

SEP 11 1997

STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES
BENEFICIAL USE FIELD REPORT

Department of Water Resources

RE Exam

A. GENERAL INFORMATION

Permit No. 29-7527

1. Owner: Walden Mountain Ext. Inc.

Phone No. 776-5504

Current Address: P.O. Box 127 Lava Hot Springs, ID 83246

2. Accompanied by: F. L. Duke Walden/owner

EXAM DATE: 6-29-2000
17 SEPT 96

Address: 255 Portnuf Lava Hot Springs, ID ⁸³²⁴⁶ _{Riverside Inn}

Phone No. 776-5504

Relationship to Permit Holder: Assistant Engineer

3. Source: Groundwater tributary to —

B. OVERLAP REVIEW

1. Other water rights with the same place of use: _____

2. Other water rights with the same point of diversion: _____

C. DIVERSION AND DELIVERY SYSTEM

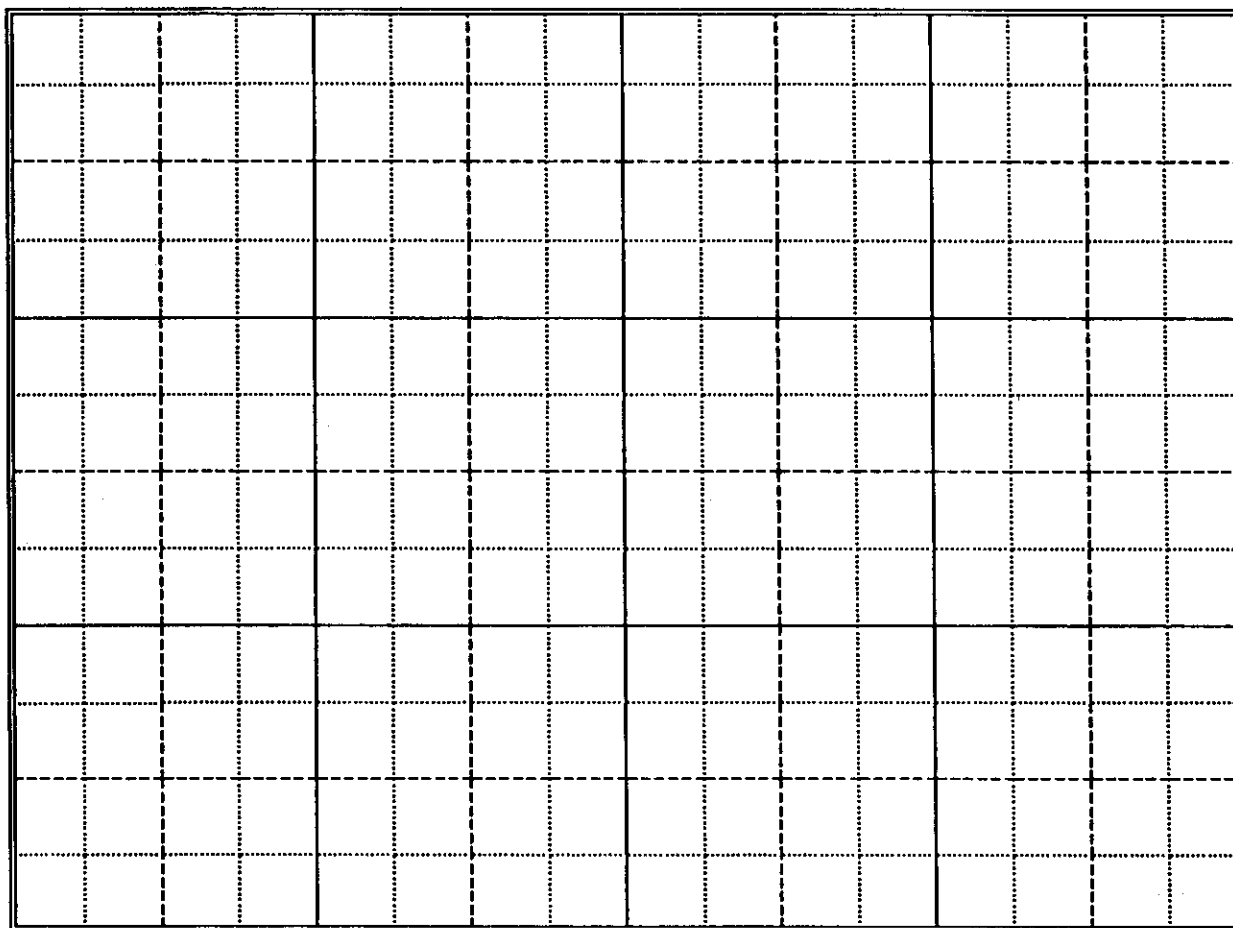
1. Point(s) of Diversion:

[illegible]

2. Place(s) of Use: South side of Portneuf River Indicate Method of Determination USGS Q_uAs
On site FSAAerial

[illegible]

3. **Delivery System Diagram:** Include all major components and distances between components. Indicate weir size/ditch size/pipe I.d. as applicable.



Scale: 1" = _____

____ Copy of USGS Quadrangle Attached Showing location(s) of point(s) of diversion and place(s) of use (required).

____ Aerial Photo Attached (required for irrigation of 10+ acres)

____ Photo of Diversion and System Attached

4.

Well or Diversion Identification No.*	Motor Make	Hp	Motor Serial No.	Pump Make	^{model} Pump Serial No. or Discharge Size
Main Pump	—	3	—	Leeson Pump	U6K940029

*Code to correspond with No. on map and aerial photo

D. FLOW MEASUREMENTS

1.

Measurement Equipment	Type	Make	Model No.	Serial No.	Size	Calib. Date
Pressure Gauge					0-60	

2. Measurements: Operating PSI = 16 PSI

Theoretical = 0.33 CFS

Pump #1 3/4 HP Serial No. 169622509

Pump #4 Serial No. 16962217

Pump #2 3/4 HP Serial No. 1696224E19

Pump #5 Serial No. 169622E19

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Pump #2 3/4 HP Serial No. 1696224E19 Pump #5 Serial No. 169622E19
Pump #3 3/4 HP Serial No. 169622372 Pump #6 Serial No. 1696220E19

Bell & Gossett ITT Pumps

E. NARRATIVE/REMARKS/COMMENTS

Note: Applicant runs hotel, spas and pool on a combination of city water and permit groundwater source. Hotel has 16 rooms, plus 1 apartment. There are 3 indoor hot tubs and 1 outdoor hot tub, plus 1, 20 foot pool.

* City water used for potable uses.

* Groundwater source - all other uses.

→ Groundwater system ~~is~~ at 122°F, from well goes to heat exchanger, then to 3 indoor hot tubs, then to outside hot tub and pool. After this water is discharged back into Portneuf River.

→ Groundwater and city water are sent through a system of 6, 3/4 HP pumps that serve hotel and apartment for heating purposes.

for Q Theoretical: HP = 3

PSI = 16

Eff. = 70 %

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for Q Theoretical: $\text{HP} = 3$

$\text{PSI} = 16$

$\text{Eff.} = 70\%$

Have conditions of permit approval been met? ☒ yes ☐ no

F. FLOW CALCULATIONS

☒ Additional Computation Sheets Attached

Measured Method:

$$Q_{THEOR.} = \frac{3.14 R^2 (8.814) \cdot 7 \text{ eff}}{20' \text{ lift} + (16 \text{ PSI} \times 2.308)} = 0.33 \text{ cfs} \quad (KCU)$$

$$Q_{MEASURED} = 0.07 \text{ cfs}$$

G. VOLUME CALCULATIONS

1. Volume Calculations for Irrigation:

$$V_{I.R.} = (\text{Acres Irrigated}) \times (\text{Irrigation Requirement}) = \underline{\hspace{2cm}}$$

$$V_{D.R.} = [\text{Diversion Rate (cfs)}] \times (\text{Days in Irrigation Season}) \times 1.9835 = \underline{\hspace{2cm}}$$

$$V = \text{Smaller of } V_{I.R.} \text{ and } V_{D.R.} = \underline{\hspace{2cm}}$$

2. Volume Calculations for Other Uses:

owner says pump runs 24 hrs / day / 365 / days / year

$$0.07 \text{ cfs} \times 365 \text{ d} \times 1.9835 = 238.9 \text{ afa} \quad (KCU)$$

50.7 afa Non-consuming as it flows back into Portneuf River

H. RECOMMENDATIONS

1. Recommended Amounts

Beneficial Use	Period of Use		Rate of Diversion	Annual Volume
	From	To	Q (cfs)	V (afa)
Commercial	1-1	12-31	0.33 (KCU)	238.9 (KCU)
			0.07 cfs	50.7 afa
Totals:			0.33 cfs (KCU)	238.9 afa (KCU)
			0.07 cfs	50.7 afa

2. Recommended Amendments

☐ Change P.D. as reflected above ☐ Add P.D. as reflected above ☒ None
☐ Change P.U. as reflected above ☐ Add P.U. as reflected above ☐ Other

I. AUTHENTICATION

Field Examiner's Name Scott C. Miller Date 6-29-2000

Reviewer _____ Date _____

SEAL

LOG NAME: 29-7527
START: 06-29-2000 12:25
END: 06-29-2000 12:35
INTERVAL:00:01:00

06-29-2000 12:25:00
+5.586E+0 ft/s
+2.983E+1 gal/m
+6.647E-2 ft3/s
+TOTAL 0000000 gal
-TOTAL 0000000 gal
NORMAL

06-29-2000 12:26:00
+5.558E+0 ft/s
+2.968E+1 gal/m
+6.613E-2 ft3/s
+TOTAL 0000000 gal
-TOTAL 0000000 gal
NORMAL

06-29-2000 12:27:00
+5.560E+0 ft/s
+2.969E+1 gal/m
+6.616E-2 ft3/s
+TOTAL 0000000 gal
-TOTAL 0000000 gal
NORMAL

06-29-2000 12:28:00
+5.653E+0 ft/s
+3.018E+1 gal/m
+6.726E-2 ft3/s
+TOTAL 0000000 gal
-TOTAL 0000000 gal
NORMAL

06-29-2000 12:29:00
+5.694E+0 ft/s
+3.041E+1 gal/m
+6.775E-2 ft3/s
+TOTAL 0000000 gal
-TOTAL 0000000 gal
NORMAL

06-29-2000 12:30:00
+5.542E+0 ft/s
+2.959E+1 gal/m
+6.594E-2 ft3/s
+TOTAL 0000000 gal
-TOTAL 0000000 gal
NORMAL

06-29-2000 12:31:00
+5.484E+0 ft/s
+2.928E+1 gal/m
+6.525E-2 ft3/s
+TOTAL 0000000 gal
-TOTAL 0000000 gal
NORMAL

06-29-2000 12:32:00
+5.478E+0 ft/s
+2.925E+1 gal/m
+6.518E-2 ft3/s
+TOTAL 0000000 gal
-TOTAL 0000000 gal
NORMAL

06-29-2000 12:33:00
+5.569E+0 ft/s
+2.974E+1 gal/m
+6.627E-2 ft3/s
+TOTAL 0000000 gal
-TOTAL 0000000 gal
NORMAL

06-29-2000 12:34:00
+5.594E+0 ft/s
+2.987E+1 gal/m
+6.656E-2 ft3/s
+TOTAL 0000000 gal
-TOTAL 0000000 gal
NORMAL

06-29-2000 12:35:00
+5.540E+0 ft/s
+2.958E+1 gal/m
+6.591E-2 ft3/s
+TOTAL 0000000 gal
-TOTAL 0000000 gal
NORMAL

Maximum Flow Rate = 0.07 cfs

Walden Mountain Ent. Inc./ Duke Walden

Re-Measurement

29-07527

RECEIVED

DEC 01 1997

Department of Water Resources
Eastern Region

MEMORANDUM

DATE: November 26, 1997

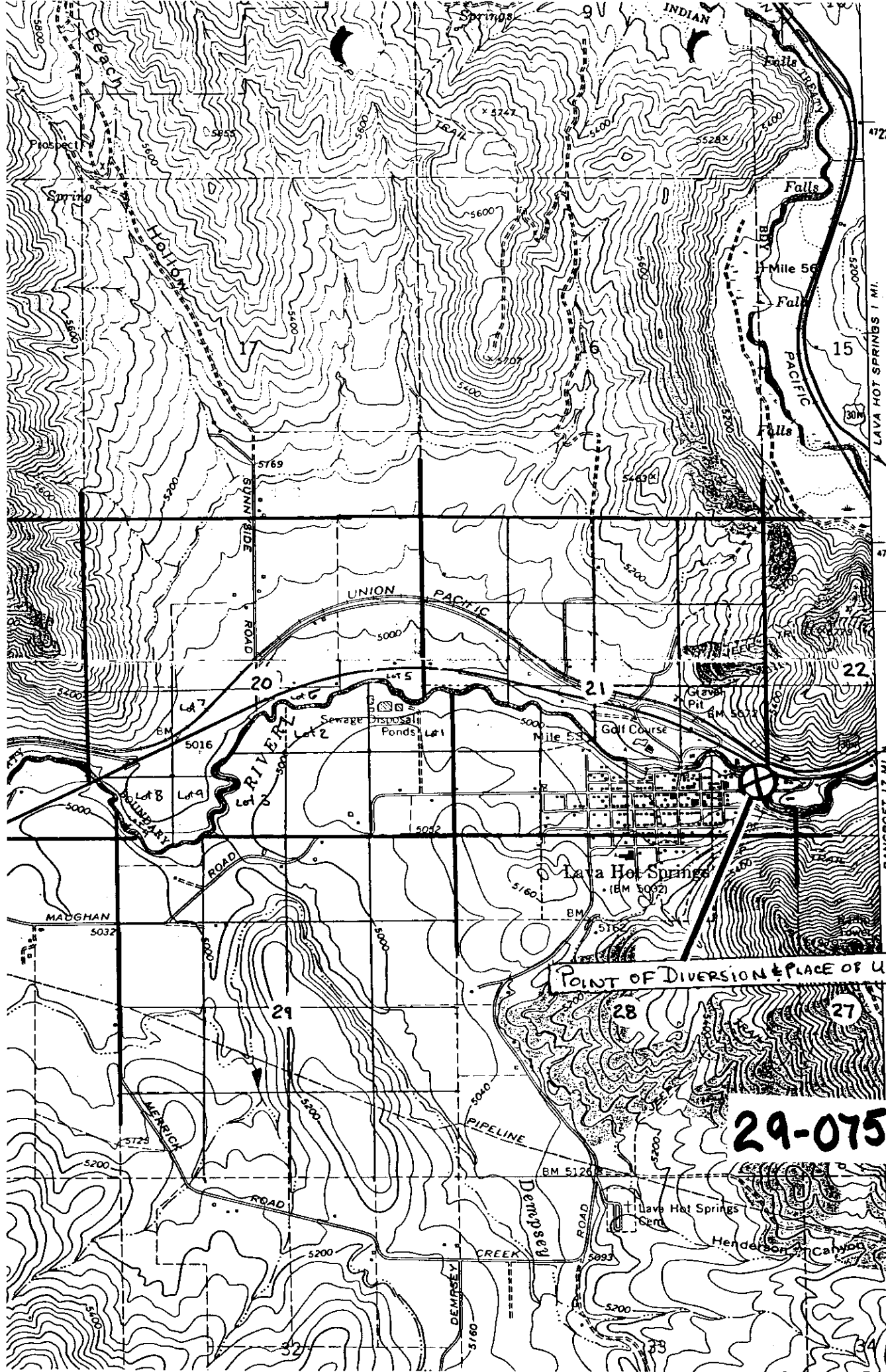
TO: Skip Jones, Eastern Region

FROM: Shelley W. Keen *SWK*

RE: Need for re-examination

As you and I discussed this morning, I am returning the field report for permit 29-07527 so that you can obtain a measurement of the diversion rate. To explain the issue, I have attached Norm's note to me. Let me know if you have any questions.

*Shelley —
This hot water resource is
so valuable to the competition
for it so intense that our
licensing needs extra care.
The photo's certainly do not
look like 0.33 cfs. suggest
another look. Theoretical may
be overlooking something. we*



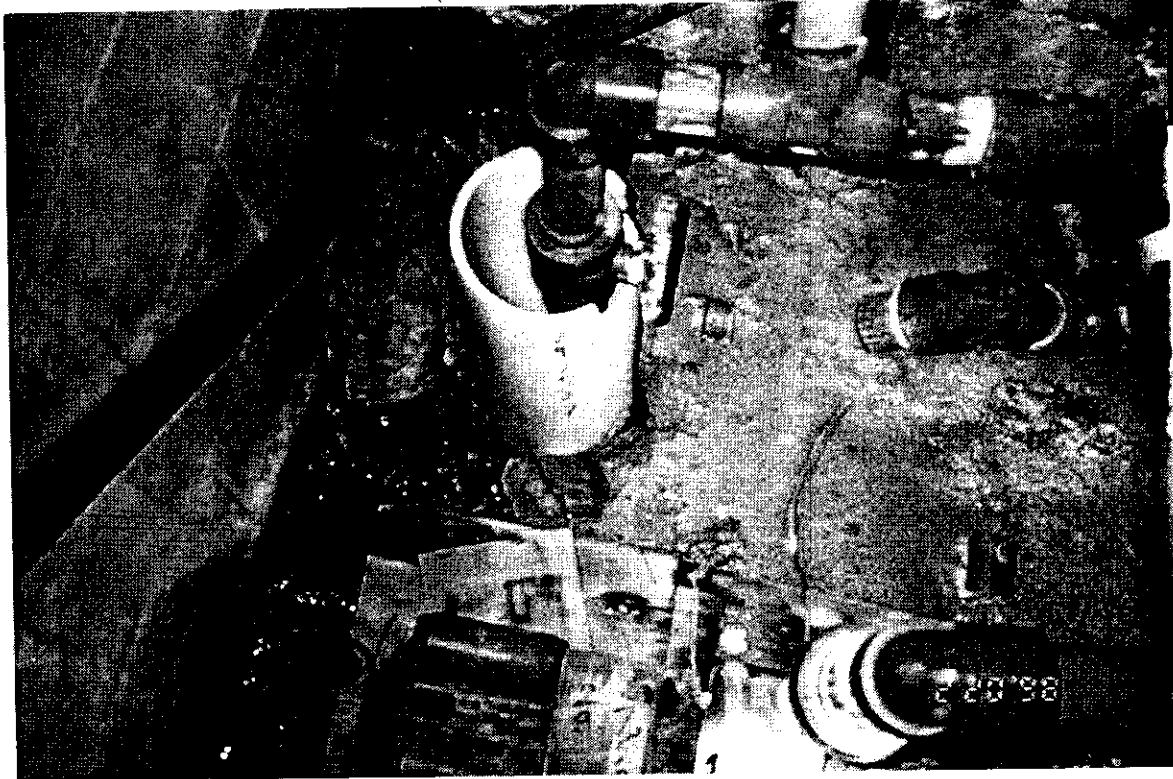
R38E

T9S

29-07527

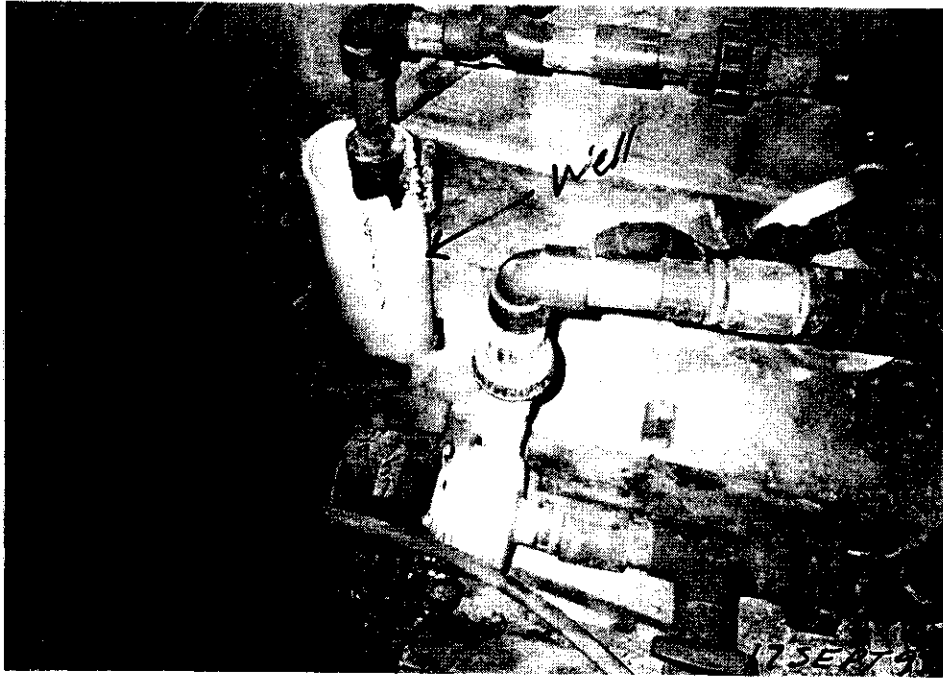
3400
FEET

Well

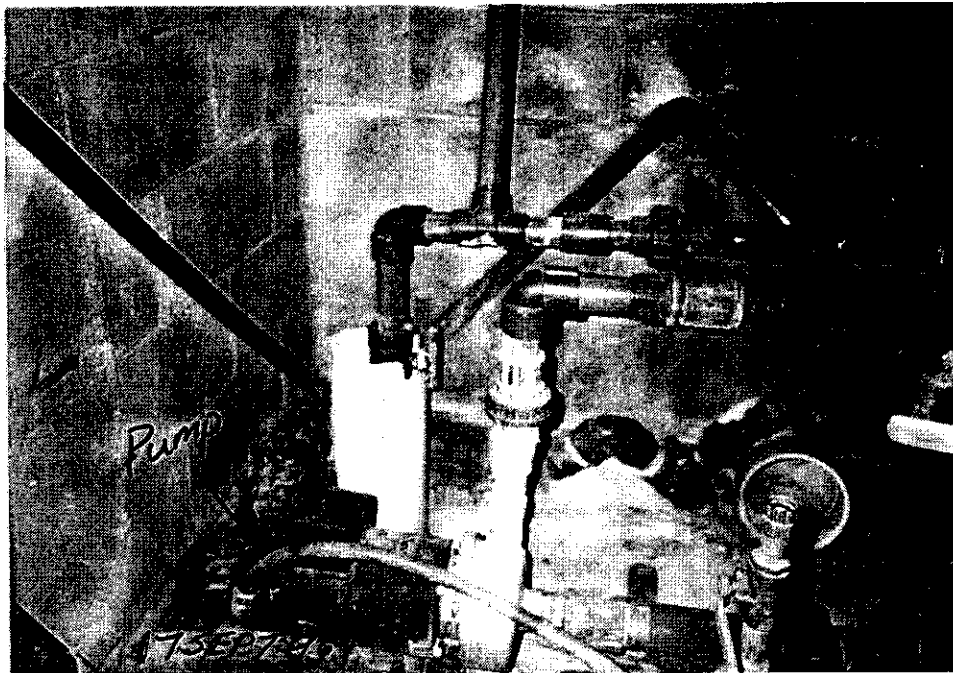


29-
07527

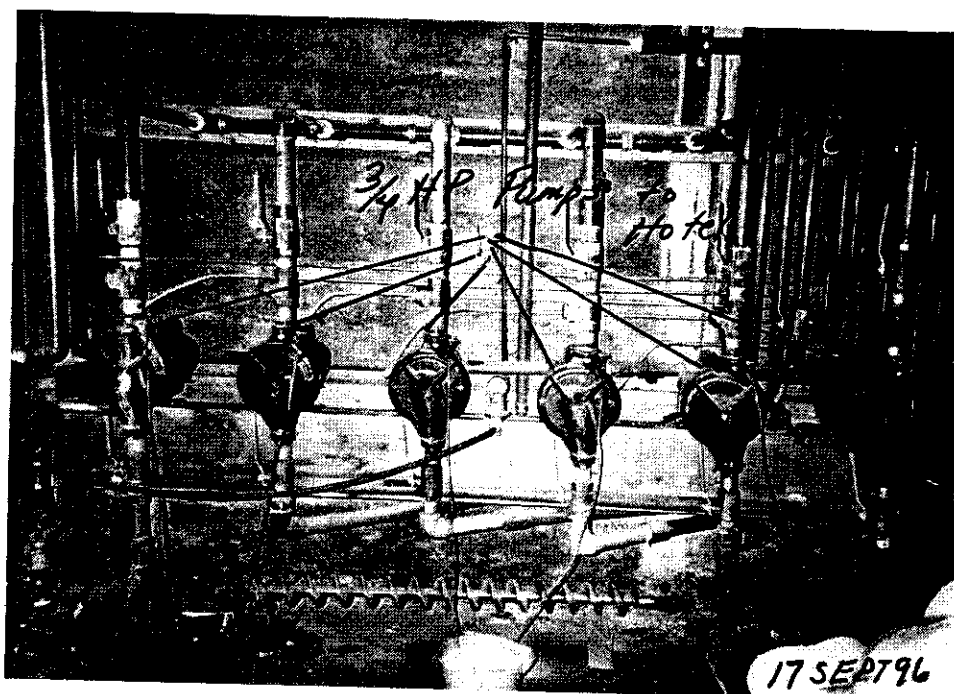
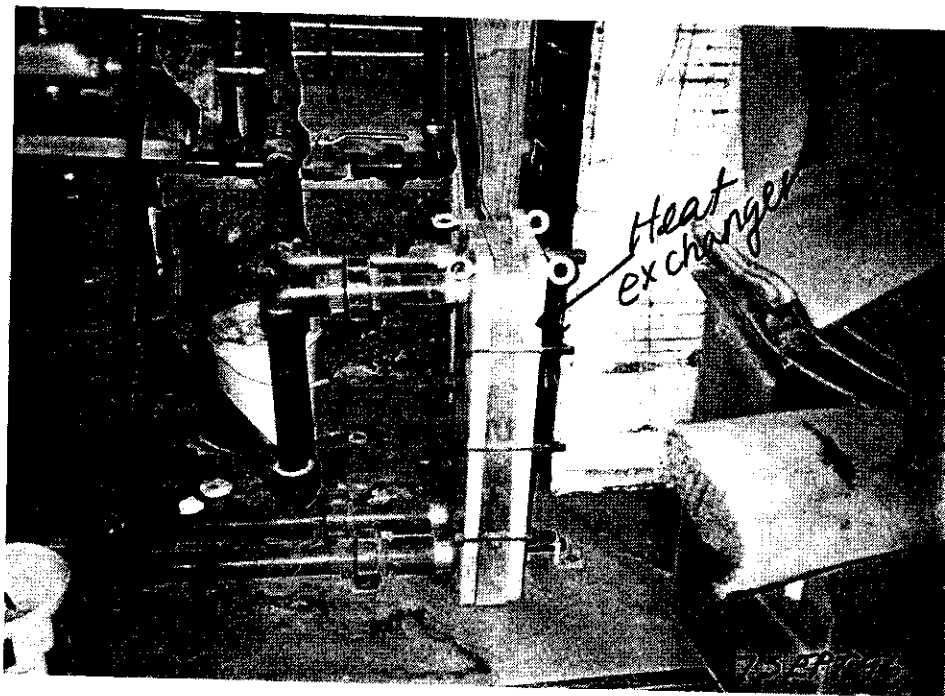
Point of Diversion



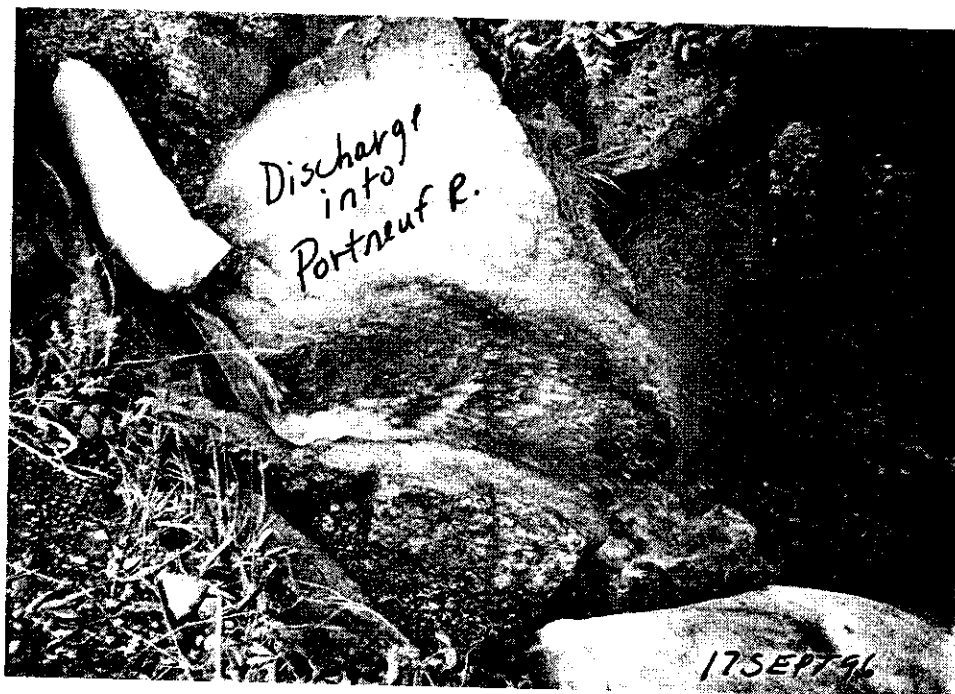
Examiner: Steven Garrison



29-7527



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