Wickham, Jerry, Env. Health

From: Pat Hoban [pat@weber-hayes.com]
Sent: Monday, January 23, 2012 8:43 AM
To: (Sunol) Tim Cook; Wickham, Jerry, Env. Health
Cc: (T Bear) Helyn & Roy; (Sunol) Obaid
Subject: Approval to Install Ozone Injection Wells on the TBear Ranch (Sunol Tree Gas fuel leak, 3004 Andrade Rd, Sunol)
Attachments: 2012-01-20_Info.pdf

Jerry Wickham
Alameda County Environmental Health

Tim Cook, P.E., C.E.G.
Cook Environmental Services, Inc.

Subject: **OK to Install Ozone Injection Wells on the TBear Ranch**

Location: **RO2448, 3004 Andrade Road, Sunol (Sunol Super Station)**

Hello Jerry and Tim,

I corresponded with Helyn Hayes/Roy Tovani this weekend with regard to their concerns over installation of Ozone Injection wells on their property, in accordance with the *Oct-2010 Addendum to Interim Remedial Action Plan.* I provided some visuals and brief overviews (see below, attached) to reinforce the merits of, and need for, the remedial effort and **they agree that the potential for an expedited "site closure" outweighs the inconvenience and potential impacts to their parcel/business.** I should point out that Helyn and Roy stated that they do not want to impede any remedial efforts; they are just gun-shy of further drilling work on their property because the 2003 sonic coring and CMT well installations were hit hard by early winter rains and caused quite an impact to their business.

Their one request, aside from being kept in the loop, is that the site be fully restored at the time of drilling, and the trees remain undamaged.

Feel free to call with any questions
Pat

Pat Hoban, PG
Senior Geologist

Weber, Hayes & Associates
120 Westgate Drive, Watsonville, CA 95076
(831) 722-3580

cc: Obaid Abdullah, Helyn Hayes/Roy Tovani

----- Original Message -----
From: Pat Hoban
To: Alphacat2000@aol.com
Sent: Friday, January 20, 2012 4:51 PM
Subject: Re: Results of Pilot Test Investigation, Sunol Tree Gas, 3004 Andrade Rd, Su...

Hi there Helyn,

Sad to say, but I'm becoming more and more of a desk jockey with each passing day! I miss our occasional meetings at the ranch. Because a picture says a thousand words, I've put together a few "snapshots" of what is going on with the remediation plans.

- 1st figure: Tim Cook's original injection layout (March-2010), which showed 2 Ozone/oxygen injection wells positioned up on the edge of the gas station property. I drafted in some yellow shading from the two injection points which represents the approximate cleanup zone -- the injection appears to be designed to clean the areas immediately upgradient (uphill) of the two most impacted monitored wells --- the two injection wells are positioned about 40 feet uphill from the most impacted wells
- 2nd figure: Tim Cook's modified injection layout (Oct-2010), shows the two proposed Ozone/oxygen injection well locations have been moved 25 feet closer to closer to the two most impacted wells. The reason they wanted to move the injection wells closer is because their recent drilling along the back side of the gas station did not detect any MTBE. So apparently, they believe installing up at the top of the small gas station hill would be an inefficient waste of expensive Ozone injection because they would be injecting into "clean" groundwater. Moving the injection wells closer to the monitoring points would likely clean them up quicker and therefore they'd get more bang for the buck with regards to remediation dollars.
- 3rd figure: This shows subsurface cross sections that identify the three saturated lenses being monitored, and the 2 "hot" zones that the injection remediation would be targeting.
- 4th figure: This one surprised me a bit. It shows graphs of MTBE concentrations in 4 adjoining, centrally-located wells located next to each other (#4, #5, #6, & #7). The surprising point is that there are upward trends in three out of the 4 wells (although the sampling intervals are far and few between for a few of the wells). This upward trend of MTBE concentrations is surprising because we have seen decreasing trends down at the TBear Supply Well (see figure 6). In either case, the upward trend in MTBE concentrations at the property line indicate that and aggressive remediation should be completed.
- 5th figure: Aerial photo that provides a visual comparison of the original injection layout relative to modified injection layout - there is not a heck of a lot of difference between the two (~25 feet).
- 6th figure: Downward trend of MTBE detections in the TBear Water Supply Well (only trace hits of MTBE over the last 4 years)
- 7th figure: Again, downward trends of MTBE concentration in the shallow/deep monitoring point (PZ-2a, & -2b) located ~ 15 feet from the TBear Water Supply Well (currently trace -non-detects in these monitoring points).
- 8th figure: Map showing the TBear Well and other monitoring points (this figure shows the original detections back in 2004).

The bottom line is, aggressive remediation is good because the sooner they get those MTBE concentrations down to nothing, the sooner your property will get back to full value. I don't really remember there being a lot of access by the line of trees, however, the injection wells typically can be installed with a driven probe rig (pickup truck sized rig) and, if they can get back there, it would likely not be too invasive. Injecting closer to the monitoring points would likely get the site cleanup investigation "closed" sooner, but if it is a hardship, installing a "big stick' lineup of injection point at the top of the small hill could be effective also.

All the best to you and Roy,

Pat

----- Original Message -----
From: Alphacat2000@aol.com
To: pat@weber-hayes.com
Sent: Thursday, January 19, 2012 7:13 PM
Subject: Fwd: Results of Pilot Test Investigation, Sunol Tree Gas, 3004 Andrade Rd, Su...

Hi Pat,

Hope the year is starting off well for you & the family. I received a call from Tim Cook around Christmas last year asking when it would be a good time to dig a couple of holes on my property. I explained we that we have so little business that any more disruption like before would have us closing down,not to mention mentally & physically it would be over the top.

So, just thought i'd send this on to you. Come by & say hi sometime.

Helyn & Roy

From: tcook@cookenvironmental.com
To: jerry.wickham@acgov.org
CC: alphacat2000@aol.com, Sunolracingfuel@yahoo.com, jrice@jenricelaw.com, donna.drogos@acgov.org
Sent: 1/19/2012 4:43:53 P.M. Pacific Standard Time
Subj: Re: Results of Pilot Test Investigation, Sunol Tree Gas, 3004 Andrade Rd, Sunol

Jerry,
Thanks for your quick response. I will wait to hear from you on this matter after 2/15/12.
Tim

On Thu, Jan 19, 2012 at 4:24 PM, Wickham, Jerry, Env. Health <jerry.wickham@acgov.org> wrote:

Tim,

An indefinite delay due to lack of access is not an acceptable outcome for this case. However, given the circumstances of this case, T Bear Ranch should not be burdened with further requirements to provide access to their property to conduct pilot testing.

An alternate approach for pilot testing is needed. You may propose an alternate approach at this time. In order to provide further direction for this case, I will need to spend some time reviewing the case file. My current case load is extremely heavy; therefore, I will not be able to provide further direction until after February 15.

Regards,

Jerry Wickham

Alameda County Environmental Health

1131 Harbor Bay Parkway

Alameda, CA 94502-6577

phone: 510-567-6791

jerry.wickham@acgov.org

From: Tim Cook [mailto:tcook@cookenvironmental.com]
Sent: Thursday, January 19, 2012 11:12 AM

To: Wickham, Jerry, Env. Health
Cc: Helen Hayes; Obaid Abdullah; Jennifer Rice; Drogos, Donna, Env. Health

Subject: RE: Results of Pilot Test Investigation, Sunol Tree Gas, 3004 Andrade Rd, Sunol

Hi Jerry,

I sent you an email on 1/3/12 updating you on the status of the planned ozone pilot test for Sunol Tree Gas in Sunol. The pilot test was described previously in the Addendum to IRAP, dated October 14, 2011. My update pertained to the denial of access to the T-Bear Ranch by the owners, Helen Hayes and Roy Tovani. The two ozone sparge wells were planned to be installed on their property. We had planned to install the wells this week and the ozone sparge system next week. The pilot test would have commenced immediately after installation. At this time, we cannot proceed due to the denial of site access. As noted previously, we will continue to collect quarterly samples from select monitoring wells and from the treatment system on the T-Bear water supply well. Please acknowledge that you have received this notice.

Best regards,

Tim Cook, P.E., C.E.G.

President

Cook Environmental Services, Inc.

Contractor A, Haz Lic. #921387

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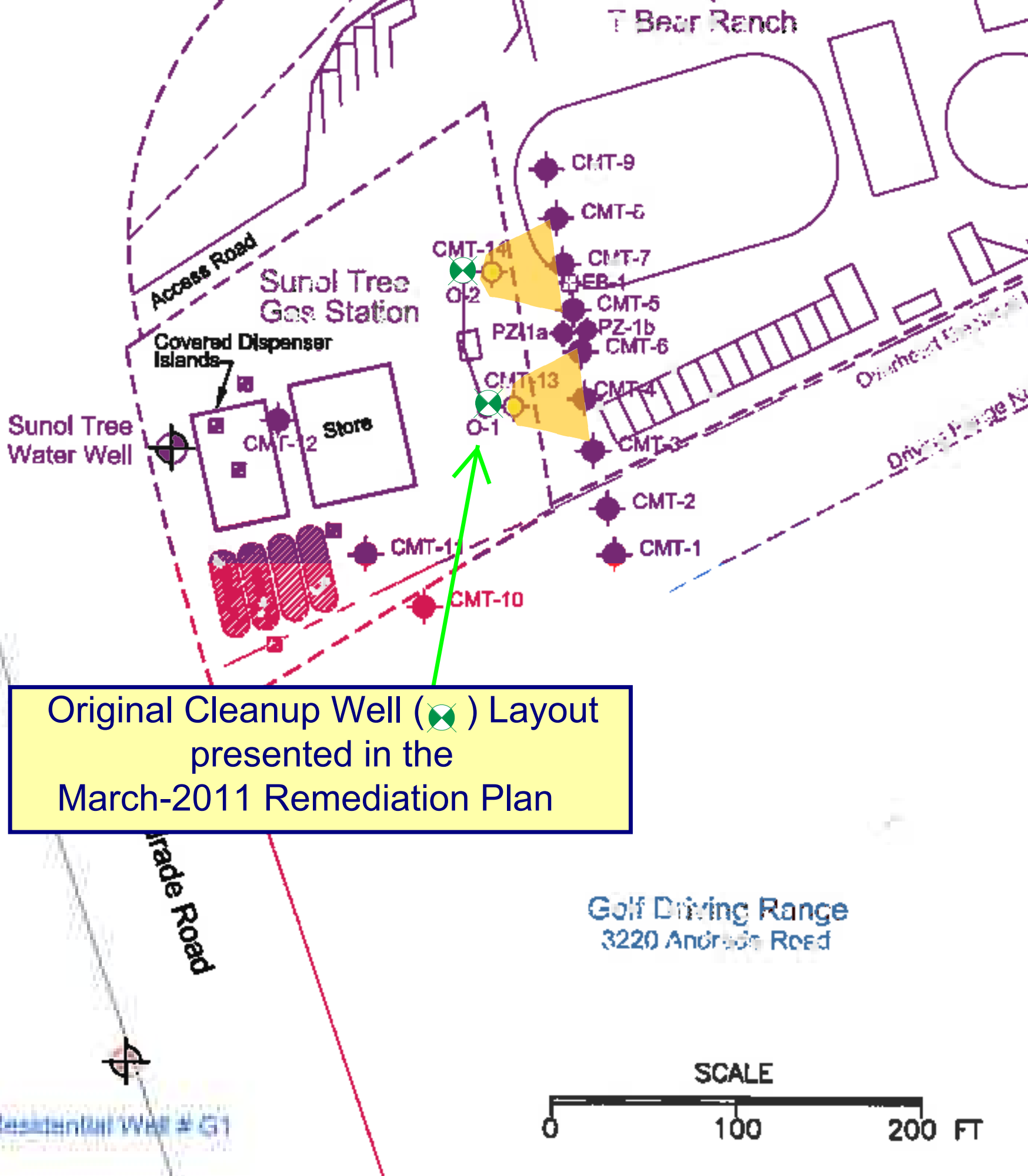
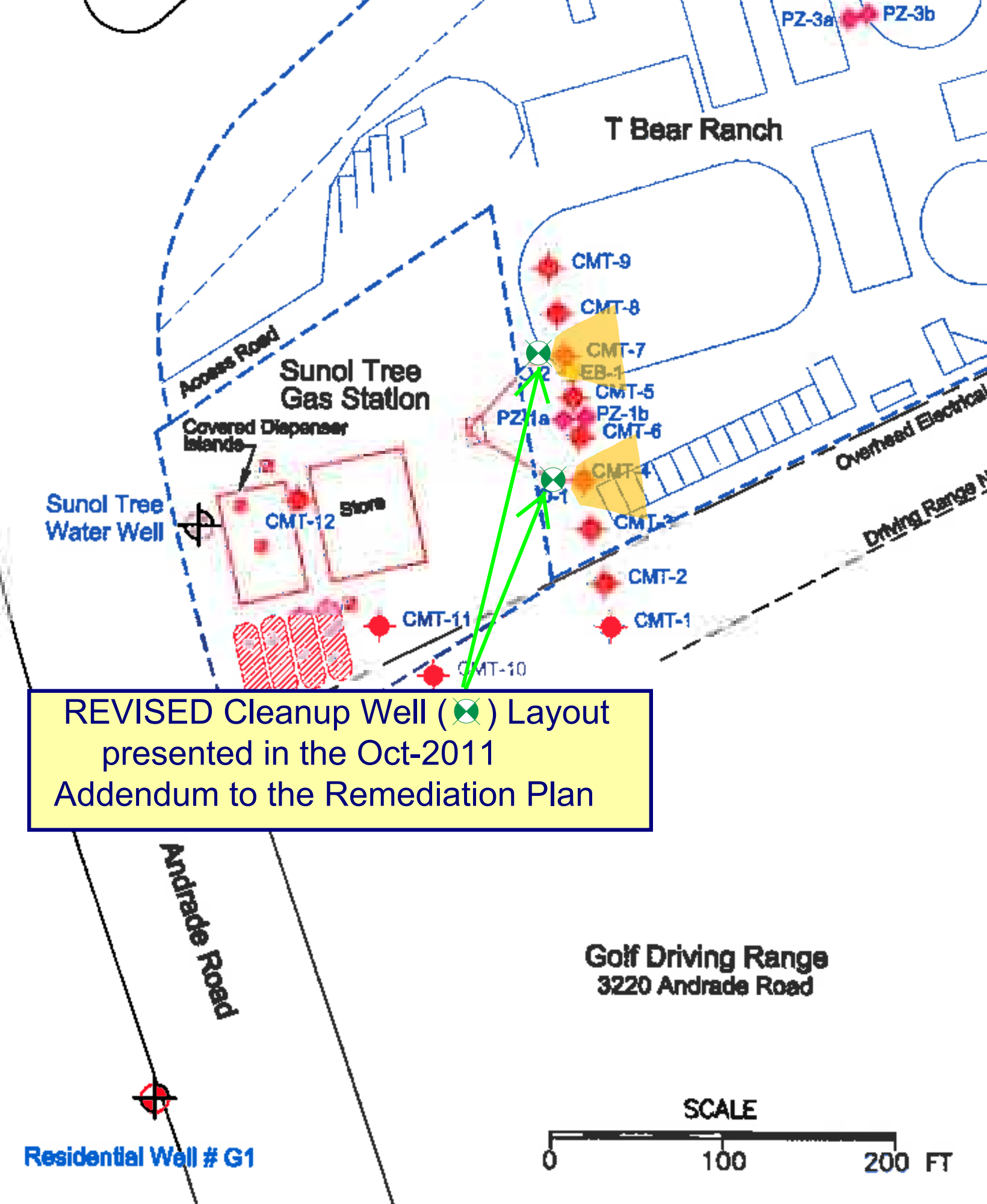
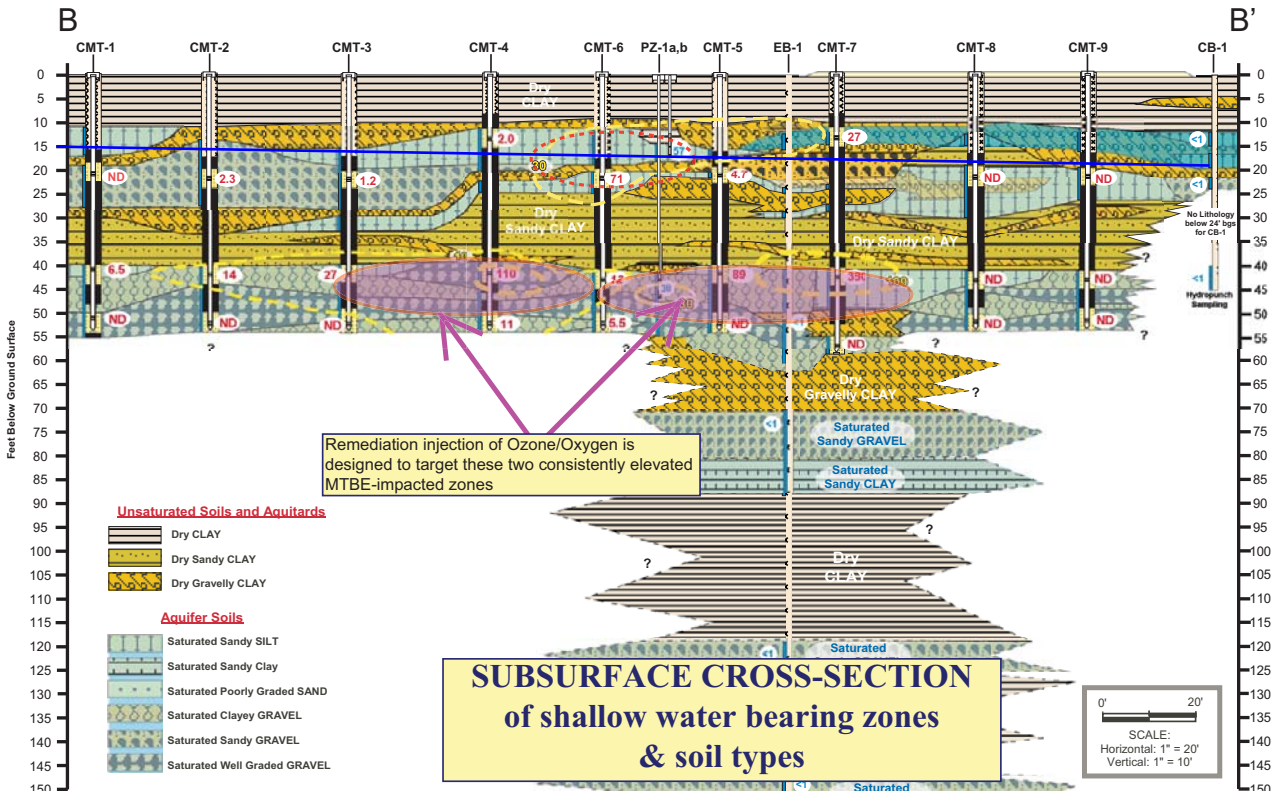
Walnut Creek, CA 94597

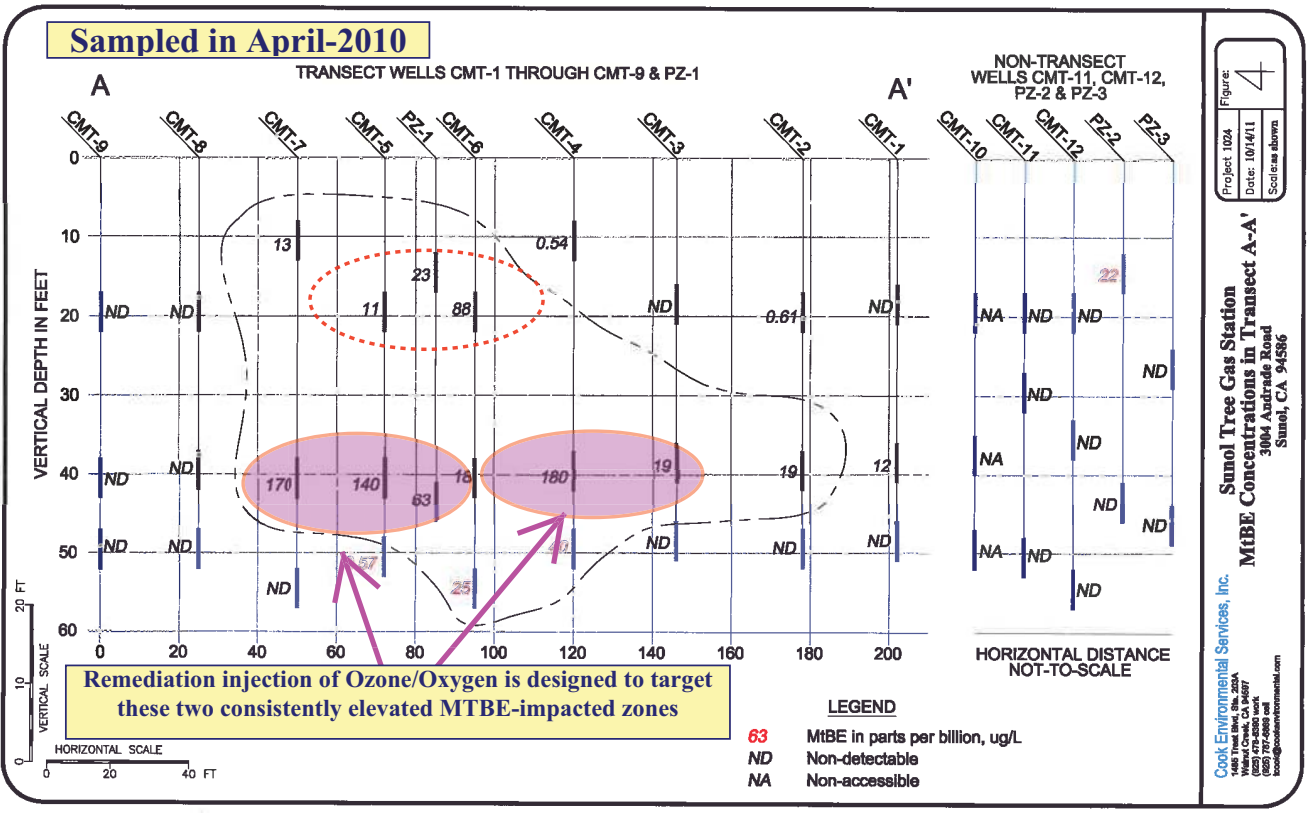
Ofc. (925) 478-8390

Mob. (925) 787-6869

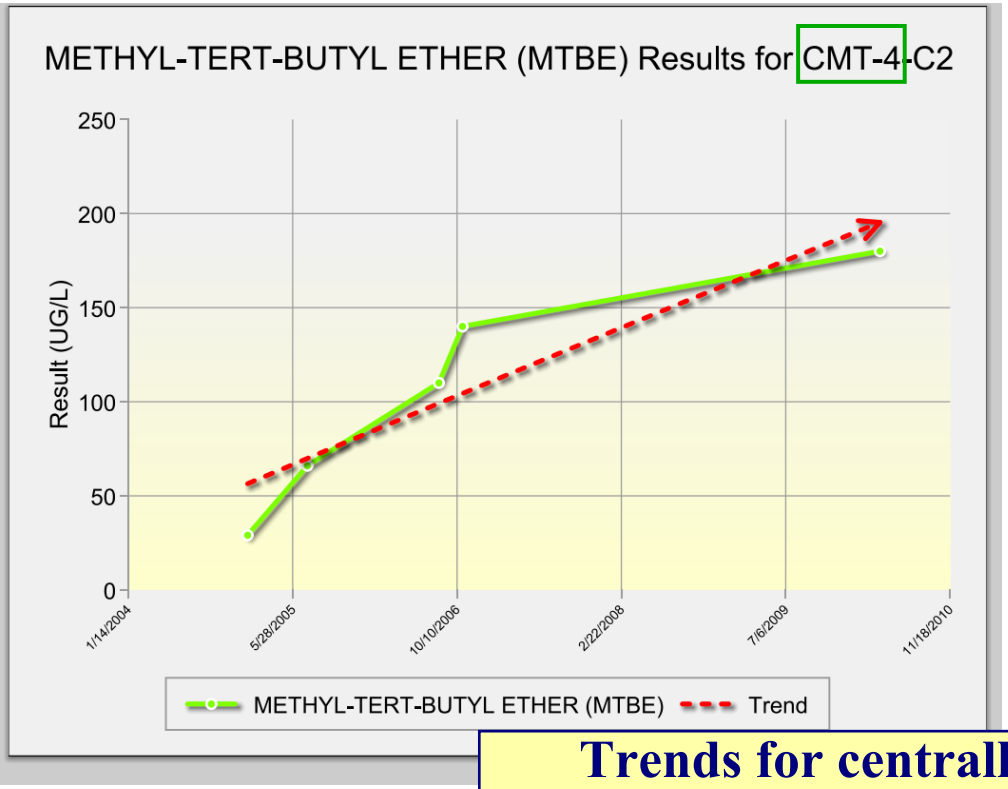

T Bear Ranch
CMT-9
CMT-8
CMT-14
CMT-7
EB-1
CMT-5
PZ-1a
PZ-1b
CMT-6
CMT-13
CMT-4
CMT-3
CMT-2
CMT-1
CMT-11
CMT-10
Access Road
Sunol Tree
Gas Station
Covered Dispenser
Islands
Store
Sunol Tree
Water Well
O-2
O-1
Original Cleanup Well ( ) Layout
presented in the
March-2011 Remediation Plan
Golf Driving Range
3220 Andrade Road
SCALE
0
100
200 FT

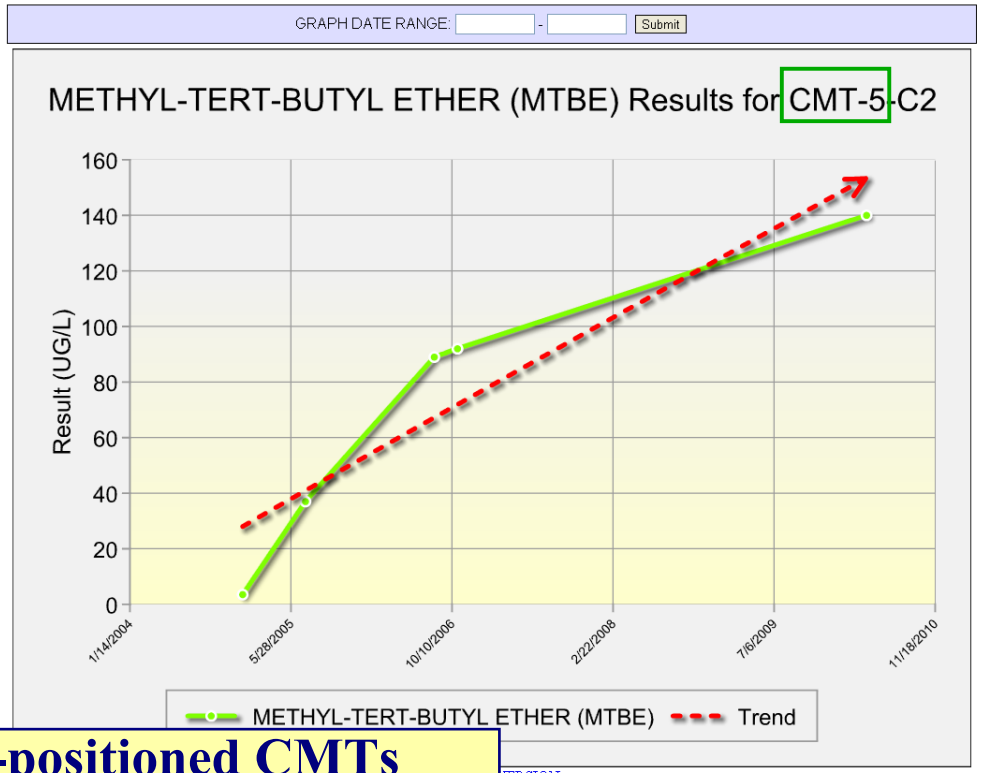

PZ-3a
PZ-3b
T Bear Ranch
CMT-9
CMT-8
CMT-7
EB-1
CMT-5
PZ-1a
PZ-1b
CMT-6
CMT-4
CMT-3
CMT-2
CMT-1
Access Road
Sunol Tree
Gas Station
Covered Dispenser Islands
Store
CMT-12
Sunol Tree
Water Well
CMT-11
CMT-10
Overhead Electrical
Driving Range
REVISED Cleanup Well ( ) Layout
presented in the Oct-2011
Addendum to the Remediation Plan
Andrade Road
Golf Driving Range
3220 Andrade Road
Residential Well # G1
SCALE
0
100
200 FT


B
B'
CMT-1
CMT-2
CMT-3
CMT-4
CMT-6
PZ-1a,b
CMT-5
EB-1
CMT-7
CMT-8
CMT-9
CB-1
Feet Below Ground Surface
Dry CLAY
Dry Sandy CLAY
Dry Gravelly CLAY
Saturated Sandy GRAVEL
Saturated Sandy CLAY
Saturated
No Lithology below 24' bgs for CB-1
Hydropunch Sampling
Remediation injection of Ozone/Oxygen is designed to target these two consistently elevated MTBE-impacted zones
Unsaturated Soils and Aquitards
Dry CLAY
Dry Sandy CLAY
Dry Gravelly CLAY
Aquifer Soils
Saturated Sandy SILT
Saturated Sandy Clay
Saturated Poorly Graded SAND
Saturated Clayey GRAVEL
Saturated Sandy GRAVEL
Saturated Well Graded GRAVEL
SUBSURFACE CROSS-SECTION
of shallow water bearing zones
& soil types
SCALE:
Horizontal: 1" = 20'
Vertical: 1" = 10'


Sampled in April-2010
TRANSECT WELLS CMT-1 THROUGH CMT-9 & PZ-1
A
A'
NON-TRANSECT WELLS CMT-11, CMT-12, PZ-2 & PZ-3
CMT-9
CMT-8
CMT-7
CMT-5
PZ-1
CMT-6
CMT-4
CMT-3
CMT-2
CMT-1
CMT-10
CMT-11
CMT-12
PZ-2
PZ-3
VERTICAL DEPTH IN FEET
HORIZONTAL DISTANCE NOT-TO-SCALE
Remediation injection of Ozone/Oxygen is designed to target these two consistently elevated MTBE-impacted zones
VERTICAL SCALE
HORIZONTAL SCALE
LEGEND
63 MtBE in parts per billion, ug/L
ND Non-detectable
NA Non-accessible
Project 1024
Date: 10/14/11
Scale: as shown
Figure: 4
Sunol Tree Gas Station
MtBE Concentrations in Transect A-A'
3004 Andrade Road
Sunol, CA 94586
Cook Environmental Services, Inc.

Trends for centrally-positioned CMTs (Intermediate Water Zone Sampling Results)





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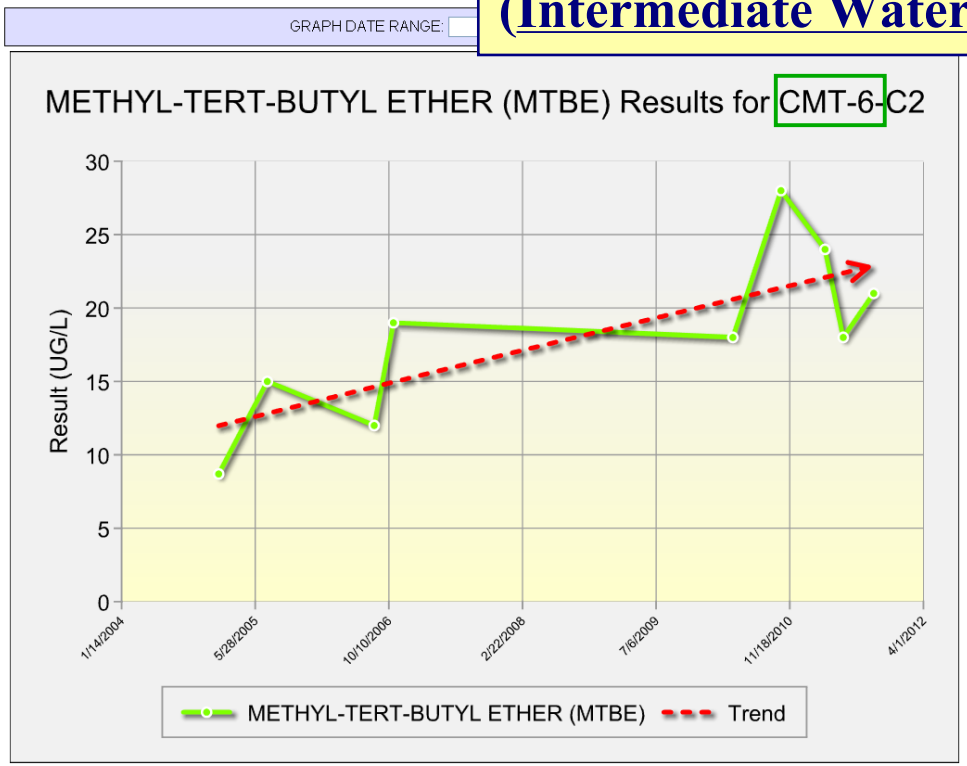

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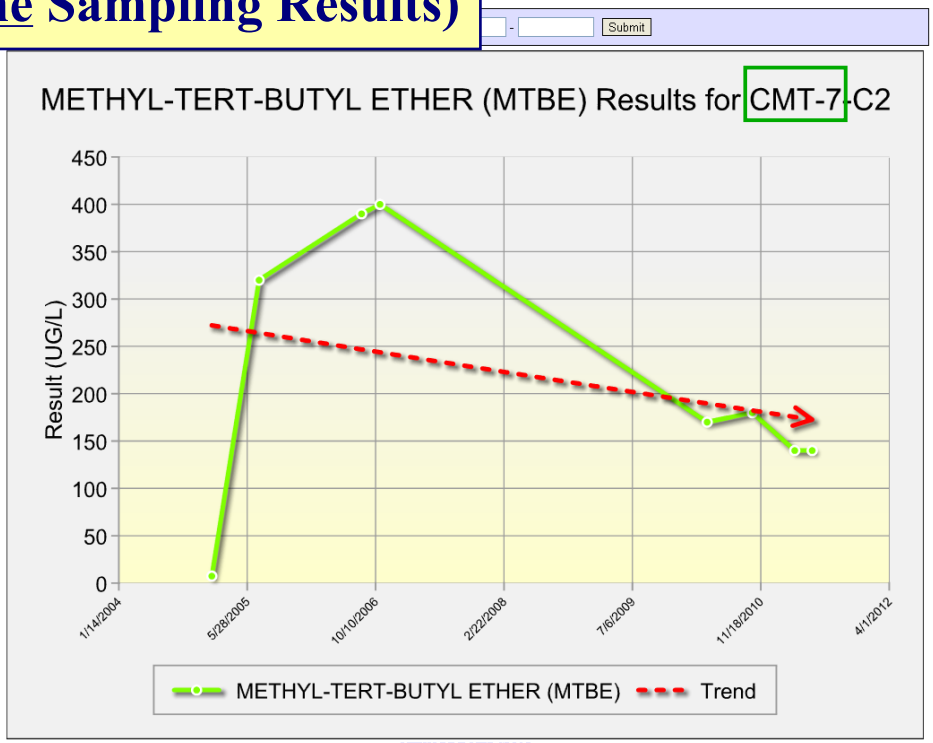

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To see all the details that are visible on the screen, use the "Print" link next to the map.

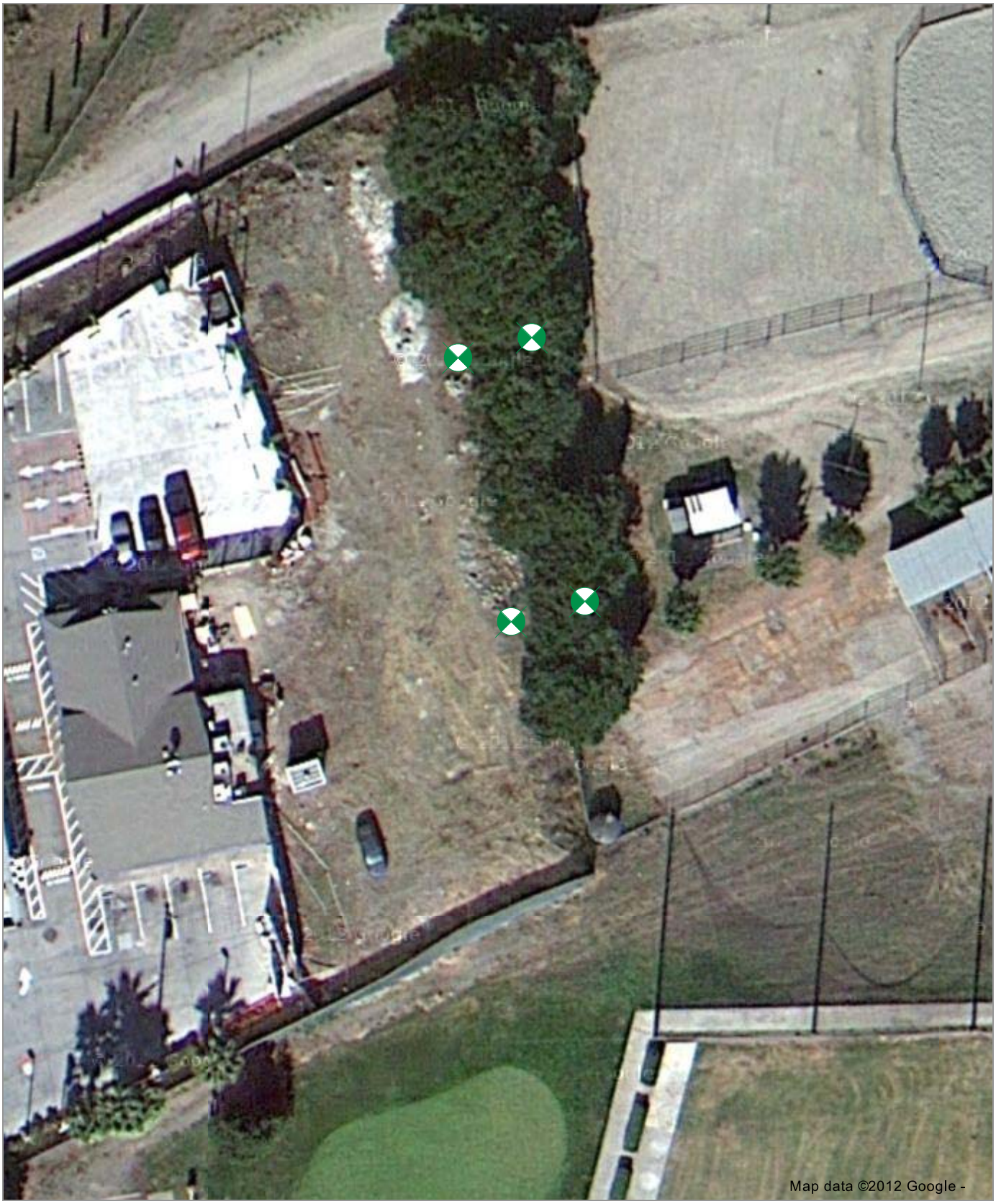
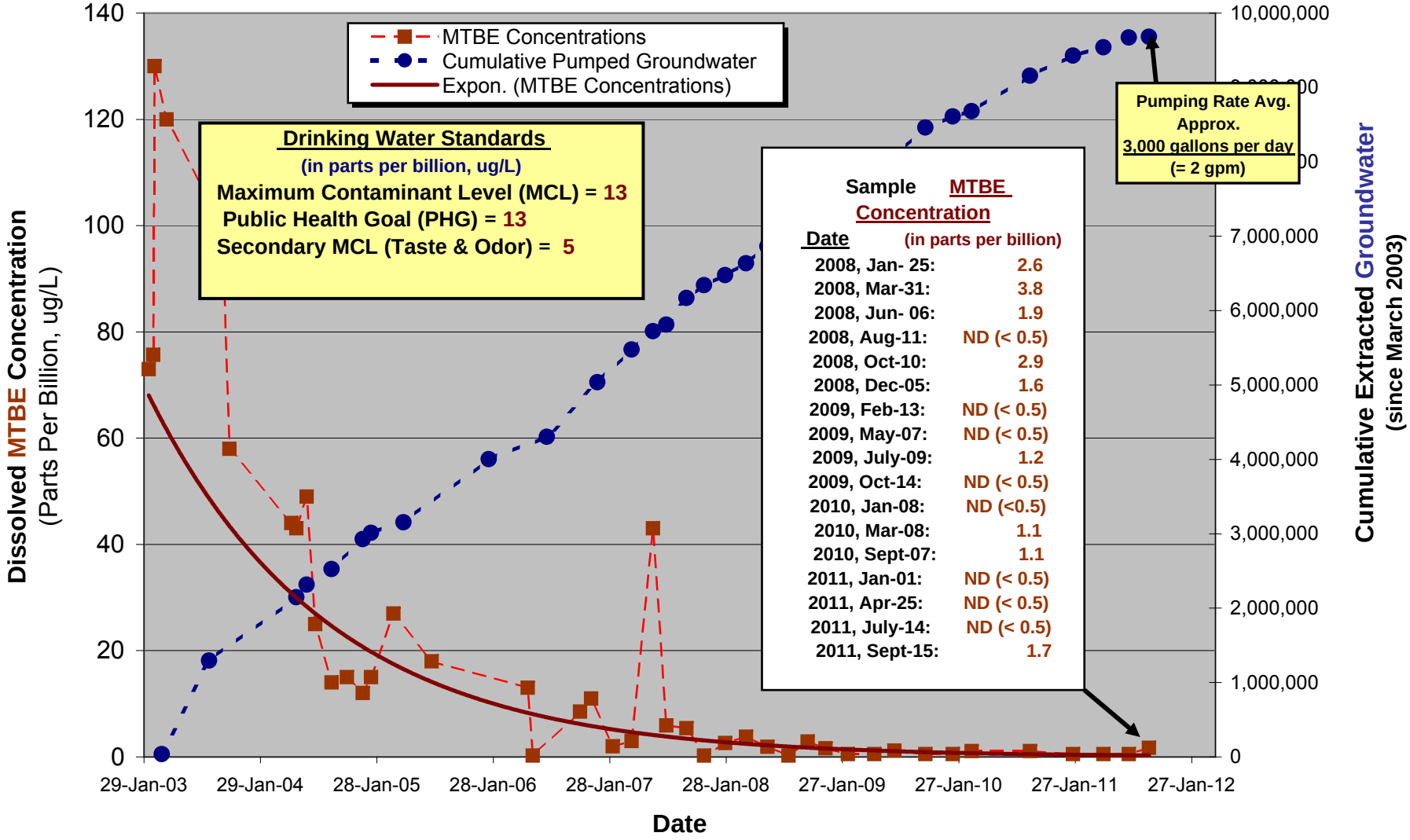
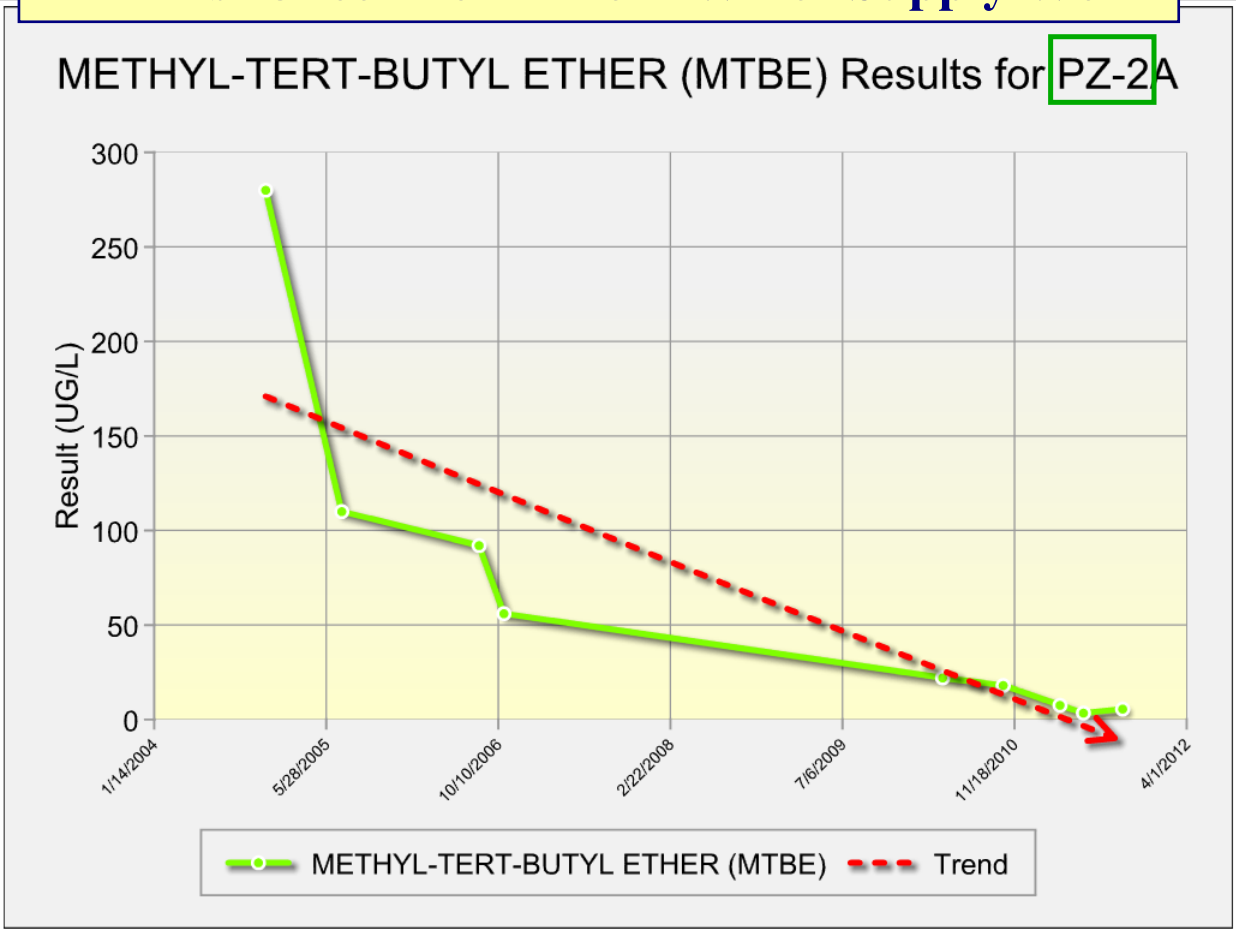


Chart
MTBE Concentrations & Cumulative Pumping Volume
T Bear Well Water Supply Well



PZ-2 is 15 feet from TBear Water Supply Well



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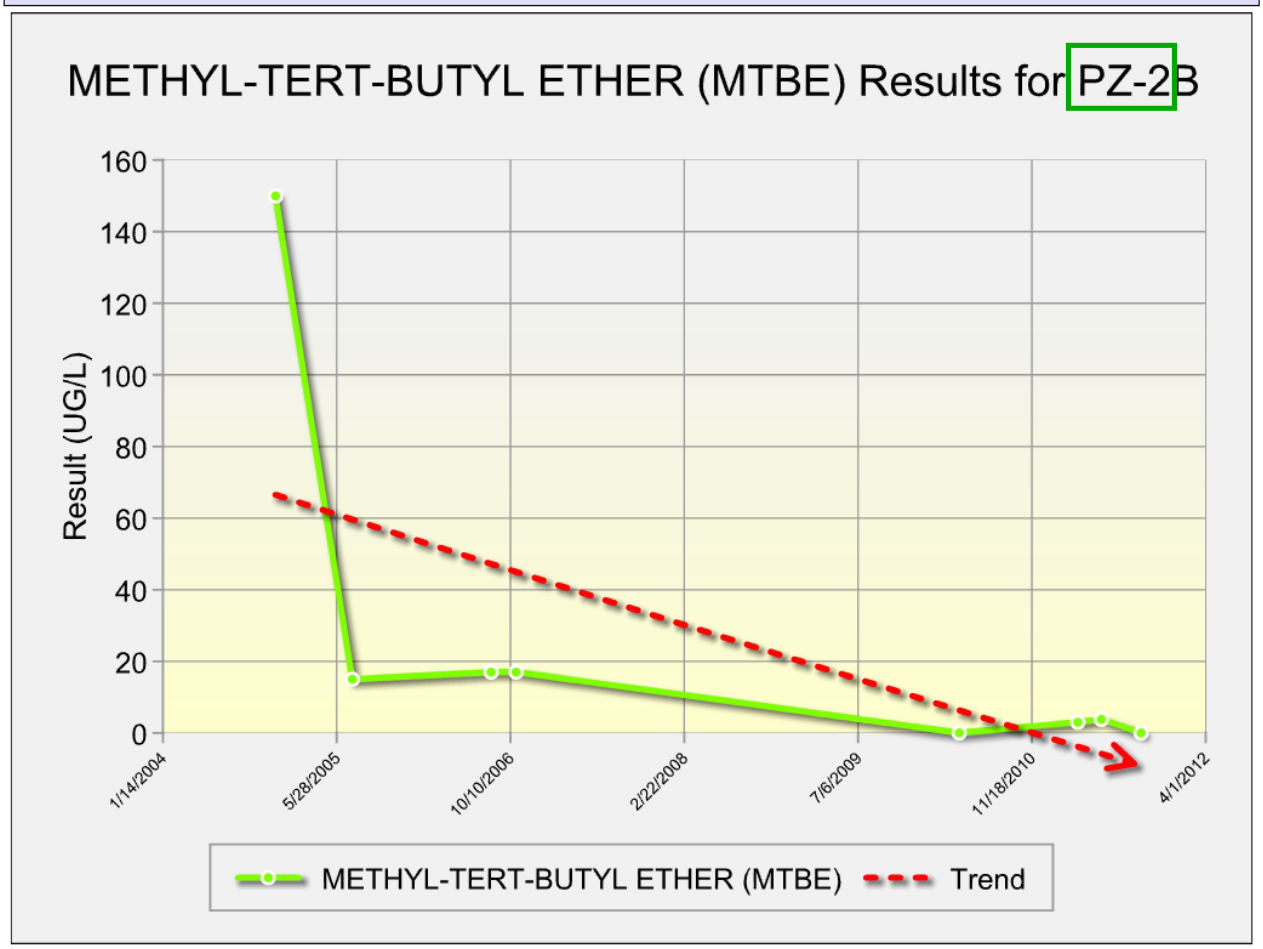

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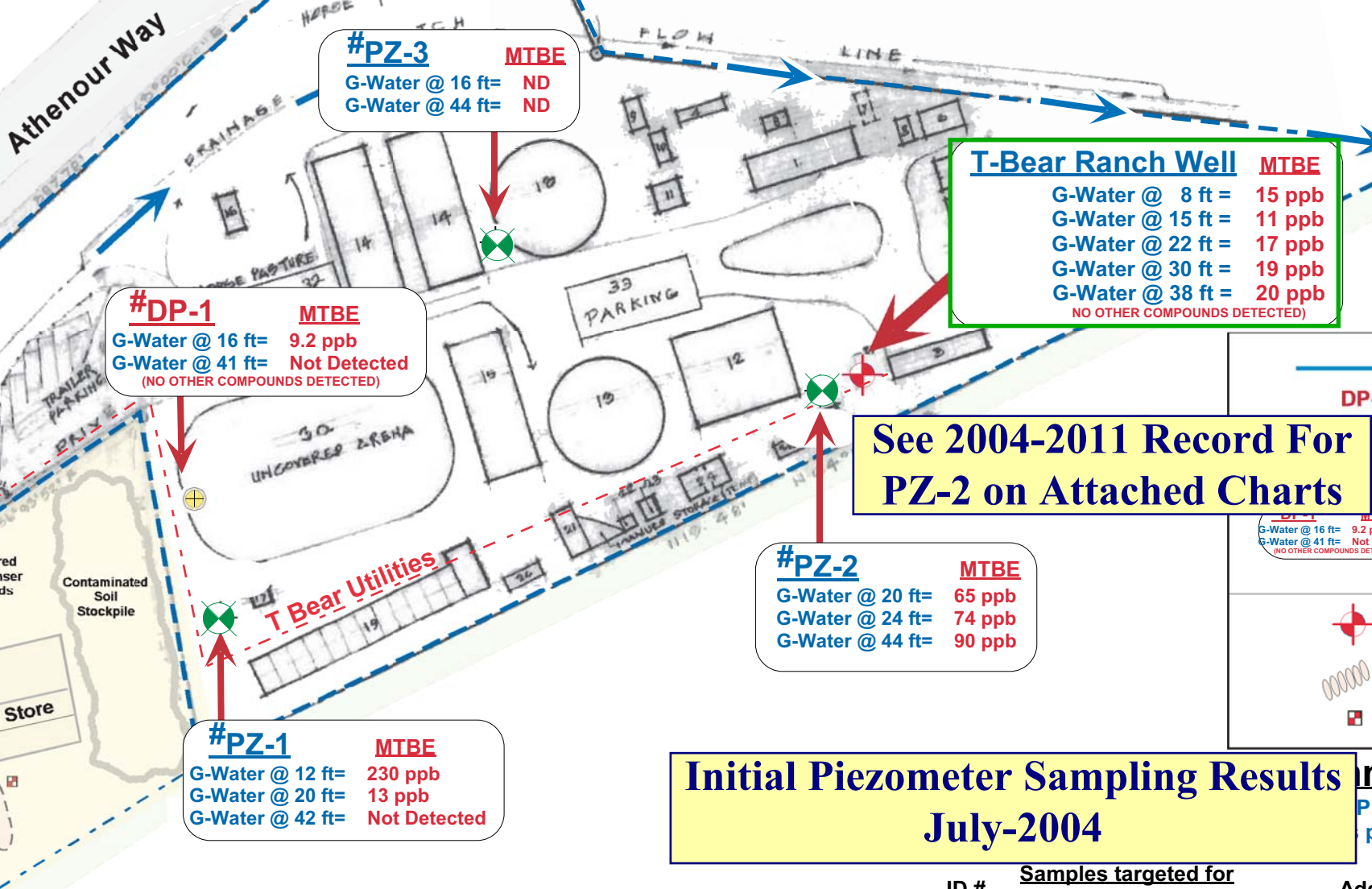
Athenour Way
#PZ-3 MTBE
G-Water @ 16 ft= ND
G-Water @ 44 ft= ND
T-Bear Ranch Well MTBE
G-Water @ 8 ft = 15 ppb
G-Water @ 15 ft = 11 ppb
G-Water @ 22 ft = 17 ppb
G-Water @ 30 ft = 19 ppb
G-Water @ 38 ft = 20 ppb
NO OTHER COMPOUNDS DETECTED)
#DP-1 MTBE
G-Water @ 16 ft= 9.2 ppb
G-Water @ 41 ft= Not Detected
(NO OTHER COMPOUNDS DETECTED)
See 2004-2011 Record For PZ-2 on Attached Charts
#PZ-2 MTBE
G-Water @ 20 ft= 65 ppb
G-Water @ 24 ft= 74 ppb
G-Water @ 44 ft= 90 ppb
T Bear Utilities
#PZ-1 MTBE
G-Water @ 12 ft= 230 ppb
G-Water @ 20 ft= 13 ppb
G-Water @ 42 ft= Not Detected
Contaminated Soil Stockpile
Store
33 PARKING
30 UNCOVERED ARENA
FLOW LINE
DRAINAGE
Initial Piezometer Sampling Results July-2004
Samples targeted for