



Ministry of Environment

- Well Construction Report
- Well Closure Report
- Well Alteration Report

Stamp company name, address, phone/fax/e-mail here, if desired

Ministry Well ID Plate Number: **42466**  
 Ministry Well Tag Number  
 Confirmation/alternative specs. attached  
 Original well construction report attached

Red lettering indicates minimum mandatory information. See reverse for notes & definitions of abbreviations.

Owner name:  
 Mailing address: Town **E. Sooke** Prov. Postal Code  
 Well Location: Address: Street no. Street name Town  
 Legal description: Lot **3** Plan D.L. Block Sec. Twp. Rg. Land District  
 PID:  Description of well location (attach sketch, if nec.):

NAD 83: Zone: **10** UTM Easting: **U0453502** m Latitude (see note 3):  
 (see note 2) UTM Northing: **5354494** m Longitude:  
 Method of drilling:  air rotary  cable tool  mud rotary  auger  driving  jetting  excavating  other (specify): **Coal Rotary**  
 Orientation of well:  vertical  horizontal Ground elevation: **370** ft (asl) Method (see note 4): **BPS**  
 Class of well (see note 5): **Water Supply** Sub-class of well: **Domestic**  
 Water supply wells: indicate intended water use:  private domestic  water supply system  irrigation  commercial or industrial  other (specify):

**Lithologic description (see notes 7-14) or closure description (see notes 15 and 16)**

From ft (bgl)	To ft (bgl)	Relative Hardness	Colour	Material Description (Use recommended terms on reverse. List in order of decreasing amount, if applicable)	Water-bearing Estimated Flow (USgpm)	Observations (e.g., fractured, weathered, well sorted, silty wash), closure details
0	2	VS	Grey	mixed fill / Rd Base	Ø	
2	4	VS	Brown	Organics	Ø	
4	53	M-H	Light Grey	Bedrock	Ø	
53	61	M-H	Grey/Gr	Bedrock - Trace white	Ø	very consistent rock
61	650	M-H	Grey/Gr	Bedrock -	Ø	
650	660	M	Green	Bedrock -	Ø	Little softer
660	715	M-H	Grey	Bedrock	Ø	Harder
producing no water before hydrofract - 5 US gallon after						.5

**Casing details**

From ft (bgl)	To ft (bgl)	Dia in	Casing Material / Open Hole	Wall Thickness in	Drive Shoe
0	4	10	steel Recased		
0	19	6	steel	1/2" 10	
19	715	6	open hole		

**Screen details**

From ft (bgl)	To ft (bgl)	Dia in	Type (see note 18)	Slot Size

Surface seal: Type: **Bentonite** Depth: **18** ft  
 Method of installation:  Poured  Pumped Thickness: **4** in  
 Backfill: Type: Depth: ft  
 Liner:  PVC  Other (specify):  
 Diameter: in Thickness: in  
 From: ft (bgl) To: ft (bgl) Perforated: From: ft (bgl) To: ft (bgl)

Intake:  Screen  Open bottom  Uncased hole  
 Screen type:  Telescope  Pipe size  
 Screen material:  Stainless steel  Plastic  Other (specify):  
 Screen opening:  Continuous slot  Slotted  Perforated pipe  
 Screen bottom:  Ball  Plug  Plate  Other (specify):  
 Filter pack: From: ft To: ft Thickness: in  
 Type and size of material:

**Developed by:**  
 Air lifting  Surging  Jetting  Pumping  Bailing  
 Other (specify): Total duration: **3** hrs  
 Notes:

**Final well completion data:**  
 Total depth drilled: **715** ft Finished well depth: **715** ft (bgl)  
 Final stick up: **30** in Depth to bedrock: **4** ft (bgl)  
 SWL: ft (btoc) Estimated well yield: **5** USgpm  
 Artesian flow: USgpm, or Artesian pressure: ft

**Well yield estimated by:**  
 Pumping  Air lifting  Bailing  Other (specify):  
 Rate: **.5** USgpm Duration: **3** hrs  
 SWL before test: ft (btoc) Pumping water level: ft (btoc)

Type of well cap: **steel, welded** Well disinfected:  Yes  No  
 Where well ID plate is attached: **clamped to casing**

**Obvious water quality characteristics:**  
 Fresh  Salty  Clear  Cloudy  Sediment  Gas  
 Colour/odour: Water sample collected:

**Well closure information:**  
 Reason for closure:  
 Method of closure:  Poured  Pumped  
 Sealant material: Backfill material:  
 Details of closure (see note 17):

**Well driller (print clearly):**  
 Name (first, last) (see note 19): **Rich Bourget**  
 Registration no. (see note 20): **W2009121406**  
 Consultant (if applicable; name and company):

**Date of work (YYYY/MM/DD):**  
 Started: **15/01/2013** Completed: **15/02/16**  
 Comments:

**Signature of Driller Responsible**

DRILLWELL ENTERPRISES LTD  
 4994 POLKEY RD.  
 DUNCAN, B.C., V9L 6W3  
 Email: [drill@drillwell.com](mailto:drill@drillwell.com) PH: 250 746-5268 FAX: 250 746-8404 Website: [www.drillwell.com](http://www.drillwell.com)

**HYDRO-FRACTURING DATA SHEET**

LOCATION: Lot 3 WELL I.D. PLATE #: 42466  
 CLIENT: Green RIG(S): # 27 + #4  
 DATE: Feb 5/15 OPERATORS: AL Rich Cass Steve  
 WELL DEPTH: 715' PRE-FRAC YIELD: \_\_\_\_\_ GPM, DATE DRILLED: Feb  
 WELL DIAMETER: \_\_\_\_\_ CASING DEPTH: \_\_\_\_\_ DRILLED BY: Drillwell  
 STATIC BEFORE FRAC.: \_\_\_\_\_ FINAL STATIC: \_\_\_\_\_ FINAL YIELD: \_\_\_\_\_ GPM  
 FINAL YIELD CONFIRMED BY: \_\_\_\_\_ DATE: \_\_\_\_\_

FRAC PUMP OUTPUT: 65 USGPM @ 2000 PSI MAXIMUM PRESSURE

SETTING NO.	PACKER DEPTH FT.	MAXIMUM PRESSURE PSI	MINIMUM PRESSURE PSI	DURATION PUMPING MIN
1. <u>200</u>	<u>1300 PSI</u>	<u>1600</u>	<u>960</u>	<u>10 min</u>
2. <u>300</u>	<u>1400 PSI</u>	<u>950</u>	<u>800</u>	<u>10 min</u>
3. <u>400</u>	<u>1500 PSI</u>	<u>1100</u>	<u>1300</u>	<u>10 min</u>

COMMENTS: 1) Short High Blowoff  
2) mud on High Blowoff water over top when hitting rocks  
3) High Blowoff

TRAVEL HOURS  
 MOBILIZE: LV BASE: 9:30 ARR SITE: 11:00 HOURS: 1 1/2  
 DE-MOB: LV SITE: \_\_\_\_\_ ARR BASE: \_\_\_\_\_ HOURS: \_\_\_\_\_  
 FERRY CHARGES: \$ \_\_\_\_\_ ROOM & BOARD: \_\_\_\_\_ CREW DAYS \_\_\_\_\_

**HOURLY WORK OTHER THAN HYDROFRACTURING**

DESCRIPTION: (pull/set pump, fish, etc.)	TIME
/	FROM: / : TO: / : HOURS: /
/	FROM: / : TO: / : HOURS: /



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**DRILLWELL ENTERPRISES LTD.**  
 4994 Polkey Road  
 Duncan, B.C. V9L 5W3  
 Phone: 250-748-5268

Ministry Well ID Plate Number: 28166  
 Ministry Well Tag Number: \_\_\_\_\_  
 Confirmation/alternative specs. attached  
 Original well construction report attached

New Lot 3.

Red lettering indicates minimum mandatory information. See reverse for notes & definitions of abbreviations.

Owner name: GREEN Adair + GREEN Joanne 210-1555 Marine Drive  
 Mailing address: % Estevan Development Corp Town W Vancouver Prov. BC Postal Code V6H 1H9  
 Well Location: Address: Street no. \_\_\_\_\_ Street name Bechar Bay + E Sooke Rd Town Sooke  
 Legal description: Lot 10 Plan \_\_\_\_\_ D.L. \_\_\_\_\_ Block \_\_\_\_\_ Sec. 85 Twp. \_\_\_\_\_ Rg. \_\_\_\_\_ Land District Sooke  
 PID: \_\_\_\_\_ (and) Description of well location (attach sketch, if nec.): NEAR GAR RIBBON #16  
Proposed Lot 10  
 NAD 83: Zone: 10 (and) UTM Easting: 453331 E m Latitude (see note 3): \_\_\_\_\_  
 UTM Northing: 5354261 N m Longitude: \_\_\_\_\_  
 Method of drilling:  air rotary  cable tool  mud rotary  auger  driving  jetting  excavating  other (specify): \_\_\_\_\_  
 Orientation of well:  vertical  horizontal Ground elevation: 148 ft (asl) Method (see note 4): G-PS  
 Class of well (see note 5): WATER SUPPLY Sub-class of well: DOMESTIC  
 Water supply wells: Indicate intended water use:  private domestic  water supply system  irrigation  commercial or industrial  other (specify): \_\_\_\_\_

Lithologic description (see notes 7-14) or closure description (see notes 15 and 16)					Water-bearing	Observations (e.g., fractured, weathered, well sorted, silty wash), closure details
From ft (bgl)	To ft (bgl)	Relative Hardness	Colour	Material Description (Use recommended terms on reverse. List in order of decreasing amount, if applicable)	Estimated Flow (USgpm)	
0	25	S/M	BR	TOPSOIL, CLAY SAND GRAVEL		
25	84	M	GY	BEDROCK		WEATHERED TO 28'
84	124	M	GY/G/BR	BEDROCK	1 GPM @ 124'	
124	164	M	LIGHT G/W	BEDROCK	1/2 GPM @ 164'	

Casing details

From ft (bgl)	To ft (bgl)	Dia in	Casing Material / Open Hole	Wall Thickness in	Drive Shoe
0	18	8	PULLED STEEL CASING	.250	
0	28	6	STEEL CASING	.219	YES
28	164	6	OPEN HOLE		

Screen details

From ft (bgl)	To ft (bgl)	Dia in	Type (see note 18)	Slot Size

Surface seal: Type: BENTONITE CHIPS Depth: 18 ft  
 Method of installation:  Poured  Pumped Thickness: 1 in  
 Backfill: Type: \_\_\_\_\_ Depth: \_\_\_\_\_ ft  
 Liner:  PVC  Other (specify): \_\_\_\_\_  
 Diameter: \_\_\_\_\_ in Thickness: \_\_\_\_\_ in  
 From: \_\_\_\_\_ ft (bgl) To: \_\_\_\_\_ ft (bgl) Perforated: From: \_\_\_\_\_ ft (bgl) To: \_\_\_\_\_ ft (bgl)

Intake:  Screen  Open bottom  Uncased hole  
 Screen type:  Telescope  Pipe size  
 Screen material:  Stainless steel  Plastic  Other (specify): \_\_\_\_\_  
 Screen opening:  Continuous slot  Slotted  Perforated pipe  
 Screen bottom:  Bail  Plug  Plate  Other (specify): \_\_\_\_\_  
 Filter pack: From: \_\_\_\_\_ ft To: \_\_\_\_\_ ft Thickness: \_\_\_\_\_ in  
 Type and size of material: \_\_\_\_\_

Developed by:

Air lifting  Surging  Jetting  Pumping  Bailing  
 Other (specify): \_\_\_\_\_ Total duration: 1 hrs  
 Notes: \_\_\_\_\_

Well yield estimated by:

Pumping  Air lifting  Bailing  Other (specify): \_\_\_\_\_  
 Rate: 1 1/2 USgpm Duration: 1 hrs  
 SWL before test: \_\_\_\_\_ ft (btoc) Pumping water level: 163 ft (btoc)

Obvious water quality characteristics:

Fresh  Salty  Clear  Cloudy  Sediment  Gas  
 Colour/odour: \_\_\_\_\_ Water sample collected:

Well driller (print clearly):

Name (first, last) (see note 19): LUCIANO BRANCATO  
 Registration no. (see note 20): WD 05041302  
 Consultant (if applicable; name and company): DRILLWELL ENT.

DECLARATION: Well construction, well alteration or well closure, as the case may be, has been done in accordance with the requirements in the Water Act and the Ground Water Protection Regulation.

Signature of Driller Responsible

[Signature]

PLEASE NOTE: The information recorded in this well report describes the works and hydrogeologic conditions at the time of construction, alteration or closure, as the case may be. Well yield, well performance and water quality are not guaranteed as they are influenced by a number of factors, including natural variability, human activities and condition of the works, which may change over time.

Final well completion data:

Total depth drilled: 164 ft Finished well depth: 164 ft (bgl)  
 Final stick up: 12 in Depth to bedrock: 25 ft (bgl)  
 SWL: 67 ft (btoc) Estimated well yield: 1 1/2 USgpm  
 Artesian flow: \_\_\_\_\_ USgpm, or Artesian pressure: \_\_\_\_\_ ft

Type of well cap: WELDED STEEL LID Well disinfected:  Yes  No  
 Where well ID plate is attached: CLAMPED TO CASING

Well closure information:

Reason for closure: \_\_\_\_\_  
 Method of closure:  Poured  Pumped  
 Sealant material: \_\_\_\_\_ Backfill material: \_\_\_\_\_  
 Details of closure (see note 17): \_\_\_\_\_

Date of work (YYYY/MM/DD):

Started: 2008/09/08 Completed: 2008/10/09  
 Comments: \_\_\_\_\_

white: Customer copy  
 canary: Driller copy  
 pink: Ministry copy  
 Sheet \_\_\_\_\_ of \_\_\_\_\_

10/14/2008 2:29:19PM M. B. RESEARCH/LABS  
Drillwell Enterprises Ltd.  
4994 Polkey Rd.  
Duncan, BC  
V9L 6W3

100ct08 4:20p  
Well  
water  
1

P1  
W80660

TEL: (800) 746-7444  
FAX: (250) 746-8404  
drill@drillwell.com

Arrival temp.: 15.0C

Sample: Becher Bay

Site Code	Date	Time	CFU/100 ml		CFU/100 ml		CFU/100 mL
			TC	NC	FC	NC	E. coli#
Lot 10 ID# 28166	09Oct08	12:00P	0	0	0	0	0

TC = total coliform bacteria  
FC = fecal coliform bacteria  
NC = non-coliform bacteria

Results may be adversely affected if samples are submitted to the laboratory more than 24 to 30 hours after collection.

E. coli = Escherichia coli, FDA/BAM 8th ed, 1995 + Revision A, 1998  
Bergey's Manual of Systematic Bacteriology vol 1, AOAC 1984; J. Clin. Micro., J. Intern. Systm. Bact.

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C. Langlois  
Microbiologist  
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W. Riggs  
Sr. Microbiologist

M. B. LABS LTD  
T: 656-1334 F: 656-0443 E: mblabs@pacificcoast.net W: www.mblabs.com

Lot 10

Client/Code

Drillwell Enterprises Ltd. - M  
4994 Polkey Rd.  
Duncan, BC  
V9L 6W3

Date 10Feb15 2:15p No. W118447  
Source Well  
Type of Sample water  
No. of Samples 1

TEL: (800) 746-7444  
FAX: (250) 746-8404  
drill@drillwell.com

Comments Arrival temp.: 5.0C

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<u>Sample</u>	<u>Date</u>	<u>Time</u>	<u>Fecal Coliforms</u>	<u>E.coli</u>	<u>Units</u>
39154 Green	10Feb15	08:00a	0	0	CFU/100mL

ND = none detected  
\* membrane filtration

E. coli = Escherichia coli, FDA/BAM 8th ed, 1995 + Revision A, 1998; May 2009  
Bergey's Manual of Systematic Bacteriology vol 1. AOAC 1984; J.Clin.Micro..  
J.Intern.System.Bact.

Fecal Coliforms may also be known as Thermotolerant Coliforms

Results may be adversely affected if samples are submitted to the laboratory more than 24 to 30 hours after collection.

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K. Paneque Martinez  
Microbiologist



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W. Riggs  
Sr. Microbiologist

