

Buy

10 October 2012

Providence Resources

Barryroe recoverable reserves quantified

PRICE: 695p | UK | OIL & GAS | PVR.L | PVR LN

Management has announced a Barryroe recovery factor higher than we had expected. We have increased our estimate of recoverable reserves from 200mmb to 280mmb and raised our price target from 1980p to 2200p. BUY

- The Barryroe reservoir analysis indicates that an average recovery factor of around 27% should be achievable, higher than our initial assumption of 20%. Given (unchanged) P50 Oil in Place of 1.04 billion barrels, we have increased our estimate of recoverable field reserves to 280 mmb oil (from 200 mmb). The announcement confirms Barryroe is a very material oil field sitting in a benign development environment and favourable fiscal regime. We believe the market has so far failed to recognise half the value in this core asset, let alone the upside potential in gas and prospective resources.
- Engineering studies will continue to refine development options and costs and this will be fed into an updated CPR. We anticipate the conclusions of the CPR will be disclosed around the end of the year and then the Barryroe partners will start a formal process to bring in suitably qualified partners with appropriate development expertise in return for an equity interest. This process, which will validate a value for Barryroe, could complete around mid 2013.
- We now believe Barryroe contains 280mmb recoverable oil, up from our earlier assumption of 200mmb, and this forms the basis of our updated valuation. Assuming the field is developed at a cost of US\$18/bbl and, more important, that Providence reduces its interest to 40% in return for a carry through development, we now estimate it alone is worth 1986p.
- Beyond Barryroe, the 2013 drilling programme will test three material prospects with exploration wells starting in Q1 on the Dalkey Island and massive Dunquin prospects and an appraisal well on Spanish Point (the next Barryroe?) in Q3. Success with any of these wells will have a material impact on valuations. We have increased our price target by 220p to 2200p to reflect the Barryroe update and retain our BUY recommendation ahead of the Barryroe CPR, farmout and other drilling results.

European Equity Research

Stock Data

Price target (p)	2220
52-Week Range (p)	711.5-157.5
Current price (p)	695
Shares Outstanding (m)	64.36
Free Float (%)	84%
Market Cap (£m)	440
Daily volume (100 day avg)	183,162

*E=Liberum Capital estimates

Stock Performance



Price Performance	1M	3M	12M
Price	654	620	159
Absolute	6%	12%	337%
Relative to: FTSE ALL-SH	6%	8%	294%

Source: Bloomberg

Summary Financials & Valuation

Year end: December	2012E	2013E	2014E
Production (Wt, mboed)	0.5	0.0	0.0
Production growth (%)	0%	nm	nm
EBITDAX (£m)	(21.0)	(4.7)	(4.7)
Net CF ops (£m)	(25.2)	(4.7)	(5.7)
Adj Earnings (£m)	(36.8)	(10.4)	(9.2)
Adj EPS (£ cents)	(61.8)	(16.1)	(14.3)
EPS growth (%)	nm	nm	nm
DPS (p)	0.0	0.0	0.0
ROACE	(30%)	(10%)	(7%)
Net debt / equity	na	5%	43%
PER	nm	nm	nm
EV/DACF	nm	nm	nm
Dividend yield	0%	0%	0%
FCF yield	(1%)	(7%)	(5%)
NAV (p)	1967		
EMV (p)	1049		

Source: Liberum Capital estimates

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Barryroe reserves significantly upgraded

The update on Barryroe recovery factors has confirmed a material increase in our estimate of recoverable oil to 280 million barrels, up from our earlier assumption of 200 mmb. Management will refine development concepts and commission an update to the CPR (expected around the end of the year) and then look to bring in partners to help develop the field. We have raised significantly our value for Barryroe and our price target for the shares (to 2200p) and retain our Buy recommendation.

The detail

Providence has provided an update on the recovery factor expected for the Barryroe oil field in the North Celtic Sea Basin, offshore Ireland. Providence (80%) operates Barryroe on behalf of its partner, Lansdowne Oil and Gas (20%). The discovery is located in Standard Exploration Licence (SEL) 1/11, in c.100m water depth and c.50km off the south coast of Ireland.

Following the successful drilling and testing of the Barryroe 48/24-10z well in March 2012, Providence undertook a series of studies to incorporate the data from all 6 wells drilled on Barryroe, together with 3D and 2D seismic data, and other regional data. It provided an updated estimate of the in-place volumetric resource in July.

RPS Energy has recently undertaken, on behalf of the Barryroe partners, static and dynamic modelling of the main Basal Wealden oil bearing reservoir interval. This work incorporated the data from the 5 Basal Wealden reservoir penetrations, together with maps derived from the recent 3D seismic survey. This work has established oil recovery factors which range from 17-43% for the Basal Wealden.

The recovery factor will be influenced by the development plan – the more wells drilled, the higher the recovery factor – as well as permeabilities, porosities and fluid data. It is the assumptions regarding well count (and the other factors) that generate the 17-43% range. Based on a particular development scenario, that includes 41 horizontal production wells, incorporates gas lift and 22 horizontal water-injection wells, producing over a 25 year field life, management’s best estimate of the Basal Wealden recovery factor to be used for development planning purposes is 31%.

Figure 1: Providence Resources - Barryroe OIP and recoverable oil

Reservoir interval	P50 OIP (mmb)	Recovery factor	P50 recoverable resources
Middle Wealden	287	16%	45.9
Basal Wealden	756	31%	234.4
	1,043	27%	280.3
Other			
Purbeckian	362		
Lower Wealden	416		
	778		

Source: Company, Liberum Capital estimates

What does this mean for estimates of Barryroe recoverable resources? Figure 1 summarises management’s view of P50 Barryroe Oil in Place estimates by reservoir interval. We believe the 31% recovery rate is only applicable to the Basal Wealden (which contains 756mmb Oil in Place) and that the previous estimate of 16% for the Middle Wealden (which contains 287mmb Oil in Place) remains unchanged. Figure 1 shows that, overall, we expect an average 27% recovery factor and that Barryroe’s recoverable resource is 280mmb oil.

There is clearly upside to this figure from what looks like a low recovery factor for the Middle Wealden and/or from the substantial but as yet untested Lower Wealden and Purbeckian intervals. In addition, there is a quantity of as yet undefined sales gas that should add to resource estimates.

What next for Barryroe?

The results of the reservoir and dynamic modelling studies will now be factored into the ongoing field pre-development work. As part of this process, Providence has awarded a contract for a study to evaluate a number of preferred development options which were high-graded during the recent screening studies. The Barryroe Concept Development Engineering Study has been awarded to Procyon Oil & Gas, which has expertise in developing and maintaining offshore oil and gas facilities including experience in the Celtic and North Seas.

The Concept Development Engineering Study will refine development options and associated costs and will then be fed into an updated Competent Person's Report (CPR), in conjunction with preliminary environmental and planning assessments. This work will be completed around the end of the year and, shortly after, a formal process to bring in suitably experienced partners is expected to commence.

Updated Barryroe valuation

We have revised our assumptions regarding the development of Barryroe to reflect the update. Our main field assumptions are summarised in Figure 2 and assume:

- Phased development of the field using 3 platforms, each with processing capabilities offshore, a design life of 25 years and pipeline export to shore.
- Around 40 horizontal production wells plus c.20 water injectors, each costing around US\$40m.
- Production rates for the field are expected to peak around 90,000 bpd oil.
- Recoverable reserves are 280 mmb and total field development capex is estimated to be US\$4.9bn (pre abandonment), equivalent to c.US\$17.5/bbl.

Figure 2: Providence Resources - Barryroe development assumptions

Recoverable reserves		280 mmb oil	
Capex	Drilling	US\$2,480m	(40 producers + 20 WI)
	Facilities	US\$2,070m	(3 platforms)
	Other	US\$300m	
	Total	US\$4,850m	
	or	US\$17.5 / bbl	
Opex		US\$210m pa	(US\$70m per platform)
Production	First oil	2016	
	Peak rate	90 mbd	

Source: Liberum Capital estimates

The remaining important unknown is the cost of optimally developing the field. Given Barryroe's scale, we expect the field will be developed on a standalone basis using proven technology. Costs are likely to be similar to those in the UK North Sea which, for a medium-to-large sized field, we expect to fall into a range of US\$15-20/bbl.

Figure 3: Key assumptions

	2011	2012	2013	2014	2015	2016
Brent price, US\$/bbl	111	110	110	105	100	95
US\$ / £	1.60	1.58	1.58	1.58	1.58	1.58
US\$ / €	1.39	1.27	1.25	1.25	1.25	1.25
WI production, mboed	0.53	0.54	0.00	0.00	0.00	4.00

Source: Liberum Capital estimates

Our value of the field is based on those assumptions and the macro assumptions set out in Figure 3. Figure 4 documents our base value for Providence's 80% interest in Barryroe (net of the San Leon NPI) and shows the sensitivity of this valuation to alternative assumptions. Our base case estimate is that a 280 mmb field, developed at US\$17.5/bbl, would be worth US\$2.6bn to Providence (more than 2500p/share).

Figure 4: Providence Resources - Potential value of Barryroe (WI 80%) US\$m

	8%	10%	12%
Discount rate			
Base case (280 mmb recoverable):	3,180	2,625	2,171
Sensitivities			
Oil price + US\$10	3,768	3,130	2,607
Oil price - US\$10	2,601	2,126	1,738
Capex US\$15.0/bbl	3,342	2,782	2,323
Capex US\$17.5/bbl	3,180	2,625	2,171
Capex US\$20.0/bbl	2,980	2,431	1,985
Opex + 20%	3,054	2,519	2,081
Opex - 20%	3,324	2,745	2,272

Source: Liberum Capital estimates

Revised expectations

Providence has made clear that it will seek suitably qualified partners with specific expertise in offshore field development and operations to facilitate the development of Barryroe and mitigate its exposure to development capex. Clearly the terms of that transaction will determine Providence's financial outlook and the value of the Barryroe asset. Even if there is some leakage, the values in Figure 4 point to very significant upside to current market expectations.

Following the update on resources, we have decided to base our forecasts and valuations on a 280 mmb recoverable oil field, up from our earlier 200mmb. We assume the field is developed for first production in 2016 at a development cost of US\$17.5/bbl and, most important, we still assume that Providence reduces its interest in the field to 40% in return for a carry through the development.

Our valuations are based on the assumptions in Figure 2 and, for completeness, our financial forecasts are set out in Figures 7-9.

Figure 5 shows our updated NAV. We estimate a retained 40% carried interest in Barryroe has a NPV₁₀ of US\$2,027m (1986p per share). Overall, we value Providence's current commercial assets at 1967p, more than 1250p above the current share price. Moreover, there could be material upside to our valuation not only from Barryroe recoverable resources but also from successful appraisal of other discoveries.

Figure 5: Providence Resources - NAV

	Interest	Oil mmb	Gas bcf	Total mmboe	Value US\$m @			US\$ / boe @		p / share		
					8.0%	9.0%	10.0%	9.0%	8.0%	9.0%	10.0%	
Discounted at:												
Commercial reserves												
UK	Singleton	0.0%	0.0	0.0	0.0	0	0	0	0.0	0	0	0
Ireland	Barryroe	40.0%	112.1	0.0	112.1	2,563	2,372	2,199	21.2	2510	2324	2154
	Barryroe NPI	100.0%				(205)	(188)	(172)		(201)	(184)	(168)
Total 2P reserves			112.1	0.0	112.1	2,358	2,185	2,027		2309	2140	1986
Adjusted net (debt) cash						35	35	35		34	34	34
G&A						(23)	(23)	(23)		(23)	(23)	(22)
Exploration costs						(33)	(32)	(32)		(32)	(32)	(31)
Net commercial assets			112.1	0.0	112.1	2,336	2,164	2,008		2288	2120	1967

Source: Liberum Capital estimates

Our NAV is a snapshot value of the assets that we believe are commercial today. Normally, we would argue that NAV is just the value of cash flow from today's assets and does not incorporate a view on the value that will be created through future reinvestment. This is particularly important for Providence, as it implements its drilling plans, and there should be upside to the valuations from future appraisal or exploration success.

EMV

The Barryroe well was the first well in Providence's six basin drilling programme which will continue for the next year and a half, with a combination of appraisal wells at Spanish Point (Main Porcupine Basin) and Dragon (St George's Channel Basin), as well as exploration wells at Dalkey (Kish Bank Basin), Dunquin (South Porcupine Basin) & Rathlin (Rathlin Basin).

Recent progress has firmed up the timing of the initial wells in the programme. We expect both the Dalkey Island and Dunquin exploration wells to commence late in Q1 2013. A well on Spanish Point should start in Q3 and we expect Dragon to be drilled early in 2014. We argued in a recent note (dated 2 October 2012) that the Singleton sale proceeds can be used to retire all debt with the balance of proceeds plus existing cash resources sufficient to fully fund the 2013 drilling programme. Added flexibility can come, if needed, from the farmout of Barryroe and/or other exploration assets.

We illustrate the potential upside to valuations by our estimated Expected Monetary Value (EMV) of the drilling programme. We recognise risked value for four wells excluding the likely well on Rathlin Island where the prospect size is still to be fully assessed.

Each of the wells offers material upside if successful. The chance of success with the appraisal wells should be high given the control from earlier drilling data and seismic. We assume chances of success of 60-75% that do not appear unrealistic.

On this basis, and given Providence's high working interests, there is low risk, material upside from Spanish Point (c.370p) and Dragon (c.240p). Either of these appraisal wells could have a very material impact on valuation.

The exploration wells on Dalkey Island and Dunquin are even more exciting. Success with either prospect would transform valuations.

Figure 6: Providence Resources - EMV

Country	Exploration well	Interest	Value \$/bbl	Estimated spud date	Pre-drill target mboe	Net Reserves mboe	Chance of success	Value of success p/share	Net Dry hole cost US\$ m	Risked EMV p/share
Appraisal Programme:										
Ireland	Dragon	56.0%	12.50	Feb-14	34	19	75%	236	14	174
Ireland	Spanish Point	32.0%	12.50	Sept-13	95	30	60%	373	20	216
Total Appraisal EMV										390
Exploration Programme:										
Ireland	Dalkey Island	50.0%	10.00	Mar-13	250	125	20%	1224	6	240
Ireland	Dunquin	16.0%	10.00	Mar-13	1,716	275	16%	2689	12	419
Total Exploration EMV										659
Total gross					2,096	449		4523	52	1049

Source: Liberum Capital estimates

View on the shares

We continue to believe that Barryroe is a very significant oil accumulation with the potential to grow in size as the upside potential on the Licence is quantified. Management has now published its view on the expected recovery factor and a revised Competent Person's Report will be published around the end of the year. We expect both events will increase market confidence in the potential value of Barryroe.

A value for Barryroe will be crystallised in H1 2013 as part of the formal process to bring in a partner to develop the field. It is generally expected that Providence will seek a structure similar to that achieved by Rockhopper (cash up front plus a carry through development in return for a significant working interest and operatorship). We believe this will demonstrate the true value of the field to Providence.

Ahead of that, we now value Providence's commercial assets at 1967p, well above the current share price. In addition, we estimate the risked value of the appraisal drilling programme is more than 200p with huge potential upside from exploration drilling. It appears that both the appraisal and exploration upside can be accessed for free at the current share price. We have revised our price target up by 220p to 2200p to reflect the higher Barryroe recoverable reserves and retain a BUY recommendation.

Financial forecasts

Figure 7: Providence Resources Income Statement (€m)

Year end December	2011A	2012E	2013E	2014E	2015E	2016E
Revenue	13.8	16.7	0.0	0.0	0.0	111.0
Cost of Sales	(4.1)	(6.7)	0.0	0.0	0.0	(41.4)
Gross profit	9.7	10.0	0.0	0.0	0.0	69.6
Admin expenses	(2.5)	(6.2)	(4.7)	(4.7)	(4.7)	(4.7)
Other/Impairments	(7.1)	(28.3)	0.0	0.0	0.0	0.0
Exploration write-off	0.0	0.0	(10.1)	(7.2)	(7.2)	(7.2)
Total operating profit	0.0	(24.5)	(14.8)	(11.9)	(11.9)	57.7
Finance Revenue	0.1	0.4	0.3	0.1	0.1	0.1
Finance Costs	(5.4)	(7.9)	0.0	(1.0)	(3.1)	(5.3)
Profit before tax	(5.2)	(32.0)	(14.4)	(12.8)	(14.9)	52.4
Income tax	(4.5)	(4.8)	4.0	3.6	4.2	(14.7)
Profit after tax	(9.7)	(36.8)	(10.4)	(9.2)	(10.7)	37.8
Minority interest	0.0	0.0	0.0	0.0	0.0	0.0
Net income	(9.7)	(36.8)	(10.4)	(9.2)	(10.7)	37.8
EBITDAX	2.7	(21.0)	(4.7)	(4.7)	(4.7)	86.8
EPS (€ cents)	(20.8)	(61.8)	(16.1)	(14.3)	(16.6)	58.6
EPS (p)	(18.0)	(49.7)	(12.7)	(11.3)	(13.1)	46.2

Source: Liberum Capital estimates

Figure 8: Providence Resources Cash Flow Statement (€m)

Year end December	2011A	2012E	2013E	2014E	2015E	2016E
Profit/(Loss) before tax	(9.4)	(32.0)	(14.4)	(12.8)	(14.9)	52.4
Exploration write-off	1.7	0.0	10.1	7.2	7.2	7.2
DD&A	2.6	3.5	0.0	0.0	0.0	21.9
Impairments	4.9	28.3	0.0	0.0	0.0	0.0
Change in working capital	20.4	(21.0)	0.0	0.0	0.0	1.8
Interest paid	(6.8)	(7.4)	0.0	(1.0)	(3.1)	(5.3)
Tax paid	0.0	0.0	0.0	0.0	0.0	(27.0)
Other	1.1	3.3	(0.3)	0.9	3.0	5.2
Cash flow from operations	14.5	(25.2)	(4.7)	(5.7)	(7.8)	56.3
Purchase of Oil & Gas PPE	(8.9)	(22.8)	0.0	0.0	0.0	0.0
Purchase of Other PPE	(0.0)	0.0	0.0	0.0	0.0	0.0
Exploration capex	(27.6)	(20.0)	(33.6)	(24.0)	(24.0)	(24.0)
Acquisition/Disposals	18.2	55.4	0.0	0.0	0.0	0.0
Interest Received	0.1	0.4	0.3	0.1	0.1	0.1
Net cash used in investing	(18.1)	12.9	(33.3)	(23.9)	(23.9)	(23.9)
Net proceeds from share issues	45.2	80.5	0.0	0.0	0.0	0.0
Repayment of Convertible	(5.5)	(34.3)	0.0	0.0	0.0	0.0
Other	0.0	0.0	0.0	0.0	0.0	0.0
Increase in net cash	36.1	33.9	(38.0)	(29.6)	(31.7)	32.4
DACF	34.8	(15.8)	(4.6)	(5.0)	(5.5)	60.2
FCF	10.8	(4.3)	(38.3)	(28.7)	(28.7)	37.6

Source: Liberum Capital estimates

Figure 9: Providence Resources Summary Balance Sheet (€m)

Year end December	2011A	2012E	2013E	2014E	2015E	2016E
Intangible assets	36.2	54.8	78.3	95.1	111.9	128.7
PP&E	57.2	48.2	48.2	48.2	48.2	26.3
Non-current assets	93.4	103.0	126.5	143.3	160.1	155.0
Receivables	6.6	0.0	0.0	0.0	0.0	9.2
Cash	36.1	33.4	10.0	10.0	10.0	10.0
Other	0.5	0.5	0.5	0.5	0.5	0.5
Total assets	136.6	136.9	137.0	153.8	170.6	174.7
Short term debt	(7.5)	0.0	0.0	0.0	0.0	0.0
Other current liabilities	(27.7)	0.0	0.0	0.0	0.0	(11.1)
Total current liabilities	(35.2)	0.0	0.0	0.0	0.0	(11.1)
Long term debt	(30.0)	0.0	(14.6)	(44.2)	(75.9)	(43.5)
Convertible bond	(34.3)	0.0	0.0	0.0	0.0	0.0
Other long term liabilities	(29.3)	(29.3)	(29.3)	(29.3)	(29.3)	(29.3)
Total non current liabilities	(93.5)	(29.3)	(43.8)	(73.5)	(105.2)	(72.7)
Net assets	7.9	107.6	93.2	80.3	65.4	90.9
Net (debt) cash excl Convert	(1.5)	33.4	(4.6)	(34.2)	(65.9)	(33.5)

Source: Liberum Capital estimates

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