

Groundwater Application Review Summary Form

Application # G- 18560

GW Reviewer Phil Marcy Date Review Completed: 5/30/2018

Summary of GW Availability and Injury Review:

Groundwater for the proposed use is either over appropriated, will not likely be available in the amounts requested without injury to prior water rights, OR will not likely be available within the capacity of the groundwater resource per Section B of the attached review form.

Summary of Potential for Substantial Interference Review:

There is the potential for substantial interference per Section C of the attached review form.

Summary of Well Construction Assessment:

The well does not appear to meet current well construction standards per Section D of the attached review form. Route through Well Construction and Compliance Section.

This is only a summary. Documentation is attached and should be read thoroughly to understand the basis for determinations and for conditions that may be necessary for a permit (if one is issued).

MEMO

ok
KH

To: Kristopher Byrd, Well Construction and Compliance Section Manager
From: Joel Jeffery, Well Construction Program Coordinator
Subject: Review of Water Right Application G-18560
Date: October 5, 2018

The attached application was forwarded to the Well Construction and Compliance Section by Water Rights. Phillip Marcy reviewed the application. Please see Phillip's review and the Well Log.

Applicant's Well #1 (Unio 50687): Based on a review of the Well Report and on comments by Mike Zwart in a previous groundwater application review (G-17637), Applicant's Well #1 seems to protect the groundwater resource.

The construction of Applicant's Well #1 may not satisfy hydraulic connection issues.

UNIO

RECEIVED

50687

APR 13 2000

STATE OF OREGON WATER SUPPLY WELL REPORT

(as required by ORS 537.765)

WATER RESOURCES DEPT. SALEM, OREGON

WELL I.D. # 40698 START CARD # W73877

Instructions for completing this report are on the last page

(1) OWNER: Well Number

Name Show DE LINT-Rudd Address 6405 GEEKER LANE/65394 NICELLIN City LAGRANDE State OR Zip 97850

(2) TYPE OF WORK: [X] New Well [] Deepening [] Alteration (repair/recondition) [] Abandonment

(3) DRILL METHOD: [] Rotary Air [X] Rotary Mud [] Cable [] Auger [] Other AIR REVERSE

(4) PROPOSED USE: [] Domestic [] Community [] Industrial [X] Irrigation [] Thermal [] Injection [] Livestock [] Other

(5) BORE HOLE CONSTRUCTION: Special Construction approval [X] Yes [] No Depth of Completed Well 306.6

Table with columns: HOLE, SEAL, Diameter, From, To, Material, From, To, Sacks or pounds. Includes entries for cement and float shoe.

How was seal placed: Method [X] A [] B [X] C [] D [] E

(6) CASING/LINER: Diameter, From, To, Gauge, Steel, Plastic, Welded, Threaded

Table for casing and liner with columns for diameter, length, gauge, and material type.

(7) PERFORATIONS/SCREENS: [X] Perforations Method MANUFACTURE 3/4 X 3

Table for perforations with columns for From, To, Slot, Number, Diameter, Tele/pipe size, Casing, Liner.

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

Table for well tests with columns for Pump, Bailer, Air, Flowing, Yield gal/min, Drawdown, Drill stem at, Time.

Temperature of water 127 Depth Artesian Flow Found 300 GPM Was a water analysis done? [] Yes By whom

(9) LOCATION OF WELL by legal description: County UNION Latitude Longitude Township T25 N S Range 39 E E or W-WM Section 8 SE 1/4 NW 1/4 Tax Lot 3702 Lot Block Subdivision Street Address of Well (or nearest address) 65324 ALICELLIN COVE OR. 97824

(10) STATIC WATER LEVEL: Flowing ft. below land surface. Date Artesian pressure 11 lb. per square inch. Date

(11) WATER BEARING ZONES: Depth at which water was first found 12'

Table for water bearing zones with columns: From, To, Estimated Flow Rate, SWL. Includes entries for 37-62, 78-90, 176-174, 541-544, 598-603.

(12) WELL LOG: Ground Elevation

Table for well log with columns: Material, From, To, SWL. Lists various soil and rock layers like Top Soil, Sand + clay - Tan, Clay Tan - Hard, etc.

Date started 2-19-96 Completed 2-15-98

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

Signed WWC Number Date

(bonded) Water Well Constructor Certification: I accept responsibility for the construction, alteration, or abandonment work performed on this well during the construction dates reported above.

Signed WWC Number 1399 Date 3-15-99

RECEIVED

UN10
50687

APR 13 2000

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

WATER RESOURCES DEPT.
SALEM, OREGON

WELL I.D. # L 40698
START CARD # W73877

Instructions for completing this report are on the last page of this form.

(1) OWNER: Well Number _____

Name _____
Address _____
City _____ State _____ Zip _____

(2) TYPE OF WORK

New Well Deepening Alteration (repair/recondition) Abandonment

(3) DRILL METHOD:

Rotary Air Rotary Mud Cable Auger
 Other _____

(4) PROPOSED USE:

Domestic Community Industrial Irrigation
 Thermal Injection Livestock Other _____

(5) BORE HOLE CONSTRUCTION:

Special Construction approval Yes No Depth of Completed Well _____ ft.
Explosives used Yes No Type _____ Amount _____

HOLE			SEAL			Sacks or pounds
Diameter	From	To	Material	From	To	

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

Backfill placed from _____ ft. to _____ ft. Material _____
Gravel placed from _____ ft. to _____ ft. Size of gravel _____

(6) CASING/LINER:

Casing:	Diameter	From	To	Gauge	Steel	Plastic	Welded	Threaded
					<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
					<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
					<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
					<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
					<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Final location of shoe(s) _____

(7) PERFORATIONS/SCREENS:

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

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

<input type="checkbox"/> Pump	<input type="checkbox"/> Bailer	<input type="checkbox"/> Air	<input type="checkbox"/> Flowing Artesian
Yield gal/min	Drawdown	Drill stem at	Time
			1 hr.

Temperature of water _____ Depth Artesian Flow Found _____

Was a water analysis done? Yes By whom _____

Did any strata contain water not suitable for intended use? Too little

Salty Muddy Odor Colored Other _____

Depth of strata: _____

(9) LOCATION OF WELL by legal description:

County _____ Latitude _____ Longitude _____
Township _____ N or S Range _____ E or W. WM. _____
Section _____ 1/4 _____ 1/4 _____
Tax Lot _____ Lot _____ Block _____ Subdivision _____
Street Address of Well (or nearest address) _____

(10) STATIC WATER LEVEL:

_____ ft. below land surface. Date _____
Artesian pressure _____ lb. per square inch. Date _____

(11) WATER BEARING ZONES:

Depth at which water was first found _____

From	To	Estimated Flow Rate	SWL
804	807	50 gpm	2'
834	839	50 gpm	2'
1540	1570	150 GPM → Flowing	
1906	1971	Can't determine	1
2119	2120	" "	1

(12) WELL LOG:

Ground Elevation _____

Material	From	To	SWL
Clay Tan + Shale. HARD	457	476	
Clay Green + Sandstone Tan	476	481	
Clay Tan + Brown - SOFT	481	538	
Clay Green Hard	538	541	
Sand. course	541	544	
Clay Green SOFT + Sandstone. Hard	544	564	
Clay Tan + Brown SOFT	564	579	
Clay Tan + Brown + Sand. White.	579	598	
Sand. course + clay	598	603	
Clay Gray SOFT	603	608	
Clay Green + Sand. course	608	621	
Clay Gray SOFT	621	632	
Clay + Shale. Brown	632	674	
Clay Green + Gray SOFT	674	725	
Clay Black SOFT	725	728	
Clay Gray SOFT	728	749	
Clay Gray + Sand. Course	749	753	
Clay Gray SOFT	753	779	
Clay Green - Green HARD	779	804	
Sand. Course	804	807	

Date started _____ Completed _____

(unbonded) Water Well Constructor Certification:

I certify that the work I performed on the construction, alteration, or abandonment of this well is in compliance with Oregon water supply well construction standards. Materials used and information reported above are true to the best of my knowledge and belief.

WWC Number _____

Signed _____ Date _____

(bonded) Water Well Constructor Certification:

I accept responsibility for the construction, alteration, or abandonment work performed on this well during the construction dates reported above. All work performed during this time is in compliance with Oregon water supply well construction standards. This report is true to the best of my knowledge and belief.

WWC Number 1379

Signed Walt Irvine Date 3-5-98

UN10
50687

APR 13 2000

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

WELL I.D. # L 40698
START CARD # W73877

WATER RESOURCES DEPT.
SALEM, OREGON

Instructions for completing this report are on the last page of this form.

(1) OWNER: Well Number _____
Name _____
Address _____
City _____ State _____ Zip _____

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

(3) DRILL METHOD:
 Rotary Air Rotary Mud Cable Auger
 Other _____

(4) PROPOSED USE:
 Domestic Community Industrial Irrigation
 Thermal Injection Livestock Other _____

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

HOLE			SEAL			Sacks or pounds
Diameter	From	To	Material	From	To	

How was seal placed: Method A B C D E
 Other _____
Backfill placed from _____ ft. to _____ ft. Material _____
Gravel placed from _____ ft. to _____ ft. Size of gravel _____

(6) CASING/LINER:

Diameter	From	To	Gauge	Steel	Plastic	Welded	Threaded
Casing:				<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Liner:				<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

(7) PERFORATIONS/SCREENS:

Perforations Method _____
 Screens Type _____ Material _____

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

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

Pump Bailer Air Flowing Artesian

Yield gal/min	Drawdown	Drill stem at	Time
			1 hr.

Temperature of water _____ Depth Artesian Flow Found _____
Was a water analysis done? Yes By whom _____
Did any strata contain water not suitable for intended use? Too little
 Salty Muddy Odor Colored Other _____
Depth of strata: _____

(9) LOCATION OF WELL by legal description:
County _____ Latitude _____ Longitude _____
Township _____ N or S Range _____ E or W. WM. _____
Section _____ 1/4 _____ 1/4 _____
Tax Lot _____ Lot _____ Block _____ Subdivision _____
Street Address of Well (or nearest address) _____

(10) STATIC WATER LEVEL:
_____ ft. below land surface. Date _____
Artesian pressure _____ lb. per square inch. Date _____

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

From	To	Estimated Flow Rate	SWL
2677	2698	120 GPM	103.4
2716	2718	360 GPM	Temp 107.5
2731	2738	25 GPM	106.9
2756	2767	50 GPM	
2770	2799	100 GPM	

(12) WELL LOG:
Ground Elevation _____

Material	From	To	SWL
Clay Green - Green SOFT	807	834	
Sand Course	834	839	
Clay Green SOFT + HARD	839	857	
Sand + Clay Green	857	989	
Clay Green SOFT	989	1015	
Clay Green + Sand	1015	1024	
Clay Green SOFT	1024	1042	
Clay Green HARD	1042	1052	
Sand + Clay Green	1052	1061	
Clay Green SOFT	1061	1080	
Basalt Black + Pink	1080	1082	
Clay Green SOFT + shale	1082	1089	
Basalt Brown Green Black	1089		
Shale Green		1091	
Basalt Brown + shale Green HARD	1091	1132	
Basalt Gray HARD + shale Green	1132	1149	
Basalt Black + Clay Green SOFT	1149	1198	
Basalt Red + Gray VERY HARD	1198	1204	
Basalt Red - Clay Gray - Shale Green	1204	1217	

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

(bonded) Water Well Constructor Certification:
I accept responsibility for the construction, alteration, or abandonment work performed on this well during the construction dates reported above. All work performed during this time is in compliance with Oregon water supply well construction standards. This report is true to the best of my knowledge and belief.
Signed Wally Jones WWC Number 1399
Date _____

RECEIVED

4 05 7/19

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

UN10 50687 APR 13 2000

WELL I.D. # L 40698 START CARD # W73877

Instructions for completing this report are on the last page of this form

WATER RESOURCES DEPT. SALEM, OREGON

(1) OWNER: Well Number Name Address City State Zip

(2) TYPE OF WORK: New Well, Deepening, Alteration, Abandonment

(3) DRILL METHOD: Rotary Air, Rotary Mud, Cable, Auger, Other

(4) PROPOSED USE: Domestic, Community, Industrial, Irrigation, Thermal, Injection, Livestock, Other

(5) BORE HOLE CONSTRUCTION: Special Construction approval, Depth of Completed Well, Explosives used

HOLE SEAL table with columns for Diameter, From, To, Material, Sacks or pounds

How was seal placed: Method A, B, C, D, E, Other, Backfill placed from, Gravel placed from

(6) CASING/LINER: Table with columns for Diameter, From, To, Gauge, Steel, Plastic, Welded, Threaded

Final location of shoe(s)

(7) PERFORATIONS/SCREENS: Table with columns for From, To, Slot size, Number, Diameter, Tele/pipe size, Casing, Liner

(8) WELL TESTS: Minimum testing time is 1 hour. Pump, Bailer, Air, Flowing Artesian. Yield gal/min, Drawdown, Drill stem at, Time

Temperature of water, Depth Artesian Flow Found, Was a water analysis done?, Did any strata contain water not suitable for intended use?, Depth of strata

(9) LOCATION OF WELL by legal description: County, Latitude, Longitude, Township, N or S Range, E or W. WM, Section, 1/4, 1/4, Tax Lot, Lot, Block, Subdivision, Street Address of Well

(10) STATIC WATER LEVEL: ft. below land surface, Date, Artesian pressure, lb. per square inch, Date

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

Table with columns: From, To, Estimated Flow Rate, SWL. Handwritten entries: 2899-2897 GPM 20, 2928-2942 Can't Determine, 2961-2969, 3031-3030, 3031-3054 Temp 106.8

(12) WELL LOG: Ground Elevation

Table with columns: Material, From, To, SWL. Handwritten entries: Basalt Black - shale red, grey + clay brown + brown SOFT, Basalt Gray HARD - Clay thin SOFT, Basalt Gray with Brown coating + Clay, Basalt Brown + Clay thin, Shale Orange HARD + Clay thin SOFT, Basalt Brown + Clay red SOFT, Shale Red + Clay, Basalt Black + Shale Red, Basalt Brown not very Hard clay thin, Basalt Gray + Black - shale thin, Basalt Brown Black - shale thin + brown HARD, Basalt Red + SOFT, Shale Brown + Basalt Black, Basalt Red + brown HARD, Shale thin + thin HARD, Basalt Brown Gray Clay thin thin 1719 1721

Date started, Completed

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

Signed, Date, WWC Number

(bonded) Water Well Constructor Certification: I accept responsibility for the construction, alteration, or abandonment work performed on this well during the construction dates reported above.

Signed, Date, WWC Number

RECEIVED

UN10
50687

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

APR 13 2000

WELL I.D. # L 40698
START CARD # N73877

Instructions for completing this report are on the last page of the WATER RESOURCES DEPT.

SALEM, OREGON

(1) OWNER:

Well Number _____

Name _____
Address _____
City _____ State _____ Zip _____

(2) TYPE OF WORK

New Well Deepening Alteration (repair/recondition) Abandonment

(3) DRILL METHOD:

Rotary Air Rotary Mud Cable Auger
 Other _____

(4) PROPOSED USE:

Domestic Community Industrial Irrigation
 Thermal Injection Livestock Other _____

(5) BORE HOLE CONSTRUCTION:

Special Construction approval Yes No Depth of Completed Well _____ ft.

Explosives used Yes No Type _____ Amount _____

HOLE SEAL

Diameter	From	To	Material	From	To	Sacks or pounds

How was seal placed: Method A B C D E

Other _____

Backfill placed from _____ ft. to _____ ft. Material _____

Gravel placed from _____ ft. to _____ ft. Size of gravel _____

(6) CASING/LINER:

Diameter	From	To	Gauge	Steel	Plastic	Welded	Threaded
Casing:				<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
				<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
				<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Liner:				<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
				<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Final location of shoe(s) _____

(7) PERFORATIONS/SCREENS:

Perforations Method _____

Screens Type _____ Material _____

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

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

<input type="checkbox"/> Pump	<input type="checkbox"/> Bailer	<input type="checkbox"/> Air	Flowing
Yield gal/min	Drawdown	Drill stem at	Artesian
			Time
			1 hr.

Temperature of water _____ Depth Artesian Flow Found _____

Was a water analysis done? Yes By whom _____

Did any strata contain water not suitable for intended use? Too little

Salty Muddy Odor Colored Other _____

Depth of strata: _____

(9) LOCATION OF WELL by legal description:

County _____ Latitude _____ Longitude _____
Township _____ N or S Range _____ E or W. WM. _____
Section _____ 1/4 _____ 1/4 _____
Tax Lot _____ Lot _____ Block _____ Subdivision _____
Street Address of Well (or nearest address) _____

(10) STATIC WATER LEVEL:

_____ ft. below land surface. Date _____
Artesian pressure _____ lb. per square inch. Date _____

(11) WATER BEARING ZONES:

Depth at which water was first found _____

From	To	Estimated Flow Rate	SWL

(12) WELL LOG:

Ground Elevation _____

Material	From	To	SWL
Basalt Gray + Clay Green SOFT	1721	1748	
Basalt Gray + shale Green + Clay Gray	1748	1906	
Basalt Gravel, Tika	1906	1971	
Basalt Gray + Clay Gray	1971	1993	
Basalt Black + Clay Gray	1993	1999	
Basalt Gray VERY HARD	1999	2004	
Basalt Black + Clay Black SOFT	2004		
Spale Green		2029	
Basalt Black + Clay Gray SOFT	2029	2070	
Basalt Gray + shale	2070		
Clay Green + shale SOFT		2119	
Basalt Gray	2119	2120	
Basalt Black + Clay Green Gray	2120	2175	
Basalt Gray HARD + Clay Gray	2175	2222	
Basalt Black + Clay Gray + shale Green	2222	2229	
Basalt Gray + Clay Gray + shale Green	2229	2251	
Basalt Black + shale Green +	2251		
Clay Green HARD		2267	
Clay Brown Gray Green Soft	2267		
+ HARD - Basalt Black		2275	

Date started _____ Completed _____

(unbonded) Water Well Constructor Certification:

I certify that the work I performed on the construction, alteration, or abandonment of this well is in compliance with Oregon water supply well construction standards. Materials used and information reported above are true to the best of my knowledge and belief.

Signed _____ WWC Number _____
Date _____

(bonded) Water Well Constructor Certification:

I accept responsibility for the construction, alteration, or abandonment work performed on this well during the construction dates reported above. All work performed during this time is in compliance with Oregon water supply well construction standards. This report is true to the best of my knowledge and belief.

Signed Walter L... WWC Number 1399
Date _____

RECEIVED

6 at #10

UN10 50687

APR 13 2000

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

WELL I.D. #L 40698 START CARD # W73877

WATER RESOURCES DEPT. SALEM, OREGON

Instructions for completing this report are on the last page of this form.

(1) OWNER: Well Number Name Address City State Zip

(2) TYPE OF WORK: New Well, Deepening, Alteration, Abandonment

(3) DRILL METHOD: Rotary Air, Rotary Mud, Cable, Auger, Other

(4) PROPOSED USE: Domestic, Community, Industrial, Irrigation, Thermal, Injection, Livestock, Other

(5) BORE HOLE CONSTRUCTION: Special Construction approval, Explosives used, Depth of Completed Well

Table with columns: HOLE Diameter, SEAL From, To, Material, From, To, Sacks or pounds

How was seal placed: Method A, B, C, D, E, Backfill placed from, Gravel placed from

(6) CASING/LINER: Table with columns: Diameter, From, To, Gauge, Steel, Plastic, Welded, Threaded

Final location of shoe(s)

(7) PERFORATIONS/SCREENS: Table with columns: From, To, Slot size, Number, Diameter, Tube/pipe size, Casing, Liner

(8) WELL TESTS: Minimum testing time is 1 hour. Pump, Bailer, Air, Flowing Artesian. Yield gal/min, Drawdown, Drill stem at, Time

Temperature of water, Depth Artesian Flow Found, Was a water analysis done?, Did any strata contain water not suitable for intended use?, Depth of strata

(9) LOCATION OF WELL by legal description: County, Latitude, Longitude, Township, N or S Range, E or W. WM, Section, 1/4, 1/4, Tax Lot, Lot, Block, Subdivision, Street Address of Well

(10) STATIC WATER LEVEL: ft. below land surface, Date, Artesian pressure, lb. per square inch, Date

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

Table with columns: From, To, Estimated Flow Rate, SWL

(12) WELL LOG: Ground Elevation

Table with columns: Material, From, To, SWL. Includes entries like Basalt Black + Brown, Basalt Black + Shale, Basalt Black + Clay Green, etc.

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

Signed, WWC Number, Date

(bonded) Water Well Constructor Certification: I accept responsibility for the construction, alteration, or abandonment work performed on this well during the construction dates reported above.

Signed, WWC Number, Date

UN10
50687

APR 13 2000

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

WATER RESOURCES DEPT.
SALEM, OREGON

WELL I.D. # L 40698
START CARD # W73877

Instructions for completing this report are on the last page of this form.

(1) OWNER: Well Number _____
Name _____
Address _____
City _____ State _____ Zip _____

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

(3) DRILL METHOD:
 Rotary Air Rotary Mud Cable Auger
 Other _____

(4) PROPOSED USE:
 Domestic Community Industrial Irrigation
 Thermal Injection Livestock Other _____

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

HOLE SEAL
Diameter From To Material From To Sacks or pounds

Diameter	From	To	Material	From	To	Sacks or pounds

How was seal placed: Method A B C D E
 Other _____
Backfill placed from _____ ft. to _____ ft. Material _____
Gravel placed from _____ ft. to _____ ft. Size of gravel _____

(6) CASING/LINER:

Diameter	From	To	Gauge	Steel	Plastic	Welded	Threaded
Casing:				<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
				<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
				<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Liner:				<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
				<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Final location of shoe(s) _____

(7) PERFORATIONS/SCREENS:

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

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

<input type="checkbox"/> Pump	<input type="checkbox"/> Bailer	<input type="checkbox"/> Air	<input type="checkbox"/> Flowing Artesian
Yield gal/min	Drawdown	Drill stem at	Time
			1 hr.

Temperature of water _____ Depth Artesian Flow Found _____
Was a water analysis done? Yes By whom _____
Did any strata contain water not suitable for intended use? Too little
 Salty Muddy Odor Colored Other _____
Depth of strata: _____

(9) LOCATION OF WELL by legal description:
County _____ Latitude _____ Longitude _____
Township _____ N or S Range _____ E or W. WM. _____
Section _____ 1/4 _____ 1/4 _____
Tax Lot _____ Lot _____ Block _____ Subdivision _____
Street Address of Well (or nearest address) _____

(10) STATIC WATER LEVEL:
_____ ft. below land surface. Date _____
Artesian pressure _____ lb. per square inch. Date _____

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

From	To	Estimated Flow Rate	SWL

(12) WELL LOG:
Ground Elevation _____

Material	From	To	SWL
Cinder Red - Shale Green - Basalt Black	2448	2468	
Basalt Black shale red green brown	2468	2476	
Cinder Brown + Tan - shale green	2476	2480	
Cinder Red - Shale Green	2480	2482	
Basalt Gray - Clay Gray	2482	2486	
Cinder Brown Black - shale green tan	2486	2503	
Basalt Black + Shale Green Mass	2503	2506	
Basalt Green + Clay Gray	2506	2510	
Basalt Gray + Clay Gray	2510	2560	
Basalt Black - white - shale green	2560	2569	
Basalt Gray + Black shale shale green	2569	2581	
Basalt Gray HARD - Clay Gray	2581	2590	
Basalt Black - shale green - cinder	2590		
Brown + Black - quartz - white			
red cinder VES.		2592	
Cinder Black Brown Blue Green	2592	2594	
Basalt Black - shale green - clay green	2594	2597	
Basalt Gray - Quartz white - clay gray	2597	2599	
Basalt Black - shale green HARD	2599	2605	

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

(bonded) Water Well Constructor Certification:
I accept responsibility for the construction, alteration, or abandonment work performed on this well during the construction dates reported above. All work performed during this time is in compliance with Oregon water supply well construction standards. This report is true to the best of my knowledge and belief.
Signed Walter Jones WWC Number 1399 Date _____

UN10.
50687

APR 13 2000

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

WATER RESOURCES DEPT.
SALEM, OREGON

WELL I.D. # L 40698
START CARD # W73877

Instructions for completing this report are on the last page of this form.

(1) OWNER: Well Number _____

Name _____
Address _____
City _____ State _____ Zip _____

(2) TYPE OF WORK

New Well Deepening Alteration (repair/recondition) Abandonment

(3) DRILL METHOD:

Rotary Air Rotary Mud Cable Auger
 Other _____

(4) PROPOSED USE:

Domestic Community Industrial Irrigation
 Thermal Injection Livestock Other _____

(5) BORE HOLE CONSTRUCTION:

Special Construction approval Yes No Depth of Completed Well _____ ft.
Explosives used Yes No Type _____ Amount _____

HOLE			SEAL			Sacks or pounds
Diameter	From	To	Material	From	To	

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

Backfill placed from _____ ft. to _____ ft. Material _____
Gravel placed from _____ ft. to _____ ft. Size of gravel _____

(6) CASING/LINER:

Casing:	Diameter	From	To	Gauge	Steel	Plastic	Welded	Threaded
					<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
					<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
					<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
					<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
					<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
					<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
					<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
					<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Final location of shoe(s) _____

(7) PERFORATIONS/SCREENS:

Perforations Method _____

Screens Type _____ Material _____

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

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

<input type="checkbox"/> Pump	<input type="checkbox"/> Bailer	<input type="checkbox"/> Air	<input type="checkbox"/> Flowing Artesian
Yield gal/min	Drawdown	Drill stem at	Time
			1 hr.

Temperature of water _____ Depth Artesian Flow Found _____

Was a water analysis done? Yes By whom _____

Did any strata contain water not suitable for intended use? Too little

Salty Muddy Odor Colored Other _____

Depth of strata: _____

(9) LOCATION OF WELL by legal description:

County _____ Latitude _____ Longitude _____
Township _____ N or S Range _____ E or W. WM.
Section _____ 1/4 _____ 1/4
Tax Lot _____ Lot _____ Block _____ Subdivision _____
Street Address of Well (or nearest address) _____

(10) STATIC WATER LEVEL:

_____ ft. below land surface. Date _____
Artesian pressure _____ lb. per square inch. Date _____

(11) WATER BEARING ZONES:

Depth at which water was first found _____

From	To	Estimated Flow Rate	SWL

(12) WELL LOG:

Ground Elevation _____

Material	From	To	SWL
Basalt Gray - Shale Green	2605	2611	
Basalt Black shale Green Quartz	2611		
GPM 25 TEMP 91.5		2618	
Basalt Gray + shale Green Quartz	2618	2627	
Basalt Black + Gray - Red Liner	2627		
shale Green		2629	
Shale Black + Green HARD	2629	2635	
Basalt Gray + Shale Green	2635	2639	
Basalt Gray - Shale Green Red	2639	2646	
Basalt Gray VES. Quartz White	2646	2648	
Shale Green - Liner Red + Black	2648	2650	
Liner Red - Black - Gray Green	2650	2653	
Basalt Black - Shale Green Red	2653	2661	
Liner Red + Black - Shale Green	2661	2665	
Basalt Black - Clay Gray	2665		
Shale Green Brown Red		2667	
Basalt Gray - Clay Gray shale	2667		
Green		2671	
Basalt Green Clay Gray Shale Green	2671	2675	
Basalt Green + Clay Gray	2675	2677	

Date started _____ Completed _____

(unbonded) Water Well Constructor Certification:

I certify that the work I performed on the construction, alteration, or abandonment of this well is in compliance with Oregon water supply well construction standards. Materials used and information reported above are true to the best of my knowledge and belief.

Signed _____ WWC Number _____
Date _____

(bonded) Water Well Constructor Certification:

I accept responsibility for the construction, alteration, or abandonment work performed on this well during the construction dates reported above. All work performed during this time is in compliance with Oregon water supply well construction standards. This report is true to the best of my knowledge and belief.

Signed Wally Jones WWC Number 1599
Date _____

RECEIVED

9 of 112

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

UN10 50687

APR 13 2000

WELL I.D. # L 40698 START CARD # W73877

WATER RESOURCES DEPT. SALEM, OREGON

Instructions for completing this report are on the last page of this form.

(1) OWNER: Well Number Name Address City State Zip

(2) TYPE OF WORK: New Well, Deepening, Alteration, Abandonment

(3) DRILL METHOD: Rotary Air, Rotary Mud, Cable, Auger, Other

(4) PROPOSED USE: Domestic, Community, Industrial, Irrigation, Thermal, Injection, Livestock, Other

(5) BORE HOLE CONSTRUCTION: Special Construction approval, Depth of Completed Well, Explosives used

HOLE SEAL table with columns for Diameter, From, To, Material, Sacks or pounds

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

Backfill placed from ft. to ft. Material Gravel placed from ft. to ft. Size of gravel

(6) CASING/LINER: table with columns for Diameter, From, To, Gauge, Steel, Plastic, Welded, Threaded

Final location of shoe(s)

(7) PERFORATIONS/SCREENS: table with columns for From, To, Slot size, Number, Diameter, Material, Casing, Liner

(8) WELL TESTS: Minimum testing time is 1 hour. Pump, Bailer, Air, Flowing Artesian. Yield gal/min, Drawdown, Drill stem at, Time

Temperature of water, Depth Artesian Flow Found, Was a water analysis done?, Did any strata contain water not suitable for intended use?, Depth of strata

(9) LOCATION OF WELL by legal description: County, Latitude, Longitude, Township, N or S Range, E or W. WM., Section, 1/4, 1/4, Tax Lot, Lot, Block, Subdivision, Street Address of Well

(10) STATIC WATER LEVEL: ft. below land surface, Date, Artesian pressure, lb. per square inch, Date

(11) WATER BEARING ZONES: table with columns for From, To, Estimated Flow Rate, SWL

(12) WELL LOG: Ground Elevation

WELL LOG table with columns for Material, From, To, SWL. Includes entries like Basalt Black Loose, Basalt Black, Basalt Black-shale, Basalt Black-Cinder Red, Basalt Gray shale, Quartz, Basalt Black-Gray shale, Basalt Gray-shale, Basalt Black-Quartz, Basalt Black-Quartz SOFT, Basalt Black Clay Gray, Cinder Red, Basalt Gray-Clay Gray, Basalt Gray-Black Clay, Gray-Cinder Red, Basalt Gray-Clay Gray-shale

Date started, Completed

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

Signed, Date, WWC Number

(bonded) Water Well Constructor Certification: I accept responsibility for the construction, alteration, or abandonment work performed on this well during the construction dates reported above.

Signed, Date, WWC Number

RECEIVED

10 or 12

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

UNID. 50687

APR 13 2000

40698

(START CARD) # W73877

Instructions for completing this report are on the last page of this form.

WATER RESOURCES DEPT. SALEM, OREGON

(1) OWNER:

Well Number _____

Name _____ Address _____ City _____ State _____ Zip _____

(2) TYPE OF WORK

New Well Deepening Alteration (repair/recondition) Abandonment

(3) DRILL METHOD:

Rotary Air Rotary Mud Cable Auger Other

(4) PROPOSED USE:

Domestic Community Industrial Irrigation Thermal Injection Livestock Other

(5) BORE HOLE CONSTRUCTION:

Special Construction approval Yes No Depth of Completed Well _____ ft. Explosives used Yes No Type _____ Amount _____

Table with columns: HOLE Diameter, From, To, SEAL Material, From, To, Sacks or pounds

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

Backfill placed from _____ ft. to _____ ft. Material _____ Gravel placed from _____ ft. to _____ ft. Size of gravel _____

(6) CASING/LINER:

Table with columns: Diameter, From, To, Gauge, Steel, Plastic, Welded, Threaded for Casing and Liner

Final location of shoe(s) _____

(7) PERFORATIONS/SCREENS:

Table with columns: From, To, Slot size, Number, Diameter, Material, Tele/pipe size, Casing, Liner

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

Table with columns: Pump, Bailer, Air, Artesian, Yield gal/min, Drawdown, Drill stem at, Time

Temperature of water _____ Depth Artesian Flow Found _____ Was a water analysis done? Yes By whom _____ Did any strata contain water not suitable for intended use? Too little Salty Muddy Odor Colored Other _____ Depth of strata: _____

LOCATION OF WELL by legal description:

County _____ Latitude _____ Longitude _____ Township _____ N or S Range _____ E or W. WM. Section _____ 1/4 _____ 1/4 Tax Lot _____ Lot _____ Block _____ Subdivision _____ Street Address of Well (or nearest address) _____

(10) STATIC WATER LEVEL:

_____ ft. below land surface. Date _____ Artesian pressure _____ lb. per square inch. Date _____

(11) WATER BEARING ZONES:

Depth at which water was first found _____

Table with columns: From, To, Estimated Flow Rate, SWL

(12) WELL LOG:

Ground Elevation _____

Table with columns: Material, From, To, SWL. Contains handwritten log entries such as Basalt Black-shale Green, Basalt Gray with Brown Turb, etc.

Date started _____ Completed _____

(unbonded) Water Well Constructor Certification:

I certify that the work I performed on the construction, alteration, or abandonment of this well is in compliance with Oregon water supply well construction standards. Materials used and information reported above are true to the best of my knowledge and belief.

Signed _____ WWC Number _____ Date _____

(bonded) Water Well Constructor Certification:

I accept responsibility for the construction, alteration, or abandonment work performed on this well during the construction dates reported above. All work performed during this time is in compliance with Oregon water supply well construction standards. This report is true to the best of my knowledge and belief.

Signed Walter Lane WWC Number 1599 Date _____

RECEIVED

11 of #12
410698

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

UNID
50687

APR 13 2000

(START CARD) # W73877

Instructions for completing this report are on the last page of this WATER RESOURCES DEPT. SALEM, OREGON

(1) OWNER: Well Number _____
Name _____
Address _____
City _____ State _____ Zip _____

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

(3) DRILL METHOD:
 Rotary Air Rotary Mud Cable Auger
 Other _____

(4) PROPOSED USE:
 Domestic Community Industrial Irrigation
 Thermal Injection Livestock Other _____

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

HOLE SEAL

Diameter	From	To	Material	From	To	Sacks or pounds

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

Backfill placed from _____ ft. to _____ ft. Material _____
Gravel placed from _____ ft. to _____ ft. Size of gravel _____

(6) CASING/LINER:

Diameter	From	To	Gauge	Steel	Plastic	Welded	Threaded
Casing:				<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
				<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
				<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Liner:				<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
				<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Final location of shoe(s) _____

(7) PERFORATIONS/SCREENS:

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

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

<input type="checkbox"/> Pump	<input type="checkbox"/> Bailer	<input type="checkbox"/> Air	<input type="checkbox"/> Flowing Artesian
Yield gal/min	Drawdown	Drill stem at	Time
			1 hr.

Temperature of water _____ Depth Artesian Flow Found _____
Was a water analysis done? Yes By whom _____
Did any strata contain water not suitable for intended use? Too little
 Salty Muddy Odor Colored Other _____
Depth of strata: _____

(9) LOCATION OF WELL by legal description:
County _____ Latitude _____ Longitude _____
Township _____ N or S Range _____ E or W. WM. _____
Section _____ 1/4 _____ 1/4 _____
Tax Lot _____ Lot _____ Block _____ Subdivision _____
Street Address of Well (or nearest address) _____

(10) STATIC WATER LEVEL:
_____ ft. below land surface. Date _____
Artesian pressure _____ lb. per square inch. Date _____

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

From	To	Estimated Flow Rate	SWL

(12) WELL LOG:
Ground Elevation _____

Material	From	To	SWL
Basalt Black - shale	2923	2925	
Cinder Black Brown Red shale	2925	2927	
Basalt Black - shale green	2927		
Cinder Black SOFT		2928	
Basalt Black VES. Quartz White	2928	2942	
Basalt Gray Quartz White Clay Gray	2942	2954	
Basalt Black shale green Quartz	2954	2957	
Basalt Gray Clay Gray	2957	2969	
Basalt Black Quartz White	2969	2975	
Cinder Brown Black - Quartz	2975	2977	
Basalt Black + Cinder	2977	2979	
Basalt Gray + Quartz	2979	3004	
Basalt Gray with Brown coat HARD	3004	3020	
Basalt Gray Green Clay Gray	3020	3031	
Basalt Black VES. Cinder	3031		
Red + Brown + shale green HARD		3033	
Cinder red + Brown shale green SOFT	3033	3036	
Black shale	3036	3037	
Clay Black SOFT	3037	3038	

Date started _____ Completed _____
(unbonded) Water Well Constructor Certification:

I certify that the work I performed on the construction, alteration, or abandonment of this well is in compliance with Oregon water supply well construction standards. Materials used and information reported above are true to the best of my knowledge and belief.

WWC Number _____
Signed _____ Date _____

(bonded) Water Well Constructor Certification:

I accept responsibility for the construction, alteration, or abandonment work performed on this well during the construction dates reported above. All work performed during this time is in compliance with Oregon water supply well construction standards. This report is true to the best of my knowledge and belief.

WWC Number 1399
Signed *Wally Jones* Date _____

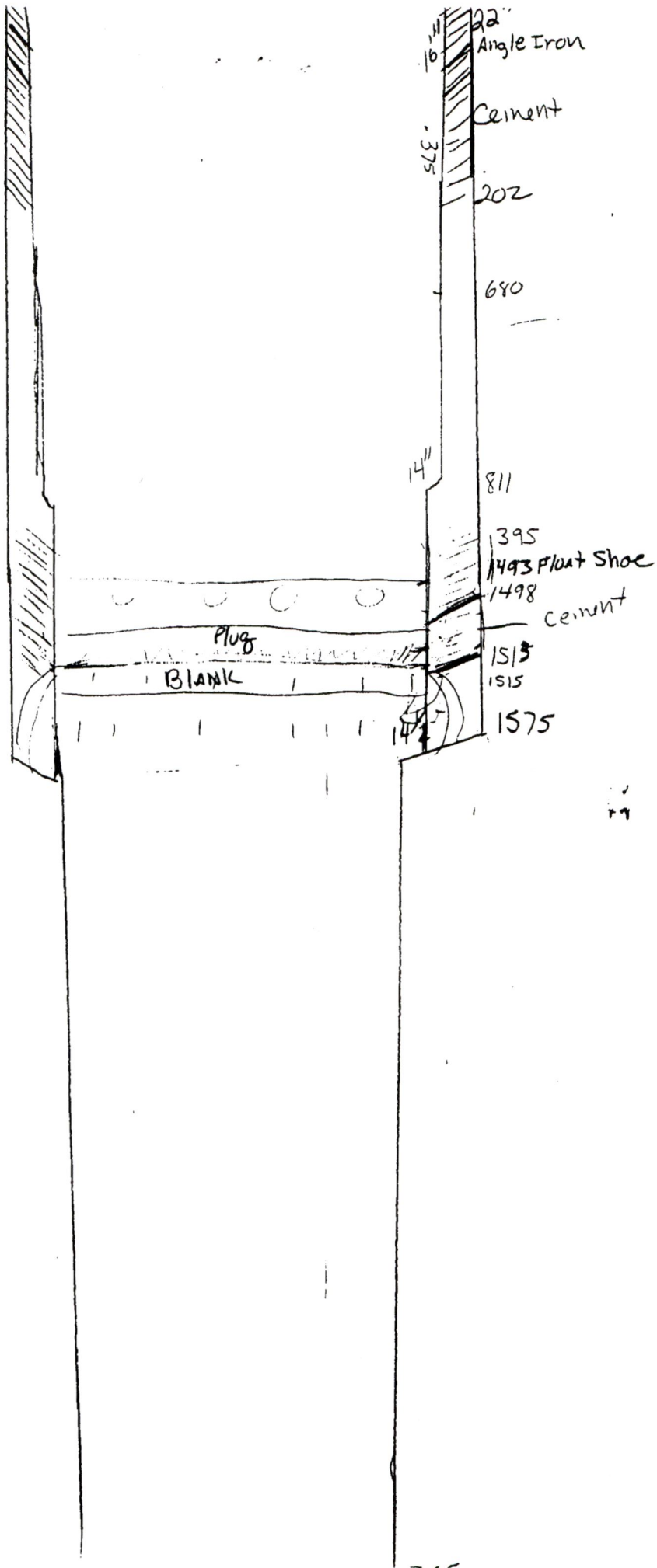
3877

slint Shaw Rcd

RECEIVED

APR 13 2000

WATER RESOURCES DEPT.
SALEM, OREGON



PUBLIC INTEREST REVIEW FOR GROUNDWATER APPLICATIONS

TO: Water Rights Section Date 05/30/2018
 FROM: Groundwater Section Phillip I. Marcy
 Reviewer's Name
 SUBJECT: Application G- 18560 Supersedes review of _____
 Date of Review(s)

PUBLIC INTEREST PRESUMPTION; GROUNDWATER

OAR 690-310-130 (1) *The Department shall presume that a proposed groundwater use will ensure the preservation of the public welfare, safety and health as described in ORS 537.525. Department staff review groundwater applications under OAR 690-310-140 to determine whether the presumption is established. OAR 690-310-140 allows the proposed use be modified or conditioned to meet the presumption criteria. This review is based upon available information and agency policies in place at the time of evaluation.*

A. GENERAL INFORMATION: Applicant's Name: Mauri and Cresta Delint County: Union

A1. Applicant(s) seek(s) 1.95 cfs from 1 well(s) in the Grande Ronde Basin,
 _____ subbasin

A2. Proposed use Irrigation (156 acres) Seasonality: March 1st – October 31st

A3. Well and aquifer data (**attach and number logs for existing wells; mark proposed wells as such under logid**):

Well	Logid	Applicant's Well #	Proposed Aquifer*	Proposed Rate(cfs)	Location (T/R-S QQ-Q)	Location, metes and bounds, e.g. 2250' N, 1200' E fr NW cor S 36
1	UNIO 50687	1	Basalt	1.95	2S/39E-8 SE-NW	1650'S, 1380'E fr NW cor S 8
2						
3						
4						
5						

* Alluvium, CRB, Bedrock

Well	Well Elev ft msl	First Water ft bls	SWL ft bls	SWL Date	Well Depth (ft)	Seal Interval (ft)	Casing Intervals (ft)	Liner Intervals (ft)	Perforations Or Screens (ft)	Well Yield (gpm)	Draw Down (ft)	Test Type
1	2738	1540	-53.13	03/23/2016	3065	0-202 1395-1513	0-1515	NA	1515-1575	1000	100	Unk.

Use data from application for proposed wells.

A4. **Comments:** First water reported is below seal depth, with numerous water-bearing zones reported in basalt flow sequence.

A5. **Provisions of the** Grande Ronde Basin rules relative to the development, classification and/or management of groundwater hydraulically connected to surface water **are,** or **are not,** activated by this application. (Not all basin rules contain such provisions.)

Comments: _____

A6. **Well(s) #** _____, _____, _____, _____, _____, tap(s) an aquifer limited by an administrative restriction. Name of administrative area: _____

Comments: _____

B. GROUNDWATER AVAILABILITY CONSIDERATIONS, OAR 690-310-130, 400-010, 410-0070

B1. **Based upon available data**, I have determined that groundwater* for the proposed use:

- a. is over appropriated, is not over appropriated, or cannot be determined to be over appropriated during any period of the proposed use. * This finding is limited to the groundwater portion of the over-appropriation determination as prescribed in OAR 690-310-130;
- b. will not or will likely be available in the amounts requested without injury to prior water rights. * This finding is limited to the groundwater portion of the injury determination as prescribed in OAR 690-310-130;
- c. will not or will likely to be available within the capacity of the groundwater resource; or
- d. will, if properly conditioned, avoid injury to existing groundwater rights or to the groundwater resource:
 - i. The permit should contain condition #(s) _____;
 - ii. The permit should be conditioned as indicated in item 2 below.
 - iii. The permit should contain special condition(s) as indicated in item 3 below;

- B2. a. **Condition** to allow groundwater production from no deeper than _____ ft. below land surface;
- b. **Condition** to allow groundwater production from no shallower than _____ ft. below land surface;
- c. **Condition** to allow groundwater production only from the _____ groundwater reservoir between approximately _____ ft. and _____ ft. below land surface;
- d. **Well reconstruction** is necessary to accomplish one or more of the above conditions. The problems that are likely to occur with this use and without reconstructing are cited below. Without reconstruction, I recommend withholding issuance of the permit until evidence of well reconstruction is filed with the Department and approved by the Groundwater Section.

Describe injury –as related to water availability– that is likely to occur without well reconstruction (interference w/ senior water rights, not within the capacity of the resource, etc): _____

B3. **Groundwater availability remarks:** The proposed POA well is already measured under permit G-17361 to satisfy condition 7N. Groundwater elevations appear stable (see attached hydrograph), with few appropriations from this depth within the CRBG in the area of the proposed use.

The nearest well producing from similar depths within the CRBG that has a long-term record is about five miles NW of the proposed POA well.

C. GROUNDWATER/SURFACE WATER CONSIDERATIONS, OAR 690-09-040

C1. **690-09-040 (1):** Evaluation of aquifer confinement:

Well	Aquifer or Proposed Aquifer	Confined	Unconfined
1	Basalt of the Columbia River Basalt Group	<input checked="" type="checkbox"/>	<input type="checkbox"/>
		<input type="checkbox"/>	<input type="checkbox"/>
		<input type="checkbox"/>	<input type="checkbox"/>
		<input type="checkbox"/>	<input type="checkbox"/>
		<input type="checkbox"/>	<input type="checkbox"/>

Basis for aquifer confinement evaluation: Aquifers within the CRBG typically occur in interflow zones between solid, low permeability flow interiors of lava flows. This geometry provides a high degree of confinement, often producing artesian flowing pressures from deep-seated water-bearing zones, as is the case with the POA well.

C2. **690-09-040 (2) (3):** Evaluation of distance to, and hydraulic connection with, surface water sources. All wells located a horizontal distance less than ¼ mile from a surface water source that produce water from an unconfined aquifer shall be assumed to be hydraulically connected to the surface water source. Include in this table any streams located beyond one mile that are evaluated for PSI.

Well	SW #	Surface Water Name	GW Elev ft msl	SW Elev ft msl	Distance (ft)	Hydraulically Connected?			Potential for Subst. Interfer. Assumed?	
						YES	NO	ASSUMED	YES	NO
1	1	Grande Ronde River	2790	2678	9400	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
						<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
						<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
						<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
						<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
						<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
						<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
						<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Basis for aquifer hydraulic connection evaluation: It is unknown to what extent, if any, that groundwater in deep Columbia River Basalt aquifer systems contributes to surface water flows.

Water Availability Basin the well(s) are located within: Grande Ronde Riv. > Snake Riv. Ab Willow Cr. (30810407).

C3a. **690-09-040 (4):** Evaluation of stream impacts for each well that has been determined or assumed to be **hydraulically connected and less than 1 mile** from a surface water source. Limit evaluation to instream rights and minimum stream flows that are pertinent to that surface water source, and not lower SW sources to which the stream under evaluation is tributary. Compare the requested rate against the 1% of 80% *natural* flow for the pertinent Water Availability Basin (WAB). If Q is not distributed by well, use full rate for each well. Any checked box indicates the well is assumed to have the potential to cause PSI.

Well	SW #	Well < ¼ mile?	Qw > 5 cfs?	Instream Water Right ID	Instream Water Right Q (cfs)	Qw > 1% ISWR?	80% Natural Flow (cfs)	Qw > 1% of 80% Natural Flow?	Interference @ 30 days (%)	Potential for Subst. Interfer. Assumed?
		<input type="checkbox"/>	<input type="checkbox"/>			<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>
		<input type="checkbox"/>	<input type="checkbox"/>			<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>
		<input type="checkbox"/>	<input type="checkbox"/>			<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>
		<input type="checkbox"/>	<input type="checkbox"/>			<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>
		<input type="checkbox"/>	<input type="checkbox"/>			<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>
		<input type="checkbox"/>	<input type="checkbox"/>			<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>

C3b. **690-09-040 (4):** Evaluation of stream impacts by total appropriation for all wells determined or assumed to be **hydraulically connected and less than 1 mile** from a surface water source. **Complete only if Q is distributed among wells.** Otherwise same evaluation and limitations apply as in C3a above.

SW #	Qw > 5 cfs?	Instream Water Right ID	Instream Water Right Q (cfs)	Qw > 1% ISWR?	80% Natural Flow (cfs)	Qw > 1% of 80% Natural Flow?	Interference @ 30 days (%)	Potential for Subst. Interfer. Assumed?
	<input type="checkbox"/>			<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>
	<input type="checkbox"/>			<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>
	<input type="checkbox"/>			<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>
	<input type="checkbox"/>			<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>

Comments: This section does not apply.

C4a. **690-09-040 (5):** Estimated impacts on **hydraulically connected surface water sources greater than one mile** as a percentage of the proposed pumping rate. Limit evaluation to the effects that will occur up to one year after pumping begins. This table encompasses the considerations required by 09-040 (5)(a), (b), (c) and (d), which are not included on this form. Use additional sheets if calculated flows from more than one WAB are required.

Non-Distributed Wells													
Well	SW#	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
		%	%	%	%	%	%	%	%	%	%	%	%
Well Q as CFS													
Interference CFS													
Distributed Wells													
Well	SW#	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
		%	%	%	%	%	%	%	%	%	%	%	%
Well Q as CFS													
Interference CFS													
		%	%	%	%	%	%	%	%	%	%	%	%
Well Q as CFS													
Interference CFS													
		%	%	%	%	%	%	%	%	%	%	%	%
Well Q as CFS													
Interference CFS													
		%	%	%	%	%	%	%	%	%	%	%	%
Well Q as CFS													
Interference CFS													
(A) = Total Interf.													
(B) = 80 % Nat. Q													
(C) = 1 % Nat. Q													
(D) = (A) > (C)		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
(E) = (A / B) x 100		%	%	%	%	%	%	%	%	%	%	%	%

D. WELL CONSTRUCTION, OAR 690-200

D1. Well #: _____ Logid: _____

D2. **THE WELL does not appear to meet current well construction standards based upon:**

- a. review of the well log;
- b. field inspection by _____;
- c. report of CWRE _____;
- d. other: (specify) _____

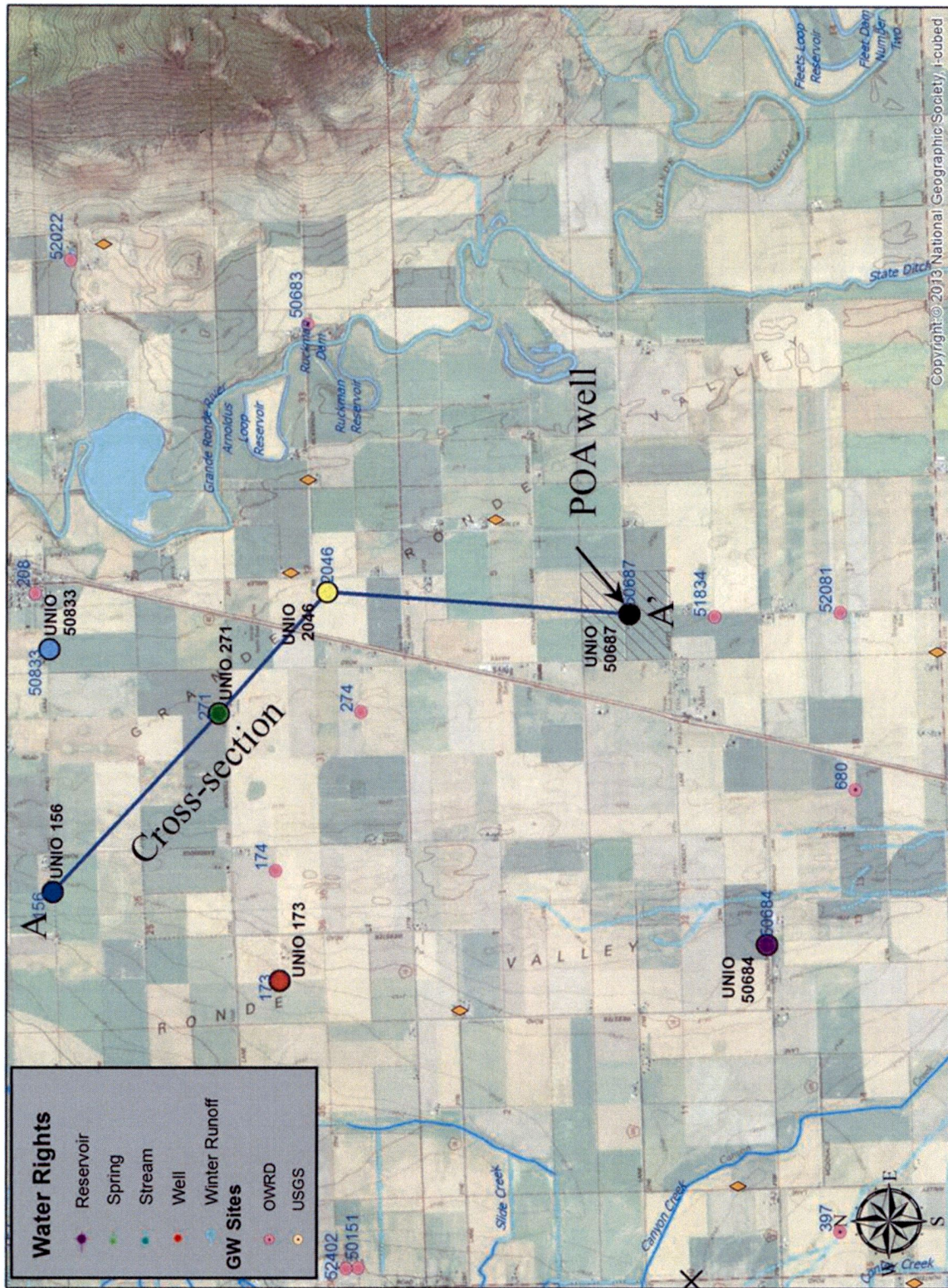
D3. **THE WELL construction deficiency or other comment is described as follows:** _____

D4. **Route to the Well Construction and Compliance Section for a review of existing well construction.**

Water Availability Tables

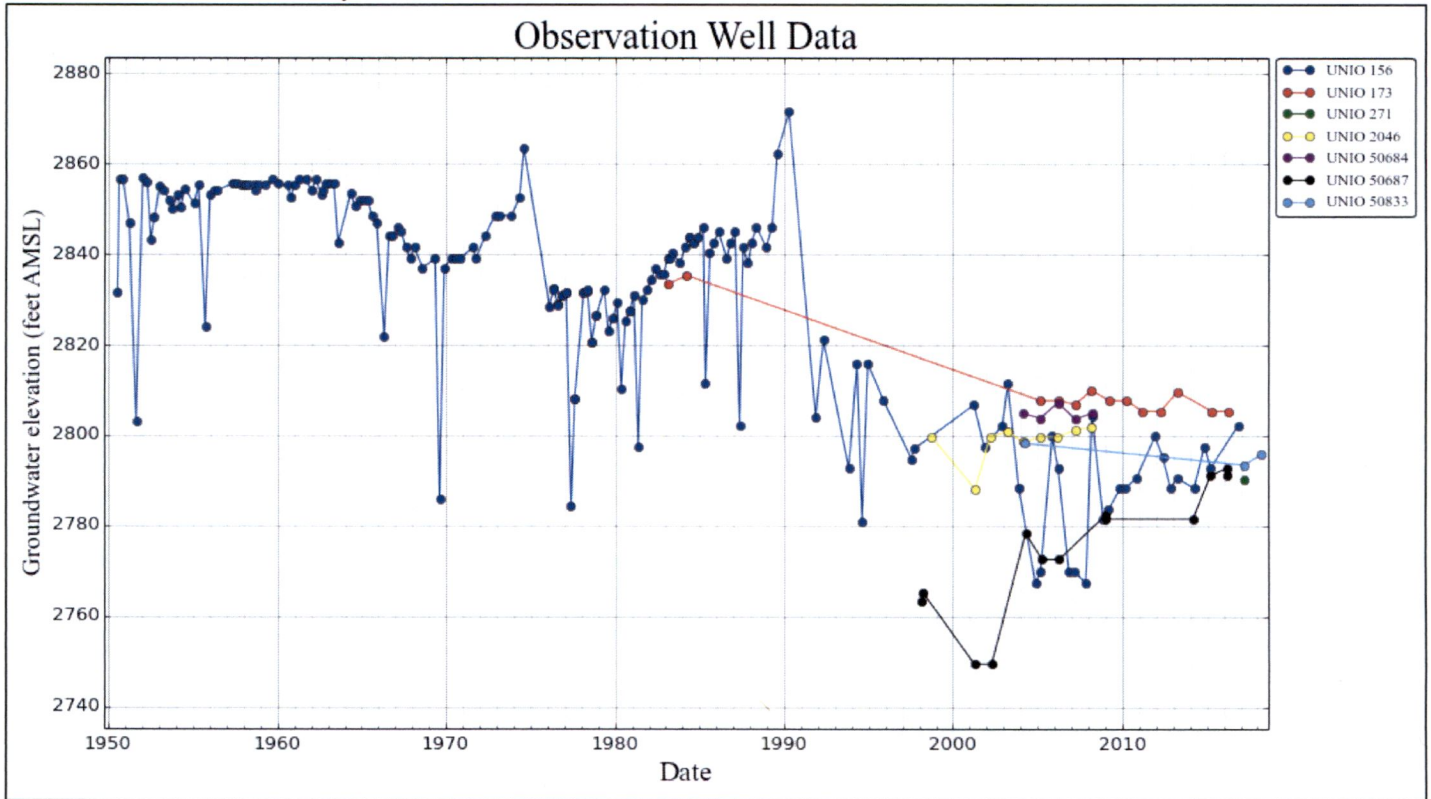
DETAILED REPORT ON THE WATER AVAILABILITY CALCULATION						
Watershed ID #: 30810407 Time: 3:40 PM		GRANDE RONDE R > SNAKE R - AB WILLOW CR Basin: GRANDE RONDE			Exceedance Level: 80 Date: 05/30/2018	
Month	Natural Stream Flow	Consumptive Use and Storage	Expected Stream Flow	Reserved Stream Flow	Instream Requirements	Net water Available
Monthly values are in cfs. Storage is the annual amount at 50% exceedance in ac-ft.						
JAN	138.00	17.80	120.00	23.70	0.00	96.60
FEB	246.00	21.80	224.00	62.30	0.00	162.00
MAR	431.00	23.50	407.00	118.00	0.00	290.00
APR	966.00	148.00	818.00	131.00	0.00	687.00
MAY	1,100.00	332.00	768.00	187.00	0.00	581.00
JUN	530.00	293.00	237.00	58.40	0.00	179.00
JUL	257.00	138.00	119.00	0.00	0.00	119.00
AUG	185.00	90.20	94.80	0.00	0.00	94.80
SEP	127.00	63.60	63.40	0.00	0.00	63.40
OCT	85.60	23.30	62.30	1.55	0.00	60.70
NOV	93.10	15.10	78.00	0.00	0.00	78.00
DEC	111.00	16.80	94.20	13.00	0.00	81.20
ANN	429,000	71,600	358,000	35,900	0	322,000

Well Location Map

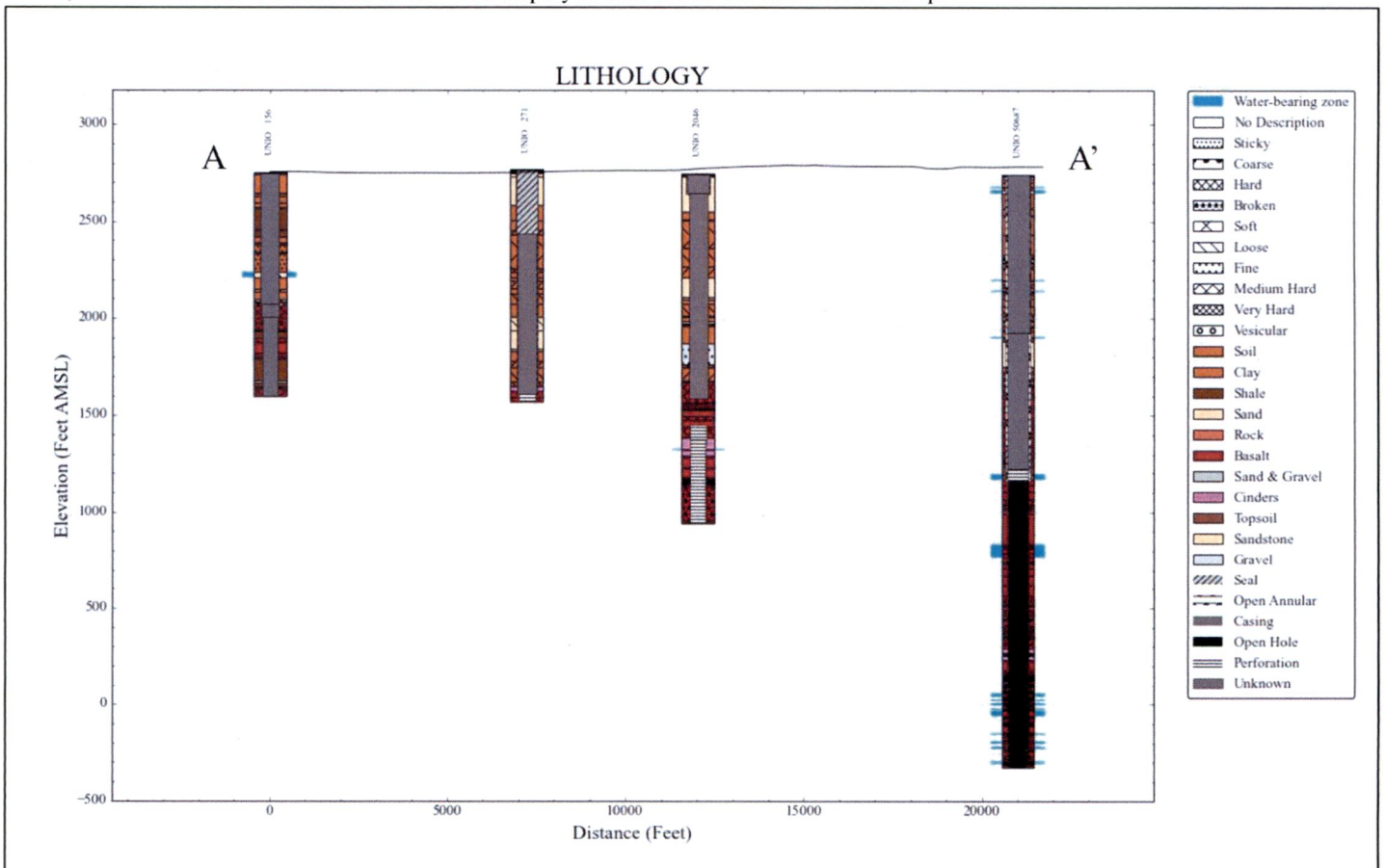


Copyright © 2013 National Geographic Society, I-cubed

Water-Level Trends in Nearby Wells



Water level records for wells producing from basalt in the surrounding area show similar head elevations. The POA well, UNIO 50687, is shown in black. Locations of all wells displayed here are noted on the above map.



The POA well, UNIO 50687, is open to CRBG and deeper portions of the Powder River Volcanics.