



North Carolina State Laboratory of Public Health  
Environmental Sciences  
Inorganic Chemistry  
Certificate of Analysis

P.O. Box 28047  
306 N. Wilmington St.  
Raleigh, NC 27611-8047  
<http://slph.state.nc.us>  
Phone: 919-733-7834  
Fax: 919-733-8695

Report To: **BRYAN McSWAIN**  
**HARNETT CO ENVIRONMENTAL HEALTH**

Name of System:  
**HARLOD JERNIGAN**

**307 CORNELIUS HARNETT BLVD**  
**LILLINGTON, NC 27546**

Courier # 14-73-01

**91 HELEN LN**  
**DUNN, NC 28334**

StarLiMS ID: **ES010710-0011001**  
Inorganic ID:

Date Collected: 01/06/10  
Date Received: 01/07/10

Time Collected: 2:00 PM  
Collected By: Bryan McSwain

Sample Type:  
Sample Source: New Well

Sampling Point: Spigot @ well  
Temp. at Receipt: 2.0

Well Permit #: 09-5-23241  
GPS #:

Sample Description:  
Comment:

**New Well (Profile)**

Analyte	Result	Allowable Limit	Unit	Qualifier(s)
Total Alkalinity	84		mg/L	
Arsenic	< 0.005	0.010	mg/L	
Copper	< 0.05	1.3	mg/L	
Lead	< 0.005	0.015	mg/L	
Manganese	0.23	0.05	mg/L	
Zinc	< 0.05	5.00	mg/L	
Barium	0.2	2.00	mg/L	
Cadmium	< 0.001	0.005	mg/L	
Chromium	< 0.01	0.10	mg/L	
Silver	< 0.05	0.10	mg/L	
Selenium	< 0.005	0.005	mg/L	
Iron	1.10	0.30	mg/L	
Mercury	< 0.0005	0.002	mg/L	
Fluoride	0.24	2.00	mg/L	
Nitrate	< 1.00	10.00	mg/L	
Nitrite	< 0.10	1.00	mg/L	
Chloride	< 5.00	250	mg/L	
Sulfate	9.20	250	mg/L	
pH	6.9		N/A	
Sodium	15.00		mg/L	
Calcium	9		mg/L	
Magnesium	7		mg/L	
Total Hardness	50		mg/L	

Report Date: 01/28/2010

Reported By: Debbie Moncol

## Explanations

### Coliform Analysis:

If coliform bacteria are Absent, the water is considered safe for drinking purposes. If coliform bacteria are Present, the water is considered unsafe for drinking purposes. Presence of E. coli (bacteria) generally indicates that the water has been contaminated with fecal material. It must be remembered that a water analysis refers only to the sample received and should not be regarded as a complete report on the water supply.

### Inorganic Analysis:

Recommended limits for drinking water. Sample should not exceed levels listed below.

Alkalinity	No established limits	Iron	0.30 mg/l
Arsenic	0.01 mg/l	Lead	0.015 mg/l
Calcium	No established limits	Magnesium	No established limits
Chloride	250 mg/l	Manganese	0.05 mg/l
Copper	1.3 mg/l	Nitrate	10 mg/l (as N)
Fluoride	4 mg/l	Nitrite	1.0 mg/l (as N)
Hardness	No established limits	pH	Not less than 6.5 units
		Zinc	5.0 mg/l

FEB - 2 2010

North Carolina Division of Public Health  
Occupational and Environmental Epidemiology Branch, Epidemiology Section  
**INORGANIC CHEMICAL ANALYSIS REPORT**  
Private well water information and recommendations

County: Harnett Name: Jernigan Sample Id Number: 11061  
Location: \_\_\_\_\_ Reviewer: KMK

**ANALYSIS REPORT**

Your well water was tested for 15 metals, plus nitrates, nitrites, and pH. The results were evaluated using the federal drinking water standards. The pH is a measure of the acidity of the water. Drinking water may contain substances that can occur naturally in water or can be introduced into the water from man-made sources. (These recommendations are based on inorganic chemical analysis only.)

**TEST RESULTS AND USE RECOMMENDATIONS**

\_\_\_\_\_ Your well water meets federal drinking water standards. Your water can be used for drinking, cooking, washing, cleaning, bathing, and showering.

\_\_\_\_\_ The following substance(s) exceeded federal drinking water standards. Your water can be used for drinking, cooking, washing, cleaning, bathing, and showering, but aesthetic problems such as bad taste, odor, staining of porcelain, etc. may occur. You may want to install a household water treatment system to address aesthetic problems.

Barium	Cadmium	Chromium	Fluoride	Iron	Magnesium
Manganese	Selenium	Silver	Sodium	Zinc	pH

✓ The following substance(s) exceeded federal drinking water standards: We recommend that your well water not be used for drinking or cooking, unless you install a water treatment system to remove the circled substance(s). However, it may be used for washing, cleaning, bathing, and showering.

Arsenic	Barium	Cadmium	Chromium	Copper	Fluoride	Lead	Iron	Magnesium
Manganese	Mercury	Nitrate/Nitrite	Selenium	Silver	Sodium	Zinc	pH	

\_\_\_\_\_ Re-sampling is recommended in \_\_\_\_\_ months.

\_\_\_\_\_ Re-sample for lead and /or copper. Take a first draw, 5 minute, and 15 minute sample inside the house (preferably the kitchen) and if possible a first draw, 5 minute and a 15 minute sample at the well head to determine the source of the lead and/or copper. Contact your local health department for re-sampling assistance.

**OTHER CONSIDERATIONS**

Routine well water sampling for the above substances is recommended every two to three years. Sample your well water when there is a known problem or contamination in your area, after repairs or replacement of your well, or after a flooding event. Contact your local health department for sampling instructions.

Contact your local health department for more information or go to <http://www.epi.state.nc/epi/oil/hsfactsheet.html>