# connect

## TEAM BUILDING IN KASHMIR JANNAT NAZEER



Connect is a corporate newsletter intended for employees and partners of Lotte Chemical Pakistan

#### Cascade Sessions on HSE&S Best Practices

#### Shuaib Iqbal

LCPL has a well established and recognized HSE&S Management System. HSE & Technical Training department conducted a cascade session on HSE&S best practices on 18th April 2018 in the Recreation Hall. Multiple sessions were also conducted for shift groups.

Tariq N. Virk (GM Manufacturing), Syed Qamar Alam (Engineering Manager), Syed Masood UI Hassan (Production Manager) and Adnan UI Haque (Technical Manager) also participated in the session and shared their ideas for further improvement of HSE&S systems.



## 55 Million Man-hours without LTC

Lotte achieved yet another milestone of HSE&S performance on 3rd April 2018 by completing 55 Million Man-hours of employees and contractors without Lost Time Case (LTC).

Mr Humair Ijaz (Chief Executive) congratulated the team on achieving this world-class benchmark and appreciated their strong commitment and responsible approach towards HSE&S. Moving forward, he emphasized on not only maintaining this record but also on taking measures to further improve our HSE&S system.

Mr Tariq N Virk (General Manager Manufacturing) appreciated the exceptional safety record set by the LCPL team and acknowledged that this could not

#### Editor's Note

Dear Readers,

We are pleased to present to you all the Q2 Newsletter of 2018.

In this edition you will get a glimpse of the thrilling and adventurous Team Building in the mesmerizing valley of Kashmir, which was a cherished experience for the participants; the Iftaar dinner organized by HR & Admin during the blessed month of Ramadan; and the festivities of Eid ul Fitr, which was cheerfully celebrated have been possible without the great teamwork and responsibility shown by each and team member. He also stressed upon taking our HSE&S performance to the next level of excellence.

Spread over almost 20 years, our safety record clearly marks the successful implementation of HSE&S Policy and procedures and is indicative of Management's strong focus on HSE&S performance and the team's commitment to it.

We are fully focused on maintaining this record and making our company an even safer working place for our employees, contractors and visitors.

Congratulations to all LCPL employees & contractors!

at Lotte in a small gathering for employees at Plant.

This quarter we said goodbye to our Newsletter Team member Areeba Irfan and wish her good luck for her future endeavors.

We are grateful to everyone for their contributions towards this edition and also thank the readers for taking the time out to read this issue. As always, we look forward to your suggestions and write-ups for the next editions.

Happy Reading!

Sincerely, Newsletter Committee



#### A Remarkable Change

#### Umair Siddiqui

In the process PTA production, some beads can form, which are filtered out by a Filter (FIL1-2017) before the product is made ready for dispatch. The filter required unblocking by open blowing every 4 hours, which was a major issue as this not only leads to finished product loss and area housekeeping issues but was also affecting the performance of GTG Inlet Air Filters. Furthermore, the filter had to be bypassed during Plant startups and this removal and refitting of filter was a tedious and time consuming activity.

After brainstorming for quite some time, Production Purification team has come up with an arrangement in which the filter has been replaced with a valve with mesh as one of its discs. Instead of open blowing for removal of beads, the system is now purged into an alternate silo (Silo B), from where the powder can be later recovered and recycled. This brainchild of Mr. Nadeem Furgan (Sub Engineer Process) has numerous long term benefits in terms of reduced variable cost and effective manpower management. The role of Sikandar Khan (Plant Manager Purification) and Taimoor Aijaz (Shift Manager Purification) in designing and materializing this idea was extraordinary; they were well supported by Tariq Mehdi (Workshop Manager), Muhammad Ikram (JE Workshop), and Syed Mehmood Ali (Engineer Instrumentation).

Implementation of this modification has brought about significant operational ease in the overall system and has resulted in saving in terms of cost, time, efforts, and resources. Also the recovery of PTA powder has appreciably improved since the commissioning of this modified design.



#### A Creative Mind Adds Value

Muhammad Iqbal Awais



Demin water is a vital utility for the operation of plant and it is produced by employing ion-exchange method in conjunction with Reverse Osmosis treatment. Along with ensuring the quality of demin water, Utilities operations team continuously put efforts to optimize its production cost also.

Muhammad Sohail Akram studied the regeneration sequence of Anion exchanger in terms of their effectiveness and operational cost associated with them. He suggested changing the timers of 2 of the anion regeneration steps, reducing the overall time taken by the trains for regeneration. As a result of these actions anion conductivity was observed to have been improved after regeneration as compared to previous and down time for regeneration was also reduced by 2.17%. Also a significant cost saving has been achieved as less water is consumed now during regeneration.

Sohail's intelligence and his efforts in making this possible are highly appreciated. Such ideas reflect the employees' out of the box thinking for process optimization

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#### **Re-Certification of IMS Standards**

#### Shuaib Iqbal

LCPL was successfully re-certified for the upgraded Integrated Management System (IMS) Standards (OHSAS 18001, ISO-14001 & ISO 9001) after an external audit by URS from 23rd to 25th April 2018.

The auditors examined relevant documents and the practical implementation of all standards in all functions. All departments coordinated well for the audit

#### Dealing with the Unexpected Raja Abdullah Khan

Caustic Wash of the Plant was scheduled for the end of April, during which some maintenance related jobs were planned as well. Unfortunately a number of unforeseen issues of a critical nature arose during the outage.

At the start of the plant flush we witnessed high vibrations and tripping of one of the Pressure Centrifuges, so its immediate replacement job had to be initiated. On the other hand, as per the outage plan, the Third Crystallizer was opened for process reasons, but upon inspection its agitator steady arm was also found damaged. and provided the relevant records and evidence wherever required by the auditors.

After confirming its satisfaction with the HSE&S systems, the audit team recommended Lotte for re-certification and appreciated the company's efforts to ensure effective implementation of IMS.

These two unexpected major jobs were handled skilfully by the team with limited resources, keeping the outage to a minimum. The Maintenance and Workshop teams made a coordinated effort to address the issues, without compromising on safety or quality of work. The credit of successful handling of the situation goes to Raja Abdullah Khan (AM Maintenance), Ali Ahmed Khan (AM Maintenance), Nadeem Mehdi (Engineer Maintenance), M Saleem (Engineer Maintenance), Anwar UI Hasan (AE Mechanical), Sohail Javed (SE Mechanical) Junaid Khan (Mechanical Technician) and Zulfiqar (Workshop Machinist).



#### Lightning Fast Response

#### Taimoor Aijaz

Central Control Room is the brain of PTA plant where a team of highly experience and qualified staff operates the plant on computers. Any problem on these computers can result in serious consequences for PTA production and plant equipment.

On 2nd June 2018, the Instrumentation team diagnosed a bug in the computer systems' controller and decided to resolve the problem proactively by replacing a problematic cable. The job was extremely critical and there was a chance that computer controller may disrupt and cease operation of Purification plant equipment.

The risk of the job was assessed by the Operating team and after discussion of the consequences,

necessary actions required, and the role of each member in emergency, a strategy was developed before starting the job. The team was stationed in the area to immediately restart the drives if any of them tripped

When the Instrumentation team was swapping the cables, all four Centrifuges and the PTA Dryer train tripped simultaneously. This emergency could have resulted in a straight forward PTA production loss and Purification plant downtime of more than an hour, if not for the prompt response of the team. All the drives were restarted within 3 minutes. There was virtually no loss incurred owing to the smart planning, good team work and swift action by the all the team members.



#### Continuity is Life

#### Muhammad Irfan

Large manufacturing industries and processes are planned to operate on a continuous run between fixed time intervals. Longer stable runs of plant are both efficient and economical as unplanned outages can cause material loss as well as quality upsets in the end product. Therefore, the team aims to avoid unnecessary stoppages, and ensure a smooth plant operation. On 1st June 2018 leakage was observed from CTA Dryer steam inlet flexible hose. It was decided to operate the plant on low load, but this had not been done ever before for such a long duration. But the team took up the challenge and isolations were put in place to carry out the job.

This dryer outage is the longest we have ever achieved with the plant in running condition. It is a new milestone and a new story to tell.



#### Teamwork at its Best Talha Nabi Dar

Facing challenges head-on is the hallmark of the Maintenance team at LCPL. This attribute was once again exhibited by the Oxidation team during April 2018 Caustic Wash outage.

Among the planned maintenance jobs of Condensate Cooler and ROVAC filter cloth replacement was the atypical task of new CTA Dryer Dam Ring removal. Owing to the new Dryer's modified design, the rigging job of screw conveyor retrieval was an unfamiliar one and required great caution as well as quick on-site thinking.

The Maintenance team executed this task with complete commitment and focus under the supervision of Mohammad Shoaib (Engineer Oxidation),who was assisted by Tariq Patel (SE Mechanical Oxidation). They worked with tremendous dedication and made unwavering efforts to complete the job. With successful plant startup and smooth Dryer operation, the Maintenance team has registered yet another remarkable achievement.



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#### TPM Winners – Dubai Trip

#### Waqas Hameed

The Block 2 of Autonomous Maintenance continued from December 2016 to July 2017 in which all teams displayed immense determination in maintaining their respective areas as well. Our team, SGT-A1, secured the first position in this block and to celebrate the success, a four-day trip to various tourist attractions in Dubai and Abu Dhabi was organized for us.

On the first day, we headed over to the Dhow Cruise and enjoyed a great evening of music and food. The ambience and lighting with glowing waves added a great deal to the ocean's scenic beauty. The second day was reserved for Desert Safari. We had one of the most unique experiences as we bounced and jumped our way across the sandy, uneven desert terrains.

On the third day our first stop was at the Ferrari World in Abu Dhabi, which has the world's largest indoor amusement park. The second stop was at the historical and culturally significant Sheikh Zayed Mosque. This mosque is an epitome of Islamic and modern architectural fusion.

On the fourth and the last day, we went to the iconic Jumeirah Beach and Wild Wadi Water Park. We spent the entire day there which marked the end of an amazing tour.

This was one of the best and most memorable trips of our lives. We are now even more determined to give our 100% and come out at the top again.



#### TPM Runner up team - Pakistan Tour

#### Jawad Amin

Every task has its challenges, and the reward is for those who strive hard for it. Implementation of TPM Autonomous Maintenance, apart from plant improvement, provides a healthy competition among the teams. Our team, SGT-C2, secured second position in AM Block 2 and as a reward it was planned that we will go on a tour to Northern areas of Pakistan, a destination blessed with beauty in abundance.

We started the road journey from Pindi airport and travelled 906 KMs from Pindi all the way to Khunjerab. Along the way, we stopped at Hunza Valley, where we visited Baltit Fort and Eagle's Nest in the main town of Hunza. The valley is known for its dense pine forest valley with magnificent landscapes and wildlife. Other breathtakingly beautiful



places we explored were Naran, Kaghan and Shogran. One of the highlights of the tour was the astonishing view of the frozen Saif-ul-Muluk Lake. Khunjerab pass was another beauty with mountains covered with snow and to reach there, one has to travel on Karakoram Highway which is dubbed the eighth wonder of the world.

After a memorable trip of 7 days, we started our journey back home. The exceptional views and the beauty of these places made us fall in love with them.



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#### No Stone Unturned

#### Rushana Khan



Reliability team proactively takes all possible measures to ensure smooth plant operation. This was once again displayed when a major issue of seal leakage of one of the Purification Centrifuges was faced this quarter. The ingress of process fluid into the Centrifuge bearing was a threat to the health of the machine, but it could not be taken offline for maintenance due to production targets.

Several steps were taken by the Reliability team to prevent bearing deterioration. Condition monitoring of the machine was increased to several times per day while Lubricators were permanently deployed at the location to drain out the contamination. Moreover,

Trainee Engineers' Orientation

#### Syed Wajahat Ali

Technical Training Center (TTC) organized various training sessions for the orientation of the 23rd batch of Trainee Engineers. The month-long orientation program gives Trainee Engineers an overview of HSE&S standards, plant processes, machines and functions of different departments. online oil replacement and bearing sump cleaning was carried out every day. This controlled activity has to be completed in a very short window as during online replacement manual lubrication is carried out, which being not as effective as the machine's inbuilt lubrication system, may cause elevated bearing temperatures. During these activities stringent tabs were kept on the machine's temperatures and vibrations to alert the Production team in case the machine needed to be shut down immediately.

With all these efforts combined, we were able to keep the Centrifuge in service for a month until an opportunity for its assembly replacement presented itself. Credit goes to Adnan Ahmed (Lubrication Supervisor); Salahuddin, Muhammad Qasim, Muhammad Waqas (HFC Lubricators); Zia UI Islam and Arsalan Saeed (Reliability Fitters); who made a joint effort under the supervision of Muhammad Saleem (Engineer Reliability) to ensure smooth operation of the machine.



The batch had a total of 8 Trainee Engineers from Production, Mechanical, and E&I. Equipped with the knowledge acquired in TTC, they are now ready to take on challenges in their respective areas.

## Spares Refurbishment Post Overhaul 2017

#### M Farhan

The activities undertaken during an overhaul deplete the spares which are available in Engineering Stores. A team consisting of all Instrumentation Engineers and AEs was tasked with looking into the current inventory and highlighting the deficiencies.

Extensive work was done to supplant the dependence on spare purchase with locally manufactured items. A considerable cost was saved on control valve maintenance alone by fabricating parts locally in the Workshop. Other than this, several important instruments were also repaired. The efforts of Syed Mehmood Ali (Engineer Instrumentation); Umer Zareen Khan, Muhammad Asif Farooqui, Nadeem Bhatti, and Abdul Khalig (AEs Instrumentation); are commendable for quick completion of an activity of such an extensive scope.



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#### Lotte Journey - Mr. Puran Lal

Rizwan Ahmed & Celestia Henry



Mr. Puran Lal Hatwal has been associated with the company since 1998. He started his career on 10 June, 1998 as a Time Office Assistant in the IR section, and is currently leading the Time Office as a Supervisor.

During the 20 years of his career, he has contributed immensely in reshaping the time office.

He has shared with us some good memories of Lotte:

"Many times in the past, during the plant emergencies and rainy weather, I worked for 24 hours; day and night zealously and whole heartedly, to support the time office operations. I have always loved this company and my colleagues and I proudly call LCPL my second home. This organization is a great institution and I pray for its prosperity".

Mr. Puran Lal has dedicated twenty good years in this organization. He is a true team player and works untiringly. We wish him all the very best in his professional and personal life.

## Suggestion & Reward System

Since its launch in 2013, Suggestion and Reward System has been a source of bringing about valuable suggestions to the surface. It is a platform provided to the Lotte employees for share their ideas and on the basis of the Application and the Originality of the idea, they are rewarded an amount as appreciation. These ideas not only help in improving the variable cost but also improve existing operations and maintenance practices. Furthermore the system helps in boosting the morale of the employees providing them a platform for their development, appreciation, and recognition.

Upon implementation of any idea, the initiator is rewarded once again based on Cost Effectiveness, Payback Period, and Continuity of the idea. Owing to the keen interest of Lotte Management in new and unique ideas and the reward given out to each individual, employees are now motivated and earnest to come up with ingenuous suggestions that often result in significant cost savings.

Due to its frequent use, TPM team continuously works in making this database more efficient and user friendly with the help of Amir Anwar (Deputy IT Manager). These modifications have not only helped the employees keep track of their suggestions, it also facilitates the signatories in efficient follow up.

As the usibility of the system has improved, so has the number of suggestions raised in the system. Currently the system contains more than 1000 suggestions and for their implementation thorough working is in progress at various stages.



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#### Be Aware, Be Prepared Muhammad Igbal Awais

Raw Water Pumping Station (RWPS) is a vital section of Utilities plant and its smooth operation is necessary for uninterrupted Raw Water supply to the plant. On 17th April 2018, heavy leakage was reported from a valve of Surge Relief Vessel. This vessel basically acts as a buffer and prevents the 21 km long Raw Water supply line from pressure jerks. The leakage rate was so substantial that within a couple of hours whole area was flooded by water.

Jahanzaib Ali (Shift Manager Utilities) promptly responded to this emergency situation and called for Maintenance assistance to resolve the issue. Meanwhile, draining of the line from Raw Water Pumping Station (RWPS) to Break Point Tank (BPT) was initiated. The Shift Manager remained in continuous communication with RWPS team and gave directions for safe handover for the job, and while the supply was restored, he ensured optimized use of Raw Water at the Plant. Ali Ahmed Khan (AM Maintenance) immediately directed the resources to the location and dewatering of the area was carried out. Maintenance side worked energetically and the valve was replaced within a short span of time, bringing the Raw Water supply system back online.

The job was safely and aptly completed, thanks to tireless efforts of SM Utilities, RWPS Area Operators and Mechanical Maintenance team. The measures taken in retaliation to the unexpected crisis depicts that we stay aware and prepared to tackle any undesirable condition.



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#### **Finding Newer Paths**

#### Mansoor Ahsan Khan

The reaction at Purification plant is facilitated by Palladium catalyst. Over time the efficiency of the catalyst can get effected due to its contamination by metals or by presence of Sulphur in the system.

Some product quality issues arose at Plant recently, and in order to investigate the reason of the change, quantification of Sulpur in the system was necessary. However, the existing lab analyser at Lotte is not suitable for detecting Sulpur at low levels.

The Laboratory team found out that one of the neighboring industries had such an analyzer but that it was calibrated for their specific products. The LCPL Laboratory team took on the challenge of developing an application for that analyzer. The

#### Workshop Initiative

Rushana Khan



Continuing its legacy of taking cost saving initiatives, the Workshop team took the challenge of performing in-house repairs of the removed steady

#### Identifying Critical Needs

#### M Farhan

Housed within the Rack Room of CoGen plant are the two Human Machine Interfaces (HMIs) enabling real-time monitoring, control and data acquisition from Gas Turbine and its Generator. Overtime both HMIs had become obsolete while the new HMIs were very costly.

Having no viable spares, the team set about finding an in-house solution. Two old PCs were used and after rigorous efforts, the functionalities to be present within them were made available. A team comprised of Abdul Khaliq (AE Instrumentation) and M Farhan (TE Instrumentation), under the supervision of Umair Aleem (AM Instrumentation) and Amir Azam (Manager Instrumentation and E&I Reliability), was able to successfully create two emergency team then performed the required test and was able to detect existence of Sulphur in the sample.

The obtained results enabled us to quickly troubleshoot the problem of disturbed product quality due to which we were able to save Purification catalyst from permanent damage.



bearing housing of the Third Crystallizer at Purification Plant, which was found damaged during inspection performed in the April Caustic Wash.

The Inspection team recommended a repair procedure according to which the Workshop team worked to carry out refurbishment. Owing to the extent of the damage and the critical role of the component in equipment's reliable performance, the repair job required utmost skill accuracy.

Welding and machining was carried out as part of the repairs by M Ikram (JE Workshop) and Zulfiqar (Workshop Machinist). The refurbished part was later inspected and was declared to be a viable spare for future use. Through this initiative, the Workshop team not only ensured availability of a spare housing as a contingency for emergencies but also saved the significant procurement cost of a new spare.

backups, hence ensuring a fail-safe option in case of any malfunction of the installed HMIs.





#### Make Hay while the Sun Shines

Taha Ahmed Siddiqui



Efficient utilization of manpower and resources is essential in keeping the Plant running. Making the best use of windows of recovery is one way to improve efficiency, and such was exhibited by the Mechanical Maintenance team during the Caustic Wash of April 2018.

#### An In-house Initiative Bilal Ahmed

One of the most important raw materials in the manufacturing of our product is Paraxylene, which is stored in a huge tank at Plant site. The Radar-Type Level Transmitter (LT) installed on the tank had become faulty making it impossible for us to counter check the tank's level measurement. Needless to say, this has serious implications for Plant operations.

The team consisting of Umair Aleem (AM Instrumentation), Syed Mehmood Ali (Engineer Instrumentation) and Nadeem Bhatti (AE Instrumentation) took on the challenge of refurbishing the LT in-house. They set about the complex task of configuring new parameters on the LT. Once the configuration was complete, the team installed it in the area. The initiative remained successful and is a testament to the untiring efforts of the team. A heavy leakage had earlier been reported from the top cover of the suction strainer installed on one of the Boiler Feed Water pumps. To save an extended outage of Boiler, the Maintenance team decided to take measures to temporarily contain the leakage. Meanwhile, another strainer was prepared in the Workshop by Zulfiqar (Machinist). Now an outage opportunity was awaited to install the new strainer, which came after six months in the form of the Caustic Wash.

Exceptional efforts were put in by Rana Khalid (JE Mechanical), Noor-ul-Hasan (Senior Fitter), Farooq (Senior Fitter), Noshad (Scaffolding Supervisor) and Shareef (Rigging Supervisor) to carry out the replacement job. Had it not been for the dedication and foresight of the Maintenance team and the remarkable support provided by the Workshop team, this task would have taken much longer causing a delay in Plant startup.



#### Sustaining ROVAC Operations

#### Umair Ahmed Bhatti

ROVAC A has had some issues since April, which the Operations team has been successfully tackling by putting in their best efforts.

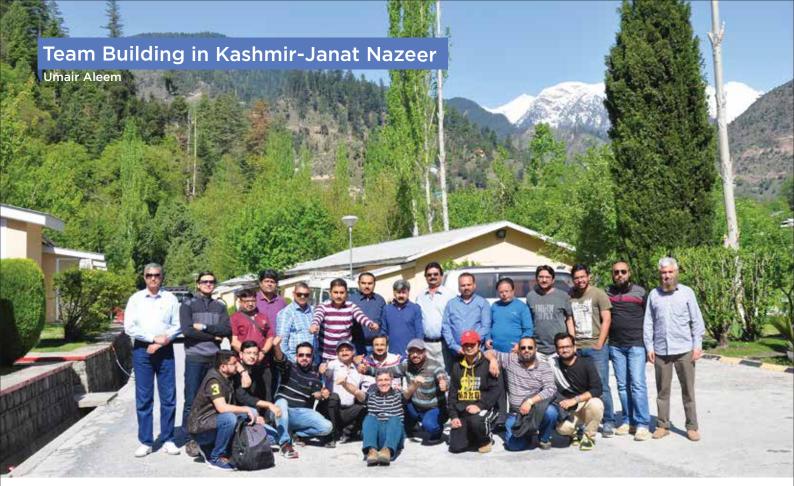
Due to its gland leakage, there were excessive fumes in the vicinity of ROVAC A. The machine was handed over multiple times for leakage rectification, and each time, extensive job planning was carried out to limit production losses to a minimum.

Another issue faced was that of its wash nozzles' blockage. The nozzles were de-blocked and to avoid

recurrence, a strainer was installed on its wash line. This job of installing the strainer was conducted without an outage and was again made possible due to proper coordination between the Production and Engineering teams.

In the month of June, the machine's throughput started decreasing. Continuous efforts are in progress to resolve the issue, and with certain operational measures in place and stringent monitoring, production losses are being avoided and targets are being met.





Team building is one of the mega events organized by LCPL Management in order to cultivate the mutual trust and understanding within the LCPL employees. LCPL employees always take ardent interest in this event.



This awaited event was planned from 21st to 24th April 2018. Day 1 started early Saturday morning and a group of employees from all departments flew from Karachi to Islamabad; followed by road travel to Muzaffarabad. On the way, a short stay was made at Kohala Bridge, where the team enjoyed refreshments alongside the cold flowing water of Jhelum River. Next stop was at Pearl Continental Hotel, Muzaffarabad.



After some rest and lunch, a team activity was facilitated by Arshad Ali Shaikh (Plant Manager CoGen), at PC to enhance employee engagement.

Day 2 began with the trip from PC Hotel to Pir Chinasi. There an exciting mountain trekking activity was carried out, which made this trip even more adventurous. The Team enjoyed local refreshments there and moved to Dhani Waterfall, which is the highest waterfall in Neelum Valley. The Next stop was at Marco Polo Hotel, Pattika where team enjoyed their lunch; sitting on the deck of fast flowing Neelum river. Last stop of Day 2 was Kutton Colony. After dinner. the team gathered around bonfire and enjoyed local musicians.



Day 3 started with a thrilling jeep ride to Jagran Power House, which truly was a living-on- the-edge trip across the random cutouts of mountains. Team moved to Valley Trackers, a resort at Upper Neelum for lunch. On the way, more mountain trekking, was carried out at Upper Neelum. Lunch was served at the bank of River Neelum, with sightseeing views of other side of border. After photography at multiple locations, the team left for the hotel after dinner and got engaged in indoor games.



On the last day, team returned to Karachi via Islamabad. The outcome of this delightful diversion of team building left refreshing memories and amongst the participants.



#### Eid Milan - Get Together

Celestia Henry



(Mr Humair Ijaz (CE) & Mr Asad Ullah Chughtai(General Affairs & Security Manager) visited the employees on duty at plant on Eid day)



Our HR & Admin department organized an "Eid Milan Party" on 19 June 2018, for all its employees at the plant site to celebrate the festivities of Eid-ul-Fitr.

A small gathering was arranged in the Main Mess, where after the meet and greet, a delicious lunch was served which was enjoyed by all.





#### **Re-evaluating the Process**

Wali Ahsan



#### Resolute Checks and Measures Asad Hayat

Oxidation Reactor Off Gas Analysers are prone to erratic behavior during hot and humid summer days. Any malfunctioning of these analysers can potentially trip the Oxidation Plant Reactor. The analysers are equipped with a backup pair to shift to in case a problem is suspected with these.

As a precautionary measure, a periodic regimen to monitor these analysers was developed by Syed Muhammad Farooq (Senior Assistant Manager Process) and Asad Hayat (Senior Shift Manager). This schedule enabled the Oxidation team to avoid a possible plant shutdown on 5th May 2018. Mott Filters used in Catalyst Recovery Unit (CRU) of Oxidation plant play a vital role in the recovery of Cobalt, which is currently a high priced raw material. Since their commissioning these filters had chronic blockage issues resulting in poor performance of CRU. Removal of blockages required time and effort, and also resulted in loss of precious metal.

Considering the rise in Cobalt prices and the losses associated with the blockage issue, the Oxidation Technical team analyzed all the process variables since commissioning and came up with the idea to change the operating range of pH at CRU, which would have the effect of increasing the particle size of Cobalt precipitate. Instead of blocking the filter elements, the large sized particles would now be easily filtered out.

Since the implementation of this Modification, the blockage frequency of the filters has been reduced significantly. Thus, by re-evaluating the process we have resolved one of the chronic issues at CRU and have decreased Cobalt losses.

In the evening shift Muhammad Awais (Shift Instrument Technician) reported an abnormality in temperature indication on one of the active sets of analyzers, which was found to be faulty upon detailed checks. That pair of analysers was immediately switched to the standby one in order to hand over the erratic pair for rectification purpose. Within a few minutes of the switchover, the suspected analyzers generated a trip signal to halt Oxidation Plant Operation.

This prompt action was possible because of setting up this monitoring regimen and taking quick actions against the alarms.



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#### **Right Time, Right Decision**

#### Muhammad Abdullah Hashmi

Emergencies can happen at any time on a smoothly running plant. The main concern is effective handling of problems in such situations.

On 28th April 2018 Natural Gas Compressor (NGBC-A) tripped due to the malfunctioning of its Temperature Transmitter. As per the logic, the standby compressor started automatically to sustain the gas supply to the Turbine, and Compressor A was handed over to Instrumentation team for maintenance work. But even as the team was busy working on Compressor A, Compressor B tripped again due to low lube oil indication.

Here was the time to make prompt decisions to sustain the load on turbine instead of shifting it to K-Electric. Muhammad Irfan (Shift Manager Oxidation) asked the Instrumentation team to immediately hand back Compressor A and override its faulty transmitter. Prompt action was taken by Umair Aleem (AM Instrumentation) and Abdul Khaliq (AE Instrumentation).

To sustain the gas pressure during the unavailability of

#### Well-coordinated Efforts

#### Muhammad Farhan Sagheer

To ensure smooth supply of Raw Water to the plant, it is vital that the integrity of all the equipment at Raw Water Pumping Station (RWPS) is kept uncompromised. One such equipment is the Diesel Storage Tank. Diesel is required as a fuel for the stand by generators in the case of power failure from the utility grid.

It is a challenge to make Diesel tank available for inspection along while providing continuous diesel supply to Generators to cater for WAPDA failure. For this activity, a thorough working was carried out by Zahid Iqbal (Senior Assistant Manager Process) with the support of Kamran Khursheed (SE Mechanical) and a plan was prepared for its inspection. Another challenge for both Production and Maintenance team was the remote location of RWPS, where it is very difficult to arrange the resources necessary for Diesel tank handover and inspection. However, both the teams made untiring efforts to prepare the tank for its inspection. Fawad-ur-Rehman AM Inspection & Registry arranged the third party inspection team on short notice for the diesel tank to ensure the inspection was

#### TNA 2018

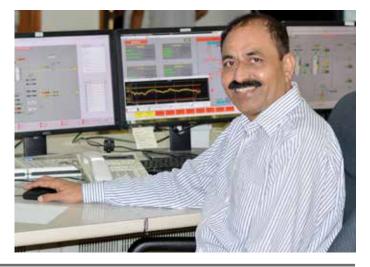
#### Syed Wajahat Ali

Technical Training Center conducted the Training Need Analysis (TNA) with Engineering, Production, Technical, HR & IT, Finance and Commercial departments from 20th to 22nd March 2018. both the compressors, GTG was offloaded completely, and as NGBC-A came back online, load was shifted back on GTG. All these actions had to be taken quickly to avoid the significant hit in KE Bill in the form of Fixed Cost (MDI). The quick response of Abdullah Hashmi (Shift Manager CoGen), Sabir Ali (Senior Assistant Engineer Process), and Muhammad Saeed (Junior Engineer Electrical) are commendable in this regard.



carried out as per the plan. Upon inspection it was found that the tank would require some repairs as well, which further increased the outage time.

However, through the well-coordinated efforts and synergy of the teams the job went very smoothly and the system was reverted back to normal.



The objective was to identify the HSE and technical training requirements of their respective staff. All departments coordinated well for the timely completion of the exercise and preparation of training plans for 2018.



#### Revitalizing Plant's Lifeline

Syed Abdullah Faiz



An Innovative Solution Bilal Ahmed

Seal Water is supplied for mechanical seals of Plant equipment by the Seal Water Drum. The Level Transmitter (LT) mounted on the Seal Drum had an issue of frequent blockages which used to increase the consumption of Demin water at Plant due to Seal Water Drum overflows.

As increased Demin consumption translates to increased costs of operations, the Instrumentation team set about resolving the issue and came up with a Modification to install a different design of LT.

The Modification remained successful and was carried out by Umair Aleem (AM Instrumentation),

To sustain Gas Turbine Generator operations, periodic OEM recommended maintenance is of great importance. Semi Annual Inspection activities were performed at CoGen by Mechanical Maintenance team from 14th to 16th May 2018. The jobs were performed in the presence of OEM Field Service Engineers, and the team took special care to follow OEM recommendations and checklists to carry out maintenance activities.

The credit of the successful completion of jobs goes to Abdullah Hussain (AM Maintenance CoGen), Syed Abdullah Faiz (TE Mechanical), Gohar Rehman (SE Mechanical), M. Altaf (Mechanical Technician), Ashiq Ali (Mechanical Technician) and Jarrar Imtiaz (Mechanical Apprentice).



Asif Farooqui (AE Instrumentation) and Abdul Wahab (SE Instrumentation), who were led by Amir Azam (Manager Instrumentation and E&I Reliability).

#### Internship Experience at Lotte

#### Urooj Nabi Dar & Wajiha Saghir

Internship experience at Lotte Chemical Pakistan Limited has been a valuable one and far exceeded our expectations. Working at the state of the art petrochemical plant not only nurtured our technical growth but also proved to be an essential step for our professional development. Throughout the internship tenure, each day presented an opportunity to learn new things and to correlate theoretical concepts and industrial practices. The healthy learning environment and cooperative personnel encouraged us to learn more and more.

Our practical experience improved exponentially through the guidance and mentorship of the Electrical department personnel. Every individual enlightened us with the best of their. The comprehensive training plan was appropriately abided by and all major aspects of plant information relevant to our field of study were covered. Various challenging assignments kept us actively involved in study and research, subsequently improving our knowledge and technical writing and presentation skills. The exposure we received at Lotte as interns will surely be beneficial to us.





#### **Breaking Barriers**

#### Noor Nabi

At the start of 2018, deterioration was observed in the response of Purification Plant catalyst. Through detailed analysis, the root cause was identified to be leakage from DH Column Vent Gas Condensor. The leakage in this exchanger affected precious catalyst along with quality results at Purification Plant.

The equipment was kept under monitoring till the planned Caustic Wash of the Plant. By taking some

## Effective Management of Resources

Plant shutdowns pose unique challenges to Planning team with regards to maintaining quality work along with optimization of cost. One such challenge was making accommodation arrangements for extra manpower that was mobilized to carry out maintenance jobs during the Caustic Wash of April 2018. The obvious solution would have been to hire a contractor calculated risks, the Production team was able to hand over the exchanger to Engineering in record minimum time. Furthermore, the duration of Solvent Recovery Unit startup activities was also reduced to nearly half of the standard time.

These new records are a testament to the team's commitment to meeting Production targets by all possible means.

for this purpose, but the Planning team took an innovative step by making in-house arrangements on a very short notice and at a fraction of the cost.

This is a continuation of Planning team's legacy of improving existing systems in order to efficiently execute shutdowns and overhauls.



#### Takaful S. Hameed Hussain Shah

The management of Lotte Chemical Pakistan Limited always extends their full cooperation and support to its employees at all levels. Recently on the request of non management employees the company has switched conventional family health insurance policy to Islamic insurance policy, Takaful, which provides risk protection in accordance with Shariah based on the principles of Ta'awun (mutual assistance), brotherhood, piety and ethical operations.

Takaful comes from the Arabic root word 'kafala' which means to guarantee, to help, to take care of each other's needs. Takaful refers to mutual protection and joint guarantee. Operationally, Takaful refers to participants mutually contributing to the same fund with the purpose of having mutual indemnity in the case of peril or loss.

A briefing session was conducted through the representatives of New Jubilee Insurance who explained salient features of Takaful to non management colleagues for their understanding and awareness.

The management of Lotte Chemical is keen to keep a positive atmosphere to a c h i e v e common goals.



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#### Enhancing Plant Reliability

#### Bilal Ahmed

Instrument Air Compressors are responsible for keeping the pneumatic circuit alive throughout the plant while ETP Compressors perform the same role for ETP plant. Availability of these compressors is therefore essential for smooth and reliable plant operation.

The compressors had a chronic issue of their Inlet Guide Vanes and Blow-off valves positioner sticking. To address this, the Instrument team consisting of Umair Aleem (AM Instrumentation), Nadeem Bhatti (AE Instrumentation), M Ayaz (SE Instrumentation) and Mashood Adil (SE Instrumentation) took a number of actions including re-tubing and flushing of air circuit as well as provision of an enhanced filter regulator at the supply line. As a result, the dust causing the blockages and sticking issues was contained, resolving frequent operational issues and considerably increasing the availability of compressors.



#### Plant Improvement Initiatives

Muhammad Osama Bin Shakeel



A running plant requires regular upkeep to maintain equipment in proper working order. As a part of the improvement initiatives of Electrical team, extensive work was carried out in Catalyst Recovery Unit (CRU) this quarter.

Over the years, various Electrical equipment in CRU, including motor fans, end covers and junction boxes, had become corroded. The Electrical team consisting of Muhammad Safwan Khan (AM Core and Hazardous Area), Muhammad Osama Bin Shakeel (TE Electrical) and Syed Muhammad Hassan Kazmi (AE Electrical Oxidation) performed an extensive audit of the area to identify components with corrosion issues. Ordering of necessary spares was then initiated while some of the parts were developed locally and replacements were carried out once the components were received. Such initiatives prove that the Electrical team not only prioritizes equipment maintenance activities but also takes plant improvement very seriously.

#### **Critical Thinking and Meticulous Planning**

#### M Farhan

Amafilter is plays an essential role in the catalyst recovery process. The HMI (Human Machine Interface) of Amafilter had become unresponsive while a spare HMI was not readily available. Keeping in view the high cost of the new spare, the team decided to use local components to repair the HMI. After selecting the suitable local components a prototype was created, which proved to be compatible with the HMI upon testing and was subsequently made operational.

This initiative was possible due to the critical thinking of Umair Aleem (AM Instrumentation) and Umer Zareen Khan (AE Instrumentation) and the guidance provided by Amir Azam (Manager Instrumentation and E&I Reliability). The team was not only able to resolve the issue but also managed to realize significant savings in the process.



#### **Risk Mitigated**

#### Noor Nabi

On 19th May 2018, a leakage was reported from Oxidation plant First Crystalliser by Imran Ali (Junior Engineer Process). Emergency Response Team (ERT) was immediately called on site to maintain a water curtain to scrub the toxic fumes from the area. Prompt action was taken and the plant was handed over for rectification work.

With the well-coordinated efforts of Production and Engineering team, the Plant was brought back online in less than 24 hours.

#### TTC Round Up

#### Syed Wajahat Ali

Technical Training Centre organized the following training sessions during this quarter:

#### First Aid & CPR

The session took place in Recreation hall on 3rd April 2018 and was conducted by Dr. Feroze Patel. Practical exercises were also carried out to acquaint the participants with basic life saving techniques for medical emergencies.

#### **SUSA Auditing**

The session on Safe and Unsafe Act (SUSA) Auditing took place on 17th April 2018, which was conducted by





Shuaib Iqbal (Assistant Manager QHSE). The objective of this session was to increase the level of awareness of auditors about the SUSA Auditing System and provide them guidelines for carrying out effective SUSA Audits.

#### **Behavior Based Safety**

To enhance HSE&S culture within the company, Tariq Mehdi (Manager Workshop & Site Development) conducted an awareness session on Behavior Based Safety on 3rd May 2018. All participants took an active interest in the session with objective that the newly acquired knowledge will pave the way for further improvement.





#### **Operational Excellence**

Umair Siddiqui



The Level of Third PTA crystallizer was showing anomalous behavior since the start of this year. However the level remained in 80's till mid April 2018 through strict monitoring of Operations and Instrumentation teams. Operating guidelines and best operational practices were shared within shift teams, to ensure optimal operation. But later on, this problem became even more difficult to handle when the level crossed 90% mark. With so many variations in process parameters, it was a serious challenge to operate plant with a thin operating range of 10% in the level of the vessel. Any upset in level control, could have resulted in the operation of Bursting Disc and Relief Valve.

It was the unprecedented operational excellence of Purification team that made it possible to operate the plant under these tough conditions for about two weeks until the issue was rectified in the Caustic Wash outage.

## Growing Together with Lotte



#### **Basic IR Laws**



### JQP Examinations

Syed Wajahat Ali

Job Qualifying Program (JQP) examinations are regularly conducted by Technical Training Centre to assess the knowledge and skill set of Operators, Technicians and Lab Analysts in their respective

#### Quotes

• It always seems impossible until it's done. Nelson Mandela

• If you can dream it, you can do it. *Walt Disney*  areas of responsibility. It is a comprehensive and structured program with several difficulty levels. Candidates are required to clear these exams one after the other as a part of their training program.

JQP exams were organized from 7th to 14th May 2018 for selected candidates. The list of successful candidates has also been announced.



Ashiq Ali completed 30 years of service on 1st May 2018. He joined the company on 2nd May 1988 and is presently working as Chief Financial Officer.



Puran Lal Hatwal completed 20 years of service on 8th June 2018. He joined the company on 9th June 1998 and is presently working as Administration Officer.

Long Service Award Recipients





Syed Abdul Wahab completed 10 years of service on 4th June 2018. He joined the company on 5th June 2008 and is presently working as Sub Engineer Instrumentation -II.





Syed Ahsan Imam, BE (Chemical Engineering), NED University of Engineering & Technology, Karachi, has joined the Company as Trainee Engineer, with effect from 2nd April 2018.



Syed Aizaz Hussain Rizvi, BE (Chemical Engineering), NED University of Engineering & Technology, Karachi, has joined the Company as Trainee Engineer, with effect from 2nd April 2018.



Yasir Ahmad Shaikh, BE (Chemical Engineering), NED University of Engineering & Technology, Karachi, has joined the Company as Trainee Engineer, with effect from 2nd April 2018.



Muhammad Tayyab Zubair, BE (Electrical Engineering), NED University of Engineering & Technology, Karachi, has joined the Company as Trainee Engineer, with effect from 2nd April 2018.



Mahmood UI Hasan Siddiqui, BE (Mechanical Engineering), NED University of Engineering & Technology, Karachi, has joined the Company as Trainee Engineer, with effect from 2nd April 2018.



Taha Ahmed Siddiqui, BE (Mechanical Engineering), NED University of Engineering & Technology, Karachi, has joined the Company as Trainee Engineer, with effect from 2nd April 2018.



Bilal Ahmed, BE (Electronic Engineering), NED University of Engineering & Technology, Karachi, has joined the Company as Trainee Engineer, with effect from 23rd April 2018.



Syed Ahmed Ali Abedi, BA, Sindh University, Jamshoro, has joined the Company as Administration Officer, with effect from 1st May 2018.



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Muhammed Sajid Saeed Quadri, DAE (Electrical), YMCA Polytechnic Institute, Karachi, has joined the Company as Assistant Engineer Electrical, with effect from 7th June 2018.



Haris Khan, FSc, Govt. Degree Boys & Girls College SRE-III, Karachi, has joined the Company as Sub Engineer Process – IV, with effect from 8th June 2018.

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Hamza Ahmed Khan, BE (Electronic Engineering), NED University of Engineering & Technology, Karachi, has joined the Company as Trainee Engineer, with effect from 20th June 2018.



عید ملن پارٹی کے حوالے سے مرکزی طعام گاہ میں تمام ملاز مین کے لیے تقریب کا اہتمام تھا۔ اس دوران ملاز مین نے ایک دوسر کے وجوش وخروش سے عید کی مبارک باد دی اورا پنی خوش کا اظہار کیا۔ بعدازاں دو پہر کے کھانے سے تمام ملاز مین کی ضیافت کی گئی۔





جناب عمير اعجاز (چیف ايگريکو)اور جناب اسداللد چغتائی (جزل افير اور سيکور ٹي منيجر) عيد کے دن پلانٹ پر ڈيوٹی پر ورکر کے ساتھ

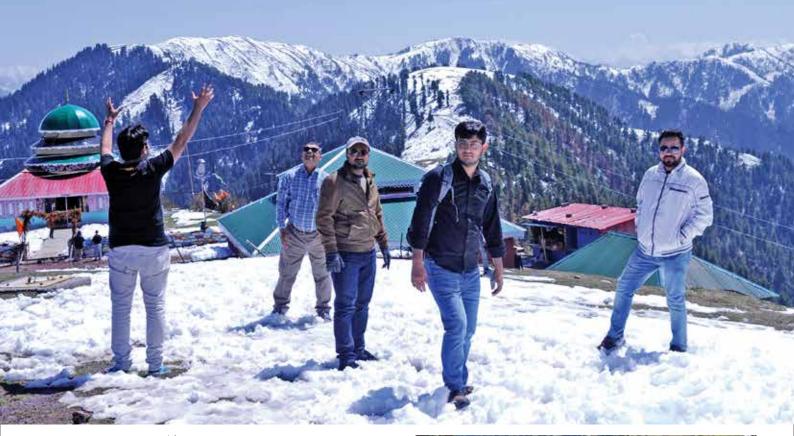




عید کا خوشیوں بھراموقع LCPL ساتھیوں کے ساتھ پر جوش اور شاندارانداز میں منایا گیا۔ ہمارے ایچ آراورایڈمن ڈپار ٹمنٹ نے اس حوالے سے 19 جون 2018 کو پلانٹ سائٹ پر اپنے تمام ملاز مین کے لیے عید ملن پارٹی کا اہتمام کیا۔



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تھوڑی دیرآ رام اور دو پہر کے کھانے کے بعد جناب ارشدعلی شیخ نے ٹیم ایکٹو بڑی کا اہتمام کرایا جس میں تمام شرکاء نے بھر پورشرکت کی ۔سوال جواب کی نشست کے ساتھ شرکاء نے LCPL کی حالیہ پالیسیوں میں بہتری پر ششتل کٹی پر یزنگیش بھی پیش کی گئیں۔ اس کے ساتھ ملاز مین کی شرکت اور تبادلہ خیال کواہمیت دینے میں بہتری کے امور پر بھی بات چیت ہوئی۔ بعد از ال شہر کی سیر اور مقامی مارکیٹ کی تفریح کے بعد پہلے دن کا اختیام ہوٹل میں رات کے کھانے پر ہوا۔

پروگرام کا دوسرادن ہوٹل سے پیر چنا تی کی سیر کرنے کے لیے روائلی سے شروع ہوا۔ پیر چنا تی کے راستے میں آنے والے برف پوش پہاڑ اور دلفریب موسم کا تجربہ شرکاء کے لیے ایک جمر پور تعجب اور لطف کا سامان تقا۔ ماؤنٹین ٹریکنگ کی سرگرمی بھی اس سفر کا حصرتھی جو شرکاء کے لیے کسی ایڈو پنچر سے کم نہ تھی ۔ ٹیم نے مقامی کھا نوں سے لطف اندوز ہونے کے بعد دھنی آبشار کا رخ کیا جو نیم مدی کا سب سے بڑا آبشار ہے۔ وہاں کی ٹیم کی دوسری منزل مارکو پولو ہوٹل، پتی کا تھی، جہاں پر ٹیم نے دو پہر کا کھانا نیلم ندی کے شور مچاتے پانی کے دلفریب ماحول میں کھایا۔ دوسرے دن کی آخری منزل اس پروگرام کو شرکاء کے ذہنوں میں مدتوں کے لیے محفوظ کرلیا۔

تیسرے دن کا آغاز کوٹن کالونی میں ناشتے کے بعد جاگران پاور ہاؤس تک جیپ کی سواری ہے ہوا ، جو پہاڑوں کے ٹیڑے ، نشیب وفراز سے لبریز راستوں اور خوبصورت درختوں ہے ڈ ھکے ہوئے

پہاڑوں کا راستہ ہے۔ پاور ہاؤس کے میز بان اسٹاف سے ٹیکنیکی تفصیلات پر گفتگو کے بعد ٹیم ویلی ٹریکرز کی جانب روانہ ہوئی ، بیا پر نیلم پر ایک تفریحی مقام ہے۔ یہاں کے دکمش مقام پر ٹیم کو دو پہر کا کھانا پیش کیا گیا۔ٹیم کے اسرار پر یہاں پر بھی ماؤنٹین ٹریکنگ سے شرکاء کو مخطوط ہونے کا موقع ملا۔ دو پہر کا کھانا نیلم ندی کے کنار کی دلفریبی اور بارڈ رکی دوسری جانب کے نظاروں میں پیش کیا گیا۔گی مقامات پر فوٹو گرافی اور رات کے کھانے کے بعد ٹیم ہوٹل کے لیے روانہ ہوئی جہاں پر انڈ ور گیم کا اہتما م بھی تھا۔



آخری دن سینٹراس مال میں دو پہر کے کھانے کے بعد گروپ فوٹو کا اہتمام کیا گیا تھا۔اس پورے پروگرام نے اجتماعیت اور باہم تعاون کے مملی نمونے کے ساتھ شرکاء میں نا قابل فراموش یا دوں اور مسحور کن احساسات کوزندہ کردیا۔



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## connect



تحرير بحميرعليم

Q2 2018

LCPL انتظامیہ کی جانب سے ٹیم بلڈنگ کے حوالے سے بڑا اہتمام کیا جاتا ہےتا کہ ادارے کے ملاز مین کے درمیان باہم تعاون اور اتفاق رائے کی فضا کو شاندا را نداز میں قائم رکھا جائے۔ ایسے اہتمام کا مقصد ملاز مین نے چھپے ہوئے ٹیلنٹ کو اجا گر کرنے کے ساتھوان کی کارکردگی اور تجربات سے سیکھنے کی صلاحیت کو تکھا را جا سکے۔ یہی وجہ ہے کہ LCPL کے ملاز مین ایسی تقاریب اور انتظامات میں جمر پورشرکت کرتے ہیں۔

ٹور کے پروگرام کا اہتمام 21 سے 24 اپریل 2018 کے دوران تر تیب دیا گیا تھا۔ اس پروگرام نے تمام ڈپار شنٹس کے ملاز مین کو یکجا کر دیا تھا۔ اس پروگرام کے پہلے روز ہفتہ کی صبح ملاز مین کراچی سے اسلام آباد کے لیے روانہ ہوئے ، وہاں سے روڈ کے ذریعے ان کی منزل مظفر آبادتھی۔ راستے میں کوہالہ برج پریٹیم کو تھر رایا گیا جہاں پرانہوں نے جہلم ندی کے کنارے بہترین مناظر سے لطف اندوز ہونے کے ساتھ تھوڑ اوقفہ کیا جس میں ان کی ہلکی چھکلی ضیافت بھی شامل تھی۔ وہاں سے ان کی منزل

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