

Surface Use & Operating Plan

Gissler Federal #45

- Surface Tenant: Bogle Farms, Lewis Derrick, P O Box 441, Artesia, NM 88211.
- New Road: approx. 2240'
- Flow Line: approx. 0.1 mile
- Facilities: Gissler Federal #43 Tank Battery

Well Site Information

V Door: West

Topsoil: West

Interim Reclamation: North/West

Notes

-N/A

Onsite: 4/7/2011

Tanner Nygren (BLM), Chris Moon (COG), Caden Jameson (COG), Gary Box (J.W.S)

SURFACE USE AND OPERATING PLAN

1. Existing & Proposed Access Roads

- A. The well site survey and elevation plat for the proposed well is shown in Exhibit #1. It was staked by John West Engineering, Hobbs, NM.
- B. All roads to the location are shown in the topographic map Exhibit #2. The existing lease roads are illustrated and are adequate for travel during drilling and production operations. Upgrading existing roads prior to drilling the well will be done where necessary. The road route to the well site is depicted on Exhibit #13. The road highlighted in Exhibit #13 will be used to access the well.
- C. Directions to location: See Road Map EXBT 13.
- D. 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. Roads will be maintained according to specifications in section 2A of this Surface Use and Operating Plan.

2. Proposed Access Road:

Exhibit #4 shows that 2240' of new access road will be required for this location. If any road is required it will be constructed as follows:

- A. The maximum width of the running surface will be 14'. The road will be crowned, ditched and constructed of 6" rolled and compacted caliche. Ditches will be at 3:1 slope and 4 feet wide. Water will be diverted where necessary to avoid ponding, prevent erosion, maintain good drainage, and to be consistent with local drainage patterns.
- B. The average grade will be less than 1%.
- C. No turnouts are planned.
- D. No culverts, cattleguard, gates, low water crossings or fence cuts are necessary.
- E. Surfacing material will consist of native caliche. Caliche will be obtained from the actual well site if available. If not available onsite, caliche will be hauled from the nearest BLM approved caliche pit.

3. Location of Existing Well:

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Exhibit #11 shows all existing wells within a one-mile radius of this well.

As shown on this plat there are numerous wells producing from the San Andres and Yeso formations.

4. Location of Existing and/or Proposed Facilities:

- A. COG Operating LLC does operate a production facility on this lease.
- B. If the well is productive, contemplated facilities will be as follows:
 - 1) Production will be sent to the Gissler Federal #43 Tank Battery located at the Gissler Federal #43 well location in Section 5, T-17S R-30E unit F. The facility location is shown in Exhibit #12.
 - 2) The tank battery and facilities including all flow lines and piping will be installed according to API specifications.
 - 3) Any additional caliche will be obtained from the actual well site. If caliche does not exist or is not plentiful from the well site, the caliche will be hauled from a BLM approved caliche pit. Any additional construction materials will be purchased from contractors.
 - 4) Proposed flow lines, will follow an archaeologically approved route to the Gissler Federal #43 Tank Battery located at the Gissler Federal #43 well location in Section 5, T-17S R-30E unit F. The flowline will be SDR 7 3" poly line laid on the surface and will be approximately 0.1 miles in length.
 - 5) It will be necessary to run electric power if this well is productive. Power will be provided by CVE and they will submit a separate plan and ROW for service to the well location.
 - 6) If the well is productive, rehabilitation plans will include the following:
 - The original topsoil from the well site will be returned to the location, and the site will be re-contoured as close as possible to the original site.

5. Location and Type of Water Supply:

The well will be drilled with combination brine and fresh water mud system as outlined in the drilling program. The water will be obtained from commercial water stations in the area and hauled

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The well will be drilled with combination brine and fresh water mud system as outlined in the drilling program. The water will be obtained from commercial water stations in the area and hauled to location by transport truck over the existing and proposed access roads shown in Exhibit #2. If a commercial fresh water source is nearby, fast line may be laid along existing road ROW's and fresh water pumped to the well. No water well will be drilled on the location.

6. Source of Construction Materials and Location "Turn-Over" Procedure:

Obtaining caliche: The primary way of obtaining caliche to build locations and roads will be by "turning over" the location. This means, caliche will be obtained from the actual well sight. A caliche permit will be obtained from BLM prior to pushing up any caliche. 2400 cu. Yards is max amount of caliche needed for pad and roads. Amount will vary for each pad. The procedure below has been approved by BLM personnel:

- A. The top 6 inches of topsoil is pushed off and stockpiled along the side of the location.**
- B. An approximate 120' X 120' area is used within the proposed well site to remove caliche.**
- C. Subsoil is removed and piled alongside the 120' by 120' area within the pad site.**
- D. When caliche is found, material will be stock piled within the pad site to build the location and road.**
- E. Then subsoil is pushed back in the hole and caliche is spread accordingly across entire location and road.**
- F. Once well is drilled, the stock piled top soil will be used for interim reclamation and spread along areas where caliche is picked up and the location size is reduced. Neither caliche nor subsoil will be stock piled outside of the well pad. Topsoil will be stockpiled along the edge of the pad as depicted in attached plat.**

In the event that no caliche is found onsite, caliche will be hauled in from a BLM approved caliche pit.

7. Methods of Handling Water Disposal:

- A. The well will be drilled utilizing a closed loop mud system. Drill cuttings will be held in roll-off style mud boxes and taken to an NMOCD approved disposal site.
- B. Drilling fluids will be contained in steel mud pits.
- C. Water produced from the well during completion will be held temporarily in steel tanks and then taken to an NMOCD approved commercial disposal facility.
- D. Garbage and trash produced during drilling or completion operations will be collected in a trash bin and hauled to an approved landfill. No toxic waste or hazardous chemicals will be produced by this operation.
- E. Human waste and grey water will need to be properly contained and disposed of. Proper disposal and elimination of waste and grey water may include but are not limited to portable septic systems and/or portable waste gathering systems (i.e. portable toilets).
- F. After the rig is moved out and the well is either completed or abandoned, all waste materials will be cleaned up within 30 days. In the event of a dry hole only a dry hole marker will remain.

8. Ancillary Facilities:

No airstrip, campsite or other facilities will be built as a result of the operation on this well.

9. Well Site Layout:

- A. The drill pad layout, with elevations staked by John West Engineering, is shown in Exhibit #4. Dimensions of the pad and pits are shown on Exhibit #6. V door direction is West. Topsoil, if available, will be stockpiled per BLM specifications. Because the pad is almost level no major cuts will be required.
- B. Exhibit #6 also shows the proposed orientation of closed loop system and access road. No permanent living facilities are planned, but a temporary foreman/toolpusher's trailer will be on location during the drilling operations.

10. Plans for Restoration of the Surface:

- A. Interim Reclamation will take place after the well has been completed. The pad will be downsized by reclaiming the areas not needed for production operations. The portions of the pad that are not needed for production operations will be re-contoured to its original state as much as possible. The caliche that is removed will be reused to either build

another pad site or for road repairs within the lease. The stockpiled topsoil will then be spread out reclaimed area and reseeded with a BLM approved seed mixture. In the event that the well must be worked over or maintained, it may be necessary to drive, park, and/or operate machinery on reclaimed land. This area will be repaired or reclaimed after work is complete.

- B. Final Reclamation: Upon plugging and abandoning the well all caliche for well pad and lease road will be removed and surface will be recountoured to reflect its surroundings as much as possible. Caliche will be recycled for road repair or reused for another well pad within the lease. If any topsoil remains, it will be spread out and the area will be re-seeded with a BLM approved mixture and re-vegetated as per BLM orders.

11.Surface Ownership:

- A. The surface is owned by the U.S. Government and is administered by the Bureau of Land Management. The surface is multiple uses with the primary uses of the region for grazing of livestock and the production of oil and gas.
- B. The surface tenant is Bogle Farms, Lewis Derrick, P.O. Box 441, Artesia, NM 88211.
- C. The proposed road routes and surface location will be restored as directed by the BLM

12.Other Information:

- A. The area around the well site is grassland and the topsoil is sandy. The vegetation is moderately sparse with native prairie grasses, some mesquite and shinnery oak. No wildlife was observed but it is likely that mule deer, rabbits, coyotes and rodents traverse the area.
- B. There is no permanent or live water in the immediate area.
- C. There are no dwellings within 2 miles of this location.
- D. If needed, a Cultural Resources Examination is being prepared by Southern New Mexico Archaeological Services, Inc. P.O. Box 1, Bent New Mexico, 88314, phone # 505-671-4797 and the results will be forwarded to your office in the near future. Otherwise, **COG will be participating in the Permian Basin MOA Program.**

13. Bond Coverage:

Bond Coverage is Nationwide Bond # 000215

14. Lessee's and Operator's Representative:

The COG Operating LLC representative responsible for assuring compliance with the surface use plan is as follows:

John Coffman,	Erick Nelson.
Drilling Superintendent	Division Operations Manager
COG Operating LLC	COG Operating LLC
550 W. Texas, Suite 1300	550 W. Texas, Suite 1300
Midland, TX 79701	Midland, TX 79701
Phone (432) 683-7443 (office)	Phone (505) 746-2210 (office)
(432) 631-9762 (cell)	(432) 238-7591 (cell)

I hereby certify that I, or persons under my direct supervision, have inspected the drill site and access road proposed herein; that I am familiar with the conditions that presently 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 COG Operating, LLC, 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 28th day of June, 2011.

Signed: Carl Bird

Printed Name: Carl Bird

Position: Drilling Engineer

Address: 550 W. Texas, Suite 1300, Midland, Texas 79701

Telephone: (432) 683-7443

Field Representative (if not above signatory): Same

E-mail: cbird@conchoresources.com

Well-Site Evaluation Field Form

Company Name: COG Well Name Gissler Fed 45

Location: Section 5, T. 17 S. R. 30 E. Footage 990 FNL & 2310 FWL

Examined by Tanner Nguyen Date 4/7/11
Caden

Resources

Description & Topography: (cut & fill, etc.) Small shimmery oak dunes

Soils: (reseeding strips, etc.) Sandy

Cave Area: low

Hydrogeology: (wells, playas, floodplain, drainages, erosive soils, plant indicators, etc.) Shimmery oak, some mesquite

Wildlife: (habitat, LPC, SDL, etc.) LPC polygon

Range Improvements: (fences, etc.) NA

Well Infrastructure

V-Door Direction: W Topsoil: ~~East~~ West

Road Route: NE corner

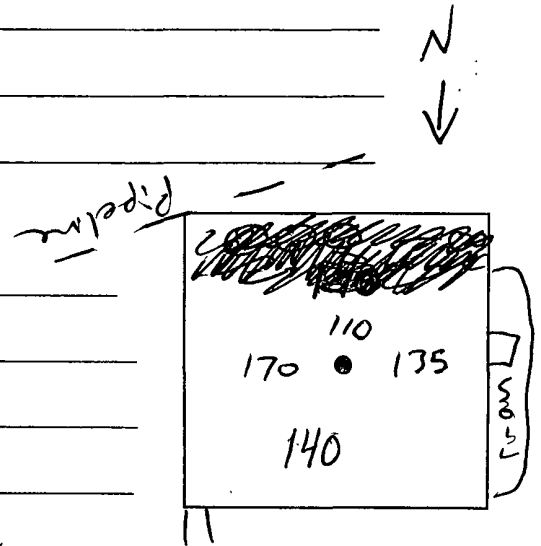
Pipeline: Follow road or onsite

Production Facility Placement: ~~East~~ off site

Interim Reclamation: West side + ~~North~~ side

Other: (VRM, existing structures, etc.) Pipeline 200' north

Evaluation: (Moved?) ~~910~~ FNL 2310 FWL

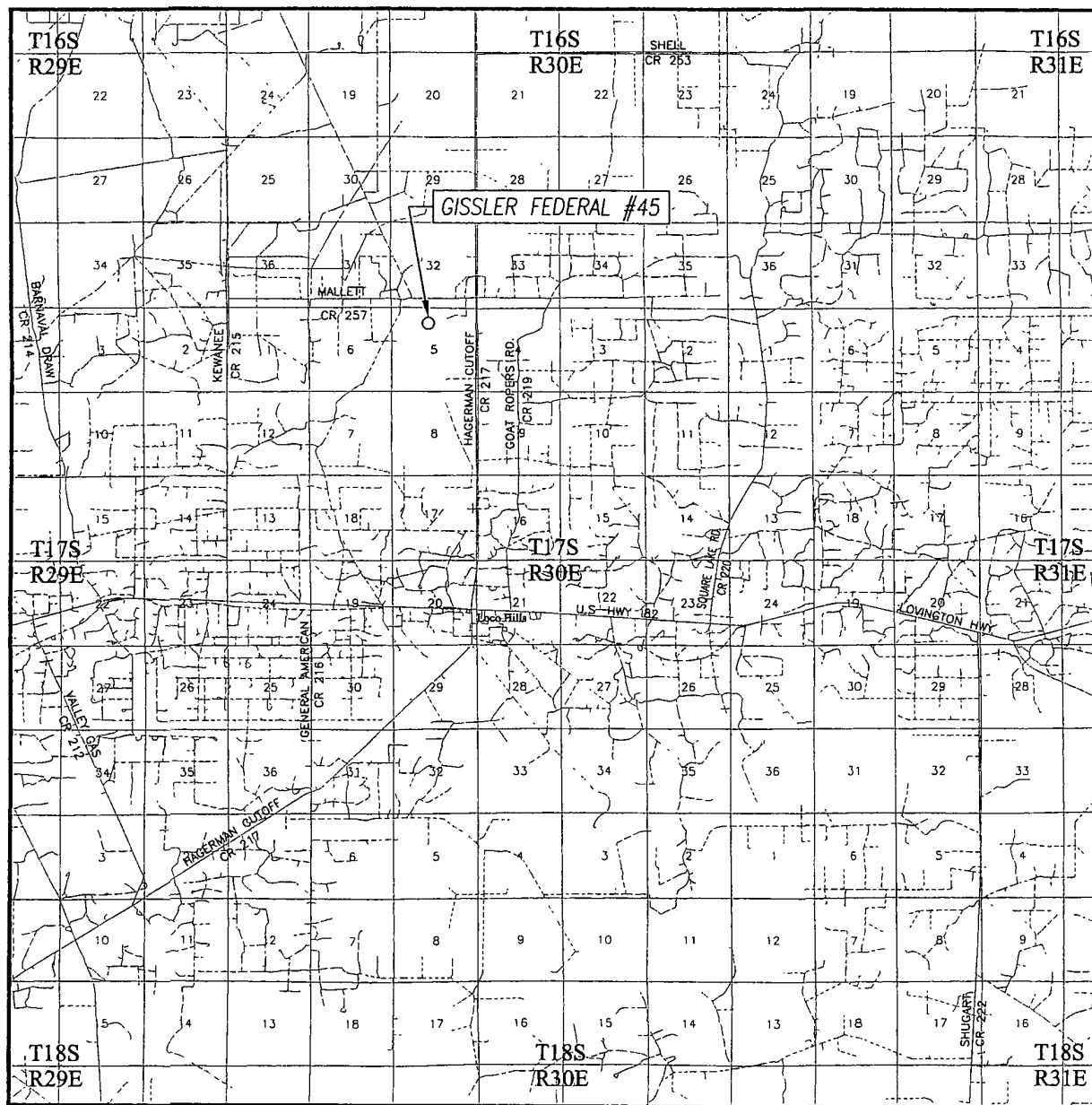


3711.5'



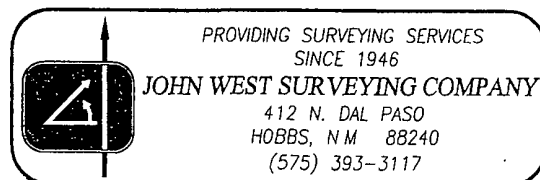
Survey Date: 6/13/11	Sheet 1 of 1 Sheets		
W.O. Number: 11.11.0774	Dr By: DSS	Rev 1: N/A	
Date: 6/21/11		11110774	Scale: 1"=100'

VICINITY MAP

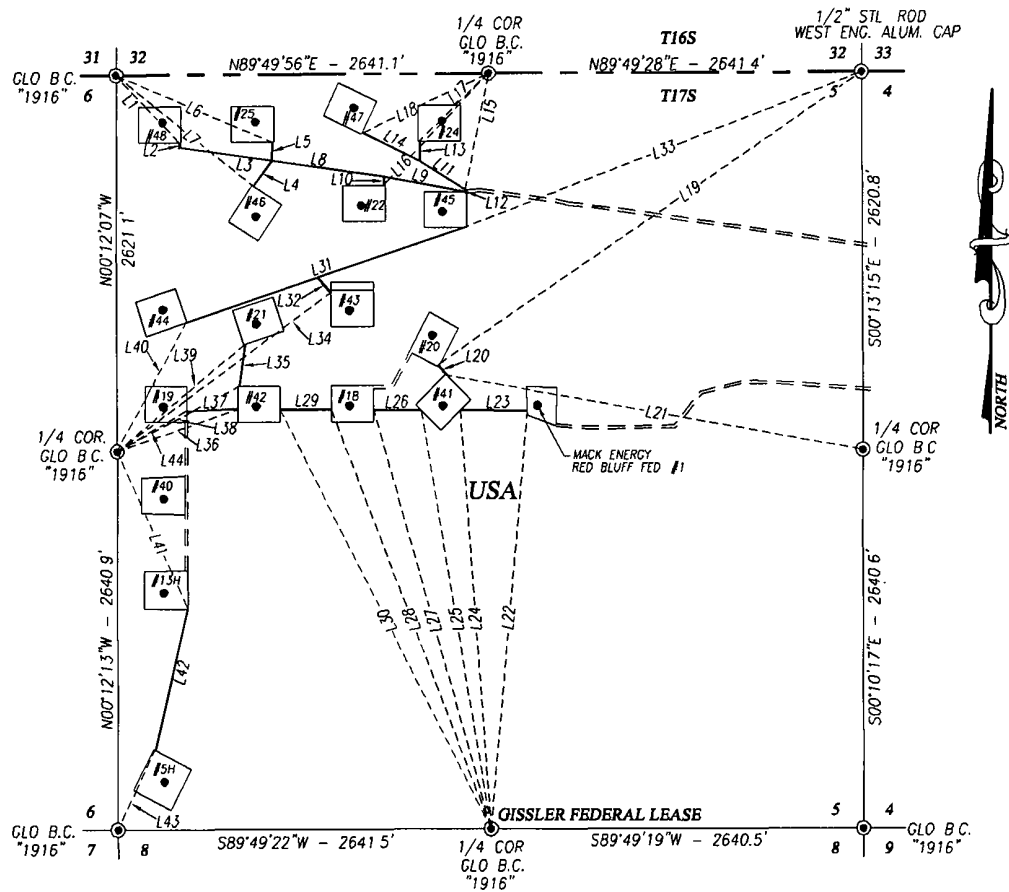


SCALE: 1" = 2 MILES

SEC. 5 TWP. 17-S RGE. 30-E
 SURVEY N.M.P.M
 COUNTY EDDY STATE NEW MEXICO
 DESCRIPTION 960' FNL & 2310' FWL
 ELEVATION 3712'
 OPERATOR COG OPERATING, LLC
 LEASE GISSLER FEDERAL



SECTION 5, TOWNSHIP 17 SOUTH, RANGE 30 EAST, N.M.P.M.
 EDDY COUNTY NEW MEXICO



DESCRIPTION

STRIPS OF LAND 50.0 FEET WIDE AND 8597.9 FEET OR 1.628 MILES IN LENGTH CROSSING USA LAND IN SECTION 5, TOWNSHIP 17 SOUTH, RANGE 30 EAST, NMPM, EDDY COUNTY, NEW MEXICO AND BEING 25.0 FEET LEFT AND 25.0 FEET RIGHT OF THE ABOVE PLATTED CENTERLINE SURVEYS.

NOTE

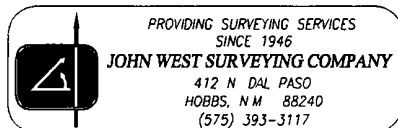
1. BEARINGS SHOWN HEREON ARE MERCATOR GRID AND CONFORM TO THE NEW MEXICO COORDINATE SYSTEM "NEW MEXICO EAST ZONE" NORTH AMERICAN DATUM 1983 DISTANCES ARE SURFACE VALUES

2 SEE LINE TABLE ON SHEET 2 OF 2

I, GARY G EIDSON, NEW MEXICO PROFESSIONAL SURVEYOR No 12641, DO HEREBY CERTIFY THAT THIS SURVEY 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.

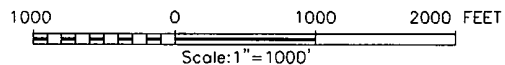
GARY G EIDSON _____

DATE _____



LEGEND

● DENOTES FOUND CORNER AS NOTED



COG OPERATING, LLC

**SURVEY OF ACCESS ROADS IN THE
 GISSLER FEDERAL LEASE CROSSING
 SECTION 5, TOWNSHIP 17 SOUTH,
 RANGE 30 EAST, N.M.P.M.,
 EDDY COUNTY, NEW MEXICO**

Survey Date: 9/13/11	Sheet 1 of 2 Sheets
W.O. Number 11.11.1897	Drawn By: ACR Rev:
Date: 10/21/11	CAD File: 11111897

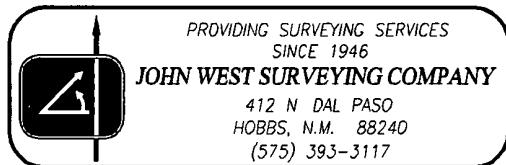
SECTION 5, TOWNSHIP 17 SOUTH, RANGE 30 EAST, N.M.P.M.
EDDY COUNTY **NEW MEXICO**

LINE TABLE

LINE	BEARING	DISTANCE	LINE	BEARING	DISTANCE
L1	S44°30'42"E	658.0' (TIE)	L23	S89°58'43"W	477.0'
L2	S16°04'07"W	36.1'	L24	N04°20'20"W	2924.2' (TIE)
L3	S81°55'08"E	663.7'	L25	N09°33'47"W	2956.8' (TIE)
L4	S36°43'01"W	220.3'	L26	S89°58'43"W	340.6'
L5	N01°14'29"E	130.1'	L27	N15°55'27"W	3031.9' (TIE)
L6	S67°12'02"E	1205.4' (TIE)	L28	N21°13'08"W	3127.5' (TIE)
L7	S51°36'45"E	1246.0' (TIE)	L29	S89°58'43"W	359.9'
L8	S81°58'07"E	797.8'	L30	N27°05'59"W	3274.8' (TIE)
L9	S79°41'12"E	584.7'	L31	S71°20'04"W	2079.0'
L10	S00°02'38"E	61.1'	L32	S41°50'49"E	140.9'
L11	S57°51'50"E	380.6'	L33	S68°59'12"W	3009.4' (TIE)
L12	S01°01'30"E	11.7'	L34	N54°01'11"E	1874.0' (TIE)
L13	N00°00'41"E	135.9'	L35	N07°36'12"E	290.3'
L14	N63°58'17"W	446.6'	L36	N71°47'34"E	904.1' (TIE)
L15	S11°32'24"W	838.0' (TIE)	L37	S89°58'43"W	359.9'
L16	S43°41'33"W	1075.3' (TIE)	L38	N62°24'17"E	980.3' (TIE)
L17	S46°08'22"W	679.7' (TIE)	L39	N50°43'32"E	1172.0' (TIE)
L18	S65°15'07"W	981.6' (TIE)	L40	N28°59'19"E	1020.3' (TIE)
L19	S55°35'53"W	3627.4' (TIE)	L41	S24°41'39"E	1212.0' (TIE)
L20	S44°23'55"E	70.6'	L42	S13°17'50"W	1011.1'
L21	N79°59'53"W	2999.2' (TIE)	L43	N25°26'37"E	615.4' (TIE)
L22	N05°00'44"E	2927.2' (TIE)	L44	S60°06'34"W	537.4' (TIE)

NOTE

BEARINGS SHOWN HEREON ARE MERCATOR
 GRID AND CONFORM TO THE NEW MEXICO
 COORDINATE SYSTEM "NEW MEXICO EAST
 ZONE" NORTH AMERICAN DATUM 1983.
 DISTANCES ARE SURFACE VALUES.



COG OPERATING, LLC

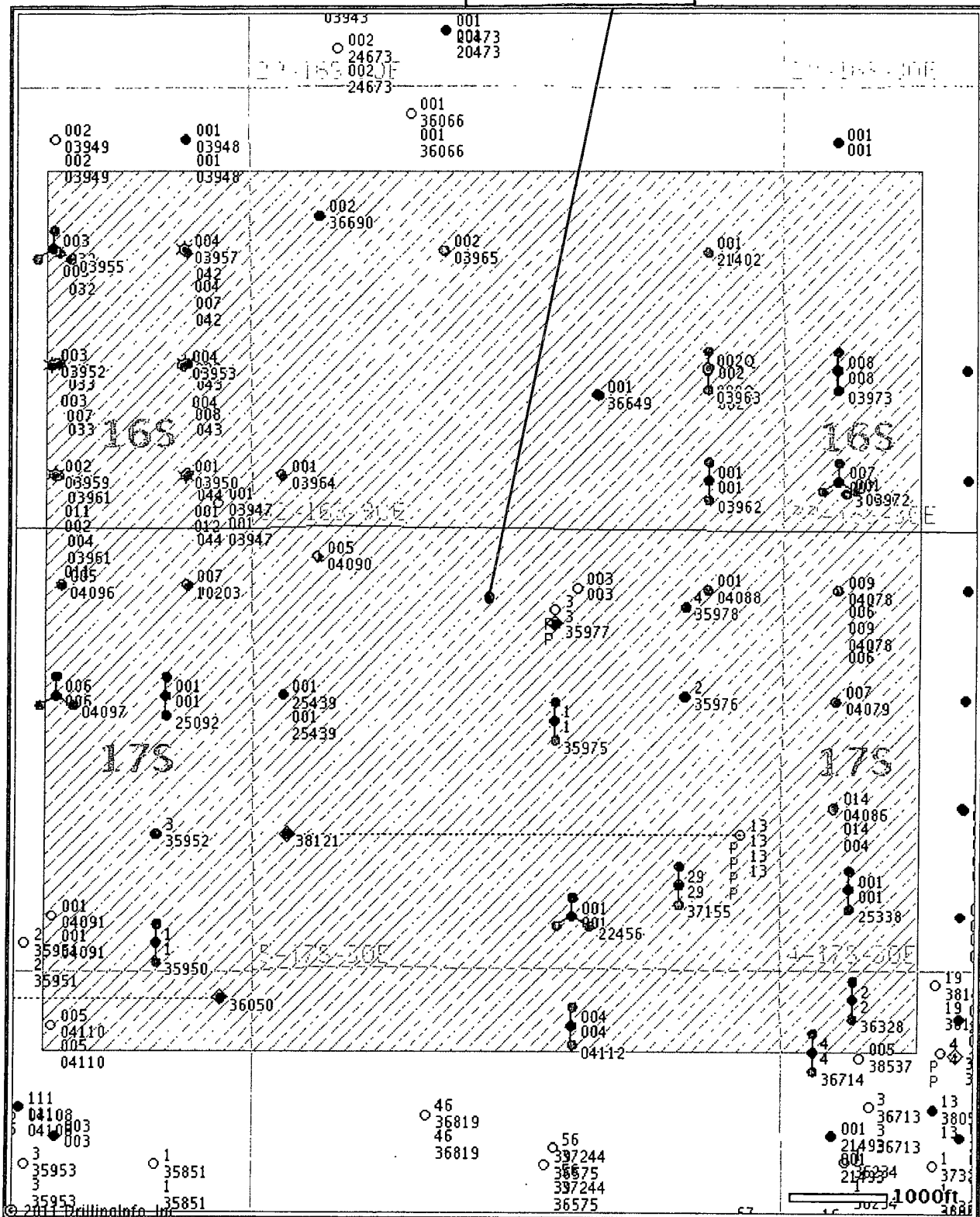
**SURVEY OF ACCESS ROADS IN THE GISSLER FEDERAL
 LEASE CROSSING SECTION 5, TOWNSHIP 17 SOUTH,
 RANGE 30 EAST, N.M.P.M.,
 EDDY COUNTY, NEW MEXICO**

Survey Date: 9/13/11	Sheet 2 of 2 Sheets
W.O. Number: 11 11.1897	Drawn By: ACR
Date: 10/21/11	Rev: CAD: 11111897 Rel W.O.:

Offset wells to Gissler Federal #45

API#	Operator	County	Legal	Lease	Well#	Date Issued	Permitted Depth	Permit TVD	Images	Doc	Total Depth	Well Type	Well Status	Permit#
30-015-38960	THOMPSON, J. CLEO	EDDY	S:33, T:16S, R:30E	CORTEZ 33	001	12/21/2010	9,000		Yes	link	9,000	PO	Active Permit	TEMP1238587875
30-015-38121	COG OPERATING LLC	EDDY	S:5, T:17S, R:30E	GISSLER FEDERAL	13	8/19/2010	4,750		Yes	link	4,750	PO	Active	TEMP149223347
30-015-37155	COG OPERATING LLC	EDDY	S:5, T:17S, R:30E	GISSLER FEDERAL	29	7/10/2009	6,000		Yes	link	6,008	O	Active Permit	TEMP837743197
30-015-36690	GRUY PETROLEUM MANAGEMENT CO., LLC	EDDY	S:32, T:16S, R:30E	GRUY 32 STATE COM	002	10/14/2008	11,200		Yes	link	11,200	PG	Active Permit	TEMP693327787
30-015-36714	CIMAREX ENERGY CO. OF COLORADO	EDDY	S:9, T:17S, R:30E	VEGA 9 FEDERAL	4	10/9/2008	6,000		Yes	link	6,000	PO	Active Permit	TEMP841622886
30-015-36649	GRUY PETROLEUM MANAGEMENT CO., LLC	EDDY	S:32, T:16S, R:30E	GRUY 32 STATE COM	001	10/8/2008	11,200		Yes	link	11,200	PG	Active Permit	TEMP898923412
30-015-36328	CIMAREX ENERGY CO. OF COLORADO	EDDY	S:9, T:17S, R:30E	VEGA "9" FEDERAL	2	4/30/2008	6,000		Yes	link	6,005	O	Active Permit	TEMP1366182812
30-015-36050	MACK ENERGY CORP	EDDY	S:7, T:17S, R:30E	BRANTLEY FEDERAL	2	1/11/2008	10,560	7,565	Yes	link	10,560	PO	Active Permit	TEMP1557094361
30-015-35975	MACK ENERGY CORP	EDDY	S:5, T:17S, R:30E	RED BLUFF FEDERAL	1	12/7/2007	6,500		Yes	link	5,830	O	Active Permit	TEMP129937195
30-015-35976	MACK ENERGY CORP	EDDY	S:5, T:17S, R:30E	RED BLUFF FEDERAL	2	12/7/2007	6,500		Yes	link	6,500	PO	Active Permit	TEMP1696684809
30-015-35977	MACK ENERGY CORP	EDDY	S:5, T:17S, R:30E	RED BLUFF FEDERAL	3	12/7/2007	6,500		Yes	link	6,500	PO	Active Permit	TEMP1992117435
30-015-35978	MACK ENERGY CORP	EDDY	S:5, T:17S, R:30E	RED BLUFF FEDERAL	4	12/7/2007	6,500		Yes	link	6,500	PO	Active Permit	TEMP1349653525
30-015-35950	MACK ENERGY CORP	EDDY	S:6, T:17S, R:30E	AVALON FEDERAL	1	11/29/2007	6,100		Yes	link	5,820	O	Active Permit	TEMP1565487079
30-015-35952	MACK ENERGY CORP	EDDY	S:6, T:17S, R:30E	AVALON FEDERAL	3	11/29/2007	6,100		Yes	link	6,100	PO	Active Permit	TEMP1373173654
30-015-25092	MOREXCO INC	EDDY	S:6, T:17S, R:30E	APACHE FEDERAL	001	7/11/1994	0		No	link	11,100	O	Pumping	TEMP902437709
30-015-04097	RODNEY B WEBB DBA WEBB OIL CO	EDDY	S:6, T:17S, R:30E	WRIGHT A	006	3/1/1994	0		No	link	2,806	O	Active	TEMP1592406858
30-015-22456	MACK ENERGY CORP	EDDY	S:5, T:17S, R:30E	GISSLER FEDERAL	001	8/1/1990	0		No	link	11,150	O	Pumping	TEMP1766333904
30-015-25338	EASTLAND OIL CO	EDDY	S:4, T:17S, R:30E	HOLLY B FEDERAL	001	1/1/1986	0		No	link	3,300	O	Pumping	TEMP1280414656
30-015-03963	J CLEO THOMPSON	EDDY	S:32, T:16S, R:30E	WEST SQUARE LAKE UNIT	002Q	6/22/1942			No	link		O	Pumping	TEMP619681490

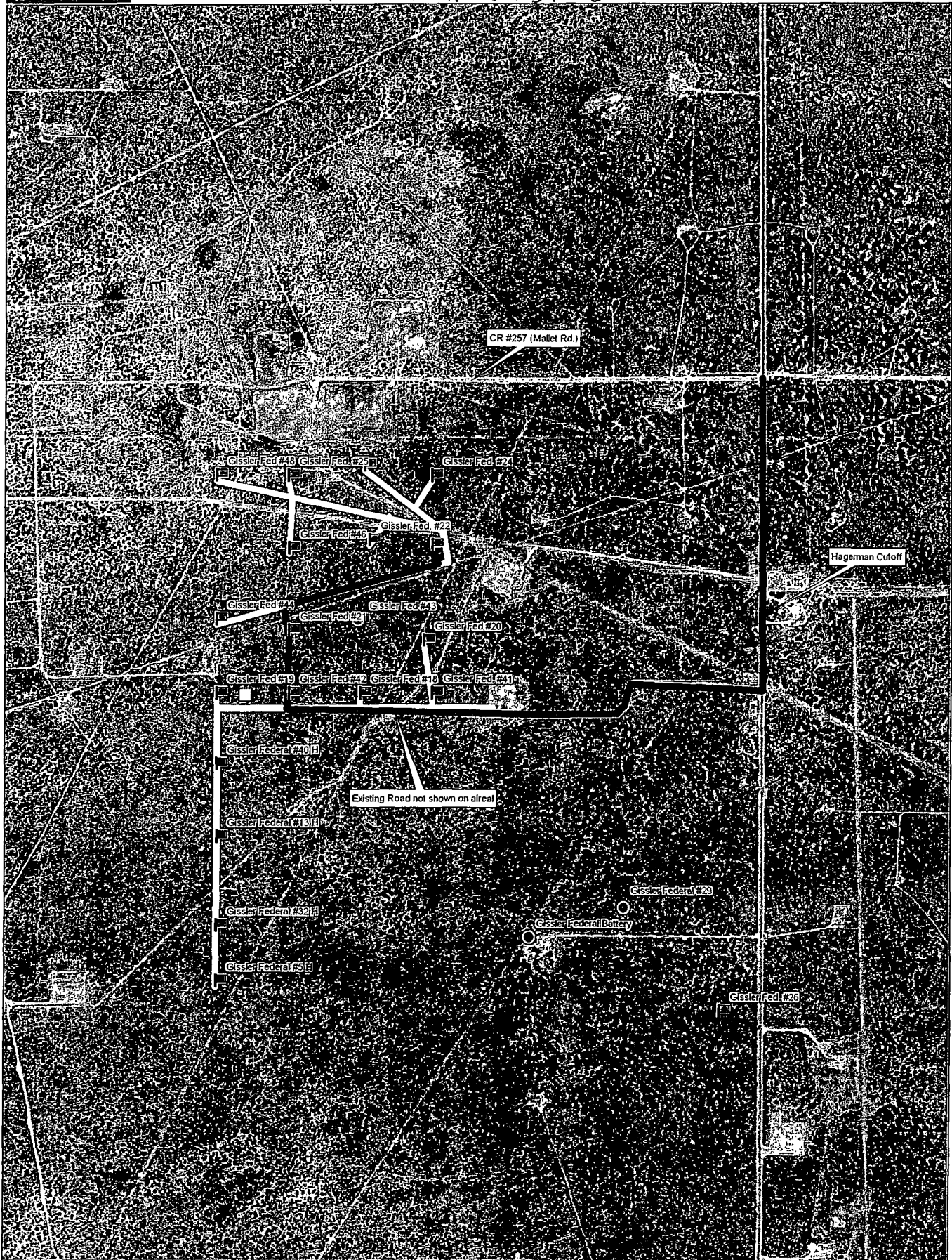
Offset wells to Gissler Federal #45



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Exhibits:

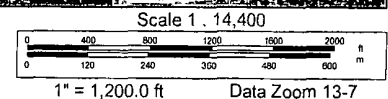
- Exhibit #1 Wellsite and Elevation Plat**
Form C-102 Well location and acreage dedication plat
- Exhibit #2 Topographic Map (West)**
- Exhibit #3 Vicinity Map and area roads**
- Exhibit #4 Elevation Plat (West)**
- Exhibit #5 Topographic extract showing wells, roads and flowlines**
- Exhibit #6 Pad Layout and orientation**
- Exhibit #7 H2S Signage**
- Exhibit #8 H2S Equipment location**
- Exhibit #9 BOP and Choke diagrams**
- Exhibit #10 Form C-144 NMOCD pit permit application**
- Exhibit #11 1 Mile Radius List and Map showing all wells permitted,
producing and plugged**
- Exhibit #12 Flow Line Route**
- Exhibit #13 Road Route**

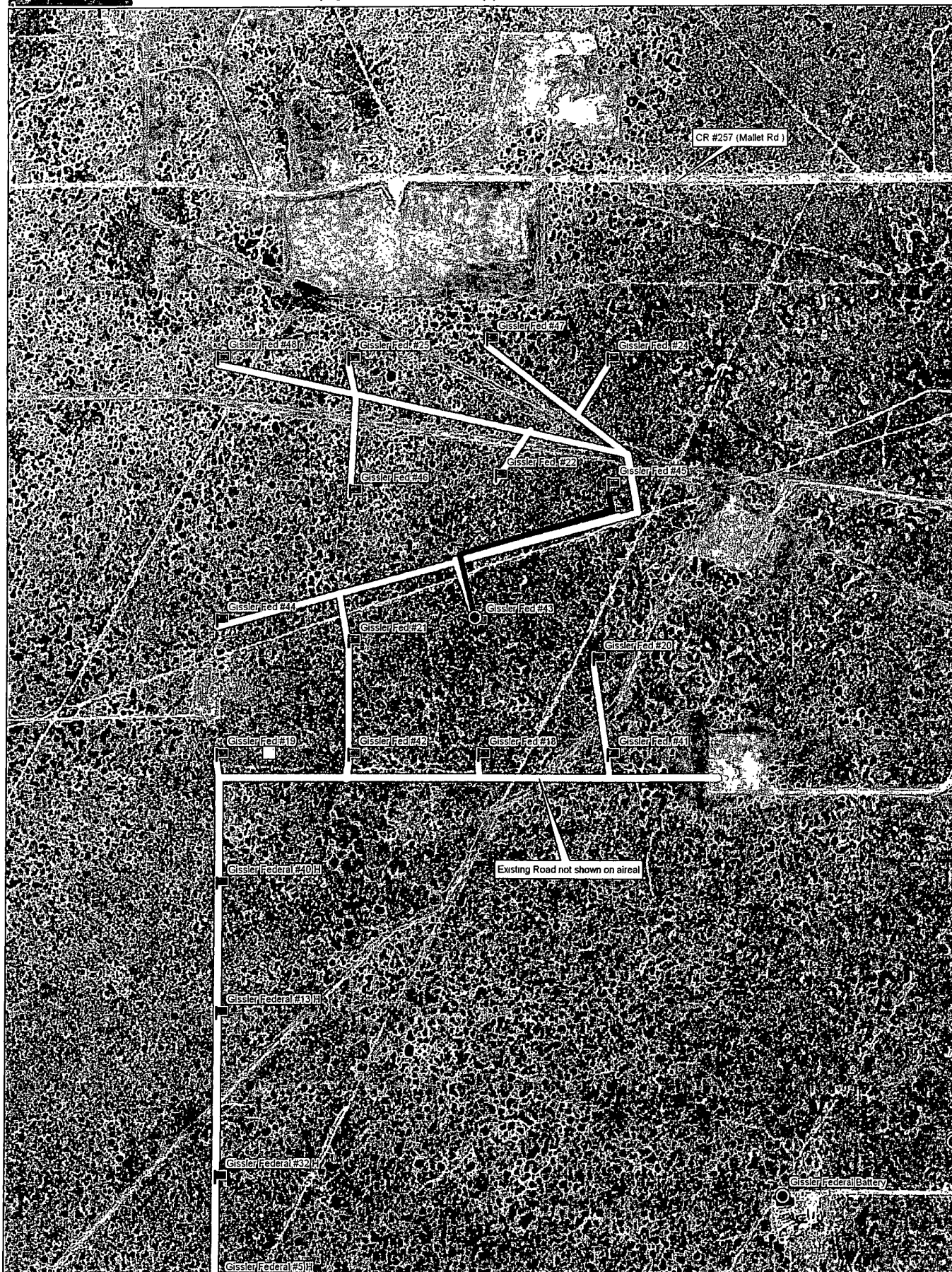


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