

C1 3753

SEQUENCE NO. (MDE USE ONLY)

STATE OF MARYLAND WELL COMPLETION REPORT

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

COUNTY NUMBER

1 2 3 6 (THIS NUMBER IS TO BE PUNCHED IN COLS. 3-6 ON ALL CARDS)

ST/CO USE ONLY DATE Received MM DD YY

DATE WELL COMPLETED MM DD YY 4/14/06

Depth of Well 22 600 26 (TO NEAREST FOOT)

PERMIT NO. FROM "PERMIT TO DRILL WELL" HO-95-0319

OWNER J T S CORPORATION last name first name STREET OR RFD Clarksville Pike (Md 10R) TOWN Clarksville SUBDIVISION Macheth Farm SECTION LOT 13

WELL LOG

Not required for driven wells

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

Table with columns: DESCRIPTION (Use additional sheets if needed), FEET (FROM, TO), check if water bearing. Rows include Top Soil, Brown mica, Sandy, Brown mica, Grey mica, Brown Mica, Green mica w/ quartz, Sandstone, Grey mica w/ quartz.

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 29 NO. OF POUNDS 2700 GALLONS OF WATER 174 DEPTH OF GROUT SEAL (to nearest foot) from 48 TOP 52 ft. to 54 BOTTOM 58 ft. (enter 0 if from surface) 40

CASING RECORD

casing types insert appropriate code below [ST] [CO] [PL] [OT] MAIN CASING TYPE Nominal diameter top (main) casing (nearest inch)! Total depth of main casing (nearest foot) 55 60 61 63 64 66 100 70

OTHER CASING (if used)

diameter inch depth (feet) from to

SCREEN RECORD

screen type or open hole insert appropriate code below [ST] [BR] [HO] [PL] [OT] STEEL BRASS BRONZE PLASTIC OPEN HOLE OTHER

C 2

DEPTH (nearest ft.)

1 2 11 99 600 21 23 24 26 30 32 36 38 39 41 45 47 51 SLOT SIZE 1 2 3 DIAMETER OF SCREEN (NEAREST INCH) 56 60 from to

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

70 72 74 75 76 TELESCOPE CASING LOG INDICATOR OTHER DATA

C 3

PUMPING TEST

HOURS PUMPED (nearest hour) 6 PUMPING RATE (gal. per min.) 2 METHOD USED TO MEASURE PUMPING RATE Bucket WATER LEVEL (distance from land surface) BEFORE PUMPING 27 ft. WHEN PUMPING 223 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 [X] 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) [X] above } LAND SURFACE [ ] below } 2 (nearest foot)

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)



DRILLERS LIC. NO. MW D 640 DRILLERS SIGNATURE (MUST MATCH SIGNATURE ON APPLICATION) LIC. NO. AWD 788 SITE SUPERVISOR (sign. of driller or journeyman responsible for sitework if different from permittee)

B 1 0746

SEQUENCE NO. (MDE USE ONLY)

STATE OF MARYLAND APPLICATION FOR PERMIT TO DRILL WELL

STATE PERMIT NUMBER

10-95-0319 fill in this form completely

524124 please type

Date Received (APA)

02 24 06

OWNER INFORMATION 10168

8 MM DD YY 13

J T S Corporation

15 Last Name Owner First Name 34

8808 Centre Park Drive S209

36 Street or RFD 55

Columbia, Md 21045

57 Town 70 State 72 Zip 76

DRILLER INFORMATION

George F. Easterday

M W D 040

Driller's Name 76 License No. 81

L. Franklin Easterday, Inc.

Firm Name

9265 Brown Church Rd., MT. Airy, Md. 21771

Address

Signature George F. Easterday Date 2/23/2006

B 3

LOCATION OF WELL

Howard

CO# 21

8 COUNTY

Macbeth Farm

23 SUBDIVISION 42

SECTION 44 46 LOT 13 48 50

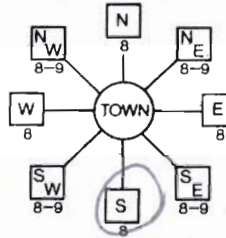
Clarksville

52 NEAREST TOWN 71

MILES FROM TOWN (enter 0 if in town) 1 MI 73 76 77 78

B 4

1 2 DIRECTION OF WELL FROM TOWN (CIRCLE BOX)



Clarksville Pike (Md 108)

11 NEAR WHAT ROAD 30

ON WHICH SIDE OF ROAD (CIRCLE APPROPRIATE BOX)



34 500+ 37 DISTANCE FROM ROAD Ft. ENTER FT OR MI 38 39

TAX MAP: 34 BLK: 24 PARCEL 90

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)

- [D] DOMESTIC POTABLE SUPPLY & RESIDENTIAL IRRIGATION
[F] FARMING (LIVESTOCK WATERING & AGRICULTURAL IRRIGATION)
[I] INDUSTRIAL, COMMERCIAL, DEWATERING
[P] PUBLIC WATER SUPPLY WELL
[T] TEST, OBSERVATION, MONITORING
[G] GEO-THERMAL

NOT TO BE FILLED IN BY DRILLER HEALTH DEPARTMENT APPROVAL

Howard COUNTY NAME COUNTY NO.

STATE SIGNATURE INSERT S

DATE ISSUED 3/23/06 CO SIGNATURE EXP. DATE 3/23/09

43 MM DD YY 46 NORTH GRID 494 0 0 0 EAST GRID 817 0 0 0 50 55 57 63

APPROXIMATE DEPTH OF WELL 300 FEET

APPROXIMATE DIAMETER OF WELL 6 NEAREST INCH

METHOD OF DRILLING (circle one)

BORED (or Augered) JETTED Jetted & DRIVEN
AIR-ROTary AIR-PERCussion ROTARY (Hydraulic Rotary)
CABLE REVERSE-ROTary DRIVE-POINT
other

REPLACEMENT OR DEEPEMED WELLS (CIRCLE APPROPRIATE BOX)

- [N] THIS WELL WILL NOT REPLACE AN EXISTING WELL
[Y] THIS WELL WILL REPLACE A WELL THAT WILL BE ABANDONED AND SEALED
[S] THIS WELL WILL REPLACE A WELL THAT WILL BE USED AS A STANDBY-CONTACT LOCAL APPROVING AUTHORITY FOR POLICY ON STANDBY WELLS
[D] THIS WELL WILL DEEPEM AN EXISTING WELL

PERMIT NUMBER OF WELL TO BE REPLACED OR DEEPEMED (IF AVAILABLE) 41

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

APPROX. PERMIT NUMBER 710 2004 G 00 B
PERMIT No. 10-95-0319

SHOW MAJOR FEATURES OF BOX & LOCATE WELL WITH AN X

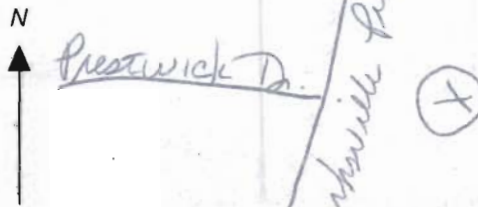
SOURCES OF DRILLING WATER

- 1. wells
2.
3.

WRITE THE BOX NUMBER FROM THE MAP HERE

810 490 4

DRAW A SKETCH BELOW SHOWING LOCATION OF WELL IN RELATION TO NEARBY TOWNS AND ROADS AND GIVE DISTANCE FROM WELL TO NEAREST ROAD JUNCTION 14 E 10



SPECIAL CONDITIONS

NOTE - APPROVING AUTHORITIES SHOULD USE SEPARATE SHEET IF NEEDED -

4-17-06

8:30

FIELD DATA SHEET  
 HOWARD COUNTY WELL YIELD TEST

Well Permit No. HO - 95-0319  
 Location of property (road) ROUTE 108, CHARLKVILLE PIKE  
 Subdivision MACBETH FARM Lot 13 Block \_\_\_\_\_ Plat \_\_\_\_\_ Sec. \_\_\_\_\_  
 Well Driller EASTERDAY Owner JTS Corp

Depth of well 600 2gpm  
 Distance of measuring point (M.P.) above ground 2.5ft  
 Static water level (S.W.L.) below M.P. 27ft

I. High rate pumping -- reservoir drawdown

Time pump started 9:15 Pumping rate 15gpm  
 Total time 30min to reach pumping water level 223 ft. below M.P.

II. Recovery pump test data - observations to be recorded every 15 minutes

TIME (in 15 minute intervals)	WATER LEVEL below M.P.	PUMPING RATE time to fill 1 gallon bucket	FLOW-METER READING (if used) Pump set 380	CALCULATED FLOW (gallons per minute)
9:45	223	30sec		2gpm
10:00	223	30sec		2gpm
10:15	223	30sec		2gpm
10:30	223	30sec		2gpm
10:45	223	31sec		2gpm
11:00	223	30sec		2gpm
11:15	223	30sec		2gpm
11:30	223	30sec		2gpm
11:45	223	30sec		2gpm
12:00	223	30sec		2gpm
12:15	223	30sec		2gpm
12:30	223	30sec		2gpm
12:45	223	30sec		2gpm
1:00	223	30sec		2gpm
1:15	223	30sec		2gpm
1:30	223	30sec		2gpm
1:45	223	30sec		2gpm
2:00	223	30sec		2gpm
2:15	223	30sec		2gpm
2:30	223	30sec		2gpm
2:45	223	30sec		2gpm
3:00	223	31sec		2gpm
3:15	223	30sec		2gpm
3:30	223	30sec		2gpm
HD-224 3:45	223	30sec		2gpm

Pump set 380  
 9:15  
 3:45

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: Robert L. Feezer Co. Inc Telephone #: 410-781-4655
Address: 6321 Barnhart Ave, Sykesville, MD

(Must circle one) Licensed Plumber Licensed Well Driller Licensed Well Pump Installer
License # and name of individual responsible for the field installation:
Name (Print): Robert L. Feezer License# 2122

\*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: N.V. Hornes Telephone #: 410-379-5956
Subdivision: CLARKSVILLE OVERLOOK Lot #: 13 Well Tag #: HO-95-0319
Site Address: 12864 MACPETH FARM LN CLARKSVILLE, MD 21029

Submersible Pump Data Pitless Adapter Well Cap and Electric Conduit
Make: STA-RITE Make: Campbell
Model #: SSP4HS15 (add) Model #: PT 800
Pump Capacity 5 GPM Depth: 42" (36" min)
Well Yield: 2 GPM NSF approved:
Depth of well encountered at time of pump installation: 600 (feet)
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
Safety rope, if used, attached to inside of well casing with eye bolt

Piping to house House Connection
Type: Poly PVC sleeved to undisturbed soil at wall penetration:
PSI: 200 (160 psi min) Approximate length of sleeve: 10'
Depth of supply line: 42 (36" min) Sleeve caulked and sealed properly:

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: Robert L. Feezer date: 12/17/07

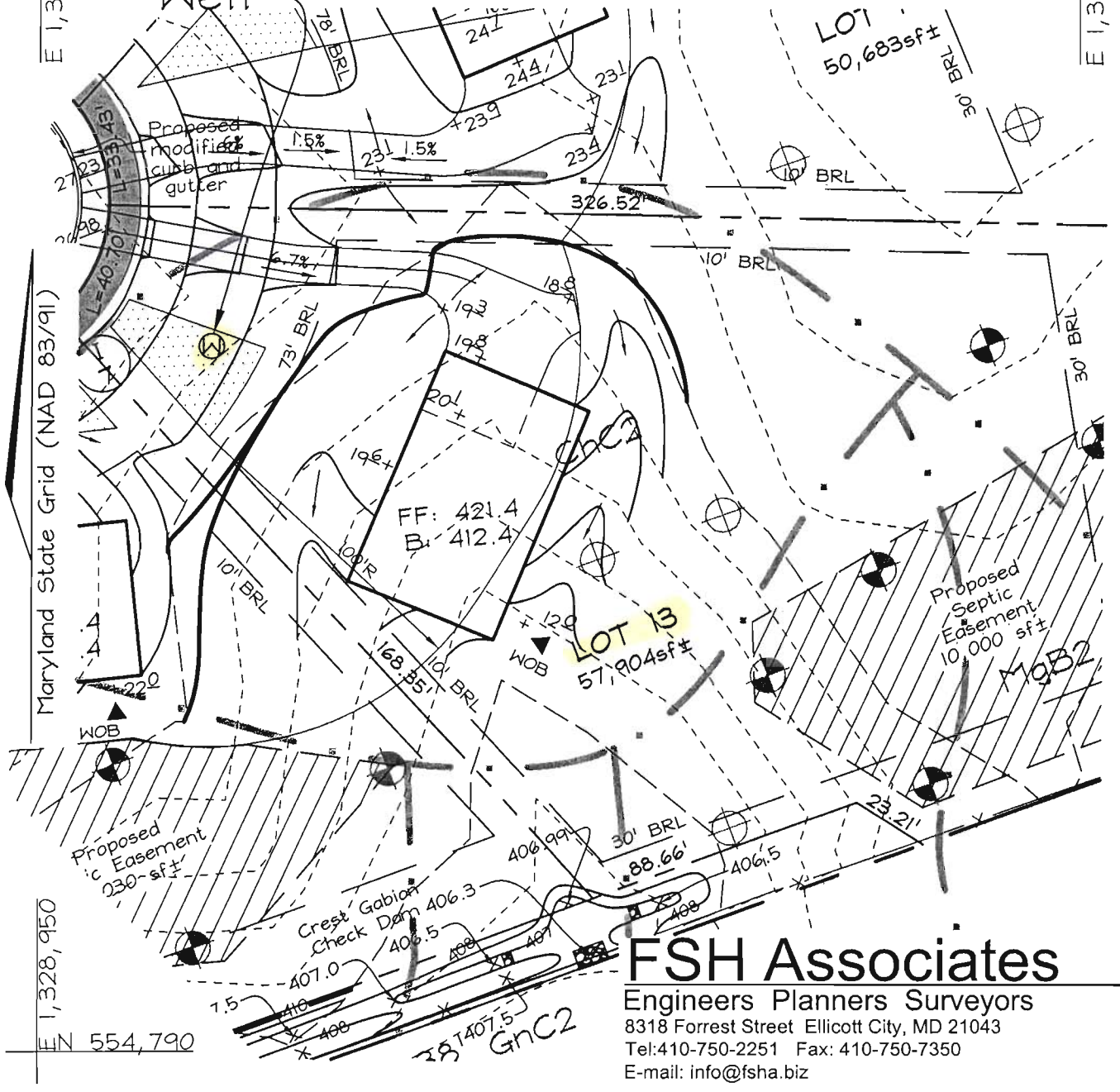
For Health Department Use Only - Not to be completed by Installer

Date Insp. Requested: 10/25/07 Date Insp. Approved: 10/30/07 (KW)
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

3/23/06 w40 side OK @

N 555,160 E 1,328,950Z E 1,329,280

Note:  
The proposed well shown on this plan will be staked out in the field by FSH Associates, Professional Surveyor prior to well drilling.



# FSH Associates

Engineers Planners Surveyors  
8318 Forrest Street Ellicott City, MD 21043  
Tel: 410-750-2251 Fax: 410-750-7350  
E-mail: info@fsha.biz

DESIGN BY: PS  
DRAWN BY: CD  
CHECKED BY: ZYF  
SCALE: 1"=50'  
DATE: Feb. 9, 2006  
W.O. No.: 3165  
SHEET No.: 13 OF 35

## WELL PERMIT PLAN MACBETH FARM

LOT 13

TAX MAP 34 GRID 18 & 24  
4TH ELECTION DISTRICT

PARCEL 90  
HOWARD COUNTY, MARYLAND



Bureau of Environmental Health  
7178 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](http://www.hchealth.org)

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

January 9, 2008

NV Homes, Inc.  
6085 Marshalee Drive, Suite 130  
Elkridge, MD 21075

SENT VIA FACSIMILE 410-379-0631

RE: Clarksville Overlook, Lot 13  
12864 Macbeth Farm Lane  
Clarksville, MD 21029  
BP #: B07003182  
Well Permit # HO-95-0319

Dear Sir:

This is to advise you that the septic system for the above referenced property has been installed and inspected. **Final approval of the septic system was granted on 12/13/2007. Final approval of the well line connection to the dwelling was approved on 10/30/2007.**

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. The water sample results were found to be in compliance with COMAR water quality standards.

Also, Gross Alpha and Beta sample was collected on 04/17/2006. The Gross Alpha result exceeded its maximum contaminant level (MCL) of 15 pCi/L, while the Gross Beta level was below its targeted value of 50 pCi/L. In order to meet compliance, a water treatment device (Neutralizer) was installed. In addition, pre treatment Radium 226/228 samples were collected on 12/05/2007 without treatment. Results exceeded the 5.0 pCi/L. On 12/03/2007 the radium 225/228 was sampled post treatment and findings were below the combined 226/228 MCL of 5pCi/l. No additional testing **for these parameters** will be required to secure the future Use and Occupancy.

**However, this treatment system must be properly operated and maintained continuously in accordance with the service contract for the life of the residence to assure future compliance.**

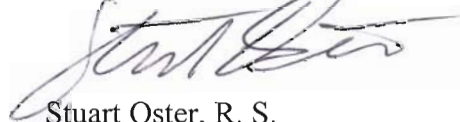
## INTERIM CERTIFICATE OF POTABILITY

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-95-0319. Although the submitted sample results are in compliance with COMAR standards, the Health Department does not guarantee water supplies. Based upon satisfactory investigation and evaluation, the Howard County Health Department as authorized by the Maryland Department of the Environment accepts this well system as required by COMAR 26.04.04.

This certificate may become final upon completion of the second bacteriological test, which is to be taken by the county health department within six months of receipt of this letter. **Please contact (410) 313-1773 to schedule a final water sample appointment. Currently, there is no charge for this final sampling.**

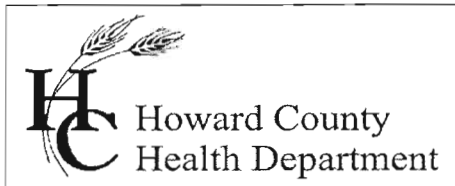
Dates of Water Sample:	12/03/2007
Date of Samples for Gross Alpha and Gross Beta:	04/17/2007
Dates of Samples for Radium	12/03/2007 & 12/05/2007
Date of Well Completion:	04/14/2006

Approving Authority



Stuart Oster, R. S.  
Well & Septic Program

cc: Building Inspector's Office  
Community Health Services  
File



Bureau of Environmental Health  
7178 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

December 19, 2007

NV Homes  
6085 Marshalee Drive, Suite 130  
Elkridge, MD 21075

SENT VIA FACSIMILE 410-379-0631

RE: Clarksville Overlook, Lot 13  
12864 Macbeth Farm Lane  
Clarksville, MD 21029  
BP #: B07003182  
Well Permit # HO-95-0319

Dear Sir:

This is to advise you that the septic system for the above referenced property has been installed and inspected. **Final approval of the septic system was granted on 12/13/2007.** **Final approval of the well line connection to the dwelling was approved on 10/30/2007.**

Testing was performed on April 17, 1006, and samples submitted to Florida Radiochemistry Services to assess the possible presence of **Gross Alpha** and **Gross Beta** in the future well water supply. Results from this screening revealed a **Gross Alpha** of **16.8 ± 3.1 picocuries/liter (pCi/L)**; while the **Gross Beta** level was **15.4 ± 2.4 pCi/L**. The **Gross Alpha** result exceeded its maximum contaminant level (MCL) of **15 pCi/L**, while the **Gross Beta** level was below its MCL of **50 pCi/L**. **Gross Alpha** and **Gross Beta** were tested again on December 5, 2007, after a neutralizer was installed. With treatment the **Gross Alpha** was **3.3 ± 0.9 pCi/L**; while the **Gross Beta** level was **2.5 ± 0.8 pCi/L**.

### TEMPORARY DEVIATION

This is a **Temporary Deviation** to allow time for additional testing of radium 226/ 228 and uranium as required by this office.

The water sample results indicate that the water sample submitted for testing were free of coliform and fecal coliform bacteria and are bacteriologically safe for drinking. Sand, nitrates and turbidity levels were also acceptable. The water sample results were found to be in compliance with COMAR water quality standards.

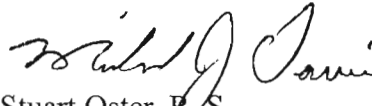
This certifies that the initial sampling requirements of COMAR 26.04.04 "Well Regulations" have been met for the water supply system installed under well permit #HO-95-0319. Although the submitted sample results are in compliance with COMAR standards, the Health Department does not guarantee water supplies. Based upon satisfactory investigation and evaluation, the Howard County Health Department as authorized by the Maryland Department of the Environment accepts this well system as required by COMAR 26.04.04.

Date of Water Samples: 12/03/2007

**PENDING RESULTS OF TESTING FOR RADIUM 226 AND 228 AND URANIUM**

Date of Well Completion: 04/14/2006

Approving Authority,



Stuart Oster, R.S.

Well & Septic Program

cc: Building Inspector's Office  
Community Health Services  
File

## CERTIFICATE OF ANALYSIS



**Trace Laboratories, Inc.  
Maryland**

5 North Park Drive  
Hunt Valley, MD 21030  
Telephone: 410/252-7742  
Telephone: 410/584-9099  
Fax: 410/584-9117  
Email: [tracelab@connect.net](mailto:tracelab@connect.net)  
[www.tracelabs.com](http://www.tracelabs.com)

Maryland State Certified  
Water Quality Laboratory  
No. 318

**ISO 9001:2000**



Cert No. C2005-01504

**Requester:**  
NV Homes, Inc  
Attn: Buddy  
6085 Marshalee Drive Suite 130  
Elkridge, Maryland 21075

**S/O Number:** 66331  
**Report Date:** December 4, 2007

**Property Sampled:** 12864 Macbeth Farm Road

**County:** Howard  
**Subdivision:** Clarksville Overlook **Tax Map #:** 34  
**Lot #:** 13 **Parcel #:** 90  
**Building Permit #:** 07003182

**Date/Time Collected:** December 3, 2007 at 11:41 am  
**Date/Time Received:** December 3, 2007 at 3:00 pm

**Sample Location:** Pressure Tank Tap  
**Sampler ID:** 5745KC  
**Samples Iced:** Yes  
**Residual Cl<sub>2</sub> <0.1 mg/L:** Yes

**Well Tag Number:** HO-95-0319  
**Well Condition:** 2-Piece Cap  
Satisfactory

**Water Conditioning/Treatment:** Neutralizer, Softener

PARAMETER	RESULT	METHOD	MCL/*SMCL	
Nitrate	5.3 mg/L as N	SM 4500D	10 mg/L as N	Pass
Turbidity	1.4 NTU	EPA 180.1	10 NTU	Pass
pH	6.8 Units	EPA 150.1	*6.5-8.5 Units	***
Sand	Negative		Negative	
Total Coliform	Absent	SM 9223B	Absent	Pass
E.coli	Absent	SM 9223B	Absent	Pass

*Allison R. Milburn*  
Allison R. Milburn  
Manager- Drinking Water Testing

MCL=Maximum Contamination Level

\*SMCL=Secondary Maximum Contamination Level

\*\*\*A non-enforceable parameter that may cause cosmetic effects or aesthetic effects (such as taste, color or odor) in drinking water.

**CERTIFICATE OF ANALYSIS**

**Requester:**  
 NV Homes, Inc  
 Attn: Buddy  
 6085 Marshalee Drive Suite 130  
 Elkridge, Maryland 21075

**S/O Number:** 66371  
**Report Date:** December 17, 2007



**Trace Laboratories, Inc.  
 Maryland**

5 North Park Drive  
 Hunt Valley, MD 21030  
 Telephone: 410/252-7742  
 Telephone: 410/584-9099  
 Fax: 410/584-9117  
 Email: tracelab@connext.net  
 www.tracelabs.com

Maryland State Certified  
 Water Quality Laboratory  
 No. 318

ISO 9001:2000



Registered Firm



PERRY JOHNSON  
 REGISTRARS, INC.

Cert No. C2005-01504

**Property Sampled:** 12864 Macbeth Farm Road, Radium, Treated

**County:** Howard  
**Subdivision:** Clarksville Overlook **Tax Map #:** 34  
**Lot #:** 13 **Parcel #:** 90  
**Building Permit #:** 07003182

**Date/Time Collected:** December 5, 2007 at 11:19 am  
**Date/Time Received:** December 5, 2007 at 12:58 pm

**Sample Location:** Test Valve After Treatment  
**Sampler ID:** 9813AM  
**Samples Iced:** Yes  
**Residual Cl<sub>2</sub> <0.1 mg/L:** Yes

**Well Tag Number:** HO-95-0319  
**Well Condition:** 2-Piece Cap  
 Satisfactory

**Water Conditioning/Treatment:** Neutralizer, Softener

PARAMETER	RESULT	METHOD	DETECTION LIMIT
Gross Alpha	3.3 +/- 0.9 pCi/L	EPA 900.0	1.0 pCi/L
Gross Beta	2.5 +/- 0.8 pCi/L	EPA 900.0	1.2 pCi/L

*Allison R. Milburn*  
 Allison R. Milburn  
 Manager-Drinking Water Testing

**CERTIFICATE OF ANALYSIS**

**Requester:**  
 NV Homes, Inc  
 Attn: Buddy  
 6085 Marshalee Drive Suite 130  
 Elkridge, Maryland 21075

**S/O Number:** 66331  
**Report Date:** December 27, 2007



**Trace Laboratories, Inc.**  
**Maryland**

5 North Park Drive  
 Hunt Valley, MD 21030  
 Telephone: 410/252-7742  
 Telephone: 410/584-9099  
 Fax: 410/584-9117  
 Email: [tracelab@connect.net](mailto:tracelab@connect.net)  
[www.tracelabs.com](http://www.tracelabs.com)

Maryland State Certified  
 Water Quality Laboratory  
 No. 318

ISO 9001:2000



FERRY JOHNSON  
 REGISTRARS, INC.  
 Cert No. C2005-01504

**Property Sampled:** 12864 Macbeth Farm Road

**County:** Howard  
**Subdivision:** Clarksville Overlook **Tax Map #:** 34  
**Lot #:** 13 **Parcel #:** 90  
**Building Permit #:** 07003182

**Date/Time Collected:** December 3, 2007 at 11:41 am  
**Date/Time Received:** December 3, 2007 at 3:00 pm

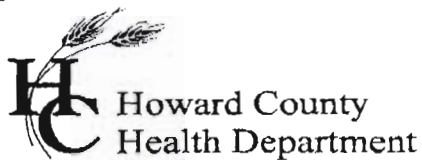
**Sample Location:** Pressure Tank Tap  
**Sampler ID:** 5745KC  
**Samples Iced:** Yes  
**Residual Cl<sub>2</sub> <0.1 mg/L:** Yes

**Well Tag Number:** HO-95-0319  
**Well Condition:** 2-Piece Cap  
 Satisfactory

**Water Conditioning/Treatment:** Neutralizer, Softener

PARAMETER	RESULT	METHOD	DETECTION LIMIT
Radium 226	0.3 +/- 0.2 pCi/L	EPA 903.1	0.2 pCi/L
Radium 228	1.0 +/- 0.6 pCi/L	EPA Ra-05	0.9 pCi/L
Uranium	<0.8 +/- 0.5 pCi/L	EPA 908.0	0.8 pCi/L

*Allison R. Milburn*  
 Allison R. Milburn  
 Manager-Drinking Water Testing



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

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

May 24, 2006

JTS Corporation  
5300 Dorsey hall Drive  
Suite 200  
Ellicott City, Maryland 21042

RE: MacBeth Farm Lot 13  
Well Tag: HO-95-0319

To Whom It May Concern:

A sample was collected from a yield test on April 17, 2006 and submitted to Florida Radiochemistry Services 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. These naturally occurring radioactive nuclides have been demonstrated to be present in a certain type of geologic formation known as the Baltimore Gneiss which exists in your area of development within the County.

Results from this screening revealed a Gross Alpha of  $16.8 \pm 3.1$  picocuries/liter (pCi/L); while the Gross Beta level was  $15.4 \pm 2.4$  pCi/L. The Gross Alpha result exceeded its maximum contaminant level (MCL) of 15 pCi/L, while the Gross Beta level was below its MCL of 50 pCi/L.

Since the Gross Alpha finding exceeded its MCL, additional testing for Radium will be necessary prior to occupancy to verify existing levels. Alternatively, you may install treatment designed to reduce Gross Alpha, Gross Beta and Radium, plus provide post treated results confirming that levels are in conformance with existing standards. These tests are in addition to the standard parameters required for Use & Occupancy.

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 or to discuss additional testing requirements.

Sincerely,

Bert Nixon, Deputy Director  
Bureau of Environmental Health

cc: Eric Dougherty, MDE Water Mgmt., Groundwater  
Well & Septic property file



Send Report To:

State of Maryland  
DHMH - Laboratories Ad  
Division of Environmental  
**RADIATION LABO**

MacBeth Farm  
JTS Corporation Suite 209  
8808 Centre Park Dr. Columbia, MD 21045

201 W. Preston Street, Baltimore, Maryland 21201  
John M. DeBoy, Dr. P.H., Director

### LABORATORY ANALYSIS REQUEST

HOGCMBF13417

Sample Bottle No. A: \_\_\_\_\_ No. B: \_\_\_\_\_ Field Blank Bottle No. A: \_\_\_\_\_ No. B: \_\_\_\_\_

Plant/Site Name: MACBETH FARMS LOT 13 County: HOWARD

Sample Source: Well Location: 4095-0319  
(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 type="checkbox"/>
Routine	<input checked="" type="checkbox"/>
Recheck	<input checked="" type="checkbox"/>
Special	<input checked="" type="checkbox"/>

Collector: GAC Telephone No: \_\_\_\_\_

Date Collected: 4/17/06 Time Collected: 10 a.m. \_\_\_\_\_ p.m.

Nitric Acid Preserved: Yes  No  Iced: Yes  No

Submitters Code:   Federal Project:  Field Data: \_\_\_\_\_

pH \_\_\_\_\_ Chlorine \_\_\_\_\_

Remarks: \_\_\_\_\_

✓	Test	EPA Code	Laboratory No.	Results (pCi/L)	Date Reported
✓	Gross Alpha	4000	0604135-09	16.8 ± 3.1	4/20/06
✓	Gross Beta	4100		15.4 ± 2.4	
	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: \_\_\_\_\_



Florida Radiochemistry Services, Inc.

Analysis Report

Lab Sample I.D.	0804135-06	0804135-07	0604135-08	██████████	0804135-10
Client I.D.	HW-206-17	HW-658-17	HOGCMBF16417	██████████	HC7191
Gross Alpha	2.1	1.5	21.0	██████████	9.7
Error +/-	1.3	1.5	3.4	██████████	2.6
MDL	1.2	1.9	1.0	4.3	1.6
EPA Method	900.0	900.0	900.0	██████████	900.0
Prep Date	04/18/06	04/18/06	04/18/06	██████████	04/18/06
Analysis Date	04/19/06	04/19/06	04/19/06	██████████	04/19/06
Analyst	MJN	MJN	MJN	██████████	MJN
Gross Beta	5.2	3.9	13.2	██████████	6.4
Error +/-	1.9	1.8	2.3	██████████	1.8
MDL	2.8	2.6	2.7	██████████	2.4
EPA Method	900.0	900.0	900.0	██████████	900.0
Prep Date	04/18/06	04/18/06	04/18/06	██████████	04/18/06
Analysis Date	04/19/06	04/19/06	04/19/06	██████████	04/19/06
Analyst	MJN	MJN	MJN	██████████	MJN
Units	pCi/l	pCi/l	pCi/l	pCi/l	pCi/l

**AGREEMENT FOR APPROVAL OF AN INDIVIDUAL DRINKING WELL  
WITH AN ON-SITE TREATMENT SYSTEM**

This agreement is entered into by and between the Howard County Health Department ("the Health Department") and Scott + Katherine Erickson ("the Owner").

WHEREAS, the Owner owns a tract of land at street address 12804 MacBeth Farm Lane, \_\_\_\_\_ and the deed and subdivision plat of the property is recorded among the Land Records of Howard County, Maryland, Tax Map # \_\_\_\_\_, Block # \_\_\_\_\_, Parcel # \_\_\_\_\_, Deed Reference # \_\_\_\_\_ and Tax Account # \_\_\_\_\_ ("the Property").

WHEREAS, the Property lacks an available public drinking water source and is required to have an individual well as the source of drinking water for the residence of the property.

WHEREAS, the Owner has installed a residential drinking well under well permit \_\_\_\_\_ that has been tested by the Health Department (or a private laboratory certified to perform testing) for radionuclide particles. The results of the tests have shown that the gross alpha particle content and/or the gross beta particle content and/or the combined radium 226/228 levels exceeds the standards of 15 picocuries per liter (pCi /L), 4 millirems per year (mrem/yr) and/or 5pCi/L respectively.

WHEREAS, The Maryland Department of the Environment (MDE) has promulgated rules and regulations under which a Certificate of Potability may be issued and has delegated the authority to issue such Certificate to the Health Department.

WHEREAS, MDE regulations permit the Health Department to issue as a special condition, a permanent deviation to the Certificate of Potability for individual wells where treatment has been installed to meet the maximum contaminate levels (MCL's) for radionuclides.

WHEREAS, MDE has determined that radium can be effectively removed from the drinking water by the use of treatment devices (e.g., ion exchange or reverse osmosis).

WHEREAS, the Owner is requesting that the Health Department issue a Certificate of Potability contingent upon installation and maintenance of a water treatment device to reduce radionuclides.

WHEREAS, neither the Owner nor the Health Department has knowledge of an alternative safe source of water for the Property.

NOW THEREFORE, the parties have agreed to the following terms and conditions:

1. The Health Department will record this Agreement among the Land Records of Howard County, Maryland.
2. The Owner agrees to install and maintain a water treatment device, which effectively reduces the gross alpha, gross beta and radium levels to below their respective MCL. The Health Department shall verify that the treatment device is operating effectively and the Owner agrees to allow access to the Health Department to collect a follow-up sample(s).
3. The Health Department shall issue a Certificate of Potability for the well once follow-up sampling shows acceptable gross alpha, gross beta and radium levels.
4. The Owner agrees that there shall be no liability on part of the Health Department for any immediate or long term impacts to health or property, under any circumstance or including, but not limited to, treatment device failure, improper maintenance or installation, or defect. The Health Department does not warrant nor guarantee that the device will adequately or properly function and the Owner agrees to implement and pay for any necessary changes or corrections.
5. The Owner acknowledges and agrees that neither the Health Department nor any of its agents or employees, either officially or individually, underwrites the operation of any system or treatment device.
6. This Agreement shall not be construed to limit any authority of the Health Department to protect the public health, safety or enjoyment of property or to issue any other orders to take any other action, which is now or may hereafter be within its authority.
7. This agreement contains the entire agreement and understanding between the Health Department and the Owner. There are no additional terms other than as contained in this Agreement. This Agreement may not be modified except in writing signed by each of the parties or their authorized representatives.
8. The Agreement shall run with the land and binds the Owner, his heirs, successors, and assigns. The owner agrees to provide a copy of this agreement to any purchaser or lessee of the property.
9. The laws of the State of Maryland govern the provisions of all transactions.

The parties have signed and sealed this Agreement on the dates set forth below.

6/24/07

Date

6/24/07

Date

Date

[Signature]

Owner

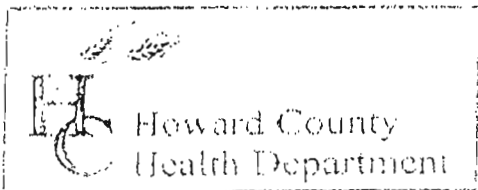
K. Erickson

Owner

Howard County Health Department

DELIVERED BY NV HOMES, TOTTI HERBERT 10/15/07

99-111 912007



3525 H Ellicott Mills Drive, Ellicott City, MD 21043  
 (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:

- The well site has been staked by F.S.H. ASSOCIATES,  
 (professional land surveyor or company employing professional land surveyors)  
 on 2-20-06 (date) and does not require a site inspection.
- 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 6/10/03

JTS CORPORATION

LOTS 1-35 MACBETH FARM