

# Expanded MegaRule Compliance



Jordan Groody,  
Bass Engineering



Andy Morris,  
CartoPac Enterprise

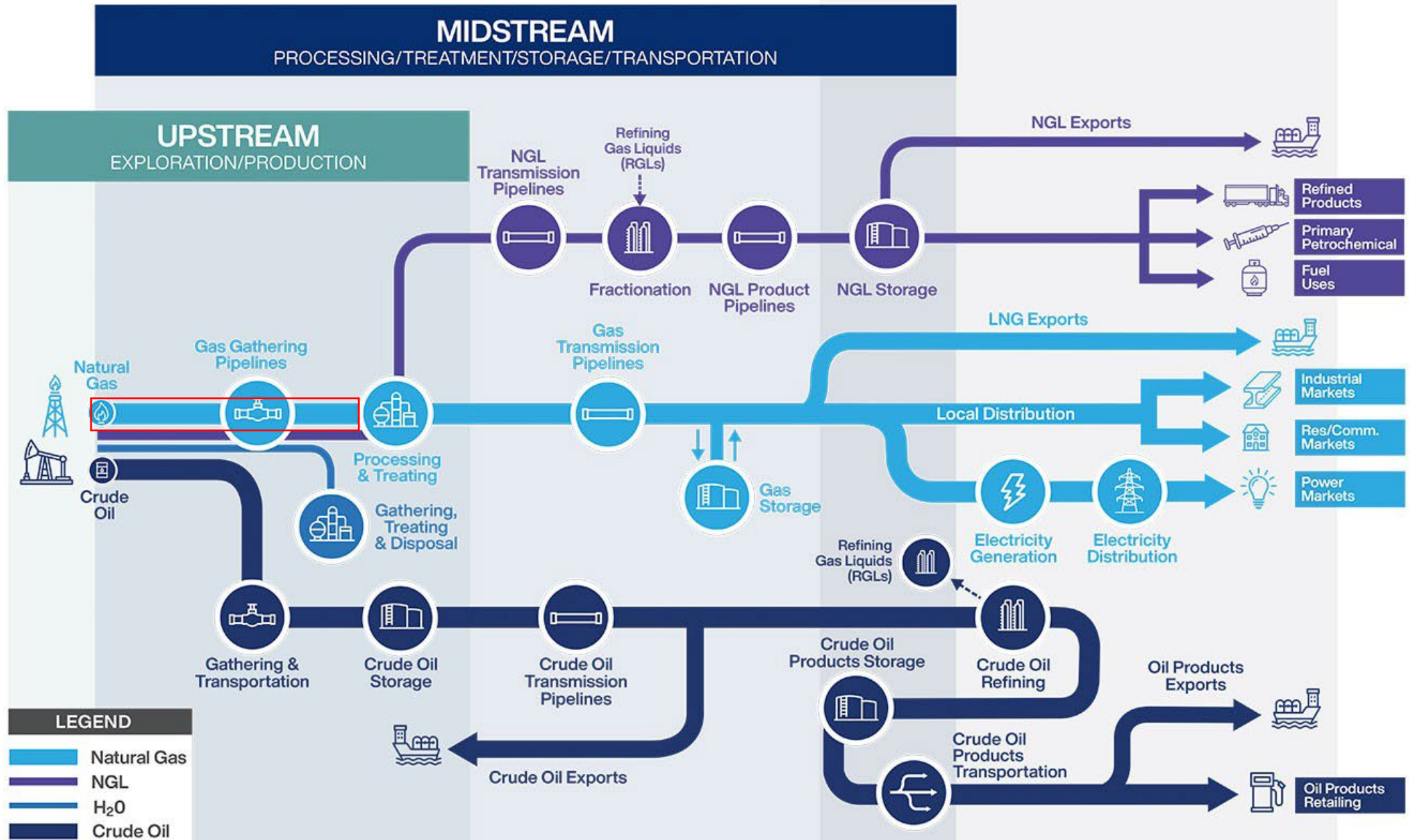


Becky Gibbs Murray,  
PCS

# Agenda

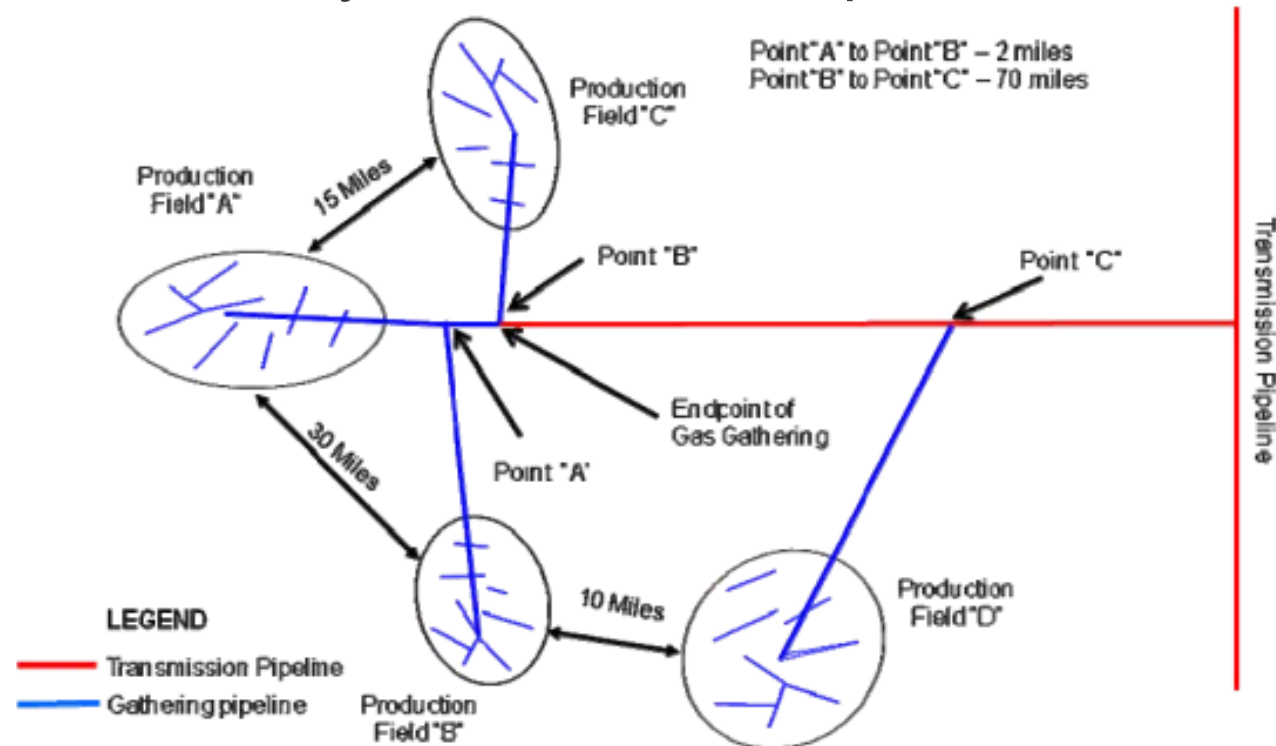
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- MegaRule Overview and Introduction of Field Services
  - Jordan Groody, Bass Engineering
- Gathering Line Mapping Using CartoPac Enterprise
  - Andy Morris, American Innovations
- Leveraging PCS to Manage MegaRule Compliance
  - Becky Gibbs Murray, American Innovations



# Transmission vs. Gathering

- Generally pipe switches to transmission at the “last” point of comingling, with a maximum distance of 50 miles between collection points.
- Typically there IS a facility at the transition point



# Gas Gathering Mega-Rule – Impact Analysis

## Summary – PRE-GGMR Req'ts

		Onshore gas gathering			
		Gas Transmission	Type A	Type B	Unregulated
Area		Class 1, 2, 3, 4	Class 2, 3, 4	Class 3, 4, & certain Class 2	Class 1 and certain Class 2
Material / Stress / MAOP		Any	Metallic, ≥ 20% SMYS, Non-metallic, > 125 psig MAOP	Metallic, < 20% SMYS, Non-metallic, ≤ 125 psig MAOP	Any
Outside Diameter, inches		Any	Any	Any	Any
191	Annual & Incident Reporting, OPID	X	X	X	No 191, nor 192 req'ts
191	Safety Related Condition Reporting	X	X	X	
192	Design, Constr, Inspection & Testing	X	X	X	
192	Damage Prevention	X	X	X	
192	Emergency Plans	X	X		
192	Corrosion Control	X	X	X	
192	Line Markers	X	X	X	
192	Public Awareness	X	X	X	
192	Leakage Survey and Repair	X	X	X	
192	Plastic Pipe and Components	X	X	X	
192	MAOP establishment	X	X	X	
192	All other applicable Gas Transmission	X	X, with some exceptions		

# Gas Gathering Mega-Rule – Impact Analysis

## Summary – POST-GGMR Req'ts

		Onshore gas gathering						
		Gas Transmission	Type A	Type B	Type C			Type R
Area		Class 1, 2, 3, 4	Class 2, 3, 4	Class 3, 4, & certain Class 2	Class 1			Class 1 & certain Class 2
Material / Stress / MAOP		Any	Metallic, ≥ 20% SMYS, Non-metallic, > 125 psig MAOP	Metallic, < 20% SMYS, Non-metallic, ≤ 125 psig MAOP	Metallic, ≥ 20% SMYS, Metallic, unknown SMYS, Non-metallic, > 125 psig MAOP			All other
Outside Diameter, inches		Any	Any	Any	≥ 8.625 - 12.75	> 12.75 - 16	> 16	Any
191	Annual & Incident Reporting, OPID	X	X	X	X	X	X	X
191	Safety Related Condition Reporting	X	X	X	X	X	X	No other 191 req'ts & no 192 req't's
192	Design, Constr, Inspection & Testing**	X	X	X	X	X	X	
192	Damage Prevention	X	X	X	X	X	X	
192	Emergency Plans	X	X		X	X	X	
192	Corrosion Control	X	X	X	X *	X *	X	
192	Line Markers	X	X	X	X *	X *	X	
192	Public Awareness	X	X	X	X *	X *	X	
192	Leakage Survey and Repair	X	X	X	X *	X *	X	
192	Plastic Pipe and Components	X	X	X		X *	X	
192	MAOP establishment	X	X	X		X *	X	
192	All other applicable Gas Transmission	X	X, with some exceptions		As per Subpart I, except 192.493 (conducting ILI)			

\* Additional if 1+ BIHOs or Other Impacted Sites in PIR (Method #1) or in Class Location Unit (Method #2)

# Industry Impact

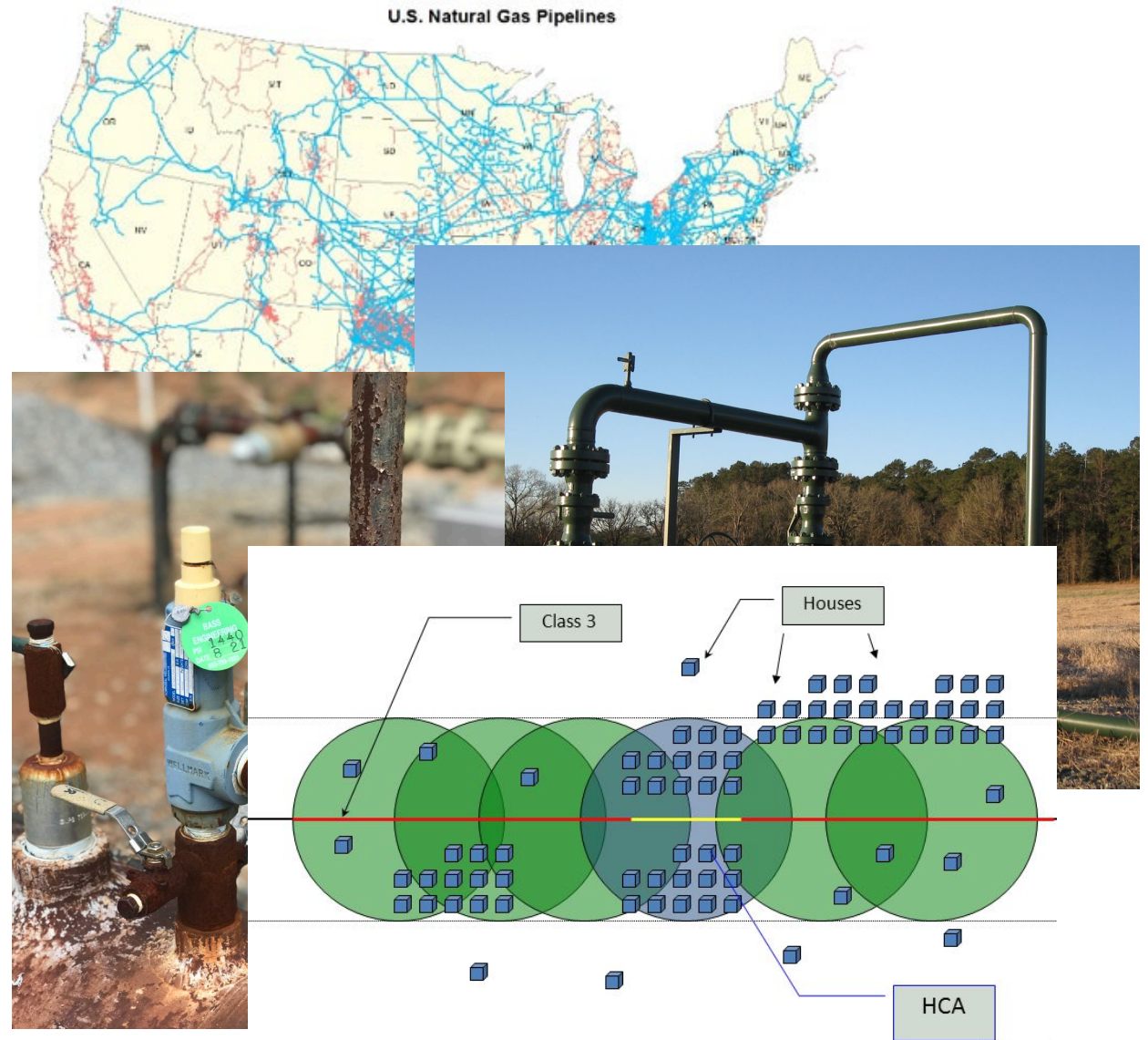
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- New Class C Designation for Class 1 Pipelines
  - 8.625% diameter and up
  - Metallic Operating >20% SMYS or unknown SMYS
  - Non Metallic > 125 psig
  - Approximately 400,000 additional miles now require reporting
  - Approximately 90,000 miles need HCA/MCA/Gas Class Evaluation
- New MCA (Moderate Consequence Area) designation creates more integrity management requirements.

# Data Needs

## Jurisdictional Status / Class

- Where are ALL gathering lines?
- What size are all my lines?
- Where are my PRVs?
- What pressure are PRVs set at?
  - (Establish MAOP)
- What occupied structures are near my pipeline?
- Where do I cross significant roads/Highways?





# Data Needs

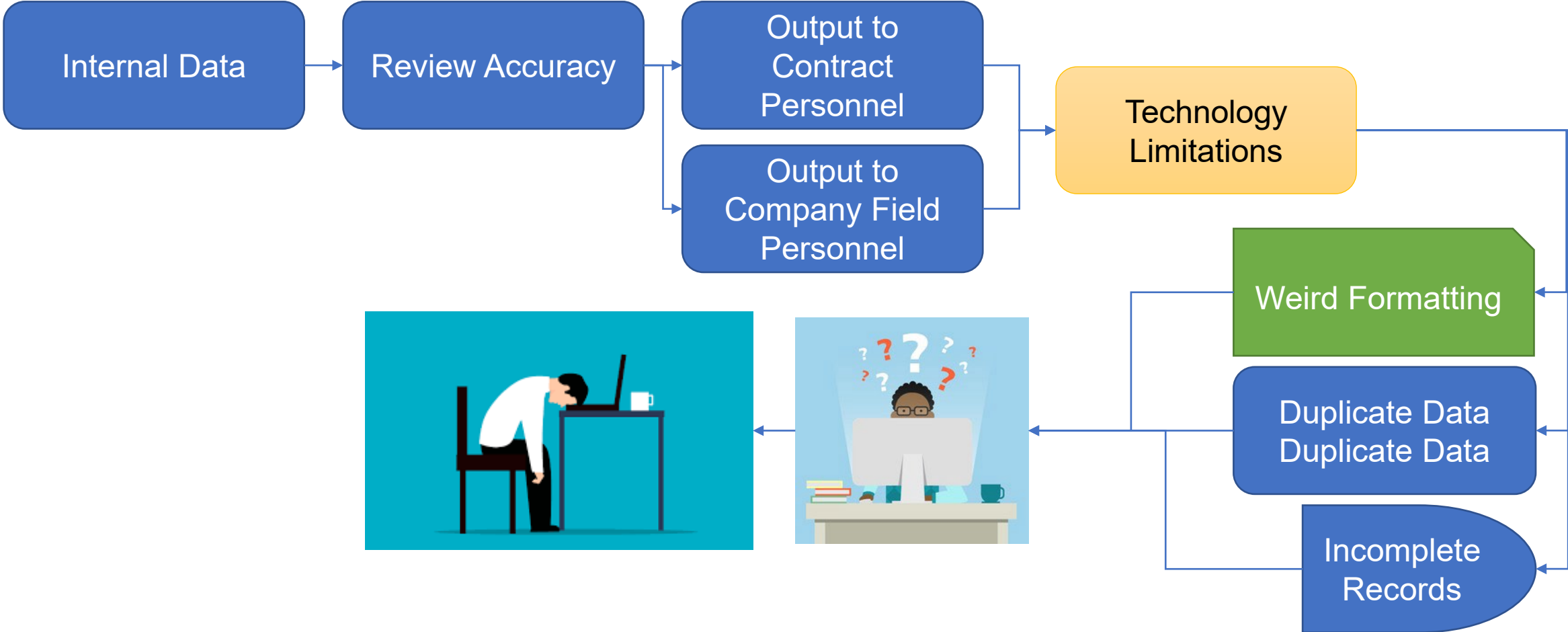
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## Class C Operation

- Existing CP systems; rectifiers, mag beds, test points, isolation
- Pipeline markers, marker condition
- Foreign pipeline crossings, bonds
- HVAC parallelism, existing mitigation systems
- Road casings
- Valve types and locations
- Exposures
- Appurtenances, atmospheric corrosion, transition Coatings
- Internal corrosion coupon types, coupon location, ER probes
- And More!



# The Challenge



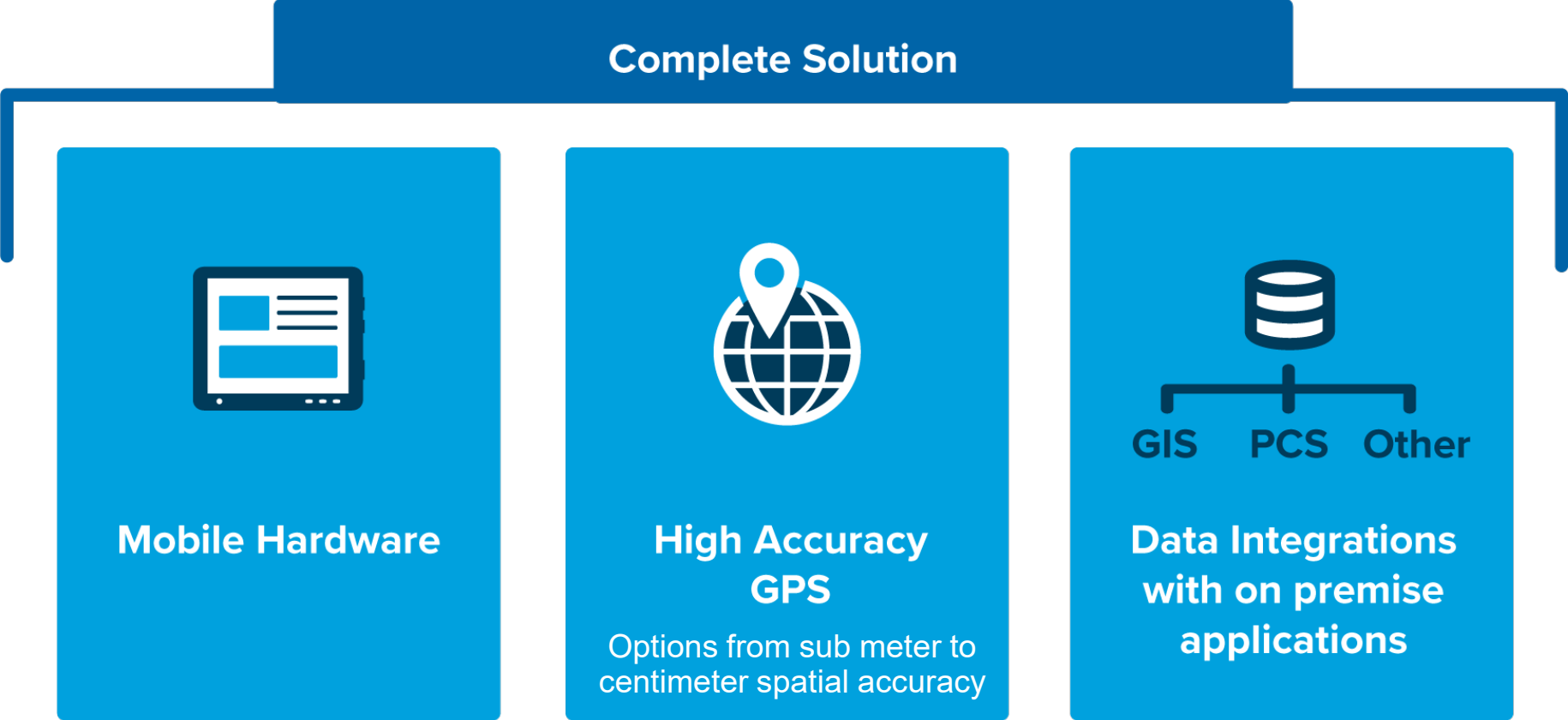
# Gathering Line Mapping

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CartoPac Enterprise

# Gathering Line Mapping Solution

Key parts of Workflow:



# Packaging Data by Work Order #

Job

Manual Entry:     Main Job:     Service Job:     Job Complete?    Reset Job Info

**Work Order Number:\***     **House Number:**     **Unit:**     **Premise:**

**Street:\***     **City:\***     **State:**     **Zip Code:**

**Type of Work:\***     **Job Description:\***

Version 1.0b

Crew   Pre-Enter Parts   Main   Fitting   Valve   Joins   Inspection   Depth Point   FLC-Marker   Pressure Test

First Name	Last Name	Crew Role

🗑️    +    👁️

OK    Cancel

# Gathering Line Mapping

GNSS Off

MODE

?  
+  
EDIT  
←  
+  
-  
→  
→

Main

Main Photos Dimensioning

Part Entry Manual

Material:\*  
Coated Steel


Tracer Wire  
Yes

Attachments

Photos

Photographs

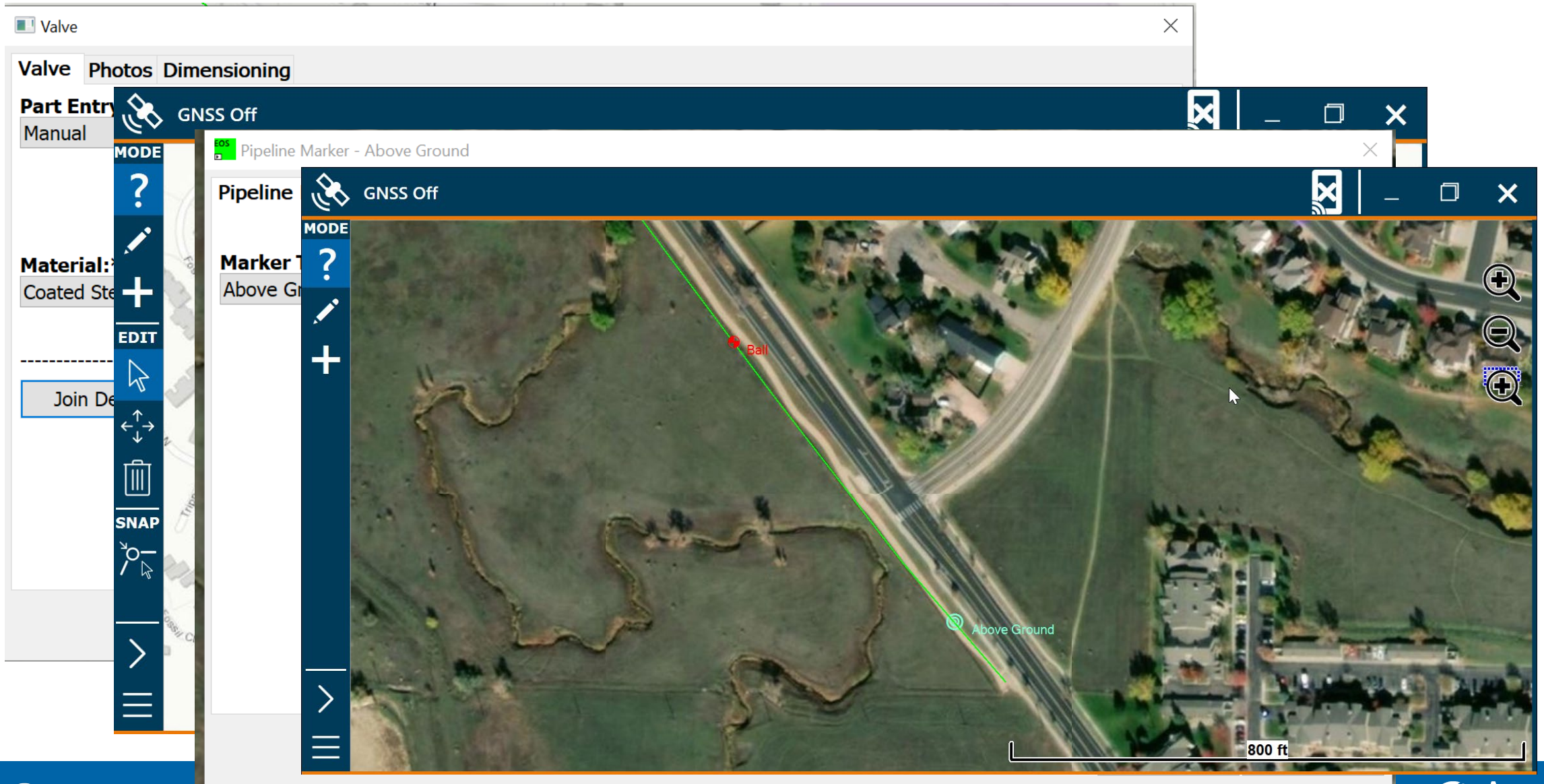
Pipe Install



OK Cancel

Map background showing streets like Boardwalk Dr, Condor Dr, and Nightingale Dr.

# Related Assets



# Mapping Non-Pipeline Assets

The screenshot displays a mobile application interface for mapping non-pipeline assets. At the top, a window titled "Dimension Point - 42.94" is open, showing a "Dimension Point Type" dropdown menu with "Hydrant" selected. Below this, there are fields for "Dimension Type Other" and "Dimension Point Description" with the text "adding non pipeline a". A vertical toolbar on the left contains icons for "MODE", a question mark, a pencil, and a plus sign. The main map area shows a satellite view of a road intersection with a green dimension line and a blue square marker labeled "42.94". The map interface includes a "GNSS Off" status, a search icon, and zoom controls. A scale bar at the bottom right indicates "400 ft".



# Seamless Upload to GIS

The screenshot displays the CartoPac web application interface. The top navigation bar includes 'Home', 'Projects', 'CWM', 'Admin', and 'About' menus, along with a user profile 'cartopacadmin' and a 'Log out' button. The main map area shows an aerial view with a blue line representing a pipeline or road. A 'Map Legend' is visible in the top right. A 'Valve' data form is open on the right side of the screen, displaying the following information:

Manufacturer	Plexco
Manufacture Date	10/20/2022 11:26:32 AM
Joiner First Name	Bob
Barcode Type Code	
Joiner Last Name	Johnson
Contractor	Johnson Inspection
Join Type	Welding
Diameter	2
Type	Ball
Material	Coated Steel
Depth	48
Comments	
Created By	cartopacadmin
Creation Time	10/20/2022 11:26:11 AM
GPS Vertex Type	H
GPS Receiver Type	
GPS Horizontal Accuracy	
GPS Vertical Accuracy	
Average Satellites	
GPS Receiver	

Below the form, the 'Current State' is 'OQ Exception'. An 'Action' dropdown menu is set to 'Select...'. There are two checkboxes: 'Change State' (checked) and 'Include Bundled Features' (checked). The interface also features a 'Map Legend', 'Select Extent' search bar, and 'Project' management buttons (Download, Upload, Clean) and 'Spatial Filter' options (Draw, Clear).

# Key Features

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Standardized workflows and logic so that all data is collected to meet business and regulatory requirements



Leveraged Best Practices



Once data is uploaded back to GIS – available for use by other system



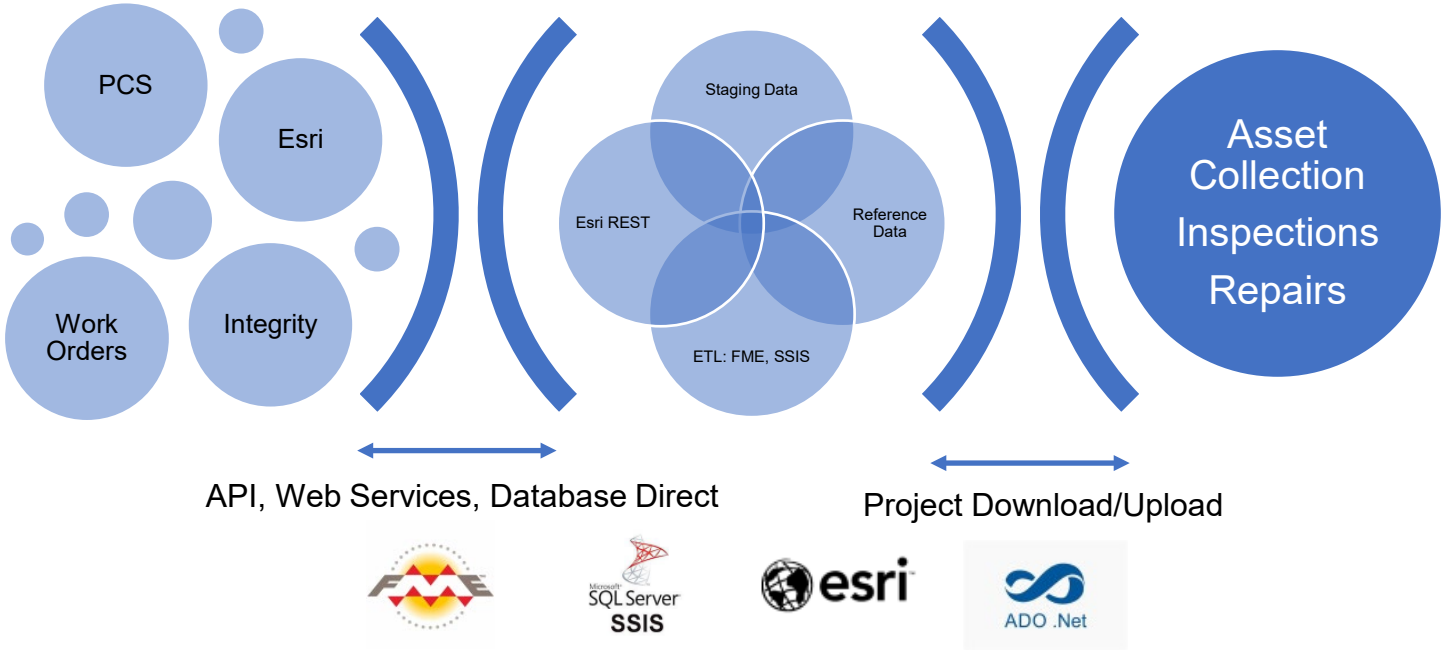
Complete solution

# CartoPac Integrations

Systems of Record

AI Hosted Cloud

Field Data Collection



CartoPac natively connects to data through Esri database and REST providers and direct ADO.Net database connections.

FME and SSIS jobs can be run on a schedule or through the CartoPac API's.

# Managing MegaRule Compliance with PCS

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- ✓ Inspection after Extreme Weather
- ✓ Internal Corrosion
- ✓ Gathering Line CP Management

# Inspections after Extreme Weather Events

Required Inspections after extreme weather events

- Tropical Storms/Hurricanes
- Floods
- Landslides
- Earthquakes

ROW Code and Pipe	Milepost	Effective Date	Inspection Date	Survey	Structure P/S	Casing P/S	Foreig
D-0004	23		8/25/2022 11:06:5...	2022 November Extreme Weather Inspections	-1.200		
D-0004	24		8/25/2022 11:07:0...	2022 November Extreme Weather Inspections	-0.940		
T-2127	1		11/3/2022 1:17:30...	2022 November Extreme Weather Inspections	-0.927	-0.820	
T-2127	2		11/3/2022 1:17:44...	2022 November Extreme Weather Inspections	-0.850		
T-2127	3		11/3/2022 1:17:54...	2022 November Extreme Weather Inspections	-0.920	-0.800	
T-2127	4		11/3/2022 1:18:08...	2022 November Extreme Weather Inspections	-1.271		
T-2127	5		11/3/2022 1:18:20...	2022 November Extreme Weather Inspections	-0.840	-0.710	
▶ T-2127	6		11/3/2022 1:18:35...	2022 November Extreme Weather Inspections	-1.300		

# PCS Internal Corrosion Module

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Manage and Analyze Internal Corrosion Programs

- Chemical Treatment
- Coupons
- Probes
- Gas/Liquid/Solids Samples
- Pigging
- Inhibitor Injection

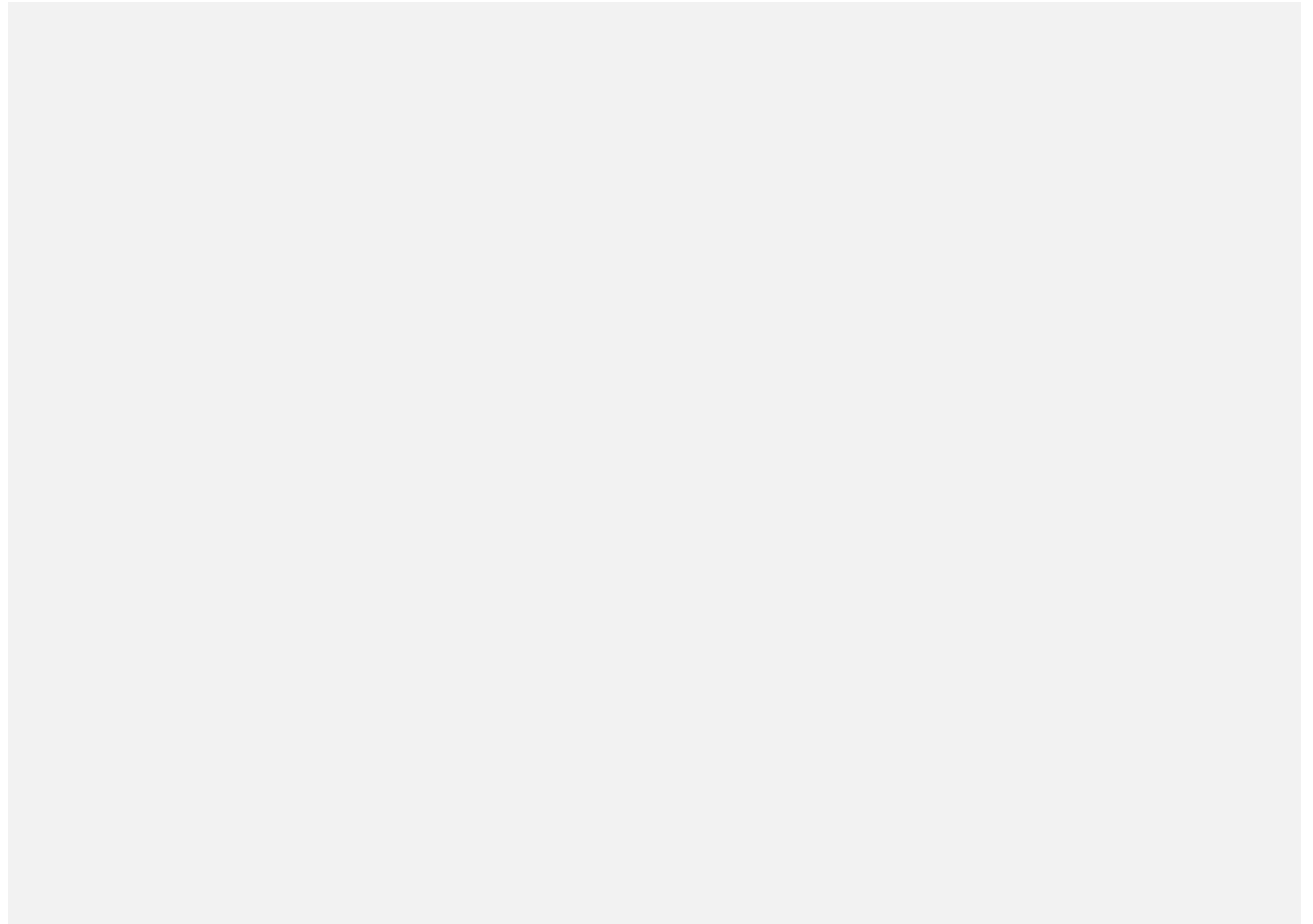


**Check out Steve Hamblin's presentation later today on the PCS Internal Corrosion Manager!**

# Gathering Line CP Management

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Import Data from CartoPac  
Enterprise, GIS, or other 3<sup>rd</sup>  
Party Systems to start managing  
CP for Type C Gathering Lines



# QUESTIONS & ANSWERS

Answers to your tough questions.

Speaker Name

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Email/Contact Info