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## ATTACHMENTS

7520-14 Forms

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# 1. INTRODUCTION

This Attachment was prepared in support of Excelsior Mining Arizona, Inc.'s (Excelsior's) Underground Injection Control (UIC) Permit application to the United States Environmental Protection Agency (USEPA). Excelsior is applying for an area Class III UIC permit to install a wellfield for in-situ recovery (ISR) of copper at the Gunnison Copper Project (Project), located in Cochise County, Arizona.

Attachment C *Corrective Action Plan and Well Data* was prepared in support of Excelsior's UIC Permit application. This attachment identifies existing wells within the Area of Review (AOR) in accordance with the UIC Application Instructions (EPA Form 7520-6). According to Chapter 40 of the Code of Federal Regulations (CFR) §144.55, the applicant

> "shall identify the location of all known wells within the injection well's area of review which penetrate the injection zone. For such wells which are improperly sealed, completed, or abandoned, the applicant shall also submit a plan consisting of such steps or modifications as are necessary to prevent movement of fluid into underground sources of drinking water ("corrective action").

~~As presented in Attachment S, the basin fill above the oxide ore body is not an underground source of drinking water (USDW) because there are only isolated occurrences of saturated basin fill within the proposed AOR. Thus, the basin fill does not meet the definition of a USDW according to 40 CFR §144.3, as it does not contain a "sufficient quantity of groundwater to supply a public water system."~~

## 2. WELLS WITHIN THE AREA OF REVIEW

Well data were compiled for wells inside the AOR. Well information was compiled from the Arizona Department of Water Resources (ADWR) Well Registry Database and from data provided to Clear Creek by Excelsior. The most recent version of the ADWR Well Registry Database was downloaded from the ADWR website on July 15, 2015. The database was last updated in January 2015 according to the website.

There are ~~108~~ 99 known ~~n~~ borings within the AOR, 11 of which have been plugged and abandoned. Of the remaining 88 wells, one is classified as non-exempt by ADWR. The remaining wells are generally considered piezometer-monitor wells, although many of them were initially installed as exploration boreholes. ~~including 32 monitor wells or piezometers, 75 exploration wells, and one non-exempt wells based on ADWR classifications.~~ Available ~~I~~information for each of the boring/well i~~i~~s included in Table C-1. ~~Boring l~~Locations provided by Excelsior are shown on Figure C-1.

Plugging and Abandonment Plan forms (From 7520-14) for each well are provided in this Attachment[1]. Excelsior will provide signed copies prior to the actual abandonment after they are able to investigate the well construction.

[1] Estimated costs are based on the total depth and diameter of the borings. For the estimated cost of abandonment of the NSH wells, we used the average cost of $14,420 to agree with closure costs in Attachment R-3.

# 3. CORRECTIVE ACTION PLAN

~~No corrective action is planned because, with the exception of the oxide ore body (for which Excelsior is requesting an Aquifer Exemption in Attachment S) there is not a USDW identified within the AOR.~~ Excelsior will plug and abandon existing wells within each mine block prior to beginning injection and recovery in that mine block. This corrective action will be conducted according to the following procedures:

## 3.1 General Procedure for Plugging and Abandonment

Plugging and abandonment will be conducted based on the "Standard Abandonment Method" in the ADWR Well Abandonment Handbook (Attachment Q-2).

### 3.1.1 Well and Borehole Preparation

The following tasks will be completed prior to well and borehole abandonment to ensure the success of the plugging procedures that are proposed in the next sub-section.

1. Inspect and Document Well: The well will be inspected from the surface. The condition will be documented and recorded and the site will be photographed.
2. A static water level will be measured.
3. Remove Equipment (if any): Equipment including pumps, wiring, tubing, and transducers will be removed from the well. Some of the wells have PVC liners that can be removed. Any equipment that cannot be retrieved will be documented.

### 3.1.2 Plugging Procedure

Each well or borehole will be filled as completely as possible with Type V neat cement using the following procedure.

1. The area around the well will be cleared and the casing will be cut at two or more feet below grade. Cement or steel resulting from cutting casing will be removed from the site.
2. The steel casing and screen will be perforated from 50 feet above the static water level down to the bottom of the casing (or screened interval, if there is one).
3. If the well is an open hole completion (i.e. no screen), tremie pipe will be installed to within 20 feet of the bottom of the well. For wells that are determined to be obstructed during preparation, the contractor will try to push the tremie pipe through the obstruction.

If the tremie cannot be installed through the obstruction, the contractor will try to install drill pipe through the obstruction. If both of those options fail, the well will be abandoned from the obstruction to the surface.

4. Type V cement will be installed through the tremie pipe with the end of the tremie pipe below the top surface of the cement to ensure that there are no gaps in the cement seal. The cement will be installed under enough pressure to fill voids in the borehole wall and casing.
5. The site will be leveled and the abandoned well will be covered with soil.

# 4. DOCUMENTATION AND REPORTING

## 4.1 Documentation

Field personnel will record types and quantities of materials used and emplacement depths of each material. Each site will be photographed after completion and covering of the borehole. Copies of field data and the forms described below will be maintained at the Project site for inspection until closure is completed.

## 4.2 Reporting

Following the plugging and abandonment of existing wells, reports will be filed with state and federal agencies as described below.

ADWR: Within 30 days of the completion of plugging and abandonment the drilling contractor will submit a Well Abandonment Completion Report (Form 55-58) to ADWR. Within 30 days of completion of plugging and abandonment Excelsior or their designee will submit a Well Owner's Notification of Abandonment (Form 55-36). The forms are included as Exhibit B.

USEPA: Excelsior will report plugging and abandonment activities in the quarterly monitoring reports sent to the USEPA Director. The plugging and abandonment will be included in the quarterly report for the quarter in which the activities were completed. Reporting data will include an updated version of Form 7520-14 and copies of the forms sent to ADWR described above.

ADEQ: will also be notified, as plugging and abandonment is an element of "Best Available Demonstrated Control Technology" (BADCT) for the wellfield.

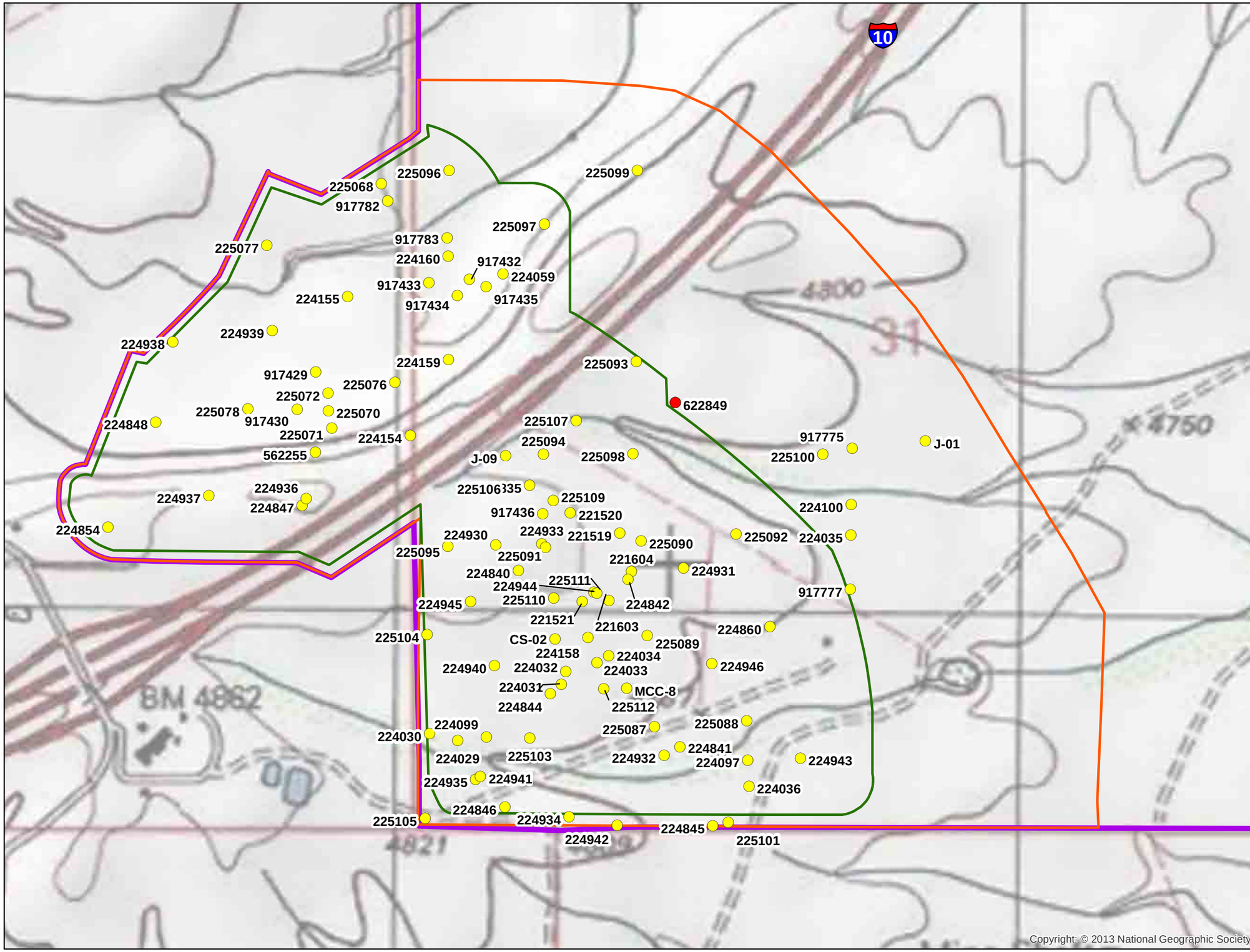
# TABLE C-1
## Wells within the Area of Review

| ADWR Registry Number 55- | Cadastral Location | Well Name | Owner Name | Easting NAD 83 (ft) | Northing NAD 83 (ft) | Measuring Point Elevation (ft amsl) | Abandoned | Drill Date | Well Type | Well Depth (ft) | Casing in Hole | Casing Diameter (in) | Casing Depth (ft) | Cemented | Cemented Depth (ft) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 221519 | D(15-23) 31CBD | NSH-006 | EXCELSIOR MINING GROUP | 738463.33 | 394237.3 | 4833 | No | 2012 | ENV - MONITOR OR PIEZOMETER | 680 | Yes | 4.5 | 640 | Yes | 0-615 |
| 221520 | D(15-23) 31CBD | NSH-003 | EXCELSIOR MINING GROUP | 738201.82 | 394344.15 | 4846 | No | 2012 | ENV - MONITOR OR PIEZOMETER | 1432 | Yes | 4.0 | 1232 | Yes | 0-1206 |
| 221521 | D(15-23) 31CBD | NSH-001 | EXCELSIOR MINIING CORP | 738265.2 | 393874.58 | 4834 | No | 2012 | ENV - MONITOR OR PIEZOMETER | 1114 | Yes | 6.5 | 700 | Yes | 660-700 |
| 221603 | D(15-23) 31CCA | NSH-004B | EXCELSIOR MINIING CORP | 738406.35 | 393880.07 | 4834 | No | 2012 | ENV - MONITOR OR PIEZOMETER | 1031 | Yes | 4.5 | 705 | Yes | 0-685 |
| 221604 | D(15-23) 31CBD | NSH-005 | EXCELSIOR MINING GROUP | 738525.68 | 394033.38 | 4830 | No | 2012 | ENV - MONITOR OR PIEZOMETER | 1024 | Yes | 4.5 | 747 | Yes | 0-724 |
| 223835 | D(15-23) 31 | NSM-007 | EXCELSIOR MINING GROUP | 737986.92 | 394488.9 | 4844 | No | 2014 | SPCL - MINERAL EXPLORATION | 1167.9 | Yes | 4.5 | 600 | No | N/A |
| 224029 | D(15-23) 31CCC | NSH-015 | EXCELSIOR MINIING CORP | 737606.14 | 393140.05 | 4808 | No | 2014 | ENV - MONITOR OR PIEZOMETER | 820 | Yes | 8.5 | 585 | Yes | 0-577 |
| 224030 | D(15-23) 31CCC | NSH-016 | EXCELSIOR MINIING CORP | 737458.64 | 393175.02 | 4812 | No | 2014 | ENV - MONITOR OR PIEZOMETER | 820 | Yes | 8.5 | 579 | Yes | 90-571 |
| 224031 | D(15-23) 31CCB | NSH-019 | EXCELSIOR MINIING CORP | 738155.23 | 393436.53 | 4814 | No | 2014 | ENV - MONITOR OR PIEZOMETER | 1410 | Yes | 8.5 | 638 | Yes | 65-631 |
| 224032 | D(15-23) 31CCA | NSH-021C | EXCELSIOR MINIING CORP | 738178.3 | 393503.73 | 4815 | No | 2015 | ENV - MONITOR OR PIEZOMETER | 1400 | Yes | 5.5 | 624 | Yes | 313-617 |
| 224033 | D(15-23) 31CCA | NSH-024 | EXCELSIOR MINIING CORP | 738342.91 | 393552.51 | 4819 | No | 2015 | ENV - MONITOR OR PIEZOMETER | 1445 | Yes | 8.5 | 625 | Yes | 109-612 |
| 224034 | D(15-23) 31CCA | NSH-023 | EXCELSIOR MINIING CORP | 738405.09 | 393587.65 | 4820 | No | 2015 | ENV - MONITOR OR PIEZOMETER | 1446 | Yes | 5.5 | 645 | Yes | 154-631 |
| 224035 | D(15-23) 31CAD | NSH-020 | EXCELSIOR MINIING CORP | 739685.67 | 394225.67 | 4791 | No | 2014 | ENV - MONITOR OR PIEZOMETER | 1600 | Yes | 4.5 | 1060 | Yes | 340-1035 |
| 224036 | D(15-23) 31CDC | NSH-026 | EXCELSIOR MINIING CORP | 739146.28 | 392899.09 | 4794 | No | 2015 | ENV - MONITOR OR PIEZOMETER | 905 | Yes | 8.5 | 625 | Yes | ?-612 |
| 224059 | D(15-23) 31BCC | NSD-037 | EXCELSIOR MINIING CORP | 737845.93 | 395606.72 | 4751 | No | 2014 | SPCL - MINERAL EXPLORATION | 1284.4 | Yes | 4.5 | 524 | Yes | 513-522 |
| 224097 | D(15-23) 31CDC | NSH-022 | EXCELSIOR MINIING CORP | 739140.53 | 393037.93 | 4784 | No | 2015 | ENV - MONITOR OR PIEZOMETER | 1170 | Yes | 6.5 | 1010 | Yes | 209-972 |
| 224099 | D(15-23) 31CCC | NSH-017 | EXCELSIOR MINIING CORP | 737758.07 | 393157.78 | 4807 | No | 2014 | ENV - MONITOR OR PIEZOMETER | 1200 | Yes | 6.5 | 940 | Yes | 382-919 |
| 224100 | D(15-23) 31CAD | NSH-018 | EXCELSIOR MINIING CORP | 739687.04 | 394387.46 | 4780 | No | 2014 | ENV - MONITOR OR PIEZOMETER | 997 | Yes | 4.5 | 610 | No | N/A |
| 224154 | D(15-22) 36DAA | NSD-026 | EXCELSIOR MINIING CORP | 737356.24 | 394752.25 | 4847 | No | 2012 | SPCL - MINERAL EXPLORATION | 1168 | Yes | 4.5 | 436 | No | N/A |
| 224155 | D(15-22) 36ADD | NSD-031 | EXCELSIOR MINIING CORP | 737024.7 | 395487.5 | 4770 | No | 2012 | SPCL - MINERAL EXPLORATION | 1008 | Yes | 4.5 | 415 | No | N/A |
| 224158 | D(15-23) 31CDC | NSH-025 | EXCELSIOR MINIING CORP | 738294.61 | 393685.78 | 4825 | No | 2015 | ENV - MONITOR OR PIEZOMETER | 1596 | Yes | 4.5 | 1480 | Yes | 20-1461 |
| 224159 | D(15-23) 31BCC | CS-13 | EXCELSIOR MINIING CORP | 737558.77 | 395152.18 | 4768 | No | 1971 | SPCL - MINERAL EXPLORATION | 1251 | No | N/A | N/A | Yes | 394-461 |
| 224160 | D(15-23) 31BCC | CS-14 | EXCELSIOR MINIING CORP | 737557.34 | 395698.82 | 4758 | No | 1971 | SPCL - MINERAL EXPLORATION | 1375 | No | N/A | N/A | Yes | 323-461 |
| 224840 | D(15-23) 31CBC | NSM-006 | EXCELSIOR MINING GROUP | 737927.87 | 394038.78 | 4847 | No | 2014 | SPCL - MINERAL EXPLORATION | 1217 | Yes | 4.5 | 529 | No | N/A |
| 224841 | D(15-23) 31CCD | NSM-005A | EXCELSIOR MINING GROUP | 738781.26 | 393106.74 | 4787 | No | 2014 | SPCL - MINERAL EXPLORATION | 1171.5 | Yes | 5.0 | 593 | No | N/A |
| 224842 | D(15-23) 31CBD | NSM-004 | EXCELSIOR MINING GROUP | 738506.71 | 393990.27 | 4829 | No | 2014 | SPCL - MINERAL EXPLORATION | 1114.5 | Yes | 4.5 | 596 | No | N/A |
| 224844 | D(15-23) 31CCB | NSM-008 | EXCELSIOR MINING GROUP | 738095.92 | 393386.62 | 4816 | No | 2014 | SPCL - MINERAL EXPLORATION | 1273 | Yes | 5.0 | 546 | No | N/A |
| 224845 | D(15-23) 31CDC | NSM-009 | EXCELSIOR MINING GROUP | 738954.82 | 392689.54 | 4794 | No | 2014 | SPCL - MINERAL EXPLORATION | 1349.1 | Yes | 5.0 | 586 | No | N/A |
| 224846 | D(15-23) 31CCC | NSD-033 | EXCELSIOR MINING GROUP | 737855.83 | 392788.24 | 4809 | No | 2014 | SPCL - MINERAL EXPLORATION | 1579 | Yes | 4.5 | 500 | No | N/A |
| 224847 | D(15-22) 36DAC | NSM-013 | EXCELSIOR MINING GROUP | 736785.02 | 394382.74 | 4881 | No | 2014 | SPCL - MINERAL EXPLORATION | 953 | Yes | 4.5 | 404 | Yes | 402-404 |
| 224848 | D(15-22) 36DBA | NSD-030 | EXCELSIOR MINING GROUP | 736012.13 | 394822.54 | 4785 | No | 2012 | SPCL - MINERAL EXPLORATION | 767 | Yes | 4.5 | 256 | No | N/A |
| 224854 | D(15-22) 36DBD | NSD-036 | EXCELSIOR MINIING CORP | 735758.93 | 394267.19 | 4888 | No | 2014 | SPCL - MINERAL EXPLORATION | 793.3 | Yes | 4.5 | 501 | Yes | 501-502 |
| 224860 | D(15-23) 31CDB | NSD-043 | EXCELSIOR MINIING CORP | 739255.99 | 393741 | 4802 | No | 2014 | SPCL - MINERAL EXPLORATION | 1736 | Yes | 4.5 | 627 | Yes | 618-628 |
| 224930 | D(15-23) 31CBC | NSD-023 | EXCELSIOR MINIING CORP | 737808.48 | 394173.78 | 4857 | No | 2012 | SPCL - MINERAL EXPLORATION | 1546 | Yes | 4.5 | 552 | No | N/A |
| 224931 | D(15-23) 31CAC | NSD-024 | EXCELSIOR MINIING CORP | 738799.08 | 394051.36 | 4823 | No | 2012 | SPCL - MINERAL EXPLORATION | 1972 | Yes | 4.5 | 671 | No | N/A |
| 224932 | D(15-23) 31CDC | NSD-025 | EXCELSIOR MINIING CORP | 738697.88 | 393061.4 | 4790 | No | 2012 | SPCL - MINERAL EXPLORATION | 1643.5 | Yes | 4.5 | 637 | No | N/A |
| 224933 | D(15-23) 31CBD | NSM-001 | EXCELSIOR MINIING CORP | 738051.78 | 394181.02 | 4851 | No | 2012 | SPCL - MINERAL EXPLORATION | 1150 | Yes | 3.5 | 590 | No | N/A |
| 224934 | D(15-23) 31CCD | NSM-002 | EXCELSIOR MINIING CORP | 738195.42 | 392736.92 | 4809 | No | 2012 | SPCL - MINERAL EXPLORATION | 1000 | Yes | 4.5 | 507 | No | N/A |
| 224935 | D(15-23) 31CCC | NSM-003 | EXCELSIOR MINIING CORP | 737701.35 | 392934.29 | 4810 | No | 2012 | SPCL - MINERAL EXPLORATION | 1028 | Yes | 4.5 | 608 | No | N/A |
| 224936 | D(15-22) 36DAD | NSD-027 | EXCELSIOR MINIING CORP | 736806.45 | 394419.15 | 4883 | No | 2012 | SPCL - MINERAL EXPLORATION | 1004.5 | Yes | 4.5 | 404 | No | N/A |
| 224937 | D(15-22) 36DAC | NSD-028 | EXCELSIOR MINIING CORP | 736291.67 | 394433.4 | 4881 | No | 2012 | SPCL - MINERAL EXPLORATION | 755 | Yes | 4.5 | 396 | No | N/A |
| 224938 | D(15-22) 36DAB | NSD-029 | EXCELSIOR MINIING CORP | 736101.29 | 395247.79 | 4785 | No | 2012 | SPCL - MINERAL EXPLORATION | 260 | Yes | 4.5 | 279 | No | N/A |
| 224939 | D(15-22) 36DAB | NSD-032 | EXCELSIOR MINIING CORP | 736626.53 | 395306.53 | 4772 | No | 2012 | SPCL - MINERAL EXPLORATION | 686 | Yes | N/I | N/I | N/I | N/I |
| 224940 | D(15-23) 31CCB | NSD-001 | EXCELSIOR MINIING CORP | 737801.3 | 393537.11 | 4827 | No | 2011 | SPCL - MINERAL EXPLORATION | 1505.5 | Yes | 4.5 | 460 | No | N/A |
| 224941 | D(15-23) 31CCC | NSD-002 | EXCELSIOR MINIING CORP | 737726.8 | 392950.87 | 4810 | No | 2011 | SPCL - MINERAL EXPLORATION | 1907 | Yes | 4.5 | 560 | Yes | 564-574 |
| 224942 | D(15-23) 31CCD | NSD-003 | EXCELSIOR MINIING CORP | 738449.28 | 392692.12 | 4805 | No | 2011 | SPCL - MINERAL EXPLORATION | 2008 | Yes | 4.5 | 563 | No | N/A |
| 224943 | D(15-23) 31CDD | NSD-009 | EXCELSIOR MINIING CORP | 739417.77 | 393047.95 | 4788 | No | 2011 | SPCL - MINERAL EXPLORATION | 1793 | Yes | 4.5 | 620 | No | N/A |
| 224944 | D(15-23) 31CCA | NSD-011 | EXCELSIOR MINIING CORP | 738326.23 | 393923.43 | 4834 | No | 2011 | SPCL - MINERAL EXPLORATION | 1438 | Yes | 4.5 | 650 | No | N/A |
| 224945 | D(15-23) 31CCB | NSD-019 | EXCELSIOR MINIING CORP | 737674.27 | 393873.59 | 4848 | No | 2011 | SPCL - MINERAL EXPLORATION | 1454 | Yes | 4.5 | 620 | No | N/A |
| 224946 | D(15-23) 31CDB | NSD-020 | EXCELSIOR MINIING CORP | 738950.33 | 393545.51 | 4800 | No | 2011 | SPCL - MINERAL EXPLORATION | 660 | Yes | 4.5 | 660 | No | N/A |
| 225068 | D(15-22) 36ADA | DC-09 | EXCELSIOR MINIING CORP | 737203.44 | 396082.94 | 4765 | No | N/I | SPCL - MINERAL EXPLORATION | 1500 | N/I | N/I | N/I | N/I | N/I |
| 225070 | D(15-22) 36DAA | JS-05 | EXCELSIOR MINIING CORP | 736922.48 | 394882.63 | 4765 | No | 1989 | SPCL - MINERAL EXPLORATION | 588 | N/I | N/I | N/I | N/I | N/I |
| 225071 | D(15-22) 36DAA | JS-06 | EXCELSIOR MINIING CORP | 736941.08 | 394790.93 | 4773 | No | 1989 | SPCL - MINERAL EXPLORATION | 599 | N/I | N/I | N/I | N/I | N/I |
| 225072 | D(15-22) 36DAA | JS-07 | EXCELSIOR MINIING CORP | 736922.17 | 394976 | 4768 | No | 1989 | SPCL - MINERAL EXPLORATION | 478.5 | N/I | N/I | N/I | N/I | N/I |
| 225076 | D(15-22) 36DAA | S-01 | EXCELSIOR MINIING CORP | 737274.78 | 395034.29 | 4769 | Yes | 1973 | SPCL - MINERAL EXPLORATION | 1211 | N/A | N/A | N/A | N/A | N/A |
| 225077 | D(15-22) 36ADC | S-03 | EXCELSIOR MINIING CORP | 736599.02 | 395756.74 | 4777 | Yes | N/I | SPCL - MINERAL EXPLORATION | 1223 | N/A | N/A | N/A | N/A | N/A |
| 225078 | D(15-22) 36DAB | S-04 | EXCELSIOR MINIING CORP | 736497.89 | 394892.23 | 4776 | Yes | 1973 | SPCL - MINERAL EXPLORATION | 966 | N/A | N/A | N/A | N/A | N/A |
| 225087 | D(15-23) 31CCD | CS-03 | EXCELSIOR MINIING CORP | 738647.21 | 393212.04 | 4794 | No | 1971 | SPCL - MINERAL EXPLORATION | 2038 | No | N/A | N/A | Yes | 458-486 |
| 225088 | D(15-23) 31CDB | CS-04 | EXCELSIOR MINIING CORP | 739134.38 | 393245.21 | 4780 | No | 1971 | SPCL - MINERAL EXPLORATION | 2209 | No | N/A | N/A | Yes | 137-631 |

# TABLE C-1
## Wells within the Area of Review

| ADWR Registry Number 55- | Cadastral Location | Well Name | Owner Name | Easting NAD 83 (ft) | Northing NAD 83 (ft) | Measuring Point Elevation (ft amsl) | Abandoned | Drill Date | Well Type | Well Depth (ft) | Casing in Hole | Casing Diameter (in) | Casing Depth (ft) | Cemented | Cemented Depth (ft) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 225089 | D(15-23) 31CDC | CS-05 | EXCELSIOR MINIING CORP | 738608.92 | 393694.89 | 4818 | No | 1971 | SPCL - MINERAL EXPLORATION | 2034 | No | N/A | N/A | Yes | 628-640 |
| 225090 | D(15-23) 31CAC | CS-06 | EXCELSIOR MINIING CORP | 738576.3 | 394194.54 | 4831 | No | 1971 | SPCL - MINERAL EXPLORATION | 2160 | No | N/A | N/A | Yes | 630-715 |
| 225091 | D(15-23) 31CBC | CS-07 | EXCELSIOR MINIING CORP | 738071.33 | 394162.26 | 4850 | No | 1971 | SPCL - MINERAL EXPLORATION | 1796 | Yes | 4.5 | 596 | Yes | 506-596 |
| 225092 | D(15-23) 31CAC | CS-08 | EXCELSIOR MINIING CORP | 739077.57 | 394231.13 | 4809 | No | 1971 | SPCL - MINERAL EXPLORATION | 2304 | No | N/A | N/A | Yes | 250-648 |
| 225093 | D(15-23) 31CAB | CS-09 | EXCELSIOR MINIING CORP | 738551.02 | 395144.23 | 4833 | No | 1971 | SPCL - MINERAL EXPLORATION | 2337 | No | N/A | N/A | Yes | 360-715 |
| 225094 | D(15-23) 31CBD | CS-10 | EXCELSIOR MINIING CORP | 738060.5 | 394653.38 | 4829 | No | 1971 | SPCL - MINERAL EXPLORATION | 1656 | No | N/A | N/A | Yes | 720-730 |
| 225095 | D(15-23) 31CBC | CS-11 | EXCELSIOR MINIING CORP | 737554.82 | 394166.14 | 4863 | No | 1971 | SPCL - MINERAL EXPLORATION | 2084 | No | N/A | N/A | Yes | 416-480 |
| 225096 | D(15-23) 31BCB | CS-15 | EXCELSIOR MINIING CORP | 737561.5 | 396153.55 | 4757 | No | 1971 | SPCL - MINERAL EXPLORATION | 492 | No | N/A | N/A | No | N/A |
| 225097 | D(15-23) 31BCD | CS-19 | EXCELSIOR MINIING CORP | 738065.04 | 395870.87 | 4757 | No | 1971 | SPCL - MINERAL EXPLORATION | 580 | Yes | 3.5 | 580 | Yes | 480-580 |
| 225098 | D(15-23) 31CBD | CS-21 | EXCELSIOR MINIING CORP | 738532.95 | 394655.34 | 4810 | No | 1971 | SPCL - MINERAL EXPLORATION | 2171 | No | N/A | N/A | Yes | 605-687 |
| 225099 | D(15-23) 31BDA | CS-23 | EXCELSIOR MINIING CORP | 738556.65 | 396154.06 | 4792 | No | 1971 | SPCL - MINERAL EXPLORATION | 622 | Yes | 3.5 | 622 | Yes | 522-622 |
| 225100 | D(15-23) 31CAD | CS-41 | EXCELSIOR MINIING CORP | 739537.3 | 394653.69 | 4793 | No | 1971 | SPCL - MINERAL EXPLORATION | 448 | Yes | 4.0 | 448 | Yes | 408-448 |
| 225101 | D(15-23) 31CDC | CS-51 | EXCELSIOR MINIING CORP | 739035.96 | 392707.85 | 4792 | No | 1972 | SPCL - MINERAL EXPLORATION | 1838 | No | N/A | N/A | Yes | 552-639 |
| 225103 | D(15-23) 31CCD | J-04 | EXCELSIOR MINIING CORP | 737987.71 | 393154.24 | 4804 | No | 1970 | SPCL - MINERAL EXPLORATION | 1509 | N/I | N/I | N/I | N/I | N/I |
| 225104 | D(15-23) 31CCB | J-05 | EXCELSIOR MINIING CORP | 737444.95 | 393699.86 | 4837 | No | 1974 | SPCL - MINERAL EXPLORATION | 1475 | N/I | N/I | N/I | N/I | N/I |
| 225105 | D(15-23) 31CCC | J-06 | EXCELSIOR MINIING CORP | 737434.29 | 392728.1 | 4824 | No | 1970 | SPCL - MINERAL EXPLORATION | 937 | N/I | N/I | N/I | N/I | N/I |
| 225106 | D(15-23) 31CBC | J-07 | EXCELSIOR MINIING CORP | 737878.08 | 394483.65 | 4846 | No | N/I | SPCL - MINERAL EXPLORATION | 988 | N/I | N/I | N/I | N/I | N/I |
| 225107 | D(15-23) 31CBA | J-08 | EXCELSIOR MINIING CORP | 738233.34 | 394829.84 | 4810 | No | N/I | SPCL - MINERAL EXPLORATION | 1350 | N/I | N/I | N/I | N/I | N/I |
| 225109 | D(15-23) 31CBD | J-10 | EXCELSIOR MINIING CORP | 738111.75 | 394409.48 | 4855 | No | N/I | SPCL - MINERAL EXPLORATION | 1062 | N/I | N/I | N/I | N/I | N/I |
| 225110 | D(15-23) 31CCA | MCC-1 | EXCELSIOR MINIING CORP | 738115.44 | 393891.8 | 4836 | Yes | 1994 | SPCL - MINERAL EXPLORATION | 1346 | N/A | N/A | N/A | N/A | N/A |
| 225111 | D(15-23) 31CCA | MCC-2 | EXCELSIOR MINIING CORP | 738341.25 | 393919.23 | 4834 | Yes | 1994 | SPCL - MINERAL EXPLORATION | 1232 | N/A | N/A | N/A | N/A | N/A |
| 225112 | D(15-23) 31CCA | MCC-3 | EXCELSIOR MINIING CORP | 738377.4 | 393414.04 | 4812 | Yes | 1994 | SPCL - MINERAL EXPLORATION | 1346 | N/A | N/A | N/A | N/A | N/A |
| 562255 | D(15-22) 36DAD | SULLY 97-7 | EXCELSIOR MINING CORP | 736854.35 | 394663.73 | 4800 | Yes | N/I | SPCL - MINERAL EXPLORATION | 396 | N/A | N/A | N/A | N/A | N/A |
| 622849 | D(15-23) 31CBA | HIGGINBOTHAM | RONALD B & VENICE J HIGGINBOTHAM FAMILY TRUST | 738756.28 | 394926.73 | 4830 | N/I | N/I | NON-EXEMPT | 1350 | N/I | N/I | N/I | N/I | N/I |
| 917429 | D(15-22) 36DAA | NSH-008 | EXCELSIOR MINING CORP | 736856.77 | 395088.59 | 4772 | No | 2014 | ENV - MONITOR OR PIEZOMETER | 900 | Yes | 4.5 | 720 | Yes | 191-700 |
| 917430 | D(15-22) 36DAB | NSH-007 | EXCELSIOR MINING CORP | 736757.42 | 394889.08 | 4773 | No | 2014 | ENV - MONITOR OR PIEZOMETER | 640 | Yes | 8.5 | 469 | Yes | 30-463 |
| 917432 | D(15-23) 31BCC | NSH-014B | EXCELSIOR MINING CORP | 737667.63 | 395577 | 4749 | No | 2014 | ENV - MONITOR OR PIEZOMETER | 1277 | Yes | 4.5 | 1180 | Yes | 65-1160 |
| 917433 | D(15-23) 31BCC | NSH-009 | EXCELSIOR MINING CORP | 737455.53 | 395561.03 | 4754 | No | 2014 | ENV - MONITOR OR PIEZOMETER | 1060 | Yes | 4.5 | 813 | Yes | 353-785 |
| 917434 | D(15-23) 31BCC | NSH-010 | EXCELSIOR MINING CORP | 737605.1 | 395490.01 | 4750 | No | 2014 | ENV - MONITOR OR PIEZOMETER | 720 | Yes | 8.5 | 546 | Yes | 0-546 |
| 917435 | D(15-23) 31BCC | NSH-012 | EXCELSIOR MINING CORP | 737755.85 | 395538.41 | 4750 | No | 2014 | ENV - MONITOR OR PIEZOMETER | 504 | Yes | 4.5 | 430 | Yes | 0-409 |
| 917436 | D(15-23) 31CBC | NSH-013 | EXCELSIOR MINING CORP | 738056.78 | 394338.52 | 4850 | No | 2014 | ENV - MONITOR OR PIEZOMETER | 1070 | Yes | 8.5 | 646 | Yes | 75-646 |
| 917775 | D(15-23) 31CAD | NSH-030 | EXCELSIOR MINING CORP | 739691.19 | 394683.79 | 4792 | No | 2015 | ENV - MONITOR OR PIEZOMETER | 740 | Yes | 2.5 | 600 | No | N/A |
| 917777 | D(15-23) 31CDA | NSH-029 | EXCELSIOR MINING CORP | 739681.74 | 393940.42 | 4797 | No | 2015 | ENV - MONITOR OR PIEZOMETER | 710 | Yes | 2.5 | 604 | No | N/A |
| 917782 | D(15-23) 31BCB | NSH-031 | EXCELSIOR MINING CORP | 737236.87 | 395991.56 | 4763 | No | 2015 | ENV - MONITOR OR PIEZOMETER | 820 | Yes | 2.5 | 721 | Yes | 0-683 |
| 917783 | D(15-23) 31CDA | NSH-032 | EXCELSIOR MINING CORP | 737550.79 | 395796.75 | 4759 | No | 2015 | ENV - MONITOR OR PIEZOMETER | 820 | Yes | 2.5 | 720 | Yes | 0-690 |
| N/I | D(15-23) 31CCB | CS-02 | EXCELSIOR MINIING CORP | 738122.13 | 393675.99 | 4821 | No | 1971 | SPCL - MINERAL EXPLORATION | 1770 | No | N/A | N/A | Yes | 440-508 |
| N/I | D(15-23) 31DBB | J-01 | EXCELSIOR MINIING CORP | 740078.54 | 394723.65 | 4786 | Yes | 1970 | SPCL - MINERAL EXPLORATION | 1800 | N/A | N/A | N/A | N/A | N/A |
| N/I | D(15-23) 31CBB | J-09 | EXCELSIOR MINIING CORP | 737859.91 | 394645.39 | 4824 | No | N/I | SPCL - MINERAL EXPLORATION | 1158 | N/I | N/I | N/I | N/I | N/I |
| N/I | D(15-23) 31CCA | MCC-8 | EXCELSIOR MINIING CORP | 738499.34 | 393416.72 | 4808 | Yes | 1995 | SPCL - MINERAL EXPLORATION | 1013 | N/A | N/A | N/A | N/A | N/A |

Notes: ADWR = Arizona Department of Water Resources; ft amsl = feet above mean sea level; N/A = Not Applicable; N/I = No Information




## Legend

- Gunnison Copper Project
- ISR Wellfield
- Area of Review
- Non-Exempt* Well (From ADWR Well Registry Database)
- Exploration or Environmental Well (55-Registry Number or Name)

* Groundwater rules are set in Arizona Revised Statutes Title 45 Chapter 2. Wells that are installed for non-irrigation purpose and that have pumps with a capacity less than 35 gallons per minute are exempt from certain requirements of Chapter 2 pursuant to Section 45-454. Exempt wells are generally domestic drinking water and stock wells. The wells are exempt from certain rules because of their limited withdrawal and small number of users. Non-Exempt wells are subject to the requirements of Chapter 2.

0 250 500 1,000
Feet

Excelsior Mining Arizona, Inc.
Gunnison Copper Project
UIC Permit Application
June 2017

| Date | File ID |
|---|---|
| 6/15/17 | 373-053 |

CLEAR CREEK ASSOCIATES

FIGURE C-1
Well Locations
within the Area of Review

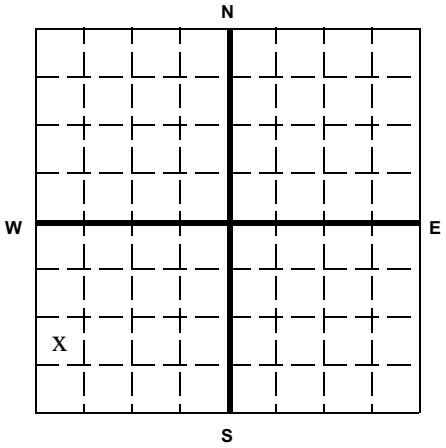
OMB No. 2040-0042 Approval Expires 11/30/2014

United States Environmental Protection Agency
Washington, DC 20460

# PLUGGING AND ABANDONMENT PLAN

| Name and Address of Facility | Name and Address of Owner/Operator |
|---|---|
| EXCELSIOR MINING CORP<br>GUNNISON PROJECT | EXCELSIOR MINING CORP<br>CONCORD PL, 2999 N 44TH ST, STE 300, PHOENIX, AZ 85018 |

Locate Well and Outline Unit on Section Plat - 640 Acres




| State | County | Permit Number |
|---|---|---|
| AZ | Cochise | TBD |

Surface Location Description

___ 1/4 of nw 1/4 of sw 1/4 of sw 1/4 of Section 31 Township 15S Range 23E

Locate well in two directions from nearest lines of quarter section and drilling unit

Surface Location 992 ft. frm (N/S) S Line of quarter section and 712 ft. from (E/W) W Line of quarter section.

**TYPE OF AUTHORIZATION**

- ☐ Individual Permit
- ☑ Area Permit
- ☐ Rule

Number of Wells 1

Lease Name

**WELL ACTIVITY**

- ☐ CLASS I
- ☐ CLASS II
  - ☐ Brine Disposal
  - ☐ Enhanced Recovery
  - ☐ Hydrocarbon Storage
- ☐ CLASS III

Well Number N/A, CS-02

**CASING AND TUBING RECORD AFTER PLUGGING**

| SIZE | WT (LB/FT) | TO BE PUT IN WELL (FT) | TO BE LEFT IN WELL (FT) | HOLE SIZE |
|---|---|---|---|---|
| NA | Unknown | 0 | 0 | 4.5 |
| | | | | |
| | | | | |
| | | | | |

**METHOD OF EMPLACEMENT OF CEMENT PLUGS**

- ☑ The Balance Method
- ☐ The Dump Bailer Method
- ☐ The Two-Plug Method
- ☐ Other

| CEMENTING TO PLUG AND ABANDON DATA: | PLUG #1 | PLUG #2 | PLUG #3 | PLUG #4 | PLUG #5 | PLUG #6 | PLUG #7 |
|---|---|---|---|---|---|---|---|
| Size of Hole or Pipe in which Plug Will Be Placed (inche | 4.5 | | | | | | |
| Depth to Bottom of Tubing or Drill Pipe (ft | 1770 | | | | | | |
| Sacks of Cement To Be Used (each plug) | 165 | | | | | | |
| Slurry Volume To Be Pumped (cu. ft.) | 195 | | | | | | |
| Calculated Top of Plug (ft.) | 2 | | | | | | |
| Measured Top of Plug (if tagged ft.) | | | | | | | |
| Slurry Wt. (Lb./Gal.) | 15.6 | | | | | | |
| Type Cement or Other Material (Class III) | V | | | | | | |

**LIST ALL OPEN HOLE AND/OR PERFORATED INTERVALS AND INTERVALS WHERE CASING WILL BE VARIED (if any)**

| From | To | From | To |
|---|---|---|---|
| 0 | 1770 | | |

Water level will be measured prior to abandonment. Casing will be perforated from 50 feet above water level to bottom of casing.

Estimated Cost to Plug Wells

$12,390

## Certification

I certify under the penalty of law that I have personally examined and am familiar with the information submitted in this document and all attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibliity of fine and imprisonment. (Ref. 40 CFR 144.32)

| Name and Official Title *(Please type or print)* | Signature | Date Signed |
|---|---|---|
| Vit Kuhnel, Hydrology Manager | | |

OMB No. 2040-0042 Approval Expires 11/30/2014

United States Environmental Protection Agency
Washington, DC 20460

# PLUGGING AND ABANDONMENT PLAN

**Name and Address of Facility**
EXCELSIOR MINING CORP
GUNNISON PROJECT

**Name and Address of Owner/Operator**
EXCELSIOR MINING CORP
CONCORD PL, 2999 N 44TH ST, STE 300, PHOENIX, AZ 85018

**Locate Well and Outline Unit on Section Plat - 640 Acres**

N
W E
X
S

| State | County | Permit Number |
|---|---|---|
| AZ | Cochise | TBD |

**Surface Location Description**
1/4 of se 1/4 of sw 1/4 of sw 1/4 of Section 31 Township 15S Range 23E

Locate well in two directions from nearest lines of quarter section and drilling unit

Surface Location 514 ft. frm (N/S) S Line of quarter section
and 1233 ft. from (E/W) W Line of quarter section.

**TYPE OF AUTHORIZATION**
- ☐ Individual Permit
- ☑ Area Permit
- ☐ Rule

Number of Wells 1

Lease Name

**WELL ACTIVITY**
- ☐ CLASS I
- ☐ CLASS II
  - ☐ Brine Disposal
  - ☐ Enhanced Recovery
  - ☐ Hydrocarbon Storage
- ☐ CLASS III

Well Number 55-225087, CS-03

**CASING AND TUBING RECORD AFTER PLUGGING**

| SIZE | WT (LB/FT) | TO BE PUT IN WELL (FT) | TO BE LEFT IN WELL (FT) | HOLE SIZE |
|---|---|---|---|---|
| NA | Unknown | 0 | 0 | 4 |
| | | | | |
| | | | | |
| | | | | |

**METHOD OF EMPLACEMENT OF CEMENT PLUGS**
- ☑ The Balance Method
- ☐ The Dump Bailer Method
- ☐ The Two-Plug Method
- ☐ Other

| CEMENTING TO PLUG AND ABANDON DATA: | PLUG #1 | PLUG #2 | PLUG #3 | PLUG #4 | PLUG #5 | PLUG #6 | PLUG #7 |
|---|---|---|---|---|---|---|---|
| Size of Hole or Pipe in which Plug Will Be Placed (inche | 4 | | | | | | |
| Depth to Bottom of Tubing or Drill Pipe (ft | 2038 | | | | | | |
| Sacks of Cement To Be Used (each plug) | 151 | | | | | | |
| Slurry Volume To Be Pumped (cu. ft.) | 178 | | | | | | |
| Calculated Top of Plug (ft.) | 2 | | | | | | |
| Measured Top of Plug (if tagged ft.) | | | | | | | |
| Slurry Wt. (Lb./Gal.) | 15.6 | | | | | | |
| Type Cement or Other Material (Class III) | V | | | | | | |

**LIST ALL OPEN HOLE AND/OR PERFORATED INTERVALS AND INTERVALS WHERE CASING WILL BE VARIED (if any)**

| From | To | From | To |
|---|---|---|---|
| 0 | 2038 | | |
| | | | |

Water level will be measured prior to abandonment. Casing will be perforated from 50 feet above water level to bottom of casing.

**Estimated Cost to Plug Wells**
$14,266

## Certification

I certify under the penalty of law that I have personally examined and am familiar with the information submitted in this document and all attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibliity of fine and imprisonment. (Ref. 40 CFR 144.32)

| Name and Official Title *(Please type or print)* | Signature | Date Signed |
|---|---|---|
| Vit Kuhnel, Hydrology Manager | | |

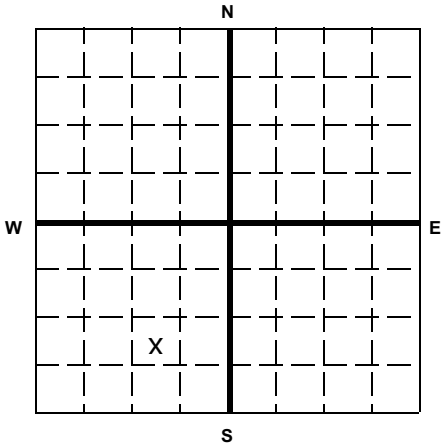
OMB No. 2040-0042 Approval Expires 11/30/2014

United States Environmental Protection Agency
Washington, DC 20460

# PLUGGING AND ABANDONMENT PLAN

| Name and Address of Facility | Name and Address of Owner/Operator |
|---|---|
| EXCELSIOR MINING CORP<br>GUNNISON PROJECT | EXCELSIOR MINING CORP<br>CONCORD PL, 2999 N 44TH ST, STE 300, PHOENIX, AZ 85018 |

Locate Well and Outline Unit on Section Plat - 640 Acres




| State | County | Permit Number |
|---|---|---|
| AZ | Cochise | TBD |

Surface Location Description

___ 1/4 of nw 1/4 of se 1/4 of sw 1/4 of Section 31 Township 15S Range 23E

Locate well in two directions from nearest lines of quarter section and drilling unit

Surface Location 564 ft. frm (N/S) S Line of quarter section and 747 ft. from (E/W) E Line of quarter section.

**TYPE OF AUTHORIZATION**

- [ ] Individual Permit
- [x] Area Permit
- [ ] Rule

Number of Wells 1

Lease Name

**WELL ACTIVITY**

- [ ] CLASS I
- [ ] CLASS II
  - [ ] Brine Disposal
  - [ ] Enhanced Recovery
  - [ ] Hydrocarbon Storage
- [ ] CLASS III

Well Number 55-225088, CS-04

**CASING AND TUBING RECORD AFTER PLUGGING**

| SIZE | WT (LB/FT) | TO BE PUT IN WELL (FT) | TO BE LEFT IN WELL (FT) | HOLE SIZE |
|---|---|---|---|---|
| NA | Unknown | 0 | 0 | 4 |
| | | | | |
| | | | | |
| | | | | |

**METHOD OF EMPLACEMENT OF CEMENT PLUGS**

- [x] The Balance Method
- [ ] The Dump Bailer Method
- [ ] The Two-Plug Method
- [ ] Other

| CEMENTING TO PLUG AND ABANDON DATA: | PLUG #1 | PLUG #2 | PLUG #3 | PLUG #4 | PLUG #5 | PLUG #6 | PLUG #7 |
|---|---|---|---|---|---|---|---|
| Size of Hole or Pipe in which Plug Will Be Placed (inche | 4 | | | | | | |
| Depth to Bottom of Tubing or Drill Pipe (ft | 2209 | | | | | | |
| Sacks of Cement To Be Used (each plug) | 164 | | | | | | |
| Slurry Volume To Be Pumped (cu. ft.) | 193 | | | | | | |
| Calculated Top of Plug (ft.) | 2 | | | | | | |
| Measured Top of Plug (if tagged ft.) | | | | | | | |
| Slurry Wt. (Lb./Gal.) | 15.6 | | | | | | |
| Type Cement or Other Material (Class III) | V | | | | | | |

**LIST ALL OPEN HOLE AND/OR PERFORATED INTERVALS AND INTERVALS WHERE CASING WILL BE VARIED (if any)**

| From | To | From | To |
|---|---|---|---|
| | | | |

Water level will be measured prior to abandonment. Casing will be perforated from 50 feet above water level to bottom of casing.

Estimated Cost to Plug Wells

$15,463

## Certification

I certify under the penalty of law that I have personally examined and am familiar with the information submitted in this document and all attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibliity of fine and imprisonment. (Ref. 40 CFR 144.32)

| Name and Official Title *(Please type or print)* | Signature | Date Signed |
|---|---|---|
| Vit Kuhnel, Hydrology Manager | | |

OMB No. 2040-0042 Approval Expires 11/30/2014

United States Environmental Protection Agency
Washington, DC 20460

# PLUGGING AND ABANDONMENT PLAN

**Name and Address of Facility**
EXCELSIOR MINING CORP
GUNNISON PROJECT

**Name and Address of Owner/Operator**
EXCELSIOR MINING CORP
CONCORD PL, 2999 N 44TH ST, STE 300, PHOENIX, AZ 85018

**Locate Well and Outline Unit on Section Plat - 640 Acres**

N
W E
X
S

| State | County | Permit Number |
|---|---|---|
| AZ | Cochise | TBD |

**Surface Location Description**
1/4 of sw 1/4 of se 1/4 of sw 1/4 of Section 31 Township 15S Range 23E

**Locate well in two directions from nearest lines of quarter section and drilling unit**

Surface Location 323 ft. frm (N/S) N Line of quarter section
and 1271 ft. from (E/W) E Line of quarter section.

**TYPE OF AUTHORIZATION**
- ☐ Individual Permit
- ☑ Area Permit
- ☐ Rule

Number of Wells 1

Lease Name

**WELL ACTIVITY**
- ☐ CLASS I
- ☐ CLASS II
  - ☐ Brine Disposal
  - ☐ Enhanced Recovery
  - ☐ Hydrocarbon Storage
- ☐ CLASS III

Well Number 55-225089, CS-05

**CASING AND TUBING RECORD AFTER PLUGGING**

| SIZE | WT (LB/FT) | TO BE PUT IN WELL (FT) | TO BE LEFT IN WELL (FT) | HOLE SIZE |
|---|---|---|---|---|
| NA | Unknown | 0 | 0 | 4 |
| | | | | |
| | | | | |
| | | | | |

**METHOD OF EMPLACEMENT OF CEMENT PLUGS**
- ☑ The Balance Method
- ☐ The Dump Bailer Method
- ☐ The Two-Plug Method
- ☐ Other

| CEMENTING TO PLUG AND ABANDON DATA: | PLUG #1 | PLUG #2 | PLUG #3 | PLUG #4 | PLUG #5 | PLUG #6 | PLUG #7 |
|---|---|---|---|---|---|---|---|
| Size of Hole or Pipe in which Plug Will Be Placed (inche | 4 | | | | | | |
| Depth to Bottom of Tubing or Drill Pipe (ft | 2034 | | | | | | |
| Sacks of Cement To Be Used (each plug) | 150 | | | | | | |
| Slurry Volume To Be Pumped (cu. ft.) | 177 | | | | | | |
| Calculated Top of Plug (ft.) | 2 | | | | | | |
| Measured Top of Plug (if tagged ft.) | | | | | | | |
| Slurry Wt. (Lb./Gal.) | 15.6 | | | | | | |
| Type Cement or Other Material (Class III) | V | | | | | | |

**LIST ALL OPEN HOLE AND/OR PERFORATED INTERVALS AND INTERVALS WHERE CASING WILL BE VARIED (if any)**

| From | To | From | To |
|---|---|---|---|
| 0 | 2034 | | |
| | | | |

Water level will be measured prior to abandonment. Casing will be perforated from 50 feet above water level to bottom of casing.

**Estimated Cost to Plug Wells**
$14,238

## Certification

I certify under the penalty of law that I have personally examined and am familiar with the information submitted in this document and all attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibliity of fine and imprisonment. (Ref. 40 CFR 144.32)

| Name and Official Title *(Please type or print)* | Signature | Date Signed |
|---|---|---|
| Vit Kuhnel, Hydrology Manager | | |

OMB No. 2040-0042 Approval Expires 11/30/2014

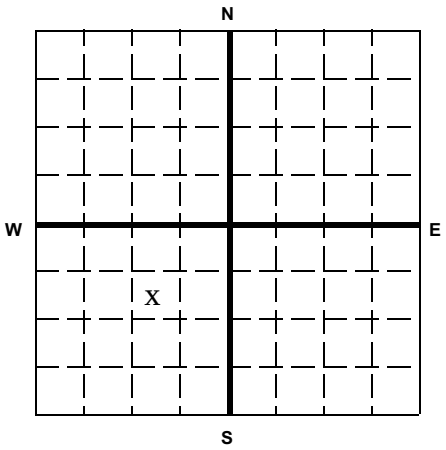
United States Environmental Protection Agency
Washington, DC 20460

# PLUGGING AND ABANDONMENT PLAN

**Name and Address of Facility**
EXCELSIOR MINING CORP
GUNNISON PROJECT

**Name and Address of Owner/Operator**
EXCELSIOR MINING CORP
CONCORD PL, 2999 N 44TH ST, STE 300, PHOENIX, AZ 85018

**Locate Well and Outline Unit on Section Plat - 640 Acres**




| State | County | Permit Number |
|---|---|---|
| AZ | Cochise | TBD |

**Surface Location Description**
1/4 of sw 1/4 of ne 1/4 of sw 1/4 of Section 31 Township 15S Range 23E

Locate well in two directions from nearest lines of quarter section and drilling unit

Surface Location 1140 ft. frm (N/S) N Line of quarter section
and 1228 ft. from (E/W) W Line of quarter section.

**TYPE OF AUTHORIZATION**
- [ ] Individual Permit
- [x] Area Permit
- [ ] Rule

Number of Wells 1

Lease Name

**WELL ACTIVITY**
- [ ] CLASS I
- [ ] CLASS II
  - [ ] Brine Disposal
  - [ ] Enhanced Recovery
  - [ ] Hydrocarbon Storage
- [ ] CLASS III

Well Number 55-225090, CS-06

**CASING AND TUBING RECORD AFTER PLUGGING**

| SIZE | WT (LB/FT) | TO BE PUT IN WELL (FT) | TO BE LEFT IN WELL (FT) | HOLE SIZE |
|---|---|---|---|---|
| NA | Unknown | 0 | 0 | 4 |
| | | | | |
| | | | | |
| | | | | |

**METHOD OF EMPLACEMENT OF CEMENT PLUGS**
- [x] The Balance Method
- [ ] The Dump Bailer Method
- [ ] The Two-Plug Method
- [ ] Other

| CEMENTING TO PLUG AND ABANDON DATA: | PLUG #1 | PLUG #2 | PLUG #3 | PLUG #4 | PLUG #5 | PLUG #6 | PLUG #7 |
|---|---|---|---|---|---|---|---|
| Size of Hole or Pipe in which Plug Will Be Placed (inche | 4 | | | | | | |
| Depth to Bottom of Tubing or Drill Pipe (ft | 2160 | | | | | | |
| Sacks of Cement To Be Used (each plug) | 159 | | | | | | |
| Slurry Volume To Be Pumped (cu. ft.) | 188 | | | | | | |
| Calculated Top of Plug (ft.) | 2 | | | | | | |
| Measured Top of Plug (if tagged ft.) | | | | | | | |
| Slurry Wt. (Lb./Gal.) | 15.6 | | | | | | |
| Type Cement or Other Material (Class III) | V | | | | | | |

**LIST ALL OPEN HOLE AND/OR PERFORATED INTERVALS AND INTERVALS WHERE CASING WILL BE VARIED (if any)**

| From | To | From | To |
|---|---|---|---|
| 0 | 2160 | | |

Water level will be measured prior to abandonment. Casing will be perforated from 50 feet above water level to bottom of casing.

**Estimated Cost to Plug Wells**
$15,120

## Certification

I certify under the penalty of law that I have personally examined and am familiar with the information submitted in this document and all attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibliity of fine and imprisonment. (Ref. 40 CFR 144.32)

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# PLUGGING AND ABANDONMENT PLAN

**Name and Address of Facility**
EXCELSIOR MINING CORP
GUNNISON PROJECT

**Name and Address of Owner/Operator**
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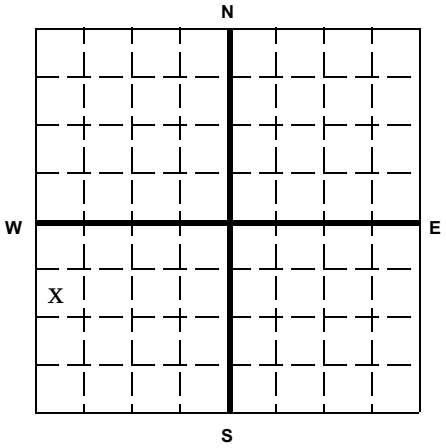
CONCORD PL, 2999 N 44TH ST, STE 300, PHOENIX, AZ 85018

**Locate Well and Outline Unit on Section Plat - 640 Acres**




| State | County | Permit Number |
|---|---|---|
| AZ | Cochise | TBD |

**Surface Location Description**
___ 1/4 of sw 1/4 of nw 1/4 of sw 1/4 of Section 31 Township 15S Range 23E

Locate well in two directions from nearest lines of quarter section and drilling unit

Surface Location 1183 ft. frm (N/S) N Line of quarter section
and 723 ft. from (E/W) W Line of quarter section.

**TYPE OF AUTHORIZATION**
- [ ] Individual Permit
- [x] Area Permit
- [ ] Rule

Number of Wells 1

Lease Name

**WELL ACTIVITY**
- [ ] CLASS I
- [ ] CLASS II
  - [ ] Brine Disposal
  - [ ] Enhanced Recovery
  - [ ] Hydrocarbon Storage
- [ ] CLASS III

Well Number 55-225091, CS-07

**CASING AND TUBING RECORD AFTER PLUGGING**

| SIZE | WT (LB/FT) | TO BE PUT IN WELL (FT) | TO BE LEFT IN WELL (FT) | HOLE SIZE |
|---|---|---|---|---|
| 4.5 | Unknown | 0 | ~596 | 4.5 |
| | | | | |
| | | | | |
| | | | | |

**METHOD OF EMPLACEMENT OF CEMENT PLUGS**
- [x] The Balance Method
- [ ] The Dump Bailer Method
- [ ] The Two-Plug Method
- [ ] Other

| CEMENTING TO PLUG AND ABANDON DATA: | PLUG #1 | PLUG #2 | PLUG #3 | PLUG #4 | PLUG #5 | PLUG #6 | PLUG #7 |
|---|---|---|---|---|---|---|---|
| Size of Hole or Pipe in which Plug Will Be Placed (inche | 4.5 | | | | | | |
| Depth to Bottom of Tubing or Drill Pipe (ft | ~596 | | | | | | |
| Sacks of Cement To Be Used (each plug) | 168 | | | | | | |
| Slurry Volume To Be Pumped (cu. ft.) | 198 | | | | | | |
| Calculated Top of Plug (ft.) | 2 | | | | | | |
| Measured Top of Plug (if tagged ft.) | | | | | | | |
| Slurry Wt. (Lb./Gal.) | 15.6 | | | | | | |
| Type Cement or Other Material (Class III) | V | | | | | | |

**LIST ALL OPEN HOLE AND/OR PERFORATED INTERVALS AND INTERVALS WHERE CASING WILL BE VARIED (if any)**

| From | To | From | To |
|---|---|---|---|
| | | | |

Water level will be measured prior to abandonment. Casing will be perforated from 50 feet above water level to bottom of casing.

**Estimated Cost to Plug Wells**
$4,172

## Certification

I certify under the penalty of law that I have personally examined and am familiar with the information submitted in this document and all attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibliity of fine and imprisonment. (Ref. 40 CFR 144.32)

| Name and Official Title *(Please type or print)* | Signature | Date Signed |
|---|---|---|
| Vit Kuhnel, Hydrology Manager | | |

OMB No. 2040-0042 Approval Expires 11/30/2014

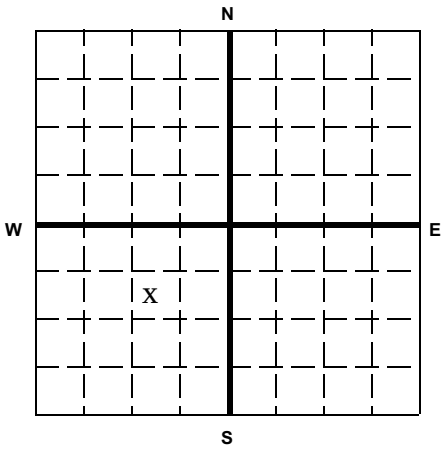
United States Environmental Protection Agency
Washington, DC 20460

# PLUGGING AND ABANDONMENT PLAN

**Name and Address of Facility**
EXCELSIOR MINING CORP
GUNNISON PROJECT

**Name and Address of Owner/Operator**
EXCELSIOR MINING CORP
CONCORD PL, 2999 N 44TH ST, STE 300, PHOENIX, AZ 85018

**Locate Well and Outline Unit on Section Plat - 640 Acres**




| State | County | Permit Number |
|---|---|---|
| AZ | Cochise | TBD |

**Surface Location Description**
___ 1/4 of sw 1/4 of ne 1/4 of sw 1/4 of Section 31 Township 15S Range 23E

Locate well in two directions from nearest lines of quarter section and drilling unit

Surface Location 1087 ft. frm (N/S) N Line of quarter section
and 806 ft. from (E/W) E Line of quarter section.

**TYPE OF AUTHORIZATION**
- [ ] Individual Permit
- [x] Area Permit
- [ ] Rule

Number of Wells 1

Lease Name

**WELL ACTIVITY**
- [ ] CLASS I
- [ ] CLASS II
  - [ ] Brine Disposal
  - [ ] Enhanced Recovery
  - [ ] Hydrocarbon Storage
- [ ] CLASS III

Well Number 55-225092, CS-08

**CASING AND TUBING RECORD AFTER PLUGGING**

| SIZE | WT (LB/FT) | TO BE PUT IN WELL (FT) | TO BE LEFT IN WELL (FT) | HOLE SIZE |
|---|---|---|---|---|
| NA | Unknown | 0 | 0 | 4 |
| | | | | |
| | | | | |
| | | | | |

**METHOD OF EMPLACEMENT OF CEMENT PLUGS**
- [x] The Balance Method
- [ ] The Dump Bailer Method
- [ ] The Two-Plug Method
- [ ] Other

| CEMENTING TO PLUG AND ABANDON DATA: | PLUG #1 | PLUG #2 | PLUG #3 | PLUG #4 | PLUG #5 | PLUG #6 | PLUG #7 |
|---|---|---|---|---|---|---|---|
| Size of Hole or Pipe in which Plug Will Be Placed (inche | 4 | | | | | | |
| Depth to Bottom of Tubing or Drill Pipe (ft | 2304 | | | | | | |
| Sacks of Cement To Be Used (each plug) | 170 | | | | | | |
| Slurry Volume To Be Pumped (cu. ft.) | 201 | | | | | | |
| Calculated Top of Plug (ft.) | 2 | | | | | | |
| Measured Top of Plug (if tagged ft.) | | | | | | | |
| Slurry Wt. (Lb./Gal.) | 15.6 | | | | | | |
| Type Cement or Other Material (Class III) | V | | | | | | |

**LIST ALL OPEN HOLE AND/OR PERFORATED INTERVALS AND INTERVALS WHERE CASING WILL BE VARIED (if any)**

| From | To | From | To |
|---|---|---|---|
| 0 | 2304 | | |

Water level will be measured prior to abandonment. Casing will be perforated from 50 feet above water level to bottom of casing.

**Estimated Cost to Plug Wells**
$16,128

## Certification

I certify under the penalty of law that I have personally examined and am familiar with the information submitted in this document and all attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibliity of fine and imprisonment. (Ref. 40 CFR 144.32)

| Name and Official Title *(Please type or print)* | Signature | Date Signed |
|---|---|---|
| Vit Kuhnel, Hydrology Manager | | |

OMB No. 2040-0042 Approval Expires 11/30/2014

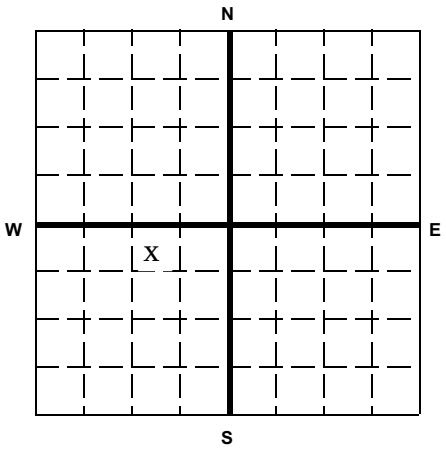
United States Environmental Protection Agency
Washington, DC 20460

# PLUGGING AND ABANDONMENT PLAN

**Name and Address of Facility**
EXCELSIOR MINING CORP
GUNNISON PROJECT

**Name and Address of Owner/Operator**
EXCELSIOR MINING CORP
CONCORD PL, 2999 N 44TH ST, STE 300, PHOENIX, AZ 85018

**Locate Well and Outline Unit on Section Plat - 640 Acres**




| State | County | Permit Number |
|---|---|---|
| AZ | Cochise | TBD |

**Surface Location Description**
1/4 of nw 1/4 of ne 1/4 of sw 1/4 of Section 31 Township 15S Range 23E

Locate well in two directions from nearest lines of quarter section and drilling unit

Surface Location 199 ft. frm (N/S) N Line of quarter section
and 1196 ft. from (E/W) W Line of quarter section.

**TYPE OF AUTHORIZATION**
- [ ] Individual Permit
- [x] Area Permit
- [ ] Rule

Number of Wells 1

Lease Name

**WELL ACTIVITY**
- [ ] CLASS I
- [ ] CLASS II
  - [ ] Brine Disposal
  - [ ] Enhanced Recovery
  - [ ] Hydrocarbon Storage
- [ ] CLASS III

Well Number 55-225093, CS-09

**CASING AND TUBING RECORD AFTER PLUGGING**

| SIZE | WT (LB/FT) | TO BE PUT IN WELL (FT) | TO BE LEFT IN WELL (FT) | HOLE SIZE |
|---|---|---|---|---|
| NA | Unknown | 0 | 0 | 3.5 |
| | | | | |
| | | | | |
| | | | | |

**METHOD OF EMPLACEMENT OF CEMENT PLUGS**
- [x] The Balance Method
- [ ] The Dump Bailer Method
- [ ] The Two-Plug Method
- [ ] Other

| CEMENTING TO PLUG AND ABANDON DATA: | PLUG #1 | PLUG #2 | PLUG #3 | PLUG #4 | PLUG #5 | PLUG #6 | PLUG #7 |
|---|---|---|---|---|---|---|---|
| Size of Hole or Pipe in which Plug Will Be Placed (inche | 3.5 | | | | | | |
| Depth to Bottom of Tubing or Drill Pipe (ft | 2337 | | | | | | |
| Sacks of Cement To Be Used (each plug) | 132 | | | | | | |
| Slurry Volume To Be Pumped (cu. ft.) | 156 | | | | | | |
| Calculated Top of Plug (ft.) | 2 | | | | | | |
| Measured Top of Plug (if tagged ft.) | | | | | | | |
| Slurry Wt. (Lb./Gal.) | 15.6 | | | | | | |
| Type Cement or Other Material (Class III) | V | | | | | | |

**LIST ALL OPEN HOLE AND/OR PERFORATED INTERVALS AND INTERVALS WHERE CASING WILL BE VARIED (if any)**

| From | To | From | To |
|---|---|---|---|
| 0 | 2337 | | |

Water level will be measured prior to abandonment. Casing will be perforated from 50 feet above water level to bottom of casing.

**Estimated Cost to Plug Wells**
$16,359

## Certification

I certify under the penalty of law that I have personally examined and am familiar with the information submitted in this document and all attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibliity of fine and imprisonment. (Ref. 40 CFR 144.32)

| Name and Official Title *(Please type or print)* | Signature | Date Signed |
|---|---|---|
| Vit Kuhnel, Hydrology Manager | | |

OMB No. 2040-0042 Approval Expires 11/30/2014

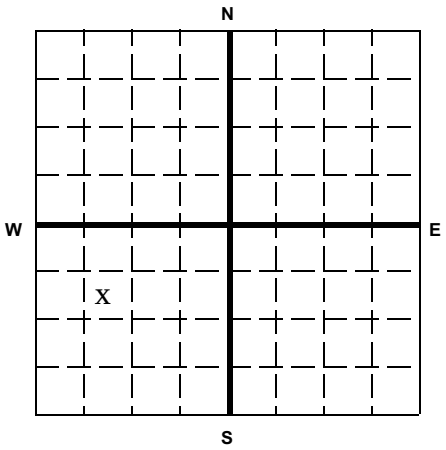
United States Environmental Protection Agency
Washington, DC 20460

# PLUGGING AND ABANDONMENT PLAN

**Name and Address of Facility**
EXCELSIOR MINING CORP
GUNNISON PROJECT

**Name and Address of Owner/Operator**
EXCELSIOR MINING CORP
CONCORD PL, 2999 N 44TH ST, STE 300, PHOENIX, AZ 85018

**Locate Well and Outline Unit on Section Plat - 640 Acres**




| State | County | Permit Number |
|---|---|---|
| AZ | Cochise | TBD |

**Surface Location Description**
___ 1/4 of se 1/4 of nw 1/4 of sw 1/4 of Section 31 Township 15S Range 23E

Locate well in two directions from nearest lines of quarter section and drilling unit

Surface Location 686 ft. frm (N/S) N Line of quarter section
and 699 ft. from (E/W) W Line of quarter section.

**TYPE OF AUTHORIZATION**
- ☐ Individual Permit
- ☑ Area Permit
- ☐ Rule

Number of Wells 1

Lease Name

**WELL ACTIVITY**
- ☐ CLASS I
- ☐ CLASS II
  - ☐ Brine Disposal
  - ☐ Enhanced Recovery
  - ☐ Hydrocarbon Storage
- ☐ CLASS III

Well Number 55-225094, CS-10

**CASING AND TUBING RECORD AFTER PLUGGING**

| SIZE | WT (LB/FT) | TO BE PUT IN WELL (FT) | TO BE LEFT IN WELL (FT) | HOLE SIZE |
|---|---|---|---|---|
| NA | Unknown | 0 | 0 | 3.5 |
| | | | | |
| | | | | |
| | | | | |

**METHOD OF EMPLACEMENT OF CEMENT PLUGS**
- ☑ The Balance Method
- ☐ The Dump Bailer Method
- ☐ The Two-Plug Method
- ☐ Other

| CEMENTING TO PLUG AND ABANDON DATA: | PLUG #1 | PLUG #2 | PLUG #3 | PLUG #4 | PLUG #5 | PLUG #6 | PLUG #7 |
|---|---|---|---|---|---|---|---|
| Size of Hole or Pipe in which Plug Will Be Placed (inche | 3.5 | | | | | | |
| Depth to Bottom of Tubing or Drill Pipe (ft | 1656 | | | | | | |
| Sacks of Cement To Be Used (each plug) | 94 | | | | | | |
| Slurry Volume To Be Pumped (cu. ft.) | 111 | | | | | | |
| Calculated Top of Plug (ft.) | 2 | | | | | | |
| Measured Top of Plug (if tagged ft.) | | | | | | | |
| Slurry Wt. (Lb./Gal.) | 15.6 | | | | | | |
| Type Cement or Other Material (Class III) | V | | | | | | |

**LIST ALL OPEN HOLE AND/OR PERFORATED INTERVALS AND INTERVALS WHERE CASING WILL BE VARIED (if any)**

| From | To | From | To |
|---|---|---|---|
| 0 | 1656 | | |

Water level will be measured prior to abandonment. Casing will be perforated from 50 feet above water level to bottom of casing.

**Estimated Cost to Plug Wells**
$11,592

## Certification

I certify under the penalty of law that I have personally examined and am familiar with the information submitted in this document and all attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibliity of fine and imprisonment. (Ref. 40 CFR 144.32)

| Name and Official Title *(Please type or print)* | Signature | Date Signed |
|---|---|---|
| Vit Kuhnel, Hydrology Manager | | |

OMB No. 2040-0042 Approval Expires 11/30/2014

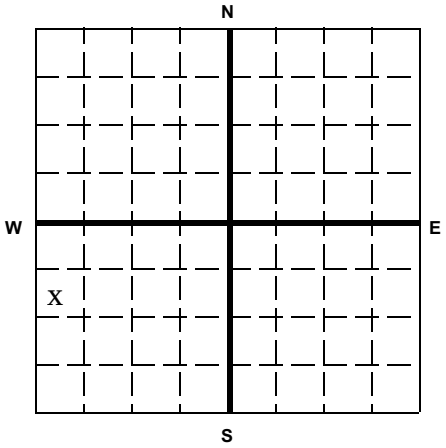
United States Environmental Protection Agency
Washington, DC 20460

# PLUGGING AND ABANDONMENT PLAN

**Name and Address of Facility**
EXCELSIOR MINING CORP
GUNNISON PROJECT

**Name and Address of Owner/Operator**
EXCELSIOR MINING CORP
CONCORD PL, 2999 N 44TH ST, STE 300, PHOENIX, AZ 85018

**Locate Well and Outline Unit on Section Plat - 640 Acres**




| State | County | Permit Number |
|---|---|---|
| AZ | Cochise | TBD |

**Surface Location Description**
1/4 of sw 1/4 of nw 1/4 of sw 1/4 of Section 31 Township 15S Range 23E

Locate well in two directions from nearest lines of quarter section and drilling unit

Surface Location 1176 ft. frm (N/S) N Line of quarter section
and 203 ft. from (E/W) W Line of quarter section.

**TYPE OF AUTHORIZATION**
- [ ] Individual Permit
- [x] Area Permit
- [ ] Rule

Number of Wells 1

Lease Name

**WELL ACTIVITY**
- [ ] CLASS I
- [ ] CLASS II
  - [ ] Brine Disposal
  - [ ] Enhanced Recovery
  - [ ] Hydrocarbon Storage
- [ ] CLASS III

Well Number 55-225095, CS-11

**CASING AND TUBING RECORD AFTER PLUGGING**

| SIZE | WT (LB/FT) | TO BE PUT IN WELL (FT) | TO BE LEFT IN WELL (FT) | HOLE SIZE |
|---|---|---|---|---|
| NA | Unknown | 0 | 0 | 3.5 |
| | | | | |
| | | | | |
| | | | | |

**METHOD OF EMPLACEMENT OF CEMENT PLUGS**
- [x] The Balance Method
- [ ] The Dump Bailer Method
- [ ] The Two-Plug Method
- [ ] Other

| CEMENTING TO PLUG AND ABANDON DATA: | PLUG #1 | PLUG #2 | PLUG #3 | PLUG #4 | PLUG #5 | PLUG #6 | PLUG #7 |
|---|---|---|---|---|---|---|---|
| Size of Hole or Pipe in which Plug Will Be Placed (inche | 3.5 | | | | | | |
| Depth to Bottom of Tubing or Drill Pipe (ft | 2084 | | | | | | |
| Sacks of Cement To Be Used (each plug) | 118 | | | | | | |
| Slurry Volume To Be Pumped (cu. ft.) | 139 | | | | | | |
| Calculated Top of Plug (ft.) | 2 | | | | | | |
| Measured Top of Plug (if tagged ft.) | | | | | | | |
| Slurry Wt. (Lb./Gal.) | 15.6 | | | | | | |
| Type Cement or Other Material (Class III) | V | | | | | | |

**LIST ALL OPEN HOLE AND/OR PERFORATED INTERVALS AND INTERVALS WHERE CASING WILL BE VARIED (if any)**

| From | To | From | To |
|---|---|---|---|
| 0 | 2084 | | |
| | | | |

Water level will be measured prior to abandonment. Casing will be perforated from 50 feet above water level to bottom of casing.

**Estimated Cost to Plug Wells**
$14,588

## Certification

I certify under the penalty of law that I have personally examined and am familiar with the information submitted in this document and all attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibliity of fine and imprisonment. (Ref. 40 CFR 144.32)

| Name and Official Title *(Please type or print)* | Signature | Date Signed |
|---|---|---|
| Vit Kuhnel, Hydrology Manager | | |

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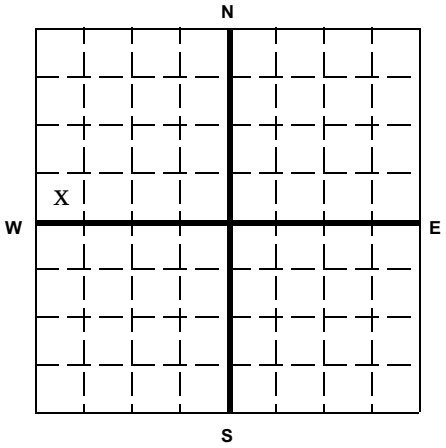
United States Environmental Protection Agency
Washington, DC 20460

# PLUGGING AND ABANDONMENT PLAN

**Name and Address of Facility**
EXCELSIOR MINING CORP
GUNNISON PROJECT

**Name and Address of Owner/Operator**
EXCELSIOR MINING CORP
CONCORD PL, 2999 N 44TH ST, STE 300, PHOENIX, AZ 85018

**Locate Well and Outline Unit on Section Plat - 640 Acres**




| State | County | Permit Number |
|---|---|---|
| AZ | Cochise | TBD |

**Surface Location Description**
1/4 of sw 1/4 of sw 1/4 of nw 1/4 of Section 31 Township 15S Range 23E

Locate well in two directions from nearest lines of quarter section and drilling unit

Surface Location 199 ft. frm (N/S) N Line of quarter section
and 203 ft. from (E/W) W Line of quarter section.

**TYPE OF AUTHORIZATION**
- ☐ Individual Permit
- ☑ Area Permit
- ☐ Rule

Number of Wells 1

Lease Name

**WELL ACTIVITY**
- ☐ CLASS I
- ☐ CLASS II
  - ☐ Brine Disposal
  - ☐ Enhanced Recovery
  - ☐ Hydrocarbon Storage
- ☐ CLASS III

Well Number 55-224159, CS-13

**CASING AND TUBING RECORD AFTER PLUGGING**

| SIZE | WT (LB/FT) | TO BE PUT IN WELL (FT) | TO BE LEFT IN WELL (FT) | HOLE SIZE |
|---|---|---|---|---|
| NA | Unknown | 0 | 0 | 3.5 |
| | | | | |
| | | | | |
| | | | | |

**METHOD OF EMPLACEMENT OF CEMENT PLUGS**
- ☑ The Balance Method
- ☐ The Dump Bailer Method
- ☐ The Two-Plug Method
- ☐ Other

| CEMENTING TO PLUG AND ABANDON DATA: | PLUG #1 | PLUG #2 | PLUG #3 | PLUG #4 | PLUG #5 | PLUG #6 | PLUG #7 |
|---|---|---|---|---|---|---|---|
| Size of Hole or Pipe in which Plug Will Be Placed (inche | 3.5 | | | | | | |
| Depth to Bottom of Tubing or Drill Pipe (ft | 1251 | | | | | | |
| Sacks of Cement To Be Used (each plug) | 71 | | | | | | |
| Slurry Volume To Be Pumped (cu. ft.) | 84 | | | | | | |
| Calculated Top of Plug (ft.) | 2 | | | | | | |
| Measured Top of Plug (if tagged ft.) | | | | | | | |
| Slurry Wt. (Lb./Gal.) | 15.6 | | | | | | |
| Type Cement or Other Material (Class III) | V | | | | | | |

**LIST ALL OPEN HOLE AND/OR PERFORATED INTERVALS AND INTERVALS WHERE CASING WILL BE VARIED (if any)**

| From | To | From | To |
|---|---|---|---|
| 0 | 1251 | | |

Water level will be measured prior to abandonment. Casing will be perforated from 50 feet above water level to bottom of casing.

**Estimated Cost to Plug Wells**
$8,757

## Certification

I certify under the penalty of law that I have personally examined and am familiar with the information submitted in this document and all attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibliity of fine and imprisonment. (Ref. 40 CFR 144.32)

| Name and Official Title *(Please type or print)* | Signature | Date Signed |
|---|---|---|
| Vit Kuhnel, Hydrology Manager | | |

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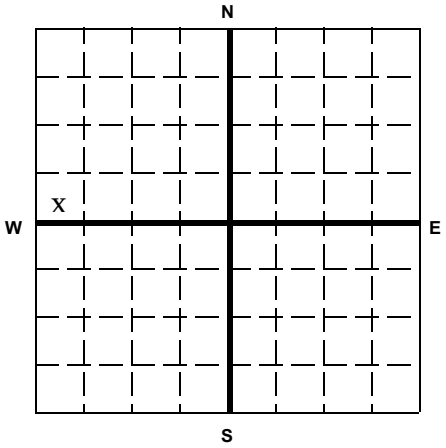
Washington, DC 20460

# PLUGGING AND ABANDONMENT PLAN

**Name and Address of Facility**
EXCELSIOR MINING CORP
GUNNISON PROJECT

**Name and Address of Owner/Operator**
EXCELSIOR MINING CORP
CONCORD PL, 2999 N 44TH ST, STE 300, PHOENIX, AZ 85018

**Locate Well and Outline Unit on Section Plat - 640 Acres**




| State | County | Permit Number |
|---|---|---|
| AZ | Cochise | TBD |

**Surface Location Description**
___ 1/4 of sw 1/4 of sw 1/4 of nw 1/4 of Section 31 Township 15S Range 23E

Locate well in two directions from nearest lines of quarter section and drilling unit

Surface Location 339 ft. frm (N/S) S Line of quarter section
and 203 ft. from (E/W) W Line of quarter section.

**TYPE OF AUTHORIZATION**
- ☐ Individual Permit
- ☑ Area Permit
- ☐ Rule

Number of Wells 1

Lease Name

**WELL ACTIVITY**
- ☐ CLASS I
- ☐ CLASS II
  - ☐ Brine Disposal
  - ☐ Enhanced Recovery
  - ☐ Hydrocarbon Storage
- ☐ CLASS III

Well Number 55-224160, CS-14

**CASING AND TUBING RECORD AFTER PLUGGING**

| SIZE | WT (LB/FT) | TO BE PUT IN WELL (FT) | TO BE LEFT IN WELL (FT) | HOLE SIZE |
|---|---|---|---|---|
| NA | Unknown | 0 | 0 | 4 |
| | | | | |
| | | | | |
| | | | | |

**METHOD OF EMPLACEMENT OF CEMENT PLUGS**
- ☑ The Balance Method
- ☐ The Dump Bailer Method
- ☐ The Two-Plug Method
- ☐ Other

| CEMENTING TO PLUG AND ABANDON DATA: | PLUG #1 | PLUG #2 | PLUG #3 | PLUG #4 | PLUG #5 | PLUG #6 | PLUG #7 |
|---|---|---|---|---|---|---|---|
| Size of Hole or Pipe in which Plug Will Be Placed (inche | 4 | | | | | | |
| Depth to Bottom of Tubing or Drill Pipe (ft | 1375 | | | | | | |
| Sacks of Cement To Be Used (each plug) | 102 | | | | | | |
| Slurry Volume To Be Pumped (cu. ft.) | 120 | | | | | | |
| Calculated Top of Plug (ft.) | 2 | | | | | | |
| Measured Top of Plug (if tagged ft.) | | | | | | | |
| Slurry Wt. (Lb./Gal.) | 15.6 | | | | | | |
| Type Cement or Other Material (Class III) | V | | | | | | |

**LIST ALL OPEN HOLE AND/OR PERFORATED INTERVALS AND INTERVALS WHERE CASING WILL BE VARIED (if any)**

| From | To | From | To |
|---|---|---|---|
| 0 | 1375 | | |

Water level will be measured prior to abandonment. Casing will be perforated from 50 feet above water level to bottom of casing.

**Estimated Cost to Plug Wells**
$9,625

## Certification

I certify under the penalty of law that I have personally examined and am familiar with the information submitted in this document and all attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibliity of fine and imprisonment. (Ref. 40 CFR 144.32)

| Name and Official Title *(Please type or print)* | Signature | Date Signed |
|---|---|---|
| Vit Kuhnel, Hydrology Manager | | |

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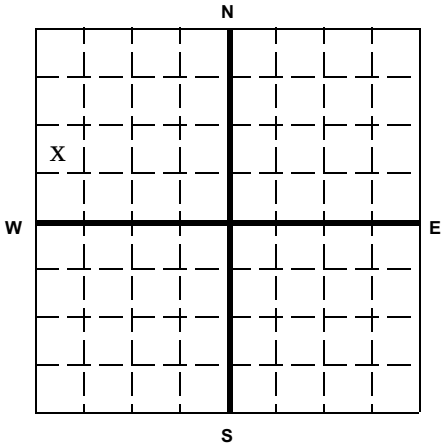
Washington, DC 20460

# PLUGGING AND ABANDONMENT PLAN

**Name and Address of Facility**
EXCELSIOR MINING CORP
GUNNISON PROJECT

**Name and Address of Owner/Operator**
EXCELSIOR MINING CORP
CONCORD PL, 2999 N 44TH ST, STE 300, PHOENIX, AZ 85018

**Locate Well and Outline Unit on Section Plat - 640 Acres**




| State | County | Permit Number |
|---|---|---|
| AZ | Cochise | TBD |

**Surface Location Description**
___ 1/4 of nw 1/4 of sw 1/4 of nw 1/4 of Section 31 Township 15S Range 23E

Locate well in two directions from nearest lines of quarter section and drilling unit

Surface Location 808 ft. frm (N/S) S Line of quarter section
and 208 ft. from (E/W) W Line of quarter section.

**TYPE OF AUTHORIZATION**
- [ ] Individual Permit
- [x] Area Permit
- [ ] Rule

Number of Wells 1

Lease Name

**WELL ACTIVITY**
- [ ] CLASS I
- [ ] CLASS II
  - [ ] Brine Disposal
  - [ ] Enhanced Recovery
  - [ ] Hydrocarbon Storage
- [ ] CLASS III

Well Number 55-225096, CS-15

**CASING AND TUBING RECORD AFTER PLUGGING**

| SIZE | WT (LB/FT) | TO BE PUT IN WELL (FT) | TO BE LEFT IN WELL (FT) | HOLE SIZE |
|---|---|---|---|---|
| NA | Unknown | 0 | 0 | 5 |
| | | | | |
| | | | | |
| | | | | |

**METHOD OF EMPLACEMENT OF CEMENT PLUGS**
- [x] The Balance Method
- [ ] The Dump Bailer Method
- [ ] The Two-Plug Method
- [ ] Other

| CEMENTING TO PLUG AND ABANDON DATA: | PLUG #1 | PLUG #2 | PLUG #3 | PLUG #4 | PLUG #5 | PLUG #6 | PLUG #7 |
|---|---|---|---|---|---|---|---|
| Size of Hole or Pipe in which Plug Will Be Placed (inche | 5 | | | | | | |
| Depth to Bottom of Tubing or Drill Pipe (ft | 492 | | | | | | |
| Sacks of Cement To Be Used (each plug) | 57 | | | | | | |
| Slurry Volume To Be Pumped (cu. ft.) | 67 | | | | | | |
| Calculated Top of Plug (ft.) | 2 | | | | | | |
| Measured Top of Plug (if tagged ft.) | | | | | | | |
| Slurry Wt. (Lb./Gal.) | 15.6 | | | | | | |
| Type Cement or Other Material (Class III) | V | | | | | | |

**LIST ALL OPEN HOLE AND/OR PERFORATED INTERVALS AND INTERVALS WHERE CASING WILL BE VARIED (if any)**

| From | To | From | To |
|---|---|---|---|
| 0 | 492 | | |

Water level will be measured prior to abandonment. Casing will be perforated from 50 feet above water level to bottom of casing.

**Estimated Cost to Plug Wells**
$3,444

## Certification

I certify under the penalty of law that I have personally examined and am familiar with the information submitted in this document and all attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibliity of fine and imprisonment. (Ref. 40 CFR 144.32)

| Name and Official Title *(Please type or print)* | Signature | Date Signed |
|---|---|---|
| Vit Kuhnel, Hydrology Manager | | |

OMB No. 2040-0042 Approval Expires 11/30/2014

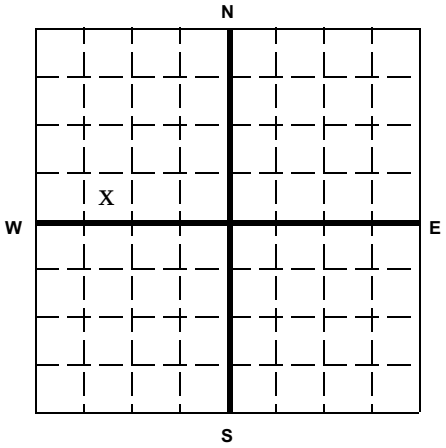
United States Environmental Protection Agency
Washington, DC 20460

# PLUGGING AND ABANDONMENT PLAN

**Name and Address of Facility**
EXCELSIOR MINING CORP
GUNNISON PROJECT

**Name and Address of Owner/Operator**
EXCELSIOR MINING CORP
CONCORD PL, 2999 N 44TH ST, STE 300, PHOENIX, AZ 85018

**Locate Well and Outline Unit on Section Plat - 640 Acres**




| State | County | Permit Number |
|---|---|---|
| AZ | Cochise | TBD |

**Surface Location Description**
1/4 of se 1/4 of sw 1/4 of nw 1/4 of Section 31 Township 15S Range 23E

Locate well in two directions from nearest lines of quarter section and drilling unit

Surface Location 519 ft. frm (N/S) S Line of quarter section
and 709 ft. from (E/W) W Line of quarter section.

**TYPE OF AUTHORIZATION**
- [ ] Individual Permit
- [x] Area Permit
- [ ] Rule

Number of Wells 1

Lease Name

**WELL ACTIVITY**
- [ ] CLASS I
- [ ] CLASS II
  - [ ] Brine Disposal
  - [ ] Enhanced Recovery
  - [ ] Hydrocarbon Storage
- [ ] CLASS III

Well Number 55-225097, CS-19

**CASING AND TUBING RECORD AFTER PLUGGING**

| SIZE | WT (LB/FT) | TO BE PUT IN WELL (FT) | TO BE LEFT IN WELL (FT) | HOLE SIZE |
|---|---|---|---|---|
| 3.5 | Unknown | 0 | 580 | 3.5 |
| | | | | |
| | | | | |
| | | | | |

**METHOD OF EMPLACEMENT OF CEMENT PLUGS**
- [x] The Balance Method
- [ ] The Dump Bailer Method
- [ ] The Two-Plug Method
- [ ] Other

| CEMENTING TO PLUG AND ABANDON DATA: | PLUG #1 | PLUG #2 | PLUG #3 | PLUG #4 | PLUG #5 | PLUG #6 | PLUG #7 |
|---|---|---|---|---|---|---|---|
| Size of Hole or Pipe in which Plug Will Be Placed (inche | 3.5 | | | | | | |
| Depth to Bottom of Tubing or Drill Pipe (ft | 580 | | | | | | |
| Sacks of Cement To Be Used (each plug) | 33 | | | | | | |
| Slurry Volume To Be Pumped (cu. ft.) | 39 | | | | | | |
| Calculated Top of Plug (ft.) | 2 | | | | | | |
| Measured Top of Plug (if tagged ft.) | | | | | | | |
| Slurry Wt. (Lb./Gal.) | 15.6 | | | | | | |
| Type Cement or Other Material (Class III) | V | | | | | | |

**LIST ALL OPEN HOLE AND/OR PERFORATED INTERVALS AND INTERVALS WHERE CASING WILL BE VARIED (if any)**

| From | To | From | To |
|---|---|---|---|
| | | | |

Water level will be measured prior to abandonment. Casing will be perforated from 50 feet above water level to bottom of casing.

**Estimated Cost to Plug Wells**
$4,060

## Certification

I certify under the penalty of law that I have personally examined and am familiar with the information submitted in this document and all attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibliity of fine and imprisonment. (Ref. 40 CFR 144.32)

| Name and Official Title *(Please type or print)* | Signature | Date Signed |
|---|---|---|
| Vit Kuhnel, Hydrology Manager | | |

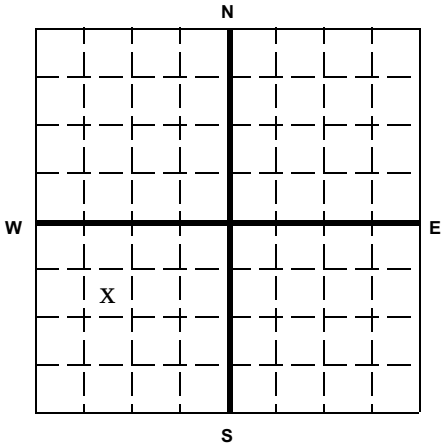
OMB No. 2040-0042 Approval Expires 11/30/2014

United States Environmental Protection Agency
Washington, DC 20460

# PLUGGING AND ABANDONMENT PLAN

| Name and Address of Facility | Name and Address of Owner/Operator |
|---|---|
| EXCELSIOR MINING CORP<br>GUNNISON PROJECT | EXCELSIOR MINING CORP<br>CONCORD PL, 2999 N 44TH ST, STE 300, PHOENIX, AZ 85018 |

Locate Well and Outline Unit on Section Plat - 640 Acres




| State | County | Permit Number |
|---|---|---|
| AZ | Cochise | TBD |

Surface Location Description

___ 1/4 of se 1/4 of nw 1/4 of sw 1/4 of Section 31 Township 15S Range 23E

Locate well in two directions from nearest lines of quarter section and drilling unit

Surface Location ____ ft. frm (N/S) ____ Line of quarter section and ____ ft. from (E/W) ____ Line of quarter section.

**TYPE OF AUTHORIZATION**

- ☐ Individual Permit
- ☑ Area Permit
- ☐ Rule

Number of Wells 1

Lease Name

**WELL ACTIVITY**

- ☐ CLASS I
- ☐ CLASS II
  - ☐ Brine Disposal
  - ☐ Enhanced Recovery
  - ☐ Hydrocarbon Storage
- ☐ CLASS III

Well Number 55-225098, CS-21

**CASING AND TUBING RECORD AFTER PLUGGING**

| SIZE | WT (LB/FT) | TO BE PUT IN WELL (FT) | TO BE LEFT IN WELL (FT) | HOLE SIZE |
|---|---|---|---|---|
| NA | Unknown | 0 | 0 | 3.5 |
| | | | | |
| | | | | |
| | | | | |

**METHOD OF EMPLACEMENT OF CEMENT PLUGS**

- ☑ The Balance Method
- ☐ The Dump Bailer Method
- ☐ The Two-Plug Method
- ☐ Other

| CEMENTING TO PLUG AND ABANDON DATA: | PLUG #1 | PLUG #2 | PLUG #3 | PLUG #4 | PLUG #5 | PLUG #6 | PLUG #7 |
|---|---|---|---|---|---|---|---|
| Size of Hole or Pipe in which Plug Will Be Placed (inche | 3.5 | | | | | | |
| Depth to Bottom of Tubing or Drill Pipe (ft | 2171 | | | | | | |
| Sacks of Cement To Be Used (each plug) | 123 | | | | | | |
| Slurry Volume To Be Pumped (cu. ft.) | 145 | | | | | | |
| Calculated Top of Plug (ft.) | 2 | | | | | | |
| Measured Top of Plug (if tagged ft.) | | | | | | | |
| Slurry Wt. (Lb./Gal.) | 15.6 | | | | | | |
| Type Cement or Other Material (Class III) | V | | | | | | |

**LIST ALL OPEN HOLE AND/OR PERFORATED INTERVALS AND INTERVALS WHERE CASING WILL BE VARIED (if any)**

| From | To | From | To |
|---|---|---|---|
| 0 | 2171 | | |

Water level will be measured prior to abandonment. Casing will be perforated from 50 feet above water level to bottom of casing.

Estimated Cost to Plug Wells

$15,197

## Certification

I certify under the penalty of law that I have personally examined and am familiar with the information submitted in this document and all attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibliity of fine and imprisonment. (Ref. 40 CFR 144.32)

| Name and Official Title *(Please type or print)* | Signature | Date Signed |
|---|---|---|
| Vit Kuhnel, Hydrology Manager | | |

OMB No. 2040-0042 Approval Expires 11/30/2014

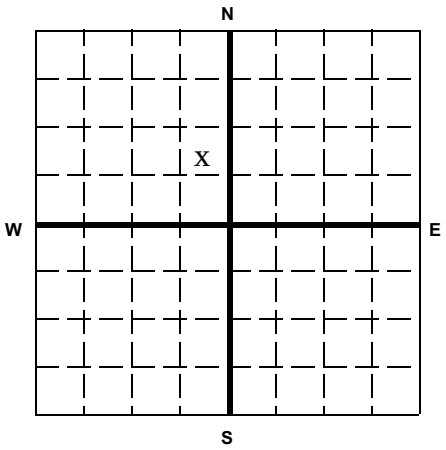
United States Environmental Protection Agency
Washington, DC 20460

# PLUGGING AND ABANDONMENT PLAN

**Name and Address of Facility**
EXCELSIOR MINING CORP
GUNNISON PROJECT

**Name and Address of Owner/Operator**
EXCELSIOR MINING CORP
CONCORD PL, 2999 N 44TH ST, STE 300, PHOENIX, AZ 85018

**Locate Well and Outline Unit on Section Plat - 640 Acres**




| State | County | Permit Number |
|---|---|---|
| AZ | Cochise | TBD |

**Surface Location Description**
1/4 of ne 1/4 of se 1/4 of nw 1/4 of Section 31 Township 15S Range 23E

Locate well in two directions from nearest lines of quarter section and drilling unit

Surface Location 830 ft. frm (N/S) S Line of quarter section
and 1156 ft. from (E/W) W Line of quarter section.

**TYPE OF AUTHORIZATION**
- [ ] Individual Permit
- [x] Area Permit
- [ ] Rule

Number of Wells 1

Lease Name

**WELL ACTIVITY**
- [ ] CLASS I
- [ ] CLASS II
  - [ ] Brine Disposal
  - [ ] Enhanced Recovery
  - [ ] Hydrocarbon Storage
- [ ] CLASS III

Well Number 55-225099, CS-23

**CASING AND TUBING RECORD AFTER PLUGGING**

| SIZE | WT (LB/FT) | TO BE PUT IN WELL (FT) | TO BE LEFT IN WELL (FT) | HOLE SIZE |
|---|---|---|---|---|
| 3.5 | Unknown | 0 | 622 | 3.5 |
| | | | | |
| | | | | |
| | | | | |

**METHOD OF EMPLACEMENT OF CEMENT PLUGS**
- [x] The Balance Method
- [ ] The Dump Bailer Method
- [ ] The Two-Plug Method
- [ ] Other

| CEMENTING TO PLUG AND ABANDON DATA: | PLUG #1 | PLUG #2 | PLUG #3 | PLUG #4 | PLUG #5 | PLUG #6 | PLUG #7 |
|---|---|---|---|---|---|---|---|
| Size of Hole or Pipe in which Plug Will Be Placed (inche | 3.5 | | | | | | |
| Depth to Bottom of Tubing or Drill Pipe (ft | 622 | | | | | | |
| Sacks of Cement To Be Used (each plug) | 32 | | | | | | |
| Slurry Volume To Be Pumped (cu. ft.) | 41.56 | | | | | | |
| Calculated Top of Plug (ft.) | 2 | | | | | | |
| Measured Top of Plug (if tagged ft.) | | | | | | | |
| Slurry Wt. (Lb./Gal.) | 15.6 | | | | | | |
| Type Cement or Other Material (Class III) | V | | | | | | |

**LIST ALL OPEN HOLE AND/OR PERFORATED INTERVALS AND INTERVALS WHERE CASING WILL BE VARIED (if any)**

| From | To | From | To |
|---|---|---|---|
| | | | |

Water level will be measured prior to abandonment. Casing will be perforated from 50 feet above water level to bottom of casing.

**Estimated Cost to Plug Wells**
$4,354

## Certification

I certify under the penalty of law that I have personally examined and am familiar with the information submitted in this document and all attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibliity of fine and imprisonment. (Ref. 40 CFR 144.32)

| Name and Official Title *(Please type or print)* | Signature | Date Signed |
|---|---|---|
| Vit Kuhnel, Hydrology Manager | | |

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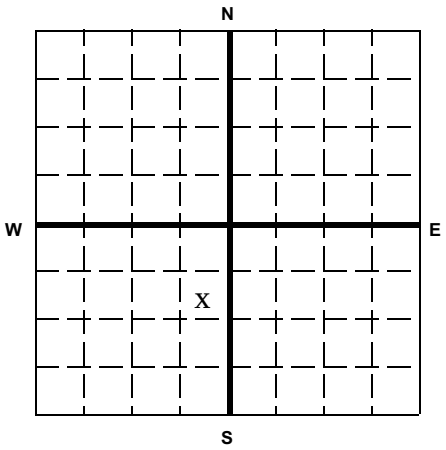
United States Environmental Protection Agency
Washington, DC 20460

# PLUGGING AND ABANDONMENT PLAN

**Name and Address of Facility**
EXCELSIOR MINING CORP
GUNNISON PROJECT

**Name and Address of Owner/Operator**
EXCELSIOR MINING CORP
CONCORD PL, 2999 N 44TH ST, STE 300, PHOENIX, AZ 85018

**Locate Well and Outline Unit on Section Plat - 640 Acres**




| State | County | Permit Number |
|---|---|---|
| AZ | Cochise | TBD |

**Surface Location Description**
1/4 of se 1/4 of ne 1/4 of sw 1/4 of Section 31 Township 15S Range 23E

Locate well in two directions from nearest lines of quarter section and drilling unit

Surface Location 665 ft. frm (N/S) N Line of quarter section
and 365 ft. from (E/W) E Line of quarter section.

**TYPE OF AUTHORIZATION**
- [ ] Individual Permit
- [x] Area Permit
- [ ] Rule

Number of Wells 1

Lease Name

**WELL ACTIVITY**
- [ ] CLASS I
- [ ] CLASS II
  - [ ] Brine Disposal
  - [ ] Enhanced Recovery
  - [ ] Hydrocarbon Storage
- [ ] CLASS III

Well Number 55-225100, CS-41

**CASING AND TUBING RECORD AFTER PLUGGING**

| SIZE | WT (LB/FT) | TO BE PUT IN WELL (FT) | TO BE LEFT IN WELL (FT) | HOLE SIZE |
|---|---|---|---|---|
| 4 | Unknown | 448 | 448 | 4 |
| | | | | |
| | | | | |
| | | | | |

**METHOD OF EMPLACEMENT OF CEMENT PLUGS**
- [x] The Balance Method
- [ ] The Dump Bailer Method
- [ ] The Two-Plug Method
- [ ] Other

| CEMENTING TO PLUG AND ABANDON DATA: | PLUG #1 | PLUG #2 | PLUG #3 | PLUG #4 | PLUG #5 | PLUG #6 | PLUG #7 |
|---|---|---|---|---|---|---|---|
| Size of Hole or Pipe in which Plug Will Be Placed (inche | 4 | | | | | | |
| Depth to Bottom of Tubing or Drill Pipe (ft | 448 | | | | | | |
| Sacks of Cement To Be Used (each plug) | 33 | | | | | | |
| Slurry Volume To Be Pumped (cu. ft.) | 39.1 | | | | | | |
| Calculated Top of Plug (ft.) | 2 | | | | | | |
| Measured Top of Plug (if tagged ft.) | | | | | | | |
| Slurry Wt. (Lb./Gal.) | 15.6 | | | | | | |
| Type Cement or Other Material (Class III) | V | | | | | | |

**LIST ALL OPEN HOLE AND/OR PERFORATED INTERVALS AND INTERVALS WHERE CASING WILL BE VARIED (if any)**

| From | To | From | To |
|---|---|---|---|
| | | | |

Water level will be measured prior to abandonment. Casing will be perforated from 50 feet above water level to bottom of casing.

**Estimated Cost to Plug Wells**
$3,136

## Certification

I certify under the penalty of law that I have personally examined and am familiar with the information submitted in this document and all attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibliity of fine and imprisonment. (Ref. 40 CFR 144.32)

| Name and Official Title *(Please type or print)* | Signature | Date Signed |
|---|---|---|
| Vit Kuhnel, Hydrology Manager | | |

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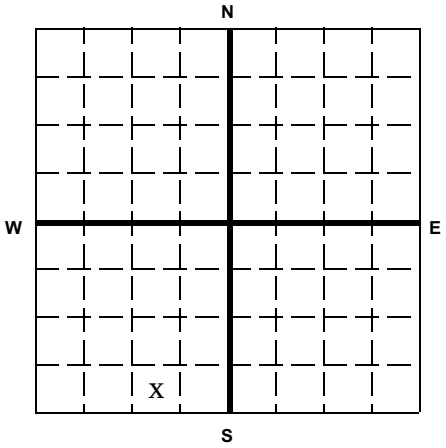
United States Environmental Protection Agency
Washington, DC 20460

# PLUGGING AND ABANDONMENT PLAN

| Name and Address of Facility | Name and Address of Owner/Operator |
|---|---|
| EXCELSIOR MINING CORP<br>GUNNISON PROJECT | EXCELSIOR MINING CORP<br>CONCORD PL, 2999 N 44TH ST, STE 300, PHOENIX, AZ 85018 |

Locate Well and Outline Unit on Section Plat - 640 Acres




| State | County | Permit Number |
|---|---|---|
| AZ | Cochise | TBD |

Surface Location Description

1/4 of sw 1/4 of se 1/4 of sw 1/4 of Section 31 Township 15S Range 23E

Locate well in two directions from nearest lines of quarter section and drilling unit

Surface Location 20 ft. frm (N/S) S Line of quarter section and 867 ft. from (E/W) E Line of quarter section.

**TYPE OF AUTHORIZATION**

- ☐ Individual Permit
- ☑ Area Permit
- ☐ Rule

Number of Wells 1

Lease Name

**WELL ACTIVITY**

- ☐ CLASS I
- ☐ CLASS II
  - ☐ Brine Disposal
  - ☐ Enhanced Recovery
  - ☐ Hydrocarbon Storage
- ☐ CLASS III

Well Number 55-225101, CS-51

**CASING AND TUBING RECORD AFTER PLUGGING**

| SIZE | WT (LB/FT) | TO BE PUT IN WELL (FT) | TO BE LEFT IN WELL (FT) | HOLE SIZE |
|---|---|---|---|---|
| NA | Unknown | 0 | 0 | 4 |
| | | | | |
| | | | | |
| | | | | |

**METHOD OF EMPLACEMENT OF CEMENT PLUGS**

- ☑ The Balance Method
- ☐ The Dump Bailer Method
- ☐ The Two-Plug Method
- ☐ Other

| CEMENTING TO PLUG AND ABANDON DATA: | PLUG #1 | PLUG #2 | PLUG #3 | PLUG #4 | PLUG #5 | PLUG #6 | PLUG #7 |
|---|---|---|---|---|---|---|---|
| Size of Hole or Pipe in which Plug Will Be Placed (inche | 4 | | | | | | |
| Depth to Bottom of Tubing or Drill Pipe (ft | 1838 | | | | | | |
| Sacks of Cement To Be Used (each plug) | 189 | | | | | | |
| Slurry Volume To Be Pumped (cu. ft.) | 160 | | | | | | |
| Calculated Top of Plug (ft.) | 2 | | | | | | |
| Measured Top of Plug (if tagged ft.) | | | | | | | |
| Slurry Wt. (Lb./Gal.) | 15.6 | | | | | | |
| Type Cement or Other Material (Class III) | V | | | | | | |

**LIST ALL OPEN HOLE AND/OR PERFORATED INTERVALS AND INTERVALS WHERE CASING WILL BE VARIED (if any)**

| From | To | From | To |
|---|---|---|---|
| 0 | 1838 | | |
| | | | |

Water level will be measured prior to abandonment. Casing will be perforated from 50 feet above water level to bottom of casing.

Estimated Cost to Plug Wells

$12,866

## Certification

I certify under the penalty of law that I have personally examined and am familiar with the information submitted in this document and all attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibliity of fine and imprisonment. (Ref. 40 CFR 144.32)

| Name and Official Title *(Please type or print)* | Signature | Date Signed |
|---|---|---|
| Vit Kuhnel, Hydrology Manager | | |

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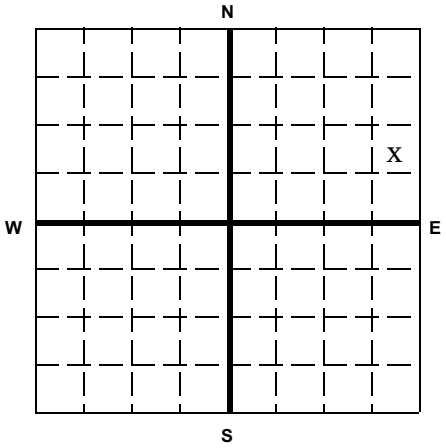
Washington, DC 20460

# PLUGGING AND ABANDONMENT PLAN

| Name and Address of Facility | Name and Address of Owner/Operator |
|---|---|
| EXCELSIOR MINING CORP<br>GUNNISON PROJECT | EXCELSIOR MINING CORP<br>CONCORD PL, 2999 N 44TH ST, STE 300, PHOENIX, AZ 85018 |

Locate Well and Outline Unit on Section Plat - 640 Acres




| State | County | Permit Number |
|---|---|---|
| AZ | Cochise | TBD |

Surface Location Description

1/4 of ne 1/4 of se 1/4 of ne 1/4 of Section 36 Township 15S Range 22E

Locate well in two directions from nearest lines of quarter section and drilling unit

Surface Location 722 ft. frm (N/S) S Line of quarter section and 150 ft. from (E/W) E Line of quarter section.

**TYPE OF AUTHORIZATION**

- [ ] Individual Permit
- [x] Area Permit
- [ ] Rule

Number of Wells 1

Lease Name

**WELL ACTIVITY**

- [ ] CLASS I
- [ ] CLASS II
  - [ ] Brine Disposal
  - [ ] Enhanced Recovery
  - [ ] Hydrocarbon Storage
- [ ] CLASS III

Well Number 55-225068, DC-09

**CASING AND TUBING RECORD AFTER PLUGGING**

| SIZE | WT (LB/FT) | TO BE PUT IN WELL (FT) | TO BE LEFT IN WELL (FT) | HOLE SIZE |
|---|---|---|---|---|
| NA | Unknown | 0 | 0 | 4 |
| | | | | |
| | | | | |
| | | | | |

**METHOD OF EMPLACEMENT OF CEMENT PLUGS**

- [x] The Balance Method
- [ ] The Dump Bailer Method
- [ ] The Two-Plug Method
- [ ] Other

| CEMENTING TO PLUG AND ABANDON DATA: | PLUG #1 | PLUG #2 | PLUG #3 | PLUG #4 | PLUG #5 | PLUG #6 | PLUG #7 |
|---|---|---|---|---|---|---|---|
| Size of Hole or Pipe in which Plug Will Be Placed (inche | 4 | | | | | | |
| Depth to Bottom of Tubing or Drill Pipe (ft | 1500 | | | | | | |
| Sacks of Cement To Be Used (each plug) | 111 | | | | | | |
| Slurry Volume To Be Pumped (cu. ft.) | 131 | | | | | | |
| Calculated Top of Plug (ft.) | 2 | | | | | | |
| Measured Top of Plug (if tagged ft.) | | | | | | | |
| Slurry Wt. (Lb./Gal.) | 15.6 | | | | | | |
| Type Cement or Other Material (Class III) | V | | | | | | |

**LIST ALL OPEN HOLE AND/OR PERFORATED INTERVALS AND INTERVALS WHERE CASING WILL BE VARIED (if any)**

| From | To | From | To |
|---|---|---|---|
| 0 | 1500 | | |
| | | | |

Water level will be measured prior to abandonment. Casing will be perforated from 50 feet above water level to bottom of casing.

Estimated Cost to Plug Wells

$10,500

## Certification

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| Name and Official Title *(Please type or print)* | Signature | Date Signed |
|---|---|---|
| Vit Kuhnel, Hydrology Manager | | |

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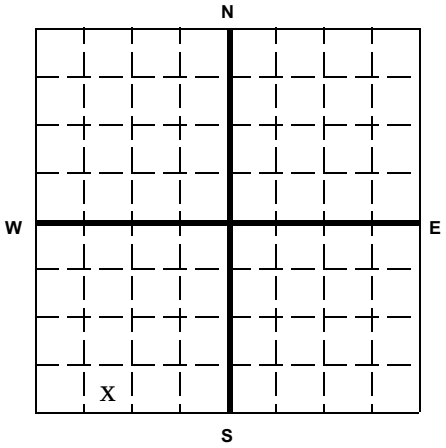
Washington, DC 20460

# PLUGGING AND ABANDONMENT PLAN

**Name and Address of Facility**
EXCELSIOR MINING CORP
GUNNISON PROJECT

**Name and Address of Owner/Operator**
EXCELSIOR MINING CORP
CONCORD PL, 2999 N 44TH ST, STE 300, PHOENIX, AZ 85018

**Locate Well and Outline Unit on Section Plat - 640 Acres**




| State | County | Permit Number |
|---|---|---|
| AZ | Cochise | TBD |

**Surface Location Description**
___ 1/4 of se 1/4 of sw 1/4 of sw 1/4 of Section 31 Township 15S Range 23E

Locate well in two directions from nearest lines of quarter section and drilling unit

Surface Location 462 ft. frm (N/S) S Line of quarter section
and 645 ft. from (E/W) W Line of quarter section.

**TYPE OF AUTHORIZATION**
- [ ] Individual Permit
- [x] Area Permit
- [ ] Rule

Number of Wells 1

Lease Name

**WELL ACTIVITY**
- [ ] CLASS I
- [ ] CLASS II
  - [ ] Brine Disposal
  - [ ] Enhanced Recovery
  - [ ] Hydrocarbon Storage
- [ ] CLASS III

Well Number 55-225103, J-04

**CASING AND TUBING RECORD AFTER PLUGGING**

| SIZE | WT (LB/FT) | TO BE PUT IN WELL (FT) | TO BE LEFT IN WELL (FT) | HOLE SIZE |
|---|---|---|---|---|
| NA | Unknown | 0 | 0 | 4 |
| | | | | |
| | | | | |
| | | | | |

**METHOD OF EMPLACEMENT OF CEMENT PLUGS**
- [x] The Balance Method
- [ ] The Dump Bailer Method
- [ ] The Two-Plug Method
- [ ] Other

| CEMENTING TO PLUG AND ABANDON DATA: | PLUG #1 | PLUG #2 | PLUG #3 | PLUG #4 | PLUG #5 | PLUG #6 | PLUG #7 |
|---|---|---|---|---|---|---|---|
| Size of Hole or Pipe in which Plug Will Be Placed (inche | 4 | | | | | | |
| Depth to Bottom of Tubing or Drill Pipe (ft | 1509 | | | | | | |
| Sacks of Cement To Be Used (each plug) | 112 | | | | | | |
| Slurry Volume To Be Pumped (cu. ft.) | 132 | | | | | | |
| Calculated Top of Plug (ft.) | 2 | | | | | | |
| Measured Top of Plug (if tagged ft.) | | | | | | | |
| Slurry Wt. (Lb./Gal.) | 15.6 | | | | | | |
| Type Cement or Other Material (Class III) | V | | | | | | |

**LIST ALL OPEN HOLE AND/OR PERFORATED INTERVALS AND INTERVALS WHERE CASING WILL BE VARIED (if any)**

| From | To | From | To |
|---|---|---|---|
| 0 | 1509 | | |
| | | | |

Water level will be measured prior to abandonment. Casing will be perforated from 50 feet above water level to bottom of casing.

**Estimated Cost to Plug Wells**
$10,563

## Certification

I certify under the penalty of law that I have personally examined and am familiar with the information submitted in this document and all attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibliity of fine and imprisonment. (Ref. 40 CFR 144.32)

| Name and Official Title *(Please type or print)* | Signature | Date Signed |
|---|---|---|
| Vit Kuhnel, Hydrology Manager | | |

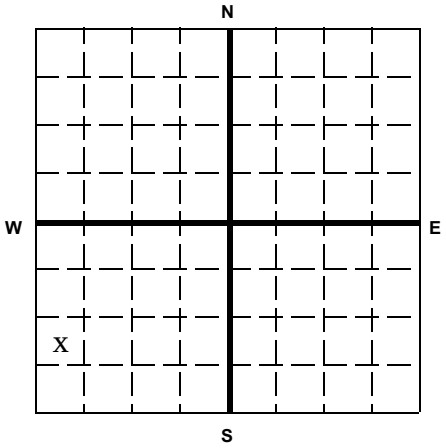
OMB No. 2040-0042 Approval Expires 11/30/2014

United States Environmental Protection Agency
Washington, DC 20460

# PLUGGING AND ABANDONMENT PLAN

| Name and Address of Facility | Name and Address of Owner/Operator |
|---|---|
| EXCELSIOR MINING CORP<br>GUNNISON PROJECT | EXCELSIOR MINING CORP<br>CONCORD PL, 2999 N 44TH ST, STE 300, PHOENIX, AZ 85018 |

Locate Well and Outline Unit on Section Plat - 640 Acres




| State | County | Permit Number |
|---|---|---|
| AZ | Cochise | TBD |

Surface Location Description

___ 1/4 of nw 1/4 of sw 1/4 of sw 1/4 of Section 31 Township 15S Range 23E

Locate well in two directions from nearest lines of quarter section and drilling unit

Surface Location 459 ft. frm (N/S) S Line of quarter section and 621 ft. from (E/W) E Line of quarter section.

**TYPE OF AUTHORIZATION**

- ☐ Individual Permit
- ☑ Area Permit
- ☐ Rule

Number of Wells 1

Lease Name

**WELL ACTIVITY**

- ☐ CLASS I
- ☐ CLASS II
  - ☐ Brine Disposal
  - ☐ Enhanced Recovery
  - ☐ Hydrocarbon Storage
- ☐ CLASS III

Well Number 55-225104, J-05

**CASING AND TUBING RECORD AFTER PLUGGING**

| SIZE | WT (LB/FT) | TO BE PUT IN WELL (FT) | TO BE LEFT IN WELL (FT) | HOLE SIZE |
|---|---|---|---|---|
| NA | Unknown | 0 | 0 | 4 |
| | | | | |
| | | | | |
| | | | | |

**METHOD OF EMPLACEMENT OF CEMENT PLUGS**

- ☑ The Balance Method
- ☐ The Dump Bailer Method
- ☐ The Two-Plug Method
- ☐ Other

| CEMENTING TO PLUG AND ABANDON DATA: | PLUG #1 | PLUG #2 | PLUG #3 | PLUG #4 | PLUG #5 | PLUG #6 | PLUG #7 |
|---|---|---|---|---|---|---|---|
| Size of Hole or Pipe in which Plug Will Be Placed (inche | 4 | | | | | | |
| Depth to Bottom of Tubing or Drill Pipe (ft | 1475 | | | | | | |
| Sacks of Cement To Be Used (each plug) | 109 | | | | | | |
| Slurry Volume To Be Pumped (cu. ft.) | 129 | | | | | | |
| Calculated Top of Plug (ft.) | 2 | | | | | | |
| Measured Top of Plug (if tagged ft.) | | | | | | | |
| Slurry Wt. (Lb./Gal.) | 15.6 | | | | | | |
| Type Cement or Other Material (Class III) | V | | | | | | |

**LIST ALL OPEN HOLE AND/OR PERFORATED INTERVALS AND INTERVALS WHERE CASING WILL BE VARIED (if any)**

| From | To | From | To |
|---|---|---|---|
| 0 | 1475 | | |

Water level will be measured prior to abandonment. Casing will be perforated from 50 feet above water level to bottom of casing.

Estimated Cost to Plug Wells

$10,325

## Certification

I certify under the penalty of law that I have personally examined and am familiar with the information submitted in this document and all attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibliity of fine and imprisonment. (Ref. 40 CFR 144.32)

| Name and Official Title *(Please type or print)* | Signature | Date Signed |
|---|---|---|
| Vit Kuhnel, Hydrology Manager | | |

OMB No. 2040-0042 Approval Expires 11/30/2014

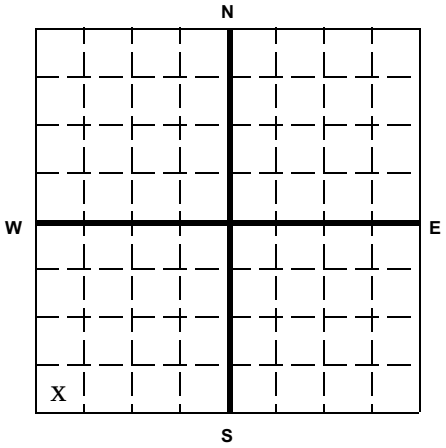
United States Environmental Protection Agency
Washington, DC 20460

# PLUGGING AND ABANDONMENT PLAN

**Name and Address of Facility**
EXCELSIOR MINING CORP
GUNNISON PROJECT

**Name and Address of Owner/Operator**
EXCELSIOR MINING CORP
CONCORD PL, 2999 N 44TH ST, STE 300, PHOENIX, AZ 85018

**Locate Well and Outline Unit on Section Plat - 640 Acres**




| State | County | Permit Number |
|---|---|---|
| AZ | Cochise | TBD |

**Surface Location Description**
___ 1/4 of sw 1/4 of sw 1/4 of sw 1/4 of Section 31 Township 15S Range 23E

Locate well in two directions from nearest lines of quarter section and drilling unit

Surface Location 24 ft. frm (N/S) S Line of quarter section
and 30 ft. from (E/W) W Line of quarter section.

**TYPE OF AUTHORIZATION**
- ☐ Individual Permit
- ☑ Area Permit
- ☐ Rule

Number of Wells 1

Lease Name

**WELL ACTIVITY**
- ☐ CLASS I
- ☐ CLASS II
  - ☐ Brine Disposal
  - ☐ Enhanced Recovery
  - ☐ Hydrocarbon Storage
- ☐ CLASS III

Well Number 55-225105, J-06

**CASING AND TUBING RECORD AFTER PLUGGING**

| SIZE | WT (LB/FT) | TO BE PUT IN WELL (FT) | TO BE LEFT IN WELL (FT) | HOLE SIZE |
|---|---|---|---|---|
| NA | Unknown | 0 | 0 | 4 |
| | | | | |
| | | | | |
| | | | | |

**METHOD OF EMPLACEMENT OF CEMENT PLUGS**
- ☑ The Balance Method
- ☐ The Dump Bailer Method
- ☐ The Two-Plug Method
- ☐ Other

| CEMENTING TO PLUG AND ABANDON DATA: | PLUG #1 | PLUG #2 | PLUG #3 | PLUG #4 | PLUG #5 | PLUG #6 | PLUG #7 |
|---|---|---|---|---|---|---|---|
| Size of Hole or Pipe in which Plug Will Be Placed (inche | 4 | | | | | | |
| Depth to Bottom of Tubing or Drill Pipe (ft | 937 | | | | | | |
| Sacks of Cement To Be Used (each plug) | 70 | | | | | | |
| Slurry Volume To Be Pumped (cu. ft.) | 82 | | | | | | |
| Calculated Top of Plug (ft.) | 2 | | | | | | |
| Measured Top of Plug (if tagged ft.) | | | | | | | |
| Slurry Wt. (Lb./Gal.) | 15.6 | | | | | | |
| Type Cement or Other Material (Class III) | V | | | | | | |

**LIST ALL OPEN HOLE AND/OR PERFORATED INTERVALS AND INTERVALS WHERE CASING WILL BE VARIED (if any)**

| From | To | From | To |
|---|---|---|---|
| 0 | 937 | | |

Water level will be measured prior to abandonment. Casing will be perforated from 50 feet above water level to bottom of casing.

**Estimated Cost to Plug Wells**
$6,559

## Certification

I certify under the penalty of law that I have personally examined and am familiar with the information submitted in this document and all attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibliity of fine and imprisonment. (Ref. 40 CFR 144.32)

| Name and Official Title *(Please type or print)* | Signature | Date Signed |
|---|---|---|
| Vit Kuhnel, Hydrology Manager | | |

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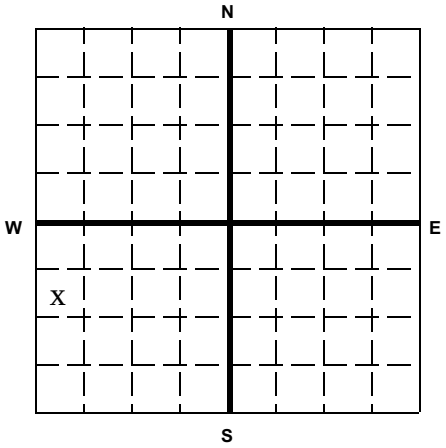
United States Environmental Protection Agency
Washington, DC 20460

# PLUGGING AND ABANDONMENT PLAN

**Name and Address of Facility**
EXCELSIOR MINING CORP
GUNNISON PROJECT

**Name and Address of Owner/Operator**
EXCELSIOR MINING CORP
CONCORD PL, 2999 N 44TH ST, STE 300, PHOENIX, AZ 85018

**Locate Well and Outline Unit on Section Plat - 640 Acres**




| State | County | Permit Number |
|---|---|---|
| AZ | Cochise | TBD |

**Surface Location Description**
1/4 of sw 1/4 of nw 1/4 of sw 1/4 of Section 31 Township 15S Range 23E

Locate well in two directions from nearest lines of quarter section and drilling unit

Surface Location 855 ft. frm (N/S) N Line of quarter section
and 521 ft. from (E/W) W Line of quarter section.

**TYPE OF AUTHORIZATION**
- [ ] Individual Permit
- [x] Area Permit
- [ ] Rule

Number of Wells 1

Lease Name

**WELL ACTIVITY**
- [ ] CLASS I
- [ ] CLASS II
  - [ ] Brine Disposal
  - [ ] Enhanced Recovery
  - [ ] Hydrocarbon Storage
- [ ] CLASS III

Well Number 55-225106, J-07

**CASING AND TUBING RECORD AFTER PLUGGING**

| SIZE | WT (LB/FT) | TO BE PUT IN WELL (FT) | TO BE LEFT IN WELL (FT) | HOLE SIZE |
|---|---|---|---|---|
| NA | Unknown | 0 | 0 | 3.5 |
| | | | | |
| | | | | |
| | | | | |

**METHOD OF EMPLACEMENT OF CEMENT PLUGS**
- [x] The Balance Method
- [ ] The Dump Bailer Method
- [ ] The Two-Plug Method
- [ ] Other

| CEMENTING TO PLUG AND ABANDON DATA: | PLUG #1 | PLUG #2 | PLUG #3 | PLUG #4 | PLUG #5 | PLUG #6 | PLUG #7 |
|---|---|---|---|---|---|---|---|
| Size of Hole or Pipe in which Plug Will Be Placed (inche | 3.5 | | | | | | |
| Depth to Bottom of Tubing or Drill Pipe (ft | 938 | | | | | | |
| Sacks of Cement To Be Used (each plug) | 56 | | | | | | |
| Slurry Volume To Be Pumped (cu. ft.) | 66 | | | | | | |
| Calculated Top of Plug (ft.) | 2 | | | | | | |
| Measured Top of Plug (if tagged ft.) | | | | | | | |
| Slurry Wt. (Lb./Gal.) | 15.6 | | | | | | |
| Type Cement or Other Material (Class III) | V | | | | | | |

**LIST ALL OPEN HOLE AND/OR PERFORATED INTERVALS AND INTERVALS WHERE CASING WILL BE VARIED (if any)**

| From | To | From | To |
|---|---|---|---|
| 0 | 938 | | |

Water level will be measured prior to abandonment. Casing will be perforated from 50 feet above water level to bottom of casing.

**Estimated Cost to Plug Wells**
$6,566

## Certification

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| Name and Official Title *(Please type or print)* | Signature | Date Signed |
|---|---|---|
| Vit Kuhnel, Hydrology Manager | | |

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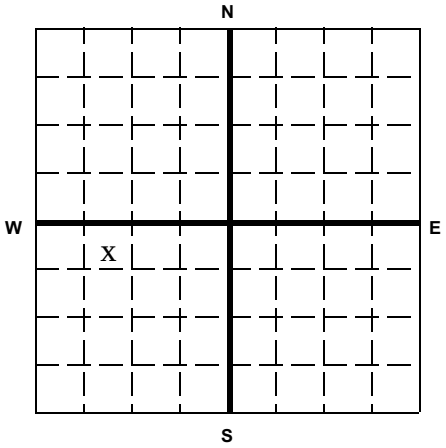
Washington, DC 20460

# PLUGGING AND ABANDONMENT PLAN

**Name and Address of Facility**
EXCELSIOR MINING CORP
GUNNISON PROJECT

**Name and Address of Owner/Operator**
EXCELSIOR MINING CORP
CONCORD PL, 2999 N 44TH ST, STE 300, PHOENIX, AZ 85018

**Locate Well and Outline Unit on Section Plat - 640 Acres**




| State | County | Permit Number |
|---|---|---|
| AZ | Cochise | TBD |

**Surface Location Description**
1/4 of ne 1/4 of nw 1/4 of sw 1/4 of Section 31 Township 15S Range 23E

Locate well in two directions from nearest lines of quarter section and drilling unit

Surface Location 513 ft. frm (N/S) N Line of quarter section
and 875 ft. from (E/W) W Line of quarter section.

**TYPE OF AUTHORIZATION**
- [ ] Individual Permit
- [x] Area Permit
- [ ] Rule

Number of Wells 1

Lease Name

**WELL ACTIVITY**
- [ ] CLASS I
- [ ] CLASS II
  - [ ] Brine Disposal
  - [ ] Enhanced Recovery
  - [ ] Hydrocarbon Storage
- [ ] CLASS III

Well Number 55-225107, J-08

**CASING AND TUBING RECORD AFTER PLUGGING**

| SIZE | WT (LB/FT) | TO BE PUT IN WELL (FT) | TO BE LEFT IN WELL (FT) | HOLE SIZE |
|---|---|---|---|---|
| NA | Unknown | 0 | 0 | 4.5 |
| | | | | |
| | | | | |
| | | | | |

**METHOD OF EMPLACEMENT OF CEMENT PLUGS**
- [x] The Balance Method
- [ ] The Dump Bailer Method
- [ ] The Two-Plug Method
- [ ] Other

| CEMENTING TO PLUG AND ABANDON DATA: | PLUG #1 | PLUG #2 | PLUG #3 | PLUG #4 | PLUG #5 | PLUG #6 | PLUG #7 |
|---|---|---|---|---|---|---|---|
| Size of Hole or Pipe in which Plug Will Be Placed (inche | 4.5 | | | | | | |
| Depth to Bottom of Tubing or Drill Pipe (ft | 1062 | | | | | | |
| Sacks of Cement To Be Used (each plug) | 126 | | | | | | |
| Slurry Volume To Be Pumped (cu. ft.) | 149 | | | | | | |
| Calculated Top of Plug (ft.) | 2 | | | | | | |
| Measured Top of Plug (if tagged ft.) | | | | | | | |
| Slurry Wt. (Lb./Gal.) | 15.6 | | | | | | |
| Type Cement or Other Material (Class III) | V | | | | | | |

**LIST ALL OPEN HOLE AND/OR PERFORATED INTERVALS AND INTERVALS WHERE CASING WILL BE VARIED (if any)**

| From | To | From | To |
|---|---|---|---|
| | | | |

Water level will be measured prior to abandonment. Casing will be perforated from 50 feet above water level to bottom of casing.

**Estimated Cost to Plug Wells**
$7,434

## Certification

I certify under the penalty of law that I have personally examined and am familiar with the information submitted in this document and all attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibliity of fine and imprisonment. (Ref. 40 CFR 144.32)

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| Vit Kuhnel, Hydrology Manager | | |

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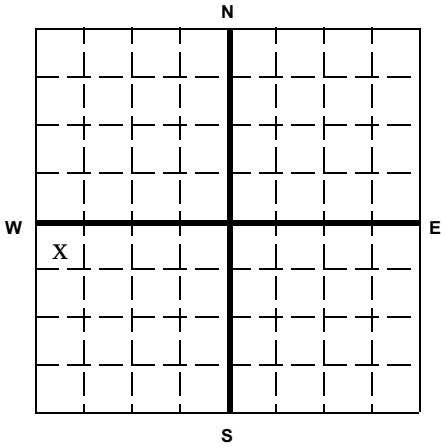
Washington, DC 20460

# PLUGGING AND ABANDONMENT PLAN

**Name and Address of Facility**
EXCELSIOR MINING CORP
GUNNISON PROJECT

**Name and Address of Owner/Operator**
EXCELSIOR MINING CORP
CONCORD PL, 2999 N 44TH ST, STE 300, PHOENIX, AZ 85018

**Locate Well and Outline Unit on Section Plat - 640 Acres**




| State | County | Permit Number |
|---|---|---|
| AZ | Cochise | TBD |

**Surface Location Description**
1/4 of nw 1/4 of nw 1/4 of sw 1/4 of Section 31 Township 15S Range 23E

Locate well in two directions from nearest lines of quarter section and drilling unit

Surface Location 698 ft. frm (N/S) N Line of quarter section
and 508 ft. from (E/W) W Line of quarter section.

**TYPE OF AUTHORIZATION**
- ☐ Individual Permit
- ☑ Area Permit
- ☐ Rule

Number of Wells 1

Lease Name

**WELL ACTIVITY**
- ☐ CLASS I
- ☐ CLASS II
  - ☐ Brine Disposal
  - ☐ Enhanced Recovery
  - ☐ Hydrocarbon Storage
- ☐ CLASS III

Well Number N/A, J-09

**CASING AND TUBING RECORD AFTER PLUGGING**

| SIZE | WT (LB/FT) | TO BE PUT IN WELL (FT) | TO BE LEFT IN WELL (FT) | HOLE SIZE |
|---|---|---|---|---|
| NA | Unknown | 0 | 0 | 4.5 |
| | | | | |
| | | | | |
| | | | | |

**METHOD OF EMPLACEMENT OF CEMENT PLUGS**
- ☑ The Balance Method
- ☐ The Dump Bailer Method
- ☐ The Two-Plug Method
- ☐ Other

| CEMENTING TO PLUG AND ABANDON DATA: | PLUG #1 | PLUG #2 | PLUG #3 | PLUG #4 | PLUG #5 | PLUG #6 | PLUG #7 |
|---|---|---|---|---|---|---|---|
| Size of Hole or Pipe in which Plug Will Be Placed (inche | 4.5 | | | | | | |
| Depth to Bottom of Tubing or Drill Pipe (ft | 1158 | | | | | | |
| Sacks of Cement To Be Used (each plug) | 108 | | | | | | |
| Slurry Volume To Be Pumped (cu. ft.) | 128 | | | | | | |
| Calculated Top of Plug (ft.) | 2 | | | | | | |
| Measured Top of Plug (if tagged ft.) | | | | | | | |
| Slurry Wt. (Lb./Gal.) | 15.6 | | | | | | |
| Type Cement or Other Material (Class III) | V | | | | | | |

**LIST ALL OPEN HOLE AND/OR PERFORATED INTERVALS AND INTERVALS WHERE CASING WILL BE VARIED (if any)**

| From | To | From | To |
|---|---|---|---|
| 0 | 1158 | | |

Water level will be measured prior to abandonment. Casing will be perforated from 50 feet above water level to bottom of casing.

**Estimated Cost to Plug Wells**
$8,106

## Certification

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| Name and Official Title *(Please type or print)* | Signature | Date Signed |
|---|---|---|
| Vit Kuhnel, Hydrology Manager | | |

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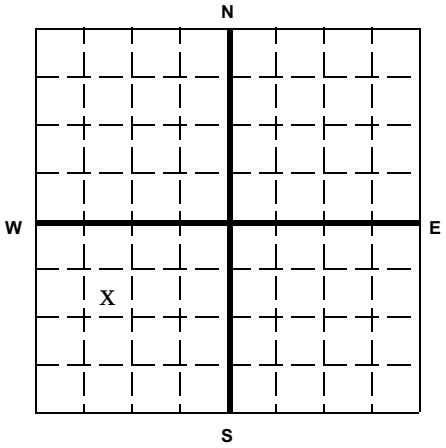
Washington, DC 20460

# PLUGGING AND ABANDONMENT PLAN

**Name and Address of Facility**
EXCELSIOR MINING CORP
GUNNISON PROJECT

**Name and Address of Owner/Operator**
EXCELSIOR MINING CORP
CONCORD PL, 2999 N 44TH ST, STE 300, PHOENIX, AZ 85018

**Locate Well and Outline Unit on Section Plat - 640 Acres**




| State | County | Permit Number |
|---|---|---|
| AZ | Cochise | TBD |

**Surface Location Description**
1/4 of se 1/4 of nw 1/4 of sw 1/4 of Section 31 Township 15E Range 23S

Locate well in two directions from nearest lines of quarter section and drilling unit

Surface Location 928 ft. frm (N/S) N Line of quarter section
and 758 ft. from (E/W) W Line of quarter section.

**TYPE OF AUTHORIZATION**
- [ ] Individual Permit
- [x] Area Permit
- [ ] Rule

Number of Wells 1

Lease Name

**WELL ACTIVITY**
- [ ] CLASS I
- [ ] CLASS II
  - [ ] Brine Disposal
  - [ ] Enhanced Recovery
  - [ ] Hydrocarbon Storage
- [ ] CLASS III

Well Number 55-225109, J-10

**CASING AND TUBING RECORD AFTER PLUGGING**

| SIZE | WT (LB/FT) | TO BE PUT IN WELL (FT) | TO BE LEFT IN WELL (FT) | HOLE SIZE |
|---|---|---|---|---|
| NA | Unknown | 0 | 0 | 4.5 |
| | | | | |
| | | | | |
| | | | | |

**METHOD OF EMPLACEMENT OF CEMENT PLUGS**
- [x] The Balance Method
- [ ] The Dump Bailer Method
- [ ] The Two-Plug Method
- [ ] Other

| CEMENTING TO PLUG AND ABANDON DATA: | PLUG #1 | PLUG #2 | PLUG #3 | PLUG #4 | PLUG #5 | PLUG #6 | PLUG #7 |
|---|---|---|---|---|---|---|---|
| Size of Hole or Pipe in which Plug Will Be Placed (inche | 4.5 | | | | | | |
| Depth to Bottom of Tubing or Drill Pipe (ft | 1062 | | | | | | |
| Sacks of Cement To Be Used (each plug) | 99 | | | | | | |
| Slurry Volume To Be Pumped (cu. ft.) | 117 | | | | | | |
| Calculated Top of Plug (ft.) | 2 | | | | | | |
| Measured Top of Plug (if tagged ft.) | | | | | | | |
| Slurry Wt. (Lb./Gal.) | 15.6 | | | | | | |
| Type Cement or Other Material (Class III) | V | | | | | | |

**LIST ALL OPEN HOLE AND/OR PERFORATED INTERVALS AND INTERVALS WHERE CASING WILL BE VARIED (if any)**

| From | To | From | To |
|---|---|---|---|
| | | | |

Water level will be measured prior to abandonment. Casing will be perforated from 50 feet above water level to bottom of casing.

**Estimated Cost to Plug Wells**
$7,434

## Certification

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| Name and Official Title *(Please type or print)* | Signature | Date Signed |
|---|---|---|
| Vit Kuhnel, Hydrology Manager | | |

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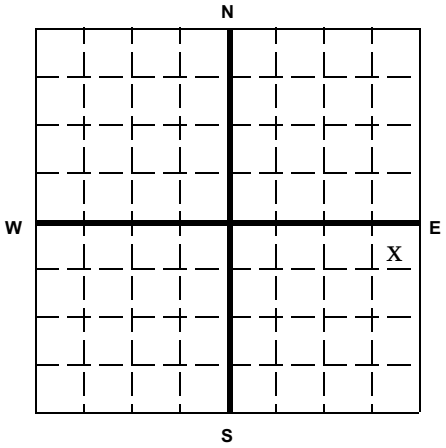
Washington, DC 20460

# PLUGGING AND ABANDONMENT PLAN

**Name and Address of Facility**
EXCELSIOR MINING CORP
GUNNISON PROJECT

**Name and Address of Owner/Operator**
EXCELSIOR MINING CORP
CONCORD PL, 2999 N 44TH ST, STE 300, PHOENIX, AZ 85018

**Locate Well and Outline Unit on Section Plat - 640 Acres**




| State | County | Permit Number |
|---|---|---|
| AZ | Cochise | TBD |

**Surface Location Description**
1/4 of ne 1/4 of ne 1/4 of se 1/4 of Section 36 Township 15S Range 22E

Locate well in two directions from nearest lines of quarter section and drilling unit

Surface Location 460 ft. frm (N/S) N Line of quarter section
and 429 ft. from (E/W) E Line of quarter section.

**TYPE OF AUTHORIZATION**
- [ ] Individual Permit
- [x] Area Permit
- [ ] Rule

Number of Wells 1

Lease Name

**WELL ACTIVITY**
- [ ] CLASS I
- [ ] CLASS II
  - [ ] Brine Disposal
  - [ ] Enhanced Recovery
  - [ ] Hydrocarbon Storage
- [ ] CLASS III

Well Number 55-225070, JS-05

**CASING AND TUBING RECORD AFTER PLUGGING**

| SIZE | WT (LB/FT) | TO BE PUT IN WELL (FT) | TO BE LEFT IN WELL (FT) | HOLE SIZE |
|---|---|---|---|---|
| NA | Unknown | 0 | 0 | 4.5 |
| | | | | |
| | | | | |
| | | | | |

**METHOD OF EMPLACEMENT OF CEMENT PLUGS**
- [x] The Balance Method
- [ ] The Dump Bailer Method
- [ ] The Two-Plug Method
- [ ] Other

| CEMENTING TO PLUG AND ABANDON DATA: | PLUG #1 | PLUG #2 | PLUG #3 | PLUG #4 | PLUG #5 | PLUG #6 | PLUG #7 |
|---|---|---|---|---|---|---|---|
| Size of Hole or Pipe in which Plug Will Be Placed (inche | 4.5 | | | | | | |
| Depth to Bottom of Tubing or Drill Pipe (ft | 588 | | | | | | |
| Sacks of Cement To Be Used (each plug) | 55 | | | | | | |
| Slurry Volume To Be Pumped (cu. ft.) | 65 | | | | | | |
| Calculated Top of Plug (ft.) | 2 | | | | | | |
| Measured Top of Plug (if tagged ft.) | | | | | | | |
| Slurry Wt. (Lb./Gal.) | 15.6 | | | | | | |
| Type Cement or Other Material (Class III) | V | | | | | | |

**LIST ALL OPEN HOLE AND/OR PERFORATED INTERVALS AND INTERVALS WHERE CASING WILL BE VARIED (if any)**

| From | To | From | To |
|---|---|---|---|
| 0 | 588 | | |

Water level will be measured prior to abandonment. Casing will be perforated from 50 feet above water level to bottom of casing.

**Estimated Cost to Plug Wells**
$4,116

## Certification

I certify under the penalty of law that I have personally examined and am familiar with the information submitted in this document and all attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibliity of fine and imprisonment. (Ref. 40 CFR 144.32)

| Name and Official Title *(Please type or print)* | Signature | Date Signed |
|---|---|---|
| Vit Kuhnel, Hydrology Manager | | |

OMB No. 2040-0042 Approval Expires 11/30/2014

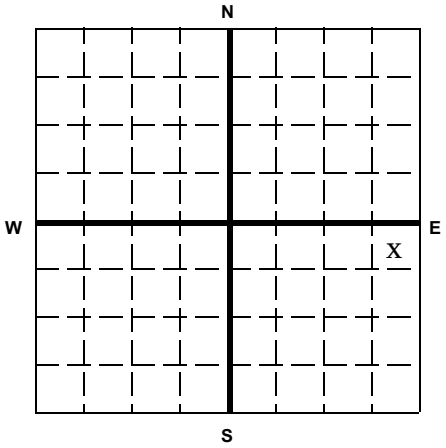
United States Environmental Protection Agency
Washington, DC 20460

# PLUGGING AND ABANDONMENT PLAN

**Name and Address of Facility**
EXCELSIOR MINING CORP
GUNNISON PROJECT

**Name and Address of Owner/Operator**
EXCELSIOR MINING CORP
CONCORD PL, 2999 N 44TH ST, STE 300, PHOENIX, AZ 85018

**Locate Well and Outline Unit on Section Plat - 640 Acres**




| State | County | Permit Number |
|---|---|---|
| AZ | Cochise | TBD |

**Surface Location Description**
1/4 of ne 1/4 of ne 1/4 of se 1/4 of Section 36 Township 15S Range 22E

Locate well in two directions from nearest lines of quarter section and drilling unit

Surface Location 551 ft. frm (N/S) N Line of quarter section
and 406 ft. from (E/W) E Line of quarter section.

**TYPE OF AUTHORIZATION**
- [ ] Individual Permit
- [x] Area Permit
- [ ] Rule

Number of Wells 1

Lease Name

**WELL ACTIVITY**
- [ ] CLASS I
- [ ] CLASS II
  - [ ] Brine Disposal
  - [ ] Enhanced Recovery
  - [ ] Hydrocarbon Storage
- [ ] CLASS III

Well Number 55-225071, JS-06

**CASING AND TUBING RECORD AFTER PLUGGING**

| SIZE | WT (LB/FT) | TO BE PUT IN WELL (FT) | TO BE LEFT IN WELL (FT) | HOLE SIZE |
|---|---|---|---|---|
| NA | Unknown | 0 | 0 | 4.5 |
| | | | | |
| | | | | |
| | | | | |

**METHOD OF EMPLACEMENT OF CEMENT PLUGS**
- [x] The Balance Method
- [ ] The Dump Bailer Method
- [ ] The Two-Plug Method
- [ ] Other

| CEMENTING TO PLUG AND ABANDON DATA: | PLUG #1 | PLUG #2 | PLUG #3 | PLUG #4 | PLUG #5 | PLUG #6 | PLUG #7 |
|---|---|---|---|---|---|---|---|
| Size of Hole or Pipe in which Plug Will Be Placed (inche | 4.5 | | | | | | |
| Depth to Bottom of Tubing or Drill Pipe (ft | 599 | | | | | | |
| Sacks of Cement To Be Used (each plug) | 56 | | | | | | |
| Slurry Volume To Be Pumped (cu. ft.) | 66 | | | | | | |
| Calculated Top of Plug (ft.) | 2 | | | | | | |
| Measured Top of Plug (if tagged ft.) | | | | | | | |
| Slurry Wt. (Lb./Gal.) | 15.6 | | | | | | |
| Type Cement or Other Material (Class III) | V | | | | | | |

**LIST ALL OPEN HOLE AND/OR PERFORATED INTERVALS AND INTERVALS WHERE CASING WILL BE VARIED (if any)**

| From | To | From | To |
|---|---|---|---|
| 0 | 599 | | |

Water level will be measured prior to abandonment. Casing will be perforated from 50 feet above water level to bottom of casing.

**Estimated Cost to Plug Wells**
$4,193

## Certification

I certify under the penalty of law that I have personally examined and am familiar with the information submitted in this document and all attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibliity of fine and imprisonment. (Ref. 40 CFR 144.32)

| Name and Official Title *(Please type or print)* | Signature | Date Signed |
|---|---|---|
| Vit Kuhnel, Hydrology Manager | | |

OMB No. 2040-0042 Approval Expires 11/30/2014

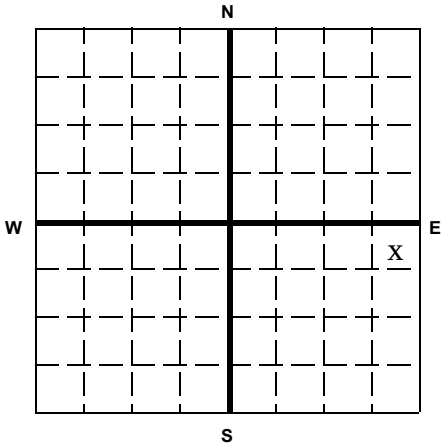
United States Environmental Protection Agency
Washington, DC 20460

# PLUGGING AND ABANDONMENT PLAN

**Name and Address of Facility**
EXCELSIOR MINING CORP
GUNNISON PROJECT

**Name and Address of Owner/Operator**
EXCELSIOR MINING CORP
CONCORD PL, 2999 N 44TH ST, STE 300, PHOENIX, AZ 85018

**Locate Well and Outline Unit on Section Plat - 640 Acres**




| State | County | Permit Number |
|---|---|---|
| AZ | Cochise | TBD |

**Surface Location Description**
1/4 of ne 1/4 of ne 1/4 of se 1/4 of Section 36 Township 15S Range 22E

Locate well in two directions from nearest lines of quarter section and drilling unit

Surface Location 375 ft. frm (N/S) N Line of quarter section
and 420 ft. from (E/W) E Line of quarter section.

**TYPE OF AUTHORIZATION**
- ☐ Individual Permit
- ☑ Area Permit
- ☐ Rule

Number of Wells 1

Lease Name

**WELL ACTIVITY**
- ☐ CLASS I
- ☐ CLASS II
  - ☐ Brine Disposal
  - ☐ Enhanced Recovery
  - ☐ Hydrocarbon Storage
- ☐ CLASS III

Well Number 55-225072, JS-07

**CASING AND TUBING RECORD AFTER PLUGGING**

| SIZE | WT (LB/FT) | TO BE PUT IN WELL (FT) | TO BE LEFT IN WELL (FT) | HOLE SIZE |
|---|---|---|---|---|
| NA | Unknown | 0 | ~369 | 4.5 |
| | | | | |
| | | | | |
| | | | | |

**METHOD OF EMPLACEMENT OF CEMENT PLUGS**
- ☑ The Balance Method
- ☐ The Dump Bailer Method
- ☐ The Two-Plug Method
- ☐ Other

| CEMENTING TO PLUG AND ABANDON DATA: | PLUG #1 | PLUG #2 | PLUG #3 | PLUG #4 | PLUG #5 | PLUG #6 | PLUG #7 |
|---|---|---|---|---|---|---|---|
| Size of Hole or Pipe in which Plug Will Be Placed (inche | 4.5 | | | | | | |
| Depth to Bottom of Tubing or Drill Pipe (ft | ~369 | | | | | | |
| Sacks of Cement To Be Used (each plug) | 45 | | | | | | |
| Slurry Volume To Be Pumped (cu. ft.) | 53 | | | | | | |
| Calculated Top of Plug (ft.) | 2 | | | | | | |
| Measured Top of Plug (if tagged ft.) | | | | | | | |
| Slurry Wt. (Lb./Gal.) | 15.6 | | | | | | |
| Type Cement or Other Material (Class III) | V | | | | | | |

**LIST ALL OPEN HOLE AND/OR PERFORATED INTERVALS AND INTERVALS WHERE CASING WILL BE VARIED (if any)**

| From | To | From | To |
|---|---|---|---|
| | | | |

Water level will be measured prior to abandonment. Casing will be perforated from 50 feet above water level to bottom of casing.

**Estimated Cost to Plug Wells**
$2,583

## Certification

I certify under the penalty of law that I have personally examined and am familiar with the information submitted in this document and all attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibliity of fine and imprisonment. (Ref. 40 CFR 144.32)

| Name and Official Title *(Please type or print)* | Signature | Date Signed |
|---|---|---|
| Vit Kuhnel, Hydrology Manager | | |

OMB No. 2040-0042 Approval Expires 11/30/2014

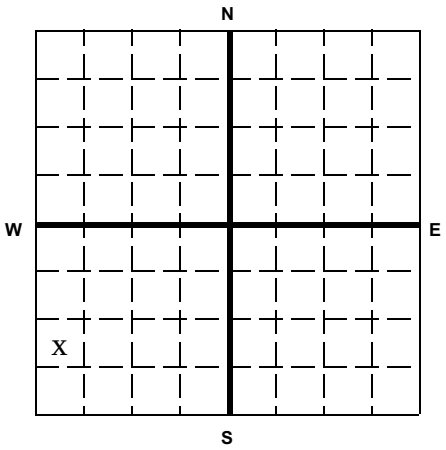
United States Environmental Protection Agency
Washington, DC 20460

# PLUGGING AND ABANDONMENT PLAN

**Name and Address of Facility**
EXCELSIOR MINING CORP
GUNNISON PROJECT

**Name and Address of Owner/Operator**
EXCELSIOR MINING CORP
CONCORD PL, 2999 N 44TH ST, STE 300, PHOENIX, AZ 85018

**Locate Well and Outline Unit on Section Plat - 640 Acres**




| State | County | Permit Number |
|---|---|---|
| AZ | Cochise | TBD |

**Surface Location Description**
___ 1/4 of nw 1/4 of sw 1/4 of sw 1/4 of Section 31 Township 15S Range 23E

**Locate well in two directions from nearest lines of quarter section and drilling unit**

**Surface Location** 843 ft. frm (N/S) S Line of quarter section
and 455 ft. from (E/W) W Line of quarter section.

**TYPE OF AUTHORIZATION**
- ☐ Individual Permit
- ☑ Area Permit
- ☐ Rule

Number of Wells 1

Lease Name

**WELL ACTIVITY**
- ☐ CLASS I
- ☐ CLASS II
  - ☐ Brine Disposal
  - ☐ Enhanced Recovery
  - ☐ Hydrocarbon Storage
- ☐ CLASS III

Well Number 55-224940, NSD-001

**CASING AND TUBING RECORD AFTER PLUGGING**

| SIZE | WT (LB/FT) | TO BE PUT IN WELL (FT) | TO BE LEFT IN WELL (FT) | HOLE SIZE |
|---|---|---|---|---|
| 4.5 | Unknown | 0 | 460 | 4.5 |
| | | | | |
| | | | | |
| | | | | |

**METHOD OF EMPLACEMENT OF CEMENT PLUGS**
- ☑ The Balance Method
- ☐ The Dump Bailer Method
- ☐ The Two-Plug Method
- ☐ Other

| CEMENTING TO PLUG AND ABANDON DATA: | PLUG #1 | PLUG #2 | PLUG #3 | PLUG #4 | PLUG #5 | PLUG #6 | PLUG #7 |
|---|---|---|---|---|---|---|---|
| Size of Hole or Pipe in which Plug Will Be Placed (inche | 4.5 | | | | | | |
| Depth to Bottom of Tubing or Drill Pipe (ft | 1506 | | | | | | |
| Sacks of Cement To Be Used (each plug) | 141 | | | | | | |
| Slurry Volume To Be Pumped (cu. ft.) | 166 | | | | | | |
| Calculated Top of Plug (ft.) | 2 | | | | | | |
| Measured Top of Plug (if tagged ft.) | | | | | | | |
| Slurry Wt. (Lb./Gal.) | 15.6 | | | | | | |
| Type Cement or Other Material (Class III) | V | | | | | | |

**LIST ALL OPEN HOLE AND/OR PERFORATED INTERVALS AND INTERVALS WHERE CASING WILL BE VARIED (if any)**

| From | To | From | To |
|---|---|---|---|
| 460 | 1506 | | |
| | | | |

Water level will be measured prior to abandonment. Casing will be perforated from 50 feet above water level to bottom of casing.

**Estimated Cost to Plug Wells**
$10,542

## Certification

I certify under the penalty of law that I have personally examined and am familiar with the information submitted in this document and all attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibliity of fine and imprisonment. (Ref. 40 CFR 144.32)

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|---|---|---|
| Vit Kuhnel, Hydrology Manager | | |

OMB No. 2040-0042 Approval Expires 11/30/2014

United States Environmental Protection Agency
Washington, DC 20460

# PLUGGING AND ABANDONMENT PLAN

**Name and Address of Facility**
EXCELSIOR MINING CORP
GUNNISON PROJECT

**Name and Address of Owner/Operator**
EXCELSIOR MINING CORP
CONCORD PL, 2999 N 44TH ST, STE 300, PHOENIX, AZ 85018

**Locate Well and Outline Unit on Section Plat - 640 Acres**

N
W E
X
S

| State | County | Permit Number |
|---|---|---|
| AZ | Cochise | TBD |

**Surface Location Description**
___ 1/4 of sw 1/4 of sw 1/4 of sw 1/4 of Section 31 Township 15S Range 23E

**Locate well in two directions from nearest lines of quarter section and drilling unit**

**Surface Location** 256 ft. frm (N/S) S Line of quarter section
and 387 ft. from (E/W) W Line of quarter section.

**TYPE OF AUTHORIZATION**
- ☐ Individual Permit
- ☑ Area Permit
- ☐ Rule

Number of Wells 1

Lease Name

**WELL ACTIVITY**
- ☐ CLASS I
- ☐ CLASS II
  - ☐ Brine Disposal
  - ☐ Enhanced Recovery
  - ☐ Hydrocarbon Storage
- ☐ CLASS III

Well Number 55-224941, NSD-002

**CASING AND TUBING RECORD AFTER PLUGGING**

| SIZE | WT (LB/FT) | TO BE PUT IN WELL (FT) | TO BE LEFT IN WELL (FT) | HOLE SIZE |
|---|---|---|---|---|
| 4.5 | Unknown | 0 | 560 | 4.5 |
| | | | | |
| | | | | |
| | | | | |

**METHOD OF EMPLACEMENT OF CEMENT PLUGS**
- ☑ The Balance Method
- ☐ The Dump Bailer Method
- ☐ The Two-Plug Method
- ☐ Other

| CEMENTING TO PLUG AND ABANDON DATA: | PLUG #1 | PLUG #2 | PLUG #3 | PLUG #4 | PLUG #5 | PLUG #6 | PLUG #7 |
|---|---|---|---|---|---|---|---|
| Size of Hole or Pipe in which Plug Will Be Placed (inche | 4.5 | | | | | | |
| Depth to Bottom of Tubing or Drill Pipe (ft | 1907 | | | | | | |
| Sacks of Cement To Be Used (each plug) | 179 | | | | | | |
| Slurry Volume To Be Pumped (cu. ft.) | 211 | | | | | | |
| Calculated Top of Plug (ft.) | 2 | | | | | | |
| Measured Top of Plug (if tagged ft.) | | | | | | | |
| Slurry Wt. (Lb./Gal.) | 15.6 | | | | | | |
| Type Cement or Other Material (Class III) | V | | | | | | |

**LIST ALL OPEN HOLE AND/OR PERFORATED INTERVALS AND INTERVALS WHERE CASING WILL BE VARIED (if any)**

| From | To | From | To |
|---|---|---|---|
| 560 | 1907 | | |
| | | | |

Water level will be measured prior to abandonment. Casing will be perforated from 50 feet above water level to bottom of casing.

**Estimated Cost to Plug Wells**
$13,349

## Certification

I certify under the penalty of law that I have personally examined and am familiar with the information submitted in this document and all attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibliity of fine and imprisonment. (Ref. 40 CFR 144.32)

| Name and Official Title *(Please type or print)* | Signature | Date Signed |
|---|---|---|
| Vit Kuhnel, Hydrology Manager | | |

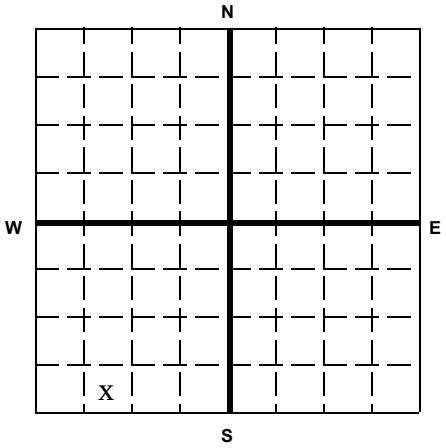
OMB No. 2040-0042 Approval Expires 11/30/2014

United States Environmental Protection Agency
Washington, DC 20460

# PLUGGING AND ABANDONMENT PLAN

| Name and Address of Facility | Name and Address of Owner/Operator |
|---|---|
| EXCELSIOR MINING CORP<br>GUNNISON PROJECT | EXCELSIOR MINING CORP<br>CONCORD PL, 2999 N 44TH ST, STE 300, PHOENIX, AZ 85018 |

Locate Well and Outline Unit on Section Plat - 640 Acres




| State | County | Permit Number |
|---|---|---|
| AZ | Cochise | TBD |

Surface Location Description

1/4 of se 1/4 of sw 1/4 of sw 1/4 of Section 31 Township 15S Range 23E

Locate well in two directions from nearest lines of quarter section and drilling unit

Surface Location 10 ft. frm (N/S) S Line of quarter section and 1032 ft. from (E/W) W Line of quarter section.

**TYPE OF AUTHORIZATION**

- [ ] Individual Permit
- [x] Area Permit
- [ ] Rule

Number of Wells 1

Lease Name

**WELL ACTIVITY**

- [ ] CLASS I
- [ ] CLASS II
  - [ ] Brine Disposal
  - [ ] Enhanced Recovery
  - [ ] Hydrocarbon Storage
- [ ] CLASS III

Well Number 55-224942, NSD-003

**CASING AND TUBING RECORD AFTER PLUGGING**

| SIZE | WT (LB/FT) | TO BE PUT IN WELL (FT) | TO BE LEFT IN WELL (FT) | HOLE SIZE |
|---|---|---|---|---|
| 4.5 | Unknown | 0 | 563 | 4.5 |
| | | | | |
| | | | | |
| | | | | |

**METHOD OF EMPLACEMENT OF CEMENT PLUGS**

- [x] The Balance Method
- [ ] The Dump Bailer Method
- [ ] The Two-Plug Method
- [ ] Other

| CEMENTING TO PLUG AND ABANDON DATA: | PLUG #1 | PLUG #2 | PLUG #3 | PLUG #4 | PLUG #5 | PLUG #6 | PLUG #7 |
|---|---|---|---|---|---|---|---|
| Size of Hole or Pipe in which Plug Will Be Placed (inche | 4.5 | | | | | | |
| Depth to Bottom of Tubing or Drill Pipe (ft | 2008 | | | | | | |
| Sacks of Cement To Be Used (each plug) | 188 | | | | | | |
| Slurry Volume To Be Pumped (cu. ft.) | 222 | | | | | | |
| Calculated Top of Plug (ft.) | 2 | | | | | | |
| Measured Top of Plug (if tagged ft.) | | | | | | | |
| Slurry Wt. (Lb./Gal.) | 15.6 | | | | | | |
| Type Cement or Other Material (Class III) | V | | | | | | |

**LIST ALL OPEN HOLE AND/OR PERFORATED INTERVALS AND INTERVALS WHERE CASING WILL BE VARIED (if any)**

| From | To | From | To |
|---|---|---|---|
| 563 | 2008 | | |

Water level will be measured prior to abandonment. Casing will be perforated from 50 feet above water level to bottom of casing.

Estimated Cost to Plug Wells

$14,056

## Certification

I certify under the penalty of law that I have personally examined and am familiar with the information submitted in this document and all attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibliity of fine and imprisonment. (Ref. 40 CFR 144.32)

| Name and Official Title *(Please type or print)* | Signature | Date Signed |
|---|---|---|
| Vit Kuhnel, Hydrology Manager | | |

OMB No. 2040-0042 Approval Expires 11/30/2014

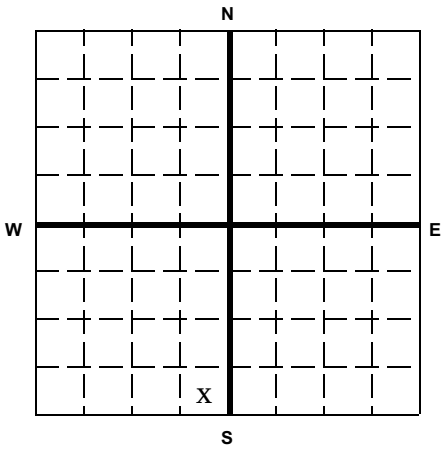
United States Environmental Protection Agency
Washington, DC 20460

# PLUGGING AND ABANDONMENT PLAN

**Name and Address of Facility**
EXCELSIOR MINING CORP
GUNNISON PROJECT

**Name and Address of Owner/Operator**
EXCELSIOR MINING CORP
CONCORD PL, 2999 N 44TH ST, STE 300, PHOENIX, AZ 85018

**Locate Well and Outline Unit on Section Plat - 640 Acres**




| State | County | Permit Number |
|---|---|---|
| AZ | Cochise | TBD |

**Surface Location Description**
___ 1/4 of se 1/4 of se 1/4 of sw 1/4 of Section 31 Township 15S Range 23E

**Locate well in two directions from nearest lines of quarter section and drilling unit**

**Surface Location** 366 ft. frm (N/S) S Line of quarter section
and 449 ft. from (E/W) E Line of quarter section.

**TYPE OF AUTHORIZATION**
- [ ] Individual Permit
- [x] Area Permit
- [ ] Rule

Number of Wells 1

Lease Name

**WELL ACTIVITY**
- [ ] CLASS I
- [ ] CLASS II
  - [ ] Brine Disposal
  - [ ] Enhanced Recovery
  - [ ] Hydrocarbon Storage
- [ ] CLASS III

Well Number 55-224943, NSD-009

**CASING AND TUBING RECORD AFTER PLUGGING**

| SIZE | WT (LB/FT) | TO BE PUT IN WELL (FT) | TO BE LEFT IN WELL (FT) | HOLE SIZE |
|---|---|---|---|---|
| 4.5 | Unknown | 0 | 620 | 4.5 |
| | | | | |
| | | | | |
| | | | | |

**METHOD OF EMPLACEMENT OF CEMENT PLUGS**
- [x] The Balance Method
- [ ] The Dump Bailer Method
- [ ] The Two-Plug Method
- [ ] Other

| CEMENTING TO PLUG AND ABANDON DATA: | PLUG #1 | PLUG #2 | PLUG #3 | PLUG #4 | PLUG #5 | PLUG #6 | PLUG #7 |
|---|---|---|---|---|---|---|---|
| Size of Hole or Pipe in which Plug Will Be Placed (inche | 4.5 | | | | | | |
| Depth to Bottom of Tubing or Drill Pipe (ft | 1793 | | | | | | |
| Sacks of Cement To Be Used (each plug) | 168 | | | | | | |
| Slurry Volume To Be Pumped (cu. ft.) | 198 | | | | | | |
| Calculated Top of Plug (ft.) | 2 | | | | | | |
| Measured Top of Plug (if tagged ft.) | | | | | | | |
| Slurry Wt. (Lb./Gal.) | 15.6 | | | | | | |
| Type Cement or Other Material (Class III) | V | | | | | | |

**LIST ALL OPEN HOLE AND/OR PERFORATED INTERVALS AND INTERVALS WHERE CASING WILL BE VARIED (if any)**

| From | To | From | To |
|---|---|---|---|
| 620 | 1793 | | |

Water level will be measured prior to abandonment. Casing will be perforated from 50 feet above water level to bottom of casing.

**Estimated Cost to Plug Wells**
$12,551

## Certification

I certify under the penalty of law that I have personally examined and am familiar with the information submitted in this document and all attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibliity of fine and imprisonment. (Ref. 40 CFR 144.32)

| Name and Official Title *(Please type or print)* | Signature | Date Signed |
|---|---|---|
| Vit Kuhnel, Hydrology Manager | | |

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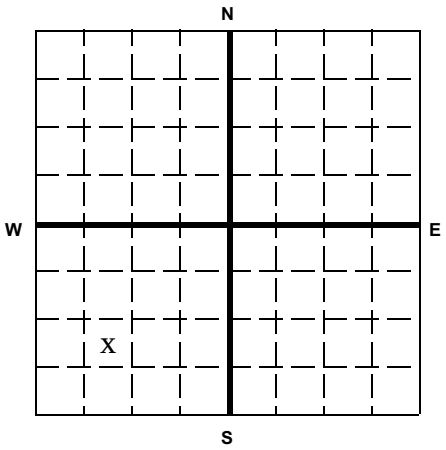
United States Environmental Protection Agency
Washington, DC 20460

# PLUGGING AND ABANDONMENT PLAN

**Name and Address of Facility**
EXCELSIOR MINING CORP
GUNNISON PROJECT

**Name and Address of Owner/Operator**
EXCELSIOR MINING CORP
CONCORD PL, 2999 N 44TH ST, STE 300, PHOENIX, AZ 85018

**Locate Well and Outline Unit on Section Plat - 640 Acres**




| State | County | Permit Number |
|---|---|---|
| AZ | Cochise | TBD |

**Surface Location Description**
___ 1/4 of ne 1/4 of sw 1/4 of sw 1/4 of Section 31 Township 15S Range 23E

Locate well in two directions from nearest lines of quarter section and drilling unit

Surface Location 1222 ft. frm (N/S) S Line of quarter section
and 980 ft. from (E/W) W Line of quarter section.

**TYPE OF AUTHORIZATION**
- [ ] Individual Permit
- [x] Area Permit
- [ ] Rule

Number of Wells 1

Lease Name

**WELL ACTIVITY**
- [ ] CLASS I
- [ ] CLASS II
  - [ ] Brine Disposal
  - [ ] Enhanced Recovery
  - [ ] Hydrocarbon Storage
- [ ] CLASS III

Well Number 55-224944, NSD-011

**CASING AND TUBING RECORD AFTER PLUGGING**

| SIZE | WT (LB/FT) | TO BE PUT IN WELL (FT) | TO BE LEFT IN WELL (FT) | HOLE SIZE |
|---|---|---|---|---|
| 4.5 | Unknown | 0 | 650 | 4.5 |
| | | | | |
| | | | | |
| | | | | |

**METHOD OF EMPLACEMENT OF CEMENT PLUGS**
- [x] The Balance Method
- [ ] The Dump Bailer Method
- [ ] The Two-Plug Method
- [ ] Other

| CEMENTING TO PLUG AND ABANDON DATA: | PLUG #1 | PLUG #2 | PLUG #3 | PLUG #4 | PLUG #5 | PLUG #6 | PLUG #7 |
|---|---|---|---|---|---|---|---|
| Size of Hole or Pipe in which Plug Will Be Placed (inche | 6.25 | 3.75 | | | | | |
| Depth to Bottom of Tubing or Drill Pipe (ft | 650 | 1440 | | | | | |
| Sacks of Cement To Be Used (each plug) | 117 | 51 | | | | | |
| Slurry Volume To Be Pumped (cu. ft.) | 138 | 61 | | | | | |
| Calculated Top of Plug (ft.) | 2 | 650 | | | | | |
| Measured Top of Plug (if tagged ft.) | | | | | | | |
| Slurry Wt. (Lb./Gal.) | 15.6 | 15.6 | | | | | |
| Type Cement or Other Material (Class III) | V | V | | | | | |

**LIST ALL OPEN HOLE AND/OR PERFORATED INTERVALS AND INTERVALS WHERE CASING WILL BE VARIED (if any)**

| From | To | From | To |
|---|---|---|---|
| ~620 | 1440 | | |

Water level will be measured prior to abandonment. Casing will be perforated from 50 feet above water level to bottom of casing.

**Estimated Cost to Plug Wells**
$10,080

## Certification

I certify under the penalty of law that I have personally examined and am familiar with the information submitted in this document and all attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibliity of fine and imprisonment. (Ref. 40 CFR 144.32)

| Name and Official Title *(Please type or print)* | Signature | Date Signed |
|---|---|---|
| Vit Kuhnel, Hydrology Manager | | |

OMB No. 2040-0042 Approval Expires 11/30/2014

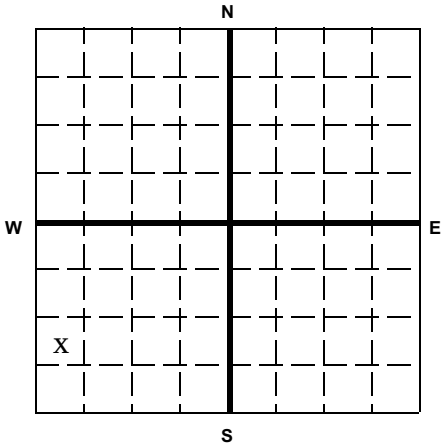
United States Environmental Protection Agency
Washington, DC 20460

# PLUGGING AND ABANDONMENT PLAN

**Name and Address of Facility**
EXCELSIOR MINING CORP
GUNNISON PROJECT

**Name and Address of Owner/Operator**
EXCELSIOR MINING CORP
CONCORD PL, 2999 N 44TH ST, STE 300, PHOENIX, AZ 85018

**Locate Well and Outline Unit on Section Plat - 640 Acres**




| State | County | Permit Number |
|---|---|---|
| AZ | Cochise | TBD |

**Surface Location Description**
1/4 of nw 1/4 of sw 1/4 of sw 1/4 of Section 31 Township 15S Range 23E

Locate well in two directions from nearest lines of quarter section and drilling unit

Surface Location 1174 ft. frm (N/S) S Line of quarter section
and 324 ft. from (E/W) W Line of quarter section.

**TYPE OF AUTHORIZATION**
- [ ] Individual Permit
- [x] Area Permit
- [ ] Rule

Number of Wells 1

Lease Name

**WELL ACTIVITY**
- [ ] CLASS I
- [ ] CLASS II
  - [ ] Brine Disposal
  - [ ] Enhanced Recovery
  - [ ] Hydrocarbon Storage
- [ ] CLASS III

Well Number 55-224945, NSD-019

**CASING AND TUBING RECORD AFTER PLUGGING**

| SIZE | WT (LB/FT) | TO BE PUT IN WELL (FT) | TO BE LEFT IN WELL (FT) | HOLE SIZE |
|---|---|---|---|---|
| 4.5 | Unknown | 0 | 620 | 4.5 |
| | | | | |
| | | | | |
| | | | | |

**METHOD OF EMPLACEMENT OF CEMENT PLUGS**
- [x] The Balance Method
- [ ] The Dump Bailer Method
- [ ] The Two-Plug Method
- [ ] Other

| CEMENTING TO PLUG AND ABANDON DATA: | PLUG #1 | PLUG #2 | PLUG #3 | PLUG #4 | PLUG #5 | PLUG #6 | PLUG #7 |
|---|---|---|---|---|---|---|---|
| Size of Hole or Pipe in which Plug Will Be Placed (inche | 4.5 | | | | | | |
| Depth to Bottom of Tubing or Drill Pipe (ft | 1454 | | | | | | |
| Sacks of Cement To Be Used (each plug) | 136 | | | | | | |
| Slurry Volume To Be Pumped (cu. ft.) | 161 | | | | | | |
| Calculated Top of Plug (ft.) | 2 | | | | | | |
| Measured Top of Plug (if tagged ft.) | | | | | | | |
| Slurry Wt. (Lb./Gal.) | 15.6 | | | | | | |
| Type Cement or Other Material (Class III) | V | | | | | | |

**LIST ALL OPEN HOLE AND/OR PERFORATED INTERVALS AND INTERVALS WHERE CASING WILL BE VARIED (if any)**

| From | To | From | To |
|---|---|---|---|
| 620 | 1454 | | |

Water level will be measured prior to abandonment. Casing will be perforated from 50 feet above water level to bottom of casing.

**Estimated Cost to Plug Wells**
$10,178

## Certification

I certify under the penalty of law that I have personally examined and am familiar with the information submitted in this document and all attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibliity of fine and imprisonment. (Ref. 40 CFR 144.32)

| Name and Official Title *(Please type or print)* | Signature | Date Signed |
|---|---|---|
| Vit Kuhnel, Hydrology Manager | | |

OMB No. 2040-0042 Approval Expires 11/30/2014

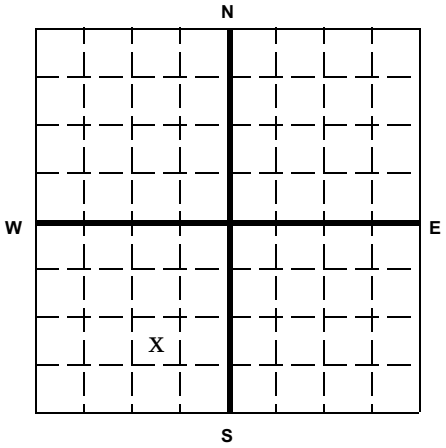
United States Environmental Protection Agency
Washington, DC 20460

# PLUGGING AND ABANDONMENT PLAN

**Name and Address of Facility**
EXCELSIOR MINING CORP
GUNNISON PROJECT

**Name and Address of Owner/Operator**
EXCELSIOR MINING CORP
CONCORD PL, 2999 N 44TH ST, STE 300, PHOENIX, AZ 85018

**Locate Well and Outline Unit on Section Plat - 640 Acres**




| State | County | Permit Number |
|---|---|---|
| AZ | Cochise | TBD |

**Surface Location Description**
1/4 of nw 1/4 of se 1/4 of sw 1/4 of Section 31 Township 15S Range 23E

Locate well in two directions from nearest lines of quarter section and drilling unit

Surface Location 858 ft. frm (N/S) S Line of quarter section
and 934 ft. from (E/W) E Line of quarter section.

**TYPE OF AUTHORIZATION**
- [ ] Individual Permit
- [x] Area Permit
- [ ] Rule

Number of Wells 1

Lease Name

**WELL ACTIVITY**
- [ ] CLASS I
- [ ] CLASS II
  - [ ] Brine Disposal
  - [ ] Enhanced Recovery
  - [ ] Hydrocarbon Storage
- [ ] CLASS III

Well Number 55-224946, NSD-020

**CASING AND TUBING RECORD AFTER PLUGGING**

| SIZE | WT (LB/FT) | TO BE PUT IN WELL (FT) | TO BE LEFT IN WELL (FT) | HOLE SIZE |
|---|---|---|---|---|
| 4.5 | Unknown | 0 | 660 | 4.5 |
| | | | | |
| | | | | |
| | | | | |

**METHOD OF EMPLACEMENT OF CEMENT PLUGS**
- [x] The Balance Method
- [ ] The Dump Bailer Method
- [ ] The Two-Plug Method
- [ ] Other

| CEMENTING TO PLUG AND ABANDON DATA: | PLUG #1 | PLUG #2 | PLUG #3 | PLUG #4 | PLUG #5 | PLUG #6 | PLUG #7 |
|---|---|---|---|---|---|---|---|
| Size of Hole or Pipe in which Plug Will Be Placed (inche | 4.5 | | | | | | |
| Depth to Bottom of Tubing or Drill Pipe (ft | 660 | | | | | | |
| Sacks of Cement To Be Used (each plug) | 62 | | | | | | |
| Slurry Volume To Be Pumped (cu. ft.) | 73 | | | | | | |
| Calculated Top of Plug (ft.) | 2 | | | | | | |
| Measured Top of Plug (if tagged ft.) | | | | | | | |
| Slurry Wt. (Lb./Gal.) | 15.6 | | | | | | |
| Type Cement or Other Material (Class III) | V | | | | | | |

**LIST ALL OPEN HOLE AND/OR PERFORATED INTERVALS AND INTERVALS WHERE CASING WILL BE VARIED (if any)**

| From | To | From | To |
|---|---|---|---|
| | | | |

Water level will be measured prior to abandonment. Casing will be perforated from 50 feet above water level to bottom of casing.

**Estimated Cost to Plug Wells**
$4,620

## Certification

I certify under the penalty of law that I have personally examined and am familiar with the information submitted in this document and all attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibliity of fine and imprisonment. (Ref. 40 CFR 144.32)

| Name and Official Title *(Please type or print)* | Signature | Date Signed |
|---|---|---|
| Vit Kuhnel, Hydrology Manager | | |

OMB No. 2040-0042 Approval Expires 11/30/2014

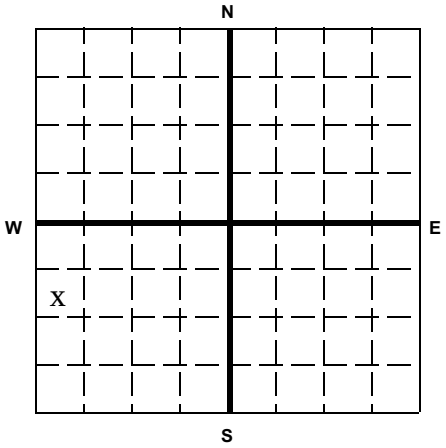
United States Environmental Protection Agency
Washington, DC 20460

# PLUGGING AND ABANDONMENT PLAN

**Name and Address of Facility**
EXCELSIOR MINING CORP
GUNNISON PROJECT

**Name and Address of Owner/Operator**
EXCELSIOR MINING CORP
CONCORD PL, 2999 N 44TH ST, STE 300, PHOENIX, AZ 85018

**Locate Well and Outline Unit on Section Plat - 640 Acres**




| State | County | Permit Number |
|---|---|---|
| AZ | Cochise | TBD |

**Surface Location Description**
1/4 of sw 1/4 of nw 1/4 of sw 1/4 of Section 31 Township 15S Range 23E

Locate well in two directions from nearest lines of quarter section and drilling unit

Surface Location 1170 ft. frm (N/S) N Line of quarter section
and 455 ft. from (E/W) W Line of quarter section.

**TYPE OF AUTHORIZATION**
- [ ] Individual Permit
- [x] Area Permit
- [ ] Rule

Number of Wells 1

Lease Name

**WELL ACTIVITY**
- [ ] CLASS I
- [ ] CLASS II
  - [ ] Brine Disposal
  - [ ] Enhanced Recovery
  - [ ] Hydrocarbon Storage
- [ ] CLASS III

Well Number 55-224930, NSD-023

**CASING AND TUBING RECORD AFTER PLUGGING**

| SIZE | WT (LB/FT) | TO BE PUT IN WELL (FT) | TO BE LEFT IN WELL (FT) | HOLE SIZE |
|---|---|---|---|---|
| 4.5 | Unknown | 0 | 552 | 4.5 |
| | | | | |
| | | | | |
| | | | | |

**METHOD OF EMPLACEMENT OF CEMENT PLUGS**
- [x] The Balance Method
- [ ] The Dump Bailer Method
- [ ] The Two-Plug Method
- [ ] Other

| CEMENTING TO PLUG AND ABANDON DATA: | PLUG #1 | PLUG #2 | PLUG #3 | PLUG #4 | PLUG #5 | PLUG #6 | PLUG #7 |
|---|---|---|---|---|---|---|---|
| Size of Hole or Pipe in which Plug Will Be Placed (inche | 4.5 | | | | | | |
| Depth to Bottom of Tubing or Drill Pipe (ft | 1546 | | | | | | |
| Sacks of Cement To Be Used (each plug) | 145 | | | | | | |
| Slurry Volume To Be Pumped (cu. ft.) | 171 | | | | | | |
| Calculated Top of Plug (ft.) | 2 | | | | | | |
| Measured Top of Plug (if tagged ft.) | | | | | | | |
| Slurry Wt. (Lb./Gal.) | 15.6 | | | | | | |
| Type Cement or Other Material (Class III) | V | | | | | | |

**LIST ALL OPEN HOLE AND/OR PERFORATED INTERVALS AND INTERVALS WHERE CASING WILL BE VARIED (if any)**

| From | To | From | To |
|---|---|---|---|
| 552 | 1546 | | |

Water level will be measured prior to abandonment. Casing will be perforated from 50 feet above water level to bottom of casing.

**Estimated Cost to Plug Wells**
$10,822

## Certification

I certify under the penalty of law that I have personally examined and am familiar with the information submitted in this document and all attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibliity of fine and imprisonment. (Ref. 40 CFR 144.32)

| Name and Official Title *(Please type or print)* | Signature | Date Signed |
|---|---|---|
| Vit Kuhnel, Hydrology Manager | | |

OMB No. 2040-0042 Approval Expires 11/30/2014

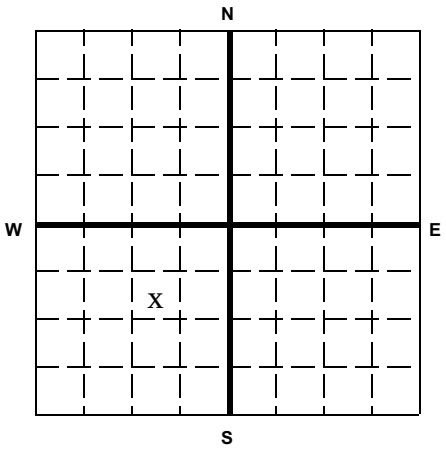
United States Environmental Protection Agency
Washington, DC 20460

# PLUGGING AND ABANDONMENT PLAN

**Name and Address of Facility**
EXCELSIOR MINING CORP
GUNNISON PROJECT

**Name and Address of Owner/Operator**
EXCELSIOR MINING CORP
CONCORD PL, 2999 N 44TH ST, STE 300, PHOENIX, AZ 85018

**Locate Well and Outline Unit on Section Plat - 640 Acres**




| State | County | Permit Number |
|---|---|---|
| AZ | Cochise | TBD |

**Surface Location Description**
___ 1/4 of sw 1/4 of ne 1/4 of sw 1/4 of Section 31 Township 15S Range 23E

**Locate well in two directions from nearest lines of quarter section and drilling unit**

**Surface Location** 1278 ft. frm (N/S) N Line of quarter section
and 1081 ft. from (E/W) E Line of quarter section.

**TYPE OF AUTHORIZATION**
- ☐ Individual Permit
- ☑ Area Permit
- ☐ Rule

Number of Wells 1

Lease Name

**WELL ACTIVITY**
- ☐ CLASS I
- ☐ CLASS II
  - ☐ Brine Disposal
  - ☐ Enhanced Recovery
  - ☐ Hydrocarbon Storage
- ☐ CLASS III

Well Number 55-224931, NSD-024

**CASING AND TUBING RECORD AFTER PLUGGING**

| SIZE | WT (LB/FT) | TO BE PUT IN WELL (FT) | TO BE LEFT IN WELL (FT) | HOLE SIZE |
|---|---|---|---|---|
| 4.5 | Unknown | 0 | 671 | 4.5 |
| | | | | |
| | | | | |
| | | | | |

**METHOD OF EMPLACEMENT OF CEMENT PLUGS**
- ☑ The Balance Method
- ☐ The Dump Bailer Method
- ☐ The Two-Plug Method
- ☐ Other

| CEMENTING TO PLUG AND ABANDON DATA: | PLUG #1 | PLUG #2 | PLUG #3 | PLUG #4 | PLUG #5 | PLUG #6 | PLUG #7 |
|---|---|---|---|---|---|---|---|
| Size of Hole or Pipe in which Plug Will Be Placed (inche | 4.5 | | | | | | |
| Depth to Bottom of Tubing or Drill Pipe (ft | 1972 | | | | | | |
| Sacks of Cement To Be Used (each plug) | 185 | | | | | | |
| Slurry Volume To Be Pumped (cu. ft.) | 218 | | | | | | |
| Calculated Top of Plug (ft.) | 2 | | | | | | |
| Measured Top of Plug (if tagged ft.) | | | | | | | |
| Slurry Wt. (Lb./Gal.) | 15.6 | | | | | | |
| Type Cement or Other Material (Class III) | V | | | | | | |

**LIST ALL OPEN HOLE AND/OR PERFORATED INTERVALS AND INTERVALS WHERE CASING WILL BE VARIED (if any)**

| From | To | From | To |
|---|---|---|---|
| 671 | 1972 | | |

Water level will be measured prior to abandonment. Casing will be perforated from 50 feet above water level to bottom of casing.

**Estimated Cost to Plug Wells**
$13,804

## Certification

I certify under the penalty of law that I have personally examined and am familiar with the information submitted in this document and all attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibliity of fine and imprisonment. (Ref. 40 CFR 144.32)

| Name and Official Title *(Please type or print)* | Signature | Date Signed |
|---|---|---|
| Vit Kuhnel, Hydrology Manager | | |

OMB No. 2040-0042 Approval Expires 11/30/2014

United States Environmental Protection Agency
Washington, DC 20460

# PLUGGING AND ABANDONMENT PLAN

**Name and Address of Facility**
EXCELSIOR MINING CORP
GUNNISON PROJECT

**Name and Address of Owner/Operator**
EXCELSIOR MINING CORP
CONCORD PL, 2999 N 44TH ST, STE 300, PHOENIX, AZ 85018

**Locate Well and Outline Unit on Section Plat - 640 Acres**

N
W E
X
S

| State | County | Permit Number |
|---|---|---|
| AZ | Cochise | TBD |

**Surface Location Description**
1/4 of sw 1/4 of se 1/4 of sw 1/4 of Section 31 Township 15S Range 23E

Locate well in two directions from nearest lines of quarter section and drilling unit

Surface Location 364 ft. frm (N/S) S Line of quarter section
and 1173 ft. from (E/W) E Line of quarter section.

**TYPE OF AUTHORIZATION**
- [ ] Individual Permit
- [x] Area Permit
- [ ] Rule

Number of Wells 1

Lease Name

**WELL ACTIVITY**
- [ ] CLASS I
- [ ] CLASS II
  - [ ] Brine Disposal
  - [ ] Enhanced Recovery
  - [ ] Hydrocarbon Storage
- [ ] CLASS III

Well Number 55-224932, NSD-025

**CASING AND TUBING RECORD AFTER PLUGGING**

| SIZE | WT (LB/FT) | TO BE PUT IN WELL (FT) | TO BE LEFT IN WELL (FT) | HOLE SIZE |
|---|---|---|---|---|
| 4.5 | Unknown | 0 | 637 | 4.5 |
| | | | | |
| | | | | |
| | | | | |

**METHOD OF EMPLACEMENT OF CEMENT PLUGS**
- [x] The Balance Method
- [ ] The Dump Bailer Method
- [ ] The Two-Plug Method
- [ ] Other

| CEMENTING TO PLUG AND ABANDON DATA: | PLUG #1 | PLUG #2 | PLUG #3 | PLUG #4 | PLUG #5 | PLUG #6 | PLUG #7 |
|---|---|---|---|---|---|---|---|
| Size of Hole or Pipe in which Plug Will Be Placed (inche | 4.5 | | | | | | |
| Depth to Bottom of Tubing or Drill Pipe (ft | 1644 | | | | | | |
| Sacks of Cement To Be Used (each plug) | 154 | | | | | | |
| Slurry Volume To Be Pumped (cu. ft.) | 182 | | | | | | |
| Calculated Top of Plug (ft.) | 2 | | | | | | |
| Measured Top of Plug (if tagged ft.) | | | | | | | |
| Slurry Wt. (Lb./Gal.) | 15.6 | | | | | | |
| Type Cement or Other Material (Class III) | V | | | | | | |

**LIST ALL OPEN HOLE AND/OR PERFORATED INTERVALS AND INTERVALS WHERE CASING WILL BE VARIED (if any)**

| From | To | From | To |
|---|---|---|---|
| 637 | 1644 | | |
| | | | |

Water level will be measured prior to abandonment. Casing will be perforated from 50 feet above water level to bottom of casing.

**Estimated Cost to Plug Wells**
$11,508

## Certification

I certify under the penalty of law that I have personally examined and am familiar with the information submitted in this document and all attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibliity of fine and imprisonment. (Ref. 40 CFR 144.32)

| Name and Official Title *(Please type or print)* | Signature | Date Signed |
|---|---|---|
| Vit Kuhnel, Hydrology Manager | | |

OMB No. 2040-0042 Approval Expires 11/30/2014

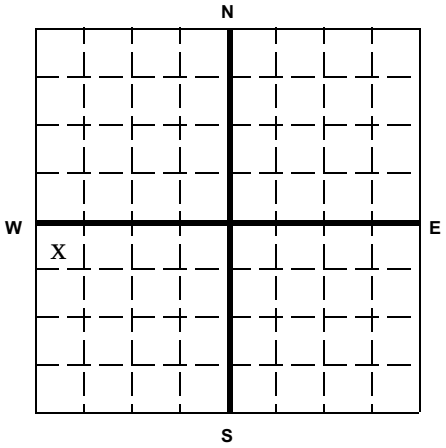
United States Environmental Protection Agency
Washington, DC 20460

# PLUGGING AND ABANDONMENT PLAN

**Name and Address of Facility**
EXCELSIOR MINING CORP
GUNNISON PROJECT

**Name and Address of Owner/Operator**
EXCELSIOR MINING CORP
CONCORD PL, 2999 N 44TH ST, STE 300, PHOENIX, AZ 85018

**Locate Well and Outline Unit on Section Plat - 640 Acres**




| State | County | Permit Number |
|---|---|---|
| AZ | Cochise | TBD |

**Surface Location Description**
___ 1/4 of ne 1/4 of ne 1/4 of se 1/4 of Section 36 Township 15S Range 22E

Locate well in two directions from nearest lines of quarter section and drilling unit

Surface Location 591 ft. frm (N/S) N Line of quarter section
and 1 ft. from (E/W) W Line of quarter section.

**TYPE OF AUTHORIZATION**
- ☐ Individual Permit
- ☑ Area Permit
- ☐ Rule

Number of Wells 1

Lease Name

**WELL ACTIVITY**
- ☐ CLASS I
- ☐ CLASS II
  - ☐ Brine Disposal
  - ☐ Enhanced Recovery
  - ☐ Hydrocarbon Storage
- ☐ CLASS III

Well Number 55-224154, NSD-026

**CASING AND TUBING RECORD AFTER PLUGGING**

| SIZE | WT (LB/FT) | TO BE PUT IN WELL (FT) | TO BE LEFT IN WELL (FT) | HOLE SIZE |
|---|---|---|---|---|
| 4.5 | Unknown | 0 | 436 | 4.5 |
| | | | | |
| | | | | |
| | | | | |

**METHOD OF EMPLACEMENT OF CEMENT PLUGS**
- ☑ The Balance Method
- ☐ The Dump Bailer Method
- ☐ The Two-Plug Method
- ☐ Other

| CEMENTING TO PLUG AND ABANDON DATA: | PLUG #1 | PLUG #2 | PLUG #3 | PLUG #4 | PLUG #5 | PLUG #6 | PLUG #7 |
|---|---|---|---|---|---|---|---|
| Size of Hole or Pipe in which Plug Will Be Placed (inche | 4.5 | | | | | | |
| Depth to Bottom of Tubing or Drill Pipe (ft | 1168 | | | | | | |
| Sacks of Cement To Be Used (each plug) | 109 | | | | | | |
| Slurry Volume To Be Pumped (cu. ft.) | 129 | | | | | | |
| Calculated Top of Plug (ft.) | 2 | | | | | | |
| Measured Top of Plug (if tagged ft.) | | | | | | | |
| Slurry Wt. (Lb./Gal.) | 15.6 | | | | | | |
| Type Cement or Other Material (Class III) | V | | | | | | |

**LIST ALL OPEN HOLE AND/OR PERFORATED INTERVALS AND INTERVALS WHERE CASING WILL BE VARIED (if any)**

| From | To | From | To |
|---|---|---|---|
| 436 | 1168 | | |
| | | | |

Water level will be measured prior to abandonment. Casing will be perforated from 50 feet above water level to bottom of casing.

**Estimated Cost to Plug Wells**
$8,176

## Certification

I certify under the penalty of law that I have personally examined and am familiar with the information submitted in this document and all attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibliity of fine and imprisonment. (Ref. 40 CFR 144.32)

| Name and Official Title *(Please type or print)* | Signature | Date Signed |
|---|---|---|
| Vit Kuhnel, Hydrology Manager | | |

OMB No. 2040-0042 Approval Expires 11/30/2014

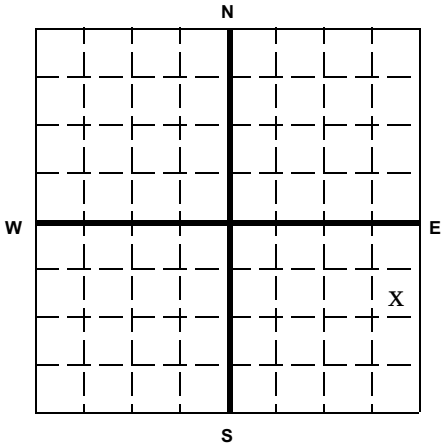
United States Environmental Protection Agency
Washington, DC 20460

# PLUGGING AND ABANDONMENT PLAN

**Name and Address of Facility**
EXCELSIOR MINING CORP
GUNNISON PROJECT

**Name and Address of Owner/Operator**
EXCELSIOR MINING CORP
CONCORD PL, 2999 N 44TH ST, STE 300, PHOENIX, AZ 85018

**Locate Well and Outline Unit on Section Plat - 640 Acres**




| State | County | Permit Number |
|---|---|---|
| AZ | Cochise | TBD |

**Surface Location Description**
1/4 of se 1/4 of ne 1/4 of se 1/4 of Section 36 Township 15S Range 22E

Locate well in two directions from nearest lines of quarter section and drilling unit

Surface Location 930 ft. frm (N/S) N Line of quarter section
and 537 ft. from (E/W) E Line of quarter section.

**TYPE OF AUTHORIZATION**
- [ ] Individual Permit
- [x] Area Permit
- [ ] Rule

Number of Wells 1

Lease Name

**WELL ACTIVITY**
- [ ] CLASS I
- [ ] CLASS II
  - [ ] Brine Disposal
  - [ ] Enhanced Recovery
  - [ ] Hydrocarbon Storage
- [ ] CLASS III

Well Number 55-224936, NSD-027

**CASING AND TUBING RECORD AFTER PLUGGING**

| SIZE | WT (LB/FT) | TO BE PUT IN WELL (FT) | TO BE LEFT IN WELL (FT) | HOLE SIZE |
|---|---|---|---|---|
| 4.5 | Unknown | 0 | 404 | 4.5 |
| | | | | |
| | | | | |
| | | | | |

**METHOD OF EMPLACEMENT OF CEMENT PLUGS**
- [x] The Balance Method
- [ ] The Dump Bailer Method
- [ ] The Two-Plug Method
- [ ] Other

| CEMENTING TO PLUG AND ABANDON DATA: | PLUG #1 | PLUG #2 | PLUG #3 | PLUG #4 | PLUG #5 | PLUG #6 | PLUG #7 |
|---|---|---|---|---|---|---|---|
| Size of Hole or Pipe in which Plug Will Be Placed (inche | 4.5 | | | | | | |
| Depth to Bottom of Tubing or Drill Pipe (ft | 1005 | | | | | | |
| Sacks of Cement To Be Used (each plug) | 94 | | | | | | |
| Slurry Volume To Be Pumped (cu. ft.) | 111 | | | | | | |
| Calculated Top of Plug (ft.) | 2 | | | | | | |
| Measured Top of Plug (if tagged ft.) | | | | | | | |
| Slurry Wt. (Lb./Gal.) | 15.6 | | | | | | |
| Type Cement or Other Material (Class III) | V | | | | | | |

**LIST ALL OPEN HOLE AND/OR PERFORATED INTERVALS AND INTERVALS WHERE CASING WILL BE VARIED (if any)**

| From | To | From | To |
|---|---|---|---|
| 404 | 1005 | | |

Water level will be measured prior to abandonment. Casing will be perforated from 50 feet above water level to bottom of casing.

**Estimated Cost to Plug Wells**
$7,035

## Certification

I certify under the penalty of law that I have personally examined and am familiar with the information submitted in this document and all attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibliity of fine and imprisonment. (Ref. 40 CFR 144.32)

| Name and Official Title *(Please type or print)* | Signature | Date Signed |
|---|---|---|
| Vit Kuhnel, Hydrology Manager | | |

OMB No. 2040-0042 Approval Expires 11/30/2014

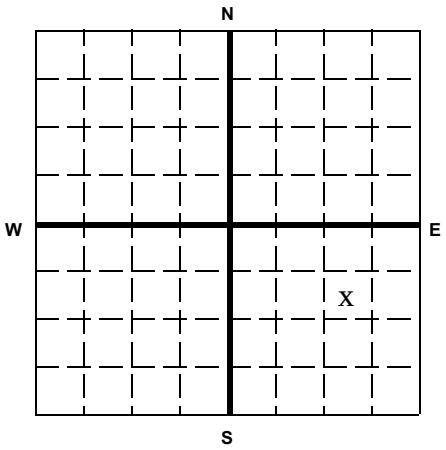
United States Environmental Protection Agency
Washington, DC 20460

# PLUGGING AND ABANDONMENT PLAN

**Name and Address of Facility**
EXCELSIOR MINING CORP
GUNNISON PROJECT

**Name and Address of Owner/Operator**
EXCELSIOR MINING CORP
CONCORD PL, 2999 N 44TH ST, STE 300, PHOENIX, AZ 85018

**Locate Well and Outline Unit on Section Plat - 640 Acres**




| State | County | Permit Number |
|---|---|---|
| AZ | Cochise | TBD |

**Surface Location Description**
1/4 of sw 1/4 of ne 1/4 of se 1/4 of Section 36 Township 15S Range 22E

Locate well in two directions from nearest lines of quarter section and drilling unit

Surface Location 930 ft. frm (N/S) N Line of quarter section
and 1061 ft. from (E/W) E Line of quarter section.

**TYPE OF AUTHORIZATION**
- [ ] Individual Permit
- [x] Area Permit
- [ ] Rule

Number of Wells 1

Lease Name

**WELL ACTIVITY**
- [ ] CLASS I
- [ ] CLASS II
  - [ ] Brine Disposal
  - [ ] Enhanced Recovery
  - [ ] Hydrocarbon Storage
- [ ] CLASS III

Well Number 55-224937, NSD-028

**CASING AND TUBING RECORD AFTER PLUGGING**

| SIZE | WT (LB/FT) | TO BE PUT IN WELL (FT) | TO BE LEFT IN WELL (FT) | HOLE SIZE |
|---|---|---|---|---|
| 4.5 | Unknown | 0 | 396 | 4.5 |
| | | | | |
| | | | | |
| | | | | |

**METHOD OF EMPLACEMENT OF CEMENT PLUGS**
- [x] The Balance Method
- [ ] The Dump Bailer Method
- [ ] The Two-Plug Method
- [ ] Other

| CEMENTING TO PLUG AND ABANDON DATA: | PLUG #1 | PLUG #2 | PLUG #3 | PLUG #4 | PLUG #5 | PLUG #6 | PLUG #7 |
|---|---|---|---|---|---|---|---|
| Size of Hole or Pipe in which Plug Will Be Placed (inche | 4.5 | | | | | | |
| Depth to Bottom of Tubing or Drill Pipe (ft | 755 | | | | | | |
| Sacks of Cement To Be Used (each plug) | 70 | | | | | | |
| Slurry Volume To Be Pumped (cu. ft.) | 83 | | | | | | |
| Calculated Top of Plug (ft.) | 2 | | | | | | |
| Measured Top of Plug (if tagged ft.) | | | | | | | |
| Slurry Wt. (Lb./Gal.) | 15.6 | | | | | | |
| Type Cement or Other Material (Class III) | V | | | | | | |

**LIST ALL OPEN HOLE AND/OR PERFORATED INTERVALS AND INTERVALS WHERE CASING WILL BE VARIED (if any)**

| From | To | From | To |
|---|---|---|---|
| 396 | 755 | | |

Water level will be measured prior to abandonment. Casing will be perforated from 50 feet above water level to bottom of casing.

**Estimated Cost to Plug Wells**
$5,285

## Certification

I certify under the penalty of law that I have personally examined and am familiar with the information submitted in this document and all attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibliity of fine and imprisonment. (Ref. 40 CFR 144.32)

| Name and Official Title *(Please type or print)* | Signature | Date Signed |
|---|---|---|
| Vit Kuhnel, Hydrology Manager | | |

OMB No. 2040-0042 Approval Expires 11/30/2014

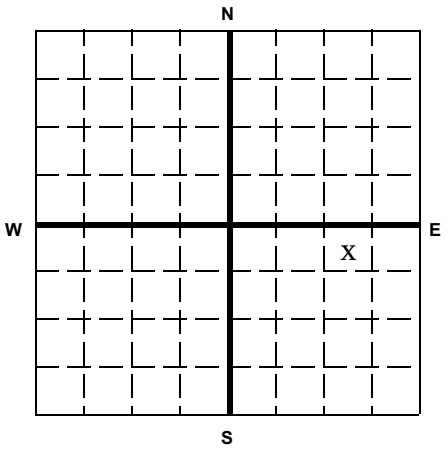
United States Environmental Protection Agency
Washington, DC 20460

# PLUGGING AND ABANDONMENT PLAN

**Name and Address of Facility**
EXCELSIOR MINING CORP
GUNNISON PROJECT

**Name and Address of Owner/Operator**
EXCELSIOR MINING CORP
CONCORD PL, 2999 N 44TH ST, STE 300, PHOENIX, AZ 85018

**Locate Well and Outline Unit on Section Plat - 640 Acres**




| State | County | Permit Number |
|---|---|---|
| AZ | Cochise | TBD |

**Surface Location Description**
1/4 of nw 1/4 of ne 1/4 of se 1/4 of Section 36 Township 15S Range 22E

Locate well in two directions from nearest lines of quarter section and drilling unit

Surface Location 108 ft. frm (N/S) N Line of quarter section
and 1246 ft. from (E/W) E Line of quarter section.

**TYPE OF AUTHORIZATION**
- [ ] Individual Permit
- [x] Area Permit
- [ ] Rule

Number of Wells 1

Lease Name

**WELL ACTIVITY**
- [ ] CLASS I
- [ ] CLASS II
  - [ ] Brine Disposal
  - [ ] Enhanced Recovery
  - [ ] Hydrocarbon Storage
- [ ] CLASS III

Well Number 55-224938, NSD-029

**CASING AND TUBING RECORD AFTER PLUGGING**

| SIZE | WT (LB/FT) | TO BE PUT IN WELL (FT) | TO BE LEFT IN WELL (FT) | HOLE SIZE |
|---|---|---|---|---|
| 4.5 | Unknown | 0 | 279 | 4.5 |
| | | | | |
| | | | | |
| | | | | |

**METHOD OF EMPLACEMENT OF CEMENT PLUGS**
- [x] The Balance Method
- [ ] The Dump Bailer Method
- [ ] The Two-Plug Method
- [ ] Other

| CEMENTING TO PLUG AND ABANDON DATA: | PLUG #1 | PLUG #2 | PLUG #3 | PLUG #4 | PLUG #5 | PLUG #6 | PLUG #7 |
|---|---|---|---|---|---|---|---|
| Size of Hole or Pipe in which Plug Will Be Placed (inche | 4.5 | | | | | | |
| Depth to Bottom of Tubing or Drill Pipe (ft | 279 | | | | | | |
| Sacks of Cement To Be Used (each plug) | 75 | | | | | | |
| Slurry Volume To Be Pumped (cu. ft.) | 31 | | | | | | |
| Calculated Top of Plug (ft.) | 2 | | | | | | |
| Measured Top of Plug (if tagged ft.) | | | | | | | |
| Slurry Wt. (Lb./Gal.) | 15.6 | | | | | | |
| Type Cement or Other Material (Class III) | V | | | | | | |

**LIST ALL OPEN HOLE AND/OR PERFORATED INTERVALS AND INTERVALS WHERE CASING WILL BE VARIED (if any)**

| From | To | From | To |
|---|---|---|---|
| | | | |

Water level will be measured prior to abandonment. Casing will be perforated from 50 feet above water level to bottom of casing.

**Estimated Cost to Plug Wells**
$1,953

## Certification

I certify under the penalty of law that I have personally examined and am familiar with the information submitted in this document and all attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibliity of fine and imprisonment. (Ref. 40 CFR 144.32)

| Name and Official Title *(Please type or print)* | Signature | Date Signed |
|---|---|---|
| Vit Kuhnel, Hydrology Manager | | |

OMB No. 2040-0042 Approval Expires 11/30/2014

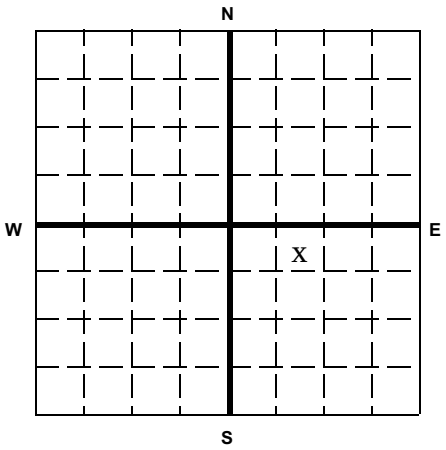
United States Environmental Protection Agency
Washington, DC 20460

# PLUGGING AND ABANDONMENT PLAN

**Name and Address of Facility**
EXCELSIOR MINING CORP
GUNNISON PROJECT

**Name and Address of Owner/Operator**
EXCELSIOR MINING CORP
CONCORD PL, 2999 N 44TH ST, STE 300, PHOENIX, AZ 85018

**Locate Well and Outline Unit on Section Plat - 640 Acres**




| State | County | Permit Number |
|---|---|---|
| AZ | Cochise | TBD |

**Surface Location Description**
1/4 of ne 1/4 of nw 1/4 of se 1/4 of Section 36 Township 15S Range 22E

Locate well in two directions from nearest lines of quarter section and drilling unit

Surface Location 551 ft. frm (N/S) N Line of quarter section
and 1219 ft. from (E/W) W Line of quarter section.

**TYPE OF AUTHORIZATION**
- [ ] Individual Permit
- [x] Area Permit
- [ ] Rule

Number of Wells 1

Lease Name

**WELL ACTIVITY**
- [ ] CLASS I
- [ ] CLASS II
  - [ ] Brine Disposal
  - [ ] Enhanced Recovery
  - [ ] Hydrocarbon Storage
- [ ] CLASS III

Well Number 55-224848, NSD-030

**CASING AND TUBING RECORD AFTER PLUGGING**

| SIZE | WT (LB/FT) | TO BE PUT IN WELL (FT) | TO BE LEFT IN WELL (FT) | HOLE SIZE |
|---|---|---|---|---|
| 4.5 | Unknown | 0 | 256 | 4.5 |
| | | | | |
| | | | | |
| | | | | |

**METHOD OF EMPLACEMENT OF CEMENT PLUGS**
- [x] The Balance Method
- [ ] The Dump Bailer Method
- [ ] The Two-Plug Method
- [ ] Other

| CEMENTING TO PLUG AND ABANDON DATA: | PLUG #1 | PLUG #2 | PLUG #3 | PLUG #4 | PLUG #5 | PLUG #6 | PLUG #7 |
|---|---|---|---|---|---|---|---|
| Size of Hole or Pipe in which Plug Will Be Placed (inche | 4.5 | | | | | | |
| Depth to Bottom of Tubing or Drill Pipe (ft | 767 | | | | | | |
| Sacks of Cement To Be Used (each plug) | 72 | | | | | | |
| Slurry Volume To Be Pumped (cu. ft.) | 85 | | | | | | |
| Calculated Top of Plug (ft.) | 2 | | | | | | |
| Measured Top of Plug (if tagged ft.) | | | | | | | |
| Slurry Wt. (Lb./Gal.) | 15.6 | | | | | | |
| Type Cement or Other Material (Class III) | V | | | | | | |

**LIST ALL OPEN HOLE AND/OR PERFORATED INTERVALS AND INTERVALS WHERE CASING WILL BE VARIED (if any)**

| From | To | From | To |
|---|---|---|---|
| 256 | 767 | | |
| | | | |

Water level will be measured prior to abandonment. Casing will be perforated from 50 feet above water level to bottom of casing.

**Estimated Cost to Plug Wells**
$5,369

## Certification

I certify under the penalty of law that I have personally examined and am familiar with the information submitted in this document and all attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibliity of fine and imprisonment. (Ref. 40 CFR 144.32)

| Name and Official Title *(Please type or print)* | Signature | Date Signed |
|---|---|---|
| Vit Kuhnel, Hydrology Manager | | |

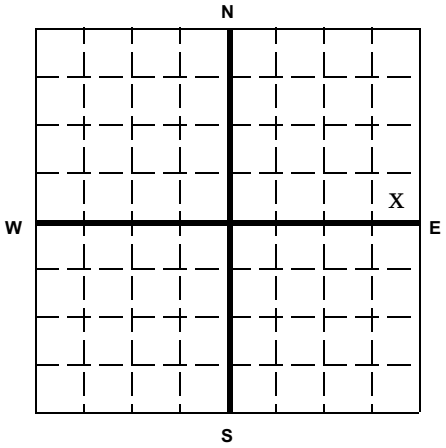
OMB No. 2040-0042 Approval Expires 11/30/2014

United States Environmental Protection Agency
Washington, DC 20460

# PLUGGING AND ABANDONMENT PLAN

| Name and Address of Facility | Name and Address of Owner/Operator |
|---|---|
| EXCELSIOR MINING CORP<br>GUNNISON PROJECT | EXCELSIOR MINING CORP<br>CONCORD PL, 2999 N 44TH ST, STE 300, PHOENIX, AZ 85018 |

Locate Well and Outline Unit on Section Plat - 640 Acres




| State | County | Permit Number |
|---|---|---|
| AZ | Cochise | TBD |

Surface Location Description

1/4 of se 1/4 of se 1/4 of ne 1/4 of Section 36 Township 15S Range 22E

Locate well in two directions from nearest lines of quarter section and drilling unit

Surface Location 136 ft. frm (N/S) S Line of quarter section and 316 ft. from (E/W) E Line of quarter section.

**TYPE OF AUTHORIZATION**

- [ ] Individual Permit
- [x] Area Permit
- [ ] Rule

Number of Wells 1

Lease Name

**WELL ACTIVITY**

- [ ] CLASS I
- [ ] CLASS II
  - [ ] Brine Disposal
  - [ ] Enhanced Recovery
  - [ ] Hydrocarbon Storage
- [ ] CLASS III

Well Number 55-224155, NSD-031

**CASING AND TUBING RECORD AFTER PLUGGING**

| SIZE | WT (LB/FT) | TO BE PUT IN WELL (FT) | TO BE LEFT IN WELL (FT) | HOLE SIZE |
|---|---|---|---|---|
| 4.5 | Unknown | 0 | 415 | 4.5 |
| | | | | |
| | | | | |
| | | | | |

**METHOD OF EMPLACEMENT OF CEMENT PLUGS**

- [x] The Balance Method
- [ ] The Dump Bailer Method
- [ ] The Two-Plug Method
- [ ] Other

| CEMENTING TO PLUG AND ABANDON DATA: | PLUG #1 | PLUG #2 | PLUG #3 | PLUG #4 | PLUG #5 | PLUG #6 | PLUG #7 |
|---|---|---|---|---|---|---|---|
| Size of Hole or Pipe in which Plug Will Be Placed (inche | 4.5 | | | | | | |
| Depth to Bottom of Tubing or Drill Pipe (ft | 1008 | | | | | | |
| Sacks of Cement To Be Used (each plug) | 94 | | | | | | |
| Slurry Volume To Be Pumped (cu. ft.) | 111 | | | | | | |
| Calculated Top of Plug (ft.) | 2 | | | | | | |
| Measured Top of Plug (if tagged ft.) | | | | | | | |
| Slurry Wt. (Lb./Gal.) | 15.6 | | | | | | |
| Type Cement or Other Material (Class III) | V | | | | | | |

**LIST ALL OPEN HOLE AND/OR PERFORATED INTERVALS AND INTERVALS WHERE CASING WILL BE VARIED (if any)**

| From | To | From | To |
|---|---|---|---|
| 415 | 1008 | | |

Water level will be measured prior to abandonment. Casing will be perforated from 50 feet above water level to bottom of casing.

Estimated Cost to Plug Wells

$7,056

## Certification

I certify under the penalty of law that I have personally examined and am familiar with the information submitted in this document and all attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibliity of fine and imprisonment. (Ref. 40 CFR 144.32)

| Name and Official Title *(Please type or print)* | Signature | Date Signed |
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| Vit Kuhnel, Hydrology Manager | | |

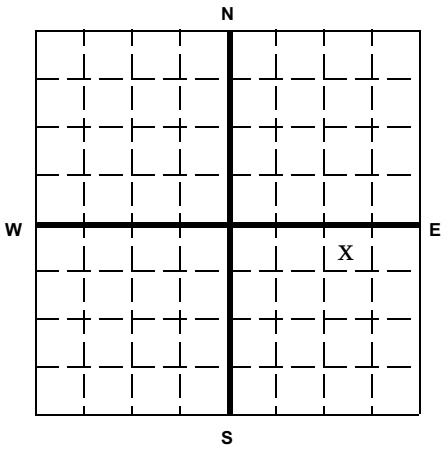
OMB No. 2040-0042 Approval Expires 11/30/2014

United States Environmental Protection Agency
Washington, DC 20460

# PLUGGING AND ABANDONMENT PLAN

| Name and Address of Facility | Name and Address of Owner/Operator |
|---|---|
| EXCELSIOR MINING CORP<br>GUNNISON PROJECT | EXCELSIOR MINING CORP<br>CONCORD PL, 2999 N 44TH ST, STE 300, PHOENIX, AZ 85018 |

Locate Well and Outline Unit on Section Plat - 640 Acres




| State | County | Permit Number |
|---|---|---|
| AZ | Cochise | TBD |

Surface Location Description

1/4 of nw 1/4 of ne 1/4 of se 1/4 of Section 36 Township 15S Range 22E

Locate well in two directions from nearest lines of quarter section and drilling unit

Surface Location 47 ft. frm (N/S) N Line of quarter section and 708 ft. from (E/W) E Line of quarter section.

**TYPE OF AUTHORIZATION**

- [ ] Individual Permit
- [x] Area Permit
- [ ] Rule

Number of Wells 1

Lease Name

**WELL ACTIVITY**

- [ ] CLASS I
- [ ] CLASS II
  - [ ] Brine Disposal
  - [ ] Enhanced Recovery
  - [ ] Hydrocarbon Storage
- [ ] CLASS III

Well Number 55-224939, NSD-032

**CASING AND TUBING RECORD AFTER PLUGGING**

| SIZE | WT (LB/FT) | TO BE PUT IN WELL (FT) | TO BE LEFT IN WELL (FT) | HOLE SIZE |
|---|---|---|---|---|
| 4.5 | Unknown | 0 | 686 | 4.5 |
| | | | | |
| | | | | |
| | | | | |

**METHOD OF EMPLACEMENT OF CEMENT PLUGS**

- [x] The Balance Method
- [ ] The Dump Bailer Method
- [ ] The Two-Plug Method
- [ ] Other

| CEMENTING TO PLUG AND ABANDON DATA: | PLUG #1 | PLUG #2 | PLUG #3 | PLUG #4 | PLUG #5 | PLUG #6 | PLUG #7 |
|---|---|---|---|---|---|---|---|
| Size of Hole or Pipe in which Plug Will Be Placed (inche | 4.5 | | | | | | |
| Depth to Bottom of Tubing or Drill Pipe (ft | 686 | | | | | | |
| Sacks of Cement To Be Used (each plug) | 66 | | | | | | |
| Slurry Volume To Be Pumped (cu. ft.) | 76 | | | | | | |
| Calculated Top of Plug (ft.) | 2 | | | | | | |
| Measured Top of Plug (if tagged ft.) | | | | | | | |
| Slurry Wt. (Lb./Gal.) | 15.6 | | | | | | |
| Type Cement or Other Material (Class III) | V | | | | | | |

**LIST ALL OPEN HOLE AND/OR PERFORATED INTERVALS AND INTERVALS WHERE CASING WILL BE VARIED (if any)**

| From | To | From | To |
|---|---|---|---|
| | | | |
| | | | |

Water level will be measured prior to abandonment. Casing will be perforated from 50 feet above water level to bottom of casing.

Estimated Cost to Plug Wells

$4,802

## Certification

I certify under the penalty of law that I have personally examined and am familiar with the information submitted in this document and all attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibliity of fine and imprisonment. (Ref. 40 CFR 144.32)

| Name and Official Title *(Please type or print)* | Signature | Date Signed |
|---|---|---|
| Vit Kuhnel, Hydrology Manager | | |

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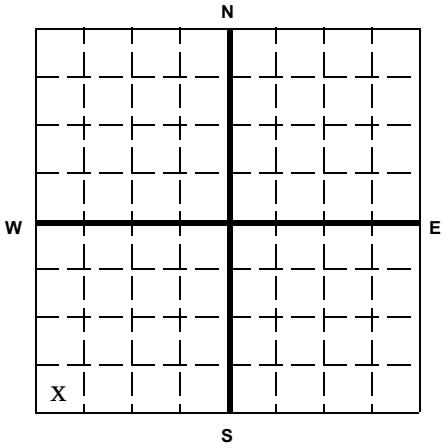
Washington, DC 20460

# PLUGGING AND ABANDONMENT PLAN

**Name and Address of Facility**
EXCELSIOR MINING CORP
GUNNISON PROJECT

**Name and Address of Owner/Operator**
EXCELSIOR MINING CORP
CONCORD PL, 2999 N 44TH ST, STE 300, PHOENIX, AZ 85018

**Locate Well and Outline Unit on Section Plat - 640 Acres**




| State | County | Permit Number |
|---|---|---|
| AZ | Cochise | TBD |

**Surface Location Description**
___ 1/4 of sw 1/4 of sw 1/4 of sw 1/4 of Section 31 Township 15S Range 23E

**Locate well in two directions from nearest lines of quarter section and drilling unit**

**Surface Location** 80 ft. frm (N/S) S Line of quarter section
and 514 ft. from (E/W) W Line of quarter section.

**TYPE OF AUTHORIZATION**
- ☐ Individual Permit
- ☑ Area Permit
- ☐ Rule

Number of Wells 1

Lease Name

**WELL ACTIVITY**
- ☐ CLASS I
- ☐ CLASS II
  - ☐ Brine Disposal
  - ☐ Enhanced Recovery
  - ☐ Hydrocarbon Storage
- ☐ CLASS III

Well Number 55-224846, NSD-033

**CASING AND TUBING RECORD AFTER PLUGGING**

| SIZE | WT (LB/FT) | TO BE PUT IN WELL (FT) | TO BE LEFT IN WELL (FT) | HOLE SIZE |
|---|---|---|---|---|
| 4.5 | Unknown | 0 | 500 | 4.5 |
| | | | | |
| | | | | |
| | | | | |

**METHOD OF EMPLACEMENT OF CEMENT PLUGS**
- ☑ The Balance Method
- ☐ The Dump Bailer Method
- ☐ The Two-Plug Method
- ☐ Other

| CEMENTING TO PLUG AND ABANDON DATA: | PLUG #1 | PLUG #2 | PLUG #3 | PLUG #4 | PLUG #5 | PLUG #6 | PLUG #7 |
|---|---|---|---|---|---|---|---|
| Size of Hole or Pipe in which Plug Will Be Placed (inche | 4.5 | | | | | | |
| Depth to Bottom of Tubing or Drill Pipe (ft | 1579 | | | | | | |
| Sacks of Cement To Be Used (each plug) | 147 | | | | | | |
| Slurry Volume To Be Pumped (cu. ft.) | 174 | | | | | | |
| Calculated Top of Plug (ft.) | 2 | | | | | | |
| Measured Top of Plug (if tagged ft.) | | | | | | | |
| Slurry Wt. (Lb./Gal.) | 15.6 | | | | | | |
| Type Cement or Other Material (Class III) | V | | | | | | |

**LIST ALL OPEN HOLE AND/OR PERFORATED INTERVALS AND INTERVALS WHERE CASING WILL BE VARIED (if any)**

| From | To | From | To |
|---|---|---|---|
| 500 | 1579 | | |

Water level will be measured prior to abandonment. Casing will be perforated from 50 feet above water level to bottom of casing.

**Estimated Cost to Plug Wells**
$11,053

## Certification

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| Name and Official Title *(Please type or print)* | Signature | Date Signed |
|---|---|---|
| Vit Kuhnel, Hydrology Manager | | |

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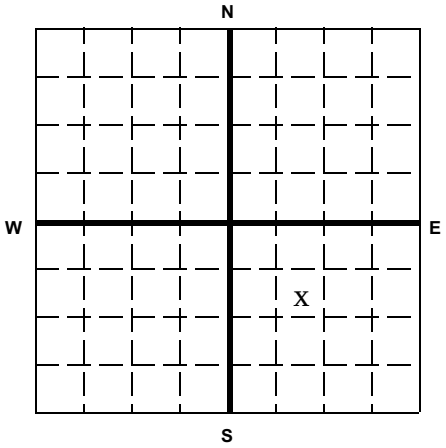
Washington, DC 20460

# PLUGGING AND ABANDONMENT PLAN

| Name and Address of Facility | Name and Address of Owner/Operator |
|---|---|
| EXCELSIOR MINING CORP<br>GUNNISON PROJECT | EXCELSIOR MINING CORP<br>CONCORD PL, 2999 N 44TH ST, STE 300, PHOENIX, AZ 85018 |

Locate Well and Outline Unit on Section Plat - 640 Acres




| State | County | Permit Number |
|---|---|---|
| AZ | Cochise | TBD |

Surface Location Description

[ ] 1/4 of se 1/4 of nw 1/4 of se 1/4 of Section 36 Township 15S Range 22E

Locate well in two directions from nearest lines of quarter section and drilling unit

Surface Location 1083 ft. frm (N/S) N Line of quarter section and 966 ft. from (E/W) W Line of quarter section.

**TYPE OF AUTHORIZATION**

- [ ] Individual Permit
- [x] Area Permit
- [ ] Rule

Number of Wells 1

Lease Name

**WELL ACTIVITY**

- [ ] CLASS I
- [ ] CLASS II
  - [ ] Brine Disposal
  - [ ] Enhanced Recovery
  - [ ] Hydrocarbon Storage
- [ ] CLASS III

Well Number 55-224854, NSD-036

**CASING AND TUBING RECORD AFTER PLUGGING**

| SIZE | WT (LB/FT) | TO BE PUT IN WELL (FT) | TO BE LEFT IN WELL (FT) | HOLE SIZE |
|---|---|---|---|---|
| 4.5 | Unknown | 0 | 501 | 4.5 |
| | | | | |
| | | | | |
| | | | | |

**METHOD OF EMPLACEMENT OF CEMENT PLUGS**

- [x] The Balance Method
- [ ] The Dump Bailer Method
- [ ] The Two-Plug Method
- [ ] Other

| CEMENTING TO PLUG AND ABANDON DATA: | PLUG #1 | PLUG #2 | PLUG #3 | PLUG #4 | PLUG #5 | PLUG #6 | PLUG #7 |
|---|---|---|---|---|---|---|---|
| Size of Hole or Pipe in which Plug Will Be Placed (inche | 4.5 | | | | | | |
| Depth to Bottom of Tubing or Drill Pipe (ft | 793 | | | | | | |
| Sacks of Cement To Be Used (each plug) | 75 | | | | | | |
| Slurry Volume To Be Pumped (cu. ft.) | 88 | | | | | | |
| Calculated Top of Plug (ft.) | 2 | | | | | | |
| Measured Top of Plug (if tagged ft.) | | | | | | | |
| Slurry Wt. (Lb./Gal.) | 15.6 | | | | | | |
| Type Cement or Other Material (Class III) | V | | | | | | |

**LIST ALL OPEN HOLE AND/OR PERFORATED INTERVALS AND INTERVALS WHERE CASING WILL BE VARIED (if any)**

| From | To | From | To |
|---|---|---|---|
| 501 | 793 | | |
| | | | |

Water level will be measured prior to abandonment. Casing will be perforated from 50 feet above water level to bottom of casing.

Estimated Cost to Plug Wells

$5,551

## Certification

I certify under the penalty of law that I have personally examined and am familiar with the information submitted in this document and all attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibliity of fine and imprisonment. (Ref. 40 CFR 144.32)

| Name and Official Title *(Please type or print)* | Signature | Date Signed |
|---|---|---|
| Vit Kuhnel, Hydrology Manager | | |

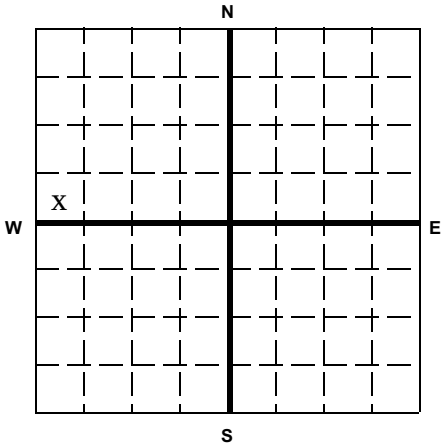
OMB No. 2040-0042 Approval Expires 11/30/2014

United States Environmental Protection Agency
Washington, DC 20460

# PLUGGING AND ABANDONMENT PLAN

| Name and Address of Facility | Name and Address of Owner/Operator |
|---|---|
| EXCELSIOR MINING CORP<br>GUNNISON PROJECT | EXCELSIOR MINING CORP<br>CONCORD PL, 2999 N 44TH ST, STE 300, PHOENIX, AZ 85018 |

Locate Well and Outline Unit on Section Plat - 640 Acres




| State | County | Permit Number |
|---|---|---|
| AZ | Cochise | TBD |

Surface Location Description

1/4 of sw 1/4 of sw 1/4 of nw 1/4 of Section 31 Township 15S Range 23E

Locate well in two directions from nearest lines of quarter section and drilling unit

Surface Location 257 ft. frm (N/S) S Line of quarter section and 488 ft. from (E/W) W Line of quarter section.

**TYPE OF AUTHORIZATION**

- [ ] Individual Permit
- [x] Area Permit
- [ ] Rule

Number of Wells 1

Lease Name

**WELL ACTIVITY**

- [ ] CLASS I
- [ ] CLASS II
  - [ ] Brine Disposal
  - [ ] Enhanced Recovery
  - [ ] Hydrocarbon Storage
- [ ] CLASS III

Well Number 55-224059, NSD-037

**CASING AND TUBING RECORD AFTER PLUGGING**

| SIZE | WT (LB/FT) | TO BE PUT IN WELL (FT) | TO BE LEFT IN WELL (FT) | HOLE SIZE |
|---|---|---|---|---|
| 4.5 | Unknown | 0 | 524 | 4.5 |
| | | | | |
| | | | | |
| | | | | |

**METHOD OF EMPLACEMENT OF CEMENT PLUGS**

- [x] The Balance Method
- [ ] The Dump Bailer Method
- [ ] The Two-Plug Method
- [ ] Other

| CEMENTING TO PLUG AND ABANDON DATA: | PLUG #1 | PLUG #2 | PLUG #3 | PLUG #4 | PLUG #5 | PLUG #6 | PLUG #7 |
|---|---|---|---|---|---|---|---|
| Size of Hole or Pipe in which Plug Will Be Placed (inche | 4.5 | | | | | | |
| Depth to Bottom of Tubing or Drill Pipe (ft | 1284 | | | | | | |
| Sacks of Cement To Be Used (each plug) | 120 | | | | | | |
| Slurry Volume To Be Pumped (cu. ft.) | 142 | | | | | | |
| Calculated Top of Plug (ft.) | 2 | | | | | | |
| Measured Top of Plug (if tagged ft.) | | | | | | | |
| Slurry Wt. (Lb./Gal.) | 15.6 | | | | | | |
| Type Cement or Other Material (Class III) | V | | | | | | |

**LIST ALL OPEN HOLE AND/OR PERFORATED INTERVALS AND INTERVALS WHERE CASING WILL BE VARIED (if any)**

| From | To | From | To |
|---|---|---|---|
| 524 | 1284 | | |
| | | | |

Water level will be measured prior to abandonment. Casing will be perforated from 50 feet above water level to bottom of casing.

Estimated Cost to Plug Wells

$8,988

## Certification

I certify under the penalty of law that I have personally examined and am familiar with the information submitted in this document and all attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibliity of fine and imprisonment. (Ref. 40 CFR 144.32)

| Name and Official Title *(Please type or print)* | Signature | Date Signed |
|---|---|---|
| Vit Kuhnel, Hydrology Manager | | |

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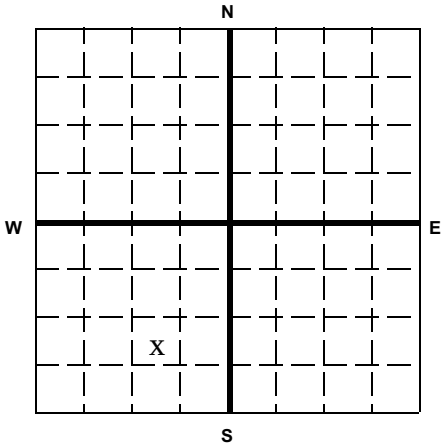
United States Environmental Protection Agency
Washington, DC 20460

# PLUGGING AND ABANDONMENT PLAN

| Name and Address of Facility | Name and Address of Owner/Operator |
|---|---|
| EXCELSIOR MINING CORP<br>GUNNISON PROJECT | EXCELSIOR MINING CORP<br>CONCORD PL, 2999 N 44TH ST, STE 300, PHOENIX, AZ 85018 |

Locate Well and Outline Unit on Section Plat - 640 Acres




| State | County | Permit Number |
|---|---|---|
| AZ | Cochise | TBD |

Surface Location Description

1/4 of nw 1/4 of se 1/4 of sw 1/4 of Section 31 Township 15S Range 23E

Locate well in two directions from nearest lines of quarter section and drilling unit

Surface Location 1055 ft. frm (N/S) S Line of quarter section and 626 ft. from (E/W) E Line of quarter section.

**TYPE OF AUTHORIZATION**

- [ ] Individual Permit
- [x] Area Permit
- [ ] Rule

Number of Wells 1

Lease Name

**WELL ACTIVITY**

- [ ] CLASS I
- [ ] CLASS II
  - [ ] Brine Disposal
  - [ ] Enhanced Recovery
  - [ ] Hydrocarbon Storage
- [ ] CLASS III

Well Number 55-224860, NSD-043

**CASING AND TUBING RECORD AFTER PLUGGING**

| SIZE | WT (LB/FT) | TO BE PUT IN WELL (FT) | TO BE LEFT IN WELL (FT) | HOLE SIZE |
|---|---|---|---|---|
| 4.5 | Unknown | 0 | 628 | 4.5 |
| | | | | |
| | | | | |
| | | | | |

**METHOD OF EMPLACEMENT OF CEMENT PLUGS**

- [x] The Balance Method
- [ ] The Dump Bailer Method
- [ ] The Two-Plug Method
- [ ] Other

| CEMENTING TO PLUG AND ABANDON DATA: | PLUG #1 | PLUG #2 | PLUG #3 | PLUG #4 | PLUG #5 | PLUG #6 | PLUG #7 |
|---|---|---|---|---|---|---|---|
| Size of Hole or Pipe in which Plug Will Be Placed (inche | 4.5 | | | | | | |
| Depth to Bottom of Tubing or Drill Pipe (ft | 628 | | | | | | |
| Sacks of Cement To Be Used (each plug) | 163 | | | | | | |
| Slurry Volume To Be Pumped (cu. ft.) | 192 | | | | | | |
| Calculated Top of Plug (ft.) | 2 | | | | | | |
| Measured Top of Plug (if tagged ft.) | | | | | | | |
| Slurry Wt. (Lb./Gal.) | 15.6 | | | | | | |
| Type Cement or Other Material (Class III) | V | | | | | | |

**LIST ALL OPEN HOLE AND/OR PERFORATED INTERVALS AND INTERVALS WHERE CASING WILL BE VARIED (if any)**

| From | To | From | To |
|---|---|---|---|
| | | | |

Water level will be measured prior to abandonment. Casing will be perforated from 50 feet above water level to bottom of casing.

Estimated Cost to Plug Wells

$4,396

## Certification

I certify under the penalty of law that I have personally examined and am familiar with the information submitted in this document and all attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibliity of fine and imprisonment. (Ref. 40 CFR 144.32)

| Name and Official Title *(Please type or print)* | Signature | Date Signed |
|---|---|---|
| Vit Kuhnel, Hydrology Manager | | |

OMB No. 2040-0042 Approval Expires 11/30/2014

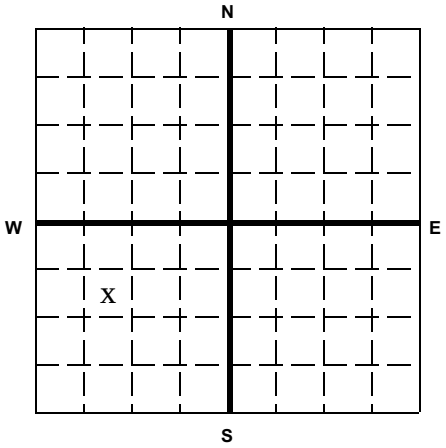
United States Environmental Protection Agency
Washington, DC 20460

# PLUGGING AND ABANDONMENT PLAN

**Name and Address of Facility**
EXCELSIOR MINING CORP
GUNNISON PROJECT

**Name and Address of Owner/Operator**
EXCELSIOR MINING CORP
CONCORD PL, 2999 N 44TH ST, STE 300, PHOENIX, AZ 85018

**Locate Well and Outline Unit on Section Plat - 640 Acres**




| State | County | Permit Number |
|---|---|---|
| AZ | Cochise | TBD |

**Surface Location Description**
1/4 of se 1/4 of nw 1/4 of sw 1/4 of Section 31 Township 15S Range 23E

Locate well in two directions from nearest lines of quarter section and drilling unit

Surface Location 1176 ft. frm (N/S) S Line of quarter section
and 914 ft. from (E/W) W Line of quarter section.

**TYPE OF AUTHORIZATION**
- [ ] Individual Permit
- [x] Area Permit
- [ ] Rule

Number of Wells 1

Lease Name

**WELL ACTIVITY**
- [ ] CLASS I
- [ ] CLASS II
  - [ ] Brine Disposal
  - [ ] Enhanced Recovery
  - [ ] Hydrocarbon Storage
- [ ] CLASS III

Well Number 55-221521, NSH-001

**CASING AND TUBING RECORD AFTER PLUGGING**

| SIZE | WT (LB/FT) | TO BE PUT IN WELL (FT) | TO BE LEFT IN WELL (FT) | HOLE SIZE |
|---|---|---|---|---|
| 6.625 | Unknown | 0 | 702 | 9.5 |
| 4.5 | Unknown | 0 | 394 | 6.125 |
| | | | | |
| | | | | |

**METHOD OF EMPLACEMENT OF CEMENT PLUGS**
- [x] The Balance Method
- [ ] The Dump Bailer Method
- [ ] The Two-Plug Method
- [ ] Other

| CEMENTING TO PLUG AND ABANDON DATA: | PLUG #1 | PLUG #2 | PLUG #3 | PLUG #4 | PLUG #5 | PLUG #6 | PLUG #7 |
|---|---|---|---|---|---|---|---|
| Size of Hole or Pipe in which Plug Will Be Placed (inche | 9.5 | 6.125 | | | | | |
| Depth to Bottom of Tubing or Drill Pipe (ft | 702 | 1096 | | | | | |
| Sacks of Cement To Be Used (each plug) | 292 | 68 | | | | | |
| Slurry Volume To Be Pumped (cu. ft.) | 345 | 81 | | | | | |
| Calculated Top of Plug (ft.) | 2 | 702 | | | | | |
| Measured Top of Plug (if tagged ft.) | | | | | | | |
| Slurry Wt. (Lb./Gal.) | 15.6 | 15.6 | | | | | |
| Type Cement or Other Material (Class III) | V | V | | | | | |

**LIST ALL OPEN HOLE AND/OR PERFORATED INTERVALS AND INTERVALS WHERE CASING WILL BE VARIED (if any)**

| From | To | From | To |
|---|---|---|---|
| 692 | 1096 | | |

Water level will be measured prior to abandonment. Casing will be perforated from 50 feet above water level to bottom of casing.

**Estimated Cost to Plug Wells**
$14,420

## Certification

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| Name and Official Title *(Please type or print)* | Signature | Date Signed |
|---|---|---|
| Vit Kuhnel, Hydrology Manager | | |

OMB No. 2040-0042 Approval Expires 11/30/2014

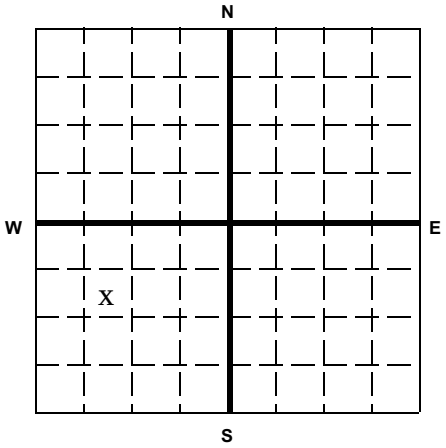
United States Environmental Protection Agency
Washington, DC 20460

# PLUGGING AND ABANDONMENT PLAN

**Name and Address of Facility**
EXCELSIOR MINING CORP
GUNNISON PROJECT

**Name and Address of Owner/Operator**
EXCELSIOR MINING CORP
CONCORD PL, 2999 N 44TH ST, STE 300, PHOENIX, AZ 85018

**Locate Well and Outline Unit on Section Plat - 640 Acres**




| State | County | Permit Number |
|---|---|---|
| AZ | Cochise | TBD |

**Surface Location Description**
1/4 of se 1/4 of nw 1/4 of sw 1/4 of Section 31 Township 15S Range 23E

Locate well in two directions from nearest lines of quarter section and drilling unit

Surface Location 993 ft. frm (N/S) N Line of quarter section
and 1046 ft. from (E/W) W Line of quarter section.

**TYPE OF AUTHORIZATION**
- [ ] Individual Permit
- [x] Area Permit
- [ ] Rule

Number of Wells 1

Lease Name

**WELL ACTIVITY**
- [ ] CLASS I
- [ ] CLASS II
  - [ ] Brine Disposal
  - [ ] Enhanced Recovery
  - [ ] Hydrocarbon Storage
- [ ] CLASS III

Well Number 55-221520, NSH-003

**CASING AND TUBING RECORD AFTER PLUGGING**

| SIZE | WT (LB/FT) | TO BE PUT IN WELL (FT) | TO BE LEFT IN WELL (FT) | HOLE SIZE |
|---|---|---|---|---|
| 4.5 | Unknown | 0 | 1432 | 4.5 |
| | | | | |
| | | | | |
| | | | | |

**METHOD OF EMPLACEMENT OF CEMENT PLUGS**
- [x] The Balance Method
- [ ] The Dump Bailer Method
- [ ] The Two-Plug Method
- [ ] Other

| CEMENTING TO PLUG AND ABANDON DATA: | PLUG #1 | PLUG #2 | PLUG #3 | PLUG #4 | PLUG #5 | PLUG #6 | PLUG #7 |
|---|---|---|---|---|---|---|---|
| Size of Hole or Pipe in which Plug Will Be Placed (inche | 4.5 | | | | | | |
| Depth to Bottom of Tubing or Drill Pipe (ft | 1432 | | | | | | |
| Sacks of Cement To Be Used (each plug) | 134 | | | | | | |
| Slurry Volume To Be Pumped (cu. ft.) | 158 | | | | | | |
| Calculated Top of Plug (ft.) | 2 | | | | | | |
| Measured Top of Plug (if tagged ft.) | | | | | | | |
| Slurry Wt. (Lb./Gal.) | 15.6 | | | | | | |
| Type Cement or Other Material (Class III) | V | | | | | | |

**LIST ALL OPEN HOLE AND/OR PERFORATED INTERVALS AND INTERVALS WHERE CASING WILL BE VARIED (if any)**

| From | To | From | To |
|---|---|---|---|
| | | | |
| | | | |

Water level will be measured prior to abandonment. Casing will be perforated from 50 feet above water level to bottom of casing.

**Estimated Cost to Plug Wells**
$14,420

## Certification

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| Name and Official Title *(Please type or print)* | Signature | Date Signed |
|---|---|---|
| Vit Kuhnel, Hydrology Manager | | |

OMB No. 2040-0042 Approval Expires 11/30/2014

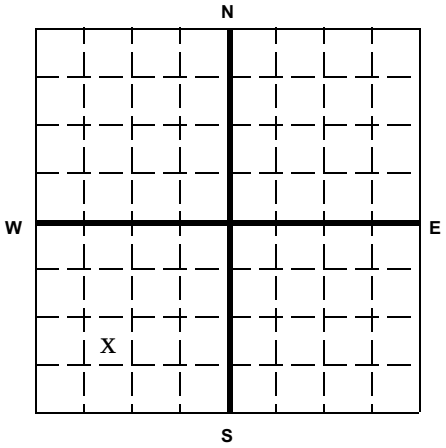
United States Environmental Protection Agency
Washington, DC 20460

# PLUGGING AND ABANDONMENT PLAN

**Name and Address of Facility**
EXCELSIOR MINING CORP
GUNNISON PROJECT

**Name and Address of Owner/Operator**
EXCELSIOR MINING CORP
CONCORD PL, 2999 N 44TH ST, STE 300, PHOENIX, AZ 85018

**Locate Well and Outline Unit on Section Plat - 640 Acres**




| State | County | Permit Number |
|---|---|---|
| AZ | Cochise | TBD |

**Surface Location Description**
1/4 of ne 1/4 of sw 1/4 of sw 1/4 of Section 31 Township 15S Range 23E

Locate well in two directions from nearest lines of quarter section and drilling unit

Surface Location 1216 ft. frm (N/S) S Line of quarter section
and 1039 ft. from (E/W) W Line of quarter section.

**TYPE OF AUTHORIZATION**
- [ ] Individual Permit
- [x] Area Permit
- [ ] Rule

Number of Wells 1

Lease Name

**WELL ACTIVITY**
- [ ] CLASS I
- [ ] CLASS II
  - [ ] Brine Disposal
  - [ ] Enhanced Recovery
  - [ ] Hydrocarbon Storage
- [ ] CLASS III

Well Number 55-221603, NSH-004B

**CASING AND TUBING RECORD AFTER PLUGGING**

| SIZE | WT (LB/FT) | TO BE PUT IN WELL (FT) | TO BE LEFT IN WELL (FT) | HOLE SIZE |
|---|---|---|---|---|
| 4.5 | Unknown | 0 | 1009 | 4.5 |
| | | | | |
| | | | | |
| | | | | |

**METHOD OF EMPLACEMENT OF CEMENT PLUGS**
- [x] The Balance Method
- [ ] The Dump Bailer Method
- [ ] The Two-Plug Method
- [ ] Other

| CEMENTING TO PLUG AND ABANDON DATA: | PLUG #1 | PLUG #2 | PLUG #3 | PLUG #4 | PLUG #5 | PLUG #6 | PLUG #7 |
|---|---|---|---|---|---|---|---|
| Size of Hole or Pipe in which Plug Will Be Placed (inche | 4.5 | | | | | | |
| Depth to Bottom of Tubing or Drill Pipe (ft | 1040 | | | | | | |
| Sacks of Cement To Be Used (each plug) | 97 | | | | | | |
| Slurry Volume To Be Pumped (cu. ft.) | 115 | | | | | | |
| Calculated Top of Plug (ft.) | 2 | | | | | | |
| Measured Top of Plug (if tagged ft.) | | | | | | | |
| Slurry Wt. (Lb./Gal.) | 15.6 | | | | | | |
| Type Cement or Other Material (Class III) | V | | | | | | |

**LIST ALL OPEN HOLE AND/OR PERFORATED INTERVALS AND INTERVALS WHERE CASING WILL BE VARIED (if any)**

| From | To | From | To |
|---|---|---|---|
| | | | |
| | | | |

Water level will be measured prior to abandonment. Casing will be perforated from 50 feet above water level to bottom of casing.

**Estimated Cost to Plug Wells**
$14,420

## Certification

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| Name and Official Title *(Please type or print)* | Signature | Date Signed |
|---|---|---|
| Vit Kuhnel, Hydrology Manager | | |

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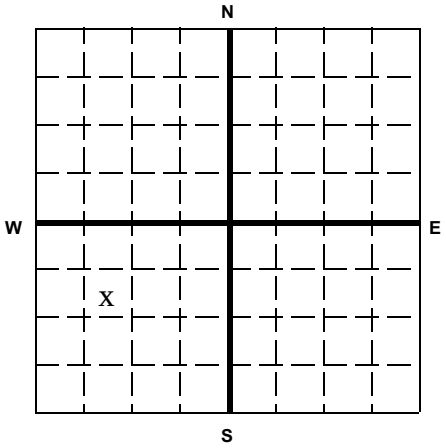
Washington, DC 20460

# PLUGGING AND ABANDONMENT PLAN

**Name and Address of Facility**
EXCELSIOR MINING CORP
GUNNISON PROJECT

**Name and Address of Owner/Operator**
EXCELSIOR MINING CORP
CONCORD PL, 2999 N 44TH ST, STE 300, PHOENIX, AZ 85018

**Locate Well and Outline Unit on Section Plat - 640 Acres**




| State | County | Permit Number |
|---|---|---|
| AZ | Cochise | TBD |

**Surface Location Description**
1/4 of se 1/4 of nw 1/4 of sw 1/4 of Section 31 Township 15S Range 23E

Locate well in two directions from nearest lines of quarter section and drilling unit

Surface Location 1304 ft. frm (N/S) N Line of quarter section
and 1173 ft. from (E/W) W Line of quarter section.

**TYPE OF AUTHORIZATION**
- [ ] Individual Permit
- [x] Area Permit
- [ ] Rule

Number of Wells 1

Lease Name

**WELL ACTIVITY**
- [ ] CLASS I
- [ ] CLASS II
  - [ ] Brine Disposal
  - [ ] Enhanced Recovery
  - [ ] Hydrocarbon Storage
- [ ] CLASS III

Well Number 55-221604, NSH-005

**CASING AND TUBING RECORD AFTER PLUGGING**

| SIZE | WT (LB/FT) | TO BE PUT IN WELL (FT) | TO BE LEFT IN WELL (FT) | HOLE SIZE |
|---|---|---|---|---|
| 4.5 | Unknown | 0 | 1019 | 4.5 |
| | | | | |
| | | | | |
| | | | | |

**METHOD OF EMPLACEMENT OF CEMENT PLUGS**
- [x] The Balance Method
- [ ] The Dump Bailer Method
- [ ] The Two-Plug Method
- [ ] Other

| CEMENTING TO PLUG AND ABANDON DATA: | PLUG #1 | PLUG #2 | PLUG #3 | PLUG #4 | PLUG #5 | PLUG #6 | PLUG #7 |
|---|---|---|---|---|---|---|---|
| Size of Hole or Pipe in which Plug Will Be Placed (inche | 4.5 | | | | | | |
| Depth to Bottom of Tubing or Drill Pipe (ft | 1040 | | | | | | |
| Sacks of Cement To Be Used (each plug) | 97 | | | | | | |
| Slurry Volume To Be Pumped (cu. ft.) | 115 | | | | | | |
| Calculated Top of Plug (ft.) | 2 | | | | | | |
| Measured Top of Plug (if tagged ft.) | | | | | | | |
| Slurry Wt. (Lb./Gal.) | 15.6 | | | | | | |
| Type Cement or Other Material (Class III) | V | | | | | | |

**LIST ALL OPEN HOLE AND/OR PERFORATED INTERVALS AND INTERVALS WHERE CASING WILL BE VARIED (if any)**

| From | To | From | To |
|---|---|---|---|
| | | | |

Water level will be measured prior to abandonment. Casing will be perforated from 50 feet above water level to bottom of casing.

**Estimated Cost to Plug Wells**
$14,420

## Certification

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| Name and Official Title *(Please type or print)* | Signature | Date Signed |
|---|---|---|
| Vit Kuhnel, Hydrology Manager | | |

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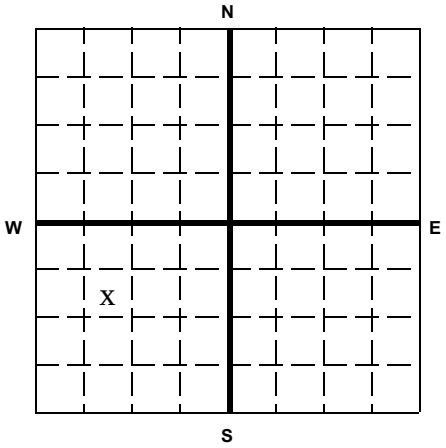
Washington, DC 20460

# PLUGGING AND ABANDONMENT PLAN

**Name and Address of Facility**
EXCELSIOR MINING CORP
GUNNISON PROJECT

**Name and Address of Owner/Operator**
EXCELSIOR MINING CORP
CONCORD PL, 2999 N 44TH ST, STE 300, PHOENIX, AZ 85018

**Locate Well and Outline Unit on Section Plat - 640 Acres**




| State | County | Permit Number |
|---|---|---|
| AZ | Cochise | TBD |

**Surface Location Description**
1/4 of se 1/4 of nw 1/4 of sw 1/4 of Section 31 Township 15S Range 23E

Locate well in two directions from nearest lines of quarter section and drilling unit

Surface Location 1143 ft. frm (N/S) N Line of quarter section
and 1228 ft. from (E/W) W Line of quarter section.

**TYPE OF AUTHORIZATION**
- [ ] Individual Permit
- [x] Area Permit
- [ ] Rule

Number of Wells 1

Lease Name

**WELL ACTIVITY**
- [ ] CLASS I
- [ ] CLASS II
  - [ ] Brine Disposal
  - [ ] Enhanced Recovery
  - [ ] Hydrocarbon Storage
- [ ] CLASS III

Well Number 55-221519, NSH-006

**CASING AND TUBING RECORD AFTER PLUGGING**

| SIZE | WT (LB/FT) | TO BE PUT IN WELL (FT) | TO BE LEFT IN WELL (FT) | HOLE SIZE |
|---|---|---|---|---|
| 4.5 | Unknown | 0 | 680 | 4.5 |
| | | | | |
| | | | | |
| | | | | |

**METHOD OF EMPLACEMENT OF CEMENT PLUGS**
- [x] The Balance Method
- [ ] The Dump Bailer Method
- [ ] The Two-Plug Method
- [ ] Other

| CEMENTING TO PLUG AND ABANDON DATA: | PLUG #1 | PLUG #2 | PLUG #3 | PLUG #4 | PLUG #5 | PLUG #6 | PLUG #7 |
|---|---|---|---|---|---|---|---|
| Size of Hole or Pipe in which Plug Will Be Placed (inche | 4.5 | | | | | | |
| Depth to Bottom of Tubing or Drill Pipe (ft | 684 | | | | | | |
| Sacks of Cement To Be Used (each plug) | 64 | | | | | | |
| Slurry Volume To Be Pumped (cu. ft.) | 76 | | | | | | |
| Calculated Top of Plug (ft.) | 2 | | | | | | |
| Measured Top of Plug (if tagged ft.) | | | | | | | |
| Slurry Wt. (Lb./Gal.) | 15.6 | | | | | | |
| Type Cement or Other Material (Class III) | V | | | | | | |

**LIST ALL OPEN HOLE AND/OR PERFORATED INTERVALS AND INTERVALS WHERE CASING WILL BE VARIED (if any)**

| From | To | From | To |
|---|---|---|---|
| | | | |

Water level will be measured prior to abandonment. Casing will be perforated from 50 feet above water level to bottom of casing.

**Estimated Cost to Plug Wells**
$14,420

## Certification

I certify under the penalty of law that I have personally examined and am familiar with the information submitted in this document and all attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibliity of fine and imprisonment. (Ref. 40 CFR 144.32)

| Name and Official Title *(Please type or print)* | Signature | Date Signed |
|---|---|---|
| Vit Kuhnel, Hydrology Manager | | |

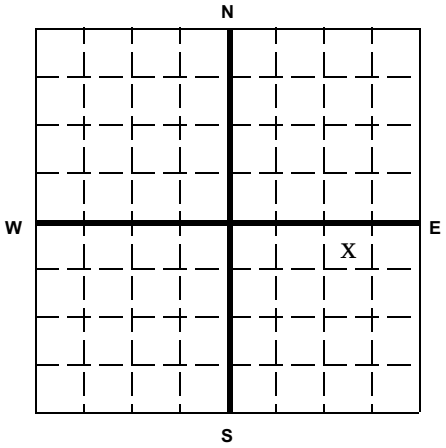
OMB No. 2040-0042 Approval Expires 11/30/2014

United States Environmental Protection Agency
Washington, DC 20460

# PLUGGING AND ABANDONMENT PLAN

| Name and Address of Facility | Name and Address of Owner/Operator |
|---|---|
| EXCELSIOR MINING CORP<br>GUNNISON PROJECT | EXCELSIOR MINING CORP<br>CONCORD PL, 2999 N 44TH ST, STE 300, PHOENIX, AZ 85018 |

Locate Well and Outline Unit on Section Plat - 640 Acres




| State | County | Permit Number |
|---|---|---|
| AZ | Cochise | TBD |

Surface Location Description

1/4 of nw 1/4 of ne 1/4 of se 1/4 of Section 36 Township 15S Range 22E

Locate well in two directions from nearest lines of quarter section and drilling unit

Surface Location 456 ft. frm (N/S) N Line of quarter section and 578 ft. from (E/W) E Line of quarter section.

**TYPE OF AUTHORIZATION**

- [ ] Individual Permit
- [x] Area Permit
- [ ] Rule

Number of Wells 1

Lease Name

**WELL ACTIVITY**

- [ ] CLASS I
- [ ] CLASS II
  - [ ] Brine Disposal
  - [ ] Enhanced Recovery
  - [ ] Hydrocarbon Storage
- [ ] CLASS III

Well Number 55-917430, NSH-007

**CASING AND TUBING RECORD AFTER PLUGGING**

| SIZE | WT (LB/FT) | TO BE PUT IN WELL (FT) | TO BE LEFT IN WELL (FT) | HOLE SIZE |
|---|---|---|---|---|
| 8.625 | Unknown | 0 | 469 | 8.625 |
| | | | | |
| | | | | |
| | | | | |

**METHOD OF EMPLACEMENT OF CEMENT PLUGS**

- [x] The Balance Method
- [ ] The Dump Bailer Method
- [ ] The Two-Plug Method
- [ ] Other

| CEMENTING TO PLUG AND ABANDON DATA: | PLUG #1 | PLUG #2 | PLUG #3 | PLUG #4 | PLUG #5 | PLUG #6 | PLUG #7 |
|---|---|---|---|---|---|---|---|
| Size of Hole or Pipe in which Plug Will Be Placed (inche | 8.625 | 7.875 | | | | | |
| Depth to Bottom of Tubing or Drill Pipe (ft | 469 | 640 | | | | | |
| Sacks of Cement To Be Used (each plug) | 161 | 49 | | | | | |
| Slurry Volume To Be Pumped (cu. ft.) | 189 | 58 | | | | | |
| Calculated Top of Plug (ft.) | 2 | 469 | | | | | |
| Measured Top of Plug (if tagged ft.) | | | | | | | |
| Slurry Wt. (Lb./Gal.) | 15.6 | 15.6 | | | | | |
| Type Cement or Other Material (Class III) | V | V | | | | | |

**LIST ALL OPEN HOLE AND/OR PERFORATED INTERVALS AND INTERVALS WHERE CASING WILL BE VARIED (if any)**

| From | To | From | To |
|---|---|---|---|
| 484 | 640 | | |
| | | | |

Water level will be measured prior to abandonment. Casing will be perforated from 50 feet above water level to bottom of casing.

Estimated Cost to Plug Wells

$14,420

## Certification

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|---|---|---|
| Vit Kuhnel, Hydrology Manager | | |

OMB No. 2040-0042 Approval Expires 11/30/2014

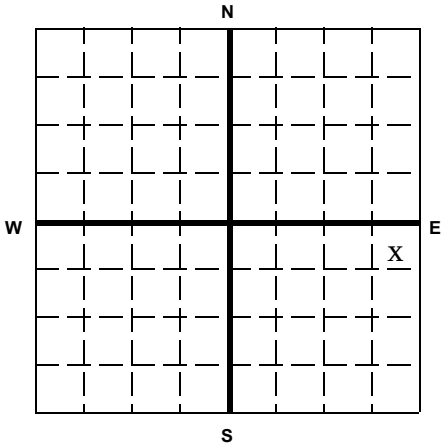
United States Environmental Protection Agency
Washington, DC 20460

# PLUGGING AND ABANDONMENT PLAN

**Name and Address of Facility**
EXCELSIOR MINING CORP
GUNNISON PROJECT

**Name and Address of Owner/Operator**
EXCELSIOR MINING CORP
CONCORD PL, 2999 N 44TH ST, STE 300, PHOENIX, AZ 85018

**Locate Well and Outline Unit on Section Plat - 640 Acres**




| State | County | Permit Number |
|---|---|---|
| AZ | Cochise | TBD |

**Surface Location Description**
1/4 of ne 1/4 of ne 1/4 of se 1/4 of Section 36 Township 15S Range 22E

Locate well in two directions from nearest lines of quarter section and drilling unit

Surface Location 275 ft. frm (N/S) N Line of quarter section
and 483 ft. from (E/W) E Line of quarter section.

**TYPE OF AUTHORIZATION**
- ☐ Individual Permit
- ☑ Area Permit
- ☐ Rule

Number of Wells 1

Lease Name

**WELL ACTIVITY**
- ☐ CLASS I
- ☐ CLASS II
  - ☐ Brine Disposal
  - ☐ Enhanced Recovery
  - ☐ Hydrocarbon Storage
- ☐ CLASS III

Well Number 55-917429, NSH-008

**CASING AND TUBING RECORD AFTER PLUGGING**

| SIZE | WT (LB/FT) | TO BE PUT IN WELL (FT) | TO BE LEFT IN WELL (FT) | HOLE SIZE |
|---|---|---|---|---|
| 4.5 | Unknown | 0 | 840 | 4.5 |
| | | | | |
| | | | | |
| | | | | |

**METHOD OF EMPLACEMENT OF CEMENT PLUGS**
- ☑ The Balance Method
- ☐ The Dump Bailer Method
- ☐ The Two-Plug Method
- ☐ Other

| CEMENTING TO PLUG AND ABANDON DATA: | PLUG #1 | PLUG #2 | PLUG #3 | PLUG #4 | PLUG #5 | PLUG #6 | PLUG #7 |
|---|---|---|---|---|---|---|---|
| Size of Hole or Pipe in which Plug Will Be Placed (inche | 4.5 | | | | | | |
| Depth to Bottom of Tubing or Drill Pipe (ft | 840 | | | | | | |
| Sacks of Cement To Be Used (each plug) | 78 | | | | | | |
| Slurry Volume To Be Pumped (cu. ft.) | 93 | | | | | | |
| Calculated Top of Plug (ft.) | 2 | | | | | | |
| Measured Top of Plug (if tagged ft.) | | | | | | | |
| Slurry Wt. (Lb./Gal.) | 15.6 | | | | | | |
| Type Cement or Other Material (Class III) | V | | | | | | |

**LIST ALL OPEN HOLE AND/OR PERFORATED INTERVALS AND INTERVALS WHERE CASING WILL BE VARIED (if any)**

| From | To | From | To |
|---|---|---|---|
| 720 | 840 | | |

Water level will be measured prior to abandonment. Casing will be perforated from 50 feet above water level to bottom of casing.

**Estimated Cost to Plug Wells**
$14,420

## Certification

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| Name and Official Title *(Please type or print)* | Signature | Date Signed |
|---|---|---|
| Vit Kuhnel, Hydrology Manager | | |

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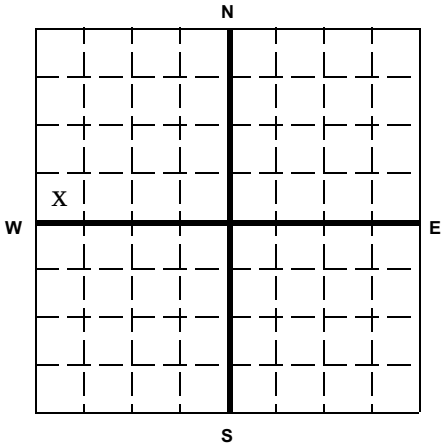
United States Environmental Protection Agency
Washington, DC 20460

# PLUGGING AND ABANDONMENT PLAN

**Name and Address of Facility**
EXCELSIOR MINING CORP
GUNNISON PROJECT

**Name and Address of Owner/Operator**
EXCELSIOR MINING CORP
CONCORD PL, 2999 N 44TH ST, STE 300, PHOENIX, AZ 85018

**Locate Well and Outline Unit on Section Plat - 640 Acres**




| State | County | Permit Number |
|---|---|---|
| AZ | Cochise | TBD |

**Surface Location Description**
___ 1/4 of sw 1/4 of sw 1/4 of nw 1/4 of Section 31 Township 15S Range 23E

**Locate well in two directions from nearest lines of quarter section and drilling unit**

**Surface Location** 203 ft. frm (N/S) S Line of quarter section
and 95 ft. from (E/W) W Line of quarter section.

**TYPE OF AUTHORIZATION**
- ☐ Individual Permit
- ☑ Area Permit
- ☐ Rule

Number of Wells 1

Lease Name

**WELL ACTIVITY**
- ☐ CLASS I
- ☐ CLASS II
  - ☐ Brine Disposal
  - ☐ Enhanced Recovery
  - ☐ Hydrocarbon Storage
- ☐ CLASS III

Well Number 55-917433, NSH-009

**CASING AND TUBING RECORD AFTER PLUGGING**

| SIZE | WT (LB/FT) | TO BE PUT IN WELL (FT) | TO BE LEFT IN WELL (FT) | HOLE SIZE |
|---|---|---|---|---|
| 4.5 | Unknown | 0 | 995 | 4.5 |
| | | | | |
| | | | | |
| | | | | |

**METHOD OF EMPLACEMENT OF CEMENT PLUGS**
- ☑ The Balance Method
- ☐ The Dump Bailer Method
- ☐ The Two-Plug Method
- ☐ Other

| CEMENTING TO PLUG AND ABANDON DATA: | PLUG #1 | PLUG #2 | PLUG #3 | PLUG #4 | PLUG #5 | PLUG #6 | PLUG #7 |
|---|---|---|---|---|---|---|---|
| Size of Hole or Pipe in which Plug Will Be Placed (inche | 4.5 | | | | | | |
| Depth to Bottom of Tubing or Drill Pipe (ft | 995 | | | | | | |
| Sacks of Cement To Be Used (each plug) | 93 | | | | | | |
| Slurry Volume To Be Pumped (cu. ft.) | 110 | | | | | | |
| Calculated Top of Plug (ft.) | 2 | | | | | | |
| Measured Top of Plug (if tagged ft.) | | | | | | | |
| Slurry Wt. (Lb./Gal.) | 15.6 | | | | | | |
| Type Cement or Other Material (Class III) | V | | | | | | |

**LIST ALL OPEN HOLE AND/OR PERFORATED INTERVALS AND INTERVALS WHERE CASING WILL BE VARIED (if any)**

| From | To | From | To |
|---|---|---|---|
| 813 | 995 | | |

Water level will be measured prior to abandonment. Casing will be perforated from 50 feet above water level to bottom of casing.

**Estimated Cost to Plug Wells**
$14,420

## Certification

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|---|---|---|
| Vit Kuhnel, Hydrology Manager | | |

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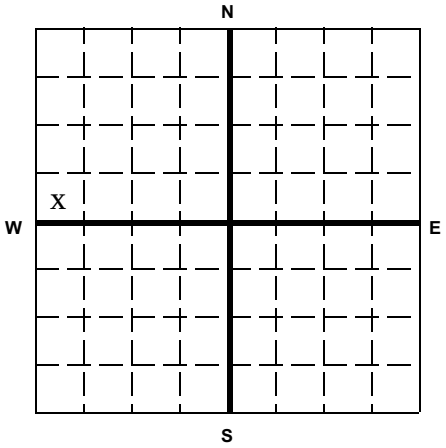
United States Environmental Protection Agency
Washington, DC 20460

# PLUGGING AND ABANDONMENT PLAN

| Name and Address of Facility | Name and Address of Owner/Operator |
|---|---|
| EXCELSIOR MINING CORP<br>GUNNISON PROJECT | EXCELSIOR MINING CORP<br>CONCORD PL, 2999 N 44TH ST, STE 300, PHOENIX, AZ 85018 |

Locate Well and Outline Unit on Section Plat - 640 Acres




| State | County | Permit Number |
|---|---|---|
| AZ | Cochise | TBD |

Surface Location Description

1/4 of sw 1/4 of sw 1/4 of nw 1/4 of Section 31 Township 15S Range 23E

Locate well in two directions from nearest lines of quarter section and drilling unit

Surface Location 135 ft. frm (N/S) S Line of quarter section and 248 ft. from (E/W) W Line of quarter section.

**TYPE OF AUTHORIZATION**

- [ ] Individual Permit
- [x] Area Permit
- [ ] Rule

Number of Wells 1

Lease Name

**WELL ACTIVITY**

- [ ] CLASS I
- [ ] CLASS II
  - [ ] Brine Disposal
  - [ ] Enhanced Recovery
  - [ ] Hydrocarbon Storage
- [ ] CLASS III

Well Number 55-917434, NSH-010

**CASING AND TUBING RECORD AFTER PLUGGING**

| SIZE | WT (LB/FT) | TO BE PUT IN WELL (FT) | TO BE LEFT IN WELL (FT) | HOLE SIZE |
|---|---|---|---|---|
| 8.625 | Unknown | 0 | 546 | 8.625 |
| | | | | |
| | | | | |
| | | | | |

**METHOD OF EMPLACEMENT OF CEMENT PLUGS**

- [x] The Balance Method
- [ ] The Dump Bailer Method
- [ ] The Two-Plug Method
- [ ] Other

| CEMENTING TO PLUG AND ABANDON DATA: | PLUG #1 | PLUG #2 | PLUG #3 | PLUG #4 | PLUG #5 | PLUG #6 | PLUG #7 |
|---|---|---|---|---|---|---|---|
| Size of Hole or Pipe in which Plug Will Be Placed (inche | 8.625 | 7.875 | | | | | |
| Depth to Bottom of Tubing or Drill Pipe (ft | 546 | 720 | | | | | |
| Sacks of Cement To Be Used (each plug) | 187 | 50 | | | | | |
| Slurry Volume To Be Pumped (cu. ft.) | 221 | 59 | | | | | |
| Calculated Top of Plug (ft.) | 2 | 546 | | | | | |
| Measured Top of Plug (if tagged ft.) | | | | | | | |
| Slurry Wt. (Lb./Gal.) | 15.6 | 15.6 | | | | | |
| Type Cement or Other Material (Class III) | V | V | | | | | |

**LIST ALL OPEN HOLE AND/OR PERFORATED INTERVALS AND INTERVALS WHERE CASING WILL BE VARIED (if any)**

| From | To | From | To |
|---|---|---|---|
| 546 | 720 | | |

Water level will be measured prior to abandonment. Casing will be perforated from 50 feet above water level to bottom of casing.

Estimated Cost to Plug Wells

$14,420

## Certification

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|---|---|---|
| Vit Kuhnel, Hydrology Manager | | |

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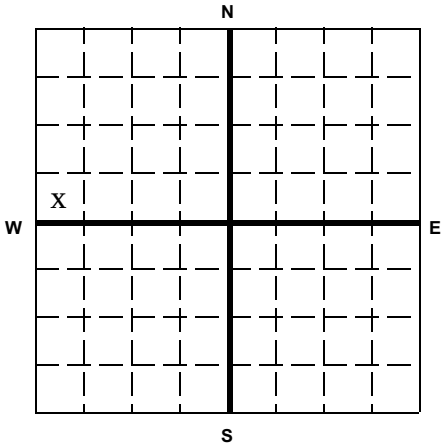
Washington, DC 20460

# PLUGGING AND ABANDONMENT PLAN

**Name and Address of Facility**
EXCELSIOR MINING CORP
GUNNISON PROJECT

**Name and Address of Owner/Operator**
EXCELSIOR MINING CORP
CONCORD PL, 2999 N 44TH ST, STE 300, PHOENIX, AZ 85018

**Locate Well and Outline Unit on Section Plat - 640 Acres**




| State | County | Permit Number |
|---|---|---|
| AZ | Cochise | TBD |

**Surface Location Description**
___ 1/4 of sw 1/4 of sw 1/4 of nw 1/4 of Section 31 Township 15S Range 23E

**Locate well in two directions from nearest lines of quarter section and drilling unit**

**Surface Location** 190 ft. frm (N/S) S Line of quarter section
and 411 ft. from (E/W) W Line of quarter section.

**TYPE OF AUTHORIZATION**
- ☐ Individual Permit
- ☑ Area Permit
- ☐ Rule

Number of Wells 1

Lease Name

**WELL ACTIVITY**
- ☐ CLASS I
- ☐ CLASS II
  - ☐ Brine Disposal
  - ☐ Enhanced Recovery
  - ☐ Hydrocarbon Storage
- ☐ CLASS III

Well Number 55-917435, NSH-012

**CASING AND TUBING RECORD AFTER PLUGGING**

| SIZE | WT (LB/FT) | TO BE PUT IN WELL (FT) | TO BE LEFT IN WELL (FT) | HOLE SIZE |
|---|---|---|---|---|
| 4.5 | Unknown | 0 | 490 | 4.5 |
| | | | | |
| | | | | |
| | | | | |

**METHOD OF EMPLACEMENT OF CEMENT PLUGS**
- ☑ The Balance Method
- ☐ The Dump Bailer Method
- ☐ The Two-Plug Method
- ☐ Other

| CEMENTING TO PLUG AND ABANDON DATA: | PLUG #1 | PLUG #2 | PLUG #3 | PLUG #4 | PLUG #5 | PLUG #6 | PLUG #7 |
|---|---|---|---|---|---|---|---|
| Size of Hole or Pipe in which Plug Will Be Placed (inche | 4.5 | | | | | | |
| Depth to Bottom of Tubing or Drill Pipe (ft | 490 | | | | | | |
| Sacks of Cement To Be Used (each plug) | 46 | | | | | | |
| Slurry Volume To Be Pumped (cu. ft.) | 54 | | | | | | |
| Calculated Top of Plug (ft.) | 2 | | | | | | |
| Measured Top of Plug (if tagged ft.) | | | | | | | |
| Slurry Wt. (Lb./Gal.) | 15.6 | | | | | | |
| Type Cement or Other Material (Class III) | V | | | | | | |

**LIST ALL OPEN HOLE AND/OR PERFORATED INTERVALS AND INTERVALS WHERE CASING WILL BE VARIED (if any)**

| From | To | From | To |
|---|---|---|---|
| 430 | 490 | | |

Water level will be measured prior to abandonment. Casing will be perforated from 50 feet above water level to bottom of casing.

**Estimated Cost to Plug Wells**
$14,420

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|---|---|---|
| Vit Kuhnel, Hydrology Manager | | |

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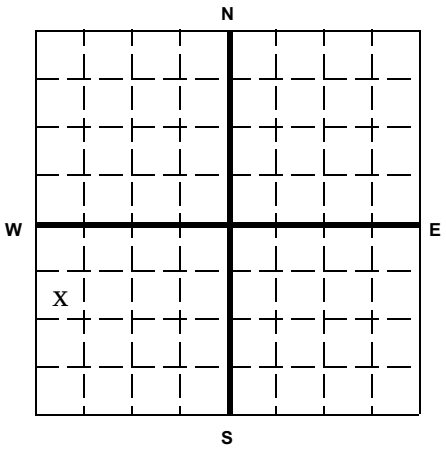
Washington, DC 20460

# PLUGGING AND ABANDONMENT PLAN

**Name and Address of Facility**
EXCELSIOR MINING CORP
GUNNISON PROJECT

**Name and Address of Owner/Operator**
EXCELSIOR MINING CORP
CONCORD PL, 2999 N 44TH ST, STE 300, PHOENIX, AZ 85018

**Locate Well and Outline Unit on Section Plat - 640 Acres**




| State | County | Permit Number |
|---|---|---|
| AZ | Cochise | TBD |

**Surface Location Description**
___ 1/4 of sw 1/4 of nw 1/4 of sw 1/4 of Section 31 Township 15S Range 23E

Locate well in two directions from nearest lines of quarter section and drilling unit

Surface Location 100 ft. frm (N/S) N Line of quarter section
and 702 ft. from (E/W) W Line of quarter section.

**TYPE OF AUTHORIZATION**
- ☐ Individual Permit
- ☑ Area Permit
- ☐ Rule

Number of Wells 1

Lease Name

**WELL ACTIVITY**
- ☐ CLASS I
- ☐ CLASS II
  - ☐ Brine Disposal
  - ☐ Enhanced Recovery
  - ☐ Hydrocarbon Storage
- ☐ CLASS III

Well Number 55-917436, NSH-013

**CASING AND TUBING RECORD AFTER PLUGGING**

| SIZE | WT (LB/FT) | TO BE PUT IN WELL (FT) | TO BE LEFT IN WELL (FT) | HOLE SIZE |
|---|---|---|---|---|
| 8.625 | Unknown | 0 | 646 | 8.625 |
| | | | | |
| | | | | |
| | | | | |

**METHOD OF EMPLACEMENT OF CEMENT PLUGS**
- ☑ The Balance Method
- ☐ The Dump Bailer Method
- ☐ The Two-Plug Method
- ☐ Other

| CEMENTING TO PLUG AND ABANDON DATA: | PLUG #1 | PLUG #2 | PLUG #3 | PLUG #4 | PLUG #5 | PLUG #6 | PLUG #7 |
|---|---|---|---|---|---|---|---|
| Size of Hole or Pipe in which Plug Will Be Placed (inche | 8.625 | 7.875 | | | | | |
| Depth to Bottom of Tubing or Drill Pipe (ft | 646 | 1070 | | | | | |
| Sacks of Cement To Be Used (each plug) | 221 | 122 | | | | | |
| Slurry Volume To Be Pumped (cu. ft.) | 261 | 143 | | | | | |
| Calculated Top of Plug (ft.) | 2 | 646 | | | | | |
| Measured Top of Plug (if tagged ft.) | | | | | | | |
| Slurry Wt. (Lb./Gal.) | 15.6 | 15.6 | | | | | |
| Type Cement or Other Material (Class III) | V | V | | | | | |

**LIST ALL OPEN HOLE AND/OR PERFORATED INTERVALS AND INTERVALS WHERE CASING WILL BE VARIED (if any)**

| From | To | From | To |
|---|---|---|---|
| 646 | 1070 | | |

Water level will be measured prior to abandonment. Casing will be perforated from 50 feet above water level to bottom of casing.

**Estimated Cost to Plug Wells**
$14,420

## Certification

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|---|---|---|
| Vit Kuhnel, Hydrology Manager | | |

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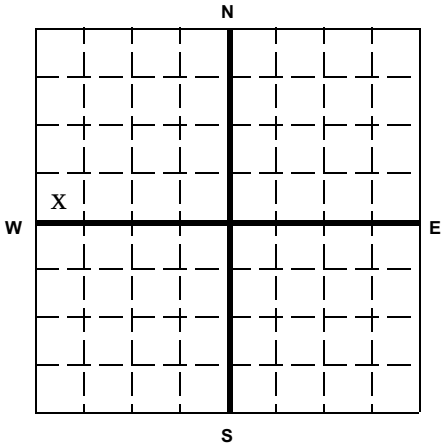
Washington, DC 20460

# PLUGGING AND ABANDONMENT PLAN

| Name and Address of Facility | Name and Address of Owner/Operator |
|---|---|
| EXCELSIOR MINING CORP<br>GUNNISON PROJECT | EXCELSIOR MINING CORP<br>CONCORD PL, 2999 N 44TH ST, STE 300, PHOENIX, AZ 85018 |

Locate Well and Outline Unit on Section Plat - 640 Acres




| State | County | Permit Number |
|---|---|---|
| AZ | Cochise | TBD |

Surface Location Description

___ 1/4 of sw 1/4 of sw 1/4 of nw 1/4 of Section 31 Township 15S Range 23E

Locate well in two directions from nearest lines of quarter section and drilling unit

Surface Location 221 ft. frm (N/S) S Line of quarter section
and 307 ft. from (E/W) W Line of quarter section.

**TYPE OF AUTHORIZATION**

- ☐ Individual Permit
- ☑ Area Permit
- ☐ Rule

Number of Wells 1

Lease Name

**WELL ACTIVITY**

- ☐ CLASS I
- ☐ CLASS II
  - ☐ Brine Disposal
  - ☐ Enhanced Recovery
  - ☐ Hydrocarbon Storage
- ☐ CLASS III

Well Number 55-917432, NSH-014B

**CASING AND TUBING RECORD AFTER PLUGGING**

| SIZE | WT (LB/FT) | TO BE PUT IN WELL (FT) | TO BE LEFT IN WELL (FT) | HOLE SIZE |
|---|---|---|---|---|
| 4.5 | Unknown | 0 | 1260 | 4.5 |
| | | | | |
| | | | | |
| | | | | |

**METHOD OF EMPLACEMENT OF CEMENT PLUGS**

- ☑ The Balance Method
- ☐ The Dump Bailer Method
- ☐ The Two-Plug Method
- ☐ Other

| CEMENTING TO PLUG AND ABANDON DATA: | PLUG #1 | PLUG #2 | PLUG #3 | PLUG #4 | PLUG #5 | PLUG #6 | PLUG #7 |
|---|---|---|---|---|---|---|---|
| Size of Hole or Pipe in which Plug Will Be Placed (inche | 4.5 | | | | | | |
| Depth to Bottom of Tubing or Drill Pipe (ft | 1260 | | | | | | |
| Sacks of Cement To Be Used (each plug) | 118 | | | | | | |
| Slurry Volume To Be Pumped (cu. ft.) | 139 | | | | | | |
| Calculated Top of Plug (ft.) | 2 | | | | | | |
| Measured Top of Plug (if tagged ft.) | | | | | | | |
| Slurry Wt. (Lb./Gal.) | 15.6 | | | | | | |
| Type Cement or Other Material (Class III) | V | | | | | | |

**LIST ALL OPEN HOLE AND/OR PERFORATED INTERVALS AND INTERVALS WHERE CASING WILL BE VARIED (if any)**

| From | To | From | To |
|---|---|---|---|
| 1180 | 1260 | | |

Water level will be measured prior to abandonment. Casing will be perforated from 50 feet above water level to bottom of casing.

Estimated Cost to Plug Wells

$14,420

## Certification

I certify under the penalty of law that I have personally examined and am familiar with the information submitted in this document and all attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibliity of fine and imprisonment. (Ref. 40 CFR 144.32)

| Name and Official Title *(Please type or print)* | Signature | Date Signed |
|---|---|---|
| Vit Kuhnel, Hydrology Manager | | |

OMB No. 2040-0042 Approval Expires 11/30/2014

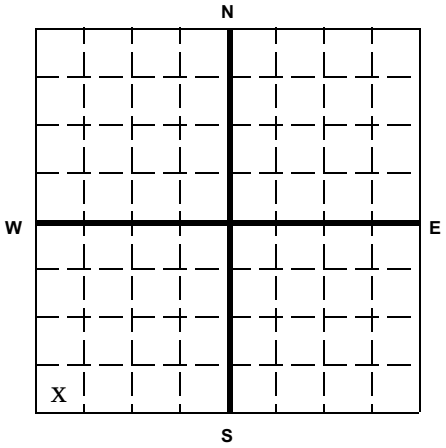
United States Environmental Protection Agency
Washington, DC 20460

# PLUGGING AND ABANDONMENT PLAN

**Name and Address of Facility**
EXCELSIOR MINING CORP
GUNNISON PROJECT

**Name and Address of Owner/Operator**
EXCELSIOR MINING CORP
CONCORD PL, 2999 N 44TH ST, STE 300, PHOENIX, AZ 85018

**Locate Well and Outline Unit on Section Plat - 640 Acres**




| State | County | Permit Number |
|---|---|---|
| AZ | Cochise | TBD |

**Surface Location Description**
___ 1/4 of sw 1/4 of sw 1/4 of sw 1/4 of Section 31 Township 15S Range 23E

**Locate well in two directions from nearest lines of quarter section and drilling unit**

**Surface Location** 436 ft. frm (N/S) S Line of quarter section
and 265 ft. from (E/W) W Line of quarter section.

**TYPE OF AUTHORIZATION**
- ☐ Individual Permit
- ☑ Area Permit
- ☐ Rule

Number of Wells 1

Lease Name

**WELL ACTIVITY**
- ☐ CLASS I
- ☐ CLASS II
  - ☐ Brine Disposal
  - ☐ Enhanced Recovery
  - ☐ Hydrocarbon Storage
- ☐ CLASS III

Well Number 55-224029, NSH-015

**CASING AND TUBING RECORD AFTER PLUGGING**

| SIZE | WT (LB/FT) | TO BE PUT IN WELL (FT) | TO BE LEFT IN WELL (FT) | HOLE SIZE |
|---|---|---|---|---|
| 8.625 | Unknown | 0 | 585 | 8.625 |
| | | | | |
| | | | | |
| | | | | |

**METHOD OF EMPLACEMENT OF CEMENT PLUGS**
- ☑ The Balance Method
- ☐ The Dump Bailer Method
- ☐ The Two-Plug Method
- ☐ Other

| CEMENTING TO PLUG AND ABANDON DATA: | PLUG #1 | PLUG #2 | PLUG #3 | PLUG #4 | PLUG #5 | PLUG #6 | PLUG #7 |
|---|---|---|---|---|---|---|---|
| Size of Hole or Pipe in which Plug Will Be Placed (inche | 8.625 | 7.875 | | | | | |
| Depth to Bottom of Tubing or Drill Pipe (ft | 585 | 820 | | | | | |
| Sacks of Cement To Be Used (each plug) | 200 | 67 | | | | | |
| Slurry Volume To Be Pumped (cu. ft.) | 237 | 79 | | | | | |
| Calculated Top of Plug (ft.) | 2 | 585 | | | | | |
| Measured Top of Plug (if tagged ft.) | | | | | | | |
| Slurry Wt. (Lb./Gal.) | 15.6 | 15.6 | | | | | |
| Type Cement or Other Material (Class III) | V | V | | | | | |

**LIST ALL OPEN HOLE AND/OR PERFORATED INTERVALS AND INTERVALS WHERE CASING WILL BE VARIED (if any)**

| From | To | From | To |
|---|---|---|---|
| 585 | 820 | | |

Water level will be measured prior to abandonment. Casing will be perforated from 50 feet above water level to bottom of casing.

**Estimated Cost to Plug Wells**
$14,420

## Certification

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| Name and Official Title *(Please type or print)* | Signature | Date Signed |
|---|---|---|
| Vit Kuhnel, Hydrology Manager | | |

OMB No. 2040-0042 Approval Expires 11/30/2014

United States Environmental Protection Agency
Washington, DC 20460

# PLUGGING AND ABANDONMENT PLAN

**Name and Address of Facility**
EXCELSIOR MINING CORP
GUNNISON PROJECT

**Name and Address of Owner/Operator**
EXCELSIOR MINING CORP
CONCORD PL, 2999 N 44TH ST, STE 300, PHOENIX, AZ 85018

**Locate Well and Outline Unit on Section Plat - 640 Acres**

N
W E
X
S

| State | County | Permit Number |
|---|---|---|
| AZ | Cochise | TBD |

**Surface Location Description**
___ 1/4 of sw 1/4 of sw 1/4 of sw 1/4 of Section 31 Township 15S Range 23E

Locate well in two directions from nearest lines of quarter section and drilling unit

Surface Location 483 ft. frm (N/S) S Line of quarter section
and 118 ft. from (E/W) W Line of quarter section.

**TYPE OF AUTHORIZATION**
- ☐ Individual Permit
- ☑ Area Permit
- ☐ Rule

Number of Wells 1

Lease Name

**WELL ACTIVITY**
- ☐ CLASS I
- ☐ CLASS II
  - ☐ Brine Disposal
  - ☐ Enhanced Recovery
  - ☐ Hydrocarbon Storage
- ☐ CLASS III

Well Number 55-224030, NSH-016

**CASING AND TUBING RECORD AFTER PLUGGING**

| SIZE | WT (LB/FT) | TO BE PUT IN WELL (FT) | TO BE LEFT IN WELL (FT) | HOLE SIZE |
|---|---|---|---|---|
| 8.625 | Unknown | 0 | 579 | 8.625 |
| | | | | |
| | | | | |
| | | | | |

**METHOD OF EMPLACEMENT OF CEMENT PLUGS**
- ☑ The Balance Method
- ☐ The Dump Bailer Method
- ☐ The Two-Plug Method
- ☐ Other

| CEMENTING TO PLUG AND ABANDON DATA: | PLUG #1 | PLUG #2 | PLUG #3 | PLUG #4 | PLUG #5 | PLUG #6 | PLUG #7 |
|---|---|---|---|---|---|---|---|
| Size of Hole or Pipe in which Plug Will Be Placed (inche | 8.625 | 7.875 | | | | | |
| Depth to Bottom of Tubing or Drill Pipe (ft | 579 | 702 | | | | | |
| Sacks of Cement To Be Used (each plug) | 198 | 35 | | | | | |
| Slurry Volume To Be Pumped (cu. ft.) | 234 | 41 | | | | | |
| Calculated Top of Plug (ft.) | 2 | 579 | | | | | |
| Measured Top of Plug (if tagged ft.) | | | | | | | |
| Slurry Wt. (Lb./Gal.) | 15.6 | 15.6 | | | | | |
| Type Cement or Other Material (Class III) | V | V | | | | | |

**LIST ALL OPEN HOLE AND/OR PERFORATED INTERVALS AND INTERVALS WHERE CASING WILL BE VARIED (if any)**

| From | To | From | To |
|---|---|---|---|
| 579 | 702 | | |
| | | | |

Water level will be measured prior to abandonment. Casing will be perforated from 50 feet above water level to bottom of casing.

**Estimated Cost to Plug Wells**
$14,420

## Certification

I certify under the penalty of law that I have personally examined and am familiar with the information submitted in this document and all attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibliity of fine and imprisonment. (Ref. 40 CFR 144.32)

| Name and Official Title *(Please type or print)* | Signature | Date Signed |
|---|---|---|
| Vit Kuhnel, Hydrology Manager | | |

OMB No. 2040-0042 Approval Expires 11/30/2014

United States Environmental Protection Agency
Washington, DC 20460

# PLUGGING AND ABANDONMENT PLAN

**Name and Address of Facility**
EXCELSIOR MINING CORP
GUNNISON PROJECT

**Name and Address of Owner/Operator**
EXCELSIOR MINING CORP
CONCORD PL, 2999 N 44TH ST, STE 300, PHOENIX, AZ 85018

**Locate Well and Outline Unit on Section Plat - 640 Acres**

N
W E
X
S

| State | County | Permit Number |
|---|---|---|
| AZ | Cochise | TBD |

**Surface Location Description**
___ 1/4 of sw 1/4 of sw 1/4 of sw 1/4 of Section 31 Township 15S Range 23E

Locate well in two directions from nearest lines of quarter section and drilling unit

Surface Location 459 ft. frm (N/S) S Line of quarter section
and 413 ft. from (E/W) W Line of quarter section.

**TYPE OF AUTHORIZATION**
- ☐ Individual Permit
- ☑ Area Permit
- ☐ Rule

Number of Wells 1

Lease Name

**WELL ACTIVITY**
- ☐ CLASS I
- ☐ CLASS II
  - ☐ Brine Disposal
  - ☐ Enhanced Recovery
  - ☐ Hydrocarbon Storage
- ☐ CLASS III

Well Number 55-224099, NSH-017

**CASING AND TUBING RECORD AFTER PLUGGING**

| SIZE | WT (LB/FT) | TO BE PUT IN WELL (FT) | TO BE LEFT IN WELL (FT) | HOLE SIZE |
|---|---|---|---|---|
| 6.625 | Unknown | 0 | 1181 | 6.625 |
| | | | | |
| | | | | |
| | | | | |

**METHOD OF EMPLACEMENT OF CEMENT PLUGS**
- ☑ The Balance Method
- ☐ The Dump Bailer Method
- ☐ The Two-Plug Method
- ☐ Other

| CEMENTING TO PLUG AND ABANDON DATA: | PLUG #1 | PLUG #2 | PLUG #3 | PLUG #4 | PLUG #5 | PLUG #6 | PLUG #7 |
|---|---|---|---|---|---|---|---|
| Size of Hole or Pipe in which Plug Will Be Placed (inche | 6.625 | | | | | | |
| Depth to Bottom of Tubing or Drill Pipe (ft | 1181 | | | | | | |
| Sacks of Cement To Be Used (each plug) | 239 | | | | | | |
| Slurry Volume To Be Pumped (cu. ft.) | 282 | | | | | | |
| Calculated Top of Plug (ft.) | 2 | | | | | | |
| Measured Top of Plug (if tagged ft.) | | | | | | | |
| Slurry Wt. (Lb./Gal.) | 15.6 | | | | | | |
| Type Cement or Other Material (Class III) | V | | | | | | |

**LIST ALL OPEN HOLE AND/OR PERFORATED INTERVALS AND INTERVALS WHERE CASING WILL BE VARIED (if any)**

| From | To | From | To |
|---|---|---|---|
| 940 | 1181 | | |

Water level will be measured prior to abandonment. Casing will be perforated from 50 feet above water level to bottom of casing.

**Estimated Cost to Plug Wells**
$14,420

## Certification

I certify under the penalty of law that I have personally examined and am familiar with the information submitted in this document and all attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibliity of fine and imprisonment. (Ref. 40 CFR 144.32)

| Name and Official Title *(Please type or print)* | Signature | Date Signed |
|---|---|---|
| Vit Kuhnel, Hydrology Manager | | |

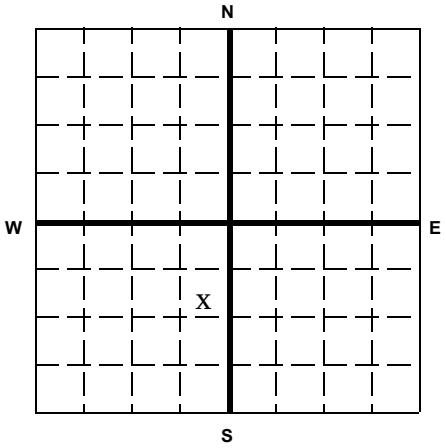
OMB No. 2040-0042 Approval Expires 11/30/2014

United States Environmental Protection Agency
Washington, DC 20460

# PLUGGING AND ABANDONMENT PLAN

| Name and Address of Facility | Name and Address of Owner/Operator |
|---|---|
| EXCELSIOR MINING CORP<br>GUNNISON PROJECT | EXCELSIOR MINING CORP<br>CONCORD PL, 2999 N 44TH ST, STE 300, PHOENIX, AZ 85018 |

Locate Well and Outline Unit on Section Plat - 640 Acres




| State | County | Permit Number |
|---|---|---|
| AZ | Cochise | TBD |

Surface Location Description

___ 1/4 of se 1/4 of ne 1/4 of sw 1/4 of Section 31 Township 15S Range 23E

Locate well in two directions from nearest lines of quarter section and drilling unit

Surface Location 926 ft. frm (N/S) N Line of quarter section and 208 ft. from (E/W) E Line of quarter section.

**TYPE OF AUTHORIZATION**

- ☐ Individual Permit
- ☑ Area Permit
- ☐ Rule

Number of Wells 1

Lease Name

**WELL ACTIVITY**

- ☐ CLASS I
- ☐ CLASS II
  - ☐ Brine Disposal
  - ☐ Enhanced Recovery
  - ☐ Hydrocarbon Storage
- ☐ CLASS III

Well Number 55-224100, NSH-018

**CASING AND TUBING RECORD AFTER PLUGGING**

| SIZE | WT (LB/FT) | TO BE PUT IN WELL (FT) | TO BE LEFT IN WELL (FT) | HOLE SIZE |
|---|---|---|---|---|
| 4.5 | Unknown | 0 | 992 | 4.5 |
| | | | | |
| | | | | |
| | | | | |

**METHOD OF EMPLACEMENT OF CEMENT PLUGS**

- ☑ The Balance Method
- ☐ The Dump Bailer Method
- ☐ The Two-Plug Method
- ☐ Other

| CEMENTING TO PLUG AND ABANDON DATA: | PLUG #1 | PLUG #2 | PLUG #3 | PLUG #4 | PLUG #5 | PLUG #6 | PLUG #7 |
|---|---|---|---|---|---|---|---|
| Size of Hole or Pipe in which Plug Will Be Placed (inche | 4.5 | | | | | | |
| Depth to Bottom of Tubing or Drill Pipe (ft | 992 | | | | | | |
| Sacks of Cement To Be Used (each plug) | 93.2 | | | | | | |
| Slurry Volume To Be Pumped (cu. ft.) | 110 | | | | | | |
| Calculated Top of Plug (ft.) | 2 | | | | | | |
| Measured Top of Plug (if tagged ft.) | | | | | | | |
| Slurry Wt. (Lb./Gal.) | 15.6 | | | | | | |
| Type Cement or Other Material (Class III) | V | | | | | | |

**LIST ALL OPEN HOLE AND/OR PERFORATED INTERVALS AND INTERVALS WHERE CASING WILL BE VARIED (if any)**

| From | To | From | To |
|---|---|---|---|
| 610 | 992 | | |

Water level will be measured prior to abandonment. Casing will be perforated from 50 feet above water level to bottom of casing.

Estimated Cost to Plug Wells

$14,420

## Certification

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| Name and Official Title *(Please type or print)* | Signature | Date Signed |
|---|---|---|
| Vit Kuhnel, Hydrology Manager | | |

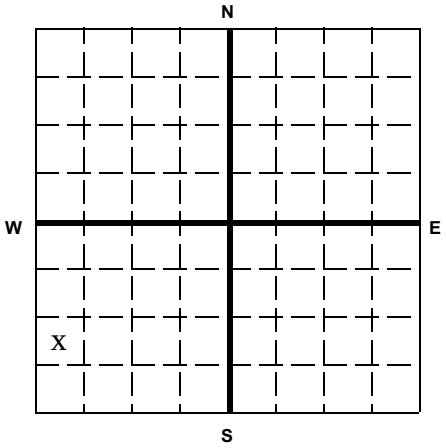
OMB No. 2040-0042 Approval Expires 11/30/2014

United States Environmental Protection Agency
Washington, DC 20460

# PLUGGING AND ABANDONMENT PLAN

| Name and Address of Facility | Name and Address of Owner/Operator |
|---|---|
| EXCELSIOR MINING CORP<br>GUNNISON PROJECT | EXCELSIOR MINING CORP<br>CONCORD PL, 2999 N 44TH ST, STE 300, PHOENIX, AZ 85018 |

Locate Well and Outline Unit on Section Plat - 640 Acres




| State | County | Permit Number |
|---|---|---|
| AZ | Cochise | TBD |

Surface Location Description

1/4 of nw 1/4 of sw 1/4 of sw 1/4 of Section 31 Township 15S Range 23E

Locate well in two directions from nearest lines of quarter section and drilling unit

Surface Location 734 ft. frm (N/S) S Line of quarter section and 804 ft. from (E/W) W Line of quarter section.

**TYPE OF AUTHORIZATION**

- [ ] Individual Permit
- [x] Area Permit
- [ ] Rule

Number of Wells 1

Lease Name

**WELL ACTIVITY**

- [ ] CLASS I
- [ ] CLASS II
  - [ ] Brine Disposal
  - [ ] Enhanced Recovery
  - [ ] Hydrocarbon Storage
- [ ] CLASS III

Well Number 55-224031, NSH-019

**CASING AND TUBING RECORD AFTER PLUGGING**

| SIZE | WT (LB/FT) | TO BE PUT IN WELL (FT) | TO BE LEFT IN WELL (FT) | HOLE SIZE |
|---|---|---|---|---|
| 8.625 | Unknown | 0 | 638 | 8.625 |
| | | | | |
| | | | | |
| | | | | |

**METHOD OF EMPLACEMENT OF CEMENT PLUGS**

- [x] The Balance Method
- [ ] The Dump Bailer Method
- [ ] The Two-Plug Method
- [ ] Other

| CEMENTING TO PLUG AND ABANDON DATA: | PLUG #1 | PLUG #2 | PLUG #3 | PLUG #4 | PLUG #5 | PLUG #6 | PLUG #7 |
|---|---|---|---|---|---|---|---|
| Size of Hole or Pipe in which Plug Will Be Placed (inche | 8.625 | 7.875 | | | | | |
| Depth to Bottom of Tubing or Drill Pipe (ft | 638 | 1300 | | | | | |
| Sacks of Cement To Be Used (each plug) | 219 | 190 | | | | | |
| Slurry Volume To Be Pumped (cu. ft.) | 258 | 224 | | | | | |
| Calculated Top of Plug (ft.) | 2 | 638 | | | | | |
| Measured Top of Plug (if tagged ft.) | | | | | | | |
| Slurry Wt. (Lb./Gal.) | 15.6 | 15.6 | | | | | |
| Type Cement or Other Material (Class III) | V | V | | | | | |

**LIST ALL OPEN HOLE AND/OR PERFORATED INTERVALS AND INTERVALS WHERE CASING WILL BE VARIED (if any)**

| From | To | From | To |
|---|---|---|---|
| 638 | ~1300 | | |
| | | | |

Water level will be measured prior to abandonment. Casing will be perforated from 50 feet above water level to bottom of casing.

Estimated Cost to Plug Wells

$14,420

## Certification

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| Vit Kuhnel, Hydrology Manager | | |

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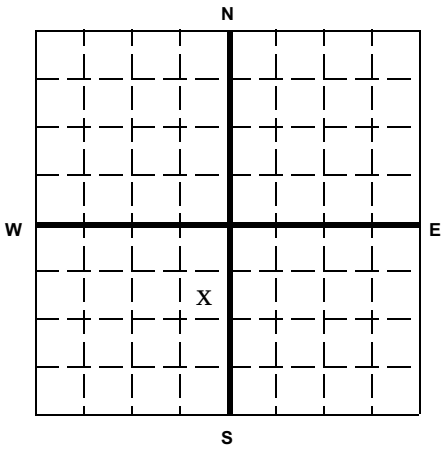
Washington, DC 20460

# PLUGGING AND ABANDONMENT PLAN

**Name and Address of Facility**
EXCELSIOR MINING CORP
GUNNISON PROJECT

**Name and Address of Owner/Operator**
EXCELSIOR MINING CORP
CONCORD PL, 2999 N 44TH ST, STE 300, PHOENIX, AZ 85018

**Locate Well and Outline Unit on Section Plat - 640 Acres**




| State | County | Permit Number |
|---|---|---|
| AZ | Cochise | TBD |

**Surface Location Description**
1/4 of se 1/4 of ne 1/4 of sw 1/4 of Section 31 Township 15S Range 23E

Locate well in two directions from nearest lines of quarter section and drilling unit

Surface Location 1096 ft. frm (N/S) N Line of quarter section
and 208 ft. from (E/W) E Line of quarter section.

**TYPE OF AUTHORIZATION**
- [ ] Individual Permit
- [x] Area Permit
- [ ] Rule

Number of Wells 1

Lease Name

**WELL ACTIVITY**
- [ ] CLASS I
- [ ] CLASS II
  - [ ] Brine Disposal
  - [ ] Enhanced Recovery
  - [ ] Hydrocarbon Storage
- [ ] CLASS III

Well Number 55-224035, NSH-020

**CASING AND TUBING RECORD AFTER PLUGGING**

| SIZE | WT (LB/FT) | TO BE PUT IN WELL (FT) | TO BE LEFT IN WELL (FT) | HOLE SIZE |
|---|---|---|---|---|
| 4.5 | Unknown | 0 | 1582 | 4.5 |
| | | | | |
| | | | | |
| | | | | |

**METHOD OF EMPLACEMENT OF CEMENT PLUGS**
- [x] The Balance Method
- [ ] The Dump Bailer Method
- [ ] The Two-Plug Method
- [ ] Other

| CEMENTING TO PLUG AND ABANDON DATA: | PLUG #1 | PLUG #2 | PLUG #3 | PLUG #4 | PLUG #5 | PLUG #6 | PLUG #7 |
|---|---|---|---|---|---|---|---|
| Size of Hole or Pipe in which Plug Will Be Placed (inche | 4.5 | | | | | | |
| Depth to Bottom of Tubing or Drill Pipe (ft | 1582 | | | | | | |
| Sacks of Cement To Be Used (each plug) | 150 | | | | | | |
| Slurry Volume To Be Pumped (cu. ft.) | 177 | | | | | | |
| Calculated Top of Plug (ft.) | 2 | | | | | | |
| Measured Top of Plug (if tagged ft.) | | | | | | | |
| Slurry Wt. (Lb./Gal.) | 15.6 | | | | | | |
| Type Cement or Other Material (Class III) | V | | | | | | |

**LIST ALL OPEN HOLE AND/OR PERFORATED INTERVALS AND INTERVALS WHERE CASING WILL BE VARIED (if any)**

| From | To | From | To |
|---|---|---|---|
| 1060 | 1202 | 1241 | 1402 |
| 1472 | 1595 | | |

Water level will be measured prior to abandonment. Casing will be perforated from 50 feet above water level to bottom of casing.

**Estimated Cost to Plug Wells**
$14,420

## Certification

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| Name and Official Title *(Please type or print)* | Signature | Date Signed |
|---|---|---|
| Vit Kuhnel, Hydrology Manager | | |

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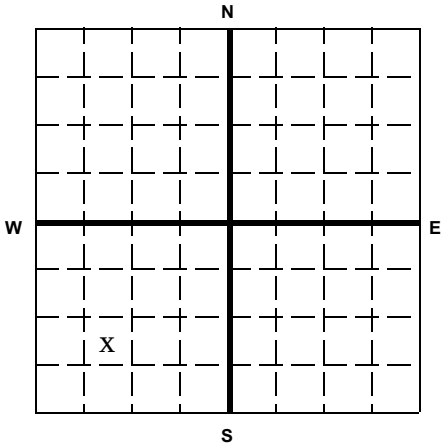
United States Environmental Protection Agency
Washington, DC 20460

# PLUGGING AND ABANDONMENT PLAN

**Name and Address of Facility**
EXCELSIOR MINING CORP
GUNNISON PROJECT

**Name and Address of Owner/Operator**
EXCELSIOR MINING CORP
CONCORD PL, 2999 N 44TH ST, STE 300, PHOENIX, AZ 85018

**Locate Well and Outline Unit on Section Plat - 640 Acres**




| State | County | Permit Number |
|---|---|---|
| AZ | Cochise | TBD |

**Surface Location Description**
1/4 of ne 1/4 of sw 1/4 of sw 1/4 of Section 31 Township 15S Range 23E

Locate well in two directions from nearest lines of quarter section and drilling unit

Surface Location 806 ft. frm (N/S) S Line of quarter section
and 839 ft. from (E/W) W Line of quarter section.

**TYPE OF AUTHORIZATION**
- [ ] Individual Permit
- [x] Area Permit
- [ ] Rule

Number of Wells 1

Lease Name

**WELL ACTIVITY**
- [ ] CLASS I
- [ ] CLASS II
  - [ ] Brine Disposal
  - [ ] Enhanced Recovery
  - [ ] Hydrocarbon Storage
- [ ] CLASS III

Well Number 55-224032, NSH-021C

**CASING AND TUBING RECORD AFTER PLUGGING**

| SIZE | WT (LB/FT) | TO BE PUT IN WELL (FT) | TO BE LEFT IN WELL (FT) | HOLE SIZE |
|---|---|---|---|---|
| 8.625 | Unknown | 0 | 624 | 8.625 |
| | | | | |
| | | | | |
| | | | | |

**METHOD OF EMPLACEMENT OF CEMENT PLUGS**
- [x] The Balance Method
- [ ] The Dump Bailer Method
- [ ] The Two-Plug Method
- [ ] Other

| CEMENTING TO PLUG AND ABANDON DATA: | PLUG #1 | PLUG #2 | PLUG #3 | PLUG #4 | PLUG #5 | PLUG #6 | PLUG #7 |
|---|---|---|---|---|---|---|---|
| Size of Hole or Pipe in which Plug Will Be Placed (inche | 8.625 | 7.875 | | | | | |
| Depth to Bottom of Tubing or Drill Pipe (ft | 624 | 1372 | | | | | |
| Sacks of Cement To Be Used (each plug) | 214 | 214 | | | | | |
| Slurry Volume To Be Pumped (cu. ft.) | 252 | 253 | | | | | |
| Calculated Top of Plug (ft.) | 2 | 624 | | | | | |
| Measured Top of Plug (if tagged ft.) | | | | | | | |
| Slurry Wt. (Lb./Gal.) | 15.6 | 15.6 | | | | | |
| Type Cement or Other Material (Class III) | V | V | | | | | |

**LIST ALL OPEN HOLE AND/OR PERFORATED INTERVALS AND INTERVALS WHERE CASING WILL BE VARIED (if any)**

| From | To | From | To |
|---|---|---|---|
| 624 | ~1372 | | |
| | | | |

Water level will be measured prior to abandonment. Casing will be perforated from 50 feet above water level to bottom of casing.

**Estimated Cost to Plug Wells**
$14,420

## Certification

I certify under the penalty of law that I have personally examined and am familiar with the information submitted in this document and all attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibliity of fine and imprisonment. (Ref. 40 CFR 144.32)

| Name and Official Title *(Please type or print)* | Signature | Date Signed |
|---|---|---|
| Vit Kuhnel, Hydrology Manager | | |

OMB No. 2040-0042 Approval Expires 11/30/2014

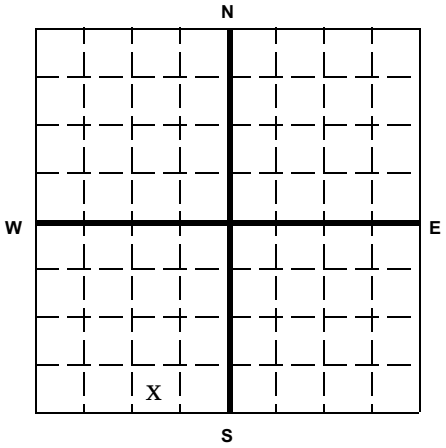
United States Environmental Protection Agency
Washington, DC 20460

# PLUGGING AND ABANDONMENT PLAN

**Name and Address of Facility**
EXCELSIOR MINING CORP
GUNNISON PROJECT

**Name and Address of Owner/Operator**
EXCELSIOR MINING CORP
CONCORD PL, 2999 N 44TH ST, STE 300, PHOENIX, AZ 85018

**Locate Well and Outline Unit on Section Plat - 640 Acres**




| State | County | Permit Number |
|---|---|---|
| AZ | Cochise | TBD |

**Surface Location Description**
___ 1/4 of sw 1/4 of se 1/4 of sw 1/4 of Section 31 Township 15S Range 23E

Locate well in two directions from nearest lines of quarter section and drilling unit

Surface Location 354 ft. frm (N/S) S Line of quarter section
and 731 ft. from (E/W) E Line of quarter section.

**TYPE OF AUTHORIZATION**
- ☐ Individual Permit
- ☑ Area Permit
- ☐ Rule

Number of Wells 1

Lease Name

**WELL ACTIVITY**
- ☐ CLASS I
- ☐ CLASS II
  - ☐ Brine Disposal
  - ☐ Enhanced Recovery
  - ☐ Hydrocarbon Storage
- ☐ CLASS III

Well Number 55-224097, NSH-022

**CASING AND TUBING RECORD AFTER PLUGGING**

| SIZE | WT (LB/FT) | TO BE PUT IN WELL (FT) | TO BE LEFT IN WELL (FT) | HOLE SIZE |
|---|---|---|---|---|
| 6.625 | Unknown | 0 | 1131 | 6.625 |
| | | | | |
| | | | | |
| | | | | |

**METHOD OF EMPLACEMENT OF CEMENT PLUGS**
- ☑ The Balance Method
- ☐ The Dump Bailer Method
- ☐ The Two-Plug Method
- ☐ Other

| CEMENTING TO PLUG AND ABANDON DATA: | PLUG #1 | PLUG #2 | PLUG #3 | PLUG #4 | PLUG #5 | PLUG #6 | PLUG #7 |
|---|---|---|---|---|---|---|---|
| Size of Hole or Pipe in which Plug Will Be Placed (inche | 6.625 | | | | | | |
| Depth to Bottom of Tubing or Drill Pipe (ft | 1131 | | | | | | |
| Sacks of Cement To Be Used (each plug) | 229 | | | | | | |
| Slurry Volume To Be Pumped (cu. ft.) | 270 | | | | | | |
| Calculated Top of Plug (ft.) | 2 | | | | | | |
| Measured Top of Plug (if tagged ft.) | | | | | | | |
| Slurry Wt. (Lb./Gal.) | 15.6 | | | | | | |
| Type Cement or Other Material (Class III) | V | | | | | | |

**LIST ALL OPEN HOLE AND/OR PERFORATED INTERVALS AND INTERVALS WHERE CASING WILL BE VARIED (if any)**

| From | To | From | To |
|---|---|---|---|
| 1010 | 1131 | | |

Water level will be measured prior to abandonment. Casing will be perforated from 50 feet above water level to bottom of casing.

**Estimated Cost to Plug Wells**
$14,420

## Certification

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| Name and Official Title *(Please type or print)* | Signature | Date Signed |
|---|---|---|
| Vit Kuhnel, Hydrology Manager | | |

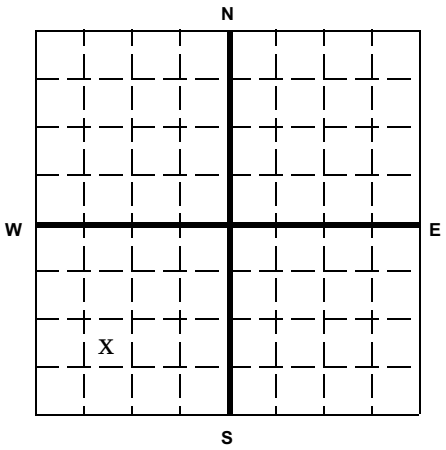
OMB No. 2040-0042 Approval Expires 11/30/2014

United States Environmental Protection Agency
Washington, DC 20460

# PLUGGING AND ABANDONMENT PLAN

| Name and Address of Facility | Name and Address of Owner/Operator |
|---|---|
| EXCELSIOR MINING CORP<br>GUNNISON PROJECT | EXCELSIOR MINING CORP<br>CONCORD PL, 2999 N 44TH ST, STE 300, PHOENIX, AZ 85018 |

Locate Well and Outline Unit on Section Plat - 640 Acres




| State | County | Permit Number |
|---|---|---|
| AZ | Cochise | TBD |

Surface Location Description

1/4 of ne 1/4 of sw 1/4 of sw 1/4 of Section 31 Township 15S Range 23E

Locate well in two directions from nearest lines of quarter section and drilling unit

Surface Location 893 ft. frm (N/S) S Line of quarter section
and 1055 ft. from (E/W) E Line of quarter section.

**TYPE OF AUTHORIZATION**

- [ ] Individual Permit
- [x] Area Permit
- [ ] Rule

Number of Wells 1

Lease Name

**WELL ACTIVITY**

- [ ] CLASS I
- [ ] CLASS II
  - [ ] Brine Disposal
  - [ ] Enhanced Recovery
  - [ ] Hydrocarbon Storage
- [ ] CLASS III

Well Number 55-224034, NSH-023

**CASING AND TUBING RECORD AFTER PLUGGING**

| SIZE | WT (LB/FT) | TO BE PUT IN WELL (FT) | TO BE LEFT IN WELL (FT) | HOLE SIZE |
|---|---|---|---|---|
| 8.625 | Unknown | 0 | 645 | 8.625 |
| | | | | |
| | | | | |
| | | | | |

**METHOD OF EMPLACEMENT OF CEMENT PLUGS**

- [x] The Balance Method
- [ ] The Dump Bailer Method
- [ ] The Two-Plug Method
- [ ] Other

| CEMENTING TO PLUG AND ABANDON DATA: | PLUG #1 | PLUG #2 | PLUG #3 | PLUG #4 | PLUG #5 | PLUG #6 | PLUG #7 |
|---|---|---|---|---|---|---|---|
| Size of Hole or Pipe in which Plug Will Be Placed (inche | 8.625 | 7.875 | | | | | |
| Depth to Bottom of Tubing or Drill Pipe (ft | 645 | 1442 | | | | | |
| Sacks of Cement To Be Used (each plug) | 221 | 228 | | | | | |
| Slurry Volume To Be Pumped (cu. ft.) | 261 | 270 | | | | | |
| Calculated Top of Plug (ft.) | 2 | 645 | | | | | |
| Measured Top of Plug (if tagged ft.) | | | | | | | |
| Slurry Wt. (Lb./Gal.) | 15.6 | 15.6 | | | | | |
| Type Cement or Other Material (Class III) | V | V | | | | | |

**LIST ALL OPEN HOLE AND/OR PERFORATED INTERVALS AND INTERVALS WHERE CASING WILL BE VARIED (if any)**

| From | To | From | To |
|---|---|---|---|
| 645 | 1442 | | |
| | | | |

Water level will be measured prior to abandonment. Casing will be perforated from 50 feet above water level to bottom of casing.

Estimated Cost to Plug Wells

$14,420

## Certification

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| Name and Official Title *(Please type or print)* | Signature | Date Signed |
|---|---|---|
| Vit Kuhnel, Hydrology Manager | | |

OMB No. 2040-0042 Approval Expires 11/30/2014

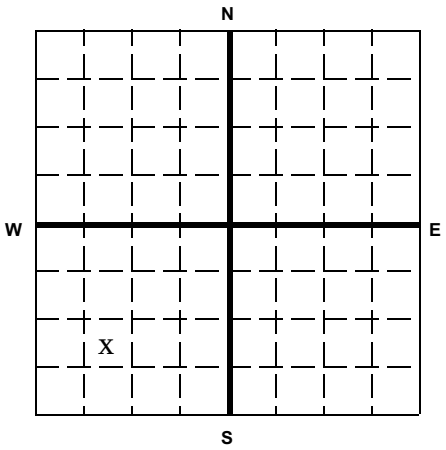
United States Environmental Protection Agency
Washington, DC 20460

# PLUGGING AND ABANDONMENT PLAN

**Name and Address of Facility**
EXCELSIOR MINING CORP
GUNNISON PROJECT

**Name and Address of Owner/Operator**
EXCELSIOR MINING CORP
CONCORD PL, 2999 N 44TH ST, STE 300, PHOENIX, AZ 85018

**Locate Well and Outline Unit on Section Plat - 640 Acres**




| State | County | Permit Number |
|---|---|---|
| AZ | Cochise | TBD |

**Surface Location Description**
___ 1/4 of ne 1/4 of sw 1/4 of sw 1/4 of Section 31 Township 15S Range 23E

Locate well in two directions from nearest lines of quarter section and drilling unit

Surface Location 858 ft. frm (N/S) S Line of quarter section
and 993 ft. from (E/W) E Line of quarter section.

**TYPE OF AUTHORIZATION**
- ☐ Individual Permit
- ☑ Area Permit
- ☐ Rule

Number of Wells 1

Lease Name

**WELL ACTIVITY**
- ☐ CLASS I
- ☐ CLASS II
  - ☐ Brine Disposal
  - ☐ Enhanced Recovery
  - ☐ Hydrocarbon Storage
- ☐ CLASS III

Well Number 55-224033, NSH-024

**CASING AND TUBING RECORD AFTER PLUGGING**

| SIZE | WT (LB/FT) | TO BE PUT IN WELL (FT) | TO BE LEFT IN WELL (FT) | HOLE SIZE |
|---|---|---|---|---|
| 8.625 | Unknown | 0 | 625 | 8.625 |
| | | | | |
| | | | | |
| | | | | |

**METHOD OF EMPLACEMENT OF CEMENT PLUGS**
- ☑ The Balance Method
- ☐ The Dump Bailer Method
- ☐ The Two-Plug Method
- ☐ Other

| CEMENTING TO PLUG AND ABANDON DATA: | PLUG #1 | PLUG #2 | PLUG #3 | PLUG #4 | PLUG #5 | PLUG #6 | PLUG #7 |
|---|---|---|---|---|---|---|---|
| Size of Hole or Pipe in which Plug Will Be Placed (inche | 8.625 | 7.875 | | | | | |
| Depth to Bottom of Tubing or Drill Pipe (ft | 625 | 1440 | | | | | |
| Sacks of Cement To Be Used (each plug) | 214 | 234 | | | | | |
| Slurry Volume To Be Pumped (cu. ft.) | 253 | 276 | | | | | |
| Calculated Top of Plug (ft.) | 2 | 625 | | | | | |
| Measured Top of Plug (if tagged ft.) | | | | | | | |
| Slurry Wt. (Lb./Gal.) | 15.6 | 15.6 | | | | | |
| Type Cement or Other Material (Class III) | V | V | | | | | |

**LIST ALL OPEN HOLE AND/OR PERFORATED INTERVALS AND INTERVALS WHERE CASING WILL BE VARIED (if any)**

| From | To | From | To |
|---|---|---|---|
| 625 | 1440 | | |

Water level will be measured prior to abandonment. Casing will be perforated from 50 feet above water level to bottom of casing.

**Estimated Cost to Plug Wells**
$14,420

## Certification

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| Name and Official Title *(Please type or print)* | Signature | Date Signed |
|---|---|---|
| Vit Kuhnel, Hydrology Manager | | |

OMB No. 2040-0042 Approval Expires 11/30/2014

United States Environmental Protection Agency
Washington, DC 20460

# PLUGGING AND ABANDONMENT PLAN

**Name and Address of Facility**
EXCELSIOR MINING CORP
GUNNISON PROJECT

**Name and Address of Owner/Operator**
EXCELSIOR MINING CORP
CONCORD PL, 2999 N 44TH ST, STE 300, PHOENIX, AZ 85018

**Locate Well and Outline Unit on Section Plat - 640 Acres**

N
W E
X
S

| State | County | Permit Number |
|---|---|---|
| AZ | Cochise | TBD |

**Surface Location Description**
___ 1/4 of sw 1/4 of se 1/4 of sw 1/4 of Section 31 Township 15S Range 23E

Locate well in two directions from nearest lines of quarter section and drilling unit

Surface Location 993 ft. frm (N/S) S Line of quarter section
and 947 ft. from (E/W) E Line of quarter section.

**TYPE OF AUTHORIZATION**
- ☐ Individual Permit
- ☑ Area Permit
- ☐ Rule

Number of Wells 1

Lease Name

**WELL ACTIVITY**
- ☐ CLASS I
- ☐ CLASS II
  - ☐ Brine Disposal
  - ☐ Enhanced Recovery
  - ☐ Hydrocarbon Storage
- ☐ CLASS III

Well Number 55-224158, NSH-025

**CASING AND TUBING RECORD AFTER PLUGGING**

| SIZE | WT (LB/FT) | TO BE PUT IN WELL (FT) | TO BE LEFT IN WELL (FT) | HOLE SIZE |
|---|---|---|---|---|
| 4.5 | Unknown | 0 | 1551 | 4.5 |
| | | | | |
| | | | | |
| | | | | |

**METHOD OF EMPLACEMENT OF CEMENT PLUGS**
- ☑ The Balance Method
- ☐ The Dump Bailer Method
- ☐ The Two-Plug Method
- ☐ Other

| CEMENTING TO PLUG AND ABANDON DATA: | PLUG #1 | PLUG #2 | PLUG #3 | PLUG #4 | PLUG #5 | PLUG #6 | PLUG #7 |
|---|---|---|---|---|---|---|---|
| Size of Hole or Pipe in which Plug Will Be Placed (inche | 4.5 | | | | | | |
| Depth to Bottom of Tubing or Drill Pipe (ft | 1551 | | | | | | |
| Sacks of Cement To Be Used (each plug) | 145 | | | | | | |
| Slurry Volume To Be Pumped (cu. ft.) | 171 | | | | | | |
| Calculated Top of Plug (ft.) | 2 | | | | | | |
| Measured Top of Plug (if tagged ft.) | | | | | | | |
| Slurry Wt. (Lb./Gal.) | 15.6 | | | | | | |
| Type Cement or Other Material (Class III) | V | | | | | | |

**LIST ALL OPEN HOLE AND/OR PERFORATED INTERVALS AND INTERVALS WHERE CASING WILL BE VARIED (if any)**

| From | To | From | To |
|---|---|---|---|
| 1480 | 1551 | | |
| | | | |

Water level will be measured prior to abandonment. Casing will be perforated from 50 feet above water level to bottom of casing.

**Estimated Cost to Plug Wells**
$14,420

## Certification

I certify under the penalty of law that I have personally examined and am familiar with the information submitted in this document and all attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibliity of fine and imprisonment. (Ref. 40 CFR 144.32)

| Name and Official Title *(Please type or print)* | Signature | Date Signed |
|---|---|---|
| Vit Kuhnel, Hydrology Manager | | |

OMB No. 2040-0042 Approval Expires 11/30/2014

United States Environmental Protection Agency
Washington, DC 20460

# PLUGGING AND ABANDONMENT PLAN

**Name and Address of Facility**
EXCELSIOR MINING CORP
GUNNISON PROJECT

**Name and Address of Owner/Operator**
EXCELSIOR MINING CORP
CONCORD PL, 2999 N 44TH ST, STE 300, PHOENIX, AZ 85018

**Locate Well and Outline Unit on Section Plat - 640 Acres**

N
W E
X
S

| State | County | Permit Number |
|---|---|---|
| AZ | Cochise | TBD |

**Surface Location Description**
1/4 of sw 1/4 of se 1/4 of sw 1/4 of Section 31 Township 15S Range 23E

Locate well in two directions from nearest lines of quarter section and drilling unit

Surface Location 213 ft. frm (N/S) S Line of quarter section
and 731 ft. from (E/W) E Line of quarter section.

**TYPE OF AUTHORIZATION**
- ☐ Individual Permit
- ☑ Area Permit
- ☐ Rule

Number of Wells 1

Lease Name

**WELL ACTIVITY**
- ☐ CLASS I
- ☐ CLASS II
  - ☐ Brine Disposal
  - ☐ Enhanced Recovery
  - ☐ Hydrocarbon Storage
- ☐ CLASS III

Well Number 55-224036, NSH-026

**CASING AND TUBING RECORD AFTER PLUGGING**

| SIZE | WT (LB/FT) | TO BE PUT IN WELL (FT) | TO BE LEFT IN WELL (FT) | HOLE SIZE |
|---|---|---|---|---|
| 8.625 | Unknown | 0 | 625 | 8.625 |
| | | | | |
| | | | | |
| | | | | |

**METHOD OF EMPLACEMENT OF CEMENT PLUGS**
- ☑ The Balance Method
- ☐ The Dump Bailer Method
- ☐ The Two-Plug Method
- ☐ Other

| CEMENTING TO PLUG AND ABANDON DATA: | PLUG #1 | PLUG #2 | PLUG #3 | PLUG #4 | PLUG #5 | PLUG #6 | PLUG #7 |
|---|---|---|---|---|---|---|---|
| Size of Hole or Pipe in which Plug Will Be Placed (inche | 8.625 | 7.875 | | | | | |
| Depth to Bottom of Tubing or Drill Pipe (ft | 625 | 900 | | | | | |
| Sacks of Cement To Be Used (each plug) | 214 | 79 | | | | | |
| Slurry Volume To Be Pumped (cu. ft.) | 253 | 93 | | | | | |
| Calculated Top of Plug (ft.) | 2 | 625 | | | | | |
| Measured Top of Plug (if tagged ft.) | | | | | | | |
| Slurry Wt. (Lb./Gal.) | 15.6 | 15.6 | | | | | |
| Type Cement or Other Material (Class III) | V | V | | | | | |

**LIST ALL OPEN HOLE AND/OR PERFORATED INTERVALS AND INTERVALS WHERE CASING WILL BE VARIED (if any)**

| From | To | From | To |
|---|---|---|---|
| 625 | 900 | | |
| | | | |

Water level will be measured prior to abandonment. Casing will be perforated from 50 feet above water level to bottom of casing.

**Estimated Cost to Plug Wells**
$14,420

## Certification

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| Name and Official Title *(Please type or print)* | Signature | Date Signed |
|---|---|---|
| Vit Kuhnel, Hydrology Manager | | |

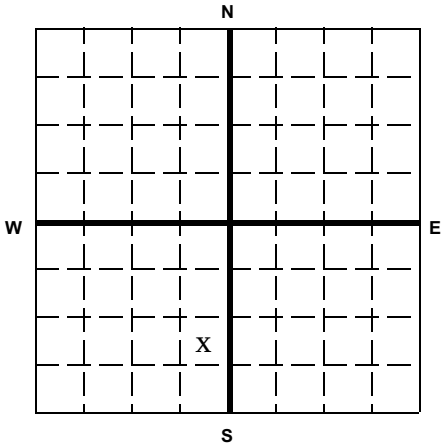
OMB No. 2040-0042 Approval Expires 11/30/2014

United States Environmental Protection Agency
Washington, DC 20460

# PLUGGING AND ABANDONMENT PLAN

| Name and Address of Facility | Name and Address of Owner/Operator |
|---|---|
| EXCELSIOR MINING CORP<br>GUNNISON PROJECT | EXCELSIOR MINING CORP<br>CONCORD PL, 2999 N 44TH ST, STE 300, PHOENIX, AZ 85018 |

Locate Well and Outline Unit on Section Plat - 640 Acres




| State | County | Permit Number |
|---|---|---|
| AZ | Cochise | TBD |

Surface Location Description

1/4 of ne 1/4 of se 1/4 of sw 1/4 of Section 31 Township 15S Range 23E

Locate well in two directions from nearest lines of quarter section and drilling unit

Surface Location 1254 ft. frm (N/S) S Line of quarter section and 225 ft. from (E/W) E Line of quarter section.

**TYPE OF AUTHORIZATION**

- [ ] Individual Permit
- [x] Area Permit
- [ ] Rule

Number of Wells 1

Lease Name

**WELL ACTIVITY**

- [ ] CLASS I
- [ ] CLASS II
  - [ ] Brine Disposal
  - [ ] Enhanced Recovery
  - [ ] Hydrocarbon Storage
- [ ] CLASS III

Well Number 55-917777, NSH-029

**CASING AND TUBING RECORD AFTER PLUGGING**

| SIZE | WT (LB/FT) | TO BE PUT IN WELL (FT) | TO BE LEFT IN WELL (FT) | HOLE SIZE |
|---|---|---|---|---|
| 2.375 | Unknown | 0 | 709 | 2.375 |
| | | | | |
| | | | | |
| | | | | |

**METHOD OF EMPLACEMENT OF CEMENT PLUGS**

- [x] The Balance Method
- [ ] The Dump Bailer Method
- [ ] The Two-Plug Method
- [ ] Other

| CEMENTING TO PLUG AND ABANDON DATA: | PLUG #1 | PLUG #2 | PLUG #3 | PLUG #4 | PLUG #5 | PLUG #6 | PLUG #7 |
|---|---|---|---|---|---|---|---|
| Size of Hole or Pipe in which Plug Will Be Placed (inche | 2.375 | | | | | | |
| Depth to Bottom of Tubing or Drill Pipe (ft | 709 | | | | | | |
| Sacks of Cement To Be Used (each plug) | 18.6 | | | | | | |
| Slurry Volume To Be Pumped (cu. ft.) | 22 | | | | | | |
| Calculated Top of Plug (ft.) | 2 | | | | | | |
| Measured Top of Plug (if tagged ft.) | | | | | | | |
| Slurry Wt. (Lb./Gal.) | 15.6 | | | | | | |
| Type Cement or Other Material (Class III) | V | | | | | | |

**LIST ALL OPEN HOLE AND/OR PERFORATED INTERVALS AND INTERVALS WHERE CASING WILL BE VARIED (if any)**

| From | To | From | To |
|---|---|---|---|
| 604 | 709 | | |

Water level will be measured prior to abandonment. Casing will be perforated from 50 feet above water level to bottom of casing.

Estimated Cost to Plug Wells

$14,420

## Certification

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| Name and Official Title *(Please type or print)* | Signature | Date Signed |
|---|---|---|
| Vit Kuhnel, Hydrology Manager | | |

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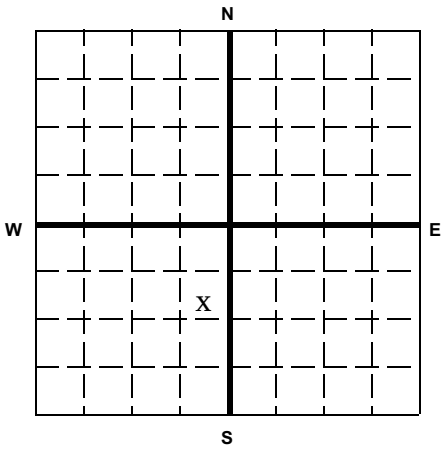
Washington, DC 20460

# PLUGGING AND ABANDONMENT PLAN

**Name and Address of Facility**
EXCELSIOR MINING CORP
GUNNISON PROJECT

**Name and Address of Owner/Operator**
EXCELSIOR MINING CORP
CONCORD PL, 2999 N 44TH ST, STE 300, PHOENIX, AZ 85018

**Locate Well and Outline Unit on Section Plat - 640 Acres**




| State | County | Permit Number |
|---|---|---|
| AZ | Cochise | TBD |

**Surface Location Description**
1/4 of se 1/4 of ne 1/4 of sw 1/4 of Section 31 Township 15S Range 23E

Locate well in two directions from nearest lines of quarter section and drilling unit

Surface Location 631 ft. frm (N/S) N Line of quarter section
and 212 ft. from (E/W) E Line of quarter section.

**TYPE OF AUTHORIZATION**
- [ ] Individual Permit
- [x] Area Permit
- [ ] Rule

Number of Wells 1

Lease Name

**WELL ACTIVITY**
- [ ] CLASS I
- [ ] CLASS II
  - [ ] Brine Disposal
  - [ ] Enhanced Recovery
  - [ ] Hydrocarbon Storage
- [ ] CLASS III

Well Number 55-917775, NSH-030

**CASING AND TUBING RECORD AFTER PLUGGING**

| SIZE | WT (LB/FT) | TO BE PUT IN WELL (FT) | TO BE LEFT IN WELL (FT) | HOLE SIZE |
|---|---|---|---|---|
| 2.375 | Unknown | 0 | 706 | 2.375 |
| | | | | |
| | | | | |
| | | | | |

**METHOD OF EMPLACEMENT OF CEMENT PLUGS**
- [x] The Balance Method
- [ ] The Dump Bailer Method
- [ ] The Two-Plug Method
- [ ] Other

| CEMENTING TO PLUG AND ABANDON DATA: | PLUG #1 | PLUG #2 | PLUG #3 | PLUG #4 | PLUG #5 | PLUG #6 | PLUG #7 |
|---|---|---|---|---|---|---|---|
| Size of Hole or Pipe in which Plug Will Be Placed (inche | 2.375 | | | | | | |
| Depth to Bottom of Tubing or Drill Pipe (ft | 706 | | | | | | |
| Sacks of Cement To Be Used (each plug) | 19.5 | | | | | | |
| Slurry Volume To Be Pumped (cu. ft.) | 23 | | | | | | |
| Calculated Top of Plug (ft.) | 2 | | | | | | |
| Measured Top of Plug (if tagged ft.) | | | | | | | |
| Slurry Wt. (Lb./Gal.) | 15.6 | | | | | | |
| Type Cement or Other Material (Class III) | V | | | | | | |

**LIST ALL OPEN HOLE AND/OR PERFORATED INTERVALS AND INTERVALS WHERE CASING WILL BE VARIED (if any)**

| From | To | From | To |
|---|---|---|---|
| 600 | 706 | | |

Water level will be measured prior to abandonment. Casing will be perforated from 50 feet above water level to bottom of casing.

**Estimated Cost to Plug Wells**
$14,420

## Certification

I certify under the penalty of law that I have personally examined and am familiar with the information submitted in this document and all attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibliity of fine and imprisonment. (Ref. 40 CFR 144.32)

| Name and Official Title *(Please type or print)* | Signature | Date Signed |
|---|---|---|
| Vit Kuhnel, Hydrology Manager | | |

OMB No. 2040-0042 Approval Expires 11/30/2014

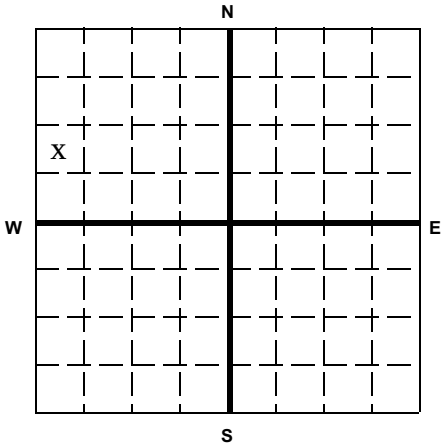
United States Environmental Protection Agency
Washington, DC 20460

# PLUGGING AND ABANDONMENT PLAN

**Name and Address of Facility**
EXCELSIOR MINING CORP
GUNNISON PROJECT

**Name and Address of Owner/Operator**
EXCELSIOR MINING CORP
CONCORD PL, 2999 N 44TH ST, STE 300, PHOENIX, AZ 85018

**Locate Well and Outline Unit on Section Plat - 640 Acres**




| State | County | Permit Number |
|---|---|---|
| AZ | Cochise | TBD |

**Surface Location Description**
1/4 of nw 1/4 of sw 1/4 of nw 1/4 of Section 31 Township 15S Range 23E

Locate well in two directions from nearest lines of quarter section and drilling unit

Surface Location 627 ft. frm (N/S) S Line of quarter section
and 117 ft. from (E/W) E Line of quarter section.

**TYPE OF AUTHORIZATION**
- [ ] Individual Permit
- [x] Area Permit
- [ ] Rule

Number of Wells 1

Lease Name

**WELL ACTIVITY**
- [ ] CLASS I
- [ ] CLASS II
  - [ ] Brine Disposal
  - [ ] Enhanced Recovery
  - [ ] Hydrocarbon Storage
- [ ] CLASS III

Well Number 55-917782, NSH-031

**CASING AND TUBING RECORD AFTER PLUGGING**

| SIZE | WT (LB/FT) | TO BE PUT IN WELL (FT) | TO BE LEFT IN WELL (FT) | HOLE SIZE |
|---|---|---|---|---|
| 2.375 | Unknown | 0 | 805 | 2.375 |
| | | | | |
| | | | | |
| | | | | |

**METHOD OF EMPLACEMENT OF CEMENT PLUGS**
- [x] The Balance Method
- [ ] The Dump Bailer Method
- [ ] The Two-Plug Method
- [ ] Other

| CEMENTING TO PLUG AND ABANDON DATA: | PLUG #1 | PLUG #2 | PLUG #3 | PLUG #4 | PLUG #5 | PLUG #6 | PLUG #7 |
|---|---|---|---|---|---|---|---|
| Size of Hole or Pipe in which Plug Will Be Placed (inche | 2.375 | | | | | | |
| Depth to Bottom of Tubing or Drill Pipe (ft | 805 | | | | | | |
| Sacks of Cement To Be Used (each plug) | 21 | | | | | | |
| Slurry Volume To Be Pumped (cu. ft.) | 25 | | | | | | |
| Calculated Top of Plug (ft.) | 2 | | | | | | |
| Measured Top of Plug (if tagged ft.) | | | | | | | |
| Slurry Wt. (Lb./Gal.) | 15.6 | | | | | | |
| Type Cement or Other Material (Class III) | V | | | | | | |

**LIST ALL OPEN HOLE AND/OR PERFORATED INTERVALS AND INTERVALS WHERE CASING WILL BE VARIED (if any)**

| From | To | From | To |
|---|---|---|---|
| 721 | 805 | | |

Water level will be measured prior to abandonment. Casing will be perforated from 50 feet above water level to bottom of casing.

**Estimated Cost to Plug Wells**
$14,420

## Certification

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| Vit Kuhnel, Hydrology Manager | | |

OMB No. 2040-0042 Approval Expires 11/30/2014

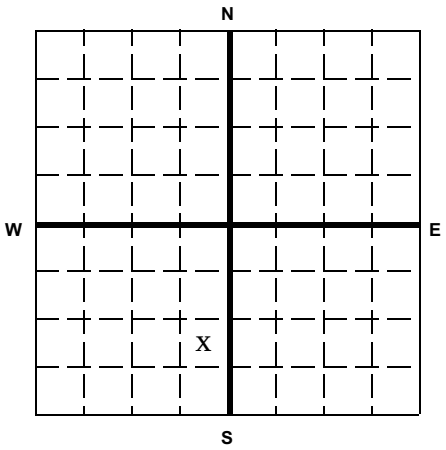
United States Environmental Protection Agency
Washington, DC 20460

# PLUGGING AND ABANDONMENT PLAN

**Name and Address of Facility**
EXCELSIOR MINING CORP
GUNNISON PROJECT

**Name and Address of Owner/Operator**
EXCELSIOR MINING CORP
CONCORD PL, 2999 N 44TH ST, STE 300, PHOENIX, AZ 85018

**Locate Well and Outline Unit on Section Plat - 640 Acres**




| State | County | Permit Number |
|---|---|---|
| AZ | Cochise | TBD |

**Surface Location Description**
___ 1/4 of ne 1/4 of se 1/4 of sw 1/4 of Section 31 Township 15S Range 23E

Locate well in two directions from nearest lines of quarter section and drilling unit

Surface Location 438 ft. frm (N/S) S Line of quarter section
and 194 ft. from (E/W) W Line of quarter section.

**TYPE OF AUTHORIZATION**
- [ ] Individual Permit
- [x] Area Permit
- [ ] Rule

Number of Wells 1

Lease Name

**WELL ACTIVITY**
- [ ] CLASS I
- [ ] CLASS II
  - [ ] Brine Disposal
  - [ ] Enhanced Recovery
  - [ ] Hydrocarbon Storage
- [ ] CLASS III

Well Number 55-917783, NSH-032

**CASING AND TUBING RECORD AFTER PLUGGING**

| SIZE | WT (LB/FT) | TO BE PUT IN WELL (FT) | TO BE LEFT IN WELL (FT) | HOLE SIZE |
|---|---|---|---|---|
| 2.375 | Unknown | 0 | 804 | 2.375 |
| | | | | |
| | | | | |
| | | | | |

**METHOD OF EMPLACEMENT OF CEMENT PLUGS**
- [x] The Balance Method
- [ ] The Dump Bailer Method
- [ ] The Two-Plug Method
- [ ] Other

| CEMENTING TO PLUG AND ABANDON DATA: | PLUG #1 | PLUG #2 | PLUG #3 | PLUG #4 | PLUG #5 | PLUG #6 | PLUG #7 |
|---|---|---|---|---|---|---|---|
| Size of Hole or Pipe in which Plug Will Be Placed (inche | 2.375 | | | | | | |
| Depth to Bottom of Tubing or Drill Pipe (ft | 804 | | | | | | |
| Sacks of Cement To Be Used (each plug) | 21 | | | | | | |
| Slurry Volume To Be Pumped (cu. ft.) | 25 | | | | | | |
| Calculated Top of Plug (ft.) | 2 | | | | | | |
| Measured Top of Plug (if tagged ft.) | | | | | | | |
| Slurry Wt. (Lb./Gal.) | 15.6 | | | | | | |
| Type Cement or Other Material (Class III) | V | | | | | | |

**LIST ALL OPEN HOLE AND/OR PERFORATED INTERVALS AND INTERVALS WHERE CASING WILL BE VARIED (if any)**

| From | To | From | To |
|---|---|---|---|
| 720 | 804 | | |

Water level will be measured prior to abandonment. Casing will be perforated from 50 feet above water level to bottom of casing.

**Estimated Cost to Plug Wells**
$14,420

## Certification

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|---|---|---|
| Vit Kuhnel, Hydrology Manager | | |

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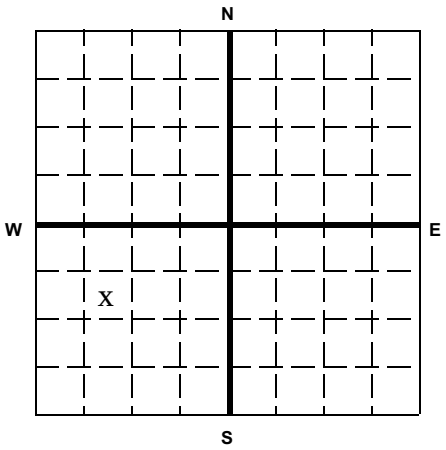
United States Environmental Protection Agency
Washington, DC 20460

# PLUGGING AND ABANDONMENT PLAN

**Name and Address of Facility**
EXCELSIOR MINING CORP
GUNNISON PROJECT

**Name and Address of Owner/Operator**
EXCELSIOR MINING CORP
CONCORD PL, 2999 N 44TH ST, STE 300, PHOENIX, AZ 85018

**Locate Well and Outline Unit on Section Plat - 640 Acres**




| State | County | Permit Number |
|---|---|---|
| AZ | Cochise | TBD |

**Surface Location Description**
1/4 of se 1/4 of nw 1/4 of sw 1/4 of Section 31 Township 15S Range 23E

Locate well in two directions from nearest lines of quarter section and drilling unit

Surface Location 1170 ft. frm (N/S) N Line of quarter section
and 709 ft. from (E/W) W Line of quarter section.

**TYPE OF AUTHORIZATION**
- [ ] Individual Permit
- [x] Area Permit
- [ ] Rule

Number of Wells 1

Lease Name

**WELL ACTIVITY**
- [ ] CLASS I
- [ ] CLASS II
  - [ ] Brine Disposal
  - [ ] Enhanced Recovery
  - [ ] Hydrocarbon Storage
- [ ] CLASS III

Well Number 55-224933, NSM-001

**CASING AND TUBING RECORD AFTER PLUGGING**

| SIZE | WT (LB/FT) | TO BE PUT IN WELL (FT) | TO BE LEFT IN WELL (FT) | HOLE SIZE |
|---|---|---|---|---|
| 3.5 | Unknown | 0 | 590 | 3.5 |
| | | | | |
| | | | | |
| | | | | |

**METHOD OF EMPLACEMENT OF CEMENT PLUGS**
- [x] The Balance Method
- [ ] The Dump Bailer Method
- [ ] The Two-Plug Method
- [ ] Other

| CEMENTING TO PLUG AND ABANDON DATA: | PLUG #1 | PLUG #2 | PLUG #3 | PLUG #4 | PLUG #5 | PLUG #6 | PLUG #7 |
|---|---|---|---|---|---|---|---|
| Size of Hole or Pipe in which Plug Will Be Placed (inche | 2 | | | | | | |
| Depth to Bottom of Tubing or Drill Pipe (ft | 1150 | | | | | | |
| Sacks of Cement To Be Used (each plug) | 65 | | | | | | |
| Slurry Volume To Be Pumped (cu. ft.) | 77 | | | | | | |
| Calculated Top of Plug (ft.) | 2 | | | | | | |
| Measured Top of Plug (if tagged ft.) | | | | | | | |
| Slurry Wt. (Lb./Gal.) | 15.6 | | | | | | |
| Type Cement or Other Material (Class III) | V | | | | | | |

**LIST ALL OPEN HOLE AND/OR PERFORATED INTERVALS AND INTERVALS WHERE CASING WILL BE VARIED (if any)**

| From | To | From | To |
|---|---|---|---|
| 590 | 1150 | | |

Water level will be measured prior to abandonment. Casing will be perforated from 50 feet above water level to bottom of casing.

**Estimated Cost to Plug Wells**
$8,050

## Certification

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| Name and Official Title *(Please type or print)* | Signature | Date Signed |
|---|---|---|
| Vit Kuhnel, Hydrology Manager | | |

OMB No. 2040-0042 Approval Expires 11/30/2014

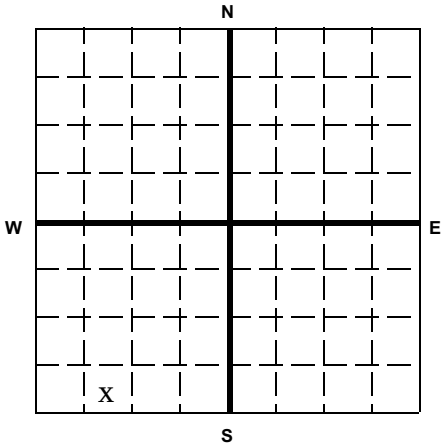
United States Environmental Protection Agency
Washington, DC 20460

# PLUGGING AND ABANDONMENT PLAN

**Name and Address of Facility**
EXCELSIOR MINING CORP
GUNNISON PROJECT

**Name and Address of Owner/Operator**
EXCELSIOR MINING CORP
CONCORD PL, 2999 N 44TH ST, STE 300, PHOENIX, AZ 85018

**Locate Well and Outline Unit on Section Plat - 640 Acres**




| State | County | Permit Number |
|---|---|---|
| AZ | Cochise | TBD |

**Surface Location Description**
___ 1/4 of se 1/4 of sw 1/4 of sw 1/4 of Section 31 Township 15S Range 23E

**Locate well in two directions from nearest lines of quarter section and drilling unit**

**Surface Location** 56 ft. frm (N/S) S Line of quarter section
and 782 ft. from (E/W) W Line of quarter section.

**TYPE OF AUTHORIZATION**
- ☐ Individual Permit
- ☑ Area Permit
- ☐ Rule

Number of Wells 1

Lease Name

**WELL ACTIVITY**
- ☐ CLASS I
- ☐ CLASS II
  - ☐ Brine Disposal
  - ☐ Enhanced Recovery
  - ☐ Hydrocarbon Storage
- ☐ CLASS III

Well Number 55-224934, NSM-002

**CASING AND TUBING RECORD AFTER PLUGGING**

| SIZE | WT (LB/FT) | TO BE PUT IN WELL (FT) | TO BE LEFT IN WELL (FT) | HOLE SIZE |
|---|---|---|---|---|
| 4.5 | Unknown | 0 | 507 | 4.5 |
| | | | | |
| | | | | |
| | | | | |

**METHOD OF EMPLACEMENT OF CEMENT PLUGS**
- ☑ The Balance Method
- ☐ The Dump Bailer Method
- ☐ The Two-Plug Method
- ☐ Other

| CEMENTING TO PLUG AND ABANDON DATA: | PLUG #1 | PLUG #2 | PLUG #3 | PLUG #4 | PLUG #5 | PLUG #6 | PLUG #7 |
|---|---|---|---|---|---|---|---|
| Size of Hole or Pipe in which Plug Will Be Placed (inche | 4.5 | | | | | | |
| Depth to Bottom of Tubing or Drill Pipe (ft | 1000 | | | | | | |
| Sacks of Cement To Be Used (each plug) | 97 | | | | | | |
| Slurry Volume To Be Pumped (cu. ft.) | 110 | | | | | | |
| Calculated Top of Plug (ft.) | 2 | | | | | | |
| Measured Top of Plug (if tagged ft.) | | | | | | | |
| Slurry Wt. (Lb./Gal.) | 15.6 | | | | | | |
| Type Cement or Other Material (Class III) | V | | | | | | |

**LIST ALL OPEN HOLE AND/OR PERFORATED INTERVALS AND INTERVALS WHERE CASING WILL BE VARIED (if any)**

| From | To | From | To |
|---|---|---|---|
| 507 | 1000 | | |

Water level will be measured prior to abandonment. Casing will be perforated from 50 feet above water level to bottom of casing.

**Estimated Cost to Plug Wells**
$7,000

## Certification

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| Name and Official Title *(Please type or print)* | Signature | Date Signed |
|---|---|---|
| Vit Kuhnel, Hydrology Manager | | |

OMB No. 2040-0042 Approval Expires 11/30/2014

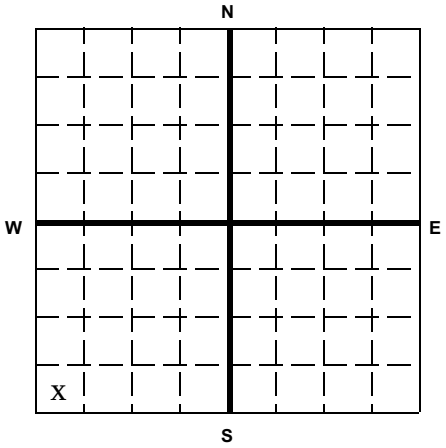
United States Environmental Protection Agency
Washington, DC 20460

# PLUGGING AND ABANDONMENT PLAN

**Name and Address of Facility**
EXCELSIOR MINING CORP
GUNNISON PROJECT

**Name and Address of Owner/Operator**
EXCELSIOR MINING CORP
CONCORD PL, 2999 N 44TH ST, STE 300, PHOENIX, AZ 85018

**Locate Well and Outline Unit on Section Plat - 640 Acres**




| State | County | Permit Number |
|---|---|---|
| AZ | Cochise | TBD |

**Surface Location Description**
___ 1/4 of sw 1/4 of sw 1/4 of sw 1/4 of Section 31 Township 15S Range 23E

**Locate well in two directions from nearest lines of quarter section and drilling unit**

**Surface Location** 259 ft. frm (N/S) S Line of quarter section
and 354 ft. from (E/W) W Line of quarter section.

**TYPE OF AUTHORIZATION**
- ☐ Individual Permit
- ☑ Area Permit
- ☐ Rule

Number of Wells 1

Lease Name

**WELL ACTIVITY**
- ☐ CLASS I
- ☐ CLASS II
  - ☐ Brine Disposal
  - ☐ Enhanced Recovery
  - ☐ Hydrocarbon Storage
- ☐ CLASS III

Well Number 55-224935, NSM-003

**CASING AND TUBING RECORD AFTER PLUGGING**

| SIZE | WT (LB/FT) | TO BE PUT IN WELL (FT) | TO BE LEFT IN WELL (FT) | HOLE SIZE |
|---|---|---|---|---|
| 4.5 | Unknown | 0 | 608 | 4.5 |
| | | | | |
| | | | | |
| | | | | |

**METHOD OF EMPLACEMENT OF CEMENT PLUGS**
- ☑ The Balance Method
- ☐ The Dump Bailer Method
- ☐ The Two-Plug Method
- ☐ Other

| CEMENTING TO PLUG AND ABANDON DATA: | PLUG #1 | PLUG #2 | PLUG #3 | PLUG #4 | PLUG #5 | PLUG #6 | PLUG #7 |
|---|---|---|---|---|---|---|---|
| Size of Hole or Pipe in which Plug Will Be Placed (inche | 4.5 | | | | | | |
| Depth to Bottom of Tubing or Drill Pipe (ft | 1028 | | | | | | |
| Sacks of Cement To Be Used (each plug) | 97 | | | | | | |
| Slurry Volume To Be Pumped (cu. ft.) | 114 | | | | | | |
| Calculated Top of Plug (ft.) | 2 | | | | | | |
| Measured Top of Plug (if tagged ft.) | | | | | | | |
| Slurry Wt. (Lb./Gal.) | 15.6 | | | | | | |
| Type Cement or Other Material (Class III) | V | | | | | | |

**LIST ALL OPEN HOLE AND/OR PERFORATED INTERVALS AND INTERVALS WHERE CASING WILL BE VARIED (if any)**

| From | To | From | To |
|---|---|---|---|
| 608 | 1028 | | |
| | | | |

Water level will be measured prior to abandonment. Casing will be perforated from 50 feet above water level to bottom of casing.

**Estimated Cost to Plug Wells**
$7,196

## Certification

I certify under the penalty of law that I have personally examined and am familiar with the information submitted in this document and all attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibliity of fine and imprisonment. (Ref. 40 CFR 144.32)

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|---|---|---|
| Vit Kuhnel, Hydrology Manager | | |

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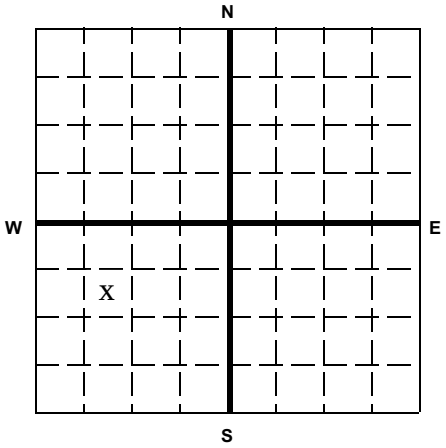
United States Environmental Protection Agency
Washington, DC 20460

# PLUGGING AND ABANDONMENT PLAN

**Name and Address of Facility**
EXCELSIOR MINING CORP
GUNNISON PROJECT

**Name and Address of Owner/Operator**
EXCELSIOR MINING CORP
CONCORD PL, 2999 N 44TH ST, STE 300, PHOENIX, AZ 85018

**Locate Well and Outline Unit on Section Plat - 640 Acres**




| State | County | Permit Number |
|---|---|---|
| AZ | Cochise | TBD |

**Surface Location Description**
1/4 of se 1/4 of nw 1/4 of sw 1/4 of Section 31 Township 15S Range 23E

**Locate well in two directions from nearest lines of quarter section and drilling unit**

Surface Location 1330 ft. frm (N/S) N Line of quarter section
and 914 ft. from (E/W) W Line of quarter section.

**TYPE OF AUTHORIZATION**
- ☐ Individual Permit
- ☑ Area Permit
- ☐ Rule

Number of Wells 1

Lease Name

**WELL ACTIVITY**
- ☐ CLASS I
- ☐ CLASS II
  - ☐ Brine Disposal
  - ☐ Enhanced Recovery
  - ☐ Hydrocarbon Storage
- ☐ CLASS III

Well Number 55-224842, NSM-004

**CASING AND TUBING RECORD AFTER PLUGGING**

| SIZE | WT (LB/FT) | TO BE PUT IN WELL (FT) | TO BE LEFT IN WELL (FT) | HOLE SIZE |
|---|---|---|---|---|
| 4.5 | Unknown | 0 | 596 | 4.5 |
| | | | | |
| | | | | |
| | | | | |

**METHOD OF EMPLACEMENT OF CEMENT PLUGS**
- ☑ The Balance Method
- ☐ The Dump Bailer Method
- ☐ The Two-Plug Method
- ☐ Other

| CEMENTING TO PLUG AND ABANDON DATA: | PLUG #1 | PLUG #2 | PLUG #3 | PLUG #4 | PLUG #5 | PLUG #6 | PLUG #7 |
|---|---|---|---|---|---|---|---|
| Size of Hole or Pipe in which Plug Will Be Placed (inche | 4 | | | | | | |
| Depth to Bottom of Tubing or Drill Pipe (ft | 1115 | | | | | | |
| Sacks of Cement To Be Used (each plug) | 65 | | | | | | |
| Slurry Volume To Be Pumped (cu. ft.) | 77 | | | | | | |
| Calculated Top of Plug (ft.) | 2 | | | | | | |
| Measured Top of Plug (if tagged ft.) | | | | | | | |
| Slurry Wt. (Lb./Gal.) | 15.6 | | | | | | |
| Type Cement or Other Material (Class III) | V | | | | | | |

**LIST ALL OPEN HOLE AND/OR PERFORATED INTERVALS AND INTERVALS WHERE CASING WILL BE VARIED (if any)**

| From | To | From | To |
|---|---|---|---|
| 596 | 1115 | | |

Water level will be measured prior to abandonment. Casing will be perforated from 50 feet above water level to bottom of casing.

**Estimated Cost to Plug Wells**
$7,805

## Certification

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|---|---|---|
| Vit Kuhnel, Hydrology Manager | | |

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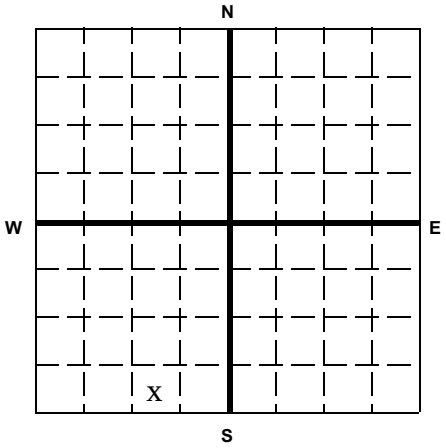
Washington, DC 20460

# PLUGGING AND ABANDONMENT PLAN

| Name and Address of Facility | Name and Address of Owner/Operator |
|---|---|
| EXCELSIOR MINING CORP<br>GUNNISON PROJECT | EXCELSIOR MINING CORP<br>CONCORD PL, 2999 N 44TH ST, STE 300, PHOENIX, AZ 85018 |

Locate Well and Outline Unit on Section Plat - 640 Acres




| State | County | Permit Number |
|---|---|---|
| AZ | Cochise | TBD |

Surface Location Description

___ 1/4 of se 1/4 of sw 1/4 of sw 1/4 of Section 31 Township 15S Range 23E

Locate well in two directions from nearest lines of quarter section and drilling unit

Surface Location 419 ft. frm (N/S) S Line of quarter section
and 1088 ft. from (E/W) E Line of quarter section.

**TYPE OF AUTHORIZATION**

- ☐ Individual Permit
- ☑ Area Permit
- ☐ Rule

Number of Wells 1

Lease Name

**WELL ACTIVITY**

- ☐ CLASS I
- ☐ CLASS II
  - ☐ Brine Disposal
  - ☐ Enhanced Recovery
  - ☐ Hydrocarbon Storage
- ☐ CLASS III

Well Number 55-224841, NSM-005A

**CASING AND TUBING RECORD AFTER PLUGGING**

| SIZE | WT (LB/FT) | TO BE PUT IN WELL (FT) | TO BE LEFT IN WELL (FT) | HOLE SIZE |
|---|---|---|---|---|
| 5 | Unknown | 0 | 593 | 5 |
| | | | | |
| | | | | |
| | | | | |

**METHOD OF EMPLACEMENT OF CEMENT PLUGS**

- ☑ The Balance Method
- ☐ The Dump Bailer Method
- ☐ The Two-Plug Method
- ☐ Other

| CEMENTING TO PLUG AND ABANDON DATA: | PLUG #1 | PLUG #2 | PLUG #3 | PLUG #4 | PLUG #5 | PLUG #6 | PLUG #7 |
|---|---|---|---|---|---|---|---|
| Size of Hole or Pipe in which Plug Will Be Placed (inche | 5 | | | | | | |
| Depth to Bottom of Tubing or Drill Pipe (ft | 1172 | | | | | | |
| Sacks of Cement To Be Used (each plug) | 164 | | | | | | |
| Slurry Volume To Be Pumped (cu. ft.) | 193 | | | | | | |
| Calculated Top of Plug (ft.) | 2 | | | | | | |
| Measured Top of Plug (if tagged ft.) | | | | | | | |
| Slurry Wt. (Lb./Gal.) | 15.6 | | | | | | |
| Type Cement or Other Material (Class III) | V | | | | | | |

**LIST ALL OPEN HOLE AND/OR PERFORATED INTERVALS AND INTERVALS WHERE CASING WILL BE VARIED (if any)**

| From | To | From | To |
|---|---|---|---|
| 593 | 1172 | | |

Water level will be measured prior to abandonment. Casing will be perforated from 50 feet above water level to bottom of casing.

Estimated Cost to Plug Wells

$8,204

## Certification

I certify under the penalty of law that I have personally examined and am familiar with the information submitted in this document and all attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibliity of fine and imprisonment. (Ref. 40 CFR 144.32)

| Name and Official Title *(Please type or print)* | Signature | Date Signed |
|---|---|---|
| Vit Kuhnel, Hydrology Manager | | |

OMB No. 2040-0042 Approval Expires 11/30/2014

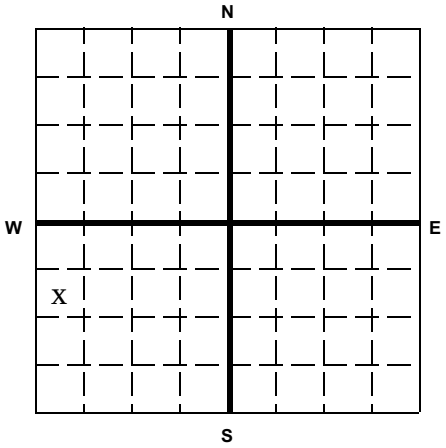
United States Environmental Protection Agency
Washington, DC 20460

# PLUGGING AND ABANDONMENT PLAN

**Name and Address of Facility**
EXCELSIOR MINING CORP
GUNNISON PROJECT

**Name and Address of Owner/Operator**
EXCELSIOR MINING CORP
CONCORD PL, 2999 N 44TH ST, STE 300, PHOENIX, AZ 85018

**Locate Well and Outline Unit on Section Plat - 640 Acres**




| State | County | Permit Number |
|---|---|---|
| AZ | Cochise | TBD |

**Surface Location Description**
1/4 of sw 1/4 of nw 1/4 of sw 1/4 of Section 31 Township 15S Range 23E

Locate well in two directions from nearest lines of quarter section and drilling unit

Surface Location 1304 ft. frm (N/S) N Line of quarter section
and 577 ft. from (E/W) W Line of quarter section.

**TYPE OF AUTHORIZATION**
- [ ] Individual Permit
- [x] Area Permit
- [ ] Rule

Number of Wells 1

Lease Name

**WELL ACTIVITY**
- [ ] CLASS I
- [ ] CLASS II
  - [ ] Brine Disposal
  - [ ] Enhanced Recovery
  - [ ] Hydrocarbon Storage
- [ ] CLASS III

Well Number 55-224840, NSM-006

**CASING AND TUBING RECORD AFTER PLUGGING**

| SIZE | WT (LB/FT) | TO BE PUT IN WELL (FT) | TO BE LEFT IN WELL (FT) | HOLE SIZE |
|---|---|---|---|---|
| 4.5 | Unknown | 0 | 529 | 4.5 |
| | | | | |
| | | | | |
| | | | | |

**METHOD OF EMPLACEMENT OF CEMENT PLUGS**
- [x] The Balance Method
- [ ] The Dump Bailer Method
- [ ] The Two-Plug Method
- [ ] Other

| CEMENTING TO PLUG AND ABANDON DATA: | PLUG #1 | PLUG #2 | PLUG #3 | PLUG #4 | PLUG #5 | PLUG #6 | PLUG #7 |
|---|---|---|---|---|---|---|---|
| Size of Hole or Pipe in which Plug Will Be Placed (inche | 4.5 | | | | | | |
| Depth to Bottom of Tubing or Drill Pipe (ft | 1217 | | | | | | |
| Sacks of Cement To Be Used (each plug) | 114 | | | | | | |
| Slurry Volume To Be Pumped (cu. ft.) | 134 | | | | | | |
| Calculated Top of Plug (ft.) | 2 | | | | | | |
| Measured Top of Plug (if tagged ft.) | | | | | | | |
| Slurry Wt. (Lb./Gal.) | 15.6 | | | | | | |
| Type Cement or Other Material (Class III) | V | | | | | | |

**LIST ALL OPEN HOLE AND/OR PERFORATED INTERVALS AND INTERVALS WHERE CASING WILL BE VARIED (if any)**

| From | To | From | To |
|---|---|---|---|
| 529 | 1217 | | |

Water level will be measured prior to abandonment. Casing will be perforated from 50 feet above water level to bottom of casing.

**Estimated Cost to Plug Wells**
$8,519

## Certification

I certify under the penalty of law that I have personally examined and am familiar with the information submitted in this document and all attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibliity of fine and imprisonment. (Ref. 40 CFR 144.32)

| Name and Official Title *(Please type or print)* | Signature | Date Signed |
|---|---|---|
| Vit Kuhnel, Hydrology Manager | | |

OMB No. 2040-0042 Approval Expires 11/30/2014

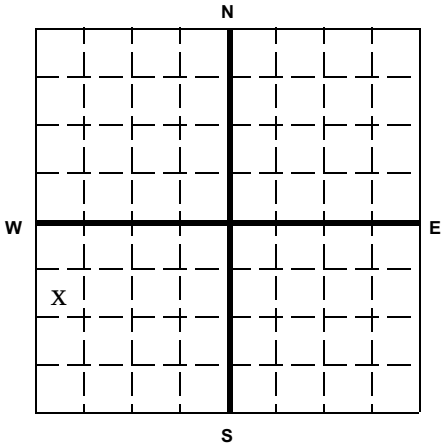
United States Environmental Protection Agency
Washington, DC 20460

# PLUGGING AND ABANDONMENT PLAN

**Name and Address of Facility**
EXCELSIOR MINING CORP
GUNNISON PROJECT

**Name and Address of Owner/Operator**
EXCELSIOR MINING CORP
CONCORD PL, 2999 N 44TH ST, STE 300, PHOENIX, AZ 85018

**Locate Well and Outline Unit on Section Plat - 640 Acres**




| State | County | Permit Number |
|---|---|---|
| AZ | Cochise | TBD |

**Surface Location Description**
1/4 of sw 1/4 of nw 1/4 of sw 1/4 of Section 31 Township 15S Range 23E

Locate well in two directions from nearest lines of quarter section and drilling unit

Surface Location 849 ft. frm (N/S) N Line of quarter section
and 632 ft. from (E/W) W Line of quarter section.

**TYPE OF AUTHORIZATION**
- [ ] Individual Permit
- [x] Area Permit
- [ ] Rule

Number of Wells 1

Lease Name

**WELL ACTIVITY**
- [ ] CLASS I
- [ ] CLASS II
  - [ ] Brine Disposal
  - [ ] Enhanced Recovery
  - [ ] Hydrocarbon Storage
- [ ] CLASS III

Well Number 55-223835, NSM-007

**CASING AND TUBING RECORD AFTER PLUGGING**

| SIZE | WT (LB/FT) | TO BE PUT IN WELL (FT) | TO BE LEFT IN WELL (FT) | HOLE SIZE |
|---|---|---|---|---|
| 4.5 | Unknown | 0 | 600 | 4.5 |
| | | | | |
| | | | | |
| | | | | |

**METHOD OF EMPLACEMENT OF CEMENT PLUGS**
- [x] The Balance Method
- [ ] The Dump Bailer Method
- [ ] The Two-Plug Method
- [ ] Other

| CEMENTING TO PLUG AND ABANDON DATA: | PLUG #1 | PLUG #2 | PLUG #3 | PLUG #4 | PLUG #5 | PLUG #6 | PLUG #7 |
|---|---|---|---|---|---|---|---|
| Size of Hole or Pipe in which Plug Will Be Placed (inche | 4.5 | | | | | | |
| Depth to Bottom of Tubing or Drill Pipe (ft | 1168 | | | | | | |
| Sacks of Cement To Be Used (each plug) | 109 | | | | | | |
| Slurry Volume To Be Pumped (cu. ft.) | 129 | | | | | | |
| Calculated Top of Plug (ft.) | 2 | | | | | | |
| Measured Top of Plug (if tagged ft.) | | | | | | | |
| Slurry Wt. (Lb./Gal.) | 15.6 | | | | | | |
| Type Cement or Other Material (Class III) | V | | | | | | |

**LIST ALL OPEN HOLE AND/OR PERFORATED INTERVALS AND INTERVALS WHERE CASING WILL BE VARIED (if any)**

| From | To | From | To |
|---|---|---|---|
| 600 | 1168 | | |

Water level will be measured prior to abandonment. Casing will be perforated from 50 feet above water level to bottom of casing.

**Estimated Cost to Plug Wells**
$8,176

## Certification

I certify under the penalty of law that I have personally examined and am familiar with the information submitted in this document and all attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibliity of fine and imprisonment. (Ref. 40 CFR 144.32)

| Name and Official Title *(Please type or print)* | Signature | Date Signed |
|---|---|---|
| Vit Kuhnel, Hydrology Manager | | |

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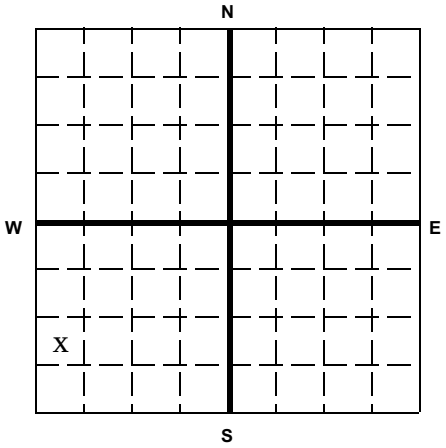
United States Environmental Protection Agency
Washington, DC 20460

# PLUGGING AND ABANDONMENT PLAN

**Name and Address of Facility**
EXCELSIOR MINING CORP
GUNNISON PROJECT

**Name and Address of Owner/Operator**
EXCELSIOR MINING CORP
CONCORD PL, 2999 N 44TH ST, STE 300, PHOENIX, AZ 85018

**Locate Well and Outline Unit on Section Plat - 640 Acres**




| State | County | Permit Number |
|---|---|---|
| AZ | Cochise | TBD |

**Surface Location Description**
1/4 of nw 1/4 of sw 1/4 of sw 1/4 of Section 31 Township 15S Range 23E

Locate well in two directions from nearest lines of quarter section and drilling unit

Surface Location 695 ft. frm (N/S) S Line of quarter section
and 750 ft. from (E/W) W Line of quarter section.

**TYPE OF AUTHORIZATION**
- [ ] Individual Permit
- [x] Area Permit
- [ ] Rule

Number of Wells 1

Lease Name

**WELL ACTIVITY**
- [ ] CLASS I
- [ ] CLASS II
  - [ ] Brine Disposal
  - [ ] Enhanced Recovery
  - [ ] Hydrocarbon Storage
- [ ] CLASS III

Well Number 55-224844, NSM-008

**CASING AND TUBING RECORD AFTER PLUGGING**

| SIZE | WT (LB/FT) | TO BE PUT IN WELL (FT) | TO BE LEFT IN WELL (FT) | HOLE SIZE |
|---|---|---|---|---|
| 5 | Unknown | 0 | 546 | 5 |
| | | | | |
| | | | | |
| | | | | |

**METHOD OF EMPLACEMENT OF CEMENT PLUGS**
- [x] The Balance Method
- [ ] The Dump Bailer Method
- [ ] The Two-Plug Method
- [ ] Other

| CEMENTING TO PLUG AND ABANDON DATA: | PLUG #1 | PLUG #2 | PLUG #3 | PLUG #4 | PLUG #5 | PLUG #6 | PLUG #7 |
|---|---|---|---|---|---|---|---|
| Size of Hole or Pipe in which Plug Will Be Placed (inche | 5 | | | | | | |
| Depth to Bottom of Tubing or Drill Pipe (ft | 1273 | | | | | | |
| Sacks of Cement To Be Used (each plug) | 178 | | | | | | |
| Slurry Volume To Be Pumped (cu. ft.) | 210 | | | | | | |
| Calculated Top of Plug (ft.) | 2 | | | | | | |
| Measured Top of Plug (if tagged ft.) | | | | | | | |
| Slurry Wt. (Lb./Gal.) | 15.6 | | | | | | |
| Type Cement or Other Material (Class III) | V | | | | | | |

**LIST ALL OPEN HOLE AND/OR PERFORATED INTERVALS AND INTERVALS WHERE CASING WILL BE VARIED (if any)**

| From | To | From | To |
|---|---|---|---|
| 546 | 1273 | | |

Water level will be measured prior to abandonment. Casing will be perforated from 50 feet above water level to bottom of casing.

**Estimated Cost to Plug Wells**
$8,911

## Certification

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| Name and Official Title *(Please type or print)* | Signature | Date Signed |
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| Vit Kuhnel, Hydrology Manager | | |

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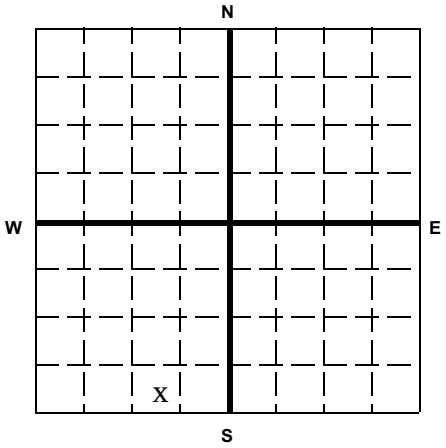
Washington, DC 20460

# PLUGGING AND ABANDONMENT PLAN

**Name and Address of Facility**
EXCELSIOR MINING CORP
GUNNISON PROJECT

**Name and Address of Owner/Operator**
EXCELSIOR MINING CORP
CONCORD PL, 2999 N 44TH ST, STE 300, PHOENIX, AZ 85018

**Locate Well and Outline Unit on Section Plat - 640 Acres**




| State | County | Permit Number |
|---|---|---|
| AZ | Cochise | TBD |

**Surface Location Description**
___ 1/4 of sw 1/4 of se 1/4 of sw 1/4 of Section 31 Township 15S Range 23E

Locate well in two directions from nearest lines of quarter section and drilling unit

Surface Location 10 ft. frm (N/S) S Line of quarter section
and 949 ft. from (E/W) E Line of quarter section.

**TYPE OF AUTHORIZATION**
- ☐ Individual Permit
- ☑ Area Permit
- ☐ Rule

Number of Wells 1

Lease Name

**WELL ACTIVITY**
- ☐ CLASS I
- ☐ CLASS II
  - ☐ Brine Disposal
  - ☐ Enhanced Recovery
  - ☐ Hydrocarbon Storage
- ☐ CLASS III

Well Number 55-224845, NSM-009

**CASING AND TUBING RECORD AFTER PLUGGING**

| SIZE | WT (LB/FT) | TO BE PUT IN WELL (FT) | TO BE LEFT IN WELL (FT) | HOLE SIZE |
|---|---|---|---|---|
| 5 | Unknown | 0 | 586 | 5 |
| | | | | |
| | | | | |
| | | | | |

**METHOD OF EMPLACEMENT OF CEMENT PLUGS**
- ☑ The Balance Method
- ☐ The Dump Bailer Method
- ☐ The Two-Plug Method
- ☐ Other

| CEMENTING TO PLUG AND ABANDON DATA: | PLUG #1 | PLUG #2 | PLUG #3 | PLUG #4 | PLUG #5 | PLUG #6 | PLUG #7 |
|---|---|---|---|---|---|---|---|
| Size of Hole or Pipe in which Plug Will Be Placed (inche | 5 | | | | | | |
| Depth to Bottom of Tubing or Drill Pipe (ft | 1349 | | | | | | |
| Sacks of Cement To Be Used (each plug) | 189 | | | | | | |
| Slurry Volume To Be Pumped (cu. ft.) | 223 | | | | | | |
| Calculated Top of Plug (ft.) | 2 | | | | | | |
| Measured Top of Plug (if tagged ft.) | | | | | | | |
| Slurry Wt. (Lb./Gal.) | 15.6 | | | | | | |
| Type Cement or Other Material (Class III) | V | | | | | | |

**LIST ALL OPEN HOLE AND/OR PERFORATED INTERVALS AND INTERVALS WHERE CASING WILL BE VARIED (if any)**

| From | To | From | To |
|---|---|---|---|
| 586 | 1349 | | |

Water level will be measured prior to abandonment. Casing will be perforated from 50 feet above water level to bottom of casing.

**Estimated Cost to Plug Wells**
$9,443

## Certification

I certify under the penalty of law that I have personally examined and am familiar with the information submitted in this document and all attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibliity of fine and imprisonment. (Ref. 40 CFR 144.32)

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|---|---|---|
| Vit Kuhnel, Hydrology Manager | | |

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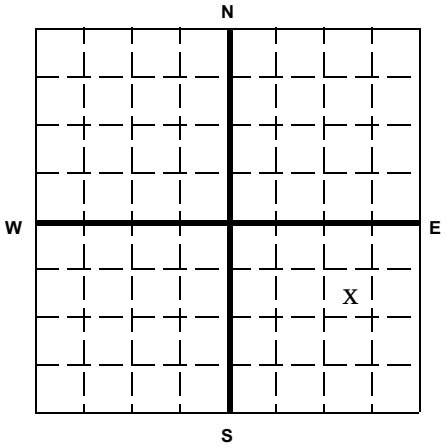
United States Environmental Protection Agency
Washington, DC 20460

# PLUGGING AND ABANDONMENT PLAN

**Name and Address of Facility**
EXCELSIOR MINING CORP
GUNNISON PROJECT

**Name and Address of Owner/Operator**
EXCELSIOR MINING CORP
CONCORD PL, 2999 N 44TH ST, STE 300, PHOENIX, AZ 85018

**Locate Well and Outline Unit on Section Plat - 640 Acres**




| State | County | Permit Number |
|---|---|---|
| AZ | Cochise | TBD |

**Surface Location Description**
1/4 of sw 1/4 of ne 1/4 of se 1/4 of Section 36 Township 15S Range 22E

Locate well in two directions from nearest lines of quarter section and drilling unit

Surface Location 966 ft. frm (N/S) N Line of quarter section
and 551 ft. from (E/W) E Line of quarter section.

**TYPE OF AUTHORIZATION**
- [ ] Individual Permit
- [x] Area Permit
- [ ] Rule

Number of Wells 1

Lease Name

**WELL ACTIVITY**
- [ ] CLASS I
- [ ] CLASS II
  - [ ] Brine Disposal
  - [ ] Enhanced Recovery
  - [ ] Hydrocarbon Storage
- [ ] CLASS III

Well Number 55-224847, NSM-013

**CASING AND TUBING RECORD AFTER PLUGGING**

| SIZE | WT (LB/FT) | TO BE PUT IN WELL (FT) | TO BE LEFT IN WELL (FT) | HOLE SIZE |
|---|---|---|---|---|
| 4.5 | Unknown | 0 | 404 | 4.5 |
| | | | | |
| | | | | |
| | | | | |

**METHOD OF EMPLACEMENT OF CEMENT PLUGS**
- [x] The Balance Method
- [ ] The Dump Bailer Method
- [ ] The Two-Plug Method
- [ ] Other

| CEMENTING TO PLUG AND ABANDON DATA: | PLUG #1 | PLUG #2 | PLUG #3 | PLUG #4 | PLUG #5 | PLUG #6 | PLUG #7 |
|---|---|---|---|---|---|---|---|
| Size of Hole or Pipe in which Plug Will Be Placed (inche | 4.5 | | | | | | |
| Depth to Bottom of Tubing or Drill Pipe (ft | 953 | | | | | | |
| Sacks of Cement To Be Used (each plug) | 89 | | | | | | |
| Slurry Volume To Be Pumped (cu. ft.) | 105 | | | | | | |
| Calculated Top of Plug (ft.) | 2 | | | | | | |
| Measured Top of Plug (if tagged ft.) | | | | | | | |
| Slurry Wt. (Lb./Gal.) | 15.6 | | | | | | |
| Type Cement or Other Material (Class III) | V | | | | | | |

**LIST ALL OPEN HOLE AND/OR PERFORATED INTERVALS AND INTERVALS WHERE CASING WILL BE VARIED (if any)**

| From | To | From | To |
|---|---|---|---|
| 404 | 953 | | |

Water level will be measured prior to abandonment. Casing will be perforated from 50 feet above water level to bottom of casing.

**Estimated Cost to Plug Wells**
$6,671

## Certification

I certify under the penalty of law that I have personally examined and am familiar with the information submitted in this document and all attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibliity of fine and imprisonment. (Ref. 40 CFR 144.32)

| Name and Official Title *(Please type or print)* | Signature | Date Signed |
|---|---|---|
| Vit Kuhnel, Hydrology Manager | | |