



Seneca Environmental Services

February 25, 2005

CON 12-15
doc # 8237

Thermogas, Preston

Mr. Lambert Nnadi
Senior Environmental Specialist, Contaminated Sites Section
Iowa Department of Natural Resources
Wallace State Office Building
Des Moines, IA 50319

Subject: Submittal of the 2004 Analytical data for the former Thermogas facility in Preston, IA

Dear Mr. Nnadi:

Enclosed for your review is a copy of the May 27th, 2004 analytical data for the above referenced facility. The 2004 site monitoring activities have shown relatively steady or decreasing values in concentrations at the Preston site. Slightly elevated levels of N-Nitrogen were noted on site at monitoring wells MW-2 and MW-3, but the concentrations have been steadily declining since sampling began in 2003. Ammonia Nitrogen levels at MW-3 have fluctuated above and below the current EPA HAL level of 30 ppm, but remain within the historical range for this chemical. In the DNR letter dated May 24th, 2004, (received following sampling activities) it was stated that additional investigation was not required at this site.

A 500-foot radius visual survey, along with a one-mile radius search conducted by the Iowa Geological Survey Bureau, were utilized to identify water well locations in the site vicinity. The current site receptor survey has identified one on-site drinking water well within 1,000 feet of the site. All other located wells are at a significant distance from the site and not considered a risk at this time. Current concentrations from the on-site well, label Supply Well, have decreased since the last sampling event and are now below the published EPA MCL for N-Nitrogen. All other chemicals have remained below the MCL and HALs in the supply well.

Retail sale of bulk and/or packaged row crop production products is believed to have ceased in 1996; the site presently distributes propane and dust control products. Current receptor surveys did not reveal any designated use water bodies in the site vicinity. The on-site well has been monitored and concentrations at the well are now less than the published EPA MCL and HALs. Seneca concurs with the 5/24/04 letter that further action is not warranted at the Preston site at this time. The monitoring wells will be plugged in accordance with the IDNR requirements for plugging abandoned wells during the spring of 2005.

If you have any questions regarding this data, please call me at 515-261-7722.

Sincerely,
Seneca Environmental Services

Ray Widdor, CGP# 1624
Senior Hydrogeologist

cc: CHS Inc., St. Paul, MN
File: 6235000

Enclosed: Scaled Site Map, Analytical Data Table, Analytical Results, Well Survey Results

Des Moines

P.O. Box 3360
4140 N.E. 14th Street
Des Moines, Iowa 50316-0360
515-262-3500
800-369-3500
515-262-2469 FAX

Bettendorf

17851 244th Avenue
Bettendorf, Iowa 52722
563-332-2272
800-728-6900
563-332-9465 FAX

Scaled Site Map

Analytical Data Table

Table 1: Summary of Groundwater Monitoring Data
Preston New Horizon FS (Former Thermogas Co. Facility)

Well ID	Date	Top of Casing	Static Water Level	Alachlor	Atrazine	Butylate	Cyanazine	EPTC	Metolachlor	Metribuzin	Pendimethalin	Prometon	Trifluralin	Nitrogen (NH ₃)	Nitrate (NO ₂ + NO ₃)
MW-1	11/15/1996	103.71	85.24	<0.5	0.9	NA	<1.0	<5.0	<5.0	NA	NA	1.3	NA	<0.10	4.66
	2/26/1997	103.71	84.67	<0.5	0.84	NA	<1.0	<5.0	<5.0	NA	NA	<1.0	NA	0.14	3.96
	6/18/1997	103.71	84.81	<0.52	0.82	NA	<1.0	<0.52	<0.52	NA	NA	<0.1	NA	0.158	2.79
	8/5/1997	103.71	85.71	<0.51	0.92	NA	<1.0	<0.51	<0.51	NA	NA	1.1	NA	<0.10	3.97
	8/28/2002	103.71	88.11	<0.1	0.4	<0.1	<0.1	<0.1	<0.5	<0.1	<0.5	NA	<0.1	<1.0	12.6
	6/3/2003	103.71	84.89	<0.1	0.2	<0.1	<0.1	<0.1	<0.5	<0.1	<0.5	NA	<0.1	<1.0	9.8
	9/25/2003	103.71	84.63	<0.1	0.2	<0.1	<0.1	<0.1	<0.5	<0.1	<0.5	NA	<0.1	<1.0	6.5
	5/27/2004	103.71	85.00	<0.1	0.2	<0.1	<0.1	<0.1	<0.5	<0.1	<0.5	NA	<0.1	<1.0	3.5
MW-2	11/15/1996	102.89	85.01	19	22	NA	7.5	0.57	270	NA	NA	3.8	NA	0.12	17.7
	2/26/1997	102.89	84.24	12	5.7	NA	5.6	<0.5	190	NA	NA	4.8	NA	<0.10	61.5
	6/18/1997	102.89	84.60	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<0.10	36.1
	8/5/1997	102.89	85.61	4.9	4.0	NA	2.3	<0.51	95	NA	NA	5	NA	<0.10	42.8
	8/28/2002	102.89	87.94	<0.1	0.8	<0.1	<0.1	<0.1	<0.5	<0.1	<0.5	NA	<0.1	<1.0	<0.2
	6/3/2003	102.89	84.48	<0.1	1.4	<0.1	<0.1	<0.1	2.7	<0.1	<0.5	NA	<0.1	<1.0	31.1
	9/25/2003	102.89	84.25	<0.1	0.6	<0.1	<0.1	<0.1	4.6	<0.1	<0.5	NA	<0.1	65.0	29.7
	5/27/2004	102.89	84.63	<0.1	0.3	<0.1	<0.1	<0.1	<0.5	<0.1	<0.5	NA	<0.1	<1.0	15.3
MW-3	11/15/1996	101.54	84.28	<0.5	2.1	NA	<1.0	<0.5	0.93	NA	NA	<1.0	NA	19.3	35
	2/26/1997	101.54	83.60	<0.5	2.9	NA	<1.0	<0.5	<0.5	NA	NA	<1.0	NA	62.9	39.9
	6/18/1997	101.54	83.88	<0.52	1.9	NA	<1.0	<0.52	<0.52	NA	NA	<1.0	NA	69.0	47.2
	8/5/1997	101.54	84.81	<0.51	1.9	NA	<1.0	<0.51	2.0	NA	NA	<1.0	NA	89.9	45.7
	8/28/2002	101.54	87.58	<0.1	0.3	<0.1	<0.1	<0.1	<0.5	<0.1	<0.5	NA	<0.1	22.7	7.2
	6/3/2003	101.54	84.03	<0.1	0.4	<0.1	<0.1	<0.1	0.9	<0.1	<0.5	NA	<0.1	86.1	36.4
	9/25/2003	101.54	82.33	<0.1	0.4	<0.1	<0.1	<0.1	0.5	<0.1	<0.5	NA	<0.1	<1.0	24.6
	5/27/2004	101.54	84.51	0.1	0.4	<0.1	<0.1	<0.1	0.6	<0.1	<0.5	NA	<0.1	63.0	24.0
EPA - Maximum Contaminant Level (MCL)				2	3	SNA	SNA	SNA	SNA	SNA	SNA	SNA	SNA	SNA	10
EPA - Health Advisory Limit (HAL)				SNA	SNA	400	1	SNA	100	200	SNA	SNA	5	30	10

Table 1: Summary of Groundwater Monitoring Data
Preston New Horizon FS (Former Thermogas Co. Facility)

Well ID	Date	Top of Casing	Static Water Level	Alachlor	Atrazine	Butylate	Cyanazine	EPTC	Metolachlor	Metribuzin	Pendimthalin	Prometon	Trifluralin	Nitrogen (NH ₃)	Nitrate (NO ₂ + NO ₃)
MW-4	11/15/1996	101.65	84.58	<0.5	0.99	NA	<1.0	<0.5	6.7	NA	NA	<1.0	NA	0.4	3.1
	2/26/1997	101.65	83.82	<0.5	0.92	NA	<1.0	<0.5	5.4	NA	NA	<1.0	NA	1.49	3.02
	6/18/1997	101.65	84.23	<0.52	0.59	NA	<1.0	<0.52	4.4	NA	NA	<1.0	NA	1.08	3.6
	8/5/1997	101.65	84.92	<0.51	1.1	NA	<1.0	<0.51	6.8	NA	NA	<1.0	NA	<0.10	4.44
	8/28/2002	101.65	86.95	<0.1	<0.1	<0.1	<0.1	<0.1	<0.5	<0.1	<0.5	NA	<0.1	2.0	7.2
	6/3/2003	Well has been destroyed													
Supply Well	6/3/2003	NA	NA	<0.1	0.5	<0.1	<0.1	<0.1	<0.5	<0.1	<0.5	NA	<0.1	<1.0	10
	9/25/2003	NA	NA	<0.1	0.2	<0.1	<0.1	<0.1	<0.5	<0.1	<0.5	NA	<0.1	<1.0	11.6
	5/27/2004	NA	NA	<0.1	0.1	<0.1	<0.1	<0.1	<0.5	<0.1	<0.5	NA	<0.1	<1.0	6
EPA - Maximum Contaminant Level (MCL)				2	3	SNA	SNA	SNA	SNA	SNA	SNA	SNA	SNA	SNA	10
EPA - Health Advisory Limit (HAL)				SNA	SNA	400	1	SNA	100	200	SNA	SNA	5	30	10

* - the relative standard deviation (RSD) for this analyte failed to meet the % RSD acceptance criteria for the initial calibration.

** - Internal standard area outside acceptable QC criteria on duplicate analysis.

Concentrations of pesticides are stated in ppb (ug/L). Concentrations of Ammonia nitrogen and N-nitrogen are stated in ppm (mg/L).

N/A - Not Analyzed for COC. SNA- Standard not available

Analytical Results

16 June 2004

JUN 18 2004

Michael Steenhoek
Seneca Environmental Services
4140 NE. 14th St.
Des Moines, IA 50316

RE: Cenex
Preston

Enclosed are the results of analyses for samples received by the laboratory on 05/28/04 14:10. If you have any questions concerning this report, please feel free to contact me at 1-800-858-5227.

Sincerely,



Jeffrey King, Ph.D.
Laboratory Director

JUN 18 2004



Seneca Environmental Services
4140 NE. 14th St.
Des Moines IA, 50316

Project: Cenex
Project Number: Preston
Project Manager: Michael Steenhoek

Reported:
06/16/04 13:11

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
MW-1	14E1148-01	Water	05/27/04 07:15	05/28/04 14:10
MW-2	14E1148-02	Water	05/27/04 07:35	05/28/04 14:10
MW-3	14E1148-03	Water	05/27/04 07:50	05/28/04 14:10
Supply Well	14E1148-04	Water	05/27/04 08:10	05/28/04 14:10

Keystone Laboratories, Inc. - Newton

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Jeffrey King, Ph.D., Laboratory Director

Seneca Environmental Services
4140 NE. 14th St.
Des Moines IA, 50316

Project: Cenex
Project Number: Preston
Project Manager: Michael Steenhoek

Reported:
06/16/04 13:11

MW-1
14E1148-01 (Water)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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Keystone Laboratories, Inc. - Newton

Determination of Nitrogen/Phosphorus Herbicides & Insecticides

EPTC	ND	0.1	ug/l	1	1F40327	06/03/04	06/15/04	EPA 8141	
Butylate	ND	0.1	"	"	"	"	"	"	
Propachlor	ND	0.1	"	"	"	"	"	"	
Trifluralin	ND	0.1	"	"	"	"	"	"	
Terbufos	ND	0.1	"	"	"	"	"	"	
Atrazine	0.2	0.1	"	"	"	"	"	"	
Simazine	0.4	0.1	"	"	"	"	"	"	
Atrazine Desethyl	ND	0.2	"	"	"	"	"	"	
Alachlor	ND	0.1	"	"	"	"	"	"	
Metribuzin	ND	0.1	"	"	"	"	"	"	
Atrazine Desisopropyl	ND	0.2	"	"	"	"	"	"	
Metolachlor	ND	0.5	"	"	"	"	"	"	
Pendimethalin	ND	0.5	"	"	"	"	"	"	
Butachlor	ND	0.5	"	"	"	"	"	"	
Cyanazine	ND	0.1	"	"	"	"	"	"	
Acetochlor	ND	0.2	"	"	"	"	"	"	
Surrogate: 2-Nitro-m-xylene		87.4 %	50-117		"	"	"	"	

Determination of Conventional Chemistry Parameters

Nitrogen, Ammonia	ND	1.0	mg/l	1	1F40341	06/03/04	06/03/04	SM 4500-NH3 F	
Nitrogen, Nitrate+Nitrite	3.5	0.2	"	"	1F40103	06/01/04	06/01/04	EPA 353.2	

Keystone Laboratories, Inc. - Newton

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Jeffrey King

Jeffrey King, Ph.D., Laboratory Director

Seneca Environmental Services
4140 NE. 14th St.
Des Moines IA, 50316

Project: Cenex
Project Number: Preston
Project Manager: Michael Steenhoek

Reported:
06/16/04 13:11

MW-2
14E1148-02 (Water)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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Keystone Laboratories, Inc. - Newton

Determination of Nitrogen/Phosphorus Herbicides & Insecticides

EPTC	ND	0.1	ug/l	1	1F40327	06/03/04	06/15/04	EPA 8141	
Butylate	ND	0.1	"	"	"	"	"	"	
Propachlor	ND	0.1	"	"	"	"	"	"	
Trifluralin	ND	0.1	"	"	"	"	"	"	
Terbufos	ND	0.1	"	"	"	"	"	"	
Atrazine	0.3	0.1	"	"	"	"	"	"	
Simazine	0.1	0.1	"	"	"	"	"	"	
Atrazine Desethyl	ND	0.2	"	"	"	"	"	"	
Alachlor	ND	0.1	"	"	"	"	"	"	
Metribuzin	ND	0.1	"	"	"	"	"	"	
Atrazine Desisopropyl	ND	0.2	"	"	"	"	"	"	
Metolachlor	ND	0.5	"	"	"	"	"	"	
Pendimethalin	ND	0.5	"	"	"	"	"	"	
Butachlor	ND	0.5	"	"	"	"	"	"	
Cyanazine	ND	0.1	"	"	"	"	"	"	
Acetochlor	ND	0.2	"	"	"	"	"	"	

Surrogate: 2-Nitro-m-xylene 88.4 % 50-117 " " " "

Determination of Conventional Chemistry Parameters

Nitrogen, Ammonia	ND	1.0	mg/l	1	1F40341	06/03/04	06/03/04	SM 4500-NH3 F	
Nitrogen, Nitrate+Nitrite	15.3	0.4	"	2	1F40103	06/01/04	06/01/04	EPA 353.2	

Keystone Laboratories, Inc. - Newton

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Jeffrey King

Jeffrey King, Ph.D., Laboratory Director

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Seneca Environmental Services
4140 NE. 14th St.
Des Moines IA, 50316

Project: Cenex
Project Number: Preston
Project Manager: Michael Steenhoek

Reported:
06/16/04 13:11

MW-3
14E1148-03 (Water)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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Keystone Laboratories, Inc. - Newton

Determination of Nitrogen/Phosphorus Herbicides & Insecticides

EPTC	ND	0.1	ug/l	1	1F40327	06/03/04	06/15/04	EPA 8141	
Butylate	ND	0.1	"	"	"	"	"	"	
Propachlor	ND	0.1	"	"	"	"	"	"	
Trifluralin	ND	0.1	"	"	"	"	"	"	
Terbufos	ND	0.1	"	"	"	"	"	"	
Atrazine	0.4	0.1	"	"	"	"	"	"	
Simazine	ND	0.1	"	"	"	"	"	"	
Atrazine Desethyl	ND	0.2	"	"	"	"	"	"	
Alachlor	0.1	0.1	"	"	"	"	"	"	
Metribuzin	ND	0.1	"	"	"	"	"	"	
Atrazine Desisopropyl	ND	0.2	"	"	"	"	"	"	
Metolachlor	0.6	0.5	"	"	"	"	"	"	
Pendimethalin	ND	0.5	"	"	"	"	"	"	
Butachlor	ND	0.5	"	"	"	"	"	"	
Cyanazine	ND	0.1	"	"	"	"	"	"	
Acetochlor	ND	0.2	"	"	"	"	"	"	

Surrogate: 2-Nitro-m-xylene

86.5 % 50-117

" " " "

Determination of Conventional Chemistry Parameters

Nitrogen, Ammonia	63.0	1.0	mg/l	1	1F40341	06/03/04	06/03/04	SM 4500-NH3 F	
Nitrogen, Nitrate+Nitrite	24.0	2.0	"	10	1F40103	06/01/04	06/01/04	EPA 353.2	

Keystone Laboratories, Inc. - Newton

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Jeffrey King

Jeffrey King, Ph.D., Laboratory Director

Page 4 of 11

Seneca Environmental Services
4140 NE. 14th St.
Des Moines IA, 50316

Project: Cenex
Project Number: Preston
Project Manager: Michael Steenhoek

Reported:
06/16/04 13:11

Supply Well
14E1148-04 (Water)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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Keystone Laboratories, Inc. - Newton

Determination of Nitrogen/Phosphorus Herbicides & Insecticides

EPTC	ND	0.1	ug/l	1	1F40327	06/03/04	06/15/04	EPA 8141	
Butylate	ND	0.1	"	"	"	"	"	"	
Propachlor	ND	0.1	"	"	"	"	"	"	
Trifluralin	ND	0.1	"	"	"	"	"	"	
Terbufos	ND	0.1	"	"	"	"	"	"	
Atrazine	0.1	0.1	"	"	"	"	"	"	
Simazine	ND	0.1	"	"	"	"	"	"	
Atrazine Desethyl	ND	0.2	"	"	"	"	"	"	
Alachlor	ND	0.1	"	"	"	"	"	"	
Metribuzin	ND	0.1	"	"	"	"	"	"	
Atrazine Desisopropyl	ND	0.2	"	"	"	"	"	"	
Metolachlor	ND	0.5	"	"	"	"	"	"	
Pendimethalin	ND	0.5	"	"	"	"	"	"	
Butachlor	ND	0.5	"	"	"	"	"	"	
Cyanazine	ND	0.1	"	"	"	"	"	"	
Acetochlor	ND	0.2	"	"	"	"	"	"	

Surrogate: 2-Nitro-m-xylene 90.4 % 50-117 " " " "

Determination of Conventional Chemistry Parameters

Nitrogen, Ammonia	ND	1.0	mg/l	1	1F40341	06/03/04	06/03/04	SM	
Nitrogen, Nitrate+Nitrite	6.0	0.2	"	"	1F40104	06/07/04	06/07/04	4500-NH3 F EPA 353.2	

Keystone Laboratories, Inc. - Newton

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Jeffrey King

Jeffrey King, Ph.D., Laboratory Director

Seneca Environmental Services
4140 NE. 14th St.
Des Moines IA, 50316

Project: Cenex
Project Number: Preston
Project Manager: Michael Steenhoek

Reported:
06/16/04 13:11

Determination of Nitrogen/Phosphorus Herbicides & Insecticides - Quality Control

Keystone Laboratories, Inc. - Newton

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 1F40327 - 3510C NP/OC Sep Fnl

Blank (1F40327-BLK1)

Prepared: 06/03/04 Analyzed: 06/15/04

EPTC	ND	0.1	ug/l							
Butylate	ND	0.1	"							
Propachlor	ND	0.1	"							
Trifluralin	ND	0.1	"							
Terbufos	ND	0.1	"							
Atrazine	ND	0.1	"							
Simazine	ND	0.1	"							
Atrazine Desethyl	ND	0.2	"							
Alachlor	ND	0.1	"							
Metribuzin	ND	0.1	"							
Atrazine Desisopropyl	ND	0.2	"							
Metolachlor	ND	0.5	"							
Pendimethalin	ND	0.5	"							
Butachlor	ND	0.5	"							
Cyanazine	ND	0.1	"							
Acetochlor	ND	0.2	"							

Surrogate: 2-Nitro-m-xylene 8.68 " 10.10 85.9 50-117

LCS (1F40327-BS1)

Prepared: 06/03/04 Analyzed: 06/15/04

EPTC	4.56	0.1	ug/l	5.20		87.7	53-115
Butylate	5.11	0.1	"	5.55		92.1	58-116
Propachlor	4.74	0.1	"	5.30		89.4	52-127
Trifluralin	4.72	0.1	"	5.60		84.3	51-116
Terbufos	6.62	0.1	"	6.55		101	51-137
Atrazine	4.79	0.1	"	5.15		93.0	60-124
Simazine	4.28	0.1	"	4.88		87.7	50-135
Alachlor	5.19	0.1	"	5.70		91.1	61-123
Metribuzin	5.02	0.1	"	5.10		98.4	50-121
Metolachlor	5.72	0.5	"	6.10		93.8	58-123
Pendimethalin	5.16	0.5	"	5.65		91.3	53-124
Butachlor	4.69	0.5	"	4.96		94.6	55-126
Cyanazine	4.62	0.1	"	5.15		89.7	54-134
Acetochlor	4.76	0.2	"	5.15		92.4	55-120

Surrogate: 2-Nitro-m-xylene 8.72 " 10.10 86.3 50-117

Keystone Laboratories, Inc. - Newton

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Jeffrey King

Jeffrey King, Ph.D., Laboratory Director

Seneca Environmental Services
4140 NE. 14th St.
Des Moines IA, 50316

Project: Cenex
Project Number: Preston
Project Manager: Michael Steenhoek

Reported:
06/16/04 13:11

Determination of Nitrogen/Phosphorus Herbicides & Insecticides - Quality Control
Keystone Laboratories, Inc. - Newton

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 1F40327 - 3510C NP/OC Sep Fnl

LCS Dup (1F40327-BSD1)

Prepared: 06/03/04 Analyzed: 06/15/04

EPTC	4.44	0.1	ug/l	5.20		85.4	53-115	2.67	18	
Butylate	4.94	0.1	"	5.55		89.0	58-116	3.38	18	
Propachlor	4.68	0.1	"	5.30		88.3	52-127	1.27	15	
Trifluralin	4.65	0.1	"	5.60		83.0	51-116	1.49	19	
Terbufos	6.67	0.1	"	6.55		102	51-137	0.752	17	
Atrazine	4.86	0.1	"	5.15		94.4	60-124	1.45	15	
Simazine	4.42	0.1	"	4.88		90.6	50-135	3.22	16	
Alachlor	5.39	0.1	"	5.70		94.6	61-123	3.78	16	
Metribuzin	5.20	0.1	"	5.10		102	50-121	3.52	18	
Metolachlor	6.05	0.5	"	6.10		99.2	58-123	5.61	16	
Pendimethalin	5.35	0.5	"	5.65		94.7	53-124	3.62	14	
Butachlor	4.86	0.5	"	4.96		98.0	55-126	3.56	18	
Cyanazine	5.14	0.1	"	5.15		99.8	54-134	10.7	17	
Acetochlor	4.90	0.2	"	5.15		95.1	55-120	2.90	19	

Surrogate: 2-Nitro-m-xylene 8.42 " 10.10 83.4 50-117

Calibration Check (1F40327-CCV1)

Prepared: 06/03/04 Analyzed: 06/14/04

EPTC	0.63		ug/l	0.624		101	75-125			
Butylate	0.70		"	0.666		105	75-125			
Propachlor	0.64		"	0.636		101	75-125			
Trifluralin	0.68		"	0.672		101	75-125			
Terbufos	0.84		"	0.786		107	75-125			
Atrazine	0.64		"	0.618		104	75-125			
Simazine	0.46		"	0.586		78.5	75-125			
Alachlor	0.68		"	0.684		99.4	75-125			
Metribuzin	0.62		"	0.612		101	75-125			
Metolachlor	0.75		"	0.732		102	75-125			
Pendimethalin	0.72		"	0.678		106	75-125			
Butachlor	0.59		"	0.595		99.2	75-125			
Cyanazine	0.67		"	0.618		108	75-125			
Acetochlor	0.62		"	0.618		100	75-125			

Surrogate: 2-Nitro-m-xylene 0.832 " 0.808 103 50-117

Keystone Laboratories, Inc. - Newton

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Jeffrey King

Jeffrey King, Ph.D., Laboratory Director

Page 7 of 11

Seneca Environmental Services
4140 NE. 14th St.
Des Moines IA, 50316

Project: Cenex
Project Number: Preston
Project Manager: Michael Steenhoek

Reported:
06/16/04 13:11

Determination of Conventional Chemistry Parameters - Quality Control
Keystone Laboratories, Inc. - Newton

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 1F40103 - Wet Chem Preparation

Blank (1F40103-BLK1)				Prepared & Analyzed: 06/01/04						
Nitrogen, Nitrate+Nitrite	ND	0.2	mg/l							
LCS (1F40103-BS1)				Prepared & Analyzed: 06/01/04						
Nitrogen, Nitrate+Nitrite	1.78	0.2	mg/l	2.00		89.0	71-125			
Calibration Check (1F40103-CCV1)				Prepared & Analyzed: 06/01/04						
Nitrogen, Nitrate+Nitrite	2.37	0.2	mg/l	2.50		94.8	85-115			
Calibration Check (1F40103-CCV2)				Prepared & Analyzed: 06/01/04						
Nitrogen, Nitrate+Nitrite	2.20	0.2	mg/l	2.50		88.0	85-115			
Calibration Check (1F40103-CCV3)				Prepared & Analyzed: 06/01/04						
Nitrogen, Nitrate+Nitrite	2.32	0.2	mg/l	2.50		92.8	85-115			
Matrix Spike (1F40103-MS1)				Source: 14E1145-03		Prepared & Analyzed: 06/01/04				
Nitrogen, Nitrate+Nitrite	29.8	2.0	mg/l	20.0	6.8	115	76-129			
Matrix Spike Dup (1F40103-MSD1)				Source: 14E1145-03		Prepared & Analyzed: 06/01/04				
Nitrogen, Nitrate+Nitrite	29.8	2.0	mg/l	20.0	6.8	115	76-129	0.00	22	

Batch 1F40104 - Wet Chem Preparation

Blank (1F40104-BLK1)				Prepared & Analyzed: 06/07/04						
Nitrogen, Nitrate+Nitrite	ND	0.2	mg/l							
LCS (1F40104-BS1)				Prepared & Analyzed: 06/07/04						
Nitrogen, Nitrate+Nitrite	1.94	0.2	mg/l	2.00		97.0	71-125			

Keystone Laboratories, Inc. - Newton

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Jeffrey King

Jeffrey King, Ph.D., Laboratory Director

Page 8 of 11

Seneca Environmental Services
4140 NE. 14th St.
Des Moines IA, 50316

Project: Cenex
Project Number: Preston
Project Manager: Michael Steenhoek

Reported:
06/16/04 13:11

Determination of Conventional Chemistry Parameters - Quality Control
Keystone Laboratories, Inc. - Newton

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
---------	--------	-----------------	-------	-------------	---------------	------	-------------	-----	-----------	-------

Batch 1F40104 - Wet Chem Preparation

Calibration Check (1F40104-CCV1)

Prepared & Analyzed: 06/07/04

Nitrogen, Nitrate+Nitrite	2.62	0.2	mg/l	2.50		105	85-115			
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Calibration Check (1F40104-CCV2)

Prepared & Analyzed: 06/07/04

Nitrogen, Nitrate+Nitrite	2.77	0.2	mg/l	2.50		111	85-115			
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Calibration Check (1F40104-CCV3)

Prepared & Analyzed: 06/07/04

Nitrogen, Nitrate+Nitrite	2.50	0.2	mg/l	2.50		100	85-115			
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Matrix Spike (1F40104-MS1)

Source: 14E1154-01

Prepared & Analyzed: 06/07/04

Nitrogen, Nitrate+Nitrite	1.92	0.2	mg/l	2.00	0.2	86.0	76-129			
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Matrix Spike Dup (1F40104-MSD1)

Source: 14E1154-01

Prepared & Analyzed: 06/07/04

Nitrogen, Nitrate+Nitrite	1.74	0.2	mg/l	2.00	0.2	77.0	76-129	9.84	22	
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Batch 1F40341 - Wet Chem Preparation

Blank (1F40341-BLK1)

Prepared & Analyzed: 06/03/04

Nitrogen, Ammonia	ND	1.0	mg/l							
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Matrix Spike (1F40341-MS1)

Source: 14E1150-02

Prepared & Analyzed: 06/03/04

Nitrogen, Ammonia	8.24	1.0	mg/l	10.0	ND	82.4	70-136			
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Matrix Spike Dup (1F40341-MSD1)

Source: 14E1150-02

Prepared & Analyzed: 06/03/04

Nitrogen, Ammonia	8.10	1.0	mg/l	10.0	ND	81.0	70-136	1.71	17	
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Reference (1F40341-SRM1)

Prepared & Analyzed: 06/03/04

Nitrogen, Ammonia	10.8	1.0	mg/l	10.0		108	80-120			
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Keystone Laboratories, Inc. - Newton

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Jeffrey King

Jeffrey King, Ph.D., Laboratory Director

Seneca Environmental Services
4140 NE. 14th St.
Des Moines IA, 50316

Project: Cenex
Project Number: Preston
Project Manager: Michael Steenhoek

Reported:
06/16/04 13:11

Determination of Conventional Chemistry Parameters - Quality Control
Keystone Laboratories, Inc. - Newton

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 1F40341 - Wet Chem Preparation

Reference (1F40341-SRM2)

Prepared & Analyzed: 06/03/04

Nitrogen, Ammonia	9.15	1.0	mg/l	10.0	91.5	80-120
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Reference (1F40341-SRM3)

Prepared & Analyzed: 06/03/04

Nitrogen, Ammonia	8.80	1.0	mg/l	10.0	88.0	80-120
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Keystone Laboratories, Inc. - Newton

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Jeffrey King, Ph.D., Laboratory Director

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Seneca Environmental Services
4140 NE. 14th St.
Des Moines IA, 50316

Project: Cenex
Project Number: Preston
Project Manager: Michael Steenhoek

Reported:
06/16/04 13:11

Notes and Definitions

DET Analyte DETECTED
ND Analyte NOT DETECTED at or above the reporting limit
NR Not Reported
dry Sample results reported on a dry weight basis
RPD Relative Percent Difference

Keystone Laboratories, Inc. - Newton

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



Jeffrey King, Ph.D., Laboratory Director

Page 11 of 11

Keystone

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Kansas City, KS 66103
Phone: 913-321-7856
Fax: 913-321-7937

PAGE 2 OF 2

PRINT OR TYPE INFORMATION BELOW

SAMPLER: DAVID PHIPPS PRESTON
SITE NAME: CENEX-62350003 - PRESTON
ADDRESS: PRESTON
CITY/ST/ZIP: PRESTON, IA
PHONE: _____

REPORT TO:

NAME: MIKE STEENHOEK
COMPANY NAME: SENECA
ADDRESS: 4140 NE 14TH ST
CITY/ST/ZIP: DES MOINES, IA 50316
PHONE: 515-262-3500
FAX: 515-262-2469

BILL TO:

NAME: _____
COMPANY NAME: -SAME-
ADDRESS: _____
CITY/ST/ZIP: _____
PHONE: _____
Keystone Quote No.: _____
(If Applicable)

CLIENT SAMPLE NUMBER	DATE	TIME	SAMPLE LOCATION	NO. OF CONTAINERS	MATRIX	GRAB/COMPOSITE	ANALYSES REQUIRED										LAB USE ONLY	
							Residuals 8/4/1	Ammonia, Nitrate, Nitrite, CM 4500 B.E	Nitrate, Nitrite, CM 300								LABORATORY WORK ORDER NO.	LABORATORY SAMPLE NUMBER
62350003			MW1	2	120	G	X	X	X								14E1148	
62350003			MW2	↓	↓	↓	↓	↓	↓									
62350003			MW3	↓	↓	↓	↓	↓	↓									
62350003			MW4	↓	↓	↓	↓	↓	↓									
62350003 PRESTON - MW1	5/27/04	7:15	MW1	↓	↓	↓	↓	↓	↓									01
62350003 PRESTON - MW2	↓	7:35	MW2	↓	↓	↓	↓	↓	↓									02
62350003 PRESTON - MW3	↓	7:50	MW3	↓	↓	↓	↓	↓	↓									03
62350003 PRESTON - SUPPLY WELL	↓	8:10	SUPPLY WELL	↓	↓	↓	↓	↓	↓									04

Relinquished by: (Signature)

David Phipps

Date

5/28/04
Time 10:10

Received by: (Signature)

Date

Time

Turn-Around:

☐ Standard

☐ Rush

Contact Lab Prior to Submission

Relinquished by: (Signature)

Date

Time

Received for Lab by: (Signature)

Date

Time

Remarks:

Well Survey Results

Iowa Department of Natural Resources
109 Trowbridge Hall
Iowa City, IA 52242-1319
319-335-1575
319-335-2754 (fax)



15 new wells
1 new city well <1 mile
14 private wells >1,000'

To: Leslie L. Nagel
Seneca Environmental Services
4140 NE 14th Street
Des Moines, IA 50313
515-261-7733/515-262-2469 (fax)

From: Paul VanDorpe

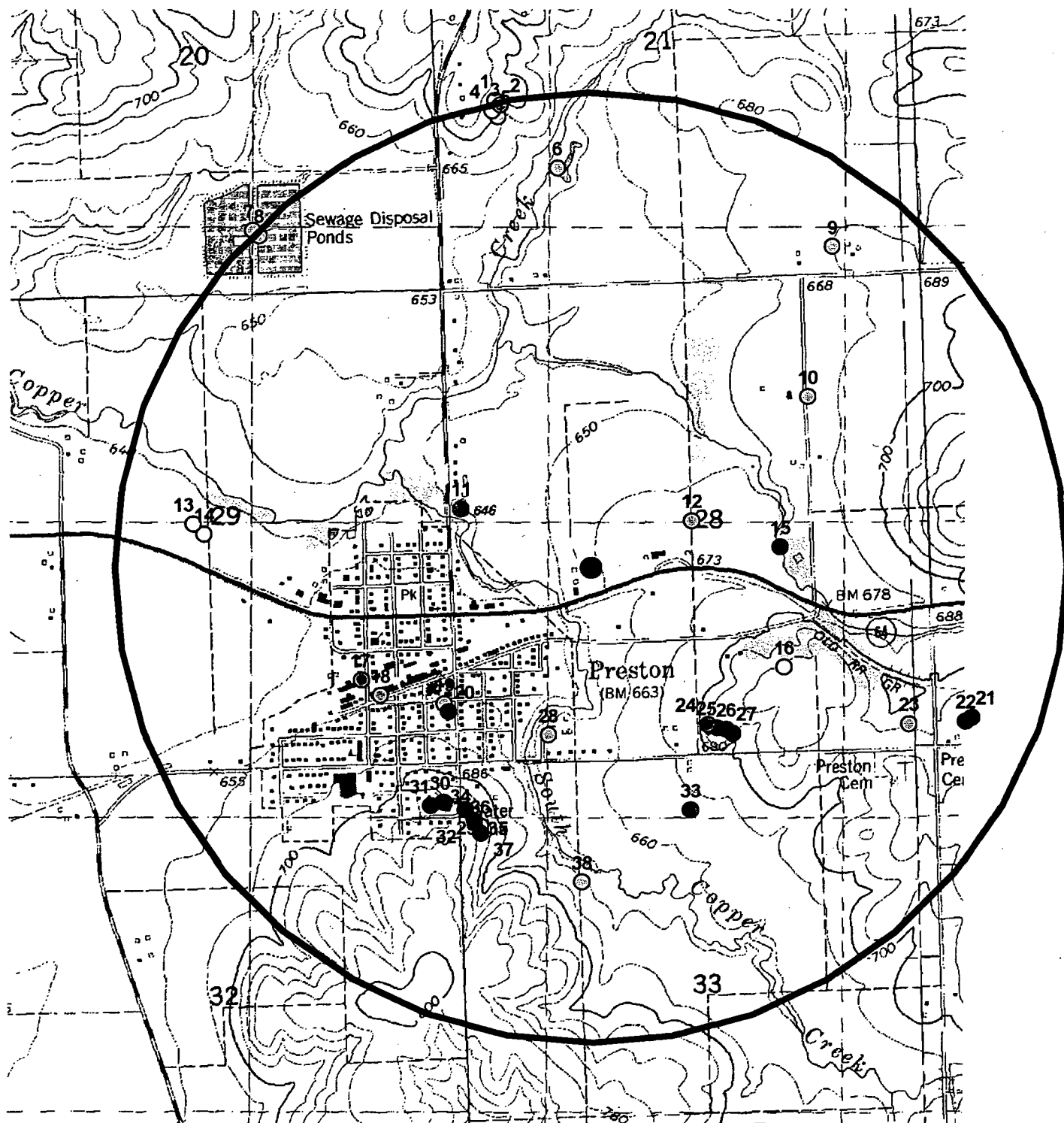
Date: 2/2/2005

Subject: Well search results
Seneca Project # 6235000

Included in search	No. of wells	Database
X	17	IGS well database general well database maintained by IGS, location accuracy varies 3,730 to 25 ft., last updated 12/2004.
X	4	Public wells (municipal) municipal well database maintained by IGS, location accuracy varies 3,730 to 25 ft., under development
X	0	Public wells (non-municipal) municipal well database maintained by IGS, location accuracy varies 3,730 to 25 ft., under development
X	4	Private well tracking system IDNR database management system for Grants-to-counties-covered wells. Locational accuracy unknown, assumed to be +/-17m., Last update 12/2004.
X	6	Wells registered for testing wells tested under Grant-to-Counties program. Locational accuracy varies 1150 to 150 m.; Last update 9/2001, no future updates planned.
X	2	Permitted private wells wells permitted under Grant-to-Counties program. Locational accuracy varies 1150 to 150 m.; Last update 9/2001, no future updates planned.
X	1	Registered abandoned wells wells abandoned under Grant-to-Counties program. Locational accuracy varies 1150 to 150 m.; Last update 9/2001, no future updates planned.
X	2	Public water supply wells and intakes locational accuracy 220 m., last updated 8/96
X	2	Water use permit facilities facilities permitted to withdraw >25,000 gallons per day, locational accuracy is +/- 3,750 ft.; last updated 10/96
X	0	Agricultural drainage wells locational accuracy 100m., last updated 4/98

IGS Well Search Results For New Horizon FS

Search Radius: 5280 ft.



Well search results

- IGS well database
- Public wells (municipal)
- Public water supply wells and intakes
- Registered abandoned wells
- Permitted private wells
- Private well tracking system wells
- Wells registered for testing
- Water use permit facilities

*Note: wells with identical locations have been shifted from their original locations for the purpose of preparing this map.

1000 0 1000 2000 Feet



Iowa Geological Survey
109 Trowbridge Hall
Iowa City, IA 52242-1319
319-335-1575
319-335-2754 (fax)
February 2, 2005

Well Search Results For New Horizon FS; Search Radius: 5280 ft.

IGS well database

Map Id	Well No.	Location	Well depth	Construction/ Permit date	Owner/Permittee	Other information
1	29748	T. 84 N., R. 5 E., Sec. 21, SW, NW	unkn	1/1/1985	Gsb	Bedrock depth unkn
3	29746	T. 84 N., R. 5 E., Sec. 21, SW, NW	unkn	1/1/1985	Gsb	Bedrock depth unkn
5	29747	T. 84 N., R. 5 E., Sec. 21, SW, NW	unkn	1/1/1985	Gsb	Bedrock depth unkn
6	29749	T. 84 N., R. 5 E., Sec. 21, SW	unkn	1/1/1985	Gsb	Bedrock depth unkn
7	29766	T. 84 N., R. 5 E., Sec. 20, SE, SW	unkn	1/1/1985	Gsb	Bedrock depth unkn
8	29765	T. 84 N., R. 5 E., Sec. 20, SE, SW	unkn	1/1/1985	Gsb	Bedrock depth unkn
9	11024	T. 84 N., R. 5 E., Sec. 21, SE, SE, SW	150	1/1/1963	Marvin, Dale	Bedrock depth 1 ft.; scanned log available
10	29317	T. 84 N., R. 5 E., Sec. 28, NE	260	6/10/1983	Budde, Lynn	Bedrock depth 1 ft.
12	25744	T. 84 N., R. 5 E., Sec. 28	328	4/7/1978	Leslie, Eric	Bedrock depth 5 ft.; scanned log available
18	4469	T. 84 N., R. 5 E., Sec. 29, SE, SE, NW, SE	1243	10/21/1950	Preston Creamery	Bedrock depth 50 ft.; scanned log available
19	34597	T. 84 N., R. 5 E., Sec. 33	989	1/1/1922	Preston, City Of	Bedrock depth 1 ft.; scanned log available
23	58072	T. 84 N., R. 5 E., Sec. 28, SE, SE, SE	415	10/1/2003	Driscoll, Dwayne	Bedrock depth 6 ft.
28	34596	T. 84 N., R. 5 E., Sec. 28, SW, SW, SE	1238	4/24/1940	Preston Creamery Association	Bedrock depth 50 ft.; scanned log available
30	17615	T. 84 N., R. 5 E., Sec. 32, NE, NE, NE, SE	697	8/1/1965	Preston, City Of	Bedrock depth unkn; scanned log available
34	548	T. 84 N., R. 5 E., Sec. 33, NW, NW, NW, SW	628	1/1/1937	Preston, City Of	Bedrock depth 3 ft.; scanned log available
36	347	T. 84 N., R. 5 E., Sec. 29	172	1/1/1934	Preston, City Of	Bedrock depth unkn; scanned log available
38	46582	T. 84 N., R. 5 E., Sec. 33, NW	395	7/29/1998	Camp, Gene & Marcia	Bedrock depth 1 ft.

Public wells (municipal)

Map Id	Well No.	Location	Well depth	Construction/ Permit date	Owner/Permittee	Other information
20	34597	T. 84 N., R. 5 E., Sec. 32	989	1/1/1922	Preston, City Of	Bedrock depth unkn; Local id: # ??
29	17615	T. 84 N., R. 5 E., Sec. 32, NE, NE, NE, SE	697	1/1/1965	Preston, City Of	Bedrock depth unkn; Well status: Primary; Local id: #2
35	548	T. 84 N., R. 5 E., Sec. 33, NW, NW, NW, SW	720	1/1/1937	Preston, City Of	Bedrock depth unkn; Well status: Primary; Local id: #1
37	347	T. 84 N., R. 5 E., Sec. 32	172	unkn	Preston, City Of	Bedrock depth unkn; Well status: Abandoned; Local id: # SOUTH

Private well tracking system wells

Map Id	Well No.	Location	Well depth	Construction/ Permit date	Owner/Permittee	Other information
2	2104027	T. 84 N., R. 5 E., Sec. 21, NW SW SE SW SW	unkn	unkn	Wilson, Madaline	Status: Permitted Use: Program source: New permit
11	2085290	T. 84 N., R. 5 E., Sec. 28, NW SW NW SW NW	25	1/1/1970	Lynn, Craig	Status: Active Use: Household Program source: Well testing
24	2077234	T. 84 N., R. 5 E., Sec. 28, SE SW NW NW SE	200	1/15/2002	Devries, Mark	Status: Active Use: Household Program source: Well testing
33	2096930	T. 84 N., R. 5 E., Sec. 28, SE SW SW SW SW	415	10/1/2003	Yarolem, Mike	Status: Retired Use: Program source: New permit

Wells registered for testing

Map Id	Well No.	Location	Well depth	Construction/ Permit date	Owner/Permittee	Other information
15	35798	T. 84 N., R. 5 E., Sec. 28, SE, NW, NE	375	1978	Manders, Glenn	Drilling method: Drilled; Known well depth
21	70836	T. 84 N., R. 5 E., Sec. 27, SW, SW, SW	unkn	unkn	Sorensen, Mary & Jim	Drilling method: ; Well depth is uncertain
22	69895	T. 84 N., R. 5 E., Sec. 27, SW, SW, SW	unkn	unkn	Sorensen, Jim and Mary	Drilling method: Unknown; Well depth is uncertain
25	70553	T. 84 N., R. 5 E., Sec. 28, SE, SW, SW	235	1979	Sparks, Alan	Drilling method: Drilled; Estimated well depth
26	20868	T. 84 N., R. 5 E., Sec. 28, SE, SW, SW	unkn	unkn	Driscoll, John	Drilling method: Drilled;

2/2/2005 7/1 mile - Eric Leslie address 115 S. Divison St., Spragueville, IA (503) 689-4941

★ 27	69816	T. 84 N., R. 5 E., Sec. 28, SE, SW, SW	235	1979	Sparks, Alan	Drilling method: Drilled; Estimated well depth
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Permitted private wells

Map Id	Well No.	Location	Well depth	Construction/ Permit date	Owner/Permittee	Other Information
★ 4	11116	T. 84 N., R. 5 E., Sec. 21, SW, NW	370	unkn	Unkn	Primary use:
1b	28685	T. 84 N., R. 5 E., Sec. 28, SE, SW, NE	unkn	8/16/1996	Driscoll	Primary use: household

Registered abandoned wells

Map Id	Well No.	Location	Well depth	Construction/ Permit date	Owner/Permittee	Other Information
17	32413	T. 84 N., R. 5 E., Sec. 29, SE, SE, NW	12	n.a.	Cheese, Beatrice	Well plugged: 4/20/1998; Well type: < 18" dia.

Public water supply wells and intakes

Map Id	Well No.	Location	Well depth	Construction/ Permit date	Owner/Permittee	Other Information
31	4929	T84N, R05E, Sec. 32	n.a.	n.a.	Preston	n.a.
32	4929	T84N, R05E, Sec. 33	n.a.	n.a.	Preston	n.a.

Water use permit facilities

Map Id	Well No.	Location	Well depth	Construction/ Permit date	Owner/Permittee	Other Information
13	7221	T. 84 N., R. 5 E., Sec. 29	n.a.	n.a.	Beatrice Cheese, Inc.	Source: Well, 1 wells authorized, Use: Food processing
14	4929	T. 84 N., R. 5 E., Sec. 29	n.a.	n.a.	Preston, City Of	Source: Well, 2 wells authorized, Use: Municipal