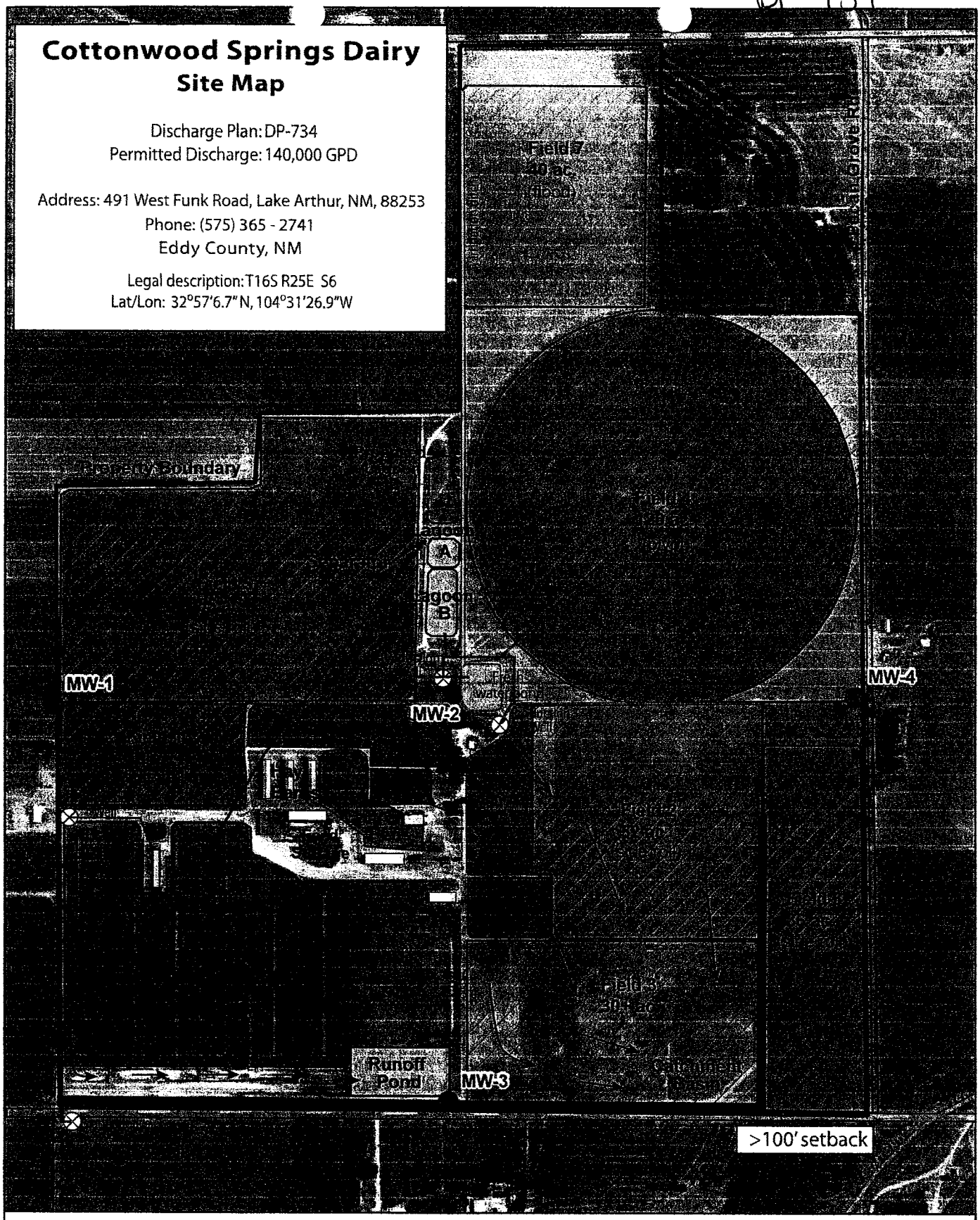
Cottonwood Springs Dairy
Site Map

Discharge Plan: DP-734
Permitted Discharge: 140,000 GPD

Address: 491 West Funk Road, Lake Arthur, NM, 88253
Phone: (575) 365 - 2741
Eddy County, NM

Legal description: T16S R25E S6
Lat/Lon: 32°57'6.7"N, 104°31'26.9"W



Monitoring well (MW)
Production well
Direction of surface flow
6 ft earthen berm
Area enclosed by earthen berm
Irrigation pipeline
Irrigation ditch
Green water pipeline

0 0.125 0.25 0.5 Miles

N

GLORIETA GEOSCIENCE, INC.
P.O. Box 5727 Santa Fe, NM 87502
(505) 983-5446 Fax (505) 983-6482
E-mail ggi@glorietageo.com
Web Address www.glorietageo.com

GROUND WATER

Hall Environmental Analysis Laboratory, Inc.

Date: *22-Jul-09*

NOV 0 8 2009

BUREAU

CLIENT:	Glorieta GeoScience	**Client Sample ID:**	MW-2
Lab Order:	0907256	**Collection Date:**	7/13/2009 4:04:00 PM
Project:	Cottonwood Springs Dairy	**Date Received:**	7/15/2009
Lab ID:	0907256-01	**Matrix:**	AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						Analyst: **RAGS**
Chloride	19	0.10		mg/L	1	7/15/2009 3:06:34 PM
Nitrogen, Nitrate (As N)	0.36	0.10		mg/L	1	7/15/2009 3:06:34 PM
SM2540C MOD: TOTAL DISSOLVED SOLIDS						Analyst: **MMS**
Total Dissolved Solids	1420	400		mg/L	1	7/17/2009
SM 4500 NORG C: TKN						Analyst: **LJB**
Nitrogen, Kjeldahl, Total	ND	5.0		mg/L	1	7/21/2009

Qualifiers:				
	*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
	E	Estimated value	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	MCL	Maximum Contaminant Level
	ND	Not Detected at the Reporting Limit	RL	Reporting Limit
	S	Spike recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Date: *22-Jul-09*

CLIENT:	Glorieta GeoScience	**Client Sample ID:**	MW-3
Lab Order:	0907256	**Collection Date:**	7/13/2009 5:04:00 PM
Project:	Cottonwood Springs Dairy	**Date Received:**	7/15/2009
Lab ID:	0907256-02	**Matrix:**	AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						Analyst: **TAF**
Chloride	810	10		mg/L	100	7/20/2009 2:52:45 PM
Nitrogen, Nitrate (As N)	2.3	0.10		mg/L	1	7/15/2009 3:58:48 PM
SM2540C MOD: TOTAL DISSOLVED SOLIDS						Analyst: **MMS**
Total Dissolved Solids	4820	400		mg/L	1	7/17/2009
SM 4500 NORG C: TKN						Analyst: **LJB**
Nitrogen, Kjeldahl, Total	15	5.0		mg/L	1	7/21/2009

Qualifiers:

*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
E	Estimated value	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	MCL	Maximum Contaminant Level
ND	Not Detected at the Reporting Limit	RL	Reporting Limit
S	Spike recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Date: *22-Jul-09*

CLIENT:	Glorieta GeoScience	**Client Sample ID:**	MW-4
Lab Order:	0907256	**Collection Date:**	7/13/2009 4:30:00 PM
Project:	Cottonwood Springs Dairy	**Date Received:**	7/15/2009
Lab ID:	0907256-03	**Matrix:**	AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						Analyst: **TAF**
Chloride	68	1.0		mg/L	10	7/21/2009 2:30:52 PM
Nitrate (As N)+Nitrite (As N)	14	1.0		mg/L	5	7/20/2009 3:10:09 PM
SM2540C MOD: TOTAL DISSOLVED SOLIDS						Analyst: **MMS**
Total Dissolved Solids	2500	400		mg/L	1	7/17/2009
SM 4500 NORG C: TKN						Analyst: **LJB**
Nitrogen, Kjeldahl, Total	ND	5.0		mg/L	1	7/21/2009

Qualifiers:	*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
	E	Estimated value	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	MCL	Maximum Contaminant Level
	ND	Not Detected at the Reporting Limit	RL	Reporting Limit
	S	Spike recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Date: *14-Apr-09*

CLIENT:	Glorieta GeoScience	**Client Sample ID:**	MW-3
Lab Order:	0904033	**Collection Date:**	4/1/2009 8:40:00 AM
Project:	Cottonwood Springs Dairy	**Date Received:**	4/2/2009
Lab ID:	0904033-01	**Matrix:**	AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						Analyst: RAGS
Chloride	790	2.0		mg/L	20	4/2/2009 7:00:40 PM
Nitrogen, Nitrate (As N)	1.7	0.10		mg/L	1	4/2/2009 6:43:15 PM
SM2540C MOD: TOTAL DISSOLVED SOLIDS						Analyst: DMG
Total Dissolved Solids	4800	400		mg/L	1	4/8/2009
SM 4500 NORG C: TKN						Analyst: KMS
Nitrogen, Kjeldahl, Total	16	5.0		mg/L	1	4/8/2009

Qualifiers:	*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
	E	Estimated value	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	MCL	Maximum Contaminant Level
	ND	Not Detected at the Reporting Limit	RL	Reporting Limit
	S	Spike recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Date: *14-Apr-09*

CLIENT:	Glorieta GeoScience	**Client Sample ID:**	MW-4
Lab Order:	0904033	**Collection Date:**	4/1/2009 10:10:00 AM
Project:	Cottonwood Springs Dairy	**Date Received:**	4/2/2009
Lab ID:	0904033-02	**Matrix:**	AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						Analyst: RAGS
Chloride	31	0.10		mg/L	1	4/2/2009 7:18:05 PM
Nitrogen, Nitrate (As N)	4.0	0.10		mg/L	1	4/2/2009 7:18:05 PM
SM2540C MOD: TOTAL DISSOLVED SOLIDS						Analyst: DMG
Total Dissolved Solids	1800	40		mg/L	1	4/13/2009
SM 4500 NORG C: TKN						Analyst: KMS
Nitrogen, Kjeldahl, Total	ND	5.0		mg/L	1	4/9/2009

Qualifiers:

*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
E	Estimated value	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	MCL	Maximum Contaminant Level
ND	Not Detected at the Reporting Limit	RL	Reporting Limit
S	Spike recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Date: *10-Feb-09*

CLIENT:	Glorieta GeoScience	**Client Sample ID:**	MW-3
Lab Order:	0901418	**Collection Date:**	1/28/2009 8:02:00 AM
Project:	Cottonwood Springs	**Date Received:**	1/29/2009
Lab ID:	0901418-01	**Matrix:**	AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						Analyst: RAGS
Chloride	710	10		mg/L	100	2/2/2009 11:04:17 AM
Nitrogen, Nitrate (As N)	1.3	0.10		mg/L	1	1/29/2009 4:58:17 PM
SM 2540 C: TOTAL DISSOLVED SOLIDS						Analyst: KMS
Total Dissolved Solids	4400	100		mg/L	1	1/29/2009
SM 4500 NORG C: TKN						Analyst: TAF
Nitrogen, Kjeldahl, Total	16	5.0		mg/L	1	2/1/2009

Qualifiers:

*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
E	Estimated value	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	MCL	Maximum Contaminant Level
ND	Not Detected at the Reporting Limit	RL	Reporting Limit
S	Spike recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Date: *10-Feb-09*

CLIENT:	Glorieta GeoScience	**Client Sample ID:**	MW-4
Lab Order:	0901418	**Collection Date:**	1/28/2009 9:42:00 AM
Project:	Cottonwood Springs	**Date Received:**	1/29/2009
Lab ID:	0901418-03	**Matrix:**	AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						**Analyst: RAGS**
Chloride	46	1.0		mg/L	10	1/29/2009 6:07:57 PM
Nitrogen, Nitrate (As N)	8.0	0.10		mg/L	1	1/29/2009 5:50:32 PM
SM 2540 C: TOTAL DISSOLVED SOLIDS						**Analyst: KMS**
Total Dissolved Solids	3100	200		mg/L	1	1/30/2009
SM 4500 NORG C: TKN						**Analyst: TAF**
Nitrogen, Kjeldahl, Total	ND	5.0		mg/L	1	2/1/2009

Qualifiers:				
	*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
	E	Estimated value	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	MCL	Maximum Contaminant Level
	ND	Not Detected at the Reporting Limit	RL	Reporting Limit
	S	Spike recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Date: *14-Nov-08*

CLIENT:	Glorieta GeoScience	**Client Sample ID:**	MW #2
Lab Order:	0811039	**Collection Date:**	11/3/2008 1:21:00 PM
Project:	Cottonwood Springs Dairy	**Date Received:**	11/5/2008
Lab ID:	0811039-02	**Matrix:**	AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						Analyst: **SLB**
Chloride	17	0.10		mg/L	1	11/5/2008 12:42:33 PM
Nitrogen, Nitrate (As N)	ND	0.10		mg/L	1	11/5/2008 12:42:33 PM
SM 2540C: TDS						Analyst: **KMB**
Total Dissolved Solids	1400	400		mg/L	1	11/6/2008
SM 4500 NORG C: TKN						Analyst: **TAF**
Nitrogen, Kjeldahl, Total	7.7	5.0		mg/L	1	11/11/2008

Qualifiers:

*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
E	Estimated value	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	MCL	Maximum Contaminant Level
ND	Not Detected at the Reporting Limit	RL	Reporting Limit
S	Spike recovery outside accepted recovery limits		

GROUND WATER

FEB 0 5 2009

BUREAU

Hall Environmental Analysis Laboratory, Inc.

Date: *14-Nov-08*

CLIENT:	Glorieta GeoScience	**Client Sample ID:**	MW #3
Lab Order:	0811039	**Collection Date:**	11/3/2008 12:14:00 PM
Project:	Cottonwood Springs Dairy	**Date Received:**	11/5/2008
Lab ID:	0811039-01	**Matrix:**	AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						Analyst: **SLB**
Chloride	740	2.0		mg/L	20	11/5/2008 5:03:41 PM
Nitrogen, Nitrate (As N)	5.2	0.10		mg/L	1	11/5/2008 11:50:20 AM
SM 2540C: TDS						Analyst: **KMB**
Total Dissolved Solids	4400	100		mg/L	1	11/6/2008
SM 4500 NORG C: TKN						Analyst: **TAF**
Nitrogen, Kjeldahl, Total	14	5.0		mg/L	1	11/11/2008

Qualifiers:				
	*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
	E	Estimated value	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	MCL	Maximum Contaminant Level
	ND	Not Detected at the Reporting Limit	RL	Reporting Limit
	S	Spike recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Date: *14-Nov-08*

CLIENT:	Glorieta GeoScience	**Client Sample ID:**	MW #4
Lab Order:	0811039	**Collection Date:**	11/3/2008 1:56:00 PM
Project:	Cottonwood Springs Dairy	**Date Received:**	11/5/2008
Lab ID:	0811039-03	**Matrix:**	AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						Analyst: **SLB**
Chloride	57	1.0		mg/L	10	11/5/2008 5:38:29 PM
Nitrogen, Nitrate (As N)	11	0.10		mg/L	1	11/5/2008 1:34:46 PM
SM 2540C: TDS						Analyst: **KMB**
Total Dissolved Solids	2700	400		mg/L	1	11/6/2008
SM 4500 NORG C: TKN						Analyst: **TAF**
Nitrogen, Kjeldahl, Total	2.8	2.0		mg/L	1	11/11/2008

Qualifiers:	*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
	E	Estimated value	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	MCL	Maximum Contaminant Level
	ND	Not Detected at the Reporting Limit	RL	Reporting Limit
	S	Spike recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Date: *03-Sep-08*

CLIENT:	Glorieta GeoScience	**Client Sample ID:**	MW#1
Lab Order:	0808215	**Collection Date:**	8/12/2008 1:12:00 PM
Project:	Cottonwood Springs Dairy	**Date Received:**	8/13/2008
Lab ID:	0808215-02	**Matrix:**	AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						Analyst: SLB
Chloride	140	1.0		mg/L	10	8/13/2008 3:21:32 PM
Nitrogen, Nitrate (As N)	39	1.0		mg/L	10	8/13/2008 3:21:32 PM
SM 2540C TOTAL DISSOLVED SOLIDS						Analyst: KMS
Total Dissolved Solids	6000	2000		mg/L	1	8/14/2008
SM4500-NORG C: TKN						Analyst: TAF
Nitrogen, Kjeldahl, Total	5.6	5.0		mg/L	1	8/15/2008

Qualifiers:

*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	MCL	Maximum Contaminant Level
ND	Not Detected at the Reporting Limit	RL	Reporting Limit
S	Spike recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Date: *03-Sep-08*

CLIENT:	Glorieta GeoScience	**Client Sample ID:**	MW#2
Lab Order:	0808215	**Collection Date:**	8/12/2008 1:32:00 PM
Project:	Cottonwood Springs Dairy	**Date Received:**	8/13/2008
Lab ID:	0808215-03	**Matrix:**	AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						Analyst: **SLB**
Chloride	16	0.10		mg/L	1	8/13/2008 3:38:56 PM
Nitrogen, Nitrate (As N)	ND	0.10		mg/L	1	8/13/2008 3:38:56 PM
SM 2540C TOTAL DISSOLVED SOLIDS						Analyst: **KMS**
Total Dissolved Solids	1100	40		mg/L	1	8/14/2008
SM4500-NORG C: TKN						Analyst: **TAF**
Nitrogen, Kjeldahl, Total	ND	5.0		mg/L	1	8/18/2008

Qualifiers:				
	*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	MCL	Maximum Contaminant Level
	ND	Not Detected at the Reporting Limit	RL	Reporting Limit
	S	Spike recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Date: *03-Sep-08*

CLIENT:	Glorieta GeoScience	**Client Sample ID:**	MW#3
Lab Order:	0808215	**Collection Date:**	8/12/2008 12:17:00 PM
Project:	Cottonwood Springs Dairy	**Date Received:**	8/13/2008
Lab ID:	0808215-01	**Matrix:**	AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						Analyst: **IC**
Chloride	710	10		mg/L	100	8/28/2008 2:43:13 PM
Nitrogen, Nitrate (As N)	6.1	0.10		mg/L	1	8/13/2008 2:29:19 PM
SM 2540C TOTAL DISSOLVED SOLIDS						Analyst: **KMS**
Total Dissolved Solids	4600	100		mg/L	1	8/14/2008
SM4500-NORG C: TKN						Analyst: **TAF**
Nitrogen, Kjeldahl, Total	16	5.0		mg/L	1	8/15/2008

Qualifiers:	*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	MCL	Maximum Contaminant Level
	ND	Not Detected at the Reporting Limit	RL	Reporting Limit
	S	Spike recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Date: *03-Sep-08*

CLIENT:	Glorieta GeoScience	**Client Sample ID:**	MW#4
Lab Order:	0808215	**Collection Date:**	8/12/2008 2:12:00 PM
Project:	Cottonwood Springs Dairy	**Date Received:**	8/13/2008
Lab ID:	0808215-04	**Matrix:**	AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						Analyst: **SLB**
Chloride	25	0.10		mg/L	1	8/13/2008 4:31:10 PM
Nitrogen, Nitrate (As N)	1.3	0.10		mg/L	1	8/13/2008 4:31:10 PM
SM 2540C TOTAL DISSOLVED SOLIDS						Analyst: **KMS**
Total Dissolved Solids	1500	20		mg/L	1	8/14/2008
SM4500-NORG C: TKN						Analyst: **TAF**
Nitrogen, Kjeldahl, Total	ND	1.0		mg/L	1	8/18/2008

Qualifiers:				
	*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	MCL	Maximum Contaminant Level
	ND	Not Detected at the Reporting Limit	RL	Reporting Limit
	S	Spike recovery outside accepted recovery limits		

DP-139

Advanced Analysis & Laboratory Services

5601 19th Street Lubbock, Texas 79407 P.O. Box 16652 Lubbock,Texas 79490
Tel: (806) 796-2805 Fax : (806) 796-2825

ANALYTICAL RESULTS FOR
COWBELL TESTING
ATTN: CHERRI SNYDER
106 TIERRA BERRENDA
ROSWELL, NM 88201
PHONE: (505) 622-4035
FAX: (505) 623-8442

Receiving Date: 01/14/02
Reporting Date: 01/28/02
Project Number: DP-734
Project Name: COTTONWOOD SPRINGS DAIRY
Project Location: LAKE ARTHUR, NM

Sampling Date: 01/12/02
Sample Type: WELL H_2O, WASTE H_2O
Sample Condition: COOL & INTACT
Sample Received By: MR
Analyzed By: RH, NW

LAB NUMBER	SAMPLE ID	TDS (mg/L)	Chlorides (mg/L)	TKN (mg/L)	NO_3-NO_2-N (mg/L)
ANALYSIS DATE:		01/17/02	01/16/02	01/21/02	01/21/02
AG4459-1	MW 1	4355	150	< 0.2*	37.8
AG4459-2	MW 2	1090	19	< 0.2*	< 0.01*
AG4459-3	MW 3	4505	490	6.8	49.9
AG4459-4	WASTEWATER	2280	240	261	0.5
Blank		< 1	< 1	< 0.2	< 0.01
Quality Control		984	50	4.96	0.2732
True Value QC		1000	50	5.00	0.3000
% Instrument Accuracy		98	100	99	91
% Extraction Accuracy		N/A	98	85	106
Relative Percent Difference		2	0	4	3
METHODS: EPA 600/4-79-020,		160.1	4500B	351.4	353.3

Mario Rodriguez, Chemist

01/28/02
Date

Highest GW: MW-3
SW Pond

DP-151

Hall Environmental Analysis Laboratory, Inc.

Date: *22-Jul-09*

CLIENT:	Glorieta GeoScience	**Client Sample ID:**	MW-4
Lab Order:	0907256	**Collection Date:**	7/13/2009 4:30:00 PM
Project:	Cottonwood Springs Dairy	**Date Received:**	7/15/2009
Lab ID:	0907256-03	**Matrix:**	AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						Analyst: **TAF**
Chloride	68	1.0		mg/L	10	7/21/2009 2:30:52 PM
Nitrate (As N)+Nitrite (As N)	14	1.0		mg/L	5	7/20/2009 3:10:09 PM
SM2540C MOD: TOTAL DISSOLVED SOLIDS						Analyst: **MMS**
Total Dissolved Solids	2500	400		mg/L	1	7/17/2009
SM 4500 NORG C: TKN						Analyst: **LJB**
Nitrogen, Kjeldahl, Total	ND	5.0		mg/L	1	7/21/2009

Qualifiers:				
	*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
	E	Estimated value	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	MCL	Maximum Contaminant Level
	ND	Not Detected at the Reporting Limit	RL	Reporting Limit
	S	Spike recovery outside accepted recovery limits		

Highest GW; MW-4
LAA

Hall Environmental Analysis Laboratory, Inc.

Date: *17-Sep-08*

CLIENT:	Glorieta GeoScience	**Client Sample ID:**	Lagoon
Lab Order:	0809142	**Collection Date:**	9/7/2008 4:15:00 PM
Project:	Cottonwood Springs Dairy	**Date Received:**	9/9/2008
Lab ID:	0809142-01	**Matrix:**	AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						Analyst: **SLB**
Chloride	240	2.0		mg/L	20	9/9/2008 4:00:01 PM
Nitrogen, Nitrate (As N)	ND	2.0		mg/L	20	9/9/2008 4:00:01 PM
SM 2540C TOTAL DISSOLVED SOLIDS						Analyst: **KMS**
Total Dissolved Solids	3600	2000		mg/L	1	9/10/2008
SM4500-NORG C: TKN						Analyst: **TAF**
Nitrogen, Kjeldahl, Total	1300	10		mg/L	1	9/11/2008

Qualifiers:

*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	MCL	Maximum Contaminant Level
ND	Not Detected at the Reporting Limit	RL	Reporting Limit
S	Spike recovery outside accepted recovery limits		

Highest WW

DR-139

Hall Environmental Analysis Laboratory, Inc.

Date: *10-Feb-09*

CLIENT:	Glorieta GeoScience	**Client Sample ID:**	Lagoon
Lab Order:	0901418	**Collection Date:**	1/28/2009 8:50:00 AM
Project:	Cottonwood Springs	**Date Received:**	1/29/2009
Lab ID:	0901418-02	**Matrix:**	AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						Analyst: RAGS
Chloride	230	1.0		mg/L	10	1/29/2009 5:33:07 PM
Nitrogen, Nitrate (As N)	ND	1.0		mg/L	10	1/29/2009 5:33:07 PM
SM 2540 C: TOTAL DISSOLVED SOLIDS						Analyst: KMS
Total Dissolved Solids	4800	2000		mg/L	1	1/29/2009
SM 4500 NORG C: TKN						Analyst: TAF
Nitrogen, Kjeldahl, Total	430	10		mg/L	1	2/1/2009

Qualifiers:				
	*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
	E	Estimated value	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	MCL	Maximum Contaminant Level
	ND	Not Detected at the Reporting Limit	RL	Reporting Limit
	S	Spike recovery outside accepted recovery limits		

2nd Highest WW

DP-134

Advanced Analysis & Laboratory Services

5601 19th Street Lubbock, Texas 79407 P.O. Box 16652 Lubbock,Texas 79490
Tel: (806) 796-2805 Fax : (806) 796-2825

ANALYTICAL RESULTS FOR
COWBELL TESTING
ATTN: CHERRI SNYDER
106 TIERRA BERRENDA
ROSWELL, NM 88201
PHONE: (505) 622-4035
FAX: (505) 623-8442

Receiving Date: 10/21/02
Reporting Date: 11/04/02
Project Number: DP-734
Project Name: COTTONWOOD SPRINGS DAIRY
Project Location: LAKE ARTHUR, NM

Sampling Date: 10/19/02
Sample Type: WELL H_20, WASTE H_2O
Sample Condition: COOL & INTACT
Sample Received By: BS
Analyzed By: MJ, NW

LAB NUMBER	SAMPLE ID	TDS (mg/L)	Chlorides (mg/L)	TKN (mg/L)	NO_3-NO_2-N (mg/L)
Date Analysis Started:		10/24/021	10/28/02	10/28/02	10/30/02
Time Analysis Started:		7:45	15:15	9:30	12:50
AG5471-1	MW # 2	1085	25	2.2	0.12
AG5471-2	MW # 3	3255	320	8.3	15.8
AG5471-3	MW # 4	1655	29	0.7	2.2
AG5471-4	WASTEWATER	1540	150	102	0.41
Date Analysis Finished:		10/25/02	10/28/02	10/28/02	10/30/02
Time Analysis Finished:		11:00	17:00	16:50	16:30
Blank		< 1	< 1	< 1	< 0.01
Quality Control		998	52	4.63	0.4974
True Value QC		1000	50	5.00	0.5000
% Instrument Accuracy		100	104	93	99
% Extraction Accuracy		N/A	107	93	86
Relative Percent Difference		1	5	5	11

METHODS: EPA 600/4-79-020,	160.1	4500B-Cl^-	351.4	353.3

Mario Rodriguez

Mario Rodriguez, Chemist

11/04/02

Date

Lowest WW

Hall Environmental Analysis Laboratory, Inc.

Date: *22-Jul-09*

CLIENT:	Glorieta GeoScience	**Client Sample ID:**	Lagoon
Lab Order:	0907256	**Collection Date:**	7/13/2009 3:34:00 PM
Project:	Cottonwood Springs Dairy	**Date Received:**	7/15/2009
Lab ID:	0907256-04	**Matrix:**	AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						Analyst: **RAGS**
Chloride	260	2.0		mg/L	20	7/15/2009 2:49:10 PM
Nitrogen, Nitrate (As N)	ND	2.0		mg/L	20	7/15/2009 2:49:10 PM
SM2540C MOD: TOTAL DISSOLVED SOLIDS						Analyst: **MMS**
Total Dissolved Solids	2400	400		mg/L	1	7/17/2009
SM 4500 NORG C: TKN						Analyst: **LJB**
Nitrogen, Kjeldahl, Total	200	20		mg/L	1	7/21/2009

Qualifiers:

*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
E	Estimated value	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	MCL	Maximum Contaminant Level
ND	Not Detected at the Reporting Limit	RL	Reporting Limit
S	Spike recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Date: *27-May-09*

CLIENT:	Glorieta GeoScience	**Client Sample ID:**	Lagoon
Lab Order:	0905266	**Collection Date:**	5/12/2009 4:02:00 PM
Project:	Cottonwood Springs Dairy	**Date Received:**	5/14/2009
Lab ID:	0905266-01	**Matrix:**	AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						Analyst: **RAGS**
Chloride	280	1.0		mg/L	10	5/21/2009 5:00:20 AM
Nitrate (As N)+Nitrite (As N)	ND	2.0		mg/L	10	5/20/2009 12:34:20 AM
SM2540C MOD: TOTAL DISSOLVED SOLIDS						Analyst: **KMS**
Total Dissolved Solids	3100	400		mg/L	1	5/15/2009
SM 4500 NORG C: TKN						Analyst: **KMS**
Nitrogen, Kjeldahl, Total	260	20		mg/L	1	5/19/2009

Qualifiers:				
	*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
	E	Estimated value	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	MCL	Maximum Contaminant Level
	ND	Not Detected at the Reporting Limit	RL	Reporting Limit
	S	Spike recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Date: *10-Feb-09*

CLIENT:	Glorieta GeoScience	**Client Sample ID:**	Lagoon
Lab Order:	0901418	**Collection Date:**	1/28/2009 8:50:00 AM
Project:	Cottonwood Springs	**Date Received:**	1/29/2009
Lab ID:	0901418-02	**Matrix:**	AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						Analyst: RAGS
Chloride	230	1.0		mg/L	10	1/29/2009 5:33:07 PM
Nitrogen, Nitrate (As N)	ND	1.0		mg/L	10	1/29/2009 5:33:07 PM
SM 2540 C: TOTAL DISSOLVED SOLIDS						Analyst: KMS
Total Dissolved Solids	4800	2000		mg/L	1	1/29/2009
SM 4500 NORG C: TKN						Analyst: TAF
Nitrogen, Kjeldahl, Total	430	10		mg/L	1	2/1/2009

Qualifiers:				
	*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
	E	Estimated value	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	MCL	Maximum Contaminant Level
	ND	Not Detected at the Reporting Limit	RL	Reporting Limit
	S	Spike recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Date: *17-Sep-08*

CLIENT:	Glorieta GeoScience	**Client Sample ID:**	Lagoon
Lab Order:	0809142	**Collection Date:**	9/7/2008 4:15:00 PM
Project:	Cottonwood Springs Dairy	**Date Received:**	9/9/2008
Lab ID:	0809142-01	**Matrix:**	AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						Analyst: **SLB**
Chloride	240	2.0		mg/L	20	9/9/2008 4:00:01 PM
Nitrogen, Nitrate (As N)	ND	2.0		mg/L	20	9/9/2008 4:00:01 PM
SM 2540C TOTAL DISSOLVED SOLIDS						Analyst: **KMS**
Total Dissolved Solids	3600	2000		mg/L	1	9/10/2008
SM4500-NORG C: TKN						Analyst: **TAF**
Nitrogen, Kjeldahl, Total	1300	10		mg/L	1	9/11/2008

Qualifiers:	*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	MCL	Maximum Contaminant Level
	ND	Not Detected at the Reporting Limit	RL	Reporting Limit
	S	Spike recovery outside accepted recovery limits		