

# Application for a Permit to Use Ground Water



Oregon Water Resources Department  
725 Summer Street NE, Suite A  
Salem, Oregon 97301-1266  
(503) 986-0900  
www.wrd.state.or.us

## SECTION 1: APPLICANT INFORMATION AND SIGNATURE

### Applicant Information

NAME Faith Land Company, LLC		PHONE (HM)	
PHONE (WK) (541) 216-9015	CELL (541) 216-9015	FAX (775) 777-8837	
ADDRESS 3716 East Idaho Street Suite A			
CITY Elko	STATE NV	ZIP 89801	E-MAIL N/A

### Organization Information

NAME Faith Land Company, LLC		PHONE (541) 216-9015	FAX (775) 777-8837
ADDRESS 3716 East Idaho Street Suite A			CELL
CITY Elko	STATE NV	ZIP 89801	E-MAIL N/A

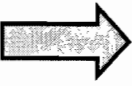
### Agent Information – The agent is authorized to represent the applicant in all matters relating to this application.

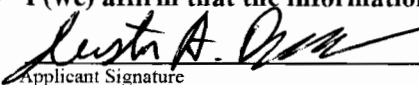
AGENT / BUSINESS NAME CK3, LLC - Attn: Stu Edwards		PHONE (541) 889-5411	FAX (541) 889-2074
ADDRESS 368 SW 5th Avenue			CELL (208) 739-0313
CITY Ontario	STATE OR	ZIP 97914	E-MAIL stu@ck3llc.net

Note: Attach multiple copies as needed

### By my signature below I confirm that I understand:

- I am asking to use water specifically as described in this application.
- Evaluation of this application will be based on information provided in the application.
- I cannot use water legally until the Water Resources Department issues a permit.
- Oregon law requires that a permit be issued before beginning construction of any proposed well, unless the use is exempt. Acceptance of this application does not guarantee a permit will be issued.
- If I get a permit, I must not waste water.
- If development of the water use is not according to the terms of the permit, the permit can be cancelled.
- The water use must be compatible with local comprehensive land-use plans.
- Even if the Department issues a permit, I may have to stop using water to allow senior water-right holders to get water to which they are entitled.

 I (we) affirm that the information contained in this application is true and accurate.

  
Applicant Signature

Dustin A. Baker  
Print Name and title if applicable

8-10-10  
Date

\_\_\_\_\_  
Applicant Signature

\_\_\_\_\_  
Print Name and title if applicable

\_\_\_\_\_  
Date

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For Department Use		
App. No. <u>G-17420</u>	Permit No. _____	Date _____

**SECTION 2: PROPERTY OWNERSHIP**

Please indicate if you own all the lands associated with the project from which the water is to be diverted, conveyed, and used.

- Yes
  - There are no encumbrances.
  - This land is encumbered by easements, rights of way, roads or other encumbrances.
- No
  - I have a recorded easement or written authorization permitting access.
  - I do not currently have written authorization or easement permitting access.
  - Written authorization or an easement is not necessary, because the only affected lands I do not own are state-owned submersible lands, and this application is for irrigation and/or domestic use only (ORS 274.040).
  - Water is to be diverted, conveyed, and/or used only on federal lands.

List the names and mailing addresses of all affected landowners (*attach additional sheets if necessary*).  
 All lands are owned by Applicant

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**SECTION 3: WELL DEVELOPMENT**

WELL NO.	NAME OF NEAREST SURFACE WATER	IF LESS THAN 1 MILE:	
		DISTANCE TO NEAREST SURFACE WATER	ELEVATION CHANGE BETWEEN NEAREST SURFACE WATER AND WELL HEAD
1	East Fork Malheur River	N/A	N/A
2	East Fork Malheur River	N/A	N/A
3	East Fork Malheur River	N/A	N/A
4	East Fork Malheur River	N/A	N/A
5	East Fork Malheur River	N/A	N/A
6	East Fork Malheur River	N/A	N/A

Please provide any information for your existing or proposed well(s) that you believe may be helpful in evaluating your application. For existing wells, describe any previous alteration(s) or repair(s) not documented in the attached well log or other materials (*attach additional sheets if necessary*).

Well No. 5 and 6 are the backup locations in case the other four wells do not produce the required flows for the five pivots and wheel lines.

Pivot 1 requires 1296 gpm, Pivot 2, 3 and 4 require 696 gpm each and pivot 5 requires 320 gpm.

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**SECTION 3: WELL DEVELOPMENT, CONTINUED**

Source (aquifer), if known: Malheur Basin

Total maximum rate requested: 1980 Ac. Ft. (each well will be evaluated at the maximum rate unless you indicate well-specific rates and annual volumes in the table below).

Complete the table below. If this is an existing well, the following information may be found on the applicable well log. (If a well log is available, please submit it *in addition to completing the table.*) If this is a proposed well, or well-modification, consider consulting with a licensed well driller, geologist, or certified water right examiner.

T.B.D. = To Be Determined after wells are drilled.

OWNER'S WELL NAME OR NO.	PROPOSED	EXISTING	WELL ID (WELL TAG) NO.* OR WELL LOG ID**	FLOWING ARTESIAN	CASING DIAMETER	CASING INTERVALS (IN FEET)	PERFORATED OR SCREENED INTERVALS (IN FEET)	SEAL INTERVALS (IN FEET)	MOST RECENT STATIC WATER LEVEL & DATE (IN FEET)	PROPOSED USE			
										SOURCE AQUIFER***	TOTAL WELL DEPTH	WELL-SPECIFIC RATE (GPM)	ANNUAL VOLUME (ACRE-FEET)
1	<input checked="" type="checkbox"/>	<input type="checkbox"/>	N/A	<input type="checkbox"/>	T.B.D.	T.B.D.	T.B.D.	T.B.D.	T.B.D.	Malheur Basin	450'	T.B.D.	T.B.D.
2	<input checked="" type="checkbox"/>	<input type="checkbox"/>	N/A	<input type="checkbox"/>	T.B.D.	T.B.D.	T.B.D.	T.B.D.	T.B.D.	Malheur Basin	450'	T.B.D.	T.B.D.
3	<input checked="" type="checkbox"/>	<input type="checkbox"/>	N/A	<input type="checkbox"/>	T.B.D.	T.B.D.	T.B.D.	T.B.D.	T.B.D.	Malheur Basin	450'	T.B.D.	T.B.D.
4	<input checked="" type="checkbox"/>	<input type="checkbox"/>	N/A	<input type="checkbox"/>	T.B.D.	T.B.D.	T.B.D.	T.B.D.	T.B.D.	Malheur Basin	450'	T.B.D.	T.B.D.
5	<input checked="" type="checkbox"/>	<input type="checkbox"/>	N/A	<input type="checkbox"/>	T.B.D.	T.B.D.	T.B.D.	T.B.D.	T.B.D.	Malheur Basin	450'	T.B.D.	T.B.D.
6	<input checked="" type="checkbox"/>	<input type="checkbox"/>	N/A	<input type="checkbox"/>	T.B.D.	T.B.D.	T.B.D.	T.B.D.	T.B.D.	Malheur Basin	450'	T.B.D.	T.B.D.
	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>									
	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>									

\* Licensed drillers are required to attach a Department-supplied Well Tag, with a unique Well ID or Well Tag Number to all new or newly altered wells. Landowners can request a Well ID for existing wells that do not have one. The Well ID is intended to serve as a unique identification number for each well.

\*\* A well log ID (e.g. MARI 1234) is assigned by the Department to each log in the agency's well log database. A separate well log is required for each subsequent alteration of the well.

\*\*\* Source aquifer examples: Troutdale Formation, gravel and sand, alluvium, basalt, bedrock, etc.

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**SECTION 4: WATER USE**

USE	PERIOD OF USE	ANNUAL VOLUME (ACRE-FEET)
Irrigation	March 1 to October 31	1,980

**Exempt Uses:** Please note that 15,000 gallons per day for single or group **domestic** purposes and 5,000 gallons per day for a single **industrial or commercial** purpose are exempt from permitting requirements.

**For irrigation use only:**  
 Please indicate the number of primary and supplemental acres to be irrigated (*must match map*).  
 Primary: 660.16 Acres                      Supplemental: 0.00 Acres  
 List the Permit or Certificate number of the underlying primary water right(s): N/A  
 \_\_\_\_\_  
 Indicate the maximum total number of acre-feet you expect to use in an irrigation season: \_\_\_\_\_

- If the use is **municipal or quasi-municipal**, attach **Form M**
- If the use is **domestic**, indicate the number of households: N/A
- If the use is **mining**, describe what is being mined and the method(s) of extraction: N/A

**SECTION 5: WATER MANAGEMENT**

**A. Diversion and Conveyance**

What equipment will you use to pump water from your well(s)?

- Pump (give horsepower and type): To Be Determined (estimated at 100 HP per well)
- Other means (describe): \_\_\_\_\_

Provide a description of the proposed means of diversion, construction, and operation of the diversion works and conveyance of water. 4 to 6 wells connected to a pipe line connected to 5 high pressure pivots and Wheel lines.

**B. Application Method**

What equipment and method of application will be used? (e.g., drip, wheel line, high-pressure sprinkler)  
5 High Pressure Pivot Sprinklers and Wheel lines.

**C. Conservation**

Please describe why the amount of water requested is needed and measures you propose to: prevent waste; measure the amount of water diverted; prevent damage to aquatic life and riparian habitat; prevent the discharge of contaminated water to a surface stream; prevent adverse impact to public uses of affected surface waters.

The use of sprinkler pivots and wheel lines will conserve water compared to open ditch and corrugated fields.

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**SECTION 6: STORAGE OF GROUND WATER IN A RESERVOIR**

If you would like to store ground water in a reservoir, complete this section (if more than one reservoir, reproduce this section for each reservoir).

Reservoir name: N/A Acreage inundated by reservoir: N/A

Use(s): N/A

Volume of Reservoir (acre-feet): N/A Dam height (feet, if excavated, write "zero"): N/A

*Note: If the dam height is greater than or equal to 10.0' above land surface AND the reservoir will store 9.2 acre feet or more, engineered plans and specifications must be approved prior to storage of water.*

**SECTION 7: USE OF STORED GROUND WATER FROM THE RESERVOIR**

If you would like to use stored ground water from the reservoir, complete this section (if more than one reservoir, reproduce this section for each reservoir).

Annual volume (acre-feet): N/A

USE OF STORED GROUND WATER	PERIOD OF USE
N/A	N/A

**SECTION 8: PROJECT SCHEDULE**

Date construction will begin: September 1, 2010

Date construction will be completed: March 1, 2011

Date beneficial water use will begin: April 1, 2011

**SECTION 9: REMARKS**

Use this space to clarify any information you have provided in the application (attach additional sheets if necessary).

The information provided is based on proposed construction, unknown (T.B.D.) units will be provided after construction of the wells.

(T.B.D. = To Be Determined)

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# Land Use Information Form



**Oregon Water Resources Department**  
725 Summer Street NE, Suite A  
Salem, Oregon 97301-1266  
(503) 986-0900  
www.wrd.state.or.us

Applicant: Faith Land Company, LLC  
First Last

Mailing Address: 3716 East Idaho Street Suite A

Elko NV 89801 Daytime Phone: (541) 216-9015  
City State Zip

## A. Land and Location

Please include the following information for all tax lots where water will be diverted (taken from its source), conveyed (transported), and/or used or developed. Applicants for municipal use, or irrigation uses within irrigation districts may substitute existing and proposed service-area boundaries for the tax-lot information requested below.

Township	Range	Section	¼ ¼	Tax Lot #	Plan Designation (e.g., Rural Residential/RR-5)	Water to be:			Proposed Land Use:
19S	43E	11	SW	3000	A2	<input type="checkbox"/> Diverted	<input type="checkbox"/> Conveyed	<input checked="" type="checkbox"/> Used	IRR
19S	43E	12	SW	3000 & 4000	A2	<input type="checkbox"/> Diverted	<input type="checkbox"/> Conveyed	<input checked="" type="checkbox"/> Used	IRR
19S	43E	13	All	4400 & 4500	A2	<input type="checkbox"/> Diverted	<input type="checkbox"/> Conveyed	<input checked="" type="checkbox"/> Used	IRR
19S	43E	14	All	3000,4600,4700	A2	<input type="checkbox"/> Diverted	<input type="checkbox"/> Conveyed	<input checked="" type="checkbox"/> Used	IRR

List all counties and cities where water is proposed to be diverted, conveyed, and/or used or developed:

Malheur County

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## B. Description of Proposed Use

Type of application to be filed with the Water Resources Department:

- Permit to Use or Store Water   
  Water Right Transfer   
  Permit Amendment or Ground Water Registration Modification  
 Limited Water Use License   
  Allocation of Conserved Water   
  Exchange of Water

Source of water:  Reservoir/Pond   
 Ground Water   
 Surface Water (name) \_\_\_\_\_

Estimated quantity of water needed: 1,980  cubic feet per second   
 gallons per minute   
 acre-feet

Intended use of water:  Irrigation   
 Commercial   
 Industrial   
 Domestic for \_\_\_\_\_ household(s)  
 Municipal   
 Quasi-Municipal   
 Instream   
 Other \_\_\_\_\_

Briefly describe:

For the use of Irrigating land for growing hay with 4 high pressure pivot irrigation lines connected to 4 to 6 wells.

**Note to applicant:** If the Land Use Information Form cannot be completed while you wait, please have a local government representative sign the receipt at the bottom of the next page and include it with the application filed with the Water Resources Department.

See bottom of Page 3. →

## For Local Government Use Only

The following section must be completed by a planning official from each county and city listed unless the project will be located entirely within the city limits. In that case, only the city planning agency must complete this form. This deals only with the local land-use plan. Do not include approval for activities such as building or grading permits.

**Please check the appropriate box below and provide the requested information**

- Land uses to be served by the proposed water uses (including proposed construction) are allowed outright or are not regulated by your comprehensive plan. Cite applicable ordinance section(s): MCC Chap 6
- Land uses to be served by the proposed water uses (including proposed construction) involve discretionary land-use approvals as listed in the table below. (Please attach documentation of applicable land-use approvals which have already been obtained. Record of Action/land-use decision and accompanying findings are sufficient.) **If approvals have been obtained but all appeal periods have not ended, check "Being pursued."**

Type of Land-Use Approval Needed (e.g., plan amendments, rezones, conditional-use permits, etc.)	Cite Most Significant, Applicable Plan Policies & Ordinance Section References	Land-Use Approval:	
		<input type="checkbox"/> Obtained <input type="checkbox"/> Denied	<input type="checkbox"/> Being Pursued <input type="checkbox"/> Not Being Pursued
		<input type="checkbox"/> Obtained <input type="checkbox"/> Denied	<input type="checkbox"/> Being Pursued <input type="checkbox"/> Not Being Pursued
		<input type="checkbox"/> Obtained <input type="checkbox"/> Denied	<input type="checkbox"/> Being Pursued <input type="checkbox"/> Not Being Pursued
		<input type="checkbox"/> Obtained <input type="checkbox"/> Denied	<input type="checkbox"/> Being Pursued <input type="checkbox"/> Not Being Pursued
		<input type="checkbox"/> Obtained <input type="checkbox"/> Denied	<input type="checkbox"/> Being Pursued <input type="checkbox"/> Not Being Pursued

Local governments are invited to express special land-use concerns or make recommendations to the Water Resources Department regarding this proposed use of water below, or on a separate sheet.

Name: Jon D Beal Title: Planning Dir  
 Signature: Jon D Beal Phone: 541-473-5185 Date: 8-6-10  
 Government/Entity: Malheur Co

**Note to local government representative:** Please complete this form or sign the receipt below and return it to the applicant. If you sign the receipt, you will have 30 days from the Water Resources Department's notice date to return the completed Land Use Information Form or WRD may presume the land use associated with the proposed use of water is compatible with local comprehensive plans.



**Receipt for Request for Land Use Information**

Applicant name: \_\_\_\_\_  
 City or County: \_\_\_\_\_ Staff contact: \_\_\_\_\_  
 Signature: \_\_\_\_\_ Phone: \_\_\_\_\_ Date: \_\_\_\_\_

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INSTRUMENT NO. 2004 - 5355  
Page 1 of 5 Pages

Prepared by:  
YTURRI ROSE LLP  
P.O. Box S  
Ontario, OR 97914

RECORDER'S INFORMATION:

Inst. No. 2004-5355 (3rd)

I certify that the within Instrument of writing was received for record on the 30 day of July, 2004 at 1:50 O'clock P. M. FEE 741

STATE OF OREGON, County of Malheur

DEBORAH R. DeLONG

County Clerk

By: *Deborah R. DeLong* Deputy

Until a change is requested, all tax statements shall be sent to:  
Faith Land Co., LLC  
285 Spring Creek Parkway #1  
Spring Creek NV 89815

After recording return to:  
Yturri Rose LLP  
P.O. Box S  
Ontario, OR 97914

## CORRECTED BARGAIN AND SALE DEED

\*This Deed is being rerecorded to correct an erroneous legal description.

Little Valley Ranch Co., L.L.C., an Oregon Limited Liability Company, Grantor, conveys to Faith Land Company, LLC, an Oregon Limited Liability Company, Grantee, the following described real property:

**See Exhibit A attached hereto  
and by this reference incorporated herein**

THIS INSTRUMENT WILL NOT ALLOW USE OF THE PROPERTY DESCRIBED IN THIS INSTRUMENT IN VIOLATION OF APPLICABLE LAND USE LAWS AND REGULATIONS. BEFORE SIGNING OR ACCEPTING THIS INSTRUMENT, THE PERSON ACQUIRING FEE TITLE TO THE PROPERTY SHOULD CHECK WITH THE APPROPRIATE CITY OR COUNTY PLANNING DEPARTMENT TO VERIFY APPROVED USES AND TO DETERMINE ANY LIMITS ON LAWSUITS AGAINST FARMING OR FOREST PRACTICES AS DEFINED IN ORS 30.930.

The true consideration for this conveyance is: Dissolution of Little Valley Ranch Co., L.L.C. and final Distribution of L.L.C. Assets.



INSTRUMENT NO. 2004 - 5355  
Page 2 of 5 Pages

Prepared by:  
YTURRI ROSE LLP  
P.O. Box S  
Ontario, OR 97914

INSTRUMENT NO. 2004 ~~4758~~  
Page 1 of 3 Pages

RECORDER'S INFORMATION:

Until a change is requested, all  
tax statements shall be sent to:  
Faith Land Co., LLC  
285 Spring Creek Parkway #1  
Spring Creek NV 89815

*re-recorded*  
INSTRUMENT NO. 2004 - 4903  
Page 1 of 3 Pages

Inst. No. 2004-4758 (1st)

I certify that the within Instrument of  
writing was received for record on  
the 2 day of July, 20 04  
at 11:15 O'clock AM. FEE \$31  
STATE OF OREGON, County of Malheur  
DEBORAH R. DeLONG  
County Clerk

After recording return to:  
Yturri Rose LLP  
P.O. Box S  
Ontario, OR 97914

By: *Sheryl Johnson* Deputy

**CORRECTED\* BARGAIN AND SALE DEED**

\* This Deed is being rerecorded to correct an erroneous legal description.  
Little Valley Ranch Co., L.L.C., an Oregon Limited Liability Company, Grantor, conveys  
to Faith Land Company, LLC, an Oregon Limited Liability Company, Grantee, the  
following described real property:

**See Exhibit A attached hereto  
and by this reference incorporated herein**

THIS INSTRUMENT WILL NOT ALLOW USE OF THE PROPERTY DESCRIBED IN THIS  
INSTRUMENT IN VIOLATION OF APPLICABLE LAND USE LAWS AND REGULATIONS. BEFORE  
SIGNING OR ACCEPTING THIS INSTRUMENT, THE PERSON ACQUIRING FEE TITLE TO THE  
PROPERTY SHOULD CHECK WITH THE APPROPRIATE CITY OR COUNTY PLANNING  
DEPARTMENT TO VERIFY APPROVED USES AND TO DETERMINE ANY LIMITS ON LAWSUITS  
AGAINST FARMING OR FOREST PRACTICES AS DEFINED IN ORS 30.930.

The true consideration for this conveyance is: Dissolution of Little Valley Ranch Co.,  
L.L.C. and final Distribution of L.L.C. Assets.

Dated this 30 day of June, 2004 .

Little Valley Ranch Co., L.L.C.

*Donald Decker*

By: Donald Decker, Member

State of Oregon )  
County of Malheur ) ss.

*Re-recorded*  
Inst. No. 2004-4903 (2nd)

I certify that the within Instrument of  
writing was received for record on  
the 12 day of July, 20 04  
at 10:01 O'clock A. M. FEE \$31  
STATE OF OREGON, County of Malheur

BARGAIN AND SALE DEED - Page 1 of 3  
438003/d1/29Jun04/tg

DEBORAH R. DeLONG  
County Clerk

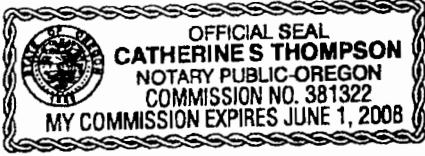
By: *Sheryl Johnson* Deputy

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The foregoing instrument was acknowledged before me this 30 day of June, 2004 by Donald Decker.

*[Signature]*  
\_\_\_\_\_  
Notary Public for Oregon.  
My Commission expires: 6/1/08



*[Signature]*  
\_\_\_\_\_  
By: David Woolfolk, Member  
*[Signature]*  
Linda Woolfolk

INSTRUMENT NO. 2004 - *5355*  
Page *3* of *5* Pages

State of Oregon            )  
  ) ss.  
County of Malheur        )

The foregoing instrument was acknowledged before me this 29 day of June, 2004 by David Woolfolk and Linda Woolfolk.

*[Signature]*  
\_\_\_\_\_  
Notary Public for Oregon  
My Commission expires: 6-21-04



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EXHIBIT "A"

Land in Malheur County, Oregon, as follows:

In Twp. 18 S., R. 43 E., W.M.:

Sec. 32: SE1/4 SW1/4 and all that portion of the S1/2 SE1/4 lying South of the Malheur River.

EXCEPTING THEREFROM that portion of the Oregon-Washington Railroad and Navigation Company's railroad right-of-way, as described in that certain Deed recorded June 28, 1912, Book 2, Page 305, Malheur County Deed Records.

Sec. 33: All that portion of the SE1/4 SW1/4, SW1/4 SE1/4, lying South and West; and lying North and East of the Malheur River.

EXCEPTING THEREFROM that portion of the Oregon-Washington Railroad and Navigation Company's railroad right-of-way, as described in that certain Deed recorded June 28, 1912, Book 2, Page 305, Malheur County Deed Records.

Map: 1843 Tax Lot(s) 1300 and 1800.

Land in Malheur County, Oregon, as follows:

In Twp. 19 S., R. 43 E., W.M.:

Sec. 10: ALL.

Sec. 11: NW1/4, S1/2, and all that portion of the S1/2 NE1/4 lying South of the J.H. Canal (McLaughlin) Ditch right-of-way.

~~Sec. 12:~~ SW1/4 SW1/4, all that portion of the W1/2 SE1/4 SW1/4 lying North and West of the relocated Central Oregon Highway right-of-way.

All that portion of the N1/2 SW1/4, lying South and West of the Vines Canal right-of-way.

Sec. 13: ALL,

*4400 6/500*  
*2 Part 3000*  
EXCEPTING THEREFROM that portion conveyed to the State of Oregon, State Highway Commission, by Deed dated October 20, 1961, recorded November 22, 1961, Book 120, Instrument No. 33411, Malheur County Deed Records.

Sec. 14: ALL,

*Part 3000*  
*4600*  
*4700*  
EXCEPTING THEREFROM that portion conveyed to the State of Oregon, State Highway Commission, by Deed dated October 20, 1961, recorded November 22, 1961, Book 120, Instrument No. 33411, Deed Records.

Sec. 15: N1/2. *Part 3000*

Map: 1943A Tax Lot(s) 1400, 1401, 1402, 1700, 2300, 2600, 2700 and 2800.

Land in Malheur County, Oregon, as follows:

In Twp. 19 S., R. 43 E., W.M.:

Sec. 4: E1/2 E1/2,

EXCEPTING THEREFROM that portion lying Northeasterly of the centerline of the Vines Canal right of way.

SUBJECT to canal right of way.

ALSO SUBJECT to a 50 foot easement for irrigation purposes lying South and West of the Vines Canal right of way.

Sec. 5: ALL

Sec. 9: E1/2.

Sec. 16: W1/2.

Map: 1943B Tax Lot(s) 100, 101, 103, 300, 400 and 490.

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EXHIBIT "A" CONTINUED

Land in Malheur County, Oregon, as follows:  
In Twp. 19 S., R. 43 E., W.M.:  
Sec. 20: NW1/4 SW1/4.

Map: 1943C Tax Lot(s) 400.

Land in Malheur County, Oregon, as follows:  
In Twp. 21 S., R. 40 E., W.M.:  
Sec. 34: SE1/4.  
Sec. 35: SE1/4 NW1/4, SW1/4 NE1/4, N1/2 SW1/4.

Map: 2140 Tax Lot 700.

Land in Malheur County, Oregon, as follows:  
In Twp. 23 S., R. 42 E., W.M.:  
Sec. 8: NE1/4 NE1/4.

Map: 2342 Tax Lot 400.

Land in Malheur County, Oregon, as follows:  
In Twp. 22 S., R. 41 E., W.M.:  
Sec. 9: E1/2 NW1/4, SW1/4, NE1/4, SE1/4.  
Sec. 10: W1/2 NW1/4.

Map: 2241 Tax Lot 400.

\* \* \* \* \*

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sect. 14

STATE OF OREGON  
WATER SUPPLY WELL REPORT  
(as required by ORS 537.765 & OAR 690-205-0210)

WELL LABEL # L [ ]  
START CARD # 196154

Well #2

(1) LAND OWNER Owner Well ID: [ ]  
First Name: Donald Last Name: Decker  
Company: Faith Land Co.  
Address: 3716 East Idaho St. Unit A  
City: Elko State: Nv Zip: 89801

(2) TYPE OF WORK  New Well  Deepening  Conversion  
 Alteration (repair/recondition)  Abandonment

(3) DRILL METHOD  Rotary Air  Rotary Mud  Cable  Auger  Cable Mud  
 Reverse Rotary  Other

(4) PROPOSED USE  Domestic  Irrigation  Community  
 Industrial/ Commercial  Livestock  Dewatering  
 Thermal  Injection  Other: Test

(5) BORE HOLE CONSTRUCTION Special Standard  (Attach copy)  
Depth of Completed Well: 0 ft

BORE HOLE			SEAL		sacks/		
Dia	From	To	Material	From	To	Am't	lbs
14.	0	40.	Cement	0	595.	30.45	P
8.	40.	595.	Cement				

How was seal placed: Method  A  B  C  D  E  
 Other  
Backfill placed from \_\_\_\_\_ ft. to \_\_\_\_\_ ft. Material \_\_\_\_\_  
Filter pack from \_\_\_\_\_ ft. to \_\_\_\_\_ ft. Material \_\_\_\_\_ Size \_\_\_\_\_  
Explosives used:  Yes Type \_\_\_\_\_ Amount \_\_\_\_\_

(6) CASING/LINER  
Casing Liner Dia + From To Gauge SU Plstc Wld Thrd.  
Shoe  Inside  Outside  Other Location of shoe(s) \_\_\_\_\_  
Temp casing  Yes Dia \_\_\_\_\_ From \_\_\_\_\_ To \_\_\_\_\_

(7) PERFORATIONS/SCREENS  
Perforations Method \_\_\_\_\_  
Screens Type \_\_\_\_\_ Material \_\_\_\_\_  
Perf/ Casing/Screen Dia. From To Screen/slot Slot # of Tele/ Screen Liner Dia. From To width length slots pipe size  
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SALEM, OREGON

(8) WELL TESTS: Minimum testing time is 1 hour  
 Pump  Bailer  Air  Flowing Artesian  
Yield gal/min Drawdown Drill stem/Pump depth Duration (hr)  
200. 0 595. 0  
0  
Temperature 72 °F Lab analysis  Yes By \_\_\_\_\_  
Water quality concerns?  Yes (describe below)  
From To Description Amount Units

(9) LOCATION OF WELL (legal description)  
County: MALHEUR Twp 19 S N/S Range 43 E E/W WM  
Sec 14 NW 1/4 of the SE 1/4 Tax Lot 4600  
Tax Map Number \_\_\_\_\_ Lot \_\_\_\_\_  
Lat 43° 54' 59.06" or 43.91638889 DMS or DD  
Long -117° 24' 44.96" or -117.41247222 DMS or DD  
 Street address of well  Nearest address

2601 Grove School Lane Vale Oregon

(10) STATIC WATER LEVEL  
Date \_\_\_\_\_ SWL(psi) + SWL(ft)  
Existing Well / Predeepening \_\_\_\_\_  
Completed Well \_\_\_\_\_  
Flowing Artesian?  Dry Hole?

WATER BEARING ZONES Depth water was first found

SWL Date	From	To	Est Flow	SWL(psi)	+ SWL(ft)
09-12-2008	530.	595.	200.		95.

(11) WELL LOG Ground Elevation \_\_\_\_\_

Material	From	To
Brown Clay	0	15.
Brown Sand	15.	17.
Brown Clay	17.	23.
Coarse Brown Sand	23.	26.
Brown Clay	26.	30.
Blue Clay	30.	430.
Black Basalt	430.	530.
Fractured Green Basalt	530.	595.
Abandoned, customer felt insufficient water supply		
Pumped cement grout from 595' to 0.		

Date Started 09-08  
(unbonded) Water  
I certify that the work performed on this well meets the construction standards of the best of my knowledge.  
License Number \_\_\_\_\_  
Password: (if filing electronic) \_\_\_\_\_  
Signed: \_\_\_\_\_  
(bonded) Water Well Contractor  
I accept responsibility for the work performed on this well during this construction project.  
License Number 682  
Password: (if filing electronic) \_\_\_\_\_  
Signed: \_\_\_\_\_  
Contact Info (optional): 208-549-3799 926 Hot Springs Rd. Weiser Id. 83672

*We believe there is more water here than is noted here.*

sect. 12

STATE OF OREGON  
WATER SUPPLY WELL REPORT  
(as required by ORS 537.765 & OAR 690-205-0210)

WELL LABEL # 1 84842  
START CARD # 196144

Well # 1

(1) LAND OWNER Owner Well ID: \_\_\_\_\_  
First Name Donald Last Name Decker  
Company Faith Land Co  
Address 3716 East Idaho St  
City Elko State Nv Zip 89801

(2) TYPE OF WORK  New Well  Deepening  Conversion  
 Alteration (repair/recondition)  Abandonment

(3) DRILL METHOD  Rotary Air  Rotary Mud  Cable  Auger  Cable Mud  
 Reverse Rotary  Other

(4) PROPOSED USE  Domestic  Irrigation  Community  
 Industrial/Commercial  Livestock  Dewatering  
 Thermal  Injection  Other Test

(5) BORE HOLE CONSTRUCTION Special Standard  (Attach copy)  
Depth of Completed Well 440 ft.

BORE HOLE			SEAL			sacks/
Dia	From	To	Material	From	To	lbs
14.	0	35.	Bentonite Chips	0	35.	1,900. P
8.	35.	440.				

How was seal placed: Method  A  B  C  D  E  
 Other  
Backfill placed from \_\_\_\_\_ ft. to \_\_\_\_\_ ft. Material \_\_\_\_\_  
Filter pack from \_\_\_\_\_ ft. to \_\_\_\_\_ ft. Material \_\_\_\_\_ Size \_\_\_\_\_  
Explosives used:  Yes Type \_\_\_\_\_ Amount \_\_\_\_\_

(6) CASING/LINER

Casing	Liner	Dia	+	From	To	Gauge	Stl	Plstc	Wld	Thrd
<input checked="" type="checkbox"/>	<input type="checkbox"/>	8.		2.	82.	.250	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Shoe  Inside  Outside  Other Location of shoe(s) 82  
Temp casing  Yes Dia 12 From 0 To 20

(7) PERFORATIONS/SCREENS

Perf/Screen	Casing/Liner	Screen Dia	From	To	Scr/slot width	Slot length	# of slots	Tele/pipe size

(8) WELL TESTS: Minimum testing time is 1 hour  
 Pump  Bailor  Air  Flowing Artesian  
Yield gal/min 200 Drawdown \_\_\_\_\_ Drill stem/Pump depth 440 Duration (hr) 4

Temperature 72 °F Lab analysis  Yes By \_\_\_\_\_  
Water quality concerns?  Yes (describe below)

From	To	Description	Amount	Units

(9) LOCATION OF WELL (legal description)  
County MALHEUR Twp 19 S N/S Range 43 E E/W W/M  
Sec 12 NE 1/4 of the SW 1/4 Tax Lot 3000  
Tax Map Number \_\_\_\_\_ Lot \_\_\_\_\_  
Lat 43° 55' 49.04" or 43.93027778 DMS or DD  
Long -117° 24' 5.000" or -117.40138889 DMS or DD  
 Street address of well  Nearest address  
2601 Grove School Ln. Vale Oregon

(10) STATIC WATER LEVEL Date: \_\_\_\_\_ SWL(psi) + SWL(ft)  
Existing Well / Pradepening \_\_\_\_\_  
Completed Well 09-04-2008 \_\_\_\_\_ 7  
Flowing Artesian?  Dry Hole?

WATER BEARING ZONES Depth water was first found 417

SWL Date	From	To	Est Elow	SWL(psi)	+ SWL(ft)
<u>09-04-2008</u>	<u>417.</u>	<u>440.</u>	<u>300.</u>		<u>7.</u>

(11) WELL LOG Ground Elevation \_\_\_\_\_

Material	From	To
Large Gravel and Sand	0	15.
Brown Clay	15.	23.
Blue Clay	23.	417.
Broken Basalt	417.	440.

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**WATER RESOURCES DEPT**  
**SALEM, OREGON**

Date Started 08-20-2008 Completed 09-04-2008

(unbonded) Water Well Constructor Certification  
I certify that the work I performed on the construction, deepening, alteration, or abandonment of this well is in compliance with Oregon water supply well construction standards. Materials used and information reported above are true to the best of my knowledge and belief.  
License Number \_\_\_\_\_ Date \_\_\_\_\_  
Password: (if filing electronically) \_\_\_\_\_  
Signed \_\_\_\_\_

(bonded) Water Well Constructor Certification  
I accept responsibility for the construction, deepening, alteration, or abandonment work performed on this well during the construction dates reported above. All work performed during this time is in compliance with Oregon water supply well construction standards. This report is true to the best of my knowledge and belief.  
License Number 682 Date 09-29-2008  
Password: (if filing electronically) \_\_\_\_\_  
Signed [Signature]  
Contact Info (optional) 926 Hot Springs Rd. Weiser, Id. 208-549-3799

sect. 14

STATE OF OREGON

WATER SUPPLY WELL REPORT

(as required by ORS 537.765 & OAR 690-285-0210)

WELL LABEL # L

START CARD # 196154

Well #2

(1) LAND OWNER Owner Well ID:

First Name Donald Last Name Decker
Company Faith Land Co.
Address 3716 East Idaho St. Unit A
City Eiko State Ny Zip 89801

(2) TYPE OF WORK
New Well Deepening Conversion
Alteration (repair/recondition) Abandonment

(3) DRILL METHOD
Rotary Air Rotary Mud Cable Auger Cable Mud
Reverse Rotary Other

(4) PROPOSED USE
Domestic Irrigation Community
Industrial/Commercial Livestock Dewatering
Thermal Injection Other Test

(5) BORE HOLE CONSTRUCTION Special Standard Attach copy
Depth of Completed Well 0 ft

Table with columns: Dia, From, To, Material, SEAL, Amt, lbs. Row 1: 14, 0, 40, Cement, 0, 595, 30, 45, P. Row 2: 8, 40, 595, Cement.

How was seal placed: Method A B C D E
Backfill placed from ft to ft Material
Filter pack from ft to ft Material Size
Explosives used: Yes Type Amount

(6) CASING/LINER

Table with columns: Casing/Liner, Dia, From, To, Gauge, Std, Plstr, Wld, Thrd. Includes diagrams of casing sections.

Shoe Inside Outside Other Location of shoe(s)
Temp casing Yes Dia From To

(7) PERFORATIONS/SCREENS

Perforations Method
Screens Type Material
Perf/ Casing/Screen Screen Liner Dia From To width length # of slots pipe size

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SEP 08 2010
WATER RESOURCES DEPT
SALEM, OREGON

(8) WELL TESTS: Minimum testing time is 1 hour

Table with columns: Pump/Bailer/Air/Flowing Artesian, Yield gal/min, Drawdown, Drill stem/Pump depth, Duration (hr). Row 1: 200, 0, 595, 0.

Temperature 72 °F Lab analysis Yes By
Water quality concerns? Yes (describe below)
Table with columns: From, To, Description, Amount, Units.

(9) LOCATION OF WELL (legal description)

County MALHEUR Twp 19 S N/S Range 43 E E/W W/M
Sec 14 NW 1/4 of the SE 1/4 Tax Lot 4600
Tax Map Number Lot
Lat 43 54 59.095" or 43 91633339 DMS or DD
Long -117 24 44.965" or -117.41247222 DMS or DD
Street address of well Nearest address

2601 Grove School Lane Vale Oregon

(10) STATIC WATER LEVEL

Table with columns: Date, SWL (psi), SWL (ft). Existing Well / Predeepening, Completed Well. Flowing Artesian? Dry Hole?

WATER BEARING ZONES Depth water was first found

Table with columns: SWL Date, From, To, Est Flow, SWL (psi), SWL (ft). Row 1: 08-12-2008, 530, 595, 200, 95.

(11) WELL LOG

Table with columns: Material, From, To, Ground Elevation. Rows include Brown Clay, Brown Sand, Blue Clay, Black Basalt, Fractured Green Basalt.

Date Started 09-04-2008 Completed 09-19-2008

(unbonded) Water Well Constructor Certification
I certify that the work I performed on the construction, deepening, alteration, or abandonment of this well is in compliance with Oregon water supply well construction standards.

License Number Date
Password: (if filing electronically)
Signed:

(bonded) Water Well Constructor Certification

I accept responsibility for the construction, deepening, alteration, or abandonment work performed on this well during the construction dates reported above.

License Number 682 Date 09-23-2008
Password: (if filing electronically)
Signed:
Contact info (optional) 208-349-3799 926 Hor Springs Rd. Weiser Id. 83672

G-17420

WATER WELL REPORT  
STATE OF OREGON

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Wash  
17/69

State Well No. 198/43E-13cc

DEC 20 1984

State Permit No.

PLEASE TYPE or PRINT IN INK  
WATER RESOURCES DEPT

SALEM, OREGON

(1) OWNER:

Name HOWARD GIRVIN

Address

City VALE

State OREGON

(2) TYPE OF WORK (check):

97918

New Well  Deepening  Reconditioning  Abandon

If abandonment, describe material and procedure in item 12

(3) TYPE OF WELL:

(4) PROPOSED USE (check):

Rotary Air  Driven  Domestic  Industrial  Municipal   
Rotary Mud  Dig  Irrigation  Test Well  Other   
 Bored  Thermal  Withdrawal  Rejection

(5) CASING INSTALLED:

Steel  Plastic   
Threaded  Welded

16" Diam. from +1 ft. to 40 ft. Gauge #250

" Diam. from ft. to ft. Gauge

LINER INSTALLED:

" Diam. from ft. to ft. Gauge

(6) PERFORATIONS:

Perforated?  Yes  No

Type of perforator used

Size of perforations in by in

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SEP 08 2010

(7) SCREENS:

Well screens installed?  Yes  No

Manufacturer's Name

SALEM, OREGON

Type \_\_\_\_\_ Model No. \_\_\_\_\_

Diam. \_\_\_\_\_ Slot Size \_\_\_\_\_ Set from \_\_\_\_\_ ft. to \_\_\_\_\_ ft.

Diam. \_\_\_\_\_ Slot Size \_\_\_\_\_ Set from \_\_\_\_\_ ft. to \_\_\_\_\_ ft.

(8) WELL TESTS:

Drawdown is amount water level is lowered below static level

a pump test made?  Yes  No If yes, by whom?

Well: \_\_\_\_\_ gal./min. with \_\_\_\_\_ ft. drawdown after \_\_\_\_\_ hrs.

Air test \_\_\_\_\_ gal./min. with drill stem at \_\_\_\_\_ ft. \_\_\_\_\_ hrs.

Boiler test 50 \_\_\_\_\_ gal./min. with 25 ft. drawdown after 1 \_\_\_\_\_ hrs.

Artesian flow \_\_\_\_\_ gpm.

Temperature of water 65 \_\_\_\_\_ Depth artesian flow encountered \_\_\_\_\_ ft.

(9) CONSTRUCTION:

Special standards: Yes  No

Well seal - Material used CEMENT GROUT

Well sealed from land surface to \_\_\_\_\_ ft.

Diameter of well bore to bottom of seal \_\_\_\_\_ in.

Diameter of well bore below seal \_\_\_\_\_ in.

Number of sacks of cement used in well seal \_\_\_\_\_ sacks

How was cement grout placed? PRESSURE GROUTED

Was pump installed? \_\_\_\_\_ Type \_\_\_\_\_ HP \_\_\_\_\_ Depth \_\_\_\_\_ ft.

Was a drive shoe used?  Yes  No \_\_\_\_\_ Flugs \_\_\_\_\_ Size location \_\_\_\_\_ ft.

Did any strata contain unusable water?  Yes  No

Type of Water? \_\_\_\_\_ depth of strata \_\_\_\_\_

Method of sealing strata off \_\_\_\_\_

Was well gravel packed?  Yes  No \_\_\_\_\_ Size of gravel \_\_\_\_\_

Gravel placed from \_\_\_\_\_ ft. to \_\_\_\_\_ ft.

NOTICE TO WATER WELL CONSTRUCTOR:  
The original and first copy of this report are to be filed with the:

61-17420

(10) LOCATION OF WELL:

County MALHEUR Driller's well number

S. 5 W. 4 Section 13 T. 19 R. 43 W.M.

Tax Lot # 2700 Lot Blk Subdivision

Address at well location:

(11) WATER LEVEL: Completed well

Depth at which water was first found 450 ft.

Static level 65 ft. below land surface. Date 11-15-84

Artesian pressure \_\_\_\_\_ lbs. per square inch. Date \_\_\_\_\_

(12) WELL LOG:

Diameter of well below casing 12

Depth drilled 460 ft. Depth of completed well 460 ft.

Formation: Describe color, texture, grain size and structure of materials; and show thickness and nature of each stratum and aquifer penetrated, with at least one entry for each change of formation. Report each change in position of Static Water Level and indicate principal water-bearing strata.

MATERIAL	From	To	SWL
sandy yellow clay	0	25	
broken clay	25	30	
yellow clay	30	45	
blue clay	45	60	
sandy clay	60	62	
blue clay	62	115	
blue sandstone	115	125	
hard blue clay	125	185	
soft blue clay	185	215	
hard blue clay	215	250	
soft blue clay	250	450	
basalt with pyrites	450	460	

Work started 10-20 19 84 Completed 11-15 19 84

Date well drilling machine moved off of well 11-15 19 84

(unbonded) Water Well Constructor Certification (if applicable):

This well was constructed under my direct supervision. Materials used and information reported above are true to my best knowledge and belief.

(Signed) \_\_\_\_\_ Date \_\_\_\_\_, 19 \_\_\_\_\_

Bonded Water Well Constructor Certification:

Bond # 0458259 Issued by: UNITED PACIFIC INS. CO

This well was drilled under my jurisdiction and this report is true to the best of my knowledge and belief.

Name PAT PAGE WELL DRILLING

Address: RT. 2-BOX 2125-VALE OREGON 97918

(Signed) Winfield Page Date 11-15 19 84



**WATER WELL REPORT  
STATE OF OREGON**

*Math  
1773*

**RECEIVED**

APR 28 1982

State Well No. 195/43E-29db  
State Permit No. \_\_\_\_\_

**WATER RESOURCES DEPT**

**(1) OWNER:**

Name CHRIS ESKIDLSON  
Address Rt 1 BOX 290  
City MT VERNON, OREGON State 97865

**(2) TYPE OF WORK (check):**

New Well  Deepening  Reconditioning  Abandon   
If abandonment, describe material and procedure in Item 12.

**(3) TYPE OF WELL:**

Rotary Air  Driven  Domestic  Industrial  Municipal   
Rotary Mud  Dug  Irrigation  Test Well  Other   
Cable  Bored  Thermal:  Withdrawal  Reinjection

**(4) PROPOSED USE (check):**

**(5) CASING INSTALLED:**

Steel  Threaded  Plastic  Welded   
12" Diam. from +1 ft. to 107 ft. Gauge .250  
" Diam. from \_\_\_\_\_ ft. to \_\_\_\_\_ ft. Gauge \_\_\_\_\_

**LINER INSTALLED:**

" Diam. from \_\_\_\_\_ ft. to \_\_\_\_\_ ft. Gauge \_\_\_\_\_

**(6) PERFORATIONS:**

Perforated?  Yes  No  
Type of perforator used \_\_\_\_\_  
Size of perforations \_\_\_\_\_ in. by \_\_\_\_\_ in.  
\_\_\_\_\_ perforations from \_\_\_\_\_ ft. to \_\_\_\_\_ ft.  
\_\_\_\_\_ perforations from \_\_\_\_\_ ft. to \_\_\_\_\_ ft.  
\_\_\_\_\_ perforations from \_\_\_\_\_ ft. to \_\_\_\_\_ ft.

**(7) SCREENS:**

Well screen installed?  Yes  No  
Manufacturer's Name \_\_\_\_\_  
Type \_\_\_\_\_ Model No. \_\_\_\_\_  
Diam. \_\_\_\_\_ Slot Size \_\_\_\_\_ Set from \_\_\_\_\_ ft. to \_\_\_\_\_ ft.  
Diam. \_\_\_\_\_ Slot Size \_\_\_\_\_ Set from \_\_\_\_\_ ft. to \_\_\_\_\_ ft.

**(8) WELL TESTS:**

Drawdown is amount water level is lowered below static level  
Was a pump test made?  Yes  No If yes, by whom?  
\_\_\_\_\_ gal./min. with \_\_\_\_\_ ft. drawdown after \_\_\_\_\_ hrs.  
Air test 400 gal./min. with drill stem at 34.5 ft. 2 hrs.  
Bailer test \_\_\_\_\_ gal./min. with \_\_\_\_\_ ft. drawdown after \_\_\_\_\_ hrs.  
Artesian flow \_\_\_\_\_ g.p.m.  
Temperature of water 68 Depth artesian flow encountered \_\_\_\_\_ ft.

**(9) CONSTRUCTION:**

Special standards: Yes  No   
Well seal—Material used Cement  
Well sealed from land surface to 106 ft.  
Diameter of well bore to bottom of seal 16 in.  
Diameter of well bore below seal 12 in.  
Number of sacks of cement used in well seal 65 sacks  
How was cement grout placed?  
Pressure Grouted  
Was pump installed? \_\_\_\_\_ Type \_\_\_\_\_ HP \_\_\_\_\_ Depth \_\_\_\_\_ ft.  
Was a drive shoe used?  Yes  No Plugs \_\_\_\_\_ Size: location \_\_\_\_\_ ft.  
Did any strata contain unusable water?  Yes  No  
Type of Water? \_\_\_\_\_ depth of strata \_\_\_\_\_  
Method of sealing strata off \_\_\_\_\_  
Was well gravel packed?  Yes  No Size of gravel: \_\_\_\_\_  
Gravel placed from \_\_\_\_\_ ft. to \_\_\_\_\_ ft.

**SALEM, OREGON**

**(10) LOCATION OF WELL:**

County MAJHEUR Driller's well number \_\_\_\_\_  
NW 1/4 SE 1/4 Section 29 T. 19 R. 43 W.M.  
Tax Lot # 804 Lot \_\_\_\_\_ Blk \_\_\_\_\_ Subdivision \_\_\_\_\_  
Address at well location: LITTLE VALLEY, OREGON

**(11) WATER LEVEL: Completed well.**

Depth at which water was first found 55 ft.  
Static level 65 ft. below land surface. Date 4/06/82  
Artesian pressure \_\_\_\_\_ lbs. per square inch. Date \_\_\_\_\_

**(12) WELL LOG:**

Diameter of well below casing 12"  
Depth drilled 360 ft. Depth of completed well 360 ft.  
Formation: Describe color, texture, grain size and structure of materials; and show thickness and nature of each stratum and aquifer penetrated, with at least one entry for each change of formation. Report each change in position of Static Water Level and indicate principal water-bearing strata.

MATERIAL	From	To	SWL
Top Soil	0	8	
Brown Clay W/B	8	62	65
Blue Clay Sticky	62	74	
Brown Soapstone Caving	74	85	
Blue Soapstone	85	94	
Blue Clay	94	101	
Black Rock	101	182	
Green Rock	182	190	
Black Rock	190	234	
Yellow Clay	234	246	
Black Rock	246	250	
Blue Clay	250	257	
Black Rock	257	265	
Green Shale	265	270	
Black Rock	270	290	
Clay	290	310	
Sandstone	310	335	
Clay	335	337	
Sand Stone	337	354	
Sand White	354	360	

*ADDED TO FILE  
9-7-2010  
JHM*

Work started 4/02/82 19 \_\_\_\_\_ Completed 4/06/82 19 \_\_\_\_\_  
Date well drilling machine moved off of well 4/06/82 19 \_\_\_\_\_

**Drilling Machine Operator's Certification:**

This well was constructed under my direct supervision. Materials used and information reported above are true to my best knowledge and belief.  
[Signed] W. Mitchell Page Date 4/22/1982  
(Drilling Machine Operator)  
Drilling Machine Operator's License No. 65

**Water Well Contractor's Certification:**

This well was drilled under my jurisdiction and this report is true to the best of my knowledge and belief.  
Name PAGE BROTHERS DRILLING  
(Person, firm or corporation) (Type or print)  
Address Rt 2 BOX 4045 VALE OREGON 97918  
[Signed] Winfield Page  
(Water Well Contractor) (Type or print)  
Contractor's License No. 564 Date 4/22/1982

NOTICE TO WATER WELL CONTRACTOR  
The original and first copy of this report are to be filed with the

WATER RESOURCES DEPARTMENT,  
SALEM, OREGON 97310  
within 30 days from the date of well completion.

SP-12658-690

G-17420

STATE OF OREGON  
WATER SUPPLY WELL REPORT

(as required by ORS 537.765 & OAR 690-205-0210)

WELL LABEL # L \_\_\_\_\_

START CARD # 196154

Well # 2

(1) LAND OWNER Owner Well I.D. \_\_\_\_\_  
First Name Donald Last Name Decker  
Company Faith Land Co.  
Address 3716 East Idaho St. Unit A  
City Elko State Nv Zip 89801

(2) TYPE OF WORK  New Well  Deepening  Conversion  
 Alteration (repair/recondition)  Abandonment

(3) DRILL METHOD  
 Rotary Air  Rotary Mud  Cable  Auger  Cable Mud  
 Reverse Rotary  Other \_\_\_\_\_

(4) PROPOSED USE  Domestic  Irrigation  Community  
 Industrial/ Commercial  Livestock  Dewatering  
 Thermal  Injection  Other Test \_\_\_\_\_

(5) BORE HOLE CONSTRUCTION Special Standard  (Attach copy)  
Depth of Completed Well 0 ft.

BORE HOLE SEAL sacks/ lbs

Dia	From	To	Material	From	To	Amt	lbs
14.	0	40.	Cement	0	595.	30.45	P
8.	40.	595.	Cement				

How was seal placed: Method  A  B  C  D  E  
 Other \_\_\_\_\_

Backfill placed from \_\_\_\_\_ ft. to \_\_\_\_\_ ft. Material \_\_\_\_\_  
Filter pack from \_\_\_\_\_ ft. to \_\_\_\_\_ ft. Material \_\_\_\_\_ Size \_\_\_\_\_  
Explosives used:  Yes Type \_\_\_\_\_ Amount \_\_\_\_\_

(6) CASING/LINER

Casing Liner	Dia	+	From	To	Gauge	Stl	Plstc	Wld	Thrd

Shoe  Inside  Outside  Other Location of shoe(s) \_\_\_\_\_  
Temp casing  Yes Dia \_\_\_\_\_ From \_\_\_\_\_ To \_\_\_\_\_

(7) PERFORATIONS/SCREENS

Perforations Method \_\_\_\_\_  
Screens' Type \_\_\_\_\_ Material \_\_\_\_\_

Perf/ Screen	Casing/ Liner	Screen Dia	From	To	Sem/slot width	Slot length	# of slots	Tele/ pipe size

(8) WELL TESTS: Minimum testing time is 1 hour

Pump  Bailer  Air  Flowing Artesian

Yield gal/min	Drawdown	Drill stem/Pump depth	Duration (hr)
Est. 200.		595	0
0			

Temperature 72 °F Lab analysis  Yes By \_\_\_\_\_  
Water quality concept  Yes (describe below) Description \_\_\_\_\_ Amount \_\_\_\_\_ Units \_\_\_\_\_

RECEIVED NOV 20 2008

RECEIVED OCT 22 2008

(9) LOCATION OF WELL (legal description)  
County MALHEUR Twp 19. S N/S Range 43. E E/W WM  
Sec 14 NW 1/4 of the SE 1/4 Tax Lot 4600  
Tax Map Number \_\_\_\_\_ Lot \_\_\_\_\_  
Lat 43 ° 54 ' 59.06" or 43.91638889 DMS or DD  
Long -117 ° 24 ' 44.96" or -117.41247222 DMS or DD  
 Street address of well  Nearest address  
2601 Grove School Lane Vale Oregon

(10) STATIC WATER LEVEL  
Date \_\_\_\_\_ SWL(psi) \_\_\_\_\_ + SWL(ft) \_\_\_\_\_  
Existing Well / Predeepening \_\_\_\_\_  
Completed Well \_\_\_\_\_  
Flowing Artesian?  Dry Hole?

WATER BEARING ZONES Depth water was first found

SWL Date	From	To	Est Flow	SWL(psi)	+ SWL(ft)
09-12-2008	530.	595.	200.		95.

(11) WELL LOG Ground Elevation \_\_\_\_\_

Material	From	To
Brown Clay	0	15.
Brown Sand	15.	17.
Brown Clay	17.	23.
Coarse Brown Sand	23.	26.
Brown Clay	26.	30.
Blue Clay	30.	480.
Black Basalt	480.	530.
Fractured Green Basalt	530.	595.
Abandoned, customer felt insufficient water supply		
Pumped cement grout from 595' to 0		

ADDED TO FILE  
9-7-2010  
HMM

Date Started 09-04-2008 Completed 09-19-2008

(unbonded) Water Well Constructor Certification  
I certify that the work I performed on the construction, deepening, alteration, or abandonment of this well is in compliance with Oregon water supply well construction standards. Materials used and information reported above are true to the best of my knowledge and belief.  
License Number \_\_\_\_\_ Date \_\_\_\_\_  
Password: (if filing electronically) \_\_\_\_\_  
Signed \_\_\_\_\_

(bonded) Water Well Constructor Certification  
I accept responsibility for the construction, deepening, alteration, or abandonment work performed on this well during the construction dates reported above. All work performed during this time is in compliance with Oregon water supply well construction standards. This report is true to the best of my knowledge and belief.  
License Number 682 Date 09-23-2008  
Password: (if filing electronically) \_\_\_\_\_  
Signed \_\_\_\_\_  
Contact Info (optional) 208-349-3799 926 Hot Springs Rd. Weiser Id. 83672

WATER RESOURCES DEPT  
SALEM, OREGON

ORIGINAL - WATER RESOURCES DEPARTMENT  
MUST BE SUBMITTED TO WATER RESOURCES DEPARTMENT WITHIN 30 DAYS OF COMPLETION OF WORK  
WATER RESOURCES DEPT  
SALEM, OREGON

G-17420



STATE OF OREGON  
**WATER WELL REPORT**  
 (as required by ORS 537.765)

*Malheur*  
**2674**

*19.5/43E/3006*  
**18627**

(1) **OWNER:** Name Perry & Kenton Siders Well Number: 18627  
 Address 2947 Little Valley Road  
 City Harper State OR Zip 97906

(2) **TYPE OF WORK:**  
 New Well  Deepen  Recondition  Abandon

(3) **DRILL METHOD**  
 Rotary Air  Rotary Mud  Cable  
 Other

(4) **PROPOSED USE:**  
 Domestic  Community  Industrial  Irrigation  
 Thermal  Injection  Other Test

(5) **BORE HOLE CONSTRUCTION:**  
 Special Construction approval Yes  No  Depth of Completed Well 574 ft.  
 Explosives used  Type \_\_\_\_\_ Amount \_\_\_\_\_

HOLE		SEAL		Amount sacks or pounds		
Diameter	From To	Material	From To			
8"	12.0	25	Basalt	0	29	1400
	25	574				

How was seal placed: Method  A  B  C  D  E  
 Other Dry Basaltic - in crevices  
 Backfill placed from \_\_\_\_\_ ft. to \_\_\_\_\_ ft. Material \_\_\_\_\_  
 Gravel placed from \_\_\_\_\_ ft. to \_\_\_\_\_ ft. Size of gravel \_\_\_\_\_

(6) **CASING/LINER:**

Casing/Liner	Diameter	From	To	Gauge	Material			
					Steel	Plastic	Welded	Threaded
Casing	8"	71	25	250	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Liner					<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Location of shoe(s) \_\_\_\_\_

(7) **PERFORATIONS/SCREENS:** NONE

Perforations Method \_\_\_\_\_  
 Screens Type \_\_\_\_\_ Material \_\_\_\_\_

From	To	Slot size	Number	Tele/pipe size	Casing	Liner
					<input type="checkbox"/>	<input type="checkbox"/>

(8) **WELL TESTS: Minimum testing time is 1 hour**

Pump  Bailer  Air  Artesian

Yield gal/min	Drawdown	Drill stem at	Time
<u>300</u>		<u>550</u>	1 hr.

Temperature of water 84° Depth Artesian Flow Found \_\_\_\_\_  
 Was a water analysis done  No  Yes By whom \_\_\_\_\_  
 Did any strata contain water not suitable for intended use?  No  Too little  
 Salty  Muddy  Odor  Colored  Other \_\_\_\_\_  
 Depth of strata: \_\_\_\_\_

(9) **LOCATION OF WELL by legal description:**  
 County Malheur Latitude \_\_\_\_\_ Longitude \_\_\_\_\_  
 Township 19 N or S, Range 43 E or W, WM.   
 Section 30 NW 1/4 NE 1/4  
 Tax Lot \_\_\_\_\_ Lot \_\_\_\_\_ Block \_\_\_\_\_ Subdivision \_\_\_\_\_  
 Street Address of Well (or nearest address) 2947 Little Valley Road - Harper OR

(10) **STATIC WATER LEVEL:**  
150 ft. below land surface. Date 5-17-90  
 Artesian pressure \_\_\_\_\_ lb. per square inch. Date \_\_\_\_\_

(11) **WATER BEARING ZONES:**  
 Depth at which water was first found 560

From	To	Estimated Flow Rate	SWL
<u>560</u>	<u>574</u>	<u>300 gpm</u>	<u>150</u>

(12) **WELL LOG:** Ground elevation 3100

Material	From	To	SWL
<u>Brown Clay</u>	<u>8</u>	<u>8</u>	<u>0</u>
<u>Brown gravel cemented</u>	<u>8</u>	<u>14</u>	<u>0</u>
<u>Blue Clay &amp; silt strips</u>	<u>14</u>	<u>23</u>	<u>0</u>
<u>Blue Clay &amp; silt stone</u>	<u>23</u>	<u>270</u>	<u>0</u>
<u>Hard Black Layer Basalt</u>	<u>270</u>	<u>560</u>	<u>0</u>
<u>Broken Basalt</u>	<u>560</u>	<u>574</u>	<u>150</u>

*FILE  
 P 2010  
 ADDED 7-11-91*

Date started June 3-91 Completed June 14-91

(unbonded) Water Well Constructor Certification:  
 I certify that the work I performed on the construction, alteration, or abandonment of this well is in compliance with Oregon well construction standards. Materials used and information reported above are true to my best knowledge and belief.  
 Signed Frank Shelby WWC Number 289  
 Date July 10-91

(bonded) Water Well Constructor Certification:  
 I accept responsibility for the construction, alteration, or abandonment work performed on this well during the construction dates reported above. All work performed during this time is in compliance with Oregon well construction standards. This report is true to the best of my knowledge and belief.  
 Signed Frank Shelby WWC Number 289  
 Date July 10-91





# SEISMOELECTRIC SURVEY

Survey Service Agreement Number: 12110

## FINAL REPORT

Client:

Dustin Baker  
2601 Grove School Ln.  
Vale OR 97918  
Phone: 1. 514.216.9015

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Columbia Water Surveying  
2450 Wallula Av  
Walla Walla WA 99362  
Phone: 1.877.994.9100

February 22, 2010

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- APPENDIX A      The Seismoelectric Survey Method.

### FIGURES

- Figure 1.** Two photographs showing the site conditions
- Figure 2.** Site location and sounding locations
- Figure 3.** Selected results from the seismoelectric soundings

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## **1. SUMMARY**

A Geophysical survey was conducted February 8 and 9, 2010 at Hwy 20, near Vale OR. The survey consisted of sixteen soundings in five profiles. The site that showed the greatest potential was c14db. At this site two aquifers were detected. The upper aquifer has an estimated depth to the base of the aquifer of 270 feet below ground surface (bgs), which may be above the basalt layers. The deeper aquifer has an estimated depth to the base of the aquifer of 640 feet bgs and an estimated yield from a well drilled into the aquifer at this site of Category N [300 to 550 gallon/minute (gpm)]. Refer to the complete report below for specific details on the survey.

## **2. INTRODUCTION**

**Client:** Dustin Baker

**Location of Survey:** Hwy 2., approximately eight miles southwest of Vale OR (Malheur County). Township 14S, Range 43E and 44E, Section 11, 12 and 13

**Description of Property:** The survey property was a large ranch situated along the foothills south of the Malheur River valley. The surface conditions on the property were rangeland. Figure 1 shows two photos of the site conditions.

**Purpose:** The purpose of the survey was to determine the predominant location, depth to the base of, and potential yield of aquifers on the property. If located, one, or more, wells are proposed to provide an agricultural water supply.

## **3. BACKGROUND**

**General Geology:** The geology in this area, which was taken from well reports and local geologic maps, consists of upper unconsolidated layers of topsoil with a deep layer of clay over basalt. All of the geologic information used in this report is taken from geologic maps provided by the United States Geological Survey (USGS) and/or local well logs obtained from the State of Oregon, Water Resources Department. These are used to provide the geologic information relevant to this survey and in particular the rock types, from which velocity information is used to assist in the interpretation of the data recorded in this survey.

**Existing Well Information:** Table 1 shows the results of research conducted prior to the field survey on existing well in the area. It shows recorded well logs from 6 wells within the area around the survey site. The well logs indicate that the depth of wells in this area range from 23 to 440 feet bgs. Reported yields from these wells range from 24 to 200 gpm. Static levels at the wells range from 7 to 80 feet bgs. These well logs do not represent all of the logs from wells drilled in this area since we were unable to locate the well logs for known wells near the survey site.

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Owner	Tag	Depth	SL	Yield	Twn	Rng	Sec	Qtr	Qtr-Qtr	Date
LEON L SHOFFNER		430	80	30	19S	43E	12	SW	SE	4/20/79
JACK D PRESSLEY		23	12		19S	43E	12	NE	SE	11/30/77
RONALD J PRESSLEY		90	48	24	19S	43E	12	SW	SE	10/12/90
KEITH DINGMAN II	12026	28	9	30	19S	43E	12	NE	NE	11/21/96
CARL ELFFING	83776	50	27	30	19S	43E	12	SE	SW	3/30/06
DONALD DECKER	84842	440	7	200	19S	43E	12	SW	NE	9/4/08

Table 1: Known nearby existing wells

#### 4. DATA ACQUISITION and PROCESSING

**Testing Methodology:** The survey was conducted using the seismoelectric method. This technique has the potential to provide the approximate depth and yield of subsurface water bearing formations. The technique works because electrical signals are often produced when seismic compression waves encounter water-saturated rocks. In order to record the electrical signals four copper plated steel electrodes are inserted into the ground and connected to the receiver. The data was acquired using a Groundflow™ 2500 Seismoelectric Survey System. This method is sometimes referred to as the Electro-Kinetic Survey (EKS) method. The data were processed using software that is proprietary to the Groundflow™ Seismoelectric System. More details of this system and the basic theory of the seismoelectric method are provided in Appendix A.

**Calibration Wells:** A calibration well was used to assist with processing the data recorded during the survey. The calibration well was located approximately 1100 feet north of the profile C on the client's property. The reported information from the well was: depth 440 feet bgs, static level 7 feet bgs, yield 200 gpm. This yield value was based on an air test of the well and may represent the limits of the equipment. The actual yield value may be greater than this value. The geology reported from the well indicated: topsoil, gravel and sand 0-15 feet bgs, clay 15-417 feet bgs and basalt 417-440 feet bgs. Water bearing layers were indicated at 417-440 feet bgs.

**Survey Layout:** A total of sixteen soundings were taken at five separate profile locations as shown in Figure 1. Profiles A, B, D and E were sample profiles consisting of two soundings. Profile C was a detailed profile consisting of eight soundings. The locations of the sites were chosen based on the client's request, but were predominantly located near the proposed location of the well. Global Positioning Satellite (GPS) coordinates for the specific soundings are presented in Table 2. Site locations are marked with numbered flags corresponding to the numbers in this report. At most of the sounding sites, several discrete soundings were recorded so as to verify the integrity of the Seismoelectric signals.

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Site #	Latitude	Longitude	Site #	Latitude	Longitude
c5db	N43.924913	W117.398455	a1db	N43.924682	W117.387588
c6db	N43.924970	W117.398725	a2db	N43.924686	W117.387881
c7db	N43.925142	W117.398571	b3db	N43.924759	W117.389096
c8db	N43.925009	W117.398908	b4db	N43.924764	W117.389380
c13db	N43.924793	W117.398846	d9db	N43.939482	W117.419313
c14db	N43.924840	W117.399083	d10db	N43.939490	W117.419056
c15db	N43.924773	W117.399357	e11db	N43.939485	W117.417513
c16db	N43.924772	W117.399166	e12db	N43.939470	W117.417286

**Table 2:** GPS Coordinates of Test Sites  
(Based on the WGS 84 map datum.)

**Testing Conditions:** Test conditions at some sites in profile C were impacted extensive ground squirrel borrowing. However, by using mitigating techniques, the data acquisition was adversely influenced at only one site.

**Test Analysis Method:** Although it is possible to interpret the depth to the top of the aquifer, the following results present only the interpreted depth to the bottom. This is because the interpreted yields assume that the full thickness of the aquifer is used to produce water, and that presenting the depth to the top only would not provide a realistic estimate of the actual drill depth required in order to obtain the interpreted yield. Another reason for presenting the depth to the bottom of an aquifer is that the depth to the top of an aquifer can vary depending on the time of year and longer term weather conditions, as well as other wells drawing water from the same aquifer. Thus, because the depth to the top of an aquifer may change due to the conditions described above, a well that is drilled only a short distance into an aquifer may have a yield that is more susceptible to these changes. An additional factor is that a cone of depression may occur around a well as it is pumped, further reducing the yield of a well that is only drilled for a short distance into an aquifer. The cone of depression may be more pronounced for wells drilled into low permeability formations.

The seismoelectric method does not have the resolving power to generally predict the depth within an aquifer where the best yield may occur. If however, a sufficient yield is obtained before the interpreted bottom of the aquifer is reached, then it may be reasonable to stop drilling before this depth is reached.

It should be noted that the depth estimates provided in this report rely on estimates of the seismic velocity of the rocks under the sounding site. Even for a well-defined rock type, such as Granite, or Sandstone, seismic velocities can vary considerably depending on many factors, including the degree of weathering of the rock, fracturing and, for sedimentary rocks, degree of consolidation. Rock velocities can also vary with the geologic age of the rock, with older rocks generally having higher velocities. The velocities used in order to calculate the depth estimates are, in general, averages of the velocity of the particular rock types suspected to exist at each sounding location.

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Because many factors influence the interpreted yield, including the method used to drill a well, and in order to present the interpreted yields with accuracy that is realistic, the yield interpretation for each sounding is presented as one of a range of yields and is assigned an alphabetic label (category), as defined in Table 4.

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Interpreted Yield (in gpm)	Category
0 – 3	A
2 – 6	B
5 – 10	C
8 – 15	D
12 – 25	E
18 – 35	F
25 – 50	G
35 – 65	H
50 – 95	I
70 – 130	J
100 – 180	K
140 – 250	L
200 – 350	M
300 – 550	N
450 – 850	O
650-1100	P

**Table 4:** Yield Categories

Figure 3 represents a selection of typical seismoelectric data (individual soundings) recorded during this survey. The interpreted yields were primarily obtained by using the proprietary software. They are based, in part, on assumptions regarding the static water level. In this area, this level is estimated to vary between 7 and 10 feet bgs. This is an important variable for yield estimates. The yield assumes that the full thickness of the aquifer is used down to the base of the aquifer specified at each test site. At this site the values obtained are based primarily on research using the local well logs provided by the State, but which were somewhat limited.

**5. RESULTS and INTERPRETATION**

The following provides the results interpretation of the data from each seismoelectric sounding. Based on past statistics, all of the following interpreted depths may vary by  $\pm 15\%$ , or sometimes more. Yield estimates are based on a 12-inch diameter well, and will increase or decrease for larger or smaller diameters respectively.

The model used to determine yield estimates for this survey was based on a calibration well on the client’s property. The yield data for that well was an air test of 200 gpm, which may have been limited by the capability of the equipment. A full pump test of the well is planned. If the final pump test shows a different yield, the yield estimates in this report can be adjusted by the same proportion.

Profile A was located near the northeast corner of the property, near the east end of the field.

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Site a1db is located at the east end of the profile, approximately 100 feet from the east property boundary. It indicates that the base of the aquifer is at a depth of approximately 150 feet bgs. It also showed a slight aquifer with a base of 540 feet bgs.

Site a2db is located 80 feet west of a1db and indicates that the base of the aquifer is at a depth of approximately 215 feet bgs. It also showed a slight aquifer with a base of 410 feet bgs.

Based on nearby well logs, the depths given for the upper aquifer indicate that it is likely not down in the basalt. The deeper aquifer is likely down to the basalt, but preliminary analysis indicates that it would not provide a sufficient yield for agricultural use.

Profile B was also located in the northeast corner of the property, but near the west end of the field.

Site b3db is located at the east end of the profile and indicates that the base of the aquifer is at a depth of approximately 215 feet bgs.

Site b4db is located 80 feet west of b3db and indicates that the base of the aquifer is at a depth of approximately 195 feet bgs.

Like the A profile, these aquifers are likely not down into the basalt.

Profile C is located just east of Hwy 20, across from the feedlot, in a shallow ravine. For many of these sites a strong upper aquifer is indicated. However the depth of this aquifer indicates that it is probably not down into the basalt. No yield estimates will be given for the upper aquifer. The deeper aquifers are at depths that are likely down into the basalt and yield estimates are given.

Site c7db is the northern most site in the profile. It indicates the base of an aquifer at 220 feet bgs. A deeper aquifer is shown at a depth of approximately 520 feet bgs and has an estimated yield of category M (200 to 350 gpm).

Second row of sites:

Site c8db is the western most site in the second row to the south, located approximately 125 feet southwest of c7db and indicates that the base of the upper aquifer is at a depth of 260 feet bgs. A deeper aquifer is show at approximately 590 feet bgs and has an estimated yield of category L (140 to 250 gpm).

Site c6db is 60 feet east of c8db and indicates and indicates that the base of the upper aquifer is at a depth of approximately 260 feet bgs. A deeper aquifer is shown at approximately 650 feet bgs and has an estimated yield of category N (300 to 550 gpm).

Site c5db is 75 feet east of c6db and indicates and indicates that the base of the upper aquifer is at a depth of approximately 260 feet bgs. No deeper aquifer is detected.

Third row of sites:

Site c14db is the western most site in the third row to the south, located approximately 75 feet southwest of c8db and indicates that the base of the upper aquifer is at a depth of 270 feet bgs. A deeper aquifer is shown at approximately 640 feet bgs and has an estimated yield of category N (300 to 550 gpm).

Site c13db is 75 feet east of c14db but data from this site is inconclusive.

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Forth row of sites:

Site c15db is the western most site in the forth row to the south, located approximately 75 feet southwest of c14db and indicates that the base of the upper aquifer is at a depth of approximately 260 feet bgs. No deeper aquifer is detected.

Site c16db is 35 feet east of c15db and indicates that the base of the upper aquifer is at a depth of approximately 230 feet bgs. A deeper aquifer is shown at approximately 520 feet bgs and has an estimated yield of category M (200 to 350 gpm).

Profile D was located just south of Grove School Rd., along the north property boundary.

Site d9db is located at the west end of the profile and indicates that the base of the aquifer is at a depth of approximately 260 feet bgs.

Site d10db is located 80 feet east of ad9db and indicates that the base of the aquifer is at a depth of approximately 330 feet bgs.

These aquifers are at the levels of the locally known "River aquifer". There are no indications of a deeper aquifer that might be down into the basalt.

Profile E was located in the same field as profile D but near the northeast corner of the field.

Site e11db is located at the west end of the profile and indicates that the base of the aquifer is at a depth of approximately 340 feet bgs.

Site e12db is located 75 feet west of b3db and indicates that the base of the aquifer is at a depth of approximately 330 feet bgs.

These aquifers are at the levels of the "River aquifer". There are no indications of a deeper aquifer that might be down into the basalt.

The estimated yields are partially based on the calibration data collected at the calibration well, which is discussed earlier in this report.

## **6. CONCLUSIONS**

The interpretation of the data indicates only profile C has the potential for significant agricultural yield from a level likely to be into the basalt.

For Profile C the estimated depths to the base of this deeper "basalt" aquifer were from 520 to 590 feet bgs, with estimated yields from category L (140 to 250 gpm) to category N (300 to 550 gpm).

It should be noted that the estimated yields made by the Groundflow equipment involves many assumptions and should only be used as a guide for selecting drilling locations. Previous yield interpretations have been nearly exact in some instances but have also been lower, and higher, than that which was obtained after drilling had been completed. However, the values presented are only estimates based on the interpretation of the seismoelectric data.

## **7. RECOMMENDATIONS**

The choice of which site to drill depends on many factors. It will be primarily decided by the client. However, the depth to the base of the aquifer and estimated yield are two important factors.

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The surveys at profiles A, B, D and E were preliminary evaluations of these location. Additional soundings will be required to confirm or dispel the preliminary results, refine the depth estimations and provide sufficient data to fully analyze the potential yield of the aquifer

For profile C, the sites with the highest estimated yield (category N) were c6db and c14db. The depths to the base of the aquifer were essentially the same, but subjectively sit c14db showed a much stronger signal. It may be the best location.

Columbia Water Surveying does not recommend drilling in an area with an estimated yield of less than 6 gpm. The drilling process can, at times, significantly and detrimentally affect the final yield of a low yield aquifer.

Since the aquifer conditions may be changing with time, it is possible that these changes could adversely affect its yield. We, therefore, suggest that if the client chooses to drill a well at any of the surveyed locations, the well should be drilled within 90 days of the survey completion date.

Prior to drilling it should be ascertained that the drill operator has substantial experience with the drilling equipment that he, or she, operates the equipment correctly. In addition, the property owner should be present when drilling is done. It should be noted that drilling always causes some damage to the aquifer local to the drill site and this should be considered prior to drilling to an aquifer that has an estimated low yield. This report should be used as a guide, along with the driller's experience with drilling in the area.

If a well is drilled at this location, part of its development should include a long flow test (often 4 to 12 hours in length) in an attempt to remove all of the sediment and air that may have been introduced into the surrounding rock formation (aquifer) by the drilling process. These may restrict the flow of water into the well and therefore the subsequent yield. The flow test may need to be longer for less productive water bearing zones.

As stated earlier in this report, the estimated depths in this report should be generally used as a maximum depth to drill. If the estimated yield is obtained at a shallower depth than that provided by the interpretation, drilling to greater depths is not necessarily recommended.

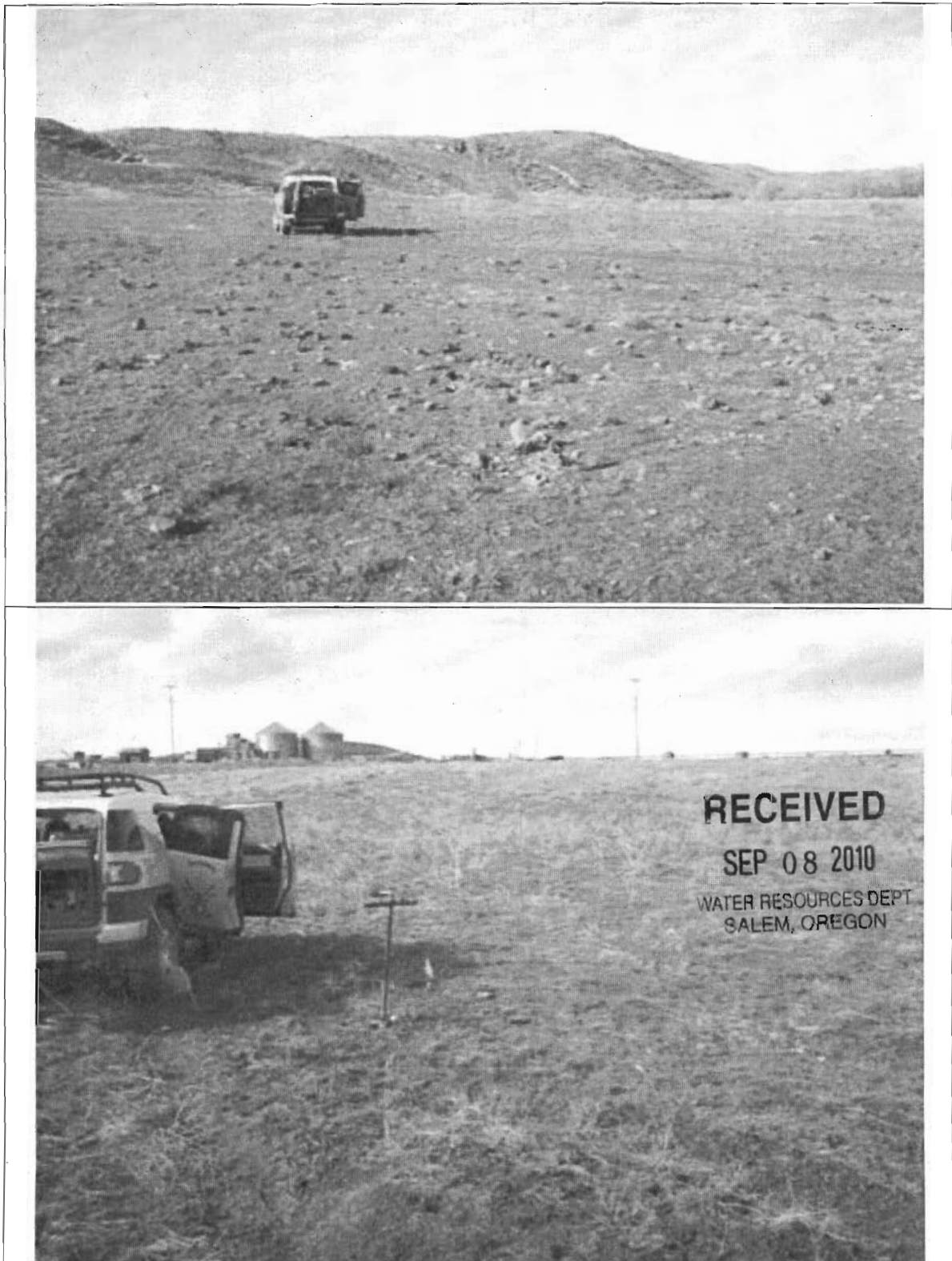
All of the data recording, analysis, interpretations and conclusions in this report has been prepared by persons who have had a rigorous training in the acquisition and analysis of seismoelectric data.

A minimum of 100 feet must be maintained between a domestic well and any septic field or designated future septic field. The area immediately adjacent to a domestic well should be fenced off from any livestock.

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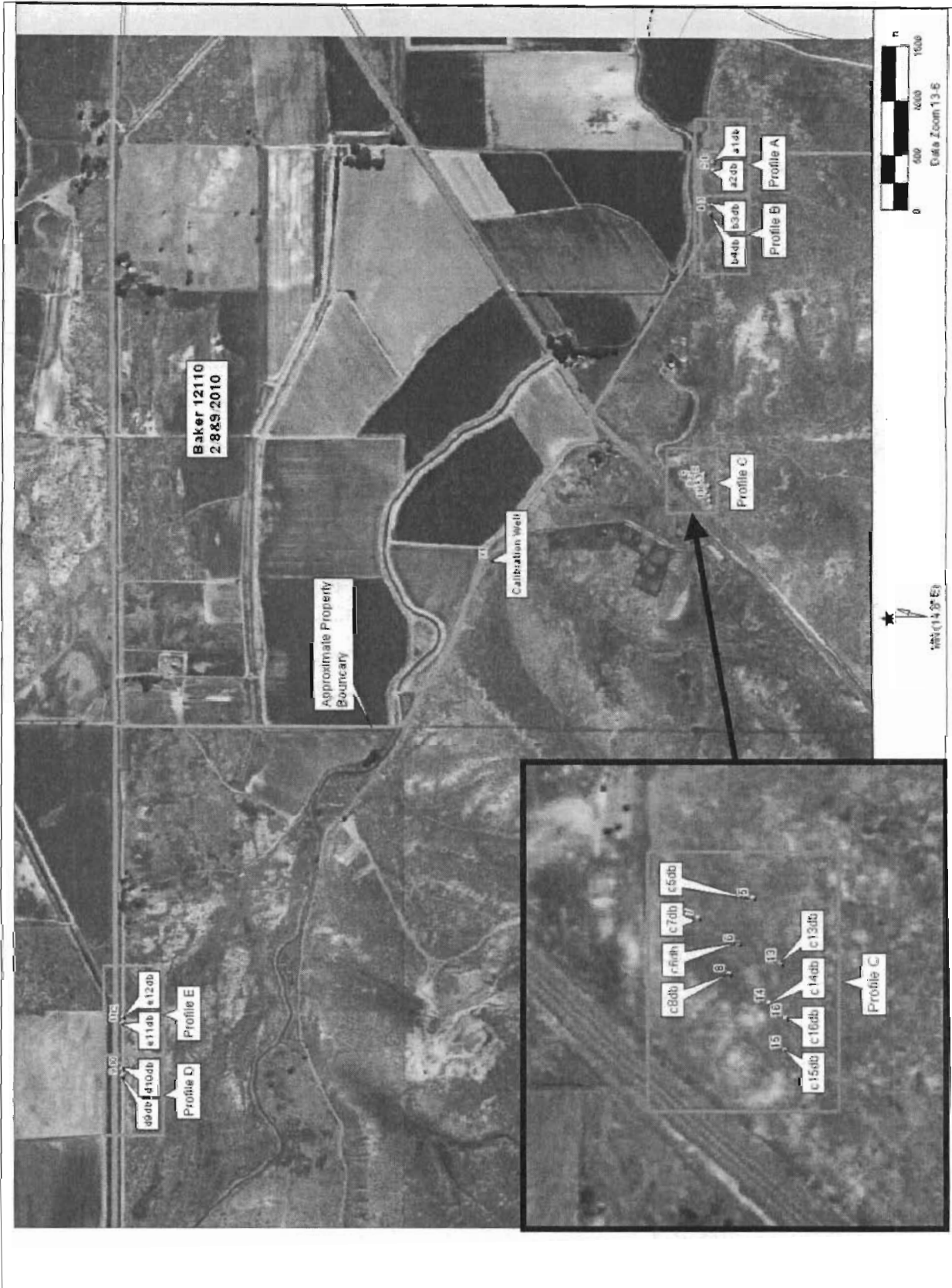
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**Figure 1.** Two photographs showing the site conditions.





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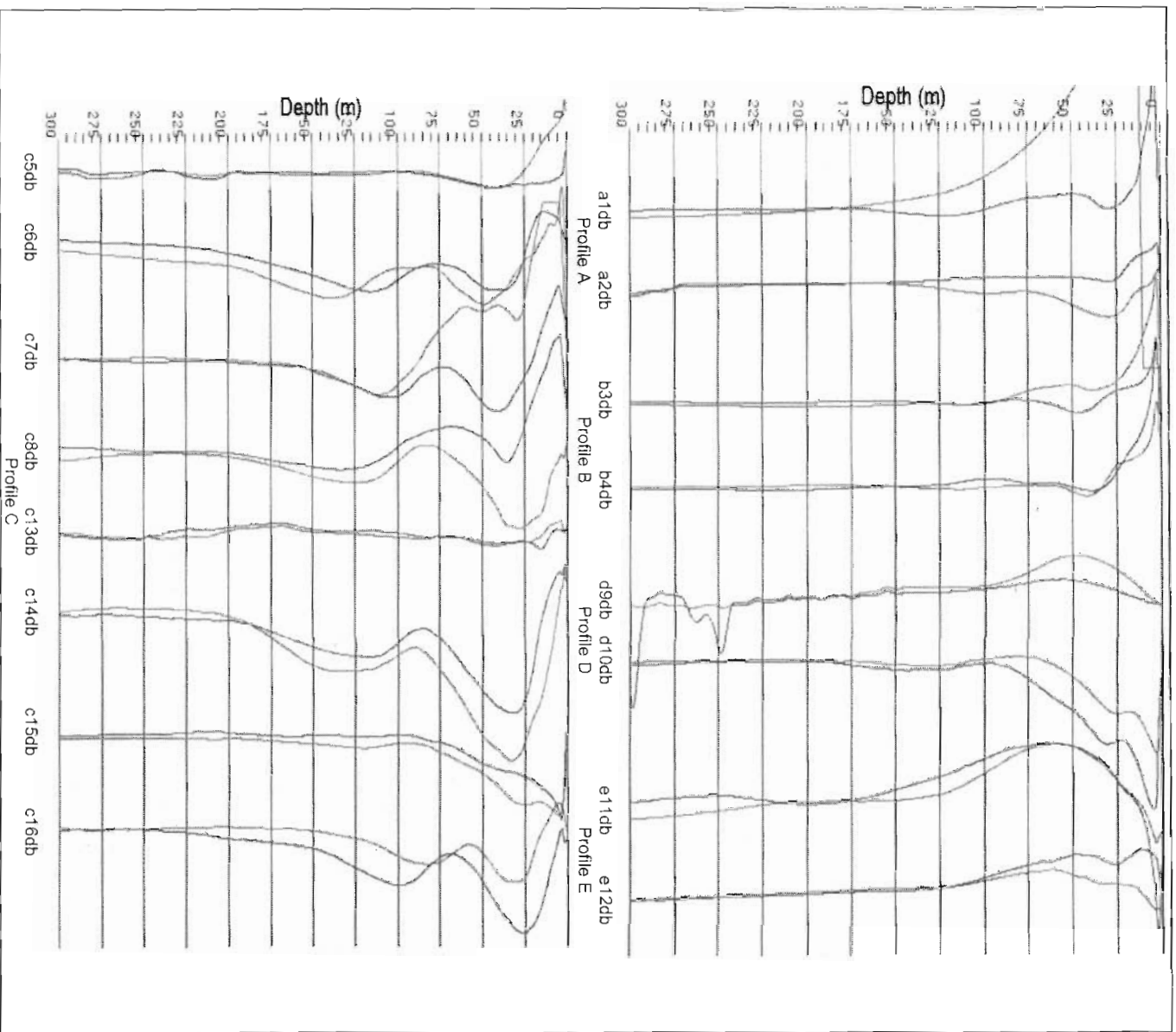
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Figure 2. Survey location and sounding locations

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**Figure 3.** Selected results from the seismoelectric soundings.

The images above are a representation of the data collected at each test site. Accurate interpretation of this data requires training and experience and access to the proprietary software not available to the general public at this time. The inclusion of these images in the report is only intended to provide a basic illustration of the data collected at each test site.

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# SEISMOELECTRIC SURVEY

Survey Service Agreement Number: 12110

## FINAL REPORT

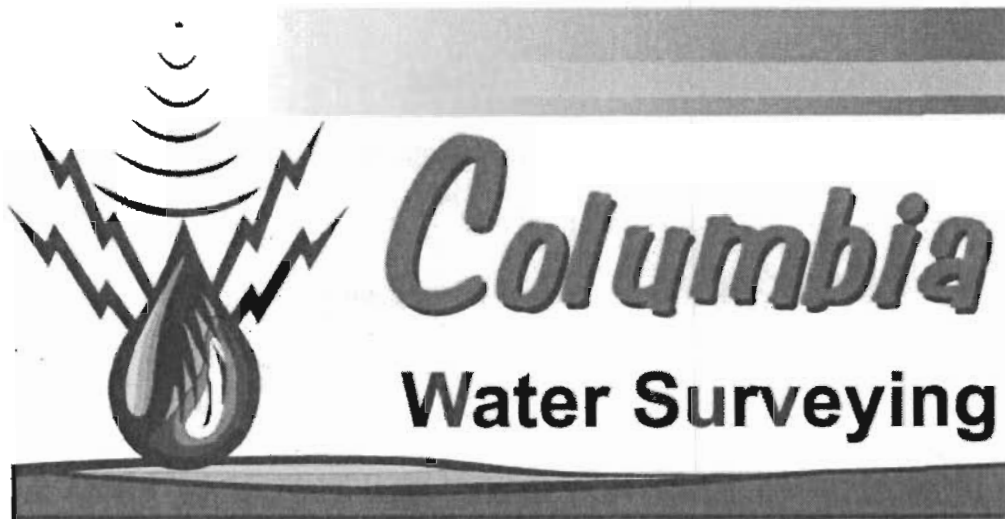
Client:

Dustin Baker  
2601 Grove School Ln.  
Vale OR 97918  
Phone: 1. 541.216.9015

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Columbia Water Surveying  
2450 Wallula Av  
Walla Walla WA 99362  
Phone: 1.877.994.9100

April 27, 2010

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6. CONCLUSIONS

7. RECOMMENDATIONS

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### FIGURES

**Figure 1.** Two photographs showing the site conditions

**Figure 2.** Site location and sounding locations

**Figure 3.** Selected results from the seismoelectric soundings

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## **1. SUMMARY**

A Geophysical survey was conducted April 10, 2010 at Hwy 20, near Vale OR. The survey consisted of sixteen soundings in two profiles. The work was a follow-on to report 12110, dated February 22, 2010. The sites that showed the greatest potential are: for profile F, sites f31db and f32db; for profile G, sites g24db, g27db and g28db. For profile F, the depths to the base of the aquifer were 520 feet bgs with an estimated yield from a well drilled into the aquifer at these sites of Category P [650 to 1100 gallon/minute (gpm)]. For profile G, the depths to the base of the aquifer were from 430 to 440 feet bgs with an estimated yield from a well drilled into the aquifer at these sites of Category O (450 to 850 gpm). Refer to the complete report below for specific details on the survey.

## **2. INTRODUCTION**

**Client:** Dustin Baker

**Location of Survey:** Hwy 2., approximately eight miles southwest of Vale OR (Malheur County). Township 14S, Range 43E, Section 13.

**Description of Property:** The survey property was a large ranch situated along the foothills south of the Malheur River valley. The surface conditions on the property were rangeland. Figure 1 shows two photos of the site conditions.

**Purpose:** The survey was a follow-on to job 12110. Subsequent to that survey, the client had a pump test done on his existing well, which found the yield to be 600-700 gpm as apposed to the 200-300 gpm originally estimated. That suggested that the yields up in the area south of the feedlot might have a stronger yield that originally estimated. The purpose of the survey at profile F was to investigate further this area south of the feedlot for potential sites for a well that would be closer to the proposed area where the water would be used. In addition studies to develop his existing well suggested that the cost of bringing power to the well site might exceed the cost of drilling a well at a new site closer to the power. The purpose of the survey at profile G was to investigate the potential of this location for a replacement well. If suitable sites could be located, a replacement well would be drilled in profile G and a new well would be drilled in profile F to provide agricultural yields.

## **3. BACKGROUND**

(See the original report, 12110 for this information.)

## **4. DATA ACQUISITION and PROCESSING**

**Testing Methodology:** (See the original report, 12110 for this information.)

**Calibration Wells:** An additional calibration was used to assist with processing the data recorded during the survey. The calibration well was located approximately 1600 feet southwest of the profile F on the client's property. A well log of the well was available, but since the well had been grouted in, no final yield could be determined for the well. The reported information from the well was: depth 595 feet bgs, static level 95 feet bgs, yield 200 gpm. Like the other calibration well, this yield value was based on an air test of the well with equipment, which was limited in its capacity. Based on the retest of the original

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calibration well, the yield estimate for this well was judged to be incorrect. The well was used for depth calibration only. Yield calibrations were still based on the original well. The geology reported from the well indicated: sand and clay 0-30 feet bgs, blue clay 30-480 feet bgs and basalt 480-595 feet bgs. The water-bearing layer was indicated at 530-595 feet bgs.

**Survey Layout:** A total of sixteen new soundings were taken in two separate profile locations as shown in Figure 1. Both profiles F and G were detailed profiles consisting of eight soundings. The locations of the sites were chosen based on the client's request, but were predominantly located near the proposed location of the well. Global Positioning Satellite (GPS) coordinates for the specific soundings are presented in Table 1. Site locations are marked with numbered flags corresponding to the numbers in this report. At most of the sounding sites, several discrete soundings were recorded so as to verify the integrity of the Seismoelectric signals.

Site #	Latitude	Longitude	Site #	Latitude	Longitude
c5db*	N43.924913	W117.398455	a1db*	N43.924682	W117.387588
c6db*	N43.924970	W117.398725	a2db*	N43.924686	W117.387881
c7db*	N43.925142	W117.398571	b3db*	N43.924759	W117.389096
c8db*	N43.925009	W117.398908	b4db*	N43.924764	W117.389380
c13db*	N43.924793	W117.398846	d9db*	N43.939482	W117.419313
c14db*	N43.924840	W117.399083	d10db*	N43.939490	W117.419056
c15db*	N43.924773	W117.399357	e11db*	N43.939485	W117.417513
c16db*	N43.924772	W117.399166	e12db*	N43.939470	W117.417286
f17db	N43.919664	W117.407510	g21db	N43.923669	W117.404021
f18db	N43.919484	W117.407375	g22db	N43.923707	W117.404318
f19db	N43.919334	W117.407261	g23db	N43.923765	W117.404578
f20db	N43.919142	W117.407151	g24db	N43.923832	W117.404888
f29db	N43.918989	W117.407000	g25db	N43.923802	W117.404102
f30db	N43.918819	W117.406913	g26db	N43.923524	W117.404164
f31db	N43.919156	W117.406895	g27db	N43.923931	W117.404692
f32db	N43.918991	W117.407297	g28db	N43.923634	W117.404788

**Table 1:** GPS Coordinates of Test Sites  
 (Based on the WGS 84 map datum.)  
 (\* Denotes original point from report 12110.)

**Testing Conditions:** No test conditions that adversely influenced data collection were encountered.

**Test Analysis Method:** (See the original report, 12110 for this information.)

Because many factors influence the interpreted yield, including the method used to drill a well, and in order to present the interpreted yields with accuracy that is realistic, the yield interpretation for each sounding is presented as one of a range of yields and is assigned an alphabetic label (category), as defined in Table 2.

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Interpreted Yield (in gpm)	Category
0 – 3	A
2 – 6	B
5 – 10	C
8 – 15	D
12 – 25	E
18 – 35	F
25 – 50	G
35 – 65	H
50 – 95	I
70 – 130	J
100 – 180	K
140 – 250	L
200 – 350	M
300 – 550	N
450 – 850	O
650-1100	P

**Table 2:** Yield Categories

Figure 3 represents a selection of typical seismoelectric data (individual soundings) recorded during this survey. The interpreted yields were primarily obtained by using the proprietary software. They are based, in part, on assumptions regarding the static water level. In this area, this level is estimated to vary between 7 and 10 feet bgs. This is an important variable for yield estimates. The yield assumes that the full thickness of the aquifer is used down to the base of the aquifer specified at each test site. At this site the values obtained are based primarily on research using the local well logs provided by the State, but which were somewhat limited.

**5. RESULTS and INTERPRETATION**

The following provides the results interpretation of the data from each seismoelectric sounding. Based on past statistics, all of the following interpreted depths may vary by  $\pm 15\%$ , or sometimes more. Yield estimates are based on a 12-inch diameter well, and will increase or decrease for larger or smaller diameters respectively.

The model used to determine yield estimates for this survey was based on the data from the new pump test on calibration well #1.

Profile F is located just east of Hwy 20, approximately 2500 feet southwest of profile C. For many of these sites a strong upper aquifer is indicated. However the depth of this aquifer indicates that it is probably not down into the basalt. No yield estimates will be given for the upper aquifer. The deeper aquifers are at depths that are likely down into the basalt and yield estimates are given.

Site f17db is the northwestern most site in the profile. It indicates the base of an aquifer at 245 feet bgs. A deeper aquifer is shown at a depth of approximately 560 feet bgs and has an estimated yield of category M (200 to 350 gpm).

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Site f18db is located approximately 75 feet southeast of f17db and indicates that the base of the upper aquifer is at a depth of 210 feet bgs. A deeper aquifer is shown at approximately 410 feet bgs and has an estimated yield of category N (300 to 550 gpm).

Site f19db is 75 feet southeast of f18db and indicates and indicates that the base of the upper aquifer is at a depth of approximately 210 feet bgs. A deeper aquifer is shown at approximately 490 feet bgs and has an estimated yield of category O (450 to 850 gpm).

Site f20db is 75 feet southeast of f19db and indicates and indicates that the base of the upper aquifer is at a depth of approximately 210 feet bgs. A deeper aquifer is shown at approximately 480 feet bgs and has an estimated yield of category O (450 to 850 gpm).

Site f29db is located approximately 75 feet southeast of f20db, across a small gully, and indicates that the base of the upper aquifer is at a depth of 245 feet bgs. A deeper aquifer is shown at approximately 480 feet bgs and has an estimated yield of category O (450 to 850 gpm).

Site f31db is off the axis of the primary profile, 75 feet north of f29db, but on the east side of the gully, and indicates that the base of the upper aquifer is at a depth of 210 feet bgs. A deeper aquifer is shown at approximately 520 feet bgs and has an estimated yield of category P (650 to 1100 gpm).

Site f32db is also off the axis of the primary profile, approximately 75 feet southwest of f29db, back on the west side of the gully, and indicates that the base of the upper aquifer is at a depth of 245 feet bgs. A deeper aquifer is shown at approximately 520 feet bgs and has an estimated yield of category P (650 to 1100 gpm).

Site f30db is 75 feet southeast of f29db and indicates and indicates that the base of the upper aquifer is at a depth of approximately 245 feet bgs. A deeper aquifer is shown at approximately 520 feet bgs and has an estimated yield of category O (450 to 850 gpm).

Profile G is located west of Hwy 20 and the power line, approximately 1500 feet southwest of profile C. For many of these sites a strong upper aquifer is indicated. However the depth of this aquifer indicates that it is probably not down into the basalt. No yield estimates will be given for the upper aquifer. The deeper aquifers are at depths that are likely down into the basalt and yield estimates are given.

Site g21db is the east most site in the profile. It indicates the base of an aquifer at 165 feet bgs. A deeper aquifer is shown at a depth of approximately 460 feet bgs and has an estimated yield of category P (650 to 1100 gpm). This high yield may be an aberration, in that it could not be confirmed by adjacent soundings.

Site g25db is located 75 feet northwest of g21db and indicates that the base of the upper aquifer is at a depth of 165 feet bgs. A deeper aquifer is shown at approximately 410 feet bgs and has an estimated yield of category M (200 to 350 gpm).

Site g26db is 75 feet southwest of g21db and indicates and indicates that the base of the upper aquifer is at a depth of approximately 165 feet bgs. A deeper aquifer is shown at approximately 430 feet bgs and has an estimated yield of category K (100 to 180 gpm).

Site g22db is 75 feet west of g21db, along the primary axis of the profile, and indicates that the base of the upper aquifer is at a depth of 165 feet bgs. A deeper aquifer is shown at approximately 380 feet bgs and has an estimated yield of category M (200 to 350 gpm).



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Site g23db is located approximately 75 feet west of g22db and indicates that the base of the upper aquifer is at a depth of 210 feet bgs. A deeper aquifer is shown at approximately 460 feet bgs and has an estimated yield of category M (200 to 350 gpm).

Site g24db is 75 feet west of g23db and indicates that the base of the upper aquifer is at a depth of 195 feet bgs. A deeper aquifer is shown at approximately 440 feet bgs and has an estimated yield of category O (450 to 850 gpm).

Site g27db is off the primary axis, located approximately 75 feet northwest of g23db and indicates and indicates that the base of the upper aquifer is at a depth of approximately 165 feet bgs. A deeper aquifer is shown at approximately 440 feet bgs and has an estimated yield of category O (450 to 850 gpm).

Site g28db is also off the primary axis of the profile, 75 feet southwest of g23db and indicates and indicates that the base of the upper aquifer is at a depth of approximately 195 feet bgs. A deeper aquifer is shown at approximately 430 feet bgs and has an estimated yield of category O (450 to 850 gpm).

The estimated yields are partially based on the calibration data collected at the calibration well, which is discussed earlier in this report.

## **6. CONCLUSIONS**

The interpretation of the data indicates both profiles show the potential to be developed for agricultural quantities of water.

For Profile F the estimated depths to the base of the deeper "basalt" aquifer were from 410 to 560 feet bgs, with estimated yields from category M (200 to 350 gpm) to category P (650 to 1100 gpm).

For Profile G the estimated depths to the base of the deeper "basalt" aquifer were from 360 to 460 feet bgs, with estimated yields from category K (100 to 180 gpm) to category O (450 to 850 gpm).

It should be noted that the estimated yields made by the Groundflow equipment involves many assumptions and should only be used as a guide for selecting drilling locations. Previous yield interpretations have been nearly exact in some instances but have also been lower, and higher, than that which was obtained after drilling had been completed. However, the values presented are only estimates based on the interpretation of the seismoelectric data.

## **7. RECOMMENDATIONS**

The choice of which site to drill depends on many factors. It will primarily be decided by the client. However, the depth to the base of the aquifer and estimated yield are two important factors.

For profile F, the sites with the highest estimated yield (category P) were f31db and f32db. The depths to the base of the aquifer were the same, and the yield estimates were essentially equal.

For profile G, the sites with the highest estimated yield (category O) were g24db, g27db and d28db. The depths to the base of the aquifer were essentially the same, but subjectively sit g28db showed a slightly stronger signal. It may be the best location.

Since the aquifer conditions may be changing with time, it is possible that these changes could adversely affect its yield. We, therefore, suggest that if the client chooses to drill a well at any of the surveyed locations, the well should be drilled within 90 days of the survey completion date.

Prior to drilling it should be ascertained that the drill operator has substantial experience with the drilling equipment that he, or she, operates the equipment correctly. In addition, the property owner should be present when drilling is done. It should be noted that drilling always causes some damage to the aquifer local to the drill site and this should be considered prior to drilling to an aquifer that has an estimated low yield. This report should be used as a guide, along with the driller's experience with drilling in the area.

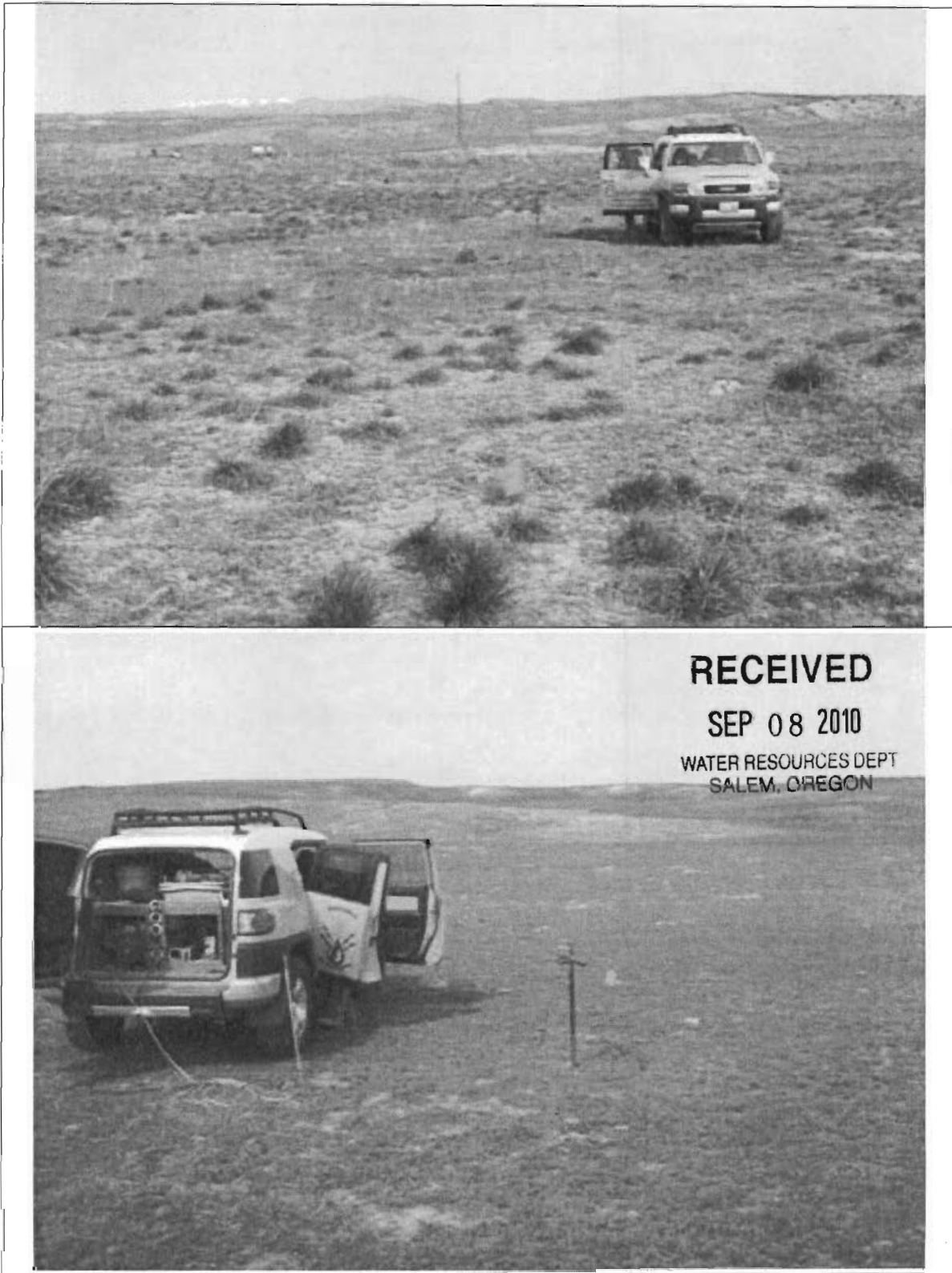
If a well is drilled at this location, part of its development should include a long flow test (often 4 to 12 hours in length) in an attempt to remove all of the sediment and air that may have been introduced into the surrounding rock formation (aquifer) by the drilling process. These may restrict the flow of water into the well and therefore the subsequent yield. The flow test may need to be longer for less productive water bearing zones.

As stated earlier in this report, the estimated depths in this report should be generally used as a maximum depth to drill. If the estimated yield is obtained at a shallower depth than that provided by the interpretation, drilling to greater depths is not necessarily recommended.

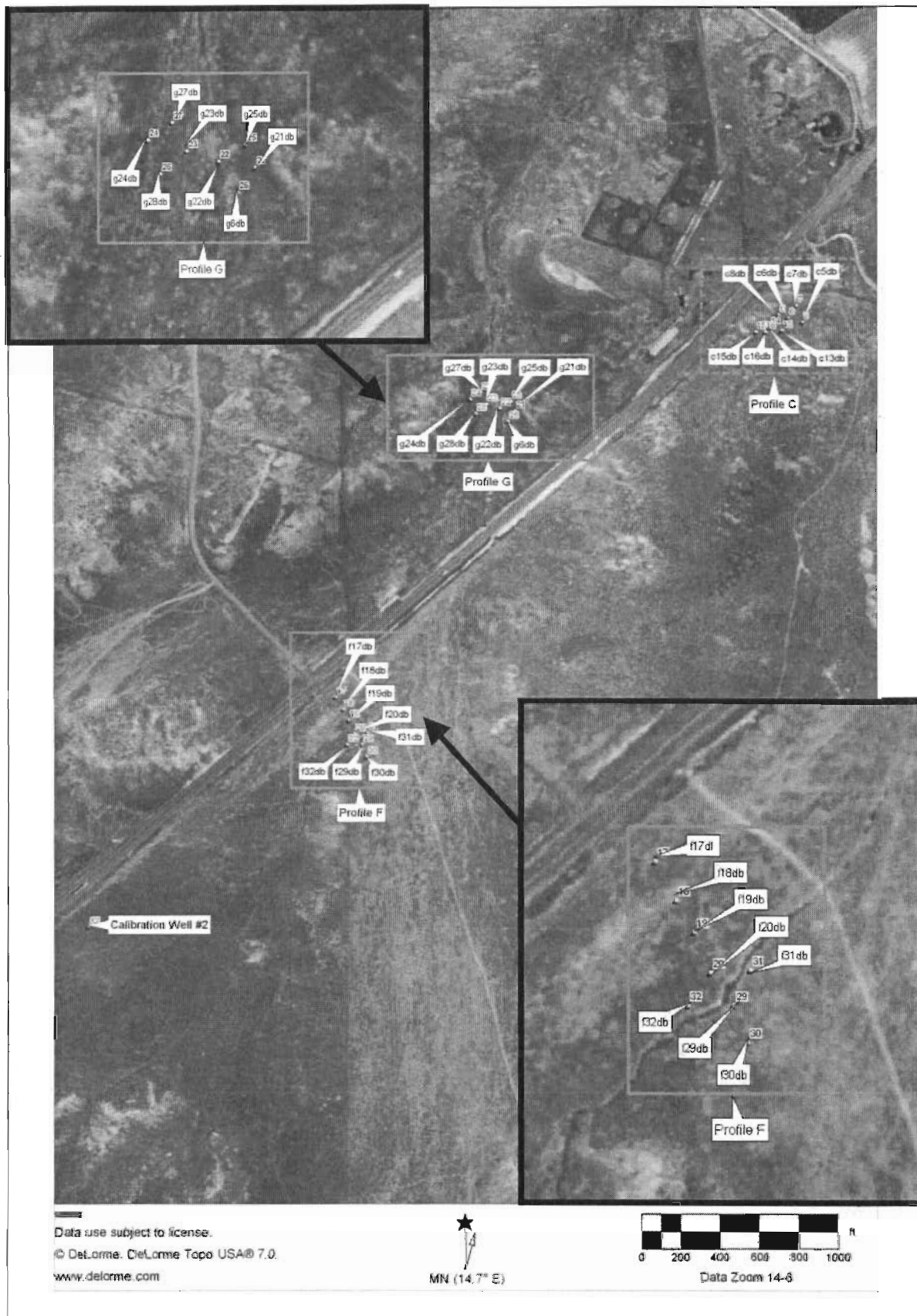
All of the data recording, analysis, interpretations and conclusions in this report has been prepared by persons who have had a rigorous training in the acquisition and analysis of seismoelectric data.

A minimum of 100 feet must be maintained between a domestic well and any septic field or designated future septic field. The area immediately adjacent to a domestic well should be fenced off from any livestock.

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**Figure 1.** Two photographs showing the site conditions.



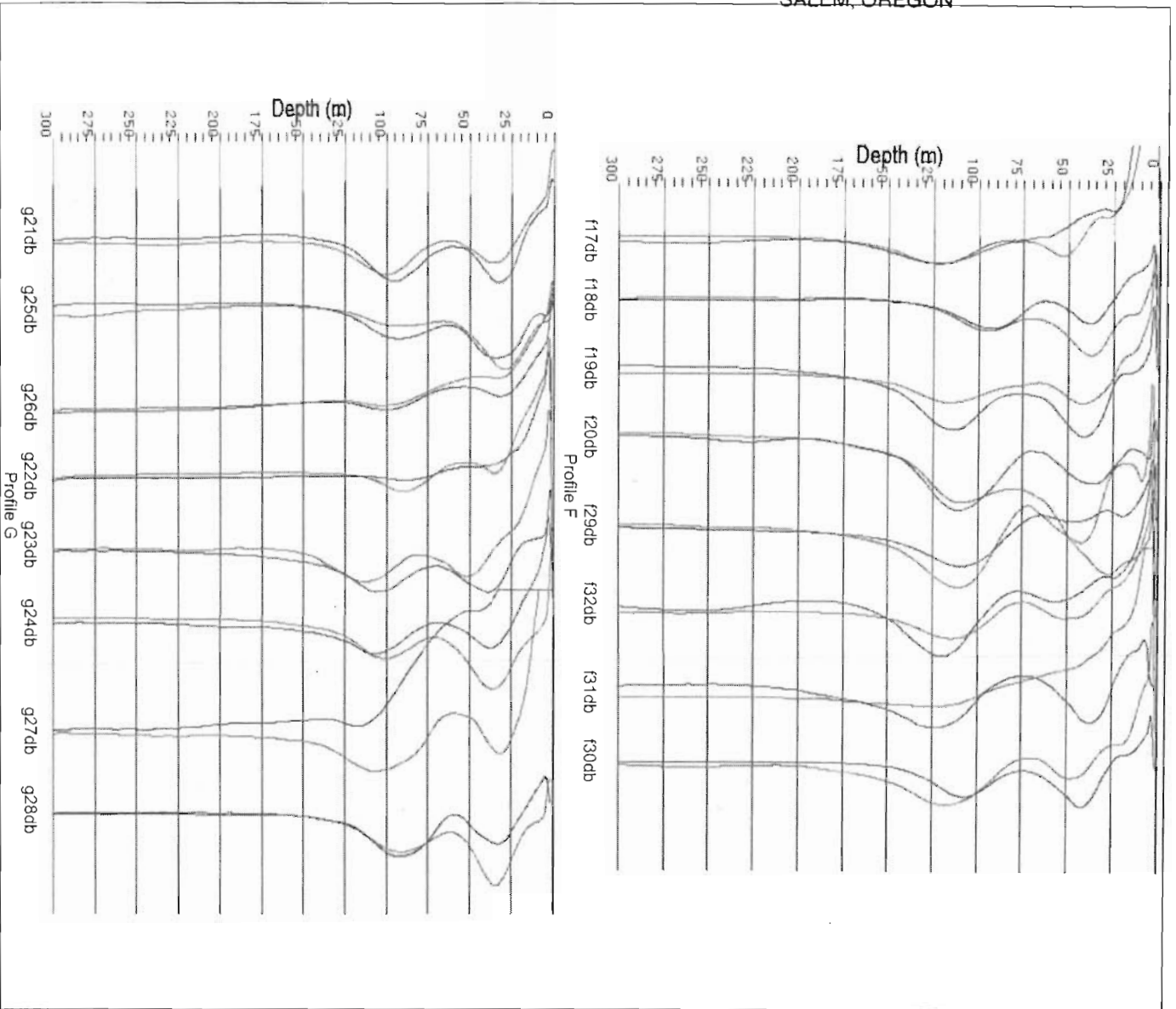
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Figure 2. Survey location and sounding locations

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**Figure 3.** Selected results from the seismoelectric soundings.

The images above are a representation of the data collected at each test site. Accurate interpretation of this data requires training and experience and access to the proprietary software not available to the general public at this time. The inclusion of these images in the report is only intended to provide a basic illustration of the data collected at each test site.



## Herb Mosgar

---

**From:** Dan Cummings [dan@ck3llc.net]  
**Sent:** Wednesday, September 08, 2010 12:07 PM  
**To:** Herb Mosgar  
**Subject:** RE: Faith Land Application G17420

Herb,

I talked with Dustin Baker a little while ago and he confirmed that he and his wife Mary are Members of the Faith Land Company, LLC and Authorized to sign and his Father in Law Donald Decker is also the main Member of the LLC.

If you need any further clarification or documentation please let me know.

Thanks and have a great day.

Dan

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G-17420

## Herb Mosgar

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**From:** Dan Cummings [dan@ck3llc.net]  
**Sent:** Wednesday, September 08, 2010 8:13 AM  
**To:** Herb Mosgar  
**Subject:** Faith Land Application G17420

**Attachments:** Faithland Well Logs.pdf; Faithland 12110\_Report[1].pdf; Faithland 12112\_Report[1].pdf

Herbert,

Thank you very much for your phone call and request for additional information on the proposed Wells for Faith Land Company, LLC Ground Water Application that you assigned the Number G-17420.

As we discussed I contacted the owners and they have confirmed to me that their intent is to get into the Basalt Aquifer.

I have attached to this e-mail the two (2) Water Reports that were prepared for this project, along with Well logs of existing wells that they had an updated pump test done that the client provided to me to send to you for additional information to their application. Hopefully these reports will help you in determining the intent of the wells.

If you have any further questions, please feel free to e-mail or call me and again thank you very much for your help in this matter.

Would you please confirm that you received this information.

Respectfully

Dan

Dan K. Cummings, PLS

# CK3, LLC

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