

# *New GIS Data Requirements*

COGCC Operator Training

February 2, 2020



**COLORADO**  
Oil & Gas Conservation  
Commission

Department of Natural Resources

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# *Context for the New GIS Data Requirements*

Part of Mission Change Rules that went into effect on January 15<sup>th</sup>, 2021.

New requirements for:

Form 2A - Oil and Gas Location Assessment

Form 45 - Location Construction Report

Form 20 - Permit to Conduct Seismic Operations

Form 20A - Completion Report for Seismic Operations

Form 12 - Gas Gathering Systems

Comprehensive Area Plans

- ✓ Geographic Information System (GIS) data has become an invaluable tool for gathering, managing, and analyzing regulatory data.
- ✓ It will improve efficiency and accuracy in the COGCC review process.



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**New GIS Data Requirements**

# *Technical Workflow*

- ❑ The technical workflow to automatically extract, transform, and load data from GIS file attachments into the COGCC database and onto the map is complex.
- ❑ **In order for our system to process GIS data successfully operators will be required to name certain attributes and corresponding features precisely. Please follow the guidance in subsequent slides - paying particular attention to the table columns for ‘Attributes’ and ‘Required Naming’.**
- ❑ If planning to attach Google kml files please be aware that the attributes are not applicable. You will instead, list features in a specific place using Google Earth. And if multiple attributes are required, the features must be entered both in a specific place and order within the Google Earth application.

# Form 2A & Form 45 - Locations and Working Pad Surface

Feature	Geometry	Attributes	Required Naming
<b>Rule 304.b.(8) - Form 2A (Oil and Gas Location Assessment)</b>			
Proposed entire oil and gas location	Polygon	FeatTyp (text, 50)	oil and gas location
Proposed working pad surface	Polygon	FeatTyp (text, 50)	working pad surface
<b>Rule 407.b.(1) - Form 45 (Location Construction Report)</b>			
As-built entire oil and gas location	Polygon	FeatTyp (text, 50)	oil and gas location
As-built working pad surface	Polygon	FeatTyp (text, 50)	working pad surface

- **Oil and Gas Location:** a definable area where an operator has disturbed or intends to disturb the land surface in order to locate an oil and gas facility.
- **Working Pad Surface:** the portion of an Oil and Gas Location that has an improved surface upon which Oil and Gas Operations take place.
- **One GIS attribute required at present**

Form 2A/45 GIS content questions:  
 John Noto (john.noto@state.co.us) or OGLAs

# Form 20 & Form 20A - Seismic Operations

Feature	Geometry	Attributes	Required Naming
<b>Rule 313.b.(2) - Form 20 (Permit to Conduct Seismic Operations)</b>			
Proposed project boundary	Polygon	FeatTyp (text, 50)	project boundary
Proposed energy source points	Point	FeatTyp (text, 50)	energy source point
Proposed receiver locations	Point	FeatTyp (text, 50)	receiver location
<b>Rule 436.f.(2).B - Form 20A (Completion Report for Seismic Operations)</b>			
Proposed project boundary	Polygon	FeatTyp (text, 50)	project boundary
Proposed energy source points	Point	FeatTyp (text, 50)	energy source point
Proposed receiver locations	Point	FeatTyp (text, 50)	receiver location

- One GIS attribute required at present
- Additional future attributes possible

Form 20/20A GIS content questions:

Charles Romanchock (charles.romanchock@state.co.us)



# Form 12

Feature	Geometry	Attributes	Required Naming
<b>Rule 220.a.(6).D - Form 12 (Gas Gathering Systems)</b>			
Gathering lines	Line	FluidTyp (text, 50) MatTyp (text, 50) PipeSize (float) OperFeatID (text, 50) Status (text, 50)	None
Isolation valves	Point	FluidTyp (text, 50) MatTyp (text, 50) PipeSize (float) OperFeatID (text, 50) Status (text, 50)	None

- Follows same GIS data requirements as Form 44
- Five GIS attributes required
- Disclosed at the same mapping scale provided in and kept confidential pursuant to the procedures in Rule 1101.e.

Form 12 GIS content questions:

Ellice Whittington (ellice.whittington@state.co.us) and Steven Wheeler (steven.wheeler@state.co.us)



# Rule 314.e.(4) - Comprehensive Area Plans

Feature	Geometry	Attributes	Required Naming
Rule 314.e.(4) - Comprehensive Area Plans			
CAP external boundary	Polygon	FeatTyp (text, 50)	cap external boundary

- One GIS attribute required at present
- GIS data for Comprehensive Area Plans will be handled individually by COGCC staff and will not be submitted via the eForms attachment process.

Form CAP GIS content questions:  
Hearings Group

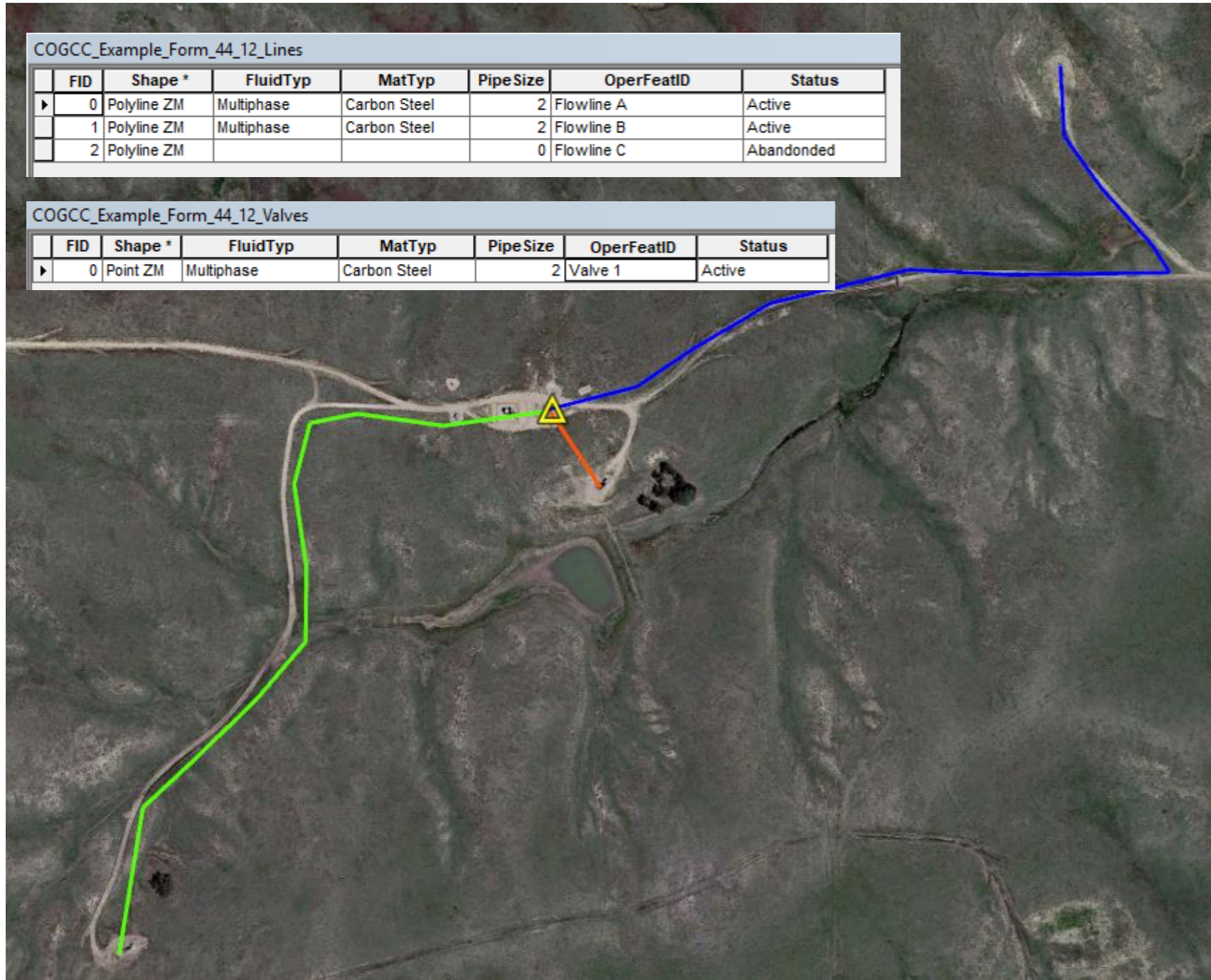


# Approved GIS Data Formats

- **File Geodatabase (gdb)**
  - scalable
  - multiple feature types / tables
  - more robust database and storage capabilities
  - more portable
- **Shapefile (shp)**
  - simple storage format
  - single feature type / table
  - field names limited to 10 characters
  - multiple files
- **Google Keyhole Markup Language (kml)**
  - data format used by Google Earth and Google Maps
  - easier and quicker to use if you don't have experience with GIS software
  - Better for the occasional GIS data attachment submission with limited number of features



# Example 1: GIS Data Attachment (shp) - Form 44 or 12



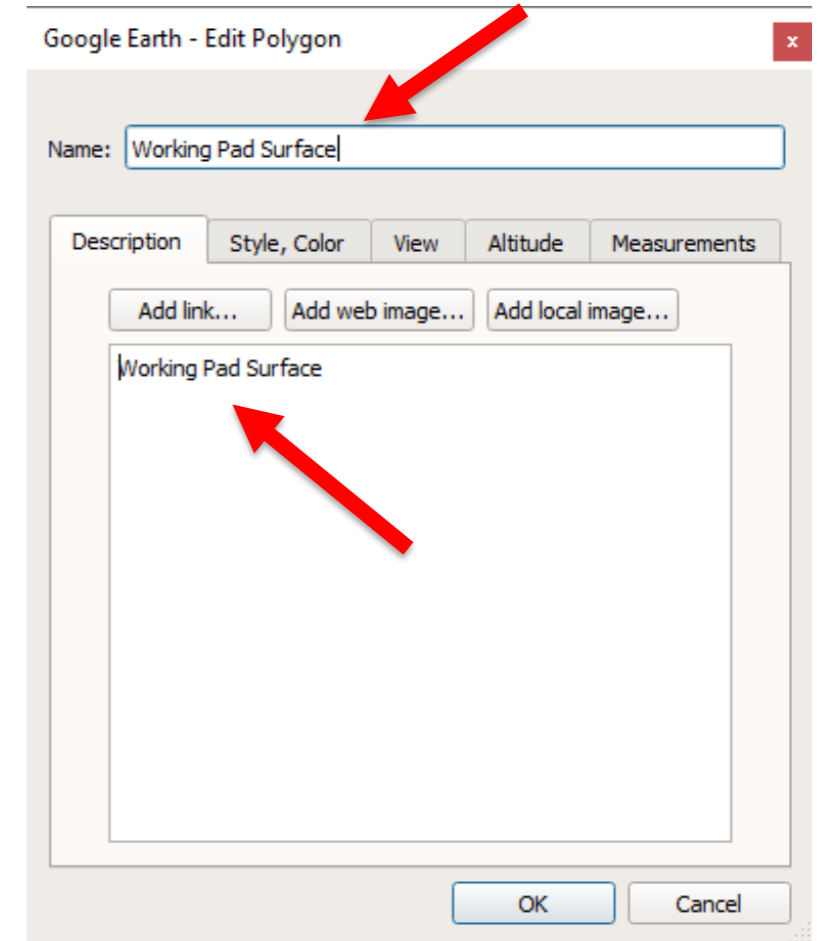
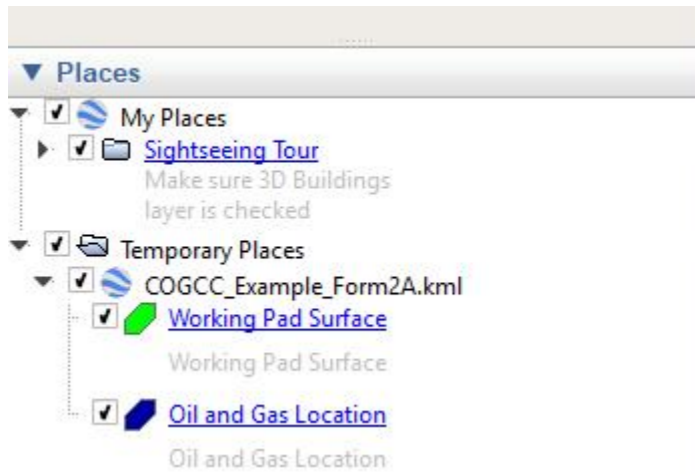
## 5 required attributes:

FluidTyp  
MatTyp  
PipeSize  
OperFeatID  
Status

- In this case, two shapefiles will be attached as there are lines and points
- After making sure attributes are correct, zip the files and correctly format attachment name

COGCC\_Example\_Form\_44\_12\_Lines.shp.zip  
COGCC\_Example\_Form\_44\_12\_Valves.shp.zip

# Example 2: GIS Data Attachment (kml) - Form 2A



Only 1 required attributed to identify the feature for Form 2A

**For Form 2A, Form 45, Form 20, and Form 20A:**

To submit a kml file as your GIS attachment successfully, you need to enter the required string either in the 'Name', 'Description', or both.

**For Form 12 and Form 44:**

You **MUST** enter each attribute on a separate line - for any empty attributes, you **MUST** enter either 'unknown' or 'none'. If unclear, please contact staff before submitting your first Form 12 or Form 44 kml attachment.

# *eForms Attachment Process*

- ✓ Process is just like other document attachments in eForms
- ✓ BUT, you need to make sure your file is prepared, zipped\*, and named correctly
- ✓ Attach your GIS data file using one of the appropriate GIS data file type options:

*yourfilename.gdb.zip*

*yourfilename.shp.zip*

*yourfilename.kml*

(\*kml files do not need to be zipped for attachment)

- ✓ **eForms will automatically assign the correct attachment description** (NOTE - this is a different workflow than used for other eForms attachments)
- ✓ The GIS attachment should be processed within a few minutes unless there are many others ahead in the queue
- ✓ If there is a problem in processing your attachment an email notification will be sent to contact listed on the eForm

# *GIS Data Disclosure*

- COGCC will show GIS data for **in-process** and **approved** forms on our public interactive map.
- Confidential data (i.e. Forms 12 and 44) will be limited to viewing at scales above 1:6,000. Non-confidential data will appear on our interactive map at all scales, and may be eventually provided as a data download or via a web-service.
- Being a new data requirement, the amount of spatial data available initially will be sparse. Please be patient as we work through this new process!

# Questions?

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[colorado.gov/cogcc](http://colorado.gov/cogcc)



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