CLASSIFICATION ~~S-E-C-R-E-T~~
SECURITY INFORMATION
CENTRAL INTELLIGENCE AGENCY

REPORT

CD NO.

50X1-HUM
50X1-HUM

COUNTRY German Democratic Republic; Czechoslovakia

SUBJECT Economic - Uranium mining, transportation

DATE OF INFORMATION 1949 - 1951

DATE DIST. 15 May 1953

NO. OF PAGES 34

50X1-HUM

SUPPLEMENT TO REPORT NO.

THIS IS UNEVALUATED INFORMATION

50X1-HUM

URANIUM MINING BY THE WISMUT CORPORATION IN THE GERMAN DEMOCRATIC REPUBLIC

50X1-HUM

The term "Objekt" used in this report refers to an administrative entity, which may or may not be a physical entity. Usually an "Objekt" consists of a group of installations under a single management, but it may also be a unit which performs certain functions, perhaps for other Objekts; e.g., Objekt 12 referred to in the report as a "construction Objekt."

50X1-HUM

CLASSIFICATION ~~S-E-C-R-E-T~~

STATE	X	NAVY	X	NSRB	DISTRIBUTION						
ARMY	X	AIR	X	FBI	AEC, A						

II. ORGANIZATION AND LEADING PERSONALITIES OF THE MAIN ADMINISTRATION

A. Historical

At the beginning of June 1946, a small group of Soviet mining engineers, geologists, and political officers arrived at Johanngeorgenstadt in the Erzgebirge. The leaders of this expedition were General Putmannov and the geologist Shukov. General Putmannov summoned the mayor of Johanngeorgenstadt and directed him to submit the mining plans of the Johanngeorgenstadt mines and to prepare a list of mining engineers who had held leading positions during the

war. The mayor referred Putmannov to Franz Nitzsche, former chief inspector of mines in the southwest Erzgebirge (Joachimstal, Schneeberg, Oberwiesenth [illegible], and Breitenbrunn mining districts). Nitzsche, who resides in Breitenbrunn and is 78 years old, is a famous mining engineer, who particularly distinguished himself in connection with the mining of the Breitenbrunn "Christophit" (zinc blende). He was a very influential engineer in the former Sachsen Ore Corporation and held the position of Bergverwalter in the Erzgebirge from 1924 to 1940. This experience provided him with a knowledge of all radiometric, geophysical, and geological explorations conducted up to that time. Moreover, he was accurately informed about ore output for the past 3 centuries. Naturally, he must also have had knowledge concerning uranium output and uranium-ore deposits. Nitzsche is still in good health, but is very uncooperative so far as the Soviets are concerned. However, the Soviets do not give him too much trouble because of his age.

At first, Nitzsche refused to hand over the plans demanded by Putmannov. Two days later, Nitzsche was called for by automobile, and was "requested" by Putmannov himself to conduct the engineers through the shafts, which he did. Several days later, on 5 June 1946, the first shaft of the Wismut Corporation, the former "Frisch Glueck" cobalt shaft in Johanngeorgenstadt, was again put into operation and was converted to uranium-ore mining. "Frisch Glueck" is a shaft which was sunk by the Sachsen Ore Corporation to a depth of 360 meters (granite contact zone). Until the war, chiefly bismuthinite and erythrite (cobalt bloom) were mined in this shaft and in the nearby, equally large, "Schaarschacht." Pitchblende was obtained as a by-product.

On 15 June 1946, at a meeting of Soviet engineers and security officers at the "Radiumbad" rest hotel in Oberschlema, the planned uranium-ore mining project "Deutschland" was renamed "Wismut", and the "SAG (Soviet Corporation) Wismut" was designated as the organization in charge. General Maltsev was appointed director general of the Wismut Corporation. The planning engineer was Dr Peter Losovev, who was suddenly removed from his position one year later, for reasons unknown to me. He related to me the above story of the formation of the Wismut Corporation. Supplementary details were furnished by Franz Nitzsche.

B. Management and Organizational Structure

[redacted]

At the head of the Wismut Corporation is the Planning Commission, the chairman of which is General Maltsev, the director general. The vice-chairman of the Planning Commission is Shukov.

The Main Administration of the Wismut Corporation in Siegmar-Schoenau, near Chemnitz, is divided into the following departments:

1. The Main Planning Department, headed by the Planning Commission. This department is further broken down into the following planning departments:

   a. GPR (O) -- Planning for capital investments and explorations (construction projects).

   b. GPR (O) -- Planning for ore-mining and ore-dressing projects.

2. Department of the OTK (technical operating controls).

3. Main Geological Department.

4. Main Mine-Surveying Department.

5. Main Norms Department.

6. Main Accounting Department.

7. Main Finance Office.

8. Main Machine Department.

9. Main Personnel Department (OK).

10. Department for Blasting Techniques.

11. Department for Prevention of Mine Accidents.

12. Main Fire Station, Fire Extinguishing Unit

13. Department for Technical Training.

14. Political Department for Security

The following are notes on the above departments

GPR handles all work which has to do with prospecting for ore deposits (but not actual mining), such as excavations, sinking of shafts, main crosscuts and headings, and trenches. This department also handles all technical mine work (mechanical operations), such as conveying machinery, elevators, waste-dumping installations, braking inclines, bridge conveyers, pump stations, etc.

GPR handles all work which is directly involved in mining the ore, or which is concerned with the necessary, direct prerequisites for ore mining; for example, trench mining (Kanal-Erzabbaue), or deposits worked from aboveground; also all underground ore-mining sections and face mining, such as back-face mining, etc.

The Department of the OFK directs the mining, inspection, and dressing of the ore. It is also in charge of the crushers and conducts geochemical analyses of the ore in the laboratory. Until 1950, the chief of the OFK was Kuzminnyuk, a Soviet.

The Main Geological Department has the following departments:

The Stratigraphic Department, which opens up or explores new areas and which is also responsible for the revision of geological maps on a stratigraphic basis.

The Geophysical Department, which conducts all radiometric or radio-geophysical explorations concerned with opening up new, important areas.

The Topographic Department, which supplies the technical surveying data required for radiometric explorations and which also revises the maps needed for ore mining (geological map plotting).

The Geological Project (or Planning) Department. This department also has a planning commission, which approves or examines the mining projects of the individual Objekts. It is the most important part of the Main Geological Department; the meetings of the head geologists of the various Objekts are held in this department.

The Geological (Geological-Petrographic) Institute. The institute and the main laboratory are in Gruena near Chemnitz. The chief task of this unit is to make exact petrographic rock analyses which are of metasomatic significance.

The Main Mine-Surveying Department has the following subordinate departments:

The Topographic Department, whose functions involve all cartographic revision work, control triangulations in the individual Objekts, surveying of areas where new shafts are located, road-construction projects, and surveying work for the Wismut Transport Project.

Mine-Surveying Department II (MO II), which handles important technical projects, the planning of new shaft sections or of other operations involved in excavation work, inspection of shafts where mine surveying is carried out, etc.

The Main Norms Department determines the norms for excavating work, ore mining, and all other technical operations, and also establishes salaries, shift wages, and progressive premiums. It is divided into a Department for German Work Norms and a Department for Soviet ITP (Engineering and Technical Personnel). The pay of the Soviet soldiers who are engaged in production is also determined here.

The Main Accounting Department is divided into an Accounting Department, which is responsible for wage-computation directives, shaft inventories, main inventories, and purchasing departments, and an Accounting Department for Materials, which handles purchase and distribution of materials to the individual Objekts, etc.

The Main Finance Office, like all other /main/ departments of the Main Administration, employs Soviet personnel only. All funds required for the Wismut Corporation are remitted through a special account of GDR Landbank and through the reparations account to the Main Finance Office of the Wismut Corporation in Chemnitz, which transmits funds to the individual Objekts.

The Main Machine Department has the following subordinate units:

The Main Warehouse, in Harthau near Chemnitz. All technical machinery and equipment is transported from there to the individual Objekts. Radiometric apparatuses are transported to the individual Objekts via a special department of the Geophysical Workshop of the Main Geological Department, in Chemnitz.

The Main Repair Shop for Motor Vehicles, located in the former Wanderer Plant in Siegmar-Schoenau.

The Main Vehicle Park, also located in the Wanderer Plant in Siegmar-Schoenau.

The Main Machine Shops, located in the individual Objekts.

Power supply. All power supply installations, the power network, and both large and small transformer stations are constructed and supervised by Objekt 144. Until May 1951, the main administrative office had offices in Siegmar and Johanngeorgenstadt. The leading German engineer is Hans Eggert, of Objekt 144, Johanngeorgenstadt. There are large transformer stations in Oberschlema, Annaberg, Niederglobenstein (largest transformer of the Wismut Corporation, completed in August 1951), Erlabrunn, and Johanngeorgenstadt. The power plant is in Schwarzenberg. There is close cooperation between the Czechoslovak power supply and Objekt 144, since the Joachimstal and the Wismut power networks are connected.

The Main Personnel Department is in Schoenau near Chemnitz. A card file is kept in this department of all Soviets employed in the entire Wismut area. Records of the German workers employed in /the subordinate units of/ the Main Administration are kept by a subdivision of this personnel department. This subdivision is set up like the personnel departments of the individual Objekts.

The Department for Blasting Techniques supervises the individual Objekts with regard to blasting work both underground and aboveground. It is responsible for determination of firing coefficients, safety measures, drilling of holes for charges, procurement and distribution of explosives, and construction of storage bunkers for explosives.

The Department for the Prevention of Mine Accidents has the following subordinate units:

Safety Commission -- Accident Investigation Commission.

Work Inspection Unit.

Accident Prevention Commission.

Rescue and Salvage Unit.

Department for Social and Cultural Welfare.

Social Security Fund and Medical Welfare Department for the workers Recuperation centers, cultural centers, etc., of the SVK (Social Insurance Finance Office) Wismut (cultural center in Siegmar-Schoenau).

The Main Fire Station is in Chemnitz. Each Objekt except Objekt 12 has its own fire extinguishing unit. The Main Fire Station supervises the units at the individual Objekts and trains fire-brigade personnel.

The Department for Technical Training is responsible for training and organization of the ITP Management of the Mining School in Freiberg and conducts technical training on a mass scale, to provide for specialization in all operations and to achieve higher production. It also manages mining preparatory schools, such as those in Breitenbrunn and Annaberg.

The Political Department for Security cooperates with the liaison officers of MVD Soviet (Ministry of Internal Affairs). It is responsible for guarding installations and constructing large army installations. It maintains liaison with the SED (Socialist Unity Party), the FDJ (Free German Youth), the FDGB (League of Free German Trade Unions), and the DSF (German-Soviet Friendship Society). It has subordinate units for "Propaganda," "Agitation," "Culture," and "Organization." The purpose of the department is the political orientation of both the mine workers and the ITP. Political indoctrination classes for Soviet citizens are held weekly in the Main Administration and in all Objekts; every Soviet citizen must attend.

Buildings, new living quarters for mine workers, dining halls, etc., are built by the Construction Section of Objekt 16. For example, billets housing 7,000 miners were built in Rabenberg near Johanngeorgenstadt, and other large units in Neuoberhaus, Schwarzenberg, Annaberg, Oberschlema, Eibenstock, Erla, and Gruenstaedtel. The head of the Storage and Billeting Administration is Colonel Yershov, in Breitenbrunn.

As already mentioned, only Soviets work in the main departments of the Main Administration. Germans are employed only in the subdivisions of these main departments.

III. METHODS OF MINING PITCHBLENDE AND TORBERNITE IN THE AUE AND ANNABERG REGION OF THE ERZGEBIRGE

Until 1 April 1951, the method of mining uranium ore in the Wismut Corporation was based on a "russified" adaptation of the Freiberg technique for mining lead-ore seams. Of course, it was never possible to follow the Freiberg

plan completely. The lack of trained workers and the poor morale of the miners never permitted normal, efficiently organized work. On the contrary, it appears that, in spite of the increase in specialization, production is not rising but is decreasing.

According to the most recent directives, dated 1 April 1951, issued by General Maltsev, Director of the Wismut Corporation, the following mining methods had to be introduced:

Deposits (ore veins) of pitchblende and torbernite (uranite), located on the basis of geological and radiometric-geophysical principles, are to be mined by the two following methods:

1. Exposure of the ore by blasting.

2. Exposure and recovery of ore by means of chipping hammers, without blasting.

If the pitchblende is located between very firm rock, the face is first of all inspected at radioactive spots by the radiometrists of the shaft in question. This is done twice in each shift. In this way, every meter of material excavated in every shaft during every shift is systematically examined for radioactivity. The inspection is made with hand-operated radiometric devices operating on the principle of the Geiger-Mueller counter, i.e., emanation instruments, in which the ionized air serves as the medium for alpha or beta rays, or with instruments which capture the electrons of direct gamma radiation. The instruments have been improved by Chochoshkin, a Soviet, but have not been changed in basic principle. The instrument used the most is Type PP 5/1950 and 1951. The instrument operates with an anode and a cathode battery for heating (60-80 volts), a Nakal lamp, and the counter tube. The instrument can be used in continuous operation for 3 days. Detection is indicated on a scale in microamperes, at a voltage of about 60 volts. Condensers prevent interference by other rays.

German and Soviet radiometrists cooperate in conducting radiometric explorations of the field. They have absolutely no technical knowledge of the detection operation or the way in which the instrument operates. They are knowledgeable only in the technique of operating the instrument. Detection is registered through a telephone-like impulse, which reacts on a carbon plate through a diaphragm. Moving the instrument slowly, the radiometrist checks every square centimeter of the face with a T-shaped tube 1.1 meters long which is attached to a hose 1.5 meters long which contains the cable connecting the instrument with the counter tube. If the steady pulse of the instrument changes to a long, sustained crackling, this is a sign that there must be a radioactive spot in the immediate vicinity. The detection range of the instrument is 45 centimeters on the average. The radiometrist can then read the relative intensity of radioactivity in microamperes on the microammeter. After all radioactive points on the face have been located, they are indicated by blue and white markings. If they are located directly at the face, they are immediately exposed and removed. The Soviet radiometrist determines how the ore is to be removed In every case, an expert hewer must remove the ore with a pneumatic hammer (pneumatic pick). The Soviet radiometrist is present during this procedure At the bottom of the face, a cover is spread out (a canvas about 2 square meters in area), with boards placed under it. The ore drops onto this cover, and the Soviet radiometrist then roughly sorts it, piece by piece, with his instrument, according to the strength of radioactivity, and packs it into sheet-metal crates. The crates are then transported to the ore bin, from where they are taken in trucks to the ore crusher. The low-grade ore is loaded into mine cars, and is also transported to the ore crusher by truck, but not in crates.

Vein samples are taken by Soviet specialists from every other square meter of material. Every sample must weigh 5 kilograms and must be packed in a special wooden crate. These samples go to the small Breitenbrunn ore crusher, where they are subjected to chemical analysis to determine the percentage content of the veins in question. The samples are also given a radiometric-geophysical test. The ore content is kept a strict secret (it runs about 2 percent in Breitenbrunn). The figures vary considerably from time to time.

The low-grade ore is transported by truck to the ore crusher or to the so-called ore dump at the Breitenbrunn railroad station. There it is loaded into freight cars and shipped to the ore crusher in Tannenbergsthal/Vogtland, for dressing. All the other ore-mining Objekts of the Wismut Corporation also deliver their low-grade ore to Tannenbergsthal.

There is a repair shop for radiometric and geophysical apparatuses in Breitenbrunn. This department also conducts special radiometric and geochemical analyses. Only Soviets are permitted in this workshop.

The other ores obtained in connection with the mining of uranium ore by the Wismut Corporation, such as bismuth, galena, cobalt, and pyrite, are disregarded and thrown onto the waste dump. For example, the waste dump at Shaft 51, Objekt 1, in Johanngeorgenstadt, would still be worth exploiting for cobaltite and other compounds. Also, the dump at Shaft 248, Objekt 8, could be exploited later, since it contains smeltable pyrite and other sulfides. The same is true of the "Ritter" Shaft of Objekt 14 and of Objekt 2 in Oberschlema, which contain tungsten ore in small quantities, manganese ore, and cobalt ore. In Johanngeorgenstadt, some waste dumps, for instance at the "Frisch Glueck" and "Weisse Taube" shafts, contain large quantities of bismuth ore.

A magnetic ore-separating apparatus is used to sort out the ore-bearing rock from the barren rock. This apparatus has a built-in PR-5 /Geiger counter/ which, as soon as radioactive rock passes onto the conveyer belt, sends out a magnetic impulse controlling a movable separating wall. This is the first rough separation of radioactive ore from the rest of the rock.

IV. PLANNING AND MINE-OPENING WORK

A. Opening of New Uranium-Ore Deposits

In 1950, a group of geologists and physicists at the Wismut Corporation were directed to explore the Oelsnitz-Radiumbad-Brambach-Adorf-Bad Elster area. Exploration activities were concluded in August 1951. Because of the relatively good results, the project for opening up and exploiting mines in this area is now reportedly being worked out.

Another area under exploration is the area near Wernigerode in the Harz Mountains. The exploratory work, however, has not yet been completed. The Plauen area near Dresden was also explored during 1951, and the results were positive. Two new Objekts will be opened up in this area. The main exploratory work of the Wismut Corporation is still being done in the area around Breitenbrunn (Projekt 338) and Aue. Large-scale explorations are also being undertaken in Fichtelberg and Eibenstock areas. At the beginning of 1951, Objekt 2 in Oberschlema was transferred, one section to Wernigerode, one to Eibenstock, and another to Vogtland. The same was true of the Annaberg shaft area; installations were transferred to Objekts 8 and 12 in Breitenbrunn, and to Eibenstock, Neudorf, and Oberwiesenthal. As before, Projekt 338, with its extension, Aue-Lauter-Schneeberg, is still the most important section in the Wismut Corporation.

B. Planning and Working Out of New Projects

1. Projekt 338: Joachimstal-Halbmeile-Lauter-Ane-Schneeberg main range of uranium ore veins. (Relationship to siliceous-blende lead-ore formation.)

2. Projekt II. Ane-Eibenstock. Executed by Objekt 14. The best-known, and at present the only, German shaft director in the Wismut Corporation is Sepp Wenig, a National Prize winner. Schulz was another German shaft director, but his present whereabouts are unknown.

V. PROJEKT 338 -- THE JOACHIMSTAL RANGE OF VEINS

A. Introduction

As already mentioned, the planning office for Projekt 388 was in Platten Work on this Projekt began in August 1950. Six months later, on 1 February 1951, the first proposal for the Projekt was approved, and systematic work was begun. Chief participants in the preparation of this Projekt were:

1. Dr Peter Losovev, geologist, director of planning operations, who has over-all responsibility for the Projekt.

2. Vasiliy Korrostin, planning engineer, of Objekt 8, expert in [charge of] planning technical mining operations.

3. Ivan Selyuk, geophysicist, of Objekt 1, Johanngeorgenstadt, specialist in [charge of] radiometrics.

4. Vanya Ermakov, shaft director, technical consultant and responsible for drafting cost estimates.

5. Nikolay Kotelnikov, geologist of Objekt 8, expert in geochemical explorations and responsible official for preparation of plans. Cooperating with him in this work was Luminarskiy, surveying engineer.

6. Iothar Schenk, engineer-geologist, [in charge of] preparation of the stratigraphic projects and over-all planning.

B. Planning and Preliminary Work

The main purpose of Projekt 338 was to exploit the continuation of the Joachimstal range of uranium-ore veins. Since the general strike-direction of the ore veins is at about 335 degrees, this would run as follows: Joachimstal-Seifen-Goldenhoehe-Halbmeile (beginning of the German area) -Breitenbrunn, Rittersgruen-Erla-Neuwelt (Schwarzenberg) -Beierfeld-Lauter-Niederschlema and Oberschlema. This line constitutes the so-called central axis of the range of uranium-ore veins, on which the entire project is constructed.

The main starting point was the Werner Shaft in Joachimstal, in which all geochemical analyses were made which were necessary for the Projekt (microscopic examinations of thin sections of rock, uranium contact zones, special ore formations, etc.)

The following also gave important indications of uranium ore: the Johanngeorgenstadt vein area ("Schaar" Shaft and "Frisch Glueck" Shaft), the old St. Christoph mine in Breitenbrunn, the St. Fortuna fluorite mine near Breitenbrunn (in operation until 1945), and the Schneeberg and Radiumbad-Oberschlema mines opened up for mining bismuth and silver ore.

The entire project is planned to extend over a period of 5 years that is, until 1956. Stage 1 of the project provides that the oxidation zone of the area must be opened up by 1953; that is, excavation work must be completed to a depth of 80 meters. In 1953, the deep excavating work, as far as the granite formation, is to begin.

The following central shafts were constructed for deep excavations: Shaft 338, Halbmeile (55 L/92 B-meridian coordinate); Shaft 235, Anthonstal; Shaft 322, Erla; and Shaft 333, Bermsgruen.

These shafts are included in the first section. This partial project (from Halbmeile to Schwarzenberg) was already completed in May 1951.

C. Legend to Overlay for General Staff Map, Page 113, Reg. 50 201 D

/Although the map is not included the legend is reproduced here because it contains information on the location of shafts and other installations./

Main red line (connecting line) shows general strike direction and main axis of the uranium-ore deposits. Other red lines show parallel veins (range of veins). Numbers indicate the following installations:

1. Central Shaft 235.
2. Shaft 248, Objekt 8, Anthonstal.
3. Shaft 322, Objekt 12, Erla.
4. Shaft 98, Objekts 8 and 12, Erla.
5. Shaft 332, Objekt 12, Anthonstal.
6. Shaft 333, Objekt 12, Bermsgruen.
7. Shafts 306, 307, Objekt 12, Poella.
8. Shaft 257, Objekts 8 and 12, Raschau.
9. Hospital of the Wismut Corporation, Objekt 8 (600 beds).
10. Shaft 308, Crandorf.
11. Main transformer station of the Wismut Corporation, Niederglobenstein.
12. Shaft area 206, Objekt 8, Rittersgruen.
13. Shaft 206, Objekt 12, Rittersgruen.
14. Shaft 23, Objekt 8, Margaretha, out of operation.
15. Breitenhof ore crusher, in the vicinity of the Breitenbrunn railroad station; Objekt 8; next to it is the main warehouse of Objekts 8 and 12.
16. Erlabrunn transformer station in the Oberspree Transformer Station network.
17. Largest hospital of the Wismut Corporation, completed in June 1951; has 2,100 beds, contagious disease ward, and mountain recuperation center.
18. Shaft 336, Objekts 8 and 12, shaft area 336. Halbmeile ore deposit. The discoverer was Weidauer, senior mine inspector.

19. Shaft 337, Objekt 12, Halbmeile.

20. Shaft 338, Projekt 338, Halbmeile.

21. Shafts 253 and 279 (Stalin Shaft), Objekts 8 and 12, Breitenbrunn.

22. Shaft 126, Objekt 8, Rabenberg.

23. Shaft area 204, Rabenberg mining camp; also shaft 245.

24. Shaft 87; main transformer station of Power District East, Johanngeorgenstadt; Objekt 8; shaft area 164 and 87.

25. Himmelfahrt Shaft, Objekt 10, Riesenberg.

26. Johanngeorgenstadt-Neuoberhaus shaft area, Objekts 1, 8, 10, and formerly also 12; mining camp.

27. Hammergut-Beirfeld shaft area, Objekt 14.

28. Shaft area: Schneeberg-Neustadtel, Ritterschacht, Schrotschacht am Muehlberg, Neujahr, Michaelismassen, Wolfgangmassen, Filzteich, etc.; Objekt 2.

29. Oberschlema and Niederschlema shaft area with ore crusher, transformer stations, and hospital; Objekt 2.

30. Werner Shaft, Joachimstal.

31. Seifen shaft area.

32. Poehla shaft area, Neusilberhoffnung; belongs to Shaft 306, Objekt 8, but does not belong to Projekt 338.

33. Oberschlema-Langenbach area being explored by the Wismut Corporation.

34. Unterer Hengst shaft area, Joachimstal.

35. Weisse Taube shaft area, Johanngeorgenstadt-Jugel, Objekts 1 and 10.

36. Annaberg shaft area, lead mine, Objekt 114.

37. Rothersehma shaft area.

38. Fichtelberg-Oberwieser Aal shaft area.

39. Neudorf shaft area and Objekt 14 exploration area.

40. Rittersgruen-Ehrenzipfel shaft area, Objekts 8 and 12; does not come under Projekt 338 directly.

D. Organizational Structure of Projekt 338 in the Breitenbrunn-Johanngeorgenstadt Area: Objekts 8, 12, and 1

1. Shaft 98, Objekts 8 and 12

The administration is in Tannenbaum, between Antonstal and Erla/Erzgebirge. The shaft has been in existence since 1947, and was constructed over an old pyrite shaft from the 19th century. Shaft 98 is 98 meters deep. Two elevators are used in mining operations.

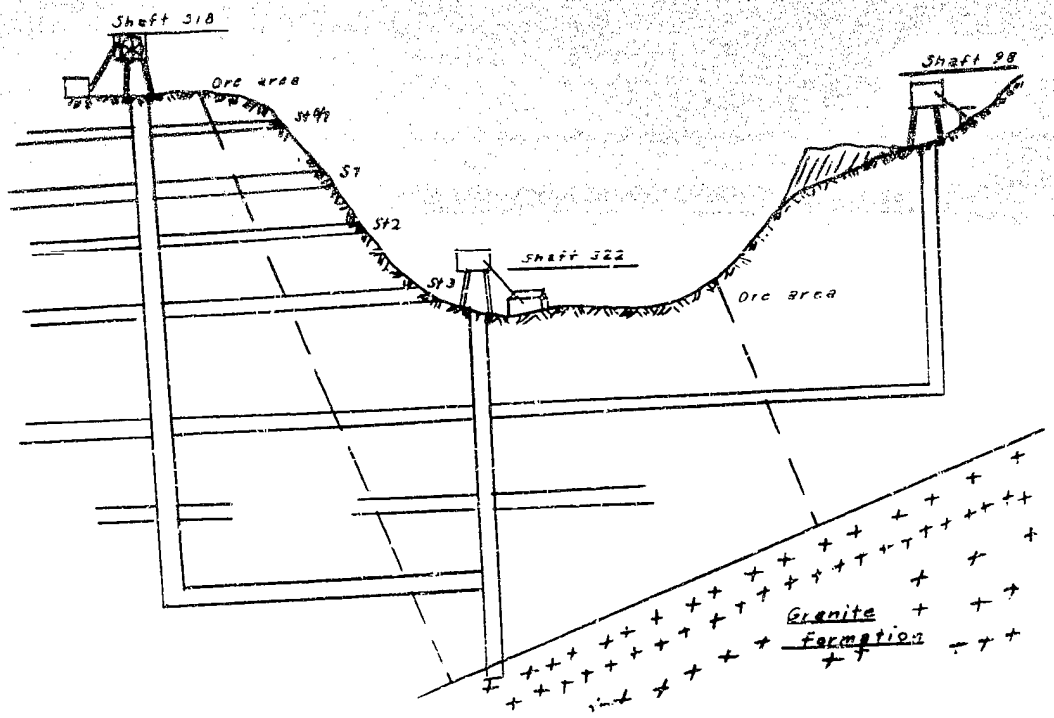
Shaft Area 98 comprises Shafts 98, 318, and 322. With a labor force of 2,350 (as of July 1951), the area is the largest shaft of Objekt 8. Up to now, the shaft's greatest yield of uranium ore has been in the area of Breitenbrunn. The Soviet chief engineer is Zakharov. The interpreter, Weidmann (Erich?), was formerly a political camp leader in the USSR, prior to which he was a German army officer. He is now a zealous SED (Socialist Unity Party) member. The German assistant shaft director is Reissmann. Until June 1951, the chief geologist was Koshatkov, a Soviet. Dr Peter Losovev, a Soviet geologist, was in charge of the construction of the shaft itself.

The June 1951 ore-output quota of the shaft area amounted to 3,200 kilograms of 65-percent pitchblende or uranium mica. From January to June 1951, this plan was about 95 percent fulfilled. The shaft area is divided into six levels with a total of 204 headings. The central shaft for this area is Shaft 318; according to the plan, it is to be excavated to a depth of 362 meters, and will have a total of eight levels.

Shaft 322 is to sunk to the granite formation. According to the plan, this would be a depth of about 280 meters, so that the total vertical exploratory excavation /in Shafts 318 and 322?/ would amount to about 460 meters. Both shafts /318 and 322?/ are in four sections, with a cross-sectional area of 24 square meters, and four or five elevators. The elevator frames are of steel construction, and are a combination of German and English design.

Shaft Area 98 belongs to Shaft Combine 335. The excavation work in Shafts 318 and 322 is being carried out by Objekt 12, as is the work on the main headings (drifts without ore yield). The deepening of both shafts is scheduled for completion by 20 February 1952. Objekt 12 had a labor force of approximately 400 employed in these two shafts.

The following is a cross-sectional view of Shaft Area 98, Metallurgical Combine 335 (sketch shows west-east cut):



2. Shafts 306, 307, 308, Poehla

The main administration of these shafts, Objekt 8, is located in the so-called "Schaeferhaus" (Shepherd's House) near Poehla. Shafts 306, 307, and 308 employ a labor force of about 900 men. Sinking of the shafts is still under way. The depths of Shafts 306, 307, and 308 are 130, 160, and 132 meters, respectively. The average scheduled ore output for this area amounts to 350 kilograms of uranite [per month?]. Each of these three shafts is surrounded by a restricted zone, which is under heavy guard. Objekt 12 is in charge of excavation work at these shafts, also, and has a labor force of 210 men in this area.

Until February 1951, the shaft director of this area was Viktor Studenov, a Soviet engineer. The shaft geologist working for the German administration is a Hungarian named Viktor Veroe. Geologically, this area shows little prospect of any significant ore yield.

3. Shaft 257, Raschau, Objekts 8 and 12

Shaft 257 is 87 meters deep. Most of the mining in the shaft area is in galleries. In March 1951, three additional shafts were constructed in this area by Objekt 12. The personnel strength [of Objekt 12?] in this area is about 700. The June ore output quota for Shaft 257 was about 230 kilograms of pitchblende. In Shaft 253 [sic], the oxidation zone is still being opened up.

4. Shaft 206, Rittersgruen, Objekt 12

The main administration for Shaft 206 is in Breitenplatz near Rittersgruen. The shaft is 180 meters deep, but it is planned to sink it to a depth of 390 meters. Objekt 12 employs a labor force of 560 in this shaft.

5. Shaft Area 206, Objekt 8

This area has the largest number of galleries being opened in the Poehla valley. Every 200 meters there is one gallery with an average length of 800-1,000 meters. There are a number of connections to Shafts 98, 306, and 248 in the Schwarzwasser valley. In the whole Poehla valley, there are 44 galleries in operation, each with a cross-sectional area of 4 square meters. The ore yield is good. The June ore output quota amounted to 1,200 kilograms. In August 1951, the shaft director was Mirushkin, a Soviet.

6. Shaft 235, Objekts 8 and 12

Shaft 235 is the central shaft of Shaft Combine 235. The main administration is in Anthonstal. The following shafts belong to Shaft Combine 235: 235, 98, 248, 333, 206, 332, 23 (Objekts 8 and 12).

With its modern Swedish steel construction, an installation for two huge turbocompressors, and a crude-ore screener with a bridge conveyer, Shaft 235 is the best and most modern shaft in the Wismut Corporation. The shaft has six sections and six elevators, and there is also an additional haulage shaft for materials. This shaft, on the floor of the valley, is also to be excavated to the granite formation, which is estimated to be at a depth of 460 meters. The shaft area's oxidation zone, which is rich in ore, has already been completely exhausted. By "oxidation zone" is meant an ore-concentration zone which, on the average, extends to a depth of 60 meters. The shaft is designated as "Weisser Hirsch." Objekts 8 and 12 together employ a labor force of approximately 900 men in the shaft. The capital investment in this shaft area amounts to 52,600,000 East marks. The shaft's ore yield is estimated at about 700 kilograms per month.

7. Shaft Area 248, Objekt 8

The shaft director is Mironenko, and the chief geologist is Strelnikov. The mine foreman is Werner Roscher, the assistant to the shaft director, Eugen Hausmann. The first two are Soviets and the last two are Germans.

Characteristic of Shaft 248, as of Shaft 235, are the pyramid-shaped waste dumps (Skip-Pyramidenkegelhalden). Two huge waste piles rise from the valley in Anthonstal near Shaft 248.

According to plan, Shaft 248, which is now 78 meters deep, is to be excavated to a depth of 194 meters. The ore yield in this shaft is very good; in July 1951, the ore output plan amounted to 2,150 kilograms of pitchblende, and was over 100 percent fulfilled. A labor force of about 1,100 is employed in Shaft 248. The shaft area has two haulage shafts, and Shaft 248, which has three sections, serves as the main haulage installation. According to my geological-stratigraphic survey, there must still be a large ore deposit at a reasonable depth in this area.

Mironenko, the shaft director, is very cunning and knows how to exploit workers to the limit. His closest co-worker is Werner Roscher. Because Mironenko is on such close terms with Roscher, he will probably soon be sent on "leave" by the political officer.

8. Shafts 332 and 333, Objekt 12

These shafts do not yet have ore-output quotas; they have the task of opening up the northwest side of the Schwarzwasser valley. According to the plan, they are both to be excavated to a depth of 120 meters. The director of these two shafts is Vanya Ermakov.

Shaft 332 is located northwest of Anthonstal, and Shaft 333 is southwest of Bermsgruen. The two shafts are to be connected at the 60-meter level. The cross-sectional area of each of these shafts is 17 square meters, and they each have two sections and two elevators. Elevator frames of steel construction are to be installed in both of the shafts.

9. Shaft 23, Margarethe-Breitenbrunn

This shaft has been closed down since 1 February 1951; the shaft management was shifted to Shaft 336. The ore yield was poor; from 1947 to 1951, the total ore output amounted to only 478 kilograms. The capital invested in Shaft 23 amounted to 48 million East marks. In recent months, the shaft installation has been dismantled; it is the first shaft operation which has been closed down in this area.

The shaft director in this area was Aleksey Steponenko, a Soviet, who left in August 1951 to take leave in Arkhangelsk.

The main machine shop of Objekt 8 is still located in this area, at Breitenbrunn, St. Christoph.

10. Shaft 253, Breitenbrunn, Objekts 8 and 12

Until February 1951, the director of Shaft 253 was Mironenko; from February to May 1951, Steponenko; from May to June 1951, Dublisher; and since June 1951, Litkin. The position of Chief geologist was held by Nikolay Dublisher until February 1951, after that, by Yura Voronov. (All the men mentioned are Soviets.)

The total ore yield up to June 1951 amounted to 9,780 kilograms of 65-percent uranium ore. Shaft 253 constitutes Shaft Combine 338. The two central shafts are 253 and 279, which are situated only 400 meters apart. They are main haulage shafts, with cross-sectional areas of 17 and 20 square meters, respectively. Shaft 253 is in two sections and has three levels; it is approximately 270 meters deep. According to plan, this shaft is also to be excavated to the granite formation, which, according to reliable estimates, would be at a depth of 330 meters. Objekt 12 is in charge of sinking the shaft. Shaft 279, known as the Stalin Shaft, is 132 meters deep, including the sump No further excavation work will be done in this shaft. The director for the shafts from Objekt 12 is Ermakov. Shaft 279 has four sections and elevators which are installed one above the other. The two shafts are connected with one another at the first level.

Shaft 279, a large reserve shaft, belongs to Shaft Area 253, and its director is, therefore, also Litkin. This shaft has no ore output quota. Objekt 8, employs a labor force of 900 in Shaft Area 253 Objekt 12 employs 340 men in this area.

There are still very good prospects for ore yields in this region The ore output quota amounts to 850 kilograms of uranite monthly (pitchblende and torbernite)

11. Shaft 336, Halbmeile, Objekts 8 and 12

Shaft director: Yaykov; senior geologist (Obergeologe): Kuzminich; chief geologist (Chefgeologe): Yuriy Voronov.

Shaft 336 is 92 meters deep (as of 1 August 1951), has a cross-sectional area of 22 square meters, and has two sections. According to plan, this shaft is to be excavated to a depth of 280 meters. A labor force of about 800 is employed. At present, the oxidation zone is being opened up. The ore yield is very good in this area, which is known within the Wismut Corporation as the "ore field." Since this area directly adjoins the Joachimstal vein region, a very large ore yield can be counted on.

12. Shafts 337 and 338, Halbmeile, Objekt 12

Both shafts are located directly on the Czechoslovak border. The designation "Projekt 338" has been derived from Shaft 338, which is located next to the Joachimstal vein region. The cross-sectional area of Shaft 338 is 24 square meters, and its depth, as of 1 August 1951, was 67 meters. According to plan, this shaft is to be excavated to a depth of 143 meters by 1 January 1952. Objekt 12 employs a labor force of about 90 men in this shaft.

Shaft 337 is to be a connecting and main hauling shaft. Its cross-sectional area is 24 square meters, and it is being built with four sections. The shaft is about 80 meters deep, a labor force of 140 men is employed.

According to plan, this shaft is to be excavated to the granite formation, which, according to geological calculation, would be at a depth of about 400 meters.

Shafts 337 and 338 belong to Shaft Area 336. In June 1951, the ore-output quota for this area in June 1951 was 1,850 kilograms, and was fulfilled 206 percent.

13. Shaft 126, Rabenberg near Johanngeorgenstadt, Objekt 8

The shaft has two sections, is 120 meters in depth, and has a cross-sectional area of 12 square meters; it serves more or less as an exploratory shaft. The chief geologist of this shaft is now the chief geologist of Objekt 8.

With a labor force of about 450 men, the shaft has an ore-output quota of 230 kilograms per month, which is always fulfilled. As a result of the work of a good Soviet engineer, the shaft is very well organized.

14. Shaft 204, Rabenberg, Objekt 8

The shaft area has a single hauling shaft with a cross-sectional area of 12 square meters. The shaft is in one section and has a double elevator; it is 95 meters deep, with two levels. A labor force of 1,000 is employed. The man who conducts liaison for the German administration in this area (between Shafts 204 and 253-338) is Eduard Kotowski, who is of Polish-German origin and speaks Russian fluently. Kotowski is an assistant to the shaft director in the German administration of Area 253. Shaft 204's July 1951 ore-output quota amounted to 280 kilograms of 65-percent pitchblende.

15. Shaft 87, Johanngeorgenstadt, Objekt 8

Shaft 87 is 180 meters deep, and has a cross-sectional area of 17 square meters; it is in two sections. The labor force numbers about 1,100 men. Shaft 87 is one of the oldest shafts within Objekt 8, and practically all potential ore areas have now been opened up. The mining project is now in its last stage. In July 1951, the ore-output quota amounted to 650 kilograms.

16. Shaft 164, Johanngeorgenstadt, Objekts 8 and 12

Shaft 164 is one of the largest shafts in Objekt 8, and employs the largest labor force, 2,400 men (including Objekt 12's labor force). In July 1951, the shaft's ore output plan was 2,600 kilograms, and was approximately 90 percent fulfilled.

Shaft 164 is 240 meters deep, and there are three large hauling shafts in the area. Probably all the pitchblende will have been exploited by May 1952. Shaft 245, in which production was stopped in May 1951, is in the immediate vicinity. Shafts 87, 245, 204, and 162 are connected to one another underground

All shafts belonging to Objekt 8 have been enumerated above. In addition, there are the exploratory shafts of the field geological department of Objekt 8, under the management of senior inspector (Bergrat) Weidauer.

VI. LIAISON AND COOPERATION BETWEEN THE WISMUT CORPORATION AND THE JOACHIMSTAL MINING COMPANY (CZECHOSLOVAK PEOPLE-OWNED ENTERPRISE SV. JACHYMOV)

Official cooperation between the two companies exists only in connection with the supply of power via Objekt 144. However, a large number of Soviet mining technicians are also stationed in Joachimstal.

Cooperation with Joachimstal is absolutely essential for the construction of Projekt 338, since geological coordination would otherwise be impossible. Such cooperation actually does exist, through the separate headquarters in Platten.

There are no underground connections between shaft areas located close to the Czechoslovak border (neither in Johanngeorgenstadt, Halbmeile, Ehrenzipfel, nor the Fichtelberg area).

In Shaft 51, Johanngeorgenstadt, the prohibited border zone was encountered at the 85-meter level. By order of the security officer, the gallery had to be walled up with concrete and a boundary marker set up. This is in conformity with the existing regulations and laws concerning prospecting rights.

50X1-HUM

There is contact with Pribram via Platten. The Soviet engineers work very closely with the Czechoslovak mining technicians (Stoces). The Geological Institute in Pribram supplies expert appraisals of the ore deposits in Czechoslovakia, particularly in the Joachimstal vein region.

With respect to the above, see the descriptions of Projekt 338. The general strike direction of the ore-vein formation is 332-334 degrees, with an inclination of about 60 degrees to the southwest.

VII. LEADING PERSONALITIES IN THE WISMUT CORPORATION

1. Fedya Nikolayevich Astakhov, lieutenant-colonel, engineer-geologist, Stalin Prize winner, leading engineer of the ZGO (Central Geological Department) of the Wismut Corporation. In August 1950, he was suddenly sent back to the USSR He usually wore the uniform of the Soviet geologists (dark blue), but on special occasions he could be seen in the uniform of a lieutenant-colonel in the Soviet Air Force. He was very civil to the Germans.

50X1-HUM

2. Professor Doctor Leutwein, head of the Freiberg Mining Academy, old scholar from Freiburg /Breisgau/. He is very reserved in his relations with the Soviets He and Schenk, engineer-geologist, worked together on the preparation of reports concerning uranium-ore deposits in the Upper Erzgebirge vein region.

50X1-HUM

3. Dr Peter Ivanovich Losovev, geologist, with the rank of major in the Soviet Army, Stalin Prize winner, director of Projekt 338. In 1949, he was in charge of construction of Shafts 98 and 235, Objekt 8. Losovev is very knowledgeable on technical mining operations. When the Wismut Corporation was first established, he was appointed the leading planning engineer, but was recalled soon thereafter.

50X1-HUM

4. Nikolay Nikolayevich Kotelnikov, chief geologist of Objekt 8, expert on geochemical analyses and on the drafting work for Projekt 338. A Stalin Prize winner, he exerts a great deal of influence on General Maltsev, the director general of the Wismut Corporation. Kotelnikov is very popular with the Germans.

50X1-HUM

5. Ivan Fedorovich Selyuk, agent for the Planning Commission and liaison engineer, who represents the Wismut Corporation at the Leningrad Geophysical Institute.

50X1-HUM

6. Stoces, Czechoslovak researcher and geologist, liaison man for Joachimstal. He had the job of preparing geological reports on Joachimstal. Geological Research Institute in Pribram, Czechoslovakia.

7. Vanya Ermakov, director of Shafts 253, 279, 333, 332 322, 318, 235, Objekt 12. Technical adviser for the establishment of cost accounting in Projekt 338.

50X1-HUM

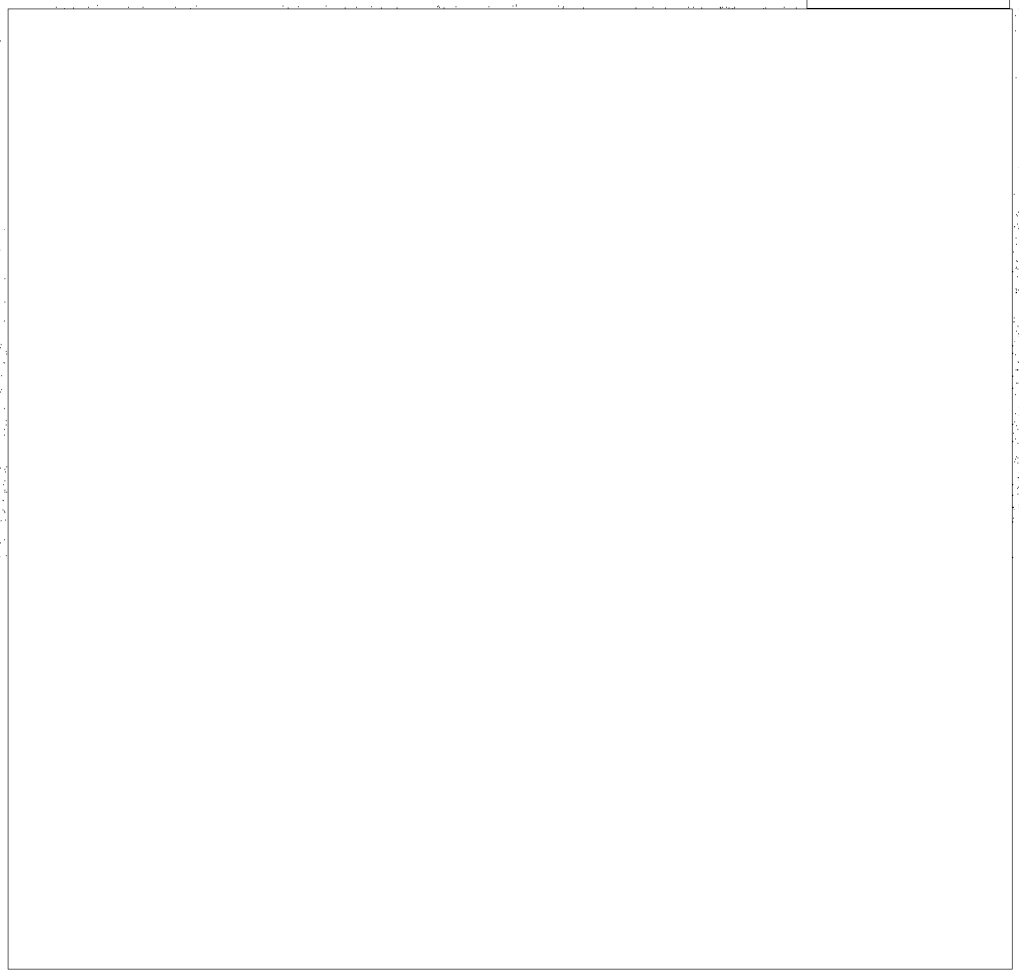
8. General Putmannov, leader of the first Soviet expedition to Johanngeorgenstadt.

9. General Shukov, vice-chairman of the first Wismut expedition.

10. General Maltsev, director general of the Wismut Corporation; about 62 years of age; bald; usually wears civilian clothes.

50X1-HUM

Sanitized Copy Approved for Release 2011/07/14 : CIA-RDP80-00809A000600150127-4



VIII. OBJEKT 8

A. Organization and Leading Personalities

1. Establishment

Objekt 8 was organized in Breitenbrunn in May 1947, and its first shaft was the Margarethe Shaft (Shaft 23) in Breitenbrunn. The German mine foreman at this shaft was Walter Heinrich, who had been employed as a mine foreman at St. Christoph during the war. Heinrich is a very frank person. He knows the Wismut Corporation from beginning to end, and has a good general idea of the technical mining processes in the area. The Soviet shaft director was Stepanenko.

The Margarethe Shaft belongs to the St. Christoph-Breitenbrunn vein region. Until the war, Christophit (zinc blende) and arsenopyrite were mined here. Opening up of this shaft was begun in autumn 1946. The shaft was again closed down in spring 1951. The ore yield was moderate.

2. Main Administration

/Essentially, information given in this paragraph duplicates that given above under "Leading Personalities of the Wismut Corporation." The following additional facts are given: Chief Engineer Maurin was the technical director of Objekt 8; Nekrasov was security officer for Objekt 8 as well as for Projekt 338; Savin and Kotelnikov, the director and chief geologist, respectively, went on leave in August 1951./

Objekt 8 has the following departments: Field Geological Department; Topographic Department; Radiometric-Geophysical Department; Geochemical Experimental Laboratory; Main Mine-Surveying Department; Ore Crusher-Ore Laboratory; Main Geological Department; Main Machine Department; Norms Department, Bookkeeping Department, Personnel Department, Billeting Administration; Work-Inspection Department, Breitenbrunn Preparatory School for Mining; Main Fire Station-Fire Brigade; Department for Deep Core-Boring (Tief-Kernbohrung); Construction Department-Transportation Department.

The following are notes on the above departments:

The main task of the Field Geological Department (AGA) is to reopen and explore the exceedingly large number of old shafts (from the 18th and 19th centuries). In addition, this department does exploratory drilling (prospecting), builds trenches and shafts for prospecting, and examines old waste dumps. It employs about 650 workers. At present, this department is in charge of opening up the area around Anthonstal-Bermsgruen-Jaegerhaus.

The Topographic Department determines the topographic coordinate-grid system for radiometric explorations.

The Radiometric-Geophysical Department examines the terrain with emanation instruments (atmospheric ionization). The Topographic Department marks off the terrain in terms of coordinates; then, on the basis of this coordinate-grid system, the geophysicists conduct soil tests (radiometric) every 5 meters. The air in the soil is removed by means of a pneumatic pump, and is conducted over calcium chloride to dry it. One can then read off the effective radiation from the scale on the emanometer. The radius of action of the instrument is about 3 meters. (This examination is not possible when the ground is wet.) The geophysicists then enter on a chart the values obtained, and the over-all result is determined in the Objekt /headquarters/ from these charts.

The Radiometric-Geophysical Department employs about 160 geophysicists and a number of Soviet soldiers who, together with the Germans, perform the examinations. Nankin, a Soviet, was one of the engineers in the /Radiometric/ Geophysical Department.

The Geochemical Experimental Laboratory is located in the Main Administration. It conducts geological and geochemical field examinations and also hydrogeological examinations. Only Soviets work in this laboratory.

The Main Mine-Surveying Department records or performs all technical surveying projects in the entire area, including /those handled by/ Objekt 12. The Topographic Department is indirectly subordinate to it. Until August 1951, the chief mine surveyor was Luminarskiy; he went on leave that month.

The Main Geological Department in Breitenbrunn is the planning department for the Objekt and for Stage 1 of Projekt 338. The director of the geological drafting section was a woman geologist, Dublisheva. Another woman geologist, Luminarskiya, made petrographic examinations of rock (microscopic).

The Main Geological Department employs 26 Soviet geologists, both male and female, including some very good specialists. Each geologist has one shaft area to open up.

Main Machine Department: The main machine shop is located in the former St. Christoph-Vitriolhuette mine, and employs about 70 workers. The shop is equipped with very good machinery. The main warehouse is at the Breitenbrunn railroad station, which is also the location of a huge potato bunker for the Wismut trade /Trade Organization?/. Each shaft has its own machine shop and forge. An electrical machine shop is also available at most of the shafts.

Norms Department, Bookkeeping Department, Personnel Department, Billeting Administration: Until June 1951, the norms engineer was Arkhangelskaya, a Soviet woman. Particularly large camps for mine workers were erected in Rabenberg near Johanngeorgenstadt, in Anthonshoehe near Anthonstal, in Gruenstaedtel, and in Neuoberhaus. Each of these camps accommodates 3,000-5,000 mine workers.

The Work Inspection Department has German employees. Fritzsche, the work inspector, is in charge, and Erber, the Objekt foreman, is also employed by this department. The main task of this department is to inspect the shaft area for the purpose of preventing accidents.

The director of the Breitenbrunn Preparatory School for Mining is Hans Biala. The school trains machinists, elevator mechanics, hewers, and other mining specialists. In addition, the ITP are trained here, and mining inspectors, etc., are given advanced training. The Breitenbrunn Preparatory School for Mining is connected with the Freiberg Mining Academy.

Main Fire Station-Fire Brigade. The fire-brigade detachment is stationed in St. Christoph, Breitenbrunn, and consists of about 170 men. The crew is very well trained. In addition, Objekt 8 has its own police unit, which belongs to the People's Police. A State Security Service unit and a Criminal Police unit are also located in Breitenbrunn.

Department for Deep Core-Boring: The department for vertical and horizontal core-boring actually constitutes a Main Department of the Main Geological Department of the Wismut Corporation's Main Administration. However, Objekt 8 has a permanent drilling department and also conducts the core-drilling explorations in the field. Selected core samples are sent to the Geological Institute in Gruena near Chemnitz. Especially difficult analyses are conducted by the Freiberg Geological-Mineralogical Institute.

Construction Department.Transportation Department: About 500 workers /not clear whether this refers to both departments together or only to the Construction Department/. The Construction Department builds small buildings for shaft operations and digs ditches, cable trenches, etc.

The Transportation Department has the job of delivering all material required for aboveground and underground construction. The motor pool, which is located in Anthonstal, belongs to this department, and has approximately 120 trucks and 130 passenger cars.

The main administrative buildings of Objekt 8 are the buildings which formerly belonged to the Diethammerschen Villa in Breitenhof. The ore crusher was formerly a wood-pulp factory, and the prison was a farmhouse. A fairly large Soviet colony (about 230 houses), in which Soviet engineers and officers and their families live, extends along the left and right slopes of the Breitenhof valley.

B. Dressing of Uranium Ore at the Ore Crusher in Breitenbrunn

Pitchblende or torbernite from the shafts of Objekt 8, and, in some cases, also from those of Objekt 12, are transported by truck in sheet-metal crates, measuring 1.0 x 0.4 x 0.4 meters and fitted with lock and key, to the Breitenbrunn ore crusher. The pitchblende or torbernite is transported in the form of raw ore, i.e., in the form in which it is mined, mixed with barren rock. At the Breitenbrunn ore crusher, the crates are examined by Soviet radiometrists to determine the relative percentage of ore content. The examining is done by means of PR-5 or P instruments [Geiger counters]. The radiometrist records the number of the ore type, I, II, or III, on the tag attached to each crate, according to the reading on the microammeter. The following information is specified on the tag: (1) date; (2) number of shaft and Objekt; (3) exact designation of the heading; (4) name of the ore hewer and his apprentice hewer; (5) control numbers of both these men; (6) type of ore (I, II, or III) and signature of inspector; and (7) signature (name and control number) of the responsible radiometrist.

After the test result of the Soviet radiometrist at the ore crusher is obtained, the bonuses for the workers, the percentage fulfillment of the ore quota by the shaft concerned, and the special bonuses for the Soviet shaft directors and geologists are computed. It has occurred that ore premiums up to 12,000 East marks have been paid to Soviet shaft directors for one month's output.

After being examined, the raw ore is taken to the first square-mesh screen. The screen consists of round iron bars, each 3 centimeters in diameter. The openings between these bars are 25 centimeters square. If large pieces of rock are included in the raw ore, several workers break them up on this coarse-mesh screen until they can pass through it.

The raw ore then drops into a collecting shaft. From here it is conveyed to the jaw crusher by means of a pusher device which distributes it evenly. Jaw crushers from the former Krupp-Gruson firm in Magdeburg are used for coarse crushing. Recently there have been two Soviet rock crushers from Kharkov in Breitenbrunn, but I have no information on their method of operation.

The jaw crusher reduces the raw ore to 40-50 millimeters in size. The crushed ore is now transported on a conveyer belt through a second jaw crusher and into two crushing mills, where it is reduced to a grain size of about 8-10 millimeters.

The capacity of the jaw crusher is about 6 tons per hour. The raw ore goes from the crushing mills to a drum mill, where it is pulverized to a dust, 0.2 millimeter in grain size. If it goes to the small ore pulverizer, it is pulverized to DIN (German Industrial Standard) 40-grain size. (No details are known on the construction of the drum mills.) After the raw ore has been ground to dust, it is carried by an elevator over an installation for drying concentrates and through an air sifter. These air sifters are delivered by a SAG in Dessau.

The concentrate, which is freed in this way of all barren rock (country rock), is loaded into cylindrical sheet-metal drums, each 80 centimeters high and 50 centimeters in diameter, and is transported to the large ore-dressing plant in Aue. Here it is again concentrated, by a process unknown to me. Aue is the collecting point for the first [primary] ore concentrate for all Objekts in the Upper Erzgebirge. To my knowledge, after it is treated in Aue, it is not further smelted in the GDR, but is transported to the USSR.

After the ore has passed through the air sifters, large (14-kilogram) raw-ore samples are taken to the laboratory for geochemical analysis. A superficial, geochemical-analytical examination is made of these samples in the field. The test material is poured out into the form of a disk, which is then divided into nine wedge-shaped sections; division continues until a one-kilogram sample is obtained. The test material is dried in the electric furnace at a constant temperature (105 degrees centigrade), and treated with nitric acid to form uranyl nitrate. When the uranyl nitrate is heated, uranium trioxide is formed, this is reduced by heating with coal [carbon] in the electric furnace. Within broad limits, secondary elements contained in the pitchblende are removed by means of the spot reaction (Tuepfelreaktion). The results of these analyses are recorded in special analysis books, which are sent to Aue along with the concentrate. In addition, a thorough geochemical analysis is conducted in the Breitenbrunn ore laboratory.

C. Analytical Methods Used to Determine Percentage of Uranium in Uranium Ore (Pitchblende and Torbernite) at the Breitenbrunn Ore Crusher

While up to April 1951 only superficial geochemical field analyses were being made at the Breitenbrunn ore crusher, the large Czechoslovak mining laboratory of Joachimstal and Pribram had taken over and further developed the old German analytical methods of the Joachimstal Mining Company. In April 1951, these methods were also adopted by the Wismut Corporation. The procedure in the Breitenbrunn laboratory of Objekt 8 is as follows:

The test material is systematically removed from the small ore crusher and reduced to one kilogram of sample uranium concentrate. It is ground to mesh-size DIN 40 and spread out in a circle. The circle is divided into wedge-shaped sectors, and each little sector pile is poured into a special bottle. The contents of each bottle are ground to mesh-size DIN 60, are again mixed well, and are then poured back into the bottle. The concentrate is dried to a constant weight at a temperature of 105 degrees centigrade. Next, one gram is weighed out for analysis. The material is dissolved in HCl to which some HNO_3 has been added, and the solution is evaporated to dryness on a sand bath. It is again treated with HCl, and again evaporated; then another 20 cubic centimeters of HCl (1 + 1) are added, together with KBr and hydrazine hydrochloride, and the mixture is once more evaporated to dryness. In this way, any arsenic contained in the concentrate is dissolved. The dry residue is treated with 5 cubic centimeters of HCl, of specific weight 1.19, and 5 cubic centimeters of H_2O, and is heated several minutes on a water bath under constant agitation. Then the solution is diluted with 25 cubic centimeters of distilled H_2O and filtered into a beaker, the residue is thoroughly washed. The residue is dried in a platinum dish, treated with HF, evaporated to dryness, treated with HCl, and again evaporated to dryness. The concentrate is then again dissolved in 1 + 1 HCl and the solution diluted with H_2O and filtered, whereupon the filtrate is added to the first filtrate. Now H_2S is bubbled through the filtrate. After heating, all sulfides can be filtered out. The sulfides are dissolved in brominated HCl. The process of solution is such that the sulfides must be filtered off by means of a special glass filtration crucible (IG1). A small quantity of bromine is poured over the sulfides, and then concentrated HCl is added. The mixture is shaken briefly and the solution drawn off. The shaking must be done very carefully because of danger of explosion.

This process is repeated several times. The bromine can be driven out of the solution by boiling. Then the solution is again treated with H_2S and filtered and the filtrate added to the first filtrate, which is then evaporated down to 100 cubic centimeters to drive off the H_2S. Now the filtrate is oxidized with 3 percent H_2O_2, and neutralized with concentrated soda solution, and an excess of 3 grams of soda is added. The solution is then boiled until the yellow precipitate is again dissolved. The precipitate consists mainly of

$Fe(OH)_3$. It is filtered out and carefully washed, then dissolved in HNO_3 which is as little diluted as possible, and the solution is then treated with 10 cubic centimeters of H_2O_2. Then the precipitation with soda is repeated.

It often happens that the precipitate is not a clear reddish brown after the first separation with soda, but rather a grey or greyish green. If this is the case, the treatment with H_2O_2 is repeated and the precipitate then filtered out. The filtrates containing soda are poured together, neutralized with HNO_3, and boiled for some time to drive off all traces of CO_2. Then the solution is cooled and neutralized with CO_2-free NH_4OH, and fresh CO_2-free $(NH_4)_2S$ solution is added. After the solution has been heated over the water bath, it is allowed to stand for several hours. Then it is filtered, and the precipitate is washed with hot water. The precipitate is dissolved from the filter with HNO_3 into a glass beaker, and the solution is evaporated after addition of 10 cubic centimeters of H_2SO_4 (1 + 1), until SO_3 fumes are detected. Then H_2O is added and the solution is neutralized with NH_4OH. An excess of 2 grams of $(NH_4)_2CO_3$ is added, and the solution is allowed to stand for several hours. If an Al precipitate forms, it is filtered out and washed with an aqueous solution of $(NH_4)_2CO_3$ and NH_4OH. If the precipitate still is not pure white, it is dissolved in slightly dilute H_2SO_4 and again precipated in the same manner.

The filtrates are all poured together and treated with H_2SO_4, then boiled to drive off all traces of CO_2. While the solution is hot, NH_4OH is added and the solution is left over the water bath until all the ammonium uranate has precipitated. This is filtered out and washed with 2-percent NH_4NO_3 solution, then dried and heated to a high temperature in a porcelain crucible. Then it is finally weighed as U_3O_8.

To test the purity of the heat-treated precipitate, the precipitate is dissolved HNO_3. Any traces of Al_2O_3 or $Si\ O_2$ show up as a cloudiness of the solution. A small constant value is deducted from the weight of the uranium to account for these impurities.

Small amounts of vanadium compounds which are often present are detected by means of a potentiometer. For purposes of quantitative analysis, these can be calculated in terms of V_2O_5. Their weight must also be deducted from the weight of the U_3O_8. This is determined by treating the HNO_3 solution with concentrated H_2SO_4, adding H_2O, and then treating with H_3PO_4. The solution is colored with $KMnO_4$ and titrated with $FeSO_4$. The titration must be followed with a potentiometer. The percentage of uranium determined now remains constant.

The results of these analyses are transmitted to the Geological Institute in Gruena near Chemnitz, where analysis results from all shaft areas of the Wismut Corporation are sent and recorded.

Only Soviet engineers are permitted access to the Breitenbrunn laboratory. Until April 1951, the chief of the laboratory was Astakhov.

IX. OBJEKT 1

A. Organization

The Main Administration of Objekt 1 has been located from the very first in the "German House" in Johanngeorgenstadt. Objekt 1 is the first and the oldest Objekt in the Wismut Corporation. The first shaft of the Wismut Corporation, "Frisch Glueck" in Johanngeorgenstadt, was put into operation on 5 June 1946; since that date, uranium ore has been mined, instead of bismuth and cobalt ores, as formerly.

1. Organizational Structure

The following departments belong to Objekt 1:

a. Field Geological Department

b. Hydrogeological Department

This department conducts radiometric and mineralogical analyses of spring water. Likewise, all other waters, such as water veins in the mine, pit water, and all mountain water, are examined for radioactivity and mineral content. The hydrogeological laboratory is also located in Johanngeorgenstadt.

c. Topographic Department

This department's chief task consists of establishing area coordinates for radiometric examinations of the ground.

d. Geophysical Department

In conjunction with the Geological Department, the Geophysical Department makes all radiometric and geophysical examinations of the ground and shafts.

e. OTK (Department for Technical Controls)

This department is in charge of technical controls and organization for ore mining and ore dressing. Objekt 1 has its own ore crusher, to which the ore from the shafts of Objekt 1 is usually sent, although some of the ore with higher content is sent to the Breitenbrunn ore crusher. Low-grade ore is loaded into freight cars and shipped to Tannenbergstal in Vogtland. The ore crusher of Objekt 1 is in Wittigstal-Johanngeorgenstadt (Jugelgrund).

f. Machine Department (MO), Main Warehouse

Both are in Johanngeorgenstadt; the Main Warehouse is in the vicinity of the railroad station.

g. Motor Pool

This unit has about 230 ZIS and Forch trucks at its disposal. As in every other Objekt, the unit has many passenger cars, which, however, can be used only for official trips by Soviet engineers.

h. Main Mine-Surveying Department

This department works closely with the Main Geological Department.

i. Personnel Department

This department (Otdelj Kadroff, or OK) is located at the Johanngeorgenstadt main railroad station.

j. Norms Department

k. Main Finance Office

l. Billeting Administration

This department is responsible for housing the mine workers.

m. Mining Technology School

Technical and political courses for Soviet engineers are given in this school. The Soviet engineers are supposedly instructed in particularly difficult problems dealing with geology and mining in the Erzgebirge.

B. Extraction of Ore

The mining methods are the same as those previously described.

The dressing of the ore follows the procedure used at the Breitenbrunn ore crusher. In addition, two Soviet ore-dressing machines (drum mills) are available. Objekt 1 also has a geochemical laboratory, in which the percentage ore analyses are carried out.

C. Additional Comments

Objekt 2, in Oberschlema, is similar in structure to Objekt 1, but is much larger. Opening up of the Oberschlema-Schneeberg area has almost been completed. A large part of Objekt 2 has already been transferred to other areas.

The most important ore shafts in Johanngeorgenstadt are: Neuoberhaus, Frisch Glueck, Schaar, Weisse Taube, and the Jugel ore deposit.

Objekts 10 and 1 work in close conjunction, mainly because most of the shafts in Johanngeorgenstadt have underground connections with one another horizontally.

X. OBJEKT 12

A. Organization and Leading Personalities

Until the beginning of 1951, the Main Administration of Objekt 12 was in Johanngeorgenstadt. It is now located in the former Kraus Works in Schwarzenberg.

[redacted] the director of Shafts 333, 332, 322, and 318 is Ermakov.

Objekt 12 is a construction Objekt, and thus is not engaged in mining ore. It performs the excavating operations, such as sinking the shafts, excavating the main galleries, etc.

Objekt 12 has neither a geological nor a radiometric department. The shafts known to me have already been listed under Projekt 338.

One of the largest vehicle parks of the Wismut Corporation is located in Erla near Schwarzenber. Objekt 12 manages this vehicle park, which was completed in August 1951 and has about 300 trucks and busses.

In addition, there is a large stable, with about 40 draft horses and 15 race or saddle horses, in Erla, on the former estate of the Breitfeld firm.

A large automobile repair shop with a vehicle park, owned by the Wismut Corporation and also under the administration of Objekt 12, is located in the vicinity of the Kraus Works. The Kraus Works is also the site of the main warehouse of Objekt 12.

A large portion of Objekt 12 in the Johanngeorgenstadt area was dissolved at the beginning of 1951 and was taken over by Objekt 8, for example, Shaft 204 in Rabenberg.

XI. THE WISMUT TRANSPORTATION PROJECT AS THE STRATEGIC LINK BETWEEN GERMANY AND CZECHOSLOVAKIA VIA THE ERZGEBIRGE

The Main Planning Commission of the Wismut Corporation also handles the so-called Wismut Transportation Project (Wi-Tra-Pro). Outstanding specialists working on this project are Kushnikov, a Soviet civil engineer, and Velikin, a Soviet officer and engineer in the Soviet Army. Velikin is not connected with the Wismut Corporation.

The main planning office is in Chemnitz, and another important central planning office for this project is in Aue.

This project provides for the construction of double-track railroad networks in the entire Wismut area (Erzgebirge) and in Czechoslovakia. It also provides for the construction of large, main traffic arteries, as a connection, via the Erzgebirge, between the Bohemian Basin in Czechoslovakia and Sachsen, in Germany.

On 1 October 1949, by order of the Soviet Control Commission in Karlshorst (formerly the Soviet Military Administration for Germany), the first work on the Wi-Tra-Pro began. According to the plans for the first part of the project, the Aue-Johanngeorgenstadt rail line, 32 kilometers long, and the Johanngeorgenstadt-Karlsbad (Karlovy Vary) rail line in Czechoslovakia, 35 kilometers long, were to be converted from single to double track by 31 October 1951. In addition, large main highways were scheduled to be constructed parallel to these rail lines.

The narrow mountain valleys in this section of the upper Erzgebirge necessitated the construction of two large tunnels near Schwarzenberg and Aue, bridges for a wide approach road, and several large railroad bridges.

During the winter of 1949 - 1950, all state and private enterprises in the GDR specializing in underground and aboveground construction were engaged, by means of a collective contract, to perform the work in the Erzgebirge. Within 3 months, large barracks camps had been erected for thousands of road and railroad construction workers. Work on the rail lines and the highway between Aue and Johanngeorgenstadt (phases A and C of the project; see sketches I and II) was completed by August 1951. Every 10 kilometers, large loading and transshipping points [platforms?] were constructed for ore loading. Loading platforms 3 or 4 kilometers long, which constitute a direct connection between the wide approach road and rail line, extend along the entire valley. The execution of this project was exclusively under the management of Soviet engineers and Soviet army officers.

The main railroad station in Schwarzenberg (see sketch I.), which originally had four loading tracks, has been enlarged by the construction of six 800-meter loading tracks, and thus is now a ten-track station. The largest MVD caserne in the Erzgebirge (German side) is located in the immediate vicinity of this main railroad station.

Two large railroad bridges (280 meters long) were necessary in Schwarzenberg alone. A tunnel 230 meters long had to be driven through the Ottenstein mountain. Two large railroad bridges (loading bridges [sic] of concrete construction) were built in the area between Schwarzenberg and Erla. The former Schwarzenberg way station was moved about 1,000 meters and was enlarged to twice its original size. A new railroad bridge and a bridge for the wide approach road also had to be constructed in the Erla-Anthonstal section (Anthonstal-Anthonshoehe, a new miner-workers' city). The Anthonstal railroad station was also enlarged to twice its original size.

The Breitenbrunn railroad station is the main loading station of Projekt 338 (and of Objekt 8). In addition, it has a spur connection with the small ore-loading station of the Breitenbrunn ore crusher.

The Erla railroad station has also been enlarged to twice its former size Directly adjoining this station is the Wismut Corporation's largest vehicle park, which also has a large transshipping area. The buildings contain more than 600 trucks. The vehicle park is at present managed by Objekt 12.

A loading and transshipping installation 6 kilometers long, the largest in the Wi-Tra-Pro, extends from Breitenbrunn to Erlabrunn, occupying the entire Erlabrunn valley, which was enlarged at this point by many meters. Huge rocks were broken up and removed in a short period of time

A Soviet antiaircraft battery is permanently stationed in Steinheidel, a village situated at the top of the valley ridge surrounding Erlabrunn. I believe that this battery has the job of guarding the Erlabrunn transshipping point with its 18 loading platforms. It is the only antiaircraft battery in this area, and has about 18 guns of medium caliber. A mobile artillery battery was transferred to Karlsbad in May 1951. This battery had about 32 artillery weapons, approximately 13 centimeters in caliber. (See sketch I).

Other than the double-track rail line and the wide new highway, there are no special loading points between Erlabrunn and Johanngeorgenstadt. Adjoining the railroad network in Johanngeorgenstadt is a special ore-loading area. Leading off from this, a separate transshipping point has been built

[redacted] the main transshipping point in Breitenbrunn is not constructed for use as an ore-loading point. It has none of the technical mining features which would be necessary for the loading of uranium ore onto railroad cars. This is also true of the loading points near Lauter, Erla, and Anthonstal. On the whole, the Wi-Tra-Pro would have to be regarded as a separate project, with, at most, indirect connections with the actual uranium mining operations in the Erzgebirge.

The above-described project constitutes phase A of the Wi-Tra-Pro (see sketches I and II)

Phase B of the project provides for converting the Johanngeorgenstadt-Karlsbad and the Karlsbad-Joachimstal rail lines in Czechoslovakia, from single to double track. The Czechoslovak government is in charge of carrying out this project.

Phase C of the project involves the enlargement and construction of railroad and highway facilities for the Aue-Schwarzenberg line. This phase was scheduled for completion in December 1951, and it is very probable that it has been completed. At Lauter, a railroad station between Schwarzenberg and Aue, two large loading points have been constructed, one of which is used to load ore from Objekt 30, Lauter. The Aue railroad station was enlarged to be the central station of the Wismut Corporation and of the Wi-Tra-Pro. It now has a separate freight station with 14 loading ramps, and a passenger station with four large platforms. In addition, there is another ore-loading station, with two large loading ramps, which also belongs to the Aue railroad station. This station has been built in accordance with modern technical mining methods especially for the loading of uranium ore (see sketch II, phase C).

Phase D involves reconstructing the Aue-Zwickau rail line to double track. The second track of this line has been dismantled by the Soviets in 1946, but is now being relaid. The well known mining regions of Radiumbad-Oberschlema and Schneeberg are in this area, but they have no connection with these construction operations. The entire length of the project between Zwickau and Karlsbad (via Aue, Schwarzenberg, Johanngeorgenstadt) is about 95 kilometers. The length of the section from Zwickau to Johanngeorgenstadt is about 60 kilometers.

50X1-HUM

The entire project is scheduled to be completed by October 1952. [redacted] it is impossible that this project is based on any kind of technical mining considerations. [redacted] this project is for strategic purposes.

50X1-HUM

50X1-HUM

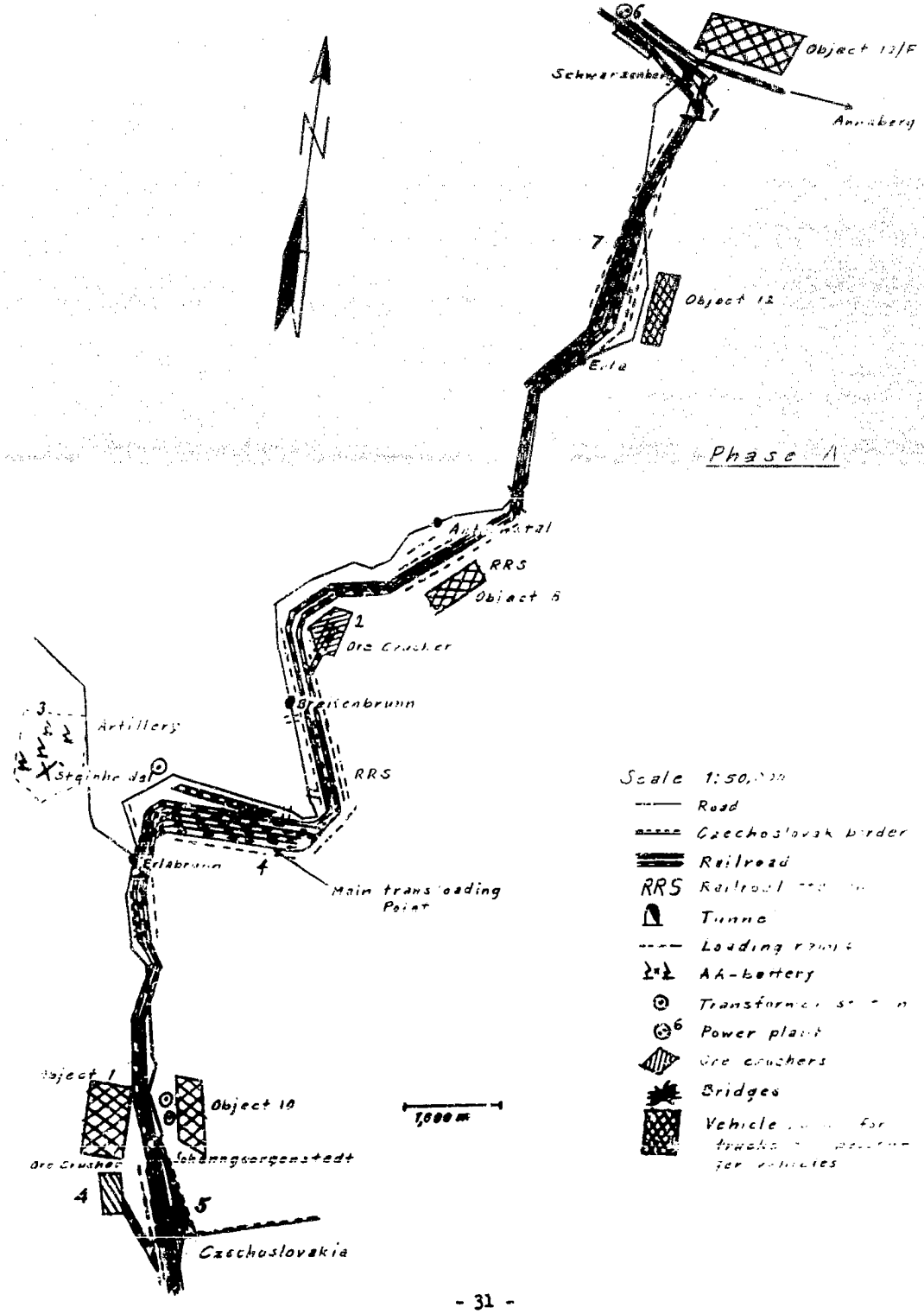
In the German area, the Wi-Tra-Pro employed about 15,500 German workers in September 1951. [redacted] approximately 2,300 Czechoslovak workers were employed on it at that time. It is highly probable that the figure is considerably greater at present.

50X1-HUM

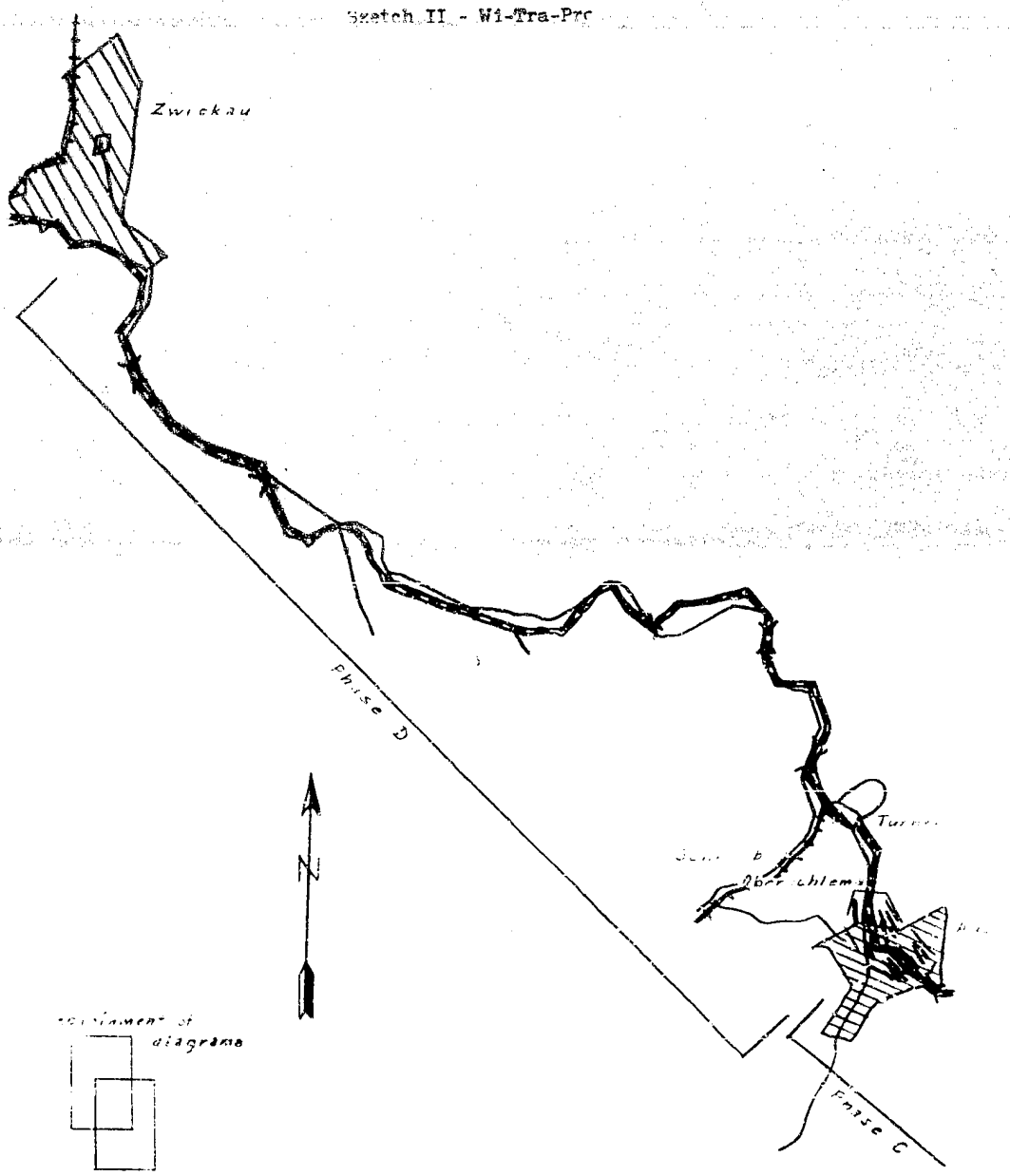
Additional plans provide that the Wi-Tra-Pro is also to have a vehicle park at its disposal. The Horch plant in Zwickau is already engaged in producing 3.5-ton trucks for this project, to be charged to reparations account.

[Sketches are appended.]

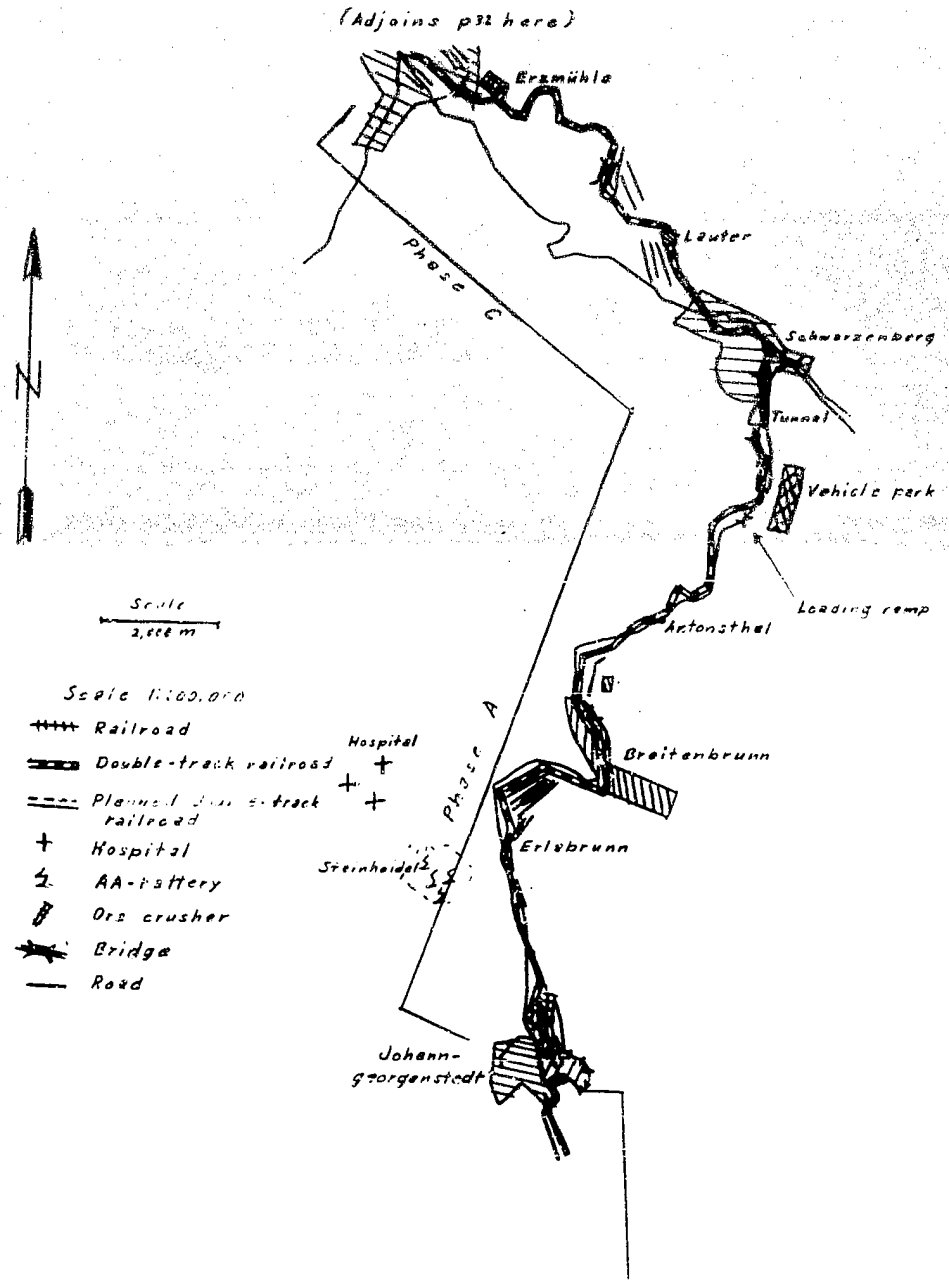
Sketch I - Wi-Tra-Pro



Sketch II - Wi-Tra-Prc

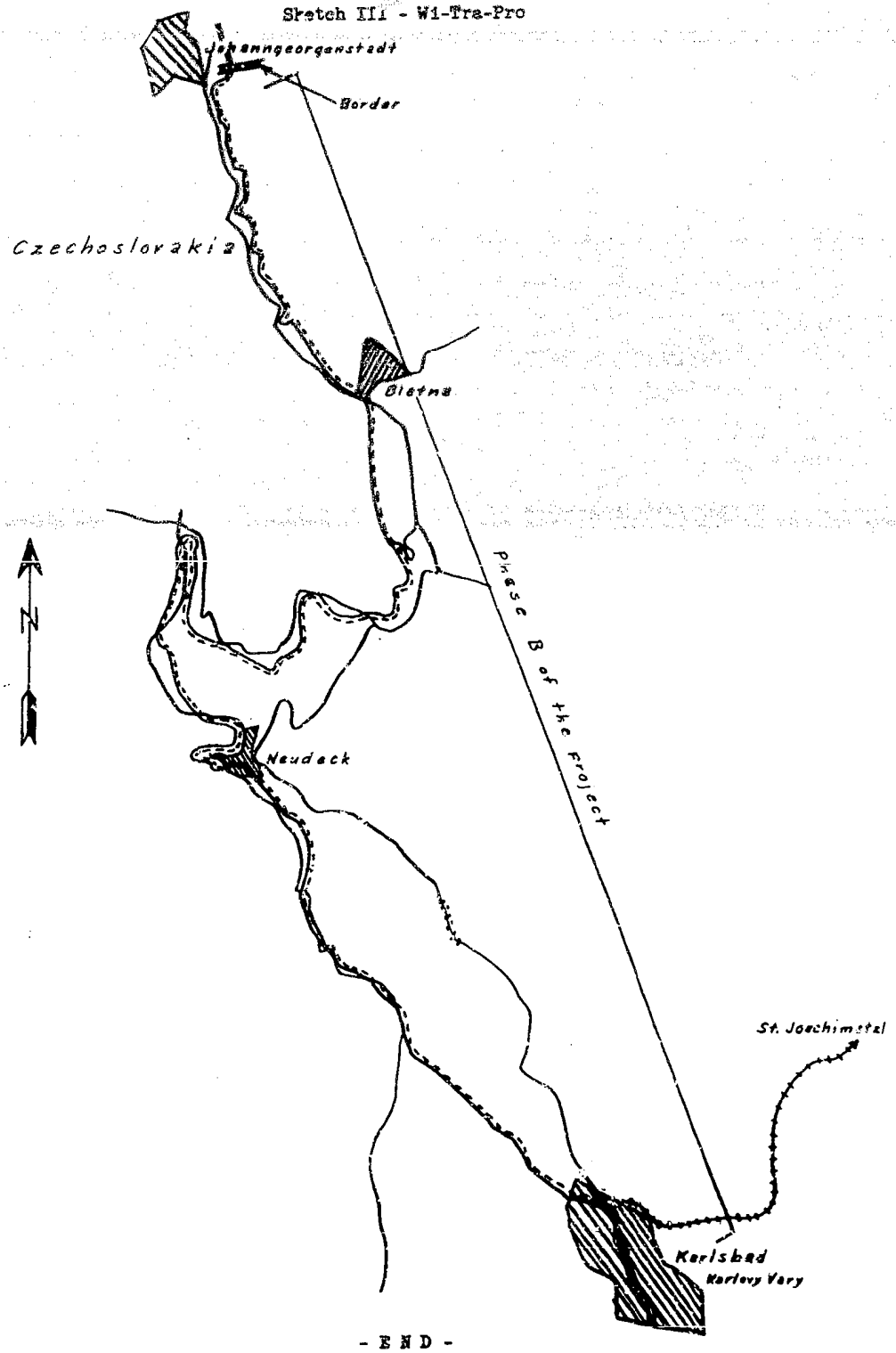


(Adjoins p.. here)



S-E-C-R-E-T

Sketch III - Wi-Tra-Pro



- E N D -

- 34 -

S-E-C-R-E-T