

C1 6986

SEQUENCE NO. (MDE USE ONLY)

STATE OF MARYLAND WELL COMPLETION REPORT

FILL IN THIS FORM COMPLETELY PLEASE TYPE

THIS REPORT MUST BE SUBMITTED WITHIN 45 DAYS AFTER WELL IS COMPLETED.

COUNTY NUMBER A520414

(THIS NUMBER IS TO BE PUNCHED IN COLS. 3-6 ON ALL CARDS)

ST/CO USE ONLY DATE Received

DATE WELL COMPLETED

Depth of Well 220' (TO NEAREST FOOT)

PERMIT NO. FROM "PERMIT TO DRILL WELL" HO-95-0705

OWNER Winchester Homes Inc STREET OR RFD Open Run Rd TOWN Ellicott City MD SUBDIVISION Riverwood Phase 2 SECTION LOT 60

WELL LOG

Not required for driven wells

STATE THE KIND OF FORMATIONS PENETRATED, THEIR COLOR, DEPTH, THICKNESS AND IF WATER BEARING

DESCRIPTION (Use additional sheets if needed) FEET FROM TO check if water bearing

Sand Stone 0 79 Gray granite 79 220

GROUTING RECORD

WELL HAS BEEN GROUTED (Circle Appropriate Box) YES Y NO N

TYPE OF GROUTING MATERIAL (Circle one) CEMENT CM BENTONITE CLAY BC

NO. OF BAGS 22 NO. OF POUNDS 2088

GALLONS OF WATER 132

DEPTH OF GROUT SEAL (to nearest foot) from 0 ft. to 80 ft.

CASING RECORD

ST STEEL CO CONCRETE PL PLASTIC OT OTHER

MAIN CASING TYPE ST Nominal diameter top (main) casing (nearest inch) 6 Total depth of main casing (nearest foot) 83

OTHER CASING (if used) diameter inch 4 1/2 depth (feet) from 20 to 220

SCREEN RECORD

ST STEEL BR BRASS BRONZE PL PLASTIC HO OPEN HOLE OT OTHER

DEPTH (nearest ft.)

81 220

DIAMETER OF SCREEN (NEAREST INCH) from 56 to 60

GRAVEL PACK IF WELL DRILLED WAS FLOWING WELL INSERT F IN BOX 68

MDE USE ONLY (NOT TO BE FILLED IN BY DRILLER) T (E.R.O.S.) W Q

TELESCOPE CASING LOG INDICATOR OTHER DATA

C3

PUMPING TEST

HOURS PUMPED (nearest hour) 3

PUMPING RATE (gal. per min.) 6

METHOD USED TO MEASURE PUMPING RATE Bucket

WATER LEVEL (distance from land surface)

BEFORE PUMPING 38 ft.

WHEN PUMPING 97 ft.

TYPE OF PUMP USED (for test)

A air P piston T turbine C centrifugal R rotary O other (describe below) J jet S submersible

PUMP INSTALLED

DRILLER INSTALLED PUMP (CIRCLE) (YES or NO) YES NO

IF DRILLER INSTALLS PUMP, THIS SECTION MUST BE COMPLETED FOR ALL WELLS.

TYPE OF PUMP INSTALLED PLACE (A,C,J,P,R,S,T,O) IN BOX 29

CAPACITY: GALLONS PER MINUTE (to nearest gallon) 31 35

PUMP HORSE POWER 37 41

PUMP COLUMN LENGTH (nearest ft.) 43 47

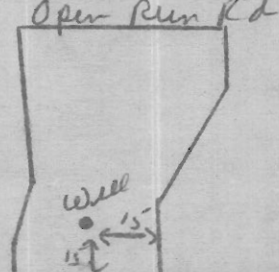
CASING HEIGHT (circle appropriate box and enter casing height)

above 49 LAND SURFACE

below 2 (nearest foot) 49 50 51

LOCATION OF WELL ON LOT

SHOW PERMANENT STRUCTURE SUCH AS BUILDING, SEPTIC TANKS, AND /OR LANDMARKS AND INDICATE NOT LESS THAN TWO DISTANCES (MEASUREMENTS TO WELL)



NUMBER OF UNSUCCESSFUL WELLS: 0

WELL HYDROFRACTURED YES Y NO N

A A WELL WAS ABANDONED AND SEALED WHEN THIS WELL WAS COMPLETED E ELECTRIC LOG OBTAINED P TEST WELL CONVERTED TO PRODUCTION WELL

I HEREBY CERTIFY THAT THIS WELL HAS BEEN CONSTRUCTED IN ACCORDANCE WITH COMAR 26.04.04 "WELL CONSTRUCTION" AND IN CONFORMANCE WITH ALL CONDITIONS STATED IN THE ABOVE CAPTIONED PERMIT, AND THAT THE INFORMATION PRESENTED HEREIN IS ACCURATE AND COMPLETE TO THE BEST OF MY KNOWLEDGE.

DRILLERS LIC. NO. 1 M S D O 2 4 DRILLERS SIGNATURE (MUST MATCH SIGNATURE ON APPLICATION)

LIC. NO. 1 D

SITE SUPERVISOR (sign. of driller or journeyman responsible for sitework if different from permittee)

B 1 9870
1 2 3 6

SEQUENCE NO.
(MDE USE ONLY)

STATE OF MARYLAND
APPLICATION FOR PERMIT TO DRILL WELL

STATE PERMIT NUMBER

525693 please type

HO-95-0705
fill in this form completely 79

Date Received (APA)

2/1/07
8 MM DD YY 13

OWNER INFORMATION

15 Winchester Homes Inc. Owner First Name 34
36 6905 Rockledge Dr Suite 800 Street or RFD 55
57 Bethesda md 20817 Town 70 State 72 Zip 76

B 3

LOCATION OF WELL

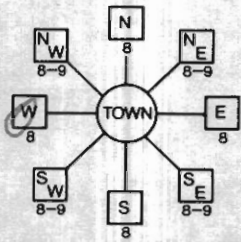
8 Howard COUNTY 21
23 RIVERSWOOD Phase 2 SUBDIVISION 42
SECTION 44 46 LOT 60 48 50
52 Ellinott City NEAREST TOWN 71
MILES FROM TOWN (enter 0 if in town) 5 M I 73 76 77 78

DRILLER INFORMATION

Driller's Name Joseph L Maize M 5 D 024 76 License No. 81
Firm Name Joseph L Maize Well Drilling
Address 5512 Ridge Rd Mt. Airy Md 21774
Signature Joseph L Maize 1-30-07 Date

B 4

1 2
DIRECTION OF WELL FROM TOWN (CIRCLE BOX)



11 Open Run Rd NEAR WHAT ROAD 30

ON WHICH SIDE OF ROAD (CIRCLE APPROPRIATE BOX)

34 300 37 DISTANCE FROM ROAD ENTER FT OR MI 38 39
NORTH
WEST 32 EAST
SOUTH

TAX MAP: 29 BLK: 4 PARCEL 20

B 2

WELL INFORMATION

APPROX. PUMPING RATE (GAL. PER MIN.) 5 8 12
AVERAGE DAILY QUANTITY NEEDED (GAL. PER DAY) 500 14 20

USE FOR WATER (CIRCLE APPROPRIATE BOX)

- DOMESTIC POTABLE SUPPLY & RESIDENTIAL IRRIGATION
- FARMING (LIVESTOCK WATERING & AGRICULTURAL IRRIGATION)
- INDUSTRIAL, COMMERCIAL, DEWATERING
- PUBLIC WATER SUPPLY WELL
- TEST, OBSERVATION, MONITORING
- GEO-THERMAL

NOT TO BE FILLED IN BY DRILLER
HEALTH DEPARTMENT APPROVAL

Howard 13 A520414 COUNTY NAME COUNTY NO.
STATE SIGNATURE INSERT S 41
DATE ISSUED 2/13/07
43 MM DD YY 48 CO SIGNATURE Kevin Valf 2/13/08 EXP. DATE
NORTH GRID 515 000 EAST GRID 0828 000
50 55 57 63

APPROXIMATE DEPTH OF WELL 300 FEET 24 28

APPROXIMATE DIAMETER OF WELL 6 INCH NEAREST INCH

METHOD OF DRILLING (circle one)

BORED (or Augered) JETTED Jetted & DRIVEN
30 AIR-ROTary AIR-PERCussion ROTARY (Hydraulic Rotary)
37 CABLE REVerse-ROTary DRive-POINT
other

REPLACEMENT OR DEEPEINED WELLS
(CIRCLE APPROPRIATE BOX)

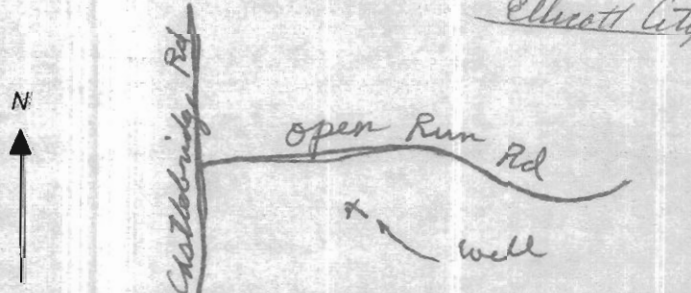
- THIS WELL WILL NOT REPLACE AN EXISTING WELL
 - THIS WELL WILL REPLACE A WELL THAT WILL BE ABANDONED AND SEALED
 - THIS WELL WILL REPLACE A WELL THAT WILL BE USED AS A STANDBY-CONTACT LOCAL APPROVING AUTHORITY FOR POLICY ON STANDBY WELLS
 - THIS WELL WILL DEEPEIN AN EXISTING WELL
- PERMIT NUMBER OF WELL TO BE REPLACED OR DEEPEINED: (IF AVAILABLE) 41 52

SHOW MAJOR FEATURES OF BOX & LOCATE WELL WITH AN X

- SOURCES OF DRILLING WATER
- Well
 -
 -

WRITE THE BOX NUMBER FROM THE MAP HERE
E 8268
N 5155

DRAW A SKETCH BELOW SHOWING LOCATION OF WELL IN RELATION TO NEARBY TOWNS AND ROADS AND GIVE DISTANCE FROM WELL TO NEAREST ROAD JUNCTION



6/27/07
Water Sample for Radium testing collected during yield.

Not to be filled in by driller (MDE OR COUNTY USE ONLY)

APPROP. PERMIT NUMBER HO 3094G007
PERMIT No. HO-95-0705
70 71 72 73 74 75 76 77 78 79

SPECIAL CONDITIONS

NOTE: APPROVING AUTHORITY THIS SHOULD USE SEPARATE SHEET IF NEEDED. NEED RADIUM SAMPLE

**HOWARD COUNTY HEALTH DEPARTMENT
BUREAU OF ENVIRONMENTAL HEALTH
WATER AND SEWERAGE PROGRAM
TEL: (410)313-2640 FAX: (410)313-2648**

Information Form for the Installation of the Well Pump, Pitless Adapter, and Supply Piping

NOTE: The installer is responsible for requesting an inspection prior to 9 am on the day of the desired inspection. No work is to be covered until approved by the Health Department. All installations must comply with the National Standard Plumbing Code (NSPC, as amended locally) and COMAR 26.04.04 (MD Well Construction Regulations). Submission of a complete form is required prior to Use and Occupancy approval.

Company Name: NATIONAL WATER SVC Telephone #: 301-854-1333
Address: P.O. Box 138
ASHTON, MD 20841

(Must circle one) Licensed Plumber Licensed Well Driller **Licensed Well Pump Installer**
License # and name of individual responsible for the field installation:
Name (Print): DAVID RYCKE License# PI 045

*A licensed individual must perform the actual installation. Apprentices must be under the direct supervision of a licensed journeyman or master plumber, pump installer or well driller. Licenses may be subjected to field verification.

Name of Property Owner: WINCHESTER HOMES Telephone #: 301-808-4174
Subdivision: RIVERWOOD Lot #: 60 Well Tag #: HO-95-0705
Site Address: 12053 OPEN RUN RD
ELLICOTT CITY MD

Submersible Pump Data	Pitless Adapter	Well Cap and Electric Conduit
Make: <u>GRUND FOS</u>	Make: <u>CAMPBELL</u>	Two piece watertight cap: <input checked="" type="checkbox"/>
Model #: <u>15396</u>	Model#: <u>PA 800</u>	Screened, vented well cap: <input checked="" type="checkbox"/>
Pump Capacity: <u>15</u> GPM	Depth: <u>48'</u> (36" min)	Cap secured to casing: <input checked="" type="checkbox"/>
Well Yield: <u>6</u> GPM	NSF approved: <u>YES</u>	Conduit min 18" B.G.: <input checked="" type="checkbox"/>
Depth of well encountered at time of pump installation: <u>220</u> (feet)		Conduit secured to well cap: <input checked="" type="checkbox"/>

If pump capacity exceeds well yield, a low water cut off switch is required by NSPC 1990 Section 17.8.4
Torque arrestors or Cable guards are required - Must circle one CPS
Safety rope, if used, attached to inside of well casing with eye bolt N/A

Piping to house	House Connection
Type: <u>Poly</u>	PVC sleeved to undisturbed soil at wall penetration: <u>YES</u>
PSI: <u>1100</u> (160 psi min)	Approximate length of sleeve: <u>5'</u>
Depth of supply line: <u>4'</u> (36" min)	Sleeve caulked and sealed properly: <u>YES</u>

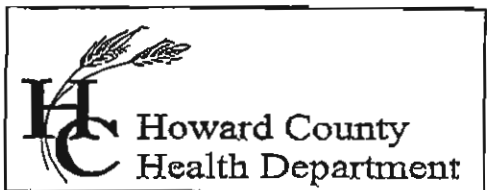
The water supply line is required to be at least ten feet from the septic tank, pump chamber, sewage piping, distribution box, drainfields, and sewage reserve area. If this cannot be accomplished, contact this office for approval prior to installation.

Signature of company representative responsible for installation _____ date 9-17-12

For Health Department Use Only - Not to be completed by Installer

Date Insp. Requested: _____ Date Insp. Approved: 9-17-12 *(Signature)*

Inspection Data: Pitless adapter and water supply line at least 36" below grade
Two piece cap installed and attached to casing securely
Elec. conduit extends at least 18" below grade/attached to cap properly
Safety rope installed inside of well casing
Correct well tag attached properly and casing 8" above finished grade
Water supply line sleeved adequately at house connection
Adequate grout observed below pitless adapter



7178 Columbia Gateway Drive, Columbia, MD 21046
 (410) 313-2640 Fax (410) 313-2648
 TDD (410) 313-2323 Toll Free 1-866-313-6300
 website: www.hchealth.org

Penny E. Borenstein, M.D., M.P.H., Health Officer

TO ALL INTERESTED PARTIES

When submitting a well permit application for a proposed well for new construction, please indicate one of the following:

Well Site Location:

Riverwood Phase II 43-77 Castlebridge Rd, Hunters View Road
 Subdivision/Property Name Lot# Road Name
OPEN RUN ROAD & Whithorn Way

The well site has been staked by Benchmark Eng,
 (professional land surveyor or company employing professional land surveyors)
 on _____ (date) and does not require a site inspection.

all lots will be staked by 12/29/06

The well driller, builder or property owner will call the Health Department to schedule a time to meet in the field to verify the proposed well site location.

This sheet, along with two copies of an acceptable well site plan, must be attached to the green well permit application.

Revised 3/11/05

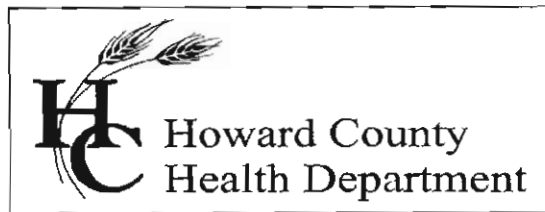
Contact is:

Easterday

301-829-1440

2006 DE 18 PM 2:32

ENVIRONMENTAL HEALTH



Bureau of Environmental Health
7178 Columbia Gateway Drive, Columbia, MD 21046-2147
Main: 410-313-6300 | Fax: 410-313-6303
TDD 410-313-2323 | Toll Free 1-866-313-6300
www.hchealth.org
Facebook: www.facebook.com/hocohealth
Twitter: HowardCoHealthDep

Maura J. Rossman, M.D., Acting Health Officer

INTERIM CERTIFICATE OF POTABILITY

Expiration Date – June 3, 2013

December 3, 2012

Homeowner
12053 Open Run Road
Ellicott City, MD 21042

RE: Riverwood II, Lot 60
12053 Open Run Road
Building Permit: B12002677
Well Permit: HO-95-0705

Dear Homeowner:

This is to advise you that the septic system installation and water well construction for the above referenced property have been inspected and approved. Final approval of the septic system was granted on **11/29/2012**. Final approval of the well line connection to the dwelling was granted on **9/17/2012**. The well construction was completed on **6/27/2007**. Water samples were collected on **11/26/2012**.

The water sample results indicate that the water samples submitted for testing were free of coliform and fecal coliform bacteria at the time of sampling and are bacteriologically safe for drinking.

Gross Alpha and Beta samples were also collected on **8/24/2007**. Results showed a Gross Alpha level of **3.0 ± 1.0 pCi/L** and **Gross Beta** level of **4.0 ± 2.0 pCi/L**. The Gross Alpha was below the maximum contaminant level (MCL) of 15 pCi/L and the Gross Beta was below the target level of 50pCi/L (roughly equivalent to the annual dose rate of 4 millirems per year). At the time of testing and with respect to these parameters, the well water is safe for all uses.

This certifies that the initial sampling requirements of COMAR 26.04.04 "Well Regulations" have been met for the water supply system installed under well permit HO-95-0705. Although the submitted sample results are in compliance with COMAR standards, the Health Department does not guarantee water supplies.

This Interim Certificate of Potability will expire **six months** from the date of issuance. Submission of a second bacteriological test indicating the water is free of coliform and fecal coliform bacteria is required prior to the expiration date, after which time a Final Certificate of Potability will be issued. **Failure to submit an additional sample and obtain a Final Certificate of Potability will result in a Notice of Violation and is punishable as a misdemeanor under the Annotated Code of Maryland, Environment Article, 9-1311, subject to a fine of up to \$500 or imprisonment not to exceed three months.**

Please contact (410) 313-1773 to schedule a final water sample appointment or contact a certified water quality laboratory to schedule a water sample. A list of laboratories certified by the state of Maryland may be found at the following website:

<http://www.mde.state.md.us/assets/document/WSP-Labs-2010apr16.pdf>

Approving Authority,

A handwritten signature in black ink, appearing to read "Heidi Scott". The signature is fluid and cursive, with a large initial "H" and "S".

Heidi Scott, R.S.
Environmental Sanitarian
Well & Septic Program

cc: Howard County Dept. of Inspections, Licenses, and Permits
Community Hygiene Program
File

FOUNTAIN VALLEY ANALYTICAL LABORATORY, INC.

1413 Old Taneytown Rd. Westminster, MD (410) 848-1014 (410) 876-4554 FAX (410) 848-0298

REPORT OF ANALYSIS

Laboratory ID #: 87176 Account #: 3123
 Reference: Riverwood Lot 60 Company: National Water Servicing
 Location: 12053 Open Run Road Requested By: Dave Rycko
 Ellicott City, MD 21042 Source: Well Water
 Date/Time Collected: 11/26/2012 1400 Site: Pressure Tank
 Date/Time Rec'd: 11/26/2012 1525 Treatment: Prior to Neutralizer/Softener/Sed. Filter
 Chlorine ppm: Free: ND Total: ND pH: 5.9
 Collected By: C. Mooshian 7268CM Well #: HO-95-0715

PARAMETERS	RESULTS	UNITS	REFERENCE	METHOD	DATE/TIME/ANALYST
Bacteria, Coliform, Total, MPN	<1.0	MPN/100 ml	<1.0	SM18 9223	11/27/2012 / 0930 / BCD
Bacteria, E. coli, MPN	<1.0	MPN/100 ml	<1.0	SM18 9223	11/27/2012 / 0930 / BCD
Nitrate	8.30	mg/L	10	601	11/27/2012 / 0815 / CCH
Turbidity	9.04	NTU	<10	SM18 2130B	11/27/2012 / 0820 / JKW
Sand	NS	mg/L	5	Visual/Gravimetric	11/27/2012 / 0821 / JKW

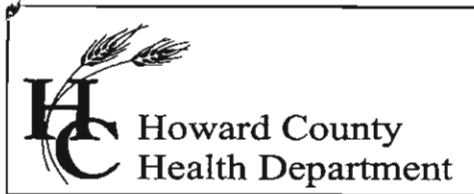
'OK' ref. 11/30/12

NOTES

- 1 mg/L = milligrams per liter (also, parts per million)
- 2 MPN/100 ml = Most Probable Number [of viable bacteria] per 100 ml of sample.
- 3 NS = None Seen (NS indicates less than 5 mg/L)
- 4 NTU = Nephelometric Turbidity Units
- 5 Results less than or within the reference range are considered satisfactory and within potable water limits at the time of sampling.
- 6 ND: None Detected
- 7 Visual well check: Sealed, vented cap
- 8 pH and Chlorine level tested on site

Reason for Test: Use & Occupancy
 Building Permit #: 12006677

Date Reported: 11/27/2012



Bureau of Environmental Health
7178 Columbia Gateway Drive, Columbia, MD 21046
(410) 313-2640 Fax (410) 313-2648
TDD (410) 313-2323 Toll Free 1-866-313-6300
website: www.hchealth.org

Peter L. Beilenson, M.D., M.P.H., Health Officer

August 24, 2007

Winchester of Howard County
6905 Rockledge Dr.
Suite 800
Bethesda, MD 20817

RE: Riverwood Subdivison, Lot# 60
Well Tag: HO-95-0705

To Whom It May Concern:

A sample was collected from a yield test on June 27, 2007 and submitted to Department of Health and Mental Hygiene Laboratories to assess the possible presence of **Gross Alpha** and **Gross Beta** in the future well water supply. **Gross Alpha** and **Gross Beta** measure the total alpha and beta particle activity in a water supply. In turn, this can provide information regarding naturally occurring radiation (i.e., Radionuclides) that may exist in your area of development within the County.

Results from this screening revealed a **Gross Alpha** of 3.0 ± 1.0 picocuries/liter (pCi/L); while the **Gross Beta** level was 4.0 ± 2.0 pCi/L. The **Gross Alpha** result was below its **maximum contaminant level (MCL)** of 15 pCi/L, while the **Gross Beta** level was below its target value of 50 pCi/L (roughly equivalent to the **annual dose rate** of 4 millirems/year).

At the time of testing and with respect to these parameters, the future well water supply appears safe for all uses. No additional testing for these parameters will be required to secure the future Use & Occupancy. However, other standard (potability) testing will still be necessary.

A copy of the test results is enclosed for your information. Please call this office at 410-313-1773 if you have any further questions.

Sincerely,

Bert Nixon, Deputy Director
Bureau of Environmental Health

cc: Eric Dougherty, MDE Water Mgmt., Groundwater
✓ Well & Septic File

Send Report To:

Bert Nixon

State of Maryland

DHMH - Laboratories Administration

Division of Environmental Chemistry

RADIATION LABORATORY

201 W. Preston Street, Baltimore, Maryland 21201

John M. DeBoy, Dr. P.H., Director

LABORATORY ANALYSIS REQUEST

R60BB950705

Sample Bottle No. A: _____ No. B: _____ Field Blank Bottle No. A: _____ No. B: _____

Plant/Site Name: Riverwood - Lot 60 County: Howard

Sample Source: Open Run Road Location: HO-95-0705
(well no., lab sink, sample tap, etc.)

County: Plant No.

CHECK (one per box)

Drinking Water	<input checked="" type="checkbox"/>
Landfill	<input type="checkbox"/>
Stream	<input type="checkbox"/>
Other	<input type="checkbox"/>

Community	<input type="checkbox"/>
Non-community	<input type="checkbox"/>
Private	<input checked="" type="checkbox"/>
Other	<input type="checkbox"/>

Source (raw water)	<input checked="" type="checkbox"/>
Distribution (treated)	<input type="checkbox"/>
MCL	<input type="checkbox"/>

Emergency	<input checked="" type="checkbox"/>
Routine	<input checked="" type="checkbox"/>
Recheck	<input type="checkbox"/>
Special	<input type="checkbox"/>

Collector: Brian Baker

Telephone No: (410) 313-2643

Date Collected: 6/27/07

Time Collected: 10:30 a.m. _____ p.m.

Nitric Acid Preserved: Yes No

Iced: Yes No

Submitters Code: Federal Project: Field Data: _____

Remarks: Sample Collected During Yield Test ^{pH} ^{Chlorine}

✓	Test	EPA Code	Laboratory No.	Results (pCi/L)	Date Reported
✓	Gross Alpha	4000			
✓	Gross Beta	4100			
	Radon-222 Bottle A	4004			
	Radon-222 Bottle B	4004			
	Field Blank A	4004			
	Field Blank B	4004			
	Tritium				
	Ra - 226	4020			
	Ra - 228	4030			
	Total Uranium	4006			

Date Received: _____ / _____ / _____

Supervisor: _____

