

**Patch II**

**10-0133**

2002.237A



**GEOTEK ENGINEERING  
& TESTING SERVICES, INC.**  
909 East 50th Street North  
Sioux Falls, South Dakota 57104  
605-335-5512 • FAX 605-335-0773  
1-800-354-5512 www.geotekeng.com

SB  
2002.237

October 18, 2007

Casey's General Stores, Inc.  
PO Box 3001  
Ankeny, Iowa 50021-8045

Attn: Ms. Jill Reams-Widder

Subj: Monitoring Well Abandonment  
Casey's General Store  
701 N. Main Street  
Mitchell, South Dakota  
GeoTek #02-A83  
DENR #2002.237  
PRCF #6643

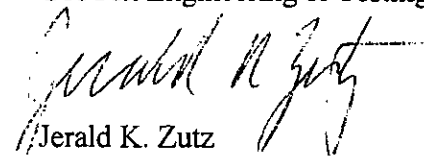


Dear Ms. Reams-Widder:

Enclosed are the SD DENR Well Plugging Forms for the referenced site. Five monitoring wells (MW1, MW3, MW4, MW5, MW6) were plugged on October 10, 2007. This work was performed in accordance with the September 4, 2007 contract amendment.

GeoTek Engineering & Testing Services, Inc. appreciates the opportunity to have been of service on this project. Please contact us if you have questions concerning this letter or if we can be of further assistance.

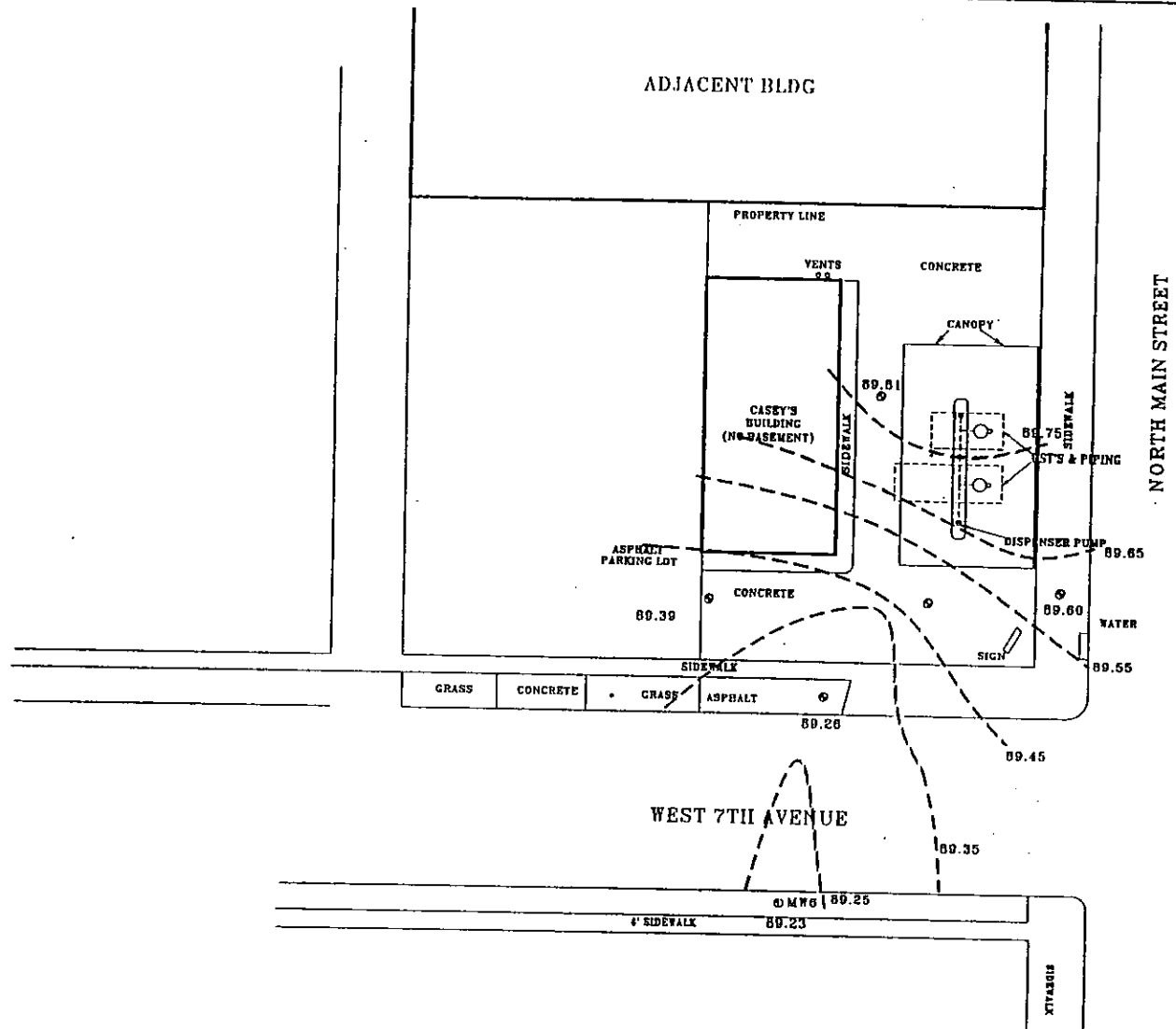
GeoTek Engineering & Testing Services, Inc.

  
Jerald K. Zutz  
Project Manager  
PE/Remediator #5083

cc: DENR Water Rights Office  
DENR, Pierre, Mr. Doug Miller  
DENR, Sioux Falls, Mr. Scott Bickler  
PRCF, Pierre, Mr. John McVey  
PRCF, Sioux Falls, Mr. Larry Headrick



SCALE: 1" = 40'



WATER LEVELS OF 8-13-07

**FIGURE 1**  
**ESTIMATED GROUNDWATER CONTOUR MAP**  
**CASEY'S GENERAL STORES INC.**  
**701 N. MAIN ST.**  
**MITCHELL, SD**

**PROJECT #: 02-A83**

**DRAWN BY: BWE**      **CHECKED BY:** *[Signature]*

**GEOTEK ENGINEERING & TESTING SERVICES, INC.**

PEMP/02-A83



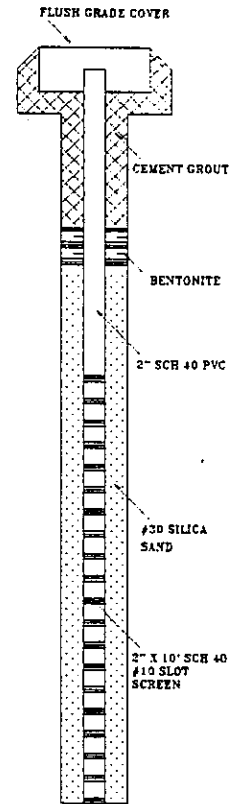
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 & TESTING SERVICES, INC.  
 900 EAST 50TH STREET NORTH  
 SIOUX FALLS, SOUTH DAKOTA 57104  
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## ENVIRONMENTAL SOIL BORING LOG/ WELL CONSTRUCTION INFORMATION

JOB #: 02-A83 BORING WELL #: MW1  
 PROJECT: CASEY'S, 701 N. MAIN STREET, MITCHELL, SD  
 SURFACE ELEVATION: 98.9' TOP OF RISER (TOR) ELEVATION: 98.52'

### GENERALIZED WELL CROSS-SECTION

DEPTH IN FEET	DESCRIPTION OF MATERIAL	GEOLOGIC ORIGIN	SAMPLE		PID DATA (PPM)	WL
			NO	TYPE		
	FILL, mostly silty sand, a little gravel, brown and brownish gray, a layer of concrete at the surface	FILL	1	AUGER	ND	
			2	SB	10	
4.5	LEAN CLAY, a little gravel, brown mottled, a few lenses of sand and silty clay (CL)	TILL	3	SB	65	
			4	SB	45	
			5	SB	ND	
			6	SB	ND	
			7	SB	ND	
17	END OF BORING					



WATER LEVEL MEASUREMENTS					DATE STARTED: <u>4-16-03</u>
DATE	TIME	DEPTH BELOW		ELEVATION OF WATER	DATE FINISHED: <u>4-16-03</u> @ <u>10:55</u>
		SURFACE	TOR		
<u>4-16-02</u>	<u>10:55</u>	<u>NONE</u>	<u>NONE</u>	<u>NONE</u>	
<u>4-30-02</u>	<u>12:20</u>	<u>--</u>	<u>9.30</u>	<u>89.22'</u>	

METHOD OF DRILLING: 3 1/4" HSA 0-17"  
 CREW CHIEF: HAGEDORN



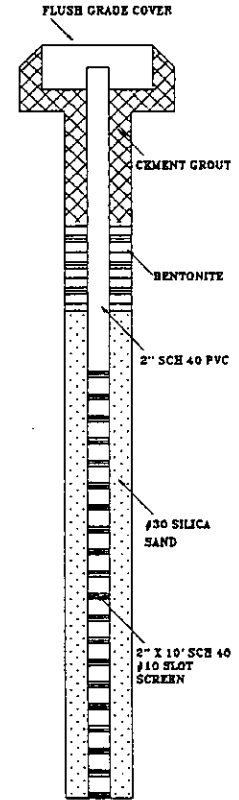
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## ENVIRONMENTAL SOIL BORING LOG/ WELL CONSTRUCTION INFORMATION

JOB #: 02-A83 BORING\WELL # : MW3  
 PROJECT : CASEY'S, 701 N. MAIN STREET, MITCHELL, SD  
 SURFACE ELEVATION: 97.6 TOP OF RISER (TOR) ELEVATION: 97.28

DEPTH IN FEET	DESCRIPTION OF MATERIAL	GEOLOGIC ORIGIN	SAMPLE		PID DATA (PPM)	WL
			NO	TYPE		
2	SILTY SAND, a little gravel, brown, a layer of concrete at the surface (SM)	MIXED ALLUVIUM	1	AUGER	ND	
	SANDY CLAY, a little gravel, brown (CL)		2	SB	ND	
5 1/2			3	SB	ND	
7	SAND, medium grained, a little gravel, brown (SP)	COARSE ALLUVIUM	4	SB	ND	
	LEAN CLAY, a little gravel, brown and gray mottled (CL)	TILL	5	SB	ND	▼
6			6	SB	ND	
7			7	SB	ND	
8			8	SB	ND	
17	END OF BORING					

GENERALIZED WELL CROSS-SECTION



WATER LEVEL MEASUREMENTS				
DATE	TIME	DEPTH BELOW SURFACE		ELEVATION OF WATER
			TOR	
07/28/03	12:35		8.32	88.96

DATE STARTED: 07/17/03  
 DATE FINISHED: 07/17/03 @ 11:00  
 METHOD OF DRILLING: 3 1/4" HSA: 0-17'  
 CREW CHIEF: ROY HANSON



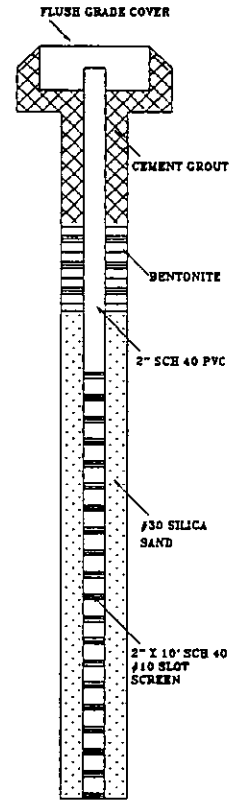
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## ENVIRONMENTAL SOIL BORING LOG/ WELL CONSTRUCTION INFORMATION

JOB #: 02-A83 BORING \ WELL #: MW4  
 PROJECT: CASEY'S, 701 N. MAIN STREET, MITCHELL, SD  
 SURFACE ELEVATION: 98.7 TOP OF RISER (TOR) ELEVATION: 98.31

GENERALIZED WELL  
CROSS-SECTION

DEPTH IN FEET	DESCRIPTION OF MATERIAL	GEOLOGIC ORIGIN	SAMPLE		PID DATA (PPM)	WL
			NO	TYPE		
2	SILTY SAND, a little gravel, brown, a layer of concrete at the surface (SM)	MIXED ALLUVIUM	1	AUGER	1	
4	SILTY SAND, medium grained, brown (SM)		2	SB	ND	
9 1/2	SAND, medium grained, a little gravel, brown (SP)	COARSE ALLUVIUM	3	SB	ND	
			4	SB	ND	
	LEAN CLAY, a little gravel, brown mottled, a few lenses of silty clay above 9' (CL)	TILL	5	SB	19	
			6	SB	7	
			7	SB	2	
17	END OF BORING					



WATER LEVEL MEASUREMENTS				DATE STARTED: <u>07/17/03</u>
DATE	TIME	DEPTH BELOW		ELEVATION OF WATER
		SURFACE	TOR	
07/28/03	12:55		9.32	88.99

DATE FINISHED: 07/17/03 @ 1:15  
 METHOD OF DRILLING: 3 1/4" HSA-0-17'  
 CREW CHIEF: ROY HANSON

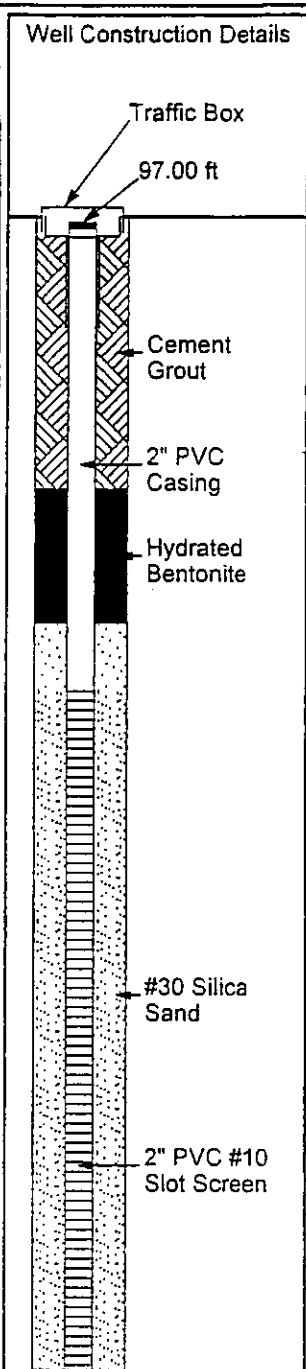




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**ENVIRONMENTAL SOIL BORING LOG / WELL CONSTRUCTION INFORMATION**

GEOTEK # <u>02-A83</u>		BORING / WELL NO. <u>MW6 (1 of 1)</u>		Well Construction Details		
PROJECT <u>Casey's General Store, 701 N Main St, Mitchell, SD</u>						
DEPTH in FEET	DESCRIPTION OF MATERIAL	GEOLOGIC ORIGIN	PID / FID	WL	SAMPLE	
					NO.	TYPE
	↓ SURFACE ELEVATION <u>97.4 ft</u>					
4 1/2	<u>FILL, MOSTLY CLAY</u> : brown, moist	FILL	ND		1	HSA
			ND		2	SS
9 1/2	<u>SAND</u> : medium grained, brown, moist, (SP)	COARSE ALLUVIUM	ND		3	SS
			ND		4	SS
12	<u>SILTY SAND</u> : fine grained, gray, waterbearing, (SM)	MIXED ALLUVIUM	46		5	SS
14 1/2	<u>LEAN CLAY TO FAT CLAY WITH SAND</u> : a little gravel, dark brown, moist, (CL)	TILL	45		6	SS
			ND		7	SS
17	Bottom of borehole at 17 feet.					
WATER LEVEL MEASUREMENTS			START <u>5-12-06</u>	COMPLETE <u>5-12-06</u>		
DATE	TIME	DEPTH BELOW		WATER ELEVATION	METHOD	
		SURFACE	TOR / TOC			
6-26-06	4:45 pm	8.7	8.34	88.66	3.25" I.D. HS	
--	--	--	--	--		
--	--	--	--	--		
--	--	--	--	--	CREW CHIEF HANSON	



ENVIRONMENTAL WELL LOG 02-A83.GPJ GEOTEKENG.GDT 6/27/06



**SOUTH DAKOTA WELL AND TEST HOLE PLUGGING REPORT**

10-85

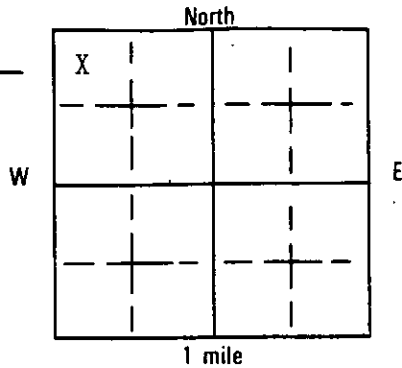
Location NW 1/4 NW 1/4 Sec 22 Twp 103N Rg 60W

Well Owner:

County Davison

Name Casey's General Store

Please mark well location with an "X"



Address 701 N Main Street

Mitchell, SD 57301

Abandon Wells MW 1, 3, 4, 5, 6

DENR #2002.237 GeoTek #02-A83

Plugging completion Date 10-10-07

**CHECK APPROPRIATE BOX**

EXISTING WELL

TEST HOLE

Well depth 17'

Hole depth \_\_\_\_\_

Casing material PVC

Hole size \_\_\_\_\_

Casing size(s) 2"

Casing condition Good

Describe plugging procedure: \_\_\_\_\_

Backfill well with bentonite to 3' below grade; remove protective covers and fill upper 3' with native materials

Describe grout or plugging material: \_\_\_\_\_

Type of non-slip plug: \_\_\_\_\_

This well or test hole was plugged under license # 552 And this report is true and accurate.

Drilling firm GeoTek Engineering & Testing Services, Inc.

Signature of Licensed Representative [Signature]

Signature of Well Owner \_\_\_\_\_

Date \_\_\_\_\_