

GIS Data Measurement Accuracy & Data Attachment Issues

COGCC Operator Training

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COLORADO
Oil & Gas Conservation
Commission

Department of Natural Resources

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GIS Data Attachment Requirements

With the Mission Change Rules that went into effect on January 15th, 2021, the following forms now require GIS data attachments in eForms:

Form 2A - Oil and Gas Location Assessment

Form 12 - Gas Gathering Systems

Form 20 - Permit to Conduct Seismic Operations

Form 20A - Completion Report for Seismic Operations

Form 44 - Off-Location Flowlines, Crude Oil Transfer Lines, and Produced Water Transfer Systems

Form 45 - Location Construction Report

Additionally, Comprehensive Area Plan (CAP) applications now require the CAP boundary polygon to be provide as a GIS dataset using the new eFiling system.



Measurement Accuracy

- ❑ As per COGCC Rule 216, measurement accuracy must be 1m or less for all GIS features (including points, lines, and polygons) surveyed by Global Positioning System (GPS).
- ❑ Further, GPS receivers (whether consumer hand-held or commercial/survey) should be ‘differential grade’ - meaning a differential correction is applied to improve accuracy during or post-acquisition.
- ❑ Refer to COGCC Rule 216 for more information regarding GPS accuracy requirements.
- ❑ If you are planning to submit GIS data mapped using a non-GPS method, please contact us.

Coordinate Reference System (CRS)

- ❑ The COGCC expects operators to submit their GIS data using the NAD83 datum in the appropriate geographic or projected (UTM 13) coordinate reference system (CRS).
- ❑ The COGCC, however, will accept data in most any CRS as long as the CRS can be identified in the submitted GIS data file. GIS data that does not include the necessary CRS information will be rejected.



Preparing the GIS Data

- ❑ Form 2A and Form 45 - Oil and Gas Location (OGL) & Working Pad Surface (WPS)
 - Distinction between these two areas
 - Most sites the OGL and WPS are different
 - Access roads should be submitted as distinct feature separate from the OGL

- ❑ Geodatabase and Shapefiles
 - Require attribute field FeatTyp
 - Limit FeatTyp text string value to either “Oil and Gas Location” or “Working Pad Surface”

- ❑ KML submissions (see new Guidance doc)



Preparing the GIS Data

□ Form 12 and Form 44

- Shapefiles are limited to single geometry
- If submitting both lines and valves you would need to submit two shapefiles
- Geodatabase files, on the other hand, can contain different geometries and therefore do not require a separate file for each of the feature types.
- KML submissions (see new Guidance doc)



Zipping the GIS File

□ Shapefiles

- Select all the associated zip files
 - Zip them
 - Rename file
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- Please note a common error when zipping shapefiles is to zip the entire folder containing the files as opposed to selecting the files within the folder. While this may work, it is not ideal as our system won't always be able to recognize the necessary files when the containing folder has been zipped.

□ Geodatabases

- Select just the GDB folder
- Zip it
- No need to rename



Attaching the GIS File

- For Form 2A and Form 45 - need to select the appropriate attachment description
- All other Forms, the attachment description will populate itself for GIS Data
- See Guidance Document for instructions



GIS Data Review and Disclosure

- Processing occurs soon after uploading GIS attachment
- Notification to COGCC staff
- If there is a problem with the GIS file attachment, COGCC staff will also receive a notification and may reach out to you with troubleshooting help.

GIS data attachments submitted as part of new rules will tentatively display on our public interactive map as follows:

Form	Form Status	Map Viewing Restrictions
2A	In Process, Approved	
12	Approved	Scale > 1:6,000
20	In Process, Approved	
20A	In Process, Approved	
44	Approved	Scale > 1:6,000
45	In Process, Approved	

Additionally, COGCC plans to make aggregate datasets available for download in the future (with the exception of the Form 12 and 44 that are subject to confidentiality restrictions).



Questions?

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