

Mon.

FOR KCC USE:

FORM CB-1 12/93

EFFECTIVE DATE: 5-2-05

FORM MUST BE TYPED

DISTRICT # 1

State of Kansas  
CATHODIC PROTECTION BOREHOLE INTENT

FORM MUST BE SIGNED

SGA? Yes  No

Must be approved by the K.C.C. sixty (60) days prior to commencing well.

ALL BLANKS MUST BE FILLED IN

Expected Spud (Starting) Date 5-16-05  
month day year

Spot (Location) Q/Q/Q  
NE SE - SE - NE Sec 20 Twp 31S S, Rg 31W East  
..... 2038' feet from South / North line of Section  
..... 80' feet from East / West line of Section  
(Circle directions from nearest outside corner boundaries)

OPERATOR: License # 32119

IS SECTION  REGULAR  IRREGULAR?

(Spot well on the Section Plat on Reverse Side)

Name: Northern Natural Gas Co.  
Address: 1111 South 103rd St  
City/State/Zip: Omaha, NE 68013

County: Seward

Contact Person: Duane Moody

Lease Name: Jacobs Well #: 1

Phone: 402-398-7843

Facility Name: Jacobs Well #1

CONTRACTOR: License #: 32775

Ground Surface Elevation: 2869 MSL

Cathodic Borehole Total Depth: 160' ft

Depth to Bedrock: 600' ft

Name: McLeans CP Installation, Inc.

WATER INFORMATION:

Type Drilling Equipment:  Mud Rotary  Cable  
 Air Rotary  Other

Aquifer Penetration:  None  Single  Multiple

Depth to bottom of fresh water: SWL = 180' / 160'

Depth to bottom of usable water: 600'

Water well within one-quarter mile:  yes  no

Public water supply well within one mile:  yes  no

Water Source for Drilling Operations:  
..... well  farm pond  stream  other

Water Well Location: .....

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" inches

Cathodic surface casing size: 10" inches

Cathodic surface casing centralizers set at depths of: 20;

..... ; ..... ; ..... ; ..... ; ..... ; ..... ;

Cathodic surface casing will terminate at:

... Above surface ... Surface Vault  Below Surface Vault

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

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

112; 103; 94; 85; 76; 67; 58; 49; 40;

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

Heat cement  Bentonite clay

Anode vent pipe will be set at: 3 ft. above surface

Anode conductor (backfill) material TYPE: SC2

Depth to BASE of Backfill installation material: 160'

Depth to TOP of Backfill installation material: 30'

MAX TD = 160

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: Operator

FOR KCC USE:  
 API # 15- 175-21984-0000 4LT-3  
 Conductor pipe required NONE feet  
 Minimum cathodic surface casing required 20 feet  
 Approved by: RJP 4-27-05  
 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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 APR 22 2005  
 CONSERVATION DIVISION  
 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.

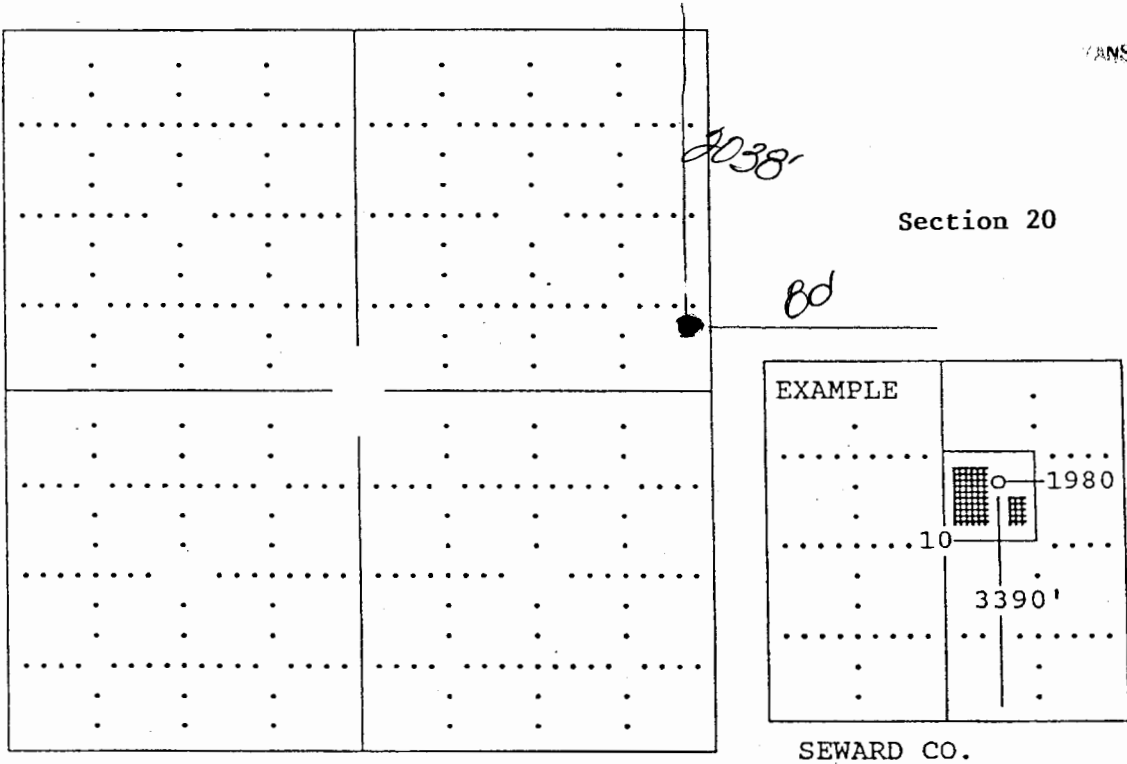
IN ALL CASES PLOT THE INTENDED WELL ON THE PLAT BELOW

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 2038' feet from south/north line of section  
 WELL NUMBER #1 80' feet from east/west line of section  
 FACILITY NAME Jacobs Well #1 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.