TO:	Water Rights Section	Oct 9 199_
FROM:	Groundwater/Hydrology Section TVAN GALL Reviewer's	Name
SUBJECT:	Application G15192	Ivanie
1. PER	OWATER/SURFACE WATER CONSIDERATIONS  THE Basin rules, one or more of the proposed feet/mile of a surface water source (	
a b	ED UPON 0AR 690-09 currently in effect, I have determined that will, or have the potential for substantial interference will mot surface water source, namely	th the nearest  or er from interference:  ated in "Remarks" below; below; or
3. BASE a .b	WATER AVAILABILITY CONSIDERATIONS  ED UPON available data, I have determined that groundwater for will, or likely be available in the amounts requested with will not and/or within the capacity of the resource; or will if properly conditioned, avoid injury to existing rights or to iThe permit should contain condition #(s)	o the groundwater resource:  cated in "Remarks" below;
b c d	THE PERMIT should allow groundwater production from no below land surface;  The permit should allow groundwater production from no selow land surface;  The permit should allow groundwater production only from groundwater reservoir between approximatelyft. andft. andft. andft. one or more POA's commingle 2 or more sources of water. The source of water per POA and specify the proportion of water to source.	hallower thanft.  m theft. below land surface; the above conditions. he applicant must select one
REMARK	(S: SEE ATTACHED PROPOSED CONDITION	Y MEMO"
-	(Well Construction Considerations on Reverse S	ide)

WELL CONSTRUCTION (If more than one well doesn't meet standards, attach an additional sheet.) THE WELL which is the point of appropriation for this application does not meet current well 5. construction standards based upon: a.\_\_\_review of the well log; b.\_\_\_\_field inspection by \_\_\_\_\_ c.\_\_\_report of CWRE \_\_\_\_\_\_; d.\_\_\_other: (specify) \_\_\_\_\_ THE WELL construction deficiency: 6. a.\_\_\_constitutes a health threat under Division 200 rules; b.\_\_\_commingles water from more than one groundwater reservoir; c.\_\_\_\_permits the loss of artesian head; d.\_\_\_permits the de-watering of one or more groundwater reservoirs; e.\_\_\_other: (specify) \_\_\_\_ THE WELL construction deficiency is described as follows: 7. constructed according to the standards in effect at the time of a.\_\_\_was, or b.\_\_\_was not original construction or most recent modification. THE WELL 8. c.\_\_\_I don't know if it met standards at the time of construction. RECOMMENDATION: A.\_\_\_I recommend including the following condition in the permit: "No water may be appropriated under terms of this permit until the well(s) has been repaired to conform to current well construction standards and proof of such repair is filed with the Enforcement Section of the Water Resources Department." B.\_\_\_I recommend withholding issuance of the permit until evidence of well reconstruction is filed with the Enforcement Section of the Water Resources Department. C.\_\_\_REFER this review to Enforcement Section for concurrence. THIS SECTION TO BE COMPLETED BY ENFORCEMENT PERSONNEL I concur in G/H's recommendation A or B above relating to conditioning or withholding the permit (Signature) I do not concur in G/H's recommendation A or B above relating to conditioning or withholding the permit for the following reasons:\_\_\_

(Signature)

Water Resources Department

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TO	)	Ap	plica	tion	G	1519	2						
FR	MO.	GW	::	) our	Woo	DCOc	K						
នប	вјес			•				nce l	Evalu	tion			
	Yes No	Th	e sourc	e of ap	propria	ition is	within	or abov	re a Sco	enic Wa	aterway	<b>.</b>	
	]Yes ]No	Us	e the S	cenic \	Waterw	ay con	dition (	Conditi	on 7J).				
PF	REPON	IDERA	NCE O	F EVID	ENCE	FINDIN	IG: (C	neck bo	x only i	f stater	nent is	true)	
<u></u>	1	pre wil ma	eponde I measi aintain t	rance of urably in the free	of evide reduce e-flowin	nce that the sur g chan	at the p face w acter o	to find propose ater flo f a scer sh and	ed use o ws nec nic wate	of grou essary erway i	nd wate to n	er	
	OW F		TION: (	To be	filled o	ut only	if <u>Pre</u>	ponder	ance o	of Evide	ence bo	ox is no	ot .
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ſ	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	

10/9/00

To:

File G-15192

From:

Doug Woodcock

# **Proposed Permit Conditions: Application G-15192**

1) Interference Condition 7B

2) Seven Year Minimum Decline Condition 7C

3) (New Language)

Each well on this permit shall be constructed to produce water from a single aquifer at the location specified above on the permit or certificate. The source of water shall not be changed by any subsequent reconstruction, deepening, or replacement of the well and shall be limited as follows:

Well#	Well Log ID	Aquifer	Other Limits
Well 1	JOSE 1978	granitic aquifer	no water less than 127 ft below land surface
Well 2	JOSE 1979/12820	granitic aquifer	no water less than 115 ft below land surface

# Water Right Conditions Tracking Slip

FILE ## <u> </u>
RANGE-SECTION: 385/5W-11
CONDITIONS ATTACHED? [Tyes [] no
CONDITIONS ATTACHED? [Tyes [] no
REMARKS OR FURTHER INSTRUCTIONS:

#### WATER RESOURCES DEPARTMENT MEMORANDUM

Date:

October 5, 2000

To:

Groundwater/Hydrology

From:

Ivan Gall – Grants Pass

Subject:

GW Application *G-15192* 

Applicant:

Robert and Susan Smallwood

Seek:

100 gpm for 18.4 acres; asking for 48 acre-feet

From:

2 drilled wells, Williams Creek/Applegate River Sub-Basin, Rogue Basin

Proposed Use:

Irrigation (Pasture grass during April-October)

Quad Name: Murphy

Well #1

(JOSE 1978) 38S/05W-11bd (SE of the NW) Josephine County

Well elevation at site is ~ 1,390 ft (NGVD 1929) Williams Creek elevation is ~ 1,200 ft (NGVD 1929)

Well is ~4,000 ft West from Williams Creek

Well is ~400 ft South from unnamed, seasonal tributary to Williams Creek Well is ~700 ft North from unnamed, seasonal tributary to Williams Creek

Well is 170 ft deep with WBZ from 135 to 160 ft bgs

SWLs: 20 ft (5/74 well log)

Well #2

(JOSE 1979, 12820) 38S/05W-11bd (SE of the NW) Josephine County

Well elevation at site is ~ 1,405 ft (NGVD 1929)

Well is ~4,400 ft West from Williams Creek

Well is ~700 ft S from unnamed, seasonal tributary to Williams Creek Well is ~300 ft N from unnamed, seasonal tributary to Williams Creek Well is 164 ft deep (cleaned/drilled to 177 ft) w\ WBZs from 130-164 ft bgs

SWLs: 16 ft (7/72 well log); 45 ft (7/87 well log)

## **Evaluation Summary**

The subject property is located at 13615 Watergap Road, west of Williams Creek between Pennington and Camp Meeting Creeks. The proposed ground water use from wells #1 and #2 will be for irrigation of pasture grass(approximately 18.4 acres). Well #2 will be the primary well for irrigation, with well #1 making up any deficiency, and also for domestic use. The applicant is seeking a rate of 100 gallons per minute with a total duty of 48 acre-feet.

The bedrock geology in the area is composed of granitic rocks. Based on well locations and material on the well logs, it appears that the two subject wells are completed in the fractured granitic bedrock, with water bearing zones being at least 120 feet below ground surface (bgs). A variable thickness of "red clay" overlies the bedrock in the area. Based on the bedrock source of ground water, and the distances of approximately 4,300 plus feet to Williams Creek, it is unlikely that significant interference with surface water flows would occur from the proposed use of the two wells. Several drainages closer than Williams Creek contain surface water during the wet months, but based on the shallow nature and no-flows during irrigation season, were not considered for this review. However, it should be recognized that alluvium overlying the bedrock aquifer may be hydraulically connected such that ground water use in the bedrock aquifer could cause or increase downward leakage of ground water.

Ground water occurrence in the area appears to be very good, with all wells (except one) in section 11 having yields greater than 15 gpm. Most wells are less than 200 feet deep. GRID lists a total of 19 well logs for this section. No well deepenings are listed. These data suggest that the fractured bedrock has been a reliable source of ground water for the area.

Some long-term water level data from two state observation wells (#260, John Woods Well, and #261, Steve Miller Shop Well) exist for this area. Well #260 is located approximately 7,000 feet, and #261 is located approximately 4,000 feet, from the applicant's wells. Water level data collected at these wells, from approximately 1980 to present, indicate a seasonal fluctuation of approximately four to six feet, with no long-term water level declines evident.

# Aquifer Testing:

On October 3, 2000, OWRD staff Ivan Gall and Norm Daft assisted the Smallwoods in conducting an aquifer test on Well #2 (JOSE 1979/12820). Pumping began at 09:00 and continued until October 4 at 08:05 (approximately 23 hours of pumping). The test was conducted using a 5 HP submersible pump powered by a gas generator. Coleman's was responsible for installing the pump and providing the generator, flow meter, and discharge piping. Water level data was collected from the pumping well (#2), from the Smallwood domestic well (#1, JOSE 1978), and from a neighbor's irrigation well (Bauer observation well, no log available, ground water right). Well #1 is located approximately 390 feet NE of the pumping well, and the Bauer well is located approximately 755 feet east of the pumping well.

The average discharge rate for the test was 60.6 gallons per minute, averaged over the entire pumping period from a totaling flow meter (Rockwell International #35852145). Discharge water was piped approximately 80 feet from the well and spilled to the ground. Based on the clay content of the soil, and a 36 foot depth to water, the discharge water was not expected to infiltrate significantly back to the water table. The discharge rate was noted to decrease several times during the test for reasons

unknown, but likely having to do with the generator's power output. The generator was shut off for 2-3 minutes several times during the test for refueling, and this seemed to bring the discharge rate back to 61-62 gpm. Note the water level fluctuations on the pumping data plots (attached).

Prior to the pumping of well #2, the static level's of the wells were 43.13 feet (Bauer well), 22.47 feet (well #1), and 36.14 feet (well #2). No significant drawdown was observed at the Bauer well following 23 hours of pumping at well #2. One-tenth of one foot of drawdown may have occurred, but due to sparse measurements late in the test, direct correlation with pumping could not be made. Well #1, the Smallwood domestic well 390 feet NE of the pumping well, had approximately 4 feet of drawdown following 23 hours of pumping. The pumping well had approximately 71.4 feet of drawdown.

Following cessation of pumping, recovery water level data was collected from wells #1 and #2. Well use at well #1 interrupted recovery data collection at this well. Plots of recovery data for well #2 are also provided. Data indicate that the water level in well #2 was nearly fully recovered after 22.5 hours of recovery.

No data analysis to estimate aquifer properties of transmissivity or storage have been completed at this time. No evidence of boundary conditions was observed in the pumping, recovery, and observation well water level data.

#### Recommendation:

The bedrock aquifer appears to be capable of supporting the proposed ground water use for this application. The 23-hour pumping aquifer test for well #2, and subsequent monitoring of recovery, showed no indication of any boundary conditions. The relatively slow rate of drawdown with time at the end of the test suggests that the aquifer is capable of sustaining the proposed pumping rates of 40 gpm (well #1) and 60 gpm (well #2), assuming that well #1 performs similarly to well #2.

I recommend that the proposed ground water use be approved. The ground water use should be conditioned as follows:

- 1. Meters on both wells prior to use.
- 2. Static water levels shall be collected from each well during March of each year, and reported to the department, as long as water is used.
- 3. Well location condition

#### References:

- WRD GRID well log database.
- 2. USGS topographic map, Murphy, OR 1:24,000 sheet.
- Aquifer test data collected by OWRD and the applicant; pumping well #2.
- 4. Geohydrological Map, Josephine County, Oregon, by Paul Hughes, 1979.

#### NOTICE TO WATER WELL CONTRACTOR

The original and first copy of this report are to be filed with the

WATER WELL REPORT

STATE OF OREGON 1 1 1974

State Well No. 385/5W-L

Was a drive shoe used? Yes \( \sum \) No Plugs ....... Size: location ........ ft.

depth of strata

Size of gravel:

.. ft. to ..... ft.

Did any strata contain unusable water? 🔲 Yes 🕱 No

Type of water?

Method of sealing strata off

Gravel placed from .....

Was well gravel packed? 

Yes No

within 30 days from the date of well completion.	(Please type or pisiTATE ENGINEER  (Do not write above tisiAhDM, OREGON  WATE	State Permit No.
1) OWNER:	(10) LOCATION OF W	VELL:

-	
Name A.C. Wooden	County 1052 Phine Driller's well number
Address 13640 WaterGap Rd., Williams, or	e ¼ ¼ Section // T. 38-5 R.5W. W
	Bearing and distance from section or subdivision corner
(2) TYPE OF WORK (check):	
New Well 🛱 Deepening 🗆 Reconditioning 🖂 Abandon 🗆	TL-403
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 135
Rotary Driven Domestic Industrial Municipal Domestic	Static level 2 () ft. below land surface. Date 5-2
Cable	
oug   Bored       Hilgarion   Test wen   Outer	Artesian pressure lbs. per square inch. Date
CASING INSTALLED: Threaded   Welded	(12) WELL LOG: Diameter of well below casing
6 " Diam. from 0 ft. to 127 ft. Gage 250	Depth drilled /7/) ft. Depth of completed well /70
"Diam. from ft. to ft. Gage	
" Diam. from ft. to ft. Gage	Formation: Describe color, texture, grain size and structure of materi and show thickness and nature of each stratum and aquifer penetral
DEDECO ATTIONS.	with at least one entry for each change of formation. Report each change position of Static Water Level and indicate principal water-bearing str
PERFORATIONS: Perforated?  Yes No.	
Type of perforator used	MATERIAL From To SW.
Size of perforations in. by in.	Ded CIAY 020
perforations from ft. to ft.	Danne - 1 /2 1 /2 /2 /2 /2 /2 /2 /2 /2 /2 /2 /2 /2 /2
perforations from ft. to ft.	Decomposed GRAVITE 20 120
perforations from ft. to ft.	FRACTURED TEMBSTONE/20 170
(7) SCREENS: Well screen installed?   Yes   No	CRACTARE COMBSTANT TO 110
Manufacturer's Name	
TypeModel No	STRATA 135 160 2
Diam Slot size Set from ft. to ft.	750
Diam Slot size Set from ft. to ft.	
(A) THE F PROPERTY OF THE PROP	
(8) WELL TESTS: Drawdown is amount water level is lowered below static level	
Was a pump test made? XYes 🗆 No If yes, by whom?	
Yield: 25 gal./min. with 97 ft. drawdown after 1 hrs.	
" " "	
" " " "	
Bailer test gal./min. with ft. drawdown after hrs.	
Artesian flow g.p.m.	5-75 -74 5-70
perature of water / Depth artesian flow encountered ft.	Work started 5-25 1974 Completed 5-28 19
(9) CONSTRUCTION:	Date well drilling machine moved off of well 5-28 19
Well seal—Material usedCMENT	Drilling Machine Operator's Certification:
Well sealed from land surface to	This well was constructed under my direct supervisi
Diameter of well bore to bottom of seal	Materials used and information reported above are true to best knowledge and belief.
Diameter of well bore below seal	[Signed] (3. 5. 6) Lune Date 5-3/ 19
Number of sacks of cement used in well seal sacks	(Drilling Machine Operator)
Number of sacks of bentonite used in well seal sacks	Drilling Machine Operator's License No
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 repor

true to the best of my knowledge and belief.

Name A GUIN 17-1 // CB- (Person, firm or corporation)	
(Person, firm or corporation)	(Type or print)
Address 1840 Willow An, Gran	T5 1455,6
090 . 1.8	

(Water Well Contractor) 

# NOTICE TO WATER WELL CONTINCIPAL ENGINE WELL REPORT of this report are to be AUG4 - 19 WATER WELL REPORT filed with the STATE OF OREGON STATE ENGINEER, SALEM, OREGON OF THE ENGINE type or print) within 30 days from the date SALEM OF THE OREGON OF Well completion.



State Well No. 385/5W-/

State Permit No. ...

(1) OWNER:	(10) LOCATION OF WELL:	
Name A.C. Wooden	County Josephine Driller's well number	
Address 13640 Water gap Rd. Williams, ore	14 14 Section // T. 38-5 R. / N	/ w
13670 Water July 1103 11 11 11 11	Bearing and distance from section or subdivision corner	
(2) TYPE OF WORK (check):	Dearing and absolute around	
New Well ☑ Deepening ☐ Reconditioning ☐ Abandon ☐		-
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 130	17/21
Cable   Jetted   Domestic   Industrial   Industrial	Static level /6 ft. below land surface. I	
Dug Bored I Irrigation Test Well Other I	Artesian pressure lbs. per square inch. I	late
CASING INSTALLED: Threaded  Welded	(12) WELL LOG: Diameter of well below casi	na 10
6" Diam. from		ng(g
" Diam. from ft. to ft. Gage	7.0-7	164
ft. Gage	Formation: Describe color, texture, grain size and struct and show thickness and nature of each stratum and aq	
	with at least one entry for each change of formation. Repo position of Static Water Level and indicate principal water	rt each chang
PERFORATIONS: Perforated? Tyes No.		
Type of perforator used	MATERIAL From	To SW
Size of perforations in. by in.	C/Ay Brn - Roulders 0	47 -
perforations from ft. to ft.	Med	10 -
perforations from ft. to ft.	C/Ay Brn 47	62
perforations fromft. toft.	DOCOMPLEED Granite 62	110 -
(7) SCREENS: Well screen installed? ☐ Yes X No	Decomposed granite 62	170
Manufacturer's Name	FracTured TombsTone	
Type Model No	granile 110	164 16
Diam Slot size Set from ft. to ft.	9127110 110	10111
Diam Slot size Set from ft. to ft.		
(8) WELL TESTS. Drawdown is amount water level is		
(8) WELL TESTS: Drawdown is amount water level is lowered below static level	A Quifer 130	164
Was a pump test made?   ▼ Yes □ No_If yes, by whom? Dri//er		
Yield: 40 gal./min. with 9H ft. drawdown after / hrs.		
, , , , , , , , , , , , , , , , , , , ,		
" " " " " " " " " " " " " " " "		
Bailer test gal./min. with ft. drawdown after hrs.		
Artesian flow g.p.m.		
Aperature of water 449 Depth artesian flow encountered	Work started 17/29 19 72 Completed 7/	7/ 1
Deput discount for water 44 Deput discount for electricity	7/1	1!
(9) CONSTRUCTION:	Date well drilling machine moved off of well	
Well seal-Material used Cemen	Drilling Machine Operator's Certification:	
Well sealed from land surface to $38'$ ft,	This well was constructed under my direct Materials used and information reported above a	are true to
Diameter of well bore to bottom of seal	best knowledge and belief.	/
Diameter of well bore below seal		7/ <i>3</i> /, 19
Number of sacks of cement used in well seal6 sacks	(Drilling Machine Operator)	12
Number of sacks of bentonite used in well seal sacks	Drilling Machine Operator's License No	A 677
Brand name of bentonite	Water Well Contractor's Certification:	
Number of pounds of bentonite per 100 gallons	This well was drilled under my jurisdiction an	d this repo
of waterlbs./100 gals.	true to the best of my knowledge and belief.	
Was a drive shoe used? Xyes No Plugs Size: location ft.	Name K.F. Wa QUIN Drilling Co.	mo or mul-1
Did any strata contain unusable water?   Yes No	10112 Will Mary 1 C.	an 15
Type of water? depth of strata	Address 1740 WIII OU An GI	and the
Method of sealing strata off	[Signed] CL Quelificet	
Was well gravel packed?   Yes X No Size of gravel:	(Water Well Contractor)	,
Gravel placed from ft. to ft.	Contractor's License No. 5 + b Date	<u>/</u>

# STATE OF OREGON

# WATER WELL REPORT

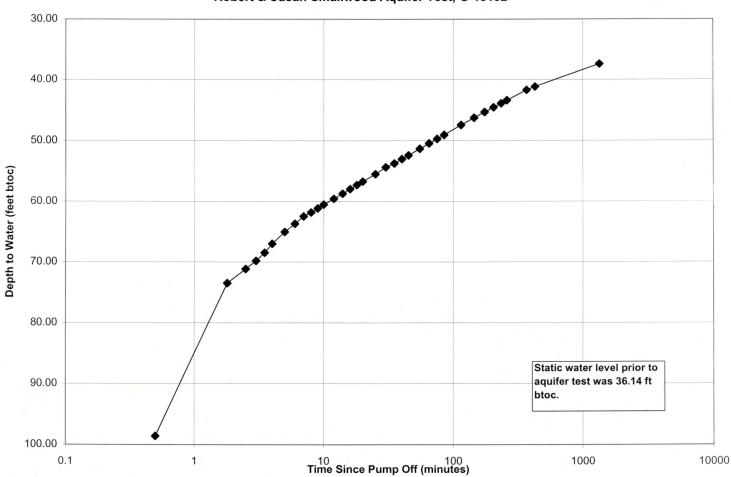
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WATER RESOURCES DEPT.

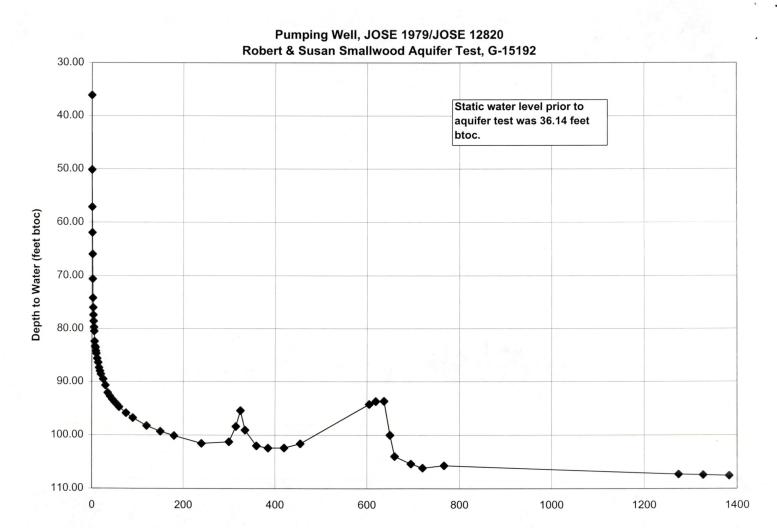
20/
385/5W-11
Reland.

(as required by ORS 537.765)	SALEM, OREGON	
(1) OWNER: Well Number: 830	(9) LOCATION OF WELL by legal description:	
Name Roger Pryce	County Josephic Latitude Longitude	
City Williams State On Zip G754	Township 385 Nors Pance 544 ForW WM	
	Section 4 4	
(2) TYPE OF WORK:	Tax Lot 403 Lot Block Subdivision	
New Well □ Deepen ☑ Recondition □ Abandon	Street Address of Well (or nearest address) 13615 Watesap	
(3) DRILL METHOD	_ William's On	
Rotary Air Rotary Mud Cable	(10) STATIC WATER LEVEL:	
Other	= 45 ft. below land surface. Date 7-3-87	
(4) PROPOSED USE:  Domestic	Artesian pressure lb. per square inch. Date	
Domestic ☐ Community ☐ Industrial ☐ Irrigation ☐ Thermal ☐ Injection ☐ Other	(11) WATER BEARING ZONES:	
(E' BORE HOLE CONSTRUCTION:	Depth at which water was first found	
S   Construction approval   Yes   No   Depth of Completed Well   177		
Yes No	_ it	
Explosives used		
HOLE SEAL Amount		
Diameter From To Material From To sacks or pour	ıds	
	(12) WELL LOG:	
	Ground elevation	
	Material From To SW	
How was seal placed: Method	No Reconps Avaiable	
Other Did Not Disturb	_	
Backfill placed fromft. toft. Material		
Gravel placed fromft. toft. Size of gravel		
(6) CASING/LINER:	Drilled out Rocks and	
Diameter From To Gauge Steel Plastic Welded Threa	ded work bridged at 28'	
Casing.	Clean hale to button	
	177 Test well 60	
	GPm	
Liner:		
Finel location of shoe(s) Did Not Distorb		
PERFORATIONS/SCREENS:		
Perforations Method		
Screens Type Material		
Slot Tele/pipe		
om To size Number Diameter size Casing Line	r	
	7-7 37 3 39	
	Date started 7-3-87 Completed 7-3-87	
(8) WELL TESTS: Minimum testing time is 1 hour	(unbonded) Water Well Constructor Certification:	
Flowing	I certify that the work I performed on the construction, alteration, abandonment of this well is in compliance with Oregon well construct	
☐ Pump ☐ Bailer ☑ Air ☐ Artesian  Yield gal/min ☐ Drawdown ☐ Drill stem at ☐ Time	standards. Materials used and information reported above are true to my b knowledge and belief.	
	WWC Number	
60 /75 1hr.	Signed Date	
Temperature of water 546 Depth Artesian Flow Found	(bonded) Water Well Constructor Certification:  I accept responsibility for the construction, alteration, or abandonments	
work performed on this well during the construction dates reported about		
	— work performed during this time is in compliance with Oregon w	
Did any strata contain water not suitable for intended use? ☐ Too little ☐ Salty ☐ Muddy ☐ Odor ☐ Colored ☐ Other	construction standards. This report is true to the best of my knowledge a belief.	
Depth of strata:	Signed O. F. Bushy t WWC Number 532 Date 7-5-87	
	Signed Date Date	

# Recovery Data - Pumping Well, JOSE 1979/JOSE 12820 Robert & Susan Smallwood Aquifer Test, G-15192

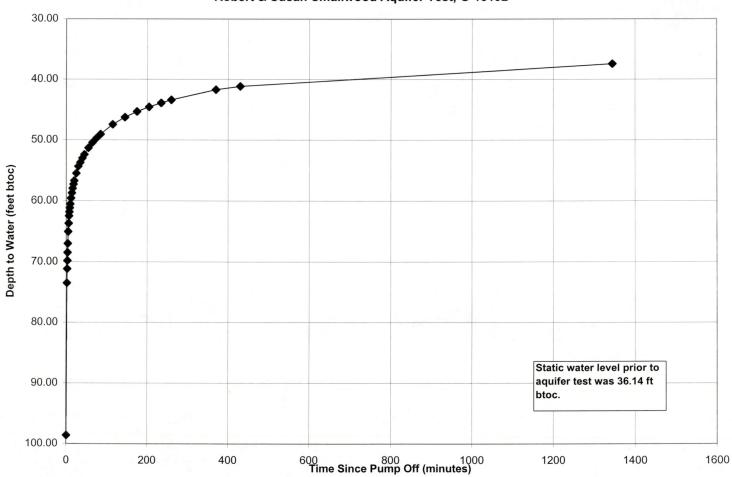


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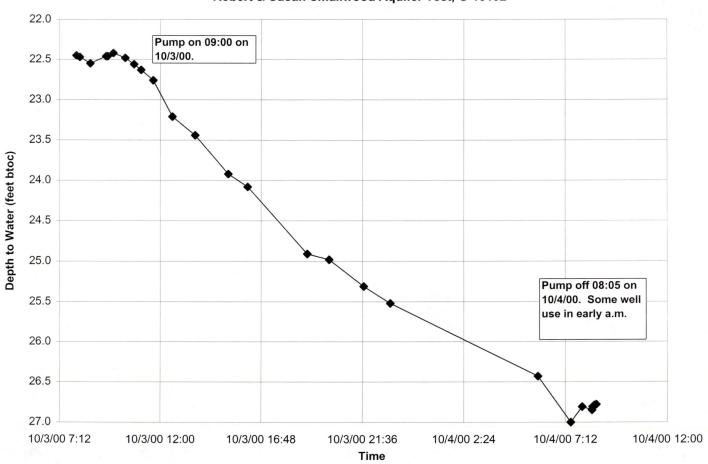
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# Recovery Data, Pumping Well, JOSE 1979/JOSE 12820 Robert & Susan Smallwood Aquifer Test, G-15192

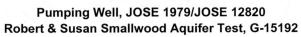


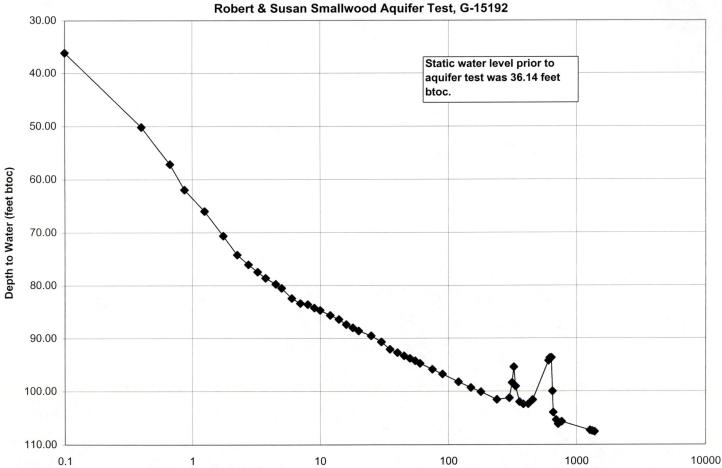
 $m:\label{limits} water\label{limits} with the constraints of the con$ 

## Smallwood Domestic Well - JOSE 1978 Robert & Susan Smallwood Aquifer Test, G-15192



 $m: \label{lem:linear_loss} water \label{linear_loss} water \label{li$ 





m:\groups\gwater\rogue\jose\aqtests\smallwood.xls