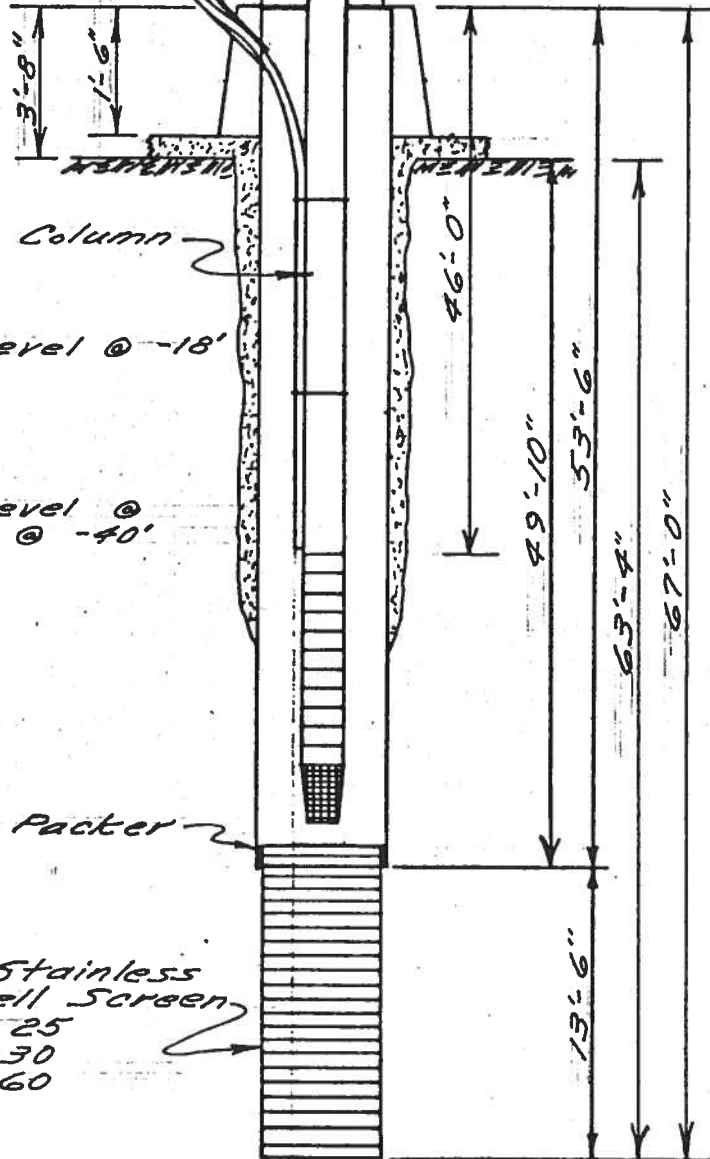


250' Discharge Head

30 HP Fairbank - Morse
Pump & Motor
3 Ph. - 60 Cy - 440 V
1800 R.P.M. 7 Stage -
10" XLC 300 G.P.M. @
302 Ft. T.D.H.

220 ✓
(4-2001)



6" Column

Static Level @ -18'

Pumping Level @
280 G.P.M. @ -40'

Packer

15' of 16" Stainless
Johnson Well Screen
6 ft. - slot 25
2 ft. - slot 30
7 ft. - slot 60

Built 1962

ERDMAN ENGINEERING SERVICE
DECORAH, IOWA

DRAWN BY: T.L.R. SCALE: None

REVISED: DATE: 4-6-83

WELL NO. 3
DECORAH, IOWA

North Well - West Water St.

Municipal Water-Supply Inventory

DATA FOR: DECORAH #3
WNUMBER: 39055

PWSID\SEQ#: 9630012- 3
USGS ID: 431818091474301

GENERAL INFORMATION

LOCATION: T 98N R 8W Sec 16SWNENESW COUNTY:WINNESHIEK
TOPOGRAPHIC MAP: DECORAH
ELEVATION: 865 feet SITE TYPE: Drilled hole TOTAL DEPTH: 64 feet BEDROCK DEPTH: 63 feet
DRILLER: [75] Nelson Bros. DRILL DATE: 01/01/62 DRILLING METHOD: Cable
WELL TYPE: Municipal WELL DEPTH: 63.33 feet AQUIFER: Alluvium
Cambrian/Ordovician

STATUS: Primary ON LINE: / / ABANDONED: / / PLUGGED: / /
LOG TYPE: Drillers log LOG QUALITY: Fair SAMPLE TYPE: BEDROCK DEPTH: 63 feet STRIP LOG BY:
LOG TYPE2: LOG QUALITY2: BASIN: 7060002
STRIP LOG DATE: / /
SUPPLY PERCENT: 22.50%

COMMENTS:

**TEST WELLS BY NELSON BROS.: W-14036, 3-8-62, TD 67', 0'-48' PLEISTOCENE,
48'-67' ORDOVICIAN, SWL 13', MAIN WATER 54'-67' CABLE, 0'-34' OF 20" HOLE,
34'-67' OF 16" HOLE; W-14035, 4-8-62, TD 61', 0'-52' PLEISTOCENE, 52'-61'
ORDOVICIAN, MAIN WATER 51'-61', CABLE, 8" HOLE, PUMPED FOR 30 DAYS**
DEPTH ALSO REPORTED 60', 67', 64'

EDIT DATE: 10/30/01

VULNERABILITY: 1

LOCATION: ~450' NORTH OF PUMP STATION ON WEST END OF WATER STREET

WELL CONSTRUCTION DATA FOR DECORAH #3

HOLE SCHEDULE:

WELL CONSTRUCTION DATE: 01/01/62

CASING SCHEDULE:

(1) Diameter:	inches	Type:	Depth top:	feet	Depth bottom:	feet	Amount:	
								50

GROUT SCHEDULE:

SCREEN OR PERFORATED CASING SCHEDULE:

(1) Diameter:	16 inches	Slot:	inches	Depth top:	48
feet	Depth bottom:	63 feet	Amount:	feet	

GRAVEL-PACKED:	True	Gravel-packed top:	feet	Gravel-packed bottom:	feet
----------------	------	--------------------	------	-----------------------	------

PUMP SCHEDULE:

Pump type:	Diameter:	inches	Depth to intake:	feet
	Rated capacity:	gpm		

COMMENTS:

Reportedly not gravel-packed

Municipal Water-Supply Inventory

HYDROGEOLOGIC INFORMATION FOR DECORAH #3

MAIN WATER:
Main water top: 0 feet Main water bottom: 0 feet Pump rating: 235 gpm Pump yield: 0 gpm

DATE PUMPED: 01/01/83 TIME PUMPED:
STATIC WATER LEVEL: 14.3 feet PUMPING WATER LEVEL: 36.3 feet YIELD:
280.0 gpm DURATION:
AQUIFER PUMPED: Alluvium PUMP TEST: False PUMP METHOD:
MEASUREMENT:

COMMENTS:

DATE PUMPED: 10/28/97 TIME PUMPED: 10:20
STATIC WATER LEVEL: 19.1 feet PUMPING WATER LEVEL: 39.8 feet YIELD:
0.0 gpm DURATION:
AQUIFER PUMPED: Alluvium PUMP TEST: False PUMP METHOD:
MEASUREMENT:

COMMENTS:

Data from source water files 6/26/2001.

DATE PUMPED: 08/19/98 TIME PUMPED: 11:30
STATIC WATER LEVEL: 18.5 feet PUMPING WATER LEVEL: 41.5 feet YIELD:
0.0 gpm DURATION:
AQUIFER PUMPED: Alluvium PUMP TEST: False PUMP METHOD:
MEASUREMENT:

COMMENTS:

Data from source water files 6/26/2001.

DATE PUMPED: 09/23/98 TIME PUMPED:
STATIC WATER LEVEL: 20.1 feet PUMPING WATER LEVEL: 40.6 feet YIELD:
0.0 gpm DURATION:
AQUIFER PUMPED: Alluvium PUMP TEST: False PUMP METHOD:
MEASUREMENT:

COMMENTS:

Data from source water files 6/26/2001.

DATE PUMPED: 02/01/99 TIME PUMPED:
STATIC WATER LEVEL: 19.6 feet PUMPING WATER LEVEL: 40.9 feet YIELD:
0.0 gpm DURATION:
AQUIFER PUMPED: Alluvium PUMP TEST: False PUMP METHOD:
MEASUREMENT:

Municipal Water-Supply Inventory

COMMENTS:
Data from source water files 6/26/2001.

DATE PUMPED: 09/01/99 TIME PUMPED: 10:35
STATIC WATER LEVEL: 19.3 feet PUMPING WATER LEVEL: 39.8 feet YIELD:
0.0 gpm DURATION:
AQUIFER PUMPED: Alluvium PUMP TEST: False PUMP METHOD:
MEASUREMENT:

COMMENTS:
Data from source water files 6/26/2001.

DATE PUMPED: 10/13/99 TIME PUMPED:
STATIC WATER LEVEL: 19.0 feet PUMPING WATER LEVEL: 38.5 feet YIELD:
0.0 gpm DURATION:
AQUIFER PUMPED: Alluvium PUMP TEST: False PUMP METHOD:
MEASUREMENT:

COMMENTS:
Data from source water files 6/26/2001.

DATE PUMPED: 11/23/99 TIME PUMPED: 10:30
STATIC WATER LEVEL: 19.2 feet PUMPING WATER LEVEL: 39.3 feet YIELD:
0.0 gpm DURATION:
AQUIFER PUMPED: Alluvium PUMP TEST: False PUMP METHOD:
MEASUREMENT:

COMMENTS:
Data from source water files 6/26/2001.

DATE PUMPED: 05/05/00 TIME PUMPED: 8:45
STATIC WATER LEVEL: 19.6 feet PUMPING WATER LEVEL: 42.8 feet YIELD:
0.0 gpm DURATION: 0:20
AQUIFER PUMPED: Alluvium PUMP TEST: False PUMP METHOD:
MEASUREMENT:

COMMENTS:
Data from source water files 6/26/2001.

DATE PUMPED: 05/17/00 TIME PUMPED:

Municipal Water-Supply Inventory

STATIC WATER LEVEL: 19.8 feet PUMPING WATER LEVEL: 43.0 feet YIELD:
0.0 gpm DURATION:
AQUIFER PUMPED: Alluvium PUMP TEST: False PUMP METHOD:
MEASUREMENT:

COMMENTS:
Data from source water files 6/26/2001.

DATE PUMPED: 06/28/00 TIME PUMPED:
STATIC WATER LEVEL: 17.4 feet PUMPING WATER LEVEL: 39.9 feet YIELD:
0.0 gpm DURATION:
AQUIFER PUMPED: Alluvium PUMP TEST: False PUMP METHOD:
MEASUREMENT:

COMMENTS:
Data from source water files 6/26/2001.

DATE PUMPED: 08/09/00 TIME PUMPED:
STATIC WATER LEVEL: 18.4 feet PUMPING WATER LEVEL: 39.0 feet YIELD:
0.0 gpm DURATION:
AQUIFER PUMPED: Alluvium PUMP TEST: False PUMP METHOD:
MEASUREMENT:

COMMENTS:
Data from source water files 6/26/2001.

DATE PUMPED: 09/21/00 TIME PUMPED:
STATIC WATER LEVEL: 19.4 feet PUMPING WATER LEVEL: 39.5 feet YIELD:
0.0 gpm DURATION:
AQUIFER PUMPED: Alluvium PUMP TEST: False PUMP METHOD:
MEASUREMENT:

COMMENTS:
Data from source water files 6/26/2001.

DATE PUMPED: 12/13/00 TIME PUMPED:
STATIC WATER LEVEL: 20.6 feet PUMPING WATER LEVEL: 40.4 feet YIELD:
0.0 gpm DURATION:
AQUIFER PUMPED: Alluvium PUMP TEST: False PUMP METHOD:
MEASUREMENT:

COMMENTS:
Data from source water files 6/26/2001.

Municipal Water-Supply Inventory

DATE PUMPED: 01/24/01 TIME PUMPED:
STATIC WATER LEVEL: 19.8 feet PUMPING WATER LEVEL: 40.4 feet YIELD:
0.0 gpm DURATION:
AQUIFER PUMPED: Alluvium PUMP TEST: False PUMP METHOD:
MEASUREMENT:

COMMENTS:

Data from source water files 6/26/2001.

DRILLER'S LOG FOR DECORAH #3

0'-48'4" fine sand and silt
48'4"-63'4" coarse sand & gravel
63'4"--- St. Peter Sandstone

WATER QUALITY DATA FOR DECORAH #3

WATER QUALITY INFORMATION

FIELD DATA

DATE OF COLLECTION: 07/22/80 TIME: COLLECTOR: David Pahlas MINERAL NUMBER: 16418
SOURCE: Raw
SAMPLING POINT: well #3
WAS SAMPLE FREE TURBIDITY WHEN COLLECTED? Yes IS A POLYPHOSPHATE BEING USED?
No
TEMPERATURE: 10.0 C pH: 0.000 ALKALINITY mg/l CaCO3 P: ----- mg/l T: ----- mg/l
SPECIFIC CONDUCTANCE: ----- micromhos HOURS PUMPED: 2:45
PUMPING RATED: 240.000 gpm

LABORATORY ANALYSIS

SPECIFIC CONDUCTANCE: 520.000 micromhos pH: 7.600 SILICA (SiO2):
10.000 mg/l
SOLUBLE IRON (Fe): 0.050 mg/l TOTAL IRON (Fe):
0.050 mg/l
FILTERABLE RESIDUE: 312.000 mg/l TOTAL RESIDUE:
312.000 mg/l
HARDNESS as CaCO3: 274.000 mg/l
ALKALINITY mg/l CaCO3 P: 0.000 mg/l T: 228.000 mg/l

CATIONS (mg/l):

POTASSIUM (K+): 1.900

ANIONS (mg/l)

NITRATE (NO3-): 6.000

Municipal Water-Supply Inventory

SODIUM (Na+): 7.600
CALCIUM (Ca++): 80.000
MAGNESIUM (Mg++): 18.000
MANGANESE (Mn++) soluble: 0.010
MANGANESE (Mn++) total: -----

FLUORIDE (F-): 0.900
CHLORIDE (Cl-): 11.000
SULFATE (SO4--): 25.000
BICARBONATE (HCO3-): 278.000
CARBONATE (CO3--): 0.000

TRACE METALS (mg/l)

ARSENIC (As): <0.010
BARIUM (Ba): <0.100
CADMIUM (Cd): <0.001
CHROMIUM (Cr): <0.010
COPPER (Cu): 0.160
LEAD (Pb): <0.010
MERCURY (Hg): <0.001
SELENIUM (Se): <0.010
SILVER (Ag): <0.010
ZINC (Zn): 0.070

RADIOACTIVITY (pCi/l)

GROSS ALPHA: 1.300
226RADIUM: -----
228RADIUM: -----
GROSS BETA: 1.000
90STRONTIUM: -----
222RADON: -----

COMMENTS:

FROM THE MINERAL ANALYSIS

WELL DATA:
Well Number: 3
Date of Construction: 1962
Depth: 60 ft.

WATER QUALITY INFORMATION

FIELD DATA

DATE OF COLLECTION: 08/12/74 TIME: COLLECTOR: Ron Stellick MINERAL NUMBER: 10896
SOURCE: Decorah
SAMPLING POINT: Well #3
WAS SAMPLE FREE TURBIDITY WHEN COLLECTED? Yes IS A POLYPHOSPHATE BEING USED?
No
TEMPERATURE: 11.0 C pH: 7.300 ALKALINITY mg/l CaCO3 P: ----- mg/l T: ----- mg/l
SPECIFIC CONDUCTANCE: ----- micromhos HOURS PUMPED: 1:00
PUMPING RATED: 260.000 gpm

LABORATORY ANALYSIS

SPECIFIC CONDUCTANCE: 550.000 micromhos pH: 7.200 SILICA (SiO2):
11.000 mg/l
SOLUBLE IRON (Fe): <0.010 mg/l TOTAL IRON (Fe):
<0.010 mg/l
FILTERABLE RESIDUE: 354.000 mg/l TOTAL RESIDUE:
354.000 mg/l
HARDNESS as CaCO3: 294.000 mg/l
ALKALINITY mg/l CaCO3 P: 0.000 mg/l T: 256.000 mg/l

CATIONS (mg/l)

POTASSIUM (K+): 2.200
SODIUM (Na+): 7.000
CALCIUM (Ca++): 81.000
MAGNESIUM (Mg++): 24.000
MANGANESE (Mn++) soluble: <0.010
MANGANESE (Mn++) total: -----

ANIONS (mg/l)

NITRATE (NO3-): 7.300
FLUORIDE (F-): 0.100
CHLORIDE (Cl-): 7.000
SULFATE (SO4--): 37.000
BICARBONATE (HCO3-): 312.000
CARBONATE (CO3--): -----

TRACE METALS (mg/l)

RADIOACTIVITY (pCi/l)

Municipal Water-Supply Inventory

ARSENIC (As): <0.010
BARIUM (Ba): <0.100
CADMIUM (Cd): <0.010
CHROMIUM (Cr): <0.010
COPPER (Cu): 0.010
LEAD (Pb): <0.010
MERCURY (Hg): <0.001
SELENIUM (Se): -----
SILVER (Ag): <0.010
ZINC (Zn): 0.020

GROSS ALPHA: 1.300
226RADIUM: -----
228RADIUM: -----
GROSS BETA: 3.000
90STRONTIUM: -----
222RADON: -----

COMMENTS:

FROM THE MINERAL ANALYSIS

WELL DATA:
Name or Number: Well #3
Construction Date: 1962
Depth: 60'

LABORATORY ANALYSIS:
226Radium: -
90Strontium: -

WATER QUALITY INFORMATION

FIELD DATA

DATE OF COLLECTION: 11/03/70 TIME: COLLECTOR: MINERAL NUMBER: 8319
SOURCE: Well #3 60' 1962
SAMPLING POINT: At the well
WAS SAMPLE FREE TURBIDITY WHEN COLLECTED? Yes IS A POLYPHOSPHATE BEING USED?
No
TEMPERATURE: 18.0 C pH: 0.000 ALKALINITY mg/l CaCO3 P: ----- mg/l T: ----- mg/l
SPECIFIC CONDUCTANCE: ----- micromhos HOURS PUMPED: 3:00
PUMPING RATED: 225.000 gpm

LABORATORY ANALYSIS

SPECIFIC CONDUCTANCE: 520.000 micromhos pH: 7.000 SILICA (SiO2):
12.000 mg/l
SOLUBLE IRON (Fe): 0.140 mg/l TOTAL IRON (Fe):
0.140 mg/l
FILTERABLE RESIDUE: 311.000 mg/l TOTAL RESIDUE:
311.000 mg/l
HARDNESS as CaCO3: 276.000 mg/l
ALKALINITY mg/l CaCO3 P: 0.000 mg/l T: 242.000 mg/l

CATIONS (mg/l):

POTASSIUM (K+): 2.800
SODIUM (Na+): 9.200
CALCIUM (Ca++): 81.600
MAGNESIUM (Mg++): 17.500
MANGANESE (Mn++) soluble: <0.050
MANGANESE (Mn++) total: -----

TRACE METALS (mg/l)

ARSENIC (As): <0.010
BARIUM (Ba): 0.100

ANIONS (mg/l)

NITRATE (NO3-): 1.800
FLUORIDE (F-): 1.500
CHLORIDE (Cl-): 6.000
SULFATE (SO4--): 38.000
BICARBONATE (HCO3-): 295.000
CARBONATE (CO3--): 0.000

RADIOACTIVITY (pCi/l)

GROSS ALPHA: -----
226RADIUM: -----

Municipal Water-Supply Inventory

CADMIUM (Cd): <0.010
CHROMIUM (Cr): <0.010
COPPER (Cu): <0.010
LEAD (Pb): <0.010
MERCURY (Hg): -----
SELENIUM (Se): -----
SILVER (Ag): -----
ZINC (Zn): 0.040

228RADIUM: -----
GROSS BETA: -----
90STRONTIUM: -----
222RADON: -----

COMMENTS:

WATER QUALITY INFORMATION

FIELD DATA

DATE OF COLLECTION: 07/24/91 TIME: 8:45 COLLECTOR: MINERAL NUMBER: 0
SOURCE: 1962DECORAH 3
SAMPLING POINT:
WAS SAMPLE FREE TURBIDITY WHEN COLLECTED? No IS A POLYPHOSPHATE BEING USED?
No
TEMPERATURE: 12.0 C pH: 7.400 ALKALINITY mg/l CaCO3 P: ----- mg/l T: ----- mg/l
SPECIFIC CONDUCTANCE: 513.000 micromhos HOURS PUMPED: 0:45
PUMPING RATED: 250.000 gpm

LABORATORY ANALYSIS

SPECIFIC CONDUCTANCE: 590.000 micromhos pH: 0.000 SILICA (SiO2):
11.000 mg/l
SOLUBLE IRON (Fe): <0.020 mg/l TOTAL IRON (Fe):
----- mg/l
FILTERABLE RESIDUE: 338.000 mg/l TOTAL RESIDUE:
----- mg/l
HARDNESS as CaCO3: 310.000 mg/l
ALKALINITY mg/l CaCO3 P: ----- mg/l T: 240.000 mg/l

CATIONS (mg/l):

POTASSIUM (K+): -----
SODIUM (Na+): -----
CALCIUM (Ca++): -----
MAGNESIUM (Mg++): -----
MANGANESE (Mn++) soluble: <0.020
MANGANESE (Mn++) total: -----

TRACE METALS (mg/l)

ARSENIC (As): -----
BARIUM (Ba): -----
CADMIUM (Cd): -----
CHROMIUM (Cr): -----
COPPER (Cu): -----
LEAD (Pb): -----
MERCURY (Hg): -----
SELENIUM (Se): -----
SILVER (Ag): -----
ZINC (Zn): -----

ANIONS (mg/l)

NITRATE (NO3-): 24.300
FLUORIDE (F-): 0.150
CHLORIDE (Cl-): 16.000
SULFATE (SO4--): 22.000
BICARBONATE (HCO3-): -----
CARBONATE (CO3--): -----

RADIOACTIVITY (pCi/l)

GROSS ALPHA: -----
226RADIUM: -----
228RADIUM: -----
GROSS BETA: -----
90STRONTIUM: -----
222RADON: 550.000

COMMENTS: