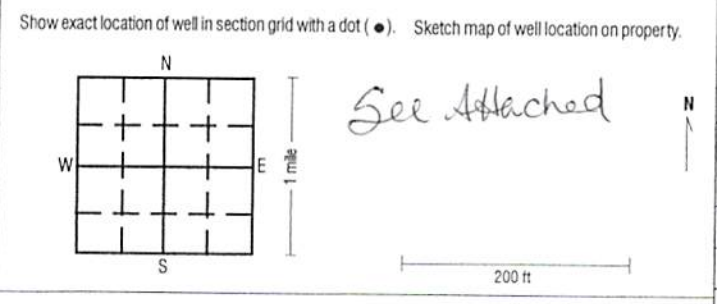


Site identification
 Property Owner Osceola County Rural Water System Other ID 43
 Address P.O. Box 37
 Tenant May City, IA 51349
 Well Depth 52 ft Date completed 11/17/11

Location County Osceola
 _____ mi. ^N and _____ mi. ^E of intersection of _____ and _____
 _____ mi. ^S and _____ mi. ^W of intersection of _____ and _____
 1/4 of the _____ 1/4 of the NW 1/4 of Sec 6 TWP 98N R^{NG} 39 ^E/_W

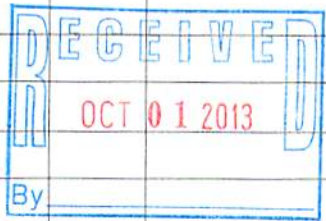


upland hillside valley level surface Elevation (if known) _____

Formation log

From	To	Color	Hardness	Formation description
				<u>See Attached</u>

use additional sheets as needed



Remarks (including depth of lost drilling fluids, materials, or tools)

Well use

<input type="checkbox"/> Domestic	<input type="checkbox"/> Heat pump	<input type="checkbox"/> Commercial
<input type="checkbox"/> Livestock	<input checked="" type="checkbox"/> Municipal	<input type="checkbox"/> Monitoring
<input type="checkbox"/> Test well	<input type="checkbox"/> Public supply	<input type="checkbox"/> Other _____
	<input type="checkbox"/> Irrigation	

Drill method rotary auger cable other _____
Hole size
20 inch from 0 ft to 52 ft hole size continued _____ inch from _____ ft to _____ ft
 _____ inch from _____ ft to _____ ft _____ inch from _____ ft to _____ ft

Record all depth measurements from ground level (GL). Use (+) for above GL measurements.

Casing Drive shoe (yes/no) Pitless adapter (yes/no)

Size (ID/OD)	Type / Wt	Depth top	Depth bottom	Amount (length)
<u>12"</u>		<u>+3'6"</u>	<u>34'</u>	<u>37'6"</u>

Perforated or slotted casing? (yes/no)
 Perforated / slotted from _____ ft to _____ ft
 Perforated / slotted from _____ ft to _____ ft

Casing grouted? (yes/no) Placement method Sumie pipe

Type	Depth top	Depth bottom	Amount (vol/wt)
<u>Neat Cement</u>	<u>0</u>	<u>29.5'</u>	<u>30 bags</u>

Well screen? (yes/no)

Diameter	Slot size	Depth top	Depth bottom	Length	Material
<u>12"</u>	<u>0.20</u>	<u>34'</u>	<u>49'</u>	<u>15</u>	<u>SS</u>
<u>0</u>					

Bottom capped (yes/no) with _____
 Seals/Packers (yes/no) kind benzoinite depth 29.5 ft
 Gravel packed (yes/no) from 31 ft to 52 ft
 type Red Flint 90stet amount 5500

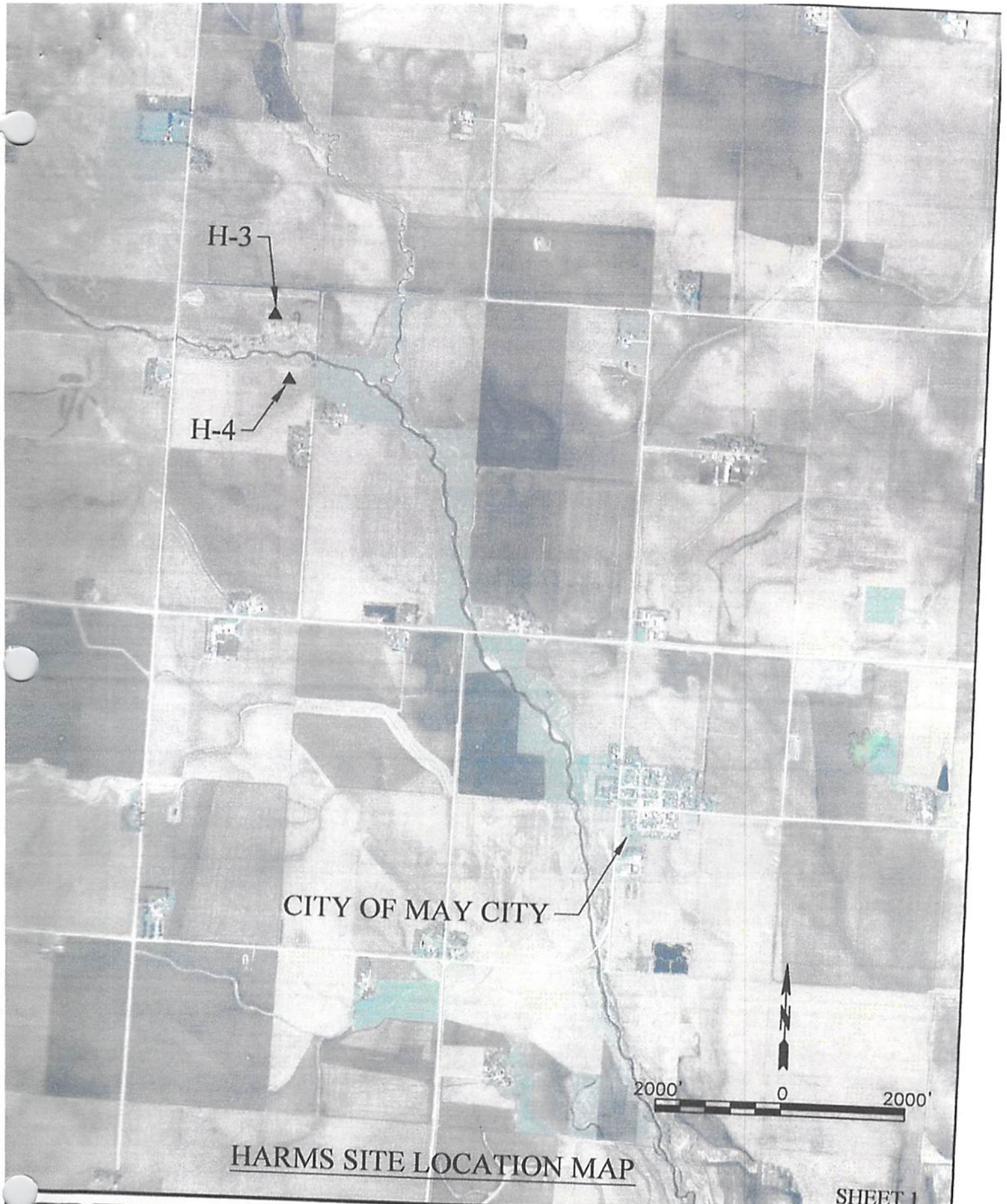
Well developed? (yes/no)
 Explain Test pumped
 (pumped, airlifted, bailed) for 24 hrs at 500 GPM

Pump installed? (yes/no) Date 9/10/13
 Installer's name Lloyd Wurzer
 Type of pump Grundfos Depth to intake 39 ft
 Pump diameter 6" Rated capacity 500 GPM

Water information Aquifer: sand/gravel limestone sandstone
 Main water-supply zone from 34 ft to 49 ft seepage well
 Static water level 17' ft (below/above) GL; tape airline E-line estimate
 Pumping water level 16.9' ft below GL; tape airline E-line estimate
 At yield of 500 GPM; orifice volumetric estimate for 24 hours
 Measurements taken at 1:20 (AM/PM) Date 1/25/12

Water quality test? (yes/no) Date tested 12/1/11
 Tested by Dennis Auld

Contractor Cahoy Pump Service
 Address 24568 950th St. Sumner, IA 52215
 Driller Dennis Auld Certification no. 1278



HARMS SITE LOCATION MAP

SHEET 1



DeWild Grant Reckert and Associates Company
 Consulting Engineers and Land Surveyors
 Rock Rapids, IA - Sioux City, IA - Sioux Falls, SD

Date: JULY 2011
 Designed By: JMG
 Project Manager: GBK
 Project Number: 801232
 Plot Date: 7/7/11

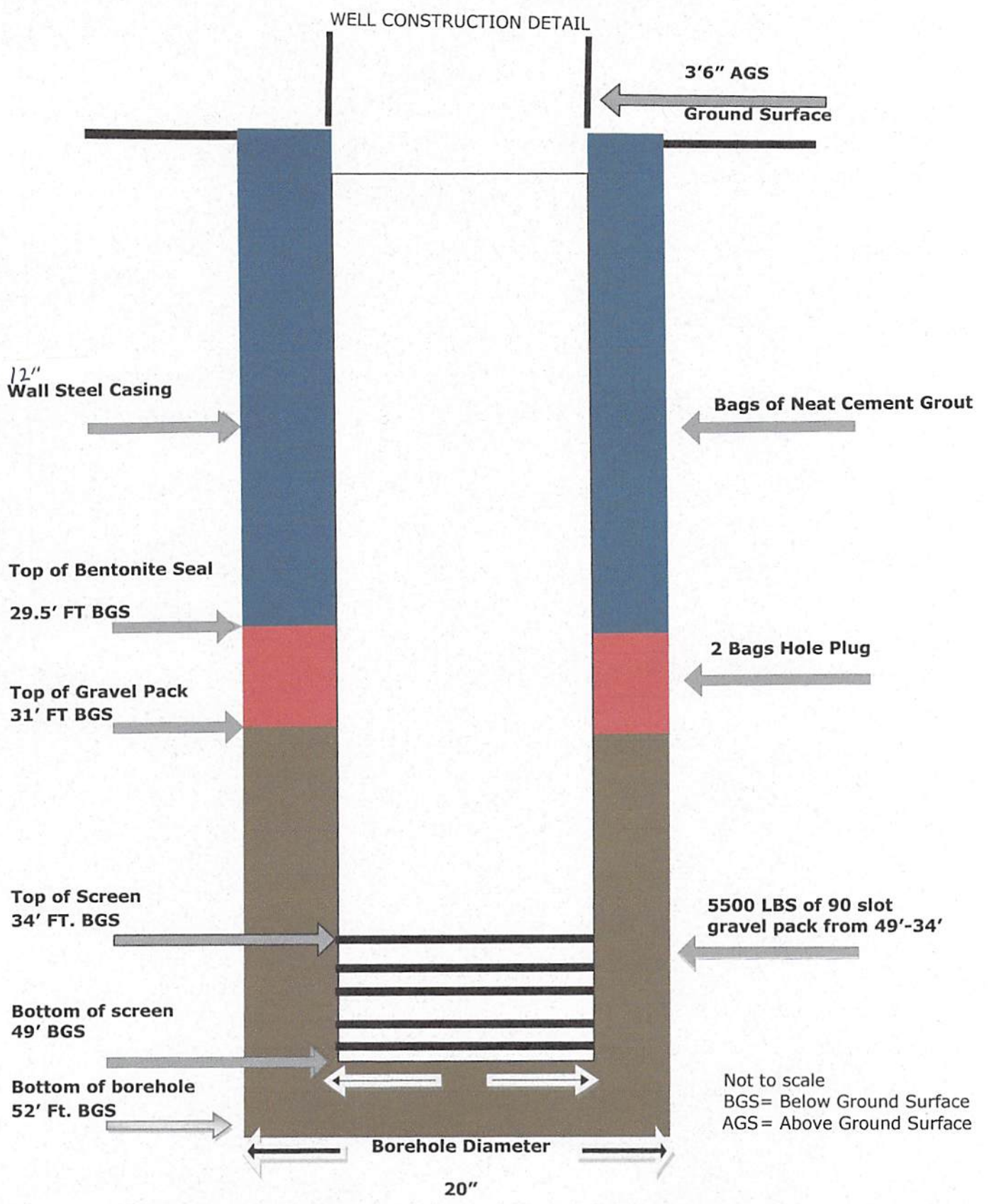
REV	DATE

2011 HARMS WELLS PROJECT
 OSCEOLA COUNTY
 RURAL WATER SYSTEM
 MAY CITY, IOWA

CAHOY WELL AND PUMP SERVICE
411 EAST MAIN STREET
FREDERICKSBURG, IA 50630

OWNER: OCRW
WELL # H3
DATE: 11/17/11
GPS: 43°20.491N 095°29.964W

563-237-5361 FREDERICKSBURG, IA
563-237-6517 FAX
712-781-2030 MARNE, IA
712-781-2032 FAX





Well And Pump Service
Municipal • Industrial • Environmental

PUMP INSTALLATION RECORD

24568 150th Street • Suite 200
Sumner, Iowa 50674
(563) 578-1130
(563) 578-1135 Fax

200 Grant Street
P.O. Box 72
Marne, Iowa 51552
(712) 781-2030
(712) 781-2032 Fax

Customer:	Osceola Rural Water
Date:	09/10/13
Contact:	Doug Westerman
Location:	NW of May City

WELL INFORMATION:

Well: H3	Dia:12"	Depth: 59'
Static Water Level:	17'	
Screened Well:	Yes	
If yes from:	34'	To: 49'
Screen Material:	SS	
Liners:	No	
If yes from:	N/A	To: N/A

DISCHARGE:

Type:	N/A
Above	Below-Ground
Flange Size:	N/A
If Pitless Casing Size:	12"
O-ring Size:	12"
Model#:	Monitor

AIRLINE AND WATER METER:

Air Line Length:	39'
Material:	Toro
Does it Work:	Yes
Water Meter:	No
Mfg:	N/A
Size:	N/A
Does it Work:	N/A

SUBMERSIBLE INSTALLATION ONLY:

Dia. Of Motor:	6"	Cable Size:	4/3
No. of Check Valves:	N/A	Jacketed:	Yes
Rated Voltage:	460	Size:	N/A
RPM:	3450	Type:	N/A
HP:	40	Rated Amperage:	54.9/61.6 Max
Date Code:	13B19	Mfg:	Franklin
Model :	2366179025	Serial #:	13B19-20-06066A
Phases:	3	Amps:	

MEGGER CHECK RESULTS:

Cable Leads-Windings:	Ok	Ok	Ok
Cable Leads-Ground:	Ok	Ok	Ok
Motor Leads-Windings:	Ok	Ok	Ok
Motor Leads-Ground:	Ok	Ok	Ok

PUMP END & COLUMN PIPE:

Mfg:	Grundfos	Model:	475S4005B		
# of Stages:	5-B	Dia:	6"		
Serial #:	D1310W01	Date Code:	D13		
Discharge Size:	5" 5"x6" nipple	Material:	SS		
Column Pipe Size:	6"	Length:	21'/9'	# of:	1/1+Pitless
Total Pump Setting:	39'	Rated Capacity:		GPM@	TDH



Well And Pump Service
Municipal • Industrial • Environmental

WELL TEST DATA SHEET

24568 150th Street • Suite 200
Sumner, Iowa 50674
(563) 578-1130
(563) 578-1135 Fax

200 Grant Street
P.O. Box 72
Marne, Iowa 51552
(712) 781-2030
(712) 781-2032 Fax

CLIENT: OCRW

WELL: # H3

DATE: 01/25/12

TESTED BY: Jeremy King & Tony Thein

PUMP MODEL: American Marsh 7HC

AIRLINE LENGTH: Probe

DIAMETER: 12"

ORIFICE SIZE: 6x4

DEPTH OF WELL: 51'

MOTOR: American Marsh 50 hp

STATIC WATER LEVEL: 10.74

GENERATOR USED: YES GNI-1

BEGIN HOURS: 968.1 END HOURS: unknown

STEP-RATE TEST

CONSTANT RATE TEST

PRE-TREATMENT

POST -TREATMENT

MEASUREMENT TAKEN FROM THE TOP OF THE FALSE CASING WHICH IS 3'6" FEET FROM EXISTING GROUND/FLOOR LEVEL.

CONSTANT RATE TEST

TIME	PIZOM READING	GPM	Pumping Level	Draw Down	Spec Cap
1:20 PM	63	517	6.55	5.81	88.98
1:21	63	517	6.55	5.81	88.98
1:22	63	517	6.65	5.91	87.48
1:23	63	517	6.65	5.91	87.48
1:24	63	517	16.7	5.96	86.74
1:25	63	517	16.8	6.06	85.31
1:26	63	517	16.9	6.16	83.93
1:27	63	517	16.9	6.16	83.93
1:28	63	517	16.9	6.16	83.93
1:29	63	517	16.9	6.16	83.93
1:30	63	517	16.9	6.16	83.93
1:32	63	517	16.9	6.16	83.93
1:34	63	517	16.9	6.16	83.93
1:36	63	517	16.9	6.16	83.93
1:38	63	517	16.9	6.16	83.93
1:40	63	517	16.9	6.16	83.93
1:45	63	517	16.9	6.16	83.93
1:50	63	517	16.9	6.16	83.93
1:55	63	517	16.9	6.16	83.93
2:00	63	517	16.9	6.16	83.93
2:05	63	517	16.9	6.16	83.93
2:10	63	517	16.9	6.16	83.93
2:15	63	517	16.9	6.16	83.93
2:20	63	517	16.9	6.16	83.93
2:50	63	517	16.9	6.16	83.93
3:20	63	517	16.9	6.16	83.93
3:50	63	517	16.9	6.16	83.93
4:20	63	517	16.9	6.16	83.93
4:50	63	517	16.9	6.16	83.93
5:20	63	517	16.9	6.16	83.93
5:50	63	517	16.9	6.16	83.93
6:20	63	517	16.9	6.16	83.93
7:20	63	517	16.9	6.16	83.93
8:20	63	517	16.9	6.16	83.93
9:20	63	517	16.9	6.16	83.93
10:20	63	517	16.9	6.16	83.93
11:20	63	517	16.9	6.16	83.93
12:20 AM	63	517	16.9	6.16	83.93
1:20	63	517	16.9	6.16	83.93
2:20	63	517	16.9	6.16	83.93
3:20	63	517	16.9	6.16	83.93
4:20	63	517	16.9	6.16	83.93
5:20	63	517	16.9	6.16	83.93
6:20	63	517	16.9	6.16	83.93
7:20	63	517	16.9	6.16	83.93
8:20	63	517	16.9	6.16	83.93

CONSTANT RATE TEST Continued					
TIME	PIZOM READING	GPM	Pumping Level	Draw Down	Spec Cap
9:20	63	517	16.9	6.16	83.93
10:20	63	517	16.9	6.16	83.93
11:20	63	517	16.9	6.16	83.93
12:20 PM	63	517	16.9	6.16	83.93
1:20	63	517	16.9	6.16	83.93
1:21	Recovery		11		
1:22			10.9		
1:23			10.74		