



Water Well Drilling Report

The data contained in this report is supplied by the Driller. The province declines responsibility for its accuracy. All information on this report will be retained in a public database.

Company Name: **PETER NIEMANS WATER WELL DRILLING** Approval No.: **00183497**

Mailing Address: **Box 5024** City or Town: **HIGH RIVER** Postal Code: **T1V1M3**

Well Owner's Name: **1291617 AB. LTD.** Well Owner has a copy of this report: Yes No

Mailing Address: **Box 44 Site II** City or Town: **DE WINTON** Postal Code: **T0L0X0**

Type of Work: Testhole New Well Reconstructed Deepened

Well ID (if applicable): _____ Date Completed: Yr Mo Day

Casing or liner removed (specify): _____

Plugging Material: Cement High Solids Bentonite Hydrated Bentonite

Method of Drilling: Auger Boring Cable tool Rotary Combination Backhoe Other:

Proposed well use: Household (up to 1250 m³ per year with a residence on the property) Other Specify:

1/4 or 1/80 Sec. Type Row Year/Month NW 31 13 25 4

Test Date: 08 11 08 Start Time: Nov. 3 2008 Test Method: Pump - 3.2 GPM

Are measurements in metric or imperial: Metric

Non pumping static water level: 6.15 M

Rate of water removal: 18 GPM w/pump

Depth of pump intake if pump tested: 40 M.

Depth to water level if tested from: 145' @ 3.2 GPM

Water level at end of water removal period: 9.36 M

Distance from top of casing to ground level: 0.72 M.

Measurements taken from: T.O.C.

Pumping	Elapsed Time		Recovery
	minutes	minutes	
6.15 M	0	9.36 M	
7.10	1	7.98	
7.95	2	7.43	
8.12	3	7.20	
8.27	4	7.06	
8.36	5	6.96	
8.44	6	6.90	
8.49	7	6.84	
8.55	8	6.80	
8.59	9	6.76	
8.62	10	6.72	
8.69	12	6.68	
8.74	14	6.63	
8.78	16	6.59	
8.84	20	6.54	
8.89	25	6.50	
8.94	30	6.47	
8.99	35	6.44	
9.02	40	6.41	
9.07	50	6.36	
9.12	60	6.32	
9.21	75	6.27	
9.29	90	6.23	
9.34	105	6.20	
9.36	120	6.18 M	

Depth from ground level	Lithology Description	metres / feet
16	BRN. SANDY CLAY & ROCKS & SAND STRINGERS	
37	SAND W/ GRAVEL SEAMS	
84	GRAY SHALE	
107	SHALE LEDGES	
139	SANDSTONE WET	
145	GRAY SH.	

Date Started: 08 11 08 Date Completed: 08 11 08

Are measurements in metric or imperial: Metric

Casing Details:

Diameter of borehole	Surface Seal	Casing	Liner/inner casing
		6"	5 5/8"
Casing type		STEEL	PVC
Size OD		6 5/8"	4 1/4"
Well thickness		.220"	.237"
Bottom at		39'	14.5'
Top at		+2.35'	2.5'

Annular Sealant	From	To
<input type="checkbox"/> Cement		
<input type="checkbox"/> Bentonite		
<input checked="" type="checkbox"/> Driven	DRIVE SHOES	0
<input type="checkbox"/> Shale Trap		

Production Interval Details:

Perforations: from: 110 to: 140

Perforation size: 7/16" X 7"

Perforated by: Saw Torch Machine Other:

Screen type: _____ Size OD: _____

Intervals: from: _____ to: _____ slot size: _____

Installations: Attached to casing Telescoped

Fittings: Top Packer Coupler Bottom Wash-down Ball Plug

Pack: Artificial/Mechanical Natural

Grain size: _____ Amount: _____

Contractor Certification: Driller's Name: DOUG NIEMANS Certification No.: 70092A

This well was constructed in accordance with the Water (Ministerial) Regulation of the Water Act. All information in this report is true.

YIELD TESTS
1) Nov. 3/08, OPEN FLOW, w/RIG AIR @ 3.2 GPM, 1 HR.
2) Nov. 5/08, RESTRICTED, w/ PUMP @ 18 GPM, 2 HRS.

GPS N 50.08.011 W 113.24.709

Water Used to Drill Well: NW 21-18-28W4

Location of Water Source: _____

Water Diversion Date: 08 10 08 Time: 10 am/pm

Amount Water Taken: 100 Ltrs/Imp. Gallons

GPS Co-ordinates (Decimal Degrees): Latitude: _____ Longitude: _____ GPS Elevation: _____

Level of GPS Accuracy: Diff. Corr. Hand Held 5-10m Surveyed GPS <1m Hand Held Auto 20-30m

Geophysical Log taken: Electric Gamma

Did you encounter: Mineralized water more than 4000 ppm TDS Gas At what depth: _____

Remedial action taken: _____

Additional Comments: _____



3851B - 21 Street N.E.
 Calgary, Alberta
 Canada T2E8T5
 Ph: (403) 250-9164
 Fax: (403) 291-4597
 Website: www.wshlabs.com

Peter Niemans Drilling
 Box 5024
 High River, AB T1V 1M3

Phone: (403) 652-7211
 Fax: (403) 652-4271
 Email:

Lab Number: 61837
 PO Number:

Attention:		Sampled By:	M.N.
Client ID:	1291617 AB Ltd. ✓	Date Sampled:	11/15/2008
Location:	New Well North Lot	Date Received:	11/6/2008
Legal:	NW-31-13-25-W4	Date Reported:	11/13/2008

Analyte	Units	Result	Canadian Drinking Water Guideline Maximum
Calcium	mg/L	3.5	No Guideline
Iron	mg/L	0.99	0.3
Magnesium	mg/L	1.5	No Guideline
Manganese	mg/L	0.01	0.05
Potassium	mg/L	1.1	No Guideline
Sodium	mg/L	201	200
Bicarbonates	mg/L	281	No Guideline
Bromides	mg/L	0.2	No Guideline
Carbonates	mg/L	21	No Guideline
Chlorides	mg/L	29.1	250
Fluorides	mg/L	1.86	1.5
Nitrates as N	mg/L	< 0.02	10
Nitrites as N	mg/L	< 0.02	1
NO ₃ + NO ₂ as N	mg/L	< 0.02	No Guideline
Sulfates	mg/L	125	500

} NO POLLUTION

Parameter	Units	Result	Canadian Drinking Water Guideline Maximum
Electrical Conductivity	µS/cm	618	No Guideline
pH	pH	8.88	6.5 - 8.5
Hardness (as CaCO ₃)	mg/L	15	No Guideline
Total Alkalinity (as CaCO ₃)	mg/L	281	No Guideline
P-Alkalinity (as CaCO ₃)	mg/L	11	No Guideline
Hydroxide (as CaCO ₃)	mg/L	0	No Guideline
Total Dissolved Solids	mg/L	532	500
Total Organic Carbon	mg/L	-	No Guideline
Sulfides as S	mg/L	-	0.05

SOFT.

Microbiology	Units	Result	Canadian Drinking Water Guideline Maximum
Total Coliform	CFU/100 mL	-	Zero
Escherichia Coliform	CFU/100 mL	-	Zero
Faecal Coliform	CFU/100 mL	-	Zero

Sum of Cations	9.07	TDS / EC Ratio	0.58
Sum of Anions	8.99	SAR	22.34
Ion Balance	1.01	Saturation Index	0.1

Certified By:

Accredited by CALA to ISO/IEC 17025 for specific tests.

SAR = Sodium Adsorption Ratio, TNTC = Too Numerous To Count (>200 colonies), < denotes less than detection limit

The results above are related only to the items analyzed. Total Dissolved Solids is determined by calculation.

Control No: WSH-SKW0801135-Rev1.2

POTABLE WATER