

From: [Turner, Ed](#)
To: [Betty Grizzle](#)
Subject: IHS readme
Date: Thursday, May 18, 2017 7:04:37 PM
Attachments: [IHS_ReadMe.docx](#)

Hi Betty, Here is what I basically did. The system is buggy and not so easy to use and it takes many steps to build the data, but it works.

Hope this helps, Ed

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Edwin Turner, Geographer
GIS Mapping and Analysis Branch

DOI-R8-CFWO
USFWS Carlsbad Fish and Wildlife Office
2177 Salk Ave. Suite 250
Carlsbad, CA 92008
760.431.9440 x266

Ed_Turner@fws.gov
760.431.9440 x266

IHS well data in the states where we have Wolverine in the 2017 review effort.

These data are the IHS May 2017 well location download created by the USFWS using the available records for the IHS Markit, <https://www.ihs.com/products/us-well-data.html>, Enerdeq Release 2017 v4 online access system. The IHS Well Database is the largest, most comprehensive US well database, accounting for virtually every well-drilled and produced back to 1859. The USFWS has access IHS well data for the prior Greater Sage-Grouse status review and we are looking at these in relation the states where the wolverine current range exists. IHS records are recorded in GCS_North_American_1927 and must be projected after spatial data creation.

Based on data query search results we found the following well types with well symbols in the vicinity of the Current Range.

Well Symbols:

CARBON DIOXIDE CD

GAS G

GAS AND INJECTION GIJ

INJECTION I

OIL O

OIL AND INJECTION OIJ

WATER W

Well Types:

ABANDONED-GENERAL A0

ACTIVE PRODUCING-GENERAL B0

CARBON DIOXIDE B4

COALBED METHANE B5

COALBED METHANE CONVERTED TO INJECTOR BD

COMMINGLED M3

GAS WELL B8

GAS WELL CONVERTED TO INJECTION BB

INJECTION WELL - ACTIVE	F0
OIL & GAS WELL	B9
OIL WELL	B7
OIL WELL CONVERTED TO INJECTION	BA
PLUGGED AND ABANDONED	A2
RECOMPLETED	M6
SALT WATER DISPOSAL - CONVENTIONAL	G2
SOURCE	M8

These data are not obtained in geo-spatial form, but are easily converted to such using the ESRI ArcGIS platform.

To create a spatial representation of IHS well records as of May 2017, we did the following.

1. Granted access under USFWS agreements with IHS Markit.
2. Accessed the IHS Enerdeq Release 2017 v4, <https://my.ihs.com/energy>.
3. Created a records query based on production unallocated (*allocated wells are in Texas and not needed for this effort*) wells (*allowed all types*), production status set to active, and states needed.
4. Query returned all records meeting criteria in the selected Wolverine western states. In the right-hand "My Query" window, saved the query and named it.
5. Query file converted to a new Template. Access the "My Templates" and selected "Production", next created new template by selecting from the left pain the attributes we needed.
6. Records were converted into a template with choices of attributes that we would need in the effort, then exported as excel spreadsheet. To export the saved query template, selected "output all", then "Exports", then scrolled down to "Production Data – Custom" where the template was saved. Selected the desired template, select output file type (excel 2007 + (XLSX)), and submitted the job.
7. Next checked "My Files" location, selected our new output file and it was save to the computer.
8. Logged out of IHS Enerdeq and looked in C:\Users\NAME\Downloads for the data excel to process.
9. Cut the file and saved to the desired location.
10. Opened in excel and viewed file to make sure we had what we needed.

11. Opened the file in ArcCatalog and selected the exported excel, next selected the sheet and right moused to "Create Feature Class" from XY table. Note *** IHS locations are in GCS_North_American_1927.
12. Next projected the output Geo-spatial data to our project coordinate system and worked with the data.
13. Next projected the data to our North_America_Lambert_Conformal_Conic projection for mapping efforts and created visual aids to check locations of wells in relation to the Current Range and wolverine data that we have compiled.