C/007/039 Incoming
CC: PFO
#3771
K

Canyon Fuel Company, LLC
Dugout Canyon Mine
P.O. Box 1029
Wellington, Utah 84542

March 3, 2011

Utah Coal Regulatory Program
Utah Division of Oil, Gas and Mining
1594 West North Temple, Suite 1210
Salt Lake City, UT 84114-5801

RE: 2010 Annual Report for Dugout Canyon Mine, C/007/039

To Whom It May Concern:

Enclosed please find two copies of the Annual Report for 2010 for the Dugout Canyon Mine, a printed paper copy and an electronic copy. The paper copy has the certified signed copies of the mine maps and subsidence map because we do not have the ability to electronically sign the maps provided on the enclosed CD.

Upon review of the "commitment and conditions" section on the 2010 Annual Report Form, we have determined that the commitments listed do not represent what is in the Dugout approved M&RP. In addition there was a page which had the following statement at the top of the page "The following commitments are not required for the current annual report year, but will be required by the permittee in the future as indicted by the status item. These commitments are included for information only and do not currently require action." We are not sure what is to be done with this page included in the pdf version of the annual report e-mailed to Dugout by the Division, but we have included them in the annual report. The confidential folder included with the annual report contains a copy of the raptor survey done in 2010.

Per "R645-525.700 Public Notice of Proposed Mining. At least six months prior to mining, or within that period if approved by the Division, the underground mine operator will mail a notification to the water conservancy district, if any, in which the mine is located and to all owners and occupants of surface property and structures above the underground workings. The notification will include, at a minimum, identification of specific areas in which mining will take place, dates that specific areas will be undermined, and the location or locations where the operator's subsidence control plan may be examined." The compliance with this regulation was completed years ago, proof of compliance with the regulation was provided to the Division at that time. Therefore, the notification **is not** being resubmitted with the 2010 annual report.

Should you have any questions concerning this submittal, please contact me at (435) 636-2869.

Sincerely yours,

Vicky S. Miller

Vicky S. Miller

enclosures

cc: Chris Hansen (letter only)
Dave Spillman (enclosures)

File in:
☐ Confidential
☒ Shelf 2010 Annual Report
☐ Expandable
Date Folder 03072011 C/0070039
See: Confidential For additional

RECEIVED
MAR 07 2011
DIV. OF OIL, GAS & MINING

2010 ANNUAL REPORT
TO THE
UTAH DIVISION OF OIL, GAS AND MINING

DUGOUT CANYON MINE
C/007/039

Canyon Fuel Company, LLC
P.O. Box 1029
Wellington, UT 84542

Submit by Email | Print Form | Reset Form

Annual Report

Date 3/2/11

This Annual Report shows information the Division has for your mine. Submit the completed document and any additional information identified in the Appendices to the Division by April 30, 2010. During a complete inspection an inspector will check and verify the information.

GENERAL INFORMATION

Company Name	Canyon Fuel Company, LLC	Mine Name	Dugout Mine
Permit Number	C/007/0039	Permit expiration Date	2013-03-17
Operator Name		Phone Number	+1 (435) 637-6360
Mailing Address	PO Box 1029	Email	esass@archcoal.com

City: Wellington State: UT Zip Code: 84542

CERTIFIED REPORTS

		DOGM File Location
Excess Spoil Piles	☐ Required ☒ Not Required	
Refuse Piles	☒ Required ☐ Not Required	Attached Appendix A
Impoundments	☒ Required ☐ Not Required	Attached Appendix A
Other:		

OPERATOR COMMENTS

REVIEWER COMMENTS ☐ Met Requirements ☐ Did Not meet Requirements

COMMITMENTS AND CONDITIONS

The Permittee is responsible for ensuring annual technical commitments in the MRP and conditions accepted with the permit are completed throughout the year. The Division has identified these commitments below and has provided space for you to report what you have done during the past year for each commitment. If the particular section is blank, no commitment has been identified and no response is required for this report. If additional written response is required, it should be filed under Appendix B to this report.

Title: EXPERIMENTAL PRACTICE FIELD TRIALS.
Objective: Monitoring to support proposed Experimental Practice.
Frequency: Annual Evaluation in June.
Status: Ongoing.
Reports: Provide in annual report a comparison of growth on field trials with Douglas/Fir reference area..
Citation: App. 2-6 and Map 2-4.

OPERATOR COMMENTS

In the Dugout Canyon Mine approved M&RP there is no Appendix 2-6 or Map 2-4. No request for experimental practice was made by Dugout or field trials with Douglas/Fir reference area. No commitment found in the permit documents to support this reference..

REVIEWER COMMENTS ☐ Met Requirements ☐ Did Not meet Requirements

Title: SOIL SAMPLING OF FILL AT T1, T2, T3
Objective: To protect buried substitute topsoil in the fill.
Frequency: Annual Evaluation during field season.
Status: Ongoing.
Reports: Provide information in Annual Report.
Citation: App. 2-6 Addendum and Map 2-4.

OPERATOR COMMENTS

In the Dugout Canyon Mine approved M&RP there is no Appendix 2-6 or Map 2-4. No request was made by Dugout to bury substitute topsoil in the fill. No commitment found in the permit documents to support this reference.

REVIEWER COMMENTS ☐ Met Requirements ☐ Did Not meet Requirements

Title: WILDLIFE AWARENESS PROGRAM
Objective: To inform employees of the wildlife and the need for protection in the mine facilities and access road areas.
Frequency: As needed.
Status: Ongoing.
Reports: Summary in Annual Report
Citation: Volume I, chapter three, page 3-10, paragraph 5.

OPERATOR COMMENTS

In the Dugout Canyon Mine approved M&RP there is no reference to "inform employees of wildlife and the need for protection" on page 3-10, paragraph 5 of Volume 1 or in any of the M&RP in Chapter 3 on page 3-10 regardless of the permit volume. No commitment found in the permit documents to support this reference.

REVIEWER COMMENTS ☐ Met Requirements ☐ Did Not meet Requirements

The following commitments are not required for the current annual report year, but will be required by the permittee in the future as indicated by the Status item. These commitments are included for information only,and do not currently require action.

Title: CULTURAL RESOURCES
Objective: If during the course of mining operations, previously unidentified cultural resources are discovered, the Permittee shall ensure that the site(s) is not disturbed and shall notify the Division of Oil, Gas, and Mining. The Division, after coordination with OSM, shall inform the Permittee of necessary actions required. The Permittee shall implement the mitigation measures required by the Division within the time frame specified by the Division.
Frequency: As needed.
Status: Ongoing.
OPERATOR COMMENTS

Title: CULTURAL RESOURCES
Objective: If during the course of mining operations, previously unidentified cultural resources are discovered, the Permittee shall ensure that the site(s) is not disturbed and shall notify the Division of Oil, Gas, and Mining. The Division, after coordination with OSM, shall inform the Permittee of necessary actions required. The Permittee shall implement the mitigation measures required by the Division within the time frame specified by the Division.
Frequency: As needed.
Status: Ongoing.
OPERATOR COMMENTS

REPORTING OF OTHER TECHNICAL DATA

List other technical data and information as required under the approved plan, which must be periodically submitted to the Division. Specify whether the information is included as an attachment to this report or currently on file with the Division.

OPERATOR COMMENTS

REVIEWER COMMENTS ☐ Met Requirements ☐ Did Not meet Requirements

LEGAL, FINANCIAL, COMPLIANCE AND RELATED INFORMATION

The Division is Requesting that each Permittee review and update the legal, financial, compliance and related information in the plan as part of the annual report. Please provide the Department of Commerce, Annual Report of Officers, or other equivalent information as necessary to ensure that the information provided in the plan is current. Provide any other change as necessary regarding land ownership, lease acquisitions, legal results from appeals of violations, or other changes as necessary to update information required in the mining and reclamation plan. Include certified financial statements, audits or worksheets, which may be required to meet bonding requirements. Specify whether the information is currently on file with the Division or included as Appendix C to the report.

LEGAL/ FINANCIAL UPDATE	Includ	DOGM File Location
Ownership and Control	☐	General Chapter 1, stand-alone 1" binder on file in SLC Division office.
	☐	
	☐	
	☐	

REVIEWER COMMENTS ☐ Met Requirements ☐ Did Not meet Requirements

MAPS

Copies of mine maps, current and up-to-date through at least December 31, 2009, are to be provided to the Division as Appendix D to this report in accordance with the requirements of R 645-301-525.240. The map copies shall be made in accordance with 30 CFR 75.1200 as required by MSHA. Mine maps are not considered confidential. (Please provide a CD.)

Map Name	Map Number	Included		Confidential	
		Yes	No	Yes	No
Annual subsidence map		☒	☐	☐	☒
Mine Map	Gilson & Rock Canyon Seams	☒	☐	☐	☒
		☐	☐	☐	☐
		☐	☐	☐	☐
		☐	☐	☐	☐

REVIEWER COMMENTS ☐ Met Requirements ☐ Did Not meet Requirements

OTHER INFORMATION

Please provide any comments of further information to be included as part of the Annual Report. Any other attachments are to be provided as Appendix E to this report. If information is submitted as a group rather then by individual mine, please identify each of the mine's data in the list below.

LIST ATTACHMENTS:

Waste Rock Sampling Analyses
Raptor Survey Report (Confidential)
Snotel Report
Subsidence Report
9th East Unrecovered Equipment

REVIEWER COMMENTS

APPENDIX A

Certified Reports

Excess Spoil Piles
Refuse Piles
Impoundments

As required under R645-301-514

CONTENTS

Refuse Pile
Pond Inspections

INSPECTION AND CERTIFIED REPORT ON EXCESS SPOIL PILE OR REFUSE PILE

*To enter text, click in the box and type your response. If a box already contains an entry select the entry and type the replacement. You can use the **tab** key to move from one field to the next. To select a check box, click in the box or type an x.*

GENERAL INFORMATION

Report Date: May 11, 2010
Permit Number: C/007/039
Company Name: Canyon Fuel Company, LLC - Dugout Canyon Mine

EXCESS SPOIL PILE OR REFUSE PILE IDENTIFICATION

Pile Name: Dugout Canyon Mine Refuse Pile
Pile Number: 1211-UT-09-01890-01
MSHA ID Number: 42-01890

Inspection Date: March 31, 2010
Inspected By: David G. Spillman
Reason for Inspection: Quarterly Inspection & Certification

Attachment to Report? Yes ☐ No ☒

Field Evaluation

1. Foundation preparation, including the removal of all organic material and topsoil.

The foundation preparation was found to be in accordance with the approved plan.

2. Placement of underdrains and protective filter systems.

N/A

3. Installation of final surface drainage systems

All necessary drainage systems were constructed, functional and well established at the time of the inspection.

4. Placement and compaction of fill materials

At the time of the inspection, approximately 411,390 tons of refuse had been hauled into the facility from the preparation plant at SCT and directly from the mine site (as per Jared Noyes). Placement and compaction of this refuse appears to have been completed in accordance with the approved plan.

5. Final grading and revegetation of fill.

N/A

6. Appearances of instability, structural weakness, and other hazardous conditions

There was no appearance of instability, structural weakness or other hazardous conditions observed during this inspection.

7. Other comments. Describe any changes in the geometry of the Excess Spoil/Refuse Pile structure, instrumentation, average and maximum lifts of materials placed in the pile, elevations of active benches, total and remaining storage capacity of the structure, evidence of fires in the pile and abatment of such fires, volumes of materials placed in the structure during the year, and any other aspect of the structure affecting its stability or function which has occurred during the reporting period

Note: Previously, the topsoil and subsoil piles have been relocated to permitted areas near the main Dugout road. This opens up the refuse disposal area to its full permitted footprint. Deposition of refuse material is continuing to encroach into the new area.
Since the last inspection (December 16, 2009) an additional 137,391 tons of refuse have been hauled into the site. The remaining permitted capacity, at the time of this inspection is, therefore, 586,832 tons.

CERTIFICATION STATEMENT

I hereby certify that; I am experienced in the construction of earth and rock fills; I am qualified and authorized in the State of Utah to inspect and certify the condition and appearance of earth and rock fills in accordance with the certified and approved designs for this structure; that the fill structure has been maintained in accordance with the approved design and meet or exceed the minimum design requirements under all applicable federal, state, and local regulations; and, that inspections and inspection reports are made by myself and include any appearances of instability, structural weakness or other hazardous conditions of the structure affecting stability.

By David G. Spillman, Technical Services Manager
Full Name and Title

Signature David Spillman Date 5/11/10

P.E. Number and State No. 151610, State of Utah

[Cert. Stamp]

LICENSED PROFESSIONAL ENGINEER
No. 151610
DAVID G.
SPILLMAN
STATE OF UTAH

INSPECTION AND CERTIFIED REPORT ON EXCESS SPOIL PILE OR REFUSE PILE

*To enter text, click in the box and type your response. If a box already contains an entry select the entry and type the replacement. You can use the **tab** key to move from one field to the next. To select a check box, click in the box or type an x.*

GENERAL INFORMATION

Report Date: August 18, 2010
Permit Number: C/007/039
Company Name: Canyon Fuel Company, LLC - Dugout Canyon Mine

EXCESS SPOIL PILE OR REFUSE PILE IDENTIFICATION

Pile Name: Dugout Canyon Mine Refuse Pile
Pile Number: 1211-UT-09-01890-01
MSHA ID Number: 42-01890

Inspection Date: June 10, 2010
Inspected By: David G. Spillman
Reason for Inspection: Quarterly Inspection & Certification

Attachment to Report? Yes ☐ No ☒

Field Evaluation

1. Foundation preparation, including the removal of all organic material and topsoil.

The foundation preparation was found to be in accordance with the approved plan.

2. Placement of underdrains and protective filter systems.

N/A

3. Installation of final surface drainage systems

All necessary drainage systems were constructed, functional and well established at the time of the inspection.

4. Placement and compaction of fill materials

At the time of the inspection, approximately 422,144 tons of refuse had been hauled into the facility from the preparation plant at SCT and directly from the mine site. Placement and compaction of this refuse appears to have been completed in accordance with the approved plan.

5. Final grading and revegetation of fill.

N/A

6. Appearances of instability, structural weakness, and other hazardous conditions

There was no appearance of instability, structural weakness or other hazardous conditions observed during this inspection.

7. Other comments. Describe any changes in the geometry of the Excess Spoil/Refuse Pile structure, instrumentation, average and maximum lifts of materials placed in the pile, elevations of active benches, total and remaining storage capacity of the structure, evidence of fires in the pile and abatment of such fires, volumes of materials placed in the structure during the year, and any other aspect of the structure affecting its stability or function which has occurred during the reporting period

Note: Previously, the topsoil and subsoil piles have been relocated to permitted areas near the main Dugout road. This opens up the refuse disposal area to its full permitted footprint. Deposition of refuse material is continuing to encroach into the new area.
Since the last inspection (March 31, 2010) an additional 41,521 tons of refuse have been hauled into the site. Also, since the last inspection, 30,768 of high ash refuse have been removed for processing at SCT. The remaining permitted capacity, at the time of this inspection is, therefore, 576,078 tons.

CERTIFICATION STATEMENT

I hereby certify that; I am experienced in the construction of earth and rock fills; I am qualified and authorized in the State of Utah to inspect and certify the condition and appearance of earth and rock fills in accordance with the certified and approved designs for this structure; that the fill structure has been maintained in accordance with the approved design and meet or exceed the minimum design requirements under all applicable federal, state, and local regulations; and, that inspections and inspection reports are made by myself and include any appearances of instability, structural weakness or other hazardous conditions of the structure affecting stability.

By David G. Spillman, Technical Services Manager
Full Name and Title

Signature _____ Date 8/18/10

P.E. Number and State No. 151610, State of Utah

[Cert. Stamp]

LICENSED PROFESSIONAL ENGINEER
No. 151610
DAVID G.
SPILLMAN
STATE OF UTAH

INSPECTION AND CERTIFIED REPORT ON EXCESS SPOIL PILE OR REFUSE PILE

*To enter text, click in the box and type your response. If a box already contains an entry select the entry and type the replacement. You can use the **tab** key to move from one field to the next. To select a check box, click in the box or type an x.*

GENERAL INFORMATION

Report Date: November 23, 2010
Permit Number: C/007/039
Company Name: Canyon Fuel Company, LLC - Dugout Canyon Mine

EXCESS SPOIL PILE OR REFUSE PILE IDENTIFICATION

Pile Name: Dugout Canyon Mine Refuse Pile
Pile Number: 1211-UT-09-01890-01
MSHA ID Number: 42-01890

Inspection Date: July 16, 2010
Inspected By: David G. Spillman
Reason for Inspection: Quarterly Inspection & Certification

Attachment to Report? Yes ☐ No ☒

Field Evaluation

1. Foundation preparation, including the removal of all organic material and topsoil.

The foundation preparation was found to be in accordance with the approved plan.

2. Placement of underdrains and protective filter systems.

N/A

3. Installation of final surface drainage systems

All necessary drainage systems were constructed, functional and well established at the time of the inspection.

4. Placement and compaction of fill materials

Placement and compaction of this refuse appears to have been completed in accordance with the approved plan.

5. Final grading and revegetation of fill.

N/A

6. Appearances of instability, structural weakness, and other hazardous conditions

There was no appearance of instability, structural weakness or other hazardous conditions observed during this inspection.

7. Other comments. Describe any changes in the geometry of the Excess Spoil/Refuse Pile structure, instrumentation, average and maximum lifts of materials placed in the pile, elevations of active benches, total and remaining storage capacity of the structure, evidence of fires in the pile and abatment of such fires, volumes of materials placed in the structure during the year, and any other aspect of the structure affecting its stability or function which has occurred during the reporting period

CERTIFICATION STATEMENT

I hereby certify that; I am experienced in the construction of earth and rock fills; I am qualified and authorized in the State of Utah to inspect and certify the condition and appearance of earth and rock fills in accordance with the certified and approved designs for this structure; that the fill structure has been maintained in accordance with the approved design and meet or exceed the minimum design requirements under all applicable federal, state, and local regulations; and, that inspections and inspection reports are made by myself and include any appearances of instability, structural weakness or other hazardous conditions of the structure affecting stability.

By David G. Spillman, Technical Services Manager
Full Name and Title

Signature David Spillman Date 11/23/10

P.E. Number and State No. 151610, State of Utah

[Cert. Stamp]

LICENSED PROFESSIONAL ENGINEER
No. 151610
DAVID G.
SPILLMAN
STATE OF UTAH

INSPECTION AND CERTIFIED REPORT ON EXCESS SPOIL PILE OR REFUSE PILE

*To enter text, click in the box and type your response. If a box already contains an entry select the entry and type the replacement. You can use the **tab** key to move from one field to the next. To select a check box, click in the box or type an x.*

GENERAL INFORMATION

Report Date: November 23, 2010
Permit Number: C/007/039
Company Name: Canyon Fuel Company, LLC - Dugout Canyon Mine

EXCESS SPOIL PILE OR REFUSE PILE IDENTIFICATION

Pile Name: Dugout Canyon Mine Refuse Pile
Pile Number: 1211-UT-09-01890-01
MSHA ID Number: 42-01890

Inspection Date: October 14, 2010
Inspected By: David G. Spillman
Reason for Inspection: Quarterly Inspection & Certification

Attachment to Report? Yes ☐ No ☒

Field Evaluation

1. Foundation preparation, including the removal of all organic material and topsoil.

The foundation preparation was found to be in accordance with the approved plan.

2. Placement of underdrains and protective filter systems.

N/A

INSPECTION AND CERTIFIED REPORT ON EXCESS SPOIL PILE OR REFUSE PILE

3. Installation of final surface drainage systems

All necessary drainage systems were constructed, functional and well established at the time of the inspection.

4. Placement and compaction of fill materials

Placement and compaction of this refuse appears to have been completed in accordance with the approved plan.

5. Final grading and revegetation of fill.

N/A

6. Appearances of instability, structural weakness, and other hazardous conditions

There was no appearance of instability, structural weakness or other hazardous conditions observed during this inspection.

7. Other comments. Describe any changes in the geometry of the Excess Spoil/Refuse Pile structure, instrumentation, average and maximum lifts of materials placed in the pile, elevations of active benches, total and remaining storage capacity of the structure, evidence of fires in the pile and abatment of such fires, volumes of materials placed in the structure during the year, and any other aspect of the structure affecting its stability or function which has occurred during the reporting period

CERTIFICATION STATEMENT

I hereby certify that; I am experienced in the construction of earth and rock fills; I am qualified and authorized in the State of Utah to inspect and certify the condition and appearance of earth and rock fills in accordance with the certified and approved designs for this structure; that the fill structure has been maintained in accordance with the approved design and meet or exceed the minimum design requirements under all applicable federal, state, and local regulations; and, that inspections and inspection reports are made by myself and include any appearances of instability, structural weakness or other hazardous conditions of the structure affecting stability.

By David G. Spillman, Technical Services Manager
Full Name and Title

Signature David Spillman Date 11/23/10

P.E. Number and State No. 151610, State of Utah

[Cert. Stamp]

LICENSED PROFESSIONAL ENGINEER
No. 151610
DAVID G.
SPILLMAN
STATE OF UTAH

Waste Rock Sediment Pond	Date	Time	Inspector(s) Signature	Quarterly Inspection Form
	3/24/10	1030	Vicky L Miller	

Site: 004 Permit # UT0025593	Action Required			Person Notified	Date Corrected	Comments/Remarks
	Yes	No	N/A			
Stability of Pond						
Pond stability/weakness		✓				
Erosion/Stability of banks		✓				
Vegetation problem around pond		✓				
Hazardous Condition						
Any visible contaminants		✓				
Hazardous condition observed		✓				
	(FUNCTIONING)					
Inlet Conditions						
Inlet functioning	✓					
Culvert(s)/ditches	✓					
Principle & Emergency Spillways						
Water Discharging (rate)			✓			
Pond water level	✓					APPROX. 3 inches IN POND
Spillway is clear of debris	✓					
Oil skimmer			✓			
Emergency spillway	✓					
Primary spillway	✓					

Other Useful Information	Value	Comments/Remarks	Sediment Storage Capacity/ Elevation	Value	Comments/Remarks
Last cleaning date for pond	NA		100% sediment storage capacity (acre/ft)	0.47	Elev.5895.9 feet
Primary Spillway elevation (ft)	NA		60% sediment storage capacity (acre/ft)	0.24	Elev. 5894.7 feet
Emergency Spillway elevation (ft)	5902		Current sediment Volume (est.)	10	%
			Remaining storage capacity (est.)	90	%

Other Observations: _____

Dugout Sediment Pond	Date	Time	Inspector(s) Signature	Quarterly Inspection Form
	3/29/10	1000	Vicky A Miller	

Site: 002	Action Required			Person Notified	Date Corrected	Comments/Remarks
Permit # UT0025593	Yes	No	N/A			
Stability of Pond						
Pond stability/weakness		✓				
Erosion/Stability of banks		✓				
Vegetation problem around pond		✓				
Hazardous Condition						
Any visible contaminants		✓				
Hazardous condition observed		✓				
	(FUNCTIONING)					
Inlet Conditions						
Inlet functioning	✓					
Culvert(s)/ditches	✓					
Principle & Emergency Spillways						
Water Discharging (rate)	NOF					
Pond water level	3/4 FULL					
Spillway is clear of debris	✓					
Oil skimmer	✓					
Emergency spillway	✓					
Primary spillway	✓					

Other Useful Information	Value	Comments/Remarks	Sediment Storage Capacity/ Elevation	Value	Comments/Remarks
Last cleaning date for pond	June/July2009		100% sediment storage capacity (acre/ft)	0.4	Elev. 6954.4 feet
Primary Spillway elevation (ft)	6964		60% sediment storage capacity (acre/ft)	0.24	Elev. 6952.2 feet
Emergency Spillway elevation (ft)	6964.5		Current sediment Volume (est.)	50%	
			Remaining storage capacity (est.)	50%	

Other Observations: _____

IMPOUNDMENT INSPECTION AND CERTIFIED REPORT			Page 1 of 2
mit Number	*ACT/007/039*	**Report Date**	*05/11/10*
Mine Name	*Dugout Canyon Mine*		
Company Name	*Canyon Fuel Company, LLC*		
Impoundment Identification	**Impoundment Name**	*Refuse Pile Sedimentation Pond*	
	Impoundment Number	*None*	
	UPDES Permit Number	*UT0025593*	
	MSHA ID Number	*Impoundment –None (Refuse Pile 1211-UT-09-01890-01)*	

IMPOUNDMENT INSPECTION

Inspection Date	*03/31/10*
Inspected By	*Dave Spillman*
Reason for Inspection (Annual, Quarterly or Other Periodic Inspection, Critical Installation, or Completion of Construction)	*Quarterly Inspection / Certification*

1. Describe any appearance of any instability, structural weakness, or any other hazardous condition.

Construction of the Refuse Pile Sedimentation Pond has been completed in accordance with the approved plan. There were no signs 'ability, structural weakness or other hazardous conditions observed during this inspection.

Required for an impoundment which functions as a SEDIMENTATION POND.	**2. Sediment storage capacity, including elevation of 60% and 100% sediment storage volumes, and, estimated average elevation of existing sediment.** *Sediment Storage Capacity (as designed) - 100% = 0.78 acre-feet @ an elevation of 5,895.9 feet* *- 60% = 0.47 acre-feet @ an elevation of 5,894.7 feet*
	3. Principle and emergency spillway elevations. *Emergency Spillway Elevation (as designed) - 5,902 feet*

4. Field Information. Provide current water elevation, whether pond is discharging, type and number of samples taken, monitoring/instrumentation information, inlet/outlet conditions, or other related activities associated with the pond including but not limited to sediment cleanout, pond decanting, embankment erosion/repairs, monitoring information, vegetation on outslopes of embankments, etc.

Approximately two inches of water was impounded at time of inspection.

This pond has never discharged.

Field Evaluation. Describe any changes in the geometry of the impounding structure, average and maximum depths and elevations of impounded water, estimated sediment or slurry volume and remaining storage capacity, estimated volume of water impounded, and any other aspect of the impounding structure affecting its stability or function which has occurred during the reporting period.

Qualification Statement

I hereby certify that; I am experienced in the construction of impoundments; I am qualified and authorized under the direction of a Registered Professional Engineer to inspect the condition and appearance of impoundments in accordance with the certified and approved designs for this structure; that the impoundment has been maintained in accordance with approved design and meet or exceed the minimum design requirements under all applicable federal, state and local regulations; and, that inspections and inspection reports are made by myself and include any appearances of instability, structural weakness or other hazardous conditions of the structure affecting stability.

Signature: _____ **Date:** _____

CERTIFIED REPORT

IMPOUNDMENT EVALUATION (If NO, explain under Comments)	YES	NO
1. Is impoundment designed and constructed in accordance with the approved plan?	X	
Is impoundment free of instability, structural weakness, or any other hazardous condition?	X	
3. Has the impoundment met all applicable performance standards and effluent limitations from the previous date of inspection?	X	

COMMENTS AND OTHER INFORMATION

Certification Statement:

I hereby certify that; I am experienced in the construction of impoundments; I am qualified and authorized in the State of Utah to inspect and certify the condition and appearance of impoundments in accordance with the certified and approved designs for this structure; that the impoundment has been maintained in accordance with approved design and meet or exceed the minimum design requirements under all applicable federal, state and local regulations; and, that inspections and inspection reports are made by myself or under my direction and include any appearances of instability, structural weakness or other hazardous conditions of the structure affecting stability in accordance with the Utah R645 Coal Mining Rules.

LICENSED PROFESSIONAL ENGINEER
No. 151610
D G.
S AN

By: *David G. Spillman, Technical Services Manager*
(Full Name and Title)

Signature: David G. Spillman **Date:** 5/11/10

P.E. Number & State: *No. 151610, State of Utah*

Dugout Sediment Pond	Date	Time	Inspector(s) Signature	Quarterly Inspection Form
	5/21/10	AM	VICKY MILLER	

Site: 002 Permit # UT0025593	Action Required			Person Notified	Date Corrected	Comments/Remarks
	Yes	No	N/A			
Stability of Pond						
Pond stability/weakness		X				
Erosion/Stability of banks		X				
Vegetation problem around pond		X				
Hazardous Condition						
Any visible contaminants		X				
Hazardous condition observed		X				
Inlet Conditions						
Inlet functioning		X				
Culvert(s)/ditches		X				
Principle & Emergency Spillways						
Water Discharging (rate)		X				
Pond water level		X				3/4 FULL WATER / SEDIMENT CLEANOUT SCHEDULED
Spillway is clear of debris		X				
Oil skimmer		X				
Emergency spillway		X				
Primary spillway		X				

Other Useful Information	Value	Comments/Remarks	Sediment Storage Capacity/ Elevation	Value	Comments/Remarks
Last cleaning date for pond	June/July2009		100% sediment storage capacity (acre/ft)	0.4	Elev. 6954.4 feet
Primary Spillway elevation (ft)	6964		60% sediment storage capacity (acre/ft)	0.24	Elev. 6952.2 feet
Emergency Spillway elevation (ft)	6964.5		Current sediment Volume (est.)	58%	
			Remaining storage capacity (est.)	42%	

Other Observations: POND CLEANING SCHEDULED

Waste Rock Sediment Pond	Date	Time	Inspector(s) Signature	Quarterly Inspection Form
	5/26/10			

Site: 004 Permit # UT0025593	Action Required			Person Notified	Date Corrected	Comments/Remarks
	Yes	No	N/A			
Stability of Pond						
Pond stability/weakness		X				
Erosion/Stability of banks		X				
Vegetation problem around pond		X				
Hazardous Condition						
Any visible contaminants		X				
Hazardous condition observed		X				
Inlet Conditions						
Inlet functioning		X				
Culvert(s)/ditches		X				
Principle & Emergency Spillways						
Water Discharging (rate)			NA			
Pond water level			NA			
Spillway is clear of debris		X				
Oil skimmer		X				
Emergency spillway		X				
Primary spillway		X				

Other Useful Information	Value	Comments/Remarks	Sediment Storage Capacity/ Elevation	Value	Comments/Remarks
Last cleaning date for pond	NA		100% sediment storage capacity (acre/ft)	0.47	Elev.5895.9 feet
Primary Spillway elevation (ft)	NA		60% sediment storage capacity (acre/ft)	0.24	Elev. 5894.7 feet
Emergency Spillway elevation (ft)	5902		Current sediment Volume (est.)	10-15%	
			Remaining storage capacity (est.)	85-90%	

Other Observations: _____

IMPOUNDMENT INSPECTION AND CERTIFIED REPORT			Page 1 of 3
Permit Number	*ACT/007/039*	**Report Date**	*06/09/10*
Mine Name	*Dugout Canyon Mine*		
Company Name	*Canyon Fuel Company, LLC*		
Impoundment Identification	**Impoundment Name**	*Surface Facility Sedimentation Pond*	
	Impoundment Number	*None*	
	UPDES Permit Number	*UT0025593*	
	MSHA ID Number	*Impoundment –None (Mine - 42-01890)*	

IMPOUNDMENT INSPECTION

Inspection Date	*06/08/10*
Inspected By	*Dave Spillman*
Reason for Inspection (Annual, Quarterly or Other Periodic Inspection, Critical Installation, or Completion of Construction)	*Routine Quarterly Inspection and Annual Certification*

1. Describe any appearance of any instability, structural weakness, or any other hazardous condition.

There were no signs of instability, structural weakness or other hazardous conditions observed during this inspection.

Required for an impoundment which functions as a SEDIMENTATION POND.

2. Sediment storage capacity, including elevation of 60% and 100% sediment storage volumes, and, estimated average elevation of existing sediment.

Sediment Storage Capacity - 100% = 0.34 acre-feet @ an elevation of 6,953.56 feet

- 60% = 0.20 acre-feet @ an elevation of 6,951.66 feet

3. Principle and emergency spillway elevations.

Principal Spillway Elevation - 6,964.44 feet

Emergency Spillway Elevation - 6,964.5 feet

4. Field Information. Provide current water elevation, whether pond is discharging, type and number of samples taken, monitoring/instrumentation information, inlet/outlet conditions, or other related activities associated with the pond including but not limited to sediment cleanout, pond decanting, embankment erosion/repairs, monitoring information, vegetation on outslopes of embankments, etc.

Nielson Construction was contracted to clean the sediment accumulation out of the Dugout Canyon Mine sedimentation pond. Cleanout operations were conducted from June 7th through June 8th. Nielson Construction also cleaned the pond in 2003, 2004, 2006, 2007, 2008 and 2009. Following the 2003 cleanout, Johansen and Tuttle Engineering, Inc., was contracted to survey the as-built details of the sedimentation pond. The as-built details of the pond were subsequently submitted to DOGM in September 2003 and were approved by DOGM in October 2003.

During the 2003 cleanout, it was observed that the original pond was excavated to a point where the bottom was solid and substantial. This bottom is easily recognizable during cleaning operations. Given the fact that the pond volume was surveyed and well documented in 2003, no additional surveying was recommended following the subsequent cleanouts. During the 2010 cleanout, it was observed that Nielson Construction cleaned sediment down to the same solid bottom.

Field Evaluation. Describe any changes in the geometry of the impounding structure, average and maximum depths and elevations of impounded water, estimated sediment or slurry volume and remaining storage capacity, estimated volume of water impounded, and any other aspect of the impounding structure affecting its stability or function which has occurred during the reporting period.

Qualification Statement

I hereby certify that; I am experienced in the construction of impoundments; I am qualified and authorized under the direction of a Registered Professional Engineer to inspect the condition and appearance of impoundments in accordance with the certified and approved designs for this structure; that the impoundment has been maintained in accordance with approved design and meet or exceed the minimum design requirements under all applicable federal, state and local regulations; and, that inspections and inspection reports are made by myself and include any appearances of instability, structural weakness or other hazardous conditions of the structure affecting stability.

Signature: _____ **Date:** _____

CERTIFIED REPORT

IMPOUNDMENT EVALUATION (If NO, explain under Comments)	YES	NO
1. Is impoundment designed and constructed in accordance with the approved plan?	X	
2. Is impoundment free of instability, structural weakness, or any other hazardous condition?	X	
3. Has the impoundment met all applicable performance standards and effluent limitations from the previous date of inspection?	X	

COMMENTS AND OTHER INFORMATION

Certification Statement:

I hereby certify that; I am experienced in the construction of impoundments; I am qualified and authorized in the State of Utah to inspect and certify the condition and appearance of impoundments in accordance with the certified and approved designs for this structure; that the impoundment has been maintained in accordance with approved design and meet or exceed the minimum design requirements under all applicable federal, state and local regulations; and, that inspections and inspection reports are made by myself or under my direction and include any appearances of instability, structural weakness or other hazardous conditions of the structure affecting stability in accordance with the Utah R645 Coal Mining Rules.

LICENSED PROFESSIONAL ENGINEER
No. 151610
DAVID G. SPILLMAN
STATE OF UTAH

By: *David G. Spillman, Technical Services Manager*
(Full Name and Title)

Signature: *David Spillman* **Date:** *06/09/10*

P.E. Number & State: *No. 151610, State of Utah*

Dugout Sediment Pond	Date	Time	Inspector(s) Signature	Quarterly Inspection Form
	8/17/10	9:00	VICKY MILLER	

Site: 002 Permit # UT0025593	Action Required			Person Notified	Date Corrected	Comments/Remarks
	Yes	No	N/A			
Stability of Pond						
Pond stability/weakness		X				
Erosion/Stability of banks		X				
Vegetation problem around pond		X				
Hazardous Condition						
Any visible contaminants		X				
Hazardous condition observed		X				
Inlet Conditions						
Inlet functioning		X				
Culvert(s)/ditches		X				
Principle & Emergency Spillways						
Water Discharging (rate)			NA			
Pond water level						70% FULL WATER
Spillway is clear of debris		X				
Oil skimmer		X				
Emergency spillway		X				
Primary spillway		X				

Other Useful Information	Value	Comments/Remarks	Sediment Storage Capacity/ Elevation	Value	Comments/Remarks
Last cleaning date for pond	June/July2009		100% sediment storage capacity (acre/ft)	0.4	Elev. 6954.4 feet
Primary Spillway elevation (ft)	6964		60% sediment storage capacity (acre/ft)	0.24	Elev. 6952.2 feet
Emergency Spillway elevation (ft)	6964.5		Current sediment Volume (est.)	1 %	
			Remaining storage capacity (est.)	99%	

Other Observations: MINE IDLE, LIMITED ACTIVITY AT POND

Waste Rock Sediment Pond	Date	Time	Inspector(s) Signature	Quarterly Inspection Form
	8/17/2010	9:30	Vicky Miller	

Site: 004 Permit # UT0025593	Action Required			Person Notified	Date Corrected	Comments/Remarks
	Yes	No	N/A			
Stability of Pond						
Pond stability/weakness		X				
Erosion/Stability of banks		X				
Vegetation problem around pond		X				
Hazardous Condition						
Any visible contaminants		X				
Hazardous condition observed		X				
Inlet Conditions						
Inlet functioning		X				
Culvert(s)/ditches		X				
Principle & Emergency Spillways						
Water Discharging (rate)			X			
Pond water level			X			
Spillway is clear of debris		X				
Oil skimmer			X			
Emergency spillway		X				
Primary spillway			X			

Other Useful Information	Value	Comments/Remarks	Sediment Storage Capacity/ Elevation	Value	Comments/Remarks
Last cleaning date for pond			100% sediment storage capacity (acre/ft)	0.47	Elev.5895.9 feet
Primary Spillway elevation (ft)	NA		60% sediment storage capacity (acre/ft)	0.24	Elev. 5894.7 feet
Emergency Spillway elevation (ft)	5902		Current sediment Volume (est.)	15%	
			Remaining storage capacity (est.)	85%	

Other Observations: _____

Dugout Sediment Pond	Date	Time	Inspector(s) Signature	Quarterly Inspection Form
	10/6/101	8:35	Vicky Miller	

Site: 002 Permit # UT0025593	Action Required			Person Notified	Date Corrected	Comments/Remarks
	Yes	No	N/A			
Stability of Pond						
Pond stability/weakness		X				
Erosion/Stability of banks		X				
Vegetation problem around pond		X				
Hazardous Condition						
Any visible contaminants		X				
Hazardous condition observed		X				
Inlet Conditions						
Inlet functioning		X				
Culvert(s)/ditches		X				
Principle & Emergency Spillways						
Water Discharging (rate)			2gpm			
Pond water level			Full			
Spillway is clear of debris		X				
Oil skimmer			Functioning			
Emergency spillway		X				
Primary spillway			Functioning			

Other Useful Information	Value	Comments/Remarks	Sediment Storage Capacity/ Elevation	Value	Comments/Remarks
Last cleaning date for pond	May/June2010		100% sediment storage capacity (acre/ft)	0.4	Elev. 6954.4 feet
Primary Spillway elevation (ft)	6964		60% sediment storage capacity (acre/ft)	0.24	Elev. 6952.2 feet
Emergency Spillway elevation (ft)	6964.5		Current sediment Volume (est.)	49%	
			Remaining storage capacity (est.)	51%	

Other Observations: Pond was discharging at the time of the inspection. The components of the pond were inspected and detemined to be functioning or able to function as designed.

Waste Rock Sediment Pond	Date	Time	Inspector(s) Signature	Quarterly Inspection Form
	10/16/2010	9:30	Vicky Miller	

Site: 004 Permit # UT0025593	Action Required			Person Notified	Date Corrected	Comments/Remarks
	Yes	No	N/A			
Stability of Pond						
Pond stability/weakness		X				
Erosion/Stability of banks		X				
Vegetation problem around pond		X				
Hazardous Condition						
Any visible contaminants		X				
Hazardous condition observed		X				
Inlet Conditions						
Inlet functioning		X				
Culvert(s)/ditches		X				
Principle & Emergency Spillways						
Water Discharging (rate)			X			
Pond water level						Approximately 6" of Water in the Pond
Spillway is clear of debris		X				
Oil skimmer			X			
Emergency spillway		X				Not discharging at time of inspection
Primary spillway			X			

Other Useful Information	Value	Comments/Remarks	Sediment Storage Capacity/ Elevation	Value	Comments/Remarks
Last cleaning date for pond			100% sediment storage capacity (acre/ft)	0.47	Elev.5895.9 feet
Primary Spillway elevation (ft)	NA		60% sediment storage capacity (acre/ft)	0.24	Elev. 5894.7 feet
Emergency Spillway elevation (ft)	5902		Current sediment Volume (est.)	15%	
			Remaining storage capacity (est.)	85%	

Other Observations: _____

APPENDIX B

Reporting of Technical Data

Including monitoring data, reports, maps, and other information
As required under the approved plan or as required by the Division

In accordance with the requirement of R645-310-130 and R645-301-140

CONTENTS

Not Applicable

APPENDIX C

Legal Financial, Compliance and Related Information

Annual Report of Officers
As submitted to the Utah Department of Commerce

Other change in ownership and control information
As required under R645-301-110

CONTENTS

Not Applicable

APPENDIX D

Mine Maps

As required under R645-302-525-270

CONTENTS

Gilson Seam Mining
Rock Canyon Seam Mining

APPENDIX E

Other Information

In accordance with the requirements of R645-301 and R645-302

CONTENTS

Waste Rock Sampling
Subsidence Map
Subsidence Report
Confidential - Raptor Report
Snotel Report
9th East Unrecovered Equipment

2010 DUGOUT CANYON MINE REJECT TONS HAULED TO WASTE ROCK SITE

	1ST QUARTER	2ND QUARTER	3RD QUARTER	4TH QUARTER	TOTAL
Quantity (Tons)	81,349	72,549	54,615	61,893	270,406
No. Samples Required	16.27	14.51	10.92	12.38	54.08
No. Samples Taken	17	16	14	16	63
No. Samples Analyzed	17	16	14	16	63

As the truck hauling the waste rock leaves the preparation plant the tons are weighed by scale.

Inter-Mountain Laboratories, Inc.
1673 Terra Avenue, Sheridan, Wyoming 82801
(307) 672-8945

Soil Analysis Report

Canyon Fuel Company

Dugout Canyon Mine
P.O. Box 1029
Wellington, UT 84542

Report ID: S1001192001

Project: Dugout Canyon Mine
Date Received: 1/15/2010

Date Reported: 2/18/2010
Work Order: S1001192

Lab ID	Sample ID	pH	Saturation	Electrical Conductivity	Field Capacity	Wilt Point	PE Calcium	PE Magnesium	PE Potassium	PE Sodium	SAR
		s.u.	%	dS/m	%	%	meq/L	meq/L	meq/L	meq/L	
S1001192-001	WR Nov2 09	8.7	32.8	0.64	5.3	2.4	0.87	0.97	0.46	3.40	3.55
S1001192-002	WR Nov3 09	8.6	32.6	0.62	9.6	2.7	1.00	1.17	0.53	2.88	2.77
S1001192-003	WR Nov4 09	8.6	37.0	0.48			0.91	0.93	0.44	2.27	2.37
S1001192-004	WR Nov5 09	8.5	34.0	0.51	9.0	2.7	0.58	0.66	0.47	2.85	3.61
S1001192-005	WR Dec1 09	8.5	33.1	0.66	7.9	2.8	1.07	1.12	0.50	4.12	3.93
S1001192-006	WR Dec2 09	8.4	34.0	0.52	9.2	3.2	0.78	0.89	0.45	2.58	2.82
S1001192-007	WR Dec3 09	8.2	35.4	0.72	14	3.1	1.45	1.56	0.59	3.25	2.65
S1001192-008	WR Dec4 09	8.2	39.0	0.60	6.2	3.0	1.00	1.16	0.49	2.82	2.72
S1001192-009	WR Dec5 09	8.1	45.5	0.67	5.1	2.9	1.25	1.46	0.43	3.51	3.01
S1001192-010	WR Dec6 09	8.0	42.6	0.40	11	2.8	0.56	0.71	0.28	1.85	2.32
S1001192-011	WR Jan1 10	8.7	39.3	0.47	7.7	3.0	0.27	0.25	0.32	3.15	6.16
S1001192-012	WR Jan2 10	8.7	33.8	0.64	9.7	3.1	0.96	0.99	0.44	3.52	3.56

These results apply only to the samples tested.

Abbreviations for extractants: PE= Saturated Paste Extract, H20Sol= water soluble,AB-DTPA= Ammonium Bicarbonate-DTPA, AAO= Acid Ammonium Oxalate
Abbreviations used in acid base accounting: T.S.= Total Sulfur, AB= Acid Base, ABP= Acid Base Potential, PyrS= Pyritic Sulfur, Pyr+Org= Pyritic Sulfur + Organic Sulfur, Neutral. Pot.= Neutralization Potential
Miscellaneous Abbreviations: SAR= Sodium Adsorption Ratio, CEC= Cation Exchange Capacity, ESP= Exchangeable Sodium Percentage

Reviewed by: Karen A Secor
Karen Secor, Soil Lab Supervisor

Inter-Mountain Laboratories, Inc.
1673 Terra Avenue, Sheridan, Wyoming 82801
(307) 672-8945

Soil Analysis Report

Canyon Fuel Company

Dugout Canyon Mine
P.O. Box 1029
Wellington, UT 84542

Report ID: S1001192001

Project: Dugout Canyon Mine
Date Received: 1/15/2010

Date Reported: 2/18/2010
Work Order: S1001192

Lab ID	Sample ID	Sand %	Silt %	Clay %	Texture	Nitrogen Nitrate ppm	Selenium ppm	Boron ppm	Available Phosphorus ppm	TKN %
S1001192-001	WR Nov2 09	83.0	11.0	6.0	Loamy Sand	<0.1	<0.02	0.51	3.74	0.04
S1001192-002	WR Nov3 09	81.0	14.0	5.0	Loamy Sand	<0.1	<0.02	0.56	2.64	0.07
S1001192-003	WR Nov4 09	90.0	8.0	2.0	Sand	<0.1	<0.02	0.64	2.79	0.41
S1001192-004	WR Nov5 09	83.0	12.0	5.0	Loamy Sand	<0.1	<0.02	0.57	3.01	0.14
S1001192-005	WR Dec1 09	84.0	12.0	4.0	Loamy Sand	<0.1	<0.02	0.59	2.64	0.22
S1001192-006	WR Dec2 09	87.0	10.0	3.0	Sand	<0.1	<0.02	0.80	2.97	0.35
S1001192-007	WR Dec3 09	80.0	14.0	6.0	Loamy Sand	<0.1	<0.02	0.61	2.64	0.08
S1001192-008	WR Dec4 09	86.0	11.0	3.0	Loamy Sand	<0.1	<0.02	0.45	2.57	0.37
S1001192-009	WR Dec5 09	83.0	16.0	1.0	Loamy Sand	<0.1	<0.02	0.39	2.64	0.54
S1001192-010	WR Dec6 09	82.0	17.0	1.0	Loamy Sand	<0.1	<0.02	0.39	2.72	0.41
S1001192-011	WR Jan1 10	85.0	14.0	1.0	Loamy Sand	<0.1	<0.02	0.42	2.89	0.44
S1001192-012	WR Jan2 10	86.0	11.0	3.0	Loamy Sand	<0.1	<0.02	0.40	2.80	0.19

These results apply only to the samples tested.

Abbreviations for extractants: PE= Saturated Paste Extract, H20Sol= water soluble,AB-DTPA= Ammonium Bicarbonate-DTPA, AAO= Acid Ammonium Oxalate
Abbreviations used in acid base accounting: T.S.= Total Sulfur, AB= Acid Base, ABP= Acid Base Potential, PyrS= Pyritic Sulfur, Pyr+Org= Pyritic Sulfur + Organic Sulfur, Neutral. Pot.= Neutralization Potential
Miscellaneous Abbreviations: SAR= Sodium Adsorption Ratio, CEC= Cation Exchange Capacity, ESP= Exchangeable Sodium Percentage

Reviewed by: Karen A Secor
Karen Secor, Soil Lab Supervisor

Inter-Mountain Laboratories, Inc.
1673 Terra Avenue, Sheridan, Wyoming 82801
(307) 672-8945

Soil Analysis Report

Canyon Fuel Company
Dugout Canyon Mine
P.O. Box 1029
Wellington, UT 84542

Report ID: S1001192001

Project: Dugout Canyon Mine
Date Received: 1/15/2010

Date Reported: 2/18/2010
Work Order: S1001192

Lab ID	Sample ID	Available Sodium meq/100g	Exchangeable Sodium meq/100g	Total Carbon %	TOC %
S1001192-001	WR Nov2 09	0.32	0.21	10.2	7.4
S1001192-002	WR Nov3 09	0.31	0.22	12.5	11.0
S1001192-003	WR Nov4 09	0.27	0.19	19.1	17.4
S1001192-004	WR Nov5 09	0.39	0.29	12.3	10.3
S1001192-005	WR Dec1 09	0.31	0.18	11.0	9.2
S1001192-006	WR Dec2 09	0.28	0.19	16.8	14.0
S1001192-007	WR Dec3 09	0.29	0.17	9.8	8.5
S1001192-008	WR Dec4 09	0.27	0.16	29.2	27.4
S1001192-009	WR Dec5 09	0.25	0.09	36.8	35.4
S1001192-010	WR Dec6 09	0.22	0.14	32.2	31.2
S1001192-011	WR Jan1 10	0.56	0.44	21.6	21.0
S1001192-012	WR Jan2 10	0.31	0.19	10.9	8.3

These results apply only to the samples tested.

Abbreviations for extractants: PE= Saturated Paste Extract, H20Sol= water soluble,AB-DTPA= Ammonium Bicarbonate-DTPA, AAO= Acid Ammonium Oxalate
Abbreviations used in acid base accounting: T.S.= Total Sulfur, AB= Acid Base, ABP= Acid Base Potential, PyrS= Pyritic Sulfur, Pyr+Org= Pyritic Sulfur + Organic Sulfur, Neutral. Pot.= Neutralization Potential
Miscellaneous Abbreviations: SAR= Sodium Adsorption Ratio, CEC= Cation Exchange Capacity, ESP= Exchangeable Sodium Percentage

Reviewed by: Karen A Secor
Karen Secor, Soil Lab Supervisor

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Soil Analysis Report

Canyon Fuel Company

Dugout Canyon Mine
P.O. Box 1029
Wellington, UT 84542

Report ID: S1001192001

Project: Dugout Canyon Mine
Date Received: 1/15/2010

Date Reported: 2/18/2010
Work Order: S1001192

Lab ID	Sample ID	Total Sulfur %	T.S. AB t/1000t	Neutral. Potential t/1000t	T.S. ABP t/1000t	Sulfate Sulfur %	Pyritic Sulfur %	Organic Sulfur %	PyriticS AB t/1000t	PyriticS ABP t/1000t
S1001192-001	WR Nov2 09	0.58	18.1	240	222	0.03	0.44	0.11	13.8	226
S1001192-002	WR Nov3 09	1.51	47.3	129	82.1	0.05	1.26	0.20	39.4	89.9
S1001192-003	WR Nov4 09	1.69	52.9	141	88.0	0.09	1.33	0.26	41.7	99.2
S1001192-004	WR Nov5 09	0.62	19.3	163	144	0.02	0.46	0.15	14.2	149
S1001192-005	WR Dec1 09	0.86	26.9	152	126	0.01	0.71	0.14	22.1	130
S1001192-006	WR Dec2 09	1.92	60.1	237	177	0.26	1.36	0.30	42.5	195
S1001192-007	WR Dec3 09	0.84	26.2	106	79.8	0.02	0.69	0.13	21.4	84.5
S1001192-008	WR Dec4 09	1.14	35.7	151	115	0.11	0.83	0.20	26.1	125
S1001192-009	WR Dec5 09	1.12	34.9	110	75.4	0.10	0.72	0.30	22.5	87.8
S1001192-010	WR Dec6 09	0.59	18.5	87.9	69.4	0.04	0.35	0.20	11.0	76.9
S1001192-011	WR Jan1 10	0.30	9.38	49.5	40.1	0.06	0.07	0.17	2.26	47.2
S1001192-012	WR Jan2 10	0.50	15.5	220	204	<0.01	0.37	0.12	11.5	208

These results apply only to the samples tested.

Abbreviations for extractants: PE= Saturated Paste Extract, H20Sol= water soluble,AB-DTPA= Ammonium Bicarbonate-DTPA, AAO= Acid Ammonium Oxalate
Abbreviations used in acid base accounting: T.S.= Total Sulfur, AB= Acid Base, ABP= Acid Base Potential, PyrS= Pyritic Sulfur, Pyr+Org= Pyritic Sulfur + Organic Sulfur, Neutral. Pot.= Neutralization Potential
Miscellaneous Abbreviations: SAR= Sodium Adsorption Ratio, CEC= Cation Exchange Capacity, ESP= Exchangeable Sodium Percentage

Reviewed by: Karen A Secor
Karen Secor, Soil Lab Supervisor

Inter-Mountain Laboratories, Inc.
1673 Terra Avenue, Sheridan, Wyoming 82801
(307) 672-8945

Soil Analysis Report

Canyon Fuel Company

Dugout Canyon Mine
P.O. Box 1029
Wellington, UT 84542

Report ID: S1003427001

Project: Dugout Canyon Mine
Date Received: 3/30/2010

Date Reported: 5/7/2010
Work Order: S1003427

Lab ID	Sample ID	pH	Saturation	Electrical Conductivity	Field Capacity	Wilt Point	PE Calcium	PE Magnesium	PE Potassium	PE Sodium	SAR
		s.u.	%	dS/m	%	%	meq/L	meq/L	meq/L	meq/L	
S1003427-001	WR Jan3	8.1	36.5	0.56	11.5	3.0	1.44	1.62	0.67	1.71	1.38
S1003427-002	WR Jan4	7.9	40.9	0.70	8.6	2.9	2.05	1.99	0.63	1.94	1.36
S1003427-003	WR Jan5	7.8	40.7	0.86	7.8	2.7	3.34	3.63	0.78	1.61	0.86
S1003427-004	WR Jan6	7.9	40.6	0.67	9.3	2.4	1.77	1.99	0.66	2.27	1.66
S1003427-005	WR Feb1	7.8	53.4	1.09	5.1	3.7	6.42	4.01	0.59	1.57	0.69
S1003427-006	WR Feb2	7.7	53.4	1.13	7.8	3.8	6.14	4.20	0.63	2.20	0.97
S1003427-007	WR Feb3	7.7	55.5	1.08	6.5	2.2	6.24	4.23	0.59	1.84	0.81
S1003427-008	WR Feb4	7.7	53.0	1.26	9.0	5.0	7.74	4.88	0.60	2.06	0.82
S1003427-009	WR Feb5	7.8	52.1	1.10	8.1	2.5	6.11	4.11	0.58	1.65	0.73
S1003427-010	WR Mar1	7.7	53.5	1.10	12.6	2.4	6.72	3.89	0.56	1.45	0.63
S1003427-011	WR Mar2	7.6	50.3	1.24	13.8	2.6	6.87	4.38	0.55	1.67	0.70
S1003427-012	WR Mar3	7.6	53.0	1.37	12.2	2.4	8.20	5.63	0.63	2.17	0.83
S1003427-013	WR Mar4	7.6	50.1	1.53	11.0	2.2	10.6	6.16	0.71	2.12	0.73
S1003427-014	WR Mar5	8.0	49.0	0.76	12.9	2.4	2.21	2.00	0.73	2.71	1.87

These results apply only to the samples tested.

Abbreviations for extractants: PE= Saturated Paste Extract, H20Sol= water soluble,AB-DTPA= Ammonium Bicarbonate-DTPA, AAO= Acid Ammonium Oxalate
Abbreviations used in acid base accounting: T.S.= Total Sulfur, AB= Acid Base, ABP= Acid Base Potential, PyrS= Pyritic Sulfur, Pyr+Org= Pyritic Sulfur + Organic Sulfur, Neutral. Pot.= Neutralization Potential
Miscellaneous Abbreviations: SAR= Sodium Adsorption Ratio, CEC= Cation Exchange Capacity, ESP= Exchangeable Sodium Percentage

Reviewed by: Karen A Secor
Karen Secor, Soil Lab Supervisor

Inter-Mountain Laboratories, Inc.
1673 Terra Avenue, Sheridan, Wyoming 82801
(307) 672-8945

Soil Analysis Report

Canyon Fuel Company

Dugout Canyon Mine
P.O. Box 1029
Wellington, UT 84542

Report ID: S1003427001

Project: Dugout Canyon Mine
Date Received: 3/30/2010

Date Reported: 5/7/2010
Work Order: S1003427

Lab ID	Sample ID	Sand %	Silt %	Clay %	Texture	Nitrogen Nitrate ppm	Selenium ppm	Boron ppm	Available Phosphorus ppm	TKN %
S1003427-001	WR Jan3	81.0	9.0	10.0	Loamy Sand	<0.1	0.04	0.67	2.42	0.21
S1003427-002	WR Jan4	84.0	10.0	6.0	Loamy Sand	<0.1	0.04	0.77	2.11	0.23
S1003427-003	WR Jan5	86.0	10.0	4.0	Loamy Sand	<0.1	0.04	0.71	2.42	0.25
S1003427-004	WR Jan6	84.0	10.0	6.0	Loamy Sand	<0.1	0.03	0.80	2.58	0.21
S1003427-005	WR Feb1	93.0	6.0	1.0	Sand	<0.1	0.04	0.70	2.23	0.66
S1003427-006	WR Feb2	92.0	7.0	1.0	Sand	<0.1	0.03	0.66	2.09	1.35
S1003427-007	WR Feb3	95.0	5.0	<0.1	Sand	<0.1	0.03	0.47	2.00	1.27
S1003427-008	WR Feb4	94.0	6.0	<0.1	Sand	<0.1	0.03	0.43	2.30	1.20
S1003427-009	WR Feb5	93.0	6.0	1.0	Sand	<0.1	0.03	0.41	1.98	0.88
S1003427-010	WR Mar1	92.0	8.0	<0.1	Sand	<0.1	0.03	0.59	2.18	1.05
S1003427-011	WR Mar2	94.0	5.0	1.0	Sand	<0.1	0.04	0.69	1.84	0.59
S1003427-012	WR Mar3	94.0	5.0	1.0	Sand	<0.1	0.05	0.85	2.04	0.75
S1003427-013	WR Mar4	94.0	6.0	<0.1	Sand	<0.1	0.04	0.87	1.94	0.67
S1003427-014	WR Mar5	91.0	7.0	2.0	Sand	<0.1	0.05	0.63	1.92	0.55

These results apply only to the samples tested.

Abbreviations for extractants: PE= Saturated Paste Extract, H20Sol= water soluble,AB-DTPA= Ammonium Bicarbonate-DTPA, AAO= Acid Ammonium Oxalate
Abbreviations used in acid base accounting: T.S.= Total Sulfur, AB= Acid Base, ABP= Acid Base Potential, PyrS= Pyritic Sulfur, Pyr+Org= Pyritic Sulfur + Organic Sulfur, Neutral. Pot.= Neutralization Potential
Miscellaneous Abbreviations: SAR= Sodium Adsorption Ratio, CEC= Cation Exchange Capacity, ESP= Exchangeable Sodium Percentage

Reviewed by: Karen A Secor
Karen Secor, Soil Lab Supervisor

Inter-Mountain Laboratories, Inc.
1673 Terra Avenue, Sheridan, Wyoming 82801
(307) 672-8945

Soil Analysis Report

Canyon Fuel Company

Dugout Canyon Mine
P.O. Box 1029
Wellington, UT 84542

Report ID: S1003427001

Project: Dugout Canyon Mine
Date Received: 3/30/2010

Date Reported: 5/7/2010
Work Order: S1003427

Lab ID	Sample ID	Available Sodium meq/100g	Exchangeable Sodium meq/100g	Total Carbon %	TOC %
S1003427-001	WR Jan3	0.19	0.13	15.8	15.5
S1003427-002	WR Jan4	0.16	0.08	22.6	22.5
S1003427-003	WR Jan5	0.13	0.07	26.2	25.8
S1003427-004	WR Jan6	0.21	0.12	16.5	15.9
S1003427-005	WR Feb1	0.10	0.02	66.0	65.9
S1003427-006	WR Feb2	0.13	<0.01	63.8	63.5
S1003427-007	WR Feb3	0.11	0.01	64.5	64.4
S1003427-008	WR Feb4	0.12	<0.01	66.1	65.9
S1003427-009	WR Feb5	0.13	0.04	64.1	64.0
S1003427-010	WR Mar1	0.09	0.01	65.8	65.7
S1003427-011	WR Mar2	0.11	0.03	66.7	66.6
S1003427-012	WR Mar3	0.16	0.04	73.1	72.9
S1003427-013	WR Mar4	0.14	0.03	65.6	65.5
S1003427-014	WR Mar5	0.16	0.03	54.8	54.5

These results apply only to the samples tested.

Abbreviations for extractants: PE= Saturated Paste Extract, H20Sol= water soluble,AB-DTPA= Ammonium Bicarbonate-DTPA, AAO= Acid Ammonium Oxalate
Abbreviations used in acid base accounting: T.S.= Total Sulfur, AB= Acid Base, ABP= Acid Base Potential, PyrS= Pyritic Sulfur, Pyr+Org= Pyritic Sulfur + Organic Sulfur, Neutral. Pot.= Neutralization Potential
Miscellaneous Abbreviations: SAR= Sodium Adsorption Ratio, CEC= Cation Exchange Capacity, ESP= Exchangeable Sodium Percentage

Reviewed by: Karen A Secor
Karen Secor, Soil Lab Supervisor

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Soil Analysis Report

Canyon Fuel Company

Dugout Canyon Mine
P.O. Box 1029
Wellington, UT 84542

Report ID: S1003427001

Project: Dugout Canyon Mine
Date Received: 3/30/2010

Date Reported: 5/7/2010
Work Order: S1003427

Lab ID	Sample ID	Total Sulfur %	T.S. AB t/1000t	Neutral. Potential t/1000t	T.S. ABP t/1000t	Sulfate Sulfur %	Pyritic Sulfur %	Organic Sulfur %	PyriticS AB t/1000t	PyriticS ABP t/1000t
S1003427-001	WR Jan3	2.29	71.5	19.6	-51.9	0.03	1.85	0.41	57.7	-38.1
S1003427-002	WR Jan4	3.06	95.5	12.0	-83.5	0.27	2.33	0.46	72.7	-60.7
S1003427-003	WR Jan5	3.60	112	30.8	-81.7	0.31	2.45	0.84	76.6	-45.8
S1003427-004	WR Jan6	2.16	67.6	43.3	-24.3	0.03	1.62	0.51	50.6	-7.31
S1003427-005	WR Feb1	1.42	44.3	13.0	-31.2	0.16	0.54	0.72	17.0	-3.90
S1003427-006	WR Feb2	1.44	45.1	18.2	-26.9	0.06	0.73	0.65	22.9	-4.67
S1003427-007	WR Feb3	1.41	44.2	9.44	-34.7	0.04	0.59	0.78	18.5	-9.04
S1003427-008	WR Feb4	1.37	42.9	8.91	-34.0	0.25	0.44	0.68	13.8	-4.93
S1003427-009	WR Feb5	1.39	43.3	12.4	-30.9	0.04	0.60	0.74	18.8	-6.37
S1003427-010	WR Mar1	1.44	44.9	11.6	-33.3	0.08	0.53	0.83	16.4	-4.85
S1003427-011	WR Mar2	1.40	43.7	11.0	-32.7	0.07	0.58	0.75	18.1	-7.11
S1003427-012	WR Mar3	1.33	41.4	12.2	-29.2	0.19	0.49	0.64	15.4	-3.18
S1003427-013	WR Mar4	1.55	48.3	9.07	-39.3	0.13	0.78	0.65	24.2	-15.1
S1003427-014	WR Mar5	1.24	38.9	19.5	-19.3	0.03	0.63	0.58	19.5	0.00

These results apply only to the samples tested.

Abbreviations for extractants: PE= Saturated Paste Extract, H20Sol= water soluble,AB-DTPA= Ammonium Bicarbonate-DTPA, AAO= Acid Ammonium Oxalate
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Miscellaneous Abbreviations: SAR= Sodium Adsorption Ratio, CEC= Cation Exchange Capacity, ESP= Exchangeable Sodium Percentage

Reviewed by: Karen A Secor
Karen Secor, Soil Lab Supervisor

Inter-Mountain Laboratories, Inc.
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Soil Analysis Report

Canyon Fuel Company
Dugout Canyon Mine
P.O. Box 1029
Wellington, UT 84542

Report ID: S1009041001

Project: Dugout Canyon Mine
Date Received: 9/1/2010

Date Reported: 11/1/2010
Work Order: S1009041

Lab ID	Sample ID	pH	Saturation	Electrical Conductivity	Field Capacity	Wilt Point	PE Calcium	PE Magnesium	PE Potassium	PE Sodium	SAR
		s.u.	%	dS/m	%	%	meq/L	meq/L	meq/L	meq/L	
S1009041-001	WR Mar30	7.2	28.0	4.12	8.6	3.4	24.7	32.4	1.86	3.71	0.70
S1009041-002	WR Apr2	7.3	29.3	3.95	11.5	2.6	23.7	25.3	1.75	4.84	0.98
S1009041-003	WR Apr7	7.2	25.0	4.66	9.6	3.2	24.0	39.6	1.87	6.89	1.22
S1009041-004	WR Apr14	7.4	25.9	4.01	11.0	3.3	24.7	29.7	2.14	2.87	0.55
S1009041-005	WR Apr21	7.3	25.8	3.95	10.9	3.5	22.0	27.8	2.06	2.80	0.56
S1009041-006	WR APR29	7.6	25.5	4.16	14.7	3.3	23.1	29.2	2.13	3.89	0.76
S1009041-007	WR May1	7.7	31.7	3.02	12.8	2.7	6.64	6.31	0.87	13.0	5.12
S1009041-008	WR May2	7.6	41.0	2.43	4.5	2.5	4.89	3.89	0.63	10.0	4.79
S1009041-009	WR May3	7.5	36.0	2.79	7.2	0.4	11.4	9.17	1.02	11.7	3.66
S1009041-010	WR May4	7.6	33.2	3.51	4.5	2.3	10.1	9.04	1.02	14.7	4.76
S1009041-011	WR May30	7.3	29.4	3.66	8.6	2.7	22.1	21.3	1.66	4.07	0.88
S1009041-012	WRJune1	7.2	44.0	2.92	3.2	1.5	13.2	9.39	0.67	7.23	2.15
S1009041-013	WR June2	7.2	37.5	3.46	7.5	2.2	13.0	12.1	0.90	10.8	3.05
S1009041-014	WR June3	7.0	48.1	2.66	4.1	1.8	15.4	7.91	0.95	2.86	0.84
S1009041-015	WR June4	7.3	42.1	3.34	9.0	2.6	18.6	11.0	~0.80	7.75	2.01
S1009041-016	WR June5	7.1	37.4	3.40	15.2	2.6	18.3	9.69	0.73	8.27	2.21
S1009041-017	WR June6	7.1	35.5	4.63	11.9	2.9	22.6	17.0	2.40	13.2	2.96
S1009041-018	WR July1	8.1	35.3	1.69	9.8	2.8	2.55	2.59	0.83	7.32	4.57
S1009041-019	WR July2	8.6	31.0	0.94	7.0	2.4	1.82	2.11	0.83	2.07	1.48
S1009041-020	WR July3	8.3	32.0	1.45	6.0	2.6	2.74	2.82	0.89	4.36	2.62

These results apply only to the samples tested.

Abbreviations for extractants: PE= Saturated Paste Extract, H20Sol= water soluble,AB-DTPA= Ammonium Bicarbonate-DTPA, AAO= Acid Ammonium Oxalate
Abbreviations used in acid base accounting: T.S.= Total Sulfur, AB= Acid Base, ABP= Acid Base Potential, PyrS= Pyritic Sulfur, Pyr+Org= Pyritic Sulfur + Organic Sulfur, Neutral. Pot.= Neutralization Potential
Miscellaneous Abbreviations: SAR= Sodium Adsorption Ratio, CEC= Cation Exchange Capacity, ESP= Exchangeable Sodium Percentage

Reviewed by: Karen A Secor
Karen Secor, Soil Lab Supervisor

Inter-Mountain Laboratories, Inc.
1673 Terra Avenue, Sheridan, Wyoming 82801
(307) 672-8945

Soil Analysis Report

Canyon Fuel Company
Dugout Canyon Mine
P.O. Box 1029
Wellington, UT 84542

Report ID: S1009041001

Project: Dugout Canyon Mine
Date Received: 9/1/2010

Date Reported: 11/1/2010
Work Order: S1009041

Lab ID	Sample ID	pH	Saturation	Electrical Conductivity	Field Capacity	Wilt Point	PE Calcium	PE Magnesium	PE Potassium	PE Sodium	SAR
		s.u.	%	dS/m	%	%	meq/L	meq/L	meq/L	meq/L	
S1009041-021	WR Aug1	7.4	34.8	3.72	14.3	2.8	16.5	13.6	0.88	11.3	2.91
S1009041-022	WR Aug2	7.7	30.6	3.24	8.3	3.1	6.64	6.05	0.79	15.1	5.98
S1009041-023	WR Aug3	7.5	30.9	3.66	14.0	3.3	15.6	11.4	0.99	11.9	3.24
S1009041-024	WR AUG4	7.6	43.4	2.89	9.5	3.5	10.5	7.00	0.86	9.55	3.23

These results apply only to the samples tested.

Abbreviations for extractants: PE= Saturated Paste Extract, H20Sol= water soluble,AB-DTPA= Ammonium Bicarbonate-DTPA, AAO= Acid Ammonium Oxalate
Abbreviations used in acid base accounting: T.S.= Total Sulfur, AB= Acid Base, ABP= Acid Base Potential, PyrS= Pyritic Sulfur, Pyr+Org= Pyritic Sulfur + Organic Sulfur, Neutral. Pot.= Neutralization Potential
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Soil Analysis Report

Canyon Fuel Company
Dugout Canyon Mine
P.O. Box 1029
Wellington, UT 84542

Report ID: S1009041001

Project: Dugout Canyon Mine
Date Received: 9/1/2010

Date Reported: 11/1/2010
Work Order: S1009041

Lab ID	Sample ID	Sand %	Silt %	Clay %	Texture	Nitrogen Nitrate ppm	Available Selenium ppm	Available Boron ppm	Available Phosphorus ppm	TKN %
S1009041-001	WR Mar30	79.0	12.0	9.0	Loamy Sand	<0.1	0.07	0.41	2.61	0.25
S1009041-002	WR Apr2	77.0	14.0	9.0	Sandy Loam	0.1	0.08	0.39	2.33	0.26
S1009041-003	WR Apr7	77.0	14.0	9.0	Sandy Loam	<0.1	0.11	0.49	2.58	0.49
S1009041-004	WR Apr14	75.0	15.0	10.0	Sandy Loam	<0.1	0.06	0.59	2.05	0.35
S1009041-005	WR Apr21	69.0	17.0	14.0	Sandy Loam	<0.1	0.10	0.43	2.58	0.10
S1009041-006	WR APR29	73.0	16.0	11.0	Sandy Loam	<0.1	0.12	0.29	2.31	0.22
S1009041-007	WR May1	77.0	14.0	9.0	Sandy Loam	<0.1	0.04	0.23	1.91	0.12
S1009041-008	WR May2	89.0	7.0	4.0	Sand	<0.1	0.04	0.34	2.34	0.47
S1009041-009	WR May3	83.0	10.0	7.0	Loamy Sand	<0.1	0.04	0.36	2.13	0.16
S1009041-010	WR May4	75.0	13.0	12.0	Sandy Loam	<0.1	0.04	0.21	2.69	0.23
S1009041-011	WR May30	76.0	15.0	9.0	Sandy Loam	<0.1	0.04	0.35	2.05	0.11
S1009041-012	WRJune1	91.0	5.0	4.0	Sand	<0.1	0.06	0.39	2.28	0.76
S1009041-013	WR June2	79.0	13.0	8.0	Loamy Sand	0.4	0.06	0.57	2.43	0.20
S1009041-014	WR June3	89.0	5.0	6.0	Sand	<0.1	0.03	0.38	2.00	0.01
S1009041-015	WR June4	88.0	7.0	5.0	Sand	<0.1	0.05	0.31	2.07	0.11
S1009041-016	WR June5	88.0	7.0	5.0	Sand	<0.1	0.05	0.30	1.86	0.19
S1009041-017	WR June6	80.0	12.0	8.0	Loamy Sand	<0.1	0.09	0.55	2.12	0.63
S1009041-018	WR July1	75.0	13.0	12.0	Sandy Loam	<0.1	0.04	0.20	2.03	0.15
S1009041-019	WR July2	76.0	13.0	11.0	Sandy Loam	<0.1	<0.02	0.12	2.46	0.04
S1009041-020	WR July3	74.0	14.0	12.0	Sandy Loam	<0.1	<0.02	0.20	2.22	0.43

These results apply only to the samples tested.

Abbreviations for extractants: PE= Saturated Paste Extract, H20Sol= water soluble,AB-DTPA= Ammonium Bicarbonate-DTPA, AAO= Acid Ammonium Oxalate
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Reviewed by: Karen A Secor
Karen Secor, Soil Lab Supervisor

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Soil Analysis Report

Canyon Fuel Company

Dugout Canyon Mine
P.O. Box 1029
Wellington, UT 84542

Report ID: S1009041001

Project: Dugout Canyon Mine
Date Received: 9/1/2010

Date Reported: 11/1/2010
Work Order: S1009041

Lab ID	Sample ID	Sand %	Silt %	Clay %	Texture	Nitrogen Nitrate ppm	Available Selenium ppm	Available Boron ppm	Available Phosphorus ppm	TKN %
S1009041-021	WR Aug1	77.0	13.0	10.0	Sandy Loam	<0.1	0.06	0.26	2.28	0.23
S1009041-022	WR Aug2	71.0	17.0	12.0	Sandy Loam	<0.1	0.03	0.28	2.71	0.05
S1009041-023	WR Aug3	75.0	13.0	12.0	Sandy Loam	<0.1	0.05	0.42	2.16	0.05
S1009041-024	WR AUG4	82.0	10.0	8.0	Loamy Sand	<0.1	0.08	0.33	2.02	0.25

These results apply only to the samples tested.

Abbreviations for extractants: PE= Saturated Paste Extract, H20Sol= water soluble,AB-DTPA= Ammonium Bicarbonate-DTPA, AAO= Acid Ammonium Oxalate
Abbreviations used in acid base accounting: T.S.= Total Sulfur, AB= Acid Base, ABP= Acid Base Potential, PyrS= Pyritic Sulfur, Pyr+Org= Pyritic Sulfur + Organic Sulfur, Neutral. Pot.= Neutralization Potential
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Soil Analysis Report

Canyon Fuel Company
Dugout Canyon Mine
P.O. Box 1029
Wellington, UT 84542

Report ID: S1009041001

Project: Dugout Canyon Mine
Date Received: 9/1/2010

Date Reported: 11/1/2010
Work Order: S1009041

Lab ID	Sample ID	Total Carbon %	TOC %	Available Sodium meq/100g	Exchangeable Sodium meq/100g
S1009041-001	WR Mar30	13.1	12.1	0.22	0.12
S1009041-002	WR Apr2	17.1	16.0	0.21	0.07
S1009041-003	WR Apr7	15.3	14.4	0.25	0.08
S1009041-004	WR Apr14	12.3	11.1	0.12	0.04
S1009041-005	WR Apr21	10.1	9.0	0.14	0.07
S1009041-006	WR APR29	11.8	10.4	0.18	0.08
S1009041-007	WR May1	18.5	17.3	0.85	0.43
S1009041-008	WR May2	42.3	41.8	0.61	0.20
S1009041-009	WR May3	33.7	33.1	0.53	0.10
S1009041-010	WR May4	20.0	18.9	0.88	0.40
S1009041-011	WR May30	13.2	12.2	0.21	0.09
S1009041-012	WRJune1	49.1	48.8	0.57	0.25
S1009041-013	WR June2	23.4	22.4	0.84	0.44
S1009041-014	WR June3	57.8	57.6	0.19	0.05
S1009041-015	WR June4	54.8	54.3	0.55	0.22
S1009041-016	WR June5	45.6	45.1	0.59	0.28
S1009041-017	WR June6	28.6	27.7	0.85	0.38
S1009041-018	WR July1	9.8	8.4	0.61	0.35
S1009041-019	WR July2	9.1	7.4	0.21	0.14
S1009041-020	WR July3	12.4	11.3	0.31	0.18

These results apply only to the samples tested.

Abbreviations for extractants: PE= Saturated Paste Extract, H20Sol= water soluble,AB-DTPA= Ammonium Bicarbonate-DTPA, AAO= Acid Ammonium Oxalate
Abbreviations used in acid base accounting: T.S.= Total Sulfur, AB= Acid Base, ABP= Acid Base Potential, PyrS= Pyritic Sulfur, Pyr+Org= Pyritic Sulfur + Organic Sulfur, Neutral. Pot.= Neutralization Potential
Miscellaneous Abbreviations: SAR= Sodium Adsorption Ratio, CEC= Cation Exchange Capacity, ESP= Exchangeable Sodium Percentage

Reviewed by: Karen A Secor
Karen Secor, Soil Lab Supervisor

Inter-Mountain Laboratories, Inc.
1673 Terra Avenue, Sheridan, Wyoming 82801
(307) 672-8945

Soil Analysis Report

Canyon Fuel Company
Dugout Canyon Mine
P.O. Box 1029
Wellington, UT 84542

Report ID: S1009041001

Project: Dugout Canyon Mine
Date Received: 9/1/2010

Date Reported: 11/1/2010
Work Order: S1009041

Lab ID	Sample ID	Total Carbon %	TOC %	Available Sodium meq/100g	Exchangeable Sodium meq/100g
S1009041-021	WR Aug1	22.7	21.3	0.75	0.35
S1009041-022	WR Aug2	9.4	8.2	1.19	0.73
S1009041-023	WR Aug3	20.2	19.3	0.73	0.36
S1009041-024	WR AUG4	48.3	47.9	0.63	0.22

These results apply only to the samples tested.

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Reviewed by: Karen A Secor
Karen Secor, Soil Lab Supervisor

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Soil Analysis Report

Canyon Fuel Company

Dugout Canyon Mine
P.O. Box 1029
Wellington, UT 84542

Report ID: S1009041001

Project: Dugout Canyon Mine
Date Received: 9/1/2010

Date Reported: 11/1/2010
Work Order: S1009041

Lab ID	Sample ID	Total Sulfur %	T.S. AB t/1000t	Neutral. Potential t/1000t	T.S. ABP t/1000t	Sulfate Sulfur %	Pyritic Sulfur %	Organic Sulfur %	PyriticS AB t/1000t	PyriticS ABP t/1000t
S1009041-001	WR Mar30	1.99	62.1	83.2	21.1	0.21	1.47	0.31	45.9	37.3
S1009041-002	WR Apr2	1.94	60.5	85.4	25.0	0.14	1.36	0.43	42.6	42.9
S1009041-003	WR Apr7	1.75	54.6	75.4	20.8	0.01	1.38	0.36	43.0	32.4
S1009041-004	WR Apr14	1.96	61.2	97.1	35.8	0.03	1.49	0.43	46.6	50.5
S1009041-005	WR Apr21	2.18	68.2	87.4	19.2	0.16	1.75	0.28	54.7	32.7
S1009041-006	WR APR29	1.77	55.3	115	60.1	0.02	1.48	0.27	46.1	69.2
S1009041-007	WR May1	1.11	34.8	99.8	65.0	0.11	0.80	0.21	24.9	74.9
S1009041-008	WR May2	1.66	51.8	44.0	-7.76	0.45	0.89	0.31	27.9	16.2
S1009041-009	WR May3	1.15	35.9	51.5	15.6	0.17	0.65	0.34	20.2	31.3
S1009041-010	WR May4	1.36	42.6	96.4	53.8	0.42	0.74	0.20	23.2	73.2
S1009041-011	WR May30	1.56	48.7	81.3	32.6	0.14	1.10	0.32	34.2	47.1
S1009041-012	WRJune1	1.20	37.6	26.7	-11.0	0.04	0.63	0.54	19.6	7.04
S1009041-013	WR June2	0.95	29.8	81.3	51.5	0.28	0.41	0.26	12.8	68.5
S1009041-014	WR June3	1.73	54.1	14.9	-39.2	0.16	0.98	0.59	30.6	-15.7
S1009041-015	WR June4	1.33	41.6	39.5	-2.08	<0.01	0.85	0.47	26.6	13.0
S1009041-016	WR June5	1.57	48.9	44.6	-4.38	0.02	1.11	0.44	34.8	9.77
S1009041-017	WR June6	1.82	56.8	76.0	19.2	0.12	0.83	0.86	26.0	50.0
S1009041-018	WR July1	0.91	28.5	119	91.0	0.12	0.65	0.15	20.3	99.2
S1009041-019	WR July2	1.74	54.3	146	91.4	0.18	1.34	0.22	42.0	104
S1009041-020	WR July3	1.50	47.0	95.4	48.4	0.16	1.05	0.29	32.8	62.6

These results apply only to the samples tested.

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Miscellaneous Abbreviations: SAR= Sodium Adsorption Ratio, CEC= Cation Exchange Capacity, ESP= Exchangeable Sodium Percentage

Reviewed by: Karen A Secor
Karen Secor, Soil Lab Supervisor

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Soil Analysis Report

Canyon Fuel Company

Dugout Canyon Mine
P.O. Box 1029
Wellington, UT 84542

Report ID: S1009041001

Project: Dugout Canyon Mine
Date Received: 9/1/2010

Date Reported: 11/1/2010
Work Order: S1009041

Lab ID	Sample ID	Total Sulfur %	T.S. AB t/1000t	Neutral. Potential t/1000t	T.S. ABP t/1000t	Sulfate Sulfur %	Pyritic Sulfur %	Organic Sulfur %	PyriticS AB t/1000t	PyriticS ABP t/1000t
S1009041-021	WR Aug1	1.34	41.7	120	77.8	<0.01	0.99	0.34	31.0	88.5
S1009041-022	WR Aug2	1.55	48.5	99.3	50.8	0.01	1.29	0.25	40.4	58.9
S1009041-023	WR Aug3	1.04	32.4	81.2	48.7	0.06	0.72	0.25	22.5	58.6
S1009041-024	WR AUG4	0.96	29.9	30.0	0.17	0.13	0.43	0.40	13.4	16.7

These results apply only to the samples tested.

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Karen Secor, Soil Lab Supervisor

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Soil Analysis Report

Canyon Fuel Company

Dugout Canyon Mine
P.O. Box 1029
Wellington, UT 84542

Report ID: S1012059001

Project: Dugout Canyon Mine
Date Received: 11/22/2010

Date Reported: 2/4/2011
Work Order: S1012059

Lab ID	Sample ID	pH	Saturation	Electrical Conductivity	Field Capacity	Wilt Point	PE Calcium	PE Magnesium	PE Potassium	PE Sodium	SAR
		s.u.	%	dS/m	%	%	meq/L	meq/L	meq/L	meq/L	
S1012059-001	WR Aug 5	7.2	34.9	1.48	13.2	3.3	7.80	7.58	0.90	4.76	1.72
S1012059-002	WR Sept 1	7.8	57.1	0.47	15.2	4.7	2.18	1.12	0.23	2.46	1.92
S1012059-003	WR Sept 2	7.8	33.8	0.84	16.1	3.6	3.51	4.73	0.81	1.53	0.76
S1012059-004	WR Sept 3	7.5	28.1	1.79	16.4	4.4	10.8	12.7	1.61	3.05	0.89
S1012059-005	WR Sept 4	7.2	24.1	2.60	15.8	5.1	23.1	23.8	2.25	4.91	1.01
S1012059-006	WR Sept 5	8.0	50.0	1.14	21.6	4.7	3.26	1.66	0.31	8.98	5.73
S1012059-007	WR Sept 6	7.5	31.3	2.01	17.7	4.3	12.9	11.0	1.16	7.05	2.04
S1012059-008	WR Oct 1	7.3	31.8	1.36	10.8	3.3	6.98	7.52	1.24	2.68	1.00
S1012059-009	WR Oct 2	8.0	28.3	0.87	15.4	4.1	1.69	1.40	0.81	7.61	6.12
S1012059-010	WR Oct 3	8.3	25.3	1.13	14.0	8.1	0.37	0.25	0.39	12.6	22.8
S1012059-011	WR Oct 4	7.3	28.1	1.29	11.7	4.8	5.56	6.62	1.15	3.37	1.36
S1012059-012	WR Oct 5	7.0	34.2	0.74	9.7	2.6	3.24	4.18	0.65	0.79	0.41
S1012059-013	WR Oct 6	7.5	37.7	0.65	11.9	3.4	2.12	3.13	0.51	1.29	0.79
S1012059-014	WR Oct 7	7.2	31.9	1.33	10.3	3.6	7.54	7.90	1.26	2.94	1.06
S1012059-015	WR Nov 1	8.0	34.8	0.44	12.2	3.8	1.07	1.41	0.43	1.39	1.25
S1012059-016	WR Nov 2	7.4	31.8	1.27	8.8	3.3	6.24	7.14	1.21	2.22	0.86

These results apply only to the samples tested.

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Karen Secor, Soil Lab Supervisor

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Soil Analysis Report

Canyon Fuel Company

Dugout Canyon Mine
P.O. Box 1029
Wellington, UT 84542

Report ID: S1012059001

Project: Dugout Canyon Mine
Date Received: 11/22/2010

Date Reported: 2/4/2011
Work Order: S1012059

Lab ID	Sample ID	Sand %	Silt %	Clay %	Texture	Available Selenium ppm	Available Boron ppm	Nitrate (as N) ppm	Phosphorus ppm	TKN %
S1012059-001	WR Aug 5	85.0	10.0	5.0	Loamy Sand	0.04	0.58	<0.1	4.17	0.11
S1012059-002	WR Sept 1	94.0	4.0	2.0	Sand	<0.02	0.45	<0.1	3.54	1.03
S1012059-003	WR Sept 2	76.0	16.0	8.0	Sandy Loam	<0.02	0.33	<0.1	3.81	0.24
S1012059-004	WR Sept 3	73.0	16.0	11.0	Sandy Loam	0.03	0.53	<0.1	3.82	0.37
S1012059-005	WR Sept 4	67.0	21.0	12.0	Sandy Loam	0.05	0.93	<0.1	3.73	0.35
S1012059-006	WR Sept 5	91.0	6.0	3.0	Sand	<0.02	0.58	<0.1	4.85	0.81
S1012059-007	WR Sept 6	76.0	14.0	10.0	Sandy Loam	0.04	0.52	<0.1	4.36	0.14
S1012059-008	WR Oct 1	74.0	16.0	10.0	Sandy Loam	0.03	0.56	<0.1	4.50	0.15
S1012059-009	WR Oct 2	81.0	12.0	7.0	Loamy Sand	<0.02	0.51	<0.1	3.54	0.25
S1012059-010	WR Oct 3	44.0	35.0	21.0	Loam	0.02	0.64	<0.1	4.09	0.22
S1012059-011	WR Oct 4	66.0	22.0	12.0	Sandy Loam	0.04	0.71	0.2	3.41	0.15
S1012059-012	WR Oct 5	83.0	11.0	6.0	Loamy Sand	0.03	0.40	<0.1	3.15	0.25
S1012059-013	WR Oct 6	84.0	11.0	5.0	Loamy Sand	<0.02	0.42	<0.1	3.02	0.12
S1012059-014	WR Oct 7	74.0	16.0	10.0	Sandy Loam	0.02	0.70	0.1	3.60	0.23
S1012059-015	WR Nov 1	77.0	15.0	8.0	Sandy Loam	<0.02	0.28	<0.1	3.70	0.26
S1012059-016	WR Nov 2	70.0	20.0	10.0	Sandy Loam	0.03	0.66	<0.1	3.41	0.30

These results apply only to the samples tested.

Abbreviations for extractants: PE= Saturated Paste Extract, H20Sol= water soluble,AB-DTPA= Ammonium Bicarbonate-DTPA, AAO= Acid Ammonium Oxalate
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Soil Analysis Report

Canyon Fuel Company

Dugout Canyon Mine
P.O. Box 1029
Wellington, UT 84542

Report ID: S1012059001

Project: Dugout Canyon Mine
Date Received: 11/22/2010

Date Reported: 2/4/2011
Work Order: S1012059

Lab ID	Sample ID	Available Sodium meq/100g	Exchangeable Sodium meq/100g	Total Carbon %	TOC %
S1012059-001	WR Aug 5	0.29	0.12	21.8	21.2
S1012059-002	WR Sept 1	0.28	0.13	80.6	80.5
S1012059-003	WR Sept 2	0.12	0.07	16.8	15.9
S1012059-004	WR Sept 3	0.17	0.08	7.5	6.3
S1012059-005	WR Sept 4	0.22	0.10	9.6	8.5
S1012059-006	WR Sept 5	0.82	0.37	57.7	57.0
S1012059-007	WR Sept 6	0.37	0.15	30.9	30.0
S1012059-008	WR Oct 1	0.18	0.09	8.2	6.9
S1012059-009	WR Oct 2	0.76	0.55	7.1	6.5
S1012059-010	WR Oct 3	0.64	0.33	5.7	5.2
S1012059-011	WR Oct 4	2.22	2.13	7.1	6.4
S1012059-012	WR Oct 5	0.07	0.04	11.6	11.6
S1012059-013	WR Oct 6	0.10	0.05	11.6	11.5
S1012059-014	WR Oct 7	0.17	0.08	10.3	8.7
S1012059-015	WR Nov 1	0.15	0.10	11.2	11.0
S1012059-016	WR Nov 2	0.14	0.07	7.1	5.6

These results apply only to the samples tested.

Abbreviations for extractants: PE= Saturated Paste Extract, H20Sol= water soluble,AB-DTPA= Ammonium Bicarbonate-DTPA, AAO= Acid Ammonium Oxalate
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Soil Analysis Report

Canyon Fuel Company

Dugout Canyon Mine
P.O. Box 1029
Wellington, UT 84542

Report ID: S1012059001

Project: Dugout Canyon Mine
Date Received: 11/22/2010

Date Reported: 2/4/2011
Work Order: S1012059

Lab ID	Sample ID	Total Sulfur %	T.S. AB t/1000t	Neutral. Potential t/1000t	T.S. ABP t/1000t	Sulfate Sulfur %	Pyritic Sulfur %	Organic Sulfur %	PyriticS AB t/1000t	PyriticS ABP t/1000t
S1012059-001	WR Aug 5	1.49	46.7	52.4	5.71	0.11	1.10	0.29	34.3	18.1
S1012059-002	WR Sept 1	0.65	20.3	14.8	-5.50	0.05	0.17	0.44	5.21	9.63
S1012059-003	WR Sept 2	1.09	34.0	75.2	41.1	0.12	0.80	0.17	25.0	50.1
S1012059-004	WR Sept 3	1.78	55.6	104	48.2	0.05	1.51	0.22	47.3	56.6
S1012059-005	WR Sept 4	2.33	72.9	98.5	25.6	0.06	1.98	0.29	61.8	36.7
S1012059-006	WR Sept 5	0.59	18.5	64.9	46.4	0.03	0.38	0.18	11.9	53.0
S1012059-007	WR Sept 6	1.27	39.6	77.0	37.4	0.18	0.86	0.23	26.8	50.2
S1012059-008	WR Oct 1	1.83	57.1	108	51.1	0.03	1.57	0.22	49.2	59.0
S1012059-009	WR Oct 2	0.25	7.67	47.0	39.4	0.02	0.19	0.03	6.05	41.0
S1012059-010	WR Oct 3	0.33	10.2	48.2	38.0	<0.01	0.28	0.04	8.64	39.6
S1012059-011	WR Oct 4	1.51	47.1	52.4	5.22	0.21	1.12	0.18	35.0	17.4
S1012059-012	WR Oct 5	0.60	18.7	2.63	-16.1	0.05	0.43	0.12	13.5	-10.9
S1012059-013	WR Oct 6	0.68	21.1	6.31	-14.8	0.05	0.50	0.13	15.6	-9.26
S1012059-014	WR Oct 7	1.73	53.9	134	80.1	0.03	1.48	0.22	46.2	87.8
S1012059-015	WR Nov 1	0.64	20.0	22.9	2.84	<0.01	0.46	0.18	14.4	8.49
S1012059-016	WR Nov 2	2.00	62.5	124	61.4	0.06	1.73	0.22	54.0	69.9

These results apply only to the samples tested.

Abbreviations for extractants: PE= Saturated Paste Extract, H20Sol= water soluble,AB-DTPA= Ammonium Bicarbonate-DTPA, AAO= Acid Ammonium Oxalate
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Soil Analysis Report

Canyon Fuel Company

Dugout Canyon Mine
P.O. Box 1029
Wellington, UT 84542

Report ID: S1101168001

Project: Dugout Canyon Mine
Date Received: 1/18/2011

Date Reported: 2/24/2011
Work Order: S1101168

Lab ID	Sample ID	pH	Saturation	Electrical Conductivity	Field Capacity	Wilt Point	PE Calcium	PE Magnesium	PE Potassium	PE Sodium	SAR
		s.u.	%	dS/m	%	%	meq/L	meq/L	meq/L	meq/L	
S1101168-001	WR Nov 3	8.4	42.3	0.57	16.6	3.5	0.16	0.11	0.16	5.03	13.7
S1101168-002	WR Nov4	8.2	43.5	0.48	19.0	3.1	0.30	0.26	0.22	3.75	7.09
S1101168-003	WR Nov 5	7.9	36.3	0.74	16.4	3.5	0.88	1.07	0.45	4.46	4.52
S1101168-004	WR Nov 6	8.5	41.5	0.72	21.8	4.0	0.36	0.28	0.26	5.57	9.87
S1101168-005	WR Dec 1	7.9	45.6	0.53	19.7	2.8	1.10	1.65	0.37	1.26	1.07
S1101168-006	WR Dec 2	7.8	43.0	0.53	17.6	2.7	1.25	1.77	0.42	1.38	1.12
S1101168-007	WR Dec 3	8.0	42.3	0.46	21.2	3.4	0.59	0.77	0.32	2.08	2.52
S1101168-008	WR Jan 1-11	8.0	46.4	0.38	19.8	3.1	0.64	0.86	0.32	1.43	1.65
S1101168-009	WR Jan 2-11	8.0	51.4	0.36	14.3	2.7	0.75	0.95	0.29	1.07	1.17

These results apply only to the samples tested.

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Soil Analysis Report

Canyon Fuel Company

Dugout Canyon Mine
P.O. Box 1029
Wellington, UT 84542

Report ID: S1101168001

Project: Dugout Canyon Mine
Date Received: 1/18/2011

Date Reported: 2/24/2011
Work Order: S1101168

Lab ID	Sample ID	Sand %	Silt %	Clay %	Texture	Available Selenium ppm	Available Boron ppm	Nitrate (as N) ppm	Phosphorus ppm	TKN %
S1101168-001	WR Nov 3	77.0	15.0	8.0	Sandy Loam	<0.02	0.68	0.2	1.04	0.37
S1101168-002	WR Nov4	83.0	12.0	5.0	Loamy Sand	<0.02	0.64	0.2	1.09	0.56
S1101168-003	WR Nov 5	77.0	15.0	8.0	Sandy Loam	0.02	0.51	0.2	1.27	0.56
S1101168-004	WR Nov 6	74.0	16.0	10.0	Sandy Loam	0.03	0.96	0.2	1.25	0.58
S1101168-005	WR Dec 1	80.0	13.0	7.0	Loamy Sand	<0.02	0.57	0.3	1.20	0.17
S1101168-006	WR Dec 2	82.0	11.0	7.0	Loamy Sand	<0.02	0.44	0.1	1.01	0.58
S1101168-007	WR Dec 3	78.0	14.0	8.0	Loamy Sand	<0.02	0.43	0.1	1.07	0.23
S1101168-008	WR Jan 1-11	82.0	13.0	5.0	Loamy Sand	<0.02	0.48	0.1	1.17	0.14
S1101168-009	WR Jan 2-11	82.0	13.0	5.0	Loamy Sand	<0.02	0.50	0.1	1.69	0.30

These results apply only to the samples tested.

Abbreviations for extractants: PE= Saturated Paste Extract, H20Sol= water soluble,AB-DTPA= Ammonium Bicarbonate-DTPA, AAO= Acid Ammonium Oxalate
Abbreviations used in acid base accounting: T.S.= Total Sulfur, AB= Acid Base, ABP= Acid Base Potential, PyrS= Pyritic Sulfur, Pyr+Org= Pyritic Sulfur + Organic Sulfur, Neutral. Pot.= Neutralization Potential
Miscellaneous Abbreviations: SAR= Sodium Adsorption Ratio, CEC= Cation Exchange Capacity, ESP= Exchangeable Sodium Percentage

Reviewed by: Karen A Secor
Karen Secor, Soil Lab Supervisor

Inter-Mountain Labs
1673 Terra Avenue, Sheridan, Wyoming 82801 ph: (307) 672-8945

Your Enviromental Monitoring Partner

Soil Analysis Report

Canyon Fuel Company

Dugout Canyon Mine
P.O. Box 1029
Wellington, UT 84542

Report ID: S1101168001

Project: Dugout Canyon Mine
Date Received: 1/18/2011

Date Reported: 2/24/2011
Work Order: S1101168

Lab ID	Sample ID	Available Sodium meq/100g	Exchangeable Sodium meq/100g	Total Carbon %	TOC %
S1101168-001	WR Nov 3	1.59	1.37	19.8	19.8
S1101168-002	WR Nov4	0.85	0.69	18.6	18.4
S1101168-003	WR Nov 5	0.63	0.47	13.0	12.5
S1101168-004	WR Nov 6	1.42	1.19	15.9	15.7
S1101168-005	WR Dec 1	0.22	0.16	22.3	21.7
S1101168-006	WR Dec 2	0.20	0.14	25.2	25.0
S1101168-007	WR Dec 3	0.49	0.49	18.1	17.8
S1101168-008	WR Jan 1-11	0.28	0.22	18.6	18.4
S1101168-009	WR Jan 2-11	0.24	0.18	22.8	22.3

These results apply only to the samples tested.

Abbreviations for extractants: PE= Saturated Paste Extract, H20Sol= water soluble,AB-DTPA= Ammonium Bicarbonate-DTPA, AAO= Acid Ammonium Oxalate
Abbreviations used in acid base accounting: T.S.= Total Sulfur, AB= Acid Base, ABP= Acid Base Potential, PyrS= Pyritic Sulfur, Pyr+Org= Pyritic Sulfur + Organic Sulfur, Neutral. Pot.= Neutralization Potential
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Soil Analysis Report

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Dugout Canyon Mine
P.O. Box 1029
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Report ID: S1101168001

Project: Dugout Canyon Mine
Date Received: 1/18/2011

Date Reported: 2/24/2011
Work Order: S1101168

Lab ID	Sample ID	Total Sulfur %	T.S. AB t/1000t	Neutral. Potential t/1000t	T.S. ABP t/1000t	Sulfate Sulfur %	Pyritic Sulfur %	Organic Sulfur %	PyriticS AB t/1000t	PyriticS ABP t/1000t
S1101168-001	WR Nov 3	0.34	10.7	5.90	-4.81	0.08	0.13	0.14	3.91	1.99
S1101168-002	WR Nov4	0.38	12.0	13.0	0.99	0.02	0.26	0.10	8.26	4.73
S1101168-003	WR Nov 5	1.45	45.3	46.4	1.11	0.39	0.93	0.13	29.0	17.4
S1101168-004	WR Nov 6	1.10	34.3	20.3	-14.0	0.06	0.92	0.11	28.8	-8.56
S1101168-005	WR Dec 1	1.65	51.4	46.7	-4.72	<0.01	1.40	0.24	43.7	3.01
S1101168-006	WR Dec 2	1.25	39.2	21.4	-17.7	0.02	0.97	0.26	30.4	-8.97
S1101168-007	WR Dec 3	0.75	23.4	25.0	1.63	0.07	0.50	0.18	15.6	9.47
S1101168-008	WR Jan 1-11	0.90	28.2	13.2	-15.0	0.06	0.68	0.16	21.3	-8.09
S1101168-009	WR Jan 2-11	0.83	26.0	46.6	20.7	0.06	0.56	0.21	17.6	29.1

These results apply only to the samples tested.

Abbreviations for extractants: PE= Saturated Paste Extract, H20Sol= water soluble,AB-DTPA= Ammonium Bicarbonate-DTPA, AAO= Acid Ammonium Oxalate
Abbreviations used in acid base accounting: T.S.= Total Sulfur, AB= Acid Base, ABP= Acid Base Potential, PyrS= Pyritic Sulfur, Pyr+Org= Pyritic Sulfur + Organic Sulfur, Neutral. Pot.= Neutralization Potential
Miscellaneous Abbreviations: SAR= Sodium Adsorption Ratio, CEC= Cation Exchange Capacity, ESP= Exchangeable Sodium Percentage

Reviewed by: Karen A Secor
Karen Secor, Soil Lab Supervisor

DUGOUT CANYON MINE - Visual Checks for Subsidence - 2010

Dugout Canyon Mine, M&RP, Chapter 5, Section 525 "Visual checks for subsidence will be made during all surface activities, especially during water monitoring activities. These visual surveys will be used to detect surface irregularities and surface cracks."

Checks were performed on the following dates at the locations listed:

Pace Canyon Fan Portal Facilities and Degas Wells (Various Sites)

March 29

May 9, 10, 26
June 7, 11, 17

July 7, 12
August 23

October 1, 11, 12, 20

No surface irregularities or surface cracks were observed.

Water Monitoring was Performed in the Following Areas

Dugout Creek Area and Pace Canyon Area – 3/29, 4/12, 4/15, 5/5, 5/09, 5/10, 5/13, 5/26, 6/7, 6/11, 6/17, 6/21, 7/7, 7/12, 7/18, 7/28, 8/12, 8/16, 8/23, 9/8, 9/16, 9/20, 9/23, 10/1, 10/11, 10/12, 10/20, 10/30, 10/31, 11/24, 11/29, 12/20, 12/27

No surface irregularities or surface cracks were observed.

Subsidence cracks were observed running through the pad of Well G-7 (UDOGM Inspection Report, June 28, 2006). A subsidence crack repair plan was submitted, approved and implemented. The condition of repaired cracks was checked in July 2010 and October 2010. Additional soil was added into the subsidence cracks previously repaired during the reclamation of the G-7 pad in 2009, no additional cracking observed.

United States Department of Agriculture | Natural Resources Conservation Service | Water and Climate Center Portland, Oregon

S N O W - P R E C I P I T A T I O N U P D A T E

Based on Mountain Data from NRCS SNOTEL Sites
As of TUESDAY: MARCH 1 , 2011

BASIN Data Site Name	ELEV. (Ft)	SNOW WATER EQUIVALENT Current	Average	% Avg	TOTAL PRECIPITATION Current	Average	% Avg
UTAH							
PRICE-SAN RAFAEL							
SEELEY CREEK	9910	14.2	12.3	115	14.8	11.1	133
BUCK FLAT	9430	17.7	15.3	116	24.5	16.1	152
RED PINE RIDGE	9009	15.0	14.2	106	23.0	15.1	152
MAMMOTH-COTTONWOOD	8727	23.0	17.6	131	20.6	13.4	154
TIMBERLINE	8684	15.7	-M	*	20.9	-M	*
WHITE RIVER #1	8641	15.3	11.6	132	18.4	11.9	155
Basin wide percent of average				120			150
DIRTY DEVIL							
DONKEY RESERVOIR	9800	6.1	6.6	92	12.7	7.6	167
BLACK FLAT-U.M. CK	9462	10.5	8.5	124	15.3	9.4	163
DILL'S CAMP	9182	15.5	12.3	126	22.1	14.1	157
FISH LAKE UTAH	8818	8.3	-M	*	13.4	-M	*
Basin wide percent of average				117			161

-M = Missing data
* = Data may not provide a valid measure of conditions.
Units = inches for the Current and Average Snow Water Equivalent and Total Precipitation values

If the Basin wide percent of average value is flagged as potentially invalid, care should be taken to evaluate if the value is representative of conditions in the basin.

The SNOW WATER EQUIVALENT Percent of Average represents the snow water equivalent found at selected SNOTEL sites in or near the basin compared to the average value for those sites on this day.

The TOTAL PRECIPITATION Percent of Average represents the total precipitation (beginning October 1st) found at selected SNOTEL sites in or near the basin compared to the average value for those sites on this day.

Contact your state water supply staff for assistance.

Reference period for average conditions is 1971-2000.

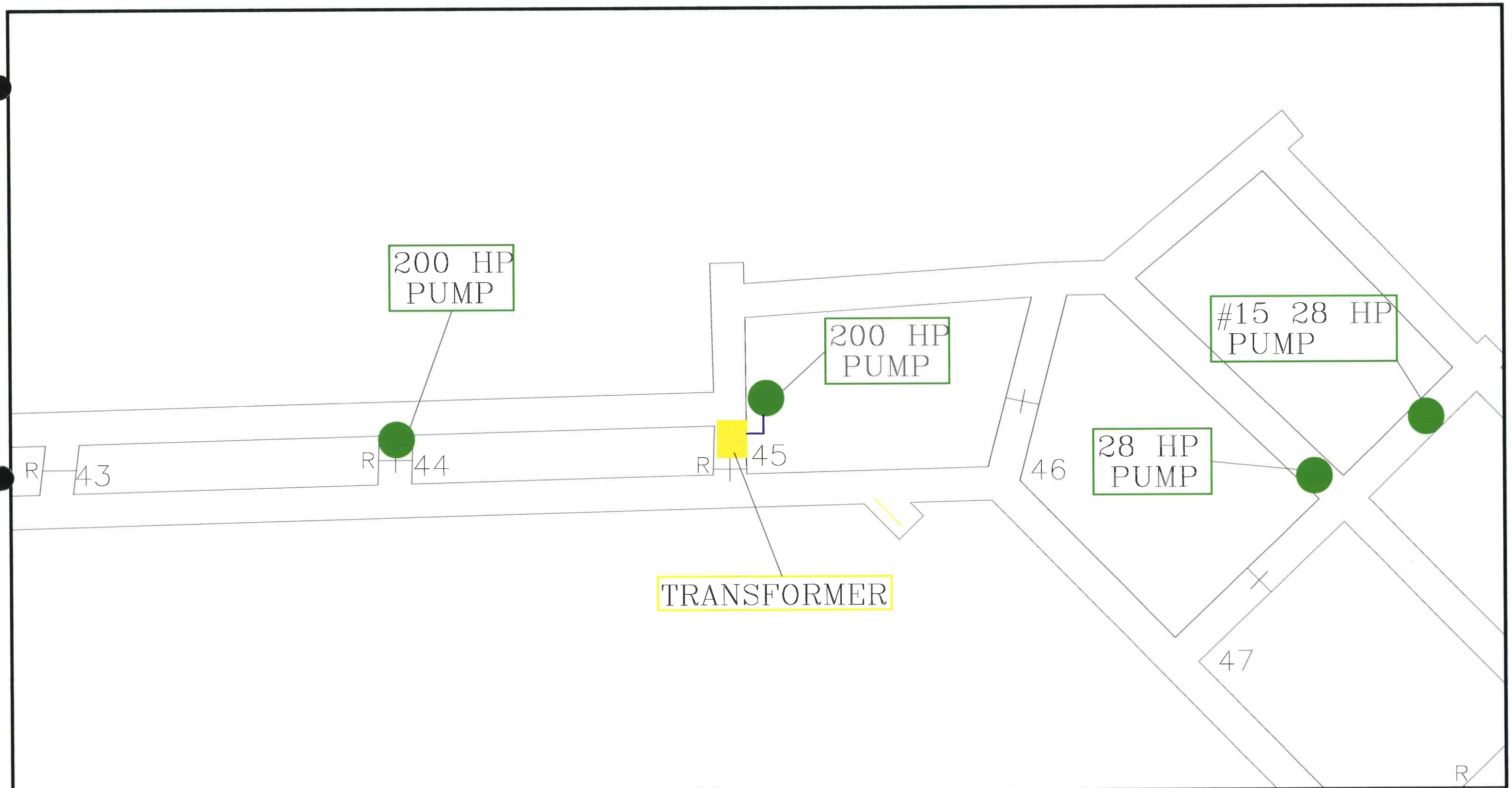
Provisional data, subject to revision.

Canyon Fuel Company, LLC
Dugout Canyon Mine
PO Box 1029
Wellington, UT 84542
Phone: (435) 637-6360

Description of Event Requiring the Abandonment of Equipment Underground

On April 29, 2010 mine personnel reported smoke in the 9th East Entries. The mine was immediately evacuated and closed to further access by MSHA. As required by MSHA, under full breathing apparatus mine rescue teams sealed the 9th East Entries, closing all access. Four pumps and a transformer were not recovered prior to the sealing of the entries.

On the Gilson Seam map provided in the 2010 annual report Appendix D the location of the unrecoverable equipment is in the northeast corner of the ninth east gate road. Ninth east gate road is the last workings to the north. An enlarged drawing of the location of the pumps and transformer has been provided following this description.



RECEIVED
MAR 07 2011
DIV. OF OIL, GAS & MINING

REVISIONS OR UP-DATES				
NO.	DATE	BY	DATE:	
	06/07/2010	JH	DESIGNED BY:	
			DRAWN BY:	JKS
			CHECKED BY:	
			SCALE: NTS	

FILENAME: Y:\John H\9th East Recovery Map.dwg

Canyon Fuel Company, LLC
Dugout Canyon Mine

9th East
Unrecovered Equipment

P.O BOX 1029
WELLINGTON, UTAH 84542

DRAWING OR MAP NUMBER