

2013 Activities Report

# 2013 WORK PROGRAMS RAMP UP AS WE EXECUTE OUR STRATEGY

The end of 2012 completed a year of transformational change for Sino Gas, with the outcome of the 2012 work program culminating in the Q1 release of an updated third party reserves and resources assessment from RISC of 5.7 trillion cubic feet (tcf), of which Sino Gas' attributable net reserves and resources were assessed at 1.6 tcf¹. The 2013 work program is now well underway and over 250,000 incident free man hours were already recorded by the end of Q1. The level of activity in the field is steadily rising and is on track to surpass the benchmark set in the last two years. The work programs are set to have 10 drilling rigs in the field during Q2, with up to 25 wells planned to be drilled and multiple pay intervals targeted for testing. Meanwhile, the supportive government regime under which we operate continues to be developed, demonstrated by the release of National Energy Administration (NEA) policies during the quarter, which further encourages domestic coal-bed methane (CBM) production.

The independent assessment by RISC was a significant de-risking event for Sino Gas, in that it allowed us to book 327 billion cubic feet (bcf) from project contingent resources to 2P reserves (94 bcf is attributable to Sino Gas). We are very pleased that RISC recognised the work undertaken in 2012 regarding forward planning and our commitment to develop the PSCs and to allow us to subsequently commence booking substantial reserves.

Sino Gas is now entering a significant phase in the Company's development as we head down the path of successfully commercialising our projects. The first stage in our drive towards full field development has been the commencement of the extensive fully funded 2013 work programs designed to gather seismic and drilling data required for Chinese Reserve Report preparation.

Our seismic program for 2013 is already well progressed, with Sanjiaobei data acquisition covering the majority of the PSC nearing completion and the remaining northern portion of Linxing West to commence shortly after. Following the completion of the Linxing East drilling program, which confirmed major coal seams in the area, the dewatering program has been expanded to six wells and it is pleasing to report we have gas to surface on the first four wells of the program to date.

By the end of the quarter the Operations team had mobilised nine drill rigs, of which five had already commenced drilling. Our 2013 work program is on track to have ten drill rigs in the field during Q2, with up to 25 wells to be drilled in total across both PSCs, including two horizontal wells. In addition, we are deploying batch flow testing teams to test multiple intervals across 22 wells, with initial results expected in late Q2. The completion of the drilling and seismic work will then go into the preparation of the Chinese Reserve Reports on the Sanjiaobei and Linxing PSCs. This is scheduled for the second half of 2013.

Finally, the Operations team further progressed facility design and feasibility studies during the quarter to support preparations for the pilot program. We are working closely with our PSC partners to progress negotiations of gas sales agreements and remain in a position to be commencing facility construction in the second half of the year ahead of gas sales.

With the extensive levels of activity underway in 2013, we continue to be well positioned to take advantage of the unique opportunity presented by our Ordos Basin projects. We operate within an extremely supportive government regime, which also places us in the fortunate position of being able to assist China in developing natural gas as a clean energy source. Currently, the Chinese Central Government is targeting an increase in production of domestic origin gas by 2.5 times in the next five years alone.

In a further supportive move of the Central Government's 12<sup>th</sup> Five Year Plan, China's National Energy Administration (NEA) announced on 11 March, the implementation of new policy initiatives to accelerate the development of the country's CBM industry.

The policy continues to emphasise the Eastern Fringe of the Ordos basin, where Sino Gas' PSCs are located as a central base for CBM development, the strengthening of cooperation with foreign contractors, the continuation of the development of gas over coal as a clean energy source and the potential for additional fiscal support or an increase to the CBM subsidy to incentivise further development.

Robert Bearden
Managing Director & CEO



# **CORPORATE**

### Independent Reserves and Resources Assessment

RISC completed its independent Reserves and Resources assessment in March (as released to the ASX on 20<sup>th</sup> March 2013), using the SPE (Society of Petroleum Engineers) PRMS (Petroleum Resource Management System) Guidelines<sup>1</sup>.

Results were reviewed from the twelve wells drilled in 2012, 70km of seismic data from the infield drilling area in the north-eastern corner of Linxing East along with 100km of data from a previously unexplored portion to the southwest of the block, and 100km of north/south running seismic at Sanjiaobei.

RISC identified 327 billion cubic feet (bcf) of 2P Reserves that have been booked on the projects, with Sino Gas' share at 93 bcf. Total un-risked mid-case reserves and resources (reserves, contingent and prospective resources) have been evaluated at 5.7 trillion cubic feet (tcf), representing a 56% increase from the previous assessment conducted in 2012.

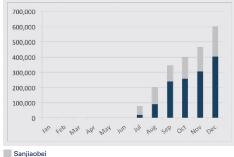
As a result, Sino Gas' net share of un-risked mid-case reserves and resources has risen to 1.6 tcf. Sino Gas' share of project NPV in developing the 2P Reserves and mid-case Contingent & Prospective resources has increased 66% to US\$1.86 billion.

# Occupational Health & Safety

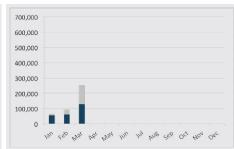
Over 250,000 OH&S incident free man hours have been recorded this quarter as drilling operations completed on the 2012 work program, and operations for 2013 commenced immediately following the Chinese New Year holiday period, and were accelerated in March.

### Total man hours 2012

Linxing



### Total man hours 2013



### Investor Relations and Marketing

Sino Gas was the only ASX listed company that participated in the Howard Weil energy conference in New Orleans in March, one of the premier investor conferences in the energy industry.

Sino Gas will be in attendance and presenting at the 2013 Asia Oil & Gas Assembly in Hong Kong from 24 to 25 April. The event brings together over 500 senior oil and gas executives from across the upstream, midstream, LNG, banking, finance, investment, and petroleum services sectors to Hong Kong.

From this period on, operational results for the last month of each quarter will be combined into the Quarterly Activities Report in order to enable earlier release of the quarterly updates to the market.

# **HIGHLIGHTS**

- 2013 work programs ramping up - over 250,000 incident free man hours recorded during Q1
- ► RISC independent assessment of reserves and resources delivered a 59% increase in net share of unrisked mid-case reserves and resources to Sino Gas of 1.6 tcf¹
- National Energy
  Administration (NEA) recent
  policy updates further
  encourage domestic natural
  gas production
- ► Linxing West TB-12 nears total depth as preparation for pilot production program continues
- ► Linxing East Gas to surface on four of the six wells currently undergoing dewatering, with two additional shallow wells underway to provide further support for CRR submission
- Sanjiaobei Six rigs mobilised in the field drilling already underway on two wells during Q1
- Sino Gas to present at the 2013 Asia Oil & Gas Assembly in Hong Kong

<sup>&</sup>lt;sup>1</sup> Refer to Resource Statement on page 8 for full disclosure.



# **FINANCIAL**

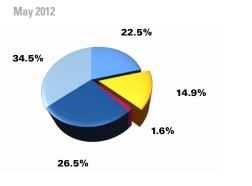
## **Financial Position**

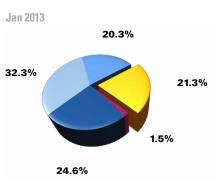
Sino Gas' cash position at the end of the guarter was approximately A\$17.3 million.

Capital raising activities completed early in the quarter strengthened the Company's balance sheet via:

- The placement of 82,448,979 fully paid ordinary shares to two leading institutional investors at \$0.1225 per share to raise approximately A\$10.1 million, before costs, and
- The conversion of 30,532,041 listed options (ASX: SEHOC) at \$0.125 per share. The remaining 303,751,716 options expired.

# **Transitioning share register**

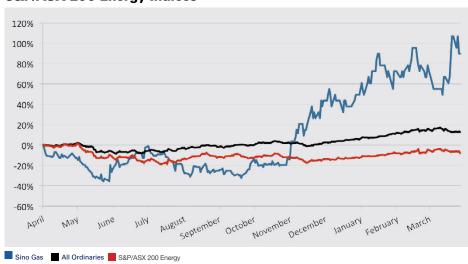




- Corporate Shareholders
- Institutional Investors
- Directors, Employees & Related Parties
- Private Stakeholders > 3m Shares
- Private Stakeholders

On March 1st, S&P Dow Jones Indices announced the quarterly rebalance of the S&P/ASX indices. Sino Gas & Energy Holdings (ASX: SEH) was added to the All Ordinaries index after the market close on March 15th.

# Share Price Performance (ASX:SEH) Relative to All Ordinaries Index and S&P/ASX 200 Energy Indices



# 2013 OUTLOOK

### **Q2**

- De-watering and batch flow testing of wells on Linxing East
- Preparations on Sanjiaobei and Linxing West for batch flow testing
- 2013 Sanjiaobei & Linxing West drilling programs commence

# **Q**3

- Chinese Reserve Report submitted on Linxing East
- Complete pilot production design and commence construction of facilities

#### **Q4**

▶ Phase 1 of the Chinese Reserve Report finalised on Sanjiaobei with submittal targeted for first half 2014

# SHARE PRICE ACTIVITY FOR THE MARCH QUARTER

High	\$0.215
Low	\$0.13
Last	\$0.165 (28 March 2013)
Average Daily Volume	3,122,000 (2012 Average 1,886,000)







# LINXING WEST (SINO GAS 31.7%2)

## Seismic

Following the completion of data acquisition for 350km of seismic lines planned for 2013 on the southern portion of Linxing West at the beginning of the quarter, surveying was subsequently completed for the final 300km of the 650km.

Seismic teams were temporarily transferred to complete the 2013 Sanjiaobei program and are expected to resume data acquisition on Linxing West towards the middle of the second quarter. The aim of the program is to enable further resource assessment on Linxing West and support the drilling and flow testing results required for a separate Chinese Reserve Report (CRR).

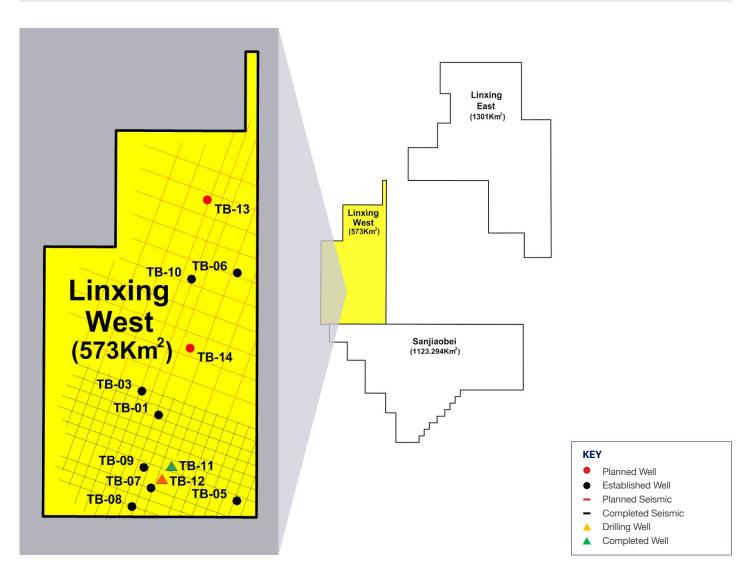
### **Drilling**

The final well of the 2012 work program at Linxing West, TB-12, was spud at the beginning of March and was nearing total depth by the end of the quarter. This well is in close proximity to TB-11, at which initial mud and electronic wire line log results identified 16 pay intervals across multiple pay zones during drilling, totalling 69.3 meters of pay.

### Testing

Planning for the batch flow testing program is underway on Linxing West, with two wells, TB-10 and TB-11, to be perforated initially. Perforation of the wells is expected to be conducted in the second quarter, once testing crews have completed the first round of testing on Sanjiaobei.

WELL	STATUS	RESULTS*	FORWARD OPERATIONS				
<b>TB-11</b> Spud 05/11/2012	Drilling complete	16 pay intervals 69.3m total pay	Flow testing				
<b>TB-12</b> Spud 01/03/2013	Drilling	-	Drill to total depth				
* Results are based on initial mud and electronic wire line logs.							





# LINXING EAST (SINO GAS 31.7%2)

## Seismic

The seismic data acquisition program was successfully completed in Q3 2012, covering the infield drilling area in the north-eastern corner of Linxing East, as required for Chinese Reserve Report (CRR) submission. This data, along with earlier data from a previously unexplored portion in the southwest portion of the block was provided to RISC and included in the Q1 2013 reserves and resources assessment. The potential for further seismic work on the block will be determined following the results of appraisal drilling from wells planned for mid-2013.

# **Drilling**

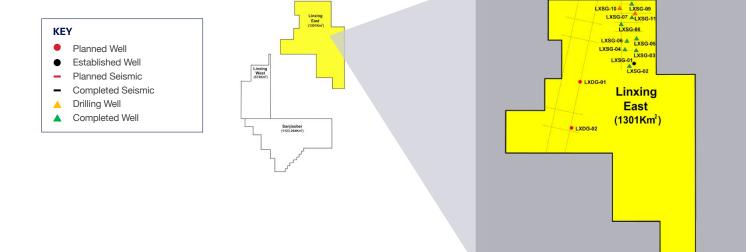
Two additional shallow wells were added to the drilling program to provide additional drilling data for Chinese Reserve Report submission and were spud in March. By the end of the quarter, both had been drilled to half of their respective planned total depths.

Spudding of the exploration well on Linxing East, LXDG-01 (formally named TB-13), has been deferred to facilitate a second round of exploration drilling of four deep wells, scheduled to begin mid-year.

#### Testing

The dewatering program has been expanded to six wells and gas to surface has been reported on the first four of the wells to date. Flow rate data for Chinese Reserve Reporting purposes is expected to be available in the coming months and will be incorporated into the CRR submission, expected Q3 2013.

WELL	STATUS	RESULTS*	FORWARD OPERATIONS				
<b>LXSG-09</b> Spud 20/08/2012	First gas to surface	12 pay intervals 30.2m total pay	Continue dewatering				
<b>LXSG-05</b> Spud 24/08/2012	First gas to surface	10 pay intervals 33.7m total pay	Continue dewatering				
<b>LXSG-02</b> Spud 12/09/2012	First gas to surface	9 pay intervals 22.8m total pay	Continue dewatering				
<b>LXSG-08</b> Spud 21/09/2012	First gas to surface	15 pay intervals 26.3m total pay	Continue dewatering				
<b>LXSG-06</b> Spud 15/11/2012	Dewatering	17 pay intervals 31.1m total pay	Continue dewatering				
<b>LXSG-07</b> Spud 19/11/2012	Dewatering	12 pay intervals 36 m total pay	Continue dewatering				
<b>LXSG-03</b> Spud 09/12/2012	Drilling complete	12 pay intervals 31.5m total pay	Perforate, frac and dewater				
<b>LXSG-04</b> Spud 05/12/2012	Drilling complete	12 pay intervals 29.3m total pay	Perforate, frac and dewater				
<b>LXSG-11</b> Spud 23/03/2013	Drilling	N/A	Drilling to target depth				
<b>LXSG-10</b> Spud 26/03/2013	Drilling	N/A	Drilling to target depth				
*Results are based on initial mud and electronic wire line logs.							





# SANJIAOBEI (SINO GAS 24%2)

#### Seismic

Excellent progress has been made on seismic acquisition towards the end of the quarter, with nearly 300km of seismic lines recorded during March. This leaves less than 150km remaining of the 585km planned for the 2013 seismic program, which is expected to be completed by the end of April.

The aim of the program is to acquire the data for the remaining north/south running lines to complete the seismic grid required for Chinese Reserve Report (CRR) submission. In addition, outfield seismic is being shot to further define the previously underexplored resource potential on the eastern portion of the block.

### **Drilling**

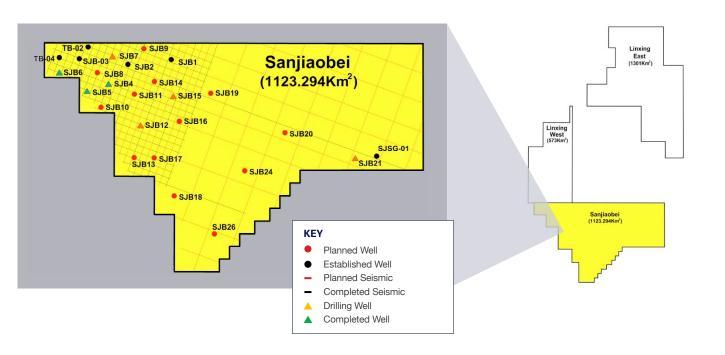
The fourth well of the 2012 six well work program has been spud at SJB7 and had been drilled to half of its planned total depth by quarter end. Meanwhile, preparations are continuing on the remaining two wells of the program at SJB8 and SJB9, which are expected to be spud in May.

The first well of the 2013 work program, SJB12, was spud at the beginning of March and was nearing total depth by the end of the quarter. Pre-spud engineering continues to progress well on the remaining wells to be completed in the first round of drilling, with the next wells at SJB15 and SJB21 spud in early April as the 2013 drilling programs ramped up.

### Testing

Preparations continued on the batch flow testing program towards the end of the quarter, while contracts with vendors were being finalised. As a result batch flow testing is scheduled to commence early in the second quarter, and will provide steady long-term flow rate results for Chinese Reserve Reporting purposes. These results will be reported to the market as they become available over the coming months.

WELL	STATUS	RESULTS*	FORWARD OPERATIONS
<b>SJB6</b> Spud 05/11/2012	Drilling complete	8 pay intervals 24.1m total pay	Flow testing
<b>SJB4</b> Spud 15/11/2012	Drilling complete	5 pay intervals 23.4m total pay	Flow testing
<b>SJB5</b> Spud 12/12/2012	Drilling complete	9 pay intervals 45.2m total pay	Flow testing
<b>SJB12</b> Spud 01/03/2013	Drilling	-	Drill to total depth
<b>SJB7</b> Spud 23/03/2013	Drilling	-	Drill to total depth
*Results are based on initial mu	d and electronic wire line logs.		



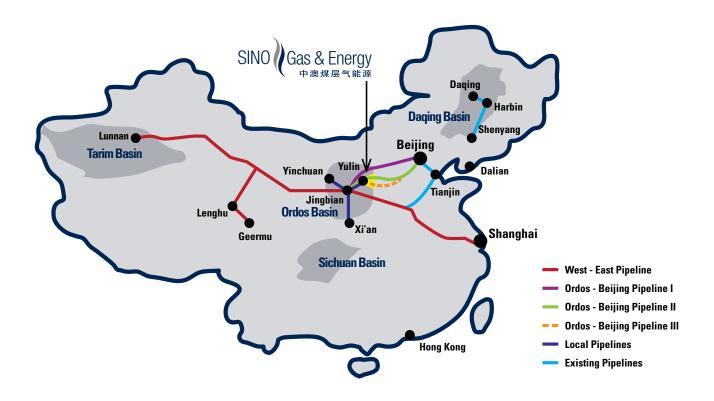


# <sup>2</sup>ABOUT SINO GAS & ENERGY HOLDINGS LIMITED

Sino Gas & Energy Holdings Limited ("Sino Gas" ASX: SEH) is an Australian energy company focused on developing Chinese unconventional gas assets. Sino Gas holds a 49% interest in Sino Gas & Energy Limited ("SGE") through a strategic partnership completed with MIE Holdings Corporation ("MIE" SEHK: 1555) in July 2012. SGE has been established in Beijing since 2006 and is the operator of the Linxing and Sanjiaobei Production Sharing Contracts (PSCs) in the Ordos Basin, Shanxi province.

SGE's interest in the Linxing PSC with CUCBM is 64.75% and 49% for the Sanjiaobei PSC held with PCCBM. SGE has a 100% working interest during the exploration phase of the PSC, with SGE's PSC partners being entitled to back-in upon Overall Development Plan (ODP) approval, by contributing development and operating costs in line with their PSC interest.

The PSCs are located in the Ordos Basin and cover an area of approximately 3,000km². The Ordos Basin is the second largest onshore oil and gas producing basin in China. The region has mature field developments with an established pipeline infrastructure to major markets. Rapid economic development is being experienced in the provinces in which Sino Gas' PSCs are located and natural gas is seen as a key component of clean energy supply in China.



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Our latest announcements and presentations can be found on our website: www.sinogasenergy.com





# SINO GAS' RESERVES & RESOURCES

### The Project (100%) current Reserves & Resources are summarised below:

PROJECT (100%) RESERVES & RESOURCES		BEST ESTIMATE GAS IN PLACE (GIP) (BCF)	1P RESERVES (BCF)	2P RESERVES (BCF)	3P RESERVES (BCF)	2C (MID CASE) CONTINGENT RESOURCES (BCF)	P50 MID CASE PROSPECTIVE (BCF)	TOTAL UNRISKED MID-CASE RESERVES / RESOURCES (MID CASE) (BCF)
LINXING PSC		12,343	66	193	412	1,569	2,129	3,891
SANJIAOBEI PSC		5,684	46	134	287	654	1,047	1,835
TOTAL	2013	18,027	112	327	699	2,223	3,176	5,726
TOTAL	2012	11,931	7	22	47	1,799	1,861	3,682
CHANGE		+51%	+1386% (2P)		+24%	+71%	<b>+56</b> %	

### The Company's attributable net Reserves & Resources and Economic Evaluations are summarised below.

SINO GAS' ATTRIBUT- ABLE NET RESERVES & RESOURCES	1P RESERVES (BCF)	2P RESERVES (BCF)	3P RESERVES (BCF)	2C (MID CASE) CONTINGENT RESOURCES (BCF)	P50 MID CASE PROSPECTIVE (BCF)	TOTAL UNRISKED MID-CASE RESERVES / RESOURCES (MID CASE) (BCF)	NPV 10 MID CASE (US\$M)	EMV (US\$M)
2013								
LINXING PSC	21	61	130	494	638	1,193	1,307	1,078
SANJIAOBEI PSC	11	33	69	159	247	439	556	478
TOTAL	32	94	199	653	885	1,632	1,863	1,556

### <sup>1</sup>RESOURCES STATEMENT & DISCLAIMER

The statements of resources in this Release have been independently determined to Society of Petroleum Engineers (SPE). Petroleum Resource Management Systems (SPE PRMS) standards by internationally recognized oil and gas consultants RISC (March 2013). These statements were not prepared to comply with the China Petroleum Reserves Office (PRO-2005) standards or the U.S. Securities and Exchange Commission regulations and have not been verified by SGE's PSC partners CNPC and CUCBM. Project NPV10 is based on a mid-case gas price of \$US 8.54/mscf, lifting costs (opex+capex) ~ US\$1.3/ msf mid-case. All resource figures quoted are unrisked mid-case unless otherwise noted. Sino Gas' attributable net reserves & resources assumes PSC partner back-in upon ODP approval, CBM Energy's option to acquire an interest of 5.25% in the Linxing PSC (by paying 7.5% of back costs) is exercised, and MIE fulfill funding obligations under the strategic partnership agreement.

Certain statements included in this announcement constitute forward looking information. This information is based upon a number of estimates and assumptions made by the Company in light of its experience, current conditions and expectations of future developments, as well as other factors that the Company believes are appropriate in the circumstances. While these estimates and assumptions are considered reasonable, they are inherently subject to business, economic, competitive, political and social uncertainties and contingencies.

Many factors could cause the Company's actual results to differ materially from those expressed or implied in any forward-looking information provided by the Company, or on behalf of, the Company. Such factors include, among other things, risks relating to additional funding requirements, gas prices, exploration, acquisition, development and operating risks, competition, production risks, regulatory restrictions, including environmental regulation and liability and potential title disputes. Forward-looking information is no guarantee of future performance and, accordingly, investors are cautioned not to put undue reliance on forward looking information due to the inherent uncertainty therein. Forward-looking information is made as at the date of this announcement and the Company disclaims any intent or obligation to update publicly such forward-looking information, whether as a result of new information, future events or results or otherwise.

### COMPETENT PERSONS STATEMENT

Information on the Resources in this release is based on an independent evaluation conducted by RISC Operations Pty Ltd (RISC), a leading independent petroleum advisory firm. The evaluation was carried out by RISC under the supervision of Mr Peter Stephenson, RISC Partner, in accordance with the SPE-PRMS guidelines. Mr Stephenson has a M.Eng in Petroleum Engineering and 30 years of experience in the oil and gas industry. RISC consent to the inclusion of this information in this release.

#### **ABOUT RISC**

RISC is an independent advisory firm that evaluates resources and projects in the oil and gas industry. RISC offers the highest level of technical, commercial and strategic advice to clients around the world. RISC services include the preparation of independent reports for listed companies in accordance with regulatory requirements. RISC is independent with respect to Sino Gas in accordance with the Valmin Code, ASX listing rules and ASIC requirements.