Application for Permanent Water Right Transfer

Part 1 of 5 - Minimum Requirements Checklist



This transfer application will be returned if Parts 1 through 5 and all required attachments are not completed and included.

		For questions, please can (503) 986-0900, and ask for transfer section.										
heck	call items i	included with this application. (N/A = Not Applicable) Part 1 – Completed Minimum Requirements Checklist.										
\boxtimes		Part 2 – Completed Transfer Application Map Checklist.										
\boxtimes		Part 3 – Application Fee, payable by check to the Oregon Water Resources Department, and completed Fee Worksheet, page 3. Try the new online fee calculator at: http://apps.wrd.state.or.us/apps/misc/wrd fee calculator. If you have questions, call Customer Service at (503) 986-0801.										
\boxtimes		Part 4 – Completed Applicant Information and Signature.										
		Part 5 – Information about Water Rights to be Transferred: How many water rights are to be transferred? 1 List them here: Cert. 93290 (Attachment A) Please include a separate Part 5 for each water right. (See instructions on page 6)										
\boxtimes		Attachments: Transfer Application Map. (Attachment B) EVIDENCE OF USE AFFIDAVIT AND SUPPORTING DOCUMENTATION (ATTACHMENT C) LAND USE INFORMATION FORM (ATTACHMENT E) WATER WELL REPORT/WELL LOGS (ATTACHMENT F) GEOLOGIST REPORT (ATTACHMENT G) Completed Transfer Application Map.										
		Completed Evidence of Use Affidavit and supporting documentation.										
\boxtimes	□ N/A	Affidavit(s) of Consent from Landowner(s) (if the applicant does not own the land the water right is on.)										
	⊠ N/A	Supplemental Form D – For water rights served by or issued in the name of an irrigation district. Complete when the transfer applicant is not the irrigation district.										
	□ N/A	Oregon Water Resources Department's Land Use Information Form with approval and signature (or signed land use form receipt stub) from each local land use authority in which water is to be diverted, conveyed, and/or used. Not required if water is to be diverted, conveyed, and/or used only on federal lands or if all of the following apply: a) a change in place of use only, b) no structural changes, c) the use of water is for irrigation only, and d) the use is located within an irrigation district or an exclusive farm use zone.										
\boxtimes	□ N/A	Water Well Report/Well Log for changes in point(s) of appropriation (well(s)) or additional point(s) of appropriation.										
\boxtimes	□ N/A	Geologist Report for a change from a surface water point of diversion to a ground water point of appropriation (well), if the proposed well is more than 500' from the surface water source and more than 1000' upstream of downstream from the point of diversion. See OAR 690-380-2130 for requirements and applicability.										
		(For Staff Use Only)										
		WE ARE RETURNING YOUR APPLICATION FOR THE FOLLOWING REASON(S): Application fee not enclosed/insufficient Land Use Form not enclosed or incomplete Additional signature(s) required Other/Explanation Is incomplete										
		Staff: 503-986-0 Date:/										

Permanent Transfer Application Form – Page 1 of 12

Part 2 of 5 - Transfer Application Map

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SEP 2 5 2020

Your transfer application will be returned if any of the map requirements listed below are not met.

Please be sure that the transfer application map you submit includes all the required items and

matc	hes tl	he existing water right map. Check all boxes that apply.
	N/A	Certified Water Right Examiner (CWRE) Stamp and Original Signature. For a list of CWREs, see http://apps.wrd.state.or.us/apps/wr/cwre-license-view/ . CWRE stamp and signature are not required for substitutions.
	N/A	If more than three water rights are involved, separate maps are needed for each water right.
\boxtimes		Permanent quality printed with dark ink on good quality paper.
\boxtimes		The size of the map can be $8\% \times 11$ inches, $8\% \times 14$ inches, 11×17 inches, or up to 30×30 inches. For 30×30 inch maps, one extra copy is required.
\boxtimes		A north arrow, a legend, and scale.
		The scale of the map must be: 1 inch = 400 feet, 1 inch = 1,320 feet, the scale of the Final Proof/Claim of Beneficial Use Map (the map used when the permit was certificated), the scale of the county assessor map if the scale is not smaller than 1 inch = 1,320 feet, or a scale that has been pre-approved by the Department.
		Township, Range, Section, $\frac{1}{4}$, DLC, Government Lot, and other recognized public land survey lines.
\boxtimes		Tax lot boundaries (property lines) are required. Tax lot numbers are recommended.
		Major physical features including rivers and creeks showing direction of flow, lakes and reservoirs, roads, and railroads.
		Major water delivery system features from the point(s) of diversion/appropriation such as main pipelines, canals, and ditches.
		Existing place of use that includes separate hachuring for each water right, priority date, and use including number of acres in each quarter-quarter section, government lot, or in each quarter-quarter section as projected within government lots, donation land claims, or other recognized public land survey subdivisions. If less than the entirety of the water right is being changed, a separate hachuring is needed for lands left unchanged.
	N/A	Proposed place of use that includes separate hachuring for each water right, priority date, and use including number of acres in each quarter-quarter section, government lot, or in each quarter-quarter section as projected within government lots, donation land claims, or other recognized public land survey subdivisions.
X		Existing point(s) of diversion or well(s) with distance and bearing or coordinates from a recognized survey corner. This information can be found in your water right certificate or permit.
	N/A	If you are proposing a change in point(s) of diversion or well(s), show the proposed location and label it clearly with distance and bearing or coordinates. If GPS coordinates are used, latitude-longitude coordinates may be expressed as either degrees-minutes-seconds with at least one digit after the decimal (example $-42^{\circ}32'15.5''$) or degrees-decimal with five or more digits after the decimal (example -42.53764°).

Part 3 of 5 - Fee Worksheet

	FEE WORKSHEET for PERMANENT TRANSFER (except Substitution)		
1	Base Fee (includes one type of change to one water right for up to 1 cfs)	1	\$1,160
	Types of change proposed:	D	
	∇ Place of Use		
	Character of Use SEP 2 5 20	20	
	Point of Diversion/Appropriation		
	Number of above boxes checked = 3 (2a) OWRD		
	Subtract 1 from the number in line $2a = \frac{2(2b)}{16}$ If only one change, this will be 0		
2	Multiply line 2b by \$930 and enter » » » » » » » » » » » » » »	2	\$1,860
	Number of water rights included in transfer 1 (3a)		
	Subtract 1 from the number in 3a above: 0 (3b) If only one water right this will be 0		
3	Multiply line 3b by \$520 and enter » » » » » » » » » » » » »	3	0
	Do you propose to add or change a well, or change from a surface water POD to a		
	well?		
	No: enter 0 » » » » » » » » » » » » » » » » » »		
4		4	\$410
	Do you propose to change the place of use or character of use?		
	No: enter 0 on line 5 » » » » » » » » » » » » » » »		
	igwedge Yes: enter the cfs for the portions of the rights to be transferred (see		
	example below*): 1.20 (5a)		
	Subtract 1.0 from the number in 5a above: 0.20 (5b)		
	If 5b is 0 or less, enter 0 on line 5 » » » » » » » » » » » » » » »		
	If 5b is greater than 0, round up to the nearest whole number: 1.0 (5c) and		
5	multiply 5c by \$350, then enter on line 5 » » » » » » »	5	\$350
6	Add entries on lines 1 through 5 above » » » » » » » » » Subtotal:	6	\$3,780
	Is this transfer:		
	necessary to complete a project funded by the Oregon Watershed		
	Enhancement Board (OWEB) under ORS 541.932?		
	endorsed in writing by ODFW as a change that will result in a net benefit to		
	fish and wildlife habitat?		
_	If one or more boxes is checked, multiply line 6 by 0.5 and enter on line 7 »		40
7	If no box is applicable, enter 0 on line 7» » » » » » » » » » » » » » » »	7	\$0.00
8	Subtract line 7 from line 6 » » » » » » » » » » » » Transfer Fee:	8	\$3.780

1. For irrigation calculate cfs for each water right involved as follows:

a. Divide total authorized cfs by total acres in the water right (for C12345, 1.25 cfs \div 100 ac); then multiply by the number of acres to be transferred to get the transfer cfs (x 45 ac= 0.56 cfs).

b. If the water right certificate does not list total cfs, but identifies the allowable use as 1/40 or 1/80 of a cfs per acre; multiply number of acres proposed for change by either 0.025 (1/40) or 0.0125 (1/80). (For C87654, 45.0 ac x 0.0125 cfs/ac = 0.56 cfs)

2. Add cfs for the portions of water rights on all the land included in the transfer; however do not count cfs for supplemental rights on acreage for which you have already calculated the cfs fee for the primary right on the same land. The fee should be assessed only once for each "on the ground" acre included in the transfer. (In this example, blank 5a would be only 0.56 cfs, since both rights serve the same 45.0 acres. Blank 5b would be 0 and Line 5 would then also become 0).

	FEE WORKSHEET for SUBSTITUTION										
1	Base Fee (includes change to one well)	1	\$0.00								
	Number of wells included in substitution(2a)										
	Subtract 1 from the number in 2a above:(2b) If only one well this will be 0										
2	Multiply line 2b by \$410 and enter » » » » » » » » » » » » » »	2									
3	Add entries on lines 1 through 2 above » » » » Fee for Substitution:	3									

^{*}Example for Line 5a calculation to transfer 45.0 acres of Primary Certificate 12345 (total 1.25 cfs for 100 acres) and 45.0 acres of Supplemental Certificate 87654 (1/80 cfs per acre) on the same land:

Part 4 of 5 – Applicant Information and Signature

Applicant Information

• •				
APPLICANT/BUSINESS NAME			PHONE NO.	ADDITIONAL CONTACT NO.
GLENN CHOWNING			541-571-1912	OWRD
ADDRESS				FAX NO.
P.O. BOX 862				
CITY	STATE	ZIP	E-MAIL	
HERMISTON	OR	97838	gchowning@ch	arter.net
BY PROVIDING AN E-MAIL AD	DRESS, CONSE	NT IS GIVEN TO RE	CEIVE ALL CORRESPOND	ENCE FROM THE DEPARTMENT
ELECTRONICALLY. COPIES OF	THE FINAL ORD	ER DOCUMENTS	WILL ALSO BE MAILED.	

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

Agent information The age	iit is autili	orized to represent	the applicant in all in	atters relating to this applicat						
AGENT/BUSINESS NAME			PHONE NO.	ADDITIONAL CONTACT NO.						
RONALD V. McKINNIS, CWRE			541-567-2017	541-571-1672						
ADDRESS		FAX NO.								
79980 PRINDLE LOOP ROAD										
CITY	STATE	ZIP	E-MAIL							
HERMISTON	OR	97838	rvmeng@eotnet.net							
BY PROVIDING AN E-MAIL ADDRES	s, consen	IS GIVEN TO RECEIVE	ALL CORRESPONDENCE F	ROM THE DEPARTMENT						
ELECTRONICALLY. COPIES OF THE I	FINAL ORDE	R DOCUMENTS WILL A	ALSO BE MAILED.							
Explain in your own words wh										
The Applicant is proposing to	change th	e character of use	from irrigation to mur	nicipal, the place of use, and						
add several additional points of	of appropr	iation to Certificat	e 93290.							
If you need additional space, con	tinue on a	separate piece of pa	per and attach to the ap	pplication as "Attachment 1".						
		Check On	е Вох							
By signing this application, I	understand	that, upon receipt of	of the draft preliminary of	determination and prior to						
				formation and evidence that I an						
authorized to pursue the tra										
☐ I affirm the applicant is a mu				right is in the						
name of the municipality or				0						
I affirm the applicant is an en			emn property and is acq	uiring by						
	,	.,								

By my signature below, I confirm that I understand:

have supporting documentation.

- Prior to Department approval of the transfer application, I may be required to submit payment to the Department for publication of a notice in a newspaper with general circulation in the area where the water right is located, once per week for two consecutive weeks. If more than one qualifying newspaper is available, I suggest publishing the notice in the following newspaper: <u>HEPPNER GAZETTE TIMES.</u>
- Amendments to the application may only be made in response to the Department's Draft Preliminary Determination (DPD). The applicant will have a period of at least 30 days to amend the application to address any issues identified by the Department in the DPD, or to withdraw the application. Note that amendments may be subject to additional fees, pursuant to ORS 536.050.
- It in loss of the

 Failure to complete an approved char 	nge in place of use and/or change ir	character of use, will result in loss of the
water right (OAR_690-380-6010).		
I (we) affirm that the information conta	ained in this application is true ar	nd accurate.
Applicant signature	Ronald V. McKinnis, Agent Print Name (and Title if applicable)	09-10 · 2026
Glem Choman	Glenn Chowning, Owner Print Name (and Title if applicable)	09/10/2020
Is the applicant the sole owner of the la		ortion thereof, proposed for transfer is andowners (and mailing and/or e-mail.

condemnation the property to which the water right proposed for transfer is appurtenant and

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☐ The applicant is resp	onsible fo	or comple	etion of o	change(s). Noti <mark>c</mark>	es and cor	2 5 2020 rrespondence sho	uld			
continue to be sent t	to the app	olicant.			O	WRD				
The receiving landov final order is issued.										
Both the receiving la Copies of notices and										
At this time, are the lands in	n this tran	sfer appl	ication i	n the process of	being sol	d? 🗌 Yes X No				
If YES, and you know wh information table below assignment will have to	. If you d	o not kno	w who t	the new landow						
If a property sells, the counless a sale agreement https://www.oregon.go	or other	documer	nt states	otherwise. For	more info	rmation see:	·,			
RECEIVING LANDOWNER NAME PORT OF MORROW Attn. MIFF I	DEVIN			PHONE NO. 541-481-7467	ADDITI	IONAL CONTACT NO.				
ADDRESS P.O. BOX 200, #2 MARINE DRIVE					FAX NO	0.				
	STATE	ZIP		E-MAIL						
Describe any special owners Check here if any of the	water rig	hts propo	osed for	transfer are or v	will be loca		ved			
Describe any special owners Check here if any of the an irrigation or other wa	ship circu water rig ater distri	mstances	osed for Complete	transfer are or ve	will be loca		ved			
Describe any special owners Check here if any of the an irrigation or other was	ship circu water rig ater distri	mstances	osed for Complet	transfer are or ve	will be loca		ved			
Describe any special owners Check here if any of the an irrigation or other was	ship circu water rig ater distri	mstances	osed for Complete ADDRESS 840 HW	transfer are or ve	will be loca	al Form D.)	ved			
Describe any special owners Check here if any of the an irrigation or other was	water rig ater distri	mstances thts propo ct. (Tip : C	ADDRESS 840 HW STATE OR	transfer are or verant and attach Super 2009.	vill be loca pplementa zıp 9784	al Form D.)	ved			
Describe any special owners Check here if any of the an irrigation or other was set to extension irrigation districts RRIGON Check here if water for a contract for stored water	water rig ater distri	mstances thts propo ct. (Tip : C	ADDRESS 840 HW STATE OR	transfer are or verant and attach Super 2009.	vill be loca pplementa zıp 9784	al Form D.)	ved			
Describe any special owners Check here if any of the an irrigation or other was set to extension irrigation distributed by the set of the contract for stored water for set to extension was set to extension was set to extension water for a contract for stored water for set to extension was set to exten	water rig ater distri	mstances thts propo ct. (Tip : C	ADDRESS 840 HW STATE OR upplied u	transfer are or verant and attach Super 2009.	vill be loca pplementa zıp 9784	al Form D.)	vec			
Describe any special owners Check here if any of the an irrigation or other was set extension irrigation districtly RRIGON Check here if water for a contract for stored water stored wa	water rig ater distri	mstances thts propo ct. (Tip : C rights su federal ag	ADDRESS 840 HW STATE OR Upplied L Gency or ADDRESS STATE	transfer are or verant and attach Super Act of Super Act	zip 9784 ervice agre	ement or other				
Describe any special owners Check here if any of the an irrigation or other was west extension irrigation districtly responsible to the contract for stored water for a contract for stored water for stored wate	water rig ater distri	mstances thts propo ct. (Tip : C rights su federal ag	ADDRESS 840 HW STATE OR Upplied L Gency or ADDRESS STATE	transfer are or verant and attach Super Act of Super Act	zip 9784 ervice agre	ement or other				
an irrigation or other was west extension irrigation districtly irrigation. City irrigation Check here if water for a	water rig ater distri	mstances thts propo ct. (Tip : C rights su federal ag	ADDRESS 840 HW STATE OR ADDRESS STATE Dents, you	transfer are or verant and attach Super Act of Super Act	zip 9784 ervice agre	ement or other n, municipal rted, conveyed or				
Describe any special owners Check here if any of the an irrigation or other was west extension irrigation distribution. City IRRIGON Check here if water for a contract for stored water entity name. ENTITY NAME CITY To meet State Land Use Corporation, or tribal government of the contract for stored water f	water rig ater distri	mstances thts propo ct. (Tip : C rights su federal ag	ADDRESS STATE ADDRESS STATE ADDRESS STATE ADDRESS ADDRESS P.O. BOS STATE	transfer are or verant and attach Super Act of Super Act	zip 9784 ervice agre	ement or other n, municipal rted, conveyed or				

INSTRUCTIONS for editing the Application Form RECEIVED

To add additional lines to tables within the forms or to copy and paste additional Part 5 pages, please save the application form to your computer. Unlock the document by using one of the following

instructions for your Microsoft Word software version:

Microsoft Word 2003

Unlock the document by one of the following:

- Using the **Tools** menu => click **Unprotect Document**; OR
- Using the Forms toolbar => click on the Protect/Unprotect icon.

To relock the document to enable the checkboxes to work, you will need to:

 Using the Tools menu => click Protect Document; OR

Using the Forms toolbar => click on the Protect/Unprotect icon.

Once the application has been unlocked, you may:

- add additional rows to tables using the Table tools, and
- select and copy the pages of Part 5 and paste as many additional sets of Part 5 pages as needed at the end of the application.

After editing, re-lock the document to enable checkboxes to work.

Microsoft Word 2007

- Unlock the document by clicking the Review tab, then click Protect Document, then click **Stop Protect**
- To relock the document, click **Editing Restrictions**, then click **Allow Only This Type of Editing**, select Filling In Forms from the drop-down menu, then check Yes, Start Enforcing Protection.

Microsoft Word 2010

- Unlock the document by clicking the **Review** tab; toggle the **Restrict Editing icon** at the upper right, then click Stop Protect at the bottom right. Then uncheck the "Allow only this type of editing in the document: Filling in forms" in the "Editing restrictions" section on the right-hand list of options.
- To relock the document, check the Editing Restrictions/Allow Only This Type of Editing/Filling In Forms box from the drop-down menu, then check Yes, Start Enforcing Protection. You do not need to assign a password for the editing restrictions.

Other Alternatives:

- Photocopy pages or tables in Part 5, -mark-through any non-applicable information, insert/attach photocopied pages to document in the appropriate location, and manually amend page numbers as necessary (e.g. Page 5 6 of 9 10).
- You may refer to additional attachments that you may include, such as separately produced tables or spreadsheets to convey large numbers of rows of place of use listings, owner/property parcels, etc. You may contact the Department at 503-986-0900 and ask for Transfer Staff if you have questions.

TACS

Part 5 of 5 – Water Right Information

Please use a separate Part 5 for each water right being changed. See instructions on page 6, to copy and paste additional Part 5s, or to add additional rows to tables within the form.

CERTIFICATE # 93290

SEP 2 5 2020

Description of Water Delivery System

OWRD

System capacity: 1.23 cubic feet per second (cfs) OR

gallons per minute (gpm)

Describe the current water delivery system or the system that was in place at some time within the last five years. Include information on the pumps, canals, pipelines, and sprinklers used to divert, convey, and apply the water at the authorized place of use. Pumps in the authorized wells deliver the water to the irrigation system for the fields listed in the POU.

Table 1. Location of Authorized and Proposed Point(s) of Diversion (POD) or Appropriation (POA) (Note: If the POD/POA name is not specified on the certificate, assign it a name or number here.)

							_					
POD/POA Name or Number	Is this POD/POA Authorized on the Certificate or is it Proposed?	If POA, OWRD Well Log ID# (or Well ID Tag # L)	Т	wp	Ri	ng	Sec	7/4	½	Tax Lot, DLC or Gov't Lot	Measured Distances (from a recognized survey corner)	
(1) Deep Well #2	Authorized Proposed	MORR 777	4	N	25	E	13	sw	NE	100	330 feet North and 1,310 feet East from C1/4 corner, Section 13	
(2) Hillview #4	Authorized Proposed	MORR 776 & MORR 51714	4	N	25	E	13	SE	NE	100	3,840 feet North and 2,440 feet East from S1/4, Section 13	
(3) Well A1	Authorized X Proposed	N/A	4	N	25	E	12	NW	NE	103	100 feet South and 2,700 feet East from NW corner, Section 12 120 feet South and 2,720 feet East from NW corner, Section 12	
(4) Well A2	Authorized X Proposed	N/A	4	N	25		12	NW	NE	103		
(5) Well A3	Authorized X Proposed	N/A	4	N	25	E	12	NW	NE	103	120 feet South and 2,680 feet East from NW corner, Section 12	
(6) Well B1	Authorized X Proposed	N/A	4	N	25	E	1	sw	NE	100	2,390 feet South and 2,100 feet West from the NE corner, Section 1	
(7) Well B2	Authorized X Proposed	N/A	4	N	25	E	1	sw	NE	100	2,410 feet South and 2,080 feet West from the NE corner, Section 1	
(8) Well B3	Authorized X Proposed	N/A	4	N	25	E	1	sw	NE	100	2,410 feet South and 2,120 feet West from the NE corner, Section 1	
(9) Well C1	Authorized X Proposed	N/A	4	N	25	E	2	SE	NW	GL8	1,410 feet South and 3,450 feet West from NE corner, Section 2	
(10) Well C2	Authorized X Proposed	N/A	4	N	25	E	2	SE	NW	GL8	1,430 feet South and 3,430 feet West from NE corner, Section 2	
(11) Well C3	Authorized X Proposed	N/A	4 N		25 E		2	SE NW		GL8	1,430 feet South and 3,470 feet West from NE corner, Section 2	

(12) Well D1	Authorized X Proposed	N/A	4	N	25	E	2	NE	SE	100	2,950 feet South and 600 feet West from NE corner, Section 2
(13) Well D2	Authorized X Proposed	N/A	4	N	25	E	2	NE	SE	100	2,970 feet South and 580 feet West from NE corner, Section 2
(14) Well D3	Authorized X Proposed	N/A	4	N	25	E	2	NE	SE	100	2,970 feet South and 620 feet West from NE corner, Section 2
(15) Port Well 1 (MORR 752)	Authorized X Proposed	MORR 752	4	N	25	E	10	sw	NE	1902	130 feet North and 2,650 feet East from the West 1/4 corner of Section 10
(16) Port Well 2 (MORR 756)	Authorized X Proposed	MORR 756	4	N	25	E	10	NE	NW	Road	1,069 feet South and 1,378 feet East from the NW corner of Section 10

NOTE:

The authorized basalt POAs on Certificate 93290 (Chowning Deep Well 2 and Hillview 4) are constructed in a manner that obtains water from four separate water-bearing units within the Columbia River Basalt Group (CRBG) (the Pomona and Umatilla Members, the Priest Rapids Member, and the upper zone(s) of the Frenchman Springs Member – Sentinel Gap). Based on this information, any additional proposed POAs can obtain water from any one, or combination of wells, tapping these 3 water-bearing units (up to the allowed rate and duty on the Certificate 93290). See Attachment F for a review of the basalt geology associated with the Chowing Wells and the basalt geology in the vicinity of the Port of Morrow.

Four sites have been identified as locations to potentially install a cluster of up to two or three new basalt wells. The well clusters are intended to ensure that current well construction standards are met; specifically the requirement that a well is completed in only one water-bearing zone of the CRBG. The permit holder anticipates completing one well in each of three different target aquifers (the Umatilla Member, the Priest Rapids Member, and the upper zone(s) of the Frenchman Springs Member – Sentinel Gap) at one or more of these proposed new POA cluster locations. Combined total production from any new additional POA clusters will not exceed the allowed rate and duty on the Certificate 93290. If the static water levels are consistent between the Umatilla and Priest Rapids members, and in consultation with OWRD groundwater staff during the well construction process, one well may be constructed to appropriate water from both units. Decisions regarding depths and final construction will be determined during the drilling process, with approval from OWRD groundwater staff. See Attachment F for additional information.

Check al	I type(s) of change(s) proposed below (ch	ange '	"CODES" are provided in parentheses):
\boxtimes	Place of Use (POU)		Supplemental Use to Primary Use (S to P)
\boxtimes	Character of Use (USE)		Point of Appropriation/Well (POA)
	Point of Diversion (POD)	\boxtimes	Additional Point of Appropriation (APOA)
	Additional Point of Diversion (APOD)		Substitution (SUB)
	Surface Water POD to Ground Water		Government Action POD (GBACEIVED
	POA (SW/GW)		SEP 2 5 2020
Will all d	of the proposed changes affect the entire		right?
Yes	Complete only the Proposed ("to" or "on" "CODES" listed above to describe the pro		s) section of Table 2 on the next page. Use the changes.
X No	Complete all of Table 2 to describe the po	rtion	of the water right to be changed.

Table 2. Description of Changes to Water Right Certificate # 93290

List the change proposed for the acreage in each ¼ ¼. If more than one change is proposed, specify the acreage associated with each change. If there is more than one POD/POA involved in the proposed changes, specify the acreage associated with each POD/POA.

	AUTHORIZED (the "from" or "off" lands) The listing that appears on the certificate BEFORE PROPOSED CHANGES List only that part or portion of the water right that will be changed.									Proposed Changes (see	PROPOSED (the "to" or "on" lands) The listing as it would appear AFTER PROPOSED CHANGES are made.															
Tw	/p	Rng		Sec		1 1/4	Tax Lot	Gvt	Acres	Type of USE listed on Certificate	POD(s) or POA(s) (name or number from Table 1)		"CODES" from previous page)	Tw	vp	Rr	ng	Sec	7/4	1/4	Tax Lot	Gvt Lot or DLC	Acres	New Type of USE	POD(s)/ POA(s) to be used (from Table 1)	Priority Date
													EXAMPLE													
2	s	9	E	15	NE	NW	100		15.0	Irrigation	POD #1 POD #2	1901	POU/POD	2	S	9	E	1	NW	NW	500	1	10.0		POD #5	1901
														2	s	9	E	2	sw	NW	500		5.0		POD #6	1901
4	N	25	E	13	NE	NE	100		4.3	Irrigation	POD 1 POD 2	1975	POU/USE APOA								ALL		ALL	MU	ALL	9-12-1975
4	N	25	E	13	NW	NE	100		29.4	Irrigation	POD 1 POD 2	1975	POU/USE APOA													
4	N	25	E	13	sw	NE	100		34.5	Irrigation	POD 1 POD 2	1975	POU/USE APOA													
4	N	25	E	13	SE	NE	100		6.9	Irrigation	POD 1 POD 2	1975	POU/USE APOA													
4	N	25	E	13	NE	NW	100		6.5	Irrigation	POD 1 POD 2	1975	POU/USE APOA													
4	N	25	E	13	SE	NW	100		8.4	Irrigation	POD 1 POD 2	1975	POU/USE APOA													
4	N	25	Е	13	SE	SE	100		6.2	Irrigation	POD 1 POD 2	1975	POU/USE APOA													
						ТО	TAL AC	RES:	96.2											ТО	TAL AC	RES:	N/A			

Additional remarks: PLACE OF USE IS WITHIN THE PORT OF MORROW SERVICE BOUNDARY, ALL AUTHORIZED POA'S ARE EXISTING WELLS

RECEIVED SEP 2.5 2020

For Place of Use or Character of Use Changes

Are there other water right certificates, water use permits or ground water registrations associated with the "from" or the "to" lands? Yes

If YES, list the certificate, water use permit, or ground water registration numbers:

FROM LANDS: #G-5952, G-9811, #G-1322, #S-45563.

TO LANDS: #G-7158, #G-5332, #G-10975, #G-17515, #G-8619

Identify the primary certificate to be cancelled. Certificate # ___



Pursuant to ORS 540.510, any "layered" water use such as an irrigation right that is supplemental to a primary right proposed for transfer must be included in the transfer or be cancelled. Any change to a ground water registration must be filed separately in a ground water registration modification application.

For Substitution (ground water supplemental irrigation will be substituted for surface water primary	rirrigation)
Ground water supplemental Permit or Certificate #; Surface water primary Certificate #	
For a change from Supplemental Irrigation Use to Primary Irrigation Use	

For a change in point(s) of appropriation (well(s)) or additional point(s) of appropriation:

\boxtimes	Well log(s) are attached for each authorized and proposed well(s) that are clearly labeled and associated
	with the corresponding well(s) in Table 1 above and on the accompanying application map.
	Tip: You may search for well logs on the Department's web page at:
	http://apps.wrd.state.or.us/apps/gw/well_log/Default.aspx

AND/OR

Describe the construction of the authorized and proposed well(s) in Table 3 for any wells that do not have a well log. For proposed wells not yet constructed or built, provide "a best estimate" for each requested information element in the table. The Department recommends you consult a licensed well driller, geologist, or certified water right examiner to assist with assembling the information necessary to complete Table 3.

Table 3. Construction of Point(s) of Appropriation

Any well(s) in this listing must be clearly tied to corresponding well(s) described in Table 1 and shown on the accompanying application map. Failure to provide the information will delay the processing of your transfer application until it is received. The information is necessary for the department to assess whether the proposed well(s) will access the same source aquifer as the authorized point(s) of appropriation (POA). The Department is prohibited by law from approving POA changes that do not access the same source aquifer.

Permanent Transfer Application Form - Page 10 of 12

RECEIVED

Proposed or Authorized POA Name or Number	Is well already built? (Yes or No)	If an existing well: OWRD Well ID Tag No. L	Total well depth	Casing Diameter	Casing Intervals (feet)	Seal depth(s) (intervals)	Perforated or screened intervals (in feet)	Static water Tevel of completed (In feet)	Source aquifer (sand, gravel, basalt, etc.)	Well -specific rate (cfs or gpm). If less than full rate of water right
(1) Deep Well #2 MORR 777	YES	MORR 777	335′	16" 12"	0-51' 0-162'	0-45′	8" Open 162-335'	0' bgs	Pomona, and Umatilla Members (CRBG)	
(2) Hillview #4 MORR 51714	YES	MORR 51714	571′	20' 16" 12"	0-40' 0-60' 0-320'	0-320′	12" Open 350-571'	109' bgs	Umatilla, Priest Rapids, and Frenchman Springs Members (CRBG)	
(3) Well A1	NO	N/A	400′	16" 12"	+3-325' 315-400'	0-325′	350-400′		Umatilla Member (CRBG)	
(4) Well A2	NO	N/A	590'	16" 12"	+3-525' 515-590'	0-525'	555-570′		Priest Rapids, Member (CRBG)	
(5) Well A3	NO	N/A	880′	16" 12"	+3-650' 640-880'	0-650′	675-860′		Frenchman Springs Member (CRBG)	
(6) Well B1	NO	N/A	400′	16" 12"	+3-325′ 315-400′	0-325′	350-400′		Umatilla Member (CRBG)	
(7) Well B2	NO	N/A	590'	16" 12"	+3-525′ 515-590′	0-525'	555-570'		Priest Rapids, Member (CRBG)	
(8) Well B3	NO	N/A	880'	16" 12"	+3-650′ 640-880′	0-650′	675-860'		Frenchman Springs Member (CRBG)	
(9) Well C1	NO	N/A	400′	16" 12"	+3-325' 315-400'	0-325′	350-400′		Umatilla Member (CRBG)	
(10) Well C2	NO	N/A	590'	16" 12"	+3-525' 515-590'	0-525'	555-570′		Priest Rapids, Member (CRBG)	
(11) Well C3	NO	N/A	880′	16" 12"	+3-650' 640-880'	0-650′	675-860′		Frenchman Springs Member (CRBG)	
(12) Well D1	NO	N/A	400′	16" 12"	+3-325′ 315-400′	0-325′	350-400′		Umatilla Member (CRBG)	
(13) Well D2	NO	N/A	590′	16" 12"	+3-525′ 515-590′	0-525′	555-570′		Priest Rapids, Member (CRBG)	
(14) Well D3	NO	N/A	880′	16" 12"	+3-650' 640-880'	0-650′	675-860′		Frenchman Springs Member (CRBG)	
(15) Port Well 1	YES	MORR 752	685′	16" 12"	0-75' +1-535'	0-75′	10" Open 535-685'	177' bgs	Umatilla & Priest Rapids Members (CRBG)	

(16) Port Well 2	YES	MORR 756	560′	16" 12"	0-72′	+2-487'	12" Open 487-560'	150' bgs	Umatilla Member (CRBG	
---------------------	-----	----------	------	------------	-------	---------	----------------------	----------	-----------------------------	--

Note:

Four sites have been identified as locations to potentially install a cluster of up to two or three new basalt wells. The well clusters are intended to ensure that current well construction standards requiring a well's completion be in only one water-bearing zone of the CRBG are met. The permit holder anticipates completing one well in each of three different target aquifers (the Umatilla Member, the Priest Rapids Member, and the upper zone(s) of the Frenchman Springs Member – Sentinel Gap) at one or more of these proposed new POA cluster locations. Combined total production from any new additional POA clusters will not exceed the allowed rate and duty on the Certificate 93290.

If the static water levels are consistent between the Umatilla and Priest Rapids members, and in consultation with OWRD groundwater staff during the well construction process, one well may be constructed to appropriate water from both units. Decisions regarding depths and final construction will be determined during the drilling process, with approval from OWRD groundwater staff. See Attachment F for additional information.

Permanent Transfer Application Form - Dage 12 of 12

Attackment A

STATE OF OREGON

COUNTY OF MORROW

CERTIFICATE OF WATER RIGHT

RECEIVED

SEP 2 5 2020

OWRD

THIS CERTIFICATE ISSUED TO

GLENN S. CHOWNING PO BOX 862 HERMISTON, OR 97838

confirms the right to use the waters of DEEP WELL NO. 2 AND HILLVIEW WELL NO. 4, in the JUNIPER CANYON BASIN for IRRIGATION OF 98.75 ACRES.

This right was perfected under Permit G-5953. The date of priority is SEPTEMBER 12, 1975. The amount of water to which this right is entitled is limited to an amount actually used beneficially, and shall not exceed 1.23 CUBIC FEET PER SECOND (CFS), IN ANY COMBINATION, BEING NO MORE THAN 0.57 CFS FROM DEEP WELL NO. 2 AND 1.23 CFS FROM HILLVIEW WELL NO. 4, or its equivalent in case of rotation, measured at the wells.

The wells are located as follows:

Twp	Rng	Mer	Sec	Q-Q	Measured Distances
4 N	25 E	WM	13	SW NE	DEEP WELL NO. 2 - 330 FEET NORTH AND 1310 FEET EAST FROM THE C¼ CORNER OF SECTION 13
4 N	25 E	WM	13	SE NE	HILLVIEW WELL NO. 4 (ORIGINAL) - 3840 FEET NORTH AND 2440 FEET EAST FROM THE S1/4 CORNER OF SECTION 13

The amount of water used for irrigation, together with the amount secured under any other right existing for the same lands, is limited to a diversion of ONE-EIGHTIETH of one cubic foot per second, or its equivalent for each acre irrigated, and shall be further limited to a diversion of not to exceed 3 acre-feet per acre for each acre irrigated during the irrigation season of each year. The right shall be limited to any deficiency in the available supply of any prior right for the same land and shall not exceed the limitation allowed herein.

The use shall conform to such reasonable rotation system as may be ordered by the proper state officer.

T-12397-rr-86391.mjo

Page 1 of 2

Certificate 93290

A description of the place of use to which this right is appurtenant is as follows:

IRRIGATION						
Twp	Rng	Mer	Sec	Q-Q	Acres	
4 N	25 E	WM	13	NE NE	4.30	
4 N	25 E	WM	13	NW NE	29.40	
4 N	25 E	WM	13	SW NE	34.50	
4 N	25 E	WM	13	SE NE	6.90	
4 N	25 E	WM	13	NE NW	6.50	
4 N	25 E	WM	13	SE NW	8.40	
4 N	25 E	WM	13	SW SE	1.40	
4 N	25 E	WM	13	SE SE	7.35	
				Total	98.75	

Water shall be acquired from the same aquifers (water sources) as the original point of appropriation.

The water user shall maintain in-line flow meters or other suitable devices for measuring and recording the quantity of water appropriated.

The quantity of water diverted at the new point of appropriation, together with that diverted at the original point of appropriation, shall not exceed the quantity of water lawfully available at the original point of appropriation.

This certificate describes that portion of the water right confirmed by Certificate 86391, State Record of Water Right Certificates, NOT modified by the provisions of an order of the Water Resources Director entered ______AUG 0 3 2017 _____, approving Transfer Application T-12397.

The issuance of this superseding certificate does not confirm the status of the water right in regard to the provisions of ORS 540.610 pertaining to forfeiture or abandonment.

The right to the use of the water for the above purpose is restricted to beneficial use on the lands or place of use described.

WITNESS the signature of the Water Resources Director, affixed _____AUG 0 3 2017

Dwight French, Water Right Services Administrator, for

Thomas M. Byter, Director

Oregon Water Resources Department

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

State Well No.

•	are to	be Inea	with the	
WATER	RESC	URCES	DEPARTM	ENT.
S	ALEM	OREG	ON 97310	
wit	hin 30	days fr	om the date	MA

STATE OF OREGON MAY 1 1978 (Please type or print)

within 30 days from the date World 752 on not write all of well completion.	pove this line)			
(1) OWNER: Port Of Morrow	(10) LOCATION OF WELL: County Morrow Driller's well, r		P 2#52	2020
Name Address Boardman, Oregon	S.W 45 W4 Section 10 T. 4/	R. 25	ENAIL	Q Dw.m.
(,	Bearing and distance from section or subdivis	sion corne	O.A.A.	10
(2) TYPE OF WORK (check):				
New Well Deepening Reconditioning Abandon				
If abandonment, describe material and procedure in Item 12.	(11) WATER LEVEL: Completed v	vell.		
(3) TYPE OF WELL: (4) PROPOSED USE (check):	Depth at which water was first found			ft.
Rotary Driven Domestic Industrial Municipal	Static level Flowing ft. below land	surface.	Date 2/	9/78
Cable	Artesian pressure 35 lbs. per squa			
ACING INCHALLED.	A.S. Pol squ	- III		
CASING INSTALLED: Threaded □ Welded 5	(12) WELL LOG: Diameter of well	below ca	10)''
10 " Diam. from +1 ft. to 75 ft. Gage• 250 12 " Diam. from +1-6" ft. to 535 ft. Gage• 330	Depth drilled 685 ft. Depth of comp	oleted wel	ı 685	ft.
" Diam. from ft. to ft. Gage	Formation: Describe color, texture, grain size	and stru	cture of	materials;
	and show thickness and nature of each strat with at least one entry for each change of form	um and a ation. Rer	equifer port each	enetrated, change in
PERFORATIONS: Perforated? Yes No.	position of Static Water Level and indicate pri	ncipal wa	ter-beari	ng strata.
Type of perforator used	MATERIAL	From	То	SWL
Size of perforations in. by in.	Sand& gravel grey	0	3	- 33
perforations from ft. to ft.	Sand7 &Boulders grey	3	39	
perforations from ft. to ft.	MedHard brocken Basalt grey Hard Basalt grey	39	41	
perforations from ft. to ft.	Med Basalt brn.	140	140 151	
(7) SCREENS: Well screen installed? Well Screen installed? Yes You	Hard Basalt grey	151	186	
Manufacturer's Name	Med Basalt porous brn.	186	198	-
Type Model No.	Hard Basalt grey	198	309	
Diam Slot size Set from ft. to ft.	Hard brocken Basalt blk.	309	322	
Diam. Slot size Set from ft. to ft.	Hard Basalt grey	322	474	
(8) WELL TESTS: Drawdown is amount water level is lowered below static level pump	Med Porous Basalt blk,	474	529	
lowered below static Furenore Pump	Hard Basalt grey Med Sandstone brn W.B.	529 670	670	
Was a pump test made? Yes No If yes, by whom? Yield: 2000+ gal./min. with 3 ft. drawdown after 6½ hrs.	ned bandstone bin #.b.	10/0	685	
Yield: 2000+ gal./min. with 3 ft. drawdown after $6\frac{1}{2}$ hrs.	Test pumping wasdelayed so lo	ng		
n "	by Faremore Pump because of a	rtesia	n	
	conditions. Completed 4/19/78			
Bailer test gal./min. with ft. drawdown after hrs.				
g.p.m.	2/02/22	1 0/2		
perature of water 78 Depth artesian flow encountered 680 ft.	Work started 7/27/77 19 Comple	ted 2/9/	78	19
(9) CONSTRUCTION:	Date well drilling machine moved off of well	2/9/7	78	19
Well seal—Material used Cement Grout	Drilling Machine Operator's Certification	: 1		
Well sealed from land surface to 75 ft.	This well was constructed under my	direct	super	vision.
Diameter of well bore to bottom of seal 20	Materials used and information reported best knowledge and belief.	agove	are true	e to my
130	[Signed] Charles C. Made	Sate 4/	29/78	., 19
Number of sacks of cement used in well seal sacks western Power Grouter	(Drilling Machine Operator) Drilling Machine Operator's License No.	84		
How was cement grout placed?	Drining Machine Operator's Entense 140.	***************************************		**********
	Water Well Contractor's Certification:			
	This well was drilled under my jurisd	liction ar	nd this r	eport is
Was a drive shoe used? Yes No Plugs Size: location ft.	true to the best of my knowledge and be	nef.		
Did any strata contain unusable water? 🗌 Yes 💆 No	Mt Angel, Or	, 1 (T	pe or pri	nt)
Type of water? depth of strata	Address Address	V/		<i>t</i>
Method of sealing strata off	[Signed] Charles (1/10	lake	
Was well gravel packed? 🗌 Yes 🗶 No Size of gravel:	(Water Well Cont	ractor)		
Gravel placed fromft. toft.	Contractor's License No. 519 Date 4	/29/78		, 19

L CONTRACTOR TO WAT st copy ne origina f this rep filed with the

WATER WELL REPORT

STATE OF OREGONAN 91975

tate	Well	No.	4N/25E-10ba
tate	*** ***		

GINEER, SALEM, OREGON 97310 4thin 30 days from the date of well completion.

(Please type or priSTATE ENGINEER (Do not write above this ALEM, OREGON

State Permit No. .. #1

OWNER:	(10) LOCATION OF WELL: County MCRROW Driller's well number 5489
Name PORT OF MORROW	NE 14 NW 14 Section 10 T. YN R. 25 E W.M.
Address No. MARINE DEIVE	
(a) THE OF WORK (short)	Bearing and distance from section or subdivision corner
(2) TYPE OF WORK (check):	
New Well Deepening □ Reconditioning □ Abandon □ If abandonment, describe material and procedure in Item 12.	(44) XYAMED I EVEL Completed wall
	(11) WATER LEVEL: Completed well. Double of which water was first found 443
(3) TYPE OF WELL: (4) PROPOSED USE (check):	Depth at which water was rist round
Rotary Driven Domestic Industrial Municipal Domestic	Static level ft. below land surface. Date /2/20/74
Dug Bored I Irrigation Test Well Other	Artesian pressure lbs. per square inch. Date
CASING INSTALLED: Threaded □ Welded ▼ 1/6 " Diam. from ○ ft. to 72 ft. Gage 13/2	(12) WELL LOG: Diameter of well below casing
7	MATERIAL From To SWL
e of perforator used	SEE ATTACHED SHEET
Size of perforations in. by in.	SEE MIMONES SHEET
perforations from	
perforations from	TUED
perforations from ft. to ft.	DECEIVED
(7) SCREENS: Well screen installed? Yes No	2000
Manufacturer's Name	SEP 25 2020
Type Model No.	
Diam Slot size Set from ft. to ft.	
Diam Slot size Set from ft. to ft.	OWN
(8) WELL TESTS: Drawdown is amount water level is lowered below static level	
Was a pump test made? X Yes \(\subseteq No \) If yes, by whom? STRASSE,	R
Yield: 970 gal./min. with 177 ft. drawdown after 24 hrs	
" " "	
" " " "	
Bailer test gal./min. with ft. drawdown after hrs	
Artesian flow g.p.m. sperature of water 70 Depth artesian flow encountered	Work started SEPT 10 1974 Completed DEc 20 1974
(9) CONSTRUCTION: To 40 FT.	Date well drilling machine moved off of well DEC 2-3 1974
Well seal-Material used CEMENT CIROUT	Drilling Machine Operator's Certification:
Well sealed from land surface to 40 to 86 AND 427-435 ft	This well was constructed under my direct supervision. Materials used and information reported above are true to my
Diameter of well bore to bottom of seal 16 AND 20 IN	best knowledge and belief.
Diameter of well bore below seal	[Signed] Date 12/30, 1974
Number of sacks of cement used in well seal sack	S Duilling Machine Ofernton's License No.
Number of sacks of bentonite used in well seal sack	s Ziming American
Brand name of bentonite PATIONAL	Water Well Contractor's Certification:
Number of pounds of bentonite per 100 gallons of water Put IN DRY GRALULAR lbs.7100 gals	
Was a drive shoe used? X Yes 🖸 No Plugs Size: location ft	Traine Janes of the control of th
Did any strata contain unusable water? Yes No	Address 8/10 SE SUNSET LANE HORTLAND ON
Type of water? ALKALI depth of strata 42	Address
Method of sealing strata off CASING AND CEMEN	[Signed] Rabby I Marries
Was well gravel packed? Yes No Size of gravel:	(Water Well Contractor)
Gravel placed from ft. to ft.	Contractor's License No. 10 Date DEC 30 , 1974

R. J. Strasser Drilling Co.

8110 S. E. Sunset Lane Portland, Oregon 97206 January 1, 1974

Log of well for Port of Morrow

sand and gravel	0 - 5
sand and boulders, some binder	5 - 20
loose sand and gravel	20 - 42
broken rock	42 - 44
medium hard black basalt	44 - 50
	50 - 98
hard grey basalt	98 - 108
porous black basalt	108 - 142
green clay	
porous brown basalt	142 - 154
porous black basalt	154 - 175
medium hard grey basalt	175 - 190
porous brown basalt	190 - 201
hard grey basalt	201 - 311
broken black basalt	311 - 320
green clay	320 - 402
green sandy clay	402 - 422
medium hard black basalt	422 - 426
broken black basalt	426 - 432
meium hard black basalt	432 - 443
porous black basalt	443 - 475
medium hard black basalt	475 - 483
porous black and brown basalt	483 - 501
medium hard black basalt	501 - 533
	533 - 550
porous black basalt	550 - 560
green clay and shale	330 - 300

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

MORR 776 WATER WELL REPORT

State Well No. 4N/25E-13

STATE OF OREGON JAN 23 1975 STATE ENGINEER, SALEM, OREGON 97310
within 30 days from the date

(Please type or print)

STATE FNGINEER State Permit No.

of well completion.	SALEM, ORECOU GZ	MORECEIVE
(1) OWNER:	(10) LOCATION OF WELL:	SEP 2 5 2020
\mathcal{L}	County Markous Driller's well no	SEP 20
	14 14 Section 13 T. 471.	
Brandman, Origon 97818		OWED
(2) TYPE OF WORK (check).	Bearing and distance from section or subdivisi	on corner
New Well Deepening □ Reconditioning □ Abandon □		
If abandonment, describe material and procedure in Item 12.		11
	(11) WATER LEVEL: Completed w	ell.
(3) TYPE OF WELL: (4) PROPOSED USE (check):	Depth at which water was first found 93	ft.
Rotary 🐕 Driven 🗌 Domestic 🕒 Industrial 🗎 Municipal 🗌	Static level Surface ft. below land s	surface. Date /-17-75
Dug ☐ Bored ☐ Irrigation 🥦 Test Well ☐ Other ☐	Artesian pressure	re inch. Date
CASING INSTALLED: Threaded Welded W		10 "Hom 1268,22
/ CASING INSTALLED: Threaded Welded W	(12) WELL LOG: Diameter of well to	below casing 8" 224 1. 5
" Diam, from ft. to ft. Gage ft. Gage ft. to ft. Gage	Depth drilled 555 ft. Depth of compl	leted well 555 ft.
" Diam. from ft. to ft. Gage	Formation: Describe color, texture, grain size	
Diani. Iron It. Gage	and show thickness and nature of each stratus with at least one entry for each change of forma	
PERFORATIONS: Perforated? ☐ Yes S No.	position of Static Water Level and indicate prin	cipal water-bearing strata.
.ype of perforator used	MATERIAL	From To SWL
Size of perforations in. by in.	Topsoil	0 3
perforations fromft. toft.	Sand	3 30
perforations fromft. toft.	Rock brown	30 39
perforations from ft. to ft.	Basalt	34 51
	Rock light brown	51 65
(7) SCREENS: Well screen installed? ☐ Yes No	Basaer	65 43
Manufacturer's Name	Rock light brown	93 119 WB.
Type Model No	Busser,	113 142
Diam. Slot size Set from ft. to ft.	Rock dark brown	142 159 WB.
Diam. Slot size Set from ft. to ft.	Basalr, Kard	159 257
(8) WELL TESTS: Drawdown is amount water level is	Kock, med, gray	257 300 W.B.
lowered below static level	nock, med, illack	300 318
Was a pump test made? Yes No If yes, by whom?	Disact	318 383
Vield: gal./min. with ft. drawdown after hrs.	Park Hid Stack	24
	Oley store ale	1113
и " "	Para med bleck	412 433 W.B.
Bailer test 600 gal./min. with 220 ft. drawdown after / hrs.	Basaer	458 533
Artesian flow 20 U g.p.m.	Claystone, the	533 555 W.B
aperature of water Depth artesian flow encountered ft,	Work started 1-3 1975 Complete	ed 1-17 1975
(0) (0) (0) (0)	Date well drilling machine moved off of well	1-17 1975
(9) CONSTRUCTION:		
Well seal-Material used Cuntury	Drilling Machine Operator's Certification:	
Well sealed from land surface to 120 ft.	This well was constructed under my Materials used and information reported	
Diameter of well bore to bottom of seal 10 in.	best knowledge and belief.	1
Diameter of well bore below seal	[Signed] (Drilling Machine Operator)	Date 1-21 19.75
Number of sacks of cement used in well sealsacks	Drilling Machine Operator's License No.	66.5
Number of sacks of bentonite used in well seal sacks	The state of the s	
Brand name of bentonite	Water Well Contractor's Certification:	
Number of pounds of bentonite per 100 gallons	This well was drilled under my jurisd	iction and this report is
of waterlbs./100 gals.	true to the best of my knowledge and bel	
Was a drive shoe used? New Yes No Plugs Size: location ft.	Name TROY GRIFFIN (Porson, firm or corporation)	(Tune or mint)
Did any strata contain unusable water? Yes No	Address 900 HERMIS TON AV	E HER MISTON OR
Type of water? depth of strata		/
Method of sealing strata off	[Signed] Water west Contr	ル と、
Was well gravel packed? Yes Y No Size of gravel:	(Water Welf Contr	
Gravel placed from # to #	Contractor's License No. 45 Date	1-21 1075

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

WELL REPORT TE OF OREGON

MORER 777 spate Well No. 4N/25-13ada

STATE ENGINEER, SALEM, OREGON 97315 AN 14 1970 of well completion.

(Please type or print) within 30 days from the daSTATE ENGINEER rite above this line) SALEM. OREGON

G-4102 State Permit No.

(1) OWNER:	(11) LOCATION OF WELL:					
Name Henry Gantenbein	County MORROW Driller's well number This					
Address Boardman, Ore	14 14 Section 13 T. 4N R. 25 E W.M.					
	Bearing and distance from section or subdivision corner					
(2) TYPE OF WORK (check):						
New Well Depening Reconditioning Abandon						
If abandonment, describe material and procedure in Item 12.						
(3) TYPE OF WELL: (4) PROPOSED USE (check):	(12) WELL LOG: Diameter of well below casing					
Cable Jetted Domestic Industrial Municipal	Depth drilled 335 ft. Depth of completed well 335 ft.					
Dug	Formation: Describe color, texture, grain size and structure of materials;					
CASING INSTALLED: Threaded Welded	and show thickness and nature of each stratum and aquifer penetrated, with at least one entry for each change of formation. Report each change					
16 " Diam. from	in position of Static Water Level as drilling proceeds. Note drilling rates.					
12" Diam. from	MATERIAL From To SWL					
" Diam. from ft. to ft. Gage	Sand, Coarse Brown 0 8.5					
PERFORATIONS: Perforated? Yes No.	885 a/T, Brien, BIK 45.51					
Type of perforator used	Basalt, BIK 51 70					
Size of perforations in. by in.	Brown Rock, SOFT 70 73					
perforations from ft. to ft.	Basolt BIK, 73 90					
perforations from ft. to ft.	Clay, Green, Soft, 90 130 30					
perforations from ft. to ft.	Clay, Blue, Green Sett 130 137					
perforations from ft. to ft.	Basa/T, B/K 137 157					
perforations from ft. to ft.	Basalt Gray Hard 157 257 30'					
(7) SCREENS: Well screen installed? Yes No	Clay, Blue, Green, 257 320					
Manufacturer's Name	BrKn BasalT					
Type Model No.	Basalt, Gray 300 305					
Diam. Slot size Set from ft. to ft.	Parous BIK 1818 CENSED 335 (Water					
Diam Slot size Set from ft. to ft.	Clay, Green					
(0) WATER I EVEL. Completed will	050 95 2020					
(8) WATER LEVEL: Completed well.	SEP 2 3 2020					
Static level ft. below land surface Date 3069						
esian pressure / lbs. per square inch Date lee 30,69	OWRD					
(9) WELL TESTS: A Stawdown is amount water level is lowered below static level	VIII.					
Was a pump test made? Yes No If yes, by whom?						
'leld: 100 gal./min. with 150 ft. drawdown after 16 hrs.	Work started Sc. 12 1969 Completed Sec 30 1969					
, , , , , , , , , , , , , , , , , , ,	Date well drilling machine moved off of well See 30 1969					
" " " "	Drilling Machine Operator's Certification:					
Bailer test gal./min. with ft. drawdown after hrs.	This well was constructed under my direct supervision. Mate-					
Artesian flow 30 g.p.m. Date Doc 30 1969	rials used and information reported above are true to my best knowledge and belief.					
remperature of water 72° Was a chemical analysis made? ☐ Yes ☐ No	[Signed] Non Parm Date San / 1969					
(10) CONSTRUCTION:	(Drilling Machine Operator)					
Well seal-Material used Compot & Banton to	Drilling Machine Operator's License No. 640					
Depth of seal 162 the Beaton to the	Water Well Contractor's Certification:					
Diameter of well bore to bottom of seal	This well was drilled under my jurisdiction and this report is					
Were any loose strata cemented off? N Yes No Depth 0 - 34	true to the best of my knowledge and belief.					
Was a drive shoe used? ☐ Yes 🔊 No 90 -137	(Person firm or corposation) (Type or print)					
Oid any strata contain unusable water? Yes No	Address # South Second Walle Wall					
Type of water? depth of strata	1////					
Method of sealing strata off Comen TGrov T	[Signed] Coldillood					
Was well gravel packed? Yes No Size of gravel:	(Water Well Contractor)					
Gravel placed from ft. to ft.	Contractor's License No. 5/2 Date 15 7, 19/10					

Application for Water Right

Transfer

Evidence of Use Affidavit



Please print legibly or type. Be as specific as possible. Attach additional pages if you need more spacing. Supporting documentation must be attached.

State o	f Oregon)	99						
County	of MORROW))	,	SS					-045	n
I, <u>GLE</u>	NN CHOWNIN	G, in my	capacity	as <u>OW</u>	NER, TE	RRA PO	MA LANDS, L	LC,	RECEIVE SEP 25 26	יטי
mailin	g address P.O.	BOX 86	62, HERMIS	STON, C	DREGON	97838			SEP 25 26	120
teleph	one number (541)571-	1912, being	first d	uly sw	orn depo	ose and say:		OWR	
1. M	y knowledge o	of the ex	kercise or s	status o	of the w	vater rigl	nt is based or	n (check one		
	⊠ Perso	onal obs	servation			Profess	sional expert	ise		
2 . I at	test that:									
\boxtimes	Water was u Certificate #		-	vious f	five yea	ars on th	e entire plac	ee of use for		
	My knowled	lge is sp	ecific to the	ne use o	of wate	er at the	following lo	cations withi	n the last five year	rs:
	Certificate #	Towns	ship Ra	inge	Mer	Sec	1/4 1/4	Gov't Lot or DLC	Acres (if applicable)	
										•
OR				1		1				1
\boxtimes	Confirming	Certific	ate # <u>93290</u>	has be	een issu	ued with	in the past fi	ve years; Ol	₹.	
									five years. The	
	instream lease number is: (Note: If the entire right proposed for transfer was not leased, additional evidence of use is needed for the portion <u>not</u> leased instream.); OR									
\boxtimes		ght is no	ot subject t	o forfe	eiture a	nd docu	mentation th	•	otion of forfeiture	
							version or a _l OA Transfei		for more than	
				(c	ontinues	s on revei	se side)			

3. The water right was used for: (e.g., crops, pasture, etc.): <u>ANNUAL CROPS / CROP ROTATIONS - AND THE CERTIFICATE WAS ISSUED IN THE LAST 5 YEARS</u>

4. I understand that if I do not attach one or more of the documents shown in the table below to support the above statements, my application will be considered incomplete.

09-10-2020

Date

SEP 25 2020

OWRD

Signed and sworn to (or affirmed) before me this

day of

T., 20 20.



Signature of Affiant

Notary Public for Oregon

My Commission Expires:

4-3-21

Supporting Documents	Examples
Copy of a water right certificate that has been issued within the last five years. (not a remaining right certificate)	Copy of confirming water right certificate that shows issue date
Copies of receipts from sales of irrigated crops or for expenditures related to use of water	 Power usage records for pumps associated with irrigation use Fertilizer or seed bills related to irrigated crops
	Farmers Co-op sales receipt
Records such as FSA crop reports, irrigation district records, NRCS farm management plan, or records of other water suppliers	 District assessment records for water delivered Crop reports submitted under a federal loan agreement Beneficial use reports from district IRS Farm Usage Deduction Report Agricultural Stabilization Plan CREP Report
Aerial photos containing sufficient detail to establish location and date of photograph	Multiple photos can be submitted to resolve different areas of a water right. If the photograph does not print with a "date stamp" or without the source being identified, the date of the photograph and source should be added. Sources for aerial photos: OSU –www.oregonexplorer.info/imagery OWRD – www.wrd.state.or.us Google Earth – earth.google.com TerraServer – www.terraserver.com
Approved Lease establishing beneficial use within the last 5 years	Copy of instream lease or lease number

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

ATTACHMENT E

NOTE TO APPLICANTS

In order for your application to be processed by the Water Resources Department (WRD), this Land Use Information Form must be completed by a local government planning of the complete of the Information Form must be completed by a local government planning official in the jurisdiction(s) where your water right will be used and developed. The planning official may choose to complete the form while you wait, or return the receipt stub to you. Applications received by WRD without the Land Use Form or the receipt stub will be returned to you. Please be aware that your application will not be approved without land use approval.

This form is NOT required if:

- 1) Water is to be diverted, conveyed, and/or used only on federal lands; OR
- 2) The application is for a water right transfer, allocation of conserved water, exchange, permit amendment, or ground water registration modification, and all of the following apply:
 - a) The existing and proposed water use is located entirely within lands zoned for exclusive farm-use or within an irrigation district;
 - b) The application involves a change in place of use only;
 - c) The change does not involve the placement or modification of structures, including but not limited to water diversion, impoundment, distribution facilities, water wells and well houses; and
 - d) The application involves irrigation water uses only.

NOTE TO LOCAL GOVERNMENTS

The person presenting the attached Land Use Information Form is applying for or modifying a water right. The Water Resources Department (WRD) requires its applicants to obtain land-use information to be sure the water rights do not result in land uses that are incompatible with your comprehensive plan. Please complete the form or detach the receipt stub and return it to the applicant for inclusion in their water right application. You will receive notice once the applicant formally submits his or her request to the WRD. The notice will give more information about WRD's water rights process and provide additional comment opportunities. You will have 30 days from the date of the notice to complete the land-use form and return it to the WRD. If no land-use information is received from you within that 30-day period, the WRD may presume the land use associated with the proposed water right is compatible with your comprehensive plan. Your attention to this request for information is greatly appreciated by the Water Resources Department. If you have any questions concerning this form, please contact the WRD's Customer Service Group at 503-986-0801.

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

		Fir	HOWNING SOX 862	- JERR	A FOR	DA FAX	em, L	26
Mailing Ad	dress:	P.O. E	0x862					
HE	emis	ton	DREGON	<i>9783</i> 8 Da	aytime Phone	54/-	571-	1912
A. Land a	and Loca	ation	State	Zip				
Please inclu and/or used	de the follor	owing inform ped. Applican	ation for all tax lots whats for municipal use, or the tax-lot information	here water will be diver r irrigation uses within on requested below.	rted (taken fi irrigation dis	om its source stricts may su	e), conveye bstitute ex	ed (transported) isting and
Township	Range	Section	1/4 1/4 Tax Lot #	Plan Designation (e.g., Rural Residential/RR-5)		Water to be:		Proposed Land Use:
4N	25	10	100		Diverted	Conveyed	Used	MU
4N	25	10+	- 100+		Diverted	Conveyed	Used	mu
4N	25	13	100		Diverted	Conveyed	Used	IRR.
					☐ Diverted	☐ Conveyed	☐ Used	
		Proposed	Ilsa					5 2020
ype of app		be filed with ore Water	the Water Resources D Water Right Transfer Allocation of Conserv	Permit	Amendment onge of Water	or Ground Wat		VRD
ource of w	ater: R	eservoir/Pond	Ground Water	Surface Water (n	ame)			
stimated qu	uantity of v	water needed:	1.23	Cubic feet per se	econd g	gallons per min	ute 🗌 a	ere-feet
itended use	e of water:	☐ Irrigation☐ Municipa		Industrial Instream	Dome Other	estic for	househo	ld(s)
riefly desc	ribe:				4 15-	100 10	m	1001/10
GROWN USE	BN F	er for ort In	dustrial, thick Bound	PORT EFU	Conver Lands	inthe	· WLTH	upacini u

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. \rightarrow

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 be	low and provide the requested info	rmation		
Land uses to be served by the proposed water your comprehensive plan. Cite applicable or	r uses (including proposed construction) are a dinance section(s): MCZO SECTION 3	allowed outrigh	nt or are not regula \$ 3.073 . POL	ated by
☐ Land uses to be served by the proposed water listed in the table below. (Please attach document Record of Action/land-use decision and accomperiods have not ended, check "Being pure statement of the competition of the c	mentation of applicable land-use approvals wompanying findings are sufficient.) If approv	hich have alrea	ady been obtained	
Type of Land-Use Approval Needed (e.g., plan amendments, rezones, conditional-use permits, etc.)	Cite Most Significant, Applicable Plan Policies & Ordinance Section References	Lar	nd-Use Approval:	
		☐ Obtained ☐ Denied	☐ Being Pursued ☐ Not Being Purs	ued
		☐ Obtained ☐ Denied	☐ Being Pursued ☐ Not Being Purs	ued
		☐ Obtained ☐ Denied	☐ Being Pursued ☐ Not Being Purs	ued
	×1	☐ Obtained ☐ Denied	☐ Being Pursued ☐ Not Being Purs	ued
		☐ Obtained ☐ Denied	☐ Being Pursued☐ Not Being Purs	ued
Name: NEECSICS, SPOPHEN	Title: GIC PLANALO	1	SEP 25 2020 OWRD	
Signature:	Title: 415 PLANNA Phone: 541.922.4	624	Date: 215092	020
Note to local government representative: Pleasign the receipt, you will have 30 days from the Form or WRD may presume the land use associated	ase complete this form or sign the receipt belowater Resources Department's notice date to	return the com ible with local	pleted Land Use I comprehensive pl	nformation lans.
	or Request for Land Ose informa	ation		
Applicant name:				
City or County:				
Signature:	Phone: Land Use Information Form - Page 3 of 3		Date:	WR/FS
1071304 Z/0/Z010	rang osc unounation roun - rage 3 or 3	T è	3531	111710

AHACHMENT F

PRospect 1-2355

R. J. Strasser Drilling Co.

8110 S. E. Sunset Lane Portland, Oregon 97206 January 1, 1974

RECEIVED

SEP 2 5 2020

OWRD

Log of well for Port of Morrow

sand and gravel	0 - 5
sand and boulders, some binder	5 - 20
loose sand and gravel	20 - 42
broken rock	42 - 44
medium hard black basalt	44 - 50
hard grey basalt	50 - 98
porous black basalt	98 - 108
green clay	108 - 142
porous brown basalt	142 - 154
porous black basalt	154 - 175
medium hard grey basalt	175 - 190
porous brown basalt	190 - 201
hard grey basalt	201 - 311
broken black basalt	311 - 320
green clay	320 - 402
green sandy clay	402 - 422
medium hard black basalt	422 - 426
broken black basalt	426 - 432
meium hard black basalt	432 - 443
porous black basalt	443 - 475
medium hard black basalt	475 - 483
porous black and brown basalt	483 - 501
medium hard black basalt	501 - 533
porous black basalt	533 - 550
green clay and shale	550 - 560

TO WAT L CONTRACTOR ne origina f this rep filed with

WATER WELL I

STATE OF OREGONAN

GINEER, SALEM, OREGON 97310 thin 30 days from the date

(Please type or priSTATE ENGINEER

State Permit No. (Do not write above this ALEM, OREGON of well completion. Port Well 2 (10) LOCATION OF WELL: 1) OWNER ORROW Driller's well number Name Bearing and distance from section or subdivision corner (2) TYPE OF WORK (check): Abandon [New Well Deepening [Reconditioning [If abandonment, describe material and procedure in Item 12. (11) WATER LEVEL: Completed well. (3) TYPE OF WELL: (4) PROPOSED USE (check): Depth at which water was first found Rotary Driven [ft. below land surface. Domestic 🗌 Industrial 🕱 Municipal 🗍 Static level Cable Jetted [Irrigation | Test Well | Other lbs. per square inch. Date Dug Bored [7 Artesian pressure CASING INSTALLED: Threaded | Welded | (12) WELL LOG: Diameter of well below casing ft. to 72 ft. Gage ... 560 Depth drilled ft. Depth of completed well Formation: Describe color, texture, grain size and structure of materials; ft. to 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. PERFORATIONS: Perforated? | Yes | No. MATERIAL From e of perforator used ATTACHED in, by Size of perforations perforations from perforations from perforations from (7) SCREENS: Well screen installed? | Yes | No Manufacturer's Name Slot size Set from .. . Slot size ... Set from ft. to Drawdown is amount water level is lowered below static level (8) WELL TESTS: Was a pump test made? X Yes \(\subseteq \text{No If yes, by whom? } 57. gal./min. with 177ft. drawdown after gal./min. with ft. drawdown after hrs. Bailer test Artesian flow g.p.m. Work started SEPT 10 1974 Completed perature of water 70 Depth artesian flow encountered ft. GRANULAR BENTONITE Date well drilling machine moved off of well Drilling Machine Operator's Certification: Well seal-Material used This well was constructed under my direct supervision. Well sealed from land surface to 40 to 86 AND 421-435 ft. Materials used and information reported above are true to my best knowledge and belief. 16 AND, 20 IN Diameter of well bore to bottom of seal Number of sacks of cement used in well seal Drilling Machine Operator's License No. Number of sacks of bentonite used in well seal NATIONAL Brand name of bentonite Water Well Contractor's Certification: Number of pounds of bentonite per 100 gallons This well was drilled under my jurisdiction and this report is PUT IN true to the best of my knowledge and belief. Was a drive shoe used? Yes 🗌 No Plugs Size: location ft. STRASSER Did any strata contain unusable water? XYes 🗆 No Method of sealing strata off (75/16) Was well gravel packed?

Yes No ... Date Contractor's License No. ... Gravel placed from .. ft. to ..

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

WATER WELL REPORT CEIVED

,	3		1	200-	10 -
	State	Well	No.	2SE-	OCC

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

STATE OF OREGON (Please type or print) MOVEL 752 Do not write above this line)

	200 E Re. 13 - 1 - 10 T	Port	vveii i	
(1) OWNER: Name Port Of Morrow	(10) LOCATION OF WELL: County Morrow Driller's well, no	ımber	#2	
Name AddressBoardman, Oregon JU.: 1073	5. W 45 W4 Section 10 T. 4/V	R. 25E	3	W.M.
(2) TYPE OF WORK (check):	Bearing and distance from section or subdivision	on corner		
(1) 1111 01 (1) 01111			KEC	EIVE
New Well Deepening Reconditioning Abandon			0 =	
If abandonment, describe material and procedure in Item 12.	(11) WATER LEVEL: Completed w	ell.	SEP 2	5 202
(3) TYPE OF WELL: (4) PROPOSED USE (check):	Depth at which water was first found			ft.
Rotary T Driven Domestic Industrial Municipal Domestic	Static level Flowing ft. below land s	urface.	Date 2/	9/78
Dug	Artesian pressure35 lbs. per squar	e inch.	Date 2/	9/78
CASING INSTALLED: Threaded \(\text{Threaded} \(\text{Welded} \) Welded \(\text{Melded} \) Threaded \(\text{Threaded} \(\text{Threaded} \) Welded \(\text{Melded} \) Threaded \(\text{Threaded} \) Threaded \(\text{Threaded} \) Threaded \(\text{Threaded} \) Welded \(\text{Melded} \) Threaded \(\text{Threaded} \) Threaded \(Th	(12) WELL LOG: Diameter of well to the drilled 685 ft. Depth of complete ft.		10-	ft.
" Diam. fromft. toft. Gage	Formation: Describe color, texture, grain size and show thickness and nature of each stratu	m and a	quifer pe	enetrated,
PERFORATIONS: Perforated? Yes No.	with at least one entry for each change of formal position of Static Water Level and indicate prin	cipal wat	er-beari	change in ag strata.
Type of perforator used	MATERIAL Sand& gravel	From	To	SWL
Size of perforations in. by in.	Sand& gravel grey Sand? &Boulders grey	0	3	
perforations from ft. to ft.	MedHard brocken Basalt grey	39	39 41	
perforations fromft. toft.	Hard Basalt grey		140	
perforations from ft. to ft.	Med Basalt brn.		151	
(7) SCREENS: Well screen installed? Yes You	Hard Basalt grey		186	
Manufacturer's Name	Med Basalt porous brn.	186	198	
Type Model No.	Hard Basalt grey		309	
Diam. Slot size Set from ft. to ft.	Hard brocken Basalt blk.		22	
Diam. Slot size Set from ft. to ft.	Hard Basalt grey	-	474	
(8) WELL TESTS: Drawdown is amount water level is lowered below static level pump	Med Porous Basalt blk, Hard Basalt grey		529	
Was a numn test made? To Vac II No. If was he whom?	Med Sandstone brn W.B.	Property of the same of	670 685	
2000+		010	رمی	
ring: gai./min. with ft. drawdown after hrs.	Test pumping wasdelayed so lor	g		
H " H H	by Faremore Pump because of an	tesia	2	
	conditions. Completed 4/19/78			
1500			-	
erature of water 78 Depth artesian flow encountered 680 ft.	7/20/00	0/0	~2	-
erature of water 10 Depth artesian flow encountered	Work started 7/27/77 19 Complete	2/9/	78	19
(9) CONSTRUCTION: Cement Grout	Date well drilling machine moved off of well	2/9/7	5	19
Well seal—Material used Well sealed from land surface to 75 Diameter of well bore to bottom of seal 20 Diameter of well bore below seal Number of sacks of cement used in well seal 130 How was cement grout placed? Western Fower Grouter	Drilling Machine Operator's Certification: This well was constructed under my Materials used and information reported best knowledge and belief. [Signed] (Drilling Machine Operator's License No.	above a	re true 29/78	vision. to my
The state of the s	Water Well Contractor's Certification:			
	This well was drilled under my jurisdi true to the best of my knowledge and beli	ction an	d this r	eport is
Was a drive shoe used? ☐ Yes 📉 No Plugs Size: location ft. Did any strata contain unusable water? ☐ Yes 💆 No	Name Stadell Drilling CO	************	**********	**********
	Mt Angel, Or.	(Ty)	pe or prir	it)
Type of water? depth of strata	Address	Kart -	/	
Method of sealing strata off	[Signed] Charles (lack	all	4
Was well gravel packed? ☐ Yes X No Size of gravel:	(Water Well Contr.			
Gravel placed from ft. to ft.	Contractor's License No. 519 Date 4/	29/78	************	, 19

Port of Morrow Well #4

RECEIVED

Start Card No. 19829 by Schneider Drilling Co. FEB - 6 1991

		WATER RECOURSE	
From	To	Description WATER RESOURCE SALEM, OREGO	S DEPT. ON
0	3	Sand, brown, med w/some gravel	
3	8	Gravel 4" minus & sand, med-coarse	
8	18	Gravel 10" minus & sand, coarse, some cemented	
18	33	Gravel 10" minus & sand, med-coarse, tan	
33	39	Gravel 8" minus w/clay, brown	
39	56	Gravel 3" minus w/clay, binder, brown	
56	57	Basalt, brown, fractured	
57	62	Basalt, black, hard	
62	80	Basalt, black & grey, hard	
80	83	Basalt, black & grey, hard, some fractures	
83	88	Basalt, brown, med	
88	91	Basalt, brown, soft	
91	101	Clay, brown, soft	
101	111	Clay, grey-blue, soft	
111	128	Clay, greenish blue w/brown rock & claystone	
128	133	Basalt, black & grey, vesicular	
133	136	Basalt, red & brown, vesicular	
136	139	Basalt, grey & brown, med	
139	150	Basalt, grey, hard	
150	153	Basalt, multi-color: brown, black, grey, hard	
153	182	Basalt, grey, hard	
182	188	Basalt, mostly grey, some brown & red, hard	
188	278	Basalt, grey, hard	
278	283	Basalt, grey & black, med	
283	290	Basalt, green & purple, soft	
290	339	Clay, green w/black rock	
339	345	Claystone, blueish green	
345	371	Basalt, black w/blue clay & claystone	
371	381	Basalt, black	
381 499	499 514	Basalt, grey, hard Clay, green w/some rock, black	
514	521	Clay, green wysome lock, black Clay, greyish brown	
521	552	Clay, blueish green w/claystone, blueish green	
552	569	Basalt, grey, med	
569	571	Basalt, grey, med to hard	
571	622	Basalt, grey, hard	
622	652	Basalt, grey, hard, fractured	
652	677	Clay, multi-color, green, brown w/some basalt, b	lack
677	696	Basalt, black, vesicular w/green clay	
696	706	Basalt, black, vesicular w/quartz	
706	712	Basalt, multi-color, broken, vesicular	
712	716	Basalt, black fractures w/vesicular basalt	
716	724	Basalt, grey & black, fractures	
724	766	Basalt, grey, very fractured, hard	
766	775	Basalt, black, med, fractured	
775	782	Basalt, black & red, vesicular, soft	
782	785	Basalt, black, fractured	
785	807	Basalt, red, fractured, stained & black basalt	
807	822	Basalt, black, fractured	
822	835	Basalt, red & black vesicular, very, very soft	
835	845	Basalt, black & red, much harder, fractured	
845 867	867 885	Basalt, black, some fractures, med Basalt, black, fractured	
885	900	Basalt, Black, Fractured Basalt, gray, some fractures	
995	900	Dabaro, Eray, Some Iracoures	

*5

STATE OF OREGON



FEB - 6 1991

	RECEIVEBAN/	25E/10 aa.
--	-------------	------------

WATER WELL REPORT (as required by ORS 537.765) WATER RESC	OURCES DEPT. (START CARD) 19829	
(1) OWNER: Well Number: 4 SALEIVI,	M95480EATION OF WELL by legal description:	
Name Port of Morrow	County Morrow Latitude Longitude Longitude SE E or W, WM.	_
Address PO Box 200 City Boardman State OR Zip 97818	Township 4N Nors, Range 25E E or W, WM.	
	Section 10 NE 14 NE 14	
(2) TYPE OF WORK:	Tax Lot Lot Block Subdivision	
New Well Deepen Recondition Abandon	Street Address of Well (or nearest address)	
(3) DRILL METHOD		
Rotary Air Z Rotary Mud Z Cable	(10) STATIC WATER LEVEL:	
🛚 Other Reverse Circulation Air Rotary	ft. below land surface. Date	
(4) PROPOSED USE:	Artesian pressure 18 lb. per square inch. Date 2/1/91	_
□ Domestic □ Community ☒ Industrial □ Irrigation	(11) WATER BEARING ZONES:	
☐ Thermal ☐ Injection ☐ Other	Depth at which water was first found	
(5) BORE HOLE CONSTRUCTION: Special Construction approval Yes No Depth of Completed Well 900 ft.	From To Estimated Flow Rate SW	L
Yes No L. L.	677 900 see (8) see(-
Explosives used Type Amount	7 33 unknown	7
HOLE SEAL Amount	May be others between above zones	
Diameter From To Material From To sacks or pounds		
24 0 57 cement 0 650 270 sacks	(12) WELL LOG: Ground elevation approx 272	
20+ 57 650 16 650 682	Ground elevation Zppt GX. 2.72	7
15-682 900	Material From To SWI	L
How was seal placed: Method X A B C D E	333 43341133	-
Other	Step Test:	-
Backfill placed fromft. toft. Material	1675 gpm 60'DD after 2.3 hrs	
Gravel placed fromft. toft. Size of gravel	1970 gpm 76 DD after 5.0 hrs (incl. abov	
(6) CASING/LINER:	2360 gpm 102'DD after 7.5 hrs (incl.abov	
Diameter From To Gauge Steel Plastic Welded Threaded	2930 gpm 149'DD after 9.5 hrs (incl.abov	
	3490 gpm 197'DD after 11.5 hrs(incl.abov	e)
16 638 682 .375 xxx	DD includes 18 psi shut in plus pumping level.	
12* 627 000 275		_
*except at screens and top 5'bells but to 16"		
Final location of shoe(s) 24" @ 57; 18" @ 650		
(7) PERFORATIONS/SCREENS:		
Perforations Method <u>factory mill cut</u>		
- ¥		
XI Screens Type Material Slot Tele/pipe		
From To size Number Diameter size Casing Liner		
677 692 .2x3 360		
*692 717 .150 cont 12 PS		
717 774 2x3 1368		
	7/22/00	_
*818 843 150 cont 12 PS	Date started 7/23/90 Completed 2/1/91	
843 900 2×3 1368	(unbonded) Water Well Constructor Certification:	
(8) WELL TESTS: Minimum testing time is 1 hour	I certify that the work I performed on the construction, alteration, abandonment of this well is in compliance with Oregon well construct	
X Pump Bailer Air Artesian	standards. Materials used and information reported above are true to my h	
Yield gal/min Drawdown Drill stem at Time	knowledge and belief.	
-step test reported in (12)	WWC Number 806	
-24 hour constant rate test on attached graph	Signed Journel Date 2/1/91	
-well flows 1500 gpm with approx 2 psi back press	SUCCOORDED Water Well Constructor Certification:	
Temperature of water 75° Depth Artesian Flow Found below650	I accept responsibility for the construction, alteration, or abandonm	
Was a water analysis done? X Yes By whom OWNET	work performed on this wen during the construction dates reported above.	well
Did any strata contain water not suitable for intended use? Too little	work performed during this time is in compliance with Oregon construction etandeds. This report is true to the best of my knowledge	and
☐ Salty ☐ Muddy ☐ Odor ☐ Colored ☐ Other	belief. WWC Number 649	-
Depth of strata:	Signed Signed Date 2/1/91	
ORIGINAL & FIRST COPY - WATER RESOURCES DEPARTMENT SECO	OND COPY - CONSTRUCTOR THIRD COPY - CUSTOMER 9809C	3/88
SEI 910	J4	

Port of Morrow Well 5A SC #212565 - Well Tag ID # L128849 Formation Log by Schneider Water Services

$\underline{\mathbf{FM}}$	TO	DESCRIPTION
718	721	Basalt, grey & some brown, medium, fractured, broken w/brown mineral stain, some vesicules
721	760	Basalt, dark grey, fractured, hard
760	765	Basalt, dark grey to black, medium hard, some fractures
765	769	Basalt, black & red, medium-soft, fractured, broken, some vesicles
769	775	Basalt, black, medium, fractured
775	812	Basalt, grey, medium-hard, some fractures
812	818	Basalt, greenish grey, medium, fractured, vesicular, some brown and red stains
818	824	Basalt, dark grey, and brown, medium, vesicular, fractured, weathered
824	834	Basalt, dark grey, medium vesicular, fractured, some weathered
834	837	Basalt, dark grey, medium hard, occ fractures
837	976	Basalt, dark grey, hard, some fractures
976	984	Basalt, black, medium, vesicular
984	989	Basalt, black, medium, some fractures
989	1017	Basalt, grey, hard
1017	1021	Basalt, black, med, fractured, broken, some vesicles
1021	1026	Basalt, dark grey, hard
1026	1031	Basalt, black, broken, vesicular
1031	1039	Basalt, dark grey, hard, some fractures
1039	1051	Basalt, dark grey, hard
1051	1069	Basalt, black, weathered, broken, vesicular
1069	1078	Basalt, grey, hard, fractured
1078	1089	Basalt, grey, hard
1089	1108	Basalt, black w/brown, fractured, broken, occ vesicles, some weathered
1108	1114	Basalt, grey, hard, occ fractures
1114	1128	Basalt, dark grey, medium hard, some fractures

JUL **0.5** 2018

OWRD

Port of Morrow Well 5A SC #212565 - Well Tag ID # L128849 Formation Log by Schneider Water Services

<u>FM</u>	<u>TO</u>	DESCRIPTION	RECENT
0	9	Soil, brown, sandy, silty	RECEIVED SEP 2 5 2020
9	35	Gravel, 8" minus & sand, brown, coarse	SEP 2 5 2020
35	45	Clay, brown, medium w/gravel, 6" minus	OWRD
45	59	Clay, grey, medium w/gravel, 6" minus	OWRD
59	78	Basalt, grey, medium w/claystone lenses, green & grey, soft-medium	
78	82	Basalt, black, medium soft	
82	83	Basalt, black, soft w/claystone, green, soft	
83	93	Basalt, medium soft, fractured w/claystone, green, medium-soft & gravel, multicolore	ed
93	122	Basalt, soft-hard, fractured w/claystone, green, medium-soft & gravel, multicolored	
122	139	Basalt, multicolored, broken, vesicular	
139	275	Basalt, grey, hard	
275	285	Basalt, grey, black-brown-green, fractured, broken	
285	290	Claystone, green w/basalt, grey, black & green, broken	
290	338	Claystone, green	
338	355	Claystone, green, soft w/basalt, black	
355	470	Basalt, black & dark grey, hard	
470	483	Clay, blue green, hard, w/basalt, black, medium	
483	488	Basalt, dark grey, hard, occasional pyrite	
488	489	Basalt, black, medium-soft	
489	492	Sand, black, medium	
492	496	Clay, green, soft, silty	
496	505	Claystone, green, hard w/basalt, black, weathered, broken	- I. /- IS
505	532	Sandstone, grey & green	CEIVED
532	542	Claystone, green, medium-hard	0 5 2018
542	545	Basalt, black, medium, fractured, broken, vesicular	4400
545	552	Basalt, dark grey, medium-hard, fractured	WRD
552	643	Basalt, grey, hard, some fractures	
643	647	Basalt, black, fractured & broken, some vesicles & clay green, medium-hard	
647	650	Basalt, black, fractured, broken w/wood, hard, semi-petrified w/clay, brown, soft & claystone, tan, hard	
650	651	Clay, multicolored, medium	
651	660	Clay, green, medium, soft	
660	667	Clay, green, hard	
667	675	Clay, whitish green, soft w/basalt, black, broken	
675	712	Basalt, black & brown, broken & fractured w/colored minerals (brown and green), some vesicles	
712	718	Basalt, brown & some grey, broken, fractured, weathered, some vesicles	
		Page 1 of 2	

WATER SUPPLY WELL REPORT - continuation page

WELL I.D. LABEL# L	128849
START CARD #	212565
ORIGINAL LOG#	

(2a) PRE-ALTERATION Water Quality Concerns							
Dia + From To Gauge Stl Plstc Wld Thrd							
	From To Description Amount Units						
Material From To Amt sacks/lbs							
FIGHT TO AIRC SACKSTOS							
(C) POPE HOLE CONSTRUCTION	(10) STATIC WATER LEVEL						
(5) BORE HOLE CONSTRUCTION	SWL Date From To Est Flow SWL(psi) + SWL(ft)						
BORE HOLE SEAL sacks/							
Dia From To Material From To Amt lbs							
16 856 1128							
Calculated							
Calculated							
Calculated							
Calculated							
FILTER PACK	(11) WELL LOG						
From To Material Size							
	Material From To						
(6) CASING/LINER							
(0) CASHIG/LINER							
Casing Liner Dia + From To Gauge Stl Plstc Wld Thrd							
(T) REDECH ATTONIO (CONTRA)							
(7) PERFORATIONS/SCREENS	RECEIVED						
Perf/ Casing/ Screen Scrn/slot Slot # of Tele/							
Screen Liner Dia From To width length slots pipe size	JUL 0 5 2018						
	JUL 03 2010						
	OWRD						
	Comments/Remarks						
1.4.4.4	*grout outside 24" casing						
(8) WELL TESTS: Minimum testing time is 1 hour	grout outside 24 Casing						
Yield gal/min Drawdown Drill stem/Pump depth Duration (hr)							

WELL I.D. LABEL# L 128849 STATE OF OREGON 212565 START CARD# WATER SUPPLY WELL REPORT (as required by ORS 537.765 & OAR 690-205-0210) **ORIGINAL LOG#** (1) LAND OWNER 5A Owner Well I.D. First Name Last Name (9) LOCATION OF WELL (legal description) Port of Morrow Company Range 25 E E/W WM County Morrow Twp 4 N N/S PO Box 200 Address Sec 10 SW 1/4 of the NE 1/4 Tax Lot 97818 Boardman State City 04N25E10 Tax Map Number Lot X New Well Deepening Conversion (2) TYPE OF WORK " or DMS or DD Lat " or DMS or DD (2a) PRE-ALTERATION C Street address of well Nearest address Plste Wld Thrd To Stl Casing: αг 750 Columbia Ave NE, Boardman, OR 97818 Materia To From Amt sacks/lbs Seal: (10) STATIC WATER LEVEL (3) DRILL METHOD SWL(psi) SWL(ft) Auger Existing Well / Pre-Alteration Reverse Rotary ___Other Completed Well 6/15/18 (4) PROPOSED USE Flowing Artesian? Dry Hole? Domestic Irrigation Community X Industrial/ Commericial 10 Livestock Dewatering Depth water was first found WATER BEARING ZONES Thermal Injection Other SWL Date From To Est Flow SWL(psi) + SWL(fi) (5) BORE HOLE CONSTRUCTION Special Standard (Attach copy) 11/9/17 35 NM 10 10 Depth of Completed Well _ 1126 ຄ. 6/15/18 976 1108 20 see (8) **BORE HOLE** SEAL Dia From Material From To Amt lbs 30 60 854 2543 sacks Cement 28 60 79 Calculated 667 24 79 408 Cement 68* 178 sacks (11) WELL LOG 20 408 856 Calculated 104 Ground Elevation X A B X C How was seal placed: Method From Material To See Attached Formation Log Other Backfill placed from 1126 ft. to 1128 ft. Material slough Filter pack from __ _ ft. to _ ft. Material Explosives used: Yes Type__ Amount (5a) ABANDONMENT USING UNHYDRATED BENTONITE Proposed Amount Actual Amount **Pounds** (6) CASING/LINER Casing Liner Dia Liner From To Stl Plstc Wld Thrd Gauge + .375 × 68 + JUL 0 5 2018 × 16 3 854 .375 OWRD Inside X Outside Other Location of shoe(s) Temp casing Yes Dia From (7) PERFORATIONS/SCREENS Perforations Method 6/18/18 11/8/19/17 Screens Type Material Date Started Completed. Perf/ Casing/ Screen Scm/slot # of Tele/ Slot Screen Liner To (unbonded) Water Well Constructor Certification From width length slots pipe size 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. 1991 License Number 6/29/18 Date (8) WELL TESTS: Minimum testing time is 1 hour Signed O Bailer O Flowing Artesian Pump O Air (bonded) Water Well Constructor Certification Yield gal/min Drill stem/Pump depth Duration (hr) 2275 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. °F Lab analysis Yes By Temperature Yes (describe below) TDS amount 6/29/18 Water quality concerns? License Numbo Description Units Signed Contact Info (optional) ORIGINAL - WATER RESOURCES DEPARTMENT

NOTICE TO WATER WELL CONTRACTOR The original and first copy of this report

WATER WELL REPORT CEIVED

are to be filed with the STATE OF OREGON

APR 11 1977 State Well No. 2/1/25k // Cd

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

(Please type or print) ATER RESOURCES: DEPEnit No. (Do not write above this line) SALEM, OREGON

(1012 101)	7.120011		_	
(1) OWNER:	(10) LOCATION OF WELL:			
Name L.g. of Margary Lott	County Market Driller's well nu	mber		
Address P.O. But 294	18 4 8 W 4 Section 11 T. 471.			W.M.
Boardman, Oregon 97818	Bearing and distance from section or subdivision		• '	********
(2) TYPE OF WORK (check)	Dearing and distance from section of subdivision	ii corner		
New Well ∰ Deepening ☐ Reconditioning ☐ Abandon ☐				
If abandonment, describe material and procedure in Item 12.	(11) WATER LEVEL: Completed we	ell.		
(3) TYPE OF WELL: (4) PROPOSED USE (check):	Depth at which water was first found 40			ft.
Rotary Driven Domestic Maintenant Municipal Domestic	Static level 60 ft. below land st	urface D	ata 3.	
Cable	Artesian pressure lbs. per square			2111
	and personal property			
CASING INSTALLED: Threaded Welded	(12) WELL LOG: Diameter of well b	elow casin	1g 6	
6 " Diam. from 0 ft. to 29 ft. Gage 257	Depth drilled 142 ft. Depth of comple	ted well	142	ft.
"Diam from ft. to ft. Gage ft. Care	Formation: Describe color, texture, grain size a			
" Diam. from ft. to ft. Gage	and show thickness and nature of each stratur with at least one entry for each change of format			
PERFORATIONS: Perforated? Yes No.	position of Static Water Level and indicate princ			
pe of perforator used	MATERIAL	From	То	SWL
Size of perforations in. by in.	Toposil	0	3	-
perforations from ft, to ft.	Skind		12	
perforations from ft. to ft.	Rock brown		19	
perforations from ft. to ft.	Basalt. black	19	80	
periodical and a community of the commun	Clarotone, blue	-	120	
(7) SCREENS: Well screen installed? Yes No	Rock black + blue clay stone		142	W.B.
Manufacturer's Name				16 July 1
Type Model No				
Diam Slot size Set from ft. to ft.				
Diam. Slot size from ft. to ft.				
(8) WELL TESTS: Drawdown is amount water level is lowered below static level				
Was a pump test made? ☐ Yes ¼ No If yes, by whom?				
Yield: gal./min. with ft. drawdown after hrs.	,			
gar, man with its drawdown area ms.				
iir 30 " 40 " 1 "				
O.L.				
Ballor test 75 gal./min. with 80 ft. drawdown after / hrs.				
Artesian flow g.p.m.	7 7,			
perature of water Depth artesian flow encountered ft.	Work started 3 - 3/ 19 // Complete	d 4	11 :	1977
(9) CONSTRUCTION:	Date well drilling machine moved off of well		4-1	19 7 7
Well seal—Material used Cennul	Drilling Machine Operator's Certification:			26
Well sealed from land surface toft.	This well was constructed under my Materials used and information reported			
Diameter of well bore to bottom of seal	best knowledge and belief.	above at	ic au	. to my
Diameter of well bore below seal	[Signed] An Man According (Orilling Machine Operator)	Date	4./	, 19.77
Number of sacks of cement used in well seal sacks	Drilling Machine Operator's License No.	167	7	
How was cement grout placed?	Diffing Machine Operator's License No.			
The state of the s	Water Well Contractor's Certification:			
	This well was drilled under my jurisdi		this r	eport is
Was a drive shoe used? ☐ Yes 🔊 No Plugs Size: location ft.	true to the best of my knowledge and beli			-
Did any strata contain unusable water? Yes No	Name TROY GRIFFIH (Person, firm or corporation)	Tue	o or pel	n+\
	Address 900 HERMISTON AVE	HER	M 15	TAH. OL
	Tand Il .	/ \		
Method of sealing strata off	[Signed] / Story Water Walter	antor)		
Was well gravel packed? Yes SNo Size of gravel:	(water Well-Contr.	4-1		
Gravel placed from ft. to ft.	Contractor's License No. 65 Date	J-/		, 1977

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. WATER WELL REPORT

R C STAIN DE OREGON

State Well No.

State Well No. 4/11/25E-1/4C

SF(Bo not write shove this lin

(1) OWNER: V'ATER RESOURCES	QHITLOCATION OF WELL:			
Name Mrs. C. W. acock SALEM. OREGO	County Morrow Driller's well minber [V]			
Address RT 1 B4 70	& W 14 & E 14 Section // T. 471. R. 25 E. W.M.			
Boardman, Oregor 97818	Bearing and distance from section or subdivision corner 7020			
(2) TYPE OF WORK (check): V	OLI 20 LOLO			
New Well Deepening □ Reconditioning □ Abandon □				
If abandonment, describe material and procedure in Item 12.	(11) WATER LEVEL: Completed well WRD			
(3) TYPE OF WELL: (4) PROPOSED USE (check):	Depth at which water was first found 20 ft.			
Rotary Driven Domestic Municipal Domestic Municipal	Static level 72 ft. below land surface. Date 8-25-78			
Cable	Artesian pressure lbs. per square inch. Date			
CASING INSTALLED: Threaded Welded	(12) WELL LOG: Diameter of well below casing			
6 " Diam. from C ft. to 14.4 ft. Gage 25.0	Depth drilled 364 ft. Depth of completed well 364 ft.			
" Diam. from ft. to ft. Gage	Formation: Describe color, texture, grain size and structure of materials;			
"Diam, from ft. to ft. Gage	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			
PERFORATIONS: Perforated? Yes No.	position of Static Water Level and indicate principal water-bearing strata.			
pe of perforator used	MATERIAL From To SWL			
Size of perforations in. by in.	Topsoil 0 4			
perforations from ft, to ft.	Gravel Censented 4 14			
perforations fromft. toft.	Rock broken brown 14 28			
perforations from ft. to ft.	Bascer soft black 28 35			
	Basaly methand black 35 48			
(7) SCREENS: Well screen installed? Yes No	Bosals, hard gray 48 70			
Manufacturer's Name	Rock, blacky green Chanstons 70 82 W1B			
Type Model No.	Rock, bround freen Claystone 82 104 W.B.			
Diam. Slot size Set from ft. to ft. Diam. Slot size Set from ft. to ft.	Chairton, greet gray 104 110			
The state of the s	Rock, soft black torder 110 (21 w.5,			
(8) WELL TESTS: Drawdown is amount water level is lowered below static level	Basalt med black 130 142			
Was a pump test made? Yes XNo If yes, by whom?	Basalt hard black 142 246			
Yield: gal./min. with ft. drawdown after hrs.	Barall hard gray 246 263			
" " " "	Claystone, gray 1 263 276 w.b.			
" " " "	Rock brown 19th in Clayton 276 302 W.B.			
Beller test 60 gal./min. with /32ft. drawdown after / hrs.	Rock, med. brown 302 304			
	C 10 -70 - 0 nc 70			
pperature of water Depth artesian flow encountered ft.	Work started 8 · 18 19 78 Completed 8 - 25 19 78			
(9) CONSTRUCTION:	Date well drilling machine moved off of well 8.25 1978			
Well seal—Material used Clement	Drilling Machine Operator's Certification:			
Well sealed from land surface to 4	This well was constructed under my direct supervision. Materials used and information reported above are true to my			
Diameter of well bore to bottom of seal in.	best knowledge and belieff			
Diameter of well bore below seal	[Signed] Bonald Ellerane Date 8-25, 1978			
Number of sacks of cement used in well seal 25 sacks	(Drilling Machine Operator) Drilling Machine Operator's License No			
How was cement grout placed?	Diffing Machine Operator's Dicense No.			
to 144 Cament present wrected	Water Well Contractor's Certification:			
The second second	This well was drilled under my jurisdiction and this report is true to the best of my knowledge and belief.			
Was a drive shoe used? ▼ Yes □ No Plugs Size: location ft.	Name TROY GRIFFIN			
Did any strata contain unusable water? 🗌 Yes 🧏 No	Was 11 TO 40 ISTAN AND 11 Fib many and a put			
Type of water? depth of strata	Address 900 HERM ISTON AVE, HERMISTON ORE			
Method of sealing strata off	[Signed] Voresy Gruffin			
Was well gravel packed? □·Yes ¶ No Size of gravel:	Contractor's License No			
Gravel placed from ft. to ft.	Contractor's License No. 65 Date 8.25 , 19.78			

This well canot go then 400 or until STATE ENGINEER SALEM CRESON

(START CARD) #

	· · · · /- /-	1/10/
STATE OF OREGON NOV - 5 1993 MORR	- 4N//	6=11Xh
	1192	100
WATER WELL REPORT ER RESOURCES DEPT (as required by ORS 537.765) SALEM, OREGON	(START CARD) #_466	942
(1) OWNER: Weil Number	(9) LOCATION OF WELL by legal descri	intion:
Name Larry Chastagner	County Morrow Latitude	_
Address P.O. Box 1/23	Township 4N N or S. Range 26	E or W. WM.
City //matilla State OR Zip 97882	Section 18 NW 1/4 N	1W 1/4
(2) TYPE OF WORK:	Tax Lot 4704 Lot Block	Subdivision
New Well Deepen Recondition Abandon	Street Address of Well (or nearest address)	U. 730,
(3) DRILL METHOD:	milepost 168, Umatil	1a, OR 97882
Rotary Air Rotary Mud Cable	(10) STATIC WATER LEVEL:	0 00
Other	ft. below land surface.	Date 9-30-93
(4) PROPOSED USE:	Artesian pressure lb. per square inch	n. Date
Domestic Community Industrial Irrigation	(11) WATER BEARING ZONES:	
Thermal Injection Other	16.	2
(5) BORE HOLE CONSTRUCTION:	Depth at which water was first found	
Special Construction approval Yes No Depth of Completed Well 200 ft.	From To Estin	nated Flow Rate SWL
Explosives used Yes No Type Amount		1000+ 4
HOLE SEAL Amount Diameter From To Material From To sacks or pounds	130 11	7
Diameter From To Material From To sacks or pounds 15" 0 76 Cement 0 76 16/ Sacks		
10" 16 200		
	(12) WELL LOG:	
	Ground elevation	
How was seal placed: Method A A B C D D E		
Other	Material	From To SWL
Backfill placed from ft, to ft. Material	Sand	02
Gravel placed from ft, to ft. Size of gravel	Sandy Clay	2 38
(6) CASING/LINER:	Black sand	38 67
Diameter From To Gauge Steel Flastic Welded Flireaded Casing: 10 11 +2 76 375	Yellow sand	67 71
Casing: 10" +2 76 375	Gray basalt	71 121
	Brown basalt	122 133
	Brown clay	133 139
Liner: 8" //7 200 -250 W	Black & brown basalt	152 177 WB
	with green	13211100
Final location of shoe(s) 76	Spanstone	
(7) PEREORATIONS/SCREENS:	Grav basalt	177200
Perforations Method Torchcut		
Screens Type Material	RECEIVL	
Slot Tele/pipe		
From To size Number Diameter size Casing Liner	SEP 25 (U)	40
140 200 14x3 5rows		
	OWRE	
	OWNE	
		
(8) WELL TESTS: Minimum testing time is 1 hour	Date started 9-24-93 Completed	9-30-93
Pump Bailer Air Flowing Artesian	(unbonded) Water Well Constructor Certification:	
	I certify that the work I performed on the construc	tion, alteration, or abandon-
Yield gal/min Drawdown Drill stem at Time	ment of this well is in compliance with Oregon well cons	
1,000 t 200 1 hr.	used and information reported above are true to my be	st knowledge and belief.
		WWC Number
	Signed	Date
	(bonded) Water Well Constructor Certification:	
Temperature of Water Depth Artesian Flow Found	I accept responsibility for the construction, alteration	
Was a water analysis done?	formed on this well during the construction dates reporte during this time is in compliance with Oregon well constr	ruction standards. This report
Salty Muddy Odor Colored Other	is true to the best of my knowledge and belief.	WWC Number 1218
Depth of strata:	Signed atrick / allace	Date 10-15-93
	ND COPY - CONSTRUCTOR THIRD COPY - CI	, ,

ATTACHMENT
Cross-Section Well Logs

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OWRD

ATTACHMENT (G)

Chowning Wells and Regional Basalt Geology

F 25 2020

Basalt Geology – Port of Morrow and Vicinity

Geology and Hydrogeology

The water supply wells completed in the Columbia River Basalt Group (CRBG) flows associated with the Chowning Certificate 93290 and at the Port of Morrow and surrounding areas encounter multiple basalt flows. The water-bearing basalt units that are encountered from ground surface downward include the 3 separate flows from the Saddle Mountain Basalt (Elephant Mountain, Pomona, and Umatilla Members) and several Wanapum Basalt flows (Priest Rapids and Frenchman Springs Sentinel Gap Flow and Frenchman Springs Sand Hollow Flow Members). To better understand the basalt system and the water-bearing units, a cross-section was prepared in the vicinity of the Port of Morrow and the Chowning wells associated with Certificate 93290. Figure 1 present the location of the cross-section and the wells used in its development, and Figure 2 presents the basalt units within the cross-section.

Historically, water supply wells were constructed across multiple water-bearing zones found within the basalt system. However, current practices consider this to be comingling of the individual water-bearing units and can cause unintended impacts. To eliminate these impacts, current well construction standards for CRBG wells require new wells be completed in only one water-bearing zone.

Certificate 93290 Authorized Wells – Basalt Production/Water-Bearing Zones

Certificate 93290 authorizes water production from two points of appropriation, "Deep Well 2" (MORR 777) and "Hillview 4" (MORR 776 – original well & MORR 51714 replacement well) (collectively "Chowning wells"). The location and logs for these wells are attached, as well as photographs of each well head. A review of the well logs along with video of these two of these wells was used by Terry Tolan to develop a detailed geologic summary of the geologic units encountered in each of the Chowing wells. The geologic summaries for MORR 777, MORR776, and MORR 51714 are attached. As described in the geologic summaries and cross-section, these wells are open to several units within the CRBG aquifer. Specifically, Deep Well 2 appropriates groundwater from the Pomona and Umatilla Members of the Saddle Mountain Basalt, and Hillview 4 appropriates groundwater from the Umatilla Member of the Saddle Mountain Basalt and the Priest Rapids and Frenchman Springs Sentinel Gap Flow Members of the Wanapum Basalt (see geologic summaries for each well in attachment). Based on this information, any new additional proposed POAs can obtain water from any one, or combination of wells, tapping these water-bearing unit (up to the allowed rate and duty on the Certificate 93290).

Basis of Design for Additional Points of Appropriation

The Port of Morrow's existing wells Port Well 1 (MORR 752) and Port Well 2 (MORR 756) appropriate groundwater from similar aquifers as the existing Chowning wells. Port Well 1 appropriates groundwater from both the Umatilla Member and Priest Rapids and Frenchman Springs Sentinel Gap Flow Members of the Wanapum Basalt. Port Well 2 appropriates groundwater from only the Umatilla Member of the Wanapum Basalt. Because these Port wells already appropriate groundwater from the same sources as the Chowning wells, the applicant proposes to add these existing wells as additional points of appropriation.

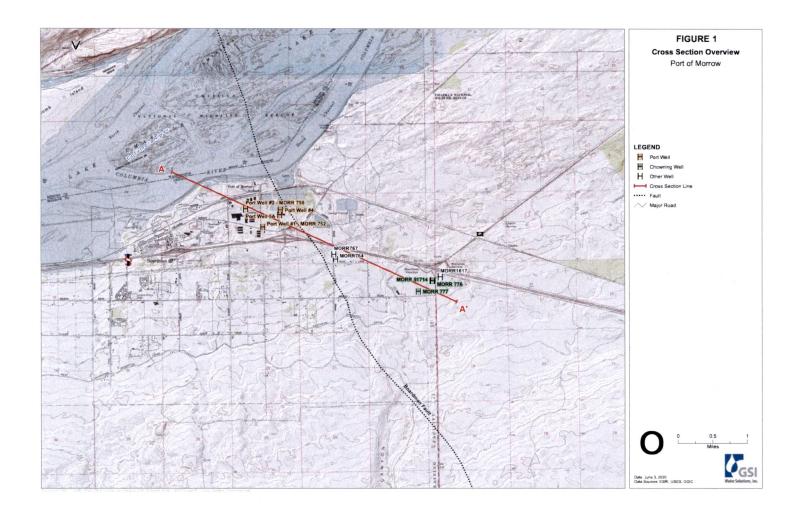
Because of the current comingling nature of the exisiting Chowning wells, the Port of Morrow is proposing to install well clusters as additional points of appropriation (APOA) to ensure that current well construction standards requiring a well's completion be in only <u>one</u> water-bearing zone of the CRBG are

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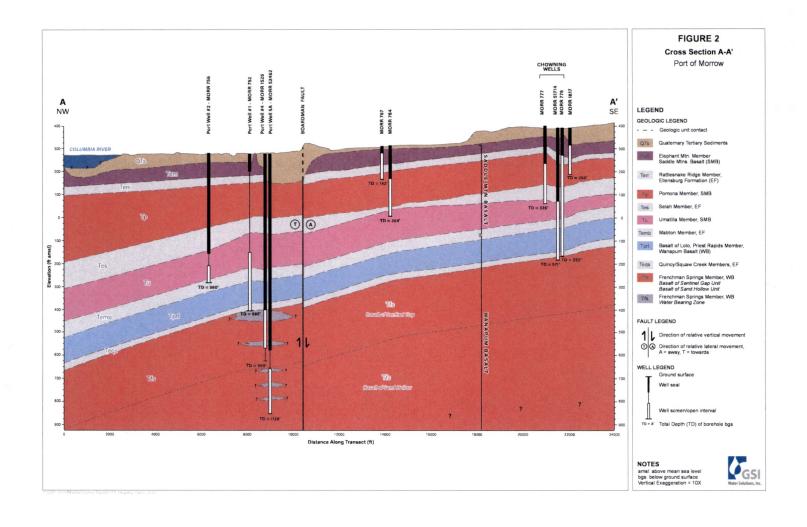
SEP 2 5 2020

met. Each well cluster proposes to complete up to three wells at a single location in order to ensure the well is completed in only one water-bearing zone. The combined total production from any prew APOA cluster(s) will not exceed the allowed rate and duty on the Certificate 93290.

The first well will be completed in the Umatilla Member (approximate elevation -350 to -400 ft), the second completed in the Priest Rapids Member (approximate elevation -555 to -570 ft), and the third completed in the Frenchman Springs Sentinel Gap Flow Member (approximate elevation -675 to -860 ft). Drilling observations in the area suggest that water levels across the Umatilla and Priest Rapid Members may be similar, suggesting that these two aquifer units may be connected. Water levels will be monitored during drilling, and relayed to OWRD groundwater staff. Real-time conversations with OWRD groundwater staff will determine the final construction of each well. If the two upper zones (Umatilla and Priest Rapids Members) are determined to be one "aquifer" unit by OWRD groundwater staff, then only two wells will be completed at each location, with the shallow well appropriating groundwater from the Umatilla and Priest Rapids Members and the deeper well appropriating groundwater from the upper flows of the Frenchman Springs Member (within the Basalt of Sentinel Gap).



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ATTACHMENT
Chowning Wells and Well Logs

SEP 2 5 2020 OWRD



OWRD

MORR 51714

-6-inch pump column

-12-inch surface casing (is there a hint of large casing cut off at ground surface in 2nd photo??)





MORR 777 (at edge of farm field) -4-inch pump column







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SEP MORR 776
-discernant

-disconnected from piping 10 or 12" surface casing (opening inside flange bolts is 0.9 ft) -OWRD calls this well 776





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

ECEI WELL REPORT

HOPER 777 State Well No

4N/25-13ada

STATE ENGINEER, SALEM, OREGON 97310 AN 14 1570 STATE OF OREGON (Please type or print) within 30 days from the daSTATE ENGINEER rite above this line) of well completion.

B-4102

State Permit No. .

SALEM. OREGON	6-410		
(1) OWNER:	(11) LOCATION OF WELL:	E Conth	Wate
Name Henry Gantenbein	County MOR ROW Driller's well no	umber	This
Address Boardman, Ore		U R. 25	F W.M.
	Bearing and distance from section or subdivisio		
(2) TYPE OF WORK (check):			
New Well Deepening Reconditioning Abandon			
If abandonment, describe material and procedure in Item 12.			
(3) TYPE OF WELL: (4) PROPOSED USE (check):	(12) WELL LOG: Diameter of well	below caring 5	3"
Rotary Driven Domestic Industrial Municipal	Depth drilled 73.5 ft. Depth of compl	_	700
Dug Bored Irrigation Test Well Other	Formation: Describe color, texture, grain size		motoriole:
CASING INSTALLED: Threaded Welded	and show thickness and nature of each stratu		
16 " Diam. from O tt. to 5/ tt. Gage 1025	with at least one entry for each change of form in position of Static Water Level as drilling pro		
12 " Diam. from O tt. to 162 tt. Gage 1025	MATERIAL	From To	SWL
" Diam. from ft. to ft. Gage			
	Sand, Coarse Brown		
PERFORATIONS: Perforated? Tyes ANO.	BasalT, Brien, BIK	45 51	
Type of perforator used	Basalt, BIK	51 70	
Size of perforations in. by in.	Brown Rost Soft	70 73	
perforations from ft. to ft.	Clay, Green, Soft,	25 135	30'
perforations from ft. to ft.	Bekn Basalt	90 150	30
perforations from ft. to ft.	Clay, Blue, Green Soll	130 137	-
perforations from ft. to ft.	Basalt, BIK	137 15	7
perforations from	Basalt, Gray Hard	157 25	7 30'
(7) SCREENS: Well screen installed? Ves No	Clay, Blue, Green	257 226)
(1) SCREENS: Well screen installed? Yes No Manufacturer's Name	Bekn BasalT		
Type Model No.	Bossett, Gray	300 325	
Diam. Slot size Set from ft. to ft.	Parous BIK 1818	325 335	- (water
Diam. Slot size Set from ft. to ft.	Clay Grage FD	,	0'
	RECEIVED		-
(8) WATER LEVEL: Completed well.	= 2020		-
Static level oft. below land surface Date 3049	SEP 2 5 2020		
distan pressure / lbs. per square inch Date le 30,69			
(9) WELL TESTS: Drawdown is amount water level is lowered below static level	CIMPO		
Was a pump test made? Yes No If yes, by whom?	OWN		
14. 9	Work started Q 196 9 Complet	ed Dec 3	0 1969
reid: 100 gail/min. with 150 ft. drawdown after 14 hrs.	Date well drilling machine moved off of well	000 25	1969
	Delline Weekley Complete Continue		
	Drilling Machine Operator's Certification: This well was constructed under my di	rect supervisio	n Mate-
Bailer test gal./min. with ft. drawdown after hrs.	rials used and information reported above	e are true to	my best
Artesian flow 30 g.p.m. Date Dec 30, 1969	knowledge and belief.	0	10
Temperature of water 72 Was a chemical analysis made? Yes No	[Signed]	Date Jun	, 196.7.
(10) CONSTRUCTION:	Drilling Machine Operator's License No.	640	
Well seal-Material used Coment & Bentonite	- Drining Materine Operator & Diceinse 170.	6	
Depth of seal the Depth of seal the the	Water Well Contractor's Certification:		
Diameter of well bore to bottom of seal	This well was drilled under my jurisdi		report is
Were any loose strata cemented off? N Yes No Depth 0 - 5-	NAME TO LECT OUR		
Was a drive shoe used? ☐ Yes No 90 -137	NAME (Person, firm or corposation)	Type or prin	it)
Old any strata contain unusable water? Yes No	Address # South Seem	d Wall	www.
Type of water? depth of strata	1 11111	,	
Method of sealing strata off Comen T Grov T	[Signed] Collic (Coo	4	************
Was well gravel packed? Tyes No Size of gravel:	(Water Well Contract	tor)	00
Gravel placed from ft. to ft.	Contractor's License No. 51.2 Date	1 3 ^	, 19[.]

NOTICE TO WATER WELL CONTRACTOR The original and first copy MORR			
of this report are to be WATER WEI	L REPORT	141/25=	-12
STATE OF	1616 67 13 1137 0	4N/25E	-13
(Flease type	ove this STATE ENGINEER State Permit N	Io.	
of well completion. Work 776 to not write at	SALEM, OREGON 67	7/10	
(1) OWNER:	(10) LOCATION OF WELL:	77	
Name Hillwen Sain For Kurt Gantenben	WTo'A		
Address P. O. R. W. 166		Control of the Contro	Annual contract of the Contrac
Brardman, Origion 97818	34 34 Section 1.3 T. 477.		W.M.
(2) TYPE OF WORK (check).	Bearing and distance from section or subdivisi	on corner	
New Well Deepening □ Reconditioning □ Abandon □			
If abandonment, describe material and procedure in Item 12.	(11) WATER LEVEL Completed	-11	
(3) TYPE OF WELL: (4) PROPOSED USE (check):	(11) WATER LEVEL: Completed w	en.	
Rotary SA Driven C	Depth at which water was first found 43		tt.
Cable Jetted Domestic Industrial Municipal Dug Bored Irrigation Test Well Other	Static level Surface ft. below land s		17-75
Dug Dored Milgation & less wen Dones	Artesian pressure 4 lbs. per squar	e inch. Date	
) CASING INSTALLED: Threaded Welded	(12) WELL LOG: Diameter of well b	below contra 8"	1266.24
10 " Diam. from D ft. to 120 ft. Gage 250	Depth drilled 555 ft. Depth of compl		C 11
	Formation: Describe color, texture, grain size a		naterials:
" Diam. from ft. to ft. Gage	and show thickness and nature of each stratur	m and aquifer per	netrated,
PERFORATIONS: Perforated? Yes No.	with at least one entry for each change of formal position of Static Water Level and indicate prin	cipal water-bearin	g strata.
.ype of perforator used	MATERIAL	From To	SWL
Size of perforations in. by in.	Tensoil.	0 3	
perforations fromft. toft.	Sand	3 30	
perforations from ft. to ft.	Rock, brown	30 39	
perforations from ft. to ft.	Basalt	39 51	
(7) SCREENS: Well screen installed? Yes S No	Rock, light brown	51 65	
Manufacturer's Name	Basaly	92 43	27
Type Model No.	Basalt.	113 142	WB.
Diam. Slot size Set from ft. to ft.	Rock dark branch		W.B.
Diam. Slot size Set from ft. to ft.	Basaly Lard	159 257	W.EJ
(8) WELL TESTS. Drawdown is amount water tere is	Rock, med. gray	257 300	W.B.
(8) WELL TESTS: Drawdown is amount water level is lowered below static level	Rock, med, black	300 318	
Was a pump test made? Yes No If yes, by whom	Basalt	318 383	
Vield: gal./min. with ft. drawdown after hrs.	Rick, med. black	383 390	
" "	Characters as	412 112	W.B.
" " "	Dad mil allen	112 453	W.B.
Bailer test 600 gal./min. with 220 ft. drawdown after hrs.	Rasar	458 533	
Artesian flow 20 g.p.m.	Claystone, the	533 555	W.B
aperature of water Depth artesian flow encountered ft,	Work started 1-3 1975 Complete	ed /-/7	1975
(9) CONSTRUCTION:	Date well drilling machine moved off of well	1-17	19 75
1	Drilling Machine Operator's Certification:		
Well sealed from land surface to 120	This well was constructed under my		
Well sealed from land surface to 120 ft. Diameter of well bore to bottom of seal 10 in.	Materials used and information reported best knowledge and belief.		
Diameter of well bore below seal		Date	1975
Number of sacks of cement used in well seal	(Drilling Machine Operator)	615	10-4-34
Number of sacks of bentonite used in well seal sacks	Drilling Machine Operator's License No	46.)	
Brand name of bentonite	Weter Well Control Control		7

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.

Ì	true to the best of my knowledge and belief.
-	Name TROY GRIFFIN
-	(Person, firm or corporation) (Type or print)
	Address 900 HERMISTON AVE, HERMISTON ORE.
-	[Signed] Water Weil Contractor)
	Contractor's License No. 45 Date 1-21 1975

... lbs./100 gals.

Number of pounds of bentonite per 100 gallons

Type of water?

Method of sealing strata off

Did any strata contain unusable water? 🗌 Yes 🕱 No

Was well gravel packed? ☐ Yes 🗗 No Size of gravel:

Was a drive shoe used? 🔀 Yes 🗌 No Plugs Size: location ft.

depth of strata

ft. to ...

MORR 51714

Morr 51714

PAGE: 1

TE OF OREGON

VATER SUPPLY WELL REPORT

(as required by ORS 537.765)

SEP 25 2020 START CARD# 167593

that rections for completing this report are on the last page of this form.	1
(1) LAND OWNER Well Number	(9) LOCATION OF WELL (legal description)
Name Taca point Land	County PRICE COLOR
Address 100 862	Tax Lot Lot Lot
City Leralistori State DA Zip 52838	Township 4 N or S Range E or W WM
	Section 13 5 1/4 NE 1/4
(2) TYPE OF WORK Solve Well	
Deepening Alteration (repair/recondition) Abandonment Conversion	Lat or (degrees or decimal)
Chaptering Classification (International Classification)	Long o ' " or (degrees or decimal)
(3) DRILL METHOD	
Rotary Air Rotary Mud Cable Auger Cable Mud	Street Address of Well (or nearest address) Tonibing Nonge Med
	3 Hake 130 Boardman, OR
Other	·
(4) PROPOSED USE	(10) STATIC WATER LEVEL
Domestic Community Industrial Irrigation	109 ft. below land surface. Dato 9-10-09
	•
Thermal Injection Livestock Other	ft. below land surface. Date
(6) PADE HALE CONSTRUCTION CONTACT OF THE	Artesian pressure Ib. per square inch Date
(5) BORE HOLE CONSTRUCTION Special Construction: Yes No Depth of Completed Well 1.	
Evaluation week Van	(11) WATER BEARING ZONES
Explosives used: Yes No Type Amount	Depth at which water was first found
BORE HOLE SEAL	From To Estimated Flow Rate SWL
Diameter From To Material From To Sucks or Pounds	
20 0 60 (coment 0 60 3 403	
16 60 565 corner 0 330 28 405	
12 565 571	405 445 400 109 354 573 300 109
	354 573 300 108
Hamman Laborate Material District Tipe District District	
How was seal placed: Method □ A ⊠ B □ C □ D □ E	(12) WELL LOG Ground Elevation
Other	
Backfill placed from 325 ft. to 57/ ft. Material Dea 9-acres	Material From To SWL
Gravel placed from ft. to ft. Size of gravel 3/8	5andy 5,14 0 49
	Sandy 5, 14 B 49 Black Basuct 48 118 102 Bask Basuct 48 118 102
(6) CASING/LINER	
Diameter From To Gauge Steel Plastic Welded Threaded	Black Baselt 162 254
Casing: 30 -8 40 376 8 0 8	13/46 (car 266 288
16 0 60 325 8 0 8 0 12 0 320 375 8 0 8 0	Blue (Car 266 288
Casing: 30 -8 40 325 8 0 8 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Black Easalt 288 405 VISICULAR 130504 405 445 109
Liner:	VISICULAR 130504 405 445 109
Liner:	Black Gasalt 445 534
	Visicular Basel 534 566
Drive Shoe used I Inside Outside None	Fracture Beself 5 kt 571
Final location of shoe(s)	
Litras sociation of smoc(s)	
(7) PERFORATIONS/SCREENS RECEIVED	
Perforations Method	
Screens Type Material	15 15 20 59
ADD 0.7 2000	Date Started 12-10-08 Completed 3-7-07
From To Slot Number Diameter Telephor Casing Lines	(nnbonded) Water Well Constructor Certification
Stze	I certify that the work I performed on the construction, deepening, alteration, or
WATER RESOURCES DEF	abandonment of this well is in compliance with Oregon water supply well
EALEM DRECOH	construction standards. Materials used and information reported above are true to
	the best of my knowledge and belief.
	WWC Number Date
(8) WELL TESTS: Minimum testing time is 1 hour	
Pump Bailer Air Flowing Artesian	Signed
Vield gal/min Drawdewn Drill stem at Time	(bended) Water Well Constructor Certification
700 571 8115	I accept responsibility for the construction, deepening, alteration, or
140	abandonment work performed on this well during the construction dates reported
	above. All work performed during this time is in compliance with Oregon water
Temperature of water Depth Artesian Flow Found	supply well construction standards. This report is true to the best of my knowledge and belief.
Was a water analysis done? Yes By whom	
Did any strata contain water not suitable for intended use?	WWC Number /57 Date 3-12-0/
Salty Muddy Odor Colored Other	and the same of th
Depth of strata:	WWC Number 759 Date 3-12-09 Signed 575020
Arryot or muddle.	

STATE OF OREGON WATER SUPPLY WELL REPORT

WELL I.D. #L 87902 START CARD# 163593

(as required by ORS 537.765)

Instructions for completing this report are on the last page of this form. (1) LAND OWNER (9) LOCATION OF WELL (legal description) Well Number AND POMA County Morroce 862 Address Tax Lot 100 City Remiston DA Zip 97838 State Township N or S Range 5E Section (2) TYPE OF WORK New Well ☐ Deepening ☐ Alteration (repair/recondition) ☐ Abandonment ☐ Conversion ___ (degrees or decimal) ___ (degrees or decimal) (3) DRILL METHOD Street Address of Well (or nearest address) Bombing Roge & Rotary Air 🗌 Rotary Mud 🗌 Cable 🗌 Auger 🔲 Cable Mud 8 Hury 730 Boardman, one Other (10) STATIC WATER LEVEL (4) PROPOSED USE Date 3 -10-09 109 ft. below land surface. ☐ Domestic ☐ Community Industrial Irrigation ☐ Thermal ☐ Injection Livestock Other ft. below land surface. Artesian pressure lb. per square inch (5) BORE HOLE CONSTRUCTION Special Construction: Yes \(\subsection \) No Depth of Completed Well 57/ ft. (11) WATER BEARING ZONES Explosives used: Yes No Type Amount Depth at which water was first found **BORE HOLE** SEAL **Estimated Flow Rate** Diameter From To Material To Sacks or Pounds 75 02 118 60 Coment 20 60 254 320 Coment 400 300 \Box A Method **B** B \Box C \Box D \Box E How was scal placed: (12) WELL LOG Ground Elevation Other Backfill placed from From To ft. to Material 0 49 Gravel placed from ft. ft. to Size of gravel 118 45 (6) CASING/LINER Diameter From Plastic Welded Threaded Gauge Steel Casing: 20 325 266 405 320 375 Liner: Drive Shoe used Inside Outside None Final location of shoe(s) (7) PERFORATIONS/SCREENS Perforations Method ☐ Screens Material Type 3-9-09 Date Started 12-10-08 Completed Slot Number Diameter Tele/pipe Casing Liner (unbonded) Water Well Constructor Certification Size size 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. WWC Number (8) WELL TESTS: Minimum testing time is 1 hour Signed ☐ Pump Bailer Air ☐ Flowing Artesian Yield gal/min Drawdown Drill stem at (bonded) Water Well Constructor Certification 700 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 Temperature of water Depth Artesian Flow Found and belief. Was a water analysis done?
Yes By whom Date Did any strata contain water not suitable for intended us **RECEIVED** ittle

Salty Muddy Odor Colored Other WWC Number Signed Depth of strata: MAR 17 2009

SWL

SWL

109



ATTACHMENT

Geologic Summary and Geologic Logs



Geologic Summary Evaluation of MORR 777

Well Completed: December 30, 1969

Total Depth: 335 ft bgs

REPORTED WELL CONSTRUCTION (from State of Oregon Water Well Report form):

16 inch-diameter steel casing from 0 ft to 51 ft bgs; drilled with bentonite/cement seal 0 ft to 45 ft. 12 inch-diameter steel casing from 0 ft to 162 ft bgs; cement & bentonite grout seal from 0 ft to 162 ft

8 inch-diameter open-borehole from 162 ft to 335 ft bgs.

Open Interval In Well: 162 ft to 335 ft bgs.

STRATIGRAPHIC UNITS PENETRATED IN WELL

Note: Interpretation of stratigraphic units (and unit contacts) penetrated in the MORR 777 well are based on (1)information from the MORR 777 Driller's Log, (2) a 08 November 2003 downhole video log of this well, and (3) information from the adjacent MORR 51714 well.

Depth (ft bgs)	Thickness (ft)	<u>Unit</u>	Comments
0 to 45	45	Suprabasalt sediments	Cataclysmic Flood/Alkali Canyon Fm.
45 to 90	45	Elephant Mtn. Member, Saddle Mtns. Basalt	
90 to 120	30	Rattlesnake Ridge Member, Ellensburg Fm.	Described as green & blue clay.
120 to 254	134	Pomona Member, Saddle Mtns. Basalt	Lower contact from video well log.
254 to 320	66	Selah Member, Ellensburg Fm.	Described as blue, green clay.
320 to 335	+15	Umatilla Member, Saddle Mtns. Basalt	

Potential Water-Bearing Stratigraphic Units in the Well's Open Borehole Interval (162 to 335 ft bgs):

Bottom of the Pomona Member, Saddle Mtns. Basalt Selah Member, Ellensburg Formation Upper portion of the Umatilla Member, Saddle Mtns. Basalt



Expires 01/01/2021

Geologic Summary Evaluation of MORR 776

Well Completed: January 17, 1975

Total Depth: 555 ft bgs

SEP 25 2020

2 0 2020

REPORTED WELL CONSTRUCTION (from State of Oregon Water Well Report form): RD

10 inch-diameter steel casing from 0 ft to 120 ft bgs with cement grout seal from 0 ft to 120 ft bgs;

 $10\ \text{inch-diameter}$ open borehole from 120 ft to 220 ft bgs;

8 inch-diameter open borehole from 220 ft to 555 ft bgs.

Open Interval In Well: 120 ft to 555 ft bgs.

STRATIGRAPHIC UNITS PENETRATED IN WELL

Note: Due to the "uneven quality" of descriptions on the original Driller's Log, interpretation of stratigraphic units (and unit contacts) penetrated the MORR 776 well are based on (1)information from the MORR 776 Driller's Log, (2) a 16 February 2004 downhole video log of this well, and (3) information from nearby wells MORR 777 and MORR 51714.

Depth (ft bgs)	Thickness (ft)	<u>Unit</u>	Comments
0 to 30	30	Suprabasalt sediments	Cataclysmic Flood/Alkali Canyon Fm.
30 to 120	90	Elephant Mtn. Member, Saddle Mtns. Basalt	Estimated – water-bearing at 93 ft bgs.
120 to 162	42	Rattlesnake Ridge Member, Ellensburg Fm.	No sediments noted on log; likely includes top of the Pomona Member.
162 to 256	94	Pomona Member, Saddle Mtns. Basalt	No contact on well log; from video log.
256 to 327	71	Selah Member, Ellensburg Fm.	No contact on well log; from video log.
327 to 392	65	Umatilla Member, Saddle Mtns. Basalt	No contact on well log; from video log.
392 to 433	41	Mabton Member, Ellensburg Fm.	"claystone, green" on well log; contacts from video log.
433 to 533	100	Priest Rapids Member, Wanapum Basalt	
533 to 555*	+22	Quincy/Squaw Cr. Member, Ellensburg Fm.	"claystone, blue" noted on well log.

^{*}Given the depth of this well and the resulting artesian pressure of the completed well (4 psi listed on log) there is a strong likelihood that it is also open to the top of the Frenchman Springs Member, Wanapum Basalt

Potential Water-Bearing Stratigraphic Units in the Well's Open Borehole Interval (120 to 555 ft bgs):

Rattlesnake Ridge Member, Ellensburg Formation

Pomona Member, Saddle Mtns. Basalt
Selah Member, Ellensburg Formation
Umatilla Member, Saddle Mtns. Basalt
Mabton Member, Ellensburg Formation
Priest Rapids Member, Wanapum Basalt
Quincy/Squaw Creek Member, Ellensburg Formation
Top of the Frenchman Springs Member, Wanapum Basalt



Expires 01/01/2021



Geologic Summary Evaluation of MORR 51714

Well Completed: March 9, 2009

Total Depth: 571 ft bgs

REPORTED WELL CONSTRUCTION (from State of Oregon Water Well Report form):

20 inch-diameter steel casing from -8 ft to 40 ft bgs;

16 inch-diameter steel casing 0 ft to 60 ft bgs; cement grout seal 0 ft to 60 ft bgs;

12 inch-diameter steel casing from +1 ft to 320 ft bgs; cement grout seal 0 ft to 320 ft bgs;

16 inch-diameter open borehole from 320 ft to 565 ft bgs;

12 inch-diameter open borehole from 565 ft to 571 ft bgs.

Open Interval In Well: 320 ft to 571 ft bgs.

STRATIGRAPHIC UNITS PENETRATED IN WELL

Note: Interpretation of stratigraphic units (and unit contacts) penetrated in the MORR 51714 well are based on (1)information from the MORR 51714 Driller's Log, (2) a 16 February 2004 downhole video log of the adjacent MORR 776 well, and (3) information from the adjacent MORR 776 Driller's log.

Depth (ft bgs)	Thickness (ft)	<u>Unit</u>	Comments
0 to 49	49	Suprabasalt sediments	Cataclysmic Flood/Alkali Canyon Fm.
49 to 118	69	Elephant Mtn. Member, Saddle Mtns. Basalt	
118 to 162	44	Rattlesnake Ridge Member, Ellensburg Fm.	Described as "blue clay".
162 to 257	95	Pomona Member, Saddle Mtns. Basalt	
257 to 327	70	Selah Member, Ellensburg Fm.	Described as "blue clay".
327 to 392	65	Umatilla Member, Saddle Mtns. Basalt	No contact on well log; from video log.
392 to 433	41	Mabton Member, Ellensburg Fm.	No sediments on well log; from video log.
433 to 534	101	Priest Rapids Member, Wanapum Basalt	
534 to 555	21	Quincy/Squaw Cr. Member, Ellensburg Fm.	No sediments on well log; from video log.
555 to 571*	+16	Frenchman Springs Member, Wanapum Basalt	No contact noted on log – estimated.

^{*}Given the depth of this well there is a strong likelihood that it is also open to the top of the Frenchman Springs Member, Wanapum Basalt

Potential Water-Bearing Stratigraphic Units in the Well's Open Borehole Interval (320 to 571 ft bgs):

Middle to Bottom of the Umatilla Member, Saddle Mtns. Basalt

Mabton Member, Ellensburg Formation

Priest Rapids Member, Wanapum Basalt

Quincy/Squaw Creek Member, Ellensburg Formation

Top of the Frenchman Springs Member, Wanapum Basalt



Log of Borehole: Port of Morrow No. 1 Also known as:

Project: Port of Morrow

Well ID: MORR 752

Location: SW SW, sec. 10, T4N, R25E

Geologist: Terry L. Tolan, R.G.

Kennedy/Jenks Consultants

Engineers & Scientists

Kennedy/Jenks Consultants 1020 N. Center Parkway, Suite F Kennewick, Washington 99336 509-734-9763 FAX 509-734-9764 www.kennedyjenks.com

Depth	Symbol	Lithologic Description	Elevation	Water Bearing Zones	Geochem Sample	Remarks
0-		Ground Surface	0			
ů-		Pleistocene Cataclysmic Flood Deposits				
7			-39			
1	OF THE OWN	Elephant Mountain Member		1		
1		Saddle Mountains Basalt				
-			-91			
100-		Rattlesnake Ridge Member				
7		Ellensburg Formation	-121			
1		Pomona Member				
1		Saddle Mountains Basalt				
			11.5			
200-			1	REC	ENZE	
1				811	EIVE 2 5 202	D
-			B BA	SEP	2 5 201	on d
7		Selah Member	275		0 204	.U
300		Ellensburg Formation	10 to			
-		Charleton & Formation		OV	VRD	
7			-341	UV	VRU	
7		Umatilla Member	1			
1		Saddle Mountains Basalt				
=						
400						
7						
7						
- 1						
1						
-			-496			
500-		Mabton Member				
7		Ellensburg Formation				
1			-550			
=		Priest Rapids Member				
-		Wanapum Basait				
600-						
7						
1						
		Quincy / Squaw Creek Member	-650			
=	STATE OF THE PARTY	Ellensburg Formation	-670 -685			
=	Constitution and Constitution of the Constitut	Frenchman Springs Member	-080			
700-		Wanapum Basalt				
=		TD 685 ft.				
-		1 t/ 000 ft.	1			
7						
			1			
7						

Drilled By: Stadeli Drilling Co. **Drill Method: Rotary and Cable**

Drill Date: 2/9/1978

Total Depth: 685

Page: 1 of 1

Geologic Log For Site MORR 1526

NWIS Site ID: 455048119400701 OWRD Log ID: MORR 1526

Depth drilled, in feet below land surface: 900 RECEIVED Land surface altitude, in feet above N Land surface altitude, in feet above Nation Geodetic Vertical Datum of 1929: 272 Logged by: T. L. Tolan Date drilled: 02/01/1991

Depth	Symbol	OWRD Lithologic Description	Elevation	Water Bearing Zones	Geochem	Remarks
0 -	ీక్ర <i>ీ</i> క్రి	Cataclysmic Flood Deposits	0			
		Alkali Canyon Formation conglomerate / sandstone	-20			4,
		Elephant Mountain Member - Saddle Mountains Basa dense interior - colonnade	-60		70	g=
100 -		Rattlesnake Ridge Member - Ellensburg Formation sandstone, pebbly sandstone, claystone	-90			
	0 0 00	Pomona Member - Saddle Mountains Basalt flow top breccia	-120			1 /2
200 -		dense interior - entablature	-150		ţ	500
-	0,37.0	dense interior - colonnade	-250		250	275 - 283ft. fused tuff
300		Selah Member - Ellensburg Formation tuff, sandstone, paleosols				
-		Umatilla Member - Saddle Mountains Basalt normal flow top	-345			
400 -		dense interior - entablature	-380		440	
500 -		dense interior - colonnade	-470			
-		Mabton Member - Ellensburg Formation siltstone / claystone	-500			200
600 -		Priest Rapids Member - Wanapum Basalt normal flowtop dense interior - colonnade	-555 -570			
					615	
-		Quincy / Squaw Creek Member - Ellensburg Formatic diatomite, siltstone	-650		670	

Geologic Log For Site MORR 1526

NWIS Site ID: 455048119400701 OWRD Log ID: MORR 1526 Well location: 04N/25E-10ADB

Depth drilled, in feet below land surface: 900

Land surface altitude, in feet above Nation Geodetic Vertical Datum of 1929: 272

Logged by: T. L. Tolan Date drilled: 02/01/1991

Depth	Symbol	Lithologic Description	Elevation	Water Bearing Zones	Geochem Sample	Remarks
-	0:0:00:	Frenchman Springs Member - Saddle Mountains Bas Basalt of Sentinel Gap flow top breccia dense interior - colonnade	-720			
800 —		internal vesicular zone dense interior - colonnade	-770 -780		760 805	
-		Basalt of Sentinel Gap flow 2 normal flow top dense interior - colonnade	-830 -855		855	
900 —		TD 900 ft.	-900		900	
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1100 —		RECEIVED SEP 2 5 2020		20		
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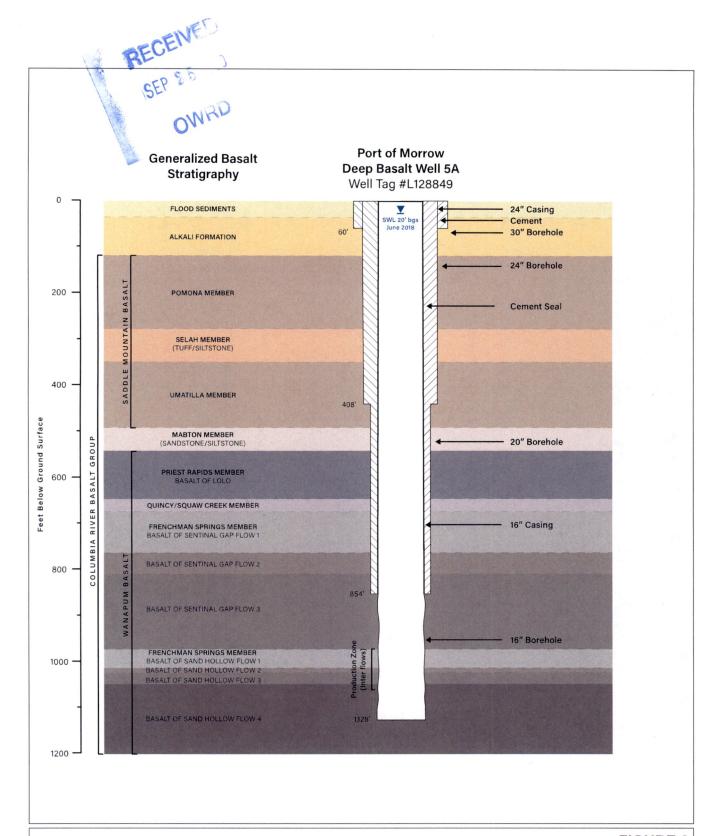


FIGURE 2 Well 5A As-Built Port of Morrow



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	130		*Do	nthe below casin	g (854 ft bgs) re	flect visual		
observations during the well video. Due to v	Q.			* i )				
observations during the well video. Due to v drift, the depths on this log are approximate	710							
feet deeper than the actual borehole.								

