

PERMIT TO CONSTRUCT  
\*Conditioned\*

[X] New  
[ ] Renewal  
[ ] Modified

Permit No. 88-451R

FMC Monitoring Wells  
(Name of Facility)

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

FMC Wyoming Corporation

Box 872

Green River, WY 82935

to construct, install, or modify 8 shallow, multi-zone completion monitoring wells according to the procedures and conditions of the application No. 88-451R. The facility is located in Sec. 14, 22 & 25, T19N, R110W in the County of Sweetwater, in the State of Wyoming. This permit shall be effective for a period of Two (2) years (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 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 hat standards of design and construc-

tion 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.

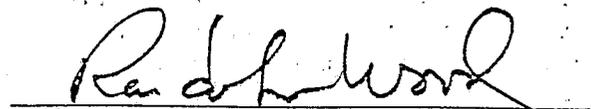
The permittee shall notify representatives from the Department of Environmental Quality, Water Quality Division the day construction commences and give an estimate of completion of the project. The authorized representative in your area can be contacted at the following address: District Engineer, State of Wyoming, Department of Environmental Quality, Water Quality Division, 210 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

11-22-88  
\_\_\_\_\_  
Date of Issuance

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

## Conditions for Monitoring Wells

1. 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 88-451R. 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. Pursuant to Wyoming Water Quality Rules and Regulations, Chapter XI, Section 61(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. 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.
4. In addition to the well construction information submitted with the permit application, the following items relating to well construction must be addressed when the wells are installed:
  - 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. 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;
  - 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. Factory slotted casing is recommended for the perforated interval. Slotted casing shall extend 1-2 feet above highest expected groundwater table;
  - 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;
- 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.



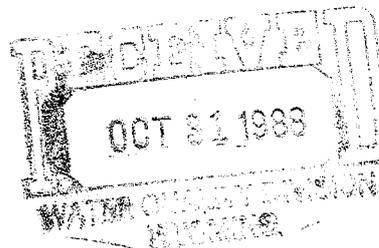
## Department of Environmental Quality

Air Quality Division  
(307) 672-6457

Water Quality Division  
(307) 672-6457

October 28, 1988

Mr. Neil Harrington  
Glenrock Coal Company  
1026 55 Ranch Road  
Glenrock, Wyoming 82637



Dear Neil:

I have reviewed your submittal for as-built approval of the expansion of the leach field at the Dave Johnston Mine. The submittal meets minimum Water Quality standards, therefore, the system is authorized.

Since the improvements have already been made, a permit to construct can not be issued. This letter serves the same purpose and will be your only notification of authorization.

Please call if you have questions.

Sincerely,

A handwritten signature in cursive script that reads "Susan Fields".

Susan Fields  
NE District Supervisor  
Water Quality Division

SF:jj

xc: Archives File 88-452  
Sheridan Plan File  
Norma Coulson, DEQ/WQD, Cheyenne

\*Conditions on Permit

PERMIT TO CONSTRUCT

New

Permit No. 88-453R

Renewal

Modified

Amoco Service Center - Lovell  
(Name of Facility)

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

Shumway Oil Company

P.O. Box 474

Lovell WY 82431

to construct, install, or modify a groundwater monitor wells and soil borings facility according to the procedures and conditions of the application No. 88-453R. The facility is located in NW1/4 NW1/4 Sec. 14, T56N, R96W in the County of Big Horn, in the State of Wyoming. This permit shall be effective for a period of 1 years (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 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 construc-

tion 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, 210 Lincoln, Lander, WY 82520; telephone, 332-3144.

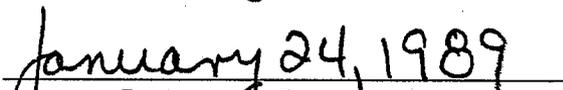
Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities or penalties established pursuant to any applicable State law or regulation.

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

  
Date of Issuance

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

## Conditions for Monitoring Wells

1. 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 88-453R. 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. 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. 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. 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. 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. In addition to the well construction information submitted with the permit application, the following items relating to well construction must be addressed when the wells are installed:
  - 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;

- 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. Factory slotted casing is recommended for the perforated interval. Slotted casing shall extend 1-2 feet above highest expected groundwater table;
  - g. A top and bottom cap shall be installed to prevent sediment and surface water from entering the well;
  - h. The monitoring well shall be developed by the use of a pump or bailer so that representative groundwater samples can be collected;
  - i. A seal of bentonite or bentonite grout is required from the surface to at least one 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. 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. 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. Final location, construction details and logs of all monitoring wells;
    - d. Geohydrolic maps and/or cross sections that clearly describe the subsurface distribution of geological materials and groundwater occurrence;
    - e. Water level and product thickness measurements;
    - f. Sample collection procedures;

- g. Sampling analytical results;
  - h. A map delineating the extent of the subsurface contamination including free product, soil and dissolved groundwater contamination and concentrations;
  - i. A potentiometric surface map showing the direction of groundwater movement; and
  - j. Interpretation of data and conclusions including recommended remedial measures.
9. Proper well evacuation, sample collection, preservation, transportation and chemical analytical procedures shall be completed in accordance with WQD standard procedures.
  10. All monitor wells associated with this facility shall be sampled and the wastewater analyzed quarterly until baseline established for the parameters listed below:  
BETX, TPH and total recoverable oil & grease for well near waste oil tank.

The results of these analyses shall be submitted to the Lander office by the last day of the month following the end of sampling period.

11. Reconciled inventory records with the volume of product lost specified shall be submitted to the DEQ/.WQD within 45 days of receipt of this permit.
12. 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

PERMIT NO. 88-454  
SEE SPECIAL CONDITIONS

X New  
Renewal  
Modified

Alcova Government Camp

This permit hereby authorizes the applicant:

David Wilde  
P O Box 1630  
Mills, WY 82644

to construct, install or modify monitoring wells according to the procedures and conditions of the application number 88-454. The facility is located in Section 19, T30N, R82W, SW $\frac{1}{4}$  in the county of Natrona, 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.

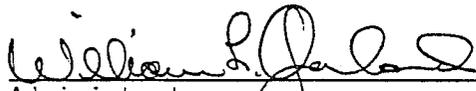
The permittee shall allow authorized representatives from the Department of Environmental Quality, Water Quality Division, upon the presentation of credentials and during working hours, to have access to inspect the facilities, at the above location, for the purpose of compliance with the provisions 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 Engineer, State of Wyoming, Department of Environmental Quality, Water Quality Division, Herschler Building, 4th Floor West, 122 West 25th, Cheyenne, Wyoming 82002; telephone (307) 777-7781.

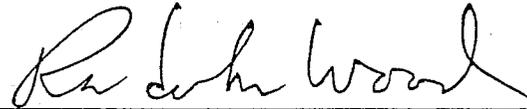
Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities or penalties established pursuant to any applicable state law or regulation.

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

11-22-88

Date of Issuance

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

#### Conditions for Monitoring Wells

1. 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 88-454. 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. 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. 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. 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. 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. 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.
7. Within 90 days of the 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. Final location, construction details and logs of all monitoring wells;
  - d. Geohydrolic maps and/or cross sections that clearly describe the subsurface distribution of geological materials and groundwater occurrence;
  - e. Water level and product thickness measurements;
  - f. Sample collection procedures;
  - g. Sampling analytical results;
  - h. A map delineating the extent of the subsurface contamination including free product, soil and dissolved groundwater contamination and concentrations;
  - i. A potentiometric surface map showing the direction of groundwater movement; and
  - j. Interpretation of data and conclusions including recommended remedial measures.
8. Proper well evacuation, sample collection, preservation, transportation and chemical analytical procedures shall be completed in accordance with WQD standard procedures.
9. All monitor wells associated with this facility shall be sampled and the wastewater analyzed biannually for the parameters listed below:

All wells shall be sampled for BETX and TPH.

The results of these analyses shall be submitted to the Cheyenne office in February and September of each year. The first set of results are due by the last day of February 1989.

cc: Jake Strohman

PERMIT TO CONSTRUCT

- New  
 Renewal  
 Modified

Permit No. 88-455  
\*Conditions on permit

Cache Chevron Service Station  
(Name of Facility)

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

Chevron U.S.A.

P.O. Box 220

Seattle, WA 98111

to construct, install, or modify a groundwater contamination study and preliminary recovery system facility according to the procedures and conditions of the application No. 88-455. The facility is located in SE 1/4 Sec. 28, T41N R116W in the County of Teton, in the State of Wyoming. This permit shall be effective for a period of two (2) years (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 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 construc-

Permit to Construct  
Cache Chevron Service Station  
Permit # 88-455

tion 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.

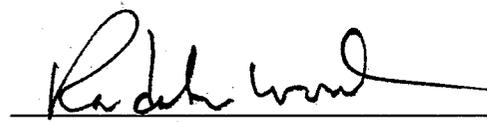
The permittee shall notify representatives from the Department of Environmental Quality, Water Quality Division the day construction commences and give an estimate of completion of the project. The authorized representative in your area can be contacted at the following address: District Engineer, State of Wyoming, Department of Environmental Quality, Water Quality Division, 210 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

11-21-88  
\_\_\_\_\_  
Date of Issuance

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

#### Conditions for Monitoring Wells

1. 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 88-455. Additional wells

Permit to Construct  
Cache Chevron Service Station  
Permit # 88-455

meeting the requirements of the application this permit may be installed if prior approval is received from the Water Quality Division (WQD).

2. 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. 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. 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. 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. In addition to the well construction information submitted with the permit application, the following items relating to well construction must be addressed when the wells are installed:
  - 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;
  - 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

Permit to Construct  
Cache Chevron Service Station  
Permit # 88-455

- size and the geologic materials encountered within the perforated interval;
- f. Factory slotted casing is recommended for the perforated interval. Slotted casing shall extend 1-2 feet above highest expected groundwater table;
  - g. A top and bottom cap shall be installed to prevent sediment and surface water from entering the well;
  - h. A protective casing and locking cap is strongly recommended;
  - i. The monitoring well shall be developed by the use of a pump or bailer so that representative groundwater samples can be collected;
  - j. A seal of bentonite or bentonite grout is required from the surface to at least one foot or two above the top perforation. Protective casing shall be cemented into a sloping concrete cap; and
  - k. All monitor wells shall be designed so that they contain a minimum of 3 feet of water at all times.
7. 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. Within 90 days of installing the wells, 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. Final location, construction details and logs of all monitoring wells;
  - d. Geohydrolic maps and/or cross sections that clearly describe the subsurface distribution of geological materials and groundwater occurrence;
  - e. Water level and product thickness measurements;
  - f. Sample collection procedures;
  - g. Sampling analytical results;

Permit to Construct  
Cache Chevron Service Station  
Permit # 88-455

- h. A map delineating the extent of the subsurface contamination including free product, soil and dissolved groundwater contamination and concentrations;
  - i. A potentiometric surface map showing the direction of groundwater movement; and
  - j. Interpretation of data and conclusions including recommended remedial measures.
9. Proper well evacuation, sample collection, preservation, transportation and chemical analytical procedures shall be completed in accordance with WQD standard procedures.
  10. All monitor wells associated with this facility shall be sampled and the wastewater analyzed quarterly for the parameters listed below:  
BETX, TPH  
  
The results of these analyses shall be submitted to the Lander 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 January 1989.
  11. Reconciled inventory records with the volume of the spills specified shall be submitted to the DEQ/WQD within 45 days of receipt of this permit.
  12. 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.
  13. Drilling shall commence on or before December 1, 1988.

cc: Jake Strohman

LAND APPLICATION PERMIT

Permit No. 88-457

Osborne Construction

(Name of Facility)

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

Richard Osborne

P.O. Box 1241

Riverton, WY 82501

to land apply reserve pit fluid and waste crude oil and sludges. The application site is located in Section 35, T2N, R4E, W.R.M. in the County of Fremont, in the State of Wyoming. This permit shall be effective for a period of one (1) years (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 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.

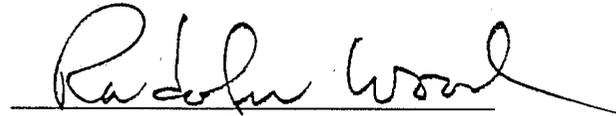
The permittee shall allow authorized representatives from the Department of Environmental Quality, Water Quality Division, upon the presentation of credentials and during working hours, to have access to inspect the application site at the above location, for the purpose of compliance with the provisions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

11-22-88

Date of Issuance

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

LAND APPLICATION STANDARD CONDITION

1. Waste oil shall be applied 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.
2. The application site slope shall not exceed 8 percent for vehicular application.
3. Waste oil application shall be terminated within 300 feet of the definable high water mark of perennial and intermittent drainages, irrigation canals, lakes and reservoirs.
4. The permittee will contact the Department of Environmental Quality, Water Quality Division District Engineer, Steve Gerber 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 discharges and must be informed how much wastewater will be applied (number of truckloads), the specific site of application (to the nearest 1/4 section) and time of application.
5. Waste oil and sludges applied to a road will be mechanically incorporated into the road bed as it is applied. Wastes will not be applied during the period from December 1 to April 30.
6. No wastewater or waste oil and sludges are to be applied once the ground freezes.

88-458



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

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

A.F.

PERMIT TO CONSTRUCT

PERMIT NO. 88-458  
See Conditions

- New
- Renewal
- Modified

Holly Sugar - Torrington Monitor Wells

This permit hereby authorizes the applicant:

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

to construct, install or modify monitor well according to the procedures and conditions of the application number 88-458. The facility is located in NE $\frac{1}{4}$ , and S $\frac{1}{4}$ , S16, T24N, R61W in the county of Goshen, in the State of Wyoming. This permit shall be effective for a period of five (5) (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.

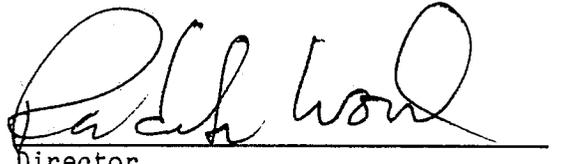
The permittee shall notify representatives from the Department of Environmental Quality, Water Quality Division the day construction commences and give an estimate of completion of the project. The authorized representative in your area can be contacted at the following address: Groundwater Engineer, State of Wyoming, Department of Environmental Quality, Water Quality Division, Herschler Building, 4th Floor West, 122 West 25th, 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

11-8-88  
Date of Issuance

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

Conditions to Permit to Construct # 88-458

1. 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 88-485. A total of (15) fifteen similar wells may be constructed under this permit.
2. 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. 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. 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, and this number shall be written in the concrete or stamped into the steel locking cap.
5. 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. In addition to the well construction information submitted with the permit application, the following items relating to well construction must be

Conditions to Permit 88-458 (continued)

addressed when the wells are installed:

- 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;
  - 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. Factory slotted casing is recommended for the perforated interval. Slotted casing shall extend 1-2 feet above highest expected groundwater table;
  - g. A top and bottom cap shall be installed to prevent sediment and surface water from entering the well;
  - h. A protective casing and locking cap is strongly recommended;
  - i. The monitoring well shall be developed by the use of a pump or bailer so that representative groundwater samples can be collected;
  - j. 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
  - k. All monitor wells shall be designed so that they contain a minimum of 3 feet of water at all times.
7. 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. Within 90 days of the 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. Final location, construction details and logs of all monitoring wells;
  - d. Geohydrolic maps and/or cross sections that clearly describe the subsurface distribution of geological materials and groundwater occurrence;
  - e. Water level and product thickness measurements;

Conditions to Permit 88-458 (continued)

- f. Sample collection procedures;
  - g. Sampling analytical results;
  - h. A map delineating the extent of the subsurface contamination including free product, soil and dissolved groundwater contamination and concentrations;
  - i. A potentiometric surface map showing the direction of groundwater movement; and
  - j. Interpretation of data and conclusions including recommended remedial measures.
9. Proper well evacuation, sample collection, preservation, transportation and chemical analytical procedures shall be completed in accordance with WQD standard procedures.
10. All monitor wells associated with this facility shall be sampled and the wastewater analyzed semi-annually for the parameters listed below: TDS, Chloride, Sulfate, Iron, Manganese, Field pH, SWL, Field Conductivity, Ammonia, and Chemical Oxygen Demand. This sampling shall continue for a minimum of two years from the date of this permit.

The results of these analyses shall be submitted to the Cheyenne office by the last day of the month following the end of semi-annual period. The first set of results are due by the last day of January, 1989.

11. Each well constructed under this permit shall be sampled and analyzed for volatile and semi-volatile organic compounds and for total petroleum hydrocarbons one time only. EPA methods 601 and 602 shall be used for the volatile and semi-volatile organics and EPA method 418.1 or another method may be used for TPH.
12. 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.
13. The wells shown on figure 1 of the application shall also be sampled and analyzed for the parameters listed in #10 above. Water Quality Division recognizes the difficulty in obtaining static water levels in wells already equipped with pumps. If provision has not already been provided to measure static water level in these wells, the requirement to obtain this information is deleted. The sampling schedule for these wells shall coincide with the sampling schedule for the monitor wells.

cc: Jake Strohmman

Karen Tarr, Tri Hydro, 410 Grand Avenue, Ste 213, Laramie, WY 82070



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

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.

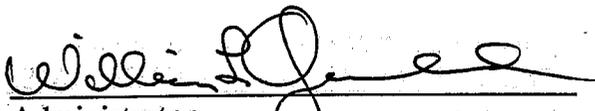
The permittee shall notify representatives from the Department of Environmental Quality, Water Quality Division the day construction commences and give an estimate of completion of the project. The authorized representative in your area can be contacted at the following address:

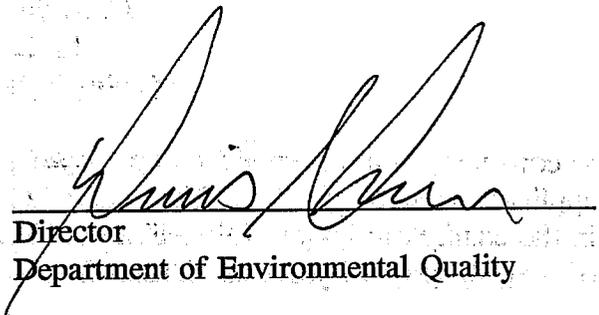
Groundwater Section, State of Wyoming, Department of Environmental Quality, Water Quality Division, Herschler Building, 4th Floor West, 122 West 25th Street, Cheyenne, Wyoming 82002; telephone (307) 777-7781.

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;

- 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

- 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

file



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	Solid Waste Management Program (307) 777-7752	Water Quality Division (307) 777-7781
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November 1, 1988

Parker Drilling Company  
P. O. Box 1030  
Mills, WY 82644

RE: Permit to Construct Application Number 88-459

Dear Terry Evans:

The Department of Environmental Quality, Water Quality Division, has reviewed your application (#88-459) for a permit to modify a septic system into a holding tank for your drilling company at S32, T34N, R80W. The Water Quality Division has determined that the system meets the minimum design standards. The wastewater in the tank must be disposed of at an authorized DEQ facility.

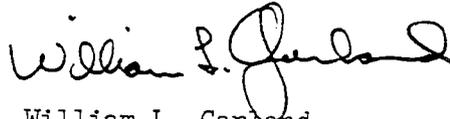
Nothing in this letter constitutes an endorsement of the construction or the design of the facility described herein. This letter indicates only that standards of design and construction required by the Environmental Quality Act have been met. The state assumes no liability for and does not in any way guarantee the performance of the activities allowed under this letter. 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 letter, the state does not in any way waive its sovereign immunity.

Since your system has already been constructed, a permit to construct cannot be issued. This letter is your record that the holding tank as installed meets minimum state specifications and has been approved by the Wyoming Department of Environmental Quality, Water Quality Division.

Parker Drilling Company  
November 1, 1988  
Page 2

In the future if you are to build a wastewater system, you must apply for a permit to construct prior to construction to avoid enforcement action.

Sincerely,



William L. Garland  
Administrator  
Water Quality Division

WLG/TSN/mad

cc: Robert Lucht

THE STATE



OF WYOMING



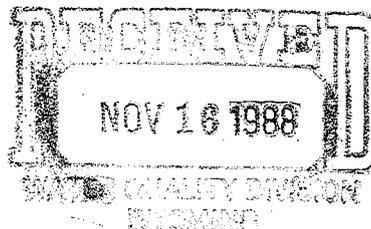
## Department of Environmental Quality

Air Quality Division  
(307) 672-6457

Water Quality Division  
(307) 672-6457

November 14, 1988

Stephen Schoen  
Cordero Mining Company  
P. O. Box 1449  
Gillette, Wyoming 82716



RE: Water Quality Permit Application 88-460  
Knowland Reservoir

Dear Steve:

Enclosed is your original application for a permit for the Knowland Reservoir. According to your recent response, no Water Quality permit is needed and the application has been withdrawn.

Please call if you have any questions.

Sincerely,

A handwritten signature in cursive script that reads "Susan Fields".

Susan Fields  
NE District Supervisor  
Water Quality Division

SF:jj

xc: Bob Giurgevich, DEQ/LQD, Sheridan  
Norma Coulson, DEQ/WQD, Cheyenne

R7

PERMIT TO CONSTRUCT

PERMIT NO. 88-461

- X New
- Renewal
- Modified

LARCO - Temporary API Separation

This permit hereby authorizes the applicant:

Little America Refining Company  
P. O. Box 510  
Evansville, WY 82636

to construct, install or modify temporary API oil/water separator to replace hazardous waste ponds according to the procedures and conditions of the application number 88-461. The facility is located in S6, T33N, R78W in the county of Natrona, in the State of Wyoming. This permit shall be effective for a period of one (1) 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: District Engineer, State of Wyoming, Department of Environmental Quality, Water Quality Division, Herschler Building, 4th Floor West, 122 West 25th, 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:

William P. Garland  
Administrator  
Water Quality Division

Radhford  
Director  
Department of Environmental Quality

11-7-88  
Date of Issuance

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

Conditions to Permit to Construct #88-461

1. Sludges from th API separator shall be disposed of at an EPA & DEQ authorized hazardous waste disposal facility within Wyoming or transported and disposed of out-of-state.
2. Monthly representative samples shall be taken of the wastewater from the outlet of the new API Separator unit. These samples shall be taken once per month and results shall be submitted to the Water Quality Division by the end of the following month. These samples shall be analyzed for the following parameters:
  - pH
  - temperature
  - oil & grease
  - phenols
  - total petroleum hydrocarbons (418.1)
  - ammonia
  - sulfates
  - chlorides
  - lead
  - chromium
  - arsenic
  - BETX

Flow shall be measured daily and results submitted with the other anlaysis.

3. The API separator is temporary and shall be taken out of service when the facilities permitted under construction permit 88-059 are constructed and operable. This shall not be later than June 1, 1989.

Conditions to Permit 88-461 (continued)

4. An operation and maintenance manual shall be submitted to the Water Quality Division within 30 days of issuance of this permit.

cc: Tom Alto, EPA-RCRA, Denver  
Marilyn Null, EPA-RCRA, Denver

R7

PERMIT TO CONSTRUCT

X New  
Renewal  
Modified

Permit No. 88-462  
\* Conditioned

Pit Stop II - Monitor Wells

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

R & J Enterprises, Inc.

P.O. Box 1326

Riverton, WY 82501

to install monitor wells to assess degree of contamination according to the procedures and conditions of the application No. 88-462. The facility is located in Section 27, T1N, R4E WRM in the County of Fremont, in the State of Wyoming. This permit shall be effective for a period of two (2) years (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 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.

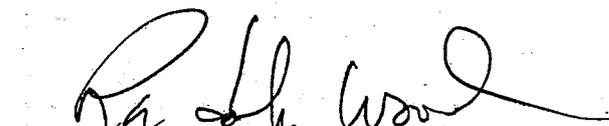
The permittee shall notify representatives from the Department of Environmental Quality, Water Quality Division the day construction commences and give an estimate of completion of the project. The authorized representative in your area can be contacted at the following address: District Engineer, State of Wyoming, Department of Environmental Quality, Water Quality Division, 210 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

12-16-88  
Date of Issuance

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

Conditions to Permit No. 88-462

1. 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 88-462. 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. 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.
3. 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.
4. 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.
5. In addition to the well construction information submitted with the permit application, the following items relating to well construction must be addressed when the wells are installed:
  - 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. 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;
  - d. The monitoring well shall be developed by the use of a pump or bailer so that representative groundwater samples can be collected;
6. 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.
7. Within 90 days of the issuance of this permit a minimum of three monitor wells shall be installed and 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. Final location, construction details and logs of all monitoring wells;
  - d. Water level and product thickness measurements;
  - e. Sample collection procedures;
  - f. Sampling analytical results;
  - g. A map delineating the extent of the subsurface contamination including free product, soil and dissolved groundwater contamination and concentrations;
  - h. A potentiometric surface map showing the direction of groundwater movement; and
  - i. Interpretation of data and conclusions including recommended remedial measures.
8. Depending on the analysis from the first three wells additional study and remediation may be required. Each subsequent report shall include all items in 7 above except a.
  9. Proper well evacuation, sample collection, preservation, transportation and chemical analytical procedures shall be completed in accordance with WQD standard procedures.
  10. All monitor wells associated with this facility shall be sampled and the wastewater analyzed quarterly for the parameters listed below:  
  
    BETX - Method 601/602  
    Total Petroleum Hydrocarbons - Method 418.1  
  
The results of these analyses shall be submitted to the Lander office by the last day of the month following the end of each quarter. The first set of results are due within 30 days of well installation.
  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.

PERMIT TO CONSTRUCT

- New  
 Renewal  
 Modified

Permit No. 88-463  
Ref. No. 88-141RR

Teton Pines Meadows 3rd Filing/Water and Sewer  
(Name of Facility)

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

Teton Pines

Star Route Box 362A

Jackson, WY 83001

to construct or install a waterline and sewer main according to the procedures and conditions of the application No. 88-463. The facility is located in Sec. 14, T41N, R117W in the County of Teton, in the State of Wyoming. This permit shall be effective for a period of Two (2) years (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 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, 210 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:

William R. Jones  
Administrator  
Water Quality Division

Rudolph Good  
Director  
Dept. of Environmental Quality

12-21-88

Date of Issuance

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

PERMIT TO CONSTRUCT

- New  
 Renewal  
 Modified

Permit No. 88-464R

Wastewater Lift Stations Re-construction

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

Aspen Water and Sewer District  
P.O. Box 25003  
Jackson, WY 83001

to construct, install, or modify 2 lift stations and about 350 feet of sewer collection line according to the procedures and conditions of the application No. 88-464R. The facility is located in NE 1/4 Sec. 11, T41N, R117W in the County of Teton, in the State of Wyoming. This permit shall be effective for a period of two (2) years (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 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.

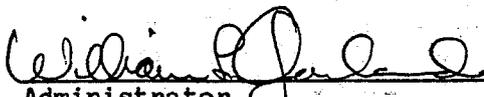
The permittee shall allow authorized representatives from the Department of Environmental Quality, Water Quality Division, upon the presentation of credentials and during working hours, to have access to inspect the facilities, at the above location, for the purpose of compliance with the provisions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

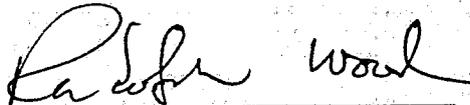
The permittee shall notify representatives from the Department of Environmental Quality, Water Quality Division the day construction commences and give an estimate of completion of the project. The authorized representative in your area can be contacted at the following address: District Engineer, State of Wyoming, Department of Environmental Quality, Water Quality Division, 210 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

1-6-89  
Date of Issuance

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

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

Solid Waste Management Program  
(307) 777-7752

Water Quality Division  
(307) 777-7781

November 9, 1988

Dr. David Kathka, Director  
Wyoming State Archives, Museums  
and Historical Department  
Barrett Building  
Cheyenne, Wyoming 82002

RE: Wyoming Territorial Prison  
Permit UIC 88-465 class 5A7  
Albany County, Wyoming

Dear Dr. Kathka:

Enclosed find your approved permit to operate the closed loop heat pump system under the UIC program. The important features of this permit include a requirement to monitor the groundwater in three monitor wells and a requirement to report any leakage.

I have tried to keep monitoring requirements to a minimum while providing the data necessary to insure that no leakage goes undetected.

Sincerely,

A handwritten signature in black ink, appearing to read "Robert Lucht".

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

RL/nc

cc: Jake Strohman, WQD  
Banner and Associates, Laramie

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

(X) New

Permit Number:

( ) Modified

UIC 88-465

UIC CLASS 5A7

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 IX (September 4, 1980),

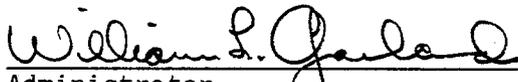
Dr. David Kathka, Director  
Wyoming State Archives, Museums and Historical Dept.  
Barrett Building  
Cheyenne, Wyoming 82002  
(307) 777-7519

is authorized to operate

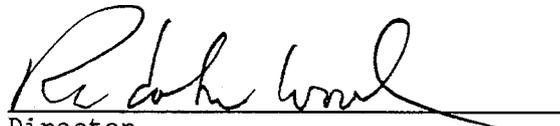
a ground based heat pump system of the closed loop type at the Wyoming Territorial Prison in Laramie, Wyoming

according to procedures and conditions of the application 88-465 and requirements and other conditions of this permit.

This permit shall become effective on date of issuance.

  
\_\_\_\_\_  
Administrator  
Water Quality Division  
Herschler Building, 122 W. 25th  
Cheyenne, WY 82002  
Phone: (307) 777-7781

11-15-88  
Date

  
\_\_\_\_\_  
Director  
Department of Environmental Quality  
Herschler Building, 122 W. 25th  
Cheyenne, WY 82002

11-17-88  
Date

A. Discharge (Injection) Zone and Area of Review

The Area of Review for this project is limited to the NE 1/4 of the SW 1/4 of Section 32, Township 16 North, Range 73 West. Formations potentially affected within this Area of Review include the alluvium of the Laramie River, the Thermopolis Shale, the Cloverly Formation, the Morrison Formation, and the Chugwater Formation.

B. Groundwater Classification

Groundwater in the alluvium of the Laramie River is class III under the Wyoming Water Quality Rules and Regulations, except where it is used for domestic uses. Areas where this formation is used for domestic uses do not occur in the Area of Review. The alluvial aquifer meets class I standards for all metals, but is class III because of TDS, sulfate and chloride.

Groundwater in the Cloverly Formation has not been classified but may be assumed to meet class III standards because of its proximity to other class III aquifers.

Groundwater in the Morrison Formation is class I in areas west of this Area of Review. At this location, the Morrison can be expected to range in TDS from 1000 to 2500 mg/l and in sulfate from 500 to 1300 mg/l. Chlorides range from 75 to 100 mg/l. The Morrison Formation is class III within this Area of Review.

Groundwater in the Chugwater Group is class I by use in some areas of Laramie. At this particular location, there is no use being made and the Chugwater would be classified as class III. TDS ranges from 600 to 4000 mg/l in the Chugwater, sulfates range from 300 to 2700 mg/l and chlorides range from 30 to 130 mg/l.

The Sundance Formation is locally absent from the stratigraphic section.

C. Authorized Operations

The permittee is authorized to operate a closed loop heat pump system consisting of 60 wells drilled to a depth of 170 feet. Each well will be drilled approximately 5 inches in diameter and a 1 inch polybutylene tubing with fused joints will be installed and pressure checked. The hole will be sealed with drilling mud having a 10 minute gel strength of at least 20 pounds per 100 square feet and a filtrate volume not to exceed 13.5 cubic centimeters. All mud will be emplaced through a tremie pipe to the bottom of the hole. The completed loops shall be pressure checked to 10% above operating pressure.

The completed system shall have controls placed so that any leak in any of the 60 wells shall cause the entire system to shut down. After determining the location of the leak, that individual well or that entire branch of 10 wells shall be isolated and abandoned.

When abandoning wells under this permit, all fluid in the loop shall be displaced with clean water to the extent possible. Fluid recovered may be used as makeup for any replacement system or disposed of in an approved manner.

Circulating fluid shall be nontoxic. Ethylene glycol will not be permitted in any concentration. Twenty percent propylene glycol is commonly used in these systems and is an acceptable fluid under this permit. The exact fluid to be used shall be submitted to Water Quality Division prior to installation for approval, if it is to be any fluid other than propylene glycol.

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 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 this permit;
3. Inspect at reasonable times any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this permit; and
4. Sample or monitor at reasonable times, for the 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.
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.
4. The prescribed program for this permitted activity is as follows:

This system shall be continuously monitored for any leakage. The system as designed will limit any discharge to the volume of the piping in which the leak occurs. The volume of all 1" piping alone is approximately 780 gallons of fluid not counting the volume of the manifold piping connecting this system to the heat pump. The system should limit any release to approximately the volume of one, 10 well manifold or 130 gallons.

Because of the large numbers of boreholes in this system and the fact that there is an upward gradient to the groundwater between formations, several monitor wells are required on this system. The first well shall be located directly east of the installed system, within 50 feet of the edge of the well field. This well shall be completed in the alluvium and shall be screened to 2 feet above the seasonal high groundwater, in this case 5 feet. The well shall be screened to the top of the bedrock formation.

Below the alluvium, one well shall be completed in the Cloverly Formation exclusively, and one well shall be completed in the Chugwater Group exclusively. Both of these wells may be located close to the alluvial aquifer well.

Each well shall be sealed from 1 foot above the screened interval to the surface using pelletized bentonite or gravel

bentonite and the surface shall be sealed using cement in the top 10 feet of the hole if possible. A protective locking cap constructed of steel shall be installed on each well. All wells shall be kept locked at all times. The well numbers shall be clearly marked on the top of each well and shall be written in the wet concrete of the surface seal.

The purpose of these wells is twofold. First, the wells shall be used to determine if inter-aquifer communication has been prevented by the sealant used in the 60 drillholes. Second, the wells will serve as an access point if a leak occurs in the system.

Each of the 3 wells shall be monitored at the time of installation for TDS, sulfate, chlorides, calcium, magnesium and sodium. Ph, conductivity, and static water levels shall be recorded each time a water sample is taken. A minimum of 3 casing volumes shall be withdrawn prior to taking any water sample from these wells. This analysis shall be repeated 4 times over the first year to determine if inter-aquifer communication has occurred. Data on file in the Water Quality Division shows that the different aquifers are characteristically different in quality so that this very abbreviated monitoring program will be effective.

At the conclusion of the first year, no additional monitoring will be required unless a leak occurs in the system itself or unless the available data shows inter-aquifer communication has been established.

In the case that a leak occurs, additional monitor wells may be required. Any time a leak is reported, all monitor wells on the site shall be sampled and analyzed for parameters indicative of the circulating fluid.

G. Requirements for Monitoring the Discharge

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

If a leak occurs, or any fluid is added to this system, the Wyoming State Archive, Museums and Historical Department is required to report this fact within 24 hours of its detection by telephone to the Water Quality Division. This report is to be followed within 7 days by a written report detailing the nature of the fluid discharged, its concentration, the approximate volume released and any remedial measures already accomplished such as abandoning any wells.

To insure that this requirement is known to the people who must make this report, Wyoming State Archive, Museums and Historical Department is required to keep a copy of this permit in the files of the Director, Dr. David Kathka or his successor. In addition, a notice shall be posted at the location of the heat pump in the

maintenance area of the building informing maintenance personnel of this requirement. The exact wording of this notice shall be:

"IN CASE OF A LEAK you are required to report this fact immediately upon discovery by telephone to (307) 777-7781. This report shall be followed by a written report within seven days addressed to:

WYOMING DEQ, WATER QUALITY DIVISION  
UIC PROGRAM SUPERVISOR  
HERSCHLER BUILDING, 4TH FLOOR WEST  
122 WEST 25TH STREET  
CHEYENNE, WYOMING 82002"

The words "IN CASE OF A LEAK" shall be a minimum of 2 inches high and the remaining words in all capitals shall be a minimum of 1 inch high.

#### 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.

#### 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 abandonment procedures. The administrator may require the owner/operator to deliver the records to the administrator at the conclusion of the retention period.
10. A subsurface discharge (injection) well may not commence subsurface discharge (injection) until, following public notice and an opportunity for hearing, a groundwater pollution control permit has been issued by the department for the proposed operation, and:
  - a. Well construction is complete and the permittee has submitted notice of completion of construction to the administrator, and
  - b. The administrator has inspected or otherwise reviewed the subsurface discharge (injection) well and finds it in compliance with the conditions of the permit; or the permittee has not received notice from the administrator of intent to inspect or otherwise review the facility within 13 days of the notice of a. above, in which case prior inspection or review is waived, and
  - c. Well mechanical integrity testing has been proven or demonstrated to the satisfaction of the administrator.
11. Annual reports shall be submitted to the administrator within 30 days following the anniversary date of the permit.
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 with 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.

Public notice of the permit review and request for public comment will be made every 10 years by the administrator.

Public notice is not required prior to issuance of this permit.

Existing regulations do not require public notice of the permit review and request for public comment every 10 years for this discharge.

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:

Mechanical integrity of this system shall be monitored at all times. Any loss of mechanical integrity will cause the entire system to become inoperable and will trigger all required leak reports.

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:

Any loop constructed under this permit shall be abandoned properly at the conclusion of its useful life. The circulating fluid shall be displaced with clean water and then removed from the circuit. All fluids recovered shall be disposed of in an approved manner at the time of abandonment. Prior to final abandonment, the entire circuit, or any portion of the circuit to be abandoned separately shall be filled with a bentonite slurry meeting the specifications above (Section C of this permit) for the drillhole seals.

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 form approved by the director, to close, plug and abandon the discharge operation in a manner prescribed by the director.

The State of Wyoming has sufficient financial strength to insure that this system will be properly abandoned when it has served its useful life.

O. Special Measures the Director Finds Necessary:

Should the Wyoming State Archive Department ever decide to operate this facility through a concessionaire, sufficient contractual clauses shall be incorporated into his contract to insure that all provisions of this permit are followed. Any concessionaire shall

be made aware of all permit provisions and be bound by contract to abide by them.

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 reports required by this permit and other requested information shall be signed as follows:

For a corporation -- by a principal executive officer of at least the level of vice-president;

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 a principal executive officer or ranking elected official; or

By a duly authorized representative for any of the above. A person is a duly authorized representative only if:

1. The authorization is made in writing by one of the described principals;
2. The authorization specifies either an individual or position having responsibility for the overall operation of the regulated facility or activity; and
3. The written authorization is submitted to the administrator.

If an authorization is no longer accurate because a different individual or position has responsibility for the overall operation of the facility, a new authorization must be submitted to the administrator prior to or together with any reports or information, to be signed by an authorized representative.

Any person signing a report or other requested information shall make the following certification:

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

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 or planned changes or anticipated noncompliance, does not stay any permit condition.

S. Permit Transfer

The owner/operator of record (permittee) is always responsible for permit compliance. A permit holder cannot transfer his permit without approval of the department director.

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.



THE STATE OF WYOMING

MIKE SULLIVAN  
GOVERNOR



## Department of Environmental Quality

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

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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
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November 9, 1988

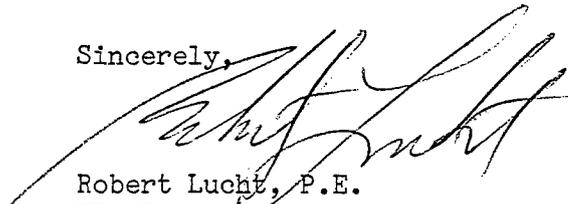
Edward C. Fleming, V.P.  
P. C. Exploration, Inc.  
P.O. Box 105  
Gallatin Gateway, MT. 59730

RE: Rock Springs Grouting project  
Permits UIC 88-466 and UIC 88-467 class 5x13  
Sweetwater County, Wyoming

Dear Mr. Fleming:

Enclosed find the approved permits for the above referenced projects. You will note that I have not required any final report on these projects from the you. We will get one copy of the final report from the Land Quality Division directly.

Sincerely,



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

RL/nc

cc: Stan Bernard, LQD (w/copy of permit)  
Jake Strohman, WQD (w/copy of permit)

rf

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

(X) New

Permit Number:

( ) Modified

UIC 88-466

UIC CLASS 5X13

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 IX (September 4, 1980),

PC Exploration, Inc.  
P O Box 105  
Gallatin Gateway, MT 59730

is authorized to operate

project A-3 downtown Rock Springs grout project

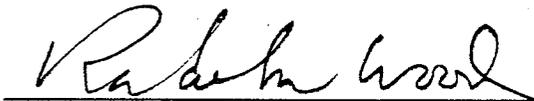
according to procedures and conditions of the application 88-466 and requirements and other conditions of this permit.

This permit shall become effective on date of issuance.



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

11-15-88  
Date



Director  
Department of Environmental Quality  
Herschler Building, 122 W. 25th  
Cheyenne, WY 82002

11-17-88  
Date

A. Discharge (Injection) Zone and Area of Review

The Area of Operations for this permit consists of portions of Downtown Rock Springs, Wyoming located in the following legal description:

Township 19 North, Range 105 West, Sixth P.M.

Section 35: N1/2 NE1/4

The Area of Review has been established to cover the area where operations will be done and the surrounding area. The Area of Review has been defined as:

Township 19 North, Range 105 West, Sixth P.M.

Section 25: SW1/4

Section 26: S1/2

Section 35: All

Section 36: W1/2

Injection into mine voids in coal seam numbers 1, 3, and 7 is authorized anywhere within the above Area of Review. Injection into any other void space that may be detected above the deepest of these seams, whether that void is caused by subsidence or not is authorized. Injection into any void space less than 30 feet deep from the surface is not authorized.

B. Groundwater Classification

Information supplied in the application indicates that the water quality in the affected aquifer may be class III or class IV depending on the location where a sample is taken. TDS ranges from 1500 mg/l to 9600 mg/l in the Rock Springs aquifer.

C. Authorized Operations

The permittee is authorized to inject a mixture of portland cement, sand, gravel, fly ash, sodium silicate and water in any proportion required into mine voids in the Number 1, 3, or 7 coal seam of the Rock Springs Aquifer. Grout may also be injected into any void located above the deepest of these seams provided that the void is not specifically constructed for a purpose and being used for that purpose. (This permit does not authorize the filling of sewer lines, basements, storm sewers, or manholes etc.) It is not necessary to determine if a void is caused by subsidence, natural conditions or man-made activity before grouting, as long as the void is more than 30 feet from the surface.

Food grade propylene glycol may be added to the grout if necessary. Rhodamine dye may be injected along with the grout or separately as required to determine migration pathways between water withdrawal wells and injection wells.

As many as 500 wells may be constructed under this permit, but this permit shall be limited to the single contract between LQD and PC Exploration, Inc. and any extensions to that contract (Bid # 0091-U).

Pressures at the injection wells shall be controlled so that damage is not caused to existing structures in Rock Springs. Bottom hole pressures shall not exceed 35 psi or .50 psi per foot of depth. If pressures in excess of this are required, the permittee shall calculate the bottom hole pressures and submit the results to Water Quality Division prior to using these pressures. In no case shall the parting pressure of the coal seam be exceeded at any time during the grouting operation. During certain phases of the operation, wellhead pressures as high as 800 psi may be required to overcome the flow resistance of the zero slump grout. The permittee shall be solely responsible for the maintenance of all surface lines and injection tubing that operate at these pressures.

Water Quality Division specifically has not calculated the bursting pressure of 2 1/2 inch, .187 inch wall thickness line pipe. The permittee shall insure by whatever means are necessary that these lines have a bursting strength of at least 1 1/2 times the pressures that will be used. The permittee shall take whatever steps are necessary, including the use of a heavier wall pipe, to protect the health and safety of his own workers and the general public in completing this project in Rock Springs.

No other use of these injection wells is authorized. Specifically, no waste of any description whatsoever, whether or not it is listed hazardous waste, may be injected into any of these wells. The only substance which may be injected is grout that has been specifically formulated to fill the mine voids.

Nothing in this permit constitutes an endorsement of the construction or the design of the facility described herein. The permit indicates only that the standards 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 under 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 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 this permit;
3. Inspect at reasonable times any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this permit; and
4. Sample or monitor at reasonable times, for the 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.
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.

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

The grout pump system will be monitored through use of pressure gauges and flow meters. Monitoring boreholes may be used to estimate subsurface grout movement. The bottom hole pressure for each hole shall be calculated prior to placing grout. The bottom hole pressure shall be controlled so that it does not exceed .50 psi per foot of depth, in excess of normal hydrostatic pressure at that depth.

G. Requirements for Monitoring the Discharge

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

Injection pressure shall be monitored continuously to prevent fracturing of the confining strata. Injection volume shall be monitored and recorded for each injection well.

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.

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 abandonment procedures. The administrator may require the owner/operator to deliver the records to the administrator at the conclusion of the retention period.
10. A subsurface discharge (injection) well may not commence subsurface discharge (injection) until, following public notice and an opportunity for hearing, a groundwater pollution control permit has been issued by the department for the proposed operation, and:
  - a. Well construction is complete and the permittee has submitted notice of completion of construction to the administrator, and
  - b. The administrator has inspected or otherwise reviewed the subsurface discharge (injection) well and finds it in compliance with the conditions of the permit; or the permittee has not received notice from the administrator of intent to inspect or otherwise review the facility within 13 days of the notice of a. above, in which case prior inspection or review is waived, and
  - c. Well mechanical integrity testing has been proven or demonstrated to the satisfaction of the administrator.
11. Annual reports shall be submitted to the administrator within 30 days following the anniversary date of the permit.

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 with 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.

Public notice of the permit review and request for public comment will be made every 10 years by the administrator.

Public notice is not required prior to issuance of this permit.

Existing regulations do not require public notice of the permit review and request for public comment every 10 years for this discharge.

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:

Injection tubing shall have a working strength by specification (or by test if it is used tubing) of at least 1200 psi before it is used in any pressure application. Tubings not meeting this requirement shall be limited to 50 psi in any application.

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:

All wells shall be abandoned by filling the hole with cuttings to a depth of no more than 15 feet. Above this, a 10 foot plug of concrete shall be emplaced as shown on the application documents. The top of the hole shall be plugged to match the surroundings.

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 form approved by the director, to close, plug and abandon the discharge operation in a manner prescribed by the director.

The permittee has assured sufficient financial strength to insure that all holes drilled under this permit will be properly plugged.

O. Special Measures the Director Finds Necessary:

The operations authorized under this permit shall commence within one year of the issue date of the permit, or the permit will be invalid.

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 reports required by this permit and other requested information shall be signed as follows:

For a corporation -- by a principal executive officer of at least the level of vice-president;

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 a principal executive officer or ranking elected official; or

By a duly authorized representative for any of the above. A person is a duly authorized representative only if:

1. The authorization is made in writing by one of the described principals;
2. The authorization specifies either an individual or position having responsibility for the overall operation of the regulated facility or activity; and
3. The written authorization is submitted to the administrator.

If an authorization is no longer accurate because a different individual or position has responsibility for the overall operation of the facility, a new authorization must be submitted to the administrator prior to or together with any reports or information, to be signed by an authorized representative.

Any person signing a report or other requested information shall make the following certification:

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

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 or planned changes or anticipated noncompliance, does not stay any permit condition.

S. Permit Transfer

The owner/operator of record (permittee) is always responsible for permit compliance. A permit holder cannot transfer his permit without approval of the department director.

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.

cc: Stan Bernard, LQD

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

(X) New

Permit Number:

( ) Modified

UIC 88-467

UIC CLASS 5X13

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 IX (September 4, 1980),

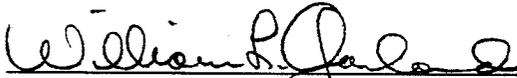
P.C. Exploration, Inc.  
P.O. Box 105  
Gallatin Gateway, MT 59730

is authorized to operate

Project A-4 Ridge Avenue, Rock Springs Grout Project

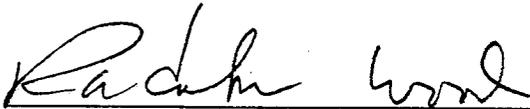
according to procedures and conditions of the application 88-467 and requirements and other conditions of this permit.

This permit shall become effective on date of issuance.



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

11-15-88  
Date



Director  
Department of Environmental Quality  
Herschler Building, 122 W. 25th  
Cheyenne, WY 82002

11-17-88  
Date

A. Discharge (Injection) Zone and Area of Review

The Area of Operations for this permit consists of portions of Downtown Rock Springs, Wyoming located in the following legal description:

Township 19 North, Range 105 West, Sixth P.M.  
Section 26: SE1/4

The Area of Review has been established to cover the area where operations will be done and the surrounding area. The Area of Review has been defined as:

Township 19 North, Range 105 West, Sixth P.M.  
Section 25: W1/2  
Section 26: All  
Section 35: N1/2  
Section 36: NW1/4

Injection into mine voids in coal seam numbers 1, 3, and 7 is authorized anywhere within the above Area of Review. Injection into any other void space that may be detected above the deepest of these seams, whether that void is caused by subsidence or not is authorized. Injection into any void space less than 30 feet deep from the surface is not authorized.

B. Groundwater Classification

Information supplied in the application indicates that the water quality in the affected aquifer may be class III or class IV depending on the location where a sample is taken. TDS ranges from 1500 mg/l to 9600 mg/l in the Rock Springs aquifer.

C. Authorized Operations

The permittee is authorized to inject a mixture of portland cement, sand, gravel, fly ash, sodium silicate and water in any proportion required into mine voids in the Number 1, 3, or 7 coal seam of the Rock Springs Aquifer. Grout may also be injected into any void located above the deepest of these seams provided that the void is not specifically constructed for a purpose and being used for that purpose. (This permit does not authorize the filling of sewer lines, basements, storm sewers, or manholes, etc.) It is not necessary to determine if a void is caused by subsidence, natural conditions or man-made activity before grouting, as long as the void is more than 30 feet from the surface.

Food grade propylene glycol may be added to the grout if necessary. Rhodamine dye may be injected along with the grout or separately as required to determine migration pathways between water withdrawal wells and injection wells.

As many as 500 wells may be constructed under this permit, but this permit shall be limited to the single contract between LQD and PC Exploration, Inc. and any extensions to that contract (Bid # 0092-U).

Pressures at the injection wells shall be controlled so that damage is not caused to existing structures in Rock Springs. Bottom hole pressures shall not exceed 35 psi or .50 psi per foot of depth. If pressures in excess of this are required, the permittee shall calculate the bottom hole pressures and submit the results to Water Quality Division prior to using these pressures. In no case shall the parting pressure of the coal seam be exceeded at any time during the grouting operation. During certain phases of the operation, wellhead pressures as high as 800 psi may be required to overcome the flow resistance of the zero slump grout. The permittee shall be solely responsible for the maintenance of all surface lines and injection tubing that operate at these pressures.

Water Quality Division specifically has not calculated the bursting pressure of 2 1/2 inch, .187 inch wall thickness line pipe. The permittee shall insure by whatever means are necessary that these lines have a bursting strength of at least 1 1/2 times the pressures that will be used. The permittee shall take whatever steps are necessary, including the use of a heavier wall pipe, to protect the health and safety of his own workers and the general public in completing this project in Rock Springs.

No other use of these injection wells is authorized. Specifically, no waste of any description whatsoever, whether or not it is listed hazardous waste may be injected into any of these wells. The only substance which may be injected is grout that has been specifically formulated to fill the mine voids.

Nothing in this permit constitutes an endorsement of the construction or the design of the facility described herein. The permit indicates only that the standards 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 under 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 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 this permit;
3. Inspect at reasonable times any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this permit; and
4. Sample or monitor at reasonable times, for the 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.
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.

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

The grout pump system will be monitored through use of pressure gauges and flow meters. Monitoring boreholes may be used to estimate subsurface grout movement. The bottom hole pressure for each hole shall be calculated prior to placing grout. The bottom hole pressure shall be controlled so that it does not exceed .50 psi per foot of depth, in excess of normal hydrostatic pressure at that depth.

G. Requirements for Monitoring the Discharge

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

Injection pressure shall be monitored continuously to prevent fracturing of the confining strata. Injection volume shall be monitored and recorded for each injection well.

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.

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 abandonment procedures. The administrator may require the owner/operator to deliver the records to the administrator at the conclusion of the retention period.
10. A subsurface discharge (injection) well may not commence subsurface discharge (injection) until, following public notice and an opportunity for hearing, a groundwater pollution control permit has been issued by the department for the proposed operation, and:
  - a. Well construction is complete and the permittee has submitted notice of completion of construction to the administrator, and
  - b. The administrator has inspected or otherwise reviewed the subsurface discharge (injection) well and finds it in compliance with the conditions of the permit; or the permittee has not received notice from the administrator of intent to inspect or otherwise review the facility within 13 days of the notice of a. above, in which case prior inspection or review is waived, and
  - c. Well mechanical integrity testing has been proven or demonstrated to the satisfaction of the administrator.
11. Annual reports shall be submitted to the administrator within 30 days following the anniversary date of the permit.

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 with 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.

Public notice of the permit review and request for public comment will be made every 10 years by the administrator.

Public notice is not required prior to issuance of this permit.

Existing regulations do not require public notice of the permit review and request for public comment every 10 years for this discharge.

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:

Injection tubing shall have a working strength by specification (or by test if it is used tubing) of at least 1200 psi before it is used in any pressure application. Tubings not meeting this requirement shall be limited to 50 psi in any application.

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:

All wells shall be abandoned by filling the hole with cuttings to a depth of no more than 15 feet. Above this, a 10 foot plug of concrete shall be emplaced as shown on the application documents. The top of the hole shall be plugged to match the surroundings.

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 form approved by the director, to close, plug and abandon the discharge operation in a manner prescribed by the director.

The permittee has assured sufficient financial strength to insure that all holes drilled under this permit will be properly plugged.

O. Special Measures the Director Finds Necessary:

The operations authorized under this permit shall commence within one year of the issue date of the permit, or the permit will be invalid.

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 reports required by this permit and other requested information shall be signed as follows:

For a corporation -- by a principal executive officer of at least the level of vice-president;

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 a principal executive officer or ranking elected official; or

By a duly authorized representative for any of the above. A person is a duly authorized representative only if:

1. The authorization is made in writing by one of the described principals;
2. The authorization specifies either an individual or position having responsibility for the overall operation of the regulated facility or activity; and
3. The written authorization is submitted to the administrator.

If an authorization is no longer accurate because a different individual or position has responsibility for the overall operation of the facility, a new authorization must be submitted to the administrator prior to or together with any reports or information, to be signed by an authorized representative.

Any person signing a report or other requested information shall make the following certification:

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

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 or planned changes or anticipated noncompliance, does not stay any permit condition.

S. Permit Transfer

The owner/operator of record (permittee) is always responsible for permit compliance. A permit holder cannot transfer his permit without approval of the department director.

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.

xc: Stan Bernard, LQD

*af*

PERMIT TO CONSTRUCT

PERMIT NO. 88-468  
SEE SPECIAL CONDITIONS

X New  
Renewal  
Modified

Peerless Tyre Company

This permit hereby authorizes the applicant:

Peerless Tyre Company  
9251 East 104th Avenue  
Henderson, CO 80640

to construct, install or modify monitoring wells according to the procedures and conditions of the application number 88-468. The facility is located in Section 10, T33N, R79W in the county of Natrona, 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.

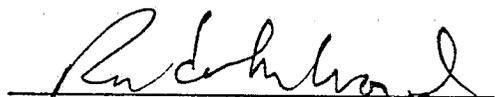
The permittee shall notify representatives from the Department of Environmental Quality, Water Quality Division the day construction commences and give an estimate of completion of the project. The authorized representative in your area can be contacted at the following address: District Engineer, State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

11-21-88  
\_\_\_\_\_  
Date of Issuance

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

#### Conditions for Monitoring Wells

1. 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 88-468. 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. 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. 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. 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. 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.

Conditions to Permit 88-468 (continued)

6. In addition to the well construction information submitted with the permit application, the following items relating to well construction must be addressed when the wells are installed:
  - 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;
  - 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. Factory slotted casing is recommended for the perforated interval. Slotted casing shall extend 1-2 feet above highest expected groundwater table;
  - g. A top and bottom cap shall be installed to prevent sediment and surface water from entering the well;
  - h. A protective casing and locking cap is strongly recommended;
  - i. The monitoring well shall be developed by the use of a pump or bailer so that representative groundwater samples can be collected;
  - j. 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
  - k. All monitor wells shall be designed so that they contain a minimum of 3 feet of water at all times.
7. 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. Within 90 days of the 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. Final location, construction details and logs of all monitoring wells;
  - d. Geohydrolic maps and/or cross sections that clearly describe the subsurface distribution of geological materials and groundwater occurrence;

Conditions to Permit 88-468 (continued)

- e. Water level and product thickness measurements;
  - f. Sample collection procedures;
  - g. Sampling analytical results;
  - h. A map delineating the extent of the subsurface contamination including free product, soil and dissolved groundwater contamination and concentrations;
  - i. A potentiometric surface map showing the direction of groundwater movement; and
  - j. Interpretation of data and conclusions including recommended remedial measures.
9. Proper well evacuation, sample collection, preservation, transportation and chemical analytical procedures shall be completed in accordance with WQD standard procedures.
10. All monitor wells associated with this facility shall be sampled and the wastewater analyzed quarterly for the parameters listed below:  
benzene, ethylbenzene, toluene, xylene, total petroleum hydrocarbons
- 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 January 1989.
11. All inventory records for a year prior to the report of a spill shall be submitted to the DEQ/WQD within 15 days of receipt of this permit. Reconciled inventory records with the volume of the spill specified shall be submitted to the DEQ/WQD within 45 days of receipt of this permit.
12. 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.
13. Drilling shall commence on or before December 1, 1988.

cc: Jake Strohman  
Armand Morris, 2626 Bonnie Brae, Casper, WY 82601

PERMIT TO CONSTRUCT

PERMIT NO. 88-469  
See Conditions

X New  
Renewal  
Modified

Laramie Water Treatment Plant Superpulsator

This permit hereby authorizes the applicant:

City of Laramie  
P. O. Box C  
Laramie, WY 82070

to construct, install or modify public water treatment plant according to the procedures and conditions of the application number 88-469. The facility is located in S23, T14N, R76W in the county of Albany, 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.

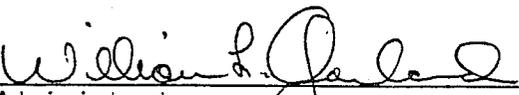
The permittee shall allow authorized representatives from the Department of Environmental Quality, Water Quality Division, upon the presentation of credentials and during working hours, to have access to inspect the facilities, at the above location, for the purpose of compliance with the provisions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

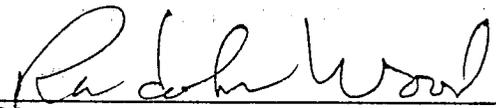
The permittee shall notify representatives from the Department of Environmental Quality, Water Quality Division the day construction commences and give an estimate of completion of the project. The authorized representative in your area can be contacted at the following address: District Engineer, State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

11-22-88  
\_\_\_\_\_  
Date of Issuance

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

Conditions to Permit to Construct #88-469

1. A draft operation and maintenance manual will be submitted to DEQ at 50 percent completion of construction. Approval of the final operation and maintenance manual is required prior to startup.
2. After the Superpulsator has been in operation for one year, submit a report about its operation, comparing it to the conventional treatment process it is replacing. Both the benefits and any problems shall be identified.

M

PERMIT TO CONSTRUCT

PERMIT NO. 88-470

X New  
Renewal  
Modified

LCCC Waterline

This permit hereby authorizes the applicant:

Blain Lyle, Director of Physical Plant  
Laramie County Community College  
1400 College Drive  
Cheyenne, Wyoming 82007

to construct, install or modify public water distribution system according to the procedures and conditions of the application number 88-470. The facility is located in Section 10, T13N, R66W, SE SW NW ¼ 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.

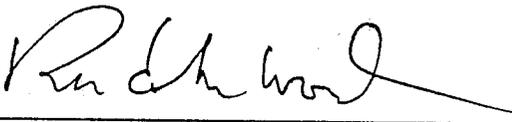
The permittee shall notify representatives from the Department of Environmental Quality, Water Quality Division the day construction commences and give an estimate of completion of the project. The authorized representative in your area can be contacted at the following address: District Engineer, State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

11-21-88  
\_\_\_\_\_  
Date of Issuance

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

cc: Jack L. Noblitt, Jack Noblitt & Associates, 1920 Thomas Avenue #620,  
Cheyenne, WY 82001

REVIEW OF PLANS AND SPECIFICATIONS

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

PROJECT: LCCC Waterline

ENGINEER: Jack L. Noblitt  
Jack Noblitt & Associates  
1920 Thomes Avenue, #620  
Cheyenne, Wyoming 82001

APPLICANT: Blain Lyle, Director of Physical Plant  
Laramie County Community College  
1400 College Drive  
Cheyenne, Wyoming 82007

WATER QUALITY DIVISION REFERENCE NUMBER: 88-470

REVIEWING ENGINEER: David Montague, <sup>DM</sup> Engineering Specialist

DATE OF REVIEW: November 4, 1988

ACTION: NOT AUTHORIZED FOR CONSTRUCTION.

COMMENTS:

1. DEQ Water Quality Rules and Regulations Chapter XII, Section 14(c) states: "Valves shall be provided on watermains so that inconvenience and sanitary hazards will be minimized during repairs. Valves shall be located at not more than 500 foot (152 m) intervals in commercial districts and at not more than 1 block or 800 foot (24 m) intervals in other districts."

In the plans submitted, valves have not been provided between STA 45+60 and STA 62+10. Provide valves as required to be in compliance with the regulations.

2. DEQ Water Quality Rules and Regulations Chapter XII, Section 14 (e)(i) states: "In all transmission lines and in distribution lines at high points (where the water pipe crown elevation falls below the pipe invert elevation), provisions shall be made for air relief. Fire hydrants or active service taps may be substituted for air relief valves on 6 and 8-inch lines. Manholes or chambers for automatic air relief valves shall be designed to prevent submerging the valve with groundwater or surface water."

Provisions for air relief need to be made at the following locations, unless changes are made to eliminate the local high point:

- a) Between STA 12+00 and 12+50
- b) STA 20+50
- c) STA 29+00
- d) STA 52+00

3. For your information, on Sheet No. 6, on the profile view, the match line is given to be STA 53+00, where all other references give it as STA 51+00.

/jn

PERMIT TO CONSTRUCT

- New  
 Renewal  
 Modified

PERMIT NO. 88-471R

LAMBERT SMALL WASTEWATER FACILITY  
(Name of Facility)

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

J. Mark & Page Lambert

P. O. Box 5

Sundance, Wyoming 82729

to construct, install or modify a small wastewater treatment facility according to the procedures and conditions of the application No. 88-471R.

The facility is located in Section 9, T.51N., R.63W., in the County of Crook, in the State of Wyoming. This permit shall be effective for a period of two (2) years (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 Engineer, State of Wyoming, Department of Environmental Quality, Water Quality Division, 2161 Coffeen Avenue, Suite 501, 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

12-27-88  
\_\_\_\_\_  
Date of Issuance

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

PERMIT TO CONSTRUCT

- New  
 Renewal  
 Modified

Permit No. 88-472R

New Shop Building, Rocky Mountain High School

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

Big Horn County School District No. 1  
176 S. 3rd E.  
Cowley, WY 82420

to construct, install, or modify a sewer under the building by replacement with 8" PVC and a new manhole according to the procedures and conditions of the application No. 88-472R. The facility is located in NE 1/4 Sec. 35, T56N, R97W in the County of Big Horn, in the State of Wyoming. This permit shall be effective for a period of two (2) years (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 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.

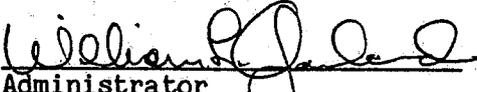
The permittee shall allow authorized representatives from the Department of Environmental Quality, Water Quality Division, upon the presentation of credentials and during working hours, to have access to inspect the facilities, at the above location, for the purpose of compliance with the provisions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

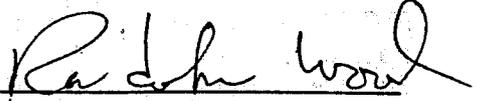
The permittee shall notify representatives from the Department of Environmental Quality, Water Quality Division the day construction commences and give an estimate of completion of the project. The authorized representative in your area can be contacted at the following address: District Engineer, State of Wyoming, Department of Environmental Quality, Water Quality Division, 210 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

1-6-89  
\_\_\_\_\_  
Date of Issuance

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

PERMIT TO CONSTRUCT

PERMIT NO. 88-473  
SEE SPECIAL CONDITIONS

- New
- Renewal
- Modified

Lynn's Service Fuel Depot, Cody

This permit hereby authorizes the applicant:

Lynn's Service  
Lynn Elwood  
P O Box 905  
Powell, WY 82435

to construct, install or modify a vapor recovery system according to the procedures and conditions of the application number 88-473. The facility is located in SE 1/4, NW 1/4, Section 5, T52N, R101W in the county of Park, 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: Groundwater Engineer, State of Wyoming, Department of Environmental Quality, Water Quality Division, Herschler Building, 4th Floor West, 122 West 25th, 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

March 8, 1989  
Date of Issuance

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

#### SPECIAL CONDITIONS

1. The results of any analyses conducted on soil, water or air removed from this recovery system during the lifetime of the facility shall be provided to the Water Quality Division as soon as they are available.
2. All wells will be abandoned according to procedures specified in Chapter XI, Part G, Section 70 of the Water Quality Division Rules and Regulations.
3. Within 15 days after a well has been plugged and abandoned, the owner shall file a plugging record with the Water Quality Division.
4. The issuance of this permit does not relieve the permittee from obligations to complete an Extent of Contamination study and any future remedial actions which may be required.
5. The permittee shall notify the Department of Environmental Quality, Water Quality Division five days prior to the exact dates of installation.
6. The permittee shall notify the division of the name, phone number and address of the on-site operator of the recovery system.
7. The permittee shall operate the recovery system continuously unless the department of Environmental Quality, Water Quality Division allows other operational plans. The division shall be notified immediately in the event that the hydrocarbon vapor recovery system is not operational for more than 24 hours.

Conditions to Permit 88-473 (continued)

8. Prior to operation of the hydrocarbon recovery system, an approved Operation and Maintenance Manual shall be provided to the division and to all operators. The O & M 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, and safety requirements.
9. A status report shall be provided to the division on a quarterly basis with reports due by the last day of January, April, July and October. The report shall include at a minimum, the weekly and monthly data listed in the application volumes pumped of air and hydrocarbon product, downtime and dates, effectiveness of the recovery system, monitoring data for all monitor wells and the recovery well current pumping rate and radius of influence. Water accumulation in the wells. All reports are due within 30 days of the end of each quarter. The first report is due in April or July depending upon when the system is installed.
10. In the event the system does not operate as planned or effectively recover the hydrocarbon contamination provisions shall be made for correcting the deficiencies. In any event, the hydrocarbon product and related dissolved constituents shall be recovered and cleaned up in a timely and diligent manner until released by Department of Environmental Quality, Water Quality Division.
11. This hydrocarbon recovery system shall be installed and made operational before the last day of May 1989.

MML/jt

PERMIT TO CONSTRUCT

PERMIT NO. 88-474  
SEE SPECIAL CONDITIONS

X New  
Renewal  
Modified

Home Petroleum Corporation

This permit hereby authorizes the applicant:

Home Petroleum Corporation  
1225 Seventeenth Street, Suite 3100  
Denver, Colorado 80202-5589

to construct, install or modify elevn deep ground bed anode systems according to the procedures and conditions of the application number 88-474. The facility is located in S29, T23N, R111W; S35, T23N, R96W; S11, T23N, R97W; S22, T24N, R97W; S26, T24N, R97W; S27, T24N, R97W; S21, T24N, R97W; S20, T24N, R97W; S33, T24N, R97W; S22, T24N, R97W; S29, T24N, R97W; S14, T23N, R97W in the county of Sweetwater, 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 Engineer, State of Wyoming, Department of Environmental Quality, Water Quality Division, Herschler Building, 4th Floor West, 122 West 25th, 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

11-22-88  
Date of Issuance

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

#### STANDARD CONDITIONS FOR GROUND BED FACILITIES

1. The cathodic protection deep anode ground bed well shall be installed in accordance with the conditions of this permit and plans and specifications submitted in permit to construct application number 88-474.
2. After the deep anode ground bed well has fulfilled its useful purpose, it 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 the well has been plugged and abandoned, the owner shall file a plugging record with the Water Quality Division.
3. In addition to the anode bed construction information submitted with the permit application, the following items relating to well construction must be addressed when the well is installed:
  - a. Bentonite seal from surface to 2 (two) feet in depth in the annulus of the hole, or concrete cap around PVC pipe and annulus.
4. Within 30 days after the well has been installed, the following information needs to be submitted to the Wyoming Department of Environmental Quality:
  - a. Analysis of the coke breeze that is used in the ground bed.
  - b. Analysis of the water used in wetting the anode. Analyze for TDS, ph & chlorides.
5. This permit only applies to the following facilities:
  - 1) Storm Shelter #1-A, 2) Great Divide #24, 3) Hay Reservoir #2, 3) Hay Reservoir Unit #3, 4) Hay Reservoir #4, 5) Hay Reservoir Unit #5, 6) Hay Reservoir #8, 7) Hay Reservoir #18, 8) Hay Reservoir #19, 9) Hay Reservoir #42, 10) Hay Reservoir #20, 11) J.T. Fed. #1-A.

Conditions to Permit 88-474 (continued)

cc: David D. Wendt, Lynch-Wendt, 1675 Broadway, Suite 2340, Denver, CO 80202

PERMIT TO CONSTRUCT

- New  
 Renewal  
 Modified

PERMIT NO. 88-486

GILL SMALL WASTEWATER FACILITY  
(Name of Facility)

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

Gregory & Cindy Gill

Moorcroft, Wyoming 82721

to construct, install or modify a small wastewater facility according to the procedures and conditions of the application No. 88-486. The facility is located in Section 14, T.50N., R.68W., in the County of Crook, in the State of Wyoming. This permit shall be effective for a period of two (2) years (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 Engineer, State of Wyoming, Department of Environmental Quality, Water Quality Division, 2161 Coffeen Avenue, Suite 501, 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

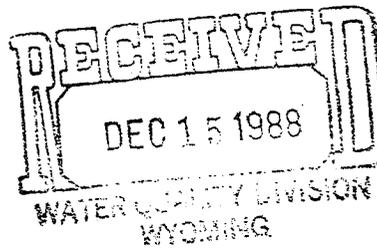
11-22-88  
\_\_\_\_\_  
Date of Issuance

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

THE STATE



OF WYOMING



## Department of Environmental Quality

Air Quality Division  
(307) 332-3144

Land Quality Division  
(307) 332-3047

Solid Waste Management Program  
(307) 332-3144

Water Quality Division  
(307) 332-3144

December 9, 1988

Mr. Bob Herzog  
Wyoming Highway Department  
P.O. Box 461  
Basin, WY 82410

RE: Lander LUST - Highway Department Shop  
Fremont County  
Monitor Well As-Built Authorization  
WQD Ref. No. 88-487

Dear Bob:

I have reviewed the application for installation of the monitor wells at the above referenced site. The well construction appears to meet the minimum design standards for the State of Wyoming. A "permit to construct" cannot be issued since the wells have already been installed. Please retain this letter as verification that the facility has been accepted by the Wyoming Department of Environmental Quality with the following conditions:

1. Additional wells meeting the requirements of the application and this letter may be installed if prior approval is received from the Water Quality Division (WQD).
2. 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.
3. Any tampering with the monitor wells shall be reported immediately to the Division. The wells shall be clearly numbered.
4. The issuance of this permit does not relieve the permittee from obligations to perform any further remedial actions which may be required.
5. DEQ/WQD personnel shall be given at least two weeks notice prior to the installation of any additional monitor wells and sample collection so that DEQ/WQD personnel may be on-site if deemed necessary.

**ARCHIVES**

6. Within 30 days of the 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 site map showing physical features, well locations and elevations;
  - b. Drilling logs of all monitor wells;
  - c. A map delineating the extent of the subsurface soil contamination.
  - d. Interpretation of data and conclusions including recommended remedial measures.
7. All monitor wells associated with this facility shall be checked on a monthly basis for the presence of product and/or groundwater.
8. If any fluid collects in the monitor wells it shall be sampled and analyzed for benzene, ethylbenzene, toluene, and xylene in accordance with EPA method 601/602 and total petroleum hydrocarbons in accordance with method 418.1. When product layers exist, they are to be measured and the above parameters need not be sampled for.
9. Water levels shall be measured on a weekly basis. Samples shall be taken on a monthly basis until other monitoring operations are allowed by the WQD. The results of the analyses shall be submitted to the Lander office. Well observation shall begin in January 1989.
10. Proper well evacuation, sample collection, preservation, transportation, and chemical analytical procedures shall be completed in accordance with WQD standard procedures.
11. If water is not found in the wells a monthly report must be submitted noting dates wells were checked for water and a statement indicating all wells were dry.
12. If any of the wells contain any fluid the following information must be provided with each monthly report:
  - a. Water level and product thickness measurements;
  - b. Sampling analytical results;
  - c. A map delineating the extent of the subsurface contamination including free product, soil and dissolved groundwater contamination and concentrations;

Wyoming Highway Department  
December 9, 1988

- d. A potentiometric surface map showing the direction of groundwater movement; and
  - e. Interpretation of data and conclusions, including recommended actions to be taken based on new data.
13. If no fluids appear in the monitor wells for a period of one year the observation may cease and the wells abandoned.

If you have any questions do not hesitate to contact me.

Sincerely,



Steven P. Gerber, P.E.  
Northwest District Supervisor

SPG/anc

cc: Jake Strohmman

PERMIT TO CONSTRUCT

PERMIT NO. 88-488  
SEE SPECIAL CONDITIONS

X New  
Renewal  
Modified

Laramie 3rd Street LUST Project

This permit hereby authorizes the applicant:

Delta Environmental Consultants  
2637 Midpoint Drive, Suite F  
Fort Collins, CO 80525

to construct, install or modify groundwater monitoring wells according to the procedures and conditions of the application number 88-488. The facility is located in Sections 28, 5, and 4, T16N, T15N, R73W in the county of Albany, 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.

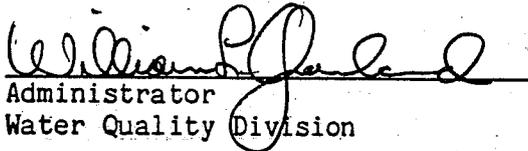
The permittee shall allow authorized representatives from the Department of Environmental Quality, Water Quality Division, upon the presentation of credentials and during working hours, to have access to inspect the facilities, at the above location, for the purpose of compliance with the provisions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

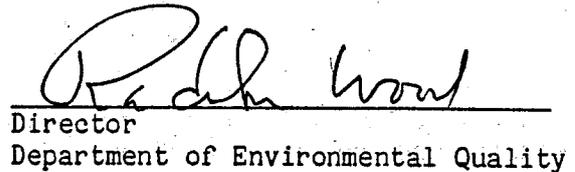
The permittee shall notify representatives from the Department of Environmental Quality, Water Quality Division the day construction commences and give an estimate of completion of the project. The authorized representative in your area can be contacted at the following address: Groundwater Engineer, State of Wyoming, Department of Environmental Quality, Water Quality Division, Herschler Building, 4th Floor West, 122 West 25th, 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

11-29-88  
\_\_\_\_\_  
Date of Issuance

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

#### Conditions for Monitoring Wells

1. 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 88-488. 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. 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. 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.
4. In addition to the well construction information submitted with the permit application, the following items relating to well construction must be addressed when the wells are installed:
  - 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;

Conditions to Permit 88-488 (continued)

- 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. Factory slotted casing is recommended for the perforated interval. Slotted casing shall extend 1-2 feet above highest expected groundwater table;
  - g. A top and bottom cap shall be installed to prevent sediment and surface water from entering the well;
  - h. A protective casing and locking cap is strongly recommended;
  - i. The monitoring well shall be developed by the use of a pump or bailer so that representative groundwater samples can be collected;
  - j. 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
  - k. All monitor wells shall be designed so that they contain a minimum of 3 feet of water at all times.
5. 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.
  6. After the monitoring wells have been properly installed and completed, the DEQ/WQD shall take ownership and responsibility of all monitoring wells.
  7. Proper well evacuation, sample collection, preservation, transportation and chemical analytical procedures shall be completed in accordance with WQD standard procedures.
  8. The applicant shall make reports on the subsurface investigation in compliance with the requirements in the contract for this project.

PERMIT TO CONSTRUCT

[ ] New

Permit No. 88-489

[ ] Renewal

Reference # 88-186

[X] Modified

Elk Dance Estates, Sewer Line Revisions  
(Name of Facility)

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

Spring Creek Ranch

P.O. Box 3154

Jackson, WY 83001

to construct, install, or modify a wastewater collection system to serve six lots, modification of 88-186 facility according to the procedures and conditions of the application No. 88-489. The facility is located in SE 1/4 Sec. 16, T41N, R16W in the County of Teton, in the State of Wyoming. This permit shall be effective for a period of two (2) years (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 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.

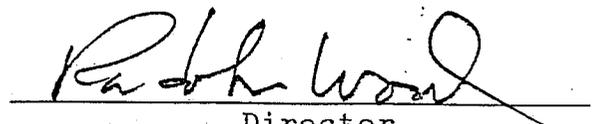
The permittee shall notify representatives from the Department of Environmental Quality, Water Quality Division the day construction commences and give an estimate of completion of the project. The authorized representative in your area can be contacted at the following address: District Engineer, State of Wyoming, Department of Environmental Quality, Water Quality Division, 210 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

11-22-88  
\_\_\_\_\_  
Date of Issuance

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

M E M O R A N D U M

**TO:** File #88-490

**FROM:** Gary Steele 

**DATE:** 12/14/94

**RE:** Harry Benson

This application has been given to Albany County to handle.

GS/nc 45769.LTR

REVIEW OF PLANS AND SPECIFICATIONS

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

PROJECT: Benson Small Septic System

ENGINEER:

APPLICANT: Harry and June Benson  
391 N. Hayes  
Laramie, Wyoming 82070

WATER QUALITY DIVISION REFERENCE NUMBER: 88-490

REVIEWING ENGINEER: David Montague *DM*

DATE OF REVIEW: November 16, 1988

ACTION: NOT AUTHORIZED FOR CONSTRUCTION.

COMMENTS:

1. A Wyoming registered professional engineer must approve and sign the permit application. A copy of the permit application is enclosed.
2. The applicant must sign the permit application sheet.
3. The septic tank must meet the requirements provided on the "Standard Septic Tank Detail Sheet". (Enclosed)
4. Provide the depth of soil above the leachfield.
5. Show on the "Plan Sheet" the location of the exploration hole from which the depth to bedrock and groundwater was determined. Provide the distance from the leachfield to this hole, and the elevation difference (approximate) between the top of the leachfield and the top of the hole.
6. Provide the distance from the second building to the septic tank.
7. The septic system has been constructed in the 201 Planning Area. Provide documentation that construction of this system has been allowed. Contact the Albany County Planning Office for this information.

/jn

PERMIT TO CONSTRUCT

PERMIT NO. 88-491  
See Conditions

X New  
Renewal  
Modified

Kaycee Wastewater Treatment Facility

This permit hereby authorizes the applicant:

Town of Kaycee  
P. O. Box 265  
Kaycee, WY 82639

to construct, install or modify monitoring well according to the procedures and conditions of the application number 88-491. The facility is located in S12, T43N, R82W in the county of Johnson, in the State of Wyoming. This permit shall be effective for a period of one (1) (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.

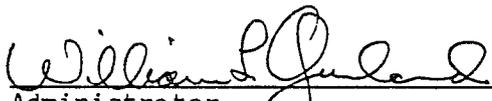
The permittee shall allow authorized representatives from the Department of Environmental Quality, Water Quality Division, upon the presentation of credentials and during working hours, to have access to inspect the facilities, at the above location, for the purpose of compliance with the provisions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

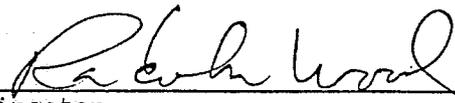
The permittee shall notify representatives from the Department of Environmental Quality, Water Quality Division the day construction commences and give an estimate of completion of the project. The authorized representative in your area can be contacted at the following address: Groundwater Engineer, State of Wyoming, Department of Environmental Quality, Water Quality Division, Herschler Building, 4th Floor West, 122 West 25th, 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

11-29-88  
\_\_\_\_\_  
Date of Issuance

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

Conditions for Permit to Construct #88-491

1. The groundwater monitoring well(s) shall be installed in accordance with the conditions of this permit and the plans and specifications submitted in permit to construct application number 88-491. Additional well(s) meeting the requirements of the application and this permit may be installed if prior approval is received from the Water Quality Division (WQD).
2. Pursuant to Wyoming Water Quality Rules and Regulations, Chapter XI, Section 63(A), a deviation is hereby granted for those well(s) 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. After the monitoring well(s) have fulfilled their useful purpose, they shall be abandoned following WQD approval 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. Well caps shall be kept locked at all times other than for monitoring purposes. Any tampering with the monitor well(s) shall be reported immediately to the division. The well(s) shall be clearly numbered.
5. The issuance of this permit does not relieve the permittee from obligations to complete an 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.
6. In addition to the well construction information submitted with the permit application, the following items relating to well construction must be addressed when the well(s) are installed:

Conditions to Permit 88-491 (continued)

- 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 to the depth of the underlying shale zone or 20 feet below groundwater, whichever is the shallowest.
  - 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. Factory slotted casing is recommended for the perforated interval.
  - g. A top and bottom cap shall be installed to prevent sediment and surface water from entering the well;
  - h. The monitoring well shall be developed by the use of a pump or bailer so that representative groundwater samples can be collected;
7. DEQ/WQD personnel shall be given at least two weeks notice prior to the installation of the monitor well(s) and sample collection so that DEQ/WQD personnel may be on-site if deemed necessary.
8. Within 90 days of the issuance of this permit, a report on the subsurface investigation shall be submitted to the WQD in Cheyenne. This report shall contain at a minimum:
- a. A site map showing physical features, well location(s) and elevation(s);
  - b. Final location, construction details and lithologic logs of all monitoring well(s);
  - c. Water level measurement(s);
  - d. Sample collection procedures;
  - e. Sampling analytical results;
9. A minimum of one sample of water from the well shall be obtained for analysis to establish ambient water quality. Proper well evacuation, sample collection, preservation, transportation and chemical analytical procedures shall be completed in accordance with WQD standard procedures.
- a. The parameters for analysis shall include common cations, common anions, pH, TDS, and common and trace metals.
  - b. These analytical results shall be utilized by the DEQ/WQD to determine the potential for groundwater contamination and the need for additional monitoring wells. Provided that the information is sufficient, the WQD

Conditions to Permit 88-491 (continued)

will make this determination within 45 days of receiving the analytical results.

cc: Jake Strohman WQD  
Mike Hackett, WQD  
Mike Staffileno, Chen-Northern, Inc.  
Randy Fultz, CEPI

PERMIT TO CONSTRUCT

New Permit No. 88-492  
 Renewal \*Conditioned\*  
 Modified

Sinclair Station Monitoring Wells  
 (Name of Facility)

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

Sinclair Oil Corporation

P.O. Box 30825

Salt Lake City, UT 84130-0825

to construct, install, or modify a ten test borings and four monitoring wells approximately 25 feet deep facility according to the procedures and conditions of the application No. 88492.

The facility is located in NW 1/4, Section 23, T19N, R105W in the County of Sweetwater, in the State of Wyoming. This permit shall be effective for a period of two (2) years (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 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, 210 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:**

*William R. Janda* Administrator  
Water Quality Division  
*Randolph* Director  
Dept. of Environmental Quality

2-6-88  
**Date of Issuance**

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

## Conditions for Monitoring Wells

1. 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 88-492. 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. 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. 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. 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. 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. In addition to the well construction information submitted with the permit application, the following items relating to well construction must be addressed when the wells are installed:
  - 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;
  - 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;
  - i. A seal of bentonite or bentonite grout is required from the surface to at least one foot 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. Within 90 days of installing the wells, 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. Final location, construction details and logs of all monitoring wells;
  - d. Geohydrologic maps and/or cross sections that clearly describe the subsurface distribution of geological materials and groundwater occurrence;
  - e. Water level and product thickness measurements;
  - f. Sample collection procedures;
  - g. Sampling analytical results;
  - h. A map delineating the extent of the subsurface contamination including free product, soil and dissolved groundwater contamination and concentrations;
  - i. A potentiometric surface map showing the direction of groundwater movement; and
  - j. Interpretation of data and conclusions including recommended remedial measures.
8. Proper well evacuation, sample collection, preservation, transportation and chemical analytical procedures shall be completed in accordance with WQD standard procedures.

9. All inventory records for a year prior to the report of a spill shall be submitted to the DEQ/WQD within 15 days of receipt of this permit. Reconciled inventory records with the volume of the spill specified shall be submitted to the DEQ/.WQD within 45 days of receipt of this permit.
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.

PERMIT TO CONSTRUCT

PERMIT NO. 88-493

X New  
Renewal  
Modified

Carpenter Elementary School Soil Absorption System Expansion

This permit hereby authorizes the applicant:

Laramie County School District #2  
160 East 8th Street  
Pine Bluffs, Wyoming 82082

to construct, install or modify commercial septic system according to the procedures and conditions of the application number 88-493. The facility is located in Section 31, T13N, R62W 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.

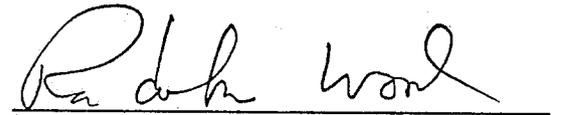
The permittee shall notify representatives from the Department of Environmental Quality, Water Quality Division the day construction commences and give an estimate of completion of the project. The authorized representative in your area can be contacted at the following address: District Engineer, State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

11-29-88  
\_\_\_\_\_  
Date of Issuance

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

PERMIT TO CONSTRUCT

[ ] New  
[X] Renewal  
[ ] Modified

Permit No. 88-494

Marathon Tierney S24 Evaporation Pit  
(Name of Facility)

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

Marathon Oil Company

P.O. Box 2690

Cody, WY 82414

to construct, install, or modify a expansion of a saltwater evaporation pit facility according to the procedures and conditions of the application No. 85-130RR. The facility is located in NE 1/4, SW 1/4, Section 24, T19N, R94W in the County of Sweetwater, in the State of Wyoming. This permit shall be effective for a period of Two (2) years (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 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, 210 Lincoln, Lander, WY 82520; telephone, 332-3144.

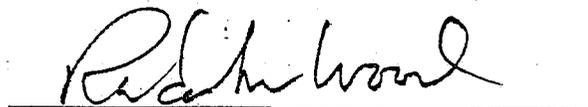
Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities or penalties established pursuant to any applicable State law or regulation.

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

11-22-88

Date of Issuance

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

PERMIT TO CONSTRUCT

PERMIT NO. 88-495  
See Conditions

X New  
Renewal  
Modified

Missile Operations Facility (Building 4001)

This permit hereby authorizes the applicant:

F.E. Warren Air Force Base  
Base Civil Engineer  
90 CSG/DE  
F.E. Warren AFB, Wyoming 82005-5000

to construct, install or modify public water distribution system according to the procedures and conditions of the application number 88-495. The facility is located in S27, 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: District Engineer, State of Wyoming, Department of Environmental Quality, Water Quality Division, Herschler Building, 4th Floor West, 122 West 25th, 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:

William P. Penland  
Administrator  
Water Quality Division

S. Alan Edwards  
Director  
Department of Environmental Quality

March 1, 1989  
Date of Issuance

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

Special Conditions for Permit to Construct 88-495

1. The last sentence in part 6.3.2 on page 02713-10 of the specifications shall be changed to read "No joint within this section shall be located closer than 10 feet of the crossing."
2. Included in part 8 on page 02713-16 of the specifications shall be the requirement that each unit of the newly constructed water line shall be disinfected in accordance with AWWA standard C601.

\mad

REVIEW OF PLANS AND SPECIFICATIONS

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

PROJECT: Missile Operation Facility (Building 4001)

ENGINEER: Keith Fackrell  
Kemper Architects, P.C.  
3822 Dillion Avenue  
Cheyenne, Wyoming 82001

APPLICANT: U.S. Army Corps of Engineers  
215 North 17th Street  
Omaha, Nebraska 68102

WATER QUALITY DIVISION REFERENCE NUMBER: 88-495

REVIEWING ENGINEER: David Montague 

DATE OF REVIEW: November 28, 1988

ACTION: NOT AUTHORIZED FOR CONSTRUCTION.

COMMENTS:

1. Provide signature of applicant, or letter from applicant stating the architect/engineer is responsible for the construction in compliance with the permit and that he/she is responsible for all operational conditions which may be imposed.
2. All plans and specifications submitted must carry the seal or signature of the designing engineer.
3. Provide the profile view of the water main.
4. Provide sheet C-16 for irrigation backflow prevention detail.
5. Provide vault detail 5, C-4, M-15, as referred to on Sheet C-4.
6. Department of Environmental Quality (DEQ), Water Quality Rules and Regulations Chapter XII, Section 14 (b)(i) states the water distribution "system shall be designed to maintain a minimum pressure of 20 psi at ground level at all points in the distribution system under all conditions of flow. The normal working pressure in the distribution system shall not be less than 35 psi."

Provide supporting information showing these pressures shall be met.

7. DEQ Water Quality Rules and Regulations Chapter XII, Section 14 (g)(i) states "Joints in sewers at crossings shall be located at least 10 feet from water mains."

In the specification submitted, page 02713-10, part 6.3.2, the last sentence states only 6 feet separation shall be provided. This must be changed to conform to the DEQ requirements.

8. In the specification submitted, page 02713-14, part 6.11, it provides "The bearing area of each thrust block shall be as shown on the drawings." Please provide the drawings referred to.
9. DEQ Water Quality Rules and Regulations Chapter XII, Section 14 (f)(viii) states "All new, cleaned, repaired, or reused watermains shall be specified to be disinfected in accordance with AWWA Standard C601."

Please provide this specification on page 02713-16, at the beginning of part 8.

/jn

PERMIT TO CONSTRUCT

PERMIT NO. 88-496

X New  
Renewal  
Modified

South Fork 4th Filing

This permit hereby authorizes the applicant:

William J. Edwards  
5920 Yellowstone Road  
Cheyenne, WY 82009

to construct, install or modify public water distribution system and public wastewater collection system according to the procedures and conditions of the application number 88-496. The facility is located in S20, T13N, R66W in the county of Laramie, in the State of Wyoming. This permit shall be effective for a period of two (2) (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.

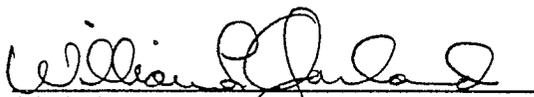
The permittee shall allow authorized representatives from the Department of Environmental Quality, Water Quality Division, upon the presentation of credentials and during working hours, to have access to inspect the facilities, at the above location, for the purpose of compliance with the provisions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

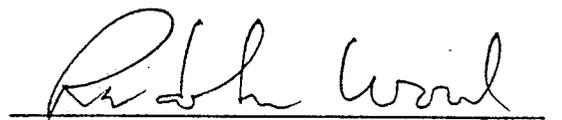
The permittee shall notify representatives from the Department of Environmental Quality, Water Quality Division the day construction commences and give an estimate of completion of the project. The authorized representative in your area can be contacted at the following address: District Engineer, State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

12-21-88  
\_\_\_\_\_  
Date of Issuance

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



## Department of Environmental Quality

Air Quality Division  
(307) 672-6457Water Quality Division  
(307) 672-6457

March 20, 1989



Mr. A. S. Trujillo  
Mobil Coal Producing, Inc.  
P. O. Box 3021  
Gillette, Wyoming 82716

RE: As-Built Approval for Modifications to  
Claybaugh 3 Reservoir at Caballo Rojo Mine  
Water Quality Reference No. 88-497RRR

Dear Arvin:

The Water Quality Division has reviewed your application for as-built approval of modifications to Claybaugh 3 Reservoir at the Caballo Rojo Mine in Campbell County, Wyoming. Based on the information submitted, it appears that the facility meets minimum design and construction requirements of the Water Quality Rules and Regulations.

Since the facility is already installed, a Permit to Construct can not be issued. This letter serves essentially the same purpose and will be your only notification of this office's approval.

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

Sincerely,

A handwritten signature in cursive script that reads "Susan Fields".

Susan Fields  
NE District Supervisor  
Water Quality Division

SF: jj

xc: Bob Giurgevich, LQD, Sheridan

PERMIT TO CONSTRUCT

- New  
 Renewal  
 Modified

PERMIT NO. 88-498R  
(Ref. 87-262RR)

CABALLO ROJO MINE INTERCEPTOR POND 8A  
(Name of Facility)

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

Mobil Coal Producing Inc.

P. O. Box 3021

Gillette, Wyoming 82717

to construct, install or modify a flood control facility according to the procedures and conditions of the application No. 88-498R. The facility is located in Section 10, T.47N., R.71W., in the County of Campbell, in the State of Wyoming. This permit shall be effective for a period of five (5) years (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.

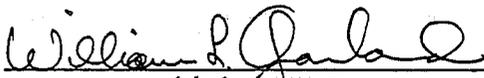
The permittee shall allow authorized representatives from the Department of Environmental Quality, Water Quality Division, upon the presentation of credentials and during working hours, to have access to inspect the facilities, at the above location, for the purpose of compliance with the provisions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

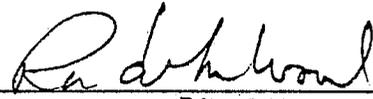
The permittee shall notify representatives from the Department of Environmental Quality, Water Quality Division, the day construction commences and give an estimate of completion of the project. The authorized representative in your area can be contacted at the following address: District Engineer, State of Wyoming, Department of Environmental Quality, Water Quality Division, 2161 Coffeen Avenue, Suite 501, 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

12-6-88  
\_\_\_\_\_  
Date of Issuance

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

PERMIT TO CONSTRUCT

PERMIT NO. 88-499  
SEE SPECIAL CONDITIONS

- X New
- Renewal
- Modified

Go Gas Convenience Store

This permit hereby authorizes the applicant:

Richard Mills  
1274 E. 130th Avenue  
Thornton, CO 80229

to construct, install or modify a monitor well for a hydrocarbon recovery trench according to the procedures and conditions of the application number 88-499. The facility is located in SW $\frac{1}{4}$ , NW $\frac{1}{4}$ , S25, T47N, R93W in the county of Washakie, in the State of Wyoming. This permit shall be effective for a period of two 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.

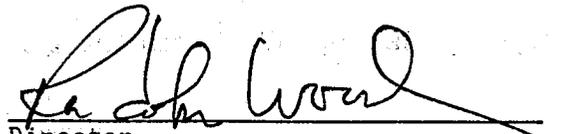
The permittee shall notify representatives from the Department of Environmental Quality, Water Quality Division the day construction commences and give an estimate of completion of the project. The authorized representative in your area can be contacted at the following address: Groundwater Engineer, State of Wyoming, Department of Environmental Quality, Water Quality Division, Herschler Building, 4th Floor West, 122 West 25th, 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

11-29-88  
\_\_\_\_\_  
Date of Issuance

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

CONDITIONS TO PERMIT TO CONSTRUCT #88-499

1. Additional wells meeting the requirements of the application and this permit may be installed if prior approval is received from the Water Quality Division.
2. Once the monitor wells have been completed, the owner will provide the Wyoming Department of Environmental Quality, Water Quality Division with a report that details the logs and locations. If the construction specifications were not included in the application or changes were made, they should be included in the report.
3. The results of any analyses conducted on soil or water removed from these wells shall be provided to the department as soon as they are available.
4. All monitor wells and soil borings will be abandoned according to procedures specified in Chapter XI, Part G, Section 70 of the Water Quality Division Rules and Regulations.
5. Within 15 days after a well has been plugged and abandoned, the owner shall file a plugging record with the Water Quality Division.
6. Caps shall be kept locked at all times other than sampling. Any tampering with the monitor wells shall be reported immediately to the division.
7. The entire extent of contamination will be defined including hydrocarbon product layers and dissolved constituents.
8. 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.

Conditions to Permit 88-499 (continued)

9. Provisions shall be made for the development of all monitor wells prior to sampling.
10. DEQ/WQD personnel shall be given sufficient notice prior to the installation of the monitor wells and sample collection so that DEQ/WQD personnel may be on-site if deemed necessary.
11. The requirement in Chapter XI, Part G, Section 65(a) is waived and a seal depth of less than 20 feet is allowed.

cc: Sharri Topping, Groundwater Tech Inc, 6879 S. Emporia St, Englewood, CO 80112  
Jake Strohman, DEQ/WQD, Cheyenne  
Steve Gerber, DEQ/WQD, Lander



S11, T24 R68, Platte Co



MIKE SULLIVAN  
GOVERNOR

## Department of Environmental Quality

Herschler Building • 122 West 25th Street • Cheyenne, WY 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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January 31, 1994

Mr. Loyd O. Shindelbower  
2317 N 16th Street  
Wheatland, WY 82201

Dear Mr. Shindelbower:

Our records indicate your application for permit to construct has not been resubmitted to this office for review and authorization. The specific information for your proposed project are:

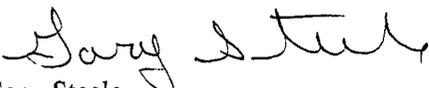
Facility Name: Shindelbower Small Septic System  
 DEQ/WQD Reference Number: 88-500  
 Engineering Consultant: None  
 DEQ/WQD Reviewing Engineer: Dave Montague  
 Date of DEQ/WQD Review: November 22, 1988

According to Chapter III of the Water Quality Rules and Regulations, Section 7(b)(2), "If an application is denied because of incompleteness necessitating a request for additional information, the applicant shall have a maximum of six months to comply with the request. If the applicant fails to provide the requested information within that period, the entire incomplete application shall be returned."

Your application is considered inactive and is being returned under the assumption that the applicant does not wish to proceed with the permit to construct permitting process.

This project has not been permitted. Construction of this facility without a permit is a violation of the Environmental Quality Act and is punishable with fines not to exceed \$10,000 per day of violation. If this project has already been constructed, it is your responsibility to immediately contact this office for further information. If you wish to reconsider construction of this facility, then application procedures pursuant to Chapter III, Wyoming Water Quality Rules and Regulations must, be followed.

Sincerely,

  
 Gary Steele  
 Southeast District Engineer  
 Water Quality Division

GLS/nc 40466.LTR  
 cc: IPS

