C/007/013 Incoming

UtahAmerican Energy, Inc.

Lila Canyon Project
P. O. Box 910
East Carbon, Utah 84501
Phone: (435) 888-4000
(435) 650-3157
Fax: (435) 888-4002

April 1, 2011

Daron Haddock
Permit Supervisor
1594 West North Temple, Suite 1210
P.O. Box 145801
Salt Lake City, Utah 84114-5801

Re: UtahAmerican Energy, Inc. Horse Canyon Mine, **Annual Report**, Horse Canyon Part "A" and Lila Canyon Part "B"ACT/009-013

Dear Mr. Haddock,

Please find attached two copies of the annual report for ACT/009-013, Horse Canyon Mine. A. .

If you have any questions please give me a call.

Sincerely,

R. Jay Marshall

R. Jay Marshall P.E.
Project Manager / Chief Engineer
Lila Canyon Mine

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Annual Report

Date 3/30/11

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 **March 31, 2011**. During a complete inspection an inspector will check and verify the information.

GENERAL INFORMATION

Company Name	Utah American Energy	Mine Name	Horse Canyon (Lila Canyon) Mine
Permit Number	C/007/0013	Permit expiration Date	2011-05-06
Operator Name	Utah American Energy, In.,	Phone Number	+1 (435) 888-4000
Mailing Address	P.O. Box 910	Email	jmarshall@coalsource.com

City: East Caarbon State: UT Zip Code: 84520

CERTIFIED REPORTS

		DOGM File Location or Annual Report Location
Excess Spoil Piles	☐ Required ☒ Not Required	
Refuse Piles	☐ Required ☒ Not Required	
Impoundments	☒ Required ☐ Not Required	Annual Inspection Attached
Other:		

OPERATOR COMMENTS

REVIEWER COMMENTS

☐ Met Requirements ☐ Did Not meet Requirements

IMPOUNDMENT INSPECTION AND CERTIFIED REPORT			Page 1 of
Permit Number	ACT/007/013	Report Date	June 15, 2010
Mine Name	Lila Canyon		
Company Name	UtahAmerican Energy, Inc.		
Impoundment Identification	Impoundment Name	Sediment Pond #1 Large	
	Impoundment Number	Pond #1	
	UPDES Permit Number	UTG 040024	
	MSHA ID Number	NA	

IMPOUNDMENT INSPECTION

Inspection Date	June 10, 2010
Inspected By	R. Jay Marshall
Reason for Inspection (Annual, Quarterly or Other Periodic Inspection, Critical Installation, or Completion of Construction)	Periodic Annual

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

No appearance of instability, structural weakness, or any other hazardous condition was observed at the time of 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 Elevations:

60%	5838.9'
100%	5843.0'
Existing	Under Construction

3. **Principle and emergency spillway elevations.**

Principle	5841'
Emergency	5840'

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.

Pond is dry no discharge.

5. **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:** _____

ERTIFIED REPORT

IMPOUNDMENT EVALUATION (If NO, explain under Comments)	YES	NO
1. Is impoundment designed and constructed in accordance with the approved plan?	XXXXX	

IMPOUNDMENT INSPECTION AND CERTIFIED REPORT		Page 3 of	
2. Is impoundment free of instability, structural weakness, or any other hazardous condition?		XXXXX	
3. Has the impoundment met all applicable performance standards and effluent limitations from the previous date of inspection?		XXXXX	

COMMENTS AND OTHER INFORMATION

NONE

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.

REGISTERED PROFESSIONAL ENGINEER 152606 R. JAY MARSHALL STATE OF UTAH

[PE Cert. Stamp] 15 Jul 10

By: R. Jay Marshall Chief Engineer
(Full Name and Title)

Signature: R. Jay Marshall Date: 15 Jul 10

P.E. Number & State: 152606 Utah

IMPOUNDMENT INSPECTION AND CERTIFIED REPORT			Page 1 of
Permit Number	ACT/007/013	Report Date	June 15, 2010
Mine Name	Lila Canyon		
Company Name	UtahAmerican Energy, Inc.		
Impoundment Identification	Impoundment Name	Sediment Pond #2 Small	
	Impoundment Number	Pond #2	
	UPDES Permit Number	NA	
	MSHA ID Number	NA	

IMPOUNDMENT INSPECTION

Inspection Date	June 10, 2010
Inspected By	R. Jay Marshall
Reason for Inspection (Annual, Quarterly or Other Periodic Inspection, Critical Installation, or Completion of Construction)	Periodic Annual

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

No appearance of instability, structural weakness, or any other hazardous condition was observed at the time of 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 Elevations:

60%	5842.1'
100%	5844.0'
Existing	Under Construction

3. **Principle and emergency spillway elevations.**

Principle

Emergency

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.

Dry No water impounded

5. **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?	XXXXX	

IMPOUNDMENT INSPECTION AND CERTIFIED REPORT		Page 3 of
2. Is impoundment free of instability, structural weakness, or any other hazardous condition?	XXXXX	
3. Has the impoundment met all applicable performance standards and effluent limitations from the previous date of inspection?	XXXXX	

COMMENTS AND OTHER INFORMATION

NONE

Certification Statement:

[PE Cert. Stamp]

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.

By: R Jay Marshall
(Full Name and Title)

Signature: R J Marshall Date: 15 Jun 10

P.E. Number & State: 152606 Utah

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 additional written response is required, it should be filed as an attachment to this report.

Title: Raptor survey
Objective: Survey all raptor habitat and nests.
Frequency: Annually.
Status: On going starting in 2005.
Reports: Annual Reports (Confidential Incoming).
Citation: MRP-Part B, Sec. 322.220, p. 10; Sec. 330, p. 20; Sec 358.100 p. 38.

OPERATOR COMMENTS

Report with map attached

REVIEWER COMMENTS ☐ Met Requirements ☐ Did Not meet Requirements

Title: CO River fish
Objective: Water depletion reporting for the CO River endangered fish Recovery Implementation Program.
Frequency: Annually.
Status: On going.
Reports: Annual Report.
Citation: Sec. 322.220, p.11.

OPERATOR COMMENTS

Calculation for 2010 is attached

REVIEWER COMMENTS ☐ Met Requirements ☐ Did Not meet Requirements

Water Usage 2010 Projected Water Usage (Quantitative Water Consumption Impact Assessment)	
1- Bath House/Office a. 26 @ 35 gpd/ea. = 910 x 240	218,400 gal./yr.
2- Mining(Coal moisture loss) a. 1 Sections (1) 72,286 Ton @ 4.5 gal./ton	325,287 gal./yr.
3- Fan (Evaporation from ventilation) a. Evaporation (1) 75,000 cfm @ 39,420 M cf/yr. (2) 2.5 gal./M c.f.	98,550 gal./yr.
4. Surface Dust Suppression 10,000 gallon per day	3,650,000 gal/yr.
Total Usage	4,292,237 gal./yr. (13.16 ac.ft./yr.)

Title: Vegetation test plot.
Objective: To test whether summer seeding will increase establishment of the warm season species.
Frequency: annually for three years.
Status: Implement immediately following construction of sediment pond. Pond was constructed in spring of 2010.
Reports: Provide three years of monitoring results in Annual Reports.
Citation: MRP-Part B, Sec. 341.300 p. 26; Sec. 354, p. 28.

OPERATOR COMMENTS

Pond was seeded in Spring and Fall of 2010. No growth was observed in 2010.

REVIEWER COMMENTS ☐ Met Requirements ☐ Did Not meet Requirements

Title: Slope between the coal pile road and the portal access road (Plates 2-3 and 5-2)
Objective: No disturbance is anticipated for this slope, consequently, UEI will evaluate the condition of the slope after road construction and label the slope either disturbed or undisturbed, as appropriate, on an As Built site map.
Frequency: Once after construction.
Status: Ongoing.
Reports: As Built site map required.
Citation: Section 520, Support Facilities List item #37.

OPERATOR COMMENTS

Slope is labeled on Plate 5-2.

REVIEWER COMMENTS ☐ Met Requirements ☐ Did Not meet Requirements

Title: Employ a qualified soils specialist
Objective: To oversee the soil salvage,. Soil pedestals will be left to verify soil removal depths.
Frequency: During construction.
Status: Ongoing.
Reports: Annual Report "Topsoil Movement and Construction Record." During Phase 1 and Phase 2 construction, record topsoil salvaged and placed in the topsoil stockpile and number of acres salvaged, include map of salvaged and undisturbed acreage.
Citation: N10045 abatement. Pete Hess Tech Memo of Remedial actions 04/05/2010a.pdf

OPERATOR COMMENTS

Not applicable for this year. Was reported in annual report for 2009.

REVIEWER COMMENTS ☐ Met Requirements ☐ Did Not meet Requirements

Title: Subsoil used for construction fill
Objective: To record location of subsoil placement for use in reclamation. The location of subsoil with suitable reclamation characteristics will be mapped for ease of recovery and replacement during reclamation.
Frequency: During construction.
Status: Ongoing.
Reports: As-Built maps showing where subsoil materials have been used as fill material.
Citation: Section 232.500, Section 241, Section 242.100.

OPERATOR COMMENTS

Soil disturbance is not complete, a As built will be submitted once all soil has been stripped and stored.

REVIEWER COMMENTS ☐ Met Requirements ☐ Did Not meet Requirements

Title: Rain Gauges
Objective: Establish on-site climatological database
Frequency: No less than monthly from May 1 throught October 30, monthly when feasible during the remaining months.
Status: To be implemented within 30 days of Board's approval of the Stipulation for Dismissal
Reports: Data will be downloaded quarterly and included in the Annual Report
Citation: Conditions to the Permit, Attachment A, Special Conditions (December 21, 2007)

OPERATOR COMMENTS

See attached "Rain & Crest Gauge Data Evaluation and Recommendation

REVIEWER COMMENTS ☐ Met Requirements ☐ Did Not meet Requirements

Title: CREST STAGE GAUGES AND SIPHON SAMPLERS
Objective: additional water-quality and -quantity data.
Frequency: Quarterly monitoring for 2 years; Installation, maintenance, and inspection to follow USGS protocols and on a frequency established by the Division. Monitoring required through August 2010 to supply required two years of data.
Status: Devices were installed March 2008 and August 2008. Summary of monitoring through August 2010 required for 2010 Annual Report.
Reports: Crest stage gauge and siphon sampler results to be provided in the annual report. The MRP (and CHIA) to be updated as needed.
Citation: Conditions to the Permit, Attachment A, Special Conditions (December 21, 2007).

OPERATOR COMMENTS

See attached "Rain & Crest Gauge Data Evaluation and Recommendation

REVIEWER COMMENTS ☐ Met Requirements ☐ Did Not meet Requirements

Lila Canyon Mine

East Carbon, UTAH

Rain & Crest Gauge Data Evaluation and Recommendations

Prepared For:

UtahAmerica Energy Inc.
794 C Canyon Road
East Carbon, UT 84520
435.888.4007 Tel

Prepared by:

Hydrologic Design

Hydrologic Design Inc.
4173 Dardanelle Drive
South Jordan, Utah 84095
801.608.2414 Tel
801.576.9259 Fax

Contact:
Thomas J. Suchoski

December 2010

INTRODUCTION:

On January 2, 2008 the DOGM required additional special stipulations on the prior approval of the Lila Canyon Permit. Stipulations 1 through 4 were on-going stipulations from the prior approval. Stipulations 5 through 9 were new stipulations. This report addresses the stipulation 5 (rain and crest gauges and siphon samplers) requirement to report on the data collected.

The purpose of this study was to address the stipulation and to specifically:

- Described the rain gauge data collection for the upper and lower areas within the Lila Canyon Mine Permit Area.
- Describe the crest gauge and siphon sampler data collection from the 7 selected sampling points.
- Evaluate data and recommend future sampling activities.

Stipulation #5 required the following:

"(a) UEI shall, within 30 days (weather permitting and pickup accessibility permitting) of the approval by the Board of the Stipulation for Dismissal, locate and make operable two rain gauges within the permit area, including one in the upper elevation area, and one in the surface facilities area. Data will be collected no less than monthly during the period from May 1 through October 30 and otherwise monthly unless access is not feasible. Data will be downloaded quarterly and included in the annual report.

(b) UEI will by March 31, 2008 (weather and pickup accessibility permitting) place and make operable crest stage gauges and siphon samplers at the sampling locations shown on the attached map# 1. UEI will collect two years of additional quarterly surface water quantity and quality baseline information from the gauges. The gauges will be installed, maintained, and inspected as required by normal USGS protocol and on a frequency established by the Division. The Division will accompany UEI on the initial placement of the siphon and crest stage gauges.

(c) At the conclusion of the first year, the data will be analyzed, and additional monitoring locations may be required."

In response to this stipulation, UEI installed the rain gauges and siphon and crest gauges as requested.

RAIN GAUGES

As reported in the 2008 and 2009 reports, in accordance with stipulation #5, two rain gauges were installed within the Lila Canyon Mine Permit area. The lower elevation gauge is located to the south of the mine facilities area and the upper elevation gauge is located on top of the Book Cliffs in the Little Park Wash drainage area (near the IPA #2 well site). The locations of the rain gauges were determined by an Delorme Earthmate PN-20 GPS unit and are shown on Plate 1 and the coordinates and elevations are presented in Table 1.

METHODS: These rain gauges are tipping bucket type rain gauges with a data logger. The data are collected in 0.01" increments with a resolution of 0.01 inches per second. Readings are taken only when precipitation is recorded. The data are stored in the data logger memory until the data are downloaded. When the next sampling period sequence is started, the prior data are erased and overwritten. The data were downloaded during the quarterly sampling efforts.

Attempts are made to tie the sampling periods to the corresponding quarters; however, due to difficulties in accessing the upper sites, these periods are sometimes longer than a normal 3-month quarter. The summary tables adjust these data to the various quarters or years as appropriate.

RESULTS: Tables 2 and 3 present the rainfall data for the 4th period of 2009 and three periods of 2010 at the lower rain gauge, respectively. Table 4 and 5 present the rainfall data for the 4th period of 2009 and three periods of 2010 at the upper rain gauge, respectively. Attachment A presents the period data for the upper and lower rain gauge stations.

EVALUATION: These data, plus the data from the 2008 and 2009 reports, demonstrate the types of rainfall that are common in the mine site area. There are three types of precipitation events recorded: short duration small isolated storms, short duration, high intensity storms, and longer frontal type storms.

As indicated in the PAP, the rainfall types occurring in the area was described as a combination of short duration, high intensity thunderstorms and gentle frontal storms. These are the same types of storms that were recorded in the data collected. The only difference was the identification of short duration small isolated storms. These storms were generally less than 0.1 inches in depth and less than 10 minutes in duration. Therefore, the precipitation regime occurring in the mine permit area is now documented and matches that described in the PAP.

CREST GAUGES AND SIPHON SAMPLERS

As reported in the 2008 and 2009 reports, in accordance with stipulation #5, seven (7) sets of crest gauge and siphon samplers were installed at various points in the drainage areas within the Lila Canyon Mine Permit area. Plate 1 shows the location of these sites and Table 1 presents the coordinates and elevations.

METHODS: The crest gauges and siphon samplers were checked on at least a quarterly basis and sometimes more frequently as access and manpower were available.

The crest gauges were U.S.G.S. Type C, 4-foot crest gauges. These were attached to a 2-inch diameter steel pipe driven into the channel bottom.

The siphon samplers were standard, single-stage samplers and were located adjacent to the crest gauges. These samplers were secured to t-posts driven into the channel bottom. The sampling ports were secured to the t-post and pointed up-channel and the vents were secured to the vertical t-post.

RESULTS: Attachment B presents the flow data for the various crest gauges and the presence of water samples for the various periods of 2009 and 2010. Table 6 presents the slopes of the channels in the area of the crest gauges and the flow estimates, based on Manning's equation, from the crest gauge flow data.

EVALUATION: As can be seen, the number of flow events recorded were quite limited with only 2 events that generated runoff. Additionally, these events were not distributed over the entire drainage, but were of limited extent. In October 2009, the data indicate that CG-2, CG-3, CG-4, and CG-6 had no flows. In September 2010, only CG-5 and CG-7 had flow.

For the siphon samplers, as indicated in Attachment B, only one limited volume sample was able to be collected. The flow in October 2009 at CG-1 was sufficient to collect about 1/3 bottle (insufficient for analysis).

These flow data are the result of several conditions:

- First, a number of the events may have occurred, but due to the channel conditions such as the debris carried in the flow or type of the channel a flow reading or sample was not collected. For several flow events, no sample was found due to plugged gauges or samplers. The debris carried in the flow either plugged the inlet to the gauge or sampler or diverted flow around the inlet. Also, the flat, broad nature of

the channels allows flows within the mobile bed to shift with each event. Thus, some of the flows may have occurred in portions of the channel which were isolated from the gauge or sampler.

- Second, comparing the number of rainfall events versus the number of flow events and looking at the rainfall record prior to the times that runoff is recorded, demonstrate that runoff events are only occurring from the short duration, high intensity precipitation events. Further, as the rainfall can be extremely isolated and precipitation is not occurring across the entire drainage basin in the mine permit area, the flows are not occurring for all stations for a given event.
- Third, the flow in most of these channels is very shallow and as such could not be collected or recorded by the gauge/sampler.

CONCLUSIONS AND RECOMMENDATIONS:

Stipulation #5 was prepared in response to the Southern Utah Wilderness Alliance comments that the PAP did not adequately characterize the hydrologic conditions of the site area. UEI disagreed with this comment and presented information to the Division and Board of Oil, Gas, and Mining regarding this issue. Further, UEI presented information that the quality of the data collected from this type of monitoring was questionable and did not yield any better description of the hydrologic regime than was already known.

As part of a settlement agreement which allowed mining to proceed, UEI agreed to accept the stipulation to collect two years of precipitation and water flow and quality data to demonstrate the points raised in the presentations.

The data presented in the 2008, 2009, and 2010 summaries demonstrate that the data from the rain gauges and the crest staff gauges presents the typical rainfall-runoff conditions for the mine permit area. The conditions described by these data are consistent with the descriptions presented in the PAP for the Lila Canyon Mine.

As these data are consistent with the PAP description, the purpose of Stipulation #5 has been accomplished and the justification for additional monitoring is no longer justified. It is recommended that the rainfall monitoring for the upper rain gauge and the crest gauge and siphon samplers for the Little Park Wash area be discontinued and the equipment be saved for future monitoring on new mine areas, if needed.

TABLE 1

Lila Canyon - Water Monitoring Coordinate Data

Site	Latitude	Longitude	Stateplane N (feet)	Stateplane E (feet)	Elevation (ft.)	# of satellites	Error margin (+/-)	Flow Rat	Cond.	Temp	pH
IPA #1	39° 25.514' N	110° 18.439' W	399946.05	2336903.63	7049	6	22				
IPA #2	39° 25.088' N	110° 19.144' W	397316.3	2333618.88	6872	6	17				
IPA #3	39° 24.488' N	110° 18.718' W	393701.03	2335672.92	6820	7	17				
L-01-S	39° 25.6457' N	110° 20.8662' W	400595.57	2325467.03	5826	8	19				
L-02-S	39° 25.5230' N	110° 20.7040' W	399860.709	2326240.081	5934	8	19				
L-07-G	39° 26.450' N	110° 18.223' W	405640.88	2337844.49	7354	5	19				
L-08-G	39° 25.717' N	110° 17.621' W	401229.84	2340737.86	7049	5	45				
L-09-G	39° 24.958' N	110° 17.952' W	396601.96	2339241.56	7036	6	18				
L-11-G	39° 26.618' N	110° 19.781' W	406563.58	2330498.28	7220	4	35				
L-12-G	39° 24.143' N	110° 18.038' W	391649.72	2338902.98	6762	6	29				
L-13-S	39° 24.831' N	110° 19.032' W	395763.35	2334166.82	6820	6	18				
L-14-S	39° 23.960' N	110° 18.472' W	390511.64	2336874	6678	8	19				
L-16-G	39° 24.2498' N	110° 19.5893' W	392201.033	2331589.099	5792	8	19				
L-17-G	39° 24.2957' N	110° 19.4968' W	392485.352	2332021.029	5896	8	19				
L-18-S	39° 23.9966' N	110° 20.1881' W	390627.335	2328789.29	5513	8	19				
L-19-S	39° 24.228' N	110° 19.094' W	392099.45	2333923.26	6700	5	18				
L-20-S	39° 26.314' N	110° 18.916' W	404771.98	2334593.76	7153	9	15				
RAIN GAUGES - APRIL 2008 & AUGUST 2008											
RG-1	39° 25.5620' N	110° 20.8216' W	400090.286	2325683.408	5946	8	19				
RG-2	39° 25.1101' N	110° 19.1383' W	397450.92	2333644.12	6875	8	19				
SPRING & SEEP - APRIL 2008											
JS-1	39° 24.2052' N	110° 19.7143' W	391922.606	2331004.009	5793	8	19	damp	-	-	-
JS-2	39° 24.3467' N	110° 19.5807' W	392789.721	2331621.879	5932	8	19	0.01	+4000	54.3	9.03
TS-1	39° 24.2667' N	110° 19.5851' W	392303.871	2331607.531	5873	8	19	0.01	+4000	40.2	8.68
TS-2	39° 24.2848' N	110° 19.5101' W	392418.37	2331959.268	6005	8	19	damp	-	-	-
TS-3	39° 24.2899' N	110° 19.5168' W	392448.911	2331927.311	5992	8	19	damp	-	-	-
CREST GAUGES - AUGUST 2008											
Lila CG1	39° 25.6006' N	110° 21.0658' W	400309.785	2324530.799	5739	8	19				
Lila CG2	39° 26.7540' N	110° 18.7754' W	407451.416	2335220.175	7303	8	19				
Lila CG3	39° 26.3110' N	110° 18.8839' W	404755.876	2334745.274	7233	8	19				
Lila CG4	39° 25.4918' N	110° 18.8207' W	399787.62	2335108.598	6968	8	19				
Lila CG5	39° 23.9398' N	110° 18.4462' W	390390.749	2336997.324	6675	8	19				
Lila CG6	39° 24.8083' N	110° 18.9742' W	395629.264	2334440.693	6809	8	19				
Lila CG7	39° 23.9969' N	110° 18.9549' W	390705.618	2334596.861	6656	8	19				

Table 2

Lila Canyon Raingauge Data

Lower Site 2009

Date	Duration	Depth (in)
10/22/2009	10 min	0.04
10/23/2009	45 min	0.19
10/26/2009	86 min	0.07
11/12/2009	36 min	0.28
11/15/2009	92 min	0.46
11/22/2009	14 min	0.05
12/17/2009	7 min	0.02

Table 3

Lila Canyon Raingauge Data

Lower Site 2010

Date	Duration	Depth (in)
1/1/2010	13 Min	0.03
1/31/2010	3 Min	0.02
3/13/2010	16 Min	0.04
3/21/2010	15 Min	0.01
3/23/2010	5 Min	0.02
4/21/2010	9 Hrs	0.25
4/22/2010	7 Hrs	0.03
4/29/2010	13 Min	0.01
5/12/2010	2 Hrs	0.15
5/14/2010	25 Min	0.07
5/15/2010	6 Min	0.02
5/18/2010	8 Min	0.03
5/25/2010	4 Min	0.02
6/2/2010	73 Min	0.22
6/15/2010	7 Min	0.07
6/25/2010	28 Min	0.03
7/24/2010	3.25 Hrs	0.11
7/27/2010	5 Hrs	0.14
7/28/2010	7.5 Hrs	0.03
8/14/2010	77 Min	0.1
8/15/2010	32 Min	0.05
8/17/2010	25 Min	0.07
8/18/2010	6 Min	0.02
8/20/2010	8 Min	0.03
8/29/2010	11 Hrs	0.03
9/22/2010	5.5 Hrs	0.1
10/3/2010	45 Min	0.01
10/4/2010	39 Min	0.06
10/5/2010	20.75 Hrs	0.45
10/6/2010	24 Hrs	1.28
10/7/2010	15 Min	0.04
10/17/2010	11 Min	0.02
10/18/2010	13 Hrs	0.14
10/21/2010	2 Hrs	0.02
10/22/2010	8.5 Hrs	0.09
10/23/2010	9 Hrs	0.05
10/24/2010	38 Min	0.01
10/25/2010	6 Hrs	0.18
10/30/2010	1.5 Hrs	0.09

Table 3

Lila Canyon Raingauge Data

Lower Site 2010

Date	Duration	Depth (in)
11/8/2010	6 Hrs	0.17
11/9/2010	4 Min	0.02

Table 4

Lila Canyon Raingauge Data

Upper Site 2009

Date	Duration	Depth (in)
10/22/2009	35 Min	0.04
10/23/2009	45 Min	0.19
10/26/2009	86 Min	0.07
11/12/2009	73 Min	0.34
11/15/2009	108 Min	0.55
11/22/2009	14 Min	0.09
12/17/2009	13 Min	0.05

Table 5

Lila Canyon Raingauge Data

Upper Site 2010

Date	Duration	Depth (in)
1/1/2010	13 Min	0.05
1/16/2010	6 Min	0.03
1/31/2010	9 Min	0.03
2/15/2010	69 Min	0.03
3/13/2010	16 Min	0.04
3/21/2010	15 Min	0.01
4/21/2010	6 Hrs	0.15
4/22/2010	5.5 Hrs	0.02
4/29/2010	11 Min	0.01
5/12/2010	100 Min	0.11
5/14/2010	20 Min	0.05
5/15/2010	8 Min	0.02
5/18/2010	13 Min	0.03
5/25/2010	5 Min	0.02
6/2/2010	73 Min	0.22
6/15/2010	7 Min	0.05
7/24/2010	5 Hrs	0.09
7/27/2010	3 Hrs	0.11
7/28/2010	2.5 Hrs	0.03
8/14/2010	75 Min	0.08
8/15/2010	49 Min	0.05
8/17/2010	34 Min	0.06
8/18/2010	11 Min	0.02
8/20/2010	20 Min	0.03
8/29/2010	17 Min	0.03
9/22/2010	77 Min	0.08
9/25/2010	3.5 Hrs	0.02
10/4/2010	50 Min	0.07
10/5/2010	17 Hrs	0.39
10/6/2010	24 Hrs	1.29
10/7/2010	18 Hrs	0.08
10/18/2010	15 Hrs	0.16
10/22/2010	10.5 Hrs	0.1
10/23/2010	36 Min	0.04
10/25/2010	80 Min	0.16
10/30/2010	90 Min	0.1
11/8/2010	2.5 Hrs	0.16

Table 6

Lila Canyon Crest Gauge Data

Channel Slope Determination

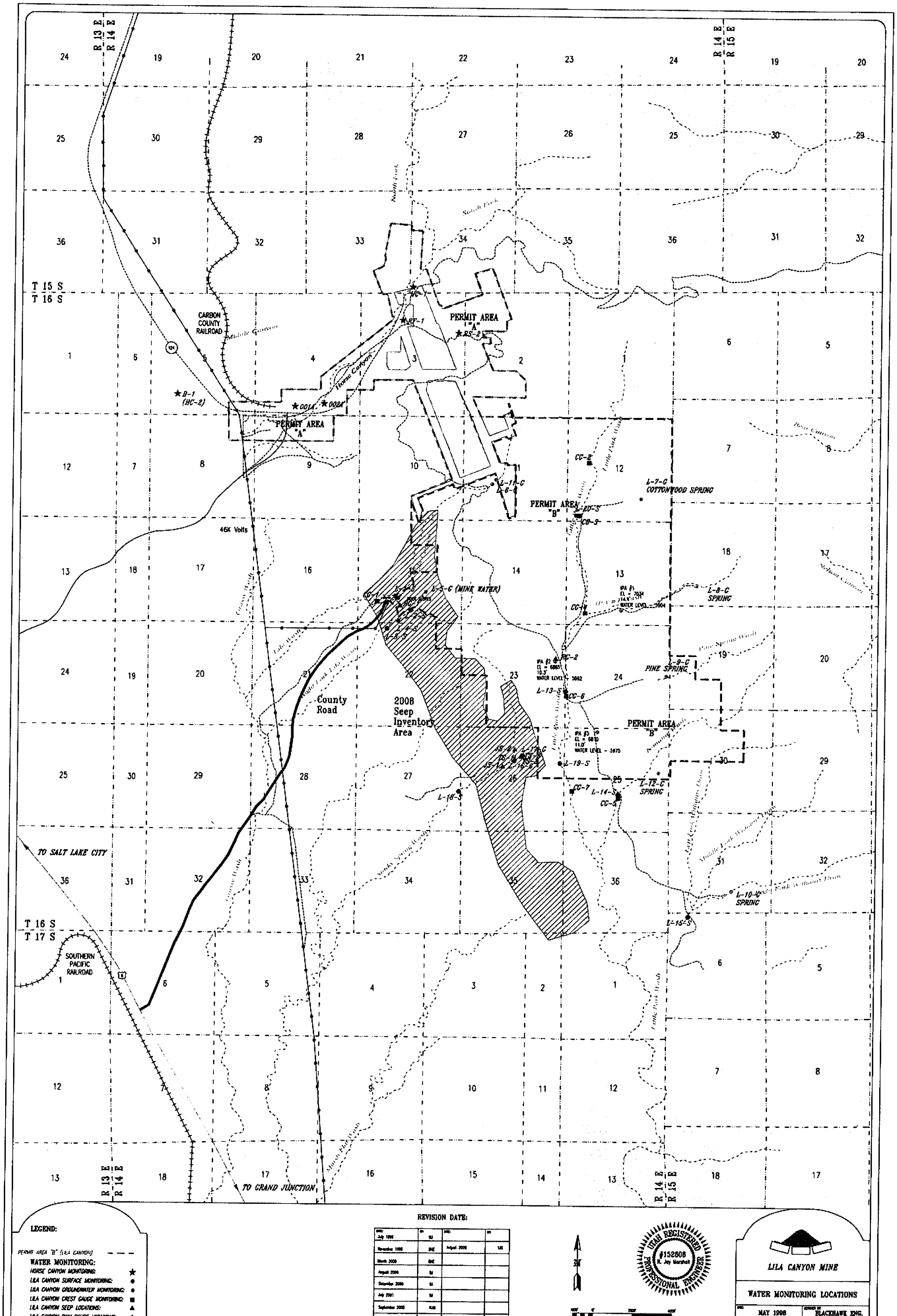
Stage ID	Channel Length (ft)	Channel Drop (ft)	Channel Slope (%)
CG-1	1020	50	4.90
CG-2	2055	50	2.43
CG-3	2510	50	1.99
CG-4	2965	50	1.69
CG-5	3180	50	1.57
CG-6	2430	50	2.06
CG-7	4650	100	2.15

Flow Determinations

	Depth (in)	Width (ft)	Channel Slope (%)	Manning's n	Velocity (fps)	Flow (cfs)
Oct-09						
CG-1	8	9	4.90	0.035	7.17	43.04
CG-2*	0	0	2.43	0.03	0	0.00
CG-3*	0	0	1.99	0.03	0	0.00
CG-4*	0	0	1.69	0.03	0	0.00
CG-5	4	11	1.57	0.03	2.98	10.94
CG-6*	0	0	2.06	0.03	0	0.00
CG-7	11	15	2.15	0.03	6.85	94.24

* sampling intakes plugged with debris or sampler destroyed

Apr-10						
CG-1	0	0	4.90	0.035	0	0.00
CG-2	0	0	2.43	0.03	0	0.00
CG-3	0	0	1.99	0.03	0	0.00
CG-4	0	0	1.69	0.03	0	0.00
CG-5	0	0	1.57	0.03	0	0.00
CG-6	0	0	2.06	0.03	0	0.00
CG-7	0	0	2.15	0.03	0	0.00
Jun-10						
CG-1	0	0	4.90	0.035	0	0.00
CG-2	0	0	2.43	0.03	0	0.00
CG-3	0	0	1.99	0.03	0	0.00
CG-4	0	0	1.69	0.03	0	0.00
CG-5	0	0	1.57	0.03	0	0.00
CG-6	0	0	2.06	0.03	0	0.00
CG-7	0	0	2.15	0.03	0	0.00
Aug-10						
CG-1	0	0	4.90	0.035	0	0.00
CG-2	0	0	2.43	0.03	0	0.00
CG-3	0	0	1.99	0.03	0	0.00
CG-4	0	0	1.69	0.03	0	0.00
CG-5	1	4	1.57	0.03	1.18	0.39
CG-6	0	0	2.06	0.03	0	0.00
CG-7	0.5	6	2.15	0.03	0.87	0.22



T 15 S
T 16 S
T 17 S
R 13 E
R 14 E
R 15 E
CARBON COUNTY RAILROAD
SOUTHERN PACIFIC RAILROAD
46K Volts
PERMIT AREA "A"
PERMIT AREA "B"
County Road
2008 Seep Inventory Area
L-5-G (MINE WATER)
L-7-G COTTONWOOD SPRING
L-8-G SPRING
L-9-G PINE SPRING
L-10-G SPRING
L-12-G SPRING
TO SALT LAKE CITY
TO GRAND JUNCTION
LEGEND:
PERMIT AREA "B" (LILA CANYON)
WATER MONITORING:
HORSE CANYON MONITORING:
LILA CANYON SURFACE MONITORING:
LILA CANYON GROUNDWATER MONITORING:
LILA CANYON CREST GAUGE MONITORING:
LILA CANYON SEEP LOCATIONS:
LILA CANYON RAIN GAUGE LOCATIONS:
REVISION DATE:
July 1998
November 1998
March 2000
August 2000
December 2000
July 2001
September 2008
November 2008
August 2008
UTAH REGISTERED PROFESSIONAL ENGINEER
#152808
R. Jay Marshall
LILA CANYON MINE
WATER MONITORING LOCATIONS
MAY 1998
BLACKHAWK ENG.
AS SHOWN
1

ATTACHMENT A

Quarterly Data Summary for Upper and Lower Rain Gauges

Lower Gauge Data

Series	Event (2009)
Logger Info	Information specific to the logger
Model	HOBO Event (C) 1996 ONSET Computer Corp
Serial Number	11370
Memory Size (Bytes)	32768
Extra Info	Information used by tech support
Model Number	7
Version Number	4
Deployment	15
Series Info	Information about the data in the series
Points Used	122
First Point	10/01/09 10:16:39.5
Last Point	03/23/10 09:42:24.5
Duration	172 days 23:25:45.0
Stats	Calculated from the series
Wrap Count	0
Event Sum	122.00
Launch Parameters	Mirrors the launch dialog settings
Description	lila lower 1st qt 2010
Wrap	Off
Delay Start	Off
Stealth Mode	Off
Event Name	2009
Event Value	1
Lockout After Event	00:00:01.0

Date/Time	Event (2009)	Depth	Hours:Mins
10/01/09 10:16:39.5	0	Likely bumped gauge closing up	
10/01/09 10:18:13.5	1	0.01	0:01
10/22/09 15:31:07.5	2		
10/22/09 15:32:31.0	3		
10/22/09 15:39:51.5	4		
10/22/09 15:41:22.0	5	0.04	0:10
10/23/09 14:28:11.0	6		
10/23/09 14:30:40.0	7		
10/23/09 14:48:37.0	8		
10/23/09 14:49:45.5	9		
10/23/09 14:54:57.0	10		
10/23/09 14:55:58.0	11		
10/23/09 14:56:39.5	12		
10/23/09 14:56:54.5	13		
10/23/09 14:57:22.0	14		
10/23/09 14:57:35.5	15		

10/23/09 14:57:58.0	16		
10/23/09 14:58:10.0	17		
10/23/09 14:58:32.5	18		
10/23/09 14:58:45.0	19		
10/23/09 14:59:06.5	20		
10/23/09 14:59:27.0	21		
10/23/09 15:02:01.0	22		
10/23/09 15:03:54.5	23		
10/23/09 15:13:31.5	24	0.19	0:45
10/26/09 14:15:20.5	25		
10/26/09 14:20:15.0	26		
10/26/09 14:23:13.5	27		
10/26/09 14:33:29.0	28		
10/26/09 15:05:35.5	29		
10/26/09 15:21:13.0	30		
10/26/09 15:41:52.0	31	0.07	1:26
11/12/09 12:26:14.0	32		
11/12/09 12:28:03.5	33		
11/12/09 12:35:21.0	34		
11/12/09 12:35:56.0	35		
11/12/09 12:36:48.5	36		
11/12/09 12:37:23.0	37		
11/12/09 12:38:25.0	38		
11/12/09 12:39:02.0	39		
11/12/09 12:40:39.0	40		
11/12/09 12:41:48.0	41		
11/12/09 12:43:51.5	42		
11/12/09 12:44:38.5	43		
11/12/09 12:45:14.5	44		
11/12/09 12:45:33.0	45		
11/12/09 12:45:54.5	46		
11/12/09 12:46:11.5	47		
11/12/09 12:46:37.0	48		
11/12/09 12:46:53.5	49		
11/12/09 12:47:18.0	50		
11/12/09 12:47:31.5	51		
11/12/09 12:47:49.5	52		
11/12/09 12:48:01.5	53		
11/12/09 12:48:24.0	54		
11/12/09 12:48:38.0	55		
11/12/09 12:49:04.0	56		
11/12/09 12:49:20.5	57		
11/12/09 12:52:44.5	58		
11/12/09 13:03:08.0	59	0.28	0:36

11/15/09 14:50:36.0	60
11/15/09 14:51:32.0	61
11/15/09 14:52:19.5	62
11/15/09 14:52:52.5	63
11/15/09 14:53:20.5	64
11/15/09 14:53:27.5	65
11/15/09 14:53:41.5	66
11/15/09 14:53:50.5	67
11/15/09 14:54:05.5	68
11/15/09 14:54:12.5	69
11/15/09 14:54:25.0	70
11/15/09 14:54:46.5	71
11/15/09 14:54:58.5	72
11/15/09 14:55:11.0	73
11/15/09 14:55:19.0	74
11/15/09 14:55:30.5	75
11/15/09 14:55:39.5	76
11/15/09 14:55:54.5	77
11/15/09 14:56:07.0	78
11/15/09 14:56:25.0	79
11/15/09 14:56:36.5	80
11/15/09 14:56:57.0	81
11/15/09 14:57:13.5	82
11/15/09 14:57:41.5	83
11/15/09 14:58:00.5	84
11/15/09 14:58:31.0	85
11/15/09 14:58:51.0	86
11/15/09 14:59:09.5	87
11/15/09 14:59:21.5	88
11/15/09 14:59:39.5	89
11/15/09 14:59:52.5	90
11/15/09 15:00:14.5	91
11/15/09 15:00:46.0	92
11/15/09 15:00:59.5	93
11/15/09 15:01:34.5	94
11/15/09 15:01:59.0	95
11/15/09 15:02:39.0	96
11/15/09 15:02:56.0	97
11/15/09 15:03:41.5	98
11/15/09 15:04:08.0	99
11/15/09 15:07:55.5	100
11/15/09 15:18:23.0	101
11/15/09 15:39:45.0	102
11/15/09 15:45:40.0	103

11/15/09 16:07:29.0	104		
11/15/09 16:23:21.5	105	0.46	1:32
11/22/09 18:10:18.0	106		
11/22/09 18:12:22.0	107		
11/22/09 18:14:54.0	108		
11/22/09 18:18:48.5	109		
11/22/09 18:24:19.0	110	0.05	0:14
12/17/09 14:30:31.5	111		
12/17/09 14:38:08.0	112	0.02	0:07
01/01/10 17:28:08.0	113		
01/01/10 17:35:09.5	114		
01/01/10 17:42:01.0	115	0.03	0:13
01/31/10 12:50:35.5	116		
01/31/10 12:54:09.0	117	0.02	0:03
03/13/10 01:21:45.0	118		
03/13/10 01:24:43.0	119		
03/13/10 01:34:26.5	120		
03/13/10 01:38:17.0	121	0.04	0:16
03/21/10 17:21:06.0	122	0.01	0:15

Series	Event (2010)
Logger Info	Information specific to the logger
Model	HOBO Event (C) 1996 ONSET Computer Corp
Serial Number	11370
Memory Size (Bytes)	32768
Extra Info	Information used by tech support
Model Number	7
Version Number	4
Deployment	16
Series Info	Information about the data in the series
Points Used	92
First Point	03/23/10 09:47:42.0
Last Point	06/25/10 11:46:40.0
Duration	94 Days 01:58:58.0
Stats	Calculated from the series
Wrap Count	0
Event Sum	92.00
Launch Parameters	Mirrors the launch dialog settings
Description	lila lower 2nd qtr 2010
Wrap	Off
Delay Start	Off
Stealth Mode	Off
Event Name	2010
Event Value	1
Lockout After Event	00:00:01.0

Date/Time	Event (2010)	Depth		Hours:Mins
03/23/10 09:47:42.0		0		
03/23/10 12:50:26.0		1		
03/23/10 12:55:58.5		2	0.02	0:05
04/21/10 13:51:22.0		3		
04/21/10 13:52:32.5		4		
04/21/10 14:03:32.5		5		
04/21/10 15:45:48.5		6		
04/21/10 15:46:32.5		7		
04/21/10 15:47:56.5		8		
04/21/10 15:49:09.0		9		
04/21/10 15:52:26.5		10		
04/21/10 15:57:58.5		11		
04/21/10 16:58:02.5		12		
04/21/10 17:06:45.0		13		
04/21/10 18:07:46.0		14		
04/21/10 18:14:23.0		15		
04/21/10 18:15:32.0		16		

04/21/10 18:17:03.0	17		
04/21/10 18:18:22.5	18		
04/21/10 18:19:56.0	19		
04/21/10 18:21:32.5	20		
04/21/10 18:24:29.0	21		
04/21/10 19:43:38.5	22		
04/21/10 19:47:43.5	23		
04/21/10 19:53:07.5	24		
04/21/10 20:11:32.5	25		
04/21/10 20:27:29.5	26		
04/21/10 23:05:14.0	27	0.25	9:13
04/22/10 01:27:13.5	28		
04/22/10 03:12:56.0	29		
04/22/10 08:52:10.0	30	0.03	7:24
04/29/10 02:26:07.5	31	0.01	0:13
05/12/10 17:11:25.5	32		
05/12/10 17:37:37.0	33		
05/12/10 17:55:42.0	34		
05/12/10 18:00:54.5	35		
05/12/10 18:05:07.5	36		
05/12/10 18:09:02.0	37		
05/12/10 18:16:14.5	38		
05/12/10 18:18:03.0	39		
05/12/10 18:22:34.5	40		
05/12/10 18:28:28.5	41		
05/12/10 18:34:51.5	42		
05/12/10 18:40:19.0	43		
05/12/10 18:48:41.5	44		
05/12/10 18:55:17.5	45		
05/12/10 19:07:10.5	46	0.15	1:55
05/14/10 09:57:40.5	47		
05/14/10 10:02:43.0	48		
05/14/10 10:05:24.5	49		
05/14/10 10:09:29.5	50		
05/14/10 10:12:24.0	51		
05/14/10 10:16:28.0	52		
05/14/10 10:22:58.0	53	0.07	0:25
05/15/10 14:40:31.0	54		
05/15/10 14:46:56.0	55	0.02	0:06
05/18/10 15:00:08.0	56		
05/18/10 15:04:12.5	57		
05/18/10 15:08:42.5	58	0.03	0:08
05/25/10 15:28:41.0	59		
05/25/10 15:32:56.0	60	0.02	0:04
06/02/10 14:22:41.0	61		

06/02/10 14:22:51.0	62		
06/02/10 14:23:29.5	63		
06/02/10 14:23:54.0	64		
06/02/10 14:24:19.0	65		
06/02/10 14:24:34.5	66		
06/02/10 14:25:11.5	67		
06/02/10 14:27:01.0	68		
06/02/10 14:27:12.5	69		
06/02/10 14:27:14.0	70		
06/02/10 14:27:15.5	71		
06/02/10 14:27:17.0	72		
06/02/10 14:27:18.5	73		
06/02/10 14:27:40.5	74		
06/02/10 14:27:48.0	75		
06/02/10 14:27:49.5	76		
06/02/10 14:27:52.0	77		
06/02/10 14:27:53.5	78		
06/02/10 14:28:01.5	79		
06/02/10 14:28:19.0	80		
06/02/10 14:28:54.0	81		
06/02/10 15:35:40.5	82	0.22	1:13
06/15/10 13:02:45.5	83		
06/15/10 13:04:15.5	84		
06/15/10 13:04:31.5	85		
06/15/10 13:04:53.5	86		
06/15/10 13:09:49.0	87		
06/15/10 13:10:02.5	88		
06/15/10 13:10:08.5	89	0.07	0:07
06/25/10 11:17:49.5	90		
06/25/10 11:46:23.5	91		
06/25/10 11:46:40.0	92	0.03	0:28

Series	Event (2010)
Logger Info	Information specific to the logger
Model	HOBO Event (C) 1996 ONSET Computer Corp
Serial Number	11370
Memory Size (Bytes)	32768
Extra Info	Information used by tech support
Model Number	7
Version Number	4
Deployment	17
Series Info	Information about the data in the series
Points Used	55
First Point	06/25/10 11:53:07.0
Last Point	08/26/10 12:04:44.0
Duration	62 days 00:11:37.0
Stats	Calculated from the series
Wrap Count	0
Event Sum	55.00
Launch Parameters	Mirrors the launch dialog settings
Description	lila lower 3rd qtr 2010
Wrap	Off
Delay Start	Off
Stealth Mode	Off
Event Name	2010
Event Value	1
Lockout After Event	00:00:01.0

Date/Time	Event (2010)	Depth		Hours:Mins
06/25/10 11:53:07.0	0			
07/24/10 15:56:47.0	1			
07/24/10 15:57:57.5	2			
07/24/10 16:08:57.5	3			
07/24/10 17:51:13.5	4			
07/24/10 17:51:57.5	5			
07/24/10 17:53:21.5	6			
07/24/10 17:54:34.0	7			
07/24/10 17:57:51.5	8			
07/24/10 18:03:23.5	9			
07/24/10 19:03:27.5	10			
07/24/10 19:12:10.0	11		0.11	3:15
07/27/10 15:28:13.0	12			
07/27/10 15:34:50.0	13			
07/27/10 15:35:59.0	14			
07/27/10 15:37:30.0	15			
07/27/10 15:38:49.5	16			

07/27/10 15:40:23.0	17		
07/27/10 15:41:59.5	18		
07/27/10 15:44:56.0	19		
07/27/10 17:04:05.5	20		
07/27/10 17:08:10.5	21		
07/27/10 17:13:34.5	22		
07/27/10 17:31:59.5	23		
07/27/10 17:47:56.5	24		
07/27/10 20:25:41.0	25	0.14	4:57
07/28/10 13:32:38.5	26		
07/28/10 15:18:21.0	27		
07/28/10 20:57:35.0	28	0.03	7:24
08/14/10 14:16:50.5	29		
08/14/10 14:43:02.0	30		
08/14/10 15:01:07.0	31		
08/14/10 15:06:19.5	32		
08/14/10 15:10:32.5	33		
08/14/10 15:14:27.0	34		
08/14/10 15:21:39.5	35		
08/14/10 15:23:28.0	36		
08/14/10 15:27:59.5	37		
08/14/10 15:33:53.5	38	0.1	1:17
08/15/10 16:40:16.5	39		
08/15/10 16:45:44.0	40		
08/15/10 16:54:06.5	41		
08/15/10 17:00:42.5	42		
08/15/10 17:12:35.5	43	0.05	0:32
08/17/10 11:03:05.5	44		
08/17/10 11:08:08.0	45		
08/17/10 11:10:49.5	46		
08/17/10 11:14:54.5	47		
08/17/10 11:17:49.0	48		
08/17/10 11:21:53.0	49		
08/17/10 11:28:23.0	50	0.07	0:25
08/18/10 16:45:56.0	51		
08/18/10 16:52:21.0	52	0.02	0:06
08/20/10 14:12:36.0	53		
08/20/10 14:16:40.5	54		
08/20/10 14:21:10.5	55	0.03	0:08

Series	Event (2010)
Logger Info	Information specific to the logger
Model	HOBO Event (C) 1996 ONSET Computer Corp
Serial Number	11370
Memory Size (Bytes)	32768
Extra Info	Information used by tech support
Model Number	7
Version Number	4
Deployment	19
Series Info	Information about the data in the series
Points Used	276
First Point	08/26/10 12:10:44.0
Last Point	11/09/10 16:09:10.0
Duration	75 Days 04:58:26.0
Stats	Calculated from the series
Wrap Count	0
Event Sum	276
Launch Parameters	Mirrors the launch dialog settings
Description	lila lower 4th qtr 2010
Wrap	Off
Delay Start	Off
Stealth Mode	Off
Event Name	2010
Event Value	1
Lockout After Event	00:00:01.0

Date/Time	Event (2010)	Depth		Hours:Mins
08/26/10 12:10:44.0		0		
08/29/10 09:47:02.0		1		
08/29/10 21:02:05.0		2		
08/29/10 21:04:24.0		3	0.03	11:17
09/22/10 13:32:02.5		4		
09/22/10 13:33:35.0		5		
09/22/10 13:35:15.5		6		
09/22/10 13:37:31.0		7		
09/22/10 14:19:04.5		8		
09/22/10 14:26:34.0		9		
09/22/10 14:56:29.0		10		
09/22/10 15:04:55.5		11		
09/22/10 15:14:08.0		12		
09/22/10 19:01:44.0		13	0.1	5:29
10/03/10 23:35:43.5		14	0.01	0:43
10/04/10 18:47:31.5		15		
10/04/10 18:47:51.5		16		

10/04/10 18:48:07.0	17		
10/04/10 18:49:01.5	18		
10/04/10 18:50:45.0	19		
10/04/10 19:26:32.0	20	0.06	0:39
10/05/10 03:11:56.0	21		
10/05/10 03:12:50.5	22		
10/05/10 03:13:16.5	23		
10/05/10 03:14:14.5	24		
10/05/10 03:48:01.0	25		
10/05/10 04:06:04.5	26		
10/05/10 04:10:06.0	27		
10/05/10 04:22:13.5	28		
10/05/10 04:28:33.5	29		
10/05/10 04:46:44.5	30		
10/05/10 05:21:01.0	31		
10/05/10 05:37:43.0	32		
10/05/10 05:54:35.0	33		
10/05/10 06:42:01.5	34		
10/05/10 14:28:11.5	35		
10/05/10 14:36:22.0	36		
10/05/10 14:39:30.5	37		
10/05/10 14:41:34.5	38		
10/05/10 14:42:48.0	39		
10/05/10 14:44:14.5	40		
10/05/10 14:45:06.5	41		
10/05/10 14:46:13.5	42		
10/05/10 14:46:56.0	43		
10/05/10 14:47:49.0	44		
10/05/10 14:48:24.5	45		
10/05/10 14:49:46.0	46		
10/05/10 14:51:55.0	47		
10/05/10 14:54:00.0	48		
10/05/10 14:55:18.0	49		
10/05/10 16:26:04.0	50		
10/05/10 16:29:51.5	51		
10/05/10 16:33:01.0	52		
10/05/10 16:34:37.0	53		
10/05/10 16:36:16.0	54		
10/05/10 16:37:11.5	55		
10/05/10 16:38:48.5	56		
10/05/10 16:42:25.5	57		
10/05/10 16:55:44.0	58		
10/05/10 20:27:25.5	59		
10/05/10 23:10:00.5	60		
10/05/10 23:17:30.0	61		

10/05/10 23:25:13.5	62		
10/05/10 23:46:57.0	63		
10/05/10 23:53:19.0	64		
10/05/10 23:57:16.5	65	0.45	20:45
10/06/10 00:04:59.5	66		
10/06/10 00:10:27.0	67		
10/06/10 00:14:11.0	68		
10/06/10 00:21:13.0	69		
10/06/10 01:16:56.5	70		
10/06/10 01:20:41.5	71		
10/06/10 01:36:01.5	72		
10/06/10 03:37:20.5	73		
10/06/10 03:44:28.0	74		
10/06/10 03:51:31.0	75		
10/06/10 03:52:25.0	76		
10/06/10 03:52:57.5	77		
10/06/10 03:53:47.5	78		
10/06/10 03:54:25.0	79		
10/06/10 03:55:20.5	80		
10/06/10 03:56:16.5	81		
10/06/10 03:58:11.5	82		
10/06/10 04:01:16.0	83		
10/06/10 04:06:35.0	84		
10/06/10 04:10:18.0	85		
10/06/10 04:14:27.0	86		
10/06/10 04:17:39.5	87		
10/06/10 04:26:17.5	88		
10/06/10 04:39:41.0	89		
10/06/10 04:51:16.0	90		
10/06/10 05:00:59.0	91		
10/06/10 05:08:22.0	92		
10/06/10 05:42:39.0	93		
10/06/10 05:47:59.0	94		
10/06/10 05:50:34.5	95		
10/06/10 05:54:17.5	96		
10/06/10 05:56:51.5	97		
10/06/10 05:59:37.0	98		
10/06/10 06:02:12.0	99		
10/06/10 06:05:55.0	100		
10/06/10 06:08:07.0	101		
10/06/10 06:13:30.5	102		
10/06/10 06:26:58.0	103		
10/06/10 11:05:15.5	104		
10/06/10 11:13:56.0	105		
10/06/10 11:19:17.0	106		

10/06/10 11:24:19.0	107
10/06/10 15:14:57.0	108
10/06/10 15:15:20.0	109
10/06/10 15:15:45.0	110
10/06/10 15:16:02.0	111
10/06/10 15:16:19.0	112
10/06/10 15:16:27.5	113
10/06/10 15:16:35.0	114
10/06/10 15:16:38.0	115
10/06/10 15:17:06.0	116
10/06/10 15:17:59.5	117
10/06/10 15:18:30.5	118
10/06/10 15:18:43.5	119
10/06/10 15:19:29.0	120
10/06/10 15:19:32.5	121
10/06/10 15:20:01.0	122
10/06/10 15:20:39.0	123
10/06/10 15:21:07.0	124
10/06/10 15:21:43.5	125
10/06/10 15:22:15.0	126
10/06/10 15:22:54.5	127
10/06/10 15:23:26.0	128
10/06/10 15:24:05.0	129
10/06/10 15:24:38.5	130
10/06/10 15:25:23.0	131
10/06/10 15:26:04.0	132
10/06/10 15:27:10.0	133
10/06/10 15:28:04.0	134
10/06/10 15:29:15.0	135
10/06/10 15:30:20.5	136
10/06/10 15:31:32.0	137
10/06/10 15:32:25.5	138
10/06/10 15:33:55.5	139
10/06/10 15:35:25.0	140
10/06/10 15:37:29.0	141
10/06/10 15:39:31.0	142
10/06/10 15:40:53.0	143
10/06/10 15:41:45.0	144
10/06/10 15:43:12.5	145
10/06/10 15:44:47.0	146
10/06/10 15:47:08.0	147
10/06/10 15:48:57.0	148
10/06/10 15:51:04.5	149
10/06/10 15:53:00.5	150
10/06/10 15:55:01.0	151

10/06/10 15:57:03.5	152		
10/06/10 15:58:50.5	153		
10/06/10 16:00:22.0	154		
10/06/10 16:01:52.0	155		
10/06/10 16:03:01.0	156		
10/06/10 16:04:24.0	157		
10/06/10 16:05:30.0	158		
10/06/10 16:07:05.0	159		
10/06/10 16:08:29.5	160		
10/06/10 16:10:06.5	161		
10/06/10 16:11:33.5	162		
10/06/10 16:14:06.0	163		
10/06/10 16:15:46.0	164		
10/06/10 16:17:42.0	165		
10/06/10 16:19:59.0	166		
10/06/10 16:22:25.5	167		
10/06/10 16:24:12.0	168		
10/06/10 16:26:05.0	169		
10/06/10 16:27:06.5	170		
10/06/10 16:28:16.0	171		
10/06/10 16:29:16.0	172		
10/06/10 16:30:21.5	173		
10/06/10 16:31:18.0	174		
10/06/10 16:32:53.0	175		
10/06/10 16:34:19.0	176		
10/06/10 16:35:50.0	177		
10/06/10 16:37:31.5	178		
10/06/10 16:40:17.5	179		
10/06/10 16:42:26.0	180		
10/06/10 16:44:49.5	181		
10/06/10 16:53:06.5	182		
10/06/10 16:58:21.5	183		
10/06/10 17:03:27.0	184		
10/06/10 17:10:48.5	185		
10/06/10 21:08:48.0	186		
10/06/10 22:42:30.5	187		
10/06/10 22:46:27.5	188		
10/06/10 23:33:45.5	189		
10/06/10 23:34:08.5	190		
10/06/10 23:34:35.0	191		
10/06/10 23:35:12.0	192		
10/06/10 23:37:25.5	193	1.28	23:32
10/07/10 18:20:49.0	194		
10/07/10 18:25:09.5	195		
10/07/10 18:27:50.0	196		

10/07/10 18:36:46.5	197	0.04	0:15
10/17/10 23:10:31.5	198		
10/17/10 23:22:05.0	199	0.02	0:11
10/18/10 01:17:23.0	200		
10/18/10 01:34:28.0	201		
10/18/10 04:52:51.0	202		
10/18/10 05:13:07.5	203		
10/18/10 05:17:10.0	204		
10/18/10 05:25:06.0	205		
10/18/10 05:51:10.5	206		
10/18/10 06:37:25.0	207		
10/18/10 07:13:43.5	208		
10/18/10 08:01:48.5	209		
10/18/10 08:14:22.5	210		
10/18/10 09:00:17.5	211		
10/18/10 13:57:21.0	212		
10/18/10 14:16:29.0	213	0.14	12:59
10/21/10 19:27:21.0	214		
10/21/10 21:20:04.5	215	0.02	1:52
10/22/10 07:24:00.0	216		
10/22/10 08:14:32.5	217		
10/22/10 11:35:15.5	218		
10/22/10 12:28:00.0	219		
10/22/10 14:26:42.0	220		
10/22/10 15:11:27.5	221		
10/22/10 15:29:34.0	222		
10/22/10 15:41:51.0	223		
10/22/10 15:55:37.0	224	0.09	8:31
10/23/10 08:31:57.5	225		
10/23/10 17:25:40.0	226		
10/23/10 17:26:59.5	227		
10/23/10 17:27:48.0	228		
10/23/10 17:31:55.5	229	0.05	8:59
10/24/10 18:09:56.5	230	0.01	0:38
10/25/10 00:47:45.0	231		
10/25/10 05:12:14.5	232		
10/25/10 05:13:48.0	233		
10/25/10 05:15:46.0	234		
10/25/10 05:21:15.5	235		
10/25/10 05:27:13.0	236		
10/25/10 05:32:46.5	237		
10/25/10 05:35:00.0	238		
10/25/10 05:37:38.0	239		
10/25/10 05:39:57.5	240		
10/25/10 05:42:54.5	241		

10/25/10 05:45:09.0	242		
10/25/10 05:48:25.5	243		
10/25/10 05:52:07.0	244		
10/25/10 06:01:55.5	245		
10/25/10 06:17:47.5	246		
10/25/10 06:32:45.0	247		
10/25/10 06:56:58.0	248	0.18	6:09
10/30/10 18:00:41.0	249		
10/30/10 18:10:13.0	250		
10/30/10 18:13:55.5	251		
10/30/10 18:23:55.5	252		
10/30/10 18:28:44.5	253		
10/30/10 18:33:46.5	254		
10/30/10 18:46:47.5	255		
10/30/10 19:08:10.0	256		
10/30/10 19:30:29.5	257	0.09	1:29
11/08/10 16:03:48.0	258		
11/08/10 16:14:14.0	259		
11/08/10 16:23:08.5	260		
11/08/10 16:30:31.0	261		
11/08/10 16:30:52.0	262		
11/08/10 16:31:33.5	263		
11/08/10 16:32:06.0	264		
11/08/10 16:32:39.0	265		
11/08/10 16:33:16.5	266		
11/08/10 16:36:44.0	267		
11/08/10 17:43:38.5	268		
11/08/10 17:55:40.0	269		
11/08/10 17:58:30.0	270		
11/08/10 18:04:26.0	271		
11/08/10 18:11:17.5	272		
11/08/10 18:41:58.0	273		
11/08/10 22:13:35.0	274	0.17	6:09
11/09/10 16:05:06.0	275		
11/09/10 16:09:10.0	276	0.02	0:04

Upper Gauge Data

Series	Event (2009)
Logger Info	Information specific to the logger
Model	HOBO Event (C) 1996 ONSET Computer Corp
Serial Number	11370
Memory Size (Bytes)	32768
Extra Info	Information used by tech support
Model Number	7
Version Number	4
Deployment	6
Series Info	Information about the data in the series
Points Used	153
First Point	10/01/09 11:55:50.5
Last Point	04/20/10 10:21:35.5
Duration	200 days 22:25:45.0
Stats	Calculated from the series
Wrap Count	0
Event Sum	153.00
Launch Parameters	Mirrors the launch dialog settings
Description	lila upper 1st qt 2010
Wrap	Off
Delay Start	Off
Stealth Mode	Off
Event Name	2009
Event Value	1
Lockout After Event	00:00:01.0

Date/Time	Event (2009)		Depth	Hours:Mins
10/01/09 11:55:50.5		0	Likely bumped gauge closing up	
10/01/09 11:57:24.5		1	0.01	0:01
10/22/09 17:10:18.5		2		
10/22/09 17:11:42.0		3		
10/22/09 17:29:02.5		4		
10/22/09 17:45:33.0		5	0.04	0:35
10/23/09 16:07:22.0		6		
10/23/09 16:09:51.0		7		
10/23/09 16:27:48.0		8		
10/23/09 16:28:56.5		9		
10/23/09 16:34:08.0		10		
10/23/09 16:35:09.0		11		
10/23/09 16:35:50.5		12		
10/23/09 16:36:05.5		13		
10/23/09 16:36:33.0		14		
10/23/09 16:36:46.5		15		
10/23/09 16:37:09.0		16		

10/23/09 16:37:21.0	17		
10/23/09 16:37:43.5	18		
10/23/09 16:37:56.0	19		
10/23/09 16:38:17.5	20		
10/23/09 16:38:38.0	21		
10/23/09 16:41:12.0	22		
10/23/09 16:43:05.5	23		
10/23/09 16:52:42.5	24	0.19	0:45
10/26/09 15:54:31.5	25		
10/26/09 15:59:26.0	26		
10/26/09 16:02:24.5	27		
10/26/09 16:12:40.0	28		
10/26/09 16:44:46.5	29		
10/26/09 17:00:24.0	30		
10/26/09 17:21:03.0	31	0.07	1:26
11/12/09 13:18:25.0	32		
11/12/09 13:37:14.5	33		
11/12/09 14:14:32.0	34		
11/12/09 14:15:07.0	35		
11/12/09 14:15:59.5	36		
11/12/09 14:16:34.0	37		
11/12/09 14:17:36.0	38		
11/12/09 14:18:13.0	39		
11/12/09 14:19:50.0	40		
11/12/09 14:20:59.0	41		
11/12/09 14:23:02.5	42		
11/12/09 14:23:49.5	43		
11/12/09 14:24:25.5	44		
11/12/09 14:24:44.0	45		
11/12/09 14:25:05.5	46		
11/12/09 14:25:22.5	47		
11/12/09 14:25:48.0	48		
11/12/09 14:26:04.5	49		
11/12/09 14:26:29.0	50		
11/12/09 14:26:42.5	51		
11/12/09 14:27:00.5	52		
11/12/09 14:27:12.5	53		
11/12/09 14:27:35.0	54		
11/12/09 14:27:49.0	55		
11/12/09 14:28:15.0	56		
11/12/09 14:28:31.5	57		
11/12/09 14:28:55.5	58		
11/12/09 14:29:19.0	59		
11/12/09 14:29:47.0	60		
11/12/09 14:30:07.0	61		

11/12/09 14:30:43.0	62		
11/12/09 14:31:03.5	63		
11/12/09 14:31:30.5	64		
11/12/09 14:31:48.0	65	0.34	1:13
11/15/09 15:02:03.5	66		
11/15/09 15:15:19.0	67		
11/15/09 15:32:31.5	68		
11/15/09 16:02:38.5	69		
11/15/09 16:15:46.5	70		
11/15/09 16:32:52.5	71		
11/15/09 16:33:01.5	72		
11/15/09 16:33:07.5	73		
11/15/09 16:33:16.5	74		
11/15/09 16:33:23.5	75		
11/15/09 16:33:36.0	76		
11/15/09 16:33:44.5	77		
11/15/09 16:33:57.5	78		
11/15/09 16:34:09.5	79		
11/15/09 16:34:22.0	80		
11/15/09 16:34:30.0	81		
11/15/09 16:34:41.5	82		
11/15/09 16:34:50.5	83		
11/15/09 16:35:05.5	84		
11/15/09 16:35:18.0	85		
11/15/09 16:35:36.0	86		
11/15/09 16:35:47.5	87		
11/15/09 16:36:08.0	88		
11/15/09 16:36:24.5	89		
11/15/09 16:36:52.5	90		
11/15/09 16:37:11.5	91		
11/15/09 16:37:42.0	92		
11/15/09 16:38:02.0	93		
11/15/09 16:38:20.5	94		
11/15/09 16:38:32.5	95		
11/15/09 16:38:50.5	96		
11/15/09 16:39:03.5	97		
11/15/09 16:39:25.5	98		
11/15/09 16:39:39.0	99		
11/15/09 16:39:57.0	100		
11/15/09 16:40:10.5	101		
11/15/09 16:40:30.0	102		
11/15/09 16:40:45.5	103		
11/15/09 16:41:10.0	104		
11/15/09 16:41:30.5	105		
11/15/09 16:41:50.0	106		

11/15/09 16:42:07.0	107		
11/15/09 16:42:29.5	108		
11/15/09 16:42:52.5	109		
11/15/09 16:43:19.0	110		
11/15/09 16:43:38.5	111		
11/15/09 16:44:06.5	112		
11/15/09 16:44:34.0	113		
11/15/09 16:45:23.0	114		
11/15/09 16:45:56.0	115		
11/15/09 16:46:51.0	116		
11/15/09 16:47:34.0	117		
11/15/09 16:48:40.0	118		
11/15/09 16:49:32.5	119		
11/15/09 16:50:49.0	120	0.55	1:48
11/22/09 19:49:29.0	121		
11/22/09 19:50:32.5	122		
11/22/09 19:51:33.0	123		
11/22/09 19:52:48.5	124		
11/22/09 19:54:05.0	125		
11/22/09 19:55:47.5	126		
11/22/09 19:57:59.5	127		
11/22/09 20:00:51.5	128		
11/22/09 20:03:30.0	129	0.09	0:14
12/17/09 16:07:19.0	130		
12/17/09 16:09:42.5	131		
12/17/09 16:14:20.5	132		
12/17/09 16:17:19.0	133		
12/17/09 16:21:12.0	134	0.05	0:13
01/01/10 19:07:19.0	135		
01/01/10 19:09:42.5	136		
01/01/10 19:14:20.5	137		
01/01/10 19:17:19.0	138		
01/01/10 19:21:12.0	139	0.05	0:13
01/16/10 20:14:20.5	140		
01/16/10 20:17:19.0	141		
01/16/10 20:21:12.0	142	0.03	0:06
01/31/10 14:23:27.0	143		
01/31/10 14:29:46.5	144		
01/31/10 14:33:20.0	145	0.03	0:09
02/15/10 15:28:27.0	146		
02/15/10 15:34:46.5	147		
02/15/10 16:38:20.0	148	0.03	1:09
03/13/10 03:00:56.0	149		
03/13/10 03:03:54.0	150		
03/13/10 03:13:37.5	151		

03/13/10 03:17:28.0	152	0.04	0:16
03/21/10 19:00:17.0	153	0.01	0:15

Series	Event (2010)
Logger Info	Information specific to the logger
Model	HOBO Event (C) 1996 ONSET Computer Corp
Serial Number	11370
Memory Size (Bytes)	32768
Extra Info	Information used by tech support
Model Number	7
Version Number	4
Deployment	16
Series Info	Information about the data in the series
Points Used	69
First Point	04/20/10 10:27:42.0
Last Point	06/25/10 13:51:40.0
Duration	66 days 03:23:58.0
Stats	Calculated from the series
Wrap Count	0
Event Sum	69.00
Launch Parameters	Mirrors the launch dialog settings
Description	lila upper 2nd qtr 2010
Wrap	Off
Delay Start	Off
Stealth Mode	Off
Event Name	2010
Event Value	1
Lockout After Event	00:00:01.0

Date/Time	Event (2010)	Depth	Hours:Mins
04/20/10 10:27:42.0	0		
04/21/10 17:06:45.0	1		
04/21/10 18:07:46.0	2		
04/21/10 18:14:23.0	3		
04/21/10 18:15:32.0	4		
04/21/10 18:17:03.0	5		
04/21/10 18:18:22.5	6		
04/21/10 18:19:56.0	7		
04/21/10 18:21:32.5	8		
04/21/10 18:24:29.0	9		
04/21/10 19:43:38.5	10		
04/21/10 19:47:43.5	11		
04/21/10 19:53:07.5	12		
04/21/10 20:11:32.5	13		
04/21/10 20:27:29.5	14		
04/21/10 23:05:14.0	15	0.15	5:58
04/22/10 03:55:56.0	16		

04/22/10 09:35:10.0	17	0.02	5:39
04/29/10 02:26:07.5	18	0.01	0:11
05/12/10 17:11:25.5	19		
05/12/10 17:37:37.0	20		
05/12/10 17:55:42.0	21		
05/12/10 18:00:54.5	22		
05/12/10 18:05:07.5	23		
05/12/10 18:16:14.5	24		
05/12/10 18:22:34.5	25		
05/12/10 18:28:28.5	26		
05/12/10 18:40:19.0	27		
05/12/10 18:48:41.5	28		
05/12/10 18:51:17.5	29		
05/12/10 18:53:10.5	30	0.11	1:41
05/14/10 10:57:40.5	31		
05/14/10 11:05:24.5	32		
05/14/10 11:12:24.0	33		
05/14/10 11:13:28.0	34		
05/14/10 11:17:58.0	35	0.05	0:20
05/15/10 15:42:31.0	36		
05/15/10 15:50:56.0	37	0.02	0:08
05/18/10 16:00:08.0	38		
05/18/10 16:08:12.5	39		
05/18/10 16:13:42.5	40	0.03	0:13
05/25/10 16:28:41.0	41		
05/25/10 16:41:56.0	42	0.02	0:05
06/02/10 15:35:41.0	43		
06/02/10 15:35:51.0	44		
06/02/10 15:36:29.5	45		
06/02/10 15:36:54.0	46		
06/02/10 15:37:19.0	47		
06/02/10 15:37:34.5	48		
06/02/10 15:38:11.5	49		
06/02/10 15:40:01.0	50		
06/02/10 15:40:12.5	51		
06/02/10 15:40:14.0	52		
06/02/10 15:40:15.5	53		
06/02/10 15:40:17.0	54		
06/02/10 15:40:18.5	55		
06/02/10 15:40:40.5	56		
06/02/10 15:40:48.0	57		
06/02/10 15:40:49.5	58		
06/02/10 15:40:52.0	59		
06/02/10 15:40:53.5	60		
06/02/10 15:41:01.5	61		

06/02/10 15:41:19.0	62		
06/02/10 15:41:54.0	63		
06/02/10 16:48:40.5	64	0.22	1:13
06/15/10 13:27:45.5	65		
06/15/10 13:29:15.5	66		
06/15/10 13:34:49.0	67		
06/15/10 13:35:02.5	68		
06/15/10 13:35:08.5	69	0.05	0:07

Series	Event (2010)
Logger Info	Information specific to the logger
Model	HOBO Event (C) 1996 ONSET Computer Corp
Serial Number	11370
Memory Size (Bytes)	32768
Extra Info	Information used by tech support
Model Number	7
Version Number	4
Deployment	17
Series Info	Information about the data in the series
Points Used	47
First Point	06/25/10 11:53:07.0
Last Point	08/26/10 12:04:44.0
Duration	62 days 00:30:27.0
Stats	Calculated from the series
Wrap Count	0
Event Sum	47.00
Launch Parameters	Mirrors the launch dialog settings
Description	lila upper 3rd qtr 2010
Wrap	Off
Delay Start	Off
Stealth Mode	Off
Event Name	2010
Event Value	1
Lockout After Event	00:00:01.0

Date/Time	Event (2010)	Depth		Hours:Mins
06/25/10 13:51:40.0		0		
07/24/10 14:07:30.5		1		
07/24/10 16:52:46.5		2		
07/24/10 16:55:30.5		3		
07/24/10 16:59:54.5		4		
07/24/10 17:04:07.0		5		
07/24/10 17:22:24.5		6		
07/24/10 18:01:56.5		7		
07/24/10 18:07:00.5		8		
07/24/10 19:14:43.0		9	0.09	5:07
07/27/10 17:16:46.0		10		
07/27/10 17:28:23.0		11		
07/27/10 17:36:03.0		12		
07/27/10 17:37:22.5		13		
07/27/10 17:40:32.5		14		
07/27/10 19:02:38.5		15		
07/27/10 19:06:43.5		16		

07/27/10 19:12:07.5	17		
07/27/10 19:30:32.5	18		
07/27/10 19:46:29.5	19		
07/27/10 20:18:14.0	20	0.11	3:01
07/28/10 15:31:11.5	21		
07/28/10 17:16:54.0	22		
07/28/10 18:08:08.0	23	0.03	2:36
08/14/10 15:58:23.5	24		
08/14/10 16:41:35.0	25		
08/14/10 16:59:40.0	26		
08/14/10 17:04:52.5	27		
08/14/10 17:13:00.0	28		
08/14/10 17:22:01.0	29		
08/14/10 17:26:32.5	30		
08/14/10 17:32:26.5	31	0.08	1:34
08/15/10 18:38:49.5	32		
08/15/10 18:44:17.0	33		
08/15/10 18:52:39.5	34		
08/15/10 18:59:15.5	35		
08/15/10 19:28:08.5	36	0.05	0:49
08/17/10 12:56:38.5	37		
08/17/10 13:06:41.0	38		
08/17/10 13:13:27.5	39		
08/17/10 13:16:37.0	40		
08/17/10 13:20:26.0	41		
08/17/10 13:30:56.0	42	0.06	0:34
08/18/10 17:39:29.0	43		
08/18/10 17:50:54.0	44	0.02	0:11
08/20/10 15:59:01.0	45		
08/20/10 16:15:13.5	46		
08/20/10 16:19:43.5	47	0.03	0:20

Series	Event (2010)
Logger Info	Information specific to the logger
Model	HOBO Event (C) 1996 ONSET Computer Corp
Serial Number	11370
Memory Size (Bytes)	32768
Extra Info	Information used by tech support
Model Number	7
Version Number	4
Deployment	19
Series Info	Information about the data in the series
Points Used	269
First Point	08/26/10 15:05:44.0
Last Point	11/09/10 13:09:10.0
Duration	74 days 22:03:26.0
Stats	Calculated from the series
Wrap Count	0
Event Sum	269.00
Launch Parameters	Mirrors the launch dialog settings
Description	lila upper 4th qtr 2010
Wrap	Off
Delay Start	Off
Stealth Mode	Off
Event Name	2010
Event Value	1
Lockout After Event	00:00:01.0

Date/Time	Event (2010)	Depth	Hours:Mins
08/26/10 15:05:44.0	0		
08/29/10 12:42:02.0	1		
08/29/10 12:57:05.0	2		
08/29/10 12:59:24.0	3	0.03	0:17
09/22/10 16:27:02.5	4		
09/22/10 16:28:35.0	5		
09/22/10 16:30:15.5	6		
09/22/10 16:32:31.0	7		
09/22/10 17:14:04.5	8		
09/22/10 17:21:34.0	9		
09/22/10 17:51:29.0	10		
09/22/10 17:59:55.5	11	0.08	1:32
09/25/10 13:24:10.0	12		
09/25/10 17:11:46.0	13	0.02	3:47
10/04/10 21:30:43.5	14		
10/04/10 21:42:31.5	15		
10/04/10 21:42:51.5	16		

10/04/10 21:43:07.0	17		
10/04/10 21:44:01.5	18		
10/04/10 21:45:45.0	19		
10/04/10 22:21:32.0	20	0.07	0:50
10/05/10 04:06:56.0	21		
10/05/10 04:07:50.5	22		
10/05/10 04:08:16.5	23		
10/05/10 04:09:14.5	24		
10/05/10 04:43:01.0	25		
10/05/10 05:01:04.5	26		
10/05/10 05:05:06.0	27		
10/05/10 05:17:13.5	28		
10/05/10 05:23:33.5	29		
10/05/10 05:41:44.5	30		
10/05/10 06:16:01.0	31		
10/05/10 06:32:43.0	32		
10/05/10 06:49:35.0	33		
10/05/10 07:37:01.5	34		
10/05/10 15:23:11.5	35		
10/05/10 15:31:22.0	36		
10/05/10 15:34:30.5	37		
10/05/10 15:36:34.5	38		
10/05/10 15:37:48.0	39		
10/05/10 15:39:14.5	40		
10/05/10 15:40:06.5	41		
10/05/10 15:41:13.5	42		
10/05/10 15:41:56.0	43		
10/05/10 15:42:49.0	44		
10/05/10 15:43:24.5	45		
10/05/10 15:44:46.0	46		
10/05/10 15:46:55.0	47		
10/05/10 15:49:00.0	48		
10/05/10 15:50:18.0	49		
10/05/10 17:21:04.0	50		
10/05/10 17:24:51.5	51		
10/05/10 17:28:01.0	52		
10/05/10 17:29:37.0	53		
10/05/10 17:31:16.0	54		
10/05/10 17:32:11.5	55		
10/05/10 17:33:48.5	56		
10/05/10 17:37:25.5	57		
10/05/10 17:50:44.0	58		
10/05/10 21:22:25.5	59	0.39	17:15
10/06/10 00:05:00.5	60		
10/06/10 00:12:30.0	61		

10/06/10 00:20:13.5	62
10/06/10 00:41:57.0	63
10/06/10 00:48:19.0	64
10/06/10 00:52:16.5	65
10/06/10 00:59:59.5	66
10/06/10 01:05:27.0	67
10/06/10 01:09:11.0	68
10/06/10 01:16:13.0	69
10/06/10 02:11:56.5	70
10/06/10 02:15:41.5	71
10/06/10 02:31:01.5	72
10/06/10 04:32:20.5	73
10/06/10 04:39:28.0	74
10/06/10 04:46:31.0	75
10/06/10 04:47:25.0	76
10/06/10 04:47:57.5	77
10/06/10 04:48:47.5	78
10/06/10 04:49:25.0	79
10/06/10 04:50:20.5	80
10/06/10 04:51:16.5	81
10/06/10 04:53:11.5	82
10/06/10 04:56:16.0	83
10/06/10 05:01:35.0	84
10/06/10 05:05:18.0	85
10/06/10 05:09:27.0	86
10/06/10 05:12:39.5	87
10/06/10 05:21:17.5	88
10/06/10 05:34:41.0	89
10/06/10 05:46:16.0	90
10/06/10 05:55:59.0	91
10/06/10 06:03:22.0	92
10/06/10 06:37:39.0	93
10/06/10 06:42:59.0	94
10/06/10 06:45:34.5	95
10/06/10 06:49:17.5	96
10/06/10 06:51:51.5	97
10/06/10 06:54:37.0	98
10/06/10 06:57:12.0	99
10/06/10 07:00:55.0	100
10/06/10 07:03:07.0	101
10/06/10 07:08:30.5	102
10/06/10 07:21:58.0	103
10/06/10 12:00:15.5	104
10/06/10 12:08:56.0	105
10/06/10 12:14:17.0	106

10/06/10 12:19:19.0	107
10/06/10 16:09:57.0	108
10/06/10 16:10:20.0	109
10/06/10 16:10:45.0	110
10/06/10 16:11:02.0	111
10/06/10 16:11:19.0	112
10/06/10 16:11:27.5	113
10/06/10 16:11:35.0	114
10/06/10 16:11:38.0	115
10/06/10 16:12:06.0	116
10/06/10 16:12:59.5	117
10/06/10 16:13:30.5	118
10/06/10 16:13:43.5	119
10/06/10 16:14:29.0	120
10/06/10 16:14:32.5	121
10/06/10 16:15:01.0	122
10/06/10 16:15:39.0	123
10/06/10 16:16:07.0	124
10/06/10 16:16:43.5	125
10/06/10 16:17:15.0	126
10/06/10 16:17:54.5	127
10/06/10 16:18:26.0	128
10/06/10 16:19:05.0	129
10/06/10 16:19:38.5	130
10/06/10 16:20:23.0	131
10/06/10 16:21:04.0	132
10/06/10 16:22:10.0	133
10/06/10 16:23:04.0	134
10/06/10 16:24:15.0	135
10/06/10 16:25:20.5	136
10/06/10 16:26:32.0	137
10/06/10 16:27:25.5	138
10/06/10 16:28:55.5	139
10/06/10 16:30:25.0	140
10/06/10 16:32:29.0	141
10/06/10 16:34:31.0	142
10/06/10 16:35:53.0	143
10/06/10 16:36:45.0	144
10/06/10 16:38:12.5	145
10/06/10 16:39:47.0	146
10/06/10 16:42:08.0	147
10/06/10 16:43:57.0	148
10/06/10 16:46:04.5	149
10/06/10 16:48:00.5	150
10/06/10 16:50:01.0	151

10/06/10 16:52:03.5	152		
10/06/10 16:53:50.5	153		
10/06/10 16:55:22.0	154		
10/06/10 16:56:52.0	155		
10/06/10 16:58:01.0	156		
10/06/10 16:59:24.0	157		
10/06/10 17:00:30.0	158		
10/06/10 17:02:05.0	159		
10/06/10 17:03:29.5	160		
10/06/10 17:05:06.5	161		
10/06/10 17:06:33.5	162		
10/06/10 17:09:06.0	163		
10/06/10 17:10:46.0	164		
10/06/10 17:12:42.0	165		
10/06/10 17:14:59.0	166		
10/06/10 17:17:25.5	167		
10/06/10 17:19:12.0	168		
10/06/10 17:21:05.0	169		
10/06/10 17:22:06.5	170		
10/06/10 17:23:16.0	171		
10/06/10 17:24:16.0	172		
10/06/10 17:25:21.5	173		
10/06/10 17:26:18.0	174		
10/06/10 17:27:53.0	175		
10/06/10 17:29:19.0	176		
10/06/10 17:30:50.0	177		
10/06/10 17:32:31.5	178		
10/06/10 17:35:17.5	179		
10/06/10 17:37:26.0	180		
10/06/10 17:39:49.5	181		
10/06/10 17:48:06.5	182		
10/06/10 17:53:21.5	183		
10/06/10 17:58:27.0	184		
10/06/10 18:05:48.5	185		
10/06/10 22:03:48.0	186		
10/06/10 23:37:30.5	187		
10/06/10 23:41:27.5	188	1.29	23:36
10/07/10 00:28:45.5	189		
10/07/10 00:29:08.5	190		
10/07/10 00:29:35.0	191		
10/07/10 00:30:12.0	192		
10/07/10 00:32:25.5	193		
10/07/10 18:15:49.0	194		
10/07/10 18:20:09.5	195		
10/07/10 18:22:50.0	196		

10/07/10 18:31:46.5	197	0.08	18:03
10/18/10 00:05:31.5	198		
10/18/10 00:17:05.0	199		
10/18/10 02:12:23.0	200		
10/18/10 02:29:28.0	201		
10/18/10 05:47:51.0	202		
10/18/10 06:08:07.5	203		
10/18/10 06:12:10.0	204		
10/18/10 06:20:06.0	205		
10/18/10 06:46:10.5	206		
10/18/10 07:32:25.0	207		
10/18/10 08:08:43.5	208		
10/18/10 08:56:48.5	209		
10/18/10 09:09:22.5	210		
10/18/10 09:55:17.5	211		
10/18/10 14:52:21.0	212		
10/18/10 15:11:29.0	213	0.16	15:05
10/22/10 08:19:00.0	214		
10/22/10 09:09:32.5	215		
10/22/10 12:30:15.5	216		
10/22/10 13:23:00.0	217		
10/22/10 15:21:42.0	218		
10/22/10 16:06:27.5	219		
10/22/10 16:24:34.0	220		
10/22/10 16:36:51.0	221		
10/22/10 17:36:51.0	222		
10/22/10 18:50:37.0	223	0.1	10:31
10/23/10 17:50:40.0	224		
10/23/10 18:21:59.5	225		
10/23/10 18:22:48.0	226		
10/23/10 18:26:55.5	227	0.04	0:36
10/25/10 06:07:14.5	228		
10/25/10 06:08:48.0	229		
10/25/10 06:10:46.0	230		
10/25/10 06:16:15.5	231		
10/25/10 06:22:13.0	232		
10/25/10 06:27:46.5	233		
10/25/10 06:30:00.0	234		
10/25/10 06:32:38.0	235		
10/25/10 06:34:57.5	236		
10/25/10 06:37:54.5	237		
10/25/10 06:40:09.0	238		
10/25/10 06:43:25.5	239		
10/25/10 06:47:07.0	240		
10/25/10 06:56:55.5	241		

10/25/10 07:12:47.5	242		
10/25/10 07:27:45.0	243	0.16	1:20
10/30/10 18:50:41.0	244		
10/30/10 19:00:41.0	245		
10/30/10 19:05:13.0	246		
10/30/10 19:08:55.5	247		
10/30/10 19:18:55.5	248		
10/30/10 19:23:44.5	249		
10/30/10 19:28:46.5	250		
10/30/10 19:41:47.5	251		
10/30/10 20:03:10.0	252		
10/30/10 20:25:29.5	253	0.1	1:34
11/08/10 16:58:48.0	254		
11/08/10 17:09:14.0	255		
11/08/10 17:18:08.5	256		
11/08/10 17:25:31.0	257		
11/08/10 17:25:52.0	258		
11/08/10 17:26:33.5	259		
11/08/10 17:27:06.0	260		
11/08/10 17:27:39.0	261		
11/08/10 17:28:16.5	262		
11/08/10 17:31:44.0	263		
11/08/10 18:38:38.5	264		
11/08/10 18:50:40.0	265		
11/08/10 18:53:30.0	266		
11/08/10 18:59:26.0	267		
11/08/10 19:06:17.5	268		
11/08/10 19:36:58.0	269	0.16	2:38

ATTACHMENT B

Crest Gauge and Siphon Data

2010 Crest Gauges
Little Park Area

Intermittent Washes

Month	Date	CG-1	CG-2	CG-3	CG-4	CG-5	CG-6	CG-7	Initials of Observer	Entered on Database
January										
February										
March	3/23/2010	NF							RJM	
April	4/20/2010		NF	NF	NF	NF	NF	NF	RJM	
May										
June	6/25/2010	NF	NF	NF	NF	NF	NF	NF	RJM	
July										
August										
September	8/24/2010	NF	NF	NF	NF	1" Deep 4' Wide No Sample	NF	0.5" Deep 6' Wide No Sample	DM	
October	10/15/2009	8" Deep 9' Wide Sample**	NF*	NF*	NF*	4" Deep# 11' Wide No Sample	NF*	11" Deep 15' Wide No Sample	TJS	
November										
December										

* Intakes of samplers and crest gauges plugged or sites destroyed or bypassed, sites reconstructed

** Partial sample collected, insufficient water for analysis

\# Majority of flow bypassed site, new low flow section of channel cut

Title. Lila Canyon Mine Site Topsoil Salvage Monitoring
Objective. Monitor and maintain records of materials removed and placement of materials in the topsoil storage pile.
Frequency. During construction a qualified soil scientist will oversee the soil salvage and maintain records of materials removed.
Status. During Phase 1 and Phase 2 construction.
Reports. Annual Report. Report volumes of soil salvaged and placed in the topsoil stockpile, map acreage of salvage, and report acreage of salvage and acreage remaining undisturbed.
Citation. N10045 abatement.

OPERATOR COMMENTS

Soil disturbance is not complete, a As built will be submitted once all soil has been stripped and stored.

REVIEWER COMMENTS ☐ Met Requirements ☐ Did Not meet Requirements

Title: Vegetation monitoring
Objective: Color infrared photography. Submit and implement a mitigation plan, if results indicate impact from operations.
Frequency: Every 5 years.
Status: On going.
Reports: Annual Report.
Citation: MRP-Part B, Sec. 332, p. 14

OPERATOR COMMENTS

Color infrared will be done prior to any subsidence mining.

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: Mexican spotted owl.
Objective: Conduct two-year calling survey at least two years but no more than four years prior to undermining identified habitat. Results will be submitted to USFWS, DWR, and the Division immediately following of each nighttime survey. If owls are observed, the agencies will immediately coordinate to determine appropriate measures.
Frequency: Dependent on habitat and mine plan.
Status: On going.
Reports: Final reports in Annual Report (Confidential).
Citation: MRP-Part B, Sec. 333, p. 17.

OPERATOR COMMENTS (Optional)

Title: Subsoil use in reclamation.
Objective: Subsoils found to be contaminated with oil, grease, or salts through visual evaluation will be hauled to a landfill site.
Frequency: One time.
Status: Ongoing.
Reports: None.
Citation: Section 232.500.

OPERATOR COMMENTS (Optional)

Title: Application of inoculum
Objective: An inoculum will be applied to the reclaimed soil surface to re-establish bacteria, mycorrhiza and mycelium in the soil. At the time of permitting, the exact product to be applied to the soil is not defined, however the Division expects that the best technology available at the time of reclamation will be employed, as per R645-301-333.
Frequency: During reclamation.
Status: Ongoing.
Reports: Division consultation.
Citation: Section 241

OPERATOR COMMENTS (Optional)

Title: TWO MONITORING WELLS TO BE ESTABLISHED IN FUTURE BOREHOLES.
Objective: Monitor water levels and water quality within the permit and adjacent areas.
Frequency: If wells are established.
Status: To be done when and if additional holes are bored from the surface to the coal seam.
Reports: Water-quality and -quantity data will be included in the quarterly hydrolgy reports. The MRP (and CHIA) to be updated as needed.
Citation: Conditions to the Permit, Attachment A, Special Conditions (December 21, 2007)

OPERATOR COMMENTS (Optional)

Title. Lila Canyon Mine Salvage of Cryptogams on Topsoil Pile Prior to Reclamation.
Objective. Salvaged cryptogams will be added to the wood fiber mulch and hydrosprayed on the surface of the reclaimed site.
Frequency. Immediately after seeding of the reclaimed site
Status. During reclamation of the Lila Canyon Mine.
Reports. Success of cryptogamic establishment will be evaluated (by Division and Permittee) prior to collection from topsoil stockpile.
Citation. MRP Section 232.100 and Section 234.230.

OPERATOR COMMENTS (Optional)

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 file with the Division.

Please List Attachments:

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 an attachment to the report.

LEGAL/ FINANCIAL UPDATE	Included	DOGM File Location or Annual Report Location
	☐	
	☐	
	☐	
	☐	

REVIEWER COMMENTS ☐ Met Requirements ☐ Did Not meet Requirements

MAPS

Copies of mine maps, current and up-to-date through at least December 31, 2010, are to be provided to the Division as an attachment 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.

Map Name	Map Number	Included		Confidential	
		Yes	No	Yes	No
Annual Subsidence Map		☐	☒	☐	☒
Mine Map		☒	☐	☐	☐
		☐	☐	☐	☐
		☐	☐	☐	☐
		☐	☐	☐	☐

REVIEWER COMMENTS ☐ Met Requirements ☐ Did Not meet Requirements

Current confidential mine map is included.

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 an attachment 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.

Please List Attachments:

REVIEWER COMMENTS

TOPSOIL MOVEMENT & CONSTRUCTION RECORD

UTAHAMERICAN ENERGY

LILA CANYON MINE

December 2008-July 2010

Report Updated June 2011

Prepared by

J. T. Paluso, P. E.

EIS ENVIRONMENTAL & ENGINEERING CONSULTING
31 North Main, Helper, Utah 84526

RECEIVED

JUN 13 2011

DIV. OF OIL, GAS & MINING

TABLE OF CONTENTS

ITEM	PAGE
Scope of Work	1
Topsoil & Construction Activity Record	
December 24, 2008	2
December 30, 2008	8
January 7, 2009	10
January 15, 2009	13
January 28, 2009	15
January 29, 2009	19
February 6, 2009	21
February 18, 2009	23
September 30, 2009	29
April 28, 2010	31
May 26, 2010	33
July 15, 2010	35
Total Topsoil Removal Table as of July 2010	38

Scope of Work

EIS Environmental & Engineering Consulting (EIS) was hired by UtahAmerican Energy, Inc (UEI) to monitor the removal of topsoil from the Lila Canyon Mine for Phase I construction activities.

Phase I consisted of the following activities:

- Construct stormwater detention ponds. These ponds are needed to contain all runoff coming from disturbed areas.
- Construct portal access road. Due to the length of time required to construct the underground rock slopes, it was necessary to construct the portal access road during Phase I of the construction activities.
- Remove topsoil from the west portion of the coal stockpile area. This area was needed to provide storage space for material generated during the construction of the underground rock slopes.
- Remove topsoil from the warehouse pad area. This area was also needed to provide storage space for material generated from the rock slope construction work.
- Construct employee parking and temporary bathhouse area. This area was needed to provide parking space and bathhouse facilities for the crews developing the rock slopes.

During Phase I activities the follow amounts of topsoil were generated from the various locations:

LOCATION	LOADS	VOLUME (Yd^3)
Employee Parking Lot	378	12,110
Portal Road	238	7,622
Storm Water Detention Pond	154	4,943
Small Detention Pond	61	1,940
Coal Stockpile	269	8,601
Warehouse Pad	137	4,385
Topsoil Area	Push with Dozer	646
TOTAL		**40,247 Yd^3**

LILA CANYON MINE
TOPSOIL & CONSTRUCTION ACTIVITY RECORD

December 24, 2008 (Mel Coonrod & Matt Serfustini)

The following activities were observed during this visit:

1. Fill material was being removed from the stormwater detention pond. Some topsoil still remains to be removed from the pond area.
2. Work on portal access road was proceeding.
3. Topsoil was being removed from employee parking area.
4. Topsoil had been removed from west end of coal pile area.

PHOTOGRAPHS

LOOKING SOUTH TOWARDS TOPSOIL STORAGE AREA

MATERIAL REMOVED FROM TOPSOIL STORAGE SITE

PORTAL ACCESS ROAD TOPSOIL NORTH OF COAL STOCKPILE, PHOTO TAKEN LOOKING EAST

SOIL PROFILE ON PORTAL ACCESS ROAD LOOKING NORTH, TAKEN ADJACENT TO PRIOR PHOTOGRAPH

TOPSOIL REMOVAL SOUTH END OF EMPLOYEE PARKING LOT LOOKING SOUTH EAST

SOUTH OF LOADOUT STATION LOOKING NORTH

SOUTH OF LOADOUT STATION LOOKING SOUTH

SOIL PROFILE AT THE SAME LOCATION AS THE TWO PREVIOUS PHOTOGRAPHS

BOULDER REMOVAL SOUTH OF LOADOUT STATION LOOKING NORTH

EMPLOYEE PARKING AREA LOOKING SOUTH

December 30, 2008(Tom Paluso)

The following activities were observed during my site visit:

1. Fill material was being removed from portal access road. Contractor was working on side slopes on the portal access road.
2. Topsoil was being removed from employee parking area and delivered to the topsoil storage area.
3. Contractor was breaking large rocks on west end of coal storage pile. The large rocks were being reduced to make it easier to obtain necessary compaction with fill material being deposited in this area.

PHOTOGRAPHS

TOPSOIL REMOVAL FROM EMPLOYEE PARKING AREA

LOOKING SOUTHWEST OVER PROJECT AREA

January 7, 2009 (Tom Paluso)

The following activities were observed during site visit:

1. Contractor was transporting topsoil from office area to topsoil site.
2. Portal access road grade was being lowered northeast of employee's parking area.
3. Hydraulic hoes were working on portal area.

The stormwater detention pond still has approximately 15 percent of the topsoil to be removed. This material is located in the southeast corner of the pond. According to Shane Campbell this material was intentionally left to provide work during bad weather conditions. Shane also mentioned that topsoil removal at the warehouse site should probably start on January 15 or 16.

PHOTOGRAPHS

TOPSOIL REMOVAL FROM OFFICE AREA

BOULDERS BEING SEPARATED FROM TOPSOIL MATERIAL

LOWER PORTAL ACCESS ROAD GRADE

FILL MATERIAL BEING REMOVED FROM PORTAL ACCESS ROAD

HYDRAULIC BACKHOES WORKING ON PORTAL AREA

January 15, 2009 (Tom Paluso)

The following activities were observed during site visit:

1. Large boulders are being crushed to make gravel for this project.
2. Boulders are being stockpiled at future coal stockpile site. These boulders will be crushed into gravel.
3. Work on the portal area is still in progress.

PHOTOGRAPHS

BOULDERS BEING CRUSHED INTO GRAVEL

CRUSHED GRAVEL PILE

BOULDERS BEING STOCKPILED FOR CRUSHING

January 28, 2009 (Tom Paluso)

The following activities were observed during site visit:

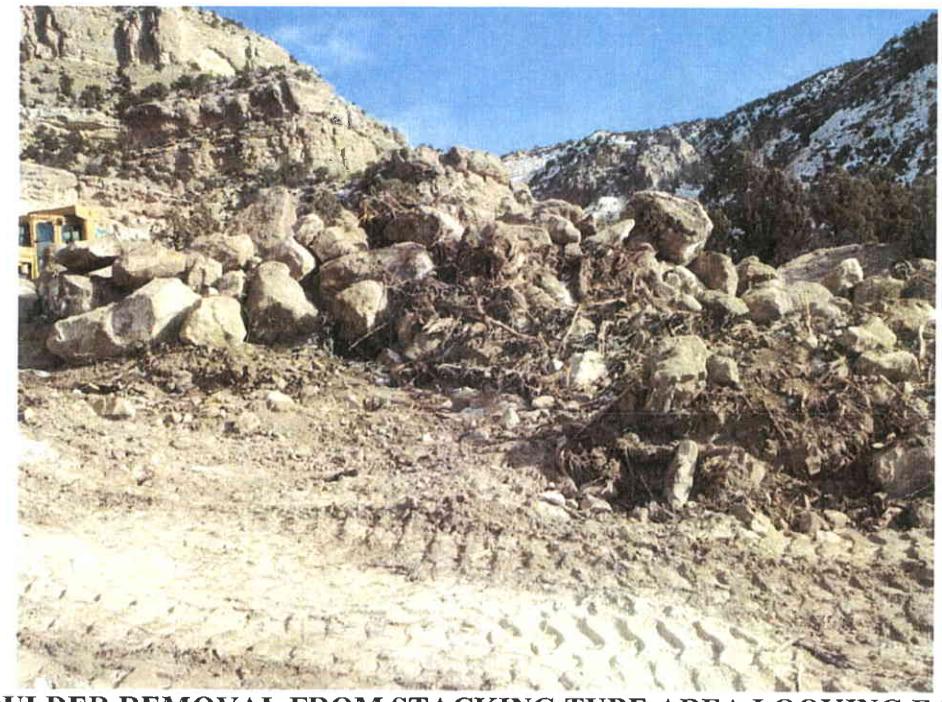
1. Removing material from north end of parking lot.
2. Removing topsoil from stacking tube area.
3. Employee parking lot grading.

PHOTOGRAPHS

PARKING LOT MATERIAL REMOVAL

FINAL GRADING WEST END OF EMPLOYEE PARKING AREA

EMPLOYEE PARKING LOOKING NORTH WITH CRUSHED GRAVEL PILE



BOULDER REMOVAL FROM STACKING TUBE AREA LOOKING EAST

TOPSOIL REMOVAL FROM STACKING TUBE AREA LOOKING NORTH

STACKING TUBE AREA LOOKING EAST TOWARDS PORTALS

EAST OF STACKING TUBE LOOKING WEST

January 29, 2009 (Tom Paluso)

The following activities were observed during site visit:

1 Removing material from north end of parking lot.
2 Removing topsoil from stacking tube area.
3 Employee parking lot grading.

PHOTOGRAPHS

TOPSOIL PROFILE BY STACKING TUBE AREA

CLOSE-UP OF TOPSOIL PROFILE

February 6, 2009 (Tom Paluso)

The following activities were observed during site visit:

1. Removing topsoil from shop-warehouse area.
2. Completing work around silo area.

PHOTOGRAPHS

LOOKING SOUTHEAST FROM SILO AREA, TOPSOIL IS BEING COLLECTED

COLLECTING BOULDERS AND VEGETATION

LOOKING NORTHEAST FROM SILO AREA, TOPSOIL HAS BEEN REMOVED

February 18, 2009 (Tom Paluso)

The following activities were observed during site visit:

1. Removing topsoil from small Stormwater Detention Pond.
2. Removing remaining topsoil from large Stormwater Detention Pond.
3. Working on final grade for Portal Access Road

PHOTOGRAPHS

SIGN LOCATED BY CONSTRUCTION OFFICE & NEAR SMALL STORMWATER DETENTION POND

COLLECTING TOPSOIL AT SMALL STORMWATER RETENTION POND (SRP)

COLLECTING TOPSOIL AT SMALL SRP

REMOVING BOULDER FROM SMALL SRP

NORTHEAST SOIL PROFILE

SOUTHEAST SOIL PROFILE

REMOVE REMAINING MATERIAL FROM LARGE STORMWATER RETENTION POND (SRP)

WEST END LARGE SRP

FINAL WORK ON PORTAL ROAD

TOPSOIL PILE LOOKING NORTHEAST

TOPSOIL PILE LOOKING SOUTH EAST

FOR TOPSOIL TRACKING PURPOSES, PHASE I OPERATIONS ENDS HERE

September 30, 2009 (Tom Paluso)

Lila Canyon Mine is in the process of installing a temporary coal conveyor belt that will be used to remove coal from the mine while the permanent conveyor belt is installed. According to Jay Marshall, this temporary conveyor belt may be used for up to five years while the permanent system is completed.

The construction of this temporary conveyor belt will require concrete supports for bent installations. Topsoil removal at this point is necessary to provide access for equipment required for bent construction. During this phase of topsoil removal 9,324 cubic yards of topsoil was salvaged.

REMOVAL OF TOPSOIL NEAR PORTAL

SOIL PROFILE

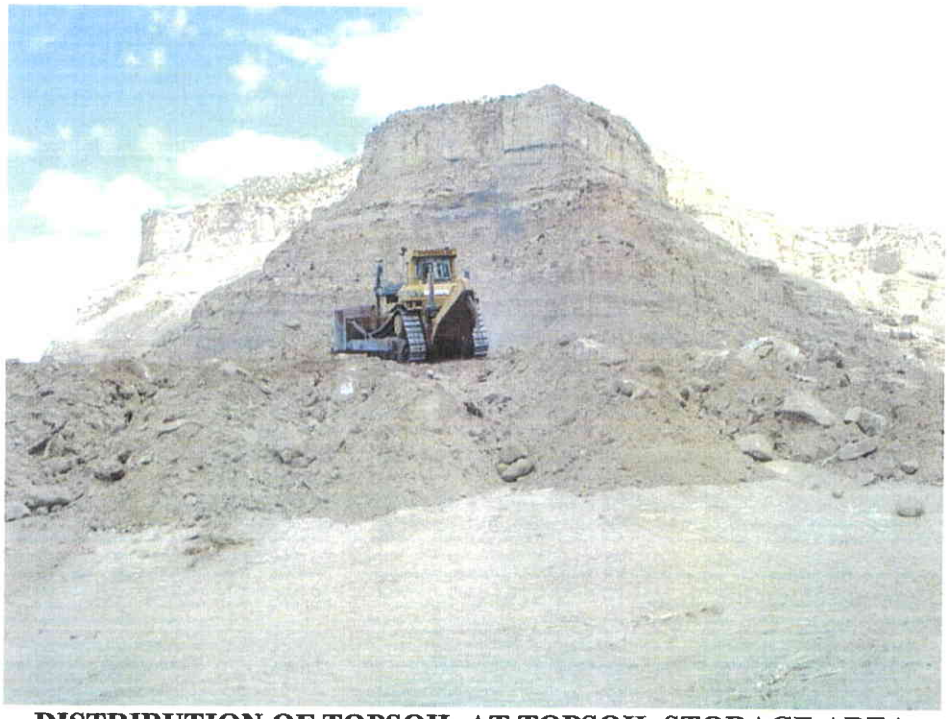
TOPSOIL BEING DELIVERED TO TOPSOIL PILE

April 28, 2010 (Tom Paluso)

Scamp Excavation was removing topsoil from the warehouse pad and temporary coal pad. During this section of topsoil removal, 3,772 cubic yards of topsoil was salvaged.

TOPSOIL REMOVAL NEAR PORTAL ROAD

CLOSEUP VIEW OF TOPSOIL MATERIAL



DISTRIBUTION OF TOPSOIL AT TOPSOIL STORAGE AREA

May 26, 2010 (Tom Paluso)

Nielson Construction is removing topsoil from the substation pad area. Approximately 2,100 cubic yards of topsoil was salvaged from this area.

TOPSOIL PROFILE

SUBSTATION PAD LOOKING TOWARDS PORTAL

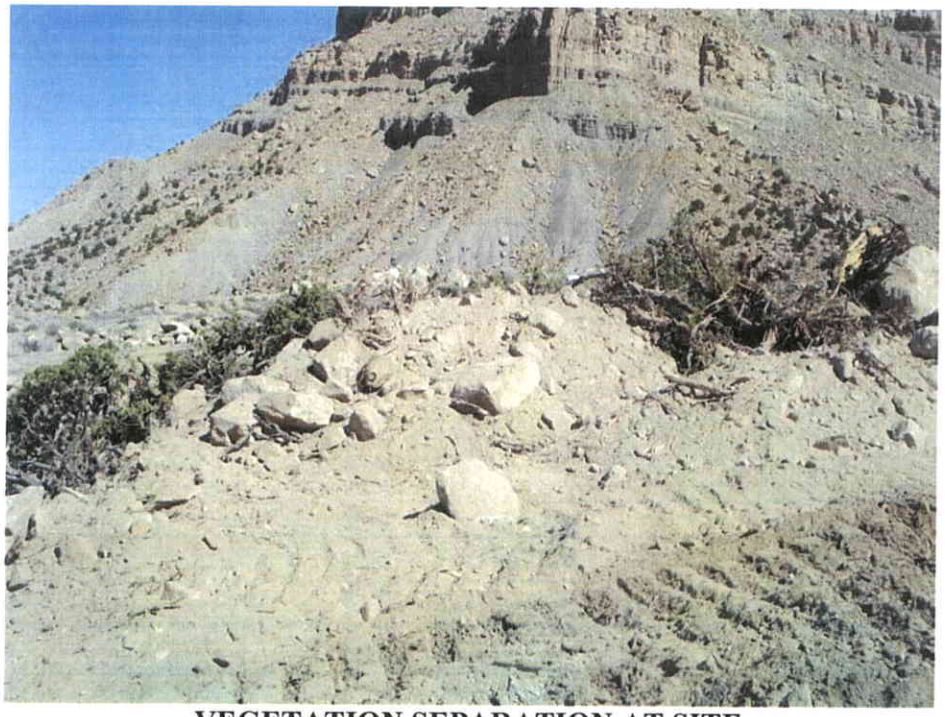
TOPSOIL PILE AT SUBSTATION SITE

VEGETATION REMOVED FROM TOPSOIL AT SUBSTATION SITE

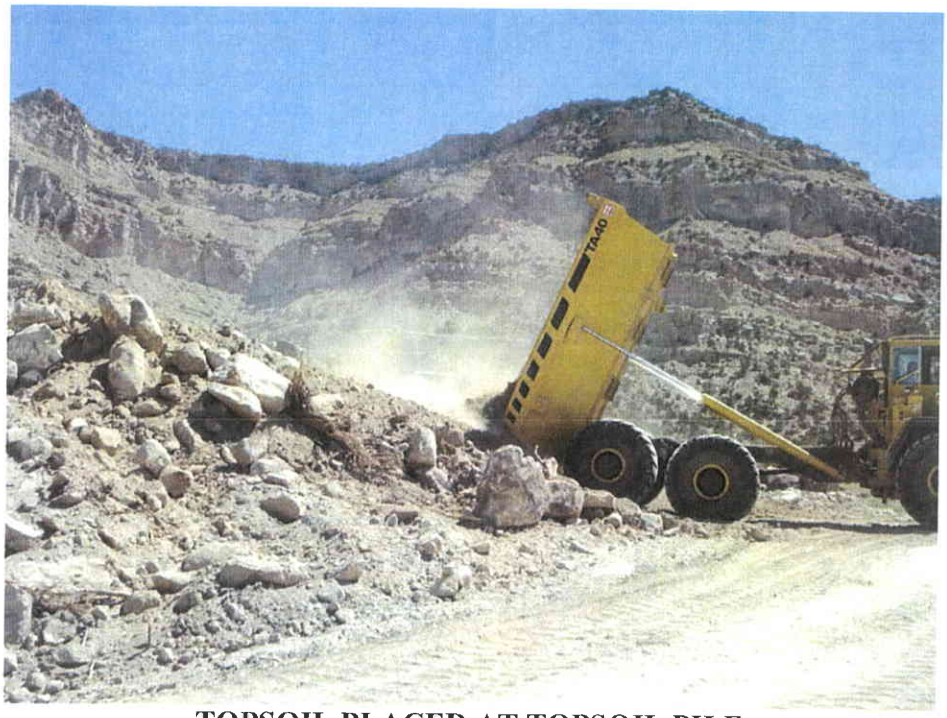
<u>July 15, 2010</u>

Scamp Excavation salvaging topsoil at stockpile pad and warehouse pad. Both of these pads are being enlarged to accommodate next phase of construction activities. A total of 6,930 cubic yards of topsoil was salvaged during this section of topsoil removal.

WAREHOUSE PAD BELOW PORTALS



VEGETATION SEPARATION AT SITE



TOPSOIL PLACED AT TOPSOIL PILE

TOPSOIL AT TOPSOIL PILE

TOTAL TOPSOIL REMOVAL TABLE AS OF JULY 2010

LOCATION	LOADS	VOLUME (Yd^3)
Employee Parking Lot	378	12,110
Portal Road	238	7,622
Storm Water Detention Pond	154	4,943
Small Detention Pond	61	1,940
Coal Stockpile/Warehouse pads	793*	33,012
Topsoil Area	Push with Dozer	646
Substation Area	*	2,100
TOTAL		**62,373 Yd^3**

*** Total Truck Count Not Reported**