

MEETING AGENDA
ZONE 7 OFFICES
PLEASANTON, CALIFORNIA
NOVEMBER 18, 1999

MTBE IN THE SUBSURFACE
EXXON RETAIL STORE NO. 7-3399
2991 HOPYARD ROAD
PLEASANTON, CALIFORNIA

TOPICS

1. PERCHED GROUND WATER GEO-PROBE INVESTIGATION

- Tank pit observation wells
- Soil sampling
- Water sampling
- Tank pit observation wells
- Perched water gradient
- Soil vapor wells destruction
- Storm sewer sampling

2. UST SYSTEM

- Product dispensing
- Vapor recovery

3. WATER TABLE MONITORING

- MTBE concentrations
- Water table elevations

4. GEOLOGIC CROSS SECTIONS

- Cross section trace
- Agency lithologic well and boring logs
- Agency geophysical logs
- Aquifer materials
- Unit correlation
- Well screen intervals

5. GROUND WATER MODELING

- Purpose
- Use
- Options
- Recommendations

6. HOPYARD 9

- Construction
- Pumping test
- Status

7. PROPOSED SENTINAL WELL LOCATIONS

- MW-5 location
- Valley Avenue location
- Encroachment permitting

Seery, Scott, Public Health, EH

From: Seery, Scott, Public Health, EH
Sent: Monday, May 01, 2000 3:09 PM
To: Christa; Chuck Headlee; Darin Rouse; Doug Oram; Matt Katen; Stephen Cusenza; Tom Elson
Cc: Peacock, Tom, Public Health, EH; Levi, Ariu, Public Health, EH
Subject: Meeting - May 2, 2000

This post is sent as a reminder about our meeting at the Zone 7 offices in Pleasanton tomorrow, May 2, at 1:30 PM.

Below are a few of the agenda items on my list of things to discuss:

- MtBE source(s) in the perch zone and UST cavity
- Interim/emergency MtBE remediation measures
- Site Conceptual Model (SCM)
- Sentinel well installation schedule/encroachment issues
- Pleasanton well No. 7 status
- Final X-sections (Delta)

Please call me at (510) 567-6783 or e-mail with any questions. See you tomorrow!

Scott

Seery, Scott, Public Health, EH

From: Seery, Scott, Public Health, EH
Sent: Wednesday, March 15, 2000 3:41 PM
To: R. G. Jim Brownell (E-mail); 'darin.l.rouse@exxon.sprint.com'; 'Matt Katen'
Cc: Levi, Ariu, Public Health, EH; Peacock, Tom, Public Health, EH
Subject: RE: Delta cross sections & monitoring well plan

Thanks for the quick work this week on this project, Matt. Actually, thanks to all for finally getting this sentinel well issue around the corner. Please let me know of your meeting schedule to discuss Pleasanton well no. 7.

Scott

From: Matt[SMTP:MKaten@zone7water.com]
Sent: Wednesday, March 15, 2000 1:34 PM
To: Scott Seery (E-mail); R. G. Jim Brownell (E-mail); 'darin.l.rouse@exxon.sprint.com'
Subject: Delta cross sections & monitoring well plan

I just got out of a meeting with David Lunn (Zone 7) and Steve Cusenza (City of Pleas.) where we reviewed the Delta's cross sections of Steve's Exxon Station (7-3399) and the monitoring well plans discussed at our last group meeting in November. Neither one was at the Nov. meeting. They both agreed that the X-secs looked good and that the plan to drill one well near MW 5d and MW 5s to about 140 ft. bgs and two wells in the alignment between the gas station and Zone 7's Hop 4 (soon to be Hop 9) well, (one to 140 ft and one to about 80 ft bgs), was a good plan. We are ready to issue the drilling permits, free of charge of course.

We also discussed the status and intent for the Pleasanton #7 well. Steve says the well is not "abandoned" and thinks it could be usable with a little rehab. Zone 7 would like to have the well destroyed, or at a minimum, we would like to seal the upper section of perfs/gravel pack. We will meet with the City's consultant (Luhdorff & Scalaminni) next week to brainstorm ideas, then discuss our options with our G.M., then would like to meet with the group or subgroup; maybe in 2 to 3 weeks. I'll keep you informed.

Seery, Scott, Public Health, EH

From: Matt[SMTP:MKaten@zone7water.com]
Sent: Monday, January 31, 2000 4:24 PM
To: 'Seery, Scott, Public Health, EH'; Chuck Headlee; Darin Rouse; Jim Brownell; Matt; Stephen Cusenza; Tom Elson
Cc: DaveL
Subject: RE: Exxon, 2991 Hopyard Rd., Pleasanton



Composit.123

Dear Team members:

Here's my update regarding the Hopyard wellfield and the Exxon case:

1. Zone 7 has not produced a formal report of the results from our aquifer testing performed in Oct and Nov '99. However, most of the results are displayed in the attached Lotus Charts. In summary, Exxon MW-5D showed no response to any of the pump test performed at Zone 7's new well, Hop 9. MW-8's transducer failed before Hop 9 began to pump; however, Exxon MW-8 did show response to a later backflush event conducted at Hop 6. Conclusion: MW-5d is too shallow to be hydraulically connected to Zone 7's well field. MW-8 is connected to the deeper Hop 6 either stratigraphically or through conduits such as Pleasanton-7 and/or Hop 1 which have overlapping completion intervals (both overlap Hop 6 and MW-8).
2. I will review the Delta cross-sections with Dave Lunn in light of the pump test responses, and seek his approval for the sentinel well completion depths we proposed at our last meeting.
3. I contacted Steve Cusenza to discuss the future of Pleas-7. We agreed to meet or phone conference this week to discuss our wishes to have this well destroyed.
4. Zone 7 has begun effort on the DOHS's Drinking Water Source Assessment Program. We will discuss with DOHS our plans to mitigate the concerns of having a fueling station in the vicinity of our Hopyard wellfield with monitoring wells. At that time, we will ask the DOHS for their monitoring requirements for the sentinel wells. Our plans are to be able to produce from Hop 9 this summer.

<<Composit.123>>

> -----Original Message-----

> From: Seery, Scott, Public Health, EH [SMTP:sseery@co.alameda.ca.us]
> Sent: Monday, January 10, 2000 1:38 PM
> To: Chuck Headlee; Darin Rouse; Jim Brownell; Matt Katen; Stephen Cusenza; Tom Elson
> Subject: Exxon, 2991 Hopyard Rd., Pleasanton

>

> Gentlemen

>

> Approximately 8 weeks have now passed since our Nov 18th meeting. May

> |

> please get an update on your progress on the various tasks? Thanks.

>

> Scott

Seery, Scott, Public Health, EH

From: jimbo@sacramento.deltaenv.com [mailto:jimbo@sacramento.deltaenv.com]
Sent: Friday, August 14, 2008 2:44 PM
To: sseery@co.alameda.ca.us; cth@RB2.swrcb.ca.gov; drouse@access1.net; jimbo@sacramento.deltaenv.com; mkaten@zone7water.com; stephen.cusenza@ci.pleasanton.ca.us; telson@lsce.com
Cc: wspeth@deltaenv.com
Subject: RE: Exxon, 2991 Hopyard Rd., Pleasanton

Hello everyone. I thought I'd respond by referencing Scott's E-mail he sent after our last meeting at Zone 7 held on November 18, 1999. Here is a copy of the 7 item list from his E-mail; our response follows:

LIST FROM SCOTT'S NOVEMBER E-MAIL:

- 1) Zone 7 will produce a report documenting the results of the recent pump tests performed on the Zone 7 wells. This report will include a discussion of any influences noted on Exxon wells MW-5D and MW-8 during the test, and the implications these results may have regarding the presence of vertical conduits to deeper zones of the basin. Zone 7's pump test report and any consequent basin protection recommendations will be distributed to the meeting participants.
- 2) "Draft" x-sections developed by Delta using Zone 7 drilling and geophysical logs demonstrate significant potential vertical communication from shallow depths to deeper zones via Pleasanton well No. 7, as this well is continuously screened from ~ 120 - 440' BG, and is within ~150' of the Exxon site. Zone 7's well Hop 1, although not currently portrayed on the draft x-sections, reportedly shares similar characteristics as the City well, although Hop 1 is some 600' from the Exxon site. The final versions of the x-section will also include a projection of Hop 1.
- 3) Zone 7 and Exxon/Delta will work together to finalize appropriate sentinel well screen depths and locations. Delta will evaluate locations based to some degree on the parcel maps provided by the City in absentia yesterday.
- * 4) Zone 7 will check with DOHS in an attempt to determine appropriate sentinel well sampling frequencies.
- 5) Exxon/Delta will install monitoring wells in the "perched" water bearing zone and perform pump tests. Additional probes/wells may be completed in the "perch" zone where such coverage does not exist presently in order to fully define the extent of this zone and any impacts.
- 6) UST cavity observation wells (OW) will be sampled following the same schedule as the monitoring wells, as very high MtBE concentrations (up to 177 mg/l) were recently discovered in water sampled from them.
- 7) Exxon discovered that the operator of the station had a habit of washing down the service bay and dispenser pads on a weekly basis. Exxon feels that this activity may have contributed to the high MtBE levels/H2O discovered historically in (now destroyed) vapor wells VR-3 and -4, and impacts noted in monitoring well MW-9. Through continued perch zone and OW sampling, it is anticipated that the validity of this theory may be tested, as other potential sources for these MtBE impacts (e.g., vapor recovery system) are also suspected.

1/14/00
RESPONSES
↓

STATUS OF DELTA/EXXON ACTION ITEMS

- 1) This is a Zone 7 action item.
- 2) Delta will include a projection of the Zone 7 production well Hop 1 on

the final cross sections. The final cross sections will be released with our work plan for sentinel well installation. The work plan will be released following completion of action item 3, below.

3) At the November 18 meeting, we came to consensus on sentinel well locations and screen intervals. However, Mat planned to finalize the Zone 7 position with David Linn.

4) This is a Zone 7 action item.

5) Six monitoring wells were installed in the perched zone in December. The wells were sampled and the analytical results for ground water samples were received from the laboratory via fax today (January 14). The results report is scheduled for delivery on February 3. We are currently evaluating pumping test options and will keep you informed.

6) The two tank basin observation wells have been included in the quarterly monitoring schedule for the site.

7) This is a summary item, not an action item.

My phone number is (916) 638-2765

Jim

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

From: Seery, Scott, Public Health, EH [mailto:sseery@co.alameda.ca.us]

Sent: Monday, January 10, 2000 3:38 PM

To: Chuck Headlee; Darin Rouse; Jim Brownell; Matt Katen; Stephen

Cusenza; Tom Elson

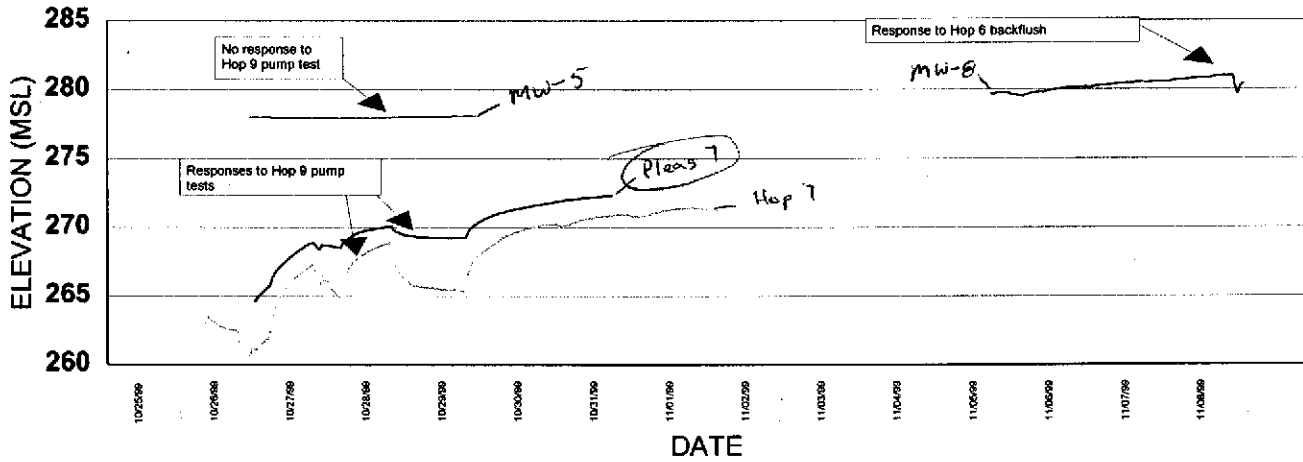
Subject: Exxon, 2991 Hopyard Rd., Pleasanton

Gentlemen

Approximately 8 weeks have now passed since our Nov 18th meeting. May I please get an update on your progress on the various tasks? Thanks.

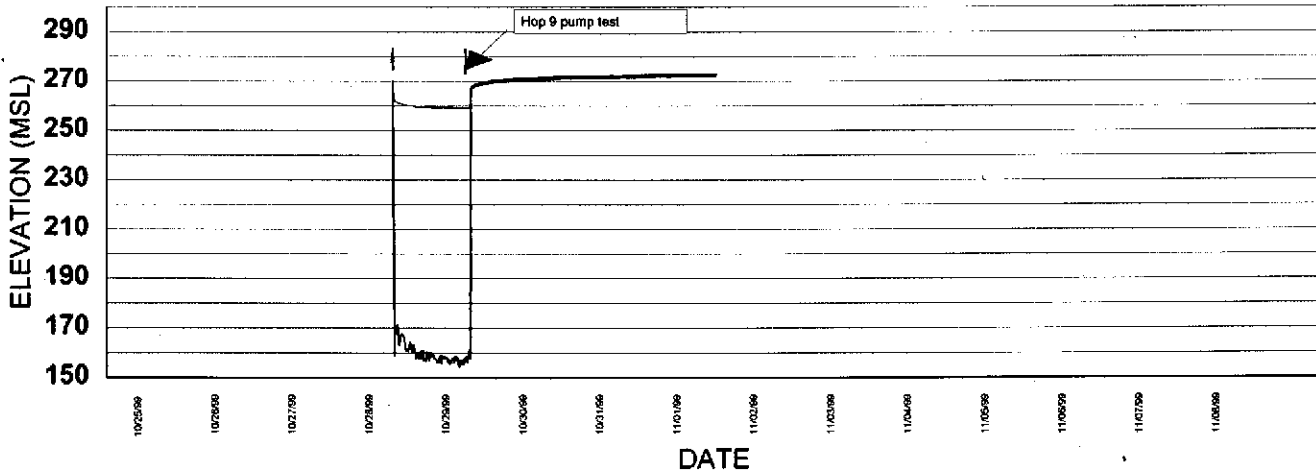
Scott

HOP 9 PUMP TEST Results MONITORING WELLS



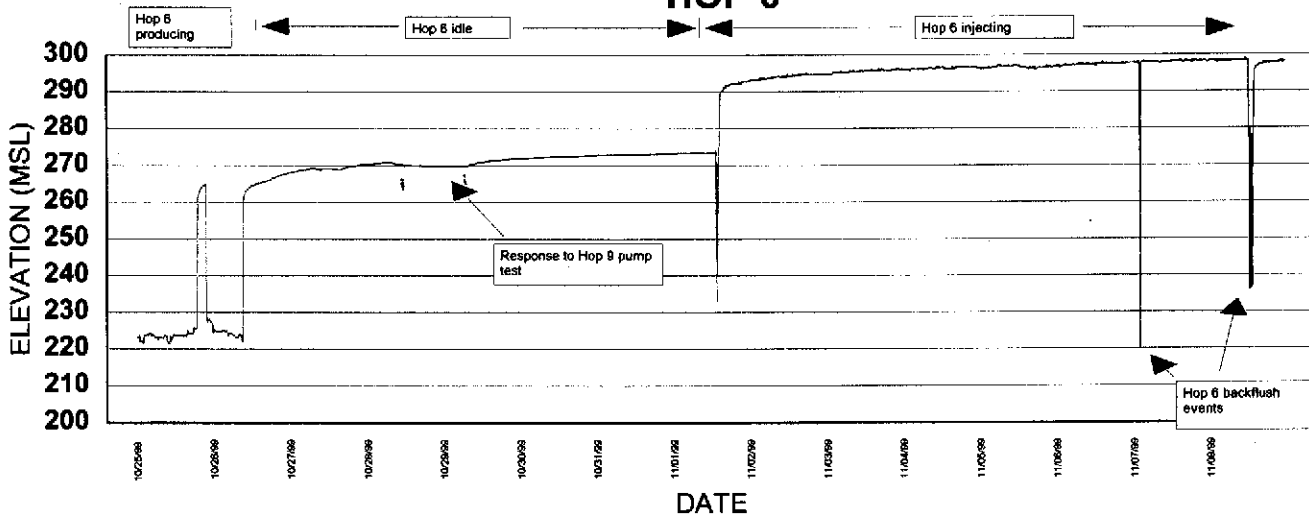
MW5
—
PLS7
—
MW8
—
HOP7
—

HOP 9 PUMP TEST HOP 4 AND 9



HOP4
—
HOP9
—

HOP 9 PUMP TEST HOP 6



HOP6
—



ALAMEDA COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT

5997 PARKSIDE DRIVE • PLEASANTON, CA 94588-5127 • (510) 484-2600

TRANSMITTAL SLIP

TO: Scott Seary, ACDEH (QIC 30440) DATE: 2-1-00

FROM: Matt Katen SUBJECT: Pump test results

<input type="checkbox"/>	NOTE AND SEE ME	<input type="checkbox"/>	NOTE AND FILE
<input type="checkbox"/>	INVESTIGATE AND ADVISE	<input checked="" type="checkbox"/>	PER YOUR REQUEST
<input type="checkbox"/>	PREPARE FOR MY SIGNATURE	<input type="checkbox"/>	FOR YOUR INFORMATION
<input type="checkbox"/>	TAKE APPROPRIATE ACTION	<input type="checkbox"/>	FOR CIRCULATION
<input type="checkbox"/>		<input type="checkbox"/>	

REMARKS:

As promised, Pump test results from Hop 9 pump test. Let me know if you want the data file.

MK

Seery, Scott, Public Health, EH

From: Matt[SMTP:mkaten@zone7water.com]
Sent: Friday, November 19, 1999 2:18 PM
To: 'sseery@co.alameda.ca.us'
Cc: 'Chuck Headlee'; 'Darin Rouse'; 'Jim Brownell'; Stephen Cusenza; Tom Elson; DAVE
Subject: RE: Summary of Zone 7 Interference testing

Scott, Sorry I didn't get back to you before you sent out your email, if that was what you were hoping for:

We collected water level data in Exxon MW-5d and PLEAS 7 between 10/26/99 and 11/2/99, over which time step-rate and constant rate pumping tests were conducted in Zone 7's new well, HOP 9. A transducer was placed in Exxon MW-8 over the same period, but later discovered to have failed 15 min. after placement. There was no conclusive evidence for communication between Hop 9 and MW-5d, however, responses in PLEAS 7 were immediate and significant.

A new transducer was placed in Exxon MW-8 on 11/5/99 and pulled on 11/8/99. Over this period Zone 7 performed supplemental well development activities in HOP 9 and injection @ 1800 gpm in HOP 6. On 11/8/99, Hop 6 was pumped (backflushed) for 1 to 2 hours as part of its routine maintenance. Responses to HOP 9 development, HOP 6 injection and HOP 6 backflushing were all seen in Exxon MW-8.

Hope this is what you wanted for now. At some point, I will put together a report on this data and distribute it to all interested parties.
-mk

Seery, Scott, Public Health, EH

From: Seery, Scott, Public Health, EH
Sent: Friday, November 19, 1999 10:30 AM
To: Chuck Headlee; Darin Rouse; Jim Brownell; Matt Katen; Stephen Cusenza; Tom Elson
Cc: Levi, Ariu, Public Health, EH; Peacock, Tom, Public Health, EH
Subject: Summary of 11/18 Exxon meeting

Gentlemen

Following is a summary of conclusions and action items that came from our 11/18 meeting at Zone 7:

- 1) Zone 7 will produce a report documenting the results of the recent pump tests performed on the Zone 7 wells. This report will include a discussion of any influences noted on Exxon wells MW-5D and MW-8 during the test, and the implications these results may have regarding the presence of vertical conduits to deeper zones of the basin. Zone 7's pump test report and any consequent basin protection recommendations will be distributed to the meeting participants.
- 2) "Draft" x-sections developed by Delta using Zone 7 drilling and geophysical logs demonstrate significant potential vertical communication from shallow depths to deeper zones via Pleasanton well No. 7, as this well is continuously screened from ~ 120 - 440' BG, and is within ~150' of the Exxon site. Zone 7's well Hop 1, although not currently portrayed on the draft x-sections, reportedly shares similar characteristics as the City well, although Hop 1 is some 600' from the Exxon site. The final versions of the x-section will also include a projection of Hop 1.
- 3) Zone 7 and Exxon/Delta will work together to finalize appropriate sentinel well screen depths and locations. Delta will evaluate locations based to some degree on the parcel maps provided by the City in absentia yesterday.
- 4) Zone 7 will check with DOHS in an attempt to determine appropriate sentinel well sampling frequencies.
- 5) Exxon/Delta will install monitoring wells in the "perched" water bearing zone and perform pump tests. Additional probes/wells may be completed in the "perch" zone where such coverage does not exist presently in order to fully define the extent of this zone and any impacts.
- 6) UST cavity observation wells (OW) will be sampled following the same schedule as the monitoring wells, as very high MtBE concentrations (up to 177 mg/l) were recently discovered in water sampled from them.
- 7) Exxon discovered that the operator of the station had a habit of washing down the service bay and dispenser pads on a weekly basis. Exxon feels that this activity may have contributed to the high MtBE levels/H₂O discovered historically in (now destroyed) vapor wells VR-3 and -4, and impacts noted in monitoring well MW-9. Through continued perch zone and OW sampling, it is anticipated that the validity of this theory may be tested, as other potential sources for these MtBE impacts (e.g., vapor recovery system) are also suspected.

Please e-mail any corrections or additions to this account.

Thanks again for all your assistance!

Scott

Seery, Scott, Public Health, EH

From: Steve Cusenza[SMTP:steve.cusenza@ci.pleasanton.ca.us]
Sent: Wednesday, November 17, 1999 12:09 PM
To: 'Scott Seery'
Subject: Meeting regarding Steve's Exxon tomorrow afternoon

Scott - Due to my involvement in the City's analysis of the LAVWMA project, I will not be able to attend tomorrow afternoon's meeting with Exxon at Zone 7. I have mailed to Delta some maps on the intersection of Valley and Hopyard, and will also have more maps to be used by the group which I will drop off at Zone 7 before the meeting. I apologize for the last minute change, but my schedule needed to incorporate another meeting at this time. I would appreciate if the Zone 7 representative could pick up two copies (one for me and one I can send to Tom Elson, LSCE) of whatever information is presented or handed out at the meeting and call me to pick up on Friday, perhaps. Thank you for your assistance with this, and feel free to e-mail or call prior to or just after the meeting. I will be out of the office next week, returning on Nov. 30th. Steve Cusenza

Seery, Scott, Public Health, EH

From: Seery, Scott, Public Health, EH
Sent: Wednesday, November 03, 1999 2:20 PM
To: Chuck Headlee; Darin Rouse; Jim Brownell; Matt Katen; Stephen Cusenza; Tom Elson
Cc: Levi, Ariu, Public Health, EH; Peacock, Tom, Public Health, EH
Subject: Pleasanton Exxon Meeting - November 18 at 2:00 pm

Gentlemen

The follow-up Exxon meeting is confirmed for Thursday, November 18, at 2:00 PM. As before, we will meet at the Zone 7 office in Pleasanton. Matt informs me that we will have the luxury of meeting in the spacious Board Room.

Topics will include:

- geologic x-section presentation
- GW modeling
- proposed locations for sentinel wells
- status of on-site vapor extraction well destruction
- audit of UST system construction and on-site storm sewer sump sampling
- status of "perched" GW zone investigation
- off-site property ownership/encroachment potential for sentinel well locations

Jim: will you please be certain to pass on to the group copies of the "draft" x-sections and proposed sentinel well locations several days in advance of this meeting? Thanks!

See you all on the 18th.

Scott

Perched system

- ~15 Gas probe holes implaced, ^{11/99} only ~5 found "perched" water, and did find the sand stringer in west if not all holes
- UST basin "observation" wells also found to have Gwd ~12', and were sampled
- Vapor wells UR-3 and -4 destroyed
- One probe (GP-5) had UICBE in soil @ ~12' BG
- UST observation wells showed up to 177,000 ug/l UICBE (Oct-2)
- Was it been completely defused? Probably not. Shallow wells/sampling needed

Storm sewer

- no water found in SW sump when checked - not sampled
- however, sample was collected from separator sump - showed heavy-end HCS
- operator had been washing down service bay/pads weekly

X-sections

- shows significant vertical communication between shallow depths in Pleas. Well No. 7 and Zone 7 well Top 1.
- Pump tests performed recently. Transducers placed in MW-5D and MW-8. Marked response noted in MW-8D when well Top 4 was pumped

1. Pleas well No. 7 - pressure needs to be asserted on City to abandon well
2. Sentinel wells ^{locations and screen depths} need to be determined by Zone 7/Exxon
3. Sentinel well sampling frequency? Check w/ DSHS well requirements - Matt
4. Exxon site source reduction plans
 - pump test in perch zone
 - wells to be installed
 - may consider using portable equipment for pump out of UST pit
 - observation wells to be sampled quarterly

~~5. contact with la~~