

## JOE 2025 Information Packet for **Mines, Minerals and Buckwheat Tour**

<b>Day:</b> Saturday	<b>Start Time:</b> 8:30 am.	<b>End Time:</b> 4:30 pm.
<b>Co-Leader:</b>	<b>Co-Leader:</b>	<b>Limit:</b> 12 people
<b>Transportation:</b> Two Personal Cars	<b>Driver:</b>	<b>Radios 0 / First Aid Kit 1</b>
<b>Fees:</b> \$14 Transportation Fee \$15 Adult / \$14 Senior (65+) + tax for Sterling Hill Mining Museum \$20 Adult / \$18 Senior (65+) + tax for Franklin Mineral Museum Inc	<b>Travel Distance:</b> 67 Miles Round Trip	<b>Travel Time:</b> 2 Hrs. Round Trip

## Mines, Minerals, and Buckwheat Tour

### Sterling Hill Mining Museum

Embark on a quarter-mile walking adventure into the country's fourth-oldest mine and the last operating underground mine in New Jersey. Discover the unique fluorescent Rainbow Tunnel, the Museum of Fluorescence, and the most remarkable collection of fluorescent minerals found anywhere on Earth! Almost everything created by humans is connected to mining.

You will learn how it is done at the Sterling Hill Mining Museum—from drilling and blasting to processing the ore. New Jersey is home to one of the world's richest deposits of zinc ore, featuring over 354 minerals, about eighty-eight of which fluoresce. That is roughly 10 percent of the known minerals in the world, right here in NJ, making it the premier fluorescent mineral deposit globally!

The museum is located on the grounds of the Sterling Mine. This former New Jersey Zinc Company mine successfully operated as New Jersey's last underground mine until it ceased operations in 1986. The Sterling Hill Mining Museum is the only place in the state where an underground mine and its associated facilities have been preserved almost intact and are open to the public.

### Franklin Mineral Museum

The zinc mining district of Franklin is internationally renowned for its diverse collection of fluorescent and rare minerals. The museum highlights fluorescent minerals, specimens from local and international sources, artifacts, fossils, and a two-level mine replica designed with safety in mind. Visitors can explore the famous "Buckwheat," a sizeable mineral-rich rock field where they can collect specimens, dig for fossils, and try their hand at gem panning. An optional guided tour will be available during our visit.

- Both mines maintain a damp temperature of 56 degrees Fahrenheit year-round, so a light jacket is advisable.
- Proper footwear, such as sturdy hiking shoes, is essential for exploring the "Buckwheat" for specimens. Collectors must also wear protective eyewear when using tools like hammers and chisels.
- Franklin Mineral Museum does not provide specimen-collecting tools; you must bring your own. Claw hammers are not allowed.
- Franklin Mineral Museum tour is primarily accessible for wheelchairs and strollers (no wandering in Buckwheat).
- Pack lunch at breakfast to bring with you
- \$14 Transportation Fee (No charge for drivers)
- Participants will pay on site: (please bring cash):
  - \$15 Adult / \$14 Senior (65+) + tax for Sterling Hill Mining Museum
  - \$20 Adult / \$18 Senior (65+) + tax for Franklin Mineral Museum Inc
- Limit 12 People
- Vehicle: Passenger Van or Personal Cars (TBD)
- Round Trip Driving: 70 miles / 120 minutes in two parts
- Wikipedia of Sterling Mine / Facebook of Stirling Mine
- YouTube 1

### **Logistics:**

- Pack Lunch at Breakfast
- 8:30 Leave Camp
- 8:30 - 9:30 Travel to Sterling Hill Mining Museum
- 10:00 - 12:00 Take a tour of the Sterling Hill Mining Museum
- 12:00 - 12:10 Travel to Franklin Mineral Museum
- 12:10 - 12:40 Lunch at the Picnic Tables at Franklin Mineral Museum
- 12:40 - 3:30 Tour Franklin Mineral Museum (including an optional guided tour at 2 PM).
- 3:30 - 4:30 Return to Camp with a pit stop in NJ before getting onto Rt. 84

## Sterling Hill Mining Museum



- 30 Plant Street, Ogdensburg, New Jersey 07439 (Entrance on Passaic Street under railroad trestle)
- 973-209-7212 / [info@shmmuseum.org](mailto:info@shmmuseum.org) / <https://www.sterlinghillminingmuseum.org>
- [TripAdvisor Review](#): 254 Reviews 4.6 /5 Rating (as of publishing date)
- Historical and other background info: <https://www.njskylands.com/atsterhill>

### **The Sterling Hill Mine**

Located in the Franklin-Sterling Hill Mining District, renowned for its zinc ore and fluorescent minerals, the museum delves into the region's mining history and earth science. It is situated on the grounds of the Sterling Mine, the last underground mine in New Jersey, operated by the New Jersey Zinc Company until 1986. The Sterling Hill Mining Museum is the only location in the state where an underground mine and its facilities are preserved and accessible to the public.

The museum provides public tours for individuals and families that last approximately two hours. Guests can discover the Zobel Hall Museum, the mine, and the Warren Museum of Fluorescence, with time allocated as follows: 30 minutes in Zobel Hall, one hour in the mine, and 15 minutes in the Warren Museum. All visitors are required to join a tour; unguided tours are not permitted. Before or after their tour, guests may enjoy a self-guided walk around the parking area, which displays historic mining machinery and equipment.

### **The Rainbow Tunnel**

The Rainbow Tunnel is the mine's most anticipated exhibit. It highlights intensely fluorescent zinc ore that glows bright green and red under shortwave ultraviolet light. The red hue originates from calcite, while the green comes from willemite, a primary zinc ore mineral.

### **What to Expect**

Visitors will walk through 1,300 feet of tunnel inside the mine without taking a train ride. Guides will stop at various stations to explain the equipment, history, working conditions, and geology. Visitors will see the lamp room, shaft station, galleries from the 1830s, and more. The tour covers only the first level; guests will not access the lower levels.

### **The Warren Museum of Fluorescence**

The Museum, founded in 1999 by Thomas S. Warren, occupies four rooms of a 1916 mill building. It displays over seven hundred fluorescent minerals and objects.

### **Some Exhibit Highlights**

**The Color Wall:** Upon entering the museum's main room, visitors see the Color Wall, a 16-ft. wide, floor-to-ceiling display of one hundred oversized fluorescent mineral specimens, some 2-3 ft. long and over one hundred pounds. A sequential lighting scheme reveals the minerals first under longwave ultraviolet light, then under shortwave, and finally both, followed by brief darkness to display the minerals' phosphorescence, or "afterglow."

## Touchable Displays

In the main room, fluorescent minerals are stacked on ore cars beneath longwave ultraviolet lights. Visitors will notice that when they touch the minerals, they also fluoresce.

## Theme Cases

More than a dozen cases in the Warren Museum feature fluorescence themes, highlighting specific minerals, localities, and activator elements. These stunning displays allow visitors to explore fluorescence at their own pace.

## Zobel Hall Museum

The Zobel Hall Museum highlights over 12,000 items, including mining equipment, specimens, meteorites, fossils, Thomas Edison's inventions, and various artworks.

## History

The Zobel Hall Museum was once the Miners' Change House, which served as the first and last stop for miners during their workdays. The building contained approximately three hundred steel lockers, each with a chain looping over a ceiling pulley and connected to a basket below two metal hangers. Miners would remove their wet clothes, hang them on the hangers, place their boots in the basket, and pull the chain to lift the basket to the drier air near the ceiling, allowing their clothes to dry overnight. Some original lockers and baskets are on display in the museum today.

## Some Exhibit Highlights

### Oreck Mineral Display

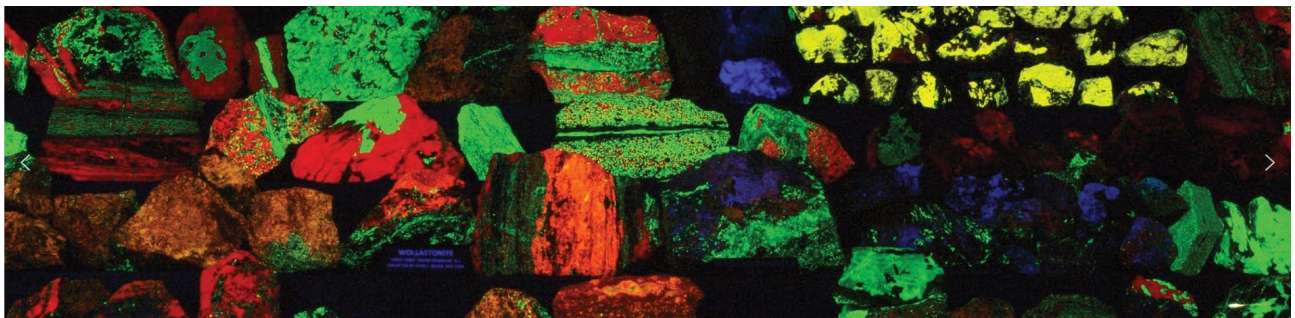
Where the miners' showers once were now stands a multi-million-dollar mineral display donated by the Oreck family. The Oreck Mineral Gallery highlights hundreds of fine specimens in fifteen custom glass cases with fiber-optic lighting, establishing it as New Jersey's premier mineral display. Notable exhibits feature pegmatite minerals and specimens from China, Russia, and Africa, along with quartz, fluorite, calcite, stibnite, barite, celestine, and copper.

### Fluorescent Mineral Display

A 7-foot display in the museum highlights local fluorescent minerals from the Sterling Hill and Franklin zinc mines, illustrating why the area is known as the "Fluorescent Mineral Capital of the World." It provides a glimpse into the Warren Museum of Fluorescence, which features over seven hundred specimens across three spacious rooms.

### Periodic Table Display

The museum highlights a 10-foot interactive Periodic Table of Elements. Each of the 112 cubbyholes contains a sample of the element, an ore sample, and an item crafted from that element. This is the largest and most comprehensive display of the Periodic Table available.



## Franklin Mineral Museum

The Franklin zinc mining district is renowned for its fluorescent and rare minerals. The museum features local and global minerals, artifacts, fossils, and a safe two-level mine replica. Explore the famous "Buckwheat," a large mineral-rich area for collecting specimens, digging for fossils, and gem panning.

You can view the exhibits independently or join our optional guided tour at 2 pm, which may be adjusted for scheduled groups. An outdoor picnic area and a covered pavilion are available, but barbecues are prohibited. Vending machines provide drinks and snacks. The gift shop sells books, jewelry, specialty gifts, souvenirs, and wondrous kids' items!

**Street Address:** 32 Evans Street, Franklin, New Jersey 07416 Tel: (973) 827-3481

**GPS Coordinates:** 41°06'49.0"N 74°35'18.8"W / 41.113620, -74.588562

Museum Hours: April – November: Sat: 10 a.m. - 5 p.m. / Sun: 11 a.m. - 5 p.m. / Mon-Fri: 10 a.m. - 4 p.m.

<https://franklinmineralmuseum.com> / [info@franklinmineralmuseum.com](mailto:info@franklinmineralmuseum.com) / 973-827-3481

<https://www.facebook.com/FranklinMineralMuseum> / <https://www.instagram.com/franklinmineralmuseum>

<https://www.ebay.com/str/franklinmineralmuseum>

[TripAdvisor Reviews](#): 63 reviews, 48% Excellent (as of publishing date).

### General Information

**Self-Guided Tours.** Visitors are welcome to explore the exhibits and stroll through the museum without a tour guide; however, some restrictions may apply if group tours are ongoing.

**Rock Collecting** takes place daily, except during extreme weather. The Buckwheat Dump closes 30 minutes before the Museum. Proper footwear (no open-toed shoes) and protective eyewear are required. Claw hammers are not allowed. Collectors must bring their tools. A viewing shed with ultraviolet light is available for examining mineral fluorescence. While you are here, visit the Museum store for local and global minerals, UV lights, jewelry, rock identification kits, books on minerals and fossils, and teaching aids. It is a perfect place for unique birthday and holiday gifts!

Most areas of the Museum are **handicap accessible**, including the upper mineral collecting areas.

**Lobby Displays** Four display cases line the hallway from the museum lobby to the Mine Replica. Two showcase local historical items, including miners' boots, kerosene lanterns, antique watch fobs, and cabochon gemstones from the Franklin mine—the other two highlight minerals and photographs from local collectors, updated every year or two.

**Outdoor Displays:** As visitors exit their cars, they are welcomed by outdoor exhibits, including a bronze statue of a miner and historic Ore cars from the Franklin mine. A sizable block of zinc ore on the lawn originates from the Franklin orebody near High Street.

### Museum Rooms:

**Local Mining Heritage:** Over 4,000 mineral specimens from the Franklin and Sterling Hill mining district, featuring local zinc ore minerals like willemite, franklinite, and zincite.

**Fluorescent Room: Hundreds of specimens.** A 32-foot display of local fluorescent minerals. Learn why the New Jersey Legislature declared Franklin the "Fluorescent Mineral Capital of the World" in 1968.

**American Indian Room: Tools, baskets, pottery, and more.** This room is notable for its extensive collection of Native American stone tools made by the Lenni Lenape Indians, the earliest inhabitants of what later became New Jersey.

**Fossil Room:** Discover the best-preserved petrified wood displays in New Jersey. The fossil room features an excellent selection of trilobites, dinosaur footprints, a mastodon tusk, coprolites (fossil dung!), and more.

**Welsh Hall:** Visitors will be amazed by the diverse collection of global minerals, with over 5,000 specimens!

**Mine Replica and Artifacts:** Life-size examples of mining methods used in the Franklin mines. See numerous mining-related items such as cap lamps, mill concentrates, pig iron, and artifacts from Thomas Edison's iron-mining and milling operation on Sparta Mountain.

**Museum Store:** If you take home a souvenir or beautiful mineral to remember your visit with us, be sure to stop by our museum store in the lobby. We offer hundreds of gift items, including a wide selection of jewelry, local and international minerals, fossils, ultraviolet lamps, earth science books, and more.

**Picnic Areas:** Two areas are available for visitors. One, located behind the Museum, is shaded by trees. The second area is under a pavilion, providing shelter from rain and shade during hot weather.

Nearby vending machines provide soft drinks and snacks; a coffee machine is in the museum lobby.

In daylight, fluorescent rocks are boring, just pink, black, grey, and brown. You will not find tiny, pretty stones in the buckwheat. To find fluorescents (primarily combinations of green, orange, and red with a few light blues and mustard yellows), you need to know what the minerals look like in daylight or have a powerful short and long-wave UV lamp that costs from \$200 to \$500 that makes them glow bright enough to find them. Even with the lamp, you must go on a dark day or at night. Some walk around the dump under a BBQ grill covered with their lamps.

#### MISSION STATEMENT

The mission of the Franklin Mineral Museum is to preserve and share knowledge about the mineral wealth, geology, and history of "the greatest mineral locality on Earth " and to promote scientific inquiry into these topics.

To achieve this goal, the Museum acquires, preserves, and displays mineralogical and geological specimens, artifacts, and documents related to the history and mineralogy of the Franklin-Sterling Hill mining district. Additionally, the Museum collects and exhibits archaeological and paleontological specimens and other items of interest.

**Start/End: Camp Nah-Jee-Wah, 570 Sawkill Rd., Milford, PA, 18337-7010**

**Overall drivetime/distance: 1HR 40 MIN 67 MI / Est. fuel cost: \$4.93**

**Overall Map:** <https://maps.app.goo.gl/6xn8Lu597g8u34F77>

### **Directions from Camp Nah-Jee-Wah to Sterling Hill Mine Tour & Museum**

: <https://maps.app.goo.gl/kt2uBtjBbPN6JweE6>

1. Head out of camp and down the driveway. Then, turn left and go northwest on Sawkill Rd. Toward Bridge Rd.
  - a. Then 0.21 miles, 0.21 total miles
2. Take the first right onto Bridge Rd.

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- a. If you reach the Grand Army of the Republic Hwy., you have gone about 0.2 miles too far, 0.16 miles, 0.37 total miles.
3. Turn right onto Grand Army of the Republic Hwy./US-6 E. Continue to follow US-6 E.
  - a. Then 4.88 miles, 5.25 total miles
  - b. Stay straight to go onto E Harford St./US-209 S.
  - c. Then 0.85 miles, 6.10 total miles
4. Turn left onto US Highway 206/US-206 S. (Portions toll) (Crossing into New Jersey).
  - a. US Highway 206 is 0.2 miles past Old Bridge Rd.
  - b. Then 16.02 miles, 22.13 total miles
5. Stay straight to go onto US Highway 206/NJ-15. Continue to follow NJ-15.
  - a. Then 4.61 miles, 26.74 total miles
6. Turn left onto Houses Corner Rd.
  - a. Houses Corner Rd is 0.5 miles past White Lake Rd.
  - b. If you reach Layton Ln., you have gone about 0.2 miles too far.
  - c. Then 2.47 miles, 29.20 total miles
7. Turn right onto W. Mountain Rd.
  - a. Then 0.94 miles, 30.14 total miles
8. Take the third left onto Sterling Hill Rd.
  - a. Sterling Hill Rd is 0.1 miles past Skyline Dr.
  - b. If you reach Greenfield Hill, you have gone about 0.7 miles too far.
  - c. Then 0.78 miles, 30.92 total miles
9. Sterling Hill Rd. Becomes Passaic Ave.
  - a. Then 0.25 miles, 31.17 total miles
10. Turn right onto Plant St.
  - a. Plant St. is 0.1 miles past Arch St.
  - b. If you reach Center St., you have gone about 0.2 miles too far.
  - c. Then 0.02 miles, 31.19 total miles
11. Sterling Hill Mine Tour & Museum, 30 PLANT ST., is on the right.
  - a. If you reach Sterling Pkwy., you have gone too far.

Sterling Hill Mine Tour & Museum "Step into Earth Science"

This leg of your trip is 46 minutes · 31.19 miles.

### **Directions from Sterling Hill Mine Tour & Museum to Franklin Mineral Museum**

<https://maps.app.goo.gl/TGf3DeTbuy4z1Gfc8>

Start of the next leg of the route

12. Head out of the Sterling Hill Mine Tour & Museum driveway and turn right, north on Plant St., toward Passaic Ave. This will be in the opposite direction from which you came.
  - a. Then 0.02 miles, 31.21 total miles
13. Plant St becomes Cork Hill Rd.
  - a. Then 2.11 miles, 33.31 total miles

14. Turn right onto Church St./County Hwy-631.
  - a. Then 0.10 miles, 33.42 total miles
15. Turn left onto Buckwheat Rd.
  - a. If you are on Franklin Ave. and reach Hospital Rd., you have gone about 0.1 miles too far.
  - b. Then 0.13 miles, 33.55 total miles
16. Take the first left onto Evans St.
  - a. Evans St. is just past Quarry Rd.
  - b. If you reach Taylor Rd., you have gone a little too far.
  - c. Then 0.07 miles, 33.62 total miles
17. Franklin Mineral Museum, 32 EVANS ST., is on the left.
  - a. If you reach Main St., you have gone about 0.3 miles too far.

The length of your trip is 5 minutes · 2.43 miles.

## Directions from Franklin Mineral Museum to Camp Nah-Jee-Wah

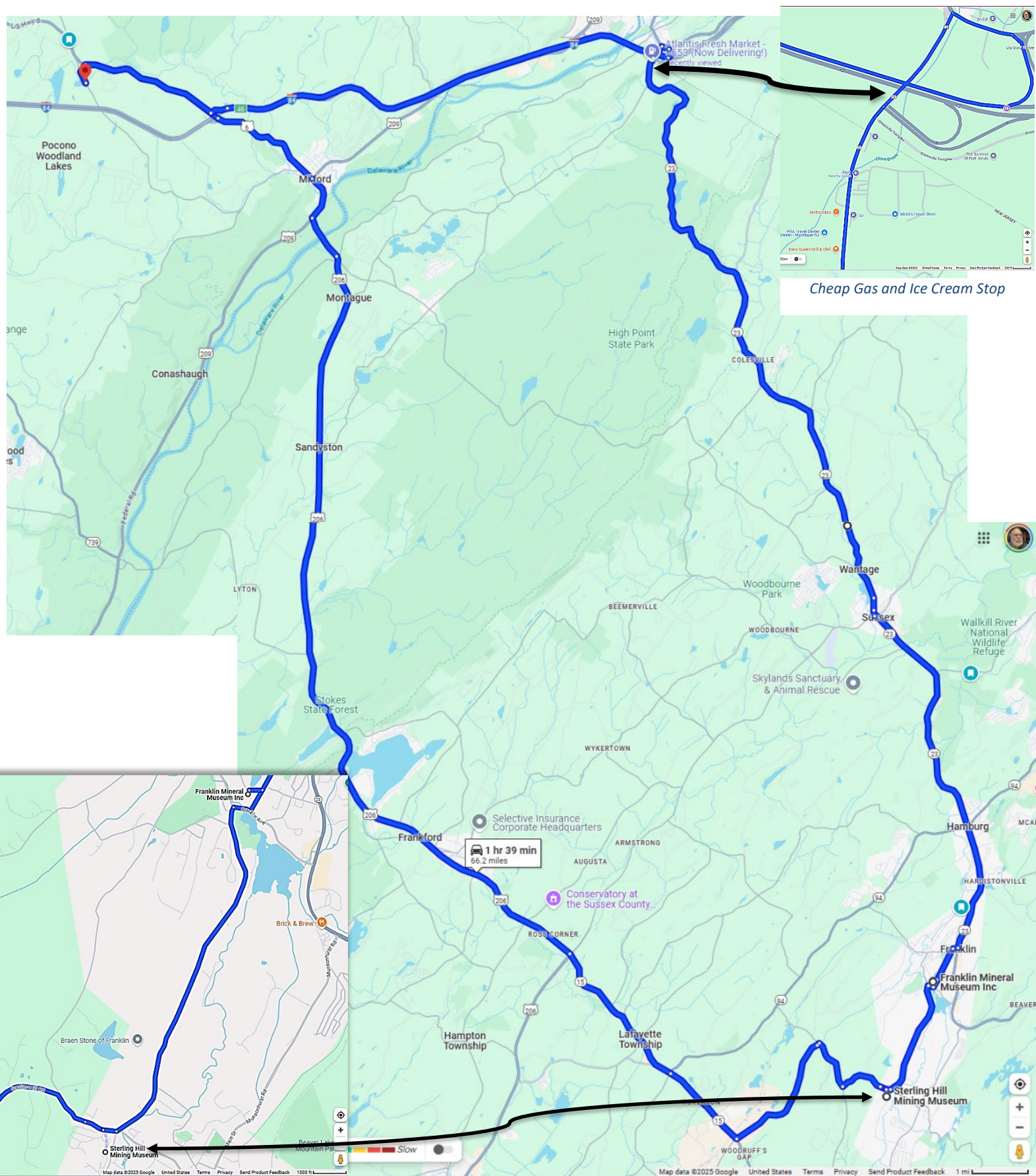
<https://maps.app.goo.gl/BHiyoZ9wgzHNGTJN8>

Start of the next leg of the route

18. Start out going east on Evans St. toward Buckwheat Rd.
  - a. Then 0.07 miles, 33.69 total miles
19. Turn left onto Buckwheat Rd.
  - a. Then 0.64 miles, 34.33 total miles
20. Turn right onto High St.
  - a. Then 0.09 miles, 34.42 total miles
21. Turn left onto State Route 23/NJ-23/County Hwy-517. Continue to follow NJ-23.
  - a. Then 6.83 miles, 41.25 total miles
22. Turn left onto Loomis Ave./NJ-23.
  - a. Loomis Ave. is just past E. Main St.
  - b. If you are on Main St. and reach Harrison St., you have gone too far.
  - c. Then 0.05 miles, 41.30 total miles
23. Take the first right onto Mill St./NJ-23. Continue to follow NJ-23 (Crossing into New York).
  - a. If you reach Elizabeth Ave., you have gone too far.
  - b. Then 12.57 miles, 53.87 total miles
24. At the NJ/NY border, there are gas stations and a Dairy Queen. Stop for gas in NJ and grab ice cream if you can. NJ offers the lowest gas prices, especially here.
25. NJ-23 becomes County Hwy-15.
  - a. Then 0.32 miles, 54.19 total miles
26. Turn right onto US Highway 6/US-6 E.
  - a. Then 0.14 miles, 54.33 total miles
27. Merge onto I-84 W toward Scranton (Crossing into Pennsylvania).
  - a. Then 8.70 miles, 63.03 total miles
28. Take the US-6 exit, EXIT 46, toward Milford.
  - a. Then 0.34 miles, 63.37 total miles
29. Turn right onto Grand Army of the Republic Hwy./US-6 W. Continue to follow US-6 W.
  - a. Then 2.53 miles, 65.90 total miles
30. Turn left onto Bridge Rd.
  - a. Bridge Rd. is 0.1 miles past Senate Rd.
  - b. If you reach Sawkill Rd., you have gone about 0.2 miles too far.
  - c. Then 0.16 miles, 66.06 total miles
31. Turn left onto Sawkill Rd.
  - a. Then 0.21 miles, 66.27 total miles
32. Cedar Lake Camp, 570 Sawkill Rd, Milford, PA. 18337-7010, 570 SAWKILL RD. is on the right.
  - a. If you reach Honeywell Rd., you have gone about 0.4 miles too far.

This leg of your trip is 46 minutes · 32.65 miles.

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## JOE 2025 Information Packet for Mines, Minerals and Buckwheat Tour

Nearest Hospital: [Newton Medical Center](#), 175 High Street, Newton, NJ 07860

973-383-2121

Newton Medical Center's state-of-the-art Emergency Department features private treatment areas, a fast-track area for minor injuries and illnesses, and coordinated services with our lab and radiology departments so patients receive care as quickly and comfortably as possible. We also have an on-site helipad that provides rapid transfer to Morristown Medical Center and Overlook Medical Center for additional treatment.

Directions from Franklin Mineral Museum to Newton Medical Center: <https://goo.gl/maps/WF8rHCmXrf82>,  
27 Min. / 13.4 Miles

Directions from the Sterling Hill Mining Museum to Newton Medical Center: <https://goo.gl/maps/g8Mmx1YTRbL2>  
23 Min. / 11.5 miles

