determined to be uneconomic. As such, reserves for this field were estimated to be zero. The field will be abandoned, with site restorations, in 2023. For the purposes of this report abandonment was scheduled in 2023.

The Gainsborough field, located in license ML4, was discovered in 1959 and is located on the Lincolnshire-Nottingham border, 25 miles east of Sheffield. The main producing reservoirs are the Eagle, Donald, and Condor Sandstones. Porosity was estimated to range from 8 to 20 percent, S_w was estimated to range from 40 to 70 percent, and permeability was estimated to range from 0.01 to 30 millidarcys. The field produces light oil of approximately 38 °API. Performance analysis was completed on this field. After economic evaluation, recoverable quantities were determined to be uneconomic. As such, reserves for this field were estimated to be zero. For the purposes of this report abandonment was scheduled for 2028.

The Glentworth field was discovered in 1961 and is located in license ML4 near Lincolnshire. The field is a four-way dip closure and produces from the Mexborough Formation. The field was shut in from 1965 to 1971 and is currently producing low-shrinkage oil from four wells. Porosity was estimated to range from 16 to 20 percent, S_w was estimated to range from 50 to 65 percent, and permeability was estimated to range from 0.1 to 30 millidarcys. Proved developed producing reserves were estimated based on the performance of existing wells. There are no proved developed non-producing reserves for this field. Proved undeveloped reserves for this field are based on performance of existing wells for a new producer in the Mexborough Rock reservoir and are 600 10^3boe. Estimates of probable and possible reserves account for the potential for better performance than proved reserves.

The Goodworth field, located in license PEDL21, was discovered in 1987. The field produces from the Great Oolite reservoir across three main blocks and is currently producing from one well. Porosity was estimated to range from 12 to 16 percent, S_w was estimated to range from 50 to 70 percent, and permeability was estimated to range from 0.1 to 5 millidarcys. Proved developed producing reserves were estimated based on the performance of the existing well. There are no proved developed non-producing or proved undeveloped reserves for this field. Estimates of probable and possible reserves account for the potential for better performance than proved reserves.

The Horndean field, located in license PL211, was discovered in 1983 by well Horndean-1A. Production commenced in 1987 from the Great Oolite structure and four wells are currently producing. Porosity was estimated to range from 12 to

19 percent, S_w was estimated to range from 70 to 80 percent, and permeability was estimated to range from 0.01 to 5 millidarcys. Proved developed producing reserves were estimated based on the performance of existing wells. There are no proved developed non-producing or proved undeveloped reserves for this field. Estimates of probable and possible reserves account for the potential for better performance than proved reserves.

The Long Clawson field was discovered in 1986. The field is located in license PL220 in Leicestershire and is currently producing from three wells. Porosity was estimated to range from 13 to 18 percent, S_w was estimated to range from 68 to 79 percent, and permeability was estimated to range from 90 to 1,100 millidarcys. The oil has a gravity of 35 °API. Proved developed producing reserves were estimated based on individual-well performance. Proved developed non-producing reserves were based on performance of the existing well that requires replacement of surface unit equipment and are 10 10^3boe. There are no proved undeveloped reserves for this field. Estimates of probable and possible reserves account for the potential for better performance than proved reserves.

The Lybster field (Figure 6) was discovered in 1996 by well 11/24-1 and is located offshore the Caithness coast in license P1270. The field is gas bearing in the Beatrice Sandstone. The Lybster field was evaluated volumetrically, and reserves were estimated using analogous recovery factors based on other similar fields in the area. Recovery factors were estimated to range from 55 to 80 percent. In this field, porosity was estimated to be 12 percent, S_w was estimated to range from 35 to 45 percent, and permeability was estimated to range from 90 to 1,115 millidarcys. Well 11/24-3V2 stopped producing at the end of 2014 due to a high gas-oil ratio (GOR), and the current plan is to restore production in 2025. The development plan includes wellsite upgrades, well recompletion with 3½" tubing, installation of an ESP pump, onsite processing, and compression of the produced gas as part of a Compressed Natural Gas (CNG) monetization scheme. There are no proved developed producing or proved developed non-producing reserves for this field. Proved undeveloped reserves for this field were based on volumetrics and are 274 10^3boe. Estimates of probable, and possible reserves account for the potential for better recovery than proved undeveloped reserves.

performance and a waterflood injector which is now injecting. Proved developed non-producing reserves were based on performance of five existing wells which require workovers to reinstate production and total 323 10^3boe. There are no proved undeveloped reserves for this field. Estimates of probable and possible reserves account for the potential for better performance than proved reserves and improved injection and sweep water efficiency in the injector.

The estimated gross proved, probable, and possible reserves, as of December 31, 2022, of the properties evaluated herein are summarized as follows, expressed in thousands of barrels (10^3bbl), millions of cubic feet (10^6ft^3), and thousands of barrels of oil equivalent (10^3boe):

	Gross Reserves								
	Oil and Condensate			Sales Gas			Oil Equivalent		
Field	Proved (10^3bbl)	Probable (10^3bbl)	Possible (10^3bbl)	Proved (10^6ft^3)	Probable (10^6ft^3)	Possible (10^6ft^3)	Proved (10^3boe)	Probable (10^3boe)	Possible (10^3boe)
Albury	0	0	0	1,192	215	261	206	37	45
Avington	46	12	16	0	0	0	46	12	16
Beckingham	342	101	105	0	0	0	342	101	105
Bletchingley	200	46	106	2,067	3,438	5,092	556	639	984
Bothamsall	10	0	1	0	0	0	10	0	1
Cold Hanworth	184	45	69	0	0	0	184	45	69
Corringham	521	129	114	0	0	0	521	129	114
Dunholme	0	0	0	0	0	0	0	0	0
East Glentworth	65	22	26	0	0	0	65	22	26
Egmanton	0	0	0	0	0	0	0	0	0
Gainsborough	0	0	0	0	0	0	0	0	0
Glentworth	1,250	562	526	0	0	0	1,250	562	526
Godley Bridge	0	0	0	0	0	0	0	0	0
Goodworth	44	8	17	0	0	0	44	8	17
Hemswell (PEDL6)	0	0	0	0	0	0	0	0	0
Hemswell (PEDL210)	0	0	0	0	0	0	0	0	0
Horndean	859	136	172	0	0	0	859	136	172
Long Clawson	52	12	20	0	0	0	52	12	20
Lybster	147	62	48	734	310	243	274	115	90
Nettleham	0	0	0	0	0	0	0	0	0
Palmers Wood	52	16	3	0	0	0	52	16	3
Rempstone	20	1	5	0	0	0	20	1	5
Scampton North	601	129	432	0	0	0	601	129	432
Scampton South	0	0	0	0	0	0	0	0	0
Singleton	2,357	1,022	1,214	2,166	977	1,113	2,730	1,190	1,406
South Leverton	0	0	0	0	0	0	0	0	0
Stainton	0	0	0	0	0	0	0	0	0
Stockbridge	683	338	122	0	0	0	683	338	122
Storrington	49	22	11	0	0	0	49	22	11
Welton	2,737	2,375	1,090	0	0	0	2,737	2,375	1,090
Total	**10,219**	**5,038**	**4,097**	**6,159**	**4,940**	**6,709**	**11,281**	**5,889**	**5,254**

Notes:
1. Probable and possible reserves have not been risk adjusted to make them comparable to proved reserves.
2. Sales gas reserves estimated herein were converted to oil equivalent using an energy equivalent factor of 5,800 cubic feet of gas per 1 boe.

Contingent resources were estimated for drilling a well to an undrained eastern target of the reservoir as well as reperforation of the existing SCN-C3 well. The additional drilling in the field to the eastern target is contingent based on a lack of firm development plans.

Several of the producing fields also include contingent resources for certain projects that currently do not have firm development plans. These fields include the Avington, Beckingham, Corringham, Gainsborough, Hemswell, Horndean, Long Clawson, Palmers Wood, Singleton, Stockbridge, and Welton.

The estimated gross 1C, 2C, and 3C contingent resources, as of December 31, 2022, of the properties evaluated herein are summarized as follows, expressed in thousands of barrels (10^3bbl), millions of cubic feet (10^6ft^3), and thousands of barrels of oil equivalent (10^3boe):

	Gross Contingent Resources								
	1C			2C			3C		
Field	Oil and Condensate (10^3bbl)	Sales Gas (10^6ft^3)	Oil Equivalent (10^3boe)	Oil and Condensate (10^3bbl)	Sales Gas (10^6ft^3)	Oil Equivalent (10^3boe)	Oil and Condensate (10^3bbl)	Sales Gas (10^6ft^3)	Oil Equivalent (10^3boe)
Albury	0	0	0	0	0	0	0	0	0
Avington	507	0	507	741	0	741	1,002	0	1,002
Beckingham	65	218	103	232	317	287	301	387	368
Bletchingley	435	15	438	608	23	612	843	32	849
Bothamsall	0	0	0	0	0	0	0	0	0
Cold Hanworth	0	0	0	0	0	0	0	0	0
Corringham	687	0	687	959	0	959	1,048	0	1,048
Dunholme	8	0	8	185	0	185	422	0	422
East Glentworth	0	0	0	0	0	0	0	0	0
Egmanton	0	0	0	0	0	0	0	0	0
Gainsborough	83	39	90	272	141	296	509	183	541
Glentworth	2,130	0	2,130	2,992	0	2,992	3,074	0	3,074
Godley Bridge	0	6,888	1,188	0	12,490	2,153	0	14,658	2,527
Goodworth	0	0	0	0	0	0	0	0	0
Hemswell (PEDL6)	0	0	0	44	64	55	2,002	2,872	2,497
Hemswell (PEDL310)	69	99	86	627	900	782	2,202	3,159	2,747
Horndean	349	0	349	798	0	798	1,296	0	1,296
Long Clawson	690	0	690	950	0	950	1,360	0	1,360
Lybster	0	0	0	0	0	0	0	0	0
Nettleham	10	0	10	31	0	31	59	0	59
Palmers Wood	299	147	324	392	188	424	532	247	575
Rempstone	0	0	0	0	0	0	0	0	0
Scampton North	350	0	350	531	0	531	644	0	644
Scampton South	0	0	0	0	0	0	0	0	0
Singleton	948	1,625	1,228	2,577	4,416	3,338	3,801	7,106	5,026
South Leverton	0	0	0	0	0	0	0	0	0
Stainton	7	0	7	10	0	10	14	0	14
Stockbridge	577	0	577	690	0	690	826	0	826
Storrington	0	0	0	0	0	0	0	0	0
Welton	2,729	0	2,729	3,504	0	3,504	4,516	0	4,516
Total	**9,943**	**9,031**	**11,500**	**16,143**	**18,539**	**19,339**	**24,451**	**28,644**	**29,390**

Notes:
1. Application of any risk factor to contingent resources quantities does not equate contingent resources with reserves.
2. There is no certainty that it will be commercially viable to produce any portion of the contingent resources evaluated herein.
3. The contingent resources estimated herein are reported as having an economic status of undetermined, since the evaluation of these contingent resources is at a stage such that it is premature to clearly define the associated cash flows.
4. Sales gas contingent resources estimated herein were converted to oil equivalent using an energy equivalent factor of 5,800 cubic feet of gas per 1 boe.