

RZ

PERMIT TO CONSTRUCT

PERMIT NO. 88-351
SEE SPECIAL CONDITIONS

X New
Renewal
Modified

Glenrock Coal Company

This permit hereby authorizes the applicant:

Glenrock Coal Company
1026-55 Ranch Road
Glenrock, WY 82637

to construct, install or modify monitoring wells according to the procedures and conditions of the application number 88-351. The facility is located in Section 3, SE $\frac{1}{4}$ NW $\frac{1}{4}$ T35N, R75W in the county of Converse, 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.

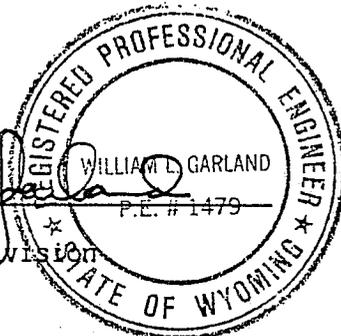
The permittee shall notify representatives from the Department of Environmental Quality, Water Quality Division the day construction commences and give an estimate of completion of the project. The authorized representative in your area can be contacted at the following address: Groundwater Engineer,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

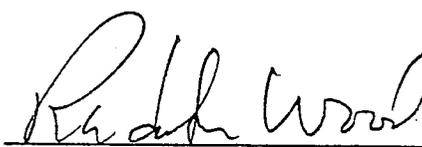
Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities or penalties established pursuant to any applicable state law or regulation.

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

8-30-88

Date of Issuance

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

CONDITIONS TO PERMIT TO CONSTRUCT #88-351

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 88-351. 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. 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 a foot or two above the top perforation. Protective casing shall be cemented into a sloping concrete cap; and
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;

Conditions to Permit 88-351 (continued)

- 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 for the parameters listed below:
- Presence of groundwater and sample for TPH by EPA approval methods.
- 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 October.
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.

cc: Jake Strohman



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

August 29, 1988

Clifton W. Farrell, Ph.D., President
Solution Mining Corporation
222 Ivinson Avenue
P.O. Box 1109
Laramie, Wyoming 82070-1109

RE: E Sand Injection- 50 Wyo Project
Permit UIC 88-352 class 5R21
Converse County, Wyoming

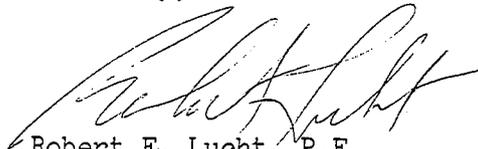
H Sand Injection- 50 Wyo Project
Permit UIC 88-353 class 5R21
Converse County, Wyoming

Dear Dr. Farrell:

The approved permits for both of the above referenced projects are enclosed. Both of these permits are identical. In summary, these permits will require that you pump into a closed tank that has been evacuated with nitrogen and that you allow the aquifer to recover before re-injecting the produced water. There are other permit requirements. Please be sure that you read the entire permit and understand all of its requirements prior to doing the tests.

Water Quality Division is looking forward to working with you to produce an environmentally acceptable commercial in-situ leaching operation in the future.

Sincerely,


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

RLF/jn

Enclosures

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

88-352
UIC CLASS 5R21

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),

SOLUTION MINING CORPORATION
P. O. Box 1109
Laramie, Wyoming 82070-1109

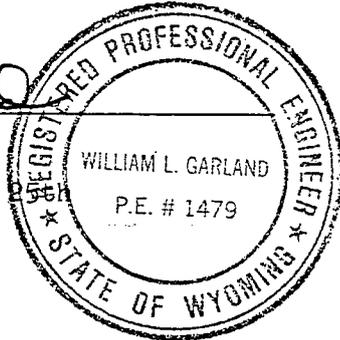
is authorized to operate

50 Wyo E Sand Pump Test

according to procedures and conditions of the application 88-352 and requirements and other conditions of this permit.

This permit shall become effective on date of issuance.

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



Aug 29, 1988
Date

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

8-29-88
Date

A. Discharge (Injection) Zone and Area of Review

The area of review for this permit was determined by the applicant to be a circle of radius 2810 feet based on the aquifer parameters estimated from previous work. The Area of Review is entirely within the following legal description:

Township 37 North, Range 74 West, 6th P.M.
=====
Section 25: S1/2S1/2S1/2
Section 36: E1/2, E1/2W1/2,E1/2W1/2W1/2
Township 37 North, Range 73 West, 6th P.M.
=====
Section 31: W1/2W1/2

In light of the fact that there is limited information on the pressures in the receiving aquifer and in the overlying aquifer, SMC has opted to calculate the entire cone of impression rather than only that portion where the receiving aquifer will be at a higher level than the overlying aquifer. The injection zone for this permit is limited to the entire E Sandstone member of the Fort Union Formation as defined by the permit application. The injection zone lies from approximately 710 feet to 775 feet below the ground surface. Based on a single assay of waters in this sandstone as submitted with the application. Within this Area of Review, the E Sandstone is a fluvial channel sand consisting of coarse to medium arkosic sandstone having a hydraulic conductivity of 4.4 ft/day, and a storage coefficient of 10 E-4. The E-Sandstone is confined by thick shale units both above and below.

B. Groundwater Classification

The groundwater in the E Sandstone is classified as class III under chapter VIII of the Wyoming Water Quality Rules and Regulations. This classification is based on one analysis only as submitted with the application. ~~This classification is preliminary for use in this permit only.~~ As more detailed information is received at a later date, this aquifer may be re-classified into any other class, as new information dictates.

The single assay submitted with the application is as follows:

PARAMETER	MG/L
T.S.S. (@105 C)	12
T.D.S. (@180 C)	520
Alkalinity, total (as CaCO3)	110
Hardness, total	358
Sodium, total	38
Potassium, total	11
Calcium, total	110
Magnesium, total	25
Sulfate (as SO4)	290
Chloride	<3

Carbonate (as CO ₃)	0
Bicarbonate (as HCO ₃)	130
Aluminum, total	<0.5
Ammonia (As N)	0.31
Arsenic, total	0.002
Boron	<0.1
Barium, total	<0.2
Cadmium, total	<0.01
Chromium, total	<0.02
Copper, total	<0.02
Fluoride	2
Iron, total	33
Iron, dissolved	0.28
Lead, total	0.007
Manganese, total	0.04
Mercury, total	<0.0001
Molybdenum, total	<0.005
Nickel, total	<0.05
Nitrate (As N)	0.09
Orthophosphate	<0.02
Selenium, total	<0.002
Zinc, total	0.075
Vanadium, total	0.005

C. Authorized Operations

The permittee is authorized to reinject waters from an aquifer pump test into the same sandstone that produced these waters. As such, the waters to be injected are the same waters that occur naturally in this zone. The water is to be injected at no more than 50 gpm and the total volume of water to be injected shall be no more than 600,000 gallons. Water Quality Division recognizes that these limits are much larger than the actual proposal. The permittee shall cover the temporary holding tanks and purge them with nitrogen prior to beginning the pump test. This measure is to insure that the water does not become oxygenated and affect subsequent baseline analyses from this well. During the pump test one sample shall be collected and analyzed for the full suite of parameters as detailed in Land Quality Division guideline 8. This will allow subsequent analyses to be compared to this analysis.

The tanks that are used to contain this water shall be thoroughly cleaned prior to use. If they have ever been used to contain crude oil, or other petroleum products, they shall be steam cleaned prior to use. If they have been used to contain petroleum products, the injection stream shall be analyzed for Benzene, Ethyl-benzene, Toluene, and Xylenes by EPA Method 602.

The intent of this permit is to allow aquifer testing to proceed for a proposed uranium in-situ leaching operation. Water Quality Division is interested in insuring that this test produces valid results that can be used for the purposes intended and that the re-injection of the waters from this test will not hamper the primary purpose of the test. For this reason, Water Quality Division will require that water level readings be taken throughout the pumping and recovery phase of the test,

and that the well be allowed to recover for a minimum of one and one-half times the total pumping time before the water is re-injected. Measurement of the volume injected in gpm, the time duration of the injection, and the water level readings in the injection well and the observation wells shall be taken for a time from the start of injection until the water levels have reached their initial levels. In this way, this injection will provide data on the receiving aquifer's ability to accept injection.

There is only one well within the area of review that penetrates the proposed receiver. This well is a monitor well drilled by the applicant or his predecessors for the purpose of obtaining water quality data. There are five other wells within the area of review that do not penetrate the receiver or the confining layers above the receiver. These wells range from 11 to 318 feet deep. Because of the nature of this injection, this permit will not require monitoring of any of these wells, although the permittee may elect to do so.

The permittee will be required to run a single point resistance curve in the injection well after all drilling tools are removed from the well. This requirement is in lieu of a standard Mechanical Integrity Test. This log should show any defects in the casing as a downward trending spike from a resistance curve which will be normally pegged on the high end.

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:

Because the injection water will be, for all practical purposes, identical to the water in the receiver, no monitoring by chemical analysis is required except for one analysis of the pumped water for a full suite of parameters listed in LQD guideline 8. If the storage tanks used for this test have been used for storage of petroleum products in the past, one analysis for BETX by EPA Method 602 is required of the waters being injected.

At the conclusion of this test, a report shall be prepared that shows the aquifer characteristics measured, the water quality data obtained and details of the actual well construction and monitoring. The format of this report shall be similar to the format required for LQD appendix 6 so that this report can serve as an initial draft of this document. This report is due 90 days after the conclusion of the test. Please

note that the intent of this requirement is not to require that a complete Appendix 6 submittal be prepared, but only that the format be such that the same work can be included in Appendix 6 at a later time. The intent is to minimize any duplication of effort that this report might cause the permittee. This report can be submitted separately or combined with the report for permit UIC 88-353 class 5R21.

G. Requirements for Monitoring the Discharge

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

The discharge pressure is limited to 75 psi as measured at the top of the casing. A pressure gauge shall be installed on the injection line to verify that this has not been exceeded. The volume of water being injected shall be metered with the total volume recorded and the number of gallons per hour being injected shall also be recorded. Because of the short duration of this injection, recording pressure and recording water meters are not required.

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.

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:

This injection is for natural groundwaters into the same zone that they were produced from. This injection is a short duration test which will last much less than one month. The environmental effects of an injection out of zone are minimal. For these reasons, Water Quality Division waives the requirements for mechanical integrity testing on this well.

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:

This injection well will be converted to a monitor well at the conclusion of this test. Ultimately, this well will be covered by a LQD permit to mine and the abandonment cost will be bonded. For these reasons, WQD will not require that this well be abandoned at the conclusion of this test. Water Quality Division will require that this well and all monitor wells associated with this test be abandoned by filling with hole abandonment fluid, cutting off the casing and installing a concrete cap at such a time in the future when SMC might elect to drop the state lease that covers this section. Water Quality Division will specifically not require this well to be abandoned if the state lease is sold to any other party for the purpose of mining any substance.

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.

SMC has not been required to show financial responsibility in this case. The financial strength to conduct this test is sufficient to insure that the permit conditions will be adhered to.

O. Special Measures the Director Finds Necessary:

None.

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.



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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August 29, 1988

Clifton W. Farrell, Ph.D., President
Solution Mining Corporation
222 Ivinson Avenue
P.O. Box 1109
Laramie, Wyoming 82070-1109

RE: E Sand Injection- 50 Wyo Project
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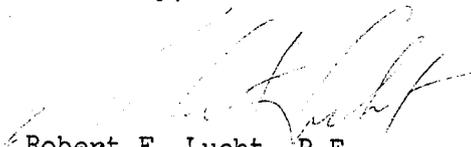
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Sincerely,


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

RLF/jn

Enclosures

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

88-353

UIC CLASS 5R21

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),

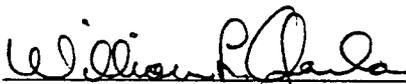
SOLUTION MINING CORPORATION
P. O. Box 1109
Laramie, Wyoming 82070-1109

is authorized to operate

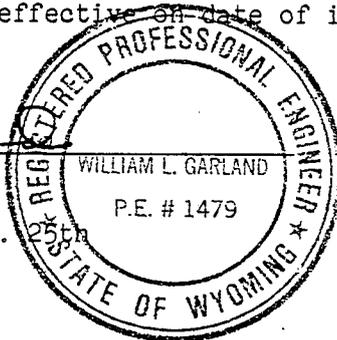
50 Wyo H Sand Pump Test

according to procedures and conditions of the application 88-353 and requirements and other conditions of this permit.

This permit shall become effective on date of issuance.

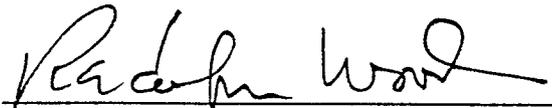


Administrator
Water Quality Division
Herschler Building, 122 W. 25th
Cheyenne, WY 82002
Phone: (307) 777-7781

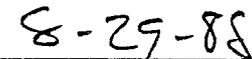




Date



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



Date

A. Discharge (Injection) Zone and Area of Review

The area of review for this permit was determined by the applicant to be a circle of radius 2440 feet based on the aquifer parameters estimated from previous work. The Area of Review is entirely within the following legal description:

Township 37 North, Range 74 West, 6th P.M.
=====

Section 25:	S1/2S1/2
Section 35:	E1/2E1/2
Section 36:	W1/2E1/2, W1/2

In light of the fact that there is limited information on the pressures in the receiving aquifer and in the overlying aquifer, SMC has opted to calculate the entire cone of impression rather than only that portion where the receiving aquifer will be at a higher level than the overlying aquifer. The injection zone for this permit is limited to the entire H Sandstone member of the Fort Union Formation as defined by the permit application. The injection zone lies from approximately 508 feet to 530 feet below the ground surface. Based on a single assay of waters in this sandstone as submitted with the application. Within this Area of Review, the E Sandstone is a fluvial channel sand consisting of coarse to medium arkosic sandstone having a hydraulic conductivity of 2.2 ft/day, and a storage coefficient of 10 E-4. The E-Sandstone is confined by thick shale units both above and below.

B. Groundwater Classification

The groundwater in the E Sandstone is classified as class I under chapter VIII of the Wyoming Water Quality Rules and Regulations. This classification is based on one analysis only as submitted with the application. This classification is preliminary for use in this permit only. As more detailed information is received at a later date, this aquifer may be re-classified into any other class, as new information dictates.

The single assay submitted with the application is as follows:

PARAMETER	MG/L
T.D.S.	268
Specific Conductance	385.20 (umho/cm)
pH	7.47 (unitless)
Hardness	78.08
Sodium	12
Potassium	4.88
Calcium	62.95
Magnesium	15.13
Sulfate (as SO4)	54.20
Chloride	4.60
Carbonate (as CO3)	<2
Bicarbonate (as HCO3)	217.58

Fluoride	0.29
Iron	0.20
Selenium	0.11
Zinc	0.21
Radium 226	1.83 (pCi/l)

C. Authorized Operations

The permittee is authorized to reinject waters from an aquifer pump test into the same sandstone that produced these waters. As such, the waters to be injected are the same waters that occur naturally in this zone. The water is to be injected at no more than 50 gpm and the total volume of water to be injected shall be no more than 600,000 gallons. Water Quality Division recognizes that these limits are much larger than the actual proposal. The permittee shall cover the temporary holding tanks and purge them with nitrogen prior to beginning the pump test. This measure is to insure that the water does not become oxygenated and affect subsequent baseline analyses from this well. During the pump test one sample shall be collected and analyzed for the full suite of parameters as detailed in Land Quality Division guideline 8. This will allow subsequent analyses to be compared to this analysis.

The tanks that are used to contain this water shall be thoroughly cleaned prior to use. If they have ever been used to contain crude oil, or other petroleum products, they shall be steam cleaned prior to use. If they have been used to contain petroleum products, the injection stream shall be analyzed for Benzene, Ethyl-benzene, Toluene, and Xylenes by EPA Method 602.

The intent of this permit is to allow aquifer testing to proceed for a proposed uranium in-situ leaching operation. Water Quality Division is interested in insuring that this test produces valid results that can be used for the purposes intended and that the re-injection of the waters from this test will not hamper the primary purpose of the test. For this reason, Water Quality Division will require that water level readings be taken throughout the pumping and recovery phase of the test, and that the well be allowed to recover for a minimum of one and one-half times the total pumping time before the water is re-injected. Measurement of the volume injected in gpm, the time duration of the injection, and the water level readings in the injection well and the observation wells shall be taken for a time from the start of injection until the water levels have reached their initial levels. In this way, this injection will provide data on the receiving aquifer's ability to accept injection.

There is only one well within the area of review that penetrates the proposed receiver. This well is a monitor well drilled by the applicant or his predecessors for the purpose of obtaining water quality data from a deeper sand. This well is not completed in the H Sand. There are five other wells within the area of review that do not penetrate the receiver or the confining layers above the receiver. These wells range from 11 to 318 feet deep. Because of the nature of this injection, this permit will not require monitoring of any of these wells, although the permittee may elect to do so.

The permittee will be required to run a single point resistance curve in the injection well after all drilling tools are removed from the well. This requirement is in lieu of a standard Mechanical Integrity Test. This log should show any defects in the casing as a downward trending spike from a resistance curve which will be normally pegged on the high end.

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:

Because the injection water will be, for all practical purposes, identical to the water in the receiver, no monitoring by chemical analysis is required except for one analysis of the pumped water for a full suite of parameters listed in LQD guideline 8. If the storage tanks used for this test have been used for storage of petroleum products in the past, one analysis for BETX by EPA Method 602 is required of the waters being injected.

At the conclusion of this test, a report shall be prepared that shows the aquifer characteristics measured, the water quality data obtained and details of the actual well construction and monitoring. The format of this report shall be similar to the format required for LQD appendix 6 so that this report can serve as an initial draft of this document. This report is due 90 days after the conclusion of the test. Please note that the intent of this requirement is not to require that a complete Appendix 6 submittal be prepared, but only that the format be such that the same work can be included in Appendix 6 at a later time. The intent is to minimize any duplication of effort that this report might cause the permittee. This report can be submitted separately or combined with the report for permit UIC 88-352 class 5R21.

G. Requirements for Monitoring the Discharge

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

The discharge pressure is limited to 75 psi as measured at the top of the casing. A pressure gauge shall be installed on the injection line to verify that this has not been exceeded. The volume of water being injected shall be metered with the total volume recorded and the number of gallons per hour being injected shall also be recorded. Because of

the short duration of this injection, recording pressure and recording water meters are not required.

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.

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:

This injection is for natural groundwaters into the same zone that they were produced from. This injection is a short duration test which will last much less than one month. The environmental effects of an injection out of zone are minimal. For these reasons, Water Quality Division waives the requirements for mechanical integrity testing on this well.

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:

This injection well will be converted to a monitor well at the conclusion of this test. Ultimately, this well will be covered by a LQD permit to mine and the abandonment cost will be bonded. For these reasons, WQD will not require that this well be abandoned at the conclusion of this test. Water Quality Division will require that this well and all monitor wells associated with this test be abandoned by filling with hole abandonment fluid, cutting off the casing and installing a concrete cap at such a time in the future when SMC might elect to drop the state lease that covers this section. Water Quality Division will specifically not require this well to be abandoned if the state lease is sold to any other party for the purpose of mining any substance.

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.

SMC has not been required to show financial responsibility in this case. The financial strength to conduct this test is sufficient to insure that the permit conditions will be adhered to.

O. Special Measures the Director Finds Necessary:

None.

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.

RF

PERMIT TO CONSTRUCT

- New
- Renewal
- Modified

Permit No. 88-354R

Water Transmission Pipeline, Production Well, and Well House
(Name of Facility)

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

Town of Burlington
Burlington, WY 82411

to construct, install, or modify a new production well, well house and 4" transmission pipeline facility according to the procedures and conditions of the application No. 88-354R. The facility is located in Sec. 31, T52N, R96W 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.

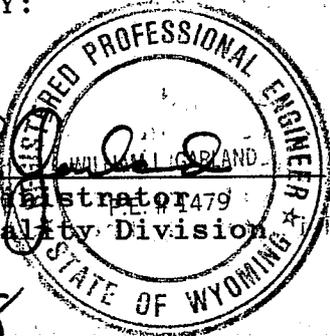
The permittee shall allow authorized representatives from the Department of Environmental Quality, Water Quality Division, upon the presentation of credentials and during working hours, to have access to inspect the facilities, at the above location, for the purpose of compliance with the provisions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


William D. Johnson
Administrator 479
Water Quality Division

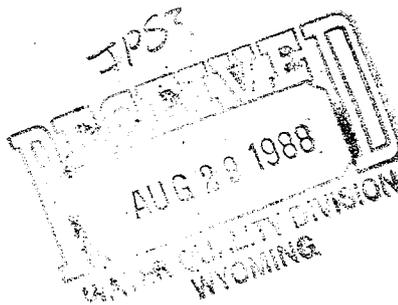
R. John Wood
Director
Depts. of Environmental Quality

10-18-88

Date of Issuance

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

MEMORANDUM



TO: Plans 88-354
FROM: Jeff Hermansky
DATE: August 23, 1988

Jeff

SUBJECT: Review of Burlington Well and Transmission Pipeline

On August 23, 1988, I met with Ronald Rash of Forsgren Associates in the Lander office to review his plan submittal for the new Burlington Well and Transmission Line. Ronald said that the contractor had already drilled and tested the well, so I told him we would treat the well portion of the plans as an "As-Built" submittal.

I made the following comments during the review:

- I. The well log, testing data, and water analysis needs to be sent to this office.
- II. The application form must be signed by the owner (Burlington Mayor), not by the engineer.
- III. I asked if the well was above the 100 year flood. Ronald said it was located two and one-half (2 1/2) miles from the river and on the second river terrace so it apparently was above the flood level.
- IV. A design report needs to be included with the application. The report is available and will be sent.
- V. I noted a number of areas in the specifications where incorrect references were made.
- VI. The type of PVC pipe acceptable for the project was not listed in the plans or specifications.
- VII. I asked Ronald to clarify the water line valve locations.
- VIII. We discussed an acceptable air valve design. The proposed design is not acceptable due to cross contamination problems with ground water.

file

PERMIT TO CONSTRUCT

PERMIT NO. 88-355

- X New
- Renewal
- Modified

Town of Torrington E 28th Avenue Mini Park Sanitary Sewer

This permit hereby authorizes the applicant:

Town of Torrington
P O Box 250
Torrington, WY 82240

to construct, install or modify public wastewater collection system according to the procedures and conditions of the application number 88-355. The facility is located in S10, 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.

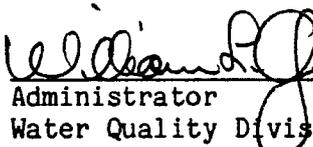
The permittee shall allow authorized representatives from the Department of Environmental Quality, Water Quality Division, upon the presentation of credentials and during working hours, to have access to inspect the facilities, at the above location, for the purpose of compliance with the provisions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

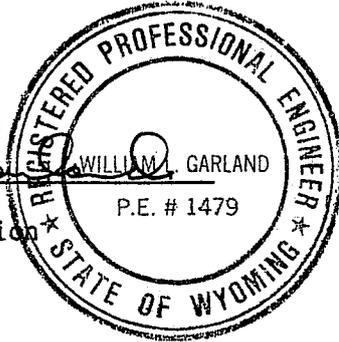
The permittee shall notify representatives from the Department of Environmental Quality, Water Quality Division the day construction commences and give an estimate of completion of the project. The authorized representative in your area can be contacted at the following address: District Engineer, State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

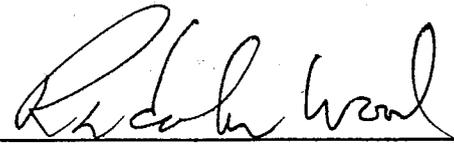
Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities or penalties established pursuant to any applicable state law or regulation.

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

9-28-88
Date of Issuance

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

R.F.

PERMIT TO CONSTRUCT

PERMIT NO. 88-356
SEE SPECIAL CONDITIONS

X New
Renewal
Modified

West Laramie Fly Store Boreholes/Monitoring Wells

This permit hereby authorizes the applicant:

Wallace Texaco, Inc.
dba West Laramie Fly Store
1657 Jackson
Laramie, WY 82070

to construct, install or modify monitoring wells according to the procedures and conditions of the application number 88-356. The facility is located in S31, T16N, R73W, SE1/4 in the county of Albany, 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.

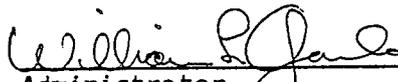
The permittee shall allow authorized representatives from the Department of Environmental Quality, Water Quality Division, upon the presentation of credentials and during working hours, to have access to inspect the facilities, at the above location, for the purpose of compliance with the provisions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

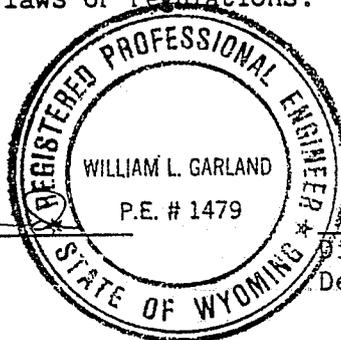
The permittee shall notify representatives from the Department of Environmental Quality, Water Quality Division the day construction commences and give an estimate of completion of the project. The authorized representative in your area can be contacted at the following address: District Engineer, State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

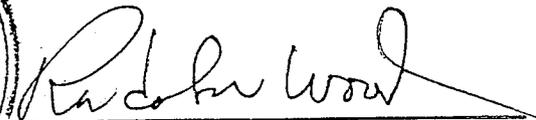
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The issuance of this permit does not convey any property rights in either real or personal property or any invasion of personal rights, nor any infringement of federal, state, or local laws or regulations.

AUTHORIZED BY:


Administrator
Water Quality Division




Director
Department of Environmental Quality

9-1-88

Date of Issuance

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

Conditions for Permit to Construct #88-356

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 88-356. 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 88-356 (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 88-356 (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. 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.
 11. Drilling shall commence within 30 days of receipt of this permit.

cc: Jake Strohman

LAND APPLICATION PERMIT

Permit No. 88-357
Ref. 87-289
SEE SPECIAL CONDITIONS

WESTON COUNTY - DUST CONTROL
(Name of Facility)

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

Weston County Road & Bridge

P. O. Box 931

Newcastle, Wyoming 82701

To land apply waste oil to roads for dust control. The application site is located in Secs. 29, 34, T.45N., R.61W.; Sec. 30, T.45N., R.60W.; Secs. 3, 10, T.44N., R.61W., in the County of Weston, in the State of Wyoming. This permit shall be effective until November 1, 1988.

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.

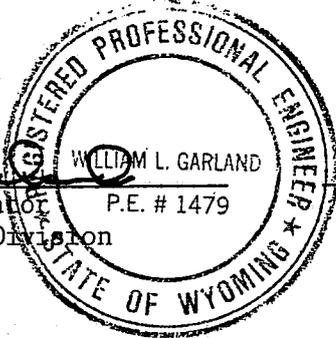
Nothing in this permit constitutes an endorsement of the disposal method described herein. This permit indicates only that standards required by the Environmental Quality Act have been met. The State assumes no liability for, and does not in any way guarantee the performance of, the permittee in the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

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

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 L. Garland
Administrator
Water Quality Division

Richard Wood
Director
Dept. of Environmental Quality

8-30-88

Date of Issuance

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

LAND APPLICATION SPECIAL CONDITIONS

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 eight 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, Susan Fields, 2161 Coffeen Avenue, Suite 501, telephone number 307/672-6457, 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 waste oil 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.
6. This permit is in effect until November 1, 1988. Any application of wastes beyond that date shall be repermited.

RF

PERMIT TO CONSTRUCT

PERMIT NO. 88-358
See Conditions

- X New
- Renewal
- Modified

10 MG Reservoir - Monitoring Wells

This permit hereby authorizes the applicant:

Casper Board of Public Utilities
200 North David
Casper, WY 82601

to construct, install or modify monitoring wells according to the procedures and conditions of the application number 88-358. The facility is located in S16, 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.

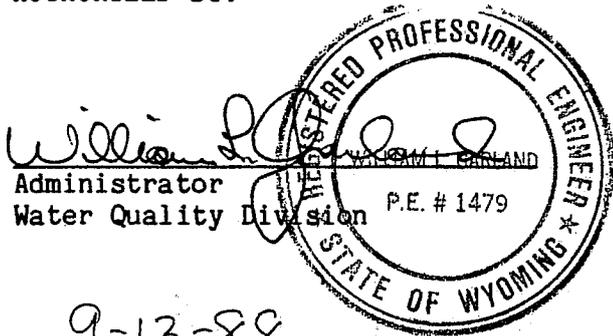
The permittee shall allow authorized representatives from the Department of Environmental Quality, Water Quality Division, upon the presentation of credentials and during working hours, to have access to inspect the facilities, at the above location, for the purpose of compliance with the provisions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



William D. [Signature]
Administrator
Water Quality Division

P.E. # 1479

[Signature]
Director
Department of Environmental Quality

9-13-88

Date of Issuance

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

Conditions to Permit to Construct

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 88-358. 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. 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;

Conditions to Permit 88-358 (continued)

- 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.
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 site map showing physical features, well locations and elevations;
 - b. Final location, construction details and logs of all monitoring wells;
 - c. Water level measurements;
 8. Proper well evacuation, sample collection, preservation, transportation and chemical analytical procedures shall be completed in accordance with WQD standard procedures.

PERMIT TO CONSTRUCT

- [] New
[] Renewal
[X] Modified

Permit No. 88-359
Ref 84-313R
See Special Conditions

CRYSTAL VALLEY VIEW APARTMENTS WASTEWATER DISPOSAL
(Name of Facility)

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

JODY BURKES

STAR ROUTE BOX 11-4

JACKSON, WY 83001

to construct, install, or modify a new leachfield facility according to the procedures and conditions of the application No. 88-359. The facility is located in Sec. 32, T41N, R116W in the County of Teton, in the State of Wyoming. This permit shall be effective for a period of two (2) years (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

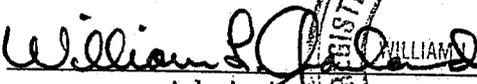
the presentation of credentials and during working hours, to have access to inspect the facilities, at the above location, for the purpose of compliance with the provisions of this construction permit.

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.

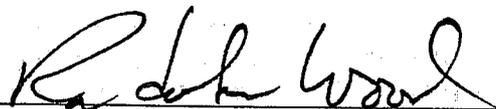
Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities or penalties established pursuant to any applicable State law or regulation.

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 P.E. # 1479
Water Quality Division




Director
Dept. of Environmental Quality

9-9-88
Date of Issuance

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

Conditions to permit No. 88-359

1. Before covering the pipe in the trench or leach field, the applicant is to contact Mr. Dick Worl, Teton County Sanitarian, for his inspection of the facility. A 48 hour notice is required.
2. This property is located within the Town of Jackson's planning area for possible future service by the Jackson Wastewater Collection System. This permit is issued with the condition that the septic tank/leach field be abandoned and connection be made to the Jackson collection system when the sewer service is extended to within 200 feet of the property line or as required by local codes, whichever is greater

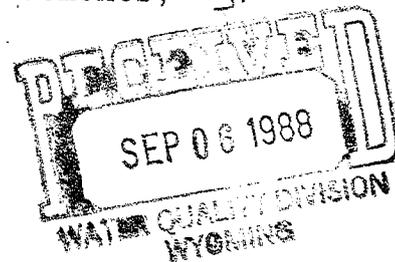
MEMORANDUM

TO: Plans: Crystal Valley View Apartments, JPS
WQD REF No. 88-359

FROM: Steve Gerber *SGR*

DATE: August 29, 1988

SUBJECT: Plan Review



I called Bob Ablondi and discussed the following items:

1. I asked Bob why he used 120 gpd for the trailers. Bob said they were one bedroom trailers. I told Bob that would still require 150 gpd flow, but this will not change the leach field size.
2. Depth to groundwater is over 100 feet.
3. The ground slope over the leach field is less than 7%.
4. The water service lines do not cross the new sewer.



THE STATE

OF WYOMING



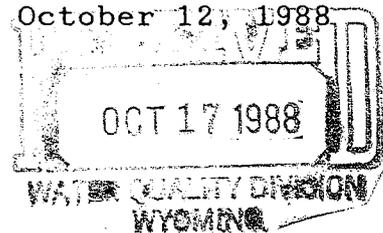
Department of Environmental Quality

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



E.D. Corder
Chevron, U.S.A. Inc.
P.O. Box 599
Denver, CO 80201

RE: Application for permit to Land Apply Tank Bottoms
WQD Reference No. 88-360

Dear Ms. Corder:

In accordance with Ken Schreuder's letter to you dated October 7, 1988, I am returning to you the Water Quality Division permit application for the referenced facility. As Mr. Schreuder has already informed you, the disposal of any waste with a solids content of greater than 10% by weight is regulated by the Solid Waste Management Program. I believe he has informed you as to what will be required in the preparation of that application.

Should you have any questions or comments please contact Ken or myself.

Sincerely,

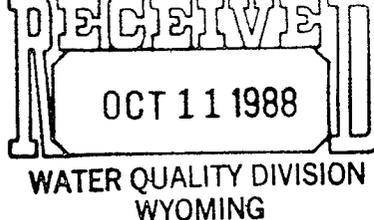
Bill Locke, P.E.
Southwest District Supervisor

BL/anc

cc: Larry Robinson, WQD, Cheyenne
✓ I.P.S., Cheyenne
Ken Schreuder



THE STATE OF WYOMING



IPS 88-360



Department of Environmental Quality

Air Quality Division
(307) 332-3144

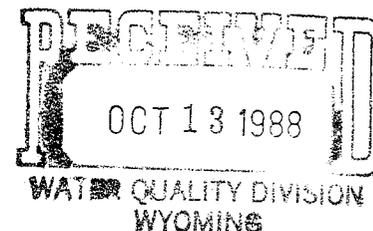
Land Quality Division
(307) 332-3047

Solid Waste Management Program
(307) 332-3144

Water Quality Division
(307) 332-3144

October 7, 1988

E.D. Corder
Chevron, U.S.A. Inc.
P.O. Box 599
Denver, Colorado 80201



RE: Application to Test Land Application of Solidified Tank Bottom Sludge (8/19/88)

Dear Ms. Corder:

This Department has reviewed Mr. Forsgren's August 19, 1988, application to the Water Quality Division (WQD) to test land application of solidified tank bottom sludges which have been generated at Chevron's Painter Reservoir Unit near Evanston, Wyoming.

Based on a review of the characteristics of the tank bottom sludge (solids content = 33.2%), the Solid Waste Program (SWP) has determined that the treatment and disposal of this waste will require a permit under the Solid Waste Management Program's Rules and Regulations, 1975. This determination is consistent with the regulatory requirements which have been imposed on similar operations in the State. Chevron's application to the WQD to land apply this material has therefore been deemed inadequate.

In order to obtain a permit for this test land application, Chevron will need to submit an application to the SWP. Chevron's application should address the requirements for new industrial solid waste disposal facilities which are outlined in Sections 11.a and 11.c of the Solid Waste Management Program Rules and Regulations, 1975. This application should be submitted as described in Section 8.a.(5), paragraph two. This application will be processed by this Department under Section 8.a.(5), paragraph two, and Section 8.f (Research on Experimental Disposal of Solid Waste).

Please be advised that your application will be subject to the Public Participation requirements found in Section 9 of the SWP's Rules and Regulations.

E.D. Corder
October 7, 1988

Page 2

For your future reference, the disposal of any wastes in Wyoming which have a solids content of greater than 10% must be permitted by the SWP. This does not include solids or dissolved and suspended materials in sewage and industrial waste waters which are regulated by the WQD. If you have any further questions on this matter, please feel free to give me a call at (307) 332-3144.

Sincerely,

Ken Schreuder

Ken Schreuder
Region II Supervisor
Solid Waste Program

C: David A. Finley, SWP/Cheyenne
Bill Locke, WQD/Lander
D.F. Forsgren, Chevron/Englewood, CO

24

PERMIT TO CONSTRUCT

New

Permit No. 88-361

Renewal

Modified

PAVILLION WATER LINE PINE, WASHINGTON AND CHERRY STREETS
(Name of Facility)

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

Town of Pavillion

203 1/2 N. Main

Pavillion, WY 82523

to construct, install, or modify a 1120 ft. of watermain, 2 fire hydrants and appurtenances facility according to the procedures and conditions of the application No. 88-361. The facility is located in NW 1/4 Sec. 18 T3N, R2E, Wind River Meridian in the County of Fremont, in the State of Wyoming. This permit shall be effective for a period of two (2) years (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 L. Garland
Administrator
Water Quality Division



R. John Wood
Director
Dept. of Environmental Quality

9-16-88

Date of Issuance

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

R.F.

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

88-362
UIC CLASS SA7

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),

GEORGE LENZ
41 Country Drive
Worland, Wyoming 82401

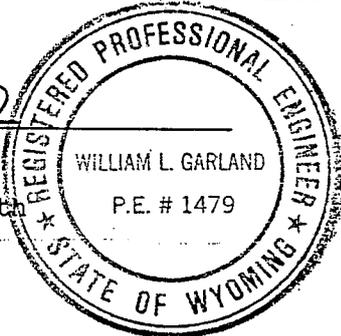
is authorized to operate

A closed loop heat pump system

according to procedures and conditions of the application 88-362 and requirements and other conditions of this permit.

This permit shall become effective on date of issuance.

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



Aug 30, 1988
Date

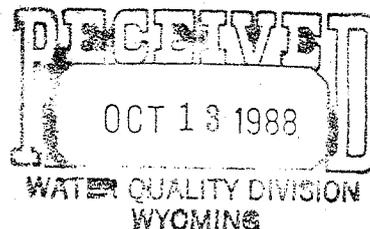
Rudolph Wood
Director
Department of Environmental Quality
Herschler Building, 122 W. 25th
Cheyenne, WY 82002

8-30-88
Date

REVIEW OF PLANS AND SPECIFICATIONS

WYOMING DEPARTMENT OF ENVIRONMENTAL QUALITY

WATER QUALITY DIVISION
210 LINCOLN
LANDER, WYOMING 82520
PHONE : (307)332-3144



PROJECT: Alpine Nordic Village Subdivision
ENGINEER: David E. Benton, P.E.
Benton Engineering
550 Linden Dr.
Idaho Falls, Idaho 83401
OWNER: Clarence L. Reinhart & Dorothy Reinhart
P.O. Box 258
Alpine, WY 83127

WATER QUALITY DIVISION REFERENCE NUMBER: 88-363

REVIEWING ENGINEER: Sterling Roberts STR

DATE OF REVIEW: October 11, 1988

ACTION: Not authorized

COMMENTS:

An initial review of your plans and specifications has been completed. The following items need to be addressed and/or resolved.

1. An engineering and design report needs to be submitted which documents and provides technical justification for all aspects of the proposed construction modifications and/or installations.
2. The current and projected system water demand for average day, maximum day, maximum hour, needed fire flows and per capita maximum daily flows need to be provided.
3. Information on fire protection and fire flow capabilities of the proposed system need to be included.
4. The geology of the supply aquifer and the overlying strata are required.
5. Water Quality data including biological, radiological and chemical quality, sufficient to determine treatment processes and compliance with all drinking water standards is required. A water quality report documenting the concentrations of the constituents listed in chapter VIII page 9 of DEQ Water Quality Rules and Regulations (with the exception of radio nuclides) for all water sources is required.

Review of Plans & Specs.
Alpine Nordic Village Subdivision
October 11, 1988

6. Sources of possible contamination around the wells or in any known recharge areas, including the location of any waste sites, industrial facilities, or wastewater disposal areas must be noted.
7. The engineering and design report needs to include a summary on any automatic operation and control systems, including basic operations, manual override operations, and maintenance requirements.
8. The plan view of the water distribution system should show the existing location of all utilities and the location and size of all waterlines, sanitary sewers, storm sewers, valves, access manholes, and other appurtenances. Information on sanitary and storm sewers will be furnished which provide assurance of horizontal and vertical separation from watermains.
9. Detail drawings shall be provided that show 1) A cross-section drawing of the pipe bedding. 2) Any additional features not otherwise covered by the specifications.
10. Location of any sewer lines within 30 feet (horizontally) of watermains will be shown. Where sewer and water lines cross a profile or elevations will be provided to assure proper separation.
11. Plan and profile drawings of well construction shall be submitted showing diameter and depth of drill holes, casing and liner diameters and depths, grouting depths, elevation and designation of geologic formations, water levels, and other details to describe the wells completely.
12. Technical specifications shall accompany the plans for new water lines, treatment facilities and wells. The specifications accompanying the drawings shall include:
 - a. Identification of all construction materials
 - b. The type, size, strength, operating characteristics, rating or requirements, for all mechanical and electrical equipment, including machinery, valves, piping, electrical apparatus, wiring and meters, special appurtenances, and chemical where applicable
 - c. Performance test results for operation of complete works and component units.
13. Information on well construction and testing must include:
 - a. Well screen location, size of screen openings and screen intervals.

Review of Plans & Specs.
Alpine Nordic Village Subdivision
October 11, 1988

- b. Drill hole diameter and depth, size and length of casing and liners, casing wall thickness, grouting depths and water levels.
 - c. Well test data shall include pump capacity-head characteristics, static water level, depth of pump setting, test pumping rate, time of starting and ending of each pump cycle, drawdown and water level recovery rate.
14. Every well shall be tested for plumbness and alignment in accordance with AWWA A-100.
 15. It is recommended that flow meters be installed on all wells.
 16. The system shall be shown 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 be shown to be not less than 35 psi.
 17. Assurances that the system has sufficient cover to prevent damage from freezing and frost heave will be provided.
 18. Document any pressure or leakage tests that were performed on the system.
 19. Assurances that all service connections are provided with backflow prevention devices will be required.

Please resubmit the required information to this office in triplicate. Be sure to include the Water Quality Reference Number that appears on this review sheet in a cover letter or transmittal sheet. Should you have any questions or comments, please contact this office.



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

August 25, 1988

Leo Charles & Rita C. Meyer
Box 108
Centennial, Wyoming 82055

RE: Permit to Construct Application Number 88-364

Dear Mr. & Mrs. Meyer:

The Department of Environmental Quality, Water Quality Division, has reviewed your application (# 88-364) concerning the septic system at S35, T16N, R78W, NWNW $\frac{1}{4}$, Albany County. The Water Quality Division has determined that the septic system meets the minimum state standards for isolation distances to wells, property lines, seasonal high groundwater, etc. Since the septic tank and drainfield size cannot be determined without digging up the entire system, the department cannot evaluate if the system is sized correctly. However, based on 11 years of actual operating experience, the system appears to be adequately sized for current conditions of 3 people on year round usage. The affect of any increased wastewater quantity or quality or improper maintenance cannot be determined.

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 permittee in the exercise of its 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 a permit to construct cannot be issued for as-built wastewater treatment facilities, this letter will serve as your final approval document.

Sincerely,

William L. Garland
Administrator
Water Quality Division

WLG/DM/jn

cc: Mike Casey, Albany County Planning Office



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

September 28, 1993

Mr. David W. Hill, P.E.
Utility Director
Casper Public Utilities
200 North David Street
Casper, WY 82601-1553

RE: As-Built, Permit #88-365
Thirteenth Street-Collins Drive Water and Sewer Improvements

Dear Mr. Hill:

The DEQ/WQD has reviewed the referenced as-built application. Our review of the material submitted indicates the system appears to be in compliance with the minimum State standards for water distribution systems and municipal sewer lines with the following exceptions:

1. Chapter XII, Section 14(b) states that all watermains 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 or that the normal working pressure in the system shall be no less than 35 psi. No hydraulic information or analysis was included to verify line pressures.
2. Chapter XI, Part B, Section 9(c) states that sewage collection lines shall be sized for 200 percent of the maximum daily flow or more. Data deriving maximum daily flow was absent.

The Department cannot determine if the facilities were adequately sized. However, based upon the information provided in the application and the actual operating experience since installation, the system improvements appear to be adequate.

Nothing in this letter constitutes an endorsement of the construction or the design of the described facility. The State assumes no liability and does not in any way guarantee the performance of the applicant in the exercise of activities

Mr. David W. Hill, P.E.
September 28, 1993
Page 2

identified in this letter. The applicant understands that he is solely responsible to any third parties for any liability arising from the construction or operation of the referenced facility. The State does not in any way waive its sovereign immunity by the issuance of this letter.

Since a permit to construct cannot be issued for as-built facilities, this letter will serve as your final approval document.

Yours truly,



for William L. Garland
Administrator
Water Quality Division

WLG:JAS/pr 09/28/93 /nc 34542.LTR

xc: Permit File #88-365
Patti Burns, DEQ/WQD-IPS, Cheyenne

EPS



THE STATE OF WYOMING

MIKE SULLIVAN
GOVERNOR



Department of Environmental Quality

2161 Coffeen Avenue • Sheridan, Wyoming 82801

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

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

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

July 26, 1993

Mr. Hal Hutchinson
Casper Board of Public Utilities
200 North David Street
Casper, WY 82601

Dear Mr. Hutchinson:

Our records indicate the following application for Permit to Construct has not been resubmitted to this office for review and authorization. The specific information for the proposed project is:

Facility Name: THIRTEENTH STREET-COLLINS DRIVE WATER & SEWER IMPROVEMENTS - CONTRACT NO. WS 88-1

DEQ/WQD Reference Number: 88-365

**Engineering Consultant: CIVIL ENGINEERING PROFESSIONALS, INC.
400 EAST 1ST STREET, SUITE 311
CASPER, WY 82601**

DEQ/WQD Reviewing Engineer: DAVE MONTAGUE

Date of DEQ/WQD Review: AUGUST 30, 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."

Please indicate below the status of your application and return this form to our office:

_____ The application will not be resubmitted as the proposed project has been canceled.

_____ The application will be resubmitted within 30 days.

_____ The facility has been constructed, or is under construction. As built construction plans and specifications will be submitted within 30 days.

_____ Other remarks _____

Mr. Hal Hutchinson
July 26, 1993
Page 2

You are reminded that the construction, installation, or modification of any sewerage system, treatment works, disposal systems, or other facility capable of causing or contributing to pollution, or public water supply system without a Permit to Construct is a violation of Wyoming State Statutes. The Water Quality Division would like to receive information concerning the status of this project within 15 days of the receipt of this letter, or follow-up action could be taken.

Sincerely,

A handwritten signature in cursive script that reads "Judy Shamley".

Judy Shamley
Senior Analyst
Water Quality Division

Enclosures

cc: IPS

CHAPTER III

FOR USE BY DEQ/WQD ONLY

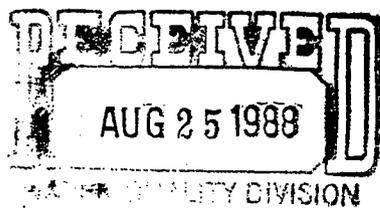
APPLICATION FOR PERMIT TO CONSTRUCT, INSTALL, OR MODIFY PUBLIC WATER SUPPLIES, WASTEWATER FACILITIES, DISPOSAL SYSTEMS, OR GROUNDWATER MONITORING WELLS IN WYOMING

APPLICATION NO. 88-365
DATE RECEIVED

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

1. Name of facility Thirteenth Street - Collins Drive Water & Sewer Improvements
2. Owner, company, or corporation name Casper Board of Public Utilities
3. Location of facility: County Natrona
Section 9 1/4 Sections SW Township 33 N Range 79 W

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



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

5. Facility description: New facility Modified facility

Public water supply

Publicly-owned
 Privately-owned

Type of facility
 Source development
 Groundwater
 Surfacewater
 Treatment plant
 Distribution system

Wastewater facility

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

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

Groundwater pollution control systems

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

RECEIVED
78-365
AUG 25 1988
CIVIL ENGINEERING PROFESSIONALS, INC.

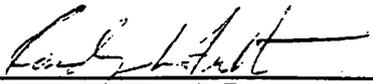
THIRTEENTH STREET - COLLINS DRIVE
WATER AND SEWER IMPROVEMENTS
FOR THE
CASPER BOARD OF PUBLIC UTILITIES
Casper, Wyoming

CONTRACT NO. WS 88-1

CONSTRUCTION SPECIFICATIONS
AND
STANDARD DRAWINGS

AUGUST 15, 1988

CIVIL ENGINEERING PROFESSIONALS, INC.
400 E. 1st Street, Suite 311
Casper, Wyoming 82601
Phone: 307-266-4346



RANDY FULTZ, P.E.
REGISTRATION NO. 3761

R.F.

PERMIT TO CONSTRUCT

- New
- Renewal
- Modified

Permit No. 88-366
SEE SPECIAL CONDITION

CHRISTENSEN RANCH MINE SEPTIC SYSTEM
(Name of Facility)

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

Malapai Resources Company

P. O. Box 9950

Casper, Wyoming 82609

to construct, install or modify a septic tank and soil absorption facility according to the procedures and conditions of the application No. 88-366. The facility is located in Section 7, T.44N., R.76W., in the County of Johnson, 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.

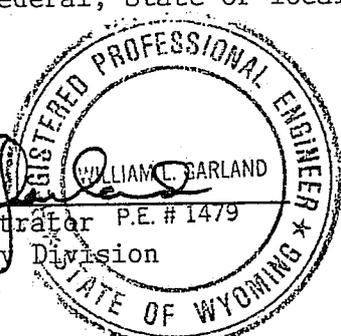
The permittee shall notify representatives from the Department of Environmental Quality, Water Quality Division, the day construction commences and give an estimate of completion of the project. The authorized representative in your area can be contacted at the following address: District Engineer, State of Wyoming, Department of Environmental Quality, Water Quality Division, 2161 Coffeen Avenue, Suite 501, Sheridan, Wyoming 82801; telephone, 672-6457.

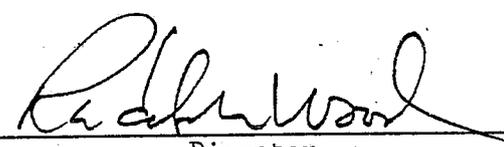
Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities or penalties established pursuant to any applicable State law or regulation.

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:


Administrato^r P.E. #1479
Water Quality Division




Director
Dept. of Environmental Quality

9-1-88

Date of Issuance

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

SPECIAL CONDITION

1. Installation of the prefabricated poly-propylene septic tank shall be in strict accordance with manufacturer's recommendations regarding bedding and backfill.

xc: Doyl M. Fritz
Western Water Consultants, Inc.
P. O. Box 3016
Sheridan, Wyoming 82801

RF

PERMIT TO CONSTRUCT

PERMIT NO. 88-367
SEE SPECIAL CONDITIONS

- New
- Renewal
- Modified

RIDGEWATER NO. 4 WELL

This permit hereby authorizes the applicant:

Ridgewater No. 1 Improvement District
P. O. Box 802
Douglas, Wyoming 82633

to construct, install or modify a potable drinking water well according to the procedures and conditions of the application number 88-367. The facility is located in Section 13, T32N, R72W in the county of Converse, in the State of Wyoming. This permit shall be effective for a period of ninety (90) days (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.

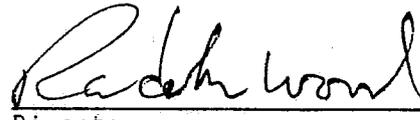
Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities or penalties established pursuant to any applicable state law or regulation.

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

11-2-88

Date of Issuance

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

Special Conditions for Permit to Construct #88-367

1. An operation and maintenance manual shall be submitted within 90 days. The manual shall comply with the requirements identified in Wyoming Water Quality Rules and Regulations Chapter XII, Section 16.
2. The following primary drinking water parameters have not been analyzed: endrin, lindane, methoxychlor, toxaphene, 2,4-D, 2,4,5-TP, benzene, vinyl chloride, carbon tetrachloride, 1,2 DCA, TCE, 1,1 DCE, 1,1,1 TCA, and paradichlorobenzene. These parameters shall be analyzed and results submitted to the Water Quality Division within 90 days.
3. The other potable drinking water well (west of the Ridgewater #1 water tank) has not been permitted. The applicant shall initiate the construction permit process and have it completed within 150 days.

cc: Alicia Aalto, PWS-EPA, Denver
Alan Edwards, State Planning Coordinator's Office
Doug Moench, Public Service Commission
Don Collamore, Farm Loan Board



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 1, 1988

Thomas Rupe
Ridgewater No. 1 Improvement District
P. O. Box 802
Douglas, Wyoming 82633

Re: Ridgewater #4 Well - Permit Number 88-367

Dear Mr. Rupe:

Enclosed you will find the construction permit for the Ridgewater #4 well. The permit has been issued with three conditions which must be met (refer to permit).

As discussed with you today, I feel confident that the water system can now be used as a potable water system. Chlorination should be continued and leaks repaired as they are found.

EPA requires that you meet their requirements for monitoring and reporting. Please contact Alicia Aalto (303-293-1414) concerning compliance with the Safe Drinking Water Act. The safety of your water is assured through proper monitoring and proper operation and maintenance of your system.

Please call if you have any questions.

Sincerely,

Thomas S. Norman
Southeast District Supervisor
Water Quality Division

TSN/jn

cc: Alicia Aalto, PWS-EPA, Denver
Alan Edwards, State Planning Coordinator's Office
Doug Moench, Public Service Commission
Don Collamore, Farm Loan Board



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

September 19, 1988

John Lambert
215 Walnut Street
Box 34
Douglas, Wyoming 82633

Re: Ridgewater No. 4 Well - Application #88-367

Dear Mr. Lambert:

This letter is in response to our recent conversation regarding the completion of the Ridgewater No. 4 well for potable purposes. Before the well can be used for potable purposes the following must be completed:

1. Total coliform and nitrate samples must be ran on the new well. Total coliform samples must be ran in the distribution. The results must be in compliance. Copies of other recent coliform tests should also be submitted.
2. The chlorine system must be installed and working. Chlorination should continue until all the leaks and sanitary problems are corrected.
3. All of EPA's national primary drinking water standards must be tested for. Results are not necessary prior to utilizing the water but the results must be submitted within 30 days.
4. A permit from the Water Quality Division must be issued prior to using the well. The following items need to be addressed:
 - a. Completion information of the well: specifications and drawings of the screen, gravel pack, casing, surface seal, pump, etc.
 - b. Test pumping: rates, duration, water level, pump level, pump specifications, etc.
 - c. Plan map: isolation distances to sewers, septic systems, buildings, property lines, etc.
 - d. The well needs a concrete apron and surface seal.

- e. The well piping needs a method of pumping to waste.
- f. There needs to be a way of obtaining samples before the water enters the wet well (i.e. sampling tap).

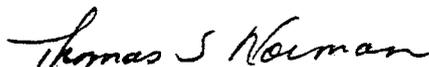
The Water Quality Division will continue to work with you in getting this water well on line as soon as possible. When the above items are completed, the well should be acceptable as a potable water supply.

As identified in the July 28, 1988 meeting, there were numerous other items that needed to be corrected. What is the status of correcting those items? A summary is as follows:

1. Ridgewater #1 well. Install sanitary seal, locking cover and small well house. Rebury electrical wires.
2. Storage tank. Provide sanitary seal around hatch and improve drainage.
3. Pump house. Install chlorination system. Redo the electrical wiring. Provide standby distribution pump. Install meters. Properly abandon the well.
4. Operator certification. Establish schedule for compliance.
5. Distribution system. Identify and repair leaks. Shut-off vacant lots. Locate curb stops and valves. Pressure test water lines.

Please call if I can be of further assistance.

Sincerely,



Thomas S. Norman
Southeast District Supervisor
Water Quality Division

TSN/jn

cc: Alan Edwards, State Planning Coordinator's Office
Doug Moench, Public Service Commission
Ridgewater Improvement District



THE STATE OF WYOMING

MIKE SULLIVAN
GOVERNOR

RECEIVED

IPS
JUL 28 1993



WATER QUALITY DIVISION
WYOMING

Department of Environmental Quality

2161 Coffeen Avenue • Sheridan, Wyoming 82801

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

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

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

July 27, 1993

Net Co.

Mr. Jon C. Nicolaysen
Cole Creek Sheep Company
140 North Center
Casper, WY 82601

RE: DEQ/WQD Permit Application 88-368

Dear Mr. Nicolaysen:

Pursuant to our telephone conversation this morning regarding the referenced project, I am returning the application package. This road application project was not completed and is considered inactive. The DEQ/WQD file for 88-368 is considered closed.

Yours truly,

Donald R. McKenzie
Donald R. McKenzie
District Supervisor
Water Quality Division

DRM/rk

Enclosure

xc: DEQ/WQD-IPS, Cheyenne w/o enclosure

R7

PERMIT TO CONSTRUCT

PERMIT NO. 88-369

- New
- Renewal
- Modified

Veterans Administration Cemetery Water System Improvements

This permit hereby authorizes the applicant:

Wyoming Recreation Commission
122 West 25th. Street
Cheyenne, WY 82002

to construct, install or modify public water distribution system according to the procedures and conditions of the application number 88-369. The facility is located in S36, T34N, 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.

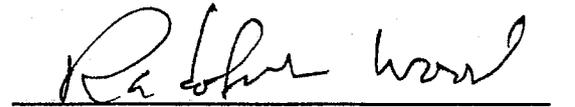
Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities or penalties established pursuant to any applicable state law or regulation.

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

11-7-88

Date of Issuance

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

PERMIT TO CONSTRUCT

- New
 Renewal
 Modified

Permit No. 88-370

SHOSHONE RAW WATER LINE - PHASE I
(Name of Facility)

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

Shoshone Municipal Water Supply Joint Powers Board

1338 Rumsey Ave.

Cody, WY 82414

to construct, install, or modify a 36 inch diameter raw water line according to the procedures and conditions of the application No. 88-370. The facility is located in T52N, R102W in the County of Park, 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

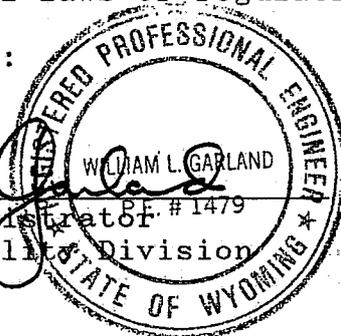
the presentation of credentials and during working hours, to have access to inspect the facilities, at the above location, for the purpose of compliance with the provisions of this construction permit.

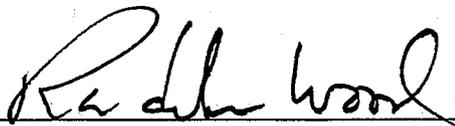
The permittee shall notify representatives from the Department of Environmental Quality, Water Quality Division the day construction commences and give an estimate of completion of the project. The authorized representative in your area can be contacted at the following address: District Engineer, State 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 L. Garland
Administrator #1479
Water Quality Division



Director
Dept. of Environmental Quality

9-9-88

Date of Issuance

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

RF ✓

PERMIT TO CONSTRUCT

PERMIT NO. 88-371

X New
Renewal
Modified

University of Wyoming Elk Mountain Research Facility

This permit hereby authorizes the applicant:

University of Wyoming
Division of Physical Plant
University of Wyoming Facilities Engineering
Laramie, WY 82071

to construct, install or modify small wastewater system according to the procedures and conditions of the application number 88-371. The facility is located in S8, T19N, R81W in the county of Carbon, 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.

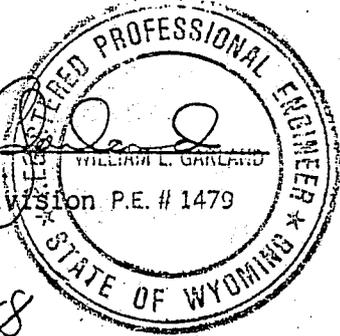
The permittee shall allow authorized representatives from the Department of Environmental Quality, Water Quality Division, upon the presentation of credentials and during working hours, to have access to inspect the facilities, at the above location, for the purpose of compliance with the provisions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

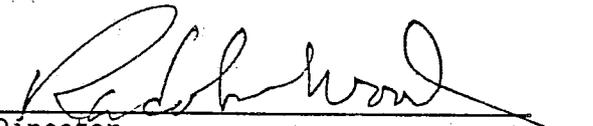
The permittee shall notify representatives from the Department of Environmental Quality, Water Quality Division the day construction commences and give an estimate of completion of the project. The authorized representative in your area can be contacted at the following address: District Engineer, State 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 L. Garland
Administrator
Water Quality Division P.E. # 1479


Robert Wood
Director
Department of Environmental Quality

9-7-88

Date of Issuance

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

cc: Fred B. Crowell, University of Wyoming, 312 Merica Hall, University Station,
Laramie, WY 82071

PERMIT TO CONSTRUCT

PERMIT NO. 88-372
SEE SPECIAL CONDITIONS

X New
Renewal
Modified

Eastman Christensen

This permit hereby authorizes the applicant:

Eastman Christensen
7424 W. 6 WN Road
Casper, Wyoming 82602

to construct, install or modify sand line monitor wells according to the procedures and conditions of the application number 88-372. The facility is located in Section 28, T34N. R80W. Lot 6 Westgate Park in the county of Natrona, in the State of Wyoming. This permit shall be effective for a period of one (1) year (5 years maximum) from the date of issuance of this permit.

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

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

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

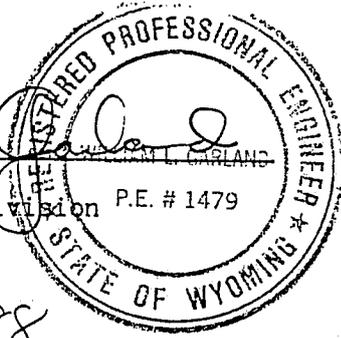
The permittee shall allow authorized representatives from the Department of Environmental Quality, Water Quality Division, upon the presentation of credentials and during working hours, to have access to inspect the facilities, at the above location, for the purpose of compliance with the provisions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

The permittee shall notify representatives from the Department of Environmental Quality, Water Quality Division the day construction commences and give an estimate of completion of the project. The authorized representative in your area can be contacted at the following address: Groundwater 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 L. Garland
Administrator
Water Quality Division P.E. # 1479


Director
Department of Environmental Quality

9-13-88
Date of Issuance

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

Conditions for Monitoring Wells Permit 88-372

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 88-372. 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 88-372 (continued)

6. To prevent cross contamination of the boreholes, all equipment used in the drilling and soil sampling process including auger flights, drill pipe/stem, drill bits and splitspoons shall be decontaminated by means of a high pressure steam prior to drilling each borehole.
7. 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.
8. 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.

Conditions to Permit 88-372 (continued)

9. 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.
10. Proper well evacuation, sample collection, preservation, transportation and chemical analytical procedures shall be completed in accordance with WQD standard procedures.
11. All monitor wells associated with this facility shall be sampled and the wastewater analyzed one time for EPA 601, 602 & 610. Quarterly monitoring may be required after this division reviews the initial sampling.

The results of these analyses shall be submitted to the Cheyenne office by the last day of the month following the end of sampling date. The first set of results are due by the last day of October.

cc: Jake Strohman

PERMIT TO CONSTRUCT

- New
 Renewal
 Modified

Permit No. 88-373R

ROYAL RESIDENCE SWTF
(Name of Facility)

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

Randy Royal

P.O. Box 551

Greybull, WY 82426

to construct, install a septic tank and leachfield facility according to the procedures and conditions of the application No. 88-373R. The facility is located in Sec. 16, T52N, R93W 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

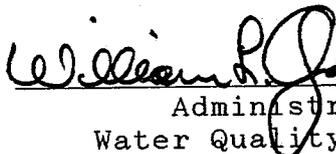
Department of Environmental Quality, Water Quality Division, upon the presentation of credentials and during working hours, to have access to inspect the facilities, at the above location, for the purpose of compliance with the provisions of this construction permit.

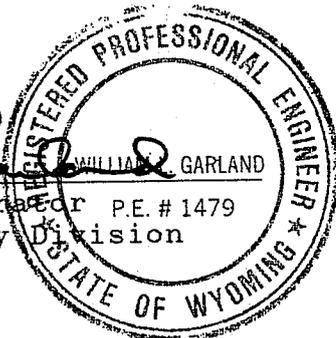
The permittee shall notify representatives from the Department of Environmental Quality, Water Quality Division the day construction commences and give an estimate of completion of the project. The authorized representative in your area can be contacted at the following address: District Engineer, State of Wyoming, Department of Environmental Quality, Water Quality Division, 210 Lincoln, Lander, WY 82520; telephone, 332-3144.

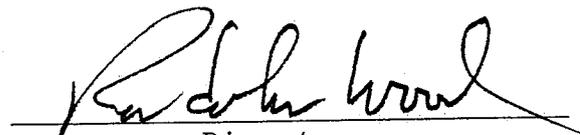
Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities or penalties established pursuant to any applicable State law or regulation.

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 P.E. # 1479
Water Quality Division




Director
Dept. of Environmental Quality

9-22-88

Date of Issuance

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

26

PERMIT TO CONSTRUCT

PERMIT NO. 88-374

X New
Renewal
Modified

Blake Small Septic System

This permit hereby authorizes the applicant:

Jade N. Blake
P O Box 133
Encampment, Wyoming 82325

to construct, install or modify small wastewater system according to the procedures and conditions of the application number 88-374. The facility is located in Section 5, T14N, R83W in the county of Carbon, 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 S. Garland
Administrator
Water Quality Division

H. Alan Edwards
Director
Department of Environmental Quality

March 27, 1989
Date of Issuance

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

DM/jt

RF

PERMIT TO CONSTRUCT

PERMIT NO. 88-375
SEE SPECIAL CONDITIONS

- X New
- Renewal
- Modified

High Plains Grasslands Research Center Station

This permit hereby authorizes the applicant:

High Plains Grasslands Research Station
8408 Hildreth Road
Cheyenne, WY 82009

to construct, install or modify monitoring well system according to the procedures and conditions of the application number 88-375. The facility is located in S16, T14N, R67W, SW, SW in the county of Laramie, in the State of Wyoming. This permit shall be effective for a period of one year (5 years maximum) from the date of issuance of this permit.

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

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

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

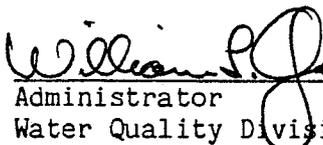
The permittee shall allow authorized representatives from the Department of Environmental Quality, Water Quality Division, upon the presentation of credentials and during working hours, to have access to inspect the facilities, at the above location, for the purpose of compliance with the provisions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

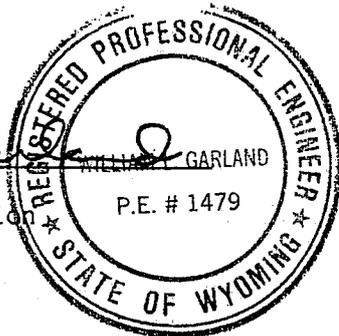
The permittee shall notify representatives from the Department of Environmental Quality, Water Quality Division the day construction commences and give an estimate of completion of the project. The authorized representative in your area can be contacted at the following address: Groundwater Engineer,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

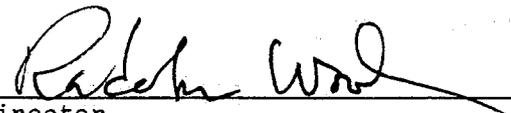
Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities or penalties established pursuant to any applicable state law or regulation.

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

9-16-88
Date of Issuance

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

CONDITIONS TO PERMIT TO CONSTRUCT #88-375

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 88-375. 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

Conditions to Permit 88-375 (continued)

measures may be required by the WQD. An adequate number of wells shall be installed to define the extent of contamination.

6. To prevent cross contamination of the boreholes, all equipment used in the drilling and soil sampling process including auger flights, drill pipe/stem, drill bits and splitspoons shall be decontaminated by means of a high pressure steam or approved equal method prior to drilling each borehole.
7. 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.
8. 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.

Conditions to Permit 88-375 (continued)

9. 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.
10. Proper well evacuation, sample collection, preservation, transportation and chemical analytical procedures shall be completed in accordance with WQD standard procedures.
11. All monitor wells associated with this facility shall be sampled and the wastewater analyzed one time for Department of Environmental Quality, Water Quality Division Rules and Regulations Chapter VIII parameters. Quarterly monitoring may be required after this division reviews the initial sampling.

The results of these analyses shall be submitted to the Cheyenne office. The first set of results are due by the last day of October.
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

New

Permit No. 88-376R

Renewal

Modified

Road 11 Ponderosa District Water Transmission & Distribution
(Name of Facility)

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

City of Worland

P.O. Box 226

Worland WY 82401

to construct, install, or modify a water transmission & distribution lines 40 ft. of 16", 3920 ft. of 12", and 460 ft. of 8" facility according to the procedures and conditions of the application No. 88-376R. The facility is located in NW1/4 Sec. 31, SW1/4 and NW1/4 Sec. 20, T47N, R92W in the County of Washakie, in the State of Wyoming. This permit shall be effective for a period of 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.

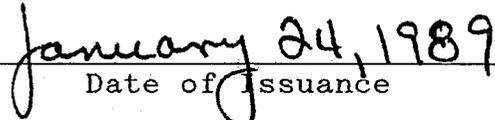
AUTHORIZED BY:



Administrator
Water Quality Division



Director
Dept. of Environmental Quality



Date of Issuance

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

22

LAND APPLICATION PERMIT

Permit No. 88-377
SEE SPECIAL CONDITIONS

BYRON WASTE OIL PITS
(Name of Facility)

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

John Abraham

P.O. Box 67

Byron, WY 82412

to land apply waste oil and sludges. The application site is located in Sec. 16, 17, 20 21, T56N, R97W in the county of Big horn in the State of Wyoming. This permit shall be effective for a period of one (1) year (five (5) years maximum) from the date of issuance of this permit.

The issuance of this permit provides that the Department of Environmental Quality has evaluated and determined that the application meets minimum applicable 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.

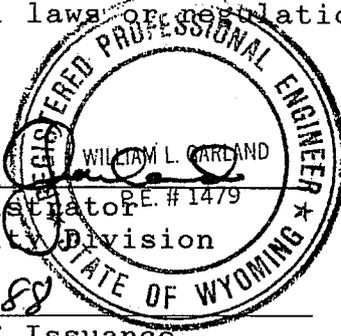
Nothing in this permit constitutes an endorsement of the disposal method described herein. This permit indicates only that standards required by the Environmental Quality Act have been met. The state assumes no liability for, and does not in any way guarantee the performance of, the permittee in the exercise of its activities allowed 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 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 L. Garland
Administrator P.E. # 1479
Water Quality Division
9-16-88
Date of Issuance

Rudolph Wood
Director
Dept. of Environmental Quality

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

LAND APPLICATION STANDARD CONDITION

1. Wastewater shall be applied at a rate which will not produce runoff or ponding. Applications 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.
3. Wastewater application shall be terminated within 300 feet of the definable high water mark of perennial and intermittent drainage, 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 November 1 to April 30.
6. All oil and sludges must be processed or land applied prior

to September 1, 1989.

7. Ponds shall be reclaimed prior to November 30, 1988. Notify District Engineer after oil and sludges have been land applied and before ponds have been reclaimed for an inspection.
8. Notify District Engineer after ponds have been reclaimed.

R.F.

PERMIT TO CONSTRUCT

PERMIT NO. 88-378
SEE SPECIAL CONDITIONS

- X New
- Renewal
- Modified

Surrogate Ferret Facility Building & Visitors Center Building -
Sybille Wildlife Research Unit

This permit hereby authorizes the applicant:

Wyoming Game and Fish Department
c/o John Ogden, Chief Engineer
5400 Bishop Blvd.
Cheyenne, WY 82002

to construct, install or modify small wastewater system according to the procedures and conditions of the application number 88-378. The facility is located in S29, T21N, R71W, SWNE $\frac{1}{4}$ in the county of Albany, 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.

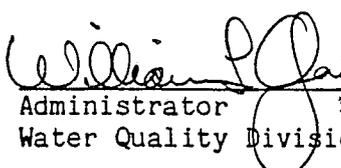
The permittee shall allow authorized representatives from the Department of Environmental Quality, Water Quality Division, upon the presentation of credentials and during working hours, to have access to inspect the facilities, at the above location, for the purpose of compliance with the provisions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

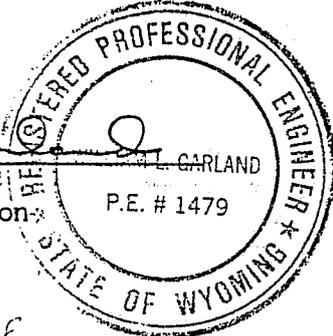
The permittee shall notify representatives from the Department of Environmental Quality, Water Quality Division the day construction commences and give an estimate of completion of the project. The authorized representative in your area can be contacted at the following address: District Engineer, State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

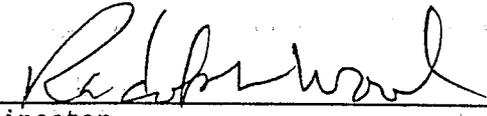
Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities or penalties established pursuant to any applicable state law or regulation.

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

10-13-88
Date of Issuance

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

CONDITIONS TO PERMIT TO CONSTRUCT #88-378

The specifications accompanying the blueprints shall be changed to read as follows, to comply with the Department of Environmental Quality Water Quality Rules and Regulations:

1. Page 15-D-3, No. 5 which reads "The elevation of the invert of the inlet shall be at least 2 inches above the elevation of the invert of the tank outlet." shall be changed to read ".... shall be at least 3 inches above ..."
2. Page 15-D-3, No. 6 which reads "Access openings shall be at least 16 inches square or 16 inches in diameter..." shall be changed to read "Access openings shall be at least 20 inches square or 20 inches in diameter..."
3. Page 5-D-4, No. 2 which reads "Distribution piping shall be installed with a grade no greater than 6 inches/100 feet." shall be changed to read ".... installed with a grade no greater than 3 inches/100 feet."
4. The permittee shall notify the Albany County Planning Office, 405 Grand Avenue, Laramie, Wyoming 82070, phone number (307) 721-5188, of the estimated day of completion of this project. Inspection of the installed system is required prior to backfilling. At least one working day (24 hours) notice is required prior to backfilling.

cc: Albany County Planning Office
Harry O. Patterson, Patterson, Weber & Associates,
437 South Spruce St., Casper, WY 82601

PERMIT TO CONSTRUCT

PERMIT NO. 88-379

X New
Renewal
Modified

NATIONAL GUARD TRAINING SITE WATER TANK, CAMP GUERNSEY, WYOMING

This permit hereby authorizes the applicant:

Department of the Army
National Guard of Wyoming
Facilities Management Office
P O Box 1709
Cheyenne, Wyoming 82003

to construct, install or modify a water storage facility and water distribution system according to the procedures and conditions of the application number 88-379. The facility is located in S2, T26N, R66W, NE¼ in the county of Platte, 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 R. Jones
Administrator
Water Quality Division

A. Alan Edwards
Director
Department of Environmental Quality

January 11, 1989
Date of Issuance

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

REVIEW OF PLANS AND SPECIFICATIONS

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

PROJECT: National Guard Training Site Water Tank, Camp Guernsey, Wyoming

ENGINEER: Roger Strube
Banner Associates, Inc.
P O Box 550
Laramie, Wyoming 82070

APPLICANT: Department of the Army, National Guard of Wyoming
Facilities Management Office
P O Box 1709
Cheyenne, Wyoming 82003

WATER QUALITY DIVISION REFERENCE NUMBER: 88-379

REVIEWING ENGINEER: David Montague 

DATE OF REVIEW: September 22, 1988

ACTION: NOT AUTHORIZED FOR CONSTRUCTION.

COMMENTS:

1. Department of Environmental Quality, Water Quality Division (DEQ/WQD) Rules and Regulations, Chapter XII, Section 14(b)(i) states the 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 be not less than 35~~ psi."

On sheet number 2 of 3 in the Design Notes it shows the minimum static system pressure under a low level tank is 4 psi. On sheet number 3 of 3 it shows the pumps will be required.

Provide detailed information showing how the water pressures required under the Rules and Regulations will be met under a low level tank.

2. The following references in the plans for the water line profiles need to be corrected:
 - a. On sheet no. 2, for the east 10" water line, change "See Sheet 3" to "See Sheet 4";
 - b. On sheet no. 2, for the West 10" water line, change "See Sheet 4" to "See Sheet 5";
 - c. On sheet no. 3 on the drain line, change "See Sheet 5" to See Sheet 6".

3. DEQ/WQD Rules and Regulations, Chapter XII, Section 13(a)(vi) provides that the overflow pipe shall discharge over a drainage inlet structure or a splash plate. It also states that all overflow pipes shall be located so that any discharge is visible.

Show on sheet no. 6 of the plans that the stated requirements shall be met.

4. In the manual submitted, in Section 13 A, Part 2.1.B.2.a., it states "The reservoir drain pipes shall be ten-inch diameter ductile iron pipe extending to a point five feet outside the reservoir." In the plans submitted on sheet no. 4, it shows the drain pipe to be six inches. The proper changes need to be made so the dimension given of the pipe is consistent.
5. In the manual submitted, in Section 13 A, Part 2.1.B.2.c., it states "A ten-inch (10") diameter overflow pipe as shown on the drawings shall be provided." In the plans submitted on sheet no. 8, it shows the overflow pipe to be eight inches for an unknown distance. The proper changes need to be made so the dimension given of the pipe is consistent.
6. DEQ/WQD Rules and Regulations, Chapter XII, Section 13(a)(iv) states security-type fencing shall be provided to prevent trespassing, vandalism, and sabotage of above ground storage facilities.

A security fence is not shown on the plan nor in the manual provided. It needs to be shown that a security-type fence will be provided.

7. In the manual submitted, in Section 13 A, Part 2.1.B.2.b., it states the inlet, outlet and drain riser pipes "shall be terminated at or above the reservoir floor as shown on the drawings." Such drawings are not provided in the plans submitted.

Provide a cross-section view(s) and other views as necessary showing the design of the inlet/outlet pipe and drain pipe from their structure inside the tank to where they penetrate outside the tank and/or foundation.

8. DEQ/WQD Rules and Regulations, Chapter XII, Section 13(a) states "All tank design and foundation design shall be performed by a registered professional engineer and the plans or contractor-furnished information shall so designate the registered engineer providing the design."

In all areas in the plans provided where it states the item will be designed by the manufacturer, the design shall be provided in the plans, and the plans stamped and/or signed by a Wyoming registered professional engineer before the plans can be approved.

9. DEQ/WQD 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."

Provide this specification in the plans and/or accompanying manual.

10. Page 1 of the design report mentions that the wells are being upgraded to produce 600 gpm. Depending on what work is being performed, a permit may be required. Please describe what is being done.

11. Specifications, page 2C-8, Section 3.2.B. Any discharge that poses a threat to waters of the state must be permitted by the DEQ/WQD. Contact John Wagner.

/jn

RF

PERMIT TO CONSTRUCT

PERMIT NO. 88-380
See Conditions

- New
- Renewal
- Modified

Logan Avenue Texaco

This permit hereby authorizes the applicant:

John Skarholid
1822 Logan Avenue
Cheyenne, WY 82001

to construct, install or modify monitoring wells and test holes according to the procedures and conditions of the application number 88-380. The facility is located in S32, T14N, R66W in the county of Laramie, in the State of Wyoming. This permit shall be effective for a period of one (1) year (5 years maximum) from the date of issuance of this permit.

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

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

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

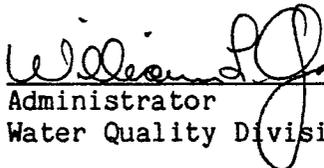
The permittee shall allow authorized representatives from the Department of Environmental Quality, Water Quality Division, upon the presentation of credentials and during working hours, to have access to inspect the facilities, at the above location, for the purpose of compliance with the provisions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

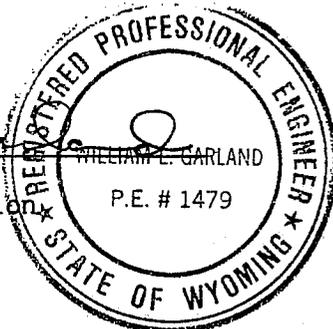
The permittee shall notify representatives from the Department of Environmental Quality, Water Quality Division the day construction commences and give an estimate of completion of the project. The authorized representative in your area can be contacted at the following address: Groundwater Engineer,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

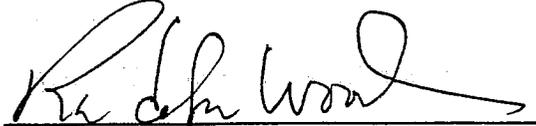
Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities or penalties established pursuant to any applicable state law or regulation.

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

9-13-88

Date of Issuance

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

Conditions to Permit to Construct #88-380

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 88-380. 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. In addition to the well construction information submitted with the permit application, the following items relating to well construction must be

Conditions to Permit 88-380 (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 88-380 (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 quarterly (schedule) for the parameters listed below:
Benzene, Ethylbenzene, Toluene, Xylene (BETX) and Total Organic Carbons TOC.
(List exact parameters for each well if it differs between wells or state "Parameters listed in the permit to construct application #88-380.")
- The results of these analyses shall be submitted to the Cheyenne Lander/ Cheyenne/ Sheridan) office by the last day of the month following the end of each quarter (each quarter, the year, sampling due date, etc). The first set of results are due by the last day of October 31, 1988.
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.
12. The time schedule for plan implementation as submitted in the date proposal shall be adhered to. Drilling shall commence on or before the date. (To be used only if an approved time schedule has been agreed on.)
13. If contamination is present in the test holes and/or monitoring wells, an extent of contamination study will be required.

cc: Jake Strohman

PERMIT TO CONSTRUCT

PERMIT NO. 88-381

- X New
- Renewal
- Modified

Water Line Extension VFW Post 9439

This permit hereby authorizes the applicant:

Casper Board of Public Utilities
200 North David Street
Casper, WY 82601

to construct, install or modify public water distribution system according to the procedures and conditions of the application number 88-381. The facility is located in S34, T34N, R79W NE1/4 in the county of Natrona, 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: 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.

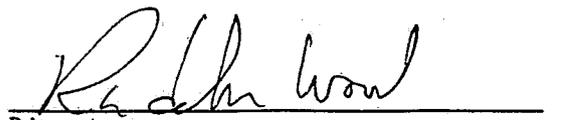
Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities or penalties established pursuant to any applicable state law or regulation.

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

10-20-88

Date of Issuance

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

cc: Frank Luers, Frank Luers & Associates, 955 S. Spruce, Casper, WY 82601

R.F.

PERMIT TO CONSTRUCT

PERMIT NO. 88-382

- X New
- Renewal
- Modified

EXTEND WATER & SEWER SERVICE IN CARLSON STREET

This permit hereby authorizes the applicant:

City of Cheyenne
Board of Public Utilities
2100 Pioneer Avenue
Cheyenne, Wyoming 82001

to construct, install or modify a public wastewater collection system according to the procedures and conditions of the application number 88-382. The facility is located in S19, T14N, R66W, NW1/4 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.

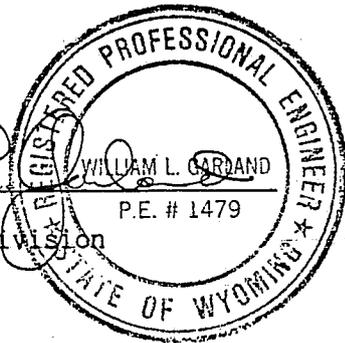
The permittee shall allow authorized representatives from the Department of Environmental Quality, Water Quality Division, upon the presentation of credentials and during working hours, to have access to inspect the facilities, at the above location, for the purpose of compliance with the provisions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

Richard Woul
Director
Department of Environmental Quality

9-28-88
Date of Issuance

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

PERMIT TO CONSTRUCT

New

Permit No. 88-383

Renewal

Modified

Teton Village Wastewater Treatment Plant Modifications
(Name of Facility)

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

Teton Village Water & Sewer District

P.O. Box 586

Teton Village, WY 83025

to construct, install, or modify a plant operation by series operation of aeration basins, return AWT backwash to influent, new aerobic sludge digestion and aerated sludge storage facility according to the procedures and conditions of the application No. 88-383. The facility is located in SE 1/4 Sec. 24, T42N 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.

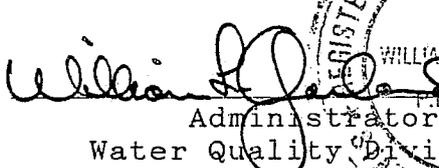
The permittee shall allow authorized representatives from the Department of Environmental Quality, Water Quality Division, upon the presentation of credentials and during working hours, to have access to inspect the facilities, at the above location, for the purpose of compliance with the provisions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

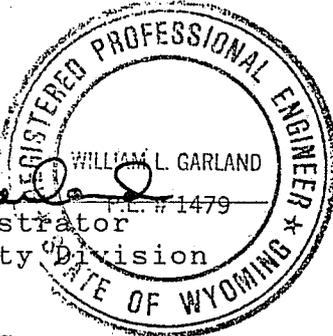
The permittee shall notify representatives from the Department of Environmental Quality, Water Quality Division the day construction commences and give an estimate of completion of the project. The authorized representative in your area can be contacted at the following address: District Engineer, State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

10/13/88
Date of Issuance

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

PERMIT TO CONSTRUCT

PERMIT NO. 88-384

X New
Renewal
Modified

Remick Small Septic System

This permit hereby authorizes the applicant:

Joe B. Remick
Box 508
Encampment, WY 82325

to construct, install or modify small wastewater system according to the procedures and conditions of the application number 88-384. The facility is located in NWSE $\frac{1}{4}$, S6, T14N, R83W in the county of Carbon, 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.

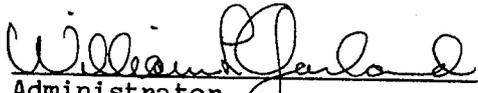
The permittee shall allow authorized representatives from the Department of Environmental Quality, Water Quality Division, upon the presentation of credentials and during working hours, to have access to inspect the facilities, at the above location, for the purpose of compliance with the provisions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

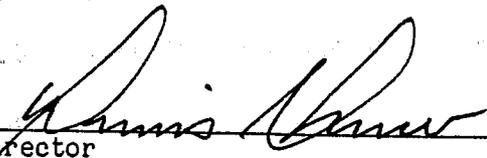
Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities or penalties established pursuant to any applicable state law or regulation.

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.

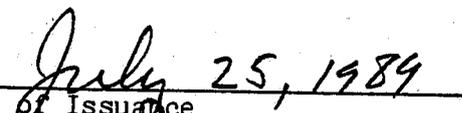
AUTHORIZED BY:



Administrator
Water Quality Division



Director
Department of Environmental Quality



Date of Issuance

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

DM/mad

REVIEW OF PLANS AND SPECIFICATIONS

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

PROJECT: Remick Small Septic System

ARCHITECT OR ENGINEER:

APPLICANT: Joe B. Remick
P. O. Box 508
Encampment, WY 82325

WATER QUALITY DIVISION REFERENCE NUMBER: 88-384

REVIEWING ENGINEER: Dave Montague *DM*

DATE OF REVIEW: September 13, 1988

ACTION: NOT AUTHORIZED FOR CONSTRUCTION.

COMMENTS:

Some areas in the permit application need to be addressed or clarified before a permit can be issued for this septic system. To best facilitate your providing us with the information required, please complete the enclosed application package, being sure to address the areas mentioned below.

1. Provide how the percolation rate was determined. A standard form to be completed when determining the percolation rate is enclosed. (Appendix A)
2. Provide how the depth to seasonally high groundwater was determined. Also provide when this was determined. If a well drillers log was used, please provide a copy of the well log.
3. Provide how the depth to groundrock or an impervious layer was determined. If a well drillers log was used, please provide a copy of the well log.
4. Provide the width of the trenches in the leach field. With the information you provided, your leach field must have a minimum infiltrative area of 865 ft² (this can be determined on page 4.) If the width of the trenches is two feet, the area provided will be less than the area required. Therefore your leach field may need to be enlarged. Pages 4 and 5 can be helpful in determining a proper design for your leach field.
5. Provide a detailed drawing of the proposed septic tank, similar to that given on the "Standard Septic Tank Detail Sheet." The drawing must show the requirements given in the DEQ Water Quality Rules and Regulations, Section 39 (enclosed) shall be met.

Enclosures

/mad

27

PERMIT TO CONSTRUCT

PERMIT NO. 88-385

X New
Renewal
Modified

Roundtop Line No. 2 Phase 3A

This permit hereby authorizes the applicant:

Cheyenne Board of Public Utilities
2100 Pioneer Avenue
Cheyenne, WY 82001

to construct, install or modify municipal water distribution line according to the procedures and conditions of the application number 88-385. The facility is located in S20 & 21, T14N, R66W in the county of Laramie, in the State of Wyoming. This permit shall be effective for a period of two (2) years (5 years maximum) from the date of issuance of this permit.

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

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

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.

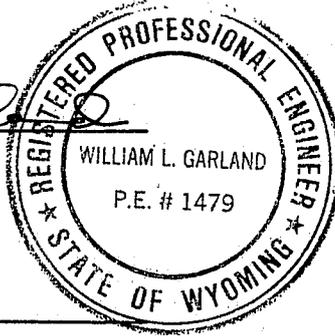
The issuance of this permit does not convey any property rights in either real or personal property or any invasion of personal rights, nor any infringement of federal, state, or local laws or regulations.

AUTHORIZED BY:

William L. Garland Administrator
Water Quality Division

Rudolph Wood Director
Department of Environmental Quality

9-16-88
Date of Issuance



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

PERMIT TO CONSTRUCT

PERMIT NO. 88-387
SEE SPECIAL CONDITIONS

- New
- Renewal
- Modified

BIG ISLAND MINE AND REFINERY (STAUFFER)

This permit hereby authorizes the applicant:

Stauffer Chemical Company of Wyoming
P O Box 513
Green River, Wyoming 82935

to construct, install or modify ~~monitor wells~~ according to the procedures and conditions of the application number 88-387. The facility is located in S24, NW1/4, T20N, R109W 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.

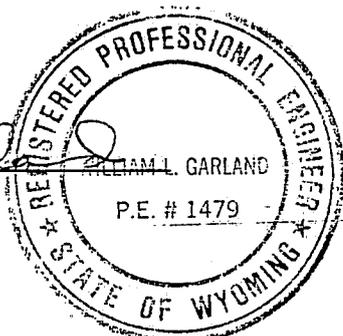
The permittee shall notify representatives from the Department of Environmental Quality, Water Quality Division the day construction commences and give an estimate of completion of the project. The authorized representative in your area can be contacted at the following address: Groundwater Engineer,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

William L. Garland
Administrator
Water Quality Division



Richard Wood
Director
Department of Environmental Quality

10-3-88

Date of Issuance

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

Special Conditions for Permit to Construct 88-387

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 88-387. 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

Conditions to Permit 88-387 (continued)

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 quarterly for the parameters listed in the permit to construct application #88-387.

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.

cc: Jake Strohman, DEQ/WQD

PERMIT TO CONSTRUCT

- [] New
[] Renewal
[X] Modified

Permit No. 88-388
Reference No. 88-187

Branstner SWTF
(Name of Facility)

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

Craig and Vicky Branstner

P.o. Box 713

Cowley, WY 82420

to construct, install, or modify a septic tank and trench leachfield facility according to the procedures and conditions of the application No. 88-388. The facility is located in Lot 69 - J, T56N, R96W 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

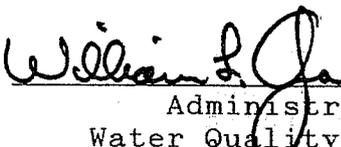
Department of Environmental Quality, Water Quality Division, upon the presentation of credentials and during working hours, to have access to inspect the facilities, at the above location, for the purpose of compliance with the provisions of this construction permit.

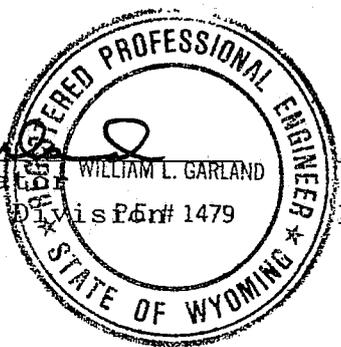
The permittee shall notify representatives from the Department of Environmental Quality, Water Quality Division the day construction commences and give an estimate of completion of the project. The authorized representative in your area can be contacted at the following address: District Engineer, State of Wyoming, Department of Environmental Quality, Water Quality Division, 210 Lincoln, Lander, WY 82520; telephone, 332-3144.

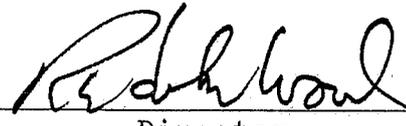
Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities or penalties established pursuant to any applicable State law or regulation.

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 # 1479


WILLIAM L. GARLAND
1479
REGISTERED PROFESSIONAL ENGINEER
STATE OF WYOMING


Director
Dept. of Environmental Quality

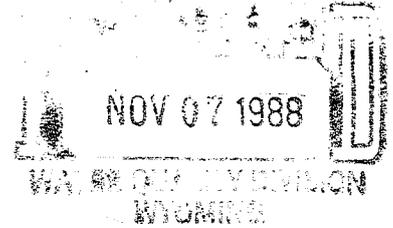
9-22-88

Date of Issuance

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

MEMORANDUM

TO: Larry Robinson
FROM: Jeff Hermansky
DATE: November 1, 1988
SUBJECT: Hudson Water line project, 88-389



On October 27, 1988 I inspected the construction of the new water line being installed in the town of Hudson. I spoke briefly with the contractor but neither the engineer, Rolly Connell, nor a town representative was on site.

I found that there was no compaction of the trench backfill taking place. In addition, the ends of the pipes were not being covered at the end of the day's construction. When I mentioned these items to the contractor he said he did not bid on doing any compaction. He agreed to cover any pipes that were left opened for the night.

On October 31, 1988 I spoke with Rolly Connell. He said he was having the contractor dig up the soil placed to about 6 inches to 1 foot above the pipe. The soil is to be compacted to 85% or equal to the natural in place density. He added that the opened ends of the pipeline will be covered during the construction period.

archives

RF

PERMIT TO CONSTRUCT

New

Permit No. 88-389

Renewal

Modified

Hudson Water Improvements
(Name of Facility)

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

Town of Hudson

P.O. Box 56

Hudson, WY 82515

to construct, install, or modify a replace water main with valves, fire hydrants and fittings facility according to the procedures and conditions of the application No. 88-389. The facility is located in NW 1/4 Sec. 21, T34N, R98W, 6th P.M. and SW 1/4 Sec. 12, T2S, R2E, W.R.M. 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.

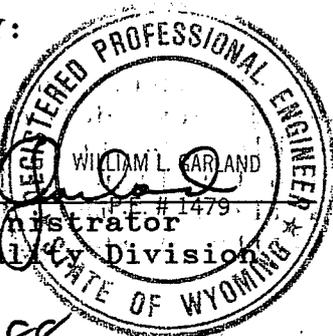
The permittee shall allow authorized representatives from the Department of Environmental Quality, Water Quality Division, upon the presentation of credentials and during working hours, to have access to inspect the facilities, at the above location, for the purpose of compliance with the provisions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


William L. Carland
Administrator
Water Quality Division

Rudolph Wood
Director
Dept. of Environmental Quality

10-18-88
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. 88-390

OLD APOSTOLIC LUTHERAN CHURCH SEPTIC SYSTEM
(Name of Facility)

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

Old Apostolic Lutheran Church

P. O. Box 696

Newcastle, Wyoming 82721

to construct, install or modify a septic tank with distribution drain field facility according to the procedures and conditions of the application No. 88-390. The facility is located in Section 31, T.50N., R.67W., 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.

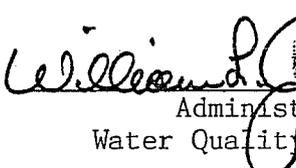
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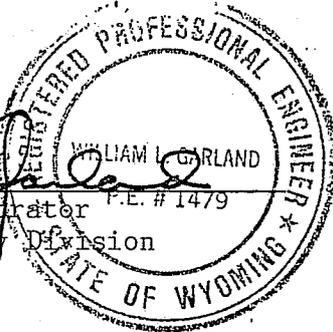
The permittee shall notify representatives from the Department of Environmental Quality, Water Quality Division, the day construction commences and give an estimate of completion of the project. The authorized representative in your area can be contacted at the following address: District Engineer, State 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 P.E. # 1479
Water Quality Division




Director
Dept. of Environmental Quality

9-22-88

Date of Issuance

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



THE STATE

OF WYOMING



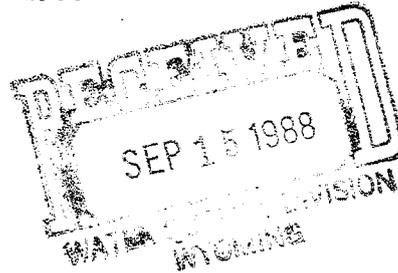
Department of Environmental Quality

Air Quality Division
(307) 672-6457

Water Quality Division
(307) 672-6457

September 13, 1988

First State Bank of Newcastle
Box 910
Newcastle, Wyoming 82701



RE: As-built approval: 88-391

Dear Sir:

I have completed my review of the application for the as-built approval of the wastewater treatment facility at the Hillsvew Heights Tract 32A. Your submittal and the information provided by Dan Cummins of Black Hills P & H provides enough information to authorize the system, which meets minimum state standards in Chapter XI, Part D, "Septic Tank and/or Soil Absorption Systems" of the Water Quality Rules and Regulations.

Because the system is already installed, a Permit to Construct cannot be issued. This letter serves essentially the same purpose and will be your only notification of Department approval of the system. I suggest you maintain a copy of this letter for future reference.

I appreciate your concern in completing the permitting process. Please feel free to contact me if you have any questions or comments.

Sincerely,

Susan Fields
NE District Supervisor
Water Quality Division

SF: sl

xc: Norma Coulson, DEQ/WQD, Cheyenne
Archives file 88-391

RF

PERMIT TO CONSTRUCT

PERMIT NO. 88-392
See Conditions

- New
- Renewal
- Modified

Little America Refining Company

This permit hereby authorizes the applicant:

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

to construct, install or modify 4" monitors wells according to the procedures and conditions of the application number 88-392. 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 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.

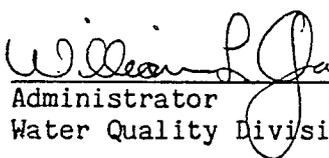
The permittee shall allow authorized representatives from the Department of Environmental Quality, Water Quality Division, upon the presentation of credentials and during working hours, to have access to inspect the facilities, at the above location, for the purpose of compliance with the provisions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

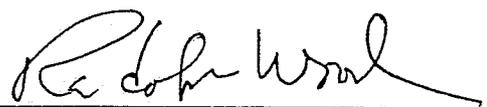
Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities or penalties established pursuant to any applicable state law or regulation.

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

9-13-88

Date of Issuance

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

Conditions to Permit to Construct #88-392

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 88-392. 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. In addition to the well construction information submitted with the permit application, the following items relating to well construction must be

Conditions to Permit 88-392 (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 site map showing physical features, well locations and elevations;
 - b. Final location, construction details and logs of all monitoring wells;
 - c. Geohydrolic maps and/or cross sections that clearly describe the subsurface distribution of geological materials and groundwater occurrence;
 - d. Water level and product thickness measurements;
 - e. Sample collection procedures;

Conditions to Permit 88-392 (continued)

f. Sampling analytical results;

9. Proper well evacuation, sample collection, preservation, transportation and chemical analytical procedures shall be completed in accordance with WQD standard procedures.
10. The results of any analyses conducted on soil, water, or vapors removed from these wells or boreholes shall be provided to the department as soon as they are available.
11. The purpose of drilling and testing these wells is to obtain information for designing a soil vapor extraction system to remove and treat contaminants in the soil and on the groundwater. A construction permit is required for the soil vapor extraction system.

cc: Jake Strohman

27

PERMIT TO CONSTRUCT

PERMIT NO. 88-393
SEE SPECIAL CONDITIONS

X New
Renewal
Modified

Conoco Refinery Lease

This permit hereby authorizes the applicant:

Conoco Inc.
851 Werner Court
Casper, WY 82601

to construct, install or modify groundwater monitoring wells according to the procedures and conditions of the application number 88-393. The facility is located in S5, T33N, R75W, NW¼ in the county of Converse, 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.

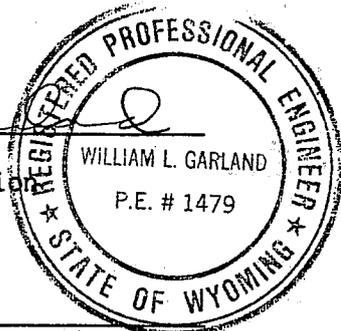
The permittee shall notify representatives from the Department of Environmental Quality, Water Quality Division the day construction commences and give an estimate of completion of the project. The authorized representative in your area can be contacted at the following address: District Engineer, State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

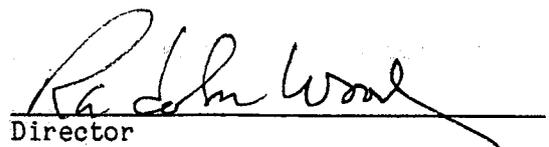
The issuance of this permit does not convey any property rights in either real or personal property or any invasion of personal rights, nor any infringement of federal, state, or local laws or regulations.

AUTHORIZED BY:


Administrator
Water Quality Division



REGISTERED PROFESSIONAL ENGINEER
WILLIAM L. GARLAND
P.E. # 1479
STATE OF WYOMING


Director
Department of Environmental Quality

9-16-88

Date of Issuance

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

CONDITIONS TO PERMIT TO CONSTRUCT #88-393

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 88-393. 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. Monitoring wells 2 and 3 shall be located as shown on the modified map which is attached.
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:

Conditions to Permit 88-393 (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 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;
 - f. Sample collection procedures;

Conditions to Permit 88-393 (continued)

- 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 immediately after the wells have been properly constructed and produced, and at least quarterly thereafter for the first year, to be modified as appropriate after the first year. The wastewater shall be analyzed for the parameters listed below:

BETX, TPH

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 October.

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.
12. The time schedule for plan implementation as submitted in September 14, 1988 proposal shall be adhered to. Drilling shall commence on or before September 22, 1988.

cc: Jake Strohman

file

PERMIT TO CONSTRUCT

PERMIT NO. 88-394
See Conditions

- X New
- Renewal
- Modified

Whisky Springs Field Wells A-1 B-1 And C-1

This permit hereby authorizes the applicant:

Anadarko Petroleum Corp
7600 East Orchard Road
Englewood, CO 80111

to construct, install or modify groundbed anode system for cathodic protection according to the procedures and conditions of the application number 88-394. The facility is located in T12-13, R114W in the county of Uinta, 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.

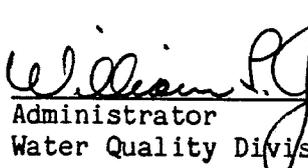
The permittee shall allow authorized representatives from the Department of Environmental Quality, Water Quality Division, upon the presentation of credentials and during working hours, to have access to inspect the facilities, at the above location, for the purpose of compliance with the provisions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

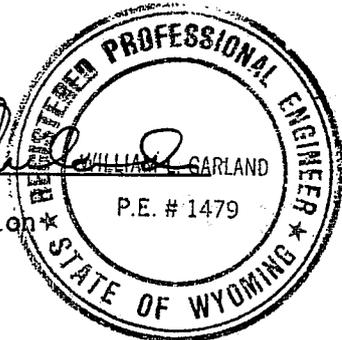
The permittee shall notify representatives from the Department of Environmental Quality, Water Quality Division the day construction commences and give an estimate of completion of the project. The authorized representative in your area can be contacted at the following address: Groundwater Engineer,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

9-22-88
Date of Issuance

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

Conditions to Permit to Construct #88-394

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 88-394.
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 grout seal installed to a depth just above coke breeze.
 - b. The coke breeze backfill has a total organic content no greater than 0.2 percent.
 - c. All aquifers encountered while drilling shall be isolated with polymer mud to prevent co-mingling of different aquifers or each aquifer shall be isolated, sampled and analyzed for all parameters contained in Table I of Chapter VIII of Wyoming Water Quality Rules and Regulations. If aquifers are of the same class of use as determined by the Department of Environmental Quality, intermingling may be allowed.
4. Within 45 days after the well has been installed, as-built construction plans need to be submitted to the Wyoming Department of Environmental Quality, Water Quality Division, detailing that the groundwater was protected during construction.

Conditions to Permit 88-394 (continued)

5. Up to 25 similar anodes may be installed during the term of this permit and in the two townships covered by this permit. All installations to have similar construction specifications.

PERMIT TO CONSTRUCT

PERMIT NO. 88-395

- X New
- Renewal
- Modified

FE Warren AFB: Burger King

This permit hereby authorizes the applicant:

Col Gilmore Dahl
90 CSG/CC
F.E. Warren AFB, WY 82005-5000

to construct, install or modify municipal water distribution and wastewater collection according to the procedures and conditions of the application number 88-395. The facility is located in S35, 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:



Administrator
Water Quality Division



Director
Department of Environmental Quality

10-20-88

Date of Issuance

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

RF

LAND APPLICATION PERMIT

PERMIT NO. 88-396
SEE SPECIAL CONDITIONS

Little Buffalo Basin Field

This permit hereby authorizes the applicant:

Amoco Production Company
P.O. Box 569
Powell, WY 82435

to land apply sludge from battery pits. The application site is located in Sec. 13, T47N, R100W in the county of Park, in the State of Wyoming. This permit shall be effective for a period of one (1) year (5 years maximum) from the date of issuance of this permit.

The issuance of this permit provides that the Department of Environmental Quality has evaluated and determined that the application meets minimum applicable 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 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 application site at the above location, for the purpose of compliance with the provisions of this permit.

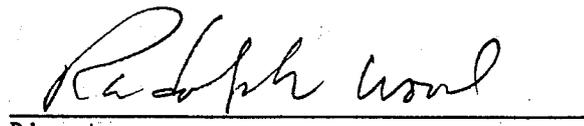
Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities or penalties established pursuant to any applicable state law or regulation.

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

AUTHORIZED BY:



Administrator
Water Quality Division



Director
Department of Environmental Quality

10-18-88

Date of Issuance

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

CONDITIONS TO LAND APPLICATION PERMIT #88-396

1. Sludge 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. Sludge application shall be terminated within 300 feet of 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, Steven P. 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 November 15 to April 30.

RF

PERMIT TO CONSTRUCT

[X] New

Permit No. 88-397R

[] Renewal

[] Modified

Zoller Residential SWTF

(Name of Facility)

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

Dennis Zoller

P.O. Box 786

Lovell, WY 82431

to construct and install a septic Tank and leachfield facility according to the procedures and conditions of the application No. 88-397R. The facility is located in Sec. 4, T55N, R96W 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 ~~of 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.

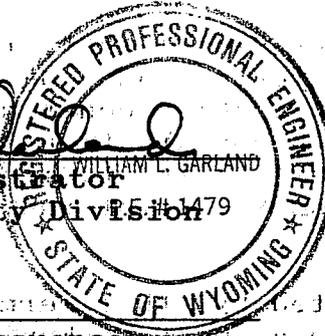
The permittee shall allow authorized representatives from the Department of Environmental Quality, Water Quality Division, upon the presentation of credentials and during working hours, to have access to inspect the facilities at the above location, for the purpose of compliance with the provisions of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

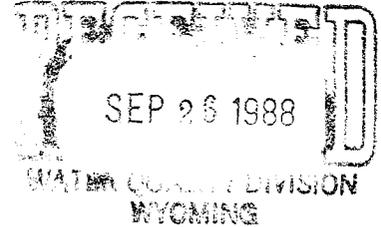
AUTHORIZED BY:


William L. Garland Administrator, Water Quality Division #1479
Roderic Wood Director, Dept. of Environmental Quality
10-18-88 Date of Issuance

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

REVIEW OF SMALL WASTEWATER FACILITY PLANS
WYOMING DEPARTMENT OF ENVIRONMENTAL QUALITY

WATER QUALITY DIVISION
933 Main St.,
Lander, Wyoming 82520
(307) 332-3144



OWNER/APPLICANT: Dennis Zoller
ADDRESS: P.O. Box 786
Lovell, WY 82431
WATER QUALITY DIVISION REFERENCE NUMBER: 88-397
REVIEWING ENGINEER: Steven P. Gerber, P.E. *JPG*
DATE OF REVIEW: September 16, 1988
ACTION: Not authorized

COMMENTS:

A review of the above referenced project has been completed. The following items must be addressed and/or resolved before a permit can be issued:

1. Application must be signed by the applicant, not the contractor. New application forms are enclosed.
2. The percolation tests were run at a depth of 30" to 36". The cross-section says the trench depth is 55". I don't know if that is the shallowest depth or greatest depth. The percolation tests are to be run at the same depth as the trench.
3. Clarify how the percolation tests were run. Since there will be one foot of gravel beneath the leachpipe only one foot of water should be in the hole when readings are taken. The hole should be refilled to the twelve inch mark after each reading.
4. The percolation rate of 8.5 minutes/inch, if that is correct, should have been rounded to 9 minutes/inch not 7. That would give a loading rate of .65 gallons/square foot. The minimum infiltrative surface area would then be 693 square feet. Your leachfield size is still adequate.
5. Identify driveway and parking locations on map. Leachfield cannot be located under such areas.

6. The application says the facility is located in Sec. 4, T55N but does not list the Range. Please identify.

Submit the requested information in triplicate. Be sure to include the Water Quality Reference Number that appears on this review sheet in a cover letter or transmittal sheet. If you have any questions do not hesitate to contact me.

SG/anc

Copy: Plans (3)
File (2)

PERMIT TO CONSTRUCT

- New
 Renewal
 Modified

Permit No. 88-398

Deloney St. Waterline Replacement
(Name of Facility)

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

Town of Jackson

P.O. Box 1687

Jackson, WY 83001

to construct, install, or modify a replace existing 4" and 6" lines with 8" DIP facility according to the procedures and conditions of the application No. 88-398. The facility is located in SW 1/4 Sec. 27, 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 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 D. Garland
Administrator
Water Quality Division

R. L. Wood
Director
Dept. of Environmental Quality

10-20-88
Date of Issuance

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

file

PERMIT TO CONSTRUCT

PERMIT NO. 88-399
See Conditions

X New
Renewal
Modified

Aspens Water and Sewer District Monitor Wells

This permit hereby authorizes the applicant:

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

to construct, install or modify network of monitor and production wells for aquifer testing according to the procedures and conditions of the application number 88-399. The facility is located in NW $\frac{1}{4}$ SW $\frac{1}{4}$, T41N, R117W in the county of Teton, 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.

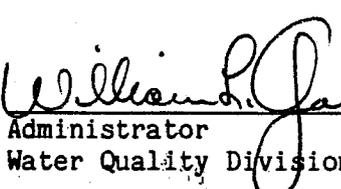
The permittee shall allow authorized representatives from the Department of Environmental Quality, Water Quality Division, upon the presentation of credentials and during working hours, to have access to inspect the facilities, at the above location, for the purpose of compliance with the provisions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

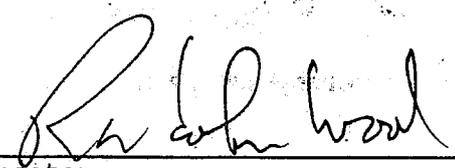
Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities or penalties established pursuant to any applicable state law or regulation.

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

9-22-88
Date of Issuance

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

Conditions to Permit to Construct #88-399
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 88-399. 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 wells installed under this permit shall be constructed of 6.625 x .250 "or 12" x .250" steel casing with machine cut slots as shown on the application. These wells will be installed by driving the steel casing to TD. A sealed casing shoe shall be installed to prevent entry into the bottom of the casing by soil and rocks. The top 10' of the casing shall have an annular cement seal as shown of the plans. A concrete pad shall be installed around the well on the surface. This pad shall be 6" thick and measure a minimum of 36" out on all sides from the casing. One #4 rebar 36" hoop is required in this pad

Conditions to Permit 88-399 (continued)

to help control cracking.

6. Up to one production well and five monitor wells of like construction may be installed under this permit.
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 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.
8. Proper well evacuation, sample collection, preservation, transportation and chemical analytical procedures shall be completed in accordance with WQD standard procedures.

cc: Jake Strohman

R.F.

PERMIT TO CONSTRUCT

PERMIT NO. 88-400
SEE SPECIAL CONDITIONS

X New
Renewal
Modified

LITTLEKEN SEPTIC SYSTEM

This permit hereby authorizes the applicant:

Alfred Littleken
General Delivery
Saratoga, Wyoming 82331

to construct, install or modify a small subsurface wastewater treatment and disposal (septic) system according to the procedures and conditions of the application number 88-400. The facility is located in S12, T17N, R84W in the county of Carbon, 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.

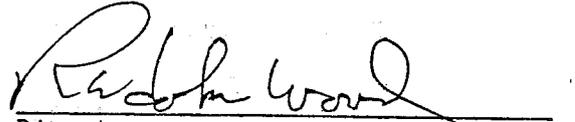
Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities or penalties established pursuant to any applicable state law or regulation.

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

9-28-88
Date of Issuance

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

Special Conditions for Permit to Construct #88-400

1. A temporary recreational vehicle (RV) may be connected to the wastewater system while the permanent home is under construction. However, once the permanent home is connected to the wastewater system, all other connections must be permanently disconnected.
2. Because of the small lot size, a potable water well cannot be located on the lot.