CO-OP MINING COMPANY

QUARTERLY
WATER MONITORING
REPORT

FOURTH QUARTER, 2000

BEAR CANYON MINE
ACT/015/025

File in:
☐ Confidential
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Refer to Record No 0034 Date 10192001
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For additional information

0034

CO-OP MINING COMPANY

COPY

P.O. Box 1245
Huntington, Utah 84528

Office (435) 687-2450
Fax (435) 687-2084

October 19, 2001

Incoming
C/015/025

Coal Program
Utah Division of Oil, Gas & Mining
1594 West North Temple, Suite 1210
P.O. Box 145801
Salt Lake City, Utah 84114-5801

To Whom It May Concern,

Re: **Water Monitoring Report, 4TH Quarter, 2000. Bear Canyon Mine, ACT/015/025,Trail Canyon Mine, ACT/015/021, Emery County, Utah**

Enclosed is the Water Monitoring Report for the 4th Quarter, 2000.

If you have any questions, please call me at (435) 687-5238.

Sincerely,

Charles Reynolds

Charles Reynolds, PE
Environmental Coordinator

Enclosure (s)
as

RECEIVED
OCT 26 2001
DIVISION OF
OIL, GAS AND MINING

File in:
C0150025, 2001, Incoming
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Date 10/30/01 For additional information

BEAR CANYON

MINE

Mine Name: BEAR CANYON

SiteName: BC-1

SiteDescription: Upper Bear Ck

Electronic Water Data Report By Individual Sample

Lab Code: CTE **LAB_ID:** 59-22139

Date Sampled: 10/26/00

TimeSampled: 1245

Sampler Name:

Parameter	S.Type	EQ	Value	Units	Min Detection	Analysis Method	Date Rec.	Date Analyzed	Analyst Name	Date Reported
COMMENTS							10/26/00			11/30/2000
FIELD WATER TEMPERATURE	4		5.3	Deg. C			10/26/00	10/26/00		11/30/2000
PH (FIELD)	4		9.06	pH units			10/26/00	10/26/00		11/30/2000
DISSOLVED OXYGEN (FIELD)	4		9.7	mg/l			10/26/00	10/26/00		11/30/2000
SP. CONDUCTIVITY (FIELD)	4		702	umhos/cm			10/26/00	10/26/00		11/30/2000
FLOW	4		105	GPM			10/26/00	10/26/00		11/30/2000
TOTAL SUSPENDED SOLIDS	4		8621	mg/l	5	EPA 160.2	10/26/00	11/1/00	AW	11/30/2000
OIL/GREASE	4	<	2	mg/l	2	EPA 413.1	10/26/00	11/7/00	SC	11/30/2000
DISSOLVED CALCIUM	4		51	mg/l	1	EPA 215.1	10/26/00	11/13/00	MK	11/30/2000
DISSOLVED IRON	4	<	0.1	mg/l	0.1	EPA 236.1	10/26/00	11/8/00	MK	11/30/2000
DISSOLVED MAGNESIUM	4		56	mg/l	1	EPA 242.1	10/26/00	11/13/00	MK	11/30/2000
DISSOLVED MANGANESE	4	<	0.1	mg/l	0.1	EPA 243.1	10/26/00	11/8/00	MK	11/30/2000
DISSOLVED POTASSIUM	4		4	mg/l	1	EPA 258.1	10/26/00	11/13/00	MK	11/30/2000
DISSOLVED SODIUM	4		10	mg/l	1	EPA 273.1	10/26/00	11/13/00	MK	11/30/2000
BICARBONATE AS HCO3	4		269	mg/l	5	EPA 310.1	10/26/00	10/30/00	AW	11/30/2000
CARBONATE AS CO3	4	<	5	mg/l	5	EPA 310.1	10/26/00	10/30/00	AW	11/30/2000
CHLORIDE	4		3	mg/l	1	EPA 300.0	10/26/00	11/7/00	SC	11/30/2000
SULFATE	4		175	mg/l	1	EPA 300.0	10/26/00	11/7/00	SC	11/30/2000
TOTAL ALKALINITY AS CACO3	4		220	mg/l	5	EPA 310.1	10/26/00	10/30/00	AW	11/30/2000
TOTAL HARDNESS AS CACO3	4		358	mg/l		SM2340-B	10/26/00	11/17/00	RJ	11/30/2000
SPECIFIC CONDUCTIVITY (LAB)	4		714	umhos/cm	1	SM2510-B	10/26/00	11/10/00	AW	11/30/2000
TOTAL DISSOLVED SOLIDS, @ 180	4		426	mg/l	10	EPA 160.1	10/26/00	11/1/00	AW	11/30/2000
SETTLEABLE SOLIDS	4		52	ml/l	0.4	EPA 160.5	10/26/00	10/27/00	SC	11/30/2000
TOTAL CATIONS	4		7.7	meq/l			10/26/00	11/17/00	RJ	11/30/2000
TOTAL ANIONS	4		8.1	meq/l			10/26/00	11/17/00	RJ	11/30/2000
TOTAL IRON	4		98	mg/l	0.1	EPA 236.1	10/26/00	11/8/00	MK	11/30/2000
TOTAL MANGANESE	4		1.8	mg/l	0.1	EPA 243.1	10/26/00	11/8/00	MK	11/30/2000

CO-OP MINING COMPANY

Hydrology Field Measurement Form

Mine Bear Canyon Mine Station # BC-1

Permit No ACT/015/025

Sample Date 10-26-00

Sample Time 12:45

Type: Spring____ Stream ✓ Well____ NPDES____

Collection Point____

Appearance of Water: Clear____ Milky____ Cloudy____ Opaque____

Quality Sample Taken: Baseline____ Operational ✓ Field____

Flow/Depth 105 gpm

Water Temperature 41.6°F

pH 9.06

Specific Conductivity 702

Dissolved Oxygen 9.7

Comments:

Field Monitor Nephi Walton

Lab Analyzing CTE Date Shipped 10-26-00

Sample ID # 59-22139 Date Results Received 11-29-00

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April 10, 2001

C.W. MINING
P.O. Box 1245
Huntington UT 84528
Bryan Owen

Sample identification by
C.W. Mining

ID:BC-1

Kind of sample reported to us Water

Sample taken at

Sample taken by C.W. Mining

Date sampled October 26, 2000

Date received October 26, 2000

RECEIVED 1500
SAMPLED 1245
FIELD MEASUREMENTS
FLOW 105 GPM TEMP 5.3
COND. 702 pH 9.06
D.O. 9.7
NOTES:
DIS.METALS
FILTERED @ LAB

Analysis report no. 59-22139

Parameter	Result	MRL	Units	Method	Analyzed Date/Time/Analyst
Alkalinity, Bicarbonate	269	5	mg/l as HCO_3	EPA 310.1	10-30-2000 1030 AW
Alkalinity, Carbonate	<5	5	mg/l as CO_3	EPA 310.1	10-30-2000 1030 AW
Alkalinity, Total	220	5	mg/l as $CaCO_3$	EPA 310.1	10-30-2000 1030 AW
Anions	8.1	----	meq/l	---------	11-17-2000 1000 RJ
Calcium, Dissolved	51	1	mg/l	EPA 215.1	11-13-2000 1000 MK
Cations	7.7	----	meq/l	---------	11-17-2000 1000 RJ
Chloride	3	1	mg/l	EPA 300.0	11-07-2000 0909 SC
Conductivity	714	1	umhos/cm	SM2510-B	11-10-2000 1245 AW
Hardness, Total	358	----	mg/l as $CaCO_3$	SM2340-B	11-17-2000 1000 RJ
Iron, Dissolved	<0.1	0.1	mg/l	EPA 236.1	11-08-2000 0830 MK
Iron, Total	98.0	5.0	mg/l	EPA 236.1	11-08-2000 0830 MK
Magnesium, Dissolved	56	1	mg/l	EPA 242.1	11-13-2000 1130 MK
Manganese, Total	1.8	0.1	mg/l	EPA 243.1	11-08-2000 1000 MK
Manganese, Dissolved	<0.1	0.1	mg/l	EPA 243.1	11-08-2000 1000 MK
Oil & Grease	<2	2	mg/l	EPA 413.1	11-07-2000 0900 SC
Potassium, Dissolved	4	1	mg/l	EPA 258.1	11-13-2000 0800 MK
Sodium, Dissolved	10	1	mg/l	EPA 273.1	11-13-2000 0900 MK
Solids, Settleable	52.0	0.4	ml/l	EPA 160.5	10-27-2000 0900 SC
Solids, Total Dissolved	426	10	mg/l	EPA 160.1	11-01-2000 1600 AW
Solids, Total Suspended	8621	5	mg/l	EPA 160.2	11-01-2000 1600 AW
Sulfate	175	1	mg/l	EPA 300.0	11-07-2000 0909 SC
Cation/Anion Balance	-2.8	----	%		11-17-2000 1000 RJ

FAXED
4-11-01

Respectfully submitted,
COMMERCIAL TESTING & ENGINEERING CO.

Huntington Laboratory

MEMBER ACIL

Mine Name: BEAR CANYON

SiteName: BC-2

SiteDescription: Lower Bear Ck

Electronic Water Data Report By Individual Sample

Lab Code: CTE

LAB_ID: 59-22140

Date Sampled: 10/26/00

TimeSampled: 1300

Sampler Name:

Parameter	S.Type	EQ	Value	Units	Min Detection	Analysis Method	Date Rec.	Date Analyzed	Analyst Name	Date Reported
COMMENTS							10/26/00			11/30/2000
FIELD WATER TEMPERATURE	4		6.3	Deg. C			10/26/00	10/26/00		11/30/2000
PH (FIELD)	4		8.67	pH units			10/26/00	10/26/00		11/30/2000
DISSOLVED OXYGEN (FIELD)	4		9.6	mg/l			10/26/00	10/26/00		11/30/2000
SP. CONDUCTIVITY (FIELD)	4		833	umhos/cm			10/26/00	10/26/00		11/30/2000
FLOW	4		115	GPM			10/26/00	10/26/00		11/30/2000
TOTAL SUSPENDED SOLIDS	4		6020	mg/l	5	EPA 160.2	10/26/00	11/2/00	AW	11/30/2000
OIL/GREASE	4	<	2	mg/l	2	EPA 413.1	10/26/00	11/7/00	SC	11/30/2000
DISSOLVED CALCIUM	4		55	mg/l	1	EPA 215.1	10/26/00	11/13/00	MK	11/30/2000
DISSOLVED IRON	4	<	0.1	mg/l	0.1	EPA 236.1	10/26/00	11/8/00	MK	11/30/2000
DISSOLVED MAGNESIUM	4		57	mg/l	1	EPA 242.1	10/26/00	11/13/00	MK	11/30/2000
DISSOLVED MANGANESE	4	<	0.1	mg/l	0.1	EPA 243.1	10/26/00	11/8/00	MK	11/30/2000
DISSOLVED POTASSIUM	4		4	mg/l	1	EPA 258.1	10/26/00	11/13/00	MK	11/30/2000
DISSOLVED SODIUM	4		21	mg/l	1	EPA 273.1	10/26/00	11/13/00	MK	11/30/2000
BICARBONATE AS HCO3	4		227	mg/l	5	EPA 310.1	10/26/00	10/30/00	AW	11/30/2000
CARBONATE AS CO3	4	<	5	mg/l	5	EPA 310.1	10/26/00	10/30/00	AW	11/30/2000
CHLORIDE	4		49	mg/l	1	EPA 300.0	10/26/00	11/7/00	SC	11/30/2000
SULFATE	4		147	mg/l	1	EPA 300.0	10/26/00	11/7/00	SC	11/30/2000
TOTAL ALKALINITY AS CACO3	4		187	mg/l	5	EPA 310.1	10/26/00	10/30/00	AW	11/30/2000
TOTAL HARDNESS AS CACO3	4		372	mg/l		SM2340-B	10/26/00	11/17/00	RJ	11/30/2000
SPECIFIC CONDUCTIVITY (LAB)	4		831	umhos/cm	1	SM2510-B	10/26/00	11/10/00	AW	11/30/2000
TOTAL DISSOLVED SOLIDS, @ 180	4		513	mg/l	10	EPA 160.1	10/26/00	11/2/00	AW	11/30/2000
SETTLEABLE SOLIDS	4		58	ml/l	0.4	EPA 160.5	10/26/00	10/27/00	SC	11/30/2000
TOTAL CATIONS	4		8.4	meq/l			10/26/00	11/17/00	RJ	11/30/2000
TOTAL ANIONS	4		8.2	meq/l			10/26/00	11/17/00	RJ	11/30/2000
TOTAL IRON	4		74.5	mg/l	0.1	EPA 236.1	10/26/00	11/8/00	MK	11/30/2000
TOTAL MANGANESE	4		1.2	mg/l	0.1	EPA 243.1	10/26/00	11/8/00	MK	11/30/2000

Monday, January 15, 2001

CO-OP MINING COMPANY

Hydrology Field Measurement Form

Mine Bear Canyon Mine Station # BC-2

Permit No ACT/015/025

Sample Date 10-26-00

Sample Time 13:00

Type: Spring____ Stream ✓ Well____ NPDES____

Collection Point____

Appearance of Water: Clear____ Milky____ Cloudy____ Opaque____

Quality Sample Taken: Baseline____ Operational ✓ Field____

Flow/Depth 115 gpm

Water Temperature 43.4°F

pH 8.67

Specific Conductivity 833

Dissolved Oxygen 9.6

Comments:

Field Monitor Nephi Walton

Lab Analyzing CTE Date Shipped 10-26-00

Sample ID # 59-22140 Date Results Received 11-29-00

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April 10, 2001

C.W. MINING
P.O. Box 1245
Huntington UT 84528
Bryan Owen

Sample identification by
C.W. Mining

ID:BC-2

RECEIVED 1500
SAMPLED 1300
FIELD MEASUREMENTS
FLOW 115 GPM TEMP 6.3
COND. 833 pH 8.67
D.O. 9.6
NOTES:
DIS.METALS
FILTERED @ LAB

Kind of sample reported to us Water

Sample taken at

Sample taken by C.W. Mining

Date sampled October 26, 2000

Date received October 26, 2000

Analysis report no. 59-22140

Parameter	Result	MRL	Units	Method	Analyzed Date/Time/Analyst
Alkalinity, Bicarbonate	227	5	mg/l as HCO_3	EPA 310.1	10-30-2000 1030 AW
Alkalinity, Carbonate	<5	5	mg/l as CO_3	EPA 310.1	10-30-2000 1030 AW
Alkalinity, Total	187	5	mg/l as $CaCO_3$	EPA 310.1	10-30-2000 1030 AW
Anions	8.2	----	meq/l	---------	11-17-2000 1000 RJ
Calcium, Dissolved	55	1	mg/l	EPA 215.1	11-13-2000 1000 MK
Cations	8.4	----	meq/l	---------	11-17-2000 1000 RJ
Chloride	49	1	mg/l	EPA 300.0	11-07-2000 0909 SC
Conductivity	831	1	umhos/cm	SM2510-B	11-10-2000 1245 AW
Hardness, Total	372	----	mg/l as $CaCO_3$	SM2340-B	11-17-2000 1000 RJ
Iron, Dissolved	<0.1	0.1	mg/l	EPA 236.1	11-08-2000 0830 MK
Iron, Total	74.5	5.0	mg/l	EPA 236.1	11-08-2000 0830 MK
Magnesium, Dissolved	57	1	mg/l	EPA 242.1	11-13-2000 1130 MK
Manganese, Total	1.2	0.1	mg/l	EPA 243.1	11-08-2000 1000 MK
Manganese, Dissolved	<0.1	0.1	mg/l	EPA 243.1	11-08-2000 1000 MK
Oil & Grease	<2	2	mg/l	EPA 413.1	11-07-2000 0900 SC
Potassium, Dissolved	4	1	mg/l	EPA 258.1	11-13-2000 0800 MK
Sodium, Dissolved	21	1	mg/l	EPA 273.1	11-13-2000 0900 MK
Solids, Settleable	58.0	0.4	ml/l	EPA 160.5	10-27-2000 0900 SC
Solids, Total Dissolved	513	10	mg/l	EPA 160.1	11-02-2000 1915 AW
Solids, Total Suspended	6020	5	mg/l	EPA 160.2	11-02-2000 1900 AW
Sulfate	147	1	mg/l	EPA 300.0	11-07-2000 0909 SC
Cation/Anion Balance	1.7	----	%		11-17-2000 1000 RJ

FAXED
4-11-01

Respectfully submitted,
COMMERCIAL TESTING & ENGINEERING CO.

Huntington Laboratory

MEMBER ACIL

Electronic Water Data Report By Individual Sample

Mine Name: BEAR CANYON
SiteName: BC-3
SiteDescription: Right Fork Bear Creek
Lab Code: NOF
LAB_ID: 20001026
Date Sampled: 10/26/00
TimeSampled: 1205
Sampler Name: Nephi Walton

Parameter	S.Type	EQ	Value	Units	Min Detection	Analysis Method	Date Rec.	Date Analyzed	Analyst Name	Date Reported
FLOW	10		0	GPM						

CO-OP Mining Company

Hydrology Field Measurement Form

Mine: Bear Canyon
Permit No: ACT/015/025

Station # BC-3

Sample Date: 10-26-00

Sample Time: 12:05

Sample Type:
- ❑ Spring
- ❑ Stream
- ❑ Well
- ❑ NPDES

Quality Sample Taken
- ❑ Baseline
- ❑ Operational
- ❑ Field

Appearance of Water
- ❑ Clear
- ❑ Milky
- ❑ Cloudy
- ❑ Opaque

Flow/Depth Dry

Water Temperature –

PH –

Specific Conductivity –

Dissolved Oxygen –

Comments:

Field Monitor: Nephi Walton

Lab Analyzing: N/A

Date Shipped: –

Sample ID: –

Date Results Received: –

Electronic Water Data Report By Individual Sample

Mine Name: BEAR CANYON
SiteName: BC-4
SiteDescription: Upper Right Fork Bear Creek (stream be

Lab Code: NOF
LAB_ID: 20001026

Date Sampled: 10/26/00
TimeSampled: 1220
Sampler Name: Nephi Walton

Parameter	S.Type	EQ	Value	Units	Min Detection	Analysis Method	Date Rec.	Date Analyzed	Analyst Name	Date Reported
FLOW	10		0	GPM						

CO-OP Mining Company

Hydrology Field Measurement Form

Mine: Bear Canyon
Permit No: ACT/015/025

Station # BC-4

Sample Date: 10-26-00

Sample Time: 12:20

Sample Type:
- ❑ Spring
- ❑ Stream
- ❑ Well
- ❑ NPDES

Quality Sample Taken
- ❑ Baseline
- ❑ Operational
- ❑ Field

Appearance of Water
- ❑ Clear
- ❑ Milky
- ❑ Cloudy
- ❑ Opaque

Flow/Depth Dry

Water Temperature –

PH –

Specific Conductivity –

Dissolved Oxygen –

Comments:

Field Monitor: Nephi Walton

Lab Analyzing: N/A

Date Shipped: –

Sample ID: –

Date Results Received: –

Mine Name: BEAR CANYON

SiteName: MH-1

SiteDescription: McCadden Hollow Creek

Electronic Water Data Report By Individual Sample

Lab Code: CTE

LAB_ID: 59-22142

Date Sampled: 10/25/00

TimeSampled: 1515

Sampler Name:

Parameter	S.Type	EQ	Value	Units	Min Detection	Analysis Method	Date Rec.	Date Analyzed	Analyst Name	Date Reported
COMMENTS							10/26/00			11/30/2000
FIELD WATER TEMPERATURE	4		5	Deg. C			10/26/00	10/25/00		11/30/2000
PH (FIELD)	4		8.5	pH units			10/26/00	10/25/00		11/30/2000
DISSOLVED OXYGEN (FIELD)	4		8	mg/l			10/26/00	10/25/00		11/30/2000
SP. CONDUCTIVITY (FIELD)	4		550	umhos/cm			10/26/00	10/25/00		11/30/2000
FLOW	4		15	GPM			10/26/00	10/25/00		11/30/2000
TOTAL SUSPENDED SOLIDS	4		10	mg/l	5	EPA 160.2	10/26/00	11/1/00	AW	11/30/2000
OIL/GREASE	4	<	2	mg/l	2	EPA 413.1	10/26/00	11/7/00	SC	11/30/2000
DISSOLVED CALCIUM	4		68	mg/l	1	EPA 215.1	10/26/00	11/13/00	MK	11/30/2000
DISSOLVED IRON	4	<	0.1	mg/l	0.1	EPA 236.1	10/26/00	11/8/00	MK	11/30/2000
DISSOLVED MAGNESIUM	4		31	mg/l	1	EPA 242.1	10/26/00	11/13/00	MK	11/30/2000
DISSOLVED MANGANESE	4	<	0.1	mg/l	0.1	EPA 243.1	10/26/00	11/8/00	MK	11/30/2000
DISSOLVED POTASSIUM	4		1	mg/l	1	EPA 258.1	10/26/00	11/13/00	MK	11/30/2000
DISSOLVED SODIUM	4		7	mg/l	1	EPA 273.1	10/26/00	11/13/00	MK	11/30/2000
BICARBONATE AS HCO3	4		358	mg/l	5	EPA 310.1	10/26/00	10/30/00	AW	11/30/2000
CARBONATE AS CO3	4	<	5	mg/l	5	EPA 310.1	10/26/00	10/30/00	AW	11/30/2000
CHLORIDE	4		7	mg/l	1	EPA 300.0	10/26/00	11/7/00	SC	11/30/2000
SULFATE	4		22	mg/l	1	EPA 300.0	10/26/00	11/7/00	SC	11/30/2000
TOTAL ALKALINITY AS CACO3	4		293	mg/l	5	EPA 310.1	10/26/00	10/30/00	AW	11/30/2000
TOTAL HARDNESS AS CACO3	4		297	mg/l		SM2340-B	10/26/00	11/17/00	RJ	11/30/2000
SPECIFIC CONDUCTIVITY (LAB)	4		571	umhos/cm	1	SM2510-B	10/26/00	11/10/00	AW	11/30/2000
TOTAL DISSOLVED SOLIDS, @ 180	4		348	mg/l	10	EPA 160.1	10/26/00	11/1/00	AW	11/30/2000
SETTLEABLE SOLIDS	4	<	0.4	ml/l	0.4	EPA 160.5	10/26/00	10/27/00	SC	11/30/2000
TOTAL CATIONS	4		6.3	meq/l			10/26/00	11/17/00	RJ	11/30/2000
TOTAL ANIONS	4		6.5	meq/l			10/26/00	11/17/00	RJ	11/30/2000
TOTAL IRON	4	<	0.1	mg/l	0.1	EPA 236.1	10/26/00	11/8/00	MK	11/30/2000
TOTAL MANGANESE	4	<	0.1	mg/l	0.1	EPA 243.1	10/26/00	11/8/00	MK	11/30/2000

CO-OP MINING COMPANY

Hydrology Field Measurement Form

Mine Bear Canyon Mine Station # MH-1

Permit No ACT/015/025

Sample Date 10-25-00

Sample Time 15:15

Type: Spring____ Stream ✓ Well____ NPDES____

Collection Point_____

Appearance of Water: Clear____ Milky____ Cloudy____ Opaque____

Quality Sample Taken: Baseline____ Operational ✓ Field____

Flow/Depth 15 gpm

Water Temperature 41°F

pH 8.5

Specific Conductivity 550

Dissolved Oxygen 8.0

Comments: _____

Field Monitor Nephi Walton

Lab Analyzing CTE Date Shipped 10-26-00

Sample ID # 59-22142 Date Results Received 11-29-00

COMMERCIAL TESTING & ENGINEERING CO.

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FAX: (435) 653-2436

November 29, 2000

C.W. MINING
P.O. Box 1245
Huntington UT 84528
Bryan Owen

Sample identification by
C.W. Mining

ID:MH-1

Kind of sample reported to us: Water

Sample taken at

Sample taken by: C.W. Mining

Date sampled: October 25, 2000

Date received: October 26, 2000

RECEIVED 1500
SAMPLED 1515
FIELD MEASUREMENTS
FLOW 15 GPM TEMP 5
COND. 550 pH 8.5
D.O. 8.0
NOTES:
DIS.METALS
FILTERED @ LAB

Analysis report no. 59-22142

Parameter	Result	MRL	Units	Method	Analyzed Date/Time/Analyst
Alkalinity, Bicarbonate	358	5	mg/l as HCO_3	EPA 310.1	10-30-2000 1515 AW
Alkalinity, Carbonate	<5	5	mg/l as CO_3	EPA 310.1	10-30-2000 1515 AW
Alkalinity, Total	293	5	mg/l as $CaCO_3$	EPA 310.1	10-30-2000 1515 AW
Anions	6.5	----	meq/l	---------	11-17-2000 1000 RJ
Calcium, Dissolved	68	1	mg/l	EPA 215.1	11-13-2000 1000 MK
Cations	6.3	----	meq/l	---------	11-17-2000 1000 RJ
Chloride	7	1	mg/l	EPA 300.0	11-07-2000 0909 SC
Conductivity	571	1	umhos/cm	SM2510-B	11-10-2000 1245 AW
Hardness, Total	297	----	mg/l as $CaCO_3$	SM2340-B	11-17-2000 1000 RJ
Iron, Dissolved	<0.1	0.1	mg/l	EPA 236.1	11-08-2000 0830 MK
Iron, Total	<0.1	0.1	mg/l	EPA 236.1	11-08-2000 0830 MK
Magnesium, Dissolved	31	1	mg/l	EPA 242.1	11-13-2000 1130 MK
Manganese, Total	<0.1	0.1	mg/l	EPA 243.1	11-08-2000 1000 MK
Manganese, Dissolved	<0.1	0.1	mg/l	EPA 243.1	11-08-2000 1000 MK
Oil & Grease	<2	2	mg/l	EPA 413.1	11-07-2000 0900 SC
Potassium, Dissolved	1	1	mg/l	EPA 258.1	11-13-2000 0800 MK
Sodium, Dissolved	7	1	mg/l	EPA 273.1	11-13-2000 0900 MK
Solids, Settleable	<0.4	0.4	ml/l	EPA 160.5	10-27-2000 0900 SC
Solids, Total Dissolved	348	10	mg/l	EPA 160.1	11-01-2000 1600 AW
Solids, Total Suspended	10	5	mg/l	EPA 160.2	11-01-2000 1600 AW
Sulfate	22	1	mg/l	EPA 300.0	11-07-2000 0909 SC
Cation/Anion Balance	-1.9	----	%		11-17-2000 1000 RJ

Respectfully submitted,
COMMERCIAL TESTING & ENGINEERING CO.

Huntington Laboratory

MEMBER ACIL

Mine Name: BEAR CANYON

Electronic Water Data Report By Individual Sample

Date Sampled: 10/26/00

SiteName: SBC-3

Lab Code: CTE

LAB_ID: 59-22138

TimeSampled: 1145

SiteDescription: Right Fork Creek Well

Sampler Name:

Parameter	S.Type	EQ	Value	Units	Min Detection	Analysis Method	Date Rec.	Date Analyzed	Analyst Name	Date Reported
COMMENTS							10/26/00			11/30/2000
FIELD WATER TEMPERATURE	4		9.3	Deg. C			10/26/00	10/26/00		11/30/2000
PH (FIELD)	4		7.23	pH units			10/26/00	10/26/00		11/30/2000
SP. CONDUCTIVITY (FIELD)	4		3600	umhos/cm			10/26/00	10/26/00		11/30/2000
DEPTH	4		32.6	m			10/26/00	10/26/00		11/30/2000
DISSOLVED CALCIUM	4		282	mg/l	1	EPA 215.1	10/26/00	11/13/00	MK	11/30/2000
DISSOLVED IRON	4	<	0.1	mg/l	0.1	EPA 236.1	10/26/00	11/8/00	MK	11/30/2000
DISSOLVED MAGNESIUM	4		407	mg/l	1	EPA 242.1	10/26/00	11/13/00	MK	11/30/2000
DISSOLVED MANGANESE	4	<	0.1	mg/l	0.1	EPA 243.1	10/26/00	11/8/00	MK	11/30/2000
DISSOLVED POTASSIUM	4		22	mg/l	1	EPA 258.1	10/26/00	11/13/00	MK	11/30/2000
DISSOLVED SODIUM	4		87	mg/l	1	EPA 273.1	10/26/00	11/13/00	MK	11/30/2000
BICARBONATE AS HCO3	4		595	mg/l	5	EPA 310.1	10/26/00	10/30/00	AW	11/30/2000
CARBONATE AS CO3	4	<	5	mg/l	5	EPA 310.1	10/26/00	10/30/00	AW	11/30/2000
CHLORIDE	4		51	mg/l	1	EPA 300.0	10/26/00	10/27/00	RJ	11/30/2000
SULFATE	4		1777	mg/l	1	EPA 300.0	10/26/00	11/7/00	SC	11/30/2000
TOTAL ALKALINITY AS CACO3	4		488	mg/l	5	EPA 310.1	10/26/00	10/30/00	AW	11/30/2000
TOTAL HARDNESS AS CACO3	4		2380	mg/l		SM2340-B	10/26/00	11/17/00	RJ	11/30/2000
SPECIFIC CONDUCTIVITY (LAB)	4		3660	umhos/cm	1	SM2510-B	10/26/00	11/10/00	AW	11/30/2000
TOTAL DISSOLVED SOLIDS, @ 180	4		3481	mg/l	10	EPA 160.1	10/26/00	11/1/00	AW	11/30/2000
TOTAL CATIONS	4		51.9	meq/l			10/26/00	11/17/00	RJ	11/30/2000
TOTAL ANIONS	4		48.2	meq/l			10/26/00	11/17/00	RJ	11/30/2000
TOTAL IRON	4		3.3	mg/l	0.1	EPA 236.1	10/26/00	11/8/00	MK	11/30/2000
TOTAL MANGANESE	4		0.1	mg/l	0.1	EPA 243.1	10/26/00	11/8/00	MK	11/30/2000

CO-OP Mining Company

Hydrology Field Measurement Form

Mine: Bear Canyon
Permit No: ACT/015/025

Station # SBC-3

Sample Date: 10-26-00

Sample Time: 11:45

Sample Type:
- ☑ Spring
- ☐ Stream
- ☐ Well
- ☐ NPDES

Quality Sample Taken
- ☐ Baseline
- ☑ Operational
- ☐ Field

Appearance of Water
- ☑ Clear
- ☐ Milky
- ☐ Cloudy
- ☐ Opaque

Flow/Depth 32.6

Water Temperature 48.7°F

PH 7.23

Specific Conductivity 3260

Dissolved Oxygen N/A

Comments:

Field Monitor: Nephi Walton

Lab Analyzing: CTE

Date Shipped: 10-26-00

Sample ID: 59-22138

Date Results Received: 11-30-00

COMMERCIAL TESTING & ENGINEERING CO.

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ADDRESS ALL CORRESPONDENCE TO:
P.O. BOX 1020
HUNTINGTON, UT 84528
TEL: (435) 653-2311
FAX: (435) 653-2436

November 30, 2000

C.W. MINING
P.O. Box 1245
Huntington UT 84528
Bryan Owen

Sample identification by
C.W. Mining

ID:SBC-3

Kind of sample reported to us Water

Sample taken at

Sample taken by C.W. Mining

Date sampled October 26, 2000

Date received October 26, 2000

RECEIVED 1500
SAMPLED 1145
FIELD MEASUREMENTS
DEPTH 32.6 TEMP 9.3
COND. 3600 pH 7.23

NOTES:
DIS.METALS
FILTERED @ LAB

Analysis report no. 59-22138

Parameter	Result	MRL	Units	Method	Analyzed Date/Time/Analyst
Alkalinity, Bicarbonate	595	5	mg/l as HCO_3	EPA 310.1	10-30-2000 1030 AW
Alkalinity, Carbonate	<5	5	mg/l as CO_3	EPA 310.1	10-30-2000 1030 AW
Alkalinity, Total	488	5	mg/l as $CaCO_3$	EPA 310.1	10-30-2000 1030 AW
Anions	48.2	----	meq/l	---------	11-17-2000 1000 RJ
Calcium, Dissolved	282	5	mg/l	EPA 215.1	11-13-2000 1000 MK
Cations	51.9	----	meq/l	---------	11-17-2000 1000 RJ
Chloride	51	1	mg/l	EPA 300.0	10-27-2000 0907 RJ
Conductivity	3660	1	umhos/cm	SM2510-B	11-10-2000 1245 AW
Hardness, Total	2380	----	mg/l as $CaCO_3$	SM2340-B	11-17-2000 1000 RJ
Iron, Dissolved	<0.1	0.1	mg/l	EPA 236.1	11-08-2000 0830 MK
Iron, Total	3.3	0.1	mg/l	EPA 236.1	11-08-2000 0830 MK
Magnesium, Dissolved	407	10	mg/l	EPA 242.1	11-13-2000 1130 MK
Manganese, Total	0.1	0.1	mg/l	EPA 243.1	11-08-2000 1000 MK
Manganese, Dissolved	<0.1	0.1	mg/l	EPA 243.1	11-08-2000 1000 MK
Potassium, Dissolved	22	1	mg/l	EPA 258.1	11-13-2000 0800 MK
Sodium, Dissolved	87	1	mg/l	EPA 273.1	11-13-2000 0900 MK
Solids, Total Dissolved	3481	10	mg/l	EPA 160.1	11-01-2000 1600 AW
Sulfate	1777	10	mg/l	EPA 300.0	11-07-2000 0909 SC
Cation/Anion Balance	3.7	----	%		11-17-2000 1000 RJ

Respectfully submitted,
COMMERCIAL TESTING & ENGINEERING CO.

Huntington Laboratory

MEMBER ACIL

Mine Name: BEAR CANYON

Electronic Water Data Report By Individual Sample

Date Sampled: 10/26/00

SiteName: SBC-4

Lab Code: CTE

LAB_ID: 59-22131

TimeSampled: 1410

SiteDescription: Big Bear (Huntington Spring)

Sampler Name: C.W. Mining

Parameter	S.Type	EQ	Value	Units	Min Detection	Analysis Method	Date Rec.	Date Analyzed	Analyst Name	Date Reported
FIELD WATER TEMPERATURE	4		9	Deg. C			10/26/00	10/26/00		11/30/2000
PH (FIELD)	4		7.45	pH units			10/26/00	10/26/00		11/30/2000
SP. CONDUCTIVITY (FIELD)	4		580	umhos/cm			10/26/00	10/26/00		11/30/2000
OIL/GREASE	4	<	2	mg/l	2	EPA 413.1	10/26/00	11/1/00	SC	11/30/2000
DISSOLVED CALCIUM	4		76	mg/l	1	EPA 215.1	10/26/00	11/13/00	MK	11/30/2000
DISSOLVED IRON	4	<	0.1	mg/l	0.1	EPA 236.1	10/26/00	11/8/00	MK	11/30/2000
DISSOLVED MAGNESIUM	4		34	mg/l	1	EPA 242.1	10/26/00	11/13/00	MK	11/30/2000
DISSOLVED MANGANESE	4	<	0.1	mg/l	0.1	EPA 243.1	10/26/00	11/8/00	MK	11/30/2000
DISSOLVED POTASSIUM	4		2	mg/l	1	EPA 258.1	10/26/00	11/13/00	MK	11/30/2000
DISSOLVED SODIUM	4		5	mg/l	1	EPA 273.1	10/26/00	11/13/00	MK	11/30/2000
BICARBONATE AS HCO3	4		349	mg/l	5	EPA 310.1	10/26/00	10/30/00	AW	11/30/2000
CARBONATE AS CO3	4	<	5	mg/l	5	EPA 310.1	10/26/00	10/30/00	AW	11/30/2000
CHLORIDE	4		4	mg/l	1	EPA 300.0	10/26/00	10/27/00	RJ	11/30/2000
SULFATE	4		61	mg/l	1	EPA 300.0	10/26/00	10/27/00	RJ	11/30/2000
TOTAL ALKALINITY AS CACO3	4		286	mg/l	5	EPA 310.1	10/26/00	10/30/00	AW	11/30/2000
TOTAL HARDNESS AS CACO3	4		330	mg/l		SM2340-B	10/26/00	11/17/00	RJ	11/30/2000
SPECIFIC CONDUCTIVITY (LAB)	4		628	umhos/cm	1	SM2510-B	10/26/00	11/10/00	AW	11/30/2000
TOTAL DISSOLVED SOLIDS, @ 180	4		356	mg/l	10	EPA 160.1	10/26/00	11/1/00	AW	11/30/2000
TOTAL CATIONS	4		6.9	meq/l			10/26/00	11/17/00	RJ	11/30/2000
TOTAL ANIONS	4		7.1	meq/l			10/26/00	11/17/00	RJ	11/30/2000
TOTAL IRON	4	<	0.1	mg/l	0.1	EPA 236.1	10/26/00	11/8/00	MK	11/30/2000
TOTAL MANGANESE	4	<	0.1	mg/l	0.1	EPA 243.1	10/26/00	11/8/00	MK	11/30/2000

CO-OP Mining Company

Hydrology Field Measurement Form

Mine: Bear Canyon
Permit No: ACT/015/025

Station # SBC-4

Sample Date: 10-26-00

Sample Time: 14:10

Sample Type:
- ☑ Spring
- ☐ Stream
- ☐ Well
- ☐ NPDES

Quality Sample Taken
- ☐ Baseline
- ☐ Operational
- ☐ Field

Appearance of Water
- ☑ Clear
- ☐ Milky
- ☐ Cloudy
- ☐ Opaque

Flow/Depth _____

Water Temperature 9°C

PH 7.45

Specific Conductivity 580

Dissolved Oxygen N/A

Comments: _____

Field Monitor: Nephi Walton

Lab Analyzing: CTE

Date Shipped: 10-26-00

Sample ID: 59-22131

Date Results Received: 11-29-00

COMMERCIAL TESTING & ENGINEERING CO.

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FAX: (435) 653-2436

November 29, 2000

C.W. MINING
P.O. Box 1245
Huntington UT 84528
Bryan Owen

Sample identification by
C.W. Mining

ID:SBC-4

Kind of sample reported to us Water

Sample taken at

Sample taken by C.W. Mining

Date sampled October 26, 2000

Date received October 26, 2000

RECEIVED 1500
SAMPLED 1410
FIELD MEASUREMENTS
TEMP 9
COND. 580 pH 7.45

NOTES:
DIS.METALS
FILTERED @ LAB

Analysis report no. 59-22131

Parameter	Result	MRL	Units	Method	Analyzed Date/Time/Analyst
Alkalinity, Bicarbonate	349	5	mg/l as HCO_3	EPA 310.1	10-30-2000 1030 AW
Alkalinity, Carbonate	<5	5	mg/l as CO_3	EPA 310.1	10-30-2000 1030 AW
Alkalinity, Total	286	5	mg/l as $CaCO_3$	EPA 310.1	10-30-2000 1030 AW
Anions	7.1	----	meq/l	---------	11-17-2000 1000 RJ
Calcium, Dissolved	76	1	mg/l	EPA 215.1	11-13-2000 1000 MK
Cations	6.9	----	meq/l	---------	11-17-2000 1000 RJ
Chloride	4	1	mg/l	EPA 300.0	10-27-2000 0907 RJ
Conductivity	628	1	umhos/cm	SM2510-B	11-10-2000 1245 AW
Hardness, Total	330	----	mg/l as $CaCO_3$	SM2340-B	11-17-2000 1000 RJ
Iron, Dissolved	<0.1	0.1	mg/l	EPA 236.1	11-08-2000 0830 MK
Iron, Total	<0.1	0.1	mg/l	EPA 236.1	11-08-2000 0830 MK
Magnesium, Dissolved	34	1	mg/l	EPA 242.1	11-13-2000 1130 MK
Manganese, Total	<0.1	0.1	mg/l	EPA 243.1	11-08-2000 1000 MK
Manganese, Dissolved	<0.1	0.1	mg/l	EPA 243.1	11-08-2000 1000 MK
Oil & Grease	<2	2	mg/l	EPA 413.1	11-01-2000 0830 SC
Potassium, Dissolved	2	1	mg/l	EPA 258.1	11-13-2000 0800 MK
Sodium, Dissolved	5	1	mg/l	EPA 273.1	11-13-2000 0900 MK
Solids, Total Dissolved	356	10	mg/l	EPA 160.1	11-01-2000 1600 AW
Sulfate	61	1	mg/l	EPA 300.0	10-27-2000 0907 RJ
Cation/Anion Balance	-1.7	----	%		11-17-2000 1000 RJ

Respectfully submitted,
COMMERCIAL TESTING & ENGINEERING CO.

Huntington Laboratory

MEMBER ACIL

Mine Name: BEAR CANYON

Electronic Water Data Report By Individual Sample

Date Sampled: 10/26/00

SiteName: SBC-5

Lab Code: CTE

LAB_ID: 59-22132

TimeSampled: 1355

SiteDescription: Birch Spring

Sampler Name:

Parameter	S.Type	EQ	Value	Units	Min Detection	Analysis Method	Date Rec.	Date Analyzed	Analyst Name	Date Reported
COMMENTS							10/26/00			11/30/2000
FIELD WATER TEMPERATURE	4		11	Deg. C			10/26/00	10/26/00		11/30/2000
PH (FIELD)	4		7.05	pH units			10/26/00	10/26/00		11/30/2000
SP. CONDUCTIVITY (FIELD)	4		760	umhos/cm			10/26/00	10/26/00		11/30/2000
FLOW	4		25	GPM			10/26/00	10/26/00		11/30/2000
OIL/GREASE	4	<	2	mg/l	2	EPA 413.1	10/26/00	11/1/00	SC	11/30/2000
DISSOLVED CALCIUM	4		99	mg/l	1	EPA 215.1	10/26/00	11/13/00	MK	11/30/2000
DISSOLVED IRON	4	<	0.1	mg/l	0.1	EPA 236.1	10/26/00	11/8/00	MK	11/30/2000
DISSOLVED MAGNESIUM	4		49	mg/l	1	EPA 242.1	10/26/00	11/13/00	MK	11/30/2000
DISSOLVED MANGANESE	4	<	0.1	mg/l	0.1	EPA 243.1	10/26/00	11/8/00	MK	11/30/2000
DISSOLVED POTASSIUM	4		2	mg/l	1	EPA 258.1	10/26/00	11/13/00	MK	11/30/2000
DISSOLVED SODIUM	4		7	mg/l	1	EPA 273.1	10/26/00	11/13/00	MK	11/30/2000
BICARBONATE AS HCO3	4		411	mg/l	5	EPA 310.1	10/26/00	10/30/00	AW	11/30/2000
CARBONATE AS CO3	4	<	5	mg/l	5	EPA 310.1	10/26/00	10/30/00	AW	11/30/2000
CHLORIDE	4		7	mg/l	1	EPA 300.0	10/26/00	10/27/00	RJ	11/30/2000
SULFATE	4		147	mg/l	1	EPA 300.0	10/26/00	10/27/00	RJ	11/30/2000
TOTAL ALKALINITY AS CACO3	4		337	mg/l	5	EPA 310.1	10/26/00	10/30/00	AW	11/30/2000
TOTAL HARDNESS AS CACO3	4		449	mg/l		SM2340-B	10/26/00	11/17/00	RJ	11/30/2000
SPECIFIC CONDUCTIVITY (LAB)	4		866	umhos/cm	1	SM2510-B	10/26/00	11/10/00	AW	11/30/2000
TOTAL DISSOLVED SOLIDS, @ 180	4		546	mg/l	10	EPA 160.1	10/26/00	11/1/00	AW	11/30/2000
TOTAL CATIONS	4		9.3	meq/l			10/26/00	11/17/00	RJ	11/30/2000
TOTAL ANIONS	4		10	meq/l			10/26/00	11/17/00	RJ	11/30/2000
TOTAL IRON	4	<	0.1	mg/l	0.1	EPA 236.1	10/26/00	11/8/00	MK	11/30/2000
TOTAL MANGANESE	4	<	0.1	mg/l	0.1	EPA 243.1	10/26/00	11/8/00	MK	11/30/2000

CO-OP MINING COMPANY

Hydrology Field Measurement Form

Mine Bear Canyon Mine Station # SBC-5

Permit No ACT/015/025

Sample Date 10-26-00

Sample Time 1355

Type: Spring ✓ Stream ____ Well ____ NPDES ____

Collection Point ____

Appearance of Water: Clear ✓ Milky ____ Cloudy ____ Opaque ____

Quality Sample Taken: Baseline ____ Operational ____ Field ____

Flow/Depth 25 gpm

Water Temperature 11°C

pH 7.05

Specific Conductivity 760

Dissolved Oxygen N/A

Comments: ____

Field Monitor ____

Lab Analyzing CTE Date Shipped 10-26-00

Sample ID # 59-22132 Date Results Received 11-30-00

COMMERCIAL TESTING & ENGINEERING CO.

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FAX: (435) 653-2436

November 30, 2000

C.W. MINING
P.O. Box 1245
Huntington UT 84528
Bryan Owen

Sample identification by
C.W. Mining

ID:SBC-5

Kind of sample reported to us Water

Sample taken at

Sample taken by C.W. Mining

Date sampled October 26, 2000

Date received October 26, 2000

RECEIVED 1500
SAMPLED 1355
FIELD MEASUREMENTS
TEMP 11
COND. 760 pH 7.05

NOTES:
DIS.METALS
FILTERED @ LAB

Analysis report no. 59-22132

Parameter	Result	MRL	Units	Method	Analyzed Date/Time/Analyst
Alkalinity, Bicarbonate	411	5	mg/l as HCO_3	EPA 310.1	10-30-2000 1030 AW
Alkalinity, Carbonate	<5	5	mg/l as CO_3	EPA 310.1	10-30-2000 1030 AW
Alkalinity, Total	337	5	mg/l as $CaCO_3$	EPA 310.1	10-30-2000 1030 AW
Anions	10.0	----	meq/l	---------	11-17-2000 1000 RJ
Calcium, Dissolved	99	1	mg/l	EPA 215.1	11-13-2000 1000 MK
Cations	9.3	----	meq/l	---------	11-17-2000 1000 RJ
Chloride	7	1	mg/l	EPA 300.0	10-27-2000 0907 RJ
Conductivity	866	1	umhos/cm	SM2510-B	11-10-2000 1245 AW
Hardness, Total	449	----	mg/l as $CaCO_3$	SM2340-B	11-17-2000 1000 RJ
Iron, Dissolved	<0.1	0.1	mg/l	EPA 236.1	11-08-2000 0830 MK
Iron, Total	<0.1	0.1	mg/l	EPA 236.1	11-08-2000 0830 MK
Magnesium, Dissolved	49	1	mg/l	EPA 242.1	11-13-2000 1130 MK
Manganese, Total	<0.1	0.1	mg/l	EPA 243.1	11-08-2000 1000 MK
Manganese, Dissolved	<0.1	0.1	mg/l	EPA 243.1	11-08-2000 1000 MK
Oil & Grease	<2	2	mg/l	EPA 413.1	11-01-2000 0830 SC
Potassium, Dissolved	2	1	mg/l	EPA 258.1	11-13-2000 0800 MK
Sodium, Dissolved	7	1	mg/l	EPA 273.1	11-13-2000 0900 MK
Solids, Total Dissolved	546	10	mg/l	EPA 160.1	11-01-2000 1600 AW
Sulfate	147	1	mg/l	EPA 300.0	10-27-2000 0907 RJ
Cation/Anion Balance	-3.4	----	%		11-17-2000 1000 RJ

Respectfully submitted,
COMMERCIAL TESTING & ENGINEERING CO.

Huntington Laboratory

MEMBER ACIL

Mine Name: BEAR CANYON

Electronic Water Data Report By Individual Sample

Date Sampled: 10/17/00

SiteName: SBC-12

Lab Code: CTE

LAB_ID: 59-22070

TimeSampled: 1740

SiteDescription: Source Spring at head of Bear Creek

Sampler Name:

Parameter	S.Type	EQ	Value	Units	Min Detection	Analysis Method	Date Rec.	Date Analyzed	Analyst Name	Date Reported
COMMENTS							10/18/00			11/06/2000
FLOW	4		8	GPM			10/18/00	10/17/00		11/06/2000
DISSOLVED CALCIUM	4		53	mg/l	1	EPA 215.1	10/18/00	10/25/00	MK	11/06/2000
DISSOLVED IRON	4	<	0.1	mg/l	0.1	EPA 236.1	10/18/00	10/24/00	MK	11/06/2000
DISSOLVED MAGNESIUM	4		20	mg/l	1	EPA 242.1	10/18/00	10/25/00	MK	11/06/2000
DISSOLVED MANGANESE	4	<	0.1	mg/l	0.1	EPA 243.1	10/18/00	10/25/00	MK	11/06/2000
DISSOLVED POTASSIUM	4	<	1	mg/l	1	EPA 258.1	10/18/00	10/25/00	MK	11/06/2000
DISSOLVED SODIUM	4		2	mg/l	1	EPA 273.1	10/18/00	10/25/00	MK	11/06/2000
BICARBONATE AS HCO3	4		265	mg/l	5	EPA 310.1	10/18/00	10/19/00	AW	11/06/2000
CARBONATE AS CO3	4	<	5	mg/l	5	EPA 310.1	10/18/00	10/19/00	AW	11/06/2000
CHLORIDE	4		1	mg/l	1	EPA 300.0	10/18/00	10/25/00	RJ	11/06/2000
SULFATE	4		7	mg/l	1	EPA 300.0	10/18/00	10/25/00	RJ	11/06/2000
TOTAL ALKALINITY AS CACO3	4		217	mg/l	5	EPA 310.1	10/18/00	10/19/00	AW	11/06/2000
TOTAL HARDNESS AS CACO3	4		215	mg/l		SM2340-B	10/18/00	11/1/00	RJ	11/06/2000
SPECIFIC CONDUCTIVITY (LAB)	4		403	umhos/cm	1	SM2510-B	10/18/00	10/18/00	RJ	11/06/2000
TOTAL DISSOLVED SOLIDS, @ 180	4		234	mg/l	10	EPA 160.1	10/18/00	10/24/00	AW	11/06/2000
TOTAL CATIONS	4		4.4	meq/l			10/18/00	11/1/00	RJ	11/06/2000
TOTAL ANIONS	4		4.5	meq/l			10/18/00	11/1/00	RJ	11/06/2000
TOTAL IRON	4		0.2	mg/l	0.1	EPA 236.1	10/18/00	10/24/00	MK	11/06/2000
TOTAL MANGANESE	4	<	0.1	mg/l	0.1	EPA 243.1	10/18/00	10/25/00	MK	11/06/2000

CO-OP MINING COMPANY

29

Hydrology Field Measurement Form

Mine Bear Canyon Mine Station # SBC-12

Permit No ACT/015/025

Sample Date 10-17-00

Sample Time 17:40

Type: Spring ✓ Stream ____ Well ____ NPDES ____

Collection Point ____

Appearance of Water: Clear ✓ Milky ____ Cloudy ____ Opaque ____

Quality Sample Taken: Baseline ____ Operational ✓ Field ____

Flow/Depth 8 gpm

Water Temperature 6.9°C

pH 8.2

Specific Conductivity 430

Dissolved Oxygen N/A

Comments: ____

Field Monitor Nephi Walton

Lab Analyzing CTE Date Shipped 10-18-00

Sample ID # 59-22070 Date Results Received 11-6-00

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FAX: (435) 653-2436

November 6, 2000

C.W. MINING
P.O. Box 1245
Huntington UT 84528
Bryan Owen

Sample identification by
C.W. Mining

ID:SBC-12

RECEIVED 1040
SAMPLED 1740
FIELD MEASUREMENTS
FLOW 8 GPM

NOTES:
DIS.METALS
FILTERED @ LAB

Kind of sample reported to us Water

Sample taken at

Sample taken by C.W. Mining

Date sampled October 17, 2000

Date received October 18, 2000

Analysis report no. 59-22070

Parameter	Result	MRL	Units	Method	Analyzed Date/Time/Analyst
Alkalinity, Bicarbonate	265	5	mg/l as HCO_3	EPA 310.1	10-19-2000 0845 AW
Alkalinity, Carbonate	<5	5	mg/l as CO_3	EPA 310.1	10-19-2000 0845 AW
Alkalinity, Total	217	5	mg/l as $CaCO_3$	EPA 310.1	10-19-2000 0845 AW
Anions	4.5	----	meq/l	---------	11-01-2000 1230 RJ
Calcium, Dissolved	53	1	mg/l	EPA 215.1	10-25-2000 0915 MK
Cations	4.4	----	meq/l	---------	11-01-2000 1230 RJ
Chloride	1	1	mg/l	EPA 300.0	10-25-2000 0848 RJ
Conductivity	403	1	umhos/cm	SM2510-B	10-18-2000 1100 RJ
Hardness, Total	215	----	mg/l as $CaCO_3$	SM2340-B	11-01-2000 1230 RJ
Iron, Dissolved	<0.1	0.1	mg/l	EPA 236.1	10-24-2000 1300 MK
Iron, Total	0.2	0.1	mg/l	EPA 236.1	10-24-2000 1300 MK
Magnesium, Dissolved	20	1	mg/l	EPA 242.1	10-25-2000 1000 MK
Manganese, Total	<0.1	0.1	mg/l	EPA 243.1	10-25-2000 0600 MK
Manganese, Dissolved	<0.1	0.1	mg/l	EPA 243.1	10-25-2000 0600 MK
Potassium, Dissolved	<1	1	mg/l	EPA 258.1	10-25-2000 0645 MK
Sodium, Dissolved	2	1	mg/l	EPA 273.1	10-25-2000 0830 MK
Solids, Total Dissolved	234	10	mg/l	EPA 160.1	10-24-2000 1435 AW
Sulfate	7	1	mg/l	EPA 300.0	10-25-2000 0848 RJ
Cation/Anion Balance	-1.6	----	%		11-01-2000 1230 RJ

Respectfully submitted,
COMMERCIAL TESTING & ENGINEERING CO.

RJ Cormier

Huntington Laboratory

MEMBER ACIL

Mine Name: BEAR CANYON

Electronic Water Data Report By Individual Sample

Date Sampled: 10/24/00

SiteName: SBC-13

Lab Code: CTE

LAB_ID: 59-22124

TimeSampled: 1940

SiteDescription: 1st E GOB Sump in-mine

Sampler Name:

Parameter	S.Type	EQ	Value	Units	Min Detection	Analysis Method	Date Rec.	Date Analyzed	Analyst Name	Date Reported
COMMENTS							10/25/00			11/30/2000
FIELD WATER TEMPERATURE	4		12.8	Deg. C			10/25/00	10/24/00		11/30/2000
PH (FIELD)	4		7.33	pH units			10/25/00	10/24/00		11/30/2000
SP. CONDUCTIVITY (FIELD)	4		1128	umhos/cm			10/25/00	10/24/00		11/30/2000
FLOW	4		12	GPM			10/25/00	10/24/00		11/30/2000
DISSOLVED CALCIUM	4		112	mg/l	1	EPA 215.1	10/25/00	11/13/00	MK	11/30/2000
DISSOLVED IRON	4	<	0.1	mg/l	0.1	EPA 236.1	10/25/00	11/8/00	MK	11/30/2000
DISSOLVED MAGNESIUM	4		53	mg/l	1	EPA 242.1	10/25/00	11/13/00	MK	11/30/2000
DISSOLVED MANGANESE	4	<	0.1	mg/l	0.1	EPA 243.1	10/25/00	11/8/00	MK	11/30/2000
DISSOLVED POTASSIUM	4		4	mg/l	1	EPA 258.1	10/25/00	11/13/00	MK	11/30/2000
DISSOLVED SODIUM	4		13	mg/l	1	EPA 273.1	10/25/00	11/13/00	MK	11/30/2000
BICARBONATE AS HCO3	4		390	mg/l	5	EPA 310.1	10/25/00	10/30/00	AW	11/30/2000
CARBONATE AS CO3	4	<	5	mg/l	5	EPA 310.1	10/25/00	10/30/00	AW	11/30/2000
CHLORIDE	4		5	mg/l	1	EPA 300.0	10/25/00	10/25/00	RJ	11/30/2000
SULFATE	4		178	mg/l	1	EPA 300.0	10/25/00	10/25/00	RJ	11/30/2000
TOTAL ALKALINITY AS CACO3	4		320	mg/l	5	EPA 310.1	10/25/00	10/30/00	AW	11/30/2000
TOTAL HARDNESS AS CACO3	4		498	mg/l		SM2340-B	10/25/00	11/17/00	RJ	11/30/2000
SPECIFIC CONDUCTIVITY (LAB)	4		965	umhos/cm	1	SM2510-B	10/25/00	11/1/00	AW	11/30/2000
TOTAL DISSOLVED SOLIDS, @ 180	4		645	mg/l	10	EPA 160.1	10/25/00	10/25/00	AW	11/30/2000
TOTAL CATIONS	4		10.6	meq/l			10/25/00	11/17/00	RJ	11/30/2000
TOTAL ANIONS	4		10.3	meq/l			10/25/00	11/17/00	RJ	11/30/2000
TOTAL IRON	4	<	0.1	mg/l	0.1	EPA 236.1	10/25/00	11/8/00	MK	11/30/2000
TOTAL MANGANESE	4	<	0.1	mg/l	0.1	EPA 243.1	10/25/00	11/8/00	MK	11/30/2000

CO-OP Mining Company

Hydrology Field Measurement Form

Mine: Bear Canyon
Permit No: ACT/015/025

Station # SBC-13

Sample Date: 10-24-00

Sample Time: 19:40

Sample Type:
- ☑ Spring
- ☐ Stream
- ☐ Well
- ☐ NPDES

Quality Sample Taken
- ☐ Baseline
- ☑ Operational
- ☐ Field

Appearance of Water
- ☑ Clear
- ☐ Milky
- ☐ Cloudy
- ☐ Opaque

Flow/Depth 12 gpm

Water Temperature 12.8°C

PH 7.33

Specific Conductivity 1128

Dissolved Oxygen N/A

Comments:

Field Monitor: Nephi Walton

Lab Analyzing: CTE

Date Shipped: 10-25-00

Sample ID: 59-22124

Date Results Received: 11-29-00

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November 29, 2000

C.W. MINING
P.O. Box 1245
Huntington UT 84528
Bryan Owen

Sample identification by
C.W. Mining

ID:SBC-13

Kind of sample reported to us Water

Sample taken at

Sample taken by C.W. Mining

Date sampled October 24, 2000

Date received October 25, 2000

RECEIVED 0925
SAMPLED 1940
FIELD MEASUREMENTS
FLOW 12 GPM TEMP 12.8
COND. 1128 pH 7.33

NOTES:
DIS.METALS
FILTERED @ LAB

Analysis report no. 59-22124

Parameter	Result	MRL	Units	Method	Analyzed Date/Time/Analyst
Alkalinity, Bicarbonate	390	5	mg/l as HCO_3	EPA 310.1	10-30-2000 1030 AW
Alkalinity, Carbonate	<5	5	mg/l as CO_3	EPA 310.1	10-30-2000 1030 AW
Alkalinity, Total	320	5	mg/l as $CaCO_3$	EPA 310.1	10-30-2000 1030 AW
Anions	10.3	----	meq/l	---------	11-17-2000 1000 RJ
Calcium, Dissolved	112	1	mg/l	EPA 215.1	11-13-2000 1000 MK
Cations	10.6	----	meq/l	---------	11-17-2000 1000 RJ
Chloride	5	1	mg/l	EPA 300.0	10-25-2000 0848 RJ
Conductivity	965	1	umhos/cm	SM2510-B	11-01-2000 1430 AW
Hardness, Total	498	----	mg/l as $CaCO_3$	SM2340-B	11-17-2000 1000 RJ
Iron, Dissolved	<0.1	0.1	mg/l	EPA 236.1	11-08-2000 0830 MK
Iron, Total	<0.1	0.1	mg/l	EPA 236.1	11-08-2000 0830 MK
Magnesium, Dissolved	53	1	mg/l	EPA 242.1	11-13-2000 1130 MK
Manganese, Total	<0.1	0.1	mg/l	EPA 243.1	11-08-2000 1000 MK
Manganese, Dissolved	<0.1	0.1	mg/l	EPA 243.1	11-08-2000 1000 MK
Potassium, Dissolved	4	1	mg/l	EPA 258.1	11-13-2000 0800 MK
Sodium, Dissolved	13	1	mg/l	EPA 273.1	11-13-2000 0900 MK
Solids, Total Dissolved	645	10	mg/l	EPA 160.1	10-25-2000 1400 AW
Sulfate	178	2	mg/l	EPA 300.0	10-25-2000 0848 RJ
Cation/Anion Balance	1.7	----	%		11-17-2000 1000 RJ

Respectfully submitted,
COMMERCIAL TESTING & ENGINEERING CO.

Huntington Laboratory

MEMBER ACIL

Mine Name: BEAR CANYON

Electronic Water Data Report By Individual Sample

Date Sampled: 10/25/2000

SiteName: SBC-14

Lab Code: CTE

LAB_ID: 59-22137

TimeSampled: 1045

SiteDescription: Bear Canyon Right Fork Spring

Sampler Name:

Parameter	S.Type	EQ	Value	Units	Min Detection	Analysis Method	Date Rec.	Date Analyzed	Analyst Name	Date Reported
COMMENTS							0/26/2000			11/30/2000
FIELD WATER TEMPERATURE	4		8.6	Deg. C			0/26/2000	10/25/2000		11/30/2000
PH (FIELD)	4		7.8	pH units			0/26/2000	10/25/2000		11/30/2000
SP. CONDUCTIVITY (FIELD)	4		2330	umhos/cm			0/26/2000	10/25/2000		11/30/2000
FLOW	4		3	GPM			0/26/2000	10/25/2000		11/30/2000
NO2+NO3 AS N	4		0.67	mg/l	0.03	EPA 300.0	0/26/2000	10/27/2000	RJ	11/30/2000
AMMONIA AS N	4	<	0.5	mg/l	0.5	EPA 350.3	0/26/2000	11/2/2000	SC	11/30/2000
DISSOLVED ARSENIC	4	<	0.01	mg/l	0.01	EPA 206.2	0/26/2000	11/1/2000	MK	11/30/2000
DISSOLVED BORON	4		0.5	mg/l	0.1	EPA 212.3	0/26/2000	10/31/2000	SC	11/30/2000
DISSOLVED CADMIUM	4	<	0.01	mg/l	0.01	EPA 213.1	0/26/2000	11/15/2000	MK	11/30/2000
DISSOLVED CALCIUM	4		150	mg/l	1	EPA 215.1	0/26/2000	11/13/2000	MK	11/30/2000
DISSOLVED COPPER	4	<	0.1	mg/l	0.1	EPA 220.1	0/26/2000	11/14/2000	MK	11/30/2000
DISSOLVED IRON	4	<	0.1	mg/l	0.1	EPA 236.1	0/26/2000	11/8/2000	MK	11/30/2000
DISSOLVED LEAD	4	<	0.1	mg/l	0.1	EPA 239.1	0/26/2000	11/15/2000	MK	11/30/2000
DISSOLVED MAGNESIUM	4		234	mg/l	1	EPA 242.1	0/26/2000	11/13/2000	MK	11/30/2000
DISSOLVED MANGANESE	4	<	0.1	mg/l	0.1	EPA 243.1	0/26/2000	11/8/2000	MK	11/30/2000
DISSOLVED POTASSIUM	4		18	mg/l	1	EPA 258.1	0/26/2000	11/13/2000	MK	11/30/2000
DISSOLVED SELENIUM		<	0.01	mg/l	0.01	EPA 270.2	0/26/2000	10/31/2000	MK	11/30/2000
DISSOLVED SODIUM	4		56	mg/l	1	EPA 273.1	0/26/2000	11/13/2000	MK	11/30/2000
DISSOLVED ZINC	4	<	0.01	mg/l	0.01	EPA 289.1	0/26/2000	11/15/2000	MK	11/30/2000
BICARBONATE AS HCO3	4		650	mg/l	5	EPA 310.1	0/26/2000	10/30/2000	AW	11/30/2000
CARBONATE AS CO3	4	<	5	mg/l	5	EPA 310.1	0/26/2000	10/30/2000	AW	11/30/2000
CHLORIDE	4		37	mg/l	1	EPA 300.0	0/26/2000	11/17/2000	SC	11/30/2000
NITRITE AS N	4	<	0.03	mg/l	0.03	EPA 300.0	0/26/2000	10/27/2000	RJ	11/30/2000
ORTHO. PHOSPHATE	4	<	0.05	mg/l	0.05	EPA 300.0	0/26/2000	10/27/2000	RJ	11/30/2000
SULFATE	4		925	mg/l	1	EPA 300.0	0/26/2000	11/17/2000	SC	11/30/2000
TOTAL ALKALINITY AS CACO3	4		533	mg/l	5	EPA 310.1	0/26/2000	10/30/2000	AW	11/30/2000

Parameter	S.Type	EQ	Value	Units	Min Detection	Analysis Method	Date Rec.	Date Analyzed	Analyst Name	Date Reported
TOTAL HARDNESS AS CACO3	4		1338	mg/l		SM2340-B	0/26/2000	11/20/2000	RJ	11/30/2000
TOTAL DISSOLVED SOLIDS, @ 180	4		1937	mg/l	10	EPA 160.1	0/26/2000	11/1/2000	AW	11/30/2000
DISSOLVED ALUMINUM	4	<	1	mg/l	1	EPA 202.1	0/26/2000	11/14/2000	MK	11/30/2000
DISSOLVED MOLYBDENUM	4	<	0.02	mg/l	0.02	EPA 246.1	0/26/2000	11/2/2000	MK	11/30/2000
TOTAL CATIONS	4		29.6	meq/l			0/26/2000	11/20/2000	RJ	11/30/2000
TOTAL ANIONS	4		31	meq/l			0/26/2000	11/20/2000	RJ	11/30/2000
TOTAL IRON	4	<	0.1	mg/l	0.1	EPA 236.1	0/26/2000	11/8/2000	MK	11/30/2000
TOTAL MANGANESE	4	<	0.1	mg/l	0.1	EPA 243.1	0/26/2000	11/8/2000	MK	11/30/2000

CO-OP Mining Company

Hydrology Field Measurement Form

Mine: Bear Canyon
Permit No: ACT/015/025

Station # SBC-14

Sample Date: 10-25-00

Sample Time: 10:45

Sample Type:
- ☑ Spring
- ☐ Stream
- ☐ Well
- ☐ NPDES

Quality Sample Taken
- ☑ Baseline
- ☐ Operational
- ☐ Field

Appearance of Water
- ☑ Clear
- ☐ Milky
- ☐ Cloudy
- ☐ Opaque

Flow/Depth 3gpm

Water Temperature 47.5°F

PH 7.8

Specific Conductivity 2330

Dissolved Oxygen N/A

Comments:

Field Monitor: Charles Reynolds

Lab Analyzing: CTE

Date Shipped: 10-26-00

Sample ID: 59-22137

Date Results Received: 11-29-00

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April 10, 2001

C.W. MINING
P.O. Box 1245
Huntington UT 84528
Bryan Owen

Sample identification by
C.W. Mining

ID:SBC-14
RECEIVED 1500
SAMPLED 1045
FIELD MEASUREMENTS
FLOW 3 GPM TEMP 8.6
COND. 2330 pH 7.8
NOTES:
DIS.METALS
FILTERED @ LAB
POSSIBLE MATRIX INTERFERENCE ON-TOTAL IRON, DISS. ALUMINUM, AND DISS. LEAD. REVISED REPORT DUE TO OMISSION OF ANALYST INITIALS.

Kind of sample reported to us Water

Sample taken at

Sample taken by C.W. Mining

Date sampled October 25, 2000

Date received October 26, 2000

Analysis report no. 59-22137

Parameter	Result	MRL	Units	Method	Analyzed Date/Time/Analyst
Alkalinity, Bicarbonate	650	5	mg/l as HCO_3	EPA 310.1	10-30-2000 1030 AW
Alkalinity, Carbonate	<5	5	mg/l as CO_3	EPA 310.1	10-30-2000 1030 AW
Alkalinity, Total	533	5	mg/l as $CaCO_3$	EPA 310.1	10-30-2000 1030 AW
Aluminum, Dissolved	<1	1	mg/l	EPA 202.1	11-14-2000 0900 MK
Anions	31.0	----	meq/l	---------	11-20-2000 1000 RJ
Arsenic, Dissolved	<0.01	0.01	mg/l	EPA 206.2	11-01-2000 0615 MK
Boron, Dissolved	0.5	0.1	mg/l	EPA 212.3	10-31-2000 1330 SC
Cadmium, Dissolved	<0.01	0.01	mg/l	EPA 213.1	11-15-2000 0915 MK
Calcium, Dissolved	150	1	mg/l	EPA 215.1	11-13-2000 1000 MK
Cations	29.6	----	meq/l	---------	11-20-2000 1000 RJ
Chloride	37	6	mg/l	EPA 300.0	11-17-2000 0830 SC
Copper, Dissolved	<0.1	0.1	mg/l	EPA 220.1	11-14-2000 1115 MK
Hardness, Total	1338	----	mg/l as $CaCO_3$	SM2340-B	11-20-2000 1000 RJ
Iron, Dissolved	<0.1	0.1	mg/l	EPA 236.1	11-08-2000 0830 MK
Iron, Total	<0.1	0.1	mg/l	EPA 236.1	11-08-2000 0830 MK
Lead, Dissolved	<0.1	0.1	mg/l	EPA 239.1	11-15-2000 0945 MK
Magnesium, Dissolved	234	5	mg/l	EPA 242.1	11-13-2000 1130 MK
Manganese, Total	<0.1	0.1	mg/l	EPA 243.1	11-08-2000 1000 MK
Manganese, Dissolved	<0.1	0.1	mg/l	EPA 243.1	11-08-2000 1000 MK
Molybdenum, Dissolved	<0.02	0.02	mg/l	EPA 246.2	11-02-2000 0600 MK
Nitrogen, Ammonia	<0.5	0.5	mg/l as N	EPA 350.3	11-02-2000 0800 SC
Nitrogen, Nitrate-Nitrite	0.67	0.18	mg/l as N	EPA 300.0	10-27-2000 0907 RJ
Nitrogen, Nitrite	<0.03	0.18	mg/l as N	EPA 300.0	10-27-2000 0907 RJ
Phosphorous, Ortho-PO_4	<0.05	0.30	mg/l as P	EPA 300.0	10-27-2000 0907 RJ

FAXED
4-11-01

Respectfully submitted,
COMMERCIAL TESTING & ENGINEERING CO.

Huntington Laboratory

MEMBER ACIL

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FAX: (435) 653-2436

November 29, 2000

C.W. MINING
P.O. Box 1245
Huntington UT 84528
Bryan Owen

Sample identification by
C.W. Mining

ID:SBC-14

RECEIVED 1500
SAMPLED 1045
FIELD MEASUREMENTS
FLOW 3 GPM TEMP 8.6
COND. 2330 pH 7.8
NOTES:
DIS.METALS
FILTERED @ LAB

POSSIBLE MATRIX INTERFERENCE ON-TOTAL IRON, DISS. ALUMINUM, AND DISS. LEAD.

Kind of sample reported to us Water

Sample taken at

Sample taken by C.W. Mining

Date sampled October 25, 2000

Date received October 26, 2000

Analysis report no. 59-22137

Parameter	Result	MRL	Units	Method	Analyzed Date/Time/Analyst
Potassium, Dissolved	18	1	mg/l	EPA 258.1	11-13-2000 0800 MK
Selenium, Dissolved	<0.01	0.01	mg/l	EPA 270.2	10-31-2000 0845 MK
Sodium, Dissolved	56	1	mg/l	EPA 273.1	11-13-2000 0900 MK
Solids, Total Dissolved	1937	10	mg/l	EPA 160.1	11-01-2000 1600 AW
Sulfate	925	6	mg/l	EPA 300.0	11-17-2000 0830 SC
Zinc, Dissolved	<0.01	0.01	mg/l	EPA 289.1	11-15-2000 0900 MK
Cation/Anion Balance	-2.2	----	%		11-20-2000 1000 RJ

Respectfully submitted,
COMMERCIAL TESTING & ENGINEERING CO.

Huntington Laboratory

MEMBER ACIL

Mine Name: BEAR CANYON

Electronic Water Data Report By Individual Sample

Date Sampled: 10/18/2000

SiteName: SBC-15

Lab Code: CTE

LAB_ID: 59-22093

TimeSampled: 1155

Sampler Name:

SiteDescription: Wild Horse Ridge Spring #1

Parameter	S.Type	EQ	Value	Units	Min Detection	Analysis Method	Date Rec.	Date Analyzed	Analyst Name	Date Reported
COMMENTS							0/19/2000			11/30/2000
FIELD WATER TEMPERATURE	4		7.2	Deg. C			0/19/2000	10/18/2000		11/30/2000
PH (FIELD)	4		8.3	pH units			0/19/2000	10/18/2000		11/30/2000
SP. CONDUCTIVITY (FIELD)	4		615	umhos/cm			0/19/2000	10/18/2000		11/30/2000
FLOW	4		4	GPM			0/19/2000	10/18/2000		11/30/2000
NO2+NO3 AS N	4		0.77	mg/l	0.03	EPA 300.0	0/19/2000	10/24/2000	RJ	11/30/2000
AMMONIA AS N	4	<	0.5	mg/l	0.5	EPA 350.3	0/19/2000	11/2/2000	SC	11/30/2000
DISSOLVED ARSENIC	4	<	0.01	mg/l	0.01	EPA 206.2	0/19/2000	11/1/2000	MK	11/30/2000
DISSOLVED BORON	4	<	0.1	mg/l	0.1	EPA 212.3	0/19/2000	10/31/2000	SC	11/30/2000
DISSOLVED CADMIUM	4	<	0.01	mg/l	0.01	EPA 213.1	0/19/2000	11/15/2000	MK	11/30/2000
DISSOLVED CALCIUM	4		67	mg/l	1	EPA 215.1	0/19/2000	11/13/2000	MK	11/30/2000
DISSOLVED COPPER	4	<	0.1	mg/l	0.1	EPA 220.1	0/19/2000	11/14/2000	MK	11/30/2000
DISSOLVED IRON	4	<	0.1	mg/l	0.1	EPA 236.1	0/19/2000	11/8/2000	MK	11/30/2000
DISSOLVED LEAD	4	<	0.1	mg/l	0.1	EPA 239.1	0/19/2000	11/15/2000	MK	11/30/2000
DISSOLVED MAGNESIUM	4		19	mg/l	1	EPA 242.1	0/19/2000	11/13/2000	MK	11/30/2000
DISSOLVED MANGANESE	4	<	0.1	mg/l	0.1	EPA 243.1	0/19/2000	11/8/2000	MK	11/30/2000
DISSOLVED POTASSIUM	4	<	1	mg/l	1	EPA 258.1	0/19/2000	11/1[illegible]/2000	MK	11/30/2000
DISSOLVED SELENIUM	4	<	0.01	mg/l	0.01	EPA 270.2	0/19/2000	10/3[illegible]/2000	MK	11/30/2000
DISSOLVED SODIUM	4		3	mg/l	1	EPA 273.1	0/19/2000	11/13/2000	MK	11/30/2000
DISSOLVED ZINC	4	<	0.01	mg/l	0.01	EPA 289.1	0/19/2000	11/15/2000	MK	11/30/2000
BICARBONATE AS HCO3	4		317	mg/l	5	EPA 310.1	0/19/2000	10/19/2000	AW	11/30/2000
CARBONATE AS CO3	4	<	5	mg/l	5	EPA 310.1	0/19/2000	10/19/2000	AW	11/30/2000
CHLORIDE	4		2	mg/l	1	EPA 300.0	0/19/2000	10/24/2000	RJ	11/30/2000
NITRITE AS N	4	<	0.03	mg/l	0.03	EPA 300.0	0/19/2000	10/25/2000	RJ	11/30/2000
ORTHO. PHOSPHATE	4	<	0.05	mg/l	0.05	EPA 300.0	0/19/2000	10/24/2000	RJ	11/30/2000
SULFATE	4		4	mg/l	1	EPA 300.0	0/19/2000	10/24/2000	RJ	11/30/2000
TOTAL ALKALINITY AS CACO3	4		260	mg/l	5	EPA 310.1	0/19/2000	10/19/2000	AW	11/30/2000

Parameter	S.Type	EQ	Value	Units	Min Detection	Analysis Method	Date Rec.	Date Analyzed	Analyst Name	Date Reported
TOTAL HARDNESS AS CACO3	4		246	mg/l		SM2340-B	0/19/2000	11/17/2000	RJ	11/30/2000
SPECIFIC CONDUCTIVITY (LAB)	4		491	umhos/cm	1	SM2510-B	0/19/2000	10/25/2000	RJ	11/30/2000
TOTAL DISSOLVED SOLIDS, @ 180	4		275	mg/l	10	EPA 160.1	0/19/2000	10/25/2000	AW	11/30/2000
DISSOLVED ALUMINUM	4	<	1	mg/l	1	EPA 202.1	0/19/2000	11/14/2000	MK	11/30/2000
DISSOLVED MOLYBDENUM	4	<	0.02	mg/l	0.02	EPA 246.1	0/19/2000	11/2/2000	MK	11/30/2000
TOTAL CATIONS	4		5	meq/l			0/19/2000	11/17/2000	RJ	11/30/2000
TOTAL ANIONS	4		5.3	meq/l			0/19/2000	11/17/2000	RJ	11/30/2000
TOTAL IRON	4	<	0.1	mg/l	0.1	EPA 236.1	0/19/2000	11/8/2000	MK	11/30/2000
TOTAL MANGANESE	4	<	0.1	mg/l	0.1	EPA 243.1	0/19/2000	11/8/2000	MK	11/30/2000

CO-OP MINING COMPANY

Hydrology Field Measurement Form

Mine Bear Canyon Mine Station # SBC-15

Permit No ACT/015/025

Sample Date 10-18-00

Sample Time 11:55

Type: Spring ✓ Stream ____ Well ____ NPDES ____

Collection Point ____

Appearance of Water: Clear ✓ Milky ____ Cloudy ____ Opaque ____

Quality Sample Taken: Baseline ✓ Operational ____ Field ____

Flow/Depth 4 gpm

Water Temperature 7.3°C

pH 8.3

Specific Conductivity 615

Dissolved Oxygen N/A

Comments: ____

Field Monitor Nephi Walton

Lab Analyzing CTE Date Shipped 10-19-00

Sample ID # 59-22093 Date Results Received 11-29-00

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April 10, 2001

C.W. MINING
P.O. Box 1245
Huntington UT 84528
Bryan Owen

Sample identification by
C.W. Mining

ID:SBC-15
RECEIVED 1015
SAMPLED 1155
FIELD MEASUREMENTS
FLOW 4 GPM TEMP 7.2
COND. 615 pH 8.3
NOTES:
DIS.METALS
FILTERED @ LAB
NITRITE, NITRATE, AND ORTHO PHOSPHATE EXPIRED WHEN ANALYZED.
REVISED REPORT DUE TO OMISSION OF ANALYST INITIALS.

Kind of sample reported to us Water

Sample taken at

Sample taken by C.W. Mining

Date sampled October 18, 2000

Date received October 19, 2000

Analysis report no. 59-22093

Parameter	Result	MRL	Units	Method	Analyzed Date/Time/Analyst
Alkalinity, Bicarbonate	317	5	mg/l as HCO_3	EPA 310.1	10-19-2000 1400 AW
Alkalinity, Carbonate	<5	5	mg/l as CO_3	EPA 310.1	10-19-2000 1400 AW
Alkalinity, Total	260	5	mg/l as $CaCO_3$	EPA 310.1	10-19-2000 1400 AW
Aluminum, Dissolved	<1	1	mg/l	EPA 202.1	11-14-2000 0900 MK
Anions	5.3	----	meq/l	---------	11-17-2000 1000 RJ
Arsenic, Dissolved	<0.01	0.01	mg/l	EPA 206.2	11-01-2000 0615 MK
Boron, Dissolved	<0.1	0.1	mg/l	EPA 212.3	10-31-2000 1330 SC
Cadmium, Dissolved	<0.01	0.01	mg/l	EPA 213.1	11-15-2000 0915 MK
Calcium, Dissolved	67	1	mg/l	EPA 215.1	11-13-2000 1000 MK
Cations	5.0	----	meq/l	---------	11-17-2000 1000 RJ
Chloride	2	1	mg/l	EPA 300.0	10-24-2000 0812 RJ
Conductivity	491	1	umhos/cm	SM2510-B	10-25-2000 1400 RJ
Copper, Dissolved	<0.1	0.1	mg/l	EPA 220.1	11-14-2000 1115 MK
Hardness, Total	246	----	mg/l as $CaCO_3$	SM2340-B	11-17-2000 1000 RJ
Iron, Dissolved	<0.1	0.1	mg/l	EPA 236.1	11-08-2000 0830 MK
Iron, Total	<0.1	0.1	mg/l	EPA 236.1	11-08-2000 0830 MK
Lead, Dissolved	<0.1	0.1	mg/l	EPA 239.1	11-15-2000 0945 MK
Magnesium, Dissolved	19	1	mg/l	EPA 242.1	11-13-2000 1130 MK
Manganese, Total	<0.1	0.1	mg/l	EPA 243.1	11-08-2000 1000 MK
Manganese, Dissolved	<0.1	0.1	mg/l	EPA 243.1	11-08-2000 1000 MK
Molybdenum, Dissolved	<0.02	0.02	mg/l	EPA 246.2	11-02-2000 0600 MK
Nitrogen, Ammonia	<0.5	0.5	mg/l as N	EPA 350.3	11-02-2000 0800 SC
Nitrogen, Nitrate-Nitrite	0.77	0.03	mg/l as N	EPA 300.0	10-24-2000 0812 RJ
Nitrogen, Nitrite	<0.03	0.03	mg/l as N	EPA 300.0	10-25-2000 0848 RJ

FAXED
4-11-01

Respectfully submitted,
COMMERCIAL TESTING & ENGINEERING CO.

Huntington Laboratory

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COMMERCIAL TESTING & ENGINEERING CO.

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FAX: (435) 653-2436

November 29, 2000

C.W. MINING
P.O. Box 1245
Huntington UT 84528
Bryan Owen

Sample identification by
C.W. Mining

ID:SBC-15

Kind of sample reported to us: Water

Sample taken at

Sample taken by: C.W. Mining

Date sampled: October 18, 2000

Date received: October 19, 2000

RECEIVED 1015
SAMPLED 1155
FIELD MEASUREMENTS
FLOW 4 GPM TEMP 7.2
COND. 615 pH 8.3
NOTES:
DIS.METALS
FILTERED @ LAB

NITRITE, NITRATE, AND ORTHO PHOSPHATE EXPIRED WHEN ANALYZED.

Analysis report no. 59-22093

Parameter	Result	MRL	Units	Method	Analyzed Date/Time/Analyst
Phosphorous, Ortho-PO_4	<0.05	0.05	mg/l as P	EPA 300.0	10-24-2000 0812 RJ
Potassium, Dissolved	<1	1	mg/l	EPA 258.1	11-13-2000 0800 MK
Selenium, Dissolved	<0.01	0.01	mg/l	EPA 270.2	10-31-2000 0845 MK
Sodium, Dissolved	3	1	mg/l	EPA 273.1	11-13-2000 0900 MK
Solids, Total Dissolved	275	10	mg/l	EPA 160.1	10-25-2000 1300 AW
Sulfate	4	1	mg/l	EPA 300.0	10-24-2000 0812 RJ
Zinc, Dissolved	<0.01	0.01	mg/l	EPA 289.1	11-15-2000 0900 MK
Cation/Anion Balance	-2.9	----	%		11-17-2000 1000 RJ

Respectfully submitted,
COMMERCIAL TESTING & ENGINEERING CO.

Huntington Laboratory

MEMBER ACIL

Mine Name: BEAR CANYON

Electronic Water Data Report By Individual Sample

Date Sampled: 10/18/2000

SiteName: SBC-16

Lab Code: CTE

LAB_ID: 59-22092

TimeSampled: 1215

SiteDescription: Wild Horse Ridge Spring #2

Sampler Name: C.W. Mining

Parameter	S.Type	EQ	Value	Units	Min Detection	Analysis Method	Date Rec.	Date Analyzed	Analyst Name	Date Reported
FIELD WATER TEMPERATURE	4		13	Deg. C			0/19/2000	10/18/2000		11/30/2000
PH (FIELD)	4		8.53	pH units			0/19/2000	10/18/2000		11/30/2000
SP. CONDUCTIVITY (FIELD)	4		690	umhos/cm			0/19/2000	10/18/2000		11/30/2000
FLOW	4		2	GPM			0/19/2000	10/18/2000		11/30/2000
NO2+NO3 AS N	4		0.12	mg/l	0.03	EPA 300.0	0/19/2000	10/19/2000	SC	11/30/2000
AMMONIA AS N	4	<	0.5	mg/l	0.5	EPA 350.3	0/19/2000	11/2/2000	SC	11/30/2000
DISSOLVED ARSENIC	4	<	0.01	mg/l	0.01	EPA 206.2	0/19/2000	11/1/2000	MK	11/30/2000
DISSOLVED BORON	4	<	0.1	mg/l	0.1	EPA 212.3	0/19/2000	10/31/2000	SC	11/30/2000
DISSOLVED CADMIUM	4	<	0.01	mg/l	0.01	EPA 213.1	0/19/2000	11/15/2000	MK	11/30/2000
DISSOLVED CALCIUM	4		58	mg/l	1	EPA 215.1	0/19/2000	11/13/2000	MK	11/30/2000
DISSOLVED COPPER	4	<	0.1	mg/l	0.1	EPA 220.1	0/19/2000	11/14/2000	MK	11/30/2000
DISSOLVED IRON	4	<	0.1	mg/l	0.1	EPA 236.1	0/19/2000	11/8/2000	MK	11/30/2000
DISSOLVED LEAD	4	<	0.1	mg/l	0.1	EPA 239.1	0/19/2000	11/15/2000	MK	11/30/2000
DISSOLVED MAGNESIUM	4		33	mg/l	1	EPA 242.1	0/19/2000	11/13/2000	MK	11/30/2000
DISSOLVED MANGANESE	4	<	0.1	mg/l	0.1	EPA 243.1	0/19/2000	11/8/2000	MK	11/30/2000
DISSOLVED POTASSIUM	4	<	1	mg/l	1	EPA 258.1	0/19/2000	11/13/2000	MK	11/30/2000
DISSOLVED SELENIUM	4	<	0.01	mg/l	0.01	EPA 270.2	0/19/2000	10/31/2000	MK	11/30/2000
DISSOLVED SODIUM	4		9	mg/l	1	EPA 273.1	0/19/2000	11/13/2000	MK	11/30/2000
DISSOLVED ZINC	4	<	0.01	mg/l	0.01	EPA 289.1	0/19/2000	11/15/2000	MK	11/30/2000
BICARBONATE AS HCO3	4		322	mg/l	5	EPA 310.1	0/19/2000	10/19/2000	AW	11/30/2000
CARBONATE AS CO3	4	<	5	mg/l	5	EPA 310.1	0/19/2000	10/19/2000	AW	11/30/2000
CHLORIDE	4		5	mg/l	1	EPA 300.0	0/19/2000	10/19/2000	SC	11/30/2000
NITRITE AS N	4	<	0.03	mg/l	0.03	EPA 300.0	0/19/2000	10/19/2000	SC	11/30/2000
ORTHO. PHOSPHATE	4	<	0.05	mg/l	0.05	EPA 300.0	0/19/2000	10/19/2000	SC	11/30/2000
SULFATE	4		36	mg/l	1	EPA 300.0	0/19/2000	10/19/2000	SC	11/30/2000
TOTAL ALKALINITY AS CACO3	4		264	mg/l	5	EPA 310.1	0/19/2000	10/19/2000	AW	11/30/2000
TOTAL HARDNESS AS CACO3	4		281	mg/l		SM2340-B	0/19/2000	11/17/2000	RJ	11/30/2000

Parameter	S.Type	EQ	Value	Units	Min Detection	Analysis Method	Date Rec.	Date Analyzed	Analyst Name	Date Reported
SPECIFIC CONDUCTIVITY (LAB)	4		546	umhos/cm	1	SM2510-B	0/19/2000	10/25/2000	RJ	11/30/2000
TOTAL DISSOLVED SOLIDS, @ 180	4		289	mg/l	10	EPA 160.1	0/19/2000	10/25/2000	AW	11/30/2000
DISSOLVED ALUMINUM	4	<	1	mg/l	1	EPA 202.1	0/19/2000	11/14/2000	MK	11/30/2000
DISSOLVED MOLYBDENUM	4	<	0.02	mg/l	0.02	EPA 246.2	0/19/2000	11/2/2000	MK	11/30/2000
TOTAL CATIONS	4		6	meq/l			0/19/2000	11/17/2000	RJ	11/30/2000
TOTAL ANIONS	4		6.2	meq/l			0/19/2000	11/17/2000	RJ	11/30/2000
TOTAL IRON	4	<	0.1	mg/l	0.1	EPA 236.1	0/19/2000	11/8/2000	MK	11/30/2000
TOTAL MANGANESE	4	<	0.1	mg/l	0.1	EPA 243.1	0/19/2000	11/8/2000	MK	11/30/2000

CO-OP MINING COMPANY

Hydrology Field Measurement Form

Mine Bear Canyon Mine Station # SBC-16

Permit No ACT/015/025

Sample Date 10/18/00

Sample Time 12:15

Type: Spring ✓ Stream ____ Well ____ NPDES ____

Collection Point ____

Appearance of Water: Clear ✓ Milky ____ Cloudy ____ Opaque ____

Quality Sample Taken: Baseline ✓ Operational ____ Field ____

Flow/Depth 2 gpm

Water Temperature 12.8°C

pH 8.53

Specific Conductivity 690

Dissolved Oxygen N/A

Comments: ____

Field Monitor Nephi Walton

Lab Analyzing CTE Date Shipped 10-19-00

Sample ID # 59-22092 Date Results Received 11-29-00

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April 10, 2001

C.W. MINING
P.O. Box 1245
Huntington UT 84528
Bryan Owen

Sample identification by
C.W. Mining

ID:SBC-16

Kind of sample reported to us Water

RECEIVED 1015
SAMPLED 1215
FIELD MEASUREMENTS
FLOW 2 GPM TEMP 13
COND. 690 pH 8.53
NOTES:
DIS.METALS
FILTERED @ LAB

Sample taken at

Sample taken by C.W. Mining

Date sampled October 18, 2000

Date received October 19, 2000

REVISED REPORT, DUE TO OMISSION OF ANALYST INITIALS FOR DISS. LEAD

Analysis report no. 59-22092

Parameter	Result	MRL	Units	Method	Analyzed Date/Time/Analyst
Alkalinity, Bicarbonate	322	5	mg/l as HCO_3	EPA 310.1	10-19-2000 1400 AW
Alkalinity, Carbonate	<5	5	mg/l as CO_3	EPA 310.1	10-19-2000 1400 AW
Alkalinity, Total	264	5	mg/l as $CaCO_3$	EPA 310.1	10-19-2000 1400 AW
Aluminum, Dissolved	<1	1	mg/l	EPA 202.1	11-14-2000 0900 MK
Anions	6.2	----	meq/l	---------	11-17-2000 1000 RJ
Arsenic, Dissolved	<0.01	0.01	mg/l	EPA 206.2	11-01-2000 0615 MK
Boron, Dissolved	<0.1	0.1	mg/l	EPA 212.3	10-31-2000 1330 SC
Cadmium, Dissolved	<0.01	0.01	mg/l	EPA 213.1	11-15-2000 0915 MK
Calcium, Dissolved	58	1	mg/l	EPA 215.1	11-13-2000 1000 MK
Cations	6.0	----	meq/l	---------	11-17-2000 1000 RJ
Chloride	5	1	mg/l	EPA 300.0	10-19-2000 0824 SC
Conductivity	546	1	umhos/cm	SM2510-B	10-25-2000 1400 RJ
Copper, Dissolved	<0.1	0.1	mg/l	EPA 220.1	11-14-2000 1115 MK
Hardness, Total	281	----	mg/l as $CaCO_3$	SM2340-B	11-17-2000 1000 RJ
Iron, Dissolved	<0.1	0.1	mg/l	EPA 236.1	11-08-2000 0830 MK
Iron, Total	<0.1	0.1	mg/l	EPA 236.1	11-08-2000 0830 MK
Lead, Dissolved	<0.1	0.1	mg/l	EPA 239.1	11-15-2000 0945 MK
Magnesium, Dissolved	33	1	mg/l	EPA 242.1	11-13-2000 1130 MK
Manganese, Total	<0.1	0.1	mg/l	EPA 243.1	11-08-2000 1000 MK
Manganese, Dissolved	<0.1	0.1	mg/l	EPA 243.1	11-08-2000 1000 MK
Molybdenum, Dissolved	<0.02	0.02	mg/l	EPA 246.2	11-02-2000 0600 MK
Nitrogen, Ammonia	<0.5	0.5	mg/l as N	EPA 350.3	11-02-2000 0800 SC
Nitrogen, Nitrate-Nitrite	0.12	0.03	mg/l as N	EPA 300.0	10-19-2000 0824 SC
Nitrogen, Nitrite	<0.03	0.03	mg/l as N	EPA 300.0	10-19-2000 0824 SC

FAXED 4-11-01

Respectfully submitted,
COMMERCIAL TESTING & ENGINEERING CO.

Huntington Laboratory

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November 29, 2000

C.W. MINING
P.O. Box 1245
Huntington UT 84528
Bryan Owen

Sample identification by
C.W. Mining

ID:SBC-16

Kind of sample reported to us: Water

Sample taken at

Sample taken by: C.W. Mining

Date sampled: October 18, 2000

Date received: October 19, 2000

RECEIVED 1015
SAMPLED 1215
FIELD MEASUREMENTS
FLOW 2 GPM TEMP 13
COND. 690 pH 8.53

NOTES:
DIS.METALS
FILTERED @ LAB

Analysis report no. 59-22092

Parameter	Result	MRL	Units	Method	Analyzed Date/Time/Analyst
Phosphorous, Ortho-PO_4	<0.05	0.05	mg/l as P	EPA 300.0	10-19-2000 0824 SC
Potassium, Dissolved	<1	1	mg/l	EPA 258.1	11-13-2000 0800 MK
Selenium, Dissolved	<0.01	0.01	mg/l	EPA 270.2	10-31-2000 0845 MK
Sodium, Dissolved	9	1	mg/l	EPA 273.1	11-13-2000 0900 MK
Solids, Total Dissolved	289	10	mg/l	EPA 160.1	10-25-2000 1300 AW
Sulfate	36	1	mg/l	EPA 300.0	10-19-2000 0824 SC
Zinc, Dissolved	<0.01	0.01	mg/l	EPA 289.1	11-15-2000 0900 MK
Cation/Anion Balance	-1.4	----	%		11-17-2000 1000 RJ

Respectfully submitted,
COMMERCIAL TESTING & ENGINEERING CO.

Huntington Laboratory

MEMBER ACIL

Mine Name: BEAR CANYON

SiteName: SBC-17

SiteDescription: Spring by waterfall

Electronic Water Data Report By Individual Sample

Lab Code: CTE

LAB_ID: 59-22026

Date Sampled: 10/9/00

TimeSampled: 1630

Sampler Name:

Parameter	S.Type	EQ	Value	Units	Min Detection	Analysis Method	Date Rec.	Date Analyzed	Analyst Name	Date Reported
COMMENTS							10/10/00			11/06/2000
FIELD WATER TEMPERATURE	4		50	Deg. C			10/10/00	10/9/00		11/06/2000
PH (FIELD)	4		7.94	pH units			10/10/00	10/9/00		11/06/2000
SP. CONDUCTIVITY (FIELD)	4		2110	umhos/cm			10/10/00	10/9/00		11/06/2000
FLOW	4		1.5	GPM			10/10/00	10/9/00		11/06/2000
NO2+NO3 AS N	4		2.54	mg/l	0.03	EPA 300.0	10/10/00	10/11/00	SC	11/06/2000
AMMONIA AS N	4	<	0.5	mg/l	0.5	EPA 350.3	10/10/00	10/24/00	SC	11/06/2000
DISSOLVED ARSENIC	4	<	0.01	mg/l	0.01	EPA 206.2	10/10/00	11/1/00	MK	11/06/2000
DISSOLVED BORON	4		0.1	mg/l	0.1	EPA 212.3	10/10/00	10/31/00	SC	11/06/2000
DISSOLVED CADMIUM	4	<	0.01	mg/l	0.01	EPA 213.1	10/10/00	10/17/00	MK	11/06/2000
DISSOLVED CALCIUM	4		127	mg/l	1	EPA 215.1	10/10/00	10/16/00	MK	11/06/2000
DISSOLVED COPPER	4	<	0.1	mg/l	0.1	EPA 220.1	10/10/00	10/17/00	MK	11/06/2000
DISSOLVED IRON	4	<	0.1	mg/l	0.1	EPA 236.1	10/10/00	10/16/00	MK	11/06/2000
DISSOLVED LEAD	4	<	0.1	mg/l	0.1	EPA 239.1	10/10/00	10/17/00	MK	11/06/2000
DISSOLVED MAGNESIUM	4		185	mg/l	1	EPA 242.1	10/10/00	10/17/00	MK	11/06/2000
DISSOLVED MANGANESE	4	<	0.1	mg/l	0.1	EPA 243.1	10/10/00	10/16/00	MK	11/06/2000
DISSOLVED POTASSIUM	4		23	mg/l	1	EPA 258.1	10/10/00	10/16/00	MK	11/06/2000
DISSOLVED SELENIUM	4		0.03	mg/l	0.01	EPA 270.2	10/10/00	10/31/00	MK	11/06/2000
DISSOLVED SODIUM	4		27	mg/l	1	EPA 273.1	10/10/00	10/16/00	MK	11/06/2000
DISSOLVED ZINC	4	<	0.01	mg/l	0.01	EPA 289.1	10/10/00	10/17/00	MK	11/06/2000
BICARBONATE AS HCO3	4		376	mg/l	5	EPA 310.1	10/10/00	10/11/00	AW	11/06/2000
CARBONATE AS CO3	4	<	5	mg/l	5	EPA 310.1	10/10/00	10/11/00	AW	11/06/2000
CHLORIDE	4		9	mg/l	1	EPA 300.0	10/10/00	10/11/00	SC	11/06/2000
NITRITE AS N	4	<	0.03	mg/l	0.03	EPA 300.0	10/10/00	10/11/00	SC	11/06/2000
ORTHO. PHOSPHATE	4	<	0.05	mg/l	0.05	EPA 300.0	10/10/00	10/11/00	SC	11/06/2000
SULFATE	4		932	mg/l	1	EPA 300.0	10/10/00	10/11/00	SC	11/06/2000
TOTAL ALKALINITY AS CACO3	4		308	mg/l	5	EPA 310.1	10/10/00	10/11/00	AW	11/06/2000

Parameter	S.Type	EQ	Value	Units	Min Detection	Analysis Method	Date Rec.	Date Analyzed	Analyst Name	Date Reported
TOTAL HARDNESS AS CACO3	4		1079	mg/l		SM2340-B	10/10/00	10/18/00	RJ	11/06/2000
SPECIFIC CONDUCTIVITY (LAB)	4		1941	umhos/cm	1	SM2510-B	10/10/00	10/13/00	AW	11/06/2000
TOTAL DISSOLVED SOLIDS, @ 180	4		1685	mg/l	10	EPA 160.1	10/10/00	10/12/00	AW	11/06/2000
DISSOLVED ALUMINUM	4	<	1	mg/l	1	EPA 202.1	10/10/00	10/17/00	MK	11/06/2000
DISSOLVED MOLYBDENUM	4	<	0.02	mg/l	0.02	EPA 246.2	10/10/00	11/2/00	MK	11/06/2000
TOTAL CATIONS	4		23.3	meq/l			10/10/00	10/18/00	RJ	11/06/2000
TOTAL ANIONS	4		25.8	meq/l			10/10/00	10/18/00	RJ	11/06/2000
TOTAL IRON	4		0.1	mg/l	0.1	EPA 236.1	10/10/00	10/16/00	MK	11/06/2000
TOTAL MANGANESE	4	<	0.1	mg/l	0.1	EPA 243.1	10/10/00	10/16/00	MK	11/06/2000

CO-OP MINING COMPANY

Hydrology Field Measurement Form

Mine Bear Canyon Mine Station # SBC-17

Permit No ACT/015/025

Sample Date

Sample Time

Type: Spring ✓ Stream ____ Well ____ NPDES ____

Collection Point

Appearance of Water: Clear ✓ Milky ____ Cloudy ____ Opaque ____

Quality Sample Taken: Baseline ✓ Operational ____ Field ____

Flow/Depth 1.5 gpm

Water Temperature 10°C

pH 7.94

Specific Conductivity 2110

Dissolved Oxygen N/A

Comments:

Field Monitor Nephi Walton

Lab Analyzing CTE Date Shipped 10-10-00

Sample ID # 59-220210 Date Results Received 11-20-00

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FAX: (435) 653-2436

November 10, 2000

C.W. MINING
P.O. Box 1245
Huntington UT 84528
Bryan Owen

Sample identification by
C.W. Mining

ID:SBC-17

Kind of sample reported to us: Water

Sample taken at

Sample taken by: C.W. Mining

Date sampled: October 9, 2000

Date received: October 10, 2000

RECEIVED 1145
SAMPLED 1630
FIELD MEASUREMENTS
FLOW 1.5 GPM TEMP 50
COND. 2110 pH 7.94

NOTES:
DIS.METALS
FILTERED @ LAB

Analysis report no. 59-22026

Parameter	Result	MRL	Units	Method	Analyzed Date/Time/Analyst
Alkalinity, Bicarbonate	376	5	mg/l as HCO_3	EPA 310.1	10-11-2000 1200 AW
Alkalinity, Carbonate	<5	5	mg/l as CO_3	EPA 310.1	10-11-2000 1200 AW
Alkalinity, Total	308	5	mg/l as $CaCO_3$	EPA 310.1	10-11-2000 1200 AW
Aluminum, Dissolved	<1	1	mg/l	EPA 202.1	10-17-2000 1015 MK
Anions	25.8	----	meq/l	---------	10-18-2000 0800 RJ
Arsenic, Dissolved	<0.01	0.01	mg/l	EPA 206.2	11-01-2000 0615 MK
Boron, Dissolved	0.1	0.1	mg/l	EPA 212.3	10-31-2000 1330 SC
Cadmium, Dissolved	<0.01	0.01	mg/l	EPA 213.1	10-17-2000 1130 MK
Calcium, Dissolved	127	1	mg/l	EPA 215.1	10-16-2000 1515 MK
Cations	23.3	----	meq/l	---------	10-18-2000 0800 RJ
Chloride	9	1	mg/l	EPA 300.0	10-11-2000 0829 SC
Conductivity	1941	1	umhos/cm	SM2510-B	10-13-2000 0840 AW
Copper, Dissolved	<0.1	0.1	mg/l	EPA 220.1	10-17-2000 1100 MK
Hardness, Total	1079	----	mg/l as $CaCO_3$	SM2340-B	10-18-2000 0800 RJ
Iron, Dissolved	<0.1	0.1	mg/l	EPA 236.1	10-16-2000 0930 MK
Iron, Total	0.1	0.1	mg/l	EPA 236.1	10-16-2000 0930 MK
Lead, Dissolved	<0.1	0.1	mg/l	EPA 239.1	10-17-2000 1145 MK
Magnesium, Dissolved	185	5	mg/l	EPA 242.1	10-17-2000 0900 MK
Manganese, Total	<0.1	0.1	mg/l	EPA 243.1	10-16-2000 1100 MK
Manganese, Dissolved	<0.1	0.1	mg/l	EPA 243.1	10-16-2000 1100 MK
Molybdenum, Dissolved	<0.02	0.02	mg/l	EPA 246.2	11-02-2000 0600 MK
Nitrogen, Ammonia	<0.5	0.5	mg/l as N	EPA 350.3	10-24-2000 0810 SC
Nitrogen, Nitrate-Nitrite	2.54	0.03	mg/l as N	EPA 300.0	10-11-2000 0829 SC
Nitrogen, Nitrite	<0.03	0.03	mg/l as N	EPA 300.0	10-11-2000 0829 SC

Respectfully submitted,
COMMERCIAL TESTING & ENGINEERING CO.

RJ Cornell

Huntington Laboratory

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November 10, 2000

C.W. MINING
P.O. Box 1245
Huntington UT 84528
Bryan Owen

Sample identification by
C.W. Mining

ID:SBC-17

Kind of sample reported to us Water

Sample taken at

Sample taken by C.W. Mining

Date sampled October 9, 2000

Date received October 10, 2000

RECEIVED 1145
SAMPLED 1630
FIELD MEASUREMENTS
FLOW 1.5 GPM TEMP 50
COND. 2110 pH 7.94

NOTES:
DIS.METALS
FILTERED @ LAB

Analysis report no. 59-22026

Parameter	Result	MRL	Units	Method	Analyzed Date/Time/Analyst
Phosphorous, Ortho-PO_4	<0.05	0.05	mg/l as P	EPA 300.0	10-11-2000 0829 SC
Potassium, Dissolved	23	1	mg/l	EPA 258.1	10-16-2000 1300 MK
Selenium, Dissolved	0.03	0.01	mg/l	EPA 270.2	10-31-2000 0845 MK
Sodium, Dissolved	27	1	mg/l	EPA 273.1	10-16-2000 1400 MK
Solids, Total Dissolved	1685	10	mg/l	EPA 160.1	10-12-2000 1400 AW
Sulfate	932	10	mg/l	EPA 300.0	10-11-2000 0829 SC
Zinc, Dissolved	<0.01	0.01	mg/l	EPA 289.1	10-17-2000 1115 MK
Cation/Anion Balance	-5.1	----	%		10-18-2000 0800 RJ

Respectfully submitted,
COMMERCIAL TESTING & ENGINEERING CO.

RJ Cormier

Huntington Laboratory

MEMBER ACIL

Mine Name: BEAR CANYON

Electronic Water Data Report By Individual Sample

Date Sampled: 10/25/00

SiteName: SMH-1

Lab Code: CTE

LAB_ID: 59-22143

TimeSampled: 1535

SiteDescription: McCadden Hollow, Left Fork Springs

Sampler Name: C.W. Mining

Parameter	S.Type	EQ	Value	Units	Min Detection	Analysis Method	Date Rec.	Date Analyzed	Analyst Name	Date Reported
FIELD WATER TEMPERATURE	4		6.2	Deg. C			10/26/00	10/25/00		11/30/2000
PH (FIELD)	4		7.94	pH units			10/26/00	10/25/00		11/30/2000
SP. CONDUCTIVITY (FIELD)	4		484	umhos/cm			10/26/00	10/25/00		11/30/2000
FLOW	4		2	GPM			10/26/00	10/25/00		11/30/2000
DISSOLVED CALCIUM	4		42	mg/l	1	EPA 215.1	10/26/00	11/13/00	MK	11/30/2000
DISSOLVED IRON	4	<	0.1	mg/l	0.1	EPA 236.1	10/26/00	11/8/00	MK	11/30/2000
DISSOLVED MAGNESIUM	4		42	mg/l	1	EPA 242.1	10/26/00	11/13/00	MK	11/30/2000
DISSOLVED MANGANESE	4	<	0.1	mg/l	0.1	EPA 243.1	10/26/00	11/8/00	MK	11/30/2000
DISSOLVED POTASSIUM	4	<	1	mg/l	1	EPA 258.1	10/26/00	11/13/00	MK	11/30/2000
DISSOLVED SODIUM	4		10	mg/l	1	EPA 273.1	10/26/00	11/13/00	MK	11/30/2000
BICARBONATE AS HCO3	4		360	mg/l	5	EPA 310.1	10/26/00	10/30/00	AW	11/30/2000
CARBONATE AS CO3	4	<	5	mg/l	5	EPA 310.1	10/26/00	10/30/00	AW	11/30/2000
CHLORIDE	4		8	mg/l	1	EPA 300.0	10/26/00	11/17/00	SC	11/30/2000
SULFATE	4		22	mg/l	1	EPA 300.0	10/26/00	11/17/00	SC	11/30/2000
TOTAL ALKALINITY AS CACO3	4		295	mg/l	5	EPA 310.1	10/26/00	10/30/00	AW	11/30/2000
TOTAL HARDNESS AS CACO3	4		278	mg/l		SM2340-B	10/26/00	11/20/00	RJ	11/30/2000
SPECIFIC CONDUCTIVITY (LAB)	4		594	umhos/cm	1	SM2510-B	10/26/00	11/10/00	AW	11/30/2000
TOTAL DISSOLVED SOLIDS, @ 180	4		349	mg/l	10	EPA 160.1	10/26/00	11/1/00	AW	11/30/2000
TOTAL CATIONS	4		6	meq/l			10/26/00	11/20/00	RJ	11/30/2000
TOTAL ANIONS	4		6.8	meq/l			10/26/00	11/20/00	RJ	11/30/2000
TOTAL IRON	4		0.5	mg/l	0.1	EPA 236.1	10/26/00	11/8/00	MK	11/30/2000
TOTAL MANGANESE	4	<	0.1	mg/l	0.1	EPA 243.1	10/26/00	11/8/00	MK	11/30/2000

CO-OP Mining Company

Hydrology Field Measurement Form

Mine: Bear Canyon
Permit No: ACT/015/025

Station # SMH-1

Sample Date: 10-25-00

Sample Time: 15:35

Sample Type:
- ☑ Spring
- ☐ Stream
- ☐ Well
- ☐ NPDES

Quality Sample Taken
- ☐ Baseline
- ☑ Operational
- ☐ Field

Appearance of Water
- ☑ Clear
- ☐ Milky
- ☐ Cloudy
- ☐ Opaque

Flow/Depth 2 gpm

Water Temperature 43.1 °F

PH 7.94

Specific Conductivity 484

Dissolved Oxygen N/A

Comments:

Field Monitor: Nephi Walton

Lab Analyzing: CTE

Date Shipped: 10-26-00

Sample ID: 59-22143

Date Results Received: 11-29-00

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November 29, 2000

C.W. MINING
P.O. Box 1245
Huntington UT 84528
Bryan Owen

Sample identification by
C.W. Mining

ID:SMH-1

RECEIVED 1500
SAMPLED 1535
FIELD MEASUREMENTS
FLOW 2 GPM TEMP 6.2
COND. 484 pH 7.94

NOTES:
DIS.METALS
FILTERED @ LAB

Kind of sample reported to us Water

Sample taken at

Sample taken by C.W. Mining

Date sampled October 25, 2000

Date received October 26, 2000

Analysis report no. 59-22143

Parameter	Result	MRL	Units	Method	Analyzed Date/Time/Analyst
Alkalinity, Bicarbonate	360	5	mg/l as HCO_3	EPA 310.1	10-30-2000 1515 AW
Alkalinity, Carbonate	<5	5	mg/l as CO_3	EPA 310.1	10-30-2000 1515 AW
Alkalinity, Total	295	5	mg/l as $CaCO_3$	EPA 310.1	10-30-2000 1515 AW
Anions	6.8	----	meq/l	---------	11-20-2000 1000 RJ
Calcium, Dissolved	42	1	mg/l	EPA 215.1	11-13-2000 1000 MK
Cations	6.0	----	meq/l	---------	11-20-2000 1000 RJ
Chloride	8	1	mg/l	EPA 300.0	11-17-2000 0830 SC
Conductivity	594	1	umhos/cm	SM2510-B	11-10-2000 1245 AW
Hardness, Total	278	----	mg/l as $CaCO_3$	SM2340-B	11-20-2000 1000 RJ
Iron, Dissolved	<0.1	0.1	mg/l	EPA 236.1	11-08-2000 0830 MK
Iron, Total	0.5	0.1	mg/l	EPA 236.1	11-08-2000 0830 MK
Magnesium, Dissolved	42	1	mg/l	EPA 242.1	11-13-2000 1130 MK
Manganese, Total	<0.1	0.1	mg/l	EPA 243.1	11-08-2000 1000 MK
Manganese, Dissolved	<0.1	0.1	mg/l	EPA 243.1	11-08-2000 1000 MK
Potassium, Dissolved	<1	1	mg/l	EPA 258.1	11-13-2000 0800 MK
Sodium, Dissolved	10	1	mg/l	EPA 273.1	11-13-2000 0900 MK
Solids, Total Dissolved	349	10	mg/l	EPA 160.1	11-01-2000 1600 AW
Sulfate	22	1	mg/l	EPA 300.0	11-17-2000 0830 SC
Cation/Anion Balance	-4.8	----	%		11-20-2000 1000 RJ

Respectfully submitted,
COMMERCIAL TESTING & ENGINEERING CO.

Huntington Laboratory

MEMBER ACIL

Mine Name: BEAR CANYON

SiteName: SMH-2

SiteDescription: McCadden Hollow, Left Fork Trough

Electronic Water Data Report By Individual Sample

Lab Code: CTE

LAB_ID: 59-22145

Date Sampled: 10/25/00

TimeSampled: 1625

Sampler Name: C.W. Mining

Parameter	S.Type	EQ	Value	Units	Min Detection	Analysis Method	Date Rec.	Date Analyzed	Analyst Name	Date Reported
FIELD WATER TEMPERATURE	4		7.3	Deg. C			10/26/00	10/25/00		11/30/2000
PH (FIELD)	4		7.78	pH units			10/26/00	10/25/00		11/30/2000
SP. CONDUCTIVITY (FIELD)	4		529	umhos/cm			10/26/00	10/25/00		11/30/2000
FLOW	4		8	GPM			10/26/00	10/25/00		11/30/2000
DISSOLVED CALCIUM	4		65	mg/l	1	EPA 215.1	10/26/00	11/13/00	MK	11/30/2000
DISSOLVED IRON	4	<	0.1	mg/l	0.1	EPA 236.1	10/26/00	11/8/00	MK	11/30/2000
DISSOLVED MAGNESIUM	4		23	mg/l	1	EPA 242.1	10/26/00	11/13/00	MK	11/30/2000
DISSOLVED MANGANESE	4	<	0.1	mg/l	0.1	EPA 243.1	10/26/00	11/8/00	MK	11/30/2000
DISSOLVED POTASSIUM	4	<	1	mg/l	1	EPA 258.1	10/26/00	11/13/00	MK	11/30/2000
DISSOLVED SODIUM	4		5	mg/l	1	EPA 273.1	10/26/00	11/13/00	MK	11/30/2000
BICARBONATE AS HCO3	4		315	mg/l	5	EPA 310.1	10/26/00	10/30/00	AW	11/30/2000
CARBONATE AS CO3	4	<	5	mg/l	5	EPA 310.1	10/26/00	10/30/00	AW	11/30/2000
CHLORIDE	4		3	mg/l	1	EPA 300.0	10/26/00	10/27/00	RJ	11/30/2000
SULFATE	4		9	mg/l	1	EPA 300.0	10/26/00	10/27/00	RJ	11/30/2000
TOTAL ALKALINITY AS CACO3	4		258	mg/l	5	EPA 310.1	10/26/00	10/30/00	AW	11/30/2000
TOTAL HARDNESS AS CACO3	4		257	mg/l		SM2340-B	10/26/00	11/17/00	RJ	11/30/2000
SPECIFIC CONDUCTIVITY (LAB)	4		504	umhos/cm	1	SM2510-B	10/26/00	11/10/00	AW	11/30/2000
TOTAL DISSOLVED SOLIDS, @ 180	4		275	mg/l	10	EPA 160.1	10/26/00	11/1/00	AW	11/30/2000
TOTAL CATIONS	4		5.4	meq/l			10/26/00	11/17/00	RJ	11/30/2000
TOTAL ANIONS	4		5.4	meq/l			10/26/00	11/17/00	RJ	11/30/2000
TOTAL IRON	4	<	0.1	mg/l	0.1	EPA 236.1	10/26/00	11/8/00	MK	11/30/2000
TOTAL MANGANESE	4	<	0.1	mg/l	0.1	EPA 243.1	10/26/00	11/8/00	MK	11/30/2000

CO-OP Mining Company

Hydrology Field Measurement Form

Mine: Bear Canyon
Permit No: ACT/015/025

Station # SMH-2

Sample Date: 10-25-00

Sample Time: 16:25

Sample Type:
- ☑ Spring
- ☐ Stream
- ☐ Well
- ☐ NPDES

Quality Sample Taken
- ☐ Baseline
- ☑ Operational
- ☐ Field

Appearance of Water
- ☑ Clear
- ☐ Milky
- ☐ Cloudy
- ☐ Opaque

Flow/Depth 8 gpm

Water Temperature 45.1°F

PH 7.78

Specific Conductivity 529

Dissolved Oxygen N/A

Comments:

Field Monitor: Nephi Walton

Lab Analyzing: CTE

Date Shipped: 10-26-00

Sample ID: 59-22145

Date Results Received: 11-29-00

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November 29, 2000

C.W. MINING
P.O. Box 1245
Huntington UT 84528
Bryan Owen

Sample identification by
C.W. Mining

ID:SMH-2

Kind of sample reported to us Water

Sample taken at

Sample taken by C.W. Mining

Date sampled October 25, 2000

Date received October 26, 2000

RECEIVED 1500
SAMPLED 1625
FIELD MEASUREMENTS
FLOW 8 GPM TEMP 7.3
COND. 529 pH 7.78

NOTES:
DIS.METALS
FILTERED @ LAB

Analysis report no. 59-22145

Parameter	Result	MRL	Units	Method	Analyzed Date/Time/Analyst
Alkalinity, Bicarbonate	315	5	mg/l as HCO_3	EPA 310.1	10-30-2000 1515 AW
Alkalinity, Carbonate	<5	5	mg/l as CO_3	EPA 310.1	10-30-2000 1515 AW
Alkalinity, Total	258	5	mg/l as $CaCO_3$	EPA 310.1	10-30-2000 1515 AW
Anions	5.4	----	meq/l	---------	11-17-2000 1000 RJ
Calcium, Dissolved	65	1	mg/l	EPA 215.1	11-13-2000 1000 MK
Cations	5.4	----	meq/l	---------	11-17-2000 1000 RJ
Chloride	3	1	mg/l	EPA 300.0	10-27-2000 0907 RJ
Conductivity	504	1	umhos/cm	SM2510-B	11-10-2000 1245 AW
Hardness, Total	257	----	mg/l as $CaCO_3$	SM2340-B	11-17-2000 1000 RJ
Iron, Dissolved	<0.1	0.1	mg/l	EPA 236.1	11-08-2000 0830 MK
Iron, Total	<0.1	0.1	mg/l	EPA 236.1	11-08-2000 0830 MK
Magnesium, Dissolved	23	1	mg/l	EPA 242.1	11-13-2000 1130 MK
Manganese, Total	<0.1	0.1	mg/l	EPA 243.1	11-08-2000 1000 MK
Manganese, Dissolved	<0.1	0.1	mg/l	EPA 243.1	11-08-2000 1000 MK
Potassium, Dissolved	<1	1	mg/l	EPA 258.1	11-13-2000 0800 MK
Sodium, Dissolved	5	1	mg/l	EPA 273.1	11-13-2000 0900 MK
Solids, Total Dissolved	275	10	mg/l	EPA 160.1	11-01-2000 1600 AW
Sulfate	9	1	mg/l	EPA 300.0	10-27-2000 0907 RJ
Cation/Anion Balance	-0.8	----	%		11-17-2000 1000 RJ

Respectfully submitted,
COMMERCIAL TESTING & ENGINEERING CO.

Huntington Laboratory

MEMBER ACIL

Mine Name: BEAR CANYON

Electronic Water Data Report By Individual Sample

Date Sampled: 10/25/00

SiteName: SMH-3

Lab Code: CTE

LAB_ID: 59-22144

TimeSampled: 1600

SiteDescription: McCadden/Trail Ridge Spring

Sampler Name: C.W. Mining

Parameter	S.Type	EQ	Value	Units	Min Detection	Analysis Method	Date Rec.	Date Analyzed	Analyst Name	Date Reported
FIELD WATER TEMPERATURE	4		7.3	Deg. C			10/26/00	10/25/00		11/30/2000
PH (FIELD)	4		7.15	pH units			10/26/00	10/25/00		11/30/2000
SP. CONDUCTIVITY (FIELD)	4		573	umhos/cm			10/26/00	10/25/00		11/30/2000
FLOW	4		30	GPM			10/26/00	10/25/00		11/30/2000
DISSOLVED CALCIUM	4		63	mg/l	1	EPA 215.1	10/26/00	11/13/00	MK	11/30/2000
DISSOLVED IRON	4	<	0.1	mg/l	0.1	EPA 236.1	10/26/00	11/8/00	MK	11/30/2000
DISSOLVED MAGNESIUM	4		29	mg/l	1	EPA 242.1	10/26/00	11/13/00	MK	11/30/2000
DISSOLVED MANGANESE	4	<	0.1	mg/l	0.1	EPA 243.1	10/26/00	11/8/00	MK	11/30/2000
DISSOLVED POTASSIUM	4	<	1	mg/l	1	EPA 258.1	10/26/00	11/13/00	MK	11/30/2000
DISSOLVED SODIUM	4		6	mg/l	1	EPA 273.1	10/26/00	11/13/00	MK	11/30/2000
BICARBONATE AS HCO3	4		321	mg/l	5	EPA 310.1	10/26/00	10/30/00	AW	11/30/2000
CARBONATE AS CO3	4	<	5	mg/l	5	EPA 310.1	10/26/00	10/30/00	AW	11/30/2000
CHLORIDE	4		5	mg/l	1	EPA 300.0	10/26/00	11/7/00	SC	11/30/2000
SULFATE	4		20	mg/l	1	EPA 300.0	10/26/00	11/7/00	SC	11/30/2000
TOTAL ALKALINITY AS CACO3	4		263	mg/l	5	EPA 310.1	10/26/00	10/30/00	AW	11/30/2000
TOTAL HARDNESS AS CACO3	4		277	mg/l		SM2340-B	10/26/00	11/17/00	RJ	11/30/2000
SPECIFIC CONDUCTIVITY (LAB)	4		544	umhos/cm	1	SM2510-B	10/26/00	11/10/00	AW	11/30/2000
TOTAL DISSOLVED SOLIDS, @ 180	4		287	mg/l	10	EPA 160.1	10/26/00	11/1/00	AW	11/30/2000
TOTAL CATIONS	4		5.8	meq/l			10/26/00	11/17/00	RJ	11/30/2000
TOTAL ANIONS	4		5.8	meq/l			10/26/00	11/17/00	RJ	11/30/2000
TOTAL IRON	4	<	0.1	mg/l	0.1	EPA 236.1	10/26/00	11/8/00	MK	11/30/2000
TOTAL MANGANESE	4	<	0.1	mg/l	0.1	EPA 243.1	10/26/00	11/8/00	MK	11/30/2000

CO-OP Mining Company

Hydrology Field Measurement Form

Mine: Bear Canyon
Permit No: ACT/015/025

Station # SMH-3

Sample Date: 10-25-00

Sample Time: 1600

Sample Type:
- ☑ Spring
- ☐ Stream
- ☐ Well
- ☐ NPDES

Quality Sample Taken
- ☐ Baseline
- ☑ Operational
- ☐ Field

Appearance of Water
- ☑ Clear
- ☐ Milky
- ☐ Cloudy
- ☐ Opaque

Flow/Depth 30 gpm

Water Temperature 45.1 °F

PH 7.15

Specific Conductivity 573

Dissolved Oxygen N/A

Comments:

Field Monitor: Nephi Walton

Lab Analyzing: CTE

Date Shipped: 10-26-00

Sample ID: 59-22144

Date Results Received: 11-29-00

COMMERCIAL TESTING & ENGINEERING CO.

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TEL: (435) 653-2311
FAX: (435) 653-2436

November 29, 2000

C.W. MINING
P.O. Box 1245
Huntington UT 84528
Bryan Owen

Sample identification by
C.W. Mining

ID:SMH-3

Kind of sample reported to us Water

Sample taken at

Sample taken by C.W. Mining

Date sampled October 25, 2000

Date received October 26, 2000

RECEIVED 1500
SAMPLED 1600
FIELD MEASUREMENTS
FLOW 30 GPM TEMP 7.3
COND. 573 pH 7.15

NOTES:
DIS.METALS
FILTERED @ LAB

Analysis report no. 59-22144

Parameter	Result	MRL	Units	Method	Analyzed Date/Time/Analyst
Alkalinity, Bicarbonate	321	5	mg/l as HCO_3	EPA 310.1	10-30-2000 1515 AW
Alkalinity, Carbonate	<5	5	mg/l as CO_3	EPA 310.1	10-30-2000 1515 AW
Alkalinity, Total	263	5	mg/l as $CaCO_3$	EPA 310.1	10-30-2000 1515 AW
Anions	5.8	----	meq/l	---------	11-17-2000 1000 RJ
Calcium, Dissolved	63	1	mg/l	EPA 215.1	11-13-2000 1000 MK
Cations	5.8	----	meq/l	---------	11-17-2000 1000 RJ
Chloride	5	1	mg/l	EPA 300.0	11-07-2000 0909 SC
Conductivity	544	1	umhos/cm	SM2510-B	11-10-2000 1245 AW
Hardness, Total	277	----	mg/l as $CaCO_3$	SM2340-B	11-17-2000 1000 RJ
Iron, Dissolved	<0.1	0.1	mg/l	EPA 236.1	11-08-2000 0830 MK
Iron, Total	<0.1	0.1	mg/l	EPA 236.1	11-08-2000 0830 MK
Magnesium, Dissolved	29	1	mg/l	EPA 242.1	11-13-2000 1130 MK
Manganese, Total	<0.1	0.1	mg/l	EPA 243.1	11-08-2000 1000 MK
Manganese, Dissolved	<0.1	0.1	mg/l	EPA 243.1	11-08-2000 1000 MK
Potassium, Dissolved	<1	1	mg/l	EPA 258.1	11-13-2000 0800 MK
Sodium, Dissolved	6	1	mg/l	EPA 273.1	11-13-2000 0900 MK
Solids, Total Dissolved	287	10	mg/l	EPA 160.1	11-01-2000 1600 AW
Sulfate	20	1	mg/l	EPA 300.0	11-07-2000 0909 SC
Cation/Anion Balance	-0.2	----	%		11-17-2000 1000 RJ

Respectfully submitted,
COMMERCIAL TESTING & ENGINEERING CO.

Huntington Laboratory

MEMBER ACIL

Mine Name: BEAR CANYON

Electronic Water Data Report By Individual Sample

Date Sampled: 10/25/00

SiteName: SMH-4

Lab Code: CTE

LAB_ID: 59-22141

TimeSampled: 1435

SiteDescription: McCadden Hollow

Sampler Name: C.W. Mining

Parameter	S.Type	EQ	Value	Units	Min Detection	Analysis Method	Date Rec.	Date Analyzed	Analyst Name	Date Reported
FIELD WATER TEMPERATURE	4		6.7	Deg. C			10/26/00	10/25/00		11/30/2000
PH (FIELD)	4		7.7	pH units			10/26/00	10/25/00		11/30/2000
SP. CONDUCTIVITY (FIELD)	4		596	umhos/cm			10/26/00	10/25/00		11/30/2000
FLOW	4		3	GPM			10/26/00	10/25/00		11/30/2000
DISSOLVED CALCIUM	4		43	mg/l	1	EPA 215.1	10/26/00	11/13/00	MK	11/30/2000
DISSOLVED IRON	4	<	0.1	mg/l	0.1	EPA 236.1	10/26/00	11/8/00	MK	11/30/2000
DISSOLVED MAGNESIUM	4		41	mg/l	1	EPA 242.1	10/26/00	11/13/00	MK	11/30/2000
DISSOLVED MANGANESE	4	<	0.1	mg/l	0.1	EPA 243.1	10/26/00	11/8/00	MK	11/30/2000
DISSOLVED POTASSIUM	4		1	mg/l	1	EPA 258.1	10/26/00	11/13/00	MK	11/30/2000
DISSOLVED SODIUM	4		10	mg/l	1	EPA 273.1	10/26/00	11/13/00	MK	11/30/2000
BICARBONATE AS HCO3	4		322	mg/l	5	EPA 310.1	10/26/00	10/30/00	AW	11/30/2000
CARBONATE AS CO3	4	<	5	mg/l	5	EPA 310.1	10/26/00	10/30/00	AW	11/30/2000
CHLORIDE	4		8	mg/l	1	EPA 300.0	10/26/00	11/7/00	SC	11/30/2000
SULFATE	4		32	mg/l	1	EPA 300.0	10/26/00	11/7/00	SC	11/30/2000
TOTAL ALKALINITY AS CACO3	4		264	mg/l	5	EPA 310.1	10/26/00	10/30/00	AW	11/30/2000
TOTAL HARDNESS AS CACO3	4		276	mg/l		SM2340-B	10/26/00	11/17/00	RJ	11/30/2000
SPECIFIC CONDUCTIVITY (LAB)	4		558	umhos/cm	1	SM2510-B	10/26/00	11/10/00	AW	11/30/2000
TOTAL DISSOLVED SOLIDS, @ 180	4		302	mg/l	10	EPA 160.1	10/26/00	11/1/00	AW	11/30/2000
TOTAL CATIONS	4		6	meq/l			10/26/00	11/17/00	RJ	11/30/2000
TOTAL ANIONS	4		6.2	meq/l			10/26/00	11/17/00	RJ	11/30/2000
TOTAL IRON	4		0.2	mg/l	0.1	EPA 236.1	10/26/00	11/8/00	MK	11/30/2000
TOTAL MANGANESE	4	<	0.1	mg/l	0.1	EPA 243.1	10/26/00	11/8/00	MK	11/30/2000

CO-OP MINING COMPANY

Hydrology Field Measurement Form

Mine Bear Canyon Mine Station # SMH-4

Permit No ACT/015/025

Sample Date 10-25-00

Sample Time 14:35

Type: Spring ✓ Stream ____ Well ____ NPDES ____

Collection Point ____

Appearance of Water: Clear ✓ Milky ____ Cloudy ____ Opaque ____

Quality Sample Taken: Baseline ____ Operational ✓ Field ____

Flow/Depth 3 gpm

Water Temperature 44°F

pH 7.70

Specific Conductivity 596

Dissolved Oxygen N/A

Comments: ____

Field Monitor Nephi Walton

Lab Analyzing CTE Date Shipped 10-26-00

Sample ID # 59-22141 Date Results Received 11-29-00

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HUNTINGTON, UT 84528
TEL: (435) 653-2311
FAX: (435) 653-2436

November 29, 2000

C.W. MINING
P.O. Box 1245
Huntington UT 84528
Bryan Owen

Sample identification by
C.W. Mining

ID:SMH-4

Kind of sample reported to us: Water

Sample taken at

Sample taken by: C.W. Mining

Date sampled: October 25, 2000

Date received: October 26, 2000

RECEIVED 1500
SAMPLED 1435
FIELD MEASUREMENTS
FLOW 3 GPM TEMP 6.7
COND. 596 pH 7.70

NOTES:
DIS.METALS
FILTERED @ LAB

Analysis report no. 59-22141

Parameter	Result	MRL	Units	Method	Analyzed Date/Time/Analyst
Alkalinity, Bicarbonate	322	5	mg/l as HCO_3	EPA 310.1	10-30-2000 1030 AW
Alkalinity, Carbonate	<5	5	mg/l as CO_3	EPA 310.1	10-30-2000 1030 AW
Alkalinity, Total	264	5	mg/l as $CaCO_3$	EPA 310.1	10-30-2000 1030 AW
Anions	6.2	----	meq/l	---------	11-17-2000 1000 RJ
Calcium, Dissolved	43	1	mg/l	EPA 215.1	11-13-2000 1000 MK
Cations	6.0	----	meq/l	---------	11-17-2000 1000 RJ
Chloride	8	1	mg/l	EPA 300.0	11-07-2000 0909 SC
Conductivity	558	1	umhos/cm	SM2510-B	11-10-2000 1245 AW
Hardness, Total	276	----	mg/l as $CaCO_3$	SM2340-B	11-17-2000 1000 RJ
Iron, Dissolved	<0.1	0.1	mg/l	EPA 236.1	11-08-2000 0830 MK
Iron, Total	0.2	0.1	mg/l	EPA 236.1	11-08-2000 0830 MK
Magnesium, Dissolved	41	1	mg/l	EPA 242.1	11-13-2000 1130 MK
Manganese, Total	<0.1	0.1	mg/l	EPA 243.1	11-08-2000 1000 MK
Manganese, Dissolved	<0.1	0.1	mg/l	EPA 243.1	11-08-2000 1000 MK
Potassium, Dissolved	1	1	mg/l	EPA 258.1	11-13-2000 0800 MK
Sodium, Dissolved	10	1	mg/l	EPA 273.1	11-13-2000 0900 MK
Solids, Total Dissolved	302	10	mg/l	EPA 160.1	11-01-2000 1600 AW
Sulfate	32	1	mg/l	EPA 300.0	11-07-2000 0909 SC
Cation/Anion Balance	-1.6	----	%		11-17-2000 1000 RJ

Respectfully submitted,
COMMERCIAL TESTING & ENGINEERING CO.

Huntington Laboratory

MEMBER ACIL

Mine Name: BEAR CANYON

Electronic Water Data Report By Individual Sample

Date Sampled: 10/25/2000

SiteName: DH-1A

Lab Code: CTE **LAB_ID:** 59-22123

TimeSampled: 815

SiteDescription: (Drill Hole-1A) 2nd W monitor well

Sampler Name:

Parameter	S.Type	EQ	Value	Units	Min Detection	Analysis Method	Date Rec.	Date Analyzed	Analyst Name	Date Reported
COMMENTS							0/25/2000			11/30/2000
FIELD WATER TEMPERATURE	4		11.7	Deg. C			0/25/2000	10/25/2000		11/30/2000
PH (FIELD)	4		7.27	pH units			0/25/2000	10/25/2000		11/30/2000
SP. CONDUCTIVITY (FIELD)	4		588	umhos/cm			0/25/2000	10/25/2000		11/30/2000
DEPTH	4		102.2	m			0/25/2000	10/25/2000		11/30/2000
DISSOLVED CALCIUM	4		71	mg/l	1	EPA 215.1	0/25/2000	11/13/2000	MK	11/30/2000
DISSOLVED IRON	4	<	0.1	mg/l	0.1	EPA 236.1	0/25/2000	11/8/2000	MK	11/30/2000
DISSOLVED MAGNESIUM	4		31	mg/l	1	EPA 242.1	0/25/2000	11/13/2000	MK	11/30/2000
DISSOLVED MANGANESE	4	<	0.1	mg/l	0.1	EPA 243.1	0/25/2000	11/8/2000	MK	11/30/2000
DISSOLVED POTASSIUM	4		2	mg/l	1	EPA 258.1	0/25/2000	11/13/2000	MK	11/30/2000
DISSOLVED SODIUM	4		4	mg/l	1	EPA 273.1	0/25/2000	11/13/2000	MK	11/30/2000
BICARBONATE AS HCO3	4		365	mg/l	5	EPA 310.1	0/25/2000	10/30/2000	AW	11/30/2000
CARBONATE AS CO3	4	<	5	mg/l	5	EPA 310.1	0/25/2000	10/30/2000	AW	11/30/2000
CHLORIDE	4		4	mg/l	1	EPA 300.0	0/25/2000	10/25/2000	RJ	11/30/2000
SULFATE	4		28	mg/l	1	EPA 300.0	0/25/2000	10/25/2000	RJ	11/30/2000
TOTAL ALKALINITY AS CACO3	4		299	mg/l	5	EPA 310.1	0/25/2000	10/30/2000	AW	11/30/2000
TOTAL HARDNESS AS CACO3	4		305	mg/l		SM2340-B	0/25/2000	11/17/2000	RJ	11/30/2000
SPECIFIC CONDUCTIVITY (LAB)	4		603	umhos/cm	1	SM2510-B	0/25/2000	11/1/2000	AW	11/30/2000
TOTAL DISSOLVED SOLIDS, @ 180	4		314	mg/l	10	EPA 160.1	0/25/2000	10/25/2000	AW	11/30/2000
TOTAL CATIONS	4		6.3	meq/l			0/25/2000	11/17/2000	RJ	11/30/2000
TOTAL ANIONS	4		6.7	meq/l			0/25/2000	11/17/2000	RJ	11/30/2000
TOTAL IRON	4		0.4	mg/l	0.1	EPA 236.1	0/25/2000	11/8/2000	MK	11/30/2000
TOTAL MANGANESE	4	<	0.1	mg/l	0.1	EPA 243.1	0/25/2000	11/8/2000	MK	11/30/2000

CO-OP MINING COMPANY

Hydrology Field Measurement Form

Mine Bear Canyon Mine Station # DH-14

Permit No ACT/015/025

Sample Date 10-25-00

Sample Time 8:15

Type: Spring____ Stream____ Well ✓ NPDES____

Collection Point____

Appearance of Water: Clear____ Milky____ Cloudy____ Opaque____

Quality Sample Taken: Baseline____ Operational ✓ Field____

Flow/Depth 102.2 ft.

Water Temperature 11.7°C

pH 7.27

Specific Conductivity 588

Dissolved Oxygen N/A

Comments:

Field Monitor Charles Reynolds

Lab Analyzing CTE Date Shipped 10-26-00

Sample ID # 59-22123 Date Results Received 11-30-00

COMMERCIAL TESTING & ENGINEERING CO.

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April 10, 2001

C.W. MINING
P.O. Box 1245
Huntington UT 84528
Bryan Owen

Sample identification by
C.W. Mining

ID:DH-1A

Kind of sample reported to us: Water

Sample taken at

Sample taken by: C.W. Mining

Date sampled: October 25, 2000

Date received: October 25, 2000

RECEIVED 0925
SAMPLED 0815
FIELD MEASUREMENTS
DEPTH 102.2 TEMP 11.7
COND. 588 pH 7.27
NOTES:
DIS.METALS
FILTERED @ LAB
REVISED REPORT DUE TO WRONG DATE OF RECEIPT REPORTED 10-26 CHANGED TO 10-25.

Analysis report no. 59-22123

Parameter	Result	MRL	Units	Method	Analyzed Date/Time/Analyst
Alkalinity, Bicarbonate	365	5	mg/l as HCO_3	EPA 310.1	10-30-2000 1030 AW
Alkalinity, Carbonate	<5	5	mg/l as CO_3	EPA 310.1	10-30-2000 1030 AW
Alkalinity, Total	299	5	mg/l as $CaCO_3$	EPA 310.1	10-30-2000 1030 AW
Anions	6.7	----	meq/l	---------	11-17-2000 1000 RJ
Calcium, Dissolved	71	1	mg/l	EPA 215.1	11-13-2000 1000 MK
Cations	6.3	----	meq/l	---------	11-17-2000 1000 RJ
Chloride	4	1	mg/l	EPA 300.0	10-25-2000 0955 RJ
Conductivity	603	1	umhos/cm	SM2510-B	11-01-2000 1430 AW
Hardness, Total	305	----	mg/l as $CaCO_3$	SM2340-B	11-17-2000 1000 RJ
Iron, Dissolved	<0.1	0.1	mg/l	EPA 236.1	11-08-2000 0830 MK
Iron, Total	0.4	0.1	mg/l	EPA 236.1	11-08-2000 0830 MK
Magnesium, Dissolved	31	1	mg/l	EPA 242.1	11-13-2000 1130 MK
Manganese, Total	<0.1	0.1	mg/l	EPA 243.1	11-08-2000 1000 MK
Manganese, Dissolved	<0.1	0.1	mg/l	EPA 243.1	11-08-2000 1000 MK
Potassium, Dissolved	2	1	mg/l	EPA 258.1	11-13-2000 0800 MK
Sodium, Dissolved	4	1	mg/l	EPA 273.1	11-13-2000 0900 MK
Solids, Total Dissolved	314	10	mg/l	EPA 160.1	10-25-2000 1400 AW
Sulfate	28	1	mg/l	EPA 300.0	10-25-2000 0955 RJ
Cation/Anion Balance	-2.8	----	%		11-17-2000 1000 RJ

FAXED
4-11-01

Respectfully submitted,
COMMERCIAL TESTING & ENGINEERING CO.

Huntington Laboratory

MEMBER ACIL

Electronic Water Data Report By Individual Sample

Mine Name: BEAR CANYON
SiteName: SDH-2
SiteDescription: McCadden Ridge Well

Lab Code: NOA
LAB_ID: 20001030

Date Sampled: 10/30/00
TimeSampled: 900
Sampler Name: Nephi Walton

Parameter	S.Type	EQ	Value	Units	Min Detection	Analysis Method	Date Rec.	Date Analyzed	Analyst Name	Date Reported
FLOW	11		0	GPM						

CO-OP MINING COMPANY

Hydrology Field Measurement Form

Mine Bear Canyon Mine Station # SDH-2

Permit No ACT/015/025

Sample Date 10/30/00

Sample Time 9:00

Type: Spring____ Stream____ Well ✓ NPDES____

Collection Point_____

Appearance of Water: Clear____ Milky____ Cloudy____ Opaque____

Quality Sample Taken: Baseline____ Operational____ Field____

Flow/Depth inaccessible

Water Temperature_____

pH_____

Specific Conductivity_____

Dissolved Oxygen_____

Comments:_____

Field Monitor Nephi Walton

Lab Analyzing N/A Date Shipped_____

Sample ID #_____ Date Results Received_____

Electronic Water Data Report By Individual Sample

Mine Name: BEAR CANYON
SiteName: SDH-3
SiteDescription: Trail Ridge Well

Lab Code: NOA
LAB_ID: 20001030

Date Sampled: 10/30/00
TimeSampled: 900
Sampler Name: Nephi Walton

Parameter	S.Type	EQ	Value	Units	Min Detection	Analysis Method	Date Rec.	Date Analyzed	Analyst Name	Date Reported
FLOW	11		0	GPM						

CO-OP MINING COMPANY

Hydrology Field Measurement Form

Mine Bear Canyon Mine Station # 501H-3

Permit No ACT/015/025

Sample Date 10/30/00

Sample Time 9:00

Type: Spring____ Stream____ Well ✓ NPDES____

Collection Point_____

Appearance of Water: Clear____ Milky____ Cloudy____ Opaque____

Quality Sample Taken: Baseline____ Operational____ Field____

Flow/Depth Inaccessible

Water Temperature_____

pH_____

Specific Conductivity_____

Dissolved Oxygen_____

Comments:_____

Field Monitor Nephi Walton

Lab Analyzing N/A Date Shipped_____

Sample ID #_____ Date Results Received_____

Electronic Water Data Report By Individual Sample

Mine Name: BEAR CANYON
SiteName: UTG040006-004
SiteDescription: Mine Water Q to Bear Cyn Ck

Lab Code: NOF
LAB_ID: 20001006

Date Sampled: 10/6/00
TimeSampled: 800
Sampler Name: Nephi Walton

Parameter	S.Type	EQ	Value	Units	Min Detection	Analysis Method	Date Rec.	Date Analyzed	Analyst Name	Date Reported
FLOW	10		0	GPM						

CO-OP MINING COMPANY

Hydrology Field Measurement Form

Mine Bear Canyon Mine Station # NPDES 1

Permit No ACT/015/025

Sample Date 10/6 00

Sample Time 8:00

Type: Spring____ Stream____ Well____ NPDES ✓

Collection Point_____

Appearance of Water: Clear____ Milky____ Cloudy____ Opaque____

Quality Sample Taken: Baseline____ Operational____ Field____

Flow/Depth Dry / No Flow

Water Temperature_____

pH_____

Specific Conductivity_____

Dissolved Oxygen_____

Comments: _____

Field Monitor [signature]

Lab Analyzing N/A Date Shipped_____

Sample ID #_____ Date Results Received_____

Electronic Water Data Report By Individual Sample

Mine Name: BEAR CANYON
SiteName: UTG040006-004
SiteDescription: Mine Water Q to Bear Cyn Ck
Lab Code: NOF
LAB_ID: 20001030
Date Sampled: 10/30/00
TimeSampled: 815
Sampler Name: Nephi Walton

Parameter	S.Type	EQ	Value	Units	Min Detection	Analysis Method	Date Rec.	Date Analyzed	Analyst Name	Date Reported
FLOW	10		0	GPM						

CO-OP MINING COMPANY

Hydrology Field Measurement Form

Mine Bear Canyon Mine Station # NPDES 2

Permit No ACT/015/025

Sample Date 10/30/00

Sample Time 8:15

Type: Spring____ Stream____ Well____ NPDES ✓

Collection Point_____

Appearance of Water: Clear____ Milky____ Cloudy____ Opaque____

Quality Sample Taken: Baseline____ Operational____ Field____

Flow/Depth Dry No Flow

Water Temperature_____

pH_____

Specific Conductivity_____

Dissolved Oxygen_____

Comments:_____

Field Monitor Steve Walter

Lab Analyzing N/A Date Shipped_____

Sample ID #_____ Date Results Received_____

Electronic Water Data Report By Individual Sample

Mine Name: BEAR CANYON
SiteName: UTG040006-004
SiteDescription: Mine Water Q to Bear Cyn Ck

Lab Code: NOF
LAB_ID: 20001117

Date Sampled: 11/17/00
TimeSampled: 1215
Sampler Name: Nephi Walton

Parameter	S.Type	EQ	Value	Units	Min Detection	Analysis Method	Date Rec.	Date Analyzed	Analyst Name	Date Reported
FLOW	10		0	GPM						

CO-OP Mining Company

Hydrology Field Measurement Form

Mine: Bear Canyon
Permit No: ACT/015/025

Station # NPDES-1

Sample Date: 11-17-00

Sample Time: 12:15

Sample Type:
- ☐ Spring
- ☐ Stream
- ☐ Well
- ☒ NPDES

Quality Sample Taken
- ☐ Baseline
- ☐ Operational
- ☐ Field

Appearance of Water
- ☐ Clear
- ☐ Milky
- ☐ Cloudy
- ☐ Opaque

Flow/Depth Dry

Water Temperature —

PH —

Specific Conductivity —

Dissolved Oxygen —

Comments:

Field Monitor: Nephi Walton

Lab Analyzing: N/A

Date Shipped:

Sample ID:

Date Results Received:

Electronic Water Data Report By Individual Sample

Mine Name: BEAR CANYON
SiteName: UTG040006-004
SiteDescription: Mine Water Q to Bear Cyn Ck

Lab Code: NOF
LAB_ID: 20001127

Date Sampled: 11/27/2000
TimeSampled: 100
Sampler Name: Nephi Walton

Parameter	S.Type	EQ	Value	Units	Min Detection	Analysis Method	Date Rec.	Date Analyzed	Analyst Name	Date Reported
FLOW	10		0	GPM						

CO-OP Mining Company

Hydrology Field Measurement Form

Mine: Bear Canyon
Permit No: ACT/015/025

Station # NPDES

Sample Date: 11-27-00

Sample Time: 1:00

Sample Type:
- ☐ Spring
- ☐ Stream
- ☐ Well
- ☐ NPDES

Quality Sample Taken
- ☐ Baseline
- ☐ Operational
- ☐ Field

Appearance of Water
- ☐ Clear
- ☐ Milky
- ☐ Cloudy
- ☐ Opaque

Flow/Depth Dry - No Flow

Water Temperature —

PH —

Specific Conductivity —

Dissolved Oxygen —

Comments: —

Field Monitor: Nephi Walton

Lab Analyzing: N/A

Date Shipped: —

Sample ID: —

Date Results Received: —

Electronic Water Data Report By Individual Sample

Mine Name: BEAR CANYON
SiteName: UTG040006-004
SiteDescription: Mine Water Q to Bear Cyn Ck

Lab Code: NOF
LAB_ID: 20001212

Date Sampled: 12/12/2000
TimeSampled: 830
Sampler Name: Nephi Walton

Parameter	S.Type	EQ	Value	Units	Min Detection	Analysis Method	Date Rec.	Date Analyzed	Analyst Name	Date Reported
FLOW	10		0	GPM						

CO-OP Mining Company

Hydrology Field Measurement Form

Mine: Bear Canyon
Permit No: ACT/015/025

Station # NPDES

Sample Date: 12-12-00

Sample Time: 9:00

Sample Type:
- ☐ Spring
- ☐ Stream
- ☐ Well
- ☑ NPDES

Quality Sample Taken
- ☐ Baseline
- ☐ Operational
- ☐ Field

Appearance of Water
- ☐ Clear
- ☐ Milky
- ☐ Cloudy
- ☐ Opaque

Flow/Depth Dry - No Flow

Water Temperature —

PH —

Specific Conductivity —

Dissolved Oxygen —

Comments:

Field Monitor: Nephi Walton

Lab Analyzing: N/A

Date Shipped: —

Sample ID: —

Date Results Received: —

Electronic Water Data Report By Individual Sample

Mine Name: BEAR CANYON
SiteName: UTG040006-004
SiteDescription: Mine Water Q to Bear Cyn Ck
Lab Code: NOF
LAB_ID: 20001228
Date Sampled: 12/28/00
TimeSampled: 830
Sampler Name: Nephi Walton

Parameter	S.Type	EQ	Value	Units	Min Detection	Analysis Method	Date Rec.	Date Analyzed	Analyst Name	Date Reported
FLOW	10		0	GPM						

CO-OP Mining Company

Hydrology Field Measurement Form

Mine: Bear Canyon
Permit No: ACT/015/025

Station # NPDES 1

Sample Date: 12/28/00

Sample Time: 8:30

Sample Type:
- ☐ Spring
- ☐ Stream
- ☐ Well
- ☑ NPDES

Quality Sample Taken
- ☐ Baseline
- ☐ Operational
- ☐ Field

Appearance of Water
- ☐ Clear
- ☐ Milky
- ☐ Cloudy
- ☐ Opaque

Flow/Depth Dry - No Flow

Water Temperature —

PH —

Specific Conductivity —

Dissolved Oxygen —

Comments: —

Field Monitor: Nephi Walton

Lab Analyzing: N/A

Date Shipped: —

Sample ID: —

Date Results Received: —

SEDIMENT POND "A"

IMPOUNDMENT INSPECTION AND CERTIFIED REPORT	002A	Page 1 of 1

Permit Number	ACT\015\025	**Report Date**	12/20/00
Mine Name	Bear Canyon Mine		
Company Name	C.W. Mining Company		
Impoundment Identification	**Impoundment Name**	Sediment Pond "A"	
	Impoundment Number	002A	
	UPDES Permit Number	UTG040006	
	MSHA ID Number	N/A	

IMPOUNDMENT INSPECTION

Inspection Date	12/20/00
Inspected By	Miles Stephens
Reason for Inspection (Annual, Quarterly or Other Periodic Inspection, Critical Installation, or Completion of Construction)	Quarterly

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

The pond's dam appeared sound with no signs of structural instability or other hazardous conditions.

Required for an impoundment which functions as a SEDIMENTATION POND.

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

Sediment storage capacity = 39,500 ft^3
60% cleanout elevation = 7,086
100% sediment storage elevation = 7,087.9
Existing sediment elevation = 7,083

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

Principle spillway elevation = 7,088
Emergency spillway elevation = 7,094.5

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

The pond is frozen. The elevation of the ice is at 7085.5. A layer of snow ranging from 0 to 5 inches covers the pond. The pond was last cleaned in August, 2000.

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

The existing sediment volume is 5,309 ft^3. The existing runoff storage capacity is 134,027 ft^3 which is greater than the 64,951 ft^3 required in the permit.

Qualification Statement

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

Signature: Miles Stephens **Date:** 12/20/00

SEDIMENT POND "B"

IMPOUNDMENT INSPECTION AND CERTIFIED REPORT	003A	Page 1 of 2

Permit Number	ACT\[redacted]\025	Report Date[redacted]	12/20/00
Mine Name	Bear Canyon Mine		
Company Name	C.W. Mining Company		
Impoundment Identification	Impoundment Name	Sediment Pond "B"	
	Impoundment Number	003A	
	UPDES Permit Number	UTG040006	
	MSHA ID Number	N\A	

IMPOUNDMENT INSPECTION

Inspection Date	12/20/00
Inspected By	Miles Stephens
Reason for Inspection (Annual, Quarterly or Other Periodic Inspection, Critical Installation, or Completion of Construction)	Annual/Quarterly/Recertification following cleanout

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

The pond's dam appeared sound with no signs of structural instability or hazardous conditions.

Required for an impoundment which functions as a SEDIMENTATION POND.

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

Sediment storage capacity = 3,670 ft^3
60% cleanout elevation = 7,062.9
100% sediment storage elevation = 7,063.4
Existing sediment elevation = 7,062

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

Principle spillway elevation = 7,064.9
Emergency spillway elevation = 7,068

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

The pond contains 1 foot of ice. The slopes appear sound with no signs of instability. The pond was last cleaned during October and November, 2000.

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

The pond contains little or no sediment. The existing storage capacity is approximately 18,000 ft^3 which is greater than the 9,095 ft^3 required in the permit.

Qualification Statement

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

Signature: Miles Stephens **Date:** 12/20/00

CERTIFIED REPORT

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

COMMENTS AND OTHER INFORMATION

The pond's configuration was not changed during the cleanout process. Plate 7-3 of the Mining and Reclamation Plan accurately depicts the existing contours of the sediment pond.

Certification Statement:

LICENSED PROFESSIONAL ENGINEER
CHARLES REYNOLDS
No. 179670
STATE OF UTAH

PE Cert. Stamp

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

By: Charles Reynolds, Mining Engineer
(Full Name and Title)

Signature: Charles Reynolds **Date:** 12/20/00

P.E. Number & State: 179670, Utah

SEDIMENT POND "C"

IMPOUNDMENT INSPECTION AND CERTIFIED REPORT	006A	Page 1 of 2

Permit Number	ACT\[illegible]\025	**Report Date**	12/20/00
Mine Name	Bear Canyon Mine		
Company Name	C.W. Mining Company		
Impoundment Identification	**Impoundment Name**	Sediment Pond "C"	
	Impoundment Number	006A	
	UPDES Permit Number	UTG040006	
	MSHA ID Number	N\A	

IMPOUNDMENT INSPECTION

Inspection Date	12/20/00
Inspected By	Miles Stephens
Reason for Inspection (Annual, Quarterly or Other Periodic Inspection, Critical Installation, or Completion of Construction)	Annual/Quarterly

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

The pond's dam showed no signs of structural weakness, erosion or any other hazards.

Required for an impoundment which functions as a SEDIMENTATION POND.

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

Sediment storage capacity = 5,282 ft^3
60% cleanout elevation = 7,030.3
100% sediment storage elevation = 7,031.4
Existing sediment elevation = 7,028.8

3. Principle and emergency spillway elevations.

Principle spillway elevation = 7,032.3
Emergency spillway elevation = 7,035.3

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

The pond is frozen with 5 inches of snow and ice. The pond was last cleaned in June, 1996.

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

The existing sediment volume is approximately 1,171 ft^3. The existing storage capacity is 14,534 ft^3 which is greater than the 7,881 ft^3 required in the permit.

Qualification Statement

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

Signature: Miles Stephens **Date:** 12/20/00

CERTIFIED REPORT

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

COMMENTS AND OTHER INFORMATION

Certification Statement:

PROFESSIONAL ENGINEER
CHARLES REYNOLDS
NO. 179670
STATE OF UTAH
[PE Cert. Stamp]

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

By: Charles Reynolds, Mining Engineer
(Full Name and Title)

Signature: Charles Reynolds **Date:** 12/20/00

P.E. Number & State: 179670, Utah

TRAIL CANYON

MINE

Electronic Water Data Report By Individual Sample

Mine Name: TRAIL CANYON
SiteName: UT-1
SiteDescription: Upper Trail Ck

Lab Code: NOF
LAB_ID: 20001026

Date Sampled: 10/26/00
TimeSampled: 810
Sampler Name: Nephi Walton

Parameter	S.Type	EQ	Value	Units	Min Detection	Analysis Method	Date Rec.	Date Analyzed	Analyst Name	Date Reported
FLOW	10		0	GPM						

CO-OP Mining Company

Hydrology Field Measurement Form

Mine: Bear Canyon
Permit No: ACT/015/025

Station # Ut-1

Sample Date: 10-26-00

Sample Time: 8:10

Sample Type:
- ❑ Spring
- ❑ Stream
- ❑ Well
- ❑ NPDES

Quality Sample Taken
- ❑ Baseline
- ❑ Operational
- ❑ Field

Appearance of Water
- ❑ Clear
- ❑ Milky
- ❑ Cloudy
- ❑ Opaque

Flow/Depth Dry

Water Temperature -

PH -

Specific Conductivity -

Dissolved Oxygen -

Comments:

Field Monitor: Nephi Walton

Lab Analyzing: N/A

Date Shipped: -

Sample ID: -

Date Results Received: -

Mine Name: TRAIL CANYON

Electronic Water Data Report By Individual Sample

Date Sampled: 10/26/00

SiteName: LT-1

Lab Code: CTE **LAB_ID:** 59-22136

TimeSampled: 915

SiteDescription: Lower Trail Ck

Sampler Name:

Parameter	S.Type	EQ	Value	Units	Min Detection	Analysis Method	Date Rec.	Date Analyzed	Analyst Name	Date Reported
COMMENTS							10/26/00			11/30/2000
FIELD WATER TEMPERATURE	4		8.1	Deg. C			10/26/00	10/26/00		11/30/2000
PH (FIELD)	4		8.57	pH units			10/26/00	10/26/00		11/30/2000
DISSOLVED OXYGEN (FIELD)	4		7.7	mg/l			10/26/00	10/26/00		11/30/2000
SP. CONDUCTIVITY (FIELD)	4		930	umhos/cm			10/26/00	10/26/00		11/30/2000
FLOW	4		25	GPM			10/26/00	10/26/00		11/30/2000
TOTAL SUSPENDED SOLIDS	4		10	mg/l	5	EPA 160.2	10/26/00	11/1/00	AW	11/30/2000
OIL/GREASE	4	<	2	mg/l	2	EPA 413.1	10/26/00	11/1/00	SC	11/30/2000
DISSOLVED CALCIUM	4		83	mg/l	1	EPA 215.1	10/26/00	11/13/00	MK	11/30/2000
DISSOLVED IRON	4	<	0.1	mg/l	0.1	EPA 236.1	10/26/00	11/8/00	MK	11/30/2000
DISSOLVED MAGNESIUM	4		61	mg/l	1	EPA 242.1	10/26/00	11/13/00	MK	11/30/2000
DISSOLVED MANGANESE	4	<	0.1	mg/l	0.1	EPA 243.1	10/26/00	11/8/00	MK	11/30/2000
DISSOLVED POTASSIUM	4		4	mg/l	1	EPA 258.1	10/26/00	11/13/00	MK	11/30/2000
DISSOLVED SODIUM	4		21	mg/l	1	EPA 273.1	10/26/00	11/13/00	MK	11/30/2000
BICARBONATE AS HCO3	4		480	mg/l	5	EPA 310.1	10/26/00	10/30/00	AW	11/30/2000
CARBONATE AS CO3	4	<	5	mg/l	5	EPA 310.1	10/26/00	10/30/00	AW	11/30/2000
CHLORIDE	4		30	mg/l	1	EPA 300.0	10/26/00	11/7/00	SC	11/30/2000
SULFATE	4		85	mg/l	1	EPA 300.0	10/26/00	11/7/00	SC	11/30/2000
TOTAL ALKALINITY AS CACO3	4		394	mg/l	5	EPA 310.1	10/26/00	10/30/00	AW	11/30/2000
TOTAL HARDNESS AS CACO3	4		458	mg/l		SM2340-B	10/26/00	11/17/00	RJ	11/30/2000
SPECIFIC CONDUCTIVITY (LAB)	4		915	umhos/cm	1	SM2510-B	10/26/00	11/10/00	AW	11/30/2000
TOTAL DISSOLVED SOLIDS, @ 180	4		548	mg/l	10	EPA 160.1	10/26/00	11/1/00	AW	11/30/2000
SETTLEABLE SOLIDS	4	<	0.4	ml/l	0.4	EPA 160.5	10/26/00	10/27/00	SC	11/30/2000
TOTAL CATIONS	4		10.2	meq/l			10/26/00	11/17/00	RJ	11/30/2000
TOTAL ANIONS	4		10.5	meq/l			10/26/00	11/17/00	RJ	11/30/2000
TOTAL IRON	4	<	0.1	mg/l	0.1	EPA 236.1	10/26/00	11/8/00	MK	11/30/2000
TOTAL MANGANESE	4	<	0.1	mg/l	0.1	EPA 243.1	10/26/00	11/8/00	MK	11/30/2000

CO-OP MINING COMPANY

Hydrology Field Measurement Form

Mine Bear Canyon Mine Station # LT-1

Permit No ACT/015/025

Sample Date 10-26-00

Sample Time 9:15

Type: Spring ____ Stream ✓ Well ____ NPDES ____

Collection Point ____

Appearance of Water: Clear ____ Milky ____ Cloudy ____ Opaque ____

Quality Sample Taken: Baseline ____ Operational ✓ Field ____

Flow/Depth 25 gpm

Water Temperature 8.1°C

pH 8.57

Specific Conductivity 930

Dissolved Oxygen 7.7

Comments: ____

Field Monitor Nephi Walton

Lab Analyzing CTE Date Shipped 10-26-00

Sample ID # 59-221360 Date Results Received 11-29-00

COMMERCIAL TESTING & ENGINEERING CO.

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FAX: (435) 653-2436

November 29, 2000

C.W. MINING
P.O. Box 1245
Huntington UT 84528
Bryan Owen

Sample identification by
C.W. Mining

ID:LT-1

RECEIVED 1500
SAMPLED 0915
FIELD MEASUREMENTS
FLOW 25 GPM TEMP 8.1
COND. 930 pH 8.57
D.O. 7.7
NOTES:
DIS.METALS
FILTERED @ LAB

Kind of sample reported to us Water

Sample taken at

Sample taken by C.W. Mining

Date sampled October 26, 2000

Date received October 26, 2000

Analysis report no. 59-22136

Parameter	Result	MRL	Units	Method	Analyzed Date/Time/Analyst
Alkalinity, Bicarbonate	480	5	mg/l as HCO_3	EPA 310.1	10-30-2000 1030 AW
Alkalinity, Carbonate	<5	5	mg/l as CO_3	EPA 310.1	10-30-2000 1030 AW
Alkalinity, Total	394	5	mg/l as $CaCO_3$	EPA 310.1	10-30-2000 1030 AW
Anions	10.5	----	meq/l	---------	11-17-2000 1000 RJ
Calcium, Dissolved	83	1	mg/l	EPA 215.1	11-13-2000 1000 MK
Cations	10.2	----	meq/l	---------	11-17-2000 1000 RJ
Chloride	30	1	mg/l	EPA 300.0	11-07-2000 0909 SC
Conductivity	915	1	umhos/cm	SM2510-B	11-10-2000 1245 AW
Hardness, Total	458	----	mg/l as $CaCO_3$	SM2340-B	11-17-2000 1000 RJ
Iron, Dissolved	<0.1	0.1	mg/l	EPA 236.1	11-08-2000 0830 MK
Iron, Total	<0.1	0.1	mg/l	EPA 236.1	11-08-2000 0830 MK
Magnesium, Dissolved	61	1	mg/l	EPA 242.1	11-13-2000 1130 MK
Manganese, Total	<0.1	0.1	mg/l	EPA 243.1	11-08-2000 1000 MK
Manganese, Dissolved	<0.1	0.1	mg/l	EPA 243.1	11-08-2000 1000 MK
Oil & Grease	<2	2	mg/l	EPA 413.1	11-01-2000 0830 SC
Potassium, Dissolved	4	1	mg/l	EPA 258.1	11-13-2000 0800 MK
Sodium, Dissolved	21	1	mg/l	EPA 273.1	11-13-2000 0900 MK
Solids, Settleable	<0.4	0.4	ml/l	EPA 160.5	10-27-2000 0900 SC
Solids, Total Dissolved	548	10	mg/l	EPA 160.1	11-01-2000 1600 AW
Solids, Total Suspended	10	5	mg/l	EPA 160.2	11-01-2000 1600 AW
Sulfate	85	1	mg/l	EPA 300.0	11-07-2000 0909 SC
Cation/Anion Balance	-1.5	----	%		11-17-2000 1000 RJ

Respectfully submitted,
COMMERCIAL TESTING & ENGINEERING CO.

Huntington Laboratory

MEMBER ACIL

Mine Name: TRAIL CANYON

Electronic Water Data Report By Individual Sample

Date Sampled: 10/26/00

SiteName: PS-1

Lab Code: CTE **LAB_ID:** 59-22134

TimeSampled: 820

SiteDescription: Portal Spring

Sampler Name:

Parameter	S.Type	EQ	Value	Units	Min Detection	Analysis Method	Date Rec.	Date Analyzed	Analyst Name	Date Reported
COMMENTS							10/26/00			11/30/2000
FIELD WATER TEMPERATURE	4		10.8	Deg. C			10/26/00	10/26/00		11/30/2000
PH (FIELD)	4		7.47	pH units			10/26/00	10/26/00		11/30/2000
SP. CONDUCTIVITY (FIELD)	4		836	umhos/cm			10/26/00	10/26/00		11/30/2000
FLOW	4		5	GPM			10/26/00	10/26/00		11/30/2000
DISSOLVED CALCIUM	4		84	mg/l	1	EPA 215.1	10/26/00	11/13/00	MK	11/30/2000
DISSOLVED IRON	4	<	0.1	mg/l	0.1	EPA 236.1	10/26/00	11/8/00	MK	11/30/2000
DISSOLVED MAGNESIUM	4		54	mg/l	1	EPA 242.1	10/26/00	11/13/00	MK	11/30/2000
DISSOLVED MANGANESE	4	<	0.1	mg/l	0.1	EPA 243.1	10/26/00	11/8/00	MK	11/30/2000
DISSOLVED POTASSIUM	4		3	mg/l	1	EPA 258.1	10/26/00	11/13/00	MK	11/30/2000
DISSOLVED SODIUM	4		14	mg/l	1	EPA 273.1	10/26/00	11/13/00	MK	11/30/2000
BICARBONATE AS HCO3	4		449	mg/l	5	EPA 310.1	10/26/00	10/30/00	AW	11/30/2000
CARBONATE AS CO3	4	<	5	mg/l	5	EPA 310.1	10/26/00	10/30/00	AW	11/30/2000
CHLORIDE	4		21	mg/l	1	EPA 300.0	10/26/00	10/27/00	RJ	11/30/2000
SULFATE	4		84	mg/l	1	EPA 300.0	10/26/00	10/27/00	RJ	11/30/2000
TOTAL ALKALINITY AS CACO3	4		368	mg/l	5	EPA 310.1	10/26/00	10/30/00	AW	11/30/2000
TOTAL HARDNESS AS CACO3	4		432	mg/l		SM2340-B	10/26/00	11/17/00	RJ	11/30/2000
SPECIFIC CONDUCTIVITY (LAB)	4		862	umhos/cm	1	SM2510-B	10/26/00	11/10/00	AW	11/30/2000
TOTAL DISSOLVED SOLIDS, @ 180	4		517	mg/l	10	EPA 160.1	10/26/00	11/1/00	AW	11/30/2000
TOTAL CATIONS	4		9.3	meq/l			10/26/00	11/17/00	RJ	11/30/2000
TOTAL ANIONS	4		9.7	meq/l			10/26/00	11/17/00	RJ	11/30/2000
TOTAL IRON	4	<	0.1	mg/l	0.1	EPA 236.1	10/26/00	11/8/00	MK	11/30/2000
TOTAL MANGANESE	4	<	0.1	mg/l	0.1	EPA 243.1	10/26/00	11/8/00	MK	11/30/2000

CO-OP MINING COMPANY

Hydrology Field Measurement Form

Mine Bear Canyon Mine Station # PS-1

Permit No ACT/015/025

Sample Date 10-26-00

Sample Time 8:20

Type: Spring ✓ Stream ____ Well ____ NPDES ____

Collection Point ____

Appearance of Water: Clear ____ Milky ____ Cloudy ____ Opaque ____

Quality Sample Taken: Baseline ____ Operational ✓ Field ____

Flow/Depth 5 gpm

Water Temperature 10.8 °C

pH 7.47

Specific Conductivity 8310

Dissolved Oxygen N/A

Comments: ____

Field Monitor Nephi Walton

Lab Analyzing CTE Date Shipped 10-26-00

Sample ID # 59-22134 Date Results Received 11-29-00

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P.O. BOX 1020
HUNTINGTON, UT 84528
TEL: (435) 653-2311
FAX: (435) 653-2436

November 29, 2000

C.W. MINING
P.O. Box 1245
Huntington UT 84528
Bryan Owen

Sample identification by
C.W. Mining

ID:PS-1

RECEIVED 1500
SAMPLED 0820

FIELD MEASUREMENTS

FLOW 5 GPM TEMP 10.8
COND. 836 pH 7.47

NOTES:
DIS.METALS
FILTERED @ LAB

Kind of sample reported to us Water

Sample taken at

Sample taken by C.W. Mining

Date sampled October 26, 2000

Date received October 26, 2000

Analysis report no. 59-22134

Parameter	Result	MRL	Units	Method	Analyzed Date/Time/Analyst
Alkalinity, Bicarbonate	449	5	mg/l as HCO_3	EPA 310.1	10-30-2000 1030 AW
Alkalinity, Carbonate	<5	5	mg/l as CO_3	EPA 310.1	10-30-2000 1030 AW
Alkalinity, Total	368	5	mg/l as $CaCO_3$	EPA 310.1	10-30-2000 1030 AW
Anions	9.7	----	meq/l	---------	11-17-2000 1000 RJ
Calcium, Dissolved	84	1	mg/l	EPA 215.1	11-13-2000 1000 MK
Cations	9.3	----	meq/l	---------	11-17-2000 1000 RJ
Chloride	21	1	mg/l	EPA 300.0	10-27-2000 0907 RJ
Conductivity	862	1	umhos/cm	SM2510-B	11-10-2000 1245 AW
Hardness, Total	432	----	mg/l as $CaCO_3$	SM2340-B	11-17-2000 1000 RJ
Iron, Dissolved	<0.1	0.1	mg/l	EPA 236.1	11-08-2000 0830 MK
Iron, Total	<0.1	0.1	mg/l	EPA 236.1	11-08-2000 0830 MK
Magnesium, Dissolved	54	1	mg/l	EPA 242.1	11-13-2000 1130 MK
Manganese, Total	<0.1	0.1	mg/l	EPA 243.1	11-08-2000 1000 MK
Manganese, Dissolved	<0.1	0.1	mg/l	EPA 243.1	11-08-2000 1000 MK
Potassium, Dissolved	3	1	mg/l	EPA 258.1	11-13-2000 0800 MK
Sodium, Dissolved	14	1	mg/l	EPA 273.1	11-13-2000 0900 MK
Solids, Total Dissolved	517	10	mg/l	EPA 160.1	11-01-2000 1600 AW
Sulfate	84	1	mg/l	EPA 300.0	10-27-2000 0907 RJ
Cation/Anion Balance	-2.0	----	%		11-17-2000 1000 RJ

Respectfully submitted,
COMMERCIAL TESTING & ENGINEERING CO.

Huntington Laboratory

MEMBER ACIL

Mine Name: TRAIL CANYON

Electronic Water Data Report By Individual Sample

Date Sampled: 10/26/00

SiteName: TS-1 **Lab Code:** CTE **LAB_ID:** 59-22133 **TimeSampled:** 800

SiteDescription: Trail Canyon Spring **Sampler Name:**

Parameter	S.Type	EQ	Value	Units	Min Detection	Analysis Method	Date Rec.	Date Analyzed	Analyst Name	Date Reported
COMMENTS							10/26/00			11/30/2000
FIELD WATER TEMPERATURE	4		10.3	Deg. C			10/26/00	10/26/00		11/30/2000
PH (FIELD)	4		7.4	pH units			10/26/00	10/26/00		11/30/2000
SP. CONDUCTIVITY (FIELD)	4		884	umhos/cm			10/26/00	10/26/00		11/30/2000
FLOW	4		18	GPM			10/26/00	10/26/00		11/30/2000
DISSOLVED CALCIUM	4		89	mg/l	1	EPA 215.1	10/26/00	11/13/00	MK	11/30/2000
DISSOLVED IRON	4	<	0.1	mg/l	0.1	EPA 236.1	10/26/00	11/8/00	MK	11/30/2000
DISSOLVED MAGNESIUM	4		57	mg/l	1	EPA 242.1	10/26/00	11/13/00	MK	11/30/2000
DISSOLVED MANGANESE	4	<	0.1	mg/l	0.1	EPA 243.1	10/26/00	11/8/00	MK	11/30/2000
DISSOLVED POTASSIUM	4		3	mg/l	1	EPA 258.1	10/26/00	11/13/00	MK	11/30/2000
DISSOLVED SODIUM	4		15	mg/l	1	EPA 273.1	10/26/00	11/13/00	MK	11/30/2000
BICARBONATE AS HCO3	4		466	mg/l	5	EPA 310.1	10/26/00	10/30/00	AW	11/30/2000
CARBONATE AS CO3	4	<	5	mg/l	5	EPA 310.1	10/26/00	10/30/00	AW	11/30/2000
CHLORIDE	4		24	mg/l	1	EPA 300.0	10/26/00	10/27/00	RJ	11/30/2000
SULFATE	4		88	mg/l	1	EPA 300.0	10/26/00	10/27/00	RJ	11/30/2000
TOTAL ALKALINITY AS CACO3	4		382	mg/l	5	EPA 310.1	10/26/00	10/30/00	AW	11/30/2000
TOTAL HARDNESS AS CACO3	4		457	mg/l		SM2340-B	10/26/00	11/17/00	RJ	11/30/2000
SPECIFIC CONDUCTIVITY (LAB)	4		900	umhos/cm	1	SM2510-B	10/26/00	11/10/00	AW	11/30/2000
TOTAL DISSOLVED SOLIDS, @ 180	4		535	mg/l	10	EPA 160.1	10/26/00	11/1/00	AW	11/30/2000
TOTAL CATIONS	4		9.9	meq/l			10/26/00	11/17/00	RJ	11/30/2000
TOTAL ANIONS	4		10.1	meq/l			10/26/00	11/17/00	RJ	11/30/2000
TOTAL IRON	4	<	0.1	mg/l	0.1	EPA 236.1	10/26/00	11/8/00	MK	11/30/2000
TOTAL MANGANESE	4	<	0.1	mg/l	0.1	EPA 243.1	10/26/00	11/8/00	MK	11/30/2000

CO-OP MINING COMPANY

Hydrology Field Measurement Form

Mine Bear Canyon Mine Station # TS-1

Permit No ACT/015/025

Sample Date 10-26-00

Sample Time 8:00

Type: Spring ✓ Stream ____ Well ____ NPDES ____

Collection Point ____

Appearance of Water: Clear ____ Milky ____ Cloudy ____ Opaque ____

Quality Sample Taken: Baseline ____ Operational ✓ Field ____

Flow/Depth 18 gpm

Water Temperature 50.5°F

pH 7.40

Specific Conductivity 884

Dissolved Oxygen N/A

Comments: ____

Field Monitor Nephi Walton

Lab Analyzing CTE Date Shipped 10-26-00

Sample ID # 59-22133 Date Results Received 11-29-00

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FAX: (435) 653-2436

November 29, 2000

C.W. MINING
P.O. Box 1245
Huntington UT 84528
Bryan Owen

Sample identification by
C.W. Mining

ID:TS-1

Kind of sample reported to us: Water

Sample taken at

Sample taken by: C.W. Mining

Date sampled: October 26, 2000

Date received: October 26, 2000

RECEIVED 1500
SAMPLED 0800

FIELD MEASUREMENTS

FLOW 18 GPM TEMP 10.3
COND. 884 pH 7.40

NOTES:
DIS.METALS
FILTERED @ LAB

Analysis report no. 59-22133

Parameter	Result	MRL	Units	Method	Analyzed Date/Time/Analyst
Alkalinity, Bicarbonate	466	5	mg/l as HCO_3	EPA 310.1	10-30-2000 1030 AW
Alkalinity, Carbonate	<5	5	mg/l as CO_3	EPA 310.1	10-30-2000 1030 AW
Alkalinity, Total	382	5	mg/l as $CaCO_3$	EPA 310.1	10-30-2000 1030 AW
Anions	10.1	----	meq/l	---------	11-17-2000 1000 RJ
Calcium, Dissolved	89	1	mg/l	EPA 215.1	11-13-2000 1000 MK
Cations	9.9	----	meq/l	---------	11-17-2000 1000 RJ
Chloride	24	1	mg/l	EPA 300.0	10-27-2000 0907 RJ
Conductivity	900	1	umhos/cm	SM2510-B	11-10-2000 1245 AW
Hardness, Total	457	----	mg/l as $CaCO_3$	SM2340-B	11-17-2000 1000 RJ
Iron, Dissolved	<0.1	0.1	mg/l	EPA 236.1	11-08-2000 0830 MK
Iron, Total	<0.1	0.1	mg/l	EPA 236.1	11-08-2000 0830 MK
Magnesium, Dissolved	57	1	mg/l	EPA 242.1	11-13-2000 1130 MK
Manganese, Total	<0.1	0.1	mg/l	EPA 243.1	11-08-2000 1000 MK
Manganese, Dissolved	<0.1	0.1	mg/l	EPA 243.1	11-08-2000 1000 MK
Potassium, Dissolved	3	1	mg/l	EPA 258.1	11-13-2000 0800 MK
Sodium, Dissolved	15	1	mg/l	EPA 273.1	11-13-2000 0900 MK
Solids, Total Dissolved	535	10	mg/l	EPA 160.1	11-01-2000 1600 AW
Sulfate	88	1	mg/l	EPA 300.0	10-27-2000 0907 RJ
Cation/Anion Balance	-1.4	----	%		11-17-2000 1000 RJ

Respectfully submitted,
COMMERCIAL TESTING & ENGINEERING CO.

Huntington Laboratory

MEMBER ACIL

Mine Name: TRAIL CANYON

SiteName: CS-1

SiteDescription: CO-OP Spring

Electronic Water Data Report By Individual Sample

Lab Code: CTE

LAB_ID: 59-22135

Date Sampled: 10/26/00

TimeSampled: 903

Sampler Name:

Parameter	S.Type	EQ	Value	Units	Min Detection	Analysis Method	Date Rec.	Date Analyzed	Analyst Name	Date Reported
COMMENTS							10/26/00			11/30/2000
FIELD WATER TEMPERATURE	4		11.3	Deg. C			10/26/00	10/26/00		11/30/2000
PH (FIELD)	4		7.32	pH units			10/26/00	10/26/00		11/30/2000
SP. CONDUCTIVITY (FIELD)	4		715	umhos/cm			10/26/00	10/26/00		11/30/2000
FLOW	4		15	GPM			10/26/00	10/26/00		11/30/2000
DISSOLVED CALCIUM	4		86	mg/l	1	EPA 215.1	10/26/00	11/13/00	MK	11/30/2000
DISSOLVED IRON	4	<	0.1	mg/l	0.1	EPA 236.1	10/26/00	11/8/00	MK	11/30/2000
DISSOLVED MAGNESIUM	4		39	mg/l	1	EPA 242.1	10/26/00	11/13/00	MK	11/30/2000
DISSOLVED MANGANESE	4	<	0.1	mg/l	0.1	EPA 243.1	10/26/00	11/8/00	MK	11/30/2000
DISSOLVED POTASSIUM	4		2	mg/l	1	EPA 258.1	10/26/00	11/13/00	MK	11/30/2000
DISSOLVED SODIUM	4		5	mg/l	1	EPA 273.1	10/26/00	11/13/00	MK	11/30/2000
BICARBONATE AS HCO3	4		413	mg/l	5	EPA 310.1	10/26/00	10/30/00	AW	11/30/2000
CARBONATE AS CO3	4	<	5	mg/l	5	EPA 310.1	10/26/00	10/30/00	AW	11/30/2000
CHLORIDE	4		5	mg/l	1	EPA 300.0	10/26/00	10/27/00	RJ	11/30/2000
SULFATE	4		54	mg/l	1	EPA 300.0	10/26/00	10/27/00	RJ	11/30/2000
TOTAL ALKALINITY AS CACO3	4		338	mg/l	5	EPA 310.1	10/26/00	10/30/00	AW	11/30/2000
TOTAL HARDNESS AS CACO3	4		375	mg/l		SM2340-B	10/26/00	11/17/00	RJ	11/30/2000
SPECIFIC CONDUCTIVITY (LAB)	4		718	umhos/cm	1	SM2510-B	10/26/00	11/10/00	AW	11/30/2000
TOTAL DISSOLVED SOLIDS, @ 180	4		429	mg/l	10	EPA 160.1	10/26/00	11/1/00	AW	11/30/2000
TOTAL CATIONS	4		7.8	meq/l			10/26/00	11/17/00	RJ	11/30/2000
TOTAL ANIONS	4		8	meq/l			10/26/00	11/17/00	RJ	11/30/2000
TOTAL IRON	4	<	0.1	mg/l	0.1	EPA 236.1	10/26/00	11/8/00	MK	11/30/2000
TOTAL MANGANESE	4	<	0.1	mg/l	0.1	EPA 243.1	10/26/00	11/8/00	MK	11/30/2000

CO-OP MINING COMPANY

Hydrology Field Measurement Form

Mine Bear Canyon Mine Station # CS-1

Permit No ACT/015/025

Sample Date 10-26-00

Sample Time 9:03

Type: Spring ✓ Stream ____ Well ____ NPDES ____

Collection Point ____

Appearance of Water: Clear ____ Milky ____ Cloudy ____ Opaque ____

Quality Sample Taken: Baseline ____ Operational ✓ Field ____

Flow/Depth 15 gpm

Water Temperature 11.3°C

pH 7.32

Specific Conductivity 715

Dissolved Oxygen N/A

Comments: ____

Field Monitor Nephi Walton

Lab Analyzing CTE Date Shipped 10-26-00

Sample ID # 59-22135 Date Results Received 11-29-00

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November 29, 2000

C.W. MINING
P.O. Box 1245
Huntington UT 84528
Bryan Owen

Sample identification by
C.W. Mining

ID:CS-1

Kind of sample reported to us Water

Sample taken at

Sample taken by C.W. Mining

Date sampled October 26, 2000

Date received October 26, 2000

RECEIVED 1500
SAMPLED 0903
FIELD MEASUREMENTS
FLOW 15 GPM TEMP 11.3
COND. 715 pH 7.32

NOTES:
DIS.METALS
FILTERED @ LAB

Analysis report no. 59-22135

Parameter	Result	MRL	Units	Method	Analyzed Date/Time/Analyst
Alkalinity, Bicarbonate	413	5	mg/l as HCO_3	EPA 310.1	10-30-2000 1030 AW
Alkalinity, Carbonate	<5	5	mg/l as CO_3	EPA 310.1	10-30-2000 1030 AW
Alkalinity, Total	338	5	mg/l as $CaCO_3$	EPA 310.1	10-30-2000 1030 AW
Anions	8.0	----	meq/l	---------	11-17-2000 1000 RJ
Calcium, Dissolved	86	1	mg/l	EPA 215.1	11-13-2000 1000 MK
Cations	7.8	----	meq/l	---------	11-17-2000 1000 RJ
Chloride	5	1	mg/l	EPA 300.0	10-27-2000 0907 RJ
Conductivity	718	1	umhos/cm	SM2510-B	11-10-2000 1245 AW
Hardness, Total	375	----	mg/l as $CaCO_3$	SM2340-B	11-17-2000 1000 RJ
Iron, Dissolved	<0.1	0.1	mg/l	EPA 236.1	11-08-2000 0830 MK
Iron, Total	<0.1	0.1	mg/l	EPA 236.1	11-08-2000 0830 MK
Magnesium, Dissolved	39	1	mg/l	EPA 242.1	11-13-2000 1130 MK
Manganese, Total	<0.1	0.1	mg/l	EPA 243.1	11-08-2000 1000 MK
Manganese, Dissolved	<0.1	0.1	mg/l	EPA 243.1	11-08-2000 1000 MK
Potassium, Dissolved	2	1	mg/l	EPA 258.1	11-13-2000 0800 MK
Sodium, Dissolved	5	1	mg/l	EPA 273.1	11-13-2000 0900 MK
Solids, Total Dissolved	429	10	mg/l	EPA 160.1	11-01-2000 1600 AW
Sulfate	54	1	mg/l	EPA 300.0	10-27-2000 0907 RJ
Cation/Anion Balance	-1.7	----	%		11-17-2000 1000 RJ

Respectfully submitted,
COMMERCIAL TESTING & ENGINEERING CO.

Huntington Laboratory

MEMBER ACIL

Electronic Water Data Report By Individual Sample

Mine Name: TRAIL CANYON
SiteName: BP-1
SiteDescription: Ball Park Spring

Lab Code: NOF
LAB_ID: 20001026

Date Sampled: 10/26/00
TimeSampled: 909
Sampler Name: Nephi Walton

Parameter	S.Type	EQ	Value	Units	Min Detection	Analysis Method	Date Rec.	Date Analyzed	Analyst Name	Date Reported
FLOW	10		0	GPM						

CO-OP Mining Company

Hydrology Field Measurement Form

Mine: Bear Canyon
Permit No: ACT/015/025

Station # Bp-1

Sample Date: 10-24-00

Sample Time: 9:09

Sample Type:
- ☐ Spring
- ☐ Stream
- ☐ Well
- ☐ NPDES

Quality Sample Taken
- ☐ Baseline
- ☐ Operational
- ☐ Field

Appearance of Water
- ☐ Clear
- ☐ Milky
- ☐ Cloudy
- ☐ Opaque

Flow/Depth Dry

Water Temperature –

PH –

Specific Conductivity –

Dissolved Oxygen –

Comments:

Field Monitor: Nephi Walton

Lab Analyzing: N/A

Date Shipped: –

Sample ID: –

Date Results Received: –