

Miners Logbook and other things



Mining Work Logbook

The following is the log related to mining work by the contractor NUTRAM, which provides services to the mining company, NUTREX.

The events described took place between January 8th and February 3rd, when different park rangers in different geographical locations and in different circumstances, observed mining-related activity.

During this period of time NUTRAM performed a mining survey which involved the construction of 22 survey monuments or boundary markers in different zones of the property of the Ganadera Tongoy and Parque Andino Juncal.



Chronological Order

Tuesday, January 8

Patricio and Ignacio (Morrenas)

09:00 to 10:00. A group consisting of 5 individuals and 8 pack animals (horses and mules) are spotted in Ganadera Tongoy, from the park ranger station. The animals are observed to be quite heavily laden, and with previous knowledge of a possible mining "visit" Patricio heads up the trail to the Morrenas campsite in order to be able to observe their movements. At that moment, the mining group was observed to stop in order to, prior to confirmation and monitoring with binoculars, construct two structures which we later found out to be survey monuments ("Hitos") in front of the ranger station and the hill near the blind spot, on the Ganadera Tongoy side.

12:00 to 14:00. Patricio manages to establish communication with the group of strange provenance, in the area of Ganadera Tongoy, on one side of River Juncal, with the coordinates S 32°58'08.6" and W 070°06'33.1". Following a peaceful conversation, the identities of the five individuals are secured as well as an explanation for why they are in the area.

Their names are listed below:

Juvenal	[REDACTED]	Rut:	[REDACTED]	Muleteer
Sergio	[REDACTED]	Rut	[REDACTED]	Chief of operations
Francisco	[REDACTED]	Rut	[REDACTED]	
Francisco	[REDACTED]	Rut	[REDACTED]	
Victor	[REDACTED]	Rut	[REDACTED]	

They described their work as a mining survey, which consisted of 22 survey monuments, of which 4 were to

be constructed within the property of the Park. **There is a photograph of the survey plan and the monuments** They comment that the following day, Wednesday January 9, they planned to ascend to the upper part of Estero Monos de Agua to camp. After explaining to them that they could go into the park, Patricio spoke with Carlos Salomón (the head of the company), who said he would get a court officer to obtain a judicial order, though a lawsuit, to obtain permission to circulate within Parque Andino Juncal. If the order was not obtained, they would fly over the property in a helicopter.



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15:35 to 16:00 The mining group is visible on the horizon towards the south. Now 7 people and 8 animals can be seen.

**Obs. The bank of the Juncal River*

With the coordinates:

S 32°58'08.6" / W 070°06'33.1"

and

S 32°58'06.8" / W 070°06'33.0"

With the markings and codes :

14 1+50 / FSM 27 August 2018

and

27 1+40 / FSM 27 August 2018

**there are potos*



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Wednesday, January 9th

Monos de Agua. Patricio and Ignacio

09:00 to 10:00 The team in charge of the mining survey is spotted again, 5 persons y 9 animals. Ignacio sets off along the trail, towards the South, to review.

12:00 to 13:00 Clearly **photographic backup* the miners can be seen working in the high sector of Monos de Agua, with coordinates $-32.977779, -70.087776$).

Verbal communication was not established with the group, nor was their work intervened in. In the end, it can be seen that the group constructed two survey monuments very close to each other, at the previously mentioned coordinate.

18:30 to 19:30 The miners and Ignacio begin to descend. The miners constructed two cement survey monuments on the south side of Monos de Agua Stream, 3km from the Morrenas camp site.

That night Tomas D., Julianna V, Cristóbal C. Ana, and a volunteer arrive to the ranger hut.

Thursday, January 10

Cristóbal. Monos de Agua.

9:00 Cristóbal begins the climb towards Monos de Agua with the intention of keeping an eye on mining activity, following a sighting at Ganadera Tongoy.

10:00 The mining group is seen at the camp of a muleteer, Don Claudio.

11:15 to 12:40 With a headstart of 30 minutes, Cristóbal heads for the Morrenas campsite and then to the Monos de Agua Valley, tracking the mining group in front of him. (South Bank Monos de Agua). They are able to arrive at and cross to the sector adjacent to the Roca de Agua camp site.

17:00 The miners arrive at the sector where they unload the mules and construct another survey monument 100 metres from the Roca de Agua camp site. At 3.100 a.s.l., they establish a provisional camp, with a tarp.

17:40 to 20:20 Cristóbal and the miners begin to descend, each through their own territory, passing through wetlands along the Monos de Agua stream, the Morrenas and Don Claudio camp sites. (Where do the miners stay? They don't go down to the base camp at the Mona Waterfall...)

20:20 Cristóbal arrives at the ranger station.

*Ana and Rafael go down to camp in Km. 55, Cristobal goes down later.

Thursday, January 10

Ana and Rafael (Km. 55)

16:10 to 17:20 A water tanker is spotted heading towards the chemical toilets at the mining work site at the zig-zag (south bank of the Juncal River) on the west slope, at the same time, a mining pickup truck, grey, arrives, both stop at the security office, and the camp site of Don Claudio (red hut). The mining pickup truck travels up the zig-zag road, reaches about halfway up, and stops at a backhoe. Finally, at 17:20, the vehicles leave.

18:00 End of the mining work day, the backhoe goes down to base camp (office) and four pickups go down. The surveying group shows no signs of being on the road, and it is presumed they continue to work in the upper part.

Friday, January 11

Ana and Rafael

*Cristobal arrives at 1000 (reinforcement)

08:00 to 09:51

The arrival of pickup trucks (3) passing along the road in front, heading for the office located on the zigzag road, after which the pickups ascend to the upper part of the base camp, one of them is carrying a container of industrial gas. **photograph*

10:33 to 11:30 A pickup with a chemical toilet passes, then two burgundy and red pickups come down from the zigzag, another pickup with mining truck style reflectors goes up the zig-zag road, and a gray pickup comes down from the upper section.

11:35 Rockfall on the mining road, near the backhoe.

16:10 to 17:50 The pickup truck with the chemical toilet descends. Behind it comes another pickup truck, empty, and at 1750 two more trucks come down.

16:35 The backhoe ascends to the upper part of the zigzag.

19:00 to 19:20 What appears to be two muleteers descend with three mules, followed by two people riding on a mule, and finally 2 people riding horses. All are coming from within the Ganadera Tongoy, to the south.
* Could they be two muleteers riding a horse, in addition to a mule? Some miners were hooded.

Saturday, January 12

Ana-Cristóbal-Rafael

- 07:50 Ascent of muleteers with animals.
- 08:30 Two groups of muleteers ascend. Mineros?
- 09:00 Four more people go up.
- 09:15 A pickup truck arrives at the office.
- 11:05 The pickup truck with gas goes up.
- 12:35 The backhoe and the pickup truck descend along the zigzag to the office.
- 14:37 The gray pickup truck descends.
- 16:44 A pickup truck goes up to the office with straw.
- 13:00 The mining camp is set up, with chemical toilets, and tents, a storage space and vehicles.
- 20:10 A pickup truck with reflectors descends.
- 20:15 A mining group with four horses and four people and two mules arrives to Don Claudio's campsite.
- 20:50 Pickup trucks are seen in the area of the plum tree.
- 21:20 The three-quarter ton truck descends from the mining camp.

Sunday, January 13th

Ana-Cristóbal-Rafael

- 07:30 A muleteer is observed preparing a horse.
- 08:43 A red pickup truck arrives.
- 10:30 Four men are observed working with a computer.
- 11:30 to 11:49 The red pickup truck leaves and the three-quarter ton truck descends towards the Mona Waterfall campsite.
- 18:10 A man with a suspicious attitude arrives at the Km. 55 ranger station in a gray Volkswagen Amarok pickup truck, carrying a photographic camera and tripod, moreover, he asked a lot of questions about Ana-Cristóbal-Rafael's stay at KM 55. License Plate GZ GY 77

Monday, January 14

Ana-Cristóbal-Rafael

- 07:30 to 08:00 Movement in the mining camp is observed, they are in preparations to ascend with six animals and six people (who are thought to be the same as before). Two red pickup trucks ascend the mining road.
- 10:40 to 13:08 A water tanker arrives and a pickup truck descends from the mining road, a gray pickup truck and a red pickup truck go up.

Tuesday, January 15

Ana-Cristóbal-Rafael (Km 55)

- 07:35 Activity can be observed in the mining camp and they make preparations to ascend.
- 07:40 to 07:45 Miners ascend by horse to the survey monuments, and the red mining pickup truck goes to the zigzag.

07:59 to 09:00 Another red pickup truck ascends and a man on horseback goes to the survey monuments. A grey pickup truck ascends and another (Color or Cargo?) takes petrol towards the mining road. Another pickup truck ascends with men and cargo towards the zig-zag. Finally, a gray pickup truck descends from the road, passes by the offices and descends laterally along the Juncal River.

10:20 The backhoe, about halfway up the mining zig-zag, begins to work.

13:04 A red Toyota Hilux pickup truck ascends to the mining road and a red Mitsubishi pickup descends along the same road.

14:00 to 14:18 A red pickup truck ascends the mining zigzag road.

14:40 A cloud of dust is distinguished on the upper part of the mining zigzag. Were there explosions?

17:15 Two pickup trucks (one red and one gray) descend from the upper part of the zigzag to the Don Claudio camp site, then another pickup truck with one cabin.

17:22 A gray pickup truck ascends to the zigzag.

17:40 Five horsemen and a mule arrive at the Salto de la Mona campsite apparently from Monos de Agua.

Wednesday, January 16

Ana-Cristóbal-Rafael (Km 55)

07:40 Mining group of four miners on horseback, and a mule set off for Monos de Agua.

08:03 A red mining pickup ascends towards the end of the trail. Zig-zag?

08:08 A lorry laden with tubes ascends and stops at the office. **photo*

08:25 A second red pickup goes up.

08:40 A man ascends on horseback. It looks like it is Don Claudio.

08:53 The lorry descends unloaded. License plate CG 84 58

11:40 The red Hilux pickup descends from the mining road.

14:50 The lorry returns to the mining road carrying petrol tanks.

15:08 A red pickup ascends to the mining road.

15:44 The lorry, color blue, descends without cargo. Apparently it took cargo to the mining shelter.

16:00 A red pickup descends from the mining road.

19:45 to 20:10 Muleteers and miners begin to arrive on horseback with mules at Don Claudio's camp and at 20:10 a white pickup goes up the mining road.



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In parallel, Anibal and a volunteer camp in Roca de Agua and Monos de Agua. Their report is needed.

There was a day without ascents, the date will have to be confirmed and if there was mining activity .

Friday, January 18

Cristóbal and Anibal (Monos de Agua)

04:00 Tomás Dinges and Ignacio Acosta ascend to look at the mining activity at Don Claudio' camp towards the interior of Vega Nacimiento.

14:00 Anibal and Cristóbal ascend to the Piedra de Agua campsite with the intention of camping.

20:00 Anibal and Cristóbal arrive at the campsite. No mining activity is seen.

Saturday, January 19

Cristóbal and Anibal (Monos de Agua)

09:00 The ascent is begun to the survey monuments that are visible near the camp used by the muleteers and miners (Wilky campsite). Located in Ganadera Tongoy to the north of the Hanging Juncal Glaciar.

10:32 A 3.400 A white SM cement monument is spotted on the side of Ganader a Tongoy, on a hilltop.

16:05 Arrival at the Wilky campsite, and the site is explored.

18:00 Arrival at the Roca de Agua campsite in order to rest.

Sunday, January 20

Anibal and Cristobal (Monos de Agua)

09:00 The route begins to Francisco Moreno Glaciar (Alto del Río Plomo) with the goal of finding mining

activity.

11:00 The decision is made to return to the campsite from the ASAVA campsite due to a pain in one Cristobal's knees.

12:50 The muleteer Don Claudio arrives to the Roca de Agua campsite and comments that there hasn't been any mining activity since Thursday, January 17.

13:30 The decision is made to descend from the campsite and help at the Monos de Agua stream crossing.

18:00 Descent from Morrenas to the Los Hornitos shelter.

19:50 Arrival at Los Hornitos without news of mining activity.

Monday, January 21

Day without going up. No miner presence.

Tuesday, January 22

Ana, Giulianna, Ignacio (Monos de Agua)

16:00 The expedition team heads in the direction of the Roca de Agua campsite in Monos de Agua.

22:15 The team arrives to the campsite and rests. There is no mining activity.

Wednesday, January 23

Ana, Giulianna, Ignacio

10:40 The expedition sets off for the area of the Francisco Moreno Glaciar (Alto del Rio Plomo).

11:30 Crossing of the Monos de Agua stream, which is coming down with a lot of water and is too strong (the isotherm is above 5.000). It was difficult to cross.

14:00 Arrival at ASAVA campsite. There are no signs of mining activity.

14:32 A cement SM monunment is sighted on one side of the River Francisco Moreno next to planks and leftover nails.

ASAVA:

S 32°59'58.9". W 070°03'33.9"

Monument:

S 32°59'56.0". E 070°03'02.9"

La Piedra 33 1-40 FSM 27 Agosto 2018

**Photograph*

16:30 We arrive at an overlook of the Francisco Moreno Glacier (Alto del Rio Plomo). No new mining activity. We descend to the monument. Return to campsite.

17:30 We arrive at the survey monument. It is photographed and "cleaned." It is located at the South side of River Francisco Moreno **Photograph*

19:00 a 21:00 We arrive at the Roca de Agua campsite near the edge of the Monos de Agua Stream.

21:30 We get ready to sleep without a tent because Monos de Agua was uncrossable.

Thursday, January 24

Ana, Giulianna, Ignacio

07:00 We return, crossing over to the Roca de Agua campsite by Monos de Agua stream. It is still very strong.

07:20 Rest.

19:00 Return to Los Hornitos.

22:00 Arrival at Los Hornitos.

Monday, January 28

Ignacio (Los Hornitos)

09:00 Five people, apparently miners, are seen in the direction of Monos de Agua. It is clear that they are carrying measuring instruments.

12:00 to 13:00 Ignacio descends to a Km 55 to meet the miners on their return. On meeting them, they did not show us a friendly attitude. Mentioning that presumably Parque Andino Juncal destroyed the survey monuments which were in the Ganadera Tongoy territory. They threatened lawsuits and refused to identify themselves.

Conversation with the driver of the red pickup truck **photograph* who could be Sergio Rojas or his brother Francisco Rojas. *The vehicle was a red pickup truck with reflectors, maybe a Mitsubishi.*

12:30 to 13:40 Ignacio meets Carlos Gómez and David Vega, NUTREX workers, on a gray pickup truck with the license plate number GL HY 46. Various issues were discussed, such as conservation, mining projects and the law.

They had a friendly attitude.

Then five more people descended in a red pickup, informing me that I (Ignacio) was on private property.

14:00 Ignacio returns to the ranger station.

Tuesday, January 29

Giulianna and Patricio*

Friday, February 01 to 03

Aldo Caneo (volunteer)

11:00 The event to celebrate International Wetlands Day begins.

17:40 The celebration ends.

18:00 Aldo returns to Monos de Agua

Aldo descends on Sunday, February 3, with the following "coordinates: of survey monuments in Cascada Onda, Monos de Agua and the Amphitheatre sector.

Cascada Onda (near) 0397849 E 6354514 N (Piedra 3)

Monos de Agua Stream (there are two survey monuments). 0398276 E 6350597 N (Piedra 16)

Amphitheater. 0400777 E 6347304 N (Piedra 19)

Expedition for Sighting Mining Exploration of Nutrex Spa.

On 28.02.2019 an ascent was made to the the Altos del Juncal ór Celsa pass at 3820 metres above sea level with the coordinates UTM 19H 0394613E 6355251N (Datum WGS84).

The objective was to obtain a good observation point of the advance of the mining road.

From this point, the advance of a second road could be seen, penetrating towards the end of the Potrero Alto Valley, which was outside the limits of the project and the agreed permits. At the same time, the activity of machinery and pickup trucks was observed in the sector.

Below, the images obtained are added.



Photograph contextualising the territory.



Approach of the advance of the mining road entering towards the end of the Potrero Alto.



Zoom showing green container.



Machinery working on the new section.



Zoom of the road going down from the miners way (New route).