



April 4, 2014

Mr. Joseph May, P.G.
Florida Department of Environmental Protection
400 North Congress Avenue, Suite 200
West Palm Beach, Florida 33401

Re: DMW Casing proposal - Medley Landfill, Inc. Injection System
File/Permit Number: 563401-021-UC

Dear Mr. May:

Pursuant to our discussions yesterday with Joe Haberfeld, and in accordance with Chapter 62-528, FAC and the Test Injection Well Permit No. 563401-021-UC, this letter is provided to inform you of revised completion details proposed for the referenced injection well system's dual zone deep monitoring well.

This letter revises the proposed depths for the 16 inch diameter upper monitoring zone casing and the 6-5/8 inch FRP deep monitoring zone casing. The new proposed casing seats and monitoring intervals are as follows:

1. Upper Monitor Zone
 - a.) Casing seat at 1620' BPL
 - b.) Bottom monitoring interval 1704' BPL
2. Lower Monitoring Zone
 - a.) Casing seat at 1890' BPL
 - b.) Bottom of monitoring interval 1950' BPL

The revised casing seats allow us to complete the monitoring well in zones that have demonstrated productivity and provide greater separation between the monitoring intervals. The revised upper monitoring interval will be completed in a zone that was tested during construction of the injection well. The revised lower monitoring interval was tested during monitoring well construction. Both of the monitoring zones have demonstrated production capability of 50 GPM or more.

The previously supplied cementing plan for the 16" casing is still generally valid. The cementing plan will be fine-tuned after collection of the caliper log in the reamed hole. At a minimum, the bottom 100 feet of the 16 inch casing will be cemented with neat Portland cement. Subsequent stages of grout will be Portland cement extended with up to 6% gel. The first stage however will not be installed



via pressure grout since an YBI Triple Seal packer is being constructed to seat the 16" casing with open hole below the casing seat. The Triple Seal Packer will be sealed with two or three slugs of gravel to establish a place to set grout. A small slug of neat Portland cement will then be placed on top of the gravel. Once the grout seal above the gravel is about 10 feet, the original cementing plan will be implemented with placement by tremie pipe.

The total depth of the monitoring well's pilot hole is 2055 feet Below Pad Level (BPL). The hole below the casing seat at 1620' BPL will be reopened to 2055' BPL to remove gravel placed in the pilot hole prior to reaming. Once the hole is cleaned out to 2055' BPL, the pilot hole will be plugged with cement from 2055' BPL up to 1950' BPL (the bottom of the lower monitoring interval).

The 6-5/8" FRP lower monitoring zone casing will be installed utilizing an YBI Triple Seal Packer and grout placement via tremie pipe. A separate cement plan will be prepared for the FRP lower monitoring zone casing after the hole is cleaned out and a new caliper log is collected.

The FRP lower monitor well casing will be hung from the wellhead and cemented only on the bottom 200 feet from 1900 feet up to the bottom of the upper monitoring interval at 1700. At a minimum, the bottom 100 feet of casing will be grouted in place using neat Portland cement grout. Please don't hesitate to contact me at (321) 504-4046 if you have any questions or need additional information.

Sincerely,

A handwritten signature in blue ink, appearing to read "James E. McGrath".

James E. McGrath, P.G.,
Senior Geologist

Cc: Joe Haberfeld P.G., FDEP
N Khoury, WM
Roger Mayfield, P.E.