Westwood Well – DESC 5586

Bear Creek #2 Well - DESC 54251

Outback #3 Well – DESC 53735

Outback #4 Well – DESC 54252

DESC 55365

Outback #5 Well - DESC 56371

Outback #6 Well - DESC 56449

T 13941

Attachment A

RECEIVED

Well Logs for Authorized Points of Appropriation

AUG 05 2009

WATER RESOURCES DEPT SALEM, OREGON

| NOTICE TO WATER WELL CONTRACTOR | |
|--|---|
| of this report are to be WATER WEI | L REPORT |
| filed with the STATE OF | OBEGON : State Well No. 185 12E- 766 |
| STATE ENGINEER, SALEM, OREGON 97300 Within 30 days from the date (Please type | or print) |
| of well completion.\ (Do not write al | ove this fine . 17 1978 State Permit No. |
| | WER RECOURCES DETT. |
| (1) OWNER: | (10) LOGATION OF WELL: |
| Name M, R, S, CO. | County De 3Ch UT& 5 Driller's well number |
| Address BED OAK SQUARE- BEND, OCE | N W 11:00 7 10 |
| 97101 | A Section 7. 1. 5 R. / C VB W.M. |
| (2) TYPE OF WORK (check): | Bearing and distance from section or subdivision corner |
| New Well □ Deepening □ Reconditioning □ Abandon □ | |
| If abandonment, describe material and procedure in Item 12. | |
| | (11) WATER LEVEL: Completed well. |
| Botom: II Dutum II | Depth at which water was first found 506 ft. |
| Cable Deficient Domestic Industrial Municipal M | Static level 254 ft. below land surface. Date 3-4-18 |
| Dug Bored Irrigation Test Well Other | Artesian pressure lbs. per square inch. Date |
| CASING INSTALLED: Threaded Welded | |
| Diam from Z ft to 58 ft Gage 260 | (12) WELL LOG: Diameter of well below casing |
| " Diam. fromft. toft. Gage | Depth drilled 3// ft. Depth of completed well 3// ft. |
| " Diam. fromft. toft. Gage | Formation: Describe color, texture, grain size and structure of materials; |
| Diditi. Holli | 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. |
| Type of perforator used | MATERIAL From To SWL |
| Size of perforations in. by in. | REAMED 6" WELL OF TO EVEL |
| perforations from | 15"- IN STAKED 600F 10" CASSING |
| perforations fromft. toft. | SEALD SAME WIB 25ACK MIX |
| perforations fromft. toft. | SEMBUT GROOT, IL VALOS |
| | 3/10/ |
| (7) SCREENS: Well screen installed? The Yes No | REAMED FROM 58- TO 31/ WITH |
| Manufacturer's Name | TENINGS REAMER-COMPLETE |
| Type Model No | DEPTI 311 - WEALTEST |
| Diam ft. to ft. | PUMPEO 3195 AT 1097 GAC. |
| Diam. Slot size Set from ft to ft. | PEKNIN. |
| (8) WELL TESTS: Drawdown is amount water level is | |
| lowered below static level | |
| Was a pump test made? Wes No If yes, by whom? | <u> </u> |
| Yield: 1087 gal./min. with /3 st. drawdown after 3 hrs. | · · · · · · · · · · · · · · · · · · · |
| The second secon | |
| The second secon | |
| Bailer test gal./min. with ft, drawdown after hrs. | |
| Artesian flow g.p.m. | |
| operature of water f / Bepth artesian flow encountered ft. | Work started /2 - 2/ 197 7 Completed 3 - 25 19 29 |
| | Date well drilling machine moved off of well 3 - 27 19 18 |
| (9) CONSTRUCTION: | |
| Well seal-Material used CEMENT GROOT | Drilling Machine Operator's Certification: This well was constructed under my direct supervision. |
| Well sealed from land surface toft_ | Materials used and information reported above are true to my |
| Diameter of well bore to bottom of seal | best knowledge and belief |
| Diameter of well bore below seal in | [Signed] Willing Machine Operator) Date 3-27, 19.78 |
| Number of sacks of cement used in well seal | Drilling Machine Operator's License No. 400 |
| Number of sacks of bentonite used in well sealsacks | |
| Brand name of bentonite | Water Well Contractor's Certification: |
| Number of pounds of bentonite per 100 gallons of water | This well was drilled under my jurisdiction and this report is |
| of water lbs./100 gals. Was a drive shoe used? Yes No Pluss Size: location ft. | true to the best of my knowledge and belief. |
| Did any strata contain unusable water! Yes No | Name Davie OKINING CO. (Person, firm or corporation) (Type or print) |
| Type of water? depth of strata | Address 20379 ILLAHEE, DAV. BENG |
| | 1111 00 |
| Method of sealing strata off | [Signed] (Water Well Contractor) |
| Was well gravel packed! [] Yes [] No Size of gravel: | Contractor's License No. 634 Date 3-27, 1978 |
| RECEIVED | |
| TARREST (USE ADDITIONAL SE | IRETS IF NECESSARY) SP-48656-119 |
| AUG 05 2009 | • • • • • • • • • • • • • • • • • • • |

A & H Pump Service

710 "F" AVENUE TERREBONNE, OREGON 97760

JACK ABBAS 548-5753

_inches

Orifice Dia. ___

ROLLIN HEATER 548-4622

Depth of Water Measured by:

| Owner's Name: MRS Company | Date: 2-28-781.0. |
|---------------------------------|------------------------|
| Well Location: % Gordan RANDALL | WELL TEST DATA SHEET |
| Bend | Test by: TACK Sheet of |

| | Flow Tu | ibe (I.D.) | Inches | | 1. Air Line, Length In Feet: | | | | |
|-----------|----------|------------------|------------|---------|---------------------------------------|---------------------------------------|--|--|--|
| | Test Pu | mp Suction | Set at 295 | Feet | 2. Electronic Probe | | | | |
| | Well D | riller <u>Bi</u> | 11 000 | 2R | □ 3. Othe | or Method, (Describe): | | | |
| | Static V | Vater Level: | 256 | Feet | • | · · · · · · · · · · · · · · · · · · · | | | |
| | Time | To Water | Head | Flow | Engine | Remarks | | | |
| 35,00 | Hr Min | Depth ft | Inches | G.P.M. | R.P.M. | STARTED pumping | | | |
| 7912 | 11:40 | 262 | 19" | 690 | | ONE Engine Closeing we | | | |
| | 11:50 | 262 | 19" | 690 | | | | | |
| 1 | 12:10 | 267' | 45" | 1067 | | BOTH EngiNES STARTED | | | |
| 7.3 | 12:25 | 267' | 48" | 1047 | | Chennel up About 5 min | | | |
| 1 1 | 12:35 | 267 | 48" | 1067 | | | | | |
| Kux | | STOppe | 1 pum | ping | | | | | |
| 1) | 3:05 | 267' | 49". | 1078 | | STARTED pumping Again | | | |
| 7 2 | 3.30 | 267' | 49 11 | 1078 | | cleaned up 5 minutes | | | |
| A 1 | 4.05 | 267 | .41911 | 10 78 | · · · · · · · · · · · · · · · · · · · | | | | |
| ¥1 € | 4:30 | 267' | 49" | 1078 | | · | | | |
| 37.20 | 4:35 | START | | 7 | we 11 5 | surged The well Three. | | | |
| 10 | 1 | Times | LUATER | cleared | | r / Mingre STATIC | | | |
| 1. x |] | WATER | | | l . | TO 256 PT / MINYTE | | | |
| చ్చ | | ATTER | STOPPING | , | PACK T | | | | |
| A B K | 5:00 | 267 | 49" | 1078 | | Stopped pumping | | | |
| W. | | 7071 | AL P4 | muina | Time. | 3 has 20 min | | | |
| N. 18 9/2 | BECE | IVÉD , | A LOT | | | | | | |
| ٠ ٢ | AUG O | 5 2009 | 十一行为4 | | | 11639 | | | |

instructions for completing this report are or the last page of this form and a second

NOV 1 5 2001 54251

WELL ID # L52414

(START CARD) # 136883

| (1) OWNER: Well Number: Bear Crk#2 | (9) LOCATION OF WELL by legal description | | | | |
|---|--|--------------------------------|--|--|--|
| Name City of Bend Address P.O. Box 431 | Township 17S N or S. Range 12E E or W. of VVM. Section 33 SE 1/4 SE 1/4 Tax lot 100 Lot Block Subdivision | | | | |
| City Bend State OR Zip 97701 | Tax lot 100 Lot Block | Subdivision | | | |
| (2) TYPE OF WORK: | Street Address of Well (or negrest address) 1375 Fo | rbes Rd., Bend. | | | |
| New Well Deepening Alteration (repair/recondition) | | | | | |
| (3) DRILL METHOD: | (10) STATIC WATER LEVEL: | | | | |
| X Rotary Air [_]Rotary Mud X Cable [_] Auger | 652 ft. below land surface. Artesian pressure lb. per equare inch. | Date 10/30/01 | | | |
| With the second of the second | (11) WATER BEARING ZONES: | | | | |
| (4) PROPOSED USE: | Depth at which water was first found 650 | | | | |
| Domestic X Community Industriel Injection Livestock Other | From To Estima | 4.18. 8.1 | | | |
| W) May 100 M 1 A 1 A 1 A 1 A 1 A 1 A 1 A 1 A 1 A 1 | | rted Flow Rate SWL -900 621 | | | |
| (5) BORE HOLE CONSTRUCTION: | 795 845 | 1000 652 | | | |
| Special Construction approval Yes No Depth of Completed Well 1100 Explosives used Yes No Type Amount | | 1000 652 | | | |
| Explosives used Yes _X No | | 5000 652 | | | |
| Diameter From To Material From To sacks or pounds | (12) WELL LOG: | | | | |
| 20in 0 780 Cement 745 780 66 sacks | Ground elevation | | | | |
| 15in 780 975 Cement 0 195 220 sacks 12in 975 1100 | | From To SWL | | | |
| 12111 979 1100 | Brown Top Soil & Broken Rock Brown & Gray Basalt | 0 7 | | | |
| | Soft Sandstone | 7 110 110 112 | | | |
| | - Broken Lava | 112 140 | | | |
| How was seal placed: Method ☐ A ☐ B X C ☐ D ☐ E ☐ Other | Tan Sandstone | 140 162 | | | |
| Backfill placed from 195 ft. to 745 ft. Material Bantonite | Hard Gray Basalt Brown Pumice | 162 175 175 200 | | | |
| Gravel placed from ft. to ft. Size of gravel | Hard Gray Basalt | 200 227 | | | |
| (6) CASING/LINER: | Red Cinders | 227 233 | | | |
| Diameter From To Gauge Steel Plastic Welded Threads | Brown Pumice & Sandstone | 233 247 | | | |
| Casing: 16in +1.5 780 .375 X | Hard Gray Basalt Brown & Gray Broken Basalt | 247 287 287 291 | | | |
| | Hard Gray Basalt & Brown | 291 | | | |
| | Sandstone | 360 | | | |
| Liner: 10in 765 1100 .250 X | Brown Sandstone Conglomerate Hard Gray Basalt | 360 393 393 475 | | | |
| | Red Cinders | 475 499 | | | |
| Final location of shoe(s) | Brown & Gray Basalt some broken | 499 563 | | | |
| (7) PERFORATIONS/SCREENS: | Tan & Brown Sandstone | 563 | | | |
| [X] Perforations Method Factory Saw | Conglomerate Hard Gray & Brown Basait | 594 594 650 | | | |
| Screens Type Material | Brown Sandstone WB | 650 771 621 | | | |
| Slot Tele/pipe From To size Number Diameter size Casing Liner | Hard Gray Basalt | 771 795 621 | | | |
| From To size Number Diameter size Casing Liner 768 1100 3/16 13280 | Red Cinders WB Continued on next page | 795 818 652 | | | |
| | Date started 2/6/01 Completed 10 | | | | |
| | | | | | |
| | (unbonded) Water Well Constructor Certification: I certify that the work I performed on the construction, alter | | | | |
| can be really and a few and a second | of this well is in compliance with Oregon water supply well co | | | | |
| (8) WELL TESTS: Minimum testing time is 1 hour | Materials used and information reported above are true to my | best knowledge and | | | |
| [X] Purnp Bailer Air Flowing Artesian | belief. | C Number | | | |
| Yield gel/min Drawdown Drill stem at Time | Signed Date | Caran Control Man | | | |
| 1400 9.5 720 24 hr. | | | | | |
| | (bonded) Water Well Constructor Certification: | | | | |
| | I accept responsibility for the construction, alteration, or al | | | | |
| Temperature of Water 50 Depth Artesian Flow found | performed on this well during the construction dates reported performed during this time is in compliance with Oregon water | | | | |
| Was a water analysis done? XYes By whom City of Bend | construction spindards. This report is true to the best of my | * * * | | | |
| Did any strata contain water not suitable for intended use? | | C Number 1385 | | | |
| Salty Muddy Odor Colored Other | | 11/7/01 | | | |
| Depth of strata: | Robert Buckner | | | | |
| HE (A PART PPY - WATER RESOURCES DEPARTMENT S | ECOND COPY - CONSTRUCTOR THIRD COPY - C | USTOMER | | | |

AUG 05 2009 I 13941

STATE OF OREGON AFER SUPPLY WELL REPORT

As required by ORS 537.765)

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

WELL ID # L52414

| *************************************** | " L024 | 14. | ······································ | |
|---|---------|------------------------------------|--|------|
| (START C | CARD) # | or of the latest spilling spilling | 883 ge 2 | |

| (1) OWNER: | | Weli Numi | per: Bear Crk#2 | (9) LOCATION OF WELL by legal desci | iption: | |
|-----------------------|--|--|--|--|--|--------------|
| Name City of | Bend | | The second control of | County Deschutes Latitue Township 17S N or S. Range 12E | de Longitu | de |
| Address P.O. B | ox.431 | Shuba | D 7: 07704 | Section 33 SE 1/4 | E OF VV. OF | 1/4 |
| | will be specificated and the second | Sinne O | R_Zip 97701 | Tax lot 100 Lot Block | Subdivision | |
| (2) TYPE OF \ | NORK: | | | Street Address of Well (or nearest address) 137 | 5 Forbes Rd., E | end. |
| New Well | Deepening []/ | Alteration (repair/recond | iltion) [] Abandonment | OR 97701 | | |
| (3) DRILL MET | THOD: | | | (10) STATIC WATER LEVEL: | | |
| Rotary Air | Rotary Mud | [] Cable | Auger | ft. below land surface. Artesian pressure (b. per square | Date inch. Date | |
| Other | | | | | inch. Date | |
| (4) PROPOSE | D USE: | | | (11) WATER BEARING ZONES: | | |
| Domestic | Community | Industrial | Irrigation | Depth at which water was first found | | |
| Thermal | Injection | Livestock | Other | From To E | stimated Flow Rate | SWL |
| (5) BORE HOL | E CONSTRU | CTION | • | The second secon | | |
| Special Construction | | | Completed Well ft. | | an analysis in agreement of the agreemen | |
| Explosives used | | | Amount | | | |
| HOLE | 1 | SEAL | Amount | (12) WELL LOG: | | |
| Diameter From | To M | aterial From | To sacks or pounds | Ground elevation | חע | |
| | | | | Beautiful | | |
| | | | | Material Hard Gray & Brown Basalt | From To 818 83 | SWL 0 652 |
| | | | | Sand & Gravel & Cinders WB | 830 84 | |
| | | | | Brown Broken Basalt | 845 950 | |
| . , | | | | Brown & Gray Basalt with Red | 950 | |
| | d: Method []A | ∐B ∏C ∏I |) []E | Cinders WB | 97 | 7 652 |
| Other | | | ay interpreted the sound of the state of the | Hard Gray Basalt Broken WB | 977 105 | |
| Backfill placed from | | ft. Material | | Red Cinders & Black Basalt | 1055 | |
| Gravel placed from | ft. to | ft. Size of gra | white a transfer and a second section of the section of the second section of the section of the second section of the section of the second section of the second section of the second section of the second section of the section of th | Sandstone WB | 107 | 2 652 |
| (6) CASING/LI | NER: | | | Broken Gray Basak WB | 1072 1089 | |
| Diameter | | Gauge Steel Pla | stic Welded Threaded | Basalt, Sant & Gravel Cinders WB | 1089 110 | 0 652 |
| Casing: | 1 10 1 | | | | | |
| OBSHING | | | | NOV 1 5 2001 | | |
| | | | | | | |
| | | | | | | |
| Liner: | | | | WATER DEEDON | | |
| | | | | The second secon | | |
| Final location of sho | e(s) | en an en en en engan en | agrangem man an de selberente et met i die 1 des Medicale - de 1 begr comme en | Western Water Developme | | |
| (7) PERFORA | TIONS/SCREE | NS: | | 1) | 341 | |
| • • | | | | P.O. Box 1670 | | |
| Perforations Screens | | Mate | orial | Redmond, OR 97756 | | |
| 1130166118 | Туре | and the same of th | | A STATE OF THE STA | | |
| From To | Slot size Number | Tele/pip Diameter size | e Casing Liner | | | |
| | | | . (1 | | | 1 |
| | | | | Date started 2/6/01 Complete | 4.40120104 | |
| | | | | Date stated 2/6/01 | d 10/30/01 | |
| | | | | (unbonded) Water Well Constructor Certifica | | |
| <u>i t</u> | <u></u> | J <u>.</u> k | | I certify that the work I performed on the construction | | |
| (8) WELL TES | TS: Minimum | testing time is 1 | hour | of this well is in compliance with Oregon water supply w Materials used and information reported above are true | | |
| | Bailer | [Air | Flowing Artesian | belief. | to my best knowledg | yanc |
| Pump | Expense | (J ~ II | I''' 1. IOALI (B. L. COOLIN) | | WWC Number | |
| Yield gal/min | Drawdown | Drill stem at | Jime | Signed | Date | |
| | | | RECEIVED | The second of the second secon | | |
| | | | AND THE REAL PROPERTY AND THE PROPERTY A | (bonded) Water Well Constructor Certification | ••• | |
| | 100 may 2011 at 100 mm to 100 mm to 100 mm | | AUG 05 2009 | I accept responsibility for the construction, alteration, | | ırk |
| | | | | performed on this well during the construction dates rep | | |
| Temperature of Wa | ter | Depth Artesian Flow fo | NATER RESOURCES DE | pperformed during this time is in compliance with Oregon | | |
| Was a water analys | | By whom | SALEM, OREGON | construction standards. This report is true to the best of | of my knowledge and | |
| - | | e for intended use? | Too little | | WWC Number 13 | 85 |
| Salty Mudd | ly [Odlor [] | Colored []]Other | | Signed | Date 11/7/01 | |
| Depth of strata: | | | Telegraphy of the contract of | Robert Buckner | | |
| ORIGINAL & FIR | ST COPY - WA | TER RESOURCES | DEPARTMENT SEC | OND COPY - CONSTRUCTOR THIRD COP | Y - CUSTOMER | |

Pump Test Information Bear Creek #2

Date: 10/29/01

| TIME | DEPTH (FT) | FLOW (GPM) | COMMENTS |
|----------|------------|------------|---|
| 9:30 AM | 652 | 0 | Bear Creek Well #1, has been running for the past |
| 10:00 AM | 652 | | 3 days. |
| 10:30 AM | 652 | 0 | |

DRAWDOWN DATA

| 10:30 AM | 652 | 1400 | Lineshaft turbine test pump set @720ft, water leve |
|----------|------------|-------|--|
| 10:30:30 | 660 | 1400 | indicator is electric line inside of 1" pvc. Flow is |
| 10:31:00 | 660 | 1450 | registered through a 6" McCrometer registering |
| 10:31:30 | 660 | | in gallons per minute and totalizing in cubic feet. |
| 10:32:00 | 660.5 | 1425 | |
| 10:32:30 | 660.5 | 1400+ | |
| 10:33:00 | 660.5 | 1400+ | |
| 10:33:30 | 660.5 | 1400+ | |
| 10:34:00 | 661 | 1400+ | |
| 10:34:30 | 661 | 1400+ | |
| 10:35:00 | 661 | 1400+ | |
| 10:35:30 | 661 | 1400+ | |
| 10:36:00 | 661 | 1400+ | |
| 10:36:30 | 661 | 1400+ | |
| 10:37:00 | 661 | 1400+ | THE PERSON NAMED IN COLUMN TO THE PE |
| | | 1400+ | The state of the s |
| 10:37:30 | 661 661 | 1400+ | - HOU |
| | | | 102001 |
| 10:38:30 | 661 | 1400+ | SO CANA CONTRACTOR |
| 10:39:00 | 661 | 1400+ | ALL NO. |
| 10:39:30 | 661 | 1400+ | |
| 10:40:00 | 661 | 1400+ | |
| 10:40:30 | 661 | 1400+ | |
| 10:41:00 | 661 | 1400+ | |
| 10:41:30 | 661 | 1400+ | |
| 10:42:00 | 661 | 1400+ | |
| 10:42:30 | 661 | 1400+ | |
| 10:43:00 | 661 | 1400+ | |
| 10:43:30 | 661 | 1400+ | |
| 10:44:00 | 661 | 1400+ | |
| 10:44:30 | 661 | 1400+ | |
| 10:45:00 | 661 | 1400+ | |
| 11:00:00 | 661.5 | 1400+ | |
| 11:15:00 | 661.5 | 1400+ | |
| 11:30:00 | 661.5 | 1400+ | water the second |
| 11:45:00 | 661.5 | 1400+ | |
| 12:00:00 | 661.5 | 1400+ | |
| 12:15:00 | 661.5 | 1400+ | |
| 12:30:00 | 661.5 | 1400+ | |
| 12:45:00 | 661.5 | 1400+ | |
| 1:00:00 | 661.5 | 1400+ | |

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AUG 05 2009

WAIEH HESUUHCES DEPT SALEM, OREGON

1 10941

| 1:15:00 | 661.5 | 1400+ | RAGINATIVE TO THE RESERVE TO THE RES |
|----------|-------|-------|--|
| 1:30:00 | 661.5 | 1400+ | |
| 1:45:00 | 661.5 | 1400+ | NOV 1-5-2001 |
| 2:00:00 | 661.5 | 1400+ | 10 2001 |
| 2:15:00 | 661.5 | 1400+ | Water ned website with |
| 2:03:00 | 661.5 | 1400+ | SAUFM, OREGON |
| 2:45:00 | 661.5 | 1400+ | |
| 3:00:00 | 661.5 | 1400+ | |
| 3:15:00 | 661.5 | 1400+ | |
| 3:45:00 | 661.5 | 1400+ | |
| 4:00:00 | 661.5 | 1400+ | |
| 4:15:00 | 661.5 | 1400+ | • |
| 4:30:00 | 661.5 | 1400+ | |
| 5:30:00 | 661.5 | 1400+ | |
| 6:30:00 | 661.5 | 1400+ | |
| 7:30:00 | 661.5 | 1400+ | |
| 8:30:00 | 661.5 | 1400+ | |
| 9:30:00 | 661.5 | 1400+ | |
| 10:30:00 | 661.5 | 1400+ | |
| 11:30:00 | 661.5 | 1400+ | |
| 12:30:00 | 661.5 | 1400+ | |
| 1:30:00 | 661.5 | 1400+ | |
| 2:30:00 | 661.5 | 1400+ | |
| 3:30:00 | 661.5 | 1400+ | |
| 4:30:00 | 661.5 | 1400+ | |
| 5:30:00 | 661.5 | 1400+ | |
| 6:30:00 | 661.5 | 1400+ | |
| 7:30:00 | 661.5 | 1400+ | |
| 8:30:00 | 661.5 | 1400+ | |
| 9:30:00 | 661.5 | 1400+ | |
| 10:30:00 | 661.5 | 1400+ | |
| | | | |
| | | | |

RECOVERY DATA

| 10:30:00 | 653 | 0 | |
|----------|-----|---|--|
| 10:31:00 | 653 | 0 | |
| 10:32:00 | | 0 | |
| 10:33:00 | 652 | 0 | |
| 10:34:00 | 652 | 0 | |
| 10:35:00 | 652 | 0 | |

RECEIVED

AUG 05 2009 WATER RESOURCES DEPT SALEM, OREGON

STATE OF OREGON WATER SUPPLY WELL REPORT (24 required by ORS 537.765) Instructions for completing this report are on the last page of this form

DESC 53735

L43068

(START CARD) # 136871

| (1) OWNER: Well Number: Outback #3 | | | | | | (9) LOCATION OF | WELL by legal dec | scription: | | | |
|--|--|--|--------------------------|---------------|--|--|--|--|--|-----------------------|--------------------------|
| Name City of Bend | | | | | County Deschutes Latitude Longitude Township 17S N or S. Range 11E E or W. of WM. Section 34 SW 1/4 SE 1/4 | | | | | | |
| Address P.O. B | ox 43 | 2 | Section 34 SW 1/4 SE | | | | | | 1 | /4 | |
| (2) TYPE OF | | | | <u> </u> | _, | - Breed and the Palenth State on the Section | Tax lot 6202R2 Lot Block Subdivision Street Address of Well (or nearest address) 15900 Skyliner Rd., | | | | |
| X New Well | | | iteration (nen | uir/mecond | ition) []Ab | nendonment | Bend, OR | To notice accordes/ | ORAN SKARUE | r.KQ | |
| | | | meranon (rep | M171 GCO110 | | AN KACK HITER K | (10) STATIC WATE | R LEVEL: | | | |
| (3) DRILL ME | | | GE A. U. | | ·····1 | _ | 1 A77 ft.be | iow land surface. | De | ate 3/15 | V 01 |
| X Rotary Air Other | | rtary Mud | X Cable | | Auger | > m, m | (11) WATER BEAR | tb. per sq | uare inch. Di | rte | |
| (4) PROPOSE | D USI | : : | | | | | Depth at which water | | | | |
| Domestic | | mmunity | Indust | | [] Irrigat | | Program of the same of the sam | | | | T |
| Thermal | | ection | Livesto | XCK | Other | | From 488 | To 550 | Estimated Flor | w Rate | 5WL |
| (5) BORE HO | | | | | | | 570 | 690 | 2000+ | | 477 |
| Special Construct Explosives used | ion appn | DVRI Yes | X No I | Depth of C | ompleted We Amount | H 850_ft | 709 | | 5000+ | ********************* | 477 |
| HOLE | | AINO IM | SEAL | , e | A | mount | | The second secon | Married of State Control of the State of the | | |
| Diameter From | To | | | | | or pounds | (12) WELL LOG: | REGE | IVED | | |
| 20in 0 15in 667 | | Cement | | | 67 44 sad | | production for the challenge and the first holdstay of the challenge has been appropriate to the challenge of the challenge o | | | T =- | 1 |
| 11.5 795 | | | <u> </u> | | | | Brown Powder To | D Soll MAR 2 | From R 2001 0 | To 1 | SWL |
| | | | | | | | I Broken Brown Ru | DDI 6 | 1 1 | 7 | |
| | | | | | | ······································ | Red Cinder Congle Broken Gray Basa | omersta LER RESO | URCES DEPT | 19 | |
| How was seal plac | ced: Met | thod []A | []8 [X] | C []D | []ε | | Cinders | ni as ras Adoutrem' (| JUE CHILLIAN IN | 22 | |
| Other | | | | hindal B | | | Smooth Hard Gray | | 22 | 55 | |
| Backfill placed from Gravet placed from | m <u>532</u> m | n. to 1g ft. to | BL. R. B | production Pr | | | Red Cinders (Rough Circulation | gh Drilling) Lost | 55 | 70 | |
| (6) CASING/L | | | were the | | V-patent - 1 | | Brown Ash Tuft | | 70 | 105 | |
| (6) CASING/L: Diamete | | m To | Gauge Ste | el Plac | tic Welded | Threaded | Red Cinders (Cavi | | 105 | 113 | ************* |
| Casing: 16in | | | .375 | | | | Brown Conlomera | te & Boulders | 113 | 170 | |
| | | | | | | | Cinders & Brown | | 170 | 202 | |
| e against personalist del aristos | | | 1. | | | | Pumice & Red & B Pink Pumice & Gr | Hack Cinders | 202 237 | 237 252 | |
| Liner: 12in | -65 | 2 795 | .375 | 9 [|] <u>X</u> | []] | Gray Sandstone | Ly David | 252 | 312 | |
| product across artificial Paradistric | -78 | 5 850 | .365 | |] <u>[X]</u> | | Softer Brown Sand | | 312 | | |
| Final location of si | | | | | and the second s | ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,, | ash Dark Gray cement | od gravela | 348 | 348 381 | |
| (7) PERFORA | TIONS | | | | | | Black Silty Tufted | | 381 | 392 | |
| X Perforation | 18 | Method E | actory Sa | W Mater | | | Red Cinder ash wi | th Black & Gray | 392 | 405 | |
| Screens | Slot | ı yba | | Tele/pipe | | | Broken Basalt Gray & Brown Lav | 1 | 405 | 405 428 | |
| From To | size | | Diameter | size | Casing | Liner | | | | | |
| 567 667 655 795 | 3/16 3/16 | 4800 6720 | 16in 12in | pipe | | × | Continued on next | | |] | <u></u> |
| 785 850 | 3/16 | 2600 | 10in | pipe | | × | Date started 10/3/00 | Comp | oleted 3/15/01 | | |
| | | | | | . [] | | (unbonded) Water We | ell Constructor Certi erformed on the constru | | r ahanda | ament |
| | | and the second s | | | | ł,I | of this well is in complian | | | | |
| (8) WELL TES | | | | 18 1 h | | | Materials used and inform | nation reported above an | e true to my best i | phelwork | e and |
| X Pump | | lailer | Air | | [] Flowin | g Artesian | belief. | | WWC Numi | 180 | |
| Yield gal/min | Dre | wdown | Drill ste | m at | Tla | ne | Signed | | Date | | |
| 1400 | | 4.25 | 5 | 58 | 24 h | <u> </u> | | | | | |
| | a restraction to the second section of | , | | | - | | (bonded) Water Well | | | | |
| | | | | | | | l accept responsibility for performed on this well du | or the construction, alter iring the construction dat | | | |
| Temperature of W | ater 52 | | Depth Artesia | n Flow for | and | | performed during this time | - | • | | |
| Was a water analy | els done | ? X Yes | By whom | offey | | | construction etandards. 1 | This report is true to the I | | | |
| Did any strata com | tain wate dv '''' | ernot suitabi Odor | e for intende Colored | other | Too Ittle | | Signed Tober | t Guella | WWC Numi | | Q |
| Depth of strata: | -, 1l' | | | | | | Robert Buck | ner | | | - gas o' pagan aya ar an |
| ORIGINAL & FI | RST CC | PY - WAT | ER RESOL | JRCES D | EPARTME | NT SEC | OND COPY - CONSTRU | UCTOR THIRD C | OPY - CUSTO | MER | |

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.. E OF OREGON

A SUPPLY WELL REPORT
required by ORS 537.765)
matructions for completing this report are on the last page of this form

| VVELL | D# | L43058 |
|-------|------|--------|
| *** | 10 # | Lagues |

| (START CAF | RD)# | 136871 Page 2 |
|------------|------|------------------|
| | | |

| (1) OWNER: | | *************************************** | mber: Outback #3 | (9) LOCATION OF WELL by legal de | scription: | Longitud | 1. |
|--|--|--|--|--|--|-----------------------|-----------------|
| Name City of | F Bend lox 432 | | | Township 178 Nor S. Range 4 | 1E Ed | r W. of V | MM. |
| City Bend | UA 932 | State | OR Zip 97701 | Section 34 SW | 1/4 SE | | 1/4 |
| (2) TYPE OF | WODK. | Control of the Contro | | Tax lot 6202R2 Lot Block Street Address of Well (or nearest address) | Subdiv | Asion | |
| New Well | | Alteration /renair/ren | ondition) ["]Abandonment | Bend, OR | DANO SKYIINE | r.Kd., | |
| | | Austración (repainted | ANNIBOTY []ADDITIONALISTS | (10) STATIC WATER LEVEL: | | | |
| (3) DRILL ME | | | P=-3 | ft. below land surface. | De | ate | r: 100:0114144 |
| Cotter Air | Rotary Mud | Cable | Auger | Artesian pressure th. per so | puere inch. Di | | |
| | | | a that are the the the that a company that the Addition of the second second | (11) WATER BEARING ZONES: | | | |
| (4) PROPOSE | | 1===- | 1271 | Depth at which water was first found | ************************************** | | |
| Domestic Thermal | Community | industrial Livestock | irrigation Other | From To | Estimated Flo | | T |
| | | | L.JOUR | 11011 | Esumated Flo | V PCEND | SWL |
| | LE CONSTRU | | | And other in the second of the | The second secon | | |
| Special Constructi | ion approvalYe | is i∐No Depth (| of Completed Well ft. Amount | | | | |
| HOLE | | SEAL | Amount | | | | |
| Diameter From | TO N | lateriai From | To sacks or pounds | (12) WELL LOG: | evetion | | |
| | | | | processes where he processes were at the fact to recommend the same of the sam | | | 7 |
| | 1 1 | | *** * **** * * * * * * * * * * * * * * | Material Red & Black Cinders Lost | From 428 | То | SWL |
| C 1404 2 100 4 7 1 7 7 1 100 100 100 100 100 | | | The state of the s | Circulation | 1 | 445 | |
| | W-1407-1947-1-11 1 | THE TATE OF STREET | | Dark Gray Basalt some broken | | 450 | |
| How was seal place | ed: Method []A | B []C L | DE | Derk Gray Basalt Red & Black Cinders Lost | 450 469 | 469 | |
| Other | | | | Circulation | | 471 | |
| Gravel placed from | n fito | ft. Meterial | ravei | Tan Pumice Broken Gray Basalt Water Bearing | 471 | 488 | 47** |
| | | | (many manufacture) the conference of the contract | Red & Black Cinders WB and caving | 488 | 502 | 477 |
| (6) CASING/LI | | Cauma Mast B | tantin Minidad Thursdad | poured 18 yards of cement grout | | | |
| Diamete Casing: | | Gauge Steel P | lastic Welded Threaded | in this zone. Tan Sandstone | | 524 | |
| | | | | Red & Black Conglomerate | 524 530 | 530 550 | 477 477 |
| | | , | | Brown & Gray Conglomerate | 550 | 570 | 477 |
| | | | | Tan Sandstone some basait & cinders WB | 570 | 600 | 477 |
| | | | | Brown & Red Conglomerate WB | 600 | 620 | 477 |
| Final location of sh | oe(s) | | | Red & Brown Cinders WB | 620 | 636 | 477 |
| (7) PERFORA | TIONS/SCREE | NS: | | Hard Gray Basalt Red & Black Cinders some gray | 636 651 | 651 | 477 |
| Perforation | | | the ways are an early and the same of the | basalt WB | | 660 | 477 |
| Screens | | | terial | Hard Fractured Gray Basalt WB | 660 | 671 | 477 |
| From To | Slot size Number | Tele/s | | Red & Gray Basalt WB Hard Gray Basalt | 671 689 | 689 709 | 477 477 |
| | | | | Continued on next page | | | Y!! |
| | | | | | oleted 3/15/01 | | |
| | Angeles and respect to the second | | | (unbonded) Water Well Constructor Certif | fication: | | |
| | <u>l</u> | | | I certify that the wark i performed and a construction of this well is in compliance with Congress water su | ction, alteration, or | abando | nment |
| (8) WELL TES | TS: Minimum | testing time is | hour | of this well is in observation of this well is in observation of the well is in observation of t | pplywell construct true to my best k | ion stand nowlecky | sards. s and |
| Pump | Bailer | [_]Air | Flowing Artesian | belief. MAR 2 8 2001 | , | | |
| 5.0 - 1.1 1.1 1. | | Dalli akasa at | ~ 1 | • | WWC Numb | er | |
| Yield gai/min | Drawdown | Drill stem at | Time | Signed WATER RESOURCES DEPT | Date | | |
| e , tanto a se analas e a menero de la | ong again and a garantee company of the second control of the seco | · Caratana and Caratana control of the Caratana contro | A STATE OF THE PROPERTY OF THE | SALEM, OREGON (bonded) Water Well Constructor Certification | etlon- | | - |
| | | | 1 1 2 4 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 | l accept responsibility for the construction, alter | | ment wo | rk |
| | The state of the s | | | performed on this well during the construction date | • | | ırk |
| Temperature of Wa Was a water analys | COMPANY OF THE PARTY OF THE PARTY OF | Depth Artesian Flow By whom | round | performed during this time is in compliance with C construction standards. This report is true to the I | • | • | heliaf |
| | | ole for intended use? | Too little | The report to the district to the state of t | WWC Numb | - | |
| | | | | Signed | Date 3/20/ | 14 | |
| Saity []] Mudd Depth of strata: | | 1_100.00 | | Robert Buckner | JIZUI | 4.L | |

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. E OF OREGON

| | • | | | | | |
|--|---|------|----|---|--------|---|
| | | WELL | ID | # | L43058 | ì |

| • | | • | LTOUGU |
|---|------|---|--------|
| | | | |

| required by OF | RS 537.765) mpleting this rep | ort are on the last pag | ge of this form | | (STA | RT CARD) # 13 | 8871 age 3 | aret i f ar bet anderson |
|--|--|--|--|--|--|--|---|--------------------------|
| 1) OWNER: | | Well Numb | Outback #3 | (9) LOCATION OF W | ELL by legal de | scription: | | |
| tame City of E | Rend | | The four | County Desch | utes | Latitude L | .ongitude | |
| oddress P.O. Bo | x 432 | | | Township 178 N Section 34 | Ors. Range | 1/4 RE | vv. or vv | /M. /4 |
| City Bend | | State OF | Zip 9770 1 | Tax lot 6202R2 Lot | Błock | Subdivi | sion | |
| 2) TYPE OF W | ORK: | | | Street Address of Well (| or nearest address) | 15900 Skyline | Rd. | |
| New Well | | Iteration (repair/recond | ition) Abendonment | Bend, OR | | | | |
| | | | | (10) STATIC WATER | | _ | | |
| (3) DRILL MET | | l'Ionne | [" Auger | Artesian pressure | v land surface. | Da nouare inch. Da | | |
| Rotary Air Other | Rotary Mud | Cable | | ~ · · · · · · · · · · · · · · · · · · · | | Applied III All II | | |
| *** *** | | | Parameter and a contract of the contract of th | (11) WATER BEARIN | IG ZONES: | | | |
| (4) PROPOSED | | 1 | [^{tot}] to decorate or | Depth at which water wa | s first found | | | |
| Domestic | Community Injection | industrial | Irrigation Other | From | То | Estimated Flow | Rate | SWL |
| Thermal | | | | | | | | |
| (5) BORE HOLI | | | | | | | | |
| Special Construction | | | Completed Well ft. | | ************************************** | | | |
| Explosives used | Yes [_]No Ty | SEAL | Amount | - Was not an advantage comment of the comment of th | and the street will be a secured as the street will be a secure of the s | | | |
| HOLE Diameter From | To Me | | To sacks or pounds | (12) WELL LOG: | Commedia | desetton | | |
| | | | | | Ground e | HEARIOU | | |
| | | | | | laterial | From | To | SWL |
| | | | | Red Cinder & Gray | | 709 | 714 | |
| | | | | Hard Gray Fracture | | 714 | 731 | |
| | | en e | | Red Cinders & Gray Hard Gray Fractured | | 731 748 | 748 774 | |
| How was seel place | d Method A | □В □С □□ | []E | Red Basalt & Gray | lard WB | 774 | 797 | 477 |
| Other | | | ***** | Fractured Hard Gray | Baselt WB | 797 | 836 | 477 |
| Backfill placed from | ft. to | ft. Material | | Red Cinders & Broy | | 836 | 850 | 477 |
| Gravel placed from | ft. to | ft. Size of gra | VOI | Specialization and the consistence and the same of the | | | | |
| (6) CASING/LIN | ER: | | , | Amende of a rest in the case of the case o | *** *** * * * * * * * * * * * * * * * * | | | |
| | | Gauge Steel Plac | stic Welded Threaded | | | | | |
| Casing: | 10 | | | page of a second of a second s | and the state of t | | | |
| | | un medicant . 1 |) [] [] | | | | | |
| | | | | | | | | |
| | | | | may a file of the content of the con | | | | |
| Liner: | | | | | | | | |
| Finel location of sho | .] | | 1 1.1 | the distribution of the following of the design of the second | | | | |
| | | | enter disease comments any order to be for the foreign Comment of the Comment of | WESTERN W | ATER DEVELO | DMENT | • | |
| (7) PERFORAT | ONS/SCREE | NS: | | | Box 1670 | | | |
| Perforations | _ | | make the property and the control of the control of the control of | | | | | |
| Screens | Туре | Mate | | REGMON | id, OR 977 | 70 | | |
| From To | Slot size Number | Tele/pip Diameter size | e Casing Liner | | and the state of t | | | |
| From To | eleb Italiiosi | | | | | | 1 | 1 |
| | | | | Date started 10/3/00 | Co | mpleted 3/15/01 | | |
| | | | | | | | | |
| | | | | (unbonded) Water Well I certify that the work t per | | | r abandr | onment |
| | | | a Inna! 1 | of this well is in compliance | | | | |
| (8) WELL TEST | TS: Minimum | testing time is 1 | hour | Materials used and informa | | | | |
| Pump | Bailer | Air | Flowing Artesian | belief. | | | | |
| | | | _, | Stand . | | WWC Numi | D e f | |
| Yield gal/min | Drawdown | Drill stem at | Time | Signed | | Date | | |
| | | | | REFE | | | | |
| | | | | (bonded) Water Well 2 | | lication: | amani w | nete |
| | | | | I accept responsibility for performed on this well-dud | me construction, &i | teration, or abandol tates recorded above | iii iiiiiii iiiiiiiiiiiiiiiiiiiiiiiiii | ork |
| | And a | Don'th Adoption Flore & | L | performed during this time | a 2000 pilance with | h Oregon water sun | pty well | J |
| Temperature of Wa Was a water analys | - a - a direct of the party and the same of the same o | Depth Artesian Flow & By whom | | construction standards. Th | nis report is true to th | | | bellef. |
| vvao a water analyt Dici any strata conts | in water not suitel | ple for intended use? | []Too little | I WALER RESOLU | RCEC | WWC Num | ber 138 | |
| | | Onland ["] Other | | Signed SALEM, O | HEGONT ~' ' | Date 3/20 | M1 | |

ORIGINAL & FIRST COPY - WATER RESOURCES DEPARTMENT

Saity Muddy Odor Colored Other

Robert Buckner

SECOND COPY - CONSTRUCTOR THIRD COPY - CUSTOMER

Date 3/20/01

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STATE OF OREGON WATER SUPPLY WELL REPORT (56 required by ORS 537.765)

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

DESC 54252 NOV 1 5 2001

| WELL | ID# | L52412 |
|------|-----|--------|
|------|-----|--------|

(START CARD) # 136877

| (1) OWNER: Well Number: Outback#4 | (9) LOCATION OF WELL by legal descrip | tion: |
|--|--|-----------------------------------|
| Name City of Bend | County Deschutes Latitude Township 17S Nor S Range 11E | Longitude E or W. of WM. |
| Address P.O. Box 431 City Bend State OR Zip 97701 | Section 34 SW 1/4 | SE 1/4 |
| (2) TYPE OF WORK: | I lax lot 6202R2 Lot Block | Subdivision |
| | Street Address of Well (or nearest address) 15900 Bend, OR 97701 | Skyliner Rd., |
| | | |
| (3) DRILL METHOD: | (10) STATIC WATER LEVEL: 478 ft. below land surface. | Date 5/2/01 |
| X Rotary Air Rotary Mud X Cable Auger | Artesian pressure 1b. per square inc | ch. Date |
| Other | (11) WATER BEARING ZONES: | |
| (4) PROPOSED USE: | Depth at which water was first found 519 | |
| Domestic X Community Industrial Imagetion Imagetion Imagetion Imagetion Other | processing the contract of the | |
| | | mated Flow Rate SWL 00-900 478 |
| (5) BORE HOLE CONSTRUCTION: | 612 768 | 00-900 478 2000+ 478 |
| Special Construction approval Yes No Depth of Completed Well 850 ft. | 774 850 | 5000+ 478 |
| Explosives used Yes XNo Type Amount HOLE SEAL Amount | <u> </u> | |
| Diameter From To Material From To sacks or pounds | (12) WELL LOG: | |
| 20in 0 672 Cement 534 570 68 sacks | Ground elevation | |
| 15in 672 790 Cement 0 205 220 sacks | Material | From To SWL |
| | Brown Powder Soil | · |
| | Broken Brown Rubble | 0 3 17 |
| How was seel placed: Method [A B X C D E | Red Cinders & Broken Basalt | 17 19 |
| Other | Smooth Hard Gray Basalt Brown Tufted Ash | 19 125 |
| Backfill placed from 205 ft. to 534 ft. Material Bentonite | Pumice & Tan Sandstone | 125 172 172 285 |
| Gravel placed from ft. to ft. Size of gravel | Gray Sandstone | 285 306 |
| (6) CASING/LINER: | Brown Sandstone or Tufted Ash Cemented Gravels | 306 358 |
| Diameter From To Gauge Steel Plastic Welded Threaded | Red Cinders & Broken Basait | 358 431 431 438 |
| Casing: 16in +1.5 672 .375 X X | Hard Gray Basalt some broken | 438 449 |
| | Hard Gray Basalt | 449 468 |
| | Tan Pumice Hard Gray Basalt | 468 479 479 519 |
| Liner: 12in 658 798 .375 X | Red Cinders & Broken Basalt WB | 519 538 478 |
| 10in 788 848 .365 X [X] | Brown Conglomerate WB | 538 581 478 |
| and tribing to be from any property and the second state of the se | Tan & Gray Sandstone WB Loose Cinders WB | 581 612 478 612 639 478 |
| (7) PERFORATIONS/SCREENS: | Hard Gray Basalt | 639 646 478 |
| X Perforations Method Factory Saw Screens Type Material | Red & Black Cinders & Slab Lava | 646 |
| Slot Tele/pipe | WB Hard Gray Basalt | 659 478 659 735 478 |
| From To size Number Diameter size Casing Liner | Red Cinders WB | 735 768 478 |
| 572 672 3/16 4800 16in pipe X 658 798 3/16 6720 12in pipe X | Continued on next page | |
| 788 848 3/16 2600 10in pipe X | Date started 12/5/01 Completed | /2/01 |
| | (unbonded) Water Well Constructor Certification | n: |
| | I certify that the work I performed on the construction, alt of this well is in compliance with Oregon water supply well a | |
| (8) WELL TESTS: Minimum testing time is 1 hour | Materials used and information reported above are true to n | ny best knowledge and |
| X Pump Bailer Air Flowing Artesian | belief. | |
| Yield gal/min Drawdown Drill stem at Time | | WC Number |
| | Signed Da | |
| 1400 2.5 520 24 hr. | (bonded) Water Well Constructor Certification: | |
| | I accept responsibility for the construction, alteration, or | abandonment work |
| | performed on this well during the construction dates reports | |
| Temperature of Water 51 Depth Artesian Flow found Was a water analysis done? XYes By whom City of Bend | performed during this time is in compliance with Oregon was construction spandards. This report is true to the best of m | |
| Did any strata contain water not suitable for intended use? | | WC Number 1385 |
| Safty Muddy Odor Colored Other | Signed 1 (Coos) 72 Wester 28 | to 11/7/01 |
| Depth of strata: | Robert Buckner | |
| ORIGINAL & FIRST, COPY WATER RESOURCES DEPARTMENT SEC | OND COPY - CONSTRUCTOR THIRD COPY - | CUSTOMER |

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

DESC 54252

WELL ID # L52412

(START CARD) # 136877 Page 2

| (1) OW | | | | AASU ME | mber: (| Outback#4 | (9) LOCATION OF V | VELL by legal de | scriptio | ភ: | | |
|----------------------------|----------------|-------------------|---|---------------------|------------|--|--|-----------------------------|-------------|-------------------|---------------------|---------------|
| Name Address | City of | Bend | | | | | Township 17S | hutes La Nor S. Range 11 | E | L Eor | ongitude W. of W | |
| City | P.O. B Rend | OX.431. | | State | OR Z | p 97701 | Section 34 | SW | 1/4 S | E | 1 | /4 |
| | | | | | VIX. | Will Will make to allow top and | Tax lot 6202R2 Lo | t Block | | Subdivi | sion | |
| New V | | WORK: Deepenin | Alteration | ieles | احمانامما | Abendonment | Bend. OR 9770 | (or nearest eddress) 1 | 5900 SI | kyline | Rd., | |
| | | | g [_]Atteration (| repairrec | oridition) | Abengonment | (10) STATIC WATE | | 700 | | | *** * *** *** |
| (3) DRI | | | | .bea | | £ 1. | ft, belo | w land surface | | Da | | |
| Rotary Other | Asr | Rota | ry Mud | ION6 | | L_ Auger | Artesian pressure | lb. per equ | uare inch. | Da | te | |
| (4) PRC | POSE | D USE: | | | | Visit and the second se | (11) WATER BEARI | | | | | |
| Domes | | Com | | dustrial | | Irrigation | Depth at which water wa | ns first found | | | | |
| Therma | el | [] Injec | | restock | | Other | From | То | Estimat | hed Flow | Rate | SWL |
| (5) BOF | RE HO | LE CON | STRUCTION: | | | | | | | | | |
| • | | | Yes No | Depth | of Comp | oleted Well ft. | | | | | | |
| | s used (| Yes | No Type SEA | м | Amo | unt Amount | | | | | | |
| Diameter | | To | Material | From | To | sacks or pounds | (12) WELL LOG: | Od alar | | | | |
| | | | | | | | , | Ground ele | VBION | | | 7 |
| | | | | | | | Hard Gray Basalt | Aaterial | | 768 | To 774 | SWL 478 |
| | | | | | 1 | | Red Broken Basalt | WB | | 774 | 781 | 478 |
| | | ļ}. | | . | | | Hard Gray Basait | | | 781 | 836 | 478 |
| How was | .l | ll. ed: Metho | d []A []B | | D [|] E | Red & Black Cinder Basalt WB | | | 836 | 850 | 478 |
| Other | | | | | | | I I | | | | 000 | |
| Backfill pla Gravel pla | sced from | n | ft. to ft. | Material Size of | BUR 9111 1 | | | | | | | |
| | | | 1. 10 | 0120 01 | 9.010 | | The state of the s | 2117 | | | | |
| (6) CAS | | | | | | 144-14-4 W hanadad | | | | | | |
| Casing: | Diamete | r From | To Gauge | Steel | Plastic | Welded Threaded | I WOU | | | } | | |
| Casing. | | | | أتتأ | Ē | | I NUV | -> 7001 | · | | | |
| | | | + | | [.] | <u>a</u> a | | | | | | |
| Liner: | | | 1 | 11 | | | | | | | | |
| G 11 10-1 | | | 1 | ij | Ü | d d | | | | | | |
| Final locat | ion of sh | 0e(s) | | | | | | , | | | | |
| (7) PER | FORA | TIONS/ | SCREENS: | | | | 1 | ATER DEVELOP | 1 | | | |
| [] Pe | rforation | 8 | Method | | | | | . Box 1670 | , | | | |
| [_]Sc | reens | | Type | | aterial | *************************************** | REDMO | nd, OR 97750 | • | | | |
| From | To | Slot size | Number Diamet | Tele/ er si | pipe ze | Casing Liner | | | | | | |
| | | - | | | | | | | | | | |
| | | | | | | 8 8 | Date started 12/5/01 | Comp | leted 5/2 | /01 | | . , . |
| | | | | | | | (unbonded) Water Wel | | | | | |
| İ. | | l | | | | 1.1 | I certify that the work i pe of this well is in compliance | | | | | |
| (8) WEL | L TES | STS: Mi | nimum testing | time is | 1 hou | ır | Materials used and informat | | - | | | |
| Pump | | Bai | er []A | Nir . | | Flowing Artesian | belief. | | 14554 | . | | |
| Yield ge | Umin | Draw | town Dril | stern at | | Time | Signed | | Date | C Numb | er | |
| | | | | | - | enter the second of | | | | | | |
| | | | | | | | (bonded) Water Well C | Constructor Certifica | ition: | | | |
| | | | | , | | | l accept responsibility for | | | | | |
| Temperati | re of W | ater | Depth Art | esian Flov | found | ar an again an | performed on this well during performed during this time in | = | - | | | |
| Was a wa | ter analy | sis done? | Yes By who | m | | | construction standards. Th | • | est of my k | (nowled) | ge and be | |
| | | | not suitable for inter for Colored | | | Too little | Signed | | | 0 Numb 1.1.7/0 | er 138 | 5 |
| Salty Depth of a | | uy]Ot | | 1 Ou Har | | | Robert Buckn | er | | .i.uett | e J | |
| ORIGIN | | 267 CO | X-WATER RE | SOURCE | S DEP | ARTMENT SEC | OND COPY - CONSTRU | CTOR THIRD C | OPY - C | USTON | AER | |
| THE | :CE | IVE | ט | | | | | | | | | |

STATE OF OREGON WATER SUPPLY WELL REPORT
(as required by ORS 537.765)
Instructions for completing this report are on the last page of this form

WELL ID # L52412

(START CARD) # 150755

| (1) OWNER: Well Number: Outback#4 Name CITY OF BEND | | | | | | | | (9) LOCATION OF WELL by legal description: County Deschutes Latitude Longitude | |
|---|--------------|------------|----------------------------|-----------------|--------------|----------------------------|-------------------|--|----------------|
| Address P.O. Box 431 | | | | | | | | Township 178 N or S. Range 11E E or W. of WN | 1. |
| ity Bend | | | | State | OR_ | ^{Zip} 9770 | 1 | Section 34 SW 1/4 SE 1/4 Tax lot 6202R2 Lot Block Subdivision | |
| P) TYPE OF W | | | | | | | | Street Address of Well (or nearest address) 15900 Skyliner Ave | |
| New Well [] | Deepen | ing X | Alteration (r | epair/reco | ndition |) []Ab | endonment | Bend, OR 97701 | _ |
|) DRILL MET | _ | | | | | | | (10) STATIC WATER LEVEL: 482 ft. below land surface. Date 5/31/0 | 13 |
| Rotary Air Other | ∏ Ro | tary Mud | Cat | i le | | []Auger | | Artesian pressure | |
| I) PROPOSED |) USE | : : | | | | | | Depth at which water was first found | |
| Domestic Thermal | X Co | mmunity | ∏lndi ∏Live | | | Imigati | ion | | |
| | | | | | | () Outer | | From To Estimated Flow Rate | SWL |
| 5) BORE HOLI pecial Construction | | | | Denth | d Cam | معادها المعاملين | 845 1 | | |
| orplosives used | | | | Бери | Amo | | 340 | | |
| HOLE ameter From | То | | SEA laterial sturbed | From | То | 1 | nount r pounds | (12) WELL LOG: Ground elevation | |
| | | NOL DIE | , Lui Deu | | | | | Material From To | SWL |
| | | | | - | | | | Well Video prior to pump installation showed | J. T. V.L. |
| | | | | <u> </u> | | | | approx, 1/3 of perforations were plugged and Iron Bacteria was growing. We used a wire brush and | |
| | | <i>r</i> = | F-71 | | | | | injected approx. 250 ppm chlorine to fix problem | |
| w was seal placed Other <u>Not Dis</u> l | | | <u> </u> | _c [|]D [| E | | Chlorine was mixed in a tanker and injected with | |
| ckfill placed from | urbe | ft. to | ft. | Material | | _ | | water injection pump along with 900 cfm of air to achieve thorough dispersion in the perforated | |
| vel placed from | | ft. to | ft. | Size of g | ravel | | | zone. Simultaneous brushing was used to remove | |
| CASING/LIN Diameter ing: | From | m To | Gauge | | lastic | Welded | Threaded | | |
| er: | (6) | | | | | | | RECEIVE | ED |
| PERFORAT | IONS | /SCREE | ENS: | | | | | WESTERN WATER DEVELOPMENT JUN - 4 20 | 303 |
| Perforations | | Method | | | | | | | |
| Screens | | Туре | | Ma | nerial | | | REDMOND, OR 97756 WATER RESOURCE SALEM, OREG | S C ON |
| rom To | Siot size | Number | Diamete | Tele/; siz | | Casing | Liner | | |
| | | <u> </u> | + | | | | | Date started 5/31/03 Completed 5/31/03 | |
| | | | - | | | | | (unbonded) Water Well Constructor Certification: certify that the work performed on the construction, elteration, or abandonme | |
|) WELL TEST Pump Yield gal/min | □в | | Air | | | ur Flowing | | of this well is in compliance with Oregon water supply well construction standard: Materials used and information reported above are true to my best knowledge and belief. WWC Number | S . |
| Bentinii | J 44 | | Did: | | | | . | Signed Date | |
| mperature of Waters a water analysis of any strata contain Seity Muddy pth of strata: | done? | not suitab | de for intend | ed use? | | Too little | | (bonded) Water Well Constructor Certification: I accept responsibility for the construction, afteration, or abendonment 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 less of my knowledge and belied to the less of the | ił. |
| RIGRECE | T PO | ΈĎ | TER RES | OURCE | S DEF | PARTME | NT SE | OND COPY - CONSTRUCTOR THIRD COPY - CUSTOMER | |

AUG 05 2009

| STATE O | | GON WELL REPO |) PT | | | | (WI | ELL I.D.)# L | 72463 | | |
|-----------------------|----------|---------------------|-----------------|-------------------|--|----------------------|---|---|-------------------|---------------|--------------|
| (as required b | | | J | | | | (ST. | ART CARD) | £ 147290 | | |
| Instructions fo | or compl | eting this report | are on | the las | t page of this form. | | (51. | | <u> </u> | | |
| 1) OWNER: | | | V | Vell Nu | mber Outback #5 | (9) LOCATIO | N OF WEL | L by legal de | scription: | | |
| lame City of Be | end | | · | | | County Det | | | Lor | gitude | |
| ddress PO Box | | | | | | Township 17 | S | | 11 | E | WM. |
| ity Bend | | Str | ate OR | | Zip 97709 | Section 34 | · sv | | | 1/4 | |
| TYPE OF | WORK | | | | | Tax Lot 620 | 2 Lot | | | ibdivision | |
| | | a Alteration | (renair/ | recondi | tion) Abandonment | | | | 18900 Skylin | | |
|) DRILL ME | | | (горин) | CCOILGI | | Bend, OR 9 | | caractactary | | | |
| | Rota | | ble | ∏ Au | act | (10) STATIC V | | VEL: | | | |
| Other Rever | | | | | 5 ~ | 486 | ft. below lan | | , | Date 10/7/0 | 14 |
|) PROPOSE | | | | | and the second s | Artesian press | - | lb. per squ | | Date | |
| , | | munity [] Ind | lustrial | 17 | Irrigation | (11) WATER B | *************************************** | | | | |
| Thermal | Injec | | estock | | Other | (, | | | | | |
| | | NSTRUCTIO | | L | | Depth at which wa | ster was first i | ound 624 | | | |
| , | | | | h of Co | mpleted Well 861 ft. | | | | | | |
| | | No Type | | | | From | | To | Estimated | Flow Rate | sw |
| HOLE | ₩.•• | | SEAL | • | | 624 | 861 | | see #8 | | 500 |
| Hameter From | To | Material | From | To | Sacks or pounds | | | | | | #10 |
| 26 0 | 1 1 | Cement & Ben | 1 | 160 | 334 sks | | | | | | |
| 20 8 | 635 | intermediate | e Sea | ing | Material: | | | | | | |
| 15 635 | 861 | Bentonite | 160 | 615 | 40,200 pounds | | | | | | |
| | | Cement | 615 | 625 | 175 sks | (12) WELL LO |)C· | | | | |
| low was scal pla | aced: | Method | A [| В | C D E | (12) WELLE | | ation | | | |
| | | vas poured & | | | | , | ***** | | | · | |
| Backfill placed fi | | | | | rial | | Material | | From | To | SWL |
| iravel placed fro | | ft. to | ft. | Size | of gravel | see attached fo | emation log | 2 | | | |
| 6) CASING/ | LINER: | | | | | | | | | | |
| Diameter | r Fro | n To Gaug | e Steel | Plast | ic Weided Threaded | | | | | ļ | |
| Casing: 16 | +3 | 625 .375 | | | | DE | CEIV | En | | | |
| | | | | | | 1/6- | OLIT | <u> </u> | | | |
| | | | | | | LOT | | A | | | |
| | | v | | | | NO/ | 1.0.20 | 104 | | | - |
| iner: 12 | 615 | 861 .375 | | | | | | | | | |
| | | | | | | | RESOURC | | | - | |
| Final location of | | | | | | SA | EM. ORE | GON | | | - |
| 7) PERFORA | | | | | | | | *************************************** | | + | |
| Perforation | ns i | Method Facto | ory mi | | | | | - | | | 1 |
| Screens | Slet | Гуре | | N Tele/ | faterial | | | | | | |
| From To | aize | Number Di | ameter | siz | e Casing Liner | | | | | | |
| 619 861 | 3/16 | k3 11520 | | | | | | | | - | |
| | | | | - | _ | _ | | | | | |
| | | | | | | | | _ | | | |
| | | | | | | | | | | | |
| | | | | Щ_ | | | | | | + | |
| | - | | | ie 1 k | AU. W | Date started 3/19 | /04 | Co | mpleted 10/12 | /04 | |
| 8) WELLTE | 515: N | linimum testi | ng time | : 15 1 11 | our | (unbonded) Wat | | | | | |
| G a r | ٠ سما | Dailes | □ Ai- | | Flowing Artesian | Longify that t | ne work I nerf | ormed on the co | onstruction, alte | ration, or at | andonme |
| Pump | - | Bailer | Air Drill st | am == | Time | of this well is in a | omnliance w | ith Oregon wate | a supply well c | enstruction : | standards |
| Yield gal/min 1500 | 0.3 fe | awdown | Din) M | • 41.7 = 1 | 1 br. | Materials used ar | a intormation | геропеа авом | are true to the | oest of my i | mowied |
| 1500 | 0.75 f | | | | 24 hours | / h | 1 | | WWC No | mber 1695 | 5 |
| 1300 | 3.73 | | | | | Signed | Las De | Bases | | Date 11/ | |
| r | | 2E D | th A≠~ | ion Ele | w Found | (bonded) Water | Well Constr | ector Certifica | tion: | - | |
| Temperature of | | | | | w 1-5min | Laccent respo | nsibility for th | e construction. | alteration, or al | andonment | work |
| Was a water ana | | | By who | | ? Too little | necformed on this | s well disting | the construction | dates reported | above. All | work |
| | | ter not suitable fo | | | | performed during | this time is i | n compliance w | ith Oregon wat | r supply we | :11 |
| | waay [_ | Odor Col | orea | | | | 7/ | 1/, | | ımber 649 | |
| Depth of strata: | - | | | | | Signed Life | hund / | School . | 12 | Date 11/ | 9/04 |
| | | | | | | CIRCUM VICE | | THE PERSON AND ADDRESS. | | | |

10941

City of Bend Outback Well #5

by Schneider Drilling Co.

Start Card #W147290

Label #L72463

| <u>FM</u> | <u>TO</u> | DESCRIPTION |
|-----------|-----------|---|
| 0 | 2 | Top soil & cobbles |
| 2 | 8.5 | Basalt, soil, boulders, cobbles |
| 8.5 | 21 | Conglomerate, red, cindery |
| 21 | 27 | Basalt, grey, hard |
| 27 | 68 | Basalt, grey & some red, vesicular |
| 68 | 70 | Pumice, tan & basalt, grey |
| 70 | 210 | Pumice, tan, cinders, vesicular, grey |
| 210 | 230 | Pumice, white & cinders, red & grey |
| 230 | 255 | Pumice, tan & cinders, brown & red & basalt, grey |
| 255 | 342 | Basalt, grey & red & pumice, tan |
| 342 | 355 | Basalt, vesicular, grey & red, pumice, tan |
| 355 | 365 | Basalt, grey & red & pumice, tan |
| 365 | 370 | Basalt, grey & cinders, red w/ some Pumice, tan |
| 370 | 388 | Cinders, red & basalt, grey w/some pumice, tan |
| 388 | 397 | Cobbles & Gravel, cemented |
| 397 | 417 | Cinders, red & basalt, grey, vesicular |
| 417 | 430 | Basalt, grey, hard w/some cinders, red |
| 430 | 446 | , , |
| | 468 | 75 77 |
| | 550 | Cinders, red & black |
| | 620 | Pumice, tan & cinders red & black |
| | 624 | Basalt, grey, hard |
| | 642 | Cinders, soft |
| | 649 | • |
| | 666 | Cinders, red & black |
| | 669 | • |
| | 696 | · |
| | 714 | |
| | 723 | • |
| | 742 | |
| | 753 | |
| | 757 | Basalt, brown, vesicular |
| | 763 | Basalt, black, broken |
| | 767 | Cinders, black & red |
| | 779 | Cinders, red |
| | 787 | Basalt, grey, hard |
| 787 | 833 | Basalt, grey, hard, some fractures |
| 833 | 837 | Basalt, red & black |
| 837 | 852 | Basalt, tan & black |

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NOV 1 0 2004

WATER RESOURCES DEPT SALEM, OREGON

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T 10941

852 861 Basalt, brown, fractured

Page 1 of 1

AUG 05 2009 .

Amendment

STATE OF OREGON WATER SUPPLY WELL REPORT

| | (85 | req | wire | d by | ORS | 537 | . 7 | (65) |
|--|-----|-----|------|------|-----|-----|-----|------|

| Instructions | for completing | this report are | m the last nee | a of this form |
|--|----------------|-----------------|----------------|-----------------|
| THE OWNER OF THE OWNER OF THE OWNER OF THE OWNER OF THE OWNER OWNER OF THE OWNER OWN | tot corespond | this report wie | in the sest be | Te or rom locur |

| (WELL I.D.)# L 67857 | (amended DESC 56449) |
|----------------------|----------------------|
| (START CARD) # 16470 | 19 |

| | | | | | _ | |
|---|----------------|--|-------------------------|-------------------|--|-----------------|
| (1) OWNER: Well Number Ou | tback #6 | (9) LOCATION OF V | VELL by legal de | escription: | | |
| Name City of Bend | | County Deschutes | | | ongitude | |
| Address P.O. Box 431 | | Township 17 | S Rang | e <u>11</u> | E | WM. |
| | ip 97701 | Section 34 | 8W 1/ | 4 SE | 1/4 | |
| (2) TYPE OF WORK | | Tax Lot 6202R2 L | | | Subdivision_ | |
| New Well Deepening Alteration (repair/recondition) A (3) DRILL METHOD: | bandonment | Street Address of Well | (or nearest address) | 15900 Skyll | ner Rd., Be | nd, OR |
| Rotary Air Rotary Mud Cable Auger | | (10) STATIC WATER | I EVEL. | | | |
| Other Reverse Circulation, Dual Rotary | | | | | Data 44/02/ | m4 |
| (4) PROPOSED USE: | - Julian - V | | w land surface. | | Date 11/02/ | |
| | | Artesian pressure | | uare inch. | Date | |
| | | (11) WATER BEARI | TO LUITES: | | | |
| Thermal Injection Livestock Other (5) BORE HOLE CONSTRUCTION: | | Depth at which water was | Simt found 448 | | | |
| • • | | Lepun at which water was | Instituted 110 | | | |
| Special Construction approval Yes No Depth of Completed V | | Eng | т- | Paties-4- | d Flour Bat- | 647 |
| Explosives used Yes No Type Amount HOLE SEAL | | From 115 | To 125 | 30 | d Flow Rate | 115 |
| | _ | 516 | 582 | 200 gpm | | 480 |
| Diameter From To Material From To Sacks 20" 0 502' Coment 460' 480' 5 yards | or pounds | 638 | 864 | | nmessuabl | _ |
| 0 160' 11 yard | | 030 | | Rev.onc. | III///OED/GED/ | 700 |
| | | | | | | |
| 16" 502' 864' | - | | | | | |
| | 75 | (12) WELL LOG: | | | | |
| |]D []E | Ground | Elevation | | 1000 | |
| Other Backfill placed from 160 ft. to 460 ft. Material sand | grout | Material | | From | To | SWL |
| | | *** SEE ATTACHED L | N2* | Flon | '0 | 3WL |
| Gravel placed from 480 ft. to 502 ft. Size of gravel | 1/4 | SEE ATTACHED D | | | | |
| (6) CASING/LINER: | | | | | + | |
| Diameter From To Gauge Steel Plastic Welder | | | | | | |
| Casing: 16" +1 675' .375 | | | | | - | |
| | | | A 500 CC | | + | |
| | | RECEI | V ED — | | | |
| | | - / | | ` | | |
| Liner: 12" 662.1' 864' | | FFD 9 7 | 2005 | | + | |
| | | FEB 24 | ZUU3 | | - | |
| Final location of shoe(s) | | MATER BEEN IN | CEC DED~ | | | |
| (7) PERFORATIONS/SCREENS: | | WATER RESOUR SALEM, OR | | | - | |
| Perforations Method Factory | | OALEM, UK | | | 1 | |
| Screens Type Material Tele/pipe | | | | | | |
| From To size Number Diameter size Casi | | | | | 1 | |
| 664' 864' 3/16x3 9,120 12" | | | | | - | |
| | | | | | | |
| | | | | | | |
| | | | | | | · |
| | | | | | | |
| | | | | -1-1-1 44774 | 104 | |
| (8) WELLTESTS: Minimum testing time is 1 hour | | Date started 06/14/04 | | npleted 11/24 | | |
| | lowing | (unbonded) Water Well C | | | ntine as above | dor |
| | rtesian | I certify that the work I of this well is in compliance | e with Oregon water | supply well co | instruction sta | ndards. |
| Yield gal/min Drawdown Drill stem at | Time | Materials used and informa | tion reported above | are true to the b | est of my kno | wiedge |
| | 1 hr. | and belief. | 0/10 | nuna v | | |
| 1,450 1' | 24 hr | Winter | (ALB) | | mber 1702 | -05 |
| | | Signed MATTER STATE OF THE STAT | | | Date 02-21 | -00 |
| Temperature of water 53 F Depth Artesian Flow Found | | (bonded) Water Well Con | | | | |
| Was a water analysis done? Yes By whom City of Bend | | l accept responsibility for performed on this well duri | ng the construction (| dates reported a | ubove. Aliwo | rk. |
| Did any strata contain water not suitable for intended use? | o little | performed on this well duri performed during this time construction signdards. The | is in compliance wit | h Oregon water | supply well | |
| Salty Muddy Odor Colored Other | | construction standards. The | is report is true to th | | | belief. |
| Depth of straia: | | /_/ | \ // | WWC Nu | mber 1523 | - |
| | | Signed Willes | <u> </u> | | Date 02-21 | -05 |
| ORIGINAL & FIRST COPY-WATER RESOURCES DEPART | MENT SEC | COND COPY-CONSTRU | CTOR THIRD | COPY-CUS | TOMER | |

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| STATE OF OREGON WATER SUPPLY WELL REP | OPT | | | (WELL I.D.)# L | 67857 | | | |
|--|------------------|-----------------------|---|--------------------------|-------------------|--------------------------|-----------------|------|
| (as required by ORS 537.765) | URI | | | (START CARD) | | · | | |
| instructions for completing this repor | rt are on the la | st page of this form. | | (STAKT CARD) | * | | | |
| (1) OWNER: | W.ILN | Outback #6 | (II) LOCATION OF | WELL by best de | | | | |
| Name City of Bend | Well N | umber Outback #6 | (9) LOCATION OF | | • | anaire te | | |
| Address P.O. Box 431 | | | | S Rang | | ongitude | | |
| City Bend St | Dr. | Z _{ID} 97701 | Township 17 Section 34 | | e <u>11</u> | E | | WM |
| (2) TYPE OF WORK | aic Oi | Zip arrui | Tay Lot 5202R2 | | | _ 1/4 | _ | |
| New Well Deepening Alteration | randur/es and | ition1[7] Abandannas | | ell (or nearest address) | | nusivisduš nas 2d - S | | OB |
| (3) DRILL METHOD: | (тераплесон | Month | 97701 | en for nearest address) | 10000 ORYII | Her Ku., C | Jei 10 | UK |
| Rotary An Rotary Mud Ca | ble []At | luer | (10) STATIC WATE | R LEVEL: | | | | |
| Other Reverse Circulation, Dual R | | ·b | • • | low land surface. | | Date 11/0 | 2/04 | |
| (4) PROPOSED USE: | | | Artesian pressure | | uare inch | Date | | |
| Domestic Community Community | hearal [* | Irrigation | (II) WATER BEAR | | | | | |
| | _ | Other | , , , , , , , , | | | | | |
| (5) HORE HOLE CONSTRUCTIO | N: | | Depth at which water wa | s first found 115' | | | | |
| Special Construction approval 🗀 Yes 🕢 N | No Depth of C | impleted Well 864 N | | | | | | |
| Explosives used Yes No Type _ | | Amount | From | To | Estimate | d Flow Rat | le_ | SWL |
| | SEAL. | | 115 | 125 | 30 | | | 115 |
| Diameter From To Material | From In | Sucks or pounds | 516 | 582 | 200 gpm | | | 460 |
| 20" 0 502' Cement | | 5 yards | 638 | 884 | Rev.Circ- u | nmessus | ble | 480 |
| 1 | 0 160 | 11 yards | | | | | | |
| 16" 502' 884' | ļi | | | | <u></u> | | | |
| | .i | <u> </u> | (12) WELL LOG: | | | | | |
| How was seal placed Method | A (∄B | ⊠ c ∏b ∏E | Groun | d Elevation | | | | |
| Other | | | ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,, | | | | | |
| Backfill placed from 180 it to 480 | | rial sand grout | Mater | | <u>I-rom</u> | To | S | WI. |
| Gravel placed from 480 ft. to 602 | ft. Size | of gravel 1/4 | SEE ATTACHED | LOG" | | | - | |
| (6) CASING/LINER: | | | | | | - | ╁─ | |
| Diameter From To Gauge | 1.4 | | | | | | ┿- | |
| Casing 16" +1 675' .375 | . V | | | | | | +- | |
| | 4 <u>-</u> L | | RFCF | IVED | | | - | |
| | <u> </u> | <u>u</u> <u>u</u> | 1120 | | | | | |
| Luby 12" 662.1' 1864' | | 8000 0 000 | DEP 1 | K 2007 | | | +- | |
| Latter 12" 662.1' 1864' | | | | J ZUNT | + | | - | |
| | لــَ ـــن | | WATER DEG! | URCES DEPT | | | - | |
| Faul location of shoets) | | | PAI FM | OREGON | | | ! | |
| (7) PERFORATIONS/SCREENS: | | | Onlew, | <u> </u> | | | | |
| Perforations Method Factor | | aterial | | | | | 1 | |
| Screens Type | Telef | ipe | | | | | | |
| From 70 size Number Dia 664' 864' 3/16x3 9,120 12" | nieler size | Casing Liner | | | | | | |
| 000 000 0,100 1,00 | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | - | | | | | | | |
| | | | | | | | | |
| (8) WELL TESTS: Minimum testing | time is 1 ha | ur | Date started 05/14/04 | Com | pleted 11/24/ | 04 | | |
| fan seems a source of the seems of the seems | | | (unbonded) Water Well | | | | | |
| Pump Builer | 'Air | Howing Artesian | | performed on the cor | | ation, or ab | undor | ment |
| | Drill stem at | Time | of this well is in compliar | ice with Oregon water | supply well cor | estruction s | tanda | rds |
| Treat Emerica Distriction | | l hr. | Materials used and informand belief. | ation reported above t | אב ננשס נט שאל מי | cat or my k | III | -ugc |
| 1,450 | | 24 hr | ,1 | 0/2011 | WWC Nun | aber 26 | 60 | 2_ |
| | | | Signed Little | 1.74 | | Date | 11/0 | 14 |
| Temperature of water 53 F Depth | Artesian Flow | Found | (bunded) Water Well Co | nafractor Certification | n: | | | |
| Was a water analysis done' 7 Yes Hy | whom City C | | I national someomibility | for the construction, a | teration, or aba | ndonment | work | |
| Did any strata contain water not suitable for | | () Too little | nerhamed on this well du | ring the construction d | ules reported al | oove. All v | vark | |
| Sally Muddy Godor Golon | | | performed during this time construction standards. T | s is in combinance win | I CHEROM MARKET | SHIPPLY ME | •• | eľ. |
| Depth of strata. | _, | | i/b. K | 11 | WWC Nur | | | |
| | | | Signed Alley | $\mathcal{L}U$ | | Detc 12-0 | 2-04 | |
| ORIGINAL & FIRST COPY-WATER R | RESOURCES | DEPARTMENT SEC | | UCTOR THIRD | COPY-CUST | OMER | | |

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10941



Geo-Tech Explorations
A Division of instruction of 19700 SW Teton Ave
Tualatin, OR 97062
503-692-6400
503-692-4759 (fax)

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DEC 15 2004

WATER RESOURCES DEPT SALEM, OREGON

Start Card: 164709
Well Label: L67857
Boring #: Outback #6

Soil Profile Continued from Log:

| Material | From | To | SWL |
|-------------------------------|------|-----|-------------|
| Soil | 0 | 4 | |
| Broken Brown Rubble | 4 | 12 | |
| Broken Pumice | 12 | 46 | |
| Basalt - black & red | 46 | 51 | |
| Basalt – gray | 51 | 115 | |
| Basalt (soft) - red | 115 | 260 | 115 |
| Basalt - black | 260 | 380 | |
| Lava Pumice – brown & red | 380 | 435 | |
| Basalt - brown & red | 435 | 446 | |
| Red lava rock | 446 | 472 | |
| Basalt - black w/ brown | 472 | 516 | |
| Lava – brown & red | 516 | 582 | 480 |
| Cinders – brown & red | 582 | 620 | 1 |
| Basalt – brown | 620 | 638 | Ĭ |
| Lava - black & brown (caving) | 638 | 658 | Ĭ |
| Red cinders (caving) | 658 | 689 | <u>_</u> |
| Basalt - black w/ red | 689 | 691 | Ĭ |
| Basalt - gray | 691 | 700 | Ī |
| Lava – gray w/ red | 700 | 705 | |
| Basalt – brown w/ red lava | 705 | 710 | Ī |
| Red Cinders | 710 | 744 | ì |
| Basalt – gray | 744 | 751 | Ī |
| Red Cinders | 751 | 780 | j |
| Basalt - gray | 780 | 801 | Ţ |
| Basalt – gray & red | 801 | 831 | Ī |
| Basalt – red | 831 | 836 | Ī |
| Red Cinders | 836 | 864 | 480 |
| | | | |
| | | | |
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Pilot Butte #4- DESC 58778

Shiloh #3- DESC 5613

Hole Ten #1- DESC 5655

Hole Ten #2- DESC 5654

Attachment C

Well Logs for Proposed Additional Points of Appropriation **RECEIVED**

AUG 05 2009

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

| WELL LABEL # L | 100376 |
|----------------|---------|
| START CARD# | 1003631 |

| (1) LAND OWNER Owner Well I.D. Pilot Butte Well #4 | (9) LOCATION OF WELL (legal description) |
|--|--|
| First Name Last Name | County DESCHUTT Twp 17 S N/S Range 12 E E/W WM |
| Company CITY OF BEND | Sec 33 NE 1/4 of the NE 1/4 Tax Lot 101 |
| Address P.O. BOX 431 | Tax Map Number Lot |
| City BEND, State OR Zip 97701 | Lat DMS or DD |
| (2) TYPE OF WORK X New Well Deepening Conversion | Long OMS or DD |
| Alteration (repair/recondition) Abandonment | Street address of well |
| | 1402 N.E. LAFAYETTE |
| (3) DRILL METHOD | DEATS OBECOMOTOR |
| Rotary Air Rotary Mud X Cable Auger Cable Mud | (10) STATIC WATER LEVEL Date SWI(mi) + SWI(ft) |
| Reverse Rotary Other | Date SWL(psi) + SWL(ft) Existing Well / Prodespening |
| (4) PROPOSED USE Domestic Irrigation X Community | Completed Well 06-24-2009 702 |
| Industrial/ Commercial Livestock Dewatering | Flowing Artesian? Dry Hole? |
| Thermal Injection Other | WATER BEARING ZONES Depth water was first found 684 |
| (5) BORE HOLE CONSTRUCTION Special Standard Attach copy | |
| Depth of Completed Well 1,160 ft. | 11-28-2008 694 705 100 682 |
| BORE HOLE SEAL sacks/ | 03-14-2009 705 850 1,000 687.5 |
| Dia From To Material From To Amt iba | 06-04-2009 850 1,160 5,000 694 |
| 26 0 189 Cement 660 680 44 S | 06-24-2009 |
| 22 189 850 Cement 307 335 44 S 15 850 1,160 Cement 0 101 880 S | |
| 15 830 1,100 Centent 0 101 860 S | (11) WELL LOG Ground Elevation 3,712 |
| How was seal placed: Method A B XC D E | Material From To |
| Other | See Attached Formation Log 0 1,160 |
| Backfill placed from 335 fl. to 660 fl. Material Bentonite Chips | |
| Filter pack from ft. to ft. Material Size | |
| Explosives used: XYes Type Deta Gel Amount 9 sticks 2x16 | |
| | |
| (6) CASING/LINER Casing Liner Dia + From To Gauge Stl Plate Wid Thrd | |
| ○ 16 × 2 850 .375 ○ × | |
| 0 14 840 1,160 .375 X | |
| 8 8 T T T T T T T T T T T T T T T T T T | WESTERN WATER DEVELOPMENT RECEIVED |
| | WESTERN WATER DEVELOPMENT REDLIVE |
| | P.O. Box 1670 Redmond, OR 97756 JUL 0 2 2009 |
| Shoe Inside X Outside Other Location of shoe(s) 850 | REDMOND, OR 97756 JUL 4 2 2013 |
| Temp casing Yes Dis From To | The second secon |
| (7) PERFORATIONS/SCREENS | WATER RESOURCES DE |
| Perforations Method Factory Saw | SALEM, OREGON |
| Screens Type Material | |
| Perf/S Casing/ Screen Scrn/slot Slot # of Tele/ | D. C. |
| creen Liner Dis From To width length slots pipe size | Date Started 06-06-2008 Completed 06-24-2009 |
| Perf Casing 16 740 828 .188 3 16 | (unbonded) Water Well Constructor Certification |
| Perf Liner 14 849 938 .188 3 14 | I certify that the work I performed on the construction, deepening, alteration, or |
| Perf Liner 14 938 960 .25 3 14 Perf Liner 14 960 1,004 .188 3 14 | abandonment of this well is in compliance with Oregon water supply well construction standards. Materials used and information reported above are true to |
| Perf Liner 14 960 1,004 .188 3 14 Perf Liner 14 1,004 1,071 .25 3 14 | the best of my knowledge and belief. |
| | License Number Date |
| (8) WELL TESTS: Minimum testing time is 1 hour | Password : (if filing electronically) |
| Pump | Signed |
| Yield gal/min Drawdown Drill stem/Pump depth Duration (hr) 1,150 17 832 4 | (bonded) Water Well Constructor Certification |
| 950 11 832 20 | I accept responsibility for the construction, deepening, alteration, or abandomuent |
| | work performed on this well during the construction dates reported above. All work |
| Temperature 51 °F Lab analysis Yea By | performed during this time is in compliance with Oregon water supply well |
| Water quality concerns? Yes (describe below) | construction standards. This report is true to the best of my knowledge and belief. |
| From To Description Amount Units | License Number 1385 Date 06-26-2009 |
| | Password: (if frling electronically) |
| | Signed 1/500 |
| | Contact Info (optional) |
| ORIGINAL - WATER RESOURCES D | EPARTMENT ENTERNATION OF THOSE TO DAYS OF COMEDIFICATION OF THOSE |
| THIS REPORT MUST BE SUBMITTED TO THE WATER RESOURCES DEPARTM | Form Version: 0.89 |

WELL LD. # L 100376

| STA | RT | CARD | # | 1003631 |
|-----|----|------|---|---------|
|-----|----|------|---|---------|

| | | | CONSTRI | UCTION | | | | (10) STATI | C WATER | T PA/PE | | | <u> </u> |
|-----------|-------------------------|---------|----------------|--------------|---|-------------|----------|--------------|-----------------|--------------|---------------|-----------------|---------------|
| Dia. | ORE H | | | | SEAL | | наска/ | Water Be | uing Zones | CIEAFT | • | | |
| | | Τ. | Ma | terial | From | To Ami | _lbs_ | SWL Date | | | | | |
| | | | | | | | | 3 WL Date | From | To | Est Flow | SWL(pai) | + SWL(ft) |
| | ╅ | - | | _ | | | 1 | | | | 1 | | |
| | - | + | - | | | | | | | | | | |
| | | | | | | | | | - | | | | 200 |
| | | + | | | | | | I | - | | | | |
| | DU TO | R PAC | | | | | \bot | | | | | | |
| F | From | To | Material | Size | | | | | | | | | |
| | | | | | | | |] | | | - | | |
| - | | | | | | | | | | | | | |
| | | | | | | | | (11) WETT | 100 | | | | |
| (6) C | ASING | /LINE | R | | | | | (11) WELL | LOG | | | | |
| | | | | _ | | | | | Material | | | From | То |
| (20) | ing Liner | Dia | + Fro | m To | Gauge Sti | Plate Wid | I brd | | | | | | |
| \succ | $\langle \mathcal{A} $ | | | | Q | \Box | Н | | | | | - | |
| \succ | \ | | ┨ | | X | $H \bowtie$ | - | | | | | | |
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| | | | | | | dH | | | | | | | _ |
| Q | | | | | | | | | | | | | - |
| \bowtie | - | | ┤├ ╡─── | | Q | $Q \sqcup$ | | | | | | | |
| \succ | \prec | | | ┪ | $\vdash \vdash \mid R$ | H | H | | | | | | |
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| | | | | • | | | | | | | | | |
| (7) PR | RFOR | ATIO | NS/SCRE | FNC | | | | | | | _ | | |
| | Casing/ S | | TWOCILE | | n/slot Slot | # of | Tele/ | | | _ | | | |
| creen l | | Dia | From | | idth length | | ipe size | | | | | | |
| Perf 1 | Liner | 14 | 1,071 | 1,160 . | 188 3 | | 14 | | | | | | J.= |
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| | | | | | | | | | | | WATE | H HESOL | RCES DEP |
| | | | | | | | | | | | | SALEM, C | REGON |
| | | | | | | | | | | | | | |
| | | | | | | | | | | | | L | |
| (8) W | ELL T | ESTS: | Minimum | testing t | ime is 1 hou | ır | | | | | | | |
| Yield | gal/min | Dra | wdown | Drill stem/P | ump depth | Duration (b | T) | <u> </u> | m | | | | |
| | | | | | | | | Comments | Remarks | | | | |
| | _ | | | | | | _ | A 44'6' 15 | | -1 -1 4 C | - 1011 - 22 | (N D c - 4 - 14 | China |
| | | | | | | | _ | Additional E | lackfill Materi | er bracog no | NG 101. 10 30 | / penionie | ⇔атр в |
| | | | | | | | | | | | | | |
| | | | | | | | | | | | | | |
| Wa | ter Qua | lity Co | ncerns | | | | | | | | _ | | |
| Fron | | To | | escription | Am | ount Uni | ls. | Į W | ESTERN V | VATER D | evelopi | MENT | |
| | | | | | | | | | P.C |). Box 1 | 670 | | |
| | | | | | | | | | | | 97756 | , | |
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Pilot Butte Well #4 Well: Customer: City of Bend, Oregon Western Water Development P.O. Box 1670 Redmond, OR 97756

Formation Geology Description

| Material | From | То |
|--|-------------|--------------|
| Sandy Loam with Boulders | 0 | 8 |
| Broken Dark Gray Basalt | 8 | 26 |
| Black Vesicular Basalt | 26 | 43 |
| Broken Dark Gray Basalt | 43 | 52 |
| Black Vesicular Basalt | 52 | 60 |
| Dark Gray Basalt | 60 | 74 |
| Black / Red Basalt | 74 | 95 |
| Black / Red Basalt with Cinders | 95 | 102 |
| Black / Red Basalt | 102 | 116 |
| Vesicular Basalt with Cinders | 116 | 130 |
| Gray Basalt | 130 | 144 |
| Black / Red Basalt | 144 | 152 |
| Red Cinders | 152 | 163 |
| Hard Gray Basalt | 163 | 170 |
| Black / Red Basalt | 170 | 181 |
| Hard Gray Basalt | 181 | 196 |
| Red Cinders | 196 | 202 |
| Very Hard Gray Basalt | 202 | 222 |
| Red Cinders | 222 | 228 |
| Reddish Pumice & Gravels | 228 | 250 |
| Brown Pumice & Gravels | 250 | 276 |
| Brown Pumice & Sand | 276 | 302 |
| Broken Dark Gray Basalt | 302 | 355 |
| Hard Gray Basalt | 35 5 | 367 |
| Black Red Basalt | 367 | 377 |
| Brown Sandstone | 377 | 388 |
| Broken Black / Red Basalt | 388 | 3 9 5 |
| Void-Cement Grout | 395 | 405 |
| Hard Gray Basalt Slanted | 405 | 414 |
| Used Explosives to Straighten Borehole | | |
| Black with Red / Brown Basalt | 414 | 423 |
| Brown Sandstone | 423 | 437 |
| Black Sandstone with Pumice | 437 | 451 |
| Hard Gray Basalt | 451 | 463 |
| Black & Red Basalt with Cinder Beds | 463 | 474 |
| Broken Gray Basalt | 474 | 492 |
| Broken Black Basalt | 492 | 504 |
| Broken Black & Red Basalt & Cinders | 504 | 524 |
| Hard Dark Gray Basalt | 524 | 534 |
| Very Hard Gray Basalt | 534 | 541 |
| Caving, cemented back to 500 ft. 10/31 | | |

Caving, cemented back to 495' on 11/3

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WATER RESOURCES DEPT SALEM, OREGON

| | Material | From | То | |
|------------------------|------------------------------------|------|------|---------------|
| Brown Sa | andstone | 541 | 549 | |
| Dark Gra | | 549 | 578 | |
| | g Basaic Red Broken Basalt | 578 | 598 | |
| | lack Basalt | 598 | 623 | |
| 2.2.,2 | andstone with Gravel | 623 | 655 | |
| Dark Gra | | 655 | 664 | |
| | Red Basalt | 664 | | SWL 682' |
| Vasicular | with Ash Imbediments | | | |
| | iray Basalt | 694 | 705 | |
| | lack & Red Basalt | 705 | 715 | |
| | andstone w/ Black & Red Gravels | 715 | 743 | |
| | lack Basalt | 743 | 755 | SWL 685' |
| Hard Gra | y Basalt | 755 | 766 | |
| | lack & Red Basalt w/ Red Cinders | 766 | 780 | |
| | esicular Black, Red & Brown Basalt | 780 | 790 | |
| Gray Bas | alt | 790 | 813 | |
| • | glomerate | 813 | 834 | SWL 686.5' |
| Brown Sa | andstone | 834 | 864 | |
| Black Bas | salt with Red Cinders | 864 | 872 | |
| Brown Co | onglomerate | 872 | 925 | |
| Black Bas | salt | 925 | 958 | |
| (No Retu | rns from 958'-970') | | | |
| Black Bas | salt with Red Cinder fragments | | | |
| and sean | ns of Brown Ash | 958 | 1035 | 687. 5 |
| No Retur | 'ns | 1035 | 1050 | |
| Black Bas | salt | 1050 | 1080 | |
| No Retur | ns | 1080 | 1095 | |
| Black Bas | salt with Cinder Imbedaments | 1095 | 1160 | |
| | | | | |
| Well Seal & Backfill I | | _ | | |
| Surface Grout Seal | 40 yds cement grout | 0 | 101 | |
| Bentonite Backfill | 20 Super Sacks | 101 | 307 | |
| Intermediate Seal | 2 yds cement grout | 307 | 335 | |
| Bentonite Backfill | 33 Super Sacks | 335 | 660 | |
| Bottom Grout Seal | 2 yds cement grout | 660 | 680 | |

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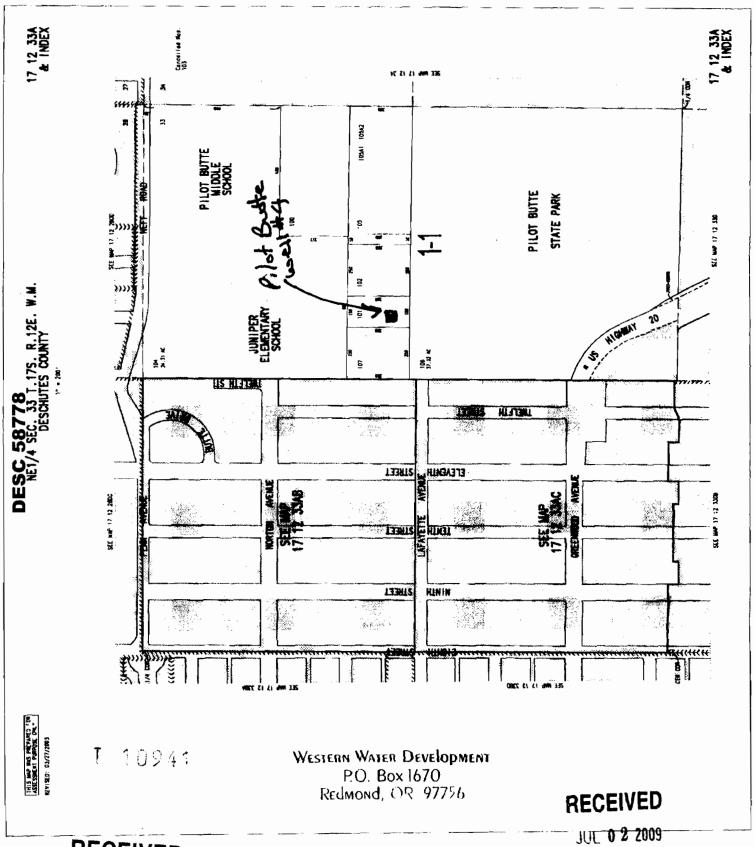
AUG 05 2009

WATER RESOURCES DEPT SALEM, OREGON Western Water Development P.O. Box 1670 Redmond, OR 97756

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WATER RESOURCES DEPT SALEM, OREGON



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WATER RESOURCES DEPT SALEM, OREGON WATER RESOURCES DEPT SALEM, OREGON THE OF THE PROPERTY OF THE OFFICE OF T

filed with the DESC 3
STATE ENGINEER, SALEM, OREGON 97310 552 3
within 30 days from the date
of well completion.

| filed with the DESC 3 STATE OF | 344979 State Well No. 4 | 185/1. | 2E-1 | 6bc |
|--|--|--|------------|---|
| STATE ENGINEER, SALEM, OREGON 97310 STATE OF WATER | OUNCES DEST 30 1974 State Permit No | . (| * | 11 21 |
| of well completion. (Do not write a) | OUNCES DEPT 30 1974 State Permit No. OREGON A.O.B. 8 | | 26 | |
| | 1 | O 11 J ., | | |
| (1) OWNER: | (10) LOCATION OF WELL: | | | |
| Name J.L. Ward Construction Co. Address 61045 Brosterhous Rd. | County Deschutes Driller's well nur | mber | | |
| Address 61045 Brosterhous Rd. | | R. 12E | į į | W.M. |
| (2) TYPE OF WORK (check): | Bearing and distance from section or subdivisio | | | |
| | 2,000' South of NW Corner of | Sec. | 16 | |
| New Well X Deepening Reconditioning Abandon If abandonment, describe material and procedure in Item 12. | 7.7 | | | |
| | (11) WATER LEVEL: Completed we | :11. | | |
| (3) TYPE OF WELL: (4) PROPOSED USE (check): | Depth at which water was first found 335 | | | ft. |
| Rotary Driven Domestic Industrial Municipal | Static level 335 # below land at | irface. D | ate | |
| Dug 📋 Bored 🗋 Irrigation 🗓 Test Well 📋 Other 📋 | Artesian pressure Ibs. per square | inch. D | ate | |
| CASING INSTALLED: Threaded I Welded X | * | | | |
| Threaded Welded E | (12) WELL LOG: Diameter of well be | elow casin | <u>16</u> | I |
| Diam from ft. to ft. Gage | Depth drilled 417 at Depth of comple | ted well | 410 | A, |
| "Diam from ft. to ft. Gage | formation: Describe color, texture, grain size s | and struct | ure of r | naterials |
| The state of the s | with at least one entry for each change of format | | | |
| PERFORATIONS: Perforated? A Yes No. | position of Static Water Level and indicate principal | | | |
| Type of perforator used Torch | MATERIAL | From | To | SWL |
| Size of perforations 1/4 in. by 6 in. | Sandy Soil | 0 | 4 | |
| 500 perforations from 330 ft to 410 ft | Gray Lave | 4 | 28 | |
| perforations from ft. to ft. | Lava Chunks | 28 | 34 | |
| perforations from ft. to ft. | Red Cinders | 34 | 49 | |
| /// COPERIC. | Lava Chunks | 49 | 56 | |
| (7) SCREENS: Well screen installed? Yes & No | Conglomerate tan | 56 | 89 | |
| Manufacturer's Name | Gray Pumice | | 112 | |
| Type Model No. | | | 137 | |
| Diam. Slot size Set from ft. to ft. Diam. Slot size Set from ft. to ft. | | | 162 | |
| Mills minima dist size annual set if the management at the management at | | | 166 | |
| (8) WELL TESTS: Drawdown is amount water level is lowered below static level | | | 172 | |
| Was a pump test made? A Yes □ No H yes, by whom? Ward | , | | 191 | |
| Viold: 1500 gal./min. with ft. drawdown after hrs. | | | 221 253 | |
| See Attached Letter " " | | | 271 | |
| " " " | Lava Chunks | | 306 | |
| The state of the s | | | 319 | |
| Bailer test gal./min. with ft. drawdown after hrs. | Gray Lava | 319 | 336 | 335 |
| Artesian flow None g.p.m. | (Continued Below) | <u> </u> | | |
| erature of water 52 Depth artesian flow encountered ft. | Work started 4/18 19/4 Completed | | 5/26 | 19 7/ |
| (9) CONSTRUCTION: | Date well drilling machine moved off of well | | 6/28 | 19 7 |
| Well seal-Material used Portland Cement Grout | Drilling Machine Operator's Certification: | | | |
| Well sealed from land surface to 50 ft. | This well was constructed under my Materials used and information reported | direct | superv | ision. |
| Diameter of well bore to bottom of seal .18in. | best knowledge and belief. | above ac | e true. | w my |
| Diameter of well bore below seal16-18 in. | [Signed] [Orilling Machine Operator) | Date | | 19 |
| Number of sacks of cement used in well sealsacks | (Orilling Machine Operator) | | | |
| Number of sacks of bentonite used in well sealNone | Drilling Machine Operator's License No | | | |
| Brand name of bentoniteNA | Water Well Contractor's Certification: | | | |
| Number of pounds of bentonite per 100 gailons | This well was drilled under my jurisdic | tion and | this re | port is |
| of waterlbs./100 gals. | true to the best of my knowledge and belie | ef. | | _ |
| Was a drive shoe used? Yes No Plugs Size: location ft. | Name Jan L. Ward (Person, firm or corporation) | /m | | · |
| Did any strata contain unusable water? Yes No | Address 61045 Brosterhous Road | Rend | . W Marie | " . POD |
| Type of water? depth of strata | 7// | | X4.X | P.X. |
| Method of sealing strata off | [Signed] (Water Well Contra | ************************************** | | |
| Was well gravel packed? ₹ Yes □ No Size of gravel: 1/4-1/2 | | | | |
| Gravel placed from 50 ft. to 410 ft. | Contractor's License No Date | | <u></u> | <u> </u> |
| USE ADDITIONAL SH | TERTS IF NECESSARY) | | 9000 | 4. C. |

WATER WDESC 5613

E ENGINEER, SALEM, OREGON 97310 within 30 days from the date of well completion.

(Do not write ab-

(Please type

OWNER: J.L. Ward Construction Co. Name 61045 Brosterhous Rd. Address (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): Driven [Rotary Domestic 🖸 Industrial 🖸 Municipal 🗇 Cable Jetted 🔲 Dug Bored D Irrigation [] Test Well [] Other (5) CASING INSTALLED: Threaded [] Welded [] 12 " Diam from "+2 ft to -410 ft Gage 150 " 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 (6) PERFORATIONS: position of Static Water Level and indicate principal water-bearing strata. Perforated? Yes | No. Type of perforator used Torch MATERIAL. From SWI. in. in. by Size of perforations <u>500</u> 330 n. to 410 Red Cinders perforations from ... 336 347 perforations from .. ft. to Cemented Gravel 347 352 Red Cinders 357 perforations from ft. to .. 357 Gray Lave -357 387 (7) SCREENS: Well screen installed? [] Yes 4] No Red Cinders 367 417 enufacturer's Name .. _ Model No. . Set from __ Slot size Set from ____ Diam. __ Drawdown is amount water level is lowered below static level RECEIVED (8) WELL TESTS: Was a pump test made? Yes No If yes, by whom! Ward DEC 1 4 2000 gal./min. with ft. drawdown after Yield: hrs. See Attached Litter WATER RESOURCES DEPT. SALEM, OREGON . ATER RESOURCES DEPT Bailer test gal./min. with ft. drawdown afte hrs. SALEM, OREGON. Artesian flow None g.p.m. Temperature of water 52 Depth artesian flow encountered . £. 1175 19 -Work started 4/18 154 Completed 6/23 Date well drilling machine moved off of well (9) CONSTRUCTION: Well seal-Material used Port and Drilling Machine Operator's Certification: This well was constructed under my direct supervision. Materials used and information reported above are true to my Well sealed from land surface to ... Diameter of well bore to bottom of seal .18. best knowledge and belief. Diameter of well bore below seal _16-18 in. [Signed] ________Date _____, 19____ Number of sacks of cement used in well seal _ Drilling Machine Operator's License No. Number of sacks of bentonite used in well seal None Brand name of bentonite NA Water Well Contractor's Certification: Number of pounds of bentonite per 100 gallons 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 ___ Name Jan I Ward any strata contain unusable water?

Yes

No (Type or print) 61045 Brosterhous Road, Bend, Oregon Type of water? depth of strata Method of sealing strata off Was well gravel packed? Yes No Size of gravel: 1/4-1/2 (Water Well Contractor) Gravel placed from 2.50 ft to 410 Contractor's License No. Date _ ravel placed from (USE ADDITIONAL SHEETS IF NECESSARY)



"communities planned with pride"

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JUL 171978 WATER RESOURCES DEPT. SALEM. OREGON

July 13, 1978

Water Resources Department of Oregon State 555 13th N.E. Salem, Oregon 97310

Gentlemen:

Enclosed please find a completed well log for a well that was drilled in May and June of 1974.

The drilling was done with tools and machines belonging to Ward Construction Company and operated by Lawrence Kowaleski of Madras, Oregon .

The drilling was completed in late June 1974; the casing was installed and the seal was installed and the well completed on September 24, 1974.

An 8" Lineshaft Turbine Pump was installed in the summer of 1977 and the well as tested for a period of 30 days at a flow of 1500 Gallons Per Minute. There was no apparent draw down in the two adjacent wells before, during or after the test period.

The tardiness of this well log was due to my misunderstanding of who was to make the filing.

If there is any additional information required, please advise.

Ward Construction Company

Jan L. Ward President

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AUG 05 2009

JW/mc

Enclosures

WATER RESOURCES DEPT SALEM, OREGON

fax dobord 8611336

61045 Brosterhous Road • Bend, Oregon 97701 • (503) 382-0491

STATE OF OREGON

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DESC 5655

185/12E-200c

APR 3 0 **1986** WATER WELL REPORT FILE OF THE OF THE OF PRINT IN IN (for official use only) िर्मिट्टीन, देशएउक्का (1) OWNER: (10) LOCATION OF WELL by legal description: Name Mt High Water System Jan Ward SW M _NEW of Section ____ Address 61045 Brosterhouse Rd Bend StateOre Block _ Dev Mt. High (2) TYPE OF WORK (check): MAILING ADDRESS OF WELL (or nearest address) Bend, Ore Despening
Reconditioning New Well 🛶 Abandon 🛘 If abandonment, describe material and procedure in Item 12. (11) WATER LEVEL of COMPLETED WELL: (3) TYPE OF WELL: (4) PROPOSED USE (check): Depth at which water was first found __ 415 Rotary Air 🔀 Driven ☐ Industrial ☐ Municipal Domestic Thermal; Withdrawal Static level 410 ft. below land surface. Date: /1/86 Rotary Mud ☐ Reinjection Dur Artesian pressure Other: XCOmmunity
Plezometric Crounding lbs. per square inch. Date ☐ Bored (12) WELL LOG: Diameter of well below casing .. CASING INSTALLED: Steel Depth drilled ft. Depth of completed well, 22 Plastic Welded 虿 Threaded Formation: Describe color, texture, grain size and structure of materials; and show thickness and nature of each stratum and aquifer penetrated, with at least one entry for each change of formation. Report each change in position of Static Water Level and indicate principal ft. Gauge water-bearing strata. LINER INSTALLED: MATERIAL SWL Threaded Welded 0 brn sand ft. to Diam. from 5 2 brn congl med (6) PERFORATIONS: Perforated? Yes □ No 5 25 ten congl cree Size of perforations 178 38 25 gray basalt perforations from 425 At to 485 A 91 brn basalt perforations from 91 103 brn congl perforations from ft. to 103 | 151 gray basalt 151 173 (7) SCREENS: hm ss Well screen installed? Yes No gray basalt 173 222 Manufacturer's Name 222 264 brn congl crae . Model No. . Туре 264 279 dk gray basalt Slot Size Set from ... 279 304 brn sand med bldrs Slot Size Set from ft. to 304 325 dk gray basalt Drawdown is amount water level is lowered (8) WELL TESTS: below static level 325 r336 tan congl fine 336 357 brn sa Was a pump test made? Yes No If yes, by whom? 357 403 gal./min. with ft. drawdown after brn congl 403 415 tan claystone 415 439 redish gray congl (WB) Air test gal./min. with drill stem at 444 ft. hrs. gray basalt brn ves basalt(WB)459 45 poogal./min. with turnft. drawdown after Bailer test ten congl(fine gravel(WB) 458 464 Artesian flow gray basalt (WB <u>464 | 488</u> Depth artesian flow encountered mperature of water 4/4/86 Date work started __ (9) CONSTRUCTION: Special standards: Yes I No I 1986 Date well drilling machine moved off of well cement Well seal-Material used (unbonded) Water Well Constructor Certification (if applicable): Well sealed from land surface to This well was constructed under my direct supervision. Materials used and Diameter of well bore to bottom of seal 12" 30 toin 485-8" 485 to 488 Diameter of well bore to bottom of seal .. information reported above are true to my best knowledge and belief. [Signed] Much Valliant Date 4/7 84 Leagues sacks D pounds Amount of sealing material ... How was cement grout placed? pumped from (bonded) Water Well Constructor Certification: _ Issued by: __U_S_F_&_G_ Bond 468400 On behalf of John V. Johnson (type or print name of Water Well Constructor) HP Туре Was a drive shoe used? Yes No Plugs
Did any strata contain unusable water? Yes XNo Size: location This well was drilled under my jurisdiction and this report is true to the best of my knowledge and belief: Type of Water? depth of strata Method of sealing strata off (Signed) . Size of gravel: . Was well gravel packed?

Yes
No (Dated) Stavel placed from ft. to

RECEIVED NOTICE TO WATER WELL CONSTRUCTOR
The original and first copy of this report 0 9 4 7

WATER RESOURCES DEPARTMENT, SALEM, OREGON 97310 within 30 days from the date of well completion. 8P°46866-690

WATER HESUUHCES DEPT SALEM, OREGON

STATE OF OREGON

WATER WELL REPORT (as required by ORS 537.765)

RECEIVED DESC JUN 30 1987

| 183 | 13E- | -20a | 1 |
|-----|------|------|---|
| 1 | | | |

| (1) OWNER: Own MAYEN WATER Systems SALEM OFFICEN | (0) LOCATION OF WELL by legal description: | | | |
|--|--|--|--|--|
| Address 61045 Brosterhouse Rd. | County Des Latitude / "Longitude / " | | | |
| City Bend StateOre Zip 97701 | Township 18 S N or S, Range 12 E E or W, WM. Section 20 SE 4 NE 4 | | | |
| (2) TYPE OF WORK: | | | | |
| New Well Deepen Recondition Abendon | Tax Lot Lot Block Subdivision Street Address of Wall (or nearest address) | | | |
| | Differ Addition of Addition definess withness | | | |
| (3) DRILL METHOD: | (10) COMATRICA WATER TATER. | | | |
| 🛂 Rotary Air 🔲 Rotary Mud 🔲 Cable 🔲 Other | (10) STATIC WATER LEVEL: | | | |
| A CONTRACTOR OF THE CONTRACTOR | 412 ft. below land surface. Date 6/9/87 | | | |
| (A) DRODOGED FIGE. | Artesian pressurelb. per square inch. Date | | | |
| (4) PROPOSED USE: □ Domestic | (11) WELL LOG: Ground elevation | | | |
| Thermal Injection Other | brn soil Material From To WB? SWL | | | |
| BORE HOLE CONSTRUCTION: | crs congl brn 2 21 | | | |
| Depth of Completed Well 502 ft. | gray basalt 21 40 | | | |
| Special Standards date of approval | brn vesicular basalt 40 45 | | | |
| HOLE SEAL Amount | brn basalt _ 45 94 . | | | |
| Diameter From To Material From To sacks or pounds | brnsh gray cinders 94 102 | | | |
| 15" 0 30 cem 0 30 75 sacks | gray basalt 102 130 | | | |
| 12" 30 502 | brkn rubble zone 139 132 | | | |
| | brn congl med 132 145 | | | |
| How was seal placed? Method | brn congl fine 145 159 | | | |
| Other | gray vesicular basalt 150 168 | | | |
| Backfill placed fromft_ Material | brn ss congl crse 168 199 gray basalt 199 215 | | | |
| Gravel placed fromft. toft. Size of gravel | | | | |
| (6) CASING/LINER: | redish gray cinders 215 218 gray basalt-intermitt 218 282 | | | |
| Diameter From To Gauge Steel Plastic Welded Threaded | (ent fractures | | | |
| Casing: 1011 +2 502 250 K | brn congl crse 282 302 | | | |
| | gray basalt 302 318 | | | |
| | brn ss congl 318 324 | | | |
| Liner: | gray basalt 324 335 | | | |
| | brn 88 335 354 | | | |
| Final location of shoe(s) | brn congl w/tan clay. 354 403 | | | |
| PERFORATIONS/SCREENS: | (strips red cindery rubble 403 /119 WB /112 | | | |
| Perforations Method machine | | | | |
| Screens Type Material | redish gray cinders 430 438 WB | | | |
| Slot Tele/pipe | gray basalt 438 460 | | | |
| From To size Number Diameter size Casing Liner | red cinders 460 465 WB | | | |
| 442 502 1/8 by | brkn gray basalt 465 483 WB | | | |
| | redish gray cindery | | | |
| 3 1140 5 | (cong 483 496 WB | | | |
| | med gravel 496 502 WB | | | |
| | Date started 5/29/87 Completed 6/9/87 | | | |
| (8) WELL TESTS: Minimum testing time is 1 hour | (unbonded) Water Well Constructor Certification: | | | |
| Flowing | I constructed this well in compliance with Oregon well construction | | | |
| □ Pump □ Bailer □ Air □ Artesian | standards. Materials used and information reported above are true to my best | | | |
| Yield gal/min Pumping level Drill stem at Time | knowledge and belief. | | | |
| at latin date 1hr | Signed | | | |
| | (bonded) Water Well Constructor Certification: | | | |
| (bonded) Water Well Constructor Certification: I accept responsibility for construction of this well and its compliance. | | | | |
| Temperature of water | with all Oregon water well standards. This report is true to the best of my | | | |
| Was a water analysis done? | knowledge and belief. | | | |
| Did any atrata contain water not suitable for intended use? Too little | Signed 10 Date 6/16/87 | | | |
| □ Salty □ Muddy □ Odor □ Colored □ Other □ | | | | |
| Depth of ECEIVE Company Co. Johnson Vell Drilling Co. Job No. | | | | |
| AUO 0 - 0000 T 4 0 0 5 4 | TO F TO 1 1 2 9809C 20/88 | | | |
| AUG 05 2009 T 10941 | | | | |