

30008

DOCUMENTATION OF ENVIRONMENTAL INDICATOR DETERMINATION

Interim Final 2/5/99

RCRA Corrective Action  
Environmental Indicator (EI) RCRIS code (CA725)

Current Human Exposures Under Control

Facility Name: Vision Metals, Inc./Gulf States Tube  
 Facility Address: P. O. Box 952, Rosenberg, TX 77471  
 Facility EPA ID #: TXD000449397

1. Has all available relevant/significant information on known and reasonably suspected releases to soil, groundwater, surface water/sediments, and air, subject to RCRA Corrective Action (e.g., from Solid Waste Management Units (SWMU), Regulated Units (RU), and Areas of Concern (AOC)), been considered in this EI determination?

- If yes - check here and continue with #2 below.
- If no - re-evaluate existing data, or
- if data are not available skip to #6 and enter "IN" (more information needed) status code.

BACKGROUND

Definition of Environmental Indicators (for the RCRA Corrective Action)

Environmental Indicators (EI) are measures being used by the RCRA Corrective Action program to go beyond programmatic activity measures (e.g., reports received and approved, etc.) to track changes in the quality of the environment. The two EI developed to-date indicate the quality of the environment in relation to current human exposures to contamination and the migration of contaminated groundwater. An EI for non-human (ecological) receptors is intended to be developed in the future.

Definition of "Current Human Exposures Under Control" EI

A positive "Current Human Exposures Under Control" EI determination ("YE" status code) indicates that there are no "unacceptable" human exposures to "contamination" (i.e., contaminants in concentrations in excess of appropriate risk-based levels) that can be reasonably expected under current land- and groundwater-use conditions (for all "contamination" subject to RCRA corrective action at or from the identified facility (i.e., site-wide)).

Relationship of EI to Final Remedies

While Final remedies remain the long-term objective of the RCRA Corrective Action program the EI are near-term objectives which are currently being used as Program measures for the Government Performance and Results Act of 1993, GPRA). The "Current Human Exposures Under Control" EI are for reasonably expected human exposures under current land- and groundwater-use conditions ONLY, and do not consider potential future land- or groundwater-use conditions or ecological receptors. The RCRA Corrective Action program's overall mission to protect human health and the environment requires that Final remedies address these issues (i.e., potential future human exposure scenarios, future land and groundwater uses, and ecological receptors).

Duration / Applicability of EI Determinations

EI Determinations status codes should remain in RCRIS national database ONLY as long as they remain true (i.e., RCRIS status codes must be changed when the regulatory authorities become aware of contrary information).



**Current Human Exposures Under Control**  
**Environmental Indicator (EI) RCRIIS code (CA725)**

2. Are groundwater, soil, surface water, sediments, or air media known or reasonably suspected to be "contaminated"<sup>1</sup> above appropriately protective risk-based "levels" (applicable promulgated standards, as well as other appropriate standards, guidelines, guidance, or criteria) from releases subject to RCRA Corrective Action (from SWMUs, RUs or AOCs)?

	<u>Yes</u>	<u>No</u>	<u>?</u>	<u>Rationale / Key Contaminants</u>
Groundwater	X			See Rationale Below
Air (indoors) <sup>2</sup>		X		
Surface Soil (e.g., <2 ft)	X			See Rationale Below
Surface Water		X		
Sediment		X		
Subsurf. Soil (e.g., >2 ft)		X		
Air (outdoors)		X		

\_\_\_\_\_ If no (for all media) - skip to #6, and enter "YE," status code after providing or citing appropriate "levels," and referencing sufficient supporting documentation demonstrating that these "levels" are not exceeded.

  X   If yes (for any media) - continue after identifying key contaminants in each "contaminated" medium, citing appropriate "levels" (or provide an explanation for the determination that the medium could pose an unacceptable risk), and referencing supporting documentation.

\_\_\_\_\_ If unknown (for any media) - skip to #6 and enter "IN" status code.

Rationale and Reference(s):

See Attached Information

Footnotes:

<sup>1</sup> "Contamination" and "contaminated" describes media containing contaminants (in any form, NAPL and/or dissolved, vapors, or solids, that are subject to RCRA) in concentrations in excess of appropriately protective risk-based "levels" (for the media, that identify risks within the acceptable risk range).

<sup>2</sup> Recent evidence (from the Colorado Dept. of Public Health and Environment, and others) suggest that unacceptable indoor air concentrations are more common in structures above groundwater with volatile contaminants than previously believed. This is a rapidly developing field and reviewers are encouraged to look to the latest guidance for the appropriate methods and scale of demonstration necessary to be reasonably certain that indoor air (in structures located above (and adjacent to) groundwater with volatile contaminants) does not present unacceptable risks.

**Current Human Exposures Under Control**  
**Environmental Indicator (EI) RCRIS code (CA725)**  
 Page 3

3. Are there complete pathways between "contamination" and human receptors such that exposures can be reasonably expected under the current (land- and groundwater-use) conditions?

Summary Exposure Pathway Evaluation Table

Potential Human Receptors (Under Current Conditions)

<u>"Contaminated" Media</u>	Residents	Workers	Day-Care	Construction	Trespassers	Recreation	Food <sup>3</sup>
Groundwater	<u>N</u>	<u>N</u>	<u>N</u>	<u>N</u>			<u>N</u>
<del>Air (indoors)</del>	<u>—</u>	<u>—</u>	<u>—</u>				
Soil (surface, e.g., <2 ft)	<u>N</u>	<u>N</u>	<u>N</u>	<u>N</u>	<u>N</u>	<u>N</u>	<u>N</u>
<del>Surface Water</del>	<u>—</u>	<u>—</u>			<u>—</u>	<u>—</u>	<u>—</u>
<del>Sediment</del>	<u>—</u>	<u>—</u>			<u>—</u>	<u>—</u>	<u>—</u>
Soil (subsurface e.g., >2 ft)				<u>—</u>			<u>—</u>
<del>Air (outdoors)</del>	<u>—</u>	<u>—</u>	<u>—</u>	<u>—</u>	<u>—</u>		

Instructions for Summary Exposure Pathway Evaluation Table:

1. Strike-out specific Media including Human Receptors' spaces for Media which are not "contaminated" as identified in #2 above.
2. enter "yes" or "no" for potential "completeness" under each "Contaminated" Media - Human Receptor combination (Pathway).

Note: In order to focus the evaluation to the most probable combinations some potential "Contaminated" Media - Human Receptor combinations (Pathways) do not have check spaces ("\_\_\_"). While these combinations may not be probable in most situations they may be possible in some settings and should be added as necessary.

  X If no (pathways are not complete for any contaminated media-receptor combination) - skip to #6, and enter "YE" status code, after explaining and/or referencing condition(s) in-place, whether natural or man-made, preventing a complete exposure pathway from each contaminated medium (e.g., use optional Pathway Evaluation Work Sheet to analyze major pathways).

       If yes (pathways are complete for any "Contaminated" Media - Human Receptor combination) - continue after providing supporting explanation.

       If unknown (for any "Contaminated" Media - Human Receptor combination) - skip to #6 and enter "IN" status code.

Rationale and Reference(s):

See Attached Information.

<sup>3</sup> Indirect Pathway/Receptor (e.g., vegetables, fruits, crops, meat and dairy products, fish, shellfish, etc.)

4. Can the exposures from any of the complete pathways identified in #3 be reasonably expected to be

Current Human Exposures Under Control  
Environmental Indicator (EI) RCRIS code (CA725)  
Page 4

“significant”<sup>4</sup> (i.e., potentially “unacceptable” because exposures can be reasonably expected to be: 1) greater in magnitude (intensity, frequency and/or duration) than assumed in the derivation of the acceptable “levels” (used to identify the “contamination”); or 2) the combination of exposure magnitude (perhaps even though low) and contaminant concentrations (which may be substantially above the acceptable “levels”) could result in greater than acceptable risks)?

N/A

\_\_\_\_\_ If no (exposures can not be reasonably expected to be significant (i.e., potentially “unacceptable”) for any complete exposure pathway) - skip to #6 and enter “YE” status code after explaining and/or referencing documentation justifying why the exposures (from each of the complete pathways) to “contamination” (identified in #3) are not expected to be “significant.”

\_\_\_\_\_ If yes (exposures could be reasonably expected to be “significant” (i.e., potentially “unacceptable”) for any complete exposure pathway) - continue after providing a description (of each potentially “unacceptable” exposure pathway) and explaining and/or referencing documentation justifying why the exposures (from each of the remaining complete pathways) to “contamination” (identified in #3) are not expected to be “significant.”

\_\_\_\_\_ If unknown (for any complete pathway) - skip to #6 and enter “IN” status code.

Rationale and Reference(s):

N/A

<sup>4</sup> If there is any question on whether the identified exposures are “significant” (i.e., potentially “unacceptable”) consult a human health Risk Assessment specialist with appropriate education, training and experience.

5. Can the “significant” exposures (identified in #4) be shown to be within acceptable limits?

Current Human Exposures Under Control  
Environmental Indicator (EI) RCRIS code (CA725)  
Page 5

N/A

\_\_\_\_\_ If yes (all "significant" exposures have been shown to be within acceptable limits) - continue and enter "YE" after summarizing and referencing documentation justifying why all "significant" exposures to "contamination" are within acceptable limits (e.g., a site-specific Human Health Risk Assessment).

\_\_\_\_\_ If no (there are current exposures that can be reasonably expected to be "unacceptable")- continue and enter "NO" status code after providing a description of each potentially "unacceptable" exposure.

\_\_\_\_\_ If unknown (for any potentially "unacceptable" exposure) - continue and enter "IN" status code

Rationale and Reference(s):

N/A

Current Human Exposures Under Control  
Environmental Indicator (EI) RCRIS code (CA725)  
Page 6

6. Check the appropriate RCRIS status codes for the Current Human Exposures Under Control EI event code (CA725), and obtain Supervisor (or appropriate Manager) signature and date on the EI determination below (and attach appropriate supporting documentation as well as a map of the facility):

YE - Yes, "Current Human Exposures Under Control" has been verified. Based on a review of the information contained in this EI Determination, "Current Human Exposures" are expected to be "Under Control" at the Vision Metals facility, EPA ID # TX0000449317, located at Rosenburg under current and reasonably expected conditions. This determination will be re-evaluated when the Agency/State becomes aware of significant changes at the facility. Doc # 6806

NO - "Current Human Exposures" are NOT "Under Control." Rep 2904

IN - More information is needed to make a determination.  
(1) Incomplete information  
(2) Reports in house, yet to be reviewed  
(3) Unfamiliar site

For "NO" or "IN" determination, expected date of "YE" determination \_\_\_\_\_

Completed by (signature) Eleanor Wehner Date 1-13-00  
(print) Eleanor Wehner  
(title) Project Manager

Supervisor (signature) Cathy Remmert Date Jan 24, 2000  
(print) Cathy Remmert  
(title) Supervisor  
(EPA Region or State) TNRCC

JFB

Locations where References may be found:

If "YE" Code is assigned then attach a copy of database, highlight the reports which support "YE" determination.  
See attached - based on <sup>existing</sup> Compliance Plan <sup>related</sup> information

Contact telephone and e-mail numbers

(name) Eleanor Wehner  
(phone #) X2358  
(e-mail) ewehner@tnrcc.state.tx.us

30008

DOCUMENTATION OF ENVIRONMENTAL INDICATOR DETERMINATION

Interim Final

2/5/99

RCRA Corrective Action  
Environmental Indicator (EI) RCRIS code (CA750)

Migration of Contaminated Groundwater Under Control

Facility Name:	<u>Vision Metals, Inc./Gulf States Tube</u>
Facility Address:	<u>P. O. Box 952, Rosenberg, TX 77471</u>
Facility EPA ID #:	<u>TXD000449397</u>

1. Has all available relevant/significant information on known and reasonably suspected releases to the groundwater media, subject to RCRA Corrective Action (e.g., from Solid Waste Management Units (SWMU), Regulated Units (RU), and Areas of Concern (AOC)), been considered in this EI determination?

- If yes - check here and continue with #2 below.
- If no - re-evaluate existing data, or
- if data are not available skip to #6 and enter "IN" (more information needed) status code.

BACKGROUND

Definition of Environmental Indicators (for the RCRA Corrective Action)

Environmental Indicators (EI) are measures being used by the RCRA Corrective Action program to go beyond programmatic activity measures (e.g., reports received and approved, etc.) to track changes in the quality of the environment. The two EI developed to-date indicate the quality of the environment in relation to current human exposures to contamination and the migration of contaminated groundwater. An EI for non-human (ecological) receptors is intended to be developed in the future.

Definition of "Migration of Contaminated Groundwater Under Control" EI

A positive "Migration of Contaminated Groundwater Under Control" EI determination ("YE" status code) indicates that the migration of "contaminated" groundwater has stabilized, and that monitoring will be conducted to confirm that contaminated groundwater remains within the original "area of contaminated groundwater" (for all groundwater "contamination" subject to RCRA corrective action at or from the identified facility (i.e., site-wide)).

Relationship of EI to Final Remedies

While Final remedies remain the long-term objective of the RCRA Corrective Action program the EI are near-term objectives which are currently being used as Program measures for the Government Performance and Results Act of 1993, GPRA). The "Migration of Contaminated Groundwater Under Control" EI pertains ONLY to the physical migration (i.e., further spread) of contaminated ground water and contaminants within groundwater (e.g., non-aqueous phase liquids or NAPLs). Achieving this EI does not substitute for achieving other stabilization or final remedy requirements and expectations associated with sources of contamination and the need to restore, wherever practicable, contaminated groundwater to be suitable for its designated current and future uses.

Duration / Applicability of EI Determinations

EI Determinations status codes should remain in RCRIS national database ONLY as long as they remain true (i.e., RCRIS status codes must be changed when the regulatory authorities become aware of contrary information).

Migration of Contaminated Groundwater Under Control  
Environmental Indicator (EI) RCRIS code (CA750)  
Page 2

2. Is groundwater known or reasonably suspected to be "contaminated"<sup>1</sup> above appropriately protective "levels" (i.e., applicable promulgated standards, as well as other appropriate standards, guidelines, guidance, or criteria) from releases subject to RCRA Corrective Action, anywhere at, or from, the facility?

- If yes - continue after identifying key contaminants, citing appropriate "levels," and referencing supporting documentation.
- If no - skip to #8 and enter "YE" status code, after citing appropriate "levels," and referencing supporting documentation to demonstrate that groundwater is not "contaminated."
- If unknown - skip to #8 and enter "IN" status code.

Rationale and Reference(s):

See attached information.

Foot  
notes:

<sup>1</sup>"Contamination" and "contaminated" describes media containing contaminants (in any form, NAPL and/or dissolved, vapors, or solids, that are subject to RCRA) in concentrations in excess of appropriate

Migration of Contaminated Groundwater Under Control  
Environmental Indicator (EI) RCRIS code (CA750)  
Page 3

"levels" (appropriate for the protection of the groundwater resource and its beneficial uses).

3. Has the migration of contaminated groundwater stabilized (such that contaminated groundwater is expected to remain within "existing area of contaminated groundwater"<sup>2</sup> as defined by the monitoring locations designated at the time of this determination)?

- If yes - continue, after presenting or referencing the physical evidence (e.g., groundwater sampling/measurement/migration barrier data) and rationale why contaminated groundwater is expected to remain within the (horizontal or vertical) dimensions of the "existing area of groundwater contamination"<sup>2</sup>.
- If no (contaminated groundwater is observed or expected to migrate beyond the designated locations defining the "existing area of groundwater contamination"<sup>2</sup>) - skip to #8 and enter "NO" status code, after providing an explanation.
- If unknown - skip to #8 and enter "IN" status code.

Rationale and Reference(s):

See attached information.

<sup>2</sup> "existing area of contaminated groundwater" is an area (with horizontal and vertical dimensions) that has been verifiably demonstrated to contain all relevant groundwater contamination for this determination, and is defined by designated (monitoring) locations proximate to the outer perimeter of "contamination" that can and will be sampled/tested in the future to physically verify that all "contaminated" groundwater remains within this area, and that the further migration of "contaminated" groundwater is not occurring. Reasonable allowances in the proximity of the monitoring locations are

Migration of Contaminated Groundwater Under Control  
Environmental Indicator (EI) RCRIS code (CA750)  
Page 4

permissible to incorporate formal remedy decisions (i.e., including public participation) allowing a limited area for natural attenuation.

4. Does "contaminated" groundwater discharge into surface water bodies?

\_\_\_\_\_ If yes - continue after identifying potentially affected surface water bodies.

  X   If no - skip to #7 (and enter a "YE" status code in #8, if #7 = yes) after providing an explanation and/or referencing documentation supporting that groundwater "contamination" does not enter surface water bodies.

\_\_\_\_\_ If unknown - skip to #8 and enter "IN" status code.

Rationale and Reference(s):

See Attached Information

Migration of Contaminated Groundwater Under Control  
Environmental Indicator (EI) RCRIS code (CA750)  
Page 5

Is the discharge of "contaminated" groundwater into surface water likely to be "insignificant" (i.e., the maximum concentration<sup>3</sup> of each contaminant discharging into surface water is less than 10 times their appropriate groundwater "level," and there are no other conditions (e.g., the nature, and number, of discharging contaminants, or environmental setting), which significantly increase the potential for unacceptable impacts to surface water, sediments, or eco-systems at these concentrations)?

N/A

\_\_\_\_\_ If yes - skip to #7 (and enter "YE" status code in #8 if #7 = yes), after documenting: 1) the maximum known or reasonably suspected concentration<sup>3</sup> of key contaminants discharged above their groundwater "level," the value of the appropriate "level(s)," and if there is evidence that the concentrations are increasing; and 2) provide a statement of professional judgement/explanation (or reference documentation) supporting that the discharge of groundwater contaminants into the surface water is not anticipated to have unacceptable impacts to the receiving surface water, sediments, or eco-system.

\_\_\_\_\_ If no - (the discharge of "contaminated" groundwater into surface water is potentially significant) - continue after documenting: 1) the maximum known or reasonably suspected concentration<sup>3</sup> of each contaminant discharged above its groundwater "level," the value of the appropriate "level(s)," and if there is evidence that the concentrations are increasing; and 2) for any contaminants discharging into surface water in concentrations<sup>3</sup> greater than 100 times their appropriate groundwater "levels," the estimated total amount (mass in kg/yr) of each of these contaminants that are being discharged (loaded) into the surface water body (at the time of the determination), and identify if there is evidence that the amount of discharging contaminants is increasing.

\_\_\_\_\_ If unknown - enter "IN" status code in #8.

Rationale and Reference(s):

<sup>3</sup> As measured in groundwater prior to entry to the groundwater-surface water/sediment interaction (e.g., hyporheic) zone.

Migration of Contaminated Groundwater Under Control  
Environmental Indicator (EI) RCRIS code (CA750)  
Page 6

6. Can the discharge of "contaminated" groundwater into surface water be shown to be "currently acceptable" (i.e., not cause impacts to surface water, sediments or eco-systems that should not be allowed to continue until a final remedy decision can be made and implemented<sup>4</sup>)?

N/A

\_\_\_\_\_ If yes - continue after either: 1) identifying the Final Remedy decision incorporating these conditions, or other site-specific criteria (developed for the protection of the site's surface water, sediments, and eco-systems), and referencing supporting documentation demonstrating that these criteria are not exceeded by the discharging groundwater, OR 2) providing or referencing an interim-assessment,<sup>5</sup> appropriate to the potential for impact, that shows the discharge of groundwater contaminants into the surface water is (in the opinion of a trained specialists, including ecologist) adequately protective of receiving surface water, sediments, and eco-systems, until such time when a full assessment and final remedy decision can be made. Factors which should be considered in the interim-assessment (where appropriate to help identify the impact associated with discharging groundwater) include: surface water body size, flow, use/classification/habitats and contaminant loading limits, other sources of surface water/sediment contamination, surface water and sediment sample results and comparisons to available and appropriate surface water and sediment "levels," as well as any other factors, such as effects on ecological receptors (e.g., via bio-assays/benthic surveys or site-specific ecological Risk Assessments), that the overseeing regulatory agency would deem appropriate for making the EI determination.

\_\_\_\_\_ If no - (the discharge of "contaminated" groundwater can not be shown to be "currently acceptable") - skip to #8 and enter "NO" status code, after documenting the currently unacceptable impacts to the surface water body, sediments, and/or eco-systems.

\_\_\_\_\_ If unknown - skip to 8 and enter "IN" status code.

Rationale and Reference(s):

<sup>4</sup> Note, because areas of inflowing groundwater can be critical habitats (e.g., nurseries or thermal refugia) for many species, appropriate specialist (e.g., ecologist) should be included in management decisions that could eliminate these areas by significantly altering or reversing groundwater flow pathways near surface water bodies.

<sup>5</sup> The understanding of the impacts of contaminated groundwater discharges into surface water bodies is a rapidly developing field and reviewers are encouraged to look to the latest guidance for the appropriate methods and scale of demonstration to be reasonably certain that discharges are not causing currently

Migration of Contaminated Groundwater Under Control  
Environmental Indicator (EI) RCRIS code (CA750)  
Page 7

unacceptable impacts to the surface waters, sediments or eco-systems.

7. Will groundwater monitoring / measurement data (and surface water/sediment/ecological data, as necessary) be collected in the future to verify that contaminated groundwater has remained within the horizontal (or vertical, as necessary) dimensions of the "existing area of contaminated groundwater?"

If yes - continue after providing or citing documentation for planned activities or future sampling/measurement events. Specifically identify the well/measurement locations which will be tested in the future to verify the expectation (identified in #3) that groundwater contamination will not be migrating horizontally (or vertically, as necessary) beyond the "existing area of groundwater contamination."

If no - enter "NO" status code in #8.

If unknown - enter "IN" status code in #8.

Rationale and Reference(s):

See attached information.

**Migration of Contaminated Groundwater Under Control**  
**Environmental Indicator (EI) RCRIS code (CA750)**  
Page 8

8. Check the appropriate RCRIS status codes for the Migration of Contaminated Groundwater Under Control EI (event code CA750), and obtain Supervisor (or appropriate Manager) signature and date on the EI determination below (attach appropriate supporting documentation as well as a map of the facility).

YE - Yes, "Migration of Contaminated Groundwater Under Control" has been verified. Based on a review of the information contained in this EI determination, it has been determined that the "Migration of Contaminated Groundwater" is "Under Control" at the \_\_\_\_\_ facility, EPA ID # \_\_\_\_\_, located at \_\_\_\_\_. Specifically, this determination indicates that the migration of "contaminated" groundwater is under control, and that monitoring will be conducted to confirm that contaminated groundwater remains within the "existing area of contaminated groundwater" This determination will be re-evaluated when the Agency becomes aware of significant changes at the facility.

\_\_\_\_\_ NO - Unacceptable migration of contaminated groundwater is observed or expected.

\_\_\_\_\_ IN - More information is needed to make a determination.

- (1) Incomplete information
- (2) Reports in house, yet to be reviewed
- (3) Unfamiliar site

For "NO" or "IN" determination, expected date of "YE" determination \_\_\_\_\_

Completed by (signature) Eleanor Wehner Date 1-13-00  
(print) Eleanor Wehner  
(title) Project Manager

Supervisor (signature) Cathy Remmert Date Jan 24, 2000  
(print) Cathy Remmert  
(title) Supervisor  
CWB  
(EPA Region or State) TNRCC

Locations where References may be found:

See attached - based on existing CP-related information  
If "YE" Code is assigned then attach a copy of database, highlight the reports which support "YE" determination. See attached

Contact telephone and e-mail numbers

(name) Eleanor Wehner  
(phone #) X2358  
(e-mail) ewehner@tnrcc.state.tx.us

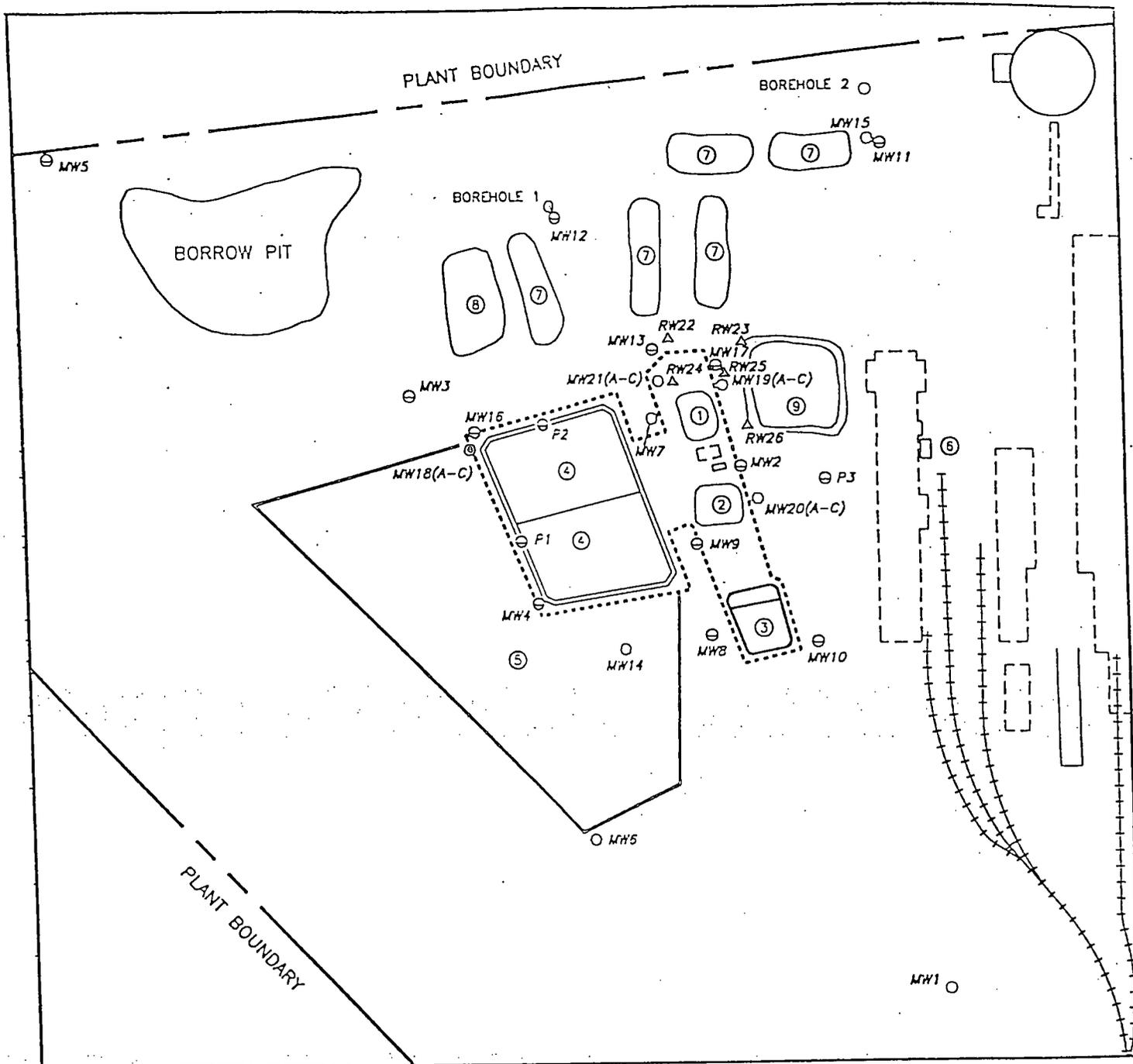
Query variables used to produce this report:

Search on: 30008  
 For: All Documents  
 With: No Date Range Restrictions From: Through:

Doc#	SWR / Fac ID	Facility	Date Rcd	Dated	Title	Type	Description	Due Date	Rev from	Fin Date	PM**	Doc Comment
5068	30008	VISION METALS INC	07/23/1999	07/21/1999	SEMI-ANNUAL GROUNDWATER MONITORING REPORT (JULY 1999)	RPT	LTM/GW	11/20/1999		10/28/1999	EWEH	
3501	30008	VISION METALS INC	03/15/1999	02/23/1999	RESPONSE TO TNRC LETTER OF JANUARY 28, 1999	LTR	LTM/GW	06/13/1999		05/20/1999	EWEH	
3502	30008	VISION METALS INC	03/15/1999	03/12/1999	RESPONSE TO INITIAL DRAFT COMPLIANCE PLAN	LTR	CP/MOD/AMEND	05/21/1999		05/11/1999	EWEH	final draft CP sent to permits section on 5/11/99
560	30008	VISION METALS INC	10/27/1998	10/23/1998	INITIAL DRAFT PERMIT RENEWAL	CC	CP/REN	03/11/1999		02/12/1999	PERMI	IDCP electronically transferred to permits on 2/12/99
966	30008	VISION METALS INC	11/19/1997		cp renewal in. idp due 3/11/99, fdp due 5/21/99	RPT	CP/REN	03/11/1999		02/12/1999	EWEH	
7130	30008	VISION METALS INC	01/10/00	01/06/00	ACTIVITIES SCHEDULE REQUIRED BY COMPLIANCE PLAN CP50129	CC	NRN			01/13/00	EWEH	
6806	30008	VISION METALS INC	12/09/1999	12/08/1999	RESPONSE TO TNRC REQUEST FOR SITE PCRA CA INFORMATION	RPT	NRN			01/13/00	EWEH	
6297	30008	VISION METALS INC	11/01/1999	10/28/1999	CLOSURE DOCUMENT BACKLOG CLARIFICATION REQUEST	LTR	NRN			12/20/1999	EWEH	landfill closure, permit case not ca
6241	30008	VISION METALS INC	10/28/1999	10/21/1999	EXECUTIVE DIRECTORS RESPONSE TO HEARING REQ FOR PERMIT NO. HW-50129	CC	NRN			10/28/1999	EWEH	
6202	30008	VISION METALS INC	10/22/1999	10/19/1999	RESPONSE TO HEARING REQUEST FILED	CC	NRN			10/28/1999	EWEH	
5438	30008	VISION METALS INC	08/12/1999	07/29/1999	ROUTED FROM CHIEF CLERK TO PERMITS - HEARING REQUEST FROM INDIVIDUAL	LTR	NRN			10/05/1999	EWEH	
4629	30008	VISION METALS INC	06/18/1999	06/15/1999	CLOSURE DOCUMENT BACKLOG CLARIFICATION REQUEST	RPT	NRN			07/22/1999	EWEH	LANDFILL CLOSURE
4302	30008	VISION METALS INC	05/24/1999	05/14/1999	CLOSURE DOCUMENT BACKLOG CLARIFICATION REQUEST	LTR	NRN			07/22/1999	EWEH	CLOSURE CASE DOCUMENTATION-STILL NOT COMPLETED
2849	30008	VISION METALS INC	01/22/1999	01/21/1999	SEMI-ANNUAL COMPLIANCE PLAN REPORT-VISION METALS GULF STATES TUE DIV	RPT	LTM/GW			01/28/1999	EWEH	
987	30008	VISION METALS INC	07/21/1998		annual gw report	RPT	LTM/GW			01/28/1999	EWEH	
964	30008	VISION METALS INC	12/17/1997		ca-llu phase ii rfi rpt & cmi wp in cl-proj. 1482)pre-rrr; class ii abd landfill	RPT	RRS2			11/08/1999	EWEH	pending
965	30008	VISION METALS INC	04/15/1988		cl-plan	WP	NRN			11/08/1999	EWEH	permit case

Total # of Documents = 17

Document Type	Total	Document Description	Total
CC	4	CP/MOD/AMEND	1
LTR	5	CP/REN	2
RPT	7	LTM/GW	4
WP	1	NRN	9
		RRS2	1
	17		17



**Designation of Wells by Function**

**Background Wells**

Zone 1: MW-3, MW-11, MW-12

**Point of Compliance Wells**

Zone 1: MW-2, MW-4, MW-8, MW-9, MW-10, MW-13, MW-16, MW-17

Zone 2: MW-7, MW-18C, MW-19C, MW-20C, MW-21C

**Corrective Action System Wells (Zone 1)**

RW-22, RW-23, RW-24, RW-25, RW-26

**Corrective Action Observation Wells**

Zone 1: MW-5, P-1, P-2, P-3

Zone 2: MW-15, MW-18A&B, MW-19A&B, MW-20A&B, MW-21A&B

**EXPLANATION**

**Waste Management Area I**

- ① Holding Pit-Pickle Liquor and Rinse, Closed, 0.15 acre
- ② Primary Settling Pit, Closed, 0.08 acre
- ③ Secondary and Final Settling, Closed, 0.17 acre
- ④ Pickle Sludge Drying Beds, Closed, 1.3 acre

- Boundary of Waste Management Area I
- ⊖ Zone 1 Monitoring Well Location
- Zone 2 Monitoring Well Location
- △ Recovery Well Location



**Attachment A - Sheet 3 of 4**  
**Monitoring Well Location Map**  
**Vision Metals, Inc.**  
**Compliance Plan No. CP-50129**