

Corrected

Mon.

FOR KCC USE:

EFFECTIVE DATE: 5-2-05

DISTRICT # 1

SGA? Yes X No

Expected Spud (Starting) Date 5-16-05

OPERATOR: License # 32119

Name: Northern Natural Gas Co.

Address: 1111 South 103rd St

City/State/Zip: Omaha, NE 68013

Contact Person: Duane Moody

Phone: 402-398-7843

CONTRACTOR: License #: 32775

Name: McLeans CP Installation, Inc.

Type Drilling Equipment: X Mud Rotary      Cable  
     Air Rotary      Other

CONSTRUCTION FEATURES

Length of Cathodic Surface (Non-Metallic) Casing     

Planned to be set: 20 ft.

Length of Conductor pipe (if any?): NONE ft.

17 1/2" - 20" 10" - 140"

Size of the borehole (I.D.): 10 1/4 inches

Cathodic surface casing size: 10 1/4 inches

Cathodic surface casing centralizers set at depths of: 20;

    ;      ;      ;      ;      ;      ;      ;      ;      ;      ;

Cathodic surface casing will terminate at:

     Above surface      Surface Vault X Below Surface Vault

Pitless casing adaptor will be used:      Yes X No at Depth      ft.

Anode installation depths are: 148; 139; 130; 121;

112; 103; 94; 85; 76; 67; 58; 49;      ;

Note: Non-Aquifer Completion. Max Total Depth = 160'  
Total depth of boring must be a minimum of 20' above the top of groundwater.  
Boring total depth must be reduced if groundwater is encountered.

AFFIDAVIT

The undersigned hereby affirms that the drilling, completion and eventual plugging of this well will comply with K.S.A. 55-101, et. seq. It is agreed that the following minimum requirements will be met:

1. Notify the appropriate district office prior to spudding of and again before plugging well;
2. A copy of the approved notice of intent to drill shall be posted on each drilling rig;
3. The minimum amount of cathodic surface casing as specified below shall be set by grouting to the top.
4. An agreement between the operator and the district office on plugs and placement is necessary prior to plugging;
5. The appropriate district office will be notified before well is either plugged or casing is grouted in;
6. IN ALL CASES, NOTIFY DISTRICT OFFICE PRIOR TO ANY CEMENTING.

I hereby certify that the statements made herein are true and to the best of my knowledge and belief.

Date: 4/20/05 Signature of Operator or Agent: [Signature] Title: Office

FOR KCC USE:  
 API # 15- 175-21985-00-00 A14-3  
 Conductor pipe required NONE feet  
 Minimum cathodic surface casing required 20 feet  
 Approved by: 25042705/63/9.27.05  
 This authorization expires: 10.27.05  
 (This authorization void if drilling not started within 6 months of effective date.)  
 Spud date: \_\_\_\_\_ Agent: \_\_\_\_\_

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WICHITA, KS

- REMEMBER TO:
- File Drill Pit Application (form CDP-1) with Intent to Install;
  - File Completion Form CB-2 within 30 days of spud date;
  - Notify appropriate district office 48 hours prior to workover or re-entry;
  - Submit plugging report (CB-4), within 30 days after plugging is completed.

Mail to: KCC - Conservation Division, 130 S. Market - Room 2078, Wichita, Kansas 67202-1286.

\* WAS: 2063' FNL, 80' FEL,  
IS: 2145' FNL, 80' FEL

CORRECTED

FORM CB-1 12/93  
FORM MUST BE TYPED  
FORM MUST BE SIGNED  
ALL BLANKS MUST BE FILLED IN

Spot (Location) Q/Q/Q  
SE - SE - NE Sec 20.. Twp 31S S. Rg 31W East  
2145' feet from South / North line of Section  
80' feet from East / West line of Section  
(Circle directions from nearest outside corner boundaries)  
IS SECTION \_\_\_\_\_ REGULAR \_\_\_\_\_ IRREGULAR?  
(Spot well on the Section Plat on Reverse Side)  
County: Seward

Lease Name: Jacobs Well #: 2  
Facility Name: Jacobs Well #2  
Ground Surface Elevation: 2809 MSL  
Cathodic Borehole Total Depth 160' ft.  
Depth to Bedrock 600 ft.

WATER INFORMATION:  
Aquifer Penetration: X None      Single      Multiple  
Depth to bottom of fresh water: 180' / 600  
Depth to bottom of usable water: 400  
Water well within one-quarter mile:      yes X no  
Public water supply well within one mile:      yes X no  
Water Source for Drilling Operations:  
     well      farm pond      stream X other  
Water Well Location: \_\_\_\_\_  
DWR Permit #: \_\_\_\_\_  
Standard Dimension Ratio (SDR) is = 26  
(cathodic surface OD csg. in inches / MWT in inches = SDR)

Annular space between borehole and casing will be grouted with:      Concrete      Bentonite Cement  
X Neat cement      Bentonite clay  
Anode vent pipe will be set at: 3 ft. above surface  
Anode conductor (backfill) material TYPE: SG2  
Depth to BASE of Backfill installation material: 160'  
Depth to TOP of Backfill installation material: 30'

MAX TD < 160'

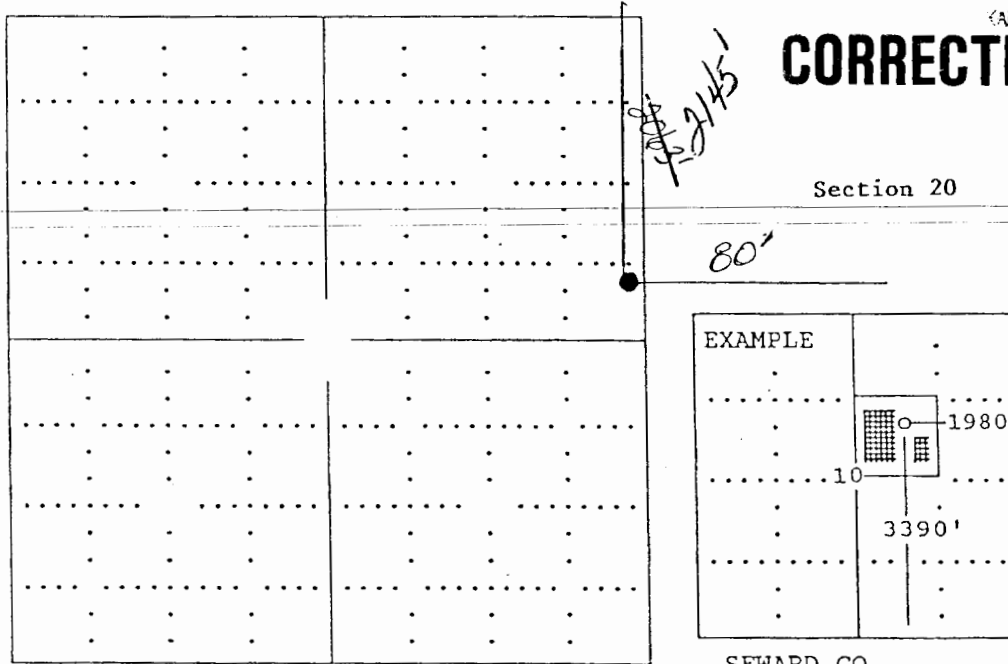
IN ALL CASES PLOT THE INTENDED WELL ON THE PLAT BELOW

Show the relationship to other wells or facilities proposed to be serviced by the intended cathodic borehole. Please show all the wells, existing cathodic boreholes, pipelines or facilities within 1/2 mile of the proposed borehole.

API NO. 15- \_\_\_\_\_  
 OPERATOR Northern Natrual Gas LOCATION OF WELL: COUNTY Seward  
 LEASE Jacobs 2145' feet from south/~~north~~ line of section  
 WELL NUMBER #2 80' feet from east/west line of section  
 FACILITY NAME Jacobs Well #2 SECTION 20 TWP 31S RG 31W

SPOT: QTR/QTR/QTR/QTR OF ACREAGE \_\_\_\_\_  
 - SE - SE - NE  
 IS SECTION X REGULAR or \_\_\_\_\_ IRREGULAR  
 IF SECTION IS IRREGULAR, LOCATE WELL FROM NEAREST CORNER BOUNDARY.  
 Section corner used: \_\_\_\_\_ NE \_\_\_\_\_ NW \_\_\_\_\_ SE \_\_\_\_\_ SW  
 PLAT

(Show location of intended cathodic borehole.)  
 (Show footage from nearest lease, unit or outside section boundary line.)



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In plotting the proposed location of the well, you must show:

- 1) The manner in which you are using the depicted plat by identifying section lines, i.e. 1 section, 1 section with 8 surrounding sections, 4 sections, etc.;
- 2) the distance of the proposed drilling location from the section's south/north and east/west; and
- 3) the distance to the nearest lease, unit or outside section boundary line.

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