



From Data to Decisions: AI-Driven Innovation in Environmental Remediation with EQulS[®]

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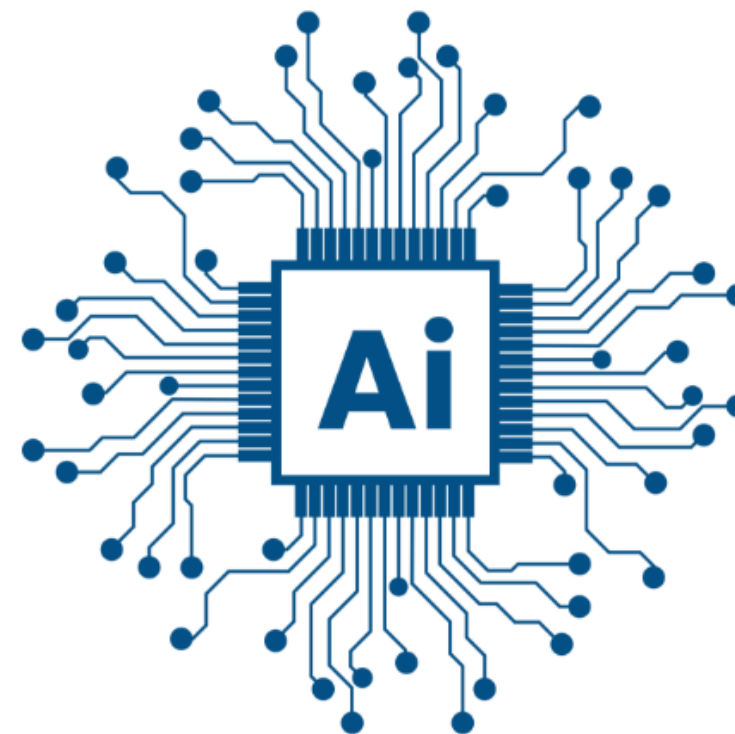


Challenge/Solution

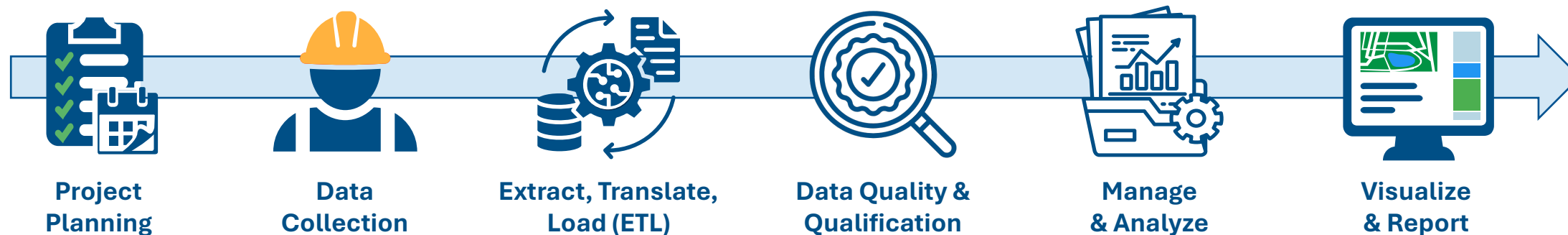
Artificial intelligence is reshaping how environmental professionals manage, interpret, and act on complex datasets.

EarthSoft's EQuIS platform combines:

- Centralized data architecture
- Federated access
- Automated workflows
- Strong data management
- AI-powered knowledge management portal



Structured Data Workflow



Air



Radiological



Chemical



Geology



Geotechnical



Spatial



Waste



Noise



Water:
Ground,
Surface, Storm



Limnology



Biology,
Ecology
Taxonomy



Inspection



Compliance



Soil &
Sediment

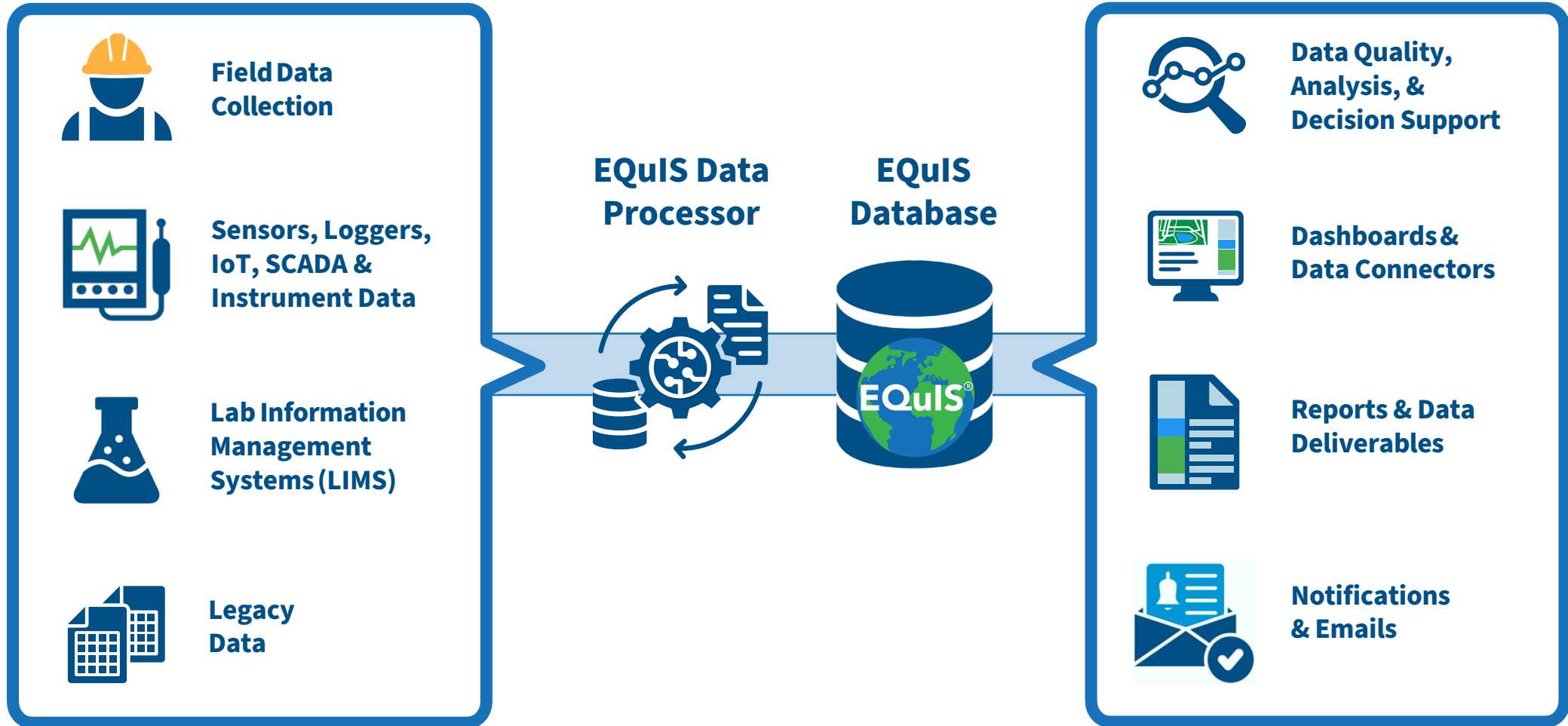


Weather

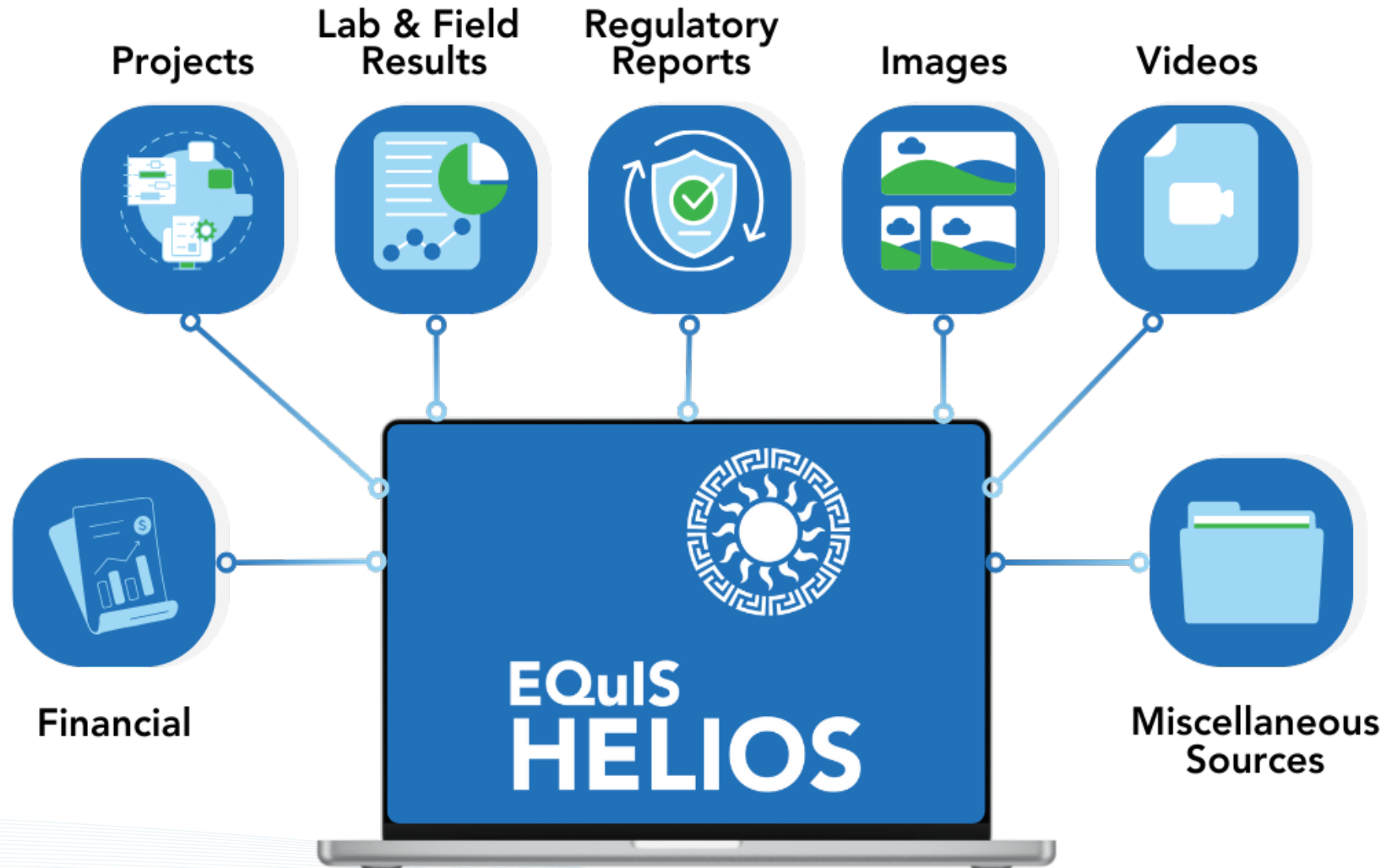


GHG

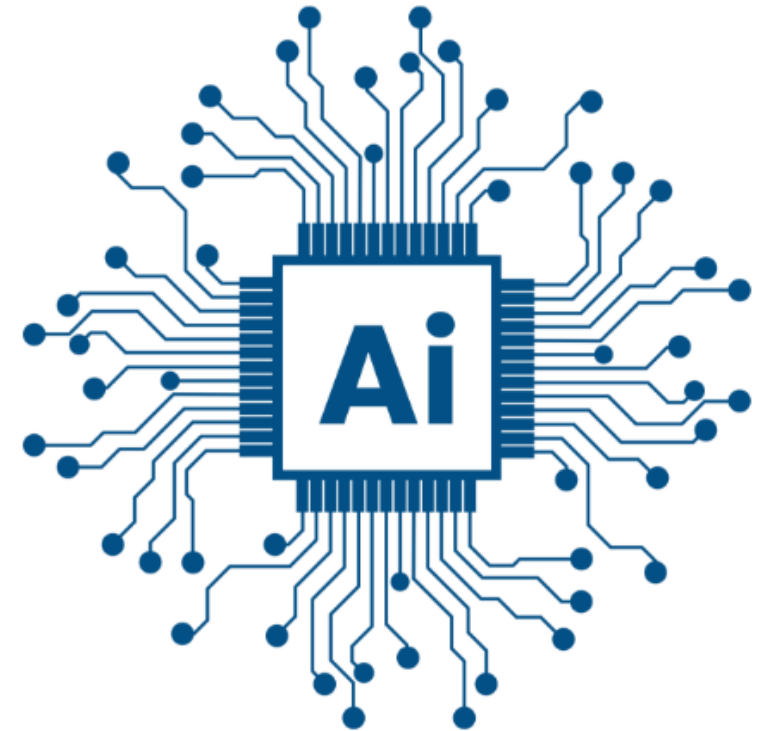
EQulS Data Workflow



AI Integration for Unstructured Data



- AI-Powered Knowledge Management Portal (uses Microsoft Azure AI services)
- Improves unstructured data management
- Versatile choice for streamlining information management and access
 - Auto generate Content Summaries
 - Auto extract Key Words and metadata



Key Features



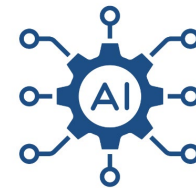
Easy Loading of Data Files



Identification of PII/Profanity



Automated File Processing



**Central Storage and
Microsoft Azure AI Search
Capability**



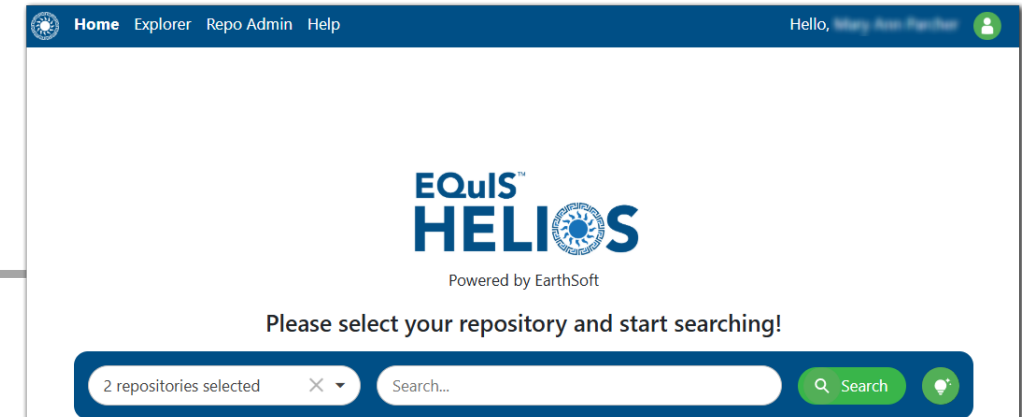
Document Summarization



Advanced Security Features

EQuIS HELIOS

- Easily search for documents
- Dynamic filters



The screenshot shows the search results page for 'fort-wingate' and 'soil'. On the left, there is a sidebar with filter sections: 'Standard Filters' (People..., Locations..., Organizations..., Repositories..., Topics...), 'Dynamic Filters' (none available), and 'Suggested Filters' (Select Filter Type). The main content area is a table with the following columns: File Name, File ..., Summary/Content, Repo..., Date Cr..., Size ..., Topic, and a 'SELECT ALL' button. The table contains seven rows of search results.

File Name	File ...	Summary/Content	Repo...	Date Cr...	Size ...	Topic	
CURRENT_IAP.PDF	.pdf	The Fort Wingate Depot Activity (FWDA) is a former ammunition depot in northwestern New Mexico, currently undergoing environmental cleanup as outlined in a Base Realignment and Closure (BRAC) Installation Action...	fort-wingate	11/29/2016	0.1	(4)-action, water, type, result, waste	
GW_20140113_GWMPV7_F.PDF	.pdf	The document is an Interim Measures Facility-Wide Groundwater Monitoring Plan (GMP) for Fort Wingate Depot Activity (FWDA), dated January 2014. It outlines the groundwater monitoring program designed to evaluate the...	fort-wingate	1/7/2014	7.9	(3)-samples, wingate, report, new, the	
FWDA_OCT_12_2017_INTERIM_F.PDF	.pdf	The document is a comprehensive groundwater monitoring plan prepared by the U.S. Army Corps of Engineers for Fort Wingate Depot Activity, in compliance with the requirements of the New Mexico...	fort-wingate	10/10/2017	8.6	(3)-samples, wingate, report, new, the	
APPENDIX F QSM.PDF	.pdf	The Department of Defense (DoD) and the Department of Energy (DOE) have collaboratively produced the DoD/DOE Quality Systems Manual (QSM) for Environmental Laboratories, which is structured into three modules. The...	fort-wingate	7/29/2013	8.8	(3)-samples, wingate, report, new, the	
FT WINGATE COORDINATE EQEDD.XLSX	.xlsx	The source document appears to be a detailed field information key for a geological survey, specifically for the EQEDD format version 1.02.117. It provides comprehensive instructions for data collection, including...	fort-wingate	12/10/2020	0.1	(15)-sample, limits, samples, data, laboratory	
QSMVERSIONS-0-FINAL_DOD2013.PDF	.pdf	The Department of Defense (DoD) and the Department of Energy (DOE) have collaboratively produced the DoD/DOE Quality Systems Manual (QSM) for Environmental Laboratories, which is structured into four modules. This...	fort-wingate	7/29/2013	1.9	(3)-samples, wingate, report, new, the	
BC_20131210_IAP2013.PDF	.pdf	The draft Fort Wingate Depot Activity Installation Action Plan outlines the comprehensive cleanup program for the installation, addressing environmental concerns across 31 sites of concern. The plan, coordinated by the...	fort-wingate	12/10/2013	0.1	(4)-action, water, type, result, waste	

Data Extraction

- Uses Microsoft Azure AI services and optical character recognition (OCR)
- Convert unstructured content into structured formats for integration into EQuIS workflows

Home

Explorer

Application Admin

Repo Admin

Help

Hello,

9

Helios DocBox














































Total: 9 files | 21.8 Mb

Download All

Extract Data

Metadata

Clear Cart

	GW_20140113_GWMPV7_F.pdf	Repository: fort-wingate	Size: 7.9Mb	Date: 2014-01-07				
	Appendix F QSM.pdf	Repository: fort-wingate	Size: 8.8Mb	Date: 2013-07-29				
	Ft Wingate Coordinate EQEDD.xlsx	Repository: fort-wingate	Size: 0.1Mb	Date: 2020-12-10				
	FWDA_IAP_FY09.pdf	Repository: fort-wingate	Size: 0.1Mb	Date: 2009-09-30				
	Ft Wingate Locations PZ EQEDD.xlsx	Repository: fort-wingate	Size: 0.2Mb	Date: 2021-10-26				
	Ft Wingate subfacilities & location groups EQEDD.xlsx	Repository: fort-wingate	Size: 0.1Mb	Date: 2020-12-10				
	GWMPv10_FortWingate_FinalRedline.pdf	Repository: fort-wingate	Size: 0.8Mb	Date: 2017-10-12				
	GW_20121015_FWGMPV6_F.pdf	Repository: fort-wingate	Size: 3.5Mb	Date: 2012-10-08				
	ADR EQuIS 4-File Format.xlsx	Repository: fort-wingate	Size: 0Mb	Date: 2021-09-20				

Unstructured Data Workflow



EQulS Helios

Use Cases

HELIOS Use Case

Challenge – Data Consolidation

Decades of consultant reports field notes

Helios indexes, summarizes and secures this information for centralized access



Government



Industry

HELIOS Use Case

Challenge – Project Transition & Data Migration

Previous consultant did not use a data management system

Helios summarizes and prepares these datasets for review and potential migration



HELIOS Use Case

Challenge – Document Management

Manage historical records cost effectively

Helios makes these records searchable by location, metadata, and content

Cost-effective, secure storage with advanced search functionality



HELIOS Use Case

Challenge – Data Extraction

Extract data from handwritten notes and scanned forms

Helios structures this data for validation and integration into broader workflows



HELIOS Use Case – Example

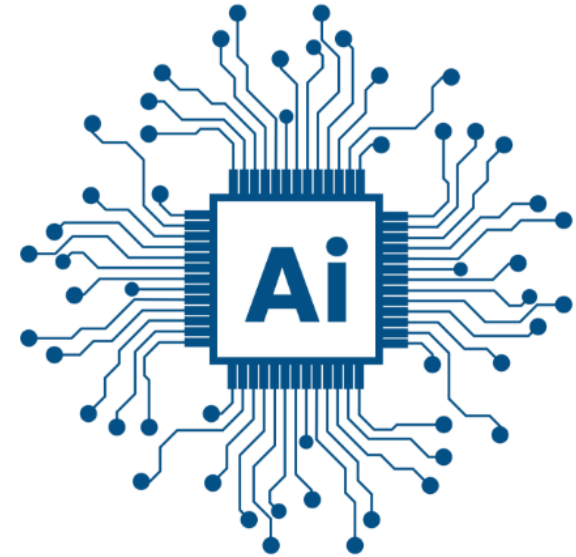
BP Remediation Management

- Currently has around 4 million files
- All are searchable through Helios and controlled by user role access
- Accessibility can be limited by user administration
- All BP RM suppliers have secure access for their projects

Conclusions

The EQuIS platform:

- ✓ Meets evolving demands of environmental data professionals
- ✓ Integrates centralized database architecture with AI-powered tools and Federated access
- ✓ Provides efficient data processing, unstructured data integration, and automated data governance
- ✓ Supports improved communication and informed decision-making



Thank you!

EQulS[®]

www.earthsoft.com

**Own the Workflow,
Make Better Decisions**

