

# MARTIN/MARTIN

4251 Kipling Street  
Wheat Ridge, CO 80033  
(303) 431-6100  
FAX (303)431-4028

"MEMORANDUM"

**To** Glenn Bodnar, P.E.  
Colorado Dept of Public Health  
Drinking Water and Wastewater  
4300 Cherry Creek Drive South  
Denver, CO 80246-1530

**Date** June 25, 1999

**Job Title** Farmer's Korner  
Water System

**From** Roger Smades *PJS for RHS*

**Copy to** Gray Pearson, Larry Smith w/o enclosures

**Subject** Potable Water Supply Facilities Review – supplementary data

Enclosed, for your review and approval, are those items outlined in your May 21, 1999 letter regarding approval of the Farmer's Korner Water System design.

- 1) Water quality testing results
- 2) Well drillers report
- 3) Details of the sanitary well seal
- 4) Results of the microscopic particulate analysis
- 5) Sizing data from the aerator manufacturer
- 6) Wording to be included in the specifications to prevent contamination of the water in the underground storage tank
- 7) Plan and Section of the overflow pipe from the water storage tank

In addition, included is a copy of the Colorado Department of Public Health and Environment Plans Review Form signed by the Summit County Health Department and the Owner.

The system is planned to be operational before October 1, 1999, therefore, a Capacity Development Plan is not included.

We trust that these data are sufficient to grant approval of the system.



**Hazen Research, Inc.**  
 4601 Indiana Street • Golden, CO 80403  
 Tel: (303) 279-4501  
 Fax: (303) 278-1528

DATE May 14, 1999  
 HRI PROJECT 002-5AA  
 HRI SERIES NO. E128/99  
 DATE REC'D 5/11/99  
 CUST. P.O.# ck# 1845

Farmers Korner Inc  
 Larry Smith  
 PO Box 1005  
 Frisco, CO 80443

REPORT OF ANALYSIS

SAMPLE NO. E128/99-1


SAMPLE IDENTIFICATION: N. of High School, East Well  
 sampled on 05/11/99 @ 1430

PARAMETER	RESULT	DETECTION LIMIT	METHOD	ANALYSIS DATE	ANALYST
Radon (+-Precision*), pCi/l (T)	700(+/-40)	40	EPA 913.0	5/11/99 @ 1704	LH

\*Variability of the radioactive decay process (counting error) at the 95% confidence level, 1.96 sigma.  
 Certification ID's: CO/U.S. EPA Region VIII - XM; CT - PH-0152; KY - 90076; KS - E-10265; NH - 232897-A;  
 NY ELAP - 11417; PA DEP 68551; WI - 99837610

CODES:

(T) = Total (D) = Dissolved  
 (S) = Suspended (R) = Total Recoverable  
 (PD) = Potentially Dissolved  
 < = Less Than


By:   
 Robert Rostad  
 Laboratory Manager

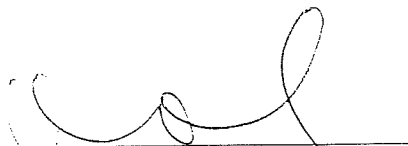
EVERGREEN ANALYTICAL, Inc.  
4036 Youngfield St. Wheat Ridge, CO 80033  
(303) 425-6021

Analysis Report

Client Sample I.D.	: FKI/HM	Client	: Farmers Korner
Lab Sample Number	: 98-2506-01	Lab Project Number	: Mobile Home Park
Date Sampled	: 6/17/98	Matrix	: 98-2506
Date Received	: 6/17/98		: Water

<u>Analysis</u>	<u>Method</u>	<u>Date Prepared</u>	<u>Date Analyzed</u>	<u>Result</u>	<u>Units</u>
pH	EPA 150.1	6/17/98	6/17/98	6.81	
Total Dissolved Solids	Standard Method 2540 C	6/18/98	6/18/98	184	mg/L
Total Alkalinity	Standard Method 2320 B	6/23/98	6/23/98	113	mgCaCO <sub>3</sub> /L
Langelier Index	Standard Method 2330B			- 1.24	
Total Cyanide	Standard Method 4500-CN E	6/22/98	6/22/98	0.01	mg/L
Fluoride	Standard Method 4500-F C	6/23/98	6/23/98	<0.40	mg/L

  
Analyst

  
Approved

EVERGREEN ANALYTICAL, Inc.  
4036 Youngfield St. Wheat Ridge, CO 80033  
(303) 425-6021

Carbamate Pesticides

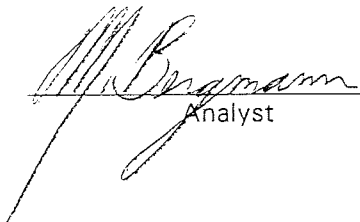
Client Sample ID.	: FKI/HM	Client Project ID.	: Farmers Korner Mobile Home Park
Lab Sample No.	: 98-2506-01	Lab Project Number	: 98-2506
Date Sampled	: 06-17-98	Dilution Factor	: 1.00
Date Received	: 06-17-98	Extraction Factor	: 1.00
Date Extracted	: 06-25-98	Matrix	: Water
Date Analyzed	: 06-25-98	Method	: EPA 531.1
		Data File ID.	: 531_A11A.D

<u>Compound</u>	<u>CAS Number</u>	<u>Concentration (µg/L)</u>	<u>MDL (µg/L)</u>
Aldicarb Sulfoxide	1646-87-3	U	2.0
Aldicarb Sulfone	1646-88-4	U	2.0
Oxamyl	23135-22-0	U	2.0
Methomyl	16752-77-5	U	0.5
3-Hydroxycarbofuran	16655-82-6	U	2.0
Aldicarb	116-06-3	U	1.0
Propoxur	114-26-1	U	1.0
Carbofuran	1563-66-2	U	1.5
Carbaryl	63-25-2	U	2.0
1-Naphthol	90-15-3	U	2.0
Methiocarb	2032-65-7	U	4.0

MDL = Method Detection Limit  
N/A = Not Applicable

Qualifiers:

U = None detected  
B = Also found in blank.

  
\_\_\_\_\_  
Analyst

  
\_\_\_\_\_  
Approved

Evergreen Analytical, Inc.  
4036 Youngfield St., Wheat Ridge, CO 80033  
(303) 425-6021

Client Sample ID : FKI/HM  
Lab Sample ID : 98-2506-01L  
Date Collected : 06/17/98  
Date Received : 06/17/98  
Date Prepared : 06/18/98  
Date Analyzed : 06/18/98

Client Project ID : Farmers Korner Mobile Home Park  
Lab Work Order : 98-2506  
Sample Matrix : Drinking Water  
Lab File ID : ECD30618\016R0101.D  
Method Blank : WB061898  
Effective Dilution : 1

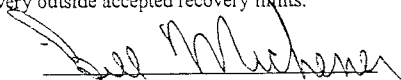
Method: E504	EDB/DBCP 504	Units:	µg/L	
Analyte	CAS #	Concentration	RL	PQL
1,2-Dibromoethane	106-93-4	U	0.05	0.05
1,2-Dibromo-3-Chloropropane	96-12-8	U	0.05	0.05

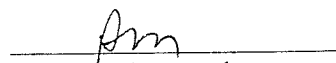
Qualifiers:

X - Not Applicable.  
U = Analyzed for, but not detected.  
B = Also found in the blank.  
E = Extrapolated value. Value exceeds calibration range.  
S = Spike recovery outside accepted recovery limits.

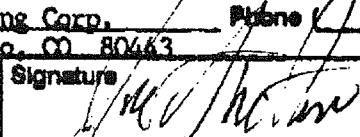
Definitions:

RL = Reporting Limit.  
PQL = Practical Quantitation Limit.

  
\_\_\_\_\_  
Analyst

  
\_\_\_\_\_  
Approved

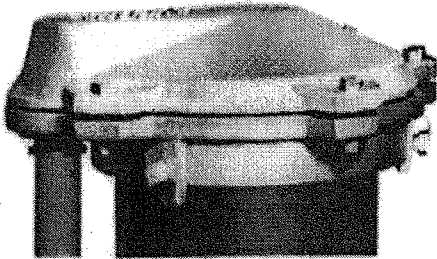
6/19/98 9:21:35 AM

FORM NO. GWS-30 1994	<b>WELL CONSTRUCTION AND TEST REPORT</b> STATE OF COLORADO, OFFICE OF THE STATE ENGINEER 1313 Sherman St., Rm 818, Denver, CO 80203	For Office Use only
1. WELL PERMIT NUMBER <u>MH-35971</u>		
2. OWNER NAME(S) <u>Larry Smith</u> Mailing Address <u>P.O. Box 127</u> City, St. Zip <u>Frisco, CO 80443</u> Phone ( ) _____		
3. WELL LOCATION AS DRILLED: <u>SE 1/4 SW 1/4, Sec. 31 Twp. 5 S Range 77 W</u> DISTANCES FROM SEC. LINES: _____ ft. from _____ Sec. line. and _____ ft. from _____ Sec. line. <small>(near or away)</small> SUBDIVISION: <u>Hole # 3 (east)</u> LOT _____ BLOCK _____ FILING(UNIT) _____ STREET ADDRESS AT WELL LOCATION: _____		
4. GROUND SURFACE ELEVATION _____ ft. DRILLING METHOD <u>cable tool</u> DATE COMPLETED <u>June 17, 1999</u> TOTAL DEPTH <u>50</u> ft. DEPTH COMPLETED <u>50</u> ft.		
5. GEOLOGIC LOG: Depth Description of Material (Type, Size, Color, Water Location)	6. HOLE DIAM. (In.) From (ft) To (ft) <u>14</u> _____ <u>0</u> _____ <u>18</u> _____ <u>12</u> _____ <u>18</u> _____ <u>50</u> _____	
<u>0 to 50 feet - boulders &amp; gravels</u>	7. PLAIN CASING OD (In) Kind Wall Size From (ft) To (ft) <u>10</u> <u>steel</u> <u>.365</u> <u>0</u> <u>38</u>	
<u>water from 18 to 49 feet</u>	PERF. CASING: Screen Slot Size: <u>.075</u> <u>8</u> <u>stainless steel screen</u> <u>38</u> <u>50</u>	
REMARKS: _____	8. FILTER PACK: Material _____ Size _____ Interval _____	9. PACKER PLACEMENT: Type _____ Depth _____
REMARKS: _____	10. GROUTING RECORD: Material Amount Density Interval Placement <u>cement</u> <u>14 bags</u> <u>15#</u> <u>8 to 18</u> <u>poured</u>	
11. DISINFECTION: Type <u>clorox</u> Amt. Used <u>2 cups</u>		
12. WELL TEST DATA: <input type="checkbox"/> Check box if Test Data is submitted on Form No. GWS 30 Supplemental Well Test. TESTING METHOD _____ Static Level <u>7.5</u> ft. Date/Time measured _____, Production Rate _____ gpm. Pumping level _____ ft. Date/Time measured _____, Test length (hrs.) _____ Remarks _____		
13. I have read the statements made herein and know the contents thereof, and that they are true to my knowledge. [Pursuant to Section 24-4-104 (13)(a), C.R.S., the making of false statements herein constitutes perjury in the second degree and is punishable as a class 1 misdemeanor.]		
CONTRACTOR <u>Golden Eagle Drilling Corp.</u> Phone ( ) <u>970-668-3564</u> Lic. No. <u>388</u> Mailing Address <u>P.O. Box 475, Frisco, CO 80443</u>		
Name/Title (Please type or print) <u>Joe W. Shelton, President</u>	Signature 	Date <u>6-17-99</u>



# WELL CAPS

## CAMPBELL WELL CAP

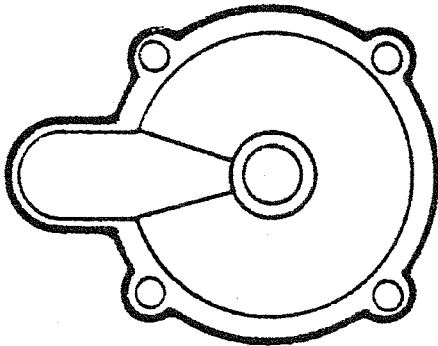


PART NO.	WELL O.D.	CONDUIT CONNECTION	LIST PRICE EACH	DS-30
				3+30/5
LX4	4 1/2		\$33.45	
LX5	5 9/16	1" NPT	31.83	
LX6	6 5/8		33.09	
LWC6	6 5/8	1" NPT	37.98	Cap Only
LWC6L	6 5/8	1" NPT	52.17	Cap w/ Lock

### LX FEATURES:

- Watertight
- Aluminum
- Zinc Plated Set Screws and Bolts
- 5/8" Dia. Brass
- Top of Well Cap Independent of Electrical Cable
- Neoprene O-Ring Seal Around Casing
- Low Profile
- Screened Vent
- Competitively Priced

## MIDWEST ALUMINUM WELL CAPS

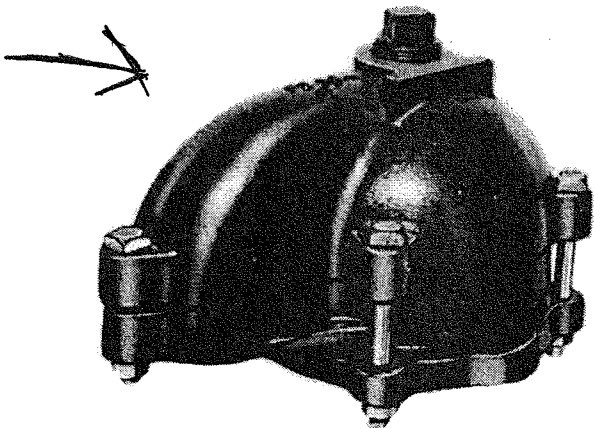


### FEATURES:

- Watertight
- Cast aluminum
- WTCC models have 1 1/4" female threaded conduit opening
- WTCC models are vented

MODEL	CASING SIZE O.D. (INCHES)	CONDUIT CONNECTION	LIST PRICE EACH	DS-30
				3+30/5
WTCC-6	6 5/8	1 1/4"	\$43.01	
WTCC-66	7	1 1/4"	48.02	
WTCC-8	8 5/8	1 1/4"	79.38	

## BAKER CAST IRON WELL CAPS



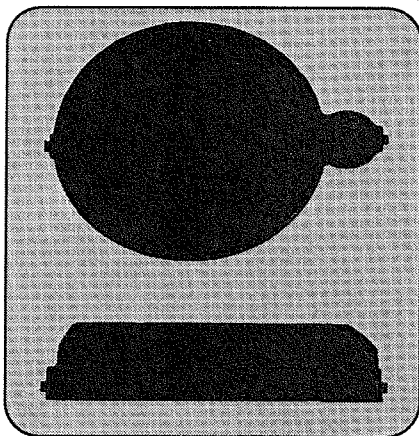
PART NO.	WELL O.D.	CONDUIT CONNECTION	VENT PROVISION	LIST PRICE	DS-30
					3+30/5
5W	5 9/16	1 1/2	*	\$ 47.54	
6W	6 5/8	1 1/2	*	63.13	
6.6W	7	1 1/2	*	112.40	
7W	7 1/2	1 1/2	*	118.51	
8W	8 5/8	2	*	242.86	
10W	10 5/8	3	*	310.82	
12W	12 3/4	3	*	709.67	

\*Cap has plug on top to provide venting if needed.

# Monitor Well Caps

## MONITOR WELL CAPS

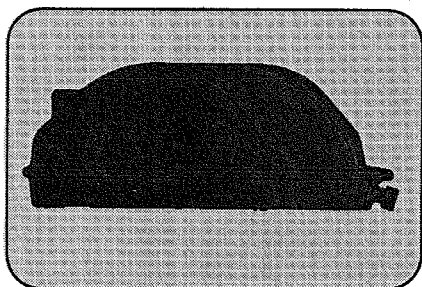
Monitor features a complete line of well caps for virtually any installation. Caps are available in a full range of sizes and tappings. See price list for complete details.



**ECONOMY VENTILATED CAP**-for use with submersible pumps. The Economy Ventilated Cap attaches to the casing and conduit with two (2) square head set screws. The cap can be removed without disturbing the wiring. Made of high quality grey cast iron.

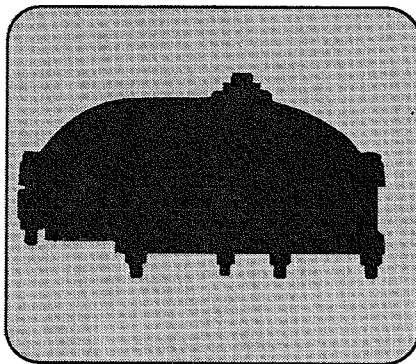
I.D. case sizes 4", 5" and 6". Available in single and multipacks.

Personalized economy ventilated caps available on request.



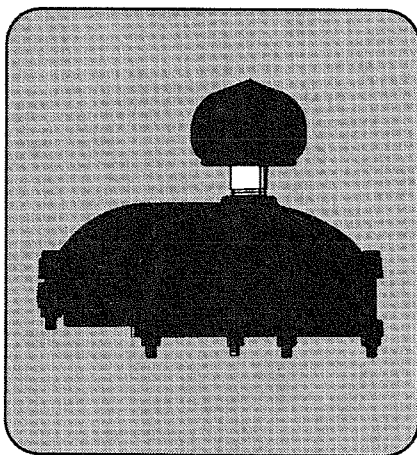
**PREMIUM VENTILATED CAP**-for use with submersible pumps. The Premium Ventilated Cap attaches to the well casing with a single square head set screw at the front (conduit) end of the cap. The conduit attaches to the threaded adapter which allows the cap to be removed without disturbing the wiring. Made of high quality grey cast iron.

I.D. case sizes 4", 5", 5-5/8", 6", 6-5/8" and 7". Available in single and six packs. I.D. case sizes 4-1/2", 8" 10" and 12". Available in single packs only.



**PREMIUM WATERTIGHT CAP**- for use with submersible pumps. A truly watertight cap which is secured to the pitless casing with a compression gasket. The top of the cap can be removed without effecting the seal, conduit or wiring. The Premium Watertight Cap is made of high quality grey cast iron. All our high quality hardware is plated.

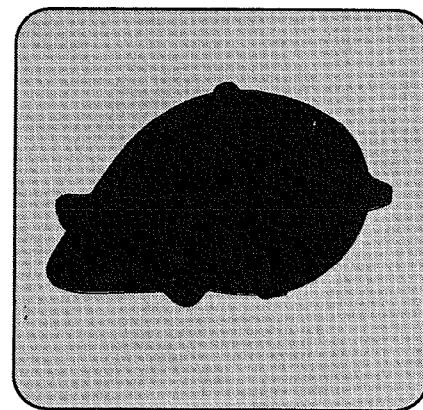
I.D. case sizes 4", 4-1/2", 5", 5-5/8", 6", 6-5/8", 7", 8", 10" and 12". Available in single packs only.



**PREMIUM WATERTIGHT CAP WITH AIR VENT**-for use with submersible pumps. This model is the same as the Premium Watertight Cap with the addition of a pipe nipple and Monitor screened air vent.

I.D. case sizes 4", 5", 6", 6-5/8", 7" and 8". Available in single packs only.

Approved for Illinois and Michigan.



## the **TURTLE**

### WATERTIGHT CAP

The Turtle is a two-piece cast iron cap that features an "O"-ring fitting for a tight seal. Top cap piece removes for easy well servicing. Cap attaches to well casing with four square cupped bolts. The 4" model has a single brass vent; 5" and 6" models have 2 brass vents.

Sizes: 4", 5", 6" & 7" I.D. 5", 6" & 7" O.D.

Available with 1-1/4" top tapping for chlorinators.

Personalized Turtle Caps are available upon request.

## ONE YEAR LIMITED WARRANTY

Any part of a Monitor Well Cap used in potable water applications, found defective in workmanship or material will be replaced without charge provided the defective item is returned prepaid to the distributor from whom purchased within one year from date of shipment. The Company does not assume responsibility for labor or consequential damage. All other terms and conditions of sale are as stated on the Baker Factory Sales Order Terms and Conditions - Form AD-100.



# BAKER

133 Enterprise Street  
Evansville, WI 53536

608-882-2730

Fax: 608-882-6776



AD120 10-15-92



# A SAMPLING OF PURE QUALITY PRODUCTS



**BULLDOG BRASS PITLESS ADAPTER** – same features as our Snappy in a brass construction.

**SNAPPY PITLESS ADAPTER** features lead-free Galvanized Cast Iron construction. Its unique design allows for clear way pitless adapter performance along with low cost and easy installation.

**THE TURTLE, ECONOMY WATERTIGHT CAP** features our popular two piece Cast Iron construction with an "O"-ring seal and screened air vent at the well for vermin resistance.

**PREMIUM WATERTIGHT CAP** made of durable Cast Iron. The Premium Watertight Cap features a compression gasket seal with the well casting for true watertight protection.

**ECONOMY VENTILATED CAP** manufactured from durable Cast Iron and offers economical well protection.

PT's for Line Shaft Turbine Pumps are for 10" to 20" well sizes.

The Monitor PT forms a watertight extension of the well casing which starts below the frostline where it is buried permanently.

The Monitor Pitless Units and Adapters are engineered for protection, sanitation and durability.

The easy access design allows the pump to be pulled and the well serviced without disturbing any of the discharge piping. The Pitless Case making a watertight installation. The PT offers numerous options.

Standard Industrial & Custom Units are for 6" to 26" diameter well sizes.

Many of Monitor's standard features are options with their competitors. Monitor Systems are resistant to corrosion, frost-proof, easy-to-service and more.

They have the advantages of fine-tuned engineering.

Our Prefabricated Booster Stations for Submersible Pumps are designed for Municipalities, Rural Water Systems and Industry to increase pressure with a sanitary, frost-proof, easy-to-service unit.

The Submersible Booster Station provides more pressure at less cost than standard horizontal units, eliminating costly and unsanitary pump houses or vaults.

The Snappy and Bulldog Pitless Adapters eliminate the need for an insulated pump house or well pit.

The Snappy and Bulldog are designed for 4" and larger well sizes. They have been engineered for quick and easy installation.

Their clear way design offers full access to the well and pump after they are installed. The Snappy is manufactured from Lead-Free Galvanized Cast Iron, while the Bulldog is constructed from Brass.

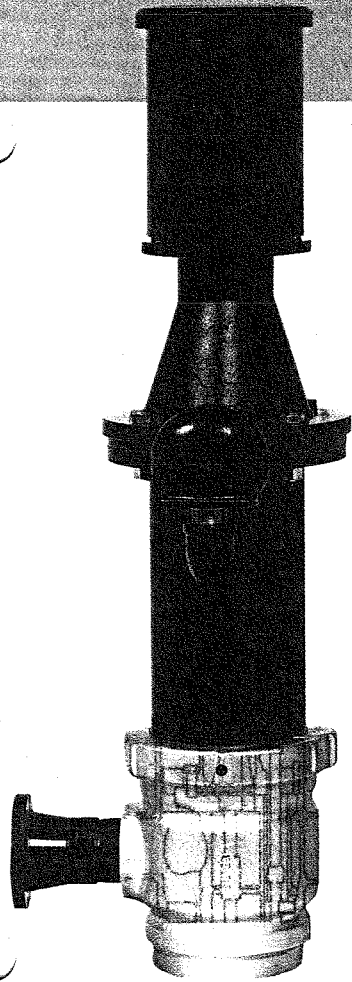
# PITLESS FOR PURITY

Monitor Pitless Units and Adapters are engineered for unprecedented consumer

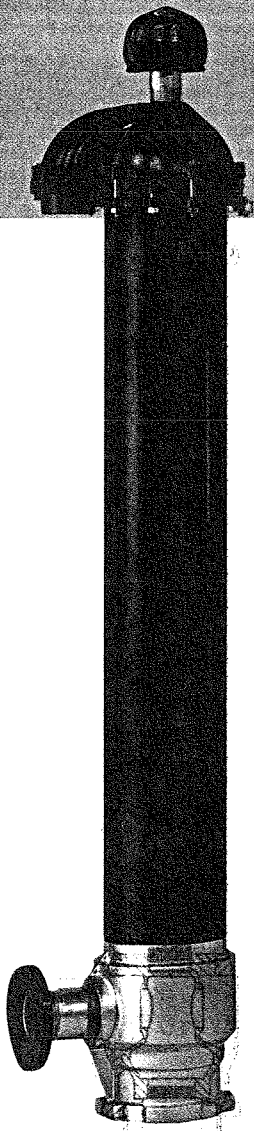
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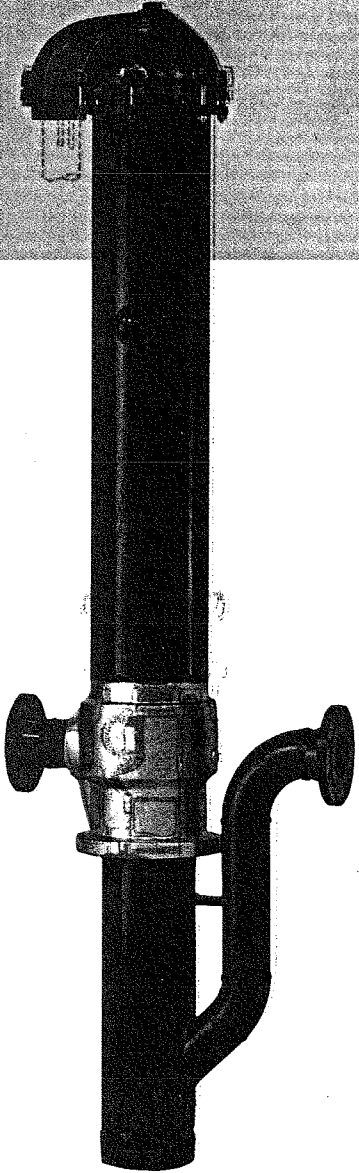
without disturbing any of the discharge piping.



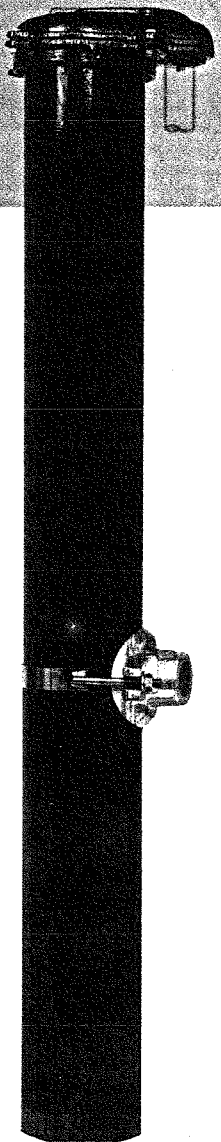
Monitor PT for Line Shaft Turbine Pumps



Industrial Units



Pitless Booster Stations



Snappy Pitless Adapters

**ANALYSIS FOR WATERBORNE PARTICULATES**

**CHDiagnostic and Consulting Service, Inc.**  
214 SE 19th Street, Loveland, CO 80537  
Carrie M. Hancock, President Telephone (970) 667-9789

Invoice 9920601  
6/15/99

**Customer 991069**  
Farmers Korner, Inc.  
PO Box 1005  
Frisco, CO 80443

**Laboratory Information**

Hand Delivered; 6/15/99; 0930 Hrs;  
Wound; Excellent; Results submitted  
by: *Tricia K. Smith*

**PWSID#**

**Sample Information:** East School well, Source: Drilled well, 52' deep, unchlorinated  
**Date/Start:** 6/14/99; 1300 Hrs **Date/Stop:** 6/14/99; 1015 Hrs **Sampler:** Larry Smith  
**Gallons:** 500 **Filter Color:** Off white **Centrifugate:** 0.008 mL/100 gals

**Amorphous Debris:** Inorganic precipitate, silt and clay, 1-100 µM diameter

**Other Algae:** ND

**Diatoms:** ND

**Plant Debris:** ND

**Giardia:** ND

**Coccidia:** ND

**Rotifers:** ND

**Nematodes:** 10/100 gals. larvae

**Pollen:** ND

**Ameba:** ND

**Ciliates:** ND

**Colorless Flagellates:** ND

**Crustaceans:** ND

**Insects/Larvae:** ND

**Other:** Iron bacteria; Gallionella; 10/100 gals, Arthropod pieces

ND (None Detected)

This sample was analyzed for particulates following the Environmental Protection Agency Consensus Method for Determining Groundwaters Under the Direct Influence of Surface Water Using Microscopic Particulate Analysis (MPA). All limitations stated in the method apply.

**Comments:** Score: 0-Low Risk per EPA Consensus Method referenced above.  
Equivalent volume assayed: 37.8 L

**FAX**MEMCOR, MICROFLOC, GENERAL FILTER PRODUCTS  
600 ARRASMITH TRAIL  
AMES, IA 50010TELEPHONE 515-232-4121  
FACSIMILE 515-232-2571

TO Patsy Sullivan FAX 303.431.4028

COMPANY Martin & Martin TEL

FROM Galen G. Drennan, P.E. DATE May 19, 1999

PAGE 1 of 2

SUBJECT BRECKENRIDGE, CO  
FARMERS CORNER WTP

Dear Patsy:

In accordance with your telephoned information, we have resized the aerator required for this project. You reported the iron content in this water is negligible. Sole purpose of the aerator is for radon removal.

For treatment of 100 gpm, we recommend the use of a 24" sq. x 10' Aluminum Induced Draft Aerator (AIDA) with high efficiency Jaeger Tri-Pack loose fill internal packing. A budget price for the unit is \$16,500. See attached Drawing A-21728-3 for dimensional details.

When treating 100 gpm through this unit, we expect approximately 80% reduction of radon. This is based on having an influent radon content of 750 picocuries per liter, a raw water temperature of 50° F or higher, and an installation elevation of 5,000' or higher.

I trust this information will assist you.

Sincerely,

U. S. FILTER/Ames

Galen G. Drennan, P.E.  
Assistant Municipal Sales Manager

cc: Water Control Corporation/Denver, CO/Mr. Bob Swedberg

Attachment

GGD/pjs

■ This transmission contains confidential information intended for use only by the above named recipient. Reading, discussion, distribution, or copying of this message is strictly prohibited by anyone other than the named recipient or his or her employees or agents. ■ If you have received this fax in error, please immediately notify us by telephone (collect), and return the original message to us at the above address via U.S. Postal Service.

**FARMER'S KORNER WATER SYSTEM**

APPLICATION TO  
COLORADO DEPARTMENT OF HEALTH  
JUNE, 1999

Wording to be included in the specifications addressing prevention of contamination of the finished water in the clearwell below the treatment room:

SECTION 13210 – UNDERGROUND WATER STORAGE TANK

1.3 – B.

***B. Verification of Contamination Prevention:***

***Provide documentation of the following:***

- 1. No bathroom plumbing or floor drain piping has been constructed above the water storage tank.***
- 2. Waterproofing seal has been applied to the top slab of the water storage tank.***

2.7 – A. - B.

***A. Provide visibly mounted signs in the treatment pump station that meet the following criteria:***

- 1. Text reads "NO HAZARDOUS MATERIAL SHALL BE STORED IN PUMP STATION".***
- 2. Material: Aluminum.***
- 3. White background with black lettering.***
- 4. Letters shall be 2-inch high.***

***B. Provide as many signs as necessary to be visible at any point in the pump station.***



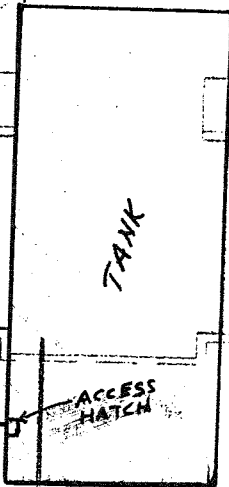
SCALE  
1" = 30'

30' ACCESS & UTILITY EASEMENT

BASIN BOTTOM ELEV. =  
9062.0

SUMMIT HIGH SCHOOL

ALPENSEE 3  
BUILDING 3  
ARCH'L = 100' - 0"  
U.S.G.S = 9067.0



DAYLIGHT  
AT EL 64.5

6" TANK OVERFLOW

REMOVE ASPHALT  
FOR 45' - REBUILD

EXISTING ASPHALT BICYCLE AN

EXISTING 12" WATER

9066

EL 65.0

EL 67.0

9068

5+00

3+00

2+00

9065

9063

2

2

2.51

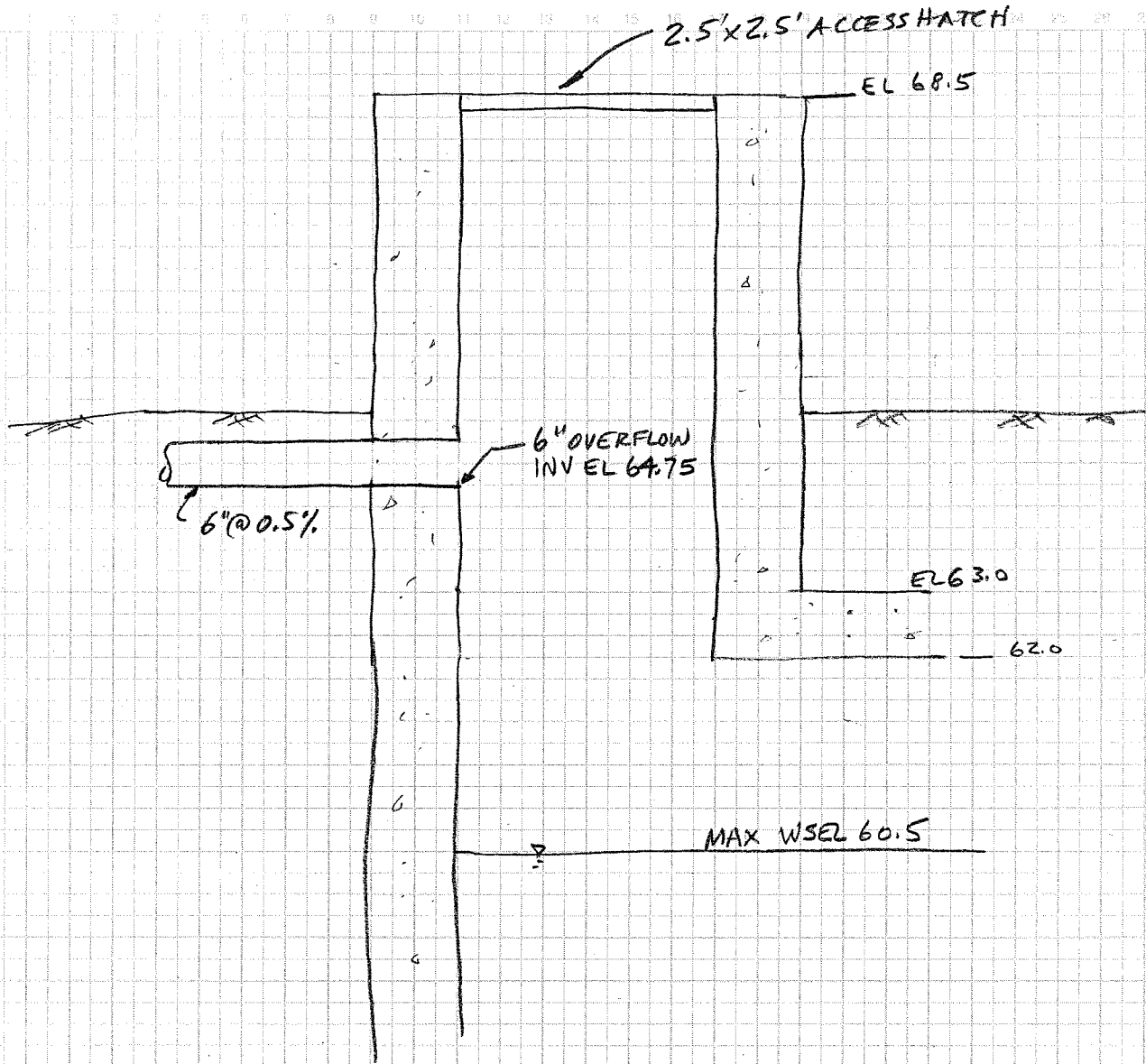
9062

64.1  
C

5

65.8

66.0



TANK SECTION  
NTS

DETENTION POND SPILLS AT ~EL 63.5  
∴ DAYLIGHT OVERFLOW AT EL 64.5 or HIGHER

$$20' @ 0.5\% \Rightarrow 0.1'$$

$$64.75 - 0.1 = 64.65 \text{ DAYLIGHT EL.}$$

## PLANS REVIEW: POTABLE WATER SUPPLY FACILITIES

See instructions on page 4  
(Please Print or Type)

System Name: Farmer's Korner Water System  
(Name of Municipality, District, Utility, Business, Camp, or Other Establishment)

County in which facility is located: Summit PWSID# \_\_\_\_\_

Business Address: Mr. Larry Smith Telephone # (303) 650-5609  
Farmer's Korner, Inc.  
P.O. Box 1005  
Frisco, CO 80443

Legal Representative: Larry Smith Owner  
Name Title

The following documents must be included in every submittal:

- |                          |                     |                          |
|--------------------------|---------------------|--------------------------|
| Project Summary          | Design Calculations | Inventory Form           |
| Flood Plain Certificate  | Chemical Analysis   | Lead & Copper Assessment |
| Plans and Specifications | Financial Plan      | Vulnerability Assessment |

Consulting Engineering Company: MARTIN/MARTIN

Project Engineer: Roger Smades CO License #: 9154

Address: 4251 Kipling St. Telephone: (303) 431-6100  
Wheat Ridge, CO 80033

Estimated project cost: \$ 400,000 (See item #7 in the instructions for financial information requirements.)

Estimated bid opening date: June, 1999 Estimated completion date: October, 1999

Size: 17,300 GPD ~~(MGD)~~ Population Served: 100 0  
(Residents or employees) (Transients)

# of Taps: 35



INFORMATION REGARDING WATER TREATMENT FACILITIES

1. Surface water source name: NA
2. Identify all domestic and industrial waste discharges five miles upstream NA
3. Groundwater aquifer name: Tributary to Blue River
4. If a well, what is the Total depth? 50 (feet) First Draw depth at perforated casing? 30 (feet)  
Please refer to item # 11 on page 4 of the instructions.
5. Source Water Location (Latitude and Longitude): Latitude: 39.515, Longitude: -106.049
6. Location of water treatment facility: (Latitude, longitude, as well as distance and direction from nearest incorporated town or city).  
Latitude: 39.515 Longitude: -106.049 3 miles north of Frisco

7. Approval by the County Health Department is required:

5/25/99  
Date

YES  
Approved (yes or no)

James A. Rada REHS  
Signature and title EH Manager

Legal Representative:

Lauren Smith  
Signature

May 20, 1999  
Date

It is the responsibility of the legal representative to obtain all needed permits (for discharges, wells, overflow, stream crossings, highway crossings, building, etc.). During the design process, consideration was given to special requirements by other state and local regulatory agencies for items such as safety requirements, special designs for the disabled, fire protection, emergency power, plumbing and electrical codes, etc.

Colorado Department of Public Health and Environment  
WATER QUALITY CONTROL DIVISION  
WQCD - TS - B2 - Technical Services Unit  
4300 Cherry Creek Drive South  
Denver, Colorado 80246-1530  
(303) 692-3500

## 100 YEAR FLOOD PLAIN CERTIFICATION

This Statement must accompany all Requests for Review, plans and specifications for water wells and/or water treatment facilities submitted to the Colorado Department of Public Health and Environment.

PROJECT TITLE: Farmer's Korner Water System County Summit

CONSULTANT: MARTIN/MARTIN

### STATEMENT

I hereby certify that a Professional Engineering judgment has been made after evaluating all available flood plain data from the Colorado Water Conservation Board, U.S. Army Corps of Engineers, Housing and Urban Development, County Government, local flood districts, etc. regarding a potential 100-year flood threat to the

Farmer's Korner Water System

(Well or treatment plant)

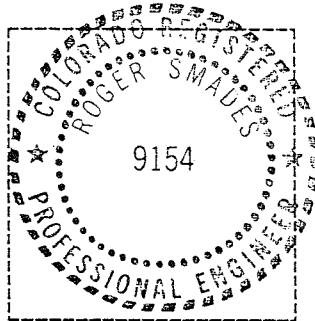
for Farmer's Korner, Inc.

Name of entity or district, etc.

In my opinion, these water works as located and designed, are not subject to flood damage by a 100-year event, based on information enclosed from the Federal Emergency Management Agency

Roger H. Smades, P.E.

(Signature and Title)



Community Systems:  
Professional Engineer's Stamp

Date: May 18, 1999

## \*\* INSTRUCTIONS \*\*

1. The submittal must have the signature of the owner and the signature of the local health department.
2. **Project Summary:** One copy of a final design report that explains the scope of the project, raw water characteristics, and the alternatives considered.
3. **Flood Plain Certificate:** One copy of the "100 Year Flood Plain Certification" with a Professional Engineer's seal.\*
4. **Plans and Specifications:** One copy of the final blueprints and one copy of the technical specifications with a Professional Engineer's seal.\*
5. **Design Calculations:** A detailed description of the treatment process and unit design loading rates.
6. **Chemical Analysis:** Submit one copy of a raw water chemical analysis from a certified lab on the state reporting forms. The community and non-transient non-community systems are required to submit: inorganic, nitrate, nitrite, sodium, corrosivity (temp. pH, alkalinity, calcium and TDS or Conductivity), radioactivity and organic (Phase I, II, and V). The transient non-community systems are required to submit: bacteriological, nitrate and nitrite. Sample results must have been collected within the last three years.
7. **Financial Plan:** One copy of a financial plan. The plan must include the expected annual costs, rate structure, accrual of O. & M. fund, financial capability, and fee structure. The financial capability portion should provide necessary capital for the continued operation, equipment maintenance and replacement, and required sampling (Colorado Primary Drinking Water Regulations), throughout the life of the project.
8. **Lead and Copper Assessment:** When a new source or treatment process will affect the corrosivity of the systems potable water, a lead and copper assessment must be completed. Contact the Drinking Water Section for additional information.
9. **Vulnerability Assessment:** When a new source is added, one set of organic results plus a request for a vulnerability assessment must be submitted. Vulnerability Assessment forms can be obtained from the Drinking Water Section.
10. **Inventory Form:** To update the data base system at the Department, an inventory form must be included as a part of the submittal.
11. Well construction details (if applicable) must include:
  - a. The well log;
  - b. Well permit;
  - c. Pitless adapter cross section;
  - d. Grouting details;
  - e. Sanitary well seal specifications;
  - f. Well head elevation (must be at least 12" above ground and not in the 100 year flood plain).
  - g. Copy of the microscopic particulate analysis if well depth is less than 100 ft.
  - h. Positive slope away from the well
12. All springs and infiltration galleries must perform a microscopic particulate analysis.

All information must be submitted as a complete package, or it will be returned to the owner. The Division has 45 days to review the submittal. The owner must obtain the approval by CDPHE prior to commencement of construction. If construction does not begin within one year after the approval, it is no longer valid.

\*Non-community systems do not require a professional engineering seal.

Public Drinking Water System Inventory Form

PLEASE COMPLETE AND RETURN THIS FORM TO THIS OFFICE AS SOON AS POSSIBLE.

PLEASE PRINT OR TYPE

Today's Date: May 19, 1999 County: Summit PWSID#: \_\_\_\_\_

Establishment Name: Farmer's Korner, Inc.

Establishment Address: P.O. Box 1005 Frisco CO 80443  
City State Zip

Establishment Phone#: ( 303 ) 650-5609 Do you provide food service? No

Type of Establishment: homes  
*(ie: homes, business, school, factory, store, camp, church, lodge, campground, ski area, etc.)*

Do you have a Certified Water System Operator? Application in progress Class: \_\_\_\_\_

Certified Operator's Name: Lori Cutunilli Operator's Phone#: ( 303 ) 650-5609

Owner's Name: Larry Smith Owner's Phone#: ( 303 ) 650-5609

Water Source(s): well 50 feet deep  
*(ie: Well (include well depth), Spring, Creek, Reservoir, Lake, Purchased, etc.)*

If you purchase water, name the system you purchase from: Not applicable

Do you have a state issued waiver from disinfection? No

\* \* Please complete the treatment information on the back of this form. \* \*

Is this a seasonal operation? No If yes: Date OPENS \_\_\_\_/\_\_\_\_/\_\_\_\_ Date CLOSES \_\_\_\_/\_\_\_\_/\_\_\_\_  
month day month day

Indicate the approximate number of each (per day) for our records: *(record the maximum, do not average)*

92 Residents, year round 0 Students 0 Church/Club Members  
0 Residents, seasonal 0 Day Care Children 35 Other, specify type below  
0 Employees 0 Visitors/Customers/Guests Commercial

Comments: \_\_\_\_\_

Print name of person completing this form: Roger Smades, P.E.

Signature: Roger H. Smades Title: Principal, MARTIN/MARTIN Consulting Engineers

Return this form to: Colorado Department of Public Health and Environment  
WQCD-CMDM-B2, ATTN: Drinking Water Compliance Technician  
4300 Cherry Creek Drive South  
Denver, CO 80246-1530

Phone#: (303)692-3500  
FAX: (303)782-0390

J:\WP\FORMS\UNV\_GEN.Frm revised 2/98 hhh

Please copy this form for EACH source of water your system has available for use.

Today's Date: May 19, 1999

Establishment Name: Farmer's Korner Water System

PWSID#: \_\_\_\_\_

Name of Water Source: \_\_\_\_\_

County: Summit

Check those treatments that apply to this source only.

No Treatment Applied

Distillation

DISINFECTION

Fluoridation

Gaseous Chlorination, Post

Inhibitor, Bimetallic Phosphate

Gaseous Chlorination, Pre

Inhibitor, Hexametaphosphate

Hypochlorination, Bleach, Post

Inhibitor, Orthophosphate

Hypochlorination, Bleach, Pre

Inhibitor, Polyphosphate

Chloramines

Inhibitor, Silicate

Chlorine Dioxide

Ion Exchange

Ozonation, Post

Lime - Soda Ash Addition

Ozonation, Pre

pH Adjustment

Ultraviolet Radiation

pH Adjustment, Pre

pH Adjustment, Post

FILTRATION

Permanganate

Peroxide

Coagulation

Reducing Agent, Sodium Bisulfate

Rapid Mix

Reducing Agent, Sodium Sulfite

Flocculation

Reducing Agent, Sulfur Dioxide

Sedimentation

Reducing Agent

Filtration, Rapid Sand

Reverse Osmosis

Filtration, Bag

Sequestration

Filtration, Cartridge

Sludge Treatment

Filtration, Diatomaceous Earth

VENDING MACHINES

Filtration, Greensand

Source water supplied by another water system.

Filtration, Pressure Sand

Identify other water system: \_\_\_\_\_

Filtration, Slow Sand

Filtration, Ultrafiltration

Microscreening

COMMENTS:

Unfiltered, but Required to Filter

\* Radon Removal

OTHER FORMS OF TREATMENT

Activated Alumina

Activated Carbon, Granular

Activated Carbon, Powdered

Aeration, Cascade

Aeration, Diffused

Aeration, Packed Tower

\* Aeration, Slat Tray

Aeration, Spray

Algae Control

Bone Char

LONGITUDE 39.515 THIS SOURCE

LATITUDE -106.049 THIS SOURCE

OTHER FORMS OF TREATMENT (Continued)