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Introduction

The new Mine Data Retrieval System (MDRS) is an upgrade to the old MDRS system and assists the stakeholders to access to data and visualizations. The modernized MDRS system will provide the customers with an intuitive user interface, improved user experience with operations that allow for slicing and dicing of data and enhanced search capabilities. This includes features to search by Mines, Contractors, Operators and Controllers. The data available through the new MDRS platform is staged by MicroStrategy application hosted from the enterprise data warehouse.

Getting Started

1. In the browser, navigate to http://cmsgovdev.msha.dir.labor.gov/
2. On this page, scroll to the middle of the page and click on “Mine Data Retrieval System (New MDRS)” link.

3. This will lead to the MDRS Home Page.
Home Page
On the home page you will find links that lead to:

- Geographical map of mine locations
- Fatalities by calendar year trend chart
- Mines/Contractors/Operators/Controllers dashboards
- Miscellaneous reports ("High Dollar" Citations and Orders Report and Citations & Orders by Case Number Report)
- Public MSHA Datasets
**Geographical Map**

The map visualization displays the location of mines represented by the marker pins.

**Filters:**

1. The mine locations on the map can be filtered based on selection of the category of the Mine. **All, Coal, or Metal/Non-metal.**

2. The mine locations on the map can be filtered based on selection of the Mine Type. **All, Facility, Surface, or Underground.**
3. A blue color marker pin indicates a Coal mine, and a red color marker pin indicates a Metal/Non-Metal mine.

Features of the map

The map comes with a set of tools to geographically locate, visually inspect, and analyze features such as mine location. The toolbar on the top of the map has the following features:

- The rectangular selection tool is used to select one or more features from the map. Click the Rectangle selection tool and drag a rectangle on the map to select the features you want. To complete the selection, release the mouse.

- The circular tool helps the user to identify the features in the map by drawing the circular selections around the feature as center to analyze other features falling within a chosen radius.
The freeform selection tool allows the user to select and drag to draw a freehand shape on the map to select the features.

The remove selections tool allows the user to deselect the selections by clicking and dragging a rectangle over the features.

The ‘Edit custom Information Window’ allows the user to choose the information such as tooltip displayed on the map.

Search for geographical places on the map.

The ‘Layers’ button provides the user the functionality to control the display of data at various zoom levels or thresholds by configuring the settings.

The ‘Styles’ drop-down list allows the user to select the display theme to apply to the map, such as Street Map, Terrain Map, and so on.

The Zoom feature buttons provide function to zoom in (‘+’ button) and zoom out (‘-’ button).
**Fatalities plot**

The Fatalities by Calendar Year trend chart provides a visualization of the number of all fatalities occurred over multiple years. The ‘Calendar Year slider’ provides a slide bar selection tool to choose the range of years to visualize the fatalities data.
Dashboards
The data from MDRS can be accessed by searches based on Mines, Contractors, Operators or Controllers. The dashboards display information in the form of grid tables and visualization charts.

Mine Locations

Search by Mines

Search Criteria
Selections: Mine ID, Mine Name, State Name, County Name, Commodity
### Mine ID:

1. Enter a **Mine ID** under **Search For** and click the search icon, or
2. Select a **Mine ID** from the list of mines **Available**. A maximum of 10 mines can be selected.
3. Click the single forward arrow to move the Mine(s) to **Selected**, or
4. Click the double forward arrow to move all Mines to **Selected**.
5. To remove a Mine, select the Mine ID from **Selected** and click the single back arrow to move the Mine(s) to **Available**.

### Mine Name:

1. Enter a **Mine Name** under **Search For** and click the search icon, or
2. Select a **Mine Name** from the list of mines **Available**. A maximum of 10 mines can be selected.
3. Click the single forward arrow to move the Mine(s) to **Selected**, or
4. Click the double forward arrow to move all Mines to **Selected**.
5. To remove a Mine, select the Mine Name from **Selected** and click the single back arrow to move the Mine(s) to **Available**.
State Name:

1. Enter a **State Name** under **Search For** and click the search icon, or
2. Select a **State Name** from the list of States **Available**.
3. Click the single forward arrow to move the State(s) to **Selected**, or
4. Click the double forward arrow to move all States to **Selected**.
5. To remove a State, select the State Name from **Selected** and click the single back arrow to move the State(s) to **Available**.

County Name:

1. Enter a **County Name** under **Search For** and click the search icon, or
2. Select a **County Name** from the list of Counties **Available**.
3. Click the single forward arrow to move the County(s) to **Selected**, or
4. Click the double forward arrow to move all Counties to **Selected**.
5. To remove a County, select the County Name from **Selected** and click the single back arrow to move the County(s) to **Available**.
Commodity:

1. Enter a Commodity under Search For and click the search icon, or
2. Select a Commodity from the list of Commodities Available.
3. Click the single forward arrow to move the Commodity(s) to Selected, or
4. Click the double forward arrow to move all Commodities to Selected.
5. To remove a Commodity, select the Commodity from Selected and click the single back arrow to move the Commodity(s) to Available.

Search by Contractors

Search Criteria

Selections: Contractor ID, Contractor Name
Contractor ID:

1. Enter a Contractor ID under Search For and click the search icon, or
2. Select a Contractor ID from the list of Contractors Available.
3. Click the single forward arrow to move the Contractor(s) to Selected, or
4. Click the double forward arrow to move all Contractors to Selected.
5. To remove a Contractor, select the Contractor ID from Selected and click the single back arrow to move the Contractor(s) to Available.

Contractor Name:

1. Enter a Contractor Name under Search For and click the search icon, or
2. Select a Contractor Name from the list of Contractors Available.
3. Click the single forward arrow to move the Contractor(s) to Selected, or
4. Click the double forward arrow to move all Contractors to Selected.
5. To remove a Contractor, select the Contractor Name from Selected and click the single back arrow to move the Contractor(s) to Available.
Search by Operators

Search Criteria

Selections: Mine ID, Mine Name, Operator Name (Current), State Name

Mine ID:

1. Enter a Mine ID under Search For and click the search icon, or
2. Select a Mine ID from the list of mines Available. A maximum of 10 mines can be selected.
3. Click the single forward arrow to move the Mine(s) to Selected, or
4. Click the double forward arrow to move all Mines to Selected.
5. To remove a Mine, select the Mine ID from Selected and click the single back arrow to move the Mine(s) to Available.
Mine Name:

1. Enter a **Mine Name** under **Search For** and click the search icon, or
2. Select a **Mine Name** from the list of mines **Available**.
3. Click the single forward arrow to move the Mine(s) to **Selected**, or
4. Click the double forward arrow to move all Mines to **Selected**.
5. To remove a Mine, select the **Mine Name** from **Selected** and click the single back arrow to move the Mine(s) to **Available**.

Operator Name (Current):

1. Enter an **Operator Name** under **Search For** and click the search icon, or
2. Select an **Operator Name** from the list of operators **Available**.
3. Click the single forward arrow to move the Operator(s) to **Selected**, or
4. Click the double forward arrow to move all Operators to **Selected**.
5. To remove an Operator, select the **Operator Name** from **Selected** and click the single back arrow to move the Operator(s) to **Available**.
**State Name:**

1. Enter a **State Name** under **Search For** and click the search icon, or
2. Select a **State Name** from the list of States **Available**.
3. Click the single forward arrow to move the State(s) to **Selected**, or
4. Click the double forward arrow to move all States to **Selected**.
5. To remove a State, select the State Name from **Selected** and click the single back arrow to move the State(s) to **Available**.

**Search by Controllers**

1. Enter a **Controller Name** under **Search For** and click the search icon, or
2. Select a **Controller Name** from the list of Controllers **Available**.
3. Click the single forward arrow to move the Controller(s) to **Selected**, or
4. Click the double forward arrow to move all Controllers to **Selected**.
5. To remove a Controller, select the Controller Name from **Selected** and click the single back arrow to move the Controller(s) to **Available**.
Run Document

At the bottom of each Search page there is an option to **Run a Document** for the criteria selected for **Mines, Contractors, Operators, and/or Controllers**.

1. Select **Run Document** to continue or **Cancel** to return to the Home Page.
2. Selecting **Run Document** will create a screen similar to the one below.

3. This document is broken down into four sections:
   - **Mine Locations**: Area Map with filters for Coal or Metal, Mine Type, and Mine ID.
   - **Mine Information**: Filters for Mine, Operator, and Controller.
   - **Mine Address**: Address listed for each Mine selected.
   - **Related Reports**: List of reports to choose from.
Related Reports
A sample of these reports can be found under Related Reports – Dashboards section of this guide.

- Overview
- Inspections
- Accidents
- Violations
- Health Samples
- Mine Quarterly Reported Production Information
- POV Monitoring Tool
- VPID

Miscellaneous Reports
Miscellaneous Reports can be found below the Mine Locations map on the Home Page.
Mine Data Retrieval System

“High Dollar” Citations and Orders Report

Search Criteria

Selections: **Controller Name @ Violations, Coal or Metal, Beginning Date, End Date**

**Controller Name @ Violations**

1. Enter a **Controller Name** under **Search For** and click the search icon, or
2. Select a **Controller Name** from the list of Controllers **Available**.
3. Click the single forward arrow to move the Controller(s) to **Selected**, or
4. Click the double forward arrow to move all Controllers to **Selected**.
5. To remove a Controller, select the Controller Name from **Selected** and click the single back arrow to move the Controller(s) to **Available**.

**Coal or Metal**

1. Enter a **Coal or Metal/NonMetal** under **Search For** and click the search icon, or
2. Select a **Coal or Metal/NonMetal** from the list of elements **Available**.
3. Click the single forward arrow to move the element(s) to **Selected**, or
4. Click the double forward arrow to move all elements to **Selected**.
5. To remove a element, select the element from **Selected** and click the single back arrow to move the element(s) to **Available**.
 Beginning Date – End Date

1. Enter a **Beginning Date** or select one from the calendar drop down menu.  
2. Enter an **Ending Date** or select one from the calendar drop down menu.

**Citations & Orders by Case Number Report**

1. Enter a **Case Number** *(required)*.

**Run Document**

At the bottom of each Search page there is an option to Run a Document for the criteria selected for “High Dollar” Citations and Orders Report or Citations & Orders by Case Number Report.

1. Select **Run Document** to continue or **Cancel** to return to the Home Page.  
2. Selecting **Run Document** will create a screen similar to the one below.
3. This document is broken down into three sections:

- **S & S Penalty Amount Trend** chart
- **Non S & S Penalty Amount Trend** chart
- “**High Dollar” Citations and Orders Assessed $10,000 or More** report
4. This document is broken down into three sections:

- **S & S Penalty Amount Trend** chart
- **Non S & S Penalty Amount Trend** chart
- **Citation Number By Case Number Lookup** report
MSHA Public Datasets

MSHA Datasets can be found below Miscellaneous Reports on the Home Page.

1. From the Select Dataset drop down menu, select the Dataset you want to view.

2. Select the format you want to view it in. TXT format, CSV format, or select Definition file.
Export data

Using the Mine Information Table as an example; the table can be exported to PDF or Excel format by clicking on the ‘Export to PDF’ or ‘Export to Excel’ icon.

The following is an example of the Mine Information file exported to PDF output format.

<table>
<thead>
<tr>
<th>Mine ID</th>
<th>Mine Name</th>
<th>Commodity</th>
<th>Mine Status</th>
<th>Status Date</th>
<th>Type of Mine</th>
</tr>
</thead>
<tbody>
<tr>
<td>0100003</td>
<td>O’Neal Quarry &amp; Mill</td>
<td>Lime</td>
<td>Active</td>
<td>1/22/1979</td>
<td>Surface</td>
</tr>
<tr>
<td>0100004</td>
<td>Brierfield Quarry</td>
<td>Crushed, Broken Limestone NEC</td>
<td>Active</td>
<td>3/4/2003</td>
<td>Surface</td>
</tr>
<tr>
<td>0100006</td>
<td>Auburn Quarry</td>
<td>Crushed, Broken Limestone NEC</td>
<td>Active</td>
<td>9/24/1976</td>
<td>Surface</td>
</tr>
</tbody>
</table>

The following is an example of the Mine Information file exported to Microsoft Excel output format.

<table>
<thead>
<tr>
<th>Mine ID</th>
<th>Mine Name</th>
<th>Commodity</th>
<th>Mine Status</th>
<th>Status Date</th>
<th>Type of Mine</th>
</tr>
</thead>
<tbody>
<tr>
<td>0100003</td>
<td>O’Neal Quarry &amp; Mill</td>
<td>Lime</td>
<td>Active</td>
<td>1/22/1979</td>
<td>Surface</td>
</tr>
</tbody>
</table>
Related Reports – Dashboards

The Mines home dashboard contains links to navigate to the related dashboards by clicking on the links displaying names of the corresponding dash boards.

### Related Reports

- Overview
- Inspections
- Accidents
- Violations
- Health Samples
- Mine Quarterly Reported Production Information
- POV Monitoring Tool
- VPID

### Mines Overview Dashboard

![Mines Overview Dashboard](image)
Grid data table 1: **Injuries, Hours Worked and Production Totals**

![Grid data table 1](image)

Grid data table 2: **Citations, Orders And Safeguards**

![Grid data table 2](image)

In order to return to Mines dashboard home page click on the button:

**Return to Mines Home Page**
# Health Samples Dashboard

## Overall Statistics - End Black Lung ACT NOW

Number of Deaths Due to Coal Worker's Pneumoconiosis (Black Lung) Calendar Year 1968-2014

![Graph showing trend over years]

While Black Lung deaths are declining, the disease still remains a serious health risk.

## Underground Coal Mines

MSHA Average Designated Occupation Quartz Concentration by Calendar Year

![Graph showing trends over years]

## Personal Health Samples

<table>
<thead>
<tr>
<th>Mine ID</th>
<th>Date</th>
<th>Location</th>
<th>Job</th>
<th>Contaminant</th>
<th>Concentration</th>
<th>PEL</th>
<th>Protection Used</th>
<th>Contractor ID</th>
<th>Action Taken</th>
</tr>
</thead>
<tbody>
<tr>
<td>0100003</td>
<td>12/3/1997</td>
<td>M - Crushing</td>
<td>Crusher/Operator</td>
<td>Silica dust, 95pPAH</td>
<td>0.23</td>
<td>10</td>
<td>X</td>
<td>NO ACTION</td>
<td></td>
</tr>
<tr>
<td>0100003</td>
<td>12/3/1997</td>
<td>M - Crushing</td>
<td>Crusher/Operator</td>
<td>Silica dust, respirable, 1% OA</td>
<td>0.65</td>
<td>10</td>
<td></td>
<td>NO ACTION</td>
<td></td>
</tr>
</tbody>
</table>

Return to MSHA Home Page

Return to GES Home Page
Mine Quarterly Reported Production Information

- **Average Employee Count**
  - Subcategories: UNDER., SURF.A., STRIP., AUGER, CRAWLER, DREDGE, OTHER., HOLEP. MILL OP., OFFICE.
  - Graph showing employee count trends from 2003 to 2017.

- **Hours Reported**
  - Subcategories: UNDER., SURF.A., STRIP., AUGER, CRAWLER, DREDGE, OTHER., HOLEP. MILL OP., OFFICE.
  - Graph showing hours reported trends from 2003 to 2017.

- **Mine Production Information**

<table>
<thead>
<tr>
<th>ExportID</th>
<th>Calendar Year</th>
<th>Calendar Year Qtr</th>
<th>Subcnt</th>
<th>Qtr Hours Reported</th>
<th>Qtr Avg Employee Cnt</th>
</tr>
</thead>
<tbody>
<tr>
<td>01000003</td>
<td>2017</td>
<td>2017</td>
<td>STRIP, QUARRY, OPEN PIT</td>
<td>16,666</td>
<td>40</td>
</tr>
<tr>
<td>01000003</td>
<td>2017</td>
<td>2017</td>
<td>MILL OPERATION/PREPARATION/PLANT</td>
<td>42,553</td>
<td>67</td>
</tr>
<tr>
<td>01000003</td>
<td>2017</td>
<td>2017</td>
<td>OFFICE WORKERS AT MINE SITE</td>
<td>520</td>
<td>1</td>
</tr>
<tr>
<td>01000003</td>
<td>2017</td>
<td>2017</td>
<td>STRIP, QUARRY, OPEN PIT</td>
<td>16,340</td>
<td>32</td>
</tr>
<tr>
<td>01000003</td>
<td>2017</td>
<td>2017</td>
<td>MILL OPERATION/PREPARATION/PLANT</td>
<td>37,158</td>
<td>73</td>
</tr>
<tr>
<td>01000003</td>
<td>2017</td>
<td>2017</td>
<td>OFFICE WORKERS AT MINE SITE</td>
<td>529</td>
<td>1</td>
</tr>
<tr>
<td>01000003</td>
<td>2017</td>
<td>2017</td>
<td>STRIP, QUARRY, OPEN PIT</td>
<td>16,366</td>
<td>39</td>
</tr>
<tr>
<td>01000003</td>
<td>2017</td>
<td>2017</td>
<td>MILL OPERATION/PREPARATION/PLANT</td>
<td>39,736</td>
<td>71</td>
</tr>
<tr>
<td>01000003</td>
<td>2017</td>
<td>2017</td>
<td>OFFICE WORKERS AT MINE SITE</td>
<td>685</td>
<td>1</td>
</tr>
<tr>
<td>01000003</td>
<td>2017</td>
<td>2017</td>
<td>STRIP, QUARRY, OPEN PIT</td>
<td>15,747</td>
<td>26</td>
</tr>
<tr>
<td>01000003</td>
<td>2017</td>
<td>2017</td>
<td>MILL OPERATION/PREPARATION/PLANT</td>
<td>39,711</td>
<td>73</td>
</tr>
<tr>
<td>01000003</td>
<td>2017</td>
<td>2017</td>
<td>OFFICE WORKERS AT MINE SITE</td>
<td>569</td>
<td>1</td>
</tr>
</tbody>
</table>

**Return to Mines Home Page**
**Return to DRS Home Page**
**POV Monitoring Tool Dashboard**

**POV Monthly Monitoring Tool for Pattern of Violations**

The following criteria are used to perform the MSHA review required under 30 CFR 104.2. This on-line tool provides a comparison of a mine’s enforcement and injury data against the POV criteria. This data is refreshed monthly. When MSHA runs a POV screening, and a mine meets either Criteria 1 or Criteria 2, the mine will be considered for a POV.

These results are preliminary and do not necessarily reflect complete injury data. Accidents without return to work information will be calculated as lost or restricted work days from the time of the injury to the report run date. This calculation assumes a five day work week and excludes Federal holidays.

**POV Single Source Page**

<table>
<thead>
<tr>
<th>Mine ID:</th>
<th>0100003</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mine Status:</td>
<td>Active</td>
</tr>
<tr>
<td>Mine Name:</td>
<td>O’Neal Quarry &amp; Mill</td>
</tr>
<tr>
<td>Mine Type:</td>
<td>Surface</td>
</tr>
<tr>
<td>Controller:</td>
<td>Lhoist Group</td>
</tr>
<tr>
<td>Operator:</td>
<td>Lhoist North America of Alabama, LLC</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Criteria</th>
<th>Criteria Description</th>
<th>Does the Mine Meet Criteria?</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>At least 50 citations/orders for significant and substantial (S&amp;S) violations issued in the most recent 12 months.</td>
<td>NO</td>
</tr>
<tr>
<td>2</td>
<td>A ratio of eight or more S&amp;S citations/orders issued per 100 inspection hours during the most recent 12 months.</td>
<td>4.74%</td>
</tr>
<tr>
<td>3</td>
<td>At least 12 S&amp;S C/O’s were issued during 34.5 inspection hours. OR The degree of negligence for at least 25 percent of the S&amp;S citations/orders issued during the most recent 12 months is high or reckless disregard. None of the 0 S&amp;S C/O’s were issued either high or reckless disregard.</td>
<td>NO</td>
</tr>
<tr>
<td>4</td>
<td>At least 5 elevated citations and orders (under section 104(b), 104(d), 104(g), or 107) of the Mine Act issued per 100 inspection hours during the most recent 12 months.</td>
<td>0</td>
</tr>
<tr>
<td>5</td>
<td>The Injury-Severity Measure (SM) for the mine is greater than the overall Industry SM for all mines in the same mine type and classification over the most recent 12 months. The mine’s SM of 0 is less than the 5 year industry SM of 158.1.</td>
<td>NO</td>
</tr>
</tbody>
</table>

Note: This SM is not real. Accidents without return to work information assume the worker has not or restricted work days from the time of the injury and these days are included in the SM calculation.

Remember to scroll down to see the complete form.
Mine Data Retrieval System

VPID Dashboard

History of Previous Violations: Violations Per Inspection Day (VPID)

Export Report

<table>
<thead>
<tr>
<th>Mine ID</th>
<th>CFR Standard Code</th>
<th>#Requested Violation Count</th>
<th>RPID</th>
<th>VPID Points</th>
</tr>
</thead>
<tbody>
<tr>
<td>0100000</td>
<td>56.20003x</td>
<td>41</td>
<td>0.72</td>
<td>19</td>
</tr>
<tr>
<td>0100000</td>
<td>56.12004</td>
<td>6</td>
<td>0.11</td>
<td>10</td>
</tr>
<tr>
<td>0100000</td>
<td>56.14110</td>
<td>0</td>
<td>0.11</td>
<td>10</td>
</tr>
<tr>
<td>0100000</td>
<td>64.110h</td>
<td>2</td>
<td>0.04</td>
<td>6</td>
</tr>
<tr>
<td>0100000</td>
<td>50.20(a)</td>
<td>1</td>
<td>0.02</td>
<td>2</td>
</tr>
<tr>
<td>0100000</td>
<td>56.13021</td>
<td>1</td>
<td>0.02</td>
<td>2</td>
</tr>
<tr>
<td>0100000</td>
<td>56.14107(x)</td>
<td>1</td>
<td>0.02</td>
<td>2</td>
</tr>
<tr>
<td>0100000</td>
<td>56.14112(b)</td>
<td>1</td>
<td>0.02</td>
<td>2</td>
</tr>
</tbody>
</table>

Total Number of violations: 56
Divided by 30 Inspection Days: 2

National VPID Averages based on Citations and Orders that became Final Orders during the 15 Month Period

<table>
<thead>
<tr>
<th>Mine Type</th>
<th>Coal or Metal</th>
<th>COVIDs</th>
<th>On-Site Inspection Hours</th>
<th>Equivalent Inspection Days</th>
<th>VPID</th>
</tr>
</thead>
<tbody>
<tr>
<td>Facility</td>
<td>COIL</td>
<td>4,443</td>
<td>46,555</td>
<td>9,712</td>
<td>0.46</td>
</tr>
<tr>
<td>Facility</td>
<td>MIMI</td>
<td>11,054</td>
<td>40,274</td>
<td>8,056</td>
<td>1.37</td>
</tr>
<tr>
<td>Surface</td>
<td>COIL</td>
<td>6,276</td>
<td>79,266</td>
<td>15,564</td>
<td>0.40</td>
</tr>
<tr>
<td>Surface</td>
<td>MIMI</td>
<td>54,710</td>
<td>225,430</td>
<td>45,086</td>
<td>1.21</td>
</tr>
<tr>
<td>Underground</td>
<td>COIL</td>
<td>50,627</td>
<td>424,765</td>
<td>84,957</td>
<td>0.60</td>
</tr>
<tr>
<td>Underground</td>
<td>MIMI</td>
<td>8,471</td>
<td>64,376</td>
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