

LOGISTICS

ZOOM MEETING SETUP

Welcome and thank you for participating in DEQ's McCulloch Purchase Station Delisting Public Meeting. Please read the following tips about participating in this virtual meeting:

- We are recording the meeting.
- Please place yourself on “mute” and remain so until called on to speak.
- Use the “raise hand” feature in the app to indicate that you would like to speak.
- If you are called on to speak, please identify yourself by stating your first and last name.
- You may also use the chat box to type your questions.
- Joining by phone?
 - Press *6 to mute/unmute yourself.
 - Press *9 to raise your hand.
- Visit the following link for helpful tips about using Zoom software:
 - <https://support.zoom.us/hc/en-us/articles/201362193-Joining-a-meeting>

Thank you in advance for your patience, cooperation, and courtesy in this unprecedented time.

McCulloch Purchase Station Delisting Public Meeting

State Superfund Project Officer

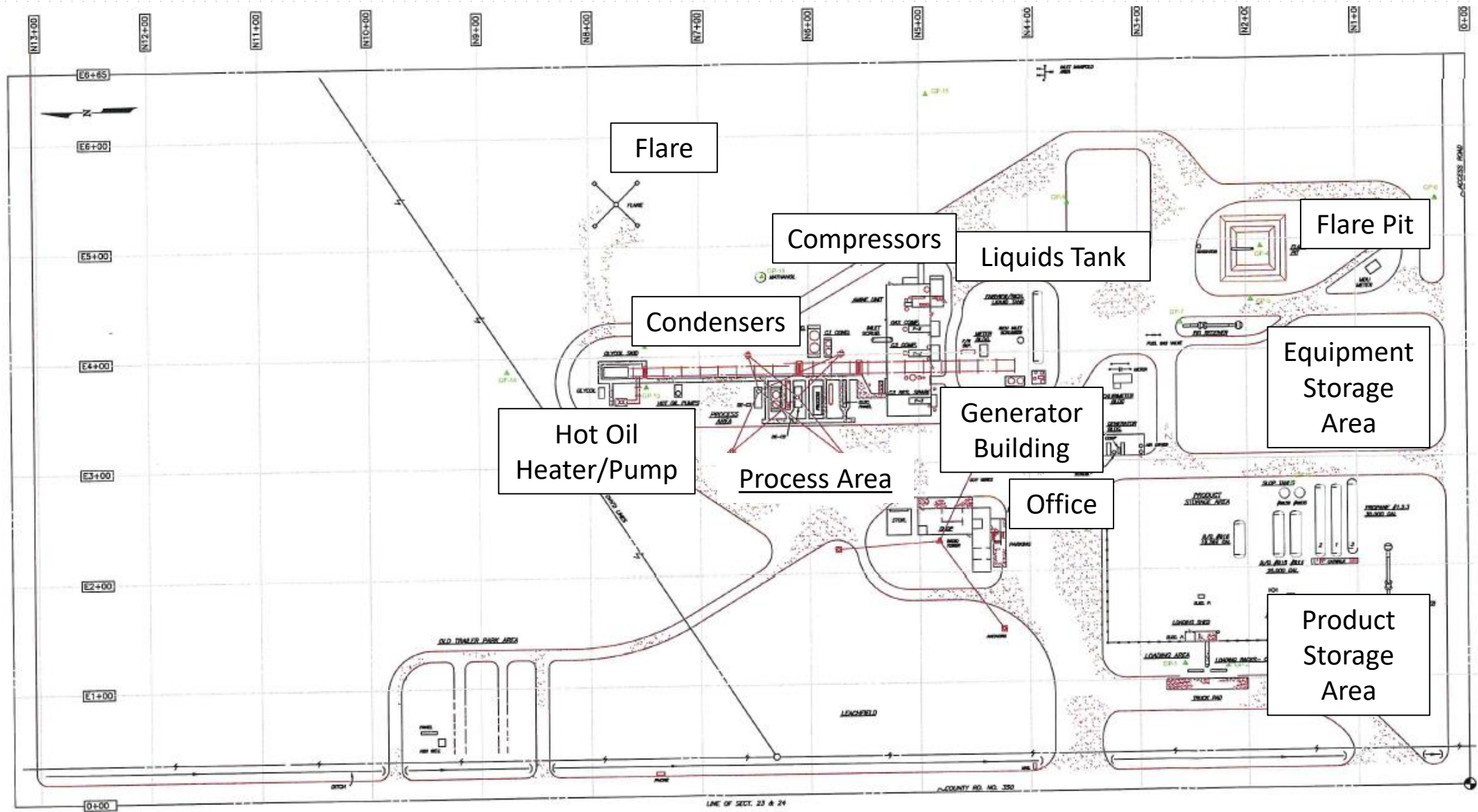
Hannah McDermott

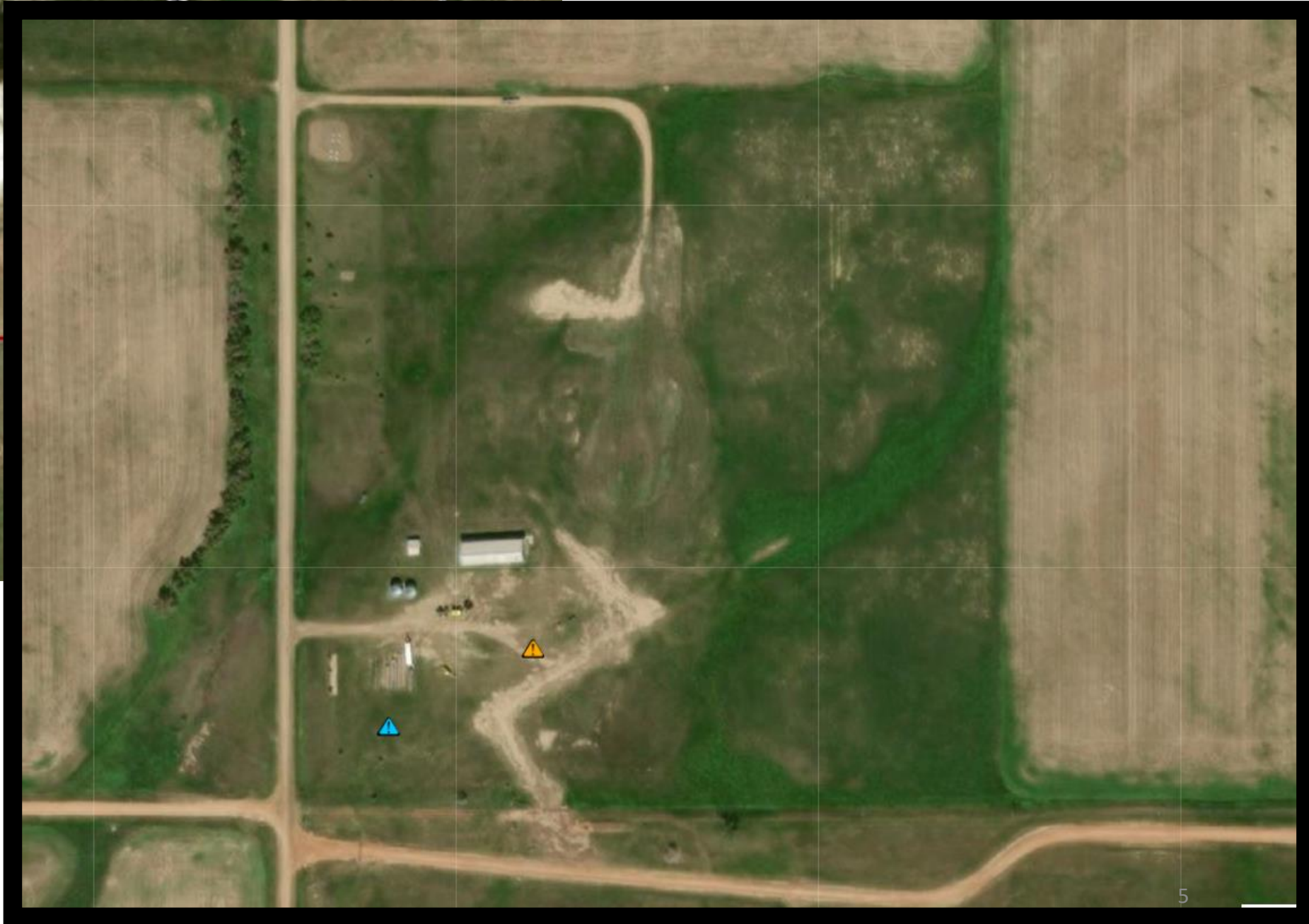
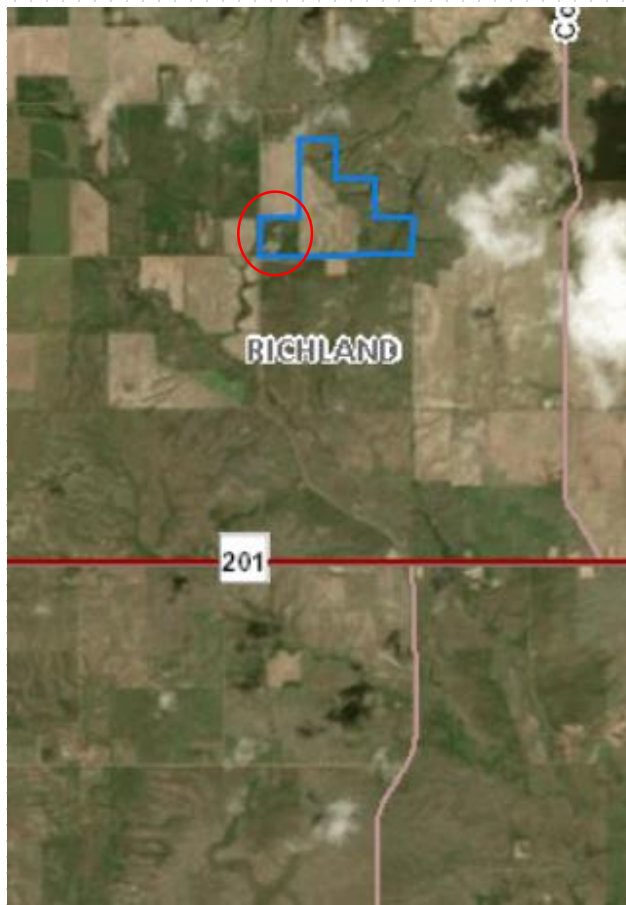
Hannah.McDermott@mt.gov

(406) 444-6556

Agenda

- History of the site
- Sampling and Soil/Groundwater Results
- Delisting process
- Questions
- Verbal Public Comment





All Buildings have been removed except for two buildings previously used as a compressor building and a shop.

Land used for agriculture.

Timeline

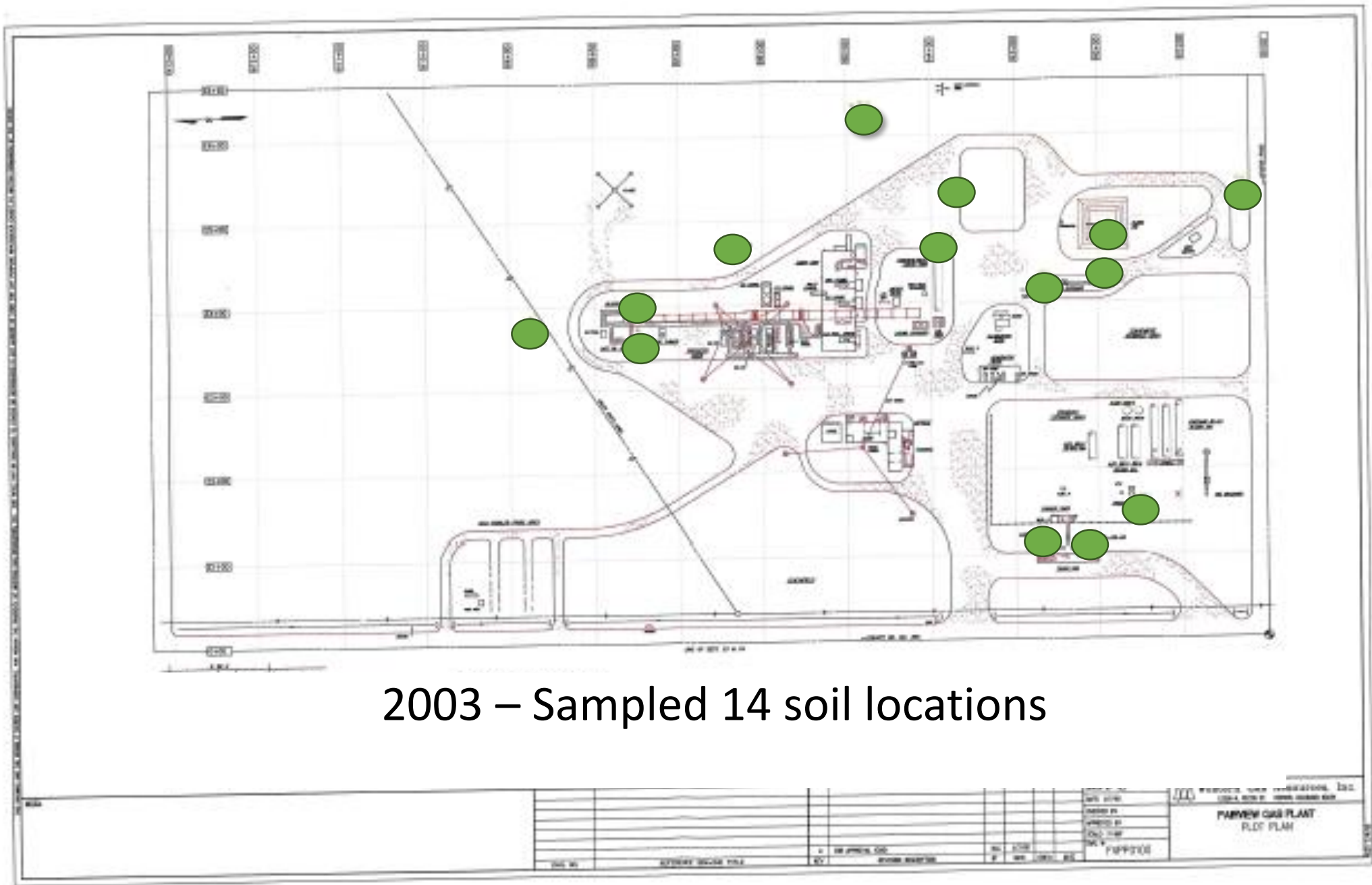
1968 – McCullough Purchase Station was built and owned by McCullough Gas Processing Corporation (MGPC).

1985 - Western Gas Resources, Inc. purchased the plant from MGPC and owned the Plant until it was closed in July of 1993.

1989 – Listed as a low priority site on State Superfund's priority list under McCullough Purchase Station.

2003 – Western Gas Resources, Inc. began investigating the site when the site was being decommissioned.

2004 - DEQ's Groundwater Remediation Program (GRP) issued a Notice of Violation.



2003 – Sampled 14 soil locations

Benzene Concentrations in Soil (mg/kg)

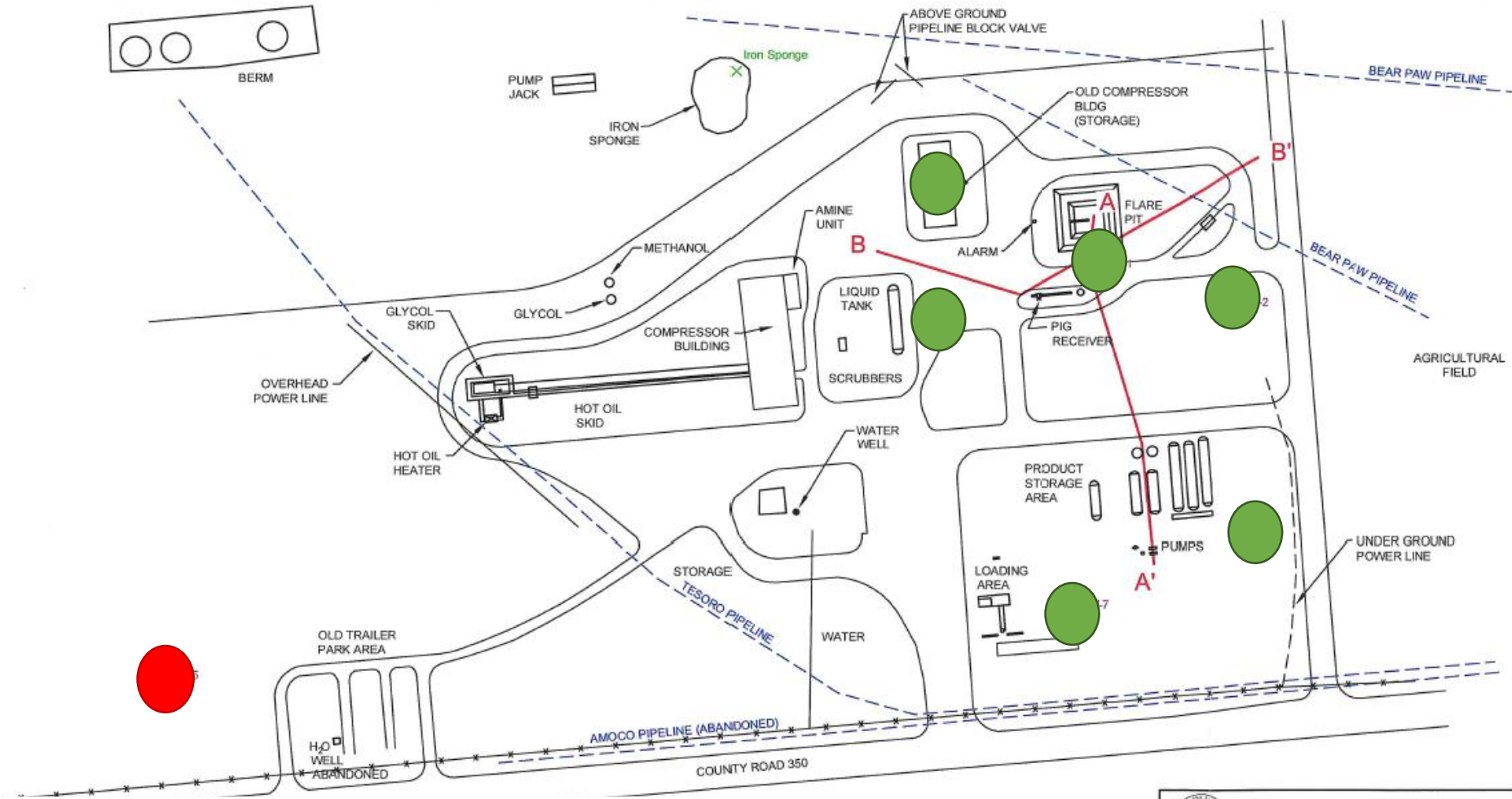
1.1
1.4
0.6
5.7
5.4
0.72
0.77


Benzene Concentrations in Soil

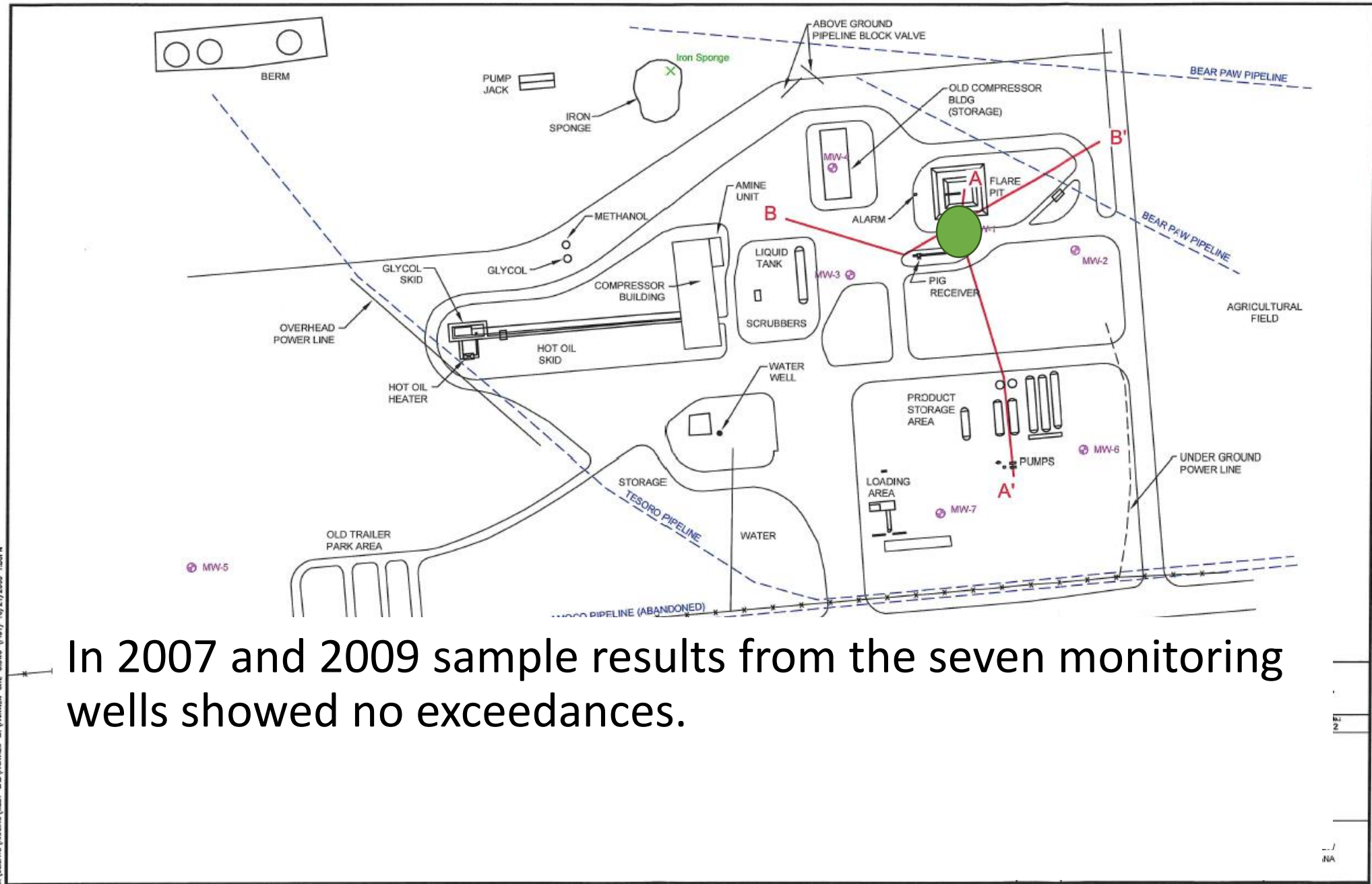
DEQ's RBCA Industrial Screening Level (mg/kg)	DEQ's RBCA Construction Worker Screening Level (mg/kg)	DEQ's RBCA Leaching Screening Level (mg/kg)
5.7	240	0.33

- All benzene concentrations were found in the 6-9 foot interval.
 - Hydraulic conductivity ranges from 1.4 inch/year to 1.6 inch/year

2009 – Three more monitoring wells were added. Soil cores were sampled, no benzene was detected.



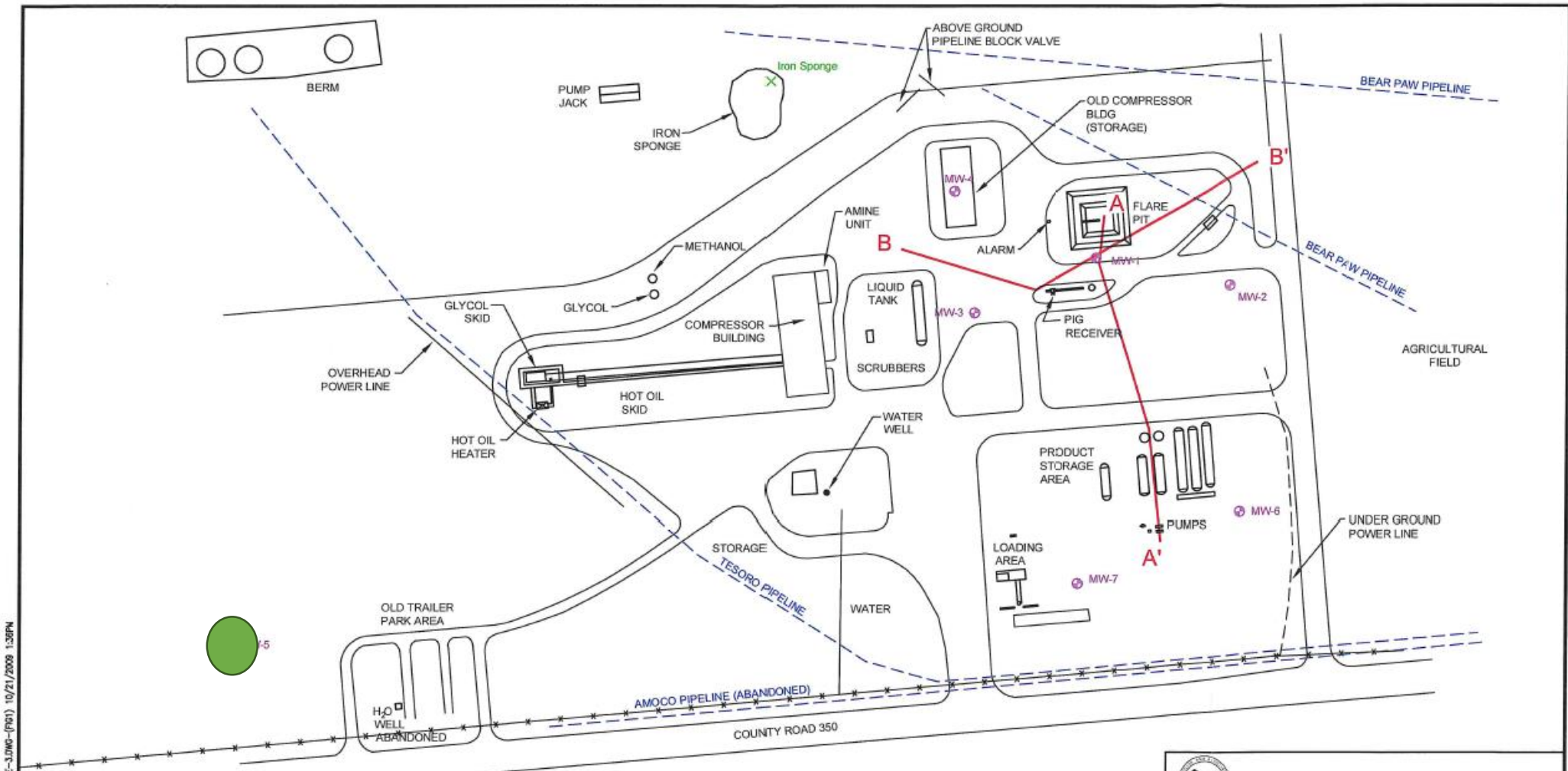
 HIGGINS AND ASSOCIATES, LLC.		Project No.	Date Map Generated	Date Data Collected	Figure No.
			10/21/09		2
Author:	TW SITE PLAN FAIRVIEW GAS PLANT FAIRVIEW, MONTANA				
Checked:	CH	Client:	WESTERN GAS RESOURCES		Location:
Drawn:	RJV	ADG File:	Fairview-Site-3.dwg		FAIRVIEW MONTANA



What does this mean?

Based on this information, contamination in soil was:

1. In the subsurface;
 2. Did not pose a human health risk;
 3. Did exceed leaching to groundwater screening levels.
- Groundwater samples showing no contaminant exceedances indicate this issue has been addressed over time.



- Groundwater Sampled again in 2011 and 2014 and showed the perched groundwater did not exceed any screening levels.
 - With the exception of MW-5 for nitrate.

Existing Well

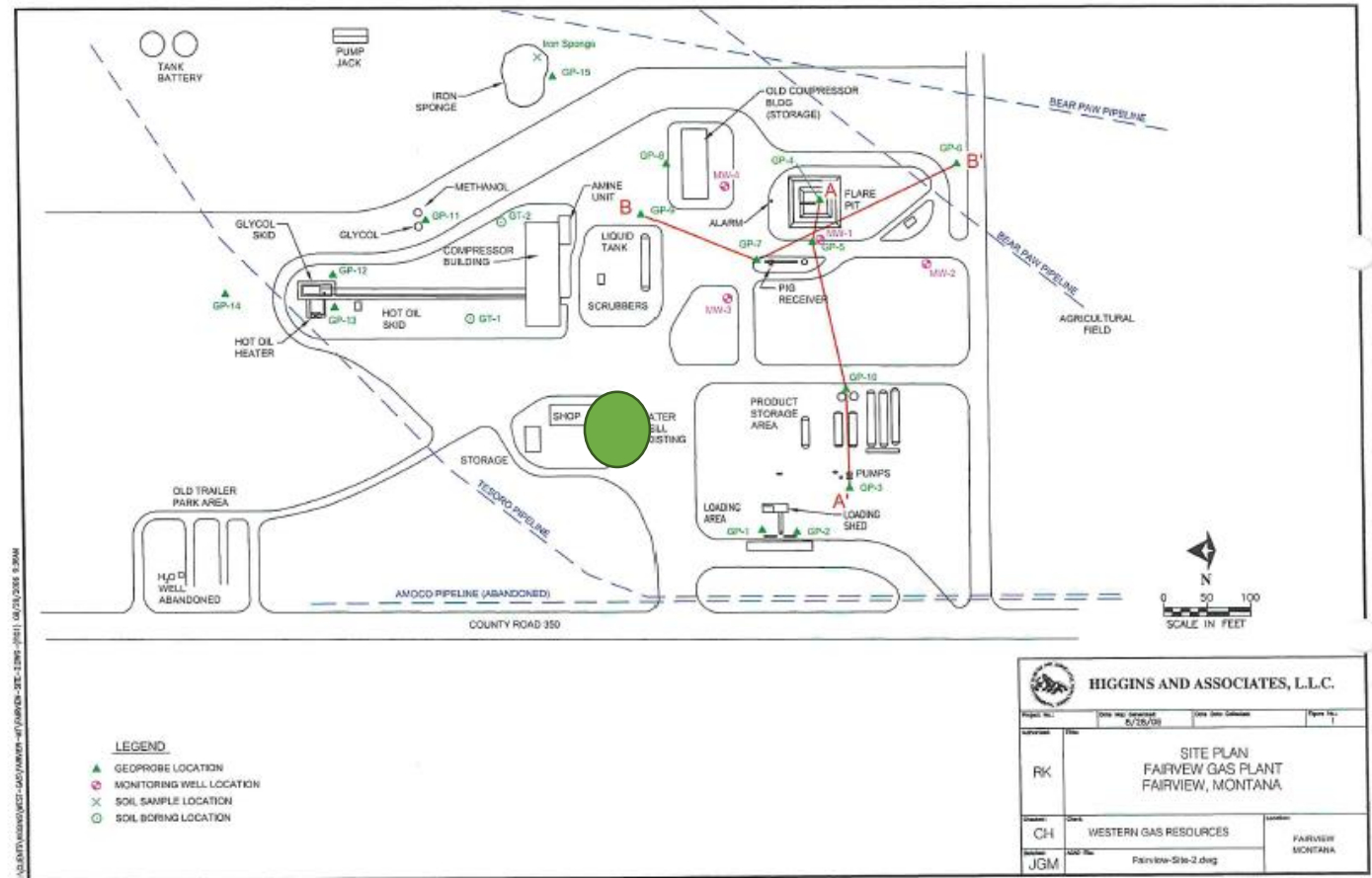
Well was sampled June 8, 2004 and July 21, 2006.

Bailer and/or temporary pump used to sample the well.

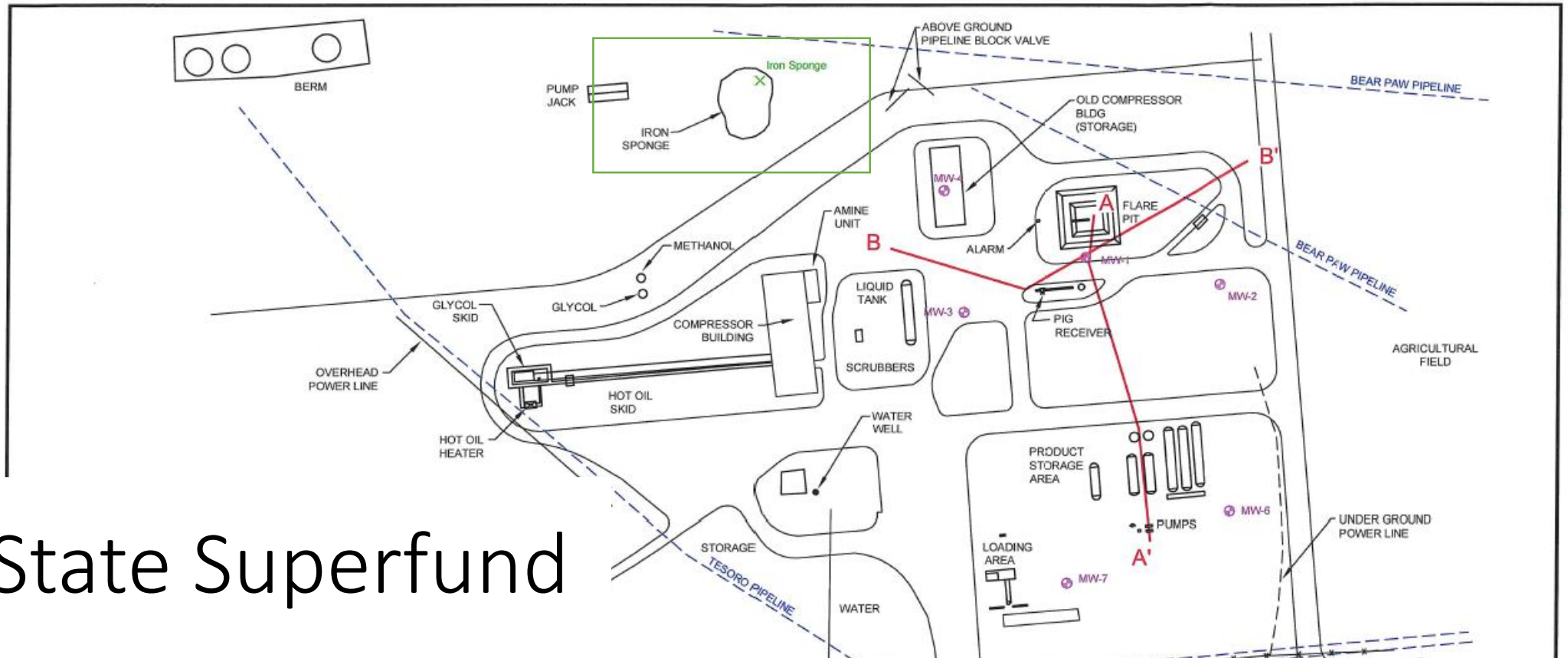
Depth to water was 170 feet.

Analyzed for VPH and EPH
Screen, no exceedances.

VPH – Volatile Petroleum Hydrocarbons
EPH – Extractable Petroleum Hydrocarbons



On December 1, 2014 DEQ's Groundwater Remediation Program issued a No Further Action Letter.



State Superfund

- Iron Sponge
 - Hydrogen sulfide reacts with the hydrated iron oxide impregnated wood.
 - 2015 DEQ's State Superfund program requested additional information regarding the iron sponge.

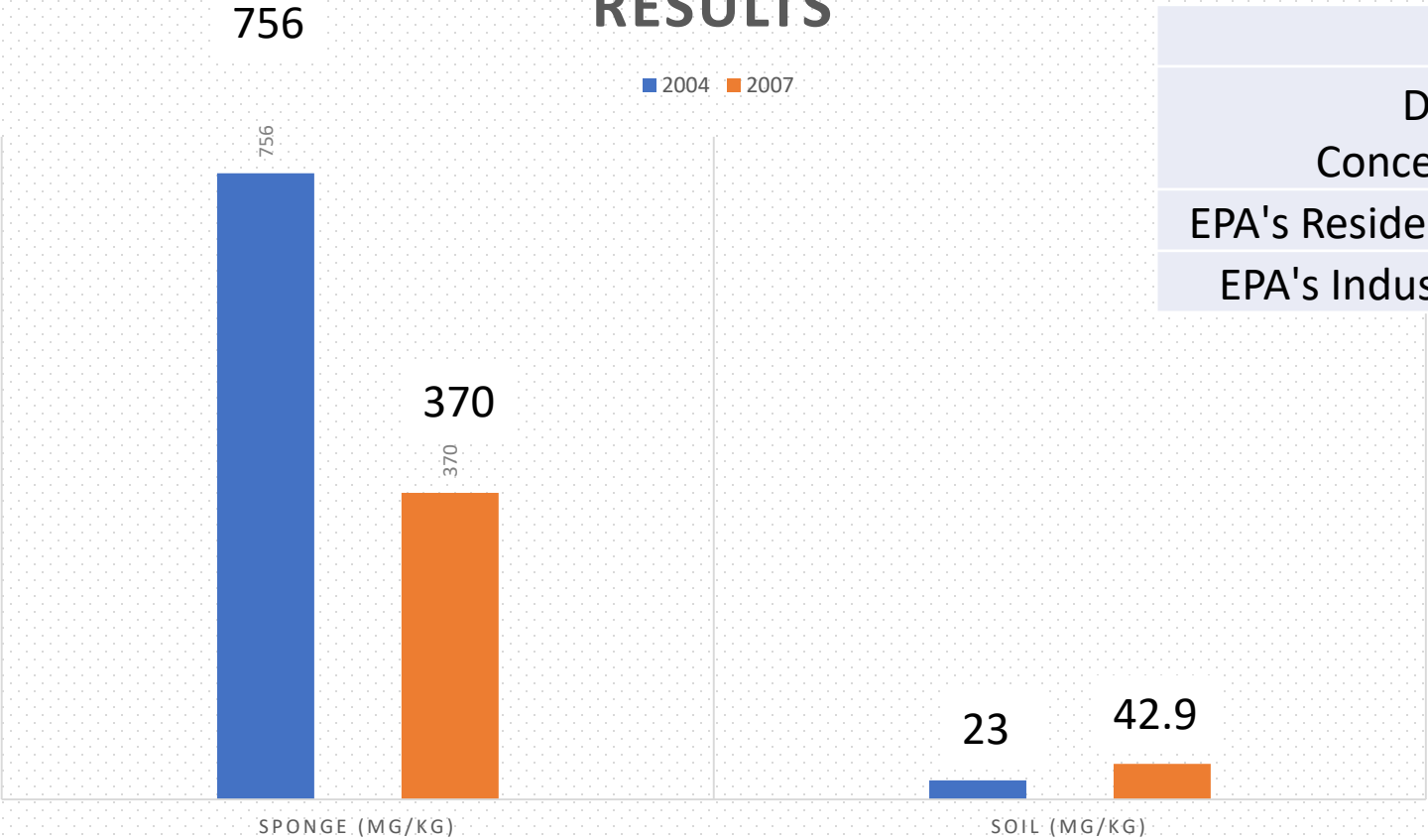
- Once the wood is spent, it was dried out and scattered onsite.
- Estimated 14-15 cubic yards of wood chips onsite.
- Contaminants of concern, petroleum hydrocarbons and metals.



Iron Sponge Sampling

- 2004 - Soil and sponge was sampled for petroleum products, total chromium, barium, and lead.
- 2007 – Soil was sampled for total chromium, trivalent chromium, and hexavalent chromium.

TOTAL CHROMIUM RESULTS



	Total Chromium
DEQ's Background Concentration (mg/kg)	41.7
EPA's Residential RSL (mg/kg)	12,000
EPA's Industrial RSL (mg/kg)	180,000

EPA - Environmental Protection Agency
DEQ - Department of Environmental Quality
RSL - Regional Screening Level
mg/kg - milligrams/kilogram

Summary of Data Results

Soil: The only screening levels exceeded in soil were for protection of benzene leaching to groundwater. This issue has been addressed by groundwater monitoring.

Iron Sponge: Shows no exceedances of screening levels in soil or the sponge itself.

Groundwater:

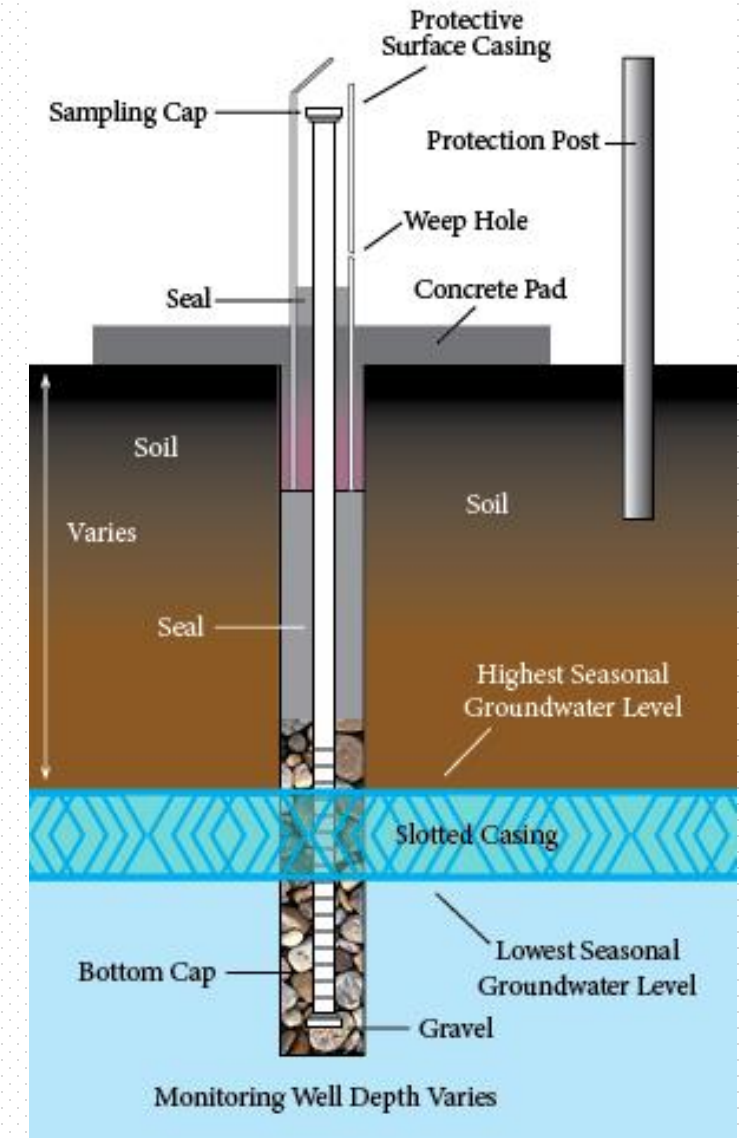
- Initial groundwater sampling showed some petroleum contamination in MW-1, but groundwater sampling over time (monitored natural attenuation) shows that petroleum levels decreased to less than DEQ-7 Standards.
- No evidence of groundwater contamination in the deeper aquifer.
- Remaining nitrate likely not related to the site.

What's Left?

Before delisting from State Superfund, DEQ will require proper abandonment of monitoring wells 1 through 7.

Well Abandonment

- Rule 36.21.810
- Casing and screen may either be removed or left in place.
- Well must be sealed. Bentonite is typically used.
- Metal casing cut off three feet below ground surface and filled with natural material.



Delisting

The Process:

- Public Notice
- Public Meeting
- Accepting Public Comment
- Responsiveness Summary
- No Further Action Letter
 - “DEQ reserves the right to conduct or require additional remedial actions at this site in the future if new or different information is presented to DEQ which indicates that additional soil or state waters have been impacted by previous releases or if a new release occurs.”

DEQ's Enforcement Program

Program for complaints and spills.

<https://deq.mt.gov/reporting>

(406) 444-3109

Montana Board of Oil and Gas

<http://dnrc.mt.gov/divisions/board-of-oil-and-gas-conservation>

(406) 434-2422

Questions

Public Comment Period ends February 19th.

Hannah.McDermott@mt.gov

DEQ-Waste Management and Remediation Division
P.O. Box 200901, Helena, MT 59620

PUBLIC COMMENT

EFFECTIVE PARTICIPATION IN A VIRTUAL SETTING

Joining on Zoom?

- If you would like to comment, type your name into the chat box.
- We will call on you and you to unmute your line.

Joining by phone?

- If you would like to comment, press *9 to raise your hand.
 - We will call on you and ask you to unmute your line by pressing *6
-
- A reminder: We are recording the meeting and all comments.
 - Each commenter has 5 minutes to speak. Please be respectful of time, we want to hear from as many people as possible.