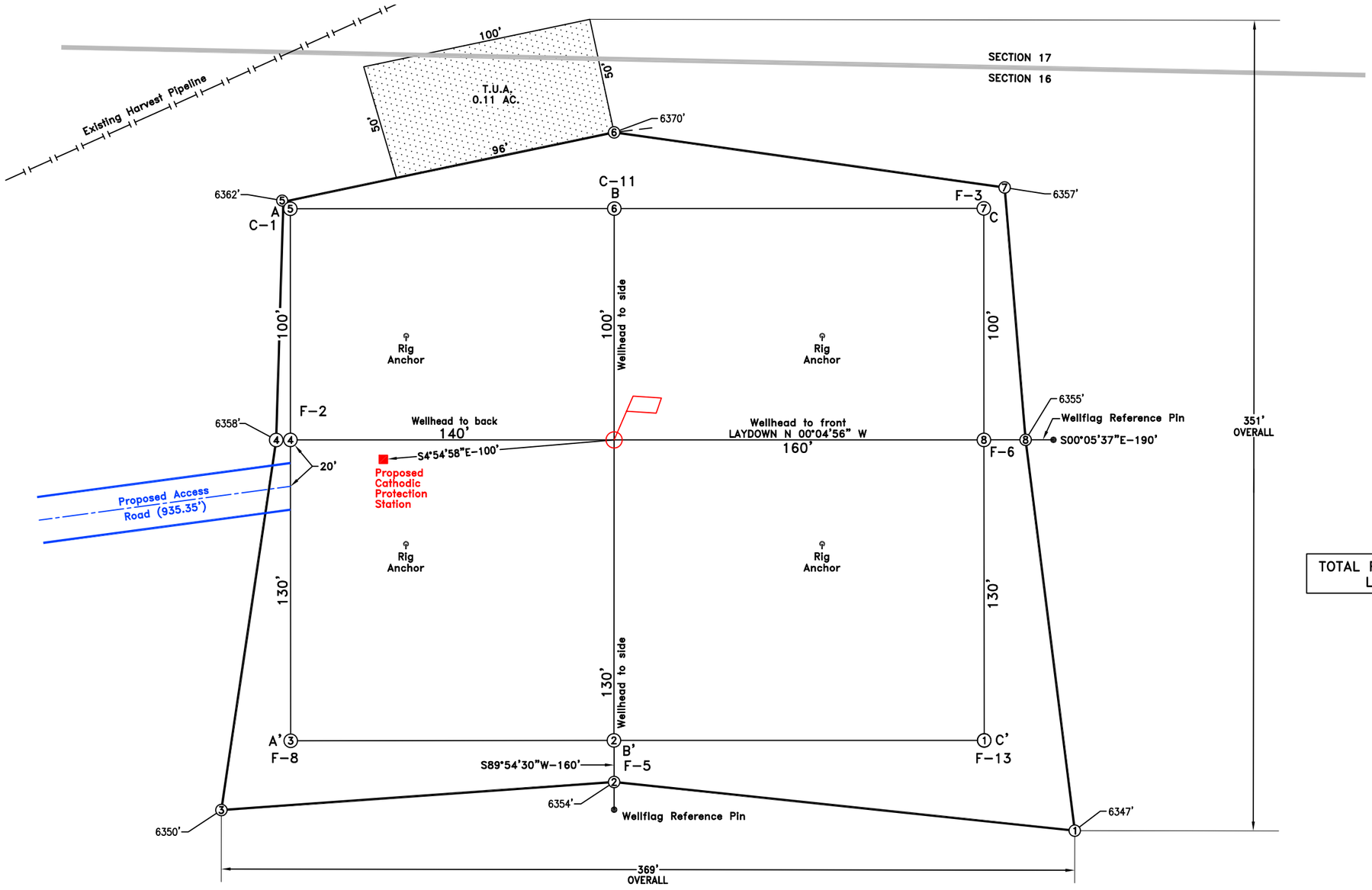
UNITED FIELD SERVICES INC.

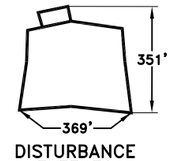
P.O. BOX 3651
FARMINGTON, NM 87499
OFFICE: (505) 334–0408

SHEET F

HILCORP SAN JUAN, L.P.

SOUTHERN UTE 704H – 816' FNL & 165' FWL (SURFACE)
694' FNL & 1213' FWL (PILOT BOTTOM HOLE)
709' FNL & 727' FEL (LATERAL 1 BOTTOM HOLE)
1955' FNL & 722' FEL (LATERAL 2 BOTTOM HOLE)
SECTION 16, T-32-N, R-7-W, N.M.P.M., LA PLATA COUNTY, COLORADO
GROUND ELEVATION: 6360.9





DISTURBANCE EXTENTS

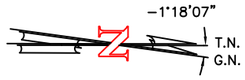
SOUTHERN UTE 704H
LATITUDE: 37.0219339° N
LONGITUDE: 107.6226606° W
NAD 83
LATITUDE: 37°01.31581' N
LONGITUDE: 107°37.32292' W
NAD 27

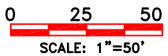
PROPOSED CATHODIC PROTECTION STATION
LATITUDE: 37.0216604° N
LONGITUDE: 107.6226235° W
NAD 83
LATITUDE: 37°01.29940' N
LONGITUDE: 107°37.32069' W
NAD 27

TOTAL PERMITTED AREA = 2.22 ACRE(S)
LEVEL PAD AREA = 1.58 ACRE(S)

G.N.=GRID NORTH
T.N.=TRUE NORTH

CONVERGENCE AT SURFACE LOCATION





LEGEND
T.U.A. = TEMPORARY USE AREA

NOTES:
1.) BEARINGS & DISTANCES SHOWN ARE REFERENCED TO THE COLORADO COORDINATE SYSTEM, SOUTH ZONE, NAD 83.
2.) CONTRACTOR SHALL CONTACT "ONE-CALL" FOR LOCATION OF ANY MARKED OR UNMARKED BURIED PIPELINES OR CABLES ON WELLPAD AND/OR ACCESS ROAD AT LEAST TWO (2) WORKING DAYS PRIOR TO CONSTRUCTION.
3.) UNITED FIELD SERVICES, INC. IS NOT LIABLE FOR UNDERGROUND UTILITIES OR PIPELINES.
4.) CUT & FILL CALCULATIONS ARE ROUNDED TO THE NEAREST FOOT AND DO NOT REPRESENT ACTUAL CONSTRUCTION STAKING.

UNITED FIELD SERVICES INC.
P.O. BOX 3651
FARMINGTON, NM 87499
OFFICE: (505) 334-0408

DWG. NO. : 11735-L03		REVISION: 2
DRAWN BY: A.A.D.	DATE DRAWN: 1/26/23	REV. DATE: 9/13/23
SURVEYED: 01/29/14	APP. BY: J.A.V.	

SHEET G1

HILCORP SAN JUAN, L.P.

SOUTHERN UTE 704H – 816' FNL & 165' FWL (SURFACE)
694' FNL & 1213' FWL (PILOT BOTTOM HOLE)
709' FNL & 727' FEL (LATERAL 1 BOTTOM HOLE)
1955' FNL & 722' FEL (LATERAL 2 BOTTOM HOLE)
SECTION 16, T-32-N, R-7-W, N.M.P.M., LA PLATA COUNTY, COLORADO
GROUND ELEVATION: 6360.9

SOUTHERN UTE 704H
LATITUDE: 37.0219339° N
LONGITUDE: 107.6226606° W
NAD 83
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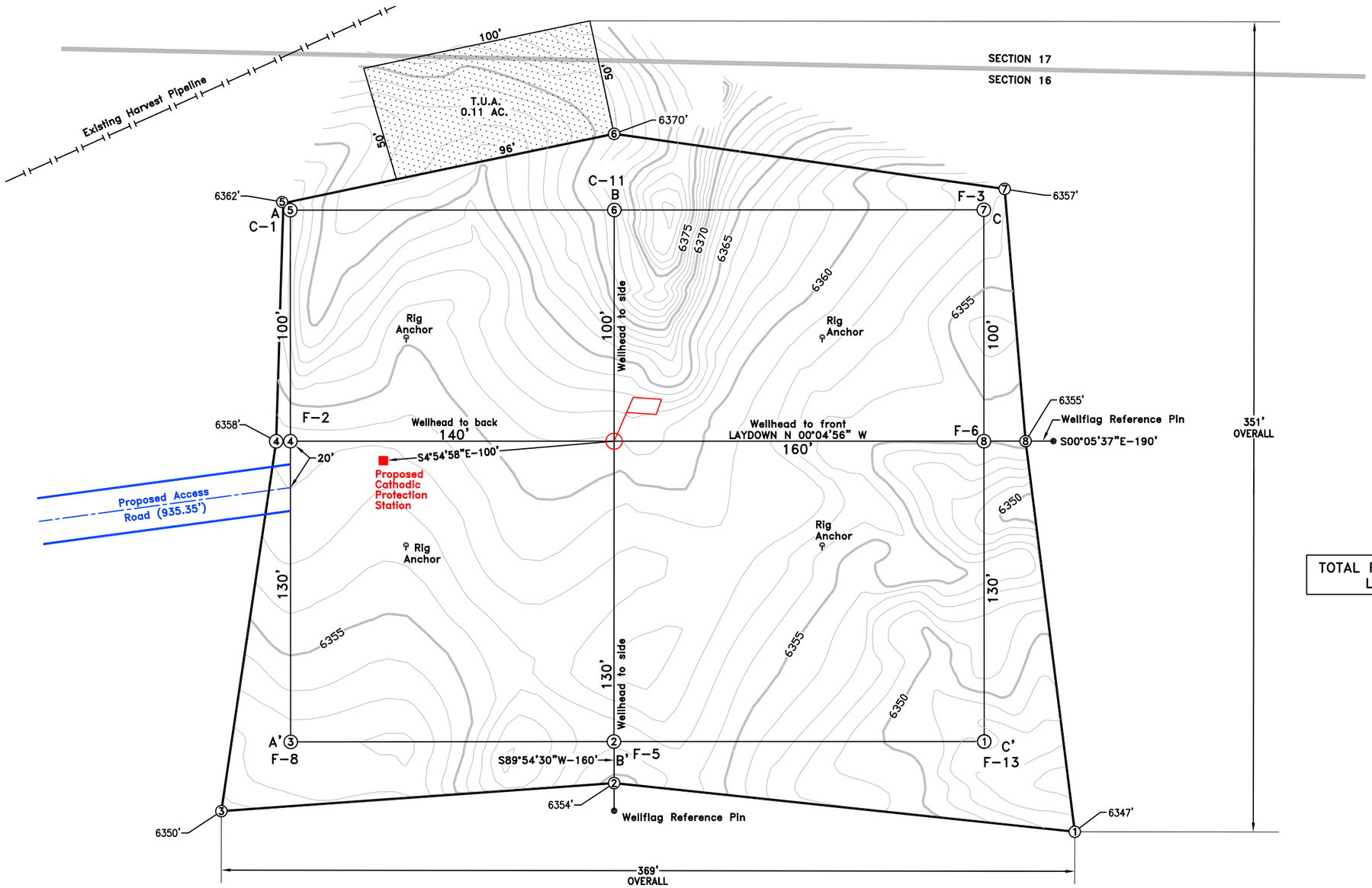

TOTAL PERMITTED AREA = 2.22 ACRE(S)
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G.N.=GRID NORTH
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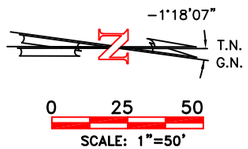
CONVERGENCE AT SURFACE LOCATION



LEGEND
T.U.A. = TEMPORARY USE AREA

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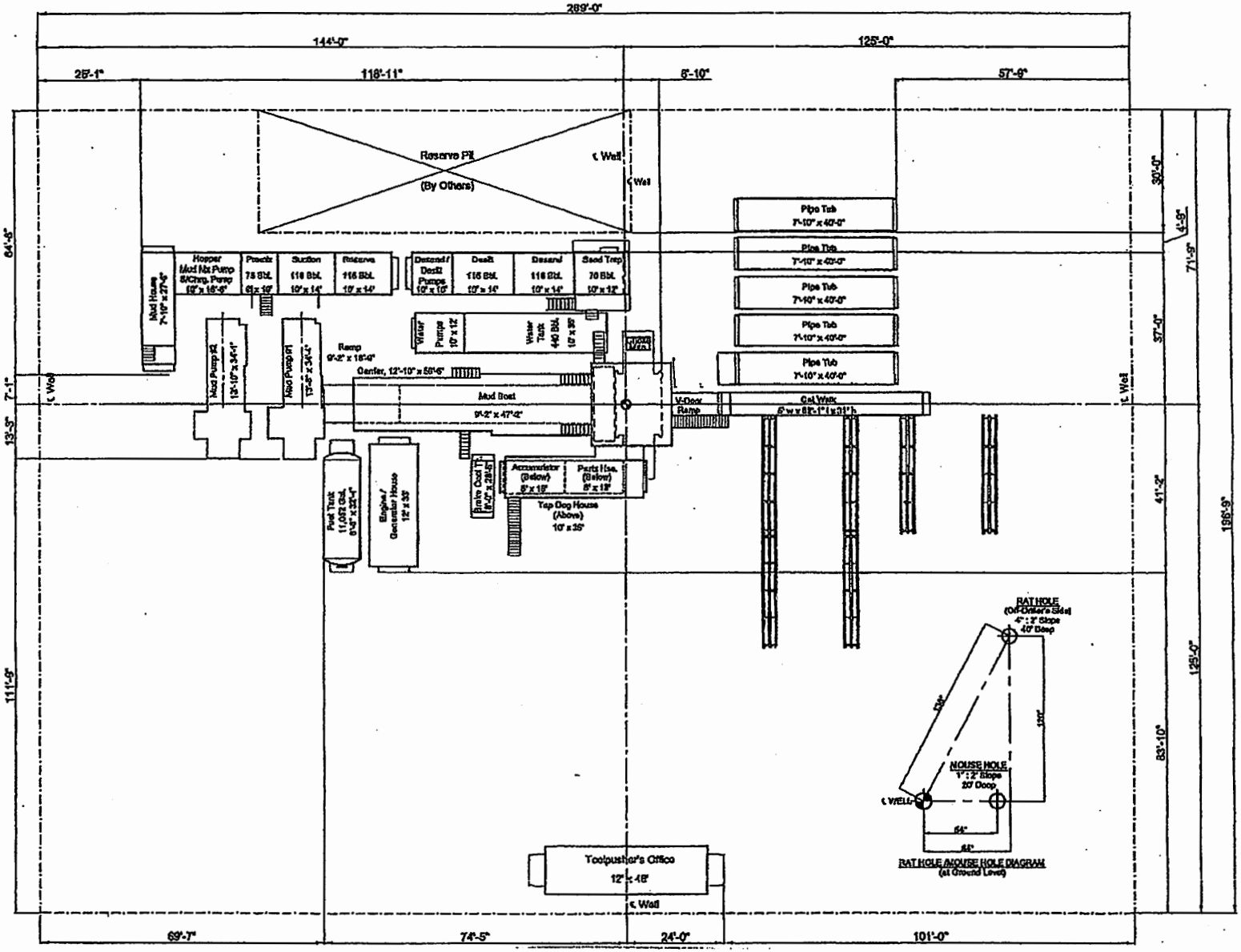
UNITED FIELD SERVICES INC.
P.O. BOX 3651
FARMINGTON, NM 87499
OFFICE: (505) 334-0408

DWG. NO. : 11735-L04		REVISION: 2
DRAWN BY: A.A.D.	DATE DRAWN: 1/26/23	REV. DATE: 9/13/23
SURVEYED: 01/29/14	APP. BY: J.A.V.	

SHEET G2

SHEET G3



D & J Drilling

Rig # 3

Hilcorp Energy Company
1111 Travis Street
Houston, Texas 77002
Phone: (713) 209-2400

Revegetation Plan for Southern Ute 704H

Surface Hole Location: 816’ FNL & 165’ FWL**,**
Unit Letter D (NWNW) Sec. 16, T32N, R7W

Appendix A

Contents

I. Background ..... - 1 -

Introduction ..... - 1 -

Plans for Surface Reclamation ..... - 1 -

Revision of the Reclamation Plan ..... - 1 -

Project Description ..... - 1 -

Estimated Total Area of Disturbance ..... - 1 -

Pre-Disturbance Site Visit and Site Conditions ..... - 2 -

Vegetation Community ..... - 2 -

Proposed Reclamation Seed Mix ..... - 2 -

Vegetation Reclamation Standards ..... - 2 -

Pre-Disturbance Weed Survey ..... - 2 -

Pre-Disturbance Site Photographs ..... - 3 -

II. Plan for Surface Restoration ..... - 3 -

Techniques for Successful Revegetation ..... - 3 -

Vegetation and Site Clearing ..... - 3 -

Topsoil Stripping, Storage, and Redistribution ..... - 3 -

Water Management/Erosion Control Features ..... - 3 -

Seedbed Preparation ..... - 3 -

Soil Treatments ..... - 3 -

Seeding ..... - 4 -

Mulching ..... - 4 -

Noxious and Invasive Weed Control ..... - 4 -

III. Monitoring and Final Abandonment ..... - 5 -

Monitoring Requirements ..... - 5 -

Final Abandonment ..... - 5 -

References ..... - 5 -

Appendix A

I. BACKGROUND

Applicant:	Hilcorp Energy Company (Hilcorp)
Project Type:	Horizontal Oil & Gas Well Project
Project Name:	Southern Ute 704H
Legal Location:	NW/4 of Section 16 and NE/4 of Section 17, Township 32 North, Range 7 West, New Mexico Principle Meridian (NMPM), in La Plata County, Colorado

Introduction

This reclamation plan has been prepared based on requirements and guidelines of the Bureau of Land Management (BLM) Tres Rios Field Office, and Onshore Oil and Gas Order No. 1.

The Hilcorp contact person for this Reclamation Plan is:

Joey Becker
Sr. Projects Foreman
505-320-2548
jobecker@hilcorp.com

Plans for Surface Reclamation

According to Onshore Oil and Gas Order No. 1 under the authority of the Code of Federal Regulations, Title 43: Subpart 3164, the operator must submit a plan for the surface reclamation or stabilization of all disturbed areas. This plan must address interim (during production) reclamation for area of the well pad not needed for production, as well as final abandonment of the well location, facilities or improvements.

Revision of the Reclamation Plan

Hilcorp may submit a request to the BLM/SUIT to revise the Reclamation Plan at any time during the life of the project in accordance to page 44 of the Gold Book (USDI-USDA 2007). Hilcorp will include justification for the revision request.

Project Description

The proposed project is located on the Southern Ute Indian Reservation (SUIR) in La Plata County, Colorado. Hilcorp is proposing to construct a 230-foot by 300-foot well pad, a 935-foot access road, and a 469-foot subsurface well-tie pipeline near the Colorado-New Mexico State line approximately 4.7 miles west of Tiffany and 6.5 miles south of Ignacio. The area is situated north of La Boca Canyon in Great Basin Desert scrub.

Disturbed surfaces will be located on SUIR lands administered by the Southern Ute Indian Tribe and the Bureau of Indian Affairs, Ignacio, Colorado; and the Bureau of Land Management's Tres Rios Field Office, Durango, Colorado.

Estimated Total Area of Disturbance

The entire well pad, including a temporary use area (TUA) and construction buffer area, would be constructed within a total permitted area of 2.22 acres. Approximately 935 feet of access road and

Appendix A

approximately 469 feet of well-tie pipeline would be constructed. Total potential new surface disturbance for the development would be approximately 3.08 acres.

The entire pipeline corridor and TUA would be reclaimed following construction. Production equipment will be placed on the well pad in such a manner to allow proper safe access to produce and service the well/facilities while minimizing long-term disturbance and maximizing interim reclamation. As practical, access will be provided by a tear-drop shaped road through the production area. The well pad area will be reclaimed to an approved working area.

Pre-Disturbance Site Visit and Site Conditions

This plan is based on observations made during numerous pre-disturbance site visits and compiled from information obtained from consultation with multiple agencies including SUIT, BLM-Tres Rios, and BIA.

Vegetation Community

Based on observations made during pre-disturbance site visits, it has been determined that the vegetation community which best represents the proposed project area is Great Basin Desert scrub. Dominant vegetation consists of big sagebrush (*Seriphidium tridentatum*), antelope bitterbrush (*Purshia tridentata*), Utah serviceberry (*Amelanchier utahensis*), broom snakeweed (*Gutierrezia sarothrae)*, Indian ricegrass (*Achnatherum hymenoides)*, and blue grama (*Bouteloua gracilis*). Ground cover was visually estimated at 20 percent. Piñon pine (*Pinus edulis*) and Utah juniper (*Sabina osteosperma*) trees were documented along the east side of the proposed well pad area at the base of a low ridge and sporadically along the proposed access route. Also found scattered throughout the project area was New Mexican prickly pear cactus (*Opuntia phaeacantha*), spiny star (*Escobaria vivipara*), narrowleaf yucca (*Yucca angustissima*), scarlet paintbrush *(Castilleja miniata)*, globemallow *(Sphaeralcea sp.)*, stork's bill (*Erodium sp.*), sego lily (*Calochortus nuttallii*), and common sunflower (*Helianthus annuus*).

Proposed Reclamation Seed Mix

Hilcorp will use the Mix #1 reclamation seed mix developed by the SUIT Department of Natural Resources, Range Division, for use on lands south of the Los Piños River valley and north of U.S. Highway 550 on the SUIR (see Table 1 below).

Table 1. SUIT Mix #1 Reclamation Seed Mix

Common Name	Scientific Name	Pounds/PLS/acre
Western wheatgrass	*Agropyron smithii*	7
Antelope bitterbrush	*Purshia tridentata*	1
Smooth brome	*Bromus inermis*	4
Intermediate wheatgrass	*Thinopyrum intermedium*	3
Annual Sterile Ryegrass or Sterile Triticale		12

Vegetation Reclamation Standards

The SUIT Department of Natural Resources, Range Division considers a site adequately reclaimed once 70 percent revegetation has been achieved. Hilcorp will document the progress of reclamation at the proposed Southern Ute 704H project site with photographs during routine site inspections in conjunction with stormwater management practices at the site. The SUIT will be notified upon attainment of 70 percent revegetation at the project site.

Appendix A

Pre-Disturbance Weed Survey

During the pre-disturbance site visit, the proposed action area was surveyed for invasive and/or noxious weeds listed by La Plata County, the State of Colorado, and the SUIT. Cheat grass or downy brome (*Bromus tectorum*), a State of Colorado (CO) List C noxious weed, was documented within the area. No other USDA-listed noxious weeds were identified within the proposed project area; however, Russian thistle (*Salsola australis*) was documented within disturbed areas near the beginning of the proposed access road. Although this species is not included on the USDA, NMDA, or CO noxious weed lists, it is known to out-compete desirable, native vegetation (Whitson, et al. 1992).

Pre-Disturbance Site Photographs

Photographs can be found in Appendix C of the Biological Assessment on file with the BLM Tres Rios Field Office or SUIT Department of Natural Resources, Division of Wildlife Resource Management.

II. PLAN FOR SURFACE RESTORATION

Techniques for Successful Revegetation

Vegetation and Site Clearing

Woody vegetation, such as large shrubs and trees, will be cleared from the staked project area and stockpiled for later use as soil mulch, visual mitigation, and/or wildlife shelter.

Surface rocks (where present and useful for reclamation) will be stockpiled adjacent to the topsoil stockpile. During reclamation activities, the surface rock will be placed within the area of reclamation for erosion control or in a manner that visually blends with the adjacent undisturbed area.

Topsoil Stripping, Storage, and Redistribution

If available, the upper 6 inches of topsoil will be stripped, following vegetation and site clearing during construction activities. Hilcorp's contractors will take care not to mix topsoil with the underlying subsoil horizons and will stockpile the topsoil separately from subsoil or other excavated material. Topsoil and sub-surface soils will be replaced in the proper order, prior to final seedbed preparation.

Water Management/Erosion Control Features

Hilcorp will use appropriate erosion control/water management design features within the proposed project area. Hilcorp will use straw wattles as appropriate to limit erosion and sediment transport from any stockpiled soils. Culverts will be placed along the proposed access road for the proper drainage of potential stormwater run-off through the project area. A completed stormwater management plan is on file with the SUIT Department of Natural Resources, Water Resources Division.

Seedbed Preparation

Areas to be reclaimed will be re-contoured to blend with the surrounding landscape, emphasizing restoration of existing drainage patterns and landform to pre-construction condition, to the extent practicable.

Seedbed preparation of compacted areas will be ripped to a minimum depth of 12 inches, with a maximum furrow spacing of 2 feet. Where practicable, ripping will be conducted in two passes at perpendicular directions. Disking will be conducted if large clumps or clods remain after ripping. Any tilling or disking that occurs along the contour of the slope and seed drills will also be run along the contour to provide terracing and prevent rapid run-off and erosion. If broadcast seeding is used, a dozer or other tracked equipment will track perpendicular to the slope prior to broadcast seeding.

Appendix A

Following final contouring, the backfilled or ripped surfaces will be covered evenly with stockpiled topsoil. Final seedbed preparation will consist or raking or harrowing the spread topsoil prior to seeding to promote a firm (but not compacted) seedbed without surface crusting. Seedbed preparation may not be necessary for topsoil storage piles or other areas of temporary seeding.

Soil Treatments

It has not been determined at this time if soil amendments will be used during reclamation of the affected environment.

Seeding

Seeding will occur within 90 days following project completion.

A Truax seed drill or modified rangeland drill that allows for seeding species from different seed boxes at different planting depths will be used to seed the disturbed areas of the project area. Hilcorp or its reclamation contractor will ensure that perennial grasses and shrubs are planted at the appropriate depth. Intermediate size seeds (such as wheatgrasses and shrubs) will be planted at a depth of 1 to 2 inches. Small seeds (such as alkali sacaton and sand dropseed) will be planted at a depth of 0.25 inch. In situations where differing planting depths are not practicable using available equipment, the entire seed mix will be planted no deeper than 0.25 inch.

Drill seeding may be used on well-packed and stable soils that occur on gentler slopes and where equipment and drills can safely operate. Where drill seeding is not practicable due to topography, the reclamation contractor will hand-broadcast seed using a "cyclone" hand seeder or similar broadcast seeder. Broadcast application of seed requires a doubling of the drill-seeding rate. The seed will then be raked into the ground so the seed is planted no deeper than 0.25 inch below the surface.

Mulching

Hand seeding with hydro-mulch, excelsior netting, and/or mulch with netting may be required on cut and fill slopes. Mulch should be grass or straw spread at 2,000 to 3,000 pounds per acre, or approximately 1 to 2 inches deep. Mulching will consist of crimping certified weed-free straw or certified weed-free native grass hay into the soil.

Straw or native grass hay mulch can be applied by hand broadcasting or blowing to a relatively uniform depth of 2 to 3 inches, equivalent to a rate of approximately 2 tons per acre (one 74-pound bale per 800 square feet). When applied properly, approximately 20 to 40 percent of the original ground surface will be visible.

Straw or native grass hay mulch will then be anchored using one of the following methods:

- Hand Punching – a spade or shovel is used to punch mulch into the topsoil at 1-foot intervals until all areas have mulch standing perpendicular to the slope and the mulch is embedded at least 4 inches into the soil.
- Roller Punching – a roller is used to spread mulch over an area; the roller is equipped with straight studs not less than 6 inches long, from 4 to 6 inches wide, and approximately 1 inch thick.
- Crimper Punching – similar to roller punching, a crimper is used over the soil. The crimper has serrated disk blades about 4 to 8 inches apart that force the mulch into the soil. Crimping should be done in two directions with the final pass across the slope.

Mulch applications in extremely clayey soils should be evaluated carefully to avoid developing an adobe mixture. In these cases, a soil amendment may be beneficial.

Noxious and Invasive Weed Control

Should noxious or invasive weeds be documented after earthwork and seeding activities, Hilcorp will follow SUIT and/or BLM requirements and instructions for weed treatments, including the period of treatment, approved herbicides that may be used, required documentation to be submitted to the SUIT and/or BLM after treatment, and any other site-specific instructions that may be applicable.

III. MONITORING AND FINAL ABANDONMENT

Monitoring Plan

Monitoring will be completed according to SUIT and/or BLM requirements. Monitoring activities will be initiated after the project is completed, during the post-disturbance earthwork and seeding inspection process.

Annual visual inspection of the reclaimed areas will be conducted by Hilcorp until vegetation reclamation cover standards have been met (see page 2, Vegetation Reclamation Standards).

Final Abandonment

Upon final abandonment, Hilcorp will file for ROW Grant termination with the SUIT. Hilcorp would relinquish ROW Grants for the well pad and access road/pipeline corridor. Pit reclamation and well-plugging will be done according to procedures outlined on page 44 of the Gold Book (USDI-USDA 2007). Surface disturbances within the ROW Grant areas will be returned to pre-disturbance conditions as practicable according to SUIT procedure.

References

43 CFR Part 3160, "Onshore Oil and Gas Order No. 1; Onshore Oil and Gas Operations; Federal and Indian Oil and Gas Leases; approval of Operations," 72 Federal Register 44 (march 2007), pp. 10328-10338.

U.S. Department of the Interior, U.S. Department of Agriculture (USDI, USDA). 2007. Surface Operating Standards and Guidelines for Oil and Gas Exploration and Development. BLM/WO/ST-06/021+307/REV 07. Bureau of Land Management, Denver, Colorado. 84 pp.

Whitson, T. D. LC Burrill, SA Dewey, DW Cudney, BE Nelson, RD Lee, R. Parker. 1992. Weeds of the West. The Western Society of Weed Science in cooperation with the Western United States Land Grant Universities Cooperative Extension Services and the University of Wyoming.

Appendix A

Surface Use Plan of Operations for Southern Ute 704H

The following is required information concerning the possible effect which the Southern Ute 704H project may have on the environment, existing road sites, and surrounding acreage. A copy will be posted on the derrick floor so all contractors and sub-contractors will be aware of all items on this plan.

Infrastructure proposed to be constructed, operated, subsequently interim reclaimed, and eventually fully reclaimed as part of the Southern Ute 704H project entails one (1) well pad with production facilities and construction buffer zone, one (1) access road, and one (1) gas pipeline. The proposed well pad and road are on lease actions and the gas pipeline will require a ROW. The Southern Ute 704H well pad, road, and gas pipeline are on SUIT trust lands. The Southern Ute 704H well would be horizontally drilled, possibly produced, and eventually plugged and abandoned from the proposed well pad location. The proposed well would access Tribal minerals in lease number 14-20-151-6.

Surface Hole Location: 816’ FNL & 165’ FWL**,**
Unit Letter D (NWNW) Sec. 16, T32N, R7W
La Plata County, Colorado

Lateral No. 1 First Take Point: 742’ FNL & 937’ FWL
Unit Letter D (NWNW), Sec. 16, T32N, R7W
La Plata County, Colorado

Lateral No. 2 First Take Point: 741’ FNL & 899’ FWL
Unit Letter D (NWNW), Sec. 16, T32N, R7W
La Plata County, Colorado

End of Lateral No. 1: 709’ FNL & 727’ FEL
Unit Letter A (NENE) Sec. 16, T32N, R7W
La Plata County, Colorado

End of Lateral No. 2: 1955’ FNL & 722’ FEL
Unit Letter H (SENE) Sec. 16, T32N, R7W
La Plata County, Colorado

Table of Contents

1) Existing Roads
2) New or Reconstructed Roads
3) Location of Existing Wells
4) Location of Existing or Proposed Production Facilities
5) Locations and Types of Water Supply
6) Construction Materials
7) Methods for Handling Waste
8) Ancillary Facilities
9) Well Site Layout
10) Plans for Surface Restoration
11) Other Information

Sheet A1 & Sheet A2 – Well Plats
Sheet B1 – Topo Map depicting Well Site and Resource Road
Sheet B2 –Access Road Description
Sheet B3 –Access Road with Culvert Placement
Sheet C – Directions to Site
Sheet D1 - Gas Wells in Vicinity
Sheet D2- Water Wells in Vicinity
Sheet E – Proposed Pipeline Survey
Sheet F – Proposed Well Site Profile
Sheet G1 – Proposed Well Site
Sheet G2 – Proposed Well Site - Contour Layout
Sheet G3 – Proposed Well Site Rig Layout Diagram
Sheet H – Water Source Map
Sheet I – Surface Pictures Before Disturbance

Appendix A – Revegetation Plan
Appendix B – Road Maintenance Plan

1) Existing Roads

a. Existing State and County roads are shown on **Sheet B1**.

b. Directions to the Site are provided on **Sheet C**.

c. The existing State and County roads adjacent to the proposed well pad will be used to supply the location during operations. These existing roads are categorized as resource roads.

d. Roads will be maintained in same or better condition as they existed prior to the commencement of operations and said maintenance will continue until final abandonment and reclamation of the well location. Maintenance would continue until final abandonment and reclamation of the well location (See **Appendix B**).

e. Dust emissions will be controlled on the roads and location, as necessary, with the application of dust suppressants and/or water. Dust control will be implemented when dust plumes become larger than normal road use conditions or when directed by the BLM or SUIT Authorized Officer.

f. Hilcorp has committed to upgrading a section of the reclaimed access road as shown on **Sheet B3.** A total of 2,453.6' of the reclaimed roadway will be upgraded. No new topsoil will be needed to upgrade this section of road. Any soil removed from the existing roadway that is not needed during the upgrade will be incorporated into shoulder that is adjacent to and parallel with the bar-ditch.

2) New or Reconstructed Roads

a. The resource road and well pad will be designed and constructed in accordance with the BLM Gold Book Standards and BLM 9113-1 (Roads Design Handbook) and BLM 9113-2 (Roads National Inventory and Condition Assessment Guidance and Instructions Handbook). Construction may include ditches, drainage, culverts, traffic turnouts, crowning and capping or sloping and dipping the roadbed to provide a well-constructed and safe road and well pad. **Appendix B** is the Road Maintenance Plan for new and reconstructed access roads and outlines the plan for road inspections, new road design and maintenance procedures.

b. The proposed road to the well pad was identified as a Resource Road during the onsite conducted on 10/3/2023.

c. The new resource road will be constructed per route identified on **Sheets B1, B2 and B3** of which, 2,453.6 feet is on reclaimed access road and 935.35 feet is proposed new access road. Both the reclaimed and new portions of the access road are on Tribal Trust lands.

d. Maximum width will be 30-foot overall right-of-way with a 14-foot road running surface. During drilling and subsequent operations, all equipment and vehicles will be confined to the 14-foot driving surface.

e. There shall be six 24" x 30' culverts on the proposed access road and culverts as necessary on the reclaimed portion of the access road per onsite dated 10/3/2023 **(See Sheet B3).**

f. Topsoil removal, storage, and protection are described in detail in the Surface Reclamation Plan.

g. No construction or routine maintenance activities would be performed during periods when the soil is too wet to adequately support construction equipment. If equipment creates ruts deeper than six inches (6"), the soil would be deemed too wet for construction or maintenance.

h. Hilcorp will be responsible for road maintenance from the beginning of construction to completion of operations and the well is plugged and abandoned. See attached Road Maintenance Plan **(Appendix B).**

i. Dust emissions will be controlled on the roads and locations, related to Hilcorp activity, with the application of dust suppressants and/or water. Dust control will be implemented when dust plumes become larger than normal road use conditions or when directed by the BLM or SUIT Authorized Officer.

j. The proposed resource road will not be constructed to all weather standards prior to drilling and completing the proposed well. If the well proves to require year-round traffic due to increased production, Hilcorp will schedule a meeting with the BLM and SUIT to discuss which portions of the roads (proposed resource road and existing resource roads) may require upgrades and/or surfacing to prevent soil erosion.

k. As determined during the onsite on 10/3/2023, the following Best Management Practices will be implemented:

    i. Drainage and ditch design; will line ditches with rock around corners and slopes.

3) Location of Existing Wells

Water wells and oil and gas wells (plugged and abandoned, active, and proposed) within a 1-mile radius of the proposed Southern Ute 704H are depicted in **Sheet D1 and D2**. There are 25 water wells and 33 oil and gas wells (plugged and abandoned, active, or proposed) within a 1-mile radius of the proposed well pad location.

a. Adjacent producing and plugged and abandon oil and gas wells are shown on **Sheet D1.**

b. Adjacent water wells are shown on **Sheet D2**.

4) Location of Existing and/or Proposed Production Facilities

Hilcorp elects to defer providing the BLM with the well layout of production equipment (site security diagram) per Onshore Order 1 Section VIII. Hilcorp will provide the well layout of production equipment using the Notice of Intent (NOI) once the post completion facility set onsite has been conducted with the BLM's Environmental Protection Staff. The site security diagram will be provided after the well has been completed and facilities have been set. The typical well producing into this formation has the following production facilities.

i. Two 80 BBL Produced Water Tanks
ii. Separator
iii. Production pit
iv. Pumping unit
v. Meter House
vi. Compressor

a. Harvest will be the gas transporter for this well. A 4-1/2" OD buried steel pipeline that is approx. 469.27' in length of which all is on Southern Ute Tribal Trust. Harvest has applied for right-of-way with the Southern Ute Tribe. Please refer to **Sheet E** for additional information on the pipeline.

b. Any production equipment encompassed by a dirt berm or one in which fluids are present shall be adequately fenced and properly maintained in order to safeguard both livestock and wildlife.

5) Location and Types of Water Supply

a. If needed, water would be trucked from these sources to the proposed location (**Appendix H**).

i. Ignacio Water Shed - northwest ¼ of Section 20 Township 33 North, Range 7 West, Permit Number (SJ-206)
ii. Self-water hole- northeast ¼ Section 7 Township 32 North, Range 6 West, Permit Number (SD 02964 2A)
iii. Faverino water hole- northwest ¼ of Section 7 Township 32 North, Range 6 West, Permit Number (SJ-17)

6) Construction Material and Methods

a. Construction material will be obtained from the location site; any additional fill dirt that would be used during construction for the berms around production tanks and for the padding for pipe as well as the gravel to use on the berms and around production facilities will come from one of the companies listed below. The construction material that will be brought in could be ¾-inch rock or ¾-inch road base and clean fill dirt.

   i. Sky Ute Sand and Gravel
   ii. Crossfire Aggregate Services
   iii. La Boca Gravel Pit
   iv. Permitted BLM Sandstone Pits for Road Surface Material

b. Any trees larger than 3-inches in diameter will be cut within 12" of ground level and delimbed. Wood permits will be obtained from the SUIT. Wood will be cut and hauled to the Southern Ute wood yard. Stumps will be cut as closed as the ground as possible. Stumps and root balls will be hauled off or ground up and then put in the fill. Any trees smaller than 3-inches in diameter with slash and brush will be chipped, shredded or mulched and incorporated into the topsoil for later use in interim reclamation. Remaining brush will be brush-hogged or scalped at ground-level prior to ground disturbance.

c. After removal of vegetation, topsoil will be segregated and windrowed along the edge of the resource road and stockpiled within the TUA and construction zone as indicated on **Sheets G1 and G2**. Topsoil will be defined as the top six (6) inches of soil. The stockpile topsoil will be free of brush and tree limbs, trunks and root balls, but may include chipped or mulched material so long as it is incorporated into the topsoil stockpile.

   i. Topsoil will not be stripped when soils are moisture-saturated or frozen below the stripping depth.
   ii. Topsoil stacked and waddles will be placed around the base of the topsoil. Vehicle/equipment traffic will be prevented from crossing topsoil stockpiles.
   iii. If the well pad becomes prone to wind or water erosion, Hilcorp will take appropriate measures to prevent topsoil loss from wind. Such measures may include using tackifiers or water to wet the topsoil stockpile so that a crust is created across the exposed soil to prevent soil loss.

d. For well pad cut and fill see **Sheet F**.

e. As determined during the onsite on 10/3/2023, the following <u>best management practices</u> will be implemented.

i. Line ditches with rock as needed to avoid erosion.
ii. Topsoil will be stacked and waddles will be placed around the base of the topsoil pile.
iii. Use waddles as needed around fill slopes.
iv. Utilize a closed loop system during drilling and completion.
v. Subsoil will be used as needed for fill material.

f. Construction equipment may include chain saws, brush hog, scraper, maintainer, excavator, hydraulic mulcher, chipper and dozer. Construction of the resource road and well pad will take approximately 2 to 4 weeks.

g. Construction contractors will utilize the Colorado 811 system to identify the location of any marked or unmarked pipelines or cables located in the proximity of the proposed resource road and well pad at least two working days prior to ground disturbance.

h. All operations will be conducted in such a manner that full compliance is made with the applicable laws and regulations, the Application to Permit to Drill (APD), and applicable Notice (s) to Lessees.

7) Methods for Handling Waste

The Southern Ute 704H Project horizontal natural gas well will be drilled, and waste handled by the methods outlined below.

a. Cuttings

i. Drilling operations would utilize a closed-loop system. Drilling of the horizontal lateral would be accomplished with water-based mud. All cuttings would be placed in roll-off bins and hauled to a commercial disposal facility or land farm. Hilcorp would follow Onshore Oil and Gas Order No. 1 regarding the placement, operation, and removal of closed-loop systems. No blow pit would be used.
ii. Closed-loop tanks would be adequately sized for containment of all fluids.

b. Drilling Fluids

i. Drilling fluids would be stored onsite in above-ground storage tanks. Upon termination of drilling operations, the drilling fluids would be recycled and transferred to other permitted closed-loop systems or disposed of at one of the locations specified below in part G.

c. Spills

i. Any spills of non-freshwater fluids would be immediately cleaned up and removed to an approved disposal site.

d. Sewage

i. Portable toilets would be provided and maintained as needed during construction.

e. Garbage and other waste material

i. All garbage and trash would be placed in an enclosed metal trash containment. The trash and garbage would be hauled off site and dumped in an approved landfill, as needed.

f. Hazardous Waste

i. No chemicals subject to reporting under Superfund Amendments and Reauthorization Act Title III in an amount equal to or greater than 10,000 pounds would be used, produced, stored, transported, or disposed of annually in association with the drilling, testing, or completing of these wells.

ii. No extremely hazardous substances, as defined in 40 CFR 355, in threshold planning quantities would be used, produced, stored, transported, or disposed of annually in association with the drilling, testing, or completing of these wells.

iii. All fluids (i.e., scrubber cleaners) used during washing of production equipment would be properly disposed of to avoid ground contamination or hazard to livestock or wildlife.

g. Produced Water

i. Hilcorp would dispose of produced water from the Southern Ute 704H Project well at the following facility:

1. San Juan 32-7 Unit 301 SWD, API 30-045-28549, operated by Hilcorp Energy Company, located in the Southwest ¼ of the Southwest ¼ Section 34, Township 32 North, Range 7 West.

ii. Produced water would be transported via trucking. Some produced water may also be used in future drilling and completion operations as an alternative disposal method.

8) Ancillary Facilities

Any existing Hilcorp locations may be used for staging during construction, drilling, and completion operations. Standard drilling operation equipment that will be on location includes

drilling rig with associated equipment, temporary trailers equipped with sleeping quarters necessary for company personnel, toilet facilities, and trash containers.

9) Well Site Layout for Drilling and Completion

a. The proposed drill pad layout is shown on **Sheet G1 and G2 and Sheet G3 (rig layout).** Cross sections have been drafted to visualize the planned cuts and fill across the location – see **Sheet F.** Refer to Section 6 for construction materials and methods.

b. Office trailers equipped with living quarters may be provided on location during drilling and completion operations.

10) Plans for Surface Restoration

a. During reclamation activities, Seed Mix 1 has been selected from the Southern Ute seed mixes, **see Appendix A** for detailed reclamation.

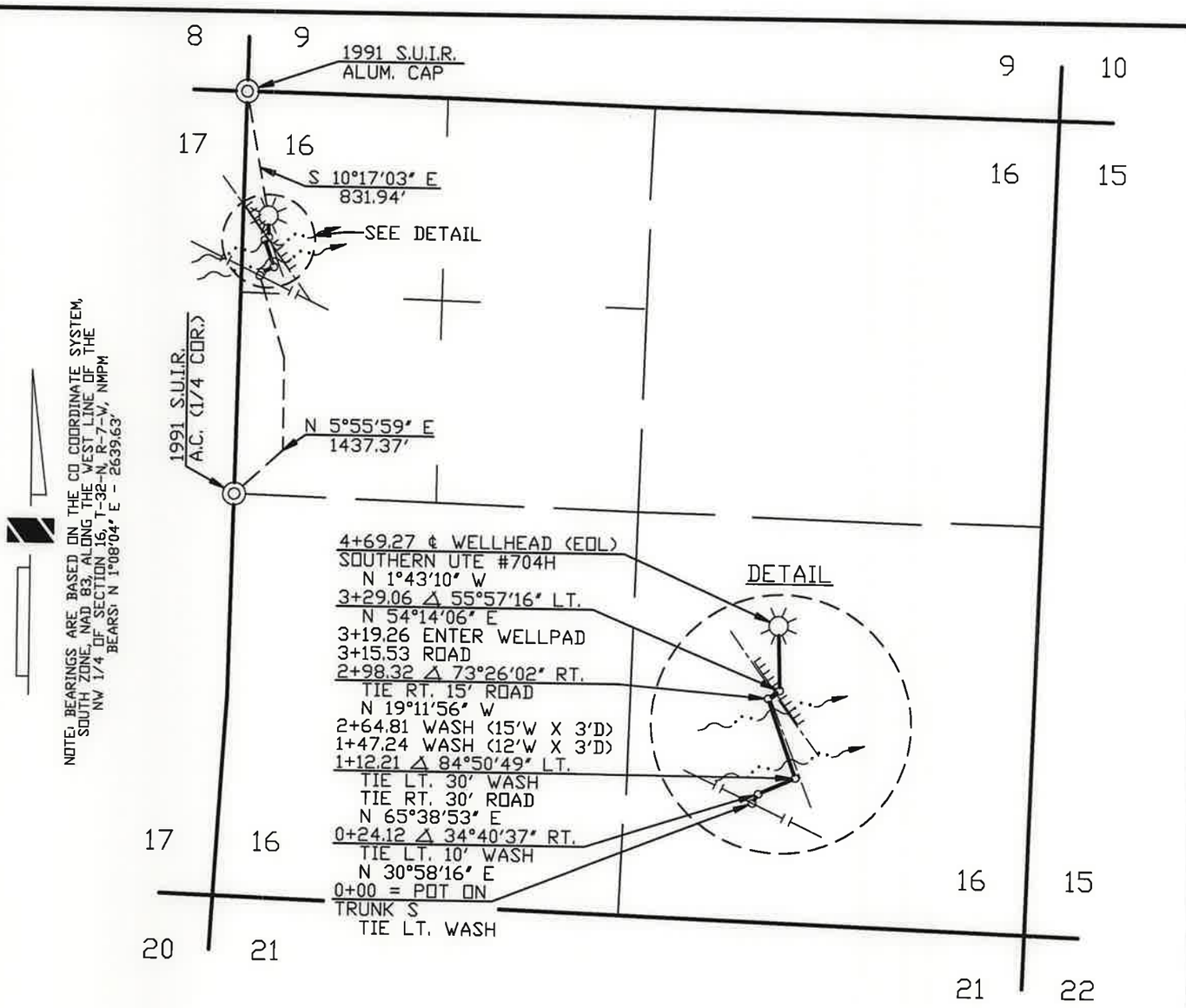
b. See **Appendix A** for details of interim and final reclamation.

11) Other Information

a. Construction contractors would call Colorado One-Call (or equivalent) to identify the location of any marked or unmarked pipelines or cables located in proximity to the proposed Southern Ute 704H Project or any other areas proposed to have ground disturbance at least two working days prior to ground disturbance.

b. The cultural survey report was submitted to the appropriate surface managing agencies. Cultural mitigation would occur if any is listed in the approved APD.

c. All activities associated with the construction, use/operation, maintenance, and abandonment or termination of the Southern Ute 704H Project well would be limited to areas approved in the APD(s).



WIDTH OF RIGHT OF WAY 40' MILES OF TRIBAL LAND 0.089 RIGHT OF WAY IN ACRES 0.431

LOUIS P. CHAVEZ BEING DULY SWORN, STATES THAT HE IS SURVEY COORDINATOR OF WELL CONNECTS OF WILLIAMS FOUR CORNERS, LLC, HEREINAFTER DESIGNATED THE "APPLICANT". THAT THE SURVEY OF A RIGHT OF WAY ALIGNMENT FROM ENGINEERING STATION 0+00 TO ENGINEERING STATION 4+69.27 , A DISTANCE OF 0.089 MILES, WAS MADE UNDER HIS DIRECTION AS SURVEY COORDINATOR OF WELL CONNECTS OF THE APPLICANT AND UNDER ITS AUTHORITY COMMENCING ON FEBRUARY 25, 2014 AND ENDING ON APRIL 22, 2014 AND THAT SUCH SURVEY ALIGNMENT IS ACCURATELY REPRESENTED ON THIS DRAWING.

SWORN AND SUBSCRIBED Jodi Armenta
14th DAY OF May 20 14

NOTARY PUBLIC, SAN JUAN COUNTY, NEW MEXICO
MY COMMISSION EXPIRES, 3/23/15

OFFICIAL SEAL
JODI ARMENTA
Notary Public
State of New Mexico
My Comm. Expires 3/23/15

SURVEY COORDINATOR
WILLIAMS FOUR CORNERS, LLC

I PEGGY McWILLIAMS, DO HEREBY CERTIFY THAT I AM A RIGHT OF WAY AGENT FOR WILLIAMS FOUR CORNERS, LLC, HEREINAFTER DESIGNATED THE "APPLICANT", THAT LOUIS P. CHAVEZ WHO SUBSCRIBED THE ACCOMPANYING AFFIDAVIT IS THE SURVEY COORDINATOR OF WELL CONNECTS OF THE APPLICANT; THAT THE SURVEY OF THE RIGHT OF WAY ALIGNMENT AS REPRESENTED ON THIS DRAWING WAS MADE UNDER THE AUTHORITY OF THE APPLICANT AND HAS BEEN DETERMINED TO THE DEFINITE LOCATION OF THE RIGHT OF WAY, FROM ENGINEERING STATION 0+00 TO ENGINEERING STATION 4+69.27 , A DISTANCE OF 0.089 MILES, THAT THE DRAWING HAS BEEN PREPARED TO BE FILED FOR THE APPROVAL OF THE SUPERINTENDENT IN ORDER THAT THE APPLICANT MAY OBTAIN THE BENEFITS OF THE ACT OF CONGRESS APPROVED FEBRUARY 5TH, 1948 (62 STAT. 17 25USC 323).

Peggy McWilliams
RIGHT OF WAY AGENT
WILLIAMS FOUR CORNERS, LLC

REVISION NO.	DATE	BY	DESCRIPTION	W.O.NO.	CHK.	APP.
2	05/13/14	KS	LINE CHANGE (04/22/14)	WOC1156727	MW	
1	03/11/14	KS	ISSUED FOR REVIEW	WOC1156727	MW	

NO.	DATE	BY	DESCRIPTION	W.O.NO.	CHK.	APP.

INFO	DRAFTING	BY	DATE
R/W #:	DRAWN BY	KS	03/11/14
REFERENCE DRAWING:	CHECKED BY	MW	03/11/14
S765.0-318-1	APPROVED BY		
	ENGINEER	BY	DATE
	DESIGNED BY		
	PROJ. APPROVED		

STATE: COLORADO
COUNTY: LA PLATA

WILLIAMS FOUR CORNERS, LLC
ONE OF THE WILLIAMS COMPANIES

SAN JUAN GATHERING SYSTEM
APPLICATION FOR RIGHT-OF-WAY
ACROSS SOUTHERN UTE TRIBAL LANDS
SOUTHERN UTE #704H
SECTION 16, T-32-N, R-7-W, NMPM

SCALE: 1"=1000'
W.O. NO. WOC1156727
DWG NO. 765.4 SHEET E
SHEET 1 OF 1
REV 2

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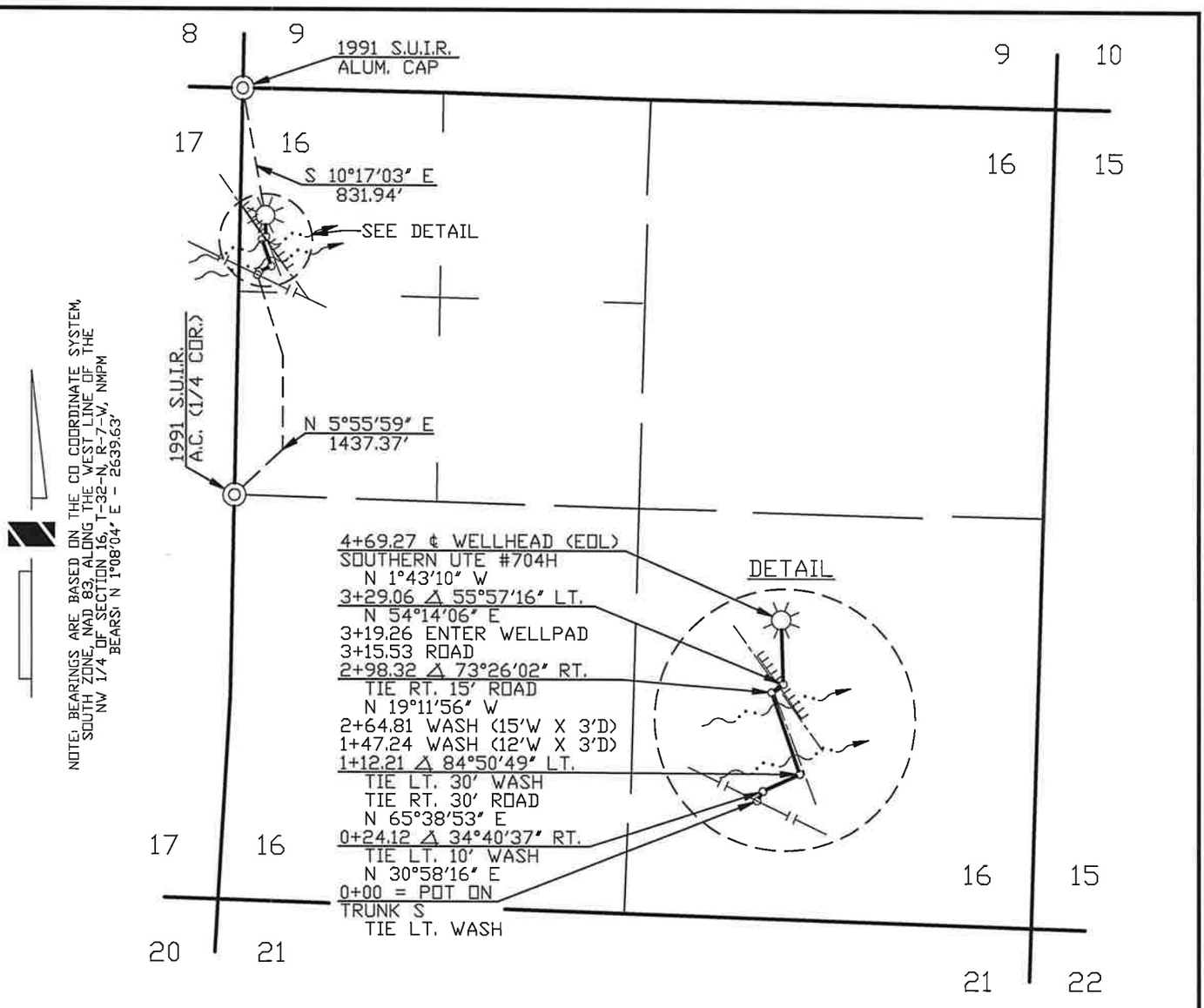

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	DESIGNED BY		
	PROJ. APPROVED		

STATE: COLORADO
COUNTY: LA PLATA

WILLIAMS FOUR CORNERS, LLC
ONE OF THE WILLIAMS COMPANIES

SAN JUAN GATHERING SYSTEM
APPLICATION FOR RIGHT-OF-WAY
ACROSS SOUTHERN UTE TRIBAL LANDS
SOUTHERN UTE #704H
SECTION 16, T-32-N, R-7-W, NMPM

SCALE: 1"=1000'
W.O. NO. WOC1156727

DWG NO. 765 SHEET E

SHEET 1 OF 1 REV 2

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Hilcorp San Juan, L.P.
Southern Ute 704H
816' FNL & 165' FWL (Surface)
694' FNL & 1213' FWL (Pilot Bottom Hole)
709' FNL & 727' FEL (Lateral No. 1 Bottom Hole)
1955' FNL & 722' FEL (Lateral No. 2 Bottom Hole)
Section 16, T-32-N, R-7-W, N.M.P.M., La Plata County, CO.

Looking North

Looking East

Looking South

Looking West

Access at Well Location

Access at Road

APD ID: 10400096607 **Submission Date:** 01/18/2024

Operator Name: HILCORP ENERGY COMPANY

Well Name: SOUTHERN UTE **Well Number:** 704H

Well Type: COALBED NATURAL GAS WELL **Well Work Type:** Drill

Section 1 - General

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

Section 2 - Lined

Would you like to utilize Lined Pit PWD options? N

Produced Water Disposal (PWD) Location:

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

Lined pit PWD on or off channel:

Lined pit PWD discharge volume (bbl/day):

Lined pit

Pit liner description:

Pit liner manufacturers

Precipitated solids disposal:

Decribe precipitated solids disposal:

Precipitated solids disposal

Lined pit precipitated solids disposal schedule:

Lined pit precipitated solids disposal schedule

Lined pit reclamation description:

Lined pit reclamation

Leak detection system description:

Leak detection system

Operator Name: HILCORP ENERGY COMPANY

Well Name: SOUTHERN UTE **Well Number:** 704H

Lined pit Monitor description:

Lined pit Monitor

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

Is the reclamation bond a rider under the BLM bond?

Lined pit bond number:

Lined pit bond amount:

Additional bond information

Section 3 - Unlined

Would you like to utilize Unlined Pit PWD options? N

Produced Water Disposal (PWD) Location:

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

Unlined pit PWD on or off channel:

Unlined pit PWD discharge volume (bbl/day):

Unlined pit

Precipitated solids disposal:

Decribe precipitated solids disposal:

Precipitated solids disposal

Unlined pit precipitated solids disposal schedule:

Unlined pit precipitated solids disposal schedule

Unlined pit reclamation description:

Unlined pit reclamation

Unlined pit Monitor description:

Unlined pit Monitor

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

Beneficial use user

Estimated depth of the shallowest aquifer (feet):

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

TDS lab results:

Geologic and hydrologic

State

Unlined Produced Water Pit Estimated

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

Operator Name: HILCORP ENERGY COMPANY

Well Name: SOUTHERN UTE **Well Number:** 704H

Is the reclamation bond a rider under the BLM bond?

Unlined pit bond number:

Unlined pit bond amount:

Additional bond information

Section 4 -

Would you like to utilize Injection PWD options? N

Produced Water Disposal (PWD) Location:

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

Injection PWD discharge volume (bbl/day):

Injection well mineral owner:

Injection well type:

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

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

Injection well new surface disturbance (acres):

Minerals protection information:

Mineral protection

Underground Injection Control (UIC) Permit?

UIC Permit

Section 5 - Surface

Would you like to utilize Surface Discharge PWD options? N

Produced Water Disposal (PWD) Location:

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

Surface discharge PWD discharge volume (bbl/day):

Surface Discharge NPDES Permit?

Surface Discharge NPDES Permit attachment:

Surface Discharge site facilities information:

Surface discharge site facilities map:

Section 6 -

Would you like to utilize Other PWD options? N

Produced Water Disposal (PWD) Location:

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

Other PWD discharge volume (bbl/day):

Operator Name: HILCORP ENERGY COMPANY

Well Name: SOUTHERN UTE **Well Number:** 704H

Other PWD type description:

Other PWD type

Have other regulatory requirements been met?

Other regulatory requirements

AFMSS

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

Bond Info Data

09/13/2024

APD ID: 10400096607

Submission Date: 01/18/2024

Operator Name: HILCORP ENERGY COMPANY

Well Name: SOUTHERN UTE

Well Number: 704H

Well Type: COALBED NATURAL GAS WELL

Well Work Type: Drill

Highlighted data reflects the most recent changes

Show Final Text

Bond

Federal/Indian APD: IND

BLM Bond number:

BIA Bond number:

Do you have a reclamation bond? NO

Is the reclamation bond a rider under the BLM bond?

Is the reclamation bond BLM or Forest Service?

BLM reclamation bond number:

Forest Service reclamation bond number:

Forest Service reclamation bond

Reclamation bond number:

Reclamation bond amount:

Reclamation bond rider amount:

Additional reclamation bond information