

## **Surface Use Plan**

Energen Resources Corporation  
Cox Federal 35-1H  
Sec 35, T23S, R35E  
200 fsl, 400 fel  
Lea County, NM

HOBBS OCD

NOV 26 2013

RECEIVED

This plan is submitted as the partial requirements of an Application for Permit to Drill as outlined in Onshore Order 1 covering the above referenced well.

### **1. Existing Roads:**

- A. A map depicting county roads and topography will be used showing access to the proposed location. All access roads will be labeled for points of reference. Any plans for improvement and/or maintenance of existing roads will be provided upon direction of the regulatory agency as identified during on-site meeting discussion. Roads will be maintained, if necessary, according to the 'BLM Gold Book Standards'.
- B. Directions: Travel west on Highway 128 from the intersection of Highways 18 and 128 in Jal 26 miles. Turn right (northwest) on CR XX for 4.6 miles. Turn left (west) on existing lease road for 0.8 miles. Turn left (south) on new construction road for 1 mile. Turn left (east) on new road for 1373 feet to the Cox Federal 35-1H wellpad. (see attached map by Watson Professional Group, Inc.)

### **2. Proposed Access Road:**

- A. The new access road for the subject well will begin on the south side of an existing old drill site ("dry hole") and travel south for 600', then turn left or east for 533' to the planned wellpad. The road leading to the old drill site is an existing two track road that will be upgraded to 'BLM Gold Book Standards'.
- B. The access road will be upgraded and constructed to be 14' wide with adequate contour to permit proper draining.
- C. The surface will be rolled with 6" of caliche, and the sides ditched for proper drainage.

### **3. Location of Existing Wells:**

The nearest well will be a new planned well, Cox Federal 35-2H. A map indicating existing wells will be shown if within a 1 mile radius of the proposed location.

### **4. Location of Proposed Production Facilities:**

A diagram depicting the planned location of production facilities will be provided for the subject well, Cox Federal 35-1H. Production facilities will be manufactured, transported and set off lease on Cox Federal 35-2H wellsite, see attached diagram of 'Anticipated Wellsite Layout'. The anticipated flowline will travel the route of the planned access road and will be SDR-7 for the delivery of hydrocarbon liquids to a central delivery point which will remain on surface. Expected length of this line is approximately 4,500'. Produced water will be stored and hauled or trucked to a disposal facility. Gas will be delivered

DEC 02 2013

via a high pressure 4" pipeline and will be buried below surface. The anticipated gas pipeline company is DPC. See attached Pipeline Route Plat.

**5. Water Supply for Drilling/Completion:**

Water sources will be as follows:

- A. Brine Water – Wassurhund Water Station in Buckeye or Eagle Water Station in Hobbs.
- B. Fresh Water – Arkansas Junction (2 mi east of 529 on 62/180) or Marathon Water Station (Marathon Road west of junction of 529 and 62/180).
- C. Approximately 35 500 bbl mobile Frac Tanks will be used for completion. A 'Frac Pond' will not be used.

**6. Construction Materials:**

All materials used will be from a native borrow source or as otherwise permitted by the regulatory agency and coordinated by Energen and Construction Contractor representatives.

**7. Methods of Handling Waste:**

- A. A closed loop system is anticipated to be used for the storage of drill fluids and drill cuttings.
- B. Fluids and cuttings will be hauled off location once TD is reached and the drilling rig is released.
- C. Flowback tanks will be used during the completion portion of the well with all fluids being hauled off location.
- D. Current laws pertaining to the storage and disposal of human waste will be observed.
- E. All other waste such as paper, plastic, and "junk" will be stored in a container on the wellsite and hauled to the nearest approved landfill area.

8. **Ancillary Facilities:** No other campsite, airstrip, or other facilities will be constructed for the drilling operations of the Cox Federal 35-1H.

**9. Wellsite Layout:**

- A. The planned wellpad size is 375' X 375'. A closed-loop system will be used.
- B. A 600' X 600' area has been staked and flagged.
- C. An accompanying NMOCD form C-102 along with wellpad layout, cut & fill diagrams, and surveyors maps have been included within the APD pkg for reference.

**10. Reclamation of Surface:**

- A. Material will be removed by conventional methods and the topsoil stockpiled on the upper NW corner of the wellpad. Unused portions of the wellpad during production operations will be adequately reclaimed and monitored as outlined in the Interim Reclamation Plan and COA's. Remaining topsoil and caliche will be placed and/or stored within the confines of the interim reclamation area for final reclamation of surface. A portion of the topsoil and caliche will be used for material in the interim reclamation process and will be placed to reclaim to the original or near original contour.

**Proposed Interim Reclamation:**

Cox Federal 35-1H

During production operations, interim reclamation will be done according to the plan approved by the Carlsbad BLM Field Office. Energen Resources will submit Sundry Notices and Reports on Wells (NOI) on Form 3160-5 prior to conducting these operations.

A plat depicting the planned area of reclamation during production operations will be provided showing any dimensions in relation to the reclaimed area(s) and production facilities.

If any disturbance is required for wellwork or recompletion operations, appropriate protocol will be followed as outlined in the Interim Reclamation Plan and Carlsbad BLM Field Office.

During reclamation, removed caliche will be used for the repair and maintenance of roads, fire walls, etc. to aide in the re-vegetating efforts of reclamation. Topsoil will be placed in reclamation areas to facilitate seed germination. The topsoil will be place to or as near as possible the natural landscape/topography.

A photo record will be made prior to reclamation and after reclamation has begun. An updated photo record will be made after each growing season for 3 years after the reclamation start date at the end of each growing season. After the first three years, a photo record will be made each 5<sup>th</sup> year after reclamation began up to the abandonment of the well. Points of transect will be determined during the interim reclamation onsite in order to identify the points of photography for the record.

Planned Seed Mix is 2 and 3, unless directed otherwise by the Carlsbad BLM Field Office. Seed Mix 2 will be used in sandy soils. Seed Mix 3 will be used for shallow soils.

Seed will be evenly and uniformly distributed over disturbed area. A depth regulator and drill will be used to ensure proper depth of seed placement. Where drilling is not possible and broadcast method will be used, the soil raked or chained to cover seed. When broadcasting, the lb/acre will be increased by 100%. Seeding will continue until a satisfactory cover is established.

**Seed Mix 2 (sandy sites):**

Sand Dropseed ( <i>Sporobolus cryptandrus</i> )	1.0 lb/acre
Sand Love Grass ( <i>Eragrostis trichodes</i> )	1.0 lb/acre
Plains Bristlegrass ( <i>Setaria macrostachya</i> )	2.0 lb/acre

**Seed Mix 3 (shallow sites):**

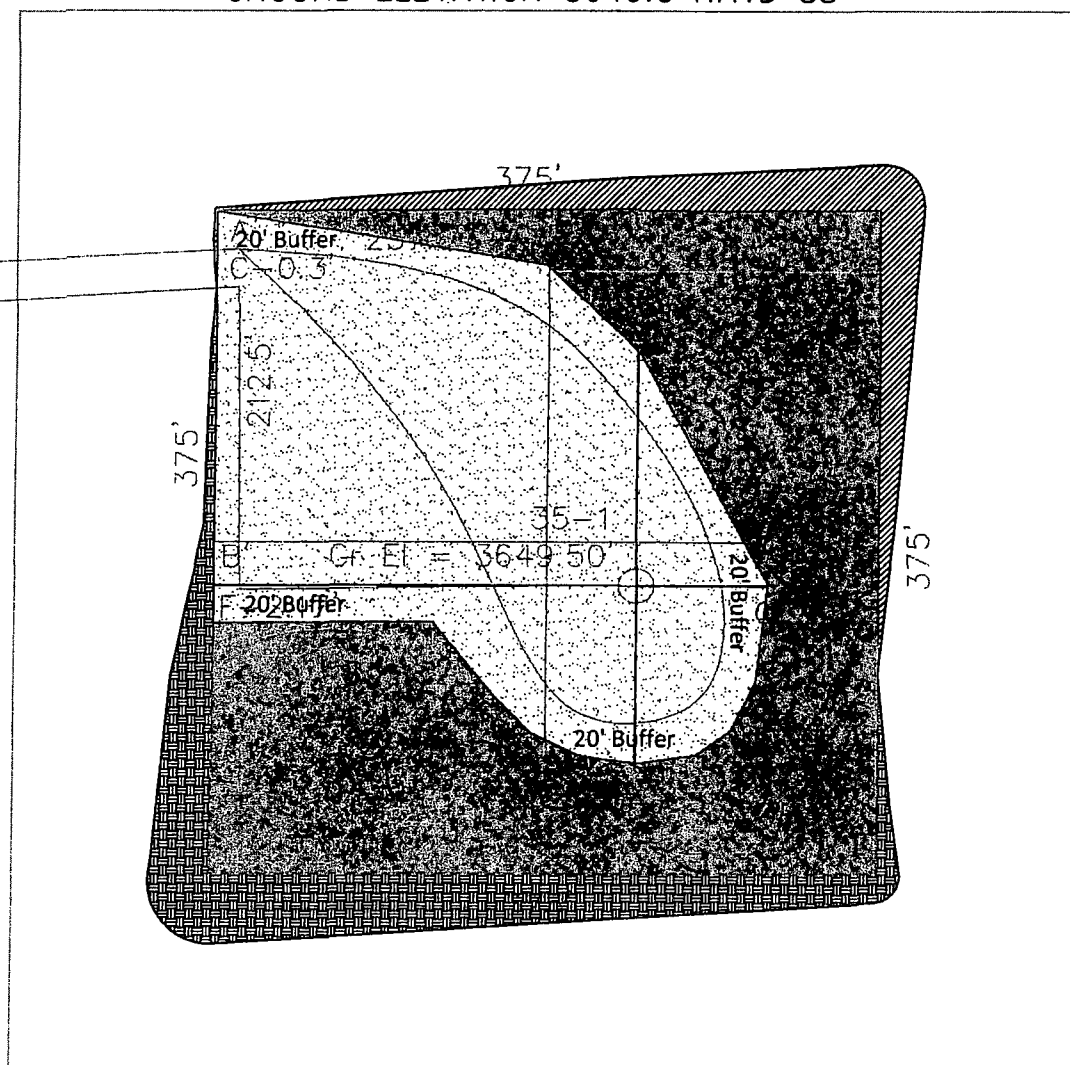
Plains Bristlegrass ( <i>Setaria macrostachya</i> )	1.0 lb/acre
Green Spangletop ( <i>Leptochloa dubia</i> )	2.0 lb/acre
Side Oats Grama ( <i>Bouteloua curtipendula</i> )	5.0 lb/acre

WELL FLAG  
LAT: 32°16'26.4288"  
LON: 103°23'19.6480"

ENERGEN RESOURCES CORPORATION  
COX-FEDERAL 35-1H  
200 FSL & 400 FEL  
SECTION 35  
T-23-S, R-32-E  
LEA COUNTY, NEW MEXICO  
FINISHED PAD ELEVATION; 3649.5'  
GROUND ELEVATION 3649.5 NAVD 88

## NOTES:

ENTRY ROAD

FLOW LINE  
TO 35-2H

ARCHEOLOGICAL SURVEY BOUNDARY

SECTION 35  
T-23-S  
R-32-E

## LEGEND

CONSTRUCTION ZONE  
500' X 500' AREA  
PROPOSED LEASE ROAD

0 500' 1000'

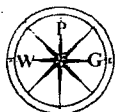
RECONSTRUCTION PROJECT

FILE: \PROJECTS\NEW MEXICO\LEA\T23S R32E.DWG W0413-1155-00

TOTAL LENGTH OF NEW ROAD = 2832.75'

Basis of Bearing is SPC NAD 83 NEW MEXICO EAST

**Watson**  
**Professional**  
**Group Inc**



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(432) 520-9200  
FAX (432) 520-9212  
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## DIRT WORK CALCULATIONS

ENERGEN RESOURCES CORPORATION

COX FEDERAL 35-1H

Location Pad Calculations  
T-23-S, R-32-E  
LEA COUNTY, NEW MEXICO.

## Multi-Point Surface Use Plan of Operations

**Existing Roads:** A map depicting county roads and topography will be used showing access to the proposed location. All access roads will be labeled for points of reference. Any plans for improvement and/or maintenance of existing roads will be provided upon direction of the regulatory agency as identified during on-site meeting discussion. Roads will be maintained, if necessary, according to the 'BLM Gold Book Standards'.

**New Roads, Constructed or Re-constructed:** All permanent and temporary access roads to be used will be indicated on an appropriately identified map. Proposed access to the wellsite will be shown with reference to existing roads and other points of interest if necessary as indicated on the land surveyor's map.

**Location of Existing Wells:** A map indicating existing wells will be shown if within a ½ mile radius of the proposed location.

**Location of Proposed Production Facilities:** A diagram depicting the planned location of production facilities will be provided for the subject well, Cox Federal 35-1. A survey of planned pipeline and/or flowline facilities will be provided. Production facilities will be manufactured and transported to the planned wellsite.

**Water Supply for Drilling/Completion:** Water sources will be as follows:

Brine Water – Wassurhund Water Station in Buckeye or Eagle Water Station in Hobbs.

Fresh Water – Arkansas Junction (2 mi east of 529 on 62/180) or Marathon Water Station (Marathon Road west of junction of 529 and 62/180).

**Construction Materials:** All materials used will be from a native borrow source or as otherwise permitted by the regulatory agency.

**Methods of Handling Waste:** A closed loop system is anticipated to be used for the storage of drill fluids and drill cuttings. Fluids and cuttings will be hauled off location once TD is reached and the drilling rig is released. Flowback tanks will be used during the completion portion of the well with all fluids being hauled off location. Current laws pertaining to the storage and disposal of human waste will be observed. All other waste such as paper, plastic, and "junk" will be stored in a container on the wellsite and hauled to the nearest approved landfill area.

**Ancillary Facilities:** Any other facilities such as camps will be identified if located off the proposed wellsite.

**Wellsite Layout:** A scale depicting the planned layout will be provided showing the planned wellsite, with road access/entry points. A cut and fill diagram will be included show the relationship to topography to construct a level wellpad.

**Reclamation of Surface:** Unused portions of the wellpad during production operations will be adequately reclaimed as directed by the regulatory agency including, but not limited to; topsoil, re-seeding, and storm water drainage.

**Surface Ownership:** The surface of the proposed wellpad location is located on Bureau of Land Management (BLM) located in Lea County, NM Carlsbad Field Office.



## Operator Certification

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

Executed this 7<sup>th</sup> day of OCTOBER, 2013

Name TOM S. CARRENS

Position Title Drilling Supt.

Address 3300 North A Street Bldg. 4, Suite 100 Midland, TX 79705

Telephone (432) 687-1155

Field Representative (if not above signatory) —

Address (if different from above) —

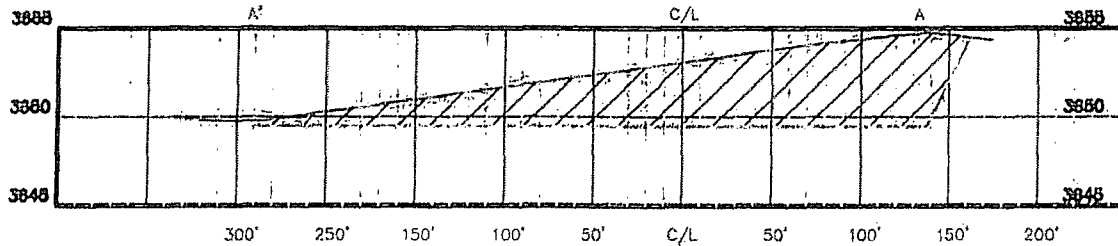
Telephone (if different from above) —

E-mail (optional) —

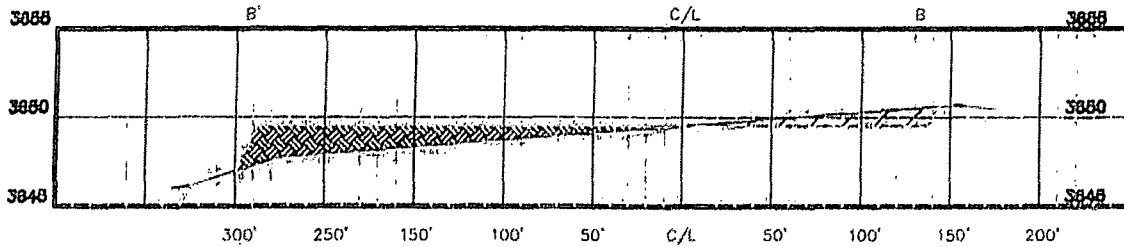
# SKETCH PLAT

ENERGEN RESOURCES CORPORATION  
COX-FEDERAL 35-1H  
200 FSL & 400 FEL  
SECTION 35  
T-23-S, R-32-E  
LEA COUNTY, NEW MEXICO  
FINISHED PAD ELEVATION; 3649.5'  
GROUND ELEVATION 3649.5 NAVD 88

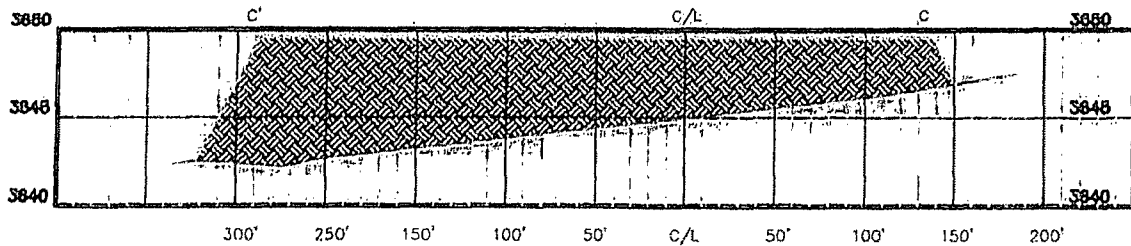
"A" (NORTH) PROFILE



"B" (CENTER) PROFILE



"C" (SOUTH) PROFILE



## LEGEND

0 500' 1000'

EXISTING GRADE

FINISHED GRADE

Basis of Bearing is SPC NAD 83 NEW MEXICO EAST

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MIDLAND, TEXAS 79702  
(409) 835-9200  
FAX (409) 835-9211  
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LOCATION PAD PROFILES

ENERGEN RESOURCES CORPORATION

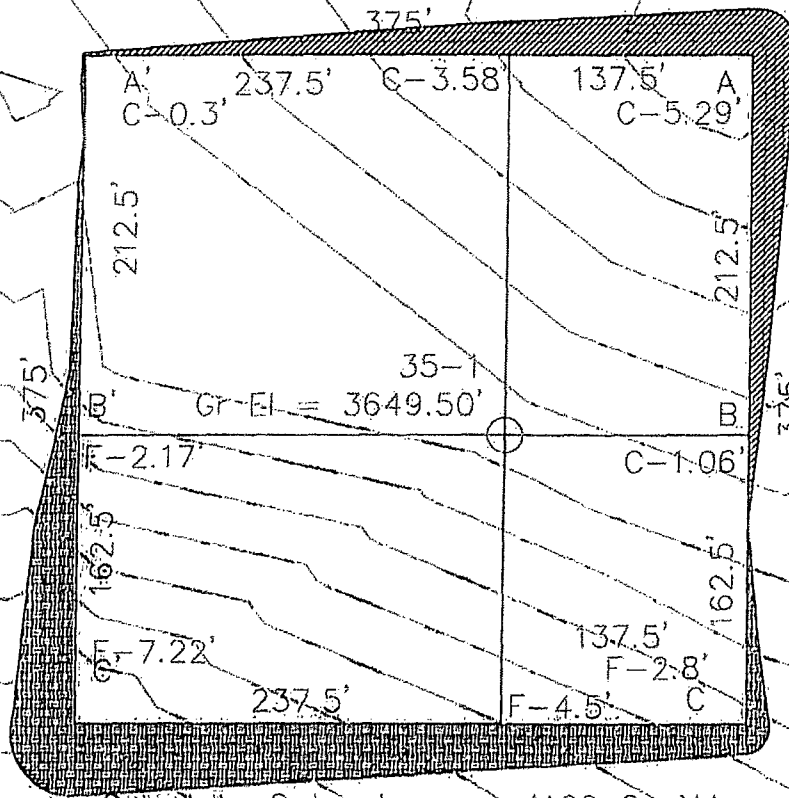
COX FEDERAL 35-1H

Location Pad Calculations  
T-23-S, R-32-E  
LEA COUNTY, NEW MEXICO.



# SKETCH PLAT

ENERGEN RESOURCES CORPORATION  
COX-FEDERAL 35-1H  
200 FSL & 400 FEL  
SECTION 35  
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LEA COUNTY, NEW MEXICO  
FINISHED PAD ELEVATION; 3649.5'  
GROUND ELEVATION 3649.5 NAVD 88



Calculate Cut volume = 4166 Cu Yds

Calculate Fill Volume = 6628 Cu Yds

SECTION 35  
T-23-S  
R-32-E

## LEGEND

CONSTRUCTION ZONE  
600' X 600' AREA  
PROPOSED LEASE ROAD

TOTAL LENGTH OF NEW ROAD = 2832.75'

Basis of Bearing is SPC NAD 83 NEW MEXICO EAST

## DIRT WORK CALCULATIONS

ENERGEN RESOURCES CORPORATION

COX FEDERAL 35-1H

Location Pad Calculations  
T-23-S, R-32-E  
LEA COUNTY, NEW MEXICO.

0 500' 1000'

FILE/T/PROJECTS/NEW MEXICO/LEA/T23S R32E.DWG 11/26/13-1155-00

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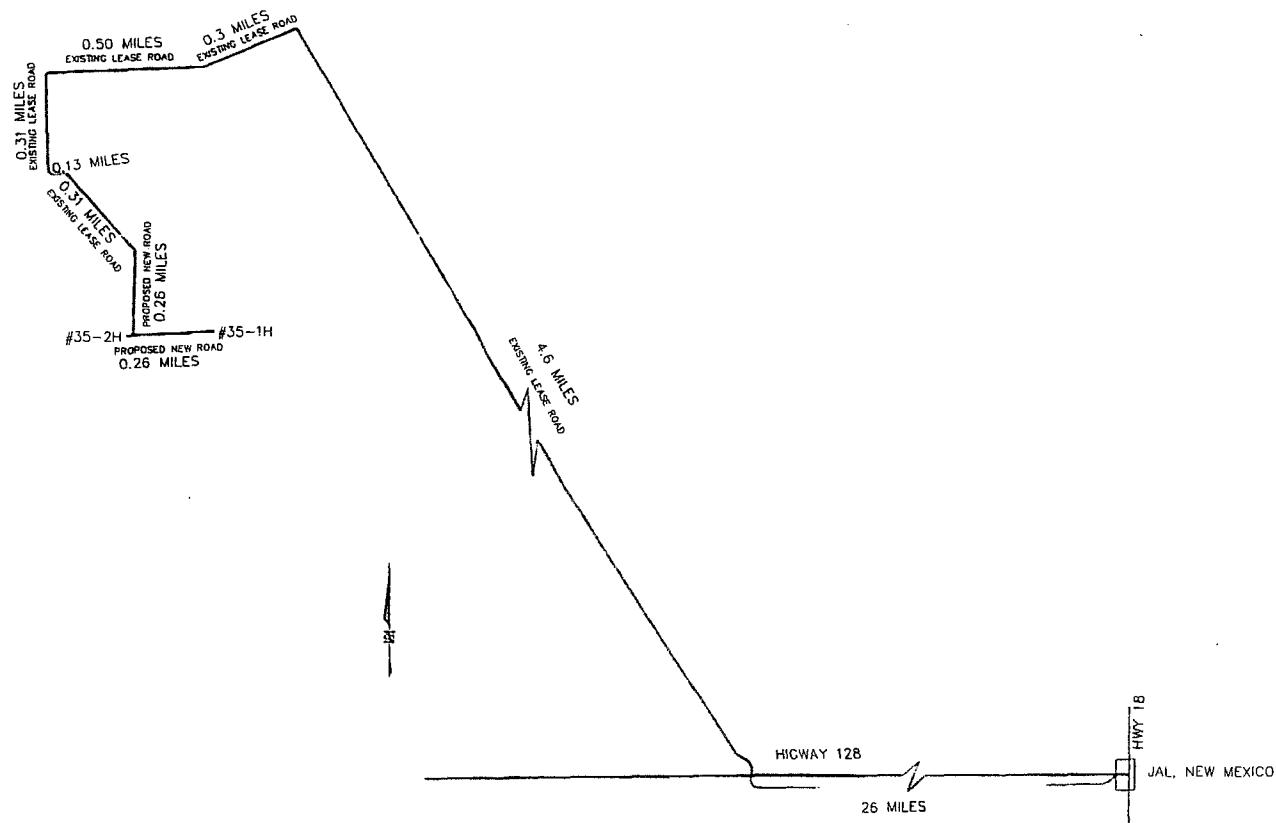


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FILE/T/PROJECTS/NEW MEXICO/LEA/T23S R32E.DWG

Basis of Bearing is SPC NAD 83 NEW MEXICO EAST

ROUTE MAP TO COX FEDERAL 35-1 & 2H

**ENERGEN RESOURCES**

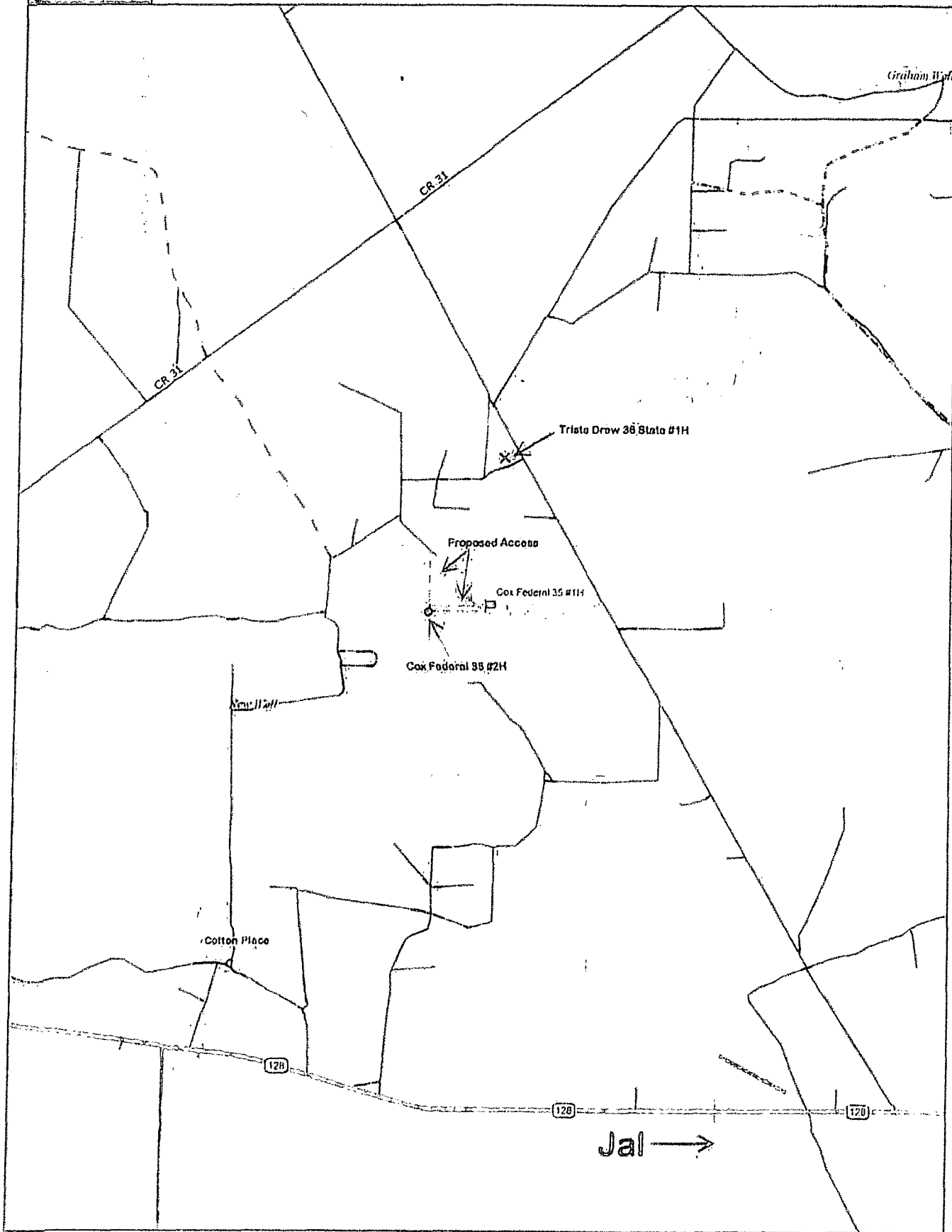
ROUTE MAP OF ROADS FROM HWY 128 TO WELLS  
T-23-S, R-32-E  
LEA COUNTY, NEW MEXICO.

**atton  
Professional  
Group Inc**



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MIDLAND, TEXAS 79702  
(432) 520-9200  
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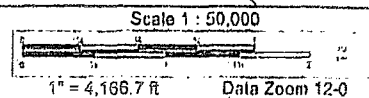
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32'15"

68

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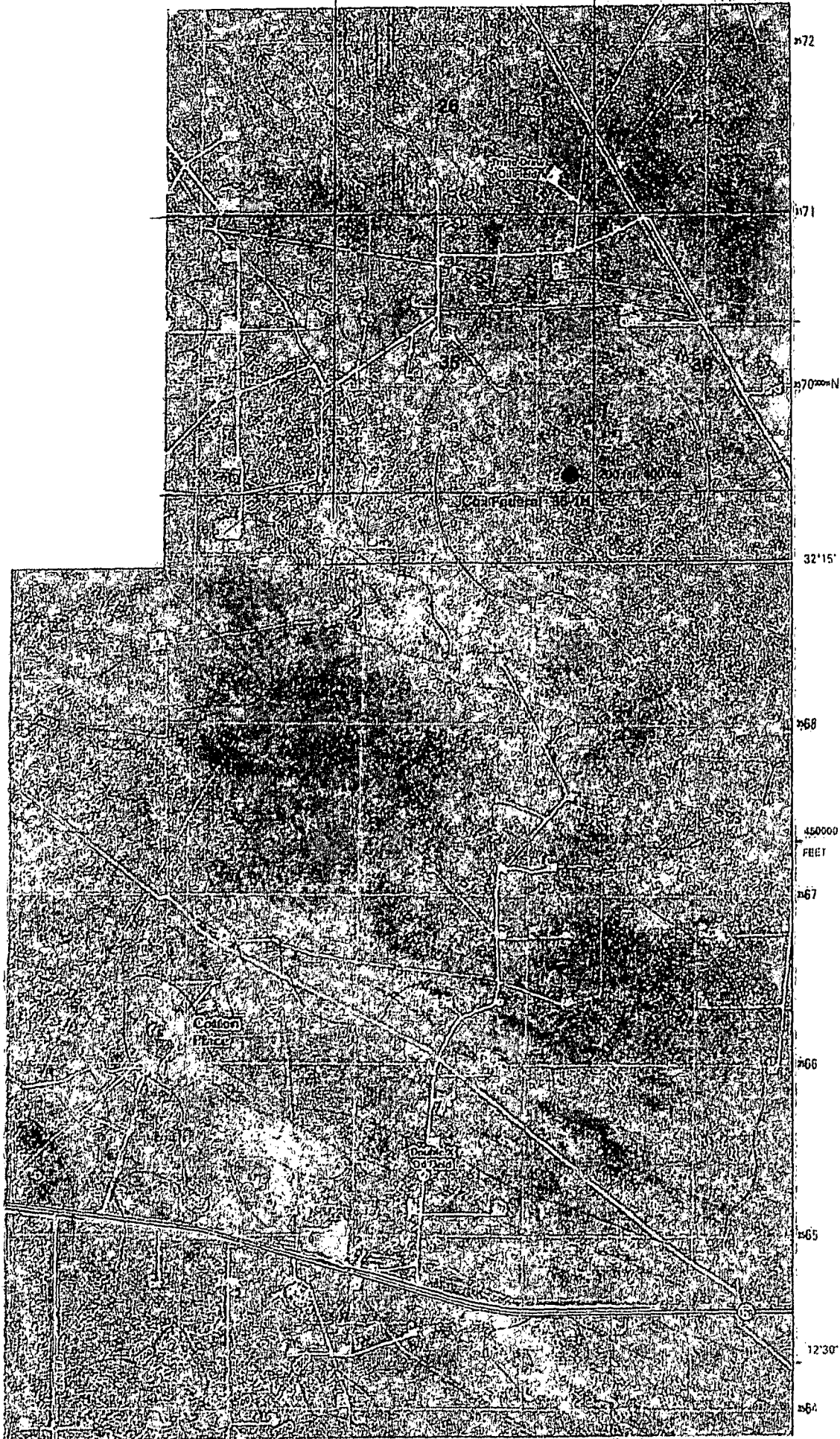
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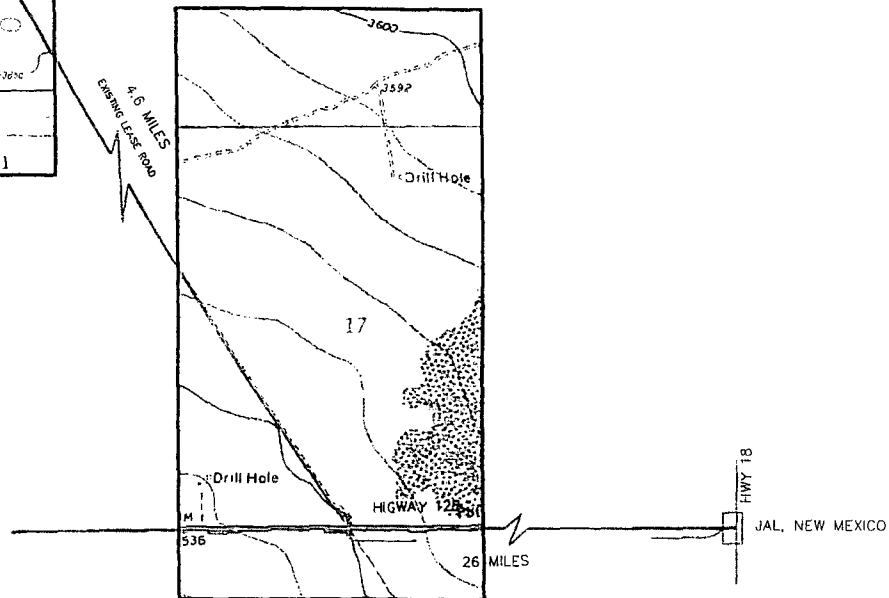
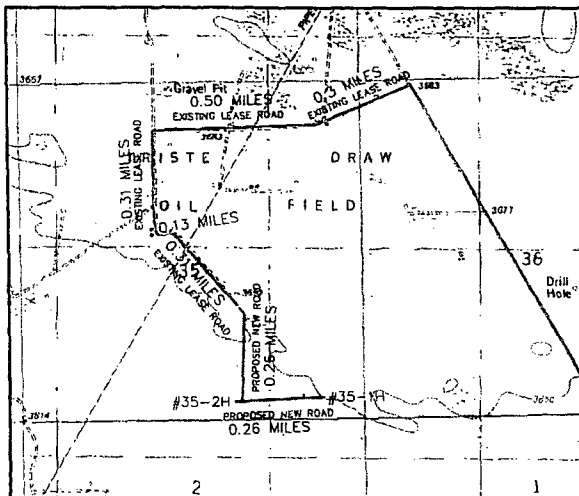
66

65

12'30"

64





FILE/T/PROJECTS/NEW MEXICO/LEA/T235 R32E.DWG

Basis of Bearing is SPC NAD 83 NEW MEXICO EAST

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ROUTE MAP TO COX FEDERAL 35-1 & 2H

**ENERGEN RESOURCES**

ROUTE MAP OF ROADS FROM HWY 128 TO WELLS  
T-23-S, R-32-E  
LEA COUNTY, NEW MEXICO.

WO #13-1155 AND 1156

Cox Federal 35-1H

R32E

7

26

25

FEDERAL JAMES 4

FIELDS-FEDERAL 2

PARSLEY ARA-FEDERAL 1  
PARSLEY-FEDER 1

FED-FIELDS 1

FEDERAL W126 4

FEDERAL W126 3

TRISTE DRAIN 25-FEDERAL COU 1 TRISTE DRAIN 25-FEDERAL 2 TRISTE DRAIN 25 FEDE 1

Proposed Cox  
Federal 35 2H  
(BHL)

Proposed Cox  
Federal 35 1H  
(BHL)

TRISTE DRAIN 36 ST 21  
TRISTE DRAIN 36 ST 1H  
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TRISTE DRAIN 36 ST 99H  
TRISTE DRAIN 36 ST 100H

PAYNE-FEDERAL 1

RED RUBY-FEDER 1

35

36

PAYNE-FEDERAL 4

PAYNE-FEDERAL 1

PAYNE-FEDERAL 2

FEDERAL JAMES 3

QUESTRATE 1

QUESTRATE 1

Proposed Cox  
Federal 35 2H  
(Surface)

Proposed Cox  
Federal 35 1H  
(Surface)

QUESTRATE 1H T23S

T24S

2

1

MARATHON-STATE 1

TRISTE DRAIN 36 STATE 002

OHIO-STATE 1

GULF-STATE 1

CONFIDENTIAL-FED 1

REV. MEXICO-STATE 1

**ENERGEN**  
RESOURCES

1 Mile Radius around SHL and BHL of Proposed Gas  
Federal 35-1H, Lea County, NM

600 0 600 1200 1800 ft

DATE: 1/1/2011

PROJ: 35-1H

DRW: 1

REV: 1

MCCLOY RANCH 2-24-3 2H MCCLOY RANCH 2-24-3 1H MCCLOY RANCH 2-24-3 2H MCCLOY RANCH 2-24-3 1H