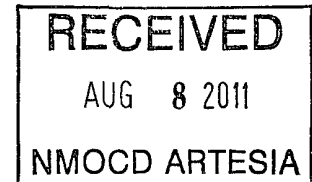


30-015-39292

COG OPERATING LLC
MULTI-POINT SURFACE USE AND OPERATIONS PLAN

Almost Heroes 1 Federal #4H
SHL: 375' FSL & 375' FWL of Section 1
BHL: 330' FNL & 375' FWL of Section 1
T24S R29E
Eddy County, New Mexico



This plan is submitted with Form 3160-3, Application for Permit to Drill, covering the above described well. The purpose of this plan is to describe the location of the proposed well, the proposed construction activities and operations plan, the magnitude of the surface disturbance involved and the procedures to be followed in rehabilitating the surface after completion of the operations, so that a complete appraisal can be made of the environmental effect associated with the operations.

1. EXISTING ROADS:

- a. The well site and elevation plat for the proposed well are reflected on the well site layout; Form C-102. The well was staked by John West Surveying Company.
- b. Exhibit 2 is a portion of a topo map showing the well and roads in the vicinity of the proposed location. The proposed wellsite and the access route to the location are indicated in red on Exhibit 2. Right of way using this proposed route is being requested if necessary.
- c. Routine grading and maintenance of existing roads will be conducted as necessary to maintain their condition as long as any operations continue on this lease.

DIRECTIONS:

From State Hwy 128 and paved CR 798 (Rawhide) go south on Rawhide 4.0 miles where pavement ends and turn right on caliche lease road and go south 1.3 miles turn left and go east 0.8 miles bend right and go south 0.1 miles to the existing (COG) Tommy's Boy Federal #1 well at NE Pad corner follow trail southwest 3072' and location is on the right (NW) 365'.

PLANNED ACCESS ROAD:

2. COG will be using a proposed access road of 161' coming in from the east side of the pad.

3. LOCATION OF EXISTING AND/OR PROPOSED FACILITIES:

- A. In the event the well is found productive, the Almost Heroes 1 Federal #4H tank battery would be utilized and the necessary production equipment will be installed at the well site. See Exhibit #4.
- B. All flowlines will adhere to API standards

- C. If electricity is needed, power will be obtained from Central Valley Electric. Central Valley Electric will apply for ROW for their power lines.
- D. If the well is productive, rehabilitation plans are as follows:
 - i. The original topsoil from the well site will be returned to the location. The drill site will then be contoured as close as possible to the original state.

4. LOCATION AND TYPES OF WATER SUPPLY:

This location will be drilled using a combination of water mud systems (outlined in the Drilling Program). The water will be obtained from commercial water stations in the area and hauled to location by transport truck using the existing and proposed roads shown in Exhibit #2. On occasion, water will be obtained from a pre-existing water well, running a pump directly to the drill rig. In these cases where a poly pipeline is used to transport water for drilling purposes, the existing and proposed road shown in Exhibit "2" will be utilized.

5. CONSTRUCTION MATERIALS:

All Caliche utilized for the drilling pad and proposed access road will be obtained from an existing BLM approved pit or from prevailing deposits found under the location. All roads will be constructed of 6" rolled and compacted caliche. Will use BLM recommended use of extra caliche from other locations close by for roads, if available.

6. METHODS OF HANDLING WASTE MATERIAL:

- a. All trash, junk and other waste material will be removed from the wellsite within 30 days after finishing drilling and/or completion operations. All waste material will be contained in trash cages or trash bins to prevent scattering. When the job is completed, all contents will be removed and disposed of in an approved sanitary landfill.
- b. The supplier, including broken sacks, will pick up slats remaining after completion of well.
- c. A porto-john will be provided for the rig crews. This equipment will be properly maintained during the drilling and completion operations and will be removed when all operations are complete.
- d. Disposal of fluids to be transported by an approved disposal company.

6. ANCILLARY FACILITIES:

No campsite or other facilities will be constructed as a result of this well.

7. WELLSITE LAYOUT:

- a. Exhibit 1 shows the proposed well site layout with dimensions of the pad layout.
- b. This exhibit indicates proposed location of reserve and sump pits if utilized and living facilities.
- c. Mud pits in the active circulating system will be steel pits and a closed loop system will be utilized.

8. PLANS FOR SURFACE RECLAMATION:

- a. After finishing drilling and/or completion operations, if the well is found non-commercial, the caliche will be removed from the pad and transported to the original caliche pit or used for other drilling locations. The road will be reclaimed as directed by the BLM. The original top soil will again be returned to the pad and contoured, as close as possible, to the original state.
- b. The location and road will be rehabilitated as recommended by the BLM.
- c. Caliche from areas of the pad site not required for operations will be reclaimed. The original top soil will be returned to the area of the drill pad not necessary to operate the well. These unused areas of the drill pad will be contoured, as close as possible, to match the original topography.

9. SURFACE OWNERSHIP:

The surface is owned by the US Government and is administered by the Bureau of Land Management. The surface is multiple use with the primary uses of the region for the grazing of livestock and the production of oil and gas. The proposed road routes and the surface location will be restored as directed by the BLM.

10. OTHER INFORMATION:

- a. The area surrounding the well site is grassland. The vegetation is moderately sparse with native prairie grass and mesquite bushes. No wildlife was observed but it is likely that deer, rabbits, coyotes, and rodents traverse the area.
- b. There is no permanent or live water in the general proximity of the location.
- c. If the well is deemed commercially productive, caliche from areas of the pad site not required for operations will be reclaimed. The original top soil will be returned to the area of the drill pad not necessary to operate the well. These unused areas of the drill pad will be contoured, as close as possible, to match the original topography. Reserve pit will not be used on this location therefore no reclamation is needed.
- d. Topsoil will be stockpiled on the WEST SIDE of the location until it is needed for interim reclamation described in paragraph above.

12. OPERATOR'S REPRESENTATIVE:

A. Through A.P.D. Approval:

Rand French, Regulatory Supervisor
 COG Operating LLC
 Artesia, NM 88210
 Phone (575)748-6940
 Cell (432) 254-5556

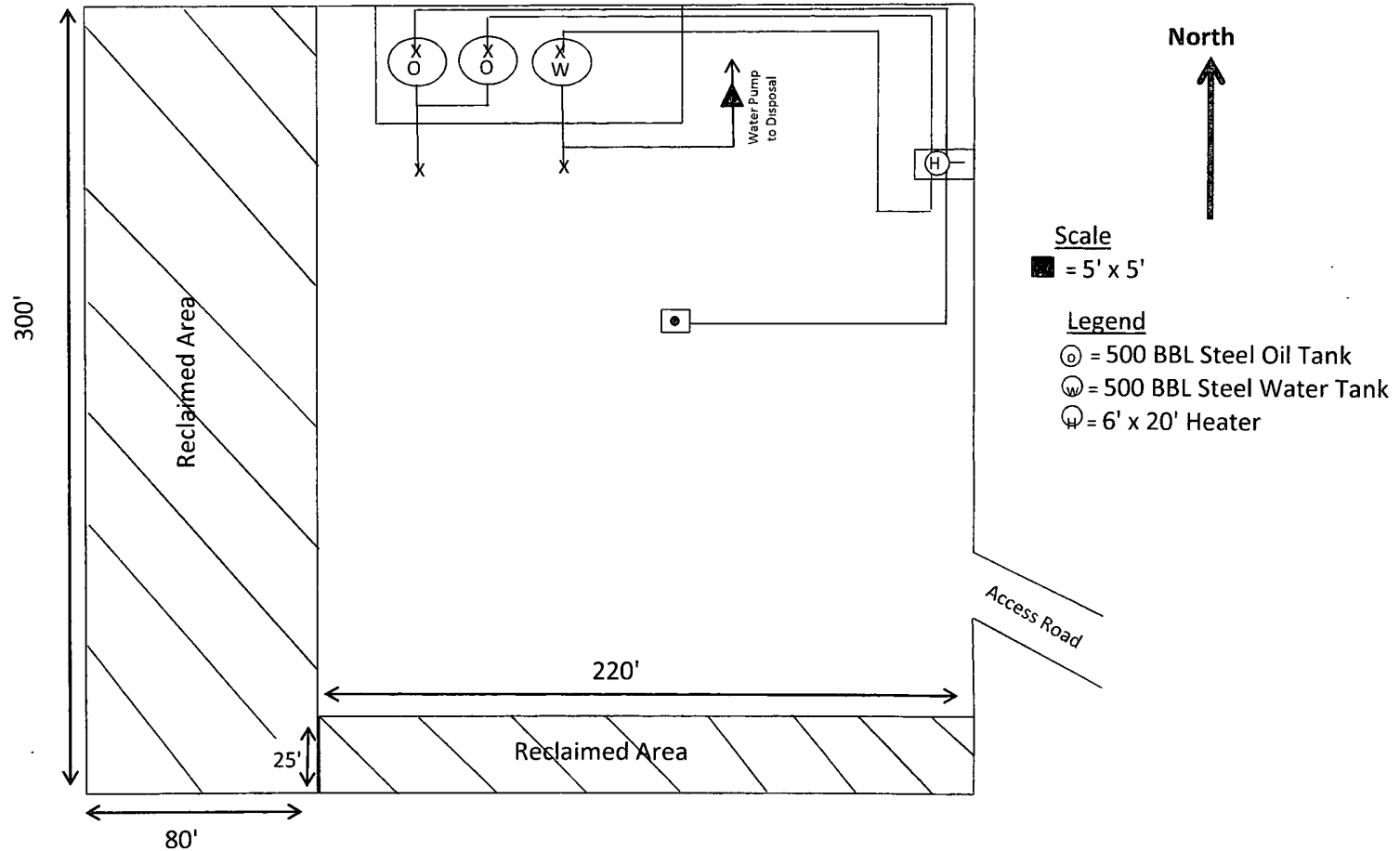
B. Through Drilling Operations

Sheryl Baker, Drilling Supervisor
 COG Operating LLC
 Artesia, NM 88210
 Phone (575)748-6940
 Cell (432)934-7873

CONCHO
COG Operating LLC
2208 West Main
Artesia, NM 88210

Production Facility Layout

Almost Heroes 1 Federal #4H

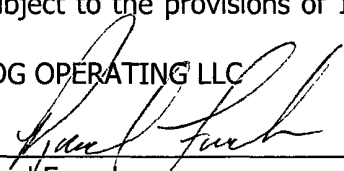


CERTIFICATION:

I hereby certify that I, or persons under my direct supervision, have inspected the proposed drillsite and access route, that I am familiar with the conditions which presently exist; that the statements made in this plan are to the best of my knowledge, true and correct; and that the work associated with the operations proposed herein will be performed by COG Operating LLC and its contractors and subcontractors in conformity with this plan and the terms and conditions under which it is approved. This statement is subject to the provisions of 18 U.S.C. 1001 for the filing of a false statement.

5-9-11
Date

COG OPERATING LLC


Rand French
Regulatory Supervisor

Serial Register Page 

map

DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
CASE RECORDATION
(MASS) Serial Register Page

Run Time 10 09 AM

Page 1 of 7

Run Date 05/05/2011

01 12-22-1987;101STAT1330,30USC181 ET SE

Total Acres
399.160Serial Number
NMNM-- - 102912

Case Type 312021: O&G LSE COMP PD -1987

Commodity 459: OIL & GAS L

Case Disposition AUTHORIZED

Serial Number: NMNM-- - 102912

Name & Address	Int Rel	% Intere
CHESAPEAKE EXPL LLC PO BOX 18496 OKLAHOMA CITY OK 731540496	OPERATING RIGHTS	0.0000000
CHEVRON MIDCONTINENT LP PO BOX 36366 HOUSTON TX 77236	OPERATING RIGHTS	0.0000000
COG OPERATING LLC 559 W TEXAS AVE STE 100 MIDLAND TX 797014287	OPERATING RIGHTS	0.0000000
CONCHO RESOURCES INC 559 W TEXAS AVE STE 1300 MIDLAND TX 797014210	OPERATING RIGHTS	0.0000000
ECHO PROD INC PO BOX 1210 GRAHAM TX 76450	LESSEE	100.0000000
LATIGO PETROLEUM INC 15 W 6TH ST #1100 TULSA OK 74119	OPERATING RIGHTS	0.0000000
MARBOB ENERGY CORP PO BOX 227 ARTESIA NM 882110227	OPERATING RIGHTS	0.0000000
OXY USA INC 5 GREENWAY PLZ #110 HOUSTON TX 770460521	OPERATING RIGHTS	0.0000000
TALUS INC PO BOX 1210 GRAHAM TX 76450	OPERATING RIGHTS	0.0000000
THE ALLAR CO PO BOX 1567 GRAHAM TX 76450	OPERATING RIGHTS	0.0000000
TWN MONTANA INC PO BOX 1210 GRAHAM TX 76450	OPERATING RIGHTS	0.0000000

Serial Number: NMNM-- - 102912

Mer Twp Rng Sec	STyp	SNr Surr	Subdivision	DistricField Office	County	Mgmt Agency	
23 02405 0290E 001	ALIQ		SWNE,S2NW SW,	CARLSBAD FO	EDDY	BUREAU OF LAND MGMT	1 0290E
23 02405 0290E 001	LOTS		2,3,4	CARLSBAD FO	EDDY	BUREAU OF LAND MGMT	1 0290E

3

Serial Number: NMNM-- - 102912

Act Date	Code	Action	Action Remar	Pending Offc	
04/20/1999	387	CASE ESTABLISHED	9904086		1999 04 20
04/21/1999	191	SALE HELD			1999 04 21
04/21/1999	267	BID RECEIVED	\$36000 00,		1999 04 21
04/21/1999	392	MONIES RECEIVED	\$36000 00,		1999 04 21
05/14/1999	237	LEASE ISSUED			1999 05 14
05/14/1999	974	AUTOMATED RECORD VERIF	GSB		1999 05 14
06/01/1999	496	FUND CODE	05,145003		1999 06 01
06/01/1999	530	RITY RATE - 12 1/2%			1999 06 01
06/01/1999	868	EFFECTIVE DATE			1999 06 01
06/02/1999	064	RENTAL RECEIVED BY NMS	\$600 00,11/MULTIPLE		1999 06 02
08/23/1999	963	CASE MICROFILMED			1999 08 23
08/24/1999	899	TRF OF ORR FILED			1999 08 24
11/12/1999	932	TRF OPER RGTS FILED	ECHO PROD/KUKUI INC		1999 11 12
12/28/1999	933	TRF OPER RGTS APPROVED	EFF 12/01/99,		1999 12 28
12/28/1999	974	AUTOMATED RECORD VERIF	JLV		1999 12 28
04/10/2000	084	RENTAL RECEIVED BY NMS	\$600 00,21/408		2000 04 10
04/17/2001	084	RENTAL RECEIVED BY NMS	\$600 00,21/419		2001 04 17
04/30/2003	817	MERGER RECOGNIZED	KUKUI INC/ANIMAS ENE		2003 04 30
06/27/2003	932	TRF OPER RGTS FILED	ANIMAS/SAGA,		2003 06 27
07/30/2003	933	TRF OPER RGTS APPROVED	EFF 07/01/03,		2003 07 30
07/30/2003	974	AUTOMATED RECORD VERIF	MV		2003 07 30
08/15/2003	932	TRF OPER RGTS FILED	ALLAR CO/CHESAPEAKE		2003 08 15
08/15/2003	932	TRF OPER RGTS FILED	TALUS INC/CHESAPEAKE		2003 08 15
08/15/2003	932	TRF OPER RGTS FILED	TWIN MONTANA/CHESAPEA		2003 08 15
09/23/2003	933	TRF OPER RGTS APPROVED	01EFF 09/01/03,		2003 09 23
09/23/2003	933	TRF OPER RGTS APPROVED	02EFF 09/01/03,		2003 09 23
09/23/2003	933	TRF OPER RGTS APPROVED	03EFF 09/01/03,		2003 09 23
09/23/2003	974	AUTOMATED RECORD VERIF	LR		2003 09 23

NO WARRANTY IS MADE BY BLM FOR USE OF THE DATA FOR PURPOSES NOT INTENDED BY BLM

[Land Status](#) [Energy](#) [Sites](#) [Roads](#) [Mining](#) [Range Land](#)

Oil and Gas	Sec 368 Energy Corridors				Energy Potential Areas		Stipulations	OG Density	Coal	Geothermal	Fast Track
Rangeland	ROW	Wind	Solar	Cases	PLSS	Regulated Uses	Surface Management		Subsurface	Boundaries	
Land Status	Plats										

Identify Source: ☒ Selected Sketch

Oil and Gas Leases Producing : 1 result

<u>Map</u>	<u>Reports</u>	<u>More Info</u>	<u>Lease Name</u>	<u>Stored Acreage</u>	<u>Serial No. (Full)</u>	<u>Geometry</u>	<u>Case Typ</u>
<input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/>	<input checked="" type="checkbox"/> LR2000 CR Report	More Info	*	399.160	NMNM 102912		O&G LSE COMP PD -

Oil and Gas Leases (Closed) : 3 results

<u>Map</u>	<u>Reports</u>	<u>More Info</u>	<u>Lease Name</u>	<u>Stored Acreage</u>	<u>Serial No. (Full)</u>	<u>Geometry</u>	<u>Case T</u>
<input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/>	<input checked="" type="checkbox"/> LR2000 CR Report	More Info	*	399.160	NMNM 065400		O&G LSE COMP P
<input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/>	<input checked="" type="checkbox"/> LR2000 CR Report	More Info	*	559.160	NMNM 019436		O&G LSE SIMO PUBL
<input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/>	<input checked="" type="checkbox"/> LR2000 CR Report	More Info	*	399.160	NMNM 086903		O&G LSE COMP PC

The following tables returned no data and were not displayed:

O&G Lease Sale Parcels
 Oil and Gas Agreements
 Oil and Gas Agreements (Closed)
 Oil and Gas Leases Non Producing
 Oil and Gas Hydrocarbon Leases
 Oil Shale Leases
 Oil Shale Leases (Closed)

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New Mexico Office of the State Engineer **Water Column/Average Depth to Water**

No records found.

PLSS Search:

Section(s): 1

Township: 24S

Range: 29E

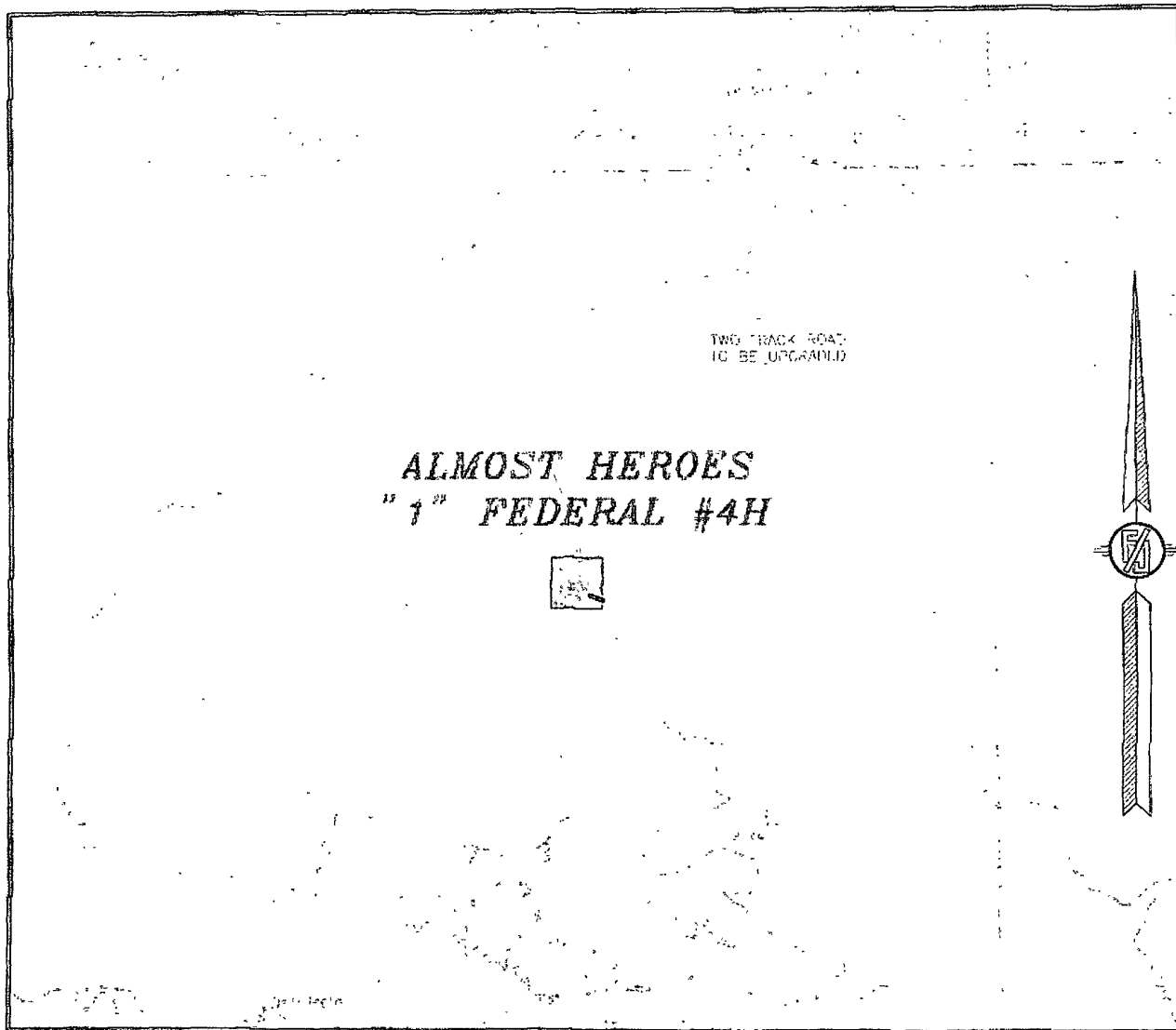
The data is furnished by the NMOSE/ISC and is accepted by the recipient with the expressed understanding that the OSE/ISC make no warranties, expressed or implied, concerning the accuracy, completeness, reliability, usability, or suitability for any particular purpose of the data.

5/5/11 10:14 AM

Page 1 of 1

WATER COLUMN/ AVERAGE
DEPTH TO WATER

SECTION 1, TOWNSHIP 24 SOUTH, RANGE 29 EAST, N.M.P.M.
EDDY COUNTY, STATE OF NEW MEXICO
LOCATION VERIFICATION MAP



CONTOUR INTERVAL:
REMUDA BASIN
PIERCE CANYON

NOT TO SCALE

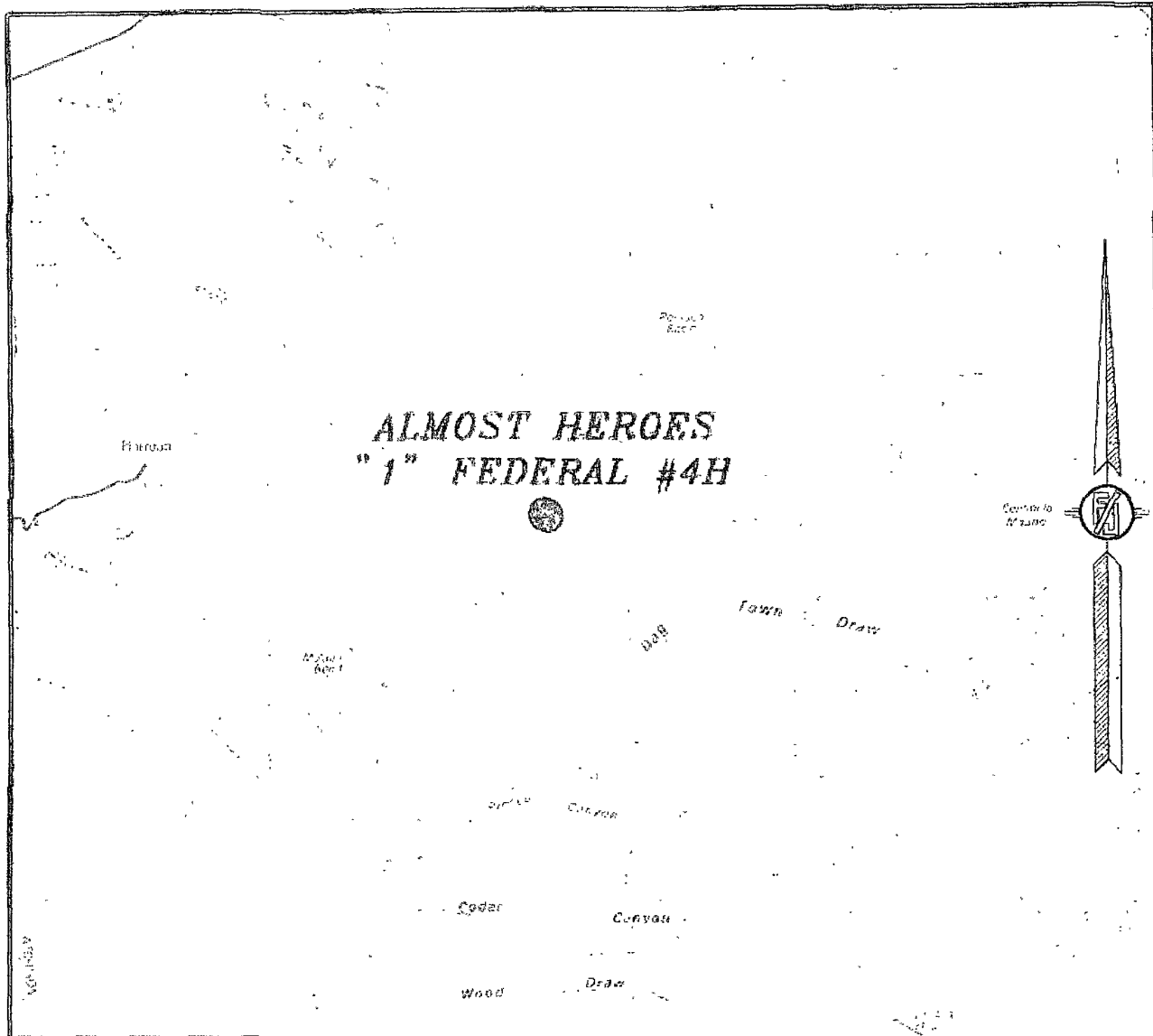
COG OPERATING, LLC
ALMOST HEROES "1" FEDERAL #4H
LOCATED 375 FT. FROM THE SOUTH LINE
AND 375 FT. FROM THE WEST LINE OF
SECTION 1, TOWNSHIP 24 SOUTH,
RANGE 29 EAST, N.M.P.M.
EDDY COUNTY, STATE OF NEW MEXICO

MAY 5, 2011

SURVEY NO. 457

MADRON SURVEYING, INC. 30' SOUTH CANAL (S74) T14 9672 CARLSBAD, NEW MEXICO

SECTION 1, TOWNSHIP 24 SOUTH, RANGE 29 EAST, N.M.P.M.
EDDY COUNTY, STATE OF NEW MEXICO
VICINITY MAP



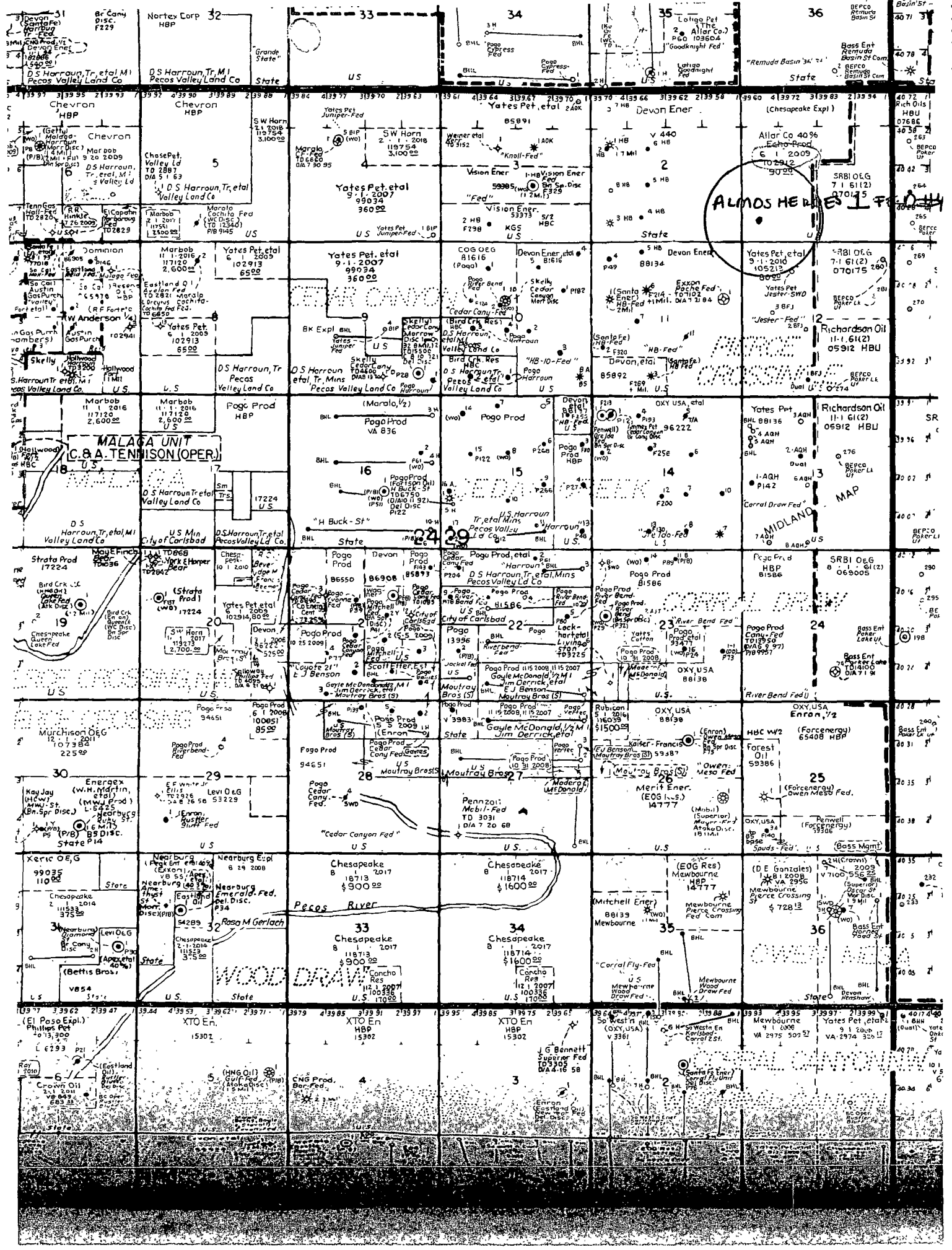
NOT TO SCALE

COC OPERATING, LLC
ALMOST HEROES "1" FEDERAL #4H
LOCATED 375 FT. FROM THE SOUTH LINE
AND 375 FT. FROM THE WEST LINE OF
SECTION 1, TOWNSHIP 24 SOUTH,
RANGE 29 EAST, N.M.P.M.
EDDY COUNTY, STATE OF NEW MEXICO

MAY 5, 2011

SURVEY NO. 457

MADRON SURVEYING, INC. 30 SOUTH LARSEN
13713 TUB-0072 CARLSBAD, NEW MEXICO



ALAMOS HERMES 1 FE

MIDLAND MAP

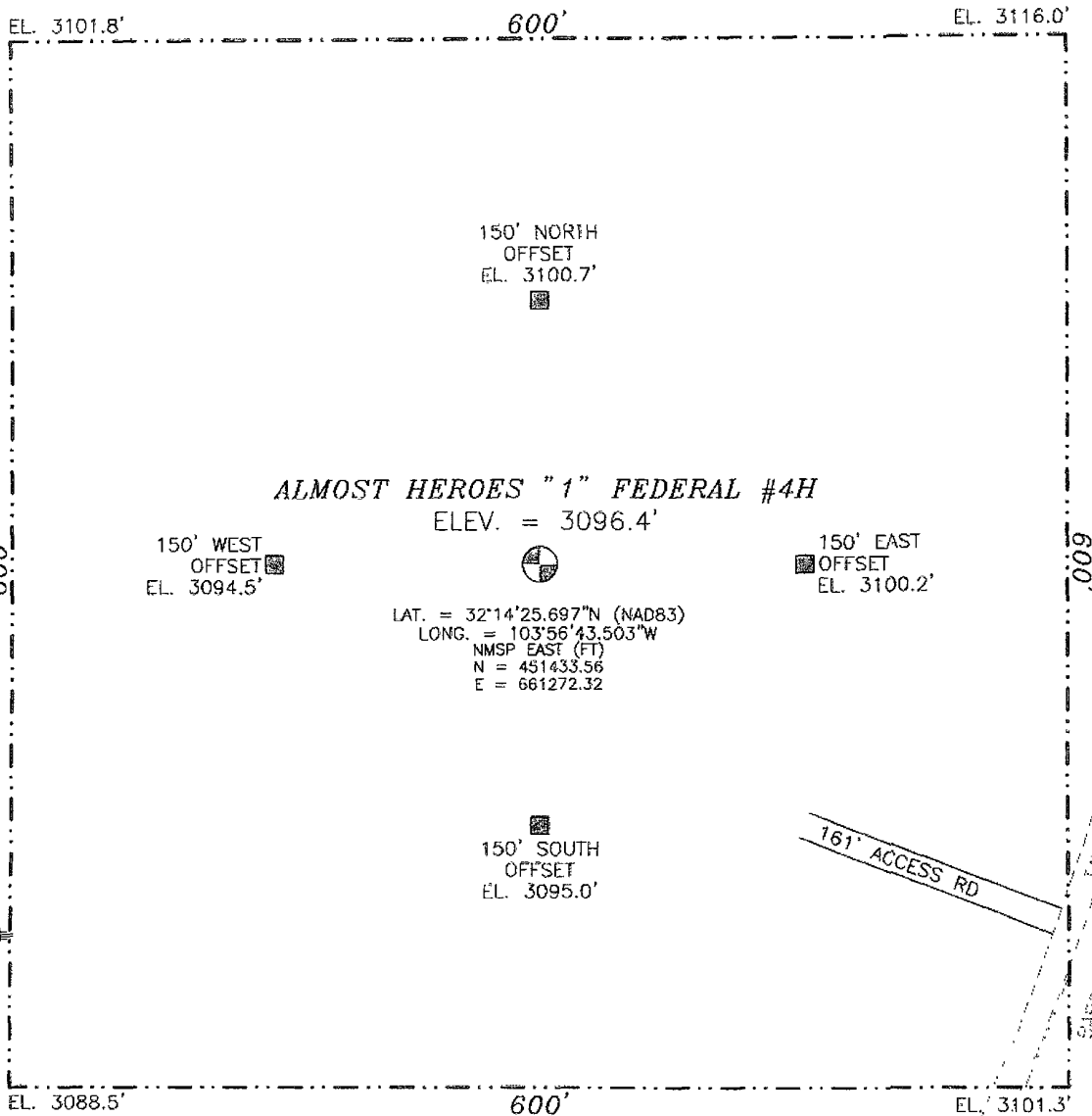
WOOD DRAW

OWEN MESA

PECOS RIVER

OWEN MESA

SECTION 1, TOWNSHIP 24 SOUTH, RANGE 29 EAST, N.M.P.M.
EDDY COUNTY, STATE OF NEW MEXICO



010 50 100 200

SCALE 1" = 100'

DIRECTIONS TO LOCATION

FROM STATE HWY 128 AND PAVED CR 798 (RAWHIDE) GO SOUTH ON RAWHIDE 4.0 MILES WHERE PAVEMENT ENDS AND TURN RIGHT ON CALICHE LEASE ROAD AND GO WEST 3.5 MILES TURN LEFT AND GO SOUTHEAST 1.0 MILES TURN RIGHT AND GO SOUTH 1.5 MILES TURN LEFT AND GO EAST 0.8 MILES BEND RIGHT AND GO SOUTH 250' TURN LEFT AND GO EAST 0.7 MILES BEND RIGHT AND GO SOUTH 0.1 MILES TO THE EXISTING (COG) TOMMY'S BOY FED #1 WELL AT NE PAD CORNER FOLLOW FLAGGED TRAIL ROAD SOUTH EAST 1700' TURN RIGHT AND FOLLOW TRAIL SOUTHWEST 3072' AND LOCATION IS ON THE RIGHT (NW) 365'.

COC OPERATING, LLC

ALMOST HEROES "1" FEDERAL #4H

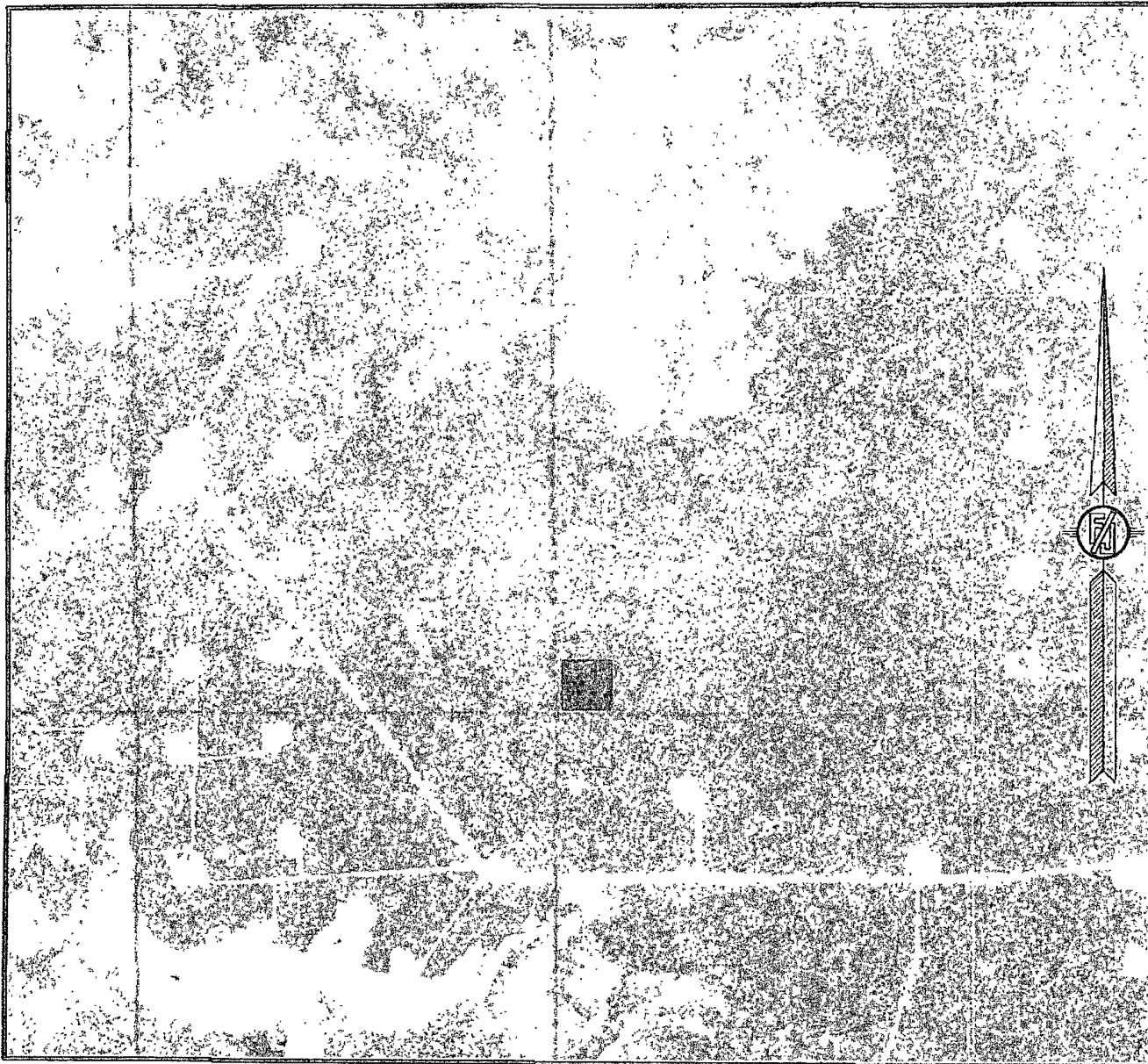
LOCATED 375 FT. FROM THE SOUTH LINE
AND 375 FT. FROM THE WEST LINE OF
SECTION 1, TOWNSHIP 24 SOUTH,
RANGE 29 EAST, N.M.P.M.
EDDY COUNTY, STATE OF NEW MEXICO

SURVEY NO. 457

MAY 5, 2011

MADRON SURVEYING, INC. 301 SOUTH LINCOLN (S.W.) HP-9672 CARLSBAD, NEW MEXICO

SECTION 1, TOWNSHIP 24 SOUTH, RANGE 29 EAST, N.M.P.M.
EDDY COUNTY, STATE OF NEW MEXICO
AERIAL PHOTO



NOT TO SCALE
AERIAL PHOTO:
GOOGLE EARTH
USDA - AUG, 2009

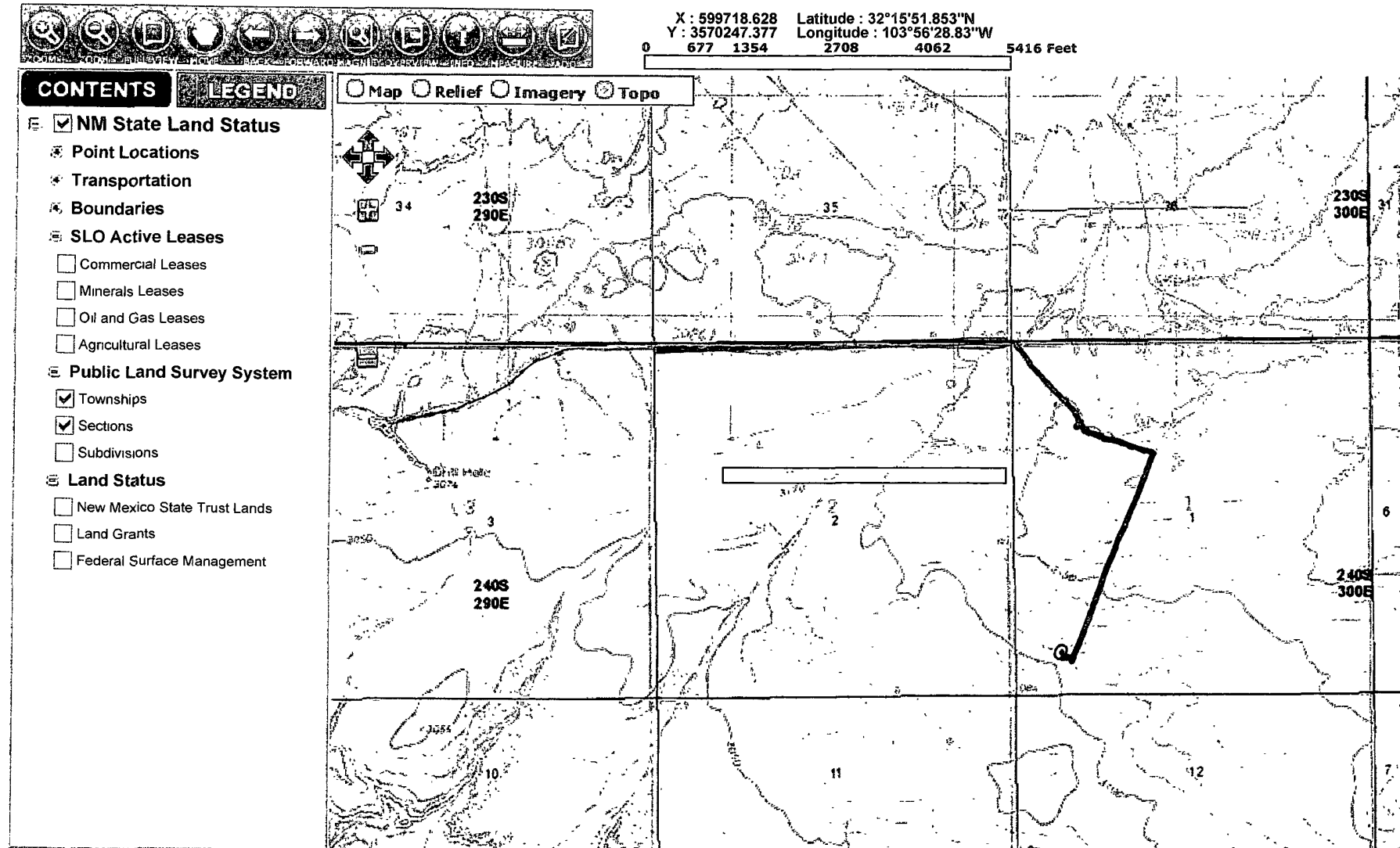
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LOCATED 375 FT. FROM THE SOUTH LINE
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SECTION 1, TOWNSHIP 24 SOUTH,
RANGE 29 EAST, N.M.P.M.
EDDY COUNTY, STATE OF NEW MEXICO

SURVEY NO. 457

MAY 5, 2011

MADRON SURVEYING, INC. 31 SOUTH C.W.4
(575) 96 9877 CARLSBAD, NEW MEXICO

New Mexico State Land Office - Land Status



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002

001

4H Almost Heroes 1 Federal

Access Road

JESTER SWD #004 JESTER SWD #004

011

012

JESTER BFJ FEDERAL #003