



October 11, 2023

Ben Kleban  
Stillwater Holdings, LLC  
1948 Stillwater Drive  
Walla Walla, WA 99362

**Re: Work Plan for Initial Subject Property Investigation**

Singer Chevron, 7 E Rose St, Walla Walla, WA  
Project No. 220442-A

Dear Ben:

Aspect Consulting, LLC (Aspect) has prepared this Work Plan to present the scope of work for completing an initial investigation of the property located at 7 E Rose Street in Walla Walla, Washington (Subject Property). A subsurface release of gasoline was identified in the vicinity of the Subject Property in September 2023. The Washington State Department of Ecology (Ecology) provided initial emergency response actions to mitigate immediate hazards and evaluate the source of the gasoline, which was initially discovered in basement sumps of two nearby buildings. The results of Ecology's evaluation resulted in the letter dated October 3, 2023, asking for immediate action to address the gasoline release. The objective of the initial investigation described herein is to investigate subsurface conditions on the Subject Property. The work will be conducted in general accordance with the Model Toxics Control Act cleanup regulation (MTCA), Chapter 173-340 of the Washington Administrative Code (WAC 173-340).

***Project History***

The Subject Property is comprised of 0.23-acre of commercial land located in downtown Walla Walla in Walla Walla County, Washington that is developed and operated as a gasoline station with a convenience store. The gasoline station has three 10,000-gallon capacity, fiberglass underground storage tanks (USTs), that were installed on November 15, 1981, and two fuel dispenser islands (ALLWEST, 2022<sup>1</sup>). The USTs consist of two used for storage and distribution of gasoline and one for diesel. Historical records available from Ecology document a previous soil and groundwater cleanup at the Subject Property, identified at the time as Bill Singers Chevron or Singer's Chevron, conducted between 2010 and 2013. In May 2013, Ecology issued a No Further Action determination for gasoline-range petroleum hydrocarbons in soil and groundwater with an Environmental Covenant that required maintenance of a surface cap over contaminated soil (Ecology, 2013<sup>2</sup>).

On September 14, 2023, petroleum-like odors were observed in the basement of the Marcus Whitman Hotel, located at 6 W Rose Street, across N 2<sup>nd</sup> Ave from the Subject Property. Testing of air quality within the basement of the hotel identified elevated concentrations of volatile organic

---

<sup>1</sup> ALLWEST, 2022, Phase I Environmental Site Assessment, Bill Singer's Chevron, 7 East Rose Street, Walla Walla, Washington, 99362, October 7, 2022.

<sup>2</sup> Environmental Covenant for Tax Parcel 360720574707 executed on May 13, 2013 between Bill D. & Loretta R. Singer and State of Washington, Department of Ecology.



compounds (VOCs) and combustible gas concentrations at 93% of the Lower Explosive Limit (LEL) (Ecology, 2023<sup>3</sup>). Further investigation identified gasoline in two sumps and a vault in the hotel and in a sump in a vacant building located at 106 N 2<sup>nd</sup> Ave, adjoining the Subject Property (106 Building). Elevated concentrations of VOCs and combustible gases were also measured in the 106 Building and in the US Post Office building located on the northside of the 106 Building at 128 N 2<sup>nd</sup> Ave (Ecology, 2023). Emergency response actions were implemented and included building ventilation and gasoline product recovery from building sumps. In addition, Ecology investigated the source of the release through the collection and forensic analysis of product samples and advancement of exploratory soil borings (Ecology, 2023). The results of Ecology's investigation resulted in the October 3, 2023 letter regarding *Technical assistance regarding gasoline release from 7 E. Rose Street, Walla Walla*, to Wine Country Store, LLC c/o Ben Kleban from Sam Hunn, Regional Supervisor, Ecology Eastern Regional Office Spill Prevention, Preparedness, and Response Program, alleging that the source of the gasoline is the Subject Property and requesting that investigation be completed to assess the full extent of contamination.

### ***Scope of Work***

The scope of work described in this Work Plan includes the following:

- Installation and development of four groundwater monitoring wells on the Subject Property.
- Measurement of groundwater levels and the thickness of LNAPL in each well, along with Ecology wells MW-1 through MW-6 located in the vicinity of the Subject Property.
- Collection and laboratory analysis of groundwater samples from the four new Subject Property wells and the six Ecology wells<sup>4</sup>.

The work is described in detail in the subsections below.

### **Locations**

Four borings (AMW-01 through AMW-04) will be advanced on the Subject Property at the approximate locations shown on Figure 1. The final locations may be modified in the field at the time of drilling, based on access limitations, including the presence of underground or overhead utilities. The borings will be completed to evaluate groundwater flow direction and gradient, the presence and thickness of gasoline as light non-aqueous phase liquid (LNAPL), and groundwater quality on the Subject Property. The monitoring wells will be installed with a diameter and screen length appropriate for use as recovery or extraction wells, if determined through analysis to be appropriate as part of a cleanup action.

### **Drilling Methods, Soil Classification and Field Screening**

Prior to drilling, each boring will be vacuum cleared of utilities to a depth of approximately 5-feet bgs. In addition, a public utility locate request will be submitted through the One Call Utility Notification Center and a private locator will be contracted to clear the boring locations of any subsurface conductible utilities.

---

<sup>3</sup> Washington State Department of Ecology, 2023, Incident Briefing ICS 201-CG, Marcus Whitman Hotel Hazmat Response 091423, October 2, 2023.

<sup>4</sup> As described below, groundwater samples will be collected only if 0.1-foot or less of LNAPL is measured on groundwater in a well.

Each boring will be drilled using hollow stem auger (HSA) drilling methods. Soil samples will be collected using a Dames and Moore split spoon sampler in 2.5-foot intervals to the total depth of each boring. A field geologist will visually classify the soils in accordance with the ASTM International (ASTM) *Standard Practice for Description and Identification of Soils* (Visual-Manual Procedure), ASTM Method D2488 (ASTM, 2009<sup>5</sup>). In addition, the field geologist will screen each soil sample using a photoionization detector (PID) to monitor for the presence of VOCs.

A portion of the soil sample will be placed into a resealable plastic bag for headspace vapor screening. Ambient air will be captured in the bag; the bag will be sealed and then shaken gently to expose the soil to the air trapped in the bag. Vapors present within the sample bag's headspace will be measured by inserting the probe of a PID through a small opening in the bag, ensuring that the probe doesn't contact the soil. PID readings will be recorded on the boring logs. The soil descriptions, field screening results, PID readings, and other relevant details (e.g., staining, debris, odors, sheen, etc.) will be recorded on a boring log form.

### **Soil Sample Collection**

Soil samples will be collected at select intervals from each boring for potential chemical analytical testing. Up to two soil samples from each boring will be submitted for laboratory analysis of gasoline-range petroleum hydrocarbons by NWTPH-Gx and benzene, toluene, ethylbenzene, and xylenes by EPA Method 8021. The depth of sample collection will be determined in the field at the time of drilling and will be dependent on the results of field screening and soil and groundwater conditions observed in the boring. Soil samples will be collected for chemical analysis from intervals where field screening results identify odors, staining, sheen, or volatile vapor concentrations above background levels. If field screening results do not suggest the presence of contamination in soil, the sample intervals will be selected based on sample recovery, classified soil type, and the presence/absence of groundwater.

### **Well Construction**

Groundwater has been measured in existing monitoring wells in the Subject Property vicinity at depths of 10 to 13 feet bgs. Based on this information, the monitoring wells will be installed to a total depth of 20 feet bgs with 10 feet of screen. Monitoring wells will be installed by a state-licensed, resource-protection well driller and in accordance with WAC 173-160. An Aspect field geologist will oversee and document installation of each monitoring well, including completion of an As-Built Well Completion Diagram.

New monitoring wells will be constructed as 4-inch-diameter, threaded Schedule 40 PVC with 0.020-inch slotted screen and blank casing above. An artificial filter pack consisting of 10/20 silica sand will be placed around the well screen, and a minimum 1.5-foot-thick annular bentonite seal will be placed above the filter pack. A concrete surface seal will be set at grade for each new monitoring well with a flush-mount steel monument. The well casing and monuments will be surveyed by a licensed surveyor into the existing well network to allow for the evaluation of groundwater flow direction and gradient.

---

<sup>5</sup> ASTM, 2009, ASTM D2488-09a, Standard Practice for Description and Identification of Soils, ASTM International, West Conshohocken, PA, 2009.

### **Well Development**

Each new monitoring well will be developed to remove fine-grained material from inside the well casing and filter pack, and to improve hydraulic communication between the well screen and the surrounding water-bearing formation. Well development will include a combination of surging across the well screen, pumping, and monitoring of turbidity. Surging will be completed by repeatedly raising and dropping a surge block across the length of the submerged screen to dislodge fine-grained material in the well screen and filter pack. A downhole submersible well-development pump will be used to purge groundwater until turbidity is reduced to minimal levels (below 10 nephelometric turbidity units [NTU] if practical), or until a minimum of 10 casing volumes of water have been removed from the well.

### **Groundwater Monitoring and Sampling**

No sooner than 48 hours following completion of well development of the new Subject Property wells, groundwater monitoring and sampling will be conducted at the four Subject Property wells and the six Ecology wells (Figure 1). Each well will be opened and allowed to equilibrate to atmospheric pressure for at least 30 minutes prior to monitoring. The presence and thickness of LNAPL in each well will be gauged using a downhole product probe and the depth to water will be measured to the nearest 0.01-foot using a water level meter. Groundwater purging and sampling will be completed at wells where 0.1-foot or less of LNAPL is measured on groundwater.

Groundwater samples will be collected from the monitoring wells in accordance with the industry standard procedures for low-flow purging and sampling that are outlined in EPAs Low-Flow (Minimal Drawdown) Ground-water Sampling Procedures<sup>6</sup>, using a peristaltic pump with dedicated tubing with the tubing intake placed at the midpoint of the screened interval. Field parameters (temperature, pH, specific electrical conductance [conductivity], dissolved oxygen, oxidation-reduction potential [ORP], and turbidity) will be monitored using a YSI meter and flow-through cell, or equivalent, and field turbidimeter and recorded until they stabilize. Stabilization will be determined by three successive readings, taken three to five minutes apart, with  $\pm 0.1$  for pH,  $\pm 3\%$  for conductivity,  $\pm 10\%$  for dissolved oxygen,  $\pm 10$  millivolts for ORP, and  $\pm 10\%$  for turbidity. At least five successive readings of field parameters will be taken during low-flow purging and recorded at each monitoring well. Once purging is complete, the groundwater samples will be collected using the same low-flow rate directly into laboratory-supplied sample containers.

Groundwater samples collected from the wells will be submitted for laboratory analysis of gasoline-range petroleum hydrocarbons by method NWTPH-Gx and BTEX by EPA Method 8021.

### **Data Compilation and Evaluation**

The results of the initial Subject Property investigation will be summarized in data tables, figures depicting exploration locations and groundwater flow direction, and boring/well construction logs.

---

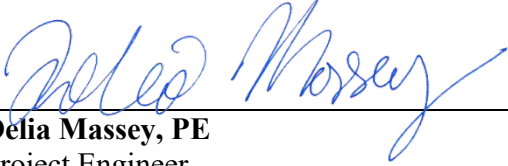
<sup>6</sup> Puls, Robert W., and Barcelona, Michael J., Low-Flow (Minimal Drawdown) Ground-water Sampling Procedures, USEPA Office of Research and Development Ground Water Issue EPA/540/S-95/504, April 1996.

Stillwater Holdings, LLC  
October 11, 2023

Project No. 230442-A

Sincerely,

**Aspect consulting, LLC**



---

**Delia Massey, PE**  
Project Engineer  
dmassey@aspectconsulting.com



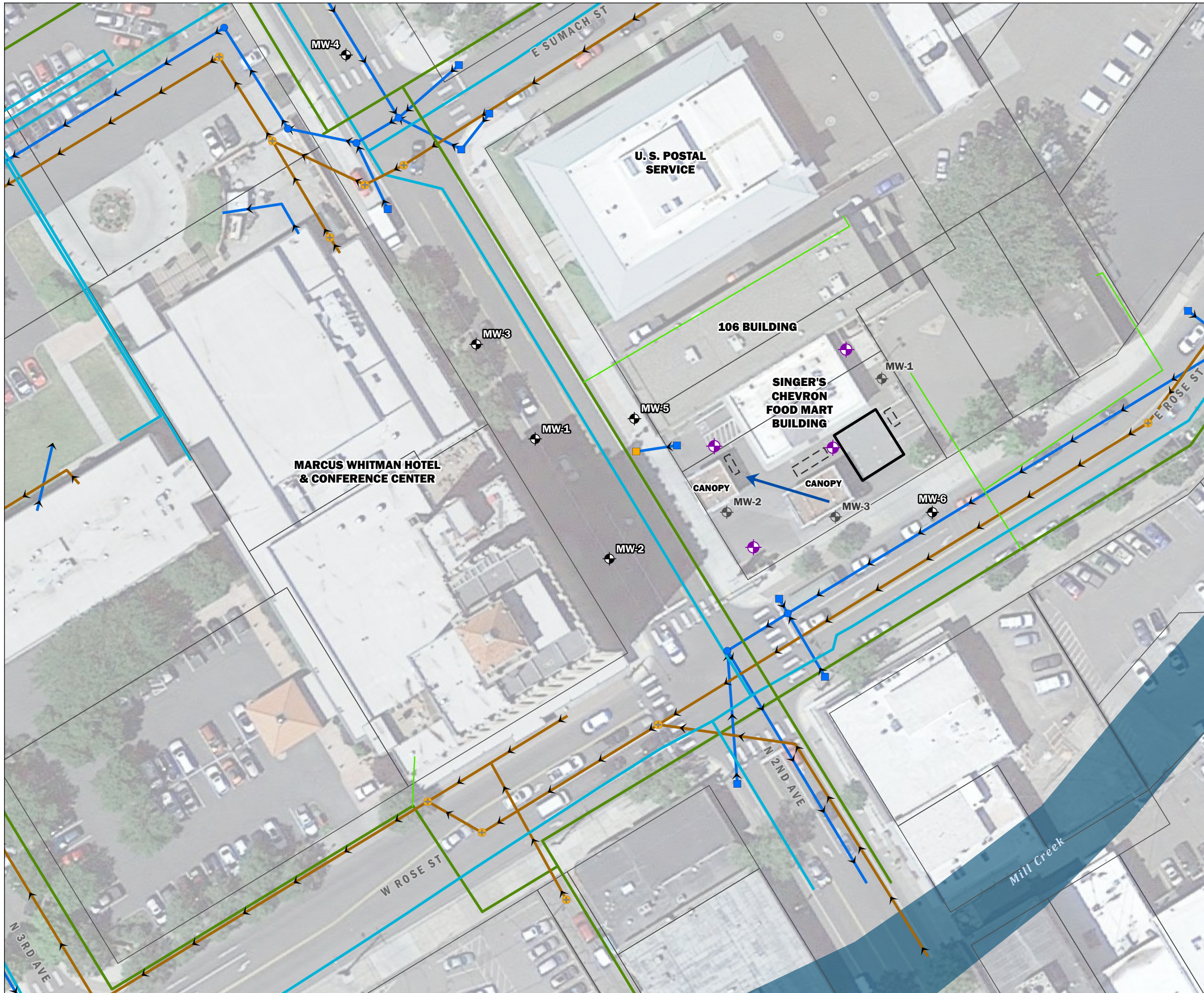
---

**Carla Brock, LHG**  
Principal Geologist  
cbrock@aspectconsulting.com

Attachments: Figure 1, Map Showing Proposed Initial Subject Property Investigation Locations

V:\230442 Singers Chevron\Contracts\Proposal Material\230442-A\_CO02\_20231011\_WorkPlanInitialInvestigation.docx

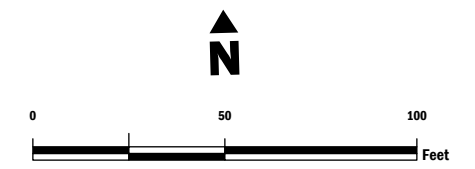




- Proposed Monitoring Well
- Monitoring Well
- Decommissioned Monitoring Well
- Estimated Groundwater Flow Direction (September 2012)
- Sewer Manhole
- Storm Manhole
- Catch Basin
- Bubble Up Catch Basin
- Sewer Main
- Storm Main
- Water Main
- CNGC Gas Main
- CNGC Gas Service Line
- Existing Underground Storage Tanks (UST)
- Decommissioned UST
- Walla Walla Tax Parcel

Notes:

- UST locations approximate from map provided by the City of Walla Walla.
- Utility locations approximate from map provided by the City of Walla Walla.
- Monitoring Well locations from survey provided by PBS Engineering and Environmental.
- Estimated groundwater flow direction approximate from Plateau Geoscience Group Quarterly Monitoring Report, Sept 2012.
- Decommissioned monitoring well locations approximate from Plateau Geoscience Group Quarterly Monitoring Report, Sept 2012.
- Parcel boundaries from County of Walla Walla GIS.
- Mill Creek boundary from WADNR GIS.



**Map Showing Proposed Initial  
Subject Property Investigation Locations**  
Singer's Chevron  
Walla Walla, Washington

	OCT-2023	BY: DIM / NLK	FIGURE NO. <b>1</b>
	PROJECT NO. 230442	REVISED BY: -/-/-	