

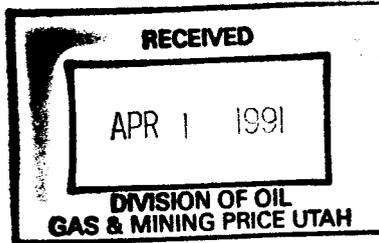
BEAVER CREEK COAL COMPANY

1990 ANNUAL REPORT

C.V. SPUR

**BEAVER CREEK Coal Company**

Post Office Box 1378  
Price, Utah 84501  
Telephone 801 637-5050



March 28, 1991

Mr. Lowell Braxton  
Administrator  
Division of Oil, Gas & Mining  
355 West North Temple  
3 Triad Center, Suite 350  
Salt Lake City, Utah 84180-1203

RE: 1990 Annual Report  
C.V. Spur Loadout Facility  
ACT/007/022  
Carbon County, Utah

Dear Mr. Braxton:

Enclosed is the Annual Report for Coal Mining and Reclamation Operations for 1990 for the C.V. Spur.

If you have any questions or need any further information, please let me know.

Respectfully,

A handwritten signature in black ink, appearing to read "Dan W. Guy". The signature is fluid and cursive, with a long horizontal stroke at the end.

Dan W. Guy,  
Manager, Permitting & Compliance

DWG/pd

cc: Scott Jones  
File 4-P-5-1-1

BEAVER CREEK COAL COMPANY

1990 ANNUAL REPORT

C.V. SPUR

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Dan W. Guy,  
Manager, Permitting & Compliance

DWG/pd

cc: Scott Jones  
File 4-P-5-1-1

COAL MINING AND RECLAMATION OPERATIONS FOR 1990

(Must be submitted to the Division by March 31, 1991)

State of Utah  
Department of Natural Resources  
Division of Oil, Gas and Mining  
3 Triad Center, Suite 350  
355 West North Temple  
Salt Lake City, Utah 84180-1203

(801) 538-5340

Permittee: Beaver Creek Coal Company  
Mine Name: C.V. Spur Processing and Loadout Fac.  
Mailing Address: P.O. Box 1378, Price, Utah 84501  
Company Representative: Dan W. Guy  
Resident Agent: Dan W. Guy  
Permit Number: ACT/007/022  
Date of Initial Permanent Program Permit 9/24/81  
Date of Permit Renewal: 8/7/89  
Quantity of Coal Mined (tonnage) 1990: 857,659 Tons Shipped

Attach Updated Mine Sequence Map.

All monitoring activities during the report period must be submitted with this report (including, but not limited to):

- A. Summarized Water Monitoring Data
- B. Precipitation or Other Climatological Data
- C. Subsidence Monitoring Report
- D. Vegetation Data (test plots) or Revegetation Success Monitoring (includes interim and final) (N/A)
- E. Annual Impoundment Inspection
- F. Permit Stipulation Status, if applicable. Status of Division Orders, if applicable.

**CERTIFICATES OF INSURANCE**

STATE OF UTAH  
DEPARTMENT OF NATURAL RESOURCES  
DIVISION OF OIL, GAS AND MINING  
355 West North Temple  
3 Triad Center, Suite 350  
Salt Lake City, Utah 84180-1203  
(801) 538-5340

COAL RECLAMATION AGREEMENT  
--000000--

For the purposes of this RECLAMATION AGREEMENT the terms below are defined as follows:

"PERMIT" (Mine Permit No.) ACT/007/022 (County) Carbon

"MINE" (Name of Mine) C.V. Spur Processing & Loadout Facility

"OPERATOR" (Company or Name) Beaver Creek Coal Co.  
(Address) P.O. Box 1378  
Price, Utah 84501

"OPERATOR'S REGISTERED AGENT" (Name) C.T. Corporation System  
(Address) 175 South Main St.  
(Phone) Salt Lake City, Utah 84111

"COMPANY OFFICERS":  
R.D. Pick, President  
D.R. Meadors, Operations Manager

"BOND TYPE" (Form of Bond) Surety

"BOND" (Bond Amount-Dollars) \$2,441,745  
(Year-Dollars) 1994

INSTITUTION POLICY OR ACCOUNT NUMBER United Pacific Insurance Company  
U-629894

"LIABILITY INSURANCE" (Exp.) Life of Permit or Renewal  
(Insurance Company) Insurance Company of North America

"STATE": Utah (Department of Natural Resources)

"DIVISION": Division of Oil, Gas and Mining

"DIVISION DIRECTOR" Dianne R. Nielson

EXHIBITS:

"SURFACE DISTURBANCE"	Exhibit "A"	_____	_____	_____
"BONDING AGREEMENT"	Exhibit "B"	_____	_____	_____
"LIABILITY INSURANCE"	Exhibit "C"	_____	_____	_____
"STIPULATION TO CHANGE BOND"	Exhibit "D"	_____	_____	_____

## RECLAMATION AGREEMENT

This RECLAMATION AGREEMENT (hereinafter referred to as "Agreement") is entered into by the Operator.

WHEREAS, on August 7, 1989, the Division approved the Permit Application Package, hereinafter "PAP", submitted by Beaver Creek Coal Co., hereinafter "Operator"; and

WHEREAS, prior to issuance of a permit to conduct mining and reclamation operations on the property described in the PAP, hereinafter "Property", the Operator is obligated by Title 40-10-1, et seq., Utah Code Annotated (1953, as amended), hereinafter "Act", to file with the Division a bond ensuring the performance of the reclamation obligations in the manner and by the standards set forth in the PAP, the Act, and the State of Utah Division of Oil, Gas and Mining Rules pertaining to Coal Mining and Reclamation Activities, hereinafter "Rules"; and

WHEREAS, the Operator is ready and willing to file the bond in the amount and in a form acceptable to the Division and to perform all obligations imposed by the Division relating to the reclamation of the Property; and

WHEREAS, the Division is ready and willing to issue the subject a mining and reclamation permit upon acceptance and approval of the bond.

NOW, THEREFORE, the Division and the Operator agree as follows:

1. The provisions of the Act and the Rules are incorporated by reference herein and hereby made a part of this Agreement. Provisions of the Act or Rules shall supercede conflicting provisions of this Agreement.

## RECLAMATION AGREEMENT

2. The Operator shall provide a legal description of the property including the number of acres approved by the Division to be disturbed by surface mining and reclamation operations during the permit period. The description is attached as Exhibit "A", and is incorporated by reference and shall be referred to as the "Surface Disturbance".
3. The Operator shall provide a bond to the Division in the form and amount acceptable to the Division ensuring the performance of the reclamation obligations in the manner and by the standards set forth in the PAP, the Act and the Rules. Said bond is attached as Exhibit "B" and is incorporated by reference.
4. The Operator shall maintain in full force and effect the public liability insurance policy submitted as part of the permit application. The Division shall be listed as an additional insured on said policy.
5. In the event that the Surface Disturbance is increased through expansion of the coal mining and reclamation operations or decreased through partial reclamation, the Division shall adjust the bond as appropriate.
6. The Operator does hereby jointly and severally agree to indemnify and hold harmless the State of Utah and the Division from any claim, demand, liability, cost, charge, or suit initiated by a third party as a result of the Operator or Operator's agent or employees failure to abide by the terms and conditions of the approved PAP and this Agreement.

## RECLAMATION AGREEMENT

7. The terms and conditions of this Agreement are non-cancellable until such time as the Operator has satisfactorily, as determined by the Division, reclaimed the Surface Disturbance in accordance with the approved PAP, the Act, and the Rules. Notwithstanding the above, the Division may direct, or the Operator may request and the Division may approve, a modification to this Agreement.
8. The Operator may, at any time, submit a request to the Division to substitute the bonding method. The Division may approve the substitution if the bond meets the requirements of the Act and the Rules, but no bond shall be released until the Division has approved and accepted the replacement bond.
9. Any revision in the Surface Disturbance, the bond amount, the bond type, the liability insurance amount coverage, and/or the liability insurance company, or other revisions affecting the terms and conditions of this Agreement shall be submitted on the form entitled "Stipulation to Revise Reclamation Agreement" and shall be attached hereto as Exhibit "D".
10. This Agreement shall be governed and construed in accordance with the laws of the State. The Operator shall be liable for all costs required to comply with this agreement, including any attorney fees.
11. Any breach of the provisions of this Agreement, the Act, the Rules, or the PAP may, at the discretion of the Division, result in an order to cease coal mining and reclamation operations, revocation of the Operator's permit to conduct coal mining and reclamation operations and/or forfeiture of the bond.

RECLAMATION AGREEMENT

12. In the event of forfeiture, the Operator shall be liable for additional costs in excess of the bond amount which are required to comply with this Agreement. Any excess monies resulting from the forfeiture of the bond amount upon compliance with this contract shall be refunded to the appropriate party.

13. Each signatory below represents that he/she is authorized to execute this Agreement on behalf of the named party. Proof of such authorization is provided on a form acceptable to the Division and is attached hereto.

SO AGREED this \_\_\_\_\_ day of \_\_\_\_\_, 19 \_\_\_\_

STATE OF UTAH:

\_\_\_\_\_  
Dianne R. Nielson, Director  
Division of Oil, Gas and Mining

OPERATOR:

*Richard D. Pick*

\_\_\_\_\_  
Company Officer - Position  
Richard D. Pick - President

*D.R. Meadors*

\_\_\_\_\_  
Company Officer - Position  
D.R. Meadors, Operations Manager



NOTE: An Affidavit of Qualification must be completed and attached to this form for each authorized agent or officer. Where one signs by virtue of Power of Attorney for a company, such Power of Attorney must be filed with this Agreement. If the principal is a corporation, the Agreement shall be executed by its duly authorized officer.

EXHIBIT "A"  
SURFACE DISTURBANCE  
LEGAL DESCRIPTION

Exhibit "A" - SURFACE DISTURBANCE  
August 1988

Permit Number ACT/007/022  
Effective Date AUG. 7, 1989

SURFACE DISTURBANCE  
--000000--

In accordance with the RECLAMATION AGREEMENT, the OPERATOR intends to conduct coal mining and reclamation activities on or within the surface DISTURBANCE as described hereunder:

Total acres of SURFACE DISTURBANCE 160 acres (more or less)

Legal Description of SURFACE DISTURBANCE:

W $\frac{1}{2}$ SW $\frac{1}{4}$  (except 0.24 ac. in NW corner), and E $\frac{1}{2}$ SW $\frac{1}{4}$   
(except East 100'), Section 11, T15S, R10E, S.L.B.&M.

EXHIBIT "B"  
SURETY BOND  
(NON-FEDERAL COAL)

August 1988  
Exhibit "B" - BONDING AGREEMENT  
SURETY BOND

Permit Number ACT/007/022  
Expiration Date Aug. 7, 1994

(NON-FEDERAL COAL)  
SURETY BOND  
--000000--

THIS SURETY BOND entered into and by and between the undersigned OPERATOR, and SURETY COMPANY, hereby jointly and severally bind ourselves, our heirs, administrators, executors, successors and assigns unto the State of Utah, Division of Oil, Gas and Mining in the penal sum of (\$ 2,441,745.00 ) (Surety Bond Amount) for the timely performance of reclamation responsibilities of the surface disturbance described in Exhibit "A" of this Reclamation Agreement.

This SURETY BOND shall remain in effect until all applicable rules and the OPERATOR's reclamation obligation have been met and released by the Division of Oil, Gas and Mining.

Terms for release or adjustment of this BOND are as written and agreed to by the DIVISION and the OPERATOR in the RECLAMATION AGREEMENT incorporated by reference herein, to which this SURETY AGREEMENT has been attached as Exhibit "B".

August 1988

AFFIDAVIT OF QUALIFICATION  
OPERATOR  
--000000--

I, Richard D. Pick, being first duly sworn under oath, deposes and says that he/she is the (officer or agent) \_\_\_\_\_ of BEAVER CREEK COAL Co.; and that he/she is duly authorized to execute and deliver the foregoing obligations; and that said OPERATOR is authorized to execute the same and has complied in all respects with the laws of Utah in reference to commitments, undertakings and obligations herein.

(Signed) Richard D. Pick  
Name - Position



Subscribed and sworn to before me this 11th day of September, 1989.

Richard D. Pick  
Notary Public

My Commission Expires:

4/11, 1993.

Attest:

STATE OF Utah )

COUNTY OF Carbon ) ss:

R I D E R

RIDER to be attached to and form a part of Bond Number U-629894  
on behalf of BEAVER CREEK COAL COMPANY  
(Name)

P.O. Box AU, Price, Utah 84501  
(Address)

as Principal, and in favor of STATE OF UTAH

as Obligee, executed by UNITED PACIFIC INSURANCE COMPANY as Surety,  
in the amount of TWO MILLION SEVENTEEN THOUSAND SIX HUNDRED SIXTY-NINE  
Dollars (\$ 2,017,669.00 ) effective APRIL 22, 19 87.

It is hereby understood and agreed that, effective as of AUGUST 6, 1989,  
the Bond Amount on said bond has been increased as follows:

- FROM: TWO MILLION SEVENTEEN THOUSAND SIX HUNDRED  
SIXTY-NINE AND NO/100 DOLLARS (\$2,017,669.00)
- TO: TWO MILLION FOUR HUNDRED FORTY-ONE THOUSAND  
SEVEN HUNDRED FORTY-FIVE DOLLARS (\$2,441,745.00)

Nothing herein contained shall vary, alter or extend any provisions or conditions  
of the bond other than as above stated.

SIGNED, SEALED AND DATED this 15TH day of AUGUST, 19 89.

SAL  
*[Signature]*

BEAVER CREEK COAL COMPANY  
Principal

By: *Richard P. L.*

UNITED PACIFIC INSURANCE COMPANY  
Surety

By: *W.C. Boyle*  
W. C. BOYLE, ATTORNEY-IN-FACT

**UNITED PACIFIC INSURANCE COMPANY**  
HEAD OFFICE, FEDERAL WAY, WASHINGTON

**POWER OF ATTORNEY**

KNOW ALL MEN BY THESE PRESENTS, That the UNITED PACIFIC INSURANCE COMPANY, a corporation duly organized under the laws of the State of Washington, do hereby make, constitute and appoint

**W. C. DOYLE of LOS ANGELES, CALIFORNIA** -----

to be and lawful Attorney-in-Fact, to make, execute, seal and deliver for and on its behalf, and in its act and deed

**ANY AND ALL BONDS AND UNDERTAKINGS OF SURETYSHIP** -----

and to bind the UNITED PACIFIC INSURANCE COMPANY thereby as fully and to the same extent as if such bonds and undertakings and other writings obligatory in the nature thereof were signed by an Executive Officer of the UNITED PACIFIC INSURANCE COMPANY and sealed and attested by one or more of such officers, and hereby ratifies and confirms all that its said Attorney(s)-in-Fact may do in pursuance hereof.

The Power of Attorney is granted under and by authority of Article VII of the By-Laws of UNITED PACIFIC INSURANCE COMPANY which became effective September 7, 1978, which provisions are now in full force and effect, reading as follows.

**ARTICLE VII - EXECUTION OF BONDS AND UNDERTAKINGS**

- 1 The Board of Directors, the President, the Chairman of the Board, any Senior Vice President, any Vice President or Assistant Vice President or other officer designated by the Board of Directors shall have power and authority to (a) appoint Attorneys-in-Fact and to authorize them to execute on behalf of the Company, bonds and undertakings, recognizances, contracts of indemnity and other writings obligatory in the nature thereof, and (b) to remove any such Attorney-in-Fact at any time and revoke the power and authority given to him.
- 2 Attorneys-in-Fact shall have power and authority, subject to the terms and limitations of the power of attorney issued to them, to execute and deliver on behalf of the Company, bonds and undertakings, recognizances, contracts of indemnity and other writings obligatory in the nature thereof. The corporate seal is not necessary for the validity of any bonds and undertakings, recognizances, contracts of indemnity and other writings obligatory in the nature thereof.
- 3 Attorneys-in-Fact shall have power and authority to execute affidavits required to be attached to bonds, recognizances, contracts of indemnity or other conditional or obligatory undertakings and they shall also have power and authority to certify the financial statements of the Company and to copies of the By Laws of the Company or any article or section thereof.

A power of attorney is signed and sealed by facsimile under and by authority of the following Resolution adopted by the Board of Directors of UNITED PACIFIC INSURANCE COMPANY at a meeting held on the 6th day of June, 1978, at which a quorum was present, and said Resolution has not been amended or repealed.

"Resolved, that the signatures of such directors and officers and the seal of the Company may be affixed to any such power of attorney or any certificate relating thereto by facsimile, and any such power of attorney or certificate bearing such facsimile signatures or facsimile seal shall be valid and binding upon the Company and any such power to be executed and certified by facsimile signatures and facsimile seal shall be valid and binding upon the Company in the future with respect to any bond or undertaking to which it is attached."

IN WITNESS WHEREOF, the UNITED PACIFIC INSURANCE COMPANY has caused these presents to be signed by its Vice President, and its corporate seal to be hereunto affixed, this 23rd day of June 19 87



UNITED PACIFIC INSURANCE COMPANY  
*Charles B. Schmalz*  
Vice President

STATE OF Washington  
COUNTY OF King  
On this 23rd day of June 19 87

} ss.



*Pamela Young*  
Notary Public in and for State of Washington  
Residing at Tacoma

to me known to be the Vice-President of the UNITED PACIFIC INSURANCE COMPANY, and acknowledged that he executed and attested the foregoing instrument and affixed the seal of said corporation thereto, and that Article VII, Section 1, 2, and 3 of the By-Laws of said Company, and the Resolution, set forth therein, are still in full force.

My Commission Expires: May 15 1990

Lawrence W. Carlstrom  
Assistant Secretary of the UNITED PACIFIC INSURANCE COMPANY, do hereby certify that the foregoing is a true and correct copy of a Power of Attorney executed by said UNITED PACIFIC INSURANCE COMPANY, which is still in full force and effect.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed the seal of said Company this 15TH day of AUGUST 19 89



Assistant Secretary *Lawrence W. Carlstrom*  
Lawrence W. Carlstrom

CALIFORNIA  
ACKNOWLEDGEMENT BY SURETY

STATE OF CALIFORNIA

CITY OF LOS ANGELES } ss.

on the 15TH day of AUGUST in the year 19 89, before me CORA V. RODRIGUEZ personally

appeared W. C. DOYLE

personally known to me (or proved to me on the basis of satisfactory evidence) to be the person who executed the within

document as attorney-in-fact of UNITED PACIFIC INSURANCE COMPANY  
and acknowledged to me that the corporation executed it.



Cora V. Rodriguez  
Notary Public

Revised November, 1987.

CERTIFICATE OF LIABILITY INSURANCE

Issued to:  
State of Utah  
Department of Natural Resources  
Division of Oil, Gas and Mining  
--00000--

THIS IS TO CERTIFY THAT:

Insurance Company of North America

(Name of Insurance Company)

1600 Arch Street, Philadelphia, PA 19101

(Home Office Address of Insurance Company)

HAS ISSUED TO:

BEAVER CREEK COAL CO.

(Name of Permit Applicant)

C.V. SPUR PROCESSING/LOADOUT FACILITY  
(Mine Name)

ACT/007/022

(Permit Number)

CERTIFICATE OF INSURANCE:

HDO GO 969065-7

(Policy Number)

1-1-88

(Effective Date)

UNDER THE FOLLOWING TERMS AND CONDITIONS:

As Per UMC/SMC Part 800.60 Terms and Conditions for Liability Insurance;

- A. The Division shall require the applicant to submit as part of its permit application a certificate issued by an insurance company authorized to do business in the state of Utah certifying that the applicant has a public liability insurance policy in force for the surface coal mining and reclamation operations for which the permit is sought. Such policy shall provide for personal injury and property damage protection in an amount adequate to compensate any persons injured or property damaged as a result of the surface coal mining and reclamation operations, including the use of explosives and who are entitled to compensation under the applicable provisions of state law. Minimum insurance coverage for bodily injury and property damage shall be \$300,000 for each occurrence and \$500,000 aggregate.
- B. The policy shall be maintained in full force during the life of the permit or any renewal thereof, including the liability period necessary to complete all reclamation operations under this chapter.

Page 2.  
CERTIFICATE OF LIABILITY INSURANCE

C. The policy shall include a rider requiring that the insurer notify the Division whenever substantive changes are made in the policy including any termination or failure to renew.

IN ACCORDANCE WITH THE ABOVE TERMS AND CONDITIONS, and the Utah Code Annotated 40-10-1 et seq., the Insurance Company hereby attests to the fact that coverage for said Permit Applicant is in accordance with the requirements of the State of Utah and agrees to notify the Division of Oil, Gas and Mining in writing of any substantive change, including cancellation, failure to renew, or other material change. No change shall be effective until at least thirty (30) days after such notice is received by the Division.

UNDERWRITING AGENT:

M. J. Morehouse

(Agent's Name)

213-739-4630

(Phone)

Insurance Company of North America

(Company Name)

3333 Wilshire Blvd

(Mailing Address)

Los Angeles, CA 90010

(City, State, Zip Code)

The undersigned affirms that the above information is true and complete to the best of his or her knowledge and belief, and that he or she is an authorized representative of the above-named insurance company.

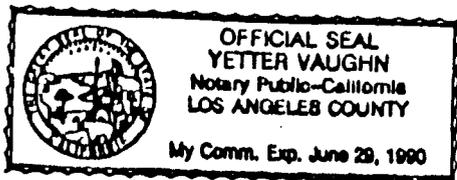
1-27-88 M.J. Morehouse - Account Manager  
(Date, Signature and Title of Authorized Agent of Insurance Company)

Signed and sworn before me by

M. J. MOREHOUSE

(Name)

this 27th day of January, 1988.



Yetter Vaughn  
(Signature)

June 29, 1990  
(Date)

My Commission Expires:

adf

7000R-28



RECEIVED

DEC 05 1989

DIVISION OF  
OIL, GAS & MINING

To Certify to  
 State of Utah  
 Division of Oil, Gas and Mining  
 Utah Department of Natural Resources  
 4241 State Office Building  
 Salt Lake City, UT 84114

- COMPANY CODES
- CIGNA INSURANCE COMPANY
  - CIGNA INS. CO. OF TEXAS
  - PACIFIC EMPLOYERS INS. CO. INSURANCE COMPANY OF NORTH AMERICA
  - CIGNA INS. CO. OF ILLINOIS
  - CIGNA INS. CO. OF OHIO
  - (OTHER; — SPECIFY) FOLO

that the following described policy or policies, issued by The Company as coded below, providing insurance only for hazards checked by "X" below, have been issued to:

NAME AND ADDRESS OF INSURED: **Atlantic Richfield Company, its Subsidiaries and subsidiaries thereof as now or hereinafter constituted, Atlantic Richfield Plaza, 515 So. Flower Street, Los Angeles, CA 90071**  
 covering in accordance with the terms thereof, at the following location(s):

Including Beaver Creek Coal Company

TYPE OF POLICY	HAZARDS	CO. CODE	POLICY NUMBER	POLICY PERIOD	LIMITS OF LIABILITY
(a) Standard Workmen's Compensation & Employers' Liability	<input type="checkbox"/>	<input type="checkbox"/>			\$ Statutory W. C. One Accident and Aggregate Disease
(b) General Liability Premises—Operations (including "Incidental Contracts" as defined below) Independent Contractors Completed Operations/Products Contractual, (Specific type as described in footnote below)	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	ISL G1 077856-6	01-01-90 to 01-01-93	\$ *See Below \$ Each Person \$ Each { <input type="checkbox"/> Accident <input type="checkbox"/> Occurrence \$ Aggregate—Completed Operations/Products
	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>			
	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>			
	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>			
Property Damage Premises—Operations (including "Incidental Contracts" as defined below) Independent Contractors Completed Operations/Products Contractual, (Specific type as described in footnote below)	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	ISL G1 077856-6	01-01-90 to 01-01-93	\$ *See Below \$ Each { <input type="checkbox"/> Accident <input type="checkbox"/> Occurrence \$ Aggregate—Prem./Oper. \$ Aggregate—Protective \$ Aggregate—Completed Operations/Products \$ Aggregate—Contractual
	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>			
	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>			
	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>			
(c) Automobile Liability Owned Automobiles Hired Automobiles Non-owned Automobiles	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	ISA 001903	01-01-90 to 01-01-93	\$ *See Below \$ Each Person \$ Each { <input type="checkbox"/> Accident <input type="checkbox"/> Occurrence
	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>			
	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>			
Property Damage Owned Automobiles Hired Automobiles Non-owned Automobiles	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	ISA 001903	01-01-90 to 01-01-93	\$ *See Below \$ Each { <input type="checkbox"/> Accident <input type="checkbox"/> Occurrence
	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>			
	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>			
(d) SEE REVERSE					\$ *2,000,000 Combined Single Limit per occurrence subject to aggregate of \$2,000,000, where applicable.

Contractual Footnote: Subject to all the policy terms applicable, specific contractual coverage is provided as respects

(Check)  a contract  
 (Applicable)  purchase order agreements } between the Insured and:  
 (Block)  all contracts

It is the intention of the company that in the event of cancellation of the policy or policies by the company, ten (10) days' written notice of such cancellation will be given to you at the address stated above.

NAME OF OTHER PARTY \_\_\_\_\_

DESCRIPTION (OR JOB) \_\_\_\_\_

DATE (if applicable) \_\_\_\_\_ CONTRACT NO. (if any) \_\_\_\_\_

Definitions: "Incidental contract" means any written (1) lease of premises (2) easement agreement, except in connection with construction or demolition operations on or adjacent to a railroad, (3) undertaking to indemnify a municipality required by municipal ordinance, except in connection with work for the municipality, (4) sidetrack agreement, or (5) elevator maintenance agreement.

*[Signature]*  
 Authorized Representative

1990

PERMIT / STIPULATION STATUS



Norman H. Bangerter

Governor

Dee C. Hansen

Executive Director

Dianne R. Nielson, Ph.D.

Division Director

# State of Utah

DEPARTMENT OF NATURAL RESOURCES  
DIVISION OF OIL, GAS AND MINING

355 West North Temple

3 Triad Center, Suite 350

Salt Lake City, Utah 84180-1203

801-538-5340

August 7, 1989

Mr. Richard D. Pick, President  
Mountain Coal Operations  
Beaver Creek Coal Company  
P. O. Box 1378  
Price, Utah 84501

Dear Mr. *Jack* Pick:

Re: State Permit and Decision Package, Five-Year Permit  
Renewal, Beaver Creek Coal Company, C. V. Spur Coal  
Processing and Loadout Facility, ACT/007/022, Folder  
#3, Carbon County, Utah

Enclosed are two State Permits and a Decision Package for the C. V. Spur Coal Processing and Loadout Facility Five-Year Permit Renewal. Please read the Stipulations in Attachment A of the State Permit, then sign both State Permits and return one to the Division.

Your staff's cooperation during the permitting process has been appreciated.

Best regards,

Dianne R. Nielson  
Director

RVS/djh

Enclosure

cc: P. Rutledge, OSM-Denver  
R. Hagen, OSMRE-Albq.

AT8/68

FEDERAL

Permit Number ACT/007/022, August 7, 1989

STATE OF UTAH  
DEPARTMENT OF NATURAL RESOURCES  
DIVISION OF OIL, GAS AND MINING  
355 West North Temple  
3 Triad Center, Suite 350  
Salt Lake City, Utah 84180-1203  
(801) 538-5340

This permit, ACT/007/022, is issued for the state of Utah by the Utah Division of Oil, Gas and Mining (DOGM) to:

Beaver Creek Coal Company  
P. O. Box 1378  
Price, Utah 84501  
(801) 637-5050

for the C.V. Spur Coal Processing and Loadout Facility. Beaver Creek Coal Company is the owner of certain fee-owned parcels. A performance bond is filed with the DOGM in the amount of \$2,441,745.00, payable to the state of Utah, Division of Oil, Gas and Mining and the Office of Surface Mining Reclamation and Enforcement (OSMRE). DOGM must receive a copy of this permit signed and dated by the permittee.

Sec. 1 **STATUTES AND REGULATIONS** - This permit is issued pursuant to the Utah Coal Mining and Reclamation Act of 1979, Utah Code Annotated (UCA) 40-10-1 et seq, hereafter referred to as the Act.

Sec. 2 **PERMIT AREA** - The permittee is authorized to conduct underground coal mining activities on the following described lands (as shown on the map appended as C.V. Spur Coal Processing and Loadout Facility, Attachment B) within the permit area at the C. V. Spur Coal Processing and Loadout Facility, situated in the state of Utah, Carbon County, and located:

Township 15 South, Range 10 East, Section 11, SLBM

W1/2 SW1/4 except 0.24 acres in the northwest corner, NE1/4 SW1/4 except East 100 ft., SE1/4 SW1/4, except East 100 ft.

This legal description is for the permit area (as shown on Attachment B) of the C.V. Spur Coal Processing and Loadout Facility. The permittee is authorized to conduct underground coal mining operations and related surface activities on the foregoing described property subject to the conditions of applicable conditions, laws and regulations.

- Sec. 3 PERMIT TERM - This permit becomes effective on August 7, 1989 and expires on August 7, 1994.
- Sec. 4 ASSIGNMENT OF PERMIT RIGHTS - The permit rights may not be transferred, assigned or sold without the approval of the Director, DOGM. Transfer, assignment, or sale of permit rights must be done in accordance with applicable regulations, including but not limited to 30 CFR 740.13(e) and UMC 788.17-.19.
- Sec. 5 RIGHT OF ENTRY - The permittee shall allow the authorized representative of the DOGM, including but not limited to inspectors, and representatives of OSMRE, without advance notice or a search warrant, upon presentation of appropriate credentials, and without delay to:
- A. have the rights of entry provided for in 30 CFR 840.12, UMC 840.12, 30 CFR 842.13 and UMC 842.13; and
  - B. be accompanied by private persons for the purpose of conducting an inspection in accordance with UMC 842.12 and 30 CFR 842, when the inspection is in response to an alleged violation reported by the private person.
- Sec. 6 SCOPE OF OPERATIONS - The permittee shall conduct underground coal mining activities only on those lands specifically designated as within the permit area on the maps submitted in the mining and reclamation plan and permit application and approved for the term of the permit and which are subject to the performance bond.
- Sec. 7 ENVIRONMENTAL IMPACTS - The permittee shall minimize any adverse impact to the environment or public health and safety through but not limited to:
- A. accelerated monitoring to determine the nature and extent of noncompliance and the results of the noncompliance;
  - B. immediate implementation of measures necessary to comply; and
  - C. warning, as soon as possible after learning of such noncompliance, any person whose health and safety is in imminent danger due to the noncompliance.

- Sec. 8 **DISPOSAL OF POLLUTANTS** - The permittee shall dispose of solids, sludge, filter backwash or pollutants in the course of treatment or control of waters or emissions to the air in the manner required by the approved Utah State Program and the Federal Lands Program which prevents violation of any applicable state or federal law.
- Sec. 9 **CONDUCT OF OPERATIONS** - The permittee shall conduct its operations:
- A. in accordance with the terms of the permit to prevent significant, imminent environmental harm to the health and safety of the public; and
  - B. utilizing methods specified as conditions of the permit by DOGM in approving alternative methods of compliance with the performance standards of the Act, the approved Utah State Program and the Federal Lands Program.
- Sec. 10 **AUTHORIZED AGENT** - The permittee shall provide the names, addresses and telephone numbers of persons responsible for operations under the permit to whom notices and orders are to be delivered.
- Sec. 11 **COMPLIANCE WITH OTHER LAWS** - The permittee shall comply with the provisions of the Water Pollution Control Act (33 USC 1151 et seq.) and the Clean Air Act (42 USC 7401 et seq), UCA 26-11-1 et seq, and UCA 26-13-1 et seq.
- Sec. 12 **PERMIT RENEWAL** - Upon expiration, this permit may be renewed for areas within the boundaries of the existing permit in accordance with the Act and the approved Utah State Program and the Federal Lands Program.
- Sec. 13 **CULTURAL RESOURCES** - If during the course of mining operations, previously unidentified cultural resources are discovered, the permittee shall ensure that the site(s) is not disturbed and shall notify DOGM. DOGM, after coordination with OSMRE, shall inform the permittee of necessary actions required. The permittee shall implement the mitigation measures required by DOGM within the time frame specified by DOGM.
- Sec. 14 **APPEALS** - The permittee shall have the right to appeal as provided for under UMC 787.
- Sec. 15 **SPECIAL CONDITIONS** - The permittee shall comply with the special conditions appended hereto as Attachment A.

The above conditions (Secs. 1-15) are also imposed upon the permittee's agents and employees. The failure or refusal of any of these persons to comply with these conditions shall be deemed a failure of the permittee to comply with the terms of this permit and the lease. The permittee shall require his agents, contractors and subcontractors involved in activities concerning this permit to include these conditions in the contracts between and among them. These conditions may be revised or amended, in writing, by the mutual consent of DOGM and the permittee at any time to adjust to changed conditions or to correct an oversight. DOGM may amend these conditions at any time without the consent of the permittee in order to make them consistent with any new federal or state statutes and any new regulations.

THE STATE OF UTAH

By: Dianne R. Nielson  
Date: 8-7-89

I certify that I have read, understand and accept the requirements of this permit and any special conditions attached.

Richard J. Pelt  
Authorized Representative of  
the Permittee  
Date: 8-7-89

APPROVED AS TO FORM:

By: David Christensen  
Assistant Attorney General  
Date: 8/7/89

**Attachment A**

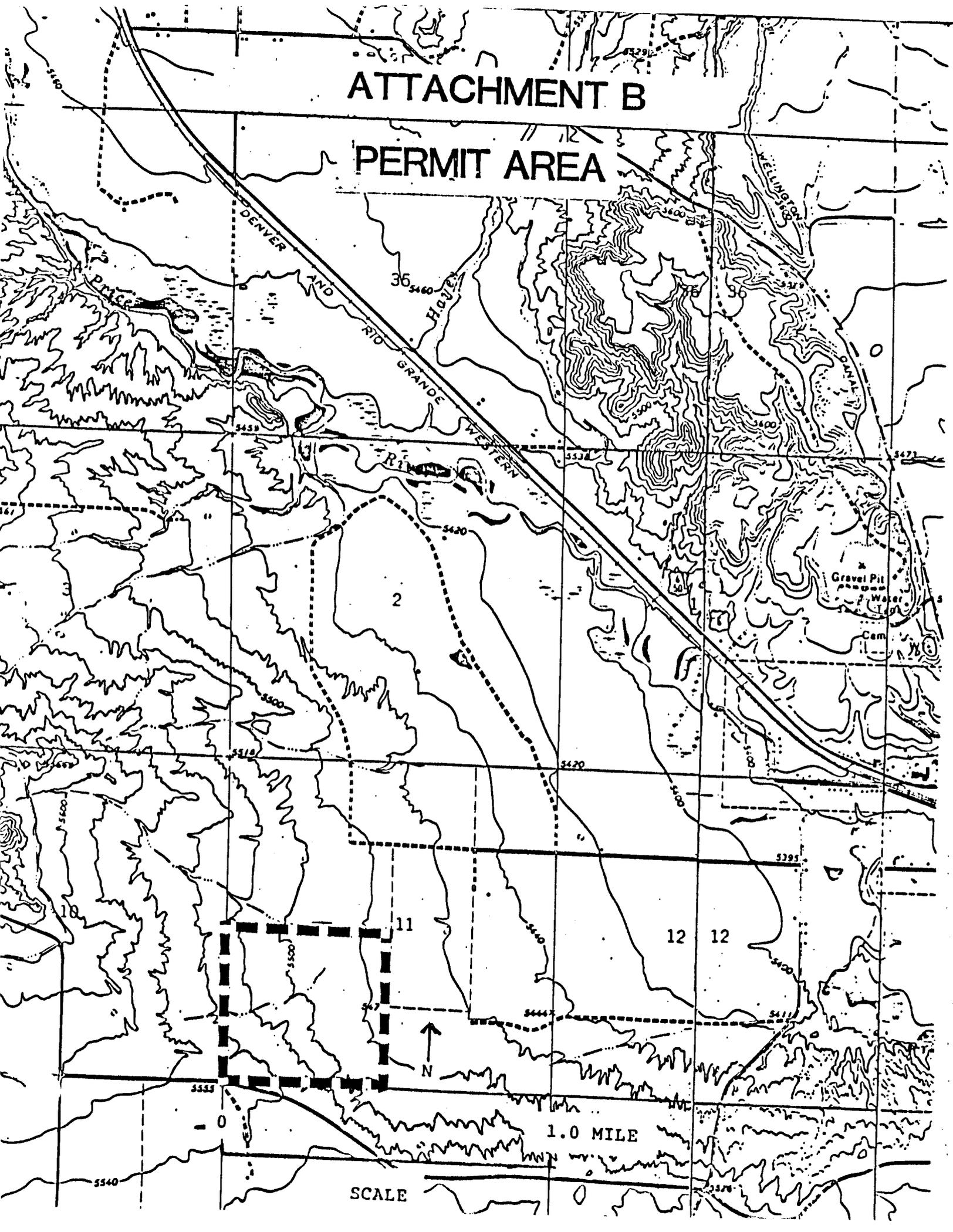
**Utah Division of Oil, Gas and Mining  
Five-Year Permit Renewal  
C.V. Spur Coal Processing and Loadout Facility  
ACT/007/022  
August 7, 1989**

**Stipulation UMC 817.23-(HS)-(1)**

1. Within 30 days of permit approval, the applicant must submit an as-built survey of the soil stockpiles. This survey must include the volume of topsoil stored, maximum and minimum heights, slopes, and all other pertinent dimensions.

# ATTACHMENT B

## PERMIT AREA





# State of Utah

DEPARTMENT OF NATURAL RESOURCES  
DIVISION OF OIL, GAS AND MINING

Norman H. Balgert  
Governor

Dee C. Hansen  
Executive Director

Dianne R. Nielson, Ph.D.  
Division Director

355 West North Temple  
3 Triad Center, Suite 350  
Salt Lake City, Utah 84180-1203  
801-538-5340

September 6, 1989

Mr. Dan Guy, Manager  
Permitting and Compliance  
Beaver Creek Coal Company  
P. O. Box 1378  
Price, Utah 84501

Dear Mr. Guy:

Re: Approval of Response to Stipulation UMC  
817-23-(1)-(MS). Five-Year Permit Renewal, Beaver  
Creek Coal Company, C. V. Spur Coal Processing and  
Loadout Facility, ACT/007/022, Folder #3, Carbon  
County, Utah

This letter will inform you that the above-identified stipulation response was approved on September 6, 1989.

Sincerely,

*Richard V. Smith*  
Richard V. Smith  
Permit Supervisor

djh  
cc: H. Sauer, DOGM  
ATB/77



State of Utah  
DEPARTMENT OF HEALTH  
DIVISION OF ENVIRONMENTAL HEALTH

Norman H. Hangerter  
Governor  
Suzanne Dandoy, M.D., M.P.H.  
Executive Director  
Kenneth L. Alkema  
Director

288 North 1460 West  
P.O. Box 16690  
Salt Lake City, Utah 84116-0690  
(801) 538-6121

May 1, 1989

Dan W. Guy  
Manager of Permitting/Compliance  
Beaver Creek Coal Company  
P.O. Box 1378  
Price, Utah 84501

Re: Issuance of General Permits for Coal  
Mining UTG040003, UTG040004 and  
UTG040005

Dear Mr. Guy:

We hereby acknowledge receipt by EPA and the State of five Notices of Intent (NOIs) for coverage under the Utah General Permit for Coal Mining. The NOI's for Beaver Creek Coal Company's Trail Mountain No. 9 Mine, Gordon Creek No. 2 Mine, Huntington Canyon No. 4 Mine, Gordon Creek No. 3 & 6 Mines and the CV Spur Processing/Loadout Facility are considered adequate. Three of the facilities will be issued a general permit and two of the existing facility permits will be inactivated because of completion of reclamation activities. Trail Mountain No. 9 Mine has been reassigned a new permit number UTG040003, Gordon Creek No. 2 Mine has been reassigned a new permit number UTG040004 and the CV Spur Processing/Loadout Facility has been assigned a new permit number UTG040005. Any future correspondence regarding these three facilities should refer to these numbers. The permits for Huntington Canyon No. 4 Mine UT0023116 and Gordon Creek No. 3 & 6 Mines UT0023060 will be inactivated.

A copy of the final signed permits are enclosed. Coverage shall begin June 1, 1989 and all requirements and conditions of the permits will be in full force and effect at that time.

Preprinted Discharge Monitoring Report forms (EPA form 3320-1) for self monitoring and reporting requirements as specified in the permits will be sent to Beaver Creek Coal by June 1st.

Dan Guy  
Page Two

Also enclosed is the billing information for the issuance of your Utah Pollutant-Discharge Elimination System (UPDES) permits. A fee schedule was included in the Utah Department of Health budget appropriation request at the direction of the Legislature and in accordance with Utah Code Annotated 26-1-6. The fee schedule as approved by the Legislature includes a \$100.00 filing fee and a charge equal to the Bureau of Water Pollution Control's actual costs for writing and issuance of a UPDES permit. It is Division policy to charge either the filing fee or the actual cost plus 7% whichever is greater. Please remit \$300.00 to the Utah Department of Health, Bureau of Water Pollution Control, P.O. Box 16690, Salt Lake City, Utah 84116-0690.

If you have any questions please contact Mike Herkimer at 538-6146.

Sincerely,

Utah Water Pollution Control Committee



Don A. Ostler, P.E.  
Executive Secretary

Enclosure

MDH:st

cc: Janet Fujita, EPA Region VIII, w/enclosure  
Joel Helfrich, DOGM, w/enclosure

1571-28

Permit No.: UTG040005

STATE OF UTAH  
DEPARTMENT OF HEALTH  
BUREAU OF WATER POLLUTION CONTROL  
P.O. BOX - 16690  
SALT LAKE CITY, UTAH 84116-0690

*Authorization to Discharge Under the  
Utah Pollutant Discharge Elimination System  
Utah General Permit for Coal Mining*

In compliance with provisions of the Utah Water Pollution Control Act, Title 26 Chapter 11 Utah Code Annotated, 1953 as amended, the Act. The coal company identified in the application is authorized to discharge to Waters of the State as identified in the application in accordance with discharge point(s), effluent limitations, monitoring requirements and other conditions set forth herein.

This general permit shall become effective on May 4, 1989.

This general permit and the authorization to discharge shall expire at midnight, April 30, 1993.

Signed this *4<sup>th</sup>* day of *May* 1989

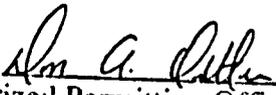
  
\_\_\_\_\_  
Authorized Permitting Official  
Executive Secretary  
Water Pollution Control Committee

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7. "Upset" means an exceptional incident in which there is unintentional and temporary noncompliance with technology-based permit effluent limitations because of factors beyond the reasonable control of the permittee. An upset does not include noncompliance to the extent caused by operational error, improperly designed treatment facilities, inadequate treatment facilities, lack of preventive

## I. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

### A. Definitions.

1. The "30-day (and monthly) average", is the arithmetic average of all samples collected during a consecutive 30-day period or calendar month, whichever is applicable. The calendar month shall be used for purposes of reporting self-monitoring data on discharge monitoring report forms.
2. The "7-day (and weekly) average", is the arithmetic average of all samples collected during a consecutive 7-day period or calendar week, whichever is applicable. The 7-day and weekly averages are applicable only to those effluent characteristics for which there are 7-day average effluent limitations. The calendar week which begins on Sunday and ends on Saturday, shall be used for purposes of reporting self-monitoring data on discharge monitoring report forms. Weekly averages shall be calculated for all calendar weeks with Saturdays in the month. If a calendar week overlaps two months (i.e., the Sunday is in one month and the Saturday in the following month), the weekly average calculated for that calendar week shall be included in the data for the month that contains the Saturday.
3. "Daily Maximum" ("Daily Max.") is the maximum value allowable in any single sample or instantaneous measurement.
4. "Composite samples" shall be flow proportioned. The composite sample shall, as a minimum, contain at least four (4) samples collected over the compositing-period. Unless otherwise specified, the time between the collection of the first sample and the last sample shall not be less than six (6) hours nor more than 24 hours. Acceptable methods for preparation of composite samples are as follows:
  - a. Constant time interval between samples, sample volume proportional to flow rate at time of sampling;
  - b. Constant time interval between samples, sample volume proportional to total flow (volume) since last sample. For the first sample, the flow rate at the time the sample was collected may be used;
  - c. Constant sample volume, time interval between samples proportional to flow (i.e., sample taken every "X" gallons of flow); and,
  - d. Continuous collection of sample, with sample collection rate proportional to flow rate.
5. A "grab" sample, for monitoring requirements, is defined as a single "dip and take" sample collected at a representative point in the discharge stream.
6. An "instantaneous" measurement, for monitoring requirements, is defined as a

Fill an Imhoff cone to the one-liter mark with a thoroughly mixed sample. Allow to settle undisturbed for 45 minutes. Gently stir along the inside surface of the cone with a stirring rod. Allow to settle undisturbed for 15 minutes longer. Record the volume of settled material in the cone as milliliters per liter. Where a separation of settleable and floating material occurs, do not include the floating material in the reading.

18. Mine drainage means any drainage, and any water pumped or syphoned, from an active mining area or a post mining area.
19. Alkaline mine drainage means mine drainage which before any treatment has a pH equal to or greater than 6.0 and total iron concentration less then 10 mg/l.
20. Post mining areas means: 1) a reclamation area or 2) the underground workings of an underground coal mine after extraction removal or recovery of coal from its natural deposit has ceased and prior to bond release.

**B. Criteria for Inclusion in The General Permit for Coal Mining.**

This General permit shall apply only to the discharge of treated wastewater from:

Coal mining operations either new or existing in Utah which include or will include in part or in whole alkaline mine water drainage, storm water runoff from coal preparation plant associated areas, active mining areas, and post mining areas. The total amount of total dissolved solids discharged from all mine water and decant operations is limited to one ton per day.

**C. Notice of Intent for a General Permit for Coal Mining.**

1. Any facility which desires a general permit for coal mining and meets the requirement of B. above can be issued a general permit only by following the procedures listed below.

Submit a Notice of Intent (NOI) to obtain a general permit for coal mining. The NOI shall include the following items:

- a. Name of the facility.
- b. Facility contact person and phone number for that person.
- c. The facility mailing address (include zip code).
- d. Complete items e through q of the NOI if the information contained in those items has not already been submitted in a previous NOI or individual UPDES application, or if circumstances have changed such that the information previously submitted would be out of date or incorrect.
- e. Facility location such as street address, county, city or town, state and zip code. Include the latitude and longitude of the facility to the nearest 15 seconds.

- f. Name of the operator if other than the owner. Indicate here if the owner will be the operator and the phone number where the operator can be reached during normal and off work hours, and the address of the operator.
- g. Statement as to whether the facility or any existing or proposed discharge points are located on Indian lands or within National Forest boundaries.
- h. List of any other permits (including other UPDES permits) that the facility has or is attempting to obtain such as UIC or RCRA.
- i. Statements as to whether the facility has any hazardous waste treatment storage or disposal areas.
- j. List location and identification number (such as 001, 002, etc.) of each existing discharge and/or proposed discharge point(s). This includes the latitude and longitude to the nearest 15 seconds and the name of the receiving water(s).
- k. A description of the source of the wastewater for each discharge point.
- l. A description of the treatment given or proposed for the wastewater at each discharge point and if necessary a justification of why no treatment is required.
- m. Indicate for each discharge point flow characteristics such as whether flow is or will be continuous or intermittent and indicate projected and/or actual average and maximum flows in gpd.
- n. For each discharge point submit data for the following parameters:
  - 1) Biochemical oxygen demand (BOD)
  - 2) Chemical oxygen demand (COD)
  - 3) Total organic carbon (TOC)
  - 4) Total suspended solids (TSS)
  - 5) Flow
  - 6) Ammonia (as N)
  - 7) Oil and grease
  - 8) Temperature
  - 9) pH
  - 10) Total dissolved solids (TDS)
  - 11) Total iron
  - 12) Date and time of sampling for each parameter
  - 13) Date and time of analysis for each parameter
  - 14) Laboratory which has completed the analysis for each parameter

If no data is available, indicate why the data is not available.

The Executive Secretary may waive the reporting requirements for any of these pollutants and parameters if the applicant submits a request for such a waiver before or with the NOI which demonstrates that information adequate to support issuance of the permit can be obtained through less stringent reporting requirements.

0. Indicate for each discharge point the presence or absence of any toxic and/or priority pollutants as listed by EPA in 40 CFR Part 403.

p. Area Maps (Active Mining Operations)

Facilities are required to submit an Area Map in the form specified hereafter.

The Area Map(s) and any necessary revised Area Map(s) shall be submitted in the form specified below and shall be made from USGS topographical maps (7.5 or 15-minute series) or other appropriate sources as approved by the Executive Secretary or his designee. Each revised area map shall be 8 1/2 inches by 11 inches and shall be in black and white, suitable to produce readable copies by rapid printing methods. (Xerox, Dennison, Offset printing, etc.) or as approved by the Executive Secretary. Where additional 8 1/2 inch by 11 inch maps are required to show the area of operation, they shall be numbered and a key shall be shown on the first map. The first map section shall have the company name, mine/job name, address, and UPDES number clearly printed thereon. Also, one line of latitude and one line of longitude shall be marked on each map section. The Area Map(s) shall delineate the following, using the graphics as indicated:

1. Existing area of operation shall be outlined by a solid line and the map shall show areas at least one mile beyond the existing areas of operation. \_\_\_\_\_
  2. Existing point source(s) (Solid Triangle)
  3. The projected area of operation for the next five years  
----- (Dashed Outline)
  4. Projected point source(s) for the next five years  
(Opened Triangle)
  5. The active-inactive status of all discharge points which are listed in the application. These discharge points shall be assigned numbers 001, 002, 003, etc.
  6. The location of springs, rivers and other surface water bodies.
  7. The location of any hazardous waste treatment, storage and disposal areas, and where any fluids are injected into the ground.
- q. If there are any changes corrections, or other modifications or adjustments of the location of the point source discharges, the permittee shall submit a revised Area Map(s) as described in p. above. Such maps must be submitted 30 days prior to commencement of the discharge.

- r. The NOI must be signed by a responsible official of the company with the following format:

I certify under penalty of law that I have personally examined and am familiar with the information submitted in the application and all attachments and that, based on my inquiry of those persons immediately responsible for obtaining the information contained in the NOI application, I believe the information is true, accurate and correct. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

\_\_\_\_\_  
Name and Official Title Signature

\_\_\_\_\_  
Date

2. Additional information or clarification of information submitted in the NOI may be requested by the Executive Secretary.
  3. The NOI to obtain a General Permit for Coal Mining shall be submitted 180 days before expiration of the general permit or an individual permit, for all facilities desiring to continue or obtain a general permit; with the exception of those facilities that have submitted an NOI within one year of the expiration date of the general permit need not resubmit another NOI.
  4. New facilities must submit a NOI at least 180 days before the beginning date of discharge.
  5. The Executive Secretary will respond to the submission of the NOI by reviewing the NOI within 30 days for a UPDES new source or discharger and 60 days for an existing source and notifying the permittee whether more information is needed or if the NOI is complete, issue the general permit.
- D. Specific Limitations and Self-Monitoring Requirements.
1. During the period beginning immediately and lasting through the duration of this permit, the permittee is authorized to discharge from all point sources associated with active mining operations indicated on the Area Maps submitted and approved pursuant to Part I. C. 1p. Such discharges shall be limited and monitored by the permittee as specified below:

Effluent Characteristics	Discharge Limitations a/		Monitoring Requirements		Sample Type
	Average 30-day	7-Day	Daily Maximum	Measurement Frequency	
Flow, gpd	N/A	N/A	N/A	Monthly	Measured b/
Suspended Solids, mg/L	25	35	70	Monthly	Grab
Total Iron, mg/L	N/A	N/A	2.0	Monthly	Grab
Dissolved Solids, lbs/day	N/A	N/A	N/A c/	Monthly	Grab
Oil Grease, mg/L	N/A	N/A	10	Monthly	Grab

The pH shall not be less than 6.5 standard units nor greater than 9.0 standard units and shall be monitored twice per month by a grab sample.

There shall be no discharge of floating solids or visible foam in other than trace amounts.

There shall be no discharge of sanitary wastes or any process water from coal preparation plants.

- a/ See Definitions, Part I. A. for definition of terms.
  - b/ For the intermittent discharges, the duration of the discharge shall be reported along with the flow.
  - c/ The total amount of Total Dissolved Solids (TDS) discharged from all mine water and decant operations is limited to one ton (2,000 pounds) per day.
2. Samples taken in compliance with the monitoring requirements specified above shall be taken at the following location(s): at any point which is representative of each discharge prior to its mixing with the receiving stream and as indicated by the solid triangles on the current Area Maps submitted pursuant to part I. C. 1p.
  3. Any overflow, increase in volume of a discharge or discharge from a bypass system caused by precipitation within a 24-hour period less than or equal to the 10-year, 24-hour precipitation event (or snowmelt of equivalent volume) at any outfall may comply with the following limitation instead of the Total Suspended Solids limitations contained in Part I. D. 1. provided the facility has been designed, constructed and operated to adequately treat up to a 10 year 24 hour storm event:

Effluent Characteristic

Daily Maximum

Settleable Solids

0.5 ml/L

In addition to the monitoring requirements specified under Part I. D. 1., all effluent samples collected during storm water discharge events shall also be analyzed for settleable solids. Such analyses shall be conducted on grab samples.

4. Any overflow, increase in volume of a discharge or discharge from a bypass system caused by precipitation within a 24-hour period greater than the 10-year, 24-hour precipitation event (or snowmelt of equivalent volume) at any outfall may comply with the following limitations instead of the otherwise applicable limitations:

The pH shall not be less than 6.5 standard units nor greater than 9.0 standard units. However, as stated under Part I. D. 3., all effluent samples collected at any outfall during storm water discharge events shall be analyzed for settleable solids and the parameters identified under Part I. D. 1.

5. The operator shall have the burden of proof that the discharge or increase in discharge was caused by the applicable precipitation event described in Parts I. D. 3. and D. 4. The alternate limitations in Parts I. D. 3. and D. 4. shall not apply to treatment systems that treat underground mine water only.
6. Best Management Practices. The company shall implement and maintain best management practices for the control of road salt storage and dust suppressant runoff and for the prevention of the discharge of process water from coal preparation plants. In addition the facility must minimize the discharge of salt by using the largest practical amount of saline water for process and dust control.

II. MONITORING, RECORDING AND REPORTING REQUIREMENTS

- A. Representative Sampling. Samples taken in compliance with the monitoring requirements established under Part I shall be collected from the effluent stream prior to discharge into the receiving waters. Samples and measurements shall be representative of the volume and nature of the monitored discharge.
- B. Monitoring Procedures. Monitoring must be conducted according to test procedures approved under Utah Administrative Code (UAC) Section R448-2-10, unless other test procedures have been specified in this permit.
- C. Penalties for Tampering. The Act provides that any person who falsifies, tampers with, or knowingly renders inaccurate, any monitoring device or method required to be maintained under this permit shall, upon conviction, be punished by a fine of not more than \$10,000 per violation, or by imprisonment for not more than six months per violation, or by both.
- D. Reporting of Monitoring Results. Monitoring results obtained during the previous calendar quarter shall be summarized for each calendar month on separate Discharge Monitoring Report Forms (DMR, EPA No. 3320-1). All three DMRs for the calendar quarter shall be postmarked no later than the 28th day of the calendar month following the completed reporting period. If no discharge occurs during the reporting period, "no discharge" shall be reported. Legible copies of these, and all other reports required herein, shall be signed and certified in accordance with the requirements of Signatory Requirements (see Part IV), and submitted to the Utah Bureau of Water Pollution Control and to EPA at the following addresses:

Original to: Utah Department of Health  
Bureau of Water Pollution Control  
288 North 1460 West  
P.O. Box 16690  
Salt Lake City, Utah 84116-0690  
Attention: Compliance and Monitoring Program

Copy to: United States Environmental Protection Agency  
Region VIII  
Denver Place  
999 18th Street, Suite 500  
Denver, Colorado 80202-2405  
Attention: Water Management Division  
Compliance Branch (8WM-C)

- E. Compliance Schedules. Reports of compliance or noncompliance with, or any progress reports on, interim and final requirements contained in any Compliance Schedule of this permit shall be submitted no later than 14 days following each schedule date.
- F. Additional Monitoring by the Permittee. If the permittee monitors any pollutant more frequently than required by this permit, using test procedures approved under UAC Section R448-2-10 as specified in this permit, the results of this monitoring shall be included in the calculation and reporting of the data submitted in the DMR. Such increased frequency shall also be indicated.

- G. Records Contents. Records of monitoring information shall include:
1. The date, exact place, and time of sampling or measurements;
  2. The individual(s) who performed the sampling or measurements;
  3. The date(s) and time(s) analyses were performed;
  4. The individual(s) who performed the analyses;
  5. The analytical techniques or methods used; and,
  6. The results of such analyses.
- H. Retention of Records. The permittee shall retain records of all monitoring information, including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation, copies of all reports required by this permit, and records of all data used to complete the application for this permit, for a period of at least three years from the date of the sample, measurement, report or application. This period may be extended by request of the Executive Secretary at any time. Data collected on site, copies of Discharge Monitoring Reports, and a copy of this UPDES permit must be maintained on site during the duration of activity at the permitted location.
- I. Twenty-four Hour Notice of Noncompliance Reporting.
1. The permittee shall (orally) report any noncompliance which may seriously endanger health or the environment as soon as possible, but no later than twenty-four (24) hours from the time the permittee first became aware of the circumstances. The report shall be made to the Utah Bureau of Water Pollution Control, (801) 538-6146, or 24 hour answering service (801) 538-6333.
  2. The following occurrences of noncompliance shall be reported by telephone to the Utah Bureau of Water Pollution Control, Compliance and Monitoring Branch at (801) 538-6146 by the first workday (8:00 a.m. - 5:00 p.m. Mountain Time) following the day the permittee became aware of the circumstances:
    - a. Any unanticipated bypass which exceeds any effluent limitation in the permit (See Part III. G., Bypass of Treatment Facilities.);
    - b. Any upset which exceeds any effluent limitation in the permit (See Part III. H., Upset Conditions.); or,
    - c. Violation of a maximum daily discharge limitation for any of the pollutants listed in the permit.
  3. A written submission shall also be provided within five days of the time that the permittee becomes aware of the circumstances. The written submission shall contain:
    - a. A description of the noncompliance and its cause;
    - b. The period of noncompliance, including exact dates and times;
    - c. The estimated time noncompliance is expected to continue if it has not been corrected; and,

- d. Steps taken or planned to reduce, eliminate, and prevent reoccurrence of the noncompliance.
  - e. Steps taken, if any, to mitigate the adverse impacts on the environment and human health during the noncompliance period.
4. The Executive Secretary may waive the written report on a case-by-case basis if the oral report has been received within 24 hours by the Compliance and Monitoring Branch, Utah Bureau of Water Pollution Control, (801) 538-6146.
5. Reports shall be submitted to the addresses in Part II. D., Reporting of Monitoring Results.
- J. Other Noncompliance Reporting. Instances of noncompliance not required to be reported within 24 hours shall be reported at the time that monitoring reports for Part II. D. are submitted. The reports shall contain the information listed in Part II. I. 3.
- K. Inspection and Entry. The permittee shall allow the Executive Secretary, or an authorized representative, or EPA upon the presentation of credentials and other documents as may be required by law, to:
- 1. Enter upon the permittee's premises where a regulated facility or activity is located or conducted, or where records must be kept under the conditions of the permit;
  - 2. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit;
  - 3. Inspect at reasonable times any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this permit; and,
  - 4. Sample or monitor at reasonable times, for the purpose of assuring permit compliance or as otherwise authorized by the Act, any substances or parameters at any location.

### III. COMPLIANCE RESPONSIBILITIES

- A. Duty to Comply. The permittee must comply with all conditions of this permit. Any permit noncompliance constitutes a violation of the Act and is grounds for enforcement action; for permit termination, revocation and reissuance, or modification; or for denial of a permit renewal application. The permittee shall give advance notice to the Executive Secretary of the Water Pollution Control Committee of any planned changes in the permitted facility or activity which may result in noncompliance with permit requirements.
- B. Penalties for Violations of Permit Conditions. The Act provides that any person who violates a permit condition implementing provisions of the Act is subject to a civil penalty not to exceed \$10,000 per day of such violation. Any person who willfully or negligently violates permit conditions is subject to a fine not exceeding \$25,000 per day of violation. Any person convicted under Section 26-11-16(2) of the Act a second time shall be punished by a fine not exceeding \$50,000 per day. Except as provided in permit conditions on Part III G. Bypass of Treatment Facilities and Part III H. Upset Conditions, nothing in this permit shall be construed to relieve the permittee of the civil or criminal penalties for noncompliance.
- C. Need to Halt or Reduce Activity not a Defense. It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.
- D. Duty to Mitigate. The permittee shall take all reasonable steps to minimize or prevent any discharge in violation of this permit which has a reasonable likelihood of adversely affecting human health or the environment.
- E. Proper Operation and Maintenance. The permittee shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the permittee to achieve compliance with the conditions of this permit. Proper operation and maintenance also includes adequate laboratory controls and quality assurance procedures. This provision requires the operation of back-up or auxiliary facilities or similar systems which are installed by a permittee only when the operation is necessary to achieve compliance with the conditions of the permit.
- F. Removed Substances. Collected screenings, grit, solids, sludges, or other pollutants removed in the course of treatment shall be buried or disposed of in such a manner so as to prevent any pollutant from entering any waters of the state or creating a health hazard. Sludge/digester supernatant and filter backwash shall not directly enter either the final effluent or waters of the state.

G. Bypass of Treatment Facilities.

1. Bypass not exceeding limitations. The permittee may allow any bypass to occur which does not cause effluent limitations to be exceeded, but only if it also is for essential maintenance to assure efficient operation. These bypasses are not subject to the provisions of paragraphs 2 and 3 of this section. Return of removed substances, as described in Part III. F., to the discharge stream shall not be considered a bypass under the provisions of this paragraph.
2. Notice:
  - a. Anticipated bypass. If the permittee knows in advance of the need for a bypass, it shall submit prior notice, if possible at least 60 days before the date of the bypass.
  - b. Unanticipated bypass. The permittee shall submit notice of an unanticipated bypass as required under Part II. I., Twenty-four Hour Reporting.
3. Prohibition of bypass.
  - a. Bypass is prohibited and the Executive Secretary may take enforcement action against a permittee for a bypass, unless:
    - (1) The bypass was unavoidable to prevent loss of life, personal injury, or severe property damage ;
    - (2) There were no feasible alternatives to the bypass, such as the use of auxiliary treatment facilities, retention of untreated wastes, or maintenance during normal periods of equipment downtime. This condition is not satisfied if adequate back-up equipment should have been installed in the exercise of reasonable engineering judgment to prevent a bypass which occurred during normal periods of equipment downtime or preventive maintenance; and,
    - (3) The permittee submitted notices as required under paragraph 2 of this section.
  - b. The Executive Secretary may approve an anticipated bypass, after considering its adverse effects, if the Executive Secretary determines that it will meet the three conditions listed above in paragraph 3. a. of this section.

II. Upset Conditions.

1. Effect of an upset. An upset constitutes an affirmative defense to an action brought for noncompliance with technology based permit effluent limitations if the requirements of paragraph 2 of this section are met. The Executive Secretary's administrative determination regarding a claim of upset cannot be judiciously challenged by the permittee until such time as an action is taken for noncompliance.

2. Conditions necessary for a demonstration of upset. A permittee who wishes to establish the affirmative defense of upset shall demonstrate, through properly signed, contemporaneous operating logs, or other relevant evidence that:
    - a. An upset occurred and that the permittee can identify the cause(s) of the upset;
    - b. The permitted facility was at the time being properly operated;
    - c. The permittee submitted notice of the upset as required under Part II. J., Twenty-four Hour Notice of Noncompliance Reporting; and,
    - d. The permittee complied with any remedial measures required under Part III. D., Duty to Mitigate.
  3. Burden of proof. In any enforcement proceeding, the permittee seeking to establish the occurrence of an upset has the burden of proof.
- I. Toxic Pollutants. The permittee shall comply with effluent standards or prohibitions established under Section 307(a) of the Federal Clean Water Act for toxic pollutants within the time provided in the regulations that establish those standards or prohibitions, even if the permit has not yet been modified to incorporate the requirement.
  - J. Changes in Discharge of Toxic Substances. Notification shall be provided to the Executive Secretary as soon as the permittee knows of, or has reason to believe: ---
    1. That any activity has occurred or will occur which would result in the discharge, on a routine or frequent basis, of any toxic pollutant which is not limited in the permit, if that discharge will exceed the highest of the following "notification levels":
      - a. One hundred micrograms per liter (100 ug/L);
      - b. Two hundred micrograms per liter (200 ug/L) for acrolein and acrylonitrile; five hundred micrograms per liter (500 ug/L) for 2,4-dinitrophenol and for 2-methyl-4, 6-dinitrophenol; and one milligram per liter (1 mg/L) for antimony;
      - c. Five (5) times the maximum concentration value reported for that pollutant in the permit application in accordance with UAC Section R448-8-3.4 (7) or (10); or,
      - d. The level established by the Executive Secretary in accordance with UAC Section R448-8-4.2 (6).
    2. That any activity has occurred or will occur which would result in any discharge, on a non-routine or infrequent basis, of a toxic pollutant which is not limited in the permit, if that discharge will exceed the highest of the following "notification levels":

- a. Five hundred micrograms per liter (500 ug/L);
- b. One milligram per liter (1 mg/L) for antimony;
- c. Ten (10) times the maximum concentration value reported for that pollutant in the permit application in accordance with UAC Section R448-8-3.4(9); or,
- d. The level established by the Executive Secretary in accordance with UAC Section R448-8-4.2(6).

#### IV. GENERAL REQUIREMENTS

- A. Planned Changes. The permittee shall give notice to the Executive Secretary as soon as possible of any planned physical alterations or additions to the permitted facility. Notice is required only when:
1. The alteration or addition to a permitted facility may meet one of the criteria for determining whether a facility is a new source as defined in UAC Section R448-8-1.5.; or,
  2. The alteration or addition could significantly change the nature or increase the quantity of pollutants discharged. This notification applies to pollutants which are subject neither to effluent limitations in the permit, nor to notification requirements under Part IV. A. 2.
- B. Anticipated Noncompliance. The permittee shall give advance notice of any planned changes in the permitted facility or activity which may result in noncompliance with permit requirements.
- C. Permit Actions. This permit may be modified, revoked and reissued, or terminated for cause. The filing of a request by the permittee for a permit modification, revocation and reissuance, or termination, or a notification of planned changes or anticipated noncompliance, does not stay any permit condition.
- D. Duty to Reapply. If the permittee wishes to continue an activity regulated by this permit after the expiration date of this permit, the permittee must apply for and obtain a new permit. The application should be submitted at least 180 days before the expiration date of this permit.
- E. Duty to Provide Information. The permittee shall furnish to the Executive Secretary, within a reasonable time, any information which the Executive Secretary may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit, or to determine compliance with this permit. The permittee shall also furnish to the Executive Secretary, upon request, copies of records required to be kept by this permit.
- F. Other Information. When the permittee becomes aware that it failed to submit any relevant facts in a permit application, or submitted incorrect information in a permit application or any report to the Executive Secretary, it shall promptly submit such facts or information.
- G. Signatory Requirements. All applications, reports or information submitted to the Executive Secretary shall be signed and certified.
1. All permit applications shall be signed as follows:
    - a. For a corporation: by a responsible corporate officer;
    - b. For a partnership or sole proprietorship: by a general partner or the proprietor, respectively;

- c. For a municipality, State, Federal, or other public agency: by either a principal executive officer or ranking elected official.
2. All reports required by the permit and other information requested by the Executive Secretary shall be signed by a person described above or by a duly authorized representative of that person. A person is a duly authorized representative only if:
    - a. The authorization is made in writing by a person described above and submitted to the Executive Secretary, and,
    - b. The authorization specified either an individual or a position having responsibility for the overall operation of the regulated facility or activity, such as the position of plant manager, operator of a well or a well field, superintendent, position of equivalent responsibility, or an individual or position having overall responsibility for environmental matters for the company. (A duly authorized representative may thus be either a named individual or any individual occupying a named position.)
  3. Changes to authorization. If an authorization under paragraph IV. G. 2. is no longer accurate because a different individual or position has responsibility for the overall operation of the facility, a new authorization satisfying the requirements of paragraph IV. G. 2. must be submitted to the Executive Secretary prior to or together with any reports, information, or applications to be signed by an authorized representative.
  4. Certification. Any person signing a document under this section shall make the following certification:

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

- H. Penalties for Falsification of Reports. The Act provides that any person who knowingly makes any false statement, representation, or certification in any record or other document submitted or required to be maintained under this permit, including monitoring reports or reports of compliance or noncompliance shall, upon conviction be punished by a fine of not more than \$10,000 per violation, or by imprisonment for not more than six months per violation, or by both.

- I. Availability of Reports. Except for data determined to be confidential under UAC Section R448-8-3.2, all reports prepared in accordance with the terms of this permit shall be available for public inspection at the offices of the Executive Secretary. As required by the Act, permit applications, permits and effluent data shall not be considered confidential.
- J. Oil and Hazardous Substance Liability. Nothing in this permit shall be construed to preclude the permittee of any legal action or relieve the permittee from any responsibilities, liabilities, or penalties to which the permittee is or may be subject under Section 311 of the Federal Clean Water Act or the Utah Water Pollution Control Act.
- K. Property Rights. The issuance of this permit does not convey any property rights of any sort, or any exclusive privileges, nor does it authorize any injury to private property or any invasion of personal rights, nor any infringement of federal, state or local laws or regulations.
- L. Severability. The provisions of this permit are severable, and if any provision of this permit, or the application of any provision of this permit to any circumstance, is held invalid, the application of such provision to other circumstances, and the remainder of this permit, shall not be affected thereby.
- M. Transfers. This permit may be automatically transferred to a new permittee if:
1. The current permittee notifies the Executive Secretary at least 30 days in advance of the proposed transfer date;
  2. The notice includes a written agreement between the existing and new permittee containing a specific date for transfer of permit responsibility, coverage, and liability between them; and,
  3. The Executive Secretary does not notify the existing permittee and the proposed new permittee of his or her intent to modify, or revoke and reissue the permit. If this notice is not received, the transfer is effective on the date specified in the agreement mentioned in paragraph 2 above.
- N. State Laws. Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities, or penalties established pursuant to any applicable state law or regulation under authority preserved by Section 26-11-19 of the Act.
- O. Water Quality Standard Requirement - Reopener Provision  
This permit may be reopened and modified (following proper administrative procedures) to include the appropriate effluent limitations and compliance schedule, if necessary, if one or more of the following events occurs:

1. **Water Quality Standards for the receiving water(s) to which the permittee discharges are modified in such a manner as to require different effluent limits than contained in this permit.**
2. **A final wasteload allocation is developed and approved by the State and/or EPA for incorporation in this permit.**
3. **A revision to the current 208 plan is approved and adopted which calls for different effluent limitations than contained in this permit.**



RAIN GAUGE DATA

BEAVER CREEK COAL COMPANY  
RAIN GAUGE CHART

LOCATION C.V. SPUR  
(1990)

DATE	GAUGE READING	TIME INTERVAL	MEASURED BY	REMARKS
4/4/90	0.10	24 hrs.	Dm	
4/10/90	0.29	144 "	Dm	
4/11/90	0.0	24 "	Dm	
4/12/90	0.0	24 "	Dm	
4/17	0.10		RIR	
4/30	0.12		Dm	
5/1	0	24		
5/2	0	24		
5/3	0	24		
5/7	0	96		
8	0	24		
9	0	24		
10	0	24		
14	0	96		
15	0	24		
16	0	24		
17	0	24		
21	0	96		
22	0	24		
23	0	24		
24	0	24		
29	.28	120		
6-4	.20	144		
6-5	0	24		
6-6	0	24		
6-7	0	24		
6-11	.17	96		

BEAVER CREEK COAL COMPANY  
RAIN GAUGE CHART

LOCATION C.V. SPUR

DATE	GAUGE READING	TIME INTERVAL	MEASURED BY	REMARKS
6-12	.25	24	DM	
6-13	0	24	DM	
6-14	0	24	DM	
6-18	0	96	DM	
19	0	24	DM	
20	0	24	DM	
21	0	24	DM	
6-25	0	96	DM	
26	0	24	DM	
27	0	24	DM	
28	0	24	DM	
7-2	0	96	DM	
7-25	.48	—	DM	
7-26	0	24	DM	
7-30	0	96	DM	
7-31	0	24	DM	
8-1	0	24	DM	
2	0	24	DM	
6	0	96	DM	
7	0	24	DM	
8	0	24	DM	
9	0	24	DM	
13	0	96	DM	
14	0	24	DM	
15	.19	24	DM	
20	.09	120	DM	





1990

WATER MONITORING DATA

**BEAVER CREEK Coal Company**

Post Office Box 1378  
Price, Utah 84501  
Telephone 801 637-5050



January 23, 1991

Ms. Pamela Grubaugh-Littig  
Utah Division of Oil, Gas & Mining  
355 West North Temple  
#3 Triad Center, Suite 350  
Salt Lake City, Utah 84180-1203

Dear Ms. Littig:

Enclosed are the results of the Beaver Creek Coal Company water monitoring for the fourth Quarter of 1990.

If you have any questions or need any additional information, please contact me.

Respectfully,

A handwritten signature in black ink, appearing to read "Dan W. Guy". The signature is fluid and cursive, with a large initial "D" and "G".

Dan W. Guy  
Manager of Permits and Compliance

DWG/pd

Enclosures

File 4-E-2-1  
WTRMON

Property: CV Spur  
 Station: CV-O-W  
 Location: NW Corner of Property  
 Type: Well  
 Frequency: Bi-Annually

Field Measurements	Date Sampled		Mean
	05/30/90	11/20/90	
Flow [ppm]	DRY	DRY	DRY
PH			
Sp. Cond. [ohms]			
Temp. [C]			
Diss. O [ppm]			
Lab. Metals [mg/l]			
TDS			
TSS			
O & G			
Al CaCO3			
Hd CaCO3			
lc CaCO3			
HCO3			
CO3			
Cl			
SO4			
Ca			
Mg			
K			
Na			
Cat/An			
Fe			
Mn			

E.I.S. Hydrology  
Field Measurements Form

21001  
Station #

Date 1/25/90

Company Beaver Creek

Flow/Depth 0

pH \_\_\_\_\_

Sp. Cond. \_\_\_\_\_

W. Temp. \_\_\_\_\_

Air Temp. \_\_\_\_\_

Diss. O \_\_\_\_\_

Time 11:05

Type: Spring \_\_\_\_\_ Stream \_\_\_\_\_ Well  Discharge \_\_\_\_\_ NPDES \_\_\_\_\_

Collection Point: \_\_\_\_\_

Appearance of Water: Clear \_\_\_\_\_ Milky \_\_\_\_\_ Cloudy \_\_\_\_\_ Opaque \_\_\_\_\_

Weather: Clear \_\_\_\_\_ Part. Cloudy \_\_\_\_\_ Overcast \_\_\_\_\_ Rain \_\_\_\_\_ Snow \_\_\_\_\_

Quality Sample Taken: Yes \_\_\_\_\_ No

Comments \_\_\_\_\_

Field Monitor [Signature]

Pump Reading \_\_\_\_\_

When Sample or Measurements Not Taken:

Reason: (D)

D = Dry    F = Frozen    N/A = Not Accessable    N/R = Not Required

Property: CV Spur  
 Station: CV-1-W  
 Location: NE Corner of Property  
 Type: French Drain  
 Frequency: Bi-Annually

Field Measurements	Date Sampled		Mean
	05/30/90	11/28/90	
Flow [FS]	217	217	217
PH	8	8.1	8.05
Sp. Cond. [ohms]	11,200	1,100	6150
Temp. [C]	3	4	3.5
Diss. O [ppm]	N/R	N/R	N/R

Lab. Data [mg/L]			
TDS	9830	7440	8638
TSS	48	31	39.5
O & G	N/R	N/R	N/R
Al - CaCO3	328.52	368	348.5
Hd - CaCO3	2499.96	1910	2205
Ac - CaCO3	0	0	0
HCO3	400.8	448	425
CO3	0	0	0
Cl	167.9	125	146.5
SO4	6595.5	4820	5708
Ca	373.5	345	360
Mg	381.4	254	318
K	19.9	13.2	16.55
Na	2101.0	1660	1880
Cat/An	2.35	.16	1.26
Fe	0.58	1.01	.80
Mn	0.24	.06	.15

E.I.S. Hydrology  
Field Measurements Form

011-111  
Station #

Date 11/28/90

Company Round Bay

Flow/Depth 45 gpm - 5.15'

pH 8.1

Sp. Cond. 1100

W. Temp. 20

Air Temp. 38

Diss. O N/A

Time 11:00

Type: Spring  Stream  Well  Discharge  NPDES

Collection Point: French Drain

Appearance of Water: Clear  Milky  Cloudy  Opaque

Weather: Clear  Part. Cloudy  Overcast  Rain  Snow

Quality Sample Taken: Yes  No

Comments \_\_\_\_\_

Field Monitor [Signature]

Pump Reading \_\_\_\_\_

When Sample or Measurements Not Taken:

Reason: \_\_\_\_\_

D = Dry    F = Frozen    N/A = Not Accessable    N/R = Not Required

CLIENT: Beaver Creek Coal  
ID: N/A  
SITE: CV-1W  
LAB NO: F5465

DATE REPORTED: 12/06/90  
DATE RECEIVED: 12/03/90  
DATE COLLECTED: 11/28/90

Lab pH (s.u.).....	8.11
Lab conductivity, umhos/cm.....	8390
Lab resistivity, ohm-m.....	1.19
Total dissolved solids (180), mg/l..	7550
Total dissolved solids (calc), mg/l.	7440
Total suspended solids, mg/l.....	31
Total alkalinity as CaCO3, mg/l.....	368
Total hardness as CaCO3, mg/l.....	1910
Sodium absorption ratio.....	16.6

	mg/l	meq/l
Bicarbonate as HCO3.....	448	7.35
Carbonate as CO3.....	0	0
Chloride.....	125	3.51
Sulfate.....	4820	100
Calcium.....	345	17.2
Magnesium.....	254	20.9
Potassium.....	13.2	0.34
Sodium.....	1660	72.3
Major cations.....		111
Major anions.....		111
Cation/anion difference.....		0.16 %

Trace metals by AA (total concentration), mg/l

	Analytical Result:	Detection Limit:
Iron (Fe).....	1.01	<0.04
Manganese (Mn).....	0.06	<0.02

ND - Analyte "not detected" at the stated detection limit.



\_\_\_\_\_  
C. Neal Schaeffer  
Lab Director

Property: CV Spur  
 Station: CV-3-W  
 Location: South Truckyard  
 Type: Well  
 Frequency: Bi-Annual

Field Measurements	Date Sampled		Mean
	05/30/90	11/23/90	
D03 [ft]	N/A	N/A	N/A
PH			
Sp. Cond. [ohms]			
Temp. [C]			
Diss. O [ppm]			

Lab. Meas. [mg/l]
TDS
TDS
O & G
Al CaCO3
Hd CaCO3
Ac CaCO3
HCO3
CO3
Cl
SO4
Ca
Mg
K
Na
Ca+An
Fe
Mn

E.I.S. Hydrology  
Field Measurements Form

01-311  
Station #

Date 1/22/00

Company Pratt & Whitney

Flow/Depth Unmeasurable

pH \_\_\_\_\_

Sp. Cond. \_\_\_\_\_

W. Temp. \_\_\_\_\_

Air Temp. \_\_\_\_\_

Diss. O \_\_\_\_\_

Time \_\_\_\_\_

Type: Spring  Stream  Well  Discharge  NPDES

Collection Point: \_\_\_\_\_

Appearance of Water: Clear  Milky  Cloudy  Opaque

Weather: Clear  Part. Cloudy  Overcast  Rain  Snow

Quality Sample Taken: Yes  No

Comments \_\_\_\_\_

Field Monitor [Signature]

Pump Reading \_\_\_\_\_

When Sample or Measurements Not Taken:

Reason: N/A

D = Dry    F = Frozen    N/A = Not Accessable    N/R = Not Required

Property: CV Spur  
 Station: CV-4-W  
 Location: NE Corner of Property  
 Type: Well  
 Frequency: Bi-Annually

Field Measurements	Date Sampled		Mean
	05/30/90	11/28/90	
Flow [gpm]	DRY	DRY	DRY
PH			
Sp. Cond. [ohms]			
Temp. [C]			
Disa. O [ppm]			

Lab. Meas. [mg/l]		
TDS		
TSS		
O & G		
Al CaCO3		
Hd CaCO3		
Ac CaCO3		
HCO3		
CO3		
Cl		
SO4		
Ca		
Mg		
K		
Na		
CaL/An		
Fe		
Mn		

E.I.S. Hydrology  
Field Measurements Form

EW-411  
Station #

Date 1/28/20

Company Brown & Caldwell

Flow/Depth 0

pH \_\_\_\_\_

Sp. Cond. \_\_\_\_\_

W. Temp. \_\_\_\_\_

Air Temp. \_\_\_\_\_

Diss. O \_\_\_\_\_

Time 13:55

Type: Spring \_\_\_\_\_ Stream \_\_\_\_\_ Well  Discharge \_\_\_\_\_ NPDES \_\_\_\_\_

Collection Point: \_\_\_\_\_

Appearance of Water: Clear \_\_\_\_\_ Milky \_\_\_\_\_ Cloudy \_\_\_\_\_ Opaque \_\_\_\_\_

Weather: Clear \_\_\_\_\_ Part. Cloudy \_\_\_\_\_ Overcast \_\_\_\_\_ Rain \_\_\_\_\_ Snow \_\_\_\_\_

Quality Sample Taken: Yes \_\_\_\_\_ No

Comments \_\_\_\_\_

Field Monitor [Signature]

Pump Reading \_\_\_\_\_

When Sample or Measurements Not Taken:

Reason: to do

D = Dry    F = Frozen    N/A = Not Accessable    N/R = Not Required

Property: CV Spur  
 Station: CV-5-W  
 Location: N Central Property  
 Type: Well  
 Frequency: Bi-Annually

Field Measurements	Date Sampled		Mean
	05/30/90	11/28/90	
Flow [gpm]	DRY	DRY	DRY
PH			
Sp. Cond. [ohms]			
Temp. [C]			
Diss. O [ppm]			

Lab. Meas. [mg/l]
TDS
TSS
O & G
Al CaCO3
Hd CaCO3
lc CaCO3
HCO3
CO3
Cl
SO4
Ca
Mg
K
Na
Ca/Zn
Fe
Mn

E.I.S. Hydrology  
Field Measurements Form

20-511  
Station #

Date 1/28/90

Company Research

Flow/Depth 0

pH \_\_\_\_\_

Sp. Cond. \_\_\_\_\_

W. Temp. \_\_\_\_\_

Air Temp. \_\_\_\_\_

Diss. O \_\_\_\_\_

Time 11:00

Type: Spring \_\_\_\_\_ Stream \_\_\_\_\_ Well  Discharge \_\_\_\_\_ NPDES \_\_\_\_\_

Collection Point: \_\_\_\_\_

Appearance of Water: Clear \_\_\_\_\_ Milky \_\_\_\_\_ Cloudy \_\_\_\_\_ Opaque \_\_\_\_\_

Weather: Clear  Part. Cloudy \_\_\_\_\_ Overcast \_\_\_\_\_ Rain \_\_\_\_\_ Snow \_\_\_\_\_

Quality Sample Taken: Yes \_\_\_\_\_ No

Comments \_\_\_\_\_

Field Monitor [Signature]

Pump Reading \_\_\_\_\_

When Sample or Measurements Not Taken:

Reason: 0

D = Dry F = Frozen N/A = Not Accessable N/R = Not Required

Property: CV Spur  
 Station: CV-6-W  
 Location: East Central Property  
 Type: Well  
 Frequency: Bi-Annual

Field Measurements	Date Sampled		Mean
	05/30/90	11/28/90	
DBS [CU]	678	57	5.8
PH	8.1	8	8
Sp. Cond. [ohms]	3400	3460	3450
Temp. [C]	4	4	4
Diss. O [ppm]	N/R	N/R	N/R

Lab. Meas. [mg/l]			
TDS	2684	2780	2722
TDS	128	81	104.5
O & G	N/R	N/R	N/R
Al CaCO3	160.44	188	174
ld CaCO3	1184.72	1240	1213
ac CaCO3	0	0	0
HCO3	195.7	229	212.3
CO3	0	0	0
Cl	132.2	139	135.5
SO4	1634.1	1660	1647
Ca	317.3	321	319
Mg	95.6	108	101.8
K	12.9	13.9	13.4
Na	376.0	420	398
Cat/An	0.74	1.44	1.09
Fe	4.95	2.33	3.64
Mn	0.09	.03	.06

E.I.S. Hydrology  
Field Measurements Form

W-601  
Station #

Date 11/28/90  
Company Shannon Creek  
Flow/Depth 5' KB  
pH 7.1  
Sp. Cond. ~~2500~~ 2160  
W. Temp. 40  
Air Temp. 39  
Diss. O NA  
Time 14:45

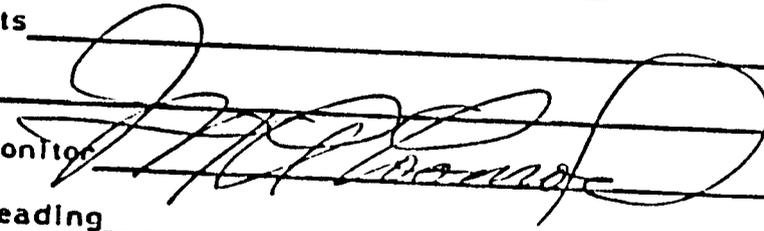
Type: Spring  Stream  Well  Discharge  NPDES

Collection Point: Well #6

Appearance of Water: Clear  Milky  Cloudy  Opaque

Weather: Clear  Part. Cloudy  Overcast  Rain  Snow

Quality Sample Taken: Yes  No

Comments \_\_\_\_\_  
\_\_\_\_\_  \_\_\_\_\_  
Field Monitor \_\_\_\_\_  
Pump Reading \_\_\_\_\_

When Sample or Measurements Not Taken:

Reason: \_\_\_\_\_

D = Dry    F = Frozen    N/A = Not Accessable    N/R = Not Required



Inter-Mountain  
Laboratories, Inc.

2506 West Main Street  
Farmington, New Mexico 87401  
Tel. (505) 326-4737

CLIENT: Beaver Creek Coal  
ID: N/A  
SITE: CV-6W  
LAB NO: F5466

DATE REPORTED: 12/06/90  
DATE RECEIVED: 12/03/90  
DATE COLLECTED: 11/28/90

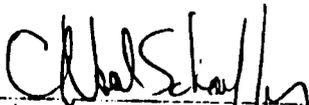
Lab pH (s.u.)..... 8.04  
Lab conductivity, umhos/cm..... 3450  
Lab resistivity, ohm-m..... 2.9  
Total dissolved solids (180), mg/l.. 2950  
Total dissolved solids (calc), mg/l. 2780  
Total suspended solids, mg/l..... 81  
Total alkalinity as CaCO3, mg/l..... 188  
Total hardness as CaCO3, mg/l..... 1240  
Sodium absorption ratio..... 5.18

	mg/l	meq/l
Bicarbonate as HCO3.....	229	3.76
Carbonate as CO3.....	0	0
Chloride.....	139	3.92
Sulfate.....	1660	34.6
Calcium.....	321	16
Magnesium.....	108	8.87
Potassium.....	13.9	0.35
Sodium.....	420	18.3
Major cations.....		43.5
Major anions.....		42.3
Cation/anion difference.....		1.44 %

Trace metals by AA (total concentration), mg/l

	Analytical Result:	Detection Limit:
Iron (Fe).....	2.33	<0.04
Manganese (Mn).....	0.03	<0.02

ND - Analyte "not detected" at the stated detection limit.

  
C. Neal Schaeffer  
Lab Director

Property: CV Spur  
 Station: CV-10-W  
 Location: SE Adj. to Property  
 Type: Well  
 Frequency: Bi-Annually

Field Measurements	Date Sampled		Mean
	05/30/90	11/26/90	
Flow [gpm]	DRY	DRY	DRY
PH			
Sp. Cond. [ohms]			
Temp. [C]			
Diss. O [ppm]			

Lab. Meas. [mg/l]	
TDS	
TSS	
O & G	
Al - CaCO3	
Al - CaCO3	
Al - CaCO3	
HCO3	
CO3	
Cl	
SO4	
Ca	
Mg	
K	
Na	
Calc/An	
Fe	
Mn	

E.I.S. Hydrology  
Field Measurements Form

*Ed-Dee*  
Station #

Date 11/28/90

Company Bennett Creek

\* Flow/Depth 0

pH \_\_\_\_\_

Sp. Cond. \_\_\_\_\_

W. Temp. \_\_\_\_\_

Air Temp. \_\_\_\_\_

Diss. O \_\_\_\_\_

Time 14:50

Type: Spring \_\_\_\_\_ Stream \_\_\_\_\_ Well  Discharge \_\_\_\_\_ NPDES \_\_\_\_\_

Collection Point: # 10

Appearance of Water: Clear \_\_\_\_\_ Milky \_\_\_\_\_ Cloudy \_\_\_\_\_ Opaque \_\_\_\_\_

Weather: Clear \_\_\_\_\_ Part. Cloudy \_\_\_\_\_ Overcast \_\_\_\_\_ Rain \_\_\_\_\_ Snow \_\_\_\_\_

Quality Sample Taken: Yes \_\_\_\_\_ No \_\_\_\_\_

Comments Transfer to Pump - 16' RP

Field Monitor [Signature]

Pump Reading \_\_\_\_\_

When Sample or Measurements Not Taken:

Reason: 0

D = Dry    F = Frozen    N/A = Not Accessable    N/R = Not Required

Property: CV Spur  
 Station: CV-11-W  
 Location: NE Adj to Property  
 Type: Well  
 Frequency: Bi-Annually

Field Measurements	Date Sampled		Mean
	05/30/90	11/28/90	
DGC [ft]	8'	9' 6"	8.8
PH	8.0	8.5	8.25
Sp. Cond. [ohms]	37700	34000	35850
Temp. [C]	4	6	5
Diss. O [ppm]	N/R	N/R	N/R

Lab. Meas. [mg/l]			
TDS	43852	44200	44026
TSS	1945	2250	2098
O & G	N/R	N/R	N/R
Al CaCO3	943.54	966	955
Hd CaCO3	11144.40	11200	11172
Ac CaCO3	0	0	0
HCO3	1151.1	866	1009
CO3	0	154	77
Cl	451.2	538	492
SO4	30574.5	30250	30413
Ca	377.5	297	338
Mg	2481.3	2550	2516
K	26.8	17.5	22.15
Na	9375.0	9960	9668
Cat/An	2.86	.51	1.69
Fe	17.20	23.4	20.3
Mn	1.98	1.04	1.51

E.I.S. Hydrology  
Field Measurements Form

01-1111  
Station #

Date 11/28/90

Company Bonnet Creek

Flow/Depth 9' 6" 150

pH 8.5

Sp. Cond. 34000

W. Temp. 6°

Air Temp. 41

Diss. O N/A

Time 11:45

Type: Spring  Stream  Well  Discharge  NPDES

Collection Point: #11

Appearance of Water: Clear  Milky  Cloudy  Opaque

Weather: Clear  Part. Cloudy  Overcast  Rain  Snow

Quality Sample Taken: Yes  No

Comments \_\_\_\_\_

Field Monitor [Signature]

Pump Reading \_\_\_\_\_

When Sample or Measurements Not Taken:

Reason: \_\_\_\_\_

D = Dry    F = Frozen    N/A = Not Accessable    N/R = Not Required



2506 West Main Street  
Farmington, New Mexico 87401  
Tel. (505) 326-4737

CLIENT: Beaver Creek Coal  
ID: Lab split  
SITE: CV-11W L/S  
LAB NO: F5487

DATE REPORTED: 12/06/90  
DATE RECEIVED: 12/03/90  
DATE COLLECTED: 11/28/90

Lab pH (s.u.)..... 8.56  
Lab conductivity, umhos/cm..... 35800  
Lab resistivity, ohm-m..... 0.279  
Total dissolved solids (180), mg/l.. 45200  
Total dissolved solids (calc), mg/l. 44200  
Total suspended solids, mg/l..... 2250  
Total alkalinity as CaCO3, mg/l..... 966  
Total hardness as CaCO3, mg/l..... 11200  
Sodium absorption ratio..... 40.9

	mg/l	meq/l
Bicarbonate as HCO3.....	866	14.2
Carbonate as CO3.....	154	5.13
Chloride.....	533	15
Sulfate.....	30250	630
Calcium.....	297	14.8
Magnesium.....	2550	210
Potassium.....	17.5	0.45
Sodium.....	9960	433
Major cations.....		658
Major anions.....		665
Cation/anion difference.....		0.51 %

Trace metals by AA (total concentration), mg/l

	Analytical Result:	Detection Limit:
Iron (Fe).....	23.4	<0.04
Manganese (Mn).....	1.04	<0.02

ND - Analyte "not detected" at the stated detection limit.

C. Neal Schaeffer  
Lab Director



Inter-Mountain  
Laboratories, Inc.

2506 West Main Street  
Farmington, New Mexico 87401  
Tel. (505) 326-4737

CLIENT: Beaver Creek Coal  
ID: N/A  
SITE: CV-11W  
LAB NO: F5467

DATE REPORTED: 12/06/90  
DATE RECEIVED: 12/03/90  
DATE COLLECTED: 11/28/90

Lab pH (s.u.)..... 8.52  
Lab conductivity, umhos/cm..... 35700  
Lab resistivity, ohm-m..... 0.28  
Total dissolved solids (180), mg/l.. 45100  
Total dissolved solids (calc), mg/l. 43800  
Total suspended solids, mg/l..... 1670  
Total alkalinity as CaCO3, mg/l..... 380  
Total hardness as CaCO3, mg/l..... 11200  
Sodium absorption ratio..... 40.9

	mg/l	meq/l
Bicarbonate as HCO3.....	404	6.63
Carbonate as CO3.....	28.8	0.96
Chloride.....	457	12.9
Sulfate.....	30240	630
Calcium.....	410	20.4
Magnesium.....	2480	204
Potassium.....	21.5	0.55
Sodium.....	9950	433
Major cations.....		658
Major anions.....		650
Cation/anion difference.....		0.57 %

Trace metals by AA (total concentration), mg/l

	Analytical Result:	Detection Limit:
Iron (Fe).....	23.0	<0.04
Manganese (Mn).....	1.02	<0.02

ND - Analyte "not detected" at the stated detection limit.

C. Neal Schaeffer  
Lab Director

Property: CV Spur  
 Station: CV-12-W  
 Location: North Adj. To Property  
 Type: Well  
 Frequency: BI-Annually

Field Measurements	Date Sampled	Mean
Flow [FS]	05/30/90 21'	11/28/90 DRY DRY
PH	[Insufficient]	
Sp. Cond. [ohms]	to sample]	
Temp. [C]		
Diss. O [ppm]		

Lab. Meas. [mg/l]

TDS
TSS
O & G
Al CaCO3
Hd CaCO3
Ac CaCO3
HCO3
CO3
Cl
SO4
Ca
Mg
K
Na
CaF/An
Fe
Mn

E.I.S. Hydrology  
Field Measurements Form

02-1216  
Station #

Date 11/28/00

Company Remedial Tech

Flow/Depth 0

pH \_\_\_\_\_

Sp. Cond. \_\_\_\_\_

W. Temp. \_\_\_\_\_

Air Temp. \_\_\_\_\_

Diss. O \_\_\_\_\_

Time 15:25

Type: Spring \_\_\_\_\_ Stream \_\_\_\_\_ Well  Discharge \_\_\_\_\_ NPDES \_\_\_\_\_

Collection Point: Stream

Appearance of Water: Clear \_\_\_\_\_ Milky \_\_\_\_\_ Cloudy \_\_\_\_\_ Opaque \_\_\_\_\_

Weather: Clear  Part. Cloudy \_\_\_\_\_ Overcast \_\_\_\_\_ Rain \_\_\_\_\_ Snow \_\_\_\_\_

Quality Sample Taken: Yes \_\_\_\_\_ No

Comments \_\_\_\_\_

Field Monitor [Signature]

Pump Reading \_\_\_\_\_

When Sample or Measurements Not Taken:

Reason: 0

D = Dry    F = Frozen    N/A = Not Accessable    N/R = Not Required

Property: CV Spur  
 Station: CV-14-W  
 Location: NE Property  
 Type: Ditch  
 Frequency: Bi-Annually

Field Measurements	Date Sampled		Mean
	05/30/90	11/28/90	
Flow [gpm]	DRY	DRY	DRY
pH			
Sp. Cond. [ohms]			
Temp. [C]			
Diss. O [ppm]			

Lab. Meas. [mg/l]	
TDS	
TSS	
O & G	
Al CaCO3	
CaCO3	
Ac CaCO3	
HCO3	
CO3	
Cl	
SO4	
Ca	
Mg	
K	
Na	
CaCl/An	
Fe	
Mn	

E.I.S. Hydrology  
Field Measurements Form

01-140  
Station #

Date 11/28/90

Company Beaver Creek

Flow/Depth 0

pH \_\_\_\_\_

Sp. Cond. \_\_\_\_\_

W. Temp. \_\_\_\_\_

Air Temp. \_\_\_\_\_

Diss. O \_\_\_\_\_

Time 13:48

Type: Spring \_\_\_\_\_ Stream \_\_\_\_\_ Well \_\_\_\_\_ Discharge  NPDES \_\_\_\_\_

Collection Point: Beaver Creek

Appearance of Water: Clear \_\_\_\_\_ Milky \_\_\_\_\_ Cloudy \_\_\_\_\_ Opaque \_\_\_\_\_

Weather: Clear  Part. Cloudy \_\_\_\_\_ Overcast \_\_\_\_\_ Rain \_\_\_\_\_ Snow \_\_\_\_\_

Quality Sample Taken: Yes \_\_\_\_\_ No

Comments \_\_\_\_\_

Field Monitor [Signature]

Pump Reading \_\_\_\_\_

When Sample or Measurements Not Taken:

Reason: 0

D = Dry F = Frozen N/A = Not Accessable N/R = Not Required

Property: Castle Valley Spur  
Station: CV-15-W  
Location: Sed. Pond Discharge  
Type: Pond Outlet  
Frequency: Monthly

Measurements	01/09/90	02/26/90	03/20/90	04/11/90	05/30/90	06/20/90	07/27/90	08/24/90	09/28/90	10/02/90	11/28/90	12/01/90
Flow (gpm)	DRY											

Con. (ohms)

Temp (C)

Diss. O. (ppm)

Meas. (mg/l)

NPDES - See Lab Sheet

C

C0293

C

C000

03

/An

E. I. S. Hydrology  
Field Measurements Form

Date 10/2/90

Station CV-15

Company Beaver Club

Time 9:40

Flow/Depth D

pH \_\_\_\_\_

Specific Conductivity \_\_\_\_\_

Water Temperature \_\_\_\_\_

Air Temperature \_\_\_\_\_

Dissolved Oxygen \_\_\_\_\_

Type: Spring  Stream  Well  Discharge

Collection Point \_\_\_\_\_

Appearance of Water: Clear  Milky  Cloudy

Quality Sample Taken: Yes  No

Flow Reading \_\_\_\_\_

Comments \_\_\_\_\_

Field Station *[Signature]*

Flow Sample or Measurement Not Taken:

Reason: D.

D = Dry F = Frozen R = Recedes L = Low W = No

E.I.S. Hydrology  
Field Measurements Form

00-1540  
Station #

Date 4/28/80

Company Brown & Root

Flow/Depth D

pH \_\_\_\_\_

Sp. Cond. \_\_\_\_\_

W. Temp. \_\_\_\_\_

Air Temp. \_\_\_\_\_

Diss. O \_\_\_\_\_

Time 1:30

Type: Spring \_\_\_\_\_ Stream \_\_\_\_\_ Well \_\_\_\_\_ Discharge  NPDES \_\_\_\_\_

Collection Point: Bed out

Appearance of Water: Clear \_\_\_\_\_ Milky \_\_\_\_\_ Cloudy \_\_\_\_\_ Opaque \_\_\_\_\_

Weather: Clear  Part. Cloudy \_\_\_\_\_ Overcast \_\_\_\_\_ Rain \_\_\_\_\_ Snow \_\_\_\_\_

Quality Sample Taken: Yes \_\_\_\_\_ No

Comments \_\_\_\_\_

Field Monitor [Signature]

Pump Reading \_\_\_\_\_

When Sample or Measurements Not Taken:

Reason: [Signature]

D = Dry    F = Frozen    N/A = Not Accessable    N/R = Not Required

U.S. Geological Survey  
Field Measurements Form

CU-1510  
SECTION 1

Date 12/1/90  
County COO  
Town/Depth D  
Elevation \_\_\_\_\_  
Latitude \_\_\_\_\_  
Longitude \_\_\_\_\_  
Mileage \_\_\_\_\_  
Section \_\_\_\_\_  
Twp \_\_\_\_\_

Type: Spring \_\_\_\_\_ Stream \_\_\_\_\_ Well \_\_\_\_\_ Discharge \_\_\_\_\_ NPDES \_\_\_\_\_

Collection Point: \_\_\_\_\_

Appearance of Water: Clear \_\_\_\_\_ Milky \_\_\_\_\_ Cloudy \_\_\_\_\_ Opaque \_\_\_\_\_

Weather: Clear \_\_\_\_\_ Part. Cloudy \_\_\_\_\_ Overcast \_\_\_\_\_ Rain \_\_\_\_\_ Snow \_\_\_\_\_

Quality Sample Taken: Yes \_\_\_\_\_ No \_\_\_\_\_

Comments \_\_\_\_\_  
Field Monitor [Signature]  
Dust Reading \_\_\_\_\_

Why Sample or Measurements Not Taken: \_\_\_\_\_  
Reason: \_\_\_\_\_

Key: F = Frozen N/A = Not Accessible N/R = Not Required

Property: CV Spur  
 Station: CV-16-W  
 Location: West [Central]  
 Type: Ditch  
 Frequency: Quarterly [Baseline]

Field Measurements	Date Sampled				Mean
	03/20/90	05/30/90	08/24/90	11/23/90	
Flow [gpm]	DRY	1.7	DRY	DRY	1.7
PH		8.4			8.4
Sp. Cond. [ohms]		4690			4690
Temp. [C]		5			5
Diss. O [ppm]		N/R			N/R

Lab. Meas. [mg/l] See Baseline Lab Report

TDS

TSS

O & G

Al CaCO3

Md CaCO3

Ac CaCO3

HCO3

CO3

Cl

SO4

Ca

Mg

K

Na

Cat/An

Fe

Mn

E.I.S. Hydrology  
Field Measurements Form

20-16W  
Station #

Date 11/28/90

Company BCC

Flow/Depth D

pH \_\_\_\_\_

Sp. Cond. \_\_\_\_\_

W. Temp. \_\_\_\_\_

Air Temp. \_\_\_\_\_

Diss. O \_\_\_\_\_

Time \_\_\_\_\_

Type: Spring \_\_\_\_\_ Stream \_\_\_\_\_ Well \_\_\_\_\_ Discharge \_\_\_\_\_ NPDES \_\_\_\_\_

Collection Point: \_\_\_\_\_

Appearance of Water: Clear \_\_\_\_\_ Milky \_\_\_\_\_ Cloudy \_\_\_\_\_ Opaque \_\_\_\_\_

Weather: Clear \_\_\_\_\_ Part. Cloudy \_\_\_\_\_ Overcast \_\_\_\_\_ Rain \_\_\_\_\_ Snow \_\_\_\_\_

Quality Sample Taken: Yes \_\_\_\_\_ No

Comments \_\_\_\_\_

Field Monitor [Signature]

Pump Reading \_\_\_\_\_

When Sample or Measurements Not Taken:

Reason: D

D = Dry    F = Frozen    N/A = Not Accessable    N/R = Not Required

E. I. S. Hydrology  
Field Measurements Form

Date 10/2/70

Station # 00-16

Company Beaver Creek

Time 9:00

Flow/Depth 0

pH \_\_\_\_\_

Specific Conductivity \_\_\_\_\_

Water Temperature \_\_\_\_\_

Air Temperature \_\_\_\_\_

Dissolved Oxygen \_\_\_\_\_

Type: Spring \_\_\_\_\_ Stream  Well \_\_\_\_\_ Discharge \_\_\_\_\_

Collection Point \_\_\_\_\_

Appearance of Water: Clear \_\_\_\_\_ Milk \_\_\_\_\_ Cloudy \_\_\_\_\_

Quality Sample Taken: Yes \_\_\_\_\_ No

Pump Reading \_\_\_\_\_

Comments \_\_\_\_\_

Field Monitor [Signature]

When Sample or Measurements Not Taken:

Reason: [Signature]

D = Dry F = Frozen N/A = Not Accessible N/R = Not Reported



October 31, 1990

Donald A. Hilden, Ph.D., Chief  
Permits and Compliance Section  
Bureau of Water Pollution Control  
Utah Division of Environmental Health  
288 North 1460 West  
P.O. Box 16690  
Salt Lake City, Utah 84116-0690

Dear Mr. Hilden:

Enclosed please find Quarterly Discharge Monitoring Reports for Beaver Creek Coal Company's UPDES Permit Numbers UTC040003, UTC040004, and UTC040005. These reports are on the preprinted DMRS provided by the State of Utah, and cover the third quarter of 1990.

If you have any questions or need any additional information, please contact me.

Respectfully,

Dan W. Guy  
Mgr. Permitting/Compliance

DWC/pd

Enclosures

cc: Donna Franklin, E.P.A.  
Lowell Braxton, UDOGM  
File

Beaver Creek Coal Company  
Post Office Box 1378  
Price, Utah 84501  
Telephone 801 637-5050



October 31, 1990

Ms. Donna Franklin  
U.S.E.P.A., Region VIII  
999 18th Street  
Denver, Place - Suite 500  
Denver, CO 80202-2405

WM-C

Dear Ms. Franklin:

Enclosed please find Quarterly Discharge Monitoring Reports for Beaver Creek Coal Company's UPDES Permit Numbers UTC040003, UTC040004, and UTC040005. These reports are on the preprinted DMRs provided by the State of Utah, and cover the third quarter of 1990.

If you have any questions or need any additional information, please contact me.

Respectfully,

Dan W. Cuy  
Mgr. Permitting/Compliance

DWC/pd

Enclosures

File 4-E-2-1



October 31, 1990

Mr. Lowell Braxton, Administrator  
Utah Division of Oil, Gas & Mining  
355 West North Temple  
3 Triad Center, Suite 350  
Salt Lake City, Utah 84180-1203

Dear Mr. Braxton:

Enclosed please find Quarterly Discharge Monitoring Reports for Beaver Creek Coal Company's UPDES Permit Numbers UTC040003, UTC040004, and UTC040005. These reports are on the preprinted DMRS provided by the State of Utah, and cover the third quarter of 1990.

If you have any questions or need any additional information, please contact me.

Respectfully,

Dan W. Cuy  
Mgr. Permitting/Compliance

DWG/pd

Enclosures





Facility Name: W. J. Guy  
 NAME: W. J. GUY  
 ADDRESS: BOX 1379  
 PRICE: DT 84501  
 FACILITY: \_\_\_\_\_  
 LOCATION: \_\_\_\_\_

DISCHARGE PERMIT NATIONAL SYSTEM (FDES)  
 DISCHA MONITORING REPORT (M/R)  
 (12-19)  
**DTSC 005** **001 A**  
 PERMIT NUMBER DISCHARGE NUMBER  
 MONITORING PERIOD  
 FROM YEAR MO DAY TO YEAR MO DAY  
 90 08 01 TO 90 09 31  
 (20-21) (22-23) (24-25) (26-27) (28-29) (30-31)

F - FINAL  
 SED PFD DTPL-DENG CB/PRO RVP  
 MINOR  
 NOTE: Read instructions before completing this form.

ATTN: DAN W. GUY, MANAGER

PARAMETER (32-37)	SAMPLE MEASUREMENT	(3 Cord Only) QUANTITY OR LOADING (46-53)			(4 Cord Only) QUALITY OR CONCENTRATION (38-45)			NO. EX (62-63)	FREQUENCY OF ANALYSIS (64-68)	SAMPLE TYPE (69-70)
		AVERAGE	MAXIMUM	UNITS	MINIMUM	AVERAGE	MAXIMUM			
FLOW RATE		NO DISCHARGE			*****					
00056 1 0 0 EFFLUENT GROSS VALUE	PERMIT REQUIREMENT	REPORT	REPORT		*****	*****	*****		ONCE/	WEAR
		30 DA AV	DAILY	SK SPD					MONTH	
PH	SAMPLE MEASUREMENT	*****	*****			*****				
00400 1 0 0 EFFLUENT GROSS VALUE	PERMIT REQUIREMENT	*****	*****	****	5.5	*****	9.0		THICE/GRAB	
				****	DAILY		DAILY		MONTH	
SOLIDS, TOTAL SUSPENDED	SAMPLE MEASUREMENT	*****	*****		*****					
00530 P 0 0 SEE COMMENTS BELOW	PERMIT REQUIREMENT	*****	*****	****	*****	25	70		ONCE/ GRAB	
				****		30 DA AV	DAILY		MONTH	
SOLIDS, SETTLEABLE	SAMPLE MEASUREMENT	*****	*****		*****	*****				
00545 R 0 0 SEE COMMENTS BELOW	PERMIT REQUIREMENT	*****	*****	****	*****	*****	0.5		ONCE/ GRAB	
				****			DAILY		MONTH	
OIL AND GREASE	SAMPLE MEASUREMENT	*****	*****		*****	*****				
FREON EXTR-GRAV WBT	PERMIT REQUIREMENT	*****	*****	****	*****	*****	10		ONCE/ GRAB	
00556 1 0 0 EFFLUENT GROSS VALUE				****			DAILY		MONTH	
IRON, TOTAL (AS FE)	SAMPLE MEASUREMENT	*****	*****		*****	*****				
01035 1 0 0 EFFLUENT GROSS VALUE	PERMIT REQUIREMENT	*****	*****	****	*****	*****	2.0		ONCE/ GRAB	
				****			DAILY		MONTH	
FLOATING SOLIDS OR VISIBLE FOAM-VISUAL	SAMPLE MEASUREMENT	*****			*****	*****	*****			
45613 1 0 0 EFFLUENT GROSS VALUE	PERMIT REQUIREMENT	*****		YES=1 NO=0	*****	*****	*****	****	ONCE/ VISUA	
								****	MONTH	

NAME/TITLE PRINCIPAL EXECUTIVE OFFICER  
 Dan W. Guy  
 Manager/Permitting & Compliance  
 TYPED OR PRINTED

I CERTIFY UNDER PENALTY OF LAW THAT I HAVE PERSONALLY EXAMINED AND AM FAMILIAR WITH THE INFORMATION SUBMITTED HEREIN AND BASED ON MY INQUIRY OF THOSE INDIVIDUALS IMMEDIATELY RESPONSIBLE FOR OBTAINING THE INFORMATION I BELIEVE THE SUBMITTED INFORMATION IS TRUE ACCURATE AND COMPLETE I AM AWARE THAT THERE ARE SIGNIFICANT PENALTIES FOR SUBMITTING FALSE INFORMATION INCLUDING THE POSSIBILITY OF FINE AND IMPRISONMENT SEE 18 USC § 1001 AND 33 USC § 1319. Penalties under these statutes may include fines up to \$11,000 and a maximum imprisonment of 6 months and 5 years.

*Dan W. Guy*  
 SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT

TELEPHONE DATE  
 801 637-5050 90 10 31  
 AREA CODE NUMBER YEAR MO DA

COMMENT AND EXPLANATION OF ANY VIOLATIONS (Reference all attachments here)

YDS IS LIMITED TO ONE TON PER DAY FROM ALL OUTFALLS. DURING PRECIPITATION EVENTS, SETTLEABLE SOLIDS SHALL BE LIMITED INSTEAD OF TSS. REPORT "DOES NOT APPLY" IN THE APPROPRIATE ROW.

Facility Name: DISCHARGE  
 NAME: DISCHARGE  
 ADDRESS: PO BOX 137  
 CITY: 07957

DISCHARGE PERMIT NATIONAL SYSTEM (NPDES)  
 DISCHARGE MONITORING REPORT (DMR)  
 UTS: 005 PERMIT NUMBER  
001 A DISCHARGE NUMBER

F - FINAL  
 SED PND DIFL-DPNS LICH/PRO RVE

MONITORING PERIOD  
 FROM YEAR 90 MO 09 DAY 01 TO YEAR 90 MO 03 DAY 31  
 (26-27) (28-29) (30-31)

WINDR  
 NOTE: Read instructions before completing this form.

ATTN: DAN W. GUY, MANAGER

PARAMETER (32-37)	SAMPLE MEASUREMENT	(3 Card Only) QUANTITY OR LOADING (46-53)			(4 Card Only) QUALITY OR CONCENTRATION (54-61)			NO. EX (62-63)	FREQUENCY OF ANALYSIS (64-68)	SAM. TYP (69-71)
		AVERAGE	MAXIMUM	UNITS	MINIMUM	AVERAGE	MAXIMUM			
SANITARY WASTE DISCHARGED-ASSESSMT 45514 1 0 0 EFFLUENT GROSS VALUE	SAMPLE MEASUREMENT	*****			*****	*****	*****			
	PERMIT REQUIREMENT	*****	3	DAILY BY YES=1 NO=0	*****	*****	*****	****	ONCE/ MONTH	WISU
SOLIDS, TOTAL DISSOLVED 70295 0 0 0 SEE COMMENTS BELOW	SAMPLE MEASUREMENT	*****			*****	*****				
	PERMIT REQUIREMENT	*****	2000	DAILY BY LBS/DY	*****	*****	REPORT DAILY BY MG/L		ONCE/ MONTH	GRAB
	SAMPLE MEASUREMENT									
	PERMIT REQUIREMENT									
	SAMPLE MEASUREMENT									
	PERMIT REQUIREMENT									
	SAMPLE MEASUREMENT									
	PERMIT REQUIREMENT									
	SAMPLE MEASUREMENT									
	PERMIT REQUIREMENT									

NAME/TITLE PRINCIPAL EXECUTIVE OFFICER  
Dan W. Guy  
Manager/Permitting & Compliance  
 TYPED OR PRINTED

I CERTIFY UNDER PENALTY OF LAW THAT I HAVE PERSONALLY EXAMINED AND AM FAMILIAR WITH THE INFORMATION SUBMITTED HEREIN AND BASED ON MY INQUIRY OF THOSE INDIVIDUALS IMMEDIATELY RESPONSIBLE FOR OBTAINING THE INFORMATION I BELIEVE THE SUBMITTED INFORMATION IS TRUE ACCURATE AND COMPLETE I AM AWARE THAT THERE ARE SIGNIFICANT PENALTIES FOR SUBMITTING FALSE INFORMATION INCLUDING THE POSSIBILITY OF FINE AND IMPRISONMENT SEE 18 USC § 1001 AND 33 USC § 1319. Penalties under these statutes may include fines up to \$10,000 and a maximum imprisonment of between 6 months and 5 years.

*Dan W. Guy*  
 SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT

TELEPHONE: 801 637-5050  
 DATE: 90 10 31  
 AREA CODE NUMBER YEAR MO DA

COMMENT AND EXPLANATION OF ANY VIOLATIONS: *Reference all attachments here)*  
 TDS IS LIMITED TO ONE TON PER DAY FROM ALL OUTFALLS. DURING PRECIPITATION EVENTS, SETTLEABLE SOLIDS SHALL BE LIMITED INSTEAD OF TSS. REPORT "DOES NOT APPLY" IN THE APPROPRIATE ROW.



Facility Name/L (if different)  
 NAME OF R CREEK COAL--IV SPPJ  
 ADDRESS 31 BOX 137A  
 CITY STATE ZIP UT 84501

DISCHARGE MONITORING REPORT (DMR)

003 005  
 PERMIT NUMBER

001 A  
 DISCHARGE NUMBER

F - FINAL  
 SPD PND DTFL-ORNG CCB/ERC RVE

FACILITY  
 LOCATION

MONITORING PERIOD							
FROM	YEAR	MO	DAY	TO	YEAR	MO	DAY
	93	09	31		93	09	30
	(20-21)	(22-23)	(24-25)		(26-27)	(28-29)	(30-31)

MINOR  
 NOTE: Read instructions before completing this form.

PARAMETER (32-37)	SAMPLE MEASUREMENT / PERMIT REQUIREMENT	(3 Card Only) QUANTITY OR LOADING (46-53)			(4 Card Only) QUALITY OR CONCENTRATION (38-45)			NO. EX (62-63)	FREQUENCY OF ANALYSIS (64-68)	SAMPLING TYPE (69)
		AVERAGE (46-53)	MAXIMUM (54-57)	UNITS (58-61)	MINIMUM (38-45)	AVERAGE (46-53)	MAXIMUM (54-57)			
SANITARY WASTE DISCHARGED-ASSESSMENT 45614 1 0 0 EFFLUENT GROSS VALUE SOLIDS, TOTAL DISSOLVED 70235 0 0 0 SEE COMMENTS BELOW	SAMPLE MEASUREMENT	*****			*****	*****	*****			
	PERMIT REQUIREMENT	*****	0	YES=1 DAILY BY NO=0	*****	*****	*****	****	ONCE/ MONTH	WISD
	SAMPLE MEASUREMENT	*****			*****	*****				
	PERMIT REQUIREMENT	*****	2000	DAILY BY 195/DY	*****	*****	REPORT DAILY BY 15/L		ONCE/ MONTH	GRAE
	SAMPLE MEASUREMENT									
	PERMIT REQUIREMENT									
	SAMPLE MEASUREMENT									
	PERMIT REQUIREMENT									
	SAMPLE MEASUREMENT									
	PERMIT REQUIREMENT									
	SAMPLE MEASUREMENT									
	PERMIT REQUIREMENT									
	SAMPLE MEASUREMENT									
	PERMIT REQUIREMENT									

NAME/TITLE PRINCIPAL EXECUTIVE OFFICER  
 Dan W. Guy  
 Manager/Permitting & Compliance  
 TYPED OR PRINTED

I CERTIFY UNDER PENALTY OF LAW THAT I HAVE PERSONALLY EXAMINED AND AM FAMILIAR WITH THE INFORMATION SUBMITTED HEREIN AND BASED ON MY INQUIRY OF THOSE INDIVIDUALS IMMEDIATELY RESPONSIBLE FOR OBTAINING THE INFORMATION I BELIEVE THE SUBMITTED INFORMATION IS TRUE ACCURATE AND COMPLETE I AM AWARE THAT THERE ARE SIGNIFICANT PENALTIES FOR SUBMITTING FALSE INFORMATION INCLUDING THE POSSIBILITY OF FINE AND IMPRISONMENT SEE 18 USC § 1001 AND 33 USC § 1319. Penalties under these statutes may include fines up to \$10,000 and/or maximum imprisonment of between 6 months and 5 years.

*Dan W. Guy*  
 SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT

TELEPHONE DATE  
 801 637-5050 90 10 31  
 AREA CODE NUMBER YEAR MO DAY

COMMENT AND EXPLANATION OF ANY VIOLATIONS (Reference all attachments here)

IDS IS LIMITED TO ONE TON PER DAY FROM ALL DUMPILLS. DURING PRECIPITATION EVENTS, SETTLEABLE SOLIDS SHALL BE LIMITED INSTEAD OF TSS. REPORT "DOES NOT APPLY" IN THE APPROPRIATE ROW.

**BEAVER CREEK Coal Company**

Post Office Box 1378

Price, Utah 84501

Telephone 801 637-5050



July 30, 1990

Donald A. Hilden, Ph.D., Chief  
Permits and Compliance Section  
Bureau of Water Pollution Control  
Utah Division of Environmental Health  
288 North 1460 West  
P.O. Box 16690  
Salt Lake City, Utah 84116-0690

Dear Mr. Hilden:

Enclosed please find Quarterly Discharge Monitoring Reports for Beaver Creek Coal Company's UPDES Permit Numbers UTC040003, UTC040004, and UTC040005. These reports are on the preprinted DMRs provided by the State of Utah, and cover the second quarter of 1990.

If you have any questions or need any additional information, please contact me.

Respectfully,

Dan W. Guy  
Mgr. Permitting/Compliance

DWG/pd

Enclosures

cc: Donna Franklin, E.P.A.  
Lowell Braxton, UDOGM  
File

1378  
 DT 63501

MONITORING PERIOD						
YEAR	MO	DAY	TO	YEAR	MO	DAY
90	04	01		90	04	30
(26-27) (22-23) (24-25)				(26-27) (28-29) (30-31)		

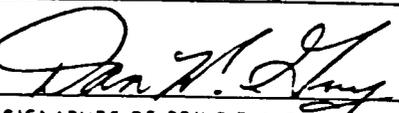
FACILITY \_\_\_\_\_  
 LOCATION \_\_\_\_\_  
 ATTN: DAN W. GUY, MANAGER

NOTE: Read instructions before completing this form.

PARAMETER (37-37)	SAMPLE MEASUREMENT PERMIT REQUIREMENT	(3 Card Only) QUANTITY OR LOADING (46-53)			(4 Card Only) QUALITY OR CONCENTRATION (38-45)			NO. EX (67-69)	FREQUENCY OF ANALYSIS (54-66)	SAMPL. TYPE (69-70)
		AVERAGE	MAXIMUM	UNITS	MINIMUM	AVERAGE	MAXIMUM			
FLOW RATE		NO DISCHARGE			*****					
00055 1 0 0 EFFLUENT GROSS VALUE		REPORT	REPORT		*****				ONCE/	WEEK
PH		30 DA AV	DAILY MX	GPD	*****				MONTH	
00400 1 0 0 EFFLUENT GROSS VALUE		*****	*****	*****	*****					
SOLIDS, TOTAL SUSPENDED		*****	*****	*****	*****					
00530 P 0 0 SEE COMMENTS BELOW		*****	*****	*****	6.5	*****	9.0		TWICE/	GRAB
SOLIDS, SETTLEABLE		*****	*****	*****	*****				MONTH	
00545 R 0 0 SEE COMMENTS BELOW		*****	*****	*****	*****					
OIL AND GREASE FRESH FINE-GRAY 48TH		*****	*****	*****	*****				ONCE/	GRAB
00556 1 0 0 EFFLUENT GROSS VALUE		*****	*****	*****	25	*****	70		MONTH	
IRON, TOTAL (AS FE)		*****	*****	*****	*****					
01035 1 0 0 EFFLUENT GROSS VALUE		*****	*****	*****	*****				ONCE/	GRAB
FLOATING SOLIDS OR VISIBLE FOAM-VISUAL		*****	*****	*****	*****				MONTH	
05613 1 0 0 EFFLUENT GROSS VALUE		*****	*****	*****	*****					

NAME/TITLE PRINCIPAL EXECUTIVE OFFICER  
 DAN W. GUY  
 MER. PERMITTING/COMPLIANCE  
 TYPED OR PRINTED

I CERTIFY UNDER PENALTY OF LAW THAT I HAVE PERSONALLY EXAMINED AND AM FAMILIAR WITH THE INFORMATION SUBMITTED HEREIN AND BASED ON MY INQUIRY OF THOSE INDIVIDUALS IMMEDIATELY RESPONSIBLE FOR OBTAINING THE INFORMATION I BELIEVE THE SUBMITTED INFORMATION IS TRUE ACCURATE AND COMPLETE I AM AWARE THAT THERE ARE SIGNIFICANT PENALTIES FOR SUBMITTING FALSE INFORMATION INCLUDING THE POSSIBILITY OF FINE AND IMPRISONMENT SEE 18 USC § 1001 AND 33 USC § 1319. Analytical and other data may include data up to 6 months and a record of implementation of clean up actions.

SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT  


TELEPHONE  
 801 637-5050  
 DATE  
 90 07 30  
 AREA CODE NUMBER YEAR MO DAY

COMMENT AND EXPLANATION OF ANY VIOLATIONS (Reference all attachments here)

TDS IS LIMITED TO ONE TON PER DAY FROM ALL DOWNFALLS. DURING PRECIPITATION EVENTS, SETTLEABLE SOLIDS SHALL BE TYPED INSTEAD OF TSS. REPORT "DOES NOT APPLY" IN THE APPROPRIATE ROW.

NAME BFA CRPER COAL-FV SPQR  
 ADDRESS BOX 1379  
PLUM NY 93501

DISCHARGE MONITORING REPORT EWR, (17-19)  
 0303: 05  
 PERMIT NUMBER  
 001 A  
 DISCHARGE NUMBER

F - FINAL  
 SED PND DIPL-DESS H/PRC RVR

FACILITY \_\_\_\_\_  
 LOCATION \_\_\_\_\_  
 APPLICANT: DAN W. GUY, MANAGER

MONITORING PERIOD						
YEAR	MO	DAY	TO	YEAR	MO	DAY
90	04	01		90	04	30
(20-21)	(22-23)	(24-25)		(26-27)	(28-29)	(30-31)

NOTE: Read instructions before completing this form.

PARAMETER (32-37)	SAMPLE MEASUREMENT	(3 Card Only) QUANTITY OR LOADING (46-53)			(4 Card Only) QUALITY OR CONCENTRATION (54-63)				NO. EX (64-67)	FREQUENCY OF ANALYSIS (64-68)	SAMPLI TYPE (69-70)
		AVERAGE	MAXIMUM	UNITS	MINIMUM	AVERAGE	MAXIMUM	UNITS			
SANITARY WASTE DISCHARGED-ASSESSMENT		*****			*****	*****	*****				
55514 1 0 0	PERMIT REQUIREMENT	*****		YES=1	*****	*****	*****	***		ONCE/ VISUAL	
APPROXIMATE GROSS VALUE SOLIDS, TOTAL DISSOLVED		*****			*****	*****				ONCE/ VISUAL	
70295 0 0 0	PERMIT REQUIREMENT	*****	2000	DAILY BY LB5/DY	*****	*****	REPORT			ONCE/ VISUAL	
SEE COMMENTS 32107							DAILY BY LB5/L			ONCE/ VISUAL	
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										

NAME/TITLE PRINCIPAL EXECUTIVE OFFICER  
DAN W. GUY  
MGR. PERMITTING/COMPLIANCE  
 TYPED OR PRINTED

I CERTIFY UNDER PENALTY OF LAW THAT I HAVE PERSONALLY EXAMINED AND AM FAMILIAR WITH THE INFORMATION SUBMITTED HEREIN AND BASED ON MY KNOWLEDGE OF THESE INDIVIDUALS IMMEDIATELY RESPONSIBLE FOR OBTAINING THE INFORMATION I BELIEVE THE SUBMITTED INFORMATION IS TRUE ACCURATE AND COMPLETE I AM AWARE THAT THERE ARE SIGNIFICANT PENALTIES FOR SUBMITTING FALSE INFORMATION INCLUDING THE POSSIBILITY OF FINE AND IMPRISONMENT SEE 18 USC § 1001 AND 33 USC § 1319. Penalties under these statutes may include fines up to \$10,000 and/or maximum imprisonment of 5 years, 6 months, and 5 years.

*Dan W. Guy*  
 SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT

TELEPHONE  
 801 637-5050  
 DATE  
 90 07 30  
 AREA CODE NUMBER YEAR MO DAY

COMMENT AND EXPLANATION OF ANY VIOLATIONS (Reference all attachments here)  
 TDS IS LIMITED TO ONE PPM PER DAY FROM ALL OUTFALLS. SHALL BE TYPED INSTEAD OF TSS. REPORT DOES NOT APPLY IN THE APPROPRIATE BOX.  
 EPA Form 3320-1 (8-88) Previous editions may be used. (REPLACES EPA FORM T-1 WHICH MAY NOT BE USED.)  
 00020/050983-1933

NAME: CRPCK TVAL-COV SP33  
 ADDRESS: 101 1379  
CP DT: 84501

DISCHARGE MONITORING REPORT DMR, (12/19)  
 PERM. NUMBER: 001 A  
 DISCHARGE NUMBER: 001 A

P - FINAL  
 SED PBD DIFL-DEEG 08/200 EWR

FACILITY: \_\_\_\_\_  
 LOCATION: \_\_\_\_\_  
 ATTN: DAN W. GUY, MANAGER

MONITORING PERIOD							
FROM	YEAR	MO	DAY	TO	YEAR	MO	DAY
	97	05	01		97	05	31

(20-21), (22-23), (24-25) (26-27), (28-29), (30-31)

BINDER  
 NOTE: Read instructions before completing this form.

PARAMETER (32-37)	SAMPLE MEASUREMENT	(3 Card Only) QUANTITY OR LOADING (46-53)			(4 Card Only) QUALITY OR CONCENTRATION (46-53)				NO. EX (62-63)	FREQUENCY OF ANALYSIS (64-68)	SAMP. TYPE (69-70)
		AVERAGE	MAXIMUM	UNITS	MINIMUM	AVERAGE	MAXIMUM	UNITS			
FLOW RATE		NO DISCHARGE			*****	*****	*****				
00356 1 0 0 EFFLUENT GROSS VALUE	PERMIT REQUIREMENT	REPORT	REPORT		*****	*****	*****				
PH		30 DA AV	DAILY MX	SPD							ONCE/ YEAR MONTH
00400 1 0 0 EFFLUENT GROSS VALUE	SAMPLE MEASUREMENT	*****	*****								
00400 1 0 0 EFFLUENT GROSS VALUE	PERMIT REQUIREMENT	*****	*****	***	5.5	*****	9.0				TWICE/ GRAB MONTH
SOLIDS, TOTAL SUSPENDED		*****	*****		DAILY MX		DAILY MX	SD			
00530 P 0 0 SPE COMMENTS BELOW	SAMPLE MEASUREMENT	*****	*****		*****						
00530 P 0 0 SPE COMMENTS BELOW	PERMIT REQUIREMENT	*****	*****	***	*****	25	70				ONCE/ GRAB MONTH
SOLIDS, SETTLEABLE		*****	*****		*****	30 DA AV	DAILY MX	MG/L			
00545 R 0 0 SPE COMMENTS BELOW	SAMPLE MEASUREMENT	*****	*****		*****						
00545 R 0 0 SPE COMMENTS BELOW	PERMIT REQUIREMENT	*****	*****	***	*****	*****	0.5				ONCE/ GRAB MONTH
OIL AND GREASE FROM EXTR-GRAV SETP		*****	*****		*****						
00556 1 0 0 EFFLUENT GROSS VALUE	SAMPLE MEASUREMENT	*****	*****		*****						
00556 1 0 0 EFFLUENT GROSS VALUE	PERMIT REQUIREMENT	*****	*****	***	*****	*****	10				ONCE/ GRAB MONTH
IRON, TOTAL (AS FE)		*****	*****		*****						
01045 1 0 0 EFFLUENT GROSS VALUE	SAMPLE MEASUREMENT	*****	*****		*****						
01045 1 0 0 EFFLUENT GROSS VALUE	PERMIT REQUIREMENT	*****	*****	***	*****	*****	2.0				ONCE/ GRAB MONTH
FLOATING SOLIDS OR VISIBLE FOAM-VISUAL		*****			*****						
45613 1 0 0 EFFLUENT GROSS VALUE	SAMPLE MEASUREMENT	*****			*****						
45613 1 0 0 EFFLUENT GROSS VALUE	PERMIT REQUIREMENT	*****	0-	RES=1	*****	*****	*****	***			ONCE/ VISUAL MONTH

NAME/TITLE PRINCIPAL EXECUTIVE OFFICER  
DAN W. GUY  
MGR. PERMITTING/COMPLIANCE  
 TYPED OR PRINTED

I CERTIFY UNDER PENALTY OF LAW THAT I HAVE PERSONALLY EXAMINED AND AM FAMILIAR WITH THE INFORMATION SUBMITTED HEREON AND BASED ON MY KNOWLEDGE OF THOSE INDIVIDUALS IMMEDIATELY RESPONSIBLE FOR DETAILING THE INFORMATION I BELIEVE THE SUBMITTED INFORMATION IS TRUE ACCURATE AND COMPLETE I AM AWARE THAT THERE ARE SIGNIFICANT PENALTIES FOR SUBMITTING FALSE INFORMATION INCLUDING THE POSSIBILITY OF FINE AND IMPRISONMENT SEE 18 USC 1001 AND 33 USC 1319. Penalties under these statutes may include fines up to \$100,000 and/or maximum imprisonment of between 6 months and 5 years.

*Dan W. Guy*  
 SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT

TELEPHONE: 801 637-5050  
 DATE: 90 07 30  
 AREA CODE NUMBER YEAR MO DAY

COMMENT AND EXPLANATION OF ANY VIOLATIONS (Reference all attachments here)  
 TDS IS LIMITED TO ONE TON PER DAY FROM ALL DIPPALLS. DURING PRECIPITATION EVENTS, SETTLEABLE SOLIDS SHALL BE LIMITED INSTEAD OF TSS. REPORT DOES NOT APPLY IN THE APPROPRIATE ROW.

STATE OF NEW YORK  
 DEPARTMENT OF ENVIRONMENTAL CONSERVATION  
 PERMIT NO. 1379  
 DATE 07 24 50

DISCHARGE MONITORING REPORT DWR  
 (1-19)  
 001 A  
 PERMIT NUMBER DISCHARGE NUMBER

P - FINAL  
 SED PRO DTP-L-DENS D / PRO RVR

FACILITY \_\_\_\_\_  
 LOCATION \_\_\_\_\_  
 ATTN: DAN W. GUY, MANAGER

MONITORING PERIOD								
YEAR	MO	DAY	TO	YEAR	MO	DAY		
90	05	01		90	05	31		
(26-31)			(26-31)			(26-31)		

WINDR  
 NOTE: Read instructions before completing this form.

PARAMETER (32-37)	SAMPLE MEASUREMENT PERMIT REQUIREMENT	QUANTITY OR LOADING (46-53)			QUALITY OR CONCENTRATION (54-61)			NO. EX (62-63)	FREQUENCY OF ANALYSIS (64-68)	SAMPLE TYPE (69-70)
		AVERAGE	MAXIMUM	UNITS	MINIMUM	AVERAGE	MAXIMUM			
SANITARY WASTE DISCHARGED-ASSESSMENT 5514 1 0 0 EFFLUENT GROSS VALUE	SAMPLE MEASUREMENT	*****			*****	*****	*****			
	PERMIT REQUIREMENT	*****		TSS=1 DAILY EX SD=0	*****	*****	*****	***	3X/	VISUAL INCH
SOLIDS, TOTAL DISSOLVED 7295 2 0 0 SEE COMMENTS BELOW	SAMPLE MEASUREMENT	*****			*****	*****				
	PERMIT REQUIREMENT	*****	2000	DAILY EX LBS/DY	*****	*****	REPORT DAILY EX MG/L		3X/	GRAB INCH
	SAMPLE MEASUREMENT									
	PERMIT REQUIREMENT									
	SAMPLE MEASUREMENT									
	PERMIT REQUIREMENT									
	SAMPLE MEASUREMENT									
	PERMIT REQUIREMENT									
	SAMPLE MEASUREMENT									
	PERMIT REQUIREMENT									
	SAMPLE MEASUREMENT									
	PERMIT REQUIREMENT									

NAME/TITLE PRINCIPAL EXECUTIVE OFFICER  
 DAN W. GUY  
 MGR. PERMITTING/ COMPLIANCE  
 TYPED OR PRINTED

I CERTIFY UNDER PENALTY OF LAW THAT I HAVE PERSONALLY EXAMINED AND AM FAMILIAR WITH THE INFORMATION SUBMITTED HEREON AND BASED ON MY KNOWLEDGE OF THOSE INDIVIDUALS IMMEDIATELY RESPONSIBLE FOR OBTAINING THE INFORMATION I BELIEVE THE SUBMITTED INFORMATION IS TRUE, ACCURATE AND COMPLETE. I AM AWARE THAT THERE ARE SIGNIFICANT PENALTIES FOR SUBMITTING FALSE INFORMATION INCLUDING THE POSSIBILITY OF FINE AND IMPRISONMENT. SEE 18 USC § 1001 AND 33 USC § 1319. Penalties under these statutes may include fines up to \$100,000 and/or maximum imprisonment of five years and months and years.

*Dan W. Guy*  
 SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT

TELEPHONE  
 801 637-5050  
 DATE  
 90 07 30  
 AREA CODE NUMBER YEAR MO EXY

COMMENT AND EXPLANATION OF ANY VIOLATIONS (Reference all attachments here)

TDS IS LIMITED TO ONE TON PER DAY FROM ALL DOWNFALLS. DURING PRECIPITATION EVENTS, SETTLEABLE SOLIDS SHALL BE TSS INSTEAD OF TSS. REPORT DOES NOT APPLY IN THE APPROPRIATE BOX.

NAME: TRUCK COAL--CV SPT  
 ADDRESS: BOX 1378  
 CITY: PRILE STATE: NY ZIP: 80501

DISCHARGE PERMIT NUMBER: 07304 05  
 DISCHARGE NUMBER: 001 A

P - FINAL  
 SED AND DIFL-DBBS D.L.B/PRC RFR

FACILITY: \_\_\_\_\_  
 LOCATION: \_\_\_\_\_  
 ATTN: DAN W. GUY, MANAGER

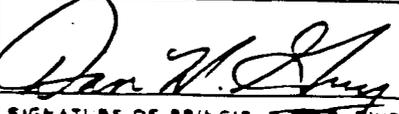
MONITORING PERIOD							
FROM	YEAR	MO	DAY	TO	YEAR	MO	DAY
	90	06	01		90	05	30

BIJOR  
 NOTE: Read instructions before completing this form.

PARAMETER (32-37)	SAMPLE MEASUREMENT	(3 Card Only) QUANTITY OR LOADING (46-53)			(4 Card Only) QUALITY OR CONCENTRATION (54-61)			NO. EX (62-63)	FREQUENCY OF ANALYSIS (64-68)	SAMPL TYPE (69-70)
		AVERAGE	MAXIMUM	UNITS	MINIMUM	AVERAGE	MAXIMUM			
FLOW RATE		NO DISCHARGE			*****	*****	*****			
00056 1 0 0 EFFLUENT GROSS VALUE	PERMIT REQUIREMENT	REPORT	REPORT		*****	*****	*****	****	ONCE/ YEAR	
PH	SAMPLE MEASUREMENT	*****	*****			*****			MONTH	
00400 1 0 0 EFFLUENT GROSS VALUE	PERMIT REQUIREMENT	*****	*****	****	6.5	*****	9.0		ONCE/ GRAB	
SOLIDS, TOTAL SUSPENDED	SAMPLE MEASUREMENT	*****	*****	****	DAILY MH		DAILY MX SJ		MONTH	
00530 P 0 0 SPE COMMENTS BELOW	PERMIT REQUIREMENT	*****	*****	****	*****	25	70		ONCE/ GRAB	
SOLIDS, SETTLEABLE	SAMPLE MEASUREMENT	*****	*****		*****	30 DA AV	DAILY MX ML/L		MONTH	
00545 R 0 0 SPE COMMENTS BELOW	PERMIT REQUIREMENT	*****	*****	****	*****	*****	0.5		ONCE/ GRAB	
OIL AND GREASE PROD EXPR-GRV MTH	SAMPLE MEASUREMENT	*****	*****		*****	*****			MONTH	
00555 1 0 0 EFFLUENT GROSS VALUE	PERMIT REQUIREMENT	*****	*****	****	*****	*****	10		ONCE/ GRAB	
IRON, TOTAL (AS FE)	SAMPLE MEASUREMENT	*****	*****		*****	*****			MONTH	
01045 1 0 0 EFFLUENT GROSS VALUE	PERMIT REQUIREMENT	*****	*****	****	*****	*****	2.0		ONCE/ GRAB	
FLOATING SOLIDS OR VISIBLE FOAM-VISUAL	SAMPLE MEASUREMENT	*****			*****	*****	*****		MONTH	
05513 1 0 0 EFFLUENT GROSS VALUE	PERMIT REQUIREMENT	*****	0	YES=1 DAILY MX NO=0	*****	*****	*****	****	ONCE/ VISUAL	

NAME, TITLE PRINCIPAL EXECUTIVE OFFICER:  
DAN W. GUY  
Mgr. PERMITTING/COMPLIANCE  
 TYPED OR PRINTED

I CERTIFY UNDER PENALTY OF LAW THAT I HAVE PERSONALLY EXAMINED AND AM FAMILIAR WITH THE INFORMATION SUBMITTED HEREIN AND BASED ON MY KNOWLEDGE OF THOSE PROVISIONS IMMEDIATELY RESPONSIBLE FOR OBTAINING THE INFORMATION I BELIEVE THE SUBMITTED INFORMATION IS TRUE, ACCURATE AND COMPLETE. I AM AWARE THAT THERE ARE SIGNIFICANT PENALTIES FOR SUBMITTING FALSE INFORMATION INCLUDING THE POSSIBILITY OF FINE AND IMPRISONMENT. SEE 18 USC § 1001 AND 33 USC § 1319. Penalties under these statutes may include fines up to \$10,000 and/or maximum imprisonment of between 6 months and 5 years.

SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT:  


TELEPHONE: 801 637-5050  
 DATE: 90 07 30  
 AREA CODE NUMBER YEAR MO DAY

COMMENT AND EXPLANATION OF ANY VIOLATIONS: (Reference all attachments here)  
 TDS IS LIMITED TO ONE TON PER DAY FROM ALL DOWNFALLS. DURING PRECIPITATION EVENTS, SETTLEABLE SOLIDS SHALL BE LIMITED INSTEAD OF TSS. REPORT "DOES NOT APPLY" IS THE APPROPRIATE ROW.

NAME: SPRINKLER COLL-COY SP1R  
 ADDRESS: 90X 1378  
 PHONE: DP 93501

DISCHARGE MONITORING REPORT (MWR) (17-19)  
 DTG: 05 PERMIT NUMBER  
 001 A DISCHARGE NUMBER

F - FINAL  
 SED PFD DTPL-ORNG . 5/PBC EVR

FACILITY: \_\_\_\_\_  
 LOCATION: \_\_\_\_\_

MONITORING PERIOD						
YEAR	MO	DAY	TO	YEAR	MO	DAY
93	05	01		93	05	30
(20-21)		(22-23)	(24-25)	(26-27)		(28-29) (30-31)

SIGOR  
 NOTE: Read instructions before completing this form.

ATTN: DAN W. GUY, MANAGER

PARAMETER (32-37)	X	(3 Card Only) QUANTITY OR LOADING (46-53)			(4 Card Only) QUALITY OR CONCENTRATION (54-61)			NO. EX (62-65)	FREQUENCY OF ANALYSIS (66-68)	SAMPL. TYPE (69-70)
		AVERAGE	MAXIMUM	UNITS	MINIMUM	AVERAGE	MAXIMUM			
SANITARY WASTE DISCHARGED-ASSESSMENT R5614 1 0 0 EFFLUENT GROSS VALUE	SAMPLE MEASUREMENT	*****			*****	*****	*****			
	PERMIT REQUIREMENT	*****	3	YES=1 DAILY MX NO=0	*****	*****	*****		ONCE/ VISUAL MONTH	
SOLIDS, TOTAL DISSOLVED 70295 0 0 0 SEE COMMENTS BELOW	SAMPLE MEASUREMENT	*****			*****	*****				
	PERMIT REQUIREMENT	*****	2000	DAILY MX LBS/DY	*****	*****	REPORT DAILY MX MG/L		ONCE/ GRAB MONTH	
	SAMPLE MEASUREMENT									
	PERMIT REQUIREMENT									
	SAMPLE MEASUREMENT									
	PERMIT REQUIREMENT									
	SAMPLE MEASUREMENT									
	PERMIT REQUIREMENT									
	SAMPLE MEASUREMENT									
	PERMIT REQUIREMENT									
	SAMPLE MEASUREMENT									
	PERMIT REQUIREMENT									

NAME/TITLE PRINCIPAL EXECUTIVE OFFICER  
 DAN W. GUY  
 MGR. PERMITTING/COMPLIANCE  
 TYPED OR PRINTED

I CERTIFY UNDER PENALTY OF LAW THAT I HAVE PERSONALLY EXAMINED AND AM FAMILIAR WITH THE INFORMATION SUBMITTED HEREON AND BASED ON MY KNOWLEDGE OF THOSE INDIVIDUALS IMMEDIATELY RESPONSIBLE FOR OBTAINING THE INFORMATION I BELIEVE THE SUBMITTED INFORMATION IS TRUE ACCURATE AND COMPLETE. I AM AWARE THAT THERE ARE SIGNIFICANT PENALTIES FOR SUBMITTING FALSE INFORMATION, INCLUDING THE POSSIBILITY OF FINE AND IMPRISONMENT SEE 18 USC 1001 AND 33 USC 1319. Penalties under these statutes may include fines up to \$10,000 and/or maximum imprisonment of between 6 months and 5 years.

*Dan W. Guy*  
 SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT

TELEPHONE: 801 | 637-5050  
 DATE: 90 | 07 | 30  
 AREA CODE | NUMBER | YEAR | MO | DAY

COMMENT AND EXPLANATION OF ANY VIOLATIONS (Reference all attachments here)

TDS IS LIMITED TO ONE TON PER DAY FROM ALL OUTFALLS. DURING PRECIPITATION EVENTS, SEPTLEABLE SOLIDS SHALL BE LIMITED INSTEAD OF TSS. REPORT DOES NOT APPLY IN THE APPROPRIATE ROW.

**BEAVER CREEK Coal Company**

Post Office Box 1378  
Price, Utah 84501  
Telephone 801 637-5050



April 26, 1990

Donald A. Hilden, Ph.D., Chief  
Permits and Compliance Section  
Bureau of Water Pollution Control  
Utah Division of Environmental Health  
288 North 1460 West  
P.O. Box 16690  
Salt Lake City, Utah 84116-0690

Dear Mr. Hilden:

Enclosed please find Quarterly Discharge Monitoring Reports for Beaver Creek Coal Company's UPDES Permit Numbers UTG040003, UTG040004, and UTG040005. These reports are on the preprinted DMRs provided by the State of Utah, and cover the first quarter of 1990.

If you have any questions or need any additional information, please contact me.

Respectfully,

A handwritten signature in black ink, appearing to read "Dan W. Guy".

Dan W. Guy  
Mgr. Permitting/Compliance

DWG/pd

Enclosures

cc: Donna Franklin, E.P.A.  
Lowell Braxton, UDOGM  
File

**BEAVER CREEK Coal Company**

Post Office Box 1378  
Price, Utah 84501  
Telephone 801 637-5050



April 26, 1990

Mr. Lowell Braxton, Administrator  
Utah Division of Oil, Gas & Mining  
355 West North Temple  
3 Triad Center, Suite 350  
Salt Lake City, Utah 84180-1203

Dear Mr. Braxton:

Enclosed please find Quarterly Discharge Monitoring Reports for Beaver Creek Coal Company's UPDES Permit Numbers UTG040003, UTG040004, and UTG040005. These reports are on the preprinted DMRs provided by the State of Utah, and cover the first quarter of 1990.

If you have any questions or need any additional information, please contact me.

Respectfully,

Dan W. Guy  
Mgr. Permitting/Compliance

DWG/pd

Enclosures

**BEAVER CREEK Coal Company**

Post Office Box 1378  
Price, Utah 84501  
Telephone 801 637-5050



April 26, 1990

Ms. Donna Franklin  
U.S.E.P.A., Region VIII  
999 18th Street  
Denver, Place - Suite 500  
Denver, CO 80202-2405

WM-C

Dear Ms. Franklin:

Enclosed please find Quarterly Discharge Monitoring Reports for Beaver Creek Coal Company's UPDES Permit Numbers UTC040003, UTC040004, and UTC040005. These reports are on the preprinted DMRs provided by the State of Utah, and cover the first quarter of 1990.

If you have any questions or need any additional information, please contact me.

Respectfully,

Dan W. Guy  
Mgr. Permitting/Compliance

DWG/pd

Enclosures

File 4-E-2-1

NAME PERMIT NO. 00000000-00000000  
 ADDRESS 1234 5678  
 CITY STATE ZIP 12345 67890

DISCHARGE PERMIT NUMBER 001 2  
 (17-19) DISCHARGE NUMBER

F - FISCAL  
 SED PNO DIFL-DENG

FACILITY \_\_\_\_\_  
 LOCATION \_\_\_\_\_  
 ATTN: DAN W. GUY, MANAGER

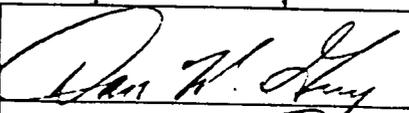
MONITORING PERIOD							
FROM	YEAR	MO	DAY	TO	YEAR	MO	DAY
	90	05	01		90	03	31
	(20-21)	(22-23)	(24-25)		(26-27)	(28-29)	(30-31)

NOTE: Read instructions before completing this form.

PARAMETER (32-37)	SAMPLE MEASUREMENT	(3 Card Only) QUANTITY OR LOADING (46-53)			(4 Card Only) QUALITY OR CONCENTRATION (54-61)			NO. EX (62-63)	FREQUENCY OF ANALYSIS (64-68)	SAMP. TYPE (69-70)
		AVERAGE	MAXIMUM	UNITS	MINIMUM	AVERAGE	MAXIMUM			
FLOW RATE		NO DISCHARGE			*****					
00056 1 0 0 EFFLUENT GROSS VALUE	PERMIT REQUIREMENT	REPORT	REPORT		*****	*****	*****		ONCE/MONTH	BASE
PH	SAMPLE MEASUREMENT	*****	*****			*****				
00400 1 0 0 EFFLUENT GROSS VALUE	PERMIT REQUIREMENT	*****	*****	*****	6.5	*****	9.0		TWICE/MONTH	GRAB
SOLIDS, TOTAL SUSPENDED	SAMPLE MEASUREMENT	*****	*****		*****					
00530 P 0 0 SEE COMMENTS BELOW	PERMIT REQUIREMENT	*****	*****	*****	*****	25	70		ONCE/MONTH	GRAB
SOLIDS, SETTLEABLE	SAMPLE MEASUREMENT	*****	*****		*****	*****				
00545 R 0 0 SEE COMMENTS BELOW	PERMIT REQUIREMENT	*****	*****	*****	*****	*****	0.5		ONCE/MONTH	GRAB
OIL AND GREASE	SAMPLE MEASUREMENT	*****	*****		*****	*****				
PERM. EXTR. GRAV METH	PERMIT REQUIREMENT	*****	*****	*****	*****	*****	10		ONCE/MONTH	GRAB
00556 1 0 0 EFFLUENT GROSS VALUE	SAMPLE MEASUREMENT	*****	*****		*****	*****				
IRON, TOTAL (AS FE)	PERMIT REQUIREMENT	*****	*****	*****	*****	*****	2.0		ONCE/MONTH	GRAB
01045 1 0 0 EFFLUENT GROSS VALUE	SAMPLE MEASUREMENT	*****	*****		*****	*****				
FLOATING SOLIDS OR VISIBLE FOAM-VISUAL	PERMIT REQUIREMENT	*****	*****	YES=1 NO=0	*****	*****	*****		ONCE/MONTH	VISUAL
45613 1 0 0 EFFLUENT GROSS VALUE										

NAME/TITLE PRINCIPAL EXECUTIVE OFFICER  
 DAN W. GUY  
 Mr. Permitting/Compliance  
 TYPED OR PRINTED

I CERTIFY UNDER PENALTY OF LAW THAT I HAVE PERSONALLY EXAMINED AND AM FAMILIAR WITH THE INFORMATION SUBMITTED HEREIN AND BASED ON MY INQUIRY OF THOSE INDIVIDUALS IMMEDIATELY RESPONSIBLE FOR OBTAINING THE INFORMATION I BELIEVE THE SUBMITTED INFORMATION IS TRUE ACCURATE AND COMPLETE I AM AWARE THAT THERE ARE SIGNIFICANT PENALTIES FOR SUBMITTING FALSE INFORMATION INCLUDING THE POSSIBILITY OF FINE AND IMPRISONMENT SEE 18 USC § 1001 AND 33 USC § 1319 (Penalties under these statutes may include fines up to \$1,000 and/or maximum imprisonment of between 6 months and 5 years.)

SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT  


TELEPHONE 801 432-5850  
 DATE 90 04 23  
 AREA CODE NUMBER YEAR MO DAY

COMMENT AND EXPLANATION OF ANY VIOLATIONS (Reference all attachments here)

TDS IS LIMITED TO ONE TON PER DAY FROM ALL DOWNFALLS. DURING PRECIPITATION EVENTS, SETTLEABLE SOLIDS SHALL BE LIMITED INSTEAD OF TSS. REPORT "DOES NOT APPLY" IN THE APPROPRIATE ROW.

NAME BFB 3325Z COL--NY SPR  
 ADDRESS 1 BOX 137A  
ICE NY 10451

PERMIT NUMBER 001 A  
 DISCHARGE NUMBER 001 A

F - FINAL  
 SPD PAD DTFL-ORNG W. OR/PRO SUR

FACILITY \_\_\_\_\_  
 LOCATION \_\_\_\_\_  
 ATTN: DAN W. GUY, MANAGER

MONITORING PERIOD					
FROM			TO		
YEAR	MO	DAY	YEAR	MO	DAY
90	03	01	90	03	31
(20-21)	(22-23)	(24-25)	(26-27)	(28-29)	(30-31)

NOTE: Read instructions before completing this form.

PARAMETER (32-37)	SAMPLE MEASUREMENT	(3 Card Only) QUANTITY OR LOADING (46-53)			(4 Card Only) QUALITY OR CONCENTRATION (54-61)				NO. EX (62-63)	FREQUENCY OF ANALYSIS (64-68)	SAMPL TYPE (69-70)
		AVERAGE	MAXIMUM	UNITS	MINIMUM	AVERAGE	MAXIMUM	UNITS			
SANITARY WASTE DISCHARGED-ASSESSMENT 45614 1 0 0 EFFLUENT GROSS VALUE	*****				*****	*****	*****				
	PERMIT REQUIREMENT	*****	3	DAILY *X	*****	*****	*****	****		ONCE/ 150A MONTH	
SOLIDS, TOTAL DISSOLVED 70295 0 0 0 SEE COMMENTS BELOW	*****				*****	*****					
	PERMIT REQUIREMENT	*****	2000	DAILY *X LBS/DT	*****	*****	REPORT DAILY *X	15/L		ONCE/ 30A MONTH	
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										

NAME/TITLE PRINCIPAL EXECUTIVE OFFICER  
Dan W. Guy  
Permitting/Compliance Mngr.  
 TYPED OR PRINTED

I CERTIFY UNDER PENALTY OF LAW THAT I HAVE PERSONALLY EXAMINED AND AM FAMILIAR WITH THE INFORMATION SUBMITTED HEREIN AND BASED ON MY INQUIRY OF THOSE INDIVIDUALS IMMEDIATELY RESPONSIBLE FOR OBTAINING THE INFORMATION I BELIEVE THE SUBMITTED INFORMATION IS TRUE ACCURATE AND COMPLETE. I AM AWARE THAT THERE ARE SIGNIFICANT PENALTIES FOR SUBMITTING FALSE INFORMATION INCLUDING THE POSSIBILITY OF FINE AND IMPRISONMENT SEE 18 USC § 1001 AND 33 USC § 1319. (Penalties under these statutes may include fines up to \$10,000 and/or maximum imprisonment of 6 months, and 5 years.)

*Dan W. Guy*  
 SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT

TELEPHONE 601 | 637-5050  
 DATE 90 04 23  
 AREA CODE NUMBER YEAR MO DAY

COMMENT AND EXPLANATION OF ANY VIOLATIONS (Reference all attachments here)  
TDS IS LIMITED TO ONE TON PER DAY FROM ALL OUTFALLS. DURING PRECIPITATION EVENTS, SETTLEABLE SOLIDS SHALL BE LIMITED INSTEAD OF TSS. REPORT DOES NOT APPLY IN THE APPROPRIATE ROW.

NAME: REX COAL-TV SHOP  
 ADDRESS: 404 137A  
UT 84801

DISCHARGE MONITORING REPORT (DMR)  
 (17-19)  
 PERMIT NUMBER: 0013  
 DISCHARGE NUMBER: 0013

F - FINAL  
 SED BID 00PL-00NG 1100/PRO RV

FACILITY: \_\_\_\_\_  
 LOCATION: \_\_\_\_\_  
 ATTN: DAN W. GUY, MANAGER

MONITORING PERIOD  
 FROM YEAR 93 MO 07 DAY 01 TO YEAR 93 MO 02 DAY 27  
 (20-21) (22-23) (24-25) (26-27) (28-29) (30-31)

MINOR  
 NOTE: Read instructions before completing this form.

PARAMETER (32-37)	SAMPLE MEASUREMENT	(3 Card Only) QUANTITY OR LOADING (46-53)			(4 Card Only) QUALITY OR CONCENTRATION (38-43)				NO. EX (62-63)	FREQUENCY OF ANALYSIS (64-68)	SAMP TYPE (69-71)
		AVERAGE	MAXIMUM	UNITS	MINIMUM	AVERAGE	MAXIMUM	UNITS			
FLOW RATE		NO DISCHARGE			*****	*****	*****				
00056 1 0 0 EFFLUENT GROSS VALUE	PERMIT REQUIREMENT	REPORT	REPORT		*****	*****	*****	****		ONCE/	WEEK
00000 1 0 0 EFFLUENT GROSS VALUE	PERMIT REQUIREMENT	*****	*****	****	*****	*****	*****				
SOLIDS, TOTAL SUSPENDED	SAMPLE MEASUREMENT	*****	*****	****	*****	*****	*****				
00530 P 0 0 SEE COMMENTS BELOW	PERMIT REQUIREMENT	*****	*****	****	*****	25	70			ONCE/	YEAR
SOLIDS, SETTLEABLE	SAMPLE MEASUREMENT	*****	*****	****	*****	*****	*****				
00545 R 0 0 SEE COMMENTS BELOW	PERMIT REQUIREMENT	*****	*****	****	*****	*****	0.5			ONCE/	YEAR
OIL AND GREASE	SAMPLE MEASUREMENT	*****	*****	****	*****	*****	*****				
00556 1 0 0 EFFLUENT GROSS VALUE	PERMIT REQUIREMENT	*****	*****	****	*****	*****	10			ONCE/	YEAR
IRON, TOTAL (AS FE)	SAMPLE MEASUREMENT	*****	*****	****	*****	*****	*****				
01045 1 0 0 EFFLUENT GROSS VALUE	PERMIT REQUIREMENT	*****	*****	****	*****	*****	2.0			ONCE/	YEAR
FLOATING SOLIDS OR VISIBLE FOAM-VISUAL	SAMPLE MEASUREMENT	*****	*****	****	*****	*****	*****				
05613 1 0 0 EFFLUENT GROSS VALUE	PERMIT REQUIREMENT	*****	0	YES=1 NO=0	*****	*****	*****	****		ONCE/	VISUAL MONTH

NAME/TITLE PRINCIPAL EXECUTIVE OFFICER  
DAN W. GUY  
Mgr. Plant Operations  
 TYPED OR PRINTED

I CERTIFY UNDER PENALTY OF LAW THAT I HAVE PERSONALLY EXAMINED AND AM FAMILIAR WITH THE INFORMATION SUBMITTED HEREIN AND BASED ON MY INQUIRY OF THOSE INDIVIDUALS IMMEDIATELY RESPONSIBLE FOR OBTAINING THE INFORMATION I BELIEVE THE SUBMITTED INFORMATION IS TRUE ACCURATE AND COMPLETE I AM AWARE THAT THERE ARE SIGNIFICANT PENALTIES FOR SUBMITTING FALSE INFORMATION INCLUDING THE POSSIBILITY OF FINE AND IMPRISONMENT SEE 18 USC § 1001 AND 33 USC § 1319. Penalties under these statutes may include fines up to \$100,000 and/or maximum imprisonment of between 6 months and 5 years.

Dan W. Guy  
 SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT

TELEPHONE: 801/637-5050  
 DATE: 90 04 23  
 AREA CODE NUMBER YEAR MO DAY

COMMENT AND EXPLANATION OF ANY VIOLATIONS (Reference all attachments here)  
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Facility Name/Location (if different)  
 NAME 0011 GREEN HOLE--TV SPUR  
 ADDRESS BOX 1378  
 PHONE UT 84501

DISCHARGE MONITORING REPORT (DMR)  
 (17-19)  
 0001 05  
 PERMIT NUMBER  
 001 A  
 DISCHARGE NUMBER

F - FINAL  
 000 PND DEFL-ORNG 1 1/2 PPO EMI

FACILITY \_\_\_\_\_  
 LOCATION \_\_\_\_\_  
 ATTN: DAN W. GUY, MANAGER

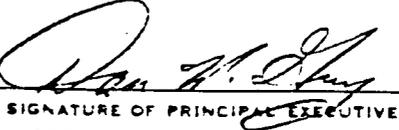
MONITORING PERIOD  
 FROM YEAR MO DAY TO YEAR MO DAY  
 90 01 31 (20-21) (22-23) (24-25) 90 01 31 (26-27) (28-29) (30-31)

MINOR  
 NOTE: Read instructions before completing this form.

PARAMETER (32-37)	SAMPLE MEASUREMENT	(3 Card Only) QUANTITY OR LOADING (46-53)			(4 Card Only) QUALITY OR CONCENTRATION (54-61)				NO. EX (62-63)	FREQUENCY OF ANALYSIS (64-68)	SAMPL. TYPE (69-70)
		AVERAGE	MAXIMUM	UNITS	MINIMUM	AVERAGE	MAXIMUM	UNITS			
FLOW RATE		NO DISCHARGE									
00056 1 0 0 EFFLUENT GROSS VALUE	PERMIT REQUIREMENT	REPORT 30 DA AV	REPORT DAILY MX	GPD	*****	*****	*****	****		ONCE/ MONTH	WASH
PH	SAMPLE MEASUREMENT	*****	*****			*****					
00400 1 0 0 EFFLUENT GROSS VALUE	PERMIT REQUIREMENT	*****	*****	***	5.5	*****	9.0			ONCE/ MONTH	GRAB
SOLIDS, TOTAL SUSPENDED	SAMPLE MEASUREMENT	*****	*****		*****						
00530 P 0 0 SEE COMMENTS BELOW	PERMIT REQUIREMENT	*****	*****	***	*****	25	70			ONCE/ MONTH	GRAB
SOLIDS, SETTLEABLE	SAMPLE MEASUREMENT	*****	*****		*****	*****					
00545 P 0 0 SEE COMMENTS BELOW	PERMIT REQUIREMENT	*****	*****	***	*****	*****	0.5			ONCE/ MONTH	GRAB
OIL AND GREASE FROM EXTR-GRAV METH	SAMPLE MEASUREMENT	*****	*****		*****	*****					
00556 1 0 0 EFFLUENT GROSS VALUE	PERMIT REQUIREMENT	*****	*****	***	*****	*****	10			ONCE/ MONTH	GRAB
IRON, TOTAL (AS FE)	SAMPLE MEASUREMENT	*****	*****		*****	*****					
01045 1 0 0 EFFLUENT GROSS VALUE	PERMIT REQUIREMENT	*****	*****	***	*****	*****	2.0			ONCE/ MONTH	GRAB
FLOATING SOLIDS OR VISIBLE FOAM-VISUAL	SAMPLE MEASUREMENT	*****			*****	*****	*****				
45613 1 0 0 EFFLUENT GROSS VALUE	PERMIT REQUIREMENT	*****		YES=1 DAILY MX NO=0	*****	*****	*****	****		ONCE/ MONTH	VISUAL

NAME/TITLE PRINCIPAL EXECUTIVE OFFICER  
 DAN W. GUY  
 Mgr. Permitting/Compliance  
 TYPED OR PRINTED

I CERTIFY UNDER PENALTY OF LAW THAT I HAVE PERSONALLY EXAMINED AND AM FAMILIAR WITH THE INFORMATION SUBMITTED HEREIN AND BASED ON MY INQUIRY OF THOSE INDIVIDUALS IMMEDIATELY RESPONSIBLE FOR OBTAINING THE INFORMATION, I BELIEVE THE SUBMITTED INFORMATION IS TRUE ACCURATE AND COMPLETE. I AM AWARE THAT THERE ARE SIGNIFICANT PENALTIES FOR SUBMITTING FALSE INFORMATION INCLUDING THE POSSIBILITY OF FINE AND IMPRISONMENT SEE 18 USC § 1001 AND 33 USC § 1319. (Penalties under these statutes may include fines up to \$11,000 and/or maximum imprisonment of between 6 months and 5 years.)

SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT  


TELEPHONE NUMBER  
 801 437-5050  
 DATE  
 90 01 23

COMMENT AND EXPLANATION OF ANY VIOLATIONS (Reference all attachments here)

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**BEAVER CREEK Coal Company**

Post Office Box 1378  
Price, Utah 84501  
Telephone 801 637-5050



January 31, 1990

Donald A. Hilden, Ph.D., Chief  
Permits and Compliance Section  
Bureau of Water Pollution Control  
Utah Division of Environmental Health  
288 North 1460 West  
P.O. Box 16690  
Salt Lake City, Utah 84116-0690

Dear Mr. Hilden:

Enclosed Please find Quarterly Discharge Monitoring Reports for Beaver Creek Coal Company's UPDES Permit Numbers UTG040003, UTC040004, and UTG040005. These were formally NPDES Permits UT-0023728, UT-0023124 and UT-0023949, respectively. Former permit numbers UT-0023116 and UT-0023060 have now been cancelled. These reports are on the preprinted DMRs provided by the State of Utah, and cover the fourth quarter of 1989.

If you have any questions or need any additional information, please contact me.

Respectfully,

A handwritten signature in cursive script, appearing to read "Dan W. Guy".

Dan W. Guy  
Mgr. Permitting/Compliance

DWG/nc

Enclosures

cc: Donna Franklin, E.P.A.  
Lowell Braxton, UDGOM  
File

**BEAVER CREEK Coal Company**

Post Office Box 1378  
Price, Utah 84501  
Telephone 801 637-5050



January 31, 1990

Ms. Donna Franklin  
U.S.E.P.A., Region VIII  
999 18th Street  
Denver Place - Suite 500     WM-C  
Denver, CO     80202-2405

Dear Ms. Franklin:

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Respectfully,

Dan W. Guy  
Mgr. Permitting/Compliance

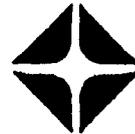
DWG/nc

Enclosures

File 4-E-2-1

**BEAVER CREEK Coal Company**

Post Office Box 1378  
Price, Utah 84501  
Telephone 801 637-5050



January 31, 1990

Mr. Lowell Braxton, Administrator  
Utah Division of Oil, Gas & Mining  
355 West North Temple  
3 Triad Center, Suite 350  
Salt Lake City, Utah 84180-1203

Dear Mr. Braxton:

Enclosed Please find Quarterly Discharge Monitoring Reports for Beaver Creek Coal Company's UPDES Permit Numbers UTG040003, UTG040004, and UTG040005. These were formally NPDES Permits UT-0023728, UT-0023124 and UT-0023949, respectively. Former permit numbers UT-0023116 and UT-0023060 have now been cancelled. These reports are on the preprinted DMRs provided by the State of Utah, and cover the fourth quarter of 1989.

If you have any questions or need any additional information, please contact me.

Respectfully,

A handwritten signature in cursive script that reads "Dan W. Guy".

Dan W. Guy  
Mgr. Permitting/Compliance

DWG/nc

Enclosures

NAME: OFFICE COLLECTOR SUPER  
 ADDRESS: RD 1375  
PAUSE VT 05501

DISCHARGE PERMIT NUMBER: 001 3  
 DISCHARGE NUMBER: 001 3

F - FINAL  
 SFD PLO DTEL-DRNG  
 PBO SWR

FACILITY: \_\_\_\_\_  
 LOCATION: \_\_\_\_\_  
 ATTN: DAN W. GUY, MANAGER

MONITORING PERIOD							
FROM	YEAR	MO	DAY	TO	YEAR	MO	DAY
	89	10	31		89	10	31
	(120-21)	(122-23)	(24-25)		(26-27)	(28-29)	(30-31)

MINOR  
 NOTE: Read instructions before completing this form.

PARAMETER (32-37)	SAMPLE MEASUREMENT	(3 Card Only) QUANTITY OR LOADING (46-53)			(4 Card Only) QUALITY OR CONCENTRATION (54-61)				NO. EX (62-63)	FREQUENCY OF ANALYSIS (64-68)	SAMPLE TYPE (69-70)
		AVERAGE	MAXIMUM	UNITS	MINIMUM	AVERAGE	MAXIMUM	UNITS			
FLOW RATE		NO DISCHARGE			*****						
00055 1 0 0 EFFLUENT GROSS VALUE	PERMIT REQUIREMENT	REPORT 30 DA AV	REPORT DAILY MY	GPD	*****	*****	*****	*****		ONCE/MONTH	MEASRD
PH	SAMPLE MEASUREMENT	*****	*****			*****					
00400 1 0 0 EFFLUENT GROSS VALUE	PERMIT REQUIREMENT	*****	*****	5.5 DAILY MY	*****	*****	9.0 DAILY MY	50		TRICE/GRAB MONTH	
SOLIDS, TOTAL SUSPENDED	SAMPLE MEASUREMENT	*****	*****		*****						
00530 P 0 0 SFD COMMENTS BELOW	PERMIT REQUIREMENT	*****	*****	*****	*****	25 30 DA AV	70 DAILY MY	MS/L		ONCE/GRAB MONTH	
SOLIDS, SETTLEABLE	SAMPLE MEASUREMENT	*****	*****		*****	*****					
00545 R 0 0 SFD COMMENTS BELOW	PERMIT REQUIREMENT	*****	*****	*****	*****	*****	0.5 DAILY MY	ML/L		ONCE/GRAB MONTH	
OIL AND GREASE FRESH EXTR-GRAV METH	SAMPLE MEASUREMENT	*****	*****		*****	*****					
00556 1 0 0 EFFLUENT GROSS VALUE	PERMIT REQUIREMENT	*****	*****	*****	*****	*****	10 DAILY MY	MS/L		ONCE/GRAB MONTH	
TSS, TOTAL (AS FE)	SAMPLE MEASUREMENT	*****	*****		*****	*****					
01045 1 0 0 EFFLUENT GROSS VALUE	PERMIT REQUIREMENT	*****	*****	*****	*****	*****	2.0 DAILY MY	MS/L		ONCE/GRAB MONTH	
FLOATING SOLIDS OR VISIBLE FOAM-VISUAL	SAMPLE MEASUREMENT	*****			*****	*****	*****				
45513 1 0 0 EFFLUENT GROSS VALUE	PERMIT REQUIREMENT	*****		TSS=1 DAILY MY	*****	*****	*****	*****		ONCE/VISUAL MONTH	

NAME/TITLE PRINCIPAL EXECUTIVE OFFICER  
DAN W. Guy  
Mgr. Permitting/Compliance  
 TYPED OR PRINTED

I CERTIFY UNDER PENALTY OF LAW THAT I HAVE PERSONALLY EXAMINED AND AM FAMILIAR WITH THE INFORMATION SUBMITTED HEREIN AND BASED ON MY INQUIRY OF THOSE INDIVIDUALS IMMEDIATELY RESPONSIBLE FOR OBTAINING THE INFORMATION I BELIEVE THE SUBMITTED INFORMATION IS TRUE ACCURATE AND COMPLETE. I AM AWARE THAT THERE ARE SIGNIFICANT PENALTIES FOR SUBMITTING FALSE INFORMATION INCLUDING THE POSSIBILITY OF FINE AND IMPRISONMENT SEE 18 USC § 1001 AND 33 USC § 1319. Penalties under these statutes may include fines up to \$10,000 and/or maximum imprisonment of between 6 months and 5 years.

Dan W. Guy  
 SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT

TELEPHONE: 801 437-5057  
 DATE: 90 01 15  
 AREA CODE: 801 NUMBER: 437-5057 YEAR: 90 MO: 01 DAY: 15

COMMENT AND EXPLANATION OF ANY VIOLATIONS (Reference all attachments here)

TSS IS LIMITED TO ONE TON PER DAY FROM ALL OUTFALLS. DURING PRECIPITATION EVENTS, SETTLEABLE SOLIDS SHALL BE LIMITED INSTEAD OF TSS. REPORT "DOES NOT APPLY" IN THE APPROPRIATE ROW.

NAME BEV DRIF COAL--OF SPUR  
 ADDRESS RDY 1378  
 CITY HT 64501  
 FACILITY \_\_\_\_\_  
 LOCATION \_\_\_\_\_

DISCHARGE MONITORING REPORT (DMR)  
 (17-19)  
 PERMIT NUMBER 001 A  
 DISCHARGE NUMBER \_\_\_\_\_

MONITORING PERIOD  
 FROM YEAR 89 MO 10 DAY 31 TO YEAR 89 MO 10 DAY 31  
 (20-21) (22-23) (24-25) (26-27) (28-29) (30-31)

P - FINAL  
 SEP PHD ODFL-DRNG  
 MINOR  
 NOTE: Read instructions before completing this form.

ATTN: DAN W. GUY, MANAGER

PARAMETER (32-37)	SAMPLE MEASUREMENT PERMIT REQUIREMENT	(3 Card Only) QUANTITY OR LOADING (46-53)			(4 Card Only) QUALITY OR CONCENTRATION (54-61)			NO. EX (62-63)	FREQUENCY OF ANALYSIS (64-68)	SAMPLI TYPE (69-70)
		AVERAGE	MAXIMUM	UNITS	MINIMUM	AVERAGE	MAXIMUM			
SEWAGE TREATMENT PLANT DISCHARGE-ASSESSMENT 45614 1 0 0 EFFLUENT GROSS VALUE	SAMPLE MEASUREMENT PERMIT REQUIREMENT	*****	*****	UNITS DAILY *X YES=1 NO=0	*****	*****	*****		ONCE/MONTH	VISUAL
SOLIDS, TOTAL DISSOLVED 70295 0 0 0 SEE COMMENTS BELOW	SAMPLE MEASUREMENT PERMIT REQUIREMENT	*****	*****	UNITS DAILY *X LES/DY	*****	*****	REPORT DAILY *X MG/L		ONCE/MONTH	LAB
	SAMPLE MEASUREMENT PERMIT REQUIREMENT									
	SAMPLE MEASUREMENT PERMIT REQUIREMENT									
	SAMPLE MEASUREMENT PERMIT REQUIREMENT									
	SAMPLE MEASUREMENT PERMIT REQUIREMENT									
	SAMPLE MEASUREMENT PERMIT REQUIREMENT									
	SAMPLE MEASUREMENT PERMIT REQUIREMENT									

NAME/TITLE PRINCIPAL EXECUTIVE OFFICER  
DAN W. GUY  
Mgr. Permitting/Compliance  
 TYPED OR PRINTED

I CERTIFY UNDER PENALTY OF LAW THAT I HAVE PERSONALLY EXAMINED AND AM FAMILIAR WITH THE INFORMATION SUBMITTED HEREIN AND BASED ON MY INQUIRY OF THOSE INDIVIDUALS IMMEDIATELY RESPONSIBLE FOR OBTAINING THE INFORMATION I BELIEVE THE SUBMITTED INFORMATION IS TRUE ACCURATE AND COMPLETE I AM AWARE THAT THERE ARE SIGNIFICANT PENALTIES FOR SUBMITTING FALSE INFORMATION INCLUDING THE POSSIBILITY OF FINE AND IMPRISONMENT SEE 18 USC § 1001 AND 33 USC § 1319 (Penalties under these statutes may include fines up to \$11,000 and/or maximum imprisonment of between 6 months and 5 years)

Dan W. Guy  
 SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT

TELEPHONE 801 637-5030 DATE 90 01 15  
 AREA CODE NUMBER YEAR MO DAY

COMMENT AND EXPLANATION OF ANY VIOLATIONS (Reference all attachments here)  
 TDS IS LIMITED TO ONE TON PER DAY FROM ALL OUTFALLS. DURING PRECIPITATION EVENTS, SPITTABLE SOLIDS SHALL BE LIMITED INSTEAD OF TSS. REPORT "DOES NOT APPLY" IN THE APPROPRIATE ROW.

NAME REV. WEEK COAL-TO-FLY SPUR  
 ADDRESS BOX 1373  
 PHONE DT 84501

DISCHARGE MONITORING REPORT (M/R) (17-19)  
 UT004 5  
 PERMIT NUMBER  
 301  
 DISCHARGE NUMBER

F - FINAL  
 SSO AND DIFL-SSNS 3 #/PPC PVR

FACILITY \_\_\_\_\_  
 LOCATION \_\_\_\_\_  
 ATTN: DAN W. GUY, MANAGER

MONITORING PERIOD							
FROM	YEAR	MO	DAY	TO	YEAR	MO	DAY
	89	11	01		89	11	30
	(20-21)	(22-23)	(24-25)		(26-27)	(28-29)	(30-31)

NOTE: Read instructions before completing this form.

PARAMETER (32-37)	SAMPLE MEASUREMENT	(3 Card Only) QUANTITY OR LOADING (46-53)			(4 Card Only) QUALITY OR CONCENTRATION (54-61)			NO. EX (62-63)	FREQUENCY OF ANALYSIS (64-68)	SAMPLE TYPE (69-70)
		AVERAGE	MAXIMUM	UNITS	MINIMUM	AVERAGE	MAXIMUM			
FLOW RATE		NO DISCHARGE			*****					
00056 1 0 0 EFFLUENT GROSS VALUE	PERMIT REQUIREMENT	REPORT 30 DA AV	REPORT DAILY MX	GPD	*****	*****	*****	***	ONCE/MONTH	SEASON
00400 1 0 0 EFFLUENT GROSS VALUE	PERMIT REQUIREMENT	*****	*****	*****	*****	*****	*****	*****		
SOLIDS, TOTAL SUSPENDED	SAMPLE MEASUREMENT	*****	*****	*****	*****	*****	*****	*****		
00530 P 0 0 SEE COMMENTS BELOW	PERMIT REQUIREMENT	*****	*****	*****	*****	*****	*****	*****		
SOLIDS, SETTLEABLE	SAMPLE MEASUREMENT	*****	*****	*****	*****	*****	*****	*****		
00545 R 0 0 SEE COMMENTS BELOW	PERMIT REQUIREMENT	*****	*****	*****	*****	*****	*****	*****		
OIL AND GREASE FROM EXIR-GRAV MTH	SAMPLE MEASUREMENT	*****	*****	*****	*****	*****	*****	*****		
00555 1 0 0 EFFLUENT GROSS VALUE	PERMIT REQUIREMENT	*****	*****	*****	*****	*****	*****	*****		
IRON, TOTAL (AS FE)	SAMPLE MEASUREMENT	*****	*****	*****	*****	*****	*****	*****		
01045 1 0 0 EFFLUENT GROSS VALUE	PERMIT REQUIREMENT	*****	*****	*****	*****	*****	*****	*****		
FLOATING SOLIDS OR VISIBLE FOAM-VISUAL	SAMPLE MEASUREMENT	*****	*****	*****	*****	*****	*****	*****		
45613 1 0 0 EFFLUENT GROSS VALUE	PERMIT REQUIREMENT	*****	*****	*****	*****	*****	*****	*****		

NAME/TITLE PRINCIPAL EXECUTIVE OFFICER  
 Dan W. Guy  
 Mgrn. Permitting/Compliance  
 TYPED OR PRINTED

I CERTIFY UNDER PENALTY OF LAW THAT I HAVE PERSONALLY EXAMINED AND AM FAMILIAR WITH THE INFORMATION SUBMITTED HEREIN AND BASED ON MY INQUIRY OF THOSE INDIVIDUALS IMMEDIATELY RESPONSIBLE FOR OBTAINING THE INFORMATION I BELIEVE THE SUBMITTED INFORMATION IS TRUE ACCURATE AND COMPLETE. I AM AWARE THAT THERE ARE SIGNIFICANT PENALTIES FOR SUBMITTING FALSE INFORMATION INCLUDING THE POSSIBILITY OF FINE AND IMPRISONMENT SEE 18 USC § 1001 AND 33 USC § 1319. (Penalties under these statutes may include fines up to \$10,000 and/or maximum imprisonment of between 6 months and 5 years.)

SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT  


TELEPHONE 801 637-5500  
 DATE 90 01 15  
 AREA CODE NUMBER YEAR MO DAY

COMMENT AND EXPLANATION OF ANY VIOLATIONS (Reference all attachments here)

TSS IS LIMITED TO ONE TON PER DAY FROM ALL OUTFALLS. DURING PRECIPITATION EVENTS, SETTLEABLE SOLIDS SHALL BE LIMITED INSTEAD OF TSS. REPORT "DOES NOT APPLY" IN THE APPROPRIATE ROW.

NAME EPAN WATER POLLUTION CONTROL BOARD  
 ADDRESS BOX 1378  
PERM ST 84501

DISCHARGE MONITORING REPORT (DMR)  
 (17-19)  
 PERMIT NUMBER WY004 05  
 DISCHARGE NUMBER 001 4

F - FINAL  
 SED AND DIPL-DANG C  
 (1) (1)

FACILITY \_\_\_\_\_  
 LOCATION \_\_\_\_\_  
 ATTN: DAN W. GUY, MANAGER

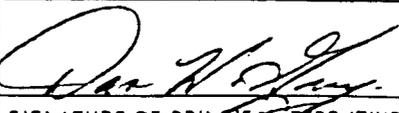
MONITORING PERIOD  
 FROM YEAR 89 MO 11 DAY 01 TO YEAR 89 MO 11 DAY 30  
 (20-21) (22-23) (24-25) (26-27) (28-29) (30-31)

MINOR \_\_\_\_\_  
 NOTE: Read instructions before completing this form.

PARAMETER (32-37)	X	(3 Card Only) QUANTITY OR LOADING (46-53)			(4 Card Only) QUALITY OR CONCENTRATION (54-61)			NO. EX (62-63)	FREQUENCY OF ANALYSIS (64-68)	SAMPLI TYPE (69-70)
		AVERAGE	MAXIMUM	UNITS	MINIMUM	AVERAGE	MAXIMUM			
SANITARY WASTE DISCHARGED-ASSESSMT 45514 1 0 0 EFFLOPMT GROSS VALUE	SAMPLE MEASUREMENT	*****			*****	*****	*****			
	PERMIT REQUIREMENT	*****		YES=1 DAILY MX NO=0	*****	*****	*****	****	ONCE/	VISUA MONTH
SOLIDS, TOTAL DISSOLVED 70295 0 0 0 SEE COMMENTS BELOW	SAMPLE MEASUREMENT	*****			*****	*****				
	PERMIT REQUIREMENT	*****	2000	DAILY MX LBS/DY	*****	*****	REPORT DAILY MX #3/L		ONCE/	GRAB MONTH
	SAMPLE MEASUREMENT									
	PERMIT REQUIREMENT									
	SAMPLE MEASUREMENT									
	PERMIT REQUIREMENT									
	SAMPLE MEASUREMENT									
	PERMIT REQUIREMENT									
	SAMPLE MEASUREMENT									
	PERMIT REQUIREMENT									
	SAMPLE MEASUREMENT									
	PERMIT REQUIREMENT									

NAME/TITLE PRINCIPAL EXECUTIVE OFFICER  
Dan W. Guy  
Mgr. Permitting/Compliance  
 TYPED OR PRINTED

I CERTIFY UNDER PENALTY OF LAW THAT I HAVE PERSONALLY EXAMINED AND AM FAMILIAR WITH THE INFORMATION SUBMITTED HEREIN AND BASED ON MY INQUIRY OF THOSE INDIVIDUALS IMMEDIATELY RESPONSIBLE FOR OBTAINING THE INFORMATION I BELIEVE THE SUBMITTED INFORMATION IS TRUE ACCURATE AND COMPLETE. I AM AWARE THAT THERE ARE SIGNIFICANT PENALTIES FOR SUBMITTING FALSE INFORMATION INCLUDING THE POSSIBILITY OF FINE AND IMPRISONMENT SEE 18 USC § 1001 AND 33 USC § 1319. (Penalties under these statutes may include fines up to \$10,000 and/or maximum imprisonment of between 6 months and 5 years.)

  
 SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT

TELEPHONE 901 637-5050  
 DATE 90 01 15  
 AREA CODE NUMBER YEAR MO DAY

COMMENT AND EXPLANATION OF ANY VIOLATIONS (Reference all attachments here)  
 TSS IS LIMITED TO ONE TON PER DAY FROM ALL OUTFALLS. DURING PRECIPITATION EVENTS, SETTLEABLE SOLIDS SHALL BE LIMITED INSTEAD OF TSS. REPORT "DOES NOT APPLY" IN THE APPROPRIATE ROW.

NAME SEE DEEY COLLECTIVE SPUR  
 ADDRESS BOX 1278  
CP MT 84501

DISCHARGE MONITORING REPORT (DWR) (17-19)  
 0011 15  
 PERMIT NUMBER  
 001 A  
 DISCHARGE NUMBER

F - FINAL  
 SEND END OF PL-0000

FACILITY \_\_\_\_\_  
 LOCATION \_\_\_\_\_  
 ATTN: DAN W. GUY, MANAGER

MONITORING PERIOD							
FROM	YEAR	MO	DAY	TO	YEAR	MO	DAY
	89	12	01		89	12	31
	(20-21)	(22-23)	(24-25)		(26-27)	(28-29)	(30-31)

MINOR  
 NOTE: Read instructions before completing this form.

PARAMETER (32-37)	SAMPLE MEASUREMENT	(3 Card Only) QUANTITY OR LOADING (46-53)			(4 Card Only) QUALITY OR CONCENTRATION (54-61)			NO. EX (62-63)	FREQUENCY OF ANALYSIS (64-68)	SAMPLE TYPE (69-70)
		AVERAGE	MAXIMUM	UNITS	MINIMUM	AVERAGE	MAXIMUM			
FLOW RATE		NO DISCHARGE			*****					
00056 1 0 0 EFFLUENT GROSS VALUE	PERMIT REQUIREMENT	REPORT 30 DA AV	REPORT DAILY MX	GPD	*****	*****	*****	***	ONCE/ MONTH	YEAR
00400 1 0 0 EFFLUENT GROSS VALUE	PERMIT REQUIREMENT	*****	*****	***	6.5	*****	9.0	****	TWICE/ MONTH	GRAB
SOLIDS, TOTAL SUSPENDED	SAMPLE MEASUREMENT	*****	*****	****	DAILY *K		DAILY *K	SU		
00530 P 0 0 SEE COMMENTS BELOW	PERMIT REQUIREMENT	*****	*****	****	*****	25	70		ONCE/ MONTH	GRAB
SOLIDS, SETTLEABLE	SAMPLE MEASUREMENT	*****	*****	****	*****	30 DA AV	DAILY *K	MG/L		
00545 R 0 0 SEE COMMENTS BELOW	PERMIT REQUIREMENT	*****	*****	****	*****	*****	0.5		ONCE/ MONTH	GRAB
OIL AND GREASE FROM EXTR-GRAV METH	SAMPLE MEASUREMENT	*****	*****	****	*****	*****				
00556 1 0 0 EFFLUENT GROSS VALUE	PERMIT REQUIREMENT	*****	*****	****	*****	*****	10		ONCE/ MONTH	GRAB
IRON, TOTAL (AS FE)	SAMPLE MEASUREMENT	*****	*****	****	*****	*****				
01045 1 0 0 EFFLUENT GROSS VALUE	PERMIT REQUIREMENT	*****	*****	****	*****	*****	2.0		ONCE/ MONTH	GRAB
FLOATING SOLIDS OR VISIBLE FOAM-VISUAL	SAMPLE MEASUREMENT	*****			*****	*****	*****			
05513 1 0 0 EFFLUENT GROSS VALUE	PERMIT REQUIREMENT	*****	0	YES=1 NO=0	*****	*****	*****	***	ONCE/ MONTH	VISUAL

NAME/TITLE PRINCIPAL EXECUTIVE OFFICER  
 Dan W. Guy  
 Mngr. Permitting/Compliance  
 TYPED OR PRINTED

I CERTIFY UNDER PENALTY OF LAW THAT I HAVE PERSONALLY EXAMINED AND AM FAMILIAR WITH THE INFORMATION SUBMITTED HEREIN AND BASED ON MY INQUIRY OF THOSE INDIVIDUALS IMMEDIATELY RESPONSIBLE FOR OBTAINING THE INFORMATION I BELIEVE THE SUBMITTED INFORMATION IS TRUE ACCURATE AND COMPLETE. I AM AWARE THAT THERE ARE SIGNIFICANT PENALTIES FOR SUBMITTING FALSE INFORMATION INCLUDING THE POSSIBILITY OF FINE AND IMPRISONMENT SEE 18 USC § 1001 AND 33 USC § 1319 (Penalties under these statutes may include fines up to \$10,000 and/or maximum imprisonment of between 6 months and 5 years)

*Dan W. Guy*  
 SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT

TELEPHONE  
 801 637-5050  
 DATE  
 90 01 15  
 AREA CODE NUMBER YEAR MO DAY

COMMENT AND EXPLANATION OF ANY VIOLATIONS (Reference all attachments here)

DPS IS LIMITED TO ONE TON PER DAY FROM ALL OUTFALLS. DURING PRECIPITATION EVENTS, SETTLEABLE SOLIDS SHALL BE LIMITED INSTEAD OF ISS. REPORT "DPS NOT APPLY" IN THE APPROPRIATE ROW.

NAME BEVY CREEK COAL-TO-LIQUID SUPER  
 ADDRESS BOX 1376  
PLUM UT 84501

DISCHARGE MONITORING REPORT (DMR) (17-19)  
 UFG04 15  
 PERMIT NUMBER  
 001 A  
 DISCHARGE NUMBER

F - FINAL  
 SED PND DTFL-DONG 1 W PRO EVM

FACILITY \_\_\_\_\_  
 LOCATION \_\_\_\_\_

MONITORING PERIOD  
 FROM YEAR MO DAY TO YEAR MO DAY  
 89 12 31 TO 89 12 31  
 (20-21) (22-23) (24-25) (26-27) (28-29) (30-31)

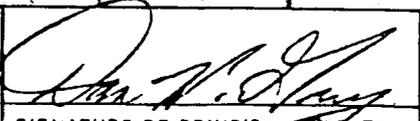
MINOR  
 NOTE: Read instructions before completing this form.

ATTN: DAN W. GUY, MANAGER

PARAMETER (32-37)	X	(3 Card Only) QUANTITY OR LOADING (46-53)			(4 Card Only) QUALITY OR CONCENTRATION (54-61)			NO. EX (62-63)	FREQUENCY OF ANALYSIS (64-68)	SAMPLE TYPE (69-70)
		AVERAGE	MAXIMUM	UNITS	MINIMUM	AVERAGE	MAXIMUM			
SANITARY WASTE DISCHARGED-ASSESSMENT	SAMPLE MEASUREMENT	*****			*****	*****	*****			
45614 1 0 0	PERMIT REQUIREMENT	*****	0	DAILY MX YES=1 NO=0	*****	*****	*****	0000	ONCE/	VISUAL
EFFLUENT GROSS VALUE SOLIDS, TOTAL DISSOLVED	SAMPLE MEASUREMENT	*****			*****	*****				
70295 2 0 0	PERMIT REQUIREMENT	*****	2000	DAILY MX LPS/DY	*****	*****	REPORT		ONCE/	GRAB
SEE COMMENTS BELOW							DAILY MX MG/L		ONCE/	GRAB
	SAMPLE MEASUREMENT									
	PERMIT REQUIREMENT									
	SAMPLE MEASUREMENT									
	PERMIT REQUIREMENT									
	SAMPLE MEASUREMENT									
	PERMIT REQUIREMENT									
	SAMPLE MEASUREMENT									
	PERMIT REQUIREMENT									
	SAMPLE MEASUREMENT									
	PERMIT REQUIREMENT									

NAME/TITLE PRINCIPAL EXECUTIVE OFFICER  
 Dan W. Guy  
 Mgr. Permitting/Compliance  
 TYPED OR PRINTED

I CERTIFY UNDER PENALTY OF LAW THAT I HAVE PERSONALLY EXAMINED AND AM FAMILIAR WITH THE INFORMATION SUBMITTED HEREIN AND BASED ON MY KNOWLEDGE OF THOSE INDIVIDUALS IMMEDIATELY RESPONSIBLE FOR OBTAINING THE INFORMATION I BELIEVE THE SUBMITTED INFORMATION IS TRUE, ACCURATE AND COMPLETE. I AM AWARE THAT THERE ARE SIGNIFICANT PENALTIES FOR SUBMITTING FALSE INFORMATION INCLUDING THE POSSIBILITY OF FINE AND IMPRISONMENT SEE 18 USC § 1001 AND 33 USC § 1319 (Penalties under these statutes may include fines up to \$10,000 and/or maximum imprisonment of between 6 months and 5 years)

  
 SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT

TELEPHONE  
 801 637-5050  
 DATE  
 90 01 15  
 AREA CODE NUMBER YEAR MO DAY

COMMENT AND EXPLANATION OF ANY VIOLATIONS (Reference all attachments here)

TDS IS LIMITED TO ONE TON PER DAY FROM ALL OUTFALLS. DURING PRECIPITATION EVENTS, SETTLEABLE SOLIDS SHALL BE LIMITED INSTEAD OF TSS. REPORT "DOES NOT APPLY" IN THE APPROPRIATE ROW.

ANNUAL  
SEDIMENT POND  
CERTIFICATIONS

POND INSPECTION REPORT

(1990 - Annual Inspection)

POND: No. 1

LOCATION: C.V. SPUR

ITEM	REMARKS
------	---------

(1) Potential Safety Hazards	<u>None Noted.</u>

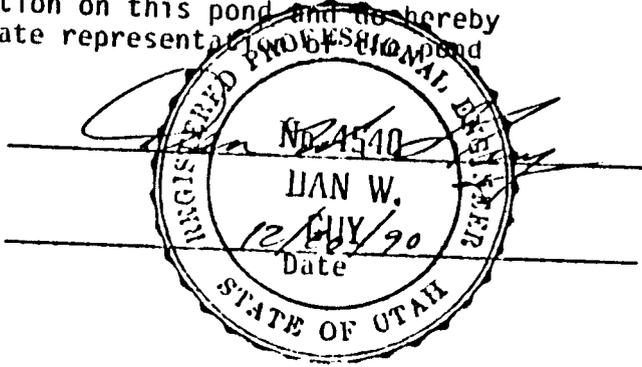
(2) Slope Stability	<u>Stable; Pond Incised; Slopes 1/2:1 to vert. inside.</u>

(3) Erosion	<u>None visible.</u>

(4) Construction and Maintenance Performance Standards	<u>Pond cleaned in Nov. 1990. Small island left in center. Sed. Level 7.5' from overflow.</u>

(5) Recommendations/Comments	<u>Inlet looks good. Outlet concrete cracked. Pond contained approx. 12" water (ice). No Discharge.</u>

I have performed the above inspection on this pond and do hereby certify it to be a true and accurate representation of the pond at this time.



POND INSPECTION REPORT

(1990 Annual Inspection)

POND: No. 2

LOCATION: C.V. SPUR

ITEM  
(1) Potential Safety Hazards

REMARKS

None Noted.

(2) Slope Stability

Stable; Pond Incised;  
Inside slopes 1/2:1 to vertical.

(3) Erosion

Minor undercutting of  
concrete inlet and outlet.

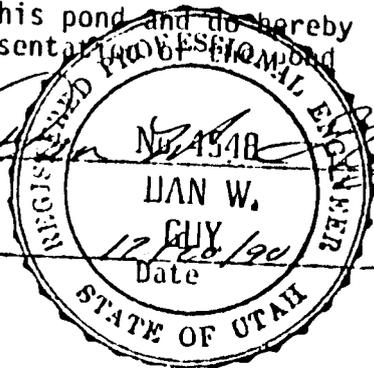
(4) Construction and Maintenance  
Performance Standards

Pond cleaned in 1989.  
Sediment level 6.9' below  
overflow.

(5) Recommendations/Comments

Inlet/Outlet structures  
should be re-done in 1991.  
Pond Dry - No Discharge.

I have performed the above inspection on this pond and do hereby  
certify it to be a true and accurate representation of the pond  
at this time.

  
Lian W. Guy  
No. 4548  
LIAN W.  
GUY  
12/20/90  
Date  
REGISTERED PROFESSIONAL ENGINEER  
STATE OF UTAH

POND INSPECTION REPORT

(1990 Annual Inspection)

POND: No. 3

LOCATION: C.V. SPR

ITEM  
(1) Potential Safety Hazards

REMARKS

None Noted

(2) Slope Stability

Stable; Pond Incised.  
Inside slopes 1/2:1 to vertical.

(3) Erosion

Minor undercutting of  
concrete inlet and outlet.

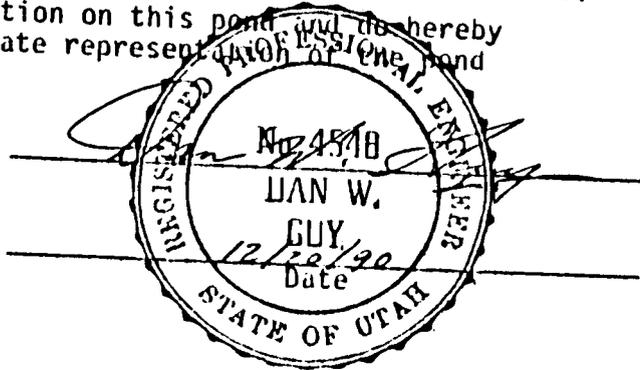
(4) Construction and Maintenance  
Performance Standards

Sediment Level 7.8'  
below outlet.

(5) Recommendations/Comments

Inlet/Outlet structures should  
be re-done in 1991.  
Pond Dry - No Discharge

I have performed the above inspection on this pond and do hereby  
certify it to be a true and accurate representation of the pond  
at this time.



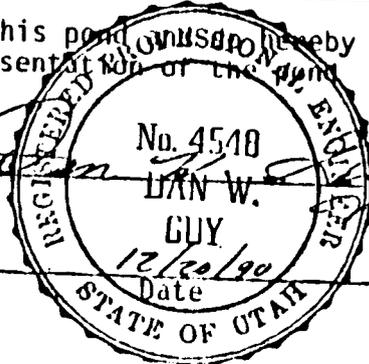
POND INSPECTION REPORT

POND: Overflow (#4) (1990 Annual Inspection)

LOCATION: C.V. SPUR

ITEM	REMARKS
(1) Potential Safety Hazards	<u>None Noted.</u>
(2) Slope Stability	<u>Stable - Pond Incised</u>
(3) Erosion	<u>None Noted.</u>
(4) Construction and Maintenance Performance Standards	<u>N/A - Not a sediment pond; carries plant overflow water only.</u>
(5) Recommendations/Comments	<u>Water level at outflow pipe. Minor discharge to Pond 6.</u>

I have performed the above inspection on this pond and hereby certify it to be a true and accurate representation of the pond at this time.



POND INSPECTION REPORT

(1990 Annual Inspection)

POND: No. 5

LOCATION: C.V. Spur

ITEM

REMARKS

(1) Potential Safety Hazards

None Noted.

(2) Slope Stability

Stable - Pond Incised.

(3) Erosion

None Noted.

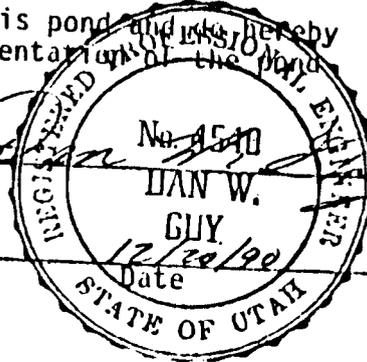
(4) Construction and Maintenance Performance Standards

O.K. - Minor sediment buildup (delta) at inlet. Sediment approx. 7' from overflow.

(5) Recommendations/Comments

Approx. 3' of water in pond. (Probable Ground Water Level).  
No Discharge.

I have performed the above inspection on this pond and hereby certify it to be a true and accurate representation of the pond at this time.



POND INSPECTION REPORT

(1990 Annual Inspection)

POND: No. 6

LOCATION: C.V. SPUR

ITEM

REMARKS

(1) Potential Safety Hazards

None Noted.

(2) Slope Stability

Stable - Pond Incised.  
Inside slopes 1/2:1 to vertical.

(3) Erosion

Minor at west inlet.

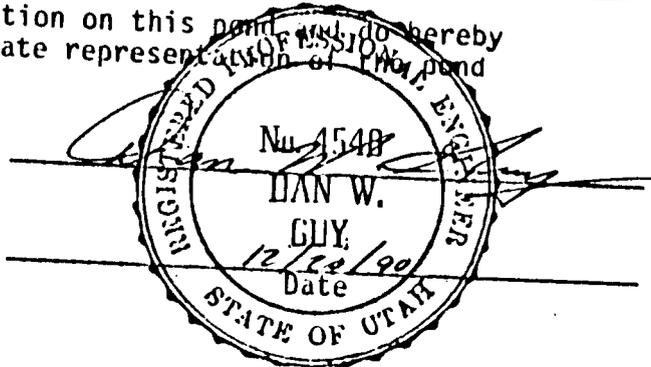
(4) Construction and Maintenance Performance Standards

Upper cell cleaned in Nov,  
1990. Minor sed. buildup  
at inlet. Sed. level 5.6' below outlet.

(5) Recommendations/Comments

Repair erosion and clean inlet  
as needed. Pond contained  
approx 3 1/2' water/ice. No Discharge.

I have performed the above inspection on this pond and do hereby certify it to be a true and accurate representation of this pond at this time.



C.V. SPUR

1990

REFUSE PILE

INSPECTION / ANALYSES

REFUSE PILE INSPECTION REPORT

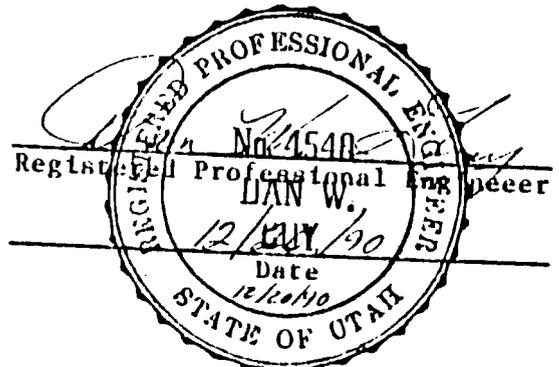
MSHA SITE #1211-UT-9-0034

C.V. SPUR

QUARTER 4/90

<u>ITEM</u>	<u>REMARKS</u>
(1) Potential Safety Hazards	<u>NONE</u>
(2) Slope Stability	<u>Stable - Slopes Regraded.</u>
(3) Removal of Topsoil and Organics	<u>N/A - Test Plot Sampled (No results yet.)</u>
(4) Construction and Maintenance Performance Standards	<u>Some newly dumped sed. pond material needs to be graded on east end.</u>
(5) Recommendations	<u>Pile looks good. Continue grading and compaction as soon as possible after dumping.</u>

I have performed the above inspection on this refuse pile and do hereby certify it to be a true and accurate representation of the pile at this time.



REFUSE PILE INSPECTION REPORT

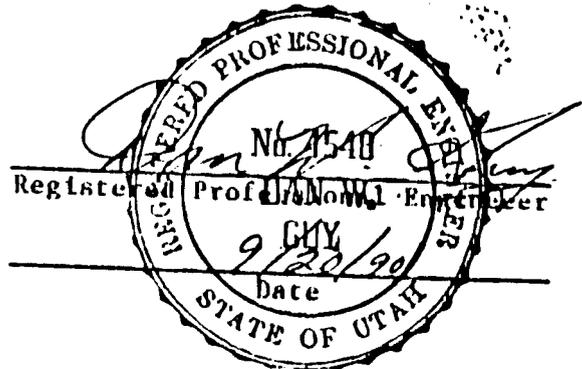
MSHA SITE #1211-UT-9-0034

C.V. SPUR

QUARTER 3/90

<u>ITEM</u>	<u>REMARKS</u>
(1) Potential Safety Hazards	<u>NONE</u>
(2) Slope Stability	<u>Stable, Mostly Regraded.</u>
(3) Removal of Topsoil and Organics	<u>N/A; Test Plot sampled by Rock Collins - no results yet.</u>
(4) Construction and Maintenance Performance Standards	<u>Newly dumped material on east side needs to be spread and compacted.</u>
(5) Recommendations	<u>Avoid end-dumping over banks. Always spread and compact refuse or other spoils.</u>

I have performed the above inspection on this refuse pile and do hereby certify it to be a true and accurate representation of the pile at this time.



REFUSE PILE INSPECTION REPORT

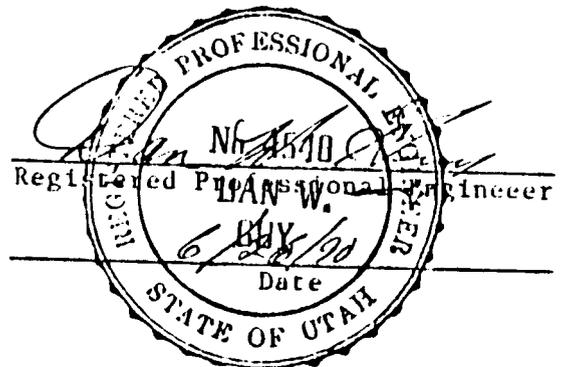
MSHA SITE #1211-UT-9-0034

C.V. SPUR

QUARTER 2/90

<u>ITEM</u>	<u>REMARKS</u>
(1) Potential Safety Hazards	<u>None</u>
(2) Slope Stability	<u>Stable ; Regraded</u>
(3) Removal of Topsoil and Organics	<u>N/A ; Test Plot O.K., but little growth evident.</u>
(4) Construction and Maintenance Performance Standards	<u>Material on east end regraded ; Overall Pile looks good.</u>
(5) Recommendations	<u>None</u>

I have performed the above inspection on this refuse pile and do hereby certify it to be a true and accurate representation of the pile at this time.



REFUSE PILE INSPECTION REPORT

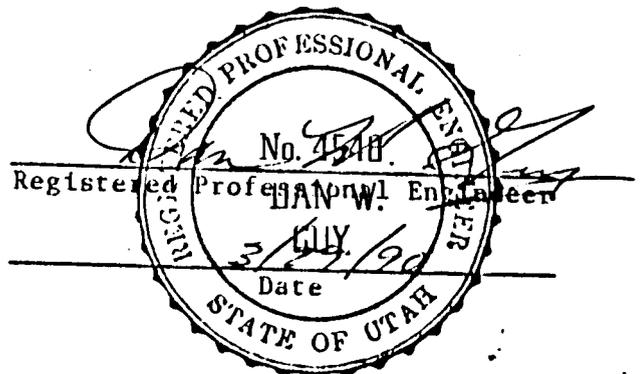
MSHA SITE #1211-UT-9-0034

C.V. SPUR

QUARTER 1/90

<u>ITEM</u>	<u>REMARKS</u>
(1) Potential Safety Hazards	<u>NONE</u>
(2) Slope Stability	<u>STABLE</u>
(3) Removal of Topsoil and Organics	<u>N/A; TEST PLOT O.K.</u>
(4) Construction and Maintenance Performance Standards	<u>Grading looks good on most of pile; last material pushed to east end should be compacted in 2' or less lifts.</u>
(5) Recommendations	<u>Continue to watch compaction and depth of lifts.</u>

I have performed the above inspection on this refuse pile and do hereby certify it to be a true and accurate representation of the pile at this time.



REFUSE PILE ANALYSIS



# COMMERCIAL TESTING & ENGINEERING CO.

GENERAL OFFICES: 1919 SOUTH HIGHLAND AVE., SUITE 210-B, LOMBARD, ILLINOIS 60148 • (312) 953-9300

Member of the SGS Group (Société Générale de Surveillance)

PLEASE ADDRESS ALL CORRESPONDENCE TO:  
P.O. BOX 1020, HUNTINGTON, UT 84528  
TELEPHONE: (801) 863-2311

Beaver Creek Coal Co.  
P.O. Box 1378  
Price, UT 84501

Dec. 21, 1989

Sample identification  
by Beaver Creek

Kind of sample reported to us Coal  
Sample taken at Beaver Creek Refuse Stock Site  
Sample taken by Beaver Creek  
Date sampled Nov. 21, 1989  
Date received Nov. 28, 1989

Analysis report no. 59-108193

p. 1

pH	6.5 units
Electrical Conductivity	12.8 mmhos/cm
Saturation Percent	29.3%
Sodium Adsorption Ratio	2.42
Soluble calcium	56.1 meq/l
Soluble magnesium	43.9 meq/l
Soluble sodium	17.1 meq/l
Particle size analysis:	
Sand	96.4%
Silt	2.4%
Clay	1.2%
Selenium (total available)	<0.1 mg/kg
Total Nitrogen	0.90%
Nitrate nitrogen	3.3 mg/kg
Boron (total available)	6.0 mg/kg

Respectfully submitted,  
COMMERCIAL TESTING & ENGINEERING CO.



Manager, Huntington Laboratory

OVER 40 BRANCH LABORATORIES STRATEGICALLY LOCATED IN PRINCIPAL COAL MINING AREAS,  
TIDEWATER AND GREAT LAKES PORTS, AND RIVER LOADING FACILITIES



TYPICAL COAL ANALYSES

**COMMERCIAL TESTING & ENGINEERING CO.**  
GENERAL OFFICES: 1919 SOUTH HIGHLAND AVE., SUITE 210-B, LOMBARD, ILLINOIS 60148 • (312) 963-0300

Member of the SGS Group (Société Générale de Surveillance)

PLEASE ADDRESS ALL CORRESPONDENCE TO:  
P.O. BOX 1020, HUNTINGTON, UT 84520  
TELEPHONE: (801) 653-2311

Beaver Creek Coal Co.  
P.O. Box 1378  
Price, UT 84501

Dec. 21, 1989

Sample identification  
by Beaver Creek

Kind of sample reported to us Coal  
Sample taken at Beaver Creek  
Sample taken by Beaver Creek  
Date sampled Nov. 21, 1989  
Date received Nov. 22, 1989

#7 MINE

Analysis report no. 59-108130

Neutralization potential 4.8 tons CaCO<sub>3</sub> / 1000 tons  
Acid potential\* 3.4 tons CaCO<sub>3</sub> / 1000 tons  
Net acid-base potential 1.4 tons CaCO<sub>3</sub> / 1000 tons

\*acid potential based on pyritic sulfur content

Respectfully submitted,  
COMMERCIAL TESTING & ENGINEERING CO.



Manager, Huntington Laboratory

OVER 40 BRANCH LABORATORIES STRATEGICALLY LOCATED IN PRINCIPAL COAL MINING AREAS,  
TIDEWATER AND GREAT LAKES PORTS, AND RIVER LOADING FACILITIES



# COMMERCIAL TESTING & ENGINEERING CO.

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Member of the SGS Group (Société Générale de Surveillance)

PLEASE ADDRESS ALL CORRESPONDENCE TO:  
P.O. BOX 1020, HUNTINGTON, UT 84528  
TELEPHONE: (801) 663-2311

Beaver Creek Coal Co.  
P.O. Box 1378  
Price, UT 84501

Dec. 21, 1989

Sample identification  
by Beaver Creek

Kind of sample reported to us	Coal	
Sample taken at	Beaver Creek	#8 MINE
Sample taken by	Beaver Creek	
Date sampled	Nov. 21, 1989	
Date received	Nov. 22, 1989	

Analysis report no. 59-108127

Neutralization potential	9.0 tons CaCO <sub>3</sub> / 1000 tons
Acid potential*	3.6 tons CaCO <sub>3</sub> / 1000 tons
Net acid-base potential	5.4 tons CaCO <sub>3</sub> / 1000 tons

\*acid potential based on pyritic sulfur content

Respectfully submitted,  
COMMERCIAL TESTING & ENGINEERING CO.

Manager, Huntington Laboratory

OVER 40 BRANCH LABORATORIES STRATEGICALLY LOCATED IN PRINCIPAL COAL MINING AREAS,  
TIDEWATER AND GREAT LAKES PORTS, AND RIVER LOADING FACILITIES



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Member of the SGS Group (Société Générale de Surveillance)

PLEASE ADDRESS ALL CORRESPONDENCE TO:  
P.O. BOX 1020, HUNTINGTON, UT 84520  
TELEPHONE: (801) 653-2311

Beaver Creek Coal Co.  
P.O. Box 1378  
Price, UT 84501

Dec. 21, 1989

Sample identification  
by Beaver Creek

Kind of sample reported to us	Coal
Sample taken at	Beaver Creek
Sample taken by	Beaver Creek
Date sampled	Nov. 21, 1989
Date received	Nov. 22, 1989

#9 MINE

Analysis report no. 59-108129

Neutralization potential	22.5 tons CaCO <sub>3</sub> / 1000 tons
Acid potential*	2.5 tons CaCO <sub>3</sub> / 1000 tons
Net acid-base potential	20.0 tons CaCO <sub>3</sub> / 1000 tons

\*acid potential based on pyritic sulfur content

Respectfully submitted,  
COMMERCIAL TESTING & ENGINEERING CO.

Manager, Huntington Laboratory

OVER 40 BRANCH LABORATORIES STRATEGICALLY LOCATED IN PRINCIPAL COAL MINING AREAS,  
TIDEWATER AND GREAT LAKES PORTS, AND RIVER LOADING FACILITIES

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Member of the SGS Group (Société Générale de Surveillance)

PLEASE ADDRESS ALL CORRESPONDENCE TO:  
P.O. BOX 1020, HUNTINGTON, UT 84628  
TELEPHONE: (801) 663-2311

Beaver Creek Coal Co.  
P.O. Box 1378  
Price, UT 84501

Dec. 21, 1989

Sample identification  
by Beaver Creek

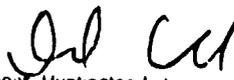
Kind of sample reported to us	Coal	
Sample taken at	Beaver Creek	Purchased Coal
Sample taken by	Beaver Creek	
Date sampled	Nov. 21, 1989	
Date received	Nov. 22, 1989	

Analysis report no. 59-103128

Neutralization potential	17.5 tons CaCO <sub>3</sub> / 1000 tons
Acid potential*	5.9 tons CaCO <sub>3</sub> / 1000 tons
Net acid-base potential	11.6 tons CaCO <sub>3</sub> / 1000 tons

\*acid potential based on pyritic sulfur content

Respectfully submitted,  
COMMERCIAL TESTING & ENGINEERING CO.

  
Manager, Huntington Laboratory

Original Copy Watermarked  
For Your Protection

OVER 40 BRANCH LABORATORIES STRATEGICALLY LOCATED IN PRINCIPAL COAL MINING AREAS,  
TIDEWATER AND GREAT LAKES PORTS, AND RIVER LOADING FACILITIES

1990

MODIFICATIONS / AMENDMENTS



DEPARTMENT OF NATURAL RESOURCES  
DIVISION OF OIL, GAS AND MINING

Norman H. Bangert  
Governor  
Dee C. Hansen  
Executive Director  
Dianne K. Nielson, Ph.D.  
Division Director

355 West North Temple  
3 Triad Center, Suite 350  
Salt Lake City, Utah 84110-1203  
801-538-5340

November 1, 1990

Mr. Dan Guy, Manager  
Permitting & Compliance  
Beaver Creek Coal Company  
P.O. Box 1378  
Price, Utah 84501

Dear Mr. Guy:

Re: Permit Defects Approval, Beaver Creek Coal Company, C.V. Spur Processing Facility, ACT/007/022-90A, Folder #3, Carbon County, Utah

The above-mentioned amendment was approved effective October 29, 1990.

Sincerely,



Pamela Grubaugh-Littig  
Permit Supervisor

jbe  
AT007022.1

**BEAVER CREEK Coal Company**

Post Office Box 1378

Price, Utah 84501

Telephone 801 637-5050



October 23, 1990

Pamela Grubaugh-Littig  
Permit Supervisor  
Utah Division of Oil, Gas & Mining  
355 West North Temple  
3 Triad Center, Suite 350  
S.L.C., Utah 84180-1203

Re: Map Update  
C.V. Spur Processing Facility  
ACT/007/022  
Carbon County, Utah

Dear Ms. Littig:

Enclosed are 10 copies of the revised Surface Facility Map for C.V. Spur, along with updated sheets on culverts and collection ditches. This information is submitted to more accurately reflect the on-ground conditions at the site, and to provide information on some previously un-numbered culverts.

Pages and Plates are numbered, and, upon approval, should replace corresponding numbers in the plan. If you have any questions, or need any further information please let me know.

Respectfully,

Dan W. Guy  
Mgr. Permitting/Compliance

cc: Johnny Coffey  
File



State of Utah  
 DEPARTMENT OF NATURAL RESOURCES  
 DIVISION OF OIL, GAS AND MINING

Norman H. Dangertor  
 Governor  
 Dee C. Hansen  
 Executive Director  
 Dianne R. Nielson, Ph.D.  
 Division Director

355 West North Temple  
 3 Triad Center, Suite 350  
 Salt Lake City, Utah 84100-1203  
 801-538-5340

June 26, 1990

TO: File

FROM: Pamela Grubaugh-Littig, Permit Supervisor *pgl*

RE: Use of Coal Stockpile, Beaver Creek Coal Company,  
C. V. Spur Coal Processing and Loadout Facility, ACT/007/022,  
Folder #2, Carbon County, Utah

Mr. Dan Guy, Manager, Permitting and Compliance for Beaver Creek Coal Company, telephoned me on June 20, 1990 to notify me about coal stockpiling at the C. V. Spur Coal Processing and Loadout Facility due to the strike at the Nevada Power Plant.

The area being used is the stockpile that was designated as part of the Best Technology Currently Available (BTCA) amendment (ACT/007/022-90A). (I gave verbal approval for the stockpile location portion of the amendment on June 20, 1990.)

Additionally, an area behind the truck dump (approved in original permit) may be used as a coal stockpiling area.

djh  
 cc: D. Guy, BCCC  
 B. Malencik, DOGM, PFO  
 AT45/172

**BEAVER CREEK Coal Company**

Post Office Box 1378  
Price, Utah 84501  
Telephone 801 637-5050



June 5, 1990

Pamela Grubaugh-Littig  
Permit Supervisor  
Utah Division of Oil, Gas & Mining  
355 West North Temple  
3 Triad Center, Suite 350  
S.L.C., Utah 84180-1203

Re: B.T.C.A. and Thickener Pond Area  
C.V. Spur Processing Facility  
ACT/007/022  
Carbon County, Utah

Dear Ms. Littig:

Enclosed are 4 copies of the revised Plate 3-2 and pages for the C.V. Spur M.R.P.. These amended sheets are provided to further clarify B.T.C.A. Areas not draining to the sediment ponds. Also shown on Plate 3-2 is the Thickener Pond Area north of the plant, which is to be deactivated and filled in, and the area used for additional coal storage. This pond was only for the thickener, and had no inlet or outlet structures. The pond has not been utilized since 1984, and is no longer needed for the operation.

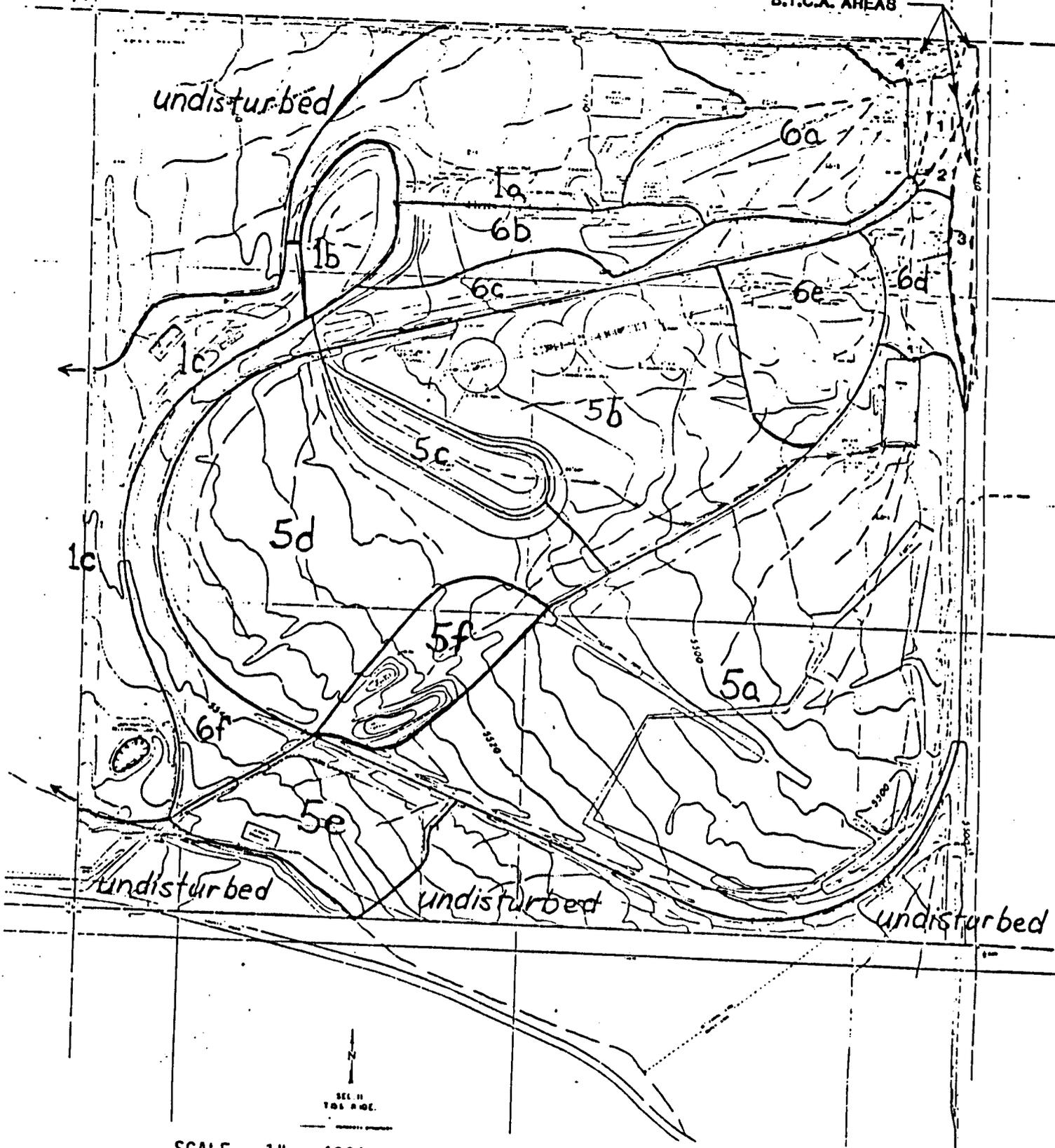
If you have any questions, or need any further information, please let me know.

Respectfully,

Dan W. Guy,  
Mgr. Permitting/ Compliance

cc: Johnny Coffey  
File

5/10/90



SCALE - 1" = 400'

Figure 7-5  
Facilities  
Area Subdrainages

All areas starting with 1 drain into Sediment Pond No. 1, all areas starting with 4 drain into Sediment Pond 4, etc. Area 1d is only partly on-site, and includes Area C.

9/23/83

Mining and Reclamation Plan  
Castle Valley Spur Coal Processing and  
Loadout Facility Permit Application

7.2.3.5 B.T.C.A. Areas

There are 4 small areas located at the northeast corner of the property, which do not drain into the sedimentation ponds. These areas have been designated as "Best Technology Currently Available" or "B.T.C.A." Areas, and are shown on Plate 3-2 of this M.R.P. The following is a description of each area along with the treatment used for sediment control:

- (1) B.T.C.A. Area #1 - This is an area of approximately 0.69 acres located between the pump house access road and the railroad tracks. The area is blocked off by a berm and is mostly vegetated. The area drains to the north-east corner of the property where it joins the sediment pond #6 outlet ditch. A silt fence is maintained at the edge of the area for additional sediment control. The only runoff from this area is from direct rainfall, which is calculated to be 0.098 acre feet for a 10 year-24 hour event (1.7 inches, NOAA, 1973). Treatment of runoff is by vegetative filter and silt fence.
- (2) B.T.C.A. Area #2 - This is a small area of approximately 0.28 acres located between the railroad loop and loadout tracks. The area has minimal vegetation, and is covered mostly by railroad ballast (slag). The top of the ballast is approximately 1.25 feet at the low end. Based on the slight slope, approximately 1/2 of the area or 0.14 acres will contain runoff at an average depth of 0.625 feet, giving the area a potential storage volume of 0.088 acre feet. Since the only runoff to this area will be from direct precipitation, a 10 year-24 hour event would result in approximately 0.040 acre feet of runoff. The area is more than adequate to contain the expected runoff; therefore, the only treatment used for this area is total containment.

Mining and Reclamation Plan  
Castle Valley Spur Coal Processing and  
Loadout Facility Permit Application

(3) B.T.C.A. Area #3 - This is an area along the east edge of the property between the main railroad spur track and the silo loadout track. The area contains approximately 0.85 acres, and slopes to the north, where any runoff is contained between the two sets of tracks. The track (ballast) height is approximately 1.50' on the low end. Due to the slope, only 1/4 of the area (0.22 acres) will contain runoff. This calculates to a potential storage volume of 0.165 acre feet for this area. Since the runoff from a 10 year-24 event on this area is only 0.120 acre feet, the potential storage volume is more than adequate. Total containment is therefore the only treatment proposed for this area.

(4) B.T.C.A. Area #4 - This is an area of approximately 0.52 acres surrounding the pumphouse at the northeast corner of the site. A ditch on the west side intercept runoff and directs it into Pond #6. The area is in a slight depression, and is protected by berms to contain runoff. B.T.C.A. for this area is total containment, since the only runoff here is from direct rainfall. The potential runoff from a 10 year - 24 hour event on this area is approximately 0.074 acre feet. The potential containment area is calculated to be a minimum of 0.26 acre feet, which is based on 1/2 the area at a depth of 1 foot (due to the slight slope). The area is therefore more than adequate to contain expected runoff.

1990

VEGETATION DATA

VEGETATION MONITORING  
OF THE  
BEAVER CREEK C.V. SPUR NO. 1 TEST PLOT: 1990

Prepared by

MT. NEBO SCIENTIFIC RESEARCH & CONSULTING  
Post Office Box 337  
Springville, Utah 84663  
(801) 489-6937

for  
BEAVER CREEK COAL COMPANY  
P.O. Box 1378  
Price, Utah 84501

Report: Patrick D. Collins, Ph.D.

Fieldwork: Patrick D. Collins  
Dean Collins

Date: March 1991

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VEGETATION MONITORING  
OF THE  
BEAVER CREEK C.V. SPUR NO.1 TEST PLOTS: 1990

SCOPE

The following is a report to describe the second year results of quantitatively monitoring the reclamation test plot at the C.V. Spur site that was established by Beaver Creek Coal Company, Price Utah. Monitoring methodologies were performed in accordance with the guidelines supplied by the State of Utah, Division of Oil, Gas and Mining (DOGM).

## INTRODUCTION

### General Site Description

The Beaver Creek C.V. Spur area is located approximately 4 miles southeast of Price in Carbon County, Utah. The area is comprised of nearly 120 acres of potential disturbance land associated with coal cleaning activities. This disturbance area lies within a salt desert community on soils derived from Mancos Shale.

Revegetation test plots investigating different treatments were established in the fall of 1987 by Beaver Creek Coal Company. The plot size is approximately 120 ft by 140 ft. This area was divided into sixteen 25 ft by 25 ft "subplots" to test different reclamation treatments. The treatments consisted of comparing controls, topsoil depths, coarse refuse mixtures and mulches. More specifically, the treatments investigated with their respective subplot numbers are listed below.

### SUBPLOT

NUMBER	TREATMENT
1, 9	6 in. soil, seed, (control)
2, 6	6 in. soil, seed, wood fiber mulch
3, 7	4 in. soil, 2 in. coal refuse, seed, wood fiber mulch

4, 8	3 in. soil, 3 in. coal refuse, seed, wood fiber mulch
5	6 in. soil, wood fiber mulch, (strip planting)
10, 14	6 in. soil, seed, hay mulch
11, 15	4 in. soil, 2 in. coal refuse, seed, hay mulch
12, 16	3 in. soil, 3 in. coal refuse, seed, hay mulch
13	6 in. soil, hay mulch, (strip planting)

## METHODS

Quantitative and qualitative data were taken on each of the subplots of the C.V. Spur No. 1 test site. Vegetation sampling was accomplished September 16, 1990. Sampling methodologies were identical to the previous year's sampling to insure appropriate comparisons between years. These methods are described below.

### Cover and Composition

Bi-directional random placement of sampling plots were designed to provide unbiased accuracy of the data compiled. This was accomplished by placing surveying tapes perpendicularly on two sides of each subplot, forming X and Y axes. The intersection of random numbers along each axis dictated the sample point locations within the subplots. Six of these samples were placed in each of the 25 ft X 25 ft subplots.

Cover estimates were made (to the nearest percentage point) using ocular methods with meter square quadrats in each of the subplots (with the exception of the "strip-planted" areas). Species composition by lifeform and relative frequencies were also assessed from the quadrats. Additional information recorded on data sheets were: estimated precipitation, slope, exposure, grazing use, animal disturbance and other appropriate notes.

Sample means, standard deviations, and sample sizes were included in this report to enable the reviewers to apply further statistical tests if desired. Plant nomenclature follows Welsh et al. (1987).

In the two "strip-planted subplots", individual species were planted in rows or strips when the test plot was established. These subplots had a total of 17 species planted in individual rows, thus forming 17 rows. Because meter square quadrats would have been inappropriate to sample these rows, the line-intercept method was employed. In this method, the relative cover by species was measured along a tape line.

## RESULTS

Summaries and results from all sampling are given on Tables 1 - 32. Comparisons of much of the information from the tables can easily be made by examining the graphs that are also included in this report

(Figs. 1 - 9).

Figures 1 - 4 show the total cover and composition for each subplot taken from the data listed in the summary tables. However, the cover graphs can be somewhat misleading when predicting revegetation success because much of the cover consists of weedy, annual forbs. Therefore, graphs were also prepared showing total cover of shrub and grass species, excluding forbs. Justification for excluding the forbs as a method for comparing treatments and predicting revegetation success comes from the fact that over 95% of the forbs in the plot were annual, weedy species. For comparison of treatments shown graphically of non-weedy plant species, refer to Figures 5 - 9.

When reviewing the figures, it quickly becomes obvious that cover and species diversity has decreased significantly in all treatments when compared to the data of 1989. One can only speculate at this time to the overall plot decline. This year was the fourth year of drought for the area which would undoubtedly have a negative effect on establishment of seeded plant species. A natural reduction in overall vigor of seeded plant species is not uncommon. The decline in this case, however, does seem rather drastic. It is difficult to say at this time whether the return of normal precipitation patterns will provide a response by the plants for adequate cover, density and diversity of the plot in any treatment. Additional monitoring in the next year or two should provide this information followed by recommendations to reseed or establish alternative treatments.

TABLE 1: Subplot 1 - Total cover and composition summary for the C.V. Spur No. 1 Test Plot. The table shows the mean percent cover and composition with standard deviations and sample sizes.

TOTAL COVER	% MEAN COVER	STANDARD DEVIATION	SAMPLE SIZES
Total Living Cover	3.83	1.07	6.0
Litter	6.50	2.63	6.0
Bareground	88.50	2.99	6.0
Rock	1.17	0.37	6.0
COMPOSITION			
Trees/Shrubs	12.50	27.95	6.0
Forbs	87.50	27.95	6.0
Grasses	0.00	0.00	6.0

TABLE 2: Subplot 1 - Species cover and frequency summary for the C.V. Spur No. 1 Test Plot. The table shows the mean percent cover, standard deviation, sample size and relative frequency by species.

SPECIES	% MEAN COVER	STANDARD DEVIATION	SAMPLE SIZE	RELATIVE FREQUENCY
TREES & SHRUBS				
Atriplex canescens	0.50	1.12	6.0	16.67
FORBS				
Halogeton glomeratus	3.33	1.49	6.0	100.00
GRASSES				

TABLE 3: Subplot 2 - Total cover and composition summary for the C.V. Spur No. 1 Test Plot. The table shows the mean percent cover and composition with standard deviations and sample sizes.

TOTAL COVER	% MEAN COVER	STANDARD DEVIATION	SAMPLE SIZES
Total Living Cover	7.17	5.87	6.0
Litter	4.17	0.90	6.0
Bareground	87.67	6.37	6.0
Rock	1.00	0.00	6.0
COMPOSITION			
Shrubs	28.89	17.81	6.0
Forbs	49.44	30.03	6.0
Grasses	21.67	18.62	6.0

TABLE 4: Subplot 2 - Species cover and frequency summary for the C.V. Spur No. 1 Test Plot. The table shows the mean percent cover, standard deviation, sample size and relative frequency by species.

SPECIES	% MEAN COVER	STANDARD DEVIATION	SAMPLE SIZE	RELATIVE FREQUENCY
TREES & SHRUBS				
Atriplex canescens	1.67	2.87	6.0	50.00
Ceratoides lanata	0.83	0.90	6.0	50.00
FORBS				
Halogeton glomeratus	2.17	0.90	6.0	100.00
Salsola iberica	0.33	0.75	6.0	16.67
GRASSES				
Agropyron cristatum	0.83	1.46	6.0	33.33
Stipa hymenoides	1.33	1.60	6.0	50.00

TABLE 5: Subplot 3 - Total cover and composition summary for the C.V. Spur No. 1 Test Plot. The table shows the mean percent cover and composition with standard deviations and sample sizes.

TOTAL COVER	% MEAN COVER	STANDARD DEVIATION	SAMPLE SIZES
Total Living Cover	6.50	3.15	6.0
Litter	2.83	0.69	6.0
Bareground	88.00	3.96	6.0
Rock	2.67	1.25	6.0
COMPOSITION			
Trees/Shrubs	34.72	36.14	6.0
Forbs	38.89	17.79	6.0
Grasses	26.39	20.65	6.0

TABLE 6: Subplot 3 - Species cover and frequency summary for the C.V. Spur No. 1 Test Plot. The table shows the mean percent cover, standard deviation, sample size and relative frequency by species.

SPECIES	% MEAN COVER	STANDARD DEVIATION	SAMPLE SIZE	RELATIVE FREQUENCY
TREES & SHRUBS				
Atriplex canescens	3.33	3.77	6.0	50.00
FORBS				
Halogeton glomeratus	2.00	0.00	6.0	100.00
GRASSES				
Agropyron cristatum	0.33	0.75	6.0	16.67
Stipa hymenoides	0.83	0.90	6.0	50.00

TABLE 7: Subplot 4 - Total cover and composition summary for the C.V. Spur No. 1 Test Plot. The table shows the mean percent cover and composition with standard deviations and sample sizes.

TOTAL COVER	% MEAN COVER	STANDARD DEVIATION	SAMPLE SIZES
Total Living Cover	13.67	4.15	6.0
Litter	4.50	1.12	6.0
Bareground	43.67	20.26	6.0
Rock	38.17	22.03	6.0
COMPOSITION			
Trees/Shrubs	9.68	9.96	6.0
Forbs	61.71	22.19	6.0
Grasses	28.61	22.94	6.0

TABLE 8: Subplot 4 - Species cover and frequency summary for the C.V. Spur No. 1 Test Plot. The table shows the mean percent cover, standard deviation, sample size and relative frequency by species.

SPECIES	% MEAN COVER	STANDARD DEVIATION	SAMPLE SIZE	RELATIVE FREQUENCY
TREES & SHRUBS				
Atriplex canescens	1.50	1.50	6.0	50.00
FORBS				
Halogeton glomeratus	6.33	2.87	6.0	100.00
Salsola iberica	1.67	1.25	6.0	66.67
GRASSES				
Agropyron cristatum	1.50	1.61	6.0	50.00
Stipa hymenoides	2.67	2.13	6.0	66.67

TABLE 9: Subplot 5 - Total cover and composition summary for the C.V. Spur No. 1 Test Plot. The table shows the mean percent cover and composition with standard deviations and sample sizes.

TOTAL COVER	% MEAN COVER	STANDARD DEVIATION	SAMPLE SIZES
Total Living Cover*	2.04	1.16	17
Litter	--	--	--
Bareground	--	--	--
Rock	--	--	--
COMPOSITION			
Trees/Shrubs	0.00	--	17
Forbs	100.0	--	17
Grasses	0.00	--	17

\* Subplots 5 and 13 planting techniques were different than the other subplots, therefore sampling methods varied (see METHODS).

TABLE 10: Subplot 5 - Species cover and frequency summary for the C.V. Spur No. 1 Test Plot. The table shows the mean percent cover, standard deviation, sample size and relative frequency by species.

SPECIES	% MEAN COVER	STANDARD DEVIATION	SAMPLE SIZE	RELATIVE FREQUENCY
TREES & SHRUBS				
FORBS				
Halogeton glomeratus	2.04	1.61	17	94.12
GRASSES				

\* Subplots 5 and 13 planting techniques were different than the other subplots, therefore sampling methods varied (see METHODS)

TABLE 11: Subplot 6 - Total cover and composition summary for the C.V. Spur No. 1 Test Plot. The table shows the mean percent cover and composition with standard deviations and sample sizes.

TOTAL COVER	% MEAN COVER	STANDARD DEVIATION	SAMPLE SIZES
Total Living Cover	6.50	1.98	6.0
Litter	2.17	1.46	6.0
Bareground	89.50	3.86	6.0
Rock	1.83	0.69	6.0
COMPOSITION			
Trees/Shrubs	50.28	17.81	6.0
Forbs	41.53	22.68	6.0
Grasses	8.19	8.48	6.0

TABLE 12: Subplot 6 - Species cover and frequency summary for the C.V. Spur No. 1 Test Plot. The table shows the mean percent cover, standard deviation, sample size and relative frequency by species.

SPECIES	% MEAN COVER	STANDARD DEVIATION	SAMPLE SIZE	RELATIVE FREQUENCY
TREES & SHRUBS				
Ceratoides lanata	0.33	0.47	6.0	33.33
Atriplex canescens	2.83	1.07	6.0	100.00
FORBS				
Halogeton glomeratus	2.33	2.62	6.0	100.00
Salsola iberica	0.50	0.50	6.0	50.00
GRASSES				
Stipa hymenoides	0.50	0.50	6.0	50.00

TABLE 13: Subplot 7 - Total cover and composition summary for the C.V. Spur No. 1 Test Plot. The table shows the mean percent cover and composition with standard deviations and sample sizes.

TOTAL COVER	% MEAN COVER	STANDARD DEVIATION	SAMPLE SIZES
Total Living Cover	7.83	3.62	6.0
Litter	4.00	1.15	6.0
Bareground	83.83	5.01	6.0
Rock	4.33	0.94	6.0
COMPOSITION			
Trees/Shrubs	16.11	29.21	6.0
Forbs	77.78	30.89	6.0
Grasses	6.11	10.96	6.0

TABLE 14: Subplot 7 - Species cover and frequency summary for the C.V. Spur No. 1 Test Plot. The table shows the mean percent cover, standard deviation, sample size and relative frequency by species.

SPECIES	% MEAN COVER	STANDARD DEVIATION	SAMPLE SIZE	RELATIVE FREQUENCY
TREES & SHRUBS				
Ceratoides lanata	0.50	1.12	6.0	16.67
Atriplex canescens	1.67	3.30	6.0	33.33
FORBS				
Halogeton glomeratus	5.00	1.53	6.0	100.0
GRASSES				
Agropyron cristatum	0.17	0.37	6.0	16.67
Stipa hymenoides	0.50	0.76	6.0	33.33

TABLE 15: Subplot 8 - Total cover and composition summary for the C.V. Spur No. 1 Test Plot. The table shows the mean percent cover and composition with standard deviations and sample sizes.

TOTAL COVER	% MEAN COVER	STANDARD DEVIATION	SAMPLE SIZES
Total Living Cover	8.67	3.90	6.0
Litter	3.83	1.21	6.0
Bareground	50.50	13.00	6.0
Rock	37.00	10.95	6.0
COMPOSITION			
Trees/Shrubs	9.73	11.26	6.0
Forbs	77.97	27.49	6.0
Grasses	12.30	16.36	6.0

TABLE 16: Subplot 8 - Species cover and frequency summary for the C.V. Spur No. 1 Test Plot. The table shows the mean percent cover, standard deviation, sample size and relative frequency by species.

SPECIES	% MEAN COVER	STANDARD DEVIATION	SAMPLE SIZE	RELATIVE FREQUENCY
TREES & SHRUBS				
Atriplex canescens	1.17	1.46	6.0	50.00
FORBS				
Halogeton glomeratus	5.67	2.75	6.0	100.00
Salsola iberica	0.33	0.75	6.0	16.67
GRASSES				
Agropyron cristatum	0.50	1.12	6.0	16.67
Stipa hymenoides	1.00	1.15	6.0	50.00

TABLE 17: Subplot 9 - Total cover and composition summary for the C.V. Spur No. 1 Test Plot. The table shows the mean percent cover and composition with standard deviations and sample sizes.

TOTAL COVER	% MEAN COVER	STANDARD DEVIATION	SAMPLE SIZES
Total Living Cover	3.83	1.34	6.0
Litter	5.33	0.75	6.0
Bareground	88.33	1.25	6.0
Rock	2.50	0.76	6.0
COMPOSITION			
Trees/Shrubs	10.00	22.36	6.0
Forbs	90.00	22.36	6.0
Grasses	--	--	--

TABLE 18: Subplot 9 - Species cover and frequency summary for the C.V. Spur No. 1 Test Plot. The table shows the mean percent cover, standard deviation, sample size and relative frequency by species.

SPECIES	% MEAN COVER	STANDARD DEVIATION	SAMPLE SIZE	RELATIVE FREQUENCY
TREES & SHRUBS				
Atriplex canescens	0.50	1.12	6.0	16.67
FORBS				
Halogeton glomeratus	3.33	1.37	6.0	100.00
GRASSES				

TABLE 19: Subplot 10 - Total cover and composition summary for the C.V. Spur No. 1 Test Plot. The table shows the mean percent cover and composition with standard deviations and sample sizes.

TOTAL COVER	% MEAN COVER	STANDARD DEVIATION	SAMPLE SIZES
Total Living Cover	11.67	7.87	6.0
Litter	5.00	0.00	6.0
Bareground	78.67	8.18	6.0
Rock	4.67	0.75	6.0
COMPOSITION			
Trees/Shrubs	6.55	7.87	6.0
Forbs	82.62	28.33	6.0
Grasses	10.83	22.06	6.0

TABLE 20: Subplot 10 - Species cover and frequency summary for the C.V. Spur No. 1 Test Plot. The table shows the mean percent cover, standard deviation, sample size and relative frequency by species.

SPECIES	% MEAN COVER	STANDARD DEVIATION	SAMPLE SIZE	RELATIVE FREQUENCY
TREES & SHRUBS				
Atriplex canescens	1.17	1.77	6.0	50.00
FORBS				
Halogeton glomeratus	7.00	5.00	6.0	100.00
Salsola iberica	0.83	1.21	6.0	33.30
GRASSES				
Agropyron cristatum	1.67	3.73	6.0	16.67
Stipa hymenoides	1.00	1.83	6.0	33.33

TABLE 21: Subplot 11 - Total cover and composition summary for the C.V. Spur No. 1 Test Plot. The table shows the mean percent cover and composition with standard deviations and sample sizes.

TOTAL COVER	% MEAN COVER	STANDARD DEVIATION	SAMPLE SIZES
Total Living Cover	7.00	2.16	6.0
Litter	5.00	0.00	6.0
Bareground	80.50	3.30	6.0
Rock	7.50	2.50	6.0
COMPOSITION			
Trees/Shrubs	32.22	17.71	6.0
Forbs	53.89	23.05	6.0
Grasses	13.89	10.79	6.0

TABLE 22: Subplot 11 - Species cover and frequency summary for the C.V. Spur No. 1 Test Plot. The table shows the mean percent cover, standard deviation, sample size and relative frequency by species.

SPECIES	% MEAN COVER	STANDARD DEVIATION	SAMPLE SIZE	RELATIVE FREQUENCY
TREES & SHRUBS				
Ceratoides lanata	0.33	0.75	6.0	16.67
Atriplex canescens	2.00	1.53	6.0	83.33
FORBS				
Halogeton glomeratus	3.17	1.21	6.0	100.00
Salsola iberica	0.33	0.47	6.0	33.33
GRASSES				
Agropyron cristatum	0.17	0.37	6.0	16.67
Stipa hymenoides	1.00	1.15	6.0	50.00

TABLE 23: Subplot 12 - Total cover and composition summary for the C.V. Spur No. 1 Test Plot. The table shows the mean percent cover and composition with standard deviations and sample sizes.

TOTAL COVER	% MEAN COVER	STANDARD DEVIATION	SAMPLE SIZES
Total Living Cover	15.83	6.72	6.0
Litter	6.33	2.69	6.0
Bareground	50.33	11.06	6.0
Rock	27.50	6.29	6.0
COMPOSITION			
Trees/Shrubs	11.33	14.68	6.0
Forbs	62.28	25.61	6.0
Grasses	26.39	15.59	6.0

TABLE 24: Subplot 12 - Species cover and frequency summary for the C.V. Spur No. 1 Test Plot. The table shows the mean percent cover, standard deviation, sample size and relative frequency by species.

SPECIES	% MEAN COVER	STANDARD DEVIATION	SAMPLE SIZE	RELATIVE FREQUENCY
TREES & SHRUBS				
Ceratoides lanata	0.33	0.75	6.0	16.67
Atriplex canescens	1.73	2.19	6.0	50.00
FORBS				
Halogeton glomeratus	8.33	3.73	6.0	100.00
Salsola iberica	0.67	1.49	6.0	16.67
GRASSES				
Agropyron cristatum	2.83	1.95	6.0	83.33
Stipa hymenoides	1.83	1.77	6.0	66.67

TABLE 25: Subplot 13 - Total cover and composition summary for the C.V. Spur No. 1 Test Plot. The table shows the mean percent cover and composition with standard deviations and sample sizes.

TOTAL COVER	% MEAN COVER	STANDARD DEVIATION	SAMPLE SIZES
Total Living Cover*	2.55	1.75	17
Litter	--	--	--
Bareground	--	--	--
Rock	--	--	--
COMPOSITION			
Trees/Shrubs	6.67	--	17
Forbs	82.35	--	17
Grasses	11.37	--	17

\* Subplots 5 and 13 planting techniques were different than the other subplots, therefore sampling methods varied (see METHODS).

TABLE 26: Subplot 13 - Species cover and frequency summary for the C.V. Spur No. 1 Test Plot. The table shows the mean percent cover, standard deviation, sample size and relative frequency by species.

SPECIES	% MEAN COVER	STANDARD DEVIATION	SAMPLE SIZE	RELATIVE FREQUENCY
TREES & SHRUBS				
Atriplex canescens	.17	.68	17	5.88
FORBS				
Halogeton glomeratus	2.10	1.57	17	88.24
GRASSES				
Stipa hymenoides	.29	1.19	17	5.88

\* Subplots 5 and 13 planting techniques were different than the other subplots, therefore sampling methods varied (see METHODS).

TABLE 27: Subplot 14 - Total cover and composition summary for the C.V. Spur No. 1 Test Plot. The table shows the mean percent cover and composition with standard deviations and sample sizes.

TOTAL COVER	% MEAN COVER	STANDARD DEVIATION	SAMPLE SIZES
Total Living Cover	12.67	10.84	6.0
Litter	7.83	3.67	6.0
Bareground	76.50	12.28	6.0
Rock	3.00	1.00	6.0
COMPOSITION			
Trees/Shrubs	16.67	17.00	6.0
Forbs	78.33	21.92	6.0
Grasses	5.00	7.64	6.0

TABLE 28: Subplot 14 - Species cover and frequency summary for the C.V. Spur No. 1 Test Plot. The table shows the mean percent cover, standard deviation, sample size and relative frequency by species.

SPECIES	% MEAN COVER	STANDARD DEVIATION	SAMPLE SIZE	RELATIVE FREQUENCY
TREES & SHRUBS				
Ceratoides lanata	0.50	1.12	6.0	16.67
Atriplex canescens	3.17	4.49	6.0	33.33
FORBS				
Halogeton glomeratus	6.00	3.11	6.0	100.00
Salsola iberica	1.83	2.27	6.0	50.00
GRASSES				
Agropyron cristatum	1.00	2.24	6.0	16.67
Stipa hymenoides	0.17	0.37	6.0	16.67

TABLE 29: Subplot 15 - Total cover and composition summary for the C.V. Spur No. 1 Test Plot. The table shows the mean percent cover and composition with standard deviations and sample sizes.

TOTAL COVER	% MEAN COVER	STANDARD DEVIATION	SAMPLE SIZES
Total Living Cover	5.17	0.37	6.0
Litter	5.83	1.86	6.0
Bareground	84.17	1.46	6.0
Rock	4.83	0.37	6.0
COMPOSITION			
Trees/Shrubs	16.67	17.95	6.0
Forbs	76.67	21.34	6.0
Grasses	6.67	9.43	6.0

TABLE 30: Subplot 15 - Species cover and frequency summary for the C.V. Spur No. 1 Test Plot. The table shows the mean percent cover, standard deviation, sample size and relative frequency by species.

SPECIES	% MEAN COVER	STANDARD DEVIATION	SAMPLE SIZE	RELATIVE FREQUENCY
TREES & SHRUBS				
Atriplex canescens	0.83	0.90	6.0	50.00
FORBS				
Halogeton glomeratus	4.00	1.29	6.0	100.00
GRASSES				
Agropyron cristatum	0.17	0.37	6.0	16.67
Stipa hymenoides	0.17	0.37	6.0	16.67

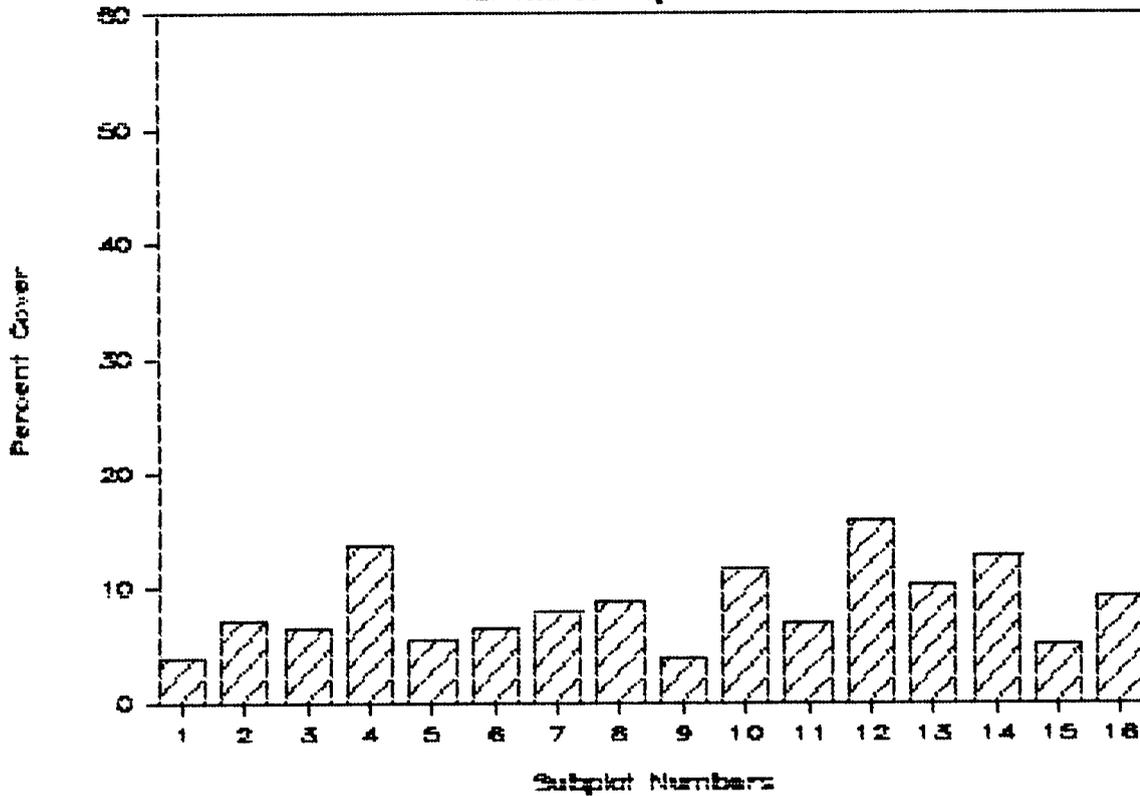
TABLE 31: Subplot 16 - Total cover and composition summary for the C.V. Spur No. 1 Test Plot. The table shows the mean percent cover and composition with standard deviations and sample sizes.

TOTAL COVER	% MEAN COVER	STANDARD DEVIATION	SAMPLE SIZES
Total Living Cover	9.33	3.35	6.0
Litter	5.50	2.14	6.0
Bareground	46.50	6.34	6.0
Rock	38.67	8.84	6.0
COMPOSITION			
Trees/Shrubs	51.63	19.59	6.0
Forbs	37.26	20.23	6.0
Grasses	11.11	15.71	6.0

TABLE 32: Subplot 16 - Species cover and frequency summary for the C.V. Spur No. 1 Test Plot. The table shows the mean percent cover, standard deviation, sample size and relative frequency by species.

SPECIES	% MEAN COVER	STANDARD DEVIATION	SAMPLE SIZE	RELATIVE FREQUENCY
TREES & SHRUBS				
Atriplex canescens	4.17	0.90	6.0	16.67
Atriplex confertifolia	0.17	0.37	6.0	16.67
FORBS				
Halogeton glomeratus	3.50	2.29	6.0	100.00
Salsola iberica	0.33	0.75	6.0	16.67
GRASSES				
Agropyron cristatum	0.83	1.86	6.0	16.67
Stipa hymenoides	0.33	0.75	6.0	16.67

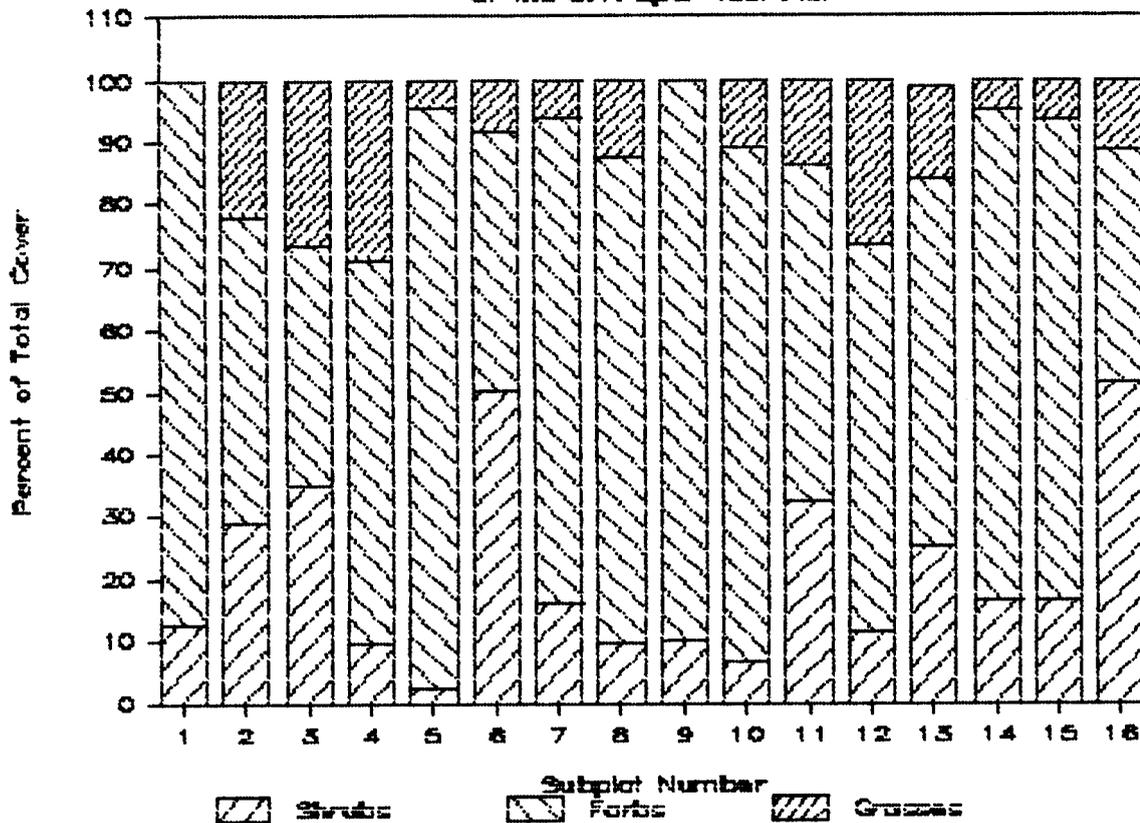
Fig. 1: 1990 — Total Living Cover  
for the C.V. Spur Test Plot



TREATMENT KEY

<u>Subplot Number</u>	<u>Treatment</u>
1, 9	6 in. soil, seed, (control)
2, 6	6 in. soil, seed, wood fiber mulch
3, 7	4 in. soil, 2 in. coal refuse, seed, wood fiber mulch
4, 8	3 in. soil, 3 in. coal refuse, seed, wood fiber mulch
5	6 in. soil, wood fiber mulch, (strip planting)
10, 14	6 in. soil, seed, hay mulch
11, 15	4 in. soil, 2 in. coal refuse, seed, hay mulch
12, 16	3 in. soil, 3 in. coal refuse, seed, hay mulch
13	6 in. soil, hay mulch, (strip planting)

Fig. 2: 1990 — Composition  
of the C.V. Spur Test Plot



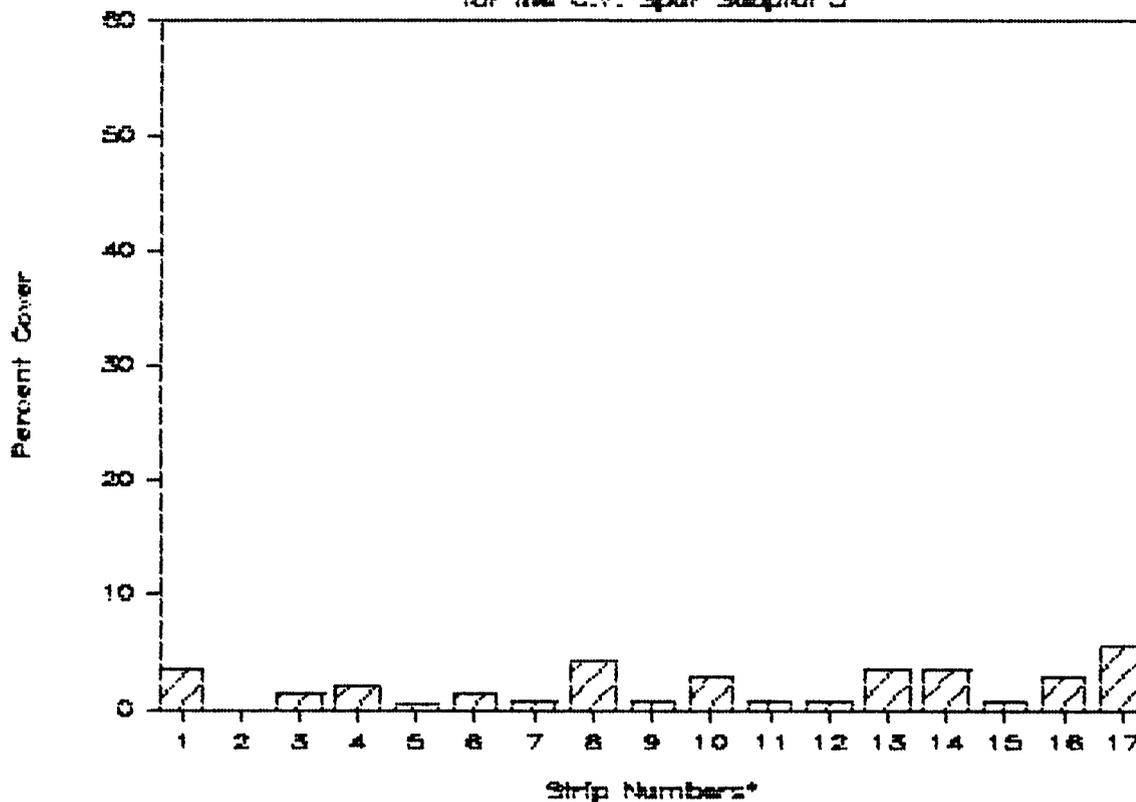
**TREATMENT KEY**

Subplot  
Number

Treatment

1, 9	6 in. soil, seed, (control)
2, 6	6 in. soil, seed, wood fiber mulch
3, 7	4 in. soil, 2 in. coal refuse, seed, wood fiber mulch
4, 8	3 in. soil, 3 in. coal refuse, seed, wood fiber mulch
5	6 in. soil, wood fiber mulch, (strip planting)
10, 14	6 in. soil, seed, hay mulch
11, 15	4 in. soil, 2 in. coal refuse, seed, hay mulch
12, 16	3 in. soil, 3 in. coal refuse, seed, hay mulch
13	6 in. soil, hay mulch, (strip planting)

Fig. 3: 1990 — Strip Planting Cover  
for the C.V. Spur Subplot 5

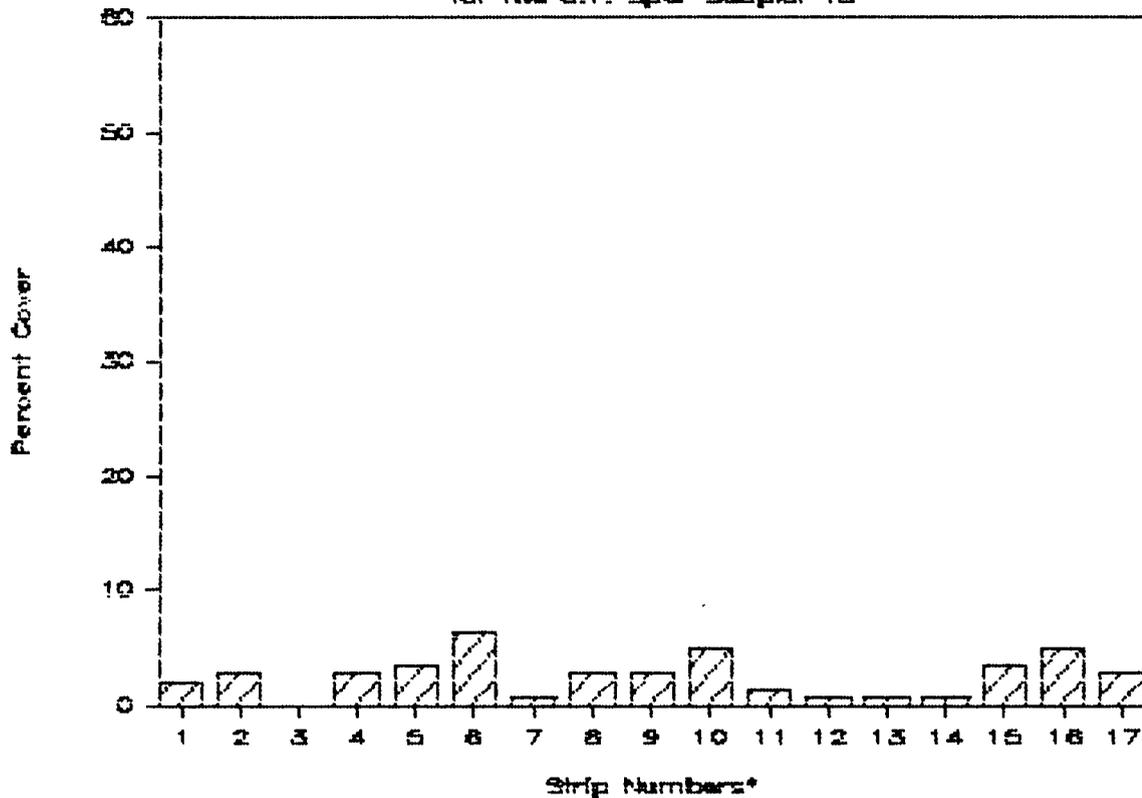


\* The bars represent total cover by strip, not cover of the species planted below. For total subplot cover and a list of cover by species of Subplot 5, refer to Tables 9 & 10.

**Species Planted in Strips**

- |                                   |  |
|-----------------------------------|--|
| 1 - <u>Atriplex corrugata</u>     | 2 - <u>Elymus hispidus</u>               |
| 3 - <u>Atriplex confertifolia</u> | 4 - <u>Atriplex canescens</u>            |
| 5 - <u>Elymus lanceolatus</u>     | 6 - <u>Stipa hymenoides</u>              |
| 7 - <u>Hilaria jamesii</u>        | 8 - <u>Melilotus officinalis</u>         |
| 9 - <u>Agropyron cristatum</u>    | 10 - <u>Sporobolus airoides</u>          |
| 11 - <u>Penstemon palmeri</u>     | 12 - <u>Helianthus annuus</u>            |
| 13 - <u>Agropyron cristatum</u>   | 14 - <u>Sphaeralcea grossulariifolia</u> |
| 15 - <u>Ceratoides lanata</u>     | 16 - <u>Chrysothamnus nauseosus</u>      |
| 17 - <u>Elymus smithii</u>        |  |

Fig. 4: 1990 - Strip Planting Cover  
for the C.V. Spur Subplot 13



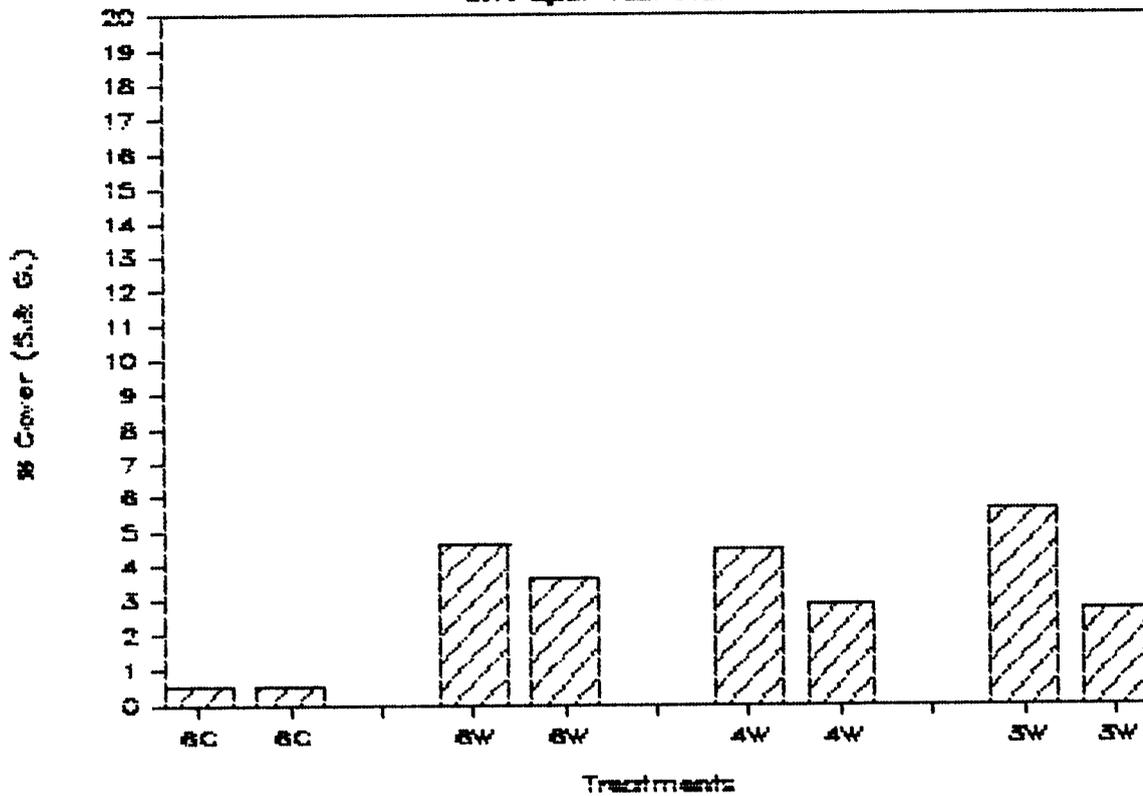
\* The bars represent total cover by strip, not cover of the species planted below. For total subplot cover and a list of cover by species of Subplot 13, refer to Tables 25 & 26.

**Species Planted in Strips**

- |                                   |  |
|-----------------------------------|--|
| 1 - <u>Atriplex corrugata</u>     | 2 - <u>Elymus hispidus</u>               |
| 3 - <u>Atriplex confertifolia</u> | 4 - <u>Atriplex canescens</u>            |
| 5 - <u>Elymus lanceolatus</u>     | 6 - <u>Stipa hymenoides</u>              |
| 7 - <u>Hilaria jamesii</u>        | 8 - <u>Melilotus officinalis</u>         |
| 9 - <u>Agropyron cristatum</u>    | 10 - <u>Sporobolus airoides</u>          |
| 11 - <u>Penstemon palmeri</u>     | 12 - <u>Helianthus annuus</u>            |
| 13 - <u>Agropyron cristatum</u>   | 14 - <u>Sphaeralcea grossulariifolia</u> |
| 15 - <u>Ceratoides lanata</u>     | 16 - <u>Chrysothamnus nauseosus</u>      |
| 17 - <u>Elymus smithii</u>        |  |

Fig. 5: Soil Depths (Wood Fiber Mulch)

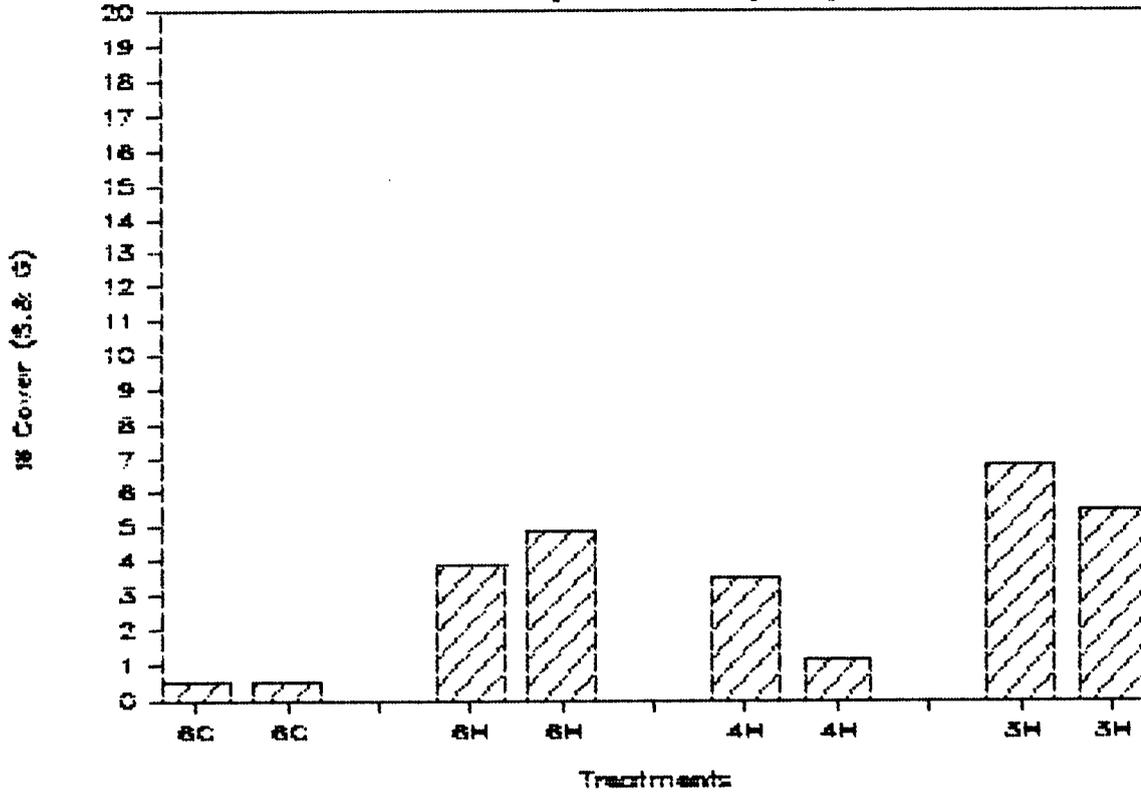
C.V. Spur Test Plot - 1990



-----  
 S. & G - Shrub & Grass cover only (excludes annual weeds)  
 6, 4, 3 - Treatment soil depth in inches  
 C - Control  
 W - Wood fiber mulch treatment  
 H - Hay mulch treatment

Fig. 6: Soil Depth (Hay Mulch)

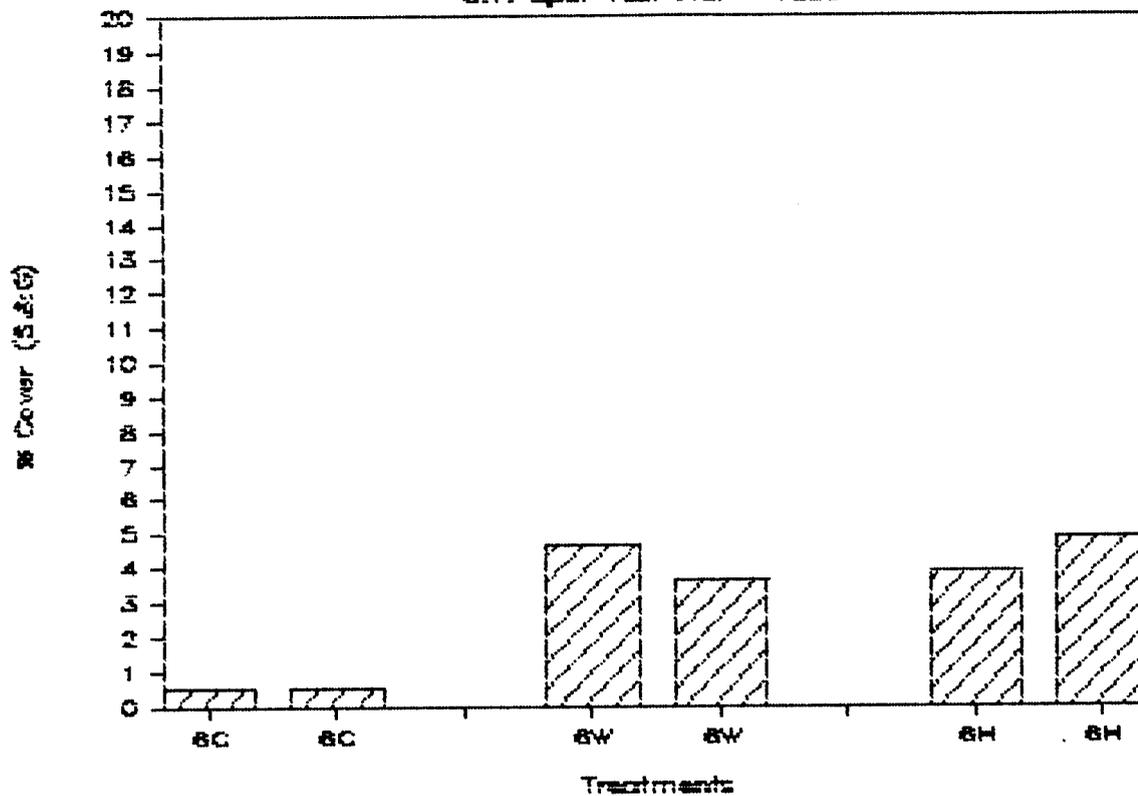
C.V. Spur Test Plot (1990)



-----  
S. & G - Shrub & Grass cover only (excludes annual weeds)  
6, 4, 3 - Treatment soil depth in inches  
C - Control  
W - Wood fiber mulch treatment  
H - Hay mulch treatment

Fig. 7: Mulch Types (6" Soil Depth)

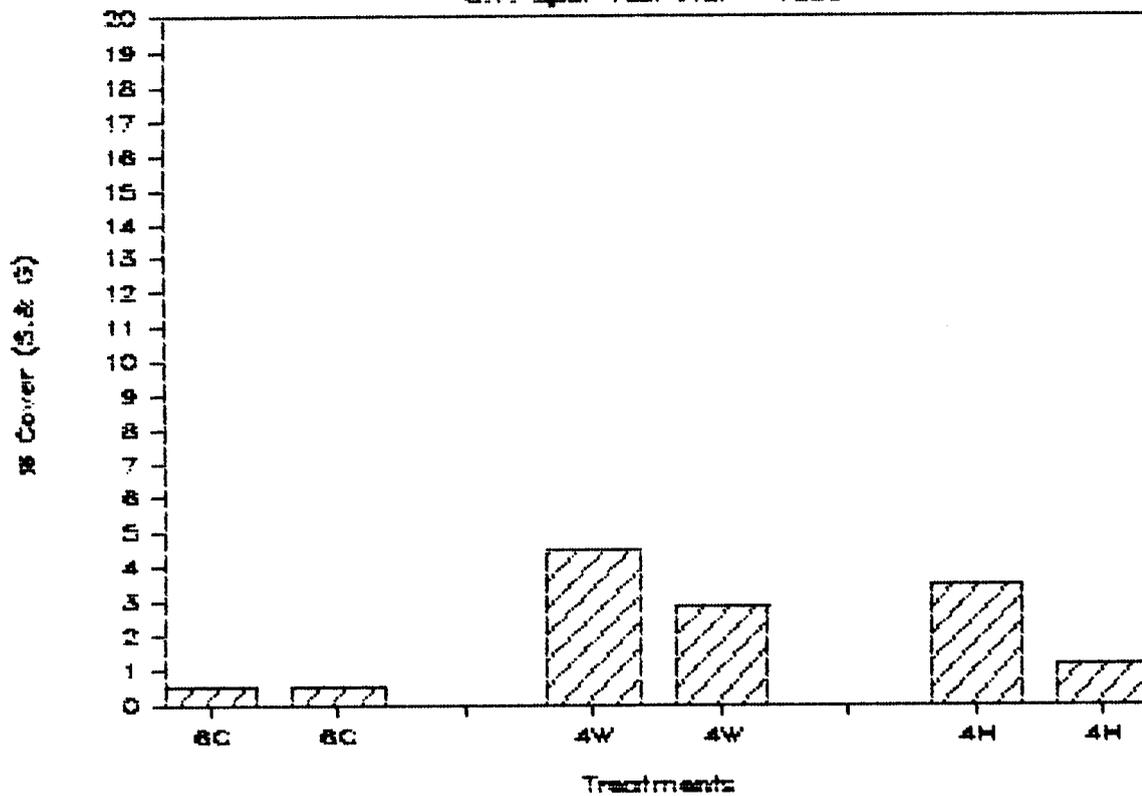
C.V. Spur Test Plot - 1990



-----  
S. & G - Shrub & Grass cover only (excludes annual weeds)  
6, 4, 3 - Treatment soil depth in inches  
C - Control  
W - Wood fiber mulch treatment  
H - Hay mulch treatment

Fig 8: Mulch Types (4" Soil Depth)

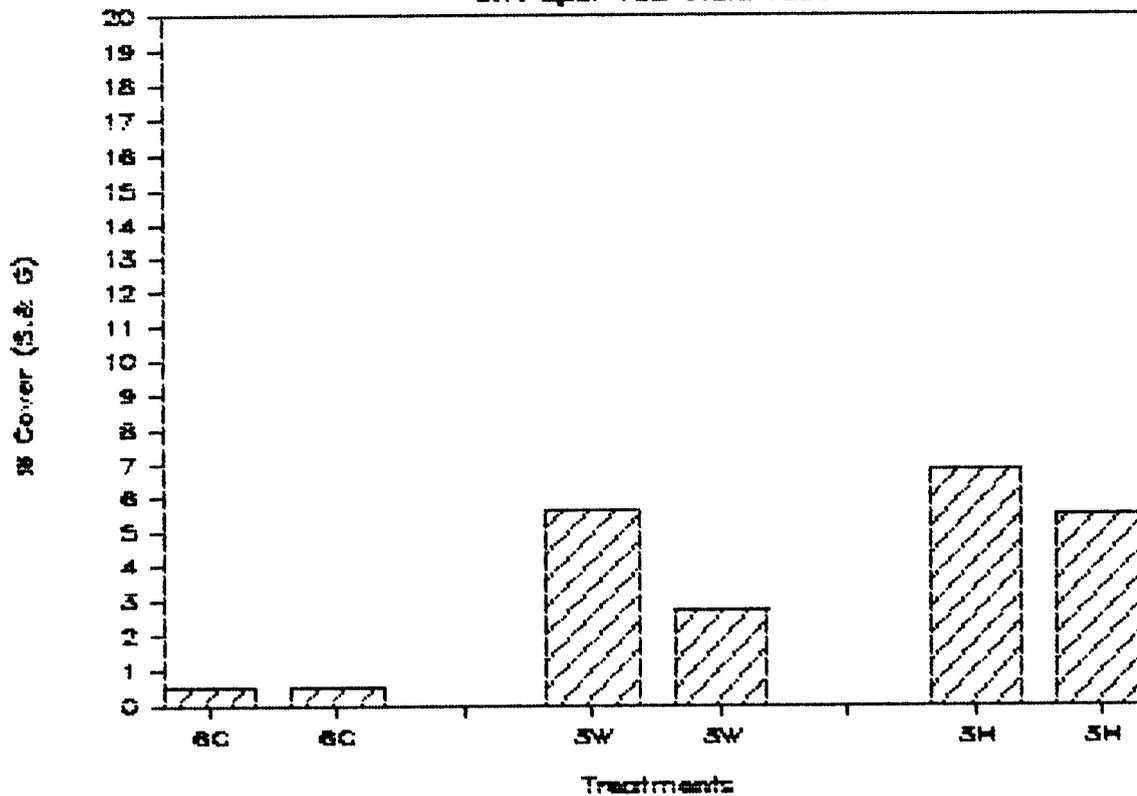
G.V. Spur Test Plot - 1990



-----  
S.& G - Shrub & Grass cover only (excludes annual weeds)  
6, 4, 3 - Treatment soil depth in inches  
C - Control  
W - Wood fiber mulch treatment  
H - Hay mulch treatment

Fig. 9: Mulch Types (3" Soil Depth)

C.V. Spur Test Plots 1990



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S.& G - Shrub & Grass cover only (excludes annual weeds)  
 6, 4, 3 - Treatment soil depth in inches  
 C - Control  
 W - Wood fiber mulch treatment  
 H - Hay mulch treatment

VEGETATION MONITORING  
OF THE  
BEAVER CREEK C.V. SPUR NO. 2 TEST PLOT: 1990

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Date: March 1991

C.V. SPUR NO. 2 TEST PLOT  
BEAVER CREEK COAL COMPANY

INTRODUCTION

In the fall of 1989, Beaver Creek Coal Company implemented a reclamation test plot on a disturbed area in the NE corner of the C.V. Spur Coal Processing and Loadout Facility property. MT. NEBO SCIENTIFIC was contracted to monitor this plot.

The test plot was divided into two larger sections for seeding mixtures, plus a middle section for single species. The plot was also fenced.

Section 1 (west)

This is a 50 ft. by 100 ft. area. Design included techniques proposed for final reclamation methodologies as outlined in Chapter 3, Section 3.5 of the MRP. A species list is attached.

Section 2 (east)

This is another 50 ft. by 100 ft. section utilizing the same methods as Section 1 with the addition of 1 ton of 3rd crop alfalfa hay tilled into the top 6 inches of the soil. A species list is attached.

Section 3 (middle)

This section was apparently seeded with single species with two controls that were not seeded.

METHODS

Because this was the first year of monitoring, only qualitative information was recorded. A qualitative data sheet for this site is included in this report and provides the following information: site name, general area, sample date, observers, slope, exposure, animal disturbance, erosion damage, cover, and other pertinent notes.

C.V. SPUR NO. 2 TEST PLOT  
BEAVER CREEK COAL COMPANY

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BEAVER CREEK COAL COMPANY  
QUALITATIVE SAMPLING DATA SHEET

1990

SITE NAME: C.V. SPUR NO. 2 TEST PLOT

AREA: Castle Valley Spur Coal Processing and Loadout Facility

DATE: September 16, 1990

WORKERS: P. Collins, D. Collins

SLOPE: 1-2 deg.

EXPOSURE: level

SIZE: .25 Acre

ANIMAL USE/DISTURBANCE: none observed

EROSION: Negligible

COVER: 1%

DOMINANT PLANT SPECIES OBSERVED:

Kochia scoparia  
Iva axillaris

NOTES: 1) Nothing much has germinated, no other spp. observed  
2) A dry prec. year.  
3) Methods: qualitative only.  
4) Saw plenty of seed on ground of planted spp.  
5) Photos, 22, 23 of plot, east side is in foreground

SEED MIXTURE FOR THE C.V. SPUR NO. 2 TEST PLOT  
BEAVER CREEK COAL COMPANY

Sections 1 and 2

Rate #PLS/A

SHRUBS

<u>.Atriplex confertifolia</u>	2.0
<u>Eurotia lanata</u>	1.0

FORBS

<u>Sphraeralcea grossulariaefolia</u>	.25
<u>Helianthus annuus</u>	3.0
<u>Penstemon palmeri</u>	.5
<u>Melilotus officinalis</u>	1.0
<u>Kochia prostrata</u>	1.0

GRASSES

<u>Agropyron dasystachyum</u>	2.0
<u>Agropron cristatum</u> ephraim	2.0
<u>Orysopsis hymenoides</u>	4.0
<u>Agropyron cristatum</u> fairway	2.0
<u>Elymus junceus</u>	1.0
<u>Sitanion hystrix</u>	.5

Section 3

Single spp. planted in 10 ft. strips: clover, winterfat, globemallow, shadscale, sunflower, kochia, Russian wildrye, crested wheatgrass, squirreltail, thickspike, Palmer penstemon, Indian ricegrass.