



NEW MEXICO ENERGY, MINERALS and NATURAL RESOURCES DEPARTMENT

GARY E. JOHNSON

Governor

Jennifer A. Salisbury

Cabinet Secretary

Lori Wrotenbery

Director

Oil Conservation Division

May 21, 2001

Certified Receipt #7000 0520 0018 0518 0049

Ed Hasely
Burlington Resources
San Juan Division
P. O. Box 4289
Farmington, NM 87499-4289

RE: Produced Water Leaks and Residual Salt Contamination at San Juan 32-9 Unit Wells #250, #251 and #283.

Dear Mr. Hasely:

Following our inspection (Ed Hasely and Denny Foust) of the well sites listed above on May 16, 2001 in response to a complaint from the public, Burlington Resources, San Juan Division (Burlington) has agreed to address the issues listed below.

Api # 30-045-28099
Burlington S. J. 32-9 #250, G-04-31N-09W, has white salt deposits within the berms. Burlington will determine the vertical extent of contamination. Burlington will remove contaminated soil as necessary for remediation at a New Mexico Oil Conservation Division (OCD) permitted facility or propose an alternate method of treatment for OCD approval. Burlington will determine the source of produced water that is leaving residual white salt deposits within the berms. Burlington will fence potential water sources on location to prevent access by livestock. *(NDGF 0113742420)*

Api # 30-045-27847
Burlington S. J. 32-9 #251, M-04-31N-09W, has water standing within the berms. Burlington will sample water from within the berms for analysis and comparison to analysis of a sample from the produced water tank or directly from the well head. Burlington will determine the vertical extent of contamination. Burlington will remove contaminated soil as necessary for remediation at an OCD permitted facility or propose an alternate method of treatment for OCD approval. Burlington will determine the source of water standing within the berms. Burlington will fence potential water sources on location to prevent access by livestock. *(NDGF 0113742993)*

Burlington S. J. 32-9 #283, L-33-32N-09W, has white salt deposits within the berms. Burlington will determine the vertical extent of contamination. Burlington will remove contaminated soil as necessary for remediation at an OCD permitted facility or propose an alternate method of remediation for OCD approval. Burlington will determine the source of produced water that is leaving residual white salt deposits within the berms. Burlington will fence potential water sources on location to prevent access by livestock. *Api # 30-045-27849 (NDGF 0113747704)*

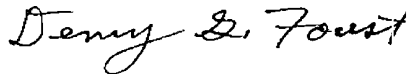
Burlington will submit the results of investigations for each well to the Aztec OCD office attached to a C-141 by June 20, 2001. If you have questions, please feel to call me at 334-6178, ext. 15.

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Page 2
Burlington Resources
May 21, 2001

OCD approval does not relieve Burlington of liability if remaining contaminants are found to pose a future threat to surface water, ground water, human health or the environment. OCD approval does not relieve Burlington of compliance with other federal, state, tribal or local laws and regulations.

Yours truly,



Denny G. Foust
Environmental Geologist
Deputy Oil & Gas Inspector
dfoust@state.nm.us

DGF/mk

XC: Bill Olson, OCD Santa Fe
Bill Liess, BLM Farmington
Environmental Files
DGF File

Enclosures: 3 photos



NEW MEXICO ENERGY, MINERALS and NATURAL RESOURCES DEPARTMENT

GARY E. JOHNSON
Governor
Jennifer A. Salisbury
Cabinet Secretary

Lori Wrotenbery
Director
Oil Conservation Division

July 3, 2001

Certified Receipt #7000 0520 0018 0518 0070

Ed Hasely
Burlington Resources
San Juan Division
P. O. Box 4289
Farmington NM 87499

RE: Produced Water Leaks and Residual Salt Contamination at San Juan 32-9 Unit Wells #250, #251 and #283

Dear Mr. Hasely:

Your letter of June 14, 2001 and individual well C-141 Unauthorized Release forms dated June 13, 2001, failed to address two issues to my satisfaction. Burlington Resources' (Burlington) internal communications failed to identify the releases responsible for the salt contamination at the wells named above, until reports were made to the New Mexico Oil Conservation Division (OCD) by the public. Please indicate how Burlington has addressed the internal communications problem by listing steps taken to prevent a recurrence in the future.

Please outline how the above ground production tanks are to be tested and/or monitored to prevent leaks. One source for produced water releases was the seals on the transfer pumps. What data is available indicating pump seals were the only source?

On the San Juan 32-9 #250, G-04-31N-09W, sandstone was encountered at 12 inches during soil sampling. Burlington will take an additional soil sample down dip 25' outside the berms to prove horizontal migration of salts is not taking place.

On the San Juan 32-9 #251, M-04-31N-09W, sandstone was encountered at 24 inches during soil sampling. Burlington will take an additional soil sample down dip 25' outside the berms to prove horizontal migration of salts is not taking place.

Page 2
Burlington Resources
July 3, 2001

Furnish this material in letter form to the OCD Aztec office by August 1, 2001. If you have questions please feel free to contact me at 505-334-6178 ext 15.

Yours truly,



Denny G. Foust
Environmental Geologist
Deputy Oil & Gas Inspector
dfoust@state.nm.us

DGF/mk

Xc: Bill Liess, BLM Farmington
Bill Olson, OCD Santa Fe
Tweeti Blancett, Aztec
DGF File

Complaint 5/14/01

Henry Inspected

took pictures

5/14/01

Sample down
dip on sandstone
outside beams
25 feet.

How are tanks tested
or monitored for leaks.

According to Larry Byars

1. Tanks are dry
2. No leaks
3. wants to replace with
freestanding pits.

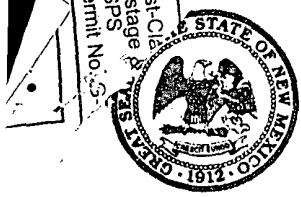
Refer to Landowner
complaint.

Peter Culp

BLM

Visiting NW NM to
assess her concerns,

Sentar Bingahman



NEW MEXICO ENERGY, MINERALS and NATURAL RESOURCES DEPARTMENT

GARY E. JOHNSON
Governor
Jennifer A. Salisbury
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Lori Wrotenbery
Director
Oil Conservation Division

May 21, 2001

Certified Receipt #7000 0520 0018 0518 0049

Ed Hasely
Burlington Resources
San Juan Division
P. O. Box 4289
Farmington, NM 87499-4289

RE: Produced Water Leaks and Residual Salt Contamination at San Juan 32-9 Unit Wells #250, #251 and #283.

Dear Mr. Hasely:

Following our inspection (Ed Hasely and Denny Foust) of the well sites listed above on May 16, 2001 in response to a complaint from the public, Burlington Resources, San Juan Division (Burlington) has agreed to address the issues listed below.

Burlington S. J. 32-9 #250, G-04-31N-09W, has white salt deposits within the berms. Burlington will determine the vertical extent of contamination. Burlington will remove contaminated soil as necessary for remediation at a New Mexico Oil Conservation Division (OCD) permitted facility or propose an alternate method of treatment for OCD approval. Burlington will determine the source of produced water that is leaving residual white salt deposits within the berms. Burlington will fence potential water sources on location to prevent access by livestock.

Burlington S. J. 32-9 #251, M-04-31N-09W, has water standing within the berms. Burlington will sample water from within the berms for analysis and comparison to analysis of a sample from the produced water tank or directly from the well head. Burlington will determine the vertical extent of contamination. Burlington will remove contaminated soil as necessary for remediation at an OCD permitted facility or propose an alternate method of treatment for OCD approval. Burlington will determine the source of water standing within the berms. Burlington will fence potential water sources on location to prevent access by livestock.

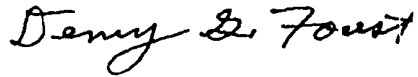
Burlington S. J. 32-9 #283, L-33-32N-09W, has white salt deposits within the berms. Burlington will determine the vertical extent of contamination. Burlington will remove contaminated soil as necessary for remediation at an OCD permitted facility or propose an alternate method of remediation for OCD approval. Burlington will determine the source of produced water that is leaving residual white salt deposits within the berms. Burlington will fence potential water sources on location to prevent access by livestock.

Burlington will submit the results of investigations for each well to the Aztec OCD office attached to a C-141 by June 20, 2001. If you have questions, please feel to call me at 334-6178, ext. 15.

Page 2
Burlington Resources
May 21, 2001

OCD approval does not relieve Burlington of liability if remaining contaminants are found to pose a future threat to surface water, ground water, human health or the environment. OCD approval does not relieve Burlington of compliance with other federal, state, tribal or local laws and regulations.

Yours truly,



Denny G. Foust
Environmental Geologist
Deputy Oil & Gas Inspector
dfoust@state.nm.us

DGF/mk

XC: Bill Olson, OCD Santa Fe
Bill Liess, BLM Farmington
Environmental Files
DGF File

Enclosures: 3 photos

District I - (505) 393-6161

P.O. Box 1940

Hobbs, NM 88241-1980

District II - (505) 748-1283

811 South First

Artesia, NM 88210

District III - (505) 334-6178

1000 Rio Brazos Road

Aztec, NM 87410

District IV - (505) 827-7131

State of New Mexico

Energy Minerals and Natural Resources Department

Oil Conservation Division

2040 South Pacheco Street

Santa Fe, New Mexico 87505

(505) 827-7131

Form C-141

Originated 2/13/97

Submit 2 copies to:
Appropriate District
Office in accordance
with Rule 116.

Release Notification and Corrective Action

OPERATOR

☐ Initial Report

☒ Final Report

Name:	Burlington Resources	Contact:	Ed Hasely
Address:	P.O. Box 4289 Farmington NM 87499	Telephone No.:	(505) 326-9841
Facility Name:	SAN JUAN 32-9 UNIT 251	Facility Type:	Gas Well
Surface Owner:	Fee	Mineral Owner:	Fee
Lease Number:	FEE		

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet From the	North/South Line	Feet From the	East/West Line	County: San Juan
M	04	031N	009W	1290	South	1290	West	

NATURE OF RELEASE

Type of Release:	Produced Water	Volume of Release:	80 BBLS.	Volume Recovered:	60 BBLS.
Source of Release:	Produced Water Storage Tank	Date and Hour of Occurrence:	5/15/2001 Unknown	Date and Hour of Discovery:	5/15/2001
Was Immediate Notice Given?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Required	If Yes, To Whom?	Denny Foust		
By Whom?	Ed Hasely	Date and Hour:	5/15/2001		
Was a Watercourse Reached?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES, Volume Impacting the Watercourse.	0		

If a Watercourse was Impacted, Describe Fully. (Attach Additional Sheets If Necessary)

NA

Describe Cause of Problem and Remedial Action Taken. (Attach Additional Sheets If Necessary)

Produced water leaked from the water pump into the bermed area. A vacuum truck recovered 60 bbls of fluid from inside the berm. Some of the recovered fluids was stormwater. The water pump has been disconnected and the water storage tanks will be monitored for potential leaks.

Describe Area Affected and Cleanup Action Taken. (Attach Additional Sheets If Necessary)

Most fluids were contained inside the bermed area. Some fluids seeped through the berm, but all fluids were contained on location. A hand auger was used to evaluate depth of impact. Sandstone was encountered at a depth of approximately two feet. A soil sample was collected at this depth and the results are attached. Plans are to leave the soils in place inside the bermed area and address any required remediation upon P&A.

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to NMOCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the NMOCD marked as "Final Report" does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to ground water, surface water, human health or the environment. In addition, NMOCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

Signature:	<i>Ed Hasely</i>	OIL CONSERVATION DIVISION	
Printed Name:	Ed Hasely	Approved by:	<i>Denny Foust</i>
Title:	Environmental Representative	District Supervisor:	<i>Frank Chavez</i>
Date:	6/13/01	Approval Date:	6/25/01
Phone:	(505) 326-9841 or 326-9842	Expiration Date:	
Conditions of Approval:		Attached: <input type="checkbox"/>	

*Address internal communications.
How monitor tanks. Sample 25'
down dip outside the berm.*

BURLINGTON RESOURCES

SAN JUAN DIVISION

June 14, 2001

New Mexico Oil Conservation Division
Attn: Mr. Denny Foust
1000 Rio Brazos Road
Aztec, NM 87410



Re: Undesirable Events – Produced Water Spills
San Juan 32-9 #250, #251, #283

Mr. Foust:

The following is a discussion of the spill investigations for the coal seam produced water releases at the subject facilities. The spill reports are included with this submittal.

It was determined that the source of the leaks was the water pumps, which are situated inside the tank berms at each location. The water pumps were disconnected to prevent any additional leakage. The water storage tanks are also being monitored for any potential leakage.

A sample of the water standing inside the berm on the #251 was collected on May 15 and compared with a sample of the produced water from the storage tank. Lab results (attached) show that the water from the berm actually had higher pH, electrical conductivity, and chloride readings than the produced water. This may be explained by the concentration of salts due to evaporation of water in the bermed area.

Water Samples

Sample	pH	EC	Cl
#251 Produced Water	8.0	3430	550
#251 Water from Berm	9.0	5360	921

Note: EC = Electrical Conductivity (umhos/cm)
Cl = Chlorides (mg/L)

The spilled fluids were mainly contained inside the tank berms, though there was evidence of some water seepage through the berm on the #251. The seepage was all contained on the #251 well location. Site investigations were conducted using a hand auger inside the bermed areas. Sandstone was encountered at an approximate depth of 12 inches on the #250 well and approximately 24 inches on the #251 well. The sandstone should minimize vertical migration of fluids. The lab results (attached), which are detailed in the following table, indicate that the vertical migration of any soil impacts is minimal.

Soil Samples

Sample	Ca	Na	SAR	ESP	Cl	EC
Background at Surface (#283)	4.2	0.68	0.44	3.4	N/A	N/A
Surface (#283)	0.81	480	580	79	N/A	N/A
#250 at 12 inches (Sandstone)	0.36	77	160	108	390	6.19
#283 at 14 inches	5.2	21	12	15	N/A	N/A
#251 at 24 inches (Sandstone)	0.69	21	31	71	260	2.06

Note: Ca = Calcium (meq/L)

Na = Sodium (meq/L)

SAR = Sodium Absorption Ratio

ESP = Exchangeable Sodium Percentage (over 15 is considered "sodic soil")

Cl = Chlorides (meq/L)

EC = Electrical Conductivity (umhos/cm) (over 4 is considered "saline soil")

N/A = Not Available

The sodium in coal seam produced water can cause the dispersion of natural clays in the soil resulting in greatly reduced permeability of the surface soils. This natural impermeable surface layer is a benefit to the design of our water storage tank containment areas.

Due to the limited vertical migration, shallow sandstone barriers, and decreased permeability in the containment areas, Burlington Resources (BR) proposes to leave the soils in place inside the tank berms and address any required remediation upon P&A. Upon your approval, BR will rebuild berms and fencing to assure adequate containment and to prevent access by livestock of potential water sources. This work has not been completed to date since the berms/fencing would be destroyed if we were required to excavate soils from inside the berms.

If you have any questions concerning this information, please contact me at 326-9841.

Sincerely,



Ed Hasely
Environmental Specialist

Attachments: Spill Reports (2 each)
 Lab Results

cc: Mark Kelly - BLM (#250 only)
Tweeti Blancett
Bruce Gantner
Lary Byars
SJ 32-9 Unit Track #66
Release File
Correspondence



May 17, 2001

Ed Hasely
Burlington Resources
3535 E. 30th St.
Farmington, NM 87402



Dear Ed:

Enclosed please find the reports for the sample received by our laboratory for analysis on May 16, 2001.

If you have any questions about the results these analyses, please don't hesitate to call me at your convenience.

Thanks for using IML for your analytical needs!

Sincerely,

William Lipps
Assistant Lab Manager/IML-Farmington

Enclosure

xc: File

Client: **Burlington Resources**
Project: **32-9 #251**
Sample ID: 32-9 #251 Berm
Lab ID: 0301W02286
Matrix: Water
Condition: Intact

Date Received: 05/16/01
Date Reported: 05/16/01
Date Sampled: 05/15/01
Time Sampled: 1600

Parameter	Analytical		Units	Units	PQL	Method	Analysis		
	Result						Date	Time	Init.
PH	9.0		s.u.		0.1	EPA 150.1	05/16/01	1100	WL
Electrical Conductivity	5,360		µmhos/cm		1	EPA 300.0	05/16/01	1100	WL
Chloride	921		mg/L		1	EPA 325.3	05/16/01	1430	WL



Reference: EPA - "Methods for Chemical Analysis of Water and Wastes (MCAWW)" - EPA/600/4-79-020 - March, 1983.

Reviewed By: _____

William Lipps

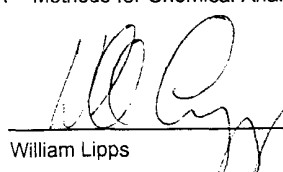
Client: Burlington Resources
Project: 32-9 #251
Sample ID: 32-9 #251 Tank
Lab ID: 0301W02287
Matrix: Water
Condition: Intact

Date Received: 05/16/01
Date Reported: 05/16/01
Date Sampled: 05/15/01
Time Sampled: 1600

Parameter	Analytical		Units	Units	PQL	Method	Analysis		
	Result						Date	Time	Init.
PH	8.0		s.u.		0.1	EPA 150.1	05/16/01	1100	WL
Electrical Conductivity	3,430		µmhos/cm		1	EPA 300.0	05/16/01	1100	WL
Chloride	550		mg/L		1	EPA 325.3	05/16/01	1430	WL

Reference: EPA - "Methods for Chemical Analysis of Water and Wastes (MCAWW)" - EPA/600/4-79-020 - March, 1983.

Reviewed By:


William Lipps



Feb. 12
320-1803
Ed

CHAIN OF CUSTODY RECORD

[illegible]



May 24, 2001

L. Edward Hasely
Burlington Resources
3535 E. 30th St.
P.O. Box 4289
Farmington, NM 87499-4289

Dear Mr. Hasely:

Enclosed are the results of the analysis performed on the soil samples we received May, 18, 2001. The samples were labeled "Background", "Surface", and "14" Depth". These samples correspond with IML lab numbers 0301S02350-2352. The requested parameters for these samples are Sodium Adsorption Ratio and Exchangeable Sodium Percentage. The SAR and ESP were determined using the methods in USDA Agricultural Handbook No. 60 (1954).

Please call (505) 326-4737 if you have any questions or comments concerning the data presented in this report.

Sincerely,

A handwritten signature in black ink, appearing to read "Jeff Goats", is written over a horizontal line.

Jeff Goats
Soil Lab Supervisor
IML - Farmington

Enclosure: Analytical Report



Phone (505) 326-4737 Fax (505) 325-4182

Inter-Mountain Laboratories, Inc.

2506 West Main Street, Farmington, NM 87401

Page 1 of 1

Burlington Resources

Farmington, NM

Client Project ID: 32-9 #283

IML Project #0301S02350

Date Received: 05/18/01

Report Date: 05/24/01

Lab Id	Sample Id	Depths	Saturation	Ca	Mg	Na	SAR	Available Sodium	Exch. Sodium	ESP	CEC
			%	meq/L	meq/L	meq/L		meq/100g	meq/100g	%	meq/100g
0301S02350	Background	N/A	36	4.2	0.39	0.68	0.44	0.44	0.41	3.4	12
0301S02351	Surface	N/A	50	0.81	0.56	480	580	35	11	79	14
0301S02352	14" Depth	N/A	41	5.2	1.6	21	12	3.1	2.2	15	14



CHAIN OF CUSTODY RECORD

ANALYSES / PARAMETERS

sample: (signature)

[illegible]

Time	Time
------	------

Time

7230

College Station, TX 77845
Telephone (979) 776-8945



June 12, 2001

L. Edward Hasely
Burlington Resources
3535 E. 30th St.
P.O. Box 4289
Farmington, NM 87499-4289

Dear Mr. Hasely:

Enclosed are the results of the analysis performed on the soil samples we received May, 31, 2001. The samples were labeled 32-9 #250 12" and 32-9 #251 24". These samples correspond with IML lab numbers 0301S02534-2535. The requested parameters for these samples are electrical conductivity, chloride, sodium adsorption ratio and exchangeable sodium percentage. The SAR and ESP were determined using the methods in USDA Agricultural Handbook No. 60 (1954).

Please call (505) 326-4737 if you have any questions or comments concerning the data presented in this report.

Sincerely,

A handwritten signature in black ink, appearing to read 'Jeff Goats', is written over a horizontal line.

Jeff Goats
Soil Lab Supervisor
IML - Farmington

Enclosure: Analytical Report



CASE NARRATIVE

Client: Burlington Resources
Project: 32-9
Set number: 0301S02534-2535
Date received: 05/31/01
Date reported: 06/12/01
Chain of Custody: 72698

Inter-Mountain Laboratories, Inc., Farmington, NM received the samples listed above for analysis on May 31, 2001 in an intact condition. The requested analyses were electrical conductivity, exchangeable sodium percentage, sodium absorption ratio, and chloride. Enclosed are the results of the sample analyses.

If you have any question concerning the data, please feel free to call the laboratory, (505) 326-4737.

Reviewed by:



Phone (505) 326-4737 Fax (505) 325-4182

2506 West Main Street, Farmington, NM 87401

Inter-Mountain Laboratories, Inc.

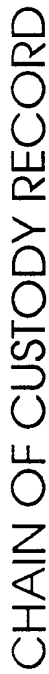
Burlington Resources

Farmington, NM

Client Project ID: 32-9
Date Received: 05/31/01

Page 1 of 1
I/M/L Project #0301S02534
Report Date: 06/12/01

Lab Id	Sample Id	Depths	EC mmhos/cm	Saturation %	Ca meq/L	Mg meq/L	Na meq/L	SAR	Available Na meq/100g	Exch. Na meq/100g	ESP %	CEC meq/100g	Chloride mg/L
0301S02534	32-9 #250 12"	N/A	6.19	58	0.38	0.10	77	160	10	5.7	108	5.2	390
0301S02535	32-9 #251 24"	N/A	2.06	46	0.69	0.18	21	31	6.5	5.5	71	7.7	260



CHAIN OF CUSTODY RECORD

[illegible]

District I - (505) 393-6161

P.O. Box 1940

Hobbs, NM 88241-1980

District II - (505) 748-1283

811 South First

Artesia, NM 88210

District III - (505) 334-6178

1000 Rio Brazos Road

Aztec, NM 87410

District IV - (505) 827-7131

State of New Mexico

Energy Minerals and Natural Resources Department

Oil Conservation Division

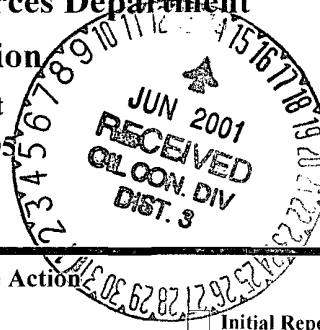
2040 South Pacheco Street

Santa Fe, New Mexico 87505

(505) 827-7131

Form C-141
Originated 2/13/97

Submit 2 copies to:
Appropriate District
Office in accordance
with Rule 116.



Release Notification and Corrective Action

OPERATOR

☐ Initial Report

☒ Final Report

Name:	Burlington Resources	Contact:	Ed Hasely
Address:	P.O. Box 4289 Farmington NM 87499	Telephone No.:	(505) 326-9841
Facility Name:	SAN JUAN 32-9 UNIT	Facility Type:	Gas Well

Surface Owner:	Fee	Mineral Owner:	Fee	Lease Number:	FEE
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LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet From the	North/South Line	Feet From the	East/West Line	County:
L	33	032N	009W	2245	South	910	West	San Juan

NATURE OF RELEASE

Type of Release:	Produced Water	Volume of Release:	Unknown 0 BBLs.	Volume Recovered:	0 BBLs.
Source of Release:	Produced Water Storage Tank	Date and Hour of Occurrence:	5/15/2001 Unknown	Date and Hour of Discovery:	5/15/2001
Was Immediate Notice Given?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Required	If Yes, To Whom?	Denny Foust		
By Whom?	Ed Hasely	Date and Hour:	5/15/2001		
Was a Watercourse Reached?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES, Volume Impacting the Watercourse.	0		

If a Watercourse was Impacted, Describe Fully. (Attach Additional Sheets If Necessary)

NA

Describe Cause of Problem and Remedial Action Taken. (Attach Additional Sheets If Necessary)

Produced water leaks from the water pump inside the tank berms caused a white stain on the surface of the soils. The water pump has been disconnected. The water storage tanks will be monitored for potential leaks.

Describe Area Affected and Cleanup Action Taken. (Attach Additional Sheets If Necessary)

All fluids were contained inside the tank berms. Soil samples were taken at the surface and at a depth of 14 inches inside the bermed area. The results indicate that the vertical migration of any impacts was minimal. Plans are to leave the soils in place inside the bermed area and address any required remediation upon P&A.

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to NMOCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the NMOCD marked as "Final Report" does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to ground water, surface water, human health or the environment. In addition, NMOCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

Signature:	<i>Ed Hasely</i>	OIL CONSERVATION DIVISION	
Printed Name:	Ed Hasely	Approved by:	<i>Denny Foust</i>
Title:	Environmental Representative	District Supervisor:	<i>for Frank Chavez</i>
Date:	6/13/01	Approval Date:	06/25/01
Phone:	(505) 326-9841 or 326-9842	Expiration Date:	
		Conditions of Approval:	<i>Why Landowner report</i>

*Address internal communication
How are we monitoring tanks
for leaks?*

District I - (505) 393-6161

P.O. Box 1940

Hobbs, NM 88241-1980

District II - (505) 748-1283

811 South First

Artesia, NM 88210

District III - (505) 334-6178

1000 Rio Brazos Road

Aztec, NM 87410

District IV - (505) 827-7131

State of New Mexico

Energy Minerals and Natural Resources Department

Oil Conservation Division

2040 South Pacheco Street

Santa Fe, New Mexico 87505

(505) 827-7131

Form C-141

Originated 2/13/97

Submit 2 copies to:
Appropriate District
Office in accordance
with Rule 116.

Release Notification and Corrective Action

OPERATOR

☐ Initial Report

☒ Final Report

Name:	Burlington Resources	Contact:	Ed Hasely
Address:	P.O. Box 4289 Farmington NM 87499	Telephone No.:	(505) 326-9841
Facility Name:	SAN JUAN 32-9 UNIT	250	Facility Type: Gas Well

Surface Owner:	Federal	Mineral Owner:	Federal	Lease Number:	NMSF-080133
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LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet From the	North/South Line	Feet From the	East/West Line	County: San Juan
G	04	031N	009W	1330	North	1330	East	

NATURE OF RELEASE

Type of Release:	Produced Water	Volume of Release:	0 BBLS. Unknown	Volume Recovered:	0 BBLS.
Source of Release:	Produced Water Storage Tank	Date and Hour of Occurrence:	5/15/2001 Unknown	Date and Hour of Discovery:	5/15/2001
Was Immediate Notice Given?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Required	If Yes, To Whom?	Denny Foust		
By Whom?	Ed Hasely	Date and Hour:	5/15/2001		
Was a Watercourse Reached?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES, Volume Impacting the Watercourse.	0		

If a Watercourse was Impacted, Describe Fully. (Attach Additional Sheets If Necessary)

NA

Describe Cause of Problem and Remedial Action Taken. (Attach Additional Sheets If Necessary)

Produced water leaks from the water pump inside the bermed area caused a white stain to form on the surface of the soils. The water pump has been disconnected. The water storage tanks will be monitored for potential leaks.

Describe Area Affected and Cleanup Action Taken. (Attach Additional Sheets If Necessary)

All fluids were contained inside the bermed area. A hand auger was used to evaluate depth of impact. Sandstone was encountered at approximately one foot. A sample was collected at this depth and the results are attached. Plans are to leave the soils in place inside the bermed area and address any required remediation upon P&A.

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to NMOCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the NMOCD marked as "Final Report" does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to ground water, surface water, human health or the environment. In addition, NMOCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

Signature:	<i>Ed Hasely</i>	OIL CONSERVATION DIVISION	
Printed Name:	Ed Hasely	Approved by:	<i>Denny Foust</i>
Title: Environmental Representative		District Supervisor:	<i>for Frank Chavez</i>
Date: 6/13/01	Phone: (505) 326-9841 or 326-9842	Approval Date:	6/25/2001
		Expiration Date:	
		Conditions of Approval:	<i>Why Landowner Report</i>
		Attached:	<input type="checkbox"/>

*Address internal communications,
How monitor tanks?, Sample 25'
down dip outside berm*

BURLINGTON RESOURCES

SAN JUAN DIVISION

July 27, 2001

New Mexico Oil Conservation Division
Attn: Mr. Denny Foust
1000 Rio Brazos Road
Aztec, NM 87410

Re: Undesirable Events – Produced Water Releases
San Juan 32-9 Unit #250, #251, #283

L27847
28099



Mr. Foust:

The following is the information you requested in your July 3, 2001 letter concerning the investigations of the coal seam produced water releases at the subject facilities.

Good internal communications and accurate spill/release reporting are an ongoing focus point of Burlington Resources Oil & Gas Company (BR). In these incidents, the lease operator, who was newly assigned the responsibility for these wells, did raise the issue of water accumulation within the berms earlier in the year. However, upon further investigation and discussion, it was determined that the water inside the berms was most likely snowmelt / stormwater. There was no evidence of equipment failure such as a ruptured tank, valve break or tank overflow, so the judgment was made that there were no leaks at that time (i.e., spring). As the bermed areas started drying up from evaporation, the presence of white staining within the bermed areas became apparent. In our opinion, this staining indicated only that there might have been minor produced water leaks/drips in the past, and not necessarily a recent spill event. It has since been stressed that situations like these should be communicated to BR's environmental department so that water samples can possibly be collected to help determine the source of the accumulated water.

Concerning the source(s) of the produced water, the transfer pumps were isolated on these locations and the water / soils inside the berms immediately started drying up. There are no indications of any additional leakage. Metal thickness testing was recently conducted on tanks at the San Juan 32-9 Unit #254, which are similar in age and service to the tanks on the subject locations. The testing showed no signs of corrosion. The storage tanks are visually monitored for leakage during routine site visits. Any signs of additional leakage will be investigated.

Additional sampling was conducted outside the berms on the #250 well location. Several attempts of hand augering encountered rock at less than a one-foot depth in borings located downgradient and 25 feet outside the berms. Hand augering was successful to a depth of four feet approximately six feet to the southwest (downgradient) of the berm, so a sample was collected. This analysis showed very low chlorides and electrical conductivity indicating no horizontal migration of salts, but the analysis did show an exchangeable sodium percentage of 50.

Additional sampling was also conducted outside the berms on the #251 well location. Hand augering encountered rock at three feet in a boring located approximately 15 feet to the south (downgradient) of the berm and a sample was collected at this depth. The results show that horizontal migration of salts did not occur.

The lab results are attached. If you have any questions concerning this information, please contact me at 326-9841.

Sincerely,

A handwritten signature in black ink, appearing to read 'Ed Hasely', with a stylized flourish at the end.

Ed Hasely
Environmental Specialist

Attachments: Lab Results

cc: Mark Kelly - BLM (#250 only)
 Tweeti Blancett
 Bruce Gantner
 Rob Stanfield
 Lary Byars
 SJ 32-9 Unit Track #66
 Release File
 Correspondence

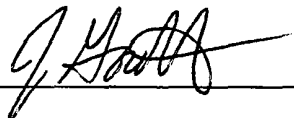
Client: Burlington Resources
Sample ID: #250 Outside Berm 4ft
Lab ID: 0301S03199
Matrix: Soil
Condition: Intact

Date Received: 07/10/01
Date Reported: 07/25/01
Date Sampled: 07/10/01
Time Sampled: 0930

Parameter	Analytical Result	Units
Electrical Conductivity	0.79	mmhos/cm
Saturation%	49	%
Calcium	1.0	meq/L
Magnesium	0.22	meq/L
Sodium	9.5	meq/L
Sodium Absorbtion Ratio (SAR)	12	ratio
Available Sodium	4.2	meq/100g
Cation Exchange Capacity (CEC)	7.5	meq/100g
Exchangeable Sodium	3.7	meq/100g
Exchangeable Sodium % (ESP)	50	%
Chloride	85	mg/L

Reference: EPA - "Methods for the Determination of Metals in Environmental Samples" - Supplement I - 600/R-94-111 - May, 1994.

Reviewed By: _____



Client: Burlington Resources
Sample ID: #251 Outside Berm 3ft
Lab ID: 0301S03200
Matrix: Soil
Condition: Intact

Date Received: 07/10/01
Date Reported: 07/25/01
Date Sampled: 07/10/01
Time Sampled: 0830

Parameter	Analytical Result	Units
Electrical Conductivity	0.34	mmhos/cm
Saturation%	29	%
Calcium	1.4	meq/L
Magnesium	0.26	meq/L
Sodium	1.7	meq/L
Sodium Absorbtion Ratio (SAR)	1.9	ratio
Available Sodium	0.4	meq/100g
Cation Exchange Capacity (CEC)	7.6	meq/100g
Exchangeable Sodium	0.4	meq/100g
Exchangeable Sodium % (ESP)	4.7	%
Chloride	17	mg/L

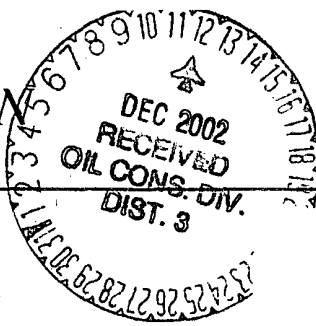
Reference: EPA - "Methods for the Determination of Metals in Environmental Samples" - Supplement I - 600/R-94-111 - May, 1994.

Reviewed By: _____



BURLINGTON RESOURCES

SAN JUAN DIVISION



July 27, 2001

New Mexico Oil Conservation Division
Attn: Mr. Denny Foust
1000 Rio Brazos Road
Aztec, NM 87410

**Re: Undesirable Events – Produced Water Releases
San Juan 32-9 Unit #250, #251, #283**

Mr. Foust:

The following is the information you requested in your July 3, 2001 letter concerning the investigations of the coal seam produced water releases at the subject facilities.

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The lab results are attached. If you have any questions concerning this information, please contact me at 326-9841.

Sincerely,



Ed Hasely
Environmental Specialist

Attachments: Lab Results

cc: Mark Kelly - BLM (#250 only)
Tweeti Blancett
Bruce Gantner
Rob Stanfield
Lary Byars
SJ 32-9 Unit Track #66
Release File
Correspondence

Denny

As we discussed, this is the copy response to your letter on the 32-9 produced water leaks.



Ed

***** PACKING SLIP *****

5689

PAGE: 1

INTER-MOUNTAIN LABORATORIES, INC.
P.O. BOX 4006
SHERIDAN, WY

(307) 674-7506

Burlington Resources
3535 E. 30th St. 87402-8801
P.O. Box 4289
Farmington

NM 87499-4289

INVOICE NUMBER: 5689

INVOICE DATE: 07/26/2001

LAB LOCATION: 0003

2506 West Main Street

Farmington, NM 87401

CUSTOMER NO: 030000813 IN

Customer P.O. :

TERMS: NET 30
ATTN: ED HASELY:

SALES CD	DESCRIPTION	QUANTITY	PRICE	AMOUNT
	COC#72916 32-9 UNIT: RCD:07/10/01 LAB#0301S3199-3200 PS#5689			
100900	Chloride	2.00	15.00	30.00
	Added to samples S03199-3200			
900060	Sales Tax 6%	1.00	1.82	1.82

Balances past due are subject to a late payment
charge of 1.5% or \$2.00 minimum per month.

NET INVOICE: 31.82

***** PACKING SLIP *****

5682

PAGE: 1

INTER-MOUNTAIN LABORATORIES, INC.
P.O. BOX 4006
SHERIDAN, WY

(307) 674-7506

Burlington Resources
3535 E. 30th St. 87402-8801
P.O. Box 4289
Farmington

NM 87499-4289

INVOICE NUMBER: 5682

INVOICE DATE: 07/25/2001

LAB LOCATION: 0003

2506 West Main Street

Farmington, NM 87401

CUSTOMER NO: 030000813 IN

Customer P.O. :

TERMS: NET 30
ATTN:ED HASELY:

SALES CD	DESCRIPTION	QUANTITY	PRICE	AMOUNT
	COC#72916/32-9 UNIT:			
	RCD:07/10/01 LAB#0301S03199-3200			
	PS#5682			
101450	Exchangeable Sodium Percentage	2.00	30.00	60.00
103100	Sodium Absorption Ratio	2.00	24.00	48.00
101400	Electrical Conductivity	2.00	15.00	30.00
900060	Sales Tax 6%	1.00	8.37	8.37

Balances past due are subject to a late payment
charge of 1.5% or \$2.00 minimum per month.

RInvoice.frx 950130

NET INVOICE: 146.37

© 1994 Inter-Mountain Laboratories, Inc.



Phone (505) 326-4737 Fax (505) 325-4182

Inter-Mountain Laboratories, Inc.

2506 West Main Street, Farmington, NM 87401

July 24, 2001

L. Edward Hasely
Burlington Resources
3535 E. 30th St.
P.O. Box 4289
Farmington, NM 87499-4289

Dear Mr. Hasely:

Enclosed are the results of the analysis performed on the soil samples we received July 10, 2001. The samples were labeled 32-9 Unit #250 Outside Berm 4' and 32-9 Unit #251 Outside Berm 3'. These samples correspond with IML lab numbers 0301S03199-3200. The requested parameters for these samples are electrical conductivity, sodium adsorption ratio and exchangeable sodium percentage. The SAR and ESP were determined using the methods in USDA Agricultural Handbook No. 60 (1954).

Please call (505) 326-4737 if you have any questions or comments concerning the data presented in this report.

Sincerely,

Jeff Goats
Soil Lab Supervisor
IML - Farmington

Enclosure: Analytical Report



CASE NARRATIVE

Client: Burlington Resources
Project: 32-9
Set number: 0301S03199-3200
Date received: 07/10/01
Date reported: 07/24/01
Chain of Custody: 72916

Inter-Mountain Laboratories, Inc., Farmington, NM received the samples listed above for analysis on July 10, 2001 in an intact condition. The requested analyses were electrical conductivity, exchangeable sodium percentage, and sodium absorption ratio. Enclosed are the results of the sample analyses.

If you have any question concerning the data, please feel free to call the laboratory, (505) 326-4737.

Reviewed by:

Client: Burlington Resources
Sample ID: #250 Outside Berm 4ft
Lab ID: 0301S03199
Matrix: Soil
Condition: Intact

Date Received: 07/10/01
Date Reported: 07/25/01
Date Sampled: 07/10/01
Time Sampled: 0930

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Exchangeable Sodium	3.7	meq/100g
Exchangeable Sodium % (ESP)	50	%
Chloride	85	mg/L

Reference: EPA - "Methods for the Determination of Metals in Environmental Samples" - Supplement I - 600/R-94-111 - May, 1994.

Reviewed By: 

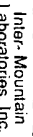
Client: Burlington Resources
Sample ID: #251 Outside Berm 3ft
Lab ID: 0301S03200
Matrix: Soil
Condition: Intact

Date Received: 07/10/01
Date Reported: 07/25/01
Date Sampled: 07/10/01
Time Sampled: 0830

Parameter	Analytical Result	Units
Electrical Conductivity	0.34	mmhos/cm
Saturation%	29	%
Calcium	1.4	meq/L
Magnesium	0.26	meq/L
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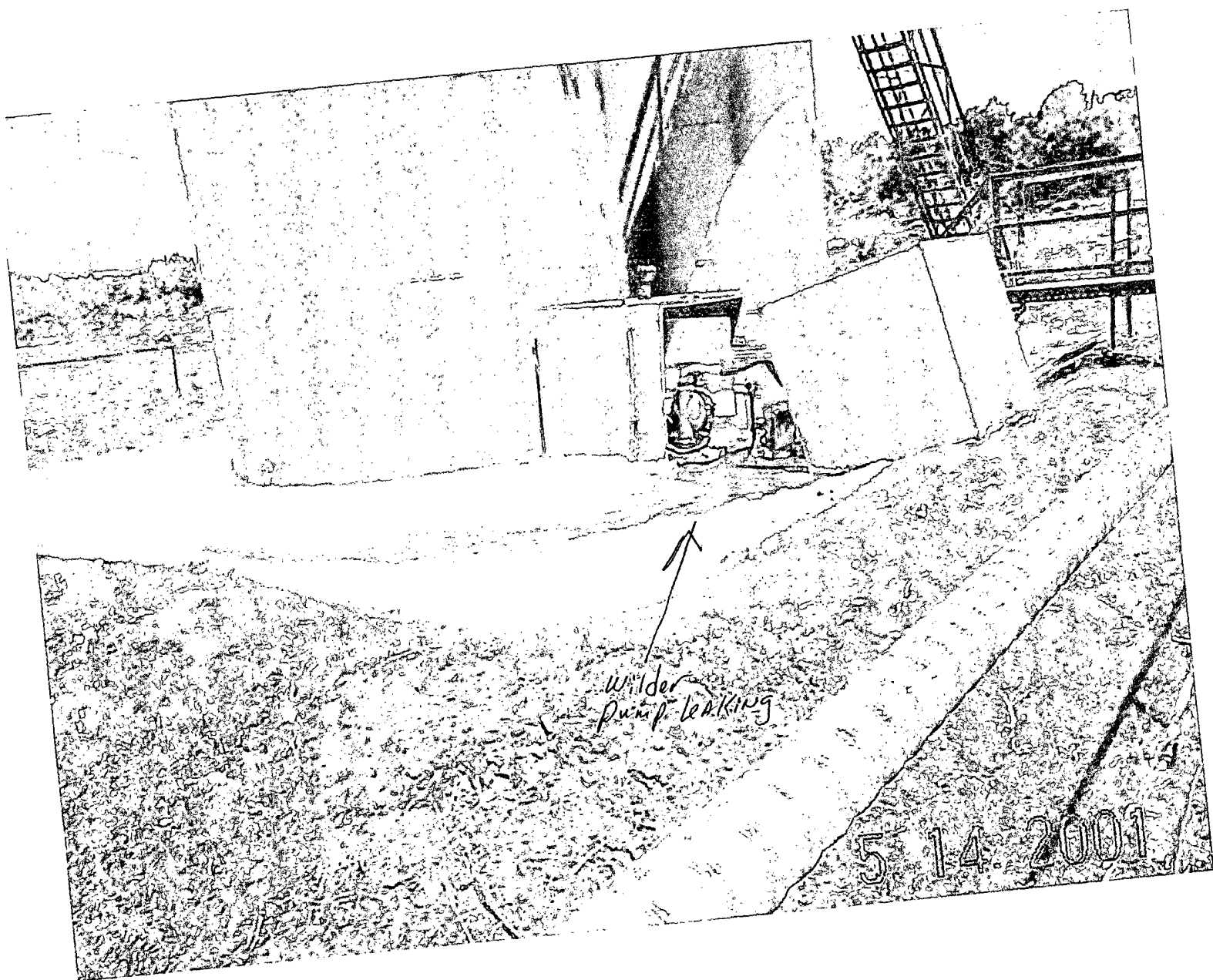
Reference: EPA - "Methods for the Determination of Metals in Environmental Samples" - Supplement I - 600/R-94-111 - May, 1994.

Reviewed By: 

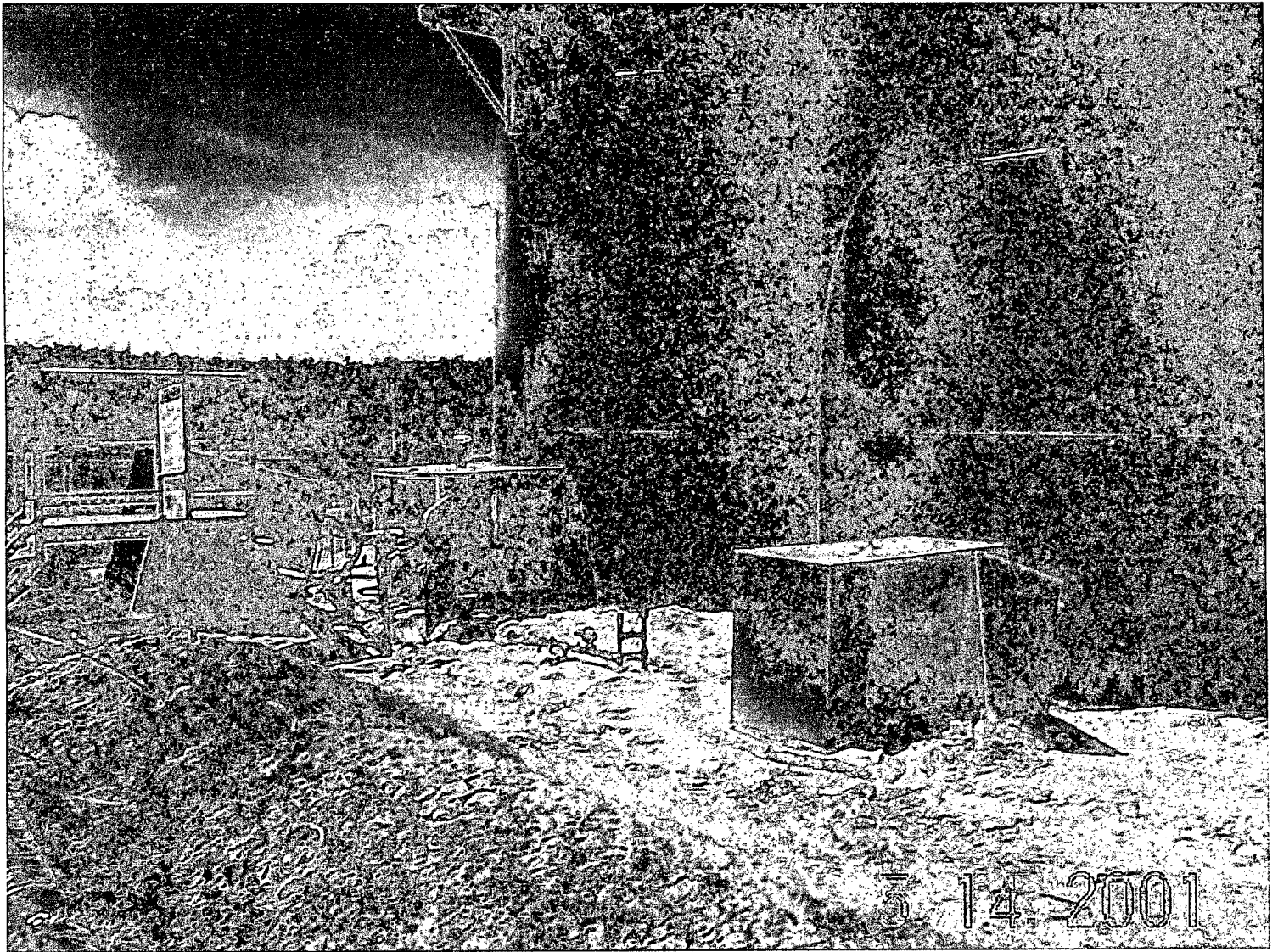


CHAIN OF CUSTODY RECORD

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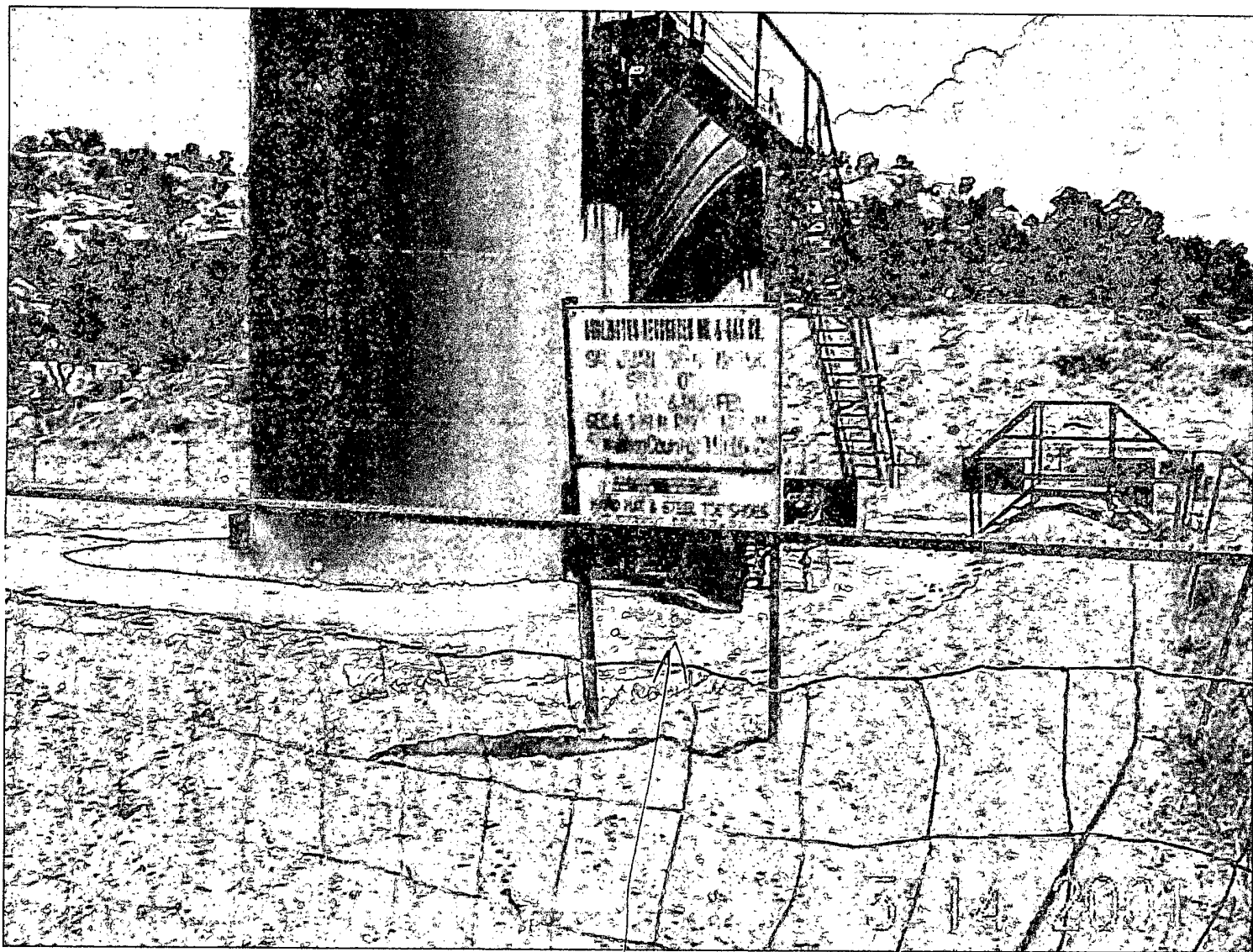


Burlington
S.J. 32-9 #283.
L-33-32N-09W



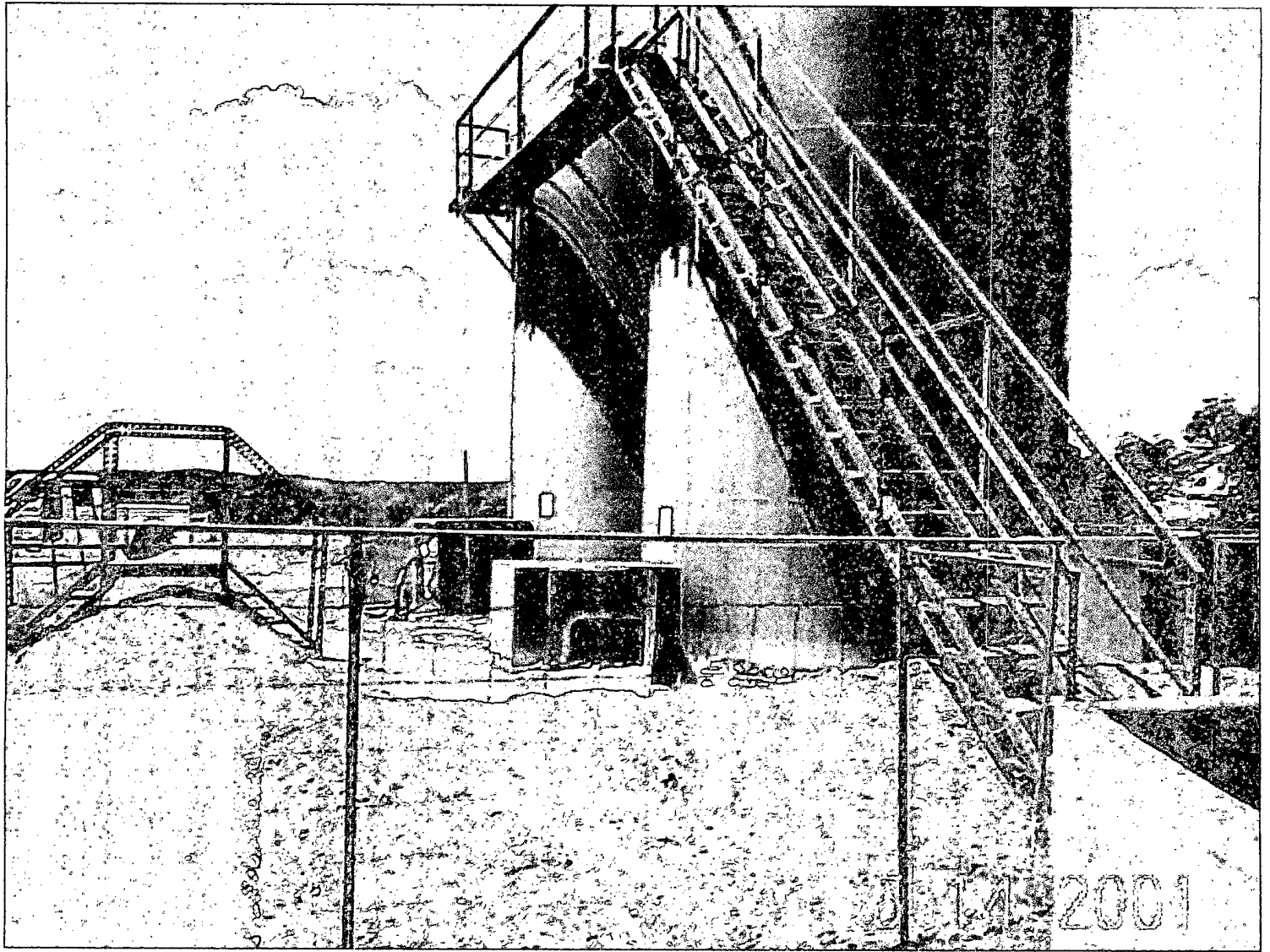
Burlington
S.J. 32-9 #283
33-32N-09W

Alkali in Berm Area

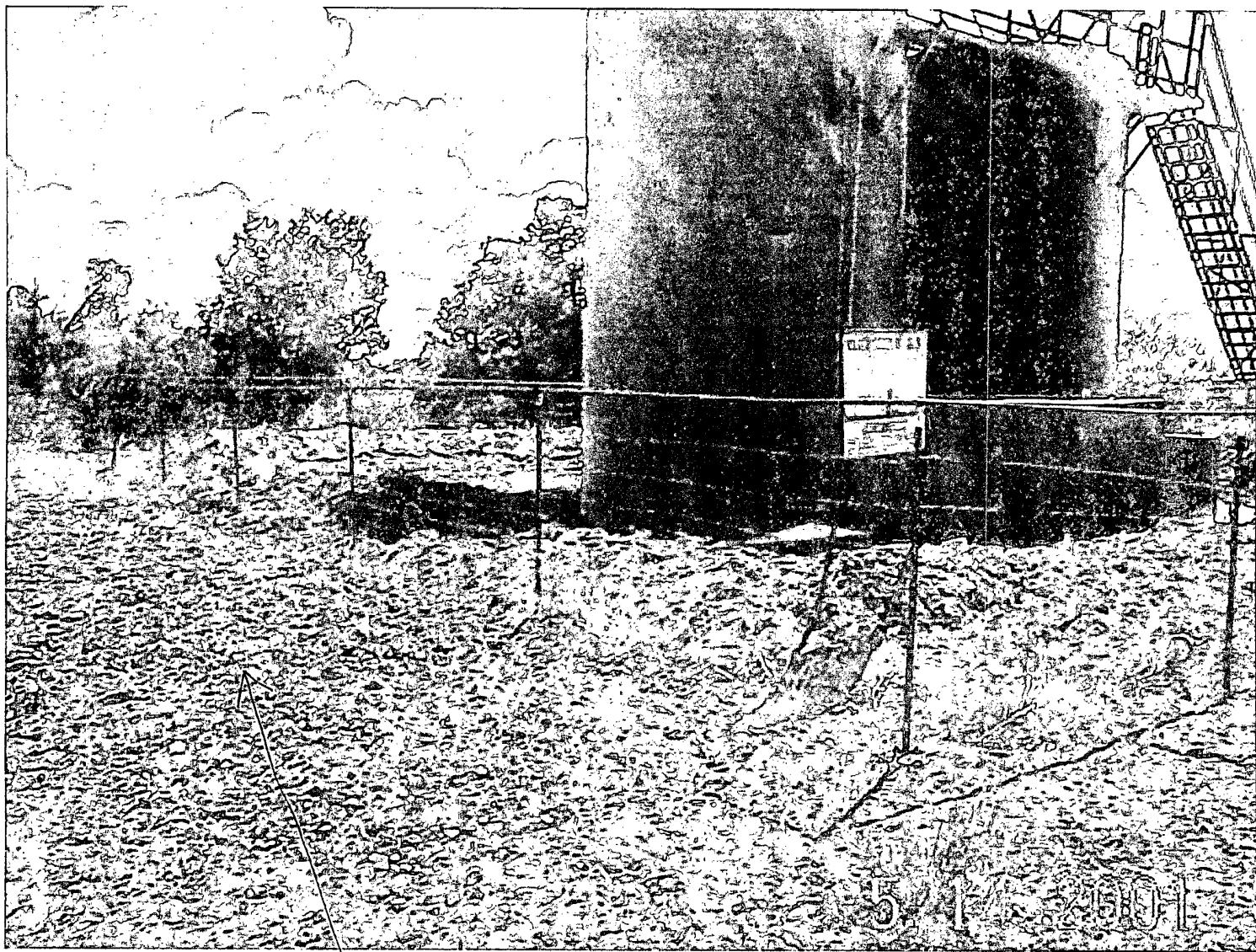


Burlington
 S. J. 32-9 #250
 G-04-31N-09W

Puddle produced water
 By pump. Aikali in Burn Area



Burlington
S.J. 32-9 #250
04-31N-09W

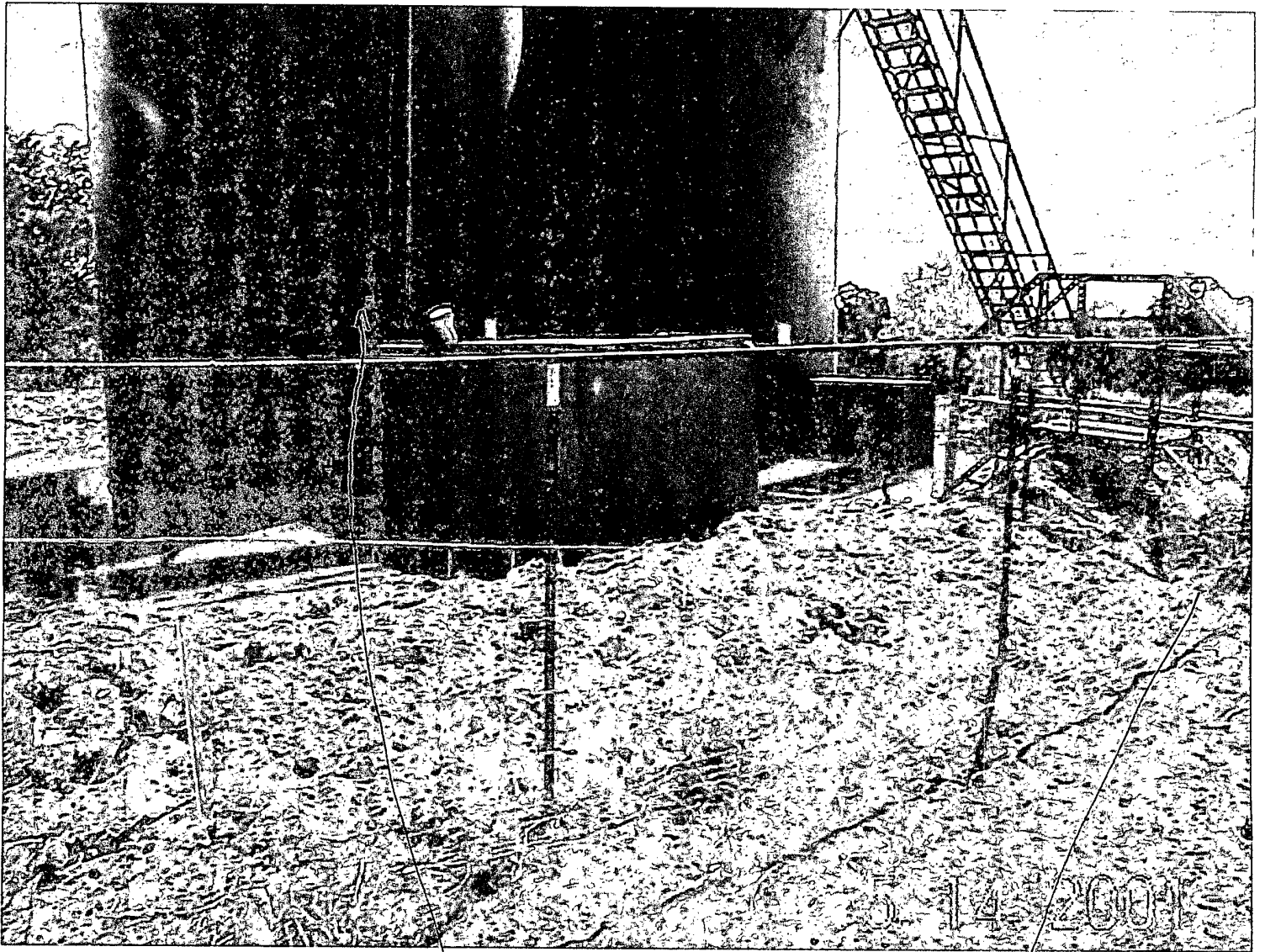


Burlington

S.J. 32-9 #251

M-0 4-31W-09W.

Puddle water
Seeped thru Berm



Burlington
S. J. 32-9 #251
04-31N-09W

1" pop off.
Discharged twice
while I was there.

force down
cattle tracks in
beam Area.