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Client: European Utility Company
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Additional Information
For more information about GCA’s integrated services, please contact your local GCA office.

Europe, Africa & Russia Caspian
United Kingdom
Bentley Hall, Blacknest, Alton, Hampshire
GU34 4PU, United Kingdom
Tel: +44 (0)1420 525296
GCA.BD.London@gaffney-cline.com

Argentina
Edificio Puerto Lino
Juana Mamo 205, piso 3
Dique 4, Puerto Madero
C1007CBE
Buenos Aires,
Argentina
Tel: +54 11 4378 6497
GCA.BD.BuenosAires@gaffney-cline.com

Americas
Houston
5555 San Felipe Street
Suite 550
Houston, TX 77056
USA
Tel: +1 713 850 9955
GCA.BD.Houston@gaffney-cline.com

Asia Pacific
Singapore
80 Anson Road, #31-01CFuji Xerox Towers
Singapore 079907
Tel: +65 6225 6951
GCA.BD.Singapore@gaffney-cline.com

Gaffney, Cline & Associates
www.gaffney-cline.com

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Gaffney, Cline & Associates
Gaffney, Cline & Associates (GCA) is a global consultancy that has been offering technical, commercial, and strategic advice to the oil and gas sector for more than 50 years. GCA is well known as one of the leading suppliers of Reserves and Resources assessments, which are required for many purposes including statutory reporting, stock exchange listing, development planning, project finance, and asset valuation. In addition, GCA offers a full range of upstream, midstream and downstream consultancy services. These include seismic interpretation, static and dynamic reservoir modelling, field development planning, facilities and pipeline engineering, gas monetisation, LNG/GTL, mergers and acquisitions, economics and project finance, unitisation and redetermination, and expert witness work.

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Russia
GCA has been working with leading organizations in Russia since 1993, serving a wide range of local and international clients, from oil and gas companies to banks and international financial organizations. The geographical coverage of GCA projects includes all major oil and gas basins across Russia, from mature Caspian to frontier North Sakhalin. The scope of these projects has been very diverse, including field development planning and implementation, asset acquisition, refinery and gas processing plant audits, government strategy, dispute assistance and a wide range of oil and gas Reserve/Resource audits and evaluations.

Brief summaries of a limited selection of these projects are provided below.

**Technical Advisor: Two Significant Portfolio Sales**
**Client: Major Russian Operator**
GCA audited the development and production plans of two major asset portfolios in the preparation of materials for a corporate acquisition. The assurance involved the identification of upside potential and the evaluation of risk for the purchaser and included considerable direct field work in support of the sale process.

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**Acquisition Due Diligence: Eastern Siberia**
**Client: Asian National Oil Company**
GCA undertook the technical due diligence of a large Eastern Siberian oil asset as part of an acquisition by a large Asian Operator. The work involved a detailed audit of the development plan and production profiles, the generation of an independent view on the purchase and recommendations to the buyer.

**Technical Due Diligence: Western Siberia**
**Client: Middle Eastern Oil Company**
GCA executed the technical due diligence of a tight oil field in Nazym area, Western Siberia for a Middle Eastern Oil Company. GCA evaluated the subsurface technical risks and strategic assumptions in the valuation. Correlative benchmarking of project costs against similar developments in the area was a key part of the due diligence.

**Corporate Acquisition Due Diligence: Eastern Siberia**
**Client: Japanese Financial Institution**
GCA acted as a Technical Consultant in support of a potential acquisition of an interest in an independent Russian oil company holding oil and gas assets. GCA attended a data room and led the evaluation of all subsurface data. The work included an audit of the geoscience, petroleum engineering and commercial aspects of the project to derive resource estimates and NPVs.

**Development Review: Tight Oil Field, Western Siberia**
**Client: Major Russian Operator**
GCA conducted a comprehensive engineering and geological study of the Vinogradova tight oil field in Western Siberia. The project objectives were to optimise appraisal risks and early development programmes to reduce CAPEX and improve well performance.

**Mature Oil Field Re-Development: Western Siberia**
**Client: Major Russian Operator**
GCA was commissioned to design a re-development plan for the Yuzhno-Yagunskoye field in Western Siberia with the objective of identifying bypassed oil, improving efficiency and well planning. The work included building a new reservoir model, estimating reserves and providing recommendations on the field development.

**Unconventional Reservoir Development: Western Siberia**
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GCA performed an integrated assessment of the technical and commercial development potential of the Upper Jurassic Bazhenov shale. This included geomechanical modelling and designing the optimum completion technique for horizontal wells in the pilot study area.

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**GCA Russian Projects by Region**

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<tr>
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<tbody>
<tr>
<td>Block/Asset Review</td>
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<tr>
<td>Reserves</td>
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<tr>
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<tr>
<td>Gas Utilization</td>
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<tr>
<td>Field Development Studies</td>
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</tr>
<tr>
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<td><strong>Total</strong></td>
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<tr>
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<td>Gas Utilization</td>
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<tr>
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GCA conducted an independent audit of the resource volumes in a large gas-condensate field located in the Russian Arctic. GCA also conducted an economic evaluation of participation in the development and LNG project.

**Competent Person’s Report for Successful AIM Listing**

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GCA prepared a Competent Person’s Report (CPR) on assets in Timan-Pechora and Volga-Urals basins as part of a successful Initial Public Offering (IPO) on the Alternative Investment Market (AIM) of the London Stock Exchange (LSE).

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Europe, Africa & Russia Caspian
United Kingdom
Bentley Hall, Blacknest, Alton, Hampshire
GU34 4PU, United Kingdom
Tel: +44 (0)1420 525386
Fax: +44 (0)1420 526700
GCA.BD.London@gaffney-cline.com

United Arab Emirates
TechnoPark, Jabel Ali, Dubai, United Arab Emirates
Tel: +971 55 992 2918
GCA.BD.Dubai@gaffney-cline.com

Argentina
Edificio Puerto León
Juafo Mamo 205, piso 3
Dique 4, Puerto Madero
C1007CBE
Buenos Aires,
Argentina
Tel: +54 11 4378 6497
GCA.BD.BuenosAires@gaffney-cline.com

Americas
Houston
5555 San Felipe Street
Suite 550
Houston, TX 77056
USA
Tel: +1 713 850 9955
GCA.BD.Houston@gaffney-cline.com

Argentina
Edificio Puerto León
Juafo Mamo 205, piso 3
Dique 4, Puerto Madero
C1007CBE
Buenos Aires,
Argentina
Tel: +54 11 4378 6497
GCA.BD.BuenosAires@gaffney-cline.com

Asia Pacific
Singapore
80 Anson Road, #31-01
Fujixerox Towers
Singapore 079907
Tel: +65 6225 6951
GCA.BD.Singapore@gaffney-cline.com

Australia
Level #16-04, 275 Alfred Street
North Sydney, NSW 2060
Australia
Tel: +61 2 9955 6157
GCA.BD.Singapore@gaffney-cline.com