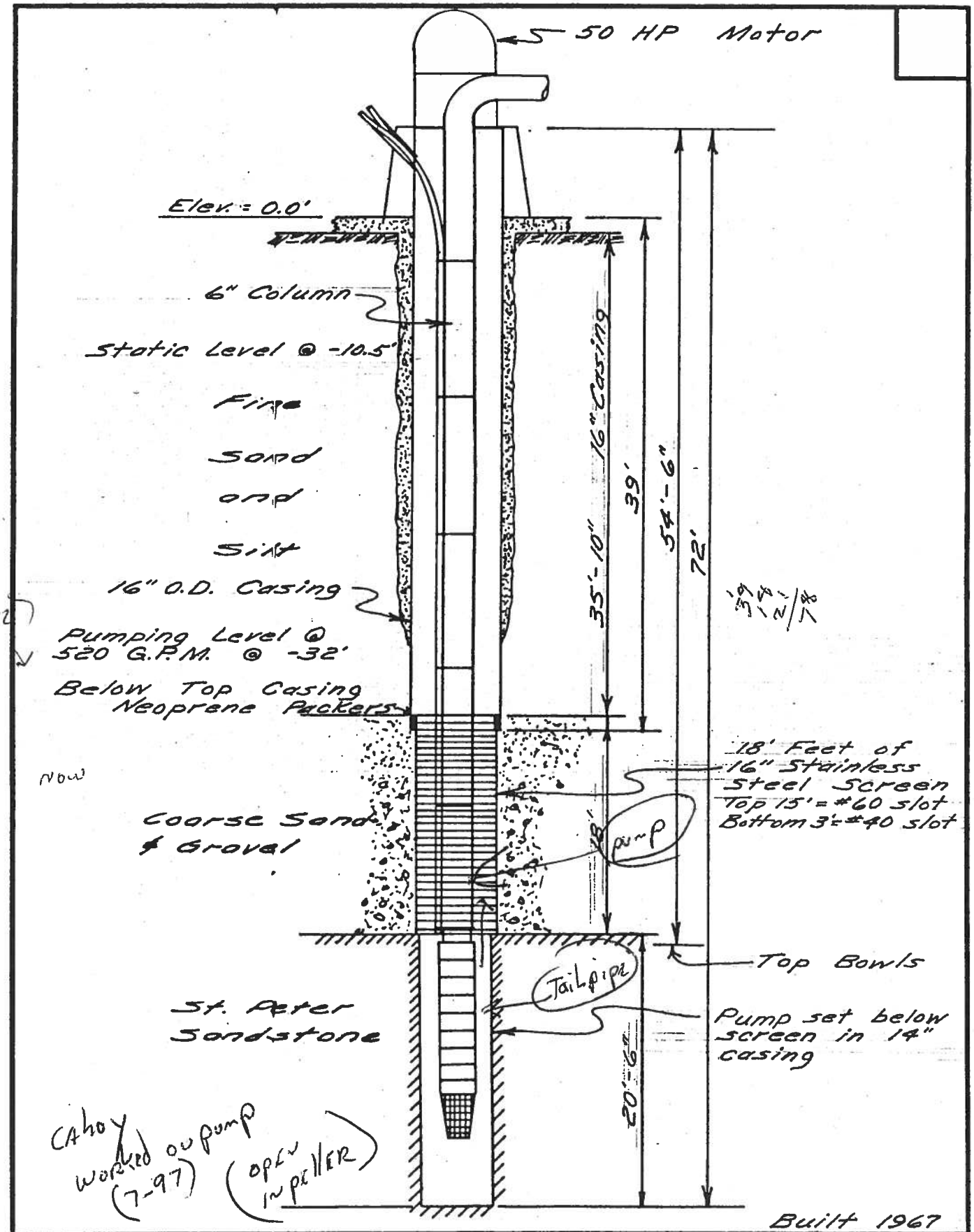

ERDMAN ENGINEERING SERVICE DECORAH, IOWA	
DRAWN BY: T.L.R	SCALE: None
REVISED:	DATE: 4-5-83

WELL No. 4

DECORAH, IOWA

East of Mill Street #5

Municipal Water-Supply Inventory

DATA FOR: DECORAH #5 PWSID\SEQ#: 9630012- 4
WNUMBER: 19738 USGS ID: 431827091473401

GENERAL INFORMATION

LOCATION: T 98N R 8W Sec 16NESWNWSW COUNTY:WINNESHIEK
TOPOGRAPHIC MAP: DECORAH
ELEVATION: 855 feet SITE TYPE: Drilled hole TOTAL DEPTH: 73 feet BEDROCK DEPTH: 52 feet
DRILLER: [75] Nelson Bros. DRILL DATE: 01/01/67 DRILLING METHOD: Cable
WELL TYPE: Municipal WELL DEPTH: 73.00 feet AQUIFER: Alluvium
Cambrian/Ordovician

STATUS: Standby ON LINE: / / ABANDONED: / / PLUGGED: / /
LOG TYPE: LOG QUALITY: SAMPLE TYPE: Chips BEDROCK DEPTH: 52 feet STRIP LOG BY:
LOG TYPE2: LOG QUALITY2: BASIN: 7060002
STRIP LOG DATE: / /
COMMENTS: SUPPLY PERCENT: 5.00%
**14" CASING SET 20.5' INTO ST. PETER SANDSTONE (51.5'-72'); PUMP IS SET
INSIDE THIS CASING**
**ST. PETER SANDSTONE PRESUMED TO BE SUPPLYING WATER TO THIS WELL THROUGH
THE BOTTOM OF THE 14" CASING**
Depth also reported 72'

EDIT DATE: 10/30/01

VULNERABILITY: 1

LOCATION: EAST OF N. MILL ST. & 60' SOUTH OF DIKE

WELL CONSTRUCTION DATA FOR DECORAH #5

HOLE SCHEDULE: WELL CONSTRUCTION DATE: 01/01/67

CASING SCHEDULE:
(1) Diameter: 16 inches Type: Depth top: feet Depth bottom: 36 feet Amount:
(2) Diameter: 14 inches Type: Depth top: 52 feet Depth bottom: 72 feet Amount:

GROUT SCHEDULE:

SCREEN OR PERFORATED CASING SCHEDULE:
(1) Diameter: 16 inches Slot: inches Depth top: 34
feet Depth bottom: 52 feet Amount: feet

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

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

COMMENTS:
Reportedly not gravel-packed.

Municipal Water-Supply Inventory

HYDROGEOLOGIC INFORMATION FOR DECORAH #5

MAIN WATER:
Main water top: 0 feet Main water bottom: 0 feet Pump rating: 390 gpm Pump yield: 425 gpm

DATE PUMPED: 01/01/83 TIME PUMPED:
STATIC WATER LEVEL: 10.5 feet PUMPING WATER LEVEL: 32.0 feet YIELD:
520.0 gpm DURATION:
AQUIFER PUMPED: Alluvium PUMP TEST: False PUMP METHOD:
MEASUREMENT:

COMMENTS:

DATE PUMPED: 09/01/99 TIME PUMPED: 1:35
STATIC WATER LEVEL: 13.4 feet PUMPING WATER LEVEL: 30.1 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: 10/28/97 TIME PUMPED: 1:10
STATIC WATER LEVEL: 13.9 feet PUMPING WATER LEVEL: 32.3 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: 08/19/98 TIME PUMPED: 1:15
STATIC WATER LEVEL: 12.8 feet PUMPING WATER LEVEL: 31.6 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: 09/23/98 TIME PUMPED:
STATIC WATER LEVEL: 13.1 feet PUMPING WATER LEVEL: 30.2 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: 14.1 feet PUMPING WATER LEVEL: 32.2 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: 13.5 feet PUMPING WATER LEVEL: 29.9 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: 11/23/99 TIME PUMPED: 2:05
STATIC WATER LEVEL: 13.7 feet PUMPING WATER LEVEL: 30.4 feet YIELD:
0.0 gpm DURATION:
AQUIFER PUMPED: Alluvium PUMP TEST: False PUMP METHOD:
MEASUREMENT:

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

DATE PUMPED: 05/05/00 TIME PUMPED: 8:45
STATIC WATER LEVEL: 14.0 feet PUMPING WATER LEVEL: 32.6 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:
STATIC WATER LEVEL: 14.3 feet PUMPING WATER LEVEL: 32.8 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: 06/28/00 TIME PUMPED:
STATIC WATER LEVEL: 11.3 feet PUMPING WATER LEVEL: 29.2 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: 12.4 feet PUMPING WATER LEVEL: 30.2 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: 12.9 feet PUMPING WATER LEVEL: 30.0 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: 12/13/00 TIME PUMPED:
STATIC WATER LEVEL: 12.4 feet PUMPING WATER LEVEL: 29.0 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: 01/24/01 TIME PUMPED:
STATIC WATER LEVEL: 14.0 feet PUMPING WATER LEVEL: 30.6 feet YIELD:
0.0 gpm DURATION:
AQUIFER PUMPED: Alluvium PUMP TEST: False PUMP METHOD:
MEASUREMENT:

COMMENTS:

Municipal Water-Supply Inventory

Data from source water files 6/26/2001.

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DRILLER's LOG FOR DECORAH #5

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WATER QUALITY DATA FOR DECORAH #5

WATER QUALITY INFORMATION

FIELD DATA

DATE OF COLLECTION: 07/22/80 TIME: COLLECTOR: David Pahlas MINERAL NUMBER: 16419
SOURCE: raw
SAMPLING POINT: well #5
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: 1:00
PUMPING RATED: 410.000 gpm

LABORATORY ANALYSIS

SPECIFIC CONDUCTANCE: 590.000 micromhos pH: 7.450 SILICA (SiO2):
13.000 mg/l
SOLUABLE IRON (Fe): 0.180 mg/l TOTAL IRON (Fe):
0.180 mg/l
FILTERABLE RESIDUE: 372.000 mg/l TOTAL RESIDUE:
372.000 mg/l
HARDNESS as CaCO3: 298.000 mg/l
ALKALINITY mg/l CaCO3 P: 0.000 mg/l T: 257.000 mg/l

CATIONS (mg/l):		ANIONS (mg/l)	
POTASSIUM (K+):	2.900	NITRATE (NO3-):	11.000
SODIUM (Na+):	9.300	FLUORIDE (F-):	1.500
CALCIUM (Ca++):	93.000	CHLORIDE (Cl-):	14.000
MAGNESIUM (Mg++):	16.000	SULFATE (SO4--):	29.000
MANGANESE (Mn++) soluble:	0.010	BICARBONATE (HCO3-):	314.000
MANGANESE (Mn++) total:	-----	CARBONATE (CO3--):	0.000

TRACE METALS (mg/l)		RADIOACTIVITY (pCi/l)	
ARSENIC (As):	<0.010	GROSS ALPHA:	0.800
BARIUM (Ba):	<0.100	226RADIUM:	-----
CADMIUM (Cd):	<0.001	228RADIUM:	-----
CHROMIUM (Cr):	<0.010	GROSS BETA:	1.000
COPPER (Cu):	0.180	90STRONTIUM:	-----
LEAD (Pb):	<0.010		
MERCURY (Hg):	<0.001	222RADON:	-----
SELENIUM (Se):	<0.010		
SILVER (Ag):	<0.010		
ZINC (Zn):	0.080		

COMMENTS:
FROM THE MINERAL ANALYSIS

WELL DATA:
Well Number: 5
Date of Construction: 1967
Depth: 72 ft.

WATER QUALITY INFORMATION

FIELD DATA

DATE OF COLLECTION: 08/12/74 TIME: COLLECTOR: Ron Stellick MINERAL NUMBER: 10897
SOURCE: Decorah
SAMPLING POINT: Well #5
WAS SAMPLE FREE TURBIDITY WHEN COLLECTED? Yes IS A POLYPHOSPHATE BEING USED?
No
TEMPERATURE: 0.0 C pH: 7.100 ALKALINITY mg/l CaCO3 P: ----- mg/l T: ----- mg/l
SPECIFIC CONDUCTANCE: ----- micromhos HOURS PUMPED: 0:30
PUMPING RATED: 480.000 gpm

LABORATORY ANALYSIS

SPECIFIC CONDUCTANCE: 580.000 micromhos pH: 7.200 SILICA (SiO2):
11.000 mg/l
SOLUABLE IRON (Fe): <0.010 mg/l TOTAL IRON (Fe):
<0.010 mg/l
FILTERABLE RESIDUE: 386.000 mg/l TOTAL RESIDUE:
386.000 mg/l
HARDNESS as CaCO3: 302.000 mg/l
ALKALINITY mg/l CaCO3 P: 0.000 mg/l T: 260.000 mg/l

CATIONS (mg/l):		ANIONS (mg/l)	
POTASSIUM (K+):	3.000	NITRATE (NO3-):	10.000
SODIUM (Na+):	5.300	FLUORIDE (F-):	0.250
CALCIUM (Ca++):	89.000	CHLORIDE (Cl-):	9.000
MAGNESIUM (Mg++):	21.000	SULFATE (SO4--):	44.000
MANGANESE (Mn++) soluble:	<0.010	BICARBONATE (HCO3-):	317.000
MANGANESE (Mn++) total:	-----	CARBONATE (CO3--):	0.000

TRACE METALS (mg/l)		RADIOACTIVITY (pCi/l)	
ARSENIC (As):	<0.010	GROSS ALPHA:	-----
BARIUM (Ba):	<0.100	226RADIUM:	-----
CADMIUM (Cd):	<0.010	228RADIUM:	-----
CHROMIUM (Cr):	<0.010	GROSS BETA:	2.000
COPPER (Cu):	0.010	90STRONTIUM:	-----
LEAD (Pb):	<0.010		
MERCURY (Hg):	<0.001	222RADON:	-----
SELENIUM (Se):	-----		
SILVER (Ag):	<0.010		
ZINC (Zn):	0.190		

COMMENTS:
FROM THE MINERAL ANALYSIS

WELL DATA:
Name or Number: Well #5
Construction Date: 1967
Depth: 72'

LABORATORY ANALYSIS:
Gross Alpha: NIL
226Radium: -
90Strontium: -

WATER QUALITY INFORMATION

FIELD DATA

DATE OF COLLECTION: 10/05/70 TIME: COLLECTOR: Don McCormick MINERAL NUMBER: 8248
SOURCE: Well #5 72' 1967
SAMPLING POINT: At the well
WAS SAMPLE FREE TURBIDITY WHEN COLLECTED? Yes IS A POLYPHOSPHATE BEING USED?
No
TEMPERATURE: 12.0 C pH: 0.000 ALKALINITY mg/l CaCO3 P: ----- mg/l T: ----- mg/l
SPECIFIC CONDUCTANCE: ----- micromhos HOURS PUMPED: 4:00
PUMPING RATED: 500.000 gpm

LABORATORY ANALYSIS

SPECIFIC CONDUCTANCE: 570.000 micromhos pH: 7.000 SILICA (SiO2):
14.000 mg/l
SOLUABLE IRON (Fe): <0.020 mg/l TOTAL IRON (Fe):
<0.020 mg/l
FILTERABLE RESIDUE: 343.000 mg/l TOTAL RESIDUE:
343.000 mg/l
HARDNESS as CaCO3: 304.000 mg/l
ALKALINITY mg/l CaCO3 P: 0.000 mg/l T: 262.000 mg/l

CATIONS (mg/l):		ANIONS (mg/l)	
POTASSIUM (K+):	3.500	NITRATE (NO3-):	12.000
SODIUM (Na+):	4.700	FLUORIDE (F-):	0.800
CALCIUM (Ca++):	99.200	CHLORIDE (Cl-):	9.000
MAGNESIUM (Mg++):	13.600	SULFATE (SO4--):	43.000
MANGANESE (Mn++) soluble:	<0.050	BICARBONATE (HCO3-):	320.000
MANGANESE (Mn++) total:	-----	CARBONATE (CO3--):	0.000

TRACE METALS (mg/l)		RADIOACTIVITY (pCi/l)	
ARSENIC (As):	<0.010	GROSS ALPHA:	-----
BARIUM (Ba):	<0.100	226RADIUM:	-----
CADMIUM (Cd):	<0.010	228RADIUM:	-----
CHROMIUM (Cr):	<0.010	GROSS BETA:	-----
COPPER (Cu):	0.090	90STRONTIUM:	-----
LEAD (Pb):	<0.010		
MERCURY (Hg):	-----	222RADON:	-----
SELENIUM (Se):	-----		
SILVER (Ag):	-----		
ZINC (Zn):	0.080		

COMMENTS: