

Attachment 3

Receptor Evaluation Form



New Jersey Department of Environmental Protection
 Site Remediation and Waste Management Program

RECEPTOR EVALUATION (RE) FORM

Date Stamp
 (For Department use only)

SECTION A. SITE

Site Name: _____

Program Interest (PI) Number(s): _____

Communication Center Number(s) and/or ISRA number(s) for this submission: (as many as will fit in the space provided)

**This form must be attached to the Cover/Certification Form
 if not submitted through a Remedial Phase Online Service**

Indicate the type of submission:

Initial RE Submission

Updated RE Submission

Indicate the reason for submission of an updated RE form

Submission of an Immediate Environmental Concern (IEC) source control report;

Submission of a Remedial Investigation Report;

Submission of a Remedial Action Report;

Check if included in updated RE

The known concentration or extent of contamination in any medium has increased;

A new AOC has been identified;

A new receptor is identified;

A new exposure pathway has been identified.

SECTION B. ON SITE AND SURROUNDING PROPERTY USE

1. Identify any sensitive populations/uses that are currently on-site or surrounding property usage within 200 feet of the site property boundary (check all that apply):

| | On-site | Off-site |
|---|--------------------------|--------------------------|
| None of the following | <input type="checkbox"/> | <input type="checkbox"/> |
| Residences or residential property | <input type="checkbox"/> | <input type="checkbox"/> |
| Public or Private Schools Grades K-12 | <input type="checkbox"/> | <input type="checkbox"/> |
| Child care centers | <input type="checkbox"/> | <input type="checkbox"/> |
| Public parks, playgrounds or other recreation areas | <input type="checkbox"/> | <input type="checkbox"/> |
| Other sensitive population use(s) Explain _____ | <input type="checkbox"/> | <input type="checkbox"/> |

If any of the above applies, attach a list of addresses, facility names, type of use, and a map depicting each location relative to the site. See Attachment A

2. Current site uses (check all that apply):

- | | | |
|---|---------------------------------------|---|
| <input type="checkbox"/> Industrial | <input type="checkbox"/> Residential | <input type="checkbox"/> Commercial |
| <input type="checkbox"/> School or child care | <input type="checkbox"/> Government | <input type="checkbox"/> Park or recreational use |
| <input type="checkbox"/> Vacant | <input type="checkbox"/> Agricultural | <input type="checkbox"/> Other: _____ |

3. Planned future on-site uses and off-site uses within 200 feet of the site boundary (check all that apply):

| <u>On-Site</u> | <u>Off-Site</u> | <u>On-Site</u> | <u>Off-Site</u> | <u>On-Site</u> | <u>Off-Site</u> |
|--------------------------|---|--------------------------|---------------------------------------|--------------------------|---|
| <input type="checkbox"/> | <input type="checkbox"/> Industrial | <input type="checkbox"/> | <input type="checkbox"/> Residential | <input type="checkbox"/> | <input type="checkbox"/> Commercial |
| <input type="checkbox"/> | <input type="checkbox"/> School or child care | <input type="checkbox"/> | <input type="checkbox"/> Government | <input type="checkbox"/> | <input type="checkbox"/> Park or recreational use |
| <input type="checkbox"/> | <input type="checkbox"/> Vacant | <input type="checkbox"/> | <input type="checkbox"/> Agricultural | <input type="checkbox"/> | <input type="checkbox"/> Other: _____ |

Provide a map depicting the location of the proposed changes in land use.

SECTION C. DESCRIPTION OF CONTAMINATION

1. Identify if any of the following exist at the site:

Yes No

Free product [N.J.A.C. 7:26E-1.8] identified is LNAPL* or DNAPL**.

Date identified: _____

Residual product [N.J.A.C. 7:26E-1.8]

Other primary source materials not identified above (e.g., buried drums, containers, unsecured friable asbestos). See form instructions for additional information.

Explain: _____

* LNAPL – measured thickness of .01 feet or more

**DNAPL – See *Ground Water Technical Guidance and USEPA Assessment and Delineation of DNAPL Source Zones at Hazardous Waste Sites* (attached as Appendix A of the NJDEP GW Guidance) available at: http://www.nj.gov/dep/srp/guidance/#pa_si_ri_gw. Also, see US EPA DNAPL Overview available at: [http://clu.in.org/contaminantfocus/default.focus/sec/Dense_Nonaqueous_Phase_Liquids_\(DNAPLS\)/cat/Overview](http://clu.in.org/contaminantfocus/default.focus/sec/Dense_Nonaqueous_Phase_Liquids_(DNAPLS)/cat/Overview)

2. Soil Migration Pathway

Has soil contamination been delineated to the applicable Direct Contact Soil Remediation Standard pursuant to N.J.A.C. 7:26E-4.2? Yes No

Are all soils either below the applicable Direct Contact Criteria or under an institutional control (i.e. deed notice)? Yes No

3. If this evaluation is submitted with a technical document that includes contaminant summary information, proceed to Section D. Otherwise, attach a brief summary of all currently available data and information to be included in the site investigation or remedial investigation report.

SECTION D. GROUND WATER USE

1. Have all potentially contaminated areas of concern been evaluated to determine if there is a potential that ground water is contaminated pursuant to N.J.A.C. 7:26E-3.5? Yes No

If "No," proceed to Section E.

2. Is a ground water investigation required? Yes No

If "No," proceed to Section E.

3. Has a groundwater investigation been conducted? Yes No

If "Yes":

Has the laboratory data package been received? Yes No

If the laboratory data package has not been received, provide the expected due date for data: _____ and proceed to Section E.

If "No":

Proceed to Section E.

4. Is ground water contaminated above the Ground Water Remediation Standards [N.J.A.C.7:9C]? Yes No

If "Yes": Provide the date that the laboratory data package was available and confirmed contamination was identified above the Ground Water Remediation Standards. Date: _____

If "No": Proceed to Section E.

5. Has ground water contamination been delineated to the applicable Remediation Standard pursuant to N.J.A.C 7:26E-4.3? Yes No

6. What is the ground water classification for this site as per N.J.A.C. 7:9C? (check all that apply)

- Class I-A Class II-A
- Class I-PL Pinelands Protection Area Class III-A
- Class I-PL Pinelands Preservation Area Class III-B

7. Has a well search been completed? Yes No
 Date of most recent or updated well search: _____
8. Is a completed Well Search Spreadsheet or historical well search table attached and See Attachment B has an electronic copy of the spreadsheet been submitted to srpgis_wrs@dep.nj.gov. Yes No
- Note: Redacted wells must be excluded from all non-confidential documents including maps, tables, etc. (see RE Instructions).**
- If "No," explain: _____
9. Are any potable or irrigation wells located within ½ mile of the currently known extent of contamination? Yes No
- If "Yes,":
- A door to door survey is required in accordance with [N.J.A.C.7:26E-1.14(a)ii]. Attach results of the door to door survey.
 - Identify if any of the following conditions exist based on the well search and door to door survey [N.J.A.C.7:26E-1.14(a)]:
- | <u>Yes</u> | <u>No</u> | |
|--------------------------|--------------------------|---|
| <input type="checkbox"/> | <input type="checkbox"/> | Potable wells located within 500 feet from the downgradient edge of the currently known extent of contamination. |
| <input type="checkbox"/> | <input type="checkbox"/> | Potable wells located 250 feet upgradient or 500 feet side gradient of the currently known extent of contamination. |
| <input type="checkbox"/> | <input type="checkbox"/> | Ground water contamination from the discharge is located within a Tier 1 wellhead protection area (WHPA). |
10. Has sampling been conducted of potable well(s) and /or non-potable use well(s)? Yes No
 If "No," provide justification then proceed to Question 12.

11. Has contamination been identified in potable well(s), **not attributed to background conditions**, above the Class II Ground Water Remediation Standards or State Safe Drinking Water levels, N.J.A.C 7:1E, whichever is applicable? Yes No
- If "Yes":
- Provide the date laboratory data package was received: _____
 - Follow the **IEC** Guidance Document at <http://www.nj.gov/dep/srp/guidance/IEC/index.html> for required actions and answer the following:
 - Has an engineered system response action been completed on all impacted receptors? Yes No
 Provide a brief narrative description:
- Date completed: _____ NJDEP Case Manager: _____
12. Has contamination been identified in non-potable well(s), **not attributed to background conditions**, above the Class II Ground Water Remediation Standards? Yes No
 If "Yes," provide the date laboratory data package was received: _____
13. Has the ground water use evaluation been completed pursuant to N.J.A.C. 7:26E-1.14? Yes No

SECTION E. VAPOR INTRUSION (VI)

1. Indicate if any of the following conditions exist that trigger a Vapor Intrusion investigation. For each condition checked "Yes", provide the date the condition was first identified (e.g. date laboratory data package was available). (see NJDEP Vapor Intrusion Technical Guidance)

| <u>Yes</u> | <u>No</u> | <u>Date Condition First Identified</u> |
|--------------------------|--------------------------|--|
| <input type="checkbox"/> | <input type="checkbox"/> | Ground water contamination in excess of the NJDEP Vapor Intrusion Ground Water Screening Levels (VIGWSL) and within 30 feet of a building for Petroleum Hydrocarbon Compounds (PHC) or 100 feet for non-PHC compounds .. _____ |
| <input type="checkbox"/> | <input type="checkbox"/> | Free product within 30 feet of a building for PHC or 100 feet for non-PHC compounds .. _____ |
| <input type="checkbox"/> | <input type="checkbox"/> | Soil gas contamination detected at concentrations that exceed the Soil Gas Screening Levels (SGSL) .. _____ |
| <input type="checkbox"/> | <input type="checkbox"/> | Indoor air contamination that exceeds the Indoor Air Screening Levels..... _____ |
| <input type="checkbox"/> | <input type="checkbox"/> | Wet basement or sump containing free product or ground water containing detectable concentration of volatile organic contaminants .. _____ |
| <input type="checkbox"/> | <input type="checkbox"/> | Methane generating conditions causing oxygen deficient or explosion concern .. _____ |
| <input type="checkbox"/> | <input type="checkbox"/> | Other human or safety concern from the VI pathway (i.e. elemental mercury, unsaturated soil contamination), <i>explain below:</i> .. _____ |

If you checked "No" to all boxes in Question 1., proceed to Section F, "Ecological Receptors", otherwise complete the rest of this section.

2. Has ground water contamination been delineated to the applicable Vapor Intrusion Ground Water Screening Levels pursuant to N.J.A.C 7:26E-4.3? Yes No

3. Was a site-specific screening level, modeling or other alternative approach employed for the VI pathway? Yes No

4. Identify and locate, on a scaled map, any buildings/sensitive populations that exist within the following distances from ground water contaminant concentrations above the Vapor Intrusion Ground Water Screening Levels or other specific triggers noted in Question 1 above.:

| <u>Yes</u> | <u>No</u> | |
|--------------------------|--------------------------|---|
| <input type="checkbox"/> | <input type="checkbox"/> | 30 feet of petroleum free product or dissolved petroleum hydrocarbon contamination in ground water |
| <input type="checkbox"/> | <input type="checkbox"/> | 100 feet of any non-petroleum free product (e.g. chlorinated hydrocarbons) or any non-petroleum dissolved volatile organic ground water contamination |
| <input type="checkbox"/> | <input type="checkbox"/> | Other specific triggers |
| <input type="checkbox"/> | <input type="checkbox"/> | No buildings exist within the specified distances or other specific triggers |

5. Is the vapor intrusion pathway a concern at or adjacent to the site? (if "No," attach justification) Yes No

6. Has soil gas sampling of the building(s) been conducted? Yes No

If "Yes," has the laboratory data package been received? Yes No

If the data package was received, did constituents exceed the Soil Gas Screening Levels? Yes No

If "No," attach technical justification consistent with the NJDEP Vapor Intrusion Technical Guidance.

7. Has indoor air sampling been conducted at the identified building(s)? Yes No

If "Yes," has the laboratory data package been received? Yes No

If the data package has been received, did constituents exceed the Indoor Air Screening Levels? .. Yes No

If "No," or awaiting indoor air laboratory data package, proceed to Question 12.

8. Has indoor air contamination been identified but not suspected to be from a discharge?
(if "Yes," attach justification) Yes No
9. Were indoor air results above the NJDEP's Rapid Action Levels? Yes No
- If "Yes":
- Provide the date laboratory data package was received: _____
 - Follow the IEC Guidance Document at <http://www.nj.gov/dep/srp/guidance/index.html#iec> for required actions and answer the following:
 - Was the IEC engineering system response for control implemented for all impacted structures? Yes No
- Date implemented: _____ NJDEP Case Manager: _____
10. Were the results of indoor air sampling above the NJDEP's Indoor Air Screening Levels but at, or below, the Rapid Action Levels Yes No
- If "Yes," answer the following:
- Provide the date laboratory data package was received: _____
 - Has the Vapor Concern (VC) Response Action Form notifying the NJDEP of the exceedances been submitted? Yes No
 - Date: _____
 - Has a plan to mitigate and monitor the exposure been submitted? Yes No
 - Date: _____
 - Has the Mitigation Response Action Report been submitted? Yes No
 - Date: _____
11. Do one or more buildings have an Indeterminate VI Pathway status? Yes No
- If "Yes," attach a list of the building(s) with address(s) and block/lot(s)
12. Has the vapor intrusion investigation been completed? Yes No
- If "No", is the vapor intrusion investigation stepping out as part of the site investigation or remedial investigation. (If "No," attach justification) Yes No

SECTION F. ECOLOGICAL RECEPTORS

1. Has an Ecological Evaluation (EE) been conducted? [N.J.A.C. 7:26E-1.16] Yes No
- Date conducted: _____
2. Are any site-related contaminants above any Ecological Screening Criteria? Yes No
3. Are there any Environmentally Sensitive Natural Resources (ESNRs) on or adjacent to the site, or potentially impacted by site related contamination? [N.J.A.C. 7:26E-1.16] Yes No
4. Do any potential or complete migration pathways exist between Contaminant of Potential Ecological Concern (COPECs) and ESNRs, or did historic migration pathways exist? Yes No

If You answered "No" to Questions 2, 3, or 4, above Stop Here (form is complete).

5. If site-related free or residual product is/was present, does/did a potential or complete migration pathway exist to an ESNR? Yes No
6. Do the results of an EE trigger a remedial investigation of ecological receptors? [N.J.A.C. 7:26E-4.8] Yes No
- If "Yes", has a remedial investigation of ecological receptors been conducted? Yes No
- Date conducted: _____

7. Do available data indicate an impact (COPECs above Ecological Screening Criteria in ESNRs) to Ecological Receptor(s), Surface water, or Sediment? Yes No

If "Yes,"

a) Check all ESNRs or media that apply:

Surface water Sediment Soil Wetlands

b) If this information is not submitted with an ecological evaluation that includes contaminant summary information, attach a brief summary of all currently available data and a description of all actions to be taken to mitigate exposure.

8. Have COPECs been fully delineated to the Ecological Screening Criteria [N.J.A.C. 7:26E-4.8(a)] in:

a) Migration pathways Yes No

b) ESNR Yes No

9. Has an Ecological Risk Assessment been conducted? Yes No

10. Provide the following information for any on-site and/or off-site surface water body, which is potentially impacted by the site related discharges:

| Surface Water Body Name | Stream Classification | Antidegradation Designation | Trout Production | Trout Maintenance |
|-------------------------|-----------------------|-----------------------------|--------------------------|--------------------------|
| | | | <input type="checkbox"/> | <input type="checkbox"/> |
| | | | <input type="checkbox"/> | <input type="checkbox"/> |
| | | | <input type="checkbox"/> | <input type="checkbox"/> |
| | | | <input type="checkbox"/> | <input type="checkbox"/> |
| | | | <input type="checkbox"/> | <input type="checkbox"/> |
| | | | <input type="checkbox"/> | <input type="checkbox"/> |

11. Has a Program Interest (PI) or Permit number been issued for any regulated areas by the Division of Land Use Regulation? (e.g. wetlands, transition areas, flood hazard areas, coastal areas, tidelands, etc.) Yes No

If "Yes,":

Identify the type(s) of regulated areas: _____

Provide the Land Use Regulation Program (LURP) PI or Permit number(s) for the site:

12. Are there any **pending** applications for LURP jurisdiction letters or approvals under review by the NJDEP for the remediation? Yes No

13. Are there any **valid** LURP jurisdiction letters or approvals issued for the remediation? Yes No

Completed forms should be sent to the municipal clerk, designate health department, and:

Bureau of Case Assignment & Initial Notice
 Site Remediation Program
 NJ Department of Environmental Protection
 401-05H
 PO Box 420
 Trenton, NJ 08625-0420



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LEGEND:

- HCC SITE 107 PROPERTY BOUNDARY
- 200 FOOT BUFFER
- SENSITIVE PROPERTIES

| | |
|--|------------------------|
| PPG 18 CHAPEL AVENUE, JERSEY CITY, NEW JERSEY | |
| RECEPTOR EVALUATION 200 FOOT BUFFER | |
| | ATTACHMENT A |

Therrien, Katie

From: McLaughlin Jr., James (ARCADIS)
Sent: Tuesday, April 20, 2021 2:56 PM
To: srpgis_wrs@dep.state.nj.us
Subject: G0000008728, WRS
Attachments: G0000008728_042021WRS.xls

Name of GIS author Company and mailing address: Arcadis U.S., Inc., 10 Friends Lane, Suite 100, Newtown, PA 18940

Name and license number of any LSRP overseeing work: N/A

Email for LSRP overseeing work: N/A

Name of professional performing GIS work: Robert Noonan

Email for Professional performing GIS work: robert.noonan@arcadis.com

Phone Number for Professional performing GIS work: (914) 641-2416

Program Interest Number for Site: G0000008728

Name of Site as known to NJDEP: Hudson County Chromate 107

Physical address of Site: 18 Chapel Ave, Jersey City, NJ

Submission Type Suffix: WRS

| | |
|--|--|
| SITE NAME | Hudson County Chromate 107 |
| SITE STREET ADDRESS | 18 Chapel Ave |
| SITE COUNTY (select) | Hudson |
| SITE MUNICIPALITY (select) | Jersey City |
| PROGRAM INTEREST (PI) ID # : | G0000008728 |
| SOURCE COORDINATE X | 607033 |
| SOURCE COORDINATE Y | 677603 |
| GROUNDWATER FLOW DIRECTION USED (if any) | |
| WERE APPLICABLE WELL TYPES FOUND? (Yes/No) | Yes |
| IS THIS SUBMISSION AN UPDATE? (Yes/No) | Yes |
| AUTHOR (name of company) | Arcadis U.S., Inc. |
| AUTHOR STREET ADDRESS (include town and zip code) | 10 Friends Lane, Suite 100, Newtown, PA 189400 |
| LSRP LICENSE NUMBER OVERSEEING WORK | |
| LSRP NAME OVERSEEING WORK | |
| PROFESSIONAL WHO PREPARED SUBMISSION | Robert Noonan |
| EMAIL CONTACT | robert.noonan@arcadis.com |
| PHONE CONTACT | (914) 641-2416 |

| Download_Document | Permit_Number | Well_Use | Potentially_Potable | Document | (permitted/drilled/se | Physical_Address | County | Municipality | Block | Lot | Location_Method | Easting_X | Northing_Y | Distance_(feet) | Depth (feet) | Capacity (gal/min) | COORD_METHOD | TOP_OPEN_INT | BOT_OPEN_INT | STATIC_LEVEL | STATUS | WELL_SAMPLED? |
|-------------------|---------------|----------------------|---------------------|----------|-----------------------|----------------------|--------|--------------|-------|------|----------------------|-----------|------------|-----------------|--------------|--------------------|---------------|--------------|--------------|--------------|--------|---------------|
| PDF Document | E201605261 | Irrigation | Yes | Permit | 5/4/2016 | 100 Caven Point Road | Hudson | Jersey City | 27401 | 16 | Digital Image | 609444 | 678650 | 2,628.52 | 300 | 65 | Other/Unknown | | | | | |
| PDF Document | E201605261 | Irrigation | Yes | Record | 6/3/2016 | 100 Caven Point Road | Hudson | Jersey City | 27401 | 16 | GPS | 609444 | 678650 | 2,628.52 | 300 | | GPS | 164 | 300 | 10 | | |
| | 2600001742 | Industrial | Yes | Permit | 10/25/1957 | 121 Neptune Ave | Hudson | Jersey City | 29301 | 12 | Prop Loc - Hard Copy | 604232 | 677468 | | 200 | 5 | Other/Unknown | | | | | |
| | 2600001731 | Industrial | Yes | Permit | 10/11/1957 | 346 Cator Ave | Hudson | Jersey City | 26202 | 57 | Prop Loc - Hard Copy | 604213 | 681516 | | 150 | 40 | Other/Unknown | | | | | |
| | 2600005931 | Public Non-Community | Yes | Record | 12/1/1982 | 120 HARBOR DR | Hudson | Jersey City | 30306 | 12 | Prop Loc - Dig Image | 605737 | 674136 | 3,701.42 | 150 | 0 | Other/Unknown | | | | | |
| | 2600008110 | Industrial | Yes | Record | 11/2/1985 | LINDEN AVE | Hudson | Jersey City | 27502 | 5 | Prop Loc - Dig Image | 609845 | 674156 | 4,449.01 | 240 | 54 | Other/Unknown | | | | | |
| | 2600008027 | Non-Public | Yes | Permit | 12/30/1985 | | Hudson | Jersey City | 1507 | 2.L5 | Prop Loc - Hard Copy | 609942 | 675370 | | 20 | | Other/Unknown | | | | | |
| | 2600008027 | Non-Public | Yes | Record | | | Hudson | Jersey City | 1507 | 2.L5 | Prop Loc - Hard Copy | 609942 | 675370 | | | | Other/Unknown | | | | | |
| | 2600009896 | Industrial | Yes | Record | 11/19/1986 | LINDON ST | Hudson | Jersey City | 27502 | 5 | Prop Loc - Dig Image | 609845 | 674156 | 4,449.01 | 160 | 50 | Other/Unknown | | | | | |
| | 2600012777 | Domestic | Yes | Permit | 4/21/1988 | FOOT OF CHAPEL AVE | Hudson | Jersey City | 28901 | 11 | Prop Loc - Hard Copy | 606312 | 677478 | | 15 | | Other/Unknown | | | | | Sealed |
| | 2600012777 | Domestic | Yes | Record | 4/25/1988 | FOOT OF CHAPEL AVE | Hudson | Jersey City | 28901 | 11 | Prop Loc - Hard Copy | 606312 | 677478 | | 22 | | Other/Unknown | | | | | Sealed |
| | 2600012662 | Industrial | Yes | Record | 4/13/1988 | FT LINDEN STREET | Hudson | Jersey City | 27502 | 5 | Prop Loc - Dig Image | 609845 | 674156 | 4,449.01 | 160 | 20 | Other/Unknown | | | | | |
| | 2600049931 | Industrial | Yes | Permit | 2/3/1998 | 758 GARFIELD AVE. | Hudson | Jersey City | 23305 | 2 | Prop Loc - Hard Copy | 610374 | 681545 | | 300 | 65 | Other/Unknown | | | | | |

WELL RECORD

PROPERTY OWNER: W.A. GOLF LLC

Company/Organization: Property Owner

Address: 100 Caven Point Road Jersey City, New Jersey 07305

WELL LOCATION: Liberty National Golf Course

Address: 100 Caven Point Road

County: Hudson Municipality: Jersey City Lot: 16 Block: 27401

Easting (X): 609444 Northing (Y): 678650
 Coordinate System: NJ State Plane (NAD83) - USFEET

DATE WELL STARTED: May 23, 2016

DATE WELL COMPLETED: June 3, 2016

WELL USE: IRRIGATION

Other Use(s): _____

Local ID: IW-1

WELL CONSTRUCTION

Total Depth Drilled (ft.): 300 Finished Well Depth (ft.): 300 Well Surface: 2 ft. Above Grade

| | Depth to Top (ft.) | Depth to Bottom (ft.) | Diameter (inches) | Material | Wgt/Rating/Screen # Used (lbs/ch no.) |
|----------|--------------------|-----------------------|-------------------|----------|---------------------------------------|
| Borehole | 0 | 164 | 12 | | |
| Borehole | 164 | 300 | 8 | | |
| Casing | 0 | 103 | 12 | Steel | 19lbs |
| Casing | 0 | 164 | 8 | Steel | 19lbs |
| Screen | | | | | |

| | Depth to Top (ft.) | Depth to Bottom (ft.) | Outer Diameter (in.) | Inner Diameter (in.) | Material | | |
|-------------|--------------------|-----------------------|----------------------|----------------------|------------------|--------------------|--------------|
| | | | | | Bentonite (lbs.) | Neat Cement (lbs.) | Water (gal.) |
| Grout | 0 | 164 | 12 | 8 | 235 | 4418 | 390 |
| Gravel Pack | | | | | | | |

Grouting Method: Pressure method (Tremie Pipe)

Drilling Method: Air Rotary

RECORD OF TEST

Test Date: May 25, 2016

Pump Equipment: Air Lift

Well Yield: 0 gpm

Static Water Level: 10 ft. below land surface

Pumping Water Level: 0 ft. below land surface

PUMPING EQUIPMENT

Installed: Not Installed

Installer's Name:

Pump Type:

Depth to Pump: ft. below land surface

Pump Capacity: gpm

Total Design Head: ft.

Pump Horsepower: hp

If pump tested Discharge Rate: gpm

Duration of Test: hours

ATTACHMENTS

GEOLOGIC LOG

0 - 1: Brown OT - Other Top Soil

1 - 73: Brown Black OH - Organic clays of medium to high plasticity

73 - 103: Brown GM - Silty gravels, gravel-sand-silt mixtures

103 - 234: Brown CR - Competent Rock Mudstone

234 - 300: Brown CR - Competent Rock Sandstone

ADDITIONAL INFORMATION:

Driller of Record: Larry Santini, MASTER LICENSE # 602635

Company: HAWK DRILLING, INC.

WELL PERMIT

New Well

The New Jersey Department of Environmental Protection grants this permit in accordance with your application, attachments accompanying same application, and applicable laws and regulations. This permit is also subject to further conditions and stipulations enumerated in the supporting documents which are agreed to by the permittee upon acceptance of the permit

Certifying Driller: TODD NAUGLE, MASTER LICENSE # 0022207

Permit Issued to: HAWK DRILLING, INC.

Company Address: 221 VAN SYCKLES RD HAMPTON, NJ 08827

PROPERTY OWNER

Name: W.A. GOLF LLC

Organization: Property Owner

Address: 100 Caven Point Road

City: Jersey City State: New Jersey Zip Code: 07305

PROPOSED WELL LOCATION

Facility Name: Liberty National Golf Course

Address: 100 Caven Point Road

County: Hudson Municipality: Jersey City Lot: 16 Block: 27401

Easting (X): 609444 Northing (Y): 678650
Coordinate System: NJ State Plane (NAD83) - USFEET

Local ID: IW-1

SITE CHARACTERISTICS

PROPOSED CONSTRUCTION

WELL USE: IRRIGATION

Other Use(s): _____

Diameter (in.): 8

Regulatory Program

Requiring Wells/Borings: _____

Depth (ft.): 300

Case ID Number: _____

Pump Capacity (gpm): 65

Deviation Requested: N

Drilling Method: Air Rotary

Attachments: _____

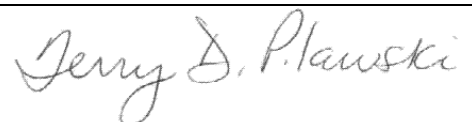
SPECIFIC CONDITIONS/REQUIREMENTS

Approval Date: May 4, 2016

Expiration Date: May 4, 2017

Approved by the authority of:

Bob Martin
Commissioner



Terry Pilawski, Chief
Bureau of Water Allocation and Well Permitting

WELL PERMIT
 New Well

| DEVIATION INFORMATION | |
|------------------------------|--|
| Purpose: | |
| Unusual Conditions: | |
| Reason for Deviation: | |
| Proposed Well Construction | |

| GENERAL CONDITIONS/REQUIREMENTS |
|--|
| A copy of this permit shall be kept at the worksite / on the property and shall be exhibited upon request. [N.J.A.C. 7:9D-1] |
| A well record must be submitted by the well driller to the Bureau of Water Systems and Well Permitting. Unless prior written approval is obtained from the Bureau of Water Systems and Well Permitting the well record shall be submitted electronically through the New Jersey Department of Environmental Protection's Regulatory Services Portal Submit Well Record: within ninety (90) days after the well is completed.[N.J.A.C. 7:9D-1] |
| All well drilling/pump installation activities shall comply with N.J.A.C. 7:9D-1 et seq. [N.J.A.C. 7:9D-1] |
| For this permit to remain valid, the well approved in this permit shall be constructed within one year of the effective date of the permit. [N.J.A.C. 7:9D-1] |
| If the pump capacity applied for is less than 70 gpm, no subsequent increase to 70 gpm or more shall be made without prior approval of the Bureau of Water Systems and Well Permitting. [N.J.A.C. 7:9D-1] |
| If the use of the well is to be changed a well permit for the proposed use of the well shall be submitted for review and approval. [N.J.A.C. 7:9D-1] |
| If you or a future property owner intend to redesignate this well as a Category 1 well (domestic, non-public, community water supply or public non-community water supply wells), the well must be constructed as a Category 1 well per the Well Construction and Abandonment Regulations at N.J.A.C. 7:0D-1.1 et seq. In addition, if the current or future property owner intends to have this well redesignated as a community water supply well, the well must be constructed by a Master well driller, which would include having a Master well driller on-site at all times during construction of the well, as specified in the Well Construction and Abandonment Regulations. Otherwise, the New Jersey Department of Environmental Protection will not allow the well to be redesignated, and a new well would have to be installed. [N.J.A.C. 7:9D-1.7((a))1i] |
| In accepting this permit the Property Owner and Driller agree to abide by the following terms and conditions [N.J.A.C. 7:9D-1] |
| In the event that this well is not constructed the well driller shall notify the Bureau of Water Systems and Well Permitting of the permit cancellation. Unless prior written approval is obtained from the Bureau of Water Systems and Well Permitting the Cancellation notification shall be submitted electronically through the New Jersey Department of Environmental Protection's Regulatory Services Portal Submit Well Permit Cancellation : by the expiration date of this permit.[N.J.A.C. 7:9D-1] |
| In the event this well is abandoned, the Owner or Well driller shall assume full responsibility for having the well decommissioned in a manner satisfactory to the New Jersey Department of Environmental Protection in accordance with the provisions of N.J.A.C. 7:9D-1 et seq. [N.J.A.C. 7:9D-1] |
| The granting of this permit shall not be construed in any way to affect the title or ownership of property, and shall not make the New Jersey Department of Environmental Protection or the State a party in any suit or question of ownership of property. [N.J.A.C. 7:9D-1] |
| The issuance of this permit shall not be deemed to affect in any way action by the New Jersey Department of Environmental Protection on any future application. [N.J.A.C. 7:9D-1] |
| This permit conveys no rights, either expressed, or implied to divert water. [N.J.A.C. 7:9D-1] |
| This permit does not waive the obtaining of Federal or other State or local Government consent when necessary. This permit is not valid and no work shall be undertaken until such time as all other required approvals and permits have been obtained. [N.J.A.C. 7:9D-1] |
| This permit is NONTRANSFERABLE [N.J.A.C. 7:9D] |
| This well shall not be used for the supply of potable / drinking water. [N.J.A.C. 7:9D-1] |

9

WELL ABANDONMENT REPORT

MAIL TO

WELL PERMIT # 26-12777
of well sealed

Bureau of Water Allocation
CN 029
Trenton, NJ 08625

26 23 527

PROPERTY OWNER PORT LIBERTE
ADDRESS FOOT OF CHAPLE AVE JERSEY CITY, N.J.
WELL LOCATION FOOT OF CHAPLE AVE JERSEY CITY, N.J.
Street & No, Township, County
#1 Lot 7 Block 1500
Well No, Lot & Block No, Longitude & Latitude

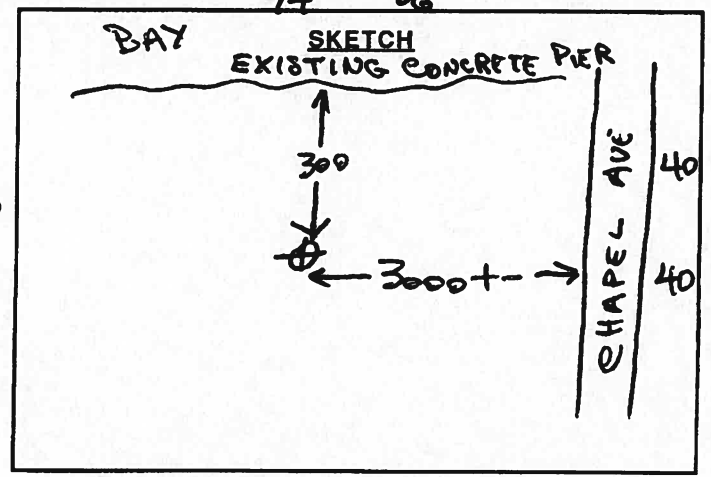
TYPE OF WELL ABANDONED IRRIGATION INDUSTRIAL MONITORING DOMESTIC
 PUBLIC OBSERVATION OTHER

REASON FOR ABANDONMENT No longer needed - City water provided

TOTAL DEPTH OF WELL 22'
DIAMETER 4"
CASING LENGTH 2'
SCREEN LENGTH 20'

MATERIAL USED TO SEAL WELL
13 Gallons of Water
2 Bags of Cement
6 Lbs of Bentonite
11 Lbs of Sand/Gravel
(none if well is contaminated)

FORMATION Consolidated
 Unconsolidated



To permit adequate grouting, the casing should remain in place, but ungrouted liner pipes or any other obstructions must be removed. Pressure grouting is the only accepted method.

WAS CASING LEFT IN PLACE? Yes No
WERE OTHER OBSTRUCTIONS REMOVED? Yes No

R.V. GREGORY
Name of Person Doing Sealing Work/Employer
Richard J Gregory
Signature of Person Doing Sealing Work

1296
License #
Foot of Jersey Ave. J.C N.J
Address