Appendix A

| ROM : WILD | ROSE WA | TER WEL | LS | FAX | NO. : | 1 403 556 | 6700 N | ov. 19 | 3 2010 11: | 33AM | P13 | * |
|---------------------------------------|-------------------|------------------------|---------------------------------------|---|----------------------------------|---|--|----------------------------|---|-------------------------|--------------------------------|---|
| Alberto | ~ V | Vater | Well | Drilling | n Rer | oort | - | GIC Well | | | | |
| | - Th | o driver sunn | lias the rista co | nteined in this (ed | on. The Prov | vince disclaims resp ained in a public o | onsibility 🕆 | GoA Well Date Rep | ort Received | | | |
| Well Identificat | | | | | | | Town: | | Postal | | | |
| wher Namo: CHLOE | CARTW | RIGHT | Add | iress: 30× | 130 | | COCHA | | Code: | -4 | C 1A4 | |
| ocation 1/4 or LSD: | SEC: | TWP: 25 | 7 8053 | W OF MER: | Lot | Block | Plan: | | Description: # | WĒ | 1(| |
| leasured from Bo | oundary of: | Quar | er 🗋 Lot | | GPS | Coordinates In D | ecimal Dogrees (NAD | 83) 7 () 1 | 130 Elevati | I' | 217m | |
| m | n/ft from 🖸 N | i 🗆 s 📋 | _ | m/ft from 🗋 E | Lathu Lathu Lathu Lathu | and Held Auto 20- | | | | | /ed GPS<1m | |
| Drilling Inform | nation | | | | | | Propos | ed Well L | Jse: | | | |
| lethod of Drilling: I Auger | 4 | | (Producing) | | | | C Hou | blorteau |) 13/yr with residen | ce on p | roperty) | |
| Backhoe/Dug Boring | (| | or 🗋 New W with: 🗋 Bento | eli (Dry) Plugg nite Slurry [| ed: Bentonile | | 2 Duto | er (Specif | VI:LOOLE | | | |
| Cable Tool Rotary (air) | | Amount | | (Specify): | | | | | | | | |
| Rotary (mud) | | Deepene | d Well | Well ID (if app | ileable): | | (Note: Albert | : All wells, a Environn | except household i rent to divert and t | vells, m Ise grou | ust be licenced by ndwater) | |
| Formation Log | | | ructed well | in: 🗋 Metric | | O Well Com | pletion | Me | asurements in: | 1 Metri | c imperial | |
| | lcate if | | | Description | | Total Depth Drilled: | Finished V Depth: | ^{vell} 35 | Start Date | 78 | | |
| ground level Wat | ter Bearing | ا الاسبية | 20 | | | Borehole: | 0" | | | | 261 | |
| 19 | | <u>114-</u> | <u>100-0</u> | 147 ~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~ | | Diamete Diamete | | From: From: | 26' | _ To: To: | 35 | |
| 26 | | fill- | <u>L-K-CI</u> | 117 | | Surface Ca | sing: (if applicable) | 1 | Casing/Liner: | | | |
| 21 | | <u>21015</u> | <u>1 - 15K1</u> | F E | | — □ Steel □ Galvani | zed Steel | | | dvanize berglass | d Steel | |
| 29 | | <u>>>-</u> .(| 10 F | (| | | | Ó | Other: | | A . 1 | |
| 30 | 1 | 27-1 | BRAI-F | - SHATTE | REA | Cerneni | L | Siz To | 10 OD: <u>499</u> v 0 al: 4.81.10 E | /ali Thic sottom / | kness: ••17 | |
| 35 | - | 55 × | SRA-F | <u>, nuriji</u> | | Size OD: | | 1 | norations: | | 00 | |
| | | (| | | | Wall Thickn | ess; | - 1 | om: <u>30</u> | To: | 55 | |
| | | 7"14 | SIN- 1 | AS DI | LIVEN | Bottom at:_ | | 1 | om: | :0: X | 6 | |
| | | Rom | 26' 70 | > BOTTO | | | | Pe | rforated by: | Aachine Xhor: | Broaw Drill | |
| | | VC 4 | AS DA | STAUED | × | 'Annular Se | al: Bentonile Slurry | Bent | | | , | |
| | | 2" 517 | EL CA | jul WA | 5 | Placed From | n: | 0.01 | To | 28 | pi | |
| | | EEMO | VED | | | Amour | ······································ | OLBS | | | | |
| | | | | | | Shale Tr | ao. at: 🤊 🏷 | | Welded Ring, : Other, at: | at: | | |
| | | | | | | | c: 🗋 Stainless Steel | | > | | | |
| | | | | (w. | | Size OD: Interval Fro | m:To |): | | Size: | | |
| | | | · · · · | | | Interval Fro | |): | Slot | Size: | | |
| | | | | | | | D Packer C Couple | | om Fittings; 🗋 Wi | ash-dov | vn 🗋 Bail 🛄 Plug | |
| · | | | | | | Pack: | | . | · | | | |
| 3 Yield Test | | | | ····· | Mea | Suremente in: | echanical DNatural Metric Limperial | Grain Taken F | rom: I lop of C | _ Amo | | |
| ast Jam: In 16 | 9 J-8 | Start Time: | | Distance From To Casing to Ground | p of Level: | 1.0 | | 0 | Ē | to wate lepsed 7 | me | |
| Artesian Flow | 20 | | | es, flow control ins | alled | m/ft | (.*(| <u>O</u> r | Pumping | | Recovery | |
| Rate: | | L/min | or igpm | Jescribs: | | | | • | | 1 | 8.05m | |
| Aethod of Water | r Removal: | | Bailer | | | Air | | | | 2 | 8.02 | |
| umping Rate: | | L/min / Igpm m/ft | Water Remov | | 1./min / igp mu | water Remov | | | | 3 | 200 | |
| water removal per | | | · · · · · · · · · · · · · · · · · · · | | | | | | | 5 | 7.48 | |
| | : | | | | | | | | | 6 | | |
| iuq bebnemmooe | mp Rate: | 5_ | L | /min or igpm | Pump insta | ulled 🖸 Yes | Depth: | •••• | | 7 | | |
| ecommended Pun | mp Intake De | pth (From T | 00:-22 | | Туре: | Model | | | | 8 | | |
| Did you Encounter: | | ater (>4000 | | | | | d Upon Completion | | | 10 | 7.95 | |
| lemedial Action Tal | Gas Iken: | | · D | əpth: | m/ft | Geophysical Log | | | · · · · · · · · · · · · · · · · · · · | 12 | | |
| | • | | | | | Other (Specif | | - | | 14 | - 60 | |
| dditional Commen | nts on Well: | | | | : | Sample Collected | • | | | 19 | 7.93 | |
| | | | | | | 🖸 Yes (🗍 Resu 🗋 No | It Attached) | | | 18 | | |
| Water Divertee | d for Drillin | | ÷ | , | | | ······································ | | · · · · | .25 | | |
| later ource: | | | Amount Taken: | | | Diversion Date: | Time: | am/pm | | 30 | | |
| Contractor Ce | | | · · · | · | | | | | | . -3 5 40 | | |
| Copy of Drilling F Igme of Journey | | | arilling/cons | ruction of wel | : Cerlific | calion No: | | | | 40 50 | | |
| RORY | WAL | VER | | | 1 | | 061Q | | <u> </u> | 60 | | |
| ompany Name: | A(= / | <u>بر مرام</u> | <u>م</u> ر بر د | KC/ | | | | | | 75 | | |
| Centry that this w | WTE h | Int P | C WIZ | Water (Ministerial) | Regulation of | the Water Act. the time of well com | nidiae on the | | | 90 105 | ••• | |
| | this record is fr | | Des mo wasse | no ovorogeologic | conquions at | une unic or well com | nate: 10 14: | 7 | | 105 | | |

*

`

| ALL Control Varial Control Varial Control Contro Contro Control | KUM : WIL An | א אטאב ע י | ATER WELLS | | | . 403 556 6700 | 10 A.K | 19 2010 : Well I.D. | LI: JJHM | r12 |
|---|---|--|--------------------------------------|----------------------------|---------------|--|--|------------------------|--------------|----------------|
| Internet Data Reput Product Data Reput Product Data Reput Product Product Product Product Product Product | Albo | rta | Waler we | | ne The Pm | UOIL viace disclalms responsibility | 0.1 | | | |
| Dame is and the CLAR TARENE Mither of Barry 30 The CLAR TARENE Mither of Barry | | | for its accuracy. The Into | | | | | Report Receive | d | |
| Control Control <t< td=""><td>Owner Name:</td><td>1:</td><td></td><td>Address:</td><td></td><td></td><td></td><td>Pos</td><td>al</td><td>·····</td></t<> | Owner Name: | 1: | | Address: | | | | Pos | al | ····· |
| SEE 3 2 0 | <u> </u> | 1 Vere | ARIWRILHI | | 130 | | COCHRAI | VE Cod | | - 1A4 |
| Nameword from Boundary etc. Decare: U.M. Decare: U.M. <t< td=""><td>Location 1/4 of</td><td>ILSD: SEC</td><td>I TWP: 28 RGE:</td><td></td><td>Lot:</td><td>Block: Plan:</td><td></td><td></td><td>#10</td><td>Ful)</td></t<> | Location 1/4 of | ILSD: SEC | I TWP: 28 RGE: | | Lot: | Block: Plan: | | | #10 | Ful) |
| | Measured from | m Boundary o | | | 699 | Coordinates la Decimal I | Deerson (NIAD 82) | | Jun | |
| | | | | | l stit | ude: 116. 79927 | Longhude: | . 01110 E | evation; | 1216 |
| Mind of Realing: The View Producting Product Object Product Object Define with Producting The View Product Object Decine with Product Object Decine with Product Object Define with Product Object Product Object Decine with Product Object Decine with Product Object Product Object Decine with Product Object Decine with Product Object Decine with Product Object Product Object Decine with Product Object Decine with Product Object Decine with Product Object Product Object Decine with Product Object Decine with Product Object Decine with Product Object Product Object Decine with Product Object Decine with Product Object Decine with Product Object Product Object Decine with Product Object Decine with Product Object Decine with Product Object Product Object State Object Decine with Product Object Decine with Product Object Product Object State Object Decine with Product Object Decine With Product Object Product Object State Object Decine With Product Object Decine With Product Object Product Object State Object Decine With Product Object Decine With Product Object | | | UNUIS [_ | m/ît from E V | ∾цн | and Held Auto 20-30m | Diff. Corr. Han | d Held 5-10m | | eyed GPS<1m |
| ■ Bonnebug □ The train of Derwice line (Proposed) □ Derwice (Proposed) | | | Type of Work: | | | | Proposed W | /ell Use: | • | |
| □ Bring < | D Auger | Ia | | ., | | | | | sidence on r | (vonerty) |
| Construction C | Boring | -9 | | | | | | | | , openy) |
| Decempose wei Maar weit in dragenostig: Besommer Link Maar weit in dragenostig: Owall Completion Maar weit in dragenostig: Besommer Link Unbolding Description Owall Completion Maar weit in dragenostig: Maar weit in dragenost | Rotary (air) | | | | 0/11/0/11/0 | | | ••• | • | |
| Dispersional register | Rotary (muc | j) | | | | | (Note All w | alls excent house | hold welle n | ust he lichand |
| Direction Description Direct (minimized) Direct (minimized) <thdirect (minimized)<="" th=""></thdirect> | | | Deepened well Reconstructed Well | - Well ID (if applicat | ble): | | Alberta Envi | tonment to diver | end use grou | indwater) |
| Bach Ham Ditability Charlog Description Data: SQ Log H Log H <thlog h<="" th=""> <thlog h<="" th=""> Log</thlog></thlog> | Ø Formation | Log | Measuremen | ts in: 🗋 Metric 🛄 🗍 | mperisi | | ************************************** | | 1 | |
| 21 Titl_BRV_CIAY Borchole: 1 2.1 Titl_BRV_CIAY 23 Titl_L_IR_CLAY Burnear: 2.5 Frace 2.6 1 5.0 2.6 1 5.0 1.0 5.0 1.0 5.0 1.0 5.0 1.0 5.0 1.0 5.0 1.0 1.0 5.0 1.0 | Depth from | | Litholo | 3y Description | | | | 7 10 star | | |
| 27 77/1-6/R - C(AY Duments: 62 - 53 Part. 26 28 SILTST C(A) (SW) Surface Cashs(2) (f diplicable) | ground level | water beamig | mil DA. | r.AU | | Borehole: | , ic | | <u>, 6-</u> | <u>~ / (</u> |
| 24 7/12 - 6/2 - 6/2 Surface Cashing: (fl applicable) Wall Cashing Liner: 28 SULT ST 6/2 / 8/04 Surface Cashing: (fl applicable) Wall Cashing Liner: 29 5.5 - 8/24 - 7- 5/2 / 57 572 Surface Cashing: (fl applicable) Steppide Steppide Step 50 51/17 - 57 - 6/2 Steppide Step Steppide Step Steppide Step 50 51/17 - 57 - 6/2 Steppide Step Steppide Step Steppide Step 50 51/17 - 57 - 6/2 Steppide Step Steppide Step Steppide Step 50 51/17 - 57 - 6/2 Steppide Step Steppide Step Steppide Step 50 51/17 - 57 - 6/2 Steppide Step Steppide Step Steppide Step 50 51/17 - 57 - 6/2 Steppide Step Steppide Step Steppide Step 50 51/17 - 6/2 Step Step Step Step Step Step Step Step 50 50 Step Step Step Step Step Step Step Step Step Step 50 Step Step Step Step Step Step Step Step Step | L | . | 114-15100- | UM | | | | | | 20 |
| 2.8 SUD 51 CH4 18144 31 - 55 BRN - FSHATTERD 34 - Starting Start 37 - S BRN - FSHATTERD 38 Starting Start Balance Start 30 Starting Start Balance Start 30 Start Compare Start 31 - Start Compare Start 30 Start Compare Start Compare Start 30 Start Compare Start Compare Start 31 - Start Compare Start Compare Start 31 - Start Compare Start Compare Start 32 - Start Compare Start Compare Start 32 - Start Compare Start Compare Start 33 - - Start Compare Start Compare Start 34 - - Start Compare Start Compare Start Compare Start Compare Start Compare Start Compare Start Com | 27 | <u> </u> | Till- LK- | CIAY | | | | d-U | | 30 |
| 3.1 C 4.5 - BRN - F - SHATELED Constructed Steel Construct Steel Consteel Steel </td <td>28</td> <td></td> <td>SILTST</td> <td>AR BRA</td> <td></td> <td> Steel</td> <td></td> <td>C Steel C</td> <td></td> <td>d Steel</td> | 28 | | SILTST | AR BRA | | Steel | | C Steel C | | d Steel |
| 477 45 BRAI-F-SUTSTRIC Brington 50 SULT-ST-CR Site OD Site OD Site OD 50 SULT-ST-CR Site OD Site OD Site OD 20 Site OD Site OD Site OD Site OD 20 Site OD Site OD Site OD Site OD Site OD 20 Site OD Site OD Site OD Site OD Site OD Site OD 20 Site OD Site OD <td></td> <td>5</td> <td>55 - BRN</td> <td>-F-SHATE</td> <td>RED</td> <td>Galvanized Stee</td> <td>1</td> <td>O PVC</td> <td></td> <td></td> | | 5 | 55 - BRN | -F-SHATE | RED | Galvanized Stee | 1 | O PVC | | |
| 50 9/LT - ST - CR 0 other To be the standard of th | 47 | 1 | -55 - BRAI | -F-SILTS | T STD | Fiberglass | | 1.0 | - 1e | 114 |
| 3:::::::::::::::::::::::::::::::::::: | 177 | | CIT-CT | <u>(</u>) | | | | | | |
| Z ⁺ LAS DRUEN FROM Wall Thidresse Proc. 35. To: 45. 26' - 31' PVC CASULLOBS From | 50 | - - | - 11 - 11- | uis | | | | | | -7-6- |
| 2.6 31' PUC CPS/LL/L/05 Bottom ut For 31' PUC CPS/LL/L/05 TAY STATIED & 7'' & QS IL/EA/04/20 Bottom ut For 31' PUC CPS/LL/L/05 TAY STATIED & 7'' & QS IL/EA/04/20 Annular Seal: "Effection to Stary" (2) Entending Chip Company" (2) Other to Chip Compan | | | | | | Wall Thickness: | | n i | To: | 45' |
| J.S SI FUL C BStack Lobo Petroset Up: Inductive Uper Construction of the Uper Cons | | | | | | | | | To: | |
| Amount | | | 26-311 | | | | | | × | |
| Placed From: O TO 90° G Amount: / 150 LBS Amount: / 150 LBS Amount: / 150 LBS Bore and trans at the store at t | | | ENSTALLED & | 7"WASRE | Émil | a) | | Perforated by: | Other: | |
| Arrount: 150265 Drive Show at Drive Show at Drive Show at 301 Drive at 302 | • | | • | | | Annular Seal: 🖉 🛙 | entonite Slurry | entonite Chips | Cement | |
| Drive Shoe. st | | ·. | | | | Placed From: | 0 | To _ | 30 | 29.1 |
| 27 Shat Trag, at: 30 Other, et: Screen Type: Stabilities Steel PVC Stee 0D: Interval From: To: Stot Stee: Interval From: To: Stot Stee: Stot Stee: Prevent From: To: Stot Stee: Stot Stee: Prevent From: To: Stot Stee: Stot Stee: Prevent From: To: Stot Stee: Amount: Prevent From: To: Stot Stee: Amount: Prevent From: Prevent From: To: Stot Stee: Amount: Prevent From: Prevent From Top or Statemark From: Stot Stee: Prevent From: Prevent From Top or State To: Unit of Upon Tree: State Tore: State Tore: Prevent From: Tore:< | | | | | | | 150683 | · | | |
| Screen Type: Stainless Steel PVC Size 0D: | | | | | | | . | | ng, at: | |
| Size OD | | | , | | | | <u>- 90</u> | | | |
| Interval From: To: State: Interval From: To: State: Amount: Interval From: Interval From: To: State: Amount: Interval From: Interval From: Interval From: Interval From: Amount: Interval From: Interval From: Interval From: Interval From: Interval From: Interval From: Amount: Interval From: | · · · · · | | | | | - | lainiess Steel | PVC | | |
| Image: Intervent of the state of the st | | | | | | 1 | To; | | Slot Size: | |
| Top Printings: [] Packer [] Coupler Bottom Printings: [] Weath-down [] Ball [] Priority in the intervent i | | | | | | | | | Slot Şize: | |
| Pack: Pack: Anount: Anount: Pried Test: Measurements in: Balaric Endition/Mechanical Natural Grain Size: Anount: Pried Test: Measurements in: Balaric Endit Weter Taken From: App of Casing Control Low: Available Endit Casing to Ground Low: 6.2 Endit Weter Taken From: App of Casing Control to View Available Dentition and the statied Ease Dentition and the statied Ease Dentition and the statied Available Dentition and the statied Ease Dentition and the statied Ease Pumping S 2.114 Available Pumping State: 1 9.428 Pumping State: 2.9 Unit App Anota East: 2.0 Unit App Anota East: 2.0 Unit App Anota East: 2.144 Available Dentition anota East: Dimin (pp D Baller Unit App Anota East: 2.0 Unit App Anota East: 2.142 9.05 Water Removal Pariod was <t builds="" flow<="" td=""> East Anota East From: 3 9.174 9.05 9.272 7 9.27 7 Water Conneal Cast Anot East Anone Cast Anot</t> | | | | | | | | lottom Fittings: [|) Wash-dov | vn 🖸 Ball 🗋 i |
| By field Test: Measurements in: By filed/ic Brimperial Taken From: 2000 of Casing C Ground Levi Casing C Ground Levi Casing C Ground Levi Casing C Ground Levi C Ground Levi C Casing C Ground Levi C Casing C Ground Levi C Ground Lev | · · | | | | | | | | . | |
| Max Max Max State Description State Description Description <thdescription< th=""> <thdescription< th=""> D</thdescription<></thdescription<> | | | | | | | | _ | | |
| Since Image: ant/pm Cesting to Ground Level: 6.2 mit Civel: 7.60 mit Pumping I Arbeitan Flow Image: ant/pm Cesting to Ground Level: 6.2 mit Civel: 7.60 mit Pumping Rate: Unit or tigon Image: now control insalied Decembe: 1 9.49 Attackan Flow Image: now control insalied Decembe: 1 9.49 Attackan Flow Image: not control insalied Decembe: 1 9.49 Attackan Flow Image: not control insalied Image: not control insalied 2 9.16 Pumping Baller Water Removal Rate: 20 Livin Removal Rate: 2 9.26 Pumping Rate: Standard Flow: Image: not control insalied Image: not control insalied 1 9.27 7 Water removal petide was <2 hours, coptain why: | | : • | Start | Dislance From Top of | Meas | | amperial Take | | | |
| Atasian Flow Diversion finitiality Diversion Note: 7.221/m 0 Rate: Umin or typen Diversion Note: 1 9.495 Attacking of Water Removal: Diversion Note: 1 9.495 Pumping Rate: | Dale: 10 | <i>€</i> H 50 | Tune: | Casing to Ground Leve | ** _ f | 2 frat Level: | 2.60 G | | Elapsed T | ime |
| Rase: Umin or lapm 1 9,493 dettigd of Water Removal: Baller 2 6,164 Pumping Rate: 1 9,493 2 6,164 Depth Bailed From: 3 9,114 Water Removal Rate: 20 Umin figmin 3 9,114 Depth Bailed From: 3 9,114 Water Removal Rate: 20 Umin figmin 4 9,055 Iwater removal period was <2 hours, explain why: | 📋 Artesian Flov | y . | | Yes, now control installed | | | | | | ()000101 |
| Brumpp Baller Depth Purport Rate: 20 L/min (pp) 3 2.114 Water Removal Rate: 0 Depth Air Tested from: 35 1 4 9.05 Ivater removal period was <2 hours, explain why: | | | | | | | · | | | 9.48 |
| Turning Rate: 15 Linin (mm) Water Removal Rate: 10 Linin (mm) 3 7 7 Septi Pumped From: 35 1 Mailed From: mit 4 9 05 Ivater removal period was <2 hours, explain why: | | ater Remova | | | | it all | • | | | 9.26 |
| Depth Pumped From: 35 ' min 4 9.05 Ivader removal period was <2 hours, explain why: | Pump Pumping Rate: | 15 | L/min (igpm) Water Rem | | /min / igp | m Water Removal Rate: | 20 L/min 10 | Ì | | 4.14 |
| WFML WAS RUMED WITH AR IR OR TO WHAL SUB. Rump 6 Recommended Pump Rate: 5-10 L/min organs Pump installed Yes Depth: 9, 27, 7 Recommended Pump Intake Depth (From TOC) 35 Type: Model: 9, 32, 8 Did you Encounter: Seline Water (>4000 ppm TDS) Depth: 9, 37, 9 9 Did you Encounter: Gas Depth: m/n Model: 9, 37, 9 Gas Depth: m/n Medi Disinfected Upon Completion 9, 41, 10 8, 75' Remedial Action Taken: m/n Electric Gemma 12 Charles Comments on Well: Sample Collected for Potability: 18 Water Diversion Date: Time: 9, 92, 20 8, 47 Water Amount Diversion Date: Time: 9, 92, 20 8, 43 Cophractor Certification 40 25 0 10, 09, 40 2, 20 Water Diversion Date: Time: am/pm 10, 09, 40 2, 20 Cophractor Certification Gourservan responsible for drilling/construction of well: Certification No: 10, 09, 40 | Depth Pumped Fr | om: 35 | | From: | m/ | Depth Air Tested From: | 35' m | <i>m</i> | | 4.05 |
| Recommended Pump Rate: 5-10 L/min o (ispr) Recommended Pump Intake Depth (From TOG) 35 rmin of (ispr) Incommended Pump Intake Depth (From TOG) 35 rmin of (ispr) Incommended Pump Intake Depth (From TOG) 35 rmin of (ispr) Incommended Pump Intake Depth (From TOG) 35 rmin Incommended Pump Intake Depth (From TOG) 35 rmin Incommended Pump Intake Depth (From TOG) 0 0 Incommended Pump Intake Depth (From TOG) 0 0 0 Incommended Pump Intake Depth (From TOG) 0 0 0 0 Item Control 0 0 0 0 0 0 Item Control 0 0 0 0 0 0 0 0 0 0 0 0 0 | lf water removal | i period was < | 2 hours, explain why: | PEA INTILA | 21 | RIAR TALL | I Rul Du | م | | 8.48 |
| Harding from the set of a full place Harding from the set of a full place H.R: 9.32 8 Hecommended Pump Intake Depth (From TOC) 35 from the set of a full place 9.37 8 Did you Encounter: Saline Water (>4000 ppm TDS) Depth: m/ft Geophysical Log Taken: 9.37 8 Gas Depth: m/ft Geophysical Log Taken: 10 8.75 Remedial Action Taken: Did (From TOC) 10 8.75 Additional Comments on Well: Sample Collected for Potability: 14 Water Diverted for Drilling Yes (Reput Attached) 9.722 20 8.47 Water Source: Taken: Diversion Date: Time: am/pm 35 Occeptractor Certification 40 S.20 9.23 8 2.13 Operator of Journeyman responsible for drilling/construction of well: Certification No: 10.09 40 8.20 Model Water Sources MOD LOUR 10 9.05 8.06 90 10.17 50 8.13 Operator of Journeyman responsible for drilling/construction of well: Certification No: 10 10< | | | 10- 10 | - | | | | | | |
| iscommended Pump Intake Depth (From TOG) S Type: Model: H.R. 1.32 0 Did you Encounter: Saline Water (>4000 ppm TDS) Depth: m/ft Image: Saline Water (>4000 ppm TDS) Depth: m/ft Geophysical Log Taken: 9,37 9 Identified Bisinfected Upon Completion Gas Depth: m/ft Geophysical Log Taken: 12 Identified Bisinfected Upon Completion Taken: Image: Saline Value (Specify): 14 16 12 Additional Comments on Well: Sample Collected for Potability: 14 16 18 Water Sample Collected for Potability: 18 9,722 20 8,477 Water Amount Diversion Date: Time: am/pm 9,922 30 8,31 Octavactor Certification 40 S.20 10.09 40 2.00 Copy of Drilling Report Given to Owner 10.09 40 2.06 10.17 50 2.13 Copy of Drilling Report Given to Owner 10.09 40 2.06 10.25 60 3.06 Company Name: Cortification No: 10.09 | Recommended | Pump Rate: | | - | | | | - 4.2 | <u></u> | |
| Did you Encounter: Seline Water (> 4000 ppm TDS) Depti: m/ft Gas Depth: m/ft Geophysical Log Taken: Geophysical Log Taken: Bas Depth: m/ft Geophysical Log Taken: III Other (Specify): III Additional Comments on Well: Sample Collected for Potability: Yes (Cleasult Attached) 9.72 No 9.72 Water Amount Taken: Diversion Date: Cophractor Certification | Recommended | Pump Intake [| epth (From TOC):3 | S Typ | e: | Model: | H.R: | 1-7-3: | | |
| Image: Bas depth Depth:m/h Geophysical Log Taken: 10 Dr/ / Remedial Action Taken: Electric I Gamma 112 14 Image: Dother (Specify): 14 16 14 Image: Dother (Specify): 16 14 16 Image: Dother (Specify): 18 14 16 Image: Dother (Specify): 18 12 18 Image: Dother (Specify): 10 18 12 Image: Dother (Specify): 18 12 18 Image: Dother (Specify): 10 10 10 10 Image: Dother (Specify): | Did you Encou | nter: D Seline | Water (>4000 ppm TDS) | Depth: | m/ft | Well Disinfected Upon | Completion | C 14 | | \$ 75- |
| Image: Construction for drilling Report Given to Owner Image: Construction of well: Certification No: Image: Construction of well: Image: Construction of well: Certification No: Image: Construction of well: To construction of well: Certification No: Image: Construction of well: To construct of mage: Construction of well: To construct of mage: Construction of the Water Act. Image: Construct of mage: Construct of mage: Construct of the works of mage: Construct of the works of th | , | | | | 1 | Beophysical Log Taken: | | 7.9 | | 017 |
| Additional Comments on Well: if 6 | Remedial Action | n Taken: | | | | | | | | |
| Additional Comments on Well: Sample Collected for Potability: 18 Yes (L]Result Attached) 9.72 20 Water Diverted for Drilling 25 Water Source: Amount. Diversion Date: Taken: 10 9.92 30 Coptractor Certification 35 35 Coptractor Certification 35 10.09 40 Copy of Drilling Report Given to Owner 10.09 40 2.20 Name of Journeyman responsible for drilling/construction of well: Certification No: 10.09 40 2.20 Company Name: 140610 10.25 60 8.06 06 Multion at this well was constructed in accordance with the Meter Ministerial Regulation of the Water Act. 90 90 Vicently that this well was constructed in accordance with the Meter Ministerial Regulation of the Water Act. 90 105 | | | | t. p | | Other (Specify): | . | | i . · · | |
| Water Diverted for Drilling 9.72 20 8.47 Water Diverted for Drilling 25 Water Source: Amount Diversion Date: Time: Source: Taken: 10.09 40 8.31 Cophractor Certification 35 30 8.31 Copy of Drilling Report Given to Owner 10.09 40 9.20 Water Odormey man responsible for drilling/construction of well: Certification No: 10.17 50 8.13 Company Name: 140610 10.25 60 8.06 90 I Centry that this well was constructed in accordance with the Meter Ministerial Regulation of the Water Act. 90 90 I centry that this well was constructed in accordance with the Meter Ministerial Regulation of the Water Act. 90 105 | Additional Com | ments on Well: | | | 5 | | | | | |
| Water Diverted for Drilling 25 Water Source: Amount Diversion Date: Time: Source: Taken: Coptractor Certification 35 Copy of Drilling Report Given to Owner 10,09,40 Same of Journeyman responsible for drilling/construction of well: Certification No: Copary Name: 10,09,40 Company Name: 75 Company that this well was constructed in accordance with the Mater Ministerial? Regulation of the Water Act. All information in this records of is true and describes the works of Ministerial? Regulation of the Water Act. All information in this records to the works of Ministerial? Regulation of the Water Act. No | | | | | | | u) | 97 | | 8.47 |
| Vater Amount Diversion Date: Time: 9.92 30 8.31 Source: Taken: Maintenance Maintenance Time: am/pm 9.92 30 8.31 Coptractor Certification | @ Water Dive | rted for Drill | ing | | | | | | ~ | <u> </u> |
| Source: 1aken: am/pm -35 2 Coptractor Certification -35 10,09 40 -32 2 Coptractor Certification No: -10,17 50 -35 2 Coptractor Certification No: -10,17 -10,17 50 -35 2 Coptractor Name: -10,17 -10,17 -10,17 -10,17 -10,17 2 Coptractor Name | Water | | Amount . | | | | | 992 | | 8.31 |
| Copy of Drilling Report Given to Owner IO.09.40 8.20 Name of Journeyman responsible for drilling/construction of well: Certification No: IO.17.50 8.20 MOR (MALDUREYMAN responsible for drilling/construction of well: Certification No: IO.09.40 8.06 Sompany Name: IO.05.50 8.06 8.06 VI (LA) ROSE MATER LANGE (Ministerial) Regulation of the Water Act. 90 I Centry that this well was constructed in accordance with the Mater (Ministerial) Regulation of the Water Act. 90 I Centry that this well was constructed in accordance with the Mater (Ministerial) Regulation of the Water Act. 105 | Source: | Carlificatio | | L | | | am/j | om | S | |
| Varies of Journeyman responsible for drilling/construction of well: Certification No: 10.17 50 8.13 VOR (WAWER) 10.25 60 8.06 Company Name: 75 VI Low ROSE WATER LANGE Ministerial) 80 I centry that this well was constructed in accordance with the Marge Ministerial) Regulation of the Water Act. Ninformation in this record is true and describes the works of metrographic optic conditions and the metro were completion only. 105 | | | | | | • | | 10.04 | | 8.20 |
| Company Name: 75 WILLD ROSE WATER LOEUS 90 I cerrity that this well was constructed in accordance with the Marge Ministerial) Regulation of the Water Act. 90 All information in this record is true and describes the works of the marge ologic conditions at the time of went completion only. 105 | | | | struction of well; | Certific | ation No: | 10 | 10.17 | 50 | 8.3 |
| WIND ROSE WHERE 90 I certify that this well was constructed in accordance with the Marser Ministerially Regulation of the Water Act. 90 105 | KOR | 1 WA | WER | | | 1400 | IL | 10.2 | J | 8.06 |
| Centry that this well was constructed in accordance with the Marce (Ministerial) Regulation of the Water Act. All Information in this record is true and describes the works and margeologic conditions at the time of went completion only. | Company Name | | ALEIANTE | O POZILI | | | | | | |
| All information in this record is true and describes the works and methode light operation of the true of went completion only. | h | VD 1C | UTE WITE | C Ministerials Room | lation of | he Water Act | | | | |
| | I centry that the All information | ns well was con n in this record i: | true and describes the works | and hydrogeologic condi | tions at a | | · 10 11 - | _ | | |

٠

| FROM : WILD ROSE | JATER WELLS FAX NO. : | 1 403 556 6700 Nov. 2 | 24 2010 08:52AM P2 |
|---|--|--|---|
| Alberta | Water Well Drilling R The driller supplies the date contained in this report. The | | Vell I.D. |
| Well Identification a | in its accuracy, the invintation on this report will h | e relained in a public database. Date | Report Received |
| Owner Name: | CARTWRIGHT BOX 130 |) Town: COCHRAI | JE Postal Code TY INII |
| Location ther LED: BEC: | 1 28 ROE WOMMER | Block: Plan: | |
| Measured from Boundary | | FS Coordinatos in Decimal Degrees (NAD 83) | # 3 WELL |
| | | atitude: <u>JI6, 79944</u> Longitude: <u>57.</u> I Hand Held Auto 20-30m Diff. Corr. Hand | 0/162 Elevation: 1214 |
| O Drilling Information Method of Drilling; | Type of Work: | Proposed We | |
| Auger Backhoe/Dug Boring | Test Hole or (1) New Well (Dry) Plugged: 1011 | D Household | |
| Cable Tool | | nite Chips 🔲 Cement 🛛 🖬 Other (Spe | city): LONE |
| Rotary (mud) | Amount Used: | | |
| | Deepened Well Well ID (If applicable); Reconstructed Well | Alberta Envirg | s, except housahold walls, must be licenced by ament to diven and usc groundwater) |
| Depth from Indicate if | Measurements In: I Metric I Impe | | leasurements In: A tetric Amperial |
| ground level Water Bearing | Lithology Description | Total Depth Drilled: 50 Finished Wolf Depth: 43 | 10 11 5 10 IN 5 |
| 15 | Till-BRN-CIAY | Diameter: From: | 0 To: 28 |
| 20 | FU- W- CLAY | | 28 To: 50' |
| 36 | SS- BRAI-F | D Steel D Galvanized Steel | J Steel □ Galvanized Steel PVC □ Fiberglass |
| 50 | 59 - CR-IBR-F | | Other: |
| | f | D Other | ize OD: 7.77 Wall Thickness: 4.44 |
| | | Size OD: P | erforations: |
| | | | rom: <u>33</u> To: <u>45</u> |
| | | S | ze:x |
| | | | artorated by: 🛛 Machine 🛛 🖓 Sāw 🗋 Drill 🛄 Other: |
| · · · · · · · · · · · · · · · · · · · | | Annular Seal: B Bentonite Slurry Ben Placed From: | tonite Chips Li Cement |
| | · · · · · · · · · · · · · · · · · · · | Amount 150CBS | |
| | | Drive Shoe, at: | Welded Ring, at: U Other, at: |
| | | Screen Type: Li Stainless Steel D Pv | |
| | | Size OD:To;To; | Slot Size: |
| | understandigen verste state die der sterne verste sterne verste sterne verste sterne verste sterne verste stern | Interval From: To: Telescoped Li Attached to Casing | Slot Size: |
| | | Top Fittings: D Packer D Coupler Bott | om Filtings: 🗋 Wash-down 🗋 Bail 🔲 Plug |
| | | Pack: | Size: Arnount: |
| G Yield Test | Start Distance From Top of | surrements in: Matric Umperial Taken F Static Water Level: / /// | rom:] Top of Casing] Ground Level Depth to water level |
| Test Date: 10 11 10 | am/pm | 75 m m/t Level: 6654 mm | Elapsed Time Pumping Minutes Recovery |
| Artesian Flow Rate: | Yes, flow control installed Describe; Umin or igpm | • | 0 |
| Method of Water Remova | l: | | 2 |
| Pumping Rate: 15 | _Umin (ippm) Water Removal Rate: Umin / ig | | 3 |
| Depth Pumped From: 30 | hours, explain why: | viti Depth Air Tested From: m/ft | 5 |
| | 24 HOUR PUMP TEST | NAS PONE | 6 |
| Recommended Pump Rate: | L/min or igpm Pump insi | ailed 🛛 Yes Depth: | 7 |
| Recommended Pump Intake D | | Model: H.R: | 9 |
| Did you Encounter: Saline | Water (>4000 ppm TDS) Depth: m/tt Depth: m/tt | Geophysical Log Takan: | 10 |
| Remedial Action Taken: | | Electric Gamma | 12 |
| Additional Comments on Well: | | Other (Specify): | 16 |
| Address Columents on Men | | Sample Collected for Polability: | 18 |
| Water Diverted for Drill | ing · | □ No | 20 25 |
| Water Source: | | Diversion Date: Time: am/pm | 30 |
| O Contractor Certification | <u>v</u> | (nq)//h= | |
| Copy of Drilling Report Give Name of Journeyman resp | | cation No: | 50 |
| KORY WAI | INFER | - 14061Q | 60 |
| Company Name: | WATER WELLS | | 75 90 |
| Certify that this well was cons | ructed in accordance with the Welsr (Ministerial) Regulation o true and describes the works end geologic conditions a | the Water Act. the time of well completion only. | 105 |

*

| Allegerezza | Water | r Well | Drillin | g Rer | 1 403 556 670 D ort | | IC Well I.D | *** | | |
|--|---|--|---|--|--|--|----------------------------|------------------------------------|--|------------------------------|
| | The driller supp for its accurat | oiles the date c y. The Inform | ontained in this re ation оп this rep | port. The Prov | Ince disclaims responsio alned in a public databa | ility se. D | oA Well Ya ate Report | g No. Received | | |
| Nell Identification a | nd Location | | | | | Town | 1 | Postal | | 111 |
| wher Name: CHOE | e/Heinki | WHT | | 130 | Block: Plan | COCHRA | Ad | litional | 40 | 1A4 |
| SEC: 3 | 1 28 | 3 | | | | | De | ecription: | | |
| leasured from Boundary | y of: Quar | ter 🗋 Lot | K | | Coordinates in Decim | | | | | |
| m/tt from | | _ | m/ft from 🗋 E | EQ W Q Ha | ide: Ind Held Auto 20-30m | Longlude: Diff. Corr. H | and Held | 5-10m C | ion: Surveye | ad GPS<1m |
| Drilling Information | Type of Wo | -1 | | | | Froposo | d Well Use | | | |
| lethod of Drilling: Auger | | (Producing) | | | | D House | hold | r with residen | ce on oro | operty) |
| Backhoe/Dug Boring | Pluaped | ≥ or □ New V with: GrBent | Vell (Dry) Plugg onite Slurry | geo: [O] Bentonite | Chips 🖸 Cement | Other | (Specify): | LODGE | | F97 |
| Cable Tool Rotary (eir) | | | | errouts | | | | | | |
| Rotary (mud) | | | Well ID (if an | | | (Note: A | ll wells, exc avironmen | ept household t to divert and i | wells, mus usa arcum | it be licenced by dweter) |
| Fauncel | C Recons | tructed Well | - Well ID (if ap | i Imperiel | O Well Completi | | | | | Imperial |
|) Formation Log | | leasu(ements | | | Total Depth | Finished We | | Start Date | ə | End Date |
| Depth from Indicate if ground level Water Bear | Ing | | y Description | | Drilled: Borcholo; | Depth: | | - SAN - 1241 | 27 | <u> 07 181 10 1</u> |
| 18 | Till- | BRN- | | | Diameter: | | rom: | | To: To: | |
| 27 | Till | <u>- QR - C</u> | 107- SIL | J/SH mi | | (if applicable) | | asing/Liner: | | |
| 60 | SH - | LR/BRN | 1-51LT5 | TR | Steel | | | ieel DiGa VC DiFil | | Steel |
| - | | <i>I</i> . | | <u></u> | Galvanized S | teel | 0 P 0 0 | | perglass | |
| | | | | | Cement | , | Size (| vv | Vall Thicks | ness: |
| | | | | | Size OD: | | | r1 | Bottom at: | · |
| | | | | | | | | rations: | Ta: | |
| | | | | | Wall Thickness:_ | | | | | |
| | | | | <u></u> | Bottom at: | | | | | L) Saw 🖸 Drill |
| | | | | | | | <u> </u> | <u> </u> | Ditter: | |
| | | | | | | Bentonite Slurry (| | | | |
| | | | | | | | | To | | |
| | | | | | | t | | Welded Ring, | at: | |
| | | | | | 🗌 🗌 Shale Trap, a' | | | Other, at: | | • |
| | | | | | Screen Type: [Size OD: | Stainless Steel | D PVC | | | |
| | | | | | Interval From: | To: . | | | | |
| | | | | | | To: | | Slot | Size: | |
| | | | | | Top Fittings: 🛄 I | acker 🗋 Coupler | | Fittings: 🗋 W | ash-dowr | Ball D Plug |
| | | | | | Pack: | nical 🗍 Natural | Grain Siz | e: | _ Amou | nt: |
| | · · · · · · · · · · · · · · · · · · · | | | | surements in: 🖸 Metri | c 🗌 Imperial 🐧 | | n: 📋 Top of C | asing 🗖 | Ground Lovel |
| 9 Yield Test | Front | | Distance From T Casing to Groun | fop of nd Level: | Static Wi Level: | ter | | | to water | |
| csl | pg Start Time: | and lare | | | | | m/h | | lapsed Tim | |
| csl | Time: | | Yes, flow control in | | m/ft | | m/ft | Pumping | Minutes | Récovery |
| bst Jate: <u>NN JAM</u> II | pig Time: | <u> </u> | | | | | m/łţ | | Minutes | |
| est <u>ante: any AM</u> 2 Artesian Flow Rate: Method of Water Rem | juj Time: L/mir | n or Igpm | Yes, flow control in | | m/tt | | m/ft | | Minutes 0 1 2 | |
| Let are: | 23 Time: //min /oval: //min / igpm | n or lgpm Bailer Water Remo | Yes, flow control in Describe: | nstalled | m/t D Air' m Water Romoval Ra | 1e:Vmin | / igpm | | Minutes 0 1 2 3 | |
| Lest Antesian Flow Rate: Aethod of Water Rem Depunp Pumping Rate: Depun Pumped From; | Umir Umir Umir / igpm | o or lgpm Bailer Water Remo Depth Bailed F | Yes, flow control in Describe: | nstalled | m/t D Air' m Water Romoval Ra | 1e:Vmin | | | Minutes 0 1 2 3 4 | |
| Let are: | Umir Umir Umir / igpm | o or lgpm Bailer Water Remo Depth Bailed F | Yes, flow control in Describe: | nstalled | m/t D Air' m Water Romoval Ra | 1e:Vmin | / igpm | | Minutes 0 1 2 3 | |
| eate: <u>NY AN</u> 2] Artesian Flow Rate: Aethod of Water Rem] Pump Pumping Rate: Leptin Pumped From; water removal period wa | Umin / igpm //////////////////////////////////// | n or igpm Bailer Water Remo Depth Bailed F | Yes, flow control in Describe: val Rate: Yom: | nstalled L/min / Igp m/ | m/t D Air' m Water Romoval Ra | ie:UrminU | ./ igpm m/ft | | Minutes 0 1 2 3 4 5 | |
| ate: <u>Window</u> Artesian Flow Rete: Aethod of Water Rem Pumping Rate: Pumping Rate: water removal period wa Recommended Pump Rate | Umir Ivoval: Umin / Igpm w/lt us <2 hours, expla | Der lepm Dealler Water Remo Depin Bailed R | Yes, flow control in Describe: wal Rate: Yom: L/min or igpm | nstalled U/min / lgp m/ Pump insta | m/tt Air Water Romoval Ra th Depth Air Tested From | e: Umun :: Depth: | / igpm m/ft | | Minutes 0 1 2 3 4 5 6 | |
| eat Artesian Flow Rete: Method of Water Rem Pumping Rate: Pumping Rate: Water removal period wa tecommended Pump Rate Recommended Pump Inta | Umir / Igpm | Derigpm Delifer Water Remo Depth Bailed F In why: | Yes, flow control in Describe: | nstalled L/min / lap m/ Pump insta Type: | m/tt Mater Romoval Ra Mater Romoval Ra Depth Air Tested From | e:Umin : Depth: H.P: | / igpm m/ft | | Minutes 0 1 2 3 4 5 6 7 8 9 9 | |
| ate: <u>Window</u> Artesian Flow Rete: Aethod of Water Rem Pumping Rate: Pumping Rate: water removal period wa Recommended Pump Rate | L/min Ioval: L/min / igpm M/II is <2 hours, expla e: | Depth Bailer Water Remo Depth Bailed F In why: | Yes, flow control in Describe: | nstalled L/min / lap m/ Pump insta Type: m/ft (| m/tt Mater Romoval Ra th Depth Air Tested From | e:Umin :: Depih: H.P: an Completion | / igpm m/ft | | Minutes 0 1 2 3 4 5 6 7 8 9 10 | Recovery |
| ate: <u>WY</u> | L/min Ioval: L/min / igpm M/II is <2 hours, expla e: | Depth Bailer Water Remo Depth Bailed F In why: | Yes, flow control in Describe: val Rate: rom: L/min or igpmm/ft Depth: | nstalled L/min / lap m/ Pump insta Type: m/ft (| m/tt Mater Removal Ra th Depth Air Tested From Uled Yes Model: Model: Geophysical Log Taker Electric Gamr | e:Umin :: Depth: H.P: on Completion :: 1a | | | Minutes 0 1 2 3 4 5 6 7 8 9 9 | Recovery |
| eat ante: <u>WY EAH</u> 2 Artasian Flow Rate: Method of Water Rem Pumping Rate: Pumping Rate: | Umin / Japan Umin / Japan w/lt as <2 hours, expla e: eke Depth (From T aline Water (>4000 | Depth Bailer Water Remo Depth Bailed F In why: | Yes, flow control in Describe: val Rate: rom: L/min or igpmm/ft Depth: | nstalled L/min / tap m/ Type: | m/tt Muter Removal Ra Muter Removal Ra Depth Air Tested From Iled Pres Model: Geophysical Log Taker Electric Gamm Other (Specify): | e:U/min : Depth: man Completion : na | | | Minutes 0 1 2 3 4 5 6 7 8 9 10 12 2 | Recovery |
| eat ante: <u>www.add</u> | Umin / Japan Umin / Japan w/lt as <2 hours, expla e: eke Depth (From T aline Water (>4000 | Depth Bailer Water Remo Depth Bailed F In why: | Yes, flow control in Describe: val Rate: rom: L/min or igpmm/ft Depth: | nstalled L/min / tap m/ Type: | m/tt Mater Removal Ra th Depth Air Tested From Uled Yes Model: Model: Geophysical Log Taker Electric Gamr | e:Umin Depth: H.P: on Completion : 12 Dtability; | | | Minutes 0 1 2 3 4 5 6 7 8 9 10 12 14 | Recovery |
| eat ante: <u>WY EAH</u> 2 Artasian Flow Rate: Method of Water Rem Pumping Rate: Pumping Rate: | Umin / Japan Umin / Japan w/lt as <2 hours, expla e: eke Depth (From T aline Water (>4000 | Depth Bailer Water Remo Depth Bailed F In why: | Yes, flow control in Describe: val Rate: rom: L/min or igpmm/ft Depth: | nstalled L/min / tap m/ Type: | m/tt Multer Removal Ra Multer Removal Ra Depth Air Tested From Iled Yes Model: Model: Geophysical Log Taker Electric Gamr U Other (Specify): Sample Collected for P | e:Umin Depth: H.P: on Completion : 12 Dtability; | | | Minutes 0 1 2 3 3 4 5 6 7 8 9 10 12 14 16 18 20 | Recovery |
| eader Antesian Flow Rete: Attasian Flow Rete: Attasian Flow Pumping Rate: Pumping Rate: Secommended Pump Rate Pump Inte Did you Encounter: Dia Did you Encounter: Dia Qea Remedial Action Taken: Midditional Comments on W Water Diverted for I | L/mir Ioval: | Depin Bailer Water Remo Depin Bailed F In why: OC): Doppm TOS) I | Yes, flow control in Describe: val Rate: rom: L/min or igpmm/ft Depth: | Pump insta Pump insta Type: | m/tt Mater Romoval Ra Water Romoval Ra Depth Air Tested From Uled □ Yes Model: Geophysical Log Taker □ Electric □ Gam Ü Other (Specify): Sample Collected for P Yes (□ Result Att No | e:Umin Depth: H.P: on Completion : 12 Dtability; | | | Minutes 0 1 2 3 4 5 6 7 8 9 10 12 14 16 18 20 25 | Recovery |
| eat and the set of th | Umin / Japan Umin / Japan w/lt as <2 hours, expla e: eke Depth (From T aline Water (>4000 as Well: Drilling | Depth Bailer Water Remo Depth Bailed F In why: | Yes, flow control in Describe: val Rate: rom: L/min or igpmm/ft Depth: | Pump insta Pump insta Type: | m/tt Mater Romoval Ra bepth Air Tested From Uled Yes Model: Geophysical Log Taker Electric Gammi Uother (Specify): Sample Collected for P Yes (Besult Att | e:Umin : Depth: on Completion : ached) Time: | | | Minutes O 0 1 2 3 4 5 6 7 8 9 10 12 14 16 18 20 25 30 | Recovery |
| ate: <u>Attesian Flow</u> Rete: Attesian Flow Rete: Method of Water Rem Pumping Rate: <u></u> Pumping Rate: <u></u> Pumping Rate: <u></u> Pumping Rate: <u></u> restit Pumped From; water removal period wa tecommended Pump Rate Recommended Pump Inta Did you Encounter: Sa Ga Remedial Action Taken: Sa Ga Remedial Action Taken: Miditional Comments on V <u>Water Diverted for I</u> Water Source: D Cgetractor Certifict | Umin / Igpm nviti us <2 hours, expla e: ke Depth (From T aline Water (>4000 as Well: Drilling | an or Igpm Bailer Water Remo Depth Bailed F In why: OCC): Oppm TOS) C C | Yes, flow control in Describe: val Rate: rom: L/min or igpmm/ft Depth: | Pump insta Pump insta Type: | m/tt Water Removal Ra Bepth Air Tested From Iled Pres Model: Geophysical Log Taker Geophysical Log Taker Other (Specify): Sample Collected for P Yes (D Result Att No Diversion Date: | e:Umin : Depth: on Completion : ached) Time: | / igpm | | Minutes 0 1 2 3 4 5 6 7 8 9 10 12 14 16 18 20 25 | Recovery |
| eat atte: YY AM Constraints of the second Artesian Flow Rete: Acthod of Water Rem Pumpp Pump Rate: | L/min / igpm m/min | Armount Taken: | Yes, flow control in Describe: val Rate: Yom: L/min or igpm m/ft Depth: Depth: | Pump insta Type: | m/tt Multer Removal Ra Multer Removal Ra Depth Air Tested From Uled UYes Model: Model: Geophysical Log Take Uother (Specify): Sample Collected for P Yes (DResult Att No Diversion Date: Sation No: | e: Umin : Depth: mon Completion : ta ptability; ached) Time: | / igpm | | Minutes O 0 1 2 3 4 5 6 7 6 7 8 9 10 12 14 16 18 20 25 30 35 | Recovery |
| eat ante: | L/min / igpm m/min | Armount Taken: | Yes, flow control in Describe: val Rate: Yom: L/min or igpm m/ft Depth: Depth: | Pump insta Type: | m/tt Mater Removal Ra Water Removal Ra Depth Air Tested From Iled □ Yes Model: Model: Model: Geophysical Log Taker □ Electric □ Gamr U Other (Specify): Sample Collected for P □ Yes (□ Result Att □ Yes (□ Result Att □ No Diversion Date: | e: Umin : Depth: mon Completion : ta ptability; ached) Time: | / igpm | | Minutes O 0 1 2 3 4 5 6 7 6 7 8 9 10 12 14 16 18 20 25 30 35 40 50 60 | Recovery |
| Eat Artesian Flow Artesian Flow Rate: Actinod of Water Rem Pump umping Rate: petit Pumped from: twater removal period wa tecommended Fump Rate tecommended Pump Inta Did you Encounter: Sa Gatemedial Action Taken: Viditional Comments on V Water Diverted for I Source: Copy of Drilling Report Copy of Journeyman Company Name: Anney Arter | Imre: | Arnount Taken: | Ves, flow control in Describe: val Rate: rom: L/min or igpm m/ft | ell: Certilic | m/tt Multiple Air Multiple A | e:Umin Depth: on Completion : 12 Dtability: ached) Time: (& | / igpm | | Minutes 0 1 2 3 4 5 6 7 8 9 10 12 14 16 18 20 25 30 35 40 50 60 75 | Recovery |
| ate: YY AMA SAME SAME SAME SAME SAME SAME SAME | Imre: | Arnount Taken: | Ves, flow control in Describe: val Rate: rom: L/min or igpm m/ft | ell: Certilic | m/tt Multiple Air Multiple A | e:Umin Depth: on Completion : 12 Dtability: ached) Time: (& | / igpm | | Minutes O 0 1 2 3 4 5 6 7 6 7 8 9 10 12 14 16 18 20 25 30 35 40 50 60 | Recovery |

-

/

| A N | later Wo | ell Drilling | Repor | et. | Well I.D.: Map Verified: | ħ | 023705 lot Verified |
|--------------------------------------|-----------------------|---|---|--|---|---|--------------------------------|
| Alberta The data contained in this | report is suppli | ed by the Driller. The pr accuracy. | rovince disc | taims responsibility for its | Date Report I Measuremen | | 009/05/04 nperial |
| Environment | analisation and a sec | | | | 2. Well Loc | ana | |
| L. Contractor & Well Owner Inform | nation | | Drilling Cor | mpany Approval No.: | 1/4 or Sec | and the second se | Rge Westo |
| ELL DONE WATER WELLS INC. | | | 205702 | npany npprovanes. | LSD | • | M |
| Mailing Address: City | y or Town: | | Postal Cod | ê: | SE 31 Location in Qu | 028 | 03 5 |
| | LGARY AB CA | tilin n | T2J 2T9 | | FT fron | | Boundar |
| CARTWRIGHT, CHLOE | In Location Iden | uner. | | | FT from | | Boundar |
| P.O. Box Number: Ma | iling Address: | ₩,₩₩₩₩₩,₩₩₩₩₩₩₩₩₩₩₩₩₩₩₩₩₩₩₩₩₩₩₩₩₩₩₩₩₩ | Postal Cod | le: | Lot I | Block | Plan |
| RR | | <u></u> | TOM OSO | | Well Elev: | How | Obtain: |
| City: Pro CROSSFIELD AB | vince: | | Country: CA | | FT GIEV. | | Obtain . |
| 3. Drilling Information | | edinaktur kanaktula ay kanaktur kanaktur kanaktur kanaktur kanaktur kanaktur kanaktur kanaktur kanaktur kanaktu | | | 6. Well Yie | ld | adaiminintooranaa yoo shaaddaa |
| Type of Work: New Well | | ***** | ann an aithightean an ann an | Proposed well use: | Test Date(yyy | | |
| Reclaimed Well | | | | Other | 2008/11/13 | | 1:00 AM |
| Date Reclaimed: | Materials Us | ed: Unknown | | Anticipated Water Requirements/day | Test Method: Non pumping | | 52.7 FT |
| Method of Drilling: Rotary | Rate: Gallon | S | | Gallons | static level: | | |
| Gas Present: No | Oil Present: | | | | Rate of water | 4 | Gallons/Min |
| 4. Formation Log | 5. V | Vell Completion | | | removal: | | 05 FT |
| Depth from | Date | e Started(yyyy/mm/dd): | Date C | completed(yyyy/mm/dd): | Depth of pum intake: | p 4 | 14 600 |
| ground Lithology Description | on 200 | 8/11/03 | 2008/1 | | -Water level at | | 50.4 FT |
| evel (feet) 1 Topsoil | | Depth: 420 FT | | ole Diameter: 8 Inches | end of | | |
| 1 Topson 15 Brown Clay | | OD: 6.625 Inches | | D: 4,94 Inches | -pumping: | the at | 6 Inches |
| 18 Brown Shale | | Thickness: 0.188 Inch | | hickness: 0.219 Inches | Distance from casing to group | | io incres |
| 35 Gray Sandstone | | | Top: 2 | 50 FT Boltom: 420 | Depth | To water le | vel (feet) |
| 149 Gray Shale | Bott | om at: 261 FT | FT | | | Elapsed Tin | ne |
| 152 Gray Sandstone 178 Gray Shale | Perf | orations | Perfon | ations Size: | | Minutes:Se 0:00 | ec Recovery 350.4 |
| 185 Gray Sandstone | | 1: 270 FT to: 415 FT | | Inches x 10 Inches | 252.7 | 1:00 | 347.2 |
| 195 Gray Shale | | n: FT to: FT n: FT to: FT | | x Inches x Inches | 256.6 | 2:00 | 344.6 |
| 260 Lost Circulation | | orated by: Saw | Interior | | 259.9 | 3:00 | 342.3 |
| 415 Gray Sandy Shale | | l: Driven & Bentonite | | | 261.9 | 4:00 | 340.6 |
| 420 Gray Shale | | 1:2 FT | to: 261 | FT | 264.6 266.4 | 5:00 | <u>339.3</u> 338.1 |
| | | l: Unknown 1: FT | to: FT | | 267.8 | 7:00 | 337.1 |
| | | Unknown | | | 269.6 | 8:00 | 336.4 |
| | | <u>): FT</u> | to: FT | | 270.8 | 9:00 | 335.8 |
| | | en Type: Unknown | | 1 ID: Inches | 272.2 | 10:00 | 334.9 |
| | | en Type: Unknown | | ze: Inches n ID: Inches | 275.1 | 12:00 | 333.7 |
| | | i; FT to: FT | | ize: Inches | 277.8 | 14:00 | <u>332</u> 330.4 |
| | Scre | en Installation Method. | Unknown | | 285.9 | 20:00 | 327.3 |
| | Fitti | | (* a the - | a. I Internation | 291.5 | 25:00 | 323.7 |
| | | : Unknown k: Unknown | Botton | n: Unknown | - 296.7 | 30:00 | 320.3 |
| | Grai | in Size: | Amour | nt; Unknown | <u> </u> | <u>35:00</u> 40:00 | <u>317.5</u> 314.7 |
| | Geo | physical Log Taken: | | ~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~ | 305.9 | 50:00 | 308.9 |
| | | ained on Files: | mas- | | 321.1 | 60:00 | 302.4 |
| | | itional Test and/or Pum mistries taken By Drille | | | 330.5 | 75:00 | 294.8 |
| | Hek | J: | | nents Held: | 338.5 | 90:00 | 288.4 |
| | | ess Adapter Type: | | n an | 345.1 | 105:00 | 283.1 |
| | | o Pipe Type: | Diam- | tor Inches | 350.4 Total Drawdo | | 278.3 |
| | | gth: FT nments: | Luame | ter: Inches | If water remo | | |
| | 260 | | RES, BORE | EHOLE DIAMTER ALSO | duration, reas | ion why: | |
| | | ". | | | MEASUREM | ENTS FRO | M CASING |
| | | | | | Recommende | | |
| | | | and the second secon | an da kana kana kana kana kana kana kana | Gallons/Min | | |
| | | Contractor Certifi | | | Recommend | | ake: 400 FT |
| | | er's Name: tification No.: 🕻 | TIM K 20573 | | Type Pump I Pump Type: | Istailed | |
| | | well was constructed i | | | Pump Model: | | |
| HAYBARN WELL | reği Enh | lation of the Alberta Er ancement ActuAll infor | nvironmenta | I Protection & | H.P. Any further p | | ormation? No |
| | <u>Iĝi</u> GI | nature | | | Report 1 F | | 4 4 ppp 4 |

Appendix B

| f Alb | ert | uoouruoy. | | | ned in this report. be retained in a pu | | nce disclaims respons ase. | ibility for its | Go | C Well ID DA Well Tag No. ate Report Recei | 376846 ved 1994/04/08 |
|--|------------------|--|-------------------|-----------------------------|--|---------|--|-----------------|-------------------------------|--|--|
| . Well Ident Owner Nam HELM, STE | ie | and Location | | dress N DEL, MA | DDEN | | Town | | Provii | nce | Measurement in Met Postal Code TOM 1L0 |
| Location | 1/4 or 04 | 30 | <i>TWP</i> 028 | RGE 03 | W of MER 5 | Lot | Block I | Plan | Additional | Description | |
| Measured fi | 274 | lary of 4.32 m from South 3.36 m from West | _ | | Latitude <u>51</u> How Location Not Verified | .419200 | Longitude | · · · · · | Но | vation v Elevation Obta Obtained | |
| 2. Drilling Inf Method of Rotary | | | | be of Work v Well | | | | | roposed Well omestic & Sto | | |
| B. Formation | n Log | | | Meas | surement in M | letric | 4. Well Complet | | | | Measurement in Met |
| Depth from ground level (m) | Water Bearing | | Lithology | Description | | | Total Depth Dril 22.86 m Borehole | | | 1994/03/14 | End Date 1994/03/14 |
| 5.49 | | Sandy Clay | | | | | Diameter 0.00 | | | m (m) 0.00 | To (m) 22.86 |
| 10.67 12.19 | | Shale Sandstone | | | | | Surface Casing Steel | | | Well Casing/L | |
| 17.37 | | Shale | | | | | | | 14.12 cm).478 cm | Size (Wall Thickne | DD: <u>11.43 cm</u> sss: 0.544 cm |
| 18.90 | | Sandstone | | | | | Wall Thicknes Bottom a | s. <u> </u> | | | at: 5.49 m |
| 22.86 | | Shale & Sandstone | e Ledges | | | | 201101110 | | 0.10 | Bottom | |
| | | | | | | | Amount | 0.0 | To (m) 22.86 | Diameter (c 0.635 6.10 m | m) Interval (cm) 30.48 |
| | | | | | | | Other Seals | | | | |

7. Contractor Certification

Name of Journeyman responsible for drilling/construction of well UNKNOWN NA DRILLER

Company Name DEN-ALTA DRILLING LTD. Certification No

1

Screen Type

Pack Type

Amount

Size OD :

From (m)

Attachment

Top Fittings

<u>0.00 cm</u>

To (m)

Bottom Fittings

Grain Size

Copy of Well report provided to owner Date approval holder signed

Slot Size (cm)

| Government Wate | er Well Dri | Iling Repor | rt <u>View in Li</u> | <u>mperial</u> |
|--|--|---|--|--|
| Df Alberta The driller supplies accuracy. The information on | the data contained in this report. The P this report will be retained in a public date | Province disclaims responsibility for its | GIC Well ID GoA Well Tag I | 376846 No. eceived 1994/04/08 |
| | ddress EN DEL, MADDEN | Town | Province | Measurement in Metri Postal Code TOM 1L0 |
| Location 1/4 or LSD SEC TWP 04 30 028 | 03 5 | ot Block Plan | Additional Description | |
| Measured from Boundary of 274.32 m from South 213.36 m from West | | n Decimal Degrees (NAD 83) 200 Longitude <u>-114.42029</u> ined | 9 Elevation How Elevation C Not Obtained | |
| Additional Information | • | | - | Measurement in Metri |
| Distance From Top of Casing to Ground Level _ Is Artesian Flow RateL/min | cm | Is Flow Control Installed Describe | | |
| Recommended Pump Rate Recommended Pump Intake Depth (From TOC) | | Pump Installed | Depth | m |
| Did you Encounter Saline Water (>4000 ppm 7 | DS) Depth | m Well Disinfecte m Geophys Su | ed Upon Completion sical Log Taken Ibmitted to GIC | |
| 5. Yield Test | | Measuremen | t in Metric Depth to water level | Taken From Ground Leve |
| Test Date Start Time 1994/03/14 12:00 AM | Static Water Level 15.24 m | Drawdown (m) | Elapsed Time Minutes:Sec | Recovery (m) |
| Method of Water Removal Type <u>Air</u> Removal Rate <u>90.92 L/min</u> Depth Withdrawn From <u>22.86 m</u> | | | 3:00 4:00 5:00 | 16.15 15.54 15.24 |
| If water removal period was < 2 hours, explain w | hy | | | |
| 6. Water Diverted for Drilling | | | | |

| 7. | Contractor Certification |
|----|---|
| 1 | Name of Journeyman responsible for drilling/construction of well UNKNOWN NA DRILLER |

Company Name DEN-ALTA DRILLING LTD. Certification No

1

Copy of Well report provided to owner Date approval holder signed

I

Government Water Well Drilling Report View in Imperial GIC Well ID 392000 GoA Well Tag No. The driller supplies the data contained in this report. The Province disclaims responsibility for its accuracy. The information on this report will be retained in a public database. Date Report Received 1981/05/06 1. Well Identification and Location Measurement in Metric Owner Name Address Province Postal Code Town DAVIES, JIM P.O. BOX 673 COCHRANE al Description 1219.20 m levation ow Elevation Obtained stimated ell Use Stock Measurement in Metric epth Start Date End Date 1981/03/13 1981/03/24 rom (m) To (m) 0.00 53.95 Well Casing/Liner Galvanized Steel Size OD : 12.70 cm Wall Thickness : 0.000 cm Top at : 0.00 m Bottom at 53.95 m Diameter (cm) Interval (cm) 0.953 40.64 9.14 m Water Bearing Sandstone Yes 32.92 Other Seals 53.95 Gray Shale At (m) Туре

7. Contractor Certification

Name of Journeyman responsible for drilling/construction of well UNKNOWN NA DRILLER Company Name

PARSONS DRILLING

Certification No 1

Screen Type

Pack Type

Amount

Size OD :

From (m)

Attachment Top Fittings 0.00 cm

To (m)

Bottom Fittings

Grain Size

Copy of Well report provided to owner Date approval holder signed

Slot Size (cm)

| Location | 1/4 or SW | LSD | SEC 31 | <i>TWP</i> 028 | RGE 03 | W of MER 5 | Lot | Block | Plan | Addition |
|---|----------------|-----------------|---------------|-------------------|-----------------------------|---------------|--------|--|------------|----------------------------|
| Measured t | from Bound | m | from from | | | | 434730 | cimal Degrees (Longitude | | |
| 2. Drilling In Method of Cable Tool | | | | | be of Work w Well | [| | | | Proposed W Domestic & S |
| 3. Formation Depth from ground | n Log Water | | | | Mea | surement in M | etric | 4. Well Comp Total Depth I 53.95 m Borehole | | Finished Well De |
| level (m) 0.91 | Bearing | Black | Clay | Lithology | Descriptior | 1 | | Diamete | | Fi |
| 6.10 6.40 | | Brown Boulde | n Clay ers | | | | | Surface Casi Steel | ng (if app | |
| 7.01 | | Brown | Firm Clay | | | | | | | 16.81 cm |
| 9.14 | | Gray F | irm Clay | | | | | | | 0.478 cm 9.14 m |
| 12.19 | | Gray H | Hard Sands | stone | | | | Dotton | | <u> </u> |
| 13.41 | | Brown | Fractured | Sandstone | | | | Perforations | | |
| 15.54 | | Brown | Hard San | dstone | | | | From (m | ı) | To (m) |
| 16.76 | | Gray H | Hard Sands | stone | | | | 29.87 | | 53.34 |
| 21.64 | | Gray | Shale | | | | | Perforated by | / То | rch |
| 24.69 | | Brown | Shale | | | | | Annular Sea | Driver | n |
| 31.09 | | Gray F | irm Shale | | | | | | | 0.00 m to |
| 22.02 | | 14/ | De entre en C | | | | | Amou | nt | |

of Alberta

| Govern | men | h W | /ate | er V | Vell D | rilli | ng F | Repo | rt <u>v</u> | /iew in I | mperi | <u>al</u> |
|--|---|-----------------------|-------------------|--------------------|--|-------------|-----------------|---------------------------------------|---------------------------------|--|-------|----------------------|
| of Albe | | The drille | er supplies th | ne data cont | ained in this report. T | The Provinc | e disclaims res | | 0 | GIC Well ID GoA Well Tag Date Report R | | 392000 1981/05/06 |
| 1. Well Identifica | ation and Lo | cation | | | | | | | | | Me | asurement in Metri |
| Owner Name DAVIES, JIM | | | | dress D. BOX 67 | 3 COCHRANE | | Town | | Prov | ince | Post | al Code |
| | 1/4 or LSD SW | SEC 31 | <i>TWP</i> 028 | RGE 03 | W of MER 5 | Lot | Block | Plan | Additiona | al Description | | |
| Measured from | m | from from | | | GPS Coordina Latitude <u>51.</u> How Location (Map | 434730 | 0 | · · · · · · · · · · · · · · · · · · · | He | evation ow Elevation stimated | | 20 m |
| Additional Inform | nation | | | I | | | | | | | Ме | asurement in Metr |
| Distance From Is Artesian Flo Ra | , , | | | | | | | ol Installed Describe | | | | |
| Recommended | | | <u> </u> | | 18.18 L/min | | | | | | | |
| Recommended | I Pump Intake | Depth (Fro | om TOC) | | 0.00 m | Туре | , | M | lodel | | H.P. | |
| | omments on V | Vell | G | | Depth Depth | | m | Geophy S | rsical Log Ta Submitted to (| ken GIC | | Attached Yes |
| 5. Yield Test | | | | | | | | Measuremer | nt in Metric | | Taken | From Ground Leve |
| Test Date 1981/03/24 | - | Start Time 2:00 AM | | Static | Water Level 29.87 m | | Drawd | own (m) | Elaps | water level ed Time ites:Sec | F | Recovery (m) |
| Method of Wa Remo Depth Withdra If water remova | Type <u>Bai</u> oval Rate wn From | 18.1 52.4 | 13 m | / | | _ | | | 1 | | | |
| 6. Water Diverte Water Source | ed for Drilling | 9 | | Amc | ount Taken L | | | | Diversion Da | ate & Time | | |

| 7. | Contractor Certification |
|----|---|
| 1 | Name of Journeyman responsible for drilling/construction of well UNKNOWN NA DRILLER |

Company Name PARSONS DRILLING Certification No
1

| f Alk | | | | | ntained in this report. The | | | | GoA Well Ta Date Report | | |
|-----------------------|--------------|------------------|-------------------|------------|-----------------------------|---------|-----------------------|--------------|----------------------------|-------------|------------------|
| | | Ind Location | | | | | - | | D / | | asurement in Me |
| Owner Nan CARTWRIC | | E | RR | dress 2 | | | Town CROSSFIELD | | Province AB | Post T0M | al Code 0S0 |
| Location | 1/4 or SE | LSD SEC 31 | <i>TWP</i> 028 | RGE 03 | W of MER 5 | Lot | Block Pla | an Ad | dditional Description | า | |
| Measured f | - | - | 020 | 03 | - | in Deci | mal Degrees (NAD | 83) | | | |
| Measureu i | | m from | | | Latitude 51.434 | 4800 | Longitude -11 | 4.406000 | Elevation | | m |
| | | m from | | | How Location Obt | ained | | | How Elevation | Obtained | |
| | | | | | Not Verified | | | | Not Obtained | | |
| Drilling In | formation | | | | | | | | | | |
| Method of | Drilling | | | pe of Wo | rk | | | | sed Well Use | | |
| Rotary | | | Nev | w Well | | | | Other | | | |
| Formation | n Log | | | Me | easurement in Metri | ic 4 | . Well Completion | | | | asurement in Me |
| Depth | | | | | | | 1 | d Finished V | Vell Depth Start L | | End Date |
| from ground | Water | | | | | | 128.02 m | | 2008/1 | 1/03 | 2008/11/10 |
| level (m) | Bearing | | Lithology | Descripti | on | | Borehole | | 5 () | | T () |
| 0.30 | | Topsoil | | | | | Diameter (cr 20.32 | n) | From (m) 0.00 | | To (m) 128.02 |
| 4.57 | | Brown Clay | | | | | Surface Casing (if | applicable) | | ing/Liner | |
| 5.49 | | Brown Shale | | | | | Steel | | Plastic | | |
| 10.67 | | Gray Sandstone | | | | | | 16.83 | | | 12.55 cm |
| 45.42 | | Gray Shale | | | | | Wall Thickness : | | | Top at : _ | 0.556 cm |
| 46.33 | | Gray Sandstone | | | | | Bottom at : | /9.55 | | ottom at : | |
| 54.25 | | Gray Shale | | | | | Perforations | | D | | 120.02 111 |
| 56.39 | | Gray Sandstone | | | | | From (m) | To (| | ter (cm) | Interval (cm) |
| 59.44 | | Gray Shale | | | | | 82.30 | 126. | 49 0. | 239 | 25.40 |
| 79.25 | | Lost Circulation | | | | | Perforated by | Saw | | | |
| 126.49 | | Gray Sandy Shale | | | | | Annular Seal Dr | iven & Rento | nite | | |
| 128.02 | | Gray Shale | | | | | | | _ to79.55 | m | |
| | | | | | | | | | | | |
| | | | | | | | Other Seals | | | | |
| | | | | | | | 7 | Гуре | | At (| (m) |
| | | | | | | | | | | | |
| | | | | | | | Screen Type | | | | |
| | | | | | | | Size OD : | | cm | | |

Attachment Top Fittings

Type Unknown

Amount

Pack

7. Contractor Certification

Name of Journeyman responsible for drilling/construction of well $\mathsf{TIM}\ \mathsf{KLAASSEN}$ Company Name

WELL DONE WATER WELLS INC.

Certification No 205734 Copy of Well report provided to owner Date approval holder signed

Bottom Fittings

Grain Size

Unknown

| | accuracy. | | ntained in this report. Th | | aims responsibility for its | GIC Well ID GoA Well Tag Date Report F | |
|--|---|---------------------------------------|----------------------------|------------|--|--|---|
| Well Identification and Locat | tion | | | | | | Measurement in M |
| Owner Name | | Address | | | wn | Province | Postal Code |
| CARTWRIGHT, CHLOE | | RR 2 | | CR | OSSFIELD | AB | TOM 0S0 |
| | SEC TW 31 028 | | 5 | | Block Plan | Additional Descriptior | 7 |
| Measured from Boundary of | | | | | <mark>egrees (NAD 83)</mark> Longitude114.4060 | 00 Elevation | m |
| m from | m | | How Location O | | _0/19/lude _114.4000 | How Elevation | |
| m from | m | | | Diamed | | | Oblained |
| | | | Not Verified | | | Not Obtained | |
| Iditional Information | | | | | | | Measurement in Me |
| Distance From Top of Casing to | Ground Level | | 91 <i>11</i> cm | | | | |
| Is Artesian Flow | Olound Level | | 91. 44 Cm | Is Flow | Control Installed | | |
| Is Artesian Flow Rate Recommended Pump Rate | L/min | - | | 1011011 | Describe | | |
| | L/IIIII | - | | | | | |
| Recommended Pump Rate | | | 13.64 L/min | Pump Insta | lled | Depth | <u> </u> |
| Recommended Pump Intake De | epth (From TOC | C) | 121.92 m | Туре | | lodel | Н.Р. |
| Did you Encounter Saline Wat | ter (>4000 ppm | TDS) | Depth | m | Well Disinfect | ted Upon Completion | |
| | | · · · · · · · · · · · · · · · · · · · | | | | | |
| | | Gas | Depth | m | Geophy | sical Log Takeri | |
| | | Gas | Depth | m | | | |
| Additional Comments on Well 260' - 415' ALSO FRACTURES, | | | | | S | Submitted to GIC | Result Attached |
| Additional Comments on Well 260' - 415' ALSO FRACTURES, Yield Test Test Date Start | , BOREHOLE | DIAMTER AI | LSO 6" FOR LINER | | Sample Collected | Submitted to GIC d for Potability nt in Metric Depth to water level | Result Attached |
| Additional Comments on Well 260' - 415' ALSO FRACTURES, Yield Test Test Date Start | , BOREHOLE | DIAMTER AI | LSO 6" FOR LINER | | Sample Collecter Measureme Drawdown (m) | Submitted to GIC | Result Attached |
| Additional Comments on Well 260' - 415' ALSO FRACTURES, Yield Test Test Date Start | , BOREHOLE | DIAMTER AI | LSO 6" FOR LINER | | Sample Collected Measureme Drawdown (m) 77.02 | Submitted to GIC d for Potability nt in Metric Depth to water level Elapsed Time Minutes:Sec 0:00 | Result Attached |
| Additional Comments on Well 260' - 415' ALSO FRACTURES, Yield Test Test Date Start 2008/11/13 12:00 Method of Water Removal | , BOREHOLE | DIAMTER AI | LSO 6" FOR LINER | | Sample Collected Measureme Drawdown (m) | Submitted to GIC | Result Attached |
| Additional Comments on Well 260' - 415' ALSO FRACTURES, Yield Test Test Date Start 2008/11/13 12:00 Method of Water Removal Type Pump | , BOREHOLE t Time 0 AM | DIAMTER AI | LSO 6" FOR LINER | | Sample Collected Measureme Drawdown (m) 77.02 77.45 | Submitted to GIC d for Potability nt in Metric Depth to water level Elapsed Time Minutes:Sec 0:00 1:00 | Result Attached Taken From Ground L Recovery (m) 106.80 105.83 |
| Additional Comments on Well 260' - 415' ALSO FRACTURES, Yield Test Test Date Start 2008/11/13 12:00 Method of Water Removal Type Pump Removal Rate | , BOREHOLE t Time 0 AM 18.18 L/m | DIAMTER AI | LSO 6" FOR LINER | | Sample Collected Measureme Drawdown (m) 77.02 77.45 78.21 79.22 79.83 | Submitted to GIC d for Potability Depth to water level Elapsed Time Minutes:Sec 0:00 1:00 2:00 3:00 4:00 | Result Attached Taken From Ground La Recovery (m) 106.80 105.83 105.03 104.33 103.81 |
| Additional Comments on Well 260' - 415' ALSO FRACTURES, Yield Test Test Date Start 2008/11/13 12:00 Method of Water Removal Type Pump | , BOREHOLE t Time 0 AM 18.18 L/m | DIAMTER AI | LSO 6" FOR LINER | | Sample Collected Measureme Drawdown (m) 77.02 77.45 78.21 79.22 79.83 80.65 | Submitted to GIC d for Potability Depth to water level Elapsed Time Minutes:Sec 0:00 1:00 2:00 3:00 4:00 5:00 | Result Attached Taken From Ground Lu Recovery (m) 106.80 105.83 105.03 104.33 103.81 103.42 |
| Additional Comments on Well 260' - 415' ALSO FRACTURES, Yield Test Test Date Start 2008/11/13 12:00 Method of Water Removal Type Pump Removal Rate Depth Withdrawn From | , BOREHOLE t Time 0 AM 18.18 L/m 123.44 m | DIAMTER AI | LSO 6" FOR LINER | | Sample Collected Measureme Drawdown (m) 77.02 77.45 78.21 79.22 79.83 80.65 81.20 | Submitted to GIC d for Potability Depth to water level Elapsed Time Minutes:Sec 0:00 1:00 2:00 3:00 4:00 5:00 6:00 | Result Attached Taken From Ground L Recovery (m) 106.80 105.83 105.03 104.33 103.81 103.42 103.05 |
| Additional Comments on Well 260' - 415' ALSO FRACTURES, Yield Test Test Date Start 2008/11/13 12:00 Method of Water Removal Type Pump Removal Rate Depth Withdrawn From | BOREHOLE | DIAMTER AI | LSO 6" FOR LINER | | Sample Collected Measureme Drawdown (m) 77.02 77.45 78.21 79.22 79.83 80.65 | Submitted to GIC d for Potability Depth to water level Elapsed Time Minutes:Sec 0:00 1:00 2:00 3:00 4:00 5:00 | Result Attached Taken From Ground Lu Recovery (m) 106.80 105.83 105.03 104.33 103.81 103.42 |
| Additional Comments on Well 260' - 415' ALSO FRACTURES, Yield Test Test Date Start 2008/11/13 12:00 Method of Water Removal Type Pump Removal Rate Depth Withdrawn From | BOREHOLE | DIAMTER AI | LSO 6" FOR LINER | | Sample Collected Measureme Drawdown (m) 77.02 77.45 78.21 79.22 79.83 80.65 81.20 81.63 82.17 82.54 | Submitted to GIC d for Potability Int in Metric Depth to water level Elapsed Time Minutes:Sec 0:00 1:00 2:00 3:00 4:00 5:00 6:00 7:00 8:00 9:00 | Result Attached Taken From Ground L Recovery (m) 106.80 105.83 105.03 104.33 103.81 103.42 102.75 102.53 102.35 |
| Additional Comments on Well 260' - 415' ALSO FRACTURES, Yield Test Test Date Start 2008/11/13 12:00 Method of Water Removal Type Pump Removal Rate Depth Withdrawn From | BOREHOLE | DIAMTER AI | LSO 6" FOR LINER | | Sample Collected Measureme Drawdown (m) 77.02 77.45 78.21 79.22 79.83 80.65 81.20 81.63 82.17 82.54 82.97 | Submitted to GIC d for Potability Depth to water level Elapsed Time Minutes:Sec 0:00 1:00 2:00 3:00 4:00 5:00 6:00 7:00 8:00 9:00 10:00 | Result Attached Taken From Ground Lu Recovery (m) 106.80 105.83 105.03 104.33 103.81 103.42 103.05 102.75 102.53 102.08 |
| Additional Comments on Well 260' - 415' ALSO FRACTURES, Yield Test Test Date Start 2008/11/13 12:00 Method of Water Removal Type Pump Removal Rate Depth Withdrawn From | BOREHOLE | DIAMTER AI | LSO 6" FOR LINER | | Sample Collecter Measureme Drawdown (m) 77.02 77.45 78.21 79.22 79.83 80.65 81.20 81.63 82.54 82.54 82.97 83.85 | Submitted to GIC d for Potability Depth to water level Elapsed Time Minutes:Sec 0:00 1:00 2:00 3:00 4:00 5:00 6:00 7:00 8:00 9:00 10:00 12:00 | Result Attached Taken From Ground L Recovery (m) 106.80 105.83 105.03 104.33 103.42 103.42 102.75 102.35 102.08 101.71 |
| Additional Comments on Well 260' - 415' ALSO FRACTURES, Yield Test Test Date Start 2008/11/13 12:00 Method of Water Removal Type Pump Removal Rate Depth Withdrawn From If water removal period was < 2 | BOREHOLE | DIAMTER AI | LSO 6" FOR LINER | | Sample Collected Measureme Drawdown (m) 77.02 77.45 78.21 79.22 79.83 80.65 81.20 81.63 82.17 82.54 82.97 83.85 84.67 | Submitted to GIC d for Potability Int in Metric Depth to water level Elapsed Time Minutes:Sec 0:00 1:00 2:00 3:00 4:00 5:00 6:00 7:00 8:00 9:00 10:00 12:00 14:00 | Result Attached Taken From Ground L Recovery (m) 106.80 105.83 105.03 104.33 103.81 103.42 102.53 102.53 102.35 102.08 101.71 101.19 |
| Additional Comments on Well 260' - 415' ALSO FRACTURES, Yield Test Test Date Start 2008/11/13 12:00 Method of Water Removal Type Pump Removal Rate Depth Withdrawn From If water removal period was < 2 | BOREHOLE | DIAMTER AI | LSO 6" FOR LINER | | Sample Collecter Measureme Drawdown (m) 77.02 77.45 78.21 79.22 79.83 80.65 81.20 81.63 82.54 82.54 82.97 83.85 | Submitted to GIC d for Potability Depth to water level Elapsed Time Minutes:Sec 0:00 1:00 2:00 3:00 4:00 5:00 6:00 7:00 8:00 9:00 10:00 12:00 | Result Attached Taken From Ground L Recovery (m) 106.80 105.83 105.03 104.33 103.42 103.42 102.75 102.35 102.08 101.71 |
| Additional Comments on Well 260' - 415' ALSO FRACTURES, Yield Test Test Date Start 2008/11/13 12:00 Method of Water Removal Type Pump Removal Rate Depth Withdrawn From If water removal period was < 2 | BOREHOLE | DIAMTER AI | LSO 6" FOR LINER | | Sample Collecter Measureme Drawdown (m) 77.02 77.45 78.21 79.22 79.83 80.65 81.20 81.63 82.17 82.54 82.97 83.85 84.67 85.50 | Submitted to GIC d for Potability Depth to water level Elapsed Time Minutes: Sec 0:00 1:00 2:00 3:00 4:00 5:00 6:00 7:00 8:00 9:00 10:00 12:00 14:00 16:00 | Result Attached Taken From Ground L Recovery (m) 106.80 105.83 105.03 104.33 103.81 103.05 102.75 102.35 102.35 101.71 101.19 100.71 |
| Additional Comments on Well 260' - 415' ALSO FRACTURES, Yield Test Test Date Start 2008/11/13 12:00 Method of Water Removal Type Pump Removal Rate Depth Withdrawn From | BOREHOLE | DIAMTER AI | LSO 6" FOR LINER | | Sample Collecter Measureme Drawdown (m) 77.02 77.45 78.21 79.22 79.83 80.65 81.20 81.63 82.17 82.54 82.97 83.85 84.67 85.50 87.14 88.85 90.43 | Submitted to GIC d for Potability Depth to water level Elapsed Time Minutes:Sec 0:00 1:00 2:00 3:00 4:00 5:00 6:00 7:00 8:00 9:00 10:00 12:00 14:00 16:00 20:00 25:00 30:00 | Result Attached Taken From Ground Lu Recovery (m) 106.80 105.83 105.03 104.33 103.81 103.82 102.75 102.75 102.35 102.08 101.71 99.76 98.66 97.63 |
| Additional Comments on Well 260' - 415' ALSO FRACTURES, Yield Test Test Date Start 2008/11/13 12:00 Method of Water Removal Type Pump Removal Rate Depth Withdrawn From If water removal period was < 2 | BOREHOLE | DIAMTER AI | LSO 6" FOR LINER | | Sample Collecter Measureme Drawdown (m) 77.02 77.45 78.21 79.22 79.83 80.65 81.20 81.63 82.17 82.54 82.97 83.85 84.67 85.50 87.14 88.85 90.43 91.93 | Submitted to GIC d for Potability Depth to water level Elapsed Time Minutes:Sec 0:00 1:00 2:00 3:00 4:00 5:00 6:00 7:00 8:00 9:00 10:00 12:00 14:00 16:00 20:00 30:00 35:00 | Result Attached Taken From Ground L Recovery (m) 106.80 105.83 105.03 104.33 103.42 103.05 102.75 102.35 102.08 101.11 99.76 98.66 97.63 96.77 |
| Additional Comments on Well 260' - 415' ALSO FRACTURES, Yield Test Test Date Start 2008/11/13 12:00 Method of Water Removal Type Pump Removal Rate Depth Withdrawn From | BOREHOLE | DIAMTER AI | LSO 6" FOR LINER | | Sample Collected Measureme Drawdown (m) 77.02 77.45 78.21 79.22 79.83 80.65 81.20 81.63 82.17 82.54 82.97 83.85 84.67 85.50 87.14 88.85 90.43 91.93 93.24 | Submitted to GIC d for Potability Int in Metric Depth to water level Elapsed Time Minutes:Sec 0:00 1:00 2:00 3:00 4:00 5:00 6:00 7:00 8:00 9:00 10:00 12:00 14:00 16:00 20:00 30:00 35:00 40:00 | Result Attached Taken From Ground L Recovery (m) 106.80 105.83 105.03 104.33 103.81 103.42 102.53 102.53 102.75 102.76 98.66 97.63 96.77 95.92 |
| Additional Comments on Well 260' - 415' ALSO FRACTURES, Yield Test Test Date Start 2008/11/13 12:00 Method of Water Removal Type Pump Removal Rate Depth Withdrawn From | BOREHOLE | DIAMTER AI | LSO 6" FOR LINER | | Sample Collecter Measureme Drawdown (m) 77.02 77.45 78.21 79.22 79.83 80.65 81.20 81.63 82.17 82.54 82.97 83.85 84.67 85.50 87.14 88.85 90.43 91.93 93.24 95.86 | Submitted to GIC d for Potability It in Metric Depth to water level Elapsed Time Minutes: Sec 0:00 1:00 2:00 3:00 4:00 5:00 6:00 7:00 8:00 9:00 10:00 12:00 14:00 16:00 20:00 30:00 35:00 40:00 50:00 | Result Attached Taken From Ground L Recovery (m) 106.80 105.83 105.03 104.33 103.81 103.42 102.75 102.75 102.35 102.75 101.11 101.71 99.76 98.66 97.63 96.77 95.92 94.15 |
| Additional Comments on Well 260' - 415' ALSO FRACTURES, Yield Test Test Date Start 2008/11/13 12:00 Method of Water Removal Type Pump Removal Rate Depth Withdrawn From | BOREHOLE | DIAMTER AI | LSO 6" FOR LINER | | Sample Collecter Measureme Drawdown (m) 77.02 77.45 78.21 79.22 79.83 80.65 81.20 81.63 82.17 82.54 82.97 83.85 84.67 85.50 87.14 88.85 90.43 91.93 93.24 95.86 97.87 | Submitted to GIC d for Potability Depth to water level Elapsed Time Minutes:Sec 0:00 1:00 2:00 3:00 4:00 5:00 6:00 7:00 8:00 9:00 10:00 12:00 30:00 4:00 5:00 6:00 7:00 8:00 9:00 10:00 12:00 3:00 4:00 5:00 30:00 35:00 40:00 50:00 60:00 | Result Attached Taken From Ground La Recovery (m) 106.80 105.83 105.03 104.33 103.42 103.81 102.75 102.75 102.53 102.68 101.71 101.71 99.76 98.66 97.63 96.77 95.92 94.15 92.17 |
| Additional Comments on Well 260' - 415' ALSO FRACTURES, Yield Test Test Date Start 2008/11/13 12:00 Method of Water Removal Type Pump Removal Rate Depth Withdrawn From | BOREHOLE | DIAMTER AI | LSO 6" FOR LINER | | Sample Collecter Measureme Drawdown (m) 77.02 77.45 78.21 79.22 79.83 80.65 81.20 81.63 82.17 82.54 82.97 83.85 84.67 85.50 87.14 88.85 90.43 91.93 93.24 95.86 | Submitted to GIC d for Potability It in Metric Depth to water level Elapsed Time Minutes: Sec 0:00 1:00 2:00 3:00 4:00 5:00 6:00 7:00 8:00 9:00 10:00 12:00 14:00 16:00 20:00 30:00 35:00 40:00 50:00 | Result Attached Taken From Ground L Recovery (m) 106.80 105.83 105.03 104.33 103.81 103.42 102.75 102.75 102.35 102.75 101.11 101.71 99.76 98.66 97.63 96.77 95.92 94.15 |
| Additional Comments on Well 260' - 415' ALSO FRACTURES, Yield Test Test Date Start 2008/11/13 12:00 Method of Water Removal Type Pump Removal Rate Depth Withdrawn From | BOREHOLE | DIAMTER AI | LSO 6" FOR LINER | | Sample Collected Measureme Drawdown (m) 77.02 77.45 78.21 79.22 79.83 80.65 81.20 81.63 82.17 82.54 82.97 83.85 84.67 85.50 87.14 88.85 90.43 91.93 93.24 95.86 97.87 100.74 | Submitted to GIC d for Potability Depth to water level Elapsed Time Minutes:Sec 0:00 1:00 2:00 3:00 4:00 5:00 6:00 7:00 8:00 9:00 10:00 12:00 14:00 16:00 20:00 25:00 30:00 40:00 50:00 60:00 75:00 | Result Attached Taken From Ground Lu Recovery (m) 106.80 105.83 105.03 104.33 103.81 103.42 102.75 102.75 102.83 101.71 99.76 98.66 97.63 96.77 95.92 94.15 92.17 89.86 |

7. Contractor Certification Name of Journeyman responsible for drilling/construction of well TIM KLAASSEN Company Name WELL DONE WATER WELLS INC.

Certification No 205734 Copy of Well report provided to owner Date approval holder signed

Government Water Well Drilling Report View in Imperial 492979 GIC Well ID of Alberta The driller supplies the data contained in this report. The Province disclaims responsibility for its GoA Well Tag No. accuracy. The information on this report will be retained in a public database. 1999/04/30 Date Report Received 1. Well Identification and Location Measurement in Metric Owner Name Postal Code Address Town Province BOSCH, ROBERT P.O. BOX 55 WATER VALLEY T0M 2E0 Location 1/4 or LSD SEC TWP RGE W of MER Lot Block Plan Additional Description 028 SE 30 03 5 GPS Coordinates in Decimal Degrees (NAD 83) Measured from Boundary of Latitude 51.420350 Longitude -114.406012 Elevation m m from How Location Obtained How Elevation Obtained m from Not Verified Not Obtained 2. Drilling Information Method of Drilling Type of Work Proposed Well Use New Well Combination Domestic 3. Formation Log Measurement in Metric 4. Well Completion Measurement in Metric Total Depth Drilled Finished Well Depth Start Date End Date Depth 45.72 m 1998/10/15 1998/10/20 from Water around Borehole level (m) Bearing Lithology Description Diameter (cm) From (m) To (m) 3.05 Clay 0.00 0.00 45.72 3.66 Sandstone Surface Casing (if applicable) Well Casing/Liner Steel Plastic 4.88 Soft Shale Size OD : 16.81 cm Size OD : 12.55 cm 14.63 Soft Shale & Sandstone 0.478 cm Wall Thickness : Wall Thickness : 0.630 cm 15.24 Hard Shale 7.01 m Bottom at : 9.75 m Top at : 15.85 Hard Sandstone Bottom at : 45.72 m 17.07 Dark Shale Perforations From (m) To (m) Diameter (cm) Interval (cm) 20.73 Soft Shale

33 53

| Perforated by Saw | | | |
|---|------|-------------|----------------|
| Annular Seal Driven Placed from 0 Amount Other Seals | | | |
| Туре | | | At (m) |
| Screen Type | 0.00 | | |
| Size OD : From (m) | | (m) | Slot Size (cm) |
| Attachment | | | |
| Top Fittings | | Bottom Fitt | ings |
| Pack | | | |
| Туре | | Grain Size | |
| Amount | | | |

0 157

25 40

45 72

7. Contractor Certification

23.77

34.75 36.27

40.54

42.67

45.72

Sandstone Soft Shale

Sandstone

Shale & Sandstone

Soft Shale & Sandstone

Hard Sandstone

Name of Journeyman responsible for drilling/construction of well UNKNOWN NA DRILLER

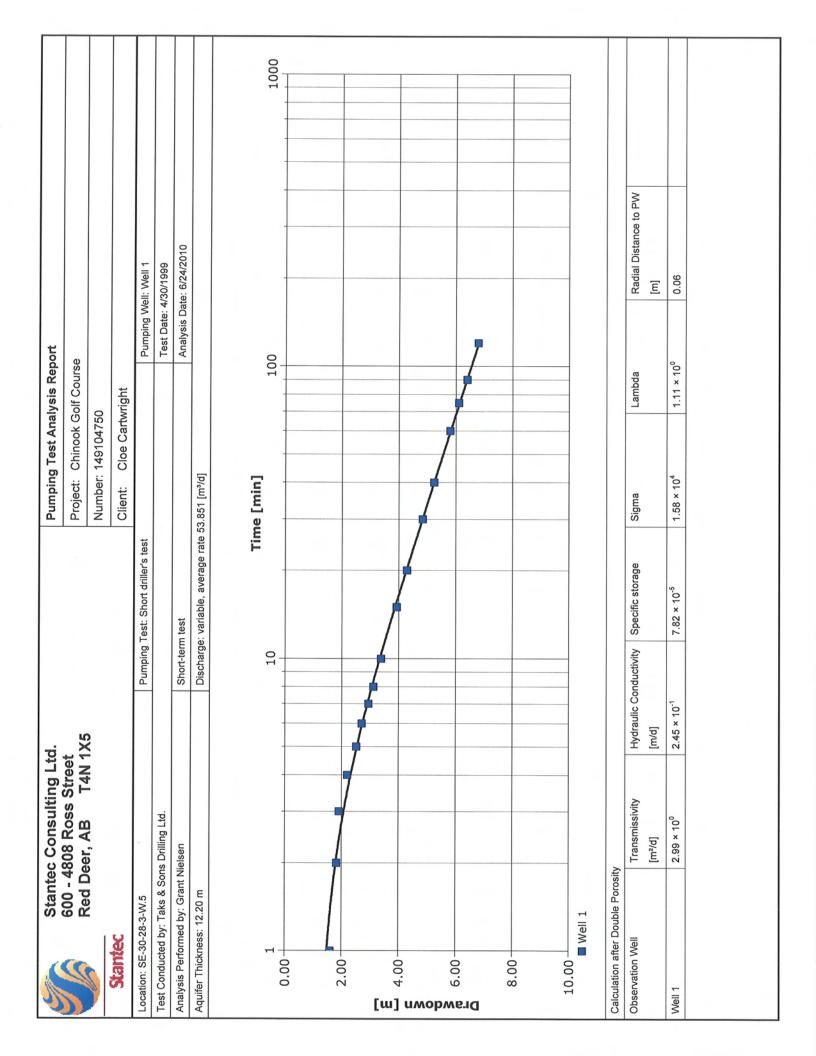
Company Name TAKS & SONS DRILLING LTD. Certification No

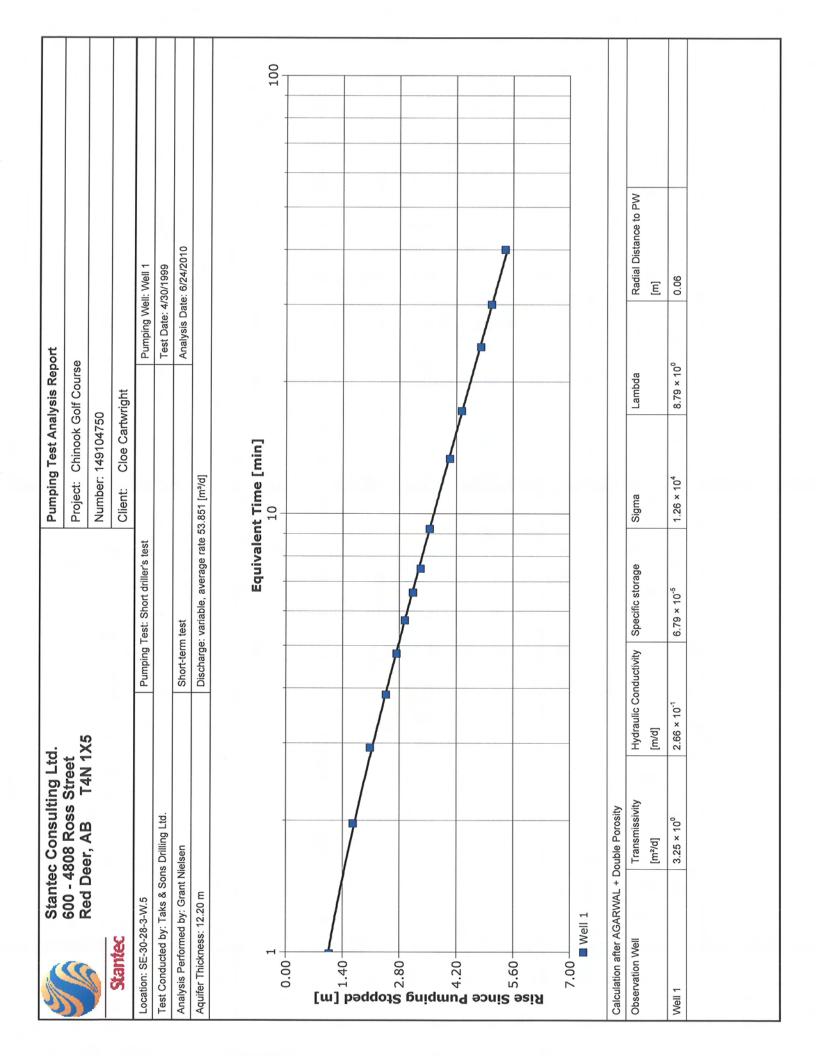
1

| D SEC TWP 30 028 of m from m from asing to Ground Level L/min tate tat | BOX 55 WATER VALLEY RGE W of MER Lo 03 5 GPS Coordinates in I Latitude 51.42035 How Location Obtain Not Verified | Decimal Degrees (NAD 83) 0 Longitude -114.4066 ed Is Flow Control Installed Describe ump Installed | How Elevation Not Obtained | m n Obtained Measurement in M m |
|---|--|--|--|---|
| 30 028 v of m from m from comparison asing to Ground Level L/min tate take Depth (From TOC) line Water (>4000 ppm TDS, Gas on Well | 03 5 GPS Coordinates in I Latitude <u>51.42035</u> How Location Obtain Not Verified | Decimal Degrees (NAD 83) 0 Longitude -114.4066 ed Is Flow Control Installed Describe ump Installed | 012 Elevation How Elevation Not Obtained | m Measurement in M m |
| m from m from asing to Ground Level L/min tate tat | Latitude 51.42035 How Location Obtain Not Verified | 0 Longitude <u>-114.4060</u> ed Is Flow Control Installed <u>Describe</u> ump Installed <u>Mell Disinfec</u> <u>m</u> Well Disinfec <u>m</u> Geoph Sample Collecte | How Elevation Not Obtained | m Obtained Measurement in M m |
| L/min late atake Depth (From TOC) line Water (>4000 ppm TDS, Gas on Well | 45.46 L/min Pl 44.20 m 7 j Depth s Depth | Describe ump Installed | Depth Model ted Upon Completion ysical Log Taken Submitted to GIC | <u>m</u> H.P |
| L/min late atake Depth (From TOC) line Water (>4000 ppm TDS, Gas on Well | 45.46 L/min Pl 44.20 m 7 j Depth s Depth | Describe ump Installed | Depth Model ted Upon Completion ysical Log Taken Submitted to GIC | H.P |
| ate take Depth (From TOC) line Water (>4000 ppm TDS, Gas on Well | 45.46 L/min Pi 44.20 m 7 ') Depth | ump Installed N Type N Well Disinfec Geoph Sample Collecte | Depth Model ted Upon Completion ysical Log Taken Submitted to GIC | H.P |
| ntake Depth (From TOC) line Water (>4000 ppm TDS, Gas on Well | 44.20 m 7 | ype N Well Disinfec Geoph Sample Collecte | Model | H.P |
| line Water (>4000 ppm TDS, Gas on Well |) Depth s Depth | m Well Disinfec m Geoph Sample Collecte | cted Upon Completion ysical Log Taken Submitted to GIC | |
| | | Measureme | ent in Metric Depth to water level | Taken From Ground L |
| Start Time 12:00 AM | Static Water Level 28.96 m | Drawdown (m) | Elapsed Time Minutes:Sec | Recovery (m) |
| Pump 37.73 43.59 mass | | 29.10 30.70 30.92 31.01 31.30 31.62 31.81 32.05 | 0:00 1:00 2:00 3:00 4:00 5:00 6:00 7:00 | 35.84 34.82 33.81 33.42 33.16 32.95 32.75 |
| au v z nouro, oxprant why | | 32.22 32.49 33.04 33.94 34.34 34.90 35.20 35.50 35.89 | 7.00 8:00 10:00 15:00 20:00 30:00 40:00 60:00 75:00 90:00 120:00 | 32.57 32.34 31.85 31.56 31.08 30.82 30.49 |
| n | Pump 37.73 L/min | Pump <u>37.73 L/min</u> <u>43.59 m</u> vas < 2 hours, explain why ling | 30.70 Pump 30.92 31.01 31.01 31.30 31.62 31.81 32.05 32.22 32.49 33.04 33.04 33.94 34.34 34.90 35.20 35.50 35.89 lling 30.70 | state 30.70 1:00 9ump 30.92 2:00 31.01 3:00 31.01 43.59 m 31.62 5:00 31.81 6:00 32.05 32.05 7:00 32.49 33.04 15:00 33.40 33.94 30:00 34.34 34.34 40:00 34.90 35.50 90:00 35.50 35.89 120:00 |

7. Contractor Certification Name of Journeyman responsible for drilling/construction of well UNKNOWN NA DRILLER Company Name TAKS & SONS DRILLING LTD.

Certification No
1





Government Water Well Drilling Report View in Imperial GIC Well ID 399551 of Alberta The driller supplies the data contained in this report. The Province disclaims responsibility for its GoA Well Tag No. accuracy. The information on this report will be retained in a public database. Date Report Received 1995/01/05 1. Well Identification and Location Measurement in Metric Owner Name Postal Code Address Town Province CARTWRIGHT, CHLOE P.O. BOX 370 CREMONA TOM ORO Location 1/4 or LSD SEC TWP RGE W of MER Lot Block Plan Additional Description SE 31 028 03 5 GPS Coordinates in Decimal Degrees (NAD 83) Measured from Boundary of Elevation Latitude 51.434730 Longitude -114.405993 m m from How Location Obtained How Elevation Obtained m from Not Verified Not Obtained 2. Drilling Information Type of Work Proposed Well Use Method of Drilling Cable Tool New Well Domestic 3. Formation Log Measurement in Metric 4. Well Completion Measurement in Metric Total Depth Drilled Finished Well Depth Start Date End Date Depth 45.72 m 1994/11/28 1994/12/13 from Water around Borehole level (m) Bearing Lithology Description Diameter (cm) From (m) To (m) 0.61 Black Clay 0.00 0.00 45.72 2.13 Brown Gritty Clay Surface Casing (if applicable) Well Casing/Liner Steel Plastic Brown Hard Sandstone 2.74 Size OD : 14.12 cm Size OD : 11.43 cm 4.27 Brownish Gray Gritty Clay Wall Thickness : 0.478 cm Wall Thickness : 0.673 cm 4.88 Gray Hard Sandstone 4.57 m Bottom at : Top at : 3.05 m 5.49 Gray Firm Shale Bottom at : 45.72 m Gray Hard Sandstone 6.40 Perforations From (m) To (m) Diameter (cm) Interval (cm) 8.23 Gray Hard Shale 28.65 44 20 0 953 40 64 9.14 Gray Hard Sandstone Perforated by Saw Gray Hard Shale 10.06 10.97 Gray Hard Sandstone Annular Seal Driven 12.19 Gray Hard Shale 0.00 m to Placed from 4.27 m Amount 13.41 Gray Hard Sandstone Other Seals Gray Hard Shale 16.76 Gray Hard Sandstone Type At (m) 17.37 18.59 Gray Firm Shale Screen Type Gray Hard Sandstone 21.03 Size OD : 0.00 cm 21.64 Gray Firm Shale From (m) To (m) Slot Size (cm) 23.16 Gray Hard Sandstone Attachment Gray Hard Shale 28.65 Top Fittings Bottom Fittings Gray Hard Sandstone 29.57 34.75 Gray Hard Shale Pack Type Grain Size 37.80 Yes Gray Water Bearing Sandstone Amount 45.72 Hard Shale & Sandstone Ledges

7. Contractor Certification

Name of Journeyman responsible for drilling/construction of well UNKNOWN NA DRILLER

Company Name PARSONS DRILLING 1992 Certification No

| | | contained in this report. T | | responsibility for its | GIC Well ID GoA Well Tag Date Report F | 399551 g No. Received 1995/01/05 |
|---|--------------------------|------------------------------|--|------------------------------|---|--|
| Well Identification and Location | | | | | | Measurement in Me |
| Owner Name CARTWRIGHT, CHLOE | Address P.O. BOX | (370 CREMONA | Town | | Province | Postal Code TOM 0R0 |
| ocation 1/4 or LSD SEC SE 31 | TWP R0 028 03 | GE W of MER 5 | Lot Block | k Plan | Additional Descriptior | 7 |
| Measured from Boundary of m from m from | | | es in Decimal Degre 134730 Long Dotained | | 3 Elevation How Elevation Not Obtained | m Obtained |
| ditional Information | | | | | | Measurement in Me |
| Distance From Top of Casing to Ground Is Artesian Flow | | | Is Flow Col | ntrol Installed | | |
| Rate L | /min | | | | | |
| Recommended Pump Rate | | 0.00 L/min | Pump Installed | | Depth | m |
| Recommended Pump Intake Depth (From | m TOC) | 44.20 m | Туре | Mo | del | Н.Р. |
| Did you Encounter Saline Water (>400 | 00 ppm TDS) | | m | Well Disinfected Geophysi | d Upon Completion | |
| Additional Comments on Well | | | | Sample Collected | for Potability | Result Attached |
| | | | | | | |
| Yield Test | | | | Measurement | | Taken From Ground Le |
| Yield Test Test Date Start Time 1994/12/13 12:00 AM | S | tatic Water Level 28.65 m | Drav | Measurement | in Metric Depth to water level Elapsed Time Minutes:Sec | Taken From Ground Le Recovery (m) |
| Test DateStart Time1994/12/1312:00 AM | S | | Drav | | Depth to water level Elapsed Time Minutes:Sec 0:00 | Recovery (m) |
| Test Date Start Time 1994/12/13 12:00 AM Method of Water Removal | s | | | wdown (m) | Depth to water level Elapsed Time Minutes:Sec | |
| Test Date Start Time 1994/12/13 12:00 AM Method of Water Removal Type Bailer | | | | wdown (m) | Depth to water level Elapsed Time Minutes:Sec 0:00 1:00 2:00 3:00 | Recovery (m) 43.89 43.59 43.28 |
| Test Date Start Time 1994/12/13 12:00 AM Method of Water Removal Type Bailer Removal Rate <u>4.5</u> | 5 <u>5 L/mi</u> n | | | wdown (m) | Depth to water level Elapsed Time Minutes:Sec 0:00 1:00 2:00 3:00 4:00 | Recovery (m) 43.89 43.59 43.28 42.98 |
| Test Date Start Time 1994/12/13 12:00 AM Method of Water Removal Type Bailer | 5 <u>5 L/mi</u> n | | | wdown (m) | Depth to water level Elapsed Time Minutes:Sec 0:00 1:00 2:00 3:00 4:00 5:00 | Recovery (m) 43.89 43.59 43.28 42.98 42.67 |
| Test Date Start Time 1994/12/13 12:00 AM Method of Water Removal Type Bailer Removal Rate 4.5 Depth Withdrawn From 0.0 | <u>i5 L/mi</u> n 10 m | | | wdown (m) | Depth to water level Elapsed Time Minutes:Sec 0:00 1:00 2:00 3:00 4:00 | Recovery (m) 43.89 43.59 43.28 42.98 42.67 42.37 |
| Test Date Start Time 1994/12/13 12:00 AM Method of Water Removal Type Bailer Removal Rate <u>4.5</u> | <u>i5 L/mi</u> n 10 m | | | wdown (m) | Depth to water level Elapsed Time Minutes:Sec 0:00 1:00 2:00 3:00 4:00 5:00 6:00 | Recovery (m) 43.89 43.59 43.28 42.98 42.67 |
| Test Date Start Time 1994/12/13 12:00 AM Method of Water Removal Type Bailer Removal Rate 4.5 Depth Withdrawn From 0.0 | <u>i5 L/mi</u> n 10 m | | | wdown (m) | Depth to water level Elapsed Time Minutes:Sec 0:00 1:00 2:00 3:00 4:00 5:00 6:00 7:00 8:00 9:00 | Recovery (m) 43.89 43.59 43.28 42.98 42.67 42.37 42.06 41.76 41.45 |
| Test Date Start Time 1994/12/13 12:00 AM Method of Water Removal Type Bailer Removal Rate 4.5 Depth Withdrawn From 0.0 | <u>i5 L/mi</u> n 10 m | | | wdown (m) | Depth to water level Elapsed Time Minutes:Sec 0:00 1:00 2:00 3:00 4:00 5:00 6:00 7:00 8:00 9:00 10:00 | Recovery (m) 43.89 43.59 43.28 42.98 42.67 42.37 42.06 41.76 41.45 41.15 |
| Test Date Start Time 1994/12/13 12:00 AM Method of Water Removal Type Bailer Removal Rate 4.5 Depth Withdrawn From 0.0 | <u>i5 L/mi</u> n 10 m | | - Drav | wdown (m) | Depth to water level Elapsed Time Minutes:Sec 0:00 1:00 2:00 3:00 4:00 5:00 6:00 7:00 8:00 9:00 10:00 12:00 | Recovery (m) 43.89 43.59 43.28 42.98 42.67 42.37 42.06 41.76 41.45 41.15 40.84 |
| Test Date Start Time 1994/12/13 12:00 AM Method of Water Removal Type Bailer Removal Rate 4.5 Depth Withdrawn From 0.0 | <u>i5 L/mi</u> n 10 m | | - Drav | wdown (m) | Depth to water level Elapsed Time Minutes:Sec 0:00 1:00 2:00 3:00 4:00 5:00 6:00 7:00 8:00 9:00 10:00 | Recovery (m) 43.89 43.59 43.28 42.98 42.67 42.37 42.06 41.76 41.45 41.15 |
| Test Date Start Time 1994/12/13 12:00 AM Method of Water Removal Type Bailer Removal Rate 4.5 Depth Withdrawn From 0.0 | <u>i5 L/mi</u> n 10 m | | - Drav | wdown (m) | Depth to water level Elapsed Time Minutes:Sec 0:00 1:00 2:00 3:00 4:00 5:00 6:00 7:00 8:00 9:00 10:00 12:00 14:00 16:00 20:00 | Recovery (m) 43.89 43.59 43.28 42.98 42.67 42.37 42.06 41.76 41.45 40.84 40.54 40.23 39.93 |
| Test Date Start Time 1994/12/13 12:00 AM Method of Water Removal Type Bailer Removal Rate 4.5 Depth Withdrawn From 0.0 | <u>i5 L/mi</u> n 10 m | | - Drav | wdown (m) | Depth to water level Elapsed Time Minutes:Sec 0:00 1:00 2:00 3:00 4:00 5:00 6:00 7:00 8:00 9:00 10:00 12:00 14:00 14:00 16:00 20:00 25:00 | Recovery (m) 43.89 43.59 43.28 42.98 42.67 42.67 42.67 42.67 42.67 42.67 42.67 42.67 42.67 42.67 42.67 42.67 42.67 42.67 42.67 42.67 42.37 42.06 41.76 41.45 40.84 40.54 40.23 39.93 38.40 |
| Test Date Start Time 1994/12/13 12:00 AM Method of Water Removal Type Bailer Removal Rate 4.5 Depth Withdrawn From 0.0 | <u>i5 L/mi</u> n 10 m | | - Drav | wdown (m) | Depth to water level Elapsed Time Minutes:Sec 0:00 1:00 2:00 3:00 4:00 5:00 6:00 7:00 8:00 9:00 10:00 12:00 14:00 14:00 16:00 20:00 25:00 30:00 | Recovery (m) 43.89 43.59 43.28 42.98 42.67 42.37 42.06 41.76 41.45 41.15 40.84 40.54 39.93 38.40 37.49 |
| Test Date Start Time 1994/12/13 12:00 AM Method of Water Removal Type Bailer Removal Rate 4.5 Depth Withdrawn From 0.0 | <u>i5 L/mi</u> n 10 m | | - Drav | wdown (m) | Depth to water level Elapsed Time Minutes:Sec 0:00 1:00 2:00 3:00 4:00 5:00 6:00 7:00 8:00 9:00 10:00 12:00 14:00 14:00 16:00 20:00 25:00 | Recovery (m) 43.89 43.59 43.28 42.98 42.67 42.37 42.06 41.76 41.45 41.15 40.54 40.23 39.93 38.40 37.49 36.88 |
| Test Date Start Time 1994/12/13 12:00 AM Method of Water Removal Type Bailer Removal Rate 4.5 Depth Withdrawn From 0.0 | <u>i5 L/mi</u> n 10 m | | - Drav | wdown (m) | Depth to water level Elapsed Time Minutes:Sec 0:00 1:00 2:00 3:00 4:00 5:00 6:00 7:00 8:00 9:00 10:00 12:00 14:00 16:00 20:00 25:00 30:00 | Recovery (m) 43.89 43.59 43.28 42.98 42.67 42.37 42.06 41.76 41.76 41.45 40.54 40.23 39.93 38.40 37.49 |
| Test Date Start Time 1994/12/13 12:00 AM Method of Water Removal Type Bailer Removal Rate 4.5 Depth Withdrawn From 0.0 | <u>i5 L/mi</u> n 10 m | | - Drav | wdown (m) | Depth to water level Elapsed Time Minutes:Sec 0:00 1:00 2:00 3:00 4:00 5:00 6:00 7:00 8:00 9:00 10:00 12:00 14:00 10:00 12:00 14:00 20:00 25:00 30:00 35:00 40:00 50:00 | Recovery (m) 43.89 43.59 43.28 42.98 42.67 42.67 42.67 42.67 42.67 42.67 42.67 42.67 42.98 42.67 42.98 42.67 42.98 42.67 42.98 42.67 42.98 42.67 42.98 42.67 42.98 42.67 42.98 42.98 40.23 39.93 38.40 37.49 36.88 36.58 36.58 36.27 35.97 |
| Test Date Start Time 1994/12/13 12:00 AM Method of Water Removal Type Bailer Removal Rate 4.5 Depth Withdrawn From 0.0 | <u>i5 L/mi</u> n 10 m | | - Drav | wdown (m) | Depth to water level Elapsed Time Minutes:Sec 0:00 1:00 2:00 3:00 4:00 5:00 6:00 7:00 8:00 9:00 10:00 12:00 12:00 14:00 14:00 16:00 20:00 25:00 30:00 35:00 40:00 50:00 60:00 75:00 | Recovery (m) 43.89 43.59 43.28 42.98 42.67 42.37 42.66 41.76 41.45 41.15 40.84 40.23 39.93 38.40 37.49 36.88 36.27 35.97 35.66 |
| Test Date Start Time 1994/12/13 12:00 AM Method of Water Removal Type Bailer Removal Rate 4.5 Depth Withdrawn From 0.0 | <u>i5 L/mi</u> n 10 m | | - Drav | wdown (m) | Depth to water level Elapsed Time Minutes:Sec 0:00 1:00 2:00 3:00 4:00 5:00 6:00 7:00 8:00 9:00 10:00 12:00 14:00 16:00 20:00 25:00 30:00 35:00 40:00 50:00 60:00 75:00 90:00 | Recovery (m) 43.89 43.59 43.28 42.98 42.67 42.37 42.06 41.45 41.45 40.54 40.23 39.93 38.40 37.49 36.88 36.58 36.27 35.97 35.66 35.36 |
| Test Date Start Time 1994/12/13 12:00 AM Method of Water Removal Type Bailer Removal Rate 4.5 Depth Withdrawn From 0.0 | <u>i5 L/mi</u> n 10 m | | - Drav | wdown (m) | Depth to water level Elapsed Time Minutes:Sec 0:00 1:00 2:00 3:00 4:00 5:00 6:00 7:00 8:00 9:00 10:00 12:00 12:00 14:00 14:00 16:00 20:00 25:00 30:00 35:00 40:00 50:00 60:00 75:00 | Recovery (m) 43.89 43.59 43.28 42.98 42.67 42.37 42.66 41.76 41.45 41.15 40.84 40.23 39.93 38.40 37.49 36.88 36.27 35.97 35.66 |

 7. Contractor Certification

 Name of Journeyman responsible for drilling/construction of well
 Certification No

 UNKNOWN NA DRILLER
 1

 Company Name
 Copy of Well report provided to owner

 PARSONS DRILLING 1992
 Date approval holder signed

Government Water Well Drilling Report View in Imperial GIC Well ID 399552 of Alberta The driller supplies the data contained in this report. The Province disclaims responsibility for its GoA Well Tag No. accuracy. The information on this report will be retained in a public database. Date Report Received 1995/01/05 1. Well Identification and Location Measurement in Metric Owner Name Postal Code Address Town Province CARTWRIGHT, CHLOE P.O. BOX 370 CREMONA TOM ORO Location 1/4 or LSD SEC TWP RGE W of MER Lot Block Plan Additional Description SE 31 028 03 5 GPS Coordinates in Decimal Degrees (NAD 83) Measured from Boundary of Elevation Latitude 51.434730 Longitude -114.405993 m m from How Location Obtained How Elevation Obtained m from Not Verified Not Obtained 2. Drilling Information Type of Work Proposed Well Use Method of Drilling Cable Tool New Well Domestic 3. Formation Log Measurement in Metric 4. Well Completion Measurement in Metric Total Depth Drilled Finished Well Depth Start Date End Date Depth 66.14 m 1994/11/03 1994/12/14 from Water around Borehole level (m) Bearing Lithology Description Diameter (cm) From (m) To (m) 0.61 Black Clay 0.00 0.00 66.14 3.05 Brown Hard Sandstone Surface Casing (if applicable) Well Casing/Liner Steel Plastic Brown Gritty Clay 4.27 Size OD : 14.12 cm Size OD : 11.43 cm 5.18 Gray Hard Shale Wall Thickness : 0.478 cm Wall Thickness : 0.673 cm 6.10 Gray Hard Sandstone Bottom at : 5.18 m Top at : 3.66 m 25.60 Gray Hard Shale & Sandstone Ledges Bottom at : 66.14 m Gray Wapiti Sandstone 26.21 Perforations Diameter (cm) From (m) To (m) Interval (cm) 28.65 Gray Fine Grained Shale 24.38 65 23 1 588 40 64 35.36 Gray Hard Shale Perforated by Saw Gray Coarse Grained Sandstone 37 80 40.54 Gray Fine Grained Shale Annular Seal Driven Gray Hard Sandstone 0.00 m to 41.76 Placed from 5.18 m Amount 44.50 Gray Hard Shale Other Seals Gray Hard Sandstone 45.11 Gray Hard Shale Type At (m) 60.66

7. Contractor Certification

61.87

62.79

64.62

66.14

Name of Journeyman responsible for drilling/construction of well UNKNOWN NA DRILLER

Light Gray Hard Sandstone

Gray Fine Grained Shale

Gray Hard Sandstone

Gray Firm Shale

Company Name PARSONS DRILLING 1992 Certification No

Screen Type

Pack Type

Amount

Size OD :

From (m)

Attachment ______ Top Fittings _____ 0.00 cm

To (m)

Bottom Fittings

Grain Size

Copy of Well report provided to owner Date approval holder signed

Slot Size (cm)

| 🛛 Alberta 🗖 | accuracy. | | a contained in this report. T ort will be retained in a pub | | s responsibility for its | GIC Well ID GoA Well Tag Date Report F | 399552 g No. Received 1995/01/05 |
|---|---------------------------|--------------------|--|----------------|--|--|---|
| Well Identification and Loca | | | | | | | Measurement in Me |
| Owner Name CARTWRIGHT, CHLOE | | Address P.O. BO | X 370 CREMONA | Town | | Province | Postal Code T0M 0R0 |
| | | TWP R 028 03 | RGE W of MER 3 5 | Lot Bloc | ck Plan | Additional Descriptior | 7 |
| | rom rom | _ | | | rees (NAD 83) ngitude <u>-114.40599</u> | 3 Elevation How Elevation Not Obtained | m Obtained |
| ditional Information | | | | | | | Measurement in Me |
| Distance From Top of Casing to Is Artesian Flow | | | | Is Flow Co | ontrol Installed | | |
| Rate | L/mi | in | | | | | |
| Recommended Pump Rate | | | 0.00 L/min | Pump Installed | d | Depth | m |
| Recommended Pump Intake D | Depth (From | TOC) | 64.01 m | Туре | Ma | odel | H.P. |
| Did you Encounter Saline Wa | | ppm TDS) | | m | Well Disinfecte Geophys | d Upon Completion sical Log Taken | |
| Additional Comments on We | ell | | | | Su Sample Collected | Ibmitted to GIC | Result Attached |
| | | | | | | | |
| Yield Test | | | | | Measuremen | t in Metric | Taken From Ground Le |
| Test Date Sta | art Time 2 AM | Ś | Static Water Level 24.38 m | Dra | | | |
| Test Date Sta 1994/12/14 7:12 | | ę | | Dra | Measuremen | t in Metric Depth to water level Elapsed Time Minutes:Sec 0:00 | Taken From Ground Le Recovery (m) |
| Test Date Sta 1994/12/14 7:12 Method of Water Removal | 2 AM | S | | Dra | Measuremen awdown (m) | t in Metric Depth to water level Elapsed Time Minutes:Sec | Taken From Ground Le |
| Test Date Sta 1994/12/14 7:12 Method of Water Removal Type Bailer | 2 AM r | | | Dra | Measuremen awdown (m) | t in Metric Depth to water level Elapsed Time Minutes:Sec 0:00 1:00 2:00 3:00 | Recovery (m) 61.75 61.57 61.45 |
| Test Date Sta 1994/12/14 7:12 Method of Water Removal Type Bailer Removal Rate | 2 AM r 3.00 | <u>L/mi</u> n | | Dra | Measuremen awdown (m) | t in Metric Depth to water level Elapsed Time Minutes:Sec 0:00 1:00 2:00 3:00 4:00 | Recovery (m) 61.75 61.57 61.45 61.26 |
| Test Date Sta 1994/12/14 7:12 Method of Water Removal Type Bailer | 2 AM r 3.00 | <u>L/mi</u> n | | - Dra | Measuremen awdown (m) | t in Metric Depth to water level Elapsed Time Minutes:Sec 0:00 1:00 2:00 3:00 4:00 5:00 | Recovery (m) 61.75 61.57 61.45 61.26 61.14 |
| Test Date Sta 1994/12/14 7:12 Method of Water Removal Type <u>Bailer</u> Removal Rate Depth Withdrawn From | 2 AM r 3.00 0.00 | <u>L/mi</u> n m | | - Dra | Measuremen awdown (m) | t in Metric Depth to water level Elapsed Time Minutes:Sec 0:00 1:00 2:00 3:00 4:00 | Recovery (m) 61.75 61.57 61.45 61.26 |
| Test Date Sta 1994/12/14 7:12 Method of Water Removal Type Bailer Removal Rate | 2 AM r 3.00 0.00 | <u>L/mi</u> n m | | Dra | Measuremen awdown (m) | t in Metric Depth to water level Elapsed Time Minutes:Sec 0:00 1:00 2:00 3:00 4:00 5:00 6:00 7:00 8:00 | Contract Recovery (m) 61.75 61.57 61.45 61.26 61.14 60.66 60.53 60.35 |
| Test Date Sta 1994/12/14 7:12 Method of Water Removal Type <u>Bailer</u> Removal Rate Depth Withdrawn From | 2 AM r 3.00 0.00 | <u>L/mi</u> n m | | Dra | Measuremen awdown (m) | t in Metric Depth to water level Elapsed Time Minutes:Sec 0:00 1:00 2:00 3:00 4:00 5:00 6:00 7:00 8:00 9:00 | Contract Contract of the second |
| Test Date Sta 1994/12/14 7:12 Method of Water Removal Type <u>Bailer</u> Removal Rate Depth Withdrawn From | 2 AM r 3.00 0.00 | <u>L/mi</u> n m | | Dra | Measuremen awdown (m) | t in Metric Depth to water level Elapsed Time Minutes:Sec 0:00 1:00 2:00 3:00 4:00 5:00 6:00 7:00 8:00 9:00 10:00 | Recovery (m) 61.75 61.57 61.45 61.26 61.14 60.66 60.35 60.23 60.05 |
| Test Date Sta 1994/12/14 7:12 Method of Water Removal Type <u>Bailer</u> Removal Rate Depth Withdrawn From | 2 AM r 3.00 0.00 | <u>L/mi</u> n m | | - Dra | Measuremen awdown (m) | t in Metric Depth to water level Elapsed Time Minutes:Sec 0:00 1:00 2:00 3:00 4:00 5:00 6:00 7:00 8:00 9:00 | Contract Contract of the second |
| Test Date Sta 1994/12/14 7:12 Method of Water Removal Type <u>Bailer</u> Removal Rate Depth Withdrawn From | 2 AM r 3.00 0.00 | <u>L/mi</u> n m | | - Dra | Measuremen awdown (m) | t in Metric Depth to water level Elapsed Time Minutes:Sec 0:00 1:00 2:00 3:00 4:00 5:00 6:00 7:00 8:00 9:00 10:00 12:00 | Contract Recovery (m) 61.75 61.57 61.45 61.26 61.14 60.66 60.53 60.23 60.05 59.74 |
| Test Date Sta 1994/12/14 7:12 Method of Water Removal Type <u>Bailer</u> Removal Rate Depth Withdrawn From | 2 AM r 3.00 0.00 | <u>L/mi</u> n m | | Dra | Measuremen awdown (m) | t in Metric Depth to water level Elapsed Time Minutes:Sec 0:00 1:00 2:00 3:00 4:00 5:00 6:00 7:00 8:00 9:00 10:00 12:00 14:00 14:00 14:00 14:00 | Contract Recovery (m) 61.75 61.57 61.57 61.45 61.26 61.14 60.66 60.53 60.23 60.05 59.74 59.44 59.83 58.83 |
| Test Date Sta 1994/12/14 7:12 Method of Water Removal Type <u>Bailer</u> Removal Rate Depth Withdrawn From | 2 AM r 3.00 0.00 | <u>L/mi</u> n m | | Dra | Measuremen awdown (m) | t in Metric Depth to water level Elapsed Time Minutes:Sec 0:00 1:00 2:00 3:00 4:00 5:00 6:00 7:00 8:00 9:00 10:00 12:00 14:00 14:00 16:00 20:00 25:00 | Recovery (m) 61.75 61.57 61.57 61.45 61.26 61.14 60.66 60.53 60.23 60.05 59.74 59.31 58.83 58.22 |
| Test Date Sta 1994/12/14 7:12 Method of Water Removal Type <u>Bailer</u> Removal Rate Depth Withdrawn From | 2 AM r 3.00 0.00 | <u>L/mi</u> n m | | - Dra | Measuremen awdown (m) | t in Metric Depth to water level Elapsed Time Minutes:Sec 0:00 1:00 2:00 3:00 4:00 5:00 6:00 7:00 8:00 9:00 10:00 12:00 14:00 16:00 20:00 25:00 30:00 | Recovery (m) 61.75 61.57 61.45 61.26 61.14 60.66 60.35 60.23 60.05 59.74 59.44 59.31 58.83 58.22 57.61 |
| Test Date Sta 1994/12/14 7:12 Method of Water Removal Type <u>Bailer</u> Removal Rate Depth Withdrawn From | 2 AM r 3.00 0.00 | <u>L/mi</u> n m | | - Dra | Measuremen awdown (m) | t in Metric Depth to water level Elapsed Time Minutes:Sec 0:00 1:00 2:00 3:00 4:00 5:00 6:00 7:00 8:00 9:00 10:00 12:00 14:00 14:00 16:00 20:00 25:00 | Recovery (m) 61.75 61.57 61.57 61.45 61.26 61.14 60.66 60.53 60.23 60.05 59.74 59.31 58.83 58.22 |
| Test Date Sta 1994/12/14 7:12 Method of Water Removal Type <u>Bailer</u> Removal Rate Depth Withdrawn From | 2 AM r 3.00 0.00 | <u>L/mi</u> n m | | | Measuremen awdown (m) | t in Metric Depth to water level Elapsed Time Minutes:Sec 0:00 1:00 2:00 3:00 4:00 5:00 6:00 7:00 8:00 9:00 10:00 12:00 14:00 14:00 14:00 16:00 20:00 25:00 30:00 35:00 | Contract Contract of the second |
| Test Date Sta 1994/12/14 7:12 Method of Water Removal Type <u>Bailer</u> Removal Rate Depth Withdrawn From | 2 AM r 3.00 0.00 | <u>L/mi</u> n m | | Dra | Measuremen awdown (m) | t in Metric Depth to water level Elapsed Time Minutes:Sec 0:00 1:00 2:00 3:00 4:00 5:00 6:00 7:00 8:00 9:00 10:00 12:00 14:00 14:00 14:00 14:00 20:00 25:00 30:00 35:00 40:00 50:00 | Contract Contract of the second |
| Test Date Sta 1994/12/14 7:12 Method of Water Removal Type <u>Bailer</u> Removal Rate Depth Withdrawn From | 2 AM r 3.00 0.00 | <u>L/mi</u> n m | | - Dra | Measuremen awdown (m) | t in Metric Depth to water level Elapsed Time Minutes:Sec 0:00 1:00 2:00 3:00 4:00 5:00 6:00 7:00 8:00 9:00 10:00 12:00 14:00 16:00 20:00 25:00 30:00 35:00 40:00 50:00 60:00 75:00 | Taken From Ground Le Recovery (m) 61.75 61.57 61.45 61.26 61.14 60.66 60.53 60.23 60.05 59.74 59.44 59.31 58.83 58.22 57.61 57.00 56.39 54.86 53.34 51.51 |
| Test Date Sta 1994/12/14 7:12 Method of Water Removal Type <u>Bailer</u> Removal Rate Depth Withdrawn From | 2 AM r 3.00 0.00 | <u>L/mi</u> n m | | - Dra | Measuremen awdown (m) | t in Metric Depth to water level Elapsed Time Minutes:Sec 0:00 1:00 2:00 3:00 4:00 5:00 6:00 7:00 8:00 9:00 10:00 12:00 14:00 16:00 20:00 25:00 30:00 35:00 40:00 50:00 60:00 75:00 | Taken From Ground Le Recovery (m) 61.75 61.57 61.45 61.26 61.14 60.66 60.35 60.23 60.05 59.74 59.44 59.31 58.83 58.22 57.61 57.00 56.39 54.86 53.34 51.51 49.68 |
| Test Date Sta 1994/12/14 7:12 Method of Water Removal Type <u>Bailer</u> Removal Rate Depth Withdrawn From | 2 AM r 3.00 0.00 | <u>L/mi</u> n m | | - Dra | Measuremen awdown (m) | t in Metric Depth to water level Elapsed Time Minutes:Sec 0:00 1:00 2:00 3:00 4:00 5:00 6:00 7:00 8:00 9:00 10:00 12:00 14:00 16:00 20:00 25:00 30:00 35:00 40:00 50:00 60:00 75:00 | Taken From Ground Le Recovery (m) 61.75 61.57 61.45 61.26 61.14 60.66 60.53 60.23 60.05 59.74 59.44 59.31 58.83 58.22 57.61 57.00 56.39 54.86 53.34 51.51 |

 7. Contractor Certification

 Name of Journeyman responsible for drilling/construction of well

 UNKNOWN NA DRILLER

 Company Name

 PARSONS DRILLING 1992

Government Water Well Drilling Report View in Imperial GIC Well ID 416470 of Alberta GoA Well Tag No. The driller supplies the data contained in this report. The Province disclaims responsibility for its accuracy. The information on this report will be retained in a public database. Date Report Received 1976/01/16 1. Well Identification and Location Measurement in Metric Owner Name Address Postal Code Town Province MCNEILL, TERRY RR4, CALGARY Location 1/4 or LSD SEC TWP RGE W of MER Lot Block Plan Additional Description SE 31 028 03 5 GPS Coordinates in Decimal Degrees (NAD 83) Measured from Boundary of 1<u>226.82 m</u> Elevation Latitude 51.434730 Longitude -114.405993 m from How Location Obtained How Elevation Obtained m from Мар Estimated 2. Drilling Information Method of Drilling Type of Work Proposed Well Use Cable Tool New Well Domestic & Stock 3. Formation Log 4. Well Completion Measurement in Metric Measurement in Metric Total Depth Drilled Finished Well Depth Start Date End Date Depth 79.25 m 1975/07/29 from Water around **Borehole** level (m) Bearing Lithology Description Diameter (cm) From (m) To (m) 0.30 Topsoil 0.00 0.00 79.25 8.53 Brown Clay Surface Casing (if applicable) Well Casing/Liner Steel Steel 14.02 Brown Shale Size OD : 16.84 cm Size OD : 12.70 cm 21.34 Gray Shale Wall Thickness : 0.478 cm 0.000 cm Wall Thickness : 23.16 Yes Gray Water Bearing Sandstone Bottom at : 9.14 m Top at : 0.00 m 27.43 Gray Shale Bottom at : 79.25 m 42.67 Brown Shale Perforations From (m) To (m) Diameter (cm) Interval (cm) 56.69 Gray Shale 19 81 1 270 30.48 24.38 57.91 Yes Gray Water Bearing Sandstone 54.86 59.44 0.000 0.00 79.25 Gray Shale Perforated by Torch Annular Seal Driven Placed from <u>0.00 m</u> to 9.14 m Amount _ Other Seals Туре At (m) Screen Type Size OD : 0.00 cm

7. Contractor Certification

Name of Journeyman responsible for drilling/construction of well UNKNOWN NA DRILLER

Company Name INTERPROVINCIAL DRILLING CONTRACTORS Certification No

1

From (m)

Attachment

Pack

Top Fittings

Copy of Well report provided to owner Date approval holder signed

To (m)

Bottom Fittings

Grain Size

Slot Size (cm)

| Goveri | nmen | t Wa | ater | Well D |)rilli | ing I | Repo | rt <u>Y</u> | View in I | mperi | al |
|---|---|-------------------------|---------------------------|--|---------------|-----------------|------------------------------------|---------------------------------|--|-------|--------------------------------|
| of Alb | erta 🛛 | The driller s accuracy. | upplies the data | a contained in this report. | The Provinc | ce disclaims re | sponsibility for its | (| GIC Well ID GoA Well Tag Date Report F | | 416470 |
| | | | tion on this repo | ort will be retained in a p | ublic databas | se. | | L | | | |
| 1. Well Identifi Owner Name MCNEILL, TE | | ocation | <i>Address</i> RR4, CA | | | Town | | Prov | vince | | asurement in Metric al Code |
| Location | 1/4 or LSD SE | | <i>TWP R</i> 028 03 | | | | Plan | Additiona | al Description | | |
| Measured froi | | n from n from | _ | GPS Coordina Latitude <u>5</u> How Location Map | 1.434730 | 0 | s (NAD 83) ude <u>-114.4059</u> | H | levation ow Elevation stimated | | <u>32 m</u> |
| Additional Info | rmation | | | • | | | | <u> </u> | | Me | asurement in Metri |
| Is Artesian I | m Top of Casin Flow | | | cm | | 's Flow Conti | rol Installed | | | | |
| ŀ | Rate | L/m | in | | | | Describe | | | | |
| | ed Pump Rate | Ponth (From | | 0.00 L/min 73.15 m | | | Λ/ | | Depth | | |
| Additional | counter Saline Comments on | Well | Gas | Depth | | m | Geophy S | vsical Log Ta Submitted to (| ken GIC | | ttached |
| 5. Yield Test | | | | | | | Measureme | | | Taken | From Ground Leve |
| Test Date 1975/07/29 | | Start Time 12:00 AM | S | Static Water Level 24.38 m | | Drawo | lown (m) | Elaps | water level sed Time utes:Sec | F | Recovery (m) |
| Rei Depth Withd | Vater Removal Type <u>Ba</u> moval Rate Irawn From Irawn period was | iler 11.37 0.00 | <u>m</u> | | _ | | | | | | |
| 6. Water Diver Water Source | | g | | Amount Taken L | | | | Diversion D | ate & Time | | |

| 7. C | Contractor Certification |
|------|---|
| | ame of Journeyman responsible for drilling/construction of well NKNOWN NA DRILLER |

Company Name INTERPROVINCIAL DRILLING CONTRACTORS

Certification No 1

| f Alb | erta | a 🗖 | accuracy | /. | | tained in this repor | | | e disclaims responsibility fo | or its | GoA | Well ID Well Tag No. Report Rece | | 392001 1985/10/16 |
|---|--------------|--------------------------|-----------|-------------------|----------------------------|----------------------|----------|-----|--|-----------------|--------------|--|------|-----------------------------|
| . Well Identi <i>Owner Name</i> DAVIES, JIN | э | ind Locat | ion | | ldress D. BOX 67 | 3 COCHRANE | | | Town | | Province |) | | asurement in Met al Code |
| Location | 1/4 or SW | | SEC 31 | <i>TWP</i> 028 | <i>RGE</i> 03 | W of MER 5 | Lc | ot | Block Plan | Ac | lditional De | escription | | |
| Measured fr | om Bound | ary of m fro m fro | | | | | 51.43473 | 30 | imal Degrees (NAD 83 Longitude <u>-114.4</u> | | How E | tion Elevation Obta | | <u>m</u> |
| Drilling Info | | | | | | - | | | | | | | | |
| Method of L Rotary | Drilling | | | | pe of Wor w Well | [.] k | | | | Propos Stock | sed Well L | lse | | |
| . Formation | Log | | | | Me | asurement in | Metric | 4 | 4. Well Completion Total Depth Drilled | - | /oll Donth | Start Data | Mea | asurement in Met |
| Depth from ground | Water | | | | | | | | 16.76 m Borehole | inisned M | en Depur | 1985/09/17 | | 1985/09/17 |
| level (m) 10.67 | Bearing | Clay & Ro | ocks | Lithology | Descriptio | n | | | Diameter (cm) 0.00 | | From 0.0 | | | To (m) 16.76 |
| 16.76 | | Shale & S | | ne | | | | | Surface Casing (if ap Steel | plicable) | | Vell Casing/L | iner | 10.70 |
| | | | | | | | | | Size OD : | | | | _ | 11.68 cm |
| | | | | | | | | | Wall Thickness : | | | | | 0.635 cm |
| | | | | | | | | | Bottom at : | 6.10 | m | Bottom | | 0.00 m 16.76 m |
| | | | | | | | | | Perforations | | | | | |
| | | | | | | | | | From (m) 10.67 | To (r 16.7 | | Diameter (c 0.635 | :m) | Interval (cm) 20.32 |
| | | | | | | | | | Perforated by M | achine | | | | |
| | | | | | | | | | Annular Seal Drive Placed from Amount Other Seals | 6.10 m | | 0.00 m | | |
| | | | | | | | | | Тур | e | | | At (| (m) |
| | | | | | | | | | Screen Type Size OD : | 0.00 | cm | | | |
| | | | | | | | | - L | 5126 00. | 0.00 | CIII | | | |

7. Contractor Certification

Name of Journeyman responsible for drilling/construction of well UNKNOWN NA DRILLER

Company Name DEN-ALTA DRILLING LTD. Certification No

1

Top Fittings

Pack

Type ____ Amount ___

Copy of Well report provided to owner Date approval holder signed

Bottom Fittings

Grain Size

| Gover | nmen | t W | 'ate | rV | Vell D | rilli | ing F | Repo | rt <u>r</u> | /iew in I | mperi | <u>al</u> |
|---------------------------|---|------------------------|-------------------|------------------|--|------------|------------------|--------------------------|-----------------------------|--|-------|----------------------|
| of Alb | | The drille accuracy | r supplies the | e data cont | tained in this report. T | The Provin | ce disclaims res | | (| GIC Well ID GoA Well Tag Date Report R | | 392001 1985/10/16 |
| 1. Well Identif | ication and Lo | ocation | | | | | | | | | Ме | asurement in Metri |
| Owner Name DAVIES, JIM | | | | ress . BOX 67 | 3 COCHRANE | | Town | | Prov | vince | Post | al Code |
| Location | 1/4 or LSD SW | SEC 31 | <i>TWP</i> 028 | RGE 03 | W of MER 5 | Lot | Block | Plan | Additiona | al Description | | |
| Measured fro | | i from i from | | | GPS Coordina Latitude <u>51.</u> How Location (Map | 434730 | Longitu | | Н | levation ow Elevation ot Obtained | | |
| Additional Info | ormation | | | | | | | | | | Me | asurement in Metri |
| Is Artesian | om Top of Casin Flow Rate | | | | cm | | Is Flow Contro | ol Installed Describe | | | | |
| | ded Pump Rate | | | | 0.00 L/min | Pum | o Installed | December | | | | |
| Recomment | ded Pump Intake | e Depth (Fro | m TOC) | | 15.24 m | Тур | 9 | M | lodel | | H.P. | |
| | ncounter Saline Comments on N | | | 5) as | Depth Depth _ | | m | Geophy. S | sical Log Ta ubmitted to | ken GIC | | Attached |
| 5. Yield Test | | | | | | | | Measuremer | | | Taken | From Ground Leve |
| Test Date 1985/09/17 | - | Start Time 2:00 AM | | Statio | c Water Level 12.19 m | | Drawdo | own (m) | Elaps | water level sed Time utes:Sec | f | Recovery (m) |
| Re Depth With | Water Removal Type <u>Air</u> moval Rate drawn From oval period was | <u>90.9</u> 0.0 | 0 m | | | - | | | 1 | | | |
| 6. Water Dive | erted for Drilling | g | | Amo | ount Taken L | | | | Diversion D | ate & Time | | |

7. Contractor Certification Name of Journeyman responsible for drilling/construction of well UNKNOWN NA DRILLER

Company Name DEN-ALTA DRILLING LTD.

Certification No 1

| f Alb | erta | The driller supplies the accuracy. The information on thi | | | ovince disclaims responsibi abase. | lity for its | GIC Well ID GoA Well Tag N Date Report Re | lo. | 92003 |
|---|----------------|--|----------------------------|--|--|---|---|----------------|-------------------------|
| . Well Iden Owner Nan STONE, BA | ne | | lress GPOUND | | Town | | Province | Meas Postal | surement in Met Code |
| Location | 1/4 or NW | LSD SEC TWP 31 028 | | W of MER Lo 5 | t Block Pl | an Ad | ditional Description | | |
| Measured f | rom Bound | ary of m from m from | La | titude <u>51.44196</u> ww.Location Obtain | | 1 A A A A A A A A A A A A A A A A A A A | Elevation How Elevation O. Estimated | | <u>m</u> |
| . Drilling Int Method of Cable Tool | | Тур | e of Work / Well | | | Propos Domesi | sed Well Use tic | | |
| . Formation Depth from ground | N Log Water | | Measure | ement in Metric | 4. Well Completic Total Depth Drille 23.77 m Borehole | | ell Depth Start Date | | End Date 1967/04/24 |
| level (m) | Bearing | 0,7 | Description | | Diameter (c | m) | From (m) | | To (m) |
| 3.05 | | Yellow Clay | | | 0.00 | | 0.00 | | 23.77 |
| 6.40 | | Gray Clay & Boulders | | | Surface Casing (i Steel | f applicable) | Well Casing Steel | ₃/Liner | |
| 7.62 | | Hard Sandstone & Rocks | | | Size OD | 0.00 | | e OD : | 0.00 cm |
| 10.36 | | Gray Clay & Shale | | | Wall Thickness | 0.000 | cm Wall Thick | kness : | 0.000 cm |
| 11.28 | Yes | Light Gray Water Bearing Sa | ndstone | | Bottom at | 10.97 | <u>m</u> 7 | op at : | 9.75 m |
| 11.89 | | Dark Hard Sandstone | | | | | Botto | om at : | 23.77 m |
| 23.77 | Yes | Gray Water Bearing Shale & | Sandstone | | Perforations From (m) 11.28 | To (r 22.8 | | | Interval (cm) 0.00 |
| | | | | | _ | 0.00 m | _ <i>to</i> 0.00 m | _ | |
| | | | | | | Туре | | At (m |) |
| | | | | | Screen Type Size OD | 0.00 | cm | | |
| | | | | | From (m) | | To (m) | | ot Size (cm) |

Type _____ Grain Size ____ Amount _____

Top Fittings _____

Pack

7. Contractor Certification Name of Journeyman responsible for drilling/construction of well UNKNOWN NA DRILLER Company Name

PARSONS DRLG

Certification No
1

Copy of Well report provided to owner Date approval holder signed

Bottom Fittings

| _ | erta | The drille accuracy | er supplies ti | ne data conta | Ained in this report. T | he Province | e disclaims resp | | (; (| GIC Well ID GoA Well Taç Date Report I | |
|-------------------------|--|------------------------|-------------------|-----------------|---|-------------|------------------|---|-------------------------------|--|-----------------------|
| Well Ident | ification and Lo | | mation on t | iis report will | be retained in a put | | | | | | Measurement in Me |
| Owner Nam STONE, BA | е | oution | | dress GPOUND | | | Town | | Pro | vince | Postal Code |
| Location | 1/4 or LSD NW | SEC 31 | <i>TWP</i> 028 | RGE 03 | W of MER 5 | | | Plan | Addition | al Descriptior | n |
| Measured fr | | from | | | GPS Coordinat Latitude <u>51.</u> How Location (Map | 441961 | | 1 C C C C C C C C C C C C C C C C C C C | Н | levation low Elevation stimated | 1219.20 m Obtained |
| ditional Inf | formation | | | I | | | | | • | | Measurement in Me |
| | rom Top of Casin n Flow Rate | | | | | | | ol Installed Describe | | | |
| Recommen | nded Pump Rate | | | | | | | | | | <u>m</u> |
| Recommen | nded Pump Intake | e Depth (Fro | | | | | | | | | H.P. |
| | Encounter Saline | | | 0S) Cas | Depth Depth | | m | Geophy S | ysical Log Ta Submitted to | iken GIC | Result Attached |
| Yield Test | | | | | | | | Measureme | nt in Metric | : | Taken From Ground L |
| Test Date 1967/04/24 | | Start Time 2:00 AM | | Static | Water Level 16.46 m | [| Drawdo | own (m) | Elap | water level sed Time utes:Sec | Recovery (m) |
| R Depth With | Water Removal Type <u>Bai</u> emoval Rate ndrawn From | 45.4 0.0 | 00 m | Ŷ | | - | | | | | |
| Water Div | erted for Drilling | g | | Amou | unt Taken L | | | | Diversion D | ate & Time | |

| 7. Contractor Certification | |
|--|-------------------------------|
| Name of Journeyman responsible for UNKNOWN NA DRILLER | drilling/construction of well |
| Company Name | |

PARSONS DRLG

Certification No 1

Government Water Well Drilling Report View in Imperial GIC Well ID 443049 of Alberta The driller supplies the data contained in this report. The Province disclaims responsibility for its GoA Well Tag No. accuracy. The information on this report will be retained in a public database. Date Report Received 1996/03/29 1. Well Identification and Location Measurement in Metric Owner Name Postal Code Address Town Province RR2, CROSSFIELD HOSKINS, DAN TOM 0S0 Location 1/4 or LSD SEC TWP RGE W of MER Lot Block Plan Additional Description NE 31 028 03 5 GPS Coordinates in Decimal Degrees (NAD 83) Measured from Boundary of Elevation Latitude 51.441961 Longitude -114.405994 m m from How Location Obtained How Elevation Obtained m from Not Verified Not Obtained 2. Drilling Information Type of Work Proposed Well Use Method of Drilling Cable Tool New Well Domestic 3. Formation Log 4. Well Completion Measurement in Metric Measurement in Metric Total Depth Drilled Finished Well Depth Start Date End Date Depth 38.10 m 1995/11/13 1995/11/23 from Water around Borehole level (m) Bearing Lithology Description Diameter (cm) From (m) To (m) Brown Clay & Rocks 1.52 0.00 0.00 38.10 2.13 Gray Firm Shale Surface Casing (if applicable) Well Casing/Liner Steel Plastic 3.05 Boulders Size OD : 14.12 cm Size OD : 11.43 cm 4.57 Brown Hard Sandstone Wall Thickness : 0.478 cm Wall Thickness : 0.673 cm 5.79 Brownish Gray Hard Sandstone <u>7.32 m</u> Bottom at : Top at : 6.10 m Gray Firm Sandstone 7.01 Bottom at : 38.10 m 8.84 Gray Hard Sandstone Perforations From (m) To (m) Diameter (cm) Interval (cm) 9.75 Gray Hard Shale 30.48 36 58 0 953 30 48 10.36 Gray Hard Sandstone Perforated by Saw Gray Fine Grained Shale 11.28 12.19 Gray Hard Sandstone Annular Seal Driven Gray Hard Shale 4.57 m to 13.11 Placed from 7.32 m Gray Firm Shale Amount 14.63 Other Seals Gray Hard Sandstone 15.24 Gray Hard Shale Type At (m) 16.15 16.76 Dark Gray Hard Sandstone Screen Type 21.95 Gray Firm Shale Size OD : 0.00 cm 22.56 Gray Hard Shale From (m) To (m) Slot Size (cm) 32.00 Gray Hard Sandstone Attachment Gray Hard Shale 32.61 Top Fittings Bottom Fittings Gray Hard Sandstone 33.22 37.19 Gray Hard Shale Pack Type Grain Size 38.10 Gray Hard Sandstone Amount

7. Contractor Certification

Name of Journeyman responsible for drilling/construction of well UNKNOWN NA DRILLER

Company Name PARSONS DRILLING 1992 Certification No

| f Alberta | The drille accuracy | er supplies th y. | e data cont | tained in this report. T | he Province o | | | | GIC Well ID GoA Well Tag Date Report R | | 443049 1996/03/29 |
|--|---|--|----------------------|--|---------------|---------------|---|---|---|----------|----------------------|
| . Well Identification and Lo | ocation | | · · | | | | | | | Me | asurement in Me |
| Owner Name HOSKINS, DAN | Joalion | | lress 2, CROSS | SFIELD | | Town | | F | Province | Pos | tal Code I 0S0 |
| Location 1/4 or LSD NE | SEC 31 | <i>TWP</i> 028 | <i>RGE</i> 03 | W of MER 5 | Lot | Block | Plan | Addit | ional Description | | |
| | n from n from | | | GPS Coordinate Latitude <u>51.4</u> How Location C Not Verified | 141961 | 0 | · · · · · · · · · · · · · · · · · · · | 94 | Elevation How Elevation Not Obtained | | |
| dditional Information | | | | | | | | | | Me | asurement in Me |
| Distance From Top of Casir Is Artesian Flow Rate | | | | cm | | | l Installed Describe | | | | |
| Recommended Pump Rate | | _ | | 45.46 L/min | | | | | | | |
| Recommended Pump Intak | | | | | | | | | | | |
| | | | | | | | | | | | |
| Did you Encounter Saline Additional Comments on DRILLER REPORTS DISTA | Water (>400 Well | 00 ppm TD Ga | S) as | Depth Depth | | m 1 m | Vell Disinfect Geophy S | ted Upon vsical Log Submitted | Completion Taken to GIC | | |
| Did you Encounter Saline Additional Comments on | Water (>400 Well | 00 ppm TD Ga | S) as | Depth Depth | | m V m Sarr | Vell Disinfect Geophy S | ted Upon vsical Log Submitted d for Pota nt in Met | Completion Taken to GIC bility tric | Result A | |
| Did you Encounter Saline Additional Comments on DRILLER REPORTS DISTA . Yield Test Test Date | Water (>400 Well | 00 ppm TD Ga | S) as CASING 1 | Depth Depth | | m V m Sarr | Vell Disinfect Geophy S nple Collected <mark>Aeasureme</mark> l | ted Upon vsical Log Submitted d for Pota nt in Mer Depth | Completion Taken to GIC bility iric a to water level apsed Time | Result A | Attached |
| Did you Encounter Saline Additional Comments on DRILLER REPORTS DISTA Yield Test Test Date | Water (>400 Well ANCE FROM Start Time 3:36 AM I ailer 90.5 | 00 ppm TD: Ga 1 TOP OF (92 L/min | S) as CASING 1 | Depth Depth TO GROUND LEVE | | m k m Sarr | Vell Disinfect Geophy S nple Collected <mark>Aeasureme</mark> l | ted Upon vsical Log Submitted d for Pota nt in Mer Depth | Completion Taken to GIC bility iric to water level | Result A | Attached |

| 7. Contractor Certification |
|--|
| Name of Journeyman responsible for drilling/construction of well UNKNOWN NA DRILLER |
| Company Name |

PARSONS DRILLING 1992

Certification No

1

Government Water Well Drilling Report View in Imperial 404736 GIC Well ID of Alberta GoA Well Tag No. The driller supplies the data contained in this report. The Province disclaims responsibility for its accuracy. The information on this report will be retained in a public database. Date Report Received 1995/05/05 1. Well Identification and Location Measurement in Metric Owner Name Postal Code Address Town Province WARNER, JILL P.O. BOX 32 SITE 1 RR1. TOL OWO COCHRANE TWP Location 1/4 or LSD SEC RGE W of MER Lot Block Plan Additional Description 028 03 16 31 5 GPS Coordinates in Decimal Degrees (NAD 83) Measured from Boundary of Latitude 51.443112 Longitude -114.401522 Elevation m 274.32 m from North How Location Obtained How Elevation Obtained 91.44 m from East Not Verified Not Obtained 2. Drilling Information Method of Drilling Type of Work Proposed Well Use New Well Rotary Stock 3. Formation Log 4. Well Completion Measurement in Metric Measurement in Metric Total Depth Drilled Finished Well Depth Start Date End Date Depth 45.72 m 1995/04/25 1995/04/25 from Water around **Borehole** level (m) Bearing Lithology Description From (m) Diameter (cm) To (m) 3.66 Clay & Rocks 0.00 0.00 45.72 15.24 Shale Surface Casing (if applicable) Well Casing/Liner Steel Plastic 18.29 Sandstone Size OD : 14.12 cm Size OD : 11.43 cm 22.86 Shale 0.478 cm Wall Thickness : 0.544 cm Wall Thickness : 25.91 Sandstone Bottom at : 6.10 m Top at : 4.57 m Shale 36.58 Bottom at : 45.72 m 38.10 Sandstone Perforations From (m) To (m) Diameter (cm) Interval (cm) 45.72 Shale & Sandstone Ledges 33.53 30.48 45 72 0.635 Perforated by Saw Annular Seal Driven 0.00 m to Placed from 6.10 m Amount Other Seals Type At (m)

7. Contractor Certification

Name of Journeyman responsible for drilling/construction of well UNKNOWN NA DRILLER

Company Name DEN-ALTA DRILLING LTD. Certification No

1

Screen Type

Pack Type

Amount

Size OD :

From (m)

Attachment ______ Top Fittings ______ 0.00 cm

To (m)

Bottom Fittings

Grain Size

Copy of Well report provided to owner Date approval holder signed

Slot Size (cm)

| Alberta | accuracy. | • | | | aims responsibility for its | | ag No. t Received 1995/05/05 |
|--|--|------------------------------------|------------------------|----------------|---|---|---------------------------------|
| Nell Identification and L | | n on this report will | I be retained in a pub | olic database. | | · . | Measurement in M |
| owner Name VARNER, JILL | ocation | Address P.O. BOX 32 COCHRANE | SITE 1 RR1, | То | wn | Province | Postal Code TOL 0W0 |
| ocation 1/4 or LSD 16 | SEC 71 31 02 | WP RGE 28 03 | W of MER 5 | Lot | Block Plan | Additional Descripti | on |
| | f m from North m from East | | | 443112 | Degrees (NAD 83) Longitude <u>-114.401</u> | Elevation How Elevation Not Obtained | |
| ditional Information | | | | | | | Measurement in M |
| Distance From Top of Casi Is Artesian Flow | | | | Is Flov | Control Installed | | |
| Rate | | | | Dump Inote | lled | Donth | m_ |
| 1 | | | | | | | H.P |
| Did you Encounter Saline | | Gas | Depth | m | Geoph | /sical Log Taken | |
| Additional Comments or | ı Well | | | | | | Result Attached |
| | n Well | | | | Sample Collecte | d for Potability | Result Attached |
| Yield Test | | Statio | Materiana | | | d for Potability | Result Attached |
| | o Well Start Time 12:00 AM | Static | Water Level 24.38 m | | Sample Collecte | d for Potability nt in Metric Depth to water leve Elapsed Time Minutes:Sec | Result Attached |
| /ield Test | Start Time 12:00 AM | Static | | | Sample Collecte | d for Potability nt in Metric Depth to water level Elapsed Time | Result Attached |
| /ield Test Test Date 1995/04/25 | Start Time 12:00 AM | Static | | | Sample Collecte | d for Potability nt in Metric Depth to water level Elapsed Time Minutes:Sec 3:00 4:00 5:00 | Result Attached |
| Yield Test Test Date 1995/04/25 Method of Water Remova Type <u>A</u> | Start Time 12:00 AM | | | | Sample Collecte | d for Potability nt in Metric Depth to water leve. Elapsed Time Minutes:Sec 3:00 4:00 5:00 6:00 | Result Attached |
| /ield Test Test Date 1995/04/25 Method of Water Remova Type <u>A</u> Removal Rate | Start Time 12:00 AM al ir 36.37 L/ | / <u>mi</u> n | | - | Sample Collecte | d for Potability nt in Metric Depth to water level Elapsed Time Minutes:Sec 3:00 4:00 5:00 | Result Attached |
| Yield Test Test Date 1995/04/25 Method of Water Remova Type <u>A</u> | Start Time 12:00 AM al ir <u>36.37 L/</u> 45.72 m | / <u>mi</u> n 1 | | | Sample Collecte | d for Potability Depth to water lever Elapsed Time Minutes:Sec 3:00 4:00 5:00 6:00 7:00 | Result Attached |

| 7. | Contractor Certifica | ation |
|----|----------------------|-------------|
| | Name of Journeyman | responsible |

for drilling/construction of well UNKNOWN NA DRILLER

Company Name DEN-ALTA DRILLING LTD.

Certification No 1

| f Alb | erta | | cy. | | ained in this report. T | | | onsibility for its | G | GIC Well ID GoA Well Tag No. Nate Report Received | 416469 |
|--------------------------------|--------------|----------------|-------------------|------------------------------------|-------------------------|------------|------------------|---------------------|------------------------------|---|-------------------------------|
| | ification | | ormation on th | nis report wil | I be retained in a pub | lic databa | ise. | | | | |
| Owner Nam | | and Location | Ad | dress | | | Town | | Prov | | easurement in Me stal Code |
| MCNEILL, 1 | | | | 4, CALGA | RY | | | | | | |
| ocation | 1/4 or SE | LSD SEC 31 | <i>TWP</i> 028 | <i>RGE</i> 03 | W of MER 5 | Lot | Block | Plan | Additiona | I Description | |
| Aeasured fi | rom Bound | lary of | | | GPS Coordinat | es in De | cimal Degrees | (NAD 83) | | | |
| | | m from | | | Latitude 51.4 | | | de <u>-114.4059</u> | | evation 1226 | |
| | | m from | | | How Location C | Obtained | | | | w Elevation Obtaine | d |
| | | | | | Мар | | | | Es | timated | |
| Drilling Inf | ormation | | | | | | | | | | |
| Method of Cable Tool | Drilling | | | <mark>be of Wor</mark> l w Well | k | | | | Proposed We Domestic & St | | |
| | | | INE | | | _ | | | | | |
| ormatior | Log | | | Mea | asurement in Me | etric | 4. Well Com | | | | easurement in M |
| Depth | | | | | | | 18.29 m | Drilled Finis | nea vveli Dep | oth Start Date | End Date 1975/08/27 |
| from ground | Water | | | | | | Borehole | | | | 1313/00/21 |
| evel (m) | Bearing | | Lithology | Descriptio | n | | | ter (cm) | Fre | om (m) | To (m) |
| 0.30 | | Topsoil | | | | | | .00 | | 0.00 | 18.29 |
| 8.53 | | Brown Clay | | | | | | sing (if applica | able) | Well Casing/Liner | |
| 12.19 | | Brown Shale | | | | _ | Steel | e OD : | 16.84 cm | Steel Size OD : | 12.70 cm |
| 14.63 | | Gray Shale | | | | | Wall Thick | | 0.478 cm | Wall Thickness : | |
| 15.54 | Yes | Gray Water Bea | ring Sandsto | one | | | | m at : | 9.14 m | Top at : | |
| 18.29 | | Gray Shale | | | | | | | | Bottom at : | |
| | | | | | | | Perforation | S | | | |
| | | | | | | | From (r 13.72 | | To (m) 16.76 | Diameter (cm) 0.635 | Interval (cm) 30.48 |
| | | | | | | | Perforated b | | 10.70 | 0.035 | 50.40 |
| | | | | | | | i enorateu b | loron | | | |
| | | | | | | | Annular Se | | | | |
| | | | | | | | | om <u>0.0</u> | <u>00 m</u> to | <u>9.14 m</u> | |
| | | | | | | | Other Seals | unt | | | |
| | | | | | | | | Туре | | A | t (m) |
| | | | | | | | | . 100 | | | · |
| | | | | | | | Screen Typ | | | | |
| | | | | | | | | | 0.00 cm | | |
| | | | | | | | Eror | n (m) | I T | o (m) | Slot Size (cm) |

7. Contractor Certification

Name of Journeyman responsible for drilling/construction of well UNKNOWN NA DRILLER

Company Name INTERPROVINCIAL DRILLING CONTRACTORS Certification No

1

Attachment Top Fittings

Pack Type

Amount _

Copy of Well report provided to owner Date approval holder signed

Bottom Fittings

Grain Size

| Governm | ent V | /ate | er W | Vell Di | ^illi | ng F | Repo | rt | <u>View in I</u> | <u>mperi</u> | al |
|--|----------------------------------|-------------------|-------------------|---|-------------|-----------------|--------------------------|-----------------------------|--|--------------|-------------------------------|
| of Albert | The drill | er supplies th | ne data conta | ained in this report. T I be retained in a pub | he Province | e disclaims res | | | GIC Well ID GoA Well Tag Date Report R | | 416469 1976/01/16 |
| 1. Well Identification Owner Name MCNEILL, TERRY | and Location | | dress 4, CALGA | RY | | Town | | Pro | ovince | | asurement in Metri al Code |
| Location 1/4 of SE | r LSD SEC 31 | <i>TWP</i> 028 | RGE 03 | W of MER 5 | | | Plan | Additior | al Description | | |
| Measured from Bound | dary of m from m from | | | GPS Coordinate Latitude <u>51.4</u> How Location C Map | 134730 | 0 | · · · · · | ŀ | Elevation How Elevation Estimated | | 32 m |
| Additional Information | n | | | | | | | | | Me | asurement in Metri |
| Distance From Top o Is Artesian Flow Rate | 0 | | | | | | ol Installed Describe | | | | |
| Recommended Pum | p Rate | - | | 0.00 L/min | Pump | Installed | | | Depth | | m |
| Recommended Pum | p Intake Depth (Fre | om TOC) | | 16.76 m | Туре | | <i>N</i> | lodel | | H.P. | |
| Did you Encounter Additional Comme DRILLER REPORTS | ents on Well | G | | Depth Depth | | m | Geophy S | sical Log Ta ubmitted to | aken GIC | | \ttached |
| 5. Yield Test | | | | | | | Measureme | | | Taken | From Ground Leve |
| Test Date 1975/08/27 | Start Time 12:00 AM | | Static | Water Level 9.14 m | [| Drawd | own (m) | Elap | o water level osed Time outes:Sec | | Recovery (m) |
| | ype Bailer Pate 18. rom 0. | 00 m | / | | - | | | <u> </u> | | | |
| 6. Water Diverted for Water Source | Drilling | | Amo | unt Taken L | | | | Diversion L | Date & Time | | |

| 7. Contractor Certification |
|--|
| Name of Journeyman responsible for drilling/construction of well |
| UNKNOWN NA DRILLER |

Company Name INTERPROVINCIAL DRILLING CONTRACTORS Certification No
1



| REPORT TO: | | PRIVATE DRINKIN | |
|---|--------|-------------------|-----------------------|
| HEALTH REGION 3 ENVIRONMENTAL HEALTH | | CARTWRIGI RR 2 | 11 |
| 10101 SOUTHPORT ROAD SW | | CROSSFIEL | |
| CALGARY AB | | TOM OSO | |
| T2W 3N2 | | | (403) 650-0888 |
| IZVY JINZ | | Land Description: | SE-31-28-3-5 |
| | | Collected: | 6/8/2009 |
| | | By: | CHLOE CARTWRIGHT |
| | | Site: | KITCHEN FAUCET |
| Req. ID No: T104630 | | Source: | Well |
| Lab Code: 2009070234 | | Depth: | 280 |
| | | Comments: | |
| CERTIFICATE OF CHEMICAL ANALYSIS | 0.07 | | CDW GUIDELINES (2007) |
| pH | 8.57 | | 6.5-8.5 units AO |
| Conductivity | 1017 | | |
| - Sodium | 218,7 | • | ≤ 200 mg/L AO |
| Potassium | 2.36 | | |
| Calcium | 15.78 | | |
| Magnesium | 6.94 | | |
| Total Hardness (CaCO3)(Calc) | 67.97 | | |
| Iron | 0.02 | 1 | \leq 0.3 mg/L AO |
| Total Alkalinity (CaCO3) | 560.3 | • | |
| Carbonate | 21.1 | 0 | |
| Bicarbonate | 640.6 | mg/L | |
| Hydroxide | 0 | mg/L | |
| Chloride | 0,9 | mg/L | ≤ 250 mg/L AO |
| - Fluoride | 1.7 | | 1.5 mg/L MAC |
| Nitrite (N) | 0 | mg/L | 1.0 mg/L MAC |
| Nitrate (N) | 0.6 | mg/L | 10 mg/L_MAC |
| Sulfate | 10.8 | mg/L | ≤ 500 mg/L_AO |
| Total Dissolved Solids (Calc) | 592.27 | mg/L | ≤ 500 mg/L AO |
| Cation Sum | 10.93 | mEq/L | |
| Anion Sum | 11.5 | mEq/L | |
| Ion Balance(Cation/Anion) | 95.03 | % | |
| Ion Balance (% Difference) | -2.55 | % | |
| | | | |

Comments: Results relate only to the sample tested.

Received: Reported: Certified By: 6/18/2009 7/13/2009

10

For: David W. Kinniburgh, PhD, FCACB Director Alberta Centre for Toxicology CDW = Canadian Drinking Water

AO = Aesthetic Objectives

MAC = Maximum Acceptable Concentration

| f Alb | erta | | cy. | | ained in this report. T | | | onsibility for its | G | GIC Well ID GoA Well Tag No. Nate Report Received | 416469 |
|--------------------------------|--------------|----------------|-------------------|------------------------------------|-------------------------|------------|------------------|---------------------|------------------------------|---|-------------------------------|
| | ification | | ormation on th | nis report wil | I be retained in a pub | lic databa | ise. | | | | |
| Owner Nam | | and Location | Ad | dress | | | Town | | Prov | | easurement in Me stal Code |
| MCNEILL, 1 | | | | 4, CALGA | RY | | | | | | |
| ocation | 1/4 or SE | LSD SEC 31 | <i>TWP</i> 028 | <i>RGE</i> 03 | W of MER 5 | Lot | Block | Plan | Additiona | I Description | |
| Aeasured fi | rom Bound | lary of | | | GPS Coordinat | es in De | cimal Degrees | (NAD 83) | | | |
| | | m from | | | Latitude 51.4 | | | de <u>-114.4059</u> | | evation 1226 | |
| | | m from | | | How Location C | Obtained | | | | w Elevation Obtaine | d |
| | | | | | Мар | | | | Es | timated | |
| Drilling Inf | ormation | | | | | | | | | | |
| Method of Cable Tool | Drilling | | | <mark>be of Wor</mark> l w Well | k | | | | Proposed We Domestic & St | | |
| | | | INE | | | _ | | | | | |
| ormatior | Log | | | Mea | asurement in Me | etric | 4. Well Com | | | | easurement in M |
| Depth | | | | | | | 18.29 m | Drilled Finis | nea vveli Dep | oth Start Date | End Date 1975/08/27 |
| from ground | Water | | | | | | Borehole | | | | 1313/00/21 |
| evel (m) | Bearing | | Lithology | Descriptio | n | | | ter (cm) | Fre | om (m) | To (m) |
| 0.30 | | Topsoil | | | | | | .00 | | 0.00 | 18.29 |
| 8.53 | | Brown Clay | | | | | | sing (if applica | able) | Well Casing/Liner | |
| 12.19 | | Brown Shale | | | | _ | Steel | e OD : | 16.84 cm | Steel Size OD : | 12.70 cm |
| 14.63 | | Gray Shale | | | | | Wall Thick | | 0.478 cm | Wall Thickness : | |
| 15.54 | Yes | Gray Water Bea | ring Sandsto | one | | | | m at : | 9.14 m | Top at : | |
| 18.29 | | Gray Shale | | | | | | | | Bottom at : | |
| | | | | | | | Perforation | S | | | |
| | | | | | | | From (r 13.72 | | To (m) 16.76 | Diameter (cm) 0.635 | Interval (cm) 30.48 |
| | | | | | | | Perforated b | | 10.70 | 0.035 | 50.40 |
| | | | | | | | i enorateu b | loron | | | |
| | | | | | | | Annular Se | | | | |
| | | | | | | | | om <u>0.0</u> | <u>00 m</u> to | <u>9.14 m</u> | |
| | | | | | | | Other Seals | unt | | | |
| | | | | | | | | Туре | | A | t (m) |
| | | | | | | | | . 100 | | | · |
| | | | | | | | Screen Typ | | | | |
| | | | | | | | | | 0.00 cm | | |
| | | | | | | | Eror | n (m) | I T | o (m) | Slot Size (cm) |

7. Contractor Certification

Name of Journeyman responsible for drilling/construction of well UNKNOWN NA DRILLER

Company Name INTERPROVINCIAL DRILLING CONTRACTORS Certification No

1

Attachment Top Fittings

Pack Type

Amount _

Copy of Well report provided to owner Date approval holder signed

Bottom Fittings

Grain Size

| Governm | ent V | /ate | er W | Vell Di | ^illi | ng F | Repo | rt | <u>View in I</u> | <u>mperi</u> | al |
|--|----------------------------------|-------------------|-------------------|---|-------------|-----------------|--------------------------|-----------------------------|--|--------------|-------------------------------|
| of Albert | The drill | er supplies th | ne data conta | ained in this report. T I be retained in a pub | he Province | e disclaims res | | | GIC Well ID GoA Well Tag Date Report R | | 416469 1976/01/16 |
| 1. Well Identification Owner Name MCNEILL, TERRY | and Location | | dress 4, CALGA | RY | | Town | | Pro | ovince | | asurement in Metri al Code |
| Location 1/4 of SE | r LSD SEC 31 | <i>TWP</i> 028 | RGE 03 | W of MER 5 | | | Plan | Additior | al Description | | |
| Measured from Bound | dary of m from m from | | | GPS Coordinate Latitude <u>51.4</u> How Location C Map | 134730 | 0 | · · · · · | ŀ | Elevation How Elevation Estimated | | 32 m |
| Additional Information | n | | | | | | | | | Me | asurement in Metri |
| Distance From Top o Is Artesian Flow Rate | 0 | | | | | | ol Installed Describe | | | | |
| Recommended Pum | p Rate | - | | 0.00 L/min | Pump | Installed | | | Depth | | m |
| Recommended Pum | p Intake Depth (Fre | om TOC) | | 16.76 m | Туре | | <i>N</i> | lodel | | H.P. | |
| Did you Encounter Additional Comme DRILLER REPORTS | ents on Well | G | | Depth Depth | | m | Geophy S | sical Log Ta ubmitted to | aken GIC | | \ttached |
| 5. Yield Test | | | | | | | Measureme | | | Taken | From Ground Leve |
| Test Date 1975/08/27 | Start Time 12:00 AM | | Static | Water Level 9.14 m | [| Drawd | own (m) | Elap | o water level osed Time outes:Sec | | Recovery (m) |
| | ype Bailer Pate 18. rom 0. | 00 m | / | | - | | | <u> </u> | | | |
| 6. Water Diverted for Water Source | Drilling | | Amo | ount Taken L | | | | Diversion L | Date & Time | | |

| 7. Contractor Certification |
|--|
| Name of Journeyman responsible for drilling/construction of well |
| UNKNOWN NA DRILLER |

Company Name INTERPROVINCIAL DRILLING CONTRACTORS Certification No
1

| of Alk | perta | | y. | | ntained in this report. The | | | y for its | GIC Well ID GoA Well Tag Date Report F | | 2022505 |
|----------------------------|------------------|------------------|-------------------|---------------------------|-----------------------------|-------|-------------------------------|---|--|-------------|-------------------|
| 1. Well Iden | tification a | Ind Location | | | | | | | | Me | asurement in Metr |
| Owner Nan ROBERTS | | _ILA | | ldress R 2 | | | Town CROSSFIELD | | Province AB | Post T0M | tal Code 0S0 |
| Location | 1/4 or NW | LSD SEC 32 | <i>TWP</i> 028 | RGE 03 | 5 | Lot | Block Plar | | lditional Description | 1 | |
| Measured f | from Bound | ary of | | | | | cimal Degrees (NAD 8 | 1 A A A A A A A A A A A A A A A A A A A | | | |
| | | m from | | | | | Longitude <u>-114</u> | 1.394000 | Elevation | | <u>m</u> |
| | | m from | | | How Location Obta | ained | | | How Elevation Not Obtained | Obtained | |
| 2. Drilling In | formation | | | | | | | | | | |
| <i>Method of</i> Rotary | Drilling | | | pe of Wo w Well | rk | | | Propos Domes | sed Well Use tic | | |
| 3. Formatio | n Log | | | Me | easurement in Metri | С | 4. Well Completion | 1 | | Me | asurement in Metr |
| Depth | | | | | | | Total Depth Drilled | Finished V | /ell Depth Start D | ate | End Date |
| from | | | | | | | 33.53 m | | 2004/0 | 9/09 | 2004/09/10 |
| ground level (m) | Water Bearing | | Lithology | Descripti | ion | | Borehole | | | | |
| 0.30 | bearing | Topsoil | Littiology | Descripti | | | Diameter (cm | ı) | From (m) | | To (m) |
| 6.71 | | Brown Clay & B | ouldors | | | | 13.02 Surface Casing (if a | applicable) | 0.00 Well Cas | ing/Linor | 33.53 |
| 11.28 | | 3 | oulders | | | | Steel | applicable) | Plastic | ng/Linei | |
| | | Gray Soft Clay | | | | | Size OD : | 14.13 | <u>cm</u> S | Size OD : | 11.43 cm |
| 13.11 | | Gray Hard Shale | | | | | Wall Thickness : | 0.478 | cm Wall Th | | 0.635 cm |
| 14.02 | | Dark Gray Soft S | | | | | Bottom at : | 11.58 | | | 10.67 m |
| 17.07 | | Gray Hard Shale | | | | | Destautour | | Bo | ottom at : | 33.53 m |
| 17.37 | | Gray Hard Sands | stone | | | | From (m) | To (I | m) Diamet | er (cm) | Interval (cm) |
| 17.98 | | Gray Shale | | | | | 18.29 | 30.4 | | 818 | 15.24 |
| 18.59 | | Gray Hard Sands | stone | | | | Perforated by | Saw | | | |
| 21.95 | | Gray Shale | | | | | I chorated by | Ouw | | | |
| 22.56 | Yes | Gray Water Bear | | one | | | Annular Seal Ber | | | | |
| 24.08 | | Dark Gray Shale | | | | | | | to 11.58 | m | |
| | | Gray Sandstone | | | | | Amount | | | | |
| 25.30 | | Gray Shale | | | | | Other Seals | | | | |
| 25.30 28.04 30.18 | | Gray Sandstone | | | | | | vpe | | | (m) |

From (m)

Attachment Top Fittings

Type Unknown

Amount

Pack

7. Contractor Certification

Name of Journeyman responsible for drilling/construction of well WAYNE LEASK Company Name A&W DRILLING Certification No 2883Q Copy of Well report provided to owner Date approval holder signed

To (m)

Unknown

Bottom Fittings

Grain Size

Slot Size (cm)

| AINVILA 🔜 ac | curacy. | | be retained in a public | | sclaims responsibility for it | ts GoA Well Ta Date Report | |
|--|---------------|------------|----------------------------------|--------|--|---|---|
| Well Identification and Location Owner Name ROBERTSON, IAN & LILA | | lress 2 | | | Town CROSSFIELD | Province AB | Measurement in Me Postal Code T0M 0S0 |
| ocation 1/4 or LSD SE NW 32 | | RGE 03 | W of MER 5 | Lot | Block Plan | Additional Description | on |
| Measured from Boundary of m from m from | | | | 442000 | I Degrees (NAD 83) Longitude <u>-114.394</u> | Elevation How Elevation Not Obtained | on Obtained |
| ditional Information | | | | | | · | Measurement in Me |
| Distance From Top of Casing to G Is Artesian Flow | | | 60.96 cm | | ow Control Installed | | |
| Rate Recommended Pump Rate | | | 14 41 1/min | | | Depth | m |
| Recommended Pump Intake Dept | | | | | | | |
| Did you Encounter Saline Water | | | | | | | |
| | | | | | | | |
| | Ga | as | Depth | 1 | | | |
| Additional Comments on Well WATER BEARING FORMATION | | as | Depth | | Sample Collecte | Submitted to GIC | Result Attached |
| WATER BEARING FORMATION Yield Test Test Date Start T | YIELDS 4 IGPM | DURING E | Depth DRILLING Water Level | | Sample Collecte | Submitted to GIC ed for Potability ent in Metric Depth to water level | Result Attached |
| WATER BEARING FORMATION | YIELDS 4 IGPM | DURING E | Depth | | Sample Collecte Measureme Drawdown (m) | Submitted to GIC ed for Potability ent in Metric Depth to water level Elapsed Time Minutes:Sec | Result Attached |
| WATER BEARING FORMATION Yield Test Test Date Start T | YIELDS 4 IGPM | DURING E | Depth DRILLING Water Level | | Sample Collecte | Submitted to GIC ed for Potability ent in Metric Depth to water level Elapsed Time | Result Attached |
| WATER BEARING FORMATION Yield Test Test Date Start T 2004/09/15 12:00 / | YIELDS 4 IGPM | DURING E | Depth DRILLING Water Level | | Sample Collecte Measureme Drawdown (m) 12.60 14.70 13.98 | Submitted to GIC ed for Potability ent in Metric Depth to water level Elapsed Time Minutes:Sec 0:00 1:00 2:00 | Result Attached |
| WATER BEARING FORMATION Yield Test Test Date Start T 2004/09/15 12:00 / Method of Water Removal | YIELDS 4 IGPM | DURING E | Depth DRILLING Water Level | - | Sample Collecter Measureme Drawdown (m) 12.60 14.70 13.98 13.74 | Submitted to GIC ed for Potability ent in Metric Depth to water level Elapsed Time Minutes:Sec 0:00 1:00 2:00 3:00 | |
| WATER BEARING FORMATION Yield Test Test Date Start T 2004/09/15 12:00 / Method of Water Removal Type Pump | YIELDS 4 IGPM | DURING E | Depth DRILLING Water Level | - | Sample Collecte Measureme Drawdown (m) 12.60 14.70 13.98 | Submitted to GIC ed for Potability ent in Metric Depth to water level Elapsed Time Minutes:Sec 0:00 1:00 2:00 | Result Attached |
| WATER BEARING FORMATION Yield Test Test Date Start T 2004/09/15 12:00 / Method of Water Removal Type Pump Removal Rate Depth Withdrawn From | YIELDS 4 IGPM | DURING E | Depth DRILLING Water Level | - | Sample Collecte Measureme Drawdown (m) 12.60 14.70 13.98 13.74 13.50 13.28 13.20 | Submitted to GIC ed for Potability Depth to water level Elapsed Time Minutes:Sec 0:00 1:00 2:00 3:00 4:00 5:00 6:00 | Result Attached |
| WATER BEARING FORMATION Yield Test Test Date Start T 2004/09/15 12:00 / Method of Water Removal Type Pump Removal Rate | YIELDS 4 IGPM | DURING E | Depth DRILLING Water Level | | Sample Collecter Measureme Drawdown (m) 12.60 14.70 13.98 13.74 13.50 13.28 13.20 13.20 | Submitted to GIC ed for Potability Depth to water level Elapsed Time Minutes:Sec 0:00 1:00 2:00 3:00 4:00 5:00 6:00 7:00 | Result Attached Taken From Ground Lu Recovery (m) 15.59 14.35 13.96 13.65 13.05 13.02 13.03 |
| WATER BEARING FORMATION Yield Test Test Date Start T 2004/09/15 12:00 / Method of Water Removal Type Pump Removal Rate Depth Withdrawn From | YIELDS 4 IGPM | DURING E | Depth DRILLING Water Level | - | Sample Collecter Measureme Drawdown (m) 12.60 14.70 13.98 13.74 13.50 13.28 13.20 13.20 13.20 13.18 | Submitted to GIC ed for Potability ent in Metric Depth to water level Elapsed Time Minutes:Sec 0:00 1:00 2:00 1:00 2:00 4:00 5:00 6:00 7:00 8:00 | Result Attached |
| WATER BEARING FORMATION Yield Test Test Date Start T 2004/09/15 12:00 / Method of Water Removal Type Pump Removal Rate Depth Withdrawn From | YIELDS 4 IGPM | DURING E | Depth DRILLING Water Level | - | Sample Collecter Measureme Drawdown (m) 12.60 14.70 13.98 13.74 13.50 13.28 13.20 13.20 | Submitted to GIC ed for Potability Depth to water level Elapsed Time Minutes:Sec 0:00 1:00 2:00 3:00 4:00 5:00 6:00 7:00 | Result Attached Taken From Ground Lu Recovery (m) 15.59 14.35 13.96 13.65 13.05 13.02 13.03 |
| WATER BEARING FORMATION Yield Test Test Date Start T 2004/09/15 12:00 / Method of Water Removal Type Pump Removal Rate Depth Withdrawn From | YIELDS 4 IGPM | DURING E | Depth DRILLING Water Level | | Sample Collecter Measureme Drawdown (m) 12.60 14.70 13.98 13.74 13.50 13.28 13.20 13.20 13.20 13.18 13.16 13.30 13.37 | Submitted to GIC ed for Potability Depth to water level Elapsed Time Minutes:Sec 0:00 1:00 2:00 3:00 4:00 5:00 6:00 7:00 8:00 9:00 10:00 12:00 | Result Attached Taken From Ground Le Recovery (m) 15.59 14.35 13.96 13.65 13.12 13.05 13.02 13.01 13.00 12.99 12.97 |
| WATER BEARING FORMATION Yield Test Test Date Start T 2004/09/15 12:00 / Method of Water Removal Type Pump Removal Rate Depth Withdrawn From | YIELDS 4 IGPM | DURING E | Depth DRILLING Water Level | | Sample Collecter Measureme Drawdown (m) 12.60 14.70 13.98 13.74 13.50 13.28 13.20 13.20 13.20 13.20 13.18 13.16 13.30 13.37 13.39 | Submitted to GIC ed for Potability Depth to water level Elapsed Time Minutes:Sec 0:00 1:00 2:00 3:00 4:00 5:00 6:00 7:00 8:00 9:00 10:00 12:00 14:00 | Result Attached Taken From Ground Le Recovery (m) 15.59 14.35 13.96 13.65 13.12 13.05 13.02 13.01 13.00 12.99 12.97 12.95 |
| WATER BEARING FORMATION Yield Test Test Date Start T 2004/09/15 12:00 / Method of Water Removal Type Pump Removal Rate Depth Withdrawn From | YIELDS 4 IGPM | DURING E | Depth DRILLING Water Level | | Sample Collecter Measureme Drawdown (m) 12.60 14.70 13.98 13.74 13.50 13.28 13.20 13.20 13.20 13.20 13.18 13.16 13.30 13.37 13.39 13.56 | Submitted to GIC ed for Potability Depth to water level Elapsed Time Minutes:Sec 0:00 1:00 2:00 3:00 4:00 5:00 6:00 7:00 8:00 9:00 10:00 12:00 14:00 16:00 | Result Attached Taken From Ground Lu Recovery (m) 15.59 14.35 13.96 13.65 13.05 13.02 13.03 13.00 12.99 12.97 12.95 12.95 |
| WATER BEARING FORMATION Yield Test Test Date Start T 2004/09/15 12:00 / Method of Water Removal Type Pump Removal Rate Depth Withdrawn From | YIELDS 4 IGPM | DURING E | Depth DRILLING Water Level | | Sample Collecter Measureme Drawdown (m) 12.60 14.70 13.98 13.74 13.50 13.28 13.20 13.20 13.20 13.20 13.20 13.18 13.16 13.30 13.37 13.39 13.56 13.74 | Submitted to GIC ed for Potability Ent in Metric Depth to water level Elapsed Time Minutes:Sec 0:00 1:00 2:00 3:00 4:00 5:00 6:00 7:00 8:00 9:00 10:00 12:00 14:00 14:00 16:00 20:00 | Result Attached Taken From Ground Lu Recovery (m) 15.59 14.35 13.96 13.65 13.05 13.02 13.03 13.00 12.99 12.95 12.95 12.95 12.93 |
| WATER BEARING FORMATION Yield Test Test Date Start T 2004/09/15 12:00 / Method of Water Removal Type Pump Removal Rate Depth Withdrawn From | YIELDS 4 IGPM | DURING E | Depth DRILLING Water Level | | Sample Collecter Measureme Drawdown (m) 12.60 14.70 13.98 13.74 13.50 13.28 13.20 13.20 13.20 13.20 13.18 13.16 13.30 13.37 13.39 13.56 | Submitted to GIC ed for Potability Depth to water level Elapsed Time Minutes:Sec 0:00 1:00 2:00 3:00 4:00 5:00 6:00 7:00 8:00 9:00 10:00 12:00 14:00 16:00 | Result Attached Taken From Ground Lu Recovery (m) 15.59 14.35 13.96 13.65 13.05 13.02 13.03 13.00 12.99 12.97 12.95 12.95 |
| WATER BEARING FORMATION Yield Test Test Date Start T 2004/09/15 12:00 / Method of Water Removal Type Pump Removal Rate Depth Withdrawn From | YIELDS 4 IGPM | DURING E | Depth DRILLING Water Level | | Sample Collecter Measureme Drawdown (m) 12.60 14.70 13.98 13.74 13.50 13.28 13.20 13.20 13.28 13.20 13.20 13.20 13.30 13.37 13.39 13.56 13.74 13.91 14.05 14.18 | Submitted to GIC ed for Potability Depth to water level Elapsed Time Minutes:Sec 0:00 1:00 2:00 3:00 4:00 5:00 6:00 7:00 8:00 9:00 10:00 12:00 112:00 14:00 20:00 20:00 25:00 30:00 | Result Attached Taken From Ground Le Recovery (m) 15.59 14.35 13.65 13.65 13.05 13.02 13.03 13.01 13.00 12.99 12.97 12.95 12.91 12.91 12.89 12.87 |
| WATER BEARING FORMATION Yield Test Test Date Start T 2004/09/15 12:00 / Method of Water Removal Type Pump Removal Rate Depth Withdrawn From | YIELDS 4 IGPM | DURING E | Depth DRILLING Water Level | | Sample Collecter Measureme Drawdown (m) 12.60 14.70 13.98 13.74 13.50 13.28 13.20 13.20 13.20 13.20 13.20 13.20 13.37 13.39 13.56 13.74 13.91 14.05 14.18 14.29 | Submitted to GIC ed for Potability Bent in Metric Depth to water level Elapsed Time Minutes:Sec 0:00 1:00 2:00 3:00 4:00 5:00 6:00 7:00 8:00 9:00 10:00 10:00 112:00 114:00 16:00 225:00 30:00 335:00 | Result Attached Taken From Ground La Recovery (m) 15.59 14.35 13.96 13.65 13.12 13.05 13.02 13.03 13.01 13.00 12.99 12.97 12.95 12.93 12.91 12.89 12.87 12.86 |
| WATER BEARING FORMATION Yield Test Test Date Start T 2004/09/15 12:00 / Method of Water Removal Type Pump Removal Rate Depth Withdrawn From | YIELDS 4 IGPM | DURING E | Depth DRILLING Water Level | | Sample Collecter Measureme Drawdown (m) 12.60 14.70 13.98 13.74 13.50 13.28 13.20 13.20 13.20 13.20 13.20 13.30 13.37 13.39 13.56 13.74 13.91 14.05 14.18 14.29 14.45 | Submitted to GIC ed for Potability Ent in Metric Depth to water level Elapsed Time Minutes:Sec 0:00 1:00 2:00 3:00 4:00 5:00 6:00 7:00 8:00 9:00 10:00 12:00 14:00 16:00 20:00 25:00 30:00 35:00 40:00 50:00 | Result Attached Taken From Ground Lu Recovery (m) 15.59 14.35 13.96 13.65 13.12 13.05 13.02 13.03 13.00 12.99 12.95 12.95 12.95 12.89 12.87 12.86 12.83 |
| WATER BEARING FORMATION Yield Test Test Date Start T 2004/09/15 12:00 / Method of Water Removal Type Pump Removal Rate Depth Withdrawn From | YIELDS 4 IGPM | DURING E | Depth DRILLING Water Level | | Sample Collecter Drawdown (m) 12.60 14.70 13.98 13.74 13.50 13.28 13.20 13.20 13.20 13.20 13.18 13.16 13.30 13.37 13.39 13.56 13.74 13.99 13.56 13.74 13.91 14.05 14.18 14.29 14.45 14.59 | Submitted to GIC ed for Potability Depth to water level Elapsed Time Minutes:Sec 0:00 1:00 2:00 3:00 4:00 5:00 6:00 7:00 8:00 9:00 10:00 112:00 14:00 12:00 10:00 12:00 10:00 14:00 25:00 30:00 35:00 40:00 50:00 60:00 | Result Attached Taken From Ground Le Recovery (m) 15.59 14.35 13.96 13.65 13.12 13.05 13.02 13.03 13.01 13.00 12.99 12.95 12.95 12.95 12.89 12.87 12.83 12.82 |
| WATER BEARING FORMATION Yield Test Test Date Start T 2004/09/15 12:00 / Method of Water Removal Type Pump Removal Rate Depth Withdrawn From | YIELDS 4 IGPM | DURING E | Depth DRILLING Water Level | | Sample Collecter Measureme Drawdown (m) 12.60 14.70 13.98 13.74 13.50 13.28 13.20 13.20 13.20 13.20 13.20 13.30 13.37 13.39 13.56 13.74 13.91 14.05 14.18 14.29 14.45 | Submitted to GIC ed for Potability Ent in Metric Depth to water level Elapsed Time Minutes:Sec 0:00 1:00 2:00 3:00 4:00 5:00 6:00 7:00 8:00 9:00 10:00 12:00 14:00 16:00 20:00 25:00 30:00 35:00 40:00 50:00 | Result Attached Taken From Ground Lu Recovery (m) 15.59 14.35 13.96 13.65 13.12 13.05 13.02 13.03 13.00 12.99 12.95 12.95 12.95 12.89 12.87 12.86 12.83 |
| WATER BEARING FORMATION Yield Test Test Date Start T 2004/09/15 12:00 / Method of Water Removal Type Pump Removal Rate Depth Withdrawn From | YIELDS 4 IGPM | DURING E | Depth DRILLING Water Level | | Sample Collecter Measureme Drawdown (m) 12.60 14.70 13.98 13.74 13.50 13.28 13.20 13.28 13.20 13.18 13.16 13.30 13.37 13.39 13.56 13.74 13.99 13.56 13.74 13.91 14.05 14.18 14.29 14.88 | Submitted to GIC ed for Potability Depth to water level Elapsed Time Minutes:Sec 0:00 1:00 2:00 3:00 4:00 5:00 6:00 7:00 8:00 9:00 10:00 12:00 10:00 12:00 10:00 225:00 30:00 35:00 40:00 55:00 | Result Attached Taken From Ground Le Recovery (m) 15.59 14.35 13.96 13.65 13.12 13.05 13.02 13.03 13.01 13.00 12.99 12.95 12.93 12.91 12.89 12.83 12.82 12.79 |

7. Contractor Certification Name of Journeyman responsible for drilling/construction of well WAYNE LEASK Company Name A&W DRILLING

Certification No 2883Q Copy of Well report provided to owner Date approval holder signed

Government Water Well Drilling Report View in Imperial GIC Well ID 352191 of Alberta The driller supplies the data contained in this report. The Province disclaims responsibility for its GoA Well Tag No. accuracy. The information on this report will be retained in a public database. Date Report Received 1990/10/03 1. Well Identification and Location Measurement in Metric Owner Name Address Postal Code Town Province CANADIAN HUNTER/BRELCO 11 Location 1/4 or LSD SEC TWP RGE W of MER Lot Block Plan Additional Description 06 32 028 03 5 GPS Coordinates in Decimal Degrees (NAD 83) Measured from Boundary of Latitude 51.436539 Longitude -114.391226 Elevation m m from How Location Obtained How Elevation Obtained m from Not Verified Not Obtained 2. Drilling Information Method of Drilling Type of Work Proposed Well Use New Well Industrial Rotarv 3. Formation Log 4. Well Completion Measurement in Metric Measurement in Metric Total Depth Drilled Finished Well Depth Start Date End Date Depth 91.44 m 1990/09/25 1990/09/26 from Water around **Borehole** level (m) Bearing Lithology Description Diameter (cm) From (m) To (m) 1.52 Clay 0.00 0.00 91.44 17.07 Brown Sandstone Surface Casing (if applicable) Well Casing/Liner Steel Steel 23.47 Gray Shale Size OD : 13.97 cm Size OD : 11.43 cm 35.97 Gray Sandstone Wall Thickness : 0.620 cm 0.396 cm Wall Thickness : 38.71 Gray Shale Bottom at : Top at : 12.19 m 3.05 m 41.45 Gray Sandstone

Attachment Top Fittings Bottom Fittings Pack Type _ Grain Size 0.00 Amount

Perforations From (m)

Perforated by

Screen Type

12 19

48.77

60.96

Annular Seal Driven

Amount Other Seals

Size OD :

From (m)

To (m)

42 67

54.86

67.06

Placed from 0.00 m to 12.19 m

0.00 cm

To (m)

Torch

Туре

7. Contractor Certification

52.12

56.69

60.05

64 31

91.44

Gray Shale

Gray Shale

Gray Shale

Gray Sandstone

Gray Sandstone

Name of Journeyman responsible for drilling/construction of well UNKNOWN NA DRILLER Company Name

ALKEN BASIN DRILLING LTD.

Certification No 1

Copy of Well report provided to owner Date approval holder signed

Bottom at :

At (m)

Slot Size (cm)

Diameter (cm)

0.000

0.000

0.000

91.44 m

Interval (cm)

0.00

0.00

0.00

| Governmei | nt M | /ate | er W | Vell Dr | rilli | ng F | Repo | ort <u>View</u> | / in Imper | <u>'ial</u> |
|--|------------------------|-------------------|---------------|--|--------------|----------------------|---------------------------------------|--------------------------------------|--|---------------------------------|
| of Alberta | The drill accurac | ler supplies th | ne data conta | ained in this report. Th I be retained in a publ | The Province | e disclaims res | | GIC We GoA W | ell ID /ell Tag No. eport Received | 352191 1990/10/03 |
| 1. Well Identification and Owner Name CANADIAN HUNTER/BRE | | Adı | dress | | | Town | | Province | | easurement in Metr stal Code |
| Location 1/4 or LSE 06 |) SEC 32 | <i>TWP</i> 028 | RGE 03 | W of MER 5 | Lot | Block | Plan | Additional Desc | cription | |
| Measured from Boundary | of m from m from | | | GPS Coordinate Latitude <u>51.4</u> How Location O Not Verified | 436539 | 0 | · · · · · · · · · · · · · · · · · · · | | n evation Obtained ained | |
| Additional Information | | | | | | | | I | M | easurement in Metr |
| Distance From Top of Ca Is Artesian Flow Rate | | | | cm | ls | Flow Contro | | | | |
| Recommended Pump Ra | | | | 136.38 L/min | Pump | Installed <u>Y</u> e | | | pth | |
| Recommended Pump Inte | ake Depth (Fro | om TOC) | | 67.06 m | Туре | SUB | <i>N</i> | Iodel <u>GOULD</u> | H.P. | |
| Did you Encounter Salii Additional Comments of Rig Well. Ownership trans | on Well | G | àas | Depth | | m | Geophy S | ysical Log Taken Submitted to GIC | | Attached |
| 5. Yield Test | | | | | | | Measureme | nt in Metric | | n From Ground Lev |
| Test Date 1990/09/26 | Start Time 12:00 AM | | Static | Water Level 15.85 m | | Drawdo | own (m) | Elapsed Tin Minutes:Se | ne | Recovery (m) |
| Method of Water Remov Type Removal Rate Depth Withdrawn From | Pump 136. 0. | .00 m | / | | - | | | | I | |
| 6. Water Diverted for Dril Water Source | ling | | Amo | ount Taken L | | | | Diversion Date & 1 | Time | |

| 7. Contractor Certification |
|--|
| Name of Journeyman responsible for drilling/construction of well UNKNOWN NA DRILLER |
| Company Name ALKEN BASIN DRILLING LTD. |

Certification No

1

Government Water Well Drilling Report View in Imperial GIC Well ID 392004 of Alberta The driller supplies the data contained in this report. The Province disclaims responsibility for its GoA Well Tag No. accuracy. The information on this report will be retained in a public database. Date Report Received 1974/11/01 1. Well Identification and Location Measurement in Metric Owner Name Postal Code Address Town Province RR2, CROSSFIELD ROBERTSON, LOY Location 1/4 or LSD SEC TWP RGE W of MER Lot Block Plan Additional Description NW 32 028 03 5 GPS Coordinates in Decimal Degrees (NAD 83) Measured from Boundary of Elevation Latitude 51.441963 Longitude -114.394122 m m from How Location Obtained How Elevation Obtained m from Phone Not Obtained 2. Drilling Information Method of Drilling Type of Work Proposed Well Use Cable Tool New Well Stock 3. Formation Log 4. Well Completion Measurement in Metric Measurement in Metric Total Depth Drilled Finished Well Depth Start Date End Date Depth 15.24 m 1974/07/04 from Water around **Borehole** level (m) Bearing Lithology Description Diameter (cm) From (m) To (m) 0.91 Black Clay 0.00 0.00 15.24 3.66 Yellow Clay Surface Casing (if applicable) Well Casing/Liner Steel Steel Gray Clay & Boulders 8.23 Size OD : 13.97 cm Size OD : 11.68 cm 10.06 Blue Gray Clay 0.000 cm 0.000 cm Wall Thickness : Wall Thickness : 10.67 Brown Hard Sandstone Bottom at : 10.06 m Top at : 0.00 m 11.28 Gray Shale Bottom at : 15.24 m 12.19 Hard Sandstone Perforations Diameter (cm) From (m) To (m) Interval (cm) 14.02 Gray Firm Shale 0.000 9 7 5 14 33 0.00 14.63 Black Sandstone Perforated by 14 94 Gray Soft Shale 15.24 Hard Sandstone Annular Seal Drive Shoe 0.00 m to Placed from 0.00 m Amount Other Seals Type At (m) Screen Type Size OD : 0.00 cm

7. Contractor Certification

Name of Journeyman responsible for drilling/construction of well UNKNOWN NA DRILLER

Company Name PARSONS DRLG Certification No

1

From (m)

Attachment ______ Top Fittings ______

Pack Type

Amount

Copy of Well report provided to owner Date approval holder signed

To (m)

Bottom Fittings

Grain Size

Slot Size (cm)

| Governm | ent 🕅 | /ate | r V | Vell D | rilli | ng F | Repo | rt <u>View in I</u> | mperi | al |
|--|---|----------------------|-------------------|---|-------------|-----------------|-------------|--|-------|----------------------|
| of Alberta | The drille accuracy | er supplies th /. | e data conta | ained in this report. T Il be retained in a pub | The Provinc | e disclaims res | | GIC Well ID GoA Well Tag Date Report F | | 392004 1974/11/01 |
| 1. Well Identification a | nd Location | | | | | | | | Me | asurement in Metri |
| Owner Name ROBERTSON, LOY | | | dress 2, CROSS | SFIELD | | Town | | Province | Post | al Code |
| Location 1/4 or NW | LSD SEC 32 | <i>TWP</i> 028 | <i>RGE</i> 03 | W of MER 5 | | | Plan | Additional Description | 1 | |
| Measured from Bound | ary of m from m from | | | GPS Coordinate Latitude <u>51.4</u> How Location C Phone | 441963 | - | | 22 Elevation How Elevation Not Obtained | | |
| Additional Information | | | | | | | | I | Me | asurement in Metri |
| Distance From Top of Is Artesian Flow Rate | | | | | 1: | s Flow Contr | | | | |
| Recommended Pump | | | | | Pumr | o Installed | | Depth | | |
| 1 | | om TOC) | | 0.00 m | Туре |) | M | lodel | H.P. | |
| Did you Encounter S Additional Commer | | | | Depth Depth | | m | Geophy S | ed Upon Completion sical Log Taken ubmitted to GIC I for Potability | | |
| 5. Yield Test | | | | | | | Measureme | nt in Metric | Taken | From Ground Leve |
| Test Date 1974/07/04 | Start Time 12:00 AM | | Static | Water Level 8.84 m | | Drawd | own (m) | Depth to water level Elapsed Time Minutes:Sec | F | Recovery (m) |
| | be <u>Bailer</u> ate <u>136.3</u> om <u>0.0</u> | 00 m | | | - | | | | | |
| 6. Water Diverted for Water Source | Drilling | | Amo | ount Taken L | | | | Diversion Date & Time | | |

| 7. Contractor Certification |
|--|
| Name of Journeyman responsible for drilling/construction of well |
| UNKNOWN NA DRILLER |
| Company Name PARSONS DRLG |

Certification No

1

Government Water Well Drilling Report View in Imperial 392007 GIC Well ID of Alberta The driller supplies the data contained in this report. The Province disclaims responsibility for its GoA Well Tag No. accuracy. The information on this report will be retained in a public database. Date Report Received 1989/05/16 1. Well Identification and Location Measurement in Metric Owner Name Postal Code Address Town Province RR2, CROSSFIELD ROBERTSON, LOY J. TOM 0S0 Location 1/4 or LSD SEC TWP RGE W of MER Lot Block Plan Additional Description NW 32 028 03 5 GPS Coordinates in Decimal Degrees (NAD 83) Measured from Boundary of Elevation Latitude 51.441963 Longitude -114.394122 m m from How Location Obtained How Elevation Obtained m from Мар Not Obtained 2. Drilling Information Proposed Well Use Type of Work Method of Drilling Cable Tool New Well Domestic & Stock 3. Formation Log 4. Well Completion Measurement in Metric Measurement in Metric Total Depth Drilled Finished Well Depth Start Date End Date Depth 42.67 m 1989/03/06 1989/03/25 from Water around Borehole level (m) Bearing Lithology Description Diameter (cm) From (m) To (m) Black Clay 0.30 0.00 0.00 42.67 1.52 Brown Clay & Rocks Surface Casing (if applicable) Well Casing/Liner Steel Plastic Brown Silty Clay & Shale 3.96 Size OD : 13.97 cm Size OD : 11.43 cm 6.71 Gray Firm Shale 0.478 cm Wall Thickness : Wall Thickness : 0.673 cm 8.23 Gray Hard Sandstone Bottom at : 7.92 m Top at : 6.10 m 9.14 Gray Firm Shale Bottom at : 42.67 m 10.06 Gray Hard Sandstone Perforations From (m) To (m) Diameter (cm) Interval (cm) 10.67 Gray Firm Shale 35.05 42.06 0 953 45 72 11.58 Gray Hard Sandstone Perforated by Machine Gray Firm Shale 12 80 13.11 Gray Hard Sandstone Annular Seal Drive Shoe 18.59 Gray Water Bearing Shale 7<u>.92 m</u> to Yes Placed from 0.00 m Gray Hard Sandstone Amount 19.51 Other Seals Gray Firm Shale 24.69 Gray Hard Shale Type At (m) 26.52 27.74 Gray Firm Shale Screen Type 29.26 Gray Hard Shale Size OD : 0.00 cm 42.67 Gray Water Bearing Shale Yes From (m) To (m) Slot Size (cm)

7. Contractor Certification

Name of Journeyman responsible for drilling/construction of well UNKNOWN NA DRILLER

Company Name PARSONS DRILLING Certification No

1

Attachment ______ Top Fittings ______

Pack Type

Amount

Copy of Well report provided to owner Date approval holder signed

Bottom Fittings

Grain Size

| Gover | 'nmen | t W | /ate | er V | Vell D | rilli | ing | Repo | ort | View in L | <u>mperi</u> | <u>al</u> |
|--|---|------------------------|----------------|-----------------------|---|-------------|-----------------|----------------------------|-------------------------|--|--------------|--------------------------------------|
| of Alb | | The drille accuracy. | er supplies th | ne data conta | tained in this report. T Il be retained in a pub | The Provinc | ce disclaims re | | | GIC Well ID GoA Well Tag Date Report Re | | 392007 1989/05/16 |
| 1. Well Ident Owner Nam ROBERTSC | | cation | | dress 2, CROSS | | | Town | | F | Province | Post | asurement in Metri al Code 0S0 |
| Location | 1/4 or LSD NW | SEC 32 | TWP 028 | 2, CROSS RGE 03 | W of MER | Lot | Block | Plan | Addit | ional Description | | 030 |
| Measured fr | rom Boundary of m | - | | | GPS Coordinat Latitude <u>51.</u> How Location C Map | .441963 | Longit | | 22 | Elevation How Elevation (Not Obtained | | |
| Additional Int | formation | | | | | | | | I | | Me | asurement in Metri |
| | rom Top of Casin n Flow Rate | - | | | | | | trol Installed Describe | | | | |
| Recommer | nded Pump Rate | | | | 27.28 L/min | | | | | | | |
| Recommer | nded Pump Intake |) Depth (Fro | | | 41.15 m | | | | | | | |
| | Encounter Saline al Comments on N | | | 9S) as | Depth Depth | | m | Geophy S | ysical Log Submitted | to GIC | | \ttached |
| 5. Yield Test | | | | | | | | Measureme | | | Taken | From Ground Leve |
| Test Date 1989/03/25 | | Start Time 12:00 AM | | Static | c Water Level 22.56 m | | Draw | down (m) | E | h to water level lapsed Time Minutes:Sec | F | Recovery (m) |
| R Depth With | Water Removal Type <u>Bai</u> lemoval Rate hdrawn From noval period was | iler 31.8 37.1 | 19 m | | | - | | | | | | |
| 6. Water Div | erted for Drilling | g | | Ame | ount Taken | | | | Diversio | n Date & Time | | |
| water oour | | | | Amo | L | | | | Diversion | i Date & Time | | |

| 7. Contractor Certification |
|--|
| Name of Journeyman responsible for drilling/construction of well |
| UNKNOWN NA DRILLER |

Company Name PARSONS DRILLING

Certification No 1

Government Water Well Drilling Report View in Imperial GIC Well ID 352190 of Alberta The driller supplies the data contained in this report. The Province disclaims responsibility for its GoA Well Tag No. accuracy. The information on this report will be retained in a public database. Date Report Received 1990/10/03 1. Well Identification and Location Measurement in Metric Owner Name Address Postal Code Town Province CANADIAN HUNTER/BRELCO 11 Location 1/4 or LSD SEC TWP RGE W of MER Lot Block Plan Additional Description 06 32 028 03 5 GPS Coordinates in Decimal Degrees (NAD 83) Measured from Boundary of Latitude 51.436539 Longitude -114.391226 Elevation m m from How Location Obtained How Elevation Obtained m from Not Verified Not Obtained 2. Drilling Information Method of Drilling Type of Work Proposed Well Use New Well Industrial Rotarv 3. Formation Log 4. Well Completion Measurement in Metric Measurement in Metric Total Depth Drilled Finished Well Depth Start Date End Date Depth 67.06 m 1990/09/25 1990/09/25 from Water around **Borehole** level (m) Bearing Lithology Description From (m) Diameter (cm) To (m) 1.83 Clay 0.00 0.00 67.06 11.28 Brown Sandstone Surface Casing (if applicable) Well Casing/Liner Steel 19.20 Brown Shale Size OD : 0.00 cm Size OD : 11.43 cm 47.55 Gray Shale Wall Thickness : 0.000 cm 0.396 cm Wall Thickness : 60.35 Gray Sandstone Bottom at : 0.00 m Top at : 0.00 m 67.06 Gray Shale Bottom at : 60.96 m Perforations From (m) To (m) Diameter (cm) Interval (cm) 42.67 0.000 60.96 0.00 Perforated by Torch Annular Seal Shale Trap <u>9.14 m</u> to

7. Contractor Certification

Name of Journeyman responsible for drilling/construction of well UNKNOWN NA DRILLER Company Name

ALKEN BASIN DRILLING LTD.

Certification No

1

Placed from

Screen Type

Pack Type

Amount

Amount Other Seals

Size OD :

From (m)

Attachment Top Fittings

Туре

0.00

0.00 cm

To (m)

Copy of Well report provided to owner Date approval holder signed

42.67 m

Bottom Fittings

Grain Size

At (m)

Slot Size (cm)

| Governmer | nt Wa | ater | Well D | rillin | q R | 2epo | rt <u>View in I</u> | <u>mperi</u> | <u>al</u> |
|--|-------------------------|-------------------|--|-------------------|--------|---------------|--|--------------|------------------------------|
| of Alberta | The driller s accuracy. | supplies the data | a contained in this report. ⁻ port will be retained in a pul | The Province dise | | | GIC Well ID GoA Well Tag Date Report R | | 352190 1990/10/03 |
| 1. Well Identification and I Owner Name CANADIAN HUNTER/BRE | | Address | \$ | 7 | own | | Province | | asurement in Metr al Code |
| Location 1/4 or LSD 06 | | TWP R 028 03 | | | Block | Plan | Additional Description | | |
| | of m from m from | - | GPS Coordina Latitude <u>51</u> How Location Not Verified | .436539 | | · · · · · · | 26 Elevation How Elevation Not Obtained | | |
| Additional Information | | | | | | | I | Me | asurement in Metr |
| Distance From Top of Cas Is Artesian Flow Rate | | | | ls Flc | | | | | |
| Recommended Pump Rat | | | 54.55 L/min | Pump Ins | | | | | |
| Recommended Pump Inta | ke Depth (From | TOC) | 59.74 m | Type <u>SU</u> | В | M | | | |
| Did you Encounter Salin Additional Comments o Camp Well. Ownership tra | n Well | Gas | Depth | | 1 | Geophy: Si | ed Upon Completion sical Log Taken ubmitted to GIC I for Potability | | |
| 5. Yield Test | | | | | N | leasuremer | nt in Metric Depth to water level | Taken | From Ground Le |
| Test Date 1990/09/25 | Start Time 12:00 AM | | Static Water Level 47.85 m | | Drawdo | wn (m) | Elapsed Time Minutes:Sec | F | Recovery (m) |
| Method of Water Remov Type <u>P</u> Removal Rate _ Depth Withdrawn From _ If water removal period wa | Nir 54.55 0.00 | <u>m</u> | | _ | | | | | |
| 6. Water Diverted for Drill Water Source | ing | | Amount Taken | | | | Diversion Date & Time | | |

| 1 | . Contractor Certification |
|---|--|
| | Name of Journeyman responsible for drilling/construction of well |
| | UNKNOWN NA DRILLER |
| | Company Name |
| | ALKEN BASIN DRILLING LTD. |

Certification No

1

Government Water Well Drilling Report View in Imperial GIC Well ID 491258 of Alberta The driller supplies the data contained in this report. The Province disclaims responsibility for its GoA Well Tag No. accuracy. The information on this report will be retained in a public database. Date Report Received 1998/12/17 1. Well Identification and Location Measurement in Metric Owner Name Postal Code Address Town Province PHIL POLLOCK RANCHES LTD P.O. BOX 293 CROSSFIELD TOM 0S0 Location 1/4 or LSD SEC TWP RGE W of MER Lot Block Plan Additional Description SW 32 028 03 5 GPS Coordinates in Decimal Degrees (NAD 83) Measured from Boundary of Elevation Latitude <u>51.434731</u> Longitude <u>-114.394119</u> m m from How Location Obtained How Elevation Obtained m from Not Verified Not Obtained 2. Drilling Information Method of Drilling Type of Work Proposed Well Use New Well Domestic Rotarv 3. Formation Log 4. Well Completion Measurement in Metric Measurement in Metric Total Depth Drilled Finished Well Depth Start Date End Date Depth 35.05 m 1998/10/24 1998/10/26 from Water around **Borehole** level (m) Bearing Lithology Description From (m) Diameter (cm) To (m) Clay & Boulders 3.66

0.00

Size OD :

Bottom at :

Wall Thickness :

Perforations

Perforated by

Screen Type

Pack Type

Amount

From (m)

22.86

Annular Seal Driven

Amount Other Seals

Size OD :

From (m)

Attachment Top Fittings

Placed from

Steel

Surface Casing (if applicable)

0.00

13.97 cm

0.620 cm

5.49 m

To (m)

33 53

0.00 m to

0.00 cm

To (m)

Saw

Туре

Plastic

Well Casing/Liner

Wall Thickness :

Diameter (cm)

0.318

5.49 m

Bottom Fittings

Grain Size

Size OD :

Top at :

At (m)

Slot Size (cm)

Bottom at :

35.05

11.43 cm

0.544 cm

4.57 m

35.05 m

Interval (cm)

15 24

1 Copy of Well report provided to owner Date approval holder signed

Certification No

7. Contractor Certification

7.92

9.75

14.63

35.05

Brown Shale

Brown Shale

Gray Shale

Brown Sandstone

Name of Journeyman responsible for drilling/construction of well UNKNOWN NA DRILLER Company Name

M.E. LAWSON WATER WELLS

| lovernm | | | | | | rt <u>View in I</u> GIC Well ID | <u>mperial</u> 491258 |
|--|------------------------------|--|--------------------------|--|-----------------------|---|---|
| of Albert | | ler supplies the data cor y. prmation on this report w | | | esponsibility for its | GoA Well Tag Date Report R | No. eceived 1998/12/17 |
| 1. Well Identification Owner Name PHIL POLLOCK RAM | | Address P.O. BOX 29 | 93 CROSSFIELD | Town | | Province | Measurement in Metr Postal Code TOM 0S0 |
| Location 1/4 c SW | or LSD SEC 32 | TWP RGE 028 03 | W of MER 5 | Lot Block | | Additional Description | |
| Measured from Bour | ndary of m from m from | _ | | es in Decimal Degre 134731 Long Obtained | | Elevation How Elevation Not Obtained | |
| Additional Informatio | n | | | | | | Measurement in Met |
| Is Artesian Flow | | d Level | cm | Is Flow Cor | | | |
| Recommended Pun | np Rate | om TOC) | 45.46 L/min 31.39 m | Pump Installed Type | Yes | Depth | |
| Additional Comm | ents on Well | Gas | Depth | m | Geophy: Si | ubmitted to GIC | Result Attached |
| 5. Yield Test | | | | | Measuremer | | Taken From Ground Lev |
| Test Date 1998/10/27 | Start Time 2:23 AM | Stati | c Water Level 12.80 m | | vdown (m) | Depth to water level Elapsed Time Minutes:Sec | Recovery (m) |
| | Type Pump Rate 36 | | | | 12.80 | 0:00 2:00 120:00 | 12.80 |
| If water removal per 6. Water Diverted fo | | explain why | | | | | |
| Water Source | | Am | ount Taken L | | | Diversion Date & Time | |

| 7. | Contractor Certification |
|----|--|
| | Name of Journeyman responsible for drilling/construction of well UNKNOWN NA DRILLER |
| | |

Company Name M.E. LAWSON WATER WELLS Certification No

1

| f Alb | erta | - uoouruoy. | | tained in this report. T | | | oonsibility for | its C | GIC Well ID GoA Well Tag No. Date Report Receive | 354778 d 1991/01/10 |
|---|-------------------------|--|---------------------------------|---|--------|---|-------------------------------|---|--|---|
| Owner Nam | е | and Location | Address | NGTON RD NW, | | Town | | Prov | vince P | <mark>Aeasurement in M</mark> ostal Code 2N 3P4 |
| Location | 1/4 or NE | LSD SEC 32 | <i>TWP RGE</i> 028 03 | W of MER 5 | Lot | Block | Plan | Additiona | al Description | |
| Measured fr | | m from m from | _ | GPS Coordinat Latitude <u>51.</u> How Location (Phone | 441963 | | (NAD 83) de <u>-114.38</u> | H | levation ow Elevation Obtaine ot Obtained | |
| Drilling Inf Method of I Cable Tool | | | Type of Wo l New Well | 'k | | | | Proposed We Domestic | ell Use | |
| Formation Depth from ground level (m) | Log Water Bearing | | .ithology Descripti | asurement in M | etric | 4. Well Com Total Depth 26.52 m Borehole | | nished Well De | pth Start Date | Aeasurement in M End Date 1963/10/17 |
| 3.66 | Беанну | Brown Clay | Innology Description | | | | ter (cm) | | om (m) 0.00 | To (m) 26.52 |
| 4.57 17.98 18.90 19.51 | | Hard Sandstone Gray Clay & Shale Gray Clay Hard Shale | | | | Wall Thick | e OD : | licable) 12.70 cm 0.000 cm 23.47 m | Wall Thickness | r : 0.00 cm : 0.000 cm : 0.00 m |
| 21.95 22.56 | | Gray Soft Shale Brown Sandstone | | | | Perforation | ie. | | Bottom at | . 0.00 m |
| 24.38 25.91 | | Gray Shale Sandstone | | | | From (| m) | To (m) | Diameter (cm) | Interval (cm) |
| 26.52 | | Gray Shale | | | | | al Loose om unt Type | <u>0.00 m</u> to _ | | At (m) |
| | | | | | | Siz | e OD : m (m) | | Го (m) | Slot Size (cm) |

7. Contractor Certification

Name of Journeyman responsible for drilling/construction of well UNKNOWN NA DRILLER

Company Name PARSONS DRLG Certification No

1

Attachment Top Fittings

0.00

Pack Type

Amount _

Copy of Well report provided to owner Date approval holder signed

Bottom Fittings

Grain Size

| Gover | 'nmen | t Wa | ater | r We | II D | rilli | ng F | Repc | ort | <u>View in L</u> | mperi | al |
|-------------------------------------|------------------------------------|-------------------------|-----------------------|-------------------|--|--------------|---------------|--|-------------------------|--|-------|----------------------|
| _ | erta | The driller s accuracy. | supplies the o | | n this report. 7 | The Province | disclaims res | - sponsibility for its | | GIC Well ID GoA Well Tag Date Report Re | | 354778 1991/01/10 |
| 1. Well Ident | ification and Lo | ocation | | | | | | | | | Me | asurement in Metr |
| <mark>Owner Nam</mark> WYATT, GC | e)RDON \OCKERI | MUELLER, H | Addre 1131 CALG | KENSINGTO | N RD NW, | | Town | | ŀ | Province | | tal Code 3P4 |
| Location | 1/4 or LSD NE | SEC 32 | <i>TWP</i> 028 | 03 5 | | Lot | Block | Plan | Addit | tional Description | | |
| Measured fi | | i from i from | _ | Lat. Hor | S Coordinat itude <u>51.</u> w Location (one | 441963 | 0 | <mark>s (NAD 83)</mark> ude <u>-114.382</u> | 546 | Elevation How Elevation (Not Obtained | | |
| Additional In | formation | | | <u> </u> | | | | | | Not Obtained | Me | asurement in Metr |
| | rom Top of Casin n Flow Rate | 0 | | | <u>cm</u> | | | ol Installed Describe | | | | |
| Recommer | nded Pump Rate | | | | .00 L/min | | | | | Depth | | |
| Recommer | , nded Pump Intake | e Depth (From | TOC) | 0 | .00 m | Туре | | Λ | /lodel | | H.P. | |
| | Encounter Saline al Comments on | | | | | | <u>m</u> | Geoph | ysical Log Submitted | to GIC | | Attached |
| 5. Yield Test | | | | | | | | Measureme | nt in Me | tric | Taken | From Ground Lev |
| Test Date 1963/10/17 | | Start Time 2:00 AM | | Static Wate 21 | r Level .95 m | [| Drawd | lown (m) | E | h to water level Iapsed Time Minutes:Sec | | Recovery (m) |
| R Depth Witt | emoval Rate | 0.00 | <u>L/mi</u> n m | | | _ | | | | vind(53.366 | | |
| | noval period was | | olain why | | | | | | | | | |
| Water Sour | | - | | Amount Ta | aken L | | | | Diversio | n Date & Time | | |

| 7. Contractor Certification | |
|--|---------|
| Name of Journeyman responsible for drilling/construction UNKNOWN NA DRILLER | of well |
| Company Name PARSONS DRLG | |

Certification No
1

Appendix C

| in a constant | ILD R | SE Pum | PING WATER WELL FLOW TEST |
|---|----------------------|-----------------------|--|
| | RWEL | | Well Site Location: # 3 WELL PUMPark |
| VVAL A | Olds, AB | | AFE#: |
| | Phone: 403-556-67 | | File#: |
| Date Tested: NC | V/0/10 Tested | by: <u>RW.</u> | GPS: 116. 79944 57.01162 1214 M |
| Time Tested: $\underline{J}\underline{\lambda}$ | 00 PM Position |): | Well Owner: <u>CALOE CARTWRIGHT</u> |
| 1/4 or LSD 1/4 | or LSD 1/4 or LSD | 1/4 or LSD 1/4 or LSD | Address: |
| 15 | 21 20 | 2/1- | |
| SE | 51 28 | 7 5 | Location on Property: |
| Elapsed Time In | Depth to Water Level | Depth to Water Level | Phone No.: |
| Minutes | During Pumping | During PUMPING | Remarks |
| 0 | 6.54 | 180 6.84 | Measurements in: METTERS meters |
| 1 | 6.59 | 240 6.87 | |
| 2 | 6.605 | 300 6.90 | |
| 3 | 6.62 | 360 6.92 | |
| 4 | 6.63 | 420 6.94 | |
| 5 | 6.64 | 480 6-96 | |
| 6 | 6.64 | 540 6.96 | 1997 P. (1997 - 199 |
| 7 | 6.65 | 600 6.98 | Water Samples |
| B | 6.655 | 660 700 | Taken From: FND OF DISCHARLE HOSE |
| 9 | 6.66 | 720 7.01 | Sediment: NO |
| 10 | 6.665 | 780 7.03 | Colour:CLEAR |
| 15 | 6.68 | 840 | Odour: |
| 20 | 6.70 | 900 7.055 | Gas: |
| 25 | 6.71 | 960 | Water Well Information |
| 30 | 6.72 | 1020 7.075 | Well I.D. #; |
| 35 | | 1080 | Depth: |
| 40 | 6.73 | 1140 7.10 | Completion Date: |
| 50 | 6.75 | 1200 7.12 | Well Use: |
| 60 | 6.755 | 1260 7.13 | Expected Yield: |
| 70 | 6.77 | 1320 7.145 | Condition of Well: |
| 80 | 6.78 | 1380 7.15 | Weil Diameter: |
| 90 | 6.79 | 1440 7.165 | Screen Interval: |
| 100 | 6.795 | | Static Level: |
| 120 | 6.81 | | Landowner/Occupant Testimonials: |
| | | | |
| | est Requeste | | Flow Rate Information 98.2 - 3/d |
| • • | | | Pumped at:IS |
| | | | Pressure gauge reading: PS I |
| | | | Measured from: TOP OF CASING |
| Contact Person: | | | Distance to ground level: |

| WAI | ER | WEI | LS 1 | LTD. | Well Site Locat | tion: $\frac{\mu'3}{2}$ | WELL Pamping |
|-----------------------|--|--|--|---|--|---|---|
| | Mar | Olds, AB | C700 | | AFE#: | 000-0000000000000000000000000000000000 | |
| | | ne: 403-556- | | | File#: | | anan menopanan menopanan kan da arawa yang kanan ka |
| | | | | | GPS: | | |
| ime Tested: | | Posit | ion: | | Well Owner: | CHLOE | CARTWRIGHT |
| 1/4 or LSD | 1/4 or LSD | 1/4 or LSD | 1/4 or LSD | 1/4 or LSD | Address: | | |
| SF | 31 | 28 | 3 | 5 | ******** | | 55596 567 567 567 577 577 577 577 577 577 57 |
| 110 | | | <u> </u> | | Location on Pr | operty: | |
| lapsed Tim Minutes | e in Depth Dur | to Water Lev Ing R Ecolo | el Depth to クター During | Water Level Recovery | Phone No.: | | |
| 0 | | 165 M | 180 | 6.915 | | | marks |
| 1 | | $\frac{0 > M}{1}$ | | and the second secon | Measurements in | n: | meters |
| 2 | | $\frac{11}{nQC}$ | 360 | 6.88 | | 9978 CLADA - 1995 - 11 - 7 - 1997 - 199 | |
| - | and the second | 085 | 540 | 6.81 | and management and a state of the state of t | | upa and a second sec |
| 4 | | 08 | 1200 | 6.725 | | **** | |
| 5 | and the second | 07 | 1990 | 6.01 | | | NAMES AND ADDRESS OF A DECEMBER OF A DECE |
| 6 | 7.0 | | | | ₩ 309/2021 94 640 | | an |
| 7 | | 055 | | Nale Factor of the State State of the State | | 888 _ A | A a a B |
| 8 | Concernsion of the owner | 25 | | | | | Samples |
| 9 | NAMES OF TAXABLE PARTY OF TAXABLE PARTY. | 045 | | | | | |
| 10 | 2 | | | | | | |
| 15 | 7.0 | and the second se | | | | | |
| 20 | 7.1 | ana and the feature of the second | | | | | |
| 25 | 7.0 | | | <u>an an a</u> | | | li information |
| 30 | |)05 | | | | | |
| 35 | 7.0 | | | | Depth: | | |
| 40 | 7,0 | 195 | | | Completion Date | | |
| 50 | A REAL PROPERTY OF THE PARTY OF | 99 | | | Well Use: | | |
| 60 | 7. ' | 18 | | and an and a second | Expected Yield: | | a and a state of the |
| 70 | and the second s | 975 | | | Condition of Wel | li: | , |
| 80 | CONTRACTOR OF THE OWNER OF THE OWNER OF | 965 | | pçumeranı anı anı anı anı anı anı anı | Well Diameter: _ | | anna an an ann an an ann an ann an ann an a |
| 90 | 7. | 96 | | | Screen Interval: | | |
| 100 | | And a succession of the local data and the the local data an | ALTERNA CONTRACTOR | Charlen and an | Static Level: | | |
| 120 | <u>Z</u> , | 945 | | | Landowner/Occu | upant Testim | onials: |

Flow Rate Information

| Pumped at: | G.P.M. |
|---------------------------|--------|
| Pressure gauge reading: | P.S.I. |
| Measured from: | |
| Distance to ground level: | |

| Address: | anna an an ann an an an an an Arthold Arge tractar ann an Arthold Arge tractar ann an Argent an Argent ann an A |
|-----------------|---|
| c/o: | |
| Phone No.: | |
| Contact Person: | and a construction of the |

Name: ____

| • • | | | | N | PUMP |
|------------------------|--------|---|--|--|--|
| | | | DR | | · |
| WAI | E | R | WEL | LS I | TD. |
| | | Dhor | Olds, AB ne: 403-556-0 | 5708 | |
| | 11 | | | | |
| | | | 10 Teste | | |
| Time Tested: | | | Positi | on: | |
| 1/4 or LSD | 1/4 | l or LSD | 1/4 or LSD | 1/4 or LSD | 1/4 or LSD |
| SE | | 31 | 28 | 3 | 5 |
| Elapsed Tim Minutes | e in | | to Water Leve ng Pumping | el Depth to During | Water Level |
| 0 | | 7, | 77m | 180 | 7.80 |
| 1 | | | | 240 | 7.81 |
| 2 | | | | 300 | 7.81 |
| 3 | | | | 360 | 2.82 |
| 4 | | | | 420 | 7.83 |
| 5 | | | | 480 | 7.83 |
| 6 | | | TANK TO GRAFT WELL FROM A STORY CARE A TO AN A STARTAN | 540 | 7.84 |
| 7 | | | | 600 | 7.84 |
| 8 | | | | 660 | 7.86 |
| 9 | | | | 720- | 7.85 |
| 10 | | | www.www.www.com/thesay | 780 - | 2.86 |
| 15 | | | an sama an | 840 | |
| 20 J | 3. | . 7. | 775 | 900 | 7.87 |
| 25 | | | and some state of the source o | 960 | |
| 30 ? | 3 | 7. | 78 | 1020 | |
| 35 | | 1 | | 1080 | |
| 40 | | p ggar ar ga strikken anne kteren | | 1140 | 7.89 7.90 7.90 |
| ک 50 | 3 | 7.7 | 78 | 1200 | 7.90 |
| 60 | | and the second secon | | 1260 | 7.90 |
| 70 -7 | 2 | 7:7 | 18 | 1320 | 7.91 |
| 80 | | | | 1380 | |
| 90 9 | 6 | 7.7 | 185 | 1440 | 7.915 |
| 100 | والأمد | | | and the second | |
| 120 | | 7.7 | 19 | | and the second |
| _ | | | | | |

Test Requested by:

Name: ___

Address:

| WATER WELL FLOW TEST |
|---|
| Well Site Location: # 1 MON ITOR WIFIL |
| |
| AFE# |
| File#: GPS: 116.80001 57.01130 1217m |
| GPS: 110. 20001 57.01150 121/m |
| Well Owner: CHLOE CARTWRILHT |
| Address: |
| ₩₩₩₩₩₩₩₩₩₩₩₩₩₩₩₩₩₩₩₩₩₩₩₩₩₩₩₩₩₩₩₩₩₩₩₩₩ |
| Location on Property: |
| Phone No.: |
| Remarks |
| Measurements in: |
| |
| |
| |
| |
| |
| |
| Water Samples |
| Taken From: |
| Sediment: |
| Colour: |
| Odour: |
| Gas: |
| Water Well Information |
| Well I.D. #: |
| Depth: |
| Completion Date: |
| Well Use: |
| Expected Yield: |
| Condition of Well: |
| Well Diameter: |
| Screen Interval: |
| Static Level: |
| Landowner/Occupant Testimonials: |
| |

Flow Rate Information

Pumped at:

| | W | | DR | SF | KE |
|--|--|---|---|-----------------------------|--|
| WAT | 'n | | Olds, AB | ISI | TD |
| ₩ ₩ <u>48</u> . 484. | , series | | | | |
| | 44. | | ne: 403-556-6 | | |
| Date Tested:- | <u> </u> | | 0 Teste | d by: | an and a state of the |
| Time Tested: | and the second s | | Positio | | |
| 1/4 ar LSD | 1/4 | or LSD | 1/4 or LSD | 1/4 or LSD | 1/4 or LSD |
| SE | | 31 | 28 | 3 | 5 |
| Elapsed Time Minutes | e în | Depth Duri | to Water Leve ng RELOVER | Depth to | Water Level Recovery |
| 0 | herean | | 915m | | 7.9.0 |
| d. | | | | | 7.90 |
| 2 | | | | 1 | 7.90 |
| 3 | | | | 1200 - | 7.90 |
| 4 | | | ann ann an ann an ann an ann an ann an a | 1440 - | 1.295 |
| 5 | | e er ver en men er geskill Mannet på stads at | | | ala la descrite a la consecution de la |
| 6 | | | | | |
| 7 | | | | | |
| 8 | | | | | |
| 9 | | | | | |
| 10 | | | a ya Chonya kuta kuta kuta kuta kuta k | | |
| 15 | | | | | |
| 2023 | , | 7.9 | 1 | | |
| 25 | | | | | |
| 303- | 7 | 7.9 | [| | |
| 35 | | | | | |
| 40 4 | 7 | 7.9 | 1 | | |
| 50 | | | | | |
| 60 | | 7.9 | 05 | | |
| 70 | | | | | |
| 80 | | | | | |
| 90 | | 7.90 | 15 | | |
| 100 | | | | | |
| 120 | | 7.90 | 25 | CTUDE CONTRACTOR CONTRACTOR | |
| 0.000.000.000.000.000.000.000.00000000 | | | nya kana kana kana kana kana kana kana k | | |

Test Requested by:

Name:

Address:

| ERY | |
|---|--|
| | ER WELL FLOW TE |
| Well Site Location: | # 1 MONITOR WELL |
| AFE#: | |
| File#: | |
| GPS: | |
| Well Owner: | |
| Address: | |
| Location on Proper | rty: |
| Phone No.: | |
| | Romarks |
| Measurements in: | meters |
| Nichter Harton bereiter von State Barton beiter | |
| | ······································ |
| Remonant de la composition de la compos | |
| | |
| | |
| | NI SECTION DE LA COMPANY D |
| | |
| | ator Samolos |
| | ater Samples |
| Taken From: | |
| Taken From: | |
| Taken From: Sediment: Colour: | |
| Taken From: Sediment: Colour: Odour: | |
| Taken From: Sediment: Colour: Odour: Gas: | |
| Taken From: Sediment: Colour: Odour: Gas: Watu | |
| Taken From: Sediment: Colour: Odour: Gas: Wate Well I.D. #: | er Well Information |
| Taken From: Sediment: Colour: Odour: Gas: Gas: Wate Well I.D. #: Depth: | er Well Information |
| Taken From: Sediment: Colour: Odour: Gas: Gas: Well I.D. #: Depth: Completion Date: | er Well Information |
| Taken From: Sediment: Colour: Odour: Gas: Gas: Well I.D. #: Depth: Completion Date: Well Use: | * * Well Information |
| Taken From: Sediment: Colour: Odour: Gas: Gas: Well I.D. #: Depth: Completion Date: Well Use: Expected Yield: | »r Well Information |
| Taken From: | >r Well Information |
| Taken From: | er Well Information |
| Taken From: | er Well Information |

Flow Rate Information

Pumped at: _____

| | Surroum to read Weblinks Life | | ξ., | Pun | | |
|-------------------------|---------------------------------|---|-----------------------|--|--|--|
| | | DR | | 1 | | |
| WAT | ER | WEL | LS 1 | LTD. | | |
| | | Olds, AB ne: 403-556- | | | | |
| K | | 1 | <u>^</u> | W | | |
| | | | u by | $\sim \infty$ | | |
| Time Tested: | 12400 | Positi | on: | | | |
| 1/4 or LSD | 1/4 or LSD | 1/4 or LSD | 1/4 or LSD | 1/4 or LSD | | |
| SE. | 31 | 28 | 3 | 5 | | |
| Elapsed Time Minutes | in Depth Dur | to Water Leve ing Pumping | el Depth to During | Depth to Water Level During Pamping | | |
| 0 | 7. | 60 m | 180 | | | |
| 1 | | | 240 | 7.90 | | |
| 2 | | | 300 | 7.93 | | |
| 3 | | | 360 | 7.96 | | |
| 4 | | | 420 | 7.97 | | |
| 5 | | and all following the spectrum and the second se | 480 | 7.99 | | |
| 6 | | *********** | 540 | 8,00 | | |
| 7 | | | 600 | 8.005 | | |
| 8 | | | 660 | 8.02 | | |
| . 9 | gangaang decontrinsing decontri | | 720 | 8.04 | | |
| 1012 | 7 | 67 | 780 | 8.05 | | |
| 15 | and an and a second | | 840 | | | |
| 20 | | | 900 | \$ 075 | | |
| _25 | | | 960 | | | |
| 30 | 7. | 23 | 1020 | | | |
| 35 | | | 1080 | | | |
| 40 42 | 7. | 75 | 1140 | 8.12 8.135 | | |
| ⁵⁰ 56 | 7,- | 77 | 1200 | 8.135 | | |
| 60 | | | 1260 | 8.145 | | |
| 70 75 | 7.7 | 19 | 1320 | 8.145 | | |
| 80 | | 1997 - AN AN AND AND AND AND AND AND AND AND A | 1380 | 8.18 | | |
| 9093 | 7.8 | | 1440 | 8,19 | | |
| 100 | | | | | | |
| 120 | 7.8 | 835 | | | | |
| | | | | | | |

Test Requested by:

Name: _

Address: ____

FAX NO. : 1 403 556 6700 Nov. 19 2010 11:30AM P6

| WATER WELL FLOW TEST |
|------------------------------------|
| Well Site Location: #2 MONTOR WELL |
| AFE#: |
| |
| File#: |
| Well Owner: CHLOF CARTWRIGHT |
| Address: |
| |
| Location on Property: |
| Phone No.: |
| Remarks |
| Measurements in: |
| |
| |
| |
| |
| |
| Water Samples |
| Taken From: |
| Sediment: |
| Colour: |
| Odour: |
| Gas: |
| Water Well Information |
| Well I.D. #: |
| Depth: |
| Completion Date: |
| Well Use: |
| Expected Yield: |
| Condition of Well; |
| Well Diameter: |
| Screen Interval: |
| Static Level: |
| |

Flow Rate Information

Pumped at: ____

RECOVERY WILD R SE WATER WELLS LTD. Olds, AB Phone: 403-556-6700 Date Tested NOV/110 Tested by: Time Tested: Position 1/4 or LSD SE 31 5 28 Elapsed Time In Depth to Water Level Depth to Water Level During RECOVERY Minutes **During Recovery** 0 8.19 120 7.92 1 360 2 540 7.89 3 1200 4 1440 5 6 7 8 9 8.13 1012 15 20 25 8.085 3032 35 4043 8.07 50 8.05 60 70 80 8.03 90 100 8.01 120

WATER WELL FLOW TEST Well Site Location: #2 MONITOR WELL AFE#: File#: GPS: 116.79927 57.01110 1216m Well Owner: Address: _____ Location on Property: Phone No.: Remarks Measurements in: meters Water Samples Taken From: Sediment: Colour: Odour: Gas: Water Well Information Well I.D. #: Depth: Completion Date: Well Use: Expected Yield: Condition of Well: Well Diameter:

FAX NO. : 1 403 556 6700 Nov. 19 2010 11:31AM P7

Landowner/Occupant Testimonials:

Static Level:

Flow Rate Information

Screen Interval:

Pumped at:

Name:

Address:

Test Requested by:

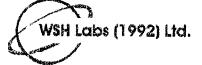
| 5 | | | | Pumpin | ng Test - Wat | er Level Data | Page 1 of 2 |
|-------------|----------------------|-------------------|-------------------------|---|---------------|--------------------------------|--------------------|
| | | | onsulting Ltd. | Project: Chinook Ridge Lodge and Golf Course Number: 149104750 | | | |
| | ? | | B Ross Street | | | | |
| CL | antos | Tel. 403-3 | AB T4N 1X5 41-3320 | Client: | Chloe Carty | vright | |
| | antec | 101. 400-0 | | | Childe Carty | | |
| Location: S | SE-31-28-3-W.5 | | Pumping Test: Aquifer | Test | | Pumping Well: Well 1 | |
| Test Cond | lucted by: Wild Rose | Water Wells Ltd. | Test Date: 11/10/2010 | | | Discharge: variable, average r | rate 98.132 [m³/d] |
| Observatio | on Well: Well 1 | | Static Water Level [m]: | 6.54 | | Radial Distance to PW [m]: - | |
| | Time [min] | Water Leve [m] | I Drawdow [m] | n | | | |
| 1 | 1 | 6.59 | 0.05 | | | | |
| 2 | 2 | 6.605 | 0.065 | | | | |
| 3 | 3 | 6.62 | 0.08 | | | | |
| 4 | 4 | 6.63 | 0.09 | | | | |
| 5 | 5 | 6.64 | 0.10 | | | | |
| 6 | 6 | 6.64 | 0.10 | | | | |
| 7 | 7 | 6.65 | 0.11 | | | | |
| 8 | 8 | 6.655 | 0.115 | | | | |
| 9 | 9 10 | 6.66 | 0.12 | | | | |
| 10 11 | 10 | 6.665 | 0.125 | | | | |
| 12 | 20 | 6.70 | 0.14 | | | | |
| 13 | 25 | 6.71 | 0.17 | | | | |
| 14 | 30 | 6.72 | 0.18 | | | | |
| 15 | 40 | 6.73 | 0.19 | | | | |
| 16 | 50 | 6.75 | 0.21 | | | | |
| 17 | 60 | 6.755 | 0.215 | | | | |
| 18 | 70 | 6.77 | 0.23 | | | | |
| 19 | 80 | 6.78 | 0.24 | | | | |
| 20 | 90 | 6.79 | 0.25 | | | | |
| 21 | 100 | 6.795 | 0.255 | | | | |
| 22 23 | 120 180 | 6.81 | 0.27 | | | | |
| 23 | 240 | 6.87 | 0.30 | | | | |
| 25 | 300 | 6.90 | 0.35 | | | | |
| 26 | 360 | 6.92 | 0.38 | | | | |
| 27 | 420 | 6.94 | 0.40 | | | | |
| 28 | 480 | 6.96 | 0.42 | | | | |
| 29 | 540 | 6.96 | 0.42 | | | | |
| 30 | 600 | 6.98 | 0.44 | | | | |
| 31 | 660 | 7.00 | 0.46 | | | | |
| 32 | 720 | 7.01 | 0.47 | | | | |
| 33 | 780 | 7.03 | 0.49 | | | | |
| 34 35 | 900 | 7.055 | 0.515 | | | | |
| 35 | 1020 1140 | 7.10 | 0.535 | | | | |
| 37 | 1200 | 7.10 | 0.58 | | | | |
| 38 | 1260 | 7.12 | 0.59 | | | | |
| 39 | 1320 | 7.145 | 0.605 | , | | | |
| 40 | 1380 | 7.15 | 0.61 | | | | |
| 41 | 1440 | 7.165 | 0.625 | | | | |
| 42 | 1441 | 7.11 | 0.57 | | | | |
| 43 | 1442 | 7.085 | 0.545 | | | | |
| 44 | 1443 | 7.08 | 0.54 | | | | |
| 45 | 1444 | 7.07 | 0.53 | | | | |
| 46 | 1445 | 7.065 | 0.525 | | | | |

| 5 | | | | Pum | ping | g Test - Water Level Data | Page 2 of 2 |
|-----|---------------|--------------------------------|-----------------|-------|------|-------------------------------------|-------------|
| | | Stantec Consu | | Proje | ect: | Chinook Ridge Lodge and Golf Course | |
| | 2 | 600 - 4808 Ros Red Deer, AB | | Num | ber: | 149104750 | |
| Sta | antec | Tel. 403-341-3 | | Clien | ıt: | Chloe Cartwright | |
| | Time [min] | Water Level [m] | Drawdown [m] | | | | |
| 47 | 1446 | 7.06 | 0.52 | | | | |
| 48 | 1447 | 7.055 | 0.515 | | | | |
| 49 | 1448 | 7.05 | 0.51 | | | | |
| 50 | 1449 | 7.045 | 0.505 | | | | |
| 51 | 1450 | 7.04 | 0.50 | | | | |
| 52 | 1455 | 7.03 | 0.49 | | | | |
| 53 | 1460 | 7.02 | 0.48 | | | | |
| 54 | 1465 | 7.01 | 0.47 | | | | |
| 55 | 1470 | 7.005 | 0.465 | | | | |
| 56 | 1475 | 7.00 | 0.46 | | | | |
| 57 | 1480 | 6.995 | 0.455 | | | | |
| 58 | 1490 | 6.99 | 0.45 | | | | |
| 59 | 1500 | 6.98 | 0.44 | | | | |
| 60 | 1510 | 6.975 | 0.435 | | | | |
| 61 | 1520 | 6.965 | 0.425 | | | | |
| 62 | 1530 | 6.96 | 0.42 | | | | |
| 63 | 1560 | 6.945 | 0.405 | | | | |
| 64 | 1620 | 6.915 | 0.375 | | | | |
| 65 | 1800 | 6.88 | 0.34 | | | | |
| 66 | 1980 | 6.81 | 0.27 | | | | |
| 67 | 2640 | 6.725 | 0.185 | | | | |
| 68 | 2880 | 6.69 | 0.15 | | | | |

| S | | | | | Pum | ping Test - Wa | ter Level Data | Page 1 |
|--------------------------|---------------------|--------------------|--------|---------------------|----------------|------------------------|--------------------------|-----------------------------------|
| Stantec Co 600 - 4808 | | | | Proje | ect: Chinook R | idge Lodge and Golf Co | ourse | |
| | · | Red Deer | | | Num | ber: 14910475 | 0 | |
| Sta | antec | Tel. 403-3 | | | Clier | nt: Chloe Car | twright | |
| | SE-31-28-3-W.5 | | Pump | ing Test: Aquifer T | est | | Pumping Well: Well 1 | |
| Test Cond | ucted by: Wild Rose | e Water Wells Ltd. | Test D | Date: 11/10/2010 | | | Discharge: variable, ave | erage rate 98.132 [m ³ |
| Observatio | on Well: Monitoring | well #1 | Static | Water Level [m]: 7 | .77 | | Radial Distance to PW [| [m]: 49 |
| | Time | Water Leve | el | Drawdown | | | | |
| | [min] | [m] | | [m] | | | | |
| 1 | 23 | 7.775 | | 0.005 | | | | |
| 2 | 38 | 7.78 | | 0.01 | | | | |
| 3 | 53 | 7.78 | | 0.01 | | | | |
| 4 | 72 | 7.78 | | 0.01 | | | | |
| 5 | 96 | 7.785 | | 0.015 | | | | |
| 6 | 120 | 7.79 | | 0.02 | | | | |
| 7 | 180 | 7.80 | | 0.03 | | | | |
| 8 | 240 | | | 0.04 | | | | |
| 9 10 | 300 360 | 7.81 | | 0.04 | | | | |
| 10 | 420 | 7.83 | | 0.05 | | | | |
| 12 | 420 | 7.83 | | 0.06 | | | | |
| 12 | 540 | 7.84 | | 0.00 | | | | |
| 13 | 600 | 7.84 | | 0.07 | | | | |
| 14 | 660 | 7.86 | | 0.09 | | | | |
| 16 | 720 | 7.85 | | 0.08 | | | | |
| 17 | 780 | 7.86 | | 0.09 | | | | |
| 18 | 900 | 7.87 | | 0.10 | | | | |
| 19 | 1140 | 7.89 | | 0.12 | | | | |
| 20 | 1200 | 7.90 | | 0.13 | | | | |
| 20 | 1260 | 7.90 | | 0.13 | | | | |
| 22 | 1320 | 7.91 | | 0.14 | | | | |
| 23 | 1380 | 7.915 | | 0.145 | | | | |
| 24 | 1440 | 7.915 | | 0.145 | | | | |
| 25 | 1460 | 7.91 | | 0.14 | | | | |
| 26 | 1477 | 7.91 | | 0.14 | | | | |
| 27 | 1487 | 7.91 | | 0.14 | | | | |
| 28 | 1500 | 7.905 | | 0.135 | | | | |
| 29 | 1530 | 7.905 | | 0.135 | | | | |
| 30 | 1560 | 7.905 | | 0.135 | | | | |
| 31 | 1620 | 7.90 | | 0.13 | | | | |
| 32 | 1800 | 7.90 | | 0.13 | | | | |
| 33 | 1980 | 7.90 | | 0.13 | | | | |
| 34 | 2640 | 7.90 | | 0.13 | | | | |
| 35 | 2880 | 7.895 | | 0.125 | | | | |
| | | | | | | | | |

| | | | onsulting Ltd. | Project Ch | inook Ridge Lodge and Golf Course |
|-------------|--------------------|--------------------|-------------------------|-------------|---|
| | | | 8 Ross Street | Number: 149 | |
| | | | , AB T4N 1X5 | | |
| Sta | ntec | Tel. 403-3 | 341-3320 | Client: Ch | loe Cartwright |
| Location: S | E-31-28-3-W.5 | | Pumping Test: Aquifer | Fest | Pumping Well: Well 1 |
| Test Condu | icted by: Wild Ros | e Water Wells Ltd. | Test Date: 11/10/2010 | | Discharge: variable, average rate 98.132 [m³/ |
| Observatio | n Well: Monitoring | well 2 | Static Water Level [m]: | 7.60 | Radial Distance to PW [m]: 50 |
| | Time | Water Leve | | 1 | |
| | [min] | [m] | [m] | | |
| 1 | 12 | 7.67 | 0.07 | | |
| 2 | 30 | 7.73 | 0.13 | | |
| 3 | 42 | 7.75 | 0.15 | | |
| 4 | 56 | 7.77 | 0.17 | | |
| 5 | 75 | 7.79 | 0.19 | | |
| 6 | 93 | 7.81 | 0.21 | | |
| 7 | 120 | 7.835 | | | |
| 8 | 240 | 7.90 | 0.30 | | |
| 9 | 300 | 7.93 | 0.33 | | |
| 10 | 360 | 7.96 | 0.36 | | |
| 11 | 420 | 7.97 | 0.37 | | |
| 12 | 480 | 7.99 | 0.39 | | |
| 13 | 540 | 8.00 | 0.40 | | |
| 14 | 600 | 8.005 | | | |
| 15 | 660 | 8.02 | 0.42 | | |
| 16 | 720 | 8.04 | 0.44 | | |
| 17 | 780 | 8.05 | 0.45 | | |
| 18 | 900 | 8.075 | 0.475 | | |
| 19 | 1140 | 8.12 | | | |
| 20 | 1200 | 8.135 | | | |
| 21 | 1260 | 8.145 | | | |
| 22 | 1320 | 8.17 | 0.57 | | |
| 23 | 1380 | 8.18 | 0.58 | | |
| 24 25 | 1440 1453 | 8.19 | 0.59 | | |
| 25 | 1453 | 8.085 | | | |
| 20 | 1473 | 8.07 | 0.485 | | |
| 27 | 1500 | 8.07 | 0.47 | | |
| 28 | 1530 | 8.03 | 0.43 | | |
| 30 | 1560 | 8.01 | 0.43 | | |
| 31 | 1620 | 7.98 | 0.38 | | |
| 32 | 1820 | 7.945 | | | |
| 33 | 1980 | 7.89 | 0.29 | | |
| 34 | 2640 | 7.78 | 0.18 | | |
| 35 | 2880 | 7.76 | 0.16 | | |
| 001 | 2000 | 1.70 | 0.10 | | |

Appendix D



Wild Rose Water Well Ltd. Box 4028 Dids, AB T4H 1P6 3851B - 21 Street N.E. • Calgary, Alberta, Canada • T2E 6T5 Phone: 403-250-9164 • Fax: 403-291-4597 • www.wshlabs.com

| Phone: | (403) 556-6700 | Lab Number: | 66687 |
|--------|----------------|-------------|-------|
| Fax: | (403) 556-6700 | | |
| Email: | | PO Number: | |

Sample Info: Chinoak Ridge Lodge & Golf Course

| Sampled By: | |
|----------------|------------|
| Date Sampled: | 11/11/2010 |
| Date Received: | 11/11/2010 |
| Date Reported: | 11/24/2010 |
| | |

| Analyte | Units | Result | Canadian Drinking Water Guideline Maximum |
|--------------------------------------|------------|--------|---|
| Calcium | mg/L | 109 | No Guideline |
| ron | mg/L | 0.03 | 0.3 |
| Magnesium | mg/L | 37.6 | No Guideline |
| Vlanganese | mg/L | 0.01 | 0.05 |
| Potassium | mg/L | 4.1 | No Guideline |
| Sodium | mg/L | 22 | 200 |
| Bicarbonates | mg/L | 511 | No Guideline |
| Bromides | mg/l. | < 0.1 | No Guideline |
| Carbonates | mg/L | Ó | No Guideline |
| Chlorides | mg/L | 4.4 | 250 |
| Fluorides | mg/L | 0.17 | 1.5 |
| Nitrates as N | mg/L | 1.2 | 10 |
| Nitrites as N | mg/L | < 0.02 | 1 |
| $NO_3 + NO_2$ as N | mg/L | 1.2 | No Guideline |
| Sulfates | mg/L | 27 | 500 |
| arameter | Units | Result | Canadian Drinking Water Guideline Maximum |
| lectrical Conductivity | µS/cm | 796 | No Guideline |
| H | pН | 7.82 | 6.5 - 8.5 |
| lardness (as CaCO ₃) | mg/L | 427 | No Guideline |
| otal Alkalinity (as CaCO₃) | mg/L | 419 | No Guideline |
| P-Alkalinity (as CaCO ₃) | mg/L | 0 | No Guideline |
| Hydroxide (as CaCO ₃) | mg/L | 0 | No Guideline |
| Fotal Dissolved Solids (calculated) | mg/L | 457 | 500 |
| Microbiology | Units | Result | Canadian Drinking Water Guideline Maximum |
| lotal Coliform | CFU/100 mL | 0 | Zero / Absent |
| Escherichla Coliform | CFU/100 mL | 0 | Zerc / Absent |

| Sum of Cations | 9,59 | TDS / EC Ratio | 0.57 |
|----------------|------|-------------------------|------|
| Sum of Anions | 9.15 | Sodium Adsorption Ratio | 0.46 |
| Ion Balance | 1.05 | Saturation Index | 1.02 |

Page 1



3851B - 21 Street N.E. • Calgary, Alberta, Canada • T2E 6T5 Phone: 403-250-9164 • Fax: 403-291-4597 • www.wshlabs.com

| Wild Rose Water Well Ltd. | Phone: | (403) 556-6700 | Lab Number: | 66687 |
|------------------------------|----------------|----------------|-------------|-------|
| Box 4028 Olds, AB_T4H 1P6 | Fax: Email: | (403) 556-6700 | PO Number: | |

Sample Info: Chinook Ridge Lodge & Golf Course

| Sampled By: | |
|----------------|------------|
| Date Sampled: | 11/11/2010 |
| Date Received: | 11/11/2010 |
| Date Reported: | 11/24/2010 |

| Trace Metals | Units | Result | Canadian Drinking Water Guideline Maximum |
|--------------|-------|--------|---|
| Boron | µg/L | 29.3 | 5000 |
| Aluminum | µg/L | 6.2 | 100 |
| Chromium | µg/L | < 0.1 | 50 |
| Copper | µg/L | 0.3 | 1000 |
| Zinc | µg/L | 1.2 | 5000 |
| Arsenic | µg/L | 0.4 | 10 |
| Selenium | µg/L | 3.4 | 10 |
| Cadmium | μg/L | < 0.05 | 5 |
| Antimony | µg/L | 0.6 | 6 |
| Barium | µg/L | 149 | 1000 |
| Viercury | µg/L | < 0.05 | 1 |
| _ead | µg/L | < 0.1 | 10 |
| Jranium | hâ/l' | 71 | 20 |

Certified B

Accredited by CALA to ISO/IEC 17025 for specific tests. The results above are related only to the items enelyzed c denotes less than detection limit. TNTC = Too Numerous To Count (>200 colonies)

.

,

Control No: WSH-8KW041409-Rev1.0

Page 2

Guidelines for Chemical Drinking Water Quality as of May 2008

| Aluminum 0.1 Antimony 0.006 Arsenic 0.010 Barium 1 Benzene 0.005 Boron 5 Bromate 0.01 Bromate 0.016 Cadmium 0.005 Coloramines (Total) 3 Chloramines (Total) 3 Choramines (Total) 3 Colour \$250 Chromium 0.05 Colour \$15 TCU ¹ Copper \$10 Cyanobacterial toxins - microcystin-LR 0.0015 Cyanobacterial toxins - microcystin-LR 0.0015 Ethylbenzene \$0.3 Fluoride 1.5 Iron \$0.3 Lead 0.01 Manganese 0.01 Nitrate 45 (10 mg/L as N) Nitrite 3.2 (1 mg/L as N) PH \$6.5 - 8.5 Selenium \$500 Soluphide (as H ₂ S) \$0.05 Stulphate \$600 | Parameter | Health Guideline (mg/L) | AO (mg/L) |
|---|--|-------------------------|-------------|
| Antimony 0.006 Arsenic 0.010 Barium 1 Benzene 0.005 Bromate 0.01 Bromate 0.01 Bromate 0.01 Bromodichloromethane 0.016 Cadmium 0.006 Chloradines (Total) 3 Chloradines (Total) 3 Chloradines (Total) 3 Colour ≤15 TCU ¹ Colour ≤15 TCU ¹ Colour ≤15 TCU ¹ Colour ≤10 Cyanobacterial toxins - microcystin-LR 0.0015 Ethylbenzene ≤0.0024 Fluoride 1.5 Iron ≤0.3 Lead 0.01 Manganese 0.005 Mercury 0.001 Nitrate 45 (10 mg/L as N) Nitrite 3.2 (1 mg/L as N) Seleinium 0.01 Sodium ≤200 Sodium ≤500 Sulphide (as H ₂ S) ≤0.024 < | | 0.1 | |
| Arsenic 0.010 Barium 1 Bernzene 0.005 Boron 5 Bromate 0.01 Bromodichloromethane 0.016 Cadmium 0.005 Chloride ≤ 250 Chloride ≤ 250 Chornium 0.05 Colour $\leq 15 \text{ TCU}^1$ Colour $\leq 15 \text{ TCU}^1$ Copper ≤ 1.0 Cyanide 0.2 Cyanide 0.2 Cyanide 0.2 Cyanide 0.0015 Ethylbenzene ≤ 0.0024 Fluoride 1.5 Iron ≤ 0.3 Lead 0.01 Manganese ≤ 0.05 Mercury 0.001 Nitrate 45 (10 mg/L as N) Nitrite 3.2 (1 mg/L as N) PH ≤ 500 Soluphide (as H ₂ S) ≤ 0.05 Sulphide (as H ₂ S) ≤ 0.05 Total Dissolved Solids (TDS) ≤ 500 | | | |
| Barium 1 Benzene 0.005 Boron 5 Bromate 0.01 Bromodichloromethane 0.016 Cadmium 0.005 Chloramines (Total) 3 Chromium 0.005 Chromium 0.005 Chromium 0.005 Colour \leq 15 TCU ¹ Copper \leq 10 Cyanobacterial toxins - microcystin-LR 0.0015 Cyanobacterial toxins - microcystin-LR 0.0015 Cyanobacterial toxins - microcystin-LR 0.0015 Ethylbenzene 1.5 Iron \leq 0.024 Ethylbenzene \leq 0.05 Manganese 0.001 Manganese \leq 0.05 Manganese \leq 0.05 Manganese \leq 0.05 Solium \leq 2.00 Solium \leq 2.00 Solium \leq 2.00 Solium \leq 2.00 Soliuphide (as H ₂ S) \leq 0.05 Total Discolved Solids (TDS) \leq 0.02 <td></td> <td>0.010</td> <td></td> | | 0.010 | |
| Benzene 0.005 Boron 5 Bromate 0.01 Bromodichloromethane 0.016 Cadmium 0.005 Chloramines (Total) 3 Choride ≤250 Chromium 0.05 Colour ≤15 TCU ¹ Colour ≤15 TCU ¹ Copper ≤1.0 Cyanide 0.2 Cyanide 0.2 Cyanobacterial toxins - microcystin-LR 0.0015 Cyanobacterial toxins - microcystin-LR 0.0015 Ethylbenzene ≤0.3 Fluoride 1.5 Iron ≤0.3 Lead 0.01 Marganese ≤0.05 Mercury 0.001 Nitrite 3.2(1 mg/L as N) Nitrite 3.2(1 mg/L as N) Selenium 0.01 Sodium ≤200 Sulphate ≤500 Sulphate ≤500 Sulphate ≤0.024 Total Discolved Solids (TDS) ≤5 | | - | |
| Boron 5 Bromate 0.01 Bromotichloromethane 0.016 Cadmium 0.005 Chioramines (Total) 3 Choride ≤ 250 Chromium 0.05 Colour $\leq 15 \text{ TCU}^1$ Colour $\leq 15 \text{ TCU}^1$ Copper ≤ 1.0 Cyanobacterial toxins - microcystin-LR 0.0015 Cyanobacterial toxins - microcystin-LR 0.0015 Ethylbenzene ≤ 0.0024 Fluoride 1.5 Iron ≤ 0.3 Iron ≤ 0.05 Manganese 0.01 Manganese ≤ 0.05 Mercury 0.001 Nitrate 45 (10 mg/L as N) Nitrite 3.2 (1 mg/L as N) Nitrite ≤ 200 Solium ≤ 0.05 Selenium 0.01 Solium ≤ 0.00 Sulphate ≤ 500 Sulphate ≤ 0.00 Sulphate ≤ 0.00 <tr< td=""><td></td><td></td><td></td></tr<> | | | |
| Bromate 0.01 Bromodichloromethane 0.016 Cadmium 0.005 Choranines (Total) 3 Choride ≤ 250 Choranines (Total) 3 Colour ≤ 15 TCU ¹ Copper ≤ 1.0 Cyanobacterial toxins - microcystin-LR 0.0015 Ethylbenzene ≤ 0.0024 Fluoride 1.5 Iron ≤ 0.001 Marganese ≤ 0.05 Marganese ≤ 0.05 Mercury 0.001 Nitrate 45 (10 mg/L as N) Nitrite 3.2 (1 mg/L as N) pH ≤ 200 Sodium ≤ 0.005 Sulphate ≤ 500 Sulphate ≤ 0.024 Total Dissolved Solids (TDS) ≤ 0.024 Trihalomethanes (Total) 0.1 Turbidity ⁶ 1.0 NTU ² Uranium | | | |
| Bromodichloromethane 0.016 Cadmium 0.005 Chloride \leq 250 Chromium 0.05 Corport \leq 15 TCU ¹ Copper \leq 10 CC Cyanobacterial toxins - microcystin-LR 0.0015 Cyanobacterial toxins - microcystin-LR 0.0015 Cyanobacterial toxins - microcystin-LR 0.0015 Ethylbenzene \leq 0.0024 Fluoride 1.5 Iron \leq 0.03 Lead 0.01 Marganese \leq 0.05 Mercury 0.001 Nitrate 45 (10 mg/L as N) Nitrate 3.2 (1 mg/L as N) PH $6.5 - 8.5$ Selenium 0.01 Sodium \leq 0.05 Sulphate \leq 0.05 Sulphide (as H ₂ S) \leq 0.05 Tetrachioroethylene \leq 0.024 Total Dissolved Solids (TDS) \leq 500 Trihalomethanes (Total) 0.1 Turbidity ⁶ 1.0 NTU ² Uranium 0.02 | | | |
| Cadmium 0.005 Chloride 3 Chloride ≤ 250 Chromium 0.05 Colour $\leq 15 \text{ TCU}^1$ Copper $\leq 10 \text{ Copper}$ Cyanobacterial toxins - microcystin-LR 0.0015 Cyanobacterial toxins - microcystin-LR 0.0015 Cyanobacterial toxins - microcystin-LR 0.0015 Ethylbenzene ≤ 0.024 Fluoride 1.5 Iron ≤ 0.03 Lead 0.01 Manganese ≤ 0.05 Mercury 0.001 Nitrate 45 (10 mg/L as N) Nitrate 3.2 (1 mg/L as N) Solium ≤ 200 Sodium ≤ 500 Sulphate ≤ 500 Sulphate ≤ 500 Total Dissolved Solids (TDS) ≤ 500 Trinalomethanes (Total) 0.1 Turbidity ^a 1.0 NTU ² Uranium 0.02 | | | |
| Chloride ≤ 250 Chromium 0.05 Colour $\leq 15 \text{ TCU}^1$ Copper ≤ 1.0 Cyanobacterial toxins - microcystin-LR 0.0015 Cyanobacterial toxins - microcystin-LR 0.0015 Ethylbenzene ≤ 0.024 Fluoride 1.5 Iron ≤ 0.3 Lead 0.01 Manganese ≤ 0.05 Mercury 0.001 Nitrate 45 (10 mg/L as N) Nitrite 3.2 (1 mg/L as N) PH 6.5 - 8.5 Selenium 0.01 Sodium ≤ 200 Sulphate ≤ 500 Sulphate ≤ 0.024 Total Dissolved Solids (TDS) < 0.02 Trihalomethanes (Total) 0.1 Turbidity ^a 1.0 NTU^2 Uranium 0.02 Xylenes (Total) < 0.3 | | | |
| Chloride 1230 Chromium 0.05 Colour $\leq 15 \text{ TCU}^1$ Copper ≤ 1.0 Cyanobacterial toxins - microcystin-LR 0.0015 Cyanobacterial toxins - microcystin-LR 0.0015 Ethylbenzene ≤ 0.0024 Fluoride 1.5 Iron ≤ 0.3 Lead 0.01 Manganese ≤ 0.05 Mercury 0.001 Nitrate $45 (10 \text{ mg/L as N})$ Nitrite $3.2 (1 \text{ mg/L as N})$ Selenium 0.01 Sodium ≤ 500 Sulphate ≤ 500 Sulphide (as H_2S) ≤ 0.03 Total Dissolved Solids (TDS) 0.1 Turbidity ^a 1.0 NTU^2 Uranium 0.02 Xylenes (Total) 0.02 | Chloramines (Total) | 3 | 070 |
| Chindmin $≤15 \text{ TCU}^1$ Colour $≤1.0$ Copper $≤1.0$ Cyanobacterial toxins - microcystin-LR 0.0015 Cyanobacterial toxins - microcystin-LR 0.0015 Ethylbenzene $≤0.0024$ Fluoride 1.5 Iron $≤0.3$ Lead 0.01 Manganese $≤0.05$ Mercury 0.001 Nitrate $45 (10 \text{ mg/L as N})$ Nitrate $3.2 (1 \text{ mg/L as N})$ pH $6.5 - 8.5$ Selenium 0.01 Sodium $≤200$ Sulphate $≤500$ Sulphate $≤0.05$ Toluene <0.02 Total Dissolved Solids (TDS) <10.11 Turbidity ^a 0.01 Turbidity ^a 0.02 Xylenes (Total) 0.02 Xylenes (Total) 0.02 | | | ≤250 |
| Colour ≤ 1.0 Copper 0.2 Cyanobacterial toxins - microcystin-LR 0.0015 Ethylbenzene ≤ 0.0024 Fluoride 1.5 iron ≤ 0.3 Lead 0.01 Manganese ≤ 0.05 Mercury 0.001 Nitrate $45 (10 mg/L as N)$ Nitrite $3.2 (1 mg/L as N)$ PH $6.5 - 8.5$ Selenium 0.01 Sodium ≤ 200 Sulphate ≤ 0.05 Tetrachloroethylene 0.03 Total Dissolved Solids (TDS) ≤ 500 Trihalomethanes (Total) 0.1 Turbidity ^a $1.0 NTU^2$ Viranium 0.02 Xylenes (Total) < 0.3 | Chromium | 0.05 | in movil |
| Copper ≤ 1.0 Cyanide0.2Cyanobacterial toxins - microcystin-LR0.0015Ethylbenzene ≤ 0.0024 Fluoride1.5Iron ≤ 0.3 Lead0.01Marganese ≤ 0.05 Mercury0.001Nitrate45 (10 mg/L as N)Nitrate3.2 (1 mg/L as N)pH $6.5 - 8.5$ Selenium0.01Sodium ≤ 200 Sulphate ≤ 500 Sulphate ≤ 0.05 Tetrachloroethylene 0.03 Toluene ≤ 0.024 Toluene ≤ 500 Trihalomethanes (Total) 0.1 Turbidity ^a 1.0 NTU ² Uranium 0.02 Xylenes (Total) ≤ 0.3 | Colour | | |
| Cyanide 0.2 Cyanobacterial toxins - microcystin-LR 0.0015 Ethylbenzene ≤ 0.0024 Fluoride 1.5 Iron ≤ 0.3 Lead 0.01 Marganese ≤ 0.05 Mercury 0.001 Nitrate $45 (10 \text{ mg/L as N})$ Nitrate $3.2 (1 \text{ mg/L as N})$ pH $6.5 - 8.5$ Selenium 0.01 Sodium ≤ 0.05 Sulphate ≤ 0.05 Sulphate ≤ 0.05 Tetrachloroethylene 0.03 Total Dissolved Solids (TDS) < 0.02 Tribidity ^a 1.0 NTU^2 Uranium 0.02 Xylenes (Total) 0.02 | | | ≤1.0 |
| Cyanobacterial toxins - microcystin-LR 0.0015 Ethylbenzene ≤ 0.0024 Fluoride 1.5 Iron ≤ 0.3 Lead 0.01 Manganese ≤ 0.05 Mercury 0.001 Nitrate $45 (10 mg/L as N)$ Nitrite $3.2 (1 mg/L as N)$ pH $6.5 - 8.5$ Selenium 0.01 Sodium ≤ 0.05 Sulphate ≤ 500 Sulphate ≤ 0.05 Total Dissolved Solids (TDS) ≤ 0.024 Turbidity ⁸ $1.0 NTU^2$ Uranium 0.02 Xylenes (Total) 0.02 | | | |
| EthylbenzeneSU.0024Fluoride1.5Iron ≤ 0.3 Lead0.01Manganese ≤ 0.05 Mercury0.001Nitrate45 (10 mg/L as N)Nitrite3.2 (1 mg/L as N)pH $6.5 - 8.5$ Selenium0.01Sodium ≤ 200 Sodium ≤ 500 Sulphate ≤ 0.05 Sulphate ≤ 0.05 Tetrachloroethylene0.03Toluene ≤ 0.024 Total Dissolved Solids (TDS) ≤ 500 Trihalomethanes (Total)0.1Uranium0.02Xylenes (Total) ≤ 0.3 | Cyanobacterial toxins - microcystin-LR | 0.0015 | 0.0004 |
| Fluoride1.5Iron ≤ 0.3 Lead0.01Manganese ≤ 0.05 Mercury0.001Nitrate45 (10 mg/L as N)Nitrite3.2 (1 mg/L as N)pH $6.5 - 8.5$ Selenium0.01Sodium ≤ 200 Sodium ≤ 500 Sulphate ≤ 500 Sulphate ≤ 0.05 Tetrachloroethylene0.03Total Dissolved Solids (TDS) ≤ 500 Turbidity ^a 1.0 NTU ² Uranium0.02Xylenes (Total) ≤ 0.3 | | | ≤0.0024 |
| Iron0.01Lead0.01Marganese 0.001 Mercury0.001Nitrate45 (10 mg/L as N)Nitrite 3.2 (1 mg/L as N)pH $6.5 - 8.5$ Selenium 0.01 Sodium ≤ 200 Sulphate ≤ 500 Sulphate ≤ 0.05 Tetrachloroethylene 0.03 Toluene ≤ 0.024 Total Dissolved Solids (TDS) 0.1 Turbidity ^a 1.0 NTU ² Uranium 0.02 Xylenes (Total) < 0.3 | | 1.5 | |
| Lead ≤ 0.05 Manganese 0.001 Mercury 0.001 Nitrate $45 (10 \text{ mg/L as N})$ Nitrite $3.2 (1 \text{ mg/L as N})$ pH $6.5 - 8.5$ Selenium 0.01 Sodium ≤ 200 Sulphate ≤ 500 Sulphide (as H ₂ S) ≤ 0.05 Tetrachloroethylene 0.03 Toluene ≤ 0.024 Total Dissolved Solids (TDS) < 500 Trihalomethanes (Total) 0.1 Turbidity ^a 1.0 NTU^2 Uranium 0.02 Xylenes (Total) ≤ 0.3 | Iron | | ≤0.3 |
| Manganese0.001Mercury0.001Nitrate45 (10 mg/L as N)Nitrite3.2 (1 mg/L as N)pH6.5 - 8.5Selenium0.01Sodium ≤ 200 Sodium ≤ 0.01 Soluphate ≤ 500 Sulphate ≤ 0.05 Sulphate ≤ 0.05 Tetrachloroethylene 0.03 Toluene ≤ 0.024 Toluene ≤ 0.024 Total Dissolved Solids (TDS) ≤ 500 Trihalomethanes (Total) 0.1 Turbidity ^a 1.0 NTU ² Uranium 0.02 Xylenes (Total) ≤ 0.3 | Lead | 0.01 | -0.05 |
| Mercury 0.001 Nitrate $45 (10 \text{ mg/L as N})$ Nitrite $3.2 (1 \text{ mg/L as N})$ pH $6.5 - 8.5$ Selenium 0.01 Sodium ≤ 200 Sodium ≤ 500 Sulphate ≤ 500 Sulphate ≤ 0.05 Sulphate 0.03 Tetrachloroethylene 0.03 Toluene ≤ 0.024 Total Dissolved Solids (TDS) ≤ 500 Trihalomethanes (Total) 0.1 Turbidity ^a 1.0 NTU^2 Uranium 0.02 Xylenes (Total) ≤ 0.3 | Manganese | | ≤0.05 |
| Nitrite $3.2 (1 \text{ mg/L as N})$ pH $6.5 - 8.5$ Selenium 0.01 Sodium ≤ 200 Sodium ≤ 500 Sulphate ≤ 500 Sulphide (as H ₂ S) ≤ 0.05 Tetrachloroethylene 0.03 Toluene ≤ 0.024 Total Dissolved Solids (TDS) ≤ 500 Turbidity ^a 1.0 NTU^2 Uranium 0.02 Xylenes (Total) ≤ 0.3 | | | |
| hinto $6.5 - 8.5$ Selenium 0.01 Sodium ≤ 200 Sulphate ≤ 500 Sulphide (as H ₂ S) ≤ 0.05 Tetrachloroethylene 0.03 Toluene ≤ 0.024 Total Dissolved Solids (TDS) ≤ 500 Trihalomethanes (Total) 0.1 Turbidity ^a 1.0 NTU ² Uranium 0.02 Xylenes (Total) ≤ 0.3 | Nitrate | | |
| pH0.01Selenium0.01Sodium ≤ 200 Sulphate ≤ 500 Sulphide (as H ₂ S) ≤ 0.05 Tetrachloroethylene0.03Toluene ≤ 0.024 Total Dissolved Solids (TDS) ≤ 500 Trihalomethanes (Total)0.1Turbidity ^a 1.0 NTU ² Uranium0.02Xylenes (Total) ≤ 0.3 | Nitrite | 3.2 (1 mg/L as N) | CE OE |
| Selential ≤ 200 Sodium ≤ 500 Sulphate ≤ 0.05 Sulphide (as H ₂ S) ≤ 0.05 Tetrachloroethylene 0.03 Toluene ≤ 0.024 Total Dissolved Solids (TDS) ≤ 500 Trihalomethanes (Total) 0.1 Turbidity ^a 1.0 NTU ² Uranium 0.02 Xylenes (Total) ≤ 0.3 | | | 0.0 - 0.0 |
| Sodium ≤500 Sulphate ≤0.05 Sulphide (as H ₂ S) ≤0.05 Tetrachloroethylene 0.03 Toluene ≤0.024 Total Dissolved Solids (TDS) ≤500 Trihalomethanes (Total) 0.1 Turbidity ^a 1.0 NTU ² Uranium 0.02 Xylenes (Total) ≤5.0 | Selenium | 0.01 | ~200 |
| Sulphate ≤ 0.05 Sulphide (as H2S) ≤ 0.05 Tetrachloroethylene 0.03 Toluene ≤ 0.024 Total Dissolved Solids (TDS) ≤ 500 Trihalomethanes (Total) 0.1 Turbidity ^a 1.0 NTU^2 Uranium 0.02 Xylenes (Total) ≤ 0.3 | | | |
| Sulphile (as H_2O)Tetrachloroethylene 0.03 Toluene ≤ 0.024 Total Dissolved Solids (TDS) ≤ 500 Trihalomethanes (Total) 0.1 Turbidity ^a 1.0 NTU^2 Uranium 0.02 Xylenes (Total) ≤ 0.3 | | | |
| Tetraction octary lend ≤0.024 Total Dissolved Solids (TDS) ≤500 Trihalomethanes (Total) 0.1 Turbidity ^a 1.0 NTU ² Uranium 0.02 Xylenes (Total) ≤5.0 | Sulphide (as H ₂ S) | | ≤0.05 |
| Total Dissolved Solids (TDS) ≤500 Trihalomethanes (Total) 0.1 Turbidity ^a 1.0 NTU ² Uranium 0.02 Xylenes (Total) ≤5.0 | Tetrachloroethylene | 0.03 | 0.001 |
| Total Dissolved Solids (TDS) Trihalomethanes (Total) 0.1 Turbidity ^a 1.0 NTU ² Uranium 0.02 Xylenes (Total) ≤0.3 | | | |
| Turbidity ^a 1.0 NTU ² Uranium 0.02 Xylenes (Total) <5.0 | Total Dissolved Solids (TDS) | | ≤500 |
| Uranium 0.02 Xylenes (Total) ≤0.3 | Trihalomethanes (Total) | | |
| Uranium 0.02 Xylenes (Total) <5.0 | | | |
| Xylenes (Total) ≤0.3 | | 0.02 | |
| | | | |
| | Zinc | | <u>≤5.U</u> |

Guidelines for Microbiological Parameters

The MAC for *total coliforms* and *Escherichia coli*. in public, semi-public and private drinking water systems is none detectable per 100 mL. No MAC is specified for *heterotrophic plate count (HPC)* bacteria. However, increases in HPC concentrations above baseline levels are considered undesirable.

Saturation Index (SI)

Saturation Index is used to evaluate the need for corrosion control.

(a) A positive SI indicates scaling tendencies, but non-corrosive water

(b) A negative SI indicates non-scaling tendencies, but corrosive water

Note:

| ¹ TCU = True Colour Unit | MAC = Maximum Acceptable Concentration |
|---|---|
| ² NTU = Nephelometric Turbidity Unit | |
| \leq less than or equal to | ^a Turbidity value based on slow sand or diatomaceous earth filtration. |

Guidelines for Canadian Drinking Water Quality are provided courtesy of Health Canada. May 2008. http://www.hc-sc.gc.ca/ewh-semt/alt_formats/hecs-sesc/pdf/pubs/water-eau/sum_guide-res_recom/summary-sommaire-eng.pdf