Jurassic Reservoirs in South Gulf Suprasalt/Qatar Arch
Structural, Assessment Unit 20190202

CUM. NEW-FIELD WILDCAT WELLS (No.)

160
140
120
100
80
60
40
20
0


DRILLING-COMPLETION YEAR
Jurassic Reservoirs in South Gulf Suprasalt/Qatar Arch
Structural, Assessment Unit 20190202

NEW-FIELD WILDCAT WELLS (No.) vs. DRILLING-COMPLETION YEAR

- Drilling/completion years range from 1955 to 1995.
- New-field wildcat wells vary significantly across years, with peaks in the mid-1970s and the early 1980s.
- The chart illustrates the number of new-field wildcat wells drilled each year in the South Gulf Suprasalt/Qatar Arch area.
Jurassic Reservoirs in South Gulf Suprasalt/Qatar Arch
Structural, Assessment Unit 20190202

Known Oil-Field Size (MMBO)

- First third of fields discovered
- Second third of fields discovered
- Third third of fields discovered

1 to <2
2 to <4
4 to <8
8 to <16
16 to <32
32 to <64
64 to <128
128 to <256
256 to <512
512 to <1,024
1,024 to <2,048
2,048 to <4,096
4,096 to <8,192
8,192 to <16,384
16,384 to <32,768
32,768 to <65,536
65,536 to <131,072
131,072 to <262,144
>=262,144
Jurassic Reservoirs in South Gulf Suprasalt/Qatar Arch
Structural, Assessment Unit 20190202

KNOWN OIL-FIELD SIZE (MMBO)

VOLUME OF OIL (MMBO)
Jurassic Reservoirs in South Gulf Suprasalt/Qatar Arch
Structural, Assessment Unit 20190202

FIELD-DISCOVERY YEAR

KNOWN OIL-FIELD SIZE (MMBO)
Jurassic Reservoirs in South Gulf Suprasalt/Qatar Arch
Structural, Assessment Unit 20190202
Jurassic Reservoirs in South Gulf Suprasalt/Qatar Arch
Structural, Assessment Unit 20190202
Jurassic Reservoirs in South Gulf Suprasalt/Qatar Arch
Structural, Assessment Unit 20190202

FIELD-DISCOVERY YEAR

CUM. OIL FIELDS (No.)


0 5 10 15 20 25 30 35 40 45

FIELD-DISCOVERY YEAR

CUM. OIL FIELDS (No.)
Jurassic Reservoirs in South Gulf Suprasalt/Qatar Arch
Structural, Assessment Unit 20190202

CUM. NEW-FIELD WILDCAT WELLS (No.) vs. CUM. OIL FIELDS (No.)

Graph showing the relationship between the cumulative number of new-field wildcat wells and the cumulative number of oil fields.
Jurassic Reservoirs in South Gulf Suprasalt/Qatar Arch
Structural, Assessment Unit 20190202

FIELD-DISCOVERY YEAR

RESERVOIR DEPTH, OIL FIELDS (m)
Jurassic Reservoirs in South Gulf Suprasalt/Qatar Arch
Structural, Assessment Unit 20190202

CUM. NEW-FIELD WILDCAT WELLS (No.)

RESERVOIR DEPTH, OIL FIELDS (m)
Jurassic Reservoirs in South Gulf Suprasalt/Qatar Arch

Structural, Assessment Unit 20190202
Jurassic Reservoirs in South Gulf Suprasalt/Qatar Arch
Structural, Assessment Unit 20190202

MEAN RESERVOIR DEPTH (m)

NGL/GAS, OIL FIELDS (BNGL/MMCFG)
Jurassic Reservoirs in South Gulf Suprasalt/Qatar Arch Structural, Assessment Unit 20190202

API GRAVITY (DEGREES)

RESERVOIRS IN OIL FIELDS (No.)

0 to <10
10 to <20
20 to <30
30 to <40
40 to <50
50 to <60
60 to <70
70 to <80
80 to <90
90 to <100
>=100
Jurassic Reservoirs in South Gulf Suprasalt/Qatar Arch
Structural, Assessment Unit 20190202

GAS-FIELD RANK BY SIZE

KNOWN GAS-FIELD SIZE (BCFG)

- First half of fields discovered
- Second half of fields discovered
Jurassic Reservoirs in South Gulf Suprasalt/Qatar Arch
Structural, Assessment Unit 20190202

KNOWN GAS-FIELD SIZE (BCFG)
Jurassic Reservoirs in South Gulf Suprasalt/Qatar Arch
Structural, Assessment Unit 20190202

Known Gas-Field Size (BCFG) vs. Field-Discovery Year

Y-axis: Known Gas-Field Size (BCFG)
X-axis: Field-Discovery Year (1950-2000)

Data points indicate the years and sizes of known gas fields in the Jurassic Reservoirs in South Gulf Suprasalt/Qatar Arch.
Jurassic Reservoirs in South Gulf Suprasalt/Qatar Arch
Structural, Assessment Unit 20190202

FIELD-DISCOVERY YEAR

CUM. KNOWN GAS VOLUME (BCFG)
Jurassic Reservoirs in South Gulf Suprasalt/Qatar Arch Structural, Assessment Unit 20190202

- CUM. NEW-FIELD WILDCAT WELLS (No.)
- CUM. KNOWN GAS VOLUME (BCFG)
Jurassic Reservoirs in South Gulf Suprasalt/Qatar Arch
Structural, Assessment Unit 20190202
Jurassic Reservoirs in South Gulf Suprasalt/Qatar Arch
Structural, Assessment Unit 20190202

CUM. GAS FIELDS (No.)

CUM. NEW-FIELD WILDCAT WELLS (No.)
Jurassic Reservoirs in South Gulf Suprasalt/Qatar Arch
Structural, Assessment Unit 20190202

FIELD-DISCOVERY YEAR

RESERVOIR DEPTH, GAS FIELDS (m)
Jurassic Reservoirs in South Gulf Suprasalt/Qatar Arch
Structural, Assessment Unit 20190202

![Graph showing mean reservoir depth vs. liquids/gas fields (BL/MMCFG)]
Jurassic Reservoirs in South Gulf Suprasalt/Qatar Arch
Structural, Assessment Unit 20190202

Cumulative new-field wildcat wells (No.) vs. drilling-completion year.
Jurassic Reservoirs in South Gulf Suprasalt/Qatar Arch Structural, Assessment Unit 20190202

![Bar chart showing the number of new-field wildcat wells per year from 1955 to 1995.](chart.png)
Jurassic Reservoirs in South Gulf Suprasalt/Qatar Arch
Structural, Assessment Unit 20190202

GROWN OIL-FIELD SIZE (MMBO)

OIL-FIELD RANK BY SIZE

First third of fields discovered
Second third of fields discovered
Third third of fields discovered
Jurassic Reservoirs in South Gulf Suprasalt/Qatar Arch
Structural, Assessment Unit 20190202

GROWN OIL-FIELD SIZE (MMBO)

- Third third of fields discovered
- Second third of fields discovered
- First third of fields discovered
Jurassic Reservoirs in South Gulf Suprasalt/Qatar Arch Structural, Assessment Unit 20190202
Jurassic Reservoirs in South Gulf Suprasalt/Qatar Arch
Structural, Assessment Unit 20190202

FIELD-DISCOVERY YEAR

GROWN OIL-FIELD SIZE (MMBO)
Jurassic Reservoirs in South Gulf Suprasalt/Qatar Arch
Structural, Assessment Unit 20190202

CUM. NEW-FIELD WILDCAT WELLS (No.) vs. GROWN OIL-FIELD SIZE (MMBO)
Jurassic Reservoirs in South Gulf Suprasalt/Qatar Arch
Structural, Assessment Unit 20190202

FIELD-DISCOVERY YEAR

CUM. GROWN OIL VOLUME (MMBO)


0 5,000 10,000 15,000 20,000 25,000
Jurassic Reservoirs in South Gulf Suprasalt/Qatar Arch
Structural, Assessment Unit 20190202

CUM. NEW-FIELD WILDCAT WELLS (No.)

CUM. GROWN OIL VOLUME (MMBO)
Jurassic Reservoirs in South Gulf Suprasalt/Qatar Arch
Structural, Assessment Unit 20190202

FIELD-DISCOVERY YEAR

CUM. OIL FIELDS (No.)

Jurassic Reservoirs in South Gulf Suprasalt/Qatar Arch
Structural, Assessment Unit 20190202
Jurassic Reservoirs in South Gulf Suprasalt/Qatar Arch
Structural, Assessment Unit 20190202

FIELD-DISCOVERY YEAR

RESERVOIR DEPTH, OIL FIELDS (m)
Jurassic Reservoirs in South Gulf Suprasalt/Qatar Arch
Structural, Assessment Unit 20190202

CUM. NEW-FIELD WILDCAT WELLS (No.)

RESERVOIR DEPTH, OIL FIELDS (m)
Jurassic Reservoirs in South Gulf Suprasalt/Qatar Arch
Structural, Assessment Unit 20190202

MEAN RESERVOIR DEPTH (m)

NGL/GAS, OIL FIELDS (BNGL/MMCFG)
Jurassic Reservoirs in South Gulf Suprasalt/Qatar Arch
Structural, Assessment Unit 20190202

API GRAVITY (DEGREES)

RESEVOIRS IN OIL FIELDS (No.)

0 to <10 10 to <20 20 to <30 30 to <40 40 to <50 50 to <60 60 to <70 70 to <80 80 to <90 90 to <100 >=100

0 5 10 15 20 25 30 35 40
Jurassic Reservoirs in South Gulf Suprasalt/Qatar Arch
Structural, Assessment Unit 20190202

GROWN GAS-FIELD SIZE (BCFG)

GAS-FIELD RANK BY SIZE

First half of fields discovered
Second half of fields discovered
Jurassic Reservoirs in South Gulf Suprasalt/Qatar Arch
Structural, Assessment Unit 20190202

Grown Gas-Field Size (BCFG)

GAS FIELDS (No.)

0 1 2 3

6 to <12 12 to <24 24 to <48 48 to <96 96 to <192 192 to <384 384 to <768 768 to <1,536 1,536 to <3,072 3,072 to <6,144 6,144 to <12,288 12,288 to <24,576 24,576 to <49,152 49,152 to <98,304 98,304 to <196,608 196,608 to <393,216 >393,216

Second half of fields discovered

First half of fields discovered
Jurassic Reservoirs in South Gulf Suprasalt/Qatar Arch Structural, Assessment Unit 20190202

GROWN GAS-FIELD SIZE (BCFG)

VOLUME OF GAS (BCFG)
Jurassic Reservoirs in South Gulf Suprasalt/Qatar Arch
Structural, Assessment Unit 20190202

GROWN GAS-FIELD SIZE (BCFG)

FIELD-DISCOVERY YEAR

Jurassic Reservoirs in South Gulf Suprasalt/Qatar Arch
Structural, Assessment Unit 20190202

GROWN GAS-FIELD SIZE (BCFG)

CUM. NEW-FIELD WILDCAT WELLS (No.)
Jurassic Reservoirs in South Gulf Suprasalt/Qatar Arch
Structural, Assessment Unit 20190202

FIELD-DISCOVERY YEAR

CUM. GROWN GAS VOLUME (BCFG)
Jurassic Reservoirs in South Gulf Suprasalt/Qatar Arch
Structural, Assessment Unit 20190202

CUM. NEW-FIELD WILDCAT WELLS (No.)

CUM. GROWN GAS VOLUME (BCFG)
Jurassic Reservoirs in South Gulf Suprasalt/Qatar Arch Structural, Assessment Unit 20190202

FIELD-DISCOVERY YEAR

CUM. GAS FIELDS (No.)
Jurassic Reservoirs in South Gulf Suprasalt/Qatar Arch
Structural, Assessment Unit 20190202

FIELD-DISCOVERY YEAR

RESERVOIR DEPTH, GAS FIELDS (m)
Jurassic Reservoirs in South Gulf Suprasalt/Qatar Arch
Structural, Assessment Unit 20190202

Graph showing the relationship between cumulative new-field wildcat wells and reservoir depth for gas fields.
Jurassic Reservoirs in South Gulf Suprasalt/Qatar Arch
Structural, Assessment Unit 20190202

LIQUIDS/GAS, GAS FIELDS (BL/MMCFG)

MEAN RESERVOIR DEPTH (m)
Jurassic Reservoirs in South Gulf Suprasalt/Qatar Arch Structural, Assessment Unit 20190202
Volumes of Discovered Petroleum

[MMBO, million barrels of oil. BCFG, billion cubic feet of gas. MMBNGL, million barrels of natural gas liquids. Fields containing less than 1 MMBO in oil fields or 6 BCFG in gas fields were not considered in the assessment. Fields were classified as oil or gas by the USGS. Fields without reported discovery dates were not included. NA means not applicable and is shown for volumes where only one field is present. Calculated values may not be equal to the sums of the component values because numbers have been independently rounded.]

<table>
<thead>
<tr>
<th>Field Type</th>
<th>Known (Discovered) Volumes</th>
<th>Grown (Discovered) Volumes</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Number of Fields</td>
<td>Oil (MMBO)</td>
</tr>
<tr>
<td>Oil Fields</td>
<td>40</td>
<td>18,233</td>
</tr>
<tr>
<td>Gas Fields</td>
<td>5</td>
<td>3</td>
</tr>
<tr>
<td>Fields &lt;1 MMBOE</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>All Fields</td>
<td>45</td>
<td>18,236</td>
</tr>
</tbody>
</table>
Jurassic Reservoirs in South Gulf Suprasalt/Qatar Arch Structural, Assessment Unit 20190202

Discovery-History Sequence

[MMBO, million barrels of oil. BCFG, billion cubic feet of gas. Fields containing less than 1 MMBO in oil fields or 6 BCFG in gas fields were not considered in the assessment. Fields were classified as oil or gas by the USGS. The first half or third shows year of first field discovery as well as end of period. NA means not applicable and is shown where fewer than four fields are present.]

<table>
<thead>
<tr>
<th>Field Type</th>
<th>Discovery-History Sequence - Known (Discovered) Volumes</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Year (End of Period)</td>
</tr>
<tr>
<td>Oil Fields Known Sizes (MMBO)</td>
<td></td>
</tr>
<tr>
<td>First third</td>
<td>1958-1969</td>
</tr>
<tr>
<td>Second third</td>
<td>1982</td>
</tr>
<tr>
<td>Third third</td>
<td>1991</td>
</tr>
<tr>
<td>All Oil Fields</td>
<td></td>
</tr>
<tr>
<td>Gas Fields Known Sizes (BCFG)</td>
<td></td>
</tr>
<tr>
<td>First half</td>
<td>1971-1990</td>
</tr>
<tr>
<td>Second half</td>
<td>1992</td>
</tr>
<tr>
<td>All Gas Fields</td>
<td></td>
</tr>
</tbody>
</table>
Jurassic Reservoirs in South Gulf Suprasalt/Qatar Arch Structural, Assessment Unit 20190202
Discovery-History Sequence

[MMBO, million barrels of oil. BCFG, billion cubic feet of gas. Fields containing less than 1 MMBO in oil fields or 6 BCFG in gas fields were not considered in the assessment. Fields were classified as oil or gas by the USGS. The first half or third shows year of first field discovery as well as end of period. NA means not applicable and is shown where fewer than four fields are present.]

<table>
<thead>
<tr>
<th>Field Type</th>
<th>Year (End of Period)</th>
<th>Number of Fields</th>
<th>Total Volume (MMBO)</th>
<th>Mean Size (MMBO)</th>
<th>Median Size (MMBO)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oil Fields</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Grown Sizes (MMBO)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>First third</td>
<td>1958-1969</td>
<td>13</td>
<td>16,586</td>
<td>1,276</td>
<td>349</td>
</tr>
<tr>
<td>Second third</td>
<td>1982</td>
<td>14</td>
<td>7,043</td>
<td>503</td>
<td>122</td>
</tr>
<tr>
<td>Third third</td>
<td>1991</td>
<td>13</td>
<td>1,037</td>
<td>80</td>
<td>77</td>
</tr>
<tr>
<td>All Oil Fields</td>
<td></td>
<td>40</td>
<td>24,665</td>
<td>617</td>
<td>139</td>
</tr>
<tr>
<td>Gas Fields</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Grown Sizes (BCFG)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>First half</td>
<td>1971-1990</td>
<td>3</td>
<td>1,224</td>
<td>408</td>
<td>198</td>
</tr>
<tr>
<td>Second half</td>
<td>1992</td>
<td>2</td>
<td>624</td>
<td>312</td>
<td>312</td>
</tr>
<tr>
<td>All Gas Fields</td>
<td></td>
<td>5</td>
<td>1,847</td>
<td>369</td>
<td>227</td>
</tr>
</tbody>
</table>