GW - 41

PERMITS, RENEWALS, & MODS

GEOTHERMAL LEASE NM 34790
SECTION 7, TOWNSHIP 25 SOUTH, RANGE 19 WEST
S2N2, SE4, E2SW4
HIDALGO COUNTY, NEW MEXICO

BURGETT INVESTMENT, INC., OPERATOR
BOX 265-A, ANIMAS, NEW MEXICO 88020

GREENHOUSE OPERATION
USING GEOTHERMAL FOR HEATING TO GROW ROSES

PLAN OF OPERATION

I. Maps

- A. Scaled Drawings of Operations
- B. Geographical Topographic Map

II. Wells

- A. Identification of Wells
- B. Monitoring
- C. Collecting Data

III. Greenhouses

- A. Identification
- B. Construction
- C. Square Footage

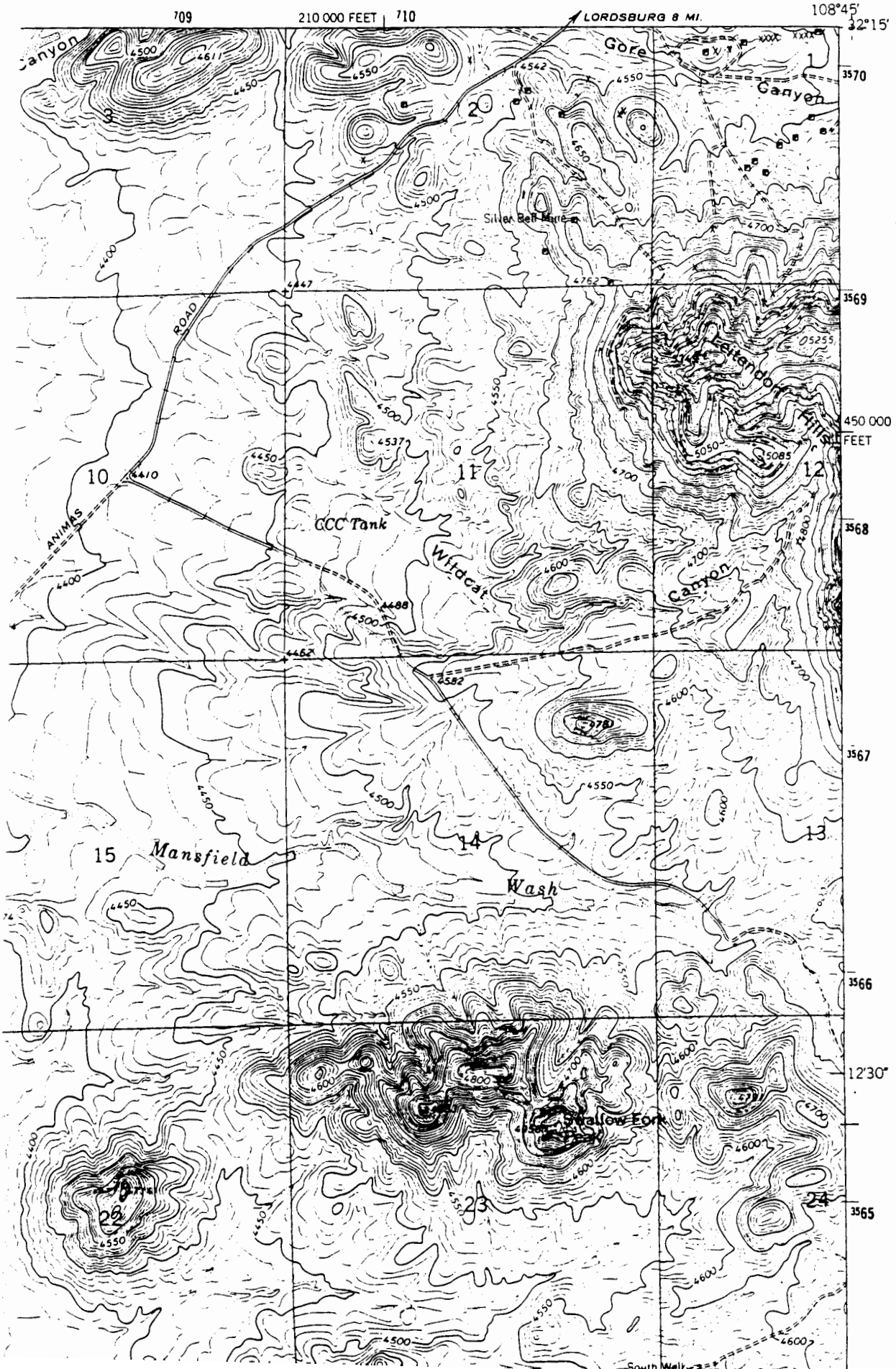
III. Narrative Statement

SWALLOW FORK PEAK QUADRANGLE

NEW MEXICO-HIDALGO CO.

7.5 MINUTE SERIES (TOPOGRAPHIC)

4248 I SW (LORDSBURG)



WELL DESCRIPTION

No. 1	A-36-A	Well is 2567 feet south and 780 feet east from the N4 corner of Section 7, T. 25 S., R. 19 W. Drilled in November 1948. This well was an exploratory irrigation well drilled to the depth of 85 feet and has a 12" conductor pipe that reduces to 8" at the hole. This well is a geothermal well and is not in use at this time.
No. 2	A-36-B	Well is 2368 feet south and 1131 feet east from the N4 corner of Section 7, T 25 S., R. 19 W. Drilled in 1948 to a depth of 95 feet and deepened by Burgett in 1983 to a depth of 225 feet with a pilot hole. It has 100 feet of 8" casing. This well is being used. It is a geothermal well. This well is used to head greenhouses #1 and #2.
No. 3	A-36-AB-S	Well is located 2570 feet south and 646 feet east of the N4 corner, Section 7, T 25 S., R. 19 W. This well was drilled by Burgett in 1979 to a depth of 115 feet and has 90 feet of 8" casing. This is a geothermal well and is not in use at this time.
No. 4	A-36-AB-S-2	Well is located 3837 feet south and 2593 feet east from the N4 corner of Section 7, T 25 S., R 19 W. This well was drilled by Burgett in 1978 to a depth of 125 feet and has 8" casing to a depth of 90 feet. This is a cold water well and is not is use.
No. 5	A-36-AB-S-3	Well is located 2102 feet south and 388 feet east from the N4 corner of Section 7, T. 25 S., R. 19 W. This well was drilled in 1980 to a depth of 225 feet by Burgett and is cased in 8" casing for 100 feet. Well is equipped with a 200 GPM Turbine pump and is being used for Greenhouse #1 and #2. It is a geothermal well.

No. 6	A-36-AB-S-4	Well is located 2558 feet south and 1235 east of the N4 corner of Section 7, T. 25 S., R. 19 W. This well was drilled in 1948 to a depth of 90 feet. Well is cased with 85 feet of 12" and 90 feet of 10" inside 12". Well is not in use and is a geothermal well.
No. 7	A-36-AB-S-5	Well is located 2579 feet south and 505 feet east of the N4 corner of Section 7, T. 25 S., R. 19 W. Drilled in 1983 by Burgett to a depth of 550 feet. Well is cased with 8" casing to 150 feet, with 6" casing 100 feet. Well is equipped with a 250 GPM Turbine pump. In 1993 the well was test pumped. Well is not in use and is a geothermal well.
No. 8	A-36-AB-S-6	Well is located 3067 feet south and 625 feet east of the N4 corner of Section 7, T. 25 S., R. 19 W. Drilled in 1983 by Burgett to a depth of 275 feet and is cased with 8" casing to a depth of 100 feet. This well is a geothermal well and is in use at this time. It is equipped with a 350 GPM Turbine pump. It is used to heat greenhouses #3, #4, and #5.
No. 9	A-36-AB-S-7	Well is located 3351 feet south and 1020 feet east from the N4 corner of Section 7, T. 25 S., R. 19 W. Well was drilled by Burgett in 1984 to a depth of 130 feet and 8" casing to 100 feet. Well is a geothermal well and is not being used.
No. 10	A-36-AB-S-8	Well is located 2941 feet south and 1001 east from the N4 corner of Section 7, T. 25 S., R. 19 W. Well was drilled by Burgett in 1984 to a depth of 175 feet and cased with 8" casing to 100 feet and equipped with a 250 GPM Turbine pump. This well is a geothermal well and is in use all the time. It is used for Greenhouse #4, #5, #6 and #7.
No. 11	A-36-AB-S-12	Well is located 2571 feet south and 240 feet east from the N4 corner of Section 7, T. 25 S., R. 19 W. Well was drilled by Oasis Drilling in 1982 to a depth of 125 feet and cased with 8" casing to 100 feet. This well is not used, the water is not hot enough. Not classed as a geothermal well.

No. 12	A-36-AB-S-13	Well is located 2594 feet south and 225 feet west of the N4 corner of Section 7, T. 25 S., R 19 W. Well was drilled by Burgett in 1983 to a depth of 275 feet and cased with 8" casing to 150 feet. This well is a dry hole, there is no water and not used.
No. 13	A-64	Well is located 4102 feet south and 140 feet west from the N4 corner of Section 7, T. 25 S., R. 19 W. Well was drilled by Folk in 1940 to a depth of 250 feet. This well is rated at 1000 GPM and has a Turbine pump without motor, not in use and has not been pumped in ten (10) years.
No. 14	A-65-A	Well is located 5215 feet south and 122 feet west of the N4 of Section 7, T. 25 S., R. 19 W. Drilled by Folk in March 1951 to a depth of 150 feet. It has a 250 GPM Turbine pump. Not in use and has not been used in ten (10) years.
No. 15	A-65-AS	Well is located 2621 feet south and 2004 feet west from the N4 corner of Section 7, T. 25 S., R. 19 W. Drilled by Folk in 1959 for irrigation well. Has 1000 GPM Turbine pump. Not in use. Has not been pumped in ten (10) years.
No. 16	A-231	Well is located 2548 feet south and 1118 feet west from the N4 of Section 7, T. 25 S., R. 19 W. Folk irrigation well drilled in 1957 to a depth of 126 feet and cased with 6" casing. Well not in use. Is not a geothermal well.
No. 17	A-45	Well is located 1427 feet south and 112 feet east of the NW corner of Section 12, T. 25 S., R. 20 W. Well was drilled in 1984 by Burgett to a depth of 150 feet and cased with 6" PVC with a submergible pump. This is a fresh water well and is in use.
No. 18	A-45-S-2	Well is located 1521 feet south and 165 feet east from the NW corner of Section 12, T. 25 S., R. 20 W. Drilled in 1984 by Burgett to a depth of 150 feet and cased with 6" PVC with a submergible pump. This is a fresh water well and is in use.

No. 19	A-45-S-3	Well is located 1541 feet south and 130 feet east of the NW Corner of Section 12, T. 25 S., R. 20 W. Well was drilled in 1984 by Burgett to a depth of 150 feet and cased with 6" PVC with a submergible pump. This is a fresh water well and is in use.
No. 20	A-13-S	Well is located 1234 feet south and 3755 feet east from the NW corner of Section 13, T. 25 S., R. 20 W. No information on this well. It has a Turbine pump and 18" casing. Pumped for one (1) year. Not a geothermal well.
No. 21	A-13-S-3	Well is located 1292 feet south and 2930 feet east from the NW corner of Section 13, T. 25 S., R. 20 W. Well was drilled in 1940 and has a Turbine pump. Pumped one (1) year and is not in use at this time. No other information on this well. Not a geothermal well.
No. 22	A-59-A	Well is located 1292 feet south and 2930 feet east from the NW corner of Section 13, T. 25 S., R. 20 W. No information on this well. Not in use. Pumped one (1) year. Not a geothermal well.
No. 23	Proposed	Located 1373 feet south and 6540 feet east of the NW corner of Section 13, T. 25 S., R. 20 W. Test Well never drilled.
No. 24	A-51	Well is located 1391 feet south and 1223 feet east of the NW corner of Section 14, T. 25 S., R. 20 W. Well drilled by Burgett to a depth of 275 feet with 16" casing all the way and has a 60 HP submergible pump that pumps 1100 GPM. This well is in use all the time and is not a geothermal well. It is a fresh water well.
No. 25	A-53-S	Well is located 59 feet north and 240 feet west from the E4 corner of Section 10, T. 25 S., R. 20 W. This well is a irrigation well drilled in the 1950's with a pipe to the south. Fresh water and not a geothermal well.

No. 26	A-53	Well is located 88 feet north and 76 feet west from the E4 corner of Section 10, T. 25 S., R. 20 W. This is an irrigation well drilled in the 1950's with pipe to the south. Fresh water and not a geothermal well.
No. 27		Well is located 2918 feet south and 1519 feet east from the N4 corner of Section 7, T. 25 S., R. 19 W. Drilled in 1989 by Burgett to a depth of 151 feet and cased with 10" casing to 100 feet. Equipped with a 450 GPM Turbine pump. Well is a geothermal well and is used.
No. 55-7		The deep exploratory well was drilled by AMAX and it is capped. The Plugging Plan was approved in November 1985 with Steam Reserve Corporation as lessee/operator.

All wells are shown on the drawing with the exception of 20 through 26. These fall into two different sections that are privately owned and the wells are cold water irrigation type wells.

While some of these wells may be used as down hold heat exchangers, most of these wells are observation determining formation and hot water production.

PLAN OF UTILIZATION

I. Description of Structures

A. Map of Facility Locations

(See drawing made of complete project)

B. Purpose of Each Facility

1. GREENHOUSES: To grow roses for commercial cut rose business.

2. GRADING/PACKING BUILDING: Roses are graded, packaged, refrigerated, and packed out for sale.

3. STORAGE BUILDING: Boxes are stored and assembled along with holding other supplies as necessary.

4. GENERATOR BUILDING: Houses generators and other equipment necessary for the physical plant.

5. SHOP BUILDING: For equipment and vehicle repairs.

C. Schematic Flow Diagram

(See attached drawing made of Schematic Flow Diagram)

D. Schedule of Construction Activities

1. Completion of Greenhouses #8 and #9 by November, 1993.

2. Anticipated construction of new grading/packing house within the next three years to be constructed to the south of the existing grading/packing building where mobile homes are now located.

3. Anticipated construction or placement of mobile office building at an undecided location within next three years.

II. Reports

(See attached reports from State Engineers Office)

III. Tests

(See attached reports from Oil Conservation Department)

IV. Map of Roads

(See attached drawing of operation)

V. Water Supply to be Utilized

A. Source: Water from geothermal wells are used to circulate in greenhouses.

B. Quality: Water from the hottest wells will be utilized.

C. Consumption Rate: 125 GPM to 400 GPM but not continuously.

VI. Waste Waters

A. Waste waters from geothermal wells are discharged to the west into a ditch for drinking water for livestock. It is considered potable water and has no saline.

VII. Environmental Protection

A. The water from the geothermal wells does not harm the environment because the water is either returned to the well or discharged into a ditch for livestock.

VIII. Monitoring Facility Operations

A. Flow Meters: There are flow meters in all five geothermal wells being used.

B: Monitoring Devices: Temperature sensors and totalizers in gallons and BTU using analogues.

IX. Narrative Statement

NARRATIVE STATEMENT OF OPERATION

The greenhouse operation comprises of 1,029,949 square feet as of September 1993, with an expected total 1,374,111 square feet by November 1993.

The only crop is roses for wholesale business. The operation is confined to the greenhouses and grading/packing building. There is no outside growing.

A grading and packing building is located to the south of Greenhouse #1. The east side is for loading, the middle is the packing area that also contains three refrigeration room. The west side of the building is the grading room. There is a heat obsorbtion unit in this area, but is not hooked up nor is it being used. The room to the south is a large refrigeration room.

A mobile office sits next to the east side of the building. There is a shop building for equipment repair located to the east of the office.

There are approximately 100 employees monthly on site, some of whom live in the mobile homes to the south of the packing building and others to the east of the complex.

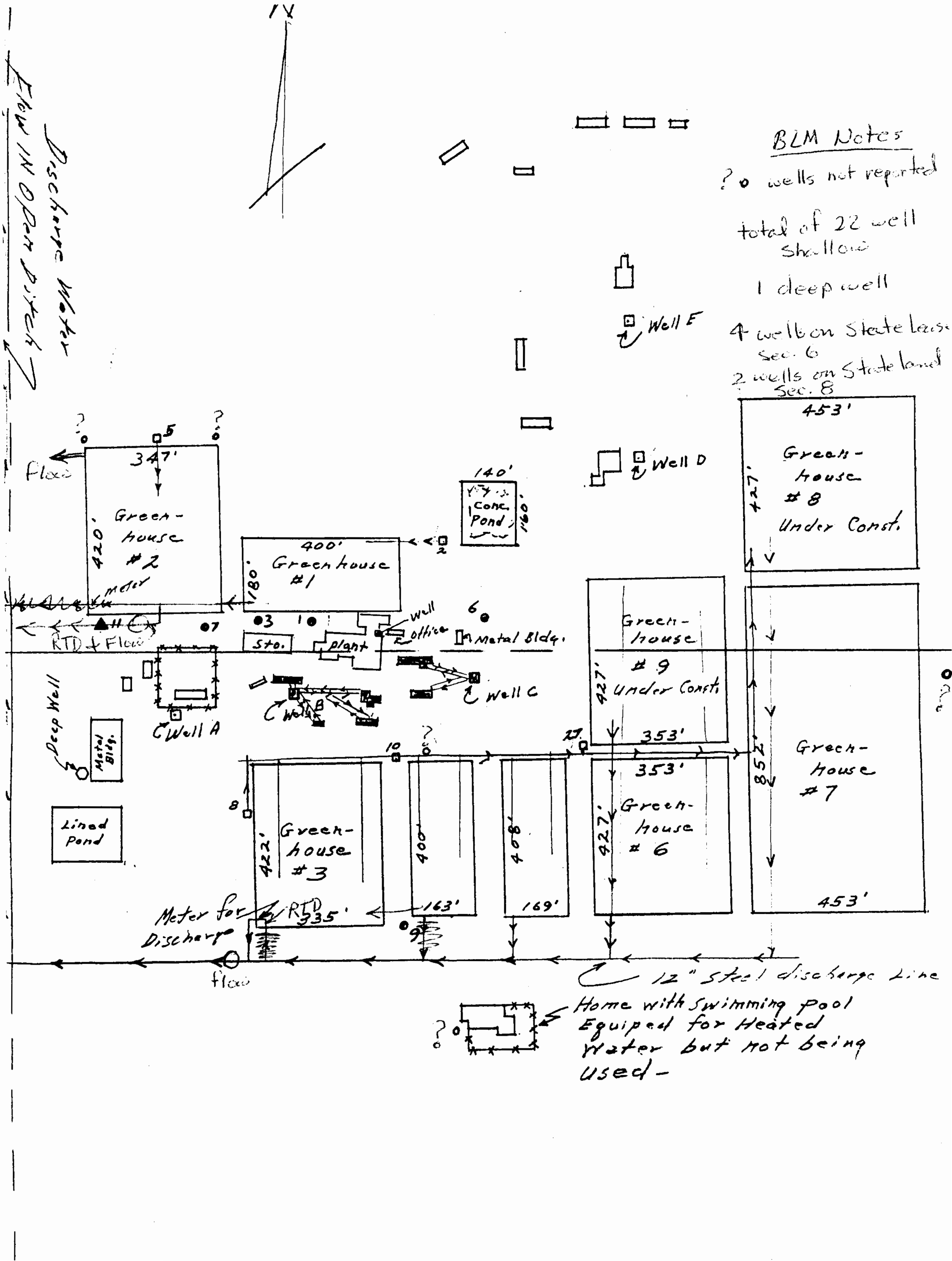
There are two prefab houses on the eastern edge of the complex. Neither use geothermal heat.

To the south of the complex is the home of Mr. and Mrs. Burgett, and to the west of the complex is the home of Mr. and Mrs. Malone.

There are portable sanitary facilities (toilets) for the workers positioned around the greenhouses. These facilities are supplied by a local company who services them.

A generator building is located on the west side of Greenhouse #3 and is used for switching electricity from local service to diesel generators for the complex.

The discharge of the water used to heat the greenhouses is done in a manner that minimizes any soil erosion. The water is discharged into a ditch and flows in such a manner that livestock uses it for drinking.


N
Discharge Water
Flow IN Open Ditch
BLM Notes
? o wells not reported
total of 22 well
Shallow
1 deep well
4 well on State lease
Sec. 6
2 wells on State land
Sec. 8
Well E
Well D
140'
Conc. Pond
160'
5
347'
Flow
Green-
house
#2
420'
meter
400'
Greenhouse
#1
180'
2
6
3
1
7
Well
office
Metal Bldg.
RTD + Flow
Sto.
plant
Well C
Well B
Well A
Deep Well
Metal Bldg.
Lined Pond
453'
Green-
house
#8
Under Const.
427'
Green-
house
#9
Under Const.
427'
353'
353'
Green-
house
#6
427'
852'
Green-
house
#7
453'
10
27
8
Green-
house
#3
422'
400
408'
Meter for
Discharge
RTD
335'
163'
169'
9
flow
12" steel discharge Line
Home with Swimming pool
Equiped for Heated
Water but not being
used –

DESCRIPTION OF GREENHOUSES

Greenhouse #1	Completed: January 1978		
	Construction: Wood frame/Fiberglass		
	Size: 400 X 180	Square Footage:	72,000
Greenhouse #2	Completed: December 1980		
	Construction: Steel Pipe/Fiberglass		
	Size: 347 X 420	Square Footage:	145,740
Greenhouse #3	Completed: August 1985		
	Construction: Steel Pipe/Exolite		
	Size: 335 X 422	Square Footage:	141,370
Greenhouse #4	Completed: August 1987		
	Construction: Steel Pipe/Exolite.		
	Size: 163 X 400	Square Footage:	65,200
Greenhouse #5	Completed: August 1988		
	Construction: Steel Pipe/Glass		
	Size: 169 X 408	Square Footage:	68,952
Greenhouse #6	Completed: November 1989		
	Construction: Steel Pipe/Exolite		
	Size: 353 X 427	Square Footage:	150,731
Greenhouse #7	Completed: January 1991		
	Construction: Steel Pipe/Exolite		
	Size: 453 X 852	Square Footage:	385,956
Greenhouse #8	Completed: November 1993 (Anticipated)		
	Construction: Steel Pipe/Exolite		
	Size: 453 X 427	Square Footage	193,431
Greenhouse #9	Completed: November 1993 (Anticipated)		
	Construction: Steel Pipe/Exolite		
	Size: 353 X 427	Square Footage	150,731

Total square footage in all greenhouses 1,374,111


T. 25 S.
R. 20 W.
R. 19 W.
N¼ S
W¼ S
W¼ S
E¼ S
S¼ S
SCALE: 1" = 300'
BURGETT INVESTMENT, INC.
LOCATION OF GREENHOUSES, OFFICE, LIVING QUARTERS, STORAGE, PLANT, and WELLS. FRESH WATER and GEOTHERMAL WELLS.
9-14-93 FIELD MEASURED by D.W.
DRAWN by D.W.
NOTES:
Geothermal Wells in Use
Geothermal Wells not used
Cold Water Wells
Deep Well by OThers (Caped)
Wells used To heat trailers (Test holes)
Wells not used (Test holes)
Metal Storage Bldg.
Trailer
Dry hole
Greenhouse #1
Greenhouse #2
Greenhouse #3
Greenhouse #4
Greenhouse #5
Greenhouse #6
Greenhouse #7
Greenhouse #8 Under Const.
Greenhouse #9 Under Const.
Conc. Pond
Lined Pond
Metal Bldg.
Deep Well
Sto.
Plant
Office
Well A
Well B
Well C
Well D
Well E
Home with Swimming pool Equiped for Heated Water but not being used-

BURGETT FILE

STATE OF NEW MEXICO

ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT

OIL CONSERVATION DIVISION

BRUCE KING
GOVERNOR

ANITA LOCKWOOD
CABINET SECRETARY

POST OFFICE BOX 2088
STATE LAND OFFICE BUILDING
SANTA FE, NEW MEXICO 87504
(505) 827-5800

July 13, 1992

CERTIFIED MAIL
RETURN RECEIPT NO. P-667-241-869

Mr. Dale Burgett
Box 265 A
Animas, New Mexico 88020

RE: Notification of Cessation of Discharge
Burgett Greenhouse, Discharge Plan GW-41
Hidalgo County, New Mexico

Dear Mr. Burgett:

On April 16, 1987, the ground water discharge plan, GW-41 for the Burgett Greenhouse located in Section 7, Township 25 South, Range 19 West, NMPM Hidalgo County, New Mexico, was approved by the Director of the Oil Conservation Division (OCD). This discharge plan was required and submitted pursuant to Water Quality Control Commission (WQCC) regulations and was approved for a period of five years or until April 16, 1992. In a letter dated August 7, 1991 the OCD notified Burgett Greenhouse that the discharge plan would expire on April 16, 1992, and that an application for renewal of the discharge plan was required prior to its expiration.

The discharge plan GW-41 has been expired for approximately three months and Burgett Greenhouse has failed to submit a discharge plan renewal application.

The OCD requires Burgett Greenhouse to cease all discharges immediately upon receipt of this letter. Operations may not recommence until a discharge plan renewal application is submitted to the OCD and Burgett Greenhouse receives OCD approval to restart operations. If you feel that a discharge plan is not required for your facility pursuant to WQCC regulation 3-105, then you must submit the necessary information to obtain an OCD approved exemption from the discharge plan requirement.

Please note that if operations do not cease immediately upon receipt of this letter then the Division may assess civil penalties of up to $10,000 per day.

Numerous attempts have been made to contact you and discuss options available to avoid the situation above. If you have any questions concerning your discharge plan renewal or exemption, please contact Kathy M. Brown at (505) 827-5884.

Sincerely,

William J. LeMay
Director

xc: Roy Johnson, OCD Santa Fe Office

STATE OF NEW MEXICO

ENERGY AND MINERALS DEPARTMENT

OIL CONSERVATION DIVISION

GARREY CARRUTHERS
GOVERNOR

POST OFFICE BOX 2088
STATE LAND OFFICE BUILDING
SANTA FE, NEW MEXICO 87501
(505) 827-5800

April 16, 1987

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

Mr. Dale Burgett
Box 265 A
Animas, New Mexico 88020

RE: Discharge Plan (GW-41)
Burgett Greenhouse
Animas, Hidalgo County

Dear Mr. Burgett:

The ground water discharge plan (GW-41) for the greenhouse located in Section 7, Township 25 South, Range 19 West, Hidalgo County, New Mexico, is hereby approved.

The approved discharge plan consists of the plan received January 5, 1987, and the lab analyses and information received January 28, 1986 and March 9, 1987.

The discharge plan was submitted pursuant to Section 3-106 of the New Mexico Water Quality Control Commission Regulations. It is approved pursuant to Section 3-109.F., which provides for the possible future amendments of the plan. Please be advised that the approval of this plan does not relieve you of liability should your operation result in actual pollution of surface or ground waters which may be actionable under other laws and/or regulations.

There will be no routine monitoring or reporting requirements other than those contained in the plan.

Please note that Section 3-104 of the regulations requires that "when a plan has been approved, discharges must be consistent with the terms and conditions of the plan." Pursuant to Section 3-107.C., you are required to notify the Director of any facility expansion, production increase, or process modification that would result in any significant change in discharge water quality or volume.

Pursuant to Section 3-109.G.4, this plan approval is for a period of five (5) years. This approval will expire April 16, 1992 and you should submit an application for renewal in ample time before that date.

On behalf of the staff of the Oil Conservation Division, I wish to thank you for your cooperation during this discharge plan review.

Sincerely,

WILLIAM J. LEMAY
Director

WJL/JB/cr

cc: OCD - Roy Johnson

NOTICE OF PUBLICATION

STATE OF NEW MEXICO

ENERGY AND MINERALS DEPARTMENT

OIL CONSERVATION DIVISION

Notice is hereby given that pursuant to New Mexico Water Quality Control Commission Regulations, the following discharge plans have been submitted for renewal or approval to the Director of the Oil Conservation Division, State Land Office Building, P. O. Box 2088, Santa Fe, New Mexico 87504-2088, Telephone (505) 827-5800:

(GW-6) El Paso Natural Gas Company, Washington Ranch Storage Project, John Bridges, Manager, Environmental Engineering, Box 1492, El Paso, Texas 79978, has submitted an application to renew the previously approved discharge plan for its facility located in Section 34, Township 25 South, Range 24 East (NMPM), Eddy County, New Mexico. Approximately 13,500 gallons per day of dehydrator waste water will be contained in above ground steel tanks prior to disposal in an OCD-approved contract injection well. The discharge plan addresses how spills, leaks and other discharges to ground water at the plant site will be managed. Ground water most likely to be affected by any discharge at the surface is at a depth of approximately 80 feet and has a total dissolved solids concentration of approximately 1475 mg/l.

(GW-41) Burgett Greenhouse, Dale Burgett, Box 265A, Animas, New Mexico 88020, has submitted for approval a ground water discharge plan for the facility located in Section 7, Township 25 South, Range 19 West, Hidalgo County, New Mexico. Approximately 150,000 gallons per day of cooled geothermal water with a total dissolved solids content of 1115 will be discharged during the winter months to irrigate farm land. No discharge is anticipated during summer months. Uppermost ground water is geothermal and has a TDS of 1195 at a depth of 60 feet.

Any interested person may obtain further information from the Oil Conservation Division and may submit written comments to the Director of the Oil Conservation Division at the address given above. Prior to ruling on any proposed discharge plan or its modification, the Director of the Oil Conservation Division shall allow at least thirty (30) days after the date of publication of this notice during which comments may be submitted to him and a public hearing may be requested by any interested person. Requests for public hearing shall set forth the reasons why a hearing should be held. A hearing will be held if the Director determines there is significant public interest.

If no public hearing is held, the Director will approve or disapprove the proposed plan based on information available. If a public hearing is held, the Director will approve or disapprove the proposed plan based on information in the plan and information submitted at the hearing.

GIVEN Under the Seal of the New Mexico Oil Conservation Commission at Santa Fe, New Mexico, on this 9th day of January, 1987. To be published on or before January 16, 1987.

STATE OF NEW MEXICO
OIL CONSERVATION DIVISION

CHARLES ROYBAL
Acting Director

S E A L

STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT
OIL CONSERVATION DIVISION

TONEY ANAYA
GOVERNOR

POST OFFICE BOX 2088
STATE LAND OFFICE BUILDING
SANTA FE, NEW MEXICO 87501-2088
(505) 827-5800

May 27, 1986

Mr. Dale Burgett
Box 265A
Animas, N.M. 88020

Dear Mr. Burgett:

Although a discharge plan is required for your greenhouse operation, much of the information required under WQCC regulation 3-106.C was obtained during our sampling trip in January. For your convenience in filing a discharge plan, I have enclosed an outline form along with the lab analyses of wells in the area. These analyses indicate the total dissolved solids (TDS) of ground water, which is required for the discharge plan.

Provided that the information listed on the outline is submitted to the Oil Conservation Division (even in short-answer form), and no changes have been made in the operation since our inspection, this discharge plan will be approved following public notice. Please feel free to contact me at 827-5884 if I can be of any assistance.

Sincerely,

JAMI BAILEY
Field Representative

JB:dp

Enc.

cc: Roy Johnson

Discharge Plan for Burgett Geothermal Plant

I. General Information

A. Name, Address and Telephone Number for Discharger or Legally Responsible Party:

B. Location of Discharge: Section ____, Township _____ (North) (South), Range _____ (East) (West)

C. Type of Operation:

D. Affirmation:

"I hereby certify that I am familiar with the information contained in and submitted with this application and that such information is true, accurate and complete to the best of my knowledge and belief."

_____ _____
(Signature) (Date)

_____ _____
(Printed Name of Person Signing) (Title)

II. Plant Processes

A. Describe storage and uses of geothermal waters.

B. Estimated quantities used in gallons per day (gpd).

C. Any additives or commingling.

III. Site Characteristics

A. Provide the name, description, and location of any ground water discharge sites (water wells, seeps, springs,) within one mile of the outside perimeter of the facility. For water wells, specify use of water (e.g., irrigation, domestic, etc.)

B. If known, provide the flow direction of the ground water most likely to be affected by the discharge. Include the source of the information and how was it determined.

C. Depth to rock at base of alluvium:

STATE OF NEW MEXICO

ENERGY AND MINERALS DEPARTMENT

OIL CONSERVATION DIVISION

TONEY ANAYA
GOVERNOR

POST OFFICE BOX 2088
STATE LAND OFFICE BUILDING
SANTA FE, NEW MEXICO 87501-2088
(505) 827-5800

May 15, 1986

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

Mr. Dale Burgett
Box 265A
Animas, N.M. 88020

Dear Mr. Burgett:

Enclosed are copies of the water analyses from samples taken on January 28, 1986, by Roy Johnson and Jami Bailey. Included with the analyses is a copy of the New Mexico Water Quality Control Commission (WQCC) regulations on discharges and ground water standards.

Because of the fluoride concentration and the method of discharging the geothermal waters onto the surface of the ground, you are hereby notified that a discharge plan must be submitted and approved. This notification of discharge plan requirement is pursuant to Sections 3-104 and 3-106 of the WQCC regulations. The discharge plan defined in Section 1-101.P of the WQCC Regulations should cover all discharges of effluent or leachate at the greenhouse site or adjacent to the greenhouse site.

Section 3-106.A. of the regulations requires a submittal of the discharge plan within 120 days of receipt of this notice unless an extension of this time period is sought and approved for good cause. Section 3-106.A. also allows the discharge to continue without an approved discharge plan until 240 days after written notification by the director that a discharge plan is required. An extension of this time may be sought and approved for good cause.

If there are any questions on this matter, please feel free to call Jami Bailey or Dave Boyer at (505) 827-5884.

Sincerely,

R. L. STAMETS
Director

RLS:JB:dp

Enclosures

cc: Roy Johnson

New Mexico Health and Environment Department
SCIENTIFIC LABORATORY DIVISION
700 Camino de Salud NE
Albuquerque, NM 87106 — (505) 841-2555

EN

GENERAL WATER CHEMISTRY and NITROGEN ANALYSIS

DATE RECEIVED 2 10 86	LAB NO. WC 562	USER CODE ☐ 59300 ☐ 59600 ☒ OTHER: 82235	
Collection DATE 1 28 86	SITE INFORMATION ►	Sample location BURGETT GEOTHERMAL WELL	
Collection TIME 0900		Collection site description T T25S R19W BYPASS VALVE AT WELLHEAD	
Collected by — Person/Agency BAILEY/JOHNSON - OCD			

SEND FINAL REPORT TO ►
ENVIRONMENTAL BUREAU
NM OIL CONSERVATION DIVISION
State Land Office Bldg, PO Box 2088
Santa Fe, NM 87501
Attn: David Boyer

Station/ well code

Owner DALE BURGETT

SAMPLING CONDITIONS

☐ Bailed ☒ Pump ☐ Dipped ☐ Tap	Water level STATIC W.L. 65' DEPTH TO WATER 90'	Discharge 300 gpm	Sample type
pH (00400) 8.1	Conductivity (Uncorrected) 2900 µmho	Water Temp. (00010) 48 °C	Conductivity at 25°C (00094) µmho

Field comments: PUMPED FOR 10HRS/DAY TO HEAT GREENHOUSES. REPORTED TO BE 240° F AT WELLHEAD. T.D. 250'

SAMPLE FIELD TREATMENT — *Check proper boxes*

No. of samples submitted 1 | ☐ NF: Whole sample (Non-filtered) | ☒ F: Filtered in field with 0.45 µmembrane filter | ☐ A: 2 ml H_2SO_4/L added

☒ NA: No acid added ☐ Other-*specify:*

ANALYTICAL RESULTS from SAMPLES

NF, NA		Units	Date analyzed
☒ Conductivity (Corrected) 25°C (00095)		µmho	
☐ Total non-filterable residue (suspended) (00530)		mg/l	
☐ Other:			
☐ Other:			
☐ Other:			

F, NA		Units	Date analyzed
☒ Calcium (00915)	17.6	mg/l	2/10
☒ Magnesium (00925)	6.34	mg/l	"
☒ Sodium (00930)	332.3	mg/l	"
☒ Potassium (00935)	12.9	mg/l	"
☒ Bicarbonate (00440)	101.7	mg/l	2/18
☒ Chloride (00940)	94.3	mg/l	2/20
☒ Sulfate (00945)	585	mg/l	2/18
☒ Total filterable residue (dissolved) (70300)	1195	mg/l	3/13
☒ Other: CO_3	0.0		2/18
X F	12.5		2/27

NF, A-H_2SO_4			
☐ Nitrate-N +, Nitrate-N total (00630)		mg/l	
☐ Ammonia-N total (00610)		mg/l	
☐ Total Kjeldahl-N ( )		mg/l	
☐ Chemical oxygen demand (00340)		mg/l	
☐ Total organic carbon ( )		mg/l	
☐ Other:			
☐ Other:			

F, A-H_2SO_4			
☐ Nitrate-N +, Nitrate-N dissolved (00631)		mg/l	
☐ Ammonia-N dissolved (00608)		mg/l	
☐ Total Kjeldahl-N ( )		mg/l	
☐ Other:			

Analyst	Date Reported	Reviewed by
	3 24 86	

Laboratory remarks

SLD 726 (12/84) *DISTRIBUTION:* **WHITE** — EID, GW&HW Bureau **CANARY** — WS System **PINK** — EID Local Office **GOLDENROD** — SLD

New Mexico Health and Environment Department
SCIENTIFIC LABORATORY DIVISION
700 Camino de Salud NE
Albuquerque, NM 87106 — (505) 841-2555

PF · HEAVY METALS

GENERAL WATER CHEMISTRY and NITROGEN ANALYSIS

DATE RECEIVED: 2 | 10 | 86 | LAB NO. HM.279 | USER CODE ☐ 59300 ☐ 59600 ☒ OTHER: 82235

Collection DATE: 1 | 28 | 86
Collection TIME: 0900
Collected by — Person/Agency: BAILEY / JOHNSON - OCD

SITE INFORMATION

Sample location: BURGETT GEOTHERMAL WELL
Collection site description: T 25S R 19W BYPASS VALVE AT WELLHEAD

SEND FINAL REPORT TO ►
ENVIRONMENTAL BUREAU
NM OIL CONSERVATION DIVISION
State Land Office Bldg, PO Box 2088
Santa Fe, NM 87501
Attn: David Boyer

Station/ well code:
Owner: DALE BURGETT

SAMPLING CONDITIONS

☐ Bailed ☒ Pump ☐ Dipped ☐ Tap	Water level STATIC W.L. 65' DEPTH TO WATER 90'	Discharge 300 gpm	Sample type
pH (00400) 8.1	Conductivity (Uncorrected) 2900 µmho	Water Temp. (00010) 48 °C	Conductivity at 25°C (00094) µmho

Field comments: PUMPED FOR 10HRS/DAY TO HEAT GREENHOUSES. REPORTED TO BE 240° F AT WELLHEAD. T.D. 250'

SAMPLE FIELD TREATMENT — *Check proper boxes*

No. of samples submitted: 1
☐ NF: Whole sample (Non-filtered) ☒ F: Filtered in field with 0.45 µmembrane filter ☒ A: ~~2 ml H_2SO_4~~/L added HNO_3
☐ NA: No acid added ☐ Other-*specify:*

ANALYTICAL RESULTS from SAMPLES

NF, NA F, A HNO_3		Units	Date analyzed
☐ Conductivity (Corrected) 25°C (00095)		µmho	
☐ Total non-filterable residue (suspended) (00530)		mg/l	
☒ Other: ICAP SCAN			
☒ Other: Se			
☐ Other: As			

F, NA		Units	Date analyzed
☐ Calcium (00915)		mg/l	
☐ Magnesium (00925)		mg/l	
☐ Sodium (00930)		mg/l	
☐ Potassium (00935)		mg/l	
☐ Bicarbonate (00440)		mg/l	
☐ Chloride (00940)		mg/l	
☐ Sulfate (00945)		mg/l	
☐ Total filterable residue (dissolved) (70300)		mg/l	
☐ Other:			

NF, A-H_2SO_4

☐ Nitrate-N +, Nitrate-N total (00630)		mg/l	
☐ Ammonia-N total (00610)		mg/l	
☐ Total Kjeldahl-N ( )		mg/l	
☐ Chemical oxygen demand (00340)		mg/l	
☐ Total organic carbon ( )		mg/l	
☐ Other:			
☐ Other:			

F, A-H_2SO_4

☐ Nitrate-N +, Nitrate-N dissolved (00631)		mg/l	
☐ Ammonia-N dissolved (00608)		mg/l	
☐ Total Kjeldahl-N ( )		mg/l	
☐ Other:			

Analyst | Date Reported: 4 | 18 | 86 | Reviewed by: Jim Ashby

Laboratory remarks:

SLD 726 (12/84) *DISTRIBUTION:* **WHITE** — EID, GW&HW Bureau **CANARY** — WS System **PINK** — EID Local Office **GOLDENROD** — SLD

Lab Number: HM 279 Sample Code: Burgett Geothermal Well

Date Submitted: 2/10/86 Date Analyzed: 2/17/86

By: Bailey Reviewed By: Jim Bobby

Date Reported: 4/18/86

Element	ICAP VALUE(MG/L)	AA VALUE(MG/L)
Aluminum	<0.1	
Barium	<0.1	
Berylium	<0.1	
Boron	0.5	
Cadmium	<0.1	
Calcium	21.	
Chromium	<0.1	
Cobalt	<0.1	
Copper	<0.1	
Iron	<0.1	
Lead	<0.1	
Magnesium	<0.1	
Manganese	<0.05	
Molybdenum	<0.1	
Nickel	<0.1	
Silicon	75.	
Silver	<0.1	
Strontium	0.5	
Tin	<0.1	
Vanadium	<0.1	
Zinc	<0.1	
Arsenic		0.011
Selenium		<0.005
Mercury		

New Mexico Health and Environment Department
SCIENTIFIC LABORATORY DIVISION
700 Camino de Salud NE
Albuquerque, NM 87106 — (505) 841-2555

FN

GENERAL WATER CHEMISTRY and NITROGEN ANALYSIS

DATE RECEIVED 2/10/86	LAB NO. WC 560	USER CODE ☐ 59300 ☐ 59600 ☒ OTHER: 82235	
Collection DATE 1/28/86	SITE INFORMATION ►	Sample location: DISCHARGE FROM GREENHOUSE	
Collection TIME 0915		Collection site description:	
Collected by — Person/Agency: BAILEY/JOHNSON - OCD			

SEND FINAL REPORT TO ►
ENVIRONMENTAL BUREAU
NM OIL CONSERVATION DIVISION
State Land Office Bldg, PO Box 2088
Santa Fe, NM 87501
Attn: David Boyer

Station/ well code:
Owner:

SAMPLING CONDITIONS

☐ Bailed ☒ Dipped ☐ Pump ☐ Tap	Water level	Discharge	Sample type
pH (00400): 8.1	Conductivity (Uncorrected): 2220 µmho	Water Temp. (00010): 47 °C	Conductivity at 25°C (00094): µmho

Field comments: WATER IS CIRCULATED THROUGH FIN PIPES TO HEAT GREENHOUSES

SAMPLE FIELD TREATMENT — *Check proper boxes*

No. of samples submitted: 1

☒ NF: Whole sample (Non-filtered) ☒ F: Filtered in field with 0.45 µmembrane filter ☐ A: 2 ml H_2SO_4/L added

☒ NA: No acid added ☐ Other-*specify:*

ANALYTICAL RESULTS from SAMPLES

NF, NA		Units	Date analyzed
☒ Conductivity (Corrected) 25°C (00095)		µmho	
☐ Total non-filterable residue (suspended) (00530)		mg/l	
☐ Other:			
☐ Other:			
☐ Other:			

F, NA		Units	Date analyzed
☒ Calcium (00915)	32.0	mg/l	2-10
☒ Magnesium (00925)	4.88	mg/l	"
☒ Sodium (00930)	203.6	mg/l	"
☒ Potassium (00935)	19.1	mg/l	"
☒ Bicarbonate (00440)	97.1	mg/l	2/18
☒ Chloride (00940)	92.4	mg/l	2/20
☒ Sulfate (00945)	537	mg/l	2/18
☒ Total filterable residue (dissolved) (70300)	1115	mg/l	3/13
☒ Other: CO_3	00		
x F	16.7		2/27

NF, A-H_2SO_4			
☐ Nitrate-N +, Nitrate-N total (00630)		mg/l	
☐ Ammonia-N total (00610)		mg/l	
☐ Total Kjeldahl-N ( )		mg/l	
☐ Chemical oxygen demand (00340)		mg/l	
☐ Total organic carbon ( )		mg/l	
☐ Other:			
☐ Other:			

F, A-H_2SO_4			
☐ Nitrate-N +, Nitrate-N dissolved (00631)		mg/l	
☐ Ammonia-N dissolved (00608)		mg/l	
☐ Total Kjeldahl-N ( )		mg/l	
☐ Other:			

Analyst	Date Reported	Reviewed by
	3/24/86	

Laboratory remarks:

SLD 726 (12/84) *DISTRIBUTION:* **WHITE** — EID, GW&HW Bureau **CANARY** — WS System **PINK** — EID Local Office **GOLDENROD** — SLD

PF HEAVY METALS

New Mexico Health and Environment Department
SCIENTIFIC LABORATORY DIVISION
700 Camino de Salud NE
Albuquerque, NM 87106 — (505) 841-2555

GENERAL WATER CHEMISTRY and NITROGEN ANALYSIS

DATE RECEIVED 2 | 10 | 86	LAB NO. AH1277	USER CODE ☐ 59300 ☐ 59600 ☒ OTHER: 82235	
Collection DATE 1 | 28 | 86	SITE INFORM-ATION ►	Sample location: DISCHARGE FROM GREENHOUSE	
Collection TIME 0915		Collection site description:	
Collected by — Person/Agency: BAILEY/JOHNSON - OCD			

SEND FINAL REPORT TO ►
ENVIRONMENTAL BUREAU
NM OIL CONSERVATION DIVISION
State Land Office Bldg, PO Box 2088
Santa Fe, NM 87501
Attn: David Boyer

Station/well code:
Owner:

SAMPLING CONDITIONS

☐ Bailed ☒ Dipped ☐ Pump ☐ Tap	Water level	Discharge	Sample type
pH (00400): 8.1	Conductivity (Uncorrected): 2220 µmho	Water Temp. (00010): 47 °C	Conductivity at 25°C (00094): µmho

Field comments: WATER IS CIRCULATED THROUGH FIN PIPES TO HEAT GREENHOUSES

SAMPLE FIELD TREATMENT — *Check proper boxes*

No. of samples submitted: 1

☐ NF: Whole sample (Non-filtered) ☒ F: Filtered in field with 0.45 µ membrane filter ☒ A: ~~2 ml H_2SO_4~~/L added HNO_3

☐ NA: No acid added ☐ Other-*specify:*

ANALYTICAL RESULTS from SAMPLES

~~NF~~ NA F A HNO_3		Units	Date analyzed
☐ Conductivity (Corrected) 25°C (00095)		µmho	
☐ Total non-filterable residue (suspended) (00530)		mg/l	
☒ Other: ICAP SCAN			
☒ Other: Se	<0.005	mg/l	3/14/86
☐ Other: As	0.002	mg/l	3/14/86

F, NA		Units	Date analyzed
☐ Calcium (00915)		mg/l	
☐ Magnesium (00925)		mg/l	
☐ Sodium (00930)		mg/l	
☐ Potassium (00935)		mg/l	
☐ Bicarbonate (00440)		mg/l	
☐ Chloride (00940)		mg/l	
☐ Sulfate (00945)		mg/l	
☐ Total filterable residue (dissolved) (70300)		mg/l	
☐ Other:			

NF, A-H_2SO_4

☐ Nitrate-N +, Nitrate-N total (00630)		mg/l	
☐ Ammonia-N total (00610)		mg/l	
☐ Total Kjeldahl-N ( )		mg/l	
☐ Chemical oxygen demand (00340)		mg/l	
☐ Total organic carbon ( )		mg/l	
☐ Other:			
☐ Other:			

F, A-H_2SO_4

☐ Nitrate-N +, Nitrate-N dissolved (00631)		mg/l	
☐ Ammonia-N dissolved (00608)		mg/l	
☐ Total Kjeldahl-N ( )		mg/l	
☐ Other:			

Analyst	Date Reported	Reviewed by
	4 | 18 | 86	JFA

Laboratory remarks:

SLD 726 (12/84) *DISTRIBUTION:* **WHITE** — EID, GW&HW Bureau **CANARY** — WS System **PINK** — EID Local Office **GOLDENROD** — SLD

Lab Number: HM 277 Sample Code: Discharge from Greenhouse

Date Submitted: 2/10/86 Date Analyzed: 2/17/86

By: Bailey - Reviewed By: Jim Ashley

Date Reported: 4/18/86

Element	ICAP VALUE(MG/L)	AA VALUE(MG/L)
Aluminum	<0.1	
Barium	<0.1	
Berylium	<0.1	
Boron	0.5	
Cadmium	<0.1	
Calcium	21.	
Chromium	<0.1	
Cobalt	<0.1	
Copper	<0.1	
Iron	0.2	
Lead	<0.1	
Magnesium	0.1	
Manganese	0.05	
Molybdenum	<0.1	
Nickel	<0.1	
Silicon	76.	
Silver	<0.1	
Strontium	0.4	
Tin	<0.1	
Vanadium	<0.1	
Zinc	<0.1	
Arsenic		0.012
Selenium		<0.005
Mercury		

New Mexico Health and Environment Department
SCIENTIFIC LABORATORY DIVISION
700 Camino de Salud NE
Albuquerque, NM 87106 — (505) 841-2555

FN

GENERAL WATER CHEMISTRY and NITROGEN ANALYSIS

DATE RECEIVED: 2 | 10 | 86 — LAB NO. WC 563 — USER CODE ☐ 59300 ☐ 59600 ☒ OTHER: 82235

Collection DATE: 1 | 28 | 86 — Collection TIME: 1015 — Collected by — Person/Agency: BAILEY/JOHNSON - OCD

SITE INFORMATION ►

Sample location: BURGETT FRESH WATER WELL

Collection site description: ~1½ mi WSW of GREENHOUSES

SEND FINAL REPORT TO ►

ENVIRONMENTAL BUREAU
NM OIL CONSERVATION DIVISION
State Land Office Bldg, PO Box 2088
Santa Fe, NM 87501

Attn: David Boyer

Station/ well code

Owner

SAMPLING CONDITIONS

☐ Bailed ☐ Dipped ☒ Pump ☐ Tap	Water level	Discharge 65-70 gpm	Sample type
pH (00400)	Conductivity (Uncorrected) μmho	Water Temp. (00010) °C	Conductivity at 25°C (00094) μmho

Field comments: T.D. 175' NOT ENOUGH SAMPLE FOR FIELD TESTS.

SAMPLE FIELD TREATMENT — *Check proper boxes*

No. of samples submitted: 1

☒ **NF:** Whole sample (Non-filtered) ☒ **F:** Filtered in field with 0.45 μmembrane filter ☐ **A:** 2 ml H_2SO_4/L added

☒ **NA:** No acid added ☐ Other-*specify:*

ANALYTICAL RESULTS from SAMPLES

NF, NA		Units	Date analyzed
☒ Conductivity (Corrected) 25°C (00095)		μmho	
☐ Total non-filterable residue (suspended) (00530)		mg/l	
☐ Other:			
☐ Other:			
☐ Other:			

F, NA		Units	Date analyzed
☒ Calcium (00915)	28.8	mg/l	2-10
☒ Magnesium (00925)	6.73	mg/l	"
☒ Sodium (00930)	14.4	mg/l	"
☒ Potassium (00935)	1.75	mg/l	"
☒ Bicarbonate (00440)	144.7	mg/l	2/18
☒ Chloride (00940)	18.6	mg/l	2/20
☒ Sulfate (00945)	80.5	mg/l	2/18
☒ Total filterable residue (dissolved) (70300)	310	mg/l	3/13
☒ Other: CO_3	3.45		2/18
☒ F	0.98		2/27

NF, A-H_2SO_4			
☐ Nitrate-N +, Nitrate-N total (00630)		mg/l	
☐ Ammonia-N total (00610)		mg/l	
☐ Total Kjeldahl-N ( )		mg/l	
☐ Chemical oxygen demand (00340)		mg/l	
☐ Total organic carbon ( )		mg/l	
☐ Other:			
☐ Other:			

F, A-H_2SO_4			
☐ Nitrate-N +, Nitrate-N dissolved (00631)		mg/l	
☐ Ammonia-N dissolved (00608)		mg/l	
☐ Total Kjeldahl-N ( )		mg/l	
☐ Other:			

Analyst | Date Reported: 3 | 24 | 86 | Reviewed by

Laboratory remarks

SLD 726 (12/84) DISTRIBUTION: WHITE — EID, GW&HW Bureau CANARY — WS System PINK — EID Local Office GOLDENROD — SLD

New Mexico Health and Environment Department
SCIENTIFIC LABORATORY DIVISION
700 Camino de Salud NE
Albuquerque, NM 87106 — (505) 841-2555

PF

GENERAL WATER CHEMISTRY and NITROGEN ANALYSIS

HEAVY METALS

DATE RECEIVED 2 | 10 | 86	LAB NO. HM 282	USER CODE ☐ 59300 ☐ 59600 ☒ OTHER: 82235	
Collection DATE 1 | 28 | 86	SITE INFORMATION ►	Sample location: BURGETT FRESH WATER WELL	
Collection TIME 1015		Collection site description: ~1½ mi WSW of GREENHOUSES	
Collected by — Person/Agency: BAILEY/JOHNSON - OCD			

SEND FINAL REPORT TO ►

ENVIRONMENTAL BUREAU
NM OIL CONSERVATION DIVISION
State Land Office Bldg, PO Box 2088
Santa Fe, NM 87501

Attn: David Boyer

Station/ well code

Owner

SAMPLING CONDITIONS

☐ Bailed ☐ Dipped ☒ Pump ☐ Tap	Water level	Discharge 65-70 gpm	Sample type
pH (00400)	Conductivity (Uncorrected) µmho	Water Temp. (00010) °C	Conductivity at 25°C (00094) µmho

Field comments: T.D. 175' NOT ENOUGH SAMPLE FOR FIELD TESTS.

SAMPLE FIELD TREATMENT — *Check proper boxes*

No. of samples submitted: 1

☐ **NF:** Whole sample (Non-filtered) ☒ **F:** Filtered in field with 0.45 µmembrane filter ☒ **A:** ~~2 ml H_2SO_4~~/L added HNO_3

☐ **NA:** No acid added ☐ Other-*specify:*

ANALYTICAL RESULTS from SAMPLES

~~NF, NA~~ F A HNO_3	Units	Date analyzed
☐ Conductivity (Corrected) 25°C (00095)	µmho	
☐ Total non-filterable residue (suspended) (00530)	mg/l	
☒ Other: ICAP SCAN		
☒ Other: Se		2/19/86
☐ Other: Mo		2/19/86

F, NA	Units	Date analyzed
☐ Calcium (00915)	mg/l	
☐ Magnesium (00925)	mg/l	
☐ Sodium (00930)	mg/l	
☐ Potassium (00935)	mg/l	
☐ Bicarbonate (00440)	mg/l	
☐ Chloride (00940)	mg/l	
☐ Sulfate (00945)	mg/l	
☐ Total filterable residue (dissolved) (70300)	mg/l	
☐ Other:		

NF, A-H_2SO_4

☐ Nitrate-N + , Nitrate-N total (00630)	mg/l	
☐ Ammonia-N total (00610)	mg/l	
☐ Total Kjeldahl-N ( )	mg/l	
☐ Chemical oxygen demand (00340)	mg/l	
☐ Total organic carbon ( )	mg/l	
☐ Other:		
☐ Other:		

F, A-H_2SO_4

☐ Nitrate-N + , Nitrate-N dissolved (00631)	mg/l	
☐ Ammonia-N dissolved (00608)	mg/l	
☐ Total Kjeldahl-N ( )	mg/l	
☐ Other:		

Analyst	Date Reported	Reviewed by
	4 | 18 | 86	GHH

Laboratory remarks: Sample Digested

SLD 726 (12/84) *DISTRIBUTION:* **WHITE** — EID, GW&HW Bureau **CANARY** — WS System **PINK** — EID Local Office **GOLDENROD** — SLD

Lab Number: HM 282 Sample Code: Burgett Fresh Water We

Date Submitted: 2/10/86 Date Analyzed: 2/17/86

By: Bailey Reviewed By: Jim Ashby

Date Reported: 4/18/86

Element	ICAP VALUE(MG/L)	AA VALUE(MG/L)
Aluminum	<0.1	
Barium	<0.1	
Berylium	<0.1	
Boron	<0.1	
Cadmium	<0.1	
Calcium	33.	
Chromium	<0.1	
Cobalt	<0.1	
Copper	<0.1	
Iron	<0.1	
Lead	<0.1	
Magnesium	2.9	
Manganese	<0.05	
Molybdenum	<0.1	
Nickel	<0.1	
Silicon	16.	
Silver	<0.1	
Strontium	0.2	
Tin	<0.1	
Vanadium	<0.1	
Zinc	<0.1	
Arsenic		<0.005
Selenium		<0.005
Mercury		

New Mexico Health and Environment Department
SCIENTIFIC LABORATORY DIVISION
700 Camino de Salud NE
Albuquerque, NM 87106 — (505) 841-2555

PF

HEAVY METALS

GENERAL WATER CHEMISTRY and NITROGEN ANALYSIS

DATE RECEIVED: 2 | 10 | 86 LAB NO. HM 2330
USER CODE ☐ 59300 ☐ 59600 ☒ OTHER: 82235
Collection DATE: 1 | 28 | 86
Collection TIME: 1040
Collected by — Person/Agency: BAILEY/JOHNSON - OCD
SITE INFORMATION ►
Sample location: BURGETT IRRIGATION WELL
Collection site description: ~2 mi SW of GREENHOUSES

SEND FINAL REPORT TO ►
ENVIRONMENTAL BUREAU
NM OIL CONSERVATION DIVISION
State Land Office Bldg, PO Box 2088
Santa Fe, NM 87501
Attn: David Boyer

Station/ well code:
Owner:

SAMPLING CONDITIONS

☐ Bailed ☐ Dipped ☒ Pump ☐ Tap	Water level	Discharge: 1400 gpm	Sample type
pH (00400): 7.0	Conductivity (Uncorrected): 600 µmho	Water Temp. (00010): 19 °C	Conductivity at 25°C (00094): µmho

Field comments: T.D. 250'

SAMPLE FIELD TREATMENT — *Check proper boxes*

No. of samples submitted: 1
☐ NF: Whole sample (Non-filtered)
☒ F: Filtered in field with 0.45 µmembrane filter
☒ A: ~~2 ml H_2SO_4~~/L added HNO_3
☐ NA: No acid added ☐ Other-*specify:*

ANALYTICAL RESULTS from SAMPLES

~~NF, NA~~ F, A HNO_3	Units	Date analyzed
☐ Conductivity (Corrected) 25°C (00095)	µmho	
☐ Total non-filterable residue (suspended) (00530)	mg/l	
☒ Other: ICAP SCAN		
☒ Other: Se		4/16/86
☐ Other: As		4/7/86

F, NA	Units	Date analyzed
☐ Calcium (00915)	mg/l	
☐ Magnesium (00925)	mg/l	
☐ Sodium (00930)	mg/l	
☐ Potassium (00935)	mg/l	
☐ Bicarbonate (00440)	mg/l	
☐ Chloride (00940)	mg/l	
☐ Sulfate (00945)	mg/l	
☐ Total filterable residue (dissolved) (70300)	mg/l	
☐ Other:		

NF, A-H_2SO_4

☐ Nitrate-N +, Nitrate-N total (00630)	mg/l	
☐ Ammonia-N total (00610)	mg/l	
☐ Total Kjeldahl-N ( )	mg/l	
☐ Chemical oxygen demand (00340)	mg/l	
☐ Total organic carbon ( )	mg/l	
☐ Other:		
☐ Other:		

F, A-H_2SO_4

☐ Nitrate-N +, Nitrate-N dissolved (00631)	mg/l	
☐ Ammonia-N dissolved (00608)	mg/l	
☐ Total Kjeldahl-N ( )	mg/l	
☐ Other:		

Analyst:
Date Reported: 4 | 18 | 86
Reviewed by: JTA

Laboratory remarks:

SLD 726 (12/84) *DISTRIBUTION:* **WHITE** — EID, GW&HW Bureau **CANARY** — WS System **PINK** — EID Local Office **GOLDENROD** — SLD

Lab Number: HM 280

Date Submitted: 2/10/86

By: Bailey

Sample Code: Burgett Irrigation Well

Date Analyzed: 2/17/86

Reviewed By: Jim Ashley

Date Reported: 4/18/86

Element	ICAP VALUE(MG/L)	AA VALUE(MG/L)
Aluminum	<0.1	
Barium	<0.1	
Berylium	<0.1	
Boron	<0.1	
Cadmium	<0.1	
Calcium	72.	
Chromium	<0.1	
Cobalt	<0.1	
Copper	<0.1	
Iron	<0.1	
Lead	<0.1	
Magnesium	6.5	
Manganese	<0.05	
Molybdenum	<0.1	
Nickel	<0.1	
Silicon	15.	
Silver	<0.1	
Strontium	0.4	
Tin	<0.1	
Vanadium	<0.1	
Zinc	<0.1	
Arsenic		<0.005
Selenium		<0.005
Mercury		

New Mexico Health and Environment Department
SCIENTIFIC LABORATORY DIVISION
700 Camino de Salud NE
Albuquerque, NM 87106 — (505) 841-2555

FN

GENERAL WATER CHEMISTRY and NITROGEN ANALYSIS

DATE RECEIVED 2 | 10 | 86 | LAB NO. WC 561 | USER CODE ☐ 59300 ☐ 59600 ☒ OTHER: 82235

Collection DATE 1 | 28 | 86

Collection TIME 1000

SITE INFORMATION ►

Sample location: REALL WELL

Collection site description: ~3/4 MILE WEST OF BURGETT FACILITIES

Collected by — Person/Agency: BAILEY/JOHNSON - OCD

SEND FINAL REPORT TO ►

ENVIRONMENTAL BUREAU
NM OIL CONSERVATION DIVISION
State Land Office Bldg, PO Box 2088
Santa Fe, NM 87501

Attn: David Boyer

Station/ well code

Owner

SAMPLING CONDITIONS

☐ Bailed ☐ Dipped ☒ Pump ☐ Tap	Water level	Discharge	Sample type
pH (00400): 6.7	Conductivity (Uncorrected): 490 µmho	Water Temp. (00010): 17.5 °C	Conductivity at 25°C (00094): µmho

Field comments: T.D. 125'

SAMPLE FIELD TREATMENT — *Check proper boxes*

No. of samples submitted: 1

☒ NF: Whole sample (Non-filtered) ☒ F: Filtered in field with 0.45 µmembrane filter ☐ A: 2 ml H_2SO_4/L added

☒ NA: No acid added ☐ Other-*specify:*

ANALYTICAL RESULTS from SAMPLES

NF, NA		Units	Date analyzed
☒ Conductivity (Corrected) 25°C (00095)		µmho	
☐ Total non-filterable residue (suspended) (00530)		mg/l	
☐ Other:			
☐ Other:			
☐ Other:			

NF, A-H_2SO_4			
☐ Nitrate-N +, Nitrate-N total (00630)		mg/l	
☐ Ammonia-N total (00610)		mg/l	
☐ Total Kjeldahl-N ( )		mg/l	
☐ Chemical oxygen demand (00340)		mg/l	
☐ Total organic carbon ( )		mg/l	
☐ Other:			
☐ Other:			

F, NA		Units	Date analyzed
☒ Calcium (00915)	54.2	mg/l	2-10
☒ Magnesium (00925)	11.7	mg/l	"
☒ Sodium (00930)	32.8	mg/l	"
☒ Potassium (00935)	2.73	mg/l	"
☒ Bicarbonate (00440)	174.2	mg/l	2/18
☒ Chloride (00940)	31.6	mg/l	2/20
☒ Sulfate (00945)	141	mg/l	2/18
☒ Total filterable residue (dissolved) (70300)	443	mg/l	3/13
☒ Other: CO3	0		2/13
X F	2.00		2/17

F, A-H_2SO_4			
☐ Nitrate-N +, Nitrate-N dissolved (00631)		mg/l	
☐ Ammonia-N dissolved (00608)		mg/l	
☐ Total Kjeldahl-N ( )		mg/l	
☐ Other:			

Analyst | Date Reported: 3 | 24 | 86 | Reviewed by

Laboratory remarks

SLD 726 (12/84) DISTRIBUTION: WHITE — EID, GW&HW Bureau CANARY — WS System PINK — EID Local Office GOLDENROD — SLD

New Mexico Health and Environment Department
SCIENTIFIC LABORATORY DIVISION
700 Camino de Salud NE
Albuquerque, NM 87106 — (505) 841-2555

P.F.

HEAVY METALS

GENERAL WATER CHEMISTRY and NITROGEN ANALYSIS

DATE RECEIVED: 2 | 10 | 86	LAB NO. HM-278	USER CODE ☐ 59300 ☐ 59600 ☒ OTHER: 82235	
Collection DATE: 1 | 28 | 86	SITE INFORMATION ►	Sample location: REALL WELL	
Collection TIME: 1000		Collection site description: N 3/4 MILE WEST OF BURGETT FACILITIES	
Collected by — Person/Agency: BAILEY / JOHNSON - OCD			

SEND FINAL REPORT TO ►

ENVIRONMENTAL BUREAU
NM OIL CONSERVATION DIVISION
State Land Office Bldg, PO Box 2088
Santa Fe, NM 87501

Attn: David Boyer

Station/well code:

Owner:

SAMPLING CONDITIONS

☐ Bailed ☐ Dipped ☒ Pump ☐ Tap	Water level	Discharge	Sample type
pH (00400): 6.7	Conductivity (Uncorrected): 490 µmho	Water Temp. (00010): 17.5 °C	Conductivity at 25°C (00094): µmho

Field comments: T.D. 125'

SAMPLE FIELD TREATMENT — *Check proper boxes*

No. of samples submitted: 1

☐ **NF:** Whole sample (Non-filtered) ☒ **F:** Filtered in field with 0.45 µmembrane filter ☒ **A:** ~~2 ml H_2SO_4~~/L added HNO_3

☐ **NA:** No acid added ☐ Other-*specify:*

ANALYTICAL RESULTS from SAMPLES

~~NF~~ NA EA HNO_3	Units	Date analyzed	F NA	Units	Date analyzed
☐ Conductivity (Corrected) 25°C (00095)	µmho		☐ Calcium (00915)	mg/l	
☐ Total non-filterable residue (suspended) (00530)	mg/l		☐ Magnesium (00925)	mg/l	
☒ Other: ICAP SCAN			☐ Sodium (00930)	mg/l	
☒ Other: Se		3/11/86	☐ Potassium (00935)	mg/l	
☐ Other: As		3/11/86	☐ Bicarbonate (00440)	mg/l	
			☐ Chloride (00940)	mg/l	
			☐ Sulfate (00945)	mg/l	
			☐ Total filterable residue (dissolved) (70300)	mg/l	
			☐ Other:		

NF, A-H_2SO_4			F, A-H_2SO_4		
☐ Nitrate-N +, Nitrate-N total (00630)	mg/l		☐ Nitrate-N +, Nitrate-N dissolved (00631)	mg/l	
☐ Ammonia-N total (00610)	mg/l		☐ Ammonia-N dissolved (00608)	mg/l	
☐ Total Kjeldahl-N ( )	mg/l		☐ Total Kjeldahl-N ( )	mg/l	
☐ Chemical oxygen demand (00340)	mg/l		☐ Other:		
☐ Total organic carbon ( )	mg/l				
☐ Other:					
☐ Other:					

Analyst	Date Reported	Reviewed by
	4 | 18 | 86	JFA

Laboratory remarks:

SLD 726 (12/84) *DISTRIBUTION:* **WHITE** — EID, GW&HW Bureau **CANARY** — WS System **PINK** — EID Local Office **GOLDENROD** — SLD

Lab Number: HM 278

Date Submitted: 2/10/86

By: Bailey

Sample Code: Beall Well

Date Analyzed: 2/17/86

Reviewed By: Jim Ashley

Date Reported: 4/17/86

Element	ICAP VALUE(MG/L)	AA VALUE(MG/L)
Aluminum	<0.1	
Barium	<0.1	
Berylium	<0.1	
Boron	<0.1	
Cadmium	<0.1	
Calcium	59.	
Chromium	<0.1	
Cobalt	<0.1	
Copper	<0.1	
Iron	<0.1	
Lead	<0.1	
Magnesium	5.5	
Manganese	<0.05	
Molybdenum	<0.1	
Nickel	<0.1	
Silicon	16.	
Silver	<0.1	
Strontium	0.5	
Tin	<0.1	
Vanadium	<0.1	
Zinc	0.8	
Arsenic		<0.005
Selenium		<0.005
Mercury		

New Mexico Health and Environment Department
SCIENTIFIC LABORATORY DIVISION
700 Camino de Salud NE
Albuquerque, NM 87106 — (505) 841-2555

FN

GENERAL WATER CHEMISTRY and NITROGEN ANALYSIS

DATE RECEIVED 2/10/86	LAB NO. WC 564	USER CODE ☐ 59300 ☐ 59600 ☒ OTHER: 82235	
Collection DATE 1/28/86	SITE INFORMATION ►	Sample location: VALLEY VIEW COMMUNITY CHURCH	
Collection TIME 1030		Collection site description: ~2mi WEST of BURGETT FACILITIES	
Collected by — Person/Agency: BAILEY/JOHNSON - OCD			

SEND FINAL REPORT TO ►

ENVIRONMENTAL BUREAU
NM OIL CONSERVATION DIVISION
State Land Office Bldg, PO Box 2088
Santa Fe, NM 87501

Attn: David Boyer

Station/ well code

Owner

SAMPLING CONDITIONS

☐ Bailed ☐ Dipped ☐ Pump ☒ Tap	Water level	Discharge	Sample type
pH (00400) 7.4	Conductivity (Uncorrected) 241 µmho	Water Temp. (00010) 11 °C	Conductivity at 25°C (00094) µmho

Field comments

SAMPLE FIELD TREATMENT — *Check proper boxes*

No. of samples submitted 1

☒ NF: Whole sample (Non-filtered) ☒ F: Filtered in field with 0.45 µmembrane filter ☐ A: 2 ml H_2SO_4/L added

☒ NA: No acid added ☐ Other-*specify:*

ANALYTICAL RESULTS from SAMPLES

NF, NA		Units	Date analyzed
☒ Conductivity (Corrected) 25°C (00095)		µmho	
☐ Total non-filterable residue (suspended) (00530)		mg/l	
☐ Other:			
☐ Other:			
☐ Other:			

F, NA		Units	Date analyzed
☒ Calcium (00915)	57.1	mg/l	2-10
☒ Magnesium (00925)	6.44	mg/l	"
☒ Sodium (00930)	55.2	mg/l	"
☒ Potassium (00935)	4.17	mg/l	"
☒ Bicarbonate (00440)	153.7	mg/l	2/18
☒ Chloride (00940)	8.6	mg/l	2/20
☒ Sulfate (00945)	51.9	mg/l	2/18
☒ Total filterable residue (dissolved) (70300)	258	mg/l	3/13
☒ Other: CO_3	0.0		2/18
X F	1.17		2/27

NF, A-H_2SO_4			
☐ Nitrate-N +, Nitrate-N total (00630)		mg/l	
☐ Ammonia-N total (00610)		mg/l	
☐ Total Kjeldahl-N ( )		mg/l	
☐ Chemical oxygen demand (00340)		mg/l	
☐ Total organic carbon ( )		mg/l	
☐ Other:			
☐ Other:			

F, A-H_2SO_4			
☐ Nitrate-N +, Nitrate-N dissolved (00631)		mg/l	
☐ Ammonia-N dissolved (00608)		mg/l	
☐ Total Kjeldahl-N ( )		mg/l	
☐ Other:			

Analyst	Date Reported	Reviewed by
	3/24/86	

Laboratory remarks

SLD 726 (12/84) *DISTRIBUTION:* **WHITE** — EID, GW&HW Bureau **CANARY** — WS System **PINK** — EID Local Office **GOLDENROD** — SLD

New Mexico Health and Environment Department
SCIENTIFIC LABORATORY DIVISION
700 Camino de Salud NE
Albuquerque, NM 87106 — (505) 841-2555

HEAVY METALS
PF

GENERAL WATER CHEMISTRY and NITROGEN ANALYSIS

DATE RECEIVED 2 | 10 | 26	LAB NO. HM 281	USER CODE ☐ 59300 ☐ 59600 ☒ OTHER: 82235	
Collection DATE 1 | 28 | 86	SITE INFORMATION ►	Sample location VALLEY VIEW COMMUNITY CHURCH	
Collection TIME 1030		Collection site description ~2 mi WEST OF BURGETT FACILITIES	
Collected by — Person/Agency BAILEY/JOHNSON - OCD			

SEND FINAL REPORT TO ►

ENVIRONMENTAL BUREAU
NM OIL CONSERVATION DIVISION
State Land Office Bldg, PO Box 2088
Santa Fe, NM 87501

Attn: David Boyer

Station/ well code

Owner

SAMPLING CONDITIONS

☐ Bailed ☐ Dipped ☒ Pump ☒ Tap	Water level	Discharge	Sample type
pH (00400) 7.4	Conductivity (Uncorrected) 241 µmho	Water Temp. (00010) 11 °C	Conductivity at 25°C (00094) µmho

Field comments

SAMPLE FIELD TREATMENT — *Check proper boxes*

No. of samples submitted 1

☐ **NF:** Whole sample (Non-filtered) ☒ **F:** Filtered in field with 0.45 µmembrane filter ☒ **A:** ~~2 ml H_2SO_4~~/L added HNO_3

☐ **NA:** No acid added ☐ Other-*specify:*

ANALYTICAL RESULTS from SAMPLES

~~NF, NA~~ F A HNO_3		Units	Date analyzed
☐ Conductivity (Corrected) 25°C (00095)		µmho	
☐ Total non-filterable residue (suspended) (00530)		mg/l	
☒ Other: ICAP SCAN			
☒ Other: Se	20.005		2/18/86
☐ Other: Ag	2.005		4/18/86

F, NA		Units	Date analyzed
☐ Calcium (00915)		mg/l	
☐ Magnesium (00925)		mg/l	
☐ Sodium (00930)		mg/l	
☐ Potassium (00935)		mg/l	
☐ Bicarbonate (00440)		mg/l	
☐ Chloride (00940)		mg/l	
☐ Sulfate (00945)		mg/l	
☐ Total filterable residue (dissolved) (70300)		mg/l	
☐ Other:			

NF, A-H_2SO_4

☐ Nitrate-N +, Nitrate-N total (00630)		mg/l	
☐ Ammonia-N total (00610)		mg/l	
☐ Total Kjeldahl-N ( )		mg/l	
☐ Chemical oxygen demand (00340)		mg/l	
☐ Total organic carbon ( )		mg/l	
☐ Other:			
☐ Other:			

F, A-H_2SO_4

☐ Nitrate-N +, Nitrate-N dissolved (00631)		mg/l	
☐ Ammonia-N dissolved (00608)		mg/l	
☐ Total Kjeldahl-N ( )		mg/l	
☐ Other:			

Analyst	Date Reported	Reviewed by
	4 | 18 | 86	JFA

Laboratory remarks

SLD 726 (12/84) *DISTRIBUTION:* **WHITE** — EID, GW&HW Bureau **CANARY** — WS System **PINK** — EID Local Office **GOLDENROD** — SLD

Lab Number: HM 281

Date Submitted: 2/10/86

By: D Bailey

Sample Code: Valley View Comm. Church

Date Analyzed: 2/17/86

Reviewed By: Jim Ashley

Date Reported: 4/18/86

Element	ICAP VALUE(MG/L)	AA VALUE(MG/L)
Aluminum	<0.1	
Barium	<0.1	
Berylium	<0.1	
Boron	<0.1	
Cadmium	<0.1	
Calcium	26.	
Chromium	<0.1	
Cobalt	<0.1	
Copper	<0.1	
Iron	<0.1	
Lead	<0.1	
Magnesium	2.3	
Manganese	<0.05	
Molybdenum	<0.1	
Nickel	<0.1	
Silicon	16.	
Silver	<0.1	
Strontium	0.2	
Tin	<0.1	
Vanadium	<0.1	
Zinc	0.4	
Arsenic		<0.005
Selenium		<0.005
Mercury		

New Mexico Health and Environment Department
SCIENTIFIC LABORATORY DIVISION
700 Camino de Salud NE
Albuquerque, NM 87106 — (505) 841-2555

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GENERAL WATER CHEMISTRY and NITROGEN ANALYSIS

DATE RECEIVED 2 / 10 / 86	LAB NO. HM 281	USER CODE ☐ 59300 ☐ 59600 ☒ OTHER: 82235	
Collection DATE 1 / 28 / 86	SITE INFORM-ATION ►	Sample location VALLEY VIEW COMMUNITY CHURCH	
Collection TIME 1030		Collection site description ~2mi WEST of BURGETT FACILITIES	
Collected by — Person/Agency BAILEY/JOHNSON - OCD			

SEND FINAL REPORT TO ►

ENVIRONMENTAL BUREAU
NM OIL CONSERVATION DIVISION
State Land Office Bldg, PO Box 2088
Santa Fe, NM 87501

Attn: David Boyer

Station/ well code

Owner

SAMPLING CONDITIONS

☐ Bailed ☐ Dipped ☐ Pump ☒ Tap	Water level	Discharge	Sample type
pH (00400) 7.4	Conductivity (Uncorrected) 241 µmho	Water Temp. (00010) 11 °C	Conductivity at 25°C (00094) µmho

Field comments

SAMPLE FIELD TREATMENT — *Check proper boxes*

No. of samples submitted 1

☐ **NF:** Whole sample (Non-filtered) ☒ **F:** Filtered in field with 0.45 µmembrane filter ☒ **A:** ~~2 ml H_2SO_4~~/L added HNO_3

☐ **NA:** No acid added ☐ Other-*specify:*

ANALYTICAL RESULTS from SAMPLES

~~NF, NA~~ F, A HNO_3		Units	Date analyzed
☐ Conductivity (Corrected) 25°C (00095)		µmho	
☐ Total non-filterable residue (suspended) (00530)		mg/l	
☒ Other: ICAP SCAN			
☒ Other: Se	<0.005		2/19/86
☐ Other: Ag	<0.005		4/7/86

F, NA		Units	Date analyzed
☐ Calcium (00915)		mg/l	
☐ Magnesium (00925)		mg/l	
☐ Sodium (00930)		mg/l	
☐ Potassium (00935)		mg/l	
☐ Bicarbonate (00440)		mg/l	
☐ Chloride (00940)		mg/l	
☐ Sulfate (00945)		mg/l	
☐ Total filterable residue (dissolved) (70300)		mg/l	
☐ Other:			

NF, A-H_2SO_4

☐ Nitrate-N +, Nitrate-N total (00630)		mg/l	
☐ Ammonia-N total (00610)		mg/l	
☐ Total Kjeldahl-N ( )		mg/l	
☐ Chemical oxygen demand (00340)		mg/l	
☐ Total organic carbon ( )		mg/l	
☐ Other:			
☐ Other:			

F, A-H_2SO_4

☐ Nitrate-N +, Nitrate-N dissolved (00631)		mg/l	
☐ Ammonia-N dissolved (00608)		mg/l	
☐ Total Kjeldahl-N ( )		mg/l	
☐ Other:			

Analyst	Date Reported	Reviewed by
	4 / 18 / 86	JH

Laboratory remarks

Lab Number: HM 281 Sample Code: Valley View Comm. Church

Date Submitted: 2/10/86 Date Analyzed: 2/17/86

By: Bailey Reviewed By: Jim Ashley

Date Reported: 4/18/86

Element	ICAP VALUE(MG/L)	AA VALUE(MG/L)
Aluminum	<0.1	
Barium	<0.1	
Berylium	<0.1	
Boron	<0.1	
Cadmium	<0.1	
Calcium	26.	
Chromium	<0.1	
Cobalt	<0.1	
Copper	<0.1	
Iron	<0.1	
Lead	<0.1	
Magnesium	2.3	
Manganese	<0.05	
Molybdenum	<0.1	
Nickel	<0.1	
Silicon	16.	
Silver	<0.1	
Strontium	0.2	
Tin	<0.1	
Vanadium	<0.1	
Zinc	0.4	
Arsenic		<0.005
Selenium		<0.005
Mercury		

New Mexico Health and Environment Department
SCIENTIFIC LABORATORY DIVISION
700 Camino de Salud NE
Albuquerque, NM 87106 — (505) 841-2555

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GENERAL WATER CHEMISTRY and NITROGEN ANALYSIS

DATE RECEIVED: 2 | 10 | 26 — LAB NO. HM 220 — USER CODE ☐ 59300 ☐ 59600 ☒ OTHER: 82235

Collection DATE: 1 | 28 | 86

Collection TIME: 1040

Collected by — Person/Agency: BAILEY/JOHNSON - OCD

SITE INFORMATION ►

Sample location: BURGETT IRRIGATION WELL

Collection site description: ~2 mi SW of GREENHOUSES

SEND FINAL REPORT TO ►

ENVIRONMENTAL BUREAU
NM OIL CONSERVATION DIVISION
State Land Office Bldg, PO Box 2088
Santa Fe, NM 87501

Attn: David Boyer

Station/ well code

Owner

SAMPLING CONDITIONS

☐ Bailed ☐ Dipped ☒ Pump ☐ Tap	Water level	Discharge: 1400 gpm	Sample type
pH (00400): 7.0	Conductivity (Uncorrected): 600 µmho	Water Temp. (00010): 19 °C	Conductivity at 25°C (00094): µmho

Field comments: T.D. 250'

SAMPLE FIELD TREATMENT — *Check proper boxes*

No. of samples submitted: 1

☐ **NF:** Whole sample (Non-filtered) ☒ **F:** Filtered in field with 0.45 µmembrane filter ☒ **A:** ~~2 ml H_2SO_4~~/L added HNO_3

☐ **NA:** No acid added ☐ Other-*specify:*

ANALYTICAL RESULTS from SAMPLES

~~NF, NA~~ F, A HNO_3		Units	Date analyzed
☐ Conductivity (Corrected) 25°C (00095)		µmho	
☐ Total non-filterable residue (suspended) (00530)		mg/l	
☒ Other: ICAP SCAN			
☒ Other: Se	<0.005	mg/l	3/18/86
☐ Other: As	<0.005	mg/l	4/17/86

F, NA		Units	Date analyzed
☐ Calcium (00915)		mg/l	
☐ Magnesium (00925)		mg/l	
☐ Sodium (00930)		mg/l	
☐ Potassium (00935)		mg/l	
☐ Bicarbonate (00440)		mg/l	
☐ Chloride (00940)		mg/l	
☐ Sulfate (00945)		mg/l	
☐ Total filterable residue (dissolved) (70300)		mg/l	
☐ Other:			

NF, A-H_2SO_4

☐ Nitrate-N + , Nitrate-N total (00630)		mg/l	
☐ Ammonia-N total (00610)		mg/l	
☐ Total Kjeldahl-N ( )		mg/l	
☐ Chemical oxygen demand (00340)		mg/l	
☐ Total organic carbon ( )		mg/l	
☐ Other:			
☐ Other:			

F, A-H_2SO_4

☐ Nitrate-N + , Nitrate-N dissolved (00631)		mg/l	
☐ Ammonia-N dissolved (00608)		mg/l	
☐ Total Kjeldahl-N ( )		mg/l	
☐ Other:			

Analyst | Date Reported: 4 | 18 | 86 | Reviewed by: JFA

Laboratory remarks

SLD 726 (12/84) *DISTRIBUTION:* **WHITE** — EID, GW&HW Bureau **CANARY** — WS System **PINK** — EID Local Office **GOLDENROD** — SLD

Lab Number: HM 280 Sample Code: Burgett Irrigation Well

Date Submitted: 2/10/86 Date Analyzed: 2/17/86

By: Bailey Reviewed By: Jim Ashby

Date Reported: 4/18/86

Element	ICAP VALUE(MG/L)	AA VALUE(MG/L)
Aluminum	<0.1	
Barium	<0.1	
Berylium	<0.1	
Boron	<0.1	
Cadmium	<0.1	
Calcium	72.	
Chromium	<0.1	
Cobalt	<0.1	
Copper	<0.1	
Iron	<0.1	
Lead	<0.1	
Magnesium	6.5	
Manganese	<0.05	
Molybdenum	<0.1	
Nickel	<0.1	
Silicon	15.	
Silver	<0.1	
Strontium	0.4	
Tin	<0.1	
Vanadium	<0.1	
Zinc	<0.1	
Arsenic		<0.005
Selenium		<0.005
Mercury		

New Mexico Health and Environment Department
SCIENTIFIC LABORATORY DIVISION
700 Camino de Salud NE
Albuquerque, NM 87106 — (505) 841-2555

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GENERAL WATER CHEMISTRY and NITROGEN ANALYSIS

DATE RECEIVED 2/10/86	LAB NO. HM 279	USER CODE ☐ 59300 ☐ 59600 ☒ OTHER: 82235	
Collection DATE 1/28/86	SITE INFORMATION ►	Sample location: BURGETT GEOTHERMAL WELL	
Collection TIME 0900		Collection site description: 7 T25S R19W BYPASS VALVE AT WELLHEAD	
Collected by — Person/Agency: BAILEY / JOHNSON - OCD			

SEND FINAL REPORT TO ►

ENVIRONMENTAL BUREAU
NM OIL CONSERVATION DIVISION
State Land Office Bldg, PO Box 2088
Santa Fe, NM 87501

Attn: David Boyer

Station/ well code:

Owner: DALE BURGETT

SAMPLING CONDITIONS

☐ Bailed ☒ Pump ☐ Dipped ☐ Tap	Water level: STATIC W.L. 65' DEPTH TO WATER 90'	Discharge: 300 gpm	Sample type
pH (00400): 8.1	Conductivity (Uncorrected): 2900 µmho	Water Temp. (00010): 48 °C	Conductivity at 25°C (00094): µmho

Field comments: PUMPED FOR 10HRS/DAY TO HEAT GREENHOUSES. REPORTED TO BE 240° F AT WELLHEAD. T.D. 250'

SAMPLE FIELD TREATMENT — *Check proper boxes*

No. of samples submitted: 1	☐ NF: Whole sample (Non-filtered)	☒ F: Filtered in field with 0.45 µmembrane filter	☒ A: ~~2 ml H_2SO_4~~/L added HNO_3
☐ NA: No acid added	☐ Other-*specify*:		

ANALYTICAL RESULTS from SAMPLES

~~NF, NA~~ F, A HNO_3		Units	Date analyzed
☐ Conductivity (Corrected) 25°C (00095)		µmho	
☐ Total non-filterable residue (suspended) (00530)		mg/l	
☒ Other: ICAP SCAN			
☒ Other: Se	[illegible]		3/14/86
☐ Other: As	[illegible]		4/7/86

F, NA		Units	Date analyzed
☐ Calcium (00915)		mg/l	
☐ Magnesium (00925)		mg/l	
☐ Sodium (00930)		mg/l	
☐ Potassium (00935)		mg/l	
☐ Bicarbonate (00440)		mg/l	
☐ Chloride (00940)		mg/l	
☐ Sulfate (00945)		mg/l	
☐ Total filterable residue (dissolved) (70300)		mg/l	
☐ Other:			

NF, A-H_2SO_4		Units	Date analyzed
☐ Nitrate-N +, Nitrate-N total (00630)		mg/l	
☐ Ammonia-N total (00610)		mg/l	
☐ Total Kjeldahl-N ( )		mg/l	
☐ Chemical oxygen demand (00340)		mg/l	
☐ Total organic carbon ( )		mg/l	
☐ Other:			
☐ Other:			

F, A-H_2SO_4		Units	Date analyzed
☐ Nitrate-N +, Nitrate-N dissolved (00631)		mg/l	
☐ Ammonia-N dissolved (00608)		mg/l	
☐ Total Kjeldahl-N ( )		mg/l	
☐ Other:			

Analyst	Date Reported	Reviewed by
	4/18/86	Jim Ashby

Laboratory remarks

Lab Number: HM 279 Sample Code: Burgett Geothermal Well

Date Submitted: 2/10/86 Date Analyzed: 2/17/86

By: Bailey Reviewed By: Jim Bobby

Date Reported: 4/18/86

Element	ICAP VALUE(MG/L)	AA VALUE(MG/L)
Aluminum	<0.1	
Barium	<0.1	
Berylium	<0.1	
Boron	0.5	
Cadmium	<0.1	
Calcium	21.	
Chromium	<0.1	
Cobalt	<0.1	
Copper	<0.1	
Iron	<0.1	
Lead	<0.1	
Magnesium	<0.1	
Manganese	<0.05	
Molybdenum	<0.1	
Nickel	<0.1	
Silicon	75.	
Silver	<0.1	
Strontium	0.5	
Tin	<0.1	
Vanadium	<0.1	
Zinc	<0.1	
Arsenic		0.011
Selenium		<0.005
Mercury		

New Mexico Health and Environment Department
SCIENTIFIC LABORATORY DIVISION
700 Camino de Salud NE
Albuquerque, NM 87106 — (505) 841-2555

PF

GENERAL WATER CHEMISTRY and NITROGEN ANALYSIS

DATE RECEIVED 2/10/86	LAB NO. HM 277	USER CODE ☐ 59300 ☐ 59600 ☒ OTHER: 82235	
Collection DATE 1/28/86	SITE INFORMATION ►	Sample location: DISCHARGE FROM GREENHOUSE	
Collection TIME 0915		Collection site description:	
Collected by — Person/Agency: BAILEY/JOHNSON - OCD			

SEND FINAL REPORT TO ►

ENVIRONMENTAL BUREAU
NM OIL CONSERVATION DIVISION
State Land Office Bldg, PO Box 2088
Santa Fe, NM 87501

Attn: David Boyer

Station/well code:

Owner:

SAMPLING CONDITIONS

☐ Bailed ☒ Dipped ☐ Pump ☐ Tap	Water level	Discharge	Sample type
pH (00400): 8.1	Conductivity (Uncorrected): 2220 µmho	Water Temp. (00010): 47° °C	Conductivity at 25°C (00094): µmho

Field comments: WATER IS CIRCULATED THROUGH FIN PIPES TO HEAT GREENHOUSES

SAMPLE FIELD TREATMENT — *Check proper boxes*

No. of samples submitted: 1	☐ NF: Whole sample (Non-filtered)	☒ F: Filtered in field with 0.45 µmembrane filter	☒ A: ~~2 ml H_2SO_4~~/L added HNO_3
☐ NA: No acid added	☐ Other-*specify*:		

ANALYTICAL RESULTS from SAMPLES

~~NF, NA~~ F, A HNO_3		Units	Date analyzed
☐ Conductivity (Corrected) 25°C (00095)		µmho	
☐ Total non-filterable residue (suspended) (00530)		mg/l	
☒ Other: ICAP SCAN			
☒ Other: Se	<0.005		3/14/86
☐ Other: As	0.02		[illegible]

F, NA		Units	Date analyzed
☐ Calcium (00915)		mg/l	
☐ Magnesium (00925)		mg/l	
☐ Sodium (00930)		mg/l	
☐ Potassium (00935)		mg/l	
☐ Bicarbonate (00440)		mg/l	
☐ Chloride (00940)		mg/l	
☐ Sulfate (00945)		mg/l	
☐ Total filterable residue (dissolved) (70300)		mg/l	
☐ Other:			

NF, A-H_2SO_4		Units	Date analyzed
☐ Nitrate-N +, Nitrate-N total (00630)		mg/l	
☐ Ammonia-N total (00610)		mg/l	
☐ Total Kjeldahl-N ( )		mg/l	
☐ Chemical oxygen demand (00340)		mg/l	
☐ Total organic carbon ( )		mg/l	
☐ Other:			
☐ Other:			

F, A-H_2SO_4		Units	Date analyzed
☐ Nitrate-N +, Nitrate-N dissolved (00631)		mg/l	
☐ Ammonia-N dissolved (00608)		mg/l	
☐ Total Kjeldahl-N ( )		mg/l	
☐ Other:			

Analyst	Date Reported	Reviewed by
	4/18/86	QFA

Laboratory remarks:

SLD 726 (12/84) *DISTRIBUTION:* **WHITE** — EID, GW&HW Bureau **CANARY** — WS System **PINK** — EID Local Office **GOLDENROD** — SLD

Lab Number: HM 277

Sample Code: Discharge from Greenhouse

Date Submitted: 2/10/86

Date Analyzed: 2/17/86

By: Bailey

Reviewed By: Jim Ashley

Date Reported: 4/18/86

Element	ICAP VALUE(MG/L)	AA VALUE(MG/L)
Aluminum	<0.1	
Barium	<0.1	
Berylium	<0.1	
Boron	0.5	
Cadmium	<0.1	
Calcium	21.	
Chromium	<0.1	
Cobalt	<0.1	
Copper	<0.1	
Iron	0.2	
Lead	<0.1	
Magnesium	0.1	
Manganese	0.05	
Molybdenum	<0.1	
Nickel	<0.1	
Silicon	76.	
Silver	<0.1	
Strontium	0.4	
Tin	<0.1	
Vanadium	<0.1	
Zinc	<0.1	
Arsenic		0.012
Selenium		<0.005
Mercury		

New Mexico Health and Environment Department
SCIENTIFIC LABORATORY DIVISION
700 Camino de Salud NE
Albuquerque, NM 87106 — (505) 841-2555

PF

GENERAL WATER CHEMISTRY and NITROGEN ANALYSIS

DATE RECEIVED: 2 | 10 | 86 — LAB NO. HM-278 — USER CODE ☐ 59300 ☐ 59600 ☒ OTHER: 82235

Collection DATE: 1 | 28 | 86

Collection TIME: 1000

Collected by — Person/Agency: RAILEY / JOHNSON - OCD

SITE INFORMATION ►

Sample location: REALL WELL

Collection site description: N 3/4 MILE WEST OF BURGETT FACILITIES

SEND FINAL REPORT TO ►

ENVIRONMENTAL BUREAU
NM OIL CONSERVATION DIVISION
State Land Office Bldg, PO Box 2088
Santa Fe, NM 87501

Attn: David Boyer

Station/well code:

Owner:

SAMPLING CONDITIONS

☐ Bailed ☐ Dipped ☒ Pump ☐ Tap	Water level	Discharge	Sample type
pH (00400): 6.7	Conductivity (Uncorrected): 490 µmho	Water Temp. (00010): 17.5 °C	Conductivity at 25°C (00094): µmho

Field comments: T.D. 125'

SAMPLE FIELD TREATMENT — *Check proper boxes*

No. of samples submitted: 1

☐ NF: Whole sample (Non-filtered) ☒ F: Filtered in field with 0.45 µmembrane filter ☒ A: ~~2 ml H_2SO_4~~/L added HNO_3

☐ NA: No acid added ☐ Other-*specify:*

ANALYTICAL RESULTS from SAMPLES

~~NF~~ ~~NA~~ F A HNO_3		Units	Date analyzed
☐ Conductivity (Corrected) 25°C (00095)		µmho	
☐ Total non-filterable residue (suspended) (00530)		mg/l	
☒ Other: ICAP SCAN			
☒ Other: Se	<0.005		3/10/86
☐ Other: As	<0.005		4/7/86

F NA		Units	Date analyzed
☐ Calcium (00915)		mg/l	
☐ Magnesium (00925)		mg/l	
☐ Sodium (00930)		mg/l	
☐ Potassium (00935)		mg/l	
☐ Bicarbonate (00440)		mg/l	
☐ Chloride (00940)		mg/l	
☐ Sulfate (00945)		mg/l	
☐ Total filterable residue (dissolved) (70300)		mg/l	
☐ Other:			

NF, A-H_2SO_4

☐ Nitrate-N +, Nitrate-N total (00630)		mg/l	
☐ Ammonia-N total (00610)		mg/l	
☐ Total Kjeldahl-N ( )		mg/l	
☐ Chemical oxygen demand (00340)		mg/l	
☐ Total organic carbon ( )		mg/l	
☐ Other:			
☐ Other:			

F, A-H_2SO_4

☐ Nitrate-N +, Nitrate-N dissolved (00631)		mg/l	
☐ Ammonia-N dissolved (00608)		mg/l	
☐ Total Kjeldahl-N ( )		mg/l	
☐ Other:			

Analyst	Date Reported	Reviewed by
	4 | 18 | 86	JFA

Laboratory remarks:

SLD 726 (12/84) *DISTRIBUTION:* **WHITE** — EID, GW&HW Bureau **CANARY** — WS System **PINK** — EID Local Office **GOLDENROD** — SLD

Lab Number: HM 278 Sample Code: Beall Well

Date Submitted: 2/10/86 Date Analyzed: 2/17/86

By: Bailey Reviewed By: Jim Ashley

Date Reported: 4/17/86

Element	ICAP VALUE(MG/L)	AA VALUE(MG/L)
Aluminum	<0.1	
Barium	<0.1	
Berylium	<0.1	
Boron	<0.1	
Cadmium	<0.1	
Calcium	59.	
Chromium	<0.1	
Cobalt	<0.1	
Copper	<0.1	
Iron	<0.1	
Lead	<0.1	
Magnesium	5.5	
Manganese	<0.05	
Molybdenum	<0.1	
Nickel	<0.1	
Silicon	16.	
Silver	<0.1	
Strontium	0.5	
Tin	<0.1	
Vanadium	<0.1	
Zinc	0.8	
Arsenic		<0.005
Selenium		<0.005
Mercury		

SCIENTIFIC LABORATORY DIVISION
700 Camino de Salud NE
Albuquerque, NM 87106 — (505) 841-2555

PF

GENERAL WATER CHEMISTRY and NITROGEN ANALYSIS

DATE RECEIVED	2 / 10 / 86
LAB NO.	HM 232
USER CODE	☐ 59300 ☐ 59600 ☒ OTHER: 82235
Collection DATE	1 / 28 / 86
Collection TIME	1015
Collected by — Person/Agency	BAILEY / JOHNSON - OCD

SITE INFORMATION ►

Sample location: BURGETT FRESH WATER WELL

Collection site description: ~ 1½ mi WSW of GREENHOUSES

Station/well code:

Owner:

SEND FINAL REPORT TO ►

ENVIRONMENTAL BUREAU
NM OIL CONSERVATION DIVISION
State Land Office Bldg, PO Box 2088
Santa Fe, NM 87501

Attn: David Boyer

SAMPLING CONDITIONS

☐ Bailed ☒ Pump ☐ Dipped ☐ Tap	Water level	Discharge 65-70 gpm	Sample type
pH (00400)	Conductivity (Uncorrected) µmho	Water Temp. (00010) °C	Conductivity at 25°C (00094) µmho

Field comments: T.D. 175' NOT ENOUGH SAMPLE FOR FIELD TESTS.

SAMPLE FIELD TREATMENT — *Check proper boxes*

No. of samples submitted: 1

☐ NF: Whole sample (Non-filtered) ☒ F: Filtered in field with 0.45 µmembrane filter ☒ A: ~~2 ml H_2SO_4~~/L added HNO_3

☐ NA: No acid added ☐ Other-*specify*:

ANALYTICAL RESULTS from SAMPLES

~~NF, NA~~ F, A HNO_3		Units	Date analyzed
☐ Conductivity (Corrected) 25°C (00095)		µmho	
☐ Total non-filterable residue (suspended) (00530)		mg/l	
☒ Other: ICAP SCAN			
☒ Other: Se	<0.005		2/14/86
☐ Other: As	<0.005		4/7/86

NF, A-H_2SO_4		Units	Date analyzed
☐ Nitrate-N +, Nitrate-N total (00630)		mg/l	
☐ Ammonia-N total (00610)		mg/l	
☐ Total Kjeldahl-N ( )		mg/l	
☐ Chemical oxygen demand (00340)		mg/l	
☐ Total organic carbon ( )		mg/l	
☐ Other:			
☐ Other:			

F, NA		Units	Date analyzed
☐ Calcium (00915)		mg/l	
☐ Magnesium (00925)		mg/l	
☐ Sodium (00930)		mg/l	
☐ Potassium (00935)		mg/l	
☐ Bicarbonate (00440)		mg/l	
☐ Chloride (00940)		mg/l	
☐ Sulfate (00945)		mg/l	
☐ Total filterable residue (dissolved) (70300)		mg/l	
☐ Other:			

F, A-H_2SO_4		Units	Date analyzed
☐ Nitrate-N +, Nitrate-N dissolved (00631)		mg/l	
☐ Ammonia-N dissolved (00608)		mg/l	
☐ Total Kjeldahl-N ( )		mg/l	
☐ Other:			

Analyst	Date Reported	Reviewed by
	4/18/86	OAH

Laboratory remarks: Sample Digested

SLD 726 (12/84) *DISTRIBUTION:* **WHITE** — EID, GW&HW Bureau **CANARY** — WS System **PINK** — EID Local Office **GOLDENROD** — SLD

Lab Number: HM 282 Sample Code: Burgett Fresh Water Wa

Date Submitted: 2/10/86 Date Analyzed: 2/17/86

By: Bailey Reviewed By: Jim Ashby

Date Reported: 4/18/86

Element	ICAP VALUE(MG/L)	AA VALUE(MG/L)
Aluminum	<0.1	
Barium	<0.1	
Berylium	<0.1	
Boron	<0.1	
Cadmium	<0.1	
Calcium	33.	
Chromium	<0.1	
Cobalt	<0.1	
Copper	<0.1	
Iron	<0.1	
Lead	<0.1	
Magnesium	2.9	
Manganese	<0.05	
Molybdenum	<0.1	
Nickel	<0.1	
Silicon	16.	
Silver	<0.1	
Strontium	0.2	
Tin	<0.1	
Vanadium	<0.1	
Zinc	<0.1	
Arsenic		<0.005
Selenium		<0.005
Mercury		

New Mexico Health and Environment Department
SCIENTIFIC LABORATORY DIVISION
700 Camino de Salud NE
Albuquerque, NM 87106 — (505) 841-2555

EN

GENERAL WATER CHEMISTRY and NITROGEN ANALYSIS

DATE RECEIVED: 2/10/86 | LAB NO. WC 562 | USER CODE ☐ 59300 ☐ 59600 ☒ OTHER: 82235

Collection DATE: 1/28/86
Collection TIME: 0900
Collected by — Person/Agency: BAILEY/JOHNSON - OCD

SITE INFORMATION ►

Sample location: BURGETT GEOTHERMAL WELL
Collection site description: T 25S R 19W BYPASS VALVE AT WELLHEAD

SEND FINAL REPORT TO ►

ENVIRONMENTAL BUREAU
NM OIL CONSERVATION DIVISION
State Land Office Bldg, PO Box 2088
Santa Fe, NM 87501
Attn: David Boyer

Station/ well code:
Owner: DALE BURGETT

SAMPLING CONDITIONS

☐ Bailed ☒ Pump ☐ Dipped ☐ Tap	Water level: STATIC W.L. 65' DEPTH TO WATER 90'	Discharge: 300 gpm	Sample type:	
pH (00400): 8.1	Conductivity (Uncorrected): 2900 µmho	Water Temp. (00010): 48 °C	Conductivity at 25°C (00094): µmho	

Field comments: PUMPED FOR 10HRS/DAY TO HEAT GREENHOUSES. REPORTED TO BE 240° F AT WELLHEAD. T.D. 250'

SAMPLE FIELD TREATMENT — *Check proper boxes*

No. of samples submitted: 1

☐ **NF:** Whole sample (Non-filtered) ☒ **F:** Filtered in field with 0.45 µmembrane filter ☐ **A:** 2 ml H_2SO_4/L added

☒ **NA:** No acid added ☐ Other-*specify:*

ANALYTICAL RESULTS from SAMPLES

NF, NA		Units	Date analyzed
☒ Conductivity (Corrected) 25°C (00095)		µmho	
☐ Total non-filterable residue (suspended) (00530)		mg/l	
☐ Other:			
☐ Other:			
☐ Other:			

F, NA		Units	Date analyzed
☒ Calcium (00915)	14.6	mg/l	2/10
☒ Magnesium (00925)	6.34	mg/l	"
☒ Sodium (00930)	322.3	mg/l	"
☒ Potassium (00935)	12.9	mg/l	"
☒ Bicarbonate (00440)	101.7	mg/l	2/18
☒ Chloride (00940)	94.3	mg/l	2/20
☒ Sulfate (00945)	585	mg/l	2/18
☒ Total filterable residue (dissolved) (70300)	1195	mg/l	3/13
☒ Other: CO_3	0.0		2/18
X F	12.5		2/27

NF, A-H_2SO_4			
☐ Nitrate-N +, Nitrate-N total (00630)		mg/l	
☐ Ammonia-N total (00610)		mg/l	
☐ Total Kjeldahl-N ( )		mg/l	
☐ Chemical oxygen demand (00340)		mg/l	
☐ Total organic carbon ( )		mg/l	
☐ Other:			
☐ Other:			

F, A-H_2SO_4			
☐ Nitrate-N +, Nitrate-N dissolved (00631)		mg/l	
☐ Ammonia-N dissolved (00608)		mg/l	
☐ Total Kjeldahl-N ( )		mg/l	
☐ Other:			

Analyst:
Date Reported: 3/24/86
Reviewed by:

Laboratory remarks:

SLD 726 (12/84) *DISTRIBUTION:* **WHITE** — EID, GW&HW Bureau **CANARY** — WS System **PINK** — EID Local Office **GOLDENROD** — SLD

New Mexico Health and Environment Department
SCIENTIFIC LABORATORY DIVISION
700 Camino de Salud NE
Albuquerque, NM 87106 — (505) 841-2555

FN

GENERAL WATER CHEMISTRY and NITROGEN ANALYSIS

DATE RECEIVED 2 | 10 | 86	LAB NO. WC 560	USER CODE ☐ 59300 ☐ 59600 ☒ OTHER: 82235	
Collection DATE 1 | 28 | 86	SITE INFORM-ATION ►	Sample location DISCHARGE FROM GREENHOUSE	
Collection TIME 0915		Collection site description	
Collected by — Person/Agency BAILEY/JOHNSON - OCD			

SEND FINAL REPORT TO ►

ENVIRONMENTAL BUREAU
NM OIL CONSERVATION DIVISION
State Land Office Bldg, PO Box 2088
Santa Fe, NM 87501

Attn: David Boyer

Station/ well code

Owner

SAMPLING CONDITIONS

☐ Bailed ☒ Dipped ☐ Pump ☐ Tap	Water level	Discharge	Sample type
pH (00400) 8.1	Conductivity (Uncorrected) 2220 µmho	Water Temp. (00010) 47 °C	Conductivity at 25°C (00094) µmho

Field comments: WATER IS CIRCULATED THROUGH FIN PIPES TO HEAT GREENHOUSES

SAMPLE FIELD TREATMENT — *Check proper boxes*

No. of samples submitted 1

☒ **NF:** Whole sample (Non-filtered) ☒ **F:** Filtered in field with 0.45 µmembrane filter ☐ **A:** 2 ml H_2SO_4/L added

☒ **NA:** No acid added ☐ Other-*specify:*

ANALYTICAL RESULTS from SAMPLES

NF, NA		Units	Date analyzed
☒ Conductivity (Corrected) 25°C (00095)		µmho	
☐ Total non-filterable residue (suspended) (00530)		mg/l	
☐ Other:			
☐ Other:			
☐ Other:			

F, NA		Units	Date analyzed
☒ Calcium (00915)	320	mg/l	2-10
☒ Magnesium (00925)	4.88	mg/l	"
☒ Sodium (00930)	703.6	mg/l	"
☒ Potassium (00935)	19.1	mg/l	"
☒ Bicarbonate (00440)	97.1	mg/l	2/18
☒ Chloride (00940)	92.4	mg/l	2/20
☒ Sulfate (00945)	537	mg/l	2/18
☒ Total filterable residue (dissolved) (70300)	1115	mg/l	3/13
☒ Other: CO_3	CO		
x F	11.7		2/27

NF, A-H_2SO_4			
☐ Nitrate-N + , Nitrate-N total (00630)		mg/l	
☐ Ammonia-N total (00610)		mg/l	
☐ Total Kjeldahl-N ( )		mg/l	
☐ Chemical oxygen demand (00340)		mg/l	
☐ Total organic carbon ( )		mg/l	
☐ Other:			
☐ Other:			

F, A-H_2SO_4			
☐ Nitrate-N + , Nitrate-N dissolved (00631)		mg/l	
☐ Ammonia-N dissolved (00608)		mg/l	
☐ Total Kjeldahl-N ( )		mg/l	
☐ Other:			

Analyst	Date Reported	Reviewed by
	3 | 24 | 86	

Laboratory remarks

SCIENTIFIC LABORATORY DIVISION
700 Camino de Salud NE
Albuquerque, NM 87106 — (505) 841-2555

FIN

GENERAL WATER CHEMISTRY and NITROGEN ANALYSIS

DATE RECEIVED 2 | 10 | 86 LAB NO. WC 561 USER CODE ☐ 59300 ☐ 59600 ☒ OTHER: 82235

Collection DATE 1 | 28 | 86
Collection TIME 1000
Collected by — Person/Agency BAILEY / JOHNSON - OCD

SITE INFORM-ATION

Sample location: BEALL WELL
Collection site description: ~3/4 MILE WEST OF BURGETT FACILITIES

SEND FINAL REPORT TO ▶
ENVIRONMENTAL BUREAU
NM OIL CONSERVATION DIVISION
State Land Office Bldg, PO Box 2088
Santa Fe, NM 87501
Attn: David Boyer

Station/ well code
Owner

SAMPLING CONDITIONS

☐ Bailed ☐ Dipped ☒ Pump ☐ Tap	Water level	Discharge	Sample type
pH (00400) 6.7	Conductivity (Uncorrected) 490 µmho	Water Temp. (00010) 17.5 °C	Conductivity at 25°C (00094) µmho

Field comments: T.D. 125'

SAMPLE FIELD TREATMENT — *Check proper boxes*

No. of samples submitted 1 | ☒ NF: Whole sample (Non-filtered) | ☒ F: Filtered in field with 0.45 µmembrane filter | ☐ A: 2 ml H_2SO_4/L added

☒ NA: No acid added ☐ Other-*specify:*

ANALYTICAL RESULTS from SAMPLES

NF, NA		Units	Date analyzed
☒ Conductivity (Corrected) 25°C (00095)		µmho	
☐ Total non-filterable residue (suspended) (00530)		mg/l	
☐ Other:			
☐ Other:			
☐ Other:			

F, NA		Units	Date analyzed
☒ Calcium (00915)	59.2	mg/l	2-10
☒ Magnesium (00925)	11.7	mg/l	"
☒ Sodium (00930)	32.8	mg/l	"
☒ Potassium (00935)	2.73	mg/l	"
☒ Bicarbonate (00440)	174.2	mg/l	2/18
☒ Chloride (00940)	31.6	mg/l	2/20
☒ Sulfate (00945)	141	mg/l	2/18
☒ Total filterable residue (dissolved) (70300)	443	mg/l	3/13
☒ Other: CO_3	0		2/14
X F	2.00		2/17

NF, A-H_2SO_4			
☐ Nitrate-N +, Nitrate-N total (00630)		mg/l	
☐ Ammonia-N total (00610)		mg/l	
☐ Total Kjeldahl-N ( )		mg/l	
☐ Chemical oxygen demand (00340)		mg/l	
☐ Total organic carbon ( )		mg/l	
☐ Other:			
☐ Other:			

F, A-H_2SO_4			
☐ Nitrate-N +, Nitrate-N dissolved (00631)		mg/l	
☐ Ammonia-N dissolved (00608)		mg/l	
☐ Total Kjeldahl-N ( )		mg/l	
☐ Other:			

Analyst | Date Reported 3 | 24 | 86 | Reviewed by

Laboratory remarks

SLD 726 (12/84) DISTRIBUTION: WHITE — EID, GW&HW Bureau CANARY — WS System PINK — EID Local Office GOLDENROD — SLD

SCIENTIFIC LABORATORY DIVISION
700 Camino de Salud NE
Albuquerque, NM 87106 — (505) 841-2555

GENERAL WATER CHEMISTRY and NITROGEN ANALYSIS

DATE RECEIVED 2 | 10 | 86	LAB NO. NC 563	USER CODE ☐ 59300 ☐ 59600 ☒ OTHER: 82235	
Collection DATE 1 | 28 | 86	SITE INFORM-ATION ►	Sample location: BURGETT FRESH WATER WELL	
Collection TIME 1015		Collection site description: ~1½ mi WSW of GREENHOUSES	
Collected by — Person/Agency: BAILEY/JOHNSON - OCD			

SEND FINAL REPORT TO ►

ENVIRONMENTAL BUREAU
NM OIL CONSERVATION DIVISION
State Land Office Bldg, PO Box 2088
Santa Fe, NM 87501

Attn: David Boyer

Station/ well code

Owner

SAMPLING CONDITIONS

☐ Bailed ☐ Dipped ☒ Pump ☐ Tap	Water level	Discharge 65-70 gpm	Sample type
pH (00400)	Conductivity (Uncorrected) μmho	Water Temp. (00010) °C	Conductivity at 25°C (00094) μmho

Field comments: T.D. 175' NOT ENOUGH SAMPLE FOR FIELD TESTS.

SAMPLE FIELD TREATMENT — *Check proper boxes*

No. of samples submitted: 1

☒ **NF:** Whole sample (Non-filtered) ☒ **F:** Filtered in field with 0.45 μmembrane filter ☐ **A:** 2 ml H_2SO_4/L added

☒ **NA:** No acid added ☐ Other-*specify:*

ANALYTICAL RESULTS from SAMPLES

NF, NA		Units	Date analyzed
☒ Conductivity (Corrected) 25°C (00095)		μmho	
☐ Total non-filterable residue (suspended) (00530)		mg/l	
☐ Other:			
☐ Other:			
☐ Other:			

F, NA		Units	Date analyzed
☒ Calcium (00915)	22.7	mg/l	2-10
☒ Magnesium (00925)	6.73	mg/l	"
☒ Sodium (00930)	14.4	mg/l	"
☒ Potassium (00935)	1.75	mg/l	"
☒ Bicarbonate (00440)	144.7	mg/l	2/18
☒ Chloride (00940)	18.6	mg/l	2/20
☒ Sulfate (00945)	80.5	mg/l	2/18
☒ Total filterable residue (dissolved) (70300)	310	mg/l	3/13
☒ Other: CO_3	3.45		2/18
X F	0.98		2/27

NF, A-H_2SO_4			
☐ Nitrate-N +, Nitrate-N total (00630)		mg/l	
☐ Ammonia-N total (00610)		mg/l	
☐ Total Kjeldahl-N ( )		mg/l	
☐ Chemical oxygen demand (00340)		mg/l	
☐ Total organic carbon ( )		mg/l	
☐ Other:			
☐ Other:			

F, A-H_2SO_4			
☐ Nitrate-N +, Nitrate-N dissolved (00631)		mg/l	
☐ Ammonia-N dissolved (00608)		mg/l	
☐ Total Kjeldahl-N ( )		mg/l	
☐ Other:			

Analyst	Date Reported	Reviewed by
	3 | 24 | 86	

Laboratory remarks

700 Camino de Salud NE
Albuquerque, NM 87106 — (505) 841-2555

FN

GENERAL WATER CHEMISTRY and NITROGEN ANALYSIS

DATE RECEIVED 2 10 86	LAB NO. WC 564	USER CODE ☐ 59300 ☐ 59600 ☒ OTHER: 82235	
Collection DATE 1 28 86	SITE INFORM-ATION ►	Sample location: VALLEY VIEW COMMUNITY CHURCH	
Collection TIME 1030		Collection site description: ~2mi WEST OF BURGETT FACILITIES	
Collected by — Person/Agency: BAILEY/JOHNSON - OCD			

SEND FINAL REPORT TO ►

ENVIRONMENTAL BUREAU
NM OIL CONSERVATION DIVISION
State Land Office Bldg, PO Box 2088
Santa Fe, NM 87501

Attn: David Boyer

Station/ well code

Owner

SAMPLING CONDITIONS

☐ Bailed ☐ Pump ☐ Dipped ☒ Tap	Water level	Discharge	Sample type
pH (00400) 7.4	Conductivity (Uncorrected) 241 µmho	Water Temp. (00010) 11 °C	Conductivity at 25°C (00094) µmho

Field comments

SAMPLE FIELD TREATMENT — *Check proper boxes*

No. of samples submitted 1

☒ **NF:** Whole sample (Non-filtered) ☒ **F:** Filtered in field with 0.45 µmembrane filter ☐ **A:** 2 ml H_2SO_4/L added

☒ **NA:** No acid added ☐ Other-*specify:*

ANALYTICAL RESULTS from SAMPLES

NF, NA	Units	Date analyzed
☒ Conductivity (Corrected) 25°C (00095)	µmho	
☐ Total non-filterable residue (suspended) (00530)	mg/l	
☐ Other:		
☐ Other:		
☐ Other:		

F, NA		Units	Date analyzed
☒ Calcium (00915)	52.1	mg/l	2-10
☒ Magnesium (00925)	6.44	mg/l	"
☒ Sodium (00930)	55.2	mg/l	"
☒ Potassium (00935)	4.17	mg/l	"
☒ Bicarbonate (00440)	153.7	mg/l	2/18
☒ Chloride (00940)	8.6	mg/l	2/20
☒ Sulfate (00945)	51.9	mg/l	2/18
☒ Total filterable residue (dissolved) (70300)	258	mg/l	3/13
☒ Other: CO_3	0.0		2/18
☒ F	1.17		2/27

NF, A-H_2SO_4			
☐ Nitrate-N +, Nitrate-N total (00630)		mg/l	
☐ Ammonia-N total (00610)		mg/l	
☐ Total Kjeldahl-N ( )		mg/l	
☐ Chemical oxygen demand (00340)		mg/l	
☐ Total organic carbon ( )		mg/l	
☐ Other:			
☐ Other:			

F, A-H_2SO_4			
☐ Nitrate-N +, Nitrate-N *dissolved* (00631)		mg/l	
☐ Ammonia-N dissolved (00608)		mg/l	
☐ Total Kjeldahl-N ( )		mg/l	
☐ Other:			

Analyst	Date Reported	Reviewed by
	3 24 86	

Laboratory remarks

700 Camino de Salud NE
Albuquerque, NM 87106 — (505) 841-2555

FN

GENERAL WATER CHEMISTRY and NITROGEN ANALYSIS

DATE RECEIVED: 2 / 10 / 86	LAB NO. WC 565	USER CODE ☐ 59300 ☐ 59600 ☒ OTHER: 82235	
Collection DATE: 1 / 28 / 86	SITE INFORMATION ►	Sample location: BURGETT IRRIGATION WELL	
Collection TIME: 1040		Collection site description: ~2 mi SW of GREENHOUSES	
Collected by — Person/Agency: BAILEY / JOHNSON - OCD			

SEND FINAL REPORT TO ►

ENVIRONMENTAL BUREAU
NM OIL CONSERVATION DIVISION
State Land Office Bldg, PO Box 2088
Santa Fe, NM 87501

Attn: David Boyer

Station/ well code

Owner

SAMPLING CONDITIONS

☐ Bailed ☒ Pump ☐ Dipped ☐ Tap	Water level	Discharge: 1400 gpm	Sample type
pH (00400): 7.0	Conductivity (Uncorrected): 600 µmho	Water Temp. (00010): 19 °C	Conductivity at 25°C (00094): µmho

Field comments: T.D. 250'

SAMPLE FIELD TREATMENT — *Check proper boxes*

No. of samples submitted: 1

☒ **NF:** Whole sample (Non-filtered) ☒ **F:** Filtered in field with 0.45 µmembrane filter ☐ **A:** 2 ml H_2SO_4/L added

☒ **NA:** No acid added ☐ Other-*specify:*

ANALYTICAL RESULTS from SAMPLES

NF, NA		Units	Date analyzed
☒ Conductivity (Corrected) 25°C (00095)		µmho	
☐ Total non-filterable residue (suspended) (00530)		mg/l	
☐ Other:			
☐ Other:			
☐ Other:			

F, NA		Units	Date analyzed
☒ Calcium (00915)	64.0	mg/l	2-10
☒ Magnesium (00925)	17.5	mg/l	"
☒ Sodium (00930)	82.8	mg/l	"
☒ Potassium (00935)	6.56	mg/l	"
☒ Bicarbonate (00440)	144	mg/l	2/18
☒ Chloride (00940)	53.6	mg/l	2/20
☒ Sulfate (00945)	153	mg/l	2/18
☒ Total filterable residue (dissolved) (70300)	480	mg/l	3/13
☒ Other: CO_3	0.0		2/18
X F	0.99		2/27

NF, A-H_2SO_4

☐ Nitrate-N +, Nitrate-N total (00630)		mg/l	
☐ Ammonia-N total (00610)		mg/l	
☐ Total Kjeldahl-N ( )		mg/l	
☐ Chemical oxygen demand (00340)		mg/l	
☐ Total organic carbon ( )		mg/l	
☐ Other:			
☐ Other:			

F, A-H_2SO_4

☐ Nitrate-N +, Nitrate-N dissolved (00631)		mg/l	
☐ Ammonia-N dissolved (00608)		mg/l	
☐ Total Kjeldahl-N ( )		mg/l	
☐ Other:			

Analyst	Date Reported	Reviewed by
	3 / 24 / 86	

Laboratory remarks:

SLD 726 (12/84) *DISTRIBUTION:* **WHITE** — EID, GW&HW Bureau **CANARY** — WS System **PINK** — EID Local Office **GOLDENROD** — SLD

BURGETT GEOTHERMAL GREENHOUSES, INC.
BOX 265-A
ANIMAS, NM 88020
505/548-2353 505/548-2293 FAX

May 8, 2000

Roger C. Anderson
New Mexico Energy, Minerals & Natural Resources Department
Oil Conservation Division
Santa Fe, NM 87505

RE: Discharge Plan Renewal GW-041
Burgett Geothermal Greenhouses, Inc.
Geothermal Greenhouses
Hidalgo County, New Mexico

Dear Mr. Anderson:

Please find enclosed the signed copy of the renewal agreement for the above plan.

Sincerely,

Dale Burgett

Dale Burgett, President

ATTACHMENT TO THE DISCHARGE PLAN RENEWAL GW-041
BURGETT GEOTHERMAL GREENHOUSES, INC.
GEOTHERMAL GREENHOUSES
DISCHARGE PLAN APPROVAL CONDITIONS
May 3, 2000

1. Payment of Discharge Plan Fees: The $50.00 filing fee has been received by the OCD. There is a required flat fee equal to one-half of the original flat fee for geothermal wells. The renewal flat fee required for this facility is $$690.00 which may be paid in a single payment due at the time of approval, or in equal annual installments over the duration of the discharge plan, with the first payment due upon receipt of this approval. The filing fee is payable at the time of application and is due upon receipt of this approval.

2. Commitments: Burgett Geothermal Greenhouses, Inc. will abide by all commitments submitted in the discharge plan renewal application letter dated December 28, 1999 and these conditions for approval.

3. Waste Disposal: All wastes will be disposed of at an OCD approved facility. Only oilfield exempt wastes shall be disposed of down Class II injection wells. Non-exempt oilfield wastes that are non-hazardous may be disposed of at an OCD approved facility upon proper waste determination per 40 CFR Part 261. Any waste stream that is not listed in the discharge plan will be approved by OCD on a case-by-case basis.

4. Drum Storage: All drums containing materials other than fresh water must be stored on an impermeable pad with curbing. All empty drums will be stored on their sides with the bungs in and lined up on a horizontal plane. Chemicals in other containers such as sacks or buckets will also be stored on an impermeable pad and curb type containment.

5. Process Areas: All process and maintenance areas which show evidence that leaks and spills are reaching the ground surface must be either paved and curbed or have some type of spill collection device incorporated into the design.

6. Above Ground Tanks: All above ground tanks which contain fluids other than fresh water must be bermed to contain a volume of one-third more than the total volume of the largest tank or of all interconnected tanks. All new tanks or existing tanks that undergo a major modification, as determined by the Division, must be placed within an impermeable bermed enclosure.

7. Above Ground Saddle Tanks: Above ground saddle tanks must have impermeable pad and curb type containment unless they contain fresh water or fluids that are gases at atmospheric temperature and pressure.

8. Labeling: All tanks, drums and containers will be clearly labeled to identify their contents and other emergency notification information.

9. Below Grade Tanks/Sumps: All below grade tanks, sumps, and pits must be approved by the OCD prior to installation or upon modification and must incorporate secondary containment and leak-detection into the design. All pre-existing sumps and below-grade tanks must demonstrate integrity no later than N/A and every year from tested date thereafter. Permittees may propose various methods for testing such as pressure testing to 3 pounds per square inch above normal operating pressure and/or visual inspection of cleaned out tanks and/or sumps, or other OCD approved methods. The OCD will be notified at least 72 hours prior to all testing.

10. Underground Process/Wastewater Lines: All underground process/wastewater pipelines must be tested to demonstrate their mechanical integrity no later than N/A and every five (5) years thereafter. Permittees may propose various methods for testing such as pressure testing to 3 pounds per square inch above normal operating pressure or other means acceptable to the OCD. The OCD will be notified at least 72 hours prior to all testing.

11. Class V Wells: No Class V wells that inject non-hazardous industrial wastes or a mixture of industrial wastes and domestic wastes will be closed unless it can be demonstrated that groundwater will not be impacted in the reasonably foreseeable future. Leach fields and other wastewater disposal systems at OCD regulated facilities which inject non-hazardous fluid into or above an underground source of drinking water are considered Class V injection wells under the EPA UIC program. Class V wells that inject domestic waste only must be permitted by the New Mexico Environment Department.

12. Housekeeping: All systems designed for spill collection/prevention will be inspected weekly and after each storm event to ensure proper operation and to prevent overtopping or system failure. A record of inspections will be retained on site for a period of five years.

13. Spill Reporting: All spills/releases will be reported pursuant to OCD Rule 116 and WQCC 1203 to the OCD Santa Fe District Office.

14. Transfer of Discharge Plan: The OCD will be notified prior to any transfer of ownership, control, or possession of a facility with an approved discharge plan. A written commitment to comply with the terms and conditions of the previously approved discharge plan must be submitted by the purchaser and approved by the OCD prior to transfer.

15. Storm Water Plan: N/A

16. Closure: The OCD will be notified when operations of the Geothermal Greenhouses are discontinued for a period in excess of six months. Prior to closure of the Geothermal Greenhouses, the Director will submit a closure plan for approval. Closure and waste disposal will be in accordance with the statutes, rules and regulations in effect at the time of closure.

17. Conditions accepted by: Burgett Geothermal Greenhouses, Inc., by the officer whose signature appears below, accepts this permit and agrees to comply with all terms and conditions contained herein. Burgett Geothermal Greenhouses, Inc. further acknowledges that these conditions and requirements of this permit may be changed administratively by the Division for good cause shown as necessary to protect fresh water, human health and the environment.

Burgett Geothermal Greenhouses, Inc.

Print Name: Everett Dale Burgett

Signature: Everett Dale Burgett

Title: President

Date: 5/8/00

NEW MEXICO ENERGY, MINERALS
& NATURAL RESOURCES DEPARTMENT

OIL CONSERVATION DIVISION
2040 South Pacheco Street
Santa Fe, New Mexico 87505
(505) 827-7131

May 3, 2000

CERTIFIED MAIL
RETURN RECEIPT NO. 5051-6021

Dale Burgett
Burgett Geothermal Greenhouses, Inc.
Box 265 A
Animas, New Mexico 88020

RE: Discharge Plan Renewal GW-041
Burgett Geothermal Greenhouses, Inc.
Geothermal Greenhouses
Hidalgo County, New Mexico

U.S. Postal Service
CERTIFIED MAIL RECEIPT
(Domestic Mail Only; No Insurance Coverage Provided)

Article Sent To:

Postage $
Certified Fee
Return Receipt Fee (Endorsement Required)
Restricted Delivery Fee (Endorsement Required)
Total Postage & Fees $

USPS MAY 04 2000 SANTA FE NM 87502

Postmark Here

7099 3220 0000 5051 6021

Name (Please Print Clearly) (To be completed by mailer)
DALE BURGETT
Street, Apt. No.; or PO Box No.
BOX 265 A
City, State, ZIP+ 4
ANIMAS, NM 88020

PS Form 3800, July 1999 See Reverse for Instructions

Dear Mr. Burgett

The ground water discharge plan renewal application GW-041 for the Burgett Geothermal Greenhouses, Inc. Geothermal Greenhouses located in Section 7, Township 25 South, Range 19 West, NMPM, Hidalgo County, New Mexico, **is hereby approved** under the conditions contained in the enclosed attachment. Enclosed are two copies of the conditions of approval. **Please sign and return one copy to the New Mexico Oil Conservation Division (OCD) Santa Fe office within 10 working days of receipt of this letter.**

The original discharge plan application was submitted on April 16, 1986 and approved November 16, 1986. The discharge plan renewal application letter, dated December 28, 1999, submitted pursuant to Section 3106 of the New Mexico Water Quality Control Commission (WQCC) Regulations also includes all earlier applications and all conditions later placed on those approvals. The discharge plan is renewed pursuant to Section 3109.C. Please note Section 3109.G, which provides for possible future amendment of the plan. Please be advised that approval of this plan does not relieve Burgett Geothermal Greenhouses, Inc. of liability should operations result in pollution of surface water, ground water or the environment.

Please be advised that all exposed pits, including lined pits and open tanks (exceeding 16 feet in diameter) shall be screened, netted or otherwise rendered nonhazardous to wildlife including migratory birds.

Please note that Section 3104 of the regulations provides: "When a plan has been approved, discharges must be consistent with the terms and conditions of the plan." Pursuant to Section 3107.C, Burgett Geothermal Greenhouses, Inc. is required to notify the Director of any facility expansion, production increase or process modification that would result in any change in the discharge of water quality or volume.

Pursuant to Section 3109.H.4, this renewal plan is for a period of five years. This renewal will expire on **November 16, 2003**, and Burgett Geothermal Greenhouses, Inc. should submit an application in ample time before this date. Note that under Section 3106.F of the regulations, if a discharger submits a discharge plan renewal application at least 120 days before the discharge plan expires and is in compliance with the approved plan, then the existing discharge plan will not expire until the application for renewal has been approved or disapproved. It should be noted that all discharge plan facilities will be required to submit the results of an underground drainage testing program as a requirement for discharge plan.

The discharge plan renewal application for the Burgett Geothermal Greenhouses, Inc. Geothermal Greenhouses is subject to WQCC Regulation 3114. Every billable facility submitting a discharge plan application will be assessed a fee equal to the filing fee of $50.00. There is a renewal flat fee assessed for geothermal wells equal to one-half of the original flat fee or $690.00. The OCD has received the filing fee.

On behalf of the staff of the OCD, I wish to thank you and your staff for your cooperation during this discharge plan review.

Sincerely,

Roger C. Anderson
Chief, Environmental Bureau
Oil Conservation Division

RCA/eem
Attachment

Xc: OCD Santa Fe Office

ATTACHMENT TO THE DISCHARGE PLAN RENEWAL GW-041
BURGETT GEOTHERMAL GREENHOUSES, INC.
GEOTHERMAL GREENHOUSES
DISCHARGE PLAN APPROVAL CONDITIONS
May 3, 2000

1. Payment of Discharge Plan Fees: The $50.00 filing fee has been received by the OCD. There is a required flat fee equal to one-half of the original flat fee for geothermal wells. The renewal flat fee required for this facility is $$690.00 which may be paid in a single payment due at the time of approval, or in equal annual installments over the duration of the discharge plan, with the first payment due upon receipt of this approval. The filing fee is payable at the time of application and is due upon receipt of this approval.

2. Commitments: Burgett Geothermal Greenhouses, Inc. will abide by all commitments submitted in the discharge plan renewal application letter dated December 28, 1999 and these conditions for approval.

3. Waste Disposal: All wastes will be disposed of at an OCD approved facility. Only oilfield exempt wastes shall be disposed of down Class II injection wells. Non-exempt oilfield wastes that are non-hazardous may be disposed of at an OCD approved facility upon proper waste determination per 40 CFR Part 261. Any waste stream that is not listed in the discharge plan will be approved by OCD on a case-by-case basis.

4. Drum Storage: All drums containing materials other than fresh water must be stored on an impermeable pad with curbing. All empty drums will be stored on their sides with the bungs in and lined up on a horizontal plane. Chemicals in other containers such as sacks or buckets will also be stored on an impermeable pad and curb type containment.

5. Process Areas: All process and maintenance areas which show evidence that leaks and spills are reaching the ground surface must be either paved and curbed or have some type of spill collection device incorporated into the design.

6. Above Ground Tanks: All above ground tanks which contain fluids other than fresh water must be bermed to contain a volume of one-third more than the total volume of the largest tank or of all interconnected tanks. All new tanks or existing tanks that undergo a major modification, as determined by the Division, must be placed within an impermeable bermed enclosure.

7. Above Ground Saddle Tanks: Above ground saddle tanks must have impermeable pad and curb type containment unless they contain fresh water or fluids that are gases at atmospheric temperature and pressure.

8. Labeling: All tanks, drums and containers will be clearly labeled to identify their contents and other emergency notification information.

9. Below Grade Tanks/Sumps: All below grade tanks, sumps, and pits must be approved by the OCD prior to installation or upon modification and must incorporate secondary containment and leak-detection into the design. All pre-existing sumps and below-grade tanks must demonstrate integrity no later than N/A and every year from tested date thereafter. Permittees may propose various methods for testing such as pressure testing to 3 pounds per square inch above normal operating pressure and/or visual inspection of cleaned out tanks and/or sumps, or other OCD approved methods. The OCD will be notified at least 72 hours prior to all testing.

10. Underground Process/Wastewater Lines: All underground process/wastewater pipelines must be tested to demonstrate their mechanical integrity no later than N/A and every five (5) years thereafter. Permittees may propose various methods for testing such as pressure testing to 3 pounds per square inch above normal operating pressure or other means acceptable to the OCD. The OCD will be notified at least 72 hours prior to all testing.

11. Class V Wells: No Class V wells that inject non-hazardous industrial wastes or a mixture of industrial wastes and domestic wastes will be closed unless it can be demonstrated that groundwater will not be impacted in the reasonably foreseeable future. Leach fields and other wastewater disposal systems at OCD regulated facilities which inject non-hazardous fluid into or above an underground source of drinking water are considered Class V injection wells under the EPA UIC program. Class V wells that inject domestic waste only must be permitted by the New Mexico Environment Department.

12. Housekeeping: All systems designed for spill collection/prevention will be inspected weekly and after each storm event to ensure proper operation and to prevent overtopping or system failure. A record of inspections will be retained on site for a period of five years.

13. Spill Reporting: All spills/releases will be reported pursuant to OCD Rule 116 and WQCC 1203 to the OCD Santa Fe District Office.

14. Transfer of Discharge Plan: The OCD will be notified prior to any transfer of ownership, control, or possession of a facility with an approved discharge plan. A written commitment to comply with the terms and conditions of the previously approved discharge plan must be submitted by the purchaser and approved by the OCD prior to transfer.

15. Storm Water Plan: N/A

16. Closure: The OCD will be notified when operations of the Geothermal Greenhouses are discontinued for a period in excess of six months. Prior to closure of the Geothermal Greenhouses, the Director will submit a closure plan for approval. Closure and waste disposal will be in accordance with the statutes, rules and regulations in effect at the time of closure.

17. Conditions accepted by: Burgett Geothermal Greenhouses, Inc., by the officer whose signature appears below, accepts this permit and agrees to comply with all terms and conditions contained herein. Burgett Geothermal Greenhouses, Inc. further acknowledges that these conditions and requirements of this permit may be changed administratively by the Division for good cause shown as necessary to protect fresh water, human health and the environment.

Burgett Geothermal Greenhouses, Inc.

Print Name: _____

Signature: _____

Title: _____

Date: _____

ACKNOWLEDGEMENT OF RECEIPT OF CHECK/CASH

I hereby acknowledge receipt of check No. 1312 dated 12/28/99,
or cash received on _____ in the amount of $ 740.00
from BURGETT GEOTHERMAL GREENHOUSES, INC.
for BURGETT GREENHOUSES (Facility Name) GW-41 (DP No.)
Submitted by: WAYNE PRICE Date: 1-5-2000
Submitted to ASD by: [signature] Date: 1-5-2000
Received in ASD by: _____ Date: _____

Filing Fee ✓ New Facility ___ Renewal ✓
Modification ___ Other _____ (specify)

Organization Code 521.07 Applicable FY 2000

To be deposited in the Water Quality Management Fund.

Full Payment ✓ or Annual Increment ___

BURGETT GEOTHERMAL GREENHOUSES, INC.
P. O. BOX 1618
ROSWELL, NM 88201

1312

95-442/1122

12/28 1999

PAY TO THE ORDER OF NMED - WATER QUALITY MANAGEMENT $ 740.00

Seven Hundred forty & no DOLLARS

Security features are included. Details on back.

First National Bank
of Chaves County
1901 N. Main • P.O. Box 2087 • Roswell, NM 88202

FOR #50 fee + #690 Discharge Plan Renewal flat fee GW-41

[signature]

MP

⑈001342⑈ ⑆112204221⑆ 01 65382 0901

©CLARKE AMERICAN BA
GUARDIAN ® SAFETY

New Mexico Environment Department Revenue Transmittal — Revised 3/19/97

		Description	Fund	CES	DFA Org.	DFA Acct.	ED Org.	ED Acct.	Amount	
	1	CY Reimbursement Project _____ Tax	064	01						1
	2	Gross Receipt Tax	064	01		2329	900000	2329134		2
	3	Air Quality Title V	092	13		1690	900000	4169134		3
	4	PRP Prepayments	248	14		9690	900000	4969014		4
	5	Climax Chemical Co.	248	14		9690	900000	4969015		5
	6	Circle K Reimbursements	248	14		9690	900000	4969248		6
	7	Hazardous Waste Permits	339	27		1690	900000	4169027		7
	8	Hazardous Waste Annual Generator Fees	339	27		1690	900000	4169339		8
	9	Water Quality - Drinking Water	340	28		1690	900000	4169028		9
	10	1 Water Quality - Oil Conservation Division	341	29		2329	900000	2329029	740.00	10
	11	Water Quality - GW Discharge Permit	341	29		1690	900000	4169029		11
	12	Air Quality Permits	631	31		1690	900000	4169031		12
	13	Payments under Protest	651	33		2919	900000	2919033		13
*	14	Xerox Copies	652	34		2349	900000	2349001		14
	15	Ground Water Penalties	652	34		2349	900000	2349002		15
	16	Witness Fees	652	34		2349	900000	2349003		16
	17	Air Quality Penalities	652	34		2349	900000	2349004		17
	18	OSHA Penalties	652	34		2349	900000	2349005		18
	19	Prior Year Reimbursement	652	34		2349	900000	2349006		19
	20	Surface Water Quality Certification	652	34		2349	900000	2349009		20
	21	Jury Duty	652	34		2349	900000	2349012		21
	22	CY Reimbursements (i.e.: telephone)	652	34		2349	900000	2349014		22
*	23	UST Owners List	783	24		9690	900000	4969201		23
*	24	Hazardous Waste Notifiers List	783	24		9690	900000	4969202		24
*	25	UST Maps	783	24		9690	900000	4969203		25
*	26	UST Owners Update	783	24		9690	900000	4969205		26
*	28	Hazardous Waste Regulations	783	24		9690	900000	4969207		28
*	29	Radiologic Tech. Regulations	783	24		9690	900000	4969208		29
*	30	Superfund CERCLIS List	783	24		9690	900000	4969211		30
*	31	Solid Waste Permits Fees	783	24		9690	900000	4969213		31
	32	Smoking School	783	24		9690	900000	4969214		32
*	33	SWQB - NPS Publications	783	24		9690	900000	4969222		33
*	34	Radiation Licensing Regulations	783	24		9690	900000	4969228		34
*	35	Sale of Equipment	783	24		9690	900000	4969301		35
*	36	Sale of Automobile	783	24		9690	900000	4969302		36
**	37	Lust Recoveries	783	24		9690	900000	4969614		37
**	38	Lust Prepayments	783	24		9690	900000	4969615		38
	39	Surface Water Publication	783	24		9690	900000	4969801		39
	40	Exxon Reese Drive Ruidoso - CAF	783	24		9690	900000	4969242		40
	41	Emerg. Hazardous Waste Penalties NOV	957	32		1640	900000	4164032		41
	42	Radiologic Tech. Certification	987	05		1690	900000	4169005		42
	44	UST Permit Fees	989	20		1690	900000	4169020		44
	45	UST Tank Installers Fees	989	20		1690	900000	4169021		45
	46	Food Permit Fees	991	26		1690	900000	4169026		46
	43	Other								43

* Gross Receipt Tax Required ** Site Name & Project Code Required TOTAL: 740.00

Contact Person: ROGER C. ANDERSON Phone #: 827-7155 Date: 1-5-2000

Received in ASD By: _____ Date: _____ RT #: _____ ST# _____

FSB025

BURGETT GEOTHERMAL GREENHOUSES, INC.
BOX 265-A
ANIMAS, NM 88020
505/548-2353 505/548-2293 FAX

December 28, 1999

Wayne Price, Pet. Engr. Spec.
New Mexico Energy, Minerals & Natural Resources Department
Oil Conservation Division
2040 South Pacheco Street
Santa Fe, NM 87504

Re: Discharge Plan GW-41
Burgett Greenhouses
Hidalgo County, New Mexico

Dear Mr. Price:

Enclosed please find the renewal form and payment for the above Discharge Plan. It was very nice speaking to you and I will follow up in the next few month regarding the discharge for agriculture purposes we discussed.

Sincerely,

Betty D. Beagles
Corporate Secretary

P. O. Box 1980
Hobbs, NM 88241-1980
District II - (505) 748-1283
811 S. First
Artesia, NM 88210
District III - (505) 334-6178
1000 Rio Brazos Road
Aztec, NM 87410
District IV - (505) 827-7131

NEW MEXICO
Energy Minerals and Natural Resources Department
Oil Conservation Division
2040 South Pacheco Street
Santa Fe, New Mexico 87505
(505) 827-7131

Revised 12/1

Submit Origi
Plus 1 Cop
to Santa
1 Copy to appropri
District Of

DISCHARGE PLAN APPLICATION FOR SERVICE COMPANIES, GAS PLANTS, REFINERIES, COMPRESSOR, AND CRUDE OIL PUMP STATIONS

(Refer to the OCD Guidelines for assistance in completing the application)

☐ New ☒ Renewal ☐ Modification

1. Type: Discharge Plan
2. Operator: Burgett Geothermal Greenhouses INC
   Address: Box 265-A, Animas, NM 88020
   Contact Person: Dale Burgett Phone: 505/548-2353
3. Location: E/2 of SW /4 Section 7 Township 25 S Range 19 W
   Submit large scale topographic map showing exact location. (On File)
4. Attach the name, telephone number and address of the landowner of the facility site. (On File)
5. Attach the description of the facility with a diagram indicating location of fences, pits, dikes and tanks on the facility. (On File)
6. Attach a description of all materials stored or used at the facility. (On file)
7. Attach a description of present sources of effluent and waste solids. Average quality and daily volume of waste water must be included. (On file)
8. Attach a description of current liquid and solid waste collection/treatment/disposal procedures. (On file)
9. Attach a description of proposed modifications to existing collection/treatment/disposal systems. (On file)
10. Attach a routine inspection and maintenance plan to ensure permit compliance. (On file)
11. Attach a contingency plan for reporting and clean-up of spills or releases. (On file)
12. Attach geological/hydrological information for the facility. Depth to and quality of ground water must be included. (On file)
13. Attach a facility closure plan, and other information as is necessary to demonstrate compliance with any other OCD rules, regulations and/or orders. (On file)
14. CERTIFICATION

I herby certify that the information submitted with this application is true and correct to the best of my knowledge and belief.

NAME: Dale Burgett Title: President

Signature: Dale Burgett Date: 12/27/99

ACKNOWLEDGEMENT OF RECEIPT OF CHECK/CASH

I hereby acknowledge receipt of check No. 9234 dated 11/27/93,

or cash received on 12/6/93 in the amount of $ 690.00

from Burgett Geothermal Greenhouses, Inc

for Burgett Geothermal Greenhouses (Facility Name) GW-41 (DP No.)

Submitted by: ______ Date: ______

Submitted to ASD by: Kathy Brown Date: 12/6/93

Received in ASD by: [signature] Date: 12-6-93

Filing Fee ___ New Facility ___ Renewal X

Modification ___ Other ______ (specify)

Organization Code 521.07 Applicable FY 94

To be deposited in the Water Quality Management Fund.

Full Payment X or Annual Increment ___

BURGETT GEOTHERMAL GREENHOUSES, INC.
HC 65 BOX 265-A 505/548-2353
ANIMAS, NM 88020

9234

95-82/1122

11/27 1993

PAY TO THE ORDER OF NMED-WATER QUALITY MANAGEMENT $ 690.00

Six hundred ~~six~~ NINTY + NO/100 DOLLARS

Western Bank P.O. BOX 490 LORDSBURG, NEW MEXICO 88045

FOR Discharge Plan Fee GW-41 [signature]

⑈009234⑈ ⑆112200824⑆ 05 313 9⑈

STATE OF NEW MEXICO
ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT
OIL CONSERVATION DIVISION

BRUCE KING
GOVERNOR

ANITA LOCKWOOD
CABINET SECRETARY

POST OFFICE BOX 2088
STATE LAND OFFICE BUILDING
SANTA FE, NEW MEXICO 87504
(505) 827-5800

November 16, 1993

CERTIFIED MAIL
RETURN RECEIPT NO. P-667-241-147

Ms. Betty D. Beagles, Director
Burgett Geothemal Greenhouses, Inc.
Box 265-A
Animas, New Mexico 88020

RE: DISCHARGE PLAN GW-41 Approval
BURGETT GEOTHERMAL GREENHOUSES, INC.
HIDALGO COUNTY, NEW MEXICO

Dear Ms. Beagles:

The **discharge plan renewal GW-41** for Burgett Geothermal Greenhouses, Inc., located in the E/2, SW/4, Section 7, Township 25 South, Range 19 West, NMPM, Hidalgo County, New Mexico, **is hereby approved** under the conditions contained in the enclosed attachment. The discharge plan consists of the original discharge plan as approved April 16 1987, and the renewal application dated October 1, 1993.

The discharge plan was submitted pursuant to Section 3-106 of the New Mexico Water Quality Control Commission Regulations (WQCC). It is approved pursuant to Section 3-109.A. Please note Sections 3-109.E and 3-109.F which provide for possible future amendments or modifications of the plan. Please be advised that the approval of this plan does not relieve you of liability should your operation result in actual pollution of surface or ground waters or the environment which may be actionable under other laws and/or regulations. In addition, the OCD approval does not relieve you of liability for compliance with any other laws and/or regulations.

Please be advised that all exposed pits, including lined pits and open top tanks (tanks exceeding 16 feet in diameter), shall be screened, netted, or otherwise rendered nonhazardous to wildlife including migratory birds.

Please note that Section 3-104 of the regulations requires that "When a plan has been approved, discharges must be consistent with the terms and conditions of the plan." Pursuant to Section 3-107.C you are required to notify the Director of any facility expansion, production increase, or process modification that would result in any change in the discharge of water quality or volume.

Pursuant to Section 3-109.G.4, this plan approval is for a period of five (5) years. This approval will expire November 16, 1998, and you should submit an application for renewal in ample time before this date. If the discharge plan is not renewed prior to November 16, 1998, then all discharges will cease.

The discharge plan application for the Burgett Geothermal Greenhouses is subject to the WQCC Regulation 3-114 discharge plan fee. Every billable facility submitting a discharge plan renewal will be assessed a fee equal to the filing fee of fifty (50) dollars plus one-half of the flat fee of six-hundred and ninety (690) dollars for geothermal wells.

The OCD has received your $50 filing fee. The flat fee for an approved discharge plan may be paid in a single payment due at the time of approval, or in equal annual installments over the duration of the discharge plan, with the first payment due upon receipt of this approval.

Please make all checks out to: **NMED - Water Quality Management** and addressed to the OCD Santa Fe Office.

On behalf of the staff of the Oil Conservation Division, I wish to thank you and your staff for your cooperation during this discharge plan review.

Sincerely,

for William J. LeMay

William J. LeMay
Director

WJL/kmb

Attachment

xc: Roy Johnson, OCD Santa Fe Office

ATTACHMENT TO DISCHARGE PLAN GW-41 APPROVAL
BURGETT GEOTHERMAL GREENHOUSES INC.
DISCHARGE PLAN REQUIREMENTS
(November 16, 1993)

1. Spills: All spills and/or leaks will be reported to the OCD pursuant to WQCC Rule 1-203 and OCD Rule 116.

2. Annual Reporting: The volume and quality of the water discharged onto the ground surface will be reported to the OCD annually. Analysis will be for major cations and anions.

3. Water Additives: The discharge water will not be treated with any additives or chemicals without prior OCD approval.

4. Discharge Control: The water will be discharged and controlled in such a manner that there is no erosion of soils or flooding of the discharge ditch and livestock pond.

CONDITIONS OF APPROVAL

File No.: A-36-AB-S-2
Applicant: Burgett Investment, Inc.

1. The total amount of water diverted from all sources combined shall not exceed 530.256 acre-feet per annum measured at the wells.

2. The total amount of water diverted from all sources combined shall be measured by totalizing water meters of a type approved by and installed in a manner and at a location acceptable to the State Engineer.

3. Records of the amount of water diverted during the preceding calendar month shall be submitted to the State Engineer, District 3 Supervisor, P.O. Box 844, Deming, New Mexico 88031, on or before the 30th day of the following month.

Date of Approval: February 11, 1987

S. E. Reynolds
State Engineer

By: Frank Craig
Frank Craig
Water Rights Division

CONDITIONS OF APPROVAL
File Nos. A-36-AB-S-7; A-36-AB-S-8
and A-36-AB-S-9

1. The total amount of water diverted from all sources combined shall not exceed 79.5 acre-feet per annum measured at the wells.

2. The total amount of water diverted from all sources combined shall be measured by totalizing meters of a type approved by and installed in a manner and at locations acceptable to the State Engineer.

3. Records of the amount of water diverted during the preceding calendar month shall be submitted to the State Engineer, District III Supervisor, P.O. Box 844, Deming, New Mexico 88031-0844, on or before the 30th day of the following month.

CONDITIONS OF APPROVAL
File Nos. A-36-AB-S-7; A-36-AB-S-8
and A-36-AB-S-9

1. The total amount of water diverted from all sources combined shall not exceed 79.5 acre-feet per annum measured at the wells.

2. The total amount of water diverted from all sources combined shall be measured by totalizing meters of a type approved by and installed in a manner and at locations acceptable to the State Engineer.

3. Records of the amount of water diverted during the preceding calendar month shall be submitted to the State Engineer, District III Supervisor, P.O. Box 844, Deming, New Mexico 88031-0844, on or before the 30th day of the following month.

NARRATIVE STATEMENT OF UTILIZATION

The enclosed drawings show the plan of operation of the Burgett Greenhouses utilizing seven completed greenhouses and two under construction with completion anticipated in November 1993.

The wells are indicated on the drawing, showing the geothermal and fresh water wells. There are five exploratory wells drilled by Mr. Burgett testing for geothermal wells. These are shown on the drawing as A, B, C, D, and E.

Wells B and C are used to heat six trailers during the winter that are used for living quarters for the operation employees who live on site. This water is continuously pumped from the two wells in to piping around the trailers and returned to the wells for the discharge. This makes it a continuous operation.

The residence of Mr. & Mrs. Burgett has an enclosed pool and it is hooked up to the geothermal system, but it is not used for heating of the house or the pool area at this time.

The residence of Mr. & Mrs. Malone does not use geothermal heating in their double wide mobile home.

There are only five geothermal wells being used in the operation of the greenhouses. They are as follows:

Well #2 heats Greenhouse #1,

Well #5 heats Greenhouse #2 and they discharge at the southwest corner of greenhouse #2 with the metering system and discharges to the west to the approximate NS1/4 line of Section 7 and flows north and is used as drinking water for livestock.

Wells #8 and #10 heats Greenhouses #3, #4, and #5.

Well #27 heats Greenhouses #6, #7, #8, and #9. These three wells discharge to the south into a 12" discharge line that is metered at the SW corner of Greenhouse #3, and then flows westerly into a open ditch at the approximate NW1/4 line of section 7 and flows north and is used for drinking water for livestock.

While some of these wells may be used as down hold heat exchangers, most of these wells are observation determining formation and hot water production.