USIJI Uniform Reporting Document:
Activities Implemented Jointly Under the Pilot Phase

A. Description of the AIJ project

1. Title of project: RUSAGAS: Fugitive Gas Capture Project

2. Host country: Russian Federation

3. Brief project description:

The RUSAGAS Project will reduce greenhouse (GHG) emissions by capturing fugitive natural gas emissions at two compressor stations located in Pallasovka and Saratov, Russian Federation. The project, which has a lifetime of 25 years, is implementing a program to seal leaking valves at the compressor stations, and thereby reduce methane (CH_4) emissions that would occur otherwise.

4. Participants:

Name of Organization or Individual	Country
GAZPROM	Russian Federation
Oregon State University (OSU)	U.S.A.
Sealweld Corporation	U.S.A.
Sustainable Development Technology Corp. (SDTC)	U.S.A.
U.S. Environmental Protection Agency (EPA), Climate Change Division	U.S.A.
Southern California Gas Company	U.S.A.

Item	
Organization	
Name of organization (original language) or Name of individual if unaffiliated with any organization	GAZPROM
Name of organization (English)	(Same as above)
Acronym (original language)	None
Acronym (English)	None
Department	Department for Scientific and Technical Progress and Ecology
Function(s) within the AIJ project activities	Project development, project administration, financing
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City	Moscow
State	
Post code	117939
Country	Russian Federation
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Item	
Organization	
Name of organization (original language) or Name of individual if unaffiliated with any organization	Oregon State University
Name of organization (English)	(Same as above)
Acronym (original language)	OSU
Acronym (English)	None
Department	Department of Civil Engineering
Function(s) within the AIJ project activities	Project development, project administration, financing
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City	Corvallis
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Country	U.S.A.
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Organization	
Name of organization (original language) or Name of individual if unaffiliated with any organization	Sealweld Corporation
Name of organization (English)	(Same as above)
Acronym (original language)	None
Acronym (English)	None
Department	
Function(s) within the AIJ project activities	Project development, technical assistance, financing
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Country	U.S.A.
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Item	
Organization	
Name of organization (original language) or Name of individual if unaffiliated with any organization	Sustainable Development Technology Corp.
Name of organization (English)	(Same as above)
Acronym (original language)	SDTC
Acronym (English)	None
Department	
Function(s) within the AIJ project activities	Project development, technical assistance, financing
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Item	
Organization	
Name of organization (original language) or Name of individual if unaffiliated with any organization	U.S. Environmental Protection Agency, Climate Change Division
Name of organization (English)	(Same as above)
Acronym (original language)	EPA
Acronym (English)	(Same as above)
Department	Climate Change Division
Function(s) within the AIJ project activities	Financing
Street	U.S. Environmental Protection Agency, Office of Policy Analysis, 401 M Street SW
City	Washington
State	District of Columbia
Post code	20026
Country	U.S.A.
Telephone	202-260-6803
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Administrative Officer Responsible for the Project	
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Job title	
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Direct fax	
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Item	
Organization	
Name of organization (original language) or Name of individual if unaffiliated with any organization	Southern California Gas Company
Name of organization (English)	(Same as above)
Acronym (original language)	None
Acronym (English)	None
Department	Transmission and Storage Operations
Function(s) within the AIJ project activities	Verification
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Contact Person for AIJ Activities (if different from the Administrative Officer)	
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Job title	
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5. Description of AIJ project activities

Item	
Type of Project	
Sector(s)	Energy
Primary activity(ies)	Capture of fugitive methane emissions
Project Location	
Country	Russian Federation
Exact location (city, state, region)	Pallasovka and Saratov
Key Dates and Current Stage of Project	
Project starting date (month/year)	June 1995
Project ending date (month/year)	December 2022
Project lifetime (years)	27 years and 7 months
Current stage of project	In progress
General Project Description and Technical Data	
The RUSAGAS Fugitive Gas Capture Project reduces methane emissions in the natural gas transmission and distribution systems at two compressor stations through implementation of a technical program to seal leaking valves. The compressor stations are located in Pallasovka and Saratov, and are named Pallasovskaya and Storozhovka, respectively. The valves at each compressor station will be sealed in the order of most to least leaky, with the total number of valves sealed dependent on the level of funding for each station. The developers anticipate that all 70 leaking valves at the Pallasovskaya compressor station, and 80 of the 120 leaking valves at the Storozhovka station, will be sealed in January 1998. The technologies employed in the valve-sealing program include the Sealweld Corporation's high-pressure sealant injection equipment with lubricant sealants and sealant fittings.	

6. Cost

(a) Explanation of methodology for calculating cost data

Methodology for Calculating Cost Data
This information is not yet available.

(b) Cost data–Project development

Year(s)	Type of Cost Incurred	Amount (US$)
1	Project Development	30,000
	Total	30,000

(c) Cost data–Project implementation

Itemized Project Implementation Costs

Year(s)	Item	Projected Amount (US$)
	Project Costs	
2-3	Implementation of valve sealing and operation efficiency improvement programs	162,500
	Subtotal	162,500
	Project Revenues	
	This information is not yet available.	
	Subtotal	NA
Net Project Cost (Project Costs-Project Revenues)		NA
Note: Project costs only include costs associated with implementing the valve sealing. There will also be costs associated with monitoring and external verification.		

7. Monitoring and verification of AIJ project activities and results

Item	
Party(ies) that will be monitoring project activities	GAZPROM
Party(ies) that will be externally verifying project results	Southern California Gas Company
Date when the monitoring plan became (or will become) operational (month/year)	September 1998
Types of data that will be collected	Fugitive emissions

Description of Monitoring and Verification Activities and Schedule for Implementation

The project will be monitored through field surveys. The methane emissions from the leaking and sealed valves will be measured directly with monitoring equipment that is available in the North American gas industry, such as the pipe line valve electronic flow rate indicator. Fugitive gas emissions from valve stems and fittings can be determined directly by "bagging" the valve zone. The "bagging" procedure involves placing a bag, typically plastic, over the leaking element of a valve and securing the bag so that all fugitive emissions which vent to the atmosphere are captured in the bag. As the bag fills up to a known volume, the time required to fill the bag is noted and the leakage rate can be determined from these two measurements.

Participants agree to external verification. Southern California Gas Company will perform the verification and has provided preliminary information on their qualifications and their proposed approach which includes:

- Inspection of the sites to verify that the field practices employed are commensurate with project objectives.
- Verification of the adequacy of the field data collection and monitoring procedures employed to quantify the benefits derived from the valve-sealing program.
- Verification of the conversion factors used to calculate equivalent CO_2 from the volume of CH_4 that is captured.
- Verification of the adequacy of the monitoring plan and use of the data collected to update the greenhouse gas reduction estimates.
- Identification of potential sources of project "leakage" and verification that the steps identified to reduce potential project "leakage" are reasonable and adequate.

Information on the specific schedule for monitoring and verification activities is not yet available.

B. Governmental approval

Item	
Please check one of the following.	☐ This report is a first report. or ☒ This report is an intermediate report. or ☐ This report is a final report.
Please check one of the following:	☒ This report is a joint report. Letter(s) of approval of this report from the designated national authority of the other Party(ies) involved in the activity is (are) attached in Section J, Annex. or ☐ This report is a separate report.
Additional comments (if any):	

C. Compatibility with, and supportiveness of, national economic development and socioeconomic and environmental priorities and strategies

Compatibility with Economic Development and Socioeconomic and Environmental Priorities
The RUSAGAS project is compatible with the Russian government's desire to enhance environmental quality and improve the efficiency of the energy sector.

D. Environmental, social/cultural, and economic impacts of the AIJ project

Non-Greenhouse-Gas Environmental Impacts of the Project
A potential environmental health benefit of the project is reduced local air pollution.
Social/Cultural Impacts of the Project
By reducing methane leaks, which can cause fires and explosions, the project increases safety at the compressor stations.
Economic Impacts of the Project
A direct cost savings is accrued through the decrease in leakage of gas from the system. In addition to the direct savings from recovering lost gas, operating costs may be reduced, including 1) system maintenance and repair costs resulting from high impurity levels, and 2) the payment of emission fees (GAZPROM must pay a "pollution tax" on emissions of methane, sulfur dioxide, and NO_x).

E. Greenhouse gas impacts of the AIJ project

1. Scenario description

Item	
Site Designation	
Site number (order of presentation in this report)	1 of 2
Site name/designation	Pallasovka
Project sector	Energy
Reference Scenario	
Primary activity(ies)	Fugitive natural gas emissions from leaking compressor valves
Has the reference scenario changed since the last report? (If yes, explain any changes below.)	☐ Yes ☒ No ☐ This is the first project report.
Description: The Pallasovka compressor station is approximately 880 km southeast of Moscow, and 220 km northeast of Volgograd. It has thirty compressor units. Eighteen units are natural gas turbines and twelve units are electric motor driven. It has an estimated maximum transmission capacity of 90 x 10^9 m^3/yr. There are approximately 700 valves associated with the compressor station. The chief engineer at Pallasovka estimates that approximately 10% of the valves at the compressor station are leaking. When a leaking valve is repaired, the current practice at the plant is not to lubricate the valve but, rather, to cut the valve from the pipe and replace it with a new valve. This is a very costly practice. Furthermore, depending on the location of the valve, a substantial emission of fugitive gases may occur during the cutting and replacement operation. The reference scenario assumes that none of these leaking valves would be replaced over the lifetime of the project.	
Predicted Project Scenario	
Primary activity(ies)	Capture of fugitive methane emissions
Description: The project is implementing a valve-sealing program at the Pallasovka compressor station. It is projected that funding will allow for all of the leaking valves (70) to be sealed. Under the valve-sealing program, the methane emissions from leaking valves are assumed to be eliminated completely and remain eliminated throughout the lifetime of the project.	
Actual Project	
Primary activity(ies)	This information is not yet available.
Description: This information is not yet available.	

Item	
Site Designation	
Site number (order of presentation in this report)	2 of 2
Site name/designation	Saratov
Project sector	Energy
Reference Scenario	
Primary activity(ies)	Fugitive natural gas emissions from leaking compressor valves
Has the reference scenario changed since the last report? (If yes, explain any changes below.)	☐ Yes ☒ No ☐ This is the first project report.
Description: The Saratov compressor station is approximately 9 km north of the city of Saratov. The compressor station was constructed in the mid-1960s, and is used primarily to pump gas into two large underground storage basins. It has sixteen compressor units. Nine units are natural gas turbines and seven units are electric motor driven. The estimated maximum transmission capacity of the station is 17×10^9 m^3/yr. It is estimated that there are 120 leaking valves resulting in methane emissions to the atmosphere. The reference scenario assumes that none of these leaking valves would be replaced over the lifetime of the project.	
Predicted Project Scenario	
Primary activity(ies)	Capture of fugitive methane emissions
Description: The project is implementing a valve-sealing program at the Saratov compressor station. It is projected that funding will allow for approximately 80 of the 120 leaking valves to be sealed. Under the valve-sealing program, the methane emissions from leaking valves are assumed to be eliminated completely and remain eliminated throughout the lifetime of the project.	
Actual Project	
Primary activity(ies)	This information is not yet available.
Description: This information is not yet available.	

2. GHG emission/sequestration calculation methodology

GHG Emission/Sequestration Calculation Methodology	
Site number	1 of 2
Project sector	Energy
Description of Calculation Methodology for the Reference Scenario	
The reference scenario for Site 1, the Pallasovka compressor station, is based on the current estimated emissions of methane from leaking valves at the station. It is estimated that there are 70 leaking valves that emit a total of approximately 9.2 x 10^6 m^3 CH_4/yr. Based on measurements of 16 leaking valves, the minimum and maximum emissions measured were 15 m^3/hr and 1,300 m^3/hr, respectively. To be conservative, the lowest emission level of 15 m^3/hr is used. Therefore, a leaky valve will produce annual fugitive gas emissions of 131,400 m^3 CH_4/yr (= 15 m^3/hr * 24 hrs/day * 365 days/yr). Total annual emissions are 9.2 x 10^6 m^3 CH_4/yr (= 131,400 m^3 CH_4/yr * 70 valves). To convert from volume to mass, an average density of 700 g/m^3 is used (the density of CH_4 is 720 g/m^3 at 0°C and 1 atm; and 670 g/m^3 at 20°C and 1 atm). Thus, Site 1 reference scenario annual emissions are estimated to be 6,440 t CH_4 (= 9.2 x 10^6 m^3 CH_4/yr * .0007 t/m^3). Expert assessment has determined that without intervention, the emission levels could increase up to 5% per year. However, to be conservative, no increase is assumed and, therefore, reference scenario emissions remain constant throughout the life of the project. Although the project starting date is June of 1995 (the start of activities on-site), GHG benefits will not begin to accrue until construction is completed in September of 1998. Therefore, GHG emissions are estimated for the years 1998 through 2022 only.	
Description of Calculation Methodology for the Project Scenario	
In the project scenario, emissions are reduced by repairing valves at the compressor station. Repaired valves have zero emissions. At Pallasovka, it is projected that all of the leaking valves (70) are sealed, resulting in zero project scenario emissions throughout the life of the project. Although the project starting date is June of 1995 (the start of activities on-site), GHG benefits will not begin to accrue until construction is completed in September of 1998. Therefore, GHG emissions are estimated for the years 1998 through 2022 only.	
Description of Calculation Methodology for the Actual Project	
This information is not yet available.	

GHG Emission/Sequestration Calculation Methodology	
Site number	2 of 2
Project sector	Energy
Description of Calculation Methodology for the Reference Scenario	
The reference scenario for Site 2, the Saratov compressor station, is based on the current estimated emissions of methane from leaking valves at the station. It is estimated that there are 120 leaking valves, emitting approximately 94 x 10^6 m^3 CH_4/yr (the head environmental engineer for the Saratov station estimated that the fugitive gas emissions at the station were in the range of 0.5 - 0.6% of the maximum gas transmission capacity of the compressor station; the average is equivalent to 94 x 10^6 m^3 CH_4/yr). To convert from volume to mass, an average density of 700 g/m^3 is used (the density of CH_4 is 720 g/m^3 at 0°C and 1 atm; and 670 g/m^3 at 20°C and 1 atm). Thus, Site 2 reference scenario annual emissions are estimated to be 65,800 t CH_4 (= 94 x 10^6 m^3 CH_4/yr * 0.0007 t/m^3). Expert assessment has determined that without intervention the emission levels could increase up to 5% per year. However, to be conservative, no increase is assumed and, therefore, reference scenario emissions remain constant throughout the life of the project. Although the project starting date is June of 1995 (the start of activities on-site), GHG benefits will not begin to accrue until construction is completed in September of 1998. Therefore, GHG emissions are estimated for the years 1998 through 2022 only.	
Description of Calculation Methodology for the Project Scenario	
In the project scenario, emissions are reduced by repairing valves at the compressor station. Repaired valves have zero emissions. At Saratov, it is estimated that 80 of the 120 leaking valves are sealed, resulting in emissions of 31 x 10^6 m^3 CH_4/yr (= 40/120 * 94 x 10^6 m^3 CH_4/yr) from the 40 remaining leaking valves. Thus, Site 2 project scenario annual emissions are equivalent to 21,700 t CH_4 (= 31 x 10^6 m^3 CH_4/yr * 0.0007 t/m^3). The project scenario emissions remain constant throughout the life of the project. Although the project starting date is June of 1995 (the start of activities on-site), GHG benefits will not begin to accrue until construction is completed in September of 1998. Therefore, GHG emissions are estimated for the years 1998 through 2022 only.	
Description of Calculation Methodology for the Actual Project	
This information is not yet available.	

3. GHG emission/sequestration data

(a) Reporting of GHG emissions/sequestration

Projected Greenhouse Gas Benefits by Project Site
(Tonnes, Full Molecular Weight Basis)

Site Number: 1 of 2

Sector(s): Energy

Project Activity(ies): Energy efficiency improvements

Please specify: Year 1 = June 1995 to December 1995; subsequent years = calendar years

Year	Reference Scenario Emissions			Project Scenario Emissions			Net GHG Benefits (Reference Scenario - Project Scenario)				Cumulative GHG Benefits (Reference Scenario - Project Scenario)			
	CO_2	CH_4	N_2O	CO_2	CH_4	N_2O	CO_2	CH_4	N_2O	CO_2-Equivalent	CO_2	CH_4	N_2O	CO_2-Equivalent
1														
2														
3														
4		6,440			0			6,440		157,780		6,440		157,780
5		6,440			0			6,440		157,780		12,880		315,560
6		6,440			0			6,440		157,780		19,320		473,340
7		6,440			0			6,440		157,780		25,760		631,120
8		6,440			0			6,440		157,780		32,200		788,900
9		6,440			0			6,440		157,780		38,640		946,680
10		6,440			0			6,440		157,780		45,080		1,104,460
11		6,440			0			6,440		157,780		51,520		1,262,240
12		6,440			0			6,440		157,780		57,960		1,420,020
13		6,440			0			6,440		157,780		64,400		1,577,800
14		6,440			0			6,440		157,780		70,840		1,735,580
15		6,440			0			6,440		157,780		77,280		1,893,360
16		6,440			0			6,440		157,780		83,720		2,051,140
17		6,440			0			6,440		157,780		90,160		2,208,920
18		6,440			0			6,440		157,780		96,600		2,366,700
19		6,440			0			6,440		157,780		103,040		2,524,480
20		6,440			0			6,440		157,780		109,480		2,682,260
21		6,440			0			6,440		157,780		115,920		2,840,040
22		6,440			0			6,440		157,780		122,360		2,997,820

Projected Greenhouse Gas Benefits by Project Site (Continued)
(Tonnes, Full Molecular Weight Basis)

Site Number: 1 of 2

Year	Reference Scenario Emissions			Project Scenario Emissions			Net GHG Benefits (Reference Scenario - Project Scenario)				Cumulative GHG Benefits (Reference Scenario - Project Scenario)			
	CO_2	CH_4	N_2O	CO_2	CH_4	N_2O	CO_2	CH_4	N_2O	CO_2-Equivalent	CO_2	CH_4	N_2O	CO_2-Equivalent
23		6,440			0			6,440		157,780		128,800		3,155,600
24		6,440			0			6,440		157,780		135,240		3,313,380
25		6,440			0			6,440		157,780		141,680		3,471,160
26		6,440			0			6,440		157,780		148,120		3,628,940
27		6,440			0			6,440		157,780		154,560		3,786,720
28		6,440			0			6,440		157,780		161,000		3,944,500
Total		161,000			0			161,000		3,944,500		161,000		3,944,500

Note: Net CH_4 benefits were converted to CO_2-equivalent units using a GWP of 24.5.

Projected Greenhouse Gas Benefits by Project Site
(Tonnes, Full Molecular Weight Basis)

Site Number: 2 of 2
Sector(s): Energy
Project Activity(ies): Energy efficiency improvements
Please specify: Year 1 = June 1995 to December 1995; subsequent years = calendar years

	Reference Scenario Emissions			Project Scenario Emissions			Net GHG Benefits (Reference Scenario - Project Scenario)				Cumulative GHG Benefits (Reference Scenario - Project Scenario)			
Year	CO_2	CH_4	N_2O	CO_2	CH_4	N_2O	CO_2	CH_4	N_2O	CO_2-Equivalent	CO_2	CH_4	N_2O	CO_2-Equivalent
1														
2														
3														
4		65,800			21,700			44,100		1,080,450		44,100		1,080,450
5		65,800			21,700			44,100		1,080,450		88,200		2,160,900
6		65,800			21,700			44,100		1,080,450		132,300		3,241,350
7		65,800			21,700			44,100		1,080,450		176,400		4,321,800
8		65,800			21,700			44,100		1,080,450		220,500		5,402,250
9		65,800			21,700			44,100		1,080,450		264,600		6,482,700
10		65,800			21,700			44,100		1,080,450		308,700		7,563,150
11		65,800			21,700			44,100		1,080,450		352,800		8,643,600
12		65,800			21,700			44,100		1,080,450		396,900		9,724,050
13		65,800			21,700			44,100		1,080,450		441,000		10,804,500
14		65,800			21,700			44,100		1,080,450		485,100		11,884,950
15		65,800			21,700			44,100		1,080,450		529,200		12,965,400
16		65,800			21,700			44,100		1,080,450		573,300		14,045,850
17		65,800			21,700			44,100		1,080,450		617,400		15,126,300
18		65,800			21,700			44,100		1,080,450		661,500		16,206,750
19		65,800			21,700			44,100		1,080,450		705,600		17,287,200
20		65,800			21,700			44,100		1,080,450		749,700		18,367,650
21		65,800			21,700			44,100		1,080,450		793,800		19,448,100
22		65,800			21,700			44,100		1,080,450		837,900		20,528,550

Projected Greenhouse Gas Benefits by Project Site (Continued)
(Tonnes, Full Molecular Weight Basis)

Site Number: 2 of 2

Year	Reference Scenario Emissions			Project Scenario Emissions			Net GHG Benefits (Reference Scenario - Project Scenario)				Cumulative GHG Benefits (Reference Scenario - Project Scenario)			
	CO_2	CH_4	N_2O	CO_2	CH_4	N_2O	CO_2	CH_4	N_2O	CO_2-Equivalent	CO_2	CH_4	N_2O	CO_2-Equivalent
23		65,800			21,700			44,100		1,080,450		882,000		21,609,000
24		65,800			21,700			44,100		1,080,450		926,100		22,689,450
25		65,800			21,700			44,100		1,080,450		970,200		23,769,900
26		65,800			21,700			44,100		1,080,450		1,014,300		24,850,350
27		65,800			21,700			44,100		1,080,450		1,058,400		25,930,800
28		65,800			21,700			44,100		1,080,450		1,102,500		27,011,250
Total		1,645,000			542,500			1,102,500		27,011,250		1,102,500		27,011,250

Note: Net CH_4 benefits were converted to CO_2-equivalent units using a GWP of 24.5.

Projected Net Greenhouse Gas Benefits: All Project Sites
(Tonnes, Full Molecular Weight Basis)

Please specify: Year 1 = June 1995 to December 1995; subsequent years = calendar years

Year	Reference Scenario Emissions			Project Scenario Emissions			Net GHG Benefits (Reference Scenario - Project Scenario)				Cumulative GHG Benefits (Reference Scenario - Project Scenario)			
	CO_2	CH_4	N_2O	CO_2	CH_4	N_2O	CO_2	CH_4	N_2O	CO_2-Equivalent	CO_2	CH_4	N_2O	CO_2-Equivalent
1														
2														
3														
4		72,240			21,700			50,540		1,238,230		50,540		1,238,230
5		72,240			21,700			50,540		1,238,230		101,080		2,476,460
6		72,240			21,700			50,540		1,238,230		151,620		3,714,690
7		72,240			21,700			50,540		1,238,230		202,160		4,952,920
8		72,240			21,700			50,540		1,238,230		252,700		6,191,150
9		72,240			21,700			50,540		1,238,230		303,240		7,429,380
10		72,240			21,700			50,540		1,238,230		353,780		8,667,610
11		72,240			21,700			50,540		1,238,230		404,320		9,905,840
12		72,240			21,700			50,540		1,238,230		454,860		11,144,070
13		72,240			21,700			50,540		1,238,230		505,400		12,382,300
14		72,240			21,700			50,540		1,238,230		555,940		13,620,530
15		72,240			21,700			50,540		1,238,230		606,480		14,858,760
16		72,240			21,700			50,540		1,238,230		657,020		16,096,990
17		72,240			21,700			50,540		1,238,230		707,560		17,335,220
18		72,240			21,700			50,540		1,238,230		758,100		18,573,450
19		72,240			21,700			50,540		1,238,230		808,640		19,811,680
20		72,240			21,700			50,540		1,238,230		859,180		21,049,910
21		72,240			21,700			50,540		1,238,230		909,720		22,288,140
22		72,240			21,700			50,540		1,238,230		960,260		23,526,370

Projected Net Greenhouse Gas Benefits: All Project Sites (Continued)
(Tonnes, Full Molecular Weight Basis)

Please specify: Year 1 = June 1995 to December 1995; subsequent years = calendar years

	Reference Scenario Emissions			Project Scenario Emissions			Net GHG Benefits (Reference Scenario - Project Scenario)				Cumulative GHG Benefits (Reference Scenario - Project Scenario)			
Year	CO_2	CH_4	N_2O	CO_2	CH_4	N_2O	CO_2	CH_4	N_2O	CO_2-Equivalent	CO_2	CH_4	N_2O	CO_2-Equivalent
23		72,240			21,700			50,540		1,238,230		1,010,800		24,764,600
24		72,240			21,700			50,540		1,238,230		1,061,340		26,002,830
25		72,240			21,700			50,540		1,238,230		1,111,880		27,241,060
26		72,240			21,700			50,540		1,238,230		1,162,420		28,479,290
27		72,240			21,700			50,540		1,238,230		1,212,960		29,717,520
28		72,240			21,700			50,540		1,238,230		1,263,500		30,955,750
Total		1,806,000			542,500			1,263,500		30,955,750		1,263,500		30,955,750

Note: Net CH_4 benefits were converted to CO_2-equivalent units using a GWP of 24.5.

(b) Additional information on GHG emissions/sequestration

Indirect or Secondary GHG Impacts (Positive and Negative)
This information is not yet available.
Factors That Could Cause the Future Loss or Reversal of GHG Benefits
Given the nature of this project—capture of CH_4 at compressor valves that would have leaked to the atmosphere otherwise—loss or reversal of benefits accrued will not be possible. However, there is some risk that inadequate maintenance will diminish the effectiveness of the valve-sealing program over time, which would result in the projected GHG reduction benefits not being achieved.
Strategy for Reducing the Risk of Future Loss or Reversal of GHG Benefits
The monitoring and evaluation plans that are part of the project will keep track of the program's effectiveness. In addition, participants have included provisions for training in operations, maintenance, and repair. The proposal also notes that once the valves have been initially cleaned and sealed, they will only require a small quantity of additional lubricant/sealant to be injected upon a scheduled basis that will result in a negligible cost to GAZPROM.

F. Funding of the AIJ project

1. Identification of funding sources

(a) Funding sources for project development

Funding Source	Country of Funding Source	Amount ($US)	Percent of Total Funding (%)
SDTC	U.S.A.	20,000	67
Sealweld Corp.	U.S.A.		
GAZPROM	Russian Federation		
OSU/USEPA	U.S.A.	10,000	33
Total		**30,000**	**100**
Note: SDTC, Sealweld Corp., and GAZPROM contributed staff time of professionals in their respective organizations equal to approximately $20,000 (no cash contributions).			

(b) Funding sources for project implementation

Funding Source	Country of Funding Source	Amount ($US)	Percent of Total Funding (%)	Is This Funding Assured? (Y/N)
Unidentified utility investor	U.S.A.	162,500	100%	N
Total		**162,500**	**100**	

2. Assessment of additional funding needs

Current or Planned Activities to Obtain Additional Funding
Dr. Vinson will explore the opportunities for financing the project with Ex-Im Bank and with other financial agencies.

G. Contribution to capacity building and technology transfer

Contribution to Capacity Building and Technology Transfer
The project will demonstrate GHG capture, energy efficiency, and energy saving techniques that are cost effective and credible in the Russian Federation. There is great need and potential to implement valve sealing programs across the Russian Federation; hence RUSAGAS serves as a model for this type of activity.

H. Recent developments, technical difficulties, and obstacles encountered

Recent Project Developments
This information is not yet available.
Technical Difficulties and Other Obstacles Encountered
This information is not yet available.

I. Additional information

Additional Information
This information is not yet available.

J. Annex

1. Host country acceptance of the AIJ project

Country/Project Title	Name, Title, and Government Agency of the Designated National Authority	Date of Approval (day/month/year)
Russian Federation / RUSAGAS: Fugitive Gas Capture Project	Alexander I. Bedritsky, Head of Roshydromet, Chairman of the Interagency Commission of the Russian Federation on Climate Change Problems, Russian Federal Service for Hydrometeorology and Environmental Monitoring	9 December 1995

2. Letters of approval of this AIJ project report

In accordance with instructions from the UNFCCC Secretariat, a new letter of host country concurrence is not required for the 2000 USIJI Reporting Document for this project because the lead developer reported no new information this year and the Reporting Document has not changed.