Prospex Oil & Gas PLC

PETERHOUSE RESEARCH

A balanced European portfolio

2 July 2018

Prospex Oil & Gas is an AIM-quoted oil and gas investment company with an exciting portfolio of assets focused on high impact onshore opportunities in Europe. The company's core assets include equity interests in the Podere Gallina licence in Italy and the Suceava Concession in Romania which both contain near term gas development projects. Prospex also possesses options to acquire up to 49.9% in the Tesorillo project in Spain which could represent major exploration upside to the company in the event of a successful drilling programme.

Prospex's experienced management team transformed the business completely over the second half of 2017. In August 2017, the company acquired a 50% interest in the Exploration Area of the Suceava Concession which contains the Bainet gas field and in October 2017, Prospex secured a 17% working interest in the Podere Gallina licence in Italy which contains the Selva gas field. Both licences also possess a range of additional exploration and appraisal prospects which represent longer term upside potential to the company.

In December 2017, Prospex acquired 2.5% of the Tesorillo project in southern Spain. As part of the deal, the company has two further options to increase its interest; first to 12.5% and finally to 49.9% prior to the drilling of at least one exploration well. To complete the transformation of the business, Prospex also wrote down the value of its Polish legacy assets to zero at the end of 2017.

In Italy, Prospex holds a 17% interest in the Podere Gallina permit located in the proven Po basin of northern Italy. The permit contains the Selva gas discovery in which Prospex participated in a successful appraisal well and subsequent flow test in early 2018. We expect that Selva will be on stream by 2020 providing significant cash flow to the company. This could enable Prospex to participate in further exploration activities to realise the full potential of additional targets on the permit, which include the larger East Selva prospect.

Prospex also holds a 50% working interest in the Exploration Area of the Suceava Concession located in the mature Carpathian Basin in Romania. The core asset on Suceava is the Bainet gas field which is expected on stream in H2 2018 pending the completion of a short pipeline tie-in. As with Selva, near term cash flow from production could enable Prospex to expedite further drilling activity on the licence, with the Granicesti gas discovery a prime target for further development activity.

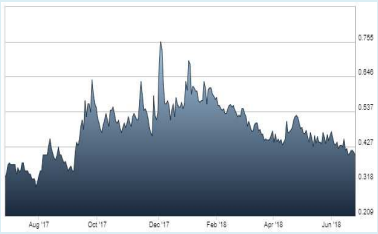
In Spain, Prospex holds an initial 2.5% interest in the Tesorillo project which is estimated to contain unrisked prospective resources of 830 BCF of gas with upside potential in excess of 2 TCF. The company has options to increase its stake to 15% upon the completion of a short and comparatively inexpensive audio magneto telluric (AMT) programme and then to 49.9% prior to the drilling of at least one exploration well.

We have established an initial indicative value for Prospex of 2.2p per share on a fully diluted basis based on our analysis of the company's core assets. Within this, we note that the current share price is already covered by the value of the company's interests in the Selva and Bainet fields alone, for which the remaining work programmes required to bring each asset on stream are fully funded. Although exploration drilling is Spain is unfunded at this early stage, we believe that even our conservatively risked assessment of this asset represents potentially transformational upside to Prospex's value over the medium term.

Company data

EPIC	PXOG
Price (last close)	0.385p
52 week Hi/Lo	0.755p/0.30p
Market cap	£4.7m
Market	AIM
Sector	Oil & Gas

12 months share price (p)



Source: LSE

Description

Prospex Oil & Gas is a junior E&P company with a portfolio of exploration, development and production assets in proven hydrocarbon basins in Italy, Romania and Spain.

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Introduction to Prospex Oil & Gas

Prospex Oil & Gas is an AIM quoted oil and gas investment company with an exciting portfolio of European onshore assets located in proven and working hydrocarbon regions. The company's core assets are:

- **Italy** – A 17% interest in the highly prospective Podere Gallina Exploration Permit which contains the Selva gas field.
- **Spain** – Up to a 49.9% interest in the Tesorillo Project which contains a large gas discovery estimated to contain 830 BCF with upside of over 2 TCF.
- **Romania** – A 50% interest the Suceava Concession which contains the Bainet gas field; expected on stream in 2018, in addition to a portfolio of gas prospects and leads.

Prospex has an experienced management and technical team in place (See Appendix 1 at the end of this report) and a focused strategy of concentrating on well understood regions located in the Foredeep Play geological region of southern Europe (see next section for additional detail).

Building a business

Prospex is focused on projects with relatively low entry costs and short timelines to production (Italy and Romania) balanced by longer term high impact exploration upside in the form of Tesorillo in Spain. The company has expedited this strategy swiftly, building an attractive portfolio of investments over the course of H2 2017.

The company acquired its interests in Romania in August 2017 for a consideration of €750,000 plus a further €550,000 to fund the company's share of a proposed work programme. In October, 2017, Prospex then acquired a 17% interest in the Podere Gallina for a consideration equivalent to €1.15m to fund 34% of the Podere Maiar-1 well on the Selva gas field (equivalent to a 2:1 promote). Finally in December 2017, the company acquired an initial 2.5% interest in Tesorillo for €48,750 with a two further stage options to increase this stake to 12.5% and then finally to 49.9% prior to drilling a well.

Prospex has been very active over the last 12 months with drilling activities completed on both Selva in Italy and the Bainet field in Romania in addition to a successful flow test on Selva demonstrating commerciality of the field. With near term plans for further exploration activity in Spain and completion of a pipeline and facilities tie-in in Romania, we believe that there is the potential for major news flow in H2 2018.

Polish exit completed

It should be noted that Prospex no longer has a strategic interest in the Kolo licence in Poland, where the company participated in the drilling of the unsuccessful Boleslaw-1 well in January 2017. Prospex's interests in Poland were written down to zero in the report and accounts for the financial year ended December 2017 after the company and its partners elected not to extend the Kolo licence into a second two-year term.

Valuation summary

We believe that Prospex has built its portfolio of assets at conspicuously modest cost. The company raised new equity of £3.1m prior to expenses over three placings in 2017 to build its current asset base and a further placing of £1.2m in January 2018 was raised in order to fulfil near term work commitments in Italy and Romania and optional work commitments in Spain.

Within this report we have outlined in detail Prospex's core assets in Italy, Romania and Spain and identified key areas of potential upside within the portfolio. However, to summarise our findings which are explored in later sections of this note, we refer to the valuation table below. We note that our unrisked valuation for the portfolio which is comprised predominantly of the valuation of the company's ultimate 49.9% interest in Tesorillo is over 17p per share on a fully diluted basis for comparison with our conservatively risked assessment below.

Prospex valuation summary for core assets

Item	Country	Status	Valuation €m	Valuation £m	Undiluted p	Diluted p
Podere Gallina (Selva field)	Italy	Development	5.1	4.5	0.37	0.34
Podere Gallina exploration upside	Italy	Exploration	3.7	3.2	0.27	0.25
Bainet	Romania	Development	1.9	1.7	0.14	0.13
Tesorillo	Spain	Exploration	22.3	19.6	1.61	1.50
Overheads		Corporate	-1.1	-1.0	-0.08	-0.08
Cash (debt)		Corporate	0.6	0.5	0.04	0.04
Options		Corporate	0.7	0.6	0.00	0.05
Total			**33.1**	**29.1**	**2.35**	**2.22**

Source: Peterhouse estimates

Valuation criteria

Our valuation is based on outstanding fully diluted share capital of 1,309.2 million comprised of 1,213.6 million shares plus 95.6 million outstanding options held predominantly by directors and other staff members. Of the outstanding options, some 71.2 million are priced at a strike price of 0.52p and are exercisable any time until November 2020 when they expire. The balance of the outstanding options are almost all priced at 1.0p and 1.1p and expire on 22 September 2019.

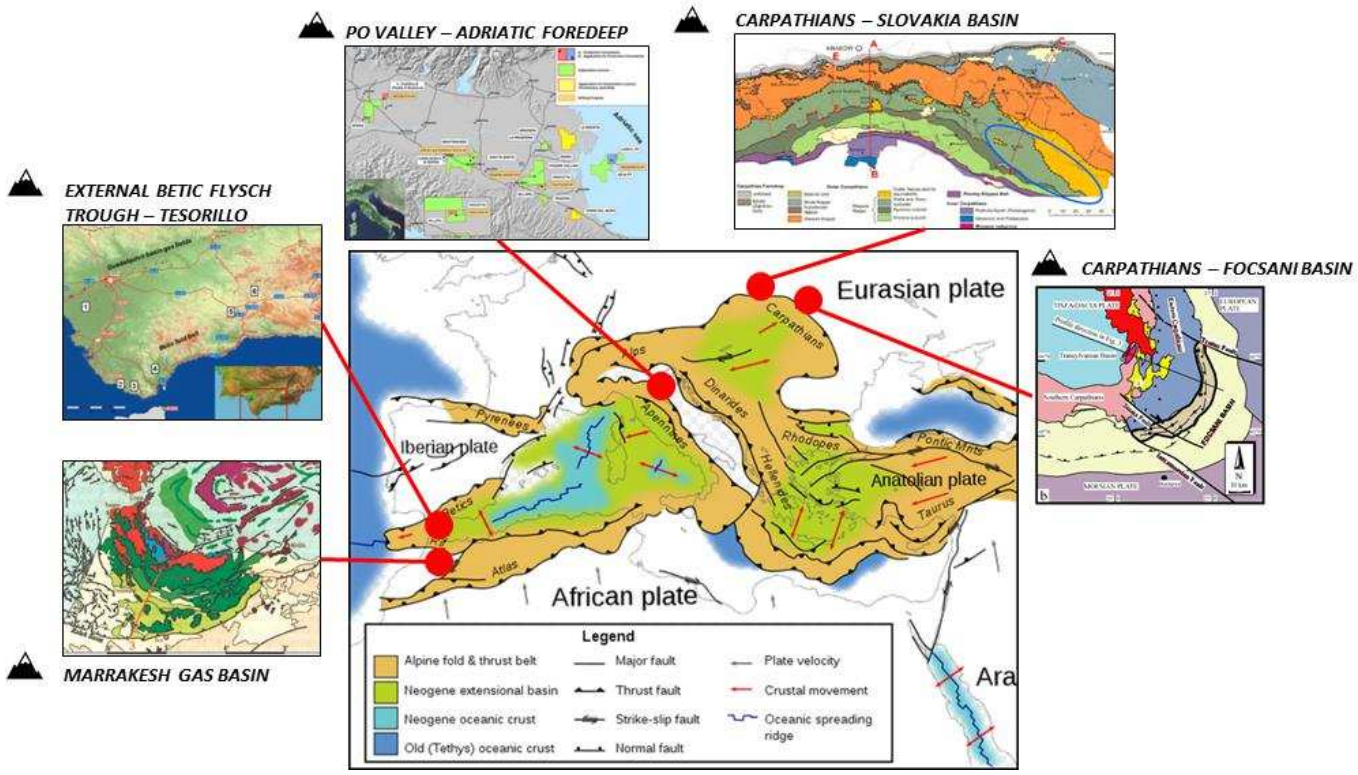
Within our valuation, we have included the company's interest in the Selva field and two additional prospects on the Podere Gallina licence. Our valuation for Romania includes the company's interest in the Bainet gas field although wider prospectivity outlined later in this report is currently excluded. We note with interest that the current share price is covered by the value of the group's core fully funded development projects in Italy and Romania alone.

The upside in our valuation is represented predominantly by the company's interest in the Tesorillo project in Spain. Although the final option to acquire the full 49.9% interest is currently unfunded and may imply additional dilution of the current equity base, we have taken a highly discounted and conservatively risked view of the asset to illustrate the current value of this pre-drill prospect. We do not rule out the potential for Prospex to farm-out a proportion of its interest to expedite a future drilling programme which has the potential to de-risk this asset and provide upside to the company representing many multiples of the current share price. Our assumptions are also based on several currency conversions and throughout we have assumed a Sterling/US Dollar conversion rate of £1.00: US$1.38 and a Sterling/Euro exchange rate of £1.00: €1.14.

The Foredeep play - a geological context

Prospex has focused its activities on basins within the Foredeep play. These are structural basins that develop adjacent and parallel to mountain belts (in this case, the European Alps)

The Foredeep play



Source: Company

Creation of hydrocarbon basins

Foredeep or foreland basins form as a result of the immense mass created by crustal thickening associated with the evolution of a mountain belt which causes the lithosphere (the rigid outer part of the earth, consisting of the crust and upper mantle) to bend. This is a process known as lithospheric flexure and is an essential part of plate tectonics on a global scale.

The basin receives sediment that is eroded off the adjacent mountain belt, filling the basin with thick sedimentary successions that thin away from the mountain belt and create the sedimentary reservoirs suitable for the generation of hydrocarbons.

Foredeep basins in Europe typically host Tertiary (66 million to 2.6 million years ago) turbidite sandstone reservoirs located at the foothills of Alpine systems in central and southern Europe. Within this large area, Prospex's near term development activities are focused on mature and proven hydrocarbon provinces represented by the Po Basin in northern Italy and the Carpathian basin in Romania in particular.

Important gas provinces

The Po Basin is often regarded as a syncline, or dip in the lithosphere due to compression at the basin edges. However, the Po Valley is a large sediment filled trough which now represents Italy's most important gas province and is also home to the largest oil field discovered in Italy to date; Trecate Villafortuna.

The Carpathian Foredeep represents the largest basin of this type in Europe. It developed during the early and middle Miocene (no more than 23 million years ago) as a flexural foreland basin in front of the advancing Carpathian front. The wider basin covers a large area of Central and Eastern Europe and of all the countries in this region that are located within its area, Romania remains the most prominent oil and gas producing region.

Romania's oil and gas industry is one of Europe's oldest and is therefore we consider it to be mature. Current oil production is approximately 70,000 bpd in 2018 compared to double this level 25 years ago (Source: Trading Economics). Gas reserves in Romania are Europe's fourth largest after the UK, Norway and the Netherlands and gas output is estimated by BP to be at least 0.9 BCF per day, a level of output that has been comparatively steady since the early 2000s.

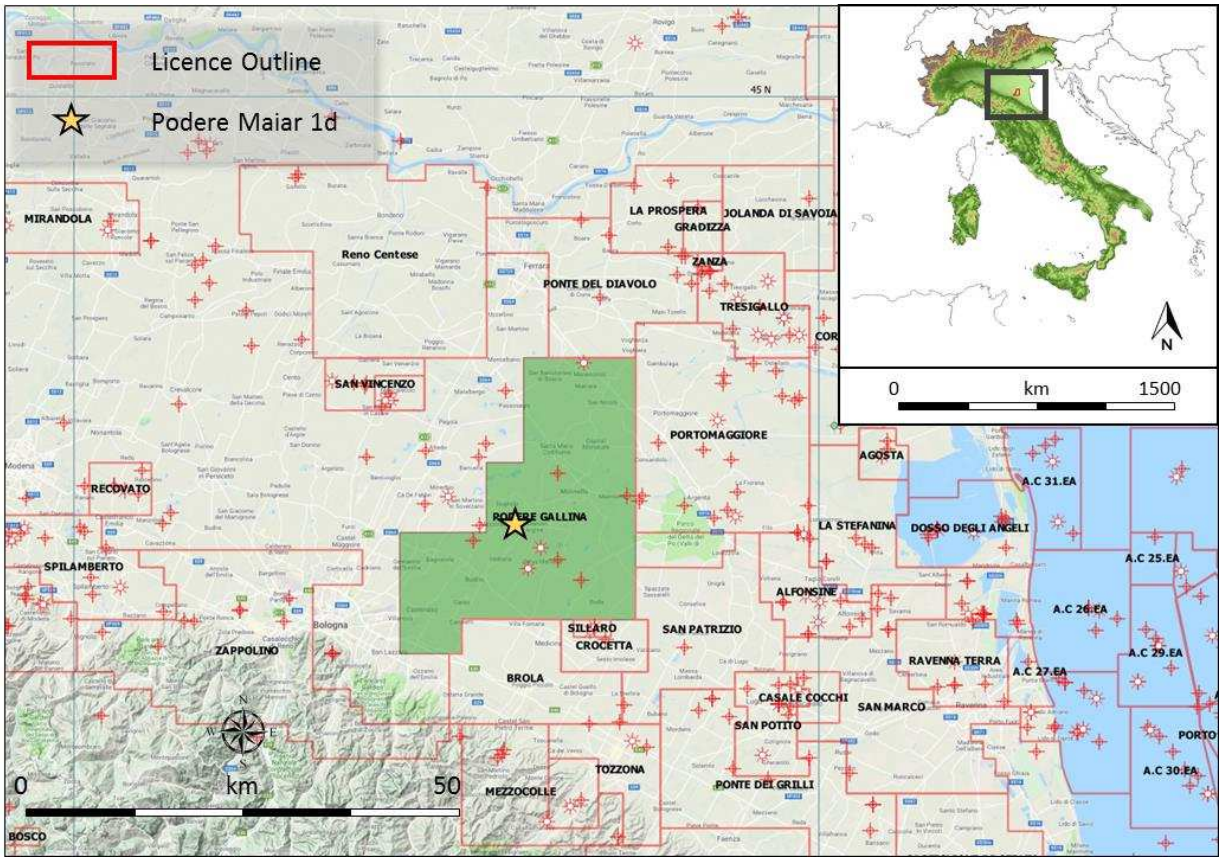
According to Romanian publication, Capital, Romanian gas output is expected to almost double to a level close to 1.9 BCF per day by 2025 due to the commissioning of several new gas fields discovered on the continental shelf of the Black Sea. With accelerated output from Romania's gas industry over the next decade, driven in part by a keenness to reduce dependence on Russian gas imports, we believe that the gas E&P sector in Romania is particularly conducive to new players such as Prospex bringing known reserves on stream.

Italy – The Podere Gallina permit

Prospex holds a 17% working interest in the Podere Gallina Exploration Permit located in the Po Valley region of Northern Italy. This licence which covers an area of 331 km^2 is operated by ASX-quoted Po Valley Energy Limited (PVE) with a 63% interest and the remaining 20% interest is held by fellow AIM-quoted player, United Oil & Gas (UOG).

The Po Valley region is a proven and mature hydrocarbon province with over 5,000 wells drilled to date. Podere Gallina, located near the city of Bologna contains the Selva gas field on which a successful appraisal/development (Podere Maiar-1d) well was drilled at the end of 2017 and subsequently flow tested in January 2018. The permit also contains additional exploration targets including the highly attractive Selva East, Selva South Flank and Riccardina prospects.

Location of the Podere Gallina Exploration Permit



Sources: UNMIG, ViDEPI, Natural Earth, Google Physical and Company

The Podere Maiar-1d well

The Podere Maiar-1d appraisal/development well was spudded on 21 November 2017 targeting a gross 2C contingent resource of up to 18.6 BCF. Under the terms of the company's original farm-in agreement with the operator Po Valley Energy Limited (PVE), Prospex paid 34% towards the cost of the well, which was estimated to cost approximately €3.5m prior to drilling, in return for a 17% working interest.

The well was completed successfully on 20 December 2017 to a depth of approximately 1,350 metres and perforations executed post completion identified two gas reservoirs in the Medium-Upper Pliocene sands of the Garibaldi Formation (see following section for additional geological detail). These reservoirs have been termed C1 and C2.

Productive horizons

The C1 and C2 reservoirs were delineated with total gross pay of 62 metres and net pay of 41 metres. The shallower C1 gross pay runs from 1,253.5m MD (Measured Depth) to 1,275.5m MD and has a net pay of 15.5m. The gas-water contact (GWC) is located at 1,270.5m and C1 has been perforated over 2.5m in the uppermost section of pay.

The deeper and thicker C2 horizon runs from 1,282.5m MD to 1,322.5m MD and has a net pay of 25.5m. The GWC is located at 1,310m and the interval has been perforated over 8.5m. At this point, the partners expect that C2 will be the primary producer for the field.

Flow testing confirms commerciality

The Podere Maiar-1d well was flow tested in January 2018 with peak flow rates of 148,136 scmpd (5.2 mmcfpd) on a 3/8 inch choke from C2 and 129,658 (4.6 mmcfpd) from C1 on the same sized choke. A summary of the test results is outlined in the table below.

Flow test results from C2 level

Choke Inches	Flow rate scmpd	Flow rate mcfpd	Flowing well head pressure Bars	% pressure drop across constriction
1/8 inch	17,850	631	122.8	0.2%
2/8 inch	66,000	2,332	120.7	1.9%
18/64 inch	80,700	2,852	119.5	2.8%
3/8 inch	148,136	5,234	111.9	9.0%

Source: Company RNS

Flow test results from C1 level

Choke Inches	Flow rate scmpd	Flow rate mcfpd	Flowing well head pressure Bars	% pressure drop across constriction
1/8 inch	14,348	507	119.3	0.3%
2/8 inch	64,475	2,278	115.0	3.9%
18/64 inch	77,351	2,733	113.7	5.0%
3/8 inch	129,658	4,582	105.1	12.2%

Source: Company RNS

Commercial discovery declared

Based on these strong flow rates, which exceeded the pre-test expectations of 100,000 scmpd (3.5 mmcfpd), and a methane content of 99.1% recorded from each horizon, PVE has declared Selva a commercial discovery. This status is augmented by the location of the Podere Maiar-1d well which is only 600 metres from the Italian national grid connection.

Production concession application submitted

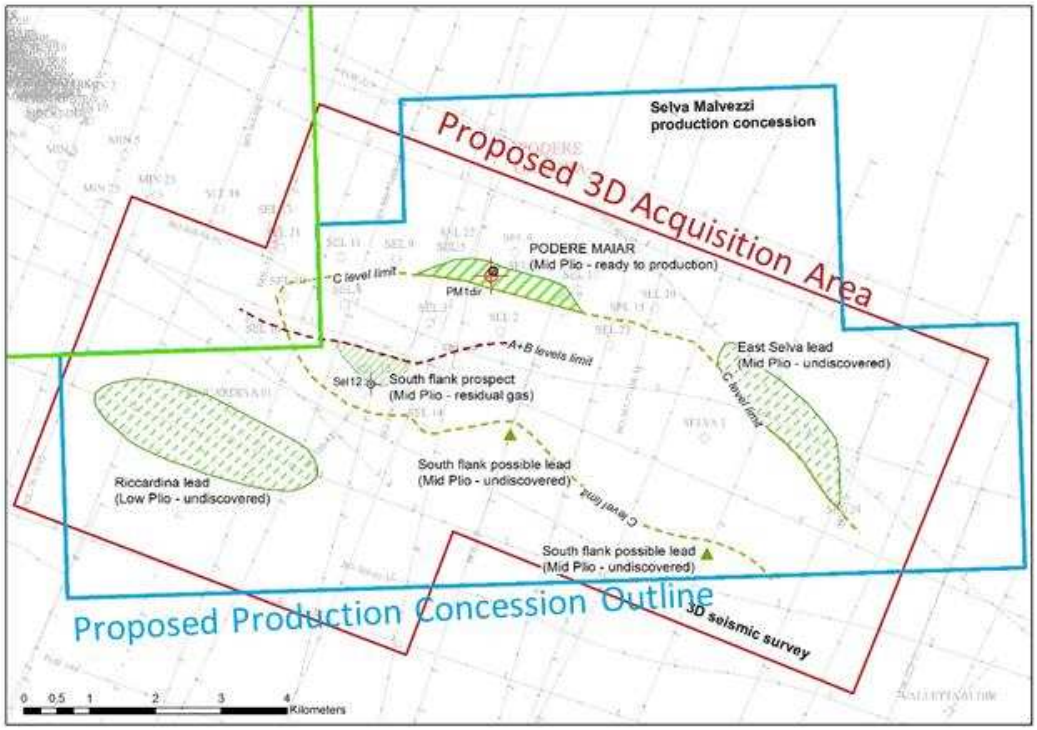
The operator of Podere Maiar, PVE, submitted a production concession application for the Selva gas field to the Italian Ministry at the end of May 2018 (outlined on the map below). The application covers the 80.8 km^2 areal extent of the Selva field. The application will be considered for preliminary award at the next Italian Ministry Hydrocarbon Commission meeting which is expected to be held in July 2018. Prior to this, PVE has been preparing documentation for the required Environmental Impact Assessment (EIA) in order to be able to commence the later stages of environmental approval pending the award of the application.

Development plans

Under the first phase of the proposed development plan for Selva, PVE plans to install a fully automated gas plant at the site of the Podere Maiar-1d well at a cost of €2.4m. PVE also plans to run a 1 km pipeline to connect to the Italian National Grid.

Based on dynamic reservoir studies, the first phase production is targeted at a rate of up to 150,000 scmpd (5.3 mmcfpd) of gas from the C1 and C2 reservoirs. The application which has been submitted covers the installation of a gas plant with sufficient capacity to produce at least 150,000 scmpd. It is very important to note that a production concession covering the area shown on the map below will enable subsequent gas discoveries adjacent to Selva to be tied in quickly with gas production infrastructure across the whole permit.

Production concession and proposed 3D acquisition area



Source: PVE

Outline 3D seismic survey planned

A second potential phase of development which is contingent on the results of a 3D seismic data has also been considered by PVE. The area to be covered by the proposed survey is outlined on the previous map. The operator intends to drill additional wells with a view to increasing the size of the Selva gas resource. PVE has outlined its intentions to drill further wells in the Selva East, Selva South Flank and Riccardina prospects which are all located within the 80.8 km^2 production concession area. Subject to the approval of PVE's partners, Prospex and United, 3D seismic data is expected to be acquired in H2 2018 and early 2019.

Geology of the Selva gas field

The Selva gas field produced over 83 BCF of gas from 15 wells over a period of almost 35 years from 1960 until it was shut-in in 1984. At this time, the well was still producing 0.9 BCF of gas per year with no evidence of a water cut. This is equivalent to a daily production rate of approximately 2.5 mmcfpd of gas.

Historically, there was a limited volume of seismic data over the field. However, a large number of the existing wells on the structure were believed to constrain the reservoir edge indicating that the presence of a major undrained area updip of the existing wells. This part of the structure, termed the 'Selva Stratigraphic' at the time was estimated to contain base case recoverable gross reserves of a further 18.6 BCF of gas.

Selva field well contingent resources

Asset	Equity	Gross Contingent Resources (BCF)			Net Contingent Resources (BCF)		
		1C	2C	3C	1C	2C	3C
Selva	17%	7.2	18.6	29.9	1.2	3.2	5.1

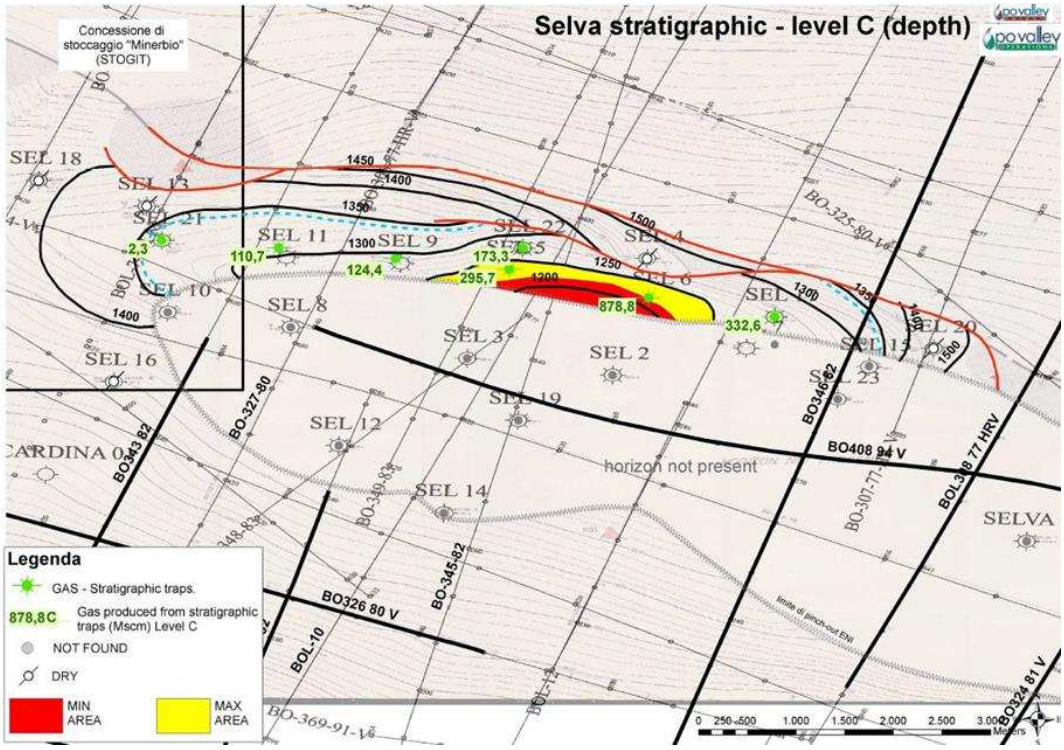
Source: CGG Services

Undrained gas potential in the Selva gas field

According to CGG Services (UK) Limited, a subsidiary of CGG Worldwide, modelling of the Selva field in 2013 was based on an assumption that the initial gas-water contact at 1,336 metres had risen to 1,235 metres represented by the top level C sands on the Selva-6 well (it should be noted that no water was being produced from the well when it was shut-in). This had left a potentially undrained gas volume updip from this well. As such, the Podere Maiar-1d well targeted this updip volume. The undrained area of Selva outlined in red (minimum area) and yellow (maximum area) are outlined on the map below.

Historical seismic and well data from Selva have shown the Selva Stratigraphic prospect to be an Upper Middle Pliocene onlap (the geological phenomenon of successively wedge-shaped younger rock strata extending progressively further across an erosion surface cut in older rocks) to a Lower Pliocene thrust bounded anticline. CGG has noted that interpretation of the seismic lines on Selva suggests that the reservoir is displaced by reactivated thrust splays which detach onto the main thrust fault.

Selva Stratigraphic – Level C reservoir within wider Selva field



Source: CGG Services (UK) Limited

Gas resources

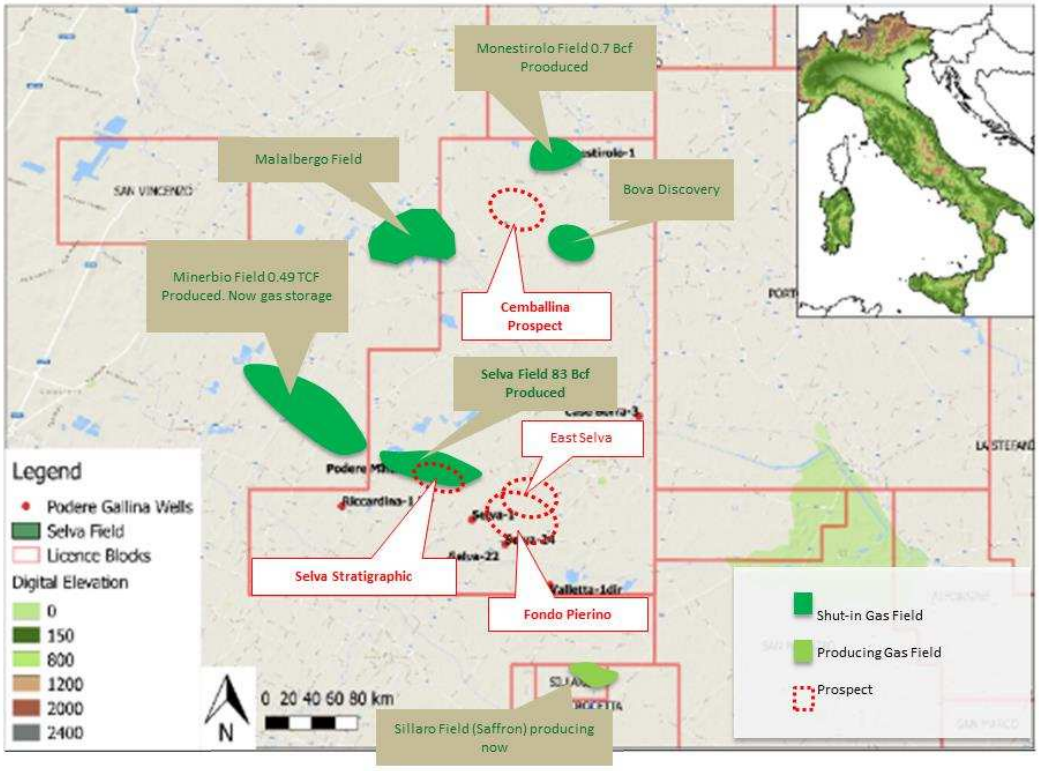
The Selva Stratigraphic has been attributed gross 2C contingent resources of 18.6 BCF of within the 1C to 3C range of 7.2 BCF to 29.9 BCF. The target reservoir in the Lower Pliocene sands of the older Selva field had average properties of 70 metres thickness, 27-31% porosity and approximately 80% gas saturation. Consequently recovery factors were high in the 77-86% range across the P90 to P10 reserves cases. We expect that the majority of the 2C contingent resources will be converted to reserves when the next major update is applied to the current CPR on Selva.

East Selva: Exploration upside

Prospex has identified additional exploration upside on the Podere Gallina licence. In particular, the company highlights the large East Selva target which lies on the pinch-out edge to the east of the main Selva field. Both Selva and East Selva are located on the same play trend as the nearby Minerbio field to the northwest of Selva.

Adjacent to Selva East is the Fondo Pierino target which lies immediately south west of Selva East. At present, exploration activity to probe these additional structures is unfunded although we do consider the risked potential upside that these structures could represent in this report for valuation upside purposes given that future net cash flow from Selva has the potential to make a significant contribution to future work programmes.

The Selva Stratigraphic and associated prospects



Source: Company

East Selva the primary prospect

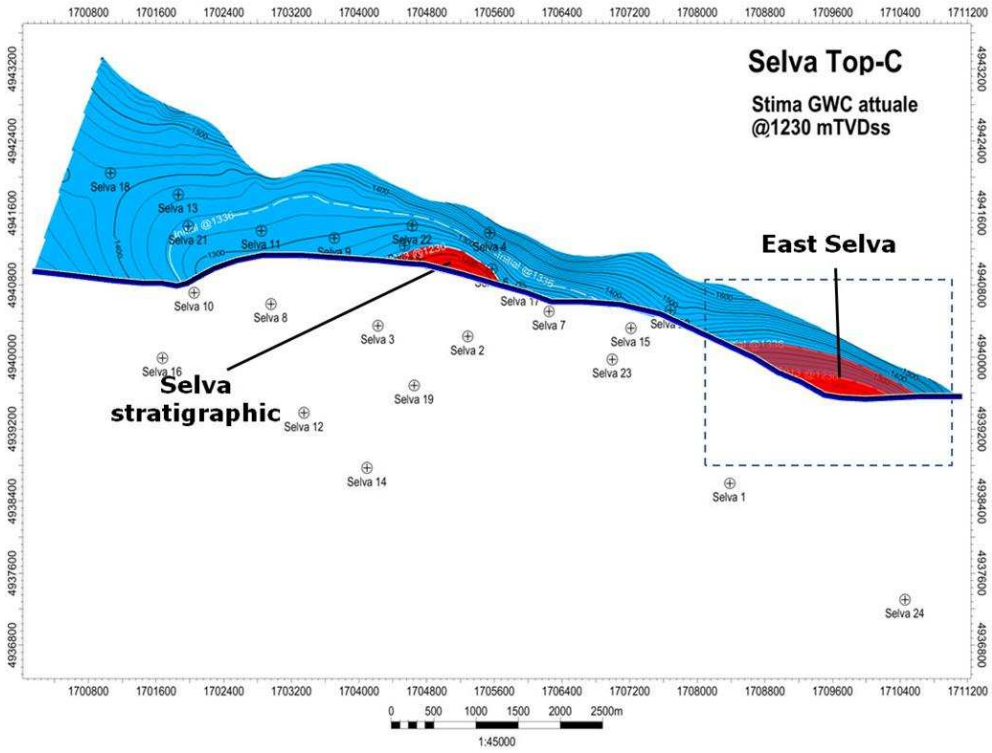
The map below depicts the East Selva prospect clearly in addition to valuable additional data including the location of the historical wells on the wider Selva structure. East Selva is located on the same play trend as the Selva field and also the larger Minerbio Field to the northwest in the adjacent licence (see map above). This field is now depleted although still used for gas storage by its operator, ENI.

As with the main Selva field, East Selva represents a target in the C sand interval, the top of which is estimated to be at a vertical depth of 1,230 metres.

Recoverable resources double that of Selva

CPR work by CGG has indicated that East Selva could contain base case recoverable resources of 35 BCF of gas. Prior to the successful well result from Podere Maiar-1d, CGG ascribed a conservative chance of success (CoS) of only 15% to East Selva to reflect the fact that the prospect is only defined by a few 2D seismic lines. However, we believe that the success of Podere Maiar comfortably justifies a reassessed CoS of at least 30% and we believe that this could increase further if the 3D seismic survey proposed by PVE can delineate the structure more clearly and de-risk the work programme prior to exploration drilling.

Stratigraphic location map of East Selva



Source: Po Valley Energy

Additional exploration on Podere Gallina

Aside from East Selva, Prospex notes that there are audited prospective resources associated with two additional exploration prospects on the Podere Gallina licence, the details of which are outlined in the table below. PVE has outlined that a 3D programme to firm up the East Selva prospect would be likely to incorporate the Fondo Pierino prospect located adjacent to East Selva.

Plans to assess the smaller Cemballina prospect with additional seismic work have yet to be firmed up at this stage although given its relatively separate location north of the Selva prospect group; we would assume that any seismic work conducted within the next 12 months would not include it.

Key prospects and prospective resource estimates on Podere Gallina

	Gross	(BCF)		Net	(BCF)		CoS
Prospect	Low	Best	High	Low	Best	High	%
East Selva	29.1	34.8	40.6	4.9	5.9	6.9	*30%
Fondo Pierino	10.2	14.6	20.5	1.7	2.5	3.5	34%
Cemballina	2.1	3.3	4.7	0.4	0.6	0.8	51%

Source: CGG Services (UK) Limited

*Internal upgrade from CPR estimate of 15% estimated prior to the drilling of Podere Maiar-1d

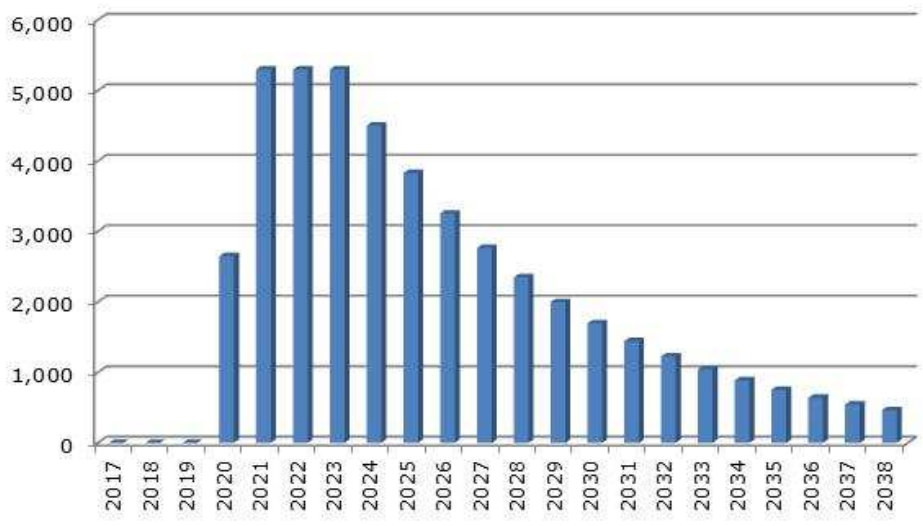
Indicative valuation of Podere Maiar

Within our valuation assumptions for Prospex's 17% interest in the Selva we have ascribed a range of variables generated from internal estimates in addition to incorporating earlier guidance from CGG. As outlined earlier, Prospex contributed at least €1.15m of the total cost of the Podere Maiar-1d well (equivalent to 34% of the drilling cost) to earn its 17% working interest in the field. The company will fund its share of further development expenditure at its working interest rate of 17%. We have assumed that a further €2.7m of gross development expenditure related to an automated gas plant and tie into the grid is required.

We anticipate that the field can be developed and most of the 2C gas resources recovered with a single well and that initial rates of approximately 5.3 mmcfpd will be sustained for up to three years consistent with the long term production potential of the Pliocene reservoirs across the Selva structure. Our assumptions are based on the production profile below and to this we have applied a flat long term gas price of €5.95 per mcf which is equivalent to an Italian gas price of €0.21 per cubic metre.

Our estimates assume that gas production commences approximately two years hence in mid-2020, a comparatively long period given the anticipated pace of Italian Ministry permitting. However, any improvement on this timing implies uplift to our initial NPV expectations.

Anticipated gas production profile for the Podere Maiar well (mcfpd)



Source: CGG Services (UK) Limited

Cost assumptions

Within our assumptions, we have assumed fixed opex of €220,000 per annum in the first six years of production increasing to a level of €375,000 per annum as gas compression facilities are installed. We have also factored in variable opex of €10.00 per 1,000 cubic metres of gas produced in line with Po Valley estimates. Within our model, we have also applied a long term tax rate of 28.8% to net profits.

Indicative NPV

On the basis of our assumptions, we have ascribed a net NPV of **€5.1m** for Prospex's 17% working interest in the Selva gas field. We have also concluded that the company's maximum net financial exposure to the asset will be modest in 2018 and 2019 as final capex plans are expedited. This will then be offset rapidly as gas production from the field ramps up in 2020 and cash flow remains steady for several years thereafter. Our assumptions also factor in a gross abandonment charge of approximately €$0.5m in 2038 assuming the field is depleted sufficiently.

East Selva upside

To engineer an indicative valuation for the key prospects on Podere Gallina, we have applied the unit NPV per mcf of gas produced from our Selva field valuation of €1.76 equivalent per mcf to the unrisked net prospective resource for each prospect. However, to risk this appropriately we have applied the indicative CoS and a commercial risk factor of 20% to account for non-geological risks to generate a fully risked NPV for each prospect.

Our unrisked valuation for the three prospects is outlined below. At this early stage we have elected to include East Selva and Fondo Pierino in our core assumptions and treat the Cemballina prospect as upside at this stage. East Selva and Fondo Pierino carry a lower commercial risk factor than Cemballina given that, with production facilities likely to be in place at Podere Maiar, it would likely be straightforward to tie production from East Selva and Fondo Pierino into a wider development project assuming a successful drilling programme.

Indicative valuation of other prospects on Podere Gallina

Prospect	Net Resources BCF	CoS %	NPV/mcf €	Unrisked €m	Risked €m	Commercial risk %	Fully risked €m
East Selva	5.9	30%	1.76	10.4	3.1	20%	2.5
Fondo Pierino	2.5	34%	1.76	4.4	1.5	20%	1.2
Cemballina	0.9	51%	1.76	1.0	0.5	50%	0.3
Total				**15.7**	**5.1**		**3.9**

Source: CGG and Peterhouse estimates

Cash flow can fund future exploration activity

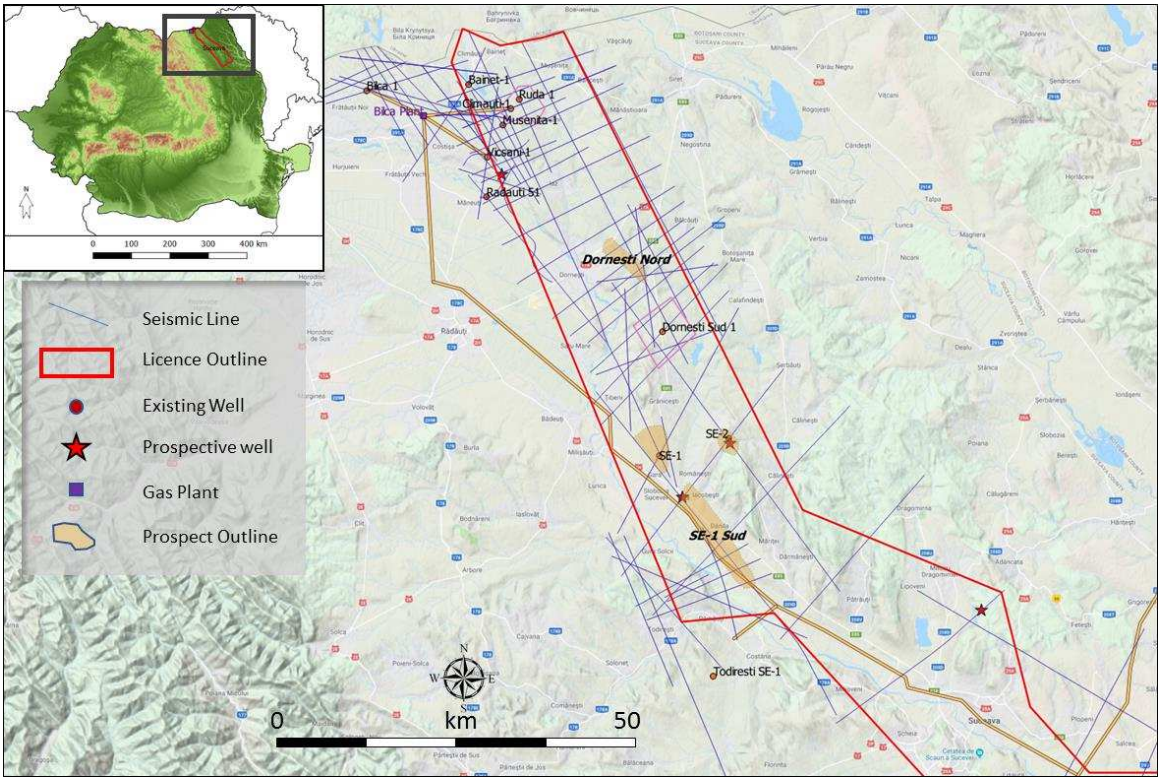
As yet, future exploration activity, particularly related to drilling on East Selva is unfunded with regards to Prospex. However, we expect that net cash flow from the Selva field will be €1.0m-€1.5m per annum for several years after full production is instigated and considerably higher in the first 12 months of production as the company offsets historical losses against Italian corporate tax. This would provide the company with significant financial resources from which to draw in order to participate in further exploration activity on Podere Gallina.

Romania – Suceava concession

Prospex holds a 50% economic interest in the Exploration Area of the EIV-1 Suceava Concession in Romania (Suceava Concession hereafter). The balance of Suceava is held by the operator, Raffles Energy S.R.L. an established gas producer in Romania.

This 980 km^2 licence is located in North East Romania in the proven Carpathian hydrocarbon basin. The Suceava Concession holds the Bainet field which is production-ready, an undeveloped discovery called Granicesti SE-1 and also several prospects and leads at various stages of development. The permit also contains two producing gas fields, Climauti and Dornesti South, which are also operated by Raffles. However, these fields are not part of the Exploration Area in which Prospex has an interest. The map below depicts the details outlined above in addition to the 1,600 km lines of 2D seismic which has highlighted the primary targets on the acreage.

Location of the Suceava Concession in Romania



Source: NAMRA, Natural Earth, Google Physical and Company

Focus on the Bainet field

The Bainet field was discovered by the Bainet-1 exploration well in late November 2017. The well was drilled to a depth of 600m targeting a biogenic sandstone reservoir, estimated to contain over approximately 1.5 BCF of gas and clearly outlined on 3D seismic data acquired by the operator.

Bainet-1 encountered 9m of reservoir with 8m of net gas pay consisting of a good quality Sarmatian sandstone reservoir. This is similar to that found in fields producing elsewhere in the Concession in addition to analogue fields in the Bilca Gas Production Area of the adjoining EIII-1 Brodina Block to the west (see map above).

The two intervals tested by Bainet-1 within the main gas pay zone were perforated at measured depths of 513.3m to 514.8m and 516.3m to 517.3m and during an 11-hour flow test, natural gas comprised of more than 99% methane flowed at a rate of approximately 33,000 cubic metres/day equivalent to almost 1.17 mmcfpd through an 8mm choke.

The development plan

Under the terms of the deal to acquire 50% of Suceava, Prospex paid a consideration of €750,000 in two tranches of €400,000 initially and the balance of €350,000 when Bainet reached its target depth. Prospex also undertook to cover its share of the work programme up to cost of €550,000. Of this €400,000 was earmarked for Prospex's share of direct drilling costs.

We anticipate that Bainet will come into production in latter part of H2 2018. Land access for the routing of pipeline connecting the discovery to existing production facilities has already been secured by Raffles and front-end engineering and design work has been completed. Permitting, procurement and contractor selection are now well advanced and the physical pipeline construction and tie-in work is expected to begin once the final construction permit is received.

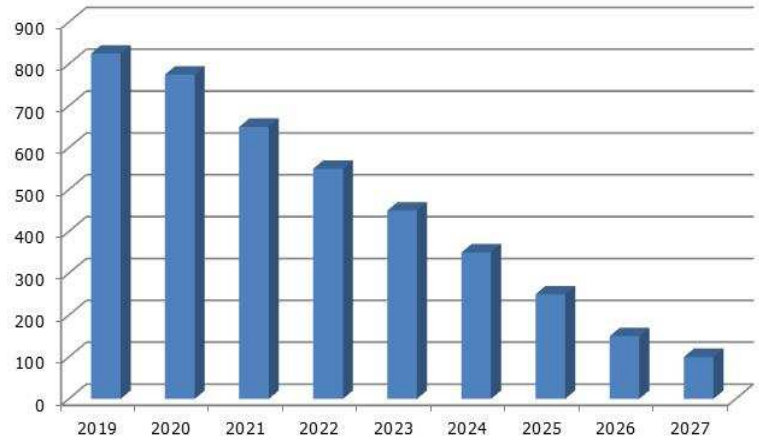
The pipeline tie-in short at approximately 1-2 km and remaining capex to complete the tie-in is estimated to be approximately €0.3m. As such, Prospex expects to incur negligible additional expenditure on Bainet given that its €550,000 payment to cover its share of the work programme will include most of the cost of the pipeline tie-in and associated facilities.

The gas flow line from Bainet will connect to the adjacent Climauti gas field and onwards to the Bilca gas processing plant to the west of Bainet. Subject to permitting being granted, the flowline tie-in construction work is expected to be completed in approximately three months.

Valuation of Bainet to Prospex

We have ascribed an NPV (10) of approximately **€1.9m** to Prospex's 50% interest in the Bainet field. Based on a development to recover approximately 1.5 BCF, we have applied the following production profile starting at an initial rate of 825 mcfpd declining over a nine year production period. We have assumed that the pipeline connection is completed in 2018 and that gas production commences in early 2019 in order to be conservative.

Gas production from Bainet (mcfpd)



Source: Peterhouse estimates

Within our valuation, we also assume the following variables

- A flat gas price of €6.30 per mcf over the productive life of the field
- A 3.5% government royalty payable
- Fixed opex of €15,000 per annum
- Unit opex equivalent to €1.09 per mcf flat
- Final gross capex of $0.25m for pipeline tie-in and facilities*
- Tax rate of 16% on profits

*We have assumed full capex exposure to Prospex to reflect our conservative approach although as stated previously, the company anticipates that much of this final expenditure will be covered by the operator under the original terms of the acquisition.

Strong near term cash flow

Bainet has the potential to deliver approximately €0.50m and €0.65m net cash flow per annum to the company over the first three years of full production providing rapid payback of the initial investment and also providing the company with the internal resources to pursue additional opportunities in Romania.

Other assets

Prospex has identified a string of additional low risk exploration/appraisal targets on Suceava which have been highlighted on a 1,600 km 2D seismic grid. The primary target within this portfolio is the Granicesti SE-1 discovery, discovered in 2005 by a well drilled to a depth of approximately 2,300 metres by a previous operator targeting a deeper oil target.

Granicesti SE-1 flowed gas at a rate of 1.2 mmcfpd from a reservoir located at c.550m from the Sarmatian reservoir over a short test period. Given the similarities to Bainet, Prospex and Raffles are keen to develop Granicesti and once access to land has been secured, the partners have outlined plans to work over and recomplete the well as a gas producer.

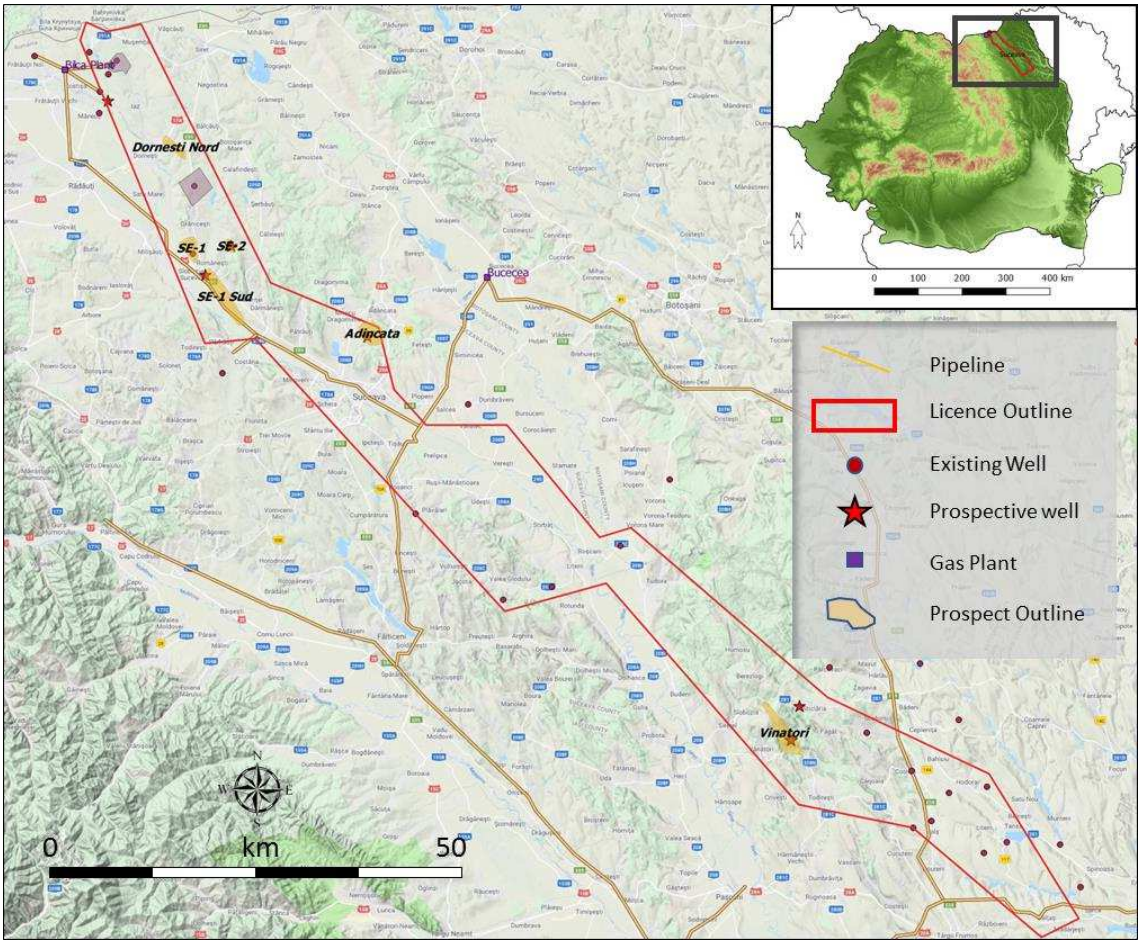
Connection to the local grid is likely to be straightforward given that the Granicesti SE-1 well is located within only 1.5 km of a high-pressure pipeline grid operated by Transgaz.

With no immediate plans and dedicated funding in place to expedite further work on Granicesti, we have not ascribed a valuation to the asset as yet. However, with Bainet generating a unit NPV of US$2.78 per mcf of gas in the ground, we would be confident applying a similar metric to any reserves confirmed at Granicesti.

Additional upside

The wider Suceava Exploration Area offers significant longer term opportunities to drill additional low cost, low risk wells, all targeting gas. The operator has identified four additional prospects and one lead and Prospex estimates internally that the aggregate gross recoverable gas could be between 6 and 40 BCF on an unrisked basis, proving the foundations for a substantial business in Romania. As the map below depicts, the Suceava Concession is very large and the prospect inventory extends to the southern extent of the acreage.

Additional prospects on the Suceava Concession



Source: NAMRA, Natural Earth, Google Physical and Company

If we apply appropriate geological risk factors to these resources and a significant commercial risk factor of 50% given that future exploratory work on the concession is currently unfunded, we note the additional potential upside to the company in the table below. At this stage, we have not included this upside in our valuation of Prospex.

Indicative value range for additional prospects on Suceava concession

Item	Unit	Low	Mid	High
Prospective resources	BCF	6.0	15.7	40.3
Prospex interest	%	50.0%	50.0%	50.0%
Net unrisked prospective resources	BCF	3.0	7.9	20.2
Chance of success	%	30%	30%	30%
Net risked recoverable resources	BCF	0.9	2.4	6.0
NPV per mcf*	EUR	2.54	2.54	2.54
NPV	€m	2.3	6.0	15.4
Commercial risk factor	%	50%	50%	50%
Indicative valuation	**€m**	**1.1**	**3.0**	**7.7**

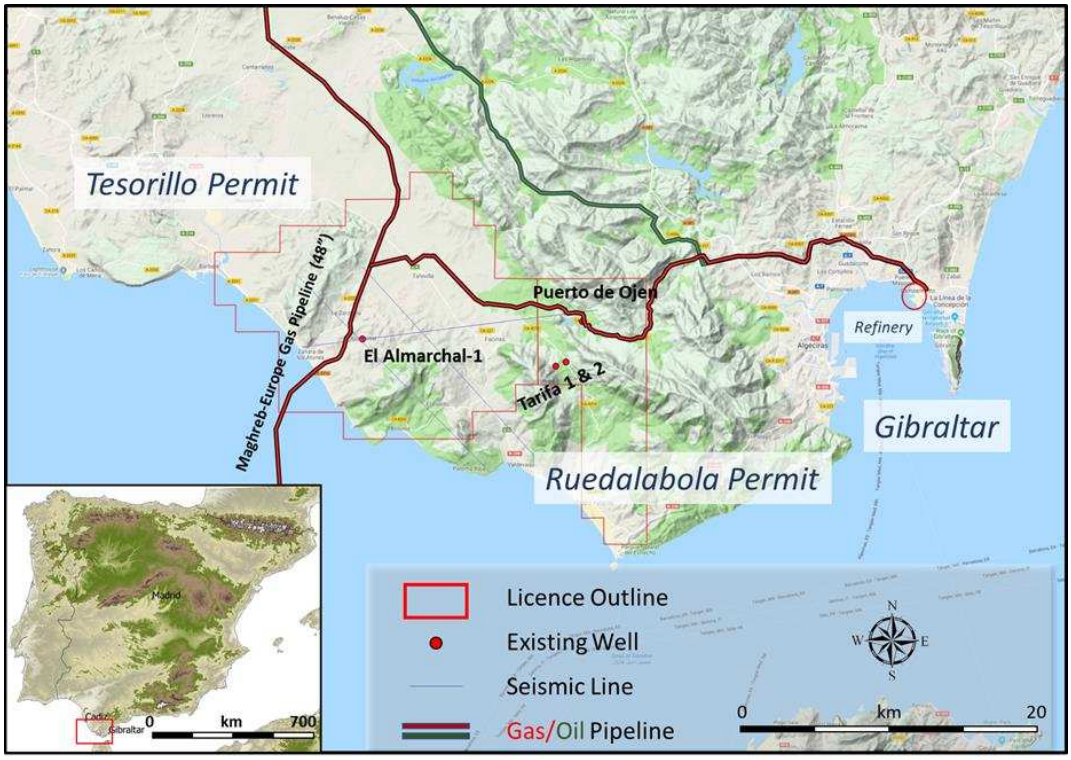
Source: Peterhouse estimates *Derived from our unit valuation of the Bainet field

Spain – The Tesorillo Project

Prospex has the right to acquire up to a 49.9% interest in the Tesorillo Project located in Cadiz Province in southern Spain. Tesorillo contains a gas discovery which is estimated to hold best estimate gross prospective gas resources of 830 BCF according to a CPR undertaken by Netherland Sewell and Associates (NSAI) in 2015.

The map below indicates that Tesorillo comprises two petroleum exploration licences, namely the Tesorillo and Ruedalabola permits. Together these permits cover an area of 38,000 hectares (equivalent to 380 km^2). As is evident, both permits are close to infrastructure with the original El Almarchal-1 well located only 3.9 km from the North African Maghreb gas pipe line European landing point. This pipeline provides access to the wider European gas market.

Location map of the Tesorillo Project in Southern Spain



Source: MINETAD, Natural Earth, Google Physical, Company

Current status

Prospex currently holds a 2.5% interest in Schuepbach Energy España S.R.L. (SEE), which holds a 100% interest in Tesorillo. However, Prospex has options to increase this interest substantially with the completion of two further staged payments which are:

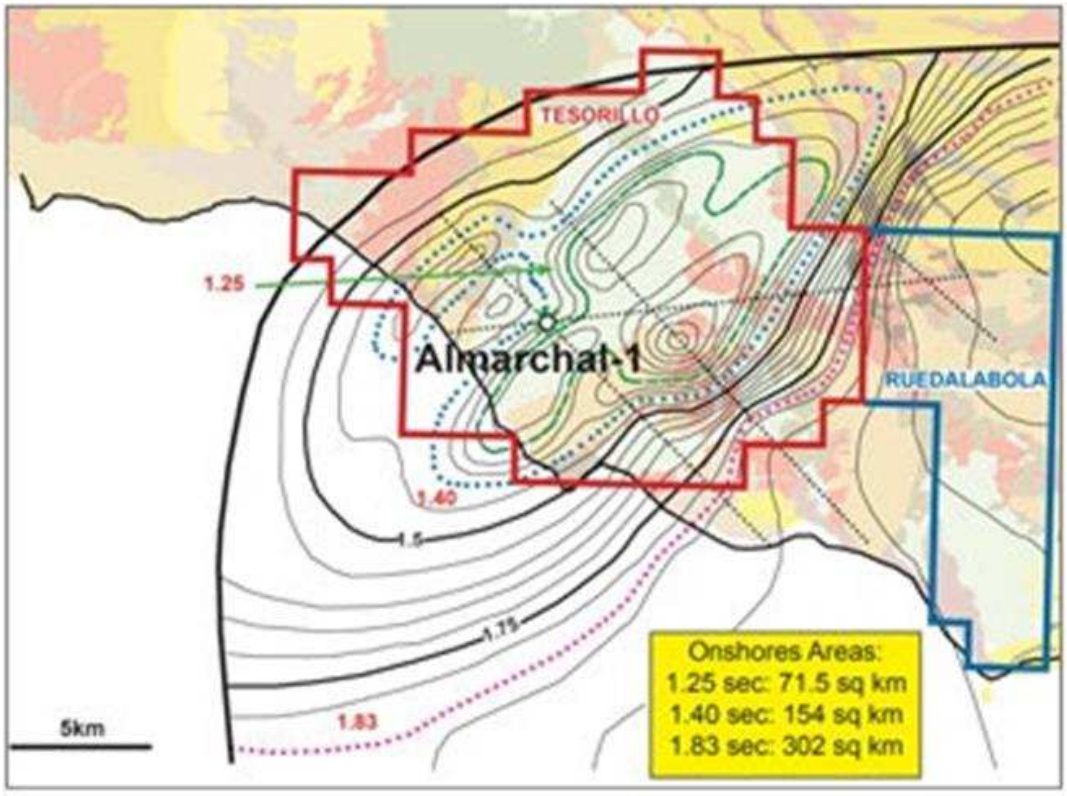
- An option to buy a further 12.5% for €280,000 (increasing total interest to 15.0%)
- An option to buy a further 34.9% for €1.725m when drilling of a well is due to commence (increasing total interest to 49.9%)

Prospex's options to increase its interest in Tesorillo are based on work programmes outlined by SEE to further de-lineate and de-risk the prospectivity of Tesorillo. The company expects that a drilling programme will have been agreed upon the exercise of the second option to increase the company's stake to 49.9%.

The Tesorillo asset

Tesorillo contains the Almarchal-1 discovery well, drilled by Spanish operator Valdebro in 1956. The well is located on a gravity and seismically delineated thrust ramp anticline and intersected a thick section of possible gas pay amounting to approximately 212m of net pay, including two primary zones which flowed gas to surface on testing.

The Almarchal-1 discovery well (1956)



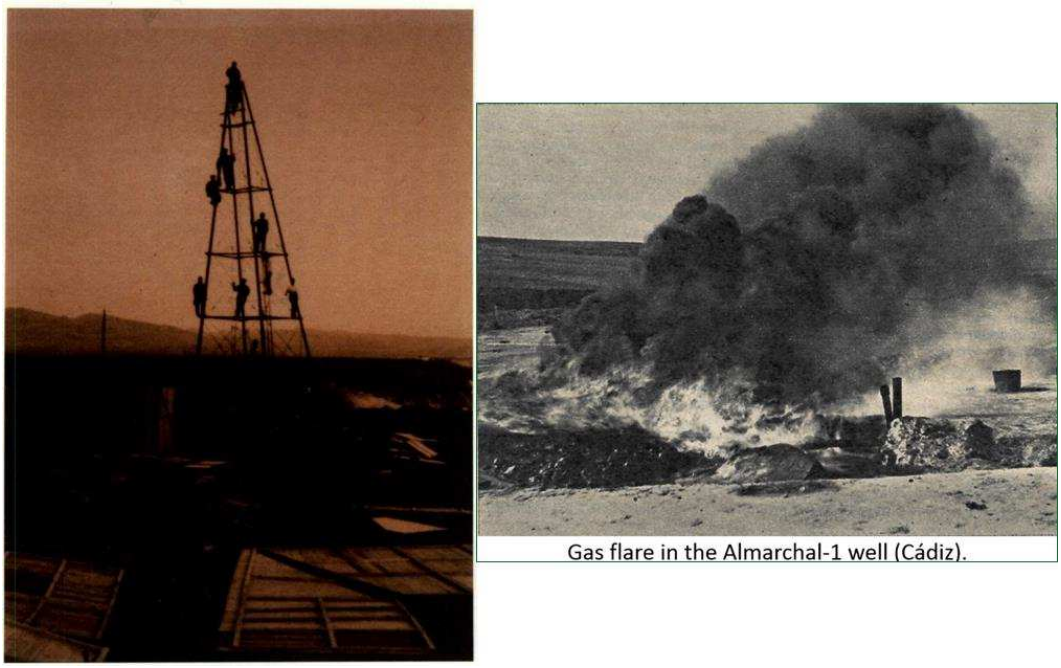
Source: Company

Gas flowed to surface during drillstem tests (DST)

Drillstem tests (a procedure for isolating and testing the pressure, permeability and productive capacity of a geological formation during the drilling of a well) and log analysis confirmed 48m of proven gas pay in two Miocene Aljibe Formation sandstone intervals and further interpretation of the logs also indicated an additional 492m of probable gas pay upside, as yet unconfirmed by testing. Out of a total of 39 DSTs which ranged between one hour and eight days, two intervals flowed gas to surface at rates equivalent to 7 mcfpd and 5 mcfpd (DSTs 13 and 36 respectively). It should be noted that 16 DSTs failed as a consequence of packer or tool failure although a further three DSTs recorded gas shows or formation water.

The photographs below depict the rig used to drill and test Almarchal-1 and also a gas flare from the well during the DST.

Original photographs from the Almarchal-1 well

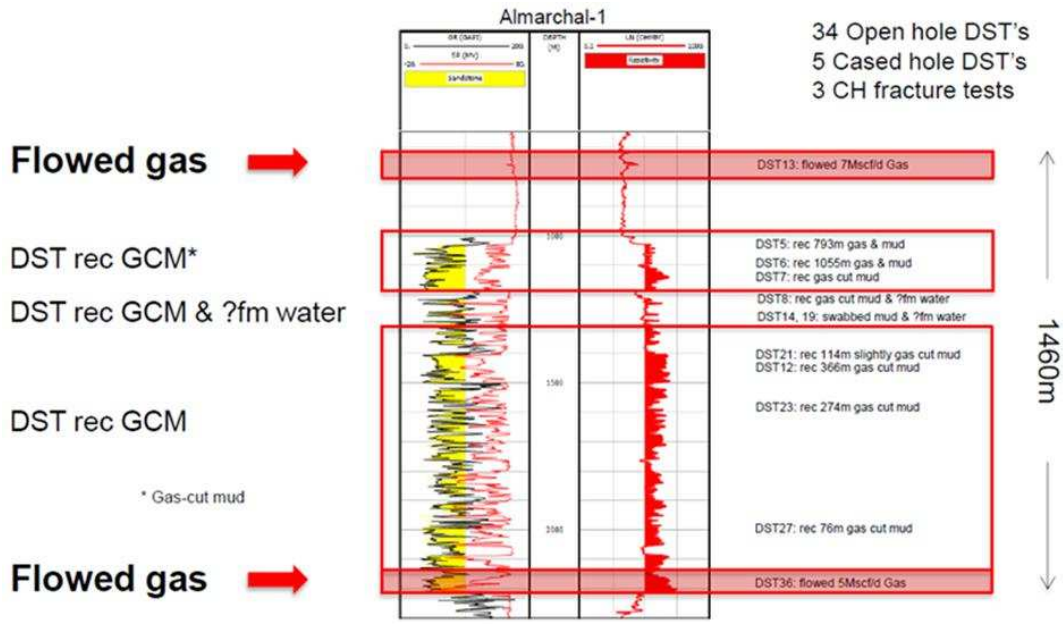

Gas flare in the Almarchal-1 well (Cádiz).

Source: Company

Of the DST's that flowed, DST 13 tested an interval at 755 to 759 MD (measured depth) over a short period of 1.5 hours and the flow rate equivalent to 7 mcfpd is an extrapolation of the test period. DST 36 was conducted a considerably deeper interval of 2,198m to 2,206m MD over a 24 hour period and the initial implied flow rate of 5 mmcfpd decreased to 2 mcfpd after 20 hours.

These DSTs are recorded clearly on the chart below along with additional data from additional DSTs conducted within the 1,460m horizon between DST13 and 36.

DST analysis of the Almarchal-1 well



Source: Petrel Energy Limited

Geological conclusions

NSAI has outlined that permeabilities measured in the Almarchal-1 well core in the range of 2.4 to 2.7 millidarcies. However, measured permeability is very low, in the submillidarcy range, when correlated to the measured porosities in the well which were estimated to be high at up to 26 %. The CPR explains that this correlation is as a function of a high clay content in the reservoirs which can still be productive nonetheless. It should be noted that modern studies indicate that the matrix of the Tesorillo sandstone can be highly porous and later studies on cores and by petrophysical modelling post the NIAS CPR have concluded that the proven reservoir porosity is actually in the range of 5% to 10-12%, which for gas sandstone reservoirs is acceptable to produce efficiently using modern completion technology.

The operator did attempt minor and largely unsuccessful reservoir stimulation activities at the time of testing which did not result in any measurable additional gas production, mainly because the inadequate type of drilling fluid at high pressures (more than 500 psi than the reservoir pressure) led to clogging of the effective porosity and permeability). However, NSAI states that these stimulation activities conducted in 1957 can be considered very minor and of very limited effectiveness by today's industry standards.

The high resource estimates in Almarchal-1 as seen in the table below are balanced by low estimates of geological chance of success which NSAI states should be between 6.25% and 12.5% primarily as a function of low effective permeabilities of the potentially productive intervals and the paucity of seismic lines to accurately delineate the structure. Nevertheless, the competent person indicates that the prospective reservoirs should be considered a conventional resource at this stage.

We believe that the application of modern drilling and testing methods could de-risk Tesorillo to a significant extend. Petrel has noted that the results outlined above were likely as a result of reservoir damage caused by low permeability reservoir, fresh water drilling fluids reacting with swelling clays and heavy weight mud causing mud filtrate and fine particle invasion.

All of these factors would serve to limit flow gas rates upon testing and the company concludes that DSTs and logs were not conducted or evaluated properly. As such, the partners in Tesorillo believe that there is a substantial opportunity to re-drill this prospect using modern testing, formation evaluation and completion methods and expedite a significantly better outcome than that achieved over 60 years previously.

Resource estimates

In May 2015, NSAI independently certified an unrisked prospective resource of 830 BCF of gas for the Tesorillo project. However, as the table below indicates, the upside potential of the asset could be in excess of 2 TCF of recoverable resources.

Tesorillo gas resource estimates (2015)

Item (BCF)	Low	Mid	High
Original gas in place	734	1,161	3,270
Gross unrisked prospective resources	220	830	2,289

Source: NSAI

Ruedalabola permit

The Ruedalabola permit to the southeast of Tesorillo contains the Puerto de Ojan-1 well drilled in 1957, some 15 km east of Almarchal-1. This well displayed similar gas shows to Almarchal-1 but could not be tested for mechanical reasons at the time. We believe that with comparatively limited resources, Almarchal-1 and the Tesorillo permit will be Prospex's core focus in Spain for the foreseeable future.

Prospex's acquisition terms and obligations

The completion of the three stage acquisition process will see Prospex acquiring up to 49.9% of Schuepbach Energy Espana S.R.L. (SEE) from Schuepbach Energy International LLC (SEI). SEI is 63% owned by ASX quoted Petrel Energy Limited with SEE holding the remaining 37%.

The first stage was completed in December 2017 with Prospex buying an initial 2.5% interest for €48,750 effective immediately. This implied a gross valuation of €1.95m for the Tesorillo permit at the time of the agreement.

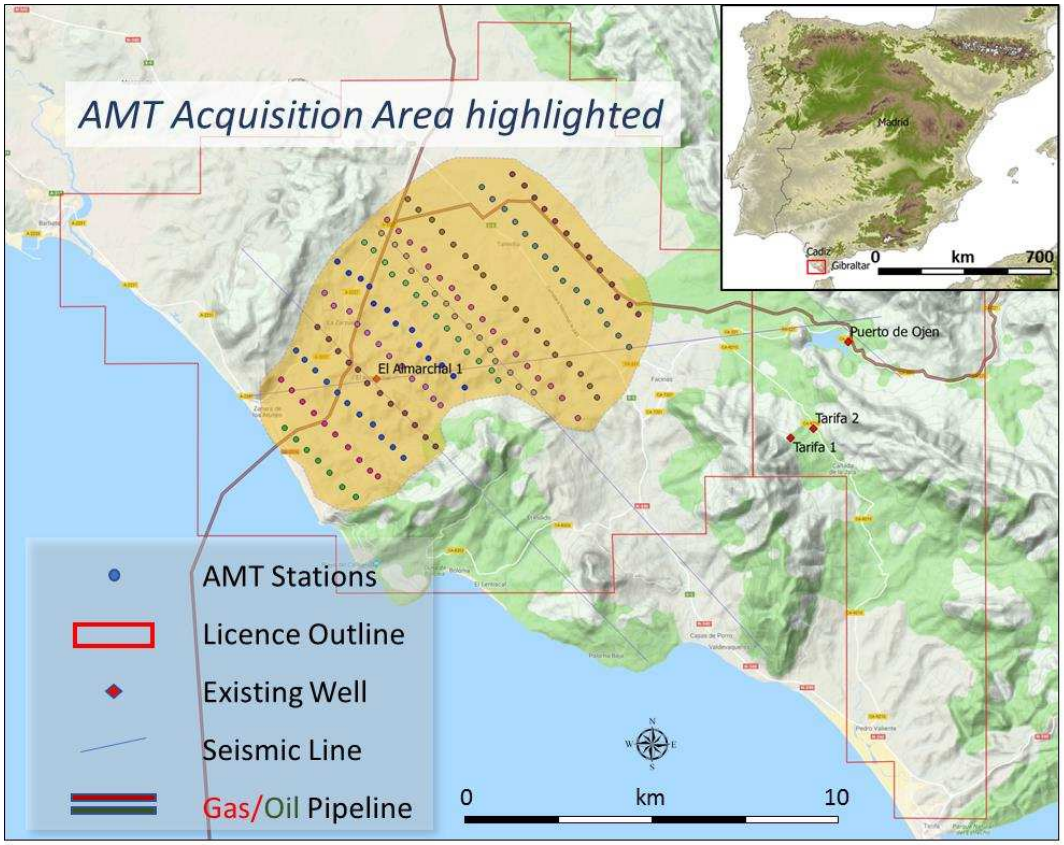
As outlined previously, the second stage to acquire an additional 12.5% for €280,000 will enable the partners to expedite an audio magneto telluric (AMT) programme within the next 6-12 months. Completion of this tranche would imply a gross valuation of the asset of €2.24m, a modest uplift to reflect the expected cost of the AMT survey.

Stage 2: Audio magneto telluric (AMT) survey

AMT is an electromagnetic geophysical method for inferring the earth's subsurface electrical conductivity from measurements of natural geomagnetic and geo-electric field variation at the Earth's surface. Investigation depths range from 300m to over 10,000m below surface making it a useful tool for hydrocarbon exploration. Prospex notes that SEE already has government approval to conduct the passive AMT survey and expects that work will start in H2 2018.

In the context of oil and gas exploration, AMT is used predominantly as a complementary technology to seismic surveys. While seismic is able to image subsurface structure, it cannot detect the changes in resistivity associated with hydrocarbons and hydrocarbon-bearing formations. Given that AMT detects resistivity variations in subsurface structures; it can differentiate between structures bearing hydrocarbons and those that which do not. (Primary source of information: Phoenix Geophysics (2006)).

Planned AMT programme on Tesorillo



Source: MINETAD, Natural Earth, Google Physical, Company

Stage 3 – Pre-drill status

Assuming a positive outcome to the AMT survey, Prospex intends to complete stage 3 of the acquisition process and buy a further 34.9% interest in Tesorillo for €1.725m bringing the company's interest up to 49.9%. This acquisition price implies a gross valuation of the asset of €4.9m prior to further drilling activity.

It is assumed by the company that completion of this final stage is predicated on an agreed drilling programme for the asset.

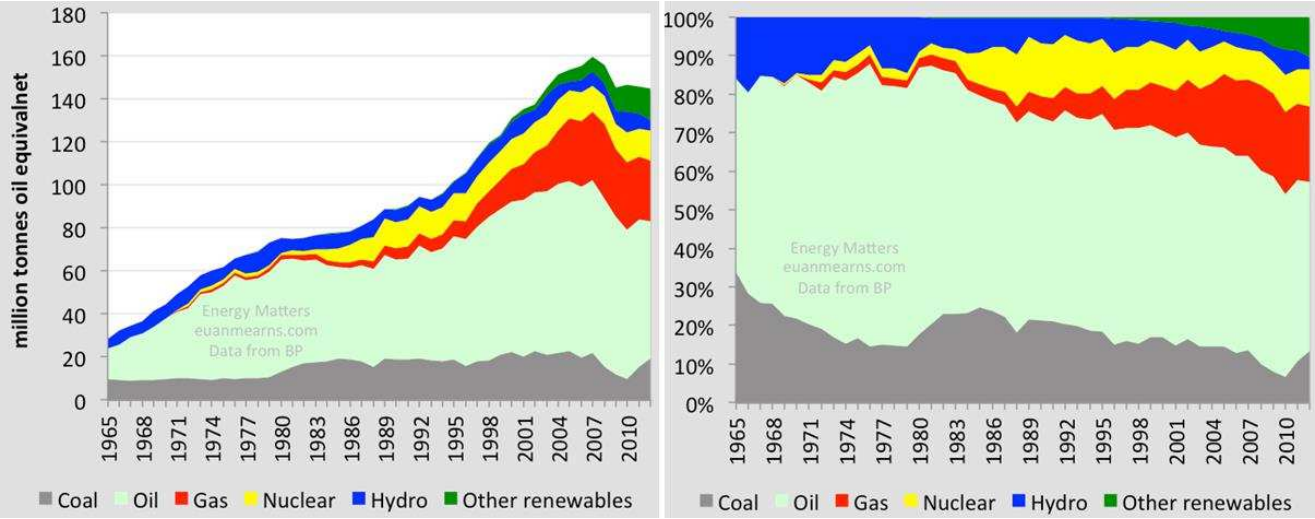
At this stage, drilling activity will be conducted on a pro rata basis. We anticipate that a single appraisal well would cost up to €4.0m (gross) to drill. However, in the event of a two well programme, the cost per well could be reduced to $3.75m per well (€7.5m in total) as a consequence of unit mobilisation costs spread over two wells.

At present, Prospex is not funded for stage three of the Tesorillo acquisition and the company will be required to raise additional funds to expedite the completion of the deal and to participate in a drilling programme. The company also has the potential to bring in an approved partner to reduce its ultimate interest and reduce considerably its overall cost exposure.

Spanish gas market potential

Overall energy consumption is Spain has fallen from peaks of 450,000 GWh in 2008 to levels closer to 325,000 GWh in 2016 although consumption has been rising since bottoming out in 2014 as economic activity has continued to strengthen. The largest source of primary energy in Spain is derived from oil (over 42% in 2015) with sizeable contributions from nuclear and renewable sources. However, gas consumption has shown the most impressive growth as a proportion of the country's energy mix over the last 20 years. Although the long term charts below only extend to 2012, they very clearly indicate this trend which has continued over the last five years to the point where gas as a primary energy source now represents approximately 20% of total Spanish energy consumption (2018).

Spain – Primary energy consumption



Source: Energiewende

Spanish gas distribution infrastructure

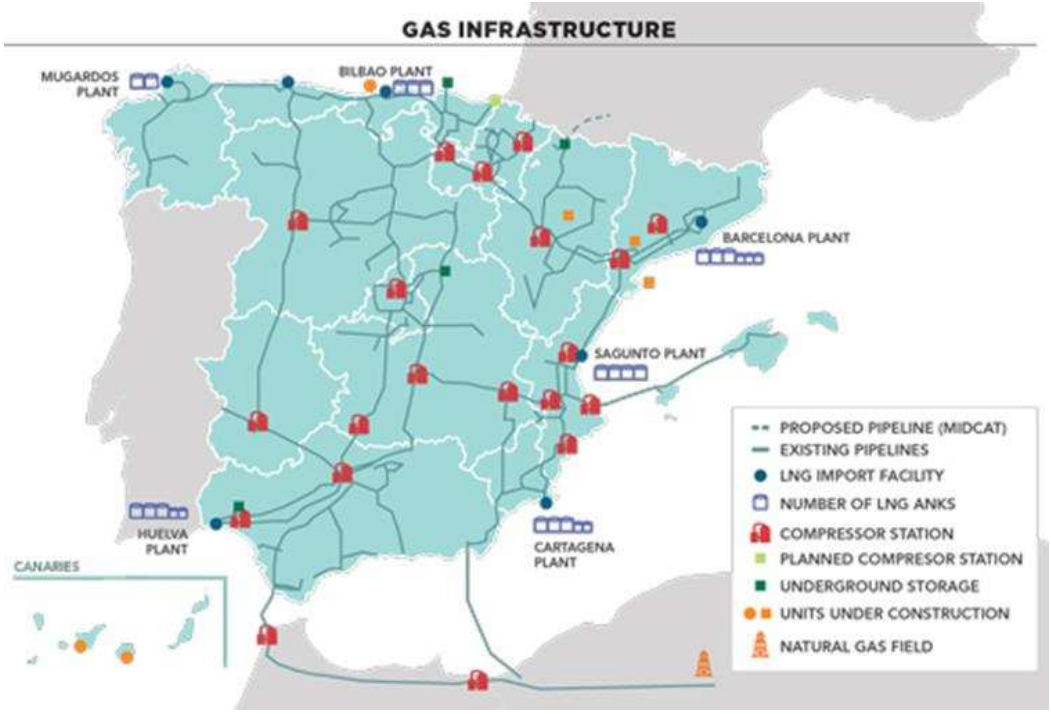
Spanish domestic production of oil and gas is negligible. As such, the country imports virtually all of its natural gas requirements. The country, which was historically isolated from northern European gas markets, primarily by geography now represents a highly strategic location in both the Mediterranean and Atlantic contexts.

As the map below indicates, Spain has several LNG entry points on the Mediterranean and Atlantic coast. However, of primary interest to us is the Maghreb-Europe pipeline at the southern tip of Spain which bisects Prospex's acreage upon landfall delivering gas primarily from Algeria in addition to a range of other African producers.

This 1,620 km pipeline came on stream in 1996 and cost US$2.3bn to construct. Its initial annual gas capacity was 8.6 billion cubic metres which was later expanded to 12 billion cubic metres of gas per annum. The pipeline has a 48 inch diameter at the Andalusian section in southern Spain prior to joining the Spanish and Portuguese internal gas grids.

As can be seen on the map below, gas in transit exits northern Spain into France whereupon it is transported to northern European markets where gas prices are a considerable premium to those in the US.

Spanish gas distribution infrastructure



Source: Enagas

The gas market opportunity for Spain

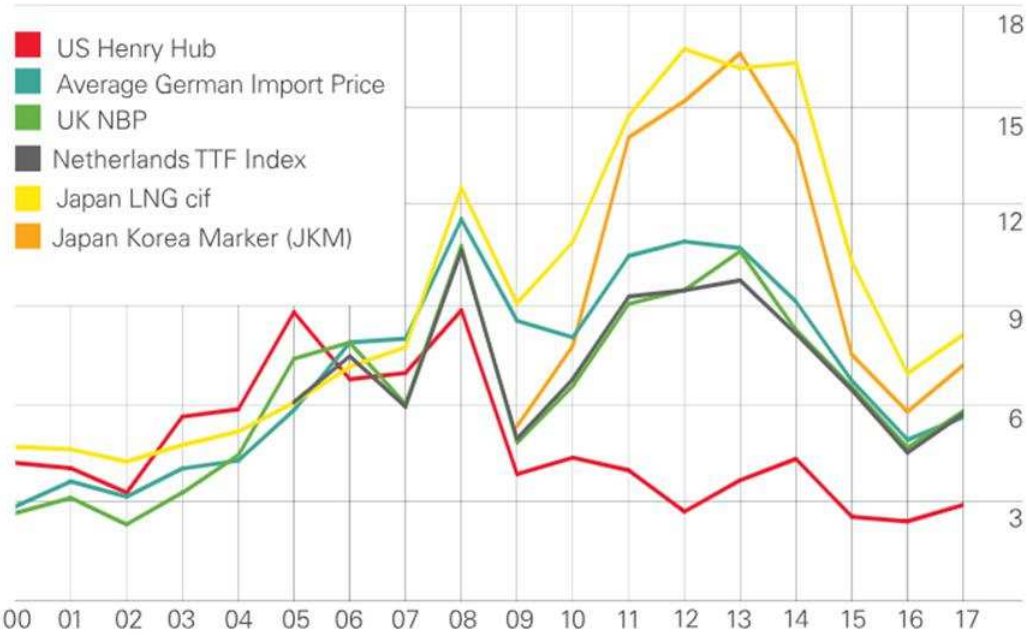
With UK and Dutch gas production on decline, we believe that Europe is vulnerable to overreliance of Norwegian and particularly Russian gas and on the means of pipelines crossing potentially unstable regions of Turkey, Belarus and the Ukraine. However, the Maghreb-Europe pipeline provides Spain with the status as a very stable alternative hub and transit point into Europe. Although some gas producing regions of North Africa have stability issues of their own, Spain is able to source gas simultaneously from as many as 11 different countries, thus spreading the implied geopolitical risk considerably (Source: OGFI).

Without Spain's current hub and transportation status, we believe that Tesorillo would be a relatively stranded gas discovery, completely reliant on local gas supply contracts in the event of a development project. Indeed, Prospex indicates that Repsol decided not to proceed with a development of Tesorillo given that there was no pipeline in the area. With the completion of the Maghreb-Europe pipeline in 1996, five years after Repsol acquired seismic in the area, we believe that it is clear that the context for a development project has changed completely.

With the potential for future production from Tesorillo to connect into the Maghreb-Europe via a short local connection, it is likely that the partners will gain exposure to pan-European gas pricing as part of the development economics.

As can be seen below, recent data from BP indicates that northern European gas prices are converging at a healthy US$6.00 per mmBtu (mmBtu converts to mcf at a factor of 0.9756, e.g. US$6.00 per mmBtu is equivalent to US$5.85 per mcf) indicating a level consistently higher than the US Henry Hub benchmark, also depicted on the chart.

Global natural gas prices (US$ per mmBtu)



Source: BP

An indicative valuation for Tesorillo

Placing an initial value of Prospex's interest in Tesorillo in the event that the company acquires the full 49.9% interest in the permit is highly indicative at this stage as much depends on the ability of the company to fund the third stage of the acquisition for US$1.725m. In addition, further cash will be required to fund the company's share of a potential two well drilling programme which is likely to amount to a further US$4.0m plus potential contingencies.

However, if we apply some of the variables outlined in this section of the report, it is feasible to generate an initial risked indicative valuation for the company's eventual interest.

Outlined below is a table depicting a valuation range for Prospex's 49.9% interest in Tesorillo. We have elected to take the mid-case gross prospective resources case as the most likely according the NSAI and we have applied a range of CoS factors as outlined in the CPR. For a mid-case scenario, we have elected to apply a 10% CoS which is likely to be conservative post the AMT survey and further log and DST analysis conducted by the operator.

For an indicative unit NPV of undiscovered gas in the ground we have assumed a modest US$1.12 per mcf which is based on a blended average of the calculated unit NPVs for Selva and Bainet discounted by 50%.

This unit NPV is also likely to be conservative given Spain's favourable tax and royalty regime which is comprised of single digit percentage royalty not exceeding 5% depending on production rates and a corporation tax rate of 30% of profits applicable to oil and gas production activities. With an estimated 65% share of income going to the contractor, Spain is considered by Petrel to be one of the world's most attractive fiscal regimes.

After the application of a substantial commercial risk factor to account for non-technical risks such as planning and permitting, gas sales issues, unforeseen delays in addition to as yet unfulfilled funding requirements as outlined previously. Consequently, we arrive at a low to high range with a fully risked mid-range case of €22.3m for the value of Prospex's 49.9% interest in Tesorillo. This represents huge uplift on the implied valuation of the permit upon the completion of stage three. Needless to say, the unrisked valuation represents a multiple many times the current share price in the event of a successful well result.

Indicative valuation range for Tesorillo

Item	Unit	Low	Mid	High
Gross prospective resources	BCF	830	830	830
Prospex interest	%	49.9%	49.9%	49.9%
Net unrisked prospective resources	BCF	414	414	414
Chance of success	%	6.5%	10.0%	12.5%
Net risked recoverable resources	BCF	27	41	52
NPV per mcf	EUR	1.07	1.07	1.07
NPV	€m	28.9	44.5	55.6
Commercial risk factor	%	50%	50%	50%
Indicative net valuation	**€m**	**14.5**	**22.3**	**27.8**

Source: NSAI, Peterhouse estimates

Appendix 1: Directors and management

Bill Smith - Non-Executive Chairman

Bill is a Canadian solicitor with 40 years of experience in corporate finance and is a director of a number of listed and private companies including Orca Exploration Group (TSXV), Mosaic Capital Corporation (TSXV) and PFB Corporation (TSX). He was a senior partner of McCarthy Tetrault LLP in Canada and was subsequently Executive VP of two listed international oil companies and a listed investment firm. He has extensive experience including a number of start-up ventures in the oil and gas sector.

Edward Dawson - Chief Executive Officer

Edward has a BEng and a MSc in investment analysis and over 15 years' experience in the oil and gas sector. He has financed, managed and acted as a key investor in several oil and gas companies. Positions held include MD of Peppercoast Petroleum plc and Black Star Petroleum plc, analyst for RAB Capital's Energy Fund, Business Development and Finance Manager for Oilexco Incorporated and a fund manager for Park Place Capital.

Richard Mays - Non-Executive Director

Richard is a solicitor in Scotland and has extensive industry, commercial and legal experience. He is VP and General Counsel at Canadian Overseas Petroleum Limited (TSX and FTSE) and has leadership and senior management experience of other LSE listed companies including DEO Petroleum plc and Oilexco North Sea Limited. He has also served as Executive Chairman of Peppercoast Petroleum plc and Black Star Petroleum plc. He is formerly Professor and Deputy Dean of the Aberdeen Business School.

James Smith - Non-Executive Director

James holds an MSc in Petroleum Geology and has over 25 years' experience in the oil and gas sector. Having started his career as a petroleum geophysicist with Chevron UK in 1988, he became VP of Exploration for PanOcean Energy and in this capacity was instrumental in building the value of PanOcean from US$20m to its eventual sale to Addax Petroleum for US$1.4 billion in 2006. He has extensive experience in exploration, appraisal and development with proven success in finding oil, delivering positive, high impact results and ultimately building value.

Carlos Venturini – Exploration Manager

Carlos is a geologist (BSc) with an MSc in Structural Geology & Rock Mechanics and over 30 years in geophysical interpretation and oil prospect generation gained with Schlumberger, ENI, Sipetrol in addition to his own Libya-based consultancy working for Petrobras, GDF, OMV amongst others. He is an expert in Mediterranean and African petroleum geology.

Peter Elliot – Business Development

Peter holds a degree in geology and an MSc in petroleum geology. He has 22 years' experience in the international oil and gas industry working in New Ventures and Business Development, most recently building oil company JVs in West Africa, including Senegal AGC, Liberia and Equatorial Guinea. He has also managed exploration contracts and work programmes.

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