

Index	Remarks
<ul style="list-style-type: none"> <li>1.- Regasification Plants</li> <li>1.1. Bilbao Plant - BBG</li> <li>1.2. Mugaros Plant - REGANOSA</li> <li>1.3. Sagunto Plant - SAGGAS</li> <li>1.4. Barcelona Plant - ENAGAS</li> <li>1.5. Cartagena Plant - ENAGAS</li> <li>1.6. Huelva Plant - ENAGAS</li> </ul>	<p>The maintenance dates that prevent loading / unloading ship, loading at LNG trucks dock, significantly limit the emission capacity of the Plant, or impose important restrictions on Transportation, must be made viable in the previous monthly schedule.</p>
<ul style="list-style-type: none"> <li>2.- Transport pipelines - Distribution networks</li> <li>2.1. Transport Pipelines</li> <li>2.2. Distribution networks</li> <li>2.3. Compression Stations</li> <li>2.4. In Line Inspección (ILI)</li> </ul>	<p>In general, operations that cause significant restrictions on the capacity of infrastructures to enter the System or Transportation during winter are not viable (November 1 to March 31); in these cases it is necessary that they be viable in the previous monthly programming and also in the dates prior to its realization.</p>
<ul style="list-style-type: none"> <li>3.- Underground Storages</li> <li>3.1. UGS Gaviota</li> <li>3.2. UGS Serrablo</li> <li>3.3. UGS Yela</li> <li>3.4. UGS Marismas</li> </ul>	<p>Maintenances or restrictions involving pipelines or Infrastructures for gas entry into the system, or restrictions at loading at LNG trucks dock, located in the same area of influence, won't simultaneously be programmed.</p>
<ul style="list-style-type: none"> <li>4.- Gas fields and Biomethane</li> <li>4.1. Viura field</li> <li>4.2. Palancares Aznalcázar field</li> <li>4.3. Valdemingómez Biomethane</li> </ul>	<p>In transport infrastructures operations that cause gas pipeline interception and also In Line Inspections, infrastructures for gas entry into the system may have to adjust their flows to the specific needs of these operations.</p>
<ul style="list-style-type: none"> <li>5.- International Connections.</li> <li>5.1. CI Tarifa</li> <li>5.2. CI Almería</li> <li>5.3. CI Larrau</li> <li>5.4. CI Irún</li> <li>5.5. CI Badajoz</li> <li>5.6. CI Tuy</li> </ul>	<p>The user term refers indistinctly to the shipper, the direct customer in the market or the final customer. The condition of affection to users will be reviewed each month in the monthly update of this document.</p>



# ANNUAL PLAN – 2022 Maintenance Operations

30th  
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2.021

## 1.- REGASIFICATION PLANTS

### 1.1. BILBAO PLANT – BBG

Date Period	Maintenance	Limitations	Refer. Numb.
July 4 days	Annual preventive review of the relicuador	Maximum production 560.000 Nm3/h.	350
Throughout the year	Preventive maintenance of unloading arms	Without emission limitations. It will be coordinated to prioritize loading or unloading scheduled operations of vessels.	351
June	Preventive maintenance of boil-off compressors GB-103 B	Without emission limitations. It will be coordinated to prioritize loading or unloading scheduled operations of vessels.	352
Throughout the year	Preventive maintenance at LNG trucks loading dock	Without emission limitations. It will be coordinated to prioritize the LNG trucks operations.	353
Throughout the year	Preventive maintenance primary pumps	Without emission limitations	354
Throughout the year	Preventive maintenance secondary pumps	Without emission limitations	355
Throughout the year	Vaporizers coating maintenance	Without emission limitations. It will be coordinated to prioritize scheduled productions. If it's necessary, the submerged combustion vaporizer will be used.	356



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## 1.- REGASIFICATION PLANTS

### 1.1. BILBAO PLANT – BBG

Date Period	Maintenance	Limitations	Refer. Numb.
May	Preventive inspection of the High Voltage installation	Without emission limitations	357
May / June	Maintenance (overhaul) of unloading arms	Without emission limitations. It will be coordinated to prioritize loading or unloading scheduled operations of vessels.	358
Dates to be defined. 12 hours	Control system migration (ESD and SSA)	Without LNG loading/unloading; without LNG trucks loading; without emission.	359



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## 1.- REGASIFICATION PLANTS

### 1.2. MUGARDOS PLANT – REGANOSA

Date Period	Maintenance	Limitations	Refer. Numb.
From 10th to 21st January	Works to adapt the jetty	Unload_load of LNG ships unavailable	360
January 9 hours	Works to adapt the jetty. DCS/SCS	Plant shutdown Connection of the control system of the new project to the current one.	361
February 2 days	Maintenance at LNG trucks loading dock	From 5 a.m. to 3 p.m. During that time one of the two bays will stand inoperative	362
April 9 hours	Works to adapt the jetty. DCS/SCS	Plant shutdown Completion of the connection of the control system from the new project to the current one.	363
April 2 days	Maintenance at LNG trucks loading dock	From 5 a.m. to 3 p.m. During that time one of the two bays will stand inoperative	364
March 1 day	Inspection of LNG trucks loading dock scales	From 08:00 a.m. to 02:30 p.m. During that time the two bays will stand inoperative.	365
May 2 days	Maintenance at LNG trucks loading dock (annual)	From 5 a.m. to 3 p.m. During that time one of the two bays will stand inoperative	366
June 9 hours	Adaptation of the control system of the LNG trucks loading dock	Plant shutdown Connection of the control system of the new project to the current one.	367



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## 1.- REGASIFICATION PLANTS

### 1.2. MUGARDOS PLANT – REGANOSA

Date Period	Maintenance	Limitations	Refer. Numb.
June 2 days	Maintenance at LNG trucks loading dock	From 5 a.m. to 3 p.m. During that time one of the two bays will stand inoperative	368
September 1 day	Calibration of LNG trucks loading dock scales	From 09:00 a.m. to 04:00 p.m. During that time the two bays will stand inoperative.	369
August 2 days	Maintenance at LNG trucks loading dock	From 5 a.m. to 3 p.m. During that time one of the two bays will stand inoperative	370
October 2 days	Maintenance at LNG trucks loading dock	From 5 a.m. to 3 p.m. During that time one of the two bays will stand inoperative	371
December 2 days	Maintenance at LNG trucks loading dock	From 5 a.m. to 3 p.m. During that time one of the two bays will stand inoperative	372
From 1st to 5th August	Seawater system review Security ties test Maintenance of electrical power line High voltage legal maintenance	Plant shutdown for 12 hours/day. 2 days: LNG trucks loading dock stop during 12 hours/day	373
September to November 4 days	Repair (Electric distributor) of electrical power to the Plant	4 days within 24 hours. Plant shutdown and LNG trucks loading dock shutdown. Its viability will depend on the management of the consumption restriction of the CCGN in the area (REE) and the demand forecast.	374
13th January	ORV E420 Inspection	One ORV will stand inoperative from 7 a.m. to 7 p.m. Maximum emission in that time slot aprox. 210.000 Nm <sup>3</sup> /h.	375

## 1.- REGASIFICATION PLANTS

### 1.2. MUGARDOS PLANT – REGANOSA

Date Period	Maintenance	Limitations	Refer. Numb.
22th February	ORV E410 Inspection	One ORV will stand inoperative from 7 a.m. to 7 p.m. Maximum emission in that time slot aprox. 210.000 Nm3/h.	376
13th April	ORV E420 Inspection	One ORV will stand inoperative from 7 a.m. to 7 p.m. Maximum emission in that time slot aprox. 210.000 Nm3/h.	377
25th May	ORV E410 Inspection	One ORV will stand inoperative from 7 a.m. to 7 p.m. Maximum emission in that time slot aprox. 210.000 Nm3/h.	378
12th July	ORV E420 Inspection	One ORV will stand inoperative from 7 a.m. to 7 p.m. Maximum emission in that time slot aprox. 210.000 Nm3/h.	379
24 th August	ORV E410 Inspection	One ORV will stand inoperative from 7 a.m. to 7 p.m. Maximum emission in that time slot aprox. 210.000 Nm3/h.	380
19th October	ORV E420 Inspection	One ORV will stand inoperative from 7 a.m. to 7 p.m. Maximum emission in that time slot aprox. 210.000 Nm3/h.	381
16th November	ORV E410 Inspection	One ORV will stand inoperative from 7 a.m. to 7 p.m. Maximum emission in that time slot aprox. 210.000 Nm3/h.	382

## 1.- REGASIFICATION PLANTS

### 1.2. MUGARDOS PLANT – REGANOSA

Date Period	Maintenance	Limitations	Refer. Numb.
November to December	Sea water pump overhaul	One of the three seawater pumps will be inoperative. In the event of failure of one of the two operating pumps, its emission would be approx. 210.000 Nm <sup>3</sup> /h, although they can use the VCS to emit approx. 420.000 Nm <sup>3</sup> /h.	383
May 2 weeks	Unloading arm hose changes	Unload_load of LNG ships unavailable	384
February 3 days	Maintenance of unloading arm L101B	Discharge capacity limited to 8000 m <sup>3</sup> gnl/h	385
October 1 week	Berth communications system update	Unload_load of LNG ships unavailable	386
September to November 1 week	Modification of fire detection and extinguishing system in electrical room	Maximum emission aprox. 210.000 Nm <sup>3</sup> /h.	387
From 21st to 25th March	Annual maintenance of unloading arms	Unload_load of LNG ships unavailable	388
From 20th to 25th June	Quarterly maintenance of discharge arms	Unload_load of LNG ships unavailable	389



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## 1.- REGASIFICATION PLANTS

### 1.2. MUGARDOS PLANT – REGANOSA

Date Period	Maintenance	Limitations	Refer. Numb.
From 19th to 24th September	Semi-annual maintenance of discharge arms	Unload_load of LNG ships unavailable	390
From 19th to 23th December	Quarterly maintenance of discharge arms	Unload_load of LNG ships unavailable	391



## 1.- REGASIFICATION PLANTS

### 1.3. SAGUNTO PLANT – SAGGAS

Date Period	Maintenance	Limitations	Refer. Numb.
January 2 days	LNG trucks loading dock scale certification	Two days from 8 a.m. to 5 p.m. One of the two bays will stand inoperative.	392
January 2 days	LNG trucks loading dock concrete repair	Two days from 8 a.m. to 5 p.m. The two bays will stand inoperative.	393
4th quarter 2 days	LNG trucks loading dock Substitution of PLC control system	The LNG trucks loading dock will stand inoperative.	394
1st quarter	Concrete repair at one ORV	maximum emission 800.000 Nm3/h.	395
2nd quarter	Concrete repair at one ORV	maximum emission 800.000 Nm3/h.	396
4th quarter	Periodic Tests ESD Matrix	From 8 a.m. to 2 p.m. without LNG loading/unloading; without LNG trucks loading; without emission.	397
3rd quarter 1 mont	Cleaning of catchment pool	2 discontinuous days maximum emission 400.000 Nm3/h. During a month maximum emission 800.000 Nm3/h.	398



**1.- PLANTAS DE REGASIFICACIÓN**

**1.3. PLANTA SAGUNTO - SAGGAS**

Fecha Periodo	Mantenimiento	Implicaciones Operativas	Nº Ref.
2nd quarter 12 hours	Change actuators ESDVs Relicador (30ESDV02006 and 30ESDV02020)	From 7:00 a.m. to 7:00 p.m. Maximum emission 200.000 Nm3/h.	399
1st quarter 13 hours	Control System Controllers Update (ESD). Bunkering operation.	From 8 a.m. to 11 p.m. Without LNG loading/unloading; without LNG trucks loading; without emission.	400
From 1st to 13th April	Bunkering adaptation works	Unload_load of LNG ships unavailable	401

## 1.- REGASIFICATION PLANTS

### 1.4. BARCELONA PLANT – ENAGAS

Date Period	Maintenance	Limitations	Refer. Numb.
From 10th to 31st January	Installation 4 PSVs Online download A80	Unload_load of LNG ships at dock A80 unavailable	402
31st March 6 hours	Plant DCS / SSD / SSA Control systems update	Without LNG loading/unloading; without LNG trucks loading; without emission.	403
March 15 days	Pool cleaning Nº 3 North	Maximum emission 1.800.000 Nm3/h.	404
From 20th to 22th July	Replacement of Dock Fenders A263	Unload_load of LNG ships at dock A263 unavailable	405
From 21st to 28th September	Insulating review (perlite) TK3000	Unload_load of LNG ships unavailable It coincides in dates with the operation ref. 411	406
From 10th to 30th June	Installation of new Valves MOV-2106 and MOV1006 in junction line discharge	Unload_load of LNG ships at dock A80 unavailable	407
August 30 days	New scale C at LNG trucks loading dock	LNG trucks loading dock C unavailable (A y B available)	408



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## 1.- REGASIFICATION PLANTS

### 1.4. BARCELONA PLANT – ENAGAS

Date Period	Maintenance	Limitations	Refer. Numb.
July 10 days	Dual coupling installation in Scale B at LNG trucks loading dock	LNG trucks loading dock B unavailable (A y C disponibles)	409
July 18 days	Pool cleaning Nº 4	Maximum emission 1.800.000 Nm3/h.	410
From 14th September to 4th October	Unloading arm renewal on dock A263. Phase 1	Loading/unloading ships unavailable.	411
September 18 days	Seawater catchment cleaning no. 2	Maximum emission 1.800.000 Nm3/h.	412
October 21 days	Seawater catchment cleaning no. 5	Maximum emission 1.800.000 Nm3/h.	413
November 21 days	LNG / BOG Exchanger Installation	Maximum emission 1.500.000 Nm3/h.	414

## 1.- REGASIFICATION PLANTS

### 1.5. CARTAGENA PLANT – ENAGAS

Date Period	Maintenance	Limitations	Refer. Numb.
From November 2020 to March 2022	Adaptation and Improvement of Escombreras Dock. Port of Cartagena.	Specific periods of unavailability of the 40M dock (without loading / unloading) to be defined by the Port of Cartagena.	415
From 14st to 18th March	Compressors GB-223 maintenance. Phase 1	Unload_load of LNG ships unavailable Minimum emission 150.000 Nm3/h.	416
29th March 6 hours	Emergency electric generator tests (Deutz groups)	Maximum emission 300.000 Nm3/h. Minimum emission 150.000 Nm3/h.	417
From 14th March to 3rd April	Installation of H2 electrolyzers and new torch pilots	Without loading or cold-setting of ships	418
From 14th March to 14th April	Compressors GB-203-A maintenance	BOG recovery limitation: 20.000 Nm3/h. Without loading or cold-setting of ships	419
20th April 6 hours	NC-218 electrical panel revamping. Phase 1	Total plant shutdown for 6 hours on two non-consecutive days (without LNG loading/unloading; without LNG trucks loading; without emission). See operation ref. 423	420
From 4th to 8th April	Corrective maintenance in Phase V vaporizers (3 teams)	If it is necessary to increase to step 7 (1.050.000 Nm3/h) or higher, a notice of 5 days is required.	421



**1.- REGASIFICATION PLANTS**

**1.5. CARTAGENA PLANT – ENAGAS**

<b>Date Period</b>	<b>Maintenance</b>	<b>Limitations</b>	<b>Refer. Numb.</b>
25th to 26th May 12 hours	Discharge due to maintenance of the 66 kV power park	Total plant shutdown for 12 hours (without LNG loading/unloading; without LNG trucks loading; without emission).	422
31st May 6 hours	NC-218 electrical panel revamping. Phase 2	Total plant shutdown for 6 hours on two non-consecutive days (without LNG loading/unloading; without LNG trucks loading; without emission). See operation ref. 420	423
From 7th to 9th June 8 hours/day	LNG trucks loading dock preventive maintenance	One LNG trucks loading dock unavailable (Two available)	424
20th to 21st April 14 hours	DCS / SSD / SSA Systems Update	Total plant shutdown for 14 hours (without LNG loading/unloading; without LNG trucks loading; without emission).	425
From 20th to 24th June	Maintenance instrumentation and valves Relicuator	Without ship unloading. Minimum emission 150.000 Nm3/h	426
From 21st June to 15th July	Seawater return: Shipment / Return of water to / from CTCC	Maximum emission 750.000 Nm3/h.	427
From 1st to 21st August	Unloading arm renewal on dock A263. Phase 1	Unload_load of LNG ships unavailable	428



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## 1.- REGASIFICATION PLANTS

### 1.5. CARTAGENA PLANT – ENAGAS

Date Period	Maintenance	Limitations	Refer. Numb.
13th September 12 hours	NC-228 electrical panel revamping.	Total plant shutdown for 12 hours (without LNG loading/unloading; without LNG trucks loading; without emission). See operation ref. 420	429
24th to 28th October	Compressors GB-223 maintenance. Phase 2	Unload_load of LNG ships unavailable Minimum emission 150.000 Nm3/h.	430

## 1.- REGASIFICATION PLANTS

### 1.6. HUELVA PLANT – ENAGAS

Date Period	Maintenance	Limitations	Refer. Numb.
From 5th October 2021 to 30th April 2022	Small scale maritime civil works	Barge / feeder loading availability depending on its configuration, upon request.	431
From 2nd to 8th March	Project to improve maritime civil works and dock hooks. Phase 4	Unload_load of LNG ships unavailable.	432
From 11th to 17th April	Project to improve maritime civil works and dock hooks. Phase 5	Unload_load of LNG ships unavailable.	433
From 10th to 23th May	Project to improve maritime civil works and dock hooks. Phase 6	Unload_load of LNG ships unavailable.	434
From 10th to 16th June	Project to improve maritime civil works and dock hooks. Phase 7	Unload_load of LNG ships unavailable.	435
From 7th to 13th July	Project to improve maritime civil works and dock hooks. Phase 8	Unload_load of LNG ships unavailable.	436
April 12 hours	Change of the PLC in the Montrel system at LNG trucks loading dock	Total plant shutdown for 12 hours (without LNG loading/unloading; without LNG trucks loading; without emission).	437



## 1.- REGASIFICATION PLANTS

### 1.6. HUELVA PLANT – ENAGAS

Date Period	Maintenance	Limitations	Refer. Numb.
From 11th to 15th April	Fugitive emissions correction	Maximum emission 900.000 Nm3/h. Unload of LNG ships unavailable.	439
May 5 days	Cleaning of emissary I	Maximum emission 1.050.000 Nm3/h.	440
May 12 hours	Update Triconex system cards (SSD) to adapt it to a new version.	Total plant shutdown for 12 hours. Unload_load of LNG ships unavailable.	441
May 3 days	Fugitive emissions correction	Maximum emission 1.050.000 Nm3/h.	442
June 5 days	Cleaning of emissary II	Maximum emission 650.000 Nm3/h.	443
May 5 days	Cleaning of emissary III	Maximum emission 1.050.000 Nm3/h.	444
From 25th to 31st July	Project to improve maritime civil works and dock hooks. Phase 9	Unload_load of LNG ships unavailable.	445
October 15 days	Dual coupling installation in Scale C at LNG trucks loading dock. FMC arm installation.	LNG trucks loading dock C unavailable (A y B disponibles)	446

## 2.- TRANSPORT PIPELINES - DISTRIBUTION NETWORKS

### 2.1. TRANSPORT PIPELINES

Date Period	Maintenance	Limitations	Refer. Numb.
Date to be defined.	Gasoducto Totana Murcia: Variant Gasoducto Ramal Totana Murcia in the municipality of Alcantarilla	Duration: To be defined. Totana Murcia gas pipeline cut	447
Date to be defined. 7 days	León Oviedo Gas Pipeline: Pola de Lena Variant (AVE Works "León Oviedo")	"León Oviedo" intercepted pipeline. P. Reganosa must adapt its issuance to demand section Tuy-Oviedo-Pola	448
2nd semester 2 to 3 days	Variant Rivas - Loeches	Section of the Rivas - Loeches Alcalá Gas Pipeline. During the operation, it is necessary to adapt the supply and interconnection of the Nedgia and Madrileña Red de Gas networks of the affected positions.	449
Date to be defined. 3 days	Algete Yela gas pipeline: Insertion of a new position Daganzo (J00)	Cutting and inerting the Algete Yela Gas Pipeline between Algete and J01 (Meco)	450

## 2.- TRANSPORT PIPELINES - DISTRIBUTION NETWORKS

### 2.2. DISTRIBUTION NETWORKS

Date Period	Maintenance	Limitations	Refer. Numb.
3rd quarter 30 days	Nedgia. ERP-Vilablareix (Girona) - Extension.	Without any planned limitation. 4.07 EM Montmeló, 5D.04 Les Franqueses and 5D.06 Hostalric, positions network	451
3rd quarter 30 days	Nedgia. ERP-07-02 Vial Bellisens (Reus - Tarragona) - Remodeling	Without any planned limitation. 12 Reus position network	452
3rd quarter 15 days	Nedgia. ERP-00-54 Sant Adrià Besòs (BCN) - Valve Maintenance	Without any planned limitation. B35 UM-35 Puerto BCN, A36-Besos, 4 Papiol, positions network	453
2nd quarter 30 days	Nedgia. ERP-B22-0001 Caja Mágica (Madrid) - Enclosure adaptation	Without any planned limitation. B22.1 Getafe position network	454
3rd quarter 15 days	Nedgia. Displacement of the gas pipeline section RAA-E02 Marcilla (Navarra)	Without any planned limitation. E02 San Adrián position network	455
1st quarter 15 days	Nedgia. Modification of valve enclosure VS-0060 / 15.26 Elche (Alicante)	Without any planned limitation. 15.26 Elche position network	456
1st quarter 15 days	Nedgia. Incorporation of Biomethane Injection Point - Torresantamaria (Balaguer - Lleida)	Without any planned limitation. 6 Subirats and A3.8 Alfarrás positions network	457



**2.- TRANSPORT PIPELINES - DISTRIBUTION NETWORKS**

**2.3. COMPRESSION STATIONS**

Date Period	Maintenance	Limitations	Refer. Numb.
June 2 days	EC Tivissa: Installation of 3 male 10 "valves in bypass node pos 15	EC Tivissa unavailable.	458
1st March to 30th September	EC Coreses: TC103 Dismantling / MC103 Installation	One TC unavailable. Two TCs available.	459
11th January	EC Haro: Installation of access doors to the box behind the combustion air filters of the TCs	One TC unavailable. One TC available.	460
Date to be defined. 1 day	EC Villar de Arnedo: Replacement of the blades of the first stage of the TC-102 gas turbine	One TC unavailable. Two TCs available.	461

## 2.- TRANSPORT PIPELINES - DISTRIBUTION NETWORKS

### 2.4. IN LINE INSPECTIONS (ILI)

Date Period	Maintenance	Limitations	Refer. Numb.
From 9th to 13th May	Villar de Arnedo - Haro: In Line Inspection (ILI)	Optimum speed 1 - 3 m/s. It is necessary to modulate P. BBG and CI Irún inputs and AS Gaviota injection	462
From 16th to 20th May	Haro - Bergara: In Line Inspection (ILI)	Optimum speed 1 - 3 m/s. It is necessary to modulate P. BBG and CI Irún inputs and AS Gaviota injection	463
From 23th to 27th May	Barcelona Plant - Bañeras: In Line Inspection (ILI)	Optimum speed 1 - 3 m/s. It is necessary to configure gas pipelines in the area to allow adequate ILI flows	464
From 30th May to 3rd June	Tivissa - Bañeres: In Line Inspection (ILI)	Optimum speed 1 - 3 m/s. It is necessary to configure gas pipelines in the area to allow adequate ILI flows	465
From 6th to 10th June	Arrigorriaga - Bergara: In Line Inspection (ILI)	Optimum speed 1 - 3 m/s. It is necessary: modulate emission P. BBG, not viable with consumption CCGN Amorebieta, AS Gaviota stopped; CI Irún closed.	466
From 17th to 21st October	Castelnou-Tivissa: In Line Inspection (ILI)	Optimum speed 1 - 3 m/s. It is necessary: to modulate the emission of P. Cartagena and Sagunto and adequate transport of CI Almería flows; AS Serrablo must take injection flows from the Villar_Zaragoza area	467

## 2.- TRANSPORT PIPELINES - DISTRIBUTION NETWORKS

### 2.4. IN LINE INSPECTIONS (ILI)

Date Period	Maintenance	Limitations	Refer. Numb.
From 24th to 28th October	Paterna - Puzol: In Line Inspection (ILI)	Optimum speed 1 - 3 m/s. It is necessary: modulate the emission of P. Cartagena and Sagunto and adequate transport of flows CI Almería.	468
From 31st October to 4th November	Tivissa-Salsadella: In Line Inspection (ILI)	Optimum speed 1 - 3 m/s. It is necessary: modulate the emission of P. Cartagena and Sagunto and adequate transport of flows CI Almería.	469
From 7th to 11th November	Zierbena-Badames: In Line Inspection (ILI)	Optimum speed 1 - 3 m/s. Linked to demand section Treto - Musel	470
From 14th to 18th November	Serrablo-Alcalá de Gurrea: In Line Inspection (ILI)	Optimum speed 1 - 3 m/s. Extraction is necessary in AS Serrablo	471
2nd quarter 3 days	Redexis. San Juan de Dios - Son Reus (SANSON-01 a SANSON-02). In Line Inspection (ILI)	Combo Plate + Cleaning, Combo Caliper + MFL if the trap allows it (alternative Caliper first and MFL later). Delivery point pos. 15.20.6 Palma (Mallorca) Enagás.	472
2nd quarter 3 days	Redexis. CALIBI Inspection In Line (ILI)	Combo Plate + Cleaning, Combo Caliper + MFL if the trap allows it (alternative Caliper first and MFL later). Delivery point pos. 15.20.5 Sant Antoni de Portmany (Ibiza) Enagás.	473

## 3.- UNDERGROUND GAS STORAGEES

### 3.1. UGS GAVIOTA

Date Period	Maintenance	Limitations	Refer. Numb.
From 10th November 2021 to March 2022	Offshore platform: Overhaul compressor platform TC-A	Injection not available in extraction period	474
January 36 hours	Environmental Measurements	Continuous extraction is necessary.	475
April 2 days	Tightness Testing Bottom Valves and Wellhead	UGS Unavailable. Total unavailability Injection / Extraction.	476
April 36 hours	Environmental Measurements	Continuous Injection is necessary	477
April 1 day	Tower movement for preparation of intervention in wells. Slickline	UGS Unavailable. Total unavailability Injection / Extraction.	478
16th May to 17th June	Substitution of methanol lines	Extraction not available in injection period	479
May 10 days	Intervention in wells. Slickline	UGS Unavailable. Total unavailability Injection / Extraction.	480



**3.- UNDERGROUND GAS STORAGEES**

**3.1. UGS GAVIOTA**

Date Period	Maintenance	Limitations	Refer. Numb.
August 3 days	Offshore platform: regulatory environmental measurements	Necessary injection at a rate of approx. 185.000 Nm3/h.	481
November and December	Replacing the oil coolers of the 3 TCs	Injection not available in extraction period	482
November 2 days	Tightness Testing Bottom Valves and Wellhead	Total unavailability Injection / Extraction.	483





**3.- UNDERGROUND GAS STORAGEES**

**3.2. UGS SERRABLO**

Date Period	Maintenance	Limitations	Refer. Numb.
From 16th July 2020 to August 2022	Well Jaca 17. Corrective maintenance of the well integrity.	Injection limitation in Jaca 17 until August 2022	484



**3.- UNDERGROUND GAS STORAGES**

**3.3. UGS YELA**

Date Period	Maintenance	Limitations	Refer. Numb.
18th March to 10th April	Hydraulic test equipment class 1	UGS Unavailable. Total unavailability Injection / Extraction.	485
From 21st to 25th March	Electrical Substation Discharge	UGS Unavailable. Total unavailability Injection / Extraction.	486
From 28th March to 1st April	Cybersecurity measures	UGS Unavailable. Total unavailability Injection / Extraction.	487
1st September	Commissioning of lines to improve the extraction process	Extraction unavailable	488



**3.- UNDERGROUND GAS STORAGEES**

**3.4. UGS MARISMAS**

Date Period	Maintenance	Limitations	Refer. Numb.
From 1st to 30th April	General maintenance.	UGS Unavailable. Total unavailability Injection / Extraction.	489
From 1st to 30th October	General maintenance.	UGS Unavailable. Total unavailability Injection / Extraction.	490



**4.- GAS FIELDS AND BIOMETHANE**

**4.1. VIURA FIELD**

Date Period	Maintenance	Limitations	Refer. Numb.
From 1st to 25th August	Regulatory inspections. HIPPS review. Wellhead revision. Scheduled maintenance in various units. Distributed control update.	Gas field unavailable.	491



**4.- GAS FIELDS AND BIOMETHANE**

**4.2. PALANCARES AZNALCÁZAR FIELD**

Date Period	Maintenance	Limitations	Refer. Numb.
From 1st to 30th April	General maintenance.	Gas field unavailable.	492



**4.- GAS FIELDS AND BIOMETHANE**

**4.3. VALDEMINGÓMEZ BIOMETHANE**

Date Period	Maintenance	Limitations	Refer. Numb.
From 1st to 14th February	Completion of expansion work and maintenance of filter driers	Without production.	493
From 23th to 30th May	Maintenance and preparation of lines for temperatures of the summer period	Without production.	494
From 26th September to 9th October	Preventive maintenance of air treatment and Booster compressor	Without production.	495



**5.- INTERNATIONAL CONNECTIONS**

**5.1. I.C. TARIFA**

Date Period	Maintenance	Limitations	Refer. Numb.



**5.- INTERNATIONAL CONNECTIONS**

**5.2. I.C. ALMERIA**

Date Period	Maintenance	Limitations	Refer. Numb.
2nd fortnight of September 48 hours	Medgaz. UPS and Torch maintenance in Algeria compressor station	Flow stop for 48 hours, with three days of gas affected.	496
Date to be defined 15 days	Enagás. URMF in-line filter installation	One line unavailable and three lines available. Without affecting the maximum capacity of the I.C.	497



**5.- INTERNATIONAL CONNECTIONS**

**5.3. I.C. LARRAU**

Date Period	Maintenance	Limitations	Refer. Numb.
From 9th to 13th May	Various works of GRTGaz in the French system.	Maximum capacity of the VIP Pyrenees in the direction France > Spain is 165 GWh/day.	498
From 16th to 20th May	Various works of GRTGaz in the French system.	Maximum capacity of the VIP Pyrenees in the direction France > Spain is 165 GWh/day.	499
From 23th May to 1st July	Various works of GRTGaz in the French system.	Maximum capacity of the VIP Pyrenees in the direction France > Spain is 165 GWh/day.	500
June 3 days	Enagás: Jobs at I.C. Irún Signaling migration	CI Irún unavailability, both due to regulating valves and motor compressors. Maximum capacity of the VIP Pyrenees in the direction France <> Spain is 165 GWh/day (165 GWh/day for I.C. Larrau and 60 GWh/day for I.C. Irún).	501
From 29th August to 30th September	Various works of GRTGaz in the French system.	Maximum capacity of the VIP Pyrenees in the direction France > Spain is 165 GWh/day.	502
From 2nd to 14th October	Various works of GRTGaz in the French system.	Maximum capacity of the VIP Pyrenees in the direction France > Spain is 165 GWh/day.	503
From 14th to 25th November	Teréga : Pipeline Rehabilitation (Local Pirineos)	Maximum capacity of the VIP Pyrenees in the direction France <> Spain is 60 GWh/day (0 GWh/day for CI Larrau and 60 GWh/day for CI Irún).	504

**5.- INTERNATIONAL CONNECTIONS**

**5.4. I.C. IRÚN**

Date Period	Maintenance	Limitations	Refer. Numb.
From 9th to 13th May	Various works of GRTGaz in the French system.	Maximum capacity of the VIP Pyrenees in the direction France > Spain is 165 GWh/day.	498
From 16th to 20th May	Various works of GRTGaz in the French system.	Maximum capacity of the VIP Pyrenees in the direction France > Spain is 165 GWh/day.	499
From 23th May to 1st July	Various works of GRTGaz in the French system.	Maximum capacity of the VIP Pyrenees in the direction France > Spain is 165 GWh/day.	500
June 3 days	Enagás: Jobs at I.C. Irún Signaling migration	CI Irún unavailability, both due to regulating valves and motor compressors. Maximum capacity of the VIP Pyrenees in the direction France <> Spain is 165 GWh/day (165 GWh/day for I.C. Larrau and 60 GWh/day for I.C. Irún).	501
From 29th August to 30th September	Various works of GRTGaz in the French system.	Maximum capacity of the VIP Pyrenees in the direction France > Spain is 165 GWh/day.	502
From 2nd to 14th October	Various works of GRTGaz in the French system.	Maximum capacity of the VIP Pyrenees in the direction France > Spain is 165 GWh/day.	503
From 14th to 25th November	Teréga : Pipeline Rehabilitation (Local Pirineos)	Maximum capacity of the VIP Pyrenees in the direction France <> Spain is 60 GWh/day (0 GWh/day for I.C. Larrau and 60 GWh/day for I.C. Irún).	504



**5.- INTERNATIONAL CONNECTIONS**

**5.5. I.C. BADAJOZ**

Date Period	Maintenance	Limitations	Refer. Numb.



**5.- INTERNATIONAL CONNECTIONS**

**5.6. I.C. TUY**

Date Period	Maintenance	Limitations	Refer. Numb.