

AMERICULTURE

EXHIBIT

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Chavez, Carl J, EMNRD

From: Chavez, Carl J, EMNRD
Sent: Monday, October 06, 2008 9:14 AM
To: 'Jay Hamilton'
Cc: Price, Wayne, EMNRD
Subject: RE: Monitor Well Locations

Jay:

I am having technical difficulty printing John Shomaker's map w/ monitoring locations; however, from review of the most recent big map that was sent to me, I see the locations of the 2 monitor wells that appear to be used strictly for head elevation monitoring. I think at least 3 monitor wells are needed to monitor the ground flow direction across the facility at various depths within the aquifer(s).

Also, while this is ok to monitor the vertical gradients at the site, piezometer wells are generally constructed too small to sample. I presume that they would be constructed of at least 2 inch diameter pipe. The OCD had requested monitor wells to monitor for WQCC Standards especially near the evaporation pond where cooling tower blowdown may have the potential to leak into the water table and flow downgradient from the plant.

I recommend that you have Mr. Shomaker contact me to discuss the ground water monitoring plan verbally so I may have a better idea of the objective. Thank you.

Carl J. Chavez, CHMM
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Oil Conservation Division, Environmental Bureau
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(Pollution Prevention Guidance is under "Publications")

From: Jay Hamilton [<mailto:hamiltonenviro@yahoo.com>]
Sent: Friday, September 19, 2008 4:54 PM
To: Chavez, Carl J, EMNRD
Subject: Fw: Monitor Well Locations

Carl,

Here is the information on the monitoring wells from John Showmaker. I will put this information on the BIG MAP.

Thanks,

Jay

----- Forwarded Message -----

From: John Shomaker <jshomaker@shomaker.com>
To: Jim Rosser <Jim.Rosser@rasertech.com>
Cc: Jay Hamilton <hamiltonenviro@yahoo.com>; Mike Hayter <mike.hayter@rasertech.com>;
ksamuels@shomaker.com
Sent: Friday, September 19, 2008 3:10:14 PM

10/6/2008

Subject: RE: Monitor Well Locations

Hi Jim—

Kim has marked two proposed monitor well locations on the attached map. Each would be a piezometer nest, with three completions: (1) near the water table, (2) somewhere between the bottom of the shallow aquifer and the top of the geothermal production interval, and (3) somewhere below the top of the production interval. They are located to lie on each side of the Western Fault, and to emphasize the monitoring of the aquifer of AmeriCulture's supply wells. I'm planning to include in the OSE application a provision to re-inject water, at a rate to be determined from monitoring results, into an intermediate zone below AmeriCulture's completions, but above the geothermal production interval, so as to maintain the heads in the former without introducing a water-quality problem (since the head-distribution will still result in downward flow, once the geothermal production is occurring).

I am also going to recommend that many existing wells also be monitored, as part of a formal program.

Please let me know if there are questions, or if any other information would be helpful.

Thanks,

John

John Shomaker

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-----Original Message-----

From: Jim Rosser [mailto:Jim.Rosser@rasertech.com]
Sent: Friday, September 19, 2008 12:49 PM
To: John Shomaker
Subject: Monitor Well Locations

John,

Part of the recent work was that you would recommend a couple of monitoring well locations. Can you forward those to me as soon as you can.

Jim

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10/6/2008