



Province of Alberta

MINES AND MINERALS ACT

ENHANCED OIL RECOVERY ROYALTY REGULATION

Alberta Regulation 156/2014

Extract

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ALBERTA REGULATION 156/2014

Mines and Minerals Act

ENHANCED OIL RECOVERY ROYALTY REGULATION

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Interpretation

Definitions

1(1) In this Regulation,

- (a) “approval” means
 - (i) an approval granted under section 4, or
 - (ii) an approval continued by section 6;
- (b) “approved scheme” means an enhanced oil recovery scheme in respect of which there is a subsisting approval granted under section 4 or continued by section 6;
- (c) “base recovery scheme” in respect of an area that is or is proposed to be subject to an enhanced oil recovery scheme means
 - (i) if subclause (ii) does not apply, the scheme that the Minister considers from time to time to be the most technically viable scheme to obtain crude oil from the pool in that area using only conventional techniques, such as waterflood or gas cycling, or
 - (ii) the most recent previous enhanced oil recovery scheme that the Minister considers technically viable that has been used to obtain crude oil from the pool in that area;
- (d) “enhanced oil recovery scheme” means a scheme to obtain crude oil from a pool
 - (i) that is implemented or proposed to be implemented pursuant to a requirement under section 38(a) of the *Oil and Gas Conservation Act* or an approval under section 39(1)(a) of the *Oil and Gas Conservation Act*, and
 - (ii) that uses the injection of hydrocarbons, carbon dioxide, nitrogen, chemicals or other material approved by the Minister as a technique for enhanced oil recovery;
- (e) “operator”, in respect of a scheme or proposed scheme, means the person who is the operator of the wells that are within the scheme or proposed scheme according to the records of the Department;
- (f) “*Petroleum Royalty Regulation, 2009*” means the *Petroleum Royalty Regulation, 2009* (AR 222/2008);
- (g) “pool” means a pool as defined in the *Oil and Gas Conservation Act*;

- (h) “previous enhanced oil recovery scheme” means an enhanced oil recovery scheme, whether or not the scheme was an approved scheme under this Regulation or the *Enhanced Recovery of Oil Royalty Reduction Regulation* (AR 348/93),
 - (i) that was previously implemented by an operator making an application under section 3 to obtain crude oil from the pool in the same area referred to in the application, and
 - (ii) in which a different enhanced oil recovery technique was used from the technique described in the application under section 3;
- (i) “well event” means a well event as defined in the *Petroleum Royalty Regulation, 2009*.

(2) A reference in this Regulation to crude oil obtained from a well event is also a reference to crude oil produced or recovered from a well event or obtained from petroleum recovered from a well event.

(3) Except in section 12, a reference in this Regulation to a month, whether by its name or not, shall be construed as the period commencing at 8:00 a.m. Mountain Standard Time on the first day of the month and ending immediately before 8:00 a.m. Mountain Standard Time on the first day of the next month.

Application of Regulation

2 This Regulation applies only to crude oil that is obtained at and after 8:00 a.m., January 1, 2014, in which the percentage of Crown ownership, as determined by the Minister in accordance with section 26.1 of the *Petroleum and Natural Gas Tenure Regulation* (AR 263/97), is greater than 0.

New Approvals for EOR Schemes

Application for approval

- 3(1) An operator of an enhanced oil recovery scheme or proposed enhanced oil recovery scheme may apply for an approval under section 4.
- (2) An application under subsection (1) must be in the form provided by and contain the information required by the Minister.
- (3) The operator of an enhanced oil recovery scheme may, in the application or in writing provided to the Minister at any time before

or after an approval is granted, indicate the month in which the operator wants the term determined under section 5(2) to begin.

Approval

4(1) Subject to section 9, the Minister may, on application, grant an approval providing for the maximum percentage rate provided for by section 5(1) to apply to the calculation of royalty on crude oil obtained from well events that are part of an enhanced oil recovery scheme if, at the time the information required by the Minister with respect to the application has been received,

- (a) the Minister is of the opinion that the scheme is an enhanced oil recovery scheme,
- (b) the Minister is of the opinion that the primary function of the scheme is the recovery of crude oil from a pool,
- (c) the Minister is of the opinion that more crude oil is likely to be obtained using the enhanced oil recovery scheme than would be obtained using the base recovery scheme,
- (d) the Minister is satisfied, taking into consideration any estimates provided by the operator of the costs for implementing and operating the enhanced oil recovery scheme and for implementing and operating the base recovery scheme, that the costs for implementing and operating the enhanced oil recovery scheme significantly exceed the costs for implementing and operating the base recovery scheme, and
- (e) the Minister is of the opinion that it is in the public interest to grant an approval under this section.

(2) In an approval under subsection (1), the Minister

- (a) shall set out
 - (i) the pool that is subject to the enhanced oil recovery scheme to which the approval applies,
 - (ii) the area that is subject to the enhanced oil recovery scheme to which the approval applies, and
 - (iii) the well events in the area referred to in subclause (ii) to which the approval applies,

and

(b) may establish terms and conditions relating to the approved scheme.

(3) On granting an approval under subsection (1) the Minister shall, in accordance with section 8, establish the t-factor for the approved scheme.

Maximum percentage rate for calculation of royalty

5(1) The royalty on crude oil obtained from well events to which an approval under section 4(1) applies for any month during the term determined under subsection (2) shall be calculated under section 2(1) of the Schedule to the *Petroleum Royalty Regulation, 2009* using a percentage rate of 5% if a higher percentage rate would otherwise apply under that section for that month.

(2) The term during which subsection (1) applies with respect to an approved scheme referred to in subsection (1) is the term of months in Schedule 1 applicable to the t-factor range in Schedule 1 that includes the t-factor of the approved scheme.

(3) The term determined under subsection (2) begins

- (a) on the first day of the month indicated by the operator under section 3(3), if material referred to in section 1(1)(d)(ii) is first injected under the approved scheme on that day or that day occurs within 36 months of material referred to in section 1(1)(d)(ii) first being injected under the approved scheme, or
- (b) if clause (a) does not apply, on the first day of the 36th month after the month in which material referred to in section 1(1)(d)(ii) was first injected under the approved scheme.

Continued Approvals for EOR Schemes

Approvals continued

6(1) An approval under the *Enhanced Recovery of Oil Royalty Reduction Regulation* (AR 348/93) for an approved scheme under that regulation that is subsisting immediately before the coming into force of this Regulation is continued as an approval under this Regulation.

(2) The Minister may issue a new approval to replace an approval continued by subsection (1) and may establish terms and conditions relating to the approved scheme in the new approval.

- (3) The Minister shall, in accordance with section 8, establish the t-factor for each approved scheme for which the approval is continued by subsection (1).
- (4) The Minister shall prescribe a transition relief multiplier effective on the coming into force of this Regulation for each approved scheme for which the approval is continued by subsection (1) for the purpose of determining the royalty payable on crude oil obtained from well events to which the approval applies.
- (5) The Minister may, in the Minister's discretion, prescribe more than one transition relief multiplier for an approved scheme under subsection (4) if
- (a) the Minister first granted an approval for the scheme under section 4 of the *Enhanced Recovery of Oil Royalty Reduction Regulation* (AR 348/93) on or after January 1, 2006, and
 - (b) the Minister is of the opinion
 - (i) that additional information has become available that should be considered in prescribing the transition relief multiplier for the approved scheme, or
 - (ii) that more than one transition relief multiplier is required for the approved scheme.
- (6) The operator of an approved scheme for which the approval is continued by subsection (1) may at any time before or after an approval is continued under subsection (1) in writing provided to the Minister, indicate the month in which the operator wants the term determined under section 7(2) to begin.

Calculation of royalty

- 7(1)** The royalty on crude oil obtained from well events to which an approval continued by section 6(1) applies for each month during the term determined under subsection (2) shall be calculated by multiplying the amount of royalty calculated under section 6 or 6.1 of the *Petroleum Royalty Regulation, 2009* for that month by the transition relief multiplier prescribed under section 6(4).
- (2) The term during which subsection (1) applies with respect to an approved scheme referred to in subsection (1) is the term of months in Schedule 2 applicable to the t-factor range in Schedule 2 that includes the t-factor of the approved scheme.
- (3) The term determined under subsection (2) begins

- (a) on the first day of the month indicated by the operator under section 6(6), if material referred to in section 1(1)(d)(ii) is first injected under the approved scheme on that day or that day occurs within 36 months of material referred to in section 1(1)(d)(ii) first being injected under the approved scheme, or
 - (b) if clause (a) does not apply, the first day of the 36th month after the month in which material referred to in section 1(1)(d)(ii) was first injected under the approved scheme.
- (4) If an amendment is made to a transition relief multiplier prescribed for an approved scheme and the amendment is applicable to a month for which the royalty has been calculated, the royalty for that month shall be recalculated using the amended transition relief multiplier.

General

T-factor

8(1) The t-factor of an approved scheme is the greater of

- (a) 0.224, and
- (b) the t-factor determined by the Minister in accordance with the following formula:

$$\text{t-factor} = \text{itr} \div \text{tco}$$

where

itr is the amount of incremental crude oil recoverable from the pool under the approved scheme over the life of the approved scheme;

tco is the total amount of crude oil that in the Minister's opinion remains to be recovered from the pool.

(2) The Minister may re-determine the t-factor of an approved scheme under subsection (1) at any time if the Minister is of the opinion that a different amount should be used in place of an amount that was used to calculate the t-factor.

(3) If the Minister is not satisfied that sufficient information has been received from the operator to calculate the t-factor of an approved scheme under subsection (1), the Minister shall establish a temporary t-factor of 0.324 for the approved scheme.

(4) The Minister may increase the temporary t-factor established under subsection (3) up to a maximum temporary t-factor of 0.381 if

- (a) the operator of the approved scheme submits an application to the Minister for an increase that contains the information required by the Minister, and
- (b) the Minister is of the opinion that exceptional circumstances exist that warrant an increase.

(5) If the Minister is not satisfied that sufficient information has been received from the operator of an approved scheme for which a temporary t-factor is established under subsection (3) to determine the t-factor for the approved scheme under subsection (1), the approval for the approved scheme terminates at the end of the last month of the term that applies to the temporary t-factor under Schedule 1 or 2, as the case may be.

(6) On being satisfied that sufficient information has been received from the operator to determine the t-factor of an approved scheme for which a temporary t-factor has been established under this section, the Minister shall determine the t-factor of the approved scheme under subsection (1) and any temporary t-factor established for the approved scheme under this section ceases to apply.

(7) If the t-factor or temporary t-factor of an approved scheme is replaced by a new t-factor as provided by subsection (2) or (6) and the term set out in Schedule 1 or 2, as the case may be, that applies to the new t-factor is longer than the term that applied to the previous t-factor, the longer term only applies for the purposes of section 5(2) or 7(2) if the term that applied to the previous t-factor has not expired.

(8) If the t-factor or temporary t-factor of an approved scheme is replaced by a new t-factor as provided by subsection (2) or (6) and the term set out in the Schedule 1 or 2, as the case may be, that applies to the new t-factor is shorter than the term that applied to the previous t-factor, the royalty for each month not included in the shorter term for which the royalty was calculated in accordance with section 5(1) or 7(1) shall be recalculated using the percentage rate that would otherwise have been applicable under the *Petroleum Royalty Regulation, 2009*.

(9) The result of a calculation under this section shall

- (a) be expressed to 3 decimal points, and
- (b) be rounded

- (i) up if there is a number at the fourth decimal point that is 5 or greater, or
- (ii) down if there is a number at the fourth decimal point that is less than 5.

Excluded well events

9 For the purposes of this Regulation, an approval granted under section 4(1) or continued by section 6(1) does not apply to any of the following well events that are in the area to which the approval applies:

- (a) well events as defined in the *Oil Sands Royalty Regulation, 2009* (AR 223/2008) that are part of a Project as defined in that Regulation;
- (b) non-Project well events as defined in the *Oil Sands Royalty Regulation, 2009* (AR 223/2008);
- (c) well events with respect to which allowed costs as defined in the *Oil Sands Royalty Regulation, 2009* (AR 223/2008) are associated;
- (d) any other well events that are in the area to which the approval applies that are not included in the approval.

Amendment of approval

10 The Minister may amend an approval granted under section 4(1) or continued by section 6(1)

- (a) to add, change or remove conditions relating to the approved scheme,
- (b) on the application of the operator of the approved scheme, to add a well event that has been added to the approved scheme if the Minister is satisfied that the well event is in the area to which the approval applies and is part of the enhanced oil recovery scheme to which the approval applies, or
- (c) on the application of the operator of the approved scheme, to increase the area to which the approval applies to include well events located outside the existing area if no new injection well event has been added outside the existing area.

Separate approval for scheme expansions

11 An operator of an approved scheme may apply under section 3 for a separate approval under section 4 for an enhanced oil recovery scheme for well events outside the area to which an existing approval applies if a new injection well event has been added outside the area to which the existing approval applies.

Duty to provide information and file reports

12(1) On receiving a request from the Minister to provide information or file a report for the purposes of the Minister's administration of this Regulation, a person who is or was an operator of an approved scheme shall provide the information or file the report specified in the request within the time specified in the request.

(2) If a person fails to provide information or file a report as required by subsection (1), the person is liable to pay a penalty of \$1000 for each month or part of a month during which the failure to provide the information or file the report continues.

(3) If the Minister is satisfied that a person failed to provide information or file a report as required by subsection (1) because of circumstances that were not in the person's control, the Minister may waive the penalty provided for by subsection (2).

(4) No interest is payable on a penalty imposed under subsection (2).

Suspension of approval

13(1) The Minister may suspend an approval for an approved scheme if the operator of the approved scheme fails to provide information or file a report requested by the Minister within the time specified in the request.

(2) If an approval for an approved scheme is suspended under subsection (1), sections 5(1) and 7(1) do not apply to the calculation of royalty on crude oil obtained from well events to which the approval applies for any month during which the suspension is in effect for all or any part of the month.

(3) If an operator of an approved scheme provides the information or files the report with respect to which a suspension was imposed under subsection (1), the royalty on crude oil obtained from well events to which the approval applies for each month during the term determined under section 5(2) or 7(3), as the case may be, during which the approval was suspended shall be recalculated in accordance with section 5(1) or 7(1), as the case may be.

- (4) Subsection (3) does not apply if
- (a) the approval for the approved scheme is terminated before the suspension of the approval ends, and
 - (b) in the opinion of the Minister, the reason for the termination of the approval for the approved scheme is substantially the same as the reason for the suspension of the approval for the approved scheme.
- (5) A suspension of an approval for an approved scheme does not operate to extend the term determined under section 5(2) or 7(2).

Termination of approval

14 The Minister may terminate an approval for an approved scheme if

- (a) the operator of the approved scheme requests termination of the approval,
- (b) the operator of the approved scheme has failed to provide information or file a report requested by the Minister within the time specified in the request,
- (c) the Minister is of the opinion that a term or condition relating to the approved scheme set out in the approval is not being met,
- (d) the t-factor for the scheme is 0,
- (e) the Minister is of the opinion that the scheme is no longer producing crude oil and no further injection of material referred to in section 1(1)(d)(ii) is intended, or
- (f) in the case of an approved scheme for which the approval was granted under section 4(1) or in the case of an approved scheme for which the approval was continued by section 6(1), a requirement of section 4(1) is no longer satisfied.

Rebate for pre-1994 injection costs

15(1) In this section, “remaining total” means remaining total, as defined in section 9 of the *Petroleum Royalty Regulation* (AR 248/90) as of December 31, 2008, less reductions made under subsection (2)(a).

(2) The Minister may

- (a) rebate an amount not exceeding 5% of the royalty payable on crude oil for a month if the remaining total is reduced by an amount equal to the same percentage of the selling price or fair value of the crude oil on which the royalty on crude oil for the month is based, or
- (b) rebate a single lump sum amount determined by the Minister in respect of the remaining total, after which the remaining total is 0.

Consequential amendments

16(1) The *Deep Oil Exploratory Well Regulation* (AR 225/2008) is amended in section 5(1) by striking out “or” at the end of clause (a), by adding “or” at the end of clause (b) and by adding the following after clause (b):

- (c) the t-factor for the scheme, if any, for the purposes of the *Enhanced Oil Recovery Royalty Regulation* is 0.

(2) The *Enhanced Recovery of Oil Royalty Reduction Regulation* (AR 348/93) is amended

- (a) **in section 2 by striking out “in 1994 and later years” and substituting “in the years 1994 to 2013 inclusive and the period before 8:00 a.m. January 1, 2014”;**
- (b) **by repealing section 37.1 and substituting the following:**

Expiry

37.1 This Regulation expires on December 31, 2018.

(3) The *Petroleum Royalty Regulation, 2009* (AR 222/2008) is amended by adding the following after section 6.1:

Approved schemes under the Enhanced Oil Recovery Royalty Regulation

6.2 Notwithstanding anything in this Regulation, the provisions of the *Enhanced Oil Recovery Royalty Regulation* apply to the calculation of royalty under this Regulation on crude oil recovered or produced from, or obtained from petroleum recovered from, a well event to which an approval as defined in the *Enhanced Oil Recovery Royalty Regulation* applies.

Expiry

17 For the purpose of ensuring that this Regulation is reviewed for ongoing relevancy and necessity, with the option that it may be

repassed in its present or an amended form following a review, this Regulation expires on December 31, 2018.

Coming into force

18 This Regulation is deemed to have come into force on January 1, 2014.

Schedule 1

Term for the Purposes of Section 5(2)

| T-factor range (Beginning t-factor — Ending t-factor) | Term of Months |
|--|-----------------------|
| 0.001 — 0.223 | 0 |
| 0.224 — 0.228 | 3 |
| 0.229 — 0.233 | 4 |
| 0.234 — 0.238 | 5 |
| 0.239 — 0.242 | 6 |
| 0.243 — 0.247 | 7 |
| 0.248 — 0.252 | 8 |
| 0.253 — 0.257 | 9 |
| 0.258 — 0.261 | 10 |
| 0.262 — 0.266 | 11 |
| 0.267 — 0.271 | 12 |
| 0.272 — 0.276 | 13 |
| 0.277 — 0.280 | 14 |
| 0.281 — 0.285 | 15 |
| 0.286 — 0.290 | 16 |
| 0.291 — 0.295 | 17 |
| 0.296 — 0.300 | 18 |
| 0.301 — 0.304 | 19 |
| 0.305 — 0.309 | 20 |
| 0.310 — 0.314 | 21 |
| 0.315 — 0.319 | 22 |
| 0.320 — 0.323 | 23 |
| 0.324 — 0.328 | 24 |
| 0.329 — 0.333 | 25 |
| 0.334 — 0.338 | 26 |
| 0.339 — 0.342 | 27 |
| 0.343 — 0.347 | 28 |

| | |
|---------------|----|
| 0.348 — 0.352 | 29 |
| 0.353 — 0.357 | 30 |
| 0.358 — 0.361 | 31 |
| 0.362 — 0.366 | 32 |
| 0.367 — 0.371 | 33 |
| 0.372 — 0.376 | 34 |
| 0.377 — 0.380 | 35 |
| 0.381 — 0.385 | 36 |
| 0.386 — 0.390 | 37 |
| 0.391 — 0.395 | 38 |
| 0.396 — 0.400 | 39 |
| 0.401 — 0.404 | 40 |
| 0.405 — 0.409 | 41 |
| 0.410 — 0.414 | 42 |
| 0.415 — 0.419 | 43 |
| 0.420 — 0.423 | 44 |
| 0.424 — 0.428 | 45 |
| 0.429 — 0.433 | 46 |
| 0.434 — 0.438 | 47 |
| 0.439 — 0.442 | 48 |
| 0.443 — 0.447 | 49 |
| 0.448 — 0.452 | 50 |
| 0.453 — 0.457 | 51 |
| 0.458 — 0.461 | 52 |
| 0.462 — 0.466 | 53 |
| 0.467 — 0.471 | 54 |
| 0.472 — 0.476 | 55 |
| 0.477 — 0.480 | 56 |
| 0.481 — 0.485 | 57 |
| 0.486 — 0.490 | 58 |
| 0.491 — 0.495 | 59 |
| 0.496 — 0.500 | 60 |
| 0.501 — 0.504 | 61 |
| 0.505 — 0.509 | 62 |
| 0.510 — 0.514 | 63 |
| 0.515 — 0.519 | 64 |
| 0.520 — 0.523 | 65 |
| 0.524 — 0.528 | 66 |

| | |
|---------------|-----|
| 0.529 — 0.533 | 67 |
| 0.534 — 0.538 | 68 |
| 0.539 — 0.542 | 69 |
| 0.543 — 0.547 | 70 |
| 0.548 — 0.552 | 71 |
| 0.553 — 0.557 | 72 |
| 0.558 — 0.561 | 73 |
| 0.562 — 0.566 | 74 |
| 0.567 — 0.571 | 75 |
| 0.572 — 0.576 | 76 |
| 0.577 — 0.580 | 77 |
| 0.581 — 0.585 | 78 |
| 0.586 — 0.590 | 79 |
| 0.591 — 0.595 | 80 |
| 0.596 — 0.600 | 81 |
| 0.601 — 0.604 | 82 |
| 0.605 — 0.609 | 83 |
| 0.610 — 0.614 | 84 |
| 0.615 — 0.619 | 85 |
| 0.620 — 0.623 | 86 |
| 0.624 — 0.628 | 87 |
| 0.629 — 0.633 | 88 |
| 0.634 — 0.638 | 89 |
| 0.639 — 0.642 | 90 |
| 0.643 — 0.647 | 91 |
| 0.648 — 0.652 | 92 |
| 0.653 — 0.657 | 93 |
| 0.658 — 0.661 | 94 |
| 0.662 — 0.666 | 95 |
| 0.667 — 0.671 | 96 |
| 0.672 — 0.676 | 97 |
| 0.677 — 0.680 | 98 |
| 0.681 — 0.685 | 99 |
| 0.686 — 0.690 | 100 |
| 0.691 — 0.695 | 101 |
| 0.696 — 0.700 | 102 |
| 0.701 — 0.704 | 103 |
| 0.705 — 0.709 | 104 |

| | |
|---------------|-----|
| 0.710 — 0.714 | 105 |
| 0.715 — 0.719 | 106 |
| 0.720 — 0.723 | 107 |
| 0.724 — 0.728 | 108 |
| 0.729 — 0.733 | 109 |
| 0.734 — 0.738 | 110 |
| 0.739 — 0.742 | 111 |
| 0.743 — 0.747 | 112 |
| 0.748 — 0.752 | 113 |
| 0.753 — 0.757 | 114 |
| 0.758 — 0.761 | 115 |
| 0.762 — 0.766 | 116 |
| 0.767 — 0.771 | 117 |
| 0.772 — 0.776 | 118 |
| 0.777 — 0.780 | 119 |
| 0.781 — 1.000 | 120 |

Schedule 2

Term for the Purposes of Section 7(2)

| T-factor Range (Beginning t-factor — Ending t-factor) | Term of Months |
|--|-----------------------|
| 0.001 — 0.328 | 24 |
| 0.329 — 0.333 | 25 |
| 0.334 — 0.338 | 26 |
| 0.339 — 0.342 | 27 |
| 0.343 — 0.347 | 28 |
| 0.348 — 0.352 | 29 |
| 0.353 — 0.357 | 30 |
| 0.358 — 0.361 | 31 |
| 0.362 — 0.366 | 32 |
| 0.367 — 0.371 | 33 |
| 0.372 — 0.376 | 34 |
| 0.377 — 0.380 | 35 |
| 0.381 — 0.385 | 36 |
| 0.386 — 0.390 | 37 |
| 0.391 — 0.395 | 38 |
| 0.396 — 0.400 | 39 |
| 0.401 — 0.404 | 40 |

| | |
|---------------|----|
| 0.405 — 0.409 | 41 |
| 0.410 — 0.414 | 42 |
| 0.415 — 0.419 | 43 |
| 0.420 — 0.423 | 44 |
| 0.424 — 0.428 | 45 |
| 0.429 — 0.433 | 46 |
| 0.434 — 0.438 | 47 |
| 0.439 — 0.442 | 48 |
| 0.443 — 0.447 | 49 |
| 0.448 — 0.452 | 50 |
| 0.453 — 0.457 | 51 |
| 0.458 — 0.461 | 52 |
| 0.462 — 0.466 | 53 |
| 0.467 — 0.471 | 54 |
| 0.472 — 0.476 | 55 |
| 0.477 — 0.480 | 56 |
| 0.481 — 0.485 | 57 |
| 0.486 — 0.490 | 58 |
| 0.491 — 0.495 | 59 |
| 0.496 — 0.500 | 60 |
| 0.501 — 0.504 | 61 |
| 0.505 — 0.509 | 62 |
| 0.510 — 0.514 | 63 |
| 0.515 — 0.519 | 64 |
| 0.520 — 0.523 | 65 |
| 0.524 — 0.528 | 66 |
| 0.529 — 0.533 | 67 |
| 0.534 — 0.538 | 68 |
| 0.539 — 0.542 | 69 |
| 0.543 — 0.547 | 70 |
| 0.548 — 0.552 | 71 |
| 0.553 — 0.557 | 72 |
| 0.558 — 0.561 | 73 |
| 0.562 — 0.566 | 74 |
| 0.567 — 0.571 | 75 |
| 0.572 — 0.576 | 76 |
| 0.577 — 0.580 | 77 |
| 0.581 — 0.585 | 78 |
| 0.586 — 0.590 | 79 |
| 0.591 — 0.595 | 80 |
| 0.596 — 0.600 | 81 |
| 0.601 — 0.604 | 82 |

| | |
|---------------|-----|
| 0.605 — 0.609 | 83 |
| 0.610 — 0.614 | 84 |
| 0.615 — 0.619 | 85 |
| 0.620 — 0.623 | 86 |
| 0.624 — 0.628 | 87 |
| 0.629 — 0.633 | 88 |
| 0.634 — 0.638 | 89 |
| 0.639 — 0.642 | 90 |
| 0.643 — 0.647 | 91 |
| 0.648 — 0.652 | 92 |
| 0.653 — 0.657 | 93 |
| 0.658 — 0.661 | 94 |
| 0.662 — 0.666 | 95 |
| 0.667 — 0.671 | 96 |
| 0.672 — 0.676 | 97 |
| 0.677 — 0.680 | 98 |
| 0.681 — 0.685 | 99 |
| 0.686 — 0.690 | 100 |
| 0.691 — 0.695 | 101 |
| 0.696 — 0.700 | 102 |
| 0.701 — 0.704 | 103 |
| 0.705 — 0.709 | 104 |
| 0.710 — 0.714 | 105 |
| 0.715 — 0.719 | 106 |
| 0.720 — 0.723 | 107 |
| 0.724 — 0.728 | 108 |
| 0.729 — 0.733 | 109 |
| 0.734 — 0.738 | 110 |
| 0.739 — 0.742 | 111 |
| 0.743 — 0.747 | 112 |
| 0.748 — 0.752 | 113 |
| 0.753 — 0.757 | 114 |
| 0.758 — 0.761 | 115 |
| 0.762 — 0.766 | 116 |
| 0.767 — 0.771 | 117 |
| 0.772 — 0.776 | 118 |
| 0.777 — 0.780 | 119 |
| 0.781 — 1.000 | 120 |



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