

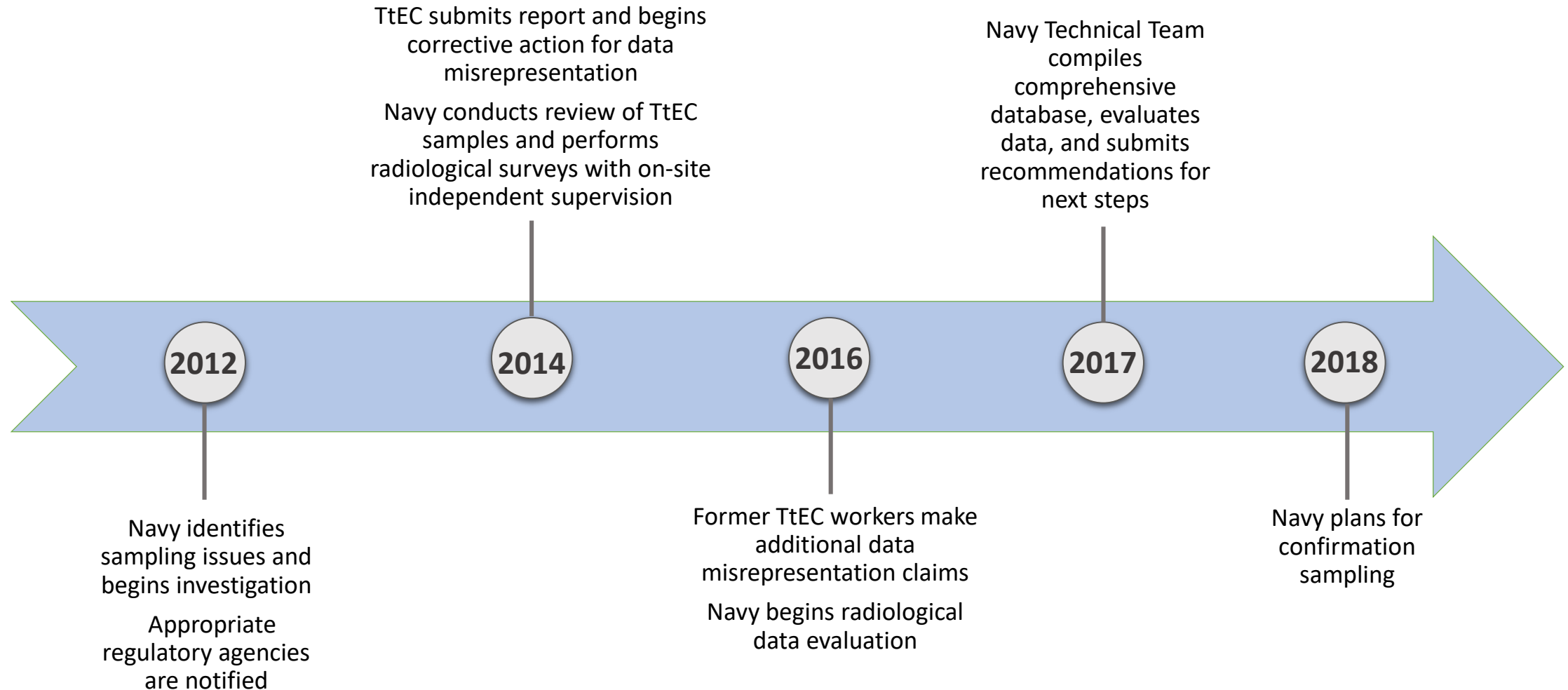
Hunters Point Naval Shipyard Radiological Data Evaluation

Evaluation Process and Initial Results

January 31, 2018

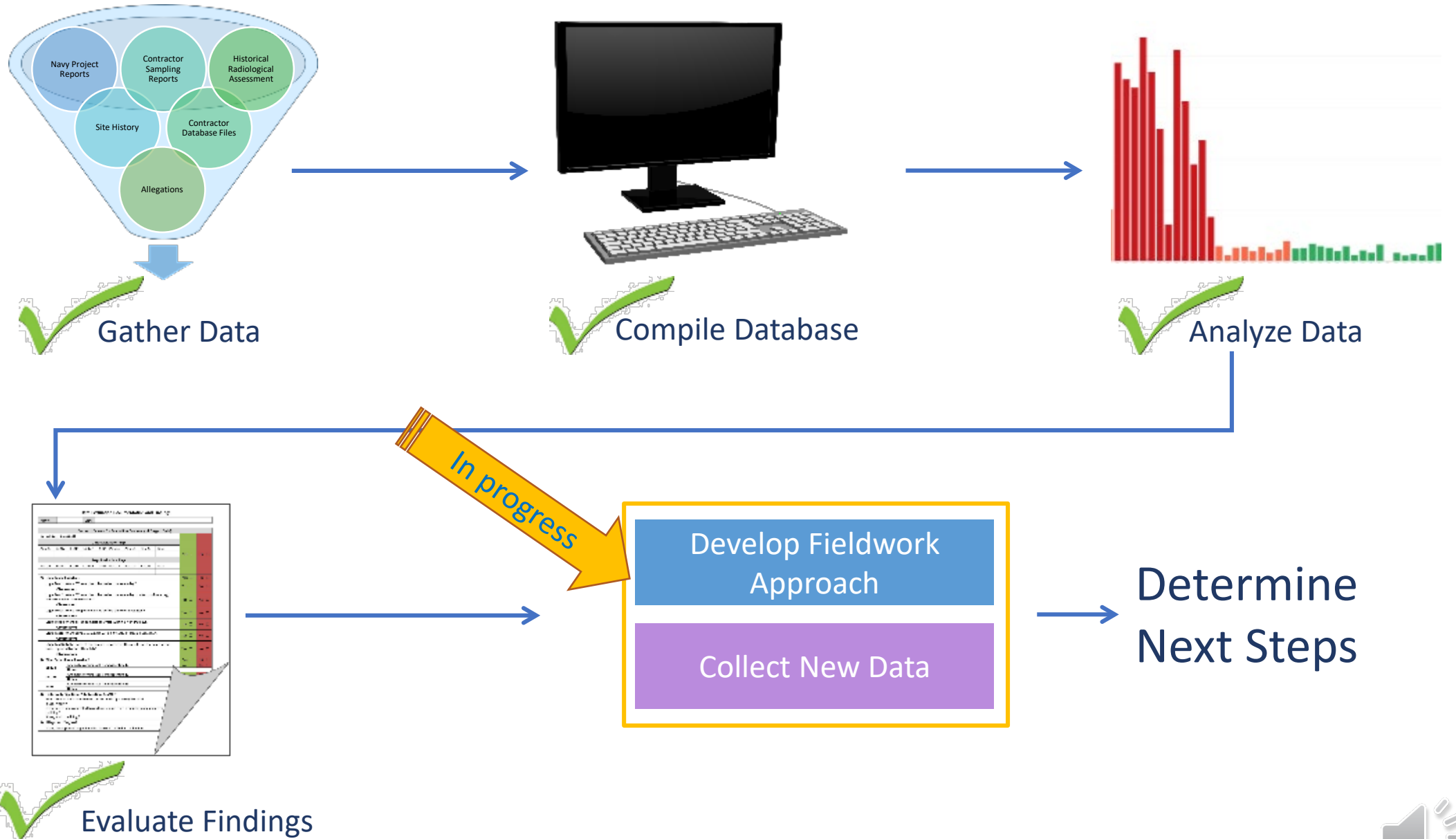


HPNS Radiological Data Evaluation Timeline





Process



Gather Data

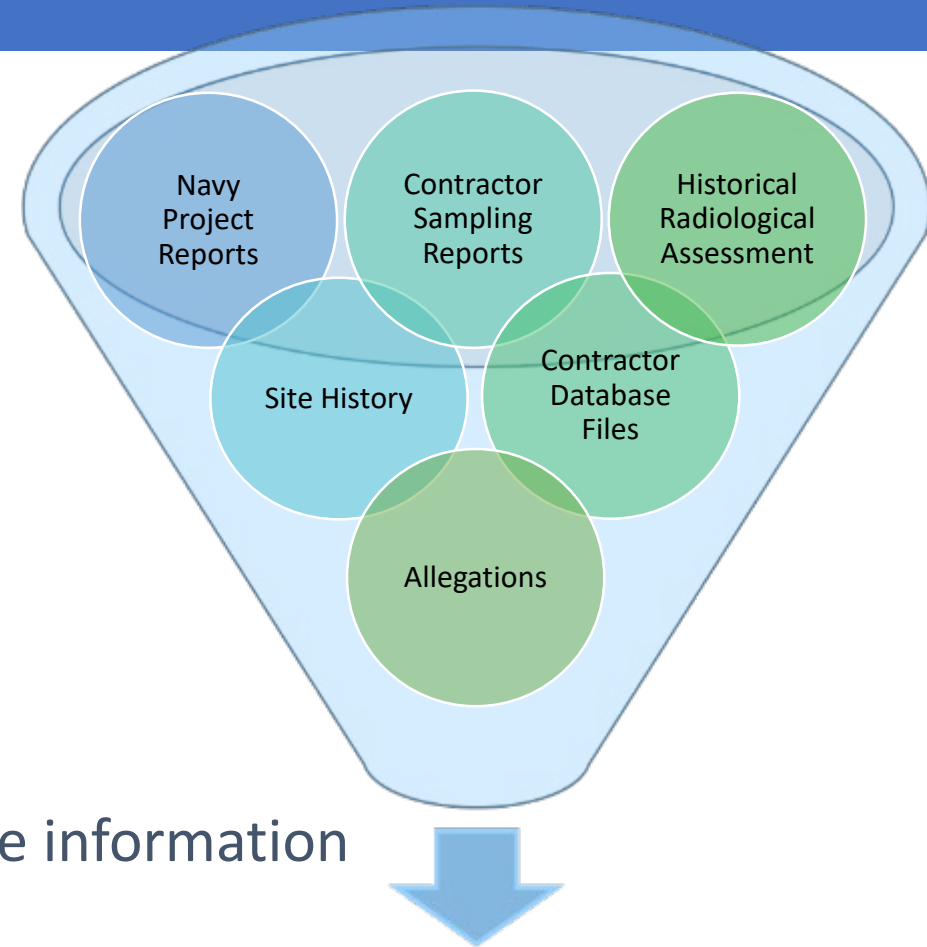
Purpose: To collect all relevant information

Status: *COMPLETE*



Activities

- ✓ Collected background and TtEC radiological sample data
 - ❖ Navy project reports
 - ❖ Sampling results
 - ❖ Reference data
 - ❖ Database files
- ✓ Cross-referenced data to remove duplicate information
- ✓ Categorized data for future analysis



Compile Database

Purpose: To establish an accurate database

Status: *COMPLETE*



Activities

- ✓ Compiled electronic database
 - ❖ Radiological soil samples
 - ❖ Radiological scans
- ✓ Conducted quality control review



Analyze Data

Purpose: To identify inconsistencies in data

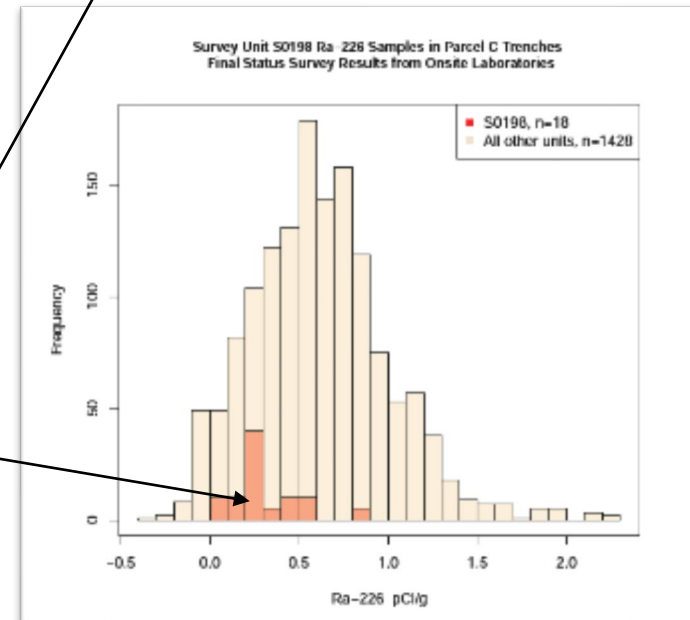
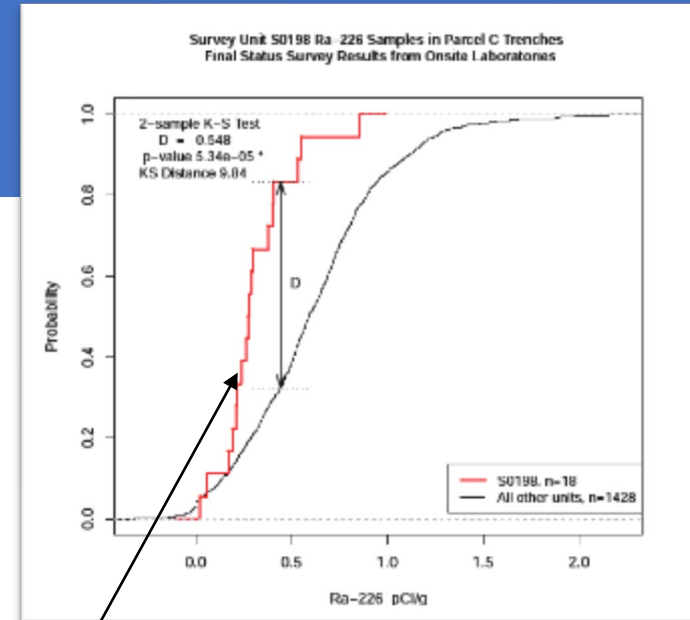
Status: *COMPLETE*



Activities

- ✓ Conducted standardized analysis on sample results
 - ❖ Performed **statistical tests** to identify data inconsistencies
 - ❖ Performed **logic tests** to confirm if results “made sense”

Differences in data show that samples are not from the same sample collection location.



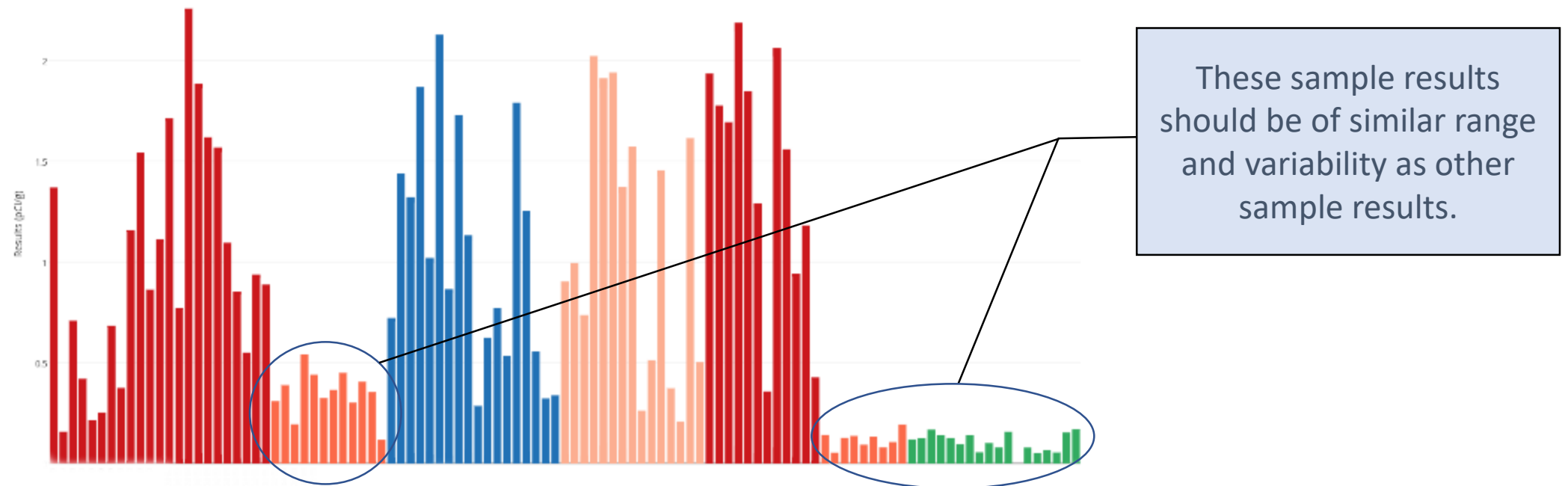
Analyze Data (continued)

Purpose: To identify inconsistencies in data

Status: *COMPLETE*



Example of Analysis Method - *Graphical Analysis*



Graphical representation of multiple samples collected on different days

- ❖ Vertical bars represent sample concentrations
- ❖ Colors represent different sample dates



Evaluate Findings

Purpose: To determine accuracy of data

Status: *COMPLETE*



Activities

- ✓ Flagged unusual or suspect data
 - Statistical inconsistencies
 - Logic test inconsistencies
- ✓ Cross-referenced additional data
 - Sites with possible history of radiological contamination
 - Sites referenced in allegations

Data Evaluation Documentation and Findings									
Parcel:		Unit:							
Section I: Reason For Evaluation (Summary of Flagged Data):									
1) K-S Test: Pass/Fail?									
Units Evaluation Flags									
Ac-228	Bi-212	Bi-214	Cs-137	K-40	Pb-212	Pb-214	Ra-226	Total	
									Pass <input type="checkbox"/> Fail <input type="checkbox"/>
Days Evaluation Flags									
Ac-228	Bi-212	Bi-214	Cs-137	K-40	Pb-212	Pb-214	Ra-226	Total	
									Pass <input type="checkbox"/> Fail <input type="checkbox"/>
2) Logic Tests: Pass/Fail?									
Logic Test 1: Were F55 samples collected on the same day?									
Observation:									
Yes <input type="checkbox"/> No <input type="checkbox"/>									
Logic Test 2: Were F55 samples collected on the same day or after confirmatory/biased samples were collected?									
Observation:									
Yes <input type="checkbox"/> No <input type="checkbox"/>									
Logic Test 3: Were samples collected before they were counted?									
Observation:									
Yes <input type="checkbox"/> No <input type="checkbox"/>									
Logic Test 4: Were all F55 samples analyzed within 2 working days?									
Observation:									
Yes <input type="checkbox"/> No <input type="checkbox"/>									
Logic Test 5: Were samples counted within 2 weeks of sample collection?									
Observation:									
Yes <input type="checkbox"/> No <input type="checkbox"/>									
Logic Test 6: Is the mass of the sample reported by the onsite lab the same as the mass reported by the offsite lab?									
Observation:									
Yes <input type="checkbox"/> No <input type="checkbox"/>									
3) Time Series Plots: Pass/Fail?									
Bi-214	Anomalies or unusual trends identified?								
	Notes:								
Ac-228	Anomalies or unusual trends identified?								
	Notes:								
K-40	Anomalies or unusual trends identified?								
	Notes:								
4) Historically Significant Site Location: Yes/No?									
Was a known radiation cleanup performed at (or near) this site?									
If yes, where?									
Is the sewer line connected to or downstream from a radiologically-impacted building?									
If yes, which building?									
5) Allegation: Yes/No?									
If yes, description: Suspect worker involved with data collection.									



Evaluate Findings

Purpose: To determine accuracy of data

Status: *COMPLETE*



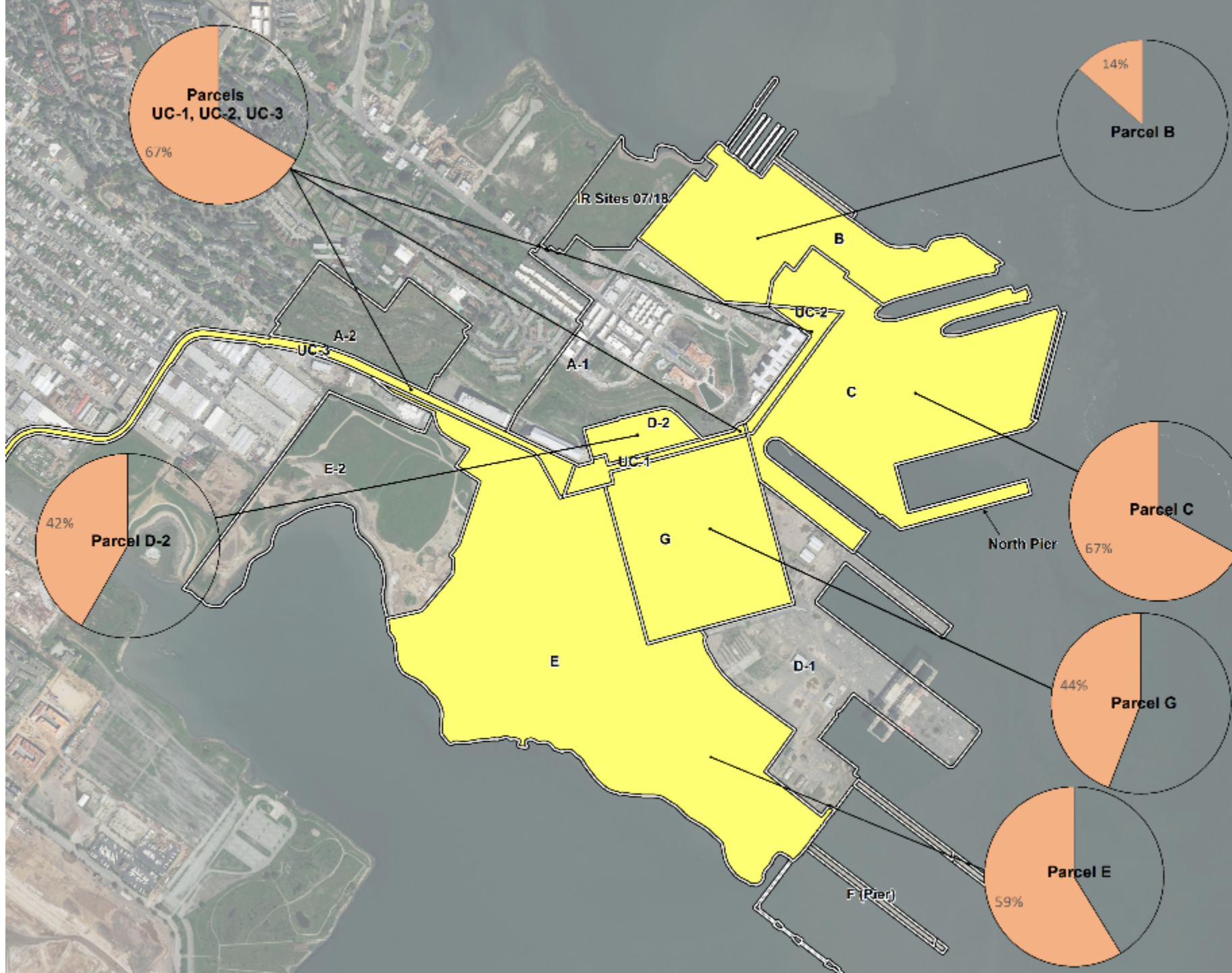
Navy Findings

- ✓ Evidence of data falsification was found in multiple locations/areas
- ✓ Poor laboratory data quality and sample procedures complicate information already in question
- ✓ The Navy plans to collect new, independent data to validate the safety of the site for future use





Results



Determine Next Steps

Purpose: To develop plans for path forward

Status: *IN PROCESS*



Activities

- ✓ Document data evaluation results
- ✓ Develop an approach for collecting new data to confirm site safety
- ✓ Agree to a sampling/excavation approach with Regulatory Agencies

Confirmation Sampling Recommended!

Collection of additional data (surveys, scans, or soil samples) is recommended due to evidence of potential data manipulation and/or falsification



Determine Next Steps (continued)

Purpose: To develop plans for path forward

Status: *IN PROCESS*



Activities

- ✓ Prepare work plan for fieldwork
- ✓ Conduct fieldwork
- ✓ Continue to communicate progress to Regulatory Agencies and the community
- ✓ Continue to offer community resources

Ongoing Outreach

Meetings Fact Sheets Electronic Newsletters Radiological Technical Advisor Community Liaison





Access Navy Resources For More Information

Contact HPNS program management

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Join the HPNS mailing list or leave a comment



Send an email to
info@sfhpn.com



Leave a message on the
HPNS Information Line
(415) 295-4742

Attend a bus tour or Navy community meeting

Upcoming Bus Tours

June 9, 2018
9:00 a.m. and 10:30 a.m.

September 8, 2018
9:00 a.m. and 10:30 a.m.

Upcoming Navy Meetings

April 12, 2018*
*Parcel F Proposed Plan
(Spring)*

July 11, 2018
Radiological Update

October 3, 2018
Topic To Be Determined

Review a Navy report

City of San Francisco Main Library

100 Larkin Street, 5th Floor
Government Information Center
San Francisco, CA 94102
(415) 557-4400

Shipyard Site Trailer

(near HPNS security entrance)
690 Hudson Avenue
San Francisco, CA 94124

Navy Website Main Web Page

www.bracpmo.navy.mil/hpns

Navy Radiological Program Web Page

www.bracpmo.navy.mil/hpnsrc

Learn More

