USE TYPEWRITER OR BALL POINT PEN-PRESS FIRMLY, PRINT CLEARLY.

WATER WELL RECORD
KSA 82a-1201-1215

Kansas Department of Health and Environment-Division of Environment
(Water well Contractors)
Topeka, Kansas 66620

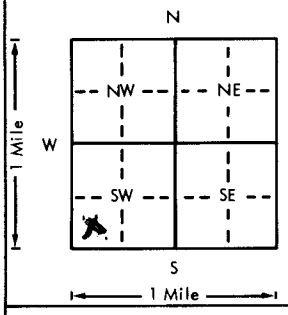
elev 805

1. Location of well:	County	Fraction	Section number	Township number	Range number
	LABETTE	SE 1/4 SW 1/4 SW 1/4	27	T 34 S	R 21E E/W

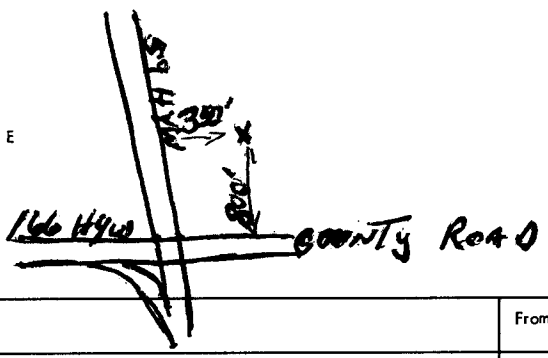
2. Distance and direction from nearest town or city: ½ mile NORTH of CHETOPA
Street address of well location if in city:

3. Owner of well: Western Steel Bldg
R.R. or street: Box 1
City, state, zip code: Chetopa Ks. 67336

4. Locate with "X" in section below:



Sketch map:



6. Bore hole dia. 9 in. Completion date 11-27-77
Well depth 755 ft.

7. X Cable tool __ Rotary __ Driven __ Dug
__ Hollow rod __ Jetted __ Bored __ Reverse rotary

8. Use: __ Domestic __ Public supply X Industry
__ Irrigation __ Air conditioning __ Stock
__ Lawn __ Oil field water __ Other

9. Casing: Material ____ Height: Above or below
Threaded ____ Welded NEW Surface ____ in.
RMP ____ PVC ____ Weight ____ lbs./ft.
Dia. 6 in. to 92 ft. depth Wall Thickness: inches or
Dia. ____ in. to ____ ft. depth gage No. 10 ga.

5. Type and color of material	From	To
CLAY & GRAVEL	0	12
GRAY SHALE	12	21
COAL	21	22
BLACK SHALE	22	30
LIME	30	35
GRAY SHALE	35	37
LIME	37	45
GRAY SHALE	45	50
BLACK SHALE	50	75
SAND WATER	75	90
GRAY SHALE	90	95
BLACK SHALE	95	108
GRAY SHALE	108	122
SANDY SHALE	122	180
SAND	180	195
BLACK SHALE (Use second sheet if needed)	195	212

10. Screen: Manufacturer's name ____
Type ____ Dia. ____
Slot/gauze ____ Length ____
Set between ____ ft. and ____ ft.
____ ft. and ____ ft.
Gravel pack? ____ Size range of material ____

11. Static water level: mo./day/yr.
75 ft. below land surface Date 11-27-77

12. Pumping level below land surfaces:
____ ft. after ____ hrs. pumping ____ g.p.m.
____ ft. after ____ hrs. pumping ____ g.p.m.
Estimated maximum yield 200 g.p.m.

13. Water sample submitted: mo./day/yr.
X Yes [redacted] Date 2-13-78

14. Well head completion:
__ Pitless adapter ____ Inches above grade

15. Well grouted? YES
With: X Neat cement ____ Bentonite ____ Concrete
Depth: From 0 ft. to 92 ft.

16. Nearest source of possible contamination: NONE
ft. ____ Direction ____ Type ____
Well disinfected upon completion? ____ Yes ____ No

17. Pump: X Not installed
Manufacturer's name ____
Model number ____ HP ____ Volts ____
Length of drop pipe ____ ft. capacity ____ g.p.m.
Type:
__ Submersible __ Turbine
__ Jet __ Reciprocating
__ Centrifugal __ Other

18. Elevation:

Topography:
__ Hill
__ Slope
__ Upland
X Valley

19. Remarks: SET 92' 6" CASING CEMENTED WITH 15 SACKS TO SHUT OFF SURFACE WATER

20. Water well contractor's certification:
This well was drilled under my jurisdiction and this report is true to the best of my knowledge and belief.
Moore Drilling Co. 345
Business name License No.
Address Box 22 Iberia La.
Signed Gilbert Moore Date 12/27/77
Authorized representative

T 34 R 21 E W Sec 27 1/4 SE 1/4 SW 1/4 SW

Forward the white, blue and pink copies to the Department of Health and Environment

Form WWC-5

MI-1023

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Page 2.

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KSA 82a-1201-1215

Kansas Department of Health and Environment-Division of Environment
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Topeka, Kansas 66620

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Street address of well location if in city:

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R.R. or street: Box 1
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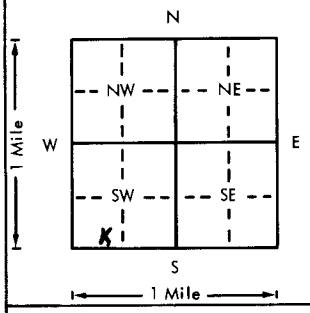

Sketch map:

6. Bore hole dia. ____ in. Completion date ____
Well depth ____ ft. ____

7. __ Cable tool __ Rotary __ Driven __ Dug
__ Hollow rod __ Jetted __ Bored __ Reverse rotary

8. Use: __ Domestic __ Public supply __ Industry
__ Irrigation __ Air conditioning __ Stock
__ Lawn __ Oil field water __ Other

9. Casing: Material ____ Height: Above or below
Threaded ____ Welded ____ Surface ____ in.
RMP ____ PVC ____ Weight ____ lbs./ft.
Dia. ____ in. to ____ ft. depth Wall Thickness: inches or
Dia. ____ in. to ____ ft. depth gage No. ____

5. Type and color of material	From	To
GRAY SHALE	212	236
BLACK SHALE	236	248
GRAY SHALE	248	283
BLACK SHALE	283	298
GRAY SHALE	298	302
BLACK SHALE	302	325
GRAY SHALE	325	334
BLACK SHALE	334	342
GRAY SHALE	342	355
BLACK SHALE	355	365
GRAY SHALE	365	376
BLACK SHALE IRON PIERIDE	376	387
TOP OF MISSISSIPPI LIME	387	695
20 % GREEN SHALE } 80 % LIME }	695	700
(Use a second sheet if needed)		

10. Screen: Manufacturer's name ____
Type ____ Dia. ____
Slot/gauze ____ Length ____
Set between ____ ft. and ____ ft.
____ ft. and ____ ft.
Gravel pack? ____ Size range of material ____

11. Static water level: mo./day/yr.
____ ft. below land surface Date ____

12. Pumping level below land surfaces:
____ ft. after ____ hrs. pumping ____ g.p.m.
____ ft. after ____ hrs. pumping ____ g.p.m.
Estimated maximum yield ____ g.p.m.

13. Water sample submitted: mo./day/yr.
__ Yes __ No Date ____

14. Well head completion:
__ Pitless adapter ____ Inches above grade

15. Well grouted? ____
With: __ Neat cement __ Bentonite __ Concrete
Depth: From ____ ft. to ____ ft.

16. Nearest source of possible contamination:
ft. ____ Direction ____ Type ____
Well disinfected upon completion? __ Yes __ No

17. Pump: __ Not installed
Manufacturer's name ____
Model number ____ HP ____ Volts ____
Length of drop pipe ____ ft. capacity ____ g.p.m.
Type:
__ Submersible __ Turbine
__ Jet __ Reciprocating
__ Centrifugal __ Other

18. Elevation:

Topography:
__ Hill
__ Slope
__ Upland
__ Valley

19. Remarks:

20. Water well contractor's certification:
This well was drilled under my jurisdiction and this report is true to the best of my knowledge and belief.

Business name License No.
Address ____
Signed ____ Date ____
Authorized representative

T 34 R 21 E/W Sec 27 1/4 SE 1/4 SW 1/4 SW

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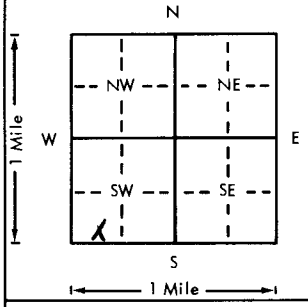

6. Bore hole dia. ____ in. Completion date ____
Well depth ____ ft. ____

7. __ Cable tool __ Rotary __ Driven __ Dug
__ Hollow rod __ Jetted __ Bored __ Reverse rotary

8. Use: __ Domestic __ Public supply __ Industry
__ Irrigation __ Air conditioning __ Stock
__ Lawn __ Oil field water __ Other

9. Casing: Material ____ Height: Above or below
Threaded ____ Welded ____ Surface ____ in.
RMP ____ PVC ____ Weight ____ lbs./ft.
Dia. ____ in. to ____ ft. depth Wall Thickness: inches or
Dia. ____ in. to ____ ft. depth gage No. ____

5. Type and color of material	From	To
50 % GREEN SHALE		
50 % LIME	700	705
80 % GREEN LIME		
20 % LIME	705	710
80 % GREEN SHALE		
20 % LIME	710	713
10 % GREEN SHALE		
90 % LIME	713	720
LIME	720	735
GREEN SHALE	735	740
GREEN SHALE	740	744
LIME	744	751
BLACK SHALE	751	752
ARBUCKLE LIME	752	756
HOLE FULL OF WATER		
(Use a second sheet if needed)		

10. Screen: Manufacturer's name ____
Type ____ Dia. ____
Slot/gauze ____ Length ____
Set between ____ ft. and ____ ft.
____ ft. and ____ ft.
Gravel pack? ____ Size range of material ____

11. Static water level: mo./day/yr.
____ ft. below land surface Date ____

12. Pumping level below land surfaces:
____ ft. after ____ hrs. pumping ____ g.p.m.
____ ft. after ____ hrs. pumping ____ g.p.m.
Estimated maximum yield ____ g.p.m.

13. Water sample submitted: mo./day/yr.
__ Yes __ No Date ____

14. Well head completion:
__ Pitless adapter ____ Inches above grade

15. Well grouted? ____
With: __ Neat cement __ Bentonite __ Concrete
Depth: From ____ ft. to ____ ft.

16. Nearest source of possible contamination:
ft. ____ Direction ____ Type ____
Well disinfected upon completion? ____ Yes ____ No

17. Pump: __ Not installed
Manufacturer's name ____
Model number ____ HP ____ Volts ____
Length of drop pipe ____ ft. capacity ____ g.p.m.
Type:
__ Submersible __ Turbine
__ Jet __ Reciprocating
__ Centrifugal __ Other

18. Elevation:

Topography:
__ Hill
__ Slope
__ Upland
__ Valley

19. Remarks:

20. Water well contractor's certification:
This well was drilled under my jurisdiction and this report is true to the best of my knowledge and belief.

Business name License No.
Address
Signed Date
Authorized representative

T 34 S R 21 (E) W Sec 27 1/4 SE 1/4 SW 1/4 SW

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Form WWC-5

MI-1023

RECEIVED
MAR 6 1978
DIVISION OF ENVIRONMENT
OF & EG SEC.

REPORT OF INORGANIC WATER ANALYSIS

STATE OF KANSAS
DEPARTMENT OF HEALTH & ENVIRONMENT
OFFICE OF LABORATORIES AND RESEARCH
FORBES BLDG. 740, TOPEKA, KANSAS 66620

Address inquiries to:
Division of Environment
Mail samples to:
Environmental Laboratories

Lab. No. 78-1440
Acct. Oil Field

Copies To:
Western Steel Bldg.
Dwight Brinkley
John Bashor-SED
Delbert Moore

LOCALITY Labette County COLLECTED BY Delbert Moore
DATE COLLECTED 2/13/78 DATE REC'D 2/16/78 DATE REPORTED MAR 0 6 1978

Remarks:	Lab. No. 78-1440 Source: Water well, SE¼,SW¼,SW¼,Sec. 27, T34S,R21E. "Ordovician Arbuckle 752-756', open hole from 92' to 756'. Western Steel Bldg., Box 1, Chetopa, KS 67336.	Lab. No. _____ Source:	Lab. No. _____ Source:	Lab. No. _____ Source:
Results expressed in Milligrams Per Liter				
pH	7.9			
Total Hardness (as $CaCO_3$)	702			
Calcium (Ca^{++})	130			
Magnesium (Mg^{++})	92			
Sodium (Na^{+})	230			
Total Alkalinity (as $CaCO_3$)	428			
Chloride (Cl)	30			
Sulfate (SO_4)	705			
Nitrate (as N)	0.1			
Fluoride (F)	0.3			
Iron	2.3			
Manganese	0.63			

FD

CD

ENVIRONMENTAL LABORATORIES -- WATER BACTERIOLOGY

MICROSCOPIC EXAMINATION OF WATER SAMPLE

Date Sample Submitted for Examination February 22, 1978

Source of Sample Well in Labette County, Kansas

Date of Sample Collection February 13, 1978

Name of Sample Collector Delbert Moore

Purpose of Examination Determination of presence of iron bacteria.

OBSERVATIONS:

Iron bacteria were observed in the portion of the above sample examined, belonging to the Genus Crenothrix.

By _____ Date February 22, 1978
Marvin G. Dyck, M.A., Chief Bacteriologist

Results of Examination Reported to: Farrell Dallen, Environmental Chemistry

Date 2-22-78