



## THE COMPANY

TROYA was founded in 1997 to provide services for energy sector in a wide range. Our company continues its activities with dynamic stuff and technical personnel who have participated in successful projects both in public and private sector.

**TROYA** has been performing below activities in oil, gas and geothermal sector:

- Engineering & Consultancy Services
- ✓ Drilling & Production Activities
- ✓ Field Management
- ✓ Pipeline Engineering and Installation
- ✓ Natural Gas Installation for Factories
- ✓ Material Supply via Agencies
- ✓ Engineering & Consultancy Services for Underground Gas Storage
- ✓ Studies for Geothermal Sourced Renewable Energy





# ACTIVITIES 1. ENGINEERING & CONSULTANCY

### 1.1. Underground Gas Storage

With the cooperation of



- ✓ Design and Basic Engineering Studies
- ✓ Consultancy

1.2. <u>Renewable Energy/Geothermal Sources</u>

- ✓ Design and Engineering Studies
- ✓ Technical and Financial Feasibility

### 1.3. Drilling Engineering

- ✓ Drilling Management
- ✓ Preparing Drilling Programmes
- ✓ Drilling Rig Optimization and Selection
- ✓ Drilling Material Procurement and Logistics
- ✓ Well Site / Well Completion Engineer





### 1.4. <u>Reservoir & Production Engineering</u>

- ✓ Data Collection and Evaluation for Fields
- ✓ Well Performance Optimization
- ✓ Well Production, Formation Screening and Evaluation
- Preparing Well Completion Programming and Execution
- ✓ Well Tests and Evaluation
- ✓ Artificial Lift Design and Optimization
- Oilfield Chemicals Applications
- ✓ Surface Production-Injection Lines Design & Engineering
- ✓ Surface Facilities Design & Engineering

### 1.5. Pipeline Engineering

- ✓ Design and Basic Engineering Studies
- ✓ Detailed Engineering





### 2. OPERATION & MAINTENANCE

### 2.1. Well Drilling

- ✓ Manpower Supply
- ✓ Execution of Drilling/Completion Programmes (horizontal, directional and vertical)
- ✓ Shore Base Logistic Services

### 2.2. <u>Production</u>

- ✓ Field Management
- ✓ Oilfield Chemicals Management
- ✓ Operation of Surface, Production Injection Lines, Manifolds and Storage Stations

### 2.3. <u>Pipeline</u>

- ✓ Line and Surge Valve Repair & Maintenance
- ✓ Actuator Repair & Maintenance





### 3. CONTRACTING BUSINESS

### 3.1. Well Drilling

- ✓ Turnkey or Daily Rate Drilling Services
- ✓ Well Location and Road Construction

### 3.2. <u>Production</u>

- ✓ Heater-Treater Manufacturing
- ✓ Well Gathering Lines Construction
- ✓ Surface, Production, Injection Lines, Manifolds and Storage Stations Construction

### 3.3. <u>Pipeline</u>

- ✓ Route Studies
- ✓ Trench Excavation and Specific Crossings
- ✓ Welding and Inspection Processes
- ✓ Hot-tap and Tie-in Operations
- $\checkmark$  Insulation and Cathodic Protection
- ✓ Tests and Commissioning





- ✓ A, B, C Types Pressure Regulation and Measurement Stations (RMS) Construction
- ✓ Valve and Actuator Assembly

### 3.4. Industrial Natural Gas / LNG Conversion

- ✓ Branch Lines Construction
- ✓ Customer Type Pressure Regulation and Measurement Stations Assembly
- ✓ Piping- Welding
- ✓ Gas Control Lines Manufacturing and Installation
- ✓ Burner Installation
- ✓ Tests and Commissioning





### 4. MATERIAL SUPPLY

**TROYA** represents several foreign companies who have activities in material supply for energy sector. In this scope, Troya provides material supply and after sale service to the companies in Turkey and representing territories. Companies we represents and their products:

| CESI CHEMICAL<br>a Flotek company      | CESI CHEMICALS                        | Cement Chemicals<br>Drilling Chemicals<br>Production Chemicals<br>Stimulation Chemicals |
|----------------------------------------|---------------------------------------|-----------------------------------------------------------------------------------------|
| Hemiwedge <sup>®</sup> Cartridge Valve | HEMIWEDGE VALVE                       | Cartridge Valves                                                                        |
| M&J VALVE<br>AN SPX BRAND              | M&J VALVE                             | Surge Valves                                                                            |
| sinoma 😤                               | SINOMA JINJING<br>FIBERGLASS CO. LTD. | Fiberglass Pipes<br>Fiberglass Fittings                                                 |





### **REFERENCES**

### 1. Natural Gas Storage

#### **UNDERGROUND GAS STORAGE PROJECT CONSULTANCY, TURKEY**

Company : BOTAS

**Date of Completion** : Ongoing

Scope of Project : Basic Engineering, preparation of administrative and technical tender documents based on World Bank norms, project management and technical and administrative control during the construction phase for underground gas storage project in Tuz Golu region.





### 2. Drilling & Well Services

#### **CONSULTANCY AND FIELD OPERATION SERVICE, BATMAN/ TURKEY**

| Company            | : IPEK ENERJI A.S. |  |
|--------------------|--------------------|--|
| Date of Completion | : 20.01.2014       |  |

**Scope of Project** : Consultancy service for oilfield and field operation of Early Production Facility at Kozluk/BATMAN field.

#### RADIAL DRILLING SERVICE, ADANA/ TURKEY

| Company            | : | GUNEY YILDIZI A.S.                                                                                                                              |
|--------------------|---|-------------------------------------------------------------------------------------------------------------------------------------------------|
| Date of Completion | : | 20.11.2012                                                                                                                                      |
| Scope of Project   |   | Supplying radial drilling service to Guney Yildizi for<br>their oil well in ADANA together with Radial Drilling<br>Services, Inc, a Texas, USA. |

#### RADIAL DRILLING SERVICE, KONYA/ TURKEY

| Company | ARAR PETROL A.S. |
|---------|------------------|
|---------|------------------|

**Date of Completion** : 30.10.2012

Scope of Project : Supplying radial drilling service to Arar Petrol for their 2 ea gas wells in KONYA together with Radial Drilling Services, Inc, a Texas, USA.

#### DRILLING SERVICE, MANISA-CANAKKALE/TURKEY

- **Company** : SONSUZLUK LTD. STI.
- **Date of Completion** : 03.08.2011
- Scope of Project : Supplying drilling service for 8 ea geothermal gradiant test wells located in Manisa, Kula and Canakkale.



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#### DRILLING SUPERVISION SERVICE, DUZCE/TURKEY

| <b>Company</b> : ZETA PETROLEUM, LONDON-UK |
|--------------------------------------------|
|--------------------------------------------|

- **Date of Completion** : 23.12.2008
- **Scope of Project** : Drilling supervision of the exploration well in DUZCE.

#### DRILLING SUPERVISION SERVICE, AYDIN/TURKEY

**Company** : BM CONSTRUCTION COMPANY

| Date of Completion | : 05.07.2008 |
|--------------------|--------------|
|--------------------|--------------|

Scope of Project : Drilling supervision of the geothermal wells in AYDIN.

#### DRILLING MANAGEMENT SERVICE, AZERBAIJAN

| Company :          | BINAGADI OIL COMPANY                                                                                                                                  |
|--------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------|
| Date of Completion | 30.06.2008                                                                                                                                            |
| Scope of Project   | Management of drilling operations, preparation of drilling programs, determinations of drilling related equipment, personnel training and management. |

#### DRILLING PROJECT CONSULTANCY, IRAQ

| Company            | PETPRIME-USA                                                            |
|--------------------|-------------------------------------------------------------------------|
| Date of Completion | 01.02.2007                                                              |
| Scope of Project   | Consultancy of drilling operation, engineering and procurement support. |





### DRILLING SUPERVISION SERVICE, THRACE/TURKEY

| Company                                       | :   | MADISON OIL TURKEY Inc.                                                                              |  |
|-----------------------------------------------|-----|------------------------------------------------------------------------------------------------------|--|
| Date of Completion                            | :   | 30.07.2002                                                                                           |  |
| Scope of Project                              | :   | Supervision for drilling of two gas wells<br>(Karakopek, Barboros).                                  |  |
| MANPOWER SUPPLY                               | , В | LACKSEA/TURKEY                                                                                       |  |
| Company                                       | :   | SEDCO-FOREX SCHLUMBERGER INT. OVERSEAS                                                               |  |
| Date of Completion                            | :   | 15.10.1999                                                                                           |  |
| Scope of Project                              | :   | Manpower supply to Black Sea Project of TPAO-ARCO Consortium.                                        |  |
| RE-ENTRY DRILLING OPERATIONS, ADIYAMAN/TURKEY |     |                                                                                                      |  |
| Company                                       | -   | TURKISH PETROLEUM INTERNATIONAL COMPANY                                                              |  |
| Date of Completion                            | 6   | 20.10.1998                                                                                           |  |
| Scope of Project                              | :   | Re-entry of 4 existing oil wells in Adiyaman oil field and implementation of all related operations. |  |
| DRILLING MANAGEMENT SERVICE, THRACE/TURKEY    |     |                                                                                                      |  |
| Company                                       | :   | THRACE BASIN NATURAL GAS COMPANY                                                                     |  |
| Date of Completion                            | :   | 01.07.1998                                                                                           |  |
| Scope of Project                              | :   | Drilling of a natural gas exploration well Avluobasi.                                                |  |





### 3. Surface Facility & Production

#### **TEST SEPERATOR MANUFACTURING, BATMAN/TURKEY**

| Company            | : TEMI LTD.                                                                                                                    |
|--------------------|--------------------------------------------------------------------------------------------------------------------------------|
| Date of Completion | : Ongoing                                                                                                                      |
| Scope of Project   | Design, Detailed Engineering, Material Supply<br>and Construction of 3 ea of 2000 bpd test<br>seperators with all connections. |

#### FREE WATER KNOCK OUT MANUFACTURING, BATMAN/TURKEY

| Company            | : TEMI LTD.                                                                                                                                |
|--------------------|--------------------------------------------------------------------------------------------------------------------------------------------|
| Date of Completion | : Ongoing                                                                                                                                  |
| Scope of Project   | Design, Detailed Engineering, Material Supply<br>and Construction of 2 ea (1 ea 20.000 bpd+1 ea<br>60.000 bpd) FWKOs with all connections. |

|                        | 60.000 Dpd) FWKOS with all connections.                                                                                                         |
|------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------|
| HORIZONTAL STORAGE TAN | K MANUFACTURING, NORTHERN IRAQ                                                                                                                  |
| Company :              | OILSERV LTD.                                                                                                                                    |
| Date of Completion     | Ongoing                                                                                                                                         |
| Scope of Project       | Design, Detailed Engineering, Material Supply<br>and Construction of 10 ea of 1,000 bbl horizontal<br>storage tanks w/ nozzles and connections. |

#### HORIZONTAL STORAGE TANK MANUFACTURING, NORTHERN IRAQ

| Company            | · OILSERV LTD.                                                                                                                                                       |
|--------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Date of Completion | : 15.06.2014                                                                                                                                                         |
| Scope of Project   | <ul> <li>Design, Detailed Engineering, Material Supply<br/>and Construction of 4 ea of 1,000 bbl horizontal<br/>storage tanks w/ nozzles and connections.</li> </ul> |





#### STAINLESS STEEL MANIFOLD MANUFACTURING, BATMAN/TURKEY

| Company | : TEMI LTD. |
|---------|-------------|
|---------|-------------|

- **Date of Completion** : 01.06.2014
- Scope of Project : Stainless Steel Manifold Manufacturing and Installation for 70 wells at Transatlantic SELMO field.

#### **III PHASE SEPERATOR MANUFACTURING, BATMAN/TURKEY**

| Company | : | IPEK ENERJI A.S. |
|---------|---|------------------|
|---------|---|------------------|

| Date of Completion | : 01.04.2014 |
|--------------------|--------------|
|--------------------|--------------|

Scope of Project : Design, Detailed Engineering, Material Supply and Manufacturing of 1 ea Directly Heated III Phase Seperator w/ nozzles and connections.

#### OIL STORAGE TANK CONSTRUCTION, DOHUK/NORTHERN IRAQ

| Company            | OILSERV LTD.                                                                                                                             |
|--------------------|------------------------------------------------------------------------------------------------------------------------------------------|
| Date of Completion | 19.09.2012                                                                                                                               |
| Scope of Project   | Design, Detailed Engineering, Material Supply<br>and Construction of 2 pcs. of 5,000 bbl oil<br>storage tank w/ nozzles and connections. |

#### **PIG LAUNCHER & RECEIVER MANUFACTURING, KONYA/TURKEY**

| Company            | : ARAR PETROL A.S.                                  |
|--------------------|-----------------------------------------------------|
| Date of Completion | : 15.06.2012                                        |
| Scope of Project   | : Manufacturing of 2 ea 3" pig launcher & receiver. |





#### TANK MANUFACTURING, BATMAN/TURKEY

| Company                                   | : TEMI LTD.                                                                          |  |
|-------------------------------------------|--------------------------------------------------------------------------------------|--|
| Date of Completion                        | : 25.04.2012                                                                         |  |
| Scope of Project                          | : Manufacturing of 5 ea 3000-500 bbl capacity tanks for SELMO/BATMAN field.          |  |
| MANIFOLD MANUFACTURING, BATMAN/TURKEY     |                                                                                      |  |
| Company                                   | E TEMI LTD.                                                                          |  |
| Date of Completion                        | 20.09.2011                                                                           |  |
| Scope of Project                          | Manufacturing of 5 ea manifolds for 30 wells at SELMO/BATMAN field.                  |  |
| SURFACE FACILITY UPGRADING, BATMAN/TURKEY |                                                                                      |  |
| Company                                   | E TEMI LTD.                                                                          |  |
| Date of Completion                        | 25.07.2011                                                                           |  |
| Scope of Project                          | Assembly of new Heater-Treater and surface facility upgrading at SELMO/Batman field. |  |

#### FUEL SYSTEM UPGRADING, BATMAN/TURKEY

| Company | : TEMI LTD. |
|---------|-------------|
|---------|-------------|

- **Date of Completion** : 28.06.2011
- **Scope of Project** : Upgrading of existing fuel system at SELMO/Batman field.





| NATURAL GAS<br>MARDIN/TURKEY         | PRODUCTION FACILITY MANUFACTURING,                                                                                                                                         |  |
|--------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|
| Company                              | : TIWAY TURKEY LTD.                                                                                                                                                        |  |
| Date of Completion                   | : 03.06.2011                                                                                                                                                               |  |
| Scope of Project                     | <ul> <li>Manufacturing and assembly of slug catcher,<br/>measuring skid, pig launcher &amp; receiver, filter<br/>system for Bakuk natural gas production field.</li> </ul> |  |
| WORKOVER & FLOW                      | TEST CONSULTANCY SERVICES, MARDIN/TURKEY                                                                                                                                   |  |
| Company                              | : TIWAY TURKEY LTD.                                                                                                                                                        |  |
| Date of Completion                   | : 01.12.2010                                                                                                                                                               |  |
| Scope of Project                     | <ul> <li>Preparing workover programme for Bakuk-2 well,<br/>consultancy services during workover and flow<br/>test operations.</li> </ul>                                  |  |
| THREE PHASE SEPER                    | ATOR MANUFACTURING, TURKEY                                                                                                                                                 |  |
| Company                              | : ALAADDIN MIDDLE EAST                                                                                                                                                     |  |
| Date of Completion                   | : 14.08.2010                                                                                                                                                               |  |
| Scope of Project                     | <ul> <li>Design and manufacturing of 6000 bbl / day<br/>capacity Three Phase Seperator for Bulgur Dagi /<br/>Adana field.</li> </ul>                                       |  |
| HEATER-TREATER MANUFACTURING, TURKEY |                                                                                                                                                                            |  |
| Company                              | : MERTY ENERGY                                                                                                                                                             |  |
| Date of Completion                   | : 19.04.2010                                                                                                                                                               |  |
| Scope of Project                     | Design and Manufacturing of 2.4 MMkcal/h<br>capacity Heater Treater for Sarikiz/Manisa field.                                                                              |  |





| PPD TREATMENT SERVICE, CHELEKEN/TURKMENISTAN                |                                                                                                                                                                                                             |  |  |
|-------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|--|
| Company                                                     | : DRAGON OIL                                                                                                                                                                                                |  |  |
| Date of Completion                                          | : 31.06.2009                                                                                                                                                                                                |  |  |
| Scope of Project                                            | <ul> <li>PPD Injection to downstream of separator for<br/>exporting Crude. Total treated amount is 2.4 MM<br/>bbl.</li> </ul>                                                                               |  |  |
| IODINE – BROMINE FIE                                        | IODINE – BROMINE FIELD DEVELOPMENT PROJECT, TURKMENISTAN                                                                                                                                                    |  |  |
| Company                                                     | : KINESIS ENERGY                                                                                                                                                                                            |  |  |
| Date of Completion                                          | : 01.10.2008                                                                                                                                                                                                |  |  |
| Scope of Project                                            | <ul> <li>Preliminary study of the water iodine &amp; bromine<br/>field in Boydağ /Turkmenistan.</li> </ul>                                                                                                  |  |  |
|                                                             |                                                                                                                                                                                                             |  |  |
| SEPARATOR UPGRADIN                                          | IG AND MANIFOLD & PIPELINE CONSTRUCTION,                                                                                                                                                                    |  |  |
|                                                             | IG AND MANIFOLD & PIPELINE CONSTRUCTION,<br>: PEMI                                                                                                                                                          |  |  |
| TURKEY                                                      |                                                                                                                                                                                                             |  |  |
| TURKEY<br>Company                                           | : PEMI                                                                                                                                                                                                      |  |  |
| TURKEY<br>Company<br>Date of Completion<br>Scope of Project | <ul> <li>PEMI</li> <li>2008</li> <li>Upgrading of 30,000 bbl/day three phase separator and construction of 20,000 m. well lines and 5 gathering manifolds with flow rate</li> </ul>                         |  |  |
| TURKEY<br>Company<br>Date of Completion<br>Scope of Project | <ul> <li>PEMI</li> <li>2008</li> <li>Upgrading of 30,000 bbl/day three phase separator and construction of 20,000 m. well lines and 5 gathering manifolds with flow rate monitoring of 21 wells.</li> </ul> |  |  |

**Scope of Project** : Well completion and test services of the natural gas well (Barbaros-1).





## QUALITY CONTROL, LOADING & UNLOADING OF CRUDE OIL, IRAQ & TURKEY

| Company            | : | TURKISH PETROLEUM INTERNATIONAL COMPANY                                                                                                                                      |
|--------------------|---|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Date of Completion | : | 31.12.2000                                                                                                                                                                   |
| Scope of Project   | : | Third party Quality Control check/Loading–<br>Unloading and export documentations of<br>companies tanker truck crude oil transportation<br>(10,000 ton/day) project in Iraq. |

#### **OPERATION OF GAS AND OIL FIELDS, THRACE/TURKEY**

| Company :          | TURKISH PETROLEUM COMPANY                                                                                                                                                                                                                                                                                          |
|--------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Date of Completion | 29.07.2000                                                                                                                                                                                                                                                                                                         |
| Scope of Project   | Following up the daily operations of 35 gas wells<br>and 4 oil wells in Hamitabat Gas, Osmancık Oil<br>Fields, operation of the surface equipment (heater<br>separators, dehydrators, pipelines, stock tanks<br>etc.), coordination with Industrial gas consumer<br>plants and preparation oil for transportation. |





### 4. Pipeline & RMS-A Construction

#### **PIPELINE ROUTE SURVEY, IZMIR/TURKEY**

- **Company** : AIR LIQUIDE GAZ A.S.
- **Date of Completion** : 27.03.2013
- Scope of Project : Performing general pipeline route and related drawings (maps and profiles) with 3 different alternatives, defining land types and special crossings on the routes, optimization of the routes by taking into account both technical and financial aspects, performing basic P&ID's and generating a budgetary cost estimation for all route alternatives.

#### THERMOFLEX PIPELINE CONSTRUCTION, BATMAN/TURKEY

| Company            | : TEMI LTD.                                                           |
|--------------------|-----------------------------------------------------------------------|
| Date of Completion | : 30.04.2012                                                          |
| Scope of Project   | : Construction of 23,500 m thermoflex pipeline at SELMO/Batman field. |

#### NITROGEN PANEL REVISION, TURKEY

**Company** : BTC Co. TURKEY

**Date of Completion** : 20.04.2012

**Scope of Project** : Replacing pressure switches with pressure transmitters and redirecting the PSV outlet piping at PT1-2-3-4 and IPT 1-2 stations.





#### **RMS-A CONSTRUCTION, IZMIR/TURKEY**

- Company : TURKERLER INSAAT
- **Date of Completion** : 20.02.2012
- Scope of Project : Construction of Izmir ESBAS OSB 40.000 m3/h RMS-A and Inlet & outlet valve connections of AOSB 25.000 m3/h RMS-B.

#### SURGE VALVE MAINTENANCE SERVICE, TURKEY

| Company | :  | BAKU-TBILISI-CEYHAN | CRUDE | OIL | PIPELINE |
|---------|----|---------------------|-------|-----|----------|
|         | (E | STC)                |       |     |          |

- Date of Completion : Ongoing
- **Scope of Project** : Installation, maintenance and upgrading of M&J Surge Skids at Baku-Tbilisi-Ceyhan Crude Oil Line.

#### **PIPELINE CONSTRUCTION, TURKEY**

| Company | : | TEMI | LTD. |
|---------|---|------|------|
|---------|---|------|------|

- Date of Completion : 25.07.2011
- **Scope of Project** : Construction of 3800 mt Fiberglas Pipeline at SELMO/Batman Field.

#### **PIPELINE CONSULTANCY SERVICE, TURKEY**

- **Company** : TIWAY TURKEY LTD.
- **Date of Completion** : 03.06.2011
- **Scope of Project** : Consultancy service for construction of Bakuk-2 natural gas pipeline.





#### SURGE VALVE MAINTENANCE SERVICE, TURKEY

| Company | : PRODUCTION SERVICES NETWORK LTD. |
|---------|------------------------------------|
|---------|------------------------------------|

- **Date of Completion** : 05.02.2011
- **Scope of Project** : Commissioning of M&J Surge Skids at Baku-Tbilisi-Ceyhan Crude Oil Pipeline.

#### **ACTUATOR MAINTENANCE SERVICE, TURKEY**

| Company | :  | BAKU-TBILISI-CEYHAN | CRUDE | OIL | PIPELINE |
|---------|----|---------------------|-------|-----|----------|
|         | (B | BTC)                |       |     |          |
|         |    |                     |       |     |          |

- **Date of Completion** : 2008
- **Scope of Project** : Control Box Revision, Function Test and Maintenance of 65 Electro-Hydraulic Actuators.

#### **ACTUATOR INSTALLATION SERVICE, ISTANBUL/TURKEY**

| Company            | : IGDAS                                                                      |
|--------------------|------------------------------------------------------------------------------|
| Date of Completion | : 2008                                                                       |
| Scope of Project   | : Installation of 100 Electro-Hydraulic Actuators into existing valve rooms. |

#### TIRE 50,000 Nm<sup>3</sup>/h RMS A CONSTRUCTION, IZMIR/TURKEY

| Company | : IZMIRGAZ |
|---------|------------|
|---------|------------|

| Date of Completion | : | 01.11.2007 |
|--------------------|---|------------|
|--------------------|---|------------|

**Scope of Project** : Construction and Commissioning 50,000 m<sup>3</sup>/h Capacity Pinlet 75 bar Poutlet 19 bar NG Reducing and Measuring Station with Pipeline Connections to Main Distribution System.





#### ALIAGA 20,000 Nm<sup>3</sup>/h RMS A CONSTRUCTION, IZMIR/TURKEY

| Company | : IZMIRGAZ |
|---------|------------|
|---------|------------|

- Date of Completion : 28.02.2007
- **Scope of Project** : Construction and Commissioning 20,000 m<sup>3</sup>/h Capacity Pinlet 75 bar Poutlet 19 bar NG Reducing and Measuring Station with Pipeline Connections to Main Distribution System.

#### LEATHER INDUSTRIAL ESTATE AREA FREE ZONE NATURAL GAS DISTRIBUTION LINE CONSTRUCTION, ISTANBUL/TURKEY

| Company | :   | Istanbul | Leather | Industrial | Estate | Free | Zone |
|---------|-----|----------|---------|------------|--------|------|------|
|         | Are | a        |         |            |        |      |      |

Date of Completion : 15.07.2006

Scope of Project : 800 m. 6"-8" high pressure steel pipeline, 2,850 m. 32-180 mm. medium pressure polyethylene pipeline, 2 RMS-B stations with 15,000 Nm<sup>3</sup>/h and 10,000 Nm<sup>3</sup>/h flow.

#### ATATURK OSB 25,000 Nm<sup>3</sup>/h RMS-A, IZMIR/TURKEY

**Company** : IZMIRGAZ

**Date of Completion** : 03.07.2006

**Scope of Project** : Construction and Commissioning 25,000 m<sup>3</sup>/h Capacity Pinlet 70 bar Poutlet 19 bar NG Reducing and Measuring Station with Pipeline Connections to Main Distribution System.





## GUZELLER OSB INDUSTRIAL ESTATE AREA NATURAL GAS DISTRIBUTION LINE CONSTRUCTION, GEBZE-KOCAELI/TURKEY

| Company : |  | Gebze Industrial Estate Area |
|-----------|--|------------------------------|
|-----------|--|------------------------------|

- **Date of Completion** : 19.01.2006
- **Scope of Project** : 900 m. 4"-6" high pressure steel pipeline, 4,700 m. 32-180 mm. medium pressure polyethylene pipeline.

#### **TUZLA-TEPEOREN 45,000 Nm<sup>3</sup>/h RMS A, ISTANBUL/TURKEY**

| Company : | IGDAS |
|-----------|-------|
|-----------|-------|

| Date of Completion | : | 17.08.2005 |
|--------------------|---|------------|
|--------------------|---|------------|

**Scope of Project** : Construction and Commissioning 45,000 m<sup>3</sup>/h Capacity Pinlet 70 bar Poutlet 25 bar NG Reducing and Measuring Station with Pipeline Connections to Main Distribution System.

#### VELIMESE-NE NATURAL GAS STOPPLE OPERATION, CORLU/TURKEY

| Company            | : Amity Oil Int. Pty. Ltd., Australia                                                                                                                                                         |
|--------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Date of Completion | : 15.08.2005                                                                                                                                                                                  |
| Scope of Project   | : Gas transmission to TPAO natural gas pipeline by<br>stopple operation from Amity natural gas pipeline,<br>300 m. 4" pipeline construction, measuring station<br>manufacturing and assembly. |





#### LEATHER INDUSTRIAL ESTATE AREA NG DISTRIBUTION LINE CONSTRUCTION, ISTANBUL/TURKEY

**Company** : Istanbul Leather Industrial Estate Free Zone Area

Date of Completion : 08.07.2005

Scope of Project : 11,100 m. 2"-20" high pressure steel pipeline, 26,600 m. 32-180 mm. medium pressure polyethylene pipeline, 12 RMS-B stations with 13,000 m3/h flow.

## INDUSTRIAL ESTATE AREA NATURAL GAS DISTRIBUTION LINE CONSTRUCTION, OSTIM-ANKARA/TURKEY

| Company | : Ankara Industrial Estate Area |
|---------|---------------------------------|
|         |                                 |

Date of Completion : 06.06.2005

**Scope of Project** : 1,300 m. high pressure steel pipeline, 50,000 m. 32-180 mm. medium pressure polyethylene pipeline, 2 RMS-B & 1 Metering Station.

TUPRAS REFINERY NATURAL GAS TRANSMISSION LINE CONSTRUCTION, KIRIKKALE/TURKEY

**Date of Completion** : 30.04.2005

**Scope of Project** : 2,500 m. 6"-8" high pressure steel pipeline and RS-B installation.





## INDUSTRIAL ESTATE AREA NATURAL GAS DISTRIBUTION LINE CONSTRUCTION, KARAMAN/TURKEY

**Company** : Karaman Industrial Estate Area

**Date of Completion** : 10.09.2004

Scope of Project : 1,910 m. 6"-8"-12" high pressure steel pipeline, 1,410 m. 32-180 mm. medium pressure polyethylene pipeline, 2 RMS-B stations with 13,000 m3/h flow.

#### ADATEPE-CERKEZKOY NATURAL GAS TRANSMISSION LINE CONSTRUCTION, TEKIRDAG/TURKEY

**Date of Completion** : 01.10.2003

**Scope of Project** : Design and engineering 13,000 m. 8" high pressure natural gas pipeline, procurement materials, detailed route study, bending and welding of pipes, trench excavation, pipe lower in, back filling, river & road crossings, cathodic protection, hydrostatic testing and commissioning.

#### USAK NATURAL GAS PIPELINE CONSTRUCTION, USAK/TURKEY

**Date of Completion** : 15.05.2003

Scope of Project : Route study for construction of 22,000 m. 8" high pressure Natural gas pipeline, bending and welding of pipes, insulation of pipe joints, trench excavation, pipe lower in, back filling, river & road crossings and topographic studies.





## NATURAL GAS DISTRIBUTION PIPE LINE CONSTRUCTION, KUTAHYA/TURKEY

**Company** : TEPE ALTYAPI A.S.

**Date of Completion** : 17.02.2003

Scope of Project : Route study for construction of 19,500 m. 8", 6", 4" and 3" medium range pressure natural gas pipeline, bending and welding of pipes, insulation of pipe joints, digging trench, pipe lower in, back filling, river & road crossings and topographic studies.

#### VELIMESE NE NATURAL GAS DISTRIBUTION AND PIPE LINE CONSTRUCTION, CORLU-TEKIRDAG/TURKEY

**Company** : Amity Oil Int.Pty. Ltd., Australia

**Date of Completion** : 15.02.2003

: Engineering and design studies for 4,800, 6" high **Scope of Project** pressure natural gas pipeline connected to TPAO 8" pipeline by hot-tap operation, RMS assembly, detailed route study, procurement of PE coated pipes, valves and fittings, design and construction pipeline five valve chambers, for and commissioning after cathodic protection and hydrostatic test.





## GOCERLER-MISINLI NATURAL GAS PIPELINE CONSTRUCTION, CORLU-TEKIRDAG/TURKEY

- **Company** : Amity Oil International Pty. Ltd. Australia
- **Date of Completion** : 13.12.2001
- **Scope of Project** : Detailed route study, procurement line pipe/valves, valve chamber construction, cathodic protection, hydrostatic test and commissioning of 8" 18,465 m pipeline project.

#### **PIPELINE CONSTRUCTION, MURATLI-TEKIRDAG/TURKEY**

- Date of Completion : 01.05.2000
- Scope of Project : 24,300 meters 6" Pipeline construction, testing and commissioning between Muratli and Tekirdag gas field.





### 5. Industrial Natural Gas /LNG Conversion

- ✓ ALL ALCI A.S. ANKARA / BATMAN
- ✓ AYDIN KURUYEMIS SAN. VE TIC. LTD. STI. SAKARYA
- ✓ BAKIRLAR TEKSTIL SAN. VE TIC. A.S. ADANA
- ✓ BARUT HOTELS -ANTALYA
- ✓ BASAS AMBALAJ A.S. ISTANBUL
- ✓ BERDAN TEKSTIL SAN. VE TIC. A.S. TARSUS-MERSIN
- ✓ BESLER GIDA KIMYA SAN. TIC. A.S. ADANA
- ✓ BEYAZ KAGIT TEMIZLIK URUNLERI LTD. STI. ADANA
- ✓ BISKOT BISKUVI SAN VE TIC. A.S. KARAMAN
- ✓ BOSSAN HALI LTD. STI. GAZIANTEP
- ✓ CEVAHIR DERI SAN. VE TIC. LTD. STI. ISTANBUL
- ✓ CLUB BLUE DREAMS HOTELS, BODRUM-MUGLA
- ✓ CORINTHIA CLUB HOTEL ANTALYA
- ✓ CROSS JEANSWEAR CO. CORLU-TEKIRDAG
- ✓ CINE AKMADEN MADENCILIK A.S AYDIN
- ✓ DERIMSAN DERI SAN. VE TIC. STI. ISTANBUL
- ✓ DURKAR HALI SAN . VE TIC. LTD. STI. GAZIANTEP
- ✓ ENTEKSER MUHENDISLIK SAN. VE TIC. LTD. STI. KASTAMONU
- ✓ ETAP TARIM SAN. VE TIC. A.S. MERSIN
- ✓ EVYAP SAN. VE TIC. A.S. ISTANBUL
- ✓ GENSA ALUMINYUM LTD. STI. KOCAELI
- ✓ GOZE TARIM A.S. MERSIN
- ✓ HAMBOYA BOYACILIK SAN. VE TIC. A.S. TEKIRDAG
- ✓ HEKTAS TARIM ILACLARI TIC. A.S. KOCAELI
- ✓ HENKEL A.S. ISTANBUL
- ✓ HES KIMYA A.S. KAYSERI
- ✓ KAYALAR BAKIR ALASIMLARI SAN. VE TIC. A.S. CORLU-TEKIRDAG
- ✓ KOPUZLAR DERI SAN. VE TIC. A.S. ISTANBUL
- ✓ LAFARGE DALSAN A.S. KOCAELI
- ✓ LETOONIA CLUB HOTELS, FETHIYE-MUGLA
- ✓ LUKS KADIFE SAN. VE TIC. AS. KAYSERI
- ✓ LYKIA LODGE HOTEL NEVSEHIR
- ✓ MARTY MYRA HOTELS ANTALYA
- ✓ MASS ARITMA SAN. VE TIC. A.S. KOCAELI
- ✓ MENSA MENSUCAT A.S. ADANA
- ✓ MERCEDES BENZ TURK A.S. AKSARAY
- ✓ MERINOS HALI SAN. VE TIC. A.S. GAZIANTEP





- ✓ NUH'UN ANKARA MAKARNASI A.S. CANKIRI
- ✓ OGUN MAKARNA A.S. GAZIANTEP
- ✓ OLTAN GIDA A.S. TRABZON
- ✓ ONUR TAAHHUT VE TICARET LTD. STI. KIRIKKALE
- ✓ ORTA ANADOLU TEKSTIL SAN. VE TIC. LTD. STI. KAYSERI
- ✓ OTIUM ART HOTELS ANTALYA
- ✓ OZBUCAK SAN. VE TIC. A.S. ADANA
- ✓ OZGORKEY OTOMOTIV A.S. ANTALYA
- ✓ OZMAYA SAN. A.S. ADANA
- ✓ OZPOR A.S. ANKARA
- ✓ PETLAS LASTIK SAN. TIC. A.S. KIRSEHIR
- ✓ PURPLAST SAN. VE TIC. A.S. KOCAELI
- ✓ RIXOS HOTELS ANTALYA
- ✓ SARCHEM KIMYA SAN. VE TIC. A.S. ISTANBUL
- ✓ SARUHAN KIMYA SAN. VE TIC. A.S. TEKIRDAG
- ✓ SIRENE BELEK HOTEL ANTALYA
- ✓ SURAL RESORT HOTEL ANTALYA
- ✓ SURSAN SU URUNLERI SAN. VE TÍC. A.S. SAMSUN
- ✓ SA-RA GROUP A.S. ADANA
- ✓ SIMSEK BISKUVI SAN. VE TIC. A.S. KARAMAN
- ✓ SITEKS TEKSTIL SAN. VE TIC. A.S. TEKIRDAG
- ✓ SOLEN CIKOLATA SAN. VE TIC. A.S. GAZIANTEP
- ✓ TADER LEVHA SAN. VE TIC. A.S. ISTANBUL
- ✓ TAT KIMYA SAN. VE TIC. A.S. GAZIANTEP
- ✓ TAT NISASTA SAN. VE TIC. A.S. ADANA
- ✓ TAT TEKSTIL SAN. VE TIC. A.S. GAZIANTEP
- ✓ TEKNIK PROFIL A.S. ISTANBUL
- ✓ TEMSA A.S. ADANA
- ✓ TERMO ISI SAN. VE TIC. A.S. ISTANBUL
- ✓ TEZKIM TARIMSAL KIMYA A.S. ADANA
- ✓ TURKUAZ SERAMIK SAN. VE TIC. A.S. KAYSERI
- ✓ UGUR METAL SAN. VE TIC. LTD. STI. KOCAELI
- ✓ UYGUNER DERI SAN. VE TIC. A.S. ISTANBUL
- ✓ UCEL TEKSTIL SAN. VE TIC. LTD. STI. SAKARYA
- ✓ VASTAS A.S. TEKIRDAG
- ✓ YELKEN HOTEL MUGLA
- ✓ YESILYURT DEMIR CELIK A.S. SAMSUN
- ✓ ZEKI MENSUCAT SAN. VE TIC. A.S. GAZIANTEP

#### SOME OF ABOVE LNG CONVERSION PROJECTS HAVE BEEN CONTRACTED FOR HABAS AND KOC-STATOIL.





### 6. Material Supply

#### **EQUIPMENT SUPPLY FOR GEOTHERMAL DRILLING, TURKEY**

- **Company** : GURSUM ENERJI A.S.
- **Scope of Project** :: Casing, Wellhead Equipments and Floating Equipments supply for geothermal drilling.

#### **OILFIELD EQUIPMENT SUPPLY, TURKEY**

- **Company** : GUNEY YILDIZI A.S.
- **Scope of Project** :: Wellhead Equipments, Floating Equipments, Decanting Centrifuge and other related equipments supply.

#### SOLID CONTROL EQUIPMENTS SUPPLY, TURKEY

- **Company** : PETROTEK A.S.
- Scope of Project :: Desander, Desilter, Centrifugal Pump and Mixing Hopper Supply.

#### **OILFIELD EQUIPMENT SUPPLY, TURKEY**

- **Company** : BULUTLAR SONDAJ LTD. STI.
- **Scope of Project** :: Handling Tools, Solid Control Equipments, Drilling Instruments, Mud Test Equipments and other related equipments supply.

#### EQUIPMENT SUPPLY FOR GEOTHERMAL DRILLING, TURKEY

- **Company** : GUL SONDAJ LTD. STI.
- **Scope of Project** :: BOP, Cementing Equipments, Wellhead Equipments, Safety Valves, Cup Type Testers and other related equipments supply.





### **TUBING SUPPLY, TURKEY** : SDS ENERJI A.S. Company **Scope of Project** : Tubing supply for geothermal well. **DRILLING EQUIPMENT SUPPLY, TURKEY** : BM HOLDING / GUMUSKOY JEOTERMAL ENERJI Company A.S. **Scopeof Project** : Drill Pipe & Accessories, Fishing Tools, Handling Tools, Stabilizers, Drilling Instruments, Power Unit and other related equipments supply **OILFIELD EQUIPMENT SUPPLY, TURKEY** : KOZA IPEK A.S. Company **Scope of Project** : Casing, Wellhead Equipment, Casing Accessories and other related equipments supply. **OFFICE CONTAINER SUPPLY, TURKEY** : BLACKSTONE DRILLING SYSTEMS FZE Company **Scope of Project** : Office Container Supply. WELLHEAD EQUIPMENT SUPPLY, TURKEY : GUNEY YILDIZI A.S. Company **Scope of Project** : Wellhead equipment supply for Guney Yildizi. **FIBERGLASS LINE PIPE & TUBING SUPPLY, TURKEY** Company : TPAO **Scope of Project** : Supply of 4"-6"-8" fiberglass line pipes and 2 7/8" $-3 \frac{1}{2}$ " tubing.





#### WELLHEAD EQUIPMENT AND CLAMPS SUPPLY, TURKEY

| Company : | : BM HOLDING A.S |  |
|-----------|------------------|--|
|-----------|------------------|--|

**Scope of Project** : Supply of wellhead equipment and clamps for geothermal well in SOKE / AYDIN.

#### SURGE VALVE SUPPLY AND MAINTENANCE SERVICE, TURKEY

| Company | : | BAKU-TBILISI-CEYHAN | CRUDE | OIL | PIPELINE |
|---------|---|---------------------|-------|-----|----------|
|         |   | (BTC)               |       |     |          |

#### **Scope of Project** : Spare part supply of M&J Surge Skids at Baku, Tbilisi, Ceyhan Crude Oil Pipe Line.

#### **DRILLING CHEMICALS SUPPLY, TURKEY**

| Company : | TPAO | / AMITY | OIL / | MADISON |
|-----------|------|---------|-------|---------|
|-----------|------|---------|-------|---------|

**Scope of Project** : Supply of different type drilling chemicals like KCL, Modified starch, PAC and polymers.

#### **PRODUCTION CHEMICALS SUPPLY, TURKEY**

- **Company** : TPAO / N.V. Turkse PERENCO / PEMI
- **Scope of Project** : Supply of demulsifier and corrosion inhibitor.

#### **ACTUATOR SUPPLY, TURKEY**

| Company          | :  | BAKU-TBILISI-CEYHAN<br>(BTC) | CRUDE       | OIL     | PIPELINE |
|------------------|----|------------------------------|-------------|---------|----------|
| Scope of Project | :  | Supply of 65 ea electro-l    | nydraulic a | actuato | ors.     |
| DOPE AND PROTE   | СТ | OR SUPPLY, AZERBAIJ          | AN          |         |          |
| Company          | :  | NOBEL OIL LTD.               |             |         |          |
| Scope of Project | :  | Supply of drill pipe dope    | and threa   | d prot  | ector.   |





#### **ACTUATOR SUPPLY, TURKEY**

| Company          | : | IGDAS                                             |
|------------------|---|---------------------------------------------------|
| Scope of Project | : | Supply of 100 ea electro-hydraulic actuators with |
|                  |   | control units.                                    |

#### **ACTUATOR SUPPLY, TURKEY**

| Company | : | AKFEL |
|---------|---|-------|
|---------|---|-------|

| Scope of Project | : | Supply of 27 ea gas over oil actuators with control |
|------------------|---|-----------------------------------------------------|
|                  |   | units.                                              |

#### **ACTUATOR SUPPLY, TURKEY**

| Company : |  | VASTAS / KALE KALIP A.S. |
|-----------|--|--------------------------|
|-----------|--|--------------------------|

**Scope of Project** : Supply of 14 + 46 ea gas over oil/gas hydraulic actuators with control units.

#### DRILLING EQUIPMENT SUPPLY, TURKEY

Company : TPIC

**Scope of Project** : Supply of drilling equipment.

#### **MATERIAL SUPPLY, TURKMENISTAN & AZERBAIJAN**

- **Company** : SERVOIL ARGENTINA
- **Scope of Project** : Logistics and material supply for onshore drilling and workover activities.





### **CERTIFICATE** Certificate Standard ISO 9001:2008 Certificate Registr. No. 01 100 042828 TROYA DOĞALGAZ PETROL MÜHENDİSLİK SAN. VE TİC. LTD. ŞTİ. Certificate Holder: Merkez: Mesa Koru Sitesi Akmeşe Sok.No: 6 06810 Çayyolu / ANKARA / TURKEY Atölye: Organize Sanayi Bölgesi 1.Cadde No: 23 BATMAN / TURKEY Oil, Natural Gas and Geothermal Pipeline, Piping, Field Management, Drilling, Designing/Projecting, Consultancy and Trading, Surface Facility Upgrading Scope: Proof has been furnished by means of an audit that the requirements of ISO 9001:2008 are met. The due date for all future audits is 05-05 (dd.mm). h., The certificate is valid from 2014-06-06 until 2016-05-05. First certification 2004 Validity: Rheinland Cert GmbH 2014-06-06 TOVE ( DAkks ----**TÜV**Rheinland<sup>®</sup> www.tuv.com Precisely Right.

















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