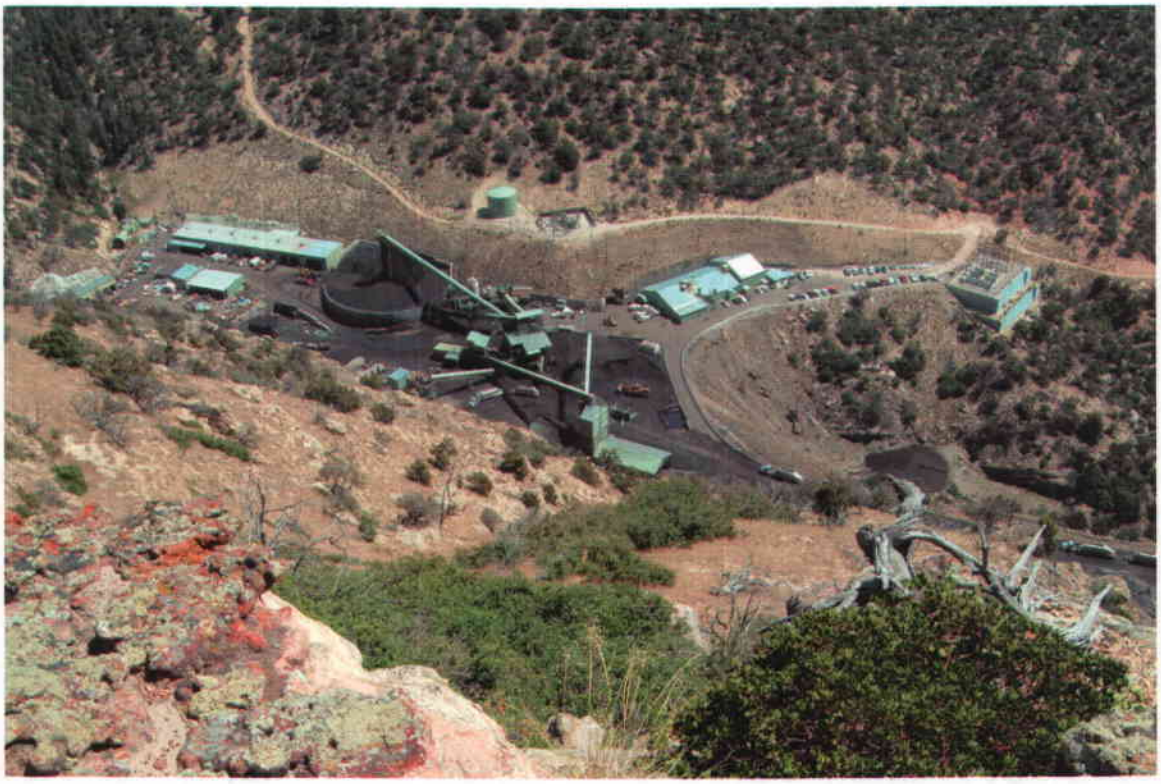
2007 ANNUAL REPORT



CANYON FUEL COMPANY, LLC
SUFCO MINE
ACT/041/002

Canyon Fuel Company, LLC.
Sufco Mine
A Subsidiary of Arch Western Bituminous Group, LLC.

Ken May, General Manager
397 South 800 West
Salina, UT 84654
(435) 286-4400 - Office
(435) 286-4499 - Fax

June 16, 2008

Utah Coal Regulatory Program
1594 West North Temple, Suite 1210
P. O. Box 145801
Salt Lake City, UT 84114-5801

Re: 2007 Annual Report for Canyon Fuel Company LLC, SUFCO Mine
C/041/002, Sevier County, Utah

Dear Permit Supervisor:

Enclosed herewith is a copy of the annual report for the Canyon Fuel Company, SUFCO Mine for 2007. The information included is thought to be complete as requested. Questions should be referred to Mike Davis at (435) 286-4421.

Sincerely,
CANYON FUEL COMPANY, LLC
SUFCO Mine

John D. Byrne for KEM

Kenneth E. May
General Manager

Enclosures

KEM/MLD:kb

cc: Division of Oil, Gas and Mining – Price Field Office
Division of Oil, Gas and Mining Correspondence File

SUFPUB\GOVT2008\DOGMCORR\2007 Annual Report Cover ltr.doc

*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

Permitte Name	Canyon Fuel Company, LLC
Mine Name	SUFCO Mine
Operator Name (If other then permittee)	
Permit Expiration Date	March 20, 2012
Permit Number	C/041/002
Authorized Representative Title	Kenneth E. May, General Manager
Phone Number	(435) 286-4880
Fax Number	(435) 286-4499
E-mail Address	kmay@archcoal.com and mdavis@archcoal.com
Mailing Address	397 South 800 West Salina, UT 84654
Designated Representative	C.T. Corporation
Resident Agent	Corporation Trust Center
Resident Agent Mailing Address	1209 Orange Street, Wilmington, DE
Number of Binders Submitted	1- Salt Lake City and 1- Price Field Office

IDENTIFICATION OF OTHER PERMITS

Identify other permits that are required in conjunction with mining and reclamation activities.

Permit Type	ID Number	Description	Expiration Date
MSHA Mine ID(s)	4200089	Minesite	
	1211UT090008901	Waste Rock Disposal	
MSHA Impoundment(s)			
NPDES/UPDES Permit(s)	UT0022918	Minesite Sediment Pond Major Industrial	April 30, 2011
	UTR000576	Multi-Sector Storm Water Permit	December 31, 2011
PSD Permit(s) (Air)	DAQE-AN0665008-06	Minesite Air Quality Approval Order	
	BAQE-126-88	Waste Rock Disposal Air Quality Approval Order	
Other			

File in:
- ❑ Confidential
- ☒ Shelf
- ❑ Expandable

Refer to Record No 0021 Date 06/16/2008
In C/041/002, 2008, Incoming
For additional information + Confidential

CERTIFIED REPORTS

List the certified inspection reports as required by the rules and under the approved plan that must be periodically submitted to the Division. Specify whether the information is included as Appendix A to this report or currently on file with the Division.

Certified Reports:	Required		Included or DOGM file location		Comments
	Yes	No	Included	Vol, Chapter, Page	
Excess Spoil Piles	☐	☒	☐		
Refuse Piles	☒	☐	☐		Certified Reports previously submitted
Impoundments	☒	☐	☐		Certified Reports previously submitted
Other					
	☐	☐	☐		
	☐	☐	☐		

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 a written response is required, it should be filed under Appendix B to this report.

Admin R645-301-100	
Soils R645-301-200	
Biology R645-301-300	
Has this commitment been acted on this year? Yes ☒ No ☐ Not Required for this year. ☐	**Title: RAPTOR SURVEYS** **Objective:** To determine if there are nest sites or active nest sites and the number of juveniles present within ½ mile of surface mining activities or areas that may be impacted by subsidence. **Frequency:** Annually. **Status:** Ongoing. **Reports:** Annual. **Citation:** Volume 1, chapter 3, page 3-9.
Has this commitment been acted on this year? Yes ☐ No ☐ Not Required for this year. ☒	**Title: PRE SUBSIDENCE QUALITATIVEEVALUATION OF VEG AND CHANNEL CONDITIONS IN THE EAST FORK OF BOX CANYON.** **Objective:** To obtain data that characterizes the channel prior to subsidence. **Frequency:** Fall of 2003 through 2005 then the Fall of 2008. **Status:** During specified years. **Reports:** 2003 and 2008 Annual reports. **Citation:** Volume 1, chapter 3, page 3-22.

Has this commitment been acted on this year? Yes ☐ No ☐ Not Required for this year. ☒	**Title: VEGETATIVE SURVEY OF THE EAST FORK OF BOX CANYON** **Objective:** To determine if there are any impacts to the vegetative communities associated with the stream and canyon. **Frequency:** 2004, 05, 06, and 2008. **Status:** Ongoing. **Reports:** Annual. **Citation:** Volume 1, chapter 3, page 3-22A.
Has this commitment been acted on this year? Yes ☐ No ☐ Not Required for this year. ☒	**Title: COLOR INFRARED AERIAL PHOTOGRAPHY SURVEY** **Objective:** To monitor potential changes in vegetative communities in areas that have subsided from longwall mining. The survey will include the upper portions of Box Canyon. **Frequency:** Once every 5 years beginning in 1987 (1990, 1995, 1999, 2003(EF Box), 2004). **Status:** Next survey 2008. **Reports:** Annual. **Citation:** Volume 1, chapter 5, page 5-29.
Has this commitment been acted on this year? Yes ☒ No ☐ Not Required for this year. ☐	**Title: PINES TRACT VEGETATION STUDY** **Objective:** To determine if longwall mining in the Pines Tract would potentially impact the Link Canyon Trail Columbine. The survey will include the portions of Box Canyon. **Frequency:** Annually. **Status:** Ongoing. **Reports:** Annual. **Citation:** Volume 1, chapter 3, page 3-45A.
Has this commitment been acted on this year? Yes ☒ No ☐ Not Required for this year. ☐	**Title: LINK CANYON PORTAL VEGETATION STUDY** **Objective:** To determine if there are any impacts to the vegetation surrounding the portal area. **Frequency:** Annually, June, September and November. **Status:** Ongoing. **Reports:** Annual. **Citation:** Annual report.
Landuse, Cultural Resources, Air Quality R645-301- 400	
Has this commitment been acted on this year? Yes ☐ No ☐ Not Required for this year. ☒	**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. **Reports:** Annual. **Citation:** Permit Condition **Sec. 16.**

Engineering R645-301-500	
Has this commitment been acted on this year? Yes ☒ No ☐ Not Required for this year. ☐	**Title: SUBSIDENCE MONITORING** **Objective:** Document the amount of subsidence that has occurred. **Frequency:** Annual. **Status:** On going. **Reports:** Annual report. **Citation:** p 5-29 .
Has this commitment been acted on this year? Yes ☐ No ☐ Not Required for this year. ☐	**Title: MEASURE CRACKS.** **Objective:** Measure cracks in the West Fork of Box Canyon. **Frequency:** Annually. **Status:** On going. **Reports:** Annual. **Citation:** P5-30. During the fall of 2007 while the survey team was completing the surveying and measuring of subsidence cracks on the surface area above the mine the area had numerous storm events and the survey team was not able to get back to complete the survey last fall. These West Fork crack measurements were completed as soon as the weather permitted this spring and the results are included in this report. These cracks are located in Longwall Area 10 that has been mined out since 2001, and the area is now assumed to be dormant.
Geology R645-301-600	
Hydrology R645-301-700	
Has this commitment been acted on this year? Yes ☒ No ☐ Not Required for this year. ☐	**Title: Climatological Data** **Objective:** Collect climatological data to aid in determining effect of mining on runoff, stream flow, and local springs. **Frequency:** Annually. **Status:** Ongoing. **Reports:** Annual. **Citation:** Volume 2, P 7-51E.
Bonding & Insurance R645-301-800	
Other Commitments	

*Reminder: If equipment has been abandoned during 2007, an amendment must be submitted that includes a map showing its location, a description of what was abandoned, whether there were any hazardous or toxic materials and any revision to the PHC as necessary.

EPORTING 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 Appendix B to this report or currently on file with the Division.

LEGAL, FINANCIAL, COMPLIANCE AND RELATED INFORMATION

Change in administration or corporate structure can often bring about necessary changes to information found in the mining and reclamation plan. 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	**Required** Yes	No	**Included or DOGM File location** Included	Vol, Chapter, Page	**Comments**
Department of Commerce, Annual Report Officers	☒	☐	☐	☒	Submitted in Canyon Fuel General Chapter One
Other					
	☐	☐	☐	☐	
	☐	☐	☐	☐	
	☐	☐	☐	☐	

MINE MAPS

Copies of mine maps, current and up-to-date through at least December 31, 2007, are to be provided to the Division as Appendix D to this report in accordance with the requirements of R 645-301-525.240. These map copies shall be made in accordance with 30 CFR 75.1200 as required by MSHA. Upon request, the Division shall keep mine maps confidential. Please provide a CD.

Map Number(s)	**Map Title/ Description**	**Confidential** Yes	No
	Annual subsidence map	☒	☐
	Mining Progress 2007	☒	☐
		☐	☐
		☐	☐
		☐	☐
		☐	☐
		☐	☐
		☐	☐
		☐	☐
		☐	☐
		☐	☐

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.

Additional attachment to this report? **Yes** ☐ **No** ☒

APPENDIX A

Certified Reports

Excess Spoil Piles
Refuse Piles
Impoundments

As required under R645-301-514

CONTENTS

None - Certified Reports previously submitted.

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

CMK:KB	----------SUFCO----------				----------Levan----------			
	--Temp--		----Pptn----		--Temp--		-----Pptn-----	
DD/MM/YY	Max	Min	Moist.	Snow	Max	Min	Moist.	Snow
2007								
1-Jan-07	32	15		1	30	14		
2-Jan-07	35	9			29	10		
3-Jan-07	36	21			34	16		
4-Jan-07	47	30			46	25	0.05	
5-Jan-07	44	14	0.04	1	26	5		
6-Jan-07	28	6			20	-4		
7-Jan-07	25	12			28	5		
8-Jan-07	38	21			29	8		
9-Jan-07	38	18			35	6		
10-Jan-07	34	11			44	6		
11-Jan-07	33	10			44	18		
12-Jan-07	32	15			31	13	0.06	2
13-Jan-07	16	-9			13	-6		
14-Jan-07	17	-7			11	-10		
15-Jan-07	18	-5	0.01		11	-12	0.04	
16-Jan-07	20	1			15	-9		
17-Jan-07	20	-4			23	-7		
18-Jan-07	25	5			19	-15		
19-Jan-07	30	8	0.02	1	22	-10		
20-Jan-07	32	10			22	-8		
21-Jan-07	20	3			24	12	0.05	2
22-Jan-07	22	1			26	-5		
23-Jan-07	34	16			26	-1		
24-Jan-07	42	18			27	-1		
25-Jan-07	37	19			35	7		
26-Jan-07	43	17			32	-2		
27-Jan-07	39	15			33	10		
28-Jan-07	34	13			32	1		
29-Jan-07	32	10			34	2		
30-Jan-07	20	5			33	5		
31-Jan-07	24	11	0.01		30	10	0.05	1
1-Feb-07	17	9			24	2	0.03	
2-Feb-07	26	11			29	4		
3-Feb-07	38	26			35	2		
4-Feb-07	40	24			30	6		
5-Feb-07	48	25			46	15		
6-Feb-07	44	26			48	20		
7-Feb-07	43	28			48	14		
8-Feb-07	47	29			50	21		
9-Feb-07	49	32			49	25		
10-Feb-07	46	31			49	28		
11-Feb-07	41	29			47	35	0.18	
12-Feb-07	41	28	0.09	2	44	20	0.15	
13-Feb-07	35	25			40	21	0.10	

CMK:KB	----------SUFCO----------				----------Levan----------			
	--Temp--		----Pptn----		--Temp--		-----Pptn-----	
DD/MM/YY	Max	Min	Moist.	Snow	Max	Min	Moist.	Snow
14-Feb-07	38	24			38	16		
15-Feb-07	38	26			38	20	0.02	
16-Feb-07	39	26			47	21	T	
17-Feb-07	46	21			51	24		
18-Feb-07	37	29			55	23		
19-Feb-07	36	13	0.10	2	44	14	0.20	2
20-Feb-07	36	12			41	7		
21-Feb-07	42	23			41	17		
22-Feb-07	44	23			61	21		
23-Feb-07	48	21			57	23	0.28	6
24-Feb-07	26	10	0.15	3	31	16		
25-Feb-07	28	15			37	17		
26-Feb-07	29	20	0.15	3	39	19	0.12	
27-Feb-07	38	17	0.05	1	37	14	0.20	5
28-Feb-07	32	9			30	5		
1-Mar-07	21	11	0.28	3	30	5	0.08	
2-Mar-07	19	14			28	4		
3-Mar-07	23	3			32	-1		
4-Mar-07	23	3			41	7		
5-Mar-07	30	9			53	21		
6-Mar-07	30	9			50	25		
7-Mar-07	44	24			60	24		
8-Mar-07	48	25	0.04		54	26	0.20	
9-Mar-07	48	32			59	28		
10-Mar-07	48	27			51	26		
11-Mar-07	50	32			55	18		
12-Mar-07	48	24			67	21		
13-Mar-07	56	31			71	35		
14-Mar-07	48	25			68	35		
15-Mar-07	48	32			61	28		
16-Mar-07	48	27			70	21		
17-Mar-07	50	32			75	33		
18-Mar-07	48	24			73	33		
19-Mar-07	56	31			71	35		
20-Mar-07	58	36			69	35		
21-Mar-07	59	36			64	34	0.05	
22-Mar-07	56	31	0.03		56	30		
23-Mar-07	48	32			57	36		
24-Mar-07	48	27			59	33		
25-Mar-07	50	32	0.04		67	29		
26-Mar-07	48	24			70	43		
27-Mar-07	56	31			63	32		
28-Mar-07	59	36			37	29	0.26	
29-Mar-07	56	30	0.02		41	29	0.16	
30-Mar-07	36	16	0.19	3	46	24		

CMK:KB	----------SUFCO----------				----------Levan----------			
	--Temp--		----Pptn----		--Temp--		-----Pptn-----	
DD/MM/YY	Max	Min	Moist.	Snow	Max	Min	Moist.	Snow
31-Mar-07	48	24			60	26		
1-Apr-07	59	37			60	34		
2-Apr-07	60	39			64	39		
3-Apr-07	63	45			66	32		
4-Apr-07	64	36			64	36		
5-Apr-07	61	34			71	31		
6-Apr-07	61	38			68	36		
7-Apr-07	60	37			68	35		
8-Apr-07	50	30	0.01		69	38	0.12	
9-Apr-07	52	22	0.14		59	28	0.09	
10-Apr-07	31	20	0.05	1	63	20		
11-Apr-07	42	23	0.02		43	16		
12-Apr-07	53	33	0.01		47	32	0.26	
13-Apr-07	51	30			51	20		
14-Apr-07	53	33	0.06		55	26		
15-Apr-07	51	30			65	31		
16-Apr-07	51	29			62	29	0.06	
17-Apr-07	58	33			62	32		
18-Apr-07	48	16	0.02		67	40	0.06	
19-Apr-07	43	21			57	16		
20-Apr-07	44	27			52	27		
21-Apr-07	47	27			55	29		
22-Apr-07	39	28			57	28	0.08	
23-Apr-07	37	30	0.12	1	50	27	0.20	
24-Apr-07	47	31	0.02		50	34	0.02	
25-Apr-07	60	35			60	33		
26-Apr-07	58	39			66	34		
27-Apr-07	65	39			66	28		
28-Apr-07	69	42			71	38		
29-Apr-07	71	47			80	43		
30-Apr-07	72	45			81	49		
1-May-07	67	42			77	47		
2-May-07	63	42	0.01		80	47		
3-May-07	45	28			77	32	0.39	
4-May-07	38	26			75	28	0.20	
5-May-07	33	27			51	26		
6-May-07	46	34			42	25		
7-May-07	54	32	0.16		55	23		
8-May-07	62	37			65	29		
9-May-07	69	41			74	36		
10-May-07	72	42			77	39		
11-May-07	75	46			82	40		
12-May-07	76	50			85	40		
13-May-07	73	47			85	38		
14-May-07	67	34			82	40		

CMK:KB	----------SUFCO----------				----------Levan----------			
	--Temp--		----Pptn----		--Temp--		-----Pptn-----	
DD/MM/YY	Max	Min	Moist.	Snow	Max	Min	Moist.	Snow
15-May-07	69	41			74	36		
16-May-07	66	41			78	38		
17-May-07	70	43			82	39		
18-May-07	70	44			82	52		
19-May-07	72	43			83	52		
20-May-07	72	46			84	51		
21-May-07	70	40			84	43	0.52	
22-May-07	70	41	0.17		74	31		
23-May-07	71	40			59	35		
24-May-07	72	42			62	36		
25-May-07	74	41			66	40		
26-May-07	68	35			77	44		
27-May-07	67	34			79	49		
28-May-07	65	33			81	56	T	
29-May-07	58	32			79	42		
30-May-07	63	37			70	36		
31-May-07	58	32			73	31		
1-Jun-07	63	38			82	42		
2-Jun-07	69	39			85	44		
3-Jun-07	75	45			86	48		
4-Jun-07	76	49			88	52		
5-Jun-07	80	48			84	56		
6-Jun-07	46	29	0.09		71	37	0.74	
7-Jun-07	45	31	0.11		50	37		
8-Jun-07	64	38			54	32		
9-Jun-07	71	43			79	42		
10-Jun-07	76	48			82	47		
11-Jun-07	73	41			79	52		
12-Jun-07	68	42			79	48		
13-Jun-07	76	48			84	46		
14-Jun-07	77	50			83	53		
15-Jun-07	85	58			93	55		
16-Jun-07	86	53			93	56		
17-Jun-07	78	38			83	53		
18-Jun-07	77	48			82	45		
19-Jun-07	83	53			88	45		
20-Jun-07	85	53			93	52		
21-Jun-07	83	52			89	53		
22-Jun-07	85	54			91	48		
23-Jun-07	88	56			94	57		
24-Jun-07	86	65			92	61		
25-Jun-07	80	48			88	62		
26-Jun-07	85	54			90	52		
27-Jun-07	84	53			92	53		
28-Jun-07	85	54			91	56		

CMK:KB	----------SUFCO----------				----------Levan----------			
	--Temp--		----Pptn----		--Temp--		-----Pptn-----	
DD/MM/YY	Max	Min	Moist.	Snow	Max	Min	Moist.	Snow
29-Jun-07	86	56			93	56		
30-Jun-07	88	57			92	57		
1-Jul-07	87	57			95	55		
2-Jul-07	90	60			96	56		
3-Jul-07	88	54			92	54		
4-Jul-07	87	56			94	54		
5-Jul-07	84	55			97	57		
6-Jul-07	83	54			94	59		
7-Jul-07	84	61			95	61		
8-Jul-07	83	56			92	62		
9-Jul-07	88	56			97	56		
10-Jul-07	87	59			98	59		
11-Jul-07	85	53			91	61		
12-Jul-07	76	53			90	61		
13-Jul-07	86	55			95	62		
14-Jul-07	85	57			97	62		
15-Jul-07	82	56			98	66		
16-Jul-07	84	57	0.05		93	65	0.01	
17-Jul-07	74	56	0.12		88	67		
18-Jul-07	84	61	0.01		93	61		
19-Jul-07	86	55			93	62		
20-Jul-07	83	62			93	62		
21-Jul-07	85	56			94	64		
22-Jul-07	82	55			94	65	0.10	
23-Jul-07	78	55	0.11		85	62		
24-Jul-07	76	56			85	59	0.01	
25-Jul-07	74	53	0.01		85	62		
26-Jul-07	74	53	0.17		85	62	0.12	
27-Jul-07	79	54	0.13		87	59		
28-Jul-07	77	55			91	58		
29-Jul-07	77	56			91	61		
30-Jul-07	79	56			94	59		
31-Jul-07	82	55			91	63		
1-Aug-07	80	56	0.09		87	58	0.01	
2-Aug-07	70	54			84	52	0.02	
3-Aug-07	77	52			85	61		
4-Aug-07	79	58			91	57		
5-Aug-07	77	50			90	51		
6-Aug-07	75	51	0.09		87	61		
7-Aug-07	80	52			88	60		
8-Aug-07	81	52			85	57		
9-Aug-07	82	51			88	55		
10-Aug-07	83	51			87	57		
11-Aug-07	85	52			91	56		
12-Aug-07	85	57			91	60		

CMK:KB	----------SUFCO----------				----------Levan----------			
	--Temp--		----Pptn----		--Temp--		-----Pptn-----	
DD/MM/YY	Max	Min	Moist.	Snow	Max	Min	Moist.	Snow
13-Aug-07	80	57	0.01		93	62		
14-Aug-07	76	53	0.22		94	57	0.05	
15-Aug-07	81	56			93	61		
16-Aug-07	78	54			89	61		
17-Aug-07	78	57			90	65		
18-Aug-07	76	56			85	63	0.04	
19-Aug-07	80	53			90	59		
20-Aug-07	82	52			89	52		
21-Aug-07	83	56			91	59		
22-Aug-07	86	55			92	54		
23-Aug-07	78	56			86	60	0.14	
24-Aug-07	81	50			87	52		
25-Aug-07	86	54			93	45		
26-Aug-07	79	57			92	61	0.42	
27-Aug-07	65	52	0.43		82	56	0.08	
28-Aug-07	74	45	0.11		84	48		
29-Aug-07	76	50			90	50		
30-Aug-07	80	54			91	60		
31-Aug-07	80	59			88	58	0.01	
1-Sep-07	80	53			89	58		
2-Sep-07	81	54			92	60		
3-Sep-07	79	56			92	58		
4-Sep-07	73	50	0.05		91	60	0.25	
5-Sep-07	72	52	0.01		90	59	0.38	
6-Sep-07	67	43	0.15		79	49	0.15	
7-Sep-07	75	42	0.02		75	46		
8-Sep-07	79	49			83	51		
9-Sep-07	76	50			84	52		
10-Sep-07	71	43			83	49		
11-Sep-07	67	45	0.01		76	41		
12-Sep-07	77	45			81	43		
13-Sep-07	78	49			86	49		
14-Sep-07	75	64			86	55		
15-Sep-07	76	47			80	53		
16-Sep-07	75	52			80	53		
17-Sep-07	65	40			81	46		
18-Sep-07	68	36			71	40		
19-Sep-07	68	38			77	44		
20-Sep-07	69	41			79	45		
21-Sep-07	70	42			79	45		
22-Sep-07	64	47	0.50		83	51	0.65	
23-Sep-07	55	37	0.28		75	42	0.21	
24-Sep-07	45	32			64	39		
25-Sep-07	52	25			54	31		
26-Sep-07	64	34			63	29		

CMK:KB	----------SUFCO----------				----------Levan----------			
	--Temp--		----Pptn----		--Temp--		-----Pptn-----	
DD/MM/YY	Max	Min	Moist.	Snow	Max	Min	Moist.	Snow
27-Sep-07	62	41			67	36		
28-Sep-07	56	25			76	45		
29-Sep-07	47	20			72	30	0.19	
30-Sep-07	47	32	0.10		61	26		
1-Oct-07	58	32			64	38	0.02	
2-Oct-07	55	32			74	32		
3-Oct-07	63	34	0.22		63	37		
4-Oct-07	69	38			77	40		
5-Oct-07	58	43			79	39	0.40	
6-Oct-07	44	28	0.10		70	24	0.24	
7-Oct-07	41	26	0.03		43	20		
8-Oct-07	51	26			51	28		
9-Oct-07	58	33			70	24		
10-Oct-07	64	37			76	40		
11-Oct-07	62	33			78	27		
12-Oct-07	56	38			64	38		
13-Oct-07	49	32			64	41	0.28	
14-Oct-07	51	34			52	34		
15-Oct-07	56	30			60	33		
16-Oct-07	51	33			65	37	0.01	
17-Oct-07	39	28	0.15		62	34	0.23	
18-Oct-07	43	26	0.02		45	21		
19-Oct-07	60	32			51	27		
20-Oct-07	57	25			72	32	0.10	
21-Oct-07	34	21	0.13	2.5	57	28	0.02	
22-Oct-07	44	17	0.01		44	24		
23-Oct-07	57	28			52	27		
24-Oct-07	57	33			61	20		
25-Oct-07	57	32			71	27		
26-Oct-07	59	34			75	29		
27-Oct-07	55	35			71	28		
28-Oct-07	58	36			64	33		
29-Oct-07	53	36			69	28		
30-Oct-07	53	37			68	41	T	
31-Oct-07	52	32			66	37		
1-Nov-07	54	29			60	20		
2-Nov-07	52	26			57	26		
3-Nov-07	58	22			58	22		
4-Nov-07	54	27			63	24		
5-Nov-07	55	30			67	23		
6-Nov-07	57	33			68	30		
7-Nov-07	60	32			69	29		
8-Nov-07	61	33			69	31		
9-Nov-07	53	33			65	36		
10-Nov-07	55	36			68	38		

CMK:KB	----------SUFCO----------				----------Levan----------			
	--Temp--		----Pptn----		--Temp--		-----Pptn-----	
DD/MM/YY	Max	Min	Moist.	Snow	Max	Min	Moist.	Snow
11-Nov-07	53	31			61	33		
12-Nov-07	49	31			54	32		
13-Nov-07	58	31			65	29		
14-Nov-07	47	23	0.02		67	28		
15-Nov-07	56	30			53	22		
16-Nov-07	56	33			64	31		
17-Nov-07	60	31			65	36		
18-Nov-07	61	31			69	31		
19-Nov-07	50	33			69	35		
20-Nov-07	49	31			71	26		
21-Nov-07	37	10			50	16		
22-Nov-07	29	10			36	12		
23-Nov-07	31	15			40	16		
24-Nov-07	38	9			45	8		
25-Nov-07	39	15			47	11		
26-Nov-07	41	25			47	22	T	
27-Nov-07	48	14			53	20		
28-Nov-07	45	16	0.02		47	15		
29-Nov-07	31	10			41	16		
30-Nov-07	32	16			43	21	1.00	6
1-Dec-07	37	24	0.50	6				
2-Dec-07	27	16	0.08	2				
3-Dec-07	29	11						
4-Dec-07	54	24						
5-Dec-07	51	28						
6-Dec-07	46	32						
7-Dec-07	37	28						
8-Dec-07	33	21						
9-Dec-07	26	15	0.91	12				
10-Dec-07	27	8	0.03	1				
11-Dec-07	22	15						
12-Dec-07	27	7						
13-Dec-07	23	6						
14-Dec-07	19	12						
15-Dec-07	18	2						
16-Dec-07	16	3						
17-Dec-07	22	4						
18-Dec-07	22	9						
19-Dec-07	32	19	0.09	2				
20-Dec-07	32	15						
21-Dec-07	27	10	0.12	2				
22-Dec-07	24	7						
23-Dec-07	28	13						
24-Dec-07	28	21						
25-Dec-07	27	10	0.07	2				

CMK:KB

	----------SUFCO----------				----------Levan----------			
	--Temp--		----Pptn----		--Temp--		-----Pptn-----	
DD/MM/YY	Max	Min	Moist.	Snow	Max	Min	Moist.	Snow
26-Dec-07	20	0						
27-Dec-07	16	5	0.01	0.5				
28-Dec-07	14	-2						
29-Dec-07	25	7	0.01	0.5				
30-Dec-07	32	22						
31-Dec-07	27	8	0.20	3				
			7.60				**10.16**	

2007 SUBSIDENCE REPORT

CANYON FUEL COMPANY, LLC

SUFCO MINE

by

Keith B. Bigelow P.L.S.

INTRODUCTION

Canyon Fuel Company LLC, SUFCO Mine's 2007 subsidence report is an update of annual subsidence data that has been accumulated since 1976 as the former Southern Utah Fuel Company. Prior to 1985, the data was derived from conventional survey methods. Since then, photogrammetric surveys have been employed to monitor the ground movement.

During 1985, the entire SUFCO Mine property was flown to establish a set of baseline photography and a grid of surface elevations. Where possible, an elevation was photogrammetrically determined on an approximate 200-foot grid. These original x, y and z locations serve as a comparative base for determining ground movement in the succeeding years. Other lease holdings that are acquired are flown for similar baseline information. Lease U-63214 was flown in 1991 and the 150-acre modification to lease U-63214 and lease UTU-76195 were flown in 1999. Lease ML 49443-OBA was flown in 2006.

Once each year around the end of August, another set of aerial photography is obtained. A new elevation is then found at the same x and y coordinates as all the originals within all areas considered to be active. The new, or current, elevations are compared to the originals and the difference between the two is used to generate a contour map. The result is the subsidence contour map included with each annual subsidence report.

The mine subsidence map accompanying this report shows surface control monuments, overburden contours, subsidence contours, surface tension cracks, a current outline of the mine, a one year mining projection and other miscellaneous items as explained in the legend.

SUBSIDENCE HISTORY

SUFCO Mine began operations that cause surface subsidence in June 1976. Continuous miners were used to extract coal from pillars that were developed as part of a retreating panel. The panels were approximately 650 feet wide and varied in length up to 2,500 feet. The average mining height approached 11 feet and the extraction ratio averaged about 80%.

The resulting subsidence from these continuous miner panels averaged 4 feet in the plateau areas where overburden was 900 feet thick. In areas where panel boundaries were outside the escarpment and beyond the Castlegate Sandstone, subsidence increased with decreasing overburden thickness. The maximum subsidence measured to date, 8.5 feet, occurred in one of these areas. The overburden was only 600 feet thick.

Retreat mining continued in this manner until October, 1985, when a retreating longwall system was added. Longwall panels have ranged from 550 feet to 1,110 feet wide and up to 18,500 feet in length. Mining heights have varied from 8.5 feet to 12.5 feet.

Subsidence above the longwall panels has averaged 5 to 6 feet in the center of the panels. The overburden thickness has been from 1,000 feet to 1,800 feet (except outside the escarpment where overburden rapidly decreases). The maximum measured subsidence caused by longwall mining until 2007 was seven feet. This occurred in two cases; 1. An area outside the escarpment very similar to the one mentioned above for the continuous miner panel and 2. Down the center of panels that are under plateaus with 1,000 feet of overburden, but this is not typical. In 2007 there was a small area on the north end of the last panel in area 12 that subsidence measured eight feet. This area has overburden of approximately 900 feet, and is relatively close to the escarpment.

DORMANT AND ACTIVE AREAS

Dormant areas are those areas that have shown no movement for several consecutive years. Yearly digitizing of these areas will not be done, but photographic coverage can be obtained in the event that a need should arise for reevaluation. These areas may not be shown on the current subsidence map.

Active areas are those currently being mined or that have evidence of movement within a reasonable time period. Active areas are digitized and evaluated for subsidence yearly, until they meet the parameters of a dormant area.

2007 SUBSIDENCE

The 2006 subsidence map (Map 1) was updated using data from current photogrammetric monitoring. Each subsidence area is labeled as an independent block. A brief description of each follows:

AREA 1

This was SUFCO Mine's first subsidence area. Undermining began in June 1976, and continued into 1979. The area is composed of five continuous miner panels that averaged 650 feet in width. Mining height averaged 11 feet with about an 80% extraction ratio.

Subsidence ranged from 4.5 feet to a maximum of 8.5 feet. It was first detected in 1976 and continued until 1985. No surface movement was detected in this entire area from 1986 to 1989. Area 1 has not been digitized since the 1990 subsidence report and is considered dormant.

AREA 2

This is another continuous miner area. The panels here were irregular shaped and the extraction ratio was modest. Undermining ceased in 1984.

Maximum subsidence has been measured at 2 feet. The area has been stable since 1985 and has not been monitored since 1989. This area is dormant.

AREA 3

This area is another continuous miner section, but the extracted area is a portion of mains with protective barriers instead of a panel. Coal recovery was moderate with mined areas which were subcritical. Undermining ceased in 1983.

Maximum subsidence was measured at 2 feet. Because of the limited extraction and subcritical areas, the subsidence occurred slowly with small changes noticeable until 1987. The area appeared stable in 1988 and 1989. It has not been monitored since 1989 and is considered dormant.

AREA 4

This subsidence area is comprised of three continuous miner panels. The mining height averaged 11 feet with a good extraction ratio. Undermining ceased in 1985.

Maximum subsidence was 5 feet with no detectable change in 1989. This area was monitored

again in 1993, 1994 and 1995 with no detectable changes. This area was monitored for ten years after undermining ceased. The last detectable subsidence was in 1988. Therefore, this area is considered dormant.

AREA 5

The four continuous miner panels that make up this area were mined from September 1978, to November 1981. Mining height averaged 11 feet with an 80% extraction ratio.

Maximum subsidence was 5 feet with no detectable changes from 1985 through 1991. This area has not been monitored since 1991, and will also remain dormant.

AREA 6

Area 6 is SUFCO Mine's first longwall induced subsidence area. It is comprised of nine longwall panels varying from 540 feet to 700 feet in width and 1,700 feet to 3,900 feet in length. Also, there is a section of recovered mains between two of the longwall blocks. Undermining began in Area 6 during October, 1985, and continued through the mains recovery in March, 1990.

Maximum subsidence measured in areas bounded by the plateau is five feet. There is a location on the map that shows seven feet; but this area is outside the escarpment where the overburden is only 600 feet thick. The subsided escarpment is intentional and is part of a study agreed upon by SUFCO Mine, the Division of Oil, Gas and Mining, the Bureau of Land Management and the U.S. Forest Service. This particular section of escarpment was removed from the "no subsidence zone" to study the effects of longwall mining on the escarpment.

Area 6 has shown no significant changes since 1992. It has been determined that this area is dormant.

AREA 7

Area 7 was originally planned for no subsidence. Pillars were made to support the overburden but began to fail in the north end in 1984 when the underground workings were flooded. The failure progressed towards the south and by 1986 subsidence was detected over the area.

The map shows up to seven feet of subsidence. There was no additional subsidence movement detected from 1988 to 1994. Therefore, this area will also be considered dormant.

AREA 8

Undermining this area began in June 1983, and was sporadic until 1992. Continuous miners were used with extraction ratios over 80% and average mining heights of 10 feet. This area stayed active longer than most due to its proximity to an adjacent active longwall block.

Maximum subsidence is five feet. No noticeable vertical movement has been detected since 1993. This area is dormant.

AREA 9

This area is a longwall mining area that is composed of four panels. The first began in June 1989 and the block was finished in January 1992. The mining height averaged about 11 feet and the maximum subsidence is five feet. There has been no indication of movement since 1996. This area is determined to be dormant.

AREA 10

Area ten is a longwall mining block that began in January 1992. Mining was completed in August 2001. The entire surface area above this block was digitized for base-line elevations during 1991. Maximum subsidence shown to date is seven feet. This area has been mined out since 2001, and monitoring suggests that it has settled. It is now assumed to be dormant.

The experimental mining practice area discussed under "Area 6" was extended, with regulatory approval, to the east side of the canyon under the Southwest corner of "Area 10". An extensive pre-mining survey of this location was conducted late in 1992. A detailed survey of the post-mining subsidence effects was provided in the 1993 report.

AREA 11

Area eleven is an extension of the last longwall panel in Area ten. It extends into a 150-acre modification to lease U-63214. An elevation baseline was established in 1999. Mining under this area began in January 1999 with gateroad development. Longwall mining took place from May 2000 thru September 2000. Subsidence to date shows a maximum of six feet. This area has shown no significant movement in the last few years so will be considered dormant.

AREA 12

Area twelve is the first longwall mining block on the acquired lease UTU-76195. Due to a mine plan change at the start of 2003, this area now consists of six longwall panels. An elevation baseline was established in 1999. Gateroad development began in March 2000. Longwall mining began in September 2001 and ended in February 2007. This area is active and being monitored.

AREA 13

Area thirteen is a longwall mining block consisting of seven panels on lease U-63214 and lease ML 49443-OBA. An elevation baseline for the area included on lease U-63214 was established in 1991 and the elevation baseline for the area included on lease ML 49443-OBA was established in 2006. Longwall mining began in March 2007 and will continue until 2011. This area was considered active in 2007 and will continue to be monitored for several years.

DRAW ANGLE SURVEYS

Several draw angle surveys have been performed during the past years. Completed surveys have been over continuous miner areas and have been oriented both parallel and perpendicular to the long axis of the panel. The average of all measurements is 15°. Individual measurements ranged from 10° to 21°.

New longwall draw angle data was obtained in 1995. Draw angle points were installed in May 1986, on the southern end of the first panel in "Area 6". As shown on the subsidence map, survey lines were placed parallel and perpendicular to the axis of the panel. Undermining of this panel was completed in June 1986. Measurements were taken in 1995 and indicate an angle 15.25° for the perpendicular line. An angle for the parallel line was not obtained because the mains underlying the survey line were partially extracted. These findings coincide with the average of 15° as stated above.

SUBSIDENCE TENSION CRACKS

Tension cracks have occurred above most of the subsidence areas. Most have been located by survey and are shown on the map. Their lengths vary from a few feet to a couple thousand feet. Most are oriented either parallel to the natural jointing pattern or to the boundaries of the underground excavation. Vertical displacement along the cracks is uncommon and horizontal displacement varies from hairline to several inches in width depending on the surface topography (rock, hard packed or loose soil).

The U. S. Forest Service completed a tension crack study in 1978. They monitored twenty-two different cracks (located in Area 1) with widths varying from 1/8 inch to six inches. Results show that most cracks self-heal, or close, from 13% to 100% of their original width.

Longwall mining at the top of the 13L4E longwall panel caused some cracking in the escarpment sandstone of upper Box Canyon. The panel was mined parallel and down the center of a portion of the canyon. Subsidence thus created an inward pull on the canyon walls. These cracks are in the rock along the edge of the escarpment and vary in width and displacement. A monitoring program was initiated in 2004 to observe the behavior of these cracks. A chart of this data is included at the end of this report. These cracks were scheduled to be checked again in 2007, but due to time constraints additional data was not gathered. The cracks are scheduled to be checked again in 2008 and an updated chart will be included in the 2008 subsidence report.

DETAILED LONGWALL SUBSIDENCE PROFILE

In 1998 a project was initiated to monitor longwall subsidence in relation to the advancing face. Preparation consisted of first installing two monitoring points outside the subsidence area. Then two base lines were established one 3000 feet long running parallel down the center and the second 1300 feet long perpendicular across the 967 feet wide panel. Markers were installed along these lines on 100 feet spacing using approximately 2.5 feet long rebar with an aluminum cap or a hardened nail drilled into the exposed rock. Initial horizontal and vertical readings were obtained by shooting each marker with a Topcon GTS-3 distance meter from the monitoring points.

Monitoring was done weekly to gather new readings on markers behind and up to 500 feet ahead of the advancing face. The data collected reveals that vertical movement starts approximately 150 feet ahead of the face with 15 hundredths of a foot of subsidence at the face. It then drops off quickly to 4 feet at 600 feet behind the face and gradually levels off at 4 to 5 feet. Horizontal readings indicate the ground initially moves about 30 hundredths of a foot away from the face, then back toward the face 80 hundredths of a foot.

CONCLUSION

Areas 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11 are all considered to be dormant. Photographic coverage can be obtained if circumstances deem it necessary. There was active longwall mining in Area 12 until February of 2007 causing subsidence. Yearly monitoring of Area 12 will continue until it has been determined that subsidence has ceased. The baseline elevations for the new longwall panels on lease ML 49443-OBA in Area 13 were established in 2006. Longwall mining in this area began in March 2007. Subsidence monitoring in this area was started in 2007 and will continue for several years. The monitoring of the subsidence cracks in the escarpment along upper Box Canyon will continue.

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BOX CANYON ESCARPMENT CRACKS

CRACK STATION SUFCO	WIDTH OF CRACKS	DROP OF CRACKS	X	Y	Z
BCE Crack 01 Sta 01			120843.93	131055.41	8369.66
AUGUST 2004	1.0'	0.50'			
SEPTEMBER 2005	1.05'	0.30'			
MAY 2008	0.95'	0.30'			
BCE Crack 01 Sta 02			120864.47	130972.33	8369.48
AUGUST 2004	1.7'	0.48'			
SEPTEMBER 2005	1.9'	0.50'			
MAY 2008	1.6'	0.50'			
BCE Crack 01 Sta 03			120903.89	130796.70	8370.63
AUGUST 2004	0.47'	0.35'			
SEPTEMBER 2005	0.47'	0.37'			
MAY 2008	0.47'	0.46'			
BCE Crack 02 Sta 01			121016.97	130673.02	8376.34
AUGUST 2004	0.08'	0.0'			
SEPTEMBER 2005	0.07'	0.0'			
MAY 2008	0.07'	0.0'			
BCE Crack 02 Sta 02			121024.30	130591.32	8373.91
AUGUST 2004	0.09'	0.0'			
SEPTEMBER 2005	0.07'	0.0'			
MAY 2008	0.06'	0.0'			
BCE Crack 03 Sta 01			120931.85	130817.12	8371.88
AUGUST 2004	0.33'	0.0'			
SEPTEMBER 2005	0.32'	0.0'			
MAY 2008	0.33'	0.0'			
BCE Crack 03 Sta 02			120940.62	130713.78	8373.38
AUGUST 2004	1.17'	0.01'			
SEPTEMBER 2005	1.15'	0.03'			
MAY 2008	0.71'	0.03'			
BCE Crack 03 Sta 03			120941.99	130593.20	8370.72
AUGUST 2004					
SEPTEMBER 2005	0.5'	0.3'			
MAY 2008	0.32'	0.24'			
BCE Crack 04 Sta 01			120291.04	131471.84	8366.01
AUGUST 2004	0.08'	0.03'			
SEPTEMBER 2005	0.08'	0.03'			
MAY 2008	0.07'	0.03'			
BCE Crack 04 Sta 02			120110.25	131468.03	8358.60
AUGUST 2004	0.04'	0.0'			
SEPTEMBER 2005	0.04'	0.0'			
MAY 2008	0.04'	0.0'			

PINES TRACT VEGETATION STUDY

For
CANYON FUEL COMPANY, LLC
SUFCO MINE

Prepared by
Keith W. Zobell
8684 South 400 West
Spanish Fork, Utah 84660
Phone (801) 798-8926

August 10, 2007

PINES TRACT VEGETATION STUDY

Prepared by
Keith W. Zobell, Environmental Specialist
August 10, 2007

The purpose of the "Pines Tract Vegetation Study" continues to be to determine if the under-mining of the coal reserves of the "Pine Tract" has had any affect on the "Link Canyon Trail Columbine (*Aquiligia flavenscens var. rubicunda)*" and the riparian area within the Pines Tract coal lease.

On July 18, 2007 the Pine Tract Area was visited by Keith W. Zobell (Environmental Specialist) and Mike Davis (Mining Engineer) for Canyon Fuel Company, SUFCO Mine. The purpose of the trip was to 1) revisit all of the original photographic points that have been established 2) to retake photographs at each of the sites, and 3) to determine the general vegetation growth, plant vigor and plant condition at each of the established photographic sites. These sites are revisited each year at approximately the same date each year so as to reduce any possible seasonal variations. Photographs of each site are identified and included with this report.

The weather records at the SUFCO Mine site showed that approximately 58% of the normal moisture had been received through the end of July 2007, for this moisture year. Over half of this moisture was received during October 2006, with only small amounts being recorded during the spring and summer months. This below normal moisture has had a significant influence on the overall growth and vigor of the vegetation on the area. The overall growth is only fair and not as good as last year. The stream in Box Canyon continues to be basically dry above monitoring station 090. There are some short stream sections of intermittent flows above station 090 up to Pines monitoring stations "Pines 219", with the stream being completely dry above this station. The small pond at the "Grotto Area" continues to be dry, however there is some small areas of dripping water on the cliff faces just above the pond area. The spring at station "Pines 105" and photographic point No. 10 continues to be dry, however, the riparian area in the area is green and growing which indicates that the moisture is available to these plants. The Pines Tract grazing unit was not grazed this spring, even so the overall vigor is only fair. The plant growth and vigor can be attributed to the lack of moisture that the area has received this spring and summer.

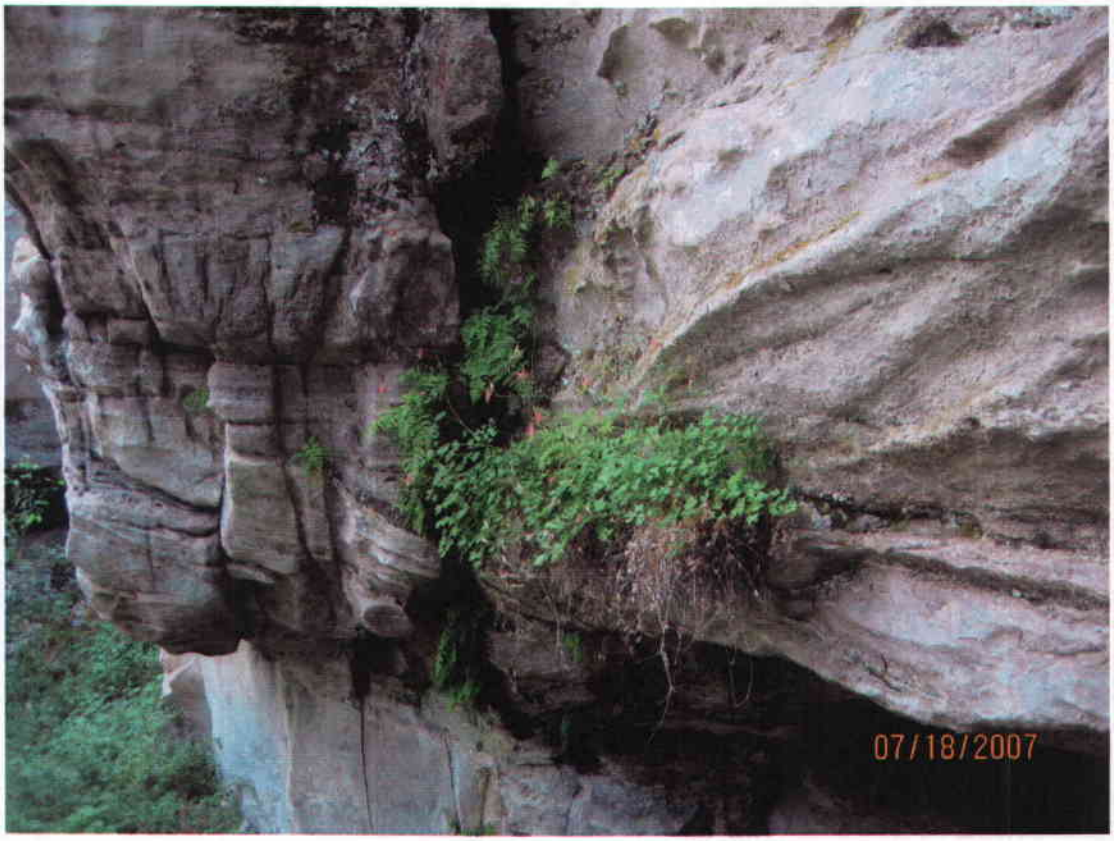


Photo Point 1a

At photo point 1a there is still one plant growing. It has a few inflorescences that are 18-24 inches in length. There are fewer inflorescences than last year. The vigor is good.

Photo Point 1b

At photo point 1b there are two columbine plants. One plant appears to be dying while the other plant is healthy and has good vigor. Only the healthy plant has any inflorescence and it is approximately 24 inches in length, exact measurements cannot be made due to the location of the plants. These plants appear to be getting some moisture from the rock fractures that they are growing in.

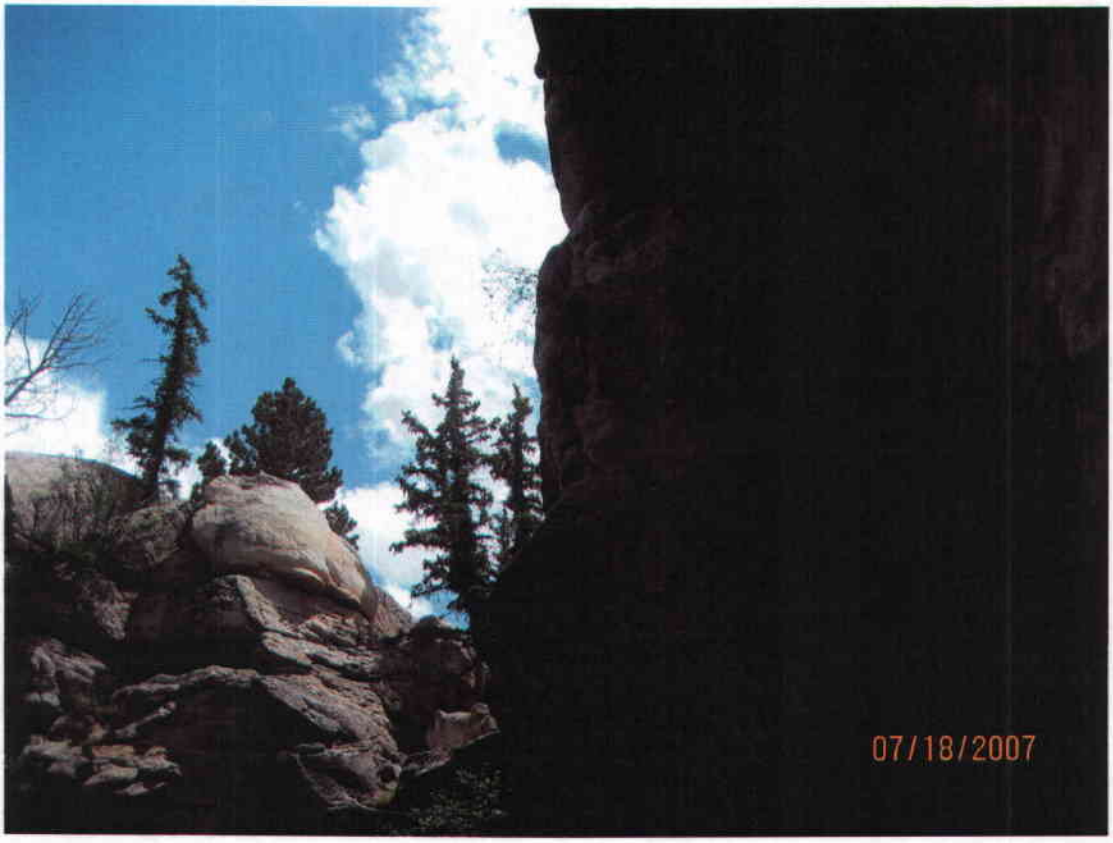


Photo Point 1c

At photo point 1c there is only one columbine plant and it is located approximately 20-25 feet up on the cliff face, so exact measurements cannot be made. It appears that there is still only one plant at this site. The columbine plant only has one inflorescence that is approximately 18 inches in length. The plant appears to be in good vigor. This plant is probably also getting some moisture from the rock fracture that it is growing in. Due to the location of this plant and the position of the sun it is difficult to get a good picture of this site.

Photo Point 2

At photographic point 2 the columbine plants are located approximately 20-25 feet up on the cliff face, so exact measurements can't be made. There appears to be three plants at the site, one that is dead, one that is dying and one that is in fair vigor. The inflorescence on the living plant appears to be sparse and 10-12 inches long.

Photo Point 3

At photographic point 3 there are two columbine plants, one small immature plant and one mature plant. The mature plant has an 18 inch inflorescence and most of the flowers have set seed. There is no inflorescence on the immature plant. The vigor of both plants is considered fair.

Photo Point 4

At photographic point 4 there are several columbine plants. Most of the plants have no inflorescence. There are two columbine plants with inflorescence that are 8-10 inches high and have poor vigor. The *Carex* plants have a basal growth of 2-3 inches with no seed heads. Woods Rose has new twig growth of 1-2 inches and no flowers or seed heads. Aspen has a new twig growth of 2-3 inches. There is one Potentilla plant and it has new growth of 4-6 inches. This is a very dry site and all of the plants are showing low vigor which is probably due to the lack of moisture. The site has not been grazed.

Photo Point 5

At photographic point 5 there are three columbine plants. All plants are in bloom and have set some seed. One plant has an inflorescence of 12 inches, one plant has an inflorescence of 18 inches and the third plant has an inflorescence of 24 inches. The Bluegrass has set seed with a few seed heads 12-16 inches high. The basal growth of the bluegrass is 4-6 inches and is going dormant. The Hairgrass is dormant with no new growth this year. Carex has no seed heads with a basal growth of 6-8 inches. Yarrow is in bloom and is 12-16 inches high. There is no water in the creek drainage. The site is dry and has not been grazed this year. Overall vigor is considered fair.

Photo Point 6

At photographic point 6 the site is dry and has not been grazed this year. Aspen has a new twig growth of 12-18 inches. Wood Rose has 4-6 inches of new twig growth but has no blooms and no seed heads. Yarrow is in bloom and is 12-14 inches high. Bluegrass has 4-6 inches of basal growth with seed heads on approximately 30% of the plants. The bluegrass density is low. The Herbaceous Sage is 10-12 inches high and is just coming into bloom. Carex has new basal growth of 4-6 inches and approximately 50% of the plants have gone dormant. Wiregrass is 10-12 inches high with very few plants on the site. Ocular estimate show the site to have 25-30% bare ground. The overall vigor of the site is low fair to poor. At the wet riparian site along the edge of the creek channel the Carex is 12-14 inches high with good vigor. There is no water in the creek channel.

Photo Point 7

At photographic point 7 there are still no columbine plants. The site has not been grazed and there is no water in the creek bed. The Geranium plant is in bloom and has an inflorescence of 11 inches high. Yarrow has a basal growth of 2-3 inches with very few seed heads that are 5-6 inches high. Carex has a basal growth of 5-6 inches with no seed heads. There are a few Horsetail plants that are 1-2 inches high. There are a few bluegrass plants with 10-12 inch seed heads. Bluegrass density is very low. Ocular estimates indicate the site to have 80-85 % bare ground. Overall plant vigor is poor.

Photo Point 8

Photographic point 8 is a hanging fern area located in the Grotto area. The ferns and the lichens receive moisture coming from the fractures in the cliff face. It does not appear to be as much moisture as last year. The ferns are not as dense as last year and have a current growth of 4-8 inches. There are very few new small ferns or lichens. There are some dead ferns.

Photo Point 9a

Photographic point 9a is located in the Grotto Area and there is moisture coming from the fractures in the cliff face. The ledge is covered with lichens. The ferns have a current growth of 4-6 inches.

Photo Point 9b

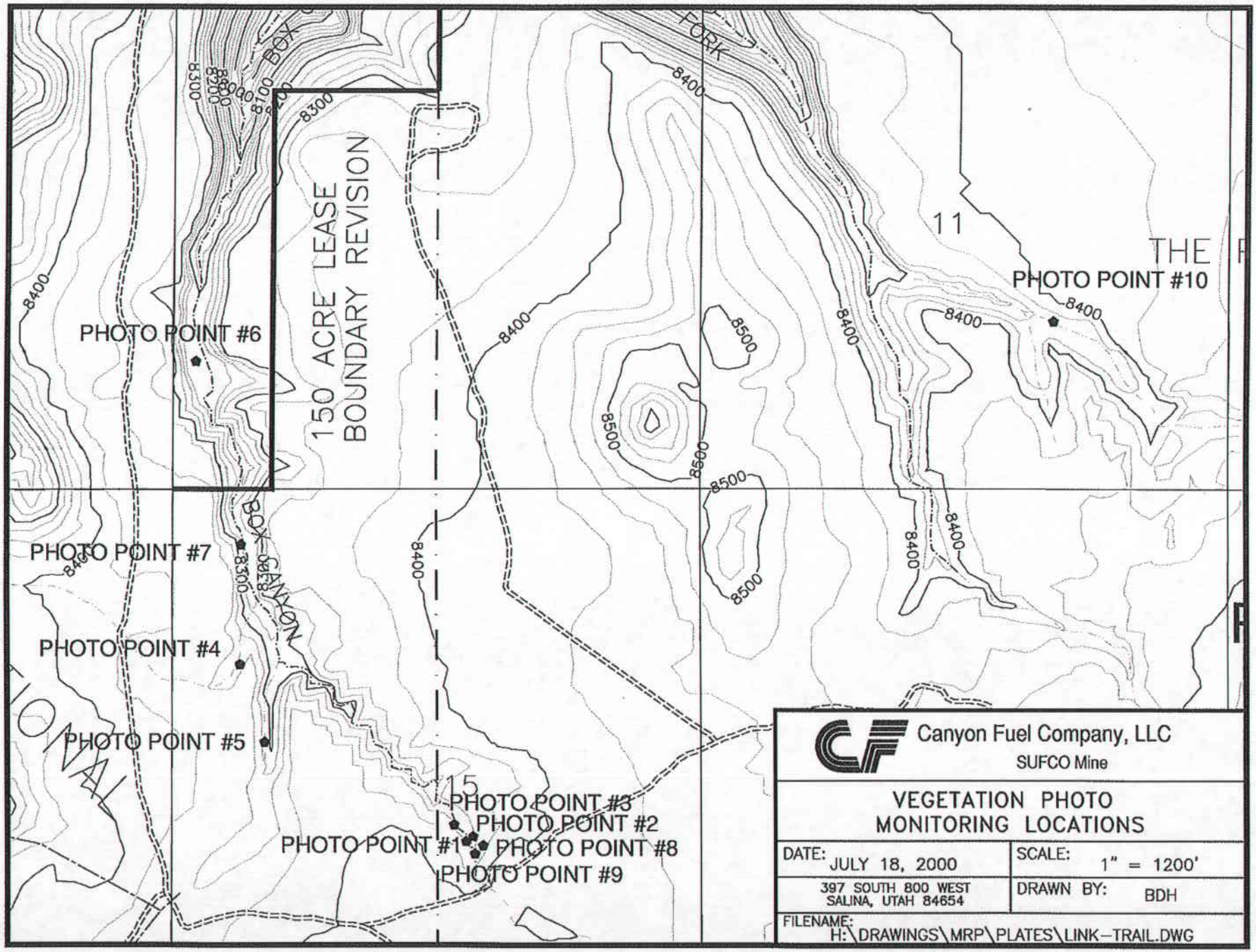
Photographic point 9b is also located in the Grotto Area. There is moisture coming from the fractures in the cliff face. There is good lichen growth and good density of ferns but somewhat less than last year. The current growth of the ferns is 4-6 inches.

Photo Point 10

Photographic point 10 was originally a dry meadow site but it is becoming a dry sagebrush/grassland site. The site has not been grazed this year. The Aspen has a new growth of 6-8 inches. Woods Rose has a new twig growth of 1-2 inches with no flowers or seed heads. The sagebrush has a new twig growth of 4-6 inches. The sparse scattered wiregrass plants are 8-10 inches high with no seed heads. All of the grass species have gone dormant and have no current growth. Ocular estimate show the site to have 50-60% bare ground. Overall vigor at this site is poor.

Riparian Area adjacent to Photo Point 10

The riparian area adjacent to Photo Point 10 is growing good with the Carex plants 12-14 inches high with good density and good vigor. Although the surface moisture has stopped the condition of the plants indicate that there is good sub-surface moisture available to these plants.



Canyon Fuel Company, LLC
SUFCO Mine

VEGETATION PHOTO MONITORING LOCATIONS

DATE: JULY 18, 2000	SCALE: 1" = 1200'
397 SOUTH 800 WEST SALINA, UTAH 84654	DRAWN BY: BDH
FILENAME: H:\DRAWINGS\MRP\PLATES\LINK-TRAIL.DWG	

LINK CANYON MINE PORTAL VEGETATION STUDY

For
CANYON FUEL COMPANY, LLC
SUFCO MINE

Prepared by
Keith W. Zobell
8684 South 400 West
Spanish Fork, Utah 84660
Phone (801) 798-8926

June 30, 2007

LINK CANYON MINE PORTAL
VEGETATION STUDY

Prepared by
Keith W. Zobell, Environmental Specialist
June 30, 2007

Photographs were retaken at the Link Canyon Mine Portal area on June 26, 2007. The area has only received 0.99 inches of moisture during this quarter. This compares with 1.35 inches of moisture during the same period in 2006. The area has received 57% of the normal moisture so far during this moisture year and the majority of this moisture came during the month of October 2006. Due to the lack of moisture this spring much of the ground cover vegetation has gone into dormancy.

Link Canyon West Portal Photo Point

There is no water discharge from this portal and there is no evidence that there has been any. The Willow (*Salix spp.*) has bloomed. There are insects galls on all most of the

seed heads. The Willow has 2-4 inches of new growth. Woods Rose (*Rosa woodsii*) has bloomed but did not set any seed. It has 2-3 inches of new growth. Bluegrass (*Poa pratensis*) has all gone into dormancy and produced no seed heads or growth this year. Density is low. The density of wiregrass (*Juncus balticus*) is low. The new growth on the wire grass is 10-12 inches with very few seed heads. Clematis (*Clematis liqusticifolia*) has fair growth. The Squawbush (*Rhus aromatica var. trilobata*) has flowered and set some seed, and has new growth of 2-5 inches twig growth. The overall growth and vigor at this portal is down from last year.

Link Canyon East Portal Photo Point

There is no water discharge from this portal and no evidence that there has been any. Due to the dry condition of the site much of the ground vegetation has gone into dormancy. The Dogwood bush (*Cornus stolonifera*) continues to have additional die back. It shows no indication of having bloomed. It has 2-3 inches of new twig growth, and the vigor is considered poor to fair. The Clematis has fair growth and vigor. The gooseberry plant (*Ribies spp.*) has 4-6 inches of new growth. On the lower part of the site the Wiregrass has gone into dormancy while there is some growth on the upper part of the site with 8-10 inches of new growth with very few seed heads. The overall vigor

of the wiregrass is poor. The bluegrass has gone into dormancy and therefore has no new growth or seed heads. The willows are in bloom and have no insect galls at this time. The new growth is 6-10 inches. The Rabbitbrush (*Chrysothamnus nauseosus*) has 4-6 inches of new growth. There continues to be deadwood at the base of the plants.

Overall both portal sites continue to be very dry and in a downward trend.

LINK CANYON MINE PORTAL VEGETATIVE STUDY

For
CANYON FUEL COMPANY, LLC
SUFCO MINE

Prepared by
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Phone (801) 798-8926

September 20, 2007

LINK CANYON MINE PORTAL
VEGETATIVE STUDY

Prepared by
Keith W. Zobell, Environmental Specialist
September 20, 2007

Photographs were retaken at the Link Canyon Mine Portal area on September 10, 2007. The area has received very little moisture this summer. Overall the density and vigor of the vegetation appears to continue to be on a downward trend.

Link Canyon West Portal Photo Point

None of the plants have any additional growth since the last photographs were taken in June 2007. The insect galls that were present on the Salix earlier this year are all gone. All of the ground vegetation is dormant and shows no evidence of growth this year. There are no seeds present on the Woods Rose, Squaw Bush or Clematis plants. The site continues to be very dry and overall condition appears to continue to be downward. There is no water discharge from this portal.

Link Canyon East Portal Photo Point

There is no additional growth on any of the plants since the photographs were taken in June 2007. The ground vegetation is basically dormant, with all the grass species, and forbs totally dormant and the Juncus being approximately 80% dormant. There is no seed on the Dogwood, or Clematis plants. Most of the current years new growth on the Dogwood has died. The Clematis still has good vigor. The Rabbitbrush is in full bloom. The site continues to be very dry and in an apparent downward trend. There is no water being discharged from this portal.

LINK CANYON MINE PORTAL VEGETATIVE STUDY

For
CANYON FUEL COMPANY, LLC
SUFCO MINE

Prepared by
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Phone (801) 798-8926

November 12, 2007

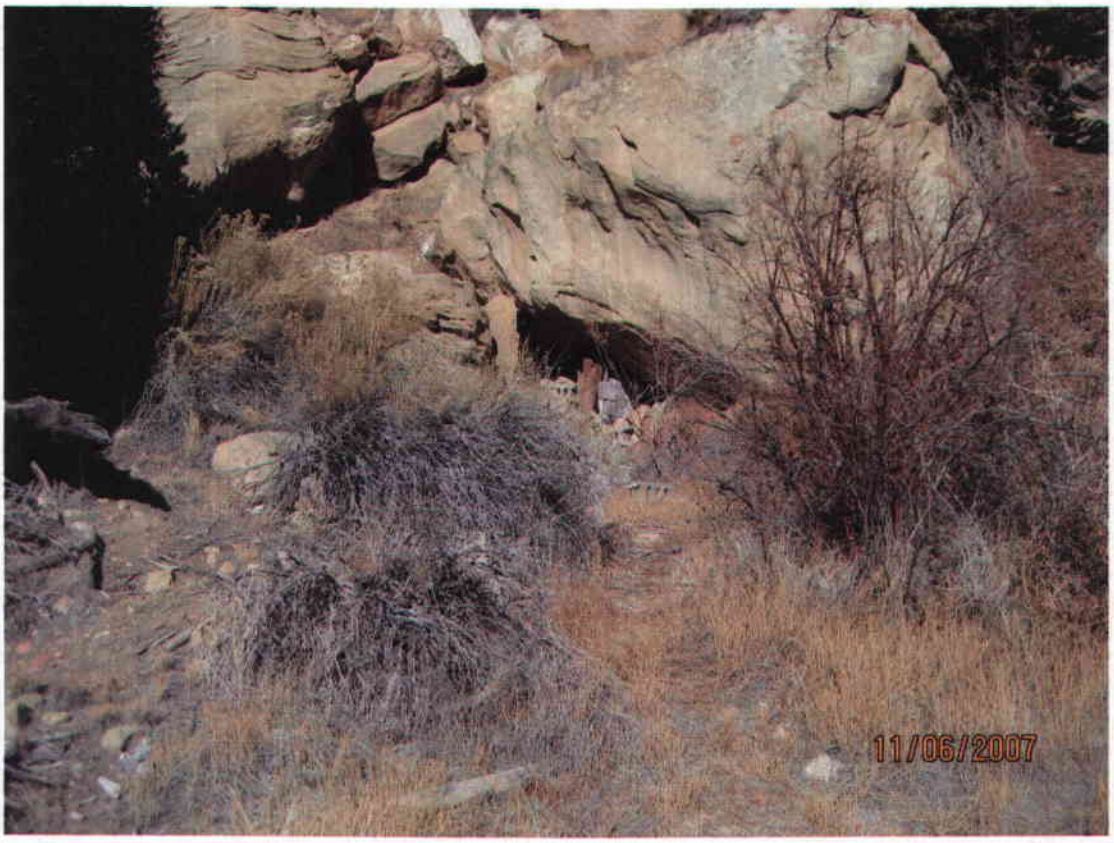
Link Canyon Mine Portal
Vegetative Study

Prepared by
Keith W. Zobell, Environmental Specialist
November 12, 2007

Photographs were retaken at the Link Canyon Mine Portal area on November 6, 2007. There has been no new growth since the last set of photographs were taken in September 2007. This is mainly due to the end of the growing season and the freezing nights that have been occurring for the past several weeks at the site.

Link Canyon West Portal Photo Point

The site is completely dormant and almost all of the leaves have been shed. The site continues to be very dry. The area only received 77 percent of normal moisture for 2006/2007 water year and only .66 inches of moisture during the month of October 2007. There is not water being discharged from this portal. Some of the current years growth appears to be dead. This cannot be verified until next spring.



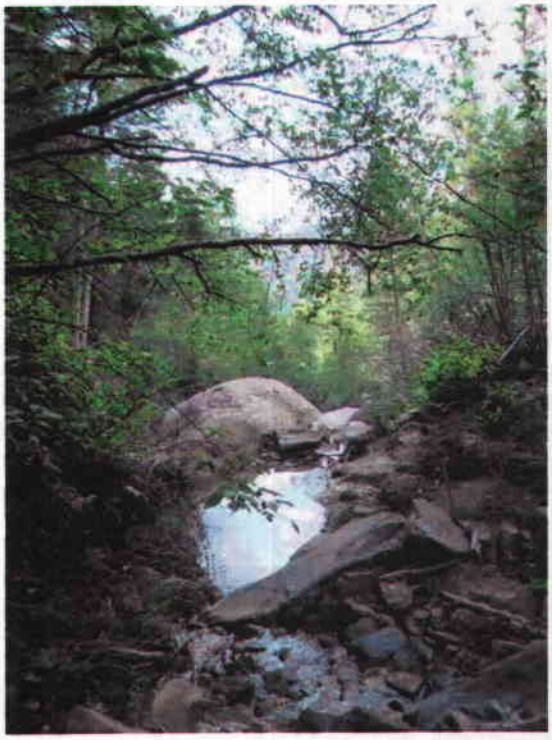
Link Canyon East Portal Area

This site is also completely dormant. The Rabbitbrush has some sparse seed heads present. None of the other species have any seed. There is no water being discharged from this portal. The site is in a downward trend.

Waste Rock Disposal Site Material Analyses

Year	Quarter	Lab	Lab ID	pH	Saturation	EC @ 25° C	Calcium	Magnesium	Sodium	SAR	Total Sulfur	T.S. AB	Neutral. Pot.	T.S. ABP	Boron	Selenium	Alkalinity PE
				s.u.	%	dS/m	meq/L	meq/L	meq/L		%	t/1000t	t/1000t	t/1000t	ppm	ppm	meq/L
2000	1	Int	0100S20484	7.0	49.6	3.96	23.50	14.70	8.69	1.99	0.32	10.00	78.2	68.2	7.73	0.02	1.57
2000	2	Int	0100S20485	7.2	47.5	1.02	2.65	3.19	4.11	2.41	0.38	11.90	52.9	41	5.37	0.02	2.82
2000	3	Int	0100S20486	6.9	55.5	3.82	21.10	8.81	11.50	2.98	0.41	12.80	52.4	39.6	4.95	0.02	2.16
2000	4	Int	0100S20487	7.2	47.8	1.36	3.06	3.61	6.38	3.49	0.43	13.40	50.4	36.9	4.43	0.02	3.38
2001	1	Int	0101S09020	7.3	45.1	4.50	28.10	15.70	14.20	3.03	0.54	16.90	92.1	75.2	6.84	< 0.02	1.44
2001	2	Int	0101S11636	7.3	50.9	3.78	14.50	13.40	15.40	4.12	0.48	15.00	39.3	24.3	8.45	< 0.02	2.33
2001	3	Int	0101S19152	7.0	40.2	9.19	39.20	27.10	35.30	6.14	0.44	13.70	89.8	76.1	5.28	< 0.02	2.11
2001	4	Int	0101S23729	6.8	52.2	4.35	28.60	12.80	10.70	2.35	0.50	15.60	56.2	40.6	6.54	0.02	2.08
2002	1	Int	0102S06276	6.9	39.7	12.40	43.70	32.10	60.80	9.87	0.43	13.40	91.2	77.8	5.28	< 0.02	2.31
2002	2	Int	0102S12107	7.2	43.6	8.64	38.90	22.90	38.10	6.85	0.45	14.10	83.5	69.5	5.53	< 0.02	2.83
2002	3	Int	0102S19293	7.4	46.8	4.27	26.00	22.00	8.61	1.76	0.79	24.70	56.6	32.0	7.61	0.04	1.81
2002	4	Int	0102S24366	7.0	35.2	8.22	34.90	36.90	23.00	3.84	0.62	19.40	104.0	84.2	5.26	0.02	2.25
2003	1	Int	0103S02028	7.4	51.5	4.80	15.40	8.75	21.30	6.12	0.41	12.80	50.2	37.4	2.66	< 0.02	1.79
2003	2	Int	0103S07189	7.1	39.6	12.80	36.70	31.40	80.00	13.70	0.59	18.40	108.0	89.9	7.39	0.02	1.06
2003	3	Int	0103S14524	7.2	53.3	2.43	14.60	7.84	8.45	2.53	0.57	17.80	44.2	26.4	6.03	< 0.02	1.94
2003	4	Int	0103S19355	7.4	51.9	9.42	16.60	10.10	63.10	17.30	0.51	15.90	48.0	32.1	7.55	< 0.02	2.95
2004	1	Int	0104S03718a	7.4	60.5	4.14	5.08	2.22	27.10	14.20	0.37	11.60	26.9	15.4	4.08	< 0.02	2.93
2004	2	Int	0104S11683	7.3	44.2	8.38	31.30	21.10	39.30	7.67	0.48	15.00	41.1	26.1	13.30	0.04	3.47
2004	3	Int	0104S14234	6.8	41.8	19.80	44.80	25.50	145.00	24.50	0.28	8.75	146.0	137.0	5.74	< 0.02	3.33
2004	4	Int	0104S16558	7.1	47.5	6.21	35.50	13.00	21.40	4.35	0.40	12.50	61.5	49.0	7.56	0.02	3.06
2005	1	Int	0105S01676	7.2	44.0	17.80	45.60	29.90	127.00	20.70	0.41	12.80	144.0	131.0	5.18	< 0.02	2.18
2005	2	Int	0105S03977	7.5	61.9	2.05	7.44	4.47	7.17	2.94	0.27	8.43	156.0	147.0	2.96	< 0.02	1.85
2005	3	Int	0105S08168	5.9	55.6	5.47	35.40	29.20	8.22	1.45	0.50	15.60	92.7	77.1	5.27	0.04	7.47
2005	4	Int	0105S14664	6.9	41.5	7.99	40.30	23.60	40.20	7.11	0.39	12.20	129.0	116.0	7.16	0.02	1.45
2006	1	Int	S0603345-001	7.3	55.6	2.55	4.79	2.62	17.10	8.88	0.23	7.29	83.9	76.6	1.04	< 0.02	3.01
2006	2	Int	S0606464-001	7.2	47.1	8.45	26.80	33.40	39.00	7.11	0.62	19.30	87.9	68.7	8.71	0.03	3.97
2006	3	Int	S0609044-001	7.1	45.6	8.74	38.30	30.40	32.20	5.50	0.31	9.73	115.0	105.0	10.00	0.04	2.61
2006	4	Int	S0612385-001	6.9	76.3	12.50	19.10	10.80	78.90	20.40	0.34	10.60	67.4	56.7	0.96	< 0.02	2.38
2007	1	Int	S0703426-001	6.9	66.5	61.50	52.80	24.40	520.00	83.70	0.61	18.90	71.6	52.7	4.20	< 0.02	2.30
2007	2	Int	S0706194-001	7.3	46.5	17.90	38.10	29.70	78.70	13.50	0.35	10.90	127.0	116.0	4.07	0.04	1.67
2007	3	Int	S0709354-001	7.4	43.4	12.60	43.40	39.20	63.80	9.92	0.47	14.70	130.0	115.0	5.82	0.04	3.78
2007	4	Int	S0711304-001	7.5	42.5	3.68	9.00	7.63	19.30	6.68	0.44	13.70	64.7	51.0	2.56	< 0.02	3.18
2008	1	Int	S0803064-001	7.8	43.7	14.60	8.47	3.84	124.00	50.10	0.30	9.38	59.3	49.9	2.58	< 0.02	2.49
2008	2	Int															
2008	3	Int															
2008	4	Int															
Minimum				5.9	35.2	1.02	2.65	2.22	4.11	1.45	0.23	7.29	26.9	15.4	0.96	< 0.02	1.06
Maximum				7.8	76.3	61.50	52.80	39.20	520.00	83.70	0.79	24.70	156.0	147.0	13.30	0.04	7.47
Average				7.1	48.9	9.37	26.48	18.25	54.49	11.43	0.44	13.85	81.8	67.9	5.70	0.02	2.60

Report of Hydrologic Monitoring of the East Fork of Box Canyon Creek, 2007 Sufco Mine



5 June 2008

Canyon Fuel Company, LLC
Sufco Mine
Salina, Utah

PETERSEN HYDROLOGIC, LLC
CONSULTANTS IN HYDROGEOLOGY

Report of Hydrologic Monitoring of the East Fork of Box Canyon Creek, 2007 Sufco Mine

5 June 2008

Canyon Fuel Company, LLC
SUFCO Mine
Salina, Utah

Prepared by:

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Utah P.G. No. 5373615-2250

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Report of Hydrologic Monitoring of the East Fork of Box Canyon Creek, 2007

1.0 Introduction

Canyon Fuel Company's Sufco Mine is located in the southern Wasatch Plateau coal district, approximately 20 miles east of Salina, Utah. During late 2003, longwall mining in the 3 Left Pines East (3LPE) longwall panel commenced beneath a portion of the East Fork of Box Canyon Creek, a tributary to Box Canyon Creek (Figure 1). Beginning in mid-November 2003 and continuing through early January 2004, an approximately 2,000-foot reach of the East Fork stream drainage was undermined and subsided. During 2005, longwall mining in the 4LPE and 5LPE panels occurred beneath the upper reaches of the East Fork of Box Canyon drainage (Figure 1). During 2006 mining occurred in the 6LPE longwall panel, which is the easternmost Pines longwall mining panel (Figure 1). No longwall mining in the East Fork Drainage occurred during 2007.

In accordance with Sufco's approved mining plan for the undermining of the East Fork, Canyon Fuel Company committed to performing routine monitoring of discharge rates in potentially impacted stream reaches and springs. Canyon Fuel Company commissioned Petersen Hydrologic, LLC to perform this monitoring, commencing in October 2003. The results of the ongoing monitoring activities at the East Fork of Box Canyon through 2007 are

summarized in this report. During 2007, additional monitoring of springs and recently constructed piezometers in the North Water Canyon area (a tributary to the East Fork of Box Canyon) was performed. The results of hydrologic monitoring in the North Water Canyon area during 2007 have previously been submitted to the Utah Division of Oil, Gas and Mining (UDOGM, 2008, Petersen Hydrologic, 2007a, Petersen Hydrologic, 2007b).

Including this introduction, this report contains the following sections:

1. Introduction
2. Methods of Study
3. Presentation of Data
4. Overview of Hydrology of the East Fork
5. Discussion
6. References Cited

2.0 Methods of Study

- A site visit to the East Fork of Box Canyon was made on 22-23 September 2003 with representatives of the Utah Division of Oil, Gas, and Mining, the Manti La Sal National Forest, and Canyon Fuel Company. During this site visit, locations along the East Fork of Box Canyon Creek and at adjacent springs were selected for flow monitoring. The designated monitoring sites were labeled and marked in the field

with flagging and wooden stakes. At a later time, additional monitoring sites in the East Fork drainage were selected for periodic monitoring.

Additional monitoring data in the East Fork drainage were collected as part of Canyon Fuel Company's regular quarterly hydrologic monitoring program during 2007 (DOGM, 2008; Petersen Hydrologic, 2007a, Petersen Hydrologic, 2007b).

- During the period of monitoring (2003-2007) the East Fork of Box Canyon was accessed and individual monitoring sites were monitored at intervals specified in the approved monitoring plan. During the summer and early fall months, the canyon was accessed by vehicle. Where possible, during the late fall, winter, and spring months, the canyon was accessed using ATV's or snowmobiles. During certain times of the year, the canyon could not reasonably be accessed in a safe manner.

- Discharge rates in the East Fork of Box Canyon Creek and at springs were measured using a stopwatch and a calibrated container. The measurements were performed by diverting the stream or spring discharge through a plastic pipe and performing time-to-fill measurements using a suitable container. Time-to-fill measurements were repeated at a site until the discharge through the pipe had stabilized. Generally, after the discharge from the pipe had stabilized, at least three additional time-to-fill measurements were performed. The time-to-fill values measured after the discharge had stabilized were averaged and used to calculate the discharge rate. Where noted, in a few instances, such as where stream flow was partially obscured beneath ice,

discharge rates in the East Fork were estimated. Discharge at Pines 408 was measured using a 3-inch Parshall flume or a stopwatch and a calibrated container as appropriate.

- The monitoring stations were digitally photographed during monitoring events.

- The discharge data were compiled into electronic format and analyzed using graphical methods.

3.0 Presentation of Data

The locations of spring and stream monitoring stations in the East Fork drainage are shown on Figure 1. Also shown on Figure 1 are the locations of the 3, 4, 5, and 6 Left Pines East longwall panels in the East Fork area. Discharge measurements for the East Fork of Box Canyon Creek and nearby springs for the period 2003 - 2007 are presented in Table 1.

4.0 Overview of Hydrology of the East Fork of Box Canyon Drainage

The East Fork of Box Canyon is a small drainage that is tributary to Box Canyon Creek (Figure 1). Box Canyon Creek is tributary to Muddy Creek about 2 miles below the study area. Historically, discharge in the East Fork of Box Canyon Creek during the summer and fall months has ranged from about 8 to 22 gpm at the confluence with Box Canyon Creek (Utah Division of Oil, Gas and Mining, 2007, on-line hydrology database). During periods

of drought, lower flows were sometimes measured. Appreciably higher flows are common during the spring runoff season and during heavy precipitation events.

Historically, the upper extent of perennial discharge in the East Fork of Box Canyon Creek has typically occurred near monitoring site EFB-6 (Sufco quarterly monitoring site Pines 106). Historically, above station EFB-6, the drainage has usually been mostly dry with meager flows (<1 gpm; Table 1) or zones of channel dampness sometimes present in a few short, isolated locations. Below EFB-6, the discharge in the creek gradually increases downstream as a result of discharge from shallow groundwater systems. During 2007, perennial flow in the creek started about 50 feet below monitoring site EFB-6. Based on observations of the stream channel made since 1998, it is apparent that the stream does not gain appreciably below monitoring station EFB-11. Rather, it has been observed that surface-water discharge rates in the middle and lower reaches of the East Fork of Box Canyon (below subsided areas) are sometimes lower than those near EFB-11 located higher in the drainage. This is particularly true in the hot summer and early fall months. This condition is likely a result of evapotranspiration losses and groundwater-surface water interactions between the creek and adjacent alluvial sediments in the middle and lower reaches of the canyon. The effects of evapotranspiration in the creek in the reach between EFB-11 and Pines 408 were readily apparent during the warm summer months of 2007. During 2007, a few sections of the stream channel (a few to several tens of feet in length) between monitoring sites EFB-9 and EFB-10 did not contain flow at the surface.

It is noteworthy that climatic conditions in the region have varied substantially during the period of monitoring at the East Fork of Box Canyon (2003-2007). This is illustrated in a plot of the Palmer Hydrologic Drought Index (PHDI) for Utah Region 4 (Figure 2). The PHDI is a monthly numerical value generated by the National Climatic Data Center (NCDC) that indicates the severity of wet and dry spells. The PHDI is calculated from various hydrologic parameters including precipitation, temperature, evapotranspiration, soil water recharge, soil water loss, and runoff. Consequently, it is useful for evaluating the relationship between climatic conditions and groundwater discharge and potentiometric data. It is apparent in Figure 2 that the region was experiencing a mild to moderate drought during late 2003 and the first three quarters of 2004. Beginning in October of 2004 the region began a gradual transition into wetter climatic conditions. During 2005, the region experienced a continuous period of extreme wetness (Figure 2). During late 2005 the region began a gradual transition to the mild to moderate wetness conditions that persisted throughout 2006. Beginning in early 2007, the region transitioned to a period of drought that persisted through the end of the year (Figure 2).

5.0 Discussion

On 10 October 2003, prior to undermining in the East Fork drainage, the East Fork monitoring stations were monitored and inspected to document pre-mining conditions in the canyon. The East Fork of Box Canyon Creek was first undermined using full-extraction longwall mining techniques in the 3LPE panel starting in mid November 2003 (Figure 1). Undermining of the East Fork drainage in the 3LPE panel continued as mining progressed

southward until early January 2004. Undermining of the upper reaches of the East Fork of Box Canyon in the 4LPE longwall panel began in early 2005 and continued for several months. During November and December of 2005 the middle reaches of the North Water Canyon area were undermined in the 5LPE longwall panel. The last longwall panel in the Pines area (6LPE) was mined during 2006. Mining in the 6LPE panel occurred beneath the headwaters area of the main stem of the East Fork of Box Canyon drainage and in the North Water Canyon area (Figure 1).

It was noted that discharge in the East Fork increased appreciably shortly after the stream was first undermined in late 2003 with the 3LPE longwall panel (Table 1). A similar occurrence was observed at spring Pines 214 (Table 1; Figure 8). This condition was not unanticipated and was likely related to the compression (squeezing) of the aquifer matrix as the stress field associated with the progression of the longwall mining face moved through the area. The effects of this phenomenon are apparent in the hydrograph of stream discharge at monitoring station EFB-11 in Figure 3. It is apparent in Figure 3 that the discharge in the East Fork increased rapidly during November 2003 as mining progressed beneath the area, then declined rapidly during December 2003 and January 2004 as the longwall face passed beyond the region.

It was predicted prior to mining that tension fractures in the East Fork stream substrate would likely have small (less than ½-inch) apertures. Inspection of the stream substrate in 2003-2004, after subsidence related to mining of the 3LPE had occurred, confirmed that this was generally the case. However, it was observed that some buckling of thin- to medium-bedded

sandy and silty strata in the channel bottom occurred in the East Fork of Box Canyon Creek overlying longwall mined areas. In these areas, shallow voids were created in the shallow subsurface along opened bedding planes or occurring between the underlying competent strata and the overlying loose material.

Tension fractures in the East Fork stream channel overlying the 4LPE and 5LPE longwall panels were also observed to have small apertures (generally less than 0.5 inches across). Other than some moderate bedrock cracking/buckling of a short (~40-foot) section of the stream substrate immediately above monitoring station EFB-7, tension cracking of the stream channel overlying the 4LPE and 5LPE was relatively minor. Little or no cracking of the East Fork channel substrate overlying the 6LPE panel was observed. This is likely because the East Fork channel is developed mostly on alluvial sediments, which obscure the underlying bedrock in the 6LPE area.

Prior to mining in the East Fork, it was also anticipated that tension cracks in the stream channel would be "dead-end" openings that would not convey surface water out of the East Fork drainage or downward into the Sufco Mine. Based on discharge measurements performed in the East Fork during 2003 and 2004, it is apparent that no significant quantities of surface water were lost from the drainage as a result of longwall mining beneath the East Fork of Box Canyon Creek. Stream discharge data from the East Fork area measured during 2005, 2006, and 2007 continue to support that conclusion. It is apparent in the 2005 data that discharge in the creek increased appreciably in response to the wetter climatic conditions the region experienced during 2005. During 2006, discharge in the East Fork and nearby springs was somewhat less than that measured during 2005, which is attributable to the considerably

dryer climatic conditions the region experienced during 2006 (Figure 2). During 2007, discharge in the East Fork of Box Canyon Creek was less than that measured during the wetter previous years (Figure 2). This condition is likely a response to the continuous drought conditions the region experienced during 2007.

In Figure 4, the maximum discharge measured in the creek (station EFB-11, located near the middle of the 3LPE panel) is plotted against the maximum downstream discharge rate below the subsided area (stations EFB-11A, B, or C) for the period 2003 - 2007. It is apparent in Figure 4 that the quantity of water flowing out of the subsided area is similar to the maximum quantity measured upstream in the creek (at EFB-11). During the spring and summer months of 2004, the discharge at the downstream monitoring site was slightly less than that measured above, while in November of 2004 and during 2005 the discharge at the downstream site was greater than that measured above. During 2006 the flow in the stream below the subsidence area was generally similar to the maximum flows measured higher in the stream (Figure 4). During 2007, discharge measured downstream of the subsided area was somewhat lower (approximately 5 to 7 gpm less) that that measured at EFB-11 when monitored during the warm summer months of June and early September. This condition is likely attributable to losses to evapotranspiration during the warm and dry summer of 2007. When monitored during early November 2007, after cool temperatures began to dominate in the region and vegetation in the canyon became dormant, the discharge measured below the subsided area was approximately equal (about 1 gpm greater) to that measured at EFB-11. That the downstream flow in November 2007 equaled the upstream flow supports the conclusion that appreciable surface water was not lost in the canyon between these two sites

during 2007 (i.e. the discharge data are consistent with summertime evapotranspiration losses and are not consistent with the concept of interception by bedrock fractures, which would anticipate diversion of water from the drainage in both summer and fall). Increased flow rates in streams in the cool fall months relative to those measured during the hot summer months are commonly observed in streams elsewhere in the Sufco Mine permit area (UDOGM, 2008).

Additionally, discharge rates measured at the Sufco quarterly water monitoring station Pines 408 (Lower East Fork at confluence with the main fork of Box Canyon Creek; Figure 1) during 2005 and 2006 were generally similar to the maximum measured up-stream discharge in the creek (EFB-11; Figure 5). This strongly suggests that there was no appreciable or quantifiable loss of water from the East Fork drainage during 2005 and 2006. Discharge rates measured at Pines 408 during the warm summer months of June and early September 2007 were appreciably lower (by about 10 to 14 gpm) than those measured concurrently at EFB-11. This condition is likely a result of appreciable losses of surface water to evapotranspiration during the warm, dry summer months in the long, heavily vegetated reach of the drainage between EFB-11 and the confluence with the main fork of Box Canyon Creek. When the East Fork was monitored during early November 2007, after cool climatic conditions began to dominate in the region, and vegetation became dormant, evapotranspiration losses decreased dramatically. In response, the discharge measured at Pines 407 during November 2007 exceeded that measured upstream at EFB-11. The observations described above indicate that evapotranspiration losses during the warm summer months are likely responsible for most or all of the variability in discharge rates

observed seasonally in the East Fork between EFB-11 and the confluence with the main fork of Box Canyon Creek. Surface water evapotranspiration losses in creeks have been routinely observed by the author elsewhere in the Wasatch Plateau. There is no indication that significant mining-related impacts to stream discharge rates in this reach of the drainage have occurred.

The fact that groundwater contributions to stream baseflow have occurred consistently at the stream monitoring stations above EFB-11 subsequent to undermining suggests that stream flow was likewise not removed from the drainage in this area (i.e., the groundwater system is discharging water to the stream rather than receiving recharge from the stream). Based on this information, and the fact that the overall discharge in the creek was generally similar to that observed and measured in pre-mining years, there is no evidence to suggest that appreciable quantities of surface water have been removed from the East Fork drainage as a result of mining-related activities at the Sufco Mine.

It was observed during December 2003 that discharges from three springs located along the base of the Castlegate Sandstone cliff on the northeast hillside above the creek (EFB-12, EFB-13, and EFB-14) ceased. Decreases in discharge from spring Pines 214 were also measured during this time (Table 1). During baseflow conditions in October 2003, the combined flow from the springs was approximately 3.0 gpm (Table 1). Although it was considered unlikely, it had been predicted prior to mining that discharge from these springs could be diverted small distances down-gradient as a result of mining-induced cracking of bedrock near the springs. It is apparent that this phenomenon occurred at these springs.

Although discharge to the surface at these spring locations ceased, new groundwater discharge locations were observed near the stream channel a short distance below and downstream of the previous discharge locations at about the same time as discharge at the spring locations diminished. Some slumping of saturated colluvial sediments on the steep hillside adjacent to the creek where the new groundwater discharge locations were observed occurred shortly after the region was undermined. Continued discharge from the new spring locations and continuing saturation of the colluvial sediments near the stream bank was observed during 2007. This discharge occurs both as measurable discrete spring flow in several locations in this and other nearby locations and also as diffuse discharge to the saturated colluvial sediments on the hillside in the area. Although the total discharge from this system is not readily quantifiable, it does not seem unreasonable to conclude that the discharge is on the order of that previously discharging from springs EFB-12, EFB-13, and EFB-14.

An additional line of evidence suggesting that discharge from the groundwater system that previously supported springs EFB-12, EFB-13, and EFB-14 continues to flow into the East Fork drainage is shown in Figure 5. In Figure 6, discharge measurements from monitoring stations during six selected monitoring events are plotted together with their relative linear distance down the stream channel from EFB-1. Measurements are plotted for the pre-mining baseflow condition (10 October 03), the peak of mining-enhanced discharge in the creek (15 December 03), the early summer of 2004 after a minimal runoff season (25 June 2004), late-season baseflow conditions after repairs to the stream channel (discussed later) had been performed (2 November 2004), during late spring runoff in a wet year (1 June 2005), during

baseflow conditions in a wet year (27 October 2005), during late spring runoff in a moderately wet year (19 May 2006), and during baseflow conditions of a moderately wet year (31 Oct 2006). Discharge during early summer drought conditions (24 June 2007) and late fall drought conditions (6 November 2007) are also plotted on Figure 6. It is apparent in each of these plots that discharge rates in the East Fork generally increased downstream from EFB-6 to EFB-11 (which corresponds to the area of spring discharge from near the base of the Castlegate Sandstone). If the groundwater system that provided baseflow to the creek and supported springs EFB-12, EFB-13, and EFB-14 was drained (i.e., the groundwater was diverted downward into the mine or laterally into another drainage) measurable groundwater contributions to baseflow discharge to the creek would not be anticipated. That the stream continues to gain water through this reach under all seasonal and climatic conditions at magnitudes similar to those measured before mining supports the conclusion that only the discharge locations of the impacted springs have been moved, and dewatering of the groundwater system has not occurred.

When the East Fork drainage was visited early in the spring of 2004 (29 April 2004), it was noted that several short reaches of the creek were dry. The lengths of the dry reaches varied from a few feet to a few hundred feet. Because the stream drainage was mostly covered with snow during the December 2003 and January 2004 monitoring events, it was not known whether the dry reaches of the creek existed prior to April 2004 or whether they had occurred more recently. As discussed above, it has been demonstrated that surface water was not being diverted into deeper geologic formations or into the Sufco Mine openings, nor was it being redirected to adjacent surface water drainages. It is noteworthy that the dry stream

reaches were primarily observed in the Blackhawk Formation where thin- to medium-bedded silty sandstone rocks were exposed in the bottom of the stream channel. Where these bedded sedimentary rocks are exposed at the surface in areas that experienced subsidence fracturing and high geologic stresses, the sandstones tended to buckle or break along horizontal bedding planes. This resulted in loose slabs of rock lying on top of more competent rock in the stream channel. The buckling of the thin-bedded strata likely occurs primarily near the surface where there little vertical confining pressure on the rocks. In deeper horizons where there is vertical confining pressure, the buckling of the rocks is likely much less intense, and fracture apertures (through which water can travel through the subsurface) are likely small. During periods of low flow in the East Fork, surface water was observed flowing beneath the loose, broken rock strata in the shallow subsurface, leaving the overlying channel surface dry. Surface water was also observed flowing through tension fractures that were largely oriented parallel or sub-parallel to the direction of the stream flow. It is likely that movement of surface water through both the loose, buckled, bedded sedimentary strata and through the tension cracks was limited to the shallow sub-surface. This conclusion is supported by the fact that the dry stream reaches were typically relatively short in length, with generally only a few feet to a few tens of feet of topographic elevation difference between the upper and lower extents of the dry reaches. Typically, surface water re-emerged in the stream drainage where the first or second low-permeability shaley horizon intersected the channel bottom. If the surface water beneath the dry stream reaches were migrating through deep strata, it would be anticipated that the lengths of the dry reaches would be longer (i.e., the surface water would re-emerge farther downstream at lower topographic elevations).

The conclusion that the water flowing beneath the dry stream reaches was moving through the shallow subsurface is also evidenced by observations at ledges and waterfalls in the East Fork drainage. At many such locations, water was observed discharging from the waterfall or ledge only a few inches to a few feet below the top of the ledge.

Beginning on 21 September 2004 and continuing to 5 October 2004, repairs were made to the stream channel in the East Fork to restore continuous surface water flow to the dry stream reaches. In some locations, this was accomplished simply by removing the loose, buckled, rocks from the channel substrate, revealing the surface flow beneath. In other locations, this was accomplished by placing bentonite in the stream channel in tension cracked zones. These repairs were successful in restoring surface water flow in essentially all of the stream reaches in the East Fork channel subsided by the mining of the 3 Left Pines East panel. When the East Fork drainage was monitored on 2-3 November 2004, it appeared that stream flow in the drainage was continuous, although portions of the drainage were obscured by snow and ice cover. Discharge measurements and site observations made during 2005 confirmed the presence of continuous, substantial discharge in the stream from EFB-7 to the confluence with the Main Fork of Box Canyon during all 2005 site visits. Likewise, there was no indication of any downstream diminution in creek discharge that would indicate that surface flow was being diverted into the subsurface.

During the springtime of 2006, discharge in the East Fork appeared to be continuous from EFB-7 to the confluence with the main fork of Box Canyon. Zones of visibly diminished

flow were not apparent anywhere in this portion of the drainage. Overall, discharge rates measured in the East Fork during 2006 were somewhat less than those measured during 2005 (Table 1). This condition would be anticipated as a result of the substantially dryer climatic conditions experienced in the region during 2006 (Figure 2).

It should be noted that although the stream sediments at EFB-6 were saturated, no discharge was measured at EFB-6 during 2006 or 2007. As discussed previously, perennial stream flow in the East Fork historically began at or near EFB-6. Historically, for several hundred feet above this location the stream channel was usually dry (a few wet spots were sometimes present in intermittent locations in the East Fork above EFB-6). Historically, commencing at EFB-6 the stream gradually increased rapidly in flow at downstream locations. During both 2006 and 2007, although there was no flow at the EFB-6 monitoring point, perennial flow began about 40 to 50 feet below EFB-6 and the stream gained rapidly downstream from that point in a manner similar to that occurring in previous years. The fact that the emergence of perennial flow in the East Fork changed by only a few tens of feet laterally suggests that hydrogeologic conditions in the area likely have not changed greatly.

On 19 July 2006, a torrential thunderstorm event occurred in the East Fork drainage. On that date, precipitation measured at Sufco's East Fork Weather Station located adjacent to EFB-2 totaled 1.17 inches in a two-hour period. Based on field observations subsequent to the precipitation event, it was apparent that the discharge was focused in the North Water Canyon area and that a surface-water discharge several feet deep rushed down North Water Canyon and subsequently down the main stem of the East Fork to the confluence with the

main fork of Box Canyon. There was no indication of a torrential flood of water in either the East Fork above EFB-6 or in the main fork of Box Canyon above Pines 407. Upon inspection of the East Fork drainage below EFB-6 subsequent to the storm, it was readily apparent that substantial changes to the stream morphology in the stream had occurred. In many locations, alluvial and colluvial sediments underlying and directly adjacent to the stream were eroded away, leaving a bare, exposed bedrock channel substrate. Additionally, in some areas where loose or highly weathered bedrock was present in the stream substrate, this material was removed by the torrential stream flow leaving significantly altered stream channel configuration. Photographs of the East Fork stream channel after the torrential precipitation event are shown in Figure 7. An additional torrential precipitation event was recorded at the East Fork Weather Station on 5 October 2006, with a measured rainfall of 1.79 inches in a 24-hour period.

Subsequent to the torrential precipitation events, discharge rates in the East Fork were monitored on 31 October 2006. Discharge rates measured at this time were generally consistent with the climatic conditions in the region at that time (Table 1; Figure 2). However, the discharge rate measured at EFB-9 was somewhat lower than anticipated (about 4.6 gpm lower than EFB-8). Additionally, a reach of dry stream substrate about 50-75 feet in length was observed a short distance above EFB-10 in October 2006. This condition is likely attributable to changes in the stream channel morphology resulting from the torrential thunderstorm events (which were substantial at EFB-9). Additionally, the bentonite repairs performed to the stream channel by Sufco personnel in this vicinity during 2004 may have been compromised by the runoff event. However, it is important to note that the overall

stream flow gain between EFB-6 and EFB-11 measured at that time is consistent with that anticipated for the climatic conditions. Additionally, the downstream discharge measured at Pines 408 (28.7 gpm; UDOGM 2008) is greater than the maximum upstream discharge measured at that time, strongly suggesting that no net-loss of water from the drainage occurred. During 2007, discharges measured in the creek during each of the three monitoring events were somewhat lower than those measured during 2006. This condition is likely attributable to the drought conditions the region experienced during 2007. It should be noted that during 2007 a few sections of the stream channel between monitoring sites EFB-9 and EFB-10 (ranging from a few tens to several tens of feet in length) did not contain flow at the surface. While there was commonly some minimal wetness on bedrock surfaces and in the unconsolidated sediments along stream banks in most of these reaches, measurable stream flow at the surface was not present. The dry stream reaches observed during 2007 in these areas are likely a result of the diversion of surface water into shallow fracture pathways with subsequent migration of the stream water downstream through the shallow subsurface beneath the stream channel. The existence of these shallow flow pathways through the subsurface suggests that the channel repairs performed previously in the East Fork have been compromised to some extent in that location. The diminished functionality of the channel repairs is most likely attributable to the channel scouring events associated with torrential precipitation events that occurred during 2006 described previously, which removed appreciable amounts of both loose bedrock and unconsolidated sediments from the drainage.

The fact that the stream discharge measured during 2007 short distances downstream of these dry stream reaches was equal to or greater than that measured above, and the fact that no

downstream losses of surface water were noted during 2007 (other than the previously described evapotranspiration losses) strongly suggest that there was no loss of surface water from the drainage during 2007.

Prior to the undermining and subsidence of the spring area, discharge from Pines 214 averaged about 2½ gpm (June 2001 through October 2003; Figure 8). Coincident with the undermining of the spring area, discharge from the spring surged to 37 gpm, then declined to as little as 0.08 gpm in June 2004 after mining in the area was complete. It is noteworthy that discharge from spring Pines 214 increased steadily from 0.09 gpm in August 2004 to 0.87 gpm in October 2006. The fact that groundwater discharge continues to occur from the groundwater system supporting the spring indicates that the Castlegate Sandstone groundwater system continues to operate (i.e. groundwater in the Castlegate has not been dewatered or diverted into deep horizons). Discharge from Pines 214 continued during 2007, although the discharge rate from the spring was somewhat lower than that measured in 2005 and 2006 (Figure 8). The lower discharge measured during 2007 is likely a result of the prevailing drought conditions during the year. It should be noted that the established historical monitoring point for Pines 214 is situated immediately below a sandstone ledge several tens of feet below the spring discharge location. Subsequent to the undermining of the spring area, the sandstone ledge over which the spring discharge flows before reaching the monitoring station was cracked. Consequently, some of the spring discharge is diverted into the bedrock or colluvial sediments immediately upstream of the monitoring point and this discharge is not included in the discharge value reported to the Division of Oil, Gas and Mining for spring Pines 214 (this discharge likely flows diffusely into the East Fork stream

channel about 30 feet below the monitoring point). For the purpose of obtaining a more representative spring discharge measurement, discharge from Pines 214 has also been measured immediately above the sandstone ledge (about 40 feet higher in the drainage) since 2006. It is apparent in Figure 8 that the discharge from Pines 214 measured during drought conditions in 2007 is approaching that of pre-mining levels.

Discharge from spring EFB-8, which also discharges from the Castlegate Sandstone has not been detrimentally affected by mining-induced subsidence and continued during 2007 to discharge at rates consistent with those measured prior to the undermining and subsidence of the spring area. (Figure 9).

As discussed above, discharge data from the East Fork stream channel above EFB-6 indicate that the East Fork drainage is usually mostly dry above EFB-6. During 2003 and 2004, all monitoring stations above EFB-6 were dry, with the exception of a small discharge (~0.5 gpm) measured at EFB-4 (Table 1). Discharge near EFB-4 was typically present for a distance of several tens to hundreds of feet above or below the EFB-4 during 2003-2004. Additionally, during 2003-2004 there were a few localized muddy/damp zones a few tens of feet in length present between EFB-5 and EFB-2. During 2005, 2006, and 2007, no discharge was measured at EFB-4. Stream flow in the poorly defined stream channel above EFB-2 was not observed prior to 2007, nor was it observed in 2007.

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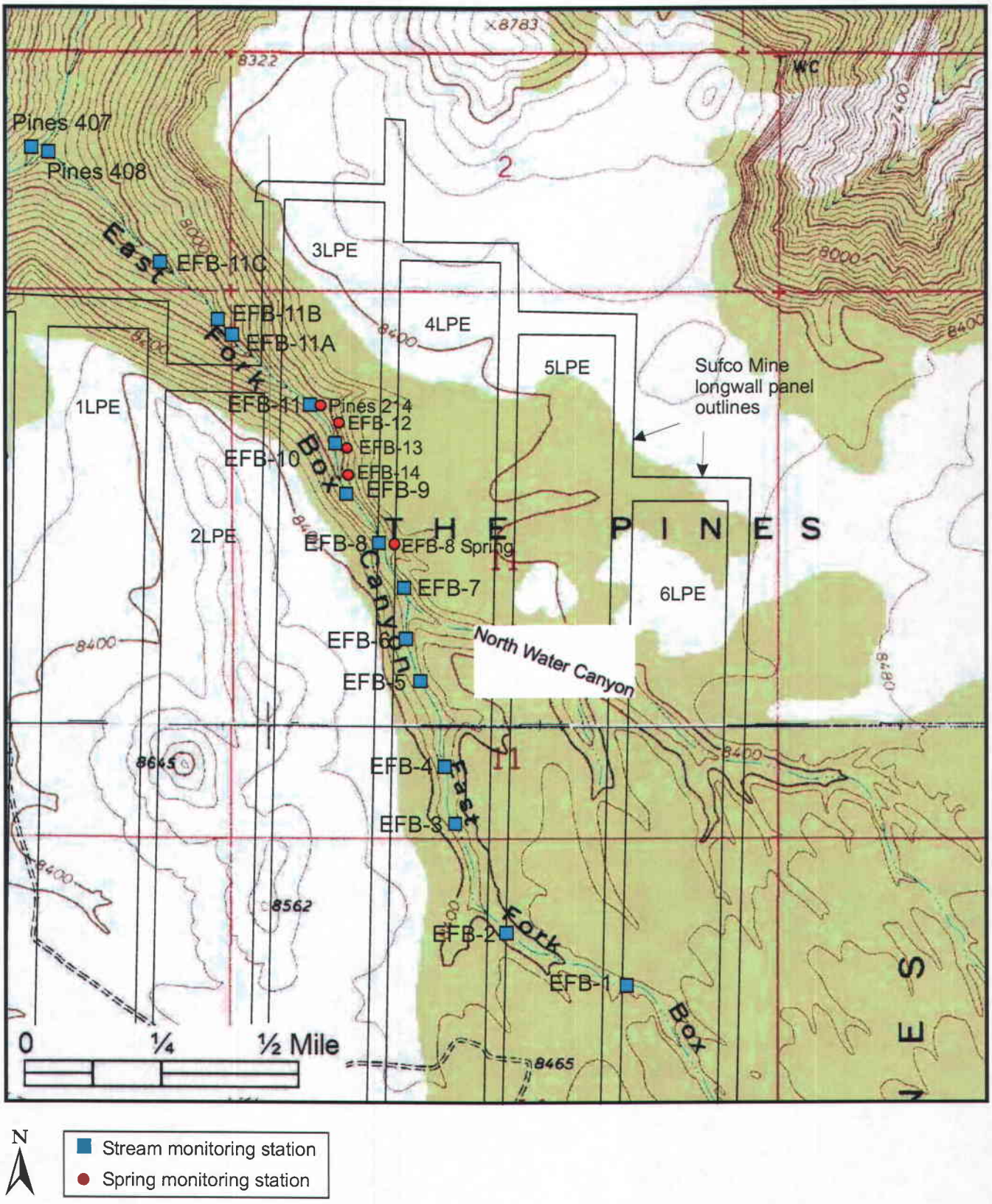


Figure 1 Monitoring locations in the East Fork of Box Canyon.

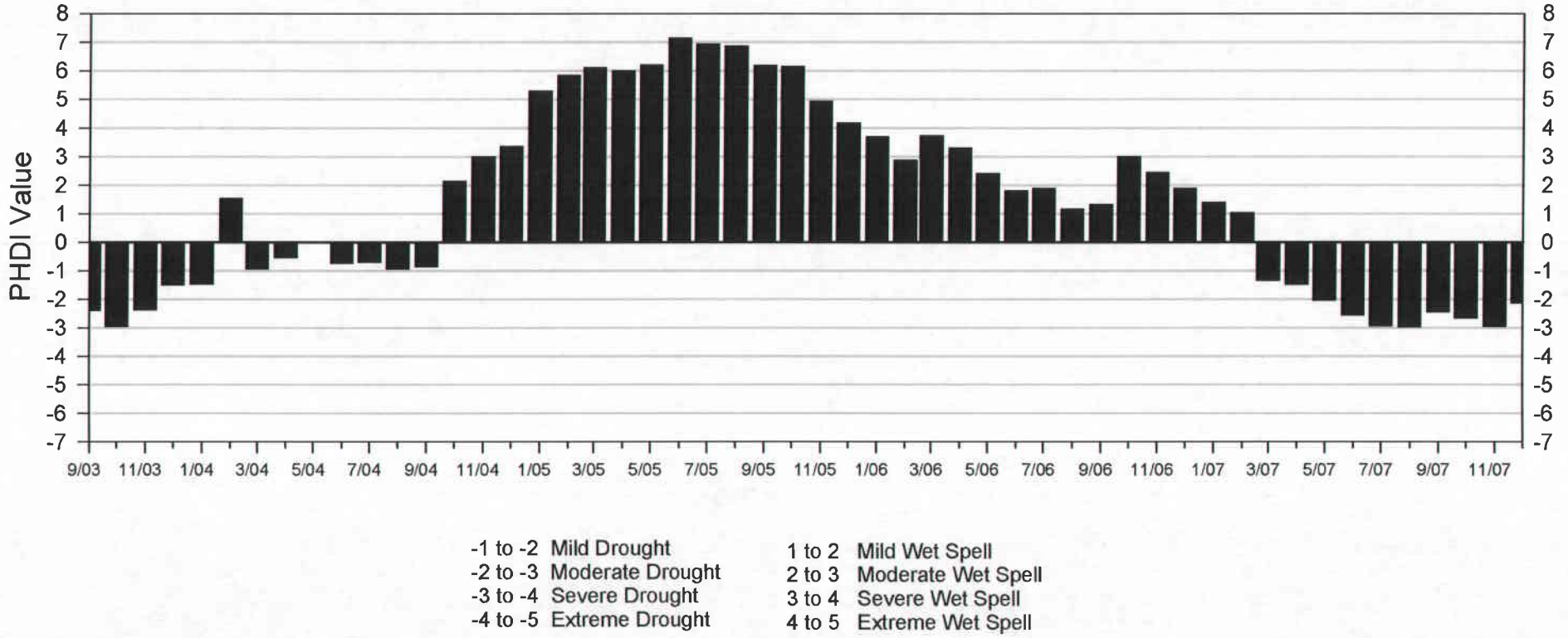


Figure 2 Plot of Palmer Hydrologic Drought Index for Utah Region 4.

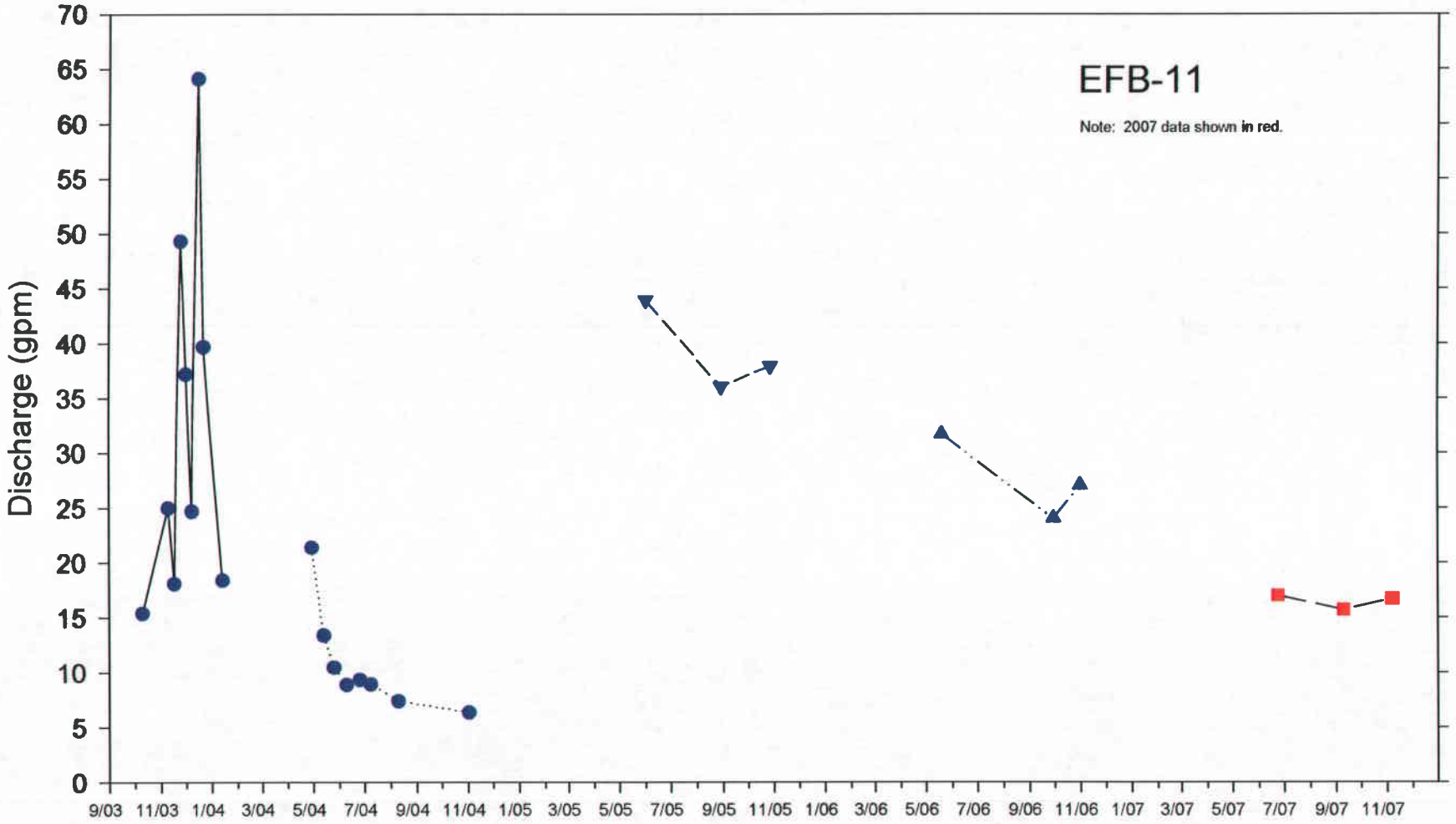


Figure 3 Discharge in the East Fork of Box Canyon Creek at monitoring station EFB-11.

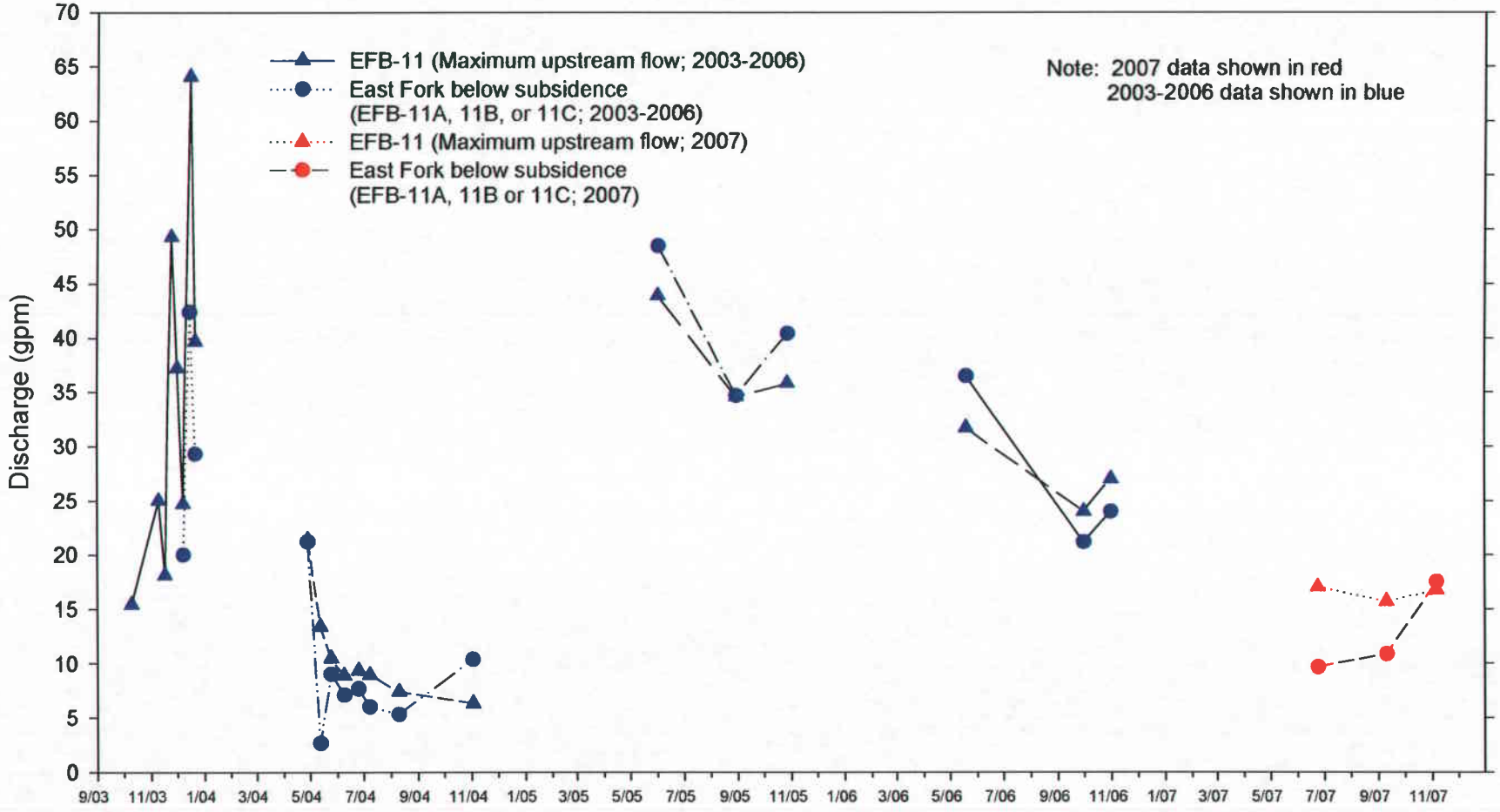


Figure 4 Comparison of maximum discharge in the East Fork of Box Canyon Creek with maximum discharge in the creek below the subsided area.

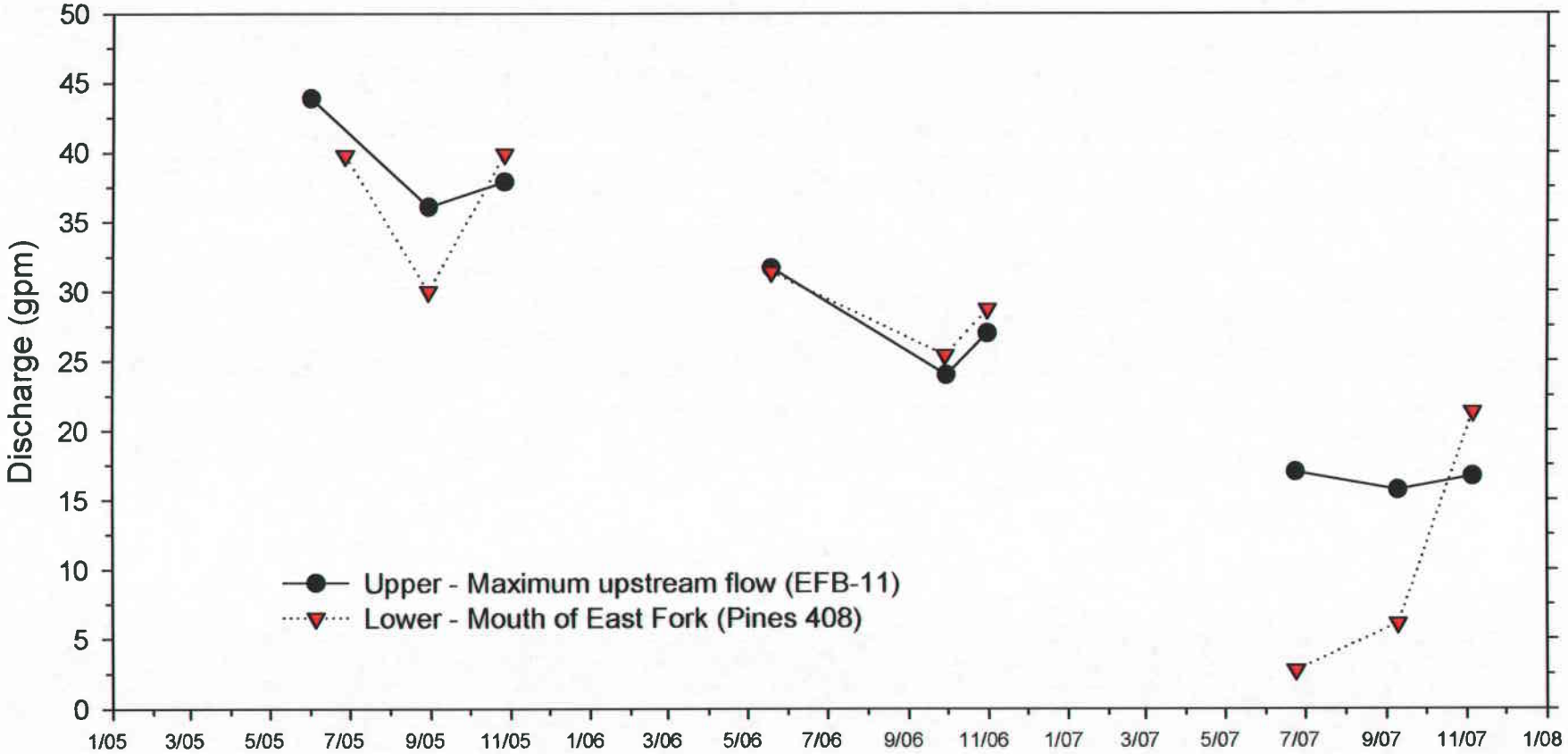
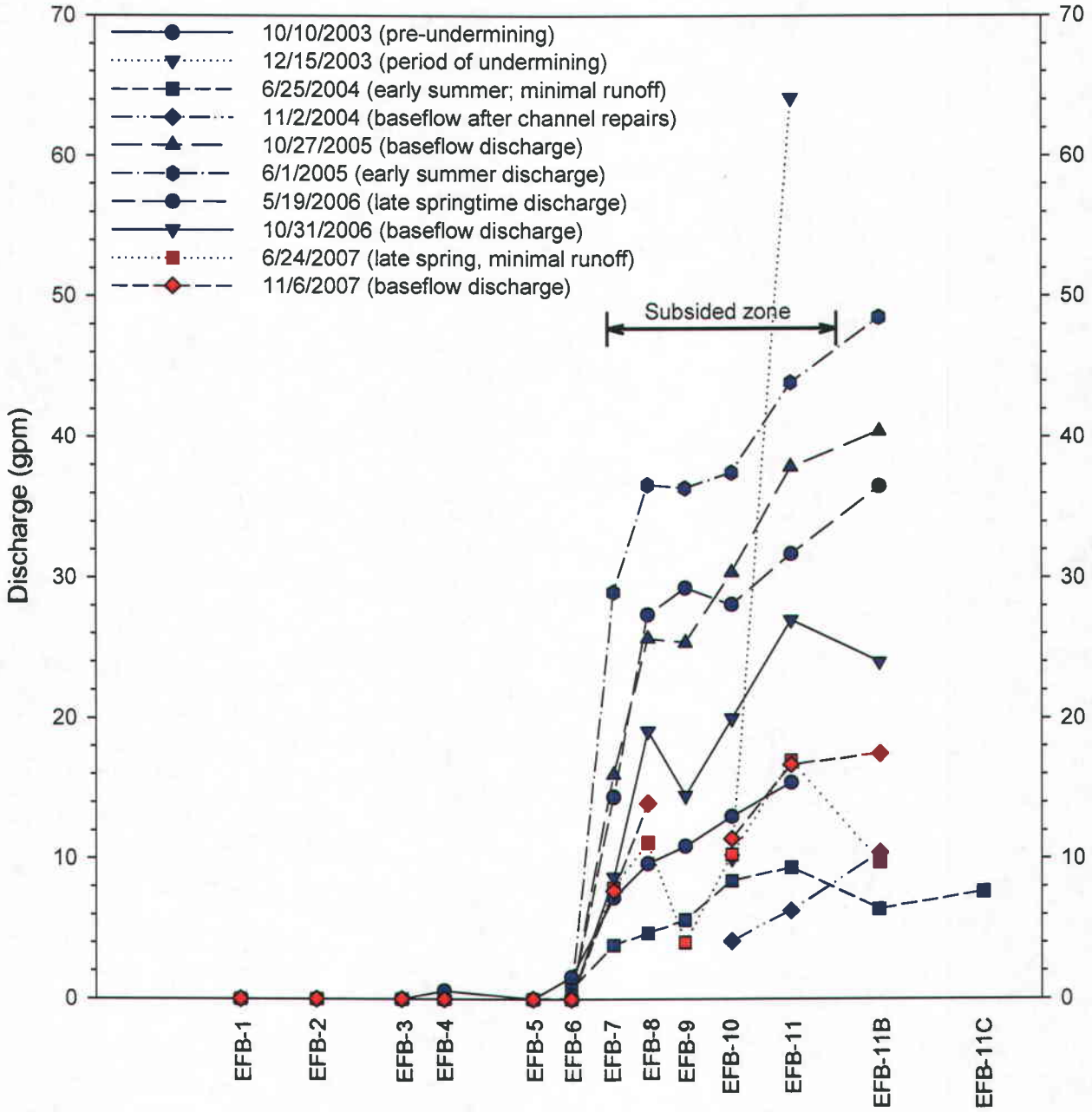


Figure 5 Comparison of maximum upstream flow in the East Fork of Box Canyon with discharge at the lower mouth.



Note: 2005 data shown in red.
Discharge data from EFB-11A not shown on graph.

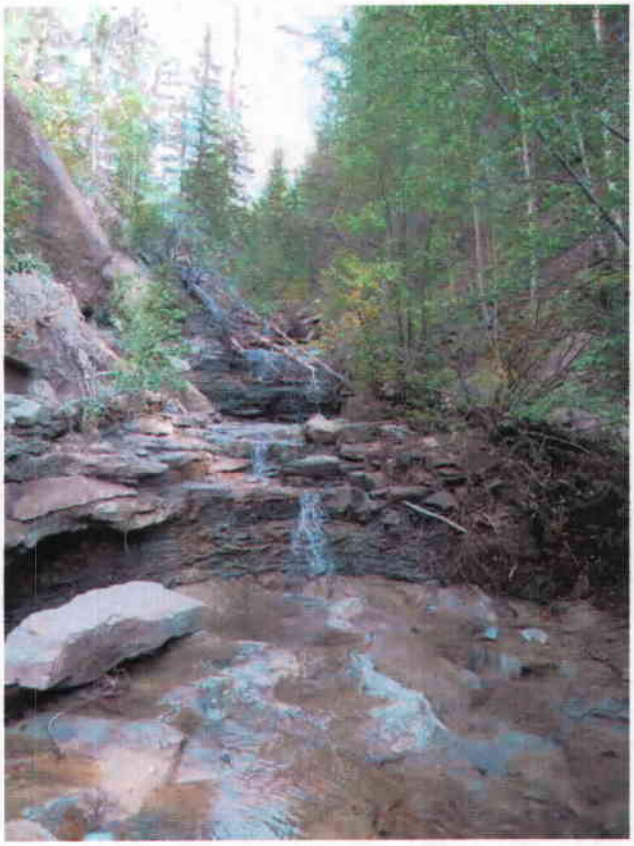
Figure 6 Plots of discharge from East Fork of Box Canyon Creek monitoring sites.

Stream channel at EFB-8

Stream channel below EFB-11

Figure 7 Photographs of the East Fork stream channel after the 19 July 2006 torrential thunderstorm runoff event.

Stream channel below EFB-11



Stream channel below EFB-11

Stream channel near EFB-11A

Figure 7 continued.

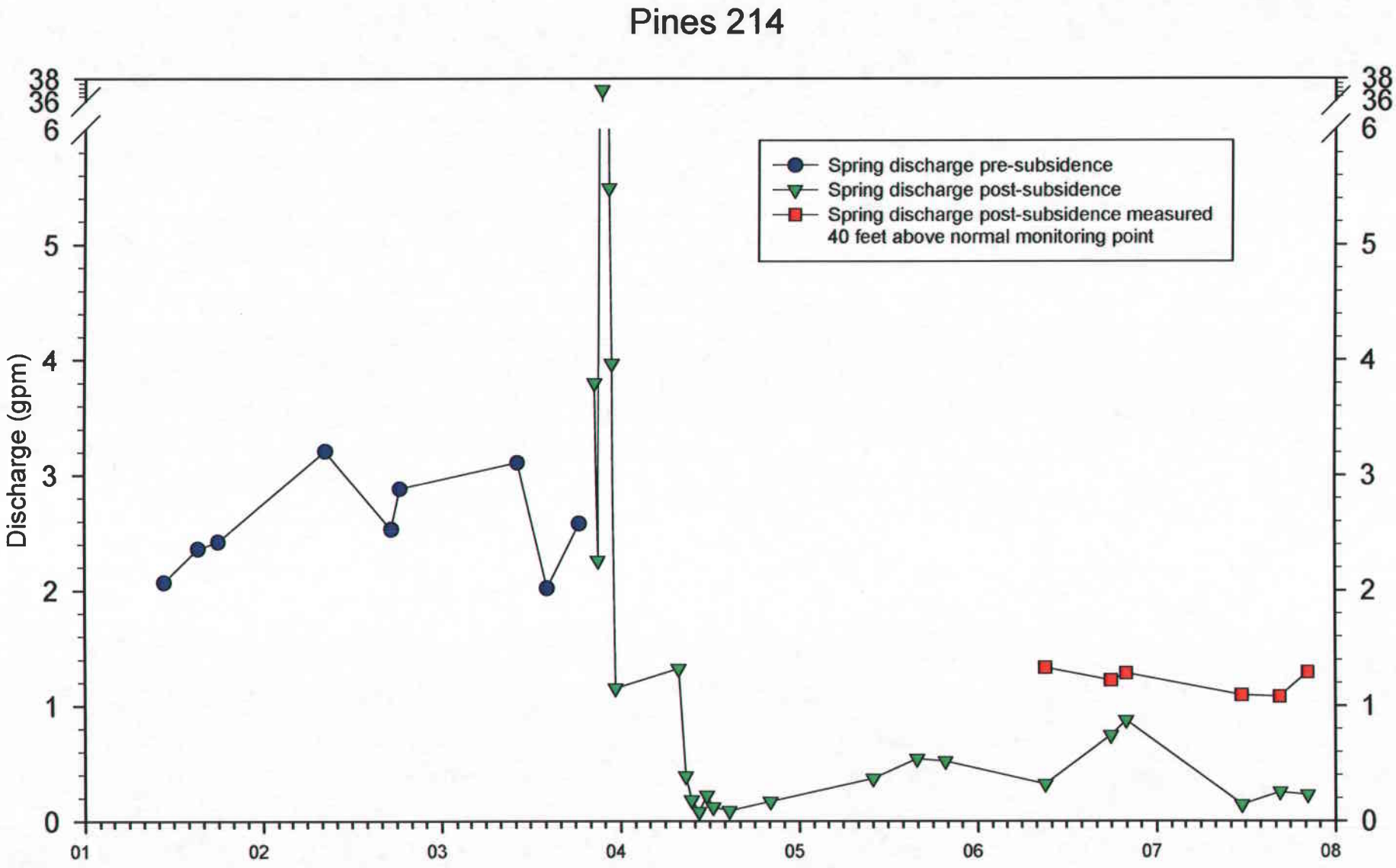


Figure 8 Discharge hydrograph for spring Pines 214.

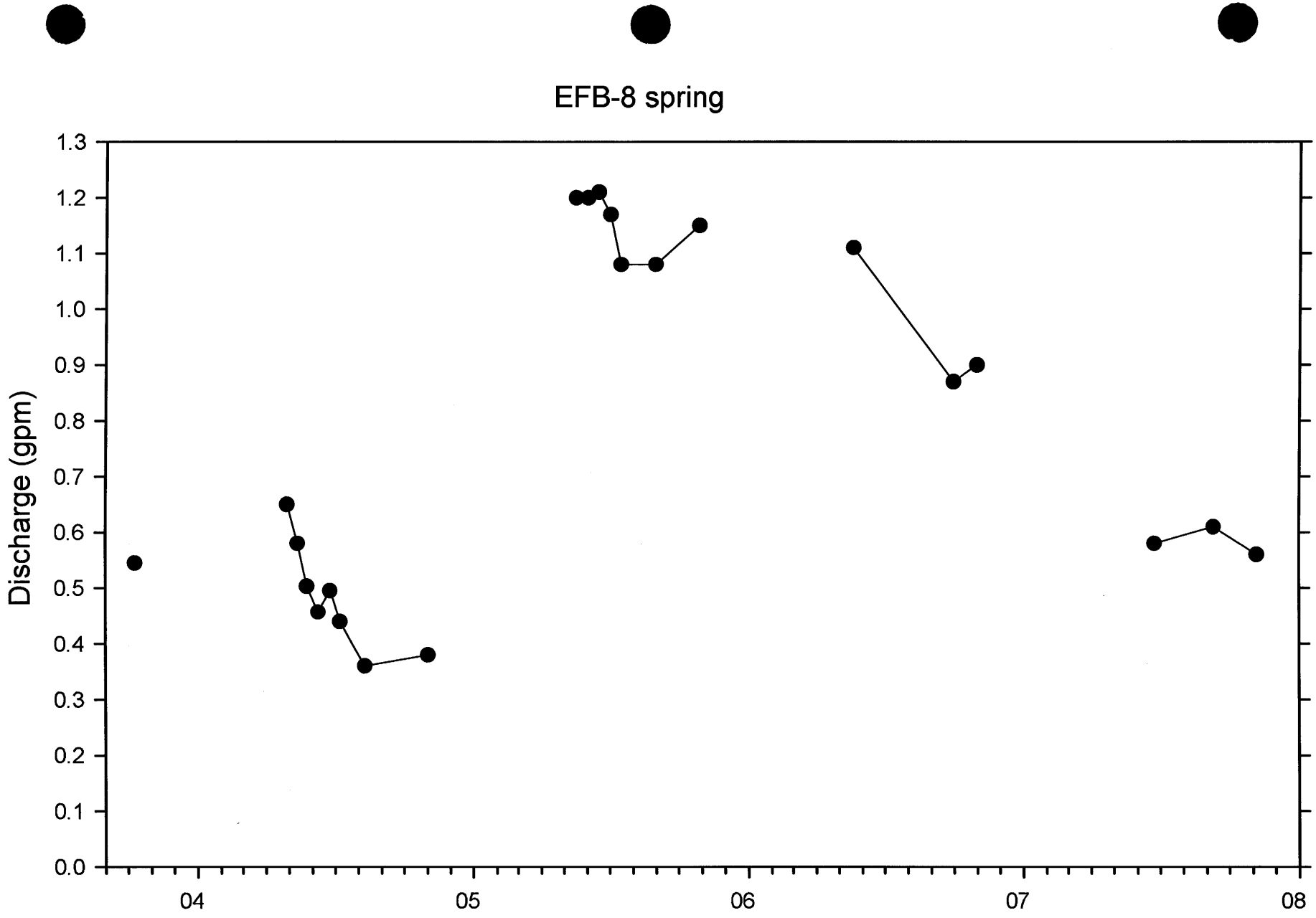


Figure 9 Discharge hydrograph for EFB-8 spring.

Table 1 East Fork Box Canyon flow measurements 2003 - 2007.
PETERSEN HYDROLOGIC, LLC

Station	10/10/03	11/10/03	11/17/03	11/24/03	12/1/03	12/8/03	12/15/03	12/22/03	12/29/03	1/5/04	1/14/04	4/23/04	4/29/04	5/13/04	5/25/04	6/9/04	6/25/04	7/8/04	8/10/04	11/2/04	5/16/05	6/1/05	6/15/05	7/1/05	7/15/05	8/30/05	10/27/05	5/19/06	9/30/06	10/31/06	6/24/07	9/10/07	11/8/07
EFB-1	0								Inaccessible	Inaccessible		Inaccessible				0		0		0	0	0	0	0	0	0	0	0	0	0	0	0
EFB-2	0								Inaccessible	Inaccessible		Inaccessible				0		0		0	0	0	0	0	0	0	0	0	0	0	0	0
EFB-3	0								Inaccessible	Inaccessible		Inaccessible				0		0		0	0.05	0	0	0	0	0	0	diffuse seepage	0	0	0	0	0
EFB-4	0.588								Inaccessible	Inaccessible		Inaccessible				0.441		0.20		0.46	0	0	0	0	0	0	0	0 (damp)	0	0 (wet)	0	0	0
EFB-5	0								Inaccessible	Inaccessible		Inaccessible				0		0		0	0	0	0	0	0	0	0	0	0	0	0	0	0
EFB-6 (Pines 106)	1.55								Inaccessible	Inaccessible		Inaccessible	3.1	1.03	1.21	1.10	0.72	0.27	0.14	0.44	0.38	0.34	0.27	0.21	0.16	0.60	0.05	0	0	0	0	0	0
EFB-7	7.23								Inaccessible	Inaccessible	frozen	Inaccessible	15.9	7.66	6.06	4.62	3.83	3.16	2.46	5.04	25.7	29	26.3	23.3	24.2	18.7	16.0	14.4	9.9	8.7	7.94	8.0	7.61
EFB-8 (creek)	9.68							frozen	Inaccessible	Inaccessible	frozen	Inaccessible	15.4	8.42	7.02	5.20	4.76	4.34	3.36	8.25	43.3	38.5	38.7	27.1	33.5	30.2	25.7	27.4	17.9	19.1	11.2	9.8	13.9
(spring)	0.545							frozen	Inaccessible	Inaccessible	frozen	Inaccessible	0.65	0.58	0.503	0.457	0.495	0.44	0.36	0.38	1.20	1.2	1.21	1.17	1.08	1.08	1.15	1.11	0.87	0.90	0.58	0.61	0.56
EFB-9	10.9						frozen	frozen	Inaccessible	Inaccessible	frozen	Inaccessible	16.7	7.74	6.68	5.50	5.84	4.41	2.91	8.53	50.9	36.4				31.5	25.4	29.3	18.6	14.5	4.03	5.8	Frozen
EFB-10	13.0	18.8	14.5	8.6	11.0	frozen	10 est.	30 est.	Inaccessible	Inaccessible	Inaccessible	Inaccessible	18.4	6.8	9.09	7.76	8.44	7.35	5.45	4.19		37.5				30.8	30.4	28.1	17.9	20.0	10.3	13.0	11.4
Pines 214	2.58	3.8	2.26	37.0	9.1	5.49	3.97	1.15	Inaccessible	Inaccessible	frozen	Inaccessible	1.32	0.39	0.18	0.081	0.224	0.12	0.09	0.17		0.37				0.54	0.52	0.32	0.74	0.87	0.14	0.25	0.23
EFB-11	15.4	25.0	18.1	49.3	37.2	24.7	64.1	39.7	Inaccessible	Inaccessible	18.4	Inaccessible	21.4	13.4	10.5	8.91	9.38	8.96	7.41	6.36		43.9				36.1	37.9	31.7	24	27	17.0	15.7	16.7
EFB-11A						20.0	42.4	29.3	Inaccessible	Inaccessible			10.1	2.69	2.20	1.29	1.15	0.98	1.13	Inaccessible		45.5				34.6	35.8	35.3	21.2	24 est.	6.17	8.8	Frozen
EFB-11B									Inaccessible	Inaccessible			21.2		9.05	7.11	6.47	6.05	5.36	10.40		48.5				34.7	40.4	36.5	20.5	24	9.74	10.9	17.5
EFB-11C									Inaccessible	Inaccessible							7.69	6.02	5.1	Inaccessible										frozen			
EFB-12 (north)	0.407			0.371	0.254	frozen	0	0	Inaccessible	Inaccessible		Inaccessible	0	0	0	0	0	0	0	0	0	0				0	0	0	0	0	0	0	0
EFB-12 (south)	0.176			0.156	0.144	frozen	0	0	Inaccessible	Inaccessible		Inaccessible	0	0	0	0	0	0	0	0	0	0				0	0	0	0	0	0	0	0
EFB-13 (north)	0.704			0.785	0.719	0.39	0	0	Inaccessible	Inaccessible		Inaccessible	0	0	0	0	0	0	0	0	0	0				0	0	0	0	0	0	0	0
EFB-13 (south)	1.57			1.85	1.82	1.64	0.093	0.0061	Inaccessible	Inaccessible		Inaccessible	0	0	0	0	0	0	0	0	0	0				0	0	0	0	0	0	0	0
EFB-14	0.140			.15 est.	0.142	0.108	0.071	0	Inaccessible	Inaccessible		Inaccessible	0	0	0	0	0	0	0	0	0	0				0	0	0	0	0	0	0	0

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

Submitted in Canyon Fuel Company, LLC General Chapter One

APPENDIX D

Mine Maps

As required under R645-302-525-270

CONTENTS

Mining Progress Map 2007

APPENDIX E

Other Information

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

CONTENTS

None