

MACKNER SCALES CLEANUP

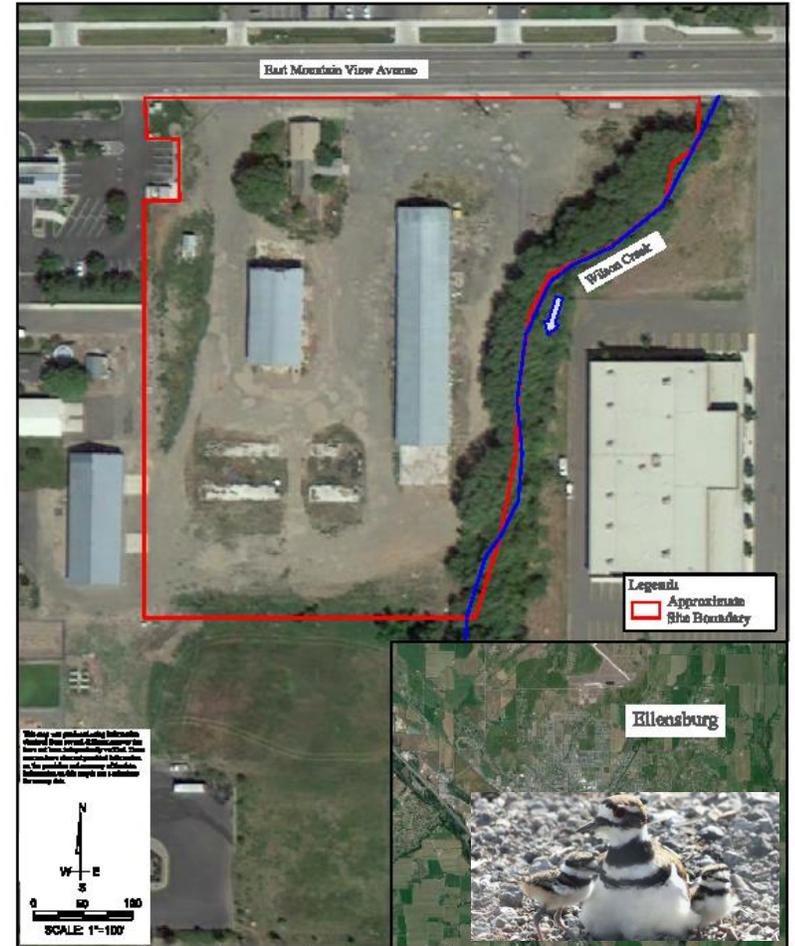
ELLENSBURG WASHINGTON



Mary Monahan



John Means



MACKNER SCALES HISTORY



- Provided Scale Services For The Area
- Hay Storage and Trucking
- Diesel Engine Repair

- KVFR Out Grew Its Old Central City Location
- KVFR Needed Wild Fire Capacity and Training Rooms

- 40 Percent of Fire District Calls Are Within a 6 Block Radius
- 90 Percent of Calls Triangulate To This Location

2012 INTEGRATED PLANNING GRANT

- Remedial Investigation Data Collection & Analysis
- Site Planning, Redevelopment Strategy
- Cultural Resource Assessment
- Remedial Investigation/ Feasibility Study



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CLEANUP CHALLENGES

- Independent Cleanup Action
- Significant Data Gaps
 - One Ground Water Data Point
 - Limited Soil Data
- Fixed Budget (\$250,000)
- 90 Day Schedule – February-March-April
 - Contracting
 - Project Planning
 - Permitting
 - Environmental Investigation
 - Design
 - Cleanup Construction

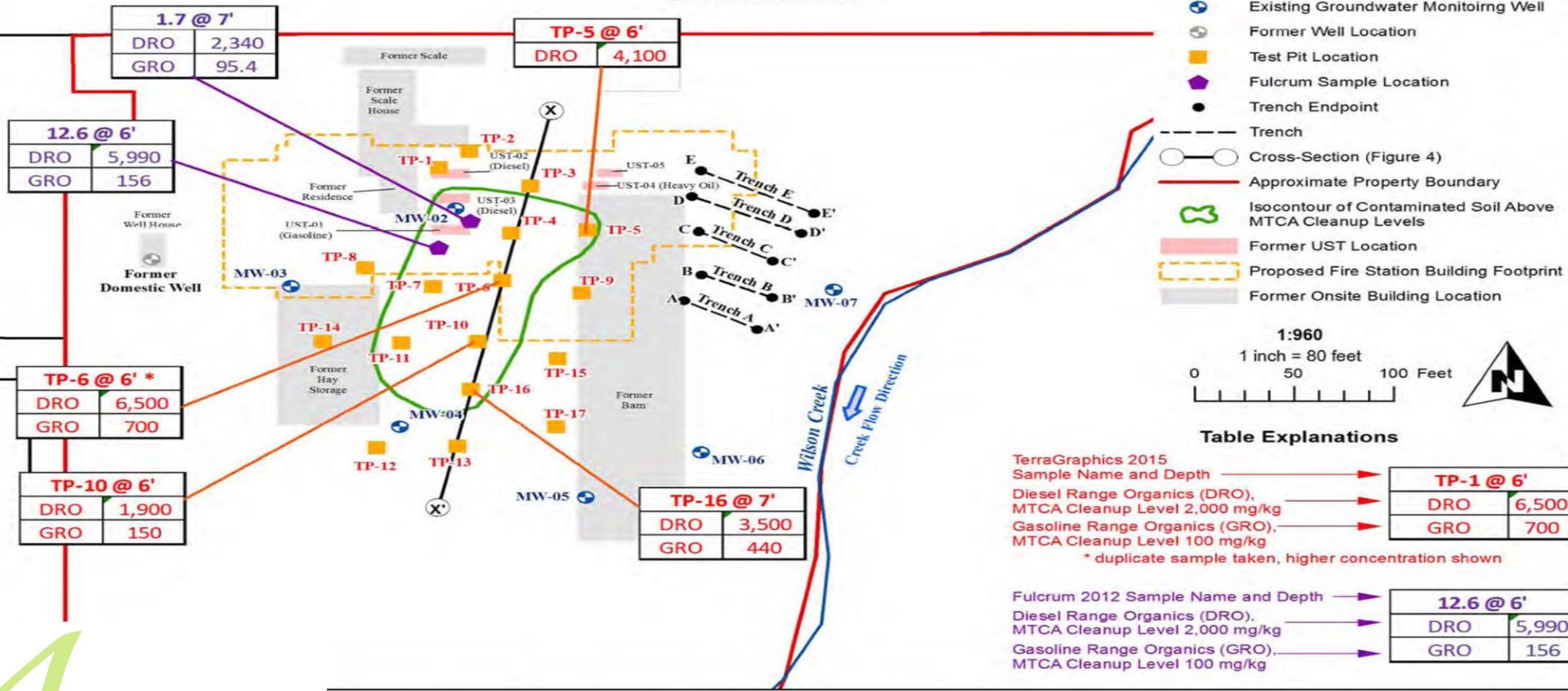
**The worst of the
contamination
was under the
new building!**



This map was produced using information obtained from several different sources that have not been independently verified. These sources have also not provided information on the precision and accuracy of the data. Information on this map is not a substitute for survey data.

MW-01

E MOUNTAIN VIEW AVE



- Existing Groundwater Monitoring Well
- Former Well Location
- Test Pit Location
- Fulcrum Sample Location
- Trench Endpoint
- Trench
- Cross-Section (Figure 4)
- Approximate Property Boundary
- Isocontour of Contaminated Soil Above MTCA Cleanup Levels
- Former UST Location
- Proposed Fire Station Building Footprint
- Former Onsite Building Location

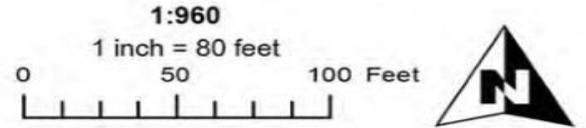


Table Explanations

TerraGraphics 2015
Sample Name and Depth

Diesel Range Organics (DRO), MTCA Cleanup Level 2,000 mg/kg	→	TP-1 @ 6'
Gasoline Range Organics (GRO), MTCA Cleanup Level 100 mg/kg	→	DRO 6,500
	→	GRO 700

* duplicate sample taken, higher concentration shown

Fulcrum 2012 Sample Name and Depth

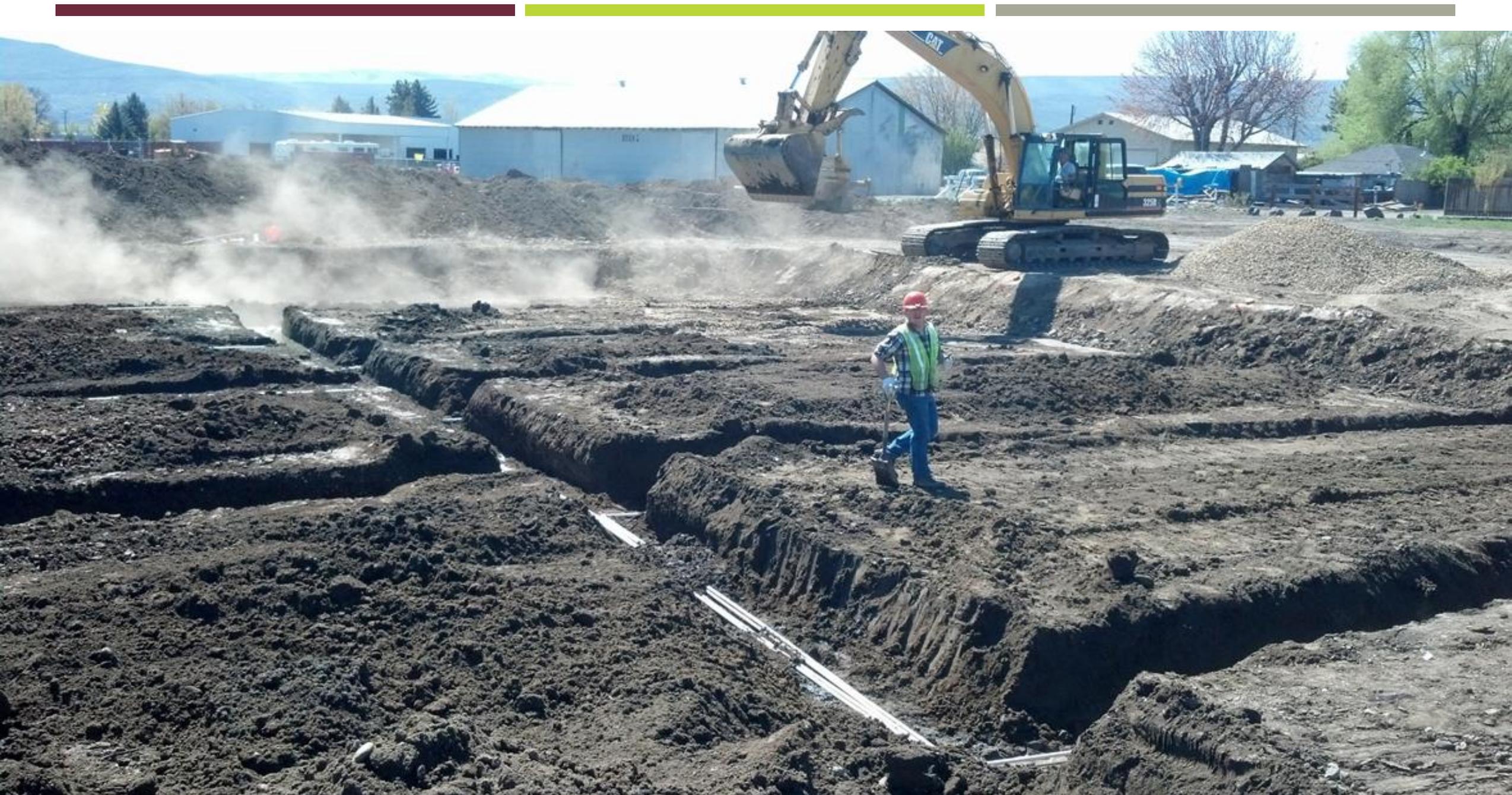
Diesel Range Organics (DRO), MTCA Cleanup Level 2,000 mg/kg	→	12.6 @ 6'
Gasoline Range Organics (GRO), MTCA Cleanup Level 100 mg/kg	→	DRO 5,990
	→	GRO 156

PRINT DATE February 26, 2015	REQUESTOR M. Studer	PROJECT NAME Kittitas Valley Fire & Rescue 400 East Mountain View Avenue Ellensburg, WA 98926
PROJECT NUMBER 15006	PROJECT MANAGER J. Means CARTOGRAPHER B. Bailey	

Figure 3
Isocontour of Site Contamination Above MTCA Cleanup Levels

REMEDY SOLUTION

- Use the building design as a protective cap.
- Non-contaminated overburden soil removed and stocked piled
- Hot spot removal under the building
- Lance injection of chemical oxidants
- Infiltration pipe gallery for subsequent slug injection
- Compliance Monitoring



READY FOR ACTION!



PROJECT COMPLETED AHEAD OF SCHEDULE AND ON BUDGET!

- How is that possible, you ask?



Be nice, do the right thing!



Alta
Science & Engineering, Inc.