

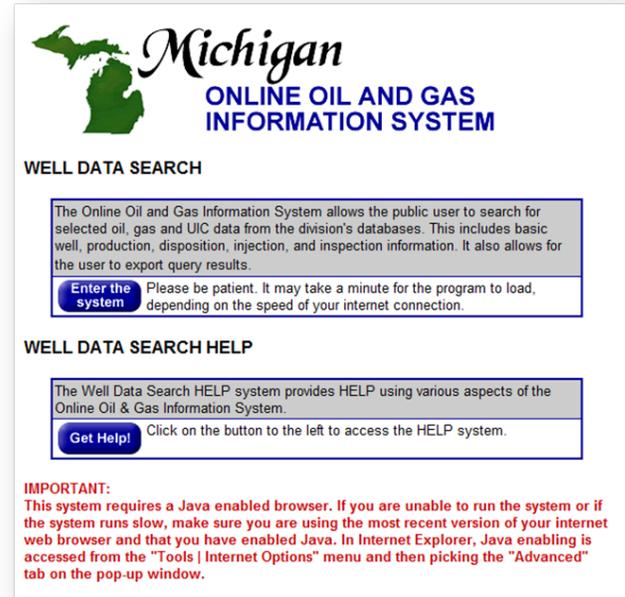
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Online Oil and Gas Database

The Michigan Online Oil and Gas Database can be access using the following URL:

<http://ww2.deq.state.mi.us/mir/>



The graphic above is the “start up” screen for the application.

Select the “Enter the system” icon to access the online oil & gas database

Below is a discussion of the various components and the information that is available using the on-line Online Oil & Gas Information. This data is extracted from the database that is used and maintained by the Office of Oil, Gas, and Minerals.

The system is divided in to tabs or subsets of data.

The online database might not work with Firefox browser.

Applications/Permits Overview

These reports present general information about permitting activities for oil and gas wells.

If you have questions about the data in these reports please contact the Permits and Bonding Unit (517 334-6951).

Permit List

Lists permits issued to drill and operate oil and gas wells. Filtering criteria includes: API well number, date application (permit) issued, current permittee, well name and number, permit number, proposed total depth, target formation, deepest formation, type, and several surface location factors.

Permit Applications

Lists applications for new permits to drill and operate oil and gas wells. Filtering criteria include application number, date received, permittee number, well name and number, proposed total depth, target formation, deepest formation, type, and several surface location factors.

Permit Updates

Reports changes to items previously entered on the Permit Applications or Permit List such as corrections, transfer of permit, permit termination, and plugging activities. Filtering criteria include application number, type of update, API well number, date activity, current permittee, well name and number, permit number, and surface location factors.

General Information

Well Overview

These forms present general information for oil, gas, and injection wells.

Search Wells

This form presents the well and location data in a grid format. Data can be filtered many ways.

Well Data

This form presents the well and location data in a form format. Data can be filtered by a number of available fields for this form.

Well Histories

This form presents the available history information for a well.

Well Formations

Presents depth to various geologic formations by well(s).

Inspections

The Office of Oil, Gas, and Minerals of the Department of Environmental Quality conducts periodic inspections of oil and gas operations. Inspections are conducted at well sites and surface/production facilities. The well types inspected include; oil, gas, brine disposal, injection, gas storage and hydrocarbon storage (LPG). Surface/production facilities include storage tanks, heater-treaters, separators, line heaters, flares/incinerators, flow lines and loading racks. The information provided is limited, further information may be available by request from the appropriate District Office or the Office of Oil, Gas, and Minerals Office in Lansing. When making a request for information regarding inspections, please include the permit number or facility number and date the inspection was performed. Addresses and phone numbers of our District Offices and the Lansing Office can be found on our web page.

Well Site Inspections

Well site inspections include permitting, drilling, completion, testing, production, rework, plugging operations, investigation of losses/spills and complaints for activities regulated under Part 615, Supervisor of Wells, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended (NREPA).

The data can be filtered by API Well Number, Permit Number, Well Name, Date Performed,

Inspection Type, Inspection Purpose, Observed Status, Observed Type, District Office, Current Permittee, Location T-R, County Name and Township Name.

Surface/Production Facility Inspections

Facility Inspections include Central Production Facilities, Common Tank Batteries; and associated equipment, flow lines, separators, line heaters, flares/incinerators, storage tanks and loading racks. The data can be filtered by Facility Number, Facility Name, Date Performed, Inspection Type, Inspection Purpose, Observed Type, Observed Status, District Office, Current Permittee, Location T-R, County Name and Township Name.

Production

Search Production Data

Presents monthly oil, gas, and water production data by Production Reporting Unit (PRU) for single and multi-well leases.

PRU/Well List

Presents a cross reference list of Production Reporting Unit (PRU) and well name and permit number.

These screens allows the user to search for and export oil and gas production information.

References

Company Data

This form presents company/permittee data.

Formations

Presents a list of recognized Michigan geologic formations, AAPG codes, and alias names of geologic formations.

Fields

Presents a list of oil and gas fields, field code numbers, field type, producing formation, and discovery well.

Cores & Samples

Presents a list of cores and drill cutting samples available for public inspection from the Office of Oil, Gas, and Minerals.

Frequently Asked Questions

Troubleshooting

After the Online Oil and Gas Information System page comes up, click on "Enter the System". After a few seconds the screen will say "Loading", and in a few more seconds a new page should pop up.

If your computer is blocking pop ups, the screen will never come up. This is the most common reason why a user can't get in the system. **All pop up blockers must be turned off**, including the Yahoo! or Google toolbars (or any other toolbar) as well as the pop up blockers built into Internet Explorer or whatever browser you may be using. Pop ups must be enabled.

If the "Loading" screen comes up and nothing else has happened within five minutes, it could be a problem here with allowing outside access, or it could be a firewall within your company or on your own computer. The system will want to use the browser on your computer as a server and a firewall may block that activity (Java runs over port 4899 for this application). If you have this problem but can't solve it, please send me an email so I can document it and pass this on to our Internet Technology people.

Exporting Data

The export function in the data base does work, but **pop-ups must be enabled**. If you have software on your computer that blocks pop-ups, disable it when using this page.

Some browsers automatically blocks pop-ups. Browser helpers such as Google or Yahoo toolbars may also block pop-ups. If you hear a couple of soft popping sounds when you click on the export button, it's being blocked. There

are at least three ways of fixing this for Windows XP:

1. Hold down the CTRL key at the same time clicking on Export.
2. Go to the previous screen (the one that says "LOADING" on it) and there will be a bar across the top that says "Pop-up Blocked". Click on the bar for Pop-up options and enable pop-ups for this site
3. In Internet Explorer go to Tools/Internet Options/Privacy
Under Pop-up Blocker click on settings in the "Address of Web site to allow:" box, enter *.state.mi.us
click on Add
Pop-ups should now be enabled for this site.

Still have problems?

I've been told that for some people trying to export to Excel, a new window pops up and then immediately disappears. This is not a problem with our application, but with the browser (Usually Internet Explorer). It may be a setting, but I don't know which one causes it. Our IT people suggest using a different browser, e.g. Firefox. A workaround is to:

1. Export to Text (a new window should open)
2. In the new window, click File/Save As (name.txt)
3. Open Excel and click File/Open. . . navigate to the location where the text file was saved, change the Files of Type in the drop down list to Text Files, and select the file you saved, and click on Open.
4. The Text Import Wizard now appears. In the Original Data Type box select Delimited and click Next.
5. In the Delimiters box select Tab and click next, and the Data Preview box appears, click on Finish. It's done.

Error 404 - Object Not Found

The export function does work if pop-ups are enabled. If you get this error when trying to export, the State server is busy or it could be

down. Try again later. Some days it seems to work better than others and it seems to work better before or after hours when the server is less busy, especially in the wee hours of the morning. This has been a frequent and frustrating problem, but there's nothing I can do about it. The Department of Information Technology is aware of the problem.

Alternative data sources

On our [download page](#) you can download well locations, formation tops, and production data in Access databases for use on your own computer. There are also maps and a lot of other information.

Searching For Records

How to search. On any of the screens there are three boxes. The first two (gray) are drop down boxes. The first one has what you might be looking for, e.g. Permit Number or County Name. The second box has 'Begins with' as default, but the drop down also has 'contains'. The third box (white) is where you enter what you want to search for, e.g. 'Allegan' or just 'Alle'. Click on the left binoculars icon to do the search. If there are too many hits and you want to pare down the list, you can change the criteria and use the second binoculars icon (it has the word 'AND' next to it. This search will look at the records already found and search them based on the new criteria.

It used to be that a search would only give the first thousand records. I've done searches with over 5,000 hits, but if you're using a 56K phone line, I don't recommend it.

Data doesn't appear.

If you do a production search, and you select PRU Number = 1501 and click on the binocular icon, 1501 will appear in the left column, but there will be no data. In order to get the data to appear, click on the 1501 in the left column.

There is a limit of 10,000 hits. This should be enough to get all the wells in even the biggest county, but if you want all the wells in the State it would be better to use one of our Access database downloads (see links at top of this page).

How current is the data?

The online database is updated weekly, but the producers have 45 days from the end of the month to report it to us and it takes us a little time to enter it. If a producer reports to us soon, we'll get in in sooner, but if the report is late, it will take longer. There is roughly a two month lag on the data.

What about missing data?

Computerized tracking of oil and gas production began in Michigan in 1982, but oil production for the Albion-Scipio field goes back to 1969 (gas production is missing). Prior information is only available from microfilm.

In 1982, only prorated wells (wells that had production regulated) were tracked. These were wells in the Salina, Niagaran, and deeper formations.

In 1997, rules were changed to track production on all wells in Michigan.

The production information in this database is not all the production in the State, but does include everything our database.

Where are latitude and longitude for well locations?

Lat/longs are not in this application, but they are available as a Microsoft Access download on our [download page](#). This page also has links to download for production information, county maps, and a lot of other information.

What about cumulative production?

Cumulative production is not available. If a prorated well started producing after 1982, a cumulative can be found by running a query that totals the monthly production. If a well is not prorated but started producing since 1997 a cumulative can be calculated similarly.

Units of measurement

Liquids (Oil, Water, NGLs, and Condensate) are measured in barrels.

Gas is measured in thousand cubic feet at 14.73 psi.

Abbreviations used?

PRU Production Reporting Unit. Sometimes production is reported for a group of wells instead of a single well. If there is only one well in the PRU, then production is for that single well. However, if there is more than one well, we have no way of breaking out individual well production.

EOMI On the oil and gas production screen there are headings for EOMI Oil, EOMI Cond, and EOMI NGL. This stands for End Of Month Inventory for Oil, Condensate, and Natural Gas Liquids. It is the amount in the storage tanks at the end of the month.

SHL and BHL On the well location screen, SHL is for Surface Hole Location and BHL is for Bottom Hole Location. The surface hole is what you can see at ground level, the bottom is at it's deepest point. If the hole is drilled vertically, the locations are the same. Many wells are drilled directionally and some even horizontally. These wells have different surface and bottom hole locations.

Ft NS and Ft EW On the well location screen, these stand for Feet North or South and Feet East or West. The surveyed location is measured as feet from the section or quarter section lines. **DU** in regards to footages is Drilling Unit.

Other abbreviations: [Formation Codes](#) [Well Type and Status Codes](#)

DT is Total Depth

Elev is Elevation which is measured at **Gr** (ground) **Kb** (Kelly bushing) or **Df** (drilling rig floor)

Accuracy of the Data

Keep in mind that some wells were drilled in Michigan even before 1927 when the first permits were issued. Roughly 35,000 permits were issued before our first computer database was available in 1982. A lot of data from older wells has never been entered in the system and a lot of the data we use today wasn't even required years ago and is not even available on paper (or microfilm). In addition, we've had to

change computer systems a time or two and there may have been some problems in migrating data, especially when the fields in the old system didn't match the fields exactly in the new system. When we changed from using just permit numbers and switched to API numbers it created a lot of problems. In one of the older systems, null fields were not allowed, and a series of 9s was entered to represent an unknown value. If you see some strange numbers, they may be wrong. Hopefully there is enough good data in the system to be of use.

We believe that permit numbers and well names are very accurate and complete, it is rare to make a correction. Well locations are also very accurate, especially the ones that have been GPSed. County, township, and even section corrections are rare. On some of the older wells, footages from the section or quarter section lines have been guessed at.
Explanation of Town Range and Section

Formation tops come from several sources. Our own geologist evaluates the electric logs and enters tops based on those. He has been here over 25 years and we think his data is the most complete, consistent and reliable. Other tops come from drillers logs and vary from company to company and from geologist to geologist. Many times a company will enter just tops for the Lachine, Paxton, Norwood, Traverse, and Traverse lime while ignoring the Coldwater, Berea, Ellsworth et al. There are also other sources for tops. We enter all the data in the system, so some tops may have several footages while others only have one. It's important to look at the "Method Obtained" column when examining this data. Ground level is considered to always be the top of the glacial drift, so the footage there is for the bottom of it (the one inconsistency in the system). All other footages are considered to be the tops of the formation.

Corrections or other questions

If you have questions about the data, contact our production person:

John McTiernan 517 241 1507
mctiernanj@michigan.gov

If you can't get in the site, either a pop-up block or your company firewall is blocking it.

Contact your company IT person to fix this, or take a laptop to a nearby wi-fi hot spot and you'll be able to get in.

All we can do is check to see that the site is up and running; we don't have the expertise to help you.