Khewra Salt Mine Project

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BAHRIA UNIVERSITY LAHORE CAMPUS

SUBMITTED TO: **Mr. Shehzad Ahmad**

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ACKNOWLEDGEMENT

In performing our project, we had to take the help and guideline of some respected persons, who deserve our greatest gratitude. The completion of this project gives us much Pleasure. We would like to show our gratitude to **Mr. Shehzad Ahmad** for giving us a good guideline for this project throughout numerous consultations. We would also like to expand our deepest gratitude to all those who have directly and indirectly guided us to complete this project.

Many people, especially our classmates and team members itself, have made valuable comment suggestions on this proposal which gave us an inspiration to improve our project report. We thank all the people for their help directly and indirectly to complete our project.

PREFACE

This project report has been prepared by the requirement criteria of MS Project Management degree program in Bahria University, we have learnt the various PM tools and techniques and performed practically implementation. So, to record our efforts, we are providing a comprehensive report.

For preparing the project report, we have visited the Khewra salt mine on 7-Dec-2019. From this tour we learnt the activities that were performed during salt extraction. We summarize this report by using Primavera P6 a modern world software to implement the best PM Practices dictated by PMI. Primavera is an enterprise project management software. It involves project management, Product management, collaboration and control abilities and integrated with the other enterprise software such as Oracle and SAP's ERP systems. Report involves the brief history and introduction of the project. Context in which project was carried.

In this report various reports are generated during this project. The reports are graphically displayed with the help of Primavera.

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Chapter# 01

Background of Khewara salt mine

1.1 Introduction

Khewara Salt mine located at khewara city, district Jhelum, Punjab, Pakistan. Khewra salt mine located one hundred and Sixty KiloMeter far from Capital (Islamabad, Pakistan) and two hundred and Sixty Kilometer from Lahore. Mine arise 945 feet above sea level. The hills that contain Khewra Salt Mines are a portion of a Mountain rich in minerals and meet the salt range. Add up to Salt Series length is 300 kilometers stretching from Beganwala near Waterway Jhelum to Kalabagh near Stream Sindh. Salt wide range changes from 8 kilometers to 30 kilometres.

Location	160km south of Islamabad
Leased area	3,398.53 acres 3,398.53 acres
Geological Horizon	Pre-Cambrian
Purity of salt	Average 98%
Shades of salt	White, Pink and Red
Mining method	Room and Pillar
Total Resources	Over one Billion
Production	382,155 tons *(2018-19)*
Sales	395,837 tons *(2018-19)*
Contact	Mr. Tanweer Ashraf Project Manager Khewra salt Mines Khewra, Distt. Jhelum 0302-8159627 (Mob.)

1.2 **Discovery of Mine**

Khewara salt mine is concatenation of salt range. It is originated about Eight hundred million years ago. The length of the mine is approximately 300 hundred kilometers. Old says it is discovered when king Alexander visit South Asia. The salt mine uncover by alexander through his horse not by peoples. When Alexander's troops stopped at khewara for rest, the horses of alexander started licking the stones. One of his warrior notice that and while he taste the rock stone he feel salty.

1.3 **Commercially Availability of salt**

Commercially salt accessible within the period of Mughal by trading to its diverse markets. And counting a few exclude important Asia's absence locale with the destruction of the Mughal Empire, the mine ended up being taken over by Sikhs. The Sikh king Hari Singh Nalwa shared mine power with Jammu and Kashmir authorities. The salt throughout the show's Sikh Series was no longer a source of well-known demand. Salt mine become to be source of income after British's took over the domain from Sikhs, they established the mine in 1872. British's found the mining drained a wasteful way with irregular and limit burrows, passages, which made the individuals unsafe and difficult. Water supply inside mine transformed into destitute, and the extracted salt had no carport service. The road to the Khewra mine turned into a rough street on intense ground. Addressing these inconveniences for specialist's leveled street, built go-downs, provided deliver of water, advanced the passages and burrows were presented.

1.4 For tourists

Khewra Salt Mine could be an exceptionally prevalent visitor fascination with about 250,000 guests each year. There are several artistic carvings of salt stones put in several ranges of Khewra Salt Mines for entertainment of sightseers. There's an electric prepare accessible to require guests interior the mine. It is told that motor of this prepare has a place to 1930. Male and female guides are accessible to direct visitors around the Khewra Salt Mines. There are a few little lakes of thick salty water in several regions of mine.

When light is anticipated on the fluid in these pools is diverts and produces diverse colors that see exceptionally lovely. Most well-known carvings of salt stone among visitors see copy of Minar-e-Pakistan made with colorful salt bricks, a show of the Extraordinary Divider of China, a statue of national artist Allama Muhammad Iqbal, an excellent mosque made up of colorful bricks of salt stone, a demonstrate of Sheesh Mahal made up of pink salt bricks, and a show of Shopping center Street of Murree. There's cafeteria for guests that meet prompt refreshment needs. There are too two gift shops advertising enhancement pieces and lights made up of salt stones of Khewra Salt Mines. Inside the mine could be a burrow named gem valley by tourists. It could be a burrow with sparkling salt gem within the roof and dividers lit up by colorful lights. There are a few rooms interior at the Khewra Salt Mines that were mined amid the Mughal times.

Recent, PDMC open a hospital for asthma patients at khewra salt mine. There is a lot of patients visit the hospital and take therapy regularly. The fee fixed for therapy is 53, 00 rupees. Many of foreigner come for treatment from different countries like Saudi Arabia, UK etc.

1.5 **Geology of Salt Range**

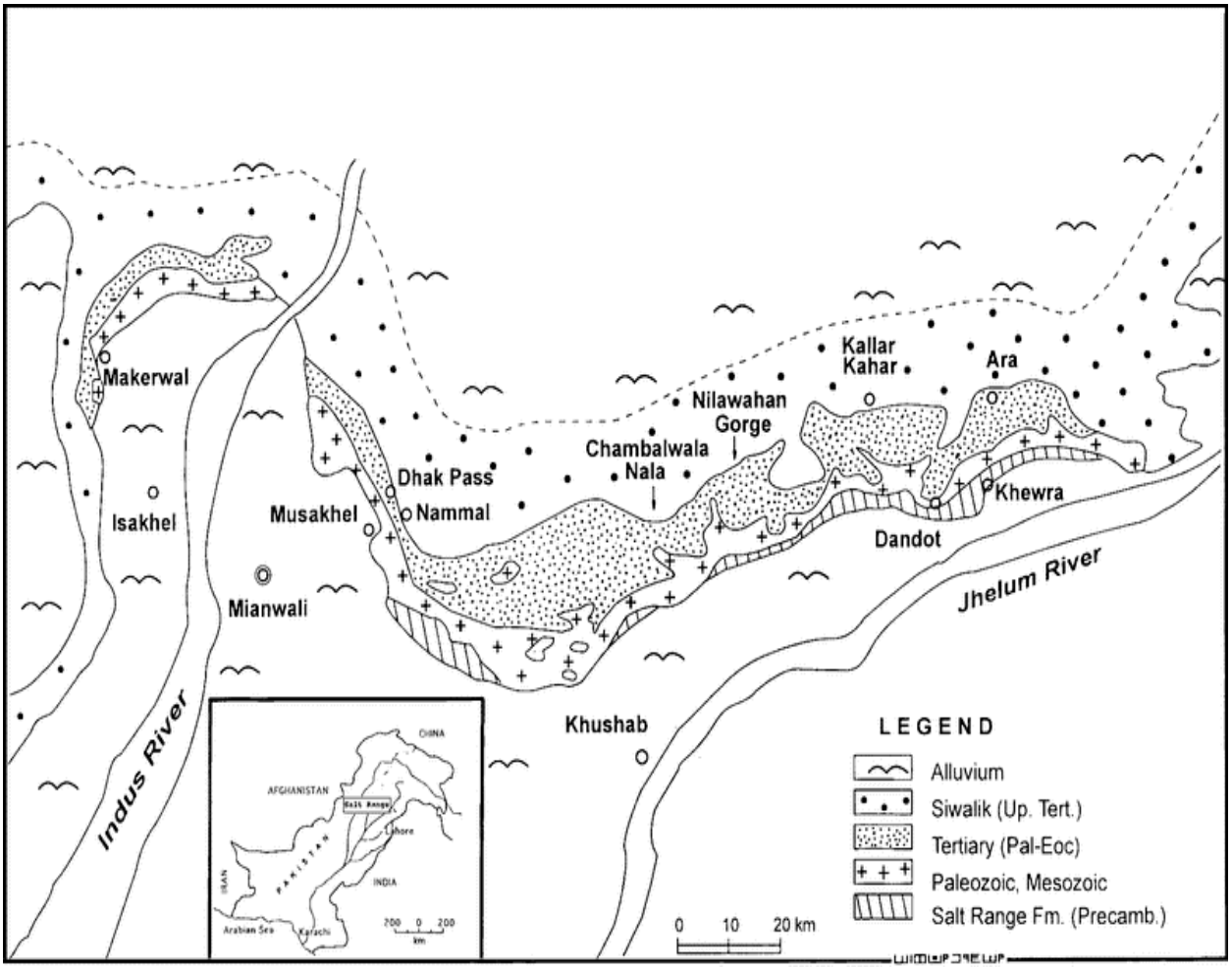
The east-west pattern belt includes the north-western hills and valleys of the elevated Kohat Potwar Plateau.This spans about 85 km and extends roughly 200 kilometers. The Central Boundary Thrust is a hidden structure field that is enclosed in the north.

The southern border is formed by the Salt Range Thrust, the Kalabagh Fault and the Surghar Thrust.

The Thrust Kurram and the Jhelum Fault are done in both the north and east. This is essentially a complex salt anticlinorium, with salt anticlines arranged. The largest part of it, including Chewra and Warcha, is the Paleozoic and Cambrian systems, where it also contained the most outstanding exposures. The structure is formed by straight, wide, shallow pliers, accompanied by a fine monocline along its northern slope. The fall in the South gets closer and the plates are generally blamed. The systems are more fluid along the south scarp and include eastern-to-western pattern deficits and folds. For a few of these the Cambrian evaporates have been folded and blamed. Despite the fact that the

east-west of the Central Salt Series are the typical slant of the folds, a number of north-south and north-south planning lines have also been developed which are simply' nose' typing systems.

The Salt range eastward is losing its prominence and transforming into the Diljabbah and Chambal-Jogi Tilla two limits of the northeast phenomenon. The latter involves steep monoclines plagued by dynamic pulses and tear problems and could be a dipping anti-line navigated by Diljabbe-Domeli Pushed. Diljabba Slope can be a steep dipper. The northwest twist past Warcha brings the Westbound Salt Extend. This persists in the same system and is isolated from the Trans-Indus ranges through the Kalabagh fault. The Salt Extend to South is pushed through the Pushed Salt sequence.



1.6 **Salt Field Formation**

1.6.1 Synonym:

The system was named and described as 'Saline Series' by Wynne (1878). The same unit as' Punjab Saline Collection' was named by Gee (1945). Asrarullah (1967) gave the title of the show, the Salt Run Arrangement. Form of territory: Punjab, Khewra Glut is a locality within the eastern Salt Run.

1.6.2 Lithology:

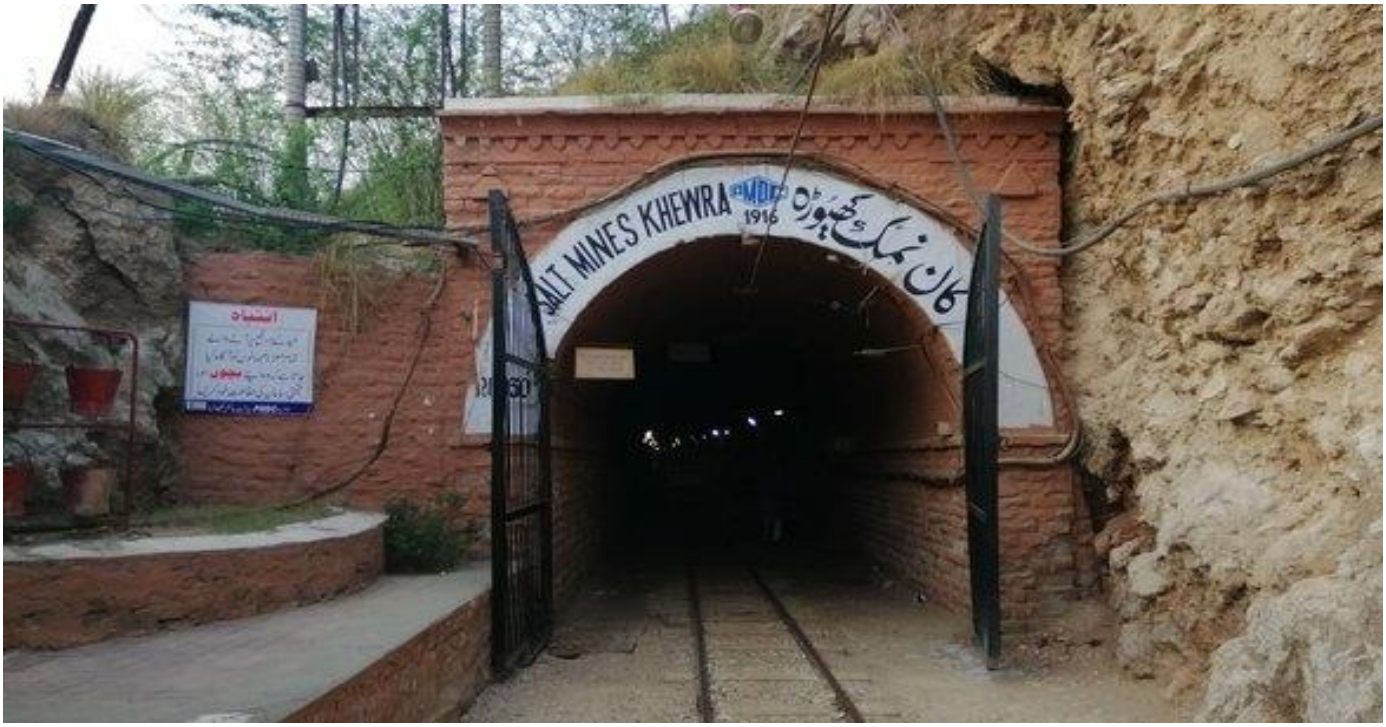
The bottom part of the Salt Run scheme is made up of round-colored marl gypsum that is dense with salt, whereas the upper component is composed of gypsum, dolomite-, clay- and moo-checked oil shale deposits. The upper portion of the structure outlines an overly weathered volcanic body called "Khewra Cage.". From the upper part of the arrangement, a highly weathered volcanic body called' Khewra Cage.' The aggregate consists of strongly decomposed, emitting pyroxene needles of a luminous stone. The colored marble mainly consists of plaster, gypsum and dolomite with different amounts of occasional grain and quartz crystals. Deep-bedded salt shows up to a meter of deep various colors of coral, well-formed laminations and color lines. The hue of the gypsum is white or dark. It is 45 meters high, enormous and has a light black, clays gypsum relation. The dolomite is usually light and flaggy in tone.

Chapter# 02

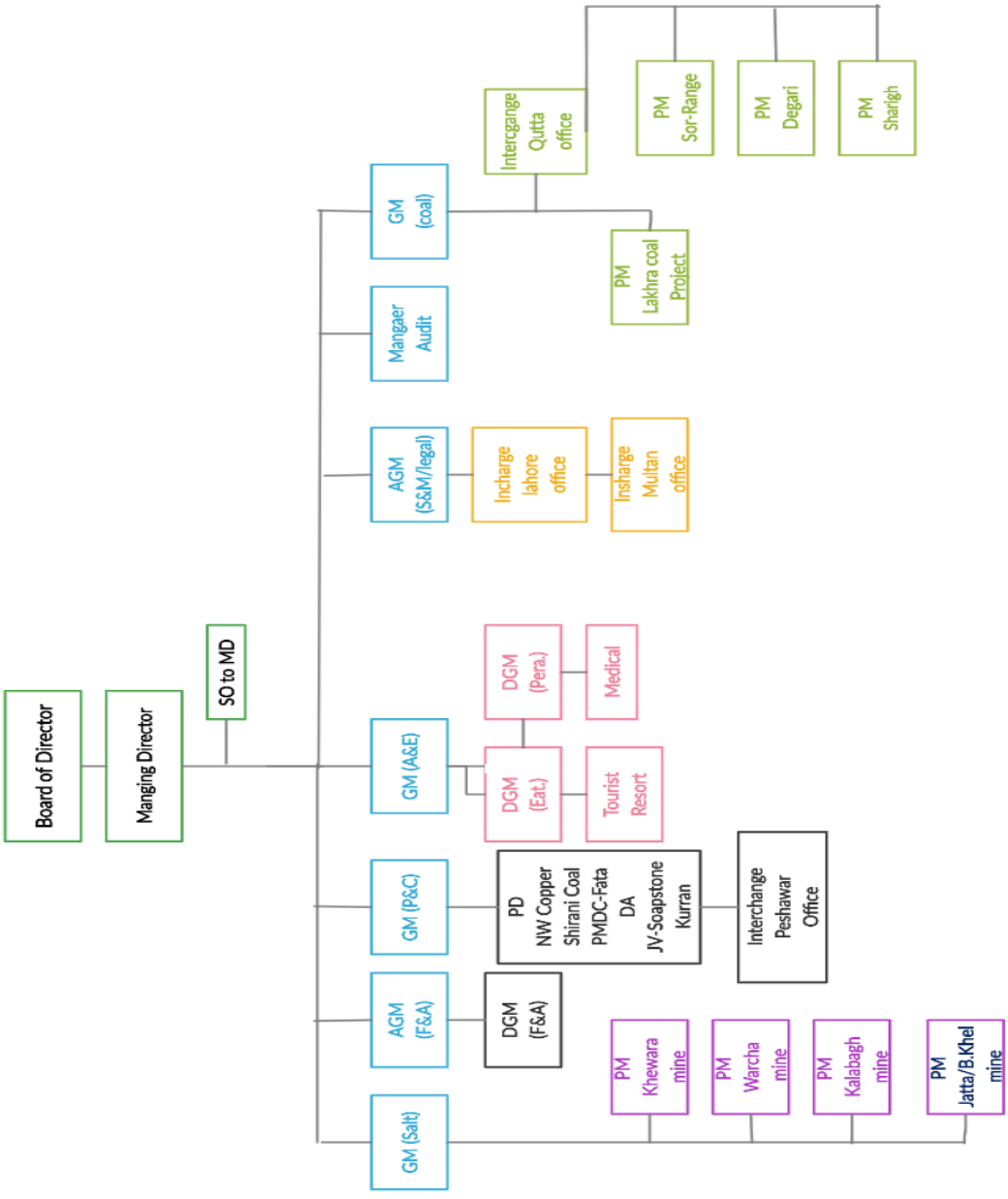
Pakistan Mineral Development Corporation

PMDC is an independent body under the administrative supervision of the Pakistan Government's Oil and Natural Resources Department. It was formed in 1974 with an authorized rupees one thousand million investment to expand and provide funding for exercises to develop minerals within the region. The research and assessment of financial mineral stores, the preparation of studies on technological-economic opportunities and mining and marketing are included. 4 coal mines/ quarries and one silica sand quarry are being worked for by PMDC. PMDC supplies 17% of coal and 58% of the entire nation's salt supply.

Pakistan Mineral Development Corporations, Khewra Salt Mine



2.1 PDMC structure chart



2.2 **Physiographic of the Salt Range**

2.2.1 Soils

Two types of soil are display within the salt series i.e. soil at best hills and soil in sorrows. Soil at beat slope is shaped due to in situ weathering and gives leveled soil patches for development of different crops while the soil display in syncline misery is carried physically by water within the frame of alluvium which is the main source for development.

2.2.2 Temperature

The minimum temperature average is 16.6 Centigrade (January) and the highest average is 36 Centigrade (June). During winter the temperature fell below freezing and summer is favorably wonderful relative to the outermost regions.

2.2.3 Rainfall

Much rainfall is limited to June, Admirable and September months. For January and February a much lower amount is issued. The rainstorm is the product of the summer fall, while the winter is connected to the west. Since its height, Sakes Slope and the outlying areas of some valleys have recorded highest rainfall. In fact, winter weather is good compared with summer rain.

2.2.4 Topography

The typical scale of Salt Range is sandstone and lime stone. The white or cream, soft ruddy or lilac shades are coated with sandstones. Most of the Salt Run soil is highly sweetened with salt, since salt water is accumulated on the surface all the way down. Due to the absence of calcium carbonate from rain water, no substantial soil is taken away from the weathering of the pure limestone.

2.2.5 Vegetation

The Salt Extend flora covers both legumes and non-legumes. Short reports on plants in this area are available. Plants of the Salt Range consists of an open moo woodland where the trees more often than not have small trunks and low spreading crowns, which are prickly and not troublesome as a wooden plant. The soil is mostly saline, but in most areas plants are well formed because groundwater is not salty. There are quite a lot of climbers.

2.2.6 Structural Setup

The salt range is found on the outside of the Himalayan fold and thrust belt. The older sedimentary rocks are uncovered and the quaternary alluviums in all the salts are there. A collision has formed the whole rock sequence between the Indian crust and the Eurasian plate. This pattern depends on the direction of the region's folds. This fold is oriented east-west, so the tectonic flow of traffic is from the north to the south. A salt field, which has raised rocks since older times to place the rocks over the younger alluvium, is the youngest thrust fault in the world. The folding belt of Kohat-Potwar consists of a variety of folds and grip fails.

2.2.7 Economics

Economics of any nation depends upon the normal resources present in it. In Pakistan nature has skilled inexhaustible natural resources. Salt Run contains inexhaustible mineral stores and building fabric, which are utilized in industry as rough materials. It has huge stores of Halite, Gypsum, Phosphate, Potash, Coal, limestone, Dolomite, Silica sand, Press metals, Petroleum, Radioactive minerals, clays etc.

2.2.8 Halite

The fundamental salt generation comes from Billianwala part in salt range. Where several salt mines are built up within the zones of Khewra, Warcha Kalabagh. The 2nd biggest salt mine “Khewra Salt mine” is found in Billianwala part of Pre-Cambrian age of salt formation range. Enormous beds of Halite are inserted in ruddy colored marble. Salt has been mined at Khewra since 320 BC

2.2.9 Gypsum

In Bhander Kas, the salt spectrum containing member Gypsum is mined in dense deposits of gypsum. The Bhander Kas gypsum thickness reaches 80, Gypsum (Give unit) is primarily used in the plaster production industry.

For Portland cement, coarse gypsum is used as a solvent, paper and cloth filler and retarder fertilizer. Approximately three quarters of overall Parisian production was calcined in concrete, cement and board goods and tiles and blocks as construction material. Gypsum plaster is a white cementing substance, usually applied with different retardants or hardeners leading to a partial oxidation of mineral gypsum.

2.2.10 Lime stone

Limestones contain large deposits of salts, wargal lime petroleum, shakesar calestones and Chak Jabbi calestone, which were the reported main chalk petroleum in Pakistan for most plentiful mineral resources. This is the reason for Pakistan's many cement factories being present in the salt market, with more than 95 per cent of cement made.

2.2.11 Dolomite

There is a huge amount of dolomite in Pakistan. Jutana, Kingriali and Samana Suk are the most prominent Dolomite formations in the upper Indus Basin. Dolomite is of good quality, similar to the dolomite theoretical value. Dolomite application is driven by internet variations between dolomites and calcites.

Because of its improved hardness and stiffness, Dolomite is used for many construction product applications.

2.2.12 Coal

Pakistan has large deposits of Tertiary Age low-quality coal. The salt range comprises the country's major coalfields. The salt area of Makarwal and the Khushab-Dandor coal fields has two horizons. In Hungu, this coal is present in the eastern part of the salt system and in Patala, arrangement, which is shaped all over the salt run but coal of economic esteem is as it were display in central salt run range.

2.2.13 Clay

The word clay is natured, earthy, fine grained, stuff, composed largely of hydrous aluminum silicate deposits of clay, which spread widely in Pakistan in time and space.The clay is categorized into four different categories: china clay, fire clay, bentonite and fuller'searth. In salt the spectrum is present fire clay and bentonite.

2.2.14 Potash

Potash beds in the salt extend are connected to salt rocks in salt range arrangement and Surghar run green sand of Chichali arrangement. Potash has three work, Fertilizers, Lime Stock Feed supplements and mechanical sources 95% of the world's potash is used in fertilizers, while the remainder are used in supplements and commercial sandstone production.

Chapter# 03

Review on BULC trip to Khewra salt mine

3.1 **Tour Planning**

As per the class decision, Khewra salt mines along with Katas Fort and Kallar kahar destination was decided for going to the Project Tour and the date decided for going to the project was December 7th, 2019 (Saturday).

Take proposals from different tourism companies for organizing/plan the whole tour and finalized one of them which was providing the best services at an economical price. All necessary arrangements for the tour were also made. Snacks for the route were purchased and packed the day before. It was scheduled to departure from university at 6am and accordingly everyone was informed.

3.2 **Departure**

The morning of December 7 was quite cold, and it was much colder at 6 in the morning. The streets were all deserted. It was supposed to leave at 6 in the morning, so we had to leave the house around 5 pm. It was cool to arrive at the university. Be the first to make an entry to the team and boarded the bus with the rest of the friends. It was 6pm time to reach the university almost all were there on time. There were all the Master Level classes, so the students were quite high. There were about 190 students and about 10 buses were arranged for them. By 6:30 pm, all the people had arrived and were boarding the buses. At about 7am we left the university. There were 10 buses, one by one. Go ahead and get on the tour.

3.3 **Traveling**

Our first destination was a Bhera interchange where we had to breakfast. The motorway was our route, so we rode the motorway. In the beginning, there was a lot of fog that was not suitable for travel. But thankfully the fog was gone, and the path was clear. Since we were all friends (class fellows) riding the same bus, we enjoyed each other company very well. There was an excellent speaker in the bus, so songs were played on it that went

almost all the way. Dance was performed on songs. The place was a bit on the bus but still had a lot of fun. Since no know the dance properly but everyone did their own way. The route was quite long but time was realized with in the fun.

3.4 **Bhera Interchange**

We arrived at Bhera Interchange at around 10am. The weather was much better. The sun had come out which was feeling pretty good in the cold. Breakfast was already arranged at the Pea Cooke restaurant. The students were quite high, so the arrangements were made accordingly. The whole restaurant was almost full of students. Breakfast was served to everyone.

3.5 **Breakfast**

Breakfast was good for the occasion. Almost everyone ate well. Tea served after breakfast, which was suit best within the cold. Almost everyone drank tea. After breakfast everyone freshened up, and then the pictures were taken. After breakfast everyone boarded the bus. Again, the list of all the students was checked and assured that no one was left behind. After all these activities, again the journey was resumed, which was now towards the Khewra salt mine.

The same songs were played again and again on the bus. And the dance was performed as well as the laughter. The weather improved over time and by noon it was almost full sun, with the cold almost gone.

3.5 **Arrival at Khewra Salt Mine**

We arrived at the Khewra Salt Mine around 1pm. One by one, all the buses arrived, and all the students gathered there for going to the mine. Students were high in numbers, so wait for tickets. The tour operator booked the tickets. It was about 1:30 pm when we entered salt mine. The tour guide was pre-arranged, who joined us from the beginning. Because of the rush, we had to walk on foot instead of on the train. All the way the tour operator was guided regarding mine. He told the whole history of the salt mine. He told us what kind of salt there is and how the salt is extracted. He also told me how many floors in salt mine and how workers does are working here .He covers almost all the salt mine and told us all the details of the mine on every stop.

In the salt mine, we saw different types of ponds. Some were too deep. Some were a little deeper. There we saw a mosque made of salt and a minaret made of salt which was quite beautiful to see. Everyone took enough pictures and had a lot of fun there. Almost everything there was for mesmerizing. We cover almost all the salt mine and saw

everything. And finally, we got the group picture. After the photo was taken, we move outward from the mine and it took about half an hour to get out.

Outside the mine, all students were gathered and waiting for others to come. All the students reunited and boarded the buses. Once again, the students list was checked, and it was assured that no one was left.

3.6 **Katas Raj Fort**

The buses departed again and now our next destination was the Katas fort. Since everyone was tired of walking. So, everyone relaxed on the bus and ate the snacks they brought along with them. The hunger was felt by everyone, so almost everyone took their own choice snacks and ate. The route from the Salt mine to Katas fort was quite dangerous. There was a single road on which the driver needs to take extra care while driving -we left at about 3:30 pm and the journey ahead was about half an hour, which could have been exacerbated by the rush. Route was difficult, that's why the songs were

stopped, which distract the driver's attention. We arrived at Katas around 4:15 pm. The weather was getting colder over time. Reaching the Fort, everyone roamed on his own. Some were going to one side and some go to the other way. Everyone here took a lot of pictures there. Pictures were also taken with the Professors. We saw the pond which have the great importance for the Hindus. We were off early, then returned to the buses. There was also a tea hotel. Tea was ordered for the occasion as well as baked. We stayed there until the rest of the students arrived. It was dusk, the sun was also slowly setting, causing the cold to rise. Here we stayed for about 1 hour. Well when all the students returned, the journey started again. Now our next destination was Kallar Kahar.

3.7 **Kallar Kahar**

The distance to Kallar Kahar was about an hour. Snacks on the buses were again taken and having fun along with the songs. By the time when we reached Kallar Kahar, it was dark, and the severity of the cold was increasing. Buses were stopped near the park. It was about half an hour stayed there. Some people went to the freshen, some swam in the park and the rest wandered around. After a half-hour stayed there, the journey started again, which was hardly 15-20 minutes.

3.8 **Bonfire & Dinner**

Our next and last destination was a Grand Imperial hotel according to this tour. Where we had dinner and had a bonfire party. By dawn, almost everyone was tired, and hunger was also on peak. Bonfire was arranged before the dinner and arranged on the back side of the hotel. Where all the students, including the university faculty, had gathered. Where there were a plenty of chairs and in between them fire was set. The fire in the cold weather was giving an enough comfort. One Large speaker were also arranged. Various songs were played on them, and later the students danced on that. The ceremony lasted more than 1 hour, and everyone had a lot of fun there. At the end of the ceremony a group photo was taken which also included the faculty of the University. The meal was opened after the bonfire. It was a Buffet arrangement, that's why no shortage of food happened, everyone ate well. There was also an arrangement of dessert after dinner.

After the meal, everyone was refreshed again. Now that the return was to be made, everyone was seated in the bus and for the last time, it was re-assured that no one was left behind.

3.9 Traveling Back to Lahore

We start our journey back towards Lahore around 9 pm. Now our destination was direct to our university. The weather was cool but there was no fog. So, it was decided again to travel on the motorway. This time again the songs were played in the bus, but the sound was kept low because of the fatigue so many people wanted to sleep. Almost everyone has spent some time in sleeping.

Again, all the buses are stopped on the motorway for fueling. It was stayed there for 15 to 20 mins. Those who were supposed to be fresh went to the washroom and those who want to drink tea went to get the tea. Our stay here was about 15 to 20 minutes. After that the journey was continued again. The return journey was about 3 to 4 hour and the songs were played continued almost all the way, which was providing a pleasant experience. We arrived at the university around 12:30 pm. With the intensity of the cold, fog began to fall. Upon arriving at the university, everyone had to leave their homes. This was our University Project Tour which was great and we had a lot of fun.

Chapter# 04

4.1 **Primavera P-6**

P6 is a professional project management tool. It is developed by oracle and designed to handle massive, highly sophisticated and diversified projects.

The combination of good critical path analysis and flexible code layout makes Primavera P6 the most commonly used architecture and building plan and output tool.

This makes Primavera P6 the primary platform for handling projects, plans, and portfolios used by over 75,000 organizations worldwide. The fact that the program is so common in heavy industrial engineering and process engineering means that Primavera P6 is the best paid and the most experienced project planners.

Primavera was the industry pioneer in using the essential approach of project planning from predominantly paper-specific planning in the 1970. Now Primavera P6 allows you to link it to the company-based accounting systems that large companies have. In fact, Primavera P6 can use a much more modern computer-based technology.

Building is a very controversial business. Projects never go to schedule and when changes occur, expensive lawsuits often end in litigation or trial proceedings.

In case of a dispute, several builders base and change their construction plans in order to obtain evidence. P6 can be securely stored as it is associated with a database.

Representations and representations regarding lawsuits on the project are a special area of project planning, and the results from Primavera P6 usually are used for evaluating Claims.

P6 makes it possible to incorporate the project budget into the plan for delivery and to monitor the work in progress. It serves as the bridge between the plan for funding projects and the execution strategy of the project.

The decision-makers for ventures also come from the history of industry and corporate finance. The capacity of Primavera P6 to communicate with financial systems and

comment on financial reporting is a major feature in certain programs. Often the biggest step in a company's future planning is a big project. This ensures that the highest levels of the company, its major shareholders, its employees and even the policymakers involved review the enterprise and the progress that it is currently making.

4.2 Features of p6

- Planning, scheduling and control projects
- Track progress, assign task of resources
- Visualize performance of project vs monitor the project
- Multiple user can update schedule at the same time
- Develop resource and schedule report

4.3 **Activities list of Khewra salt mine project**

4.3.1 Salt mining

1. Start
2. Feasibility Report
3. Hiring Engineer
4. Site Inspection
5. Create Inspection Report
6. Create Extraction Plan
7. Labor Resources Hiring
8. Assign Responsibility to Labor
9. Arrange Electricity
10. Arrange Machinery for drilling
11. Arrange Water and Safety Equipment’s
12. Install Drilling and Safety Equipment’s
13. Drilling Holes for Blasting
14. Drilling Inspection
15. Removing Drilling Machinery
16. Drilling Report

17. Arrange Blasting Material
18. Installing Blasting Material
19. Perform Blasting
20. Perform Site Safety Inspection
21. Removal over Hanging Rocks
22. After Blast Remove Blasting Equipment
23. Blasting Report

4.3.2 Salt extraction

24. Arrange Loader for extracting
25. Get out Salt Stones from Mine
26. Separating Salt Stone (white, red, pink)
27. Report on Categorized Salt
28. Making Slabs
29. Quantity Inspection
30. Create Raw Material Report
31. Raw Material Loading in Trucks
32. Consignment
33. Unloading Raw Salt at PMDC
34. Quantity Recheck
35. Consignment Report
36. Categorized Salt for Export/ Industry / Decoration / Eating
37. Separation of Salt Big and Small Stones
38. Create report on Salt Division
39. Transferring Raw Salt to Machinery
40. Hand Crushing
41. Machine Crushing
42. Elevate to Next Process
43. Purifier Salt Powder/Crystal
44. Packing Salt Powder/Crystal

4.3.3 Salt inventory

45. Create Inventory Report
46. Transferring Salt into Warehouses
47. Cross check Inventory at Warehouses
48. Update Inventory Record
49. Generate Updated Inventory Report
50. Send Inventory report to GM
51. Closing

4.4 **Resources**

1. Project Manager
2. Assistant Manager
3. Site Engineer
4. Site Supervisor
5. Helper
6. Mine Labor
7. Extracting Supervisor
8. Inventory Supervisor
9. Generator
10. Drilling Machine
11. Blasting Equipment
12. Blasting Material
13. Trolley
14. Truck
15. Salt Crushing Machine
16. Elevator Machine
17. Purifier Machine
18. Salt Packaging Bags
19. Safety Equipment’s

4.5 Resources for khewra salt mine project

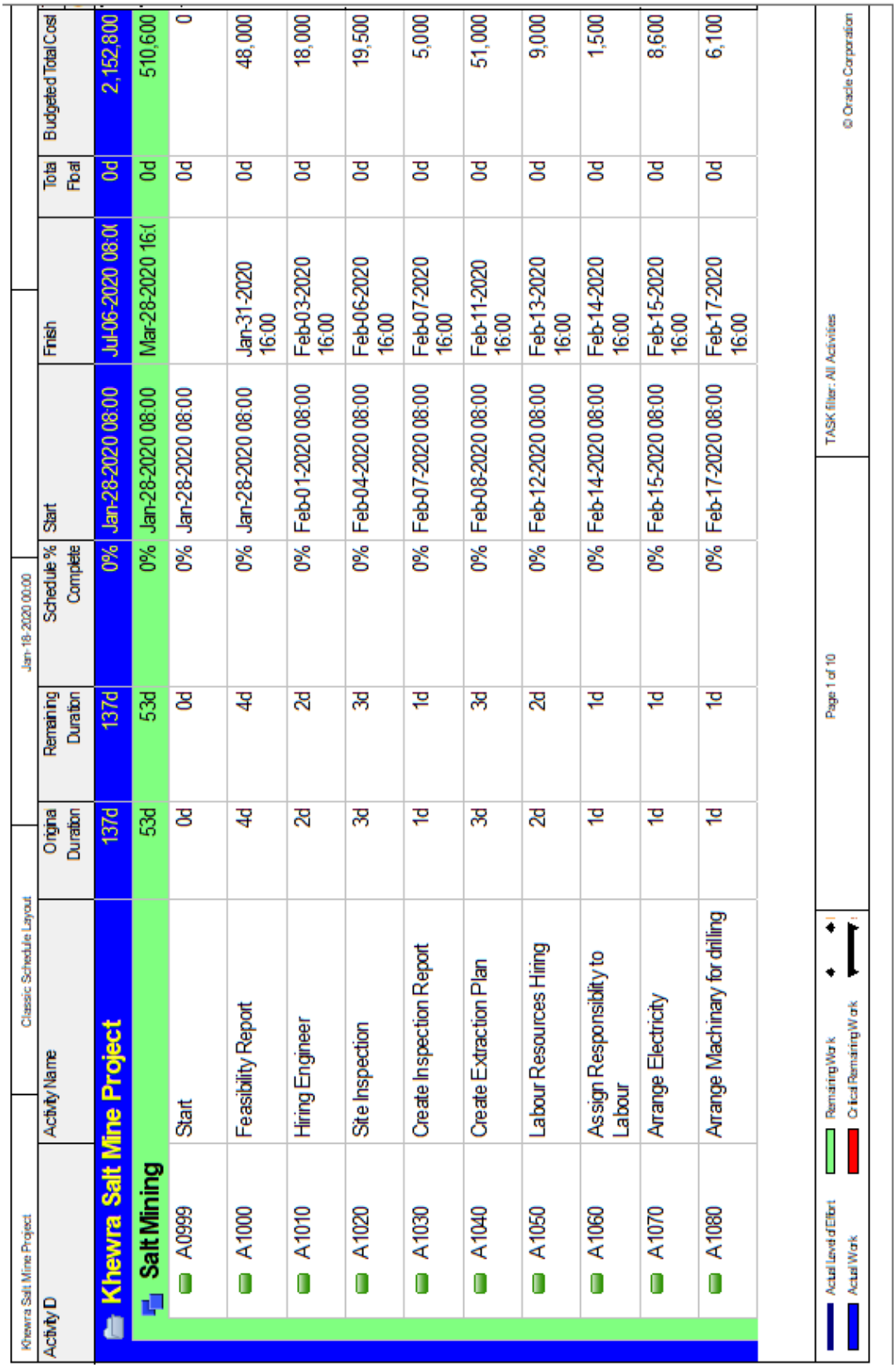
Resources

Activities | Resources | Projects

Display: Current Project's Resources

Resource ID	Resource Name	Resource Type	Unit of Measure	Primary Role	Default Units / Time
PM	Project Manager	Labor			1d/d
AM	Assistant Manager	Labor			1d/d
EN	Site Engineer	Labor			1d/d
H	Helper	Labor			1d/d
SS	Site Supervisior	Labor			1d/d
ML	Mine Labour	Labor			1d/d
ES	Extracting Supervisior	Labor			1d/d
IS	Inventory Supervisior	Labor			1d/d
Gen.	Generator	Nonlabor			1d/d
D.Mach	Drilling Machine	Nonlabor			1d/d
B.Equip	Blasting Equipment	Nonlabor			1d/d
B.Mtrl	Blasting Material	Material	Lump Sum		
Tr.	Trolly	Nonlabor			1d/d
Truck	Truck	Nonlabor			1d/d
S.C.M	Salt Crushing Machine	Nonlabor			1d/d
E.M	Elevator Machine	Nonlabor			1d/d
Pu.M	Purifier Machine	Nonlabor			1d/d
P.Salt	Salt Packaging Bags	Material	Each		
SEqui	Saftey Equipments	Nonlabor			1d/d

4.6 Activities for khewara salt mine project



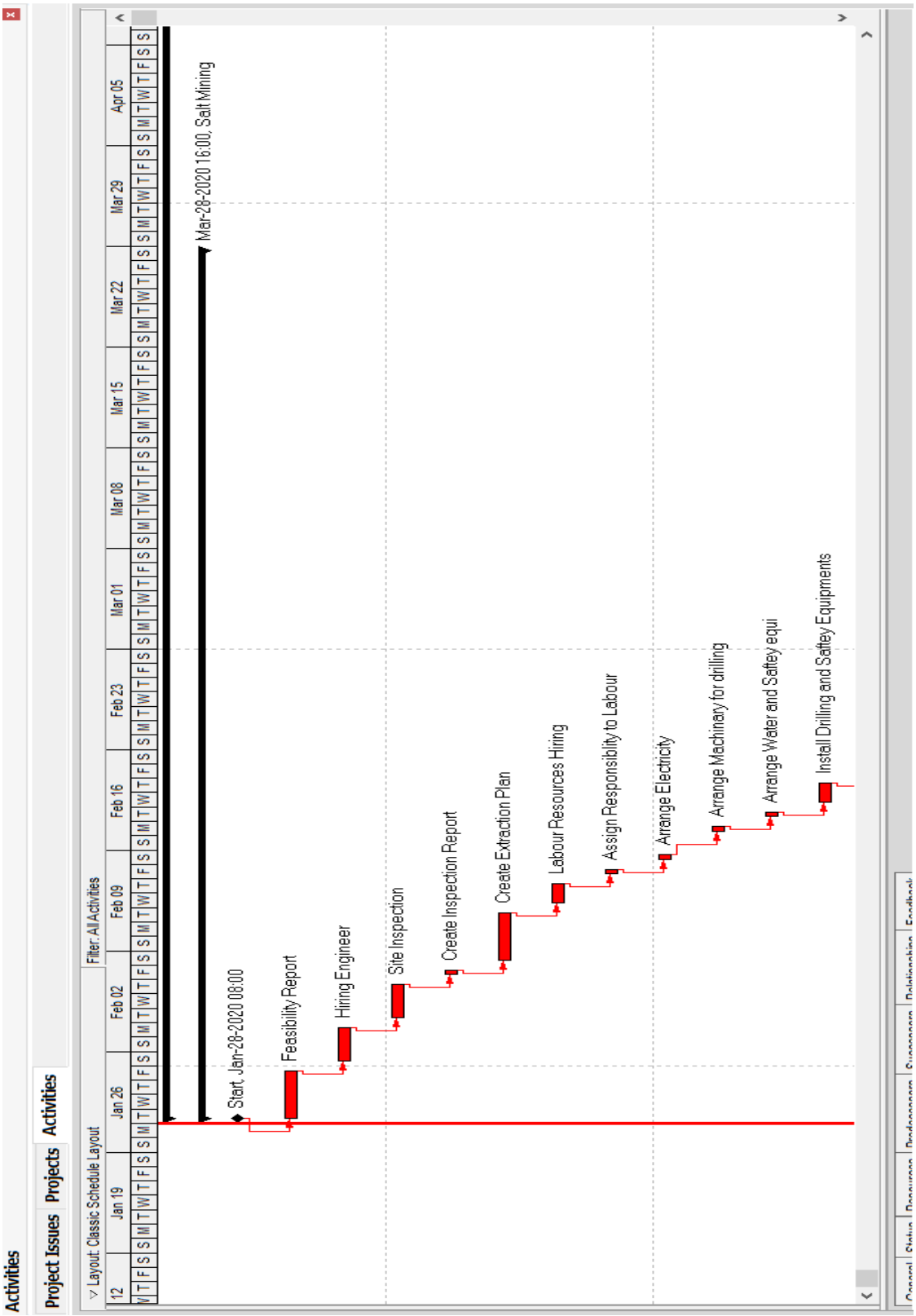
Khewra Salt Mine Project	Classic Schedule Layout	Jan-18-2020 00:02						
Activity ID	Activity Name	Origina Duration	Remaining Duration	Schedule % Complete	Start	Finish	Tota Float	Budgeted Total Cost
A1090	Arrange Water and Saftey equi	1d	1d	0%	Feb-18-2020 08:00	Feb-18-2020 16:00	0d	5,600
A1100	Install Drilling and Saftey Equipments	2d	2d	0%	Feb-19-2020 08:00	Feb-20-2020 16:00	0d	22,400
A1110	Drilling Holes for Blasting	10d	10d	0%	Feb-21-2020 08:00	Mar-03-2020 16:00	0d	67,000
A1120	Drilling Inspection	1d	1d	0%	Mar-04-2020 08:00	Mar-04-2020 16:00	0d	1,500
A1121	Removing Drilling Machinary	1d	1d	0%	Mar-05-2020 08:00	Mar-05-2020 16:00	0d	5,200
A1122	Drilling Report	1d	1d	0%	Mar-06-2020 08:00	Mar-06-2020 16:00	0d	4,500
A1130	Arrange Blasting Material	2d	2d	0%	Mar-07-2020 08:00	Mar-09-2020 16:00	0d	9,200
A1140	Installing Blasting Material	1d	1d	0%	Mar-10-2020 08:00	Mar-10-2020 16:00	0d	32,300
A1150	Perform Blasting	6d	6d	0%	Mar-11-2020 08:00	Mar-17-2020 16:00	0d	94,200
A1160	Perfrom Site Saftey Inspection	1d	1d	0%	Mar-18-2020 08:00	Mar-18-2020 16:00	0d	6,500
A1170	Removel Over Hanging Rocks	7d	7d	0%	Mar-19-2020 08:00	Mar-26-2020 16:00	0d	80,500
A1171	After Blast Remove Blasting Equipment	1d	1d	0%	Mar-27-2020 08:00	Mar-27-2020 16:00	0d	5,500
A1172	Blasting Report	1d	1d	0%	Mar-28-2020 08:00	Mar-28-2020 16:00	0d	9,500

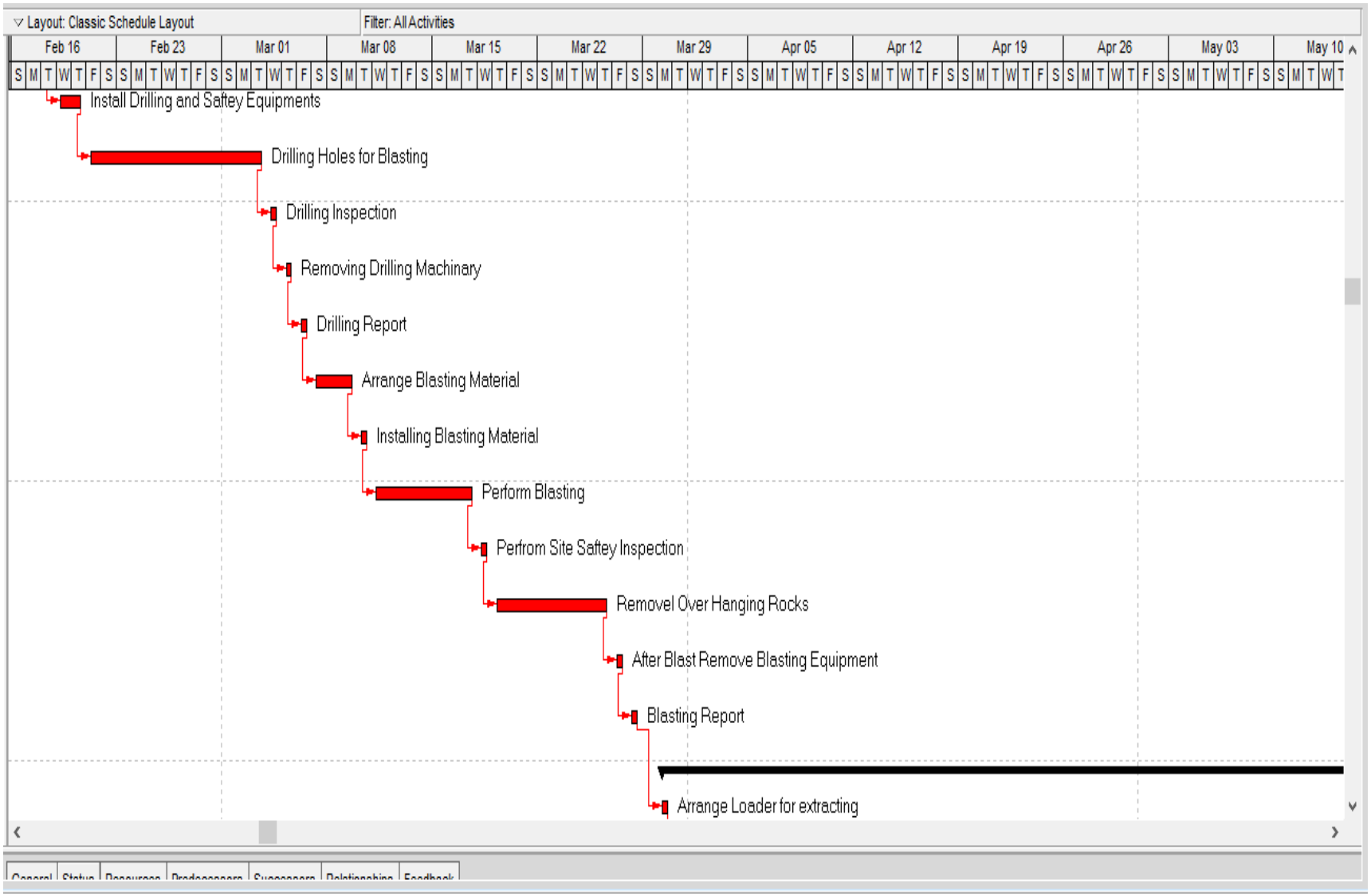
Khewra Salt Mine Project	Classic Schedule Layout	Jan-18-2020 00:03						
Activity ID	Activity Name	Origina Duration	Remaining Duration	Schedule % Complete	Start	Finish	Tota Float	Budgeted Total Cost
Salt Extraction		76d	76d	0%	Mar-30-2020 08:00	Jun-25-2020 16:0	0d	1,581,000
A1180	Arrange Loader for extracting	1d	1d	0%	Mar-30-2020 08:00	Mar-30-2020 16:00	0d	33,000
A1200	Get out Salt Stones from Mine	6d	6d	0%	Mar-31-2020 08:00	Apr-06-2020 16:00	0d	300,000
A1210	Seprating Salt Stone (white, red, pink)	5d	5d	0%	Apr-07-2020 08:00	Apr-11-2020 16:00	0d	87,500
A1211	Report on Categorized Salt	1d	1d	0%	Apr-13-2020 08:00	Apr-13-2020 16:00	0d	4,500
A1220	Making Slabs	5d	5d	0%	Apr-14-2020 08:00	Apr-18-2020 16:00	0d	100,000
A1230	Quantity Inspection	2d	2d	0%	Apr-20-2020 08:00	Apr-21-2020 16:00	0d	9,000
A1240	Create Raw Material Report	1d	1d	0%	Apr-22-2020 08:00	Apr-22-2020 16:00	0d	4,500
A1250	Raw Material Loading in Trucks	3d	3d	0%	Apr-23-2020 08:00	Apr-25-2020 16:00	0d	195,000
A1260	Consignment	4d	4d	0%	Apr-27-2020 08:00	Apr-30-2020 16:00	0d	200,000
A1270	Unloading Raw Salt at PMDC	2d	2d	0%	May-01-2020 08:00	May-02-2020 16:00	0d	30,000
A1280	Quantity Recheck	1d	1d	0%	May-04-2020 08:00	May-04-2020 16:00	0d	2,100
A1281	Consignment Report	5d	5d	0%	May-05-2020 08:00	May-09-2020 16:00	0d	22,500

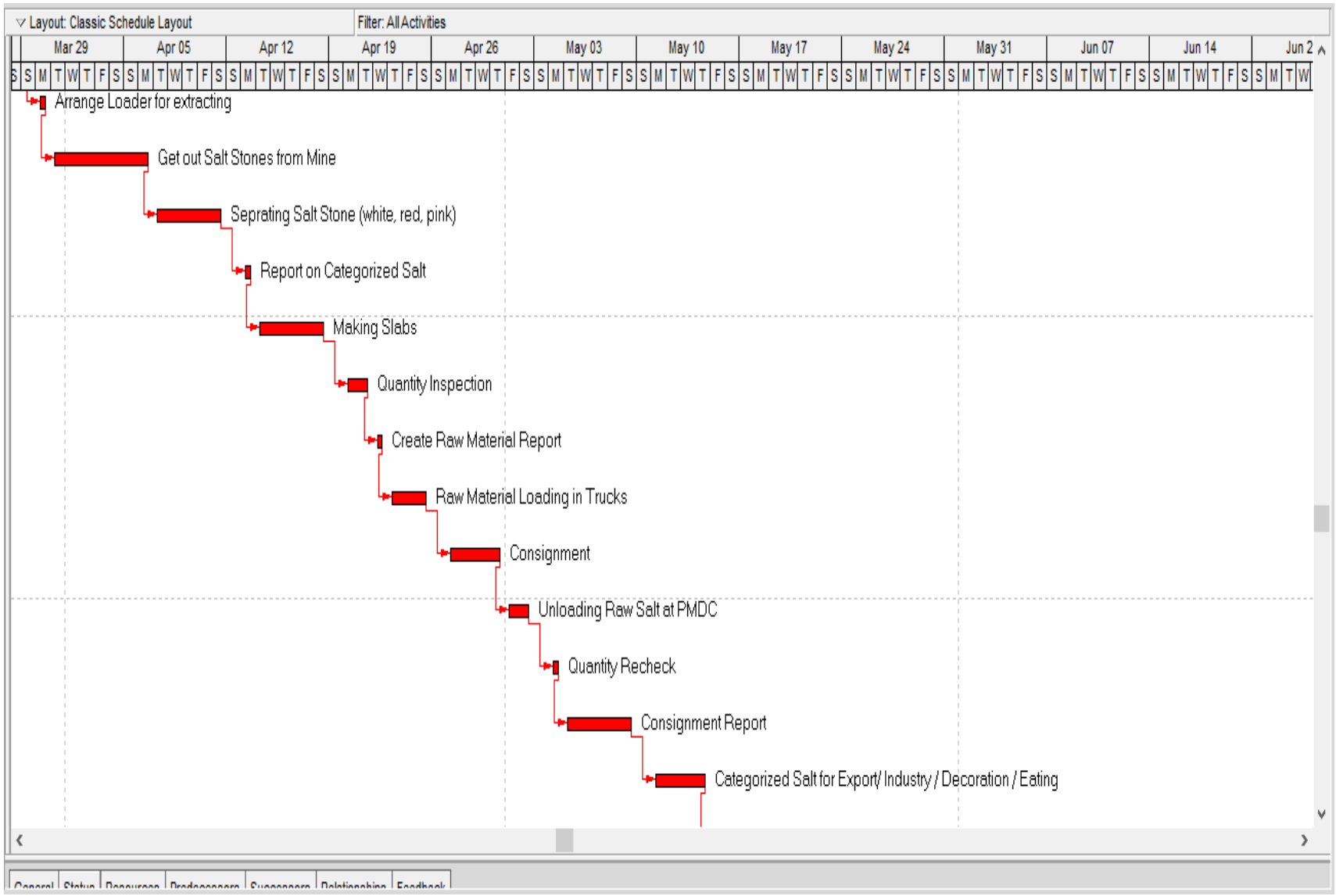
Khewra Salt Mine Project	Classic Schedule Layout	Jan-18-2020 00:04						
Activity ID	Activity Name	Origina Duration	Remaining Duration	Schedule % Complete	Start	Finish	Tota Float	Budgeted Total Cost
A1290	Categorized Salt for Export/ Industry / Decoration / Eating	4d	4d	0%	May-11-2020 08:00	May-14-2020 16:00	0d	86,000
A1300	Sepration of Salt Big and Small Stones	3d	3d	0%	May-15-2020 08:00	May-18-2020 16:00	0d	69,900
A1301	Create report on Salt Division	5d	5d	0%	May-19-2020 08:00	May-23-2020 16:00	0d	22,500
A1310	Transfering Raw Salt to Machinery	2d	2d	0%	May-25-2020 08:00	May-26-2020 16:00	0d	51,000
A1320	Hand Crushing	10d	10d	0%	May-27-2020 08:00	Jun-06-2020 16:00	0d	175,000
A1330	Machine Crushing	6d	6d	0%	Jun-08-2020 08:00	Jun-13-2020 16:00	0d	82,200
A1340	Elevate to Next Process	3d	3d	0%	Jun-15-2020 08:00	Jun-17-2020 16:00	0d	27,600
A1350	Purifier Salt Powder/Crystal	4d	4d	0%	Jun-18-2020 08:00	Jun-22-2020 16:00	0d	32,800
A1360	Packing Salt Powder/Crystal	3d	3d	0%	Jun-23-2020 08:00	Jun-25-2020 16:00	0d	45,900
Salt Inventory		8d	8d	0%	Jun-26-2020 08:00	Jul-06-2020 08:0(	0d	61,200
A1370	Creat Inventory Report	2d	2d	0%	Jun-26-2020 08:00	Jun-27-2020 16:00	0d	9,000
A1380	Transfering Salt into Warehouses	3d	3d	0%	Jun-29-2020 08:00	Jul-01-2020 16:00	0d	45,000
A1390	Cross check Inventory at Warehouses	1d	1d	0%	Jul-02-2020 08:00	Jul-02-2020 16:00	0d	1,800

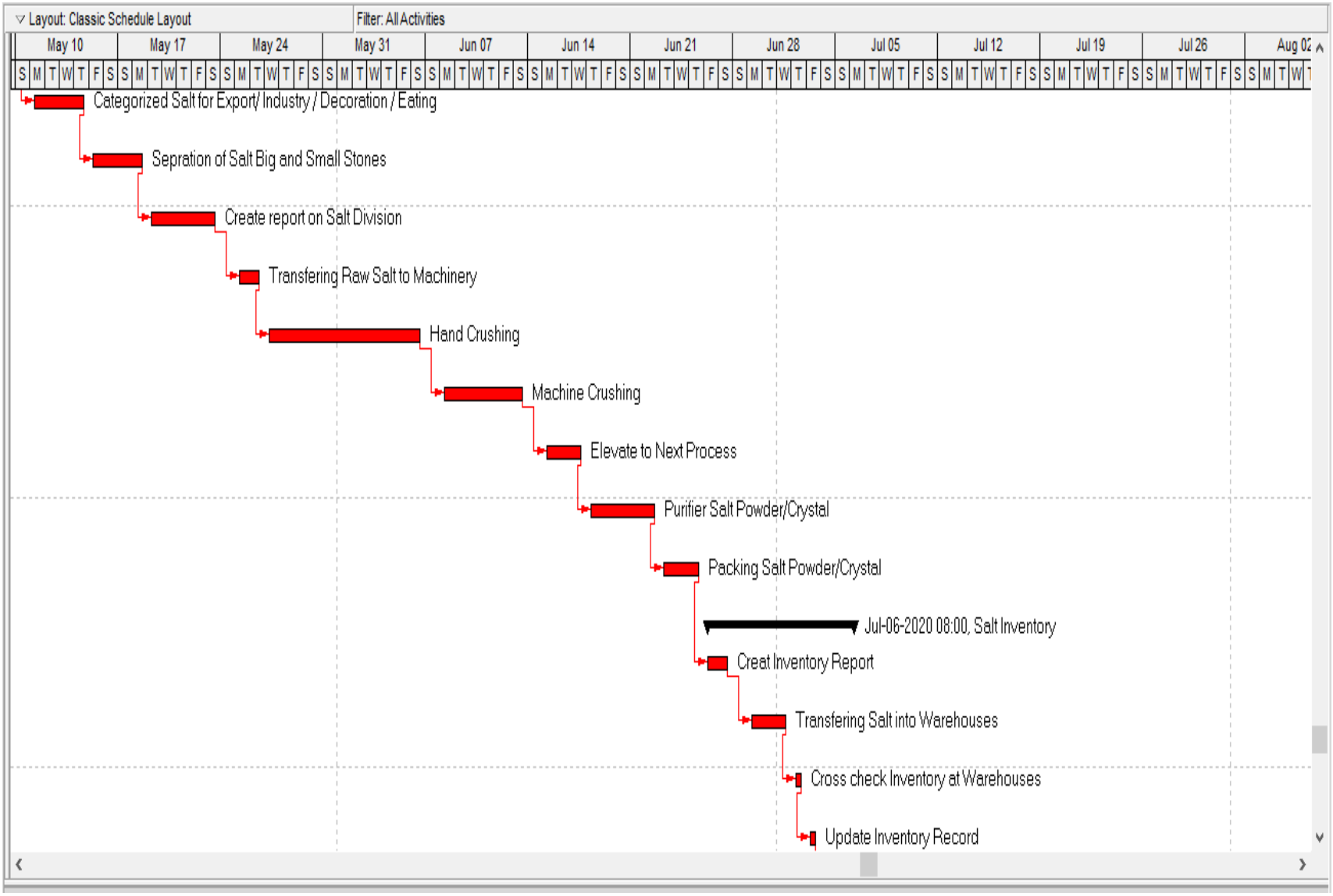
Khewra Salt Mine Project	Classic Schedule Layout	Jan-18-2020 00:04						
Activity ID	Activity Name	Origina Duration	Remaining Duration	Schedule % Complete	Start	Finish	Tota Float	Budgeted Total Cost
A1400	Update Inventory Record	1d	1d	0%	Jul-03-2020 08:00	Jul-03-2020 16:00	0d	1,200
A1410	Generate Updated Inventory Report	1d	1d	0%	Jul-04-2020 08:00	Jul-04-2020 16:00	0d	4,200
A1420	Send Inventory report to GM	0d	0d	0%	Jul-06-2020 08:00	Jul-06-2020 08:00	0d	0
A1430	Closing project	0d	0d	0%		Jul-06-2020 08:00	0d	0

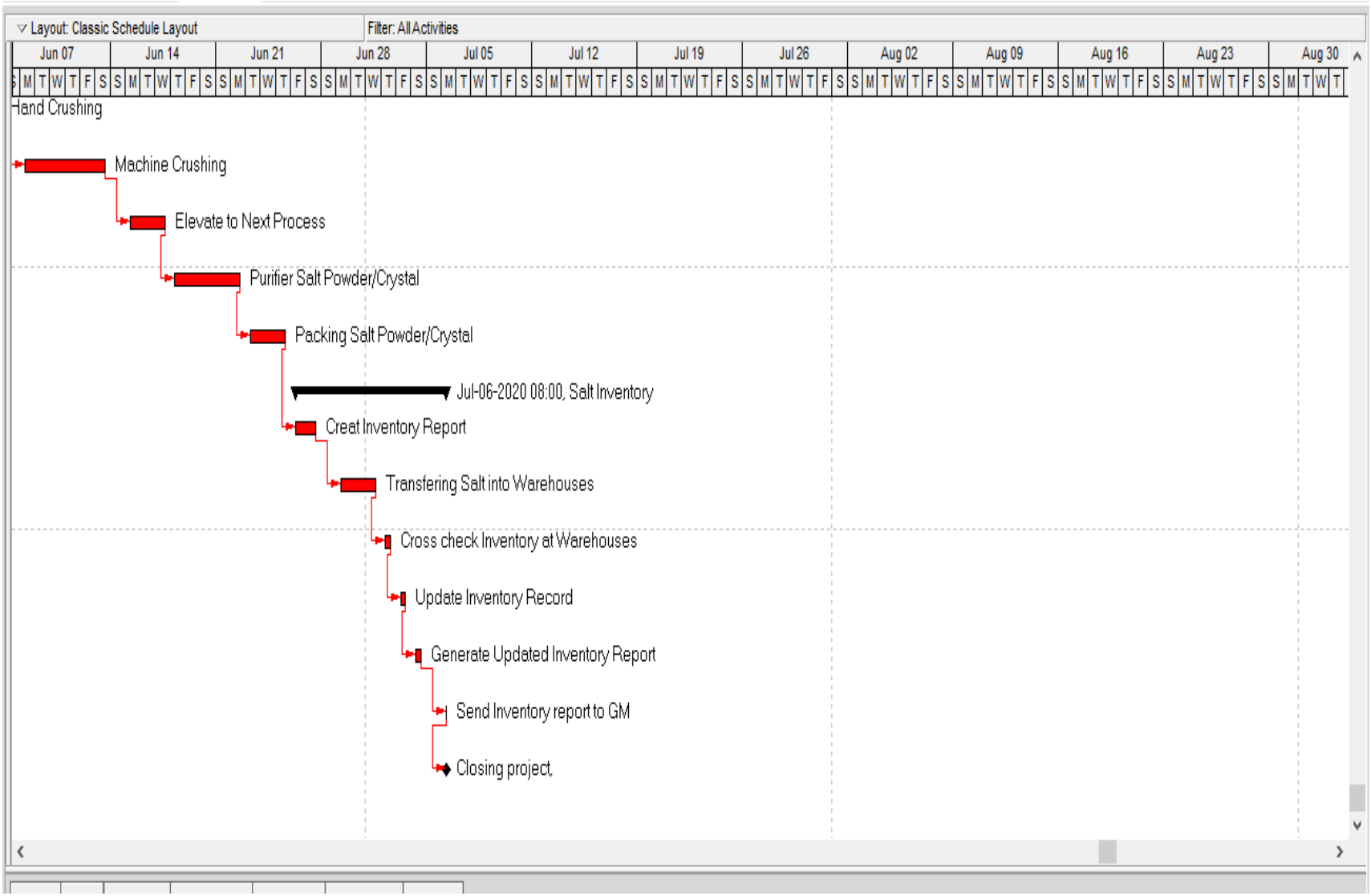
4.7 Gantt chart for khewra salt mine project



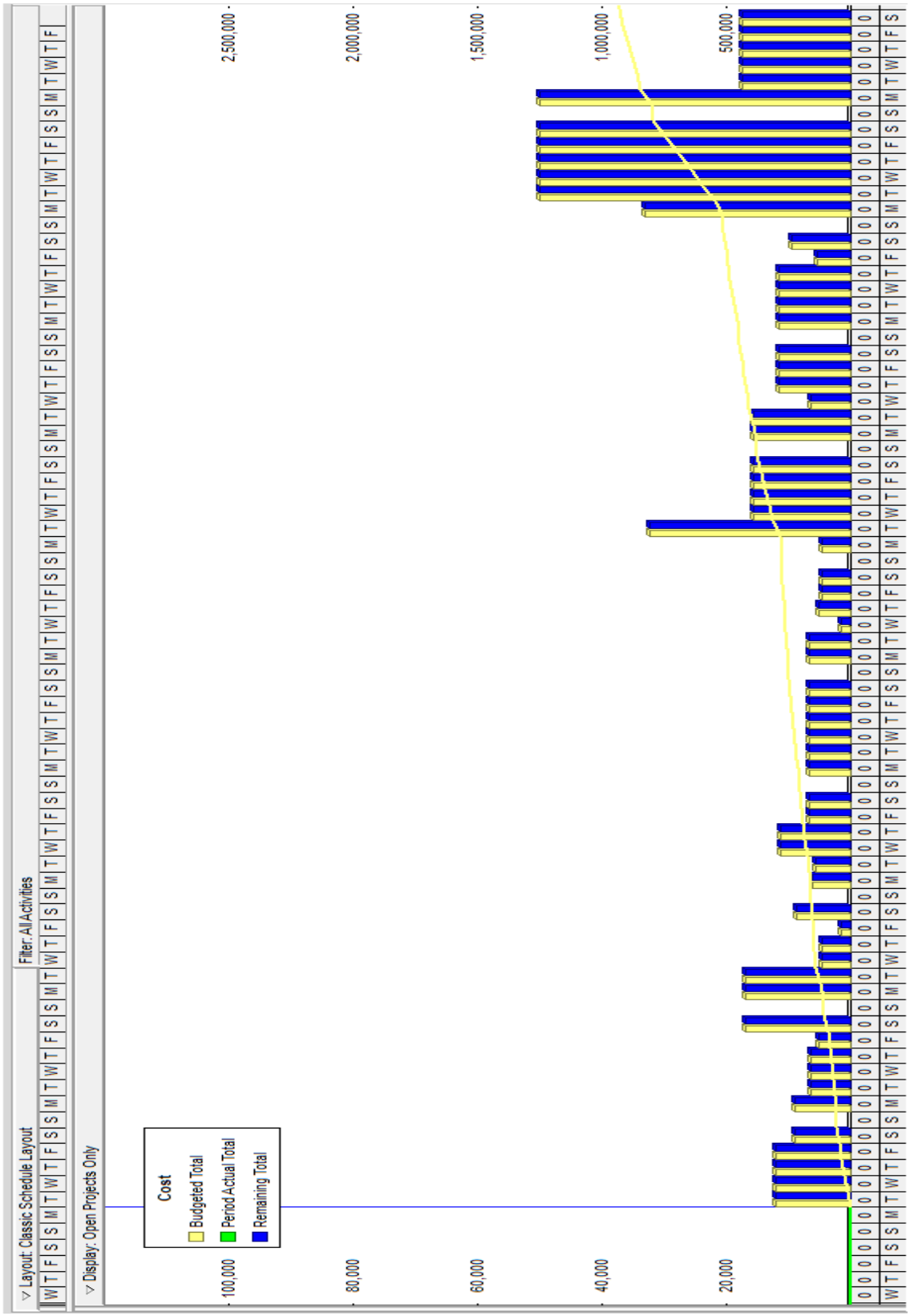

Layout: Classic Schedule Layout
Filter: All Activities
Feb 16
Feb 23
Mar 01
Mar 08
Mar 15
Mar 22
Mar 29
Apr 05
Apr 12
Apr 19
Apr 26
May 03
May 10
Install Drilling and Saftey Equipments
Drilling Holes for Blasting
Drilling Inspection
Removing Drilling Machinary
Drilling Report
Arrange Blasting Material
Installing Blasting Material
Perform Blasting
Perfrom Site Saftey Inspection
Removel Over Hanging Rocks
After Blast Remove Blasting Equipment
Blasting Report
Arrange Loader for extracting

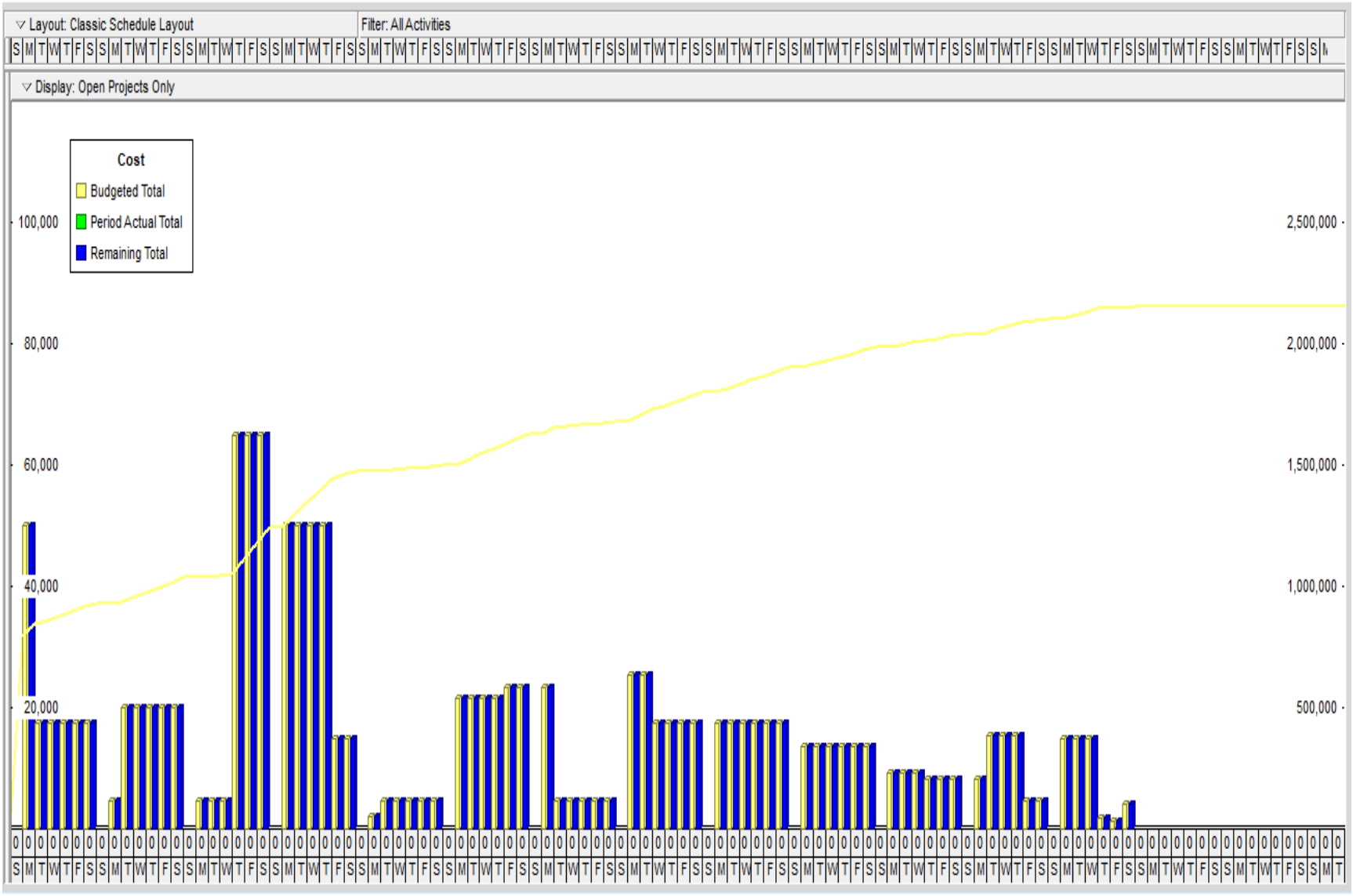

Layout: Classic Schedule Layout
Filter: All Activities
Mar 29
Apr 05
Apr 12
Apr 19
Apr 26
May 03
May 10
May 17
May 24
May 31
Jun 07
Jun 14
Arrange Loader for extracting
Get out Salt Stones from Mine
Seprating Salt Stone (white, red, pink)
Report on Categorized Salt
Making Slabs
Quantity Inspection
Create Raw Material Report
Raw Material Loading in Trucks
Consignment
Unloading Raw Salt at PMDC
Quantity Recheck
Consignment Report
Categorized Salt for Export/ Industry / Decoration / Eating


Layout: Classic Schedule Layout
Filter: All Activities
May 10
May 17
May 24
May 31
Jun 07
Jun 14
Jun 21
Jun 28
Jul 05
Jul 12
Jul 19
Jul 26
Aug 02
Categorized Salt for Export/ Industry / Decoration / Eating
Sepration of Salt Big and Small Stones
Create report on Salt Division
Transfering Raw Salt to Machinery
Hand Crushing
Machine Crushing
Elevate to Next Process
Purifier Salt Powder/Crystal
Packing Salt Powder/Crystal
Jul-06-2020 08:00, Salt Inventory
Creat Inventory Report
Transfering Salt into Warehouses
Cross check Inventory at Warehouses
Update Inventory Record

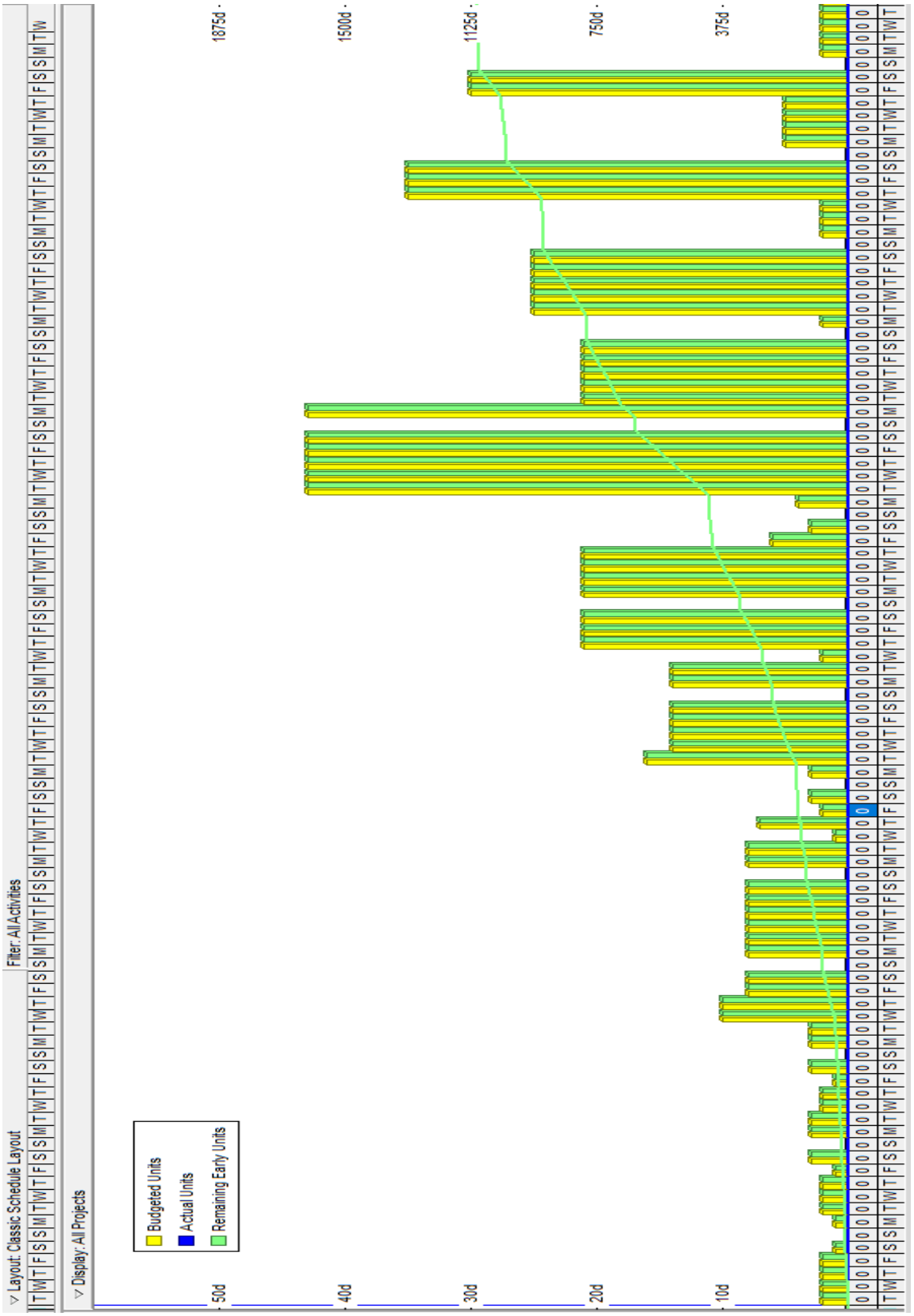

Layout: Classic Schedule Layout
Filter: All Activities
Jun 07
Jun 14
Jun 21
Jun 28
Jul 05
Jul 12
Jul 19
Jul 26
Aug 02
Aug 09
Aug 16
Aug 23
Aug 30
Hand Crushing
Machine Crushing
Elevate to Next Process
Purifier Salt Powder/Crystal
Packing Salt Powder/Crystal
Jul-06-2020 08:00, Salt Inventory
Creat Inventory Report
Transfering Salt into Warehouses
Cross check Inventory at Warehouses
Update Inventory Record
Generate Updated Inventory Report
Send Inventory report to GM
Closing project.

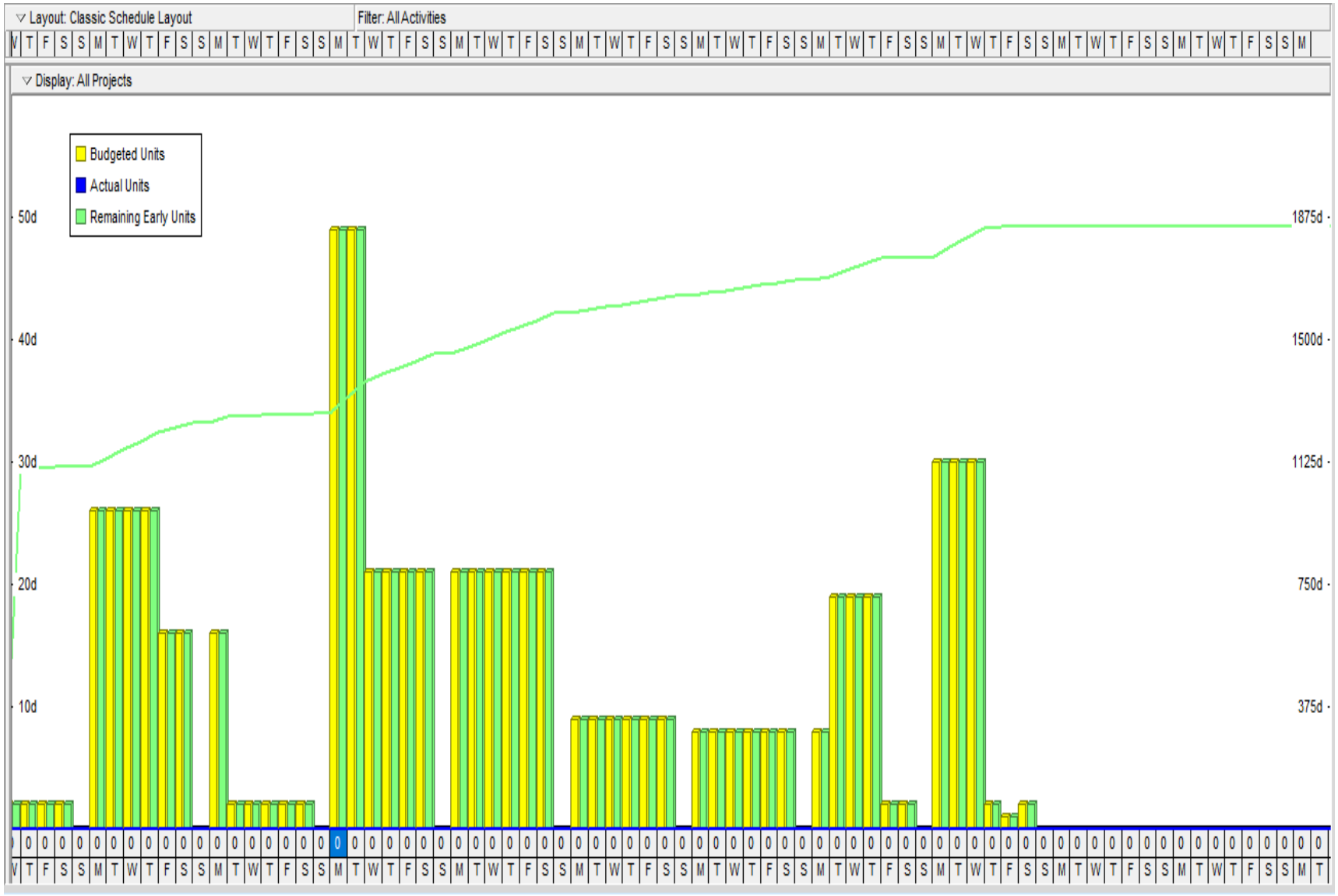
4.8 Histogram for khwera salt mine project



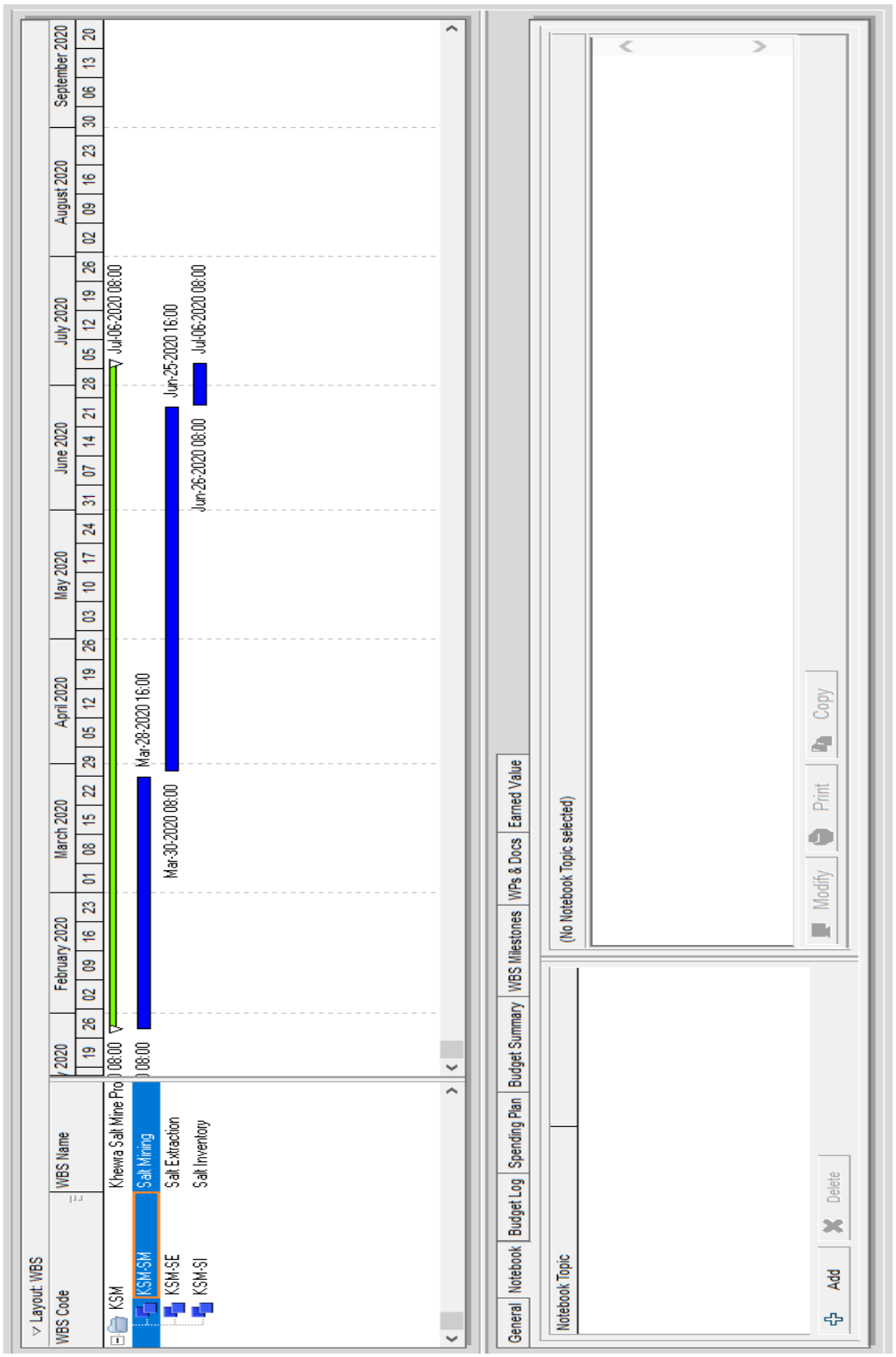

Layout: Classic Schedule Layout
Filter: All Activities
Display: Open Projects Only
Cost
Budgeted Total
Period Actual Total
Remaining Total
100,000
80,000
60,000
40,000
20,000
2,500,000
2,000,000
1,500,000
1,000,000
500,000

4.9 S-curve for khewra salt mine project

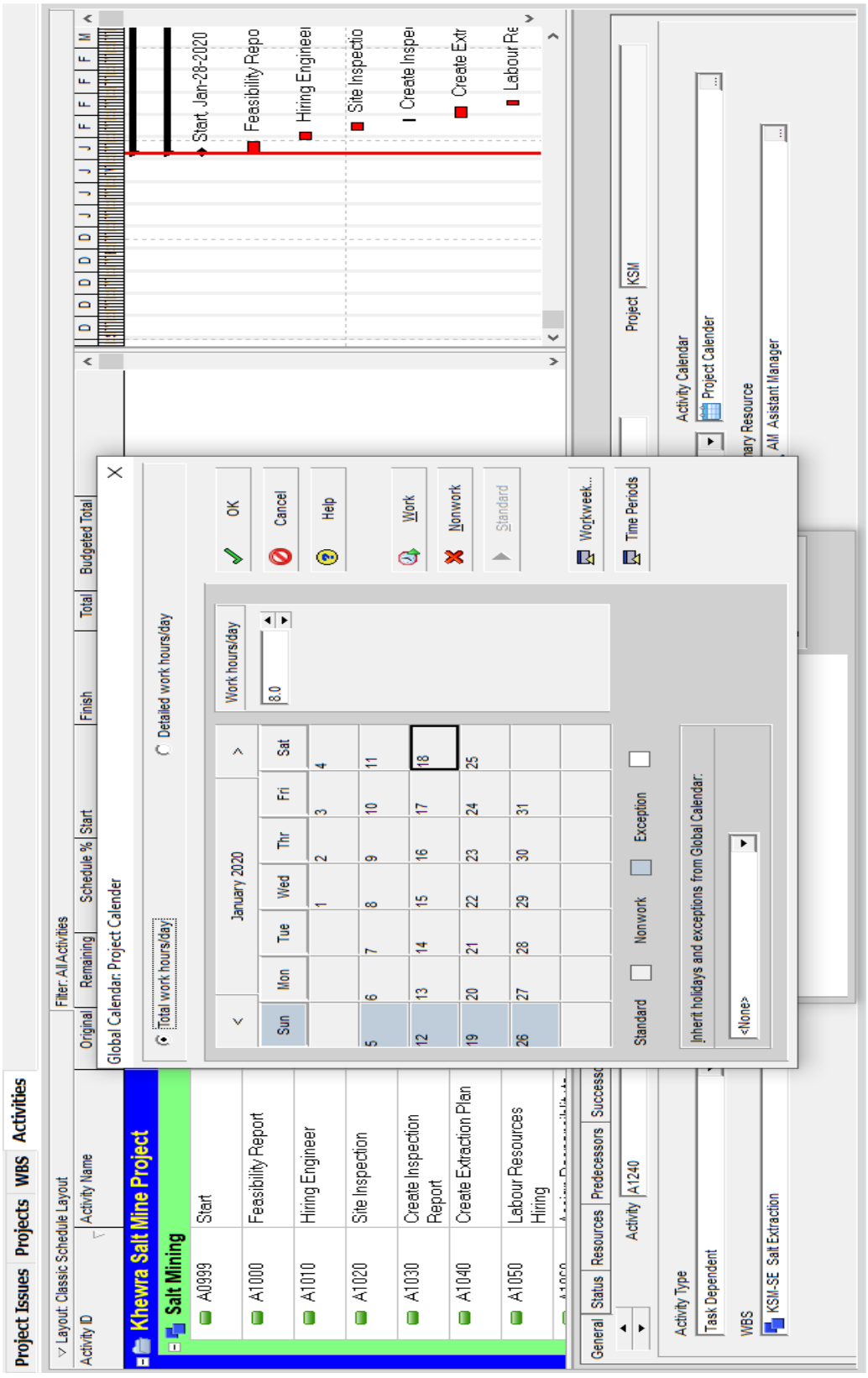



Layout: Classic Schedule Layout
Filter: All Activities
Display: All Projects
Budgeted Units
Actual Units
Remaining Early Units
50d
40d
30d
20d
10d
1875d
1500d
1125d
750d
375d

4.10 WBS for khewra salt mine project



4.11 Project calendar of khewra salt mine project



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