Santa Fe Main Office
Phone: (505) 476-3441
General Information
Phone: (505) 629-6116

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

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

Form C-101
Revised July 18, 2013

☐AMENDED REPORT

APPLICATION FOR PERMIT TO DRILL, RE-ENTER, DEEPEN, PLUGBACK, OR ADD A ZONE

1. Operator Name and Address	2. OGRID Number
Hilcorp Energy Company 382 Road 3100 Aztec, NM 87410	372171
	3. API Number 30-045-38453

4. Property Code	5. Property Name	6. Well No.
318864	Allison Unit	632H

7. Surface Location

UL - Lot	Section	Township	Range	Lot Idn	Feet from	N/S Line	Feet From	E/W Line	County
F	12	32N	07W	3	479’	N	1485’	W	San Juan

8. Proposed Bottom Hole Location

UL - Lot	Section	Township	Range	Lot Idn	Feet from	N/S Line	Feet From	E/W Line	County
H	23	32N	07W		1761'	N	804’	E	La Plata

9. Pool Information

Pool Name	Pool Code
Mancos - Colorado	Colorado

Additional Well Information

11. Work Type	12. Well Type	13. Cable/Rotary	14. Lease Type	15. Ground Level Elevation
New Well	Gas		Private	6350’
16. Multiple	**17. Proposed Depth**	**18. Formation**	**19. Contractor**	**20. Spud Date**
No	21,526’ MD	Mancos		2025

Depth to Ground water	Distance from nearest fresh water well	Distance to nearest surface water

☒**We will be using a closed-loop system in lieu of lined pits**

21. Proposed Casing and Cement Program

Type	Hole Size	Casing Size	Casing Weight/ft	Setting Depth	Sacks of Cement	Estimated TOC
Suf	17 1/2"	13 3/8”	54.5#	700'	705	0
Int	12 1/4"	9 5/8”	43.5#	6,555’	661 sx (378 sx lead/283 sx tail)	0
Prod	8 1/2"	5 1/2"	20.0#	21,526’	3,152 sx (332 sx lead/2,820 sx tail)	5,000’

Casing/Cement Program: Additional Comments

22. Proposed Blowout Prevention Program

Type	Working Pressure	Test Pressure	Manufacturer
Double Ram	4,200	5,000	

23. I hereby certify that the information given above is true and complete to the best of my knowledge and belief. **I further certify that I have complied with 19.15.14.9 (A) NMAC ☒ and/or 19.15.14.9 (B) NMAC ☒, if applicable.** Signature: AWalker	OIL CONSERVATION DIVISION Approved By:
Printed name: Amanda Walker	Title:
Title: Operations Regulatory Tech Sr.	Approved Date: / Expiration Date:
E-mail Address: mwalker@hilcorp.com	
Date:4/8/2025 / Phone: 346-237-2177	Conditions of Approval Attached

FORM 2 Rev 10/24

State of Colorado
Energy & Carbon Management Commission

1120 Lincoln Street, Suite 801, Denver, Colorado 80203
Phone: (303) 894-2100 Fax: (303) 894-2109

Document Number: 404084936

Date Received: 02/18/2025

APPLICATION FOR PERMIT TO

[X] **Drill** [ ] Deepen [ ] Re-enter [ ] Recomplete and Operate

Amend [ ] Refile [ ] Sidetrack [ ]

TYPE OF WELL OIL [ ] GAS [X] COALBE [ ] GEOTHERMAL [ ] OTHER:

ZONE TYPE SINGLE ZONE [X] MULTIPLE ZONES [ ] COMMINGLE ZONES [ ]

Well Name: ALLISON UNIT Well Number: 632H

Name of Operator: HILCORP ENERGY COMPANY ECMC Operator Number: 10133

Address: P O BOX 61229

City: HOUSTON State: TX Zip: 77208

Contact Name: Amanda Walker Phone: (346)237-2177 Fax: ( )

Email: mwalker@hilcorp.com

FINANCIAL ASSURANCE FOR PLUGGING, ABANDONMENT, AND RECLAMATION

ECMC Financial Assurance

[X] The Operator has provided or will provide Financial Assurance to the ECMC for this Well.

Surety ID Number (if applicable): 20050122

Federal Financial Assurance

[ ] In checking this box, the Operator certifies that it has provided or will provide at least this amount of Financial Assurance to the federal government for this Well. (Per Rule702.a.)

Amount of Federal Financial Assurance $

WELL LOCATION INFORMATION

Surface Location

QtrQtr: SENW Sec: 20 Twp: 32N Rng: 6W Meridian: N

Footage at Surface: 479 Feet FNL (FNL/FSL) 1485 Feet FWL (FEL/FWL)

Latitude: 36.998741 Longitude: -107.521533

GPS Data: GPS Quality Value: 1.8 Type of GPS Quality Value: PDOP Date of Measurement: 05/14/2024

Ground Elevation: 6350

Field Name: IGNACIO BLANCO Field Number: 38300

Well Plan: is [ ] Directional [X] Horizontal (highly deviated) [ ] Vertical

If Well plan is Directional or Horizontal attach Deviated Drilling Plan and Directional Data.

Subsurface Locations

Top of Productive Zone (TPZ)

Sec: 20 Twp: 32N Rng: 6W Footage at TPZ: 1795 FNL (FNL/FSL) 2633 FWL (FEL/FWL)

Measured Depth of TPZ: 7637 True Vertical Depth of TPZ: 6822

Base of Productive Zone (BPZ)

Sec: 23 Twp: 32N Rng: 7W Footage at BPZ: 1762 FNL 579 FEL

FNL/FSL FEL/FWL

Measured Depth of BPZ: 21301 True Vertical Depth of BPZ: 6851

Bottom Hole Location (BHL)

Sec: 23 Twp: 32N Rng: 7W Footage at BHL: 1761 FNL 804 FEL

FNL/FSL FEL/FWL

LOCAL GOVERNMENT PERMITTING INFORMATION

County: LA PLATA Municipality: N/A

Is the Surface Location of this Well in an area designated as one of State interest and subject to the requirements of § 24-65.1-108 C.R.S.? No

Per §34-60-106(1)(f)(I)(A) C.R.S and §37-90.5-107(2)(b)(I) C.R.S, the following questions pertain to the Relevant Local Government approval of the siting of the proposed Oil and Gas or Deep Geothermal Locations.

The Energy and Carbon Management Act and the Geothermal Resources Act provide that when "applying for a permit to drill," operators must include proof that they sought a local government siting permit and the disposition of that permit application, or that the local government does not have siting regulations.

Does the Relevant Local Government regulate the siting of Oil and Gas and Deep Geothermal Locations, with respect to this Location? ☐ Yes ☒ No

☐ If yes, in checking this box, I hereby certify that an application has been filed with the local government with jurisdiction to approve the siting of the proposed oil and gas location.

The disposition of the application filed with the Relevant Local Government is: _____ Date of Final Disposition: _____

Comments:

GEOTHERMAL

Well Overview

The following questions determine informational requirements based on Well type:

Which type of Geothermal Well is this? Select one of the following:

Will this well be constructed using cementing methodologies other than those listed in Rule 408.f?

If Yes, what method will be used:

Please describe the cementing method to be used in detail:

Geothermal Resource Units

Fill out the information below to submit an application for a Geothermal Resource Unit (GRU) as part of the current permit application. This may also be completed later using a Form 4 Sundry.

Will this Well be in an existing GRU?

Are you submitting your application for a new GRU as part of the current application?

SURFACE AND MINERAL OWNERSHIP AT WELL'S OIL & GAS OR DEEP GEOTHERMAL LOCATION

Surface Owner of the land at this Well's Oil and Gas Or Deep Geothermal Location: [X] Fee [ ] State [ ] Federal [ ] Indian

Mineral Owner beneath this Well's Oil and Gas Or Deep Geothermal Location: [X] Fee [ ] State [ ] Federal [ ] Indian

Surface Owner Protection Bond (if applicable): _____ Surety ID Number (if applicable): _____

MINERALS DEVELOPED BY WELL

The ownership of all the minerals that will be developed by this Well is (check all that apply):

- [X] Fee
- [ ] State
- [ ] Federal
- [ ] Indian
- [ ] N/A

LEASE INFORMATION

Using standard QtrQtr, Section, Township, Range format describe one entire mineral lease as follows:
* If this Well is within a unit, describe a lease that will be developed by the Well.
* If this Well is not subject to a unit, describe the lease that will be produced by the Well.
(Attach a Lease Map or Lease Description or Lease if necessary.)

T32N-R06W, NMPM
SEC 19: E/2 NE/4
La Plata County, CO

Total Acres in Described Lease: 80 Described Mineral Lease is: [X] Fee [ ] State [ ] Federal [ ] Indian

Federal or State Lease # _____

SAFETY SETBACK INFORMATION

Distance from Well to nearest:

Building:	5280	Feet
Building Unit:	5280	Feet
Public Road:	5280	Feet
Above Ground Utility:	5280	Feet
Railroad:	5280	Feet
Property Line:	5280	Feet

INSTRUCTIONS:
- Specify all distances per Rule 308.b.(1).
- Enter 5280 for distance greater than 1 mile.
- Building - nearest building of any type. If nearest Building is a Building Unit, enter same distance for both.
- Building Unit – as defined in 100 Series Rules.

OBJECTIVE FORMATIONS

Objective Formation(s)	Formation Code	Spacing Order Number(s)	Unit Acreage Assigned to Well	Unit Configuration (N/2, SE/4, etc.)
MANCOS	MNCS	112-304	880	See Comments

Federal or State Unit Name (if appl): Allison Unit Unit Number: 632H

SUBSURFACE MINERAL SETBACKS

Enter 5280 for distance greater than 1 mile.

Is this Well within a unit? Yes

If YES:

Enter the minimum distance from the Completed Zone of this Well to the Unit Boundary: 733 Feet

Enter the minimum distance from the Completed Zone of this Well to the Completed Zone of an offset Well within the same unit permitted or completed in the same formation: 1090 Feet

If NO:

Enter the minimum distance from the Completed Zone of this Well to the Lease Line of the described lease: _____ Feet

Enter the minimum distance from the Completed Zone of this Well to the Completed Zone of an offset Well producing from the same lease and permitted or completed in the same formation: _____ Feet

Exception Location

[ ] If this Well requires the approval of a Rule 401.c Exception Location, enter the Rule or spacing order number and attach the Exception Location Request and Waivers. _____

SPACING & FORMATIONS COMMENTS

DSU No. 3:
Township 32 North, Range 6 West, N.M.P.M.
Section 19: Lots 1, 2, E/2 NW/4, NE/4
Section 20: NW/4
Township 32 North, Range 7 West, N.M.P.M.
Section 23: E/2 NE/4
Section 24: N/2

DRILLING PROGRAM

Proposed Total Measured Depth: 21526 Feet TVD at Proposed Total Measured Depth 6851 Feet

Distance from the proposed wellbore to nearest existing or proposed wellbore belonging to another operator, including plugged wells:

Enter distance if less than or equal to 1,500 feet: _____ Feet ☒ No well belonging to another operator within 1,500 feet

Will a closed-loop drilling system be used? Yes

Is H_2S gas reasonably expected to be encountered during drilling operations at concentrations greater than or equal to 100 ppm? No If yes, attach an H2S Drilling Plan unless a plan was already submitted with the Form 2A per Rule 304.c.(10).

Will there be hydraulic fracture treatment at a depth less than 2,000 feet in this well? No

Will salt sections be encountered during drilling? No

Will salt based (>15,000 ppm Cl) drilling fluids be used? No

Will oil based drilling fluids be used? Yes

BOP Equipment Type: ☒ Annular Preventor ☒ Double Ram ☒ Rotating Head ☐ None

Beneficial reuse or land application plan submitted? No

Reuse Facility ID: _____ or Document Number: _____

CASING PROGRAM

Casing Type	Size of Hole	Size of Casing	Grade	Wt/Ft	Csg/Liner Top	Setting Depth	Sacks Cmt	Cmt Btm	Cmt Top
SURF	17+1/2	13+3/8	J55	54.5	0	700	705	350	0
1ST	12+1/4	9+5/8	L80	43.5	0	6555	661	6555	
2ND	8+1/2	5+1/2	P110	20.0	0	21526	3152	21526	

☒ Conductor Casing is NOT planned

POTENTIAL FLOW AND CONFINING FORMATIONS

Zone Type	Formation /Hazard	Top M.D.	Top T.V.D.	Bottom M.D.	Bottom T.V.D.	TDS (mg/L)	Data Source	Comment
Groundwater	San Jose	0	0	848	848	0-500	USGS	POSSIBLE WATER
Groundwater	Nacimiento	848	848	2151	2084	0-500	USGS	POSSIBLE WATER
Groundwater	OJO ALAMO	2151	2084	2222	2150	501-1000	USGS	POSSIBLE WATER
Groundwater	KIRTLAND	2222	2150	2684	2581	1001-10000	USGS	GAS & WATER
Hydrocarbon	FRUITLAND	2684	2581	3079	2950	1001-10000	USGS	GAS WATER
Hydrocarbon	PICTURED CLIFFS	3079	2950	3633	3467			POSSIBLE GAS
Confining Layer	LEWIS SHALE	3633	3467	5169	4900			NONE
Hydrocarbon	CLIFFHOUSE	5169	4900	5570	5274			POSSIBLE GAS
Confining Layer	MENEFEE	5570	5274	5764	5455			NONE
Hydrocarbon	POINT LOOKOUT	5764	5455	6321	5974			GAS
Hydrocarbon	MANCOS	6321	5974	6521	6174			GAS

OPERATOR COMMENTS AND SUBMITTAL

Comments: SHL WILL BE IN THE STATE OF NEW MEXICO. BHL AND ALL PRODUCTION WILL BE FROM THE STATE OF COLORADO. SHL IS UL: F, LOT 3, SEC 12, T32N, R 7W

This application is in a Comprehensive Area Plan _____ CAP #: _____

Oil and Gas Development Plan Name _____ OGDP ID#: _____

Location ID: _____

I hereby certify all statements made in this form are, to the best of my knowledge, true, correct, and complete.

Signed: _____ Print Name: Amanda Walker

Title: Regulatory Tech Sr. Date: 2/18/2025 Email: mwalker@hilcorp.com

Operator must have a valid water right or permit allowing for industrial use or purchased water from a seller that has a valid water right or permit allowing for industrial use, otherwise an application for a change in type of use is required under Colorado law. Operator must also use the water in the location set forth in the water right decree or well permit, otherwise an application for a change in place of use is required under Colorado law. Section 37-92-103(5), C.R.S. (2011).

Based on the information provided herein, this Application for Permit-to-Drill complies with ECMC Rules, applicable orders, and SB 19-181 and is hereby approved.

ECMC Approved: _____ **Director of ECMC** Date: 4/7/2025

Expiration Date: 04/06/2028

API NUMBER

05 067 10063 00

CONDITIONS OF APPROVAL, IF ANY LIST

All representations, stipulations and conditions of approval stated in the Form 2A for this location shall constitute representations, stipulations and conditions of approval for this Form 2 Permit-to-Drill and are enforceable to the same extent as all other representations, stipulations and conditions of approval stated in this Permit-to-Drill.

COA Type	Description
Drilling/Completion Operations	1) Submit Form 42 electronically to ECMC 2 business days prior to MIRU (spud notice) for the first well activity with a rig on the pad and provide 2 business day spud notice via Form 42 for all subsequent wells drilled on the pad. 2) Comply with Rule 408.i. and 408.e. Operator shall provide cement coverage from the end of Intermediate Casing (1st string) to a minimum of 500' above Fruitland Coal, a minimum of 50' above and below Ojo Alamo. Verify intermediate casing cement coverage with a cement bond log or circulation to surface. 3) Comply with Rule 408.j. Operator shall provide cement coverage from TD to a minimum of 500' above Mancos. Verify production casing (2nd string) cement coverage with a cement bond log. 4) Oil based drilling fluid can only be used after all groundwater has been isolated.
Drilling/Completion Operations	Operator acknowledges the proximity of the listed wells. Operator agrees to: provide mitigation option 1 or 2 (per the Offset Well Evaluation and Hydraulic Fracturing Operator Guidance Document) to mitigate the situation, ensure all applicable documentation is submitted based on the selected mitigation option chosen, and submit a Form 42 (“OFFSET MITIGATION COMPLETED”) stating that appropriate mitigation occurred and that it has been completed, prior to the hydraulic stimulation of this well. 05-067-05008 ALLISON UNIT *19 05-067-06145 ALLISON UNIT *59
Drilling/Completion Operations	Bradenhead tests shall be performed according to the following schedule and Form 17 submitted within 10 days of each test: 1) Within 60 days of rig release, prior to stimulation. If any pressure greater than 25 psig is observed or if there is evidence of communication, Operator must contact ECMC engineering for approval prior to stimulation. 2) Within 60 days after first sales, as reported on the Form 10, Certificate of Clearance.
3 COAs	

Operator Best Management Practices

No	BMP/COA Type	Description
1	Drilling/Completion Operations	Open-hole resistivity log with gamma-ray log will be run from the kick-off point into the surface casing. A cement bond log with gamma-ray log will be run if cement is not circulated to surface on the intermediate cement job, a cement bod log will be run to verify top of cement. The horizontal portion of the wellbore will be logged with a measured-while drilling gamma-ray. log. The Form 5, Completion Report, will list all logs run and have those logs attached.

Total: 1 comment(s)

ATTACHMENT LIST

Att Doc Num	Name
217575	Allison Unit 632H - Drilling Technical Plan - Rev 1
901860	DEVIATED DRILLING PLAN
404084936	FORM 2 SUBMITTED
404085677	DIRECTIONAL DATA
404085679	OffsetWellEvaluations Data

404085680	OTHER
404085686	WELL LOCATION PLAT
404085690	DRILLING PLAN
404085706	OTHER
404154972	OFFSET WELL EVALUATION

Total Attach: 10 Files

General Comments

User Group	Comment	Comment Date
Permit	Final Review Complete.	04/03/2025
Permit	Attached deviated drilling plan and attached updated well location plat. Permitting Review Complete.	04/01/2025
Permit	Corrected minimum distance from the Completed Zone of this Well to the Unit Boundary to reflect UPDATED well location plat. Corrected BPZ inputs to reflect well location plat.	04/01/2025
Permit	Missing deviated drilling plan.	03/27/2025
Engineer	Updated surface casing depth (at a minimum depth of 10% of TVD of the deepest point of the planned well, per Rule 408.e. (4)) and cement volume, per communication with operator. Added San Jose and Nacimiento to PFZ table per data provided by operator. Checked annular preventer and rotating head for BOPE, confirmed with operator.	03/11/2025
Engineer	Wellhead in New Mexico. 24 water wells within 1 mile, 55 water wells within 1.5 mile. Deepest water well 500' within 1 mile. Production within 1 mile: MVRD, DKTA, MVDK, FRLDC, FRLD, PCCF, FCMVD. Offset well evaluation within 1500' of wellbore completed.	03/11/2025
OGLA	Surface location for this well will be in the state of New Mexico. OGLA review complete.	02/19/2025

Total: 7 comment(s)

Public Comments

No public comments were received on this application during the comment period.

BEFORE THE ENERGY AND CARBON MANAGEMENT COMMISSION
OF THE STATE OF COLORADO

IN THE MATTER OF THE PROMULGATION AND ESTABLISHMENT OF FIELD RULES TO GOVERN OPERATIONS FOR THE MANCOS FORMATION, IGNACIO BLANCO FIELD, LA PLATA COUNTY, COLORADO	)	CAUSE NO. 112
	)	DOCKET NO. 240800188
	)	TYPE: SPACING
	)	ORDER NO. 112-304

REPORT OF THE COMMISSION

The Commission heard this matter on November 13, 2024, at the Colorado Energy and Carbon Management Commission, 1120 Lincoln Street, Suite 801, Denver, Colorado, upon application for an order to: 1) establish an approximate 389.29-acre drilling and spacing unit ("DSU No. 1") for the below-described lands and approve one new horizontal well to be developed in such unit, and with the productive interval of the Well in DSU No. 1 for the development of the Mancos Formation to be no closer than 600 feet from the western unit boundary, and, under the exemption afforded by Rule 401.d.(3), 5 feet from the southern, eastern, and northern unit boundary; and, under the exemption afforded by Rule 401.d.(3), provide that the horizontal well shall be no closer than 1,000 feet from the productive interval of any other horizontal well producing from the same formation or common source of supply, unless authorized by Rule 401.c or Rule 408.u.(1) as applicable; 2) establish an approximate 679.08-acre drilling and spacing unit ("DSU No. 2") for the below-described lands and approve up to two new horizontal wells to be developed in such unit, and with the productive interval of the Wells in DSU No. 2 to be no closer than 600 feet from the eastern and northern unit boundary, and, under the exemption afforded by Rule 401.d.(3), 5 feet from the southern and western unit boundary; and, under the exemption afforded by Rule 401.d.(3), provide that each horizontal well shall be no closer than 1,000 feet from the productive interval of any other horizontal well producing from the same formation or common source of supply, unless authorized by Rule 401.c or Rule 408.u.(1) as applicable; and 3) establish an approximate 880.87-acre drilling and spacing unit ("DSU No. 3") for the below-described lands and approve up to two new horizontal wells to be developed in such unit, productive interval of the Wells in DSU No. 3 to be no closer than 600 feet from the western and northern unit boundary, and, under the exemption afforded by Rule 401.d.(3), 5 feet from the eastern and southern unit boundary; and, under the exemption afforded by Rule 401.d.(3), provide that each horizontal well shall be no closer than 1,000 feet from the productive interval of any other horizontal well producing from the same formation or common source of supply, unless authorized by Rule 401.c or Rule 408.u.(1) as applicable. The total of five horizontal wells to be developed in Colorado from a surface location in New Mexico for the production of oil, gas, and associated hydrocarbons from the Mancos Formation:

DSU No. 1:
Township 32 North, Range 6 West, N.M.P.M.
Section 19: Lots 3, 4, 5, 6
Section 20: Lots 3, 4

Township 32 North, Range 7 West, N.M.P.M.
Section 23: NE/4 SE/4 *equivalent* (unnumbered lot)
Section 24: N/2 S/2 *equivalent* (unnumbered lots)

DSU No. 2:
Township 32 North, Range 6 West, N.M.P.M.
Section 20: Lots 1, 2, S/2 NE/4
Section 21: Lots 1, 2, 3, 4, S/2 N/2
Section 22: Lots 1, 2, 3, 4, S/2 NW/4, SW/4 NE/4

DSU No. 3:
Township 32 North, Range 6 West, N.M.P.M.
Section 19: Lots 1, 2, E/2 NW/4, NE/4
Section 20: NW/4

Township 32 North, Range 7 West, N.M.P.M.
Section 23: E/2 NE/4
Section 24: N/2

FINDINGS

The Commission finds as follows:

1. Hilcorp Energy Company (Operator No. 10133) ("Hilcorp" or "Applicant"), as applicant herein, is an interested party in the subject matter of the above-referenced hearing.

2. Due notice of the time, place, and purpose of the hearing has been given in all respects as required by law.

3. The Commission has jurisdiction over the subject matter embraced in said Notice, and of the parties interested therein, and jurisdiction to promulgate the hereinafter prescribed order pursuant to the Oil and Gas Conservation Act.

4. Pursuant to C.R.S. § 34-60-106(2.5)(a), the Commission shall regulate oil and gas operations in a reasonable manner to protect and minimize adverse impacts to public health, safety, and welfare, the environment, and wildlife resources, and shall protect against adverse environmental impacts on any air, water, soil, or biological resource resulting from oil and gas operations.

5. Rule 401.a of the Rules and Regulations of the Energy and Carbon Management Commission requires that, on unspaced lands, wells drilled in excess of 2,500 feet in depth be located not less than 600 feet from any lease line, and located not less than 1,200 feet from any other producible or drilling oil or gas well when drilling to the same common source of supply.

6. Rule 401.d.(3) provides an exception to the Well completion requirements of Rule 401.a., and states that in a unit operation approved by federal or state authorities, these Well completion location requirements apply to the exterior or interior (if one exists) boundary of the unit area unless otherwise authorized by Commission order after proper notice to Owners outside the unit area.

7. DSU No. 1, DSU No. 2, and DSU No. 3 are located within the U.S. Bureau of Land Management ("BLM") Allison Federal Exploratory Unit ("Allison FEU"), FEU Serial No. NMNM105418404 (Legacy: NMNM078372X).

8. The records of the Commission indicate that there are no producing, shut-in, or

temporarily abandoned wells located in the Application Lands for the Mancos Formation.

9. There are no Commission Orders that apply to any of the Application Lands for the Mancos Formation.

10. On August 12, 2024, Hilcorp, by its attorneys, filed with the Commission a verified application ("Application") pursuant to C.R.S. § 34-60-116, for an order to: 1) establish an approximate 389.29-acre drilling and spacing unit for DSU No. 1 and approve one new horizontal well to be developed in such unit; 2) establish an approximate 679.08-acre drilling and spacing unit for DSU No. 2 and approve up to two new horizontal wells to be developed in such unit; and 3) establish an approximate 880.87-acre drilling and spacing unit for DSU No. 3 and approve up to two new horizontal wells to be developed in such unit, with the total of five horizontal wells to be developed in Colorado from a surface location in New Mexico for the production of oil, gas, and associated hydrocarbons from the Mancos Formation.

11. Hilcorp will utilize a surface location in New Mexico for the development of the Application Lands, unless the Director grants an exception.

12. Applicant states that the productive interval of the Well in the DSU No. 1 for the development of the Mancos Formation will be no closer than 600 feet from the western unit boundary, and, under the exemption afforded by Rule 401.d.(3), 5 feet from the southern, eastern, and northern unit boundary; and, under the exemption afforded by Rule 401.d.(3), provide that the horizontal well shall be no closer than 1,000 feet from the productive interval of any other horizontal well producing from the same formation or common source of supply, unless authorized by Rule 401.c or Rule 408.u.(1) as applicable.

13. Applicant states that the productive interval of the Wells in the DSU No. 2 for the development of the Mancos Formation will be no closer than 600 feet from the eastern and northern unit boundary, and, under the exemption afforded by Rule 401.d.(3), 5 feet from the southern and western unit boundary; and, under the exemption afforded by Rule 401.d.(3), provide that each horizontal well shall be no closer than 1,000 feet from the productive interval of any other horizontal well producing from the same formation or common source of supply, unless authorized by Rule 401.c or Rule 408.u.(1) as applicable.

14. Applicant states that the productive interval of the Wells in the DSU No. 3 for the development of the Mancos Formation will be no closer than 600 feet from the western and northern unit boundary, and, under the exemption afforded by Rule 401.d.(3), 5 feet from the eastern and southern unit boundary; and, under the exemption afforded by Rule 401.d.(3), provide that each horizontal well shall be no closer than 1,000 feet from the productive interval of any other horizontal well producing from the same formation or common source of supply, unless authorized by Rule 401.c or Rule 408.u.(1) as applicable.

15. Applicant maintains that the wells within the unit will be drilled in an east-west or west-east orientation.

16. The DSU No. 1 Application Lands are located entirely within the exterior boundaries of the Southern Ute Indian Reservation and one parcel (Lot 6 of Section 19) of the DSU No. 1 Application Lands are owned by the United States of America in Trust for the Southern Ute Indian Tribe ("SUIT"), that being Lot 6 of Section 19. SUIT has provided a letter in support of this Application.

17. DSU No. 2 and DSU No. 3 Application Lands are owned in fee and Applicant holds oil and gas lease rights under certain tracts within each unit.

18. Hilcorp filed with the Commission a written request to approve the Application based on the merits of the verified Application and on supporting exhibits. Sworn written testimony and exhibits were submitted in support of the Application.

19. Land testimony and exhibits submitted in support of the Application by Robert Carlson, Landman for Hilcorp, show that Hilcorp holds oil and gas interests and has a right to drill in the Application Lands. Land testimony further showed that DSU No. 1, DSU No. 2, and DSU No. 3 will each be developed and operated from a surface location and surface facilities in San Juan County, New Mexico, approximately 10 feet south of the Colorado border in the NW/4 of Section 12, Township 32 North, Range 7 West, 6th P.M., which is within the boundaries of the Allison FEU on fee surface. Testimony further showed that there is no Relevant Local Government that regulates the siting of Oil and Gas Locations on lands in New Mexico.

20. Geologic testimony and exhibits submitted in support of the Application by Russell Crouch, Geologist for Hilcorp, show that the Mancos Formation is Late Cretaceous in age and made up of calcareous and argillaceous mudstones, and is present throughout the Application Lands.

21. Engineering testimony and exhibits submitted in support of the Application by Michael Mayfield, Reservoir Engineer for Hilcorp, showed that the plan for development of the Mancos Formation is based on spacing the laterals in the target interval roughly 1,000 feet apart from others being permitted nearby in the same interval to create an equally spaced development of the intervals in light of, and in conjunction with, laterals planned on the New Mexico side of the state line in the Mancos Formation. Engineering testimony further showed that the wells will be drilled horizontally from either east-to-west across the Application Lands, resulting in a lateral length of roughly 13,800 feet, or west-to-east, resulting in a lateral length of roughly 9,950 feet. Engineering testimony further showed that the requested setback for the completed interval of 600 feet from only those DSU boundaries that coincide with an exterior boundary of the federal Allison Unit and, separately, under the exemption afforded by Rule 401.d.(3), 5 feet from the remaining DSU boundaries situated within the interior of the Allison Unit area, is desirable and reasonable because it will maximize recoverable resources for the mineral owner and not negatively impact offset mineral owners due to their commitment to the Allison Unit Agreement which, upon the creation of a Mancos participating area, requires unit operator to perform a retroactive adjustment of all past production from the DSUs subject hereto that serves to proportionately allocate volumes on a fair and equitable basis as if all 3 DSUs were a single DSU.

22. Lastly, the engineering testimony shows that the approximate 389.29-acre DSU No.1 is not less than the maximum area than can be efficiently, economically, and effectively drained by one (1) horizontal wellbore producing gas and associated hydrocarbons from the Mancos Formation. The approximate 679.08-acre DSU No.2 is not less than the maximum area than can be efficiently, economically, and effectively drained by two (2) horizontal wellbores producing gas and associated hydrocarbons from the Mancos Formation. The approximate 880.87-acre DSU No.3 is not less than the maximum area than can be efficiently, economically, and effectively drained by two (2) horizontal wellbores producing gas and associated hydrocarbons from the Mancos Formation.

23. The above-referenced testimony and exhibits show that granting the Application will regulate oil and gas operations in a reasonable manner to protect and minimize adverse

impacts to public health, safety, and welfare, the environment, and wildlife resources and will protect against adverse environmental impacts on any air, water, soil, or biological resources resulting from oil and gas operations.

24. The above-referenced testimony and exhibits further show that granting the Application will allow more efficient reservoir drainage, will prevent waste, will assure a greater ultimate recovery of hydrocarbons, and will not violate correlative rights.

25. Hilcorp agreed to be bound by oral order of the Commission.

26. Based on the facts stated in the verified Application, having received no protests, and based on the Hearing Officer's review of the Application under Rule 505, the Commission should enter an order to: 1) establish an approximate 389.29-acre drilling and spacing unit for DSU No. 1 and approve one new horizontal well to be developed in such unit; 2) establish an approximate 679.08-acre drilling and spacing unit for DSU No. 2 and approve up to two new horizontal wells to be developed in such unit; and 3) establish an approximate 880.87-acre drilling and spacing unit for DSU No. 3 and approve up to two new horizontal wells to be developed in such unit, with the total of five horizontal wells to be developed in Colorado from a surface location in New Mexico for the production of oil, gas, and associated hydrocarbons from the Mancos Formation.

ORDER

IT IS HEREBY ORDERED:

1. An approximate 389.29-acre Drilling and Spacing Unit for the DSU No. 1 Application Lands is hereby established for the development and operation of one horizontal well for the production of oil, gas, and associated hydrocarbons from the Mancos Formation.

2. An approximate 679.08-acre Drilling and Spacing Unit for the DSU No. 2 Application Lands is hereby established for the development and operation of two horizontal Wells for the production of oil, gas, and associated hydrocarbons from the Mancos Formation.

3. An approximate 880.87-acre Drilling and Spacing Unit for the DSU No. 3 Application Lands is hereby established for the development and operation of up to two horizontal Wells for the production of oil, gas, and associated hydrocarbons from the Mancos Formation.

4. The productive interval of the Well in DSU No. 1 will be no closer than 600 feet from the western unit boundary, and, under the exemption afforded by Rule 401.d.(3), 5 feet from the southern, eastern, and northern unit boundary; and, under the exemption afforded by Rule 401.d.(3), provide that the horizontal well shall be no closer than 1,000 feet from the productive interval of any other horizontal well producing from the same formation or common source of supply, unless authorized by Rule 401.c or Rule 408.u.(1) as applicable.

5. The productive interval of the Wells in DSU No. 2 will be no closer than 600 feet from the eastern and northern unit boundary, and, under the exemption afforded by Rule 401.d.(3), 5 feet from the southern and western unit boundary; and, under the exemption afforded by Rule 401.d.(3), provide that each horizontal well shall be no closer than 1,000 feet from the productive interval of any other horizontal well producing from the same formation or common source of supply, unless authorized by Rule 401.c or Rule 408.u.(1) as applicable.

6. The productive interval of the Wells in DSU No. 3 will be no closer than 600 feet from the western and northern unit boundary, and, under the exemption afforded by Rule 401.d.(3), 5 feet from the eastern and southern unit boundary; and, under the exemption afforded by Rule 401.d.(3), provide that each horizontal well shall be no closer than 1,000 feet from the productive interval of any other horizontal well producing from the same formation or common source of supply, unless authorized by Rule 401.c or Rule 408.u.(1) as applicable.

7. The proposed wells shall be located on a surface location in New Mexico, unless an exception is granted by the Director.

8. The wells within the unit shall be drilled in an east-west or west-east orientation.

9. No oil and gas operations may be conducted in the Application Lands without an approved Form 2A, Oil and Gas Location Assessment (Form 2A) and approved Form 2, Applications for Permits to Drill (Form 2). The determination of whether an oil and gas location satisfies C.R.S. § 34-60-106(2.5)(a), shall be made by Commission permitting staff in the course of its review and determination of the Form 2A. The Commission's approval of this drilling and spacing unit does not equate to approval of any proposed Form 2A for an oil and gas location or Form 2.

IT IS FURTHER ORDERED:

1. The provisions contained in the above order shall become effective immediately.

2. The Commission expressly reserves its right, after notice and hearing, to alter, amend or repeal any and/or all of the above orders.

3. Under the State Administrative Procedure Act, the Commission considers this Order to be final agency action for purposes of judicial review within 35 days after the date this Order is mailed by the Commission.

4. An application for reconsideration by the Commission of this Order is not required prior to the filing for judicial review.

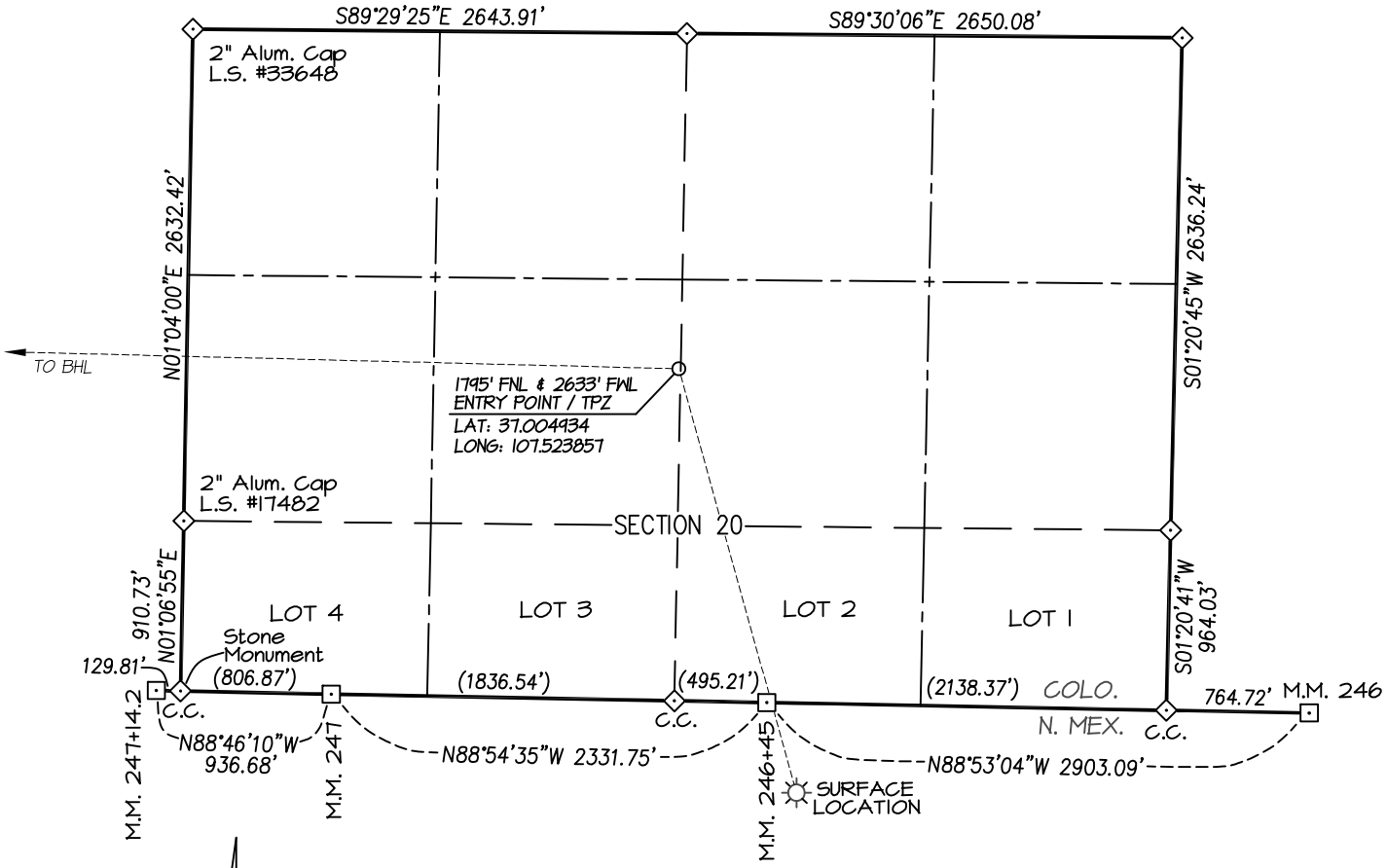
ENTERED this 14th day of November, 2024, as of November 13, 2024.

ENERGY AND CARBON MANAGEMENT COMMISSION
OF THE STATE OF COLORADO

By:_____
Elias J. Thomas, Commission Secretary

HILCORP ENERGY COMPANY: ALLISON UNIT #632H

SURFACE LOCATION: 479' FNL & 1485' FWL
SECTION 12, T-32-N, R-7-W, N.M.P.M., SAN JUAN COUNTY, NEW MEXICO. ELEVATION: 6350'
BOTTOM HOLE LOCATION: 1761' FNL, 804' FEL
SECTION 23, T-32-N, R-7-W, N.M.P.M., LA PLATA COUNTY, COLORADO.



⊡ denotes found 1925 Supreme Court Mile Marker Brass Tab

◇ denotes found 3-1/4" alum. cap L.S. #23894 unless otherwise noted.

N

GRAPHIC SCALE 1"=1000'

0 1000 2000

NOTE:

SEE SHEET 5 OF 5 FOR COORDINATE TABLE, SURVEY NOTES, AND SURVEYOR'S CERTIFICATE.

SHEET 1 OF 5

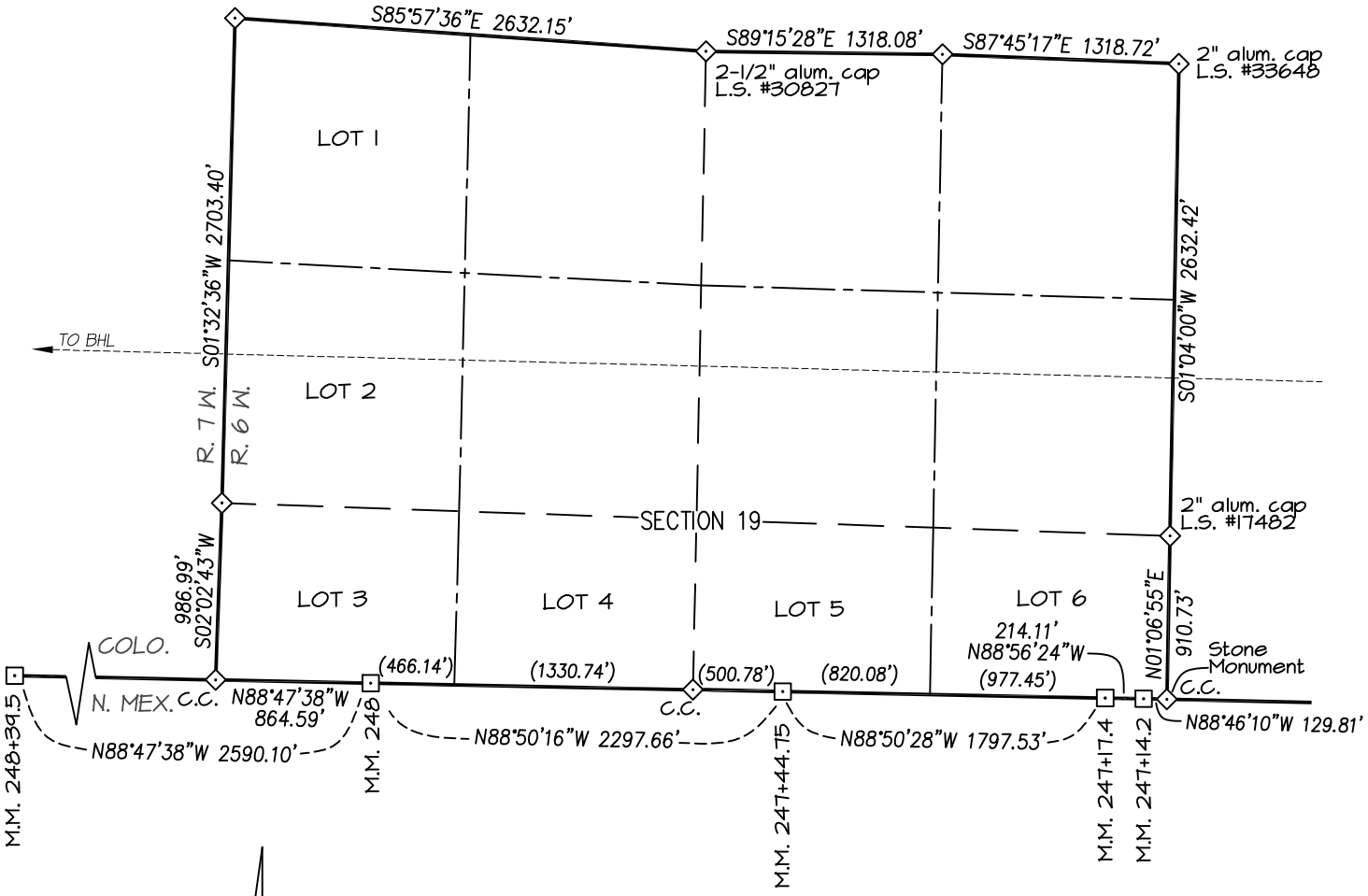
REVISED: 9/25/24
SURVEYED: 5/14/24
DRAWN: 8/4/24
JOB NO. HC005
DRAWN BY: K.R.
CHECKED BY: K.R.
FILE NO.: 632WP1

PREPARED FOR:
HILCORP ENERGY COMPANY

NORTHSTAR
SURVEYING & MAPPING, INC.
768 County Rd. 308
DURANGO, CO. 81303
(970) 385-0851

HILCORP ENERGY COMPANY: ALLISON UNIT #632H

SURFACE LOCATION: 479' FNL & 1485' FWL
SECTION 12, T-32-N, R-7-W, N.M.P.M., SAN JUAN COUNTY, NEW MEXICO. ELEVATION: 6350'
BOTTOM HOLE LOCATION: 1761' FNL, 804' FEL
SECTION 23, T-32-N, R-7-W, N.M.P.M., LA PLATA COUNTY, COLORADO.



⊡ denotes found 1925 Supreme Court Mile Marker Brass Tab

◇ denotes found 3-1/4" alum. cap L.S. #12027 unless otherwise noted.

N

GRAPHIC SCALE 1"=1000'

0 1000 2000

NOTE:

SEE SHEET 5 OF 5 FOR COORDINATE TABLE, SURVEY NOTES, AND SURVEYOR'S CERTIFICATE.

SHEET 2 OF 5

REVISED: 9/25/24
SURVEYED: 5/14/24
DRAWN: 8/4/24
JOB NO. HC005
DRAWN BY: K.R.
CHECKED BY: K.R.
FILE NO.: 632WP2

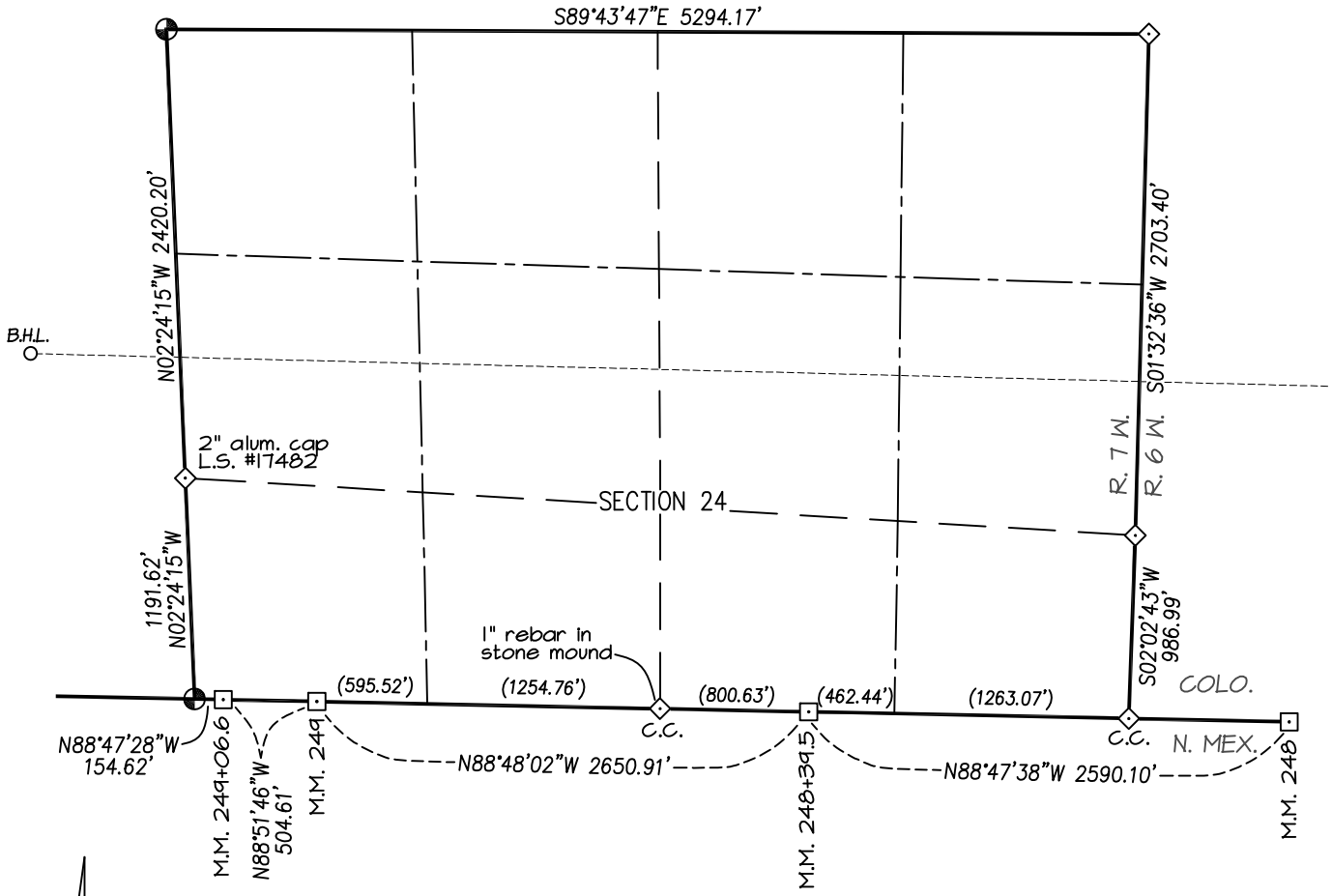
PREPARED FOR:

HILCORP ENERGY COMPANY

NORTHSTAR
SURVEYING & MAPPING, INC.
768 County Rd. 308
DURANGO, CO. 81303
(970) 385-0851

HILCORP ENERGY COMPANY: ALLISON UNIT #632H

SURFACE LOCATION: 479' FNL & 1485' FWL
SECTION 12, T-32-N, R-7-W, N.M.P.M., SAN JUAN COUNTY, NEW MEXICO. ELEVATION: 6350'
BOTTOM HOLE LOCATION: 1761' FNL, 804' FEL
SECTION 23, T-32-N, R-7-W, N.M.P.M., LA PLATA COUNTY, COLORADO.



◓ and ◒ denote found 3-1/4" S.U.I.R. Alum. Cap unless otherwise noted.

⊡ denotes found 1925 Supreme Court Mile Marker Brass Tab

◇ denotes found 3-1/4" alum. cap L.S. #12027 unless otherwise noted.

GRAPHIC SCALE 1"=1000'

0 1000 2000

NOTE:

SEE SHEET 5 OF 5 FOR COORDINATE TABLE, SURVEY NOTES, AND SURVEYOR'S CERTIFICATE.

SHEET 3 OF 5

REVISED: 9/25/24
SURVEYED: 5/14/24
DRAWN: 8/4/24
JOB NO. HC005
DRAWN BY: K.R.
CHECKED BY: K.R.
FILE NO.: 632WP3

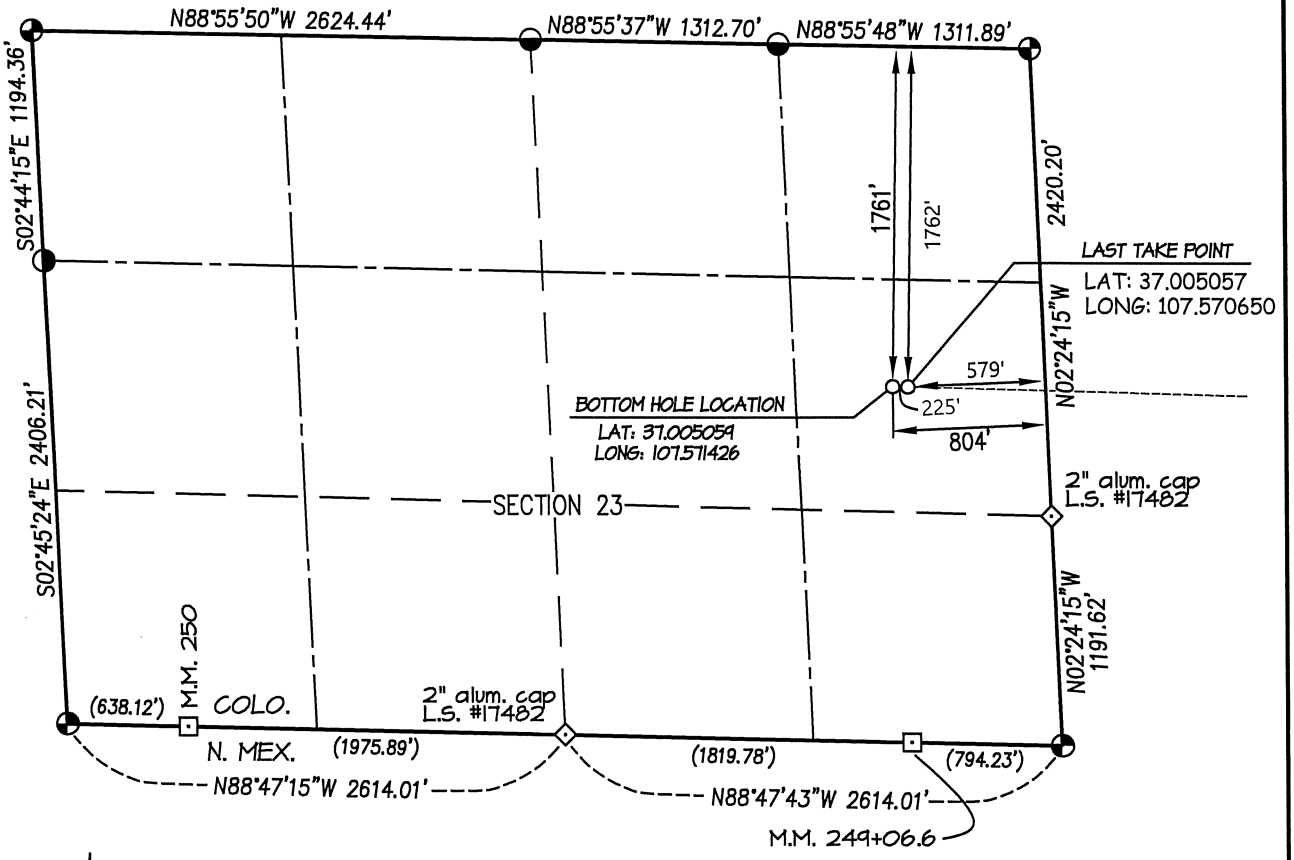
PREPARED FOR:

HILCORP ENERGY COMPANY

NORTHSTAR
SURVEYING & MAPPING, INC.
768 County Rd. 308
DURANGO, CO. 81303
(970) 385-0851

HILCORP ENERGY COMPANY: ALLISON UNIT #632H

SURFACE LOCATION: 479' FNL & 1485' FWL
SECTION 12, T-32-N, R-7-W, N.M.P.M., SAN JUAN COUNTY, NEW MEXICO. ELEVATION: 6350'
BOTTOM HOLE LOCATION: 1761' FNL, 804' FEL
SECTION 23, T-32-N, R-7-W, N.M.P.M., LA PLATA COUNTY, COLORADO.



◓ and ◒ denote found 3-1/4" S.U.I.R. Alum. Cap unless otherwise noted.

⊡ denotes found 1925 Supreme Court Mile Marker Brass Tab

◇ denotes found 3-1/4" alum. cap L.S. #12027 unless otherwise noted.

GRAPHIC SCALE 1"=1000'

0 1000 2000

NOTE:
SEE SHEET 5 OF 5 FOR COORDINATE TABLE, SURVEY NOTES, AND SURVEYOR'S CERTIFICATE.

SHEET 4 OF 5

REVISED: 9/25/24			
SURVEYED: 5/14/24	DRAWN: 8/4/24	JOB NO. HC005	
DRAWN BY: K.R.	CHECKED BY: K.R.	FILE NO.: 632WP4	

PREPARED FOR:
HILCORP ENERGY COMPANY

NORTHSTAR
SURVEYING & MAPPING, INC.
768 County Rd. 308
DURANGO, CO. 81303
(970) 385-0851

HILCORP ENERGY COMPANY: ALLISON UNIT #632H

SURFACE LOCATION: 479' FNL & 1485' FWL
SECTION 12, T-32-N, R-7-W, N.M.P.M., SAN JUAN COUNTY, NEW MEXICO. ELEVATION: 6350'
BOTTOM HOLE LOCATION: 1761' FNL, 804' FEL
SECTION 23, T-32-N, R-7-W, N.M.P.M., LA PLATA COUNTY, COLORADO.

ALLISON UNIT #632H	CSZ NAD '83	NAD '83	TIES	SEC/TWP/RNG
SURFACE HOLE LOCATION	N (Y) = 1,127,304.74' E (X) = 2,409,653.09'	LAT: 36.998741°N LONG: 107.521533°W	479' FNL 1485' FWL	SECTION 12 (N. MEX.) T-32-N, R-7-W
ENTRY POINT / TPZ	N (Y) = 1,129,573.82' E (X) = 2,409,023.48'	LAT: 37.004934°N LONG: 107.523857°W	1795' FNL 2633' FWL	SECTION 20 (COLO.) T-32-N, R-6-W
LAST TAKE POINT	N (Y) = 1,129,918.11' E (X) = 2,395,362.63'	LAT: 37.005057°N LONG: 107.570650°W	1762' FNL 579' FEL	SECTION 23 (COLO.) T-32-N, R-7-W
BOTTOM HOLE LOCATION	N (Y) = 1,129,923.81' E (X) = 2,395,136.33'	LAT: 37.005059°N LONG: 107.571426°W	1761' FNL 804' FEL	SECTION 23 (COLO.) T-32-N, R-7-W

NOTES:

1. WELL LOCATION FOOTAGE CALLS MEASURED PERPENDICULAR TO SECTION LINES.
2. WELL GPS OBSERVATION PERFORMED BY JASON EDWARDS ON 5/14/24 – PDOP VALUE = 1.8
3. BEARINGS & DISTANCE SHOWN ARE FIELD MEASURED UNLESS OTHERWISE NOTED.
4. ALL MEASURED DISTANCES SHOWN ARE GRID DISTANCE WITH NO SCALE FACTOR APPLIED.
5. BEARINGS ARE BASED ON THE NORTH AMERICAN DATUM OF 1983, COLORADO SOUTH STATE PLANE COORDINATE SYSTEM, ZONE 0503.
6. ELEVATION IS BASED ON THE NORTH AMERICAN VERTICAL DATUM OF 1988 (GEOID18).

COLORADO REGISTERED
KENNETH E. REA
31941
9-25-24
PROFESSIONAL LAND SURVEYOR

I, KENNETH E. REA, A REGISTERED PROFESSIONAL LAND SURVEYOR IN THE STATE OF COLORADO, DO HEREBY CERTIFY THAT THE WELL LOCATION SHOWN ON THIS PLAT IS ACCURATELY PLOTTED FROM FIELD NOTES OF ACTUAL SURVEYS MADE UNDER MY DIRECT SUPERVISION, AND THAT THIS PLAT IS NOT A LAND SURVEY PLAT OR IMPROVEMENT SURVEY PLAT, AND THAT IT IS NOT TO BE RELIED UPON FOR THE ESTABLISHMENT OF FENCE, BUILDING, OR OTHER FUTURE IMPROVEMENT LINES.

SHEET 5 OF 5

REVISED: 9/25/24
SURVEYED: 5/14/24
DRAWN: 8/4/24
JOB NO. HC005
DRAWN BY: K.R.
CHECKED BY: K.R.
FILE NO.: 632WP5

PREPARED FOR:
HILCORP ENERGY COMPANY

NORTHSTAR
SURVEYING & MAPPING, INC.
768 County Rd. 308
DURANGO, CO. 81303
(970) 385-0851

C-102

Submit Electronically Via OCD Permitting

State of New Mexico
Energy, Minerals & Natural Resources Department
OIL CONSERVATION DIVISION

Revised July 9, 2024

Submittal Type: ☒ Initial Submittal ☐ Amended Report ☐ As Drilled

WELL LOCATION INFORMATION

API Number	Pool Code	Pool Name
30-045-38453	97232	BASIN MANCOS

Property Code	Property Name	Well Number
318864	ALLISON UNIT	632H

OGRID No.	Operator Name	Ground Level Elevation
372171	HILCORP ENERGY COMPANY	6350'

Surface Owner: ☐ State ☒ Fee ☐ Tribal ☐ Federal

Mineral Owner: ☐ State ☒ Fee ☐ Tribal ☐ Federal

Surface Location

UL	Section	Township	Range	Lot	Feet from N/S Line	Feet from E/W Line	Latitude	Longitude	County
F	12	32N	7W	3	479' NORTH	1485' WEST	36.998741 °N	-107.521533 °W	SAN JUAN (NM)

Bottom Hole Location

UL	Section	Township	Range	Lot	Feet from N/S Line	Feet from E/W Line	Latitude	Longitude	County
H	23	32N	7W		1761' NORTH	804' EAST	37.005059 °N	-107.571426 °W	LA PLATA (CO)

Penetrated Spacing Unit:

Lots 1 & 2, E/2 NW/4, NE/4 – Section 19, T32N, R6W
NW/4 – Section 20, T32N, R6W
E/2 NE/4 – Section 23, T32N, R7W
N/2 – Section 24, T32N, R7W

Dedicated Acres: 880.87

Infill or Defining Well:

Defining Well API:

Overlapping Spacing Unit: ☐ Yes ☐ No

Consolidation Code:

Order Numbers:

Well setbacks are under Common Ownership: ☐ Yes ☐ No

Kick Off Point (KOP)

UL	Section	Township	Range	Lot	Feet from N/S Line	Feet from E/W Line	Latitude	Longitude	County
F	12	32N	7W	3	479' NORTH	1485' WEST	36.998741 °N	-107.521533 °W	SAN JUAN (NM)

First Take Point (FTP)

UL	Section	Township	Range	Lot	Feet from N/S Line	Feet from E/W Line	Latitude	Longitude	County
F	20	32N	6W		1795' NORTH	2633' WEST	37.004934 °N	-107.523857 °W	LA PLATA (CO)

Last Take Point (LTP)

UL	Section	Township	Range	Lot	Feet from N/S Line	Feet from E/W Line	Latitude	Longitude	County
H	23	32N	7W		1762' NORTH	579' EAST	37.005057°N	-107.570650°W	LA PLATA (CO)

Unitized Area or Area of Uniform Interest	Spacing Unit Type	Ground Floor Elevation
ALLISON UNIT	☒ Horizontal ☐ Vertical ☐ Directional	

OPERATOR CERTIFICATION

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

If this well is a horizontal well, I further certify that this organization has received the consent of at least one lessee or owner of a working interest or unleased mineral interest in each tract (in the target pool or formation) in which any part of the well's completed interval will be located or obtained a compulsory pooling order from the division.

Signature _____ Date _____

Printed Name _____

E-mail Address _____

SURVEYOR CERTIFICATION

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

JASON C. EDWARDS NEW MEXICO 15269 1/14/2025 REGISTERED PROFESSIONAL SURVEYOR

JASON C. EDWARDS

Signature and Seal of Professional Surveyor

Certificate Number 15269 Date of Survey MAY 14, 2024

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

HILCORP ENERGY COMPANY ALLISON UNIT #632H

479' FNL & 1485' FWL, SECTION 12, T32N, R7W, NMPM
SAN JUAN COUNTY, NEW MEXICO ELEVATION: 6350'
LAT 36.998741°N LONG -107.521533°W DATUM: NAD1983

~ FEE SURFACE OWNERS ~

Bryce Sean Washburn &
Sean and Dawnette Washburn

GRAPHIC SCALE 1"=100'
0 100 200

3647.5' TOTAL LENGTH OF ACCESS
31.6' SAN JUAN COUNTY (CR #4020)
3570.6' SEAN & DAWNETTE WASHBURN
45.3' BRYCE SEAN WASHBURN

~ SECTION LINE ~ COLORADO / NEW MEXICO STATE-LINE ~ SECTION LINE ~

TOTAL ACCESS 3647.5' (0-6%)

HILCORP ALLISON #13N WELLHEAD
HILCORP ALLISON #13P WELLHEAD

FRUITLAND COAL WELLBORE

SOLAR PANEL
CATHODIC GROUNDBED
FENCE AROUND EXISTING WELLPAD
TANK
TANK
PIT
SEPARATORS
SOLAR PANEL
METER RUNS
EXISTING ROADWAY
IRRIGATION DITCH
IRRIGATION DITCH
POND
~ FENCE-LINE ~ OWNERSHIP CHANGE ~
FENCE AROUND EXISTING WELLPAD
EXISTING CULVERT
HILCORP WATERLINE
WASH (2'DX6'W)
EXISTING 24" CULVERT
WASH (1'DX4'W)
WASH (1'DX4'W)
HILCORP WATERLINE
EXISTING ROADWAY
FENCE-LINE

Area of Total Disturbance 10.30 Acres

Bryce Sean Washburn 9.89 Acres

Sean & Dawnette Washburn 0.41 Acres

Steel T-Posts have been set to define Edge of Disturbance which is 50' wide, unless otherwise noted.

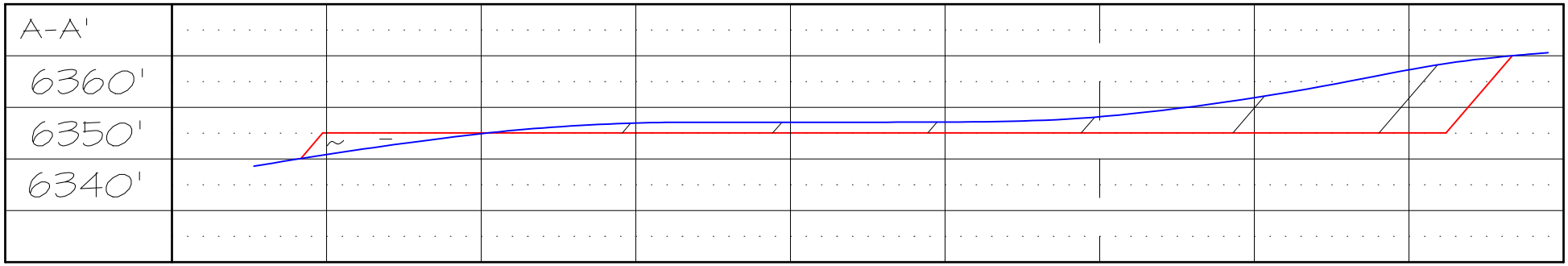
~ 1/16th SECTION LINE ~ OWNERSHIP CHANGE ~ FENCE-LINE ~ 1/16th SECTION LINE ~

A01 - ALLISON UNIT #633H
A02 - ALLISON UNIT #632H
A03 - ALLISON UNIT #614H
A04 - ALLISON 605 FEDERAL COM #613H

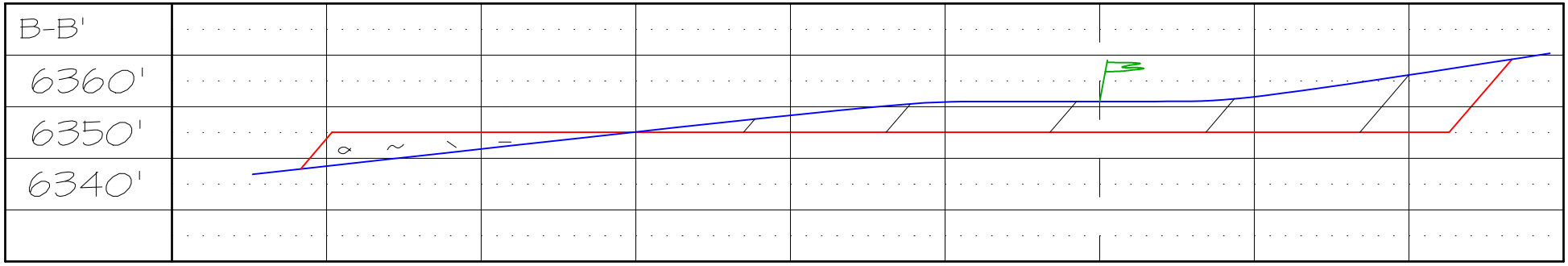
B01 - ALLISON UNIT #631H
B02 - ALLISON UNIT #630H
B03 - ALLISON UNIT #611H
B04 - ALLISON UNIT #612H

HILCORP ENERGY COMPANY ALLISON UNIT #632H
479' FNL & 1485' FWL, SECTION 12, T32N, R7W, NMPM
SAN JUAN COUNTY, NEW MEXICO ELEVATION: 6350'

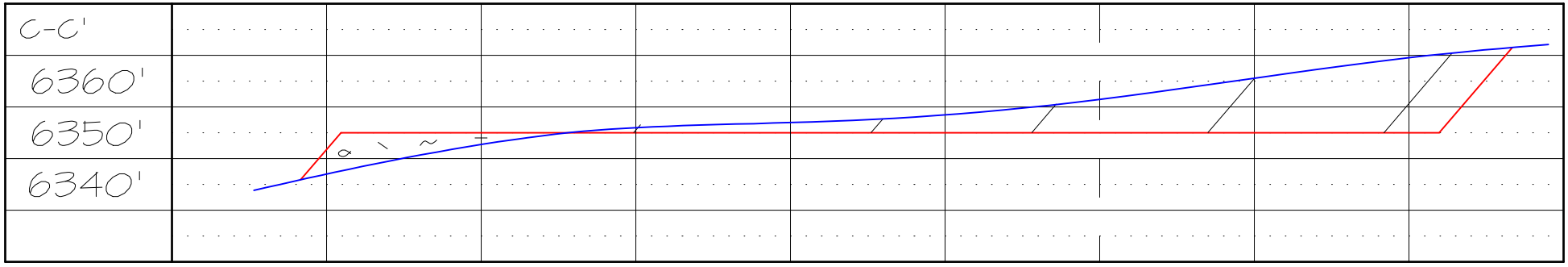
HORIZONTAL SCALE 1"=60' C/L VERTICAL SCALE 1"=30'



C/L



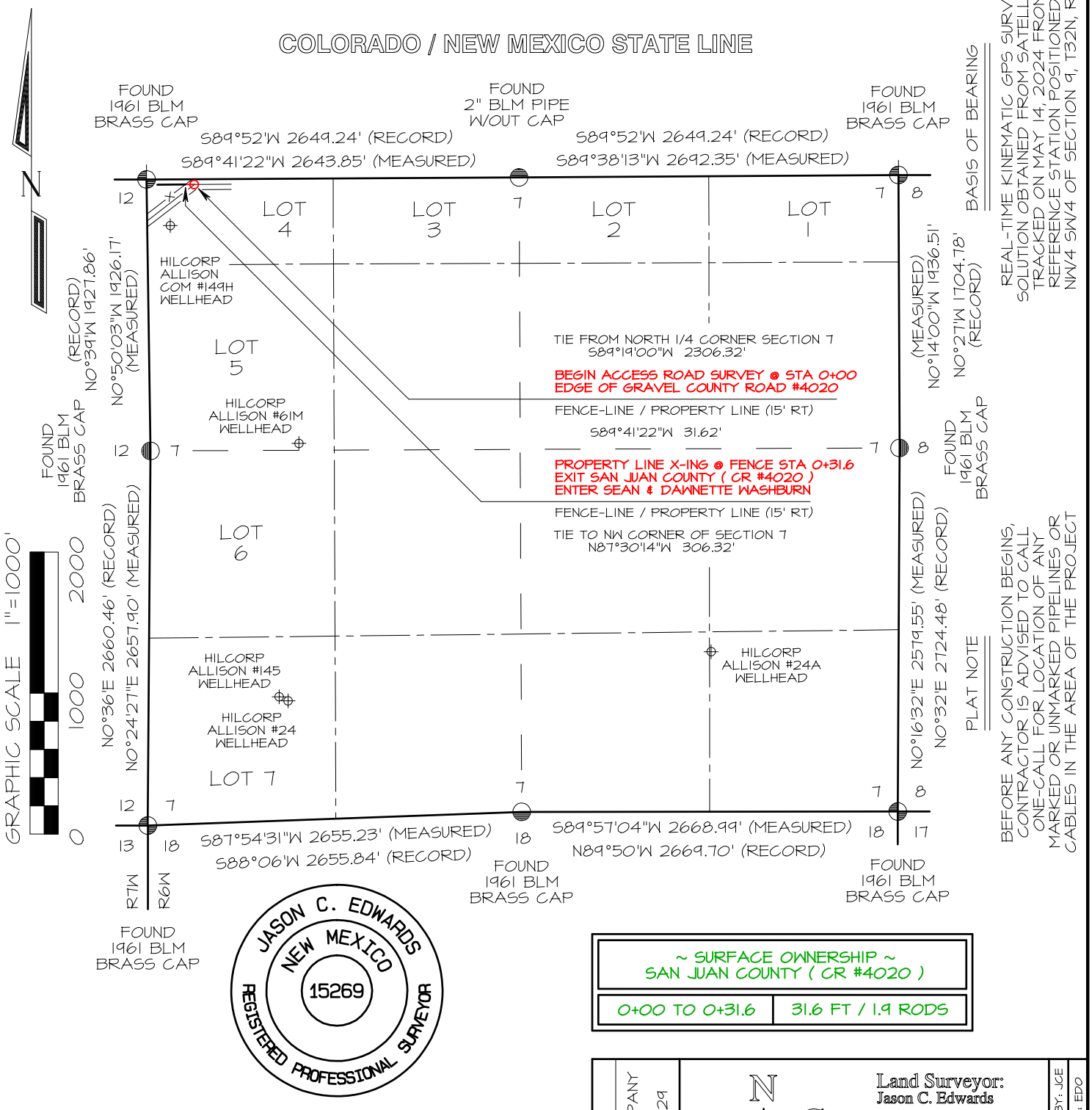
C/L



EDWARDS SURVEYING, INC. IS NOT LIABLE FOR LOCATION OF UNDERGROUND UTILITIES OR PIPELINES.

CONTRACTOR SHOULD CONTACT ONE-CALL FOR LOCATION OF ANY MARKED OR UNMARKED UNDERGROUND UTILITIES OR PIPELINES ON WELLPAD AND/OR ACCESS ROAD AT LEAST TWO WORKING DAYS PRIOR TO CONSTRUCTION.

HILCORP ENERGY ALLISON UNIT #632H ACCESS ROAD SURVEY LOCATED IN NW/4 NW/4 (aka LOT 4) OF SECTION 7, T32N, R6W NMPM, SAN JUAN COUNTY, NEW MEXICO



JASON C. EDWARDS
NEW MEXICO
15269
REGISTERED PROFESSIONAL SURVEYOR

~ SURFACE OWNERSHIP ~ SAN JUAN COUNTY (CR #4020)	
0+00 TO 0+31.6	31.6 FT / 1.9 RODS

I, Jason C. Edwards, a registered Professional Surveyor under the laws of the State of New Mexico, hereby certify that this plat was prepared from field notes of an actual survey meeting the minimum requirements of the standards for easement surveys and is true and correct to the best of my knowledge and belief.

JASON C. EDWARDS Date: August 5, 2024

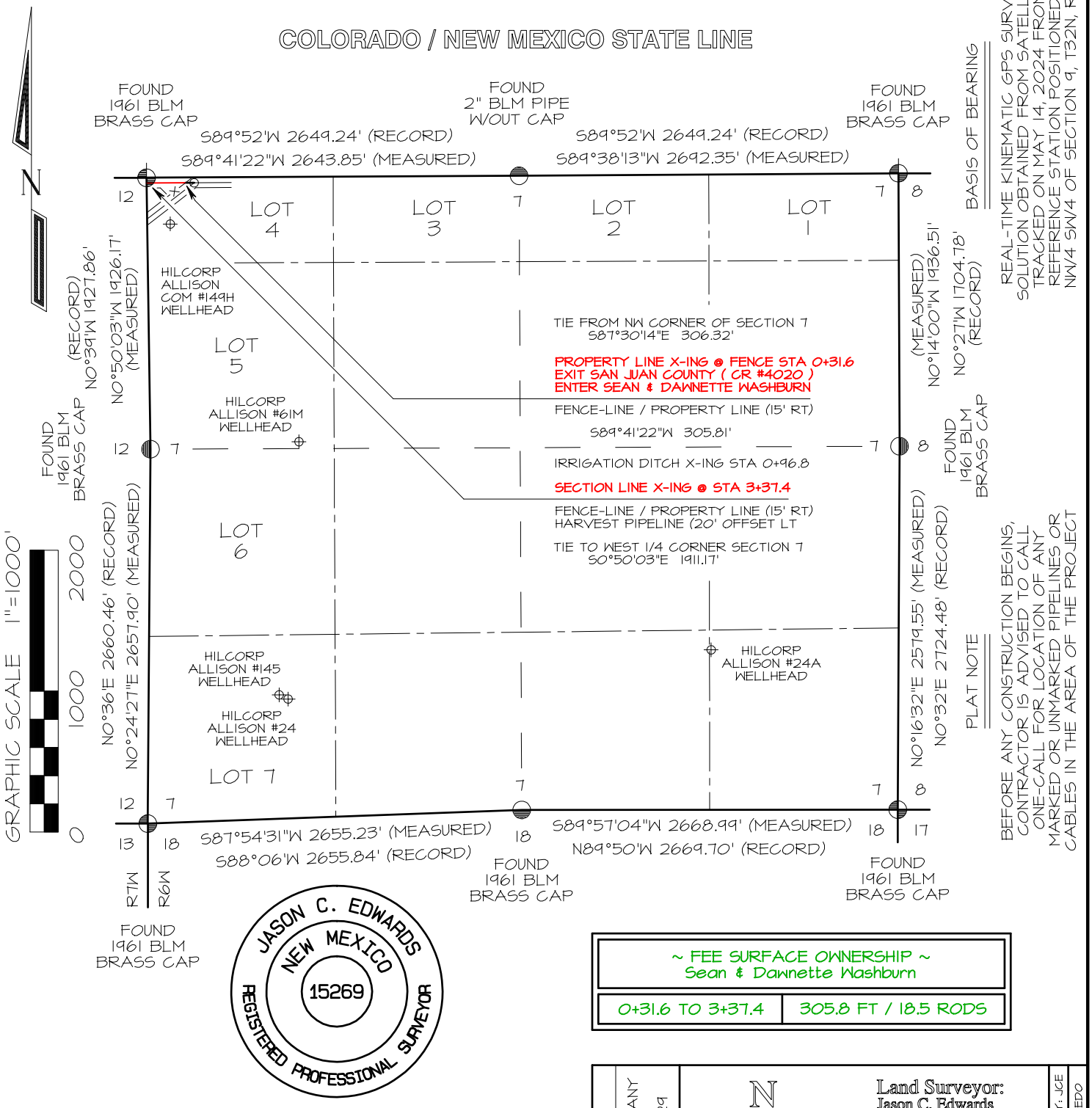
Jason C. Edwards, P.L.S.
New Mexico L.S. #15269

Prepared for:
HILCORP ENERGY COMPANY
P.O. BOX #61529
HOUSTON, TX 77208-1529

N C E SURVEYS, INC.
Land Surveyor: Jason C. Edwards
Mailing Address: Post Office Box 6612 Farmington, NM 87499
Business Address: 111 East Pinon Street Farmington, NM 87402
(505) 486-1695 (Office)
ncesurveys@comcast.net

CHECKED BY: JCE
DRAWN BY: EDO
SHEET 8 OF 15
FILENAME: 3267AP1

HILCORP ENERGY ALLISON UNIT #632H ACCESS ROAD
SURVEY LOCATED IN NW/4 NW/4 (aka LOT 4) OF SECTION 7, T32N, R6W NMPM, SAN JUAN COUNTY, NEW MEXICO



JASON C. EDWARDS NEW MEXICO 15269 REGISTERED PROFESSIONAL SURVEYOR

~ FEE SURFACE OWNERSHIP ~ Sean & Dawnette Washburn	
0+31.6 TO 3+37.4	305.8 FT / 18.5 RODS

I, Jason C. Edwards, a registered Professional Surveyor under the laws of the State of New Mexico, hereby certify that this plat was prepared from field notes of an actual survey meeting the minimum requirements of the standards for easement surveys and is true and correct to the best of my knowledge and belief.

JASON C. EDWARDS Date: August 5, 2024

Jason C. Edwards, P.L.S.
New Mexico L.S. #15269

Prepared for:
HILCORP ENERGY COMPANY
P.O. BOX #61529
HOUSTON, TX 77208-1529

Land Surveyor:
Jason C. Edwards
Mailing Address:
Post Office Box 6612
Farmington, NM 87499
Business Address:
111 East Pinon Street
Farmington, NM 87402
(505) 486-1695 (Office)
ncesurveys@comcast.net
NCE SURVEYS, INC.

CHECKED BY: JCE
DRAWN BY: EDO
SHEET 9 OF 15
FILENAME: 3267AP2

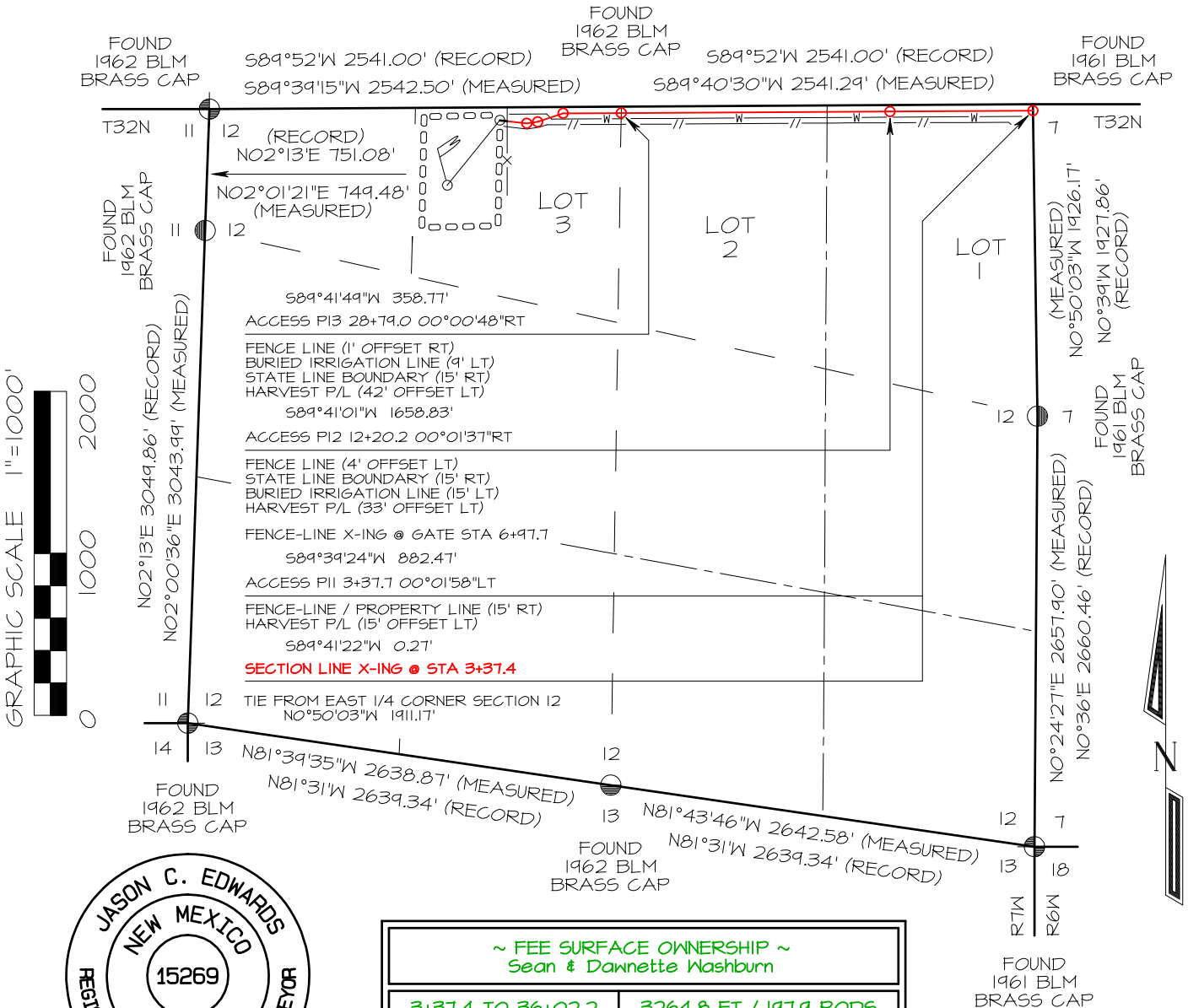
HILCORP ENERGY ALLISON UNIT #632H ACCESS ROAD
SURVEY LOCATED IN N/2 NE/4 & NE/4 NW/4 (aka LOTS 1 – 3) OF SECTION 12 T32N, R7W, NMPM, SAN JUAN COUNTY, NEW MEXICO

PLAT NOTE

BEFORE ANY CONSTRUCTION BEGINS, CONTRACTOR IS ADVISED TO CALL ONE-CALL FOR LOCATION OF ANY MARKED OR UNMARKED PIPELINES OR CABLES IN THE AREA OF THE PROJECT

BASIS OF BEARING

REAL-TIME KINEMATIC GPS SURVEY SOLUTION OBTAINED FROM SATELLITES TRACKED ON MAY 14, 2024 FROM A REFERENCE STATION POSITIONED IN NW/4 SW/4 OF SECTION 9, T32N, R6W



~ FEE SURFACE OWNERSHIP ~ Sean & Dawnette Washburn	
3+37.4 TO 36+02.2	3264.8 FT / 197.9 RODS

JASON C. EDWARDS NEW MEXICO 15269 REGISTERED PROFESSIONAL SURVEYOR

I, Jason C. Edwards, a registered Professional Surveyor under the laws of the State of New Mexico, hereby certify that this plat was prepared from field notes of an actual survey meeting the minimum requirements of the standards for easement surveys and is true and correct to the best of my knowledge and belief.

JASON C. EDWARDS Date: August 5, 2024

Jason C. Edwards, P.L.S.
New Mexico L.S. #15269

Prepared for:
HILCORP ENERGY COMPANY
P.O. BOX #61529
HOUSTON, TX 77208-1529

N C E SURVEYS, INC.
Land Surveyor: Jason C. Edwards
Mailing Address: Post Office Box 6612 Farmington, NM 87499
Business Address: 111 East Pinon Street Farmington, NM 87402
(505) 486-1695 (Office)
ncesurveys@comcast.net

CHECKED BY: JCE
DRAWN BY: EDO
SHEET 10 OF 15
FILENAME: 32712AP3

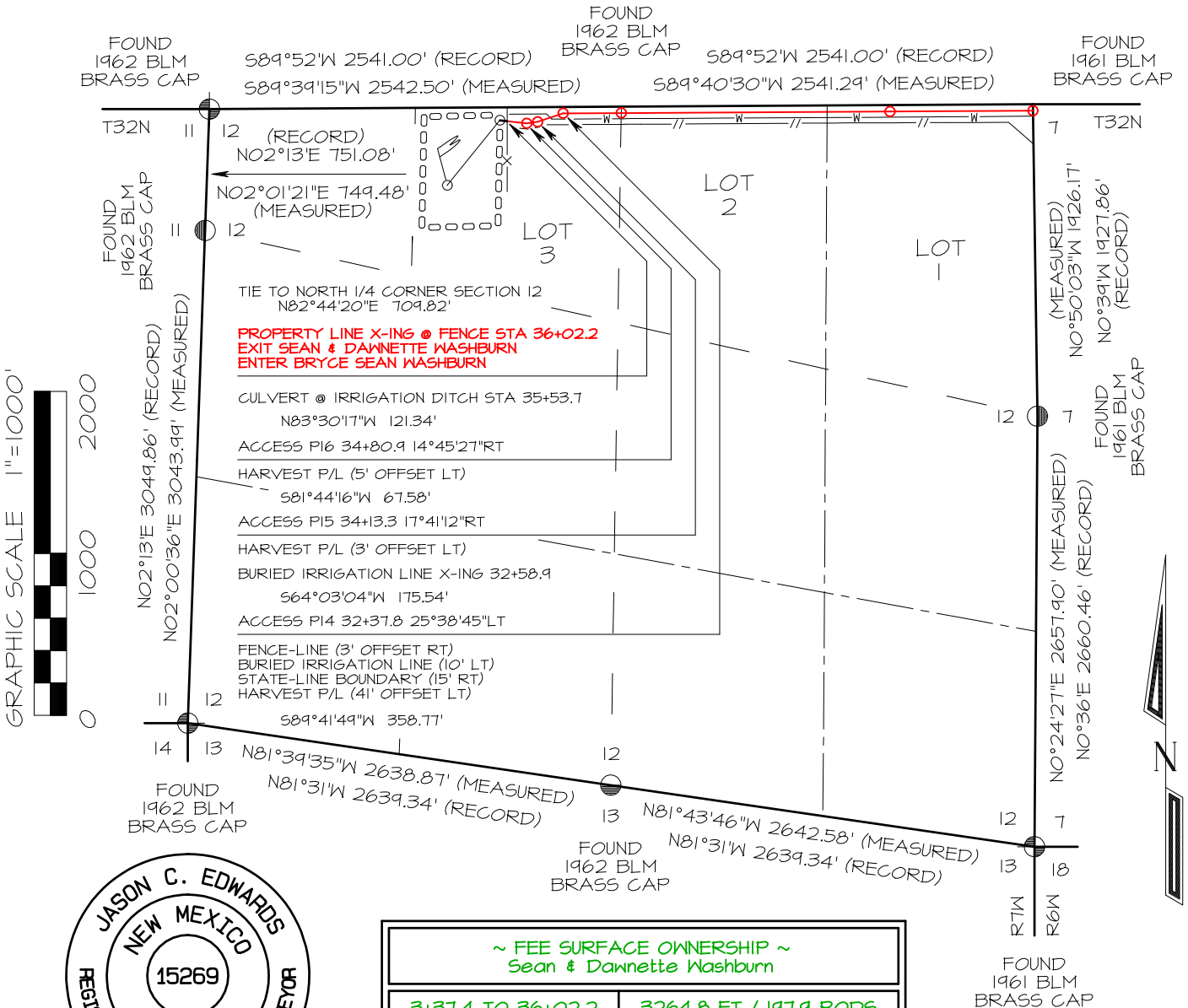
HILCORP ENERGY ALLISON UNIT #632H ACCESS ROAD
SURVEY LOCATED IN N/2 NE/4 & NE/4 NW/4 (aka LOTS 1 – 3) OF SECTION 12
T32N, R7W, NMPM, SAN JUAN COUNTY, NEW MEXICO

PLAT NOTE

BEFORE ANY CONSTRUCTION BEGINS, CONTRACTOR IS ADVISED TO CALL ONE-CALL FOR LOCATION OF ANY MARKED OR UNMARKED PIPELINES OR CABLES IN THE AREA OF THE PROJECT

BASIS OF BEARING

REAL-TIME KINEMATIC GPS SURVEY SOLUTION OBTAINED FROM SATELLITES TRACKED ON MAY 14, 2024 FROM A REFERENCE STATION POSITIONED IN NW/4 SW/4 OF SECTION 9, T32N, R6W



~ FEE SURFACE OWNERSHIP ~ Sean & Dawnette Washburn	
3+37.4 TO 36+02.2	3264.8 FT / 197.9 RODS

JASON C. EDWARDS NEW MEXICO 15269 REGISTERED PROFESSIONAL SURVEYOR

I, Jason C. Edwards, a registered Professional Surveyor under the laws of the State of New Mexico, hereby certify that this plat was prepared from field notes of an actual survey meeting the minimum requirements of the standards for easement surveys and is true and correct to the best of my knowledge and belief.

JASON C. EDWARDS Date: August 5, 2024

Jason C. Edwards, P.L.S.
New Mexico L.S. #15269

Prepared for:
HILCORP ENERGY COMPANY
P.O. BOX #61529
HOUSTON, TX 77208-1529

N C E SURVEYS, INC.
Land Surveyor: Jason C. Edwards
Mailing Address: Post Office Box 6612 Farmington, NM 87499
Business Address: 111 East Pinon Street Farmington, NM 87402
(505) 486-1695 (Office)
ncesurveys@comcast.net

CHECKED BY: JCE
DRAWN BY: EDO
SHEET 11 OF 15
FILENAME: 327I2AP4

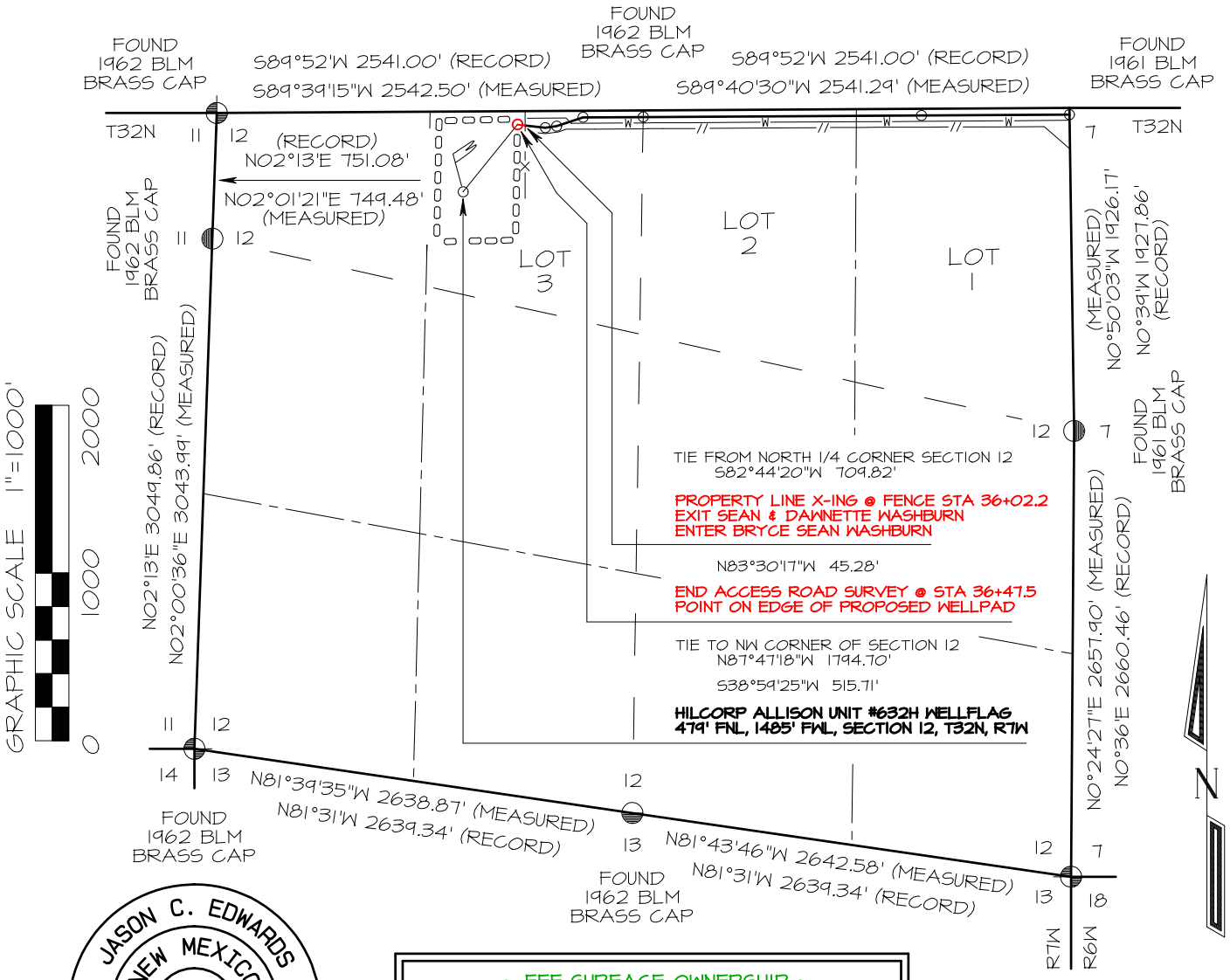
HILCORP ENERGY ALLISON UNIT #632H ACCESS ROAD SURVEY LOCATED IN NE/4 NW/4 (aka LOT 3) OF SECTION 12, T32N, R7W NMPM, SAN JUAN COUNTY, NEW MEXICO

PLAT NOTE

BEFORE ANY CONSTRUCTION BEGINS, CONTRACTOR IS ADVISED TO CALL ONE-CALL FOR LOCATION OF ANY MARKED OR UNMARKED PIPELINES OR CABLES IN THE AREA OF THE PROJECT

BASIS OF BEARING

REAL-TIME KINEMATIC GPS SURVEY SOLUTION OBTAINED FROM SATELLITES TRACKED ON MAY 14, 2024 FROM A REFERENCE STATION POSITIONED IN NW/4 SW/4 OF SECTION 9, T32N, R6W



~ FEE SURFACE OWNERSHIP ~ Bryce Sean Washburn	
36+02.2 TO 36+47.5	45.3 FT / 2.7 RODS

JASON C. EDWARDS NEW MEXICO 15269 REGISTERED PROFESSIONAL SURVEYOR

I, Jason C. Edwards, a registered Professional Surveyor under the laws of the State of New Mexico, hereby certify that this plat was prepared from field notes of an actual survey meeting the minimum requirements of the standards for easement surveys and is true and correct to the best of my knowledge and belief.

JASON C. EDWARDS Date: August 5, 2024

Jason C. Edwards, P.L.S.
New Mexico L.S. #15269

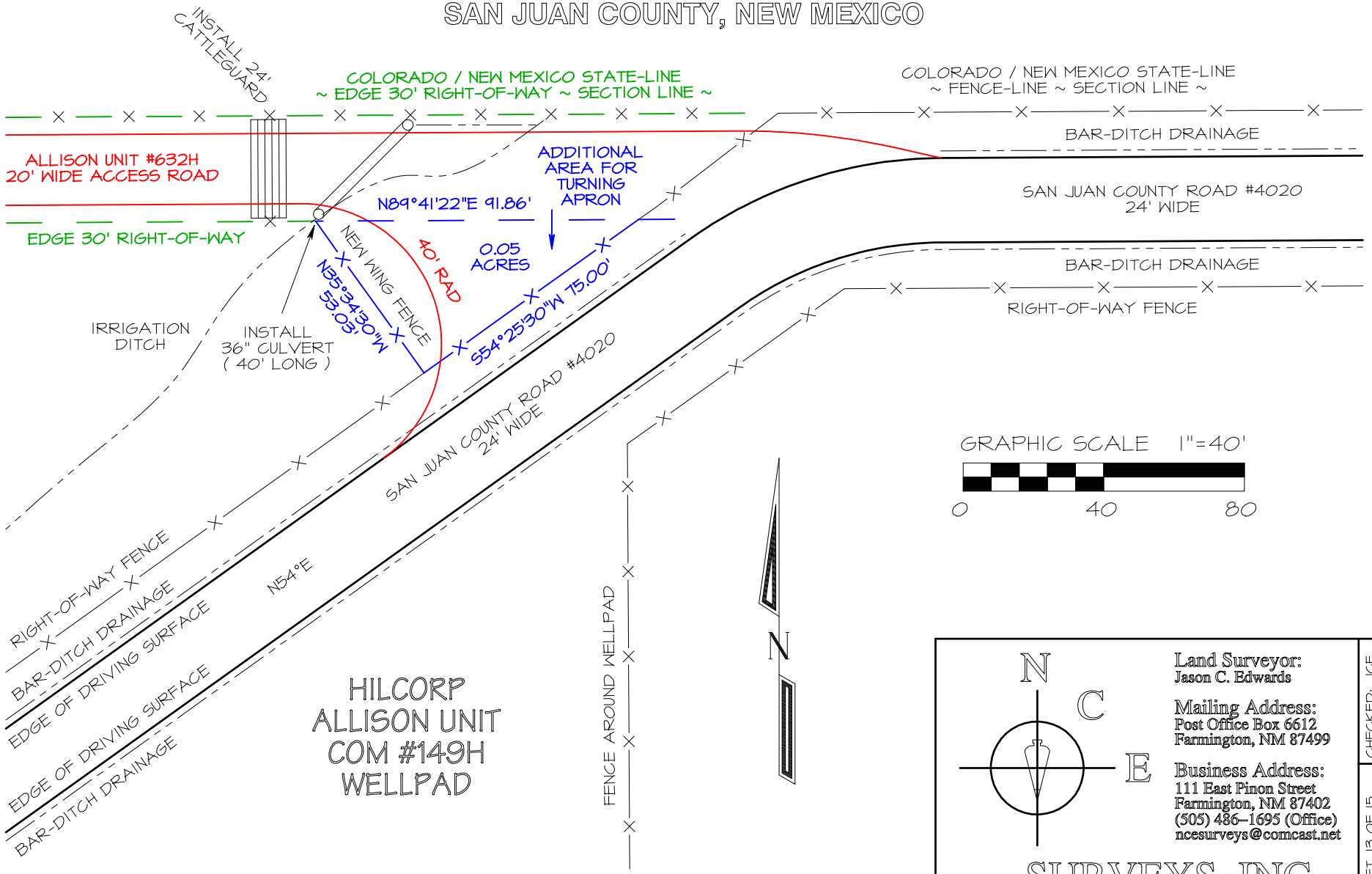
Prepared for:
HILCORP ENERGY COMPANY
P.O. BOX #61529
HOUSTON, TX 77208-1529

N C E SURVEYS, INC.
Land Surveyor: Jason C. Edwards
Mailing Address: Post Office Box 6612 Farmington, NM 87499
Business Address: 111 East Pinon Street Farmington, NM 87402
(505) 486-1695 (Office)
ncesurveys@comcast.net

CHECKED BY: JCE
DRAWN BY: EDO
SHEET 12 OF 15
FILENAME: 327I2AP5

HILCORP ENERGY COMPANY

COUNTY ROAD #4020 DRIVE-WAY PERMIT SKETCH
FOR HILCORP ALLISON UNIT #632H WELL LOCATION
LOCATED IN NW/4 NW/4 (aka LOT 4)
SECTION 7, T32N, R6W, NMPM
SAN JUAN COUNTY, NEW MEXICO



N C E
SURVEYS, INC.

Land Surveyor:
Jason C. Edwards

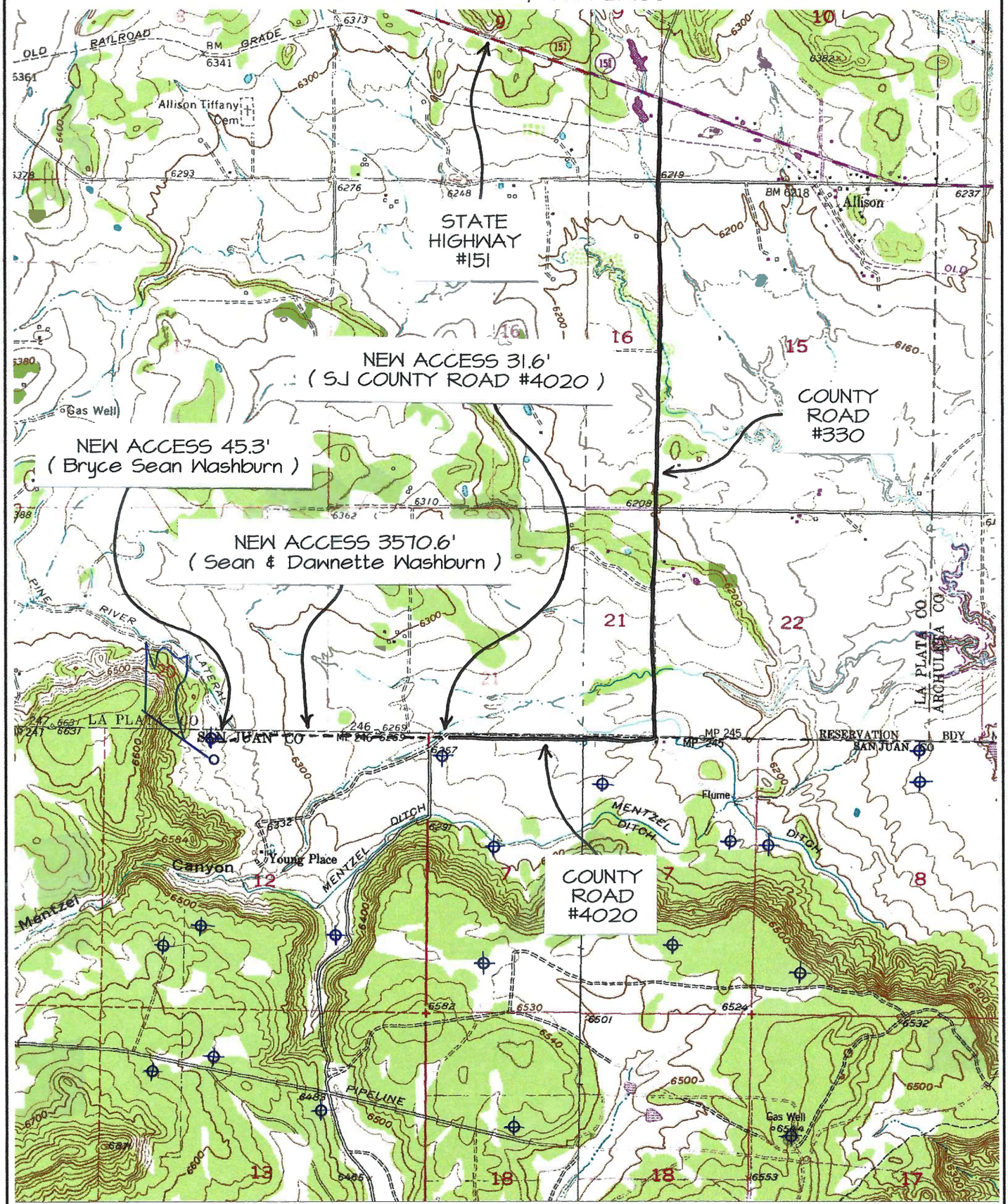
Mailing Address:
Post Office Box 6612
Farmington, NM 87499

Business Address:
111 East Pinon Street
Farmington, NM 87402
(505) 486-1695 (Office)
ncesurveys@comcast.net

SHEET 13 OF 15 | CHECKED: JCE
FILENAME: 3267DZ1 | DRAWN BY: EDO

HILCORP ENERGY COMPANY ALLISON UNIT #632H

479' FNL & 1485' FWL, SECTION 12, T32N, R7W, N.M.P.M.
SAN JUAN COUNTY, NEW MEXICO



TOPO NAME : BURNT MESA ⊕ PRODUCING WELL ⊗ PLUGGED & ABANDONED WELL

Directions from Intersection of State Hwy 172 & State Hwy 151 in Ignacio, CO

to Hilcorp Energy Company Allison Unit #632H

479' FNL & 1485' FWL, Section 12, T32N, R7W, N.M.P.M., San Juan County, NM

Latitude 36.998741°N Longitude -107.521533°W Datum: NAD1983

From the intersection of State Hwy 172 & State Hwy 151 in Ignacio, CO, travel Easterly on State Hwy 151 for 12.0 miles to County Road #330:

Go Right (Southerly) on County Road #330 for 1.9 miles to County Road #4020;

Go Right (Westerly) on County Road #4020 for 0.6 miles to new access on right-hand side which continues for 3647.5' to Hilcorp Allison Unit #632H staked location which overlaps an existing wellpad.

La Plata County, CO Allison Unit 632H

Hilcorp

Technical Drilling Plan (Rev. 1)

Hilcorp Energy Company proposes to drill and complete the referenced horizontal well targeting the Mancos formation.

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

1. Location

Date:	March 11, 2025	**Pool:**	Basin Mancos
Well Name:	Allison Unit 632H	**Ground Elevation (ft. MSL):**	6,350’
Surface Hole Location:	36.9987360° N, -107.5209260° W	**Total Measured Depth (ft.)**	21,526’
Bottom Hole Location:	37.0050548° N, -107.5708162° W	**County, State:**	La Plata County, CO

Note: All geographic coordinates on the drilling tech plan and the directional drilling plan refer to NAD 27 geodetic coordinate system. All depths on the drilling tech plan and the directional drilling plan are referenced from an estimated RKB datum of 25’ 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 RKB)	Remarks
Ojo Alamo	2,084	Possible Water
Kirtland	2,150	Gas & Water
Fruitland	2,581	Gas & Water
Pictured Cliffs	2,950	Possible Gas
Lewis Shale	3,467	None
Cliffhouse	4,900	Possible Gas & Water
Menefee	5,274	None
Point Lookout	5,455	Gas
Mancos	5,974	Gas

3. Pressure Control Equipment

A. BOP Equipment

See Appendix A for BOP equipment and choke manifold diagram.

- 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 5M standards.
- All equipment will have 5M pressure rating at a minimum.
- A rotating head will be installed on top of the annular as seen in the attached diagram.

B. BOP Pressure Testing

- For all BOP pressure testing, a BOP test unit with a chart recorder and a BOP test plug will be utilized.
- All tests and inspections will be recorded and logged with time and results.
- A full BOP pressure test will be conducted when initially installed for the first well on the pad or if a seal subject to test pressure is broken, following related repairs, and at a minimum in 30-day intervals.
- A BOPE shell pressure test only will be conducted for subsequent wells on the pad when seals subject to pressure have not been broken, repaired, and fall within the 30-day interval of the first full test.
- **The New Mexico Oil & Gas Conservation Division and the BLM will be notified 24 hours in advance of pressure testing BOPE**.
- The BOPE will be tested to **250 psi (Low) for 5 minutes and 5,000 psi (High) for 10 minutes.**

C. BOP Function Testing

- Annular preventors will be functionally tested at least once per week.
- Pipe and blind rams will be function tested each trip.

D. Casing Pressure Testing

- **Surface casing will be pressure tested to 600 psi for 30 minutes**.
- I**ntermediate casing will be pressure tested to 1,500 psi for 30 minutes.**

4. Casing Program

A. Proposed Casing Program:

Proposed Casing Design							
Casing String	**Hole Size**	**Casing (size/weight/grade)**	**Top Depth (MD/TVD)**	**Shoe Depth (MD/TVD)**	**Collapse**	**Burst**	**Tensile**
Surface	17-1/2"	13-3/8"-54.5#-J55 (or equiv)-LTC/BTC	0'	700'/700'	1,130 psi	2,730 psi	514 klbs
Intermediate	12-1/4"	9-5/8"-43.5#-L80 (or equiv)-LTC/BTC	0'	6,555'/6,193'	3,810 psi	6,330 psi	737 klbs
Production	8-1/2"	5-1/2"-20.0#-P110 (or equiv)-LTC/BTC	0'	21,526'/6,851'	11,080 psi	12,360 psi	548 klbs

Proposed Casing Design Safety Factors				
Casing String	**Burst Design SF**	**Collapse Design SF**	**Joint Tensile Design SF**	**Connection Tensile Design SF**
Surface	8.3	4.4	25.9	27.6
Intermediate	1.7	1.2	4.3	3.5
Production	3.0	3.1	1.8	1.6

B. Casing Design Parameters & Calculations:

- Designed for full wellbore evacuation.
- Mud Weights used for calculations:
  - Surface = 9.0 ppg
  - Intermediate = 11.5 ppg
  - Production = 12.0 ppg
- Minimum Acceptable Safety Factors:
  - Burst: 1.15
  - Collapse: 1.15
  - Tensile: 1.50
- Casing Safety Factor Calculations:

$$Casing\ Burst\ Safety\ Factor = \frac{Casing\ Burst\ Rating(psi)}{Maximum\ Mud\ Weight\ (ppg) \times TVD(ft) \times 0.052}$$

$$Casing\ Collapse\ Safety\ Factor = Hydrostatic\ of\ Mud\ Weight\ in\ Annulus(psi) - \left[TVD\ of\ Casing\ Shoe\ (ft) \times 0.10\frac{psi}{ft}\right]$$

$$Tensile\ Safety\ Factor = \frac{Tensile\ Rating\ of\ Casing\ String\ (lbs)}{Measured\ Depth\ of\ Casing(ft) \times Casing\ Weight\ \frac{lb}{ft} \times DrillingFluid\ Bouyancy\ Factor}$$

Production Casing Notes:

- Production casing will be run from surface to TD.
- If the 8-1/2" hole is not drilled to the planned measured depth, casing setting depth will be adjusted accordingly.
- A toe initiation sliding sleeve will be installed at the toe of the production casing.

La Plata County, CO Allison Unit 632H

Hilcorp

5. Proposed Centralizer Program:

Proposed Centralizer Program	
Casing String	**Centralizers & Placement**
Surface Casing	1 centralizer per joint on bottom 3 joints.
Intermediate Casing	1 centralizer per joint in shoe track. 1 centralizer every 3rd joint to surface.
Production Casing	Centralizers determined by hole conditions from TD to top of cement.

6. Proposed Cement Program:

Proposed Cement Design								
Interval	**Depth (ft. MD)**	**Lead/Tail**	**Volume (ft^3)**	**Sacks**	**Excess (%)**	**Slurry**	**Density (ppg)**	**Planned TOC**
Surface	700’	Lead	973 ft^3	705	100%	Class G Cement Yield: 1.38 ft^3/sk	14.6	Surface
		Slurry Additives: CaCl (1%), Cello Flake (0.25 lb/sk), CD-2 (0.2%)						
Intermediate	6,555’	Lead	1,937 ft^3	378	25%	ASTM Type IL Yield: 5.12 ft^3/sk	9.5	Surface
		Slurry Additives: FL-24 (0.5%), FL-66 (0.5%), IntegraGuard GW-86 (0.2%), IntegraSeal PHENO (2.0 lb/sk), IntegraSeal POLI (0.25 lb/sk), LW-5E (50.0%), R-3 (0.4%), S-8 Silica Flour (35.0%), XCem-311 (0.3%)						
		Tail	609 ft^3	283	25%	ASTM Type IL Yield: 2.15 ft^3/sk	12.5	5,000’
		Slurry Additives: A-10 (5.0%), A-2 (1.0 lb/sk), IntegraSeal PHENO (1.0 lb/sk), IntegraSeal POLI (0.5 lb/sk), R-7C (0.3%), StaticFree (0.01%), XCem-311 (0.3%)						
Production	21,526’	Lead	521 ft^3	332	25%	ASTM Type IL Yield: 1.57 ft^3/sk	12.0	5,000’
		Slurry Additives: AEXT-1012 (60.0%), FL-66 (0.3%), GW-86 (0.2%), IntegraSeal PHENO (2.0 lb/sk), IntegraSeal Poli (0.25 lb/sk), KCl (3.0%), R-3 (0.55%), STATIC FREE (0.01 lb/sk), XCem-311 (0.3%)						
		Tail	4,174 ft^3	2,820	25%	Class G Yield: 1.48 ft^3/sk	14.0	7,000’
		Slurry Additives: Fly Ash (20.0%), Bentonite (4.0%), FL-66 (0.3%), GW-86 (0.1%), IntegraSeal PHENO (1.0 lb/sk), IntegraSeal POLI (0.25 lb/sk), R-3 (0.25%), StaticFree (0.01 lb/sk)						

Cement Program Notes:

- The cement slurry additives may be adjusted to accommodate required pump and compressive test times.
- Actual cement volumes will be determined and may be adjusted onsite based on well conditions.
- For the intermediate hole section, a 2-stage or 3-stage cement job may be performed if hole conditions dictate. If needed, the stage tool will be placed appropriately as conditions indicate.
- 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. Drilling Fluids Program

A. Proposed Drilling Fluids Program:

Proposed Drilling Fluids Program					
Interval	**Fluid Type**	**Density**	**Fluid Loss**	**Invert Ratio**	**Depth**
		(ppg)	(mL/30 min)	(%Diesel / %Brine)	(ft. MD)
Surface	Water/Gel	8.3 – 9.2	NC	N/A	0' – 700'
Intermediate	LSND / Gel	8.4 – 10.0	<6	N/A	700' – 6,555'
Production	Oil Base Mud	10.0 – 12.0	6 – 8	70/30 – 75/25	6,555' – 21,526'

Drilling Fluids Notes:

- In the 8-1/2" production section, oil base mud will be utilized which will be an invert mud. The base fluid will be diesel. Brine fluid will be $CaCl_2$ or KCl.
- 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 for all hole sections will be transported to an approved disposal site.
- Estimated total volume of drill cuttings for disposal: 2,113 bbls (11,860 ft^3).

8. Estimated Pressures & Drilling Hazards

A. Estimated Pressures

- Estimated Reservoir Pressure of Mancos Shale target: 4,000 – 4,200 psi
- No over-pressured intervals expected (aside from Mancos Shale target).
- There is production from the Fruitland Coal, Mesa Verde and Pictured Cliffs formations in offset wells in the area, which could result in these formations being depleted.

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 intermediate section. Losses will be mitigated by utilizing LCM in the mud system.

D. Hydrogen Sulfide

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

9. Pilot Hole

- No pilot hole is planned for this wellbore.

10. Testing, Logging, Coring

A. Mud Logging

- Mud loggers will collect formation samples every 30'-90' from intermediate casing shoe to TD of the well.

B. MWD

- Measurement while drilling tools will be utilized on all sections of the well to measure and record inclination and azimuth.

C. LWD

- Logging while drilling tools (gamma ray) will be utilized while drilling the production section from the intermediate casing shoe to the production hole section TD to assist in staying in the desired production formation interval while drilling the horizontal section.

D. Open Hole Logging

- None

E. Coring

- None

F. Cased Hole Logging

- The 9-5/8" 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 cement bod log will be run to verify top of cement.

11. Directional Drilling Plan

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

12. Completion

A. Pressure Testing

- A pressure test of the 5-1/2” production casing will be conducted to the maximum anticipated frac pressure for 30 minutes.
- Pressure will be cycled to shift the toe sleeve open.

B. Stimulation

- The well will be stimulated with sand and water. The number of stages and amount of proppant used will be adjusted based on actual lateral length and real-time pumping conditions during the stimulation.
- Individual stages will be perforated on wireline and isolated using frac plugs or dissolvable frac plugs.
- Upon completion of the stimulation operation, frac plugs will be drilled out and the stimulation fluid will be flowed back.

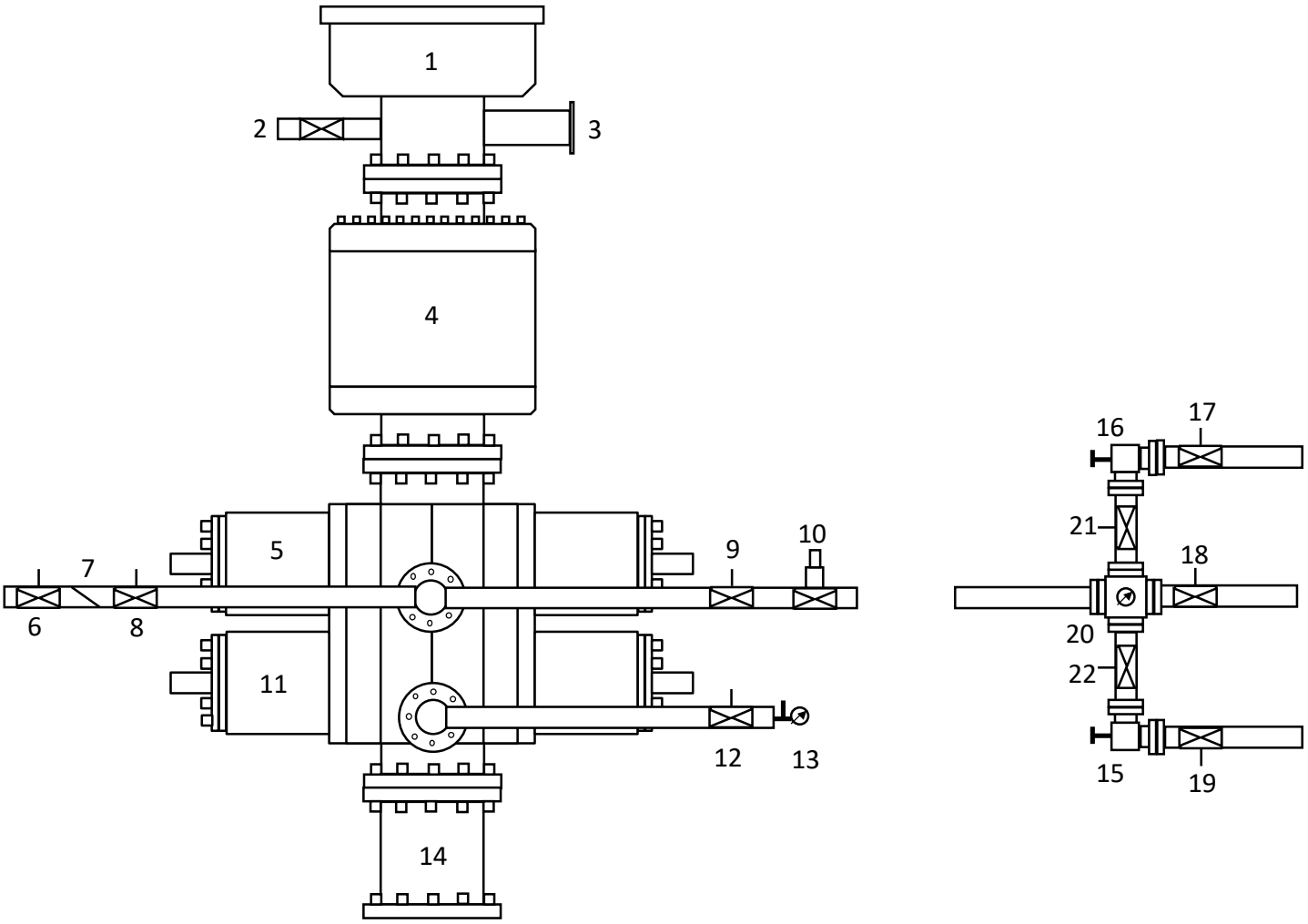
*NOTE: Although this horizontal well may be drilled past the applicable setbacks, an unorthodox location application is not required because the completed interval in this well, as defined by 19.15.16.7 8(1) NMAC, will be entirely within the applicable setbacks. This approach complies with all applicable rules, including 19.15.16.14 A(3) NMAC, 19.15.16.14 8(2) NMAC, 19.15.16.15 8(2)NMAC, and 19.15.16.15 8(4) NMAC.

La Plata County, CO Allison Unit 632H

Hilcorp

Appendix A

13-5/8" 5M BOP & 5M Choke Manifold Configuration



1	Rotating Head	12	Manual Isolation Valve
2	Fill-Up Line	13	Needle Valve & Pressure Gauge
3	Flow Line	14	Spacer Spool (if needed)
4	5M Annular Preventer	15	Manual Choke
5	5M Pipe Rams	16	Hydraulicly Operated 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	5M Blind Rams	22	Manual Isolation Valve

State of New Mexico
Energy, Minerals and Natural Resources Department

Submit Electronically
Via E-permitting

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

NATURAL GAS MANAGEMENT PLAN

This Natural Gas Management Plan must be submitted with each Application for Permit to Drill (APD) for a new or recompleted well.

Section 1 – Plan Description
Effective May 25, 2021

I. Operator: Hilcorp Energy Company **OGRID:** 372171 **Date:** 12/9/2024

II. Type: ☒ Original ☐ Amendment due to ☐ 19.15.27.9.D(6)(a) NMAC ☐ 19.15.27.9.D(6)(b) NMAC ☐ Other.

If Other, please describe: _____

III. Well(s): Provide the following information for each new or recompleted well or set of wells proposed to be drilled or proposed to be recompleted from a single well pad or connected to a central delivery point.

Well Name	API	ULSTR	Footages	Anticipated Oil BBL/D	Anticipated Gas MCF/D	Anticipated Produced Water BBL/D
Allison Unit 612H		F, Sec 12, T32N, R07W	604' FNL & 1635' FWL	0	16,000	300
Allison Unit 630H		F, Sec 12, T32N, R07W	554' FNL & 1635' FWL	0	16,000	300
Allison Unit 631H		F, Sec 12, T32N, R07W	529' FNL & 1635' FWL	0	16,000	300
Allison Unit 632H		F, Sec 12, T32N, R07W	479' FNL & 1485' FWL	0	16,000	300
Allison Unit 633H		F, Sec 12, T32N, R07W	454' FNL & 1485' FWL	0	16,000	300
Allison Unit 614H		F, Sec 12, T32N, R07W	504' FNL & 1485' FWL	0	16,000	300
Allison 605 Federal Com 613H		F, Sec 12, T32N, R07W	529' FNL & 1485' FWL	0	16,000	300

IV. Central Delivery Point Name: Milagro/Ignacio Gas Plant [See 19.15.27.9(D)(1) NMAC]

V. Anticipated Schedule: Provide the following information for each new or recompleted well or set of wells proposed to be drilled or proposed to be recompleted from a single well pad or connected to a central delivery point.

Well Name	API	Spud Date	TD Reached Date	Completion Commencement Date	Initial Flow Back Date	First Production Date
Allison Unit 612H		**2025**				
Allison Unit 630H		**2025**				
Allison Unit 631H		**2025**				
Allison Unit 632H		**2025**				
Allison Unit 633H		**2025**				
Allison Unit 614H		**2025**				
Allison 605 Federal Com 613H		**2025**				

VI. Separation Equipment: ☒ Attach a complete description of how Operator will size separation equipment to optimize gas capture.

VII. Operational Practices: ☒ Attach a complete description of the actions Operator will take to comply with the requirements of Subsection A through F of 19.15.27.8 NMAC.

VIII. Best Management Practices: ☒ Attach a complete description of Operator's best management practices to minimize venting during active and planned maintenance.

Section 2 – Enhanced Plan
EFFECTIVE APRIL 1, 2022

Beginning April 1, 2022, an operator that is not in compliance with its statewide natural gas capture requirement for the applicable reporting area must complete this section.

☒ Operator certifies that it is not required to complete this section because Operator is in compliance with its statewide natural gas capture requirement for the applicable reporting area.

IX. Anticipated Natural Gas Production:

Well	API	Anticipated Average Natural Gas Rate MCF/D	Anticipated Volume of Natural Gas for the First Year MCF

X. Natural Gas Gathering System (NGGS):

Operator	System	ULSTR of Tie-in	Anticipated Gathering Start Date	Available Maximum Daily Capacity of System Segment Tie-in

XI. Map. ☐ Attach an accurate and legible map depicting the location of the well(s), the anticipated pipeline route(s) connecting the production operations to the existing or planned interconnect of the natural gas gathering system(s), and the maximum daily capacity of the segment or portion of the natural gas gathering system(s) to which the well(s) will be connected.

XII. Line Capacity. The natural gas gathering system ☐ will ☐ will not have capacity to gather 100% of the anticipated natural gas production volume from the well prior to the date of first production.

XIII. Line Pressure. Operator ☐ does ☐ does not anticipate that its existing well(s) connected to the same segment, or portion, of the natural gas gathering system(s) described above will continue to meet anticipated increases in line pressure caused by the new well(s).

☐ Attach Operator's plan to manage production in response to the increased line pressure.

XIV. Confidentiality: ☐ Operator asserts confidentiality pursuant to Section 71-2-8 NMSA 1978 for the information provided in Section 2 as provided in Paragraph (2) of Subsection D of 19.15.27.9 NMAC, and attaches a full description of the specific information for which confidentiality is asserted and the basis for such assertion.

Section 3 - Certifications

Effective May 25, 2021

Operator certifies that, after reasonable inquiry and based on the available information at the time of submittal:

☒ Operator will be able to connect the well(s) to a natural gas gathering system in the general area with sufficient capacity to transport one hundred percent of the anticipated volume of natural gas produced from the well(s) commencing on the date of first production, taking into account the current and anticipated volumes of produced natural gas from other wells connected to the pipeline gathering system; or

☐ Operator will not be able to connect to a natural gas gathering system in the general area with sufficient capacity to transport one hundred percent of the anticipated volume of natural gas produced from the well(s) commencing on the date of first production, taking into account the current and anticipated volumes of produced natural gas from other wells connected to the pipeline gathering system. ***If Operator checks this box, Operator will select one of the following:***

Well Shut-In. ☐ Operator will shut-in and not produce the well until it submits the certification required by Paragraph (4) of Subsection D of 19.15.27.9 NMAC; or

Venting and Flaring Plan. ☐ Operator has attached a venting and flaring plan that evaluates and selects one or more of the potential alternative beneficial uses for the natural gas until a natural gas gathering system is available, including:

- **(a)** power generation on lease;
- **(b)** power generation for grid;
- **(c)** compression on lease;
- **(d)** liquids removal on lease;
- **(e)** reinjection for underground storage;
- **(f)** reinjection for temporary storage;
- **(g)** reinjection for enhanced oil recovery;
- **(h)** fuel cell production; and
- **(i)** other alternative beneficial uses approved by the division.

Section 4 - Notices

1. If, at any time after Operator submits this Natural Gas Management Plan and before the well is spud:

(a) Operator becomes aware that the natural gas gathering system it planned to connect the well(s) to has become unavailable or will not have capacity to transport one hundred percent of the production from the well(s), no later than 20 days after becoming aware of such information, Operator shall submit for OCD's approval a new or revised venting and flaring plan containing the information specified in Paragraph (5) of Subsection D of 19.15.27.9 NMAC; or

(b) Operator becomes aware that it has, cumulatively for the year, become out of compliance with its baseline natural gas capture rate or natural gas capture requirement, no later than 20 days after becoming aware of such information, Operator shall submit for OCD's approval a new or revised Natural Gas Management Plan for each well it plans to spud during the next 90 days containing the information specified in Paragraph (2) of Subsection D of 19.15.27.9 NMAC, and shall file an update for each Natural Gas Management Plan until Operator is back in compliance with its baseline natural gas capture rate or natural gas capture requirement.

2. OCD may deny or conditionally approve an APD if Operator does not make a certification, fails to submit an adequate venting and flaring plan which includes alternative beneficial uses for the anticipated volume of natural gas produced, or if OCD determines that Operator will not have adequate natural gas takeaway capacity at the time a well will be spud.

I certify that, after reasonable inquiry, the statements in and attached to this Natural Gas Management Plan are true and correct to the best of my knowledge and acknowledge that a false statement may be subject to civil and criminal penalties under the Oil and Gas Act.

Signature: 
Printed Name: Amanda Walker
Title: Operations Regulatory Tech Sr.
E-mail Address: mwalker@hilcorp.com
Date: 12/9/2024
Phone: 346-237-2177

OIL CONSERVATION DIVISION **(Only applicable when submitted as a standalone form)**
Approved By:
Title:
Approval Date:
Conditions of Approval:

Hilcorp Energy Natural Gas Management Plan Attachments

VI. Separation Equipment

The operator will select separation equipment for the maximum anticipated throughput and pressure to optimize gas capture. Separation equipment is sized according to manufacturer's design specifications. Separation vessels are built following the A.S.M.E. section VII division 1 codes for pressure vessel design, fabrication, inspection, testing and certification. Anticipated well pressures and production rates are evaluated to select separation equipment according to the equipment's designed operating pressure and throughput.

After completion, the operator utilizes flowback equipment, including separators, to manage wellbore fluids and solids during the initial separation period. After the initial flowback period is complete the operator utilizes iterative facility separation equipment to ensure that optimal separation is achieved.

VII. Operational Practices 19.15.27.8 NMAC A through F

A. The operator will maximize the recovery of natural gas and minimize the amount of gas vented or flared when technically and safely feasible as further described and detailed within the following subsections (B-F of 19.15.27.8). In all cases where natural gas venting and flaring requires regulatory reporting, reporting will be submitted accurately and within the required time frames.
B. Venting and flaring during drilling operations:
    a. New Drill HZ Gas Wells: The operator drills wells in the area by utilizing a balanced mud to safely drill the wellbore. This technique prevents gas from coming to surface during the drilling process. If there is an emergency or malfunction and natural gas does come to surface the natural gas will be captured and routed to sales if technically and safely feasible.
C. Venting and flaring during completion or recompletion operations:
    a. New Drill HZ Gas Wells: The operator's facilities are designed to handle the maximum throughput and pressures from the newly drilled and completed wellbores. The amount of gas vented and flared will be minimized when technically and safely feasible. During initial flowback and initial separation flowback the operator will utilize contracted flowback equipment, including separators, to manage wellbore fluids and solids. The initial flowback period will be minimized and flow will be sent to separation equipment as soon as possible to reduce the amount of gas that is vented to atmosphere. The natural gas will be utilized on site as needed for fuel gas and natural gas will be sold.

D. Venting and flaring during production operations:
    a. New Drill HZ Gas Wells: The operator's facilities are designed to handle the maximum throughput and pressures from producing wellbores. The amount of gas vented and flared will be minimized when technically and safely feasible.

    Operations will effectively manage the following scenarios to minimize the quantity of natural gas that is vented or flared:

(a) If there is an emergency or malfunction vented or flared natural gas will be reported, if required, and the emergency or malfunction will be resolved as soon as technically and safely feasible.
(b) If the wellbore needs to be unloaded to atmosphere the operator will not vent the well after the well has achieved a stabilized rate and pressure. The operator will remain on site during unloading. Plunger lift systems will be optimized to reduce the amount of natural gas venting. Downhole maintenance, such as workovers, swabbing, etc. will only be conducted as needed and best management practices will be utilized to reduce venting of natural gas.
(c) The operator will minimize the amount of time that natural gas is vented to atmosphere from gauging and sampling a storage tank or low pressure vessel. The formation is only anticipated to produce water and therefore tank emissions are anticipated to be negligible.
(d) The operator will reduce the amount of time needed for loading out liquids from a storage tanks or other low-pressure vessels whenever feasible. Operations will always utilize the water transfer systems when available. Water loading emissions are anticipated to be negligible.
(e) Equipment will be repaired and maintained routinely to minimize the venting or flaring of natural gas. Repairs and maintenance will be conducted in a manner that minimizes the amount of natural gas vented to atmosphere through the isolation of the equipment that is being repaired or maintained.
(f) Electric controllers and pumps will be installed to replace pneumatic controllers whenever feasible. Pneumatic controllers and pumps will be inspected frequently to ensure that no excess gas is vented to atmosphere.
(g) No dehydration or amine units are anticipated to be set on location.
(h) Compressors, compressor engines, turbines, flanges, connectors, valves, storage tanks, and other low-pressure vessels and flanges will be routinely inspected to ensure that no excess venting occurs outside of normal operations.
(i) Regulatory required testing, such as bradenhead and packer testing will be performed in a manner that minimizes the amount of natural gas vented to atmosphere.
(j) If natural gas does not meet gathering pipeline specifications gas samples will be collected twice per week to determine when pipeline specification gas content has been achieved. During this time frame gas will be flared and not vented to atmosphere. Natural gas that meets pipeline specifications will be sold via pipeline and natural gas that can be utilized for fuel gas will be used during this time.
(k) If pipeline, equipment, or facilities need purged of impurities gas losses will be minimized as much as technically and safely feasible.

E. Performance standards:

a. The production facilities are designed to handle the maximum throughput and pressures from producing wellbores and will be designed to minimize waste. The amount of gas vented and flared will be minimized when technically and safely feasible.
b. All tanks that are routed to a control device that is installed after 5/25/2021 will have an automatic gauging system to minimize the amount of vented natural gas.
c. If a flare stack is installed or replaced after 5/25/2021 it will be equipped with an automatic ignitor or continuous pilot. The flare stack will be properly sized and designed to ensure proper combustion efficiency. The flare stack will be located 100 feet away from the nearest wellhead or storage tank.
d. AVO inspections will be conducted weekly for the year after completion and for all wells producing greater than 60,000 cubic feet of natural gas daily. The AVO inspection will include all components, including flare stacks, thief hatches, closed vent systems, pumps, compressors, pressure relief devices, valves, lines, flanges, connectors, and associated pipeline to identify any leaks and releases by comprehensive auditory, visual, and olfactory inspection. The AVO inspection records will be maintained for 5 years which will be available at the department's request. Identified leaks will be repaired as soon as feasible to minimize the amount of vented natural gas. F. Measurement or estimation of vented and flared natural gas.

a. The volume of natural gas that is vented, flared or consumed for beneficial use will be measured when possible, or estimated, during drilling, completions, or production operations.
b. Equipment will be installed to measure the volume of natural gas flared for all APD's issued after 5/25/2021 on facilities that will have an average daily gas rate greater than 60,000 cubic feet of natural gas. Measurement equipment will conform to API MPMS Chapter 14.10 regulations. The measurement equipment will not have a manifold that allows the diversion of natural gas around the metering element except for the sole purpose of inspecting and servicing the measurement equipment. If metering is not practical then the volume of gas will be estimated.

Hilcorp

Allison Unit 632H
Plan #1

GL 6350' & RKB 25.1 @ 6375.10ft (Nabors B29)

Northing	Easting	Latitude	Longitude
2182959.17	591229.34	36.9987360	-107.5209260

PROJECT DETAILS: San Juan, NM NAD27

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

LONESTAR CONSULTING

Plan: Plan #1 (Allison Unit 632H/OH)

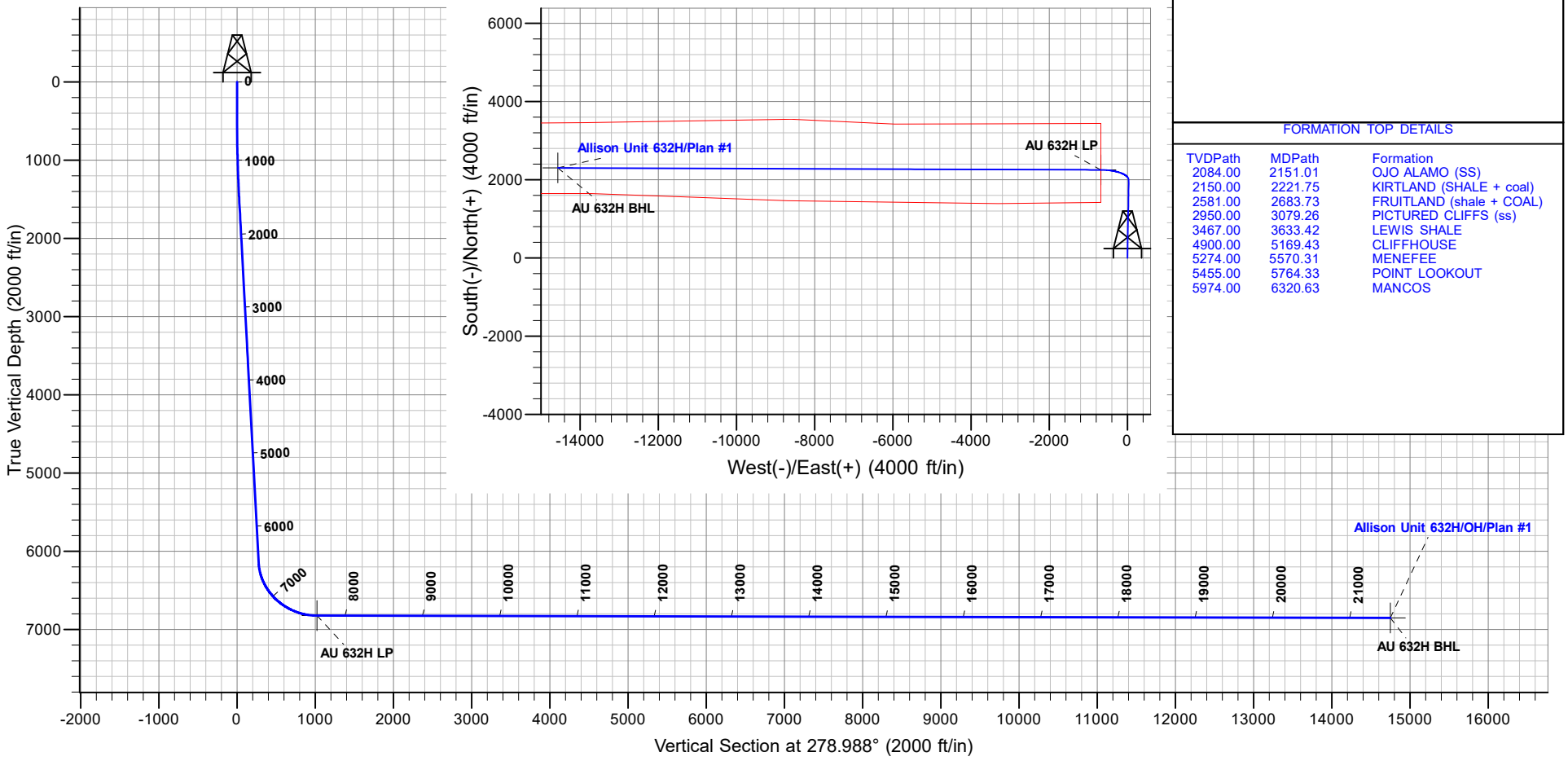
Created By: Janie Collins Date: 11:27, June 27 2024

PLAN DETAILS

MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	VSect
0.00	0.00	0.000	0.00	0.00	0.00	0.00	0.00
450.00	0.00	0.000	450.00	0.00	0.00	0.00	0.00
1505.13	21.10	1.018	1481.43	192.09	3.41	2.00	26.64
6509.51	21.10	1.018	6150.21	1993.57	35.42	0.00	276.47
7636.78	89.88	270.204	6822.00	2254.77	-678.44	8.00	1022.38
21526.34	89.88	270.204	6851.00	2304.25	-14567.88	0.00	14748.99

DESIGN TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
AU 632H LP	6822.00	2254.77	-678.44	2185211.70	590543.50	37.0049293	-107.5232494
AU 632H BHL	6851.00	2304.25	-14567.88	2185215.60	576654.00	37.0050548	-107.5708162



Azimuths to True North
Magnetic North: 8.58°

Magnetic Field
Strength: 49353.5nT
Dip Angle: 63.33°
Date: 5/30/2024
Model: HDGM2024

CASING DETAILS

No casing data is available

FORMATION TOP DETAILS

TVDPath	MDPath	Formation
2084.00	2151.01	OJO ALAMO (SS)
2150.00	2221.75	KIRTLAND (SHALE + coal)
2581.00	2683.73	FRUITLAND (shale + COAL)
2950.00	3079.26	PICTURED CLIFFS (ss)
3467.00	3633.42	LEWIS SHALE
4900.00	5169.43	CLIFFHOUSE
5274.00	5570.31	MENEFEE
5455.00	5764.33	POINT LOOKOUT
5974.00	6320.63	MANCOS

HilCorp

San Juan, NM NAD27
Allison 611 Pad
Allison Unit 632H

OH

Plan: Plan #1

Standard Planning Report

27 June, 2024

Hilcorp

Lonestar Consulting, LLC

Planning Report

LONESTAR CONSULTING

Database:	EDMDB	**Local Co-ordinate Reference:**	Well Allison Unit 632H
Company:	HilCorp	**TVD Reference:**	GL 6350' & RKB 25.1 @ 6375.10ft (Nabors B29)
Project:	San Juan, NM NAD27	**MD Reference:**	GL 6350' & RKB 25.1 @ 6375.10ft (Nabors B29)
Site:	Allison 611 Pad	**North Reference:**	True
Well:	Allison Unit 632H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	OH		
Design:	Plan #1		

Project San Juan, NM NAD27

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		

Site Allison 611 Pad

Site Position:		**Northing:**	2,182,860.26 usft	**Latitude:**	36.9984630
From:	Lat/Long	**Easting:**	591,375.68 usft	**Longitude:**	-107.5204260
Position Uncertainty:	0.00 ft	**Slot Radius:**	13-3/16 "		

Well Allison Unit 632H

Well Position	**+N/-S**	0.00 ft	**Northing:**	2,182,959.17 usft	**Latitude:**	36.9987360
	+E/-W	0.00 ft	**Easting:**	591,229.34 usft	**Longitude:**	-107.5209260
Position Uncertainty		0.00 ft	**Wellhead Elevation:**	ft	**Ground Level:**	6,350.00 ft
Grid Convergence:		0.19 °				

Wellbore OH

Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	HDGM2024	5/30/2024	8.58	63.33	49,353.50000000

Design Plan #1

Audit Notes:

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

Vertical Section:	Depth From (TVD) (ft)	+N/-S (ft)	+E/-W (ft)	Direction (°)
	0.00	0.00	0.00	278.988

Plan Survey Tool Program **Date** 6/25/2024

	Depth From (ft)	Depth To (ft)	Survey (Wellbore)	Tool Name	Remarks
1	0.00	21,526.34	Plan #1 (OH)	MWD+HDGM	
				OWSG MWD + HDGM	

Plan Sections

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	TFO (°)	Target
0.00	0.00	0.000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
450.00	0.00	0.000	450.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,505.13	21.10	1.018	1,481.44	192.09	3.41	2.00	2.00	0.00	1.02	
6,509.51	21.10	1.018	6,150.21	1,993.57	35.42	0.00	0.00	0.00	0.00	
7,636.78	89.88	270.204	6,822.00	2,254.77	-678.44	8.00	6.10	-8.06	-90.80	AU 632H LP
21,526.34	89.88	270.204	6,851.00	2,304.25	-14,567.88	0.00	0.00	0.00	0.00	AU 632H BHL

Hilcorp

Lonestar Consulting, LLC

Planning Report

LONESTAR CONSULTING

Database:	EDMDB	**Local Co-ordinate Reference:**	Well Allison Unit 632H
Company:	HilCorp	**TVD Reference:**	GL 6350' & RKB 25.1 @ 6375.10ft (Nabors B29)
Project:	San Juan, NM NAD27	**MD Reference:**	GL 6350' & RKB 25.1 @ 6375.10ft (Nabors B29)
Site:	Allison 611 Pad	**North Reference:**	True
Well:	Allison Unit 632H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	OH		
Design:	Plan #1		

Planned Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
0.00	0.00	0.000	0.00	0.00	0.00	0.00	0.00	0.00	0.00
100.00	0.00	0.000	100.00	0.00	0.00	0.00	0.00	0.00	0.00
200.00	0.00	0.000	200.00	0.00	0.00	0.00	0.00	0.00	0.00
300.00	0.00	0.000	300.00	0.00	0.00	0.00	0.00	0.00	0.00
400.00	0.00	0.000	400.00	0.00	0.00	0.00	0.00	0.00	0.00
450.00	0.00	0.000	450.00	0.00	0.00	0.00	0.00	0.00	0.00
500.00	1.00	1.018	500.00	0.44	0.01	0.06	2.00	2.00	0.00
600.00	3.00	1.018	599.93	3.93	0.07	0.54	2.00	2.00	0.00
700.00	5.00	1.018	699.68	10.90	0.19	1.51	2.00	2.00	0.00
800.00	7.00	1.018	799.13	21.35	0.38	2.96	2.00	2.00	0.00
900.00	9.00	1.018	898.15	35.26	0.63	4.89	2.00	2.00	0.00
1,000.00	11.00	1.018	996.63	52.63	0.94	7.30	2.00	2.00	0.00
1,100.00	13.00	1.018	1,094.44	73.41	1.30	10.18	2.00	2.00	0.00
1,200.00	15.00	1.018	1,191.46	97.60	1.73	13.54	2.00	2.00	0.00
1,300.00	17.00	1.018	1,287.58	125.16	2.22	17.36	2.00	2.00	0.00
1,400.00	19.00	1.018	1,382.68	156.05	2.77	21.64	2.00	2.00	0.00
1,500.00	21.00	1.018	1,476.65	190.25	3.38	26.38	2.00	2.00	0.00
1,505.13	21.10	1.018	1,481.44	192.09	3.41	26.64	2.00	2.00	0.00
1,600.00	21.10	1.018	1,569.94	226.24	4.02	31.38	0.00	0.00	0.00
1,700.00	21.10	1.018	1,663.24	262.24	4.66	36.37	0.00	0.00	0.00
1,800.00	21.10	1.018	1,756.53	298.24	5.30	41.36	0.00	0.00	0.00
1,900.00	21.10	1.018	1,849.83	334.24	5.94	46.35	0.00	0.00	0.00
2,000.00	21.10	1.018	1,943.12	370.23	6.58	51.34	0.00	0.00	0.00
2,100.00	21.10	1.018	2,036.41	406.23	7.22	56.34	0.00	0.00	0.00
2,200.00	21.10	1.018	2,129.71	442.23	7.86	61.33	0.00	0.00	0.00
2,300.00	21.10	1.018	2,223.00	478.23	8.50	66.32	0.00	0.00	0.00
2,400.00	21.10	1.018	2,316.29	514.23	9.14	71.31	0.00	0.00	0.00
2,500.00	21.10	1.018	2,409.59	550.22	9.78	76.30	0.00	0.00	0.00
2,600.00	21.10	1.018	2,502.88	586.22	10.42	81.30	0.00	0.00	0.00
2,700.00	21.10	1.018	2,596.18	622.22	11.06	86.29	0.00	0.00	0.00
2,800.00	21.10	1.018	2,689.47	658.22	11.70	91.28	0.00	0.00	0.00
2,900.00	21.10	1.018	2,782.76	694.22	12.34	96.27	0.00	0.00	0.00
3,000.00	21.10	1.018	2,876.06	730.22	12.98	101.27	0.00	0.00	0.00
3,100.00	21.10	1.018	2,969.35	766.21	13.62	106.26	0.00	0.00	0.00
3,200.00	21.10	1.018	3,062.64	802.21	14.25	111.25	0.00	0.00	0.00
3,300.00	21.10	1.018	3,155.94	838.21	14.89	116.24	0.00	0.00	0.00
3,400.00	21.10	1.018	3,249.23	874.21	15.53	121.23	0.00	0.00	0.00
3,500.00	21.10	1.018	3,342.53	910.21	16.17	126.23	0.00	0.00	0.00
3,600.00	21.10	1.018	3,435.82	946.20	16.81	131.22	0.00	0.00	0.00
3,700.00	21.10	1.018	3,529.11	982.20	17.45	136.21	0.00	0.00	0.00
3,800.00	21.10	1.018	3,622.41	1,018.20	18.09	141.20	0.00	0.00	0.00
3,900.00	21.10	1.018	3,715.70	1,054.20	18.73	146.20	0.00	0.00	0.00
4,000.00	21.10	1.018	3,808.99	1,090.20	19.37	151.19	0.00	0.00	0.00
4,100.00	21.10	1.018	3,902.29	1,126.19	20.01	156.18	0.00	0.00	0.00
4,200.00	21.10	1.018	3,995.58	1,162.19	20.65	161.17	0.00	0.00	0.00
4,300.00	21.10	1.018	4,088.88	1,198.19	21.29	166.16	0.00	0.00	0.00
4,400.00	21.10	1.018	4,182.17	1,234.19	21.93	171.16	0.00	0.00	0.00
4,500.00	21.10	1.018	4,275.46	1,270.19	22.57	176.15	0.00	0.00	0.00
4,600.00	21.10	1.018	4,368.76	1,306.19	23.21	181.14	0.00	0.00	0.00
4,700.00	21.10	1.018	4,462.05	1,342.18	23.85	186.13	0.00	0.00	0.00
4,800.00	21.10	1.018	4,555.34	1,378.18	24.49	191.13	0.00	0.00	0.00
4,900.00	21.10	1.018	4,648.64	1,414.18	25.13	196.12	0.00	0.00	0.00

Hilcorp

Lonestar Consulting, LLC

Planning Report

LONESTAR CONSULTING

Database:	EDMDB	**Local Co-ordinate Reference:**	Well Allison Unit 632H
Company:	HilCorp	**TVD Reference:**	GL 6350' & RKB 25.1 @ 6375.10ft (Nabors B29)
Project:	San Juan, NM NAD27	**MD Reference:**	GL 6350' & RKB 25.1 @ 6375.10ft (Nabors B29)
Site:	Allison 611 Pad	**North Reference:**	True
Well:	Allison Unit 632H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	OH		
Design:	Plan #1		

Planned Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
5,000.00	21.10	1.018	4,741.93	1,450.18	25.77	201.11	0.00	0.00	0.00
5,100.00	21.10	1.018	4,835.23	1,486.18	26.41	206.10	0.00	0.00	0.00
5,200.00	21.10	1.018	4,928.52	1,522.17	27.05	211.09	0.00	0.00	0.00
5,300.00	21.10	1.018	5,021.81	1,558.17	27.69	216.09	0.00	0.00	0.00
5,400.00	21.10	1.018	5,115.11	1,594.17	28.33	221.08	0.00	0.00	0.00
5,500.00	21.10	1.018	5,208.40	1,630.17	28.97	226.07	0.00	0.00	0.00
5,600.00	21.10	1.018	5,301.69	1,666.17	29.61	231.06	0.00	0.00	0.00
5,700.00	21.10	1.018	5,394.99	1,702.16	30.25	236.06	0.00	0.00	0.00
5,800.00	21.10	1.018	5,488.28	1,738.16	30.89	241.05	0.00	0.00	0.00
5,900.00	21.10	1.018	5,581.58	1,774.16	31.53	246.04	0.00	0.00	0.00
6,000.00	21.10	1.018	5,674.87	1,810.16	32.17	251.03	0.00	0.00	0.00
6,100.00	21.10	1.018	5,768.16	1,846.16	32.80	256.02	0.00	0.00	0.00
6,200.00	21.10	1.018	5,861.46	1,882.15	33.44	261.02	0.00	0.00	0.00
6,300.00	21.10	1.018	5,954.75	1,918.15	34.08	266.01	0.00	0.00	0.00
6,400.00	21.10	1.018	6,048.04	1,954.15	34.72	271.00	0.00	0.00	0.00
6,500.00	21.10	1.018	6,141.34	1,990.15	35.36	275.99	0.00	0.00	0.00
6,509.51	21.10	1.018	6,150.21	1,993.57	35.42	276.47	0.00	0.00	0.00
6,600.00	22.16	341.504	6,234.44	2,026.09	30.29	286.62	8.00	1.17	-21.57
6,700.00	25.65	323.633	6,325.97	2,061.46	11.45	310.76	8.00	3.49	-17.87
6,800.00	30.77	310.557	6,414.14	2,095.57	-20.87	348.01	8.00	5.12	-13.08
6,900.00	36.84	301.156	6,497.25	2,127.77	-66.04	397.65	8.00	6.07	-9.40
7,000.00	43.47	294.180	6,573.68	2,157.42	-123.17	458.71	8.00	6.63	-6.98
7,100.00	50.42	288.758	6,641.94	2,183.94	-191.15	530.00	8.00	6.96	-5.42
7,200.00	57.58	284.342	6,700.69	2,206.83	-268.66	610.13	8.00	7.16	-4.42
7,300.00	64.88	280.583	6,748.80	2,225.63	-354.19	697.55	8.00	7.29	-3.76
7,400.00	72.25	277.252	6,785.33	2,239.98	-446.08	790.56	8.00	7.38	-3.33
7,500.00	79.68	274.187	6,809.57	2,249.60	-542.54	887.33	8.00	7.43	-3.07
7,600.00	87.14	271.264	6,821.04	2,254.30	-641.68	985.99	8.00	7.46	-2.92
7,636.78	89.88	270.204	6,822.00	2,254.77	-678.44	1,022.38	8.00	7.46	-2.88
7,700.00	89.88	270.204	6,822.13	2,254.99	-741.66	1,084.85	0.00	0.00	0.00
7,800.00	89.88	270.204	6,822.34	2,255.35	-841.66	1,183.68	0.00	0.00	0.00
7,900.00	89.88	270.204	6,822.55	2,255.71	-941.66	1,282.51	0.00	0.00	0.00
8,000.00	89.88	270.204	6,822.76	2,256.06	-1,041.66	1,381.33	0.00	0.00	0.00
8,100.00	89.88	270.204	6,822.97	2,256.42	-1,141.66	1,480.16	0.00	0.00	0.00
8,200.00	89.88	270.204	6,823.18	2,256.77	-1,241.66	1,578.99	0.00	0.00	0.00
8,300.00	89.88	270.204	6,823.38	2,257.13	-1,341.66	1,677.82	0.00	0.00	0.00
8,400.00	89.88	270.204	6,823.59	2,257.49	-1,441.66	1,776.64	0.00	0.00	0.00
8,500.00	89.88	270.204	6,823.80	2,257.84	-1,541.65	1,875.47	0.00	0.00	0.00
8,600.00	89.88	270.204	6,824.01	2,258.20	-1,641.65	1,974.30	0.00	0.00	0.00
8,700.00	89.88	270.204	6,824.22	2,258.56	-1,741.65	2,073.12	0.00	0.00	0.00
8,800.00	89.88	270.204	6,824.43	2,258.91	-1,841.65	2,171.95	0.00	0.00	0.00
8,900.00	89.88	270.204	6,824.64	2,259.27	-1,941.65	2,270.78	0.00	0.00	0.00
9,000.00	89.88	270.204	6,824.85	2,259.62	-2,041.65	2,369.60	0.00	0.00	0.00
9,100.00	89.88	270.204	6,825.06	2,259.98	-2,141.65	2,468.43	0.00	0.00	0.00
9,200.00	89.88	270.204	6,825.26	2,260.34	-2,241.65	2,567.26	0.00	0.00	0.00
9,300.00	89.88	270.204	6,825.47	2,260.69	-2,341.65	2,666.08	0.00	0.00	0.00
9,400.00	89.88	270.204	6,825.68	2,261.05	-2,441.65	2,764.91	0.00	0.00	0.00
9,500.00	89.88	270.204	6,825.89	2,261.41	-2,541.65	2,863.74	0.00	0.00	0.00
9,600.00	89.88	270.204	6,826.10	2,261.76	-2,641.65	2,962.56	0.00	0.00	0.00
9,700.00	89.88	270.204	6,826.31	2,262.12	-2,741.64	3,061.39	0.00	0.00	0.00
9,800.00	89.88	270.204	6,826.52	2,262.47	-2,841.64	3,160.22	0.00	0.00	0.00
9,900.00	89.88	270.204	6,826.73	2,262.83	-2,941.64	3,259.05	0.00	0.00	0.00

Hilcorp

Lonestar Consulting, LLC

Planning Report

LONESTAR CONSULTING

Database:	EDMDB	**Local Co-ordinate Reference:**	Well Allison Unit 632H
Company:	HilCorp	**TVD Reference:**	GL 6350' & RKB 25.1 @ 6375.10ft (Nabors B29)
Project:	San Juan, NM NAD27	**MD Reference:**	GL 6350' & RKB 25.1 @ 6375.10ft (Nabors B29)
Site:	Allison 611 Pad	**North Reference:**	True
Well:	Allison Unit 632H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	OH		
Design:	Plan #1		

Planned Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
10,000.00	89.88	270.204	6,826.93	2,263.19	-3,041.64	3,357.87	0.00	0.00	0.00
10,100.00	89.88	270.204	6,827.14	2,263.54	-3,141.64	3,456.70	0.00	0.00	0.00
10,200.00	89.88	270.204	6,827.35	2,263.90	-3,241.64	3,555.53	0.00	0.00	0.00
10,300.00	89.88	270.204	6,827.56	2,264.26	-3,341.64	3,654.35	0.00	0.00	0.00
10,400.00	89.88	270.204	6,827.77	2,264.61	-3,441.64	3,753.18	0.00	0.00	0.00
10,500.00	89.88	270.204	6,827.98	2,264.97	-3,541.64	3,852.01	0.00	0.00	0.00
10,600.00	89.88	270.204	6,828.19	2,265.32	-3,641.64	3,950.83	0.00	0.00	0.00
10,700.00	89.88	270.204	6,828.40	2,265.68	-3,741.64	4,049.66	0.00	0.00	0.00
10,800.00	89.88	270.204	6,828.60	2,266.04	-3,841.64	4,148.49	0.00	0.00	0.00
10,900.00	89.88	270.204	6,828.81	2,266.39	-3,941.63	4,247.31	0.00	0.00	0.00
11,000.00	89.88	270.204	6,829.02	2,266.75	-4,041.63	4,346.14	0.00	0.00	0.00
11,100.00	89.88	270.204	6,829.23	2,267.11	-4,141.63	4,444.97	0.00	0.00	0.00
11,200.00	89.88	270.204	6,829.44	2,267.46	-4,241.63	4,543.79	0.00	0.00	0.00
11,300.00	89.88	270.204	6,829.65	2,267.82	-4,341.63	4,642.62	0.00	0.00	0.00
11,400.00	89.88	270.204	6,829.86	2,268.17	-4,441.63	4,741.45	0.00	0.00	0.00
11,500.00	89.88	270.204	6,830.07	2,268.53	-4,541.63	4,840.28	0.00	0.00	0.00
11,600.00	89.88	270.204	6,830.27	2,268.89	-4,641.63	4,939.10	0.00	0.00	0.00
11,700.00	89.88	270.204	6,830.48	2,269.24	-4,741.63	5,037.93	0.00	0.00	0.00
11,800.00	89.88	270.204	6,830.69	2,269.60	-4,841.63	5,136.76	0.00	0.00	0.00
11,900.00	89.88	270.204	6,830.90	2,269.96	-4,941.63	5,235.58	0.00	0.00	0.00
12,000.00	89.88	270.204	6,831.11	2,270.31	-5,041.63	5,334.41	0.00	0.00	0.00
12,100.00	89.88	270.204	6,831.32	2,270.67	-5,141.62	5,433.24	0.00	0.00	0.00
12,200.00	89.88	270.204	6,831.53	2,271.02	-5,241.62	5,532.06	0.00	0.00	0.00
12,300.00	89.88	270.204	6,831.74	2,271.38	-5,341.62	5,630.89	0.00	0.00	0.00
12,400.00	89.88	270.204	6,831.95	2,271.74	-5,441.62	5,729.72	0.00	0.00	0.00
12,500.00	89.88	270.204	6,832.15	2,272.09	-5,541.62	5,828.54	0.00	0.00	0.00
12,600.00	89.88	270.204	6,832.36	2,272.45	-5,641.62	5,927.37	0.00	0.00	0.00
12,700.00	89.88	270.204	6,832.57	2,272.81	-5,741.62	6,026.20	0.00	0.00	0.00
12,800.00	89.88	270.204	6,832.78	2,273.16	-5,841.62	6,125.02	0.00	0.00	0.00
12,900.00	89.88	270.204	6,832.99	2,273.52	-5,941.62	6,223.85	0.00	0.00	0.00
13,000.00	89.88	270.204	6,833.20	2,273.87	-6,041.62	6,322.68	0.00	0.00	0.00
13,100.00	89.88	270.204	6,833.41	2,274.23	-6,141.62	6,421.50	0.00	0.00	0.00
13,200.00	89.88	270.204	6,833.62	2,274.59	-6,241.61	6,520.33	0.00	0.00	0.00
13,300.00	89.88	270.204	6,833.82	2,274.94	-6,341.61	6,619.16	0.00	0.00	0.00
13,400.00	89.88	270.204	6,834.03	2,275.30	-6,441.61	6,717.99	0.00	0.00	0.00
13,500.00	89.88	270.204	6,834.24	2,275.66	-6,541.61	6,816.81	0.00	0.00	0.00
13,600.00	89.88	270.204	6,834.45	2,276.01	-6,641.61	6,915.64	0.00	0.00	0.00
13,700.00	89.88	270.204	6,834.66	2,276.37	-6,741.61	7,014.47	0.00	0.00	0.00
13,800.00	89.88	270.204	6,834.87	2,276.72	-6,841.61	7,113.29	0.00	0.00	0.00
13,900.00	89.88	270.204	6,835.08	2,277.08	-6,941.61	7,212.12	0.00	0.00	0.00
14,000.00	89.88	270.204	6,835.29	2,277.44	-7,041.61	7,310.95	0.00	0.00	0.00
14,100.00	89.88	270.204	6,835.49	2,277.79	-7,141.61	7,409.77	0.00	0.00	0.00
14,200.00	89.88	270.204	6,835.70	2,278.15	-7,241.61	7,508.60	0.00	0.00	0.00
14,300.00	89.88	270.204	6,835.91	2,278.50	-7,341.61	7,607.43	0.00	0.00	0.00
14,400.00	89.88	270.204	6,836.12	2,278.86	-7,441.60	7,706.25	0.00	0.00	0.00
14,500.00	89.88	270.204	6,836.33	2,279.22	-7,541.60	7,805.08	0.00	0.00	0.00
14,600.00	89.88	270.204	6,836.54	2,279.57	-7,641.60	7,903.91	0.00	0.00	0.00
14,700.00	89.88	270.204	6,836.75	2,279.93	-7,741.60	8,002.73	0.00	0.00	0.00
14,800.00	89.88	270.204	6,836.96	2,280.29	-7,841.60	8,101.56	0.00	0.00	0.00
14,900.00	89.88	270.204	6,837.17	2,280.64	-7,941.60	8,200.39	0.00	0.00	0.00
15,000.00	89.88	270.204	6,837.37	2,281.00	-8,041.60	8,299.22	0.00	0.00	0.00
15,100.00	89.88	270.204	6,837.58	2,281.35	-8,141.60	8,398.04	0.00	0.00	0.00

Hilcorp

Lonestar Consulting, LLC

Planning Report

LONESTAR CONSULTING

Database:	EDMDB	**Local Co-ordinate Reference:**	Well Allison Unit 632H
Company:	HilCorp	**TVD Reference:**	GL 6350' & RKB 25.1 @ 6375.10ft (Nabors B29)
Project:	San Juan, NM NAD27	**MD Reference:**	GL 6350' & RKB 25.1 @ 6375.10ft (Nabors B29)
Site:	Allison 611 Pad	**North Reference:**	True
Well:	Allison Unit 632H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	OH		
Design:	Plan #1		

Planned Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
15,200.00	89.88	270.204	6,837.79	2,281.71	-8,241.60	8,496.87	0.00	0.00	0.00
15,300.00	89.88	270.204	6,838.00	2,282.07	-8,341.60	8,595.70	0.00	0.00	0.00
15,400.00	89.88	270.204	6,838.21	2,282.42	-8,441.60	8,694.52	0.00	0.00	0.00
15,500.00	89.88	270.204	6,838.42	2,282.78	-8,541.60	8,793.35	0.00	0.00	0.00
15,600.00	89.88	270.204	6,838.63	2,283.14	-8,641.59	8,892.18	0.00	0.00	0.00
15,700.00	89.88	270.204	6,838.84	2,283.49	-8,741.59	8,991.00	0.00	0.00	0.00
15,800.00	89.88	270.204	6,839.04	2,283.85	-8,841.59	9,089.83	0.00	0.00	0.00
15,900.00	89.88	270.204	6,839.25	2,284.20	-8,941.59	9,188.66	0.00	0.00	0.00
16,000.00	89.88	270.204	6,839.46	2,284.56	-9,041.59	9,287.48	0.00	0.00	0.00
16,100.00	89.88	270.204	6,839.67	2,284.92	-9,141.59	9,386.31	0.00	0.00	0.00
16,200.00	89.88	270.204	6,839.88	2,285.27	-9,241.59	9,485.14	0.00	0.00	0.00
16,300.00	89.88	270.204	6,840.09	2,285.63	-9,341.59	9,583.96	0.00	0.00	0.00
16,400.00	89.88	270.204	6,840.30	2,285.99	-9,441.59	9,682.79	0.00	0.00	0.00
16,500.00	89.88	270.204	6,840.51	2,286.34	-9,541.59	9,781.62	0.00	0.00	0.00
16,600.00	89.88	270.204	6,840.71	2,286.70	-9,641.59	9,880.45	0.00	0.00	0.00
16,700.00	89.88	270.204	6,840.92	2,287.05	-9,741.59	9,979.27	0.00	0.00	0.00
16,800.00	89.88	270.204	6,841.13	2,287.41	-9,841.58	10,078.10	0.00	0.00	0.00
16,900.00	89.88	270.204	6,841.34	2,287.77	-9,941.58	10,176.93	0.00	0.00	0.00
17,000.00	89.88	270.204	6,841.55	2,288.12	-10,041.58	10,275.75	0.00	0.00	0.00
17,100.00	89.88	270.204	6,841.76	2,288.48	-10,141.58	10,374.58	0.00	0.00	0.00
17,200.00	89.88	270.204	6,841.97	2,288.84	-10,241.58	10,473.41	0.00	0.00	0.00
17,300.00	89.88	270.204	6,842.18	2,289.19	-10,341.58	10,572.23	0.00	0.00	0.00
17,400.00	89.88	270.204	6,842.38	2,289.55	-10,441.58	10,671.06	0.00	0.00	0.00
17,500.00	89.88	270.204	6,842.59	2,289.90	-10,541.58	10,769.89	0.00	0.00	0.00
17,600.00	89.88	270.204	6,842.80	2,290.26	-10,641.58	10,868.71	0.00	0.00	0.00
17,700.00	89.88	270.204	6,843.01	2,290.62	-10,741.58	10,967.54	0.00	0.00	0.00
17,800.00	89.88	270.204	6,843.22	2,290.97	-10,841.58	11,066.37	0.00	0.00	0.00
17,900.00	89.88	270.204	6,843.43	2,291.33	-10,941.57	11,165.19	0.00	0.00	0.00
18,000.00	89.88	270.204	6,843.64	2,291.69	-11,041.57	11,264.02	0.00	0.00	0.00
18,100.00	89.88	270.204	6,843.85	2,292.04	-11,141.57	11,362.85	0.00	0.00	0.00
18,200.00	89.88	270.204	6,844.06	2,292.40	-11,241.57	11,461.68	0.00	0.00	0.00
18,300.00	89.88	270.204	6,844.26	2,292.75	-11,341.57	11,560.50	0.00	0.00	0.00
18,400.00	89.88	270.204	6,844.47	2,293.11	-11,441.57	11,659.33	0.00	0.00	0.00
18,500.00	89.88	270.204	6,844.68	2,293.47	-11,541.57	11,758.16	0.00	0.00	0.00
18,600.00	89.88	270.204	6,844.89	2,293.82	-11,641.57	11,856.98	0.00	0.00	0.00
18,700.00	89.88	270.204	6,845.10	2,294.18	-11,741.57	11,955.81	0.00	0.00	0.00
18,800.00	89.88	270.204	6,845.31	2,294.54	-11,841.57	12,054.64	0.00	0.00	0.00
18,900.00	89.88	270.204	6,845.52	2,294.89	-11,941.57	12,153.46	0.00	0.00	0.00
19,000.00	89.88	270.204	6,845.73	2,295.25	-12,041.57	12,252.29	0.00	0.00	0.00
19,100.00	89.88	270.204	6,845.93	2,295.60	-12,141.56	12,351.12	0.00	0.00	0.00
19,200.00	89.88	270.204	6,846.14	2,295.96	-12,241.56	12,449.94	0.00	0.00	0.00
19,300.00	89.88	270.204	6,846.35	2,296.32	-12,341.56	12,548.77	0.00	0.00	0.00
19,400.00	89.88	270.204	6,846.56	2,296.67	-12,441.56	12,647.60	0.00	0.00	0.00
19,500.00	89.88	270.204	6,846.77	2,297.03	-12,541.56	12,746.42	0.00	0.00	0.00
19,600.00	89.88	270.204	6,846.98	2,297.39	-12,641.56	12,845.25	0.00	0.00	0.00
19,700.00	89.88	270.204	6,847.19	2,297.74	-12,741.56	12,944.08	0.00	0.00	0.00
19,800.00	89.88	270.204	6,847.40	2,298.10	-12,841.56	13,042.91	0.00	0.00	0.00
19,900.00	89.88	270.204	6,847.60	2,298.45	-12,941.56	13,141.73	0.00	0.00	0.00
20,000.00	89.88	270.204	6,847.81	2,298.81	-13,041.56	13,240.56	0.00	0.00	0.00
20,100.00	89.88	270.204	6,848.02	2,299.17	-13,141.56	13,339.39	0.00	0.00	0.00
20,200.00	89.88	270.204	6,848.23	2,299.52	-13,241.56	13,438.21	0.00	0.00	0.00
20,300.00	89.88	270.204	6,848.44	2,299.88	-13,341.55	13,537.04	0.00	0.00	0.00

Hilcorp

Lonestar Consulting, LLC
Planning Report

LONESTAR CONSULTING

Database:	EDMDB	**Local Co-ordinate Reference:**	Well Allison Unit 632H
Company:	HilCorp	**TVD Reference:**	GL 6350' & RKB 25.1 @ 6375.10ft (Nabors B29)
Project:	San Juan, NM NAD27	**MD Reference:**	GL 6350' & RKB 25.1 @ 6375.10ft (Nabors B29)
Site:	Allison 611 Pad	**North Reference:**	True
Well:	Allison Unit 632H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	OH		
Design:	Plan #1		

Planned Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
20,400.00	89.88	270.204	6,848.65	2,300.24	-13,441.55	13,635.87	0.00	0.00	0.00
20,500.00	89.88	270.204	6,848.86	2,300.59	-13,541.55	13,734.69	0.00	0.00	0.00
20,600.00	89.88	270.204	6,849.07	2,300.95	-13,641.55	13,833.52	0.00	0.00	0.00
20,700.00	89.88	270.204	6,849.27	2,301.30	-13,741.55	13,932.35	0.00	0.00	0.00
20,800.00	89.88	270.204	6,849.48	2,301.66	-13,841.55	14,031.17	0.00	0.00	0.00
20,900.00	89.88	270.204	6,849.69	2,302.02	-13,941.55	14,130.00	0.00	0.00	0.00
21,000.00	89.88	270.204	6,849.90	2,302.37	-14,041.55	14,228.83	0.00	0.00	0.00
21,100.00	89.88	270.204	6,850.11	2,302.73	-14,141.55	14,327.65	0.00	0.00	0.00
21,200.00	89.88	270.204	6,850.32	2,303.09	-14,241.55	14,426.48	0.00	0.00	0.00
21,300.00	89.88	270.204	6,850.53	2,303.44	-14,341.55	14,525.31	0.00	0.00	0.00
21,400.00	89.88	270.204	6,850.74	2,303.80	-14,441.55	14,624.14	0.00	0.00	0.00
21,500.00	89.88	270.204	6,850.95	2,304.15	-14,541.54	14,722.96	0.00	0.00	0.00
21,526.34	89.88	270.204	6,851.00	2,304.25	-14,567.88	14,748.99	0.00	0.00	0.00

Design Targets

Target Name - hit/miss target - Shape	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (usft)	Easting (usft)	Latitude	Longitude
AU 632H LP - plan hits target center - Point	0.00	0.000	6,822.00	2,254.77	-678.44	2,185,211.70	590,543.50	37.0049293	-107.5232495
AU 632H BHL - plan hits target center - Point	0.00	0.000	6,851.00	2,304.25	-14,567.88	2,185,215.60	576,654.00	37.0050547	-107.5708163

Formations

Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)
2,151.01	2,084.00	OJO ALAMO (SS)		0.00	0.000
2,221.75	2,150.00	KIRTLAND (SHALE + coal)		0.00	0.000
2,683.73	2,581.00	FRUITLAND (shale + COAL)		0.00	0.000
3,079.26	2,950.00	PICTURED CLIFFS (ss)		0.00	0.000
3,633.42	3,467.00	LEWIS SHALE		0.00	0.000
5,169.43	4,900.00	CLIFFHOUSE		0.00	0.000
5,570.31	5,274.00	MENEFEE		0.00	0.000
5,764.33	5,455.00	POINT LOOKOUT		0.00	0.000
6,320.63	5,974.00	MANCOS		0.00	0.000

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

General Information
Phone: (505) 629-6116

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

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

CONDITIONS

Action 421376

CONDITIONS

Operator: HILCORP ENERGY COMPANY 1111 Travis Street Houston, TX 77002	OGRID: 372171
	Action Number: 421376
	Action Type: [C-101] Drilling Non-Federal/Indian (APD)

CONDITIONS

Created By	Condition	Condition Date
ward.rikala	Notify the OCD 24 hours prior to casing & cement.	5/23/2025
ward.rikala	File As Drilled C-102 and a directional Survey with C-104 completion packet.	5/23/2025
ward.rikala	Once the well is spud, to prevent ground water contamination through whole or partial conduits from the surface, the operator shall drill without interruption through the fresh water zone or zones and shall immediately set in cement the water protection string.	5/23/2025
ward.rikala	Oil base muds are not to be used until fresh water zones are cased and cemented providing isolation from the oil or diesel. This includes synthetic oils. Oil based mud, drilling fluids and solids must be contained in a steel closed loop system.	5/23/2025
ward.rikala	Cement is required to circulate on both surface and intermediate1 strings of casing.	5/23/2025
ward.rikala	If cement does not circulate on any string, a Cement Bond Log (CBL) is required for that string of casing.	5/23/2025
ward.rikala	A [C-103] Sub. Drilling (C-103N) is required within (10) days of spud.	5/23/2025
ward.rikala	Please reference CO COA's for their requirements. API 05-067-10063	5/23/2025