IREDELL COUNTY HEALTH DEPARTMENT

Statesville Office – Central Permitting (704) 878-5305 Mooresville Office (704) 660-3625

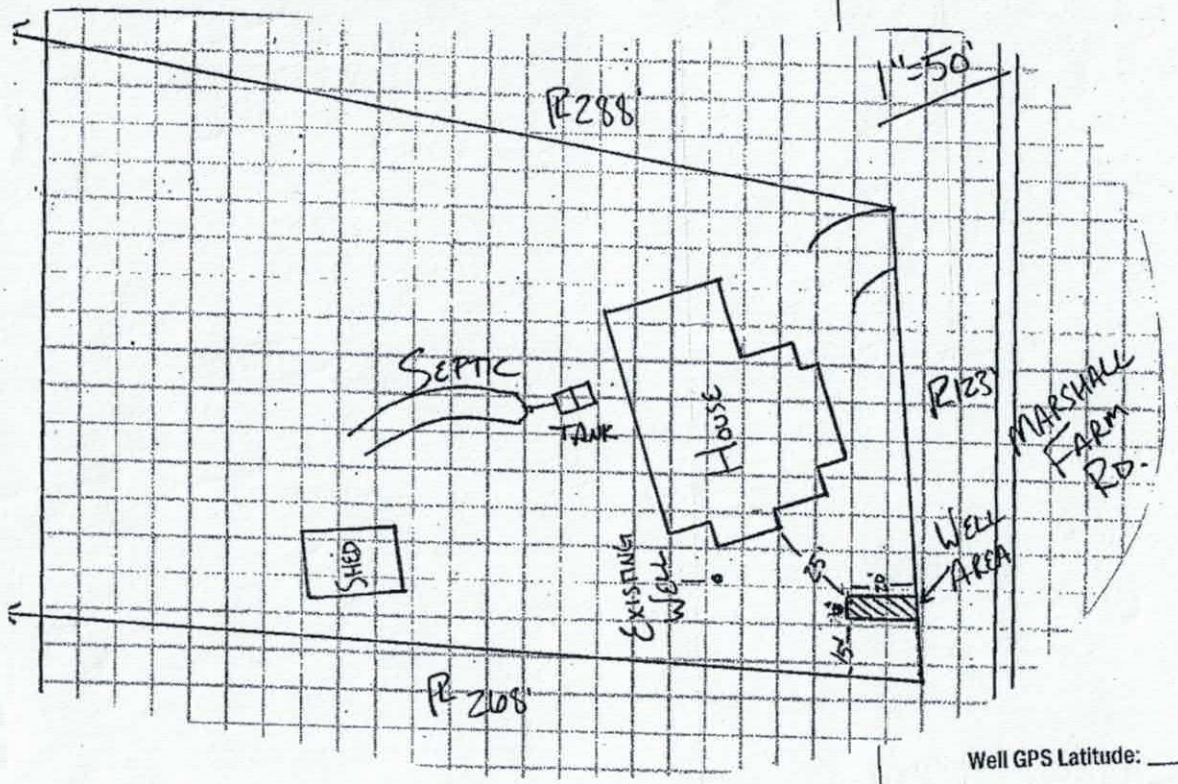
PRIVATE DRINKING WATER WELL PERMIT # 221425 **PIN #** 4779-44-5598 ✓ **Type of Permit (circle one):** (New) Repair Abandonment

APPLICANT NAME: BILLY MARSHALL ADDRESS: ✓228 MARSHALL FARM RD. HARMONY PHONE: 704-402-3336

DIRECTIONS TO SITE: 21N, TR MT. BETHEL, TR. MARSHALL FARM, ON R

SITE ADDRESS: SAME SUBDIVISION: — SECTION/LOT: —

Initial Site Sketch



"As Built" Sketch

Well GPS Latitude: _____ Longitude: _____

PERMIT CONDITIONS/COMMENTS: DRILL ONLY IN AREA SHOWN

WELL PERMIT ISSUED BY: RA-DS DATE: 9-28-16 (Permit is valid for 5 years from date issued. This permit may be revoked if it is determined there has been a material change in any fact or circumstance upon which the permit is issued. Actions of the employees of the Iredell County Health Department shall in no way be taken as a guarantee that this well will produce water of any particular quantity or quality or for any amount of time. Employees of the Iredell County Health Department assume no liability for any damages, either direct or consequential which may be caused by this well.)

Well Contractor: Russell Miller Drilling CONTRACTOR CERT #: 3254A GROUT INSPECTION BY: W Sparks DATE: 11/2/16

OR CERTIFICATION OF GROUT NOT WITNESSED BY DEPT: _____ DATE: _____ WELL HEAD INSPECTION BY: W Sparks DATE: 11/9/16

WELL HEAD INSPECTION (check when completed): GROUT TO GROUND SURFACE ☑ WELL CONTRACTOR ID PLATE ☑ PUMP INSTALLER ID PLATE ☑ SAMPLE PORT ☑

ACCESS PORT / VENT ☑ WELL SEAL ☑ WELL HEAD 12 INCHES / PITLESS ADAPTOR 8 INCHES ABOVE GRADE ☑

CERTIFICATE OF COMPLETION BY: Tom Chuck DATE: 3/30/17 WATER SAMPLES BY: Carles C. Cave DATE: 11/27/17

Attachments: Form GW-1a (required except for abandonment) ☑ Form GW-30 ☐ Water Sample Results ☑ Plat ☐

Health Dept. Copy – White Applicant Certificate of Completion – Yellow Applicant Well Construction Permit - Pink

Print Form

WELL CONSTRUCTION RECORD (GW-1)

For Internal Use Only:

1. Well Contractor Information:

Chris Russell
Well Contractor Name

3254A
NC Well Contractor Certification Number

Russell Well Drilling, Inc.
Company Name

2. Well Construction Permit #: 221425
List all applicable well construction permits (i.e. UIC, County, State, Variance, etc.)

3. Well Use (check well use):

Water Supply Well:
- ☐ Agricultural
- ☐ Municipal/Public
- ☐ Geothermal (Heating/Cooling Supply)
- ☐ Residential Water Supply (single)
- ☐ Industrial/Commercial
- ☐ Residential Water Supply (shared)
- ☐ Irrigation

Non-Water Supply Well:
- ☐ Monitoring
- ☐ Recovery

Injection Well:
- ☐ Aquifer Recharge
- ☐ Groundwater Remediation
- ☐ Aquifer Storage and Recovery
- ☐ Salinity Barrier
- ☐ Aquifer Test
- ☐ Stormwater Drainage
- ☐ Experimental Technology
- ☐ Subsidence Control
- ☐ Geothermal (Closed Loop)
- ☐ Tracer
- ☐ Geothermal (Heating/Cooling Return)
- ☐ Other (explain under #21 Remarks)

4. Date Well(s) Completed: 11-2-16 **Well ID#** _____

5a. Well Location:

Billy Marshall
Facility/Owner Name

Facility ID# (if applicable)

228 Marshall Farm Rd Harmony NC 28634
Physical Address, City, and Zip

tredell
County

Parcel Identification No. (PIN)

5b. Latitude and longitude in degrees/minutes/seconds or decimal degrees:
(if well field, one lat/long is sufficient)

35' 55.206' N 080' 46.447' W

6. Is(are) the well(s): ☒ **Permanent** or ☐ **Temporary**

7. Is this a repair to an existing well: ☐ Yes or ☒ No
If this is a repair, fill out known well construction information and explain the nature of the repair under #21 remarks section or on the back of this form.

8. For Geoprobe/DPT or Closed-Loop Geothermal Wells having the same construction, only 1 GW-1 is needed. Indicate TOTAL NUMBER of wells drilled: _____

9. Total well depth below land surface: 205 (ft.)
For multiple wells list all depths if different (example- 3@200' and 2@100')

10. Static water level below top of casing: 60 (ft.)
If water level is above casing, use "+"

11. Borehole diameter: 6.25 **(in.)**

12. Well construction method: Air Drilled
(i.e. auger, rotary, cable, direct push, etc.)

FOR WATER SUPPLY WELLS ONLY:

13a. Yield (gpm) 30 **Method of test:** Air

13b. Disinfection type: HTH **Amount:** 1/2 cup

14. WATER ZONES

FROM	TO	DESCRIPTION
60 ft.	205 ft.	
ft.	ft.	

15. OUTER CASING (for multi-cased wells) OR LINER (if applicable)

FROM	TO	DIAMETER	THICKNESS	MATERIAL
0 ft.	49 ft.	6.25 in.	SDR21	PVC

16. INNER CASING OR TUBING (geothermal closed-loop)

FROM	TO	DIAMETER	THICKNESS	MATERIAL
ft.	ft.	in.		
ft.	ft.	in.		

17. SCREEN

FROM	TO	DIAMETER	SLOT SIZE	THICKNESS	MATERIAL
ft.	ft.	in.			
ft.	ft.	in.			

18. GROUT

FROM	TO	MATERIAL	EMPLACEMENT METHOD & AMOUNT
0 ft.	20 ft.	Grout	Poured
ft.	ft.		
ft.	ft.		

19. SAND/GRAVEL PACK (if applicable)

FROM	TO	MATERIAL	EMPLACEMENT METHOD
ft.	ft.		
ft.	ft.		

20. DRILLING LOG (attach additional sheets if necessary)

FROM	TO	DESCRIPTION (color, hardness, soil/rock type, grain size, etc.)
0 ft.	44 ft.	Dirt
44 ft.	205 ft.	Rock
ft.	ft.	
ft.	ft.	
ft.	ft.	
ft.	ft.	
ft.	ft.	

21. REMARKS

22. Certification:

Chris Russell
Signature of Certified Well Contractor

11-3-16
Date

By signing this form, I hereby certify that the well(s) was (were) constructed in accordance with 15A NCAC 02C .0100 or 15A NCAC 02C .0200 Well Construction Standards and that a copy of this record has been provided to the well owner.

23. Site diagram or additional well details:
You may use the back of this page to provide additional well site details or well construction details. You may also attach additional pages if necessary.

SUBMITTAL INSTRUCTIONS

24a. For All Wells: Submit this form within 30 days of completion of well construction to the following:

Division of Water Resources, Information Processing Unit,
1617 Mail Service Center, Raleigh, NC 27699-1617

24b. For Injection Wells: In addition to sending the form to the address in 24a above, also submit one copy of this form within 30 days of completion of well construction to the following:

Division of Water Resources, Underground Injection Control Program,
1636 Mail Service Center, Raleigh, NC 27699-1636

24c. For Water Supply & Injection Wells: In addition to sending the form to the address(es) above, also submit one copy of this form within 30 days of completion of well construction to the county health department of the county where constructed.

North Carolina State Laboratory Public Health
Environmental Sciences
Microbiology
Certificate of Analysis

P.O. Box 28047
4312 District Drive
Raleigh, NC 27611-8047
http://slph.ncpublichealth.com
Phone: 919-733-7308
Fax: 919-715-8611

Report To:
IREDELL CO ENVIRONMENTAL HEALTH DEPT - STATE
349 N. CENTER STREET

STATESVILLE, NC 28677
EIN:566000309EH **COURIER #: 09-36-07**

Name of System:
BILLY MARSHALL

228 MARSHALL FARM RD.
HARMONY, NC 28634

StarLiMS Sample ID: **ES112817-0091001**

Collected: 11/27/2017 12:40 **Carla Cave**
Received: 11/28/2017 08:36 **Susan Beasley**

ES Microbiology ID:
GPS Number:

Sample Source: **New Well**
Sampling Point: **well head**

Well Permit Number: **221425**

Sample Description:
Comment:

Environmental Microbiology - Colilert Profile **Method:** SM 9223B

Test Name: Colilert

Analyte	Test Result	Date
Total Coliform, Colilert	Absent	11/29/2017
E. coli, Colilert	Absent	11/29/2017

Report Date: 11/29/2017

Reported By: Susan Beasley

Susan Beasley

Explanations of Coliform Analysis:

If coliform bacteria are **Absent**, the water is considered safe for drinking purpose. If coliform bacteria are **Present**, the water is considered unsafe for drinking purpose. 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.

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

P.O. Box 28047
4312 District Drive
Raleigh, NC 27611-8047
http://slph.ncpublichealth.com
Phone: 919-733-7308
Fax: 919-715-8611

Report To: CARLA CAVE

IREDELL CO ENVIRONMENTAL HEALTH DEPT - STA
349 N. CENTER STREET

STATESVILLE, NC 28677
EIN: 566000309EH

Courier # 09-36-07

Name of System:

BILLY MARSHALL

228 MARSHALL FARM RD
HARMONY, NC 28634

StarLiMS ID: **ES112817-0028001**

Date Collected: 11/27/17
Date Received: 11/28/17

Time Collected: 12:40 PM
Collected By: C Cave

Sample Type: Raw
Sample Source: New Well

Sampling Point: Well head
Temp. at Receipt: 2.0

Well Permit #: 221425
GPS #:

Sample Description:
Comment:

New Well I (Profile)

Analyte	Result	Allowable Limit	Unit	Qualifier(s)
Arsenic	< 0.005	0.010	mg/L	
Barium	< 0.1	2.00	mg/L	
Cadmium	< 0.001	0.005	mg/L	
Calcium	11		mg/L	
Chloride	13.00	250	mg/L	
Chromium	< 0.01	0.10	mg/L	
Copper	< 0.05	1.3	mg/L	
Fluoride	< 0.20	4.00	mg/L	
Iron	< 0.10	0.30	mg/L	
Lead	< 0.005	0.015	mg/L	
Magnesium	3		mg/L	
Manganese	< 0.03	0.05	mg/L	
Mercury	< 0.0005	0.002	mg/L	
Nitrate	2.80	10.00	mg/L	
Nitrite	< 0.1	1.00	mg/L	
pH	6.7		N/A	
Selenium	< 0.005	0.05	mg/L	
Silver	< 0.05	0.10	mg/L	
Sodium	7.70		mg/L	
Sulfate	< 5.00	250	mg/L	
Total Alkalinity	32		mg/L	
Total Hardness	40		mg/L	
Zinc	< 0.05	5.00	mg/L	

Report Date: 12/11/2017

Reported By: *Debbie Moncol*