

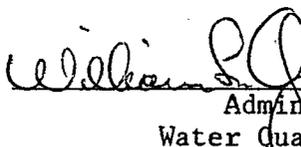
during working hours, to have access to inspect the facilities, at the above location, for the purpose of compliance with the provisions of this construction permit.

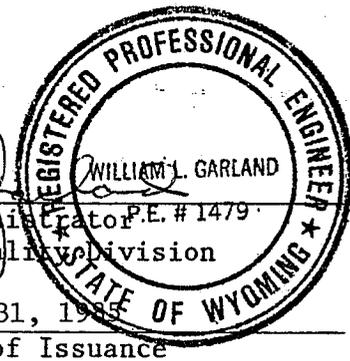
The permittee shall notify representatives from the Department of Environmental Quality, Water Quality Division the day construction commences and give an estimate of completion of the project. The authorized representative in your area can be contacted at the following address: District Engineer, State of Wyoming, Department of Environmental Quality, Water Quality Division, 2161 Coffeen Avenue, Suite 301, Sheridan, Wyoming 82801; telephone, 672-6457.

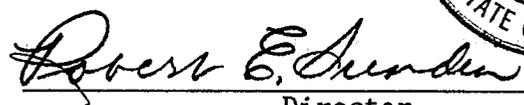
Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities or penalties established pursuant to any applicable State law or regulation.

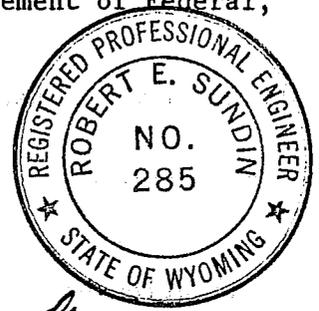
The issuance of this permit does not convey any property rights in either real or personal property, or any exclusive privileges, nor does it authorize any injury to private property or any invasion of personal rights, nor any infringement of Federal, State or local laws or regulations.

AUTHORIZED BY:


WILLIAM L. GARLAND
Administrator P.E. # 1479
Water Quality Division
May 31, 1985
Date of Issuance



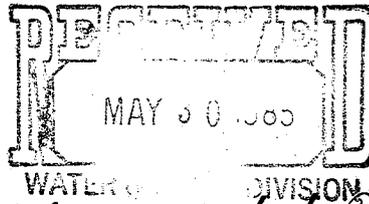

Robert E. Sundin
Director
Dept. of Environmental Quality



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

xc: Dan J. Allen
TSP
One South Scott Street, Suite 1
Sheridan, Wyoming 82801

THE STATE OF WYOMING



Norma

ED HERSCHLER
GOVERNOR

MA 14542

Department of Environmental Quality

Water Quality Division

2161 COFFEEN AVENUE,
SUITE 301

SHERIDAN, WYOMING 82801

TELEPHONE 307-672-6457

May 28, 1985

85-252

MA 3

Mr. Scott Raymond
Thunder Basin Coal Company
Black Thunder Mine
P.O. Box 406
Wright, Wyoming 82732

Dear Scott:

Thank you for your timely submittal of the requested information on the pit water distribution system. I have reviewed the information, along with previously approved plans for the sedimentation facilities at the Black Thunder Mine, and hereby grant an As-Built Approval of the pit water distribution system, as each permitted reservoir has excess capacity to store and treat pit water.

Again, a permit will be required in the future for pit water distribution systems if the method of transport to the reservoir is not addressed in the original permit application for the reservoir.

Since this system has been completed, a Permit to Construct cannot be issued, but this letter serves essentially the same purpose.

Sincerely,

Susan Holmes

Susan Holmes
Environmental Engineer

SH:1s

PERMIT TO CONSTRUCT

New
 Renewal
 Modified

Permit No. 85-253
SEE CONDITIONS ON BACK OF PERMIT

Naughton S.E. Plant
(Name of Facility)

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

Utah Power & Light Company

P.O. Box 899

Salt Lake City, UT 84110

to construct, install, or modify a series of twenty-one (21) groundwater monitor wells according to the procedures and conditions of the application No. 85-253. The facility is located in Sections 32 and 33, T21N, R105R in the County of Lincoln, in the State of Wyoming. This permit shall be effective for a period of five (5) years (five (5) years maximum) from the date of issuance of this permit.

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

The authority to construct granted by this permit does not mean or imply that the Wyoming Department of Environmental Quality guarantees or 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.

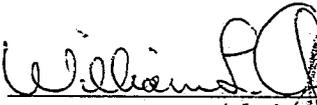
The permittee shall allow authorized representatives from the Department of Environmental Quality, Water Quality Division, upon the presentation of credentials and during working hours, to have access to inspect the facilities, at the above location, for the purpose of compliance with the provisions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

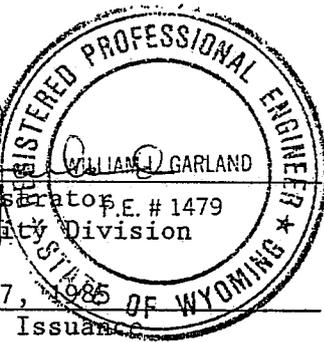
The permittee shall notify representatives from the Department of Environmental Quality, Water Quality Division, the day construction commences and give an estimate of completion of the project. The authorized representative in your area can be contacted at the following address: Groundwater Section,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

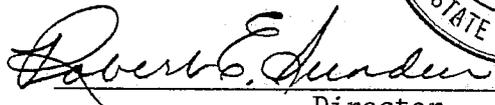
Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities or penalties established pursuant to any applicable State law or regulation.

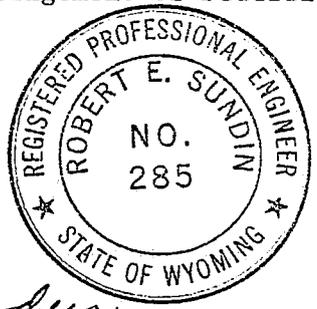
The issuance of this permit does not convey any property rights in either real or personal property, or any exclusive privileges, nor does it authorize any injury to private property or any invasion of personal rights, nor any infringement of Federal, State or local laws or regulations.

AUTHORIZED BY:


WILLIAM J. GARLAND
Administrator P.E. # 1479
Water Quality Division
June 17, 1985
Date of Issuance




Director
Dept. of Environmental Quality



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

Conditions to Permit to Construct #85-253

1. Once the wells have been completed, the owner will provide the Wyoming Department of Environmental Quality, Water Quality Division, with a report that details the location, lithology, and construction specifications of the completed wells.
2. All wells will be abandoned according to procedures specified in Chapter XI, Part G, Section 70, of the Wyoming Department of Environmental Quality, Water Quality Division, Rules and Regulations.
3. Within 15 days after a well has been plugged and abandoned, the owner shall file a plugging record with the Wyoming Department of Environmental Quality, Water Quality Division.

6-26



THE STATE OF WYOMING

ED HERSCHLER
GOVERNOR

Department of Environmental Quality
Water Quality Division

HERSCHLER BUILDING

CHEYENNE, WYOMING 82002

TELEPHONE 307 777-7781

June 17, 1985

David W. Mills
Utah Power & Light Company
P.O. Box 899
Salt Lake City, UT 84110

RE: Naughton Plant Monitor Wells, DEQ/WQD Permit #85-253

Dear Mr. Mills:

Enclosed is a signed copy of the permit to construct 21 monitor wells at the Naughton Plant. Once the wells have been constructed, please submit a completion report to the Water Quality Division. This report should include a map showing the locations of the wells, and final construction details of all the monitor wells.

Thank you for your attention to this matter.

Sincerely,

Katherine J. Laudon
Groundwater Engineering Evaluator

KL/nc

cc: Jack Bedessem, DEQ/WQD, Lander

6-10

PERMIT TO CONSTRUCT

New
 Renewal
 Modified

Permit No. 85-254
SEE CONDITIONS ATTACHED TO THIS PERMIT
MA 14542

363 B #2, #1 - Chicken Creek
(Name of Facility)

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

Amoco Production Co.

1013 Cheyenne Drive

Evanston, WY 82930

to construct, install, or modify a drilling fluids reserve pit facility according to the procedures and conditions of the application No. 85-254. The facility is located in Section 1, T13N, R121W in the County of Uinta, in the State of Wyoming. This permit shall be effective for a period of one year (five (5) years maximum) from the date of issuance of this permit.

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

The authority to construct granted by this permit does not mean or imply that the Wyoming Department of Environmental Quality guarantees or 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.

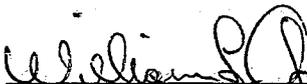
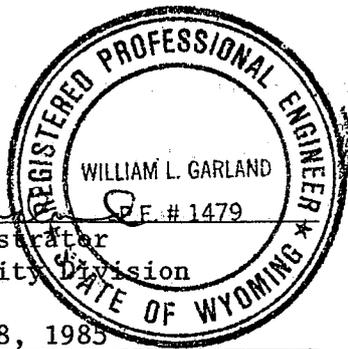
The permittee shall allow authorized representatives from the Department of Environmental Quality, Water Quality Division, upon the presentation of credentials and during working hours, to have access to inspect the facilities, at the above location, for the purpose of compliance with the provisions 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, Herschler Building, 122 W. 25th, Cheyenne, Wyoming 82002; telephone, 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 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
P.E. # 1479
Administrator
Water Quality Division
STATE OF WYOMING



ROBERT E. SUNDIN
Director
Dept. of Environmental Quality


May 28, 1985

Date of Issuance

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

This permit authorizes you to dispose of 302,400 gallons of drilling fluid wastewater on the adjoining 5 miles of road, a total liquid application of 0.92 inches.

CONDITIONS TO PERMIT TO CONSTRUCT NO. 85-254

1. Wastewater 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% for vehicular application or 15% for spray irrigation or irrigation by gated pipe on the contour. Vegetated areas of the site shall not be spray-irrigated where possible plant leaf injury may result from salt residue.
3. Wastewater application shall be terminated within 300 feet of the defineable high water mark of perennial and intermittent drainages, irrigation canals, lakes and reservoirs.

6-10-75

PERMIT TO CONSTRUCT

New
 Renewal
 Modified

Permit No. 85-255
SEE CONDITIONS ATTACHED TO THIS PERMIT

MA 14542

E-26-13
(Name of Facility)

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

Amoco Production Co.

1013 Cheyenne Drive

Evanston, WY 82930

to construct, install, or modify a drilling fluids reserve pit facility according to the procedures and conditions of the application No. 85-255. The facility is located in Section 26, T13N, R121W in the County of Uinta, in the State of Wyoming. This permit shall be effective for a period of one year (five (5) years maximum) from the date of issuance of this permit.

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

The authority to construct granted by this permit does not mean or imply that the Wyoming Department of Environmental Quality guarantees or 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.

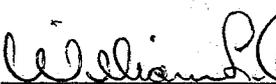
The permittee shall allow authorized representatives from the Department of Environmental Quality, Water Quality Division, upon the presentation of credentials and during working hours, to have access to inspect the facilities, at the above location, for the purpose of compliance with the provisions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

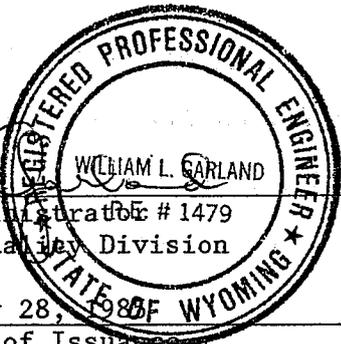
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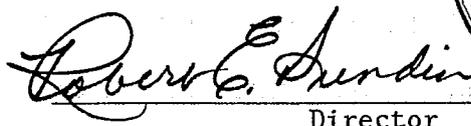
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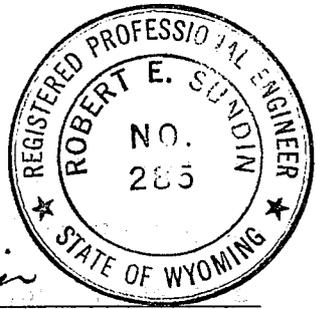
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AUTHORIZED BY:


WILLIAM L. GARLAND
Administrative # 1479
Water Quality Division
May 28, 1985
Date of Issuance




Director
Dept. of Environmental Quality



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

This permit authorizes you to dispose of 787-500 gallons of drilling fluid wastewater on the adjoining 10 miles of road, a total liquid application of 1.20 inches.

CONDITIONS TO PERMIT TO CONSTRUCT NO. 85-255

1. Wastewater 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% for vehicular application or 15% for spray irrigation or irrigation by gated pipe on the contour. Vegetated areas of the site shall not be spray-irrigated where possible plant leaf injury may result from salt residue.
3. Wastewater application shall be terminated within 300 feet of the defineable high water mark of perennial and intermittent drainages, irrigation canals, lakes and reservoirs.

6-26



THE STATE OF WYOMING

ED HERSCHLER
GOVERNOR

Department of Environmental Quality
Water Quality Division

HERSCHLER BUILDING

CHEYENNE, WYOMING 82002

TELEPHONE 307 777-7781

June 17, 1985

City of Powell
ATTN: Rod Robey
Water/Wastewater Commissioner
P.O. Box 1008
Powell, WY 82435

RE: Powell Monitor Wells, DEQ/WQD Permit #85-256

Dear Mr. Robey:

Enclosed is a signed copy of the permit to construct five monitor wells in the area affected by hydrocarbon vapors in Powell. In the permit application, your consultant agreed to provide lithologic logs, well completion data, and as-built diagrams for each well. Please provide this information to me once it becomes available.

Once this information and subsequent water quality data are received, representatives of the Water Quality Division would be happy to meet with you and your consultant to discuss a further course of action.

Sincerely,

Katherine J. Laudon

Katherine J. Laudon
Groundwater Engineer Evaluator

KJL/nc

cc: Keith Thompson, Hydrogeologist, Western Water Consultants, P.O. Box 4128
Laramie, WY 82071
Steve Gerber, DEQ/WQD, Lander

PERMIT TO CONSTRUCT

New
 Renewal
 Modified

Permit No. 85-256
SEE CONDITIONS ON BACK OF PERMIT

Powell Monitoring Wells
(Name of Facility)

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

City of Powell

P.O. Box 1008

Powell, WY 82435

to construct, install, or modify a a set of five (5) monitor wells facility according to the procedures and conditions of the application No. 85-256. The facility is located in SE1/4 SE1/4 Section 9, T55N, R99W in the County of Park, in the State of Wyoming. This permit shall be effective for a period of five (5) years (five (5) years maximum) from the date of issuance of this permit.

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

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

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

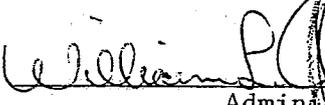
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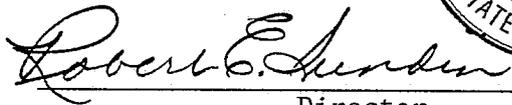
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Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities or penalties established pursuant to any applicable State law or regulation.

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
P.E. #1479
Administrator
Water Quality Division
STATE OF WYOMING
June 17, 1985
Date of Issuance


ROBERT E. SUNDIN
NO. 285
REGISTERED PROFESSIONAL ENGINEER
STATE OF WYOMING
Director
Dept. of Environmental Quality

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

Conditions to Permit to Construct #85-256

1. All wells will be abandoned according to procedures specified in Chapter XI, Part G, Section 70, of the Wyoming Department of Environmental Quality, Water Quality Division, Rules and Regulations.
2. Within 15 days after a well has been plugged and abandoned, the owner shall file a plugging record with the Wyoming Department of Environmental Quality, Water Quality Division.

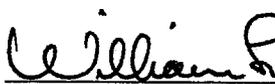
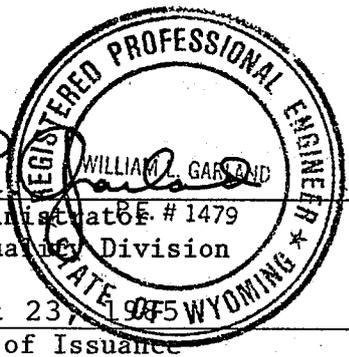
ing working hours, to have access to inspect the facilities, at the above location, for the purpose of compliance with the provisions of this construction permit.

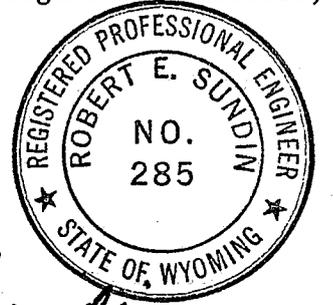
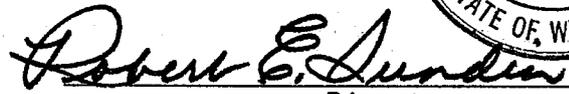
The permittee shall notify representatives from the Department of Environmental Quality, Water Quality Division the day construction commences and give an estimate of completion of the project. The authorized representative in your area can be contacted at the following address: District Engineer, State of Wyoming, Department of Environmental Quality, Water Quality Division, 210 Lincoln, Lander, Wyoming 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
Administrative # 1479
Water Quality Division
August 23, 1975
Date of Issuance



Director
Dept. of Environmental Quality

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

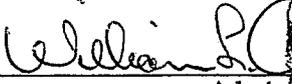
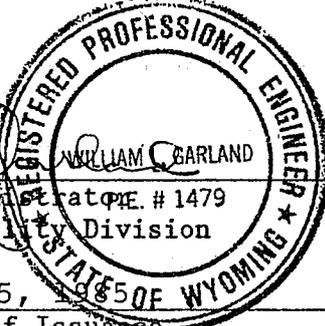
ing working hours, to have access to inspect the facilities, at the above location, for the purpose of compliance with the provisions of this construction permit.

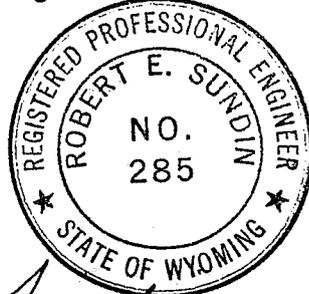
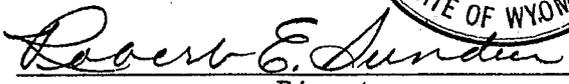
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Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities or penalties established pursuant to any applicable State law or regulation.

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:



Admin. Stat. # 1479
Water Quality Division
June 25, 1985
Date of Issuance



Director
Dept. of Environmental Quality

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

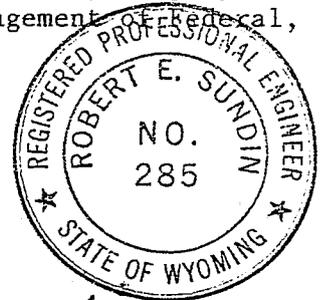
ing working hours, to have access to inspect the facilities, at the above location, for the purpose of compliance with the provisions of this construction permit.

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, Wyoming 82520; telephone, 332-3144.

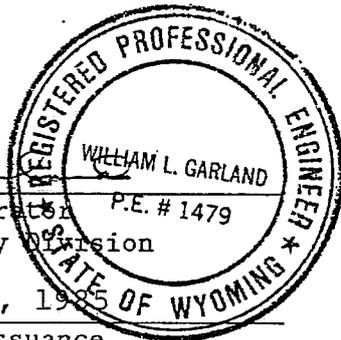
Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities or penalties established pursuant to any applicable State law or regulation.

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



Administrative
Water Quality Division

Robert E. Sundin

Director
Dept. of Environmental Quality

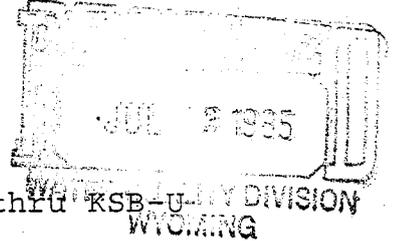
July 26, 1985
Date of Issuance

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



PROJECT: P & M Coal Mining Company, KSB-M thru KSB-U

ENGINEER: Paul A. Rechard
Western Water Consultants
611 Skyline Road
Laramie, WY 82020

OWNER: P & M Coal Mining Company
ATTN: Nick Bettas
Kemmerer Mine
Frontier, WY 83121

WATER QUALITY DIVISION REFERENCE NUMBER: 85-259

REVIEWING EVALUATOR: Jack Bedessem *JB*

DATE OF REVIEW: June 28, 1985

ACTION: Not authorized.

COMMENTS:

The plans, specifications and design information has been reviewed. The information submitted was very complete and organized, however, the following items need to be addressed and/or resolved:

1. The recommended construction specifications have been signed by a Wyoming Professional Engineer. Address whether these specifications are to be implemented during construction or to be considered as recommendations.
2. Sediment control ponds KSB-M, N, O, P, L, T and U have been designed without consideration of freeboard. This department has a concern that wave action (over topping) may cause bank erosion thereby reducing capacity and threatening pond stability. Some freeboard needs to be provided to insure structural integrity and proper operation.
3. The design report indicates most of the ponds are to be cleaned out when the accumulated sediment reaches 60% of the three year design volume. KSB-R reservoir was designed to include one year of accumulated sediment.

Based on past experience, the diligent removal of accumulated sediment needs to be a priority. It needs to be emphasized that the design, construction and maintenance of a sediment control facility shall not relieve the owner/operator from compliance with applicable monitoring requirements and effluent limitations.

Review of Plans & Specs.

Ref. No. 85-259

Page Two

4. The plans and details need to be stamped and signed by a registered Wyoming Professional Engineer.

Submit the required information and revised drawings to this office. Four complete sets are required. If you have any questions please feel free to contact me.

JB/jw

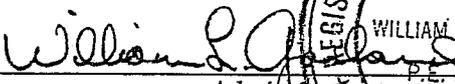
ing working hours, to have access to inspect the facilities, at the above location, for the purpose of compliance with the provisions of this construction permit.

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, Wyoming 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
P.E. # 1479
Administrator
Water Quality Division
STATE OF WYOMING

July 15, 1984
Date of Issuance


ROBERT E. SUNDIN
NO. 285
REGISTERED PROFESSIONAL ENGINEER
STATE OF WYOMING

Director
Dept. of Environmental Quality

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

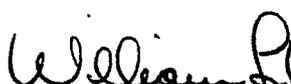
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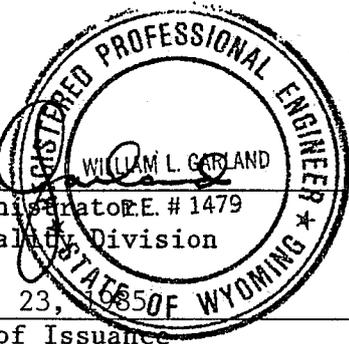
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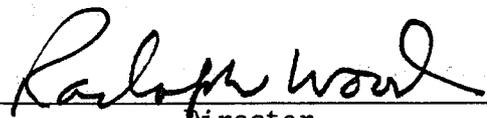
AUTHORIZED BY:



WILLIAM L. GARLAND
Administrator E. # 1479
Water Quality Division
September 23, 1950

Date of Issuance





Director
Dept. of Environmental Quality

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

* CONDITIONS ON PERMIT *

Contact Teton County Sanitarian for inspection of leach beds prior to backfilling.

copy: Dick Worl, Teton County Sanitarian

REVIEW OF PLANS AND SPECIFICATIONS

WYOMING DEPARTMENT OF ENVIRONMENTAL QUALITY

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

PROJECT: Triangle X Ranch

ENGINEER: National Park Service
P.O. Box 25287
Denver, CO 80225
ATTN: John Wendleton

OWNER: Grand Teton National Park
P.O. Drawer 170
Moose, WY 83012

WATER QUALITY DIVISION REFERENCE NUMBER: 85-261

REVIEWING ENGINEER: Steven P. Gerber, P.E., Dick Lennox

DATE OF REVIEW: July 3, 1985

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. The plans and specifications must be stamped by the engineer.
2. Ductile Iron Pipe shall be protected from corrosion with polyethylene encasement or cathodic protection.
3. Sewers shall be eight inch diameter or larger except in locations where the sewer cannot be extended in the future. Therefore, the lines between MH4 and MH6, MH9 and MH11, and septic tank and MH20 shall be eight inch. Six inch will be allowed if you will verify these lines will not be extended in the future.
4. All sewer pipe size changes shall be at manholes. A manhole is required between the Lodge and MH17 where the line increases from six to eight inches.
5. Pipe bedding cannot be deleted at the option of the Contracting Officer as stated in the specifications. All pipe must be bedded with a granular material.
6. In reference to trench details on Sheets 10 and 13, the trench walls shall be vertical for a minimum of one foot above the top of the pipe.

AC

Review of Plans & Specs.

Ref. No. 85-261

Page Two

7. Sewer service connections shall have a minimum slope of 2 feet/100 feet. This should be stated on the plans.

8. Terminal cleanouts shall be constructed using 45 degree bends to the upturned pipe coming to the surface of the ground.

9. Neither the plans or specifications specify minimum separation between the water and sewer lines. Minimum horizontal separation shall be ten feet where the water main is less than 1.5 feet above the elevation of the sewer. Minimum vertical separation shall be 1.5 feet at crossing. Where vertical and/or horizontal clearances cannot be maintained, the sewer shall be placed in a separate conduit pipe.

10. Provide actual percolation rate data and location where tests were run.

11. A minimum of three feet of unsaturated soil shall be maintained between the bottom of the absorption system stone and the estimated groundwater mound imposed on the seasonally high groundwater table. The maximum height of the groundwater mound shall be estimated by the design engineer. Also provide information on the groundwater table.

12. The loading rate of .65 gal/sq ft/day to establish the absorption bed size is greater than what is allowed by the State of Wyoming. The Water Quality Rules and Regulations will allow a maximum loading rate of .52 gal/sq ft/day for a percolation rate of 15 min/inch.

13. The septic tank for the large system is undersized. Septic tanks shall have a minimum effective liquid capacity sufficient to provide at least 36 hour retention at peak flow.

14. The outlet of the septic tank shall be provided with a tee or baffle that extends into the middle third of the water depth. Provide dimensions to ensure proper extension is attached to the tee.

15. Provide criteria used to size grease trap. Grease trap must be sized in accordance with DEQ Rules and Regulations, Chapter XI.

16. Each compartment of the grease trap must be vented.

17. As stated the capacity of the pipe in the absorption bed is 914 gallons. The dosing chamber will discharge 1,346 gallons at a rate of 160 gpm. Discuss the impact on the operation of the dosing siphon if the bed will not accept the flow at a rate which will prevent backing up to the siphon.

18. Provide current and projected system water demand for average day, maximum day, maximum hour, including miscellaneous water demands such as irrigation.

19. Provide water source information. Provide quantity of water available from the source during the average and driest years of record.

20. Provide a description of water system operation and controls.

21. All treatment facility pumping functions shall include sufficient pumping capacity that the maximum day flow can be pumped with the largest single unit not in service. Therefore a backup pump is required for pumping from the existing reservoir to the new reservoir.

22. Power failure of the pumping facilities shall be alarmed at an attended location.

23. The pump beneath the chlorination building will not be allowed. Raw and finished water pumps shall have floor elevation or a main level entry of at least 6 inches above finished grade.

24. Foot valve must be specified such that the net valve area is $2\frac{1}{2}$ times the area of the suction pipe.

25. Determine the groundwater elevation at the reservoir site. The bottom of the reservoir must be above the groundwater table.

26. The top of the reservoir walls shall not be less than 18 inches above the normal ground surface.

27. All water system connections shall be provided with a check valve in the service line.

Submit the requested information and revised drawings in triplicate. If you have any questions do not hesitate to contact me.

SG/jw

copy: Dick Lennox
Plans
File (2)

WATER QUALITY DIVISION
GROUNDWATER SECTION
PERMIT APPLICATION REVIEW

*Norman -
Returned to
Lander*

APPLICATION NUMBER 85-261

DATE SUBMITTED FOR REVIEW 6-17-85

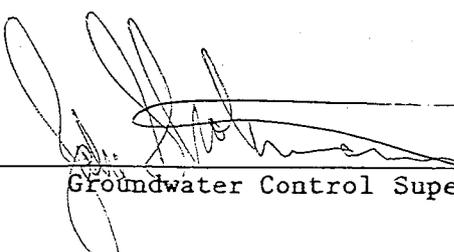
NAME AND LOCATION OF FACILITY TRIANGLE X Ranch
Grand Teton Nat's Park
Teton Co.

I have reviewed the plans and specifications with regard to all aspects of groundwater quality and find the following:

- () No comment. The submittal is consistent with current groundwater protection procedures and requirements.
- () Comments attached.

SIGNED Richard Hennep
TITLE Eng. Eval
DATE 7-2-85

ACCEPTED FOR RECORD 7-2-85
(Date)


Groundwater Control Supervisor



Department of Environmental Quality
Water Quality Division

HERSCHLER BUILDING

CHEYENNE, WYOMING 82002

TELEPHONE 307 777-7781

M E M O R A N D U M

TO: Steve Gerber, District Engineer
FROM: Richard J. Lennox, Engineering Evaluator
DATE: July 2, 1985
SUBJECT: Triangle X Ranch

Discussion with J. Wendleton, P.E., of National Park Service (NPS) Denver office, indicated that groundwater and geological work for the disposal site was accomplished by a local geologist in the Jackson area. However, the results of the investigations indicate that there was no groundwater in the immediate vicinity of the sites selected. I questioned him about the possibility of the leachate "daylighting" to the west because of the "sharp" change in topography. He replied that the area was not as steep as it looked and that the ground was very permeable; i.e. cobbles and gravel with little to no fine material, and therefore they anticipated any leachate would go straight down. I also discussed the marsh area, which he informed me was formed by the small stream running through the ranch, but that once you got 10-15 feet away from that area again no groundwater was encountered down to 15 feet.

Jake recommended that the next time you or Jeff were in the Jackson/Moran area, you should stop in and look the site over. Contact a Jim Nessen at 543-2268 and he will show you around the site.

Based on my discussions with Wendleton, I have no real concerns with the proposed location. If a site visit indicates additional information to be considered, I will be happy to coordinate with you on its review.

RJL/jw

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 301, Sheridan, Wyoming 82801; telephone, 672-6457.

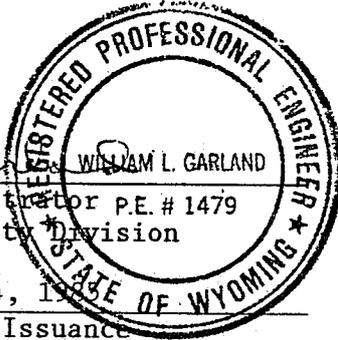
Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities or penalties established pursuant to any applicable State law or regulation.

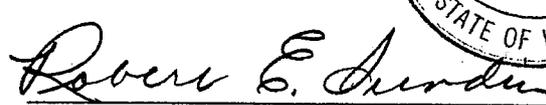
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AUTHORIZED BY:

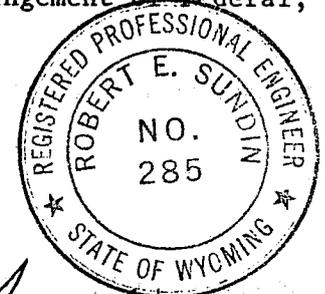


WILLIAM L. GARLAND
Administrator P.E. # 1479
Water Quality Division
June 24, 1988
Date of Issuance





ROBERT E. SUNDIN
Director
Dept. of Environmental Quality



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

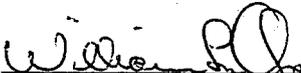
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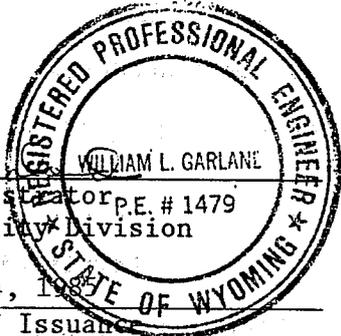
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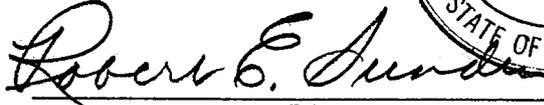
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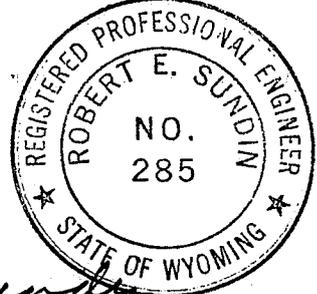


WILLIAM L. GARLANE
Administrator, P.E. # 1479
Water Quality Division
June 24, 1984
Date of Issuance



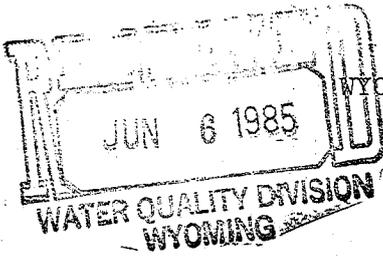


ROBERT E. SUNDIN
NO. 285
REGISTERED PROFESSIONAL ENGINEER
STATE OF WYOMING


Director
Dept. of Environmental Quality

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
2161 COFFEEN AVE., SUITE 601
SHERIDAN, WYOMING 82801

PROJECT: Caballo Mine Tisdale No. 1 Reservoir
and Tisdale No. 2 Reservoir

ARCHITECT OR ENGINEER: Thomas C. Peterson
The Carter Mining Company
P.O. Box 3007
Gillette, Wyoming 82716

WATER QUALITY DIVISION
REFERENCE NUMBERS: 85-262 and 85-263

REVIEWING ENGINEER: Rich Ruyle *RR*

DATE OF REVIEW: June 4, 1985

ACTION: Not Authorized

COMMENTS:

- 1.) The LS factors used in the Universal Soil Loss Equation are not included for the three Sediment Traps and Tisdale No. 1 Reservoir. They are needed in order to verify the sediment yield calculations.
- 2.) The calculated sediment volume for Tisdale No. 2 Reservoir does not include sediment derived from pit water. That figure should be estimated and included in the needed volume if it is significant.
- 3.) Any sediment control facility larger than two acre-feet requires a spillway. Tisdale No. 1 Reservoir falls into this category.

PERMIT TO CONSTRUCT

- New
- Renewal
- Modified

Permit No. 85-264R
MA 14542

SEMLEK ADDITION
(Name of Facility)

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

William Semlek
Miller Creek Road
Moorcroft, Wyoming 82721

to construct, install, or modify a expansion of a water and sanitary sewer

facility according to the procedures and conditions of the application No. 85-264R. The facility is located in Sec. 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 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.

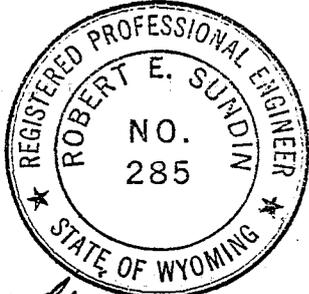
The permittee shall notify representatives from the Department of Environmental Quality, Water Quality Division the day construction commences and give an estimate of completion of the project. The authorized representative in your area can be contacted at the following address: District Engineer, State of Wyoming, Department of Environmental Quality, Water Quality Division, 2161 Coffeen Avenue, Suite 301, Sheridan, Wyoming 82801; telephone, 672-6457.

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AUTHORIZED BY:

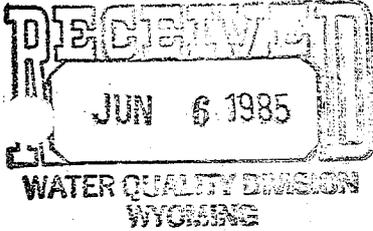

 WILLIAM L. GARLAND
 Administrator # 1479
 Water Quality Division
 STATE OF WYOMING
 June 7, 1987
 Date of Issuance



 Director
 Dept. of Environmental Quality

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

cc: W. Kirk Miller
Basin Associated Engineers
P.O. Box 351
Basin, WY 82410



REVIEW OF PLANS AND SPECIFICATIONS

WYOMING DEPARTMENT OF ENVIRONMENTAL QUALITY
WATER QUALITY DIVISION
2161 COFFEEN AVE., SUITE 601
SHERIDAN, WYOMING 82801

PROJECT: Water and Sewer Service for
the Semlek Addition
Town of Moorcroft, Wyoming

ARCHITECT OR ENGINEER: W. Kirk Miller
Basin Associated Engineers
P.O. Box 351
Basin, Wyoming 82410

WATER QUALITY DIVISION
REFERENCE NUMBER: 85-264

REVIEWING ENGINEER: Susan Holmes SA

DATE OF REVIEW: June 4, 1985

ACTION: Not Authorized

COMMENTS:

- 1) The new Chapter XII regulations require a check valve be placed in all water service lines or at the meter for backflow prevention.
- 2) A fire hydrant or blowoff valve is needed at the dead end of the water main to allow for flushing of the main.

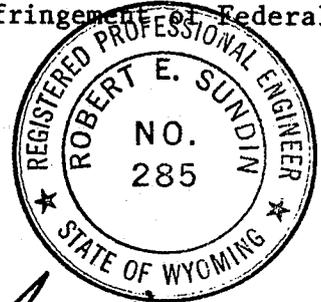
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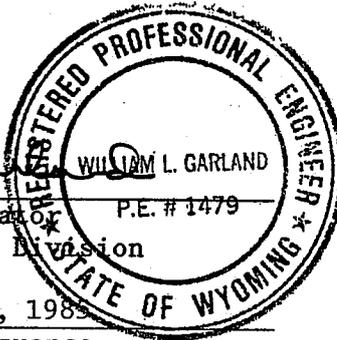
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AUTHORIZED BY:



William L. Garland

Administrator
Water Quality Division



Robert E. Sundin

Director
Dept. of Environmental Quality

August 20, 1985
Date of Issuance

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

CONDITIONS

1. The facility is to be used only for the disposal of oil field produced water.
2. Monitoring wells shall be at the locations shown on the plans and constructed as shown in the "Observation Well Construction Summary" diagram.
3. The monitoring wells will be sampled using the following procedures:
 - a. Groundwater Present - The groundwater present in the monitor wells shall be sampled on a quarterly basis in a manner acceptable to the Wyoming Department of Environmental Quality, Water Quality Division, and shall be analyzed for pH, TDS, chlorides, sulfates, oil and grease, sodium and potassium.
 - b. No Groundwater Present - The monitor wells shall be sampled on a monthly basis for the presence of fluids. If any fluid is present, the Groundwater Section, Water Quality Division, Wyoming Department of Environmental Quality, shall be notified within 24 hours, and procedures will be initiated to determine the source of fluid. Immediate sampling will commence for the parameters listed in 1. above.
 - c. All sampling results shall be submitted to the Groundwater Section, Water Quality Division, within 20 days of the sampling event or within 20 days of the end of the quarter.

cc: J. Jagodzinski, H-W-S

REVIEW OF PLANS AND SPECIFICATIONS

WYOMING DEPARTMENT OF ENVIRONMENTAL QUALITY
WATER QUALITY DIVISION
2161 COFFEEN AVE., SUITE 301
SHERIDAN, WYOMING 82801

PROJECT: Skinner's Disposal Pond Expansion

ARCHITECT OR ENGINEER: Joe Jagodzinski
HWS, Inc.
1823 West Main
Rapid City, South Dakota 57702

WATER QUALITY DIVISION
REFERENCE NUMBER: 85-265R

REVIEWING ENGINEER: Rich Ruyle

DATE OF REVIEW: July 25, 1985

ACTION: Not Authorized

COMMENTS:

Our Groundwater Section has requested that the monitoring well program be instituted regardless of whether or not BLM requires it. The monitoring wells should be at the locations shown on the plans and constructed as shown in the "Observation Well Construction Summary" diagram.

The construction permit would contain the following conditions concerning required sampling of the wells:

1. Groundwater Present - The groundwater present in the monitor wells shall be sampled on a quarterly basis in a manner acceptable to the Wyoming Department of Environmental Quality, Water Quality Division, and shall be analyzed for pH, TDS, chlorides, sulfates, oil and grease, sodium and potassium.
2. No Groundwater Present - The monitor wells shall be sampled on a monthly basis for the presence of fluids. If any fluid is present, the Groundwater Section, Water Quality Division, Wyoming Department of Environmental Quality, shall be notified within 24 hours, and procedures will be initiated to determine the source of fluid. Immediate sampling will commence for the parameters listed in 1. above.
3. All sampling results shall be submitted to the Groundwater Section, Water Quality Division, within 20 days of the sampling event or within 20 days of the end of the quarter.

If you are agreeable to this, let me know and I will issue the permit.

WATER QUALITY DIVISION
GROUNDWATER SECTION
PERMIT APPLICATION REVIEW

Returned
7-10

APPLICATION NUMBER 85-265R

DATE SUBMITTED FOR REVIEW 7/2/85

NAME AND LOCATION OF FACILITY SKINNER'S DISPOSAL SITE
EVAPORATION LAGOON
WESTON CO

I have reviewed the plans and specifications with regard to all aspects of groundwater quality and find the following:

- No comment. The submittal is consistent with current groundwater protection procedures and requirements.
- Comments attached.

SIGNED [Signature]
TITLE Chief
DATE 7/9/85

ACCEPTED FOR RECORD 7/10/85
(Date)

[Signature]
Groundwater Control Supervisor

MEMORANDUM

TO: Rich Ruyle, Northeast District Supervisor

FROM: R. J. Lennox, Groundwater Engineering Evaluator

DATE: July 9, 1985

SUBJECT: Skinner's Disposal Site Evaporation Lagoon, 85-265R (associated with 83-16R)

In response to Mr. Jagodzinski's comments, I offer the following:

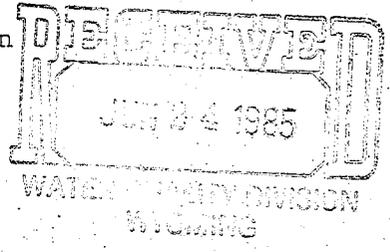
- A. Comment #7. I have no problem with his rationale and his interpretation of Chapter XI not IX is correct. Additionally, since his seepage rate is 0.0132 (or @ 1/75 Th) inch per day the maximum allowable seepage rate of 1/8 inch per day is not being exceeded. However, based on the nature of fluids to be discharged into the proposed disposal site, a monitoring network should be required since an impermeable liner is not being constructed.
- B. Comment #8. Based on comment #7, I recommend that regardless of whether or not BLM requires a monitoring program, DEQ should. The monitor wells should be constructed in accordance with Part G, Chapter XI which is in agreement with the diagram submitted titled "Observation Well Construction Summary". A monitoring condition should be attached to the permit as follows:
1. Groundwater Present - The groundwater present in the monitor wells shall be sampled on a quarterly basis in a manner acceptable to the Wyoming Department of Environmental Quality, Water Quality Division, and shall be analyzed for pH, TDS, chlorides, sulfates, oil and grease, sodium and potassium.
 2. No Groundwater Present - The monitor wells shall be sampled on a monthly basis for the presence of fluids. If any fluid is present, the Groundwater Section, Water Quality Division, Wyoming Department of Environmental Quality, shall be notified within 24 hours, and procedures will be initiated to determine the source of fluid. Immediate sampling will commence for the parameters listed in 1. above.
 3. All sampling results shall be submitted to the Groundwater Section, Water Quality Division, within 20 days of the sampling event or within 20 days of the end of the quarter.

Norma

REVIEW OF PLANS AND SPECIFICATIONS

WYOMING DEPARTMENT OF ENVIRONMENTAL QUALITY
WATER QUALITY DIVISION
2161 COFFEEN AVE., SUITE 601
SHERIDAN, WYOMING 82801

PROJECT: Skinner's Disposal Pond Expansion
ARCHITECT OR ENGINEER: Joe Jagodzinski
HWS, Inc.
1823 W. Main
Rapid City, South Dakota 57702
WATER QUALITY DIVISION
REFERENCE NUMBER: 85-265
REVIEWING ENGINEER: Rich Ruyle
DATE OF REVIEW: June 19, 1985
ACTION: Not Authorized



COMMENTS:

- 1.) Please describe the wastewater being received by this pond. The previous permit was for disposal of produced water.
- 2.) For ponds with bentonite liners, prefilling or other method of maintaining the seal at or above optimum moisture conditions is required.
- 3.) Ponds larger than one surface acre require riprap on the interior dikes.
- 4.) Section 3.07, p. 02200-13 of the construction specifications lists the minimum degree of compaction for dike embankments as 30% maximum dry density. Shouldn't this be 90%?
- 5.) A testing program for the bentonite seal to be conducted after construction is complete must be included in the specifications. This is usually done with permeability tests of undisturbed core samples from the in-place seal at a rate of one core per acre.
- 6.) Sheet 1 of the calculations for "Lagoon Soil Sealant Liner Design" shows sample 4 as 2% bentonite with a permeability of 3.60×10^{-8} cm/sec. However, a description of the sample and test are not included in Attachment II or in Table 4 with the other permeability tests. Was this permeability arrived at from direct measurement?
- 7.) The proposed bentonite seal will provide a seepage rate somewhat greater than that of the required three-foot thick liner with a permeability of 10^{-7} cm/sec or its equivalent (0.0132 in/day for the proposed liner versus 0.0091 in/day required). The liner should meet the lower seepage rate.
- 8.) Monitoring wells are shown on sheet 1 of the plans. If the wells are to be used, please include details of their construction and of the monitoring program.

WATER QUALITY DIVISION
GROUNDWATER SECTION
PERMIT APPLICATION REVIEW

*Approved
Ref to
6-12-85*

APPLICATION NUMBER 85-265

DATE SUBMITTED FOR REVIEW 6-4-85

NAME AND LOCATION OF FACILITY Skinner Disposal Site
Sec. 5 T 42N R 67W
Weston Co

I have reviewed the plans and specifications with regard to all aspects of groundwater quality and find the following:

- () No comment. The submittal is consistent with current groundwater protection procedures and requirements.
- () Comments attached.

SIGNED *Richard Hennep*
TITLE *Eng. Eval*
DATE 6-12-85

ACCEPTED FOR RECORD _____
(Date)

[Signature]
Groundwater Control Supervisor

To: Rich Ruyle, District Supervisor
From: Richard Lennox, Engineering Evaluator 
Date: June 12, 1985
Subject: Skinner's Resources and Exploration, Inc Application
dated 5-13-85 for Skinner's Disposal Site; 85-265

1. This permit application is a modification to existing permit 83-16R which was issued for the disposal of produced water only.

2. The comments made in my memorandum dated June 16, 1983 are still relevant in that no new geotechnical finding nor water quality analyses on local groundwater regimes has been submitted.

3. Of note in the application package is the statement that the existing facility is "currently operating for disposal of reserve pit water and other related waste products produced from oil and gas wells." There is nothing in the application explaining what the "other related waste products produced from oil and gas wells" are. Is this facility operating in violation of it's original permit ?

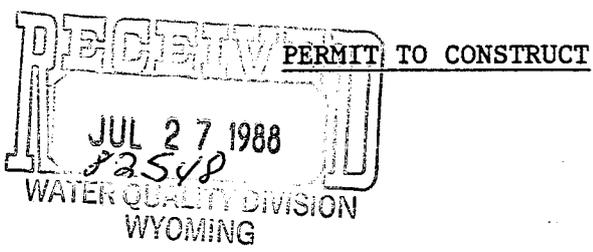
4. Based on the Water Quality Data submitted (albeit 1983 data) the liner of the new lagoon must meet the minimum requirements of 1×10^{-7} cm/sec permeability. The application implies this but does not specifically state that this will be the case after applying the soil sealant layer and the protective layer.

5. The Skinner's Wastewater Lagoon (Enlargement #1) sheet plans indicate that there will be five monitor wells; however, there was no submittal of any construction details for these wells. The applicant should be made aware of the requirements of WQRR Chapter XI, Part G and should submit construction details for the monitor wells. Additionally, a proposed monitoring schedule and list of parameters containing at a minimum:

TDS
Na
Cl
Oil and Grease
Ba

should be recommended by the applicant to be included as a permit condition.

cc: A. J. Mancini, Groundwater Control Supervisor
File



- New
- Renewal
- Modified

Permit No. 85-266RRRRRR
SEE CONDITIONS ON BACK

Artesian Mobile Home Park - South Side
(Name of Facility)

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

Gary Johnston
719 Artesian Road
Cheyenne, WY 82007

to construct, install, or modify a public water distribution and wastewater collection facility according to the procedures and conditions of the application No. 85-266RRRRRR. The facility is located in Section 17, T13N, R66W in the County of Laramie, 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.

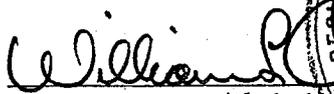
The permittee shall allow authorized representatives from the Department of Environmental Quality, Water Quality Division, upon the presentation of credentials and during working hours, to have access to inspect the facilities, at the above location, for the purpose of compliance with the provisions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

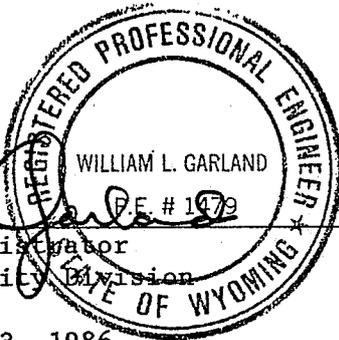
The permittee shall notify representatives from the Department of Environmental Quality, Water Quality Division the day construction commences and give an estimate of completion of the project. The authorized representative in your area can be contacted at the following address: District Engineer, State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

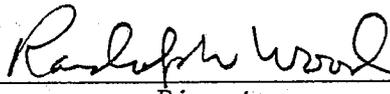
Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities or penalties established pursuant to any applicable State law or regulation.

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


Administator
Water Quality Division
STATE OF WYOMING




Director
Dept. of Environmental Quality

May 23, 1986
Date of Issuance

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

Conditions to Permit to Construct #85-266RRRRRR

1. Prior to initiating construction, the permittee shall notify the Water Quality Division as to when construction will start and give an estimate of the completion time of the project.
2. The permittee shall submit the following performance test results to the Water Quality Division prior to using the water and wastewater systems. The results should also include the procedures used and the necessary calculations.
 - a. Water system
 - i. Pressure and leakage testing as specified in AWWA C600-82.
 - ii. Flushing, disinfection and bacterial testing as specified in AWWA C601-82.
 - b. Wastewater system
 - i. Grade and line requirements as specified in the South Cheyenne Water and Sewer District Specifications.
 - ii. Deflection testing as specified in the authorized plans.
 - iii. Exfiltration testing as specified in the Water Quality Rules & Regulations, Chapter XI, Section 9.b.v.

cc: DM Hopkins & Assoc., 216 E. 17th St., Cheyenne, WY 82001
Laramie County Commissioners, P.O. Box 608, Cheyenne, WY 82003
S. Cheyenne Water & Sewer District, 908 Drew Court, Cheyenne, WY 82007

6-2-86



THE STATE OF WYOMING

ED HERSCHLER
GOVERNOR

Department of Environmental Quality
Water Quality Division

HERSCHLER BUILDING

CHEYENNE, WYOMING 82002

TELEPHONE 307 777-7781

June 2, 1986

Gary Johnston
Artesian Mobile Home Park
719 Artesian Road
Cheyenne, WY 82007

RE: Permit to Construct 85-266RRRRRR

Dear Mr. Johnston:

Enclosed is the permit to construct to upgrade your mobile home park to the State's minimum standards. Please note the conditions on the permit which require you to notify us of your construction schedule and also to submit specific test results.

These tests are standard requirements and are specified on the plans you submitted for authorization. I suggest you and your contractor familiarize yourselves with these test procedures as the results must be submitted to us prior to using the mobile home park. Along with the test results we are also requiring an explanation of the procedures that were used and also the calculations.

Please call if we can be of assistance.

Sincerely,

Thomas S. Norman
Water Quality Engineer

TSN/nc
Enclosures

cc: Donald M. Hopkins & Assoc., 216 E. 17th St., Cheyenne, WY 82001
S. Cheyenne Water & Sewer District, 908 Drew Ct., Cheyenne, WY 82007
Laramie County Commissioners, P.O. Box 608, Cheyenne, WY 82003

5-2-86

REVIEW OF PLANS AND SPECIFICATIONS

WYOMING DEPARTMENT OF ENVIRONMENTAL QUALITY
WATER QUALITY DIVISION
Herschler Building, 4 West, 122 West 25th
Cheyenne, Wyoming 82002

PROJECT: Artesian MHP

ARCHITECT OR ENGINEER: Don Hopkins

216 E. 17th Street, Cheyenne, WY 82001

APPLICANT: Gary Johnston

719 Artesian Road, Cheyenne, WY 82007

WATER QUALITY DIVISION REFERENCE NUMBER: 85-266RRRRR

REVIEWING ENGINEER: Thomas S. Norman *T.S. Norman*

DATE OF REVIEW: May 1, 1986

ACTION: NOT AUTHORIZED FOR CONSTRUCTION

COMMENTS:

1. The 2-inch water line is an acceptable method of maintaining the minimum water pressure. We will need construction plans and specifications for this line. This will require another tap onto the S. Cheyenne W&S District's water main plus a valve and meter. You might want to increase the existing tap size to accomodate this new line and then eliminate a new tap, valve, and meter.

Review of Plans and Specifications

WYOMING DEPARTMENT OF ENVIRONMENTAL QUALITY
WATER QUALITY DIVISION
Herschler Building, 4 West, 122 West 25th
Cheyenne, Wyoming 82002

PROJECT: Artesian Mobile Home Park

ARCHITECT OR ENGINEER: Donald M. Hopkins & Associates, Inc.
216 E. 17th Street, Cheyenne, WY 82001

APPLICANT: Gary Johnston
719 Artesian Road, Cheyenne, WY 82007

WATER QUALITY DIVISION REFERENCE NUMBER: 85-266RRRR

REVIEWING ENGINEER: Thomas S. Norman *TBN*

DATE OF REVIEW: April 7, 1986

ACTION: NOT AUTHORIZED FOR CONSTRUCTION

COMMENTS:

A. Wastewater

- 1. There will be some conditions placed in the permit to construct which will require the wastewater system to be inspected and tested during construction. Test results will be submitted to Water Quality Division prior to using the system.

B. Water

- 1. The computer program seemed to have some errors. I have marked up a copy for your review.
- 2. If the pressures losses are still to high to maintain an adequate pressure, I suggest another water line rather than a pressure tank and pump. The pressure tank and pump will be a continuous maintenance problem plus the tank will have to be quite large to satisfy the peak hourly flow rate.
- 3. The specifications should identify which procedures will be followed to document the required pressure testing, leak testing, disinfection procedures, and bacteriological analysis.
- 4. Similar comment to A.1. above except for the water system.

pjb

Enclosure

Review of Plans and Specifications

WYOMING DEPARTMENT OF ENVIRONMENTAL QUALITY
WATER QUALITY DIVISION
Herschler Building, 4 West, 122 West 25th
Cheyenne, Wyoming 82002

PROJECT: Artesian Mobile Home Park, Laramie Co.

ARCHITECT OR ENGINEER: Don Hopkins & Associates
216 E. 17th Street, Cheyenne, WY 82001

APPLICANT: Gary Johnston
719 Artesian Road, Cheyenne, WY 82007

WATER QUALITY DIVISION REFERENCE NUMBER: 85-266RRR

REVIEWING ENGINEER: Thomas S. Norman *TSN*

DATE OF REVIEW: March 11, 1986

ACTION: AS-BUILTS: DO NOT MEET MINIMUM STANDARDS.
PROPOSED CONSTRUCTION: NOT AUTHORIZED.

COMMENTS:

A. Wastewater

1. The manhole spacing between #4 and #5 exceeds the minimum requirement of 400 feet.
2. More detailed specifications are required to cover:
 - a. Infiltration/exfiltration testing
 - b. Deflection testing.
 - c. Which type of bedding will be used? Compaction of bedding?
 - d. Backfill requirements? Compaction?
 - e. The pipe specification should specify ASTM 3034-80.
 - f. The water/sewer separation requirements are not adequate. The 1.5 foot separation requires the water to be over the sewer. Concrete encasement is no longer acceptable. The regulations require a separate conduit pipe. The plans should identify where special construction may be required.

B. Water

1. Documentation was never provided to show that the water system could maintain a 35 psi working pressure at the required 130 gpm.
2. What are the specifications for the water pipe? PE? PVC? Code numbers?
3. Documentation is needed showing that the required pressure testing, leak testing, disinfection procedures, and bacteriological analysis was performed in accordance with the applicable AWWA procedures.

Review of Plans and Specifications

WYOMING DEPARTMENT OF ENVIRONMENTAL QUALITY
WATER QUALITY DIVISION
Herschler Building, 4 West, 122 West 25th
Cheyenne, Wyoming 82002

PROJECT: Artesian Mobile Home Park, Laramie Co.

ARCHITECT OR ENGINEER: Don Hopkins & Associates
216 E. 17th Street, Cheyenne, WY 82001

APPLICANT: Gary Johnston
719 Artesian Road, Cheyenne, WY 82007

WATER QUALITY DIVISION REFERENCE NUMBER: 85-266RR

REVIEWING ENGINEER: *CGN* Thomas S. Norman and *Chris G. Norman* Christian G. Norman

DATE OF REVIEW: August 16, 1985

ACTION: AS-BUILTS: DO NOT MEET MINIMUM STANDARDS.

PROPOSED CONSTRUCTION: NOT AUTHORIZED.

COMMENTS:

1. The request for installing manholes on 4-inch lines is denied. Since the 4-inch lines must be replaced and the slopes changed, placing manholes at this time is not acceptable.
2. Besides the manholes shown, three other manholes will eventually be required (2 on lot 65, and 1 on lot 39).
3. The installation of the manholes on the 6-inch sewer lines is only partial fulfillment of the continuing violation. The remaining comments in the June 18, 1985 review letter must also be addressed.
4. Cast iron hubless soil pipe ASTM A74-69 is not an acceptable pipe alternative.
5. Three copies of the plans are required.

cc: Steve Kline, Attorney, P.O. Box 1938, Cheyenne, WY 82003
Jennifer Hager, Attorney General's Office

6-20

Review of Plans and Specifications

WYOMING DEPARTMENT OF ENVIRONMENTAL QUALITY
WATER QUALITY DIVISION
Herschler Building, 4 West, 122 West 25th
Cheyenne, Wyoming 82002

PROJECT: Artesian Mobile Home Park, Laramie Co.

ARCHITECT OR ENGINEER: Don Hopkins & Associates
216 E. 17th Street, Cheyenne, WY 82001

APPLICANT: Gary Johnston
719 Artesian Road, Cheyenne, WY 82007

WATER QUALITY DIVISION REFERENCE NUMBER: 85-266R

REVIEWING ENGINEER: Thomas S. Norman and Christian G. Norman

DATE OF REVIEW: June 18, 1985

ACTION: AS-BUILTS. DO NOT MEET MINIMUM STANDARDS.

COMMENTS:

The following comments address your responses of June 10, 1985. The water and sewer system is not in compliance with the Department's minimum standards. Please submit plans and specifications that show corrected measures to bring the system into compliance. These comments are being forward to the Attorney General's office for enforcement.

1. The Department's regulations require that sanitary sewer mains shall be a minimum of 6-inches in diameter (Chapter XI, Section 58.b). Even if 4 inch lines were to be considered, the minimum slope is 1/4 inch per foot and your lines do not meet this requirement. The sewer lines are not acceptable.
2. The lack of manholes does not meet the minimum requirements (Chapter XI, Section 9.(d)).
3. What is meant by a 4 inch by 6 inch sewer? Is it rectangular?
4. Profile sections of the water lines are required (Chapter XII, Section 7.c.).
5. Inadequate reply.
6. The plans do not show the water and sewer lines going to these lots (Chapter XI, Section 7.b.).
7. Profile sections of the sewer lines are required (Chapter XI, Section 7.b.).
8. Our copy of the South Cheyenne Water and Sewer District specifications does not show the stated pipe to be approvable.
9. The response does not make sense. "Schedule 30 to 34 pipe" is an unknown rating or standard.
10. Response is inadequate. A curb stop is required on each riser (Chapter XI, Section 59.c.).

11. Engineering calculations have not been provided that show the 132 gpm rate can be supplied (Chapter XII, Section 59.c.).
12. A detail is still required (Chapter XI, Section 7.b.).
13. Is the applicant agreeing to extend the water riser?

cc: Steve Kline, Attorney, P.O. Box 1938, Cheyenne, WY 82003
Steve Jones, Attorney General's Office

6-3-85

Review of Plans and Specifications

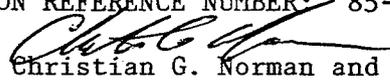
WYOMING DEPARTMENT OF ENVIRONMENTAL QUALITY
WATER QUALITY DIVISION
Herschler Building, 4 West, 122 West 25th
Cheyenne, Wyoming 82002

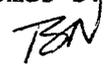
PROJECT: Artesian Park, Laramie Co.

ARCHITECT OR ENGINEER: Don Hopkins & Associates
216 E. 17th Street, Cheyenne, WY 82001

APPLICANT: Gary Johnston
719 Artesian Road, Cheyenne, WY 82007

WATER QUALITY DIVISION REFERENCE NUMBER: 85-266

REVIEWING ENGINEER:  Christian G. Norman and Thomas S. Norman

DATE OF REVIEW: May 29, 1985 

ACTION: NOT AUTHORIZED FOR CONSTRUCTION

COMMENTS:

1. Sanitary sewer lines shall be 6" or larger. South Cheyenne sewer and water specifications call for 8" pipe or larger.
2. No manholes have been installed in the system. There shall be manholes at least every 400 feet and at every change in direction, alignment and pipe size. Manholes shall also be located at the end of the lines. Cleanouts may be substituted at the end of the lines if there is a manhole not more than 150 feet away.
3. What is the size of the sanitary sewer from lot 67-65?
4. How deep are the water and sewer lines buried?
5. The water lines are rigid schedule 80. What are the specifications for this pipe? Is it P.E. or P.V.C. and what are the code numbers?
6. Are lots 68 and 65 to be undeveloped? If not, why isn't there sewer and water lines to these lots?
7. More information is needed on the slope of the sewer pipes. A cross-section of slopes and elevations are required.
8. P.V.C. water pipe does not meet South Cheyenne Sewer and Water District specifications. The South Cheyenne Sewer and Water District specifications call for D.J. class 52 or 54 meeting AWWA C151 or C.I. class 22 meeting AWWA C106 or AWWA C108.
9. Isn't the sewer pipe SDR 35 instead of SDR 33.5?
10. Each water riser is required to have a curb stop below frost penetration.

11. The regulations require that the water source be able to supply 130 gpm for a mobile home park of 69 units. Please document that adequate pressures will be maintained under these flow conditions.
12. A detail of the sewer service connection is required.
13. The water riser must terminate four inches above the ground.
14. Any deficiencies in the water and wastewater system cannot be corrected until a permit to construct can be obtained.

CGN/TN/nc

cc: Steve Kline, Attorney, P.O. Box 1938, Cheyenne, WY 82003

PERMIT TO CONSTRUCT

- New
- Renewal
- Modified

Permit No. 85-267R
MA 14542

Jackson Wellhouse No. 5
 (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 installation of existing pump and
equipment in new well and wellhouse and installation of piping to the
system facility according to the procedures and conditions of the

application No. 85-267R. The facility is located in _____
Sec. 33, T41N, R116W

_____ in the County of Teton,

in the State of Wyoming. This permit shall be effective for a period of two (2)
 years (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 dur-

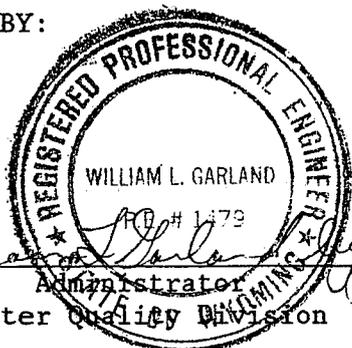
ing working hours, to have access to inspect the facilities, at the above location, for the purpose of compliance with the provisions of this construction permit.

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, Wyoming 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.

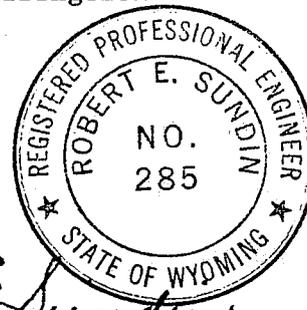
The issuance of this permit does not convey any property rights in either real or personal property, or any exclusive privileges, nor does it authorize any injury to private property or any invasion of personal rights, nor any infringement of Federal, State or local laws or regulations.

AUTHORIZED BY:



William L. Garland

Administrator
Water Quality Division



Robert E. Sundin

Director

Director
Dept. of Environmental Quality

July 18, 1985

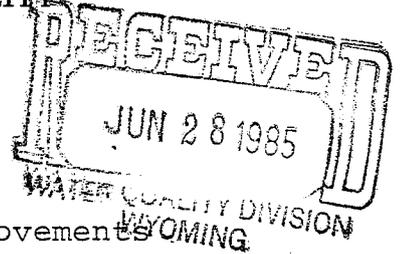
Date of Issuance

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



PROJECT: Jackson Wellhouse No. 5 System Improvements

ENGINEER: Nelson Engineering
ATTN: Robert Norton
P.O. Box 1599
Jackson, WY 83001

OWNER: Town of Jackson
P.O. Box 1687
Jackson, WY 83001

WATER QUALITY DIVISION REFERENCE NUMBER: 85-267

REVIEWING ENGINEER: Steven P. Gerber, P.E.

DATE OF REVIEW: June 26, 1985

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. Specifications must show the name, Wyoming registration number, and seal or signature of the engineer.
2. A permit to construct is required prior to well construction, specifications are needed for well construction and development. Specifications shall include yield and drawdown test requirements, plumbness and alignment requirements, construction materials, and development requirements.
3. Specifications are needed for disinfection of the well upon completion of construction.
4. The casing shall be firmly connected to the pump structure or have the casing inserted into a recess extending at least $\frac{1}{2}$ inch into the pump base.
5. The discharge piping must include a pressure gauge and a sampling tap located at a point where positive pressure is maintained.
6. The shutoff valve must be located above the wellhouse floor not buried as is now indicated.

ABC

7. The end of the exhaust/relief pipe end shall be covered with a 24 mesh corrosion resistant screen.

8. Well casing vent screen shall be a 24 mesh screen, not a 16 mesh now indicated.

9. Provide design requirements and specifications to be used for purchasing the pump.

10. Provide chemical requirements and specifications of existing equipment to be used for chlorine addition and specifications for purchasing phosphate equipment.

11. Chlorine room door shall be specified to be equipped with panic hardware.

12. Specify capacity of exhaust fan to be utilized in the chlorine room. Exhaust fan shall be capable of providing one complete air change every two minutes.

13. Chlorine room exhaust fan shall take suction within 18 inches of the floor.

14. The air intake louver for the chlorine room is to be located near the ceiling.

15. Separate switches for the fan and lights shall be located outside of the chlorine room door.

16. Floor drains from the chlorine room shall not be connected to other internal floor drain systems.

17. Specify or detail how chlorine PVC conduit will be sealed so chlorine gas cannot pass from chlorine room to pump room.

18. Respiratory protection equipment, meeting the requirements of the National Institute of Occupational and Health, shall be available where chlorine gas is handled, and shall be stored at a convenient location, but not inside any room where chlorine is used or stored. The units shall use compressed air, have at least a 30 minute capacity, and be compatible with or exactly the same as units used by the fire department responsible for the well house.

19. Provide specifications for chlorination piping.

Submit the requested information and revised drawings in triplicate. If you have any questions do not hesitate to contact me.

copy: Plans (3)

File (2)

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 301, Sheridan, Wyoming 82801; telephone, 672-6457.

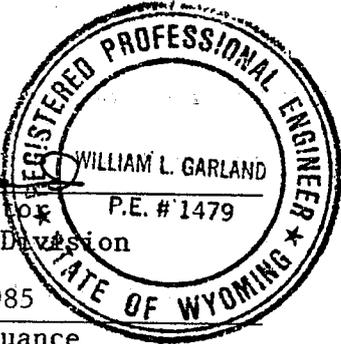
Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities or penalties established pursuant to any applicable State law or regulation.

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:

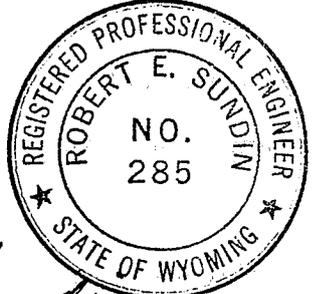
William L. Garland

Administrator
Water Quality Division



Robert E. Sundin

Director
Dept. of Environmental Quality



July 5, 1985

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
2161 COFFEEN AVE., SUITE 601
SHERIDAN, WYOMING 82801

PROJECT: Burlington Northern Railroad Company
Depot, Sheridan, Wyoming

ARCHITECT OR ENGINEER: Ken Bruestle
2718 Montana Avenue
Billings, Montana 59101

WATER QUALITY DIVISION

REFERENCE NUMBER: 85-268

REVIEWING ENGINEER: Susan Holmes *SX*

DATE OF REVIEW: June 5, 1985

ACTION: Not Authorized

COMMENTS:

- 1) Plans and specifications must be signed by a professional engineer registered in Wyoming.
- 2) The submittal must include specifications or a statement that the work to be performed will be in accordance with specifications authorized by the Water Quality Division.
- 3) Construction details are required for manholes, fire hydrants, cleanouts, casing pipes, cross-section of pipe trenches, water valves, service connections, etc.
- 4) A check valve is required in all water service connections for backflow prevention. Please include in the detail.
- 5) A design report should be submitted that shows the water and sewer expansion can adequately serve the facility. Normal operating pressure of the water system should be around 35 psi. Maximum pressure is 100 psi, minimum pressure is 20 psi under fire flow conditions.
- 6) A statement from the City of Sheridan is required which says they are willing and able to provide water and sewer service to the proposed facility.
- 7) A water valve is needed on the new main where it connects to the existing line.

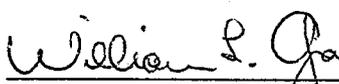
ing working hours, to have access to inspect the facilities, at the above location, for the purpose of compliance with the provisions of this construction permit.

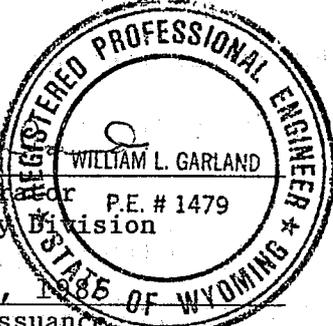
The permittee shall notify representatives from the Department of Environmental Quality, Water Quality Division the day construction commences and give an estimate of completion of the project. The authorized representative in your area can be contacted at the following address: District Engineer, State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

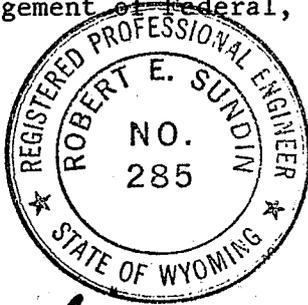
The issuance of this permit does not convey any property rights in either real or personal property, or any exclusive privileges, nor does it authorize any injury to private property or any invasion of personal rights, nor any infringement of Federal, State or local laws or regulations.

AUTHORIZED BY:


WILLIAM L. GARLAND
Administrator P.E. # 1479
Water Quality Division
August 15, 1985
Date of Issuance




Director
Dept. of Environmental Quality



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

PROJECT: Shute Creek Man Camp Expansion

ENGINEER: Carroll S. Delaney
H₂O Engineering, Inc.
4699 Nautilus Ct., S. Ste. 204
Boulder, CO 80301

OWNER: Exxon Company, USA
ATTN: Rolands Moreau
P.O. Box 1600
Midland, TX 79702

WATER QUALITY DIVISION REFERENCE NUMBER: 85-269

REVIEWING ENGINEER: Bill Locke, P.E. *BL*

DATE OF REVIEW: July 12, 1985

ACTION: Not authorized.

COMMENTS:

Your plans and specifications to expand the Shute Creek Man Camp have been reviewed. Your applications for permits were separated into the water system (#85-270) and the wastewater system (#85-269). This expansion does not include the construction of any new water distribution lines or wastewater collection lines. It strictly addresses the expansion of the water treatment and wastewater treatment facilities to accommodate a greater population. The following items need to be addressed before we can issue a permit:

1. The following detention times were calculated given the cell volumes and $Q = 135,000$ GPD.

<u>Cell</u>	<u>Vol (ac-ft)</u>	<u>Vol (gal)</u>	<u>Detention (days)</u>
A	26.4	8,601,880	63.7
B	10.2	3,323,454	24.6
C	3.9	1,270,732	9.4

Total 97.7 days

This is considerably more than the 69 days presented in the report. With the longer detention time some algae blooming is inevitable. Will the effluent piping from pond "A" allow for multiple draw off levels to control the TSS from the algae?

2. The aerations requirements calculated in this report show that two of the three aerators will have to run continuously (24 hrs/day). Will the controls for the same allow for this type of operation?

PERMIT TO CONSTRUCT

- New
- Renewal
- Modified

Permit No. 85-270R
MA14542

Shute Creek Mancamp Expansion - Water
(Name of Facility)

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

Exxon Company, USA
P.O. Box 1600
Midland, TX 79702

to construct, install, or modify an existing water treatment facility to
accommodate 1,800 people

facility according to the procedures and conditions of the
application No. 85-270R. The facility is located in

Sec. 14, T22N, R112W

in the County of Lincoln,

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 dur-

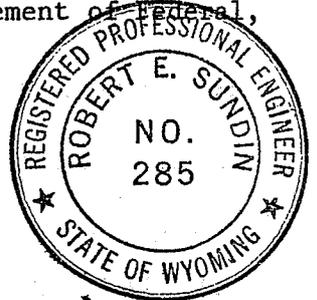
ing working hours, to have access to inspect the facilities, at the above location, for the purpose of compliance with the provisions of this construction permit.

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, Wyoming 82520; telephone, 332-3144.

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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

WILLIAM L. GARLAND
Administrator P.E. # 1479
Water Quality Division
August 13, 1985

Date of Issuance

Robert E. Sundin

Director
Dept. of Environmental Quality

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

PROJECT: Shute Creek Man Camp Expansion

ENGINEER: Carroll S. Delaney
H₂O Engineering, Inc.
4699 Nautilus Ct., S. Ste. 204
Boulder, CO 80301

OWNER: Exxon Company, USA
ATTN: Rolands Moreau
P.O. Box 1600
Midland, TX 79702

WATER QUALITY DIVISION REFERENCE NUMBER: 85-270

REVIEWING ENGINEER: Bill Locke, P.E. *BL*

DATE OF REVIEW: July 12, 1985

ACTION: Not authorized.

COMMENTS:

Your plans and specifications to expand the Shute Creek Man Camp have been reviewed. Your applications for permits were separated into the water system (#85-270) and the wastewater system (#85-269). This expansion does not include the construction of any new water distribution lines or wastewater collection lines. It strictly addresses the expansion of the water treatment and wastewater treatment facilities to accommodate a greater population. The following items need to be addressed before we can issue a permit:

1. Show how the feed line to the gas plant water treatment plant will connect to the line from the wells.
2. Explain how the wells are to be controlled considering they will now be supplying two separate systems.
3. Define the water system demands for average day, maximum day and maximum hour. Provide flow information for both the mancamp and gas plant. Itemize gas plant flows for both potable use and plant use. Show the adequacy of the wells to supply the demands during each of the flow conditions.
4. Provide a control description for the entire water treatment facility, including how the chemical feed systems are controlled.
5. Quantify the backwash rates and frequency for the pressure filters. Identify where this water is going to be disposed of.

AC

Review of Plans & Specs.

Ref. No. 85-270

Page Two

6. Provide a flow measuring device for raw water influent and treated water storage tank effluent.

7. Identify which equipment will be run by the emergency generator should a power failure occur.

8. Provide a floor plan of the water plant showing location of existing equipment, location of new equipment, and piping connections between the equipment.

Please provide three copies of the above required information. If you should have any questions please call.

BL/jw

PERMIT TO CONSTRUCT

- New
- Renewal
- Modified

Permit No. 85-271
MA 14542

Equipment Maintenance Facility, Rock Springs
(Name of Facility)

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

Sweetwater Co. School District No. 1
3550 Foothill Blvd.
Rock Springs, WY 82901

to construct, install, or modify a new water and wastewater service to an
equipment maintenance

facility according to the procedures and conditions of the
application No. 85-271. The facility is located in

Sec. 35, T19N, R105W

in the County of Sweetwater,

in the State of Wyoming. This permit shall be effective for a period of two (2)
years (five (5) years maximum) from the date of issuance of this permit.

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

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

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

The permittee shall allow authorized representatives from the Department of Environmental Quality, Water Quality Division, upon the presentation of credentials and dur-

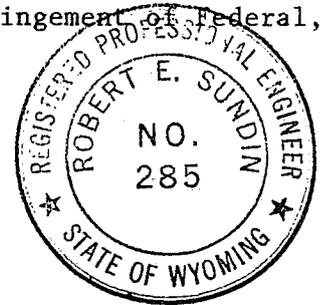
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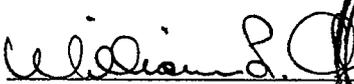
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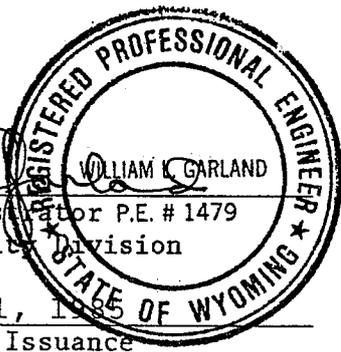
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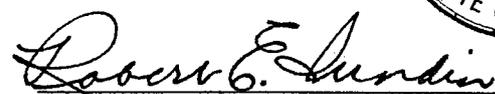
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AUTHORIZED BY:




WILLIAM L. GARLAND
Administrator P.E. # 1479
Water Quality Division
July 11, 1985
Date of Issuance

A circular seal for a Registered Professional Engineer in the State of Wyoming. The outer ring contains the text "REGISTERED PROFESSIONAL ENGINEER" at the top and "STATE OF WYOMING" at the bottom, separated by two stars. The center of the seal contains the name "WILLIAM L. GARLAND".


Director
Dept. of Environmental Quality

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

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.

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AUTHORIZED BY:

William L. Garland

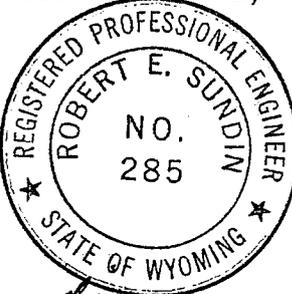
Administrator
Water Quality Division
July 17, 1978

Date of Issuance



Robert E. Sundin

Director
Dept. of Environmental Quality



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

xc: Frank Ferris

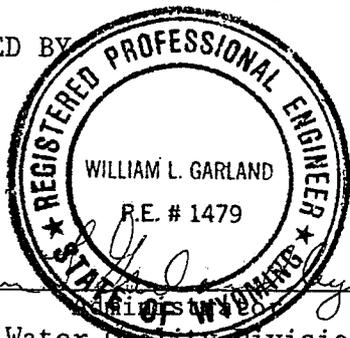
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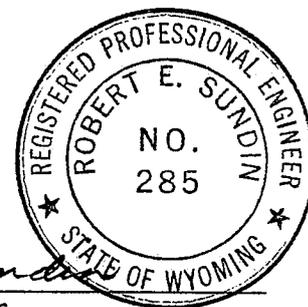
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AUTHORIZED BY



William L. Garland
Water Quality Division



Robert E. Sundin
Director
Dept. of Environmental Quality

July 17, 1985
Date of Issuance

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xc: Frank Ferris

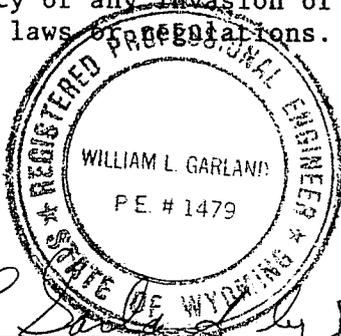
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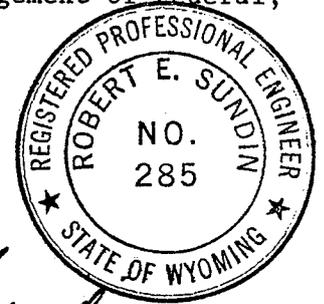
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AUTHORIZED BY:



William L. Garland

Administrator
Water Quality Division



Robert E. Sundin

Director
Dept. of Environmental Quality

July 17, 1985

Date of Issuance

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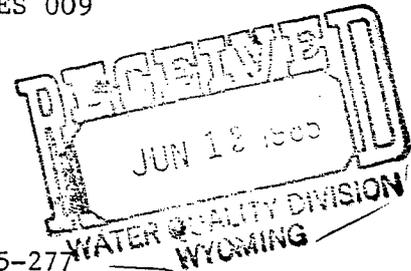
xc: Frank Ferris

REVIEW OF PLANS AND SPECIFICATIONS

WYOMING DEPARTMENT OF ENVIRONMENTAL QUALITY
WATER QUALITY DIVISION
2161 COFFEEN AVE., SUITE 601
SHERIDAN, WYOMING 82801

PROJECT: AMAX Coal Company, Belle Ayr Mine
Sediment Reservoirs: BANPDES 002,
BANPDES 015, BA 43, and BANPDES 009

ARCHITECT OR ENGINEER: Frank Ferris
AMAX Coal Company
P.O. Box 3005
Gillette, Wyoming 82716



WATER QUALITY DIVISION
REFERENCE NUMBERS:

85-272, 85-273, 85-274, and 85-275

REVIEWING ENGINEER: Susan Holmes SA

DATE OF REVIEW: June 11, 1985

ACTION: Not Authorized

COMMENTS:

- 1) We are now requiring that information be submitted on piping that is installed to ponds that are permitted to receive pit water. This information should consist of construction specifications that include pipe materials, how the installation will be protected from freezing, trench cross-sections, estimated pumping rate, etc. I realize that exact alignment and type of installation for this piping may not be known at the time of application for a permit, but please supply the best available information known at the time.

BANPDES 015

- 1) Does all of the runoff enter the pond as overland flow or will there be points of concentrated flow?
- 2) It appears that the existing 48-inch CMP on the east side of the pond will discharge water during the 10-year, 24-hour storm event, particularly if the pond level is maintained at elevation 4460.

Review of Plans and Specifications
Belle Ayr Mine Sediment Reservoirs
Ref. Nos. 85-272, 85-273, 85-274, 85-277
June 11, 1985
Page Two

BA 43

- 1) How is the runoff from the drainage area between Clabaugh 1 and the Drop Diversion blocking dike controlled?
- 2) It is my understanding from the information submitted that this reservoir will provide sediment control for topsoil stripping operations. If this is true, I do not agree with the curve number of 73 used in the hydrologic calculations. The peak flow rates and runoff volumes seem low for a drainage area of this size that is stripped.

BANPDES 009

- 1) It appears that this reservoir will discharge through point 009. We have correspondence dated June 21, 1984 from AMAX Coal to John Wagner of DEQ/WQD requesting that pit water be added as a source to your discharge permit for point 009. To date, I do not believe that the description has been changed. Construction of this reservoir will require that pit water be added as a source, if indeed it will discharge through 009.

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 301, Sheridan, Wyoming 82801; telephone, 672-6457.

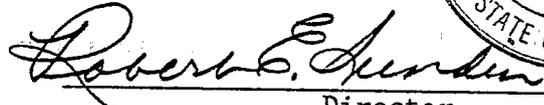
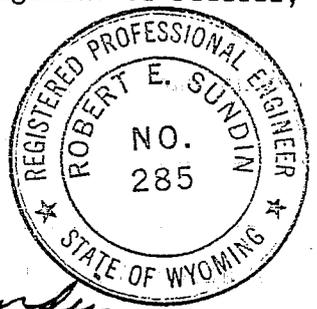
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AUTHORIZED BY:



WILLIAM L. GARLAND
Administrator
Water Quality Division
June 11, 1985
Date of Issuance



Director
Dept. of Environmental Quality

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cc: Frank K. Ferris
2000 Knollwood Drive
Gillette, WY 82716

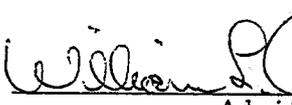
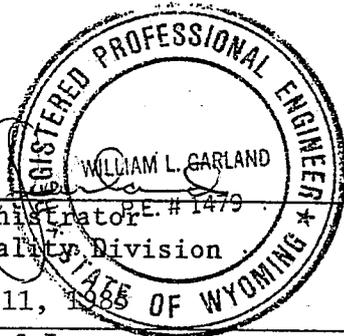
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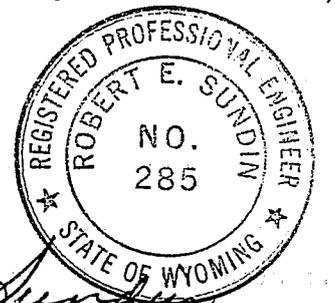
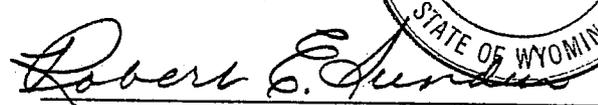
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AUTHORIZED BY:



WILLIAM L. GARLAND
P.E. # 1479
Administrator
Water Quality Division
June 11, 1985
Date of Issuance



Director
Dept. of Environmental Quality

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

cc: Frank Ferris
2000 Knollwood Drive
Gillette, WY 82716

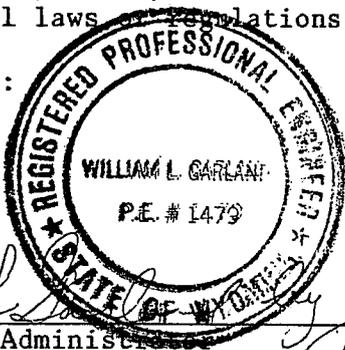
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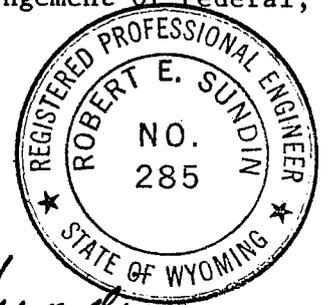
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AUTHORIZED BY:



William L. Garland

Administrator
Water Quality Division



Robert E. Sundin

Director
Dept. of Environmental Quality

July 17, 1985

Date of Issuance

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xc: Frank Ferris

REVIEW OF PLANS AND SPECIFICATIONS

WYOMING DEPARTMENT OF ENVIRONMENTAL QUALITY
WATER QUALITY DIVISION
2161 COFFEEN AVE., SUITE 601
SHERIDAN, WYOMING 82801

PROJECT: AMAX Coal Company, Belle Ayr Mine
Sediment Reservoirs: BANPDES 002,
BANPDES 015, BA 43, and BANPDES 009

ARCHITECT OR ENGINEER: Frank Ferris
AMAX Coal Company
P.O. Box 3005
Gillette, Wyoming 82716

WATER QUALITY DIVISION
REFERENCE NUMBERS: 85-272, 85-273, 85-274, and 85-277

REVIEWING ENGINEER: Susan Holmes SA

DATE OF REVIEW: June 11, 1985

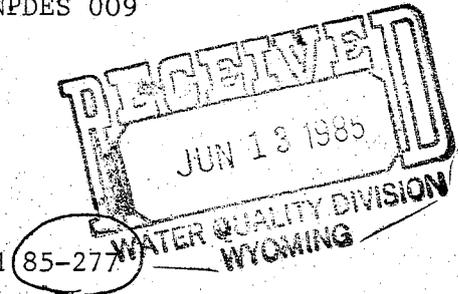
ACTION: Not Authorized

COMMENTS:

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BANPDES 015

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Review of Plans and Specifications
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June 11, 1985
Page Two

BA 43

- 1) How is the runoff from the drainage area between Clabaugh 1 and the Drop Diversion blocking dike controlled?
- 2) It is my understanding from the information submitted that this reservoir will provide sediment control for topsoil stripping operations. If this is true, I do not agree with the curve number of 73 used in the hydrologic calculations. The peak flow rates and runoff volumes seem low for a drainage area of this size that is stripped.

BANPDES 009

- 1) It appears that this reservoir will discharge through point 009. We have correspondence dated June 21, 1984 from AMAX Coal to John Wagner of DEQ/WQD requesting that pit water be added as a source to your discharge permit for point 009. To date, I do not believe that the description has been changed. Construction of this reservoir will require that pit water be added as a source, if indeed it will discharge through 009.

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.

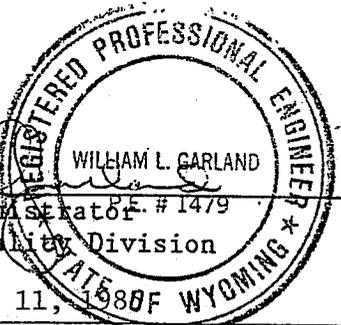
The permittee shall notify representatives from the Department of Environmental Quality, Water Quality Division the day construction commences and give an estimate of completion of the project. The authorized representative in your area can be contacted at the following address: District Engineer, State of Wyoming, Department of Environmental Quality, Water Quality Division, 2161 Coffeen Avenue, Suite 301, Sheridan, Wyoming 82801; telephone, 672-6457.

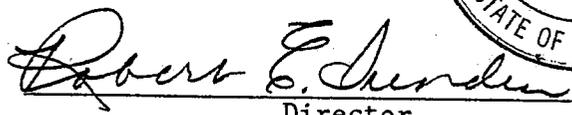
Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities or penalties established pursuant to any applicable State law or regulation.

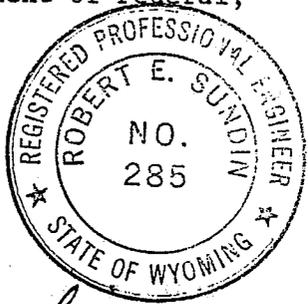
The issuance of this permit does not convey any property rights in either real or personal property, or any exclusive privileges, nor does it authorize any injury to private property or any invasion of personal rights, nor any infringement of Federal, State or local laws or regulations.

AUTHORIZED BY:


WILLIAM L. GARLAND
Administrator PE # 1479
Water Quality Division
June 11, 1988
Date of Issuance




Director
Dept. of Environmental Quality



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

cc: Frank Ferris
2000 Knollwood Drive
Gillette, WY 82716

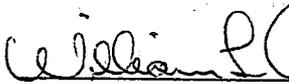
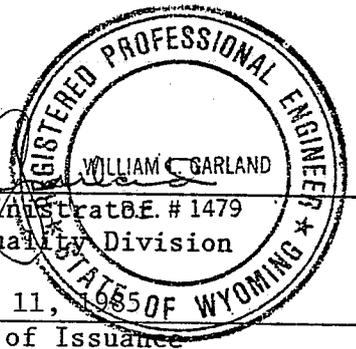
during working hours, to have access to inspect the facilities, at the above location, for the purpose of compliance with the provisions of this construction permit.

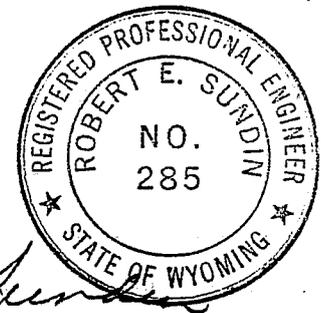
The permittee shall notify representatives from the Department of Environmental Quality, Water Quality Division the day construction commences and give an estimate of completion of the project. The authorized representative in your area can be contacted at the following address: District Engineer, State of Wyoming, Department of Environmental Quality, Water Quality Division, 2161 Coffeen Avenue, Suite 301, Sheridan, Wyoming 82801; telephone, 672-6457.

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AUTHORIZED BY:



WILLIAM C. GARLAND
Administrative # 1479
Water Quality Division
June 11, 1985
Date of Issuance



Director
Dept. of Environmental Quality

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

cc: Frank Ferris
2000 Knollwood Drive
Gillette, Wyoming 82716

PERMIT TO CONSTRUCT

- New
- Renewal
- Modified

Permit No. 85-280
See Special Conditions
 MA 14542

Ohio Oil Company - Lovell Refinery
 (Name of Facility)

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

U.S. Environmental Protection Agency, Region 8
999 18th Street
Denver, CO 80202

to construct, install, or modify a groundwater monitoring network according to the procedures and conditions of the application No. 85-280. The facility is located in Section 8, T56N, R86W in the County of Big Horn, in the State of Wyoming. This permit shall be effective for a period of one (1) years (five (5) years maximum) from the date of issuance of this permit.

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

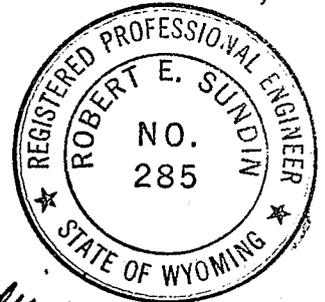
The permittee shall allow authorized representatives from the Department of Environmental Quality, Water Quality Division, upon the presentation of credentials and during working hours, to have access to inspect the facilities, at the above location, for the purpose of compliance with the provisions 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: Groundwater Compliance Specialist, State of Wyoming, Department of Environmental Quality, Water Quality Division, Herschler Building, 122 W. 25th, Cheyenne, Wyoming 82002; telephone, 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 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



Robert E. Sundin

Director

Dept. of Environmental Quality

June 12, 1985

Date of Issuance

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

CONDITIONS TO PERMIT TO CONSTRUCT #85-280

1. 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 Wyoming Water Quality Divisions Rules and Regulations, Chapter XI, Section 65. However, a sufficient seal should be installed according to normal engineering practice.
2. It is recommended that the PVC pipe be screened above the seasonal high water table with the bentonite seal installed above the screened interval. The bentonite should be hydrated after it has been placed.

6-19

PERMIT TO CONSTRUCT

- New
- Renewal
- Modified

Permit No. 85-281
See Special Conditions
 MA 14542

Riverton Landfill
 (Name of Facility)

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

U.S. Environmental Protection Agency, Region 8

999 18th Street

Denver, CO 80202

to construct, install, or modify a groundwater monitoring network according to the procedures and conditions of the application No. 85-281. The facility is located in Section 36, T1N, R4E in the County of Fremont, in the State of Wyoming. This permit shall be effective for a period of one (1) years (five (5) years maximum) from the date of issuance of this permit.

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

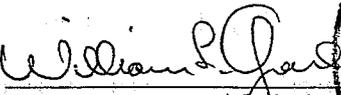
The permittee shall allow authorized representatives from the Department of Environmental Quality, Water Quality Division, upon the presentation of credentials and during working hours, to have access to inspect the facilities, at the above location, for the purpose of compliance with the provisions 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: Groundwater Compliance Specialist, State of Wyoming, Department of Environmental Quality, Water Quality Division, Herschler Building, 122 W. 25th, Cheyenne, Wyoming 82002; telephone, 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 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
P.E. # 1479
Administrator
Water Quality Division
STATE OF WYOMING
REGISTERED PROFESSIONAL ENGINEER



ROBERT E. SUNDIN
NO. 285
Director
Dept. of Environmental Quality
STATE OF WYOMING
REGISTERED PROFESSIONAL ENGINEER

June 12, 1985
Date of Issuance

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

CONDITIONS TO PERMIT TO CONSTRUCT 85-281

1. 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 Wyoming Water Quality Divisions Rules and Regulations, Chapter XI, Section 65. However, a sufficient seal should be installed according to normal engineering practice.
2. It is recommended that the PVC pipe be screened above the seasonal high water table with the bentonite seal installed above the screened interval. The bentonite should be hydrated after it has been placed.

PERMIT TO CONSTRUCT

New
 Renewal
 Modified

Permit No. 85-282

MA 14542

Cleveland Village Twin Homes
(Name of Facility)

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

Cheyenne Board of Public Utilities

2100 Pioneer Ave.

Cheyenne, WY 82001

to construct, install, or modify a municipal sewage collection facility according to the procedures and conditions of the application No. 85-282. The facility is located in Section 34, T14N, R66W in the County of Laramie, in the State of Wyoming. This permit shall be effective for a period of two (2) years (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.

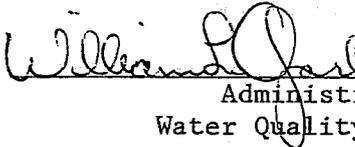
The permittee shall allow authorized representatives from the Department of Environmental Quality, Water Quality Division, upon the presentation of credentials and during working hours, to have access to inspect the facilities, at the above location, for the purpose of compliance with the provisions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

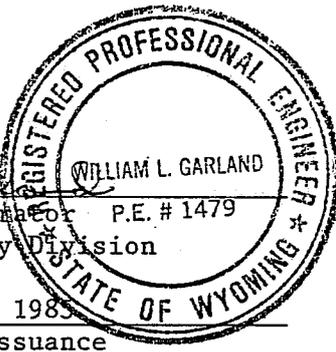
The permittee shall notify representatives from the Department of Environmental Quality, Water Quality Division the day construction commences and give an estimate of completion of the project. The authorized representative in your area can be contacted at the following address: District Engineer, State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

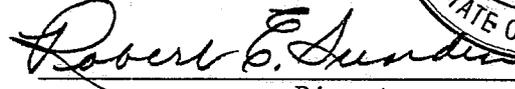
Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities or penalties established pursuant to any applicable State law or regulation.

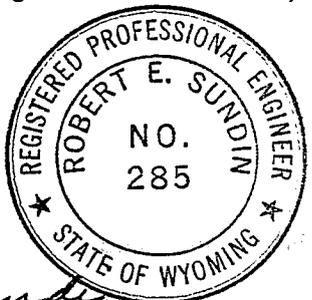
The issuance of this permit does not convey any property rights in either real or personal property, or any exclusive privileges, nor does it authorize any injury to private property or any invasion of personal rights, nor any infringement of Federal, State or local laws or regulations.

AUTHORIZED BY:


Administ~~ra~~tor P.E. # 1479
Water Quality Division
June 4, 1985
Date of Issuance




Director
Dept. of Environmental Quality



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

cc: Jon Anderson
AVI
1700 Westland Road
Cheyenne, WY 82001

Binder

PERMIT TO CONSTRUCT

- New
- Renewal
- Modified

Permit No. 85-283
 Ref. No. 84-588R and 85-109R
MA 14542

Water Main Update Safety Project - 15th Street Segment
 (Name of Facility)

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

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

to construct, install, or modify a public water supply distribution system facility according to the procedures and conditions of the application No. 85-283. The facility is located in Section 32, T14N, R66W in the County of Laramie, in the State of Wyoming. This permit shall be effective for a period of two (2) years (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.

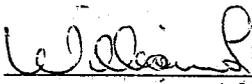
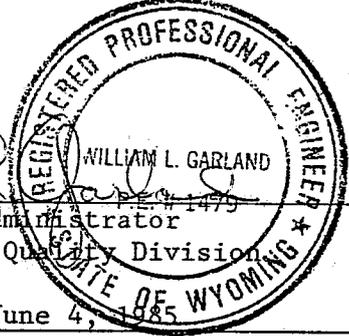
The permittee shall allow authorized representatives from the Department of Environmental Quality, Water Quality Division, upon the presentation of credentials and during working hours, to have access to inspect the facilities, at the above location, for the purpose of compliance with the provisions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

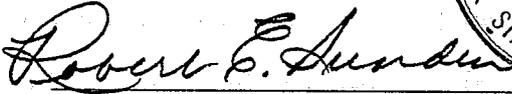
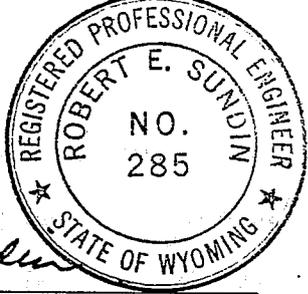
The permittee shall notify representatives from the Department of Environmental Quality, Water Quality Division the day construction commences and give an estimate of completion of the project. The authorized representative in your area can be contacted at the following address: District Engineer, State of Wyoming, Department of Environmental Quality, Water Quality Division, Herschler Building, 122 W. 25th, Cheyenne, Wyoming 82002; telephone, 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 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
June 4, 1985
Date of Issuance



Director
Dept. of Environmental Quality

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

cc: Joseph Kub
1750 Westland Road
Cheyenne, WY 82001

Run

PERMIT TO CONSTRUCT

- New
- Renewal
- Modified

Permit No. 85-284
EPA C560230-01

Bryan Stock Trail Interceptor, Dempsey Acres Interceptor
(Name of Facility)

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

City of Casper

Natrona Co. Joint Powers Board #2

200 North David

Casper, WY 82601

to construct, install, or modify a municipal wastewater lift stations, force mains, and gravily interceptors facility according to the procedures and conditions of the application No. 85-284. The facility is located in Section 35, T34N, R79W and Section 18, T33N, R79W in the County of Natrona, 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.

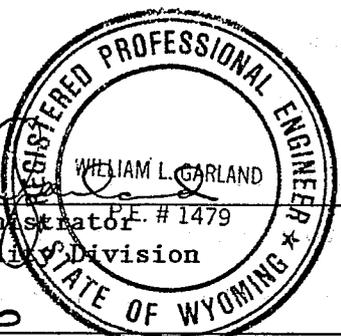
The permittee shall allow authorized representatives from the Department of Environmental Quality, Water Quality Division, upon the presentation of credentials and during working hours, to have access to inspect the facilities, at the above location, for the purpose of compliance with the provisions 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, Herschler Building, 122 W. 25th, Cheyenne, Wyoming 82002; telephone, 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 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
6-20-86
Date of Issuance

Richard Wood
Director
Dept. of Environmental Quality

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

cc: John Donmyer
HNTB
907 North Poplar
Casper, WY 82602

12-2-85



THE STATE OF WYOMING

ED HERSCHLER
GOVERNOR

Department of Environmental Quality
Water Quality Division

HERSCHLER BUILDING

CHEYENNE, WYOMING 82002

TELEPHONE 307 777-7781

December 2, 1985

Mr. Dave Engels
Casper Board of Public Utilities
200 North David
Casper, WY 82601

RE: City of Casper, Wyoming, EPA Grant No. C56023-01, DEQ/WQD Ref.
No.85-284, Bryan Stock Trail and Dempsey Acres Interceptors

Dear Mr. Engels:

Forwarded herewith please find a copy of the review comments on the subject project by the Wyoming Occupational Health and Safety Office. Please incorporate these into the appropriate plans and specifications.

Sincerely,

Alan Edwards

Alan Edwards
Engineering/Grants Evaluator

AE/nc
Enclosures

cc: Randy Fultz, HNTB, Casper (w/enc)
Tom Norman (w/enc)
Grant File (w/enc)



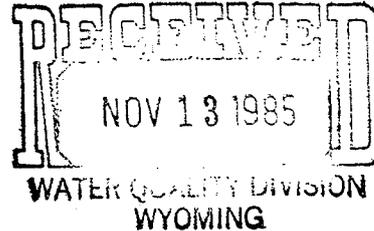
Occupational Health and Safety

CHEYENNE, WYOMING 82002

November 12, 1985

JAMES ZANCANELLA, PH.D.,
CHAIRMAN
H.B. ANDERSON, M.D.
RON BAGBY
L. KEITH HENNING
FLOYD J. HENRY
JAMES D. NEIMAN, JR.
JENNIE PARKER

DONALD D. OWSLEY
HEALTH AND SAFETY ADMINISTRATOR
(307) 777-7786



Mr. Alan Edwards
Engineer/Grants Evaluation
Water Quality Division
Herschler Building
122 W. 25th Street
Cheyenne, WY 82002

Dear Mr. Edwards:

Attached are our comments on the plans review of the EPA Grant #C560230-01, DEQ/WQD permit #85-284, Bryan Stock Trail and Dempsey Acres Interceptor drawings.

1-EPA Supplemental General Conditions , Page 19

- a- Paragraph 1, add "and the Wyoming Occupational Health and Safety Department Act of 1969, revised May 27, 1983".
- b- Paragraph 2, line 3, Federal "and State", including.
- c- After Part 1926, Wyoming Occupational Health and Safety Rules for Construction.
- d- Safety and Health Program: Paragraph 1, add "and the Wyoming Occupational Health and Safety Rules for Construction, as amended to date".

Paragraph 4, add "or the Wyoming Occupational Health and Safety Act of 1969.
- e- Page 55-9, line 2, after sufficient distance, add "no less than 2 feet", Wyoming Rules for Construction, Chapter XVI, 2.i.(1).
- f- Page 55-12, paragraph 4, line 6, -ient width add, "or layed back to the appropriate angle of repose" to provide adequate space, etc., etc., Wyo. Rules for Construction, Chapter XVI, 2.g.
- g- Page 55-13, Paragraph 7, line 2, after, "every precaution necessary to prevent", add, "exposure of employees to toxic or flammable gases" and

prevent dirt or debris, etc., etc., Wyo. General Rules, Chapter III, 2.e.

f- Concrete Structures, Page 10-3, add, "NOTE: to coal tar base finishes -
"warning personal protective equipment recommended by manufacture shall
be used".

g- Standard details, page D-5 - Detail of steps or individual rung ladder
indicates 5" clearance between front of ladder rung and wall, WOHS Rules
for General Industry specify a minimum clearance of 7", Chapter IV, Sec-
tion 7.c.(4), page 9.

I have no further comments.

Sincerely,


Joseph J. Bergli, Manager
Technical Assistance Division

JJB:ec

11-6



THE STATE OF WYOMING

ED HERSCHLER
GOVERNOR

Department of Environmental Quality
Water Quality Division

HERSCHLER BUILDING

CHEYENNE, WYOMING 82002

TELEPHONE 307 777-7781

MEMORANDUM

TO: Donald D. Owsley, Administrator, Occupational Health & Safety
FROM: *AE* Alan Edwards, Engineering/Grants Evaluator
DATE: October 31, 1985
SUBJECT: City of Casper, Wyoming, EPA Grant No. C560230-01, DEQ/WQD Permit No. 85-284, Bryan Stock Trail and Dempsey Acres Interceptors

Forwarded herewith please find one copy of the plans and specifications for the subject project. We would appreciate a review by your office of these plans and specifications. If you have any questions regarding these documents, please contact this office at extension 6351. Thank you.

AE/nc

cc: Grant file



Department of Environmental Quality
Water Quality Division

HERSCHLER BUILDING

CHEYENNE, WYOMING 82002

TELEPHONE 307 777-7781

November 4, 1985

Mr. Dave Engels
Casper Board of Public Utilities
200 North David
Casper, WY 82601

RE: City of Casper, Wyoming, EPA Grant No. C560230-01, DEQ/WQD Permit No.85-284, Bryan Stock Trail and Dempsey Acres Interceptors

Dear Mr. Engels:

The plans and specifications for the subject project have been reviewed by this office and by Tom Norman, District Engineer. Our comments are as follows:

1. A generator is required at the Bryan Stock Trail lift station because of the size of the pumps.
2. No information was furnished on the lift stations regarding flows, pump sizing, wet well sizing or cycle times.
3. The existing sewer lines and their materials of construction are not shown for either interceptor.
4. It is recommended that the high water alarm be installed at the same level as the lag pump on level for both lift stations.
5. Where are the 25 year and 100 year flood plains for both projects?
6. Where are the signals from the lift stations received?
7. The cycle time for the Dempsey lift station seems very short.
8. It is recommended that the 4" diameter floor drain from the air/vacuum release vault be identified as such on plan sheet 6.
9. No plan and section view are provided for the air/vacuum release vault for the Dempsey Acres project.
10. The 1-1/4" sump pump drain from the valve vault to the pump station is not indicated on the plan view on plan sheet 6.
11. The conduits to the generator building are not indicated on the profile view on plan sheet 6 or on the site plan, on plan sheet 5.

Mr. Dave Engels
November 4, 1985
Page 2

12. The location of the electrical and control conduits are not indicated on the site plan or plan and section views of plan sheets 2 and 3.
13. The 1-1/4" sump drain from the control vault is not shown on the plan view or site plan on plan sheets 3 and 2.
14. No details are provided for the air and vacuum release vaults.
15. Will screens be provided in the wet wells to remove debris such as sticks and rags?
16. Is a specification necessary for the heater in the generator building?
17. The wastewater in the force mains could become anaerobic because of long detention times. What considerations have been given to ventilation of hazardous gases in such structures as the air/vacuum release structures?
18. RCP pipe is identified on the Bryan Stock Interceptor on plan sheet 9 but a specification for RCP is not provided in the specifications.
19. The Board will need to ensure that the most recent EPA inserts and Davis Bacon wage rates are included in the bid documents prior to bidding if federal funds are to be used for construction.
20. The plans and specifications have been forwarded to the Wyoming State Occupational Health and Safety Administration for review. Their comments will be forwarded upon our receipt of them.
21. Verification that the plans have been reviewed by the electrical reviewing authority will be needed prior to issuing the permit to construct.

Please furnish the above information to complete the review of the plans and specifications. Please contact this office at (307) 777-6351 if you have any questions on the above. I apologize for the delay in this review response.

Sincerely,



Alan Edwards
Engineering/Grants Evaluator

AE/nc

cc: Randy Fultz, HNTB, Casper
Grant File

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 301, Sheridan, Wyoming 82801; telephone, 672-6457.

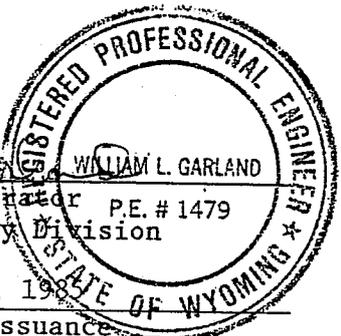
Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities or penalties established pursuant to any applicable State law or regulation.

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:

William L. Garland

Administrator
Water Quality Division

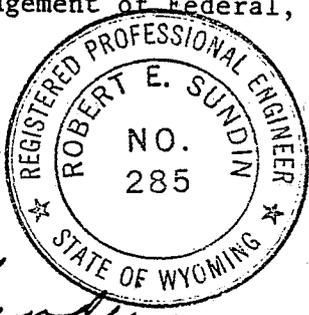


June 17, 1980

Date of Issuance

Robert E. Sundin

Director



Dept. of Environmental Quality

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

cc: Doyl Fritz
Western Water Consultants
2 North Main
Sheridan, WY 82801

REVIEW OF PLANS AND SPECIFICATIONS

WYOMING DEPARTMENT OF ENVIRONMENTAL QUALITY
WATER QUALITY DIVISION
2161 COFFEEN AVE., SUITE 601
SHERIDAN, WYOMING 82801

PROJECT: Antelope Coal Mine Sediment
Containment Ponds SCP-32 and SCP-33

ARCHITECT OR ENGINEER: Doyl Fritz
Western Water Consultants
2 North Main
Sheridan, Wyoming 82801

WATER QUALITY DIVISION
REFERENCE NUMBERS:

85-285 and 85-301

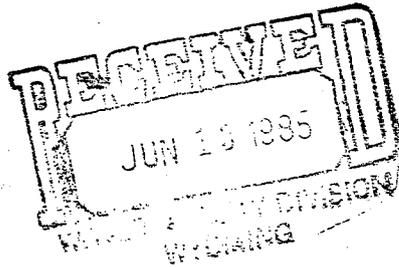
REVIEWING ENGINEER: Rich Ruyle

DATE OF REVIEW: June 11, 1985

ACTION: Not Authorized

COMMENTS:

- 1.) Chapter XI of our regulations requires that sediment control facilities larger than 2 acre-feet have a spillway capable of passing the 25 year flood event. SCP-32 falls into this category. Please provide details of the spillway.
- 2.) Documentation is needed that the mine has the necessary equipment available for draining the ponds preceeding a storm event.



Norma



THE STATE

OF WYOMING

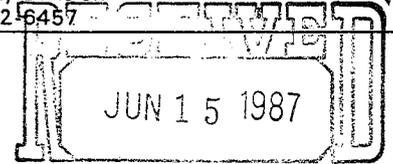


Department of Environmental Quality

Air Quality Division
(307) 672-6457

Water Quality Division
(307) 672-6457

January 27, 1987



WATER QUALITY DIVISION
WYOMING

Mr. Dean Thomas
RFD No. 2, Box 776
Heber City, Utah 84032

RE: Water Quality Division Reference Number 85-286, As-Built Plans for
Woodland Park Trailer Court Sewage Treatment Plant.

Dear Mr. Thomas:

We have completed our sampling of the Woodland Park Trailer Court groundwater monitoring wells that were installed on March 31, 1986. Two wells were installed; one background well in the field east of the lagoons and one monitoring well between cell 1 and 2.

Three sets of samples have been collected from the two wells since their installation. The samples were analyzed for ammonia, nitrates and nitrites, and fecal coliform. The test results indicate that no groundwater contamination by the lagoons has occurred.

Based on these findings, I am approving the as-built plans for cell 3. You may proceed with using the cell as it is built. This letter will serve the same purpose as a permit to construct.

As you know, some maintenance is needed on the facility. This will consist mainly of removing the excessive weed growth from around the banks of the lagoons. You can take care of that measure now. We will conduct a regular operation and maintenance inspection of the facility this spring to see how it looks.

Please call me if you have any questions.

Sincerely,

Rich Ruyle
District Supervisor

RR:ls

xc: Tim Moyes
Roger Reich
Larry Robinson

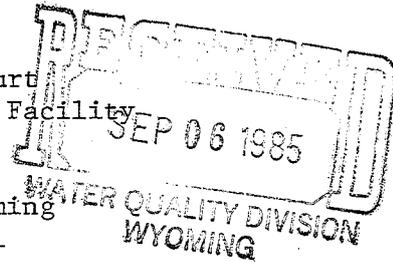
NORMA

REVIEW OF PLANS AND SPECIFICATIONS

WYOMING DEPARTMENT OF ENVIRONMENTAL QUALITY
WATER QUALITY DIVISION
2161 COFFEEN AVE., SUITE 601
SHERIDAN, WYOMING 82801

PROJECT: Woodland Park Trailer Court
As Built Sewage Disposal Facility

ARCHITECT OR ENGINEER: Roger Reich
Engineering, Inc. of Wyoming
45 East Loucks, Suite 301
Sheridan, Wyoming 82801



WATER QUALITY DIVISION
REFERENCE NUMBER:

85-286R

REVIEWING ENGINEER: Rich Ruyle *RR*

DATE OF REVIEW: September 4, 1985

ACTION: Not Authorized

COMMENTS:

Enclosed are the Groundwater Section's comments. The information listed in Section 15 of Chapter III, as summarized in my letter of July 18, 1985, is still needed.

The main question is what type of seal, if any, will be provided for cell 3? With an adequate liner, the cell could be approved without too much more information.

WATER QUALITY DIVISION
GROUNDWATER SECTION
PERMIT APPLICATION REVIEW

*Norma
Ref. to Sheridan
8-28-85*

APPLICATION NUMBER FS-286 R

DATE SUBMITTED FOR REVIEW 8-28-85

NAME AND LOCATION OF FACILITY Woodland Park Trails Court
sewage treatment plant
Sheridan Co.

I have reviewed the plans and specifications with regard to all aspects of groundwater quality and find the following:

- () No comment. The submittal is consistent with current groundwater protection procedures and requirements.
- () Comments attached.

SIGNED *Richard Lennart*
TITLE *Eng. Eval*
DATE *8-28-85*

ACCEPTED FOR RECORD *8/28/85*
(Date)

gmm
Groundwater Control Supervisor



STATE OF WYOMING

ED HERSCHLER
GOVERNOR

Department of Environmental Quality
Water Quality Division

HERSCHLER BUILDING

CHEYENNE, WYOMING 82002

TELEPHONE 307 777-7781

MEMORANDUM

TO: Rich Ruyle, Northeast District Engineer

FROM: R. J. Lennox, Groundwater Section Engineering Evaluator 

DATE: August 27, 1985

SUBJECT: Woodland Park Trailer Court Sewage Treatment Plant, #85-286R

I have reviewed the additional submittal and have the following comments:

1. The groundwater information submitted is acceptable for general background information. However, it also serves to point out that the potential exists for causing contaminants to move towards Little Goose Creek should the ponds be improperly lined.
2. Again no information concerning construction details, liner material or permeability of the liner have been included.
3. I still recommend that monitor wells be installed as per my memorandum of July 31, 1985.

*Department of Environmental Quality**Water Quality Division*2161 COFFEEN AVENUE,
SUITE 301

SHERIDAN, WYOMING 82801

TELEPHONE 307-672-6457

July 18, 1985

Mr. Dean Thomas
RFD No. 2, Box 776
Heber City, Utah 84032RE: Water Quality Division Reference Number 85-286:
As-Built Plans for Woodland Park Trailer Court
Sewage Treatment Plant.

Dear Mr. Thomas:

I have reviewed the plans and information for cell #3 that has been constructed at the above referenced facility. As stated previously, prior to granting approval for use of this new cell, it must be shown that groundwater is adequately protected. Chapter XI of our regulations states that "the seepage through the pond bottom and side walls shall not cause a violation of the groundwater standards as described in Chapter VIII of the Water Quality Rules and Regulations." Section 15 of Chapter III, which I have enclosed, includes exactly what the required documentation consists of. If the documentation cannot be provided, a subsurface study, also as described in Section 15, should be provided to demonstrate that groundwater standards are adhered to. A summary of the essential items in the subsurface study consists of:

- 1.) Quality of wastewater discharged to the pond.
- 2.) Quality of groundwater in the area.
- 3.) Depth to groundwater.
- 4.) Description of wells in the area.
- 5.) Permeability of the soil forming the pond bottom and sides.

The well completion data for Woodland Hills that Roger Reich mentioned in his letter of June 3, 1985 would be helpful in this evaluation. I would direct any specific questions on groundwater protection requirements to Dick Lennox of our Groundwater Section at 777-7087.

ABC

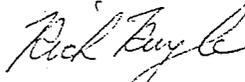
Mr. Dean Thomas
July 18, 1985
Page Two

I have gone through the water balance calculations to determine if the two existing cells are of sufficient surface area for a "total retention lagoon." Assuming the presence of 70 trailers and a seepage rate of zero, for the wastewater inflow to equal the net outflow due to evaporation, a surface area of 8.5 acres is required. If a seepage rate of 1/8 inch/day is assumed (the maximum rate allowable), the required surface area is reduced to 3.4 acres. Since the existing total surface area including the new cell is only 1.1 acres, it is apparent that the ponds probably have a seepage rate of greater than 1/8 inch/day.

I have turned this information over to our Groundwater Section for a determination as to whether any remedial action and/or groundwater monitoring should be required. In the meantime you can submit the information required for approval of the new cell as outlined in Chapter III.

Please call if you have any questions.

Sincerely,



Rich Ruyle
District Supervisor

RR:ls

Enclosures

xc: Dick Lennox
Roger Reich
Jake Strohman

WATER QUALITY DIVISION
GROUNDWATER SECTION
PERMIT APPLICATION REVIEW

APPLICATION NUMBER 85-286

DATE SUBMITTED FOR REVIEW 7-22-85

NAME AND LOCATION OF FACILITY WOODLAND PARK TRAILER COURT

SHERIDAN Co.

I have reviewed the plans and specifications with regard to all aspects of groundwater quality and find the following:

- () No comment. The submittal is consistent with current groundwater protection procedures and requirements.
- (x) Comments attached.

SIGNED Richard Lunn
TITLE Eng. Eval
DATE 7-31-85

ACCEPTED FOR RECORD 7/31/85
(Date)

ajm
Groundwater Control Supervisor

Department of Environmental Quality
Water Quality Division

HERSCHLER BUILDING

CHEYENNE, WYOMING 82002

TELEPHONE 307 777-7781

MEMORANDUM

TO: Rich Ruyle, District Engineer

FROM: R. J. Lennox, Groundwater Section Engineering Evaluator 

DATE: July 31, 1985

SUBJECT: Woodland Park Trailer Court Sewage Treatment Plant 85-286

1. I have reviewed the package of information concerning the subject application for groundwater concerns and have the following comments:
 - a. A review of the "as-built" construction of the third cell cannot be accomplished since no groundwater information has been presented nor have any construction details concerning liner material or permeability data been included.
 - b. Concerning the older ponds I would recommend that a monitoring network be installed to determine the extent of localized groundwater contamination that may have occurred. If this shows that contamination is occurring then the cells would have to be dried out and relined to meet current standards. Groundwater has been reported between 14-22 feet in this area, therefore, three wells located between the existing lagoons (cells) and Little Goose Creek with an upgradient well located to the east of cell No. 3 should provide ample groundwater information. The wells should be completed/constructed in accordance with Chapter XI, Part G to a depth of 25 feet.
 - c. Groundwater samples should be analyzed for the following parameters to establish current background conditions:

Static Water Level	Cadmium
Total Dissolved Solids	Chromium
Sulfate	Copper
Chloride	Iron
Fluoride	Lead
Nitrate Nitrogen	Manganese
Ammonia Nitrogen	Mercury
pH	Selenium
Arsenic	Silver
Barium	Zinc

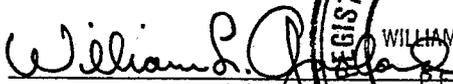
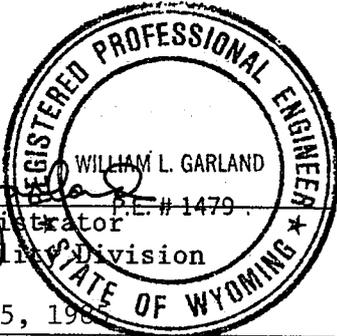
during working hours, to have access to inspect the facilities, at the above location, for the purpose of compliance with the provisions of this construction permit.

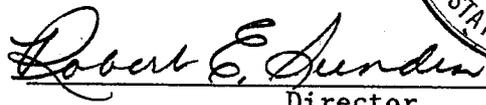
The permittee shall notify representatives from the Department of Environmental Quality, Water Quality Division the day construction commences and give an estimate of completion of the project. The authorized representative in your area can be contacted at the following address: District Engineer, State of Wyoming, Department of Environmental Quality, Water Quality Division, 2161 Coffeen Avenue, Suite 301, 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.

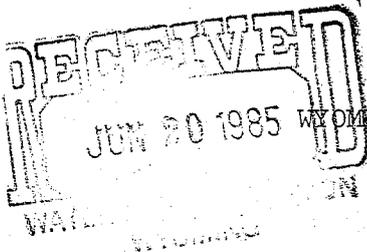
AUTHORIZED BY:


WILLIAM L. GARLAND
P.E. # 1479
Administrator
Water Quality Division

July 5, 1988
Date of Issuance


ROBERT E. SUNDIN
NO. 285
REGISTERED PROFESSIONAL ENGINEER
STATE OF WYOMING
Director
Dept. of Environmental Quality

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

xc: John H. Hibsman
2510 E. 15th Street
Casper, Wyoming 82609



REVIEW OF PLANS AND SPECIFICATIONS

WYOMING DEPARTMENT OF ENVIRONMENTAL QUALITY
WATER QUALITY DIVISION
2161 COFFEEN AVE., SUITE 301
SHERIDAN, WYOMING 82801

PROJECT: Wastewater Pumping Station Improvements
Wright, Wyoming

ARCHITECT OR ENGINEER: John Hibsman
2510 East 15th Street
Casper, Wyoming 82609

WATER QUALITY DIVISION
REFERENCE NUMBER: 85-287

REVIEWING ENGINEER: Susan Holmes SA

DATE OF REVIEW: June 17, 1985

ACTION: Not Authorized

COMMENTS:

- 1) The minimum cycle time for pump operation is ten minutes. My calculations indicate a cycle time less than ten minutes, even at the present flow.
- 2) I am concerned about solids settling in the 10-inch transfer piping and incomplete intake of solids through the suction line. The bottom of the new wet well and suction intake should be lowered so that the inflow to the wet well is well above the suction intake. This will also increase storage to help increase the cycle time.
- 3) The high level alarm system should be an audible and visible alarm mounted on the outside of the building. It should be mounted so that it is visible from a developed area if possible. At what elevation will the high level alarm be set?
- 4) Vents are required on the new wet well and on the modified wet well.

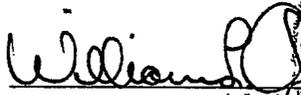
ing working hours, to have access to inspect the facilities, at the above location, for the purpose of compliance with the provisions of this construction permit.

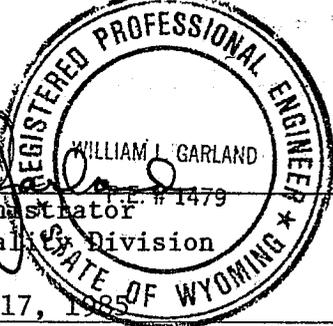
The permittee shall notify representatives from the Department of Environmental Quality, Water Quality Division the day construction commences and give an estimate of completion of the project. The authorized representative in your area can be contacted at the following address: District Engineer, State of Wyoming, Department of Environmental Quality, Water Quality Division, 210 Lincoln, Lander, Wyoming 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 # 1479
Water Quality Division

October 17, 1985
Date of Issuance



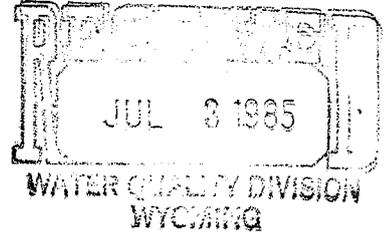
Director
Dept. of Environmental Quality

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



PROJECT: Spomer Water Service Line

ENGINEER: Lambiase Engineering
ATTN: Al Lambiase
P.O. Box 1250
Thermopolis, WY 82443

OWNER: Carl Spomer
202 Roundtop
Thermopolis, WY 82443

WATER QUALITY DIVISION REFERENCE NUMBER: 85-288

REVIEWING ENGINEER: Steven P. Gerber *SPG*

DATE OF REVIEW: June 26, 1985

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. Chapter XII of the DEQ Regulations states that "individual home booster pumps shall not be allowed for any individual service from the public water supply main." The concern is that the booster pump may induce a negative pressure on the system. If a booster pump is desired it must be demonstrated that the booster pump will not cause the pressure to drop below 20 psi in the water main. This must be true under all flow conditions which includes fire flows. Prior to a permit being issued a variance must be requested and approved by the Water Quality Division Administrator.
2. Provide a letter from the City stating that they will be willing to provide water of the desired quantities and at the requested location.
3. The plans and specifications must be stamped by the engineer.
4. Provide specifications for bedding and backfill of waterline and typical trench cross section.
5. Provide pipe material specifications.
6. Provide specifications for disinfection of water line.

7. It is unclear where the valving and other appurtenances at the cistern are to be located. If they are buried, detail the vault and explain where the water from the relief valves will go.
8. Explain how water is taken from cistern to Spomer residence. If water is pumped directly from cistern explain the need for 35 psi at discharge into cistern called for in "I" of design computations. If this pressure is needed explain how it is to be maintained.
9. Verify that all equipment in the booster pump manhole can be removed through the access hatch.
10. Define the soils below the booster pump manhole. Are they such that they will allow drainage? If the soils become saturated will settlement of the manhole occur?
11. Discuss the need for air release valves where the pipe crown falls below the pipe invert causing a high point in the line.

Submit the requested information in triplicate. If you have any questions do not hesitate to contact me.

SG/jw
Copy: Plans (3)
File (2)

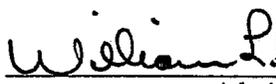
ing working hours, to have access to inspect the facilities, at the above location, for the purpose of compliance with the provisions of this construction permit.

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, Wyoming 82520; telephone, 332-3144.

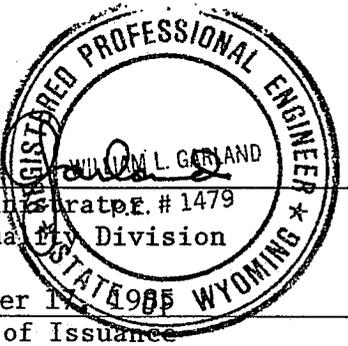
Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities or penalties established pursuant to any applicable State law or regulation.

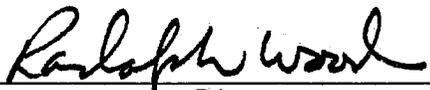
The issuance of this permit does not convey any property rights in either real or personal property, or any exclusive privileges, nor does it authorize any injury to private property or any invasion of personal rights, nor any infringement of Federal, State or local laws or regulations.

AUTHORIZED BY:



Admin. # 1479
Water Quality Division
October 17, 1985
Date of Issuance





Director
Dept. of Environmental Quality

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

PROJECT: LBB Tank Cleaning Pit

ENGINEER: James E. Breson
Amoco Production Co.
P. O. Box 569
Powell, WY 82435

OWNER: Amoco Production Co.
P.O. Box 569
Powell, WY 82435

WATER QUALITY DIVISION REFERENCE NUMBER: 85-289R

REVIEWING ENGINEER: Steven P. Gerber, P.E. *SPG*

DATE OF REVIEW: July 31, 1985

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. Provide a vicinity map showing location of the concrete pit.
2. Engineer's signature and P.E. number must be located on the attachments.
3. Specify minimum reinforcement to be allowed to insure shrinkage cracks will not develop. Also, verify adequacy of concrete to withstand any loads to be placed on the concrete.
4. Provide specifications of minimum strength concrete which will be allowed.
5. Discuss the need for a gravel mat beneath the concrete.

Please submit the requested information in triplicate. If you have any questions do not hesitate to contact me.

SG/jw
copy: Plans (3)
File (2)

ABC



Department of Environmental Quality

Water Quality Division

210 LINCOLN STREET

LANDER, WYOMING 82520

TELEPHONE 307-332-3144

Certified - P 399 271 441

Mr. Donald Mercil
297 Coventry Circle
Thermopolis, Wyoming 82443

RE: Red Lane Mobile Home Park Water Supply System, Permit No. 85-290

Dear Mr. Mercil:

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

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

Sincerely,

A handwritten signature in cursive script that reads "William L. Garland".

William L. Garland
Administrator



Department of Environmental Quality
Water Quality Division

210 LINCOLN STREET

LANDER, WYOMING 82520

TELEPHONE 307-332-3144

January 9, 1986

Lambiase Engineering
P.O. Box 1250
Thermopolis, WY 82443

Dear Al:

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

Facility Name:	<u>Red Lane Mobile Home Park</u> <u>Water Supply System</u>
DEQ/WQD Reference Number:	<u>85-290</u>
Engineering Consultant:	<u>Lambiase Engineering</u>
DEQ/WQD Review Engineer:	<u>Steve Gerber</u>
Date of DEQ/WQD Review:	<u>6-28-85</u>

Please indicate below the status of this project and return this form to our office.

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

_____ The application will be resubmitted within thirty (30) days.

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

_____ Other Remarks: _____

Sincerely,

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

Norma



THE STATE OF WYOMING

ED HERSCHLER
GOVERNOR

Department of Environmental Quality
Water Quality Division

210 LINCOLN STREET

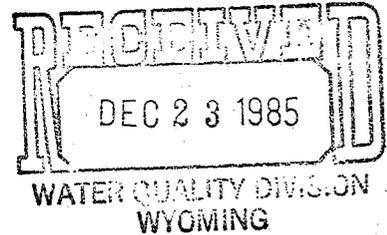
LANDER, WYOMING 82520

TELEPHONE 307-332-3144

December 19, 1985

CERTIFIED P 399 271 403

Donald Mercil
297 Coventry Circle
Thermopolis, WY 82443



Dear Mr. Mercil:

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

Facility Name: Red Lane Mobile Home Park
Water Supply System

DEQ/WQD Reference Number: 85-290

Engineering Consultant: Lambiase Engineering

DEQ/WQD Review Engineer: Steve Gerber

Date of DEQ/WQD Review: June 28, 1985

Please indicate below the status of this project and return this form to our office.

- The application will not be resubmitted as the proposed project has been cancelled.
- The application will be resubmitted within thirty (30) days.
- The facility has been constructed, or is under construction. As built construction plans and specifications will be submitted within thirty (30) days.
- Other Remarks: _____

You are reminded that the construction, installation, or modification of any sewage system, treatment works, disposal system, 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, and is punishable with a fine not to exceed \$10,000 for each day of violation. Unless the Water Quality Division review engineer receives information concerning the status of this project within fifteen (15) days of the receipt of this letter, follow-up action will be taken.

Sincerely,



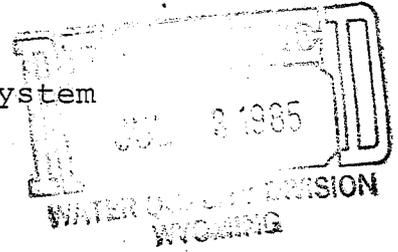
Steven P. Gerber, P.E.
Water Quality Engineer

SG/jw

REVIEW OF PLANS AND SPECIFICATIONS

WYOMING DEPARTMENT OF ENVIRONMENTAL QUALITY

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



PROJECT: Red Lane Mobile Home Park Water System

ENGINEER: Lambiase Engineering
ATTN: Al Lambiase
P.O. Box 1250
Thermopolis, WY 82443

OWNER: Don Mercil
297 Coventry Circle
Thermopolis, WY 82443

WATER QUALITY DIVISION REFERENCE NUMBER: 85-290

REVIEWING ENGINEER: Steven P. Gerber, P.E. *SPG*

DATE OF REVIEW: June 28, 1985

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. Submit letter from City verifying that the additional flow can be supplied at a minimum pressure of 20 psi. A normal working pressure of 35 psi shall be maintained in the distribution system.
2. Provide detail of water service riser. Riser must terminate at least four inches above grade and be protected from damage.
3. Computations show that a minimum pressure of 20 psi will be maintained under maximum flow conditions. Verify that 35 psi will be maintained under average day demand conditions.
4. Verify that the existing system pressures will not fall below the above stated minimum pressures as a result of this addition to the system.
5. The name, Wyoming registration number, and seal or signature of the engineer must be shown on the plans.
6. A minimum burial depth of six feet must be specified for all water mains.

Review of Plans & Specs.

Ref. No. 85-290

Page Two

7. Verify that the existing storage will have a capacity equal to the average day demand.

8. All residential water system connections shall be provided with a check valve at the meter or in the service line.

Submit the requested information and revised drawings in triplicate. If you have any questions do not hesitate to contact me.

SG/jw

copy: Plans (3)

File (2)

kozma



THE STATE OF WYOMING

ED HERSCHLER
GOVERNOR

Department of Environmental Quality

Water Quality Division

210 LINCOLN STREET

LANDER, WYOMING 82520

TELEPHONE 307-332-3144

July 9, 1986

Certified - P 399 271 44L

Mr. Donald Mercil
297 Coventry Circle
Thermopolis, Wyoming 82443

RE: Red Lane Mobile Home Park Sewer System, Permit No. 85-291

Dear Mr. Mercil:

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

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

Sincerely,

William L. Garland
Administrator

Norma



THE STATE OF WYOMING



ED HERSCHLER
GOVERNOR

Department of Environmental Quality
Water Quality Division

210 LINCOLN STREET

LANDER, WYOMING 82520

TELEPHONE 307-332-3144

January 9, 1986

Lambiase Engineering
P.O. Box 1250
Thermopolis, WY 82443

Dear Al:

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

Facility Name:	<u>Red Lane Mobile Home Park Sewer System</u>
DEQ/WQD Reference Number:	<u>85-291</u>
Engineering Consultant:	<u>Lambiase Engineering</u>
DEQ/WQD Review Engineer:	<u>Steve Gerber</u>
Date of DEQ/WQD Review:	<u>6-28-85</u>

Please indicate below the status of this project and return this form to our office.

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

_____ The application will be resubmitted within thirty (30) days.

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

_____ Other Remarks: _____

Sincerely,

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

SPG/jw



Department of Environmental Quality
Water Quality Division

210 LINCOLN STREET

LANDER, WYOMING 82520

TELEPHONE 307-332-3144

December 19, 1985

CERTIFIED P 399 271 403

Donald Mercil
297 Coventry Circle
Thermopolis, WY 82443

Dear Mr. Mercil:

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

Facility Name:	<u>Red Lane Mobile Home Park</u> <u>Sewer System</u>
DEQ/WQD Reference Number:	<u>85-291</u>
Engineering Consultant:	<u>Lambiase Engineering</u>
DEQ/WQD Review Engineer:	<u>Steve Gerber</u>
Date of DEQ/WQD Review:	<u>June 28, 1985</u>

Please indicate below the status of this project and return this form to our office.

- The application will not be resubmitted as the proposed project has been cancelled.
- The application will be resubmitted within thirty (30) days.
- The facility has been constructed, or is under construction. As built construction plans and specifications will be submitted within thirty (30) days.
- Other Remarks: _____

You are reminded that the construction, installation, or modification of any sewage system, treatment works, disposal system, 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, and is punishable with a fine not to exceed \$10,000 for each day of violation. Unless the Water Quality Division review engineer receives information concerning the status of this project within fifteen (15) days of the receipt of this letter, follow-up action will be taken.

Sincerely,



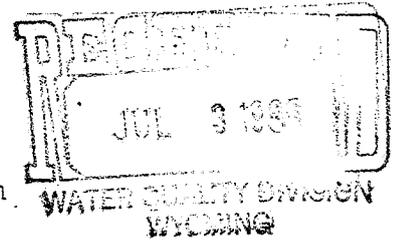
Steven P. Gerber, P.E.
Water Quality Engineer

SG/jw

REVIEW OF PLANS AND SPECIFICATIONS

WYOMING DEPARTMENT OF ENVIRONMENTAL QUALITY

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



PROJECT: Red Lane Mobile Home Park Sewer System

ENGINEER: Lambiase Engineering
ATTN: Al Lambiase
P.O. Box 1250
Thermopolis, WY 82443

OWNER: Don Mercil
297 Coventry Circle
Thermopolis, WY 82443

WATER QUALITY DIVISION REFERENCE NUMBER: 85-291

REVIEWING ENGINEER: Steven P. Gerber, P.E. *SPG*

DATE OF REVIEW: June 28, 1985

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. The name, Wyoming registration number, and seal or signature of the engineer must be shown on the plans.
2. Provide detail of sewer service riser. The riser shall be constructed of cast iron or schedule 40 plastic pipe. The riser shall be terminated at least four inches above grade and shall not be located closer than five feet from a potable water service rise.
3. Minimum slope for an 8 inch sewer main is .40 ft./100 ft. The following mains have slopes less than this: M.H. No. 2 to M.H. No. 6 and M.H. No. 6 to M.H. No. 7.
4. Provide septic tank system details.
5. Clarify discrepancies in pipe sizes between plan sheet and profile sheet.
6. Discuss how flows to the drain field will be evenly distributed since the header (pipe between C.O. 1 and M.H. 2) is slopes .35 ft/100 ft. The drainfield is to be installed with no slope.

Review of Plans & Specs.

Ref. No. 85-291

Page Two

7. Discuss what provisions are being taken to insure septic tanks will be pumped on a regular basis so solids will not overflow into the drain field and plug it.

Submit the requested information and revised drawings in triplicate. If you have any questions do not hesitate to contact me.

SG/jw

copy: Plans (3)

File (2)

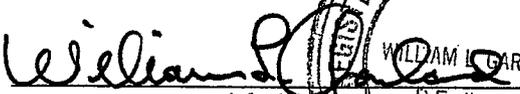
ing working hours, to have access to inspect the facilities, at the above location, for the purpose of compliance with the provisions of this construction permit.

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, Wyoming 82520; telephone, 332-3144.

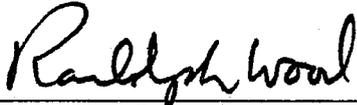
Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities or penalties established pursuant to any applicable State law or regulation.

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 P.E. # 1479
Water Quality Division

November 7, 1988
Date of Issuance


Director
Dept. of Environmental Quality

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

PROJECT: Big Piney Wastewater Treatment Facility
(C560137-94)

ENGINEER: Engineering Associates
P.O. Box 1900
Cody, WY 82414

OWNER: Town of Big Piney
P.O. Box 70
Big Piney, WY 83113

WATER QUALITY DIVISION REFERENCE NUMBER: 85-292R

REVIEWING ENGINEER: Bill Locke, P.E., Kate Laudon

DATE OF REVIEW: October 16, 1985

ACTION: Not authorized.

COMMENTS:

A secondary review of the above plans and specifications has been completed. The following items must be addressed before a permit to construct will be issued:

1. There is no specification for the preinsulated PVC pipe included.
2. A sand or gravel pack should be placed adjacent to the screened portion of the wells.
3. Background water quality should be established for these wells prior to the construction of the facility. Two consistent samples from each well should be collected at least two weeks apart and analyzed for the parameters listed in Chapter VIII of the Water Quality Rules and Regulations. Radionuclides may be omitted from the analysis.
4. Once background water quality has been established, a compliance monitoring program should be developed to be incorporated into the O & M manual.
5. 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.

BL/jw

C



Department of Environmental Quality
Water Quality Division

HERSCHLER BUILDING

CHEYENNE, WYOMING 82002

TELEPHONE 307 777-7781

September 30, 1985

Don Livingston
Engineering Associates
P. O. Box 1900
Cody, Wyoming 82414

Re: Big Piney WWTP Plans and
Specifications

85-292R

Dear Don:

Please accept this letter as a response to your request, dated the 20th of September, for an update on the status of the plan and specification review being done on the above referenced project. Be advised that this office has 60 days from the receipt of documents before any reply is required. That due date is October 15, 1985.

I have, however, received comments on the plans from the Groundwater Division of our office, Kate Laudon reviewer. Please find attached a copy of her comments and her suggested improvements to the projects plans and specifications. If you have any questions on these points, please contact this office at your convenience.

This project and its review has been discussed with Jack Bedessem out of the district office in Lander. His review comments are not scheduled for completion until the 4th of October. As soon as his comments are received they will be forwarded to you.

I do have a few concerns of my own upon review of the projects plans and specifications. I will attempt to be as clear as possible in identifying the areas of discrepancies that have risen.

To begin with, I could not locate the 100 year floodplain in this area, nor could I find out the anticipated depth of these waters and whether they would compromise the integrity of those dykes. Also, I could not locate any requirement for flood insurance. Such a requirement is made for areas within a 100 year floodplain.

Please find attached the appropriate Wage Determination Sheets for Heavy and Highway projects. It is believed most of the employment force will fit within these categories. Should there be any unclassified occupations used on this job the wage rates used will be those listed on the most recent building wage determination sheets. It is suggested that such a statement be included in the project specifications.

Don Livingston
September 30, 1985
Page Two

The female employment force goals as listed in page 00800-4 of 6.1% is believed to be incorrect. The proper figure is 7.5%

This office has not received three items that are a prerequisite for any Step 3 grant award. Those are the user charge system, the sewer use ordinance and a draft copy of the plan of operation. We would not authorize the bidding of this project until this material is received.

If there are questions on any of the points or concerns raised in this memo, please do not hesitate to contact me at 777-6766.

Sincerely,


Jerry Placzek
Engineering Evaluator

JP/jn

Enclosures

cc: File

WATER QUALITY DIVISION
GROUNDWATER SECTION
PERMIT APPLICATION REVIEW

APPLICATION NUMBER 85 - 292 R

DATE SUBMITTED FOR REVIEW 8-16-85

NAME AND LOCATION OF FACILITY Big Piney Sewage Tmt
Facility, Sublette County
NW 1/4 SW 1/4 Sec. 32 T30N R11W

I have reviewed the plans and specifications with regard to all aspects of groundwater quality and find the following:

- () No comment. The submittal is consistent with current groundwater protection procedures and requirements.
- Comments attached.

SIGNED Kate Laiden
TITLE Engineer Evaluator
DATE 9-19-85

ACCEPTED FOR RECORD 9/19/85
(Date)

ajm
Groundwater Control Supervisor



Department of Environmental Quality
Water Quality Division

HERSCHLER BUILDING

CHEYENNE, WYOMING 82002

TELEPHONE 307 777-7781

MEMORANDUM

TO: Jerry Placzek
Jack Bedessem

FROM: Kate Laudon *KJL*

DATE: September 19, 1985

SUBJECT: Groundwater Review, Big Piney Wastewater Treatment Facility, WQD Reference No. 85-292R, EPA C560137-94

Engineering Associates have revised their plans and specifications to show the locations of three monitor wells. One existing well located on the northwest side of the site will be used as an upgradient well. Two downgradient wells will be installed on the northeast and southeast sides of the site. The plans show that these wells will be completed to a total depth of 20 feet with a five foot surface seal.

With respect to the proposed wells:

1. A sand or gravel pack should be placed adjacent to the screened portion of the well.
2. Background water quality should be established for these wells prior to the construction of the facility. Two consistent samples from each well should be collected at least two weeks apart and analyzed for the parameters listed in Chapter VIII of the Water Quality Rules and Regulations. Radionuclides may be omitted from the analysis.
3. Once background water quality has been established, a compliance monitoring program should be developed to be incorporated into the O & M manual.

KL/nc

REVIEW OF PLANS AND SPECIFICATIONS

WYOMING DEPARTMENT OF ENVIRONMENTAL QUALITY

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

PROJECT: Big Piney Wastewater Treatment Facility
(C560137-94)

ENGINEER: Engineering Associates
P.O. Box 1900
Cody, WY 82414

OWNER: Town of Big Piney
P.O. Box 70
Big Piney, WY 83113

WATER QUALITY DIVISION REFERENCE NUMBER: 85-292

REVIEWING EVALUATOR: *PA for* Jack Bedessem, Kate Laudon

DATE OF REVIEW: July 3, 1985

ACTION: **Not authorized.**

COMMENTS:

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

1. Provide documentation/justification for the design parameters (flow = 0.279 mgd, BOD₅ = 200 mg/l, TSS = 250 mg/l). Refer to Wyoming Water Quality Rules and Regulations (WWQRR), Chapter XI, Section 11(n).
2. Address the 100 and 25 year flood elevations. All treatment structures, mechanical and electrical equipment shall be protected from the 100 year flood. Also, the treatment facility shall remain fully operational during the 25 year flood.
3. WWQRR require plants having an average design flow of 50,000 gpd or more, the flow measuring device shall provide recording of instantaneous flow rate, enable calculation of average daily flow rate and have provisions for calibration and correction.
4. Address the basis for designing and/or sizing the various aspects of this project (i.e. organic and hydraulic loading, aeration requirements, detention times, BOD removal mixing, piping, etc.).
5. Provide a detail of the inlet structures splash pad or apron.
6. Provide a detail of the center baffle for ponds 1 and 2.

AC

7. Address stabilization of the liner due to seasonal high groundwater. Also, address a plan of action for routine maintenance (removing a lined cell from service) during seasonal high groundwater.
8. Address a need and method for the disposal of septage from septic tank haulers. The septage may need to be proportioned into the flow so that the system does not become upset.
9. A more detailed specification should be included for the liner cover material. Especially if native material other than sand is to be used.
10. A groundwater monitoring program needs to be addressed in detail. The program should include the following information:
 - (a) Location and details of proposed monitoring wells. Refer to WWQRR, Chapter XI, Part G. It is recommended that a minimum of one upgradient and two downgradient wells be utilized (i.e. TH-9, 13, 20).
 - (b) Monitoring frequency, sampling procedures, parameters and reporting of results. Recommended frequency is biannually.
11. Address dewatering and disposal procedures during construction. This should be included in the specifications also.
12. On ponds to be lined with a synthetic liner, it is recommended that rocks larger than 6 inches shall not be placed within five feet of any interior dike slope.
13. Address the operation of the aeration system. The specifications indicate each blower will be controlled with a timer (i.e. maintenance of mixing and dissolved oxygen, blower cycling, proportioning air flow between cells, balancing air flow between diffusers, etc.).
14. Address the basis for determining the outlet drawoff levels in the ponds. It is recommended that the draw off levels in the aerated ponds be at mid-depth, especially if aeration will not be continuously required in pond 2. Multiple drawoffs need to be provided in the final cell(s) with at least one drawoff located at the two foot level.
15. The plans indicate that each base which supports the aeration headers and baffles protrude through the PVC liner. The presence of penetrations through the liner(s) represent potential leaks. Address supporting the header and baffles using heavy concrete bases which rest on the earth (sand) cover.
16. Provide a detail of the air diffusers. The specifications should provide more detail for the diffusers (i.e. number and diameter of air ports). Address clogging and cleaning of the proposed diffusers.

17. The four proposed ponds, drain to three different discharge points (P2, P14, P15). Each one of these points needs to be identified on the NPDES discharge permit. If pond 1 can drain somewhere other than to P15, that point may not need to be identified and sampled as a discharge point. Contact John Wagner (307-777-7781) concerning the modification of the NPDES discharge permit.

18. It appears that there are no structures associated with P2. Address cleaning the line in the event of a clog. Note that from the toe of dike 7 to the discharge point is over 600 feet in length. Manholes (structures) should be provided.

19. Address the need for pretreatment (bar screen) of the influent wastewater.

20. Address the need for standby power to serve aeration system.

21. Address whether any services will remain connected to the groundwater drainline (P15). Will there be any cross connections between the drain lines and the new sewer lines.

22. An application for a "Permit to Construct" must be completed and submitted with the plans and specifications.

23. The specifications must be signed by a Wyoming registered professional engineer.

Submit the required information and revised drawings to this office. If you have any questions please feel free to contact us.

JB/jw

copy: Kate Laudon
Ton Conrardy

Plans to
TC ~~Return~~
Comments
to JB → 7-3-85

WATER QUALITY DIVISION
GROUNDWATER SECTION
PERMIT APPLICATION REVIEW

APPLICATION NUMBER 85-292

DATE SUBMITTED FOR REVIEW 6-21-85

NAME AND LOCATION OF FACILITY Big Piney Sewage Treatment
Facility, Sublette County
NW 1/4 SW 1/4 Sec 32 T30N R111W

I have reviewed the plans and specifications with regard to all aspects of groundwater quality and find the following:

- No comment. The submittal is consistent with current groundwater protection procedures and requirements.
- Comments attached.

SIGNED Kate Laudon
TITLE Engineer Evaluator
DATE 7-2-85

ACCEPTED FOR RECORD 7/2/85
(Date)

AJM
Groundwater Control Supervisor

MEMORANDUM

TO: Jack Bedessem, Southwest District Supervisor

FROM: Kate Laudon, Groundwater Engineer Evaluator *KL*

DATE: July 2, 1985

SUBJECT: Groundwater Review, Big Piney Sewage Treatment Facility, WQD Ref. No. 85-292, EPA C560137-94

Engineering Associates has submitted construction plans for the Big Piney Sewage Treatment Facility located in Sublette County. Tom Conrardy has already reviewed the plans for C-MAG requirements and has raised some groundwater concerns.

Several monitor wells have been completed on the site. Monthly water level data collected in five wells from March 1983 to March 1984 are presented on page 3 of the plans. The data indicate that groundwater levels can be expected to extend above the bottom of the proposed ponds for part of the year. For this reason, synthetic liners will be installed in all four cells. The engineer is predicting a limited construction period between the time that groundwater elevations fall sufficiently, and the ground freezes.

The applicant should provide additional groundwater information before the plans are approved.

1. Even though the water table is expected to fall below the level of construction, the water content of the unsaturated soils will probably be quite high. Will this affect construction as it did at Marbleton?
2. It is possible that saturated conditions will be encountered. Plans for dewatering if necessary should be provided. The applicant should also address how the liner will be stabilized during times of high groundwater levels.
3. A groundwater monitoring plan should be provided. Wells TH-9, TH-13 and TH-20 can be used if they have been completed to the specifications contained in Chapter XI, Part G of the WQD Rules and Regulations. Documentation that the wells have been constructed properly, background water quality and a monitoring plan must be provided.
4. Seasonal groundwater fluctuation must be considered when developing operation and maintenance plans.

KL/nc

cc: Tom Conrardy

85-292



THE STATE OF WYOMING

ED HERSCHLER
GOVERNOR

Department of Environmental Quality
Water Quality Division

HERSCHLER BUILDING

CHEYENNE, WYOMING 82002

TELEPHONE 307 777-7781

June 25, 1985

Don Livingston
Engineering Associates
P.O. Box 1900
Cody, WY 82414

RE: Town of Big Piney C560137-94

Dear Don:

Attached are my comments on the plans and specifications for the Big Piney sewage treatment facility.

Comments from the District office and Groundwater Section are forthcoming so this review should not be considered complete.

If you have any questions, please contact me.

Sincerely,

Tom Conrardy
Tom Conrardy
Engineering Evaluator

TC/nc
Enclosures

cc: Town of Big Piney (w/enclosure)
Jack Bedessem (w/enclosure)
Kate Laudon (w/enclosure)

Review of Plans and Specifications

WYOMING DEPARTMENT OF ENVIRONMENTAL QUALITY
WATER QUALITY DIVISION
Herschler Building, 4 West, 122 West 25th
Cheyenne, Wyoming 82002

PROJECT: Big Piney Sewage Treatment Facility, Sublette Co.

ARCHITECT OR ENGINEER: Engineering Associates
P.O. Box 1900, Cody, WY 82414

APPLICANT: Town of Big Piney
P.O. Box 70, Big Piney, WY 83113

WATER QUALITY DIVISION REFERENCE NUMBER: 85-292, EPA C560137-94

REVIEWING ENGINEER: Tom Conrardy, Engineering Evaluator *TWC*

DATE OF REVIEW: June 24, 1985

ACTION: NOT AUTHORIZED FOR CONSTRUCTION

COMMENTS:

1. How will continuous wastewater treatment be provided during construction? What will be the contractor's responsibilities?
2. Will all four cells have PVC liners? What is the reasoning for this?

Will the lagoon construction be accomplished completely by cut and fill or will additional fill material be required from outside sources? Should suitable borrow areas be designated? Should stockpile areas be designated?
3. How was the aeration requirements for BOD removal established? A total BOD of 465 lbs/day is equivalent to a population of about 2,500.
4. Is the liner cover material shown on sheet 5 the same as the one foot of sand shown on sheet 10? Is sand covering essential or could native materials be utilized?
5. Sheet 10 shows the rip rap extending from the top of the dike to lagoon floor. Sheet 5 shows rip rap 2 feet above and 2 feet below the HWL. These should be consistent.
6. Sheet 5 shows the top of dike 6 (between ponds 2 and 4) will be sloped. This is not shown on the detail of the blower building (sheet 11).
7. Effluent flow measurement is required.
8. Structure 10 is not shown on sheet 9. This should be shown since it may interfere with blower building installation somewhat.
9. Structure 10 will have to be installed at grade or it will be difficult to drive around the blower building.
10. Adjustable weir structure details:

- a. Shouldn't most of the numbers in the X inlet and X outlet columns be 15 inches?
 - b. The Y inlet and outlet elevations for structure 8 may be reversed. The view of P8 on sheet 7 shows the inlet is higher than the outlet.
11. It appears that structures 4, 7, 8 and 9 will be located at the approximate point where the top of the liner is trenched. Does this require any special construction provisions?
 12. Should the contractor be given any specific instructions on the order of installation of various lagoon components, i.e. aeration system, manholes and piping, subbase, liner.
 13. The top of dike elevation is not provided for dike 6.
 14. What numbers should be printed on the staff gages? This information should be included in the plans and specifications.
 15. Will the installation of a valve in the steeper 5.4 foot section of P13 be constructible?
 16. From the detail provided in section D-D, it is not clear how the air header will be supported at each vertical pipe.
 17. Why is it necessary for the air header to be submerged? Why not use drop lines?
 18. The detail of the transition point where the air header drops from the elevation shown in C'C' to D'D' should be shown.
 19. Are the baffel panels required to be irregularly cut to match the slope of the lagoon bottom?
 20. No details have been provided of the control panel.
 21. Where will the pipe end wall structure shown on sheet 21 be installed?
 22. Does the detail of discharge lines P2 and P14 on sheet 21 also apply to P15?
 23. Why are primary pond inlet manifolds pointing toward the lagoon bottom and secondary inlet manifolds pointing upwards?
 24. It appears that the points of connection of P11 and P5 to P2 are at locations of a change in grade. Is this constructible?
 25. P14 doesn't have much use as a drain line if it has a high point invert of 93.6 feet.
 26. Will any drain line support, rip rap, etc. be provided at any of the drain lines?
 27. Why are valves provided on both sides of all 4 flow control structures?
 28. Could it be more convenient to locate the valve on P-12 at the west end of P-12?
 29. What is the identity of the extra line at the end of P-12 labeled invert elevation = 89.64?

30. Should the dike shown in the profile of P-1 be labeled "Top of dike 2"?
31. The design of the berms upon which influent lines P6 and P3 rest is not clear. Are these to be similar to the detail shown at P2?
32. What is the spacing for the concrete pipe supports?
33. Which way should the openings of the tees be facing for secondary pond inlet and outlet manifolds?
34. Section B-B on sheet 5 shows that dimension A is the sum of B and C, but this doesn't agree with the values given in the last row of the table of dimensions.
35. The purpose of line P-15 appears to be for groundwater dewatering. This will not be eligible for EPA participation.
36. Rip rap:
 - a. Is rip rap required on all sides of all four cells?
 - b. Is there a convenient source available and what is the estimated cost?
 - c. Why is a pay unit based on miles to be used for hauling rip rap?
 - d. Will the bid schedule include a unit cost and total estimated yards of rip rap required?
 - e. Will the lagoons normally be operated at the elevation labeled "Design maximum water surface elevation"?

Sewer Lines

37. Sheet 13 shows 3 manholes on PL lane. Sheet 14 shows 4.
38. It should be specified that the detail B (shown on sheet 23) should be utilized not only where the sewer and water line have a physical conflict but also wherever the water main is less than 1.5 feet above the sewer or the water line is below the sewer.
39. Many water service crossings will be involved and it will be difficult to know how many will require the special construction shown in detail B until construction starts. It may be advisable to assume that most will require the special construction. This might result in a good unit bid price for this work.
40. At the end of the line on sheet 19, the existing and proposed manholes are connected in the profile but not in the plan view.
41. What information will be provided regarding groundwater and geotechnical in the vicinity of the sewer construction?
42. Will the sewer line on the downstream side of the existing manhole at station 0+85 on PL Lane be disconnected?
43. Detailed instructions should be included in the plans or specifications concerning the procedure for installation and disconnecting existing sewers from the sanitary system without interruption of service. Should the contractor be directed to do lagoon construction prior to sewer replacement?

44. The sewer line crossing of BUDD No. 1 ditch could cause some problems.
 - a. Is there a particular time of year when this construction could most easily be accomplished?
 - b. If the ditch is deeper than expected, would any special construction for structural pipe protection or freeze protection be required?

Specifications

45. The specifications contain documents for the sewer line replacement with H-K contractors.
46. Bid schedules for both sewer replacement and lagoon construction should be provided.
47. Should flood insurance be required?
48. The specifications should cover the contractors responsibilities for treatment during construction.
49. The correct wage decision should be included.



THE STATE OF WYOMING

ED HERSCHLER
GOVERNOR

Department of Environmental Quality
Water Quality Division

HERSCHLER BUILDING

CHEYENNE, WYOMING 82002

TELEPHONE 307 777-7781

MEMORANDUM

TO: Jack Bedessem, Kate Laudon
FROM: Tom Conrardy *Tom*
SUBJECT: Big Piney Lagoons, Detail Plans and Specs.
DATE: June 24, 1985

I have completed my initial review of the Big Piney plans for construction of new aerated lagoons and sewer line replacement. My comments have already been sent to Engineering Associates. A copy of my letter is attached.

I have the following additional comments for your consideration:

1. Engineering Associates is proposing lining all four cells with a synthetic membrane. Tony's letter implied that the groundwater should be protected as class II. Lining of all four cells seems to be more than what is necessary to protect groundwater. Elimination of the synthetic liner in the last 1 or 2 cells would probably not sacrifice the groundwater quality - provided the following conditions are met.
 - a) Liner material is properly installed and adequate supervision (suggest manufacturers' rep.) is provided on site during construction to insure proper installation.
 - b) Liner is properly tested upon completion to assure its integrity.
 - c) Monitoring wells should be provided. I saw no reference to location or construction details for monitoring wells in the plans and specs.
2. Page 51 of Chapter 11 requires the liner be stabilized if below the seasonal high groundwater level. It appears that the high groundwater level may be about 1 foot above liner bottom. Would this require any special stabilization?

3. Chapter 11, Page 50 requires erosion control unless cells are less than one acre or wind velocities do not warrant riprap. Three of these cells are less than 2 acres and the aeration baffles should cut down on wave action in the larger cells. I would like to suggest riprap only on down wind sides of lagoons. What are your feelings on this?
4. No stand-by power has been provided. Would this be necessary for aerated lagoons?
5. No manholes have been provided at tees and changes in grade of lagoon piping. Should these be required?
6. No pretreatment has been provided (bar screen). Should one be required?
7. Floating scum will probably accumulate in structure 3. Should we require a different type of structure?
8. The outfall line has no manholes even though it is considerably longer than 400 feet.
9. Using Engineering Associates figure of .279 for design flow, the lagoons have been designed within the guidelines of Chapter 11 as far as BOD loading and detention time are concerned. Actually they would be over-designed. The current wastewater flows are considerably higher than .279 MGD however. Engineering Associates feels .279 will be the design flow once all the sewer line replacement is complete and infiltration is eliminated. Do you feel it is reasonable to authorize construction to proceed based on the engineer's estimate of what the design flow will be?

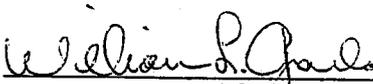
during working hours, to have access to inspect the facilities, at the above location, for the purpose of compliance with the provisions of this construction permit.

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 301, Sheridan, Wyoming 82801; telephone, 672-6457.

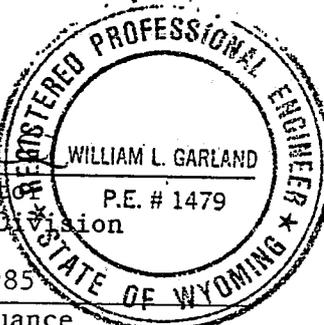
Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities or penalties established pursuant to any applicable State law or regulation.

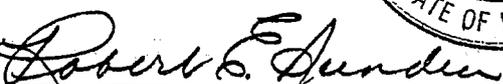
The issuance of this permit does not convey any property rights in either real or personal property, or any exclusive privileges, nor does it authorize any injury to private property or any invasion of personal rights, nor any infringement of Federal, State or local laws or regulations.

AUTHORIZED BY:

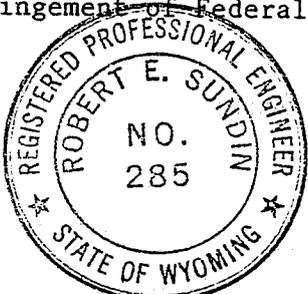


Administrative
Water Quality Division
June 10, 1985
Date of Issuance





Director
Dept. of Environmental Quality



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

cc: Bruce Nelson
Environmental Design Eng.
28 Cessna Road
Sheridan, WY 82801

THE STATE



OF WYOMING

ED HERSCHLER
GOVERNOR

Department of Environmental Quality
Water Quality Division

210 LINCOLN STREET

LANDER, WYOMING 82520

TELEPHONE 307-332-3144

MA 14542

August 23, 1985

Layos, Inc.
507 Smith
Rock Springs, WY 82901

RE: Layos Pit No. 1, DEQ/WQD #85-294RR

Dear Sirs:

I have reviewed the revised plans for the above project and find them to be in accordance with our minimum design standards as outlined in Chapter XI of the Water Quality Rules and Regulations. This facility is therefore approved as constructed. Your cooperation in this matter has been appreciated

Sincerely,

Bill Locke

Bill Locke, P.E.
Water Quality Evaluator

BL/jw

REVIEW OF PLANS AND SPECIFICATIONS

WYOMING DEPARTMENT OF ENVIRONMENTAL QUALITY

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

PROJECT: Layos Pit #1

ENGINEER: Kenneth Dorr
William H. Smith & Associates
P.O. Box 820
Green River, WY 82935

OWNER: Layos, Inc.
507 Smith
Rock Springs, WY 82901

WATER QUALITY DIVISION REFERENCE NUMBER: 85-294

REVIEWING ENGINEER: Bill Locke, P.E. *BL*

DATE OF REVIEW: July 12, 1985

ACTION: Not authorized.

COMMENTS:

An initial review of the plans for the above project has been completed. Before a letter of acceptance can be issued, several items need to be addressed.

1. Dimensional information for the pond is needed to verify the volume.
2. A discussion of the quantity of wash water entering the pond should be included. Estimates of the average and peak daily process water discharged to the pond is also necessary.
3. There is a contradiction between the discussion at the top right hand corner of the plans and Detail "A" as to the invert of the overflow ditch. Please verify the invert elevation of this ditch.
4. Please submit revised plans and data in triplicate to this office.

If you have any questions or comments please call Jack Bedessem or myself.

BL/jw

AC

herman

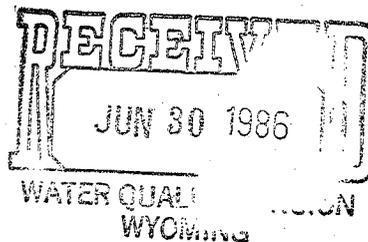
MEMORANDUM

TO: File, Rabbit Row Repair, 85-295RR
FROM: Jeff Hermansky *JH*
SUBJECT: Inspection of Disposal System
DATED: June 24, 1986

On June 18, 1986 I conducted an inspection of the elevated disposal system at Rabbit Row Repair which was constructed under permit no. 85-295RR. The system serves an auto repair shop and treats the garage floor drain and gray water wastes.

The facility was constructed to resolve a discharge without a permit violation. The facility appears to have been constructed in accordance with the authorized plans. The illegal surface discharge has been eliminated since the new facility went into operation.

JH/jw
cc: Plans (2)
Larry Robinson



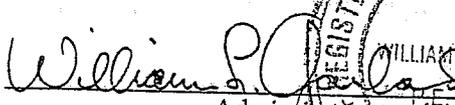
ing working hours, to have access to inspect the facilities, at the above location, for the purpose of compliance with the provisions of this construction permit.

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, Wyoming 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 #1479
Water Quality Division
STATE OF WYOMING *
November 21, 1985
Date of Issuance


Director
Dept. of Environmental Quality

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

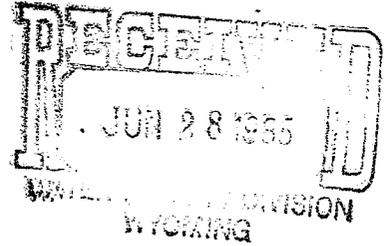
* CONDITIONS ON PERMIT *

1. The system shall be installed and operational no later than May 31, 1985.
2. Prior to covering the leach bed pipe the system shall be inspected by DEQ personnel or the Teton County Sanitarian, Dick Worl, 733-3959.

REVIEW OF PLANS AND SPECIFICATIONS

WYOMING DEPARTMENT OF ENVIRONMENTAL QUALITY

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



PROJECT: Rabbit Row Repair

ENGINEER: Victor Gerdin
Star Rt. Box 9A
Jackson, WY 83001

OWNER: Rabbit Row Repair
1755 Teton Village Rd.
Wilson, WY 83014

WATER QUALITY DIVISION REFERENCE NUMBER: 85-295

REVIEWING ENGINEER: Steven P. Gerber, P.E. *SPG*

DATE OF REVIEW: June 26, 1985

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. The site plan absorption bed detail and the additional information sheet must show the name and seal or signature with the P.E. number of Paul Selsky.

2. Data from percolation tests run $\frac{1}{2}$ mile away are not suitable for design at this site. The depth of the surface topsoil varies. The percolation tests must be run in the soil where the seepage bed will be.

3. Groundwater depths established at another site are not acceptable. Depth to groundwater is dependent on the ground contour. Determine the depth to groundwater at this site. The depth to groundwater can be computed using the well next to the garage. When obtaining groundwater depths from a well it is important that the well not be used for several hours prior to the reading.

4. The pipe from the sump should not come out the bottom. The pipe should be above the bottom so it acts as an overflow and the solids are allowed to settle out.

5. Quantify how much anti-freeze will be emptied into the system. Only small amounts will be allowed. Radiators cannot be drained into this system.

SPG

Review of Plans & Specs.

Ref. No. 85-294

Page Two

6. The absorption system loading rate will be dependent on the percolation rate. If the perc tests show a rate of 20 min/inch the loading rate will be .46 gal/sqft/day.

Submit the requested information in triplicate. If you have any questions do not hesitate to contact me.

SG/jw

copy: Paul Selsky

Plans (3)

File (2)

PERMIT TO CONSTRUCT

- New
- Renewal
- Modified

Permit No. 85-296RR
 SEE CONDITION ON BACK
 MA 14542

Teton Shadows Wastewater Treatment and Disposal
 (Name of Facility)

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

Teton Shadows
P.O. Box 3393
Jackson, WY 83001

to construct, install, or modify an additional disposal field to drainfield facility according to the procedures and conditions of the application No. 85-296RR. The facility is located in Section 27, T42N, 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.

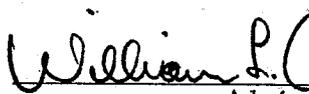
The permittee shall allow authorized representatives from the Department of Environmental Quality, Water Quality Division, upon the presentation of credentials and during working hours, to have access to inspect the facilities, at the above location, for the purpose of compliance with the provisions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

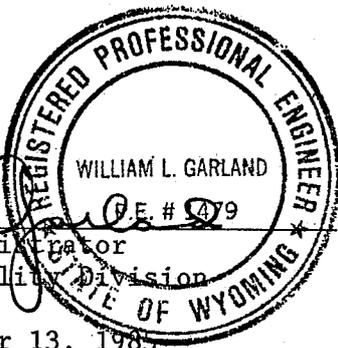
The permittee shall notify representatives from the Department of Environmental Quality, Water Quality Division the day construction commences and give an estimate of completion of the project. The authorized representative in your area can be contacted at the following address: District Engineer, State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

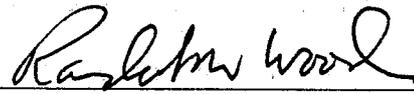
Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities or penalties established pursuant to any applicable State law or regulation.

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:


Admin. Asst.
Water Quality Division
STATE OF WYOMING





Director
Dept. of Environmental Quality

September 13, 1985
Date of Issuance

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

Condition to Permit to Construct 85-296RR

The permittee shall notify Dick Worl, Teton County Sanitarian, P.O. Box 1727, Jackson, WY 83001, phone number 733-3959, of the estimated day construction will commence and the estimated day of completion of this project. Inspection of the installed system is required prior to backfilling.

REVIEW OF PLANS AND SPECIFICATIONS
WYOMING DEPARTMENT OF ENVIRONMENTAL QUALITY

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

PROJECT: Teton Shadows Wastewater Disposal

ENGINEER: Nelson Engineering
ATTN: Paul Selsky
P.O. Box 1599
Jackson, WY 83001

OWNER: Teton Shadows
P.O. Box 3393
Jackson, WY 83001

WATER QUALITY DIVISION REFERENCE NUMBER: 85-296R

REVIEWING ENGINEER: Steven P. Gerber *JPG*

DATE OF REVIEW: July 18, 1985

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. The loading computations indicate an additional 5,268 SF of drainfield is required. Using 2.5 sq. ft. per ft. of application area an additional 2,107 lineal feet of perforated piping is required. There is not that much piping being added. Please explain.

2. Provide a scaled drawing showing the area between the roads and how field D is to fit in that area. Show where the existing portion is located.

3. Provide the location of the percolation test holes and the results. Include depths of the percolation test holes.

4. Specify at what depth the new leachfield is to be installed. Verify that the existing percolation data is applicable for this area where the additional field is being added.

Submit the requested information and revised drawings in triplicate. If you have any questions do not hesitate to contact me.

SG/jw
copy: Plans (3)
File (2)

ABC

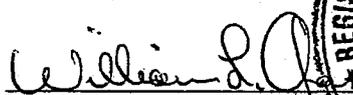
ing working hours, to have access to inspect the facilities, at the above location, for the purpose of compliance with the provisions of this construction permit.

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, Wyoming 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.

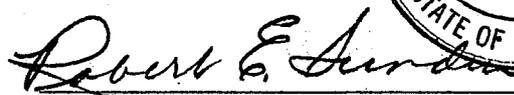
The issuance of this permit does not convey any property rights in either real or personal property, or any exclusive privileges, nor does it authorize any injury to private property or any invasion of personal rights, nor any infringement of Federal, State or local laws or regulations.

AUTHORIZED BY:


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

Administrator
Water Quality Division

July 31, 1985
Date of Issuance


ROBERT E. SUNDIN
NO. 285
REGISTERED PROFESSIONAL ENGINEER
STATE OF WYOMING

Director
Dept. of Environmental Quality

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

PROJECT: Lincoln Heights Fifth Addition, Third Filing

ENGINEER: Jay R. Anderson
Great Basin Engineering, Inc.
P.O. Box 9307
Ogden, UT 84409

OWNER: Lincoln Heights Development Corp.
2610 North 300 East
North Logan, UT 84321

WATER QUALITY DIVISION REFERENCE NUMBER: 85-297

REVIEWING ENGINEER: Bill Locke *BJ*

DATE OF REVIEW: July 15, 1985

ACTION: Not authorized.

COMMENTS:

A preliminary review of the above plans and specifications has been completed. The following items must be addressed before a permit to construct can be issued:

1. A letter from the City of Kemmerer agreeing to accept the water distribution and sewer collection systems upon completion is required. This letter should also state that the City has a sufficient water supply and a sufficient wastewater treatment capacity to service this subdivision. An additional statement that a minimum water pressure of 20 psi will be maintained under all conditions.

2. Vertical and horizontal separation between water and sewer lines should be dimensioned on the plans and profiles. Show all waterline crossings on the sewer profiles.

3. There are areas in the water distribution system where provisions should be provided to prevent entrapped air. Please review the design and address these areas.

4. Sewer service connections should be made with a wye or tee only. Tapping saddles are unacceptable for new construction.

5. Some waterline fitting will be required in lieu of deflecting the water main. The maximum deflection per joint of C-900 PVD pipe is 5% and the minimum radius of curvature for 6" diameter C-900 PVD pipe is 150 feet. Please review your design and incorporate waterline fittings where required. Specifically review both ends of Brooks Drive and the east end of Holland Drive.

AC

Review of Plans & Specs.

Ref. No. 85-297

Page Two

6. All waterline connections, fittings, valves and fire hydrant assemblies should be identified on the plan view.

7. A description of the leakage tests required for the waterlines and sewerlines should be included in the plans or specs.

8. Tapping saddles for the water service connections should be specified.

9. On sheet 5/9 in the intersection of Canyon Road and Holland Drive, it is unclear as to which line (sewer or storm sewer) is installed above the other. It appears there may be a conflict here.

BL/jw

10-7

PERMIT TO CONSTRUCT

- New
- Renewal
- Modified

Permit No. 85-298R
MA-14542

The Place Motel, Wastewater Disposal System
(Name of Facility)

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

Melvin McLoughlin
Daniel, WY 83115

to construct, install, or modify a septic tank and seepage pit for a six (6)
unit motel

_____ facility according to the procedures and conditions of the

application No. 85-298R. The facility is located in _____

Sec. 25, T37N, R110W

_____ in the County of Sublette,

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 dur-

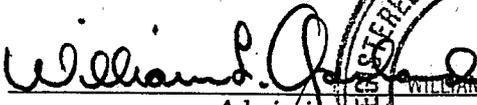
ing working hours, to have access to inspect the facilities, at the above location, for the purpose of compliance with the provisions of this construction permit.

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, Wyoming 82520; telephone, 332-3144.

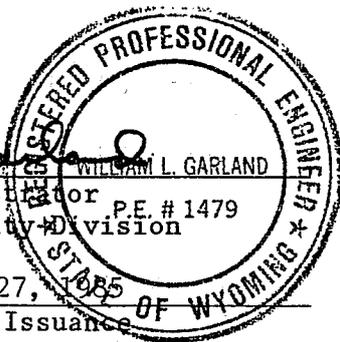
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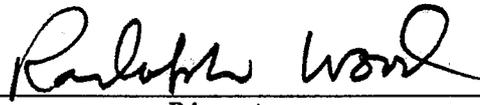
The issuance of this permit does not convey any property rights in either real or personal property, or any exclusive privileges, nor does it authorize any injury to private property or any invasion of personal rights, nor any infringement of Federal, State or local laws or regulations.

AUTHORIZED BY:



Administrator
Water Quality Division
P.E. # 1479
September 27, 1985
Date of Issuance





Director
Dept. of Environmental Quality

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

PROJECT: The Place Motel

ENGINEER: Phillip D. Essington
Rio Verde Engineering, Ltd.
P.O. Box 67
Pinedale, WY 82941

OWNER: Melvin McLoughlin
Daniel, WY 83115

WATER QUALITY DIVISION REFERENCE NUMBER: 85-298

REVIEWING ENGINEER: Bill Locke *BL*

DATE OF REVIEW: July 1, 1985

ACTION: Not authorized.

COMMENTS:

Your plans for the septic system with seepage pit for the six unit motel at The Place outside of Pinedale have been reviewed. The following items need to be addressed before a permit to construct can be issued:

1. Will the seepage pit be located under a roadway, parking area or other similarly compacted area?
2. The septic tank should have a minimum effective liquid capacity sufficient to provide at least 36 retention at peak flow. (780 gpd x 36/24) = 1,170 gallon capacity
3. Is the potable water service line from the well to the motel 25 feet from the septic tank and 50 feet from the seepage pit?
4. The depth at which the inlet line enters the seepage pit will effect the absorption area of the pit. Only the sidewall area below the invert of the inlet pipe should be considered when sizing the seepage pit. It is also recommended that the seepage pit (inside the 8' manhole) be filled with clean rock to aid in the equal distribution of the wastewater to the absorption area.
5. The clean rock outside of the 8' manhole should be covered with untreated building paper, filter cloth or straw to protect the drainage of the rock. A minimum of 12 inches of earth should be placed on this cover.

Please feel free to contact either Jack Bedessem or myself if you have any questions.

AC

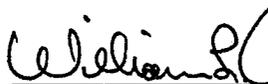
ing working hours, to have access to inspect the facilities, at the above location, for the purpose of compliance with the provisions of this construction permit.

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, Wyoming 82520; telephone, 332-3144.

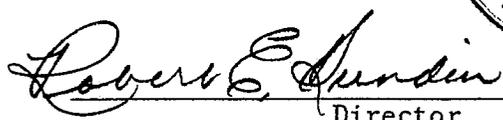
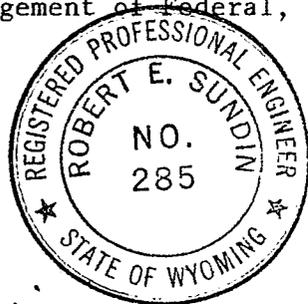
Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities or penalties established pursuant to any applicable State law or regulation.

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
PE # 1479
Administrator
Water Quality Division
STATE OF WYOMING



Director
Dept. of Environmental Quality

July 8, 1985
Date of Issuance

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



Department of Environmental Quality
Water Quality Division

2161 COFFEEN AVENUE,
SUITE 301

SHERIDAN, WYOMING 82801

TELEPHONE 307-672-6457

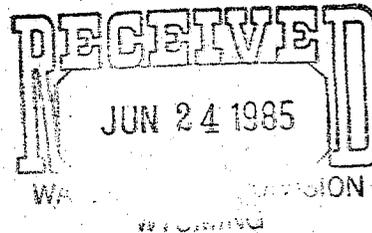
MEMORANDUM

TO: Chuck Costanza, Building Inspector
Campbell County Engineer's Office

FROM: Rich Ruyle, WQD District Supervisor

DATE: June 12, 1985

SUBJECT: Schlumberger Septic System



These plans were submitted to our office but should've gone to you. I am forwarding them to you for review. I looked at them briefly. The plans look okay except:

- 1.) Information on depth to groundwater is not provided. (Holeman Diesel did not hit any water at 20 feet but these pits will be 30 feet deep or more.)
- 2.) The soil investigation should extend down to 30 feet or however deep the pits will be. More verifiable perc tests are needed which include the entire depth of the hole and/or a design perc rate should be chosen based on the results of the soil investigation. Silty sand does not indicate a perc rate of 3 min/inch. (Again, see Holeman Diesel. Their perc rate was 24 min/inch.)

The Warlow Addition is in the 201 Planning Area but is not served by sewer because it is in a low area. I've enclosed the Holeman permit for your reference to show the condition for hookup to the city sewer we've been using for systems in this area.

Call if you have any questions.

