

OKLAHOMA
DEPARTMENT OF



WILDS



Oklahoma Department of Mines
Established 1907

Agency Introduction

The Oklahoma Department of Mines is a regulatory authority empowered to execute, enforce, and implement provisions of state and federally mandated programs in the areas of health, safety, mining, and land reclamation practices associated with surface and sub-surface mining.

Public Laws 95-87 and 95-164 require a state program to be developed to: (1) safeguard human health and safety; (2) issue mining permits for all mining operations and to inspect regularly all mining operations for reclamation; and (3) minimize environmental impact to land, air, and water quality through viable regulatory and enforcement programs.

Additionally, ODM is charged with enforcing the mining laws of the state, including the inspection of mines for hazardous conditions, paying special attention to working conditions, safe equipment operation, proper ventilation and elimination of other hazards affecting the life and health of miners. In the event of any type of mine disaster, inspectors assume full charge of rescue operations and the subsequent control of fires, including the sealing of mines when necessary. In cooperation with the Mine Safety and Health Administration, courses are conducted in first aid, mine rescue, mine safety and accident prevention. Reclamation legislation passed by the 1971 Oklahoma Legislature expanded the scope of covered operations to include all mining and added the health and safety inspections of sand, gravel, and quarrying operations to the responsibilities of the Department.



Agency Vision, Mission, and Values

Vision: To fully implement all of the mandated programs including the regulation of coal and minerals mining, fly-ash reclamation sites, and non-mining blasting operations.

Mission: The mission of the Oklahoma Department of Mines (ODM) is to protect the environment of the state, to protect the health and safety of the miners and to protect the life, health, and property of affected citizens through enforcement of the state mining and reclamation laws.

Core Values: Ensure that mined land is restored to as good or better a condition than before mining by working closely with operators, landowners, and other concerned citizens. Conduct inspections to ensure safe working environments at mine sites. Provide mining safety training programs for all persons involved in mining. Respond to the needs of the public within our jurisdictional boundaries. Continue to work towards a positive image of the agency, improving our reputation as public servants and stewards of the resources of the State of Oklahoma.

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www.ok.gov/mines



Oklahoma Department of Mines (ODM) 2020 Accomplishments

Agency Mission Challenges and Responses

2020 was a year filled change due to the public health crisis of the COVID-19 pandemic. Challenges included the transition of most office work to telework and the implementation of the agency personnel succession plan. ODM has continued to streamline the operations of the agency while successfully meeting inspection frequency requirements and issuing permits well within targeted timeframes.

- In the previous year, Minerals Program permitting staff developed a processing time frame matrix. The average processing time of minerals permitting applications in 2020 was decreased by 56% (101 days versus 230 days) in spite of reduced in office personnel.
- Health and safety inspections are conducted continuously throughout the year to identify issues and necessary corrective actions on the mining operations. Although 22% of the health and safety inspection staff were in the vulnerable population group and had to work remotely in the spring of 2020, ODM inspectors were able to conduct approximately (5) inspections per site for a total of 3,788 inspections for the year. ODM has set a goal to increase inspections by 20% in 2021, conducting six (6) inspections per site.
- As part of its mission, ODM assures the reclamation or restoration of mined land. In cases where mine sites have been abandoned, ODM uses forfeited and collected reclamation bonds to ensure the land is returned to a usable state to the landowner(s) without taxpayer expense. Due to the collapse of the coal industry during 2020, many sites are being evaluated for possible forfeiture of reclamation bonds and third party reclamation. Several surety companies are entering into arrangements with the permittees to fund reclamation in lieu of forfeiture. ODM is conducting additional inspections and monitoring those activities.
- During the last federal grant year, 1,861 acres of mined coal land were approved for partial bond release and 1,480 acres were approved for final bond release.

Mined land capability is being restored at a faster pace than additional land is being disturbed.

Implementation of Agency Personnel Succession Plan

In 2019, ODM initiated modifications to agency operations and reorganization of functions as more long-time employees began to retire. Cross training became a greater priority so that all new employees would have responsibilities in both the Coal and the Minerals Programs. As 2020 unfolded, experienced ODM personnel invested extensive time and effort in cross training and assisting new personnel to not only master their specific duties, but expand their jobs to include work on critical public issues. From July 2019-June 2020, we had nine (9) employees retire.

Due to on-going state-wide water protection concerns, (particularly in the Arbuckle-Simpson Aquifer area), and the need for increased blasting enforcement as housing developments build closer to established mining operations, ODM has specifically hired personnel that can contribute to the coordination and the implementation of legislative requirements authorized in 2019. In addition to a moratorium on new mining in the area of the Eastern Arbuckle-Simpson Aquifer, House Bill 2471 set out strict guidelines for sole source aquifer impact.

ODM successfully managed the retirements of 30% of the staff in 2020. These employees had between 20 and 36 years of agency experience and institutional knowledge. With the onset of COVID-19, hiring and on-the-job training became a challenge, but staff embraced technology and new ways of communication and team building. ODM employees' support of ODM's mission contributed to this achievement.

Agency Technology and Implementation Savings

- ODM continues to find new ways to use its webpage, which was designed with the cooperation of OMES. All ODM forms, regulations, and other useful tools can be accessed by the public and operators. The website includes public notifications on applications, pending informal conferences, and the agency findings of the informal conferences. In 2020, proposed modifications to agency rules were posted to the website along with notices about scheduled public hearings. In 2021, ODM plans to start posting electronic copies of minerals permit applications for public review and comment.
- Online training courses for various mining industry certifications and annual refresher classes were initiated in 2020 at the Oklahoma Miner Training Institute (OMTI) located at Eastern Oklahoma State College in Wilburton, Oklahoma. This option facilitates keeping miners and trainers safe through distance, as well as reducing travel expenses.

- Efforts to streamline paper processes is ongoing. Plans for the digitizing of records were placed on hold in 2020. However, staff has been able to review documents and get records ready for scanning.
- ODM inspectors and technical staff are increasingly using tablet computers for field work. The increased data collection and documentation and ability to quickly share information within the agency and with the public is valuable. This will result in reducing the paper files needed for inspection as well as increasing timeliness in submission of reports.
- As a result of COVID-19 teleworking, approximately 90% of the paperwork associated with routine inspection and enforcement has been created, processed, and delivered to third parties via digital means. This migration has led to increased efficiency and a savings in postage.

Customer Services

- During this year, all in-person student and public outreach activities were cancelled due to the pandemic. Individual meetings on site continued, along with increased use of digital streaming forums such as Webex and Teams.
- Virtual public meetings for permitting and rulemaking were initiated in 2020. Three informal conferences on minerals permits and two public hearings on proposed agency rule changes were held using both virtual and in person attendance options.
- In accordance with the change to the Open Meetings Act this year, ODM has successfully held four Mining Commission meetings using virtual and in-person options for attendance by commissioners, employees, and the public. These meetings included agenda items for rulemaking, contract approval, and executive session.
- The Department of Mines submitted timely responses to 60 Open Records Act Requests, producing a total of 3,636 copies of agency documents requested by members of the public. Additionally, Legal Services responded to two wide-ranging document subpoenas by producing approximately 4,481 pages of responsive documents.
- ODM also accommodated physical inspection of its permitting records by members of the public, producing 568 pages of documents flagged for duplication during such inspections.
- OMTI has been able to expand the number of private classes for miners during this time. The growing number of classes led to the opportunity for OMTI to add






an instructor in 2020. OMTI has continued its outreach to provide the best training possible. The decision to add an instructor has been vital to the program's advancement. Sixty-six percent (66%) of the training certificates were issued through use of online classes in 2020.

- Digitized ODM safety grams are available on the webpage for viewing. These handouts are used for safety discussions on the mine site. Topics highlight hazardous safety issues for miners. These safety grams are also distributed to mine supervisors on site by our inspection staff.
- Since its inception in 2008, over 300 Inspector's Safety Awards have been earned by mine operators across Oklahoma. Recipients are chosen on an established set of criteria to reward operators for safe mining practices. (This includes the number of violations and reduction in violations and warnings from the previous year.) The awards, 30" by 36" reflective road signs produced by the Department of Transportation's sign shop, are presented each year at the Oklahoma Mine Health & Safety Conference. The Department is pleased to recognize operators who make safety a priority. A specific section of the agency's website, which includes photographs, is dedicated to these industry winners.

Safety-Gram
Title 45, Chapter 11

ARE YOU PROTECTED?

WHAT IS PPE? PPE's are Personal Protection Equipment which refers to a wide variety of safety gear designed to minimize risk of injury to the worker's body.

	<small>Hard Hats - Section 517.2 All persons shall wear suitable hard hats in or around mine plants or active workings of the mine.</small>
	<small>Steel Toed Boots - Section 517.3 All persons shall wear suitable protective footwear when in or around mine plants or active workings of the mine.</small>
	<small>Safety Glasses - Section 517.4 All persons shall wear safety glasses, goggles, or face shields when doing work hazardous to the eyes.</small>
	<small>Hearing Protection - 517.12 Effective hearing protection shall be worn where noise levels may cause permanent ear damage or hearing loss unless the wearing of the protective devices would create a greater danger to the employees. In such case the noise shall be reduced to safe levels.</small>
	<small>Snag-Fitting Clothing - Section 517.9 Snag-fitting clothing shall be worn by persons working around moving equipment and machinery.</small>

INSPECTOR'S SAFETY AWARD

2020



**Presented by the Oklahoma Department of Mines
As Recognition for Safe Mining Practices**



ODM PROGRAMS





Programs of the Oklahoma Department of Mines (ODM)

Below is an executive summary of the three programs that are administered by ODM. The Finance Services and the Legal Services of the Department perform functions that crossover into each program and assist in the administration of these functions. These programs are as follows:

Minerals Program
Coal Program
Oklahoma Miner Training Institute

Minerals Program and Activities:

- Issuance of full non-coal permits, amendments, transfers, and limited use permits
- Health and safety inspections on non-coal and coal mine sites
- Reclamation inspections on non-coal mine sites
- Release inspections for reclamation bonds
- Review of underground permits for health and safety
- Underground health and safety inspections
- Field evaluation inspections for permitting of non-coal sites.
- Review of blasting plans for explosive use on non-coal sites
- Review of blasting records for compliance and safety on all sites which utilize explosives
- Accident investigations
- Fatality investigations
- Citizen complaint investigations
- Review use of borrow pit sites for road construction projects
- Issuance of non-mining blasting permits and exemptions
- Inspection of non-mining blasting locations for compliance and safety
- Compliance inspections for explosive distributors and sellers
- Review of blasting plans for non-mining explosives use

Coal Program and Activities:

- Technical and legal review of coal mining permit and revision applications
- Issuance of surface coal mining permits
- Pre-permit inspections and public meetings on coal mining permit applications
- Issuance of coal mining significant revisions, minor revisions, variances, and field amendments
- Mid-term reviews of coal permits

- Issuance of coal permit renewals
- Evaluation of underground coal permits in regards to surface effects, including subsidence
- Inspections of surface coal mines and surface effects of underground coal mines
- Issuance of enforcement actions and evidence collection
- Assessment of enforcement actions and maintenance of assessment tracking database
- Investigations of citizen complaints associated with coal mining
- Testimony in administrative hearings and judicial hearings
- Evaluation of bond release applications and conduction of bond release inspections
- Evaluation of blasting plans and records
- Data input and compliance with the Federal Applicant Violator System
- Seismograph monitoring of blasts as part of investigations
- Issuance of coal combustion by-product reclamation permits on lands effected by historic coal mining (open mining pits)
- Inspection and enforcement of coal combustion by-product reclamation permits
- Public Outreach activities, including student outreach programs
- Issuance of Coal Advisory Memorandums (CAMs)
- Cooperation and coordination with other state or federal agencies involved with certain aspects of coal mining permitting (USFW, Army Corps of Engineers, EPA, DEQ, etc.)
- Compliance with SMCRA grant requirements and Office of Surface Mining oversight
- Data input and maintenance of databases concerning inspection frequency, enforcement actions, water monitoring analysis, and other information required to produce state and federal annual reports
- Establishment and maintenance of Oklahoma Department of Mines website.

Oklahoma Miner Training Institute:

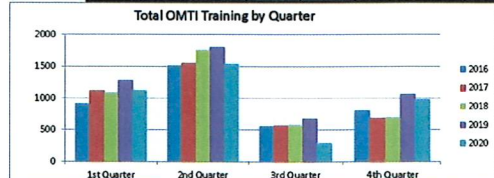
The Department of Mines (ODM) has a program under its jurisdiction that provides safety training and testing for those employed in the mining industry in Oklahoma. The Oklahoma Mining Commission issues Certificates of Competency to those individuals that receive training and successfully pass a test for the job classification obtained. The Department funds the training facility located at Eastern Oklahoma State College (EOSC) in Wilburton, Oklahoma. The training and testing is conducted by the Oklahoma Miner Training Institute (OMTI). Statutory law requires ODM along with the Oklahoma Mining Commission to contract with EOSC for the housing of OMTI. Training is provided at no charge to permitted operations and the classes are held on campus as well as in multiple locations throughout Oklahoma. The training institute does offer on-site training at mine sites, but a fee to reimburse the Department for the travel and time of the instructor may apply.

The following training courses and testing are offered at OMTI:

- Oklahoma State Surface Supervisor Certification
- Oklahoma State Surface Supervisor Recertification
- Oklahoma State Blasting Certification – Mining
- Oklahoma State Blasting Recertification – Mining
- Oklahoma State Blasting Certification – Non Mining
- Oklahoma State Blasting Recertification-Non-Mining
- CFR Part 46 Annual Refresher
- CFR Part 46 New Miner
- CFR Part 48 Annual Refresher
- CFR Part 48 New Miner
- CFR Part 48 Instructor Course
- First-Aid/CPR
- Electrical Retraining
- Underground New Miner
- Underground Shot firer
- Underground Fire boss
- Underground Mine Foreman
- Underground Mine Superintendent

OMTI Training Report
Reported To Mining Commission
Wednesday, December 16, 2020

FY 2020	YTD												2020	2019 T.
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep		
M/Min	398	169	338	606	529	215	0	29	157	78	247	384	3150	3891
Coal	15	1	6	0	5	0	0	0	0	0	0	0	27	84
Other	0	19	0	0	2	0	0	12	0	34	0	0	67	0
Contractors	54	64	51	96	123	18	0	32	59	31	120	81	669	809
Total Certificates	467	253	395	642	669	233	0	73	216	143	367	465	5913	4784
Total Persons	124	48	106	214	200	68	0	1	21	17	79	85	963	1108
Annual Refresher (8hrs) M/Min	6	0	0	0	2	0	0	0	0	0	0	0	8	28
Coal	0	0	0	0	1	0	0	0	0	0	0	0	23	0
Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Contractors	6	0	0	0	1	0	0	0	0	0	0	0	8	28
First Aid Refresher (4hrs) OK	140	48	106	214	200	73	0	1	21	17	79	142	1044	1134
Coal	0	0	0	0	2	0	0	0	0	0	0	0	8	28
Other	0	0	0	0	1	0	0	0	0	0	0	0	23	0
Contractors	8	7	4	7	40	1	0	17	8	11	7	16	127	188
Supervisor Refresher (4-8hrs) OK	18	10	64	98	87	49	0	9	18	13	45	118	577	700
Coal	3	0	0	0	1	0	0	0	0	0	0	0	4	2
Other	0	0	0	0	0	0	0	0	0	0	0	0	7	0
Contractors	5	4	0	0	0	0	0	2	4	0	6	8	39	41
New Miner (16-32hrs) M/Min	19	13	24	24	15	5	0	1	40	10	13	8	178	284
Coal	0	0	0	0	0	0	0	0	0	0	0	0	1	1
Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Contractors	15	12	19	6	14	8	0	5	17	5	44	17	153	199
First Aid Certification (8hrs) OK	19	13	24	24	16	5	0	4	40	10	13	8	180	203
Coal	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Contractors	15	12	19	6	14	8	0	5	17	5	44	17	153	199
Blaster Certification (2-8hrs) OK	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Coal	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Other	0	1	0	0	0	0	0	0	0	0	0	0	1	0
Contractors	0	6	0	0	2	0	0	0	0	0	0	0	12	19
Blaster Recertification (8hrs) OK	2	0	0	1	1	5	0	3	0	0	2	0	11	14
Coal	0	0	0	0	0	0	0	0	0	0	0	0	0	2
Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Contractors	2	3	17	4	5	0	0	0	0	0	2	6	48	89
Supervisor Certification (8hrs) OK	14	11	11	23	8	10	0	6	17	10	15	23	170	307
Coal	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Other	0	0	0	0	0	0	0	0	0	1	0	0	1	0
Contractors	0	11	3	2	2	0	0	3	0	0	3	24	24	59
Electrical Refresher (8hrs) M/Min	0	4	3	3	0	0	0	0	0	0	0	0	5	7
Coal	0	1	4	3	0	0	0	0	0	0	0	0	2	1
Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Contractors	0	2	3	0	0	0	0	0	0	0	0	0	5	0
Underground Certification Class (4hrs) OK	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Underground Recertification Class @ 8hrs) OK	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Instructor Train the Trainer (2-8hrs) M/Min	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Other O&S Conference OK	0	0	0	0	0	0	0	0	0	0	0	0	0	185
2020	467	253	395	642	669	233	0	73	216	143	367	465	5913	4784
2019	287	553	440	547	714	503	169	304	297	200	400	465	4784	
# Trained from sites with 5 or less Miners	7	29	20	151	36	14	0	0	30	36	34	18	376	430
Number of Classes 2020	13	14	14	13	20	9	0	0	14	6	19	19	160	153
Classroom Hours 2020	158	140	121	154	194	72	0	84	154	61	224	136	1519	1553
Number of Classes 2019	12	20	17	14	19	17	12	13	10	8	18	11	171	
G. Geralt's (Sup. Recerts)	4	12	0	5	0	1	0	0	0	0	0	0	31	102
R. Cunningham (Sup. Recerts)	0	0	0	7	0	0	0	0	0	7	1	0	15	15
Underground Coal Advisory	0	0	0	0	0	0	0	0	0	0	0	0	0	2



Training Locations for Reporting Period of Sept.
 •Wilburton
 •Tulsa

Total Numbers for Reporting Period of Sept
 Certificates 465
 Persons 213



MINERALS PROGRAM



OKLAHOMA DEPARTMENT OF MINES

MINERALS PROGRAM

PROGRAM RESPONSIBILITIES

The main functions of the Minerals Program is the enforcement of a safe and healthy working environment for the miners in the mining industry, ensuring compliance with mining permits issued, and the enforcement of reclamation so that Oklahoma land is left in a productive, safe, and usable state. This is accomplished by enforcing the administrative law found under OAC 460:10 and O.S. Title 45 regarding Non-Coal permits. Non-Mining Blasting laws are found under OAC 460: 25 and O.S. Title 63.

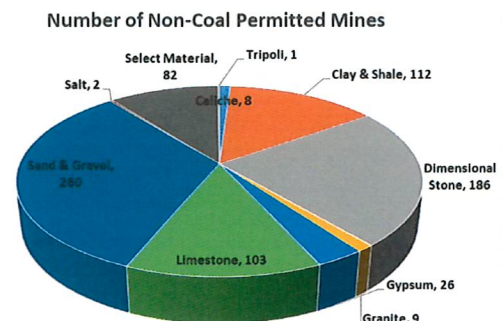
The Program administers two separate programs. The *Non-Coal Mining Program* and the *Non-Mining Blasting Program* work simultaneously and parallel to accomplish our Program's goals through:

- A. Issuing mining permits and amendments (revisions) in compliance with the statutes and regulations under our state's law.
- B. Conducting annual reviews in compliance with statutes and regulations.
- C. Approving bond releases in compliance with statutes and regulations.
- D. Issuing Non-Mining Blasting permits and Blasting permit exemptions for the purchase of explosives in Oklahoma.
- E. Conducting health and safety inspections and environmental inspections on all Non-Coal surface and underground mines.
- F. Conducting permit review inspections on all Non-Coal mine sites.
- G. Conducting reclamation inspections on all Non-Coal sites.
- H. Conducting complaint investigations upon request.

- I. Conducting hearings as outlined in the statutes and regulations.
- J. Conducting blasting inspections on all mine sites.
- K. Conducting accident or fatality investigations as they occur.
- L. Conducting Non-Mining blasting inspections.

OKLAHOMA'S MINERALS

The extraction or mining of minerals from the earth occurs in every county of the state. Minerals mines in Oklahoma include coal (not shown), limestone, dimensional stone, sand and gravel, gypsum, clay and shale, granite, caliche, tripoli, salt, iron ore (not shown), and chat (not shown). The Program regulates all mine sites within the State of Oklahoma with the exception of coal. As of January 2021, there were 789 Non-Coal sites permitted with the Department of Mines.



This number is constantly changing as new permits and permit revisions are received on a daily basis from the industry as well as companies applying for bond releases.

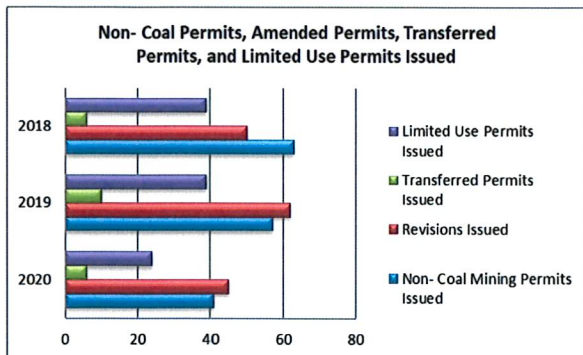
Of the 789 permitted mines, 732 are non-coal mining permits and 57 are limited use mining permits located throughout the State.

The Non-Mining Blasting Program has on file 17 blasting permits, 0 limited time permits, 0 one time permits, and 88 non-mining blasting permit exemptions.

NON-COAL MINING PROGRAM

ISSUANCE OF MINING PERMITS AND AMENDED PERMITS

Before commencement of mining operations, a permit must be obtained from the Department. A permit is issued when the mine permittee submits an acceptable application and posts adequate bond to cover the reclamation of the site. As of December 2020, there is \$103,852,834 in reclamation bonds posted with the Department to ensure site restoration of non-coal permits. The mining permittee's application includes legal and financial compliance information, the safeguard of environmental resources, an operation plan and a reclamation plan. Along with these plans, the applications include accurate detailed maps depicting the location and direction of mining and post mine land use. If explosives are to be utilized during the mining, then a Blasting Plan is included in the permit application.



In 2020, there were 41 Non-Coal mining permits issued and 45 revisions. These numbers reflect a decrease from the previous year. In 2003, authorization was given through legislation to allow for non-coal permits to be transferred to other operators. Transfer applications are submitted to the Department with a posted reclamation bond and include public participation. In 2020, 6 permits were approved for transfer. This is also a decrease from 2019 figures. In 2008,

the statute which allowed for tonnage exemptions was amended to require a limited use permit be obtained. With a maximum disturbance area of 2 acres and a posted reclamation bond, a limited use permit is a one-time non-renewable permit valid for one (1) year from issuance. In 2020, 24 limited use permits were issued. In 2020, 612 annual permit reviews were conducted on non-coal mining permits. 620 total reviews were conducted in 2019; and 565 in 2018. Please refer to the previous chart for recent issuance history.

NON-COAL MINING RECLAMATION BOND RELEASES



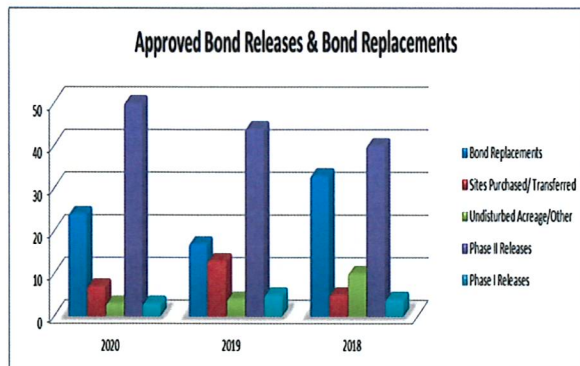
Reclaimed Mine Site

Reclamation Bond Releases may be applied for whenever a mining company has completed the initial grading of a site (Phase I) and/or completed revegetation of the land (Phase II). The law states that grading must be started within one (1) year of mining cessation. The Department recommends and encourages simultaneous reclamation. Once a company submits the bond release application, which includes notification letters to the landowner, necessary public agencies, and adjacent landowners, the Department schedules a release inspection of the property. Prior to the inspection, the Department sends notification letters to the specified landowners and public agencies as to when the mine inspector will be on site and inviting them to join the inspection. Upon inspection, the mine inspector will

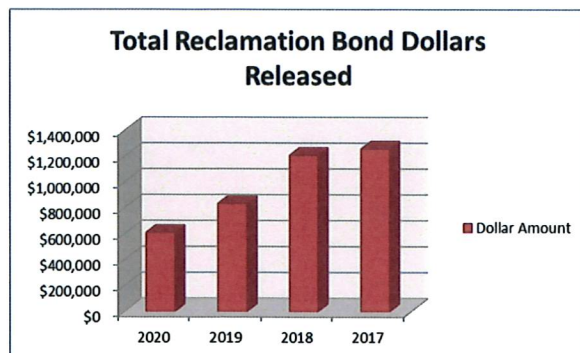
submit his/her recommendations to the Department, which includes a narrative of the inspection with photographs. The Department's decision on the bond release application will be sent to the mining company and all participants within 90 days of the original request. If a hearing is requested, one will be provided prior to the final decision.

Should a company desire to replace their current reclamation bond with another type of bond, a bond replacement may be approved provided adequate bond is received.

During the last three calendar years, the total bond releases and replacements approved were 77 for 2020; 86 for 2019; and, 92 for 2018.



The total dollar amounts released based on Phase I grading and Phase II completed reclamation during the last three calendar years is shown in the following chart.



In 2013 and 2014, the reclamation bond rates were modified to \$1,000 per acre for

the disturbance area on all existing bonded acreage. All new acreage is bonded at \$1,500 per acre. Operators may submit their own reclamation bond calculations for consideration in lieu of the cost per acre bond.

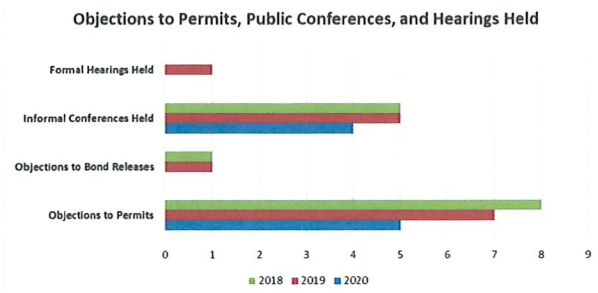
OBJECTIONS TO NON-COAL PERMITS

Part of the permitting process allows for public notification and participation. When a company publishes a notice of intent to mine in the newspaper, the public is informed of where they may review a copy of the application, revision application, or transfer application. A list of the applications currently in publication is on the agency's website including the company name, legal description, and type of application. If a person, business, or public entity wishes to file a protest against the pending application, a written objection may be mailed, faxed, or e-mailed to the Department. An informal conference will be provided if one is requested. Informal conferences are held by a Department representative in the county where the mine will be located. At these informal meetings, the citizens may voice their concerns and the mining company is present to answer any questions regarding the proposed operation. After the meeting, the Conference Officer sends his/her recommendations to the Department. The Department then issues a Notice of Departmental Recommendation. A copy of the Conference Officer's recommendations and the Notice of Departmental Recommendation are sent to all participants. Even though the law does not require publication of the decision, the Department places a notice in the local newspaper apprising the local citizens of the outcome of the conference. This is also placed on the agency's website for easier access. In most cases, the mining company will alter their proposed mine plan in order to properly address the issues raised by the citizens. Should any of the parties not agree

with the recommendations of the Conference Officer, and the Notice of the Department's Recommendation, they may request a Formal Hearing be held. Formal Hearings are held by an adjunct judge not employed by the Department. The Findings of this hearing are sent to the Department's Director for a final decision.

Reclamation releases for release of a company's reclamation bond also allow for public participation by the landowner, adjacent landowners, and other entities such as county commission. Field inspectors hold the release inspections on site to review the reclamation efforts of the mining company. The company, landowners, and other entities are invited to attend this inspection. Following the release inspection, an Inspector's Decision is sent to all participants. If any of the parties disagree with the inspector's decision, an informal conference may be requested. The Conference Officer holds these informal conferences on site and submits his findings to the Department. The Department's Recommendation and the Conference Officer's findings are sent to all parties. Anyone who does not agree with this decision may request a formal hearing.

During the last three years, twenty (20) permit applications and two (2) bond release applications received objections. Fifteen (15) informal conferences and one (1) formal hearing were held. Of the 20 permits protested, three (3) are pending informal conferences; four (4) are pending formal hearings; three (3) are pending the administrative review process; and ten (10) have been issued permits by the Department.



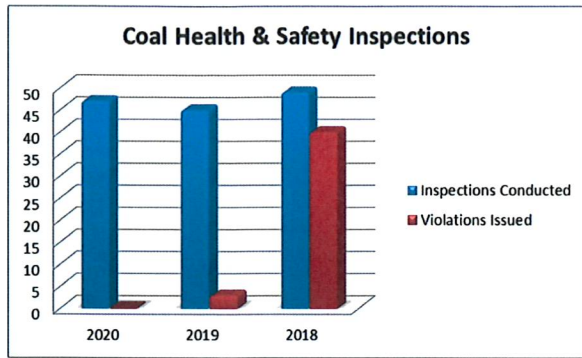
MINING INSPECTIONS:

The field inspectors monitor each site for permit compliance and health and safety conditions for the miners employed there. Statute requires that each active operation be inspected four to six (4-6) times per year, Title 45, Chapter 11, Section 907. Departmental policy requires that the blasting records of all mining operations be reviewed six (6) times each year. Underground mines are inspected monthly.

A total of 3,788 inspections were made in 2020. This number is comparable to the number of inspections made in 2019. On site violations have decreased over the years.



The Coal Health & Safety Inspections are conducted by the coal inspectors of our agency. ODM employs one (1) underground inspector who inspects surface and underground mining operations. This is in addition to the permitting and environmental inspections that are conducted on minerals sites.



In addition to the permitted mine sites our Program regulates, the mine inspectors must review all notifications from the Department of Transportation regarding possible borrow pit sites being utilized for government jobs, which includes state highway projects.

ACCIDENT AND FATALITY INVESTIGATIONS

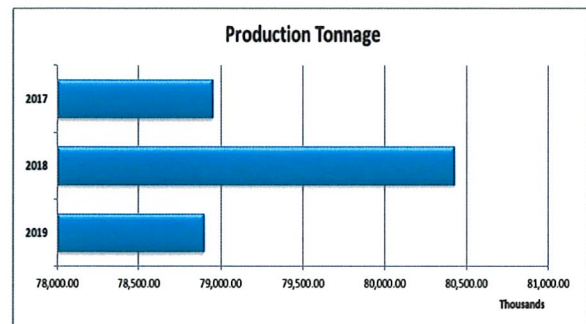
One of the most distressing responsibilities of the Minerals Program is the investigation of accidents and fatalities. The inspectors investigate all reported non-fatal accidents and all fatalities that occur on mining operations throughout Oklahoma. According to non-coal rule OAC 460:10-35-8, operators are required to notify the Department of all serious injuries or fatal accidents in a timely manner.

The number of fatalities has greatly decreased during the last decade. Each and every fatality is a tragedy; however, the lessons learned by the company and fellow mine employees are of great value. Once the fatality investigation of an accident has been conducted by a team of inspectors, a report is filed as to any preventative measures that could have been taken to prevent the unfortunate death. In addition, fliers sent from the Department concerning the unsafe practices and updated training at the Oklahoma Miner Training Institute help make the industry aware as to how to prevent similar accidents on their locations.

Tragically, in June 2019, Oklahoma suffered a mining fatality, the first since 2012. A thirty-four year-old contract crane operator was run over, crushed, and killed by one of the contractors' heavy haul trucks. The fatality occurred as the contract crane company was removing and transporting a sand dredge from the facility's dredge pond. In 2012, there was one (1) fatality; in 2010, two (2) fatalities occurred; and in 2009 one (1) fatality. Reports for each fatality mentioned above are available by request.

REVENUE COLLECTED

The Non-Coal production fee rate is .0125% per ton of material produced. This fee rate changed from .01% to .0125% in November 2017. Non-Coal production has averaged about 80,000,000 tons over the last three (3) years with 78,899,047 tons being reported in 2019.



The Non-Coal mining permit fee is \$175.00 per year and has remained unchanged since 1993. The limited use permit fee is \$100.00. At this time there is no fee for any type of permit revisions or transfers.

Health and safety or permit violations issued by the Program do not incur a fine. Therefore, the 144 violations issued in 2020 did not result in any fees collected by the Department. However, violations for mining without a permit can result in an up to \$10,000.00 fine. In 2020, an individual mining without a permit was assessed a

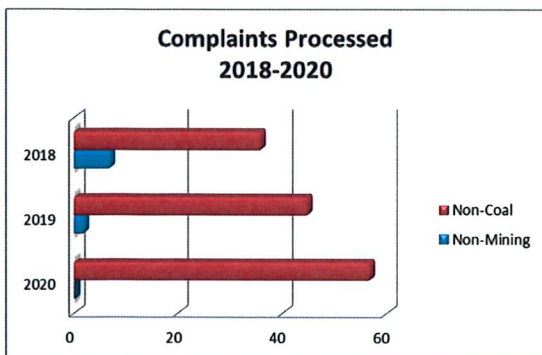
\$2,500 fine. Since August 2012, failure to report a serious or fatal accident can incur a \$500.00 fine. In 2019, two (2) violations were written and issued for failure to report a serious or fatal accident.

subject to violations and a fine for mining without a permit, if applicable. Violations issued in Non-Mining Blasting activities are also subject to monetary fines.

COMPLAINTS

Complaints determined to be out of the jurisdiction of the Department of Mines are forwarded to the appropriate regulatory authority.

The Minerals Program monitors and investigates complaints for Non-Coal Mining and Non-Mining Blasting activities throughout the State of Oklahoma. Although the law states that written complaints be investigated, the Program responds to all received complaints whether written, oral, or filed on the Department's website. Complaint files, as well as complaint log data bases, are maintained and updated for all complaints received by the Program.



A complaint investigation form is processed for each complaint and sent to the complainant and the appropriate inspector(s). A copy of the inspector's investigation report, including an outline of any action taken, is sent to the complainant with a letter explaining the administrative process. If the complainant disagrees with the action, he/she may appeal the decision as outlined in the administrative process.

If during the course of the complaint investigation, an operator is found to be conducting illegal activities or is in violation of Departmental Rules, the operator is

NON-MINING BLASTING PROGRAM



The Oklahoma Department of Mines regulates the use of explosives within Oklahoma. All mining operations which utilize explosives must have approved Blasting Plans on file in their mining permits. These locations are regulated by the mining programs of the Department. All other uses of explosives must comply with the “Oklahoma Explosives and Blasting Regulation Act” of Title 63. The Non-Mining Blasting Program regulates the purchase and use of explosives in compliance with this act.

Prior to purchasing explosives in the State of Oklahoma, an individual or company must obtain a Blasting Permit or an approved Blasting Permit Exemption from the Department. All explosives distributors are required to view the permits or exemptions prior to selling explosives. Failure to follow these procedures could result in a fine issued by the Department.

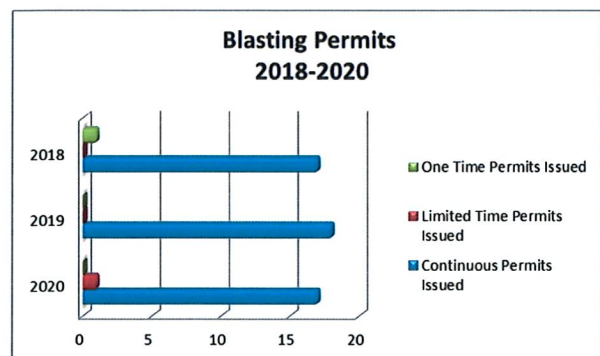
BLASTING PERMITS

Blasting Permits may be obtained for three different time frames. A permit fee is required for each request. For a Continuous Use Permit, valid for one (1) year, a fee of \$150.00 is required. For a Limited Time Permit, valid for four (4) months from

issuance, a fee of \$100.00 is required, and for a One Time Permit a fee of \$50.00 is required (460:25-3-9).

The process for obtaining a blasting permit requires completing an application for a blasting permit, including providing proof of liability insurance, copies of current Oklahoma blaster certifications, and an annual fee. Upon receipt of a complete and notarized application, the application is posted at the Oklahoma City office and online for public review for two (2) weeks. During this two-week period, the application is reviewed for adequacy and completeness.

Blasting permit holders must submit a detailed blasting plan prior to each blast, for review by the Blasting Inspector. The Minerals Program Administrator or Deputy Director reviews the Inspector’s recommendations and approves or modifies the request. A notice of completion for each blasting job must be submitted to the Department within thirty (30) days after the completion date listed on the blast plan. In the event of an emergency blast, a detailed explanation of circumstances and reason for an emergency must be submitted. A notice of completion is also to be submitted to the Department no later than 48 hours following the blast.



Blasting permits are subject to inspections as well as issuance of violations and possible monetary fines, when applicable. Blasting permits must be renewed annually.

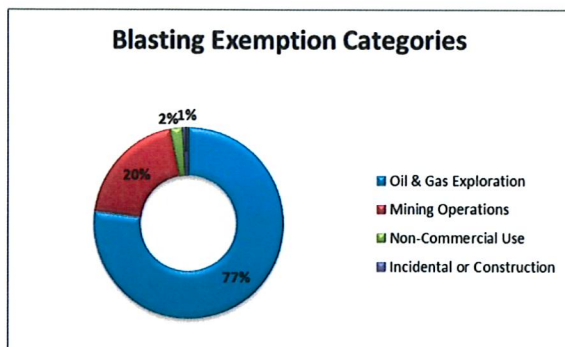
BLASTING EXEMPTIONS

The process for obtaining a blasting exemption requires completing an application for permit exemption. Exemptions may fall under one or more of eight (8) exemption categories. Applicants must be able to justify the categories for which they apply.

Receipt of a completed and notarized exemption application must include an annual fee of \$25.00 (460: 25-10-9), as well as a copy of a Criminal History background check from the Oklahoma State Bureau of Investigation, or proof of current Oklahoma blaster certification.

An applicant may list as many categories as are applicable. The seven categories of blasting exemptions are:

- 1) Oil & gas exploration
- 2) Mining operations
- 3) Non-commercial use
- 4) Incidental or construction, as part of Federal, State or local government financed highway or other construction
- 5) Duly qualified bomb technicians
- 6) State municipalities or counties
- 7) Department of Transportation
- 8) Contractors

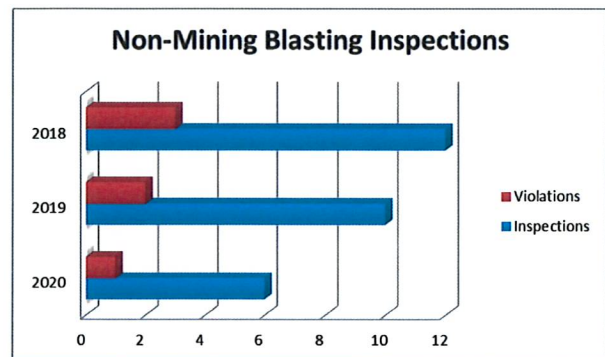


Blasting exemptions generally are not required to submit blasting plans and notices of completion unless they fall under exemption category #6 (State municipalities or counties), category #7 (Department of

Transportation), and category #8 (Contractors). Categories #6, #7, and #8 do not have the option of submitting an Oklahoma State Bureau of Investigation criminal history check. These blasting exemptions must instead submit proof of current Oklahoma blaster certification. Blasting exemptions must be renewed on an annual basis.

BLASTING INSPECTIONS

The Departmental rules provide for inspection of all blasting operations for compliance with the standards established by 460: 25. Every detonation must be recorded on an approved recording form and made available for periodic review. Periodically, the inspector will monitor actual detonations to ensure compliance with the Blasting Plan submitted.



Inspections for blasting and permitting standards may involve the issuance of violations and fines as outlined by the Departmental rules. In 2017, concerted efforts were made to inspect explosive distributors' records to ensure explosive sales were made to valid blasting permit or blasting permit exemption holders. Monetary violations were issued as a result of these inspections.



COAL PROGRAM



OKLAHOMA DEPARTMENT OF MINES

COAL PROGRAM

Mission

The Oklahoma Department of Mines Coal Program is dedicated to protecting the environment of the State of Oklahoma, to protecting the health and safety of the miner and to protecting the life, health, and property of citizens who are affected by mining or mining activities through the enforcement of state mining and reclamation laws. The Coal Program accomplishes this by enforcing the administrative law found in *Oklahoma Administrative Code 460* (OAC).

Permit Process

Before commencement of coal mining operations, a mining and reclamation permit must be obtained from the Oklahoma Department of Mines Coal Program. A coal permit is issued when the mine operator submits an acceptable application and posts adequate bond to cover reclamation costs, should it be necessary for a third party to complete the reclamation process. The operator's permit application must include the requirements for legal and financial compliance, provisions for safeguarding environmental resources, and detailed operation and reclamation plan. Before disturbing the site, the employees of the coal mining operation must be trained and certified in accordance with state and federal safety regulations. Mining practices, reclamation, and health and safety procedures are monitored on a regular basis by the Departments' field inspectors.

Coal Program Personnel

The Oklahoma Department of Mines Coal Program consists of three basic subdivisions comprised of Technical

Services, Permitting, and Inspection & Enforcement. Technical Services and Permitting are located in Oklahoma City. Inspection and Enforcement staff are located in the field office in Tulsa.

The Coal Program is dedicated to protecting the environment and citizens of the State of Oklahoma and accomplishes this goal by:

- Reviewing permit applications, revisions, and field amendments for completeness, technical adequacy, and bonding requirements identified in the permitting phase;
- Conducting complete and partial inspections on coal permits as required by state and federal rules and regulations and the specific requirements of the approved permit such that non-compliance items are identified and appropriate abatement measures implemented;
- Conducting annual and mid-term permit reviews in compliance with statutes and regulations;
- Conducting bond release inspections in compliance with statutes and regulations;
- Conducting citizen complaint inspections in compliance with statutes and regulations;
- Gathering evidence and testifying at hearings as required by statute and regulations;
- Conducting Student Outreach Programs at local area schools to provide students and teachers of

Oklahoma with a better understanding of the mining process in Oklahoma;

- Receiving on-going training and information concerning current technical advances and trends.
- Permitting and inspection operations for the Coal Combustion By-Products (Fly-Ash) Reclamation Program.

Mining Process

After the coal mining permit is issued the first thing the mining company does is mark the permit boundaries and put up a mine identification sign. Then the company builds sediment ponds and berms. This is done to control all surface drainage, so that none leaves the permit area without first passing through a sedimentation pond. Sedimentation ponds allow sediment to settle out of the surface water before the water is discharged off the disturbed area.

The next step in the mining process involves the removal of topsoil. The topsoil is removed in a separate layer, then stockpiled and protected for later use. Once the topsoil and any subsoil is removed, the company will begin digging a box-shaped pit, removing the remaining material above the coal - the overburden or spoil.

Generally the overburden must be blasted in order to be removed. The mining company must follow an approved blasting plan that limits ground vibration and air blast to safe levels. Seismographs are used to monitor each blast and the blasting records are kept by the company for public or Department review.

The overburden from the first pit is stockpiled in an approved location on the permit area. After the overburden is removed, then the coal is removed and

taken to a coal processing area on the permit called a coal pad. Once the coal is on the coal pad, then it is crushed to a certain size and stockpiled. Then the coal is loaded, generally onto trucks, to be hauled to the purchaser.

Once the coal is removed from the first pit, then overburden from the next pit is used to fill the previous pit. This process goes on until all the coal on the permit is mined, or all coal that is economically feasible to mine is mined. At the end of the coal removal process, the stockpiled overburden from the first pit is used to fill the last pit.

If the owner of the land wants the final pit to be left open as a large water impoundment, the company can request permission from the Department to do so. This impoundment must fill with water and be suitable for the approved post-mining land-use.

Once all pits are backfilled, the area is graded so that the contours of the land match the pre-mining contours as much as possible. Then the topsoil is replaced evenly over the disturbed area. After the topsoil is re-spread, it is seeded or sprigged with the approved vegetation and mulched to help prevent erosion until the vegetation is reestablished. Sometimes the landowner desires the land to be reclaimed with trees or wildlife plantings. After the area is seeded or sprigged, the company must maintain the area for a minimum of five years before receiving final bond release. The land is then returned to the landowner's control.

Bond Releases

Phase I Bond Release

After mining is completed on any increment or identifiable unit of a mine, the mine operator may apply for a Phase I Bond Release. This is the first of three phases in which the performance or reclamation bond monies are released to the operator. Typically, this release is sought after all backfilling and grading has been completed on the increment or identifiable unit. The backfilling and grading must be done to achieve approximate original contour (AOC). The removal of all support facilities (unless otherwise approved in the permit) must be done prior to Phase I bond release. These facilities include coal pads, office and maintenance areas and roads. The operator can get the maximum amount of bond release allowed under Phase I if, in addition to the above requirements, the topsoil has been replaced to the depth specified in the approved permit. Permanent structures must be in place at this time. Temporary structures that are needed for sediment control must be in place and maintained at the time of Phase I approval. These temporary structures for sediment control must remain until the drainage area controlled by them has attained Phase II vegetation standards.

Phase II Bond Release

The second of the three phases in which the performance or reclamation bond monies are released to the operator is known as Phase II. Typically this release is sought after re-vegetation standards have been met on an increment or identifiable unit of a mine. Topsoil depths should be verified at this time if they were not verified during the Phase I bond release. All permanent vegetation species, including grasses, trees and shrubs must have been planted on the site in accordance with the approved



permit and land uses. Success of the re-vegetation must be demonstrated by methods either described in the permit or by approved sampling procedures described by the Department. At a minimum, the area to be released must not be contributing suspended solids or acid drainage to stream flow or runoff outside the permit area in excess of the standards set forth in the regulations. The Department will re-calculate the required bond to remain posted and release the bond monies exceeding this amount.



Phase III Bond Release

The third and final of the three phases in which the performance or reclamation bond monies are released to the operator is known as Phase III. Typically this release is sought after the fifth full year of bond liability has passed. This can be achieved five years after the last augmented seeding of an increment or identifiable unit of a mine. Since this is the final release of

liability on an area, all post-mining land uses must match those specified in the approved permit and meet all requirements of the regulations. Re-vegetation success must be demonstrated in a similar manner as Phase II. In addition to ground cover, productivity must be demonstrated according to the approved post-mining land use. All temporary structures must be removed before Phase III. Permanent structures must be stable and water impoundments must hold a stable water level. Discharges from approved impoundments shall not degrade the quality of receiving waters.

After all criteria for Phase III are met, all bond monies are released and the land is returned to the control of the landowner.



Coal Production

Oklahoma's coal production remained steady in 2018 at 639,462 tons. However, in 2019 Oklahoma coal production declined to 294,334 tons. Oklahoma has declined from its peak production of 5.73 million tons in 1981 to its lowest production in 2019 of 294,334 tons. Major

in-state use of Oklahoma coal has been by the cement and lime industries and the use of coal at the Applied Energy Services Cogeneration Plant near Shady Point, Oklahoma. This utility plant was purchased by OG&E in 2018. Until recent years, the major consumption of Oklahoma coal had been by out-of-state utilities. There is potential for Oklahoma's coal resources to provide the basis for economic growth; only the apex of coal resources has been exploited.

Oklahoma fuel resources include coal, oil, and natural gas. Coal mining is regulated by the Oklahoma Department of Mines and is discussed below. Oil and natural gas production are regulated by the Oklahoma Corporation Commission and are not discussed in this report.

Identified coal resources are present in an area of approximately 8,000 square miles in 20 counties in eastern Oklahoma. The area is within the southern part of the Western Region of the Interior Coal Province of the United States. The coal beds are of Middle and Late Pennsylvanian age, 0.8-10 ft. thick, 0.4-6.5% in sulfur content, coking or non-coking, contain 11,400-15,000 Btu/lb, and are low (2-7%) in inherent moisture. Oklahoma contains the most significant deposits of bituminous coal between the Mississippi River and the Rocky Mountains.

Oklahoma Coal Production Information (Tons Produced)	2019
Producing Counties	4
Companies Reporting	4
Mine Sites	4
Total Tonnage	294,334
Counties / Mine Sites / Tons / Type of Coal	2019
Craig Co.: Phoenix 4290 (Spur Mine) 178,039 tons - Croweburg	178,039
Latimer Co.: Farrell-Cooper 4293F (Bull Hill #2) 67,034 tons Hartshorne	67,034
LeFlore Co.: GCI, Inc. 4243F (Pollyanna #8) 48,633 tons - Hartshorne	48,633
Okmulgee Co.: Joshua Coal 4238 (Metropolis) 628 tons - Eram	628
Coal Permit Activities	
Permits Issued	0
Permits on Inspectable Units List	52
Acreage Permitted	19,660
Inspections Conducted	482
Violations Issued (NOVs/COs)	42
Cessation Orders	8
Acreage Released (Phase III Bond Release Approvals)	813
Revisions Issued	12

Although the McClellan-Kerr Arkansas River Navigation System is available for barging coal to international ports, most coal production is shipped by truck or rail. As of January 1, 2007, 8.1 billion short tons of remaining coal resources have been identified; 76% are in the Arkoma basin and 24% are in the northeast Oklahoma shelf area. About 41% of the state's coal resources are low- and medium-volatile bituminous in rank and are present in the Arkoma basin. Four mining companies produced 294,334 million tons of coal at four mine sites in four counties in 2019. The coal was used in one power plant and several lime and cement kilns in the state during 2019.

The bituminous coals of the state are low volatile in northern LeFlore County; medium volatile in northern LeFlore, Sequoyah, and most of Haskell Counties; high volatile A and B in Craig and Nowata Counties, parts of Haskell County, and in most of the remaining coal-bearing counties; and high volatile C in Coal and Pittsburg Counties.

The commercial coalbeds in the Northeast Oklahoma Shelf area are 0.8-5.0 feet thick, average 2.0 feet thick, dip westward from ½ degree to 2 degrees, and contain more than 3 percent sulfur by weight with the exception of the low-sulfur Croweburg and Secor coals. The coalbeds in the Arkoma Basin area are 1-10 feet thick and occur in eroded anticlines and synclines that trend northeastward. The coals crop out mostly along the sides of these folded and faulted structures, and their dip ranges from 3 degrees to nearly vertical.

The face cleat trend is northwestward in the coal beds of the Shelf and the Basin. In the Arkoma Basin, coals that exhibit steep dips (18 degrees to 65 degrees) commonly were mined before 1960. From 1960 to 1974, no mines were developed in steeply dipping

**Remaining Identified (Bituminous)
Coal Resources in Oklahoma
- January 1, 2007**

County	Short Tons(thousands)
Atoka	29,619
Coal	292,875
Craig	638,560
Creek	15,573
Haskell	1,509,081
Latimer	840,492
LeFlore	1,962,725
Mayes	31,094
McIntosh	36,319
Muskogee	95,531
Nowata	27,829
Okfuskee	155,964
Okmulgee	339,909
Pittsburg	1,383,833
Rogers	360,183
Sequoyah	27,146
Tulsa	169,974
Tulsa	128,945
Washington	23,450
Total	8,069,102

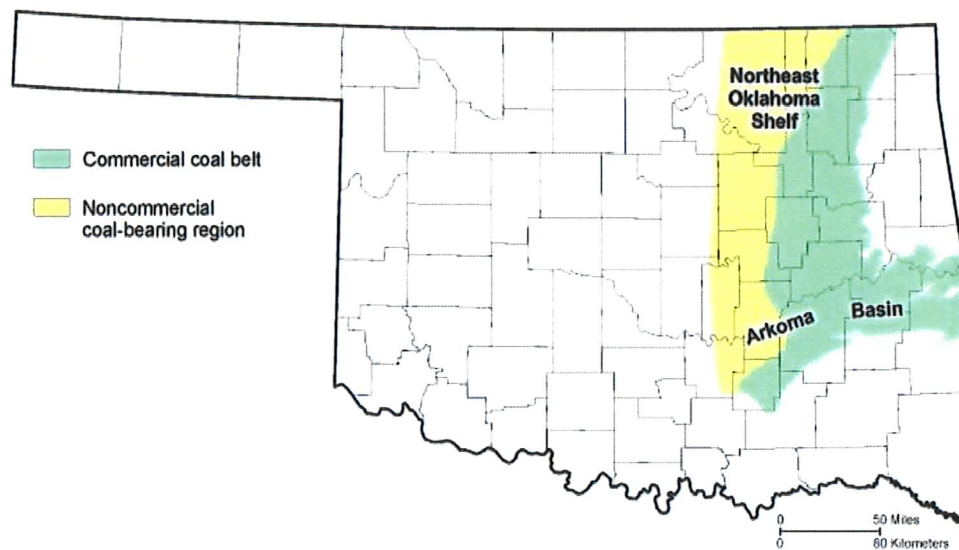
coalbeds because of cost. The Arab oil embargo of 1973 resulted in increases in demand and prices for coal. Thus from 1974 to 1984, seven surface mines were developed in steeply dipping coalbeds in the Arkoma Basin, and they produced coking and metallurgical coal in which the sulfur content was only 1%. Coal from steeply dipping beds has not been mined since 1984 because of the high cost. Of the remaining coal resources in the state, 76% are in the Arkoma Basin and 24% are in the Shelf are. The weighted average sulfur content of the total remaining coal resources is 2.3%

Approximately 680 million tons of Oklahoma's remaining coal resources were estimated (Friedman, 1974) as strippable from beneath 100 feet or less of overburden, in beds 12 inches or more in

thickness. Strippable coal resources were reported in Atoka, Coal, Craig, Creek, Haskell, Latimer, LeFlore, Mayes, McIntosh, Muskogee, Nowata, Okfuskee, Okmulgee, Pittsburg, Rogers, Sequoyah, Tulsa, Wagoner, and Washington Counties in 25 different coalbeds. The Demonstrated Reserve Base (DRB) shows 342 million tons as strippable (U.S. Department of Energy, 1996).

Oklahoma coal production increased 16% from 1990.

This is explained by a shift in shipments of Oklahoma coal in 1991 to the AES Shady Point fluidized-bed combustion power plant in LeFlore County. Nevertheless, about 18 million tons of low-sulfur (0.4%) subbituminous Wyoming coal was shipped to Oklahoma public utilities in 1997. Oklahoma power plants rank fourth among



In 1986, the major use of Oklahoma coal was by out-of-state electric power generating plants, and the major use of Oklahoma coal in Oklahoma was in cement and lime kilns, at a paper plant, and for process heat at an auto assembly plant. In 1987, however, state law required blending 10% of the BTU value of total non-Oklahoma (Wyoming) coal consumed at Oklahoma power plants with Oklahoma coal. Consequently, a significant change took place in the distribution of Oklahoma coals by the end use. By 1991, more than 50% of Oklahoma coal production was shipped to Oklahoma electric power plants. Although the 1987 “10%” law was declared unconstitutional by the U.S. Supreme Court in January 1992, the 1991

the states consuming coal imported from Wyoming. Cumulative coal production in Oklahoma (1873-2017) is 301 million tons.

COALBEDS

A total of 25 named bituminous coal beds are present and have been mined in eastern Oklahoma. Most past production has been from the Hartshorne, Lower Hartshorne, McAlester, and Croweburg Coals, which were mined by underground methods. Coal rank, generalized for all coals at or near the surface, ranges from high-volatile bituminous in the northeast Oklahoma shelf and western Arkoma Basin to medium-volatile bituminous and low-volatile bituminous in the eastern

Arkoma Basin in Oklahoma. Rank increases from west to east and with depth in the Arkoma Basin, attaining semianthracite in Arkansas.

HARTSHORNE COAL

At the southern edge of the coal region in Oklahoma, the Hartshorne Coal commonly is split into two beds by shale and sandstone that are 1 to 100 feet thick. The two beds are called the Upper and Lower Hartshorne Coals, and they have been extensively mined. North of the position of the long axis of the Arkoma Basin, the Hartshorne Coal is not split but is a single bed 1 to 7 feet thick containing, in most places, a persistent black shale or mudstone parting about 1 to 5 inches thick. Core drilling and successful efforts at underground mine development since 1969 have demonstrated significant underground coal resources in the Hartshorne Coal in areas in Haskell and LeFlore Counties, where it is 3 to 7 feet thick, of low- or medium-volatile bituminous rank, and an excellent coking coal. In 2019, two mining companies produced 115,667 tons of Hartshorne coal. 40% of Oklahoma's coal production was from Hartshorne Coal.

LOWER HARTSHORNE COAL

Mined in the Arkoma Basin mostly for metallurgical coke manufacture for 115 years, the Lower Hartshorne Coal has been shipped to electric power plants since 1985. Hundreds of underground mines, many of them referred to as no more than "dog holes", have been developed along the 120 miles of outcrop of the Lower Hartshorne Coal since 1872, at which time a railroad first connected McAlester, Pittsburg County, with Arkansas, and thus

with the other states. The Lower Hartshorne Coal is 0.8 to 7.0 feet thick, averaging 4 feet in underground mines. The railroads used this premium-grade coal for steam, but historically the coal was shipped to blast furnaces in Colorado, Ohio, Pennsylvania, Texas and Japan. The Lower Hartshorne Coalbed contains at least 1,541,000 tons of remaining coal resources (Friedman, 1974), and it also contains coalbed methane resources.

UPPER HARTSHORNE COAL

The Upper Hartshorne Coal was once extensively mined at outcrops on the flanks of anticlines in LeFlore, Haskell, Latimer and Pittsburg Counties. It is 2 to 4 feet thick and is low- or medium-volatile bituminous in rank in the east end of the Arkoma Basin and high-volatile in the west end. The Upper Hartshorne Coalbed contains 663 million tons of remaining coal resources (Friedman, 1974), and it also contains coalbed methane resources.

McALESTER COAL

The McAlester Coalbed has been extensively mined by underground methods at McAlester in central Pittsburg County and in southeastern Coal County. Throughout the Arkoma Basin, the McAlester Coalbed is 1.5 to 5.0 feet thick and mostly high-volatile bituminous in rank. The coal is thickest in Coal and Pittsburg Counties. It is suitable for use in electric power generation, for blending with higher rank coal for coke manufacture, in cement and lime manufacture, and it is suitable for gasification and liquefaction conversion processes. The McAlester Coal contains 1,012,000 tons of remaining resources (Friedman, 1974), and it contains significant coalbed methane resources in places where it is 3 to 5 feet thick.

STIGLER COAL

Correlated with the McAlester Coal (Friedman, 1978), the Stigler Coal has been mined historically to depths of 30 to 45 feet by surface methods in Haskell, LeFlore, Muskogee and Sequoyah Counties. The Stigler Coal was mined to 100 feet in Sequoyah County and to 140 feet in Haskell County. Mostly of low- and medium-volatile bituminous rank, the low-sulfur (0.5 to 1.0%) Stigler Coal has been used in coke manufacture in U.S. and overseas markets. In 1978-1979, 11 companies operated surface mines in this high BTU (13,000 - 14,500) coal, where it is 1.0 to 2.7 feet thick. This premium grade coal is overlain by 15 to 110 feet of medium- and dark-gray mudstone, the Stigler Rider Coal (correlated with the Upper McAlester Coal of Latimer, Pittsburg and Coal Counties), one sandstone bed, and in places, Quaternary silt and sand. The Stigler Coalbed contains 533 million tons of remaining resources (Friedman, 1974).

CAVANAL COAL

The Cavanal Coal, moderate in ash and high in sulfur content, is of medium-volatile bituminous rank and crops out on the synclinal flanks of Cavanal Mountain in LeFlore County (Knechtel, 1949). Of high-volatile bituminous rank, it was mapped in Pittsburg County (Hendricks, 1937). In 1976, it was mined at a surface operation on the north side of Cavanal Mountain, where it is 2 feet thick and overlain by 35 feet of blue-gray shale that is overlain by sandstone. Total remaining resources in the Cavanal Coal in the Arkoma Basin are 159 million tons (Friedman, 1974). About 60 feet below the Cavanal, the Lower Cavanal Coal, 2.0 to 2.2 feet thick, was mined by surface and

underground methods in LeFlore County in 1942-43 (Knechtel, 1949). This medium-volatile bituminous coal contains undetermined resources.

LOWER WITTEVILLE COAL

The Lower Witteville Coal is widely distributed in the Arkoma Basin. In the first half of the twentieth century, underground mines produced 522,000 tons of this coal from Cavanal Mountain, LeFlore County, where it is 3 to 4 feet thick and contains thin shale partings. The Lower Witteville may correlate with the Drywood Coal in the Savanna Formation of the Northeast Shelf area (Friedman, 1982), or with an unnamed coal that occurs in a shale interval within the Bluejacket sandstone member of the Boggy Formation (Hemish, 1994). It is medium-volatile bituminous in rank, and thus it probably contains coalbed methane resources. The Lower Witteville Coal contains 52 million tons of identified coal resources in LeFlore County (Friedman, 1974).

ROWE COAL

A high-sulfur, high-volatile bituminous coal, the Rowe is 0.8 to 3.0 feet thick in Craig, Mayes, Muskogee, Rogers and Wagoner Counties. The remaining resources in the Rowe Coal are 25 million tons (Hemish, 1986, 1989). The Rowe Coal may be suitable for gasification and liquefaction conversion processes.

SECOR COAL

The Secor Coal in the Boggy Formation contains a minimum of 446 million tons of identified coal resources (Friedman, 1974).

Recent exploration and mining indicates that additional millions of tons of this coal are present in LeFlore County. The Secor Coalbed is 1.5 to 4.3 feet thick, moderately brightly banded and medium-to-high-volatile bituminous in rank. High in ash and sulfur content, it contains 12,000 to 14,000 BTU/lb. The coal has been considered of marginal economic value for most markets. Discovery of a rare occurrence of a low-sulfur (1% or less) deposit of the Secor Coal in McIntosh and Wagoner Counties (Friedman, 1978) resulted in 3.2 million tons of production of this rare coal from 10 strip mines from 1978-1990.

WEIR-PITTSBURG COAL

Correlated from outcrops and drilling data in southeastern Kansas (Friedman, 1974), the Weir-Pittsburg Coal contains 496 million tons of identified coal resources in the Northeastern Oklahoma Shelf. Mined by surface methods in Craig, Mayes, Rogers, and Wagoner Counties, the Weir-Pittsburg Coal is 1.1 to 3.0 feet thick and is overlain by 20 to 30 feet of gray shale that in some places contains marine invertebrate fossils. This coal is high in sulfur (more than 3%) and ash (more than 12%). No production has been reported from this coalbed since 1980 because its run-of-mine condition has been of marginal economic value.

MINERAL COAL & MORRIS COAL

The Mineral is a high-volatile bituminous coal, 1.2 to 2.7 feet thick, averaging 1.8 feet in Craig, Nowata, Rogers, Tulsa, and Wagoner Counties. The Mineral Coal is overlain by a hard, thin, impure limestone and gray shale in most places in Craig County. Dunham and Trumbull (1955) described the Morris Coal as 7 to 30 inches

thick, averaging 16 inches in the Henryetta Mining District. About 30 million short tons of identified resources of Morris Coal have been determined (Friedman, 1974). Although adverse geologic and mining conditions are present in the faulted area north of Morris, additional resources and recoverable reserves of Morris Coal undoubtedly are present in other places in Okmulgee County. Physical, chemical, petrographic and stratigraphic characteristics of the Morris Coal strongly indicate its correlation with the Mineral Coal of the Northern Shelf area (and of Kansas and Missouri)(Friedman, 1974, 1982). The Eram Coal in Okmulgee County is also correlated with the Mineral Coal (Hemish, 1988). The Mineral Coal (and equivalent coalbeds) contains 198 million tons of identified coal resources in Craig, Nowata, Okmulgee, Rogers, Tulsa, and Wagoner Counties (Hemish, 1986, 1989, 1990, 1994). One mining company produced 628 tons of Eram coal.

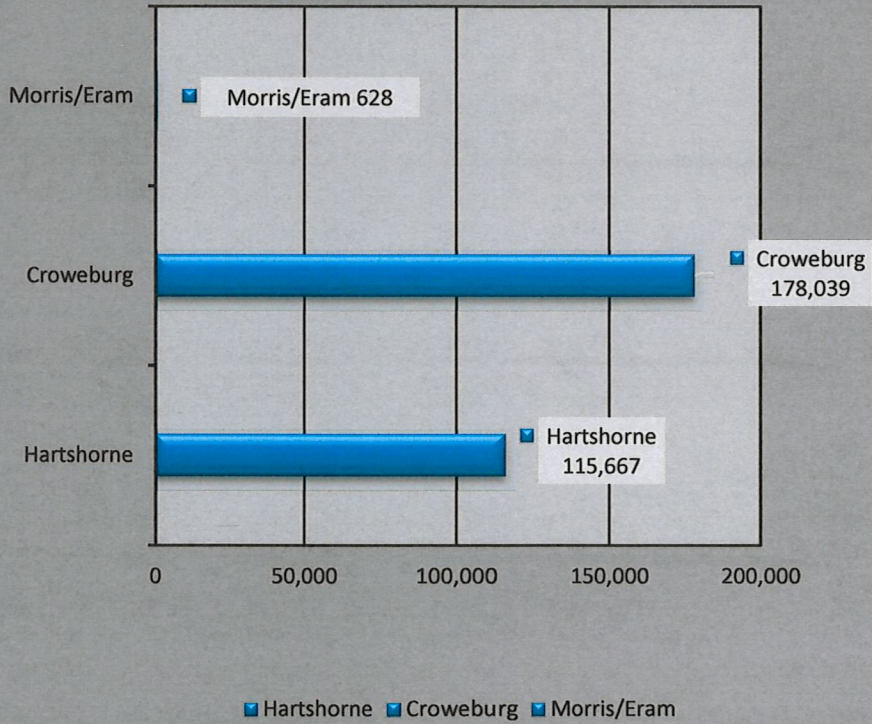
CROWEBURG COAL

The Croweburg has been one of three leading coals produced in Oklahoma, because it contains 1% or less sulfur and a Free Swelling Index (FSI) of 6 or more in most of the area of its distribution in the Northeastern Oklahoma Shelf. A total of 681 million tons of identified remaining resources of the Croweburg Coal has been reported (Hemish, 1986, 1989, 1990, 1994) as present in Oklahoma. The Croweburg has been known as the Henryetta Coal, the Broken Arrow Coal, and the "Sequoyah" Coal (Oakes, 1944). In 2018, one company produced 225,858 tons of Croweburg Coal. 35% of Oklahoma's coal production was Croweburg Coal.

IRON POST COAL

Fort Scott Coal is also known as Iron Post Coal. The Iron Post Coal is the uppermost commercial coal in the Senora Formation. It crops out across Craig, Nowata, and Rogers Counties in an irregular line roughly parallel to the outcrop line of the Croweburg Coal. The Iron Post Coal lies about 30 to 50 feet above the Verdigris Limestone and is overlain by a few inches to a few feet of black and gray shale. The shale is overlain in turn by a limestone known as Breezy Hill. It has a high BTU value that averages about 13,000. It averages about 12 inches in thickness, and has an average sulfur content of about 3.5%. In 2018, there were no mines sites producing Iron Post Coal.

Oklahoma Coalbed Production - Tons 2019



Customer Service

The Oklahoma Department of Mines Coal Program is dedicated to customer service. The Department receives citizen complaints in various forms. We receive oral complaints, written complaints, bond release objections, etc. The Department prides itself on responding to each complaint in a prompt and courteous manner.

Public Service

Bixby High School **April 11, 2019**

On Thursday, April 11, 2019, the Oklahoma Department of Mines (ODM) made presentations at Bixby High School, teaching students about the phases of mining and reclamation activities. We also discussed the importance of safety regulations on mine sites and discussed blasting requirements. ODM personnel participating in this event were Inspector Kevin Woody, Coal Permit Officer Stacy Woody and OMTI Director, Clarence Stanley. The students were divided into two classes. One session was from 9:30 a.m. – 11:30 a.m. and the second session was from at 1:00 p.m. until 3:00 p.m. Approximately eighty 11th grade students participated.



Water Appreciation Day **Oklahoma State Capitol** **April 17, 2019**

The 14th Annual Oklahoma Water Appreciation Day was held at the Oklahoma State Capitol on April 17, 2019. Geologist Darrell Shults and Records Management Specialist Ginna Harmon represented the Oklahoma Department of Mines for this event.

Participants included state, local and federal government agencies, academic groups, and environmental groups. All groups attending either study or regulate water quality or quantity, or advocate for water issues. Each entity showcased its involvement in managing, studying and improving Oklahoma's water resources.

Government officials, teachers, lobbyists, the press, students, and the general public were in attendance. Notables included Ken Wagner, Oklahoma's Secretary of Energy & Environment.

Most attendees were interested in ODM's rock display. A PowerPoint presentation highlighting ODM's water management and reclamation efforts was presented via a laptop computer. Some individuals took ODM brochures detailing our mission statement, coal and non-coal permitting and bond release process, blasting permit process, and the OMTI training program.



ScienceFest
Oklahoma City Fair Grounds

May 2, 2019

On May 2, 2019, the Oklahoma Department of Mines (ODM) manned an activity station at the Oklahoma City State Fairgrounds for ScienceFest 2019. Assisting Student Outreach Coordinator Stacy Woody with this event were ODM staff members Kevin Woody, Linda Landon, Justin Maxey, Troy Young, and Ginna Harmon, along with OMTI Director Clarence Stanley, and volunteer Sherry Stanley.

The ODM activity station was entitled “Mining for Marbles”. The students mined the marbles, processed their materials, and cashed in at the market station for an “Honorary Oklahoma Miner” hand stamp. The station was intended to give the students a sense of the mining process.

Approximately 3500 fourth, fifth, and sixth graders, from area schools attended this annual event. This was 1,000 more students than in 2017. There were 46 activity stations covering topics such as air, water, wildlife, agricultural earthquakes, and forestry. The students participated in numerous environmental activities related to science and natural resources protection.



South Central Joint Mine Health &
Safety Conference
April 15-18, 2019

The 37th annual South Central Joint Mine Health and Safety Conference was held in Dallas, Texas April 15 – 18, 2019, at the Hilton Anatole. This grand facility accommodates many conference goers. This year, the mining group numbered about 325. Several Oklahoma mining companies attended and/or sponsored this multi-state event. There were approximately 27 vendors in the exhibit hall. The Oklahoma Department of Mines (ODM) was among the exhibitors. Our booth was manned by ODM Coal Permit Officer Stacy Woody, and ODM Inspector Kevin Woody. There was information on ODM’s programs, ODM Safety Grams and Oklahoma’s Surface Safety Standards. ODM’s operational information cards and our new reflective hardhat stickers were distributed. The booth and the participants represented ODM very professionally.

The ODM conference attendees were Director Mary Ann Pritchard and Minerals Program Administrator Richard Shore along with OMTI Director Clarence (Buzz) Stanley.

A wide range of subjects was offered during the daily workshops with many informative presentations. One presentation called Leading the Way was led by Mr. Keni Thomas, retired Staff Sargent 3rd Army Ranger Battalion, who discussed his BlackHawk Down experience as an approach to leadership. Mr. David P. Liffig, the keynote banquet speaker, discussed his passionate impact about workplace safety and how this results positively in leadership on individuals and organizations with The Magic of Zero.

During the awards luncheon this year, eight (8) safety mining awards were given to individuals who had no lost time accidents with a minimum of 36 years' service in the industry. There was one individual with 42 years with no lost time accidents.

One of the most important aspects of this conference is to network with colleagues, as well as discussing national issues with MSHA representatives. Notable MSHA attendees included Mr. William O'Dell, South Central District Manager and Mr. Wayne Palmer, Deputy Assistant Secretary from Arlington, Virginia.



Tahlequah Rock & Mineral Show **August 23, 2019**

On Friday, August 23, 2019, the Oklahoma Department of Mines (ODM) attended the Tahlequah Rock and Mineral Show (TRAMS) 2019. ODM personnel spoke to area students about the phases of mining and the importance of safety regulations on mine sites. ODM personnel participating in this event were Inspector Kevin Woody and Coal Permit Officer Stacy Woody.

ODM's activity station included the photographic display of the different phases of mining, reclamation, and blasting. Inspector Woody answered questions related to mining and the importance of reclamation to prevent negative environmental impacts on the land. The Coal Permit Officer set up displays, took photos and was on hand to

answer questions. Literature related to mining and the agency was available. Approximately 100 students from area schools attended this annual event. The students participated in numerous environmental education activities related to science and natural resources protection.



Tulsa Global Alliance - Mongolian **Delegation** **October 4, 2019**

On Friday, October 4, 2019, Richard Shore, Administrator of Minerals Program, and Rhonda Dossett, Coal Program Director spoke to a group from Mongolia about Oklahoma mining. Mr. Bob Lieser, Vice President of Programs for Tulsa Global Alliance requested that the Oklahoma Department of Mines meet with the Mongolian delegation. The group was in the United States at the invitation of the State Department to learn about United States mining policies and in particular mining policy at the state level.

Mr. Shore and Ms. Dossett spoke for 90 minutes on permitting, inspection, pre and post mining environmental testing and analysis, blasting, and citizen, landowner, and royalty owner involvement in permitting and bond release. The ODM representatives presented the group with copies of mining regulations, permit applications, and

outreach handouts on bond release, permitting, and citizen complaints.

Only a few of the attendees spoke English, but the interpreters were very good. The translations were simultaneous and the group was given opportunities to ask questions. The group was particularly interested in learning the names of: suppliers of mining equipment, large mining companies who might be interested in Mongolian mining, and exchange programs between Oklahoma and Mongolia.

The following Mongolian individuals participated in the workshop held at OSU Tulsa on Greenwood, along with three Mongolian interpreters:

- Ms. Tumendelger Baljinnyam, Senior Officer, Research / Analysis Department, Regulatory Agency of Mongolian Government, National Development Agency
- Dr. Bayarsaikhan Banzragch, Chairman, National Development Agency
- Mr. Zayabal Batjargal, Commissioner, General Department of Taxation
- Mr. Batbold Eerdenbileg, Director General, Strategic Policy and Planning Department, Ministry of Mining and Heavy Industry
- Mr. Tuguldur Gur Aranz, Minister Advisor, Ministry of Mining and Heavy Industry
- Mr. Munbat Lkhagvaa, Director, Investment Policy and Coordination Department, National Development Agency
- Mr. Gankhuleg Munguntsog, Advisor, Cabinet Secretariat Chief, Cabinet Secretariat
- Ms. Orkhon Namkhai, Director, Public Administration Department, National Development Agency
- Mr. Dashdemberel Natsagdorj, Senior Officer, Investment Policy and

Coordination Department, National Development Agency

- Mr. Munkhtur Ochirjantsan, Head, Public-Private Partnerships Division, National Development Agency



OKLAHOMA MINER TRAINING INSTITUTE



OKLAHOMA MINER TRAINING INSTITUTE (OMTI)

The State of Oklahoma has empowered the Oklahoma Department of Mines to provide mine safety training opportunities via a contract with Eastern Oklahoma State College for the Oklahoma Miner Training Institute (OMTI). Since mining is a dangerous occupation, OMTI continues to provide the highest of quality training programs that integrate all aspects of mine safety and health. This allows Oklahoma to persevere in keeping mine related injuries reduced and fatalities eliminated. Ongoing training ensures that all miners, especially those working at small mine sites, will be educated in the importance of safety in the workplace.

The training courses are provided at the Oklahoma Miner Training Institute, located at Eastern Oklahoma State College, and in the field at the mine sites. The OMTI also utilizes higher learning centers, community centers and vocational facilities around the state to facilitate the availability of training to the mining industry. Every miner and mine manager is given an opportunity to play an active role in sharing their experience and best practices. Mine managers have the opportunity to participate and help develop the type of training received by their mine employees. The exchange of potential information takes place before any training is provided, during training, and as a follow-up to the courses taken by the miners.

The Oklahoma Miner Training Institute is committed to assisting the mining operations with solutions to different technical problems. OMTI staff is available to counsel and work with the operators to eliminate work hazards. In addition, staff integrate solutions that other companies have found to remedy mining health and safety problems.

OMTI trains approximately 3,800 miners in different training categories each year. There

are six core components in the OMTI training curriculum. They are:

- (1) management commitment;
- (2) worker involvement;
- (3) workplace inspections to identify hazards and violations of mandatory health and safety standards;
- (4) hazard prevention and control;
- (5) safety and health training; and
- (6) program evaluation.

In conjunction with the Oklahoma Department of Mines, a safety committee meets monthly to discuss Oklahoma mining health and safety issues that need to be emphasized in correspondence and with the state health and safety inspectors who visit the mine sites. This has proven to be a very useful and beneficial to the miners and operators.

The primary focus of OMTI is to work in cooperation with the Department of Mines to help and assist with identifying on site hazards. Once the areas of concern are identified training efforts are implemented to address these hazards which assists in the prevention of fatal and non-fatal accidents and injuries through the training.

OMTI TRAINING COURSES

I. Mining Certifications

The Oklahoma Mining Commission's responsibility is to ensure that the proper qualifications for a miner to obtain a certificate of competency are met. OMTI has a Certification/Qualification Training and Testing program that the Oklahoma Mining Commission oversees. This program includes three major areas; Surface Blaster Certification, State Certified Supervisors Training, and Electrical Refresher Training.

A. Surface Blaster

A three (3) day training program is required for those utilizing explosives in the State of Oklahoma. The Department of Mines regulates the use of explosives on all locations, whether they are mine sites or not, throughout Oklahoma. The program covers the safety requirements found in Oklahoma Statutes, (Title 45) and those laws supported by MSHA (30CFR, Parts 56 and 57). The curriculum also includes information regarding Alcohol, Tobacco, and Firearms regulations, and the handling, usage, and storage of explosives. All mining operations both coal and non-coal (aggregate industry) have standards outlined that the student must be able to identify through testing prior to a certificate being awarded. In addition to mining standards a separate program for all other explosive use in Oklahoma is taught. This program includes all construction, oil and gas, road construction, and even demolition explosive use. The standards covering this activity are found under Title 63 of the Oklahoma Statutes and the Department of Mines rules are taught and a test is administered to ensure competency

One of the goals of this program is to maintain a completely safe industry through the thorough training of any blaster who could endanger the community and the work place because of improper usage of explosives. The blasting procedures are reinforced in refresher training and testing every two (2) years.

The target audience is in the coal and non-coal mining industries and contract shot services. The blasting education is received through training by a Certified Blasting Instructor. The course is taught at the school facility or at a participating vocational school.

Due to the highly secure nature of blasting, the ATF and Oklahoma Department of Mines regulations require a criminal background check prior to the issuance of a blasting

license or a renewal. The Oklahoma Department of Mines Inspectors regularly verify that proper and safe blasting procedures are maintained at all locations permitted by the Department. Failure to abide by these procedures could result in an operator citation at the least. A worst case scenario would involve the endangering of citizens or other miners with improper blasting operations. This could also result in the loss of certification and penalties assessed to the company.

The effectiveness of the blasting program by OMTI is measured by the testing at the closure of the blasting course. A minimum score of 76% is required in order to receive a Blasters Certificate.

During the training sessions, students are encouraged to detail and share any accident, near misses, or safety improvements they have been a part of or witnessed. Following the miner training, students are encouraged to provide course evaluations either vocally or by written responses. OMTI utilizes these responses to improve the training program.

B. State Certified Supervisor Training

The State Certified Supervisor Training is required by Oklahoma Statutes, Title 45. Title 45 mandates a state certified supervisor be on duty when any person is working on the mine site. OMTI provides the training required by the Oklahoma Mining Commission and submits the certifications to the Commission for execution. Successful completion of the certification is accomplished through the training and successful passing of a final examination. To receive a supervisor certificate, a passing score of 76% is required. Certification records are maintained at OMTI. The supervisor course requires the initial training, with a four or eight hour refresher on an annual basis. The coal industry requires this

training annually, while non-coal is on a biannual basis. The examinations are revised and updated for the annual certification.

The target audience is the coal and non-coal mining industry. The mining industry is experiencing a small production increase in commodity which would indicate a slight increase of miners on the work site. With the increase of mine personnel on site, a need for additional Surface Supervisor training is anticipated. The training includes videos, slides, tapes, lectures, and handout materials. The mine specific issues are based upon the miner participation. Since the supervisor certification is a statutory requirement, the mine site specific issues would be based upon individual miner inquiries.

During the training sessions, students are encouraged to detail and share any accident, near misses, or safety improvements they have been a part of or witnessed. Following the miner training, students are encouraged to provide course evaluations either vocally or by written responses. OMTI utilizes these responses to improve the training program.

C. Electrical Training

OMTI offers an Electrical Refresher Course. In the underground Part 48 Training, OMTI utilizes the electrical programs specific to this industry. Training material and modules are a key part of the training. This enables the trainee to learn in a variety of methods with characteristics that are representative of the industry.

During the training sessions, students are encouraged to detail and share any accident, near misses, or safety improvements they have been a part of or witnessed. Following the miner training, students are encouraged to provide course evaluations either vocally or by written responses. OMTI utilizes these responses to improve the training program.

II. Part 46 Training (Surface)

The Surface Mining Part 46 training emphasizes New Miner Training in accordance with Mine Safety and Health Administration (MSHA) guidelines. Due to the large population of small mines in Oklahoma, this is one of the most vital programs offered by OMTI. In excess of 90% of classroom instruction services this segment of the mining industry. To ensure that every miner in this area receives the proper training, OMTI addresses this need with updated training, classes and materials.

Included in New Miner Training are the subjects previously addressed, with the addition of Ground Control, Working in High Wall Areas, Water Hazards, Pits and Spoil Banks, Illumination and Night Work, and Lock-Try-Tag.

There are Five Steps to Compliance that will be emphasized: effective training for new miners; training for newly hired experienced miners; training miners for new tasks; annual refresher training; and site-specific hazard awareness training.

The OMTI staff has training locations throughout the state. By holding classes throughout the state, this offers training in a more accessible method to the miners. This access is important to those very small operators. In addition, there is a close relationship with the Department of Mines Minerals permitting program. Due to this interaction, OMTI can initiate early contact with new permittees and maintain direct contact with the producers for training.

During the training sessions, students are encouraged to detail and share any accident, near misses, or safety improvements they have been a part of or witnessed. Following the miner training, students are encouraged to

provide course evaluations either vocally or by written responses. OMTI utilizes these responses to improve the training program.

The Oklahoma Miner Training Institute is continuing to provide training in Spanish for those who specifically request it. In addition, the Oklahoma Department of Mines is providing the Safety Grams in Spanish for all mine operations to post in a prominent location for all miners to see. The Oklahoma Department of Mines Inspectors personally distribute these on the mine sites when conducting their inspections. The OMTI has obtained as many materials in Spanish as possible from the MSHA Academy in Beckley. These materials are utilized in the classroom.

III. Part 48 Training (Underground)

Oklahoma's mining industry has a need for both new miner training and annual refresher. As part of the regulations and policies published in the administrative manual for Part 48, Subpart A and B, Title 30 CFR, mine safety training will be offered in accordance with the manual.

The specific goal of New Miner Underground Training is to emphasize health and safety practices. This includes training regarding the use of heavy haulage equipment, conveyor systems, electrical systems, personal safety gear, and recognition of environmental hazards, such as blasting on the mine site.

Training includes "*Statutory Rights of Miners & Their Representatives*" under the act. This helps to inform the miner how to perform in a safe and productive manner. Coursework included is Self-Rescue and Respiratory Devices, Entering and Leaving a Mine, and Transportation and Communication. These classes are the basis for personal safety behavior, if work involves a hazardous situation. Mine conveyances and the related safety are a section of this training.

Mine Maps, Escape Ways, Emergency Evacuation and Barricading are essential elements of the training program. Roof or Ground Control and Ventilation Plans will allow the student to become familiar with the plan in effect at the mine site. These site specific plans are encouraged to be discussed by mine personnel. Specific mine plans regarding health issues such as noise, dust, cleanup, rock dusting, and other personal health measurements, including but not limited to gases, are another focus of New Miner Training. Electrical hazards can be recognized and are taught to maximize the safety of the miner. First Aid training is taught as the most basic of the safety methods that are acceptable to MSHA.

Health issues that will be addressed include smoking cessation, substance abuse, and other industrial hygiene areas. Mine specific health issues will include dust problems experienced on the mine site and silica related disease. OMTI continues to focus on respiratory protection programs, dust control, and heat stress. Oklahoma typically experiences intense heat during the summer months, and the safety of working in this environment will be highlighted.

During the training sessions, students are encouraged to detail and share any accident, near misses, or safety improvements they have been a part of or witnessed. Following the miner training, students are encouraged to provide course evaluations, either vocally or by written responses. OMTI utilizes these responses to improve the training program.

IV. Special Attention to Small Mines and Operators

In an ever-increasing effort to ensure that mines which employ fewer than five employees are provided training, OMTI has designed a portion of Part 46 training to

address the issues that may arise in a small mine. We provide virtually all of the training for small mines in Oklahoma with Annual Refresher for current employees and New Miner training when new employees are hired. We are aware that small mines may have unique problems; for example, a single employee may be required to perform several different tasks, so he should be trained in the hazards of each task.

The Oklahoma Miner Training Institute assists small mine operators with the development of training plans, conducts the training, and provides information on MSHA regulations.

Oklahoma continues to see an increasing demand of contractors needing training and help to establish training plans and programs. OMTI will continue to work closely with contractors requesting training assistance. contractors.

Training Provided in 2020

Annual Refresher	1121
Blasting Certification	15
Blasting Refreshers	56
First Aid Certifications	340
First Aid Recertification	1200
New Miner Training	338
State Supervisor Certification	195
State Supervisor Refresher	627
Electrical Retraining	21
UG Coal Certification	0
Total	3,913