

PERMIT TO CONSTRUCT

New

PERMIT NO. 93-101

Renewal

Modified

JORDAN HOME SEPTIC SYSTEM
(Name of Facility)

This permit hereby authorizes the applicant (name and address):

Steve B. and Roxanna J. Jordan
P.O. Box 72
Hulett, WY 82720

to construct, install or modify a wastewater treatment facility according to the procedures and conditions of the application No. 92-101. The facility is located in the SE/4, Section 20, Township 55 North, Range 63 West, in the County of Crook in the State of Wyoming. This permit shall be effective for a period of one (1) year from the date of issuance of this permit.

The issuance of this permit provides that the Department of Environmental Quality has evaluated and determined that the application meets minimum applicable construction and design standards. The compliance with construction standards and the operation and maintenance of the facility to meet the applicant's engineer's design are the responsibility of the applicant, owner, or operator.

The authority to construct granted by this permit does not mean or imply that the Wyoming Department of Environmental Quality guarantees or ensures that the permitted facility, when constructed, will meet applicable discharge permit conditions or other effluent or operational requirements.

Nothing in this permit constitutes an endorsement of the construction or the design of the facility described herein. This permit indicates only that standards of design and construction required by the Environmental Quality Act have been met. The State assumes no liability for, and does not in any way guarantee the performance of, the permittee in the exercise of its activities allowed under this permit. The permittee understands that it is solely responsible to any third parties for any liability arising

from the construction or operation of the facility described herein. By the issuance of this permit, the state does not in any way waive its sovereign immunity.

The permittee shall allow authorized representatives from the Department of Environmental Quality, Water Quality Division, upon the presentation of credentials and during working hours, to have access to inspect the facilities, at the above location, for the purpose of compliance with the provisions of this construction permit.

The permittee shall notify representatives from the Department of Environmental Quality, Water Quality Division, the day construction commences and give an estimate of completion of the project. The authorized representative in your area can be contacted at the following address: District Supervisor, State of Wyoming, Department of Environmental Quality, Water Quality Division, 2161 Coffeen Avenue, Annex, Sheridan, Wyoming 82801; telephone, 672-6457.

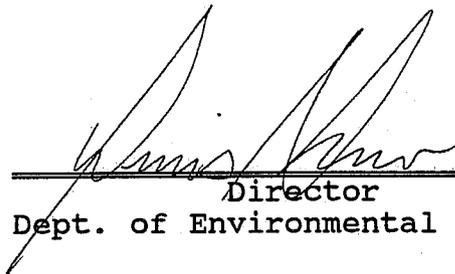
Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities or penalties established pursuant to any applicable State law or regulation.

The issuance of this permit does not convey any property rights in either real or personal property, 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.

AUTHORIZED BY:



Administrator
Water Quality Division



Director
Dept. of Environmental Quality

5-6-93

Date of Issuance

This permit does not supersede the requirements for obtaining any permit from local agencies.

JAS/ 05/03/93

PERMIT TO CONSTRUCT

New

Permit No. 93-102R

Renewal

Modified

Village Drive Water Main Extension
(Name of Facility)

This permit hereby authorizes the applicant (name and address):

City of Riverton

P.O. Box 1700

Riverton, WY 82501

to construct a 117 L.F. 10" PVC and 186 L.F. 16" PVC water mains according to the procedures and conditions of the application No. 93-102R. The facility is located in SE¼ SE¼ Section 30 and NE¼ NE¼ Section 31 T1N, R4E, Wind River Meridian in the County of Fremont, in the State of Wyoming. This permit shall be effective for a period of two (2) years from the date of issuance of this permit.

The issuance of this permit provides that the Department of Environmental Quality has evaluated and determined that the application meets minimum applicable construction and design standards. The compliance with construction standards and the operation and maintenance of the facility to meet the applicant's engineer's design are the responsibility of the applicant, owner, or operator.

The authority to construct granted by this permit does not mean or imply that the Wyoming Department of Environmental Quality guarantees or insures that the permitted facility, when constructed, will meet applicable discharge permit conditions or other effluent or operational requirements.

Nothing in this permit constitutes an endorsement of the construction or the design of the facility described herein. This permit indicates only that standards of design and construction required by the Environmental Quality Act have been met. The State assumes no liability for, and does not in any way guarantee the performance of, the permittee in the exercise of its activities allowed under this permit. The permittee understands that it is solely responsible to any third parties for any liability arising from the construction or operation of the facility described herein. By the issuance of this permit, the State does not in any way waive its sovereign immunity.

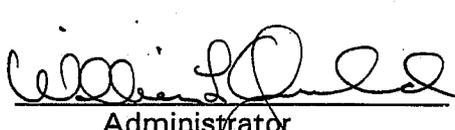
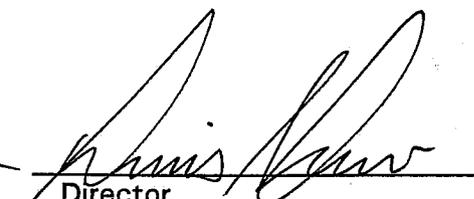
The permittee shall allow authorized representatives from the Department of Environmental Quality, Water Quality Division, upon the presentation of credentials and during working hours, to have access to inspect the facilities, at the above location, for the purpose of compliance with the provisions of this construction permit.

The permittee shall notify representatives from the Department of Environmental Quality, Water Quality Division the day construction commences and give an estimate of completion of the project. The authorized representative in your area can be contacted at the following address: District Engineer, State of Wyoming, Department of Environmental Quality, Water Quality Division, 250 Lincoln, Lander, WY 82520; telephone, 332-3144.

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.

The issuance of this permit does not convey any property rights in either real or personal property, 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.

AUTHORIZED BY:

 _____ Administrator Water Quality Division	 _____ Director Dept. of Environmental Quality
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6-29-93
Date of Issuance

This permit does not supersede the requirements for obtaining any permit from local agencies.

JH/ji

PERMIT TO CONSTRUCT

New

Permit No. 93-103R

Renewal

Modified

Riverton Regional Airport Water Improvements

(Name of Facility)

This permit hereby authorizes the applicant (name and address):

City of Riverton

P.O. Box 1700

Riverton, WY 82501

to construct a fire hydrant with 455 L.F. 8 inch PVC line according to the procedures and conditions of the application No. 93-103R. The facility is located in NW¼ SW¼ Section 18, T1N, R4E Wind River Meridian in the County of Fremont, in the State of Wyoming. This permit shall be effective for a period of two (2) years from the date of issuance of this permit.

The issuance of this permit provides that the Department of Environmental Quality has evaluated and determined that the application meets minimum applicable construction and design standards. The compliance with construction standards and the operation and maintenance of the facility to meet the applicant's engineer's design are the responsibility of the applicant, owner, or operator.

The authority to construct granted by this permit does not mean or imply that the Wyoming Department of Environmental Quality guarantees or insures that the permitted facility, when constructed, will meet applicable discharge permit conditions or other effluent or operational requirements.

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AUTHORIZED BY:



Administrator
Water Quality Division



Director
Dept. of Environmental Quality

7-12-93
Date of Issuance

This permit does not supersede the requirements for obtaining any permit from local agencies.

JH/jyi - 33234.LTR



MIKE SULLIVAN
GOVERNOR

Department of Environmental Quality

Herschler Building • 122 West 25th Street • Cheyenne, Wyoming 82002

Administration
(307) 777-7937

Air Quality Division
(307) 777-7391

Land Quality Division
(307) 777-7756

Solid Waste Management Program
(307) 777-7752

Water Quality Division
(307) 777-7781

May 13, 1993

Mr. Dave Engels
Sheridan Area Water System Joint Powers Board
224 South Main Street, Suite B-1W
Sheridan, Wy 82801

RE: Little Goose/Big Horn/City Water Distribution System
Beaver Creek Road As-Built Approval Application 93-104

Dear Mr. Engels:

The Water Quality Division has reviewed as-built approval application 93-104 for the water distribution system located at Beaver Creek Road west of Big Horn.

As indicated in the application cover letter, this section of Bid Group 6 was installed last summer to avoid disturbing the road reconstruction scheduled to occur prior to the watermain project. A permit to construct was not obtained.

The installation of this watermain is a violation of Wyoming Statute 35-11-301 (a) (v) which prohibits the construction of a public water supply system without a permit. Wyoming Statute 35-11-901 (a) allows for penalties of up to \$10,000 per day for each day the violation continues.

Our review of the materials submitted indicates that the system is in compliance with the regulations contained in Chapter XII of the Wyoming Water Quality Rules and Regulations (WWQRR) with the following exceptions:

- 1) The valve spacing along the 1730 feet of 10-inch line exceeds the interval required under Section 14 (c) of Chapter XII of the WWQRR.
- 2) The 24-inch culvert crossing at Station 71+53 may not allow for adequate cover of the watermain as required by Section 14 (f) (v) of Chapter XII of the WWQRR.

Mr. Dave Engels
May 13, 1993
Page 2

- 3) Specifications were not included in the application package for the watermain as required under Section 7 (f) of Chapter XII of the WWQRR.

None of the above exceptions are anticipated to be a problem. A valve spacing variance has already been approved for the Bid Group 6 permit application. The Beaver Creek 10-inch watermain section is a part of this project area, and therefore, the valve spacing variance includes it. The relatively minor frost exposure from the culvert crossing is not expected to significantly impact the watermain. The line materials, construction, and installation cannot be determined without excavation. However, the Sheridan area water system project specifications have been standardized and previously approved for other bid groups. Deviations from the standard specifications seem unlikely.

Nothing in this letter constitutes an endorsement of the construction or design of the referenced watermain. The state assumes no liability for and does not in any way guarantee the performance of the applicant in the exercise of its activities allowed under this letter. The applicant understands that it is solely responsible to any third parties for any liability arising from the construction or operation of the watermain. By issuance of this letter, the State does not in any way waive its sovereign immunity. Since a permit to construct cannot be issued for as-built facilities, this letter will serve as your final approval document.

Yours truly,



William L. Garland, P.E.
Administrator
Water Quality Division

DRM/pr

xc: Permit 93-104 File
Sheridan District Permit File
WDEQ/WQD-IPS
Archives

PERMIT TO CONSTRUCT

New
 Renewal
 Modified

PERMIT NO. 93-105

Fairway Addition 4th Filing

This permit hereby authorizes the applicant:

Cheyenne BOPU
2100 Pioneer
Cheyenne, WY 82001

to construct, install or modify water and sewer improvements according to the procedures and conditions of the application number 93-105. The facility is located in NE 1/4 Section 24 T14N R67W in the county of Laramie, in the State of Wyoming. This permit shall be effective for a period of two (2) years (5 years maximum) from the date of issuance of this permit.

The issuance of this permit provides that the Department of Environmental Quality has evaluated and determined that the application meets minimum applicable construction and design standards. The compliance with construction standards and the operation and maintenance of the facility to meet the applicant's engineer's design are the responsibility of the applicant, owner, or operator.

The authority to construct granted by this permit does not mean or imply that the Wyoming Department of Environmental Quality guarantees or ensures that the permitted facility, when constructed, will meet applicable discharge permit conditions or other effluent or operational requirements.

Nothing in this permit constitutes an endorsement of the construction or the design of the facility described herein. This permit indicates only that standards of design and construction required by the Environmental Quality Act have been met. The state assumes no liability for, and does not in any way guarantee the performance of, the permittee in the exercise of its activities allowed under this permit. The permittee understands that it is solely responsible to any third parties for any liability arising from the construction or operation of the facility described herein. By the issuance of this permit, the state does not in any way waive its sovereign immunity.

The permittee shall allow authorized representatives from the Department of Environmental Quality, Water Quality Division, upon the presentation of credentials and during working hours, to have access to inspect the facilities, at the above location, for the purpose of compliance with the provisions of this construction permit.

The permittee shall notify representatives from the Department of Environmental Quality, Water Quality Division the day construction commences and give an estimate of completion of the project. The authorized representative in your area can be contacted at the following address: Southeast District Engineer, State of Wyoming, Department of Environmental Quality, Water Quality Division, Herschler Building, 4th Floor West, 122 West 25th Street, Cheyenne, Wyoming 82002; telephone (307) 777-7781.

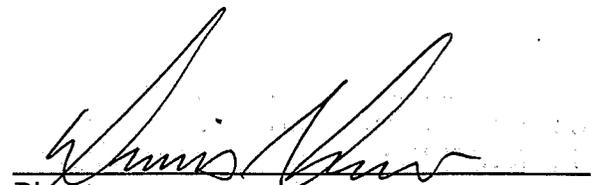
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The issuance of this permit does not convey any property rights in either real or personal property or any invasion of personal rights, nor any infringement of federal, state or local laws or regulations.

AUTHORIZED BY:



Administrator
Water Quality Division



Director
Department of Environmental Quality

5-18-93

Date of Issuance

This permit does not supersede the requirements for obtaining any permit from local agencies.

RLE/jn - 32244.ltr

PERMIT TO CONSTRUCT

New

Permit No. 93-106R

Renewal

Modified

STVRA North Airstrip Well #1-Well House
(Name of Facility)

This permit hereby authorizes the applicant (name and address):

Star Valley Ranch Association

P. O. Box 159

Thayne, WY 83127

to construct a pipeline intertie from well to distribution system according to the procedures and conditions of the application No. 93-106R. The facility is located in SW NW ¼, Section 31, T35N, R118W in the County of Lincoln, in the State of Wyoming. This permit shall be effective for a period of two (2) years from the date of issuance of this permit.

The issuance of this permit provides that the Department of Environmental Quality has evaluated and determined that the application meets minimum applicable construction and design standards. The compliance with construction standards and the operation and maintenance of the facility to meet the applicant's engineer's design are the responsibility of the applicant, owner, or operator.

The authority to construct granted by this permit does not mean or imply that the Wyoming Department of Environmental Quality guarantees or insures that the permitted facility, when constructed, will meet applicable discharge permit conditions or other effluent or operational requirements.

Nothing in this permit constitutes an endorsement of the construction or the design of the facility described herein. This permit indicates only that standards of design and construction required by the Environmental Quality Act have been met. The State assumes no liability for, and does not in any way guarantee the performance of, the permittee in the exercise of its activities

allowed under this permit. The permittee understands that it is solely responsible to any third parties for any liability arising from the construction or operation of the facility described herein. By the issuance of this permit, the State does not in any way waive its sovereign immunity.

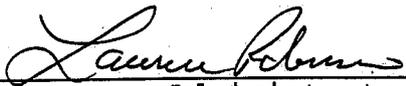
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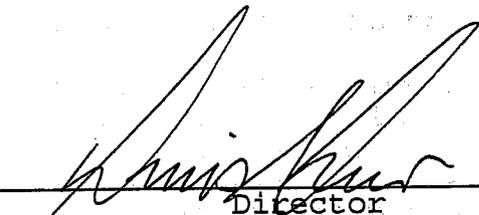
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AUTHORIZED BY:



Administrator
for Water Quality Division



Director
Dept. of Environmental Quality

6/25/93

Date of Issuance

This permit does not supersede the requirements for obtaining any permit from local agencies.

JH/jyi

PERMIT TO CONSTRUCT

- New
 Renewal
 Modified

PERMIT NO. 93-107

NEIMAN HOME SEPTIC SYSTEM
(Name of Facility)

This permit hereby authorizes the applicant (name and address):

Vicki Neiman
P.O. Box 430
Hulett, WY 82720

to construct, install or modify a wastewater treatment facility according to the procedures and conditions of the application No. 93-107. The facility is located in the SE/4, Section 35, Township 55 North, Range 65 West, in the County of Crook in the State of Wyoming. This permit shall be effective for a period of one (1) year from the date of issuance of this permit.

The issuance of this permit provides that the Department of Environmental Quality has evaluated and determined that the application meets minimum applicable construction and design standards. The compliance with construction standards and the operation and maintenance of the facility to meet the applicant's engineer's design are the responsibility of the applicant, owner, or operator.

The authority to construct granted by this permit does not mean or imply that the Wyoming Department of Environmental Quality guarantees or ensures that the permitted facility, when constructed, will meet applicable discharge permit conditions or other effluent or operational requirements.

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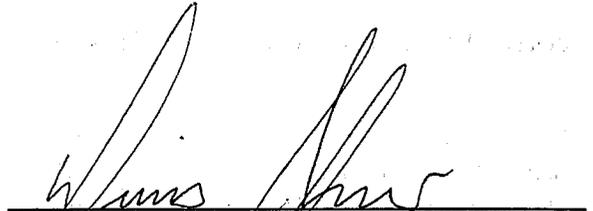
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AUTHORIZED BY:



Administrator
Water Quality Division



Director
Dept. of Environmental Quality

5-6-93

Date of Issuance

This permit does not supersede the requirements for obtaining any permit from local agencies.

JAS/ 05/03/93

RF

PERMIT TO CONSTRUCT

X New
Renewal
Modified

PERMIT NO. 93-108
SPECIAL CONDITIONS

INDIAN HILLS SANITARY SEWER REPLACEMENT

This permit hereby authorizes the applicant:

Cheyenne Board Public Utilities
2100 Pioneer Avenue
Cheyenne, Wyoming 82001

to construct, install or modify Indian Hills Sanitary Sewer Replacement, 800 L.F. sanitary sewer and manholes according to the procedures and conditions of the application number 93-108. The facility is located in Section 21, T14N, R66W in the county of Laramie, in the State of Wyoming. This permit shall be effective for a period of two (2) years (5 years maximum) from the date of issuance of this permit.

The issuance of this permit provides that the Department of Environmental Quality has evaluated and determined that the application meets minimum applicable construction and design standards. The compliance with construction standards and the operation and maintenance of the facility to meet the applicant's engineer's design are the responsibility of the applicant, owner, or operator.

The authority to construct granted by this permit does not mean or imply that the Wyoming Department of Environmental Quality guarantees or ensures that the permitted facility, when constructed, will meet applicable discharge permit conditions or other effluent or operational requirements.

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address: Southeast District Engineer, State of Wyoming, Department of Environmental Quality, Water Quality Division, Herschler Building, 4th Floor West, 122 West 25th Street, Cheyenne, Wyoming 82002; telephone (307) 777-7781.

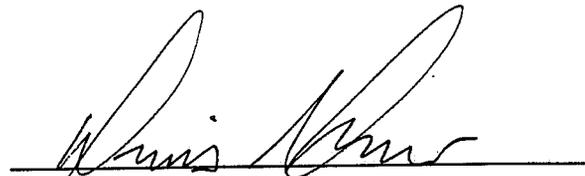
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AUTHORIZED BY:



Administrator
Water Quality Division



Director
Department of Environmental Quality

4-19-93

Date of Issuance

This permit does not supersede the requirements for obtaining any permit from local agencies.

SPECIAL CONDITIONS

- 1 of 4. Field verify vertical separation of 6 inch water line and sanitary sewer at Station 25 + 70. Place in a separate conduit in accordance with Wyoming Public Works Specifications and Section 9 (f) (ii), Chapter XI, Wyoming Water Quality Rules and Regulations, if 18 inch vertical separation cannot be maintained at crossing.
- 2 of 4. Verify and/or correct sanitary sewer slopes between manholes 1C and 2c, 2C and 3C, 3C and 4C, 4C and 5C.
- 3 of 4. Manholes, excavation and bedding shall be in accordance with Wyoming Public Standard Specifications and appropriate sections of Chapter XI, Wyoming Water Quality Rules and Regulations.
- 4 of 4. Sanitary sewer pipe and fittings material specifications shall require PVC SDR35.

LRR/nc 31776.LTR

cc: Joseph E. Kub, Kub Engineering, 5920 Yellowstone Road, Cheyenne, WY 82009

PERMIT TO CONSTRUCT

- New
 Renewal
 Modified

Permit No. 93-109
CONDITIONS

Riverton UMTRA 1.0
(Name of Facility)

This permit hereby authorizes the applicant (name and address):

Jacobs Engineering Group, Inc.
5301 Central Ave. N.E., Ste. 1700
Albuquerque, NM 87108

to install five (5) groundwater monitoring wells at the Riverton UMTRA facility according to the procedures and conditions of the application No. 93-109. The facility is located in SE, SW ¼ sections of Section 4, T1S, R4E in the County of Fremont, in the State of Wyoming. This permit shall be effective for a period of five (5) years from the date of issuance of this permit.

The issuance of this permit provides that the Department of Environmental Quality has evaluated and determined that the application meets minimum applicable construction and design standards. The compliance with construction standards and the operation and maintenance of the facility to meet the applicant's engineer's design are the responsibility of the applicant, owner, or operator.

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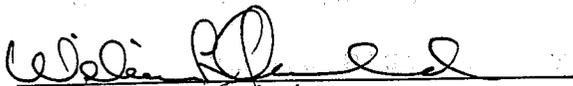
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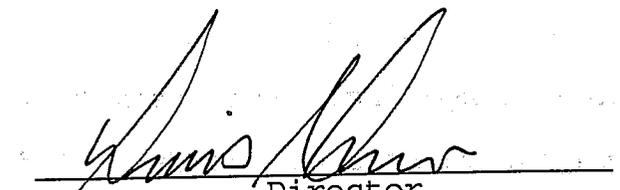
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AUTHORIZED BY:



Administrator
Water Quality Division



Director
Dept. of Environmental Quality

4-28-93

Date of Issuance

This permit does not supersede the requirements for obtaining any permit from local agencies.

DN/mam

* CONDITIONS FOR MONITORING WELLS 1 THROUGH 10 *

Conditions for Monitoring Wells

1. of 10 The groundwater monitoring wells shall be installed in accordance with the conditions of this permit and the plans and specifications submitted in permit to construct application number 93-109. Additional wells meeting the requirements of the application this permit may be installed if prior approval is received from the Water Quality Division (WQD).

2. of 10 Pursuant to Wyoming Water Quality Rules and Regulations, Chapter XI, Section 63(A), a deviation is hereby granted for those wells prevented by physical limitations to adherence to the requirements on minimum depths of seal below ground surface as detailed in Chapter XI, Part G. However a sufficient seal shall be installed according to normal engineering practice.
3. of 10 After the monitoring wells have fulfilled their useful purpose, they shall be abandoned according to procedures specified in Chapter XI, Part G, Section 70 of Wyoming Water Quality Rules and Regulations. Within 15 days after a well has been plugged and abandoned, the owner shall file a plugging record with the WQD.
4. of 10 A waterproof protective casing and locking cap is required on all monitoring wells. Well caps shall be kept locked at all times other than for monitoring purposes. Any tampering with the monitor wells shall be reported immediately to the division. The wells shall be clearly numbered on the outside of the protective casing and on the inside of the well cap.
5. of 10 The issuance of this permit does not relieve the permittee from obligations to complete the extent of contamination study and any further remedial actions which may be required. Depending on the results of the subsurface contamination investigation, additional site investigations or remedial measures may be required by the WQD. An adequate number of wells shall be installed to define the extent of contamination.
6. of 10 In addition to the well construction information submitted with the permit application, the following items relating to well construction shall be implemented when the wells are constructed, installed and developed:
 - a. After the bentonite has been placed in the annular space, it shall be hydrated to ensure a proper seal;
 - b. The borehole diameter shall be at least four inches larger in diameter than the casing diameter;
 - c. The screened interval shall extend at least two or three feet above the highest expected seasonal groundwater level and at least five feet below the lowest expected groundwater level; Factory slotted casing is recommended for the perforated interval;
 - d. If PVC casing is used, only threaded PVC casing is acceptable. Under no circumstances are PVC glue or plastic welding solvents to be used to join casings;

- e. To minimize the entrance of fine grained material into the well the filter pack shall be designed to be compatible with the perforation size and the geologic materials encountered within the perforated interval;
 - f. A top and bottom cap shall be installed to prevent sediment and surface water from entering the well;
 - g. The monitoring well shall be developed by the use of a pump or bailer so that representative groundwater samples can be collected. If contaminants are present or expected to be present, development water should be disposed of in accordance with all state and federal regulation;
 - h. A seal of bentonite or bentonite grout is required from the surface to a foot or two above the top perforation. Protective casing shall be cemented into a sloping concrete cap; and
7. of 10 DEQ/WQD personnel shall be given at least two weeks notice prior to the installation of the monitor wells and sample collection so that DEQ/WQD personnel may be on-site if deemed necessary.
8. of 10 Within 90 days of issuance of this permit, a report on the subsurface investigation shall be submitted to the WQD. This report shall contain at a minimum:
- a. A chronology of events leading up to the investigation;
 - b. A site map showing physical features, well locations and elevations;
 - c. The monitoring well elevation should be measured from the top of casing and that measuring point should be clearly marked on the inside of the casing with an arrow (^).
 - d. Final location, construction details and logs of all monitoring wells;
 - e. Geohydrologic maps and/or cross sections that clearly describe the subsurface distribution of geological materials and groundwater occurrence;
 - f. Water level and product thickness measurements;
 - g. Sample collection procedures;
 - h. Sampling analytical results;
 - i. Maps delineating the extent of the subsurface contamination including free product, soil and dissolved groundwater contamination and concentrations;
 - j. A potentiometric surface map showing the direction of groundwater movement; and

Permit to Construct
Riverton UMTRA 1.0
93-109
Page 5

- k. Interpretation of data and conclusions including recommended remedial measures.
- 9. of 10 Proper well evacuation, sample collection, preservation, transportation and chemical analytical procedures shall be completed in accordance with WQD standard procedures.
- 10. of 10 The results of any analyses conducted on soil or water removed from these wells or boreholes shall be provided to the department as soon as they are available.

cc: Jake Strohman

PERMIT TO CONSTRUCT

- New
- Renewal
- Modified

Permit No. 93-110
CONDITIONS

Riverton UMTRA 2.0
(Name of Facility)

This permit hereby authorizes the applicant (name and address):

Jacobs Engineering Group, Inc.

5301 Central Ave. N.E., Ste. 1700

Albuquerque, NM 87108

to install two (2) groundwater monitoring wells at the Riverton UMTRA facility according to the procedures and conditions of the application No. 93-110. The facility is located in NE $\frac{1}{4}$ of Section 9, T1S, R4E in the County of Fremont, in the State of Wyoming. This permit shall be effective for a period of five (5) years from the date of issuance of this permit.

The issuance of this permit provides that the Department of Environmental Quality has evaluated and determined that the application meets minimum applicable construction and design standards. The compliance with construction standards and the operation and maintenance of the facility to meet the applicant's engineer's design are the responsibility of the applicant, owner, or operator.

The authority to construct granted by this permit does not mean or imply that the Wyoming Department of Environmental Quality guarantees or insures that the permitted facility, when constructed, will meet applicable discharge permit conditions or other effluent or operational requirements.

Nothing in this permit constitutes an endorsement of the construction or the design of the facility described herein. This permit indicates only that standards of design and construction required by the Environmental Quality Act have been met. The State assumes no liability for, and does not in any way guarantee the performance of, the permittee in the exercise of its activities allowed under this permit. The permittee understands that it is solely responsible to any third parties for any liability arising from the construction or operation of the facility described herein. By the issuance of this permit, the State does not in any way waive its sovereign immunity.

The permittee shall allow authorized representatives from the Department of Environmental Quality, Water Quality Division, upon the presentation of credentials and during working hours, to have access to inspect the facilities, at the above location, for the purpose of compliance with the provisions of this construction permit.

The permittee shall notify representatives from the Department of Environmental Quality, Water Quality Division the day construction commences and give an estimate of completion of the project. The authorized representative in your area can be contacted at the following address: District Engineer, State of Wyoming, Department of Environmental Quality, Water Quality Division, 250 Lincoln, Lander, WY 82520; telephone, 332-3144.

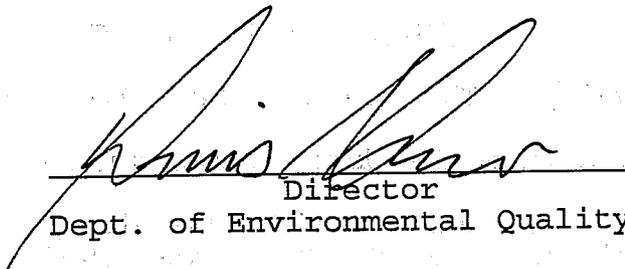
Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities or penalties established pursuant to any applicable State law or regulation.

The issuance of this permit does not convey any property rights in either real or personal property, 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.

AUTHORIZED BY:



Administrator
Water Quality Division



Director
Dept. of Environmental Quality

4-28-93

Date of Issuance

This permit does not supersede the requirements for obtaining any permit from local agencies.

DN/mam

* CONDITIONS FOR MONITORING WELLS 1 THROUGH 10 *

Conditions for Monitoring Wells

1. of 10 The groundwater monitoring wells shall be installed in accordance with the conditions of this permit and the plans and specifications submitted in permit to construct application number 93-110. Additional wells meeting the requirements of the application this permit may be installed if prior approval is received from the Water Quality Division (WQD).

2. of 10 Pursuant to Wyoming Water Quality Rules and Regulations, Chapter XI, Section 63(A), a deviation is hereby granted for those wells prevented by physical limitations to adherence to the requirements on minimum depths of seal below ground surface as detailed in Chapter XI, Part G. However a sufficient seal shall be installed according to normal engineering practice.
3. of 10 After the monitoring wells have fulfilled their useful purpose, they shall be abandoned according to procedures specified in Chapter XI, Part G, Section 70 of Wyoming Water Quality Rules and Regulations. Within 15 days after a well has been plugged and abandoned, the owner shall file a plugging record with the WQD.
4. of 10 A waterproof protective casing and locking cap is required on all monitoring wells. Well caps shall be kept locked at all times other than for monitoring purposes. Any tampering with the monitor wells shall be reported immediately to the division. The wells shall be clearly numbered on the outside of the protective casing and on the inside of the well cap.
5. of 10 The issuance of this permit does not relieve the permittee from obligations to complete the extent of contamination study and any further remedial actions which may be required. Depending on the results of the subsurface contamination investigation, additional site investigations or remedial measures may be required by the WQD. An adequate number of wells shall be installed to define the extent of contamination.
6. of 10 In addition to the well construction information submitted with the permit application, the following items relating to well construction shall be implemented when the wells are constructed, installed and developed:
 - a. After the bentonite has been placed in the annular space, it shall be hydrated to ensure a proper seal;
 - b. The borehole diameter shall be at least four inches larger in diameter than the casing diameter;
 - c. The screened interval shall extend at least two or three feet above the highest expected seasonal groundwater level and at least five feet below the lowest expected groundwater level; Factory slotted casing is recommended for the perforated interval;
 - d. If PVC casing is used, only threaded PVC casing is acceptable. Under no circumstances are PVC glue or plastic welding solvents to be used to join casings;

- e. To minimize the entrance of fine grained material into the well the filter pack shall be designed to be compatible with the perforation size and the geologic materials encountered within the perforated interval;
 - f. A top and bottom cap shall be installed to prevent sediment and surface water from entering the well;
 - g. The monitoring well shall be developed by the use of a pump or bailer so that representative groundwater samples can be collected. If contaminants are present or expected to be present, development water should be disposed of in accordance with all state and federal regulation;
 - h. A seal of bentonite or bentonite grout is required from the surface to a foot or two above the top perforation. Protective casing shall be cemented into a sloping concrete cap; and
7. of 10 DEQ/WQD personnel shall be given at least two weeks notice prior to the installation of the monitor wells and sample collection so that DEQ/WQD personnel may be on-site if deemed necessary.
8. of 10 Within 90 days of issuance of this permit, a report on the subsurface investigation shall be submitted to the WQD. This report shall contain at a minimum:
- a. A chronology of events leading up to the investigation;
 - b. A site map showing physical features, well locations and elevations;
 - c. The monitoring well elevation should be measured from the top of casing and that measuring point should be clearly marked on the inside of the casing with an arrow (^).
 - d. Final location, construction details and logs of all monitoring wells;
 - e. Geohydrologic maps and/or cross sections that clearly describe the subsurface distribution of geological materials and groundwater occurrence;
 - f. Water level and product thickness measurements;
 - g. Sample collection procedures;
 - h. Sampling analytical results;
 - i. Maps delineating the extent of the subsurface contamination including free product, soil and dissolved groundwater contamination and concentrations;
 - j. A potentiometric surface map showing the direction of groundwater movement; and

Permit to Construct
Riverton UMTRA 2.0
93-110
Page 5

- k. Interpretation of data and conclusions including recommended remedial measures.
- 9. of 10 Proper well evacuation, sample collection, preservation, transportation and chemical analytical procedures shall be completed in accordance with WQD standard procedures.
- 10. of 10 The results of any analyses conducted on soil or water removed from these wells or boreholes shall be provided to the department as soon as they are available.

cc: Jake Strohman

PERMIT TO CONSTRUCT

X New
 Renewal
 Modified

PERMIT NO. 93-111
SPECIAL CONDITIONS

King II Water Storage Reservoir

This permit hereby authorizes the applicant:

City of Cheyenne Board of Public Utility
2100 Pioneer Avenue
P.O. Box 1469
Cheyenne, WY 82003

to construct, install or modify Public Water Supply (Water Storage Tank) according to the procedures and conditions of the application number 93-111. The facility is located in SW 1/4 Section 31, T14N, R67W in the county of Laramie, in the State of Wyoming. This permit shall be effective for a period of two (2) years (5 years maximum) from the date of issuance of this permit.

The issuance of this permit provides that the Department of Environmental Quality has evaluated and determined that the application meets minimum applicable construction and design standards. The compliance with construction standards and the operation and maintenance of the facility to meet the applicant's engineer's design are the responsibility of the applicant, owner, or operator.

The authority to construct granted by this permit does not mean or imply that the Wyoming Department of Environmental Quality guarantees or ensures that the permitted facility, when constructed, will meet applicable discharge permit conditions or other effluent or operational requirements.

Nothing in this permit constitutes an endorsement of the construction or the design of the facility described herein. This permit indicates only that standards of design and construction required by the Environmental Quality Act have been met. The state assumes no liability for, and does not in any way guarantee the performance of, the permittee in the exercise of its activities allowed under this permit. The permittee understands that it is solely responsible to any third parties for any liability arising from the construction or operation of the facility described herein. By the issuance of this permit, the state does not in any way waive its sovereign immunity.

The permittee shall allow authorized representatives from the Department of Environmental Quality, Water Quality Division, upon the presentation of credentials and during working hours, to have access to inspect the facilities, at the above location, for the purpose of compliance with the provisions of this construction permit.

The permittee shall notify representatives from the Department of Environmental Quality, Water Quality Division the day construction commences and give an estimate of completion of the project. The authorized representative in your area can be contacted at the following address: Southeast District Engineer, State of Wyoming, Department of Environmental Quality, Water Quality Division, Herschler Building, 4th Floor West, 122 West 25th Street, Cheyenne, Wyoming 82002; telephone (307) 777-7781.

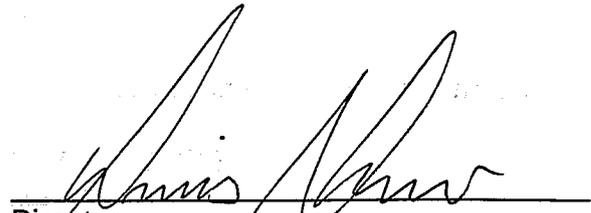
Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities or penalties established pursuant to any applicable state law or regulation.

The issuance of this permit does not convey any property rights in either real or personal property or any invasion of personal rights, nor any infringement of federal, state or local laws or regulations.

AUTHORIZED BY:



Administrator
Water Quality Division



Director
Department of Environmental Quality

5-24-93

Date of Issuance

This permit does not supersede the requirements for obtaining any permit from local agencies.

SPECIAL CONDITIONS

1 of 3. Chapter XII Section 13, Finished Water Storage

- A. Paragraph (a)vi-B. The overflow pipe shall be screened with noncorrodible screen installed within the pipe at a location least susceptible to damage by vandalism.
- B. Paragraph (a)vi-C. The overflow pipe shall be of sufficient diameter to permit wasting of water in excess of the filling rate.
- C. Paragraph (a)vii. The access manholes shall be fitted with a solid watertight cover which overlaps the framed opening and extends down around the frame at least 2 inches. The cover shall be hinged at 1 side and shall have a locking device.

2 of 3. Chapter XII, Section 16, Operation and Maintenance Manuals. Paragraph (b). An O&M Manual is required for this project and is to be approved prior to the startup of the facility.

3 of 3. Recommendation on Overflow Piping. The elevation where the overflow pipe extends through the tank wall should be raised as high as possible to reduce the amount of the overflow pipe inside the tank to a minimum.

GS/nc 32465.LTR

REVIEW OF PLANS AND SPECIFICATIONS

WYOMING DEPARTMENT OF ENVIRONMENTAL QUALITY
WATER QUALITY DIVISION
Herschler Bldg., 4 West
Cheyenne, Wyoming 82002

PROJECT: King II Water Storage Reservoir
ENGINEER: Mark J. Maxwell
Black & Veatch
1400 S. Potomac St., Ste 200
Aurora, CO 80012
APPLICANT: Cheyenne Board of Public Utilities
P O Box 1469
Cheyenne, WY 82003

WATER QUALITY REFERENCE NUMBER: 93-111

APPROVING ENGINEER: Gary Steele

DATE OF REVIEW: May 5, 1993

ACTION: NOT AUTHORIZED FOR CONSTRUCTION

COMMENTS, PROBLEMS, INADEQUACIES, and QUESTIONS:

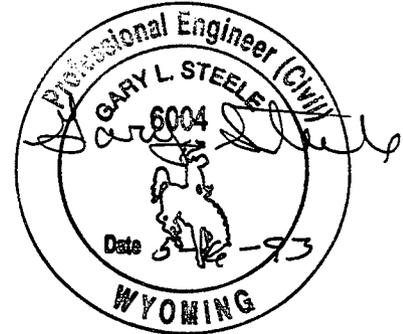
The project documents as submitted are incomplete in that a design report is required in accordance with Chapter XII, Section 6 of the Water Quality Rules and Regulations. The design report should include information on the Radon Remover which should include design and sizing.

A complete and thorough review cannot be completed without a proper Design Report. A preliminary review was performed and the following items were found and need to be addressed.
Chapter XII

Section 7, Plans & Specifications Content

1. Paragraph (c)ii. Profiles of all water lines shall be shown on the same sheet as the plan view at legible horizontal and vertical scales, with a profile of existing and finished surfaces, pipe size and material, valve size, material and type. The location of all special features such as access manholes, concrete encasements, casing pipes, blowoff valves, air-vacuum relief valves, etc., shall be shown.

Section 11, Chemical Application



2. Paragraph (b)ii. Control of chlorine injection at the new tank needs to be addressed.

Section 13, Finished Water Storage

3. Paragraph (a)iv. Protection from trespassers. Security-type fencing, locks on access manholes, and other precautions shall be provided to prevent trespassing, vandalism, and sabotage at above ground storage facilities. Below ground level storage facilities may be exempt from the fencing requirements.
4. Paragraph (a)vi-A. For storage facilities other than elevated tanks, the overflow pipe shall be located on the outside of the structure.
5. Paragraph (a)vi-B. The overflow of a ground level structure shall be screened with noncorrodible screen installed within the pipe at a location least susceptible to damage by vandalism.
6. Paragraph (a)vi-C. The overflow pipe shall be of sufficient diameter to permit wasting of water in excess of the filling rate.
7. Paragraph (a)vii. The access manholes shall be fitted with a solid watertight cover which overlaps the framed opening and extends down around the frame at least 2 inches. The cover shall be hinged at 1 side and shall have a locking device.

Section 16 Operation and Maintenance Manuals.

8. Paragraph (b). An O&M Manual is required for this project and is to be approved prior to the startup of the facility.
9. Sheet 2 of the Plans. The plans indicate that the minimum cover over the new water line is to be 6 inches. This should probably read 6 feet instead of 6 inches.
10. This facility will discharge waters to the ground surface through the drains and overflow. A permit may be required for the discharge of waters to the ground surface. John Wagner needs to be contacted at 777-7082, to determine if a permit is required.

Please address the comments given above and provide revised sets of plans and specifications with a design report so that a thorough review of the project can be done.

LAND APPLICATION PERMIT

- [X] New
[] Renewal
[] Modified

PERMIT NO. 93-112
(Reference #92-286)
SEE SPECIAL CONDITIONS

DONKEY CREEK OIL FIELD LEASE ROAD APPLICATION

(Name of Facility)

This permit hereby authorizes the applicant (name and address):

True Oil Company
P.O. Box 2360
Casper, WY 82602

to land apply waste crude oil and sludges according to the procedures and conditions of the application No. 93-112. The application site is located in South 1/2, Sections 5, Township 49 North, Range 68 West, in the County of Crook in the State of Wyoming. This permit shall be effective until November 1, 1993.

The issuance of this permit provides that the Department of Environmental Quality has evaluated and determined that the application meets minimum applicable construction and design standards. The compliance with construction standards and the operation and maintenance of the facility to meet the applicant's engineer's design are the responsibility of the applicant, owner, or operator.

The authority to construct granted by this permit does not mean or imply that the Wyoming Department of Environmental Quality guarantees or ensures that the permitted facility, when constructed, will meet applicable discharge permit conditions or other effluent or operational requirements.

Nothing in this permit constitutes an endorsement of the construction or the design of the facility described herein. This permit indicates only that standards of design and construction required by the Environmental Quality Act have been met. The State assumes no liability for, and does not in any way guarantee the performance of, the permittee in the exercise of its activities allowed under this permit. The permittee understands that it is solely responsible to any third parties for any liability arising from the construction or operation of the facility described herein. By the issuance of this permit, the state does not in any way waive its sovereign immunity.

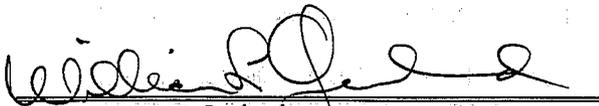
The permittee shall allow authorized representatives from the Department of Environmental Quality, Water Quality Division, upon the presentation of credentials and during working hours, to have access to inspect the facilities, at the above location, for the purpose of compliance with the provisions of this construction permit.

The permittee shall notify representatives from the Department of Environmental Quality, Water Quality Division, the day construction commences and give an estimate of completion of the project. The authorized representative in your area can be contacted at the following address: State of Wyoming, Department of Environmental Quality, Water Quality Division, 2161 Coffeen Avenue, Annex, Sheridan, Wyoming 82801; telephone, 672-6457.

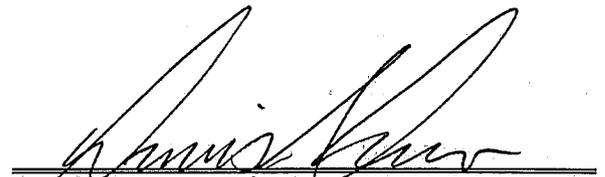
Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities or penalties established pursuant to any applicable State law or regulation.

The issuance of this permit does not convey any property rights in either real or personal property, 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.

AUTHORIZED BY:



Administrator
Water Quality Division



Director
Dept. of Environmental Quality

5/7/93

Date of Issuance

This permit does not supersede the requirements for obtaining any permit from local agencies.

JAS/ 05/04/93

LAND APPLICATION SPECIAL CONDITIONS

- 1/7. Waste oil and sludges shall be applied uniformly and at a rate which will not produce runoff or ponding. Application shall not be initiated during the spring runoff period or other periods where saturated soil conditions exist. Crude oil stained soils shall not be applied during the period from November 1 to April 10.
- 2/7. Waste oils and sludges applied to a road shall be mechanically incorporated into the roadbed as it is applied. If there is

Permit #93-112

any evidence of free oil following application, it shall be reincorporated into the road surface.

- 3/7. The application site slope shall not exceed eight percent (8%) for vehicular application.
- 4/7. Application of waste oils and sludges to road soil shall be terminated with 300 feet of the definable high water mark of perennial and intermittent drainages, irrigation canals, lakes and reservoirs.
- 5/7. Any waste crude oil and sludge application after November 1, 1993 must be repermited.
- 6/7. The permittee will contact the Department of Environmental Quality, Water Quality Division District Office, 2161 Coffeen Avenue, Annex, Sheridan, Wyoming 82801, telephone number 307/672-6457, to arrange a field inspection prior to initiation of work. The District Office should be notified at least 48 hours in advance of discharges and must be informed how much waste oil will be applied (number of truckloads), the specific site of application (to the nearest 1/4 section) and time of application.
- 7/7. This permit is for a one time application. Any additional applications of waste crude oil, sludge, or other products shall be repermited.

PERMIT TO CONSTRUCT

New

Permit No. 93-114R

Renewal

Modified

Hudson 100,000 Gallon Steel Reservoir
(Name of Facility)

This permit hereby authorizes the applicant (name and address):

Town of Hudson

P.O. Box 56

Hudson, WY 82515

to construct a 100,000 gallon bolted steel water storage reservoir according to the procedures and conditions of the application No. 93-114R. The facility is located in NW ¼ NW ¼ Section 28, T34N, R98W in the County of Fremont, in the State of Wyoming. This permit shall be effective for a period of two (2) years from the date of issuance of this permit.

The issuance of this permit provides that the Department of Environmental Quality has evaluated and determined that the application meets minimum applicable construction and design standards. The compliance with construction standards and the operation and maintenance of the facility to meet the applicant's engineer's design are the responsibility of the applicant, owner, or operator.

The authority to construct granted by this permit does not mean or imply that the Wyoming Department of Environmental Quality guarantees or insures that the permitted facility, when constructed, will meet applicable discharge permit conditions or other effluent or operational requirements.

Nothing in this permit constitutes an endorsement of the construction or the design of the facility described herein. This permit indicates only that standards of design and construction required by the Environmental Quality Act have been met. The State assumes no liability for, and does not in any way guarantee the performance of, the permittee in the exercise of its activities allowed under this permit. The permittee understands that it is solely responsible to any third parties for any liability arising from the construction or operation of the facility described herein. By the issuance of this permit, the State does not in any way waive its sovereign immunity.

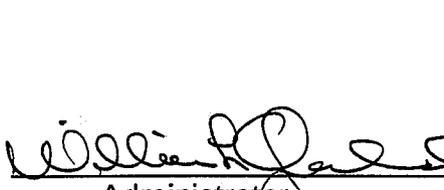
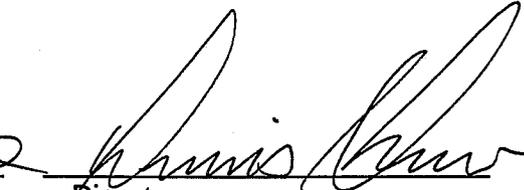
The permittee shall allow authorized representatives from the Department of Environmental Quality, Water Quality Division, upon the presentation of credentials and during working hours, to have access to inspect the facilities, at the above location, for the purpose of compliance with the provisions of this construction permit.

The permittee shall notify representatives from the Department of Environmental Quality, Water Quality Division the day construction commences and give an estimate of completion of the project. The authorized representative in your area can be contacted at the following address: District Engineer, State of Wyoming, Department of Environmental Quality, Water Quality Division, 250 Lincoln, Lander, WY 82520; telephone, 332-3144.

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.

The issuance of this permit does not convey any property rights in either real or personal property, 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.

AUTHORIZED BY:

	
Administrator	Director
Water Quality Division	Dept. of Environmental Quality

6-29-93
Date of Issuance

This permit does not supersede the requirements for obtaining any permit from local agencies.

JH/jyi

RF

MEMORANDUM

TO: File: Permit #93-115 (Wyoming Refining Company) Recovery Wells RW-10, RW-11, and RW-12

FROM: K. Frederick *KF*

DATE: August 9, 1993

RE: Explanation: Plans and specifications not stamped/approved by WDEQ Professional Engineer

These recovery wells were proposed to EPA by Wyoming Refining Company (WRC) as a means to allow WRC to reach compliance with its Consent Decree with EPA. At the request of EPA, DEQ/WQD reviewed the proposal for the above recovery wells and had several concerns with respect to the efficacy of the proposed locations. Due to these critical concerns, a formal engineering review was not needed at this time; the application for a WQD Permit to construct the wells was not authorized by the Department. Comments were provided to both EPA and the applicant (WRC), informing both parties that DEQ/WQD would not authorize the Permit as proposed until EPA agreed that the proposed wells complied with the terms of WRC's original proposal dated July 9, 1992.

In a letter to WRC dated September 16, 1993 EPA informed WRC that the applicant could proceed with installation of the wells "at their own risk".

Since the Wyoming Supreme Court had ruled (Hermes Consolidated v. People; No. 92-89, April 6, 1993) that the State cannot become party to the recovery well system identified in EPA's Consent Decree with WRC, DEQ had no choice but to issue the Permit for these recovery wells, even though the Permit was not authorized.

/nc 35316.LTR

PERMIT TO CONSTRUCT

X New
Renewal
Modified

PERMIT NO. 93-115
SPECIAL CONDITIONS

Wyoming Refining Company

This permit hereby authorizes the applicant:

Wyoming Refining Company
740 West Main
Newcastle, WY 82701

to construct, install or modify GPC: Groundwater Recovery Wells according to the procedures and conditions of the application number 93-115. The facility is located in Section 29, T45N, R61W in the county of Weston, in the State of Wyoming. This permit shall be effective for a period of two (2) years from the date of issuance of this permit.

The issuance of this permit provides that the Department of Environmental Quality has evaluated and determined that the application meets minimum applicable construction and design standards. The compliance with construction standards and the operation and maintenance of the facility to meet the applicant's engineer's design are the responsibility of the applicant, owner, or operator.

The authority to construct granted by this permit does not mean or imply that the Wyoming Department of Environmental Quality guarantees or ensures that the permitted facility, when constructed, will meet applicable discharge permit conditions or other effluent or operational requirements.

Nothing in this permit constitutes an endorsement of the construction or the design of the facility described herein. This permit indicates only that standards of design and construction required by the Environmental Quality Act have been met. The state assumes no liability for, and does not in any way guarantee the performance of, the permittee in the exercise of its activities allowed under this permit. The permittee understands that it is solely responsible to any third parties for any liability arising from the construction or operation of the facility described herein. By the issuance of this permit, the state does not in any way waive its sovereign immunity.

The permittee shall allow authorized representatives from the Department of Environmental Quality, Water Quality Division, upon the presentation of credentials and during working hours, to have access to inspect the facilities, at the above location, for the purpose of compliance with the provisions of this construction permit.

The permittee shall notify representatives from the Department of Environmental Quality, Water Quality Division the day construction commences and give an estimate of completion of the project. The authorized representative in your area can be contacted at the following address: K. Frederick, State of Wyoming, Department of Environmental Quality, Water Quality Division, Herschler Building, 4th Floor West, 122 West 25th Street, Cheyenne, Wyoming 82002; telephone (307) 777-7781.

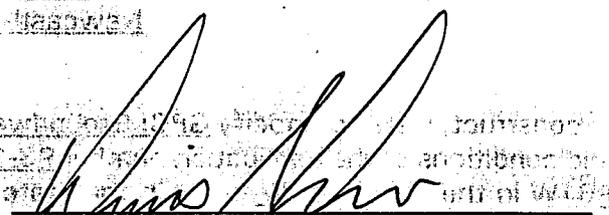
Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities or penalties established pursuant to any applicable state law or regulation.

The issuance of this permit does not convey any property rights in either real or personal property or any invasion of personal rights, nor any infringement of federal, state or local laws or regulations.

AUTHORIZED BY:



Administrator
Water Quality Division



Director
Department of Environmental Quality

8-9-93
Date of Issuance

This permit does not supersede the requirements for obtaining any permit from local agencies.

SPECIAL CONDITIONS

1 of 1. The applicant is responsible for obtaining any and all permits required by the State Engineer's office.

33711.LTR



THE STATE OF WYOMING

MIKE SULLIVAN
GOVERNOR



Department of Environmental Quality

Herschler Building • 122 West 25th Street • Cheyenne, Wyoming 82002

Administration
(307) 777-7937

Air Quality Division
(307) 777-7391

Land Quality Division
(307) 777-7756
FAX (307) 634-0799

Solid Waste Management Program
(307) 777-7752

Water Quality Division
(307) 777-7781
FAX (307) 777-5973

August 6, 1993

Mr. Bob Neufeld, Manager
Environmental Operations
Wyoming Refining Company
1600 Broadway, Suite 2500
Denver, CO 80202

RE: DEQ/WQD Permits to Construct:
RW-10, 11 and 12 (#93-115);
RW-13, 14, 15, 16, 17 and 18 (#93-167)

Dear Mr. Neufeld:

Enclosed, please find Permits to Construct #93-115 and #93-167 for the installation of additional groundwater extraction wells at Wyoming Refining Company's (WRC) Newcastle, Wyoming refinery.

In the review comments attached to its letter of July 8, 1993 to Mr. J.L. Jackson, the Water Quality Division (WQD) expressed its technical concerns with WRC's proposals¹ to proceed

¹ "Hydrogeologic Information to Accompany Permit Application for Recovery Wells RW-10, RW-11, RW-12", February 15, 1993;

"Engineering Report to Accompany Permit Application for Recovery Wells RW-10, RW-11, RW-12", March 25, 1993.

"Hydrogeologic Information to Accompany Permit Application for Recovery Wells RW-13 Through RW-18", February 15, 1993;

"Engineering Report to Accompany Permit Application for Recovery Wells RW-13, 14, 15, 16, 17 & 18", May 3, 1993.

August 6, 1993
Page 2

with installation of the extraction wells. Upon invitation, these comments were also provided to EPA. It is WQD's understanding that EPA has similar concerns.

Please feel free to contact me should you have any questions.

Sincerely,



Kevin D. Frederick, P.G.
Supervisor
Groundwater Pollution Control Program

KDF/nc 33710.LTR

attachment

cc: Dennis Hemmer, Director, DEQ
Bill Garland, Administrator, WQD
Keith Burron, Attorney General's Office
Randy Lamdin, EPA, Denver

WRC/93-115-1.LTR



THE STATE OF WYOMING

MIKE SULLIVAN
GOVERNOR

R7 93-115



Department of Environmental Quality

Herschler Building • 122 West 25th Street • Cheyenne, Wyoming 82002

Administration
(307) 777-7937

Air Quality Division
(307) 777-7391

Land Quality Division
(307) 777-7756
FAX (307) 634-0799

Solid Waste Management Program
(307) 777-7752

Water Quality Division
(307) 777-7781
FAX (307) 777-5973

July 8, 1993

Mr. J.L. Jackson
Environmental Manager
Wyoming Refining Company
P.O. Box 820
Newcastle, WY 82701

RE: Permit Applications for Recovery Wells RW-10, 11, and 12 [93-115] & RW-13, 14, 15, 16, 17 and 18 [93-167]

Dear Mr. Jackson:

The Water Quality Division has reviewed the applications submitted by Wyoming Refining Company (WRC) for the installation of additional recovery wells and has advised the EPA of its concerns via submittal of the attached comments.

In an effort to cooperate and participate with the US EPA in the execution of remedial measures and consent orders, the Division will issue Permits to Construct for the recovery wells upon written notification from EPA that WRC is allowed to proceed with installation of the recovery wells.

Please feel free to contact me should you have any questions.

Sincerely,

Kevin D. Frederick, P.G.
Supervisor, Groundwater Pollution Control Program
Water Quality Division

KDF/nc 33287.LTR

Attachment

cc: Dennis Hemmer, Director, DEQ
Bill Garland, Administrator, WQD
Randy Lamdin, EPA, Region VIII, Denver
Bill Flynn, Attorney General's Office

WRC/93-115.LTR
WRC/93-167.LTR

RF 93-115



THE STATE OF WYOMING



MIKE SULLIVAN
GOVERNOR

Department of Environmental Quality

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Solid Waste Management Program
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Water Quality Division
(307) 777-7781
FAX (307) 777-5973

July 9, 1993

Mr. Randy Lamdin (8HWM-HW)
US EPA Region VIII
999 18th Street, Suite 500
Denver, CO 80202-2405

RE: Wyoming Refining Company, Newcastle, Wyoming; Proposed Recovery Wells RW-10, RW-11, RW-12, RW-13, RW-14, RW-15, RW-16, RW-17 and RW-18

Dear Mr. Lamdin:

The Water Quality Division (WQD) has reviewed the referenced reports. Comments and recommendations are summarized on the enclosed Groundwater Pollution Control (GPC) Program review form.

Due to the Division's concerns with the efficacy of installing additional recovery wells prior to obtaining the information suggested in the attached review, an engineering review of the proposed construction, operation and maintenance of the recovery wells was deemed presumptuous and was not performed. Should EPA agree to allow WRC to proceed, in spite of the Division's concerns, the Division requests that it be allowed to provide these engineering comments to EPA for consideration and inclusion into WRC's workplan.

Please contact me directly should you have any questions regarding this review.

Sincerely,

Kevin D. Frederick, P.G.
Supervisor, Groundwater Pollution Control Program
Water Quality Division

KDF/nc 33286.LTR
Attachment

cc: Dennis Hemmer, Director, DEQ
Bill Garland, Administrator, WQD
Bill Flynn, Attorney General's Office

PERMITS/93-115.RVW
PERMITS/93-167.RVW

GROUNDWATER POLLUTION CONTROL PROGRAM
REVIEW COMMENTS: REPORTS/PROPOSALS/PLANS

WYOMING DEPARTMENT OF ENVIRONMENTAL QUALITY
WATER QUALITY DIVISION

Herschler Bldg., 4 West
Cheyenne, Wyoming 82002

PROJECT: **CONTAINMENT SYSTEM: Groundwater Extraction Wells:**
 RW-10, RW-11, RW-12, RW-13, RW-14, RW-15,
 RW-16, RW-17 and RW-18

APPLICANT: **Wyoming Refining Company**
 740 West Main
 Newcastle, WY 82701

GEOLOGIST: **Dr. Richard Davis**
 Geotechnical Corporation
 P.O. Box 1292
 Laramie, WY 82070

ENGINEER: **Keith E. Anderson**
 High Plains of Wyoming
 Box 727
 Newcastle, WY 82702

WATER QUALITY DIVISION REFERENCE (PERMIT) NUMBER: **93-115, 93-167**

EXISTING NEW AS BUILT

PROPOSAL PLANS REPORT

TITLE: **1 of 2: "Hydrogeologic Information to Accompany Permit Application for Recovery**
 Wells RW-10, RW-11, RW-12", February 15, 1993;

2 of 2: "Engineering Report to Accompany Permit Application for Recovery Wells
 RW-10, RW-11, RW-12", March 25, 1993.

AND

1 of 2: "Hydrogeologic Information to Accompany Permit Application for Recovery
 Wells RW-13 Through RW-18", February 15, 1993;

2 of 2: "Engineering Report to Accompany Permit Application for Recovery Wells
 RW-13, 14, 15, 16, 17 & 18", May 3, 1993.

IS THIS PROPOSAL SUBMITTED PURSUANT TO 'CONDITIONS' TO ANY WQD PERMIT?

NO

YES

REVIEWING GEOLOGIST: Kevin D. Frederick, P.G.

REVIEWING ENGINEER: NA

DATE OF LAST REVIEW: NA

DATE OF THIS REVIEW: June 28, 1993

ACTION: Comments provided to EPA/RCRA Branch. Recommendation that system not be approved.

COMMENTS: GROUNDWATER SECTION

1. As mentioned in Dr. Davis' report, recent installation of additional piezometers has 'revealed' the existence of a "previously unknown, buried bedrock valley filled with alluvium which (sic) has important effects upon the movements of potentially contaminated fluids". Although the existence of coarse, highly permeable and transmissive fluvial deposits adjacent to a stream (Cambria Creek) which has incised itself well into the earlier deposited Belle Fourche shale should come as no surprise to most groundwater scientists, the "discovery" nevertheless serves to illustrate the general lack of understanding of the hydrogeologic flow regime associated with refinery, and perhaps most importantly, the control of that regime for the purposes of restoring groundwater quality.

It is the Division's recommendation that, since the groundwater flow regime appears to be so poorly understood, the installation of additional recovery wells is presumptuous at this time. Further site characterization together with a review and reduction of existing data should first be performed to delineate the (horizontal and vertical) extent and hydraulic properties of both the Cambria Creek valley fill and the Belle Fourche shale adjacent to it. Upon completion of this effort, the existing recovery system, including (EPA) recovery wells, French drains, and sumps should be evaluated to determine whether the modifications proposed by Dr. Davis¹ should be implemented, or whether additional recovery wells may be necessary, and where best to place them as determined from more complete aquifer testing of the valley fill system.

2. It is the Division's opinion that ascertaining the boundary conditions which are likely to be imposed by the Belle Fourche shale onto the proposed and existing recovery wells is an important consideration which has not been addressed or defined, nor has the refinery's capability to treat and dispose of the expected large volumes of water which are likely to be withdrawn during the development of sufficient capture zones from these wells. Neither of these factors have been defined, yet each may control the viability of installing additional recovery wells.
4. Due to the discovery of the buried valley fill, and the importance that such a highly transmissive system has upon the migration and control of groundwater and contaminants, the Division recommends that the regulatory agencies meet with WRC to explore ways in which further site characterization or data review may result in a more effective and efficient approach to groundwater restoration.

¹ "Hydrogeologic Information to Accompany Permit Application for Recovery Wells RW-10, RW-11, RW-12", February 15, 1993; p.2

Review of Plans & Specs - 92-274
July 12, 1993
Page 4

5. The Division again reiterates its concerns that WRC has failed to address site characterization of the refinery proper; the control of sources, including the wastewater treatment ponds, which likely serve as continuing sources of contamination to groundwater; and the delineation and restoration of any and all contamination which has migrated off-site from the refinery and beyond the control of the existing recovery systems.

/nc 33286.LTR

PERMIT TO CONSTRUCT

New
 Renewal
 Modified

PERMIT NO. 93-116
Reference Permits: 91-114
89-135, 87-319, 85-514
SPECIAL CONDITIONS

EXXON Temporary Wastewater Disposal Facilities - Statewide

This permit hereby authorizes the applicant:

EXXON Corporation
Attn. Joe R. Glass
P.O. Box 1600
Midland, Texas 79702

to construct, install or modify temporary sanitary wastewater disposal facilities at drill locations and off-site associated construction camps according to the procedures and conditions of the application number 93-116. The facility is located Statewide, in Wyoming. This permit shall be effective for a period of two (2) years (5 years maximum) from the date of issuance of this permit.

The issuance of this permit provides that the Department of Environmental Quality has evaluated and determined that the application meets minimum applicable construction and design standards. The compliance with construction standards and the operation and maintenance of the facility to meet the applicant's engineer's design are the responsibility of the applicant, owner, or operator.

The authority to construct granted by this permit does not mean or imply that the Wyoming Department of Environmental Quality guarantees or ensures that the permitted facility, when constructed, will meet applicable discharge permit conditions or other effluent or operational requirements.

Nothing in this permit constitutes an endorsement of the construction or the design of the facility described herein. This permit indicates only that standards of design and construction required by the Environmental Quality Act have been met. The state assumes no liability for, and does not in any way guarantee the performance of, the permittee in the exercise of its activities allowed under this permit. The permittee understands that it is solely responsible to any third parties for any liability arising from the construction or operation of the facility described herein. By the issuance of this permit, the state does not in any way waive its sovereign immunity.

The permittee shall allow authorized representatives from the Department of Environmental Quality, Water Quality Division, upon the presentation of credentials and during working hours, to have access to inspect the facilities, at the above location, for the purpose of compliance with the provisions of this construction permit.

The permittee shall notify representatives from the Department of Environmental Quality, Water Quality Division the day construction commences and give an estimate of completion of the project. The authorized representative in your area can be contacted at the following address: Southeast District Engineer, State of Wyoming, Department of Environmental Quality, Water Quality Division, Herschler Building, 4th Floor West, 122 West 25th Street, Cheyenne, Wyoming 82002; telephone (307) 777-7781.

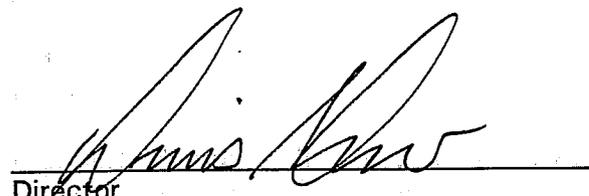
Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities or penalties established pursuant to any applicable state law or regulation.

The issuance of this permit does not convey any property rights in either real or personal property or any invasion of personal rights, nor any infringement of federal, state or local laws or regulations.

AUTHORIZED BY:



Administrator
Water Quality Division



Director
Department of Environmental Quality

5-3-93

Date of Issuance

This permit does not supersede the requirements for obtaining any permit from local agencies.

SPECIAL CONDITIONS: PERMIT #93-116

Reference Permits: 91-114, 89-135, 87-319, 85-514

- 1 of 2. The permittee shall notify both the appropriate county and state agency prior to the installation, removal, or abandonment of any facility authorized by this permit. The appropriate agency for each county is indicated in the attached list. Notification shall be by phone with a follow-up written notice. Upon abandoning the site, the facility will be removed, disposed of, or left in place in a condition rendering the site safe for the public. Any waste from the facility shall be disposed of only in areas and in a manner approved by the appropriate agency. Upon request, the permittee shall allow authorized representatives of the local agency or the state to have access to the authorized facility for the purpose of conducting an inspection to determine compliance with the provisions of this permit.

- 2 of 2. The permit is valid for temporary sanitary wastewater facilities only. Temporary being defined as one year or less. If the proposed facility is to be operated for more than one year, the permittee must obtain written authorization from the department and the appropriate county agency.

RLE/bb/32087.LTR

cc: Delegated Counties
District Offices

PERMIT TO CONSTRUCT

New
 Renewal
 Modified

PERMIT NO. 93-117
SPECIAL CONDITIONS

La Prele RV Campground

This permit hereby authorizes the applicant:

Kenneth E. Taylor
P.O. Box 78
Douglas, Wyoming 82633

to construct, install or modify water and sewer system for a RV campground according to the procedures and conditions of the application number 93-117. The facility is located in Lot 6 Section 5 T 32 N R 72 W in the county of Converse, in the State of Wyoming. This permit shall be effective for a period of two (2) years (5 years maximum) from the date of issuance of this permit.

The issuance of this permit provides that the Department of Environmental Quality has evaluated and determined that the application meets minimum applicable construction and design standards. The compliance with construction standards and the operation and maintenance of the facility to meet the applicant's engineer's design are the responsibility of the applicant, owner, or operator.

The authority to construct granted by this permit does not mean or imply that the Wyoming Department of Environmental Quality guarantees or ensures that the permitted facility, when constructed, will meet applicable discharge permit conditions or other effluent or operational requirements.

Nothing in this permit constitutes an endorsement of the construction or the design of the facility described herein. This permit indicates only that standards of design and construction required by the Environmental Quality Act have been met. The state assumes no liability for, and does not in any way guarantee the performance of, the permittee in the exercise of its activities allowed under this permit. The permittee understands that it is solely responsible to any third parties for any liability arising from the construction or operation of the facility described herein. By the issuance of this permit, the state does not in any way waive its sovereign immunity.

The permittee shall allow authorized representatives from the Department of Environmental Quality, Water Quality Division, upon the presentation of credentials and during working hours, to have access to inspect the facilities, at the above location, for the purpose of compliance with the provisions of this construction permit.

The permittee shall notify representatives from the Department of Environmental Quality, Water Quality Division the day construction commences and give an estimate of completion of the project. The authorized representative in your area can be contacted at the following address: Southeast District Engineer, State of Wyoming, Department of Environmental Quality, Water Quality Division, Herschler Building, 4th Floor West, 122 West 25th Street, Cheyenne, Wyoming 82002; telephone (307) 777-7781.

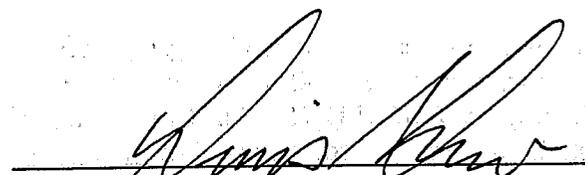
Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities or penalties established pursuant to any applicable state law or regulation.

The issuance of this permit does not convey any property rights in either real or personal property or any invasion of personal rights, nor any infringement of federal, state or local laws or regulations.

AUTHORIZED BY:



Administrator
Water Quality Division



Director
Department of Environmental Quality

4-28-93

Date of Issuance

This permit does not supersede the requirements for obtaining any permit from local agencies.

SPECIAL CONDITIONS

- 1 of 1. This permit is a renewal of permit No. 90-195. The effective date of the construction permit is being extended for a period of two (2) years in order to allow for completion of the construction authorized by the original permit. The application, supporting materials and conditions on the original permit are applicable to and the basis of the permit renewal.

LRR/bb/31945.LTR

ROAD APPLICATION PERMIT

PERMIT NO.: 93-118
SEE SPECIAL CONDITIONS

Platte Pipe Line Road Application
(Name of Facility)

This permit hereby authorizes the applicant (name and address):

Tad Schell

Platte Pipe Line Co.

P.O. Box 2330

Casper, WY 82602

to road apply crude oil contaminated soil to about 2106 liner feet of roadway.. The application site is located in SW $\frac{1}{4}$ SW $\frac{1}{4}$ Section 1, SE $\frac{1}{4}$ SE $\frac{1}{4}$ Section 2 and NW $\frac{1}{4}$ Section 12, T38N, R91W in the county of Fremont in the State of Wyoming. This permit shall be effective for a period of one (1) year from the date of issuance of this permit.

The issuance of this permit provides that the Department of Environmental Quality has evaluated and determined that the application meets minimum applicable standards. The authority to land apply granted by this permit does not mean or imply that the Wyoming Department of Environmental Quality guarantees or ensures that the disposal method will meet applicable state requirements.

Nothing in this permit constitutes an endorsement of the disposal method described herein. This permit indicates only that standards required by the Environmental Quality Act have been met. The State assumes no liability for, and does not in any way guarantee the performance of, the permittee in the exercise of its activities allow under this permit. The permittee understands that it is solely responsible to any third parties for any liability arising from the disposal method described herein. By the issuance of this permit, the State does not in any way waive its sovereign immunity.

The permittee shall allow authorized representatives from the Department of Environmental Quality, Water Quality Division, upon the presentation of credentials and during working hours, to have access to inspect the application site at the above location, for the purpose of compliance with the provisions of this permit.

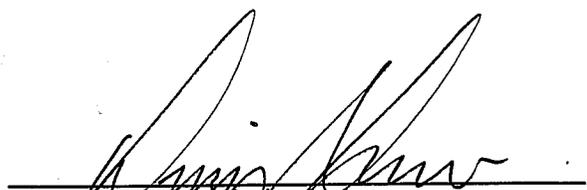
Nothing in this permit shall be construed to preclude the constitution of any legal action or relieve the permittee from any responsibilities, liabilities or penalties established pursuant to any applicable state law or regulation.

The issuance of this permit does not convey any property rights in either real or personal property, or any exclusive privileges, nor does it authorize any injury to private property or any invasion of personal rights, nor any infringements of federal, state or local laws or regulations.

AUTHORIZED BY:



Administrator
Water Quality Division



Director
Dept. of Environmental Quality

5-27-93

Date of Issuance

This permit does not supersede the requirements for obtaining any permit from local agencies.

JH/jyi/nc 32575.LTR

ROAD APPLICATION STANDARD CONDITIONS 1 through 6

- 1 of 6 Waste oil and oil contaminated soil shall be applied by a method and at a rate which will prevent runoff or ponding after incorporation into the road. Applications shall not be initiated during the spring runoff period or other periods where saturated soil conditions exist.
- 2 of 6 The slope of the roads application shall not exceed 8 percent.
- 3 of 6 Waste oil and sludge application shall be terminated within 300 feet of the definable high water mark of perennial and intermittent drainage, irrigation canals, lakes and reservoirs.
- 4 of 6 The permittee will contact the Department of Environmental Quality, Water Quality Division District Engineer, Jeff Hermansky, phone number 332-3144, to arrange a field inspection prior to initiation of work. The district engineer should be notified at least 48 hours in advance of application and must be informed how much waste oil and oil contaminated soil will be applied

(number of truckloads), the specific site of application (to the nearest 1/4 section) and time of application.

5 of 6 Waste oil and oil contaminated soils applied to a road will be mechanically incorporated into the road bed. Wastes will not be applied during the period from November 1 to April 30.

6 of 6 Only the roads designated in this permit are authorized for application of the waste oil and sludge. Additional or alternate sections of road meeting the requirements of the application and this permit may be utilized if a written description and maps are received and approved by the Water Quality Division.

xc: Willie LeClair, Fremont County Road & Bridge Superintendent

PERMIT TO CONSTRUCT

New
Renewal
 Modified

PERMIT NO. 93-119
SPECIAL CONDITIONS
Reference 92-406

Alpine Carpet- Septic System Pump Tank

This permit hereby authorizes the applicant:

Jerry Gudenkauf
4505 Greenfield Ct.
Cheyenne, Wyoming 82001

to construct, install or modify a septic system pump tank according to the procedures and conditions of the application number 93-119. The facility is located in NW 1/4 Section 25 T14N R66W in the county of Laramie, in the State of Wyoming. This permit shall be effective for a period of two (2) years (5 years maximum) from the date of issuance of this permit.

The issuance of this permit provides that the Department of Environmental Quality has evaluated and determined that the application meets minimum applicable construction and design standards. The compliance with construction standards and the operation and maintenance of the facility to meet the applicant's engineer's design are the responsibility of the applicant, owner, or operator.

The authority to construct granted by this permit does not mean or imply that the Wyoming Department of Environmental Quality guarantees or ensures that the permitted facility, when constructed, will meet applicable discharge permit conditions or other effluent or operational requirements.

Nothing in this permit constitutes an endorsement of the construction or the design of the facility described herein. This permit indicates only that standards of design and construction required by the Environmental Quality Act have been met. The state assumes no liability for, and does not in any way guarantee the performance of, the permittee in the exercise of its activities allowed under this permit. The permittee understands that it is solely responsible to any third parties for any liability arising from the construction or operation of the facility described herein. By the issuance of this permit, the state does not in any way waive its sovereign immunity.

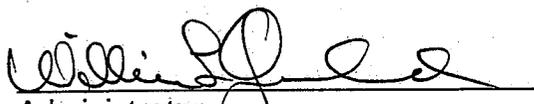
The permittee shall allow authorized representatives from the Department of Environmental Quality, Water Quality Division, upon the presentation of credentials and during working hours, to have access to inspect the facilities, at the above location, for the purpose of compliance with the provisions of this construction permit.

The permittee shall notify representatives from the Department of Environmental Quality, Water Quality Division the day construction commences and give an estimate of completion of the project. The authorized representative in your area can be contacted at the following address: Southeast District Engineer, State of Wyoming, Department of Environmental Quality, Water Quality Division, Herschler Building, 4th Floor West, 122 West 25th Street, Cheyenne, Wyoming 82002; telephone (307) 777-7781.

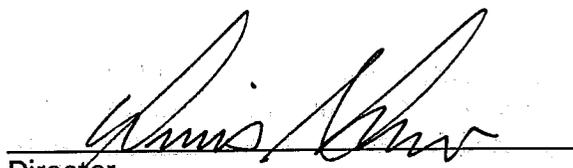
Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities or penalties established pursuant to any applicable state law or regulation.

The issuance of this permit does not convey any property rights in either real or personal property or any invasion of personal rights, nor any infringement of federal, state or local laws or regulations.

AUTHORIZED BY:



Administrator
Water Quality Division



Director
Department of Environmental Quality

4-28-93
Date of Issuance

This permit does not supersede the requirements for obtaining any permit from local agencies.

SPECIAL CONDITIONS

Reference 92-406

Comment - This permit is a modification to permit #92-406 which was previously issued for the construction of a commercial septic system. During construction of the system approved by 92-406 it was discovered that the septic tank needed to be lowered approximately 2 feet more than anticipated in order to avoid surface drainage problems. This put the septic tank below the leach field, which cannot be lowered. Therefore, this permit authorizes the addition of a lift station pump tank between the septic tank and leach field previously approved with the following conditions:

- 1 of 2. The permittee shall notify the Laramie County Environmental Health Division at least two (2) days prior to installation of this system to arrange for required inspections. Inspection of the installed system is required prior to backfilling. Laramie County Environmental Health charges a fee for these inspection services. Their offices are located at 100 Central Avenue, Cheyenne, Wyoming 82007; or they can be reached by phone at (307) 633-4090.
- 2 of 2. All conditions perviously imposed by Permit # 92-406 are still in full force.

RLE/bb/31961.LTR

cc: Laramie County Environmental Health Division
100 Central Avenue, Cheyenne, Wyoming 82007

PERMIT TO CONSTRUCT

New

Permit No. 93-120R

Renewal

Modified

Rio Mesa Subdivision Water and Sewer
(Name of Facility)

This permit hereby authorizes the applicant (name and address):

B.E.F., Inc.

P.O. Box 993

Green River, WY 82935

to construct a sanitary sewer collection system and water distribution system according to the procedures and conditions of the application No. 93-120R. The facility is located in SE¼ Section 35, T18N, R107W in the County of Sweetwater, in the State of Wyoming. This permit shall be effective for a period of two (2) years from the date of issuance of this permit.

The issuance of this permit provides that the Department of Environmental Quality has evaluated and determined that the application meets minimum applicable construction and design standards. The compliance with construction standards and the operation and maintenance of the facility to meet the applicant's engineer's design are the responsibility of the applicant, owner, or operator.

The authority to construct granted by this permit does not mean or imply that the Wyoming Department of Environmental Quality guarantees or insures that the permitted facility, when constructed, will meet applicable discharge permit conditions or other effluent or operational requirements.

Nothing in this permit constitutes an endorsement of the construction or the design of the facility described herein. This permit indicates only that standards of design and construction required by the Environmental Quality Act have been met. The State assumes no liability for, and does not in any way guarantee the performance of, the permittee in the exercise of its activities

allowed under this permit. The permittee understands that it is solely responsible to any third parties for any liability arising from the construction or operation of the facility described herein. By the issuance of this permit, the State does not in any way waive its sovereign immunity.

The permittee shall allow authorized representatives from the Department of Environmental Quality, Water Quality Division, upon the presentation of credentials and during working hours, to have access to inspect the facilities, at the above location, for the purpose of compliance with the provisions of this construction permit.

The permittee shall notify representatives from the Department of Environmental Quality, Water Quality Division the day construction commences and give an estimate of completion of the project. The authorized representative in your area can be contacted at the following address: District Engineer, State of Wyoming, Department of Environmental Quality, Water Quality Division, 250 Lincoln, Lander, WY 82520; telephone, 332-3144.

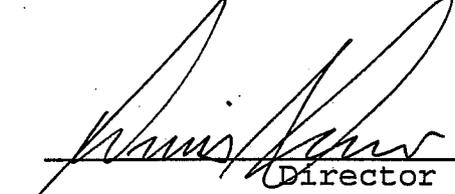
Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities or penalties established pursuant to any applicable State law or regulation.

The issuance of this permit does not convey any property rights in either real or personal property, 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.

AUTHORIZED BY:



Administrator
Water Quality Division



Director
Dept. of Environmental Quality

6-29-93

Date of Issuance

This permit does not supersede the requirements for obtaining any permit from local agencies.

RT/jyi

PERMIT TO CONSTRUCT

New

PERMIT NO. 93-121

Renewal

Modified

EVANSVILLE UBC SANITARY SEWER EXTENSION
(Name of Facility)

This permit hereby authorizes the applicant (name and address):

Town of Evansville
Drawer 158
Evansville, Wyoming 82636

to construct, install or modify a UBC Sanitary Sewer Extension facility according to the procedures and conditions of the application No. 93-121. The facility is located in the SE/4 NE/4, Section 1, Township 33 North, Range 79 West, in the County of Natrona in the State of Wyoming. This permit shall be effective for a period of one (1) year (five (5) years maximum) from the date of issuance of this permit.

The issuance of this permit provides that the Department of Environmental Quality has evaluated and determined that the application meets minimum applicable construction and design standards. The compliance with construction standards and the operation and maintenance of the facility to meet the applicant's engineer's design are the responsibility of the applicant, owner, or operator.

The authority to construct granted by this permit does not mean or imply that the Wyoming Department of Environmental Quality guarantees or ensures that the permitted facility, when constructed, will meet applicable discharge permit conditions or other effluent or operational requirements.

Nothing in this permit constitutes an endorsement of the construction or the design of the facility described herein. This permit indicates only that standards of design and construction required by the Environmental Quality Act have been met. The State assumes no liability for, and does not in any way guarantee the performance of, the permittee in the exercise of its activities

allowed under this permit. The permittee understands that it is solely responsible to any third parties for any liability arising from the construction or operation of the facility described herein. By the issuance of this permit, the state does not in any way waive its sovereign immunity.

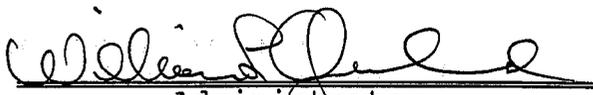
The permittee shall allow authorized representatives from the Department of Environmental Quality, Water Quality Division, upon the presentation of credentials and during working hours, to have access to inspect the facilities, at the above location, for the purpose of compliance with the provisions of this construction permit.

The permittee shall notify representatives from the Department of Environmental Quality, Water Quality Division, the day construction commences and give an estimate of completion of the project. The authorized representative in your area can be contacted at the following address: State of Wyoming, Department of Environmental Quality, Water Quality Division, 2161 Coffeen Avenue, Annex, Sheridan, Wyoming 82801; telephone, 672-6457.

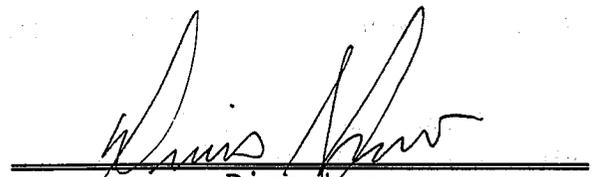
Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities or penalties established pursuant to any applicable State law or regulation.

The issuance of this permit does not convey any property rights in either real or personal property, 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.

AUTHORIZED BY:



Administrator
Water Quality Division



Director
Dept. of Environmental Quality

5-18-93

Date of Issuance

This permit does not supersede the requirements for obtaining any permit from local agencies.

JAS:05/14/93



CONDITIONS TO PERMIT 93-121

1 of 2. Minimum horizontal and vertical separation of sewerage and water lines must be maintained. Minimum horizontal

CONDITIONS, (Continued)

separation shall be ten feet where the water main is less than 1.5 feet above the elevation of the sewer. Minimum vertical separation shall be 1.5 feet at crossing. Joints in sewers at crossing shall be located at least ten feet from water mains. Where vertical and/or horizontal clearances cannot be maintained, the sewer shall be placed in a separate conduit pipe.

- 2 of 2. Because accurate utility locations will not be known until just prior to construction and adjustments in the sewer location may have to be made, please submit an as-built drawing of the UBC Sanitary Sewer, showing located facilities and specifying separation distances.

PERMIT TO CONSTRUCT

New
 Renewal
 Modified

PERMIT NO. 93-122
SPECIAL CONDITIONS
Reference Permit 88-434

Haught 4th Addition - Sanitary Sewer

This permit hereby authorizes the applicant:

Haught Construction, Inc.
1301 East M Street
Torrington, Wyoming 82240

to construct, install or modify a public wastewater collection system according to the procedures and conditions of the application number 93-122. The facility is located in SW 1/4, Section 11, T24N, R61W in the county of Goshen, in the State of Wyoming. This permit shall be effective for a period of two (2) years (5 years maximum) from the date of issuance of this permit.

The issuance of this permit provides that the Department of Environmental Quality has evaluated and determined that the application meets minimum applicable construction and design standards. The compliance with construction standards and the operation and maintenance of the facility to meet the applicant's engineer's design are the responsibility of the applicant, owner, or operator.

The authority to construct granted by this permit does not mean or imply that the Wyoming Department of Environmental Quality guarantees or ensures that the permitted facility, when constructed, will meet applicable discharge permit conditions or other effluent or operational requirements.

Nothing in this permit constitutes an endorsement of the construction or the design of the facility described herein. This permit indicates only that standards of design and construction required by the Environmental Quality Act have been met. The state assumes no liability for, and does not in any way guarantee the performance of, the permittee in the exercise of its activities allowed under this permit. The permittee understands that it is solely responsible to any third parties for any liability arising from the construction or operation of the facility described herein. By the issuance of this permit, the state does not in any way waive its sovereign immunity.

The permittee shall allow authorized representatives from the Department of Environmental Quality, Water Quality Division, upon the presentation of credentials and during working hours, to have access to inspect the facilities, at the above location, for the purpose of compliance with the provisions of this construction permit.

The permittee shall notify representatives from the Department of Environmental Quality, Water Quality Division the day construction commences and give an estimate of completion of the project. The authorized representative in your area can be contacted at the following address: Southeast District Engineer, State of Wyoming, Department of Environmental Quality, Water Quality Division, Herschler Building, 4th Floor West, 122 West 25th Street, Cheyenne, Wyoming 82002; telephone (307) 777-7781.

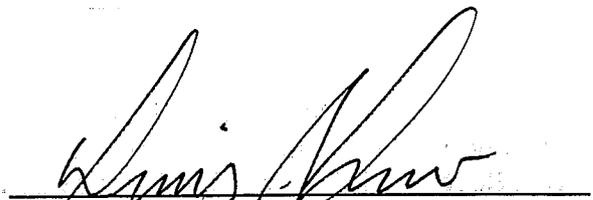
Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities or penalties established pursuant to any applicable state law or regulation.

The issuance of this permit does not convey any property rights in either real or personal property or any invasion of personal rights, nor any infringement of federal, state or local laws or regulations.

AUTHORIZED BY:



Administrator
Water Quality Division



Director
Department of Environmental Quality

5-3-93

Date of Issuance

This permit does not supersede the requirements for obtaining any permit from local agencies.

SPECIAL CONDITIONS

Reference Permit 88-434

- 1 of 1. This renewal permit is based on the cover letter submitted with this application which indicates that the plans have not changed from those submitted and approved under DEQ Permit Number 88-434. Also, a comparison of the archived plans for 88-434 with those submitted with this application verifies that they are the same plans. Therefore, this renewal permit is issued based on the fact that no changes to the original plans are indicated.

RLE/bb/32086.LTR



JIM GERINGER
GOVERNOR

Department of Environmental Quality

Herschler Building • 122 West 25th Street • Cheyenne, Wyoming 82002

ADMINISTRATION (307) 777-7758 FAX 777-7682	ABANDONED MINES (307) 777-6145 FAX 634-0799	AIR QUALITY (307) 777-7391 FAX 777-5616	INDUSTRIAL SITING (307) 777-7368 FAX 777-6937	LAND QUALITY (307) 777-7756 FAX 634-0799	SOLID & HAZARDOUS WASTE (307) 777-7752 FAX 777-5973	WATER QUALITY (307) 777-7781 FAX 777-5973
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May 4, 1998

Mr. Shawn Sullivan
Environmental Engineer
Holly Sugar Corporation
400 Main St.
Torrington, WY 82240

Re: Permit No. 94-363RR and Permit No. 93-123. Semi-Annual Progress Report, September 30, 1997; Proposed Groundwater Quality Monitoring Plan in Meeting between WQD and Holly Sugar Corporation (HSC) on April 8, 1998, and subsequent HSC letter dated April 9, 1998. Holly Sugar Facility Corporation, Torrington, WY

Dear Mr. Sullivan:

I am writing this letter in response to the referenced reports, letters, and meeting. Comments and requirements are summarized on the enclosed Groundwater Pollution Control (GPC) Program Review Form. WDEQ/WQD is approving the proposed changes in the groundwater quality monitoring according to existing WQD Permit No. 94-353RR and No. 93-123. HSC shall continue to address eliminating the ammonia source of contamination in the mud ponds by continuing to perform groundwater monitoring, and pond sampling and by conducting a mass balance study of the most concentrated flow streams.

Please contact me directly should you have any questions.

Sincerely,

Phillip Stump
Phillip Stump
Program Principal
Water Quality Division

PBS/bb/81372.ltr

enclosures: GPC Program Review Form

xc: Kevin Frederick, Supervisor, GPC Program, WQD/Cheyenne
Jeff Hostetler, TriHydro Corporation
Bob Doctor, SHWD/Casper

GROUNDWATER SECTION REVIEW OF PROPOSALS/PLANS
WYOMING DEPARTMENT OF ENVIRONMENTAL QUALITY
WATER QUALITY DIVISION

Herschler Bldg., 4 West
Cheyenne, Wyoming 82002
(307) 777-7781

PROJECT: Torrington HSC Factory

APPLICANT: Shawn Sullivan
Holly Sugar Corporation
P.O. Box 700
Torrington, WY 82240
(307) 532-7141

**APPLICANT'S
CONSULTANT:** Jeff Hostetler
TriHydro Corporation
920 Sheridan St.
Laramie, WY 82070
(307) 745-7474
FAX 745-7729

WATER QUALITY DIVISION REFERENCE (PERMIT) NUMBER: **94-363RR**

TITLE: 1) Semi-Annual Progress Reports, April 2, 1997, July 28, 1997, and September 30, 1997;
2) Proposed Plan of Action presented during WQD and HSC Meeting in Cheyenne on July
28, 1997. 3) Proposed groundwater quality monitoring plan presented during the WQD and
HSC Meeting in Cheyenne on April 8, 1998 and subsequent HSC letter.

PROPOSAL **PLANS** **REPORTS**

DATE ON LETTERS: April 9, 1998

IS THIS PROPOSAL SUBMITTED PURSUANT TO:

'CONDITIONS' TO ANY WDEQ/WQD PERMIT? NO YES Permit No. 93-123

AN LOV, NOV OR OTHER ENFORCEMENT? NO YES LOV (May 28, 1993)

REVIEWER: Phillip Stump, Program Principal

DATE OF LAST REVIEW: August 26, 1997

DATE OF THIS REVIEW: May 4, 1998

ACTION: Requests/Requirements/Recommendations Provided

1

SUMMARY OF EXISTING CONTAMINATION:

- 1.1 Ammonia as nitrogen (NH₄⁺) concentrations exceeding the Class 1 Wyoming groundwater standard of 0.5 mg/l are present in the onsite and offsite monitoring wells at the Holly Sugar Corporation (HSC) facility in Torrington, WY.
- 1.2 A general easterly groundwater flow direction is indicated by the potentiometric surface maps. The varying stage levels in the North Platte River appear to slightly affect the direction of groundwater flow in the South Torrington area. During the high Spring water levels, the groundwater flow direction appears to bend from a northeasterly direction to a southeasterly direction.
- 1.3 The ammonium as N concentrations in the pond liquids are not significantly high in Pond 7 to Pond 8. The ammonia - N and TKN concentrations are high in the middle of the mud pond as measured during the 5/24/96, 10/22/96, and 10/2/97 samples events. These high concentrations may be due to residual nitrogen in the soil or mud that is contained on the beets processed by the factory. The sludge sampling in the mud ponds indicate the organic material that settles out slower and lies in the middle and toward the effluent end of the mud ponds contains high concentrations of TKN (approx. 1200 -2200 mg/kg) and ammonia as N (approx. 50 - 150 mg/l). These ammonia as N soil concentrations are high enough to cause impacts to the groundwater from the leaching. In 1996 the ammonia concentrations of the mud ponds decreased significantly between the 5/24/96 and 8/2/96 sampling events (i.e., about 100 mg/l in the middle and effluent areas of the mud ponds). The leaching water containing high concentrations of ammonia is probably infiltrating down between the May and August months; thereby, impacting the groundwater.
- 1.4 The concentrations of ammonia as N and TKN measured during the 10/2/97 sampling event at the mud pond midpoint were equal to 968 mg/l and 0.48%, respectively. 0.48% may be equivalent to about 4800 mg/kg of TKN. From conversations with Mr. Shawn Sullivan on April 16, 1998, HSC did not process as many beets during the '97 - '98 campaign; therefore, the mud ponds were not dried out and the ponds' contents were not removed. The high moisture content during the 10/2/87 sampling event may have been due to fall rains that prevented the pond sludges from drying out. These high concentrations measured prior to the campaign are a significant concern from leaching of nitrogen to the groundwater.
 - 1.4.1 *If HSC proposes not to dry out the pond sludges and remove and landfill the mud ponds' contents prior to the subsequent campaigns, HSC should request prior approval from WDEQ/WQD during future campaigns.*

2

CONCLUSION OF ADEQUACY OF WORK COMPLETED TO DATE AND REQUESTS/ REQUIREMENTS/RECOMMENDATIONS:

- 2.1 A significant source of ammonia contamination appears to have been the precipitated calcium carbonate (PCC) slurry water. During the 1994-95 campaign, HSC converted from a slurry water disposal process to dry-hauling the pressed PCC solids to eliminate the discharge to the PCC slurry ponds. The Mann-Kendall trend analyses for ammonia indicated downward trends in monitoring wells MW-2, MW-4, and MW-6. The TDS and chloride Mann-Kendall analyses also indicated downward trends in monitoring well MW-2. Since monitoring wells MW-2, MW-4, and MW-6 lie downgradient from the former slurry ponds (i.e., downgradient

of present PCC landfill), discontinuing the PCC slurry process appears to have removed the significant source of ammonia in this area.

2.2 The Mann-Kendall trend analysis indicated increasing trends for the following monitoring wells located downgradient of the mud ponds.

- ammonia and chloride in H-5
- chloride and TDS in MW-3
- nitrate in MW-6

The nitrate concentrations in MW-6 may be due to improving aerobic and oxidizing conditions caused by reductions in ammonia in this area. The increasing inorganic constituents (i.e., ammonia, dissolved solids) in MW-3 and H-5 indicates that the mud ponds are a source of groundwater contamination.

2.3 A rotary screen was installed to attempt to reduce the ammonia sources in the process water. The screen has been effective at removing the fines that would be recycled in the process water. The size of the screens is large enough to prevent clogging of the screen enabling the passage of water; but small enough to prevent the fines from passing through.

2.4 During the July 28, 1997 meeting in Cheyenne, HSC submitted a proposed Plan of Action to address the source of groundwater contamination in the mud ponds. During the 1997-98 Campaign, HSC sampled all the process streams for TKN and NH_3 as N for 7 events during the 1997 Campaign to determine the whether main source of nitrogen is the beets, mud, or process water. During the meeting, HSC's Plan of Action included the following:

2.4.1 HSC has a voluntary program to enable producers to have an opportunity to sample the soils prior to the planting of beet crops. The purpose of the sampling is to improve beet yields by having producers apply the appropriate amount of fertilizer. Since beets loads are sampled as the beets arrive at the factory, the producers have incentives to reduce the amount of residual nitrogen.

2.4.1.1 WDEQ/WQD highly encourages and applauds HSC's voluntary program. The program significantly aids the implementation of the ongoing non-point source pollution prevention programs; such as; Torrington Wellhead Protection Plan, Non-Point Source 319 Projects, USDA NRCS's PL-83-566 Project (i.e., cost-share with producers to install center pivot irrigation and surface runoff measures) which attempt to reduce the amount of fertilizers contaminating surface waters and groundwaters in the agricultural areas surrounding Torrington.

WDEQ/WQD requests that HSC reevaluate the producers' participation in the program and investigate new incentives. The progress and success of the program should be reported in HSC's annual reports. Since reducing the nitrogen content in the soil and beets that enter the factory will also help

reduce nitrogen reaching the mud ponds, the success of HSC's voluntary program may reduce the groundwater contamination impacts from the mud ponds.

2.4.2 Installing a liner in the mud ponds was considered but the annual cleanup (i.e., mud removal to landfill) and additional decanting of the water may be unpractical and cost prohibitive.

2.4.3 Separating the mud solids from the process water and mechanically dewatering the mud was considered as an alternative.

Separating the mud solids and wastewater with flumes was attempted during the '97-'98 Campaign. Separating the mud solids may not be feasible, because the separation caused problems with the process stream operations. The sampling detected ammonia and TKN concentrations within the trash rake soils but the concentrations were not as high as concentrations detected in the mud ponds.

2.4.4 Installing other equipment; such as, additional clarifiers, belt press, vacuum filter, filter press, or centrifuge, was considered.

WDEQ/WQD requests that HSC address whether the installation of additional equipment is an effective method for removing nitrogen and, if applicable, submit a proposed feasibility study of the process modification in the Annual Report submitted following the 98-99 Campaign.

2.4.5 Options for groundwater control, treatment, and discharge in these highly permeable conditions would probably not be practical or cost effective.

2.5 HSC proposed the following corrective actions within the Plan of Action presented at the April 9, 1998 meeting:

2.5.1 Mass balance study to be performed during the 1998-99 Campaign to measure the flow rate of the most concentrated streams of ammonia. The potential treatment of the flow stream will be evaluated based upon the results.

2.5.2 The measurement of other flow streams containing ammonia will be conducted based upon the accessibility to obtain a flow measurement.

3 ADDITIONAL REQUESTS/ REQUIREMENTS/RECOMMENDATIONS:

3.1 WDEQ/WQD requests that HSC address the *italic items* described above within the next Annual Report.

3.2 The sampling in the groundwater continues to indicate high concentrations of ammonia directly downgradient of the mud ponds. The pond solids appear to be a significant source of contamination. WDEQ/WQD requests that HSC confirm whether or not the solids are a significant source of the ammonia and, based upon the conclusions, propose additional action plans (i.e., feasibility studies, etc.) to determine how to reduce or eliminate the ammonia impacts from the ponds' solids.

- 3.3 WDEQ/WQD approves the basic elements and the implementation schedule of the Plan of Action. WDEQ/WQD requests that the results of implementing the Plan of Action are summarized in the HSC's Annual Report to be submitted in June of every year.
 - 3.3.1 The pilot test needs to be conducted to verify the feasibility of the chosen Plan of Action during the '99-2000 Campaign so that the selected option could be installed during the 2000-2001 Campaign.
- 3.4 During the April 9, 1998 meeting in Cheyenne, HSC presented a proposal to modify the groundwater monitoring plan. The proposed changes are summarized and evaluated below:
 - 3.4.1 Wells F01 and MW13 will not be sampled; but the wells should be inspected on an annual basis to confirm the condition of the well.
 - 3.4.2 WDEQ/WQD approves the proposed modifications but requests that the iso-concentration maps of ammonia and TDS are completed every two years. The TDS and Ammonia vs. Time plots of downgradient wells should continue to be submitted to evaluate the decreasing trend in concentrations.
 - 3.4.3 The semi-annual groundwater monitoring events need to occur during the months of April and October each year. This monitoring schedule corresponds to the historical data that has been collected to help identify data trends. The April event occurs following the ending of the Campaign and the October event follows the time period when the highest seasonal groundwater elevations occur. In other groundwater sampling performed in Goshen County, the highest nutrient concentrations are detected following the highest water table elevations during the time period between the August through October months each fall.
 - 3.4.4 The pond sampling shall continue to be performed to evaluate the concentrations of ammonia in the pond solids and liquids until the most significant source of ammonia is identified.



JIM GERINGER
GOVERNOR

Department of Environmental Quality

Herschler Building • 122 West 25th Street • Cheyenne, Wyoming 82002

ADMINISTRATION (307) 777-7758 FAX 777-7682	ABANDONED MINES (307) 777-6145 FAX 634-0799	AIR QUALITY (307) 777-7391 FAX 777-5616	INDUSTRIAL SITING (307) 777-7368 FAX 777-6937	LAND QUALITY (307) 777-7756 FAX 634-0799	SOLID & HAZARDOUS WASTE (307) 777-7752 FAX 777-5973	WATER QUALITY (307) 777-7781 FAX 777-5973
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May 4, 1998

Mr. Shawn Sullivan
Environmental Engineer
Holly Sugar Corporation
400 Main St.
Torrington, WY 82240

Re: Permit No. 94-363RR and Permit No. 93-123. Semi-Annual Progress Report, September 30, 1997; Proposed Groundwater Quality Monitoring Plan in Meeting between WQD and Holly Sugar Corporation (HSC) on April 8, 1998, and subsequent HSC letter dated April 9, 1998. Holly Sugar Facility Corporation, Torrington, WY

Dear Mr. Sullivan:

I am writing this letter in response to the referenced reports, letters, and meeting. Comments and requirements are summarized on the enclosed Groundwater Pollution Control (GPC) Program Review Form. WDEQ/WQD is approving the proposed changes in the groundwater quality monitoring according to existing WQD Permit No. 94-353RR and No. 93-123. HSC shall continue to address eliminating the ammonia source of contamination in the mud ponds by continuing to perform groundwater monitoring, and pond sampling and by conducting a mass balance study of the most concentrated flow streams.

Please contact me directly should you have any questions.

Sincerely,

Phillip Stump
Phillip Stump
Program Principal
Water Quality Division

PBS/bb/81372.ltr

enclosures: GPC Program Review Form

xc: Kevin Frederick, Supervisor, GPC Program, WQD/Cheyenne
Jeff Hostetler, TriHydro Corporation
Bob Doctor, SHWD/Casper

GROUNDWATER SECTION REVIEW OF PROPOSALS/PLANS
WYOMING DEPARTMENT OF ENVIRONMENTAL QUALITY
WATER QUALITY DIVISION

Herschler Bldg., 4 West
Cheyenne, Wyoming 82002
(307) 777-7781

PROJECT: Torrington HSC Factory

APPLICANT: Shawn Sullivan
Holly Sugar Corporation
P.O. Box 700
Torrington, WY 82240
(307) 532-7141

**APPLICANT'S
CONSULTANT:** Jeff Hostetler
TriHydro Corporation
920 Sheridan St.
Laramie, WY 82070
(307) 745-7474
FAX 745-7729

WATER QUALITY DIVISION REFERENCE (PERMIT) NUMBER: **94-363RR**

TITLE: 1) Semi-Annual Progress Reports, April 2, 1997, July 28, 1997, and September 30, 1997;
2) Proposed Plan of Action presented during WQD and HSC Meeting in Cheyenne on July
28, 1997. 3) Proposed groundwater quality monitoring plan presented during the WQD and
HSC Meeting in Cheyenne on April 8, 1998 and subsequent HSC letter.

PROPOSAL **PLANS** **REPORTS**

DATE ON LETTERS: April 9, 1998

IS THIS PROPOSAL SUBMITTED PURSUANT TO:

'CONDITIONS' TO ANY WDEQ/WQD PERMIT? NO YES Permit No. 93-123

AN LOV, NOV OR OTHER ENFORCEMENT? NO YES LOV (May 28, 1993)

REVIEWER: Phillip Stump, Program Principal

DATE OF LAST REVIEW: August 26, 1997

DATE OF THIS REVIEW: May 4, 1998

ACTION: Requests/Requirements/Recommendations Provided

1

SUMMARY OF EXISTING CONTAMINATION:

- 1.1 Ammonia as nitrogen (NH_4^+) concentrations exceeding the Class 1 Wyoming groundwater standard of 0.5 mg/l are present in the onsite and offsite monitoring wells at the Holly Sugar Corporation (HSC) facility in Torrington, WY.
- 1.2 A general easterly groundwater flow direction is indicated by the potentiometric surface maps. The varying stage levels in the North Platte River appear to slightly affect the direction of groundwater flow in the South Torrington area. During the high Spring water levels, the groundwater flow direction appears to bend from a northeasterly direction to a southeasterly direction.
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2

CONCLUSION OF ADEQUACY OF WORK COMPLETED TO DATE AND REQUESTS/ REQUIREMENTS/RECOMMENDATIONS:

- 2.1 A significant source of ammonia contamination appears to have been the precipitated calcium carbonate (PCC) slurry water. During the 1994-95 campaign, HSC converted from a slurry water disposal process to dry-hauling the pressed PCC solids to eliminate the discharge to the PCC slurry ponds. The Mann-Kendall trend analyses for ammonia indicated downward trends in monitoring wells MW-2, MW-4, and MW-6. The TDS and chloride Mann-Kendall analyses also indicated downward trends in monitoring well MW-2. Since monitoring wells MW-2, MW-4, and MW-6 lie downgradient from the former slurry ponds (i.e., downgradient

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3

ADDITIONAL REQUESTS/ REQUIREMENTS/RECOMMENDATIONS:

3.1 WDEQ/WQD requests that HSC address the *italic items* described above within the next Annual Report.

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 - 3.4.4 The pond sampling shall continue to be performed to evaluate the concentrations of ammonia in the pond solids and liquids until the most significant source of ammonia is identified.

THE STATE



OF WYOMING



JIM GERINGER
GOVERNOR

Department of Environmental Quality

Herschler Building ● 122 West 25th Street ● Cheyenne, Wyoming 82002

ADMINISTRATION (307) 777-7758 FAX 777-7682	ABANDONED MINES (307) 777-6145 FAX 634-0799	AIR QUALITY (307) 777-7391 FAX 777-7682	INDUSTRIAL SITING (307) 777-7368 FAX 777-6937	LAND QUALITY (307) 777-7756 FAX 634-0799	SOLID & HAZARDOUS WASTE (307) 777-7752 FAX 777-5973	WATER QUALITY (307) 777-7781 FAX 777-5973
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January 3, 1997

Mr. Shawn Sullivan
Environmental Engineer
Holly Sugar Corporation
400 Main St.
Torrington, WY 82240

Re: Permit No. 94-363RR and Permit No. 93-123.
Offsite Groundwater Quality Assessment Program
Semi-Annual Progress Reports, March 28, 1996 and September 26, 1996.
Holly Sugar Facility Corporation, Torrington, WY

Dear Mr. Sullivan:

I am writing this letter in response to reviewing the referenced reports. Comments and requirements are summarized on the enclosed Groundwater Pollution Control (GPC) Program Review Form.

Please contact me directly should you have any questions.

Sincerely,

Phillip Stump
Phillip Stump
Program Principal
Water Quality Division

PBS/bb/70021.ltr

enclosures: GPC Program Review Form

xc: Kevin Frederick, Supervisor, GPC Program, WQD/Cheyenne
Jeff Hostetler, TriHydro Corporation
Bob Doctor, SHWD/Casper

GROUNDWATER SECTION REVIEW OF PROPOSALS/PLANS
WYOMING DEPARTMENT OF ENVIRONMENTAL QUALITY
WATER QUALITY DIVISION

Herschler Bldg., 4 West
Cheyenne, Wyoming 82002
(307) 777-7781

PROJECT: Offsite Groundwater Quality Investigation

APPLICANT: Shawn Sullivan
Holly Sugar Corporation
P.O. Box 700
Torrington, WY 82240
(307) 532-7141

**APPLICANT'S
CONSULTANT:** Jeff Hostetler
TriHydro Corporation
920 Sheridan St.
Laramie, WY 82070
(307) 745-7474
FAX 745-7729

WATER QUALITY DIVISION REFERENCE (PERMIT) NUMBER: **94-363RR**

TITLE: 'Offsite Ground-water Quality Assessment Program; Reply to Report of Investigation Comments Dated January 2, 1996'; Semi-Annual Progress Reports, Groundwater Quality Monitoring, March 28, 1996 and September 26, 1996.

PROPOSAL PLANS REPORTS

DATE ON PROPOSAL/PLANS/LETTERS: March 29, 1996 and September 27, 1996.

IS THIS PROPOSAL SUBMITTED PURSUANT TO:

'CONDITIONS' TO ANY WDEQ/WQD PERMIT? NO YES Permit No. 93-123

AN LOV, NOV OR OTHER ENFORCEMENT? NO YES LOV (May 28, 1993)

REVIEWER: Phillip Stump, Program Principal

DATE OF LAST REVIEW: January 2, 1996

DATE OF THIS REVIEW: January 3, 1997

ACTION: Requests/Requirements/Recommendations Provided

Holly Sugar Corporation (HSC) facility submitted comments to the WDEQ/WQD January 10, 1995 review within the March 29, 1996 semi-annual progress report. HSC's September 26, 1996 report addressed the issues remaining from WDEQ/WQD's review. HSC's responses to WDEQ/WQD's review are evaluated within the **Requests/Requirements/Recommendations** section of this review. Please note that the section numbers are consistent with the WDEQ/WQD's January 10, 1995 review. Additional comments are included in the **Additional Requests/Requirements/Recommendations** section of this review.

1 **SUMMARY OF EXISTING CONTAMINATION:**

- 1.1 Ammonia as nitrogen (NH_4^+) concentrations exceeding the Class 1 Wyoming groundwater standard of 0.5 mg/l are present in the onsite and offsite monitoring wells at the Holly Sugar Corporation (HSC) facility in Torrington, WY.
- 1.2 Ammonia sample taken from monitoring well MW-13 located next to Monitoring Tube No. 8 and immediately across HWY 85 from the HSC facility were 2.7 mg/l during the July, 1996 sampling event. The monitoring well is located downgradient from the onsite monitoring well MW-10. During the July 1996 sampling event the ammonia concentration detected in MW-10 was 41 mg/l. The explanations for the extreme difference in ammonia concentrations between MW-10 and MW-13 (e.g., significant source area located near MW-10, etc.) has not been determined. The other two offsite monitoring wells MW-14 and MW-15 installed to the northeast of HSC in the South Torrington area detected significant levels of dissolved ammonia concentrations, 32 and 15 mg/l; respectively, during the July, 1996 sampling event. The concentrations of ammonia were similar to the concentrations in the adjacent monitoring tubes. Although WQD is aware of other ammonia sources in the area; such as, abandoned septic systems, livestock, agriculture activities, fertilizer application, etc., the ammonia plume emanating from the HSC's facilities appears to have impacted offsite locations as indicated by the offsite site investigation.
- 1.3 The groundwater flow direction indicated by the potentiometric surface maps appears to be generally an easterly flow. The flow direction from the April-May 1995 results and the May 1996 and June 1996 potentiometric results identified different flow directions in the South Torrington area. The 1995 results illustrate a northeastern flow direction and the 1996 results indicated a southeasterly direction. The varying stage levels in the North Platte River appear to affect the direction of groundwater flow in the South Torrington area.

2 **CONCLUSION OF ADEQUACY OF WORK COMPLETED TO DATE AND REQUESTS/REQUIREMENTS/RECOMMENDATIONS:**

- 2.1 A significant source of ammonia contamination appears to have been the precipitated calcium carbonate (PCC) slurry water. During the 1994-95 campaign, HSC conversion from a slurry water disposal process to dry-hauling the pressed PCC solids has eliminated the discharge to the PCC slurry ponds. The addition of the evaporators and the recycling of the process water has also substantially reduced the amount of wastewater that is disposed into the ponds.

- 2.1.1 The ammonia concentrations measured in the monitoring well MW-2 which is directly downgradient from the PCC Slurry Ponds has indicated reductions in ammonia since the 1992-1993 Campaigns. This data appears to indicate that the elimination of the PCC slurry water ammonia source has decreased the ammonia concentrations downgradient of the ponds. A Sen's Slope/Mann-Kendall statistically analysis performed on the ammonia concentrations in MW-2 since July 1993 confirmed a statistically decreasing trend.
- 2.2 HSC's March 28, 1996 semi-annual report summarized the actions that have been completed to date to eliminate the potential ammonia sources. The leachfield was abandoned in 1995; therefore, any sources of ammonia contamination were removed (i.e., septic tank was pumped dry). Although, any residual soil contamination from the leach field effluent would remain as a source in the soils. Natural attenuation processes caused by groundwater flow through the residual contamination would slowly reduce the source of the ammonia contamination.
- 2.3 Within HSC's March 28, 1996 semi-annual report; HSC submitted a proposed plan of action for addressing the additional sources of the ammonia contamination downgradient of the Mud Ponds. The mud pond pipeline was replaced in 1994 and its pressure is monitored to detect any leaks in the pipeline. A new rotary screen has been installed during the '96-'97 Campaign to separate organic material from mud pond solids.
- 2.4 Although ammonia concentrations in the ponds decreased between the 1994 and 1995 sampling events, the concentrations increased in the mud ponds, Pond No. 7, and the evaporation pond upon analysis of the 11/28/95 sampling results during the '95 - '96 Campaign. HSC's report stated that the increases were due to the increases of ammonia in the clarifier. HSC plans to perform additional sampling in the ponds during the '96 - '97 Campaign to track the ammonia levels in the ponds.
 - 2.4.1 WQD requests that pond sampling events are continued at a minimum frequency of two events per year; one event immediately following the campaign to track the ammonia levels and one event after the evaporation of some of the liquid following the campaign.
- 2.5 HSC confirmed that flow rates are being monitored at the water supply wells. The water supply wells are located near the river and none of the wells are east of the factory. Ammonia data collected at the water supply wells has been collected in the past. The ammonia levels measured during January 1994 averaged approximately 2 mg/l.
 - 2.5.1 Due to the low concentrations of ammonia levels measured in the water supply wells, WQD does concur that the baseline ammonia levels in the plant process water do not contain significant levels of ammonia; although, the levels are above Wyoming's Class 1 Groundwater Standard of 0.5 mg/l.

- 2.6 The on-site monitoring wells are presently being sampled quarterly and a semi-annual groundwater report (WQD Permit No. 93-123) is being submitted to WQD. WQD agrees to eliminating the analytical analysis for manganese, calcium, and sulfate since the pond facilities are not a source of these parameters.

The groundwater analysis for potassium on samples from MW-3 and MW-6 indicated that the pond facilities are a source of potassium. WQD concurs that potassium is positive ion that is highly sorbed to soil; although, the sampling results verify that the soils downgradient of the ponds have become saturated with potassium. WQD also concurs that the chloride ion is a more effective measure of the pond facility impacts because of its non-retarding characteristics. Although a WQD Groundwater Standard does not exist for potassium, the increased levels of potassium elevate the Total Dissolved Solids (TDS) levels; thereby, degrading the quality of the groundwater.

- 2.6.1 In future sampling events, WQD concurs that the potassium analysis can be discontinued and the current chloride sampling shall be continued to evaluate the degradation of groundwater quality caused by increased dissolved solids.

- 2.7 HSC performed the additional round of sampling for the off-site network of monitoring tubes on May 1996. The ammonia sampling results of the monitoring tubes has been similar to the results of the permanent offsite monitoring tubes that were installed.

- 2.7.1 WQD agrees to the abandonment of the offsite semi-permanent monitoring tubes.

- 2.8 The clarifier overflow water (to Pond No. 7) was significantly higher in the November 28, 1995 sampling event when compared to the process sampling events during the past two years of Campaigns. The timing of the sampling event being in November instead of January may have effected the results.

- 2.8.1 WQD requests that HSC continue sampling the clarifier overflow water during and at the end of upcoming Campaigns to evaluate whether ammonia levels vary significantly during the different sampling events.

3 REQUESTS/ REQUIREMENTS/RECOMMENDATIONS:

- 3.1 The process stream sampling measured ammonia levels in various feed lines that flow into the main factory line. The ammonia from the ECO (excess condensate overflow) is a combination of different flows. The ammonia concentration appears to vary with the amount of water reuse prior to addition to the main factory waste. HSC proposed rerouting ECO water to the cooling tower to further reduce the amount of wastewater and remove nitrogen.

- 3.1.1 WQD requests that HSC evaluates rerouting the ECO water to the cooling tower to determine whether it is feasible and whether this process operation change will reduce the effluent ammonia levels.
 - 3.1.2 The process stream sampling events shall continue to be performed in the upcoming Campaigns to monitor the ammonia concentrations.
 - 3.2 HSC's August 4, 1995 Offsite Groundwater Quality Assessment Program Report of Investigation (ROI) presented the results of the ammonia attenuation study. The study was focused on evaluating the sorption and desorption processes which affect the concentration and mobility of ammonia contaminated groundwater downgradient from HSC's sources. Soil columns constructed within a constant head permeameter were utilized for performing ammonia sorption and desorption tests. The study proposed to predict how quickly the ammonia plume migration would slow down and to predict the resultant ammonia concentrations in the aquifer following the elimination of HSC's ammonia sources. The attenuation rate of the ammonia in the aquifer downgradient of the sources was also evaluated.
 - 3.2.1 The sorption soil column tests determined that the aquifer soils have low sorption capacity for ammonia and other cations. The low cation exchange capacity that was measured for the native soils (4 meq./100 g.) confirms this conclusion. The contaminant diffusion and dispersion processes occurred during the sorption tests and the nitrate levels remained low during the tests. The groundwater monitoring of the ammonia plume indicate that the attenuation process aren't significant enough to reduce the ammonia levels to acceptable concentrations at HSC's east property boundary.
 - 3.2.2 Since the ammonia was converted to nitrate during the desorption soil column tests, the results are somewhat inconclusive. Due to the reasons identified in HSC's August 4, 1995 Report (i.e., redox potentials and denitrification caused by anoxic conditions and microbial use of nitrates as an electron acceptor), aquifer conditions in the ammonia plume should preclude the transformation of ammonia into nitrates.
- 3.3 HSC shall begin performing a statistically analysis on the groundwater monitoring data. Within 90 days following receipt of this review, HSC shall submit a plan that proposes how the analysis will be performed. A statistical trend analysis needs to be performed on the historical groundwater monitoring data. The trend analysis should evaluate whether the monitoring wells located downgradient from the existing or former ammonia sources (i.e., PCC slurry ponds, leachfields, mud ponds, etc.) have decreasing or increasing concentration trends within an acceptable confidence interval.

Following the elimination of active ammonia sources (i.e., mud ponds, etc.), HSC shall estimate the time frame required to meet acceptable Groundwater Standards at HSC's downgradient property boundary. HSC shall estimate the time frames required to meet the EPA Safe Drinking Water Lifetime Health Advisory (30 mg/l), and the additional time required to meet Wyoming's Class 1 Groundwater Standard (0.50 mg/l) for total ammonia ($\text{NH}_3 + \text{NH}_4^+$) at the downgradient property boundary.

Note: The analysis can also include an evaluation of the present monitoring and sampling plan (i.e., monitoring wells, sampling parameters, and frequency of sampling events) to provide evidence for proposing reductions in number of sampling wells, parameters, and/or frequency of events.

3.3.1 Please submit an electronic version of the groundwater sampling results in subsequent semi-annual reports. Mr. Bob Doctor, SHWD/Casper has also requested to receive an electronic version of the groundwater monitoring data in subsequent reports. The electronic version should be in the same format as the data that has previously been submitted to Mr. Doctor.

3.4 The results of the underflow solids and mud pond sampling indicate that the solids are a significant source of nitrogen in the form of ammonia and TKN. The degradation of solids in the mud ponds are probably causing the conversion of TKN into ammonia. During the 1996-97 Campaign, HSC will continue to sample the underflow solids and mud pond solids to investigate the degradation of protein and/or organic nitrogen compounds.

3.4.1 The mud pond solids should be sampled for TKN, ammonia, and moisture content during the '96-'97 Campaign, during the evaporation of the mud pond liquids following the campaign in May, and during solids removal from the pond.

3.4.2 The groundwater sampling from monitoring wells (MW-3) which is directly downgradient from the Clarifier Sludge Mud Ponds has continuously measured high total dissolved solids (TDS) and ammonia concentrations. A Sen's Slope/Mann-Kendall statistical analysis performed on the ammonia concentrations in MW-3 following the conversion to dry-hauling of PCC in July 1993 identified an increasing trend.

3.4.3 The mud pond sampling for ammonia in May and August of 1996 identified significant levels of TKN and ammonia in the pond solids. The sampling from the pond solids measured ammonia from 10.1 to 153 mg/kg during the 5/24/96 sampling event with higher concentrations measured at deeper layers and toward the middle and effluent side of the pond. The soil sample taken at monitoring well MW-6 for site-specific contaminated soils during the ammonia attenuation study measured 35 mg/kg ammonia (dry as N). The pond samples are at deeper layers have ammonia concentrations greater than site-specific sample. The significant ammonia

concentrations and high moisture content in the pond samples would cause leaching of ammonia contaminated water; thereby, impacting the groundwater.

- 3.4.4 Following the May sampling event and if the mud pond solids continue to be identified as a major source of ammonia, **HSC shall submit a proposed plan of action addressing this source of groundwater contamination.** The plan of action may include process stream modifications and/or groundwater protection measures (i.e., installation of synthetic liners in mud ponds, etc.) that eliminate the ammonia and TDS sources of groundwater contamination in the area of the mud ponds. The plan of action shall be implemented prior to the '97-'98 Campaign.



THE STATE OF WYOMING

MIKE SULLIVAN
GOVERNOR

Ref. No.
88-458
(Plans & specs filed
under)

Department of Environmental Quality

Herschler Building • 122 West 25th Street • Cheyenne, Wyoming 82002

Administration
(307) 777-7937

Air Quality Division
(307) 777-7391

Land Quality Division
(307) 777-7756
FAX (307) 634-0799

Solid Waste Management Program
(307) 777-7752

Water Quality Division
(307) 777-7781
FAX (307) 777-5973

January 13, 1994

Tom B. Jacobsen
Environmental Engineer
P.O. Box 700
Torrington, WY 82240

RE: Permit #93-123 modification

Dear Mr. Jacobsen,

I am in receipt of your letter dated January 7, 1994 requesting modification of the sampling parameters in Permit #93-123 for the Holly Sugar Corporation (HSC) facility in Torrington, Wyoming. Holly Sugar has requested that sampling for Heptachlor and Heptachlor epoxide be discontinued at this time. Since these parameters have been non-detect for two sampling events as outlined in the permit, the department concurs with HSC that analyses for Heptachlor and Heptachlor epoxide are no longer necessary at this time. If you have any questions, please call me at (307) 777-7781.

Sincerely,

Don Fischer
Senior Analyst
Water Quality Division

DF/nc 40176.LTR

cc: Deb Meyers, DEQ/SHWD
✓IPS file

STATE



OF WYOMING



MIKE SULLIVAN
GOVERNOR

Department of Environmental Quality

Herschler Building • 122 West 25th Street • Cheyenne, Wyoming 82002

Administration
(307) 777-7937

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(307) 777-7756
FAX (307) 634-0799

Solid Waste Management Program
(307) 777-7752

Water Quality Division
(307) 777-7781
FAX (307) 777-5973

April 26, 1993

Ken Bartle
Holly Sugar Corporation
P.O. Box 1052
Colorado Springs, CO 80901

Dear Mr. Bartle:

Attached, please find WQD permit #93-123 which is issued as a modification of permit #88-458 for the Holly Sugar facility in Torrington, Wyoming. Most of the changes in the permit address additional sampling and analyses as discussed in the meeting with DEQ personnel on March 17, 1993. Please observe that new monitor wells shall be installed in accordance with the conditions of the modified permit (#93-123) and the plans and specifications of permit to construct application number 88-458. Please review the conditions and terms of this permit carefully to note and understand the changes, especially to the monitoring program.

Please feel free to contact me at 307-777-7781 if you have any questions.

Sincerely,

A handwritten signature in cursive script that reads "Don Fischer".

Don Fischer
Environmental Senior Analyst
Water Quality Division

DF/nc 32025.LTR

PERMIT TO CONSTRUCT

New
Renewal
X Modified

PERMIT NO. 93-123
SPECIAL CONDITIONS
REF. NO. 88-458

Holly Sugar - Torrington

This permit hereby authorizes the applicant:

Holly Sugar Corporation
P.O. Box 1052
Colorado Springs, CO 80901

to construct, install or modify monitor wells according to the procedures and conditions of the application number 88-458. The facility is located in Section 16 (NE $\frac{1}{4}$ and S $\frac{1}{2}$) T24N, R61W in the county of Goshen, in the State of Wyoming. This permit shall be effective for a period of two (2) years (5 years maximum) from the date of issuance of this permit.

The issuance of this permit provides that the Department of Environmental Quality has evaluated and determined that the application meets minimum applicable construction and design standards. The compliance with construction standards and the operation and maintenance of the facility to meet the applicant's engineer's design are the responsibility of the applicant, owner, or operator.

The authority to construct granted by this permit does not mean or imply that the Wyoming Department of Environmental Quality guarantees or ensures that the permitted facility, when constructed, will meet applicable discharge permit conditions or other effluent or operational requirements.

Nothing in this permit constitutes an endorsement of the construction or the design of the facility described herein. This permit indicates only that standards of design and construction required by the Environmental Quality Act have been met. The state assumes no liability for, and does not in any way guarantee the performance of, the permittee in the exercise of its activities allowed under this permit. The permittee understands that it is solely responsible to any third parties for any liability arising from the construction or operation of the facility described herein. By the issuance of this permit, the state does not in any way waive its sovereign immunity.

The permittee shall allow authorized representatives from the Department of Environmental Quality, Water Quality Division, upon the presentation of credentials and during working hours, to have access to inspect the facilities, at the above location, for the purpose of compliance with the provisions of this construction permit.

The permittee shall notify representatives from the Department of Environmental Quality, Water Quality Division the day construction commences and give an estimate of completion of the project. The authorized representative in your area can be contacted at the following address:

Groundwater Section, State of Wyoming, Department of Environmental Quality, Water Quality Division, Herschler Building, 4th Floor West, 122 West 25th Street, Cheyenne, Wyoming 82002; telephone (307) 777-7781.

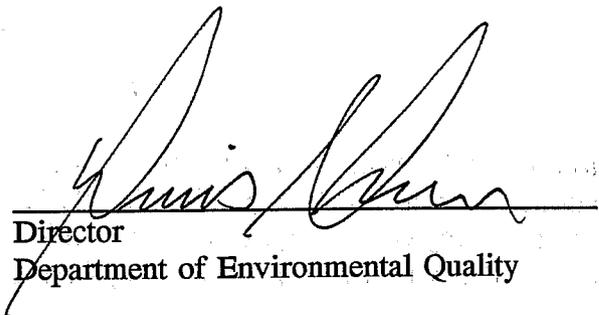
Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities or penalties established pursuant to any applicable state law or regulation.

The issuance of this permit does not convey any property rights in either real or personal property or any invasion of personal rights, nor any infringement of federal, state or local laws or regulations.

AUTHORIZED BY:



Administrator
Water Quality Division



Director
Department of Environmental Quality

4-29-93

Date of Issuance

This permit does not supersede the requirements for obtaining any permit from local agencies.

SPECIAL CONDITIONS

- 1 of 14. The groundwater monitoring wells shall be installed in accordance with the conditions of this permit (93-123) and the plans and specifications submitted in permit to construct application number 88-458. Additional wells meeting the requirements of the application and this permit may be installed if prior approval is received from the Water Quality Division (WQD).
- 2 of 14. Pursuant to Wyoming Water Quality Rules and Regulations, Chapter XI, Section 63(A), a deviation is hereby granted for those wells prevented by physical limitations to adherence to the requirements on minimum depths of seal below ground surface as detailed in Chapter XI, Part G. However a sufficient seal shall be installed according to normal engineering practice.
- 3 of 14. After the monitoring wells have fulfilled their useful purpose, they shall be abandoned according to procedures specified in Chapter XI, Part G, Section 70 of Wyoming Water Quality Rules and Regulations. Within 15 days after a well

PERMIT NO. 93-123

has been plugged and abandoned, the owner shall file a plugging record with the WQD.

- 4 of 14. Well caps shall be kept locked at all times other than for monitoring purposes. Any tampering with the monitor wells shall be reported immediately to the division. The wells shall be clearly numbered.
- 5 of 14. The issuance of this permit does not relieve the permittee from obligations to complete the extent of contamination study and any further remedial actions which may be required. Depending on the results of the subsurface contamination investigation, additional site investigations or remedial measures may be required by the WQD. An adequate number of wells shall be installed to define the extent of contamination.
- 6 of 14. In addition to the well construction information submitted with the permit application, the following items relating to well construction shall be implemented when the wells are constructed, installed, and developed:
- a. After the bentonite has been placed in the annular space, it shall be hydrated to ensure a proper seal;
 - b. The borehole diameter shall be at least four inches larger in diameter than the casing diameter;
 - c. The screened interval shall extend at least two or three feet above the highest expected seasonal groundwater level and at least five feet below the lowest expected groundwater level. Factory slotted casing is recommended for the perforated interval;
 - d. If PVC casing is used, only threaded PVC casing is acceptable. Under no circumstances are PVC glue or plastic welding solvents to be used to join casings;
 - e. To minimize the entrance of fine-grained material into the well, the filter pack shall be designed to be compatible with the perforation size and the geologic materials encountered within the perforated interval;
 - f. A top and bottom cap shall be installed to prevent sediment and surface water from entering the well;
 - g. A protective casing and locking cap is strongly recommended;
 - h. The monitoring well shall be developed by the use of a pump or bailer so that representative groundwater samples can be collected;

PERMIT NO. 93-123

- i. A seal of bentonite or bentonite grout is required from the surface to a foot or two above the top perforation. Protective casing shall be cemented into a sloping concrete cap; and
- j. All monitor wells shall be designed so that they contain a minimum of 3 feet of water at all times.

7 of 14. DEQ/WQD personnel shall be given at least two weeks notice prior to the installation of the monitor wells and sample collection so that DEQ/WQD personnel may be on-site if deemed necessary.

8 of 14. Proper well evacuation, sample collection, preservation, transportation, and chemical analytical procedures shall be completed in accordance with WQD standard procedures.

9 of 14. All monitor wells associated with this facility shall be sampled and analyzed quarterly for the following parameters:

- a. Total Dissolved Solids
- b. Chloride
- c. Ammonia
- d. Chemical Oxygen Demand
- e. Nitrate

10 of 14. All monitor wells associated with this facility shall be monitored quarterly for the following parameters:

- a. Static Water Level
- b. Field Conductivity
- c. Field pH

11 of 14. In addition to the parameters listed in condition 10 of this permit, monitor well (MW) #1, MW #2, and MW #4 shall be sampled and analyzed for the following parameters:

- a. Heptachlor
- b. Heptachlor epoxide

PERMIT NO. 93-123

- c. Calcium
- d. Manganese
- e. Sulfate

Heptachlor and Heptachlor epoxide shall be sampled and analyzed for two (2) quarterly events. After these analytical results are reviewed, the DEQ/WQD shall determine if further sampling and analyses are required.

- 12 of 14. Any replacement monitor well shall be sampled and analyzed for the same parameters as the original monitor well. The following table lists current Wyoming Water Quality Standards for the parameters to be sampled and analyzed. It shall be Holly Sugar Corporation's responsibility to be informed of and comply with amendments to the Wyoming Water Quality Standards.

PARAMETER	WYOMING WATER QUALITY STANDARD Class I Aquifer (mg/l)
Total Dissolved Solids	500.0
Chloride	250.0
Sulfate	250.0
Ammonia	0.5
Heptachlor (H34, Heptox)	0.0004
Heptachlor Epoxide	0.0002
Nitrate	10.0
Manganese	0.05

- 13 of 14. Reports shall continue to be submitted on a **semi-annual** basis and shall contain the same presentation of data as previously submitted. The sampling and analysis program shall be conducted on a **quarterly** basis. The results of these analyses shall be submitted to the Southeast Groundwater Section of the Water Quality Division as part of the semi-annual report, with the following possible exceptions:

- a. If laboratory analysis reveals that the Wyoming Water Quality Standard for Heptachlor or Heptachlor epoxide is exceeded in a monitor well; or

PERMIT NO. 93-123

- b. If laboratory analysis reveals that any Water Quality standard is exceeded in MW #9, MW #10, or MW #11.

14 of 14. Should item a or b of condition 13 of this permit occur, a written report shall be submitted to the Southeast Groundwater Section of the Water Quality Division within seven (7) days of Holly Sugar Corporation's receipt of the laboratory report. This report shall contain the well number, concentration detected, the date of sample collection, and the date of laboratory analysis. Depending on the results of these analyses, additional monitor wells, sampling and analyses may be required by the Water Quality Division.

DF/nc 31997.LTR

RECEIVED

JUN 9 1993



THE STATE OF WYOMING

MIKE SULLIVAN
GOVERNOR

WATER QUALITY DIVISION
WYOMING

Department of Environmental Quality

2161 Coffeen Avenue • Sheridan, Wyoming 82801

AIR QUALITY
(307) 672-6457
Fax (307) 674-6050

LAND QUALITY
(307) 672-6488
Fax (307) 672-2213

WATER QUALITY
(307) 672-6457
Fax (307) 674-6050

June 7, 1993

Mr. Eugene Fitzgerald
23 Moonlight Drive
Sheridan, WY 82801

RE: DEQ/WQD Permit Application 93-124

Dear Mr. Fitzgerald:

Pursuant to your June 1, 1993, letter request to withdraw the referenced permit application, your application is considered inactive and is being returned. The DEQ/WQD will anticipate resubmittal of the proposed project through the SAWS Joint Powers Board in the near future.

Yours truly,

A handwritten signature in dark ink, appearing to read "Donald R. McKenzie".

Donald R. McKenzie
District Supervisor
Water Quality Division

DRM/pr

Enclosures

xc: Jim Willey, EI, 1030 N. Main #2, Taylor Pl., Sheridan
Dave Engels, SAWSJPB, 224 S. Main, Sheridan
DEQ/WQD-IPS, Cheyenne

24256.DOC

June 1, 1993

Don McKenzie
Department of Environmental Quality
Water Quality Division
2161 Coffeen Ave.
Suite 501
Sheridan, Wyoming 82801

Re: Wild Turkey Subdivision

Dear Mr. McKenzie,

I am hereby requesting that the Application for a Permit to Construct submitted by myself in conjunction with Engineering, Inc. be withdrawn. The Application for a Permit to Construct for extension of the water system into the proposed development will be resubmitted through the Sheridan Area Water Supply Joint Powers Board with them as the applicant.

If you have any questions, please feel free to call.

Sincerely,

Eugene C. Fitzgerald
Eugene C. Fitzgerald





ENGINEERING, INC.

Consulting Engineers and Land Surveyors

Robert L. Sanderson, P.E., L.S.
John S. Stewart, P.E.
William A. Mentock, P.E., L.S.
Duane K. Loken, P.E.
Rick D. Leuthold, P.E.
James S. Willey, P.E.
Dennis D. Randall, P.E., L.S.
Peter B. Knapp, L.S.



May 17, 1993

Don McKenzie
Department of Environmental Quality
Water Quality Division
2161 Coffeen Ave.
~~Suite 501~~
Sheridan, Wyoming 82801

Re: Wild Turkey Subdivision

Dear Mr. McKenzie,

After discussing the proposed Wild Turkey Development with Dave Engles with the Sheridan Area Water Supply Joint Powers Board, I am hereby requesting that the Application for a Permit to Construct submitted by this office for Mr. Eugene C. Fitzgerald be withdrawn. The Application for a Permit to Construct for extension of the water system into the proposed development will be resubmitted through the Sheridan Area Water Supply Joint Powers Board with them as the applicant.

If you have any questions, please feel free to call.

Sincerely,

Jim Willey
Jim Willey P.E.

0811 5/20/93
TCW Mr. Willey,
DEQ needs withdrawal
request f/ Mr. Fitzgerald
the applicant, not f/ the
applicant's eng.
OK w/ Mr. Willey.
DRM

Suite 200 Creekside, 1001 S. 24th St. W.
P.O. Box 81345
Billings, Montana 59108-1345
406-656-5255 FAX # 406-656-0967

No. 2 Taylor Place
1030 North Main
Sheridan, Wyoming 82801
307-674-4224 FAX # 307-672-9492



Sheridan Area Water Supply Joint Powers Board

224 South Main
Sheridan, WY 82801
(307) 672-5280



May 24, 1993

Mr. James S. Willey
Engineering, Inc.
1030 North Main Street
Sheridan, Wyoming 82801



RE: Wild Turkey Subdivision

Dear Mr. Willey:

Thank you for submitting a copy of your engineering report and plans for the water system to serve the proposed Wild Turkey Subdivision. We assume that the owners of the properties encompassed by this proposed subdivision desire to dedicate the water system to the Joint Powers Board for future operation, maintenance and replacement once completed and accepted. If this is in fact the case, it will be necessary for the system to be constructed in accordance with plans and specifications approved by the Joint Powers Board. Additionally, the Joint Powers Board will be the applicant for a DEQ Permit to Construct.

Listed below are our comments relating to your submittal.

General

1. Once the plans, specifications and engineering report are in final form, we will need five copies of each, of which three will be delivered to DEQ by the Joint Powers Board. These documents must be signed and stamped by a professional engineer registered to practice in the State of Wyoming. Inspection of the work to take place will also be required by a registered engineer or his representative, after which it will be necessary for the responsible professional engineer to certify that the water system was constructed in accordance with the plans and specifications.

Upon completion, one set of reproducible record drawings and two sets of blueprints should be delivered to the Joint Powers Board.

2. We did not receive a set of specifications for the work to take place, although we note on Page 8 of the plans that the system is to be constructed using both the specifications of the Joint Powers Board and the Wyoming Public Works Standard Specifications. Unfortunately, the Joint Powers Board has not yet formally adopted standard specifications, and we perceive the Wyoming Public Works Standard Specifications to be inadequate. For instance, the latter specifications do not specify the class of PVC pipe required (we require Class 150) nor the type of bedding material allowed.

As Engineering, Inc. was involved with Centennial Engineering & Research, Inc. in the development of plans and specifications for the Big Goose distribution systems, our preference is for the specifications used for this previous Big Goose work be used for this development.

3. Tap fee payments will be due for each property receiving service, payable prior to issuance of a building permit by Sheridan County or commencement of construction of the residential unit. This payment does not necessarily have to be made by the developers; typically it is paid by the contractor or lot owner at the time of construction.
4. No connections will be allowed onto this or any other new system until completion of the Big Goose water treatment plant. It is anticipated that the plant will be completed by late fall of 1993.

Engineering Report

1. Using the West Big Goose distribution system plans developed by Centennial Engineering, the ground elevation at the end of Moonlight Drive (the point to which the 6" main was extended) is approximately 4094, or 6 foot lower than the statement made in the engineering report. Please verify.
2. The booster station constructed along Beaver Creek Road which will serve this area does not have sufficient capacity to provide fire protection. For this reason, fire hydrants cannot be installed. Instead, flushing hydrants should be constructed at the end of all deadend lines. Additionally, 6" mains are not necessary throughout the subdivision except as will be discussed later on in this letter.
3. The engineering report states that the capacity of the booster station is 180 gpm. The developers of the property participated in the cost to increase the size of the pump station to 240 gpm.

4. The water main at the southerly end of South Sharptailed Road should be looped (i.e. connected) via installation of a 4" main with the 2" main constructed by the Joint Powers Board at the southerly end of Horsefly Road in the Beaver Flats Subdivision. A 20-foot easement for this 4" main should be dedicated along the southerly and easterly edges of Lot 2. A 20-foot utility easement (10 feet on each side of property line) is available for this purpose between Lots 5 & 6 of the Beaver Flats Subdivision.
5. Is the public water system proposed to be used for irrigation purposes, or is a separate irrigation system proposed?

Plans

1. A water main is shown to be installed in a dedicated utility easement along the northerly side of Lot 12 to the northerly end of North Sharptailed Road. This proposed main is to be installed through a deep ravine with obvious subsidence and future maintenance access problems. Additionally, pressures through the bottom of this ravine are such that ductile iron pipe would have to be constructed in lieu of PVC. (The Joint Powers Board is allowing the use of PVC at pressures only up to 120 psi.)

As opposed to this routing, we believe that a preferred alternative alignment is along the easterly side of Lot 12 within Fox Den Road, then extending westerly along the southerly side of Lot 12 within Sharptailed Road. The main could then extend to the south at this point as previously proposed.

A small (1" or 2") service line could be extended along North Sharptailed Road to provide water service to Lot 8.

The main being discussed should be 6" in diameter to the point of the intersection of Sharptailed Road and South Sharptailed Road. At this point, a 20-foot utility easement should be dedicated along the southerly side of Lot 7 for future extension of this 6" main to the west. Also at this location, a valve should be installed in lieu of the one proposed between Lots 5 and Lot 6.

2. Page 8 of the plans states that water service lines will be installed for existing homes only. The service line for Lot 11 should thus be shown - on the downstream side of the pressure-reducing valve.

Future property owners should somehow be made aware of the cost of both tap fee payment requirements and the service line and meter pit installations. Please be informed that the Joint Powers Board has no staff to

install service lines or meter pits - this work must be accomplished by private contractors.

3. A pressure-reducing valve and associated appurtenances are proposed at the intersection of Moonlight Drive and Fox Den Road. A downstream (outlet) pressure of 45 psi is proposed. As portions of Lot 9 are at an elevation of approximately 3990, pressures at this elevation with this PRV setting would approach 200 psi. Therefore, it is important for property owners of Lots 9 & 10 to be cognizant of potential higher pressures, depending upon the elevation of their point of use.

The pressure-reducing valve to be furnished should be designed to fail closed. Provisions should be made within the manhole to allow for easy removal of the PRV.

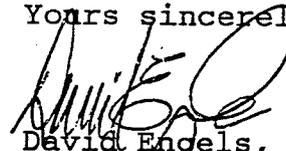
4. Due to higher pressures, any lots with elevations of less than 4146 should have Type II meter pits installed (not applicable for lots on downstream side of proposed PRV).
5. All valves to be installed should be located at extensions of property lines wherever possible to accommodate ease in locating.
6. All valves to be installed should have steel marker posts painted blue in accordance with those installed as part of the Big Goose distribution system. Additionally, air/vacuum release valve vent pipes should also be painted blue.
7. An air/vacuum valve will be required at the southerly end on South Sharptailed Road at the high point of the main.
8. Please show profile elevations on Page 7. (Elevation 4100? 4000?)
9. The trench bedding detail shown on Page 8 does not specify either warning tape or tracer wire, both being required for PVC main installations.
10. Two layers of polyethylene encasement should be installed on all ductile iron pipe fittings.
11. All bolts, nuts and washers installed underground (e.g., for mechanical joint valves and fittings) should be Series 300 stainless steel or fusion bonded epoxy coated steel.
12. On Page 8, both the pressure-reducing valve and air/vacuum release valve manholes show a 4" drain to daylight. While we hope that this would be possible, usually this is not the case. As such, if it is not possible to install such drains, please use a similar

detail as was used in the Big Goose distribution system.

13. On Page 8, please use the air/vacuum release valve detail as shown in the Big Goose distribution system plans. This manhole should be located out of the traveled way if at all possible.

We look forward to receiving a revised submittal from you. If there are any questions, please feel free to contact me.

Yours sincerely,



David Engels, P.E.
Project Manager

cc: Gene Calvert, Sheridan County Engineer
Don McKenzie, DEQ

CHAPTER III

FOR USE BY DEQ/WQD ONLY

APPLICATION FOR PERMIT TO CONSTRUCT, INSTALL, OR MODIFY PUBLIC WATER SUPPLIES, WASTEWATER FACILITIES, DISPOSAL SYSTEMS, OR GROUNDWATER MONITORING WELLS IN WYOMING

APPLICATION NO. 93-124
DATE RECEIVED

Application must contain three copies of the application form, plans, specifications, and pertinent design information.

1. Name of facility Wild Turkey Subdivision

2. Owner, company, or corporation name Eugene C. Fitzgerald

3. Location of facility: County Sheridan

Section NW 1/4 Sections 15 Township 55N Range 85W
S 1/2 Section 10 T55N R85W

4. Type of application: x New permit
Revised permit*
As built approval
Renewal of permit*

*Previous DEQ/WQD construction permit no(s).



5. Facility description: New facility x Modified facility

Public water supply

x Publicly-owned
Privately-owned

Type of facility
Source development
Groundwater
Surfacewater
Treatment plant
x Distribution system

Wastewater facility

Publicly-owned
Commercial
Industrial (including mines)
Coal mine
Small (single unit, domestic waste, less than 2000 gpd)

Type of facility
Septic system
Domestic sewage pond
Sedimentation facility
Evaporative/containment pond
Mechanical treatment plant/system
Collection system
Land application facility
Other

Groundwater pollution control systems

Groundwater pollution control or containment system
Groundwater restoration system
Monitoring well(s) (P.E. not required)
Test hole(s) for subsurface contamination assessment (P.E. not required)
Injection or recovery well

5. Have all required State Engineer permits been obtained? Yes No

If yes, provide permit number(s) 7021 En., 7022 En1., 7023 En1.

If not, the State Engineer (telephone number 777-7354) should be contacted to determine if any permit(s) is required for this project; it is illegal to appropriate water without a permit.

6. Briefly describe facilities proposed to be constructed: Extend 6" waterline into

Wild Turkey Subdivision

7. Will the proposed water supply/wastewater treatment facility discharge to the surface? Yes No If yes, NPDES permit application No. _____

Name of receiving waters _____

Applicant

Name: Eugene C. Fitzgerald

Address: 23 Moonlight Drive

Sheridan, Wyo
(City, State, Zip) 82801

Phone 674-7117

Engineer

Name Jim S. Willey

Wyoming P.E.# 4263

Engineering Firm Engineering Inc.

Address: 1030 N. Main #2 Taylor Pl.

Sheridan, Wyoming 82801
(City, State, Zip)

Phone 674-4224

I certify that the above described facility has been submitted in accordance with local, county and state statutes, as required, and that said facility shall be constructed as authorized under the provisions specified in Wyoming Water Quality Rules and Regulations, Chapter III.

Eugene C. Fitzgerald
Signature of Applicant

April 27, 1993
Date

ENGINEERING REPORT
WILD TURKEY SUBDIVISION
WATERLINE EXTENSION
SHERIDAN AREA JOINT POWERS BOARD
WATER DISTRIBUTION SYSTEM

Prepared By

Engineering Inc.
1030 North Main Street
#2 Taylor Place
Sheridan, Wyoming
April 29th, 1993



PURPOSE:

The purpose of this report is to provide an adequate design for the proposed extension of waterlines into the proposed Wild Turkey Subdivision.

DESCRIPTION AND LOCATION:

The subdivision will consist of 15 single family lots located on 180 acres West of the Beaver Flats Subdivision West of Sheridan. The subdivision is located in the S $\frac{1}{2}$ of Section 10 and the NW $\frac{1}{4}$ of Section 15, T.55N., R.85W., of the 6th P.M., Sheridan County, Wyoming.

EXISTING WATER DISTRIBUTION SYSTEM:

At this time the Sheridan Area Joint Powers Board water distribution system serves the Beaver Flats Subdivision with a booster pump station located off the Beaver Creek Road at elevation 4078. Water leaves the pump station at a discharge pressure of 120 psi through an 8" waterline. The capacity of the booster pump station is 180 gpm. The 8" waterline, located in the ROW of Beaver Creek Road, tees into a 6" waterline at Moonlight Drive and continues West to the end of said Moonlight Drive adjacent to the proposed Wild Turkey Subdivision. At this point the existing 6" waterline will be extended into the proposed subdivision. The elevation at this point is 4100 ft. which gives a static pressure of 110.5 psi.

PROPOSED EXTENSION OF WATER DISTRIBUTION LINES:

The existing 6" waterline will be tied into at the intersection of Fox Den Road and Moonlight Drive. A 6" X 4" tee will be installed and a 4" PVC waterline will be placed in Fox Den Road. Since the North end of Fox Den Road is at a lower elevation than the pump station in Beaver Creek Road, a 2" pressure reducing valve will be placed on the 4" waterline coming off of the 6" tee at the intersection of Moonlight Drive and Fox Den Road. The outlet pressure of the PRV will be set to 45 psi. The resulting static pressure at the North end of Fox Den Road are then estimated at 58.9 psi. The Existing flushing hydrant at the end of Moonlight Drive will be replaced with a 6" fire hydrant and the flushing hydrant will be relocated at the end of Fox Den Road.

A 6" waterline will be extended across the draw and to the North end of North Sharptailed Road. A 6" hydrant will be placed in the cul-de-sac. The 6" waterline will be extended to station 0+00 at the South end of South Sharptailed Road. A 6" fire hydrant will be installed at this point. This is at a high point in the subdivision at elevation 4210. The maximum static pressure at this point is 62.9 psi. The maximum dynamic pressure at 180 gpm is estimated at 50 psi.

RF

PERMIT TO CONSTRUCT

New
Renewal
 Modified

PERMIT NO. 93-125
SPECIAL CONDITIONS
Reference WQD Permit #89-414

Groundwater Pump and Treat System for PCE and Hydrocarbon Product

This permit hereby authorizes the applicant:

Vulcan Chemicals
P.O. Box 530390
Birmingham, AL 35253-0390

to construct, install or modify groundwater pump and treat system according to the procedures and conditions of the application number 93-125. The facility is located in Section 6, T13N, R66W in the county of Laramie, in the State of Wyoming. This permit shall be effective for a period of one (1) year (5 years maximum) from the date of issuance of this permit.

The issuance of this permit provides that the Department of Environmental Quality has evaluated and determined that the application meets minimum applicable construction and design standards. The compliance with construction standards and the operation and maintenance of the facility to meet the applicant's engineer's design are the responsibility of the applicant, owner, or operator.

The authority to construct granted by this permit does not mean or imply that the Wyoming Department of Environmental Quality guarantees or ensures that the permitted facility, when constructed, will meet applicable discharge permit conditions or other effluent or operational requirements.

Nothing in this permit constitutes an endorsement of the construction or the design of the facility described herein. This permit indicates only that standards of design and construction required by the Environmental Quality Act have been met. The state assumes no liability for, and does not in any way guarantee the performance of, the permittee in the exercise of its activities allowed under this permit. The permittee understands that it is solely responsible to any third parties for any liability arising from the construction or operation of the facility described herein. By the issuance of this permit, the state does not in any way waive its sovereign immunity.

The permittee shall allow authorized representatives from the Department of Environmental Quality, Water Quality Division, upon the presentation of credentials and during working hours, to have access to inspect the facilities, at the above location, for the purpose of compliance with the provisions of this construction permit.

The permittee shall notify representatives from the Department of Environmental Quality, Water Quality Division the day construction commences and give an estimate of completion of the project. The authorized representative in your area can be contacted at the following address: Groundwater Section, State of Wyoming, Department of Environmental Quality, Water Quality Division, Herschler Building, 4th Floor West, 122 West 25th Street, Cheyenne, Wyoming 82002; telephone (307) 777-7781.

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.

The issuance of this permit does not convey any property rights in either real or personal property or any invasion of personal rights, nor any infringement of federal, state or local laws or regulations.

AUTHORIZED BY:


Administrator
Water Quality Division


Director
Department of Environmental Quality

5-10-93
Date of Issuance

This permit does not supersede the requirements for obtaining any permit from local agencies.

SPECIAL CONDITIONS

- 1 of 4. Within 30 days of operation of the pump and treat system, an approved operation and maintenance manual shall be provided to the Water Quality Division (WQD) and to all operators. The manual shall contain, at a minimum, a schematic, operations guide, maintenance schedule, troubleshooting guide, discharge requirements and limitations, Department of Environmental Quality contact, provisions in the event of a spill, contingency plan in case of equipment failure, methods for handling and disposing of hydrocarbon product, PCE, and contaminated water in a proper manner, and safety requirements.
- 2 of 4. The pump and treat system shall be "winterized" to prevent freeze-up and breakdown.
- 3 of 4. A monitoring and operations report shall continue to be submitted to the WQD on a semi-annual basis.
- 4 of 4. The system shall be operated until approval to terminate operations is provided by the Water Quality Division.

DF/jn - 32144.ltr

THE STATE OF WYOMING



MIKE SULLIVAN
GOVERNOR

Department of Environmental Quality

Herschler Building • 122 West 25th Street • Cheyenne, Wyoming 82002

Administration
(307) 777-7937

Air Quality Division
(307) 777-7391

Land Quality Division
(307) 777-7756
FAX (307) 634-0799

Solid Waste Management Program
(307) 777-7752

Water Quality Division
(307) 777-7781
FAX (307) 777-5973

May 3, 1993

W.T. Parrott
Vulcan Chemicals
P.O. Box 530390
Birmingham, AL 35253-0390

Dear Mr. Parrott:

Enclosed please find Wyoming Permit to Construct #93-125 for modification of the recovery system at the UPRR site in Cheyenne. Although this permit modifies Permit to Construct #89-414 for the pump and treat system at the facility, the procedures and conditions of Permit to Construct #89-414 will remain in effect. If you have any questions, please call me at (307) 777-7781.

Sincerely,

A handwritten signature in cursive script that reads "Don Fischer".

Don Fischer
Environmental Senior Analyst
Water Quality Division

DF/jn - 32151.ltr

enclosure

PERMIT TO CONSTRUCT

New

Renewal

Modified

Permit No. 93-126R
* CONDITIONED*

Antelope Drive Waterline Extension
(Name of Facility)

This permit hereby authorizes the applicant (name and address):

Town of Bairoil

P.O. Box 58

Bairoil, WY 82322

to construct a waterline extension to the Antelope Dr. Community Center to increase fire protection according to the procedures and conditions of the application No. 93-126R. The facility is located in SW¼ Section 11, T26N, R90W in the County of Sweetwater, in the State of Wyoming. This permit shall be effective for a period of two (2) years from the date of issuance of this permit.

The issuance of this permit provides that the Department of Environmental Quality has evaluated and determined that the application meets minimum applicable construction and design standards. The compliance with construction standards and the operation and maintenance of the facility to meet the applicant's engineer's design are the responsibility of the applicant, owner, or operator.

The authority to construct granted by this permit does not mean or imply that the Wyoming Department of Environmental Quality guarantees or insures that the permitted facility, when constructed, will meet applicable discharge permit conditions or other effluent or operational requirements.

Nothing in this permit constitutes an endorsement of the construction or the design of the facility described herein. This permit indicates only that standards of design and construction required by the Environmental Quality Act have been met. The State assumes no liability for, and does not in any way guarantee the performance of, the permittee in the exercise of its activities allowed under this permit. The permittee understands that it is solely responsible to any third parties for any liability arising from the construction or operation of the facility described herein. By the issuance of this permit, the State does not in any way waive its sovereign immunity.

The permittee shall allow authorized representatives from the Department of Environmental Quality, Water Quality Division, upon the presentation of credentials and during working hours, to have access to inspect the facilities, at the above location, for the purpose of compliance with the provisions of this construction permit.

The permittee shall notify representatives from the Department of Environmental Quality, Water Quality Division the day construction commences and give an estimate of completion of the project. The authorized representative in your area can be contacted at the following address: District Engineer, State of Wyoming, Department of Environmental Quality, Water Quality Division, 250 Lincoln, Lander, WY 82520; telephone, 332-3144.

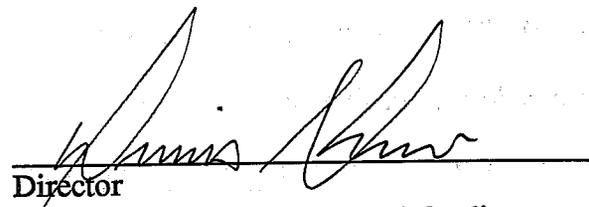
Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities or penalties established pursuant to any applicable State law or regulation.

The issuance of this permit does not convey any property rights in either real or personal property, 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.

AUTHORIZED BY:



Administrator
Water Quality Division



Director
Department of Environmental Quality

7-26-93

Date of Issuance

This permit does not supersede the requirements for obtaining any permit from local agencies.

*** CONDITION ON PERMIT 1 of 1 ***

1. of 1 This permit is for 369 feet of PVC waterline extensions to serve a new fire hydrant. 6" pipe diameter will be allowed, as requested, based upon the Engineer's evaluation that fire flows will be maintained under low pressure conditions, with the condition that no other services be connected to this mainline.

If the Town desires the flexibility for additional connections to this deadend line 8" diameter pipe must be used. An as-built drawing is to be submitted to the Department of Environmental Quality, Water Quality Division, Lander office showing which size line is installed.

PERMIT TO CONSTRUCT

- New
 Renewal
 Modified

Permit No. 93-127

Hocking Septic/Leach Field
(Name of Facility)

This permit hereby authorizes the applicant (name and address):

Scott Hocking

P.O. Box 536

Wilson, WY 85014-0536

to construct a septic tank and leach field according to the procedures and conditions of the application No. 93-127. The facility is located in Town of Alpine, Lot #69, Palis Park in the County of Lincoln, in the State of Wyoming. This permit shall be effective for a period of two (2) years from the date of issuance of this permit.

The issuance of this permit provides that the Department of Environmental Quality has evaluated and determined that the application meets minimum applicable construction and design standards. The compliance with construction standards and the operation and maintenance of the facility to meet the applicant's engineer's design are the responsibility of the applicant, owner, or operator.

The authority to construct granted by this permit does not mean or imply that the Wyoming Department of Environmental Quality guarantees or insures that the permitted facility, when constructed, will meet applicable discharge permit conditions or other effluent or operational requirements.

Nothing in this permit constitutes an endorsement of the construction or the design of the facility described herein. This permit indicates only that standards of design and construction required by the Environmental Quality Act have been met. The State assumes no liability for, and does not in any way guarantee the performance of, the permittee in the exercise of its activities allowed under this permit. The permittee understands that it is

solely responsible to any third parties for any liability arising from the construction or operation of the facility described herein. By the issuance of this permit, the State does not in any way waive its sovereign immunity.

The permittee shall allow authorized representatives from the Department of Environmental Quality, Water Quality Division, upon the presentation of credentials and during working hours, to have access to inspect the facilities, at the above location, for the purpose of compliance with the provisions of this construction permit.

The permittee shall notify representatives from the Department of Environmental Quality, Water Quality Division the day construction commences and give an estimate of completion of the project. The authorized representative in your area can be contacted at the following address: District Engineer, State of Wyoming, Department of Environmental Quality, Water Quality Division, 250 Lincoln, Lander, WY 82520; telephone, 332-3144.

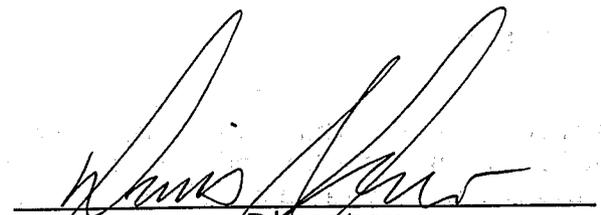
Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities or penalties established pursuant to any applicable State law or regulation.

The issuance of this permit does not convey any property rights in either real or personal property, 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.

AUTHORIZED BY:



Administrator
Water Quality Division



Director
Dept. of Environmental Quality

5/7/93

Date of Issuance

This permit does not supersede the requirements for obtaining any permit from local agencies.

KE/jyi/nc 32229.LTR



MIKE SULLIVAN
GOVERNOR

Department of Environmental Quality

Herschler Building • 122 West 25th Street • Cheyenne, Wyoming 82002

Administration
(307) 777-7937

Air Quality Division
(307) 777-7391

Land Quality Division
(307) 777-7756
FAX (307) 634-0799

Solid Waste Management Program
(307) 777-7752

Water Quality Division
(307) 777-7781
FAX (307) 777-5973

May 3, 1993

J. W. Hohle, Operations Center Foreman
Amoco Production Company
P.O. Box 829
Evanston, Wyoming 82931

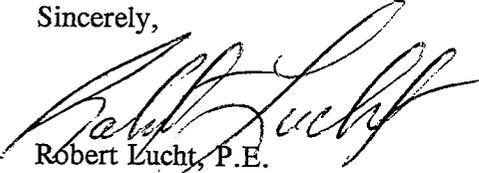
RE: Amoco Whitney Canyon Injection Wells
Permit UIC 93-128, class I
Uinta County, Wyoming

Dear Mr. Hohle:

In accordance with your request, enclosed please find a new signed permit to replace permit UIC 89-520. This new permit contains an expanded list of wastes to be injected, including the Moxa Arch produced water and wastes from the Wasatch Gathering System. Under Chapter XIII, Section 8(d)(v) this type of minor modification may be done without public notice.

In addition, I have made a few clarifications to the language of the permit. One paragraph, regarding annulus pressures was changed to say "more than 200 psig and less than 1,000 psig" rather than the previous language which said "approximately 400 psig". The section on reports was relocated to the end of Section I and slightly reworded to clarify the due date for the annual report. Section J was reworded to conform to the new requirement that these permits only run for ten years. This is in conformance to Chapter XIII, Section 9(d)(iii).

Sincerely,


Robert Lucht, P.E.
UIC Program Supervisor
Water Quality Division

RL/jn - 32136.ltr

Enclosure

DEPARTMENT OF ENVIRONMENTAL QUALITY
STATE OF WYOMING
GROUNDWATER POLLUTION CONTROL PERMIT
AUTHORIZATION TO DISCHARGE INTO UNDERGROUND RECEIVERS
(Permit to Inject)

() New
(X) Modified

Permit Number UIC 93-128
Ref: 82-198
84-340
84-491
89-520
UIC CLASS 1-I

In compliance with the Wyoming Environmental Quality Act (W.S. 35-11-101 through 1104, specifically 301(a)(i) through (iv), Laws 1973, Ch. 250, Section 1) and Water Quality Rules and Regulations Chapter XIII (March 11, 1993),

Amoco Production Company
P. O. Box 829
Evanston, Wyoming 82930

is authorized to operate

The Whitney Canyon Gas Plant, Disposal Wells #1 and #2 located respectively in the NW¼ SE¼ Section 18, T17N, R119W and in the SE¼ NE¼ Section 20, T17N, R119W, both in Uinta County for the subsurface disposal of industrial wastes

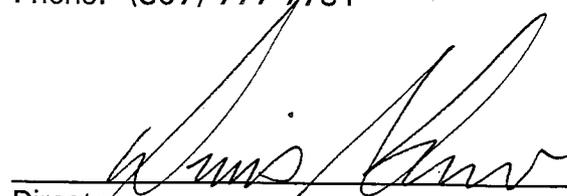
according to procedures and conditions of the application 93-128 and requirements and other conditions of this permit.

This permit shall become effective on date of issuance.



Administrator
Water Quality Division
Herschler Building, 122 West 25th Street
Cheyenne, WY 82002
Phone: (307) 777-7781

5/19/93
Date



Director
Department of Environmental Quality
Herschler Building, 122 West 25th Street
Cheyenne, WY 82002

5/19/93
Date

A. Discharge (Injection) Zone and Area of Review

Injection is authorized into Nugget Formation through perforations at 6,178 through 6,570 feet in Well #1 and through perforations at 11,926 through 12,728 in Well #2. Injection into any other interval is prohibited, unless following a request by the permittee, written approval is granted by the Administrator authorizing injection through additional perforations within the Nugget Formation.

The Area of Review has been calculated by the Department and includes all lands within the following legal description:

TABLE 1: AREA OF REVIEW INCLUDING BOTH WELLS

Township 17 North, Range 119 West, 6th Principal Meridian

Section 17: W $\frac{1}{2}$ SW $\frac{1}{4}$, SW $\frac{1}{4}$ NW $\frac{1}{4}$

Section 18: SE $\frac{1}{4}$, S $\frac{1}{2}$ NE $\frac{1}{4}$

Section 20: NE $\frac{1}{4}$, N $\frac{1}{2}$ SE $\frac{1}{4}$

Section 21: W $\frac{1}{2}$ NW $\frac{1}{4}$

The above Area of Review is a fixed Area of Review under Chapter XIII of the Wyoming Quality Division Rules and Regulations. Calculations of the radius of fill up and the area of endangering influence both show radii smaller than the minimum required 1/4 mile.

B. Groundwater Classification

The water in the Nugget Formation is class VI water under Chapter VIII of the Water Quality Division Rules and Regulations because:

1. It contains in excess of 29,000 mg/l in Total Dissolved Solids.
2. It is located at such a depth as to make its development economically and technically impractical as a water source.
3. The Nugget Formation is likely to contain hydrogen sulfide gas at levels high enough to make its use impossible.
4. The Nugget Formation has been used for disposal of industrial waste since 1982.

C. Authorized Operations

The permittee is authorized to inject into either of the two wells covered under this permit industrial wastes consisting of waste from the raw water treatment plant, boiler blowdown, condensate wash water, Diethanolamine (DEA) and Triethylene Glycol (TEG) solutions, and produced water from oil and gas production. The Standard Industrial Classification code for this waste is SIC 13. Wastewater from the Whitney Canyon Groundwater Remediation System and produced water, plant wastewater from the Painter Canyon NGL/NRU plan, and water from the Wasatch Gathering System are also authorized for injection.

The total amount of all classes of waste which may be disposed of is 2,880 barrels per day in Well #1 and 6,400 barrels per day in Well #2 and a total of 6,400 barrels per day in both wells together. There is no limit on the individual streams which make up the total of 6,400 barrels per day, so long as that total is not exceeded.

The wastewater stream will include:

1. Raw water treatment waste from regeneration of softeners and dealkalizers containing over 3,000 pounds per day of sodium chloride;
2. Boiler blowdown with a TDS of approximately 1,500;
3. Condensate wash water;
4. Diethanolamine (DEA) is used to sweeten the gas stream incoming to the plant. DEA will become a part of the injection stream at a rate of approximately 10 gallons per day.
5. Triethylene Glycol (TEG) is used for gas dehydration and some will carry over into the injection stream. Approximately 1 gallon per day of TEG will be injected.
6. Produced water from the Whitney Canyon Field.
7. Both produced water and plant wastewater from the Painter Canyon NGL/NRU plant.
8. Wastewater from the Whitney Canyon groundwater restoration system.
9. The permittee is authorized to dispose of other industrial wastes in either or both of these wells provided that these wastes are not hazardous waste under the RCRA definition contained in 40 CFR 261. Prior to disposal of other wastes not named in this permit, the permittee shall run the proper analyses to establish that such waste is not characteristic hazardous waste and shall submit those analyses to the Water Quality Division for approval of the disposal. Disposal shall not take place until approval has been granted by the Water Quality Division. Disposal of any hazardous waste in either or both of these wells is a violation of this permit and shall be reported as required by section I.6 of this permit.
10. Non-hazardous water will be the Wasatch Gathering System and all wells producing into that system. Anticipated water production from the entire Wasatch system, based on earlier production tests by Amoco, will be approximately 2,000 BPD. This volume of water, all of which is non hazardous waste under the RCRA definition contained in 40 CFR 261, will be from the following sources; produced water from the Yellow Creek and Cave Creek fields, and plan waste water from the UPRC separation facility. The system will bring gas, condensate and water from wells, previously owned by Amoco Production and recently sold to Union Pacific Resources Company (UPRC), to the Whitney Canyon Plant for processing.
11. Both produced water and plant wastewater from Amoco's Moxa Arch Operations.
12. Nothing in the above paragraphs is intended to preclude the operator from doing controlled acidizing jobs as may be required on these wells from time to time. The permittee need not obtain advance approval to conduct an acidizing job under this paragraph, but shall report these jobs on the first quarterly report following the job.

The following table is submitted for informational purposes only and does not set any permit limitation on the injected waste stream. The table provides wastestream water quality summarized from permittee monitoring for the period from 1984 to 1988.

QUARTERLY AVERAGE VALUE IN mg/l			
PARAMETER	LOWEST REPORTED	HIGHEST REPORTED	AVERAGE OF ALL SAMPLES
Silver (Ag)	<.001	1.000	.019
Arsenic (As)	<.001	1.536	.093
Boron (B)	<.150	44.000	9.273
Barium (Ba)	<.100	4.210	.381
Calcium (Ca)	84.000	492.000	356.000
Cadmium (Cd)	<.001	.056	.004
Chloride (Cl)	263.000	14,950.000	5,422.403
Chromium (Cr)	<.001	.120	.025
Copper (Cu)	<.010	.140	.045
Diethanolamine (DEA)	<.010	130.500	23.871
Fluoride (F)	1.010	8.450	2.030
Iron (Fe)	.240	58.500	2.716
Hydrogen Sulfide (H ₂ S)	.150	3,240.000	368.476
Manganese (Mn)	.070	1.450	.285
Sodium (Na)	41.500	10,708.000	3,241.460
Ammonia as N	<.010	380.000	40.592
Nickel (Ni)	<.010	.700	.037
Nitrate as N	<.100	13,000	.753
Nitrite as N	<.010	.670	.240
Hydroxide (OH)	<.010	336.000	7.121
Lead (Pb)	<.001	.650	.033
Selenium (Se)	<.001	.021	<.001
Sulfate (SO ₄)	<10.000	2,760.000	417.016
TDS	284.000	35,000.000	11,095.338
Triethylene Glycol (TEG)	.350	2,327.000	98.538

The maximum injection pressure in Well #1 is limited to 1,900 psi as measured at the wellhead. The maximum injection pressure in Well #2 is limited to 3,800 psi as measured at the wellhead. Exceedance of either of these pressures is a violation of this permit and shall be reported as required in section i.6 of this permit.

The permittee shall apply a pressure of more than 200 psig and less than 1,000 psig to the annulus between the tubing and the long string casing of both wells and hold this pressure continuously during the life of this permit. The annulus shall be equipped with either high low pressure kill switches or alarms that will signal the operator if the annulus pressure increases above a set point or decreases below a set point. The set points shall be approved initially by the Water Quality Division and may be changed under this permit with prior Water Quality Division approval.

If at any time, the maximum injection pressure or volume is exceeded or any of the parameters listed on Table 3 below are exceeded, the permittee shall report this occurrence in conformity to section I.6 of this permit. Exceedance of any of these controls is a violation of this permit.

D. Proper Operation and Maintenance

The permittee is required to conduct the operation in accordance with statements, representations and procedures presented in the complete permit application and supporting documents, as accepted and approved by the administrator.

The permittee is required at all times to 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 permit compliance. Proper operation and maintenance includes effective performance, adequate funding, adequate operator staffing and training and adequate laboratory and process controls, including appropriate quality assurance procedures.

The permittee shall give advance notice to the administrator as soon as possible of any planned physical alteration or additions, other than authorized operation and maintenance, to the permitted facility and receive authorization prior to implementing the proposed alteration or addition.

The subsurface discharge (injection) authorized by permit shall be consistent with the conditions and content of the permit; any modifications which will result in a violation of permit conditions shall be reported by submission of a new or amended permit application and shall not be implemented until a new or modified permit has been issued.

E. Entry and Inspection

The permittee shall allow the administrator, or an authorized representative, 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 this permit;
2. Have access to and copy, at reasonable times, any records that must be kept under the conditions of the 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 purposes of assuring permit compliance or as otherwise authorized by the appropriate rules and regulations of the Department, any substances or parameters at any location.

F. Environmental Monitoring Program for Groundwaters of the State

1. Samples and measurements taken for the purpose of monitoring shall be representative of the monitored activity and records of all monitoring information be retained by the permittee. The monitoring information to be retained shall be that information stipulated in the monitoring program established pursuant to the criteria in Section 13 of Chapter XIII.
2. The permittee shall prepare records of all monitoring information, including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation to be retained for a period of at least 3 years after closure of the facility.
3. Records of monitoring information shall include:
 - a. The date, exact place, and time of sampling or measurements;
 - b. The name(s) of individual(s) who performed the sampling or measurements;
 - c. The date(s) analyses were performed;
 - d. Names of individuals who performed the analyses;
 - e. The analytical techniques or methods used; and
 - f. The results of such analyses.

The permittee shall furnish any information necessary to establish a monitoring program pursuant to Section 13 of Chapter XIII.

4. The prescribed program for this permitted activity is as follows:

The Amoco Whitney Canyon Gas Plant Water Wells #1 (State Engineer Permit U.W. 51252), in the NE $\frac{1}{4}$ NE $\frac{1}{4}$ of Section 18, T17N, R119W; and #2 (State Engineer Permit U.W. 51253), in the SE $\frac{1}{4}$ NE $\frac{1}{4}$ of Section 18, T17N, R119W shall be sampled twice a year for the following list of parameters:

Arsenic	Boron
Diethanolamine (DEA)	pH
Triethylene Glycol	

The results of the above analyses shall be reported on the quarterly report covering the period when the analyses were taken.

G. Requirements for Monitoring the Discharge

Discharge (injection) volume and pressure shall be controlled and monitored to prevent fracturing of confining strata.

The injection volume shall be monitored continuously and recorded on chart recorders such that the volume being injected in each well may be determined. The total injection volume shall be reported for each month of operation on each quarterly report along with accumulated volume injected since the start of injection.

The injection pressure and the annulus pressure shall be monitored continuously and recorded on a chart recorder located on each wellhead, or in the control room of the Whitney Canyon Gas Plant.

The injection stream shall be sampled at least once a quarter and analyzed for the following list of parameters:

Arsenic	Boron
Diethanolamine (DEA)	pH
Triethylene Glycol	Hydrogen Sulfide

The permittee is limited to certain levels of chemicals in the injection stream. The following table contains a list of the maximum concentrations allowable in the injection stream. Exceedance of any of these parameters is a violation of this permit and shall be reported as required in section I.6 of this permit.

TABLE 3: QUALITY LIMITATIONS ON THE EFFLUENT	
PARAMETER	MAXIMUM ALLOWABLE CONCENTRATION AS A QUARTERLY AVERAGE
Arsenic	5.0 mg/l
Boron	75.mg/l
Diethanolamine (DEA)	200.0 mg/l
pH	GREATER THAN 2.0 s.u
pH	LESS THAN 11.0 s.u
Triethylene Glycol	200.0 mg/l

The Water Quality Division may require quarterly sampling for Benzene, Ethylbenzene, Toluene and Xylenes during the life of this permit.

H. Test Procedures

Test procedures for the determination of water quality parameters and constituents shall be in accord with provisions of Water Quality Rules and Regulations Chapter VIII, Section 7.

The permittee has been analyzing samples on a monthly basis and averaging these results on a quarterly report. The permittee may elect to sample on a monthly basis and composite the samples for analysis once a quarter. In either case, an approved sampling and analytical procedure must be adhered to and holding times shall be met for the procedure being used.

The permittee has proposed the exact methods to be used to analyze the parameters listed in Section G by EPA method number or other equivalent specification number. The Water Quality Division approved these methods for analyses prior to monitoring the discharge. The method of analyses shall not be changed without prior approval by the Water Quality Division.

I. Records and Reports

1. The permittee shall retain 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 3 years from the date of the report or application.
2. The permittee shall give notice to the administrator as soon as possible of any planned physical alterations or additions to the permitted facility.
3. The permittee shall give advance notice to the administrator of any planned changes in the permitted facility or activity which may result in noncompliance with permit requirements.
4. Monitoring results shall be reported at intervals specified in section C and/or Section G of this permit.
5. 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.
6. the permittee shall report any noncompliance which may endanger health or the environment, orally within 24 hours from the time the permittee becomes aware of the circumstances. the report should include:
 - a. Any monitoring or other information which indicates that any contaminant may cause an endangerment to a usable groundwater of the state.
 - b. Any noncompliance with a permit condition or malfunction of the discharge (injection) system which may cause fluid migration into or between usable groundwaters of the state.

A written submission shall be provided within 5 days of the time the permittee becomes aware of the circumstances. This written submission shall contain a description of the noncompliance and its cause; the period of noncompliance, including exact dates and times, and if the noncompliance has not been corrected, the anticipated time it is expected to continue, and steps taken or planned to reduce, eliminate, and prevent reoccurrence of the noncompliance.
7. The permittee shall report all instances of noncompliance not reported otherwise, at the time monitoring reports are submitted; such reports shall contain the information listed in 6. above.
8. Where 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 in any report to the administrator, it shall promptly submit such facts or information.
9. The permittee shall retain all records concerning the nature and composition of injected fluids until 5 years after completion of any specified plugging and abandoned procedures. The administrator may require the owner/operator to deliver the records to the administrator at the conclusion of the retention period.

10. A quarterly report is required to be submitted within 30 days of the end of each calendar quarter. This report shall contain, for each well:
 1. The maximum and minimum daily injection pressure (not an average pressure but an instantaneous pressure) and the maximum and minimum daily injection volume for each month in during the quarter, and the days these maximums and minimums were reached. The accumulated total volume injected for each month and the accumulated total volume injected to date.
 2. The maximum and minimum daily annulus pressure for each month in the quarter.
 3. A complete listing of industrial wastes disposed of that originated at any other location whether owned by Amoco or not.
 4. Any non-compliance, MIT, or significant event during the quarter. If quarterly reports show a record of being submitted late, the Administrator may substitute more stringent monthly reporting requirements.
 5. The average maximum injection pressure for each month of the quarter calculated by averaging the maximum pressures for each day.
11. The annual report is due within 30 days of the end of each calendar year and shall consist of the following:
 1. The fourth quarterly report along with the summary of the year's operation. The annual report shall include totals for all volumes injected for the year.
 2. The chemical parameters listed under Sections F and G of this permit for monitoring shall be graphed over time. These graphs shall cover the previous 5 years of operation or all available data if the parameter has not been analyzed for 5 years or the well has not been in service for 5 years.
 3. The injection pressure and volume shall be graphed over time. These graphs shall show the monthly average maximum pressures, maximum pressures, and total monthly volumes. These graphs shall cover the previous 5 years of operation or all available data if the parameter has not been monitored for 5 years or the well has not been in service for 5 years.
 4. Monitoring results shall be reported in the annual reports unless otherwise specified.
12. A comprehensive report for an aborted or curtailed operation authorized by this permit shall be submitted to the administrator within 30 days of complete termination of the injection (discharge) or associated activity, in lieu of an annual report.

J. Permit Actions

After notice and opportunity for a hearing, a permit may be modified, suspended or revoked in whole or part during its term for cause which includes, but is not limited to, any of the following:

1. Violation of the permit;

2. Obtaining a permit by misrepresentation or failure of the discharge well or system. _____

Each permit is reviewed at least once every 5 years, and may be reviewed more frequently.

A permit may be modified at any time as may be required, including for conformity which changes in regulations or standards which occur after the permit is issued.

A permit may be modified in whole or part in order to apply more, or less, stringent standards; or prohibitions for a toxic or other substance present in the permittee's discharge, as may be ordered by the council.

This operation (permit) can be terminated by authority of the administrator for one or more permit violations.

This permit expires on March 19, 2000. Before that date, the permittee shall either plug and abandon these wells or reapply for a new permit as required by Chapter XIII, Section 9(d)(iii).

K. Mechanical Integrity

Each discharge well and associated discharge facilities is required to have mechanical integrity which demonstrates the unimpaired condition of the well and facilities. The approved procedures for demonstrating the mechanical integrity for the well and facilities handling the discharge authorized by this permit consist of:

At a minimum of once every five (5) years and more frequently if required by the Water Quality Division, the permittee shall demonstrate the continued sound and unimpaired condition of all components of the injection well. An injection well has mechanical integrity if there is no significant leak in the casing, tubing and packer; and if there is no significant movement of injected fluid through vertical channels adjacent to the well bore.

The absence of leaks will be determined by holding 2,500 psig on the annulus for 15 minutes.

At a minimum of once every five (5) years and more frequently if required by the Water Quality Division, the permittee shall prove the absence of fluid movement through vertical channels. The absence of fluid movement through vertical channels shall be determined by running a radioactive tracer log and a temperature log. These two logs together are often referred to as an injection profile. The permittee shall use these methods to determine the absence of fluid movement or an alternative method with prior approval of the Water Quality Division.

The next mechanical integrity tests are due on or before March 21, 1995 for both wells covered under this permit.

Well #1 is completed to the following specifications:

PBTD: 6,717

CASING: 9-5/8" 36# k-55 ST&C set at 1,517 feet
7" 23# L-80, SS-95, K-55 set at 6,717 feet

TUBING: 3½" 9.2# L-80 set at 6,120 feet on a Permanent Baker Model FB-1 wireline set at 6,110 feet by explosive charge.

CEMENTING: Top of cement at 3,800 feet on the 7"

Well #2 is completed to the following specifications:

TD: 16,434

PBTD: 13,055

CASING: 30" conductor pipe set at 101 feet
12-3/8" 72# S-80 ST&C set at 2,507 feet
9-5/8" 47 and 53.5# SS-95, LT&C set at 6,873 feet
9-5/8" 62.8 # S-95 & S-105 LT&C and Butt 6,873 feet to 10,195 feet
7" liner 32# SS-95 LT&C 9,753 to 13,755
5" liner 18# L-80 FL-4S 13,055 to 16,434 feet

TUBING: 3½" set on permanent packer at 11,800 feet

Resetting any packer more than 100 feet from the above locations in the well is a violation of this permit unless written approval is obtained from the Water Quality Division prior to such workover.

The operation (discharge) of any well or system will terminate immediately if mechanical integrity of the well or system fails and/or a leak or unauthorized fluid movement occurs. The discharge shall be discontinued until mechanical integrity has been restored and permission to continue the discharge has been obtained from the administrator.

L. Abandonment

The permittee shall notify the administrator at least 180 days before well abandonment. Immediately following the permanent cessation of subsurface discharge or related activity, or where a well has not been completed, the applicant/permittee shall notify the director and follow the procedures prescribed by the director for plugging and abandonment or the discontinuance of related activities:

1. The open perforations will be squeezed through a cement retainer or packer. Squeeze cement volume shall not be less than the casing volume between the cement retainer and the bottom perforation plus 50 sacks.
2. A minimum of 5 sacks of cement will be placed on top of the cement retainer or packer.

3. 20 sack cement plugs will be set approximately every 1,000 to 1,500 foot up the hole with one of these plugs being set over each casing shoe and liner top and one at the surface.
4. The production casing will be cut off and all surface annuli will be sealed with cement.
5. P & A marker will be set and the location reclaimed.

In no case shall the abandonment procedure used be less than that required by the Wyoming Oil and Gas Conservation Commission for abandoned gas wells in the Whitney Canyon Field at the time of abandonment.

M. Duties of the Permittee

It is a duty of the permittee to:

1. Comply with all permit conditions;
2. Halt or reduce activity -- 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 permit conditions;
3. Take all reasonable steps to minimize or correct any adverse impact on the environment resulting from noncompliance with this permit;
4. Furnish to the administrator within a reasonable time, any information which the administrator may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit, or to determine compliance with this permit; and furnish to the administrator, upon request, copies of records required to be kept by this permit.

N. Financial Responsibility

The permittee is required to maintain financial responsibility and resources in a form approved by the director, to close, plug and abandon the discharge operation in a manner prescribed by the director.

Amoco Production Company (USA) has submitted the required proof of financial responsibility in the form of three years annual reports for the corporations showing that it has sufficient resources to plug and abandon this well.

O. Special Measures the Director Finds Necessary

At a minimum of once a year or more frequently if required by the Administrator, the permittee shall shut each well in for a long enough period of time to observe a valid pressure fall off curve. This test shall be considered complete when the injection pressure recorder shows that the pressure curve has become asymptotic to a horizontal line or has reached atmospheric pressure whichever occurs first. It is not the intent of this section to require a down hole pressure measurement device, but the Administrator may require this type of device if there is any abnormal pressure volume relationship recorded during the year.

No industrial waste from any other site shall be stored for more than 30 days at the Whitney Canyon Plant pending acceptance for injection into this system.

The permittee shall erect a sign in the building housing the injection plant and inside each well house notifying employees of certain key permit requirements. This sign shall have the following wording:

"THESE INJECTION WELLS ARE COVERED BY AN UNDERGROUND INJECTION CONTROL PERMIT ISSUED BY THE WYOMING DEPARTMENT OF ENVIRONMENTAL QUALITY, WATER QUALITY DIVISION. INJECTION PRESSURE MAY NOT EXCEED 1,900 PSI IN WELL #1 OR 3,800 PSI IN WELL #2. INJECTION VOLUME MAY NOT EXCEED 2,880 BARRELS PER DAY IN WELL #1 OR 6,400 BARRELS PER DAY IN BOTH WELLS TOGETHER. THE ANNULUS PRESSURE SHALL NOT EXCEED 1,000 PSI IN EITHER WELL AND SHALL BE MAINTAINED AT A LEVEL OF AT LEAST 100 PSI IN BOTH WELLS. IF ANY OF THESE CONDITIONS EXIST NOTIFY THE PLANT MANAGER IMMEDIATELY. THESE ARE REPORTABLE EVENTS AND SHOULD ALSO BE REPORTED TO DEQ/WQD AT 777-7095."

The wording on the sign shall be a minimum of 1" high and the sign itself shall be constructed in a professional manner on steel or fiberglass sheet. This sign shall be maintained in good condition at all times.

By issuance of this permit, the Water Quality Division is canceling permits 84-340, 84-491 and 89-520. This permit takes the place of all previous permits.

P. Special Permit Conditions

Pollution or waste which migrates into an aquifer containing a usable groundwater of the state is a violation of the permit.

Mechanical integrity -- operations terminate immediately if mechanical integrity of well or system fails and/or a leak or unauthorized fluid movement occurs.

Q. Signatories Requirement

All applications for permits shall be signed by a responsible officer as follows:

For a corporation - by a responsible corporate officer. For the purpose of this section, a responsible corporate officer means:

A President, Secretary, Treasurer, or Vice President of the corporation in charge of a principal business function, or any other person who performs similar policy or decisionmaking functions for the corporation; or

The manager of one or more manufacturing, production, or operating facilities employing more than 250 persons or having gross annual sales or expenditures exceeding \$25 million (in second quarter 1980 dollars), if authority to sign documents has been assigned or delegated to the manager in accordance with corporate procedures.

For a partnership or sole proprietorship -- by a general partner or the proprietor, respectively;

For a municipality, state, federal or other public agency -- by either the principal executive officer or ranking elected official.

The application shall contain the following certification by the person signing the application:

"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."

All relevant data used to complete permit applications shall be kept for a minimum of three (3) years from the date of signing.

R. Noncompliance

Any permit noncompliance constitutes a violation of the permit.

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.

S. Permit Transfer

Any transfer of a permit must first be approved by the administrator, and no transfer will be approved if the facility is not in compliance with the existing permit unless the proposed permittee agrees to bring the facility into compliance.

T. Responsibilities

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.

U. Property Rights

The issuance of this permit does not convey any property rights in either real or personal property, 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.

V. Severability

The provisions of this permit are severable, and if any provision of the 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.

RL/jn - 32137.ltr

PERMIT TO CONSTRUCT

New

Permit No. 93-129

Renewal

Modified

South Millward Townhouses Sewer
(Name of Facility)

This permit hereby authorizes the applicant (name and address):

The Millward Corp.

P.O. Box 3393

Jackson, WY 83001

to construct a 6 inch diameter sewer with manhole according to the procedures and conditions of the application No. 93-129. The facility is located in SE¼ NE¼ Section 33, T41N, R116W in the County of Teton, in the State of Wyoming. This permit shall be effective for a period of two (2) years from the date of issuance of this permit.

The issuance of this permit provides that the Department of Environmental Quality has evaluated and determined that the application meets minimum applicable construction and design standards. The compliance with construction standards and the operation and maintenance of the facility to meet the applicant's engineer's design are the responsibility of the applicant, owner, or operator.

The authority to construct granted by this permit does not mean or imply that the Wyoming Department of Environmental Quality guarantees or insures that the permitted facility, when constructed, will meet applicable discharge permit conditions or other effluent or operational requirements.

Nothing in this permit constitutes an endorsement of the construction or the design of the facility described herein. This permit indicates only that standards of design and construction required by the Environmental Quality Act have been met. The State assumes no liability for, and does not in any way guarantee the performance of, the permittee in the exercise of its activities allowed under this permit. The permittee understands that it is

solely responsible to any third parties for any liability arising from the construction or operation of the facility described herein. By the issuance of this permit, the State does not in any way waive its sovereign immunity.

The permittee shall allow authorized representatives from the Department of Environmental Quality, Water Quality Division, upon the presentation of credentials and during working hours, to have access to inspect the facilities, at the above location, for the purpose of compliance with the provisions of this construction permit.

The permittee shall notify representatives from the Department of Environmental Quality, Water Quality Division the day construction commences and give an estimate of completion of the project. The authorized representative in your area can be contacted at the following address: District Engineer, State of Wyoming, Department of Environmental Quality, Water Quality Division, 250 Lincoln, Lander, WY 82520; telephone, 332-3144.

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.

The issuance of this permit does not convey any property rights in either real or personal property, 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.

AUTHORIZED BY:



Administrator
Water Quality Division



Director
Dept. of Environmental Quality

6-7-93

Date of Issuance

This permit does not supersede the requirements for obtaining any permit from local agencies.

JH/jyi

PERMIT TO CONSTRUCT

New

PERMIT NO. 93-130

(See Special Permit Conditions)

Renewal

Modified

LITTLE GOOSE/BIG HORN/CITY WATER DISTRIBUTION SYSTEM - BID GROUP 6

(Name of Facility)

This permit hereby authorizes the applicant (name and address):

Sheridan Area Water Supply Joint Powers Board
224 South Main Street, Suite B-1W
Sheridan, Wyoming 82801

to construct, install or modify water distribution facilities according to the procedures and conditions of the application No. 93-130. The facility is located in Sections 4, 5, 6, 8, 9, 17, 28, 31, and 33, T55N, R84W, in the County of Sheridan in the State of Wyoming. This permit shall be effective for a period of one (1) year from the date of issuance of this permit.

The issuance of this permit provides that the Department of Environmental Quality has evaluated and determined that the application meets minimum applicable construction and design standards. The compliance with construction standards and the operation and maintenance of the facility to meet the applicant's engineer's design are the responsibility of the applicant, owner, or operator.

The authority to construct granted by this permit does not mean or imply that the Wyoming Department of Environmental Quality guarantees or ensures that the permitted facility, when constructed, will meet applicable discharge permit conditions or other effluent or operational requirements.

Nothing in this permit constitutes an endorsement of the construction or the design of the facility described herein. This permit indicates only that standards of design and construction required by the Environmental Quality Act have been met. The State assumes no liability for, and does not in any way guarantee the performance of, the permittee in the exercise of its activities allowed under this permit. The permittee understands that it is solely responsible to any third parties for any liability arising from the construction or operation of the facility described herein. By the issuance of this permit, the state does not in any way waive its sovereign immunity.

The permittee shall allow authorized representatives from the Department of Environmental Quality, Water Quality Division, upon the presentation of credentials and during working hours, to have access to inspect the facilities, at the above location, for the purpose of compliance with the provisions of this construction permit.

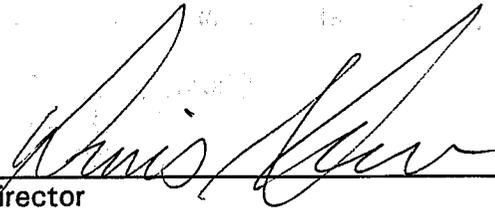
Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities or penalties established pursuant to any applicable State law or regulation.

The issuance of this permit does not convey any property rights in either real or personal property, 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.

AUTHORIZED BY:



Administrator
Water Quality Division



Director
Department of Environmental Quality

8-9-93

Date of Issuance

This permit does not supersede the requirements for obtaining any permit from local agencies.

DRM/pr:08/03/93

SPECIAL PERMIT CONDITIONS

- 1 of 6. The permittee shall notify representatives from the Department of Environmental Quality, Water Quality Division, the day construction commences and give an estimate of completion of the project on the attached post card. The authorized representative in your area can be contacted at the following address: Wyoming DEQ/WQD, Sheridan District Office, 2161 Coffeen Avenue, Annex, Sheridan, Wyoming 82801; telephone, 672-6457.
- 2 of 6. The permittee shall provide immediate oral and/or written notification, in accordance with Section 9, Chapter III, to the Sheridan District Office of any changes or modifications to the approved permit package.
- 3 of 6. The permittee shall provide certification that the project was completed in accordance with the terms and conditions of the permit within sixty (60) days of the project completion to the Sheridan District Office on the attached Certification Of Completion form.

Permit 93-130
LG/BH/City Water Distribution System

- 4 of 6. The permittee shall submit as-built plans and specifications for the system as it was constructed in the field within sixty (60) days of the project completion to the Sheridan District Office.
- 5 of 6. A variance is hereby granted from the requirements of Chapter XII, Section 14(c) for minimum valve spacing in residential areas. Because the system is located in a rural location, the number of users per length of waterline is very low. This division agrees that placing valves every 800' as required by Water Quality Division Rules and Regulations (WQDRR) in this type of location would significantly increase the cost of the project while the benefit from such action would be low. However, if the number of users on the system increases to a level which warrants additional valving, this division reserves the authority to require the system to be modified.
- 6 of 6. A variance is hereby granted from the requirements of Chapter XII, Section 14(b)(ii)B for installation of a manhole on the supply side of a stream crossing. This division agrees that a manhole in this application will not increase the probability of gaining access to the valve during a flood event. Your request to install a valve box in lieu of a manhole at the supply side of the line is approved.

Attachments: Notification Post Card
Certification Of Completion Form

PERMIT TO CONSTRUCT

- New
 Renewal
 Modified

Permit No. 93-131

Flying J Travel Plaza
(Name of Facility)

This permit hereby authorizes the applicant (name and address):

Flying J Inc.

50 W 990 S

Brigham City, UT 84302

to construct a wastewater pretreatment plant according to the procedures and conditions of the application No. 93-131. The facility is located in SW¼ Section 14, T21N, R88W in the County of Carbon, in the State of Wyoming. This permit shall be effective for a period of two (2) years from the date of issuance of this permit.

The issuance of this permit provides that the Department of Environmental Quality has evaluated and determined that the application meets minimum applicable construction and design standards. The compliance with construction standards and the operation and maintenance of the facility to meet the applicant's engineer's design are the responsibility of the applicant, owner, or operator.

The authority to construct granted by this permit does not mean or imply that the Wyoming Department of Environmental Quality guarantees or insures that the permitted facility, when constructed, will meet applicable discharge permit conditions or other effluent or operational requirements.

Nothing in this permit constitutes an endorsement of the construction or the design of the facility described herein. This permit indicates only that standards of design and construction required by the Environmental Quality Act have been met. The State assumes no liability for, and does not in any way guarantee the performance of, the permittee in the exercise of its activities allowed under this permit. The permittee understands that it is

solely responsible to any third parties for any liability arising from the construction or operation of the facility described herein. By the issuance of this permit, the State does not in any way waive its sovereign immunity.

The permittee shall allow authorized representatives from the Department of Environmental Quality, Water Quality Division, upon the presentation of credentials and during working hours, to have access to inspect the facilities, at the above location, for the purpose of compliance with the provisions of this construction permit.

The permittee shall notify representatives from the Department of Environmental Quality, Water Quality Division the day construction commences and give an estimate of completion of the project. The authorized representative in your area can be contacted at the following address: District Engineer, State of Wyoming, Department of Environmental Quality, Water Quality Division, 250 Lincoln, Lander, WY 82520; telephone, 332-3144.

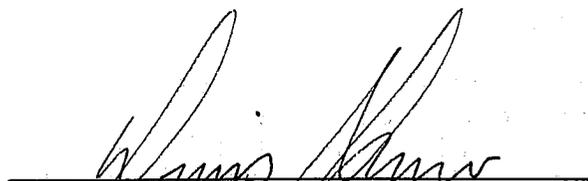
Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities or penalties established pursuant to any applicable State law or regulation.

The issuance of this permit does not convey any property rights in either real or personal property, 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.

AUTHORIZED BY:



Administrator
Water Quality Division



Director
Dept. of Environmental Quality

5/19/93

Date of Issuance

This permit does not supersede the requirements for obtaining any permit from local agencies.

RT/jyi

CORRECTED

PERMIT TO CONSTRUCT

- New
 Renewal
 Modified

PERMIT NO. 93-132

PM CAMPGROUND

(Name of Facility)

This permit hereby authorizes the applicant (name and address):

C. Dean Frederick
1101 Prairie Lane
Bar Nunn, WY 82601

to construct, install or modify a sanitary sewer line facility according to the procedures and conditions of the application No. 93-132. The facility is located in the NE/4 SE/4, Section 17, Township 34 North, Range 79 West, in the County of Natrona in the State of Wyoming. This permit shall be effective for a period of two (2) years maximum from the date of issuance of this permit.

The issuance of this permit provides that the Department of Environmental Quality has evaluated and determined that the application meets minimum applicable construction and design standards. The compliance with construction standards and the operation and maintenance of the facility to meet the applicant's engineer's design are the responsibility of the applicant, owner, or operator.

The authority to construct granted by this permit does not mean or imply that the Wyoming Department of Environmental Quality guarantees or ensures that the permitted facility, when constructed, will meet applicable discharge permit conditions or other effluent or operational requirements.

Nothing in this permit constitutes an endorsement of the construction or the design of the facility described herein. This permit indicates only that standards of design and construction required by the Environmental Quality Act have been met. The State assumes no liability for, and does not in any way guarantee the performance of, the permittee in the exercise of its activities allowed under this permit. The permittee understands that it is solely responsible to any third parties for any liability arising from the construction or operation of the facility described

herein. By the issuance of this permit, the state does not in any way waive its sovereign immunity.

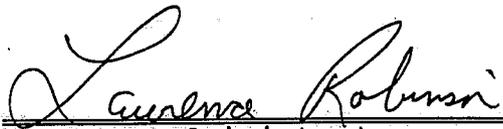
The permittee shall allow authorized representatives from the Department of Environmental Quality, Water Quality Division, upon the presentation of credentials and during working hours, to have access to inspect the facilities, at the above location, for the purpose of compliance with the provisions of this construction permit.

The permittee shall notify representatives from the Department of Environmental Quality, Water Quality Division, the day construction commences and give an estimate of completion of the project. The authorized representative in your area can be contacted at the following address: District Supervisor, State of Wyoming, Department of Environmental Quality, Water Quality Division, 2161 Coffeen Avenue, Annex, Sheridan, Wyoming 82801; telephone, 672-6457.

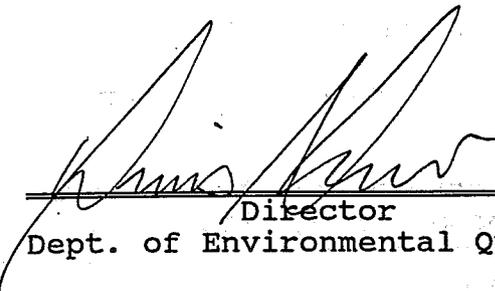
Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities or penalties established pursuant to any applicable State law or regulation.

The issuance of this permit does not convey any property rights in either real or personal property, 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.

AUTHORIZED BY:



Administrator
Water Quality Division



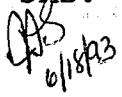
Director
Dept. of Environmental Quality

6-22-93

Date of Issuance

This permit does not supersede the requirements for obtaining any permit from local agencies.

JAS: 05/19/93


6/1/93

SPECIAL CONDITIONS

- 1 of 1. A variance is hereby granted that will allow 4 inch diameter pipe to be installed rather than the minimum sanitary sewer size of six inches in diameter as required by the Department of Environmental Quality, Water Quality Rules and Regulations Chapter XII, Section 58(a)(ii).

PERMIT TO CONSTRUCT

New

PERMIT NO. 93-132

Renewal

Modified

PM CAMPGROUND
(Name of Facility)

This permit hereby authorizes the applicant (name and address):

C. Dean Frederick
1101 Prairie Lane
Bar Nunn, WY 82601

to construct, install or modify a sanitary sewer line facility according to the procedures and conditions of the application No. 93-132. The facility is located in the NE/4 SE/4, Section 27, Township 34 North, Range 79 West, in the County of Natrona in the State of Wyoming. This permit shall be effective for a period of two (2) years maximum from the date of issuance of this permit.

The issuance of this permit provides that the Department of Environmental Quality has evaluated and determined that the application meets minimum applicable construction and design standards. The compliance with construction standards and the operation and maintenance of the facility to meet the applicant's engineer's design are the responsibility of the applicant, owner, or operator.

The authority to construct granted by this permit does not mean or imply that the Wyoming Department of Environmental Quality guarantees or ensures that the permitted facility, when constructed, will meet applicable discharge permit conditions or other effluent or operational requirements.

Nothing in this permit constitutes an endorsement of the construction or the design of the facility described herein. This permit indicates only that standards of design and construction required by the Environmental Quality Act have been met. The State assumes no liability for, and does not in any way guarantee the performance of, the permittee in the exercise of its activities allowed under this permit. The permittee understands that it is solely responsible to any third parties for any liability arising from the construction or operation of the facility described

herein. By the issuance of this permit, the state does not in any way waive its sovereign immunity.

The permittee shall allow authorized representatives from the Department of Environmental Quality, Water Quality Division, upon the presentation of credentials and during working hours, to have access to inspect the facilities, at the above location, for the purpose of compliance with the provisions of this construction permit.

The permittee shall notify representatives from the Department of Environmental Quality, Water Quality Division, the day construction commences and give an estimate of completion of the project. The authorized representative in your area can be contacted at the following address: District Supervisor, State of Wyoming, Department of Environmental Quality, Water Quality Division, 2161 Coffeen Avenue, Annex, Sheridan, Wyoming 82801; telephone, 672-6457.

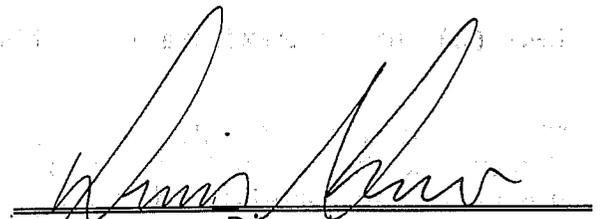
Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities or penalties established pursuant to any applicable State law or regulation.

The issuance of this permit does not convey any property rights in either real or personal property, 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.

AUTHORIZED BY:



Administrator
Water Quality Division



Director
Dept. of Environmental Quality

5-24-93

Date of Issuance

This permit does not supersede the requirements for obtaining any permit from local agencies.

JAS JAS: 05/19/93

SPECIAL CONDITIONS

- 1 of 1. A variance is hereby granted that will allow 4 inch diameter pipe to be installed rather than the minimum sanitary sewer size of six inches in diameter as required by the Department of Environmental Quality, Water Quality Rules and Regulations Chapter XII, Section 58(a)(ii).

PERMIT TRANSFER REQUEST

DATE: 9/21/96

Water Quality Division
Department of Environmental Quality
122 West 25th Street
Herschler Building
Cheyenne, Wyoming 82002

To Whom It Concerns:

(Original Owner) C. DEAN FREDERICK intends to transfer ownership of the facility associated with Permit Number 93-132 to (New Owner) WALTER CUNDY & Betty Cundy on (Date) 9/21/96. It is requested that the said permit be transferred to the new owner in accordance with Section 10 (c) and (d) of Chapter III, Wyoming Water Quality Rules and Regulations. The new owner agrees to accept and be bound by the provisions of the permit and any amendments, agrees to construct and operate the facility in accordance with the approved permit and agrees to accept responsibility for the facility's compliance with applicable standards and permit conditions, including the responsibility to perform any necessary corrective actions.

The original owner shall retain responsibility for the facility according to the terms of the original permit until the application for permit transfer is approved by the Administrator.

Please transfer the permit to the transferee's name and issue a modified permit reflecting the transfer of ownership. Terms and conditions of the original permit are transferred to and become the responsibility of the new owner.

C. Dean Frederick
Signature Original Owner

Name C. DEAN FREDERICK

Address 1101 PRAIRIE LN
BAR NUNN WY 82601

Telephone 307-577-1664

Betty M. Cundy
Walter Cundy
Signature New Owner

Name Antelope Run Campground

Address 1101 PRAIRIE LANE
BAR NUNN, WY 82601

Telephone 307-577-1664

RECEIVED

SEP 23 1996

WATER QUALITY DIVISION
WYOMING

PERMIT TO CONSTRUCT

New
 Renewal
 Modified

PERMIT NO. 93-133

Henderson Drainage Ditch - Phase II

This permit hereby authorizes the applicant:

Cheyenne Board of Public Utilities
2406 Snyder Ave.
Cheyenne, WY 82001

to construct, install or modify wastewater facility according to the procedures and conditions of the application number 93-133. The facility is located in Section 34, T14N, R66W in the county of Laramie, in the State of Wyoming. This permit shall be effective for a period of two (2) years (5 years maximum) from the date of issuance of this permit.

The issuance of this permit provides that the Department of Environmental Quality has evaluated and determined that the application meets minimum applicable construction and design standards. The compliance with construction standards and the operation and maintenance of the facility to meet the applicant's engineer's design are the responsibility of the applicant, owner, or operator.

The authority to construct granted by this permit does not mean or imply that the Wyoming Department of Environmental Quality guarantees or ensures that the permitted facility, when constructed, will meet applicable discharge permit conditions or other effluent or operational requirements.

Nothing in this permit constitutes an endorsement of the construction or the design of the facility described herein. This permit indicates only that standards of design and construction required by the Environmental Quality Act have been met. The state assumes no liability for, and does not in any way guarantee the performance of, the permittee in the exercise of its activities allowed under this permit. The permittee understands that it is solely responsible to any third parties for any liability arising from the construction or operation of the facility described herein. By the issuance of this permit, the state does not in any way waive its sovereign immunity.

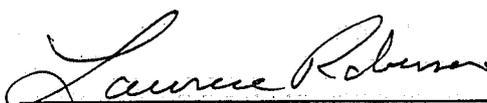
The permittee shall allow authorized representatives from the Department of Environmental Quality, Water Quality Division, upon the presentation of credentials and during working hours, to have access to inspect the facilities, at the above location, for the purpose of compliance with the provisions of this construction permit.

The permittee shall notify representatives from the Department of Environmental Quality, Water Quality Division the day construction commences and give an estimate of completion of the project. The authorized representative in your area can be contacted at the following address: Southeast District Engineer, State of Wyoming, Department of Environmental Quality, Water Quality Division, Herschler Building, 4th Floor West, 122 West 25th Street, Cheyenne, Wyoming 82002; telephone (307) 777-7781.

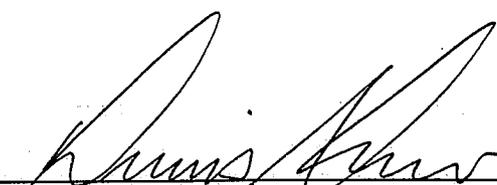
Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities or penalties established pursuant to any applicable state law or regulation.

The issuance of this permit does not convey any property rights in either real or personal property or any invasion of personal rights, nor any infringement of federal, state or local laws or regulations.

AUTHORIZED BY:



for Administrator
Water Quality Division



Director
Department of Environmental Quality

6-14-93

Date of Issuance

This permit does not supersede the requirements for obtaining any permit from local agencies.

GLS/nc 32733.LTR

PERMIT TO CONSTRUCT

New

PERMIT NO. 93-134

Renewal

Modified

SHERIDAN COLLEGE FIRE PROTECTION SYSTEM IMPROVEMENTS
(Name of Facility)

This permit hereby authorizes the applicant (name and address):

Northern Wyoming Community College District (Sheridan College)
P.O. Box 1500
Sheridan, Wyoming 82801

to construct, install or modify water distribution facilities according to the procedures and conditions of the application No. 93-134. The facility is located in the County of Sheridan in the State of Wyoming. This permit shall be effective for a period of one (1) year (five (5) years maximum) from the date of issuance of this permit.

The issuance of this permit provides that the Department of Environmental Quality has evaluated and determined that the application meets minimum applicable construction and design standards. The compliance with construction standards and the operation and maintenance of the facility to meet the applicant's engineer's design are the responsibility of the applicant, owner, or operator.

The authority to construct granted by this permit does not mean or imply that the Wyoming Department of Environmental Quality guarantees or ensures that the permitted facility, when constructed, will meet applicable discharge permit conditions or other effluent or operational requirements.

Nothing in this permit constitutes an endorsement of the construction or the design of the facility described herein. This permit indicates only that standards of design and construction required by the Environmental Quality Act have been met. The State assumes no liability for, and does not in any way guarantee the performance of, the permittee in the exercise of its activities allowed under this permit. The permittee understands that it is solely responsible to any third parties for any liability arising from the construction or operation of the facility described herein. By the issuance of this permit, the state does not in any

way waive its sovereign immunity.

The permittee shall allow authorized representatives from the Department of Environmental Quality, Water Quality Division, upon the presentation of credentials and during working hours, to have access to inspect the facilities, at the above location, for the purpose of compliance with the provisions of this construction permit.

The permittee shall notify representatives from the Department of Environmental Quality, Water Quality Division, the day construction commences and give an estimate of completion of the project. The authorized representative in your area can be contacted at the following address: State of Wyoming, Department of Environmental Quality, Water Quality Division, 2161 Coffeen Avenue, Annex, Sheridan, Wyoming 82801; telephone, 672-6457.

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.

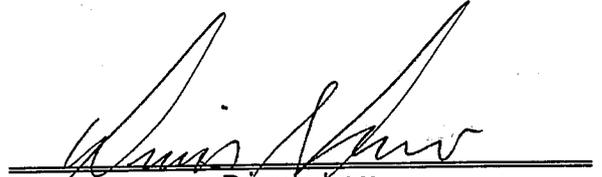
The issuance of this permit does not convey any property rights in either real or personal property, or any exclusive privileges, nor does it authorize any injury to private property or any invasion of personal rights, nor any infringement of Federal, State or local laws or regulations.

AUTHORIZED BY:



Administrator

for Water Quality Division



Director
Dept. of Environmental Quality

6/15/93

Date of Issuance

This permit does not supersede the requirements for obtaining any permit from local agencies.

JAS:06/07/93

SPECIAL CONDITIONS

1. A variance is hereby granted from the requirements of Chapter XII, Section 14(g)(i) in regard to placing the water line in a separate conduit pipe since the minimum vertical and horizontal separation distances cannot be maintained. Instead of using separate conduit pipe, the water pipe joints will be encased in concrete and a waterproofing material will be applied to help eliminate the chance of infiltration into the joints.

PERMIT TO CONSTRUCT

New
 Renewal
 Modified

PERMIT NO. 93-135
SPECIAL CONDITIONS

Propane Transport Inc. Monitoring Wells

This permit hereby authorizes the applicant:

Propane Transport Inc.
1021 West 23rd

Cheyenne, Wyoming 82003

to construct, install or modify monitoring wells according to the procedures and conditions of the application number 93-135. The facility is located in Section 36, T 14 N, R 67 W in the county of Laramie, in the State of Wyoming. This permit shall be effective for a period of two (2) years (5 years maximum) from the date of issuance of this permit.

The issuance of this permit provides that the Department of Environmental Quality has evaluated and determined that the application meets minimum applicable construction and design standards. The compliance with construction standards and the operation and maintenance of the facility to meet the applicant's engineer's design are the responsibility of the applicant, owner, or operator.

The authority to construct granted by this permit does not mean or imply that the Wyoming Department of Environmental Quality guarantees or ensures that the permitted facility, when constructed, will meet applicable discharge permit conditions or other effluent or operational requirements.

Nothing in this permit constitutes an endorsement of the construction or the design of the facility described herein. This permit indicates only that standards of design and construction required by the Environmental Quality Act have been met. The state assumes no liability for, and does not in any way guarantee the performance of, the permittee in the exercise of its activities allowed under this permit. The permittee understands that it is solely responsible to any third parties for any liability arising from the construction or operation of the facility described herein. By the issuance of this permit, the state does not in any way waive its sovereign immunity.

The permittee shall allow authorized representatives from the Department of Environmental Quality, Water Quality Division, upon the presentation of credentials and during working hours, to have access to inspect the facilities, at the above location, for the purpose of compliance with the provisions of this construction permit.

The permittee shall notify representatives from the Department of Environmental Quality, Water Quality Division the day construction commences and give an estimate of completion of the project. The authorized representative in your area can be contacted at the following address: Southeast District Engineer, State of Wyoming, Department of Environmental Quality, Water Quality Division, Herschler Building, 4th Floor West, 122 West 25th Street, Cheyenne, Wyoming 82002; telephone (307) 777-7781.

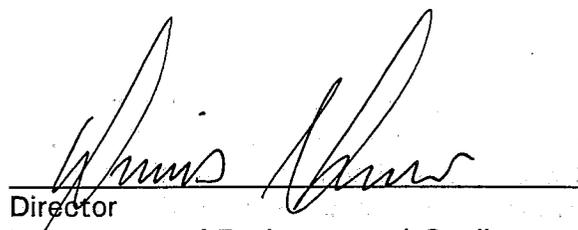
Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities or penalties established pursuant to any applicable state law or regulation.

The issuance of this permit does not convey any property rights in either real or personal property or any invasion of personal rights, nor any infringement of federal, state or local laws or regulations.

AUTHORIZED BY:



Administrator
Water Quality Division



Director
Department of Environmental Quality

5-18-93

Date of Issuance

This permit does not supersede the requirements for obtaining any permit from local agencies.

SPECIAL CONDITIONS

- 1 of 16 The groundwater monitoring wells/piezometers shall be installed in accordance with the conditions of this permit and the plans and specifications submitted in Permit to Construct application number 93-135. Additional wells meeting the requirements of this permit may be installed if prior approval is received from the Water Quality Division (WQD).
- 2 of 16 Monitoring well/piezometer construction must meet the requirements of Chapter XI Wyoming Water Quality Rules and Regulations. Monitoring well/piezometer casings shall meet the conditions provided in Chapter XI, Section 67. All monitoring wells/piezometers must be constructed from materials free of material having the potential to contaminate groundwater samples.
- 3 of 16 All downhole equipment shall be de-contaminated between wells (borings) to minimize the potential for cross-contamination.

PERMIT NO. 93-135

- 4 of 16 Borehole cuttings must be screened and disposed of properly. Contaminated cuttings must be disposed of at a site approved by the DEQ's Solid and Hazardous Waste Management Division.
- 5 of 16 Pursuant to Wyoming Water Quality Rules and Regulations, Chapter XI, Section 63(A), a deviation is hereby granted for those wells/piezometers prevented by physical limitations to adherence to the requirements on minimum depths of seal below the ground surface as detailed in Chapter XI, Part G. However, a sufficient seal shall be installed according to normal engineering practice.
- 6 of 16 After the monitoring wells/piezometers have fulfilled their useful purpose, they shall be abandoned according to procedures specified in Chapter XI, Part G, Section 70 of Wyoming Water Quality Rules and Regulations. In addition, borings in public use areas, particularly paved streets and alleys, shall be abandoned in accordance with City and/or Highway Department requirements. No monitoring well/piezometer shall be abandoned without prior approval from the Water Quality Division.
- 7 of 16 Well caps shall be kept locked at all times other than for monitoring purposes. Any tampering with the monitor wells/piezometers shall be reported immediately to the Division. The wells shall be clearly numbered using either a stamp to permanently engrave the number into the steel top or by writing the number in the wet concrete of the base.
- 8 of 16 The applicant is responsible for obtaining any Permits required by the State Engineer's Office (777-7354).
- 9 of 16 Depending on the results of the subsurface investigation, additional site investigations or remedial actions may be required by the WQD.
- 10 of 16 In addition to the well/piezometer construction information submitted with the permit application, the following items relating to well/piezometer construction shall be implemented when the wells/piezometers are constructed, installed and developed:
 - a. The borehole diameter shall be at least four (4) inches larger in diameter than the casing diameter;
 - b. For water table (unconfined) aquifers, the screened interval shall extend at least two (2) feet above the highest expected groundwater level. Monitoring wells/piezometers installed in confined and semi-confined aquifers shall be constructed in accordance with Chapter XI, Section 68 of Water Quality Division Rules and Regulations. Factory screen or slotted casing is recommended for the perforated interval;
 - c. When PVC casing is used, the casing shall be installed using threaded joints, couplings, or mechanical connectors without the use of solvents or glues to hold the casing sections together;

PERMIT NO. 93-135

- d. To minimize the entrance of fine grained material into the well/piezometer, the filter pack shall be designed to be compatible with the perforation size and the geologic materials encountered within the perforated interval. The filter pack shall extend to a minimum of one (1) foot above the screened interval;
 - e. Filter pack, annular seal, and surface seal material shall be entered into the well/piezometer in a manner such that no voids or bridging occur;
 - f. A minimum two (2) foot thickness of bentonite or bentonite grout is required at the top of the filter pack to serve as an annular seal. After the bentonite has been placed in the annular space, it shall be hydrated to insure a proper seal.
 - g. The annular space above the bentonite seal to within one foot (1') of the surface will be sealed with Portland cement, sand-cement grout, or bentonite grout.
 - h. A protective casing shall be cemented into place when the upper one (1) foot of the annular space is completed with cement, forming a concrete apron sloping away from the well/piezometer;
 - i. A top and bottom cap of the same material as the well/piezometer casing shall be installed to prevent sediment and surface water from entering the well/piezometer;
 - j. The monitoring well/piezometer shall be developed by the use of a pump or bailer so that representative groundwater samples can be collected;
- 11 of 16 DEQ/WQD personnel shall be given at least two (2) weeks notice prior to the installation of monitor wells/piezometers and sample collection so that DEQ/WQD personnel may be on site if deemed necessary.
- 12 of 16 Within 60 days after completion of the site study a report shall be submitted to WQD. This report shall contain at a minimum:
- a. a chronology of events leading up to the investigation;
 - b. A site map showing the physical features, monitoring well/piezometer/borehole locations, and mean sea level elevations of the top of casing/measuring point;
 - c. The permittee shall provide the exact latitude and longitude for each of the monitor wells/piezometers being constructed under this permit. These figures shall be accurate to the nearest one (1) second of latitude and longitude.

PERMIT NO. 93-135

- d. Final location, construction details and lithologic logs of monitor wells/piezometers/boreholes;
- e. Geohydrologic maps and/or cross sections that clearly describe the subsurface distribution of geologic materials and groundwater occurrence;
- f. Depth to water and product thickness measurements;
- g. Sample collection procedures;
- h. Sampling analytical results;
- i. If contamination is discovered a map delineating the extent of the subsurface contamination including LNAPL (free product), soil and dissolved groundwater contamination and concentrations;
- j. A potentiometric surface map showing the direction and gradient of groundwater flow; and
- k. Interpretation of the data and conclusions of the investigation, including additional recommended investigation and remedial measures, and a schedule for implementation of these measures.

13 of 16 Proper monitoring well/piezometer evacuation shall include removal of a minimum of three (3) casing volumes prior to sampling or pumping the well/piezometer dry once, whichever occurs first. Sample collection, preservation, transportation and chemical analytical procedures shall be completed in accordance with WQD and EPA standard procedures.

14 of 16 All monitor wells/piezometers associated with this facility shall be sampled and the groundwater analyzed and the results submitted to WQD:

- a. The results of these analyses shall be submitted to the Cheyenne office as soon as they are available.

15 of 16 Water which is collected during monitoring well/piezometer development or sampling must be disposed of properly. The Applicant must contact the City for authorization to dispose into the local storm sewer, sanitary sewer, wastewater treatment plant, or other facility.

16 of 16 The results of any analyses conducted on soil or water removed from these wells/piezometers or boreholes shall be provided to the department as soon as they are available.

Archiv P
93-135

June 2, 1993

Mr. Gary Steel
DEQ/Water Quality Division
Herschler Bldg., 4th Floor West
Cheyenne, WY 82002

Re: Permit #93-135

Dear Mr. Steel:

We have decided not to proceed with the purchase of this land so monitoring wells will not be required. Thank you.

Sincerely,



Robert L. Boese
Director, operations West

RAB/dd

RECEIVED

WATER QUALITY DIVISION
WYOMING

Propane Transport Inc.

1021 W. 23RD ST., P.O. BOX 828, CHEYENNE, WY. 82003 (307) 638-0363

PERMIT TO CONSTRUCT

New

Renewal

Modified

Permit No. 93-136
CONDITIONED

Bullock Fuels Line Leak SSI
(Name of Facility)

This permit hereby authorizes the applicant (name and address):

Bullock Fuels, Inc.

P.O. Box 449

Mountain View, WY 82939

to construct a series of monitor wells, soil borings, and test pits according to the procedures and conditions of the application No. 93-136. The facility is located in Mountain View in the County of Uinta, in the State of Wyoming. This permit shall be effective for a period of two (2) years from the date of issuance of this permit.

The issuance of this permit provides that the Department of Environmental Quality has evaluated and determined that the application meets minimum applicable construction and design standards. The compliance with construction standards and the operation and maintenance of the facility to meet the applicant's engineer's design are the responsibility of the applicant, owner, or operator.

The authority to construct granted by this permit does not mean or imply that the Wyoming Department of Environmental Quality guarantees or insures that the permitted facility, when constructed, will meet applicable discharge permit conditions or other effluent or operational requirements.

Nothing in this permit constitutes an endorsement of the construction or the design of the facility described herein. This permit indicates only that standards of design and construction required by the Environmental Quality Act have been met. The State assumes no liability for, and does not in any way guarantee the performance of, the permittee in the exercise of its activities allowed under this permit. The permittee understands that it is solely responsible to any third parties for any liability arising from the construction or operation of the facility described herein.

By the issuance of this permit, the State does not in any way waive its sovereign immunity.

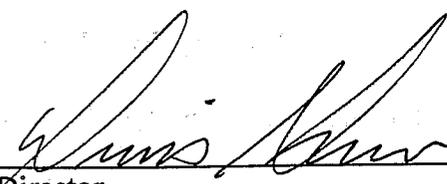
The permittee shall allow authorized representatives from the Department of Environmental Quality, Water Quality Division, upon the presentation of credentials and during working hours, to have access to inspect the facilities, at the above location, for the purpose of compliance with the provisions of this construction permit.

The permittee shall notify representatives from the Department of Environmental Quality, Water Quality Division the day construction commences and give an estimate of completion of the project. The authorized representative in your area can be contacted at the following address: District Engineer, State of Wyoming, Department of Environmental Quality, Water Quality Division, 250 Lincoln, Lander, WY 82520; telephone, 332-3144.

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.

The issuance of this permit does not convey any property rights in either real or personal property, 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.

AUTHORIZED BY:

	
Administrator	Director
Water Quality Division	Dept. of Environmental Quality

5/19/93
Date of Issuance

This permit does not supersede the requirements for obtaining any permit from local agencies.

Conditions for Monitoring Wells

1. of 13 Pre-treatment of gasoline contaminated groundwater collected and held onsite will be allowed under the following authority: 40 CFR Part 261, Suspension of Toxicity Characteristics Rule For Non-UST Petroleum Product-contaminated Media and Debris; Proposed Rule, specifically 261.4(b)(11) as amended in the federal Register published Thursday, December 24, 1992. Prior to treatment, however, authorization must be obtained from the DEQ Air Quality Division.

2. of 13 The groundwater monitoring wells shall be installed in accordance with the conditions of this permit and the plans and specifications submitted in permit to construct application number 93-083. Additional wells meeting the requirements of this permit may be installed if prior approval is received from the Water Quality Division (WQD).

3. of 13 Pursuant to Wyoming Water Quality Rules and Regulations, Chapter XI, Section 63(A), a deviation is hereby granted for those wells prevented by physical limitations to adherence to the requirements on minimum depths of seal below ground surface as detailed in Chapter XI, Part G. However a sufficient seal shall be installed according to normal engineering practice.

4. of 13 After the monitoring wells have fulfilled their useful purpose, they shall be abandoned according to procedures specified in Chapter XI, Part G, Section 70 of Wyoming Water Quality Rules and Regulations. Within 15 days after a well has been plugged and abandoned, the owner shall file a plugging record with the WQD.

5. of 13 A waterproof protective casing and locking cap is required on all monitoring wells. Well caps shall be kept locked at all times other than for monitoring purposes. Any tampering with the monitor wells shall be reported immediately to the division. The wells shall be clearly numbered on the outside of the protective casing and on the inside of the well cap.

6. of 13 The issuance of this permit does not relieve the permittee from obligations to complete the extent of contamination study and any further remedial actions which may be required. Depending on the results of the subsurface contamination investigation, additional site investigations or remedial measures may be required by the WQD. **An adequate number of wells shall be installed to define the extent of contamination.**

7. of 13 In addition to the well construction information submitted with the permit application, the following items relating to well construction shall be implemented when the wells are constructed, installed and developed:
 - a. After the bentonite has been placed in the annular space, it shall be hydrated to ensure a proper seal;
 - b. The borehole diameter shall be at least four inches larger in diameter than the casing diameter;
 - c. The screened interval shall extend at least two or three feet above the highest expected seasonal groundwater level and at least five feet below the lowest

expected groundwater level; factory slotted casing is recommended for the perforated interval;

- d. If PVC casing is used, only threaded PVC casing is acceptable. Under no circumstances are PVC glue or plastic welding solvents to be used to join casings;
 - e. To minimize the entrance of fine grained material into the well the filter pack shall be designed to be compatible with the perforation size and the geologic materials encountered within the perforated interval;
 - f. A top and bottom cap shall be installed to prevent sediment and surface water from entering the well;
 - g. The monitoring well shall be developed by the use of a pump or bailer so that representative groundwater samples can be collected. If contaminants are present or expected to be present, development water should be disposed of in accordance with all state and federal regulation;
 - h. A seal of bentonite or bentonite grout is required from the surface to a foot or two above the top perforation. Protective casing shall be cemented into a sloping concrete cap; and
8. of 13 DEQ/WQD personnel shall be given at least two weeks notice prior to the installation of the monitor wells and sample collection so that DEQ/WQD personnel may be on-site if deemed necessary.
9. of 13 Within 90 days of issuance of this permit, a report on the subsurface investigation shall be submitted to the WQD. This report shall contain at a minimum:
- a. A chronology of events leading up to the investigation, including emergency free product containment (trench installation, collection pits, siphons, etc.) and disposal activities;
 - b. A site map showing physical features, well locations and elevations;
 - c. The monitoring well elevation should be measured from the top of casing and that measuring point should be clearly marked on the inside of the casing with an arrow (^).
 - d. Final location, construction details and logs of all monitoring wells;
 - e. Geohydrologic maps and/or cross sections that clearly describe the subsurface distribution of geological materials and groundwater occurrence;
 - f. Water level and product thickness measurements if applicable; this should include an accounting of free product removal and disposal activities;
 - g. Sample collection procedures;

- h. Sampling analytical results;
 - i. Maps delineating the extent of the subsurface contamination including free product, soil and dissolved groundwater contamination and concentrations;
 - j. A potentiometric surface map showing the direction of groundwater movement; and
 - k. Interpretation of data and conclusions including recommended remedial measures.
10. of 13 Proper well evacuation, sample collection, preservation, transportation and chemical analytical procedures shall be completed in accordance with WQD standard procedures.
11. of 13 The results of any analyses conducted on soil or water removed from these wells or boreholes shall be provided to the department as soon as they are available.
12. of 13 The time schedule for plan implementation is submitted in the site work plan shall be adhered to. Drilling shall commence on or before June 1, 1993.
13. of 13 Soil samples taken for laboratory analysis shall be collected from the most highly contaminated zone encountered during drilling and analyzed for Total Petroleum Hydrocarbons (TPH) by EPA Method 8015 Modified for gasoline. Groundwater sampling shall be performed quarterly until further notice, and shall be submitted as soon as results are available to Doug Gilmer, DEQ/WQD Lander office.

cc: Kevin Frederick, DEQ/WQD GPC Program Director, Cheyenne
Jake Strohmman, DEQ/WQD GPC Program Administrator, Cheyenne

DG/mad 32424.LTR

PERMIT TO CONSTRUCT

New
 Renewal
 Modified

PERMIT NO. 93-137
SPECIAL CONDITIONS

Pershing Blvd Roadway & Morrie Ave Int.

This permit hereby authorizes the applicant:

Cheyenne Board of Public Utilities
P.O. Box 1469
Cheyenne, WY 82003

to construct, install or modify a public water supply & wastewater facility according to the procedures and conditions of the application number 93-137. The facility is located in NE 1/4 Section 31 & NW 1/4 Section 32, T14N, R66W in the county of Laramie, in the State of Wyoming. This permit shall be effective for a period of two (2) years (5 years maximum) from the date of issuance of this permit.

The issuance of this permit provides that the Department of Environmental Quality has evaluated and determined that the application meets minimum applicable construction and design standards. The compliance with construction standards and the operation and maintenance of the facility to meet the applicant's engineer's design are the responsibility of the applicant, owner, or operator.

The authority to construct granted by this permit does not mean or imply that the Wyoming Department of Environmental Quality guarantees or ensures that the permitted facility, when constructed, will meet applicable discharge permit conditions or other effluent or operational requirements.

Nothing in this permit constitutes an endorsement of the construction or the design of the facility described herein. This permit indicates only that standards of design and construction required by the Environmental Quality Act have been met. The state assumes no liability for, and does not in any way guarantee the performance of, the permittee in the exercise of its activities allowed under this permit. The permittee understands that it is solely responsible to any third parties for any liability arising from the construction or operation of the facility described herein. By the issuance of this permit, the state does not in any way waive its sovereign immunity.

The permittee shall allow authorized representatives from the Department of Environmental Quality, Water Quality Division, upon the presentation of credentials and during working hours, to have access to inspect the facilities, at the above location, for the purpose of compliance with the provisions of this construction permit.

The permittee shall notify representatives from the Department of Environmental Quality, Water Quality Division the day construction commences and give an estimate of completion of the project. The authorized representative in your area can be contacted at the following address: Southeast District Engineer, State of Wyoming, Department of Environmental Quality, Water Quality Division, Herschler Building, 4th Floor West, 122 West 25th Street, Cheyenne, Wyoming 82002; telephone (307) 777-7781.

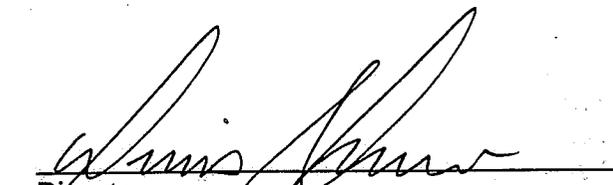
Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities or penalties established pursuant to any applicable state law or regulation.

The issuance of this permit does not convey any property rights in either real or personal property or any invasion of personal rights, nor any infringement of federal, state or local laws or regulations.

AUTHORIZED BY:



Administrator
Water Quality Division



Director
Department of Environmental Quality

6-7-93

Date of Issuance

This permit does not supersede the requirements for obtaining any permit from local agencies.

SPECIAL CONDITIONS

- 1 of 2 The water line may be placed less than 18 inches over the top of the 7' X 4' concrete box at approximately Sta. 92+00 on Pershing Blvd. The following conditions shall however be met for the installation.
- A. All water line joints that are within 10 feet of the edge of the concrete box shall be restrained flexible joint pipe similar to that used in water crossings.
 - B. One full joint of pipe shall be centered over the top of the concrete box.
 - C. The water line has appropriate thrust blocking and is installed in accordance with the manufacturers recommendations.
- 2 of 2 Protection of water lines that are placed under the storm sewers shown for this project will not be required provided that the following conditions are met for installation.

PERMIT NO. 93-137

- A. A minimum of 18 inches of vertical clearance shall be maintained between the water line and the storm sewer.
- B. All water line joints within 10 feet of the storm sewer shall be restrained jointed pipe.
- C. One full section of water line shall be centered under the storm sewer.
- D. The storm sewer joints within 10 feet of the water line shall be constructed with rubber gasketed joints.

GLS/bb/32715.LTR

REVIEW OF PLANS AND SPECIFICATIONS

WYOMING DEPARTMENT OF ENVIRONMENTAL QUALITY
WATER QUALITY DIVISION
Herschler Bldg., 4 West
Cheyenne, Wyoming 82002

PROJECT: Pershing Blvd Roadway and Morrie Ave.
Intersection

ENGINEER: A.V.I. pc
Daryl G. Johnson
2035 Westland Rd.
Cheyenne, WY 82001

APPLICANT: Cheyenne Board of Public Utilities
P.O. Box 1469
Cheyenne, WY 82003

WATER QUALITY REFERENCE NUMBER: 93-137

APPROVING ENGINEER: Gary Steele

DATE OF REVIEW: May 12, 1993

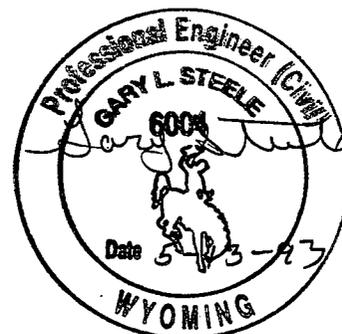
ACTION: NOT AUTHORIZED FOR CONSTRUCTION

COMMENTS, PROBLEMS, INADEQUACIES, and QUESTIONS:

PLANS

Sheet 18 of 58

1. The plans do not indicate that the water main will have a separation of 18 inches over the 7' X 4' concrete box. Chapter XII Section 14g paragraph (i), indicates that if the water line does not have 18 inches of separation over the sewer then the water or sewer line shall be placed in a separate conduit. The separate conduit is to be extended 10 feet on both sides of the intersecting pipe.
2. A separate plan and profile drawing is required for the new water main section at Duff Ave. Chapter XII Section 7c paragraph (ii) indicates that a profile of all water mains shall be shown. This section of water main crosses several sewer lines and the required separations need to be illustrated and labeled.
3. The fire hydrant at 25th and Duff Ave. requires a valve to be installed on the hydrant lead. Chapter XII Section 14d paragraph (i), indicates that all fire hydrant leads shall have a valve installed on the lead.



Sheet 19 of 58

4. The water main lowering shown in the profile will require that either the water line or the sewer line be placed in a separate conduit as described in number 1 above. Chapter XII Section 14g paragraph (i), indicates that if the water line is not 18 inches above the sewer line or 10 feet horizontally from the sewer, then either the water line or sewer line must be protected.
5. A separate plan and profile drawing is required for the new water main section at Alexander Ave and Dunn Ave. Chapter XII Section 7c paragraph (ii) indicates that a profile of all water mains shall be shown. This section of water main crosses several sewer lines and the required separations need to be illustrated and labeled.
6. Is protection of the water main required at the crossing of the new 18" storm sewer and the existing water line on Alexander Ave. and Dunn Ave.?
7. Show the sanitary sewer crossing in the profile at about Sta. 96+30 to verify separation.

Sheet 20 of 58

8. A separate plan and profile drawing is required for the new water main section at Dunn Ave. on the south side of Pershing Blvd. Chapter XII Section 7c paragraph (ii) indicates that a profile of all water mains shall be shown. This section of water main crosses several sewer lines and the required separations need to be illustrated and labeled.

Sheet 21 of 58

9. The water main lowering shown in the profile will require that either the water line or the sewer line be placed in a separate conduit as described in number 1 above. Chapter XII Section 14g paragraph (i), indicates that if the water line is not 18 inches above the sewer line or 10 feet horizontally from the sewer, then either the water line or sewer line must be protected.

Sheet 36 of 58

10. The grades for the San Sewer from manhole E-1 to manhole F-1 and from manhole F-1 to manhole G-1 do not correlate with the distances and elevations shown on the plan.

Sheet 37 of 58

11. The plan view on sheet 18 indicates that the new sewer line is to be 12". This sheet shows that the new sewer line is to be 8", please clarify.

Review/Plans and Specifications
Permit #93-137

Sheet 46 of 58

12. The water main lowering detail shown will require that either the water line or the sewer line be placed in a separate conduit as described in number 1 above. Chapter XII Section 14g paragraph (i), indicates that if the water line is not 18 inches above the sewer line or 10 feet horizontally from the sewer, then either the water line or sewer line must be protected. Please correct the detail so that it is in compliance with Chapter XII.

Sheet 47 of 58

13. Chapter XII Section 14h paragraph (iA), indicates that all residential water system connections shall be provided with a check valve at the meter or in the service line. All service line connections on this project which includes meters will require a check valve to be installed.

SPECIFICATIONS

Section 301-Page 3

14. For your information only: Section 301.10 paragraph B at the bottom of the page, thirty days is written out and (3) is given in parentheses.

Section 402-Page 1 and 2

15. This section indicates that the sewer service connections are to be made with a tapping saddle. Chapter XI Section 9c paragraph (iiiD), indicates that all service connections to sewage collection lines shall be made with a wye or tee. All service connections to the new sewer shall be made with a wye or tee as indicated.

Please correct or address each of the items given above and resubmit 3 corrected sets of plans and specifications to this office.

GLS/bb/32331.LTR

PERMIT TO CONSTRUCT

- [] New
[] Renewal
[X] Modified

PERMIT NO. 93-138
Reference Permits
92-379 and 93-068
See Special Conditions

RANCH A SEPTIC SYSTEM
(Name of Facility)

This permit hereby authorizes the applicant (name and address):

U.S. Fish and Wildlife Service
P.O. Box 25486, Denver Federal Center
Denver, CO 80225

to construct, install or modify a wastewater treatment facility according to the procedures and conditions of the application No. 93-138. The facility is located in the NW/4, Section 25, Township 52 North, Range 61 West, in the County of Crook in the State of Wyoming. This permit shall be effective for a period of one (1) year (five (5) years maximum) from the date of issuance of this permit.

The issuance of this permit provides that the Department of Environmental Quality has evaluated and determined that the application meets minimum applicable construction and design standards. The compliance with construction standards and the operation and maintenance of the facility to meet the applicant's engineer's design are the responsibility of the applicant, owner, or operator.

The authority to construct granted by this permit does not mean or imply that the Wyoming Department of Environmental Quality guarantees or ensures that the permitted facility, when constructed, will meet applicable discharge permit conditions or other effluent or operational requirements.

Nothing in this permit constitutes an endorsement of the construction or the design of the facility described herein. This permit indicates only that standards of design and construction required by the Environmental Quality Act have been met. The State assumes no liability for, and does not in any way guarantee the performance of, the permittee in the exercise of its activities

allowed under this permit. The permittee understands that it is solely responsible to any third parties for any liability arising from the construction or operation of the facility described herein. By the issuance of this permit, the state does not in any way waive its sovereign immunity.

The permittee shall allow authorized representatives from the Department of Environmental Quality, Water Quality Division, upon the presentation of credentials and during working hours, to have access to inspect the facilities, at the above location, for the purpose of compliance with the provisions of this construction permit.

The permittee shall notify representatives from the Department of Environmental Quality, Water Quality Division, the day construction commences and give an estimate of completion of the project. The authorized representative in your area can be contacted at the following address: District Supervisor, State of Wyoming, Department of Environmental Quality, Water Quality Division, 2161 Coffeen Avenue, Annex, Sheridan, Wyoming 82801; telephone, 672-6457.

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.

The issuance of this permit does not convey any property rights in either real or personal property, 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.

AUTHORIZED BY:



Administrator
Water Quality Division



Director
Dept. of Environmental Quality

5/21/93

Date of Issuance

This permit does not supersede the requirements for obtaining any permit from local agencies.

DRM/pr:05/18/93

PERMIT CONDITIONS on following page.

PERMIT CONDITIONS

- 1 of 2. Once the construction is complete, an as-built drawing(s) shall be submitted to the DEQ/WQD Sheridan District Office.

- 2 of 2. An abandonment report for the existing package waste treatment plant, sewer lines, and pump station equipment shall be provided to the DEQ/WQD Sheridan office upon project completion.

PERMIT TO CONSTRUCT

- New
 Renewal
 Modified

Permit No. 93-139
* CONDITIONED*

Sheeprock Ranch Septic & Leach System
(Name of Facility)

This permit hereby authorizes the applicant (name and address):

Sheeprock Ranch

P.O. Box 605

Saratoga, WY 82331

to construct a septic tank and leach field according to the procedures and conditions of the application No. 93-139. The facility is located in Section 27, SW $\frac{1}{4}$ SW $\frac{1}{4}$, T18N, R84W in the County of Carbon, in the State of Wyoming. This permit shall be effective for a period of two (2) years from the date of issuance of this permit.

The issuance of this permit provides that the Department of Environmental Quality has evaluated and determined that the application meets minimum applicable construction and design standards. The compliance with construction standards and the operation and maintenance of the facility to meet the applicant's engineer's design are the responsibility of the applicant, owner, or operator.

The authority to construct granted by this permit does not mean or imply that the Wyoming Department of Environmental Quality guarantees or insures that the permitted facility, when constructed, will meet applicable discharge permit conditions or other effluent or operational requirements.

Nothing in this permit constitutes an endorsement of the construction or the design of the facility described herein. This permit indicates only that standards of design and construction required by the Environmental Quality Act have been met. The State assumes no liability for, and does not in any way guarantee the performance of, the permittee in the exercise of its activities allowed under this permit. The permittee understands that it is

solely responsible to any third parties for any liability arising from the construction or operation of the facility described herein. By the issuance of this permit, the State does not in any way waive its sovereign immunity.

The permittee shall allow authorized representatives from the Department of Environmental Quality, Water Quality Division, upon the presentation of credentials and during working hours, to have access to inspect the facilities, at the above location, for the purpose of compliance with the provisions of this construction permit.

The permittee shall notify representatives from the Department of Environmental Quality, Water Quality Division the day construction commences and give an estimate of completion of the project. The authorized representative in your area can be contacted at the following address: District Engineer, State of Wyoming, Department of Environmental Quality, Water Quality Division, 250 Lincoln, Lander, WY 82520; telephone, 332-3144.

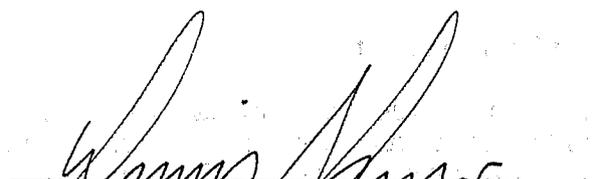
Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities or penalties established pursuant to any applicable State law or regulation.

The issuance of this permit does not convey any property rights in either real or personal property, 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.

AUTHORIZED BY:



Administrator
Water Quality Division



Director
Dept. of Environmental Quality

5/19/93

Date of Issuance

This permit does not supersede the requirements for obtaining any permit from local agencies.

RT/jyi

* CONDITION 1 OF 1 *

1 of 1 Since the Vaughn septic tank has no cleanout, the manhole must be extended to the surface.

PERMIT TO CONSTRUCT

New

Permit No. 93-140

Renewal

Modified

Burkes Sewer Collection System
(Name of Facility)

This permit hereby authorizes the applicant (name and address):

Jody Burkes

P.O. Box 7687

Jackson, WY 83001

to construct a 6 inch diameter and 8 inch diameter sewers and associated manholes according to the procedures and conditions of the application No. 93-140. The facility is located in SE $\frac{1}{4}$ NE $\frac{1}{4}$ Section 32, T41N, R116W in the County of Teton, in the State of Wyoming. This permit shall be effective for a period of two (2) years from the date of issuance of this permit.

The issuance of this permit provides that the Department of Environmental Quality has evaluated and determined that the application meets minimum applicable construction and design standards. The compliance with construction standards and the operation and maintenance of the facility to meet the applicant's engineer's design are the responsibility of the applicant, owner, or operator.

The authority to construct granted by this permit does not mean or imply that the Wyoming Department of Environmental Quality guarantees or insures that the permitted facility, when constructed, will meet applicable discharge permit conditions or other effluent or operational requirements.

Nothing in this permit constitutes an endorsement of the construction or the design of the facility described herein. This permit indicates only that standards of design and construction required by the Environmental Quality Act have been met. The State assumes no liability for, and does not in any way guarantee the performance of, the permittee in the exercise of its activities allowed under this permit. The permittee understands that it is solely responsible to any third parties for any liability arising from the construction or operation of the facility described herein. By the issuance of this permit, the State does not in any way waive its sovereign immunity.

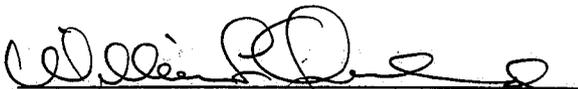
The permittee shall allow authorized representatives from the Department of Environmental Quality, Water Quality Division, upon the presentation of credentials and during working hours, to have access to inspect the facilities, at the above location, for the purpose of compliance with the provisions of this construction permit.

The permittee shall notify representatives from the Department of Environmental Quality, Water Quality Division the day construction commences and give an estimate of completion of the project. The authorized representative in your area can be contacted at the following address: District Engineer, State of Wyoming, Department of Environmental Quality, Water Quality Division, 250 Lincoln, Lander, WY 82520; telephone, 332-3144.

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.

The issuance of this permit does not convey any property rights in either real or personal property, 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.

AUTHORIZED BY:



Administrator
Water Quality Division



Director
Dept. of Environmental Quality

6-1-93

Date of Issuance

This permit does not supersede the requirements for obtaining any permit from local agencies.

JH/jyi

PERMIT TO CONSTRUCT

New
 Renewal
 Modified

PERMIT NO. 93-141
SPECIAL CONDITIONS

Amoco Pipeline Company - Statewide Deep Anode Beds

This permit hereby authorizes the applicant:

Amoco Pipeline Company
8160 Krameria Street
P.O. Box 40
Dupont, Colorado 80024

to construct, install or modify a deep bed anode system according to the procedures and conditions of the application number 93-141. The facility is located in Statewide in the county of Statewide, in the State of Wyoming. This permit shall be effective for a period of five (5) years (5 years maximum) from the date of issuance of this permit.

The issuance of this permit provides that the Department of Environmental Quality has evaluated and determined that the application meets minimum applicable construction and design standards. The compliance with construction standards and the operation and maintenance of the facility to meet the applicant's engineer's design are the responsibility of the applicant, owner, or operator.

The authority to construct granted by this permit does not mean or imply that the Wyoming Department of Environmental Quality guarantees or ensures that the permitted facility, when constructed, will meet applicable discharge permit conditions or other effluent or operational requirements.

Nothing in this permit constitutes an endorsement of the construction or the design of the facility described herein. This permit indicates only that standards of design and construction required by the Environmental Quality Act have been met. The state assumes no liability for, and does not in any way guarantee the performance of, the permittee in the exercise of its activities allowed under this permit. The permittee understands that it is solely responsible to any third parties for any liability arising from the construction or operation of the facility described herein. By the issuance of this permit, the state does not in any way waive its sovereign immunity.

The permittee shall allow authorized representatives from the Department of Environmental Quality, Water Quality Division, upon the presentation of credentials and during working hours, to have access to inspect the facilities, at the above location, for the purpose of compliance with the provisions of this construction permit.

The permittee shall notify representatives from the Department of Environmental Quality, Water Quality Division the day construction commences and give an estimate of completion of the project. The authorized representative in your area can be contacted at the following address: Program Supervisor, UIC Section, State of Wyoming, Department of Environmental Quality, Water Quality Division, Herschler Building, 4th Floor West, 122 West 25th Street, Cheyenne, Wyoming 82002; telephone (307) 777-7781.

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.

The issuance of this permit does not convey any property rights in either real or personal property or any invasion of personal rights, nor any infringement of federal, state or local laws or regulations.

AUTHORIZED BY:



Administrator
Water Quality Division



Director
Department of Environmental Quality

5-20-93

Date of Issuance

This permit does not supersede the requirements for obtaining any permit from local agencies.

SPECIAL CONDITIONS

- 1 of 6. The cathodic protection deep anode bed shall be installed in accordance with the conditions of this permit and plans and specifications submitted in permit to construct application number 93-141.
- 2 of 6. After the deep anode beds have fulfilled their useful purpose, they shall be abandoned according to procedures specified in Chapter XI, Part G, Section 70 of Wyoming Water Quality Rules and Regulations. Within 45 days after a well has been plugged and abandoned, the owner shall file a plugging record with WQD.
- 3 of 6. In addition to the anode bed construction information submitted with the permit application, the following items relating to construction shall be implemented when the anode beds are installed:
 - a. A seal of bentonite or bentonite grout is required from the surface to a minimum depth of 3 feet. A second bentonite or bentonite grout seal is required for a minimum thickness of 3 feet, just above the top of the coke

PERMIT NO. 93-141

breeze. After the bentonite has been placed in the hole, it shall be hydrated to insure an proper seal. The remainder of the hole between these seals may be backfilled with cuttings.

b. All aquifers encountered while drilling shall be isolated from one another using a bentonite seal of at least 2 feet in vertical dimension.

c. The coke breeze shall be a high quality product containing a minimum of leachable metals or organic pollutants. The coke breeze shall not discharge any pollutant which will cause a groundwater standards violation.

d. Surface access to the anode shall be kept sealed and locked at all times when the anode is not actually being serviced.

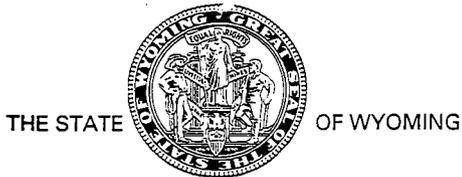
e. Each separate aquifer penetrated shall require a separate breather pipe. Each aquifer shall remain in hydrologic isolation from each other if they were isolated prior to installation.

4 of 6. Within 45 days after the anodes are installed, as-built construction plans shall be submitted to the DEQ/WQD, detailing how groundwater was protected during installation.

5 of 6. If it becomes necessary to wet any anode installed under this permit, only water from an approved public water supply shall be used unless DEQ/WQD is first supplied with an analyses of the water for approval. Waters that originate in sources other than an approved public water supply shall not be used unless first approved.

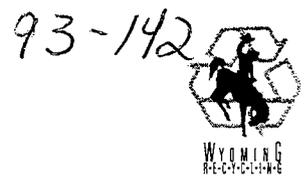
6 of 6. An unlimited number of similar anodes may be installed under this permit. This authorization applies to Amoco Pipeline Company and all subsidiary companies operating in Wyoming. All anodes installed under this permit shall have similar construction specifications.

RFL/mad 32434.LTR



THE STATE OF WYOMING

MIKE SULLIVAN
GOVERNOR



Department of Environmental Quality

Herschler Building • 122 West 25th Street • Cheyenne, Wyoming 82002

Administration
(307) 777-7937

Air Quality Division
(307) 777-7391

Land Quality Division
(307) 777-7756
FAX (307) 634-0799

Solid Waste Management Program
(307) 777-7752

Water Quality Division
(307) 777-7781
FAX (307) 777-5973

May 11, 1993

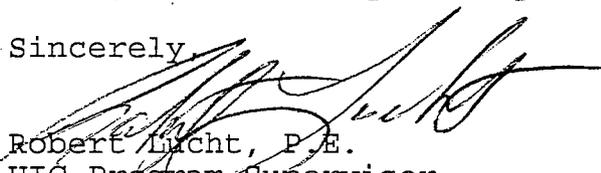
Cliff Bierwagen
Wyoming Machinery Company
P.O. Box 1238
Gillette, WY 82717

RE: Industrial Drainfield: 5050 Mohan Road
Gillette, Campbell County, Wyoming
Permit Number: WQD 79-427

Dear Mr. Bierwagen:

Enclosed please find the final signed permit to construct monitor wells. You will note that this permit requires that Phenol be analyzed by EPA Method 604 or 625 and that the Total Phenolics analyses by EPA Method 420.1 has been eliminated. All of the metals analyzed previously are required under this permit except Nickel. This permit requires the analyses for Total Petroleum Hydrocarbons and volatile hydrocarbons in all wells, at least through the first quarterly sampling.

Sincerely,



Robert Lucht, P.E.
UIC Program Supervisor
Water Quality Division

RL/mad 32274.LTR

PERMIT TO CONSTRUCT

New
 Renewal
 Modified

PERMIT NO. 93-142
SPECIAL CONDITIONS

Wyoming Machinery Company - Gillette Monitoring Wells

This permit hereby authorizes the applicant:

Wyoming Machinery Inc.
5050 Mohan Road

Gillette, Wyoming 82727

to construct, install or modify a system of environmental monitoring wells according to the procedures and conditions of the application number 93-142. The facility is located in SE1/4NE1/4 Section 11, T49N, R72W, 6th P.M. in the county of Campbell, in the State of Wyoming. This permit shall be effective for a period of five (5) years (5 years maximum) from the date of issuance of this permit.

The issuance of this permit provides that the Department of Environmental Quality has evaluated and determined that the application meets minimum applicable construction and design standards. The compliance with construction standards and the operation and maintenance of the facility to meet the applicant's engineer's design are the responsibility of the applicant, owner, or operator.

The authority to construct granted by this permit does not mean or imply that the Wyoming Department of Environmental Quality guarantees or ensures that the permitted facility, when constructed, will meet applicable discharge permit conditions or other effluent or operational requirements.

Nothing in this permit constitutes an endorsement of the construction or the design of the facility described herein. This permit indicates only that standards of design and construction required by the Environmental Quality Act have been met. The state assumes no liability for, and does not in any way guarantee the performance of, the permittee in the exercise of its activities allowed under this permit. The permittee understands that it is solely responsible to any third parties for any liability arising from the construction or operation of the facility described herein. By the issuance of this permit, the state does not in any way waive its sovereign immunity.

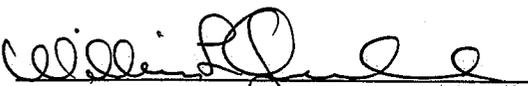
The permittee shall allow authorized representatives from the Department of Environmental Quality, Water Quality Division, upon the presentation of credentials and during working hours, to have access to inspect the facilities, at the above location, for the purpose of compliance with the provisions of this construction permit.

The permittee shall notify representatives from the Department of Environmental Quality, Water Quality Division the day construction commences and give an estimate of completion of the project. The authorized representative in your area can be contacted at the following address: Program Supervisor, UIC Section, State of Wyoming, Department of Environmental Quality, Water Quality Division, Herschler Building, 4th Floor West, 122 West 25th Street, Cheyenne, Wyoming 82002; telephone (307) 777-7781.

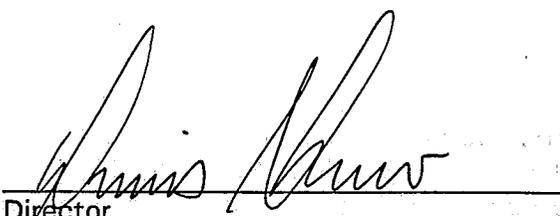
Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities or penalties established pursuant to any applicable state law or regulation.

The issuance of this permit does not convey any property rights in either real or personal property or any invasion of personal rights, nor any infringement of federal, state or local laws or regulations.

AUTHORIZED BY:



Administrator
Water Quality Division



Director
Department of Environmental Quality

5-18-93

Date of Issuance

This permit does not supersede the requirements for obtaining any permit from local agencies.

SPECIAL CONDITIONS

- 1 of 11. The groundwater monitoring wells shall be installed in accordance with the conditions of this permit and the plans and specifications submitted in permit to construct application number 93-142. Additional wells meeting the requirements of this permit may be installed if prior approval is received from the Water Quality Division (WQD).
- 2 of 11. Pursuant to Wyoming Water Quality Rules and Regulations, Chapter XI, Section 63(A), a deviation is hereby granted for those wells prevented by physical limitations to adherence to the requirements on minimum depths of seal below the ground surface as detailed in Chapter XI, Part G. However, a sufficient seal shall be installed according to normal engineering practice.
- 3 of 11. After the monitoring wells have fulfilled their useful purpose, they shall be abandoned according to procedures specified in Chapter XI, Part G, Section 70 of Wyoming Water Quality Rules and Regulations. Within 15 days after a well has been plugged and abandoned, the owner shall file a plugging record with WQD.

PERMIT NO. 93-142

- 4 of 11. Well caps shall be kept locked at all times other than for monitoring purposes. Any tampering with the monitor wells shall be reported immediately to the division. The wells shall be clearly numbered using either a stamp to permanently engrave the number into the steel top or by writing the number in the wet concrete of the base.
- 5 of 11. The issuance of this permit does not relieve the permittee from obligations to complete the extent of contamination study and any further remedial work which may be required. Depending on the results of the subsurface investigation, additional site investigations or remedial actions may be required by the WQD. An adequate number of wells shall be installed to define the extent of the contamination.
- 6 of 11. In addition to the well construction information submitted with the permit application, the following items relating to well construction shall be implemented when the wells are constructed, installed and developed:
- a. The borehole diameter shall be at least 4 inches larger in diameter than the casing diameter;
 - b. The screened interval shall extend at least 2 feet above the highest expected groundwater level and at least five feet below the lowest expected groundwater level. Factory slotted casing is recommended for the perforated interval;
 - c. If PVC casing is used, the casing shall be installed using mechanical connectors without the use of solvents or glues to hold the casing sections together. This mechanical connection may use set screws, threads, or other types of couplings;
 - d. To minimize the entrance of fine grained material into the well, the filter pack shall be designed to be compatible with the perforation size and the geologic materials encountered within the perforated interval;
 - e. A top and bottom cap shall be installed to prevent sediment and surface water from entering the well;
 - f. The monitoring well shall be developed by the use of a pump or bailer so that representative groundwater samples can be collected;
 - g. A seal of bentonite or bentonite grout is required from the surface to a foot or two above the top perforation. After the bentonite has been placed in the annular space, it shall be hydrated to insure an proper seal. Protective casing shall be cemented into a sloping concrete cap; and
 - h. All monitor wells shall be designed to contain a minimum of 3 feet of water at all times of the year.

PERMIT NO. 93-142

- 7 of 11. DEQ/WQD personnel shall be given at least two weeks notice prior to the installation of monitor wells and sample collection so that DEQ/WQD personnel may be on site if deemed necessary.
- 8 of 11. Within 90 days of the issuance of this permit, a report of investigation shall be submitted to WQD. This report shall contain at a minimum:
- a. A chronology of events leading up to the investigation;
 - b. A site map showing the physical features and well locations;
 - c. Final location, construction details and logs of monitor wells: The permittee shall provide the exact state plane coordinate for each of the monitor wells being constructed under this permit. These figures shall be accurate to the nearest one foot. The permittee shall provide the exact sea level elevation for the top of the PVC casing for each well, accurate to .01 foot;
 - e. Geohydrologic maps and/or cross sections that clearly describe the subsurface distribution of geologic materials and groundwater occurrence;
 - f. Water level and product thickness measurements;
 - g. Sample collection procedures;
 - h. Sampling analytical results;
 - i. A map delineating the extent of the subsurface contamination including free product, soil and dissolved groundwater contamination and concentrations;
 - j. A potentiometric surface map showing the direction of groundwater movement; and
 - k. Interpretation of the data and conclusions including recommended remedial measures.
- 9 of 11. Proper well evacuation shall include removal of a minimum of 3 casing volumes prior to sampling or pumping the well dry once, whichever occurs first. Sample collection, preservation, transportation and chemical analytical procedures shall be completed in accordance with WQD and EPA standard procedures.
- 10 of 11. All monitor wells associated with this facility shall be sampled and the groundwater analyzed quarterly for the following listed parameters:
- a. Halogenated hydrocarbons and Aromatic Hydrocarbons analyzed by EPA Method 624, or EPA Methods 601 and 602, or EPA Methods 501.1 and 501.2;
 - b. Phenol analyzed by EPA Method 604 or 625;

PERMIT NO. 93-142

c. Toxic metals including Copper, Cadmium, Chromium, Lead, and Zinc. Methods used for analyses shall be standard EPA methods for water and wastewater as defined in 40 CFR 136;

d. Total Petroleum Hydrocarbons by EPA Method 418.1.

e. After the first monitoring event, the WQD may substitute a shorter list for the above parameters, depending on the results of the first monitoring event. WQD may substitute less expensive methods for the above listed methods depending on the results of the first monitoring; and

f. The results of these analyses shall be submitted to the Cheyenne office by the last day of the month following the end of each quarter. The first set of results are due by the last day of July, 1993.

11 of 11. The results of any analyses conducted on soil or water removed from these wells or boreholes shall be provided to the department as soon as they are available.

RFL/mad 32272.LTR

cc: Walt Mersch
P.O. Box 356
Casper, WY 82602

PERMIT TO CONSTRUCT

New
 Renewal
 Modified

PERMIT NO. 93-143
SPECIAL CONDITIONS

Sinclair Refinery

This permit hereby authorizes the applicant:

Leon Corpuz
Sinclair Oil Corporation
P.O. Box 277
Sinclair, WY 82334

to construct, install or modify RFI Phase II Groundwater Monitor Wells, Piezometers, and Soil Borings, according to the procedures and conditions of the application number 93-143. The facility is located in Sections 13, 14, 15, 16, 17, 20, 21, 22, 23, T21N, R86W in the county of Carbon, in the State of Wyoming. This permit shall be effective for a period of three (3) year (5 years maximum) from the date of issuance of this permit.

The issuance of this permit provides that the Department of Environmental Quality has evaluated and determined that the application meets minimum applicable construction and design standards. The compliance with construction standards and the operation and maintenance of the facility to meet the applicant's engineer's design are the responsibility of the applicant, owner, or operator.

The authority to construct granted by this permit does not mean or imply that the Wyoming Department of Environmental Quality guarantees or ensures that the permitted facility, when constructed, will meet applicable discharge permit conditions or other effluent or operational requirements.

Nothing in this permit constitutes an endorsement of the construction or the design of the facility described herein. This permit indicates only that standards of design and construction required by the Environmental Quality Act have been met. The state assumes no liability for, and does not in any way guarantee the performance of, the permittee in the exercise of its activities allowed under this permit. The permittee understands that it is solely responsible to any third parties for any liability arising from the construction or operation of the facility described herein. By the issuance of this permit, the state does not in any way waive its sovereign immunity.

The permittee shall allow authorized representatives from the Department of Environmental Quality, Water Quality Division, upon the presentation of credentials and during working hours, to have access to inspect the facilities, at the above location, for the purpose of compliance with the provisions of this construction permit.

The permittee shall notify representatives from the Department of Environmental Quality, Water Quality Division the day construction commences and give an estimate of completion of the project. The authorized representative in your area can be contacted at the following address: Southeast Groundwater Section Supervisor, State of Wyoming, Department of Environmental Quality, Water Quality Division, Herschler Building, 4th Floor West, 122 West 25th Street, Cheyenne, Wyoming 82002; telephone (307) 777-7781.

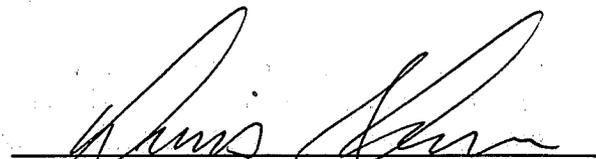
Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities or penalties established pursuant to any applicable state law or regulation.

The issuance of this permit does not convey any property rights in either real or personal property or any invasion of personal rights, nor any infringement of federal, state or local laws or regulations.

AUTHORIZED BY:



Administrator
Water Quality Division



Director
Department of Environmental Quality

8-23-93

Date of Issuance

This permit does not supersede the requirements for obtaining any permit from local agencies.

SPECIAL CONDITIONS

- 1 of 16 The groundwater monitoring wells/piezometers/soil borings shall be installed in accordance with the conditions of this permit and the plans and specifications submitted in permit to construct application number 93-143 and in the February 24, 1992 RFI Workplan presented to DEQ/WQD. Additional wells meeting the requirements of the application and this permit may be installed if prior approval is received from the Water Quality Division (WQD).

- 2 of 16 Monitor well/piezometer construction must meet the requirements of Chapter XI Wyoming Water Quality Rules and Regulations. Monitoring well/piezometer casings shall meet the conditions provided in Chapter XI, Section 67. All monitoring wells/piezometers must be constructed from materials free of material having the potential to contaminate groundwater samples.

PERMIT NO. 93-143

- 3 of 16 All downhole equipment shall be de-contaminated between wells (borings) to minimize the potential for cross-contamination.
- 4 of 16 Borehole cuttings must be screened and disposed of properly. Contaminated cuttings must be disposed of at a site approved by the DEQ's Solid and Hazardous Waste Management Division.
- 5 of 16 Pursuant to Wyoming Water Quality Rules and Regulations, Chapter XI, Section 63(A), a deviation is hereby granted for those wells prevented by physical limitations to adherence to the requirements on minimum depths of seal below ground surface as detailed in Chapter XI, Part G. However a sufficient seal shall be installed according to normal engineering practice.
- 6 of 16 After the monitoring wells/piezometers/soil borings have fulfilled their useful purpose, they shall be abandoned according to procedures specified in Chapter XI, Part G, Section 70 of Wyoming Water Quality Rules and Regulations. No monitoring well/piezometer shall be abandoned without prior approval from the Water Quality Division.
- 7 of 16 Well caps shall be kept locked at all times other than for monitoring purposes. Any tampering with the monitor wells shall be reported immediately to the division. The wells shall be clearly numbered using either a stamp to permanently engrave the number into the steel top or by writing the number in the wet concrete of the base.
- 8 of 16 The applicant is responsible for obtaining any permits required by the State Engineer's Office (307-777-7354).
- 9 of 16 The issuance of this permit does not relieve the permittee from obligations to complete the extent of contamination study and any further remedial actions which may be required. Depending on the results of the subsurface contamination investigation, additional site investigations or remedial measures may be required by the WQD. An adequate number of wells/piezometers shall be installed to define the extent of contamination.
- 10 of 16 In addition to the well construction information submitted with the permit application, the following items relating to well construction shall be implemented when the wells are constructed, installed, and developed:
- a. The borehole diameter shall be at least four inches larger in diameter than the casing diameter;

PERMIT NO. 93-143

- b. For water table (unconfined) aquifers, the screened interval shall extend at least two feet above the highest expected seasonal groundwater level. Monitor wells installed in confined and semi-confined aquifers shall be constructed in accordance with Chapter XI, Section 68 of the Water Quality Division Rules and Regulations. Factory screen or slotted casing is recommended for the perforated interval;
- c. When PVC casing is used, the casing shall be installed using threaded joints, couplings, or mechanical connectors without the use of solvents or glues to hold the casing sections together;
- d. To minimize the entrance of fine-grained material into the well/piezometer, the filter pack shall be designed to be compatible with the perforation size and the geologic materials encountered within the perforated interval;
- e. The filter pack shall extend to a minimum of one (1) foot above the screened interval;
- f. Filter pack, annular seal, and surface seal material shall be entered into the well/piezometer in a manner such that no voids or bridging occur;
- g. A minimum two (2) foot thickness of bentonite or bentonite grout is required at the top of the filter pack to serve as an annular seal. After the bentonite has been placed in the annular space, it shall be hydrated to insure a proper seal;
- h. The annular space above the bentonite seal to within one foot (1') of the surface will be sealed with Portland cement, sand-cement grout, or bentonite grout;
- i. A protective casing shall be cemented into place when the upper one (1) foot of the annular space is completed with cement, forming a concrete apron sloping away from the well /piezometer;
- j. A top and bottom cap of the same material as the well/piezometer casing shall be installed to prevent sediment and surface water from entering the well/piezometer;
- k. The monitoring well shall be developed by the use of a pump or bailer so that representative groundwater samples can be collected;

PERMIT NO. 93-143

- 11 of 16 DEQ/WQD personnel shall be given at least two weeks notice prior to the installation of the monitor wells and sample collection so that DEQ/WQD personnel may be on-site if deemed necessary.
- 12 of 16 A report of investigation (Phase II Technical Memorandum) shall be submitted to the WQD after completion of the exploratory drilling program and in accordance with Appendix C (Data Management Plan) Section 10 of the RFI workplan submitted to DEQ/WQD. This report shall contain at a minimum:
- a. A site map showing the physical features, monitoring well/piezometer/borehole locations, and mean sea level elevations of the top of casing/measuring point;
 - b. The exact latitude and longitude for each of the monitor wells/piezometers being constructed under this permit. These figures shall be accurate to the nearest one (1) second of latitude and longitude;
 - c. Final location, construction details and lithologic logs of monitor wells/piezometers/boreholes;
 - d. Geohydrologic maps and/or cross sections that clearly describe the subsurface distribution of geologic materials and groundwater occurrence;
 - e. Depth to water and product thickness measurements;
 - f. Sampling analytical results;
 - g. A map delineating the extent of the subsurface contamination including LNAPL (free product), soil and dissolved groundwater contamination and concentrations;
 - h. A potentiometric surface map showing the direction and gradient of groundwater flow.
- 13 of 16 Proper monitoring well/piezometer evacuation shall include removal of a minimum of three (3) casing volumes prior to sampling or pumping the well/piezometer dry once, whichever comes first. Sample collection, preservation, transportation and chemical analytical procedures shall be completed in accordance with the procedures established in Volume 2, Appendix B of the RFI Workplan presented to DEQ/WQD.

PERMIT NO. 93-143

- 14 of 16 All monitor wells/piezometers constructed under this Permit shall be sampled and the groundwater analyzed according to the frequency and analytes presented in Table 21 of Sinclair's RCRA Facility Investigation, Waste Characterization and Detection Phase Soil Sampling document.
- 15 of 16. Water which is collected during monitoring well/piezometer development or sampling must be discharged to the nearest waste disposal, recycling, or treatment facility, or stored in drums until it can be transported to an approved disposal, recycling, or treatment facility in accordance with procedures established in Volume 2 Appendix B of the RFI Workplan.
- 16 of 16 The results of any analyses conducted on soil or water removed from these wells/piezometers or boreholes shall be provided to the department as soon as they are available.

DF/jn - 33411.ltr

PERMIT TO CONSTRUCT

New

Permit No. 93-144RR

Renewal

Modified

Dubois Super 8 Motel

(Name of Facility)

This permit hereby authorizes the applicant (name and address):

Todd Stainbrook

P.O. Box 1473

Dubois, WY 82513

to construct a six (6) inch diameter sewer according to the procedures and conditions of the application No. 93-144RR. The facility is located in N1/2 Sec. 2, T.41N., R.107W. in the County of Fremont, in the State of Wyoming. This permit shall be effective for a period of two years from the date of issuance of this permit.

The issuance of this permit provides that the Department of Environmental Quality has evaluated and determined that the application meets minimum applicable construction and design standards. The compliance with construction standards and the operation and maintenance of the facility to meet the applicant's engineer's design are the responsibility of the applicant, owner, or operator.

The authority to construct granted by this permit does not mean or imply that the Wyoming Department of Environmental Quality guarantees or insures that the permitted facility, when constructed, will meet applicable discharge permit conditions or other effluent or operational requirements.

Nothing in this permit constitutes an endorsement of the construction or the design of the facility described herein. This permit indicates only that standards of design and construction required by the Environmental Quality Act have been met. The State assumes no liability for, and does not in any way guarantee the performance of, the permittee in the exercise of its activities allowed under this permit. The permittee understands that it is solely responsible to any third

parties for any liability arising from the construction or operation of the facility described herein. By the issuance of this permit, the State does not in any way waive its sovereign immunity.

The permittee shall allow authorized representatives from the Department of Environmental Quality, Water Quality Division, upon the presentation of credentials and during working hours, to have access to inspect the facilities, at the above location, for the purpose of compliance with the provisions of this construction permit.

The permittee shall notify representatives from the Department of Environmental Quality, Water Quality Division the day construction commences and give an estimate of completion of the project. The authorized representative in your area can be contacted at the following address: District Engineer, State of Wyoming, Department of Environmental Quality, Water Quality Division, 250 Lincoln, Lander, WY 82520; telephone, 332-3144.

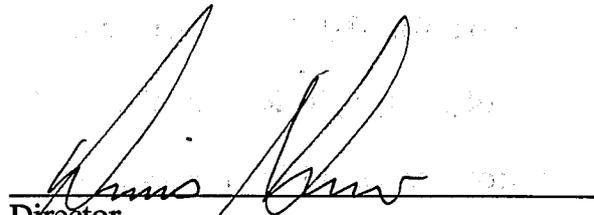
Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities or penalties established pursuant to any applicable State law or regulation.

The issuance of this permit does not convey any property rights in either real or personal property, 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.

AUTHORIZED BY:



Administrator
Water Quality Division



Director
Department of Environmental Quality

7-26-93

Date of Issuance

This permit does not supersede the requirements for obtaining any permit from local agencies.

JH/jfi/nc 33440.LTR

PERMIT TO CONSTRUCT

New
 Renewal
 Modified

PERMIT NO. 93-145
SPECIAL CONDITIONS

The Bar X Ranch 4th Filing

This permit hereby authorizes the applicant:

Cheyenne Board of Public Utility
P.O. Box 1469

Cheyenne, WY 82003

to construct, install or modify Public water supply and wastewater facility according to the procedures and conditions of the application number 93-145. The facility is located in SE 1/4 Section 13, T14N, R67W in the county of Laramie, in the State of Wyoming. This permit shall be effective for a period of two (2) years (5 years maximum) from the date of issuance of this permit.

The issuance of this permit provides that the Department of Environmental Quality has evaluated and determined that the application meets minimum applicable construction and design standards. The compliance with construction standards and the operation and maintenance of the facility to meet the applicant's engineer's design are the responsibility of the applicant, owner, or operator.

The authority to construct granted by this permit does not mean or imply that the Wyoming Department of Environmental Quality guarantees or ensures that the permitted facility, when constructed, will meet applicable discharge permit conditions or other effluent or operational requirements.

Nothing in this permit constitutes an endorsement of the construction or the design of the facility described herein. This permit indicates only that standards of design and construction required by the Environmental Quality Act have been met. The state assumes no liability for, and does not in any way guarantee the performance of, the permittee in the exercise of its activities allowed under this permit. The permittee understands that it is solely responsible to any third parties for any liability arising from the construction or operation of the facility described herein. By the issuance of this permit, the state does not in any way waive its sovereign immunity.

The permittee shall allow authorized representatives from the Department of Environmental Quality, Water Quality Division, upon the presentation of credentials and during working hours, to have access to inspect the facilities, at the above location, for the purpose of compliance with the provisions of this construction permit.

The permittee shall notify representatives from the Department of Environmental Quality, Water Quality Division the day construction commences and give an estimate of completion of the project. The authorized representative in your area can be contacted at the following address: Southeast District Engineer, State of Wyoming, Department of Environmental Quality, Water Quality Division, Herschler Building, 4th Floor West, 122 West 25th Street, Cheyenne, Wyoming 82002; telephone (307) 777-7781.

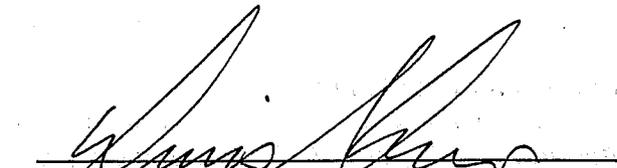
Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities or penalties established pursuant to any applicable state law or regulation.

The issuance of this permit does not convey any property rights in either real or personal property or any invasion of personal rights, nor any infringement of federal, state or local laws or regulations.

AUTHORIZED BY:



Administrator
Water Quality Division



Director
Department of Environmental Quality

6-7-93

Date of Issuance

This permit does not supersede the requirements for obtaining any permit from local agencies.

SPECIAL CONDITIONS

1 of 1 The capacity of the Monterey pump station was increased by 850 GPM for the Bar X development. The 850 GPM was determined using 200 single family residential lots. 101 single family residential lots have been permitted for development including this permit. The Bar X development may therefore permit an additional 99 lots before the capacity of the Monterey Pump Station needs to be evaluated.

GLS/mad 32676.LTR

REVIEW OF PLANS AND SPECIFICATIONS
WYOMING DEPARTMENT OF ENVIRONMENTAL QUALITY
WATER QUALITY DIVISION

Herschler Bldg., 4 West
Cheyenne, Wyoming 82002

PROJECT: Bar X Ranch 4th Filing

ENGINEER: A.V.I. p.c.
Daryl G. Johnson
2035 Westland Road
Cheyenne, WY 82001

APPLICANT: Cheyenne Board of Public Utilities
P.O. Box 1469
Cheyenne, WY 82003

WATER QUALITY DIVISION REFERENCE NUMBER: 93-145

REVIEWING ENGINEER: Gary Steele

DATE OF REVIEW: May 13, 1993

ACTION: NOT AUTHORIZED FOR CONSTRUCTION.

COMMENTS, PROBLEMS, INADEQUACIES, and QUESTIONS:

PLANS

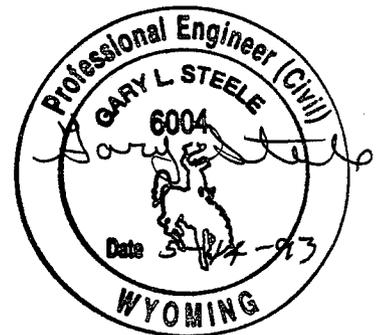
Sheet 6 of 10

1. The Inv. Elev. W. on Manhole A-1 shown on Prairie Hills Drive profile does not correspond with invert elevation shown on Stampede Circle profile.
2. The sanitary sewer grades shown on the Stampede Circle profile do not correspond with the elevations and lengths shown. The invert elevation of 6224.34 shown on Manhole A-1 would place the sanitary sewer closer than 18 inches from the water line. Chapter XII Section 14g paragraph (i) requires that the water main must be a minimum of 18 inches above the sewer main or special precautions need to be taken.

General

3. Permit No. 91-297 indicates that the Monterey Pump Station has reached maximum capacity and that additional water supply will be needed for future development. An addition to the Monterey Heights Subdivision (Permit # 92-415 Kemp Hill) has correspondence which indicates that the capacity of the Monterey Pump Station is questionable.

A review of the Utility Report showed some inconsistencies in the pressures. The printout of the report data indicates that some of the pressures were in excess of 1000 psi with the pump station in operation and 500 psi with the pump station shut off. The Monterey Pump Station capacity needs to be addressed prior to the issuance of a permit for this development.



LAND APPLICATION PERMIT

[] New

PERMIT NO. 93-146

[X] Renewal

SEE SPECIAL CONDITIONS

[] Modified

NAVAL PETROLEUM RESERVE NO. 3 ROAD APPLICATION
(Name of Facility)

This permit hereby authorizes the applicant (Name and address):

F.D. Services, Inc.
907 North Polar, Suite 100
Casper, WY 82601

to land apply waste oil according to the procedures and conditions of the application No. 93-146. The application site is located in part or all of Sections 2-4, 9-11, 14, 15, 22, 23, 26, T38N,R78W, and part or all of Sections 20-22, 27-29, 32-35, T39N, R78W, in the County of Natrona in the State of Wyoming. This permit shall be effective until November 30, 1993.

The issuance of this permit provides that the Department of Environmental Quality has evaluated and determined that the application meets minimum applicable construction and design standards. The compliance with construction standards and the operation and maintenance of the facility to meet the applicant's engineer's design are the responsibility of the applicant, owner, or operator.

The authority to construct granted by this permit does not mean or imply that the Wyoming Department of Environmental Quality guarantees or ensures that the permitted facility, when constructed, will meet applicable discharge permit conditions or other effluent or operational requirements.

Nothing in this permit constitutes an endorsement of the construction or the design of the facility described herein. This permit indicates only that standards of design and construction required by the Environmental Quality Act have been met. The State assumes no liability for, and does not in any way guarantee the performance of, the permittee in the exercise of its activities allowed under this permit. The permittee understands that it is solely responsible to any third parties for any liability arising

from the construction or operation of the facility described herein. By the issuance of this permit, the state does not in any way waive its sovereign immunity.

The permittee shall allow authorized representatives from the Department of Environmental Quality, Water Quality Division, upon the presentation of credentials and during work hours, to have access to inspect the facilities, at the above location, for the purpose of compliance with the provisions of this construction permit.

The permittee shall notify representatives from the Department of Environmental Quality, Water Quality Division, the day construction commences and give an estimate of completion of the project. The authorized representative in your area can be contacted at the following address: State of Wyoming, Department of Environmental Quality, Water Quality Division, 2161 Coffeen Avenue, Annex, Sheridan, Wyoming 82801; telephone, 672-6457.

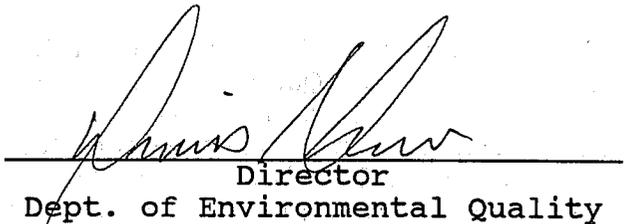
Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities or penalties established pursuant to any applicable State law or regulation.

The issuance of this permit does not convey any property rights in either real or personal property, 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.

AUTHORIZED BY:



Administrator
Water Quality Division



Director
Dept. of Environmental Quality

5-18-93

Date of Issuance

This permit does not supersede the requirements for obtaining any permit from local agencies.

DRM/pr:05/12/93
DRM

LAND APPLICATION SPECIAL CONDITIONS

1 of 4. The waste oil shall be applied uniformly to the respective road sections contained within the application package.

LAND APPLICATION SPECIAL CONDITIONS, (Continued)

The application of waste oil until November 30 shall be allowed on a one time basis providing saturated and/or frozen soil conditions do not exist.

2 of 4. The application site slope shall not exceed eight percent (8%) for vehicular application.

3 of 4. The application of waste oil shall be terminated within 300 feet of the definable high water mark of perennial and intermittent drainages, irrigation canals, lakes and reservoirs.

4 of 4. The permittee will contact the Department of Environmental Quality, Water Quality Division District Office, 2161 Coffeen Avenue, Annex, Sheridan, Wyoming 82801, telephone number 307/672-6457, to arrange a field inspection prior to initiation of work. The District Office should be notified at least 48 hours in advance of discharges and must be informed how much material will be applied, the specific site of application (to the nearest 1/4 section) and time of application.

LAND APPLICATION PERMIT

New

PERMIT NO. 93-147

Renewal

SEE SPECIAL CONDITIONS

Modified

HARTZOG DRAW UNIT ROAD APPLICATION - 4/44N/75W
(Name of Facility)

This permit hereby authorizes the applicant (Name and address):

Exxon Corporation
P.O. Box 1719
Gillette, WY 82717

to land apply tank bottoms according to the procedures and conditions of the application No. 93-147. The application site is located in Section 4, T44N, R75W, in the County of Campbell in the State of Wyoming. This permit shall be effective until November 30, 1993.

The issuance of this permit provides that the Department of Environmental Quality has evaluated and determined that the application meets minimum applicable construction and design standards. The compliance with construction standards and the operation and maintenance of the facility to meet the applicant's engineer's design are the responsibility of the applicant, owner, or operator.

The authority to construct granted by this permit does not mean or imply that the Wyoming Department of Environmental Quality guarantees or ensures that the permitted facility, when constructed, will meet applicable discharge permit conditions or other effluent or operational requirements.

Nothing in this permit constitutes an endorsement of the construction or the design of the facility described herein. This permit indicates only that standards of design and construction required by the Environmental Quality Act have been met. The State assumes no liability for, and does not in any way guarantee the performance of, the permittee in the exercise of its activities allowed under this permit. The permittee understands that it is solely responsible to any third parties for any liability arising

from the construction or operation of the facility described herein. By the issuance of this permit, the state does not in any way waive its sovereign immunity.

The permittee shall allow authorized representatives from the Department of Environmental Quality, Water Quality Division, upon the presentation of credentials and during work hours, to have access to inspect the facilities, at the above location, for the purpose of compliance with the provisions of this construction permit.

The permittee shall notify representatives from the Department of Environmental Quality, Water Quality Division, the day construction commences and give an estimate of completion of the project. The authorized representative in your area can be contacted at the following address: State of Wyoming, Department of Environmental Quality, Water Quality Division, 2161 Coffeen Avenue, Annex, Sheridan, Wyoming 82801; telephone, 672-6457.

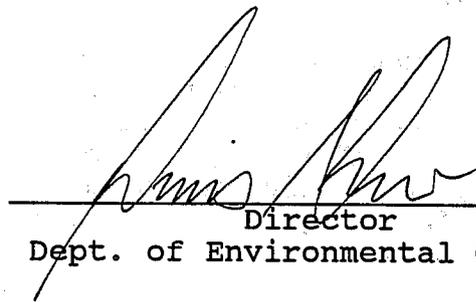
Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities or penalties established pursuant to any applicable State law or regulation.

The issuance of this permit does not convey any property rights in either real or personal property, 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.

AUTHORIZED BY:



Administrator
Water Quality Division



Director
Dept. of Environmental Quality

5-18-93

Date of Issuance

This permit does not supersede the requirements for obtaining any permit from local agencies.

 DRM/pr:05/12/93

LAND APPLICATION SPECIAL CONDITIONS

1 of 4. The tank bottoms shall be applied uniformly to the respective road sections contained within the application package.

LAND APPLICATION SPECIAL CONDITIONS, (Continued)

The application of tank bottoms until November 30 shall be allowed on a one time basis providing saturated and/or frozen soil conditions do not exist.

2 of 4. The application site slope shall not exceed eight percent (8%) for vehicular application.

3 of 4. The application of tank bottoms shall be terminated within 300 feet of the definable high water mark of perennial and intermittent drainages, irrigation canals, lakes and reservoirs.

4 of 4. The permittee will contact the Department of Environmental Quality, Water Quality Division District Office, 2161 Coffeen Avenue, Annex, Sheridan, Wyoming 82801, telephone number 307/672-6457, to arrange a field inspection prior to initiation of work. The District Office should be notified at least 48 hours in advance of discharges and must be informed how much material will be applied, the specific site of application (to the nearest 1/4 section) and time of application.

LAND APPLICATION PERMIT

[X] New

PERMIT NO. 93-148

[] Renewal

SEE SPECIAL CONDITIONS

[] Modified

HARTZOG DRAW UNIT ROAD APPLICATION - 11/45N/76W
(Name of Facility)

This permit hereby authorizes the applicant (Name and address):

Exxon Corporation
P.O. Box 1719
Gillette, WY 82717

to land apply oil contaminated soils according to the procedures and conditions of the application No. 93-148. The application site is located in Section 11, T45N, R76W, in the County of Campbell in the State of Wyoming. This permit shall be effective until November 30, 1993.

The issuance of this permit provides that the Department of Environmental Quality has evaluated and determined that the application meets minimum applicable construction and design standards. The compliance with construction standards and the operation and maintenance of the facility to meet the applicant's engineer's design are the responsibility of the applicant, owner, or operator.

The authority to construct granted by this permit does not mean or imply that the Wyoming Department of Environmental Quality guarantees or ensures that the permitted facility, when constructed, will meet applicable discharge permit conditions or other effluent or operational requirements.

Nothing in this permit constitutes an endorsement of the construction or the design of the facility described herein. This permit indicates only that standards of design and construction required by the Environmental Quality Act have been met. The State assumes no liability for, and does not in any way guarantee the performance of, the permittee in the exercise of its activities allowed under this permit. The permittee understands that it is solely responsible to any third parties for any liability arising

from the construction or operation of the facility described herein. By the issuance of this permit, the state does not in any way waive its sovereign immunity.

The permittee shall allow authorized representatives from the Department of Environmental Quality, Water Quality Division, upon the presentation of credentials and during work hours, to have access to inspect the facilities, at the above location, for the purpose of compliance with the provisions of this construction permit.

The permittee shall notify representatives from the Department of Environmental Quality, Water Quality Division, the day construction commences and give an estimate of completion of the project. The authorized representative in your area can be contacted at the following address: State of Wyoming, Department of Environmental Quality, Water Quality Division, 2161 Coffeen Avenue, Annex, Sheridan, Wyoming 82801; telephone, 672-6457.

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.

The issuance of this permit does not convey any property rights in either real or personal property, 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.

AUTHORIZED BY:



Administrator
Water Quality Division



Director
Dept. of Environmental Quality

5-18-93

Date of Issuance

This permit does not supersede the requirements for obtaining any permit from local agencies.

JSM
DRM/pr:05/12/93

LAND APPLICATION SPECIAL CONDITIONS

1 of 4. The oil contaminated soils shall be applied uniformly to the respective road sections contained within the application package.

LAND APPLICATION SPECIAL CONDITIONS, (Continued)

The application of oil contaminated soils until November 30 shall be allowed on a one time basis providing saturated and/or frozen soil conditions do not exist.

2 of 4. The application site slope shall not exceed eight percent (8%) for vehicular application.

3 of 4. The application of oil contaminated soils shall be terminated within 300 feet of the definable high water mark of perennial and intermittent drainages, irrigation canals, lakes and reservoirs.

4 of 4. The permittee will contact the Department of Environmental Quality, Water Quality Division District Office, 2161 Coffeen Avenue, Annex, Sheridan, Wyoming 82801, telephone number 307/672-6457, to arrange a field inspection prior to initiation of work. The District Office should be notified at least 48 hours in advance of discharges and must be informed how much material will be applied, the specific site of application (to the nearest 1/4 section) and time of application.

PERMIT TO CONSTRUCT

New

Permit No. 93-149R

Renewal

Modified

Commanche Hills Phase II Subdivision
(Name of Facility)

This permit hereby authorizes the applicant (name and address):

Gary Bonomo - Lakeland Developers

404 "N" Street, Ste. 207

Rock Springs, WY 82901

to construct 400 feet of 8" waterline, 260 feet of storm sewer, and 400 feet of 8" sanitary sewer according to the procedures and conditions of the application No. 93-149. The facility is located in N1/2NE1/4, Sec. 27, T19N, R105W in the County of Sweetwater, in the State of Wyoming. This permit shall be effective for a period of two years from the date of issuance of this permit.

The issuance of this permit provides that the Department of Environmental Quality has evaluated and determined that the application meets minimum applicable construction and design standards. The compliance with construction standards and the operation and maintenance of the facility to meet the applicant's engineer's design are the responsibility of the applicant, owner, or operator.

The authority to construct granted by this permit does not mean or imply that the Wyoming Department of Environmental Quality guarantees or insures that the permitted facility, when constructed, will meet applicable discharge permit conditions or other effluent or operational requirements.

Nothing in this permit constitutes an endorsement of the construction or the design of the facility described herein. This permit indicates only that standards of design and construction required by the Environmental Quality Act have been met. The State assumes no liability for, and does not in any way guarantee the performance of, the permittee in the exercise of its activities allowed under this permit. The permittee understands that it is solely responsible to any third parties for any liability arising from the construction or operation of the facility described herein. By the issuance of this permit, the State does not in any way waive its sovereign immunity.

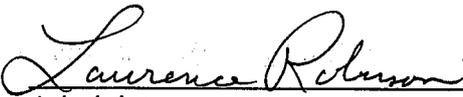
The permittee shall allow authorized representatives from the Department of Environmental Quality, Water Quality Division, upon the presentation of credentials and during working hours, to have access to inspect the facilities, at the above location, for the purpose of compliance with the provisions of this construction permit.

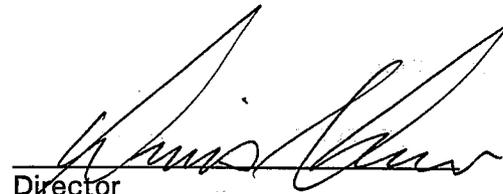
The permittee shall notify representatives from the Department of Environmental Quality, Water Quality Division the day construction commences and give an estimate of completion of the project. The authorized representative in your area can be contacted at the following address: District Engineer, State of Wyoming, Department of Environmental Quality, Water Quality Division, 250 Lincoln, Lander, WY 82520; telephone, 332-3144.

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.

The issuance of this permit does not convey any property rights in either real or personal property, 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.

AUTHORIZED BY:


for Administrator
Water Quality Division


Director
Dept. of Environmental Quality

6-14-93
Date of Issuance

This permit does not supersede the requirements for obtaining any permit from local agencies.

RT/fi - 32826.ltr

PERMIT TO CONSTRUCT

New

Permit No. 93-150R

Renewal

Modified

Jackson Hole Pub and Brewery
(Name of Facility)

This permit hereby authorizes the applicant (name and address):

Snake River Brewing Company, Inc.

P.O. Box 3319

Jackson, WY 83001

to construct a wastewater pretreatment system for brewery waste and water and sewer lines according to the procedures and conditions of the application No. 93-150R. The facility is located in NE¼ Section 3, T41N, R116W in the County of Teton, in the State of Wyoming. This permit shall be effective for a period of two (2) years from the date of issuance of this permit.

The issuance of this permit provides that the Department of Environmental Quality has evaluated and determined that the application meets minimum applicable construction and design standards. The compliance with construction standards and the operation and maintenance of the facility to meet the applicant's engineer's design are the responsibility of the applicant, owner, or operator.

The authority to construct granted by this permit does not mean or imply that the Wyoming Department of Environmental Quality guarantees or insures that the permitted facility, when constructed, will meet applicable discharge permit conditions or other effluent or operational requirements.

Nothing in this permit constitutes an endorsement of the construction or the design of the facility described herein. This permit indicates only that standards of design and construction required by the Environmental Quality Act have been met. The State assumes no liability for, and does not in any way guarantee the performance of, the permittee in the exercise of its activities allowed under this permit. The permittee understands that it is

solely responsible to any third parties for any liability arising from the construction or operation of the facility described herein. By the issuance of this permit, the State does not in any way waive its sovereign immunity.

The permittee shall allow authorized representatives from the Department of Environmental Quality, Water Quality Division, upon the presentation of credentials and during working hours, to have access to inspect the facilities, at the above location, for the purpose of compliance with the provisions of this construction permit.

The permittee shall notify representatives from the Department of Environmental Quality, Water Quality Division the day construction commences and give an estimate of completion of the project. The authorized representative in your area can be contacted at the following address: District Engineer, State of Wyoming, Department of Environmental Quality, Water Quality Division, 250 Lincoln, Lander, WY 82520; telephone, 332-3144.

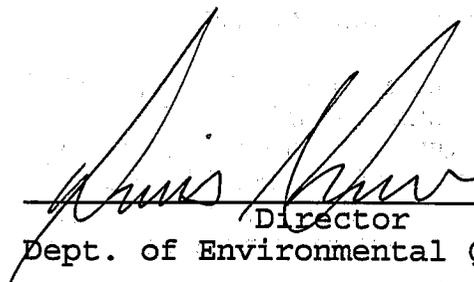
Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities or penalties established pursuant to any applicable State law or regulation.

The issuance of this permit does not convey any property rights in either real or personal property, 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.

AUTHORIZED BY:



Administrator
Water Quality Division



Director
Dept. of Environmental Quality

7-28-93

Date of Issuance

This permit does not supersede the requirements for obtaining any permit from local agencies.

JH/jyi/b