Form 3160-5
(June 2015)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

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

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill or to re-enter an abandoned well. Use form 3160-3 (APD) for such proposals.

SUBMIT IN TRIPLICATE - Other instructions on page 2

5. Lease Serial No.
NMLC069515

6. If Indian, Allottee or Tribe Name

7. If Unit or CA/Agreement, Name and/or No.
NMNM138329X

1. Type of Well
☒ Oil Well ☐ Gas Well ☐ Other

8. Well Name and No.
ZIA HILLS 25E FED COM 401H

2. Name of Operator
CONOCOPHILLIPS COMPANY
Contact: JEREMY LEE
E-Mail: jeremy.l.lee@cop.com

9. API Well No.
30-025-42560-00-X1

3a. Address
925 N ELDRIDGE PARKWAY
HOUSTON, TX 77079

3b. Phone No. (include area code)
Ph: 832-486-2510

10. Field and Pool or Exploratory Area
WC025G09S263225A-WOLFCAMP

4. Location of Well *(Footage, Sec., T., R., M., or Survey Description)*
Sec 25 T26S R32E NWNE 250FNL 2310FEL
32.011286 N Lat, 103.373820 W Lon

11. County or Parish, State
LEA COUNTY, NM

12. CHECK THE APPROPRIATE BOX(ES) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION			
☒ Notice of Intent	☐ Acidize	☐ Deepen	☐ Production (Start/Resume)	☐ Water Shut-Off
☐ Subsequent Report	☐ Alter Casing	☐ Hydraulic Fracturing	☐ Reclamation	☐ Well Integrity
☐ Final Abandonment Notice	☐ Casing Repair	☐ New Construction	☐ Recomplete	☒ Other Surface Disturbance
	☐ Change Plans	☐ Plug and Abandon	☐ Temporarily Abandon	
	☐ Convert to Injection	☐ Plug Back	☐ Water Disposal	

13. Describe Proposed or Completed Operation: Clearly state all pertinent details, including estimated starting date of any proposed work and approximate duration thereof. If the proposal is to deepen directionally or recomplete horizontally, give subsurface locations and measured and true vertical depths of all pertinent markers and zones. Attach the Bond under which the work will be performed or provide the Bond No. on file with BLM/BIA. Required subsequent reports must be filed within 30 days following completion of the involved operations. If the operation results in a multiple completion or recompletion in a new interval, a Form 3160-4 must be filed once testing has been completed. Final Abandonment Notices must be filed only after all requirements, including reclamation, have been completed and the operator has determined that the site is ready for final inspection.

ConocoPhillips respectfully request approval for new surface disturbance in order to construct the Superman Treatment site. ConocoPhillips is seeking approval of a 900? x 275? pad, 2 access roads (one is an existing road), to install two 18" culverts under the existing road, 30? pipeline ROW, 30? powerline ROW, and 10? of temporary workspace to safely install the pipelines. ConocoPhillips is also seeking approval to store topsoil off site. The location of the topsoil is depicted on the Site Plan.

ConocoPhillips is seeking approval to store 3 above ground storage tanks(AST) and a treatment skid at the Superman Treatment site. The treated produced water will be used for drilling, completion, production, or plug mill-out activities in the Zia Hills Unit. ConocoPhillips plans to utilize up to a 60k bbl produced water AST, a 40k bbl freshwater AST, and a potential 40k AST to hold treated produced water prior to pumping into the pit. The diameter of the 40k ASTs will be approximately

Approved. NM. 03/12/2020. DOI-BLM-NM-P020-2020-0541-EA. Stipulations attached.

14. I hereby certify that the foregoing is true and correct.

Electronic Submission #500661 verified by the BLM Well Information System
For CONOCOPHILLIPS COMPANY, sent to the Hobbs
Committed to AFMSS for processing by JUANA MEDRANO on 01/27/2020 (20JM0064SE)

Name *(Printed/Typed)* JEREMY LEE — Title REGULATORY COORDINATOR

Signature (Electronic Submission) — Date 01/24/2020

THIS SPACE FOR FEDERAL OR STATE OFFICE USE

Approved By _____ Title _____ Date 03/13/2020

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

Office CFO

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

(Instructions on page 2)

**** BLM REVISED ** BLM REVISED ** BLM REVISED ** BLM REVISED ** BLM REVISED ****

KZ

Additional data for EC transaction #500661 that would not fit on the form

32. Additional remarks, continued

153? and the 60k AST will be 192?. The treatment equipment will sit on an area which is approximately 250?X 180?. Based on equipment availability minions, frack tanks, or similar equipment may be utilized instead of above ground storage tanks. Equipment holding produced water(tanks and treatment equipment) will be double lined with leak detection.

Treatment equipment that is proposed for this location includes the following:
? Inlet Separation
? Chemical Injection
? Dissolved Air Floatation(DAF) Tanks
? Filtration equipment
? Solids/slurry storage for treatment waste (Primarily Iron Waste)

ConocoPhillips is seeking approval to utilize approximately 331? of existing access road and approximately 69? of new surface disturbance for a second access road. The existing road will tie into the NE corner of the treatment pad. A second access road will run from the SW corner of the pad then tie into an existing road. Existing roads will be upgraded.

ConocoPhillips is seeking approval of a 30? wide ROW to install approximately 739? of powerline. The ROW will extend the length of the treatment pad. There will be two tie-ins to existing COP powerlines. The first tie-in will be from an existing powerline north of the entrance road and run to the treatment skid. The second tie-in will be from an existing powerline north of the entrance road and run to the Superman Pond.

ConocoPhillips is seeking approval of a flowline ROW which will consist of one buried 16? and one buried 12? poly water lines approximately 758? in length. The max pressure is 210 psig and typical operating pressure of <100 psig. The 12? line will provide produced water to the treatment skid the 16? line will supply treated produced water to the Superman Pond. The flowline route will begin at a tie-in north of the existing entrance road and run to the treatment skid. Approval is being sought to blade the entire flowline ROW. The ROW will extend the length of the treatment pad. Based on the material availability the lines may be less than 16? but will not be greater than 16?.

This action is part of the Superman Pond surface disturbance.

Revisions to Operator-Submitted EC Data for Sundry Notice #500661

	Operator Submitted	BLM Revised (AFMSS)
Sundry Type:	DISTURB NOI	DISTURB NOI
Lease:	NMLC069515	NMLC069515
Agreement:		NMNM138329X (NMNM138329X)
Operator:	CONOCOPHILLIPS COMPANY 925 N. ELDRIDGE PARKWAY SUITE EC3-12-W154 HOUSTON, TX 77079 Ph: 832-486-2510	CONOCOPHILLIPS COMPANY 925 N ELDRIDGE PARKWAY HOUSTON, TX 77079 Ph: 281 206 5281
Admin Contact:	JEREMY LEE REGULATORY COORDINATOR E-Mail: jeremy.l.lee@cop.com Ph: 832-486-2510	JEREMY LEE REGULATORY COORDINATOR E-Mail: jeremy.l.lee@cop.com Ph: 832-486-2510
Tech Contact:	JEREMY LEE REGULATORY COORDINATOR E-Mail: jeremy.l.lee@cop.com Ph: 832-486-2510	JEREMY LEE REGULATORY COORDINATOR E-Mail: jeremy.l.lee@cop.com Ph: 832-486-2510
Location: State: County:	 NM LEA COUNTY	 NM LEA
Field/Pool:	ZIA HILLS; BONE SPRING	WC025G09S263225A-WOLFCAMP
Well/Facility:	ZIA HILLS 25E FEDERAL COM 401H Sec 25 T26S R32E Mer NMP 250FNL 2310FEL	ZIA HILLS 25E FED COM 401H Sec 25 T26S R32E NWNE 250FNL 2310FEL 32.011286 N Lat, 103.373820 W Lon

Process Document

Process Description

Produced water from individual wells within the Zia Hills Unit is routed to the Zia Hills Central Facility 1. Produced water is stored in water tanks at the Zia Hills Central Facility 1 and will be pumped to the treatment location where it will either be held for treatment in a produced water above-ground storage tank (AST) or frac tank or be transferred directly to the inlet of a skid mounted treatment facility at the Superman Treatment Site. Treated produced water from the skid mounted treatment facility will be routed to the Superman Pond and used primarily for fracing wells in the Zia Hills Unit or other beneficial use with Zia Hills Unit.

Culverts will be installed under the existing access road in order to route treated produced water and fresh water to the Superman Pond. The northeast access road to the site is an existing road and will be upgraded. The southwest access road will be new surface disturbance.

Above-ground Storage Tanks

The Superman Treatment Site will contain:

- 40K BBL freshwater AST
- Treatment equipment
- 40K BBL treated produced water AST
- Up to a 60K BBL produced water AST

All AST's will be double walled with a berm or liner of as means of secondary containment. All ASTs will be netted as a means of wildlife protection. ASTs will be enclosed by a 4-strand barbed wire fence. If unable to obtain above-ground storage tanks, frac tanks will be utilized in place of ASTs.

Waste

The waste by-product of the treatment will be contained in frac tanks and then trucked to an approved slurry disposal or it will be dewatered, and the solids taken to an approved solids waste facility.

Leak Detection

All AST containments holding produced water will have a primary (upper) liner and a secondary (lower) liner with a leak detection system appropriate to the site's conditions. The edges of all secondary liners shall be anchored in the bottom of a compacted earth-filled trench. The anchor trench shall be at least 18 inches deep.

Monitoring, Inspections, and Reporting

Monthly inspections shall occur when there is less than 1-foot depth of produced water in the containment, as well as when the ASTs are emptied and prior to refilling. An inspection log will be maintained by the operator and will be made available upon request.

Additional Information

To safely install the pipeline an extra 10-foot-wide area of temporary workspace is being requested. Topsoil will be stripped and stockpiled at an offsite location. See attached plats. At least 2-feet of freeboard will be maintained in each AST containment. The treatment site will comply with NMOCD regulations. Approval is also being sought from NMOCD. Form C-147 will be filed with the NMOCD to register the treatment site. A copy will be provided to the BLM.

ConocoPhillips Company
SUPERMAN TREATMENT SITE
SECTION 30, T26S, R32E, N.M.P.M.
LEA COUNTY, NEW MEXICO

DATE:	DESCRIPTION:
12/13/2019	FINAL PLATS
1/2/2020	UPDATED EXISTING FEATURES, ADDED PIPELINE RE-ROUTE, EXTENDED POWER ROW

UINTAH
ENGINEERING & LAND SURVEYING

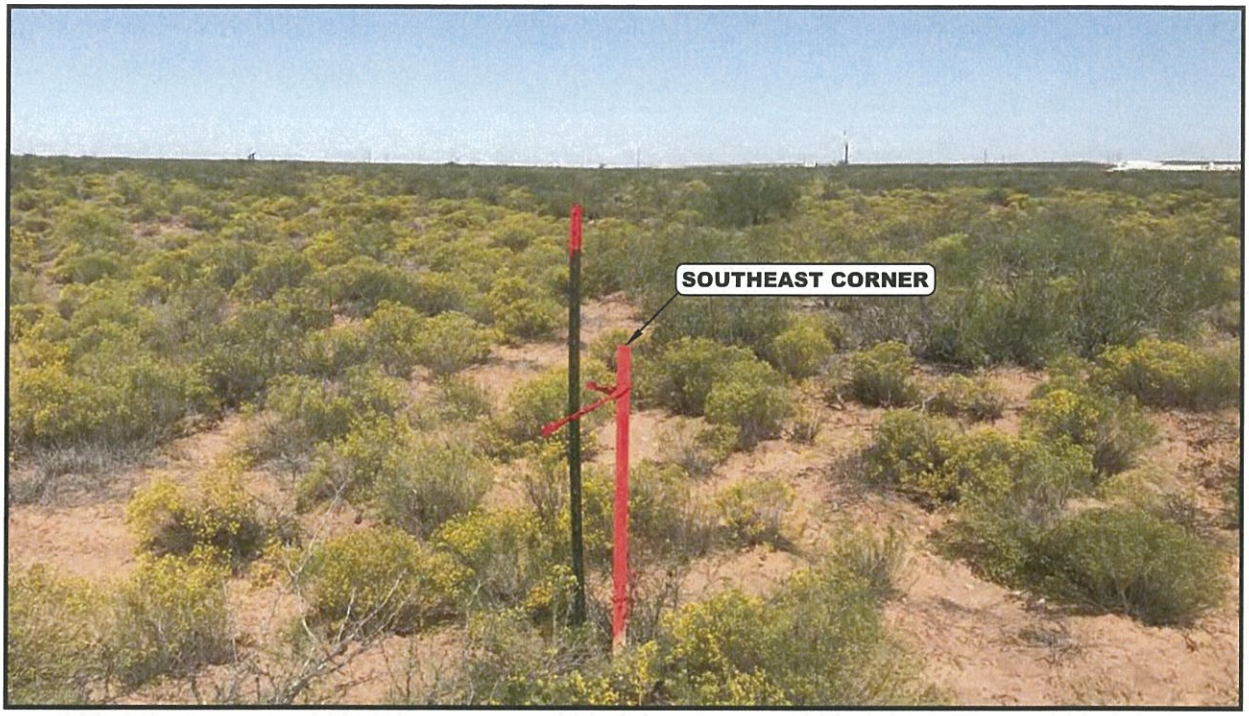


PHOTO: VIEW OF SOUTHEAST CORNER

CAMERA ANGLE: NORTHWESTERLY

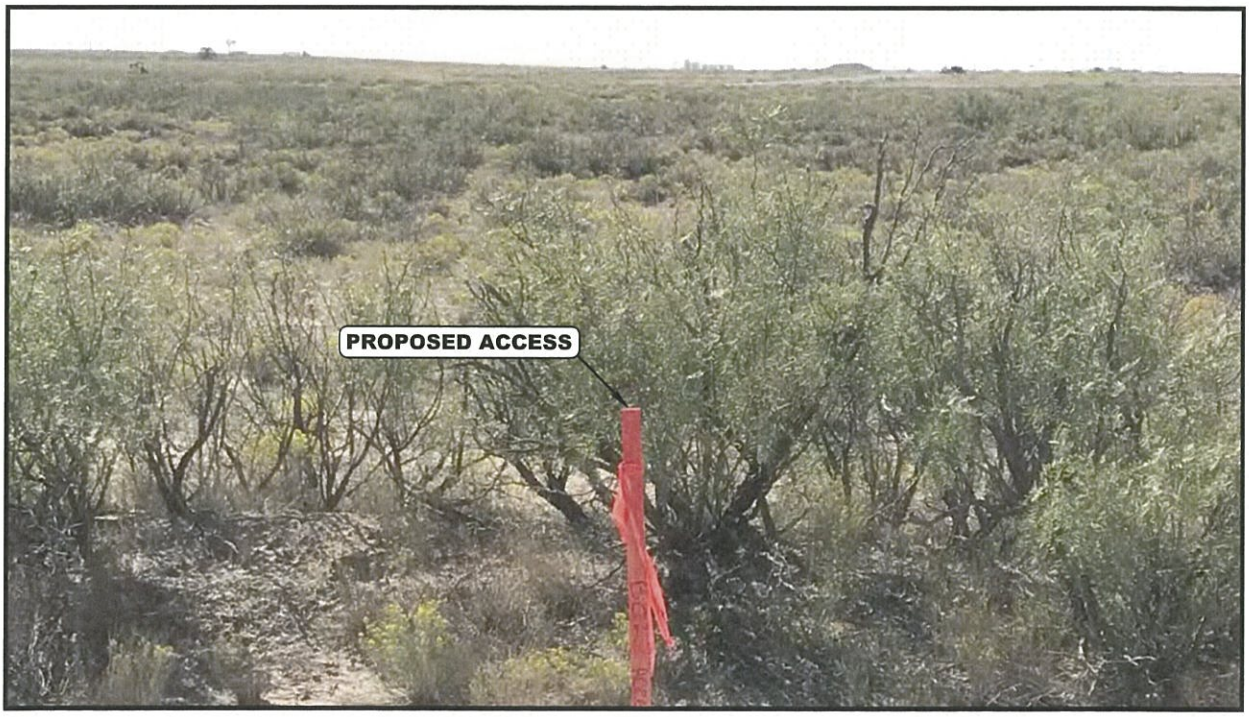


PHOTO: VIEW FROM BEGINNING OF PROPOSED ACCESS

CAMERA ANGLE: SOUTHERLY

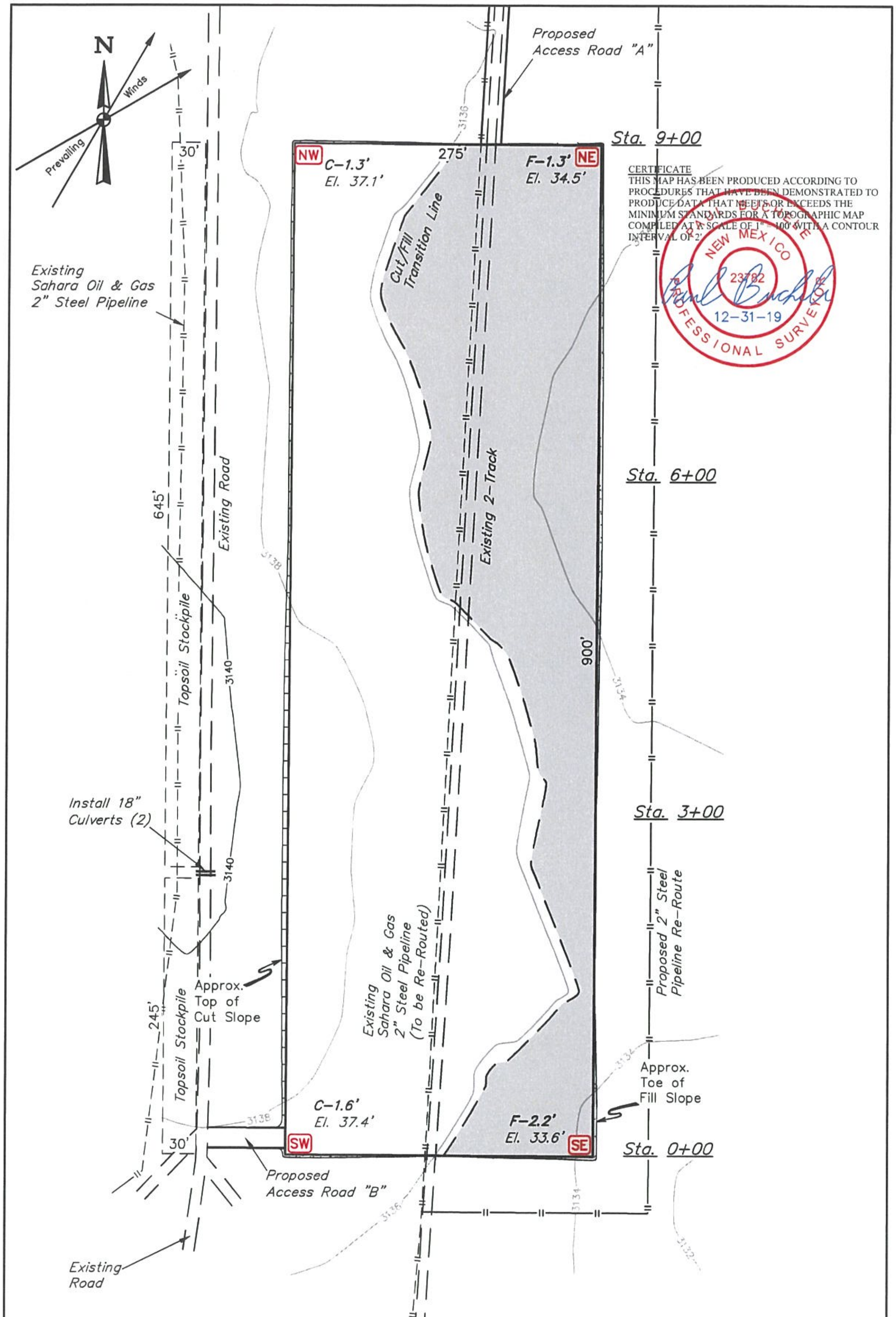
ConocoPhillips Company

SUPERMAN TREATMENT SITE
SECTION 30, T26S, R32E, N.M.P.M.
LEA COUNTY, NEW MEXICO

TAKEN BY	C.H., D.C.	10-16-19	
DRAWN BY	J.A.	12-13-19	
LOCATION PHOTOS			PHOTO

UINTAH ENGINEERING & LAND SURVEYING

UELS, LLC
Corporate Office * 85 South 200 East
Vernal, UT 84078 * (435) 789-1017



FINISHED GRADE ELEVATION = **3135.8'**

REV: 1 12-31-19 C.D. (UPDATE EXISTING FEATURES & ADD PIPELINE RE-ROUTE)

NOTES:

- Contours shown at 2' intervals.
- Underground utilities shown on this sheet are for visualization purposes only, actual locations to be determined prior to construction.
- Basis of Bearings is a Transverse Mercator Projection with a Central Meridian of W103°53'00" (NAD 83)

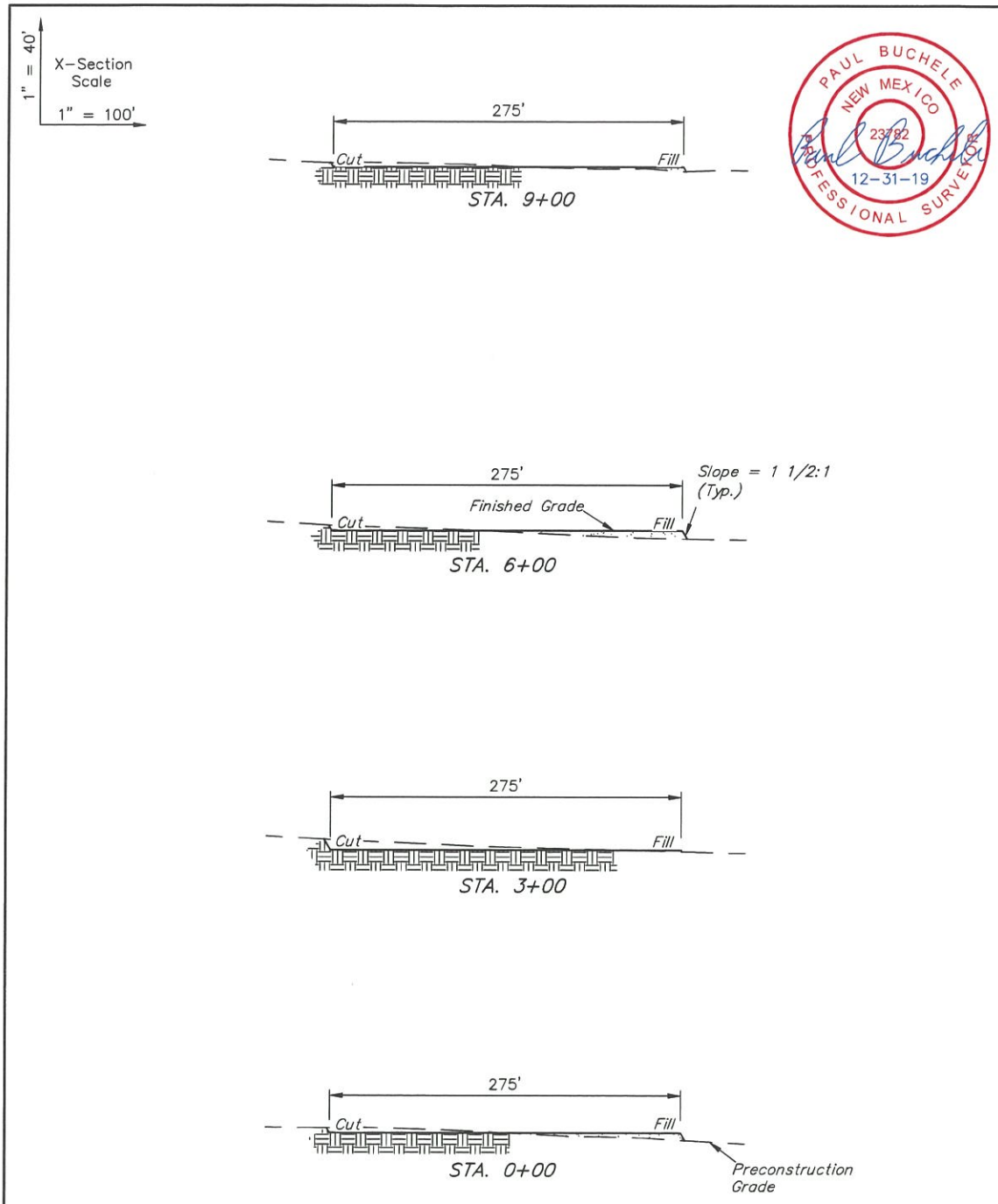
ConocoPhillips Company

SUPERMAN TREATMENT SITE
SECTION 30, T26S, R32E, N.M.P.M.
LEA COUNTY, NEW MEXICO

UINTAH ENGINEERING & LAND SURVEYING

UELS, LLC
Corporate Office * 85 South 200 East
Vernal, UT 84078 * (435) 789-1017

SURVEYED BY	C.H., D.C.	10-19-19	SCALE
DRAWN BY	J.A.	12-13-19	1" = 100'
LOCATION LAYOUT		FIGURE #1	



PAUL BUCHELE
NEW MEXICO
23782
12-31-19
PROFESSIONAL SURVEYOR

APPROXIMATE EARTHWORK QUANTITIES	
(4") TOPSOIL STRIPPING	3,130 Cu. Yds.
REMAINING LOCATION	5,030 Cu. Yds.
TOTAL CUT	**8,160 Cu. Yds.**
FILL	**5,030 Cu. Yds.**
EXCESS MATERIAL	3,130 Cu. Yds.
TOPSOIL	3,130 Cu. Yds.
EXCESS UNBALANCE (After Interim Rehabilitation)	**0 Cu. Yds.**

APPROXIMATE SURFACE DISTURBANCE AREAS		
	DISTANCE	**ACRES**
SURFACE USE AREA DISTURBANCE	NA	±8.113
30' WIDE ACCESS ROAD "A" R-O-W DISTURBANCE	±327.88'	±0.226
30' WIDE WATER LINE R-O-W DISTURBANCE	±379.76'	±0.262
30' WIDE POWER LINE R-O-W DISTURBANCE	±890.65'	±0.613
30' WIDE PIPELINE RE-ROUTE R-O-W DISTURBANCE	±1,576.58'	±1.086
TOTAL SURFACE USE AREA		**±10.300**

REV: 1 12-31-19 C.D. (UPDATE DISTURBANCE TABLE)

NOTES:

- Fill quantity includes 5% for compaction.

ConocoPhillips Company

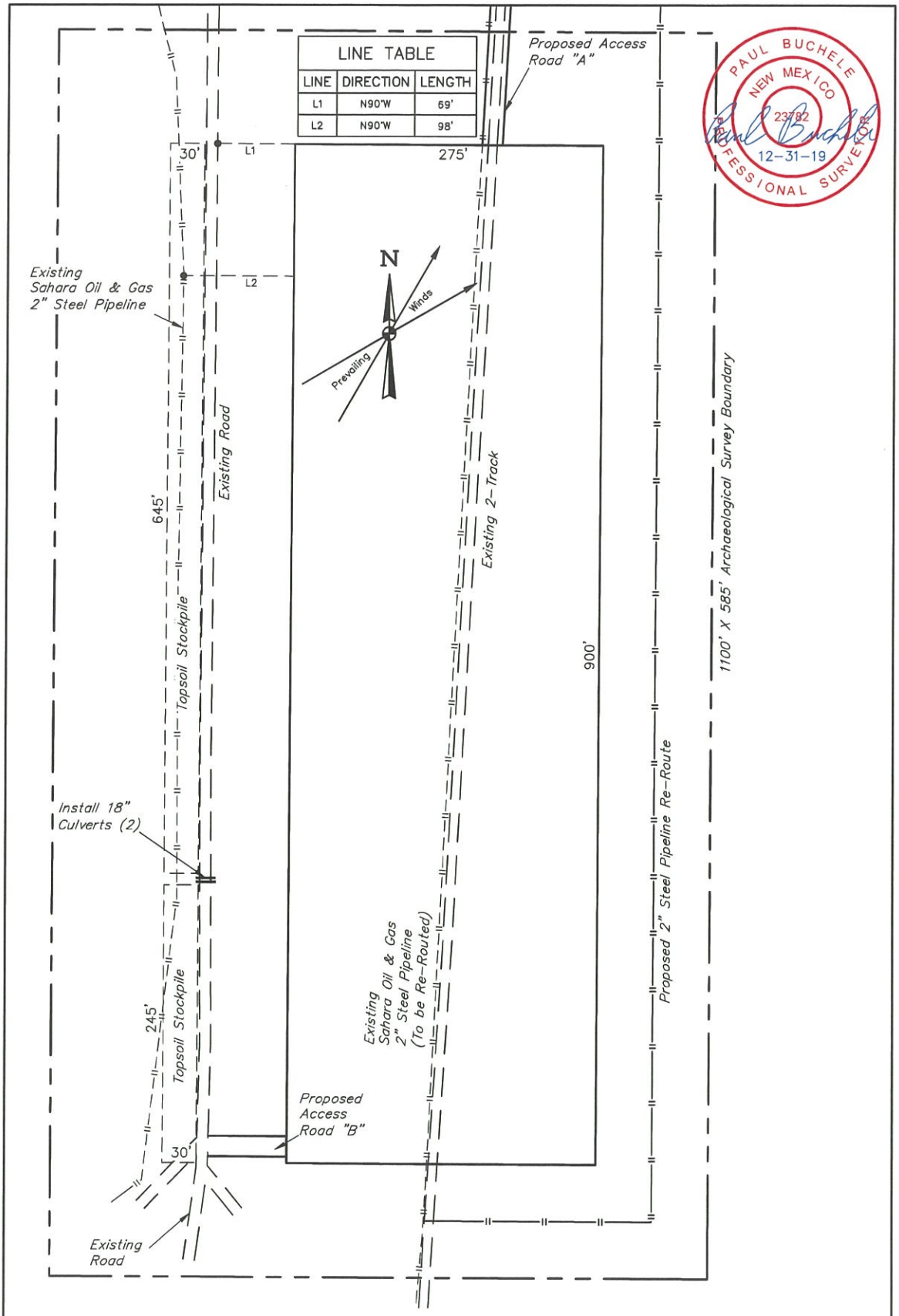
SUPERMAN TREATMENT SITE
SECTION 30, T26S, R32E, N.M.P.M.
LEA COUNTY, NEW MEXICO

UINTAH ENGINEERING & LAND SURVEYING

UELS, LLC
Corporate Office * 85 South 200 East
Vernal, UT 84078 * (435) 789-1017

SURVEYED BY	C.H., D.C.	10-19-19	SCALE
DRAWN BY	J.A.	12-13-19	AS SHOWN

TYPICAL CROSS SECTIONS | **FIGURE #2**



PAUL BUCHELE
NEW MEXICO
23782
PROFESSIONAL SURVEYOR
12-31-19

REV: 1 12-31-19 C.D. (UPDATE EXISTING FEATURES & ADD PIPELINE RE-ROUTE)

NOTES:
- Basis of Bearings is a Transverse Mercator Projection with a Central Meridian of W103°53'00" (NAD 83)

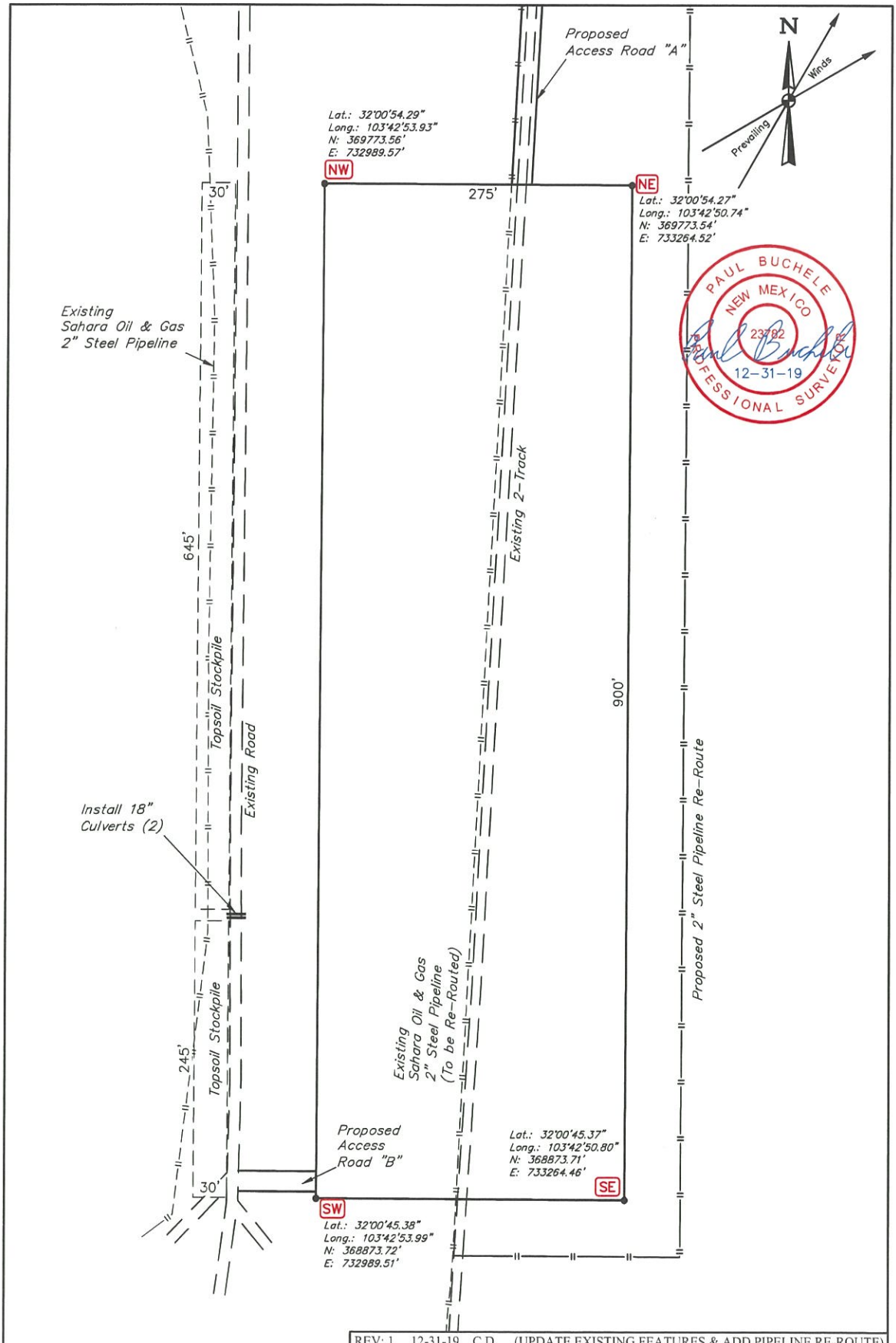
ConocoPhillips Company

SUPERMAN TREATMENT SITE
SECTION 30, T26S, R32E, N.M.P.M.
LEA COUNTY, NEW MEXICO

UINTAH ENGINEERING & LAND SURVEYING

UELS, LLC
Corporate Office * 85 South 200 East
Vernal, UT 84078 * (435) 789-1017

SURVEYED BY	C.H., D.C.	10-19-19	SCALE
DRAWN BY	J.A.	12-13-19	1" = 100'
ARCHAEOLOGICAL SURVEY BOUNDARY			FIGURE #5



REV: 1 12-31-19 C.D. (UPDATE EXISTING FEATURES & ADD PIPELINE RE-ROUTE)

NOTES:

- Coordinates shown are New Mexico Coordinate system of 1983, East Zone, U.S. feet.
- Latitude and longitude coordinates are NAD 83.

ConocoPhillips Company

SUPERMAN TREATMENT SITE
SECTION 30, T26S, R32E, N.M.P.M.
LEA COUNTY, NEW MEXICO

SURVEYED BY	C.H., D.C.	10-19-19	SCALE
DRAWN BY	J.A.	12-13-19	1" = 100'

SITE PLAN

UINTAH ENGINEERING & LAND SURVEYING

UELS, LLC
Corporate Office * 85 South 200 East
Vernal, UT 84078 * (435) 789-1017

BEGINNING AT THE INTERSECTION OF HIGHWAY 18 AND HIGHWAY 128 IN JAL, NEW MEXICO, PROCEED IN A WESTERLY, THEN NORTHWESTERLY, THEN WESTERLY DIRECTION ALONG HIGHWAY 128 APPROXIMATELY 30.0 MILES TO THE JUNCTION OF THIS ROAD AND ORLA ROAD/CR J-1 TO THE SOUTH; TURN LEFT AND PROCEED IN A SOUTHERLY, THEN SOUTHWESTERLY DIRECTION APPROXIMATELY 13.6 MILES TO THE JUNCTION OF THIS ROAD AND AN EXISTING ROAD TO THE WEST; TURN RIGHT AND PROCEED IN A WESTERLY DIRECTION APPROXIMATELY 0.8 MILES TO THE JUNCTION OF THIS ROAD AND AN EXISTING ROAD TO THE SOUTH; TURN LEFT AND PROCEED IN A SOUTHERLY, THEN EASTERLY, THEN SOUTHERLY, THEN WESTERLY DIRECTION APPROXIMATELY 0.8 MILES TO THE BEGINNING OF THE PROPOSED ACCESS ROAD "A" TO THE SOUTH; FOLLOW ROAD FLAGS IN A SOUTHERLY DIRECTION APPROXIMATELY 328' TO THE PROPOSED LOCATION.

TOTAL DISTANCE FROM JAL, NEW MEXICO TO THE PROPOSED LOCATION IS APPROXIMATELY 45.3 MILES.

REV: 1 12-31-19 J.A. (UPDATE ROAD DESCRIPTION)

ConocoPhillips Company

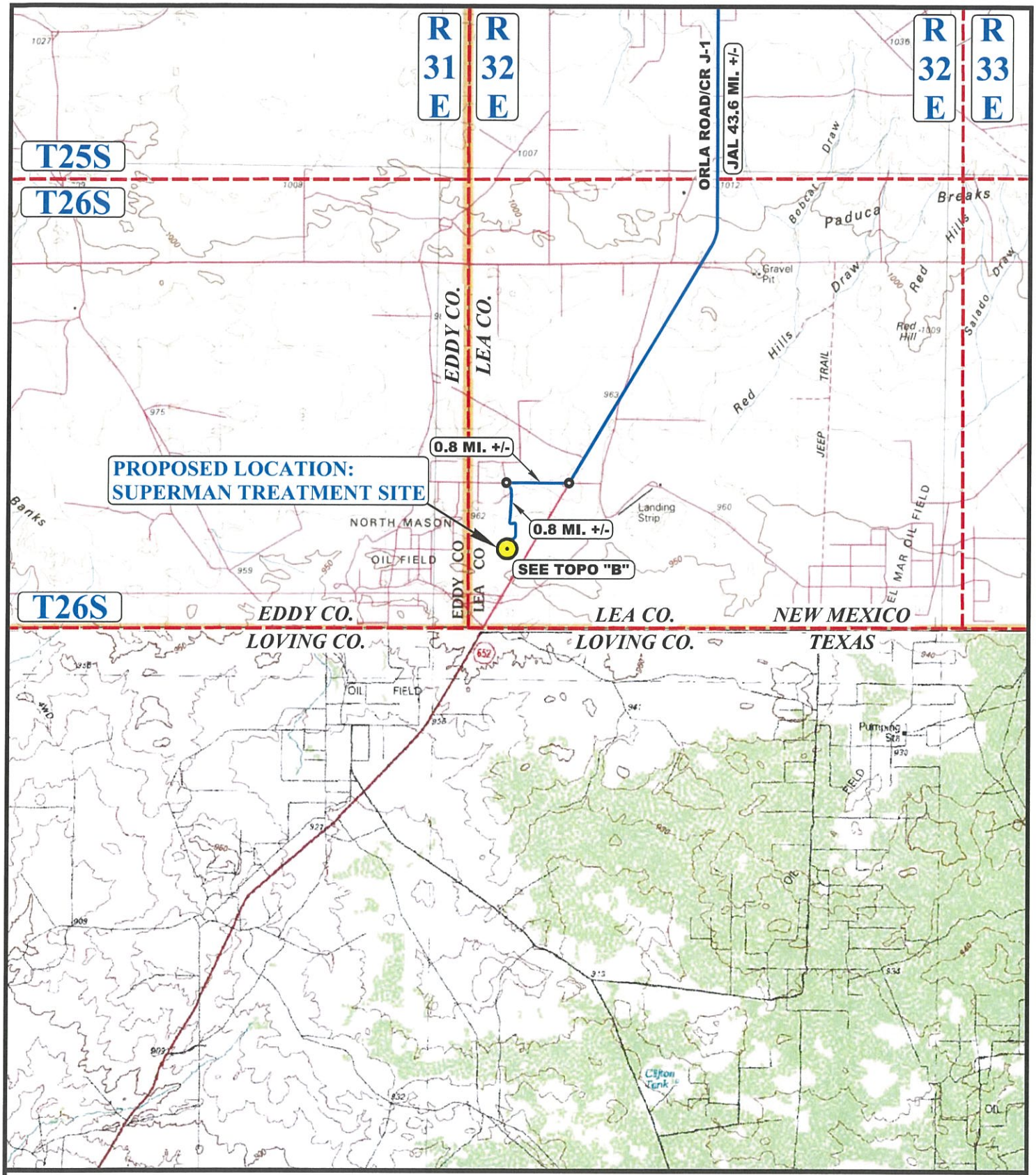
SUPERMAN TREATMENT SITE
SECTION 30, T26S, R32E, N.M.P.M.
LEA COUNTY, NEW MEXICO

UINTAH ENGINEERING & LAND SURVEYING

UELS, LLC
Corporate Office * 85 South 200 East
Vernal, UT 84078 * (435) 789-1017

SURVEYED BY	C.H., D.C.	10-16-19	
DRAWN BY	J.A.	12-13-19	

ROAD DESCRIPTION



LEGEND:

PROPOSED LOCATION

N

ConocoPhillips Company

SUPERMAN TREATMENT SITE
SECTION 30, T26S, R32E, N.M.P.M.
LEA COUNTY, NEW MEXICO

SURVEYED BY	C.H., D.C.	10-16-19	SCALE
DRAWN BY	J.A.	12-13-19	1 : 100,000
ACCESS ROAD MAP			TOPO A

UINTAH ENGINEERING & LAND SURVEYING

UELS, LLC
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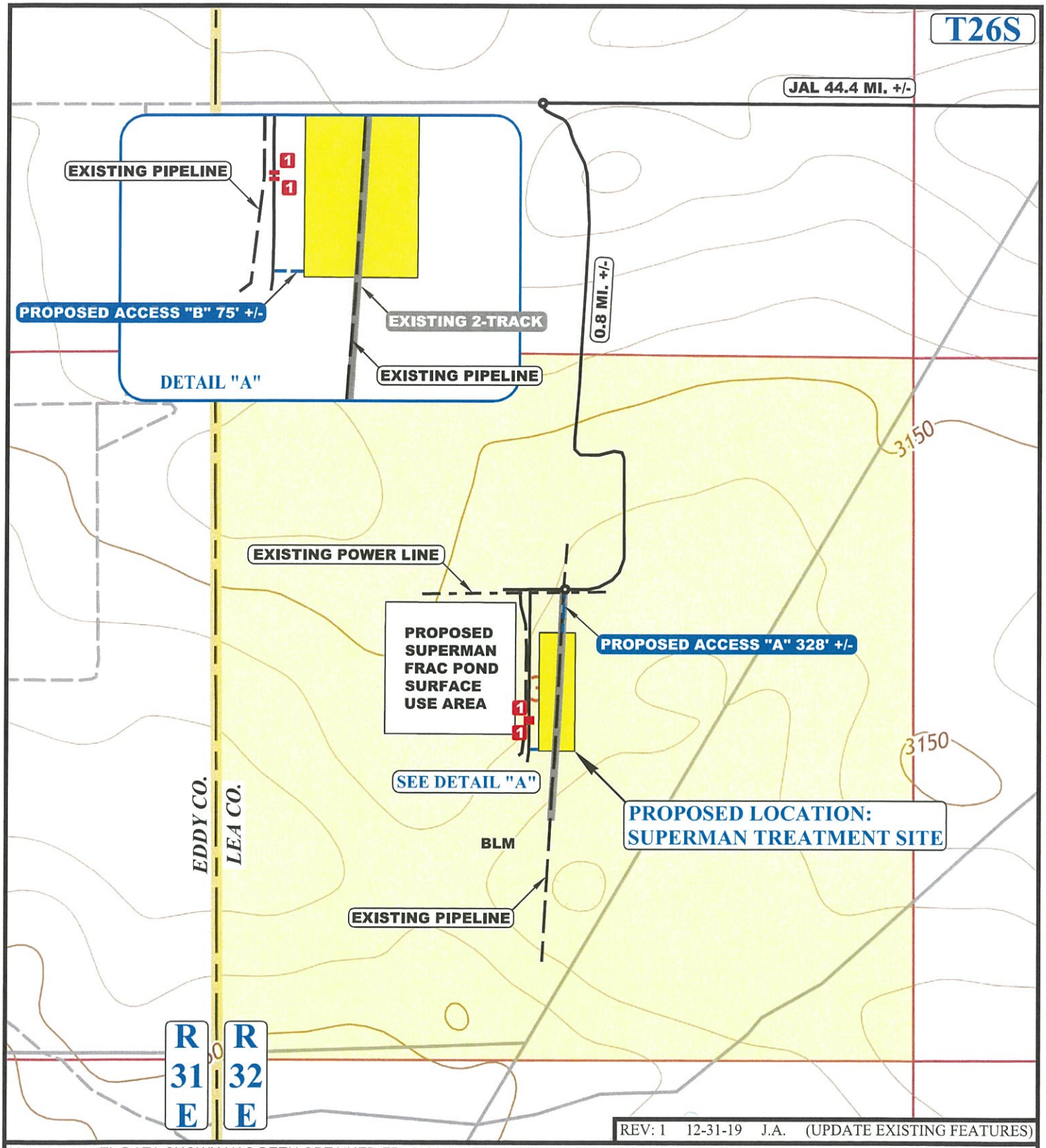
Vernal, UT 84078 * (435) 789-1017



REV: 1 12-31-19 J.A. (UPDATE EXISTING FEATURES)

NOTE: PARCEL DATA SHOWN HAS BEEN OBTAINED FROM VARIOUS SOURCES AND SHOULD BE USED FOR MAPPING, GRAPHIC AND PLANNING PURPOSES ONLY. NO WARRANTY IS MADE BY UINTAH ENGINEERING AND LAND SURVEYING (UELS) FOR ACCURACY OF THE PARCEL DATA.

LEGEND:

- EXISTING ROAD
- PROPOSED ROAD
- EXISTING POWER LINE
- EXISTING PIPELINE
- EXISTING 2-TRACK
- 1 INSTALL 18" CULVERT

N

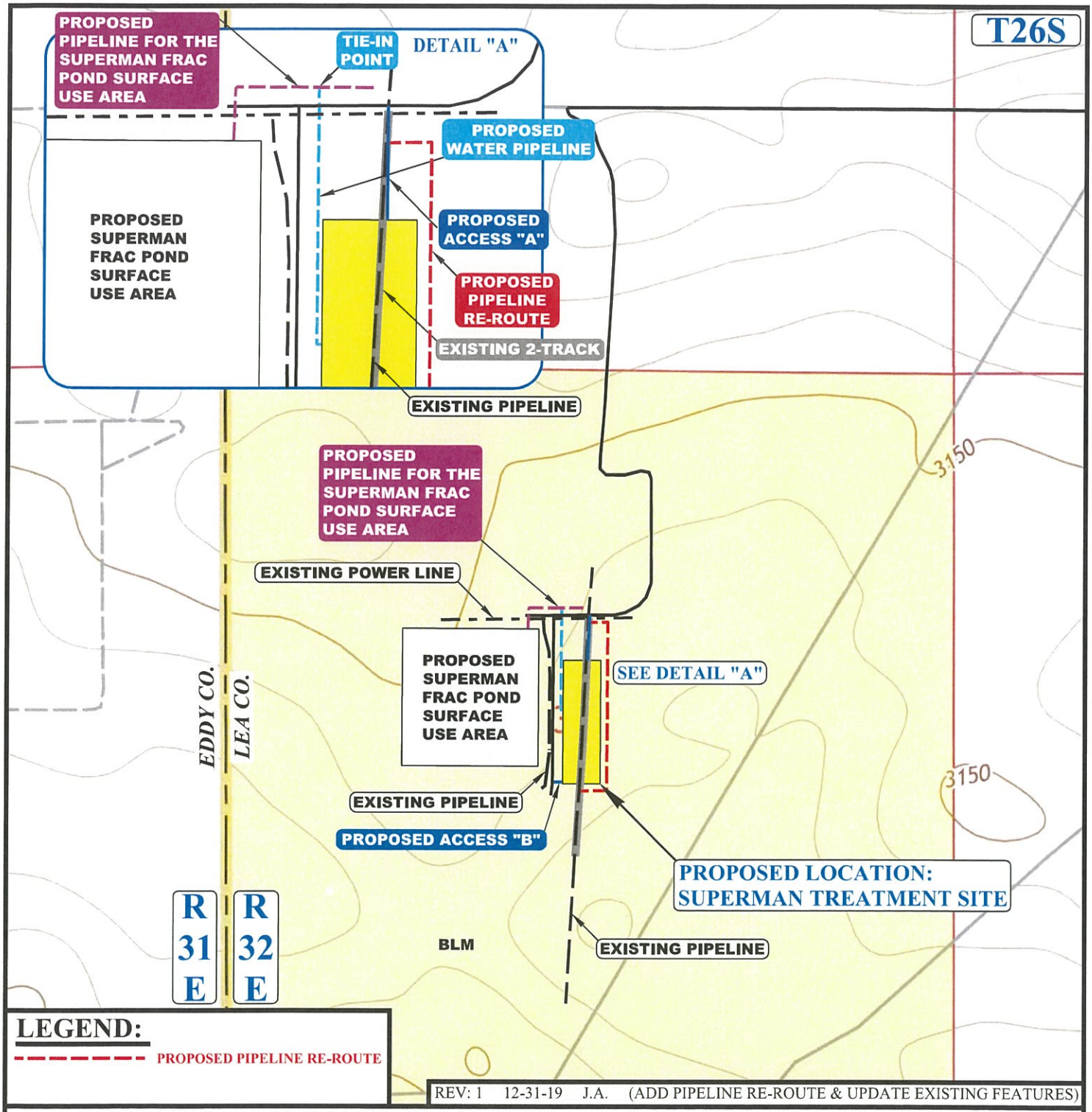
ConocoPhillips Company

SUPERMAN TREATMENT SITE
SECTION 30, T26S, R32E, N.M.P.M.
LEA COUNTY, NEW MEXICO

SURVEYED BY	C.H., D.C.	10-16-19	SCALE
DRAWN BY	J.A.	12-13-19	1 : 12,000
ACCESS ROAD MAP			TOPO B

UINTAH ENGINEERING & LAND SURVEYING

UELS, LLC
Corporate Office * 85 South 200 East
Vernal, UT 84078 * (435) 789-1017



LEGEND:

PROPOSED PIPELINE RE-ROUTE

REV: 1 12-31-19 J.A. (ADD PIPELINE RE-ROUTE & UPDATE EXISTING FEATURES)

APPROXIMATE TOTAL PIPELINE RE-ROUTE DISTANCE = 1,577' +/-

APPROXIMATE TOTAL WATER PIPELINE DISTANCE = 757' +/-

NOTE: PARCEL DATA SHOWN HAS BEEN OBTAINED FROM VARIOUS SOURCES AND SHOULD BE USED FOR MAPPING, GRAPHIC AND PLANNING PURPOSES ONLY. NO WARRANTY IS MADE BY UINTAH ENGINEERING AND LAND SURVEYING (UELS) FOR ACCURACY OF THE PARCEL DATA.

LEGEND:

- EXISTING ROAD
- PROPOSED ROAD
- EXISTING POWER LINE
- EXISTING PIPELINE
- EXISTING 2-TRACK
- PROPOSED WATER PIPELINE
- PROPOSED PIPELINE (SERVICING OTHER SITES)

UINTAH ENGINEERING & LAND SURVEYING

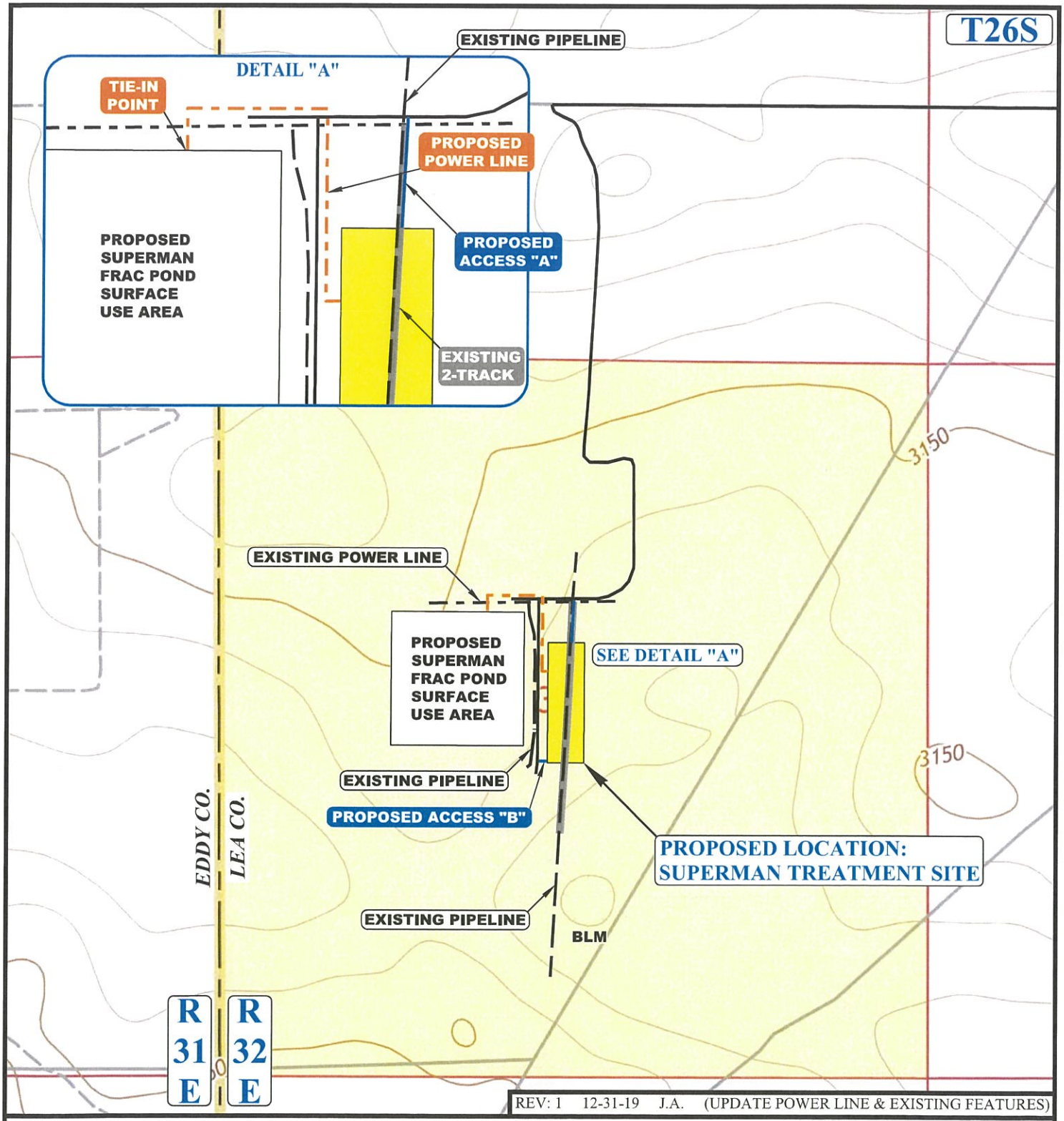
UELS, LLC
Corporate Office * 85 South 200 East
Vernal, UT 84078 * (435) 789-1017

N

ConocoPhillips Company

SUPERMAN TREATMENT SITE
SECTION 30, T26S, R32E, N.M.P.M.
LEA COUNTY, NEW MEXICO

SURVEYED BY	C.H., D.C.	10-16-19	SCALE
DRAWN BY	J.A.	12-13-19	1 : 12,000
PIPELINE MAP			TOPO D



REV: 1 12-31-19 J.A. (UPDATE POWER LINE & EXISTING FEATURES)

APPROXIMATE TOTAL POWER LINE DISTANCE = 1,153' +/-

NOTE: PARCEL DATA SHOWN HAS BEEN OBTAINED FROM VARIOUS SOURCES AND SHOULD BE USED FOR MAPPING, GRAPHIC AND PLANNING PURPOSES ONLY. NO WARRANTY IS MADE BY UINTAH ENGINEERING AND LAND SURVEYING (UELS) FOR ACCURACY OF THE PARCEL DATA.

LEGEND:

- EXISTING ROAD
- PROPOSED ROAD
- EXISTING POWER LINE
- EXISTING PIPELINE
- EXISTING 2-TRACK
- PROPOSED POWER LINE

N

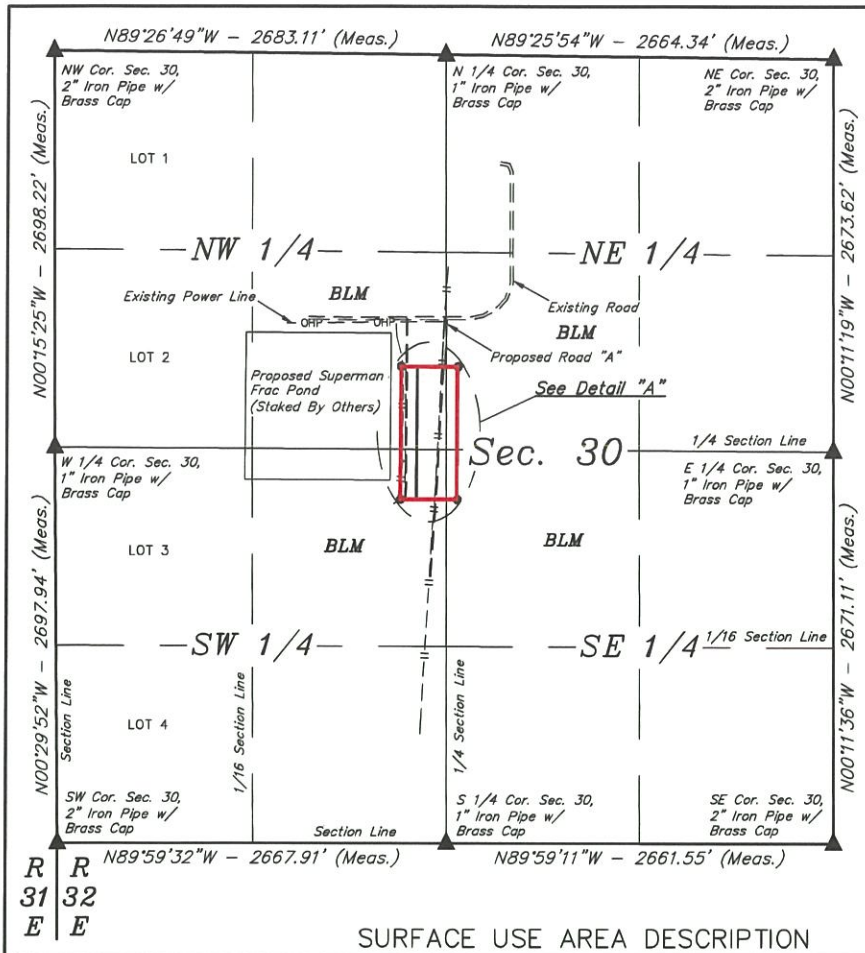
ConocoPhillips Company

SUPERMAN TREATMENT SITE
SECTION 30, T26S, R32E, N.M.P.M.
LEA COUNTY, NEW MEXICO

SURVEYED BY	C.H., D.C.	10-16-19	SCALE
DRAWN BY	J.A.	12-13-19	1 : 12,000
POWER LINE MAP			TOPO E

UINTAH ENGINEERING & LAND SURVEYING

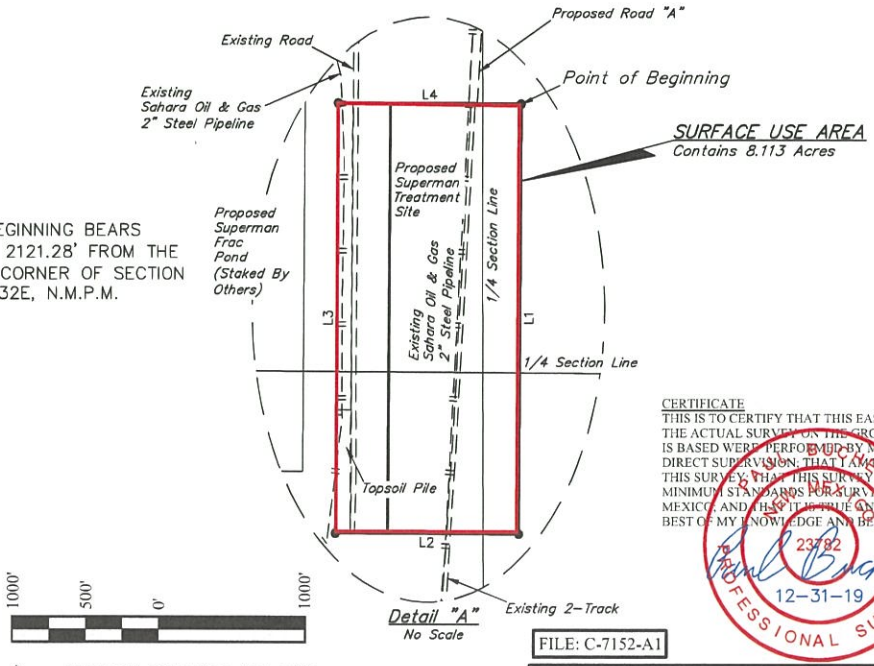
UELS, LLC
Corporate Office * 85 South 200 East
Vernal, UT 84078 * (435) 789-1017



LINE TABLE		
LINE	DIRECTION	LENGTH
L1	S00°14'32"W	906.00'
L2	N89°45'28"W	390.07'
L3	N00°14'32"E	906.00'
L4	S89°45'28"E	390.07'

SURFACE USE AREA DESCRIPTION

BEGINNING AT A POINT IN THE SW 1/4 NE 1/4 OF SECTION 30, T26S, R32E, N.M.P.M., WHICH BEARS S02°26'53"E 2121.28' FROM THE NORTH 1/4 CORNER OF SAID SECTION 30, THENCE S00°14'32"W 906.00'; THENCE N89°45'28"W 390.07'; THENCE N00°14'32"E 906.00'; THENCE S89°45'28"E 390.07' TO THE POINT OF BEGINNING OF SAID SECTION 30. BASIS OF BEARINGS IS A TRANSVERSE MERCATOR PROJECTION WITH A CENTRAL MERIDIAN OF W103°53'00". CONTAINS 8.113 ACRES MORE OR LESS.



POINT OF BEGINNING BEARS S02°26'53"E 2121.28' FROM THE NORTH 1/4 CORNER OF SECTION 30, T26S, R32E, N.M.P.M.

▲ = SECTION CORNERS LOCATED.

CERTIFICATE
THIS IS TO CERTIFY THAT THIS EASEMENT PLAT AND THE ACTUAL SURVEY ON THE GROUND UPON WHICH IT IS BASED WERE PERFORMED BY ME OR UNDER MY DIRECT SUPERVISION; THAT I AM RESPONSIBLE FOR THIS SURVEY; THAT THIS SURVEY MEETS THE MINIMUM STANDARDS FOR SURVEYING IN NEW MEXICO; AND THAT IT IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF.

STATE OF NEW MEXICO 23782 PROFESSIONAL SURVEYOR 12-31-19

FILE: C-7152-A1

REV: 1 12-31-19 C.D. (UPDATED EXISTING FEATURES)

NOTES:
- Basis of Bearings is a Transverse Mercator Projection with a Central Meridian of W103°53'00" (NAD 83)

UELS, LLC
Corporate Office * 85 South 200 East
Vernal, UT 84078 * (435) 789-1017

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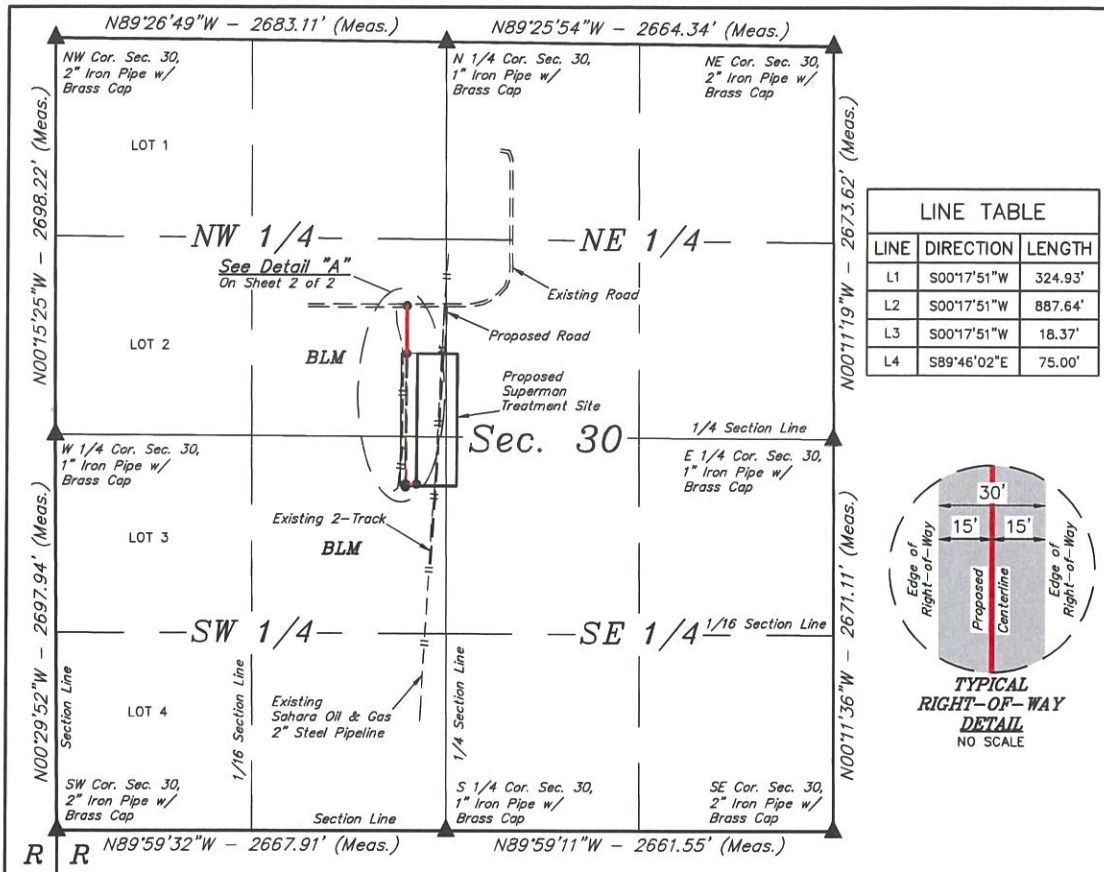
ConocoPhillips Company

SUPERMAN TREATMENT SITE
ON BLM LANDS IN
SECTION 30, T26S, R32E, N.M.P.M.
LEA COUNTY, NEW MEXICO

SURVEYED BY	C.H., D.C.	10-16-19	SCALE
DRAWN BY	J.A.	12-13-19	1" = 1000'

SURFACE USE AREA



LINE TABLE		
LINE	DIRECTION	LENGTH
L1	S00°17'51"W	324.93'
L2	S00°17'51"W	887.64'
L3	S00°17'51"W	18.37'
L4	S89°46'02"E	75.00'

TYPICAL RIGHT-OF-WAY DETAIL
NO SCALE

EXISTING ROAD RIGHT-OF-WAY DESCRIPTION

A 30' WIDE RIGHT-OF-WAY 15' ON EACH SIDE OF THE FOLLOWING DESCRIBED CENTERLINE.

BEGINNING AT A POINT IN THE SE 1/4 NW 1/4 OF SECTION 30, T26S, R32E, N.M.P.M., WHICH BEARS S08°16'40"W 1811.80' FROM THE NORTH 1/4 CORNER OF SAID SECTION 30, THENCE S00°17'51"W 324.93' TO A POINT IN THE SE 1/4 NW 1/4 OF SAID SECTION 30 AND THE POINT OF TERMINATION, WHICH BEARS S07°03'59"W 2134.06' FROM THE NORTH 1/4 CORNER OF SAID SECTION 30. THE SIDE LINES OF SAID DESCRIBED RIGHT-OF-WAY BEING SHORTENED OR ELONGATED TO MEET THE GRANTOR'S PROPERTY LINES. BASIS OF BEARINGS IS A TRANSVERSE MERCATOR PROJECTION WITH A CENTRAL MERIDIAN OF W103°53'00". CONTAINS 0.224 ACRES MORE OR LESS.

POINT OF BEGINNING BEARS S08°16'40"W 1811.80' FROM THE NORTH 1/4 CORNER OF SECTION 30, T26S, R32E, N.M.P.M.

POINT OF TERMINATION BEARS S07°03'59"W 2134.06' FROM THE NORTH 1/4 CORNER OF SECTION 30, T26S, R32E, N.M.P.M.

ACREAGE / LENGTH TABLE "A"			
LOCATION	FEET	RODS	ACRES
SEC. 30 (NW 1/4)	324.93	19.69	0.224

1000' 500' 0' 1000'

▲ = SECTION CORNERS LOCATED.

CERTIFICATE
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STATE OF NEW MEXICO 23782 PROFESSIONAL SURVEYOR 12-31-19

FILE: C-7152-A1

Sheet 1 of 2

REV: 1 12-31-19 C.D. (UPDATED EXISTING FEATURES)

NOTES:
- Basis of Bearings is a Transverse Mercator Projection with a Central Meridian of W103°53'00" (NAD 83)

UINTAH ENGINEERING & LAND SURVEYING

UELS, LLC
Corporate Office * 85 South 200 East
Vernal, UT 84078 * (435) 789-1017

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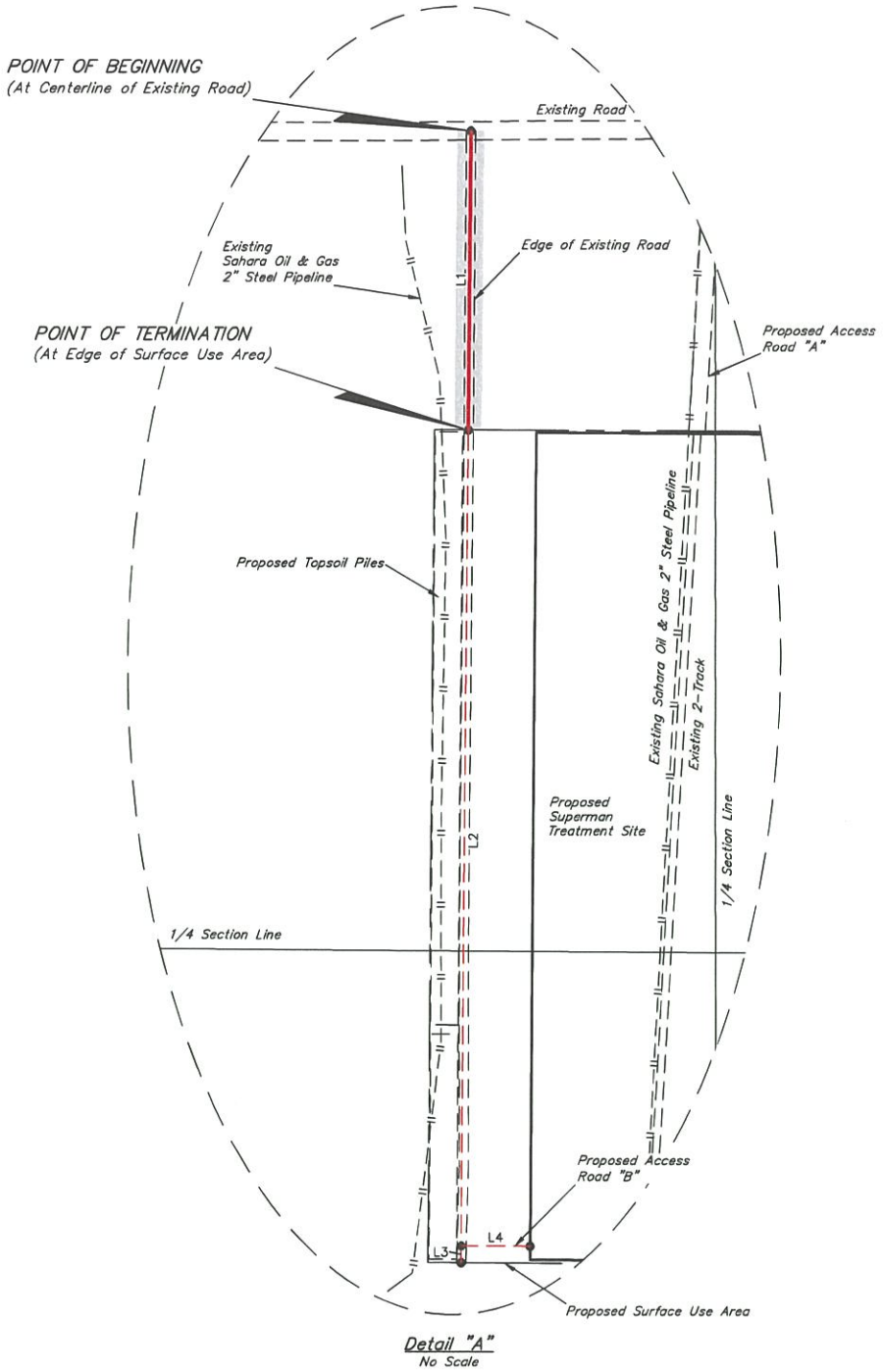
ConocoPhillips Company

SUPERMAN TREATMENT SITE
ON BLM LANDS IN
SECTION 30, T26S, R32E, N.M.P.M.
LEA COUNTY, NEW MEXICO

SURVEYED BY	C.H., D.C.	10-16-19	SCALE
DRAWN BY	J.A.	12-13-19	1" = 1000'

EXISTING ACCESS ROAD R-O-W



Detail "A"
No Scale

CERTIFICATE
THIS IS TO CERTIFY THAT THIS EASEMENT PLAT AND THE ACTUAL SURVEY ON THE GROUND UPON WHICH IT IS BASED WERE PERFORMED BY ME OR UNDER MY DIRECT SUPERVISION; THAT I AM RESPONSIBLE FOR THIS SURVEY; THAT THIS SURVEY MEETS THE MINIMUM STANDARDS FOR SURVEYING IN NEW MEXICO; AND THAT IT IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF.

NEW MEXICO
23782
12-31-19
PROFESSIONAL SURVEYOR

FILE: C-7152-A2

Sheet 2 of 2

REV: 1 12-31-19 C.D. (UPDATED EXISTING FEATURES)

NOTES:
- Basis of Bearings is a Transverse Mercator Projection with a Central Meridian of W103°53'00" (NAD 83)

N

ConocoPhillips Company

SUPERMAN TREATMENT SITE
ON BLM LANDS IN
SECTION 30, T26S, R32E, N.M.P.M.
LEA COUNTY, NEW MEXICO

SURVEYED BY	C.H., D.C.	10-16-19	SCALE
DRAWN BY	J.A.	12-13-19	N/A

EXISTING ACCESS ROAD R-O-W

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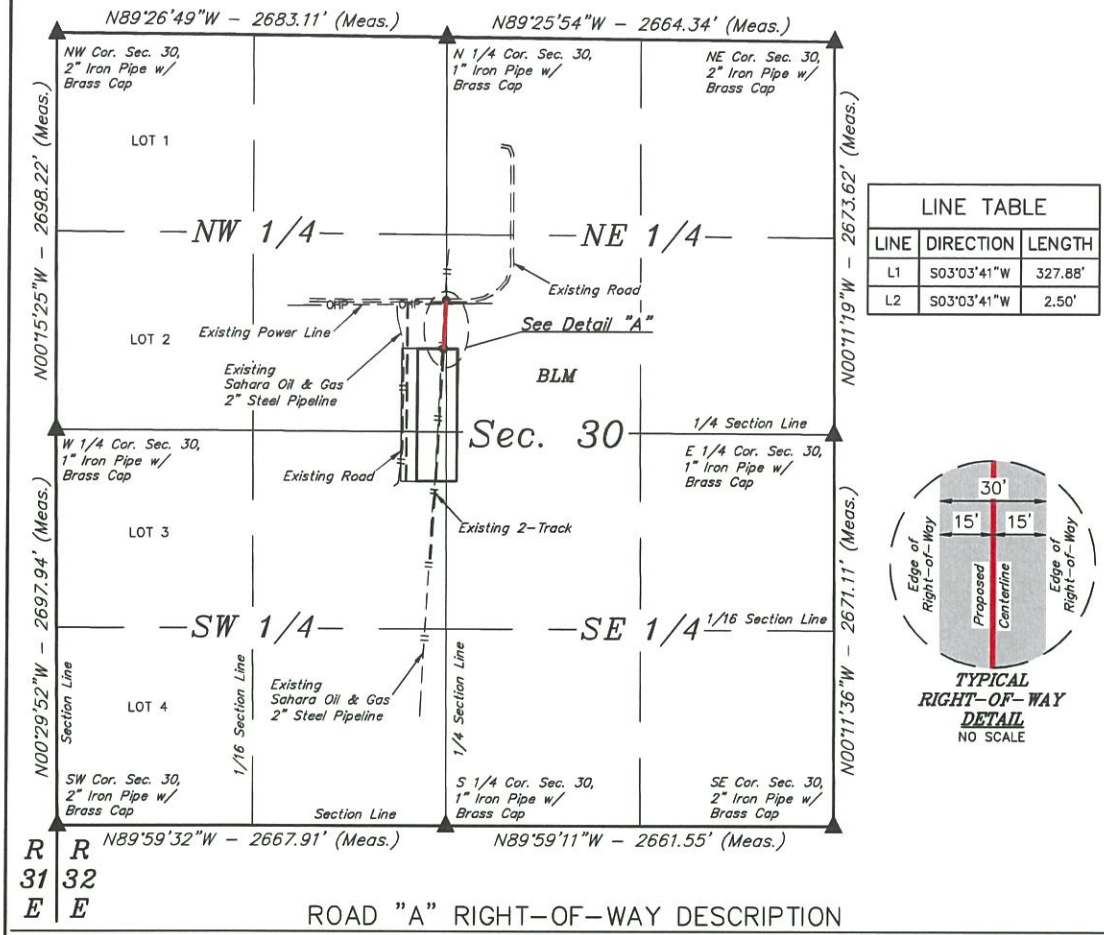
UELS, LLC
Corporate Office * 85 South 200 East
Vernal, UT 84078 * (435) 789-1017



LINE TABLE		
LINE	DIRECTION	LENGTH
L1	S03°03'41"W	327.88'
L2	S03°03'41"W	2.50'

TYPICAL RIGHT-OF-WAY DETAIL
NO SCALE

ROAD "A" RIGHT-OF-WAY DESCRIPTION

A 30' WIDE RIGHT-OF-WAY 15' ON EACH SIDE OF THE FOLLOWING DESCRIBED CENTERLINE.

BEGINNING AT A POINT IN THE SE 1/4 NW 1/4 OF SECTION 30, T26S, R32E, N.M.P.M., WHICH BEARS BEARS S00°10'58"E 1791.51' FROM THE NORTH 1/4 CORNER OF SAID SECTION 30, THENCE S03°03'41"W 327.88' TO A POINT IN THE SE 1/4 NW 1/4 OF SAID SECTION 30 AND THE POINT OF TERMINATION, WHICH BEARS S00°19'08"W 2118.94' FROM THE NORTH 1/4 CORNER OF SAID SECTION 30. THE SIDE LINES OF SAID DESCRIBED RIGHT-OF-WAY BEING SHORTENED OR ELONGATED TO MEET THE GRANTOR'S PROPERTY LINES. BASIS OF BEARINGS IS A TRANSVERSE MERCATOR PROJECTION WITH A CENTRAL MERIDIAN OF W103°53'00". CONTAINS 0.226 ACRES MORE OR LESS.

POINT OF BEGINNING BEARS S00°10'58"E
1791.51' FROM THE NORTH 1/4 CORNER OF
SECTION 30, T26S, R32E, N.M.P.M.

POINT OF TERMINATION BEARS S00°19'08"W
2118.94' FROM THE NORTH 1/4 CORNER OF
SECTION 30, T26S, R32E, N.M.P.M.

1000' 500' 0' 1000'

ACREAGE / LENGTH TABLE			
LOCATION	FEET	RODS	ACRES
SEC. 30 (NW 1/4)	327.88	19.87	0.187
SEC. 30 (NE 1/4)	N/A	N/A	0.039
TOTAL	327.88	19.87	0.226

▲ = SECTION CORNERS LOCATED.

CERTIFICATE
THIS IS TO CERTIFY THAT THIS EASEMENT PLAT AND THE ACTUAL SURVEY ON THE GROUND UPON WHICH IT IS BASED WERE PERFORMED BY ME OR UNDER MY DIRECT SUPERVISION; THAT I AM RESPONSIBLE FOR THIS SURVEY; THAT THIS SURVEY MEETS THE MINIMUM STANDARDS FOR SURVEYING IN NEW MEXICO; AND THAT IT IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF.

STATE OF NEW MEXICO 23782 PROFESSIONAL SURVEYOR 12-31-19

FILE: C-7152-A1

Sheet 1 of 2

REV: 1 12-31-19 C.D. (UPDATED EXISTING FEATURES)

NOTES:
- The maximum grade of existing ground for the proposed access road is ±0.94%.
- Basis of Bearings is a Transverse Mercator Projection with a Central Meridian of W103°53'00" (NAD 83)

UINTAH ENGINEERING & LAND SURVEYING

UELS, LLC
Corporate Office * 85 South 200 East
Vernal, UT 84078 * (435) 789-1017

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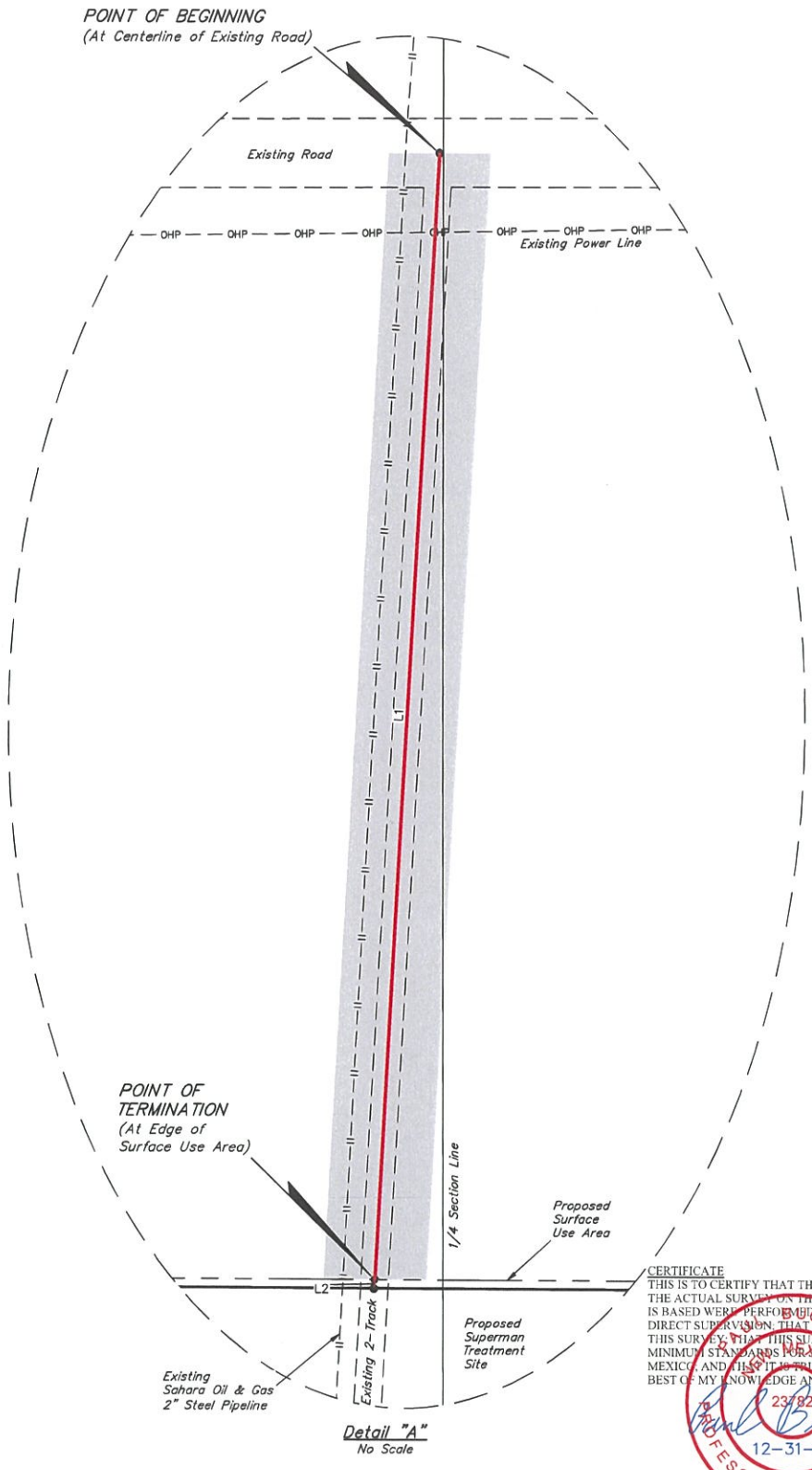
ConocoPhillips Company

SUPERMAN TREATMENT SITE
ON BLM LANDS IN
SECTION 30, T26S, R32E, N.M.P.M.
LEA COUNTY, NEW MEXICO

SURVEYED BY	C.H., D.C.	10-16-19	SCALE
DRAWN BY	J.A.	12-13-19	1" = 1000'

ACCESS ROAD R-O-W



CERTIFICATE

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STATE OF NEW MEXICO
23782
PROFESSIONAL SURVEYOR
12-31-19

FILE: C-7152-A2

Sheet 2 of 2

REV: 1 12-31-19 C.D. (UPDATED EXISTING FEATURES)

NOTES:

- Basis of Bearings is a Transverse Mercator Projection with a Central Meridian of W103°53'00" (NAD 83)

N

ConocoPhillips Company

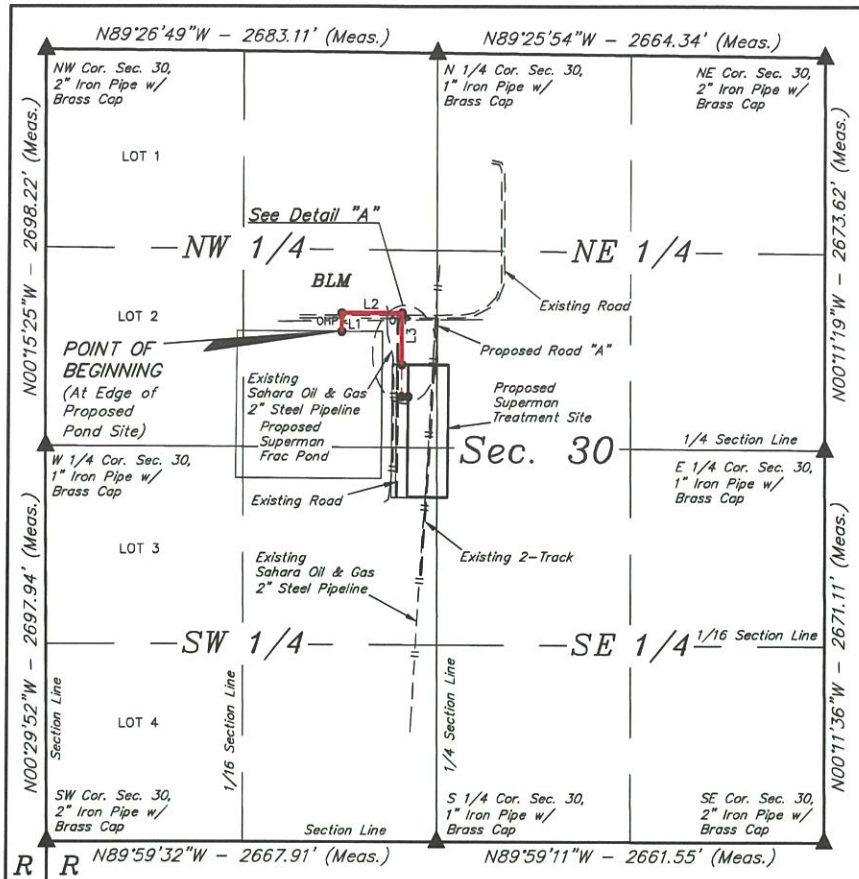
SUPERMAN TREATMENT SITE
ON BLM LANDS IN
SECTION 30, T26S, R32E, N.M.P.M.
LEA COUNTY, NEW MEXICO

SURVEYED BY	C.H., D.C.	10-16-19	SCALE
DRAWN BY	J.A.	12-13-19	N/A

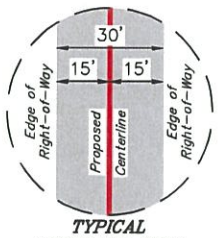
ACCESS ROAD R-O-W

UINTAH ENGINEERING & LAND SURVEYING

UELS, LLC
Corporate Office * 85 South 200 East
Vernal, UT 84078 * (435) 789-1017



LINE TABLE		
LINE	DIRECTION	LENGTH
L1	N00°01'21"W	125.15'
L2	N89°58'34"E	414.91'
L3	S00°12'36"W	350.60'
L4	S00°13'31"W	217.42'
L5	S89°46'29"E	45.24'

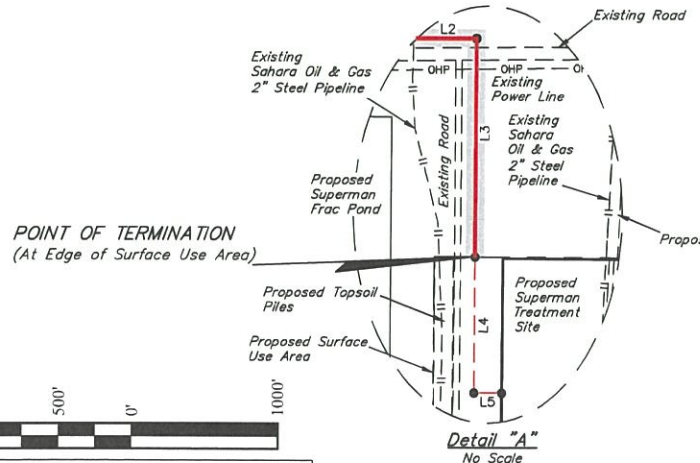


TYPICAL RIGHT-OF-WAY DETAIL
NO SCALE

POWER RIGHT-OF-WAY DESCRIPTION

A 30' WIDE RIGHT-OF-WAY 15' ON EACH SIDE OF THE FOLLOWING DESCRIBED CENTERLINE.

BEGINNING AT A POINT IN THE SE 1/4 NW 1/4 OF SECTION 30, T26S, R32E, N.M.P.M., WHICH BEARS S18°52'47"W 2000.31' FROM THE NORTH 1/4 CORNER OF SAID SECTION 30, THENCE N00°01'21"W 125.15'; THENCE N89°58'34"E 414.91'; THENCE S00°12'36"W 350.60' TO A POINT IN THE SE 1/4 NW 1/4 OF SAID SECTION 30 AND THE POINT OF TERMINATION, WHICH BEARS S06°17'47"W 2130.83' FROM THE NORTH 1/4 CORNER OF SAID SECTION 30. THE SIDE LINES OF SAID DESCRIBED RIGHT-OF-WAY BEING SHORTENED OR ELONGATED TO MEET THE GRANTOR'S PROPERTY LINES. BASIS OF BEARINGS IS A TRANSVERSE MERCATOR PROJECTION WITH A CENTRAL MERIDIAN OF W103°53'00". CONTAINS 0.613 ACRES MORE OR LESS.



Detail "A"
No Scale

POINT OF BEGINNING BEARS S18°52'47"W 2000.31' FROM THE NORTH 1/4 CORNER OF SECTION 30, T26S, R32E, N.M.P.M.

POINT OF TERMINATION BEARS S06°17'47"W 2130.83' FROM THE NORTH 1/4 CORNER OF SECTION 30, T26S, R32E, N.M.P.M.

ACREAGE / LENGTH TABLE			
LOCATION	FEET	RODS	ACRES
SEC. 30 (NW 1/4)	890.65	53.98	0.613

▲ = SECTION CORNERS LOCATED.

CERTIFICATE

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STATE OF NEW MEXICO
23782
Paul Buchheit
12-31-19
PROFESSIONAL SURVEYOR

FILE: C-7152-A1

REV: 1 12-31-19 C.D. (POWER LINE RE-ROUTE & UPDATED EXISTING FEATURES)

NOTES:
- Basis of Bearings is a Transverse Mercator Projection with a Central Meridian of W103°53'00" (NAD 83)

UINTAH ENGINEERING & LAND SURVEYING
UELS, LLC
Corporate Office * 85 South 200 East
Vernal, UT 84078 * (435) 789-1017

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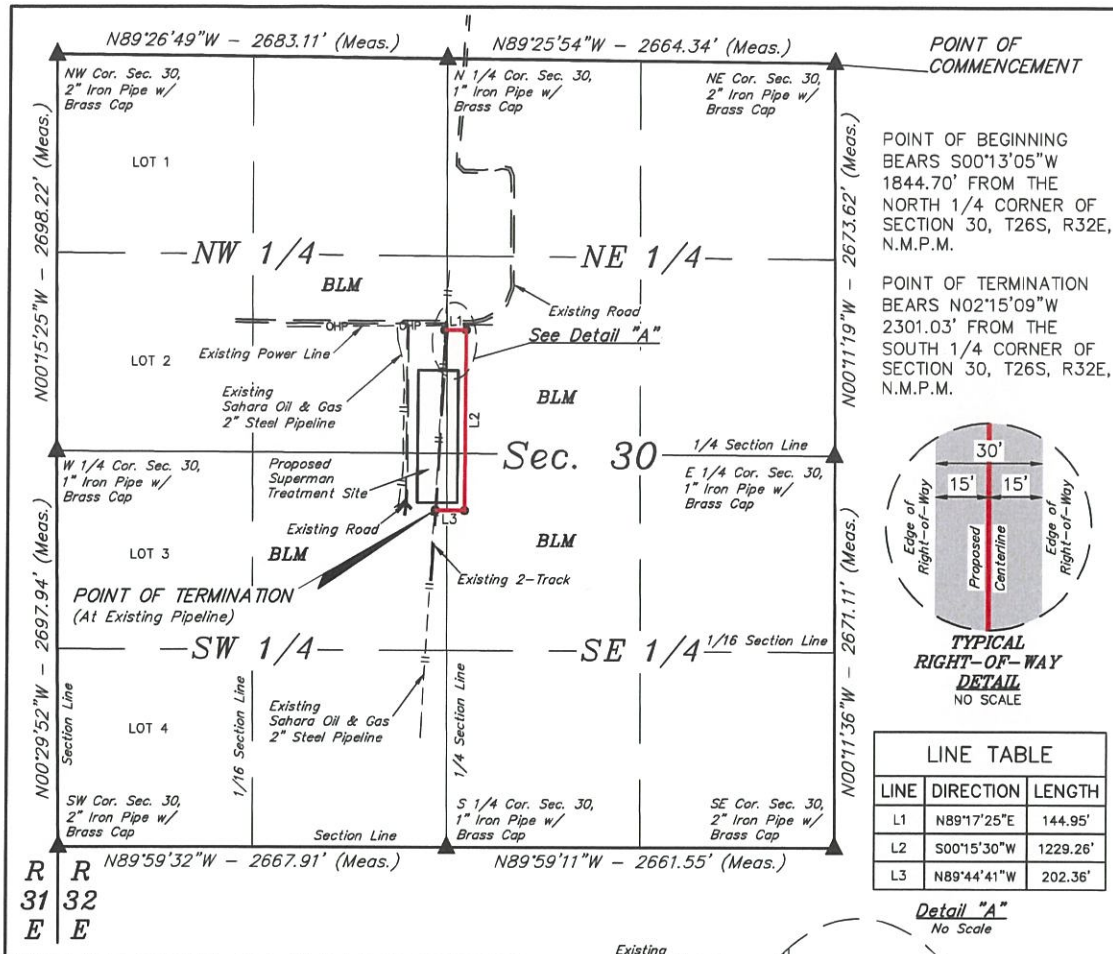
ConocoPhillips Company

SUPERMAN TREATMENT SITE
ON BLM LANDS IN
SECTION 30, T26S, R32E, N.M.P.M.
LEA COUNTY, NEW MEXICO

SURVEYED BY	C.H., D.C.	10-16-19	SCALE
DRAWN BY	J.A.	12-13-19	1" = 1000'

POWER LINE R-O-W



POINT OF BEGINNING BEARS S00°13'05"W 1844.70' FROM THE NORTH 1/4 CORNER OF SECTION 30, T26S, R32E, N.M.P.M.

POINT OF TERMINATION BEARS N02°15'09"W 2301.03' FROM THE SOUTH 1/4 CORNER OF SECTION 30, T26S, R32E, N.M.P.M.

TYPICAL RIGHT-OF-WAY DETAIL
NO SCALE

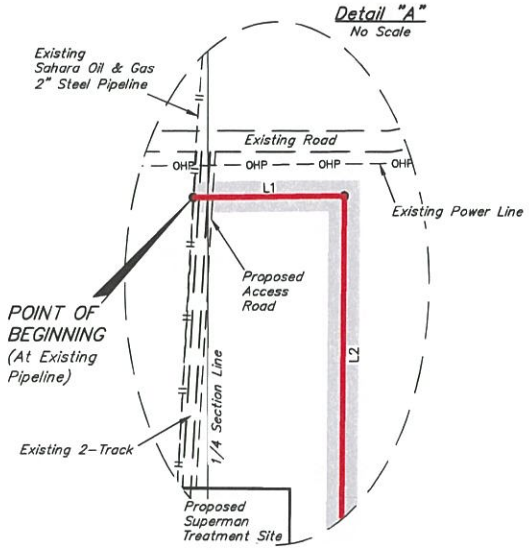
LINE TABLE		
LINE	DIRECTION	LENGTH
L1	N89°17'25"E	144.95'
L2	S00°15'30"W	1229.26'
L3	N89°44'41"W	202.36'

PIPELINE RIGHT-OF-WAY DESCRIPTION

A 30' WIDE RIGHT-OF-WAY 15' ON EACH SIDE OF THE FOLLOWING DESCRIBED CENTERLINE.

COMMENCING AT THE NORTHEAST CORNER OF SECTION 30, T26S, R32E, N.M.P.M.; THENCE ALONG THE NORTH LINE OF THE NE 1/4 OF SAID SECTION 30, N89°25'54"W 2664.34' TO THE NORTH 1/4 CORNER OF SAID SECTION 30; THENCE S00°13'05"W 1844.70' TO A POINT IN THE SE 1/4 NW 1/4 IN SAID SECTION 30 AND THE POINT OF BEGINNING; THENCE N89°17'25"E 144.95'; THENCE S00°15'30"W 1229.26'; THENCE N89°44'41"W 202.36' TO A POINT IN THE NE 1/4 SW 1/4 OF SAID SECTION 30 AND THE POINT OF TERMINATION, WHICH BEARS N02°15'09"W 2301.03' FROM THE SOUTH 1/4 CORNER OF SAID SECTION 30. THE SIDE LINES OF SAID DESCRIBED RIGHT-OF-WAY BEING SHORTENED OR ELONGATED TO MEET THE GRANTOR'S PROPERTY LINES. CONTAINS 1.086 ACRES MORE OR LESS.

Detail "A"
No Scale



ACREAGE / LENGTH TABLE			
LOCATION	FEET	RODS	ACRES
SEC. 30 (NW 1/4)	14.04	0.85	0.010
SEC. 30 (NE 1/4)	974.88	59.08	0.671
SEC. 30 (SE 1/4)	505.98	30.67	0.348
SEC. 30 (SW 1/4)	81.68	4.95	0.056
TOTAL	1576.58	95.55	1.086

▲ = SECTION CORNERS LOCATED.

CERTIFICATE:
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23782
01-02-20
PROFESSIONAL SURVEYOR

NOTES:
- Basis of Bearings is a Transverse Mercator Projection with a Central Meridian of W103°53'00" (NAD 83)

ConocoPhillips Company

SUPERMAN TREATMENT SITE
ON BLM LANDS IN
SECTION 30, T26S, R32E, N.M.P.M.
LEA COUNTY, NEW MEXICO

SURVEYED BY	C.T.	12-30-19	SCALE
DRAWN BY	C.D.	01-02-20	1" = 1000'
FILE	C-7152-A		

PIPELINE RE-ROUTE R-O-W

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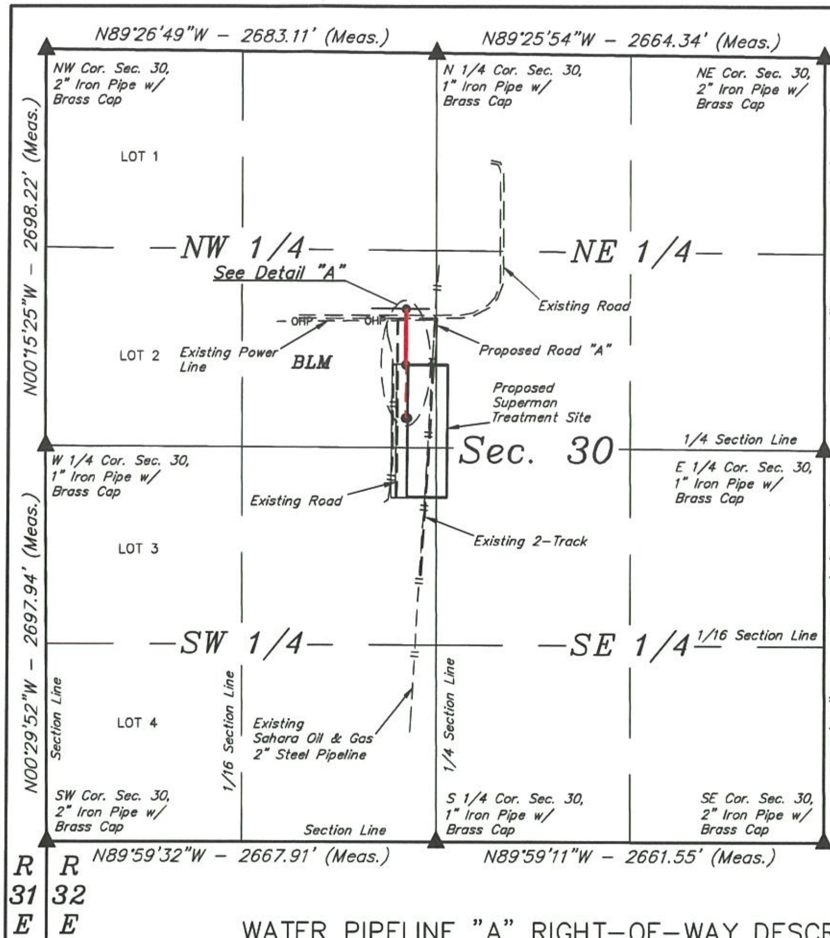
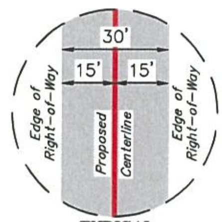
UELS, LLC
Corporate Office * 85 South 200 East
Vernal, UT 84078 * (435) 789-1017



LINE TABLE		
LINE	DIRECTION	LENGTH
L1	S00°13'31"W	379.76'
L2	S00°13'31"W	362.41'
L3	S89°46'29"E	15.20'

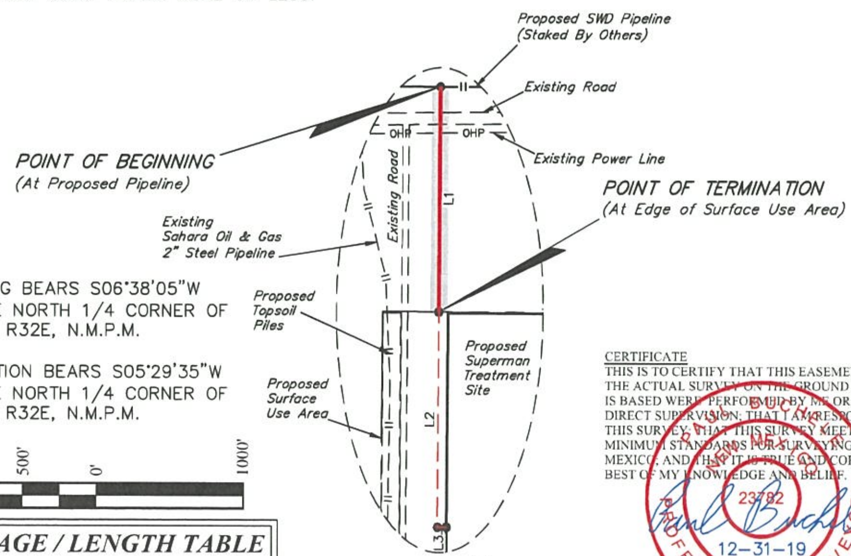


TYPICAL RIGHT–OF–WAY DETAIL
NO SCALE

WATER PIPELINE "A" RIGHT–OF–WAY DESCRIPTION

A 30' WIDE RIGHT–OF–WAY 15' ON EACH SIDE OF THE FOLLOWING DESCRIBED CENTERLINE.

BEGINNING AT A POINT IN THE SE 1/4 NW 1/4 OF SECTION 30, T26S, R32E, N.M.P.M., WHICH BEARS S06°38'05"W 1750.07' FROM THE NORTH 1/4 CORNER OF SAID SECTION 30, THENCE S00°13'31"W 379.76' TO A POINT IN THE SE 1/4 NW 1/4 OF SAID SECTION 30 AND THE POINT OF TERMINATION, WHICH BEARS S05°29'35"W 2127.87' FROM THE NORTH 1/4 CORNER OF SAID SECTION 30. THE SIDE LINES OF SAID DESCRIBED RIGHT–OF–WAY BEING SHORTENED OR ELONGATED TO MEET THE GRANTOR'S PROPERTY LINES. BASIS OF BEARINGS IS A TRANSVERSE MERCATOR PROJECTION WITH A CENTRAL MERIDIAN OF W103°53'00". CONTAINS 0.262 ACRES MORE OR LESS.



Detail "A"
No Scale

POINT OF BEGINNING BEARS S06°38'05"W 1750.07' FROM THE NORTH 1/4 CORNER OF SECTION 30, T26S, R32E, N.M.P.M.

POINT OF TERMINATION BEARS S05°29'35"W 2127.87' FROM THE NORTH 1/4 CORNER OF SECTION 30, T26S, R32E, N.M.P.M.

CERTIFICATE
THIS IS TO CERTIFY THAT THIS EASEMENT PLAT AND THE ACTUAL SURVEY ON THE GROUND UPON WHICH IT IS BASED WERE PERFORMED BY ME OR UNDER MY DIRECT SUPERVISION; THAT I AM RESPONSIBLE FOR THIS SURVEY; THAT THIS SURVEY MEETS THE MINIMUM STANDARDS FOR SURVEYING IN NEW MEXICO; AND THAT IT IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF.

23782
12–31–19
PROFESSIONAL SURVEYOR

ACREAGE / LENGTH TABLE			
LOCATION	FEET	RODS	ACRES
SEC. 30 (NW 1/4)	379.76	23.02	0.262

FILE: C-7152-A1

▲ = SECTION CORNERS LOCATED.

REV: 1 12-31-19 C.D. (UPDATED EXISTING FEATURES)

NOTES:
- Basis of Bearings is a Transverse Mercator Projection with a Central Meridian of W103°53'00" (NAD 83)

ConocoPhillips Company

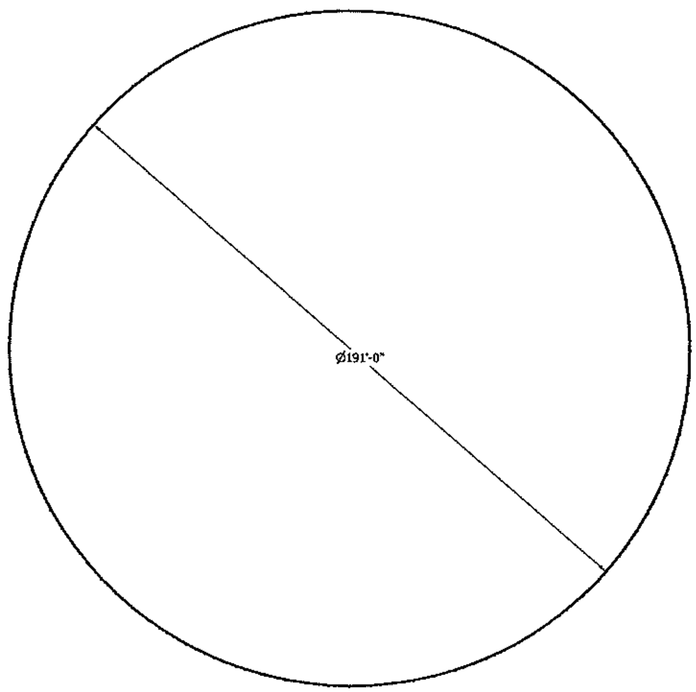
SUPERMAN TREATMENT SITE ON BLM LANDS IN SECTION 30, T26S, R32E, N.M.P.M. LEA COUNTY, NEW MEXICO

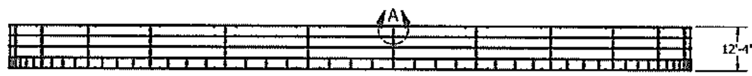
SURVEYED BY	C.H., D.C.	10-16-19	SCALE
DRAWN BY	J.A.	12-13-19	1" = 1000'

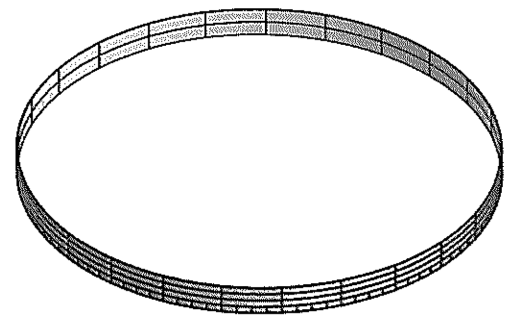
WATER PIPELINE R-O-W

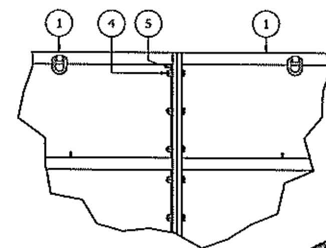
UINTAH ENGINEERING & LAND SURVEYING

UELS, LLC
Corporate Office * 85 South 200 East
Vernal, UT 84078 * (435) 789-1017









DETAIL A
SCALE 1 / 25

COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL ENGINEER
CHARLES R. GOSS
NO. 40569-E

CRG [signature]
18 Dec 2013

Reviewer's Notes:

1. This drawing set replaces set previously sealed on 27 MAR 2013
2. Empty corral cannot withstand high winds.

ITEM	QTY	PART NUMBER	DESCRIPTION	REV
6	120	4X4X4 LUMBER	4" x 4" x 48" Lumber (NOT SHOWN)	-
5	850	WASH-200-1-1/4	1-1/4" ASTM F436 Galvanized Structural Washer	-
4	425	NUT-200-1-1/4-7	1-1/4"-7 ASTM A563 Gr DH Galvanized Hex Nut	-
7	425	BOLT-1-1/4-4333	1-1/4"-7 x 5" ASTM A490 Structural Bolt	-
3	25	ETC-106	.063" X 8" X 168" RUBBER SHEET (NOT SHOWN)	-
2	5	MWC-SA-008A	60,000 BBL Corral Shipping Support	-
1	25	MWC-SA-002a	60,000 BBL CORRAL WALL SECTION	-

PARTS LIST

NEXT ASSY | USED ON
APPLICATION
THIRD ANGLE PROJECTION

FRACTIONAL ± 1/16
MATERIAL
THICKNESS NA
WEIGHT N/A

DRAWN BY mspedale
DATE 7/12/2012
CHECKED BY rthodenshatz
DATE 11/23/2012
APPROVED mspedale
DATE 11/23/2012

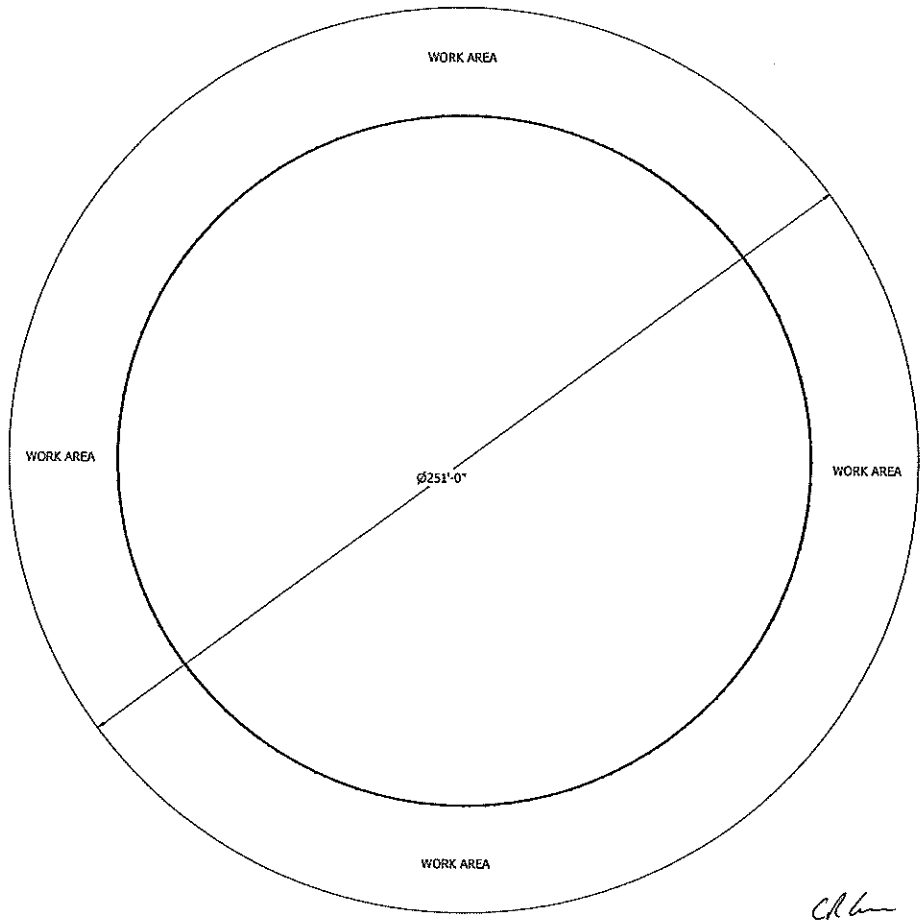
ETC
Environmental Tank & Container

TITLE
60,000 BBL MOBILE WATER CORRAL, BOLT-UP DESIGN

SIZE C
DWG. NO. MWC-A-002a
REV -
SCALE N/A
DWG. NO. MWC-A-002a
SHEET 1 OF 2

NOTES:

1. MINIMUM OF 30 FEET OF WORK AREA AROUND CORRAL
2. OVER ALL SITE MUST BE LEVEL TO +/- .50 INCH
3. RING AREA WHERE CORRAL PANELS WILL BE SETUP MUST BE LEVEL TO +/- .25 INCH
4. SOIL COMPACTION MUST MEET ASTM D-698A, 90% OR GREATER
5. BUILD A 12" X 12" SAND INSIDE CORNER RELIEF BEFORE INSTALLING LINER
6. MUST USE 1"-1/4"-7 X 4" GRADE A490 STRUCTURAL BOLTS
7. PANELS MUST HAVE ALL CONNECTING BOLTS TIGHTENED AND LINER FULLY SECURED BEFORE ADDING WATER
8. ALLOW FOR 6 INCHES OF FREEBOARD FROM TOP OF CORRAL



COMMONWEALTH OF PENNSYLVANIA REGISTERED PROFESSIONAL ENGINEER CHARLES R. GOSS NO. 40569-E

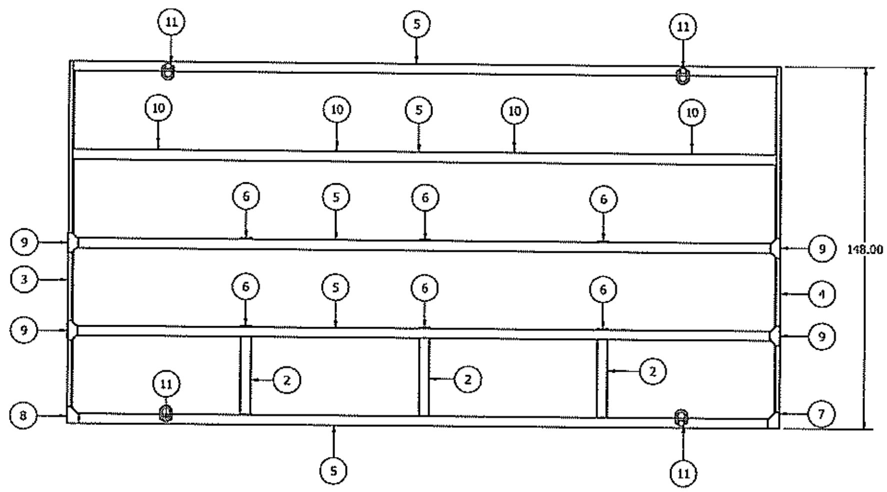
C R Goss
18 Dec 2013

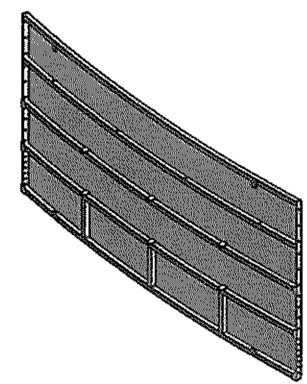
DRAWN BY	mspeciale
DATE	7/12/2012
CHECKED BY	dbodenshatz
DATE	11/23/2012
APPROVED	mspeciale
DATE	11/23/2012
ETC	Environmental Tank & Container
TITLE	50,000 BBL MOBILE WATER CORRAL, BOLT-UP DESIGN
SIZE	C
PRT. NO.	MWC-A-002a
REV	-
THICKNESS	NA
WEIGHT	N/A
SCALE	DO NOT SCALE
DWG. NO.	MWC-A-002a
SHEET	2 of 2

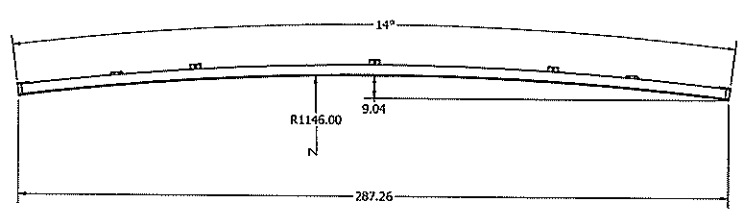
NOTES:

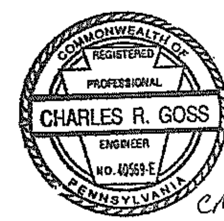
1. BLAST TO A 1 1/2 - 2 mil PROFILE
2. PAINT WITH CARBOLINE 8845, 3 - 5 mils THICK

REVISION HISTORY				
ZONE	REV	DESCRIPTION	DATE	APPROVED
	-	INITIAL RELEASE	10/1/2012	MJS







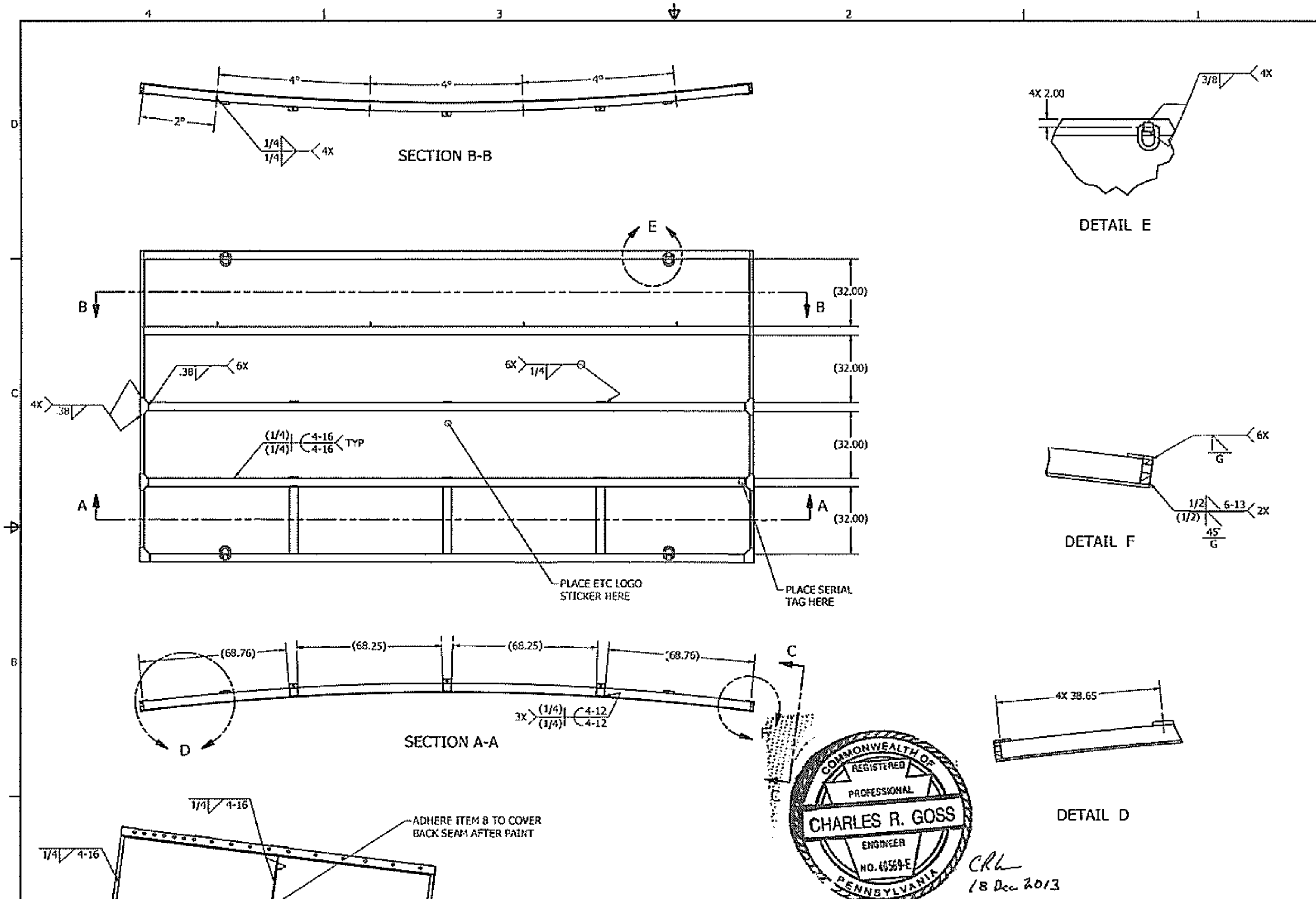


CRG
18 Dec 2013

ITEM	QTY	PART NUMBER	DESCRIPTION	REV	STOCK NUM	UNIT QTY
12	1	ETC-109	.062" X 4" X 288" RUBBER SHEET	-	NA	NA
11	4	ETC-079	Weld-on Lifting Ring	-	NA	NA
10	4	ETC-040	D-RING	-	NA	NA
9	4	MWC-323	PLATE, 1/2"	-		1
8	1	MWC-322	PLATE, 1/2"	-		1
7	1	MWC-321	PLATE, 1/2"	-		1
6	6	MWC-019	PLATE, 1/2"	-	010558	23.43 lbs
5	5	MWC-017a	TUBE, 4" X 4" X .25"	-	030227	120 ft
4	1	MWC-211R	1.50" X 4.00" FLAT BAR	-	020172	12.33 ft
3	1	MWC-211L	1.50" X 4.00" FLAT BAR	-	020172	12.33 ft
2	3	MWC-004	TUBE, 4" X 4" X .25"	-	030068	8 ft
1	2	MWC-001a	PLATE	-	010013	5880.72 lbs

PARTS LIST

NEXT ASSY / USED ON / APPLICATION	THIRD ANGLE PROJECTION
MATERIAL	Welded Steel Mild
THICKNESS	NA
WEIGHT	N/A
DRAWN BY	mspeciale
DATE	4/11/2012
CHECKED BY	rbodenshatz
DATE	8/31/2012
APPROVED	mspeciale
DATE	8/31/2012
	ETC Environmental Tank & Container
TITLE	60,000 BBL CORRAL WALL SECTION
SIZE	C
DWG. NO.	MWC-SA-002a
REV	-
SCALE	DO NOT SCALE
SHEET	1 of 2



COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL ENGINEER
CHARLES R. GOSS
NO. 40569-E

CRL
18 Dec 2013

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DRAWN BY	mspeciale
DATE	4/11/2012
CHECKED BY	dhodenshalz
DATE	8/31/2012
APPROVED	mspeciale
DATE	8/31/2012

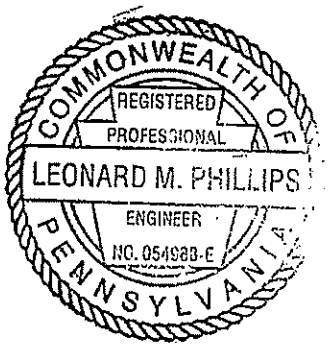
MATERIAL: Welded Steel Mild

ETC

TITLE: 60,000 BBL CORRAL WALL SECTION

SIZE: C
PART NO.: MWC-SA-002a
REV: -
MWC-SA-002a
WEIGHT: N/A
SHEET 2 OF 2

Date	:	3/18/2014
Document ID	:	14006H
Revision	:	0
Project	:	Evaluation of existing design
Tank #(s)	:	60,000 bbl Corral
Diameter	:	191'-0"
Shell height	:	12' - 4 "
Roof type	:	Open Top
Client	:	ETC
Location	:	Pittsburgh, Pa
PO#	:	



Standard Properties

1. Gross Tank Geometry

$D := 191 \cdot ft + 0 \cdot in$ Tank diameter

$H_s := 12 \cdot ft + 4 \cdot in$ Shell height

2. Product Variables

$DLL := 12 \cdot ft + 4 \cdot in$ Design liquid level.

$V_{nom} := \frac{\pi}{4} \cdot D^2 \cdot H_s$ $V_{nom} = 62939 \cdot bbl$ Nominal volume

$PSG := 1.2$ Maximum product specific gravity [assumed for heavy brine]

3. Design Parameters

$T_{max} := 200 \cdot F$ Maximum design temperature

$T_{min} := 5 \cdot F$ Minimum design temperature

$P_{int} := 0 \cdot psi$ Design internal pressure

$P_{ext} := 0 \cdot psi$ Design external pressure (vacuum)

4. Environmental Variables

A. Temperature Variables

$DMT := 5 \cdot F$ Design metal temperature

B. Wind Variables

$V_{wind} := 90 \cdot mph$ Design wind speed [3-second gust]

$I_{wind} := 1.0$ Wind importance factor

Exposure category (Default = C)

$K_{zt} := 1.0$ Topographic factor (1.0 minimum)

Check windbuckling in corroded condition?

Can windgirders for tanks with a diameter greater than 200 feet be designed using D = 200 ft ?

5. Shell Design

A. Shell Parameters

$JE_s := 1.00$ Shell joint efficiency

Does the client allow shell design using the variable-design-point method for tanks less than 200 feet in diameter?

$h_s := \begin{pmatrix} 6 \\ 6 \end{pmatrix} \cdot ft + \begin{pmatrix} 0 \\ 4 \end{pmatrix} \cdot in$ Height of each shell course.

$t_s := \begin{pmatrix} 0.5 \\ 0.5 \end{pmatrix} \cdot in$ Actual thickness of each shell course

$CA_s := \begin{pmatrix} 0 \\ 0 \end{pmatrix} \cdot in$ Corrosion allowance on the shell

	Shell Material 1	Shell Material 2	Shell Material 3
SR1			
SR2			
SR3			
SR4			
SR5			
SR6			
SR7			
SR8			

Shell Material Properties

	Shell material	Group number	Design stress	Hydrotest stress	Appendix M factor
	$SM = \begin{pmatrix} "A36" \\ "A36" \end{pmatrix}$	$GRP = \begin{pmatrix} 1 \\ 1 \end{pmatrix}$	$SD = \begin{pmatrix} 23200 \\ 23200 \end{pmatrix} psi$	$ST = \begin{pmatrix} 24900 \\ 24900 \end{pmatrix} \cdot psi$	$RF = \begin{pmatrix} 1.000 \\ 1.000 \end{pmatrix}$

B. Shell Thickness Check (API 650)

Shell Thickness

$t_{smin} = \begin{pmatrix} 0.3168 \\ 0.3125 \end{pmatrix} \cdot in$ Minimum required steel plate thickness required by API 650

$\frac{t_{smin}}{t_s} = \blacksquare \cdot \%$

5. Shell Design

C. Shell Wind Buckling Check

Shell Buckling

$\frac{H_{tr} - h_{twg}}{H_1} = 17.02 \cdot \%$ Wind buckling check.
If value exceed 100%, intermediate windgirders are required.

D. Splice Bolt Check

$n_{bolt} := 17$ Bolts per splice connection

$d_b := 1.25 \cdot in$ Diameter of bolts

$P_{des} := 150 \cdot kip$ Design strength in tension for A490 bolt

$\Phi_{pry} := 2.0$ Increase in bolt force due to prying action [conservative estimate]

$P_{head} := \gamma_w \cdot PSG \cdot DLL = 923.82 \cdot psf$ Head pressure at base of shell

$P_{ave} := \frac{1}{2} \cdot P_{head} = 461.91 \cdot psf$ Average pressure on shell

$P_{fb} := \frac{1}{2} \cdot P_{ave} \cdot DLL \cdot D = 544.05 \cdot kip$ Force in each splice plate from circumferential hydrostatic forces

$P_b := \frac{P_{fb}}{n_{bolt}} = 32.00 \cdot kip$ Average pure tensile force in bolt

E. Panel Information

$n_{pl} := 20$ Panels per ring

$w_{tb} := 4 \cdot in$ Square tubing width

$t_{tb} := 0.25 \cdot in$ Tubing thickness

$n_{tb} := 5$ Number of tubes per panel

$F_{ytb} := 46 \cdot ksi$ Yield strength of tubing [A500 Grade B]

$FU_{tb} := 58 \cdot ksi$ Ultimate strength of tubing [A500 Grade B]

F. Safety Factor - Bolts

$$SF_{ba} := \frac{P_{des}}{\Phi_{pry} \cdot P_b} = 2.3$$

Safety factor for bolt in pure tension compared to allowable tensile strength for the bolts

G. Safety Factor - Panels

$$SF_{pa} := \frac{FA_{comp}}{\sigma_{hoop}} = 4.1$$

Safety factor for hoop stress in panel compared to composite allowable stress of plate and tubing

$$SF_{py} := \frac{FY_{comp}}{\sigma_{hoop}} = 6.5$$

Safety factor for hoop stress in panel compared to composite yield stress of plate and tubing

$$SF_{pu} := \frac{FU_{comp}}{\sigma_{hoop}} = 9.9$$

Safety factor for hoop stress in panel compared to composite ultimate stress of plate and tubing

Policy Template

APPROVALS

*All approvals are maintained and controlled By **OPERATIONS MANAGEMENT***

*Please refer to the **SOP MANUAL** for the current controlled revision and approval records.*

REVISION HISTORY

AUTHOR	*REVISED SECTION/PARAGRAPH*	*REV*	*RELEASED*
Jeff Anderson	INITIAL RELEASE	02	

Draft and Archived/Obsolete revisions are not to be used.

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3. DEFINITIONS 3

4. RESPONSIBILITIES 3

5. POLICY 3

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5.2 GROUND COVER INSTALLATION 4
5.3 TANK WALL ASSEBLY 4
5.4 TANK LINER INSTALLATION 4
5.5 FINAL INSTALLATION 5
5.6 FINAL INSPECTION 5

6. APPLICABLE REFERENCES 5

1. PURPOSE

This procedure is being implemented to standardize the process for installing Epic 360 Tanks and to ensure the quality from a standardized plan.

2. SCOPE

This procedure applies to the installations of 10,000bbl, 22,000bbl, 40,000bbl, and 60,000bbl Epic Tanks

3. DEFINITIONS

- Epic 360 Tank – Above ground tank used for water containment. Permanent or temporary structure used in industrial processes where large volumes of water are needed.
- Secondary Containment – Usually a "steel wall" type of containment that surrounds the perimeter of the Epic tank and serves as safeguard if leaks were to occur.

4. RESPONSIBILITIES

- SOP process owner –On-Site Epic Supervisor designated by management
- On-site Epic Supervisor – Ensure that SOP is strictly followed as the source for correct assembly and installation of Epic Tanks and their secondary containments.
- Crew Leader – Follow direction given by the On-Site Supervisor and managing their crew in a safe and productive manner
- Crew – Labor portion of the assembly/installation process
- Safety Coordinator – Ensuring that safety standards are being followed by the On-Site Supervisor, Crew Leader, and Crew. This is attained through audits and evaluation.
- Quality Director – Performs a post-completion inspection and ensures that the tank was built to customer specifications.
- Regulatory/Document Coordinator – Compile and file appropriate inspections and quality control documentation.

5. POLICY

Procedure for installing Epic 360 Tanks.

5.1 Prepare Surface Area

- Assure ground surface is within 1" of level grade. This is checked by the On-Site Epic Supervisor.
- If level, find the center of tank location and mark ground with paint. Determine radius of tank and mark ground for footprint of the tank.
- Obtain textile and appropriate liner, as determined by customer or internal specifications.

5.2 Ground Cover Installation

- Determine whether the tank requires a secondary containment to achieve 110% containment, spill containment, or tank only installation.
- Apply textile to the entire footprint of the tank, including secondary tank if applicable. Re-mark the painted footprint on top of the textile to serve as a guide for the wall panel placement.
- Apply liner material over the textile extending it 15 feet past the edge of the tank footprint.
- Fold the liner back toward the center of the tank footprint allowing sufficient space to place the wall panels.

5.3 Tank Wall Assembly

- Panels weight 8,600 lbs. each. A 10,000--11,000 lb Telehandler or greater must be used when handling and installing these panels. Use **Extreme Caution** when performing this process.
- Wall Assembly cannot take place if winds exceed 15 mph.
- Hold a safety meeting to determine who the signal person will be. The designated signal person will be the **ONLY** person to give direction to the Telehandler operator. However, anyone can give the **STOP** signal.
- Using rate and certified lift chains, attach two (2) hooks to the top of the wall panel.
- Attach tag lines to the bottom of the wall panel to assist in guiding the panel during installation.
- Equipment operator will place the wall panel in its designated location. While still supported by chains and the telehandler, install six (6) braces on the wall panel – three (3) braces on the inside of the wall and three (3) on the outside of the wall. Once the braces are installed, the lift chains can be removed.
- Install second wall panel following the same process. Once the second wall panel is in place, bolt the panels together. Be sure to leave the braces in place until at least half of the panels are installed.
- Repeat this process until the entire circumference is complete.

5.4 Tank Liner Installation

- The On-Site Supervisor and Safety Coordinator will determine if entry into the tank would be considered "confined space entry". If designated as such, a confined space permit will be obtained and only those designated personnel will be permitted to enter.
- Liner install cannot take place if winds are over 10-15 mph.
- Attach pull line to the edge of the liner and pull line over top of the wall panels.
- Secure liner to the top of the wall panels using the (3) clamps per panel. While clamping, inspect the liner to ensure it is not in a "stressed" condition and be sure to leave enough slack so that the liner can conform to the walls once the tank is filled with water.
- Trim any excess liner material from the outer edge of the tank wall

5.5 Final Installation

- The tank is now ready for the necessary access ladders and discharge hoses to be installed.
- Remove all excess material from the property and dispose of appropriately.

5.6 Final Inspection

- The Quality Director will inspect the completed build to ensure that it was built to the customer specifications.

6. APPLICABLE REFERENCES

- Epic Tank Supervisor

LIST OF GEOMEMBRANE ROLLS

SOLMAX

Solmax, 2801 Boul. Marie-Victorin, Varennes, Qc, Canada, J3X 1P7
Tél.: 1-450-929-1234 • Fax.: 1-450-929-2547 • www.solmax.com

SOLMAX APPROVED Quality Assurance

Project Name : PO 3292-2 - Odessa, TX

Project Number : 3292-2

Reference Number : 111550

Packing Slip Number : 224726

Roll Number	Product Code	Resin Lot Number	Manufactured Date	Resin Melt Index 190/2.16 g/10 min D1238	Resin Density g/cc D1505	OIT Spec Result min D3895	HPOIT Spec Result min D5885	ESCR SP-NCTL Spec Roll Tested hours D5397
LLDPE 40 mils White Reflective Smooth								
5-35524	1008348-56350-1	CJB810750	23-mars-18	0.32	0.919	*100* > 120		N/A
5-35539	1008348-56350-1	CJB810750	24-mars-18	0.32	0.919	*100* > 120		N/A
5-35540	1008348-56350-1	CJB810750	24-mars-18	0.32	0.919	*100* > 120		N/A
5-35542	1008348-56350-1	CJB810500	24-mars-18	0.36	0.919	*100* > 120		N/A
5-35543	1008348-56350-1	CJB810500	24-mars-18	0.36	0.919	*100* > 120		N/A
5-35550	1008348-56350-1	CJB810500	25-mars-18	0.36	0.919	*100* > 120		N/A
5-35551	1008348-56350-1	CJB810500	25-mars-18	0.36	0.919	*100* > 120		N/A
5-35552	1008348-56350-1	CJB810500	25-mars-18	0.36	0.919	*100* > 120		N/A
5-35553	1008348-56350-1	CJB810500	25-mars-18	0.36	0.919	*100* > 120		N/A
5-35554	1008348-56350-1	CJB810500	25-mars-18	0.36	0.919	*100* > 120		N/A
5-35556	1008348-56350-1	CJB810500	25-mars-18	0.36	0.919	*100* > 120		N/A
5-35557	1008348-56350-1	CJB810500	25-mars-18	0.36	0.919	*100* > 120		N/A

Quantity (rolls) : **12**

Solmax is not a design professional and has not performed any design services to determine if Solmax's goods comply with any project plans or specifications, or with the application or use of Solmax's goods to any particular system, project, purpose, installation or specification.

SOLMAX

MANUFACTURING QUALITY CONTROL

Test Results - Rolls

Solmax, 2801 Boul. Marie-Victorin, Varennes, Qc, Canada, J3X 1P7
Tél.: 1-450-929-1234 • Fax.: 1-450-929-2547 • www.solmax.com

Project Name PO 3292-2 - Odessa, TX

Project Number : 3292-2

Reference Number : 111550

Packing Slip Number : 224726

SOLMAX APPROVED Quality Assurance

Product 1008348-56350-1

LLDPE 40 mils White Reflective Smooth

CE Certificate = LL-40-SS-WB

Properties		Thickness ave / min.	Geo-membrane Density	Carbon Black Content	Carbon Black Dispersion	Tensile Yield Strength	Tensile Yield Elong.	Tensile Break Strength	Tensile Break Elong.	Tear Resist.	Puncture Resist.	Dimension. Stability	Asperity Height in / out
Unit		mils	g/cc	%	Cat. 1 and 2	ppi	%	ppi	%	lbs	lbs	%	mils
Test Method		D5199	D1505/D792	D4218 / D1603	D5596	D6693				D1004	D4833	D1204	
Frequency		Each roll		1/2 ro	1/10 ro	1/2 ro				1/5 ro	1/5 ro	Certied	N/A
Specification		40.0 / 36.0	≤ 0.939	2.0 - 3.0	Cat. 1 - Cat. 2			168	800	22	62	± 2	
5-35524	MD	40.6 / 39	0.937	2.68	10 /10 Views			211	873	25.7	92.9		/
	XD							214	980	27.1			
5-35539	MD	40.1 / 39	0.937	2.25	10 /10 Views			211	864	25.6	90.4		/
	XD							197	915	26.9			
5-35540	MD	40.4 / 39	0.937	2.25	10 /10 Views			211	864	25.1	88.9		/
	XD							197	915	27.3			
5-35542	MD	40.6 / 39	0.937	2.39	10 /10 Views			210	860	25.1	88.9		/
	XD							206	939	27.3			
5-35543	MD	40.6 / 39	0.937	2.23	10 /10 Views			213	866	25.1	88.9		/
	XD							209	942	27.3			
5-35550	MD	41.4 / 40	0.936	2.59	10 /10 Views			221	913	25.9	88.6		/
	XD							217	1011	27.7			
5-35551	MD	40.7 / 39	0.936	2.68	10 /10 Views			215	878	25.9	88.6		/
	XD							222	1031	27.7			
5-35552	MD	40.9 / 39	0.936	2.68	10 /10 Views			215	878	25.9	88.6		/
	XD							222	1031	27.7			
5-35553	MD	40.8 / 39	0.937	2.83	10 /10 Views			218	894	25.0	90.9		/
	XD							220	1028	27.2			
5-35554	MD	40.9 / 40	0.937	2.83	10 /10 Views			218	894	25.0	90.9		/
	XD							220	1028	27.2			
5-35556	MD	40.6 / 39	0.937	2.59	10 /10 Views			210	855	25.0	90.9		/
	XD							216	1021	27.2			
5-35557	MD	40.8 / 40	0.937	2.51	10 /10 Views			225	926	25.0	90.9		/
	XD							216	1001	27.2			

CPChem

CoA Date: 02/13/2018

Certificate of Analysis

Shipped To: SOLMAX
2801 BOUL MARIE-VICTORIN
VARENNES QC J3X 1P7
CANADA

Recipient: Marcotte
Fax:

Delivery #: 89611704
PO #: 116755-0
Weight: 188300.000 LB
Ship Date: 02/13/2018
Package: BULK
Mode: Hopper Car
Car #: CPCX815050
Seal No: 110664

Product:
MARLEX 7104 POLYETHYLENE in Bulk
Additive levels have been tested and meet minimum the specification for this lot.
As a result, Standard OIT (by ASTM D 3895) is greater than 120 minutes (nominal value, not tested on every lot).

Lot Number: CJB810500

Property	Test Method	Value	Unit
Melt Index	ASTM D1238	0.36	g/10min
Density	D1505	0.919	g/cm3

The data set forth herein have been carefully compiled by Chevron Phillips Chemical Company LP (CPChem). **However, there is no warranty of any kind, either expressed or implied, applicable to its use, and the user assumes all risk and liability in connection therewith.**

KEVIN AYRES
QUALITY ASSURANCE SUPERINTENDENT

For CoA questions contact Melissa Alexander at +-832-813-4244

CPChem

CoA Date 02/14/2018

Certificate of Analysis

Shipped To: SOLMAX
2801 BOUL MARIE-VICTORIN
VARENNES QC J3X 1P7
CANADA

Recipient: Marcotte
Fax:

Delivery #: 89612650
PO #: 116787-0
Weight: 196150.000 LB
Ship Date: 02/14/2018
Package: BULK
Mode: Hopper Car
Car #: NAHX620433
Seal No: 122023

Product:
MARLEX 7104 POLYETHYLENE in Bulk
Additive levels have been tested and meet minimum the specification for this lot.
As a result, Standard OIT (by ASTM D 3895) is greater than 120 minutes (nominal value, not tested on every lot).

Lot Number: CJB810750

Property	Test Method	Value	Unit
Melt Index	ASTM D1238	0.32	g/10min
Density	D1505	0.919	g/cm3

The data set forth herein have been carefully compiled by Chevron Phillips Chemical Company LP (CPChem). **However, there is no warranty of any kind, either expressed or implied, applicable to its use, and the user assumes all risk and liability in connection therewith.**

KEVIN AYRES
QUALITY ASSURANCE SUPERINTENDENT

For CoA questions contact Melissa Alexander at +-832-813-4244

PRODUCT DATA SHEET

GSE UltraFlex Smooth Geomembrane

GSE UltraFlex is a smooth linear low density polyethylene (LLDPE) geomembrane manufactured with the highest quality resin specifically formulated for flexible geomembranes. This product is used in applications that require increased flexibility and elongation properties where differential or localized subgrade settlements may occur such as in a landfill closure application.

[*]

AT THE CORE:

An LLDPE geomembrane that is used in applications requiring increased flexibility and elongation properties, such as landfill closures and mining applications.

Product Specifications

These product specifications meet GRI GM17

Tested Property	Test Method	Frequency	Minimum Average Value			
			40 mil	60 mil	80 mil	100 mil
Thickness, mil Lowest individual reading	ASTM D 5199	every roll	40 36	60 54	80 72	100 90
Density, g/cm³ (max.)	ASTM D 1505	200,000 lb	0.939	0.939	0.939	0.939
Tensile Properties (each direction) Strength at Break, lb/in-width Elongation at Break, %	ASTM D 6693, Type IV Dumbbell, 2 ipm G.L. 2.0 in	20,000 lb	 152 800	 228 800	 304 800	 380 800
Tear Resistance, lb	ASTM D 1004	45,000 lb	22	33	44	55
Puncture Resistance, lb	ASTM D 4833	45,000 lb	56	84	112	140
Carbon Black Content, % (Range)	ASTM D 1603*/4218	20,000 lb	2.0 - 3.0	2.0 - 3.0	2.0 - 3.0	2.0 - 3.0
Carbon Black Dispersion	ASTM D 5596	45,000 lb	Note(1)	Note(1)	Note(1)	Note(1)
Oxidative Induction Time, mins	ASTM D 3895, 200°C; O_2, 1 atm	200,000 lb	>100	>100	>100	>100
TYPICAL ROLL DIMENSIONS						
Roll Length(2), ft			870	560	430	340
Roll Width(2), ft			22.5	22.5	22.5	22.5
Roll Area, ft²			19,575	12,600	9,675	7,650

NOTES:

- (1) Dispersion only applies to near spherical agglomerates. 9 of 10 views shall be Category 1 or 2. No more than 1 view from Category 3.
- (2) Roll lengths and widths have a tolerance of ±1 %.
- GSE UltraFlex is available in rolls weighing approximately 3,900 lb.
- All GSE geomembranes have dimensional stability of ±2% when tested according to ASTM D 1204 and LTB of <-77°C when tested according to ASTM D 746.
- *Modified.

GSE is a leading manufacturer and marketer of geosynthetic lining products and services. We've built a reputation of reliability through our dedication to providing consistency of product, price and protection to our global customers.

Our commitment to innovation, our focus on quality and our industry expertise allow us the flexibility to collaborate with our clients to develop a custom, purpose-fit solution.

GSE ENVIRONMENTAL™

[DURABILITY RUNS DEEP] For more information on this product and others, please visit us at GSEworld.com, call 800.435.2008 or contact your local sales office.

SKAPS Industries
571 Industrial Parkway
Commerce, GA 30529 (U.S.A.)
Phone (706) 336-7000 Fax (706) 336-7007
e-mail: info@skaps.com

SKAPS TRANSNET™ (TN)
HDPE GEONET 220

SKAPS TRANSNET™ Geonet consists of SKAPS GeoNet made from HDPE resin.

Property	Test Method	Unit	Required Value	Qualifier
Geonet				
Thickness	ASTM D 5199	mil.	220±20	Range
Carbon Black	ASTM D 4218	%	2 to 3	Range
Tensile Strength	ASTM D 7179	lb/in	45	Minimum
Melt Flow	ASTM D 1238[3]	g/10 min.	1	Maximum
Density	ASTM D 1505	g/cm^3	0.94	Minimum
Transmissivity[1]	ASTM D 4716	$m^2/sec.$	$2x10^{-3}$	MARV[2]

Notes:
1. Transmissivity measured using water at 21 ± 2°C (70 ± 4°F) with a gradient of 0.1 and a confining pressure of 10000 psf between stainless steel plates after 15 minutes. Values may vary between individual labs.
2. MARV is statistically defined as mean minus two standard deviations and it is the value which is exceeded by 97.5% of all the test data.
3. Condition 190/2.16

This information is provided for reference purposes only and is not intended as a warranty or guarantee. SKAPS assumes no liability in connection with the use of this information.

BLM Lease Number: NMNM1388329X; NMLC068281B
Company Reference: Conoco Phillips Company & Sahara Operating Company
Well Name & Number: Zia Hills 25E Fed Com 401H; Russell 30 Fed 8

Legal Description:

Superman Treatment Site and Infrastructure:
Centerpoint: 2572' FNL & 2619' FWL, Section 30, T. 26 S., R. 32 E.

STANDARD STIPULATIONS FOR OIL AND GAS RELATED SITES

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

The holder agrees to comply with the following stipulations to the satisfaction of the Authorized Officer, BLM.

1. The holder shall indemnify the United States against any liability for damage to life or property arising from the occupancy or use of public lands under this grant and for all response costs, penalties, damages, claims, and other costs arising from the provisions of the Resource Conservation and Recovery Act (RCRA), 42 U.S.C. Chap. 82, Section 6901 et. seq., from the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA), 42 U.S.C. Chap. 109, Section 9601 et. seq., and from other applicable environmental statues.

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

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

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

5. Sites shall be maintained in an orderly, sanitary condition at all times. Waste materials, both liquid and solid, shall be disposed of promptly at an appropriate, authorized waste disposal facility in accordance with all applicable State and Federal laws. "Waste" means all discarded matter including, but not limited to, human waste, trash, garbage, refuse, petroleum products, brines, chemicals, oil drums, ashes, and equipment.

6. The operator will notify the Bureau of Land Management (BLM) authorized officer and nearest Fish and Wildlife Service (FWS) Law Enforcement office within 24 hours, if the operator discovers a dead or injured federally protected species (i.e., migratory bird species, bald or golden eagle, or species listed by the FWS as threatened or endangered) in or adjacent to a pit, trench, tank, exhaust stack, or fence. (If the operator is unable to contact the FWS Law Enforcement office, the operator must contact the nearest FWS Ecological Services office.)

7. All above-ground structures not subject to safety requirements shall be painted by the holder to blend with the natural color of the landscape. The paint used shall be a color which simulates "Standard Environmental Colors" designated by the Rocky Mountain Five-State Interagency Committee. The color selected for this project is **Shale Green**, Munsell Soil Color Chart Number 5Y 4/2.

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

OR

If the entire project is covered under the Permian Basin Programmatic Agreement (cultural resources only):

The proponent has contributed funds commensurate to the undertaking into an account for offsite mitigation. Participation in the PA serves as mitigation for the effects of this project on cultural resources. If any human skeletal remains, funerary objects, sacred objects, or objects of cultural patrimony are discovered at any time during construction, all construction activities shall halt and the BLM will be notified as soon as possible within 24 hours. Work shall not resume until a Notice to Proceed is issued by the BLM. See Stipulation 9 for more information.

If the proposed project is split between a Class III inventory and a Permian Basin Programmatic Agreement contribution, the portion of the project covered under Class III inventory should default to the first paragraph stipulations.

9. The holder is hereby obligated to comply with procedures established in the Native American Graves Protection and Repatriation Act (NAGPRA) to protect such cultural items as human remains, associated funerary objects, sacred objects, and objects of cultural patrimony discovered inadvertently during the course of project implementation. In the event that any of the cultural items listed above are discovered during the course of project work, the proponent shall immediately halt the disturbance and contact the BLM within 24 hours for instructions. The proponent or initiator of any project shall be held responsible for protecting, evaluating, reporting, excavating, treating, and disposing of these cultural items according to the procedures established by the BLM in consultation with Indian Tribes."

10. Any paleontological resource (historic or prehistoric site or object) discovered by the holder, or any person working on the holder's behalf, on public or Federal land shall be immediately reported to the Authorized Officer. The holder shall suspend all operations in the immediate area of such discovery until written authorization to proceed is issued by the Authorized Officer. An evaluation of the discovery will be made by the Authorized Officer to determine appropriate actions to prevent the loss of significant cultural

or scientific values. The holder will be responsible for the cost of evaluation and any decision as to the proper mitigation measures will be made by the Authorized Officer after consulting with the holder.

11. A sales contract for removal of mineral material (caliche, sand, gravel, fill dirt) from an authorized pit, site, or on location must be obtained from the BLM prior to commencing construction. There are several options available for purchasing mineral material: contact the BLM office (575-234-5972).

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

13. Once the site is no longer in service or use, the site must undergo final abandonment. At final abandonment, the site and access roads must undergo "final" reclamation so that the character and productivity of the land are restored. Earthwork for final reclamation must be completed within six (6) months of the abandonment of the site. All pads and facility locations and roads must be reclaimed to a satisfactory revegetated, safe, and stable condition, unless an agreement is made with the landowner or BLM to keep the road and/or pad intact. After all disturbed areas have been satisfactorily prepared, these areas need to be revegetated with the seed mixture provided. Seeding should be accomplished by drilling on the contour whenever practical or by other approved methods. Seeding may need to be repeated until revegetation is successful, as determined by the BLM.

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

14. The holder shall stockpile an adequate amount of topsoil where blading occurs. The topsoil to be stripped is approximately ___6___ inches in depth. The topsoil will be segregated from other spoil piles. The topsoil will be used for final reclamation.

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

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

16. In those areas where erosion control structures are required to stabilize soil conditions, the holder shall install such structures as are suitable for the specific soil conditions being encountered and which are in accordance with sound management practices. Any earth work will require prior approval by the Authorized Officer.

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

18. The operator will prevent all hazardous, poisonous, flammable, and toxic substances from coming into contact with soil and water. At a minimum, the operator will install and maintain an impervious secondary containment system for any tank or barrel containing hazardous, poisonous, flammable, or toxic substances sufficient to contain the contents of the tank or barrel and any drips, leaks,

and anticipated precipitation. The operator will dispose of fluids within the containment system that do not meet applicable state or U. S. Environmental Protection Agency livestock water standards in accordance with state law; the operator must not drain the fluids to the soil or ground. The operator will design, construct, and maintain all secondary containment systems to prevent wildlife and livestock exposure to harmful substances. At a minimum, the operator will install effective wildlife and livestock exclosure systems such as fencing, netting, expanded metal mesh, lids, and grate covers. Use a maximum netting mesh size of 1 ½ inches.

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

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

21. Special Stipulations:

Watershed:

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

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

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

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

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

Cave/Karst:

Construction Mitigation

In order to mitigate the impacts from construction activities on cave and karst resources, the following Conditions of Approval will apply to this project:

General Construction:

- No blasting
- The BLM, Carlsbad Field Office, will be informed immediately if any subsurface drainage channels, cave passages, or voids are penetrated during construction, and no additional construction shall occur until clearance has been issued by the Authorized Officer.
- All linear surface disturbance activities will avoid sinkholes and other karst features to lessen the possibility of encountering near surface voids during construction, minimize changes to runoff, and prevent untimely leaks and spills from entering the karst drainage system.
- All spills or leaks will be reported to the BLM immediately for their immediate and proper treatment.

Pad Construction:

- The pad will be constructed and leveled by adding the necessary fill and caliche – no blasting.
- The entire perimeter of the well pad will be bermed to prevent oil, salt, and other chemical contaminants from leaving the well pad.
- The compacted berm shall be constructed at a minimum of 12 inches high with impermeable mineral material (e.g., caliche).
- No water flow from the uphill side(s) of the pad shall be allowed to enter the well pad.
- The topsoil stockpile shall be located outside the bermed well pad.
- Topsoil, either from the well pad or surrounding area, shall not be used to construct the berm.
- No storm drains, tubing or openings shall be placed in the berm.
- If fluid collects within the bermed area, the fluid must be vacuumed into a safe container and disposed of properly at a state approved facility.
- The integrity of the berm shall be maintained around the surfaced pad throughout the life of the well and around the downsized pad after interim reclamation has been completed.
- Any access road entering the well pad shall be constructed so that the integrity of the berm height surrounding the well pad is not compromised (i.e. an access road crossing the berm cannot be lower than the berm height).
- Following a rain event, all fluids will vacuumed off of the pad and hauled off-site and disposed at a proper disposal facility.

Road Construction:

- Turnout ditches and drainage leadoffs will not be constructed in such a manner as to alter the natural flow of water into or out of cave or karst features.
- Special restoration stipulations or realignment may be required if subsurface features are discovered during construction.

Buried Pipeline/Cable Construction:

- Rerouting of the buried line(s) may be required if a subsurface void is encountered during construction to minimize the potential subsidence/collapse of the feature(s) as well as the possibility of leaks/spills entering the karst drainage system.

Powerline Construction:

- Smaller powerlines will be routed around sinkholes and other karst features to avoid or lessen the possibility of encountering near surface voids and to minimize changes to runoff or possible leaks and spills from entering karst systems.
- Larger powerlines will adjust their pole spacing to avoid cave and karst features.
- Special restoration stipulations or realignment may be required if subsurface voids are encountered.

Production Mitigation

In order to mitigate the impacts from production activities and due to the nature of karst terrane, the following Conditions of Approval will apply to this APD:

- Tank battery locations and facilities will be bermed and lined with a 20 mil thick permanent liner that has a 4 oz. felt backing, or equivalent, to prevent tears or punctures. Tank battery berms must be large enough to contain 1 ½ times the content of the largest tank.
- Development and implementation of a leak detection system to provide an early alert to operators when a leak has occurred.
- Automatic shut off, check values, or similar systems will be installed for pipelines and tanks to minimize the effects of catastrophic line failures used in production or drilling.

Residual and Cumulative Mitigation

The operator will perform annual pressure monitoring on all casing annuli and reported in a sundry notice. If the test results indicated a casing failure has occurred, remedial action will be taken to correct the problem to the BLM's approval.

VRM IV:

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

A. PIPELINES

- The BLM, Carlsbad Field Office, will be informed immediately if any subsurface drainage channels, passages, or voids are intersected by trenching, and no pipe will be laid in the trench at that point until clearance has been issued by the Authorized Officer.
- If a void is encountered alignments may be rerouted to avoid the karst feature and lessen; the potential of subsidence or collapse of karst features, buildup of toxic or combustible gas, or other possible impacts to cave and karst resources from the buried pipeline.
- Special restoration stipulations or realignment may be required at such intersections, if any.
- A leak detection plan **will be submitted to the BLM Carlsbad Field Office for approval** prior to pipeline installation. The method could incorporate gauges to detect pressure drops, situating values and lines so they can be visually inspected periodically or installing electronic sensors to alarm when a leak is present. The leak detection plan will incorporate an automatic shut off system that will be installed for proposed pipelines to minimize the effects of an undesirable event.
- Regular monitoring is required to quickly identify leaks for their immediate and proper treatment.
- All spills or leaks will be reported to the BLM immediately for their immediate and proper treatment.

BURIED PIPELINE STIPULATIONS

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

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

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

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

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

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

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

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

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

- Blading of vegetation within the right-of-way will be allowed: maximum width of blading operations will not exceed **20** feet. The trench is included in this area. (*Blading is defined as the complete removal of brush and ground vegetation.*)

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

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

8. The holder shall stockpile an adequate amount of topsoil where blading is allowed. The topsoil to be stripped is approximately 6 inches in depth. The topsoil will be segregated from other spoil piles

from trench construction. The topsoil will be evenly distributed over the bladed area for the preparation of seeding.

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

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

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

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

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

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

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

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

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

OR

If the entire project is covered under the Permian Basin Programmatic Agreement (cultural resources only):

The proponent has contributed funds commensurate to the undertaking into an account for offsite mitigation. Participation in the PA serves as mitigation for the effects of this project on cultural resources. If

any human skeletal remains, funerary objects, sacred objects, or objects of cultural patrimony are discovered at any time during construction, all construction activities shall halt and the BLM will be notified as soon as possible within 24 hours. Work shall not resume until a Notice to Proceed is issued by the BLM. See Stipulation 17 for more information.

If the proposed project is split between a Class III inventory and a Permian Basin Programmatic Agreement contribution, the portion of the project covered under Class III inventory should default to the first paragraph stipulations.

17. The holder is hereby obligated to comply with procedures established in the Native American Graves Protection and Repatriation Act (NAGPRA) to protect such cultural items as human remains, associated funerary objects, sacred objects, and objects of cultural patrimony discovered inadvertently during the course of project implementation. In the event that any of the cultural items listed above are discovered during the course of project work, the proponent shall immediately halt the disturbance and contact the BLM within 24 hours for instructions. The proponent or initiator of any project shall be held responsible for protecting, evaluating, reporting, excavating, treating, and disposing of these cultural items according to the procedures established by the BLM in consultation with Indian Tribes."

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

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

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

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

21. Special Stipulations:

Karst:

- The BLM, Carlsbad Field Office, will be informed immediately if any subsurface drainage channels, passages, or voids are intersected by trenching, and no pipe will be laid in the trench at that point until clearance has been issued by the Authorized Officer.
- If a void is encountered alignments may be rerouted to avoid the karst feature and lessen; the potential of subsidence or collapse of karst features, buildup of toxic or combustible gas, or other possible impacts to cave and karst resources from the buried pipeline.
- Special restoration stipulations or realignment may be required at such intersections, if any.
- A leak detection plan **will be submitted to the BLM Carlsbad Field Office for approval** prior to pipeline installation. The method could incorporate gauges to detect pressure drops, situating values and lines so they can be visually inspected periodically or installing electronic sensors to

alarm when a leak is present. The leak detection plan will incorporate an automatic shut off system that will be installed for proposed pipelines to minimize the effects of an undesirable event.

- Regular monitoring is required to quickly identify leaks for their immediate and proper treatment.
- All spills or leaks will be reported to the BLM immediately for their immediate and proper treatment.

STANDARD STIPULATIONS FOR SURFACE INSTALLED PIPELINES

A copy of the Grant and attachments, including stipulations, survey plat(s) and/or map(s), shall be on location during construction. BLM personnel may request to review a copy of your permit during construction to ensure compliance with all stipulations.

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

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

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

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

4. Holder shall be liable for damage or injury to the United States to the extent provided by 43 CFR Sec. 2883.1-4. Holder shall be held to a standard of strict liability for damage or injury to the United States resulting from pipe rupture, fire, or spills caused or substantially aggravated by any of the following within the right-of-way or permit area:

a. Activities of Holder including, but not limited to: construction, operation, maintenance, and termination of the facility;

b. Activities of other parties including, but not limited to:
   (1) Land clearing
   (2) Earth-disturbing and earth-moving work
   (3) Blasting
   (4) Vandalism and sabotage;

c. Acts of God.

The maximum limitation for such strict liability damages shall not exceed one million dollars ($1,000,000) for any one event, and any liability in excess of such amount shall be determined by the ordinary rules of negligence of the jurisdiction in which the damage or injury occurred.

This section shall not impose strict liability for damage or injury resulting primarily from an act of war or from

the negligent acts or omissions of the United States.

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

6. All construction and maintenance activity shall be confined to the authorized right-of-way width of **30** feet. If the pipeline route follows an existing road or buried pipeline right-of-way, the surface pipeline shall be installed no farther than 10 feet from the edge of the road or buried pipeline right-of-way. If existing surface pipelines prevent this distance, the proposed surface pipeline shall be installed immediately adjacent to the outer surface pipeline. All construction and maintenance activity shall be confined to existing roads or right-of-ways.

7. No blading or clearing of any vegetation shall be allowed unless approved in writing by the Authorized Officer.

8. Holder shall install the pipeline on the surface in such a manner that will minimize suspension of the pipeline across low areas in the terrain. In hummocky of duney areas, the pipeline shall be "snaked" around hummocks and dunes rather than suspended across these features.

9. The pipeline shall be buried with a minimum of 6 inches under all roads, "two-tracks," and trails. Burial of the pipe will continue for 20 feet on each side of each crossing. The condition of the road, upon completion of construction, shall be returned to at least its former state with no bumps or dips remaining in the road surface.

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

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

12. Excluding the pipe, all above-ground structures not subject to safety requirement shall be painted by the holder to blend with the natural color of the landscape. The paint used shall be a color which simulates "Standard Environmental Colors" – **Shale Green**, Munsell Soil Color No. 5Y 4/2; designated by the Rocky Mountain Five State Interagency Committee.

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

14. The holder shall not use the pipeline route as a road for purposes other than routine maintenance as determined necessary by the Authorized Officer in consultation with the holder. The holder will take whatever steps are necessary to ensure that the pipeline route is not used as a roadway.

15. Any cultural resource (historic or prehistoric site or object) discovered by the holder, or any person

working on the holder's behalf, on public or Federal land shall be immediately reported to the Authorized Officer. The holder shall suspend all operations in the immediate area of such discovery until written authorization to proceed is issued by the Authorized Officer. An evaluation of the discovery will be made by the Authorized Officer to determine appropriate actions to prevent the loss of significant cultural or scientific values. The holder will be responsible for the cost of evaluation and any decision as to the proper mitigation measures will be made by the Authorized Officer after consulting with the holder.

OR

If the entire project is covered under the Permian Basin Programmatic Agreement (cultural resources only):

The proponent has contributed funds commensurate to the undertaking into an account for offsite mitigation. Participation in the PA serves as mitigation for the effects of this project on cultural resources. If any human skeletal remains, funerary objects, sacred objects, or objects of cultural patrimony are discovered at any time during construction, all construction activities shall halt and the BLM will be notified as soon as possible within 24 hours. Work shall not resume until a Notice to Proceed is issued by the BLM. See Stipulation 16 for more information.

If the proposed project is split between a Class III inventory and a Permian Basin Programmatic Agreement contribution, the portion of the project covered under Class III inventory should default to the first paragraph stipulations.

16. The holder is hereby obligated to comply with procedures established in the Native American Graves Protection and Repatriation Act (NAGPRA) to protect such cultural items as human remains, associated funerary objects, sacred objects, and objects of cultural patrimony discovered inadvertently during the course of project implementation. In the event that any of the cultural items listed above are discovered during the course of project work, the proponent shall immediately halt the disturbance and contact the BLM within 24 hours for instructions. The proponent or initiator of any project shall be held responsible for protecting, evaluating, reporting, excavating, treating, and disposing of these cultural items according to the procedures established by the BLM in consultation with Indian Tribes."

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

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

19. Surface pipelines shall be less than or equal to 4 inches and a working pressure below 125 psi.

B. ELECTRIC LINES

- Smaller powerlines will be routed around sinkholes and other karst features to avoid or lessen the possibility of encountering near surface voids and to minimize changes to runoff or possible leaks and spills from entering karst systems. Larger powerlines will adjust their pole spacing to avoid cave and karst features.
- The BLM, Carlsbad Field Office, will be informed immediately if any subsurface drainage channels, cave passages, or voids are penetrated during construction.
- No further construction will be done until clearance has been issued by the Authorized Officer.

- Special restoration stipulations or realignment may be required.

STANDARD STIPULATIONS FOR OVERHEAD ELECTRIC DISTRIBUTION LINES

A copy of the grant and attachments, including stipulations, survey plat and/or map, will be on location during construction. BLM personnel may request to you a copy of your permit during construction to ensure compliance with all stipulations.

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

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

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

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

4. There will be no clearing or blading of the right-of-way unless otherwise agreed to in writing by the Authorized Officer.

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

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

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

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

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

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

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

OR

If the entire project is covered under the Permian Basin Programmatic Agreement (cultural resources only):

The proponent has contributed funds commensurate to the undertaking into an account for offsite mitigation. Participation in the PA serves as mitigation for the effects of this project on cultural resources. If any human skeletal remains, funerary objects, sacred objects, or objects of cultural patrimony are discovered at any time during construction, all construction activities shall halt and the BLM will be notified as soon as possible within 24 hours. Work shall not resume until a Notice to Proceed is issued by the BLM. See Stipulation 11 for more information.

If the proposed project is split between a Class III inventory and a Permian Basin Programmatic Agreement contribution, the portion of the project covered under Class III inventory should default to the first paragraph stipulations.

11. The holder is hereby obligated to comply with procedures established in the Native American Graves Protection and Repatriation Act (NAGPRA) to protect such cultural items as human remains, associated funerary objects, sacred objects, and objects of cultural patrimony discovered inadvertently during the course of project implementation. In the event that any of the cultural items listed above are discovered during the course of project work, the proponent shall immediately halt the disturbance and contact the BLM within 24 hours for instructions. The proponent or initiator of any project shall be held responsible for protecting, evaluating, reporting, excavating, treating, and disposing of these cultural items according to the procedures established by the BLM in consultation with Indian Tribes."

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

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

Seed Mixture 2, for Sandy Sites

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

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

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

Species	lb/acre
Sand dropseed (Sporobolus cryptandrus)	1.0
Sand love grass (Eragrostis trichodes)	1.0
Plains bristlegrass (Setaria macrostachya)	2.0

*Pounds of pure live seed:

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