

FIGURE 2 - SITE MAP

J & M DAIRY ROUTE 456 NORTH 13TH STREET ARTESIA, NEW MEXICO 88201		SCALE: 1" = 500'	DRAWN: SDC
ATKINS ENGINEERING ASSOCIATES, INC P.O. BOX 3156 ROSWELL, NEW MEXICO 88202-3156			
DATE: 02/06	CHECKED: JDA	JOB NO. JM DAIRY.AB1.05	SHEET _1_ OF _1_

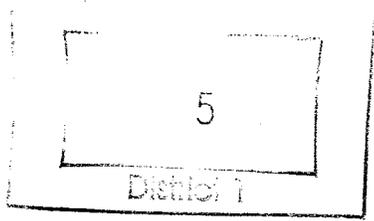
- LEGEND**
- MONITOR WELL
  - LOCATION OF MONITOR WELLS COMPLETED IN UPPER AND LOWER SHALLOW SATURATED ZONES
  - EXISTING DOMESTIC/IRRIGATION WELL
  - ABANDONED ARTESIAN WELL

Table 3. Water Quality Analysis Results in mg/L

DP-765

Well No.	Date Sampled	Nitrate (mg/L)	Chloride (mg/L)	TKN (mg/L)	Total Dissolved Solids (mg/L)
MW-1	06/28/06	6.3	110	ND	1900
MW-2	06/29/06	28	150	ND	2400
MW-3	07/05/06	160	220	2.2	4300
MW-4	07/05/06	4.1	91	ND	1500
MW-5	07/11/06	14	360	ND	3900
MW-5 QA	07/11/06	15	390	ND	4100
MW-6 ?	07/11/06	7.2	220	ND	3000
MW-7	06/27/06	26	180	ND	2800
MW-8U	06/25/06	14	180	ND	3700
MW-8L	06/25/06	14	390	ND	4000
MW-9U	06/27/06	45	320	1.1	4700
MW-9U QA	06/27/06	45	330	ND	4800
MW-9L	06/27/06	12	280	ND	3400
MW-10U	07/11/06	7.8	170	1.5	3500
MW-10L	07/11/06	0.41	130	ND	1500
MW-10L2	07/11/06	2.1	87	ND	1100
MW-11U	06/27/06	3.6	170	2.5	2500
MW-11L	06/27/06	5.8	88	ND	2000
MW-12U	06/27/06	8.0	150	ND	2900
MW-12L	07/05/06	7.3	110	1.8	3000
MW12-L QA	07/05/06	7.3	110	1.3	2900
MW-13U	06/25/06	91	150	ND	3900
MW-13U QA	06/25/06	93	150	ND	3900
MW-13L	06/25/06	9.4	96	ND	2800
MW-14	07/11/06	12	170	ND	3000
Field Blank	06/25/06	ND	ND	ND	ND
Field Blank	06/27/06	ND	ND	ND	ND
Field Blank	06/29/06	0.21	5.6	ND	95
Field Blank	07/05/06	0.21	5.5	ND	68
Field Blank	07/11/06	0.21	5.7	ND	41
Field Blank	07/11/06	0.21	5.7	ND	41
Equipment Blank	06/27/06	ND	5.6	ND	66
Equipment Blank	07/11/06	0.21	5.7	ND	49
<b>New Mexico Groundwater Standard</b>		<b>10</b>	<b>250</b>	<b>—</b>	<b>1000</b>

DP MW's



# Stage 1 Abatement Report

**J & M Dairy**  
DP-765

Artesia, New Mexico

**Submitted to:**

**Mr. Bart Farris**  
New Mexico Environment Department  
Groundwater Quality Bureau  
Harold Runnels Building  
P.O. Box 26110  
Santa Fe, NM 87502

**November 2006**

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**Prepared For:**

**Mrs. Maria Borges**  
J& M Dairy  
Route 456 North 13<sup>th</sup> Street  
Artesia, New Mexico

**Prepared By:**

**Atkins Engineering Associates, Inc.**  
PO Box 3156 - 2904 W. Second St.  
Roswell, NM 88201  
(505) 624-2420

296-R

Hall Environmental Analysis Laboratory, Inc.

Date: 07-Jul-06

CLIENT: Atkins Engineering Associates Client Sample ID: MW-8U  
 Lab Order: 0606289 Collection Date: 6/25/2006 4:00:00 PM  
 Project: J & M Dairy Date Received: 6/27/2006  
 Lab ID: 0606289-02 Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
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EPA METHOD 300.0: ANIONS						
Chloride	180	2.0		mg/L	20	7/6/2006 2:29:49 AM
Nitrogen, Nitrate (As N)	14	0.10		mg/L	1	6/27/2006 2:41:26 PM

EPA METHOD 160.1: TDS						
Total Dissolved Solids	3700	20		mg/L	1	6/30/2006

EPA METHOD 351.3: TKN						
Nitrogen, Kjeldahl, Total	ND	2.0		mg/L	1	7/3/2006

Analyst: ks

Analyst: TES

# Hall Environmental Analysis Laboratory, Inc.

Date: 17-Jul-06

CLIENT: Atkins Engineering Associates  
 Lab Order: 0607035  
 Project: J & M Dairy Abatement  
 Lab ID: 0607035-02

Client Sample ID: MW-3  
 Collection Date: 7/5/2006 10:02:00 AM  
 Date Received: 7/6/2006  
 Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 300.0: ANIONS</b>						
Chloride	220	2.0		mg/L	20	7/12/2006 11:57:14 PM
Nitrate (As N)+Nitrite (As N)	160	1.0		mg/L	10	7/14/2006 7:49:43 PM
<b>EPA METHOD 160.1: TDS</b>						
Total Dissolved Solids	4300	20		mg/L	1	7/10/2006
<b>EPA METHOD 351.3: TKN</b>						
Nitrogen, Kjeldahl, Total	2.2	1.0		mg/L	1	7/13/2006

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

State of New Mexico

# SCIENTIFIC LABORATORY DIVISION

Department of Health



P.O. Box 4700  
Albuquerque, NM 87196-4700

700 Camino de Salud, NE  
(505) 841-2500



## WATER CHEMISTRY SECTION (505) 841-2555

Sample Collection Date: 2/2/2005 Time: 18:00 By: KELSO  
Sampling Location: MW-27  
Sample Type: wf

*Monitoring well directly south of the wastewater lagoon CK*

SLD No.:	<b>WC-200500239</b>
Request ID No.:	2342863
Received at SLD:	2/4/2005
User:	55410
Subm:	541
WSS #:	0

This Copy of Report for:

NMED Ground Water Section  
 GW Protection and Remediation Bur.  
 P.O. Box 26110  
 Santa Fe, NM 87502

Distribution to:  
NMED Ground Water Section (U)  
NMED - Ground Water Pollution Prevention Secti

Water Chemistry Section - File Copy

### ANALYTICAL RESULTS

Analyte	Result	Units	Analysis Date	EPA Method No.	Minimum Level	Dilution Factor	Sample Det. Limit	Analyst	Data Qualifier
Nitrate + Nitrite	44	mG/L	2/9/2005	353.2	0.1	10	1	Vince Speshock	
TKN	1.14	mG/L	2/9/2005	351.2	0.1	1	0.1	Jeff Robb	

#### Laboratory Comments:

Reviewed by Chris Dean  
Supervisor, Water Chemistry Section Date Printed: 18-Feb-05

Data Qualifier Codes and Definitions	
A - See comments section below	K - Holding time exceeded at laboratory
D - Spike recovery <80% or >120%	L - Result for this analyte equals or exceeds EPA MCL
F - Matrix interference suspected	M - Result for this analyte equals or exceeds EPA action level
G - Inconsistent results, suggest re-sampling	N - Insufficient sample to verify results
H - Sample analyzed in duplicate	P - Sample rejected/ voided at laboratory
J - Estimated quantity only, analyte was detected at a level below which an accurate Quantitation can be given	Q - Sample submitted to laboratory past holding time
	V - External control value <80% or >120% of theoretical value
	W - Ion balance criteria exceeded
	X - Daily control value <80% or >120% of theoretical value

DP-769

State of New Mexico



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700 Camino de Salud, NE  
(505) 841-2500

Department of Health



## WATER CHEMISTRY SECTION (505) 841-2555

Sample Collection Date: 2/2/2005 Time: 18:00 By: KELSO

Sampling Location: MW-2

Sample Type: wf

SLD No.: **WC-200500251**

Request ID No.: 2342862

Received at SLD: 2/4/2005

User: 55410

Subm: 541

WSS #: 0

This Copy of Report for:

NMED Ground Water Section  
GW Protection and Remediation Bur.  
P.O. Box 26110  
Santa Fe, NM 87502

*Monitoring well directly south of the wastewater lagoon*  
APR 12 2005

Distribution to:

NMED Ground Water Section {U}  
NMED - Ground Water Pollution Prevention Secti

Water Chemistry Section - File Copy

### ANALYTICAL RESULTS

Analyte	Result	Units	Analysis Date	EPA Method No.	Minimum Level	Dilution Factor	Sample Det. Limit	Analyst	Data Qualifier
Chloride	184	mG/L	3/3/2005	300.0	10	5	10	Chris Dean	
TDS	2960	mG/L	2/8/2005	160.1	10	1	10	Chris Paul	

#### Laboratory Comments:

Reviewed by Chris Dean  
Supervisor, Water Chemistry Section

Date Printed: 06-Apr-05

#### Data Qualifier Codes and Definitions

- A - See comments section below
- D - Spike recovery <80% or >120%
- F - Matrix interference suspected
- G - Inconsistent results, suggest re-sampling
- H - Sample analyzed in duplicate
- J - Estimated quantity only, analyte was detected at a level below which an accurate Quantitation can be given

- K - Holding time exceeded at laboratory
- L - Result for this analyte equals or exceeds EPA MCL
- M - Result for this analyte equals or exceeds EPA action level
- N - Insufficient sample to verify results
- P - Sample rejected/ voided at laboratory
- Q - Sample submitted to laboratory past holding time
- V - External control value <80% or >120% of theoretical value
- W - Ion balance criteria exceeded
- X - Daily control value <80% or >120% of theoretical value

Hall Environmental Analysis Laboratory, Inc.

Date: 07-Jul-06

CLIENT: Atkins Engineering Associates
Lab Order: 0606289
Project: J & M Dairy
Lab ID: 0606289-04

Client Sample ID: MW-13U
Collection Date: 6/25/2006 6:10:00 PM
Date Received: 6/27/2006
Matrix: AQUEOUS

Table with columns: Analyses, Result, PQL, Qual, Units, DF, Date Analyzed. Rows include EPA METHOD 300.0: ANIONS (Chloride, Nitrate), EPA METHOD 160.1: TDS (Total Dissolved Solids), and EPA METHOD 351.3: TKN (Nitrogen, Kjeldahl, Total).

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

# Hall Environmental Analysis Laboratory, Inc.

Date: 11-Jul-06

CLIENT: Atkins Engineering Associates  
 Lab Order: 0606304  
 Project: J & M Dairy Abatement  
 Lab ID: 0606304-04

Client Sample ID: MW-9U  
 Collection Date: 6/27/2006 4:00:00 PM  
 Date Received: 6/28/2006  
 Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 300.0: ANIONS</b>						
Chloride	320	2.0		mg/L	20	Analyst: MAP 7/7/2006 9:15:12 AM
Nitrate (As N)+Nitrite (As N)	45	0.50		mg/L	5	7/7/2006 10:07:26 AM
<b>EPA METHOD 160.1: TDS</b>						
Total Dissolved Solids	4700	20		mg/L	1	Analyst: TES 7/3/2006
<b>EPA METHOD 351.3: TKN</b>						
Nitrogen, Kjeldahl, Total	1.1	1.0		mg/L	1	Analyst: TES 7/3/2006

Qualifiers: \* Value exceeds Maximum Contaminant Level  
 E Value above quantitation range  
 J Analyte detected below quantitation limits  
 S Spike Recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank  
 H Holding times for preparation or analysis exceeded  
 ND Not Detected at the Reporting Limit

DP-745

State of New Mexico

# SCIENTIFIC LABORATORY DIVISION

Department of Health



P.O. Box 4700  
Albuquerque, NM 87196-4700

700 Camino de Salud, NE  
(505) 841-2500



## WATER CHEMISTRY SECTION (505) 841-2555

Sample Collection Date: 2/2/2005 Time: 18:00 By: KELSO  
Sampling Location: MW-27  
Sample Type: wf

*Monitoring well directly south of the wastewater lagoon  
ck*

SLD No.:	<b>WC-200500239</b>
Request ID No.:	2342863
Received at SLD:	2/4/2005
User:	55410
Subm:	541
WSS #:	0

This Copy of Report for:

NMED Ground Water Section  
 GW Protection and Remediation Bur.  
 P.O. Box 26110  
 Santa Fe, NM 87502

Distribution to:

NMED Ground Water Section {U}  
 NMED - Ground Water Pollution Prevention Secti

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### ANALYTICAL RESULTS

Analyte	Result	Units	Analysis Date	EPA Method No.	Minimum Level	Dilution Factor	Sample Det. Limit	Analyst	Data Qualifier
Nitrate + Nitrite	44	mG/L	2/9/2005	353.2	0.1	10	1	Vince Speshock	
TKN	1.14	mG/L	2/9/2005	351.2	0.1	1	0.1	Jeff Robb	

Laboratory Comments:

Reviewed by **Chris Dean** *CD*  
 Supervisor, Water Chemistry Section Date Printed: 18-Feb-05

**Data Qualifier Codes and Definitions**

- |  |  |
|--|--|
| <ul style="list-style-type: none"> <li>A - See comments section below</li> <li>D - Spike recovery &lt;80% or &gt;120%</li> <li>F - Matrix interference suspected</li> <li>G - Inconsistent results, suggest re-sampling</li> <li>H - Sample analyzed in duplicate</li> <li>J - Estimated quantity only, analyte was detected at a level below which an accurate Quantitation can be given</li> </ul> | <ul style="list-style-type: none"> <li>K - Holding time exceeded at laboratory</li> <li>L - Result for this analyte equals or exceeds EPA MCL</li> <li>M - Result for this analyte equals or exceeds EPA action level</li> <li>N - Insufficient sample to verify results</li> <li>P - Sample rejected/ voided at laboratory</li> <li>Q - Sample submitted to laboratory past holding time</li> <li>V - External control value &lt;80% or &gt;120% of theoretical value</li> <li>W - Ion balance criteria exceeded</li> <li>X - Daily control value &lt;80% or &gt;120% of theoretical value</li> </ul> |
|--|--|

DP-745

State of New Mexico

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Department of Health



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Albuquerque, NM 87196-4700

700 Camino de Salud, NE  
(505) 841-2500



## WATER CHEMISTRY SECTION (505) 841-2555

Sample Collection Date: 2/2/2005 Time: 18:00 By: KELSO

Sampling Location: MW-2

Sample Type: wf

*Monitoring well directly south of the wastewater lagoon*

SLD No.: **WC-200500251**

Request ID No.:	2342862
Received at SLD:	2/4/2005
User:	55410
Subm:	541
WSS #:	0

This Copy of Report for:

**NMED Ground Water Section  
GW Protection and Remediation Bur.  
P.O. Box 26110  
Santa Fe, NM 87502**

APR 12 2005

Distribution to:

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- NMED - Ground Water Pollution Prevention Secti

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### ANALYTICAL RESULTS

Analyte	Result	Units	Analysis Date	EPA Method No.	Minimum Level	Dilution Factor	Sample Det. Limit	Analyst	Data Qualifier
Chloride	184	mG/L	3/3/2005	300.0	10	5	10	Chris Dean	
TDS	2960	mG/L	2/8/2005	160.1	10	1	10	Chris Paul	

Laboratory Comments:

Reviewed by Chris Dean

Supervisor, Water Chemistry Section

Date Printed: 06-Apr-05

Data Qualifier Codes and Definitions

- A - See comments section below
- D - Spike recovery <80% or >120%
- F - Matrix interference suspected
- G - Inconsistent results, suggest re-sampling
- H - Sample analyzed in duplicate
- J - Estimated quantity only, analyte was detected at a level below which an accurate Quantitation can be given

- K - Holding time exceeded at laboratory
- L - Result for this analyte equals or exceeds EPA MCL
- M - Result for this analyte equals or exceeds EPA action level
- N - Insufficient sample to verify results
- P - Sample rejected/ voided at laboratory
- Q - Sample submitted to laboratory past holding time
- V - External control value <80% or >120% of theoretical value
- W - Ion balance criteria exceeded
- X - Daily control value <80% or >120% of theoretical value

DP-745

State of New Mexico



# SCIENTIFIC LABORATORY DIVISION

P.O. Box 4700  
Albuquerque, NM 87196-4700

700 Camino de Salud, NE  
(505) 841-2500

Department of Health



## WATER CHEMISTRY SECTION (505) 841-2555

Sample Collection Date: 2/2/2005 Time: 16:55 By: KELSO  
Sampling Location: MW-1 S  
Sample Type: wf

*Monitoring well north  
of field and east of  
the stormwater  
lagoon.  
CK*

SLD No.:	<b>WC-200500240</b>
Request ID No.:	2342861
Received at SLD:	2/4/2005
User:	55410
Subm:	541
WSS #:	0

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GW Protection and Remediation Bur.  
P.O. Box 26110  
Santa Fe, NM 87502**

Distribution to:

NMED Ground Water Section {U}  
NMED - Ground Water Pollution Prevention Secti

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### ANALYTICAL RESULTS

Analyte	Result	Units	Analysis Date	EPA Method No.	Minimum Level	Dilution Factor	Sample Det. Limit	Analyst	Data Qualifier
Nitrate + Nitrite	15	mG/L	2/9/2005	353.2	0.1	2	0.2	Vince Speshock	
TKN	0.77	mG/L	2/9/2005	351.2	0.1	1	0.1	Jeff Robb	

Laboratory Comments:

Reviewed by Chris Dean   
Supervisor, Water Chemistry Section Date Printed: 18-Feb-05

Data Qualifier Codes and Definitions

- |  |  |
|--|--|
| <ul style="list-style-type: none"> <li>A - See comments section below</li> <li>D - Spike recovery &lt;80% or &gt;120%</li> <li>F - Matrix interference suspected</li> <li>G - Inconsistent results, suggest re-sampling</li> <li>H - Sample analyzed in duplicate</li> <li>J - Estimated quantity only, analyte was detected at a level below which an accurate Quantitation can be given</li> </ul> | <ul style="list-style-type: none"> <li>K - Holding time exceeded at laboratory</li> <li>L - Result for this analyte equals or exceeds EPA MCL</li> <li>M - Result for this analyte equals or exceeds EPA action level</li> <li>N - Insufficient sample to verify results</li> <li>P - Sample rejected/ voided at laboratory</li> <li>Q - Sample submitted to laboratory past holding time</li> <li>V - External control value &lt;80% or &gt;120% of theoretical value</li> <li>W - Ion balance criteria exceeded</li> <li>X - Daily control value &lt;80% or &gt;120% of theoretical value</li> </ul> |
|--|--|



P.O. Box 4700  
Albuquerque, NM 87196-4700

700 Camino de Salud, NE  
(505) 841-2500



WATER CHEMISTRY SECTION (505) 841-2555

Sample Collection Date: 2/2/2005 Time: 16:55 By: KELSO  
 Sampling Location: MW-1 5  
 Sample Type: wf

*monitoring well north of  
the field and east of  
the storm water lagoon*

SLD No.: **WC-200500252**

Request ID No.:	2342860
Received at SLD:	2/4/2005
User:	55410
Subm:	541
WSS #:	0

This Copy of Report for:

NMED Ground Water Section  
 GW Protection and Remediation Bur.  
 P.O. Box 26110  
 Santa Fe, NM 87502

*APR 12 2005*

Distribution to:

NMED Ground Water Section {U}  
 NMED - Ground Water Pollution Prevention Secti

Water Chemistry Section - File Copy

**ANALYTICAL RESULTS**

Analyte	Result	Units	Analysis Date	EPA Method No.	Minimum Level	Dilution Factor	Sample Det. Limit	Analyst	Data Qualifier
Chloride	365	mG/L	3/3/2005	300.0	10	5	10	Chris Dean	
TDS	4340	mG/L	2/8/2005	160.1	10	1	10	Chris Paul	

Laboratory Comments:

Reviewed by Chris Dean  
 Supervisor, Water Chemistry Section Date Printed: 06-Apr-05

Data Qualifier Codes and Definitions	
A - See comments section below	K - Holding time exceeded at laboratory
D - Spike recovery <80% or >120%	L - Result for this analyte equals or exceeds EPA MCL
F - Matrix interference suspected	M - Result for this analyte equals or exceeds EPA action level
G - Inconsistent results, suggest re-sampling	N - Insufficient sample to verify results
H - Sample analyzed in duplicate	P - Sample rejected/ voided at laboratory
J - Estimated quantity only, analyte was detected at a level below which an accurate Quantitation can be given	Q - Sample submitted to laboratory past holding time
	V - External control value <80% or >120% of theoretical value
	W - Ion balance criteria exceeded
	X - Daily control value <80% or >120% of theoretical value

*Mario*



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: AMY MUNSON  
 P. O. BOX 310  
 HAGERMAN, NM 88232  
 PHONE: (505) 752-0939

RECEIVED  
 AUG 30 2004

Receiving Date: 07/12/04  
 Reporting Date: 07/26/04  
 Project Number: DP-  
 Project Name: J & M DAIRY  
 Project Location: ARTESIA, NM

Sampling Date: 07/10/04  
 Sample Type: WELL H<sub>2</sub>O, WASTE H<sub>2</sub>O  
 Sample Condition: COOL & INTACT  
 Sample Received By: MR  
 Analyzed By: RG, NM

RECEIVED  
 AUG 30 2004

LAB NUMBER	SAMPLE ID	TDS (mg/L)	Chlorides (mg/L)	TKN (mg/L)	NO <sub>3</sub> -NO <sub>2</sub> -N (mg/L)
Date Analysis Batch Started:		07/14/04	07/19/04	07/14/04	07/13/04
Time Analysis Batch Started:		15:15	12:10	8:55	13:25
AI7764-1	MW 1	1390	72	< 0.2 *	6.0
AI7764-2	MW 2	2305	130	0.3	14.6
AI7764-3	MW 3	4105	205	1.2	83.3
AI7764-4	MW 4	1460	70	0.2	0.87
AI7764-5	MW 5	2560	355	55.3	0.14
AI7764-6	LAGOON	3460	405	257	0.08
Date Analysis Batch Finished:		07/15/04	07/19/04	07/15/04	07/13/04
Time Analysis Batch Finished:		9:15	16:00	10:00	17:00
Blank		< 1	< 1	< 0.2	< 0.01
Quality Control		994	50	5.11	0.2893
True Value QC		1000	50	5.00	0.3000
% Instrument Accuracy		99	100	102	96
% Extraction Accuracy		N/A	100	97	103
Relative Percent Difference		1	2	1	2

METHODS: EPA 600/4-79-020,	160.1	4500B-Cl <sup>-</sup>	351.4	353.3
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\*Less than the Minimum Detection Limit.

*Mario Rodriguez*

Mario Rodriguez, Director.

07/26/04

Date



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: AMY MUNSON  
 P. O. BOX 310  
 HAGERMAN, NM 88232  
 PHONE: (505) 752-0939

Receiving Date: 04/19/04	Sampling Date: 04/17/04
Reporting Date: 05/06/04	Sample Type: WELL H <sub>2</sub> O, WASTE H <sub>2</sub> O
Project Number: DP-	Sample Condition: COOL & INTACT
Project Name: J & M DAIRY	Sample Received By: MR
Project Location: ARTESIA, NM	Analyzed By: BB, LR

LAB NUMBER	SAMPLE ID	TDS (mg/L)	Chlorides (mg/L)	TKN (mg/L)	NO <sub>3</sub> -NO <sub>2</sub> -N (mg/L)
Date Analysis Batch Started:		04/20/04	04/22/04	04/23/04	04/23/04
Time Analysis Batch Started:		16:00	10:05	13:30	13:00
AI7407-1	MW # 1	1980	110	< 0.2 *	4.9
AI7407-2	MW # 2	2210	140	3.5	14.0
AI7407-3	MW # 3	3850	170	0.4	13.0
AI7407-4	MW # 4	1220	65	< 0.2 *	1.1
AI7407-5	MW # 5	2800	70	64	0.22
AI7407-6	LAGOON	2960	300	210	0.23
Date Analysis Batch Finished:		04/21/04	04/22/04	04/23/04	04/23/04
Time Analysis Batch Finished:		13:00	15:40	11:55	17:00
Blank		< 1	< 1	< 0.2	< 0.01
Quality Control		974	52	4.76	0.5055
True Value QC		1000	50	5.00	0.5000
% Instrument Accuracy		97	104	95	101
% Extraction Accuracy		N/A	99	98	105
Relative Percent Difference		2	0	10	5
METHODS: EPA 600/4-79-020,		160.1	4500B-Cl <sup>-</sup>	351.4	353.3

\*Less than the Minimum Detection Limit.

*Mario Rodriguez*  
 Mario Rodriguez, Director.

*05/06/04*  
 Date

DP-745

State of New Mexico



# SCIENTIFIC LABORATORY DIVISION

P.O. Box 4700  
Albuquerque, NM 87196-4700

700 Camino de Salud, NE  
(505) 841-2500

Department of Health



## WATER CHEMISTRY SECTION (505) 841-2555

Sample Collection Date: 2/2/2005 Time: 17:55 By: KELSO  
Sampling Location: LAGOON-WASTEWATER  
Sample Type: ww

SLD No.:	<b>WC-200500242</b>
Request ID No.:	2343930
Received at SLD:	2/4/2005
User:	55410
Subm:	541
WSS #:	0

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 GW Protection and Remediation Bur.  
 P.O. Box 26110  
 Santa Fe, NM 87502

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Water Chemistry Section - File Copy

### ANALYTICAL RESULTS

Analyte	Result	Units	Analysis Date	EPA Method No.	Minimum Level	Dilution Factor	Sample Det. Limit	Analyst	Data Qualifier
Nitrate + Nitrite	0.11	mG/L	2/9/2005	353.2	0.1	1	0.1	Vince Speshock	
TKN	466	mG/L	2/9/2005	351.2	0.1	100	10	Jeff Robb	

Laboratory Comments:

Reviewed by Chris Dean

Supervisor, Water Chemistry Section

Date Printed: 18-Feb-05

**Data Qualifier Codes and Definitions**

- A - See comments section below
- D - Spike recovery <80% or >120%
- F - Matrix interference suspected
- G - Inconsistent results, suggest re-sampling
- H - Sample analyzed in duplicate
- J - Estimated quantity only, analyte was detected at a level below which an accurate Quantitation can be given

- K - Holding time exceeded at laboratory
- L - Result for this analyte equals or exceeds EPA MCL
- M - Result for this analyte equals or exceeds EPA action level
- N - Insufficient sample to verify results
- P - Sample rejected/ voided at laboratory
- Q - Sample submitted to laboratory past holding time
- V - External control value <80% or >120% of theoretical value
- W - Ion balance criteria exceeded
- X - Daily control value <80% or >120% of theoretical value

DP-745

State of New Mexico

# SCIENTIFIC LABORATORY DIVISION

Department of Health



P.O. Box 4700  
Albuquerque, NM 87196-4700

700 Camino de Salud, NE  
(505) 841-2500



### WATER CHEMISTRY SECTION (505) 841-2555

Sample Collection Date: 2/2/2005 Time: 17:45 By: KELSO  
Sampling Location: STORMWATER LAGOON 4  
Sample Type: ww

SLD No.:	<b>WC-200500241</b>
Request ID No.:	2342859
Received at SLD:	2/4/2005
User:	55410
Subm:	541
WSS #:	0

FEB 12 2005

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 Santa Fe, NM 87502

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### ANALYTICAL RESULTS

Analyte	Result	Units	Analysis Date	EPA Method No.	Minimum Level	Dilution Factor	Sample Det. Limit	Analyst	Data Qualifier
Nitrate + Nitrite	<0.1	mG/L	2/9/2005	353.2	0.1	1	0.1	Vince Speshock	
TKN	440	mG/L	2/9/2005	351.2	0.1	100	10	Jeff Robb	

Laboratory Comments:

Reviewed by Chris Dean *CD*  
 Supervisor, Water Chemistry Section Date Printed: 18-Feb-05

Data Qualifier Codes and Definitions

- |  |  |
|--|--|
| <ul style="list-style-type: none"> <li>A - See comments section below</li> <li>D - Spike recovery &lt;80% or &gt;120%</li> <li>F - Matrix interference suspected</li> <li>G - Inconsistent results, suggest re-sampling</li> <li>H - Sample analyzed in duplicate</li> <li>J - Estimated quantity only, analyte was detected at a level below which an accurate Quantitation can be given</li> </ul> | <ul style="list-style-type: none"> <li>K - Holding time exceeded at laboratory</li> <li>L - Result for this analyte equals or exceeds EPA MCL</li> <li>M - Result for this analyte equals or exceeds EPA action level</li> <li>N - Insufficient sample to verify results</li> <li>P - Sample rejected/ voided at laboratory</li> <li>Q - Sample submitted to laboratory past holding time</li> <li>V - External control value &lt;80% or &gt;120% of theoretical value</li> <li>W - Ion balance criteria exceeded</li> <li>X - Daily control value &lt;80% or &gt;120% of theoretical value</li> </ul> |
|--|--|



DP-265



SCIENTIFIC LABORATORY DIVISION

P.O Box 4700  
Albuquerque, NM 87196-4700

700 Camino de Salud, NE  
(505) 841-2500



WATER CHEMISTRY SECTION (505)-841-2555

SAMPLE COLLECTION DATE: 5/27/2003  
SAMPLING LOCATION: JM-WW  
SAMPLE MATRIX: WW

TIME: 20:10

BY: KULIS

SLD No.:	<b>WC- 200302025</b>
REQUEST ID No.:	2345114
RECEIVED AT SLD:	5/30/2003
USER:	55410
SUBMITTER:	541
WSS #:	0

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ED Ground Water Bureau  
P.O. Box 26110  
Santa Fe, NM 87502

**JUL 16 2003**

DISTRIBUTION TO:

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ANALYTICAL RESULTS

Analyte	Result	Units	Analysis Date	Method	Minimum Level	Dilution Factor	Sample Det. Limit	Analyst	Data Qualifier
Nitrate + Nitrite	0.16	mG/L	6/4/2003	353.2	.1	1.	.1	Vince Speshock	
Ammonia	266.	mG/L	6/12/2003	350.1	.1	50.	5.	Vince Speshock	
TKN	488.	mG/L	7/7/2003	351.2	.1	250.	25.	Jeff Robb	

Laboratory Comments:

Reviewed by Chris Dean  
*Supervisor, Water Chemistry Section*

Date Printed: 10-Jul-03

Data Qualifier Codes and Definitions

- A - Insufficient sample to analyze or verify results
- B - Sample holding time exceeded at laboratory
- C - Sample submitted past holding time
- D - Inconsistent results, data unusable, suggest re-sampling
- E - Matrix interference suspected
- F - Ion balance criteria exceeded
- G - Result equals 50% or more of EPA MCL

- H - Result equals or exceeds EPA MCL for this analyte
- I - Spike recovery <80% or >120%
- J - Estimated quantity only
- K - Sample rejected
- L - Sample voided at laboratory
- M - Daily control value <80% or >120% of theoretical value
- N - External control value <80% or >120% of theoretical value

SP-745



SCIENTIFIC LABORATORY DIVISION

P.O. Box 4700  
Albuquerque, NM 87196-4700

700 Camino de Salud, NE  
(505) 841-2500



WATER CHEMISTRY SECTION (505)-841-2555

SAMPLE COLLECTION DATE: 5/27/2003  
SAMPLING LOCATION: JM-MW3  
SAMPLE MATRIX: WI

TIME: 21:10

BY: KULIS

SLD No.: **WC- 200302013**

REQUEST ID No.:	2345115
RECEIVED AT SLD:	5/30/2003
USER:	55410
SUBMITTER:	541
WSS #:	0

JUL 14 2003

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ED Ground Water Bureau  
P.O. Box 26110  
Santa Fe, NM 87502

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ANALYTICAL RESULTS

Analyte	Result	Units	Analysis Date	Method	Minimum Level	Dilution Factor	Sample Det. Limit	Analyst	Data Qualifier
Potassium	<5	mG/L	7/3/2003	200.7	1.	Not Req.		Jeff Robb	
Sodium	257.	mG/L	7/3/2003	200.7	1.	Not Req.		Jeff Robb	
Hardness (Ca & Mg)	2680.	mG/L CaCO3	7/3/2003	200.7	6.6	Not Req.		Jeff Robb	
Calcium	630.	mG/L	7/3/2003	200.7	1.	Not Req.		Jeff Robb	
Magnesium	269.	mG/L	7/3/2003	200.7	1.	Not Req.		Jeff Robb	
Alkalinity (CO3 & HCO3)	396.	mG/L	6/3/2003	310.1	2.5	1.	2.5	Chet Markham	
Carbonate	0.	mG/L	6/3/2003	310.1	.	1.	.	Chet Markham	
Bicarbonate	483.	mG/L	6/3/2003	310.1	3.	1.	3.	Chet Markham	
Chloride	311.	mG/L	6/7/2003	300.	10.	10.	10.	Vince Speshock	
Sulfate	1920.	mG/L	6/7/2003	300.	10.	10.	100.	Vince Speshock	H
pH	7.37	pH Units	6/3/2003	310.1	.	1.	.	Chet Markham	
TDS	5260.	mG/L	6/2/2003	160.1	10.	1.	10.	Chris Paul	
Ion Balance	6.63	% Dif.	7/3/2003	SM1030F	--	1.	--	Calculated	

Laboratory Comments:

H - Result equals or exceeds EPA MCL for this analyte

Reviewed by Chris Dean  
*Supervisor, Water Chemistry Section*

Date Printed: 9-Jul-03

Data Qualifier Codes and Definitions

- A - Insufficient sample to analyze or verify results
- B - Sample holding time exceeded at laboratory
- C - Sample submitted past holding time
- D - Inconsistent results, data unusable, suggest re-sampling
- E - Matrix interference suspected
- F - Ion balance criteria exceeded
- G - Result equals 50% or more of EPA MCL

- H - Result equals or exceeds EPA MCL for this analyte
- I - Spike recovery <80% or >120%
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- K - Sample rejected
- L - Sample voided at laboratory
- M - Daily control value <80% or >120% of theoretical value
- N - External control value <80% or >120% of theoretical value