

Surface Use & Operating Plan

Puckett 12 Federal #5H

- Surface Tenant: Olane Caswell, 1702 Gillham, Brownfield, TX 79316 and BLM
- New Road: approx. 129'
- Flow Line: approx. 0.3 miles
- Facilities: Puckett 12 South Tank Battery (existing)

Well Site Information

V Door: Southeast

Topsoil: Southeast

Interim Reclamation: Southwest/Southeast

Notes

- pad connecting with Puckett 13 #5H and use the same road
- the location overlaps from Olane Caswell fee land (section 12) onto BLM land (section 13)

Onsite: 6/16/2011

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

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. Existing roads that will need to be improved will have a maximum width of 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. 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. Road route will be used to access the Puckett 12 #5 along with the Puckett 13 #5H.
- C. Directions to location: From the intersection US Highway 82 and Co. Rd. 224 (Ripple Road), go northeast on US Hwy #82 approx. 0.6 miles. Turn left and go northwest on two track road approx. 0.1 mile. Turn right and go northeast approx. 0.1 mile. The location stake is approx. 250 feet northwest. See Vicinity Map, Exhibit #3
- D. Routine grading and maintenance of existing or new roads will be conducted as necessary to maintain their condition as long as any operations continue on this lease. Proposed and existing roads will contain turn-outs when necessary. 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 129' 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 caliche pit.

3. Location of Existing Well:

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 Puckett 12 South Tank battery located in Section 12 near the Puckett 12 #7H well location. The flow line route and centralized production facility location are shown on Exhibit #12.
 - 2) The tank battery and facilities including all flow lines and piping will be installed according to API specifications. These are proposed facilities and flowline routes that will be applied for approval through the sundry process upon completing a ground evaluation with a BLM Natural Resource Specialist.
 - 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 Puckett 12 North Tank battery located in Section 12 near the Puckett 12 #7H well location. The flowline will be SDR 7 3" poly line laid on the surface and will be approximately 0.3 mile 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 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 or 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 (i.e. waste tanks attached to portable homes) 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 Southeast. 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 Olane Caswell, 1702 Gillham, Brownfield, TX 79316. The well pad overlaps BLM and private land. The surface has multiple uses with the primary uses of the region for grazing of livestock and the production of oil and gas. A surface use agreement has been reached with the above stated private land owner. A copy of the surface use plan was given to the above stated land owner.
- B. The surface tenant for this site is Olane Caswell, 1702 Gillham, Brownfield, TX 79316.
- 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.

Surface Use Plan
COG Operating, LLC
Puckett 12 Federal #5H
SL 10' FNL & 1781' FEL *UL B*
Section 13, T-17-S, R-31-E
BHL 660' FNL & 1980' FEL *UL B*
Section 12, T-17-S, R-31-E
Eddy County, New Mexico

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)

Surface Use Plan
COG Operating, LLC
Puckett 12 Federal #5H
SL 10' FNL & 1781' FEL UL B
Section 13, T-17-S, R-31-E
BHL 660' FNL & 1980' FEL UL B
Section 12, T-17-S, R-31-E
Eddy County, New Mexico

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 7th day of July, 2011.

Signed: Carl Bird

Printed Name: Carl Bird

Position: Drilling Engineer

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

Telephone: (432) 683-7443

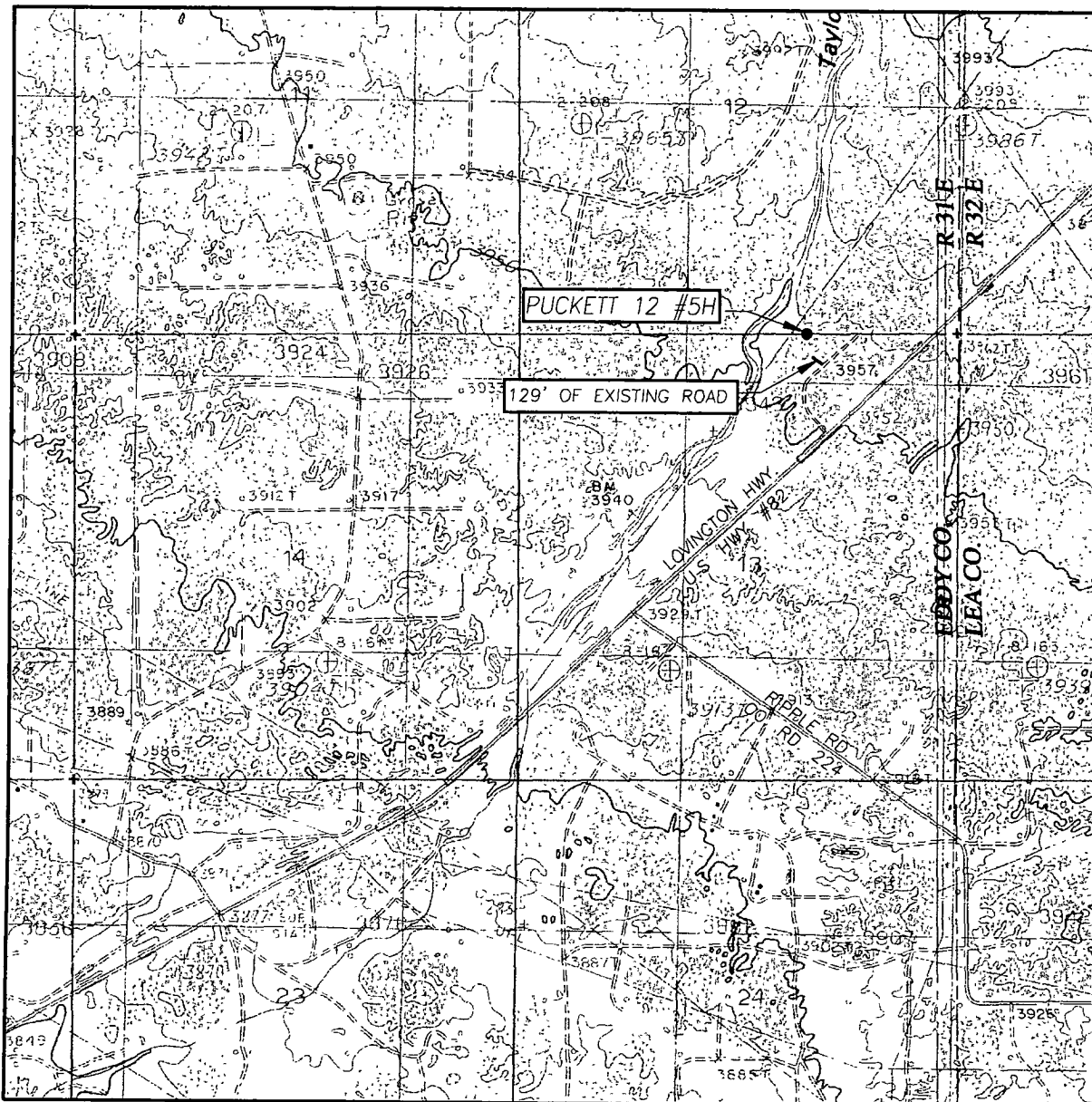
Field Representative (if not above signatory): Same

E-mail: cbird@conchoresources.com

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**

LOCATION VERIFICATION MAP



SCALE: 1" = 2000'

CONTOUR INTERVAL:
MALJAMAR, N.M. - 10'

SEC. 13 TWP. 17-S RGE 31-E

SURVEY N.M.P.M

COUNTY EDDY STATE NEW MEXICO

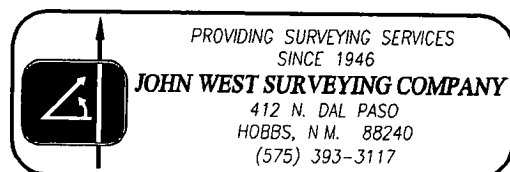
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ELEVATION 3964'

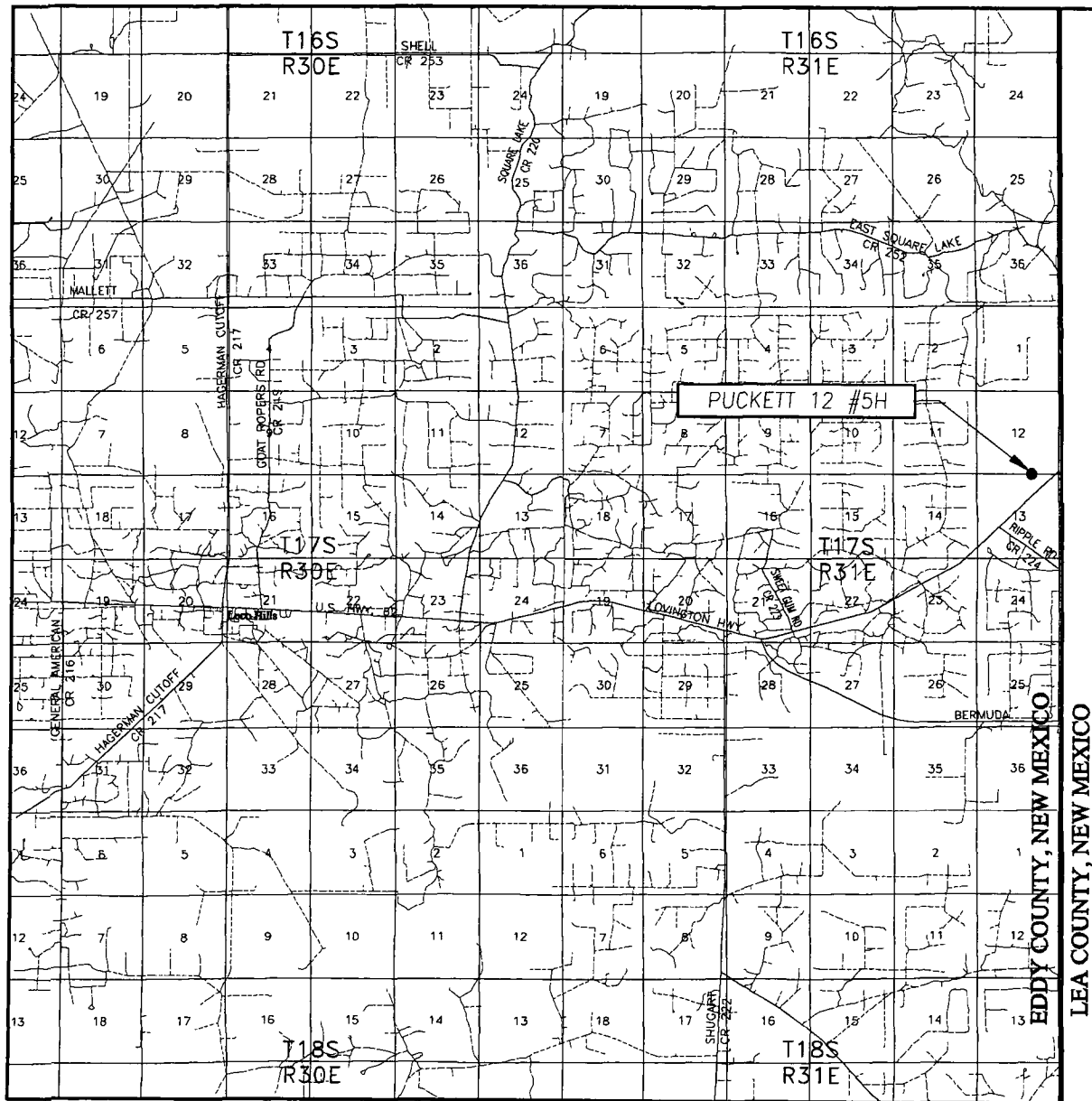
OPERATOR COG OPERATING, LLC

LEASE PUCKETT 12

U.S.G.S. TOPOGRAPHIC MAP
MALJAMAR, N.M.



VICINITY MAP



SCALE: 1" = 2 MILES

SEC. 13 TWP. 17-S RGE. 31-E

SURVEY N.M.P.M

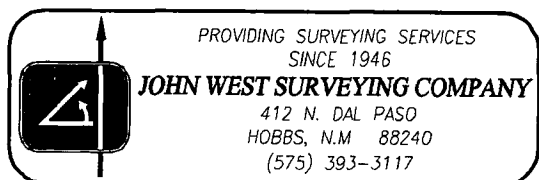
COUNTY EDDY STATE NEW MEXICO

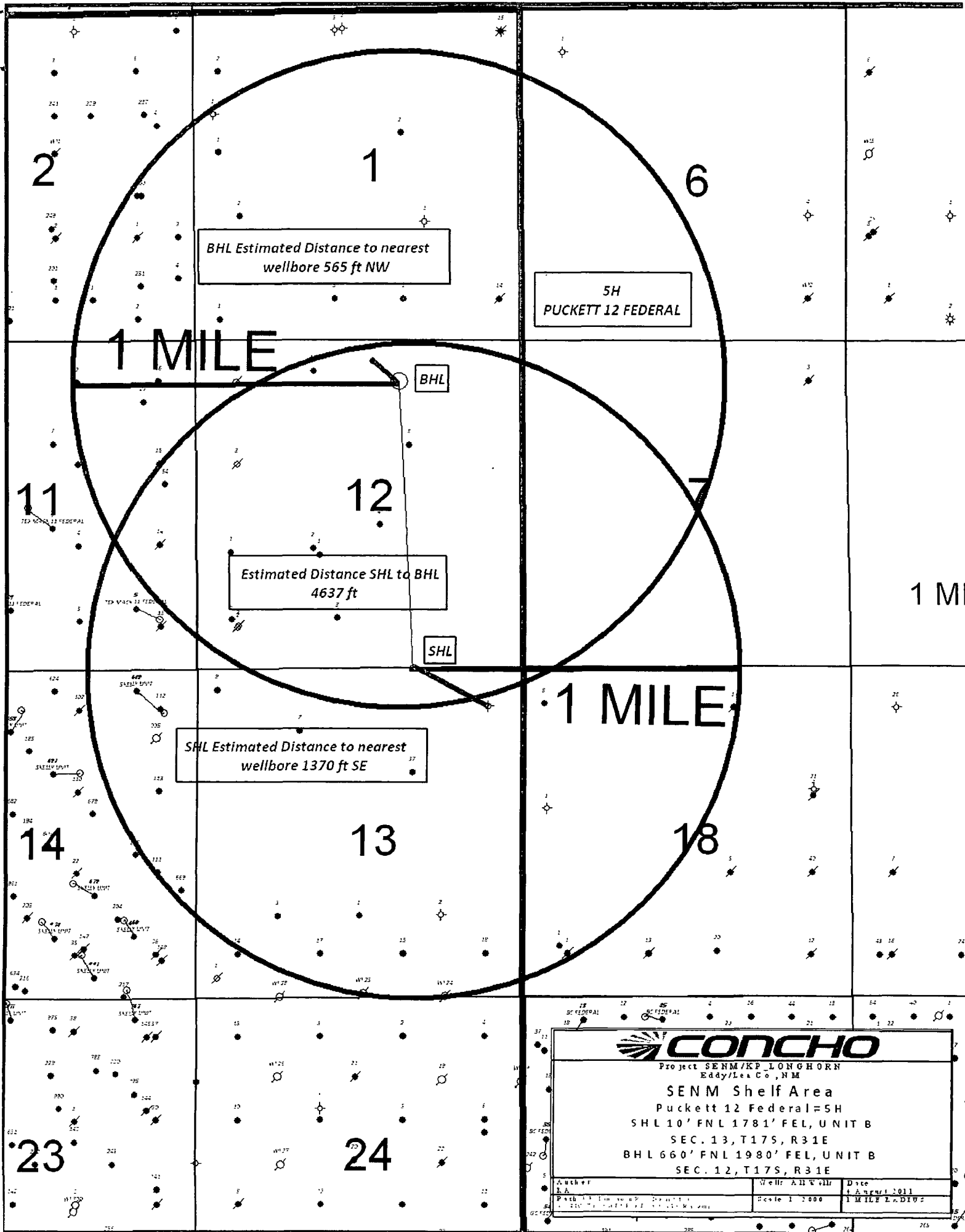
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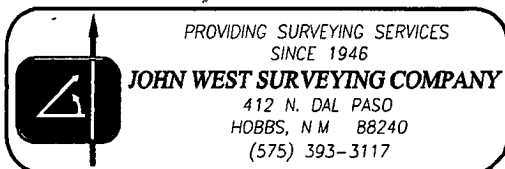
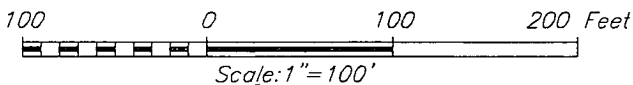
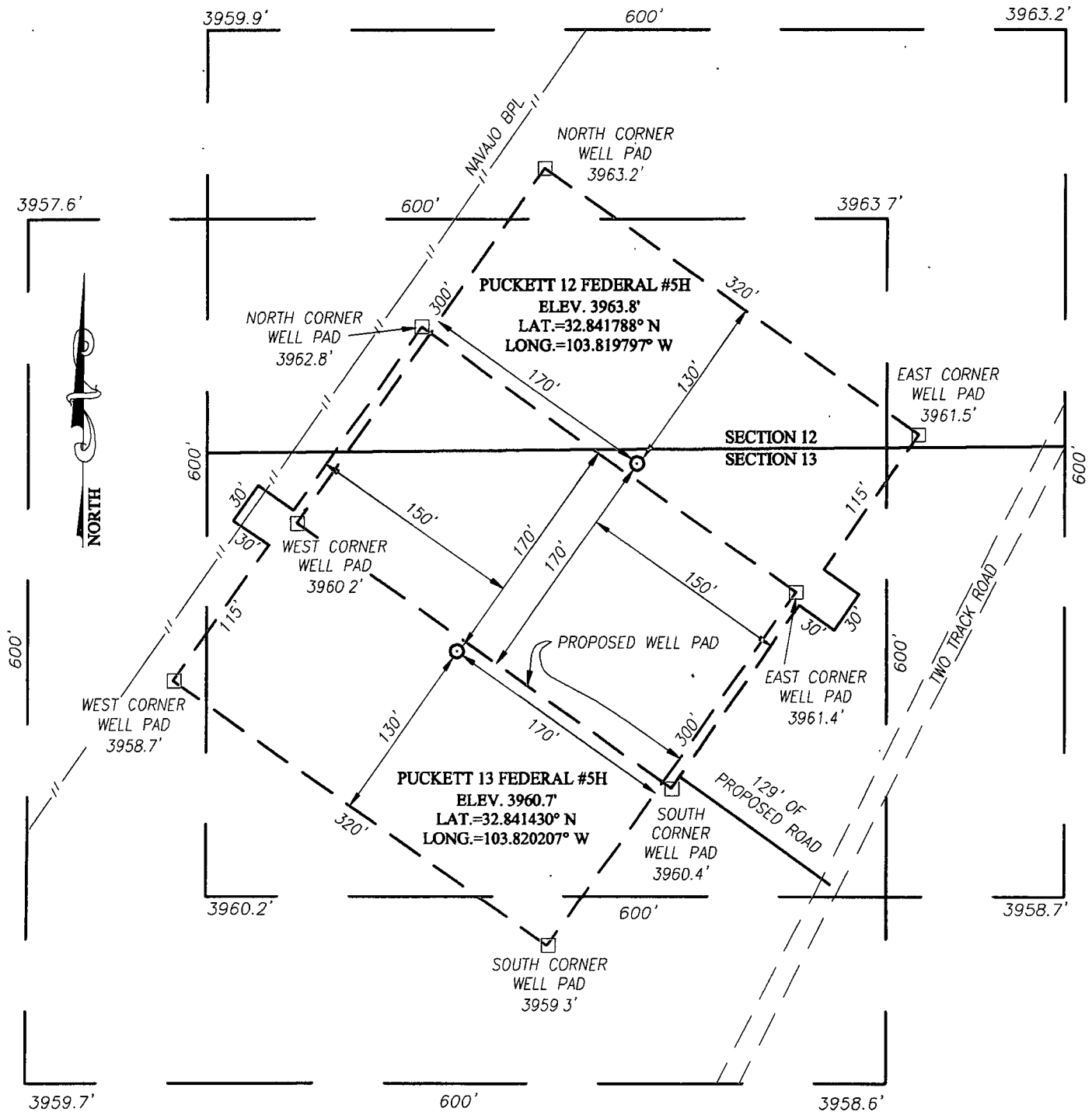
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LEASE PUCKETT 12





SECTIONS 12 & 13, TOWNSHIP 17 SOUTH, RANGE 31 EAST, N.M.P.M.
 EDDY COUNTY NEW MEXICO

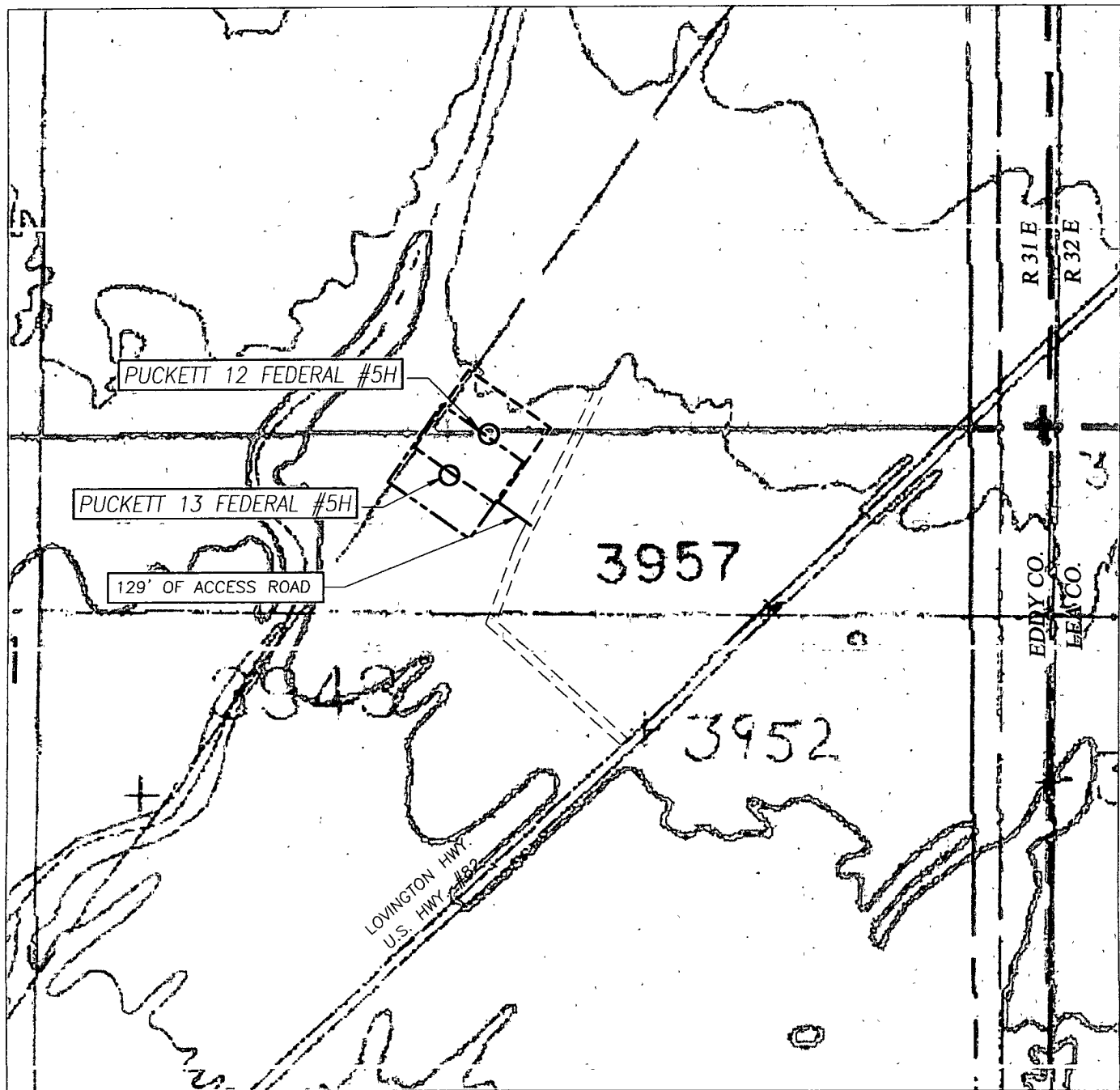


COG OPERATING, LLC

PUCKETT 12 & 13 FEDERAL #5H WELLS
 IN SECTIONS 12 & 13, TOWNSHIP 17 SOUTH,
 RANGE 31 EAST, N.M.P.M., EDDY COUNTY, NEW MEXICO

Survey Date: 6/22/11	Sheet 1 of 1 Sheets
W.O. Number: 11.13.1807	Dr By: LA
Date: 8/29/11	11131807
	Scale: 1"=100'

SECTIONS 12 & 13, TOWNSHIP 17 SOUTH, RANGE 31 EAST, N.M.P.M.
EDDY COUNTY NEW MEXICO



500 0 500 1000 FEET
Scale: 1"=500'

COG OPERATING, LLC

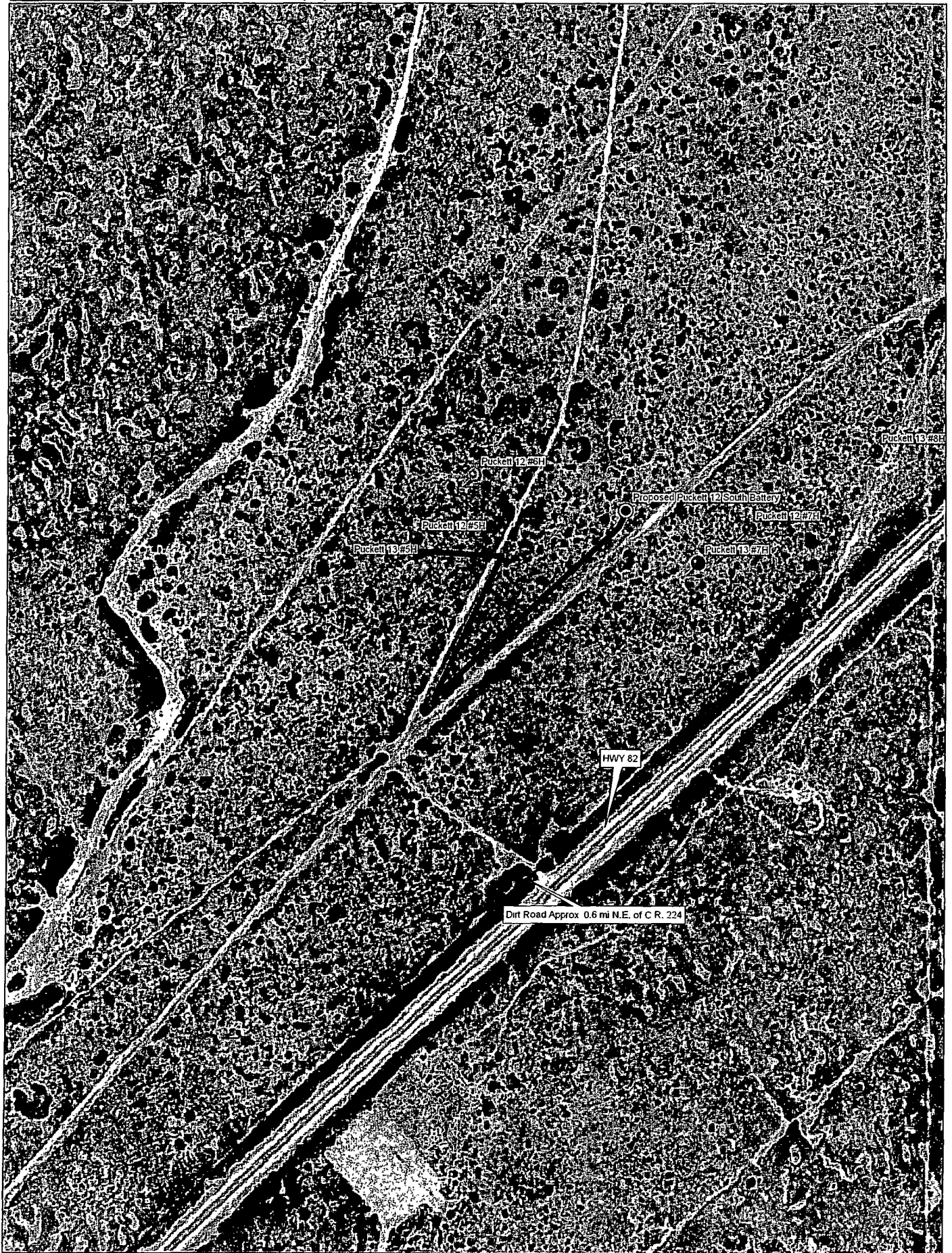
TOPOGRAPHIC MAP OF THE PUCKETT 12 #5H
& THE PUCKETT 13 #5H WELLS
SITUATED IN SECTIONS 12 & 13,
TOWNSHIP 17 SOUTH, RANGE 31 EAST,
NMPM, EDDY COUNTY, NEW MEXICO

Survey Date: 6/22/11	Sheet 1 of 1 Sheets
W.O. Number: 11.13.1807	Drawn By: LA
Date: 8/23/11	Rev: 111311807

PROVIDING SURVEYING SERVICES
SINCE 1946

JOHN WEST SURVEYING COMPANY

412 N. DAL PASO
HOBBS, N.M. 88240
(575) 393-3117



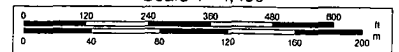
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Scale 1 4,400



1" = 366.7 ft

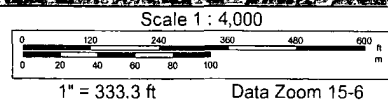
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