

Advantage Environmental Consultants
8610 Washington Blvd. Suite 217
Jessup, MD 20794
(301) 776-0500 p
(301) 776-1123 f

**Advantage
Environmental
Consultants, LLC**

Letter of Transmittal

To: Ms. Jeannette DeBartolomeo
From: Jeff Stein
CC: Health Department/Resident
Date: May 8, 2014
Re: Royal Farms 72 – 2907 Churchville Road Monthly Sampling Results

Comments:

Enclosed is a copy of the potable well treatment system analytical results from testing performed on April 30, 2014. All analytes are below detection limits on the effluent side of the treatment system. Please contact us if you have any questions.

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**Table 5 - Historical Off-site Potable Well Analytical Results
Gasoline Fueling Station – Royal Farms #72
2907 Churchville Road, Churchville, MD 21028**

| Well No. | Date | B | T | E | X | TBA | MTBE | Naphthalene |
|-------------------------------|------------|----------|-------------|------------|--------------|------------|-----------|-------------|
| Influent | 8/31/2010 | BDL | BDL | BDL | BDL | BDL | 19 | BDL |
| | 8/31/2011 | BDL | BDL | BDL | BDL | BDL | 5.27 | BDL |
| | 8/2/2012 | BDL | BDL | BDL | BDL | BDL | 12.3 | BDL |
| | 8/20/2013 | BDL | BDL | BDL | BDL | 15 | 242 | BDL |
| | 8/28/2013 | BDL | BDL | BDL | BDL | BDL | 268 | BDL |
| | 11/14/2013 | BDL | BDL | BDL | BDL | BDL | 409 E | BDL |
| | 12/19/2013 | BDL | BDL | BDL | BDL | BDL | 392 | BDL |
| | 1/9/2014 | BDL | BDL | BDL | BDL | BDL | 403 | BDL |
| | 2/18/2014 | BDL | BDL | BDL | BDL | BDL | 436 | BDL |
| | 3/18/2014 | BDL | BDL | BDL | BDL | BDL | 414 | BDL |
| Mid-1 | 4/30/2014 | BDL | BDL | BDL | BDL | BDL | 455 | BDL |
| | 11/14/2013 | BDL | BDL | BDL | BDL | BDL | BDL | BDL |
| | 12/19/2013 | BDL | BDL | BDL | BDL | BDL | BDL | BDL |
| | 1/9/2014 | BDL | BDL | BDL | BDL | BDL | BDL | BDL |
| | 2/18/2014 | BDL | BDL | BDL | BDL | BDL | 5.35 | BDL |
| | 3/18/2014 | BDL | BDL | BDL | BDL | BDL | 38.6 | BDL |
| Mid-2 | 4/30/2014 | BDL | BDL | BDL | BDL | BDL | 136 | BDL |
| | 11/14/2013 | BDL | BDL | BDL | BDL | BDL | BDL | BDL |
| | 12/19/2013 | BDL | BDL | BDL | BDL | BDL | BDL | BDL |
| | 1/9/2014 | BDL | BDL | BDL | BDL | BDL | BDL | BDL |
| | 2/18/2014 | BDL | BDL | BDL | BDL | BDL | BDL | BDL |
| | 3/18/2014 | BDL | BDL | BDL | BDL | BDL | BDL | BDL |
| Effluent | 4/30/2014 | BDL | BDL | BDL | BDL | BDL | BDL | BDL |
| | 11/14/2013 | BDL | BDL | BDL | BDL | BDL | BDL | BDL |
| | 12/19/2013 | BDL | BDL | BDL | BDL | BDL | BDL | BDL |
| | 1/9/2014 | BDL | BDL | BDL | BDL | BDL | BDL | BDL |
| | 2/18/2014 | BDL | BDL | BDL | BDL | BDL | BDL | BDL |
| | 3/18/2014 | BDL | BDL | BDL | BDL | BDL | BDL | BDL |
| 4/30/2014 | BDL | BDL | BDL | BDL | BDL | BDL | BDL | |
| Type I and II Aquifers | | 5 | 1000 | 700 | 10000 | NRS | 20 | 0.65 |

* - indicates that a carbon rebed took place between this date and the preceeding date

BDL = Below Detection Limits

B = Benzene; T = Toluene; E = Ethylbenzene; X = Xylene

TBA = Tert-butanol

MTBE = Methyl-tert-butyl-ether

All results reported in reported in parts per billion or ug/L

Influent = Potable Well Influent

Mid-1 = First Potable Well Mid Point

Mid-2 = Second Potable Well Mid Point

Effluent = Potable Well Effluent

NS = Not Sampled

Some compounds may have been detected but are not tabulated on this spreadsheet.

See laboratory analytical results reports for full results.

J Denotes Estimated Value Below Reporting Limit

E Denotes Estimated Value Above Calibration Range of Instrument

MDE Standards (Generic Numeric Cleanup Standards for Groundwater and Soil - Interim Final Guidance Update No. 2.1 - June 2008)

NRS = No Regulatory Standard

Analytical Results

1500 Caton Center Dr Suite G
Baltimore MD 21227
410-247-7600
www.mdspectral.com
VELAP ID 460040

Project: 2907 CHURCHVILLE RD

Project Number: 05-056RF072

Advantage Environmental Consultants, LLC

Project Manager: James Wolf

8610 Baltimore Washington Blvd, Suite 217

Report Issued: 05/06/14 16:31

Jessup MD, 20794

| CLIENT SAMPLE ID: | PW2907-EFF | PW2907-MID2 | PW2907-MID1 | PW2907-IN |
|-------------------|------------|---------------|---------------|---------------|
| LAB SAMPLE ID: | 4043012-01 | 4043012-02 | 4043012-03 | 4043012-04 |
| SAMPLE DATE: | 04/30/14 | 04/30/14 | 04/30/14 | 04/30/14 |
| RECEIVED DATE: | 04/30/14 | 04/30/14 | 04/30/14 | 04/30/14 |
| MATRIX | Units | Potable Water | Potable Water | Potable Water |

VOLATILE ORGANICS BY EPA METHOD 524.2 (GC/MS) (Water)

| Compound | Units | PW2907-EFF | PW2907-MID2 | PW2907-MID1 | PW2907-IN |
|-------------------------------|-------|------------|-------------|-------------|-----------|
| tert-Amyl alcohol (TAA) | ug/L | <10.0 | <10.0 | <10.0 | <250 |
| tert-Amyl methyl ether (TAME) | ug/L | <0.50 | <0.50 | <0.50 | <12.5 |
| Benzene | ug/L | <0.50 | <0.50 | <0.50 | <12.5 |
| Bromobenzene | ug/L | <0.50 | <0.50 | <0.50 | <12.5 |
| Bromochloromethane | ug/L | <0.50 | <0.50 | <0.50 | <12.5 |
| Bromodichloromethane | ug/L | <0.50 | <0.50 | <0.50 | <12.5 |
| Bromoform | ug/L | <0.50 | <0.50 | <0.50 | <12.5 |
| Bromomethane | ug/L | <0.50 | <0.50 | <0.50 | <12.5 |
| tert-Butanol (TBA) | ug/L | <10.0 | <10.0 | <10.0 | <250 |
| n-Butylbenzene | ug/L | <0.50 | <0.50 | <0.50 | <12.5 |
| sec-Butylbenzene | ug/L | <0.50 | <0.50 | <0.50 | <12.5 |
| tert-Butylbenzene | ug/L | <0.50 | <0.50 | <0.50 | <12.5 |
| Carbon tetrachloride | ug/L | <0.50 | <0.50 | <0.50 | <12.5 |
| Chlorobenzene | ug/L | <0.50 | <0.50 | <0.50 | <12.5 |
| Chloroethane | ug/L | <0.50 | <0.50 | <0.50 | <12.5 |
| Chloroform | ug/L | <0.50 | <0.50 | <0.50 | <12.5 |
| Chloromethane | ug/L | <0.50 | <0.50 | <0.50 | <12.5 |
| 2- & 4-Chlorotoluene | ug/L | <0.50 | <0.50 | <0.50 | <12.5 |
| Dibromochloromethane | ug/L | <0.50 | <0.50 | <0.50 | <12.5 |
| 1,2-Dibromo-3-chloropropane | ug/L | <0.50 | <0.50 | <0.50 | <12.5 |
| 1,2-Dibromoethane (EDB) | ug/L | <0.50 | <0.50 | <0.50 | <12.5 |
| Dibromomethane | ug/L | <0.50 | <0.50 | <0.50 | <12.5 |
| 1,2-Dichlorobenzene | ug/L | <0.50 | <0.50 | <0.50 | <12.5 |
| 1,3-Dichlorobenzene | ug/L | <0.50 | <0.50 | <0.50 | <12.5 |
| 1,4-Dichlorobenzene | ug/L | <0.50 | <0.50 | <0.50 | <12.5 |
| Dichlorodifluoromethane | ug/L | <0.50 | <0.50 | <0.50 | <12.5 |
| 1,1-Dichloroethane | ug/L | <0.50 | <0.50 | <0.50 | <12.5 |
| 1,2-Dichloroethane | ug/L | <0.50 | <0.50 | <0.50 | <12.5 |
| 1,1-Dichloroethene | ug/L | <0.50 | <0.50 | <0.50 | <12.5 |
| cis-1,2-Dichloroethene | ug/L | <0.50 | <0.50 | <0.50 | <12.5 |
| trans-1,2-Dichloroethene | ug/L | <0.50 | <0.50 | <0.50 | <12.5 |
| 1,2-Dichloropropane | ug/L | <0.50 | <0.50 | <0.50 | <12.5 |
| 1,3-Dichloropropane | ug/L | <0.50 | <0.50 | <0.50 | <12.5 |
| 2,2-Dichloropropane | ug/L | <0.50 | <0.50 | <0.50 | <12.5 |
| 1,1-Dichloropropene | ug/L | <0.50 | <0.50 | <0.50 | <12.5 |
| cis-1,3-Dichloropropene | ug/L | <0.50 | <0.50 | <0.50 | <12.5 |

1 = Result taken from diluted analysis

Analytical Results

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410-247-7600
www.mdspectral.com
VELAP ID 460040

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|-------------------|------------|---------------|---------------|---------------|
| LAB SAMPLE ID: | 4043012-01 | 4043012-02 | 4043012-03 | 4043012-04 |
| SAMPLE DATE: | 04/30/14 | 04/30/14 | 04/30/14 | 04/30/14 |
| RECEIVED DATE: | 04/30/14 | 04/30/14 | 04/30/14 | 04/30/14 |
| MATRIX | Units | Potable Water | Potable Water | Potable Water |

VOLATILE ORGANICS BY EPA METHOD 524.2 (GC/MS) (continued)

| | | | | | |
|-----------------------------------|--------|--------------|--------------|----------------|--------------|
| trans-1,3-Dichloropropene | ug/L | <0.50 | <0.50 | <0.50 | <12.5 |
| Diisopropyl ether (DIPE) | ug/L | <0.50 | <0.50 | <0.50 | <12.5 |
| Ethyl tert-butyl ether (ETBE) | ug/L | <0.50 | <0.50 | <0.50 | <12.5 |
| Ethylbenzene | ug/L | <0.50 | <0.50 | <0.50 | <12.5 |
| Hexachlorobutadiene | ug/L | <0.50 | <0.50 | <0.50 | <12.5 |
| Isopropylbenzene (Cumene) | ug/L | <0.50 | <0.50 | <0.50 | <12.5 |
| 4-Isopropyltoluene | ug/L | <0.50 | <0.50 | <0.50 | <12.5 |
| Methyl tert-butyl ether (MTBE) | ug/L | <0.50 | <0.50 | 136 [1] | 445 |
| Methylene chloride | ug/L | <0.50 | <0.50 | <0.50 | <12.5 |
| Naphthalene | ug/L | <0.50 | <0.50 | <0.50 | <12.5 |
| n-Propylbenzene | ug/L | <0.50 | <0.50 | <0.50 | <12.5 |
| Styrene | ug/L | <0.50 | <0.50 | <0.50 | <12.5 |
| 1,1,1,2-Tetrachloroethane | ug/L | <0.50 | <0.50 | <0.50 | <12.5 |
| 1,1,2,2-Tetrachloroethane | ug/L | <0.50 | <0.50 | <0.50 | <12.5 |
| Tetrachloroethene | ug/L | <0.50 | <0.50 | <0.50 | <12.5 |
| Toluene | ug/L | <0.50 | <0.50 | <0.50 | <12.5 |
| 1,2,3-Trichlorobenzene | ug/L | <0.50 | <0.50 | <0.50 | <12.5 |
| 1,2,4-Trichlorobenzene | ug/L | <0.50 | <0.50 | <0.50 | <12.5 |
| 1,1,1-Trichloroethane | ug/L | <0.50 | <0.50 | <0.50 | <12.5 |
| 1,1,2-Trichloroethane | ug/L | <0.50 | <0.50 | <0.50 | <12.5 |
| Trichloroethene | ug/L | <0.50 | <0.50 | <0.50 | <12.5 |
| Trichlorofluoromethane (Freon 11) | ug/L | <0.50 | <0.50 | <0.50 | <12.5 |
| 1,2,3-Trichloropropane | ug/L | <0.50 | <0.50 | <0.50 | <12.5 |
| 1,2,4-Trimethylbenzene | ug/L | <0.50 | <0.50 | <0.50 | <12.5 |
| 1,3,5-Trimethylbenzene | ug/L | <0.50 | <0.50 | <0.50 | <12.5 |
| Vinyl chloride | ug/L | <0.50 | <0.50 | <0.50 | <12.5 |
| o-Xylene | ug/L | <0.50 | <0.50 | <0.50 | <12.5 |
| m- & p-Xylenes | ug/L | <0.50 | <0.50 | <0.50 | <12.5 |
| 4-Bromofluorobenzene | [surr] | <u>91.4%</u> | <u>89.6%</u> | <u>87.1%</u> | <u>86.6%</u> |
| 1,2-Dichlorobenzene-d4 | [surr] | <u>87.7%</u> | <u>90.7%</u> | <u>86.6%</u> | <u>90.7%</u> |

1 = Result taken from diluted analysis

CHAIN-OF-CUSTODY RECORD

Maryland Spectral Services, Inc.
 1500 Caton Center Drive, Suite G
 Baltimore, MD 21227
 410-247-7600 • Fax 410-247-7602
 labman@mdspectral.com

Matrix Codes: NW (nonpotable water)
 PW (potable water)

Preservative: 1+1
 HCL, H₂SO₄,
 Methanol,
 Na₂S₂O₃, NaHCO₃

Field pH, Residual
 Chlorine, QC
 Request, Trip
 Blank, Field Blank

MSS Lab ID

4043012-01

-02
 -03
 -04

Analysis Requested

VEG + Oxy 524.2

No. of Containers

2

Project Manager:

VOLF

Project ID:

05-05668072

P.O. Number:

05-05668072

Field Sample ID

PW2907-6A
 PW2207-6B
 PW2907-6C
 PW2907-6D

Date

4/30/14
 4/30
 4/30
 4/30

Time

11:30 PM
 11:32
 11:34
 11:36

Water

↓
 ↓
 ↓
 ↓

Soil

↓
 ↓
 ↓
 ↓

Other

↓
 ↓
 ↓
 ↓

Relinquished by: (Signature)

[Signature]

Date/Time

4/30/14
 1605

Received by: (Signature)

[Signature]
 William Brewington

Relinquished by: (Signature)

[Signature]

Date/Time

[Signature]

Received by: (Signature)

[Signature]

Relinquished by: (Signature)

[Signature]

Date/Time

[Signature]

Received by Lab: (Signature)

[Signature]

Turn Around Time:

Normal (7 day)
 5 day
 4 day
 3 day
 Rush (2 day)
 Next Day
 Other: _____
 Specific Due Date: _____

Lab Use:

Temp: 4.8 °C
 Received on Ice
 Received same day
 Preservation Appropriate

Sample Disposal:

Return to Client
 Disposal by lab
 Archive for _____ days

Delivery Method:

Courier
 Client
 UPS
 FedEx
 USPS
 Other: _____

Special Instructions/QC Requirements & Comments:

Results to J. Stein / J. Wolf
 Fluorine to 01180