

### **Pumping Test Report**

Stamp company name/address/ phone/fax/e-mail here.

Ministry Well ID Plate Number Ministry Well Tag Number:

Red lettering indicates minimum mandatory information. Requirements fo http://www.env.gov.bc.ca/wsd/plan_protect_sustain/groundwater/index.ht	
Owner name: 554498 ONTARIO INC	(DALE HOGG)
	OWN N. SAANICH Prov. B. C Postal Code V8L-5L9
Well Location: Address: Street no. N/A Street name FF	AIRVIEW RD TOWN OLIVER.
or Legal description: LotPlanD.LB	lock Sec Twp Rg Land District
or PID: and Description of well location (attack	h sketch, if nec.):
NAD 83: Zone: and UTM Easting:	m Longitude: deg: 114 min: 3'1 sec: 10  Differential GPS  Level survey  Other (specify):  Sub-class of well: DomESTIC.
Pumping Test Summary Information	
Type of well pump:  Submersible	Pumping test data sheet(s) attached:
□ Vertical turbine □ Other (specify)	Person conducting the pumping test (please print):
Depth of pump setting: 220 ft (btoc)	Name (first, last): R. MICHAEL PEARCE
Type of Pumping Test:	Company name: VALUE CONTRACTING
Constant Rate	Registration number of person responsible*: WP1#05080802
Method of water level measurement:	Consultant (if applicable; please print):
Water level sounder □ Datalogger □ Air line	* Fill in the registration of the Qualified Well Driller/Pump Installer. If the test
☐ Wetted tape ☐ Other (specify)	was conducted by a driller/pump installer who is not registered, the Qualified
Reference datum for water level measurements:  Top of casing  Ground level  Other (specify)	Well Driller/Pump Installer who is directly supervising the work should fill in their registration number.
Final stick-up: in	
Method of flow measurement:	Declaration:
Flow meter    Orifice    45-gallon drum    5-gallon pail	The pumping test has been done in accordance with the requirements in the Water Act and the Ground Water Protection Regulation.
Other (specify) BLANCETI Start date of pumping test: $\frac{3011}{10/12}$ (YYYY/MM/DD)	PLEASE NOTE: The data recorded in this pumping test report reflect
	conditions at the time of the test. Water levels, well performance, estimated long-term well yield and water quality are not guaranteed as they are
Static water level: ARTISIAN ft  Duration of pumping: hrs Duration of recovery: hrs	influenced by a number of factors, including natural variability, human activities, and condition of the works, which may change over time.
70	Signature of Person Responsible:
Well yield estimated from pumping test: 10 USgpm	orginature by creating cosponation
Available drawdown:ft Specific Capacity:USgpm/ft	X
Method of estimating long-term well yield from pumping test:	
TLONG TERM TEST IS KEDURED	
TO GET AN ACCURATE FLOW	1.00
KHIET	

Note: Well reports submitted to the Deputy Comptroller, or retained by the person responsible, as required under the Water Act shall be considered part of Provincial Government records and are subject to the Freedom of Information and Protection of Privacy Act.

Return Completed Report and Data Sheets to:
Deputy Comptroller Ministry of Environment, Water Stewardship Division
Watershed & Aquifer Science Section
PO Box 9362 Stn Prov Govt Victoria BC
V8W 9M2

**Questions?** If you have any questions about the *Water Act* or this report form, please contact your local Ministry of Environment office.

white: Customer copy canary: Driller copy pink: Ministry copy

Diamond P. Holdings Ltd.,
DBA Value Contracting
PO Box 256
Okanagan Falls, BC V0H 1R0
Phone: 250-497-8284 Fax: 250-497-6533

email: diamondp@vip.net

# **PUMP TEST RESULTS**

OWNER'S NAME:	554498 Ontario Inc.	- 'A				
LOCATION:	N 49 10'-22"/ W 119 37'-1	N 49 10'-22"/ W 119 37'-10" Well Tag # 34658				
DEPTH:	260'					
STATIC LEVEL:	Artesian					
1						
TEST DONE BY:	Mike Pearce					
DATE OF TEST:	October 12,2011	R				
TIME OF START UP:	9:00am					
	•	3				
TIME FROM START-U						
	7-9'	75.75USGPM				
12 SECONDS						
35 SECONDS	. 9-7'	75.65 USGPM				
1 MINUTE	10-75'	75.65 USGPM				
2MINUTES	12-2'	75.10 USGPM				
4 MINUTES	14-0'	75.0 USGPM				
6 MINUTES	17 -0'	75.10 USGPM				
8 MINUTES	18-4'	75.0USGPM				
10MINUTES	18-72'	74.65 USGPM				
12 MINUTES	18-96'	74.6 USGPM				
14 MINUTES	19-0'	74.42 USGPM				
16 MINUTES	19-47'	73.9 USGPM				
18MINUTES	19-86'	74.33 USGPM				
20 MINUTES	20-02'	74.60 USGPM				
25 MINUTES	20-45'	74.72 USGPM				
30 MINUTES	20-47'	74.44 USGPM				
30 MINUTES	20-47					
35 MINUTES	20-8'	73.99 USGPM				
40 MINUTES	21-22'	74.11 USGPM				
41 MINUTES						
42 MINUTES						
43 MINUTES						
44 MINUTES						
45MINUTES	21-72'	74.60 USGPM				
46 MINUTES						
47MINUTES						
48MINUTES		-				
49 MINUTES						
50MINUTES	22-72'	74.5 USGPM				
JOINTINO LES	6	THE STREET				
55 MINUTES	23-61'	74.33 USGPM				
60MINUTES -1 HOUR	24-41/2'	73.89 USGPM				
75 MINUTES	27-0'	72.11 USGPM				
90 MINUTES	32-44'	74.5 USGPM				
105MINUTES	34-98'	74.33 USGPM				
120 MINUTES – 2 HOURS	33-42'	72.8 USGPM				

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email: diamondp@vip.net

# **PUMP TEST RESULTS**

150 MINUTES	36-80'	72.0 USGPM
180MINUTES – 3 HOURS	38-8'	71.80 USGPM
210 MINUTES	41-6'	70.6 USGPM
240 MINUTES/4 HOURS	44-5'	69.92 USGPM
270 MINUTES	45-1'	69.87 USGPM
300 MINUTES/5 HOURS	47-15'	70.0USGPM
360 MINUTES/6 HOURS	49-3'	70.09 USGPM

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Okanagan Falls, BC V0H 1R0
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email: diamondp@vip.net

# **PUMP TEST RECOVERY RESULTS**

	Ontario Inc. Weell Tag # 34658	ESULIS
STATIC LEVEL: Artesian		
TEST DONE BY: Mike P		
DATE OF TEST: October	r 12,2011	
THE OF CHAPTER AND	CT LDT OF DECOMEDY, 4 00D.	
TIME OF START UP 9:00an	n START OF RECOVERY: 3:00P.M.	
		DEDENI TO WATER
	TIME FROM SHUTDOWN	DEPTH TO WATER
10 SECONDS	43'	
20 SECONDS	41-22'	9
30 SECONDS	39-6'	
40 SECONDS	39-52'	
1 MINUTE	37-76'	
2 MINUTES	34-5'	
4 MINUTES	30-45'	
6 MINUTES	28-0'	
8 MINUTES	26-9'	
10 MINUTES	25-2'	
15 MINUTES	22-45'	
20 MINUTES	20-7'	
25 MINUTES	19-1'	
30 MINUTES	17-55'	
40MINUTES	15-2'	7
50 MINUTES	13-91'	
55 MINUTES	13-71	
60 MINUTES / 1HOUR	12-55'	
75 MINUTES	12 00	
90 MINUTES		
105 MINUTES		
120 MINUTES / 2 HOURS		
150 MINUTES		
180 MINUTES / 3 HOURS		
210 MINUTES		
240 MINUTES / 4 HOURS		
270 MINUTES		
300 MINUTES / 5 HOURS		
330 MINUTES	ž	
360 MINUTES / 6 HOURS		
390 MINUTES		
420 MINUTES / 7 HOURS		
450 MINUTES		
480 MINUTES / 8 HOURS		
540 MINUTES / 9 HOURS		
720 MINUTES / 12 HOURS		
1440 MINUTES / 24 HOURS		
2880 MINUTES / 48 HOURS		
3600 MINUTES / 60 HOURS		
4320 MINUTES / 72 HOURS		
1220 141110 1120 / 12 110010		

#### **CERTIFICATE OF ANALYSIS**



CLIENT

Value Contracting

P.O. Box 256

Okanagan Falls BC

V0H 1R0

TEL

1-250-497-8284

FAX

1-250-497-6533

ATTENTION

REPORTED

COC #(s)

**Heather Pearce** 

RECEIVED / TEMP

Oct-13-11 13:30 / 6.0 °C

-13-11 13:30 / 6.0

Oct-19-11 COC No# **WORK ORDER** 

K1J0469

PROJECT INFO

Comprehensive Analysis

554498 Ontario Inc Well Tag#34658

#### **General Comments:**

CARO Analytical Services employs methods which are based on those found in "Standard Methods for the Examination of Water and Wastewater", 21st Edition, 2005, published by the American Public Health Association (APHA); US EPA protocols found in "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, SW846", 3rd Edition; protocols published by the British Columbia Ministry of Environment (BCMOE); and/or CCME Canada-wide Standard Reference methods.

Methods not described in these publications are conducted according to procedures accepted by appropriate regulatory agencies, and/or are done in accordance with recognized professional standards using accepted testing methodologies and quality control efforts except where otherwise agreed to by the client.

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirity.

CARO is not responsible for any loss or damage resulting directly or indirectly from error or omission in the conduct of testing. Liability is limited to the cost of analysis. Samples will be disposed of 30 days after the test report has been issued unless otherwise agreed to in writing.

· All solids results are reported on a dry weight basis unless otherwise noted

• Units:

mg/kg = milligrams per kilogram, equivalent to parts per million (ppm)

mq/L = milligrams per litre, equivalent to parts per million (ppm) ug/L = micrograms per litre, equivalent to parts per billion (ppb)

ug/g = micrograms per gram, equivalent to parts per million (ppm)

ug/m3 = micrograms per cubic meter of air

• "RDL"

Reported detection limit

• "<"

Less than reported detection limit

"AO"

Aesthetic objective

"MAC""LAB"

Maximum acceptable concentration (health-related guideline)
RMD = Richmond location, KEL = Kelowna location, EDM = Edmonton location, SUB = Subcontracted

Please contact CARO if more information is needed or to provide feedback on our services.

**CARO Analytical Services** 

Final Review Per:

Sarah Speier, B.Sc. For Jennifer Shanko, AScT

Administration Coordinator

CARO Analytical Services

#120 12791 Clarke Place Richmond, BC V6V 2H9 Tel: 604-279-1499 Fax: 604-279-1599 #102 3677 Highway 97N Kelowna, BC V1X 5C3

Tel: 250-765-9646 Fax: 250-765-3893

www.caro.ca

17225 109 Avenue Edmonton, AB T5S 1H7 Tel: 780-489-9100 Fax: 780-489-9700

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### **SAMPLE DATA**



CLIENT PROJECT Value Contracting Comprehensive Analysis WORK ORDER #
REPORTED

K130469 Oct-19-11

Analyte Result Canadian DW Guideline (Dec 10)	RDL Units	Prepared	Analyzed	Notes
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#### **General Parameters**

554498 Ontario Inc. Well Tag #34658	(K1J0469-01)	Matrix: Water	Sampled: Oc	t-12-11 15:30	)	
Alkalinity, Total as CaCO3	338		1.0	mg/L	Oct-14-11	Oct-14-11
Chloride	0.76	AO ≤ 250	0.10	mg/L	Oct-14-11	Oct-15-11
Colour, True	< 5	AO ≤ 15	5	Color Unit	Oct-14-11	Oct-19-11
Conductivity (EC)	691		2	uS/cm	Oct-14-11	Oct-14-11
Cyanide (total)	< 0.01	MAC = 0.2	0.01	mg/L	Oct-13-11	Oct-17-11
Fluoride	0.10	MAC = 1.5	0.10	mg/L	Oct-14-11	Oct-15-11
Hardness, Total (Total as CaCO3)	408		5.41	mg/L	Oct-16-11	Oct-17-11
Nitrogen, Nitrate as N	< 0.010	MAC = 10	0.010	mg/L	Oct-14-11	Oct-15-11
Nitrogen, Nitrite as N	< 0.01	MAC = 1	0.01	mg/L	Oct-14-11	Oct-15-11
pH	7.62	AO = 6.5 - 8.5	0.01	pH Units	Oct-14-11	Oct-14-11
Solids, Total Dissolved	455	AO ≤ 500	5	mg/L	Oct-19-11	Oct-19-11
Sulfate	89.1	AO ≤ 500	1.0	mg/L	Oct-14-11	Oct-15-11
Turbidity	1.1	Varies, See Guidelin	es 0.1	NTU	Oct-14-11	Oct-17-11
UV Transmittance @ 254nm	97.1		0.1	%	Oct-17-11	Oct-19-11

#### **Total Recoverable Metals by ICPMS**

554498 Ontario Inc. Well Tag #34658	(K1J0469-01)	Matrix: Water	Sampled: Oc	t-12-11 15:30		
Aluminum	< 0.050	AO ≤ 0.1	0.050		Oct-16-11	Oct-17-11
Antimony	< 0.0010	MAC = 0.006	0.0010	mg/L	Oct-16-11	Oct-17-11
Arsenic	< 0.0050	MAC = 0.01	0.0050	mg/L	Oct-16-11	Oct-17-11
Barium	< 0.050	MAC = 1	0.050	mg/L	Oct-16-11	Oct-17-11
Beryllium	< 0.0010		0.0010	mg/L	Oct-16-11	Oct-17-11
Boron	< 0.040	MAC = 5	0.040	mg/L	Oct-16-11	Oct-17-11
Cadmium	0.00034	MAC = 0.005	0.00010	mg/L	Oct-16-11	Oct-17-11
Calcium	134		2.0	mg/L	Oct-16-11	Oct-17-11
Chromium	< 0.0050	MAC = 0.05	0.0050	mg/L	Oct-16-11	Oct-17-11
Cobalt	< 0.00050		0.00050	mg/L	Oct-16-11	Oct-17-11
Copper	< 0.0020	AO ≤ 1	0.0020	mg/L	Oct-16-11	Oct-17-11
Iron	0.16	AO ≤ 0.3	0.10	mg/L	Oct-16-11	Oct-17-11
Lead	< 0.0010	MAC = 0.01	0.0010	mg/L	Oct-16-11	Oct-17-11
Magnesium	18.2		0.10	mg/L	Oct-16-11	Oct-17-11
Manganese	0.0291	AO ≤ 0.05	0.0020	mg/L	Oct-16-11	Oct-17-11
Mercury	< 0.00020	MAC = 0.001	0.00020	mg/L	Oct-16-11	Oct-17-11
Molybdenum	0.0088		0.0010	mg/L	Oct-16-11	Oct-17-11
Nickel	< 0.0020		0.0020	mg/L	Oct-16-11	Oct-17-11
Phosphorus	< 0.20		0.20	mg/L	Oct-16-11	Oct-17-11
Potassium	1.79		0.20	mg/L	Oct-16-11	Oct-17-11
Selenium	< 0.0050	MAC = 0.01	0.0050	mg/L	Oct-16-11	Oct-17-11
Silicon	8.8		5.0	mg/L	Oct-16-11	Oct-17-11
Silver	< 0.00050		0.00050	mg/L	Oct-16-11	Oct-17-11
Sodium	8.43	AO ≤ 200	0.20	mg/L	Oct-16-11	Oct-17-11
Uranium	0.00693	MAC = 0.02	0.00020	mg/L	Oct-16-11	Oct-17-11
Vanadium	< 0.010		0.010	mg/L	Oct-16-11	Oct-17-11
Zinc	< 0.040	AO ≤ 5	0.040	mg/L	Oct-16-11	Oct-17-11

### SAMPLE DATA



CLIENT PROJECT Value Contracting

WORK ORDER #

K130469

Comprehensive Analysis

REPORTED

Oct-19-11

Analyte	Result	Canadian DW Guideline	RDL	Units	Prepared	Analyzed	Notes
		(Dec 10)					

### **Microbiological Parameters**

554498 Ontario Inc. Well Tag #34658	(V110460 01)	Matrix: Water	Sampled: Oct-12-11 15:30
554498 Ontario Inc. Well Tag #34658	(K1J0469-U1)	matrix: water	Sampled: Oct-12-11 15:50

554498 Untario Inc. Well Tay #54050	(TTO-COTOS-OT)	Placia, water	bumpicui oct == -			
Coliforms, Total	< 1	MAC < 1	1 CFU/10	00mL Oct-13-11	Oct-14-11	
Background Colonies	> 200		200 CFU/10	00mL Oct-13-11	Oct-14-11	
E. coli	< 1	MAC < 1	1 CFU/10	00mL Oct-13-11	Oct-14-11	

## ANALYSIS / REPORT INFORMATION



CLIENT PROJECT Value Contracting Comprehensive Analysis WORK ORDER #
REPORTED

K1J0469 Oct-19-11

Analysis Description	Method Reference(s) (*	LAB	
	Preparation	Analysis	
Alkalinity, total	N/A	APHA 2320 B *	KEL
Chloride by IC	N/A	APHA 4110 B	KEL
True Colour	N/A	APHA 2120 B	KEL
Conductivity-Water	N/A	APHA 2510 B	KEL
Cyanide, Total	APHA 4500-CN C	APHA 4500-CN E	KEL
Fluoride by IC	N/A	APHA 4110 B	KEL
Nitrate by IC	N/A	APHA 4110 B	KEL
Nitrite by IC	N/A	APHA 4110 B	KEL
pH	N/A	APHA 4500-H+ B	KEL
Total Dissolved Solids (180C)- CALC.	N/A	APHA 2540 C	KEL
Sulfate by IC	N/A	APHA 4110 B	KEL
UV Transmittance at 254nm	N/A	APHA 5910 B	KEL
Turbidity	N/A	APHA 2130 B	KFL
Total Coliforms (Membrane Filtration)	NA	APHA 9222 *	KEL
E. coli (MF)	NA	APHA 9222 *	KEL
Total Recoverable Metals by ICPMS	EPA 200.2 *	EPA 6020A	RMI