

# Tri-County Health Department

Serving Adams, Arapahoe and Douglas Counties

Fiscal Control No. **5403**

*7*  
*1110*

## USE PERMIT

For Existing Domestic and Non-Municipal  
Sewage Disposal Systems

This permit shall remain valid until the property is sold, otherwise altered from stated use, or until the sewage disposal system fails to operate in an approved manner.

Issued to Bill Kellogg

Address 3689 N. Hopi Dr. Sedalia, CO

Location of System:

Street Address same as above

Legal Address Lot 95 Indian Creek Ranch

Date 6-24-87 Health Officer John Kleckner

The sewage disposal system, at the time of inspection, appeared to be in working order. The Department assumes no responsibility for the continued satisfactory operation of the sewage disposal system. If, at any time, the system malfunctions, action will be taken against the owner of record pursuant to the regulations of the Department and the statutes of the State of Colorado.

Permit Fee \$ 75.00 Check No. 1743 M.O. \_\_\_\_\_ Cash \_\_\_\_\_ Received by rb Date 6-24-87

TRI-COUNTY DISTRICT HEALTH DEPARTMENT  
ENVIRONMENTAL HEALTH DIVISION

ADAMS CITY  
4301 East 72nd Ave.  
288-6816

ENGLEWOOD  
4857 So. Broadway  
761-1340

AURORA  
1633 Florence St.  
366-1561

DOUGLAS COUNTY  
4857 So. Broadway  
761-1340

3689 N. Hopi Dr.

APPLICATION FOR PERMIT TO CONSTRUCT, REMODEL, OR INSTALL A WASTE DISPOSAL SYSTEM

Address (Legal Description) INDIAN CREEK RANCH FILING #2 LOT #95  
Owner HARRISON CONST. Co Address 6300 E. EVANS Telephone No. 757-8537  
Installed by CANYON CONST. Co Address 6050 GREENWOOD Telephone No. 624-4000

GENERAL INFORMATION

Type of Waste System: Residence L Commercial \_\_\_\_\_ Other \_\_\_\_\_  
Size of Lot 5 ACRES +  
Percolation Rate #1 20 #2 20 #3 45 #4 16 #5 35 #6 20  
Average 20 minutes per inch. Depth of 1st Ground Water 70'  
Soil Profile 1' to 10' SAND ~~CLAY~~ CLAY  
Source of Domestic Water: Public (name) THUNDERBIRD WATER DIST  
Private well L Depth 1200 Distance from Sewage System 179'  
Estimated Daily Sewage Flow 600 G.P.D.

RESIDENCE

Number of Bedrooms 3 Tubs or Showers 2 Toilets 2 Lavatory 2 Sinks 1

COMMERCIAL or Other: Attach estimated daily sewage flow data.  
Depth of Building Drain \_\_\_\_\_

CONSTRUCTION INFORMATION

Septic Tank Capacity 1250 gallons Material CONC  
Inlet 4" Outlet 4"  
Soil Absorbtion System Trench \_\_\_\_\_ Bed L Pit \_\_\_\_\_  
Required Absorbtion Area in square feet 1250 Filler Material Size 1/2" Depth 8"  
Distribution Line Material PERF. PUC. Diameter 4"

For other type disposal system attach complete design and specification data.

Owner or Agent J.W. Protzman Date Feb. 18-72

\_\_\_\_\_ Tri-County District H.D. \_\_\_\_\_ Date \_\_\_\_\_

\_\_\_\_\_ Water Pollution Control Comm. \_\_\_\_\_ Date \_\_\_\_\_

\_\_\_\_\_ Local Building & Zoning \_\_\_\_\_ Date \_\_\_\_\_

\_\_\_\_\_ Public Water & Sewer District \_\_\_\_\_ Date \_\_\_\_\_

Permit Issued Roy Johnson (health officer) Feb. 18, 1972 Date \_\_\_\_\_

Supporting data (attached) \_\_\_\_\_ Soil Profile \_\_\_\_\_

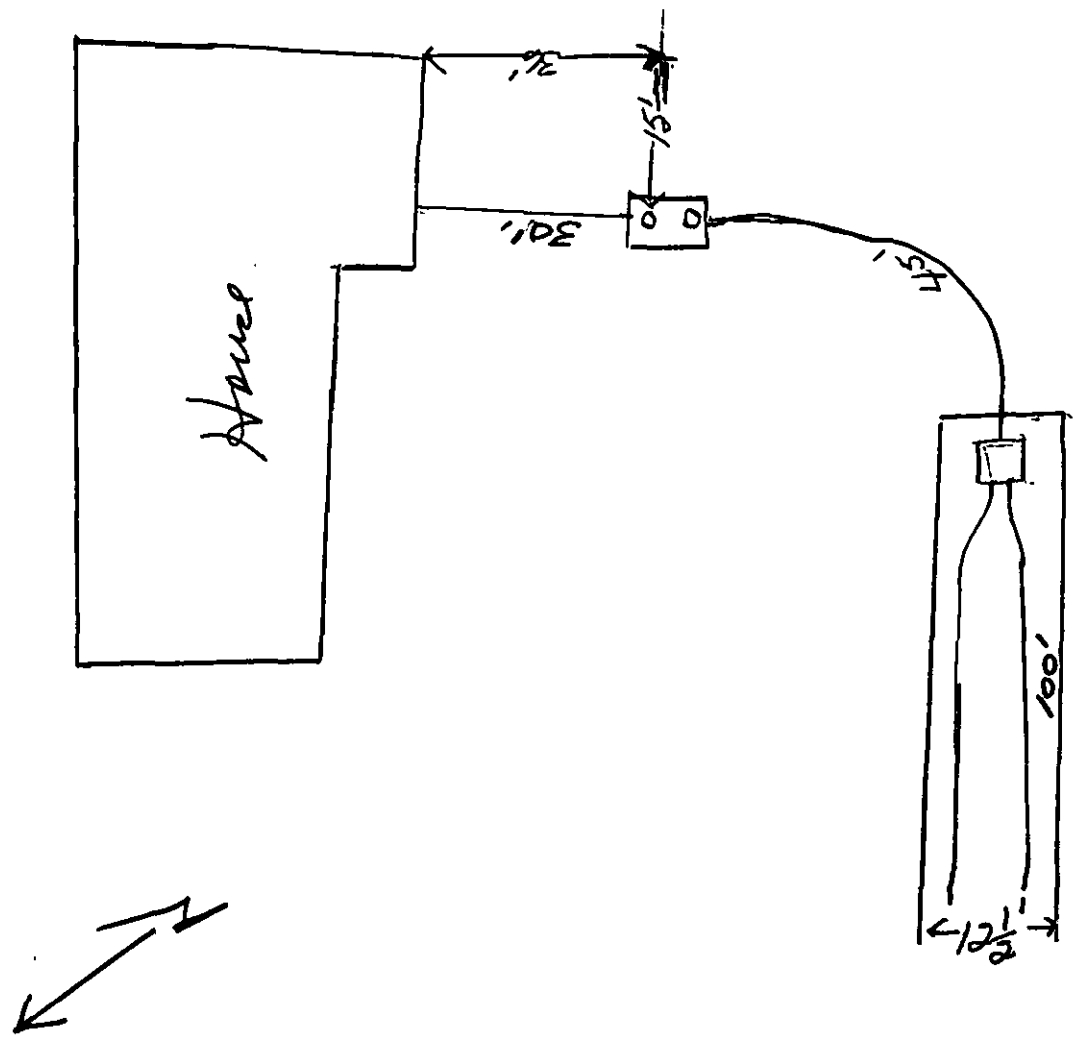
Plot Plans \_\_\_\_\_ Special Design Data \_\_\_\_\_

Percolation Data \_\_\_\_\_

The construction of this nonmunicipal waste disposal system will comply with TCDHD Reg. #2/69 and all other applicable laws, ordinances, standards or resolutions \_\_\_\_\_ Owner.

System inspected and approved (date) 8-22-72 Sanitarian R.V. Stuber

Permit File No. 1140 Fiscal Control No. 2135



If a bacteriological water test is required, please include a check payable to COLORADO DEPARTMENT OF HEALTH for \$6.00.

5403

TRI-COUNTY HEALTH DEPARTMENT  
ENVIRONMENTAL HEALTH SERVICES

APPLICATION FOR USE PERMIT  
FOR EXISTING DOMESTIC AND NON-MUNICIPAL SEWAGE DISPOSAL SYSTEMS

ADAMS CITY  
4301 E. 72nd Ave.  
288-6816

AURORA  
15400 E. 14th Pl.  
341-9370

CASTLE ROCK  
355 S. Wilcox  
688-5145

ENGLEWOOD  
4857 S. Broadway  
761-1340

FORM MUST BE COMPLETED IN FULL.

1140

Name of Applicant Bill and Dorothy Kellogg Phone 688-4127

Mailing Address of Applicant 3689 N. Hopi Drive, Sedalia, CO 80135

Send Permit to: Name DCP Realty - Agent Will pick up

Address

Street Address & Complete Legal Description of Property for which Permit is being Requested  
(Attach legal if necessary) Lot 9.5, Indian Creek Ranch

3689 N. Hopi Dr.

PROVIDE MAP OR DIRECTIONS FOR LOCATING PROPERTY ON REVERSE SIDE OF THIS APPLICATION.

Source of Water: Private Well ( ) Public (Specify) \_\_\_\_\_

Name of Original Home Owner (if known) \_\_\_\_\_

Contractor who Installed System (if known) \_\_\_\_\_

A non-refundable fee of \$75.00 shall be payable when the application is made. The permit issued as a result of this application shall remain valid until the property is sold or otherwise altered from domestic use or until the sewage disposal system fails to operate in an approved manner.

\* \* \* \* \*

OWNER/AGENT CERTIFICATION

(I), LLOYD T. MORRIS Owner/agent of the dwelling at the location described in this application do hereby certify that the sewage disposal system has been in continuous use, operating satisfactorily, and without malfunction. The septic tank was pumped 6/18/87 (DATE)

REGULATIONS REQUIRE SEPTIC TANKS BE PUMPED EVERY FOUR (4) YEARS.

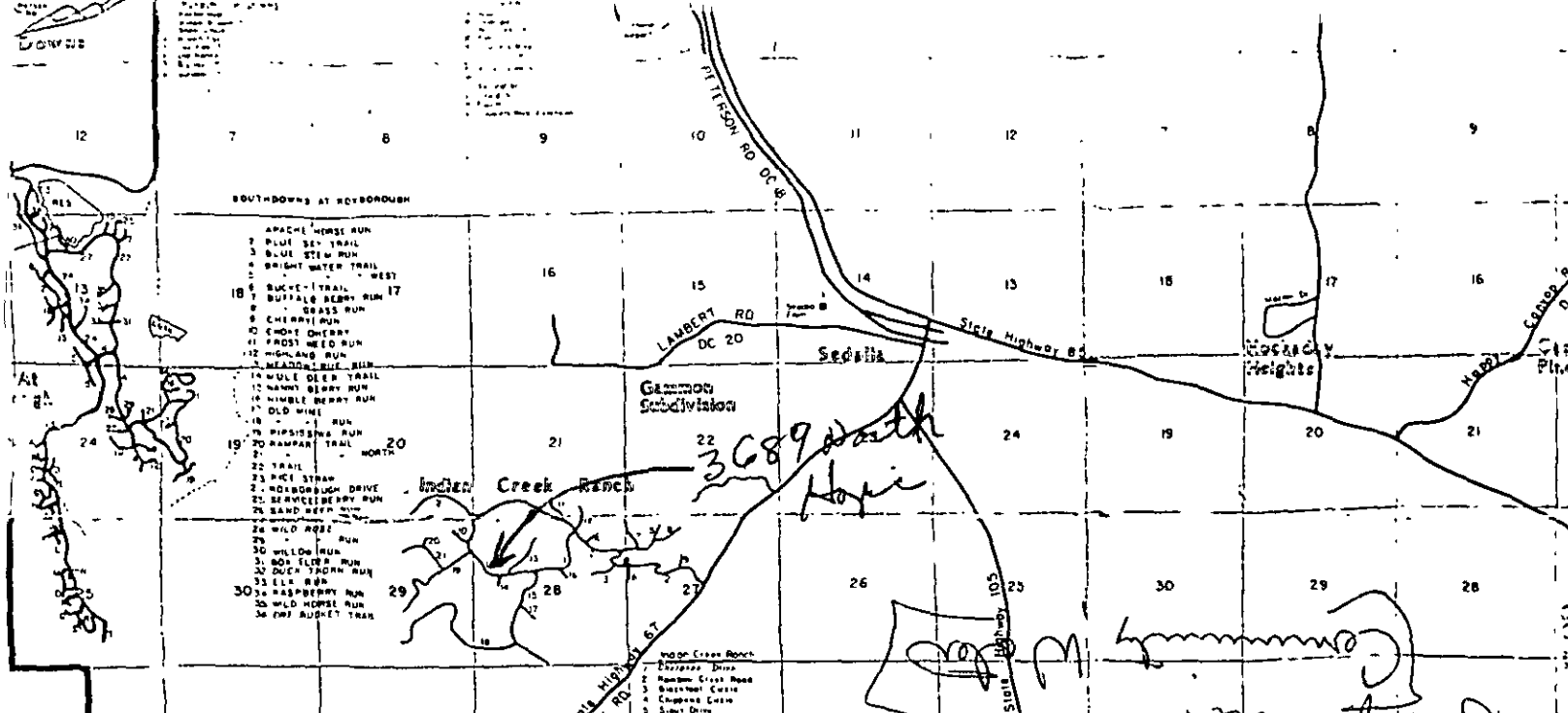
DATE 6/22/87 SIGNATURE Lloyd T. Morris

Inspection Date 6-26-87 \* \* \* \* \* Approved (✓) Denied ( )

Public Health Sanitarian John K. Beckner (over)

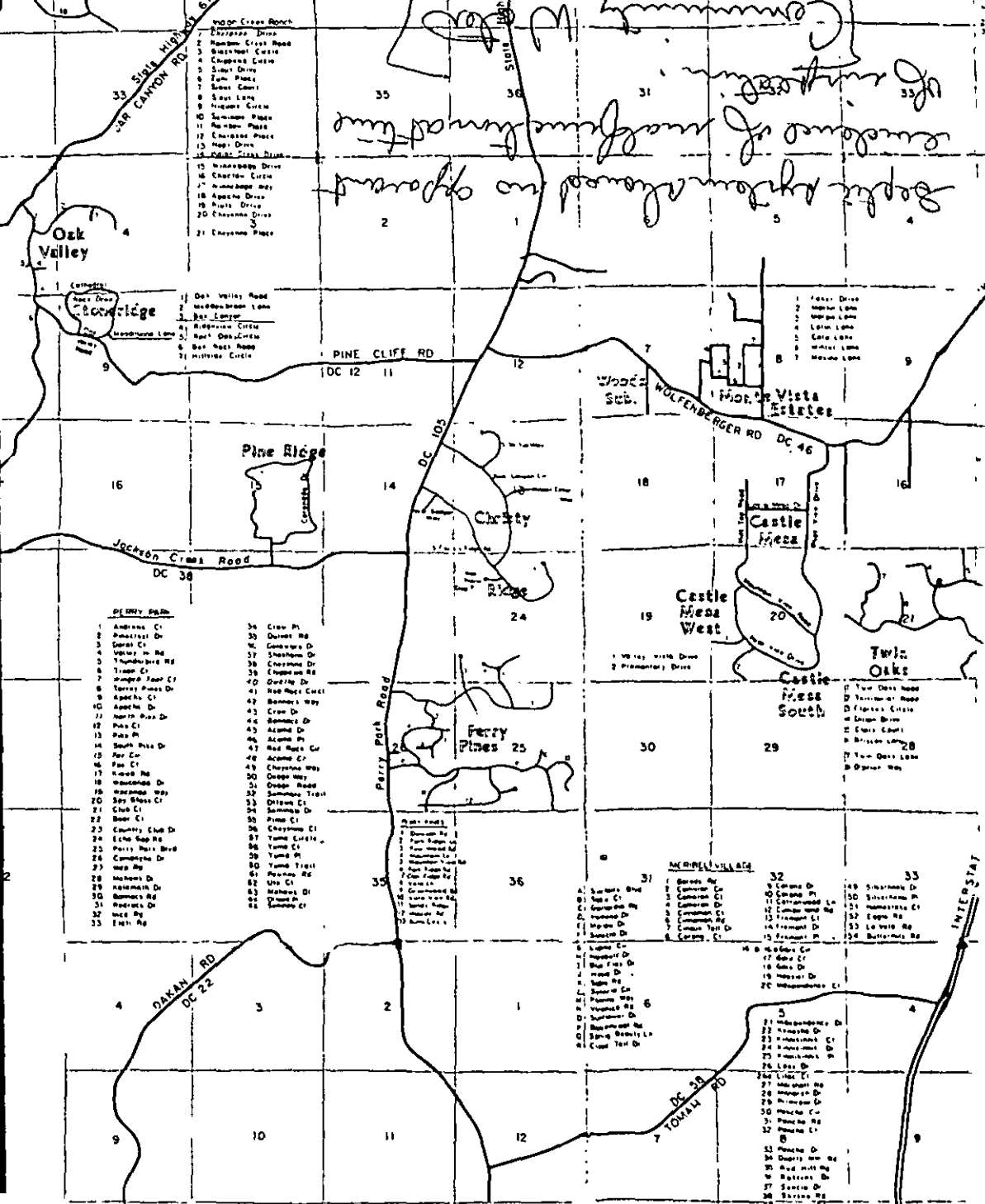
Permit Fee \$ 25.00 Check No. 1743 M.O. \_\_\_\_\_ Cash \_\_\_\_\_ Rec'd by AB  
Date Rec'd 6-22-87

letter & use permit misplaced. see back.

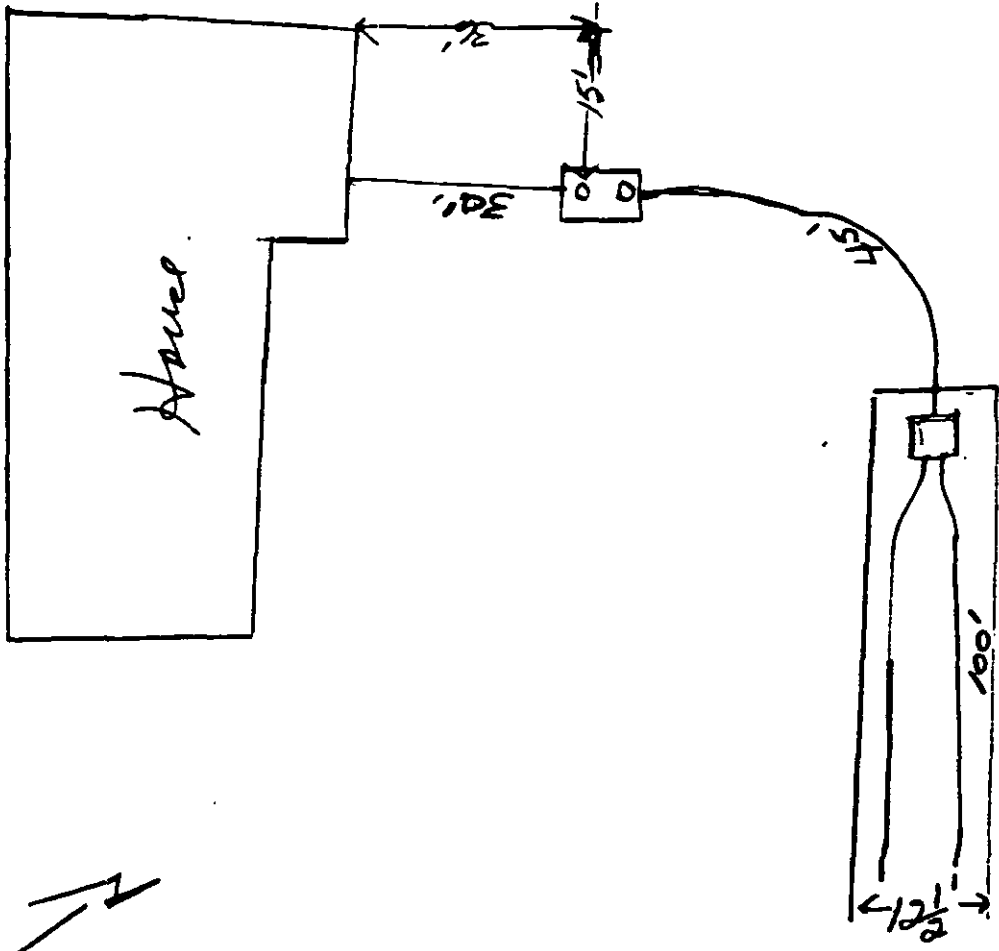


**VISIONS SET ON PORT COUNTY MAP**

MONTE VISTA ESTATES	J-14
MOUNTAIN RANCH	I-27
MOUNTAIN VIEW RANCH	AA-6
OAK HILLS	L-6
OAK VALLEY	D-13
PANORAMA	S-7
PARK MEADOWS	L-1
PARK RIDGE	O-3
PARKER EAST	V-8
PARKER HEIGHTS	S-5
PARKER HILL ESTATES	S-6
PARKER HIGHLANDS	X-10
PARKER NORTH	R-6
PARKER VIEW ESTATES	V-7
PARKER VILLAGE	R-5
PAWNEE HILLS	Y-15
PERRY PARK	F-21
PERRY PARK EAST	I-23
PERRY PINES	H-17
PINE CREEK EAST	X-17
PINE CREEK WEST	W-17
PINE CREST ESTATES	AA-20
PINE HILLS RANCH	T-7
PINE LANE	R-5
PINE PALM	U-6
PINE RIDGE	F-15
PINE RIDGE	BB-17
PINE VALLEY	S-6
PINERY CREEK RANCHES	R-1
PINERY VILLAGE	S-12
PLUM CREEK ACRES	B-3
PLUM VALLEY HEIGHTS	O-6
PONDEROSA EAST	W-4
PONDEROSA HILLS	S-5
PONDEROSA PARK ESTATES	I-14
PRAIRIE TRAIL RANCHES	T-10
RANDOM VALLEY	W-13
RICHLAWN HILLS	O-10
ROWLEY DOWNS	S-7
ROXBOROUGH DOWNS	A-6
RUSSELLVILLE	W-19
SADDLE ROCK RANCHES	T-1
SIERRA VISTA	R-4
SIERRA VISTA ESTATES	O-2
SINGING HILLS	W-11
SILVER HEIGHTS	M-11
SMITH'S SUBDIVISION	R-4
SMOKY HILL RANCHES	X-6
SOUTH DOWNS AT ROXBOROUGH	B-10
SOUTHERN ELIZABETH HILLS	Z-19
SOUTH RIDGE	
STABLEHOUSE SUB.	W-14
STACEY MOUNTAIN ESTATES	J-19
STAGECOACH ACRES	W-9
STONE RIDGE	E-14
STRUBY	C-1
SUNRISE ESTATES	X-17



*Handwritten notes:*  
 3689 North Hill  
 Sage system allowed no operation





Application Fee: \$150

**APPLICATION TO:**  
 INSTALL  REPAIR  EXPAND  
**AN INDIVIDUAL SEWAGE DISPOSAL SYSTEM**

To Be Completed By Applicant - Please Type or Print Clearly

Address/Legal Description of Property Served by Proposed System: 3689 N. Hopi Dr.  
Sedalia, CO 80135

City and Zip Code: \_\_\_\_\_

Property Owner <u>Patricia S. Lieblein</u>	Applicant _____
Address <u>3689 N. Hopi Dr</u>	Address <u>Same</u>
City <u>Sedalia</u> State <u>CO</u>	City _____ State _____
Zip <u>80135</u> Phone <u>(303) 660-0032</u>	Zip _____ Phone (____) _____

Installer <u>Jim Patterson</u>	Design Engineer _____
License # _____ Phone (____) _____	Job # _____ Phone (____) _____

**Proposed Facility:**

Facility Type:  Single Family Residence  Other \_\_\_\_\_ Lot Size \_\_\_\_\_

Source/Type of Water Supply:  On Site Well  Community  Other \_\_\_\_\_

If supplied by community water, give name of supplier: Thunderbird Water Dis.

**General Information:**

Number of bedrooms: 3 Basement:  Full  Walkout Basement Plumbed?  Yes  No

Are Additional Bedrooms Planned?  Yes  No Is this property within 400 feet of a sewer line? no

If so, will that sewage district provide service? N/A (attach letter from sewage district)

Is lot marked and are percolation holes staked? \_\_\_\_\_

I the undersigned hereby certify that all information and data provided is correct and true to the best of my knowledge. I agree that the construction of this individual sewage disposal system will comply with Tri-County Health Department's Regulation I-88 and all other applicable laws and regulations.

Patricia S. Lieblein \_\_\_\_\_ 8/19/93 \_\_\_\_\_

Applicant's Signature Date

- |  |   |   |   |   |
|--|---|---|---|---|
| <input type="checkbox"/> Commerce City<br>4301 E. 72nd Ave.<br>Commerce City, CO 80022<br>288-6816 | <input type="checkbox"/> Aurora<br>15400 E. 14th Pl.<br>Suite 309<br>Aurora, CO 80011<br>341-9370 | <input type="checkbox"/> Castle Rock<br>413 Wilcox St.<br>Castle Rock, CO 80104<br>688-5145 | <input type="checkbox"/> Englewood<br>4857 S. Broadway<br>Englewood, CO 80110<br>761-1340 | <input type="checkbox"/> Northglenn<br>10190 Bannock St.<br>Suite 100<br>Northglenn, CO 80221<br>452-9547 |
|--|---|---|---|---|

**For Department Use Only**  
**Design Installation Requirements**

All applicable design/installation requirements of Regulation 1-88 shall be complied with in the installation of this system

System designed for: \_\_\_\_\_ gallons per day and/or 5 bedrooms

Soils data: (See attached Percolation Test and Soil Data Form)

Average percolation rate: 100 (minutes per inch) Depth to groundwater: 710 FT

Depth to bedrock: 6 FT Ground slope: 10 % to NE

Type of disposal area proposed: Engineered - Bell - Patt

Minimum size tank: existing 1250 add 1000 gallons Minimum disposal area (bed): 6600 square feet

Engineer design required? yes Minimum disposal area (trench): \_\_\_\_\_ square feet

Maximum depth of disposal area: \_\_\_\_\_ (not to exceed depth of percolation test holes)

Minimum depth of installed rock: \_\_\_\_\_

Special Permit Conditions: Install system as per E.O. Churches  
Design Job No. 4239

Design engineer inspection of the completed system required? yes

Site approved by: J. Kleckner Date: 8-20-93

Application reviewed and approved by: J. Kleckner Date: 8-20-93

Site Visit Comments: \_\_\_\_\_

**Final Inspection**

Inspection Date(s): 9-9-93

Septic Tank Size (as built) Existing 1250 gallons + (NEW) 1000 gal

Disposal Area Type: Bell-Patt (D.I.) Size (as built): 6600 square feet

Depth At Deepest Point: -

Comments: FINAL Approval Pending Letter from E.O. Church  
RECEIVED Lett 10-21-93

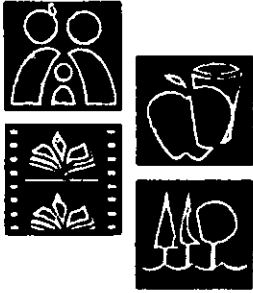
10-21-93

Michael Michael

Date Of Final Approval

Environmental Health Specialist





# Tri-County Health Department

Serving Adams, Arapahoe and Douglas Counties

ENVIRONMENTAL HEALTH DIVISION

PERMIT NO. 7-93-237

Hugh Rohrer, M.D., M.P.H.  
Director

PERMIT TO REPAIR AN INDIVIDUAL SEWAGE DISPOSAL SYSTEM.

OWNER: PATRICIA LIEBLEIN

LOCATION: 3689 N. HOPI DRIVE

COMPOSED OF EXISTING 1250 + 1000 GALLON SEPTIC TANK AND ENGINEERED AREA OF 6600 SQUARE FEET. INSTALL PER EO CHURCH'S DESIGN - JOB #4239.

A PERMIT TO CONSTRUCT SHALL EXPIRE ONE YEAR FROM THE DATE OF ISSUANCE UNLESS EXTENDED TO A FIXED DATE UPON REQUEST BY THE APPLICANT AND APPROVAL BY TRI-COUNTY HEALTH DEPARTMENT. A PERMIT TO REMODEL EXPIRES TWO WEEKS FROM THE DATE OF ISSUANCE.

THIS PERMIT EXPIRES ON 9-20-93.

NOTE: Construction requirements and special conditions relative to this permit are presented on the accompanying application. This permit shall not be valid unless a copy of the application is attached to it.

ISSUED BY John Kleckner OF TRI-COUNTY HEALTH DEPARTMENT ON 8-20-93.

OWNER MUST MAKE SURE THAT THIS ENTIRE WASTE DISPOSAL SYSTEM REMAINS OPEN FOR INSPECTION UNTIL IT HAS RECEIVED APPROVAL BY TRI-COUNTY HEALTH DEPARTMENT. TRI-COUNTY HEALTH DEPARTMENT CANNOT ASSUME RESPONSIBILITY IN CASE OF FAILURE OR INADEQUACY OF A WASTE DISPOSAL SYSTEM BEYOND CONSULTING IN GOOD FAITH WITH THE PROPERTY OWNER.

PERMIT FEE OF \$150.00 CHECK #7440

RECEIVED BY LA ON 8-19-93

( ) Owner Copy ( ) Bldg. Dept. Copy ( ) Installer Copy ( ) Health Dept. Copy

**E. O. CHURCH, INC.**  
**CONSULTING GEOLOGICAL ENGINEER**

925 E. 17th AVENUE • DENVER, COLORADO 80218 • (303) 832-9692  
FAX (303) 832-3517

May 10, 1993

Ms. Pat Lieblein  
3689 North Hopi Drive  
Sedalia, CO 80135

660-0072

Subject: Percolation Tests and Onsite Sewage Disposal System Design  
Existing Residence, 3689 North Hopi Drive  
Lot 95, Filing 2, Indian Creek Ranch  
Douglas County, Colorado  
Job No. 4239

*Made field visit - approved*

Dear Ms. Lieblein,

As requested, we investigated subsurface conditions with respect to installation of a repair onsite sewage disposal system (OSDS) at the subject site. The purpose of our investigation was to determine subsurface conditions with respect to a repair OSDS.

**SITE CONDITIONS** - The investigated site is a 5 acre lot located in a developed rural subdivision in Douglas County, southwest of Sedalia, Colorado. The location of the existing residence, OSDS and percolation tests are presented on Fig. 1. The slope at the proposed disposal field area is 10% to the northeast. The ground surface includes a good cover of native grass and weeds. The residence has an existing OSDS consisting of a 1250 gallon septic tank and 1250 square feet of disposal field located as indicated on Fig. 1. We understand effluent periodically surfaces in the disposal field area.

**EXISTING CONSTRUCTION** - A 5 bedroom residence exists as indicated on Fig. 1. The sewage load from a 5 bedroom dwelling is 750 gallons per day (GPD), 1125 GPD with a 1.5 safety factor. This loading includes a garbage grinder and washing machines. The residence is served water from the Thunderbird Water District. We understand the existing system was installed in 1972 and permitted by Tri-County Health Department under Permit No. 1140.

**SUBSURFACE CONDITIONS** - Subsurface conditions were investigated by drilling two profile borings and 6 percolation holes at the locations indicated on Fig. 1. Subsurface conditions encountered in the profile holes consisted of 6 to 9 feet of loose silty sand underlain by weathered sandstone. No free water was encountered in the profile borings at the time of drilling. The profile borings were checked 1 day after drilling and no free water was observed. Percolation tests indicate percolation rates of 60 to 240 minutes per inch (MPI). The average percolation rate is 100 MPI in the area of the proposed field.

**RECOMMENDATIONS** - We recommend a Bell-Patt drip irrigation OSDS be installed in the natural soils. We recommend the repair OSDS be designed based on a percolation rate of 100 MPI, which is an application rate of 0.24 (gallons/square-foot/day). This application rate considers both absorption and evapotranspiration (E-T). The sewage disposal

system should be designed for a sewage load of 750 GPD. A drip irrigation disposal system designed on an application rate of 0.24 GAL/SF-DAY and a sewage load of 750 GPD is presented on Figs 1 through 4. As indicated on Fig. 1 the disposal field has an area of 6600 square feet in 7 sections. The existing disposal field should remain and be connected to the repair system as an emergency gravity overflow.

If the owner is anticipating future finishing of additional bedrooms in proposed additions, we recommend the OSDS be constructed to handle the additional loading. The installation of a properly sized OSDS to serve future build-out can be cost effective. The proposed tank configuration will serve up to 7 bedrooms. Each additional bedroom above 5 bedrooms would require an additional 1320 SF of disposal field.

We recommend the surface of the disposal field be seeded after installation of the system. We recommend using a seed mix such as a "Foot-hills, Pasture, or Prairie" mixes available at local feed and seed stores. These mixes do not require irrigation and develop a growth 10 to 15 inches high. No lawn irrigation or sprinkler system should be installed above the disposal field.


The owner must realize an OSDS is considerably different from public sewer services. The owner must be aware of and assume the responsibility for continued maintenance of the system. The system is relatively maintenance free, but the owner must have the septic tanks pumped. We recommend the tanks be pumped on a routine bases, approximately every two years. There are daily considerations, such as not putting plastic or other nonbiodegradable material down the sewage disposal system. Water use must be carefully monitored so toilets are not allowed to run when seals malfunction. To illustrate the point, it should be noted a running toilet will consume in excess of 1000 GPD if allowed to run. An excess 1000 GPD will irreparably harm the system.

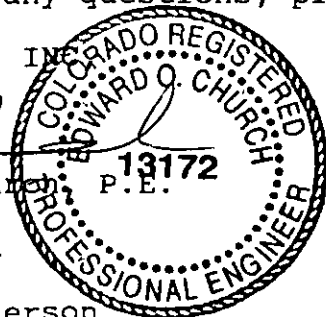
We caution you against installation of a water softener. The hydraulic loading from a water softener is detrimental to OSDS. A separate dry-well should be installed for backwash, if there is a water softener.

**LIMITATIONS** - Our investigation, layout, and recommendations are based on data submitted. If subsurface conditions considerably different from those described in this report are encountered, we should be notified to evaluate the affect of the changes on the proposed sewage disposal system. If modifications to are recommendations are made by governing Health Departments, we should be contacted to evaluate the effect on our OSDS recommendations.

If there are any questions, please call.

E. O. CHURCH, INC.

  
Edward O. Church, P.E.

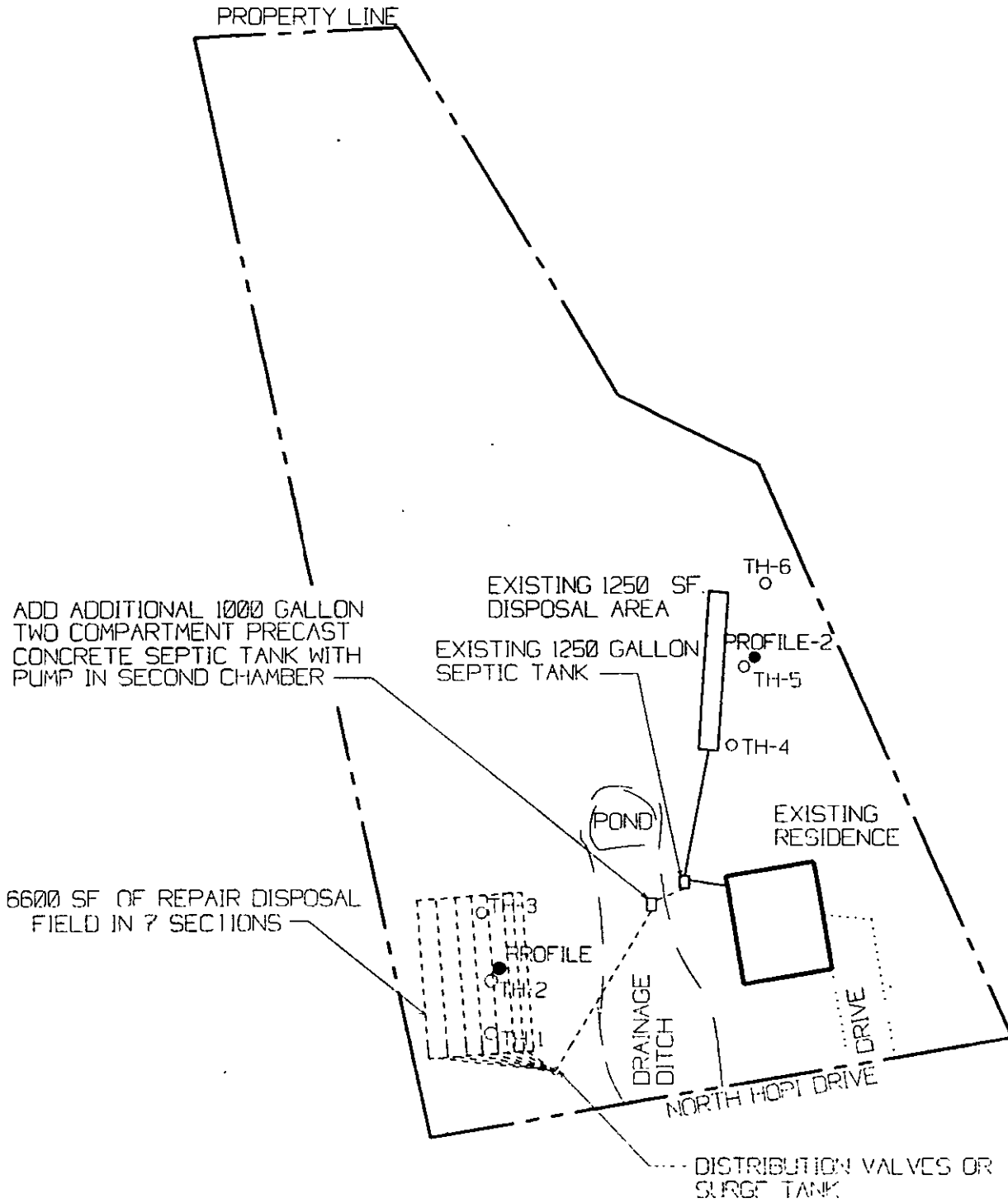


2 copies sent

cc: Jim Patterson

5 ACRES  
3689 NORTH HOPI DRIVE  
LOT 95, FILING 2, INDIAN CREEK RANCHES  
DOUGLAS COUNTY, COLORADO

SCALE  
1" = 100'



ADD ADDITIONAL 1000 GALLON  
TWO COMPARTMENT PRECAST  
CONCRETE SEPTIC TANK WITH  
PUMP IN SECOND CHAMBER

EXISTING 1250 SF  
DISPOSAL AREA  
EXISTING 1250 GALLON  
SEPTIC TANK

6600 SF OF REPAIR DISPOSAL  
FIELD IN 7 SECTIONS

TH-3  
PROFILE  
TH-2  
TH-1

TH-6  
PROFILE-2  
TH-5  
TH-4

EXISTING  
RESIDENCE

(POND)  
DRAINAGE  
DITCH

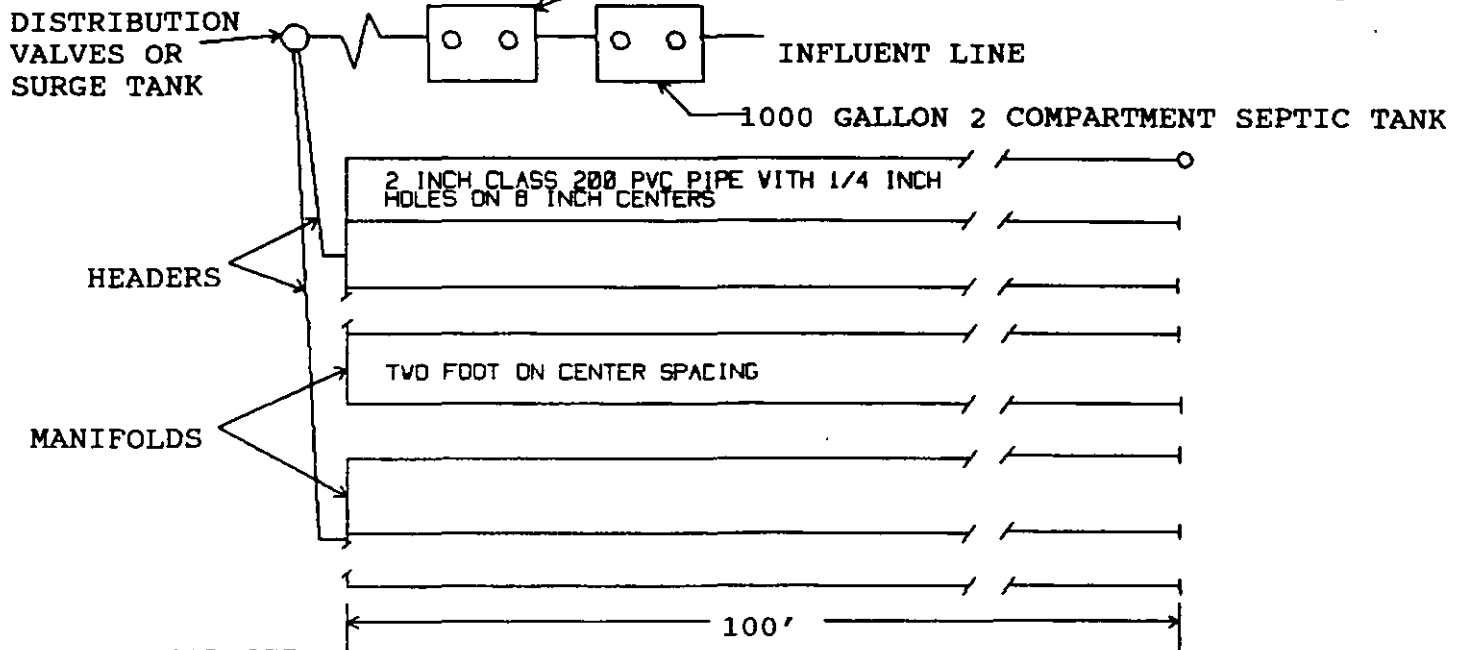
NORTH HOPI DRIVE

--- DISTRIBUTION VALVES OR  
SURGE TANK

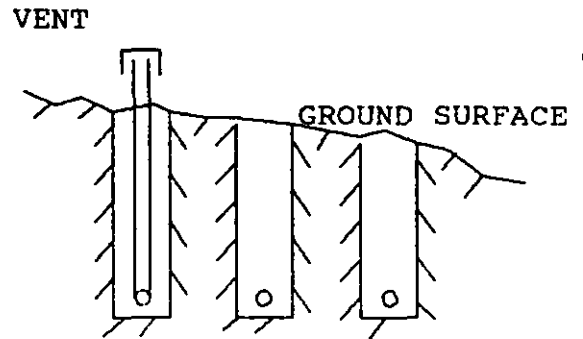
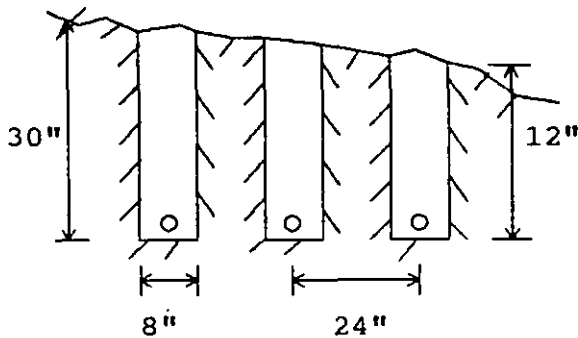
SITE PLAN AND LOCATION  
OF REPAIR OSDS

1000 GALLON 2 COMPARTMENT SEPTIC TANK WITH PUMP IN THE SECOND CHAMBER

NO./SECTION	WIDTH	LINES
2 A	12	6
3 B	10	5
2 C	6	3



A. TYPICAL FIELD PLAN



B. TYPICAL FIELD CROSS-SECTION

TREATMENT UNIT

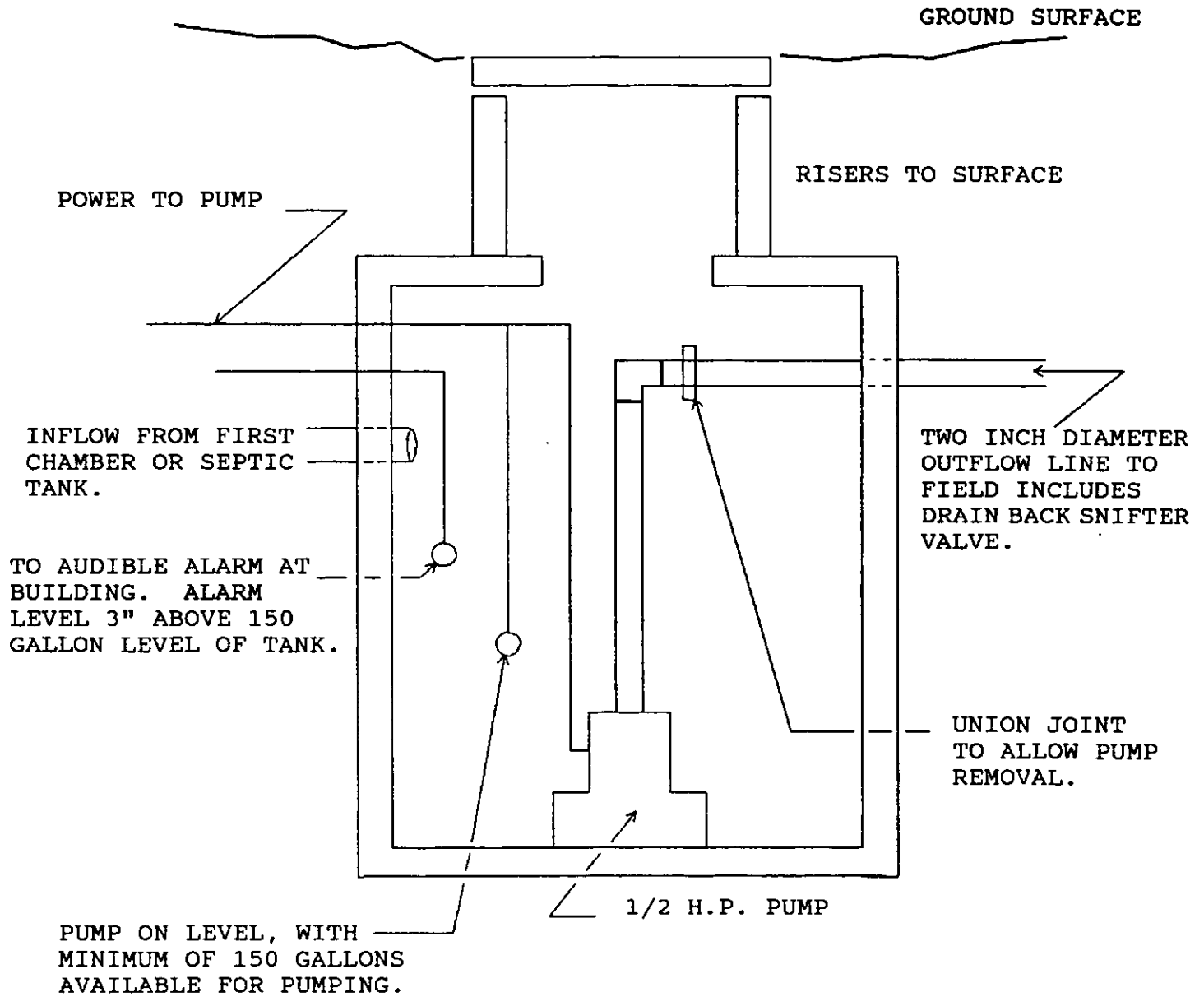
1. TWO 1000 GALLON 2 COMPARTMENT SEPTIC TANKS WITH PUMP IN 2ND CHAMBER OF 2ND TANK.
2. PUMP 1/2 HP GOULD
3. ALARM/CONTROL LOCATION AT OWNER'S REQUEST.
4. RISERS (4) TO SURFACE
5. DRAIN BACK TO PUMP
6. CHAMBER OR FIELD
7. OTHER \_\_\_\_\_

DISTRIBUTION FIELD

1. BEDROOMS 5 LOAD (Q GAL.) 750
2. PERCOLATION RATE (MPI) 100
3. DISPOSAL RATE (R GAL/SF/DAY) 0.24
4. AREA=(Q/R)(1.5)(1.6)(0.75)(1.17)  
= 6581
5. FIELD AREA (SQ.FT.) 6600
6. FIELD LINE (LN.FT.) 3300
7. TRENCH SIZE 8 INCHES.
8. LANDSCAPING BY OWNER.
9. OTHER \_\_\_\_\_

C. SPECIFICATIONS

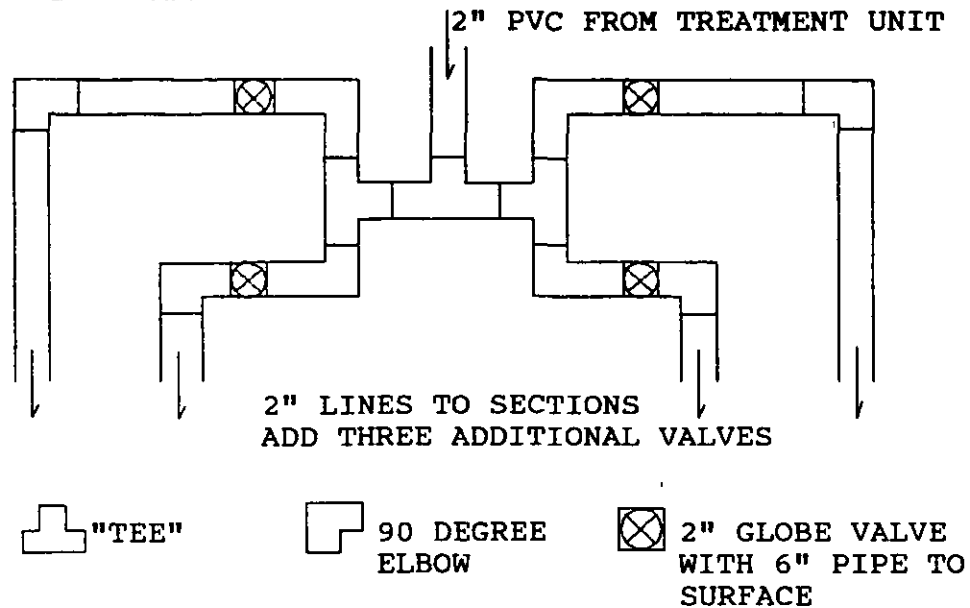
SECOND COMPARTMENT OF SECOND 1000 GALLON  
TANK OR SEPARATE 500 GALLON CHAMBER



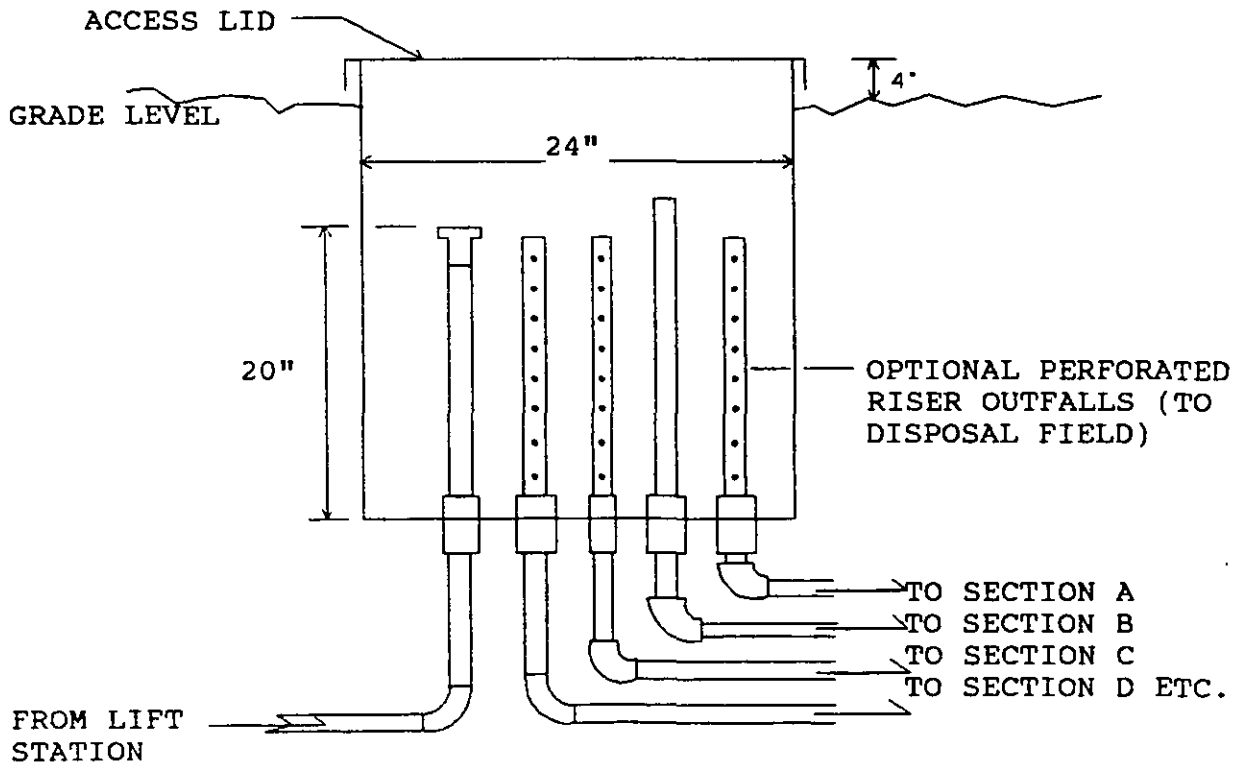
PUMP CHAMBER DETAIL

THE DISTRIBUTION VALVES OR THE SURGE TANK CONTROL FLOW OF EFFLUENT TO EACH SECTION OF THE DISPOSAL FIELD. WE RECOMMEND THAT ONE SECTION OF THE FIELD BE CLOSED AT ALL TIMES TO ALLOW DRYING OF SEGMENTS OF THE FIELD TO EXTEND THE LIFE OF THE FIELD. THIS CAN BE ACCOMPLISHED BY SEQUENTIALLY ROTATING THE VALVES OR THE NON-PERFORATED TALL RISER EVERY SIX MONTHS.

**A. DETAIL OF DISTRIBUTION VALVES**

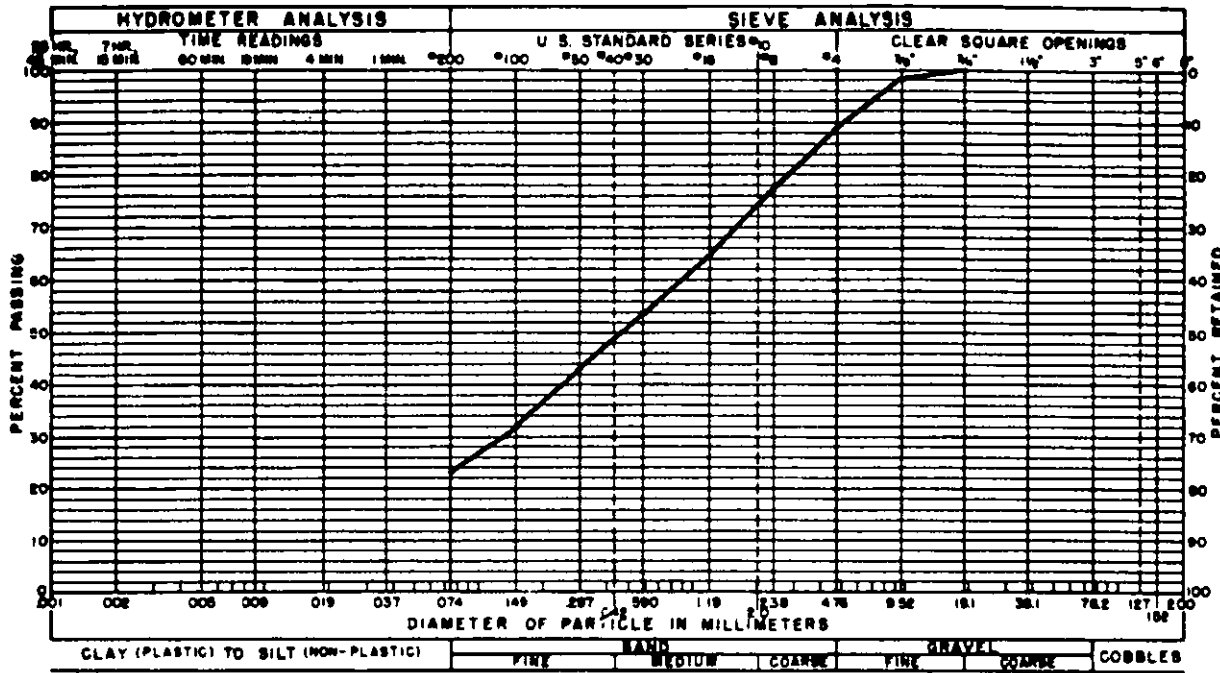


**B. ALTERNATE SURGE TANK DETAIL**

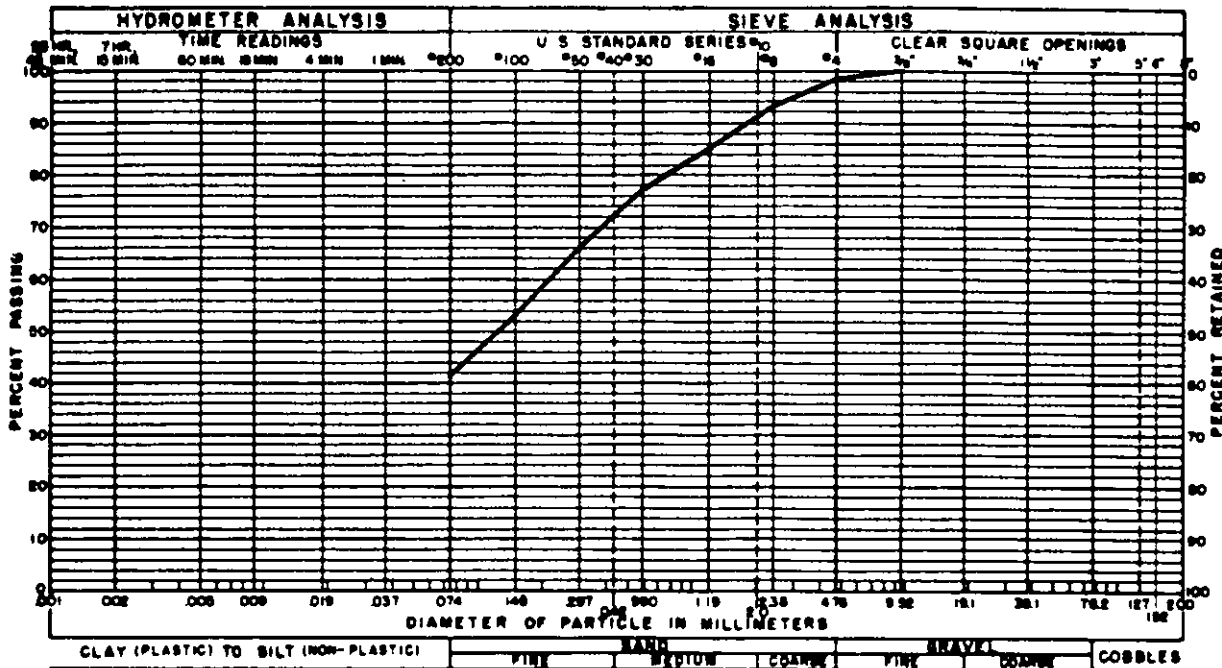


PIPES TO SECTIONS SHOULD SLOPE 1% DOWNGRADE FOR FROST PROTECTION

**DISTRIBUTION VALVES  
AND SURGE TANK DETAIL**



GRAVEL 11%    SAND 66%    SILT AND CLAY 23%  
 LIQUID LIMIT %    PLASTICITY INDEX %  
 SAMPLE OF SAND, GRAVELLY    FROM PROFILE HOLE 1 @ 4 FEET



GRAVEL 1%    SAND 58%    SILT AND CLAY 41%  
 LIQUID LIMIT %    PLASTICITY INDEX %  
 SAMPLE OF SAND, CLAYEY    FROM PROFILE HOLE 2 @ 4 FEET

GRADATION TEST RESULTS

FORM 12





# Tri-County Health Department

## Percolation Test and Soils Data Form

Property address 3689 NORTH HOPI DRIVE

Legal description LOT 95, FILING 2, INDIAN CREEK RANCH

**Property Owner:**

Name PAT LIEBLEIN

Address 3689 NORTH HOPI DRIVE SEDALIA, CO 80135

Phone 660-0032

**Note:**

- Percolation Test Form, Site Plan and Grain Size Distribution Curve of the Sample must be submitted with this form.
- For all Lots <5 acres the site plan must include the entire lot. Test locations must be accurately tied to lot corners or other permanent markers.

**Saturation and Swelling**

- Smear surfaces removed:  Yes  No
- Sand or gravel added:  Yes  No
- Date and time presoak water added:  
5-6-93 9:00 a.m.
- Amount of presoak water added (gallons):  
3 GALLONS/HOLE
- Date and time percolation test is started:  
5-7-93 1:00 p.m.
- Did water remain in hole after the overnight swelling period:

Hole 1	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	Hole 4	<input type="checkbox"/> Yes	<input type="checkbox"/> No
Hole 2	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	Hole 5	<input type="checkbox"/> Yes	<input type="checkbox"/> No
Hole 3	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	Hole 6	<input type="checkbox"/> Yes	<input type="checkbox"/> No

**Percolation Rate Measurement**

Percolation Rate (min./in.)		Hole 1	<u>120</u>
		Hole 2	<u>120</u>
Hole 4	240	Hole 3	<u>60</u>
Hole 5	240		
Hole 6	120	Average	<u>100</u>

**Groundwater:**

- Encountered @ NONE feet.
- Estimated depth to maximum seasonal water table if not encountered in profile: > 10 FEET
- Is area believed to be subject to seasonal fluctuations which could result in a seasonal water table within 8' of surface?  
 Yes  No

Slope determination in absorption area: 10 % to the NE (direction)

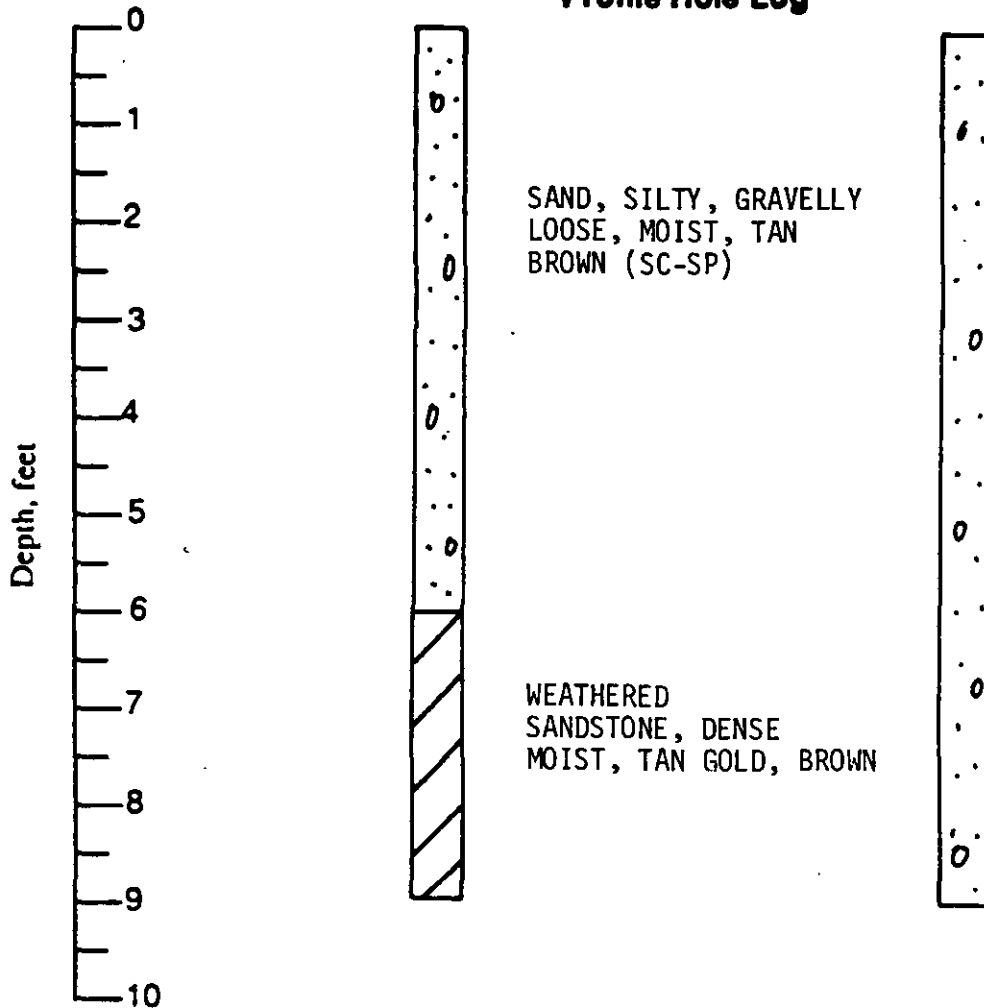
**Bedrock: WEATHERED**

- Encountered @ 6 feet.
- Estimated depth if not encountered in profile: \_\_\_\_\_
- Type of bedrock:  Sandstone  
 Claystone  Siltstone  
\_\_\_\_\_ Other
- Is bedrock fractured or weathered?  
 Yes  No
- Is bedrock believed to be permeable? (Perc rate <60 min./in.)  
 Yes  No

# Profile Hole Information (Cont.)

(Soils must be classified using Unified System ASTM D2487)

## Profile Hole Log



## Certification

I certify that the above information is correct and complete to the best of my knowledge and that all tests were performed in accordance with the provisions of Tri-County Health Department Regulation I-88 by myself or under my supervision.

*E. O. Church*  
Original Signature

05-10-93  
Date

E. O. CHURCH, INC.  
Company Name

925 EAST 17TH AVENUE; DENVER, CO  
Address

(303) 832-9692  
Phone





## TRI-COUNTY HEALTH DEPARTMENT

### Percolation Test Result Form

Hole No.	Hole Depth (in.)	Length of Interval (min.)	Water Depth @ Start of Interval (in.)	Water Depth @ End of Interval (in.)	Drop in Water Level (in.)	Percolation Rate Final Interval (min./in.)
1	35	30	16.50	18.00	2.50	120
		30	18.00	19.50	1.50	
		30	19.50	20.50	1.00	
		30	20.50	21.25	0.75	
		30	21.25	22.00	0.75	
		30	22.00	22.25	0.25	
		30	22.25	22.50	0.25	
		30	22.50	22.75	0.25	
2	32	30	18.00	19.00	1.00	120
		30	19.00	20.00	1.00	
		30	20.00	21.00	1.00	
		30	21.00	21.50	0.50	
		30	21.50	22.00	0.50	
		30	22.00	22.25	0.25	
		30	22.25	22.50	0.25	
		30	22.50	22.75	0.25	
3	40	30	14.00	17.00	3.00	60
		30	17.00	19.00	2.00	
		30	19.00	20.25	1.25	
		30	20.25	21.25	1.00	
		30	21.25	21.75	0.50	
		30	21.75	22.25	0.50	
		30	22.25	22.75	0.50	
		30	22.75	23.25	0.50	
4	37	30	18.50	19.00	0.50	240
		30	19.00	19.50	0.50	
		30	19.50	20.00	0.50	
		30	20.00	20.50	0.50	
		30	20.50	21.00	0.50	
		30	21.00	21.25	0.25	
		30	21.25	21.37	0.12	
		30	21.37	21.50	0.12	

Job No. 4239

Fig. 8



# TRI-COUNTY HEALTH DEPARTMENT

## Percolation Test Result Form

Hole No.	Hole Depth (in.)	Length of Interval (min.)	Water Depth ⊙ Start of Interval (in.)	Water Depth ⊙ End of Interval (in.)	Drop in Water Level (in.)	Percolation Rate Final Interval (min./in.)
5	42	30	18.00	19.00	1.00	
		30	20.00	20.50	0.50	
		30	20.50	20.75	0.25	
		30	20.75	20.87	0.12	
		30	20.87	21.00	0.12	
		30	21.00	21.12	0.12	
		30	21.12	21.25	0.12	
		30	21.25	21.37	0.12	240
6	35	30	20.50	22.00	1.50	
		30	22.00	23.00	1.00	
		30	23.00	24.00	1.00	
		30	24.00	24.50	0.50	
		30	24.50	24.75	0.25	
		30	24.75	25.00	0.25	
		30	25.00	25.25	0.25	
		30	25.25	25.50	0.25	120

Job No. 4239

Fig. 9



# Tri-County Health Department

Serving Adams, Arapahoe and Douglas Counties

Hugh Rohrer, M.D. M.P.H.  
Director

June 26, 1987

Bill Kellogg  
3689 N. Hopi Dr.  
Sedalia, Co 80135

RE: Lot 95, Indian Creek Ranch, Douglas Co.

Dear Mr. Kellogg:

An inspection has been made, June 26, 1987 of the individual sewage disposal system located on the above listed property.

The system showed no apparent evidence of malfunction at the time of this inspection. The soil absorption area consists of 1250 square feet with a 1250 gallon tank. This system was inspected and approved 8-22-72 when the system was originally installed.

The septic tank was pumped June 18, 1987.

Sincerely,

John Kleckner, Public Health Sanitarian  
Environmental Health Services

1140

JK/rb

If a bacteriological water test is required, please include a check payable to COLORADO DEPARTMENT OF HEALTH for \$6.00.

5403

TRI-COUNTY HEALTH DEPARTMENT  
ENVIRONMENTAL HEALTH SERVICES

APPLICATION FOR USE PERMIT  
FOR EXISTING DOMESTIC AND NON-MUNICIPAL SEWAGE DISPOSAL SYSTEMS

ADAMS CITY  
4301 E. 72nd Ave.  
288-6816

AURORA  
15400 E. 14th Pl.  
341-9370

CASTLE ROCK  
355 S. Wilcox  
688-5145

ENGLEWOOD  
4857 S. Broadway  
761-1340

FORM MUST BE COMPLETED IN FULL

1140  
688 - 5794  
Crystal McClure

Name of Applicant Bill and Dorothy Kellogg Phone 688-4127

Mailing Address of Applicant 3689 N. Hopi Drive, Sedalia, CO 80135

Send Permit to: Name DCP Realty - Agent Will pick up

Address

Street Address & Complete Legal Description of Property for which Permit is being Requested  
(Attach legal if necessary) Lot 95 Indian Creek Ranch

3689 N. Hopi Dr.

PROVIDE MAP OR DIRECTIONS FOR LOCATING PROPERTY ON REVERSE SIDE OF THIS APPLICATION.

Source of Water: Private Well ( ) Public (Specify) \_\_\_\_\_

Name of Original Home Owner (if known) \_\_\_\_\_

Contractor who Installed System (if known) \_\_\_\_\_

A non-refundable fee of \$75.00 shall be payable when the application is made. The permit issued as a result of this application shall remain valid until the property is sold or otherwise altered from domestic use or until the sewage disposal system fails to operate in an approved manner.

\* \* \* \* \*

OWNER/AGENT CERTIFICATION

(I), LLOYD T. MORRIS Owner/agent of the dwelling at the location described in this application do hereby certify that the sewage disposal system has been in continuous use, operating satisfactorily, and without malfunction. The septic tank was pumped 6/18/87 (DATE)

REGULATIONS REQUIRE SEPTIC TANKS BE PUMPED EVERY FOUR (4) YEARS.

6/22/87  
DATE

Lloyd T. Morris  
SIGNATURE

\* \* \* \* \*

Inspection Date \_\_\_\_\_ Approved ( ) Denied ( )

Public Health Sanitarian \_\_\_\_\_

Permit Fee \$ 25.<sup>00</sup> Check No. 1743 M.O. \_\_\_\_\_ Cash \_\_\_\_\_ Rec'd by AB  
Date Rec'd 6-22-87

**E. O. CHURCH, INC.**  
**CONSULTING GEOLOGICAL ENGINEER**

925 E. 17th AVENUE • DENVER, COLORADO 80218 • (303) 832-9692  
FAX (303) 832-3517



September 13, 1993

Ms. Pat Lieblein  
3689 North Hopi Drive  
Sedalia, CO 80135

**Subject:** Installation Observation, Onsite Sewage Disposal System  
3689 North Hopi Drive, Lot 95, Filing 2, Indian Creek Ranch  
Douglas County, Colorado  
Job No. 4239

Gentlemen,

This letter presents the results of an installation observation of an onsite sewage disposal system (OSDS) at the subject site. The system was designed by our firm under our Job No. 4239, dated May 10, 1993.

The system included the installation of 6000 square feet of disposal field in seven sections. An additional 1000 gallon two compartment precast concrete septic tank was installed with a pump in the second chamber. There is an existing 1250 gallon septic tank. Distribution valves were installed to allow access to alternating sections of the disposal field. The OSDS was installed for a five bedroom residence.

The components of the OSDS were installed in general conformance with the plans and specifications.

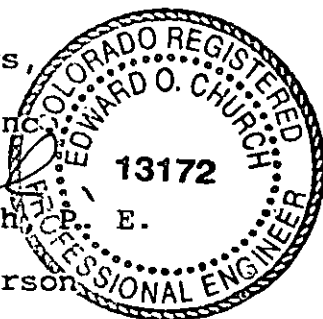
If there are any questions, or if we can be of further service, please call.

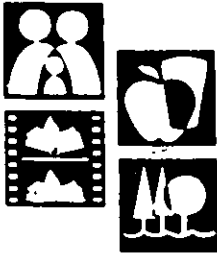
Very truly yours,

E. O. Church, Inc.

  
Edward O. Church, C.P. E.

cc: Jim Patterson





Onsite System  
As-Built  
Drawing

Property Address 3689 N. HART DR  
 Permit # 7-93-237  
 Date System Completed SEPT '93'  
 Installer's Name JIM PATTERSON CO  
 Installer's License # 022  
 Installer's Address and Phone \_\_\_\_\_  
781-1678

