

*Surface Use Plan  
COG Operating, LLC  
B C Federal #17  
SHL: 900' FNL & 1949' FEL  
BHL: 990' FNL & 2310' FEL  
Section 19, T-17-S, R-32-E, UL B  
Lea County, New Mexico*

30-025-40246

## **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.
- C. Directions to Location: From the intersection of U.S. Hwy #82 and Eddy Co. Rd. #224 (Ripple Rd.), go Southeast on Co Rd #224 approx 1.0 mile. Veer Right and go South approx 0.4 miles. Turn Left and go East approx 0.4 miles. Turn Left and go North approx 0.1 mile. Turn Right and go East-Northeast approx. 0.4 miles. Turn Left and go North approx 0.2 miles. Turn Left and go West approx 0.1 mile. This location is approx 175 feet South of Lease Road. See Vicinity Map, Exhibit #3
- 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.

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

Exhibit #4 shows that 14' 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 nearest BLM approved caliche pit or reserve pit area.

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

Exhibit #5 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.

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**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 BC Federal tank battery located at the BC Federal #1 well location at 330' FNL & 1575' FWL, Section 20, T17S, R32E, Unit C. The facility location is shown in Exhibit #5.
  - 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 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 BC Federal tank battery located at the BC Federal #1 well location at 330' FNL & 1575' FWL, Section 20, T17S, R32E, Unit C. The flowline will be SDR 7 3" poly line laid on the surface and will be approximately 4770' 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:
    - a) 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:**

All caliche required for construction of the drill pad and proposed new access road (approximately 2500 cubic yards) will be obtained from a BLM approved caliche pit or the reserve 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. 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 North. 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. The location and road will be rehabilitated as recommended by the BLM.
- B. Upon completion of proposed operations, if the well is completed, the reserve pit area will be closed as outlined in Section 4.6 above within the same prescribed time. Any additional caliche required for facilities will be obtained from a BLM approved caliche pit. Topsoil removed from the drill site will be used to re-contour the pit area to its original natural level and re-seeded as per BLM specifications.

**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 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.
- 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,  
Drilling Superintendent  
COG Operating LLC  
550 W. Texas, Suite 1300  
Midland, TX 79701  
Phone (432) 683-7443 (office)  
(432) 631-9762 (cell)

Erick Nelson.  
Division Operations Manager  
COG Operating LLC  
550 W. Texas, Suite 1300  
Midland, TX 79701  
Phone (505) 746-2210 (office)  
(432) 238-7591 (cell)

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*COG Operating, LLC*  
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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 15<sup>th</sup> day of November, 2010.

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

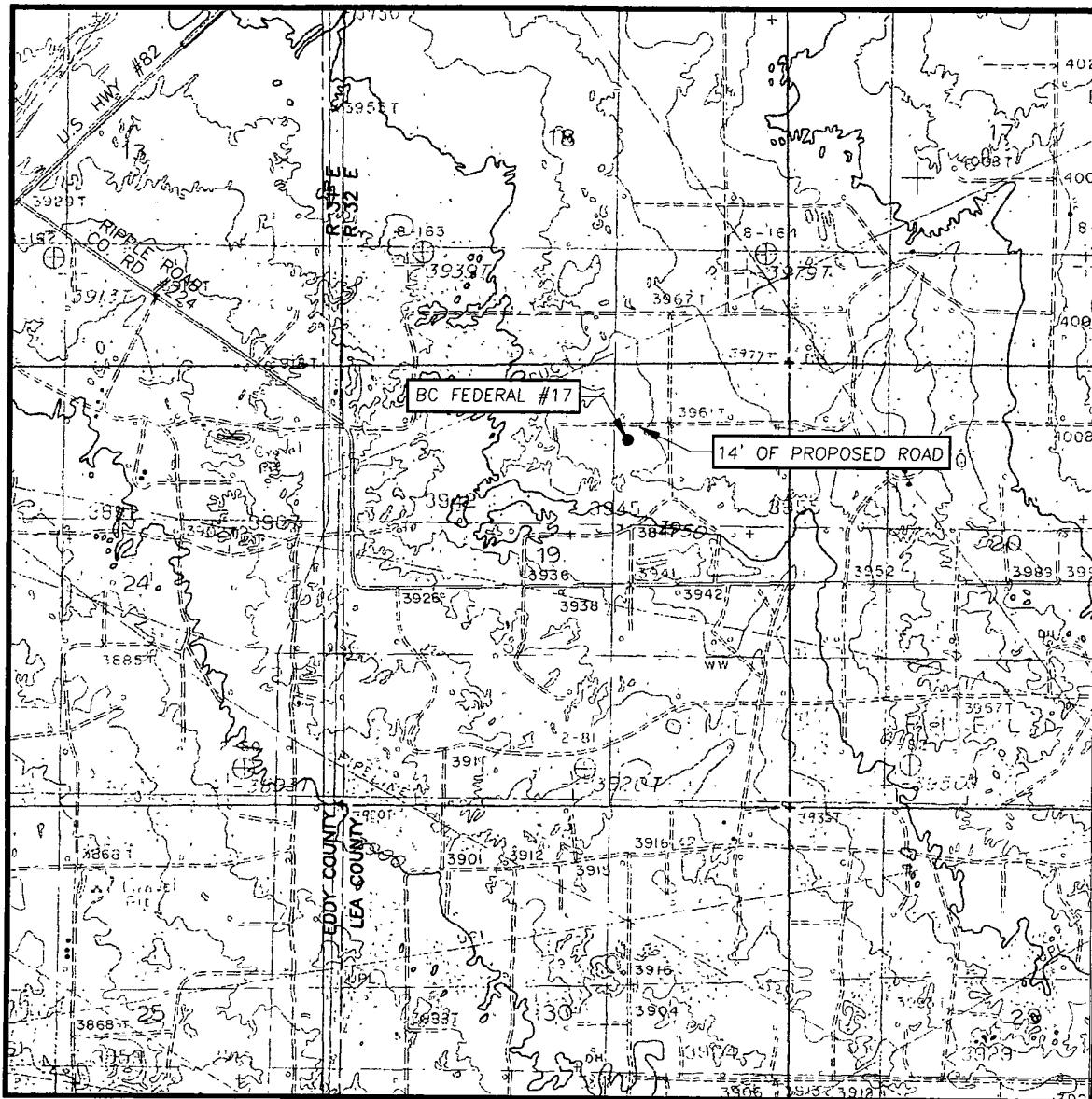
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**Exhibits:**

- 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**

# LOCATION VERIFICATION MAP



SCALE: 1" = 2000'

CONTOUR INTERVAL  
MALJAMAR, N.M. - 10'

SEC 19 TWP 17-S RGE. 32-E

SURVEY N.M.P.M.

COUNTY LEA STATE NEW MEXICO

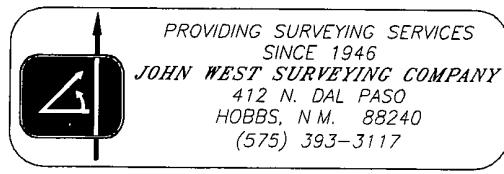
DESCRIPTION 900' FNL & 1949' FEL

ELEVATION 3959'

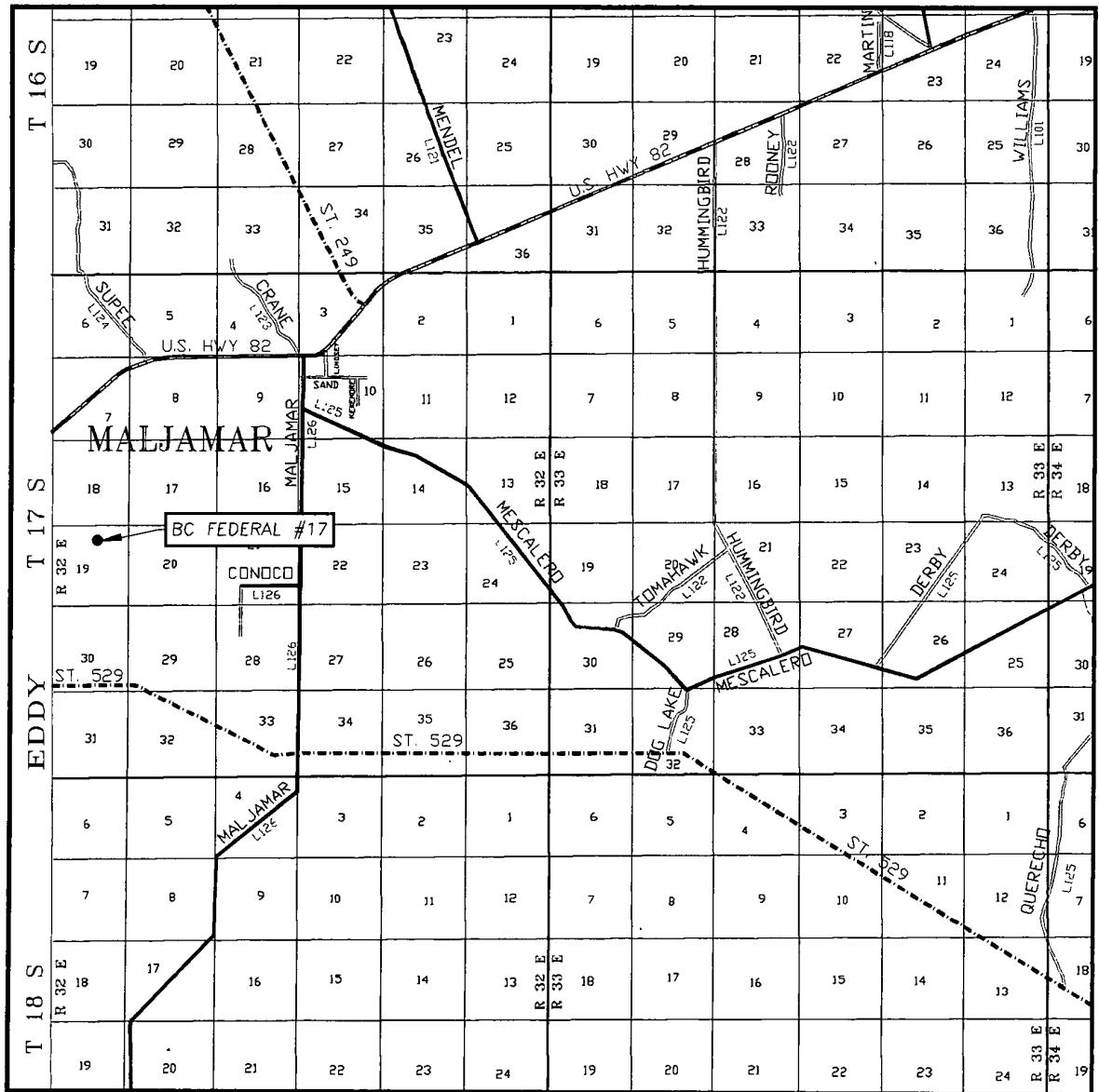
OPERATOR COG OPERATING, LLC

LEASE BC FEDERAL

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



## *VICINITY MAP*



SCALE: 1" = 2 MILES

SEC. 19 TWP. 17-S RGE. 32-E

SURVEY \_\_\_\_\_ N.M.P.M.

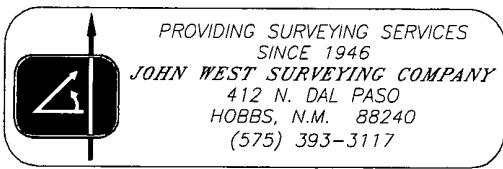
COUNTY LEA STATE NEW MEXICO

DESCRIPTION 900' FNL & 1949' FEL

ELEVATION 3960'

OPERATOR COG OPERATING, LLC

LEASE BC FEDERAL



## Offset wells to BC Federal #17

API#	Operator	County	Legal	Lease	Well#	Date Issued	Permitted Depth	Permit TVD	Images	Doc	Total Depth	Well Type	Well Status	Permit#
30-025-39928	COG OPERATING LLC	LEA	S:20, T:17S, R:32E	GC FEDERAL	42	9/30/2010	6,900		Yes	link	6,900	PO	Active Permit	TEMP1861612420
30-025-39856	COG OPERATING LLC	LEA	S:20, T:17S, R:32E	BC FEDERAL	58	7/29/2010	7,000		Yes	link	7,000	PO	Active Permit	TEMP778848719
30-025-39858	COG OPERATING LLC	LEA	S:20, T:17S, R:32E	GC FEDERAL	43	7/29/2010	7,159	7,100	Yes	link	7,159	PO	Active Permit	TEMP1922643520
30-025-39626	COG OPERATING LLC	LEA	S:20, T:17S, R:32E	GC FEDERAL	40	12/24/2009	7,144	7,100	Yes	link	7,178	O	Active Permit	TEMP562800386
30-025-39624	COG OPERATING LLC	LEA	S:19, T:17S, R:32E	BC FEDERAL	52	12/22/2009	7,117	7,160	Yes	link	7,117	PO	Active Permit	TEMP281219397
30-025-39625	COG OPERATING LLC	LEA	S:20, T:17S, R:32E	BC FEDERAL	54	12/22/2009	7,000		Yes	link	7,000	PO	Active Permit	TEMP1757160506
30-025-39613	COG OPERATING LLC	LEA	S:19, T:17S, R:32E	GC FEDERAL	50	12/12/2009	7,126	7,100	Yes	link	7,126	PO	Active Permit	TEMP43716635
30-025-39607	COG OPERATING LLC	LEA	S:19, T:17S, R:32E	BC FEDERAL	34	11/25/2009	6,800		Yes	link	6,945	O	Active Permit	TEMP232522771
30-025-39544	COG OPERATING LLC	LEA	S:20, T:17S, R:32E	BC FEDERAL	55	10/2/2009	7,000		Yes	link	7,000	PO	Active Permit	TEMP704627628
30-025-39543	COG OPERATING LLC	LEA	S:19, T:17S, R:32E	BC FEDERAL	47	10/2/2009	6,900		Yes	link	6,900	PO	Active Permit	TEMP678628988
30-025-39611	COG OPERATING LLC	LEA	S:19, T:17S, R:32E	BC FEDERAL	46	8/14/2009	3,967		Yes	link	3,967	PO	Active Permit	TEMP269250618
30-025-39496	COG OPERATING LLC	LEA	S:19, T:17S, R:32E	BC FEDERAL	48	8/12/2009	6,900		Yes	link	6,900	PO	Active Permit	TEMP522928471
30-025-39497	COG OPERATING LLC	LEA	S:20, T:17S, R:32E	BC FEDERAL	57	8/12/2009	7,000		Yes	link	7,000	PO	Active Permit	TEMP913062814
30-025-39498	COG OPERATING LLC	LEA	S:19, T:17S, R:32E	GC FEDERAL	54	8/12/2009	7,100		Yes	link	7,100	PO	Active Permit	TEMP1680738159
30-025-39472	COG OPERATING LLC	LEA	S:20, T:17S, R:32E	GC FEDERAL	41	7/22/2009	7,100		Yes	link	7,123	O	Active Permit	TEMP254749392
30-025-39475	COG OPERATING LLC	LEA	S:20, T:17S, R:32E	GC FEDERAL	62	7/22/2009	7,137	7,100	Yes	link	7,137	PO	Active Permit	TEMP1481001204
30-025-39469	COG OPERATING LLC	LEA	S:19, T:17S, R:32E	BC FEDERAL	51	7/20/2009	6,900		Yes	link	6,900	PO	Active Permit	TEMP423382244
30-025-39468	COG OPERATING LLC	LEA	S:19, T:17S, R:32E	BC FEDERAL	50	7/17/2009	6,900		Yes	link	6,920	O	Active Permit	TEMP206526192
30-025-39467	COG OPERATING LLC	LEA	S:19, T:17S, R:32E	BC FEDERAL	49	7/16/2009	7,037	7,000	Yes	link	7,037	PO	Active Permit	TEMP773835908
30-025-39474	COG OPERATING LLC	LEA	S:19, T:17S, R:32E	GC FEDERAL	56	7/16/2009	7,030	7,000	Yes	link	7,030	PO	Active Permit	TEMP773940142
30-025-39416	COG OPERATING LLC	LEA	S:20, T:17S, R:32E	BC FEDERAL	42	5/20/2009	7,000		Yes	link	7,006	O	Active Permit	TEMP1193997056
30-025-39414	COG OPERATING LLC	LEA	S:20, T:17S, R:32E	BC FEDERAL	40	5/19/2009	7,000		Yes	link	7,036	O	Active Permit	TEMP720222835
30-025-39420	COG OPERATING LLC	LEA	S:19, T:17S, R:32E	GC FEDERAL	34	5/19/2009	6,922	6,900	Yes	link	6,900	O	Active Permit	TEMP1360209628
30-025-39422	COG OPERATING LLC	LEA	S:19, T:17S, R:32E	GC FEDERAL	37	5/19/2009	6,900		Yes	link	6,925	O	Active Permit	TEMP1588474770
30-025-39421	COG OPERATING LLC	LEA	S:19, T:17S, R:32E	GC FEDERAL	35	5/19/2009	6,900		Yes	link	6,900	PO	Active Permit	TEMP133600763
30-025-39418	COG OPERATING LLC	LEA	S:19, T:17S, R:32E	BC FEDERAL	44	5/19/2009	7,000		Yes	link	7,000	PO	Active Permit	TEMP962267815

30-025-39419	COG OPERATING LLC	LEA	S:19, T:17S, R.32E	BC FEDERAL	45	5/19/2009	7,013	7,000	Yes	link	7,034	O	Active Permit	TEMP1061129939
30-025-39358	COG OPERATING LLC	LEA	S:19, T 17S, R:32E	BC FEDERAL	37	1/30/2009	6,800		Yes	link	7,010	O	Active Permit	TEMP615591651
30-025-39299	COG OPERATING LLC	LEA	S:19, T.17S, R.32E	BC FEDERAL	38	12/5/2008	6,800		Yes	link	6,818	O	Active Permit	TEMP1707957802
30-025-39290	COG OPERATING LLC	LEA	S 19, T 17S, R:32E	BC FEDERAL	39	12/4/2008	6,800		Yes	link	6,832	O	Active Permit	TEMP966352756
30-025-39269	COG OPERATING LLC	LEA	S:20, T:17S, R 32E	GC FEDERAL	23	11/17/2008	7,029	7,000	Yes	link	7,035	O	Active Permit	TEMP1650840424
30-025-39272	COG OPERATING LLC	LEA	S 20, T 17S, R:32E	GC FEDERAL	30	11/17/2008	7,100		Yes	link	7,016	O	Active Permit	TEMP1861288742
30-025-39264	COG OPERATING LLC	LEA	S 20, T:17S, R.32E	GC FEDERAL	27	11/13/2008	7,100		Yes	link	7,103	O	Active Permit	TEMP560444403
30-025-39266	COG OPERATING LLC	LEA	S:20, T:17S, R.32E	GC FEDERAL	31	11/13/2008	7,100		Yes	link	7,123	O	Active Permit	TEMP1435730061
30-025-39261	COG OPERATING LLC	LEA	S:20, T.17S, R:32E	GC FEDERAL	20	11/13/2008	7,000		Yes	link	7,020	O	Active Permit	TEMP915113969
30-025-39282	COG OPERATING LLC	LEA	S 20, T.17S, R:32E	GC FEDERAL	26	11/13/2008	7,100		Yes	link	7,035	O	Active Permit	TEMP1901374924
30-025-39162	COG OPERATING LLC	LEA	S:19, T:17S, R 32E	GC FEDERAL	19	8/22/2008	7,100		Yes	link	7,022	O	Active Permit	TEMP732619990
30-025-39113	COG OPERATING, L.L.C. or COG OPERATING LLC	LEA	S:19, T:17S, R.32E	GC FEDERAL	18	8/19/2008	7,000		Yes	link	7,050	O	Active Permit	TEMP1121428476
30-025-39109	COG OPERATING, L.L.C. or COG OPERATING LLC	LEA	S.19, T:17S, R.32E	GC FEDERAL	13	8/19/2008	6,900		Yes	link	6,922	O	Active Permit	TEMP937620837
30-025-39112	COG OPERATING L L C or COG OPERATING LLC	LEA	S.19, T.17S, R:32E	GC FEDERAL	16	8/19/2008	7,000		Yes	link	7,116	O	Active Permit	TEMP1557968093
30-025-39111	COG OPERATING L L C or COG OPERATING LLC	LEA	S.19, T.17S, R:32E	GC FEDERAL	15	8/19/2008	7,000		Yes	link	7,037	O	Active Permit	TEMP734673321
30-025-39110	COG OPERATING L L C or COG OPERATING LLC	LEA	S 19, T.17S, R 32E	GC FEDERAL	14	8/19/2008	6,900		Yes	link	7,025	O	Active Permit	TEMP1323695931
30-025-39086	COG OPERATING L L C or COG OPERATING LLC	LEA	S:19, T.17S, R.32E	GC FEDERAL	12	7/24/2008	6,900		Yes	link	6,928	O	Active Permit	TEMP663662743
30-025-38993	COG OPERATING LLC	LEA	S:19, T.17S, R:32E	GC FEDERAL	10	6/17/2008	6,800		Yes	link	6,805	O	Active Permit	TEMP1896878906
30-025-38992	COG OPERATING LLC	LEA	S:19, T.17S, R.32E	BC FEDERAL	36	6/13/2008	6,800		Yes	link	6,918	O	Active Permit	TEMP1125053629
30-025-38994	COG OPERATING LLC	LEA	S:19, T:17S, R:32E	GC FEDERAL	11	6/13/2008	6,800		Yes	link	6,817	O	Active Permit	TEMP1116399800
30-025-39021	COG OPERATING LLC	LEA	S:19, T.17S, R.32E	BC FEDERAL	35	6/13/2008	6,800		Yes	link	6,825	O	Active Permit	TEMP2056387133
30-025-38842	COG OPERATING LLC	LEA	S 19, T 17S, R:32E	GC FEDERAL	8	4/1/2008	7,250		Yes	link	6,815	O	Active Permit	TEMP1020968955
30-025-38837	COG OPERATING LLC	LEA	S:19, T:17S, R:32E	BC FEDERAL	19	3/26/2008	7,200		Yes	link	7,200	PO	Active Permit	TEMP282327276
30-025-38904	COG OPERATING LLC	LEA	S:19, T 17S, R:32E	BC FEDERAL	20	3/26/2008	7,200		Yes	link	7,020	O	Active Permit	TEMP121098942
30-025-38814	COG OPERATING LLC	LEA	S.20, T 17S, R.32E	BC FEDERAL	29	3/7/2008	7,200		Yes	link	7,041	O	Active Permit	TEMP741824707
	COG OPERATING			GC										

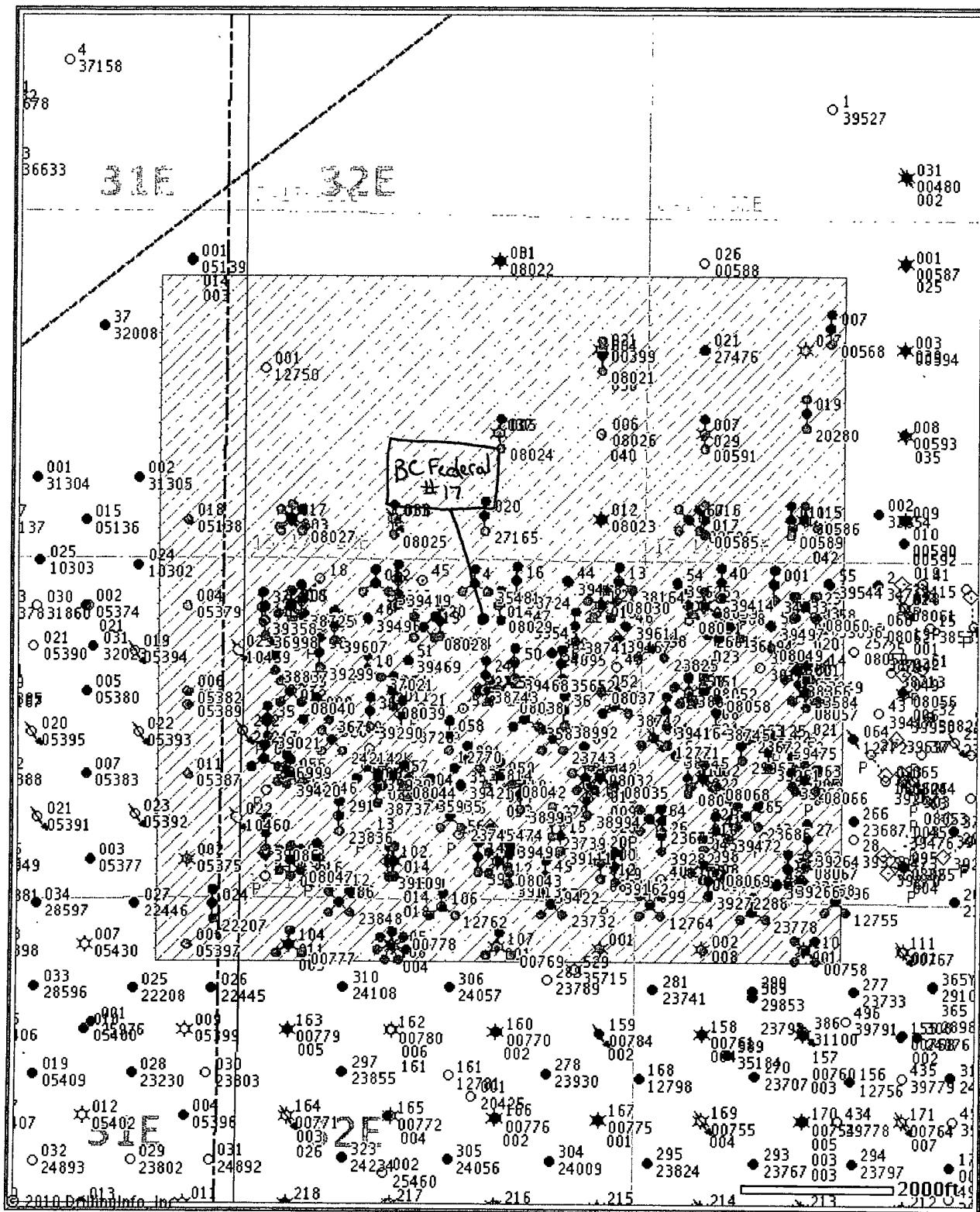
30-025-38737	LLC	LEA	S 19, T 17S, R.32E	FEDERAL	7	2/2/2008	7,250		Yes	link	7,046	O	Active Permit	TEMP857214539
30-025-38741	COG OPERATING LLC	LEA	S 19, T:17S, R 32E	BC FEDERAL	22	2/2/2008	7,200		Yes	link	7,040	O	Active Permit	TEMP1958266845
30-025-38742	COG OPERATING LLC	LEA	S 19, T:17S, R:32E	BC FEDERAL	23	2/1/2008	7,250		Yes	link	7,250	PO	Active Permit	TEMP1783345657
30-025-38743	COG OPERATING LLC	LEA	S 19, T:17S, R.32E	BC FEDERAL	24	2/1/2008	7,200		Yes	link	6,926	O	Active Permit	TEMP2120580483
30-025-38745	COG OPERATING LLC	LEA	S:20, T.17S, R:32E	BC FEDERAL	26	2/1/2008	7,250		Yes	link	7,000	O	Active Permit	TEMP2102159644
30-025-38742	COG OPERATING LLC	LEA	S 19, T:17S, R:32E	BC FEDERAL	023	2/1/2008	7,250		Yes	link	7,250	PO	Active Permit	TEMP161962920
30-025-38724	COG OPERATING LLC	LEA	S.19, T 17S, R 32E	BC FEDERAL	16	1/25/2008	7,200		Yes	link	7,200	PO	Active Permit	TEMP331256724
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30-025-38726	COG OPERATING LLC	LEA	S:19, T:17S, R:32E	BC FEDERAL	21	1/25/2008	7,200		Yes	link	7,200	PO	Active Permit	TEMP312664015
30-025-38545	COG OPERATING LLC	LEA	S:20, T.17S, R.32E	GC FEDERAL	6	9/3/2007	7,100		Yes	link	7,100	PO	Active Permit	TEMP1290772446
30-025-38366	COG OPERATING LLC	LEA	S 20, T:17S, R 32E	BC FEDERAL	14	3/29/2007	7,000		Yes	link	6,985	O	Active Permit	TEMP889433513
30-025-38164	COG OPERATING LLC	LEA	S:19, T 17S, R:32E	BC FEDERAL	013	10/31/2006	6,700		No	link	6,700	O	Active Permit	TEMP1135781705
30-025-37869	COG OPERATING LLC	LEA	S 19, T 17S, R 32E	BC FEDERAL	12	5/15/2006	6,700		No	link	6,780	O	Active Permit	TEMP611876723
30-025-37021	MACK ENERGY CORPORATION or MACK ENERGY CORP	LEA	S:19, T:17S, R:32E	BC FEDERAL	010	12/22/2004	7,000		No	link	6,710	O	Active Permit	TEMP2085890960
30-025-36998	MACK ENERGY CORPORATION or MACK ENERGY CORP	LEA	S.19, T:17S, R:32E	BC FEDERAL	011	12/8/2004	7,000		No	link	6,720	O	Active Permit	TEMP395711160
30-025-36999	MACK ENERGY CORPORATION or MACK ENERGY CORP	LEA	S:19, T.17S, R.32E	GC FEDERAL	005	12/8/2004	7,000		No	link	7,220	O	Active	TEMP1900010551
30-025-36999	MACK ENERGY CORP	LEA	S:19, T 17S, R:32E	GC FEDERAL	005	11/30/2004			No	link	7,220	O	Active	TEMP116932085
30-025-37021	MACK ENERGY CORP	LEA	S 19, T 17S, R:32E	BC FEDERAL	010	11/30/2004			No	link	6,710	O	Active Permit	TEMP1918746986
30-025-36769	MACK ENERGY CORPORATION or MACK ENERGY CORP	LEA	S 19, T.17S, R 32E	BC FEDERAL	9	7/16/2004	7,000		No	link	6,005	O	Active	TEMP75320249
30-025-36769	MACK ENERGY CORP	LEA	S.19, T.17S, R 32E	BC FEDERAL	009	6/30/2004			No	link	6,005	O	Active	TEMP1818411999
30-025-36443	MACK ENERGY CORPORATION or MACK ENERGY CORP	LEA	S:19, T 17S, R:32E	GC FEDERAL	002	10/3/2003	7,000		No	link	7,000	PO	Active Permit	TEMP171434619
30-025-35939	MACK ENERGY CORP	LEA	S.19, T:17S, R.32E	GC FEDERAL	002K	9/30/2003			No	link	7,000	PO	Active Permit	TEMP1009990490
30-025-36443	MACK ENERGY CORP	LEA	S:19, T:17S, R 32E	GC FEDERAL	002	7/31/2003			No	link	7,000	PO	Active Permit	TEMP1249736148
	MACK ENERGY CORPORATION or MACK ENERGY			BC										

30-025-36194	CORP	LEA	S.20, T.17S, R 32E	FEDERAL	8	2/27/2003	7,000		No	link	7,060	O	Active	TEMP2050392132
30-025-36194	MACK ENERGY CORPORATION or MACK ENERGY CORP	LEA	S:20, T:17S, R:32E	BC FEDERAL	008	2/4/2003	7,000		No	link	7,060	O	Active	TEMP359362235
30-025-36194	MACK ENERGY CORP	LEA	S 20, T:17S, R.32E	BC FEDERAL	008	1/31/2003			No	link	7,060	O	Active	TEMP139286391
30-025-00596	CONOCOPHILLIPS COMPANY	LEA	S:17, T 17S, R 32E	MCA UNIT	267	1/1/2003	0		No	link	5,405	O	Pumping	TEMP1827047527
30-025-00769	CONOCOPHILLIPS COMPANY	LEA	S:30, T 17S, R 32E	MCA UNIT	107	1/1/2003			No	link		I	Plugged	TEMP910856295
30-025-00777	CONOCOPHILLIPS COMPANY	LEA	S:30, T 17S, R 32E	MCA UNIT	104	1/1/2003			No	link		PI	Injection Well	TEMP552270320
30-025-00783	CONOCOPHILLIPS COMPANY	LEA	S.30, T:17S, R:32E	MCA UNIT	108	1/1/2003	0		No	link	3,963	O	Pumping	TEMP1641494456
30-025-08027	CONOCOPHILLIPS COMPANY	LEA	S:18, T:17S, R:32E	MCA UNIT	017	1/1/2003			No	link		O	Plugged and Abandoned	TEMP2039413596
30-025-08028	CONOCOPHILLIPS COMPANY	LEA	S:19, T:17S, R.32E	MCA UNIT	019	1/1/2003	0		No	link	0	O	Pumping	TEMP2019406653
30-025-08029	CONOCOPHILLIPS COMPANY	LEA	S:19, T:17S, R 32E	MCA UNIT	020	1/1/2003			No	link		PI	Temporarily Abandoned	TEMP2006236413
30-025-08030	CONOCOPHILLIPS COMPANY	LEA	S:19, T:17S, R'32E	MCA UNIT	021	1/1/2003	0		No	link	0	O	Pumping	TEMP2046635048
30-025-08035	CONOCOPHILLIPS COMPANY	LEA	S:19, T.17S, R:32E	MCA UNIT	060	1/1/2003	0		No	link	3,970	O	Shut-in	TEMP1803858492
30-025-08038	CONOCOPHILLIPS COMPANY	LEA	S 19, T:17S, R:32E	MCA UNIT	053	1/1/2003			No	link		PO	Temporarily Abandoned	TEMP1916205170
30-025-08039	CONOCOPHILLIPS COMPANY	LEA	S:19, T:17S, R:32E	MCA UNIT	054	1/1/2003			No	link		PI	Temporarily Abandoned	TEMP1941213849
30-025-08040	CONOCOPHILLIPS COMPANY	LEA	S:19, T:17S, R 32E	MCA UNIT	055	1/1/2003			No	link	0	O	Pumping	TEMP1047146182
30-025-08041	CONOCOPHILLIPS COMPANY	LEA	S:19, T:17S, R:32E	MCA UNIT	100	1/1/2003			No	link		PI	Injection Well	TEMP1020598508
30-025-08042	CONOCOPHILLIPS COMPANY	LEA	S:19, T:17S, R:32E	MCA UNIT	059	1/1/2003			No	link	3,984	I	Injection Well	TEMP982123618
30-025-08044	CONOCOPHILLIPS COMPANY	LEA	S 19, T:17S, R:32E	MCA UNIT	057	1/1/2003	0		No	link	3,974	PO	Temporarily Abandoned	TEMP1267992051
30-025-08046	CONOCOPHILLIPS COMPANY	LEA	S:19, T:17S, R:32E	MCA UNIT	056	1/1/2003			No	link	3,984	I	Temporarily Abandoned	TEMP1223361179
30-025-08047	CONOCOPHILLIPS COMPANY	LEA	S.19, T:17S, R:32E	MCA UNIT	103	1/1/2003	0		No	link	0	O	Pumping	TEMP1498456642
30-025-08051	CONOCOPHILLIPS COMPANY	LEA	S.20, T:17S, R:32E	MCA UNIT	331	1/1/2003	0		No	link	5,370	I	Injection Well	TEMP1348789320
30-025-08052	CONOCOPHILLIPS COMPANY	LEA	S:20, T 17S, R 32E	MCA UNIT	253	1/1/2003			No	link	5,350	PO	Temporarily Abandoned	TEMP1722765251
30-025-08058	CONOCOPHILLIPS COMPANY	LEA	S:20, T:17S, R:32E	MCA UNIT	051	1/1/2003			No	link	0	O	Temporarily Abandoned	TEMP1559246968
30-025-08060	CONOCOPHILLIPS COMPANY	LEA	S:20, T:17S, R:32E	MCA UNIT	023	1/1/2003			No	link		O	Flowing	TEMP2067811561
30-025-12579	CONOCOPHILLIPS COMPANY	LEA	S:19, T:17S, R 32E	MCA UNIT	102	1/1/2003			No	link		PI	Injection Well	TEMP1574563471
30-025-12755	CONOCOPHILLIPS COMPANY	LEA	S 20, T:17S, R 32E	MCA UNIT	096	1/1/2003	0		No	link	4,048	O	Active	TEMP1529221230
30-025-12762	CONOCOPHILLIPS COMPANY	LEA	S:30, T 17S, R 32E	MCA UNIT	106	1/1/2003			No	link		PI	Injection Well	TEMP1503058305
30-025-12764	CONOCOPHILLIPS COMPANY	LEA	S:19, T:17S, R:32E	MCA UNIT	099	1/1/2003			No	link		PO	Temporarily Abandoned	TEMP1733522896

30-025-12771	CONOCOPHILLIPS COMPANY	LEA	S.20, T:17S, R 32E	MCA UNIT	061	1/1/2003			No	link	4,024	I	Injection Well	TEMP1593089547
30-025-23673	CONOCOPHILLIPS COMPANY	LEA	S 19, T 17S, R:32E	MCA UNIT	264	1/1/2003	0		No	link	0	O	Active	TEMP180602882
30-025-23686	CONOCOPHILLIPS COMPANY	LEA	S:20, T 17S, R 32E	MCA UNIT	265	1/1/2003	0		No	link	0	O	Pumping	TEMP187217066
30-025-23732	CONOCOPHILLIPS COMPANY	LEA	S 19, T.17S, R:32E	MCA UNIT	276	1/1/2003	0		No	link	4,025	O	Pumping	TEMP2132231549
30-025-23743	CONOCOPHILLIPS COMPANY	LEA	S 19, T:17S, R 32E	MCA UNIT	283	1/1/2003			No	link	4,075	O	Pumping	TEMP1929853628
30-025-23745	CONOCOPHILLIPS COMPANY	LEA	S 19, T:17S, R 32E	MCA UNIT	285	1/1/2003	0		No	link	4,060	O	Pumping	TEMP2068747981
30-025-23825	CONOCOPHILLIPS COMPANY	LEA	S:19, T.17S, R.32E	MCA UNIT	298	1/1/2003			No	link	4,082	PI	Injection Well	TEMP1384388722
30-025-23836	CONOCOPHILLIPS COMPANY	LEA	S.19, T.17S, R:32E	MCA UNIT	291	1/1/2003			No	link	4,070	PI	Injection Well	TEMP1265886061
30-025-23848	CONOCOPHILLIPS COMPANY	LEA	S 19, T:17S, R:32E	MCA UNIT	286	1/1/2003	0		No	link	4,070	O	Pumping	TEMP1510201612
30-025-24214	CONOCOPHILLIPS COMPANY	LEA	S:19, T.17S, R 32E	MCA UNIT	320	1/1/2003	0		No	link	4,050	O	Pumping	TEMP805726376
30-025-29967	CONOCOPHILLIPS COMPANY	LEA	S:20, T-17S, R:32E	MCA UNIT	374	1/1/2003	0		No	link	4,200	O	Active	TEMP517825164
30-025-00589	CONOCOPHILLIPS COMPANY	LEA	S:17, T:17S, R.32E	MITCHELL B	011	1/1/2003	0		No	link	5,382	O	Pumping	TEMP384332620
30-025-08025	CONOCOPHILLIPS COMPANY	LEA	S:18, T:17S, R 32E	MITCHELL B	013	1/1/2003			No	link		I	Temporarily Abandoned	TEMP1717487559
30-025-08048	CONOCOPHILLIPS COMPANY	LEA	S:20, T:17S, R:32E	MITCHELL B	015	1/1/2003	0		No	link	0	O	Active	TEMP1743650484
30-025-27165	CONOCOPHILLIPS COMPANY	LEA	S:18, T 17S, R 32E	MITCHELL B	020	1/1/2003	0		No	link	4,200	O	Pumping	TEMP1854842916
30-025-33584	CONOCOPHILLIPS COMPANY	LEA	S:20, T:17S, R 32E	ELVIS	001	1/1/2003			No	link	13,900	O	Pumping	TEMP724908205
30-025-33949	CONOCOPHILLIPS COMPANY	LEA	S.20, T 17S, R:32E	ELVIS	004	1/1/2003			No	link	12,100	O	Active	TEMP480592653
30-025-35939	MACK ENERGY CORPORATION or MACK ENERGY CORP	LEA	S:19, T 17S, R:32E	GC FEDERAL	2	6/26/2002	7,000		No	link	7,000	PO	Active Permit	TEMP196852289
30-025-35935	MACK ENERGY CORPORATION or MACK ENERGY CORP	LEA	S.19, T.17S, R.32E	GC FEDERAL	004	5/3/2002			No	link	7,028	O	Active	TMP0000000012288
30-025-35935	MACK ENERGY CORP	LEA	S 19, T 17S, R:32E	GC FEDERAL	004	4/30/2002			No	link	7,028	O	Active	TEMP1031476489
30-025-35814	MACK ENERGY CORPORATION or MACK ENERGY CORP	LEA	S 19, T:17S, R 32E	GC FEDERAL	001	11/29/2001			No	link	7,085	O	Pumping	TEMP1642498006
30-025-35813	MACK ENERGY CORPORATION or MACK ENERGY CORP	LEA	S:19, T.17S, R:32E	BC FEDERAL	007	11/28/2001			No	link	6,590	O	Active	TEMP1734513133
30-025-35813	MACK ENERGY CORP	LEA	S:19, T:17S, R:32E	BC FEDERAL	007	10/31/2001			No	link	6,590	O	Active	TEMP1233775605
30-025-35814	MACK ENERGY CORP	LEA	S:19, T:17S, R:32E	GC FEDERAL	001	10/31/2001			No	link	7,085	O	Pumping	TEMP1143374938
	MACK ENERGY			BC										

30-025-35652	CORP	LEA	S 19, T:17S, R 32E	FEDERAL	6	8/2/2001	6,000		Yes	link	7,562	O	Pumping	TEMP1941188934
30-025-35481	MACK ENERGY CORP	LEA	S.19, T:17S, R:32E	BC FEDERAL	004	2/23/2001			No	link	5,600	O	Pumping	TEMP947828571
30-025-08057	CONOCO, INC	LEA	S 20, T:17S, R:32E	MCA UNIT	050	5/3/2000			No	link		I	Temporarily Abandoned	TEMP1778985407
30-025-08066	CONOCO, INC	LEA	S'20, T:17S, R:32E	MCA UNIT	063	4/27/2000			No	link	4,027	O	Temporarily Abandoned	TEMP1555061547
30-025-00758	CONOCO, INC.	LEA	S'29, T 17S, R:32E	MCA UNIT	110	4/24/2000			No	link		O	Temporarily Abandoned	TEMP572660046
30-025-34733	MACK ENERGY CORP	LEA	S 20, T 17S, R:32E	BC FEDERAL	001	9/21/1999			No	link	5,900	O	Pumping	TEMP1514566034
30-025-08036	CONOCO, INC.	LEA	S:19, T 17S, R:32E	MCA UNIT	018	1/18/1999			No	link	4,002	I	Injection Well	TEMP1039498021
30-015-29152	DEVON ENERGY PRODUCTION COMPANY, LP	EDDY	S:20, T 17S, R 32E	TURNER B	125	3/24/1998			No	link		PO	Unknown	TEMP1678126835
30-025-08032	CONOCO, INC	LEA	S:19, T:17S, R:32E	MCA UNIT	259	7/23/1996			No	link		O	Pumping	TEMP940232805
30-025-08043	CONOCO, INC.	LEA	S:19, T.17S, R:32E	MCA UNIT	101	9/26/1995			No	link		O	Pumping	TEMP837120100
30-025-00568	CONOCO, INC	LEA	S.17, T 17S, R:32E	MCA UNIT	007	1/25/1990			No	link		O	Active	TEMP1865831748
30-025-00591	CONOCO, INC	LEA	S.17, T:17S, R:32E	MITCHELL B	007	10/25/1989			No	link	4,336	O	Active	TEMP964796559
30-025-08024	CONOCO, INC	LEA	S:18, T.17S, R 32E	MITCHELL B	005	10/25/1989			No	link	4,200	O	Active	TEMP1226101238
30-015-22207	HUDSON OIL COMPANY OF TEXAS	EDDY	S:25, T:17S, R 31E	PUCKETT B	024	9/1/1977	0		No	link	3,950	O	Pumping	TEMP1480531416
30-025-12770	CONOCO, INC	LEA	S:19, T:17S, R 32E	MCA UNIT	058	1/1/1970			No	link		O	Active	TEMP480077612
30-025-26011	STEVENS OPERATING CORPORATION or HANAGAN PETROLEUM CORP	LEA	S:20, T:17S, R 32E	PRE-ONGARD WELL	358	1/1/1970			No	link		PO	Active Permit	TEMP201405038
30-025-27476	STEVENS OPERATING CORPORATION or HANAGAN PETROLEUM CORP	LEA	S 17, T:17S, R:32E	PRE-ONGARD WELL	021	1/1/1970			No	link		PO	Active Permit	TEMP127421764

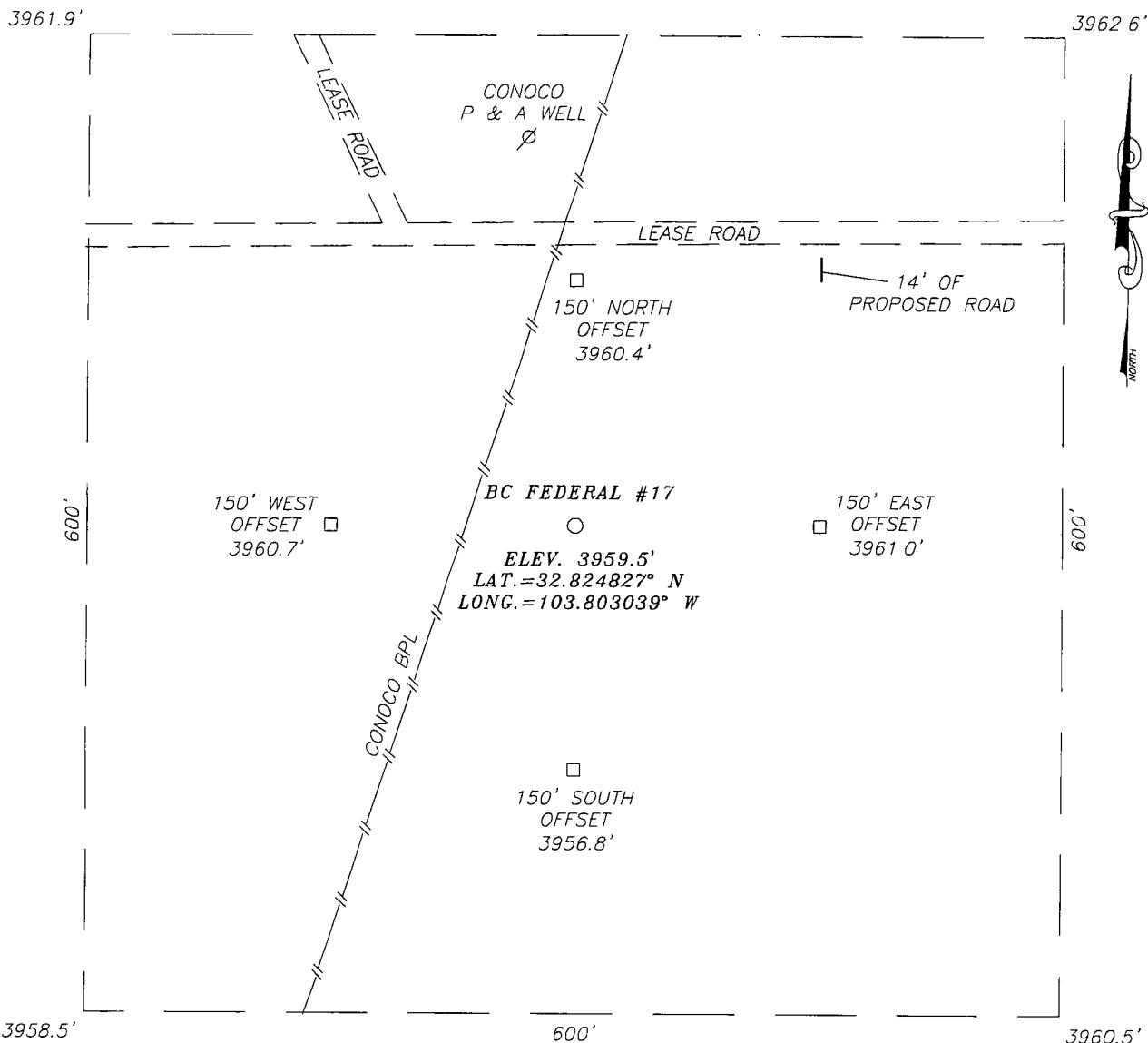
## Offset wells to BC Federal #17



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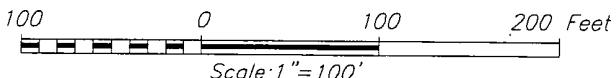
**SECTION 19, TOWNSHIP 17 SOUTH, RANGE 32 EAST, N.M.P.M.,**  
LEA COUNTY,

NEW MEXICO



DIRECTIONS TO LOCATION

FROM THE INTERSECTION OF US. HWY. #82 AND EDDY CO RD #224 (RIPPLE ROAD), GO SOUTHEAST ON CO RD. #224 APPROX. 1.0 MILE. VEER RIGHT AND GO SOUTH APPROX. 0.4 MILES. TURN LEFT AND GO EAST APPROX. 0.4 MILES. TURN LEFT AND GO NORTH APPROX. 0.1 MILE. TURN RIGHT AND GO EAST-NORTHEAST APPROX. 0.4 MILES. TURN LEFT AND GO NORTH APPROX. 0.2 MILES. TURN LEFT AND GO WEST APPROX. 0.1 MILES. THE LOCATION STAKE IS APPROX. 175 FEET SOUTH OF LEASE ROAD

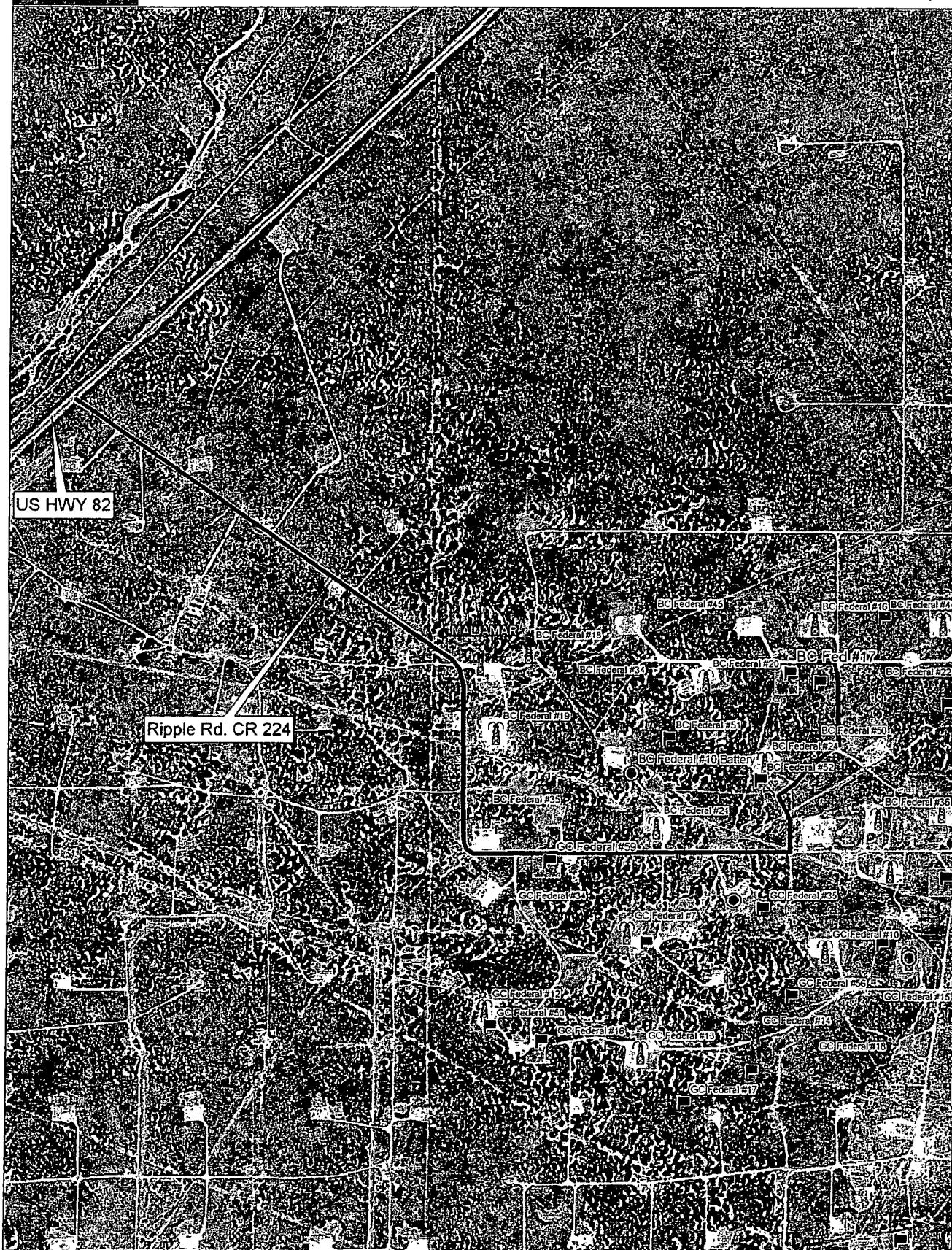


**COG OPERATING, LLC**

BC FEDERAL #17 WELL  
LOCATED 900 FEET FROM THE NORTH LINE  
AND 1949 FEET FROM THE EAST LINE OF SECTION 19,  
TOWNSHIP 17 SOUTH, RANGE 32 EAST, N.M.P.M.,  
LEA COUNTY, NEW MEXICO

PROVIDING SURVEYING SERVICES  
SINCE 1946  
**JOHN WEST SURVEYING COMPANY**  
412 N. DAL PASO  
HOBBS, NM 88240  
(575) 393-3117

Survey Date: 10/18/10	Sheet 1 of 1 Sheets
W.O. Number: 10.110936	Dr By: LA Rev 1. N/A
Date: 10/27/10	10110936 Scale: 1"=100'



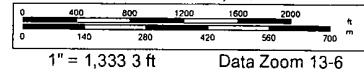
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TN  
MN (7 7°E)

Scale 1 16,000



## Flowline route from BC Fed #17 to BC Fed #1 Battery

**DELORME**

XMap® 7



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TN  
MN (7 7° E)

Scale 1 : 8,000

