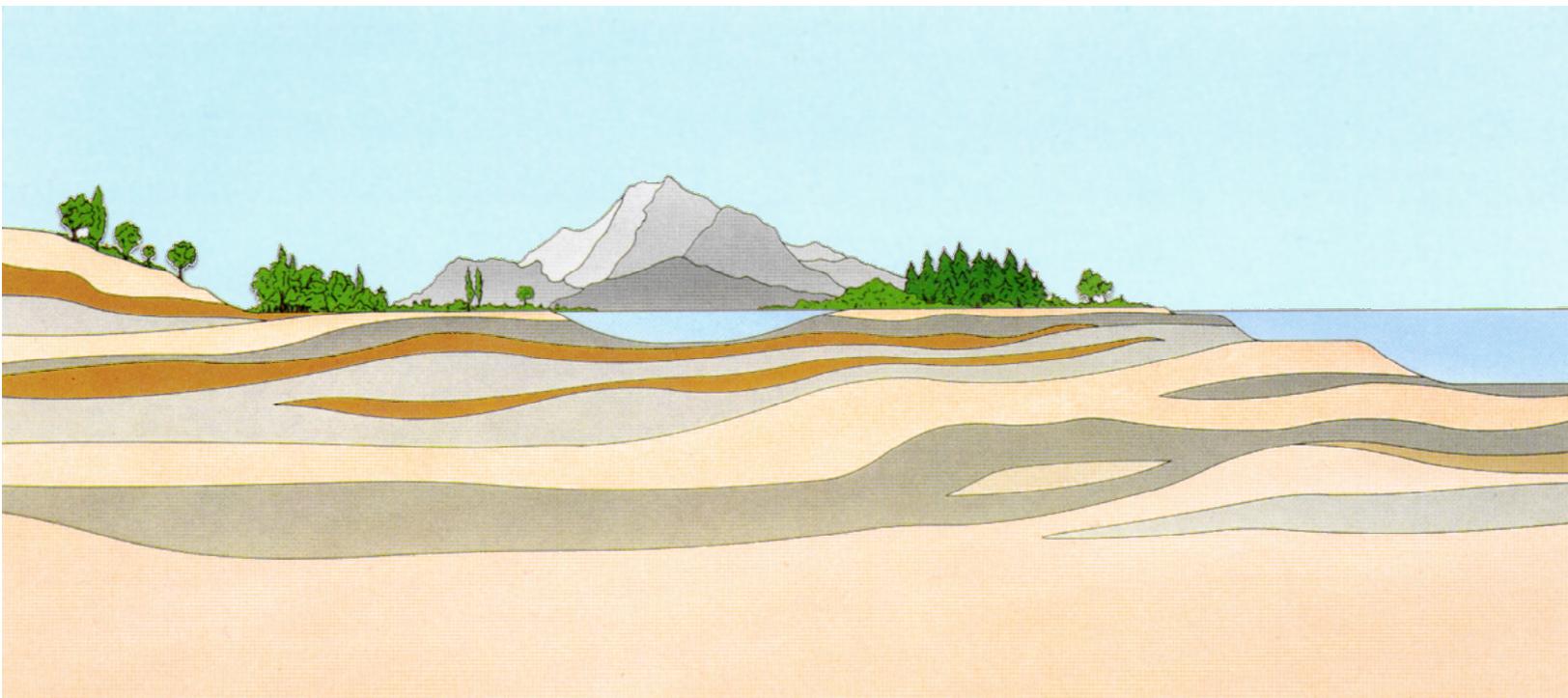




**ANNUAL REPORT  
JULY 2010 THROUGH JUNE 2011  
BIG ROCK MESA LANDSLIDE  
ASSESSMENT DISTRICT  
MALIBU, CALIFORNIA**

Prepared for:  
City of Malibu

November 2011  
Fugro Job No. 04.B3399006





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November 30, 2011  
Project No. 04.B3399006

City of Malibu  
23825 Stuart Ranch Road  
Malibu, California 90265

Attention: Mr. Rob Duboux

Subject: Annual Report, July 2010 through June 2011, Big Rock Mesa Landslide  
Assessment District, Malibu, California

Dear Mr. Duboux:

Fugro is pleased to present the annual report for the Big Rock Mesa Landslide Assessment District (Assessment District). This report summarizes the monitoring and maintenance activities completed during the period of July 2010 through June 2011. Beginning on July 1, 2004, the City of Malibu contracted with Fugro for monitoring, maintenance, and reporting of the Assessment District activities.

Fugro appreciates this opportunity to serve the City of Malibu and the District homeowners. Please contact us at our office if you have any questions regarding this report.

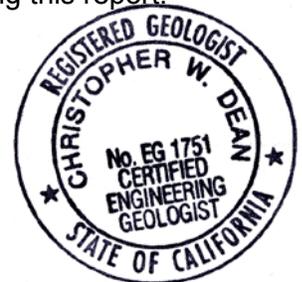
Sincerely,  
FUGRO CONSULTANTS, INC.

A handwritten signature in blue ink, appearing to read "Alexis Spencer".

Alexis Spencer, E.I.T.  
Project Engineer

A handwritten signature in black ink, appearing to read "Christopher W. Dean".

Christopher W. Dean  
Senior Engineering Geologist



Copies Submitted: (1) Addressee and Pdf on CD  
(1) City of Malibu - Geology & Soils Staff



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## 1.0 INTRODUCTION

### 1.1 AUTHORIZATION

Fugro performed monitoring and maintenance work and prepared this data report in accordance with our contract with the City of Malibu (City), commencing July 2006, and consistent with the cost estimate documents, "Exhibit A - FY 2010 through 2011 Maintenance Cost Estimate," presented in the Annual Assessment Report (Taussig, 2009).

### 1.2 BACKGROUND

The Big Rock Mesa Landslide Assessment District (Assessment District) was established in 1989 by the County of Los Angeles (County) following the activation of the Big Rock Mesa landslide in 1983. The Assessment District provides permanent funding to maintain and monitor dewatering facilities with the purpose of reducing landslide movements. The County administered the Assessment District until 1991 when the City incorporated. Since then, the City has administered the Assessment District, utilizing consultants to maintain and monitor the district facilities.

### 1.3 SCOPE OF WORK

This annual report summarizes the monitoring and maintenance of the geotechnical instrumentation and dewatering facilities for the period between July 1, 2009, and June 30, 2010 (hereinafter, the "monitoring period"). Fugro completed monitoring and maintenance activities summarized in this report.

Data collected during this monitoring period included the following:

- Annual Rainfall data from a local rain gauge at Big Rock Mesa, operated by the County;
- Monthly groundwater level measurements from 29 standpipes and 16 pneumatic piezometers;
- Twice-monthly dewatering production readings from 23 dewatering wells;
- Monthly dewatering production readings from 36 horizontal drains (hydraugers);
- Quarterly ground deformation readings from 18 slope inclinometers (geotechnical instrumentation);
- Twice yearly ground deformation readings from 10 slope inclinometers;
- Monthly readings of water usage data from the Mesa's master flow meter; and
- Quarterly water-quality sampling and analysis for National Pollution Discharge Elimination System (NPDES) compliance.



The operating condition of the instrumentation and dewatering facilities was checked during each field monitoring/observation event and by evaluating preliminary data in the office as they were received. Maintenance was performed as needed based upon the field observations and preliminary data evaluation.

The scope of services includes monitoring and maintenance of the Assessment District facilities and annual reporting. The services provided on an annual basis for the Assessment District do not include an evaluation of the stability of the landslide.

## **1.4 REPORT ORGANIZATION**

This report summarizes the monitoring data collected during the monitoring period and presents conclusions regarding the annual monitoring results. The location of the Assessment District is illustrated on Plate 1 - Site Location Map. Locations of the geotechnical instrumentation and dewatering facilities are shown on Plate 2 - Assessment District Map. Tabulated and graphic summaries of monitoring data are presented in Appendices A through E.

## **1.5 REPORT AVAILABILITY**

The annual Assessment District reports are available for review at Malibu City Hall and the Malibu Library. Reports may also be viewed on the City's website at <http://www.malibucity.org>.

## **2.0 MONITORING**

### **2.1 RAINFALL DATA**

Rainfall totals were tabulated based on recorded values from the Los Angeles County Rainfall Station 1239 - located at Big Rock Mesa. A combination graph of historical and annual cumulative monthly rainfall totals is shown on Plate 3 - Rainfall Graph.

Rainfall data indicate that approximately 24.16 inches of precipitation fell during the monitoring period from July 2010 through June 2011. The average rainfall total from 1968 to 2011 in the Malibu area for the period July through June is approximately 16.24 inches.

Rainfall data is usually analyzed in terms of the annual "rain season" that covers the time period October 1 through September 30. Rainfall for October 1, 2010, through June 30, 2011, was approximately 24.12 inches. This is approximately 141 percent of the average rainfall total of 17.07 inches for the rain seasons of 1968 through 2011.

### **2.2 MASTER WATER METER**

Water usage data are collected by performing monthly readings at the master water meter near the intersection of Rockport Way and Big Rock Drive. This meter measures all imported water supplied to the Big Rock Mesa area by Los Angeles County Waterworks District 29. Processed readings are shown as a plot of flow rate versus time on Plate 4. Analysis of the data indicates the following:

- The recorded water usage rates are cyclic throughout the monitoring year reflecting higher levels of usage during the summer months.
- As illustrated on Plate 4, there has been a general increasing trend in water usage since about 1995. Average water usage during the 2010 through 2011 monitoring year, approximately 153,000 gallons per day (gpd), is approximately 3.3 percent less than the 2009 through 2010 monitoring year average of 158,100 gpd.
- The trend of increased water consumption since about 1995 was interrupted with the reduced landscape irrigation during the extended high rainfall period in the 2004 through 2005 monitoring year and again in the spring of 2006 and 2008. Decrease in water consumption has continued since the winter of 2008 and continues to decrease with above average rainfall.

### **2.3 GROUNDWATER MONITORING**

The groundwater monitoring data collected during this monitoring period are summarized in Appendix A. Groundwater levels fluctuate throughout the year, and from year to year, in response to natural and man-made influences. The primary natural influence is varying precipitation. Man-made influences include:

- Percolation from septic systems;
- Percolation from irrigation;
- Alterations to surface drainage by grading, landscaping, storm drains, and rain gutters;
- Inadvertent water discharges from leaking utilities (water, irrigation, sewer, storm drain) and swimming pools; and
- Dewatering activities including pumping dewatering wells and hydraugers.

Groundwater levels were typically measured in monitoring wells and pneumatic piezometers on a monthly basis. Monitoring data and graphs illustrating groundwater levels recorded in monitoring wells and pneumatic piezometers for the six physiographic regions of the Big Rock Mesa landslide are presented in Appendix A. Contour maps representing annual average groundwater elevations for 2010 through 2011 are shown on Plate 5. Also indicated on Plate 5 are peak groundwater levels for each standpipe location.

Typically, groundwater levels rise relatively quickly following significant rainfall and gradually lower after the wet season ends. Groundwater levels recorded in the Assessment District typically peak around late March to mid April and gradually decline through late September to November.

The groundwater data were analyzed by evaluating changes that occurred during the monitoring period as well as changes in groundwater levels compared to historical averages (1984 through 2011). To analyze trends in seasonal groundwater fluctuations, the average



(mean) annual and highest annual recorded groundwater elevation for each piezometer were calculated (Appendix A) and summarize on the following table:

**Table 1. Summary of Average Groundwater Elevations by Area**

	No. of Wells w/ High* Groundwater	Total No. of Wells	Area Average Groundwater Elevation (ft)	Change vs. Prior (Area Average) (ft)	Average Peak Groundwater Elevation (ft)	Change vs. Prior (Area Average) (ft)
PCH Region	2	8	8.8	+0.4	10.1	+0.5
Bluff Region	1	4	58.0	-9.6	62.5	-5.4
Eastern Mesa	0	4	89.4	-0.1	90.8	-0.9
Central Mesa	2	8	195.8	-2.7	200.4	-4.7
Western Extension	4	4	391.7	-2.2	400.1	-2.9
Headscarp Region	1	1	552.5	+1.4	555.6	+3.4

\*Wells are reported with "High" groundwater when either the Mean or Peak groundwater elevation was greater than one foot higher than the mean of the long-term average elevations (See Appendix A for data).

A summary graph of normalized peak groundwater elevations of each of the six regions in Big Rock Mesa is presented on Plate 6. The graph on Plate 6 shows average annual peak groundwater levels in the 2010 through 2011 monitoring year. Following the above average rainfall from the previous and current monitoring periods, groundwater levels are generally higher than normal.

### 2.3.1 Pacific Coast Highway (PCH) Region

The PCH Region parallels the coastal highway at the base of the bluff, including the area between the bluff and the Pacific Ocean. The PCH Region includes the southern boundary of the 1983 landslide. The Shoreline fault and landslide rupture surface define both a zone of weakness and a groundwater barrier, extending approximately along the same alignment as the highway.

Groundwater in most of the PCH Region was close to or below average levels during the monitoring period. As noted in previous monitoring reports, standpipe SP-30 continues to show rising groundwater levels since the 1998 monitoring year. SP-11 shows significantly higher than normal groundwater levels and will be continued to be monitored.

### 2.3.2 Bluff Region

Along the Bluff Region, where intense ground cracking was observed during the 1983 landslide, the subsurface materials generally have a relatively high secondary permeability due to this level of fracturing.

Groundwater in the Bluff Region was somewhat lower than average during this monitoring period. SP-32 has been increasing since 2002-2003 monitoring period. Groundwater levels at SP-34 are significantly lower due to the installation of FW-2 in February

2010; current groundwater levels are approximately 30 feet below the previous monitoring period and approximately 25 feet below average, and are continuing to lower.

### **2.3.3 Eastern Mesa Region**

The Eastern Mesa Region lies between the Bluff and Big Rock Mesa Drive east of the Piedra Chica cul-de-sac. Groundwater within this area occurs within low permeability deposits of the Sespe Formation. The levels were all lower than average during this monitoring period and were generally decreasing during the monitoring period, except for PC-1, which showed an increase in levels compared to the previous monitoring period, and SP-3, which showed an increase in levels compared to the previous monitoring period but has been generally decreasing since the installation of FW-1 in May 2008.

### **2.3.4 Central Mesa Region**

The Central Mesa Region lies between the Bluff and Big Rock Mesa Drive and to the west of the Piedra Chica cul-de-sac. Groundwater within this area generally occurs within moderately permeable landslide deposits derived from the Topanga Formation. The levels were somewhat higher than long-term average during this monitoring period for SP-16, SP-17, SP-17A, and SP-36. SP-16A has shown a significant decrease in groundwater levels which may be attributed to the installation of FW-2 in February 2010.

### **2.3.5 Western Extension Region**

The Western Extension Region encompasses approximately 79 acres, from PCH on the south to the upper ridgeline on the north, immediately west of the 1983 Big Rock Mesa landslide area. Groundwater levels in this area remained significantly higher than average this monitoring period as they have been since the 2004 through 2005 rains, and slightly increasing from the previous monitoring period. The groundwater level at SP-23 has showed an increasing trend since the 2003 through 2004 monitoring period. Overall, water levels in the Western Extension are still high compared to average historical levels (1984 through 2011).

### **2.3.6 Headscarp Region**

The ground surface elevation in the Headscarp Region is higher than other regions in Big Rock Mesa, and groundwater is relatively deep. The average groundwater elevation in SP-26 is higher than the historical average (1986 through 2011) and is approximately 1.2 feet higher than the previous monitoring period.

## **2.4 DEWATERING WELL PRODUCTION**

The total production rate for all dewatering wells from 1984 through June 2011 is depicted on Plate 4. Dewatering well production rates for individual wells are presented on Plates B-1 through B-4 (Appendix B).

The average total well production rate for the monitoring period was approximately 48,558 gpd. This is approximately 1 percent more than the previous year's monitoring period value of 47,867 gpd, and below historical average production.

## **2.5 HYDRAUGER PRODUCTION**

The total production rate for all hydraugers from 1993 through June 2011 is depicted on Plate 4. Additional data regarding hydraugers and production rates are presented in Appendix C, Plates C-1 through C-4.

The average hydrauger production rate over the monitoring period was approximately 19,743 gpd. This represents a 7.5 percent decrease in production relative to the previous monitoring period. Hydraugers produced below historical average volumes of water throughout the monitoring period. Because hydraugers rely on gravity and water pressure (related to elevating groundwater table) for water production, generally hydraugers produce lower volumes during lower rainfall periods.

## **2.6 SLOPE INCLINOMETERS**

Fugro monitored 18 slope inclinometers on a quarterly basis and 10 additional inclinometers on a semi-annual basis to measure subsurface ground deformation through June 2011.

Slope inclinometer measurement plots are presented in Appendix D. Two slope inclinometer plots are prepared for all inclinometer installations. The first data plot for each slope inclinometer presents readings recorded during the monitoring period. The date of the baseline reading is generally the last reading of the previous monitoring period (May or June 2010) and is indicated on each plot. The second data plot has a baseline reading from May or June 2005 to show historical readings since the movement indicated in the 2004 through 2005 monitoring year.

Interpretation of inclinometer data shows no interpreted measurable ground movement in the 28 inclinometers during the 2010 through 2011 monitoring period with the exception of SP-3A, which showed a change of approximately 0.2 inches at depth of about 42 feet and SP-17, which showed a change of approximately 0.5 inches at a depth of about 135 feet. SP-11 and SP-27A show some change, but the potential movement magnitude and orientation is not clear and is within the reliable accuracy of the instrument.

A brief summary of each region is presented below and is summarized on Plate D-1. It is important to keep in mind the high sensitivity of the inclinometer probes and the magnitude of the interpreted movements when reviewing the inclinometer data presented in this report. Plate D-1 notes the depths at which movement has been interpreted in the past, as well as whether the inclinometer penetrates the basal rupture surface. Shallower depths of interpreted movement above the base of the Big Rock Mesa Landslide have also been noted.



- **PCH Region.** The PCH Region extends along PCH in proximity of the southern boundary of the 1983 landslide. SP-27A shows some change at approximately 26 to 30 feet in depth, though it is within the reliable accuracy of the instrument.
- **Bluff Region.** The Bluff Region extends along the top of the slope immediately to the north of the PCH Region where intense ground cracking was observed during the 1983 landslide. No noticeable changes within the three inclinometers in the Bluff Region were observed.
- **Eastern Mesa Region.** The Eastern Mesa Region extends west to the ends of Inland Lane and Piedra Chica cul-de-sac. This area is bordered to the north by Big Rock Drive and to the south by the Bluff Region. No distinct offsets within the four inclinometers in the Eastern Mesa Region were observed except for SP-3A, which showed movement of about 0.2 inches at a depth of about 40 feet. However, SP-33 was inaccessible during the first half of 2011 due to construction by the homeowner. Repeated attempts to access the site are ongoing.
- **Central Mesa Region.** The Central Mesa Region is located between the Bluff and Big Rock Mesa Drive and to the west of the Piedra Chica cul-de-sac. SP-17 showed movement of about 0.5 inches at a depth of approximately 135 feet. No distinct offsets within the other seven inclinometers in the Central Mesa Region were observed.
- **Western Extension Region.** The Western Extension Area encompasses approximately 79 acres, from PCH on the south to the upper ridgeline on the north, immediately west of the 1983 Big Rock Mesa landslide area. No distinct offsets within the four inclinometers in the Western Extension Region were observed.
- **Headscarp Region.** The Headscarp Region borders the Central Mesa Region to the north. No distinct offsets were observed in this inclinometer. Typically within the Assessment District SP-26, the only inclinometer in this region is first to move and the last to cease movement in response to heavy rainfall. Past movement has occurred along the identified slide plane between 700 and 720 feet elevation and at shallow depths at elevation 26 to 34 feet reflecting a smaller "headscarp" landslide.

### 3.0 WATER QUALITY MONITORING

#### 3.1 REGIONAL BOARD REQUIREMENTS

Water quality monitoring was completed in general compliance with the NPDES permit, as required by the California Regional Water Quality Control Board (RWQCB).

On March 2, 2004, the RWQCB issued a new NPDES permit (CAG994004, CI-6896). On October 3, 2008, Order No. R4-2008-0032 superseded Order No. R4-2003-0111 and provided revised sampling and analysis requirements. Residual chlorine was not sampled until the end of the second quarter 2010, due to a difference in the permit originally issued to the City and the permit kept on file with the RWQCB. A revised permit was issued to the City in October

2010, requiring all sites to be sampled monthly for all constituents, except for Acute Toxicity, which is sampled annually.

Fugro completed quarterly sampling under the revised permit. The data collected and reports submitted are presented in Appendix E.

Water produced by dewatering wells and hydraugers is discharged to one of several storm-drain conveyance lines. Usually, several wells and hydraugers discharge to each storm-drain line. Other sources of water are also collected by the storm-drain system including stormwater runoff (during and following precipitation), irrigation runoff, domestic use surface runoff from car washing and hosing off of driveways, illicit discharges, groundwater seepage, and possibly other unidentified sources.

Prior to 2004, samples were collected from storm drains outlets. In November 2004, sampling locations were changed prior to fourth quarter collection of the 2004 monitoring year because the samples collected from storm drains represent discharge from uncontrolled sources in addition to dewatering discharge. The samples are currently collected directly from the dewatering system discharge lines (wells and hydraugers). This change in sampling methodology should be noted when comparing recent water quality data to data collected before the 2004 through 2005 monitoring period.

### **3.2 WATER-QUALITY RESULTS**

Results of water quality sampling and analyses are presented in Appendix E. Water quality monitoring, conducted in general conformance with the requirements of the RWQCB NPDES Permit, indicate that discharges from the dewatering wells and hydraugers generally meet discharge requirements; however, they have been periodically out of compliance for pH, residual chlorine, acute toxicity and settleable solids.

## **4.0 CAPITAL IMPROVEMENTS**

### **4.1 DEWATERING WELLS**

No dewatering wells were installed during the monitoring period. No hydraugers were installed during the monitoring period.

Improvements were made to hydraugers in the Western Extension (HD-5, HD-6, and HD-23), which included removing surficial slide debris, reconnecting HD-23 (damaged during the monitoring period), and building a wall to prevent further damages to hydraugers from surficial slide debris occurring during the rainy season. Also, a connection was made to SP-26 to improve access for inclinometer monitoring due to grading and site improvements at the homeowners' property. This new configuration also protects the inclinometer.



## 5.0 FACILITY MAINTENANCE

### 5.1 FACILITY MAINTENANCE

The operating status of each dewatering well and hydrauger was checked monthly. When necessary, repair work was scheduled and undertaken as expeditiously as reasonable - typically within a matter of a few hours to a few days of identifying a problem. Generally, repairs and maintenance consisted of well pump and electrical repairs. These repairs are summarized on the following table:

**Table 2. Maintenance Activities**

Date	Facility	Work Performed
August 19, 2010	DWW	Routine well vault maintenance
September 15, 2010	DWW	Routine well vault maintenance
October 10, 2010	Hydraugers	Hydrauger maintenance (dig out buried hydraugers)
December 31, 2010	BYA-14	New pump, motor, control box, pipe, pumpsaver
January 5, 2011	Hydraugers	Repairs to outlet for HD-23, HD-5, HD-6; Reapirs to HD-9
January 10, 2011	HD-11	Repair leak at HD-11
January 19, 2011	DWW	W-1: new pump BYA-1: new pump W-8: recalibrate pumpsaver BYA-4: new control box BYA-5: new water meter
January 20, 2011	HD-43	Repairs, lift conveyance line at HD-43
January 26-28, 2011	Hydraugers	Construction of protective wall at HD-5, HD-6, HD-23
February 1 and 3, 2011	Hydraugers	Construction of protective wall at HD-5, HD-6, HD-23
February 15-16, 2011	DWW	Routine well vault maintenance
February 17, 2011	Hydraugers	Construction of protective wall at HD-5, HD-6, HD-23
February 28, 2011	Hydraugers	Construction of protective wall at HD-5, HD-6, HD-23
February 28, 2011	DWW	BYA-13: new pump, motor, control box, pipe W-13: new pumpsaver installed
March 1-2, 2011	W-2	Repairs to broken conveyance line below street level on Inland Lane; repair line, utility box installed above repair, patch A/C
March 3, 2011	Hydraugers	Construction of protective wall at HD-5, HD-6, HD-23
March 25, 2011	SP-26	Repairs to cover - 3' extension
March 30-31, 2011 April 1 and 6, 2011	SP-26	Repairs to cover - 3' extension
April 4, 2011	Hydraugers	Repairs to HD-42, HD-34, HD-33 due to small failure
April 5, 2011	DWW	Routine well vault maintenance
April 8, 13, 14, 22, 28, 2011	HD-9	Repairs to hydrauger damaged by falling rocks

## 6.0 SUMMARY AND CONCLUSIONS

### 6.1 ANNUAL SUMMARY

- Groundwater levels in the Big Rock Mesa landslide are the primary factor controlling the stability of the landslide mass. Rises in groundwater levels tend to destabilize the landslide. Previous episodes of movement of the landslide have been directly related to high groundwater levels. Therefore, controlling the long-term average and peak groundwater levels in the landslide mass is the primary means available to reduce future movements of the landslide. The primary factors influencing recharge of groundwater to the landslide are: 1) Septic discharge, 2) Rainfall, 3) Irrigation, and 4) Water-line and pool leakage.
- Monitoring data related to rainfall and imported water usage indicate the following:
  - Recorded rainfall of 24.16 inches in the rainy season of the monitoring period was above the historical average rainfall from 1969 through 2011 for the Malibu area.
  - Use of imported water decreased approximately 3.3 percent from the previous monitoring year and 30 percent above the average usage in 1984.
- Groundwater levels in 29 monitoring wells were measured regularly during the monitoring period. Significantly high groundwater levels were recorded in 11 of the 29 piezometers.
- The overall dewatering rate for the dewatering wells and hydraugers was approximately 68,301 gpd for this monitoring period, which is approximately 3 percent below last year's average and below the average production rate since 2004.
- Interpretation of inclinometer data show no measurable ground movement in the 28 inclinometers throughout Big Rock Mesa during the 2010 through 2011 monitoring year, with the exception of SP-3A and SP-17, which show changes of 0.2 inches and 0.5 inches, respectively. SP-11 and SP-27A show some change which is less than the reliable accuracy of the instrument.
- Water quality monitoring, conducted in general conformance with the requirements of the RWQCB NPDES Permit, indicate that discharges from the dewatering wells and hydraugers were generally in compliance with discharge permit limits.
- Routine maintenance was conducted throughout the year on the dewatering wells and hydraugers. Ongoing maintenance and repair work is essential to maintaining the capacity of the dewatering system. No unusual maintenance issues were encountered.

### 6.2 CONCLUDING COMMENTS

It is important to recognize that the dewatering facilities installed over the preceding decades are aging and require increasing maintenance and regular replacement. The anticipated lifespan of an average hydrauger is measured in years, not decades. Dewatering



wells may last from a few years to several decades. In order to maintain peak efficiency of the horizontal drains and wells, cleaning and re-development of the dewatering system should be conducted on a regular basis.

Water conservation throughout the Big Rock Mesa area is essential to reduce groundwater recharge. As previously stated, rainfall and imported (household) water usage are the primary sources of groundwater recharge and, therefore, the primary factors controlling the movement of the landslide. Because seasonal rainfall is beyond the control of homeowners and the City, water conservation is the most critical remaining means of controlling groundwater recharge on the Mesa.

The geology throughout the Assessment District is not uniform and can change from one location to another. Areas of low permeability, such as in the Eastern Mesa Region, can limit the dewatering production of individual facilities.

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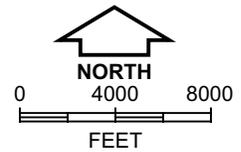
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## PLATES



BASE MAP SOURCE: USGS 1:100,000-scale Metric Topographic Map of Los Angeles, California (1979).



**SITE LOCATION MAP**  
Big Rock Mesa Landslide Assessment District  
Malibu, California

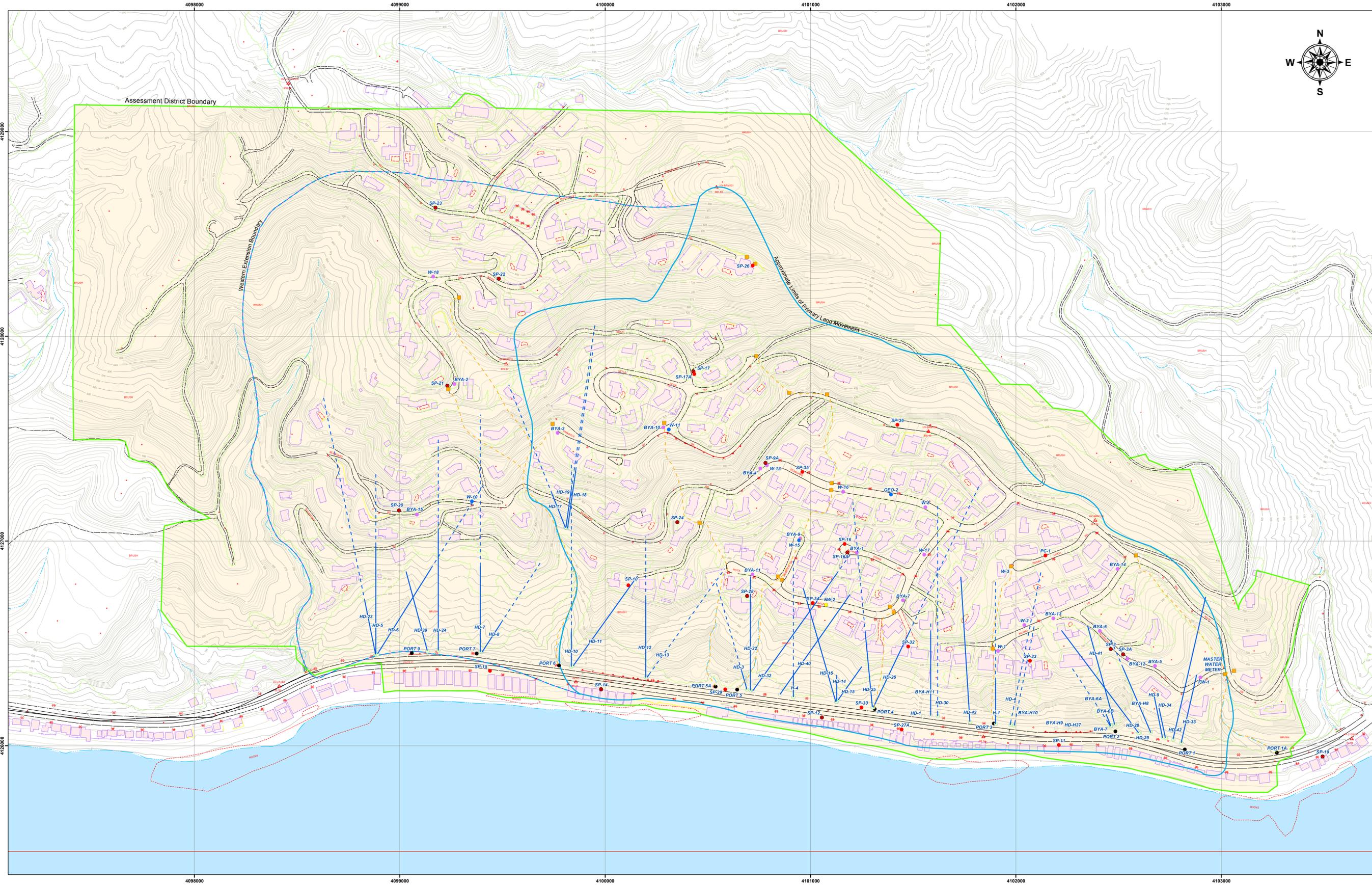
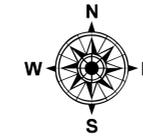
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**BIG ROCK MESA LANDSLIDE  
ASSESSMENT DISTRICT  
MALIBU, CALIFORNIA**

**ASSESSMENT DISTRICT MAP**

April 2011

**FUGRO CONSULTANTS, INC.**  
4820 McGrath St., Suite 100, Ventura, California 93003  
Tel: (805) 650-7000, Fax: (805) 650-7010



**LEGEND**

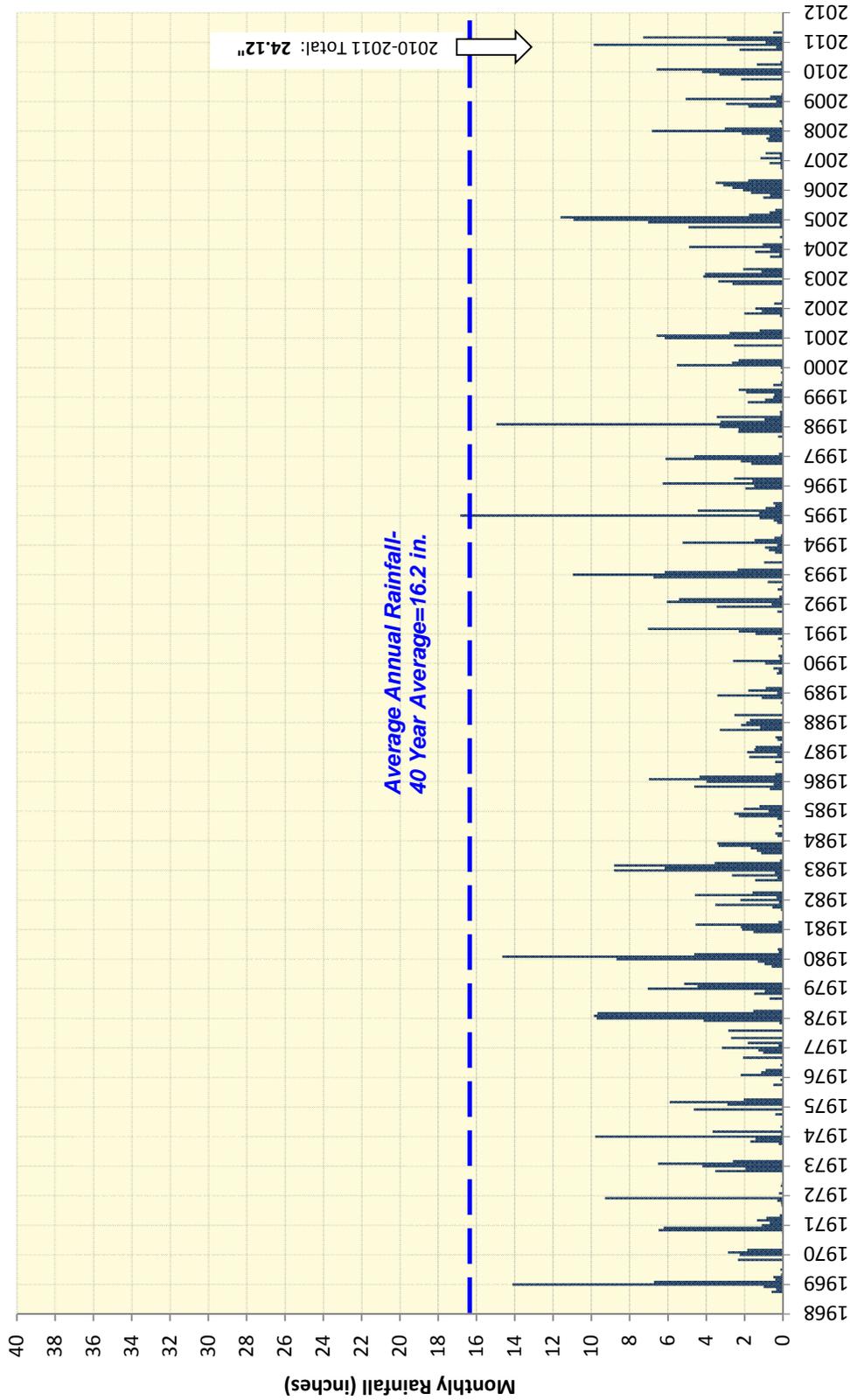
- Active Dewatering Well
- GPS Monument
- Destroyed Hydrauger
- Nonproducing Hydrauger
- Producing Hydrauger
- Slope Inclinometer  
Does penetrate rupture surface.
- Slope Inclinometer  
Does not penetrate rupture surface.
- Standpipe
- Storm Drain Outfall
- Storm Drain Catch Basin
- +
- Coordinate Grid: California State Plane,  
Zone 7, NAD 27, Feet
- Big Rock Mesa Landslide District Boundary
- - - Storm Drain
- Hydrauger

**HORIZONTAL SCALE: 1:2,400**

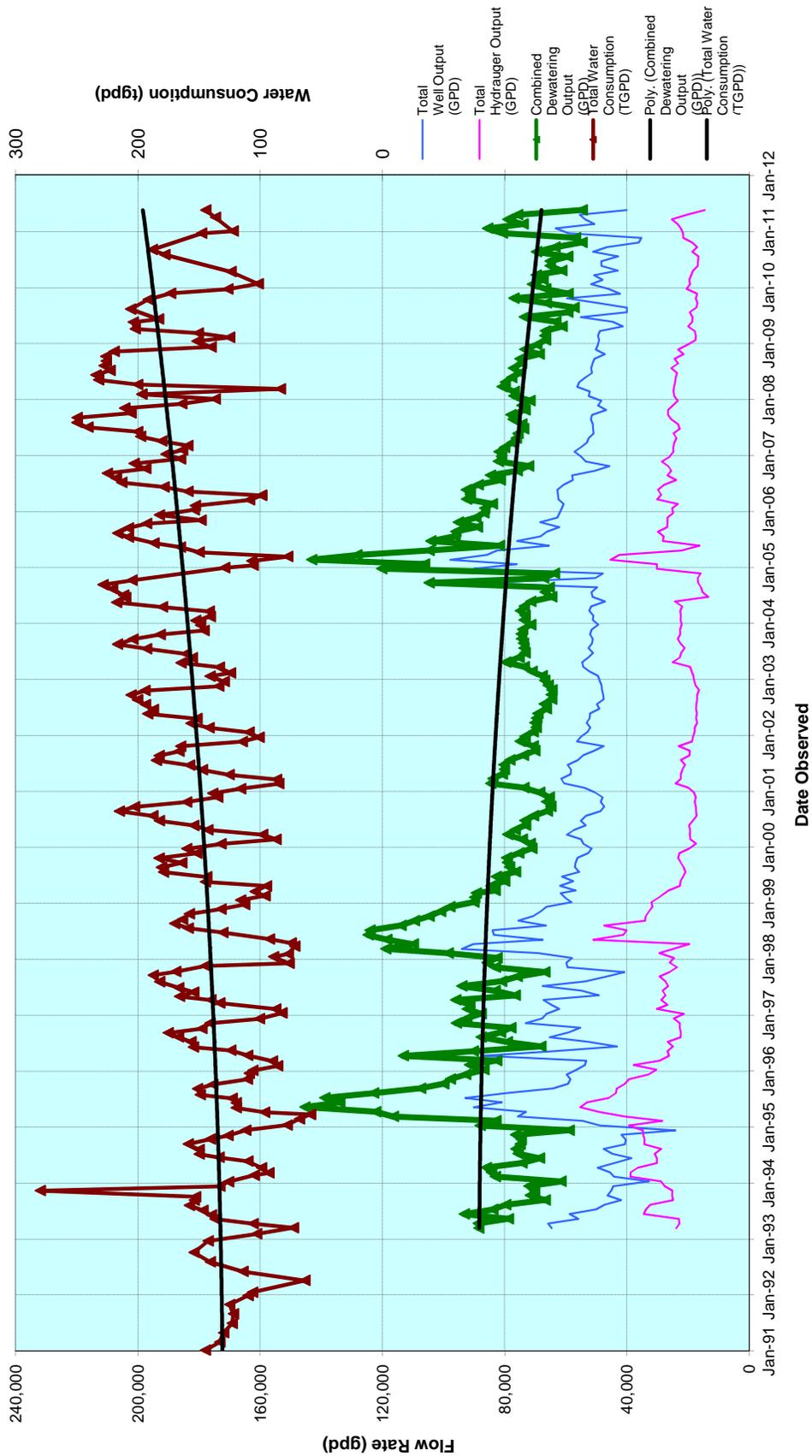


REVISIONS							
No.	DATE	DESCRIPTION	BY	No.	DATE	DESCRIPTION	BY
1	08/11/04	GPS Field Results	KRS	4	04/22/11	Update Wells	CBD
2	08/18/04	GPS Field Results	KRS				
3	09/19/06	Hydraugers	CAB				

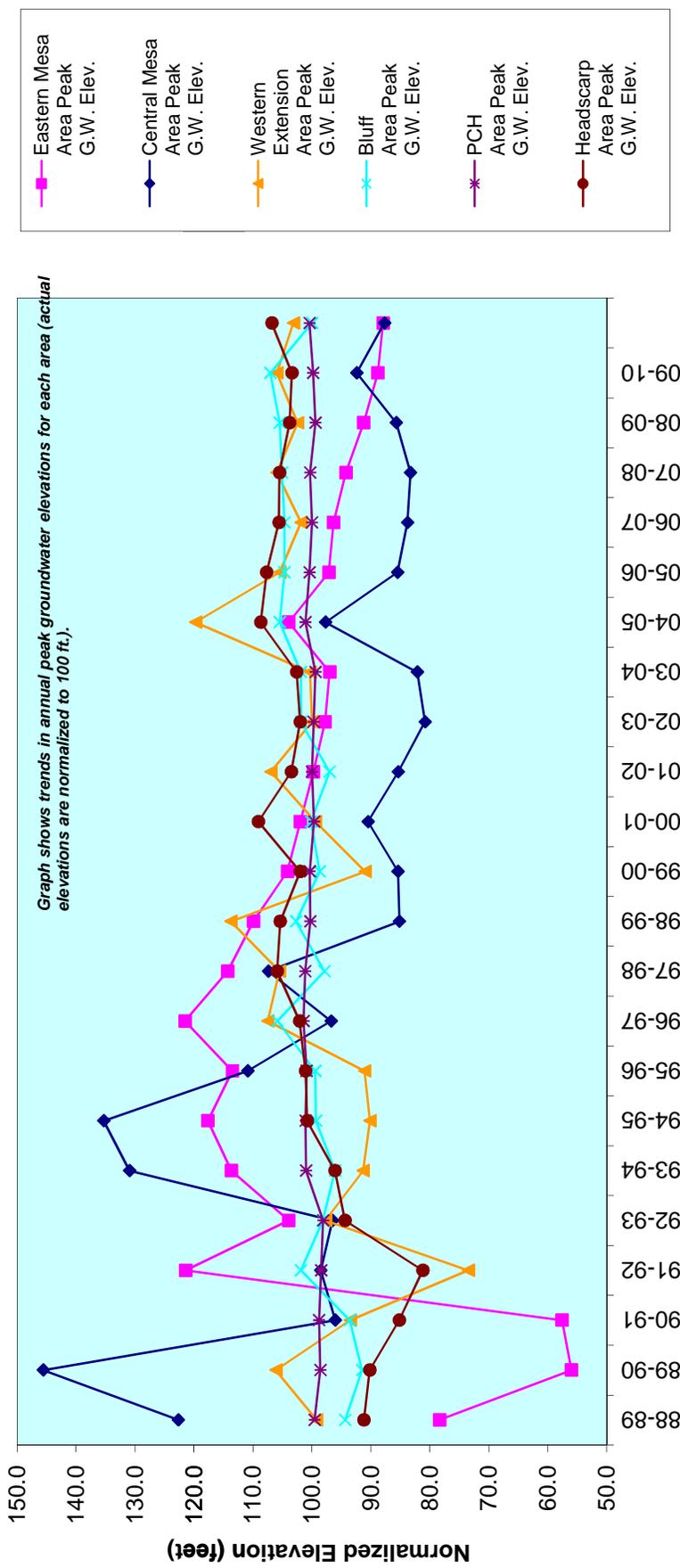
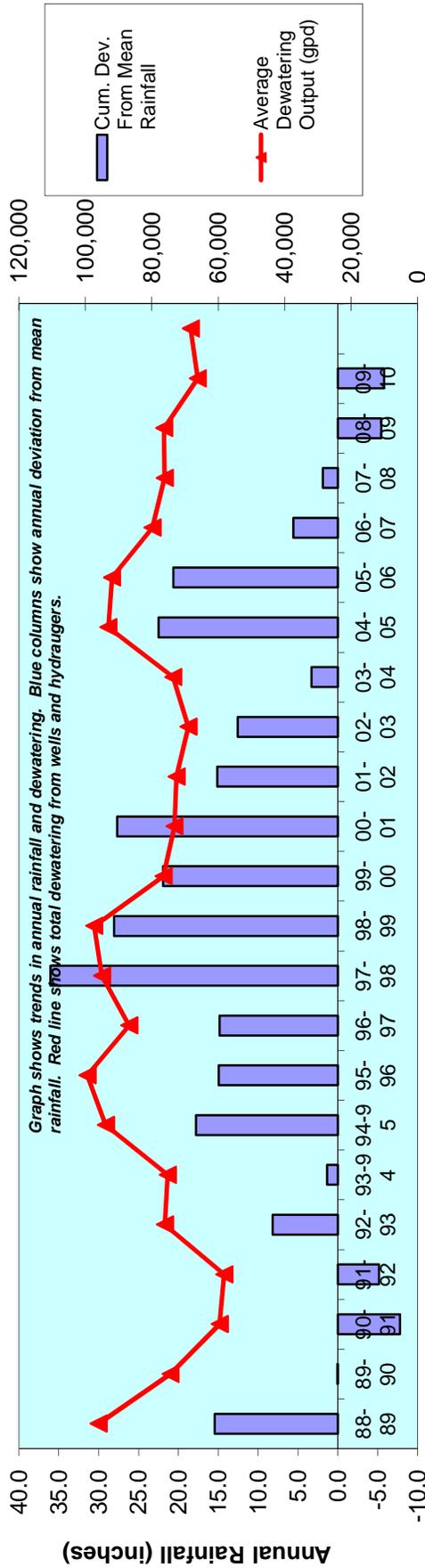
DATE: 04/22/2011	WORK ORDER: 04.B33990006	PLATE NO.:
DRAWN BY: CBD	CHECKED BY: AS	APPROVED BY: SM
		<b>2</b>



MALIBU AREA - Monthly & Annual Rainfall  
L.A. County Stations (447C - Carbon Canyon: Oct '68 - Sept '03 & 1239 - Big Rock Mesa: Oct '03 - present)



**Total Dewatering Rate vs. Total Water Consumption**  
 All Wells  
 All Hydraulgers  
 Wells & Hydraulgers (Combined)  
 Total Water Consumption



Summary of Groundwater Levels  
 Total Dewatering, & Rainfall



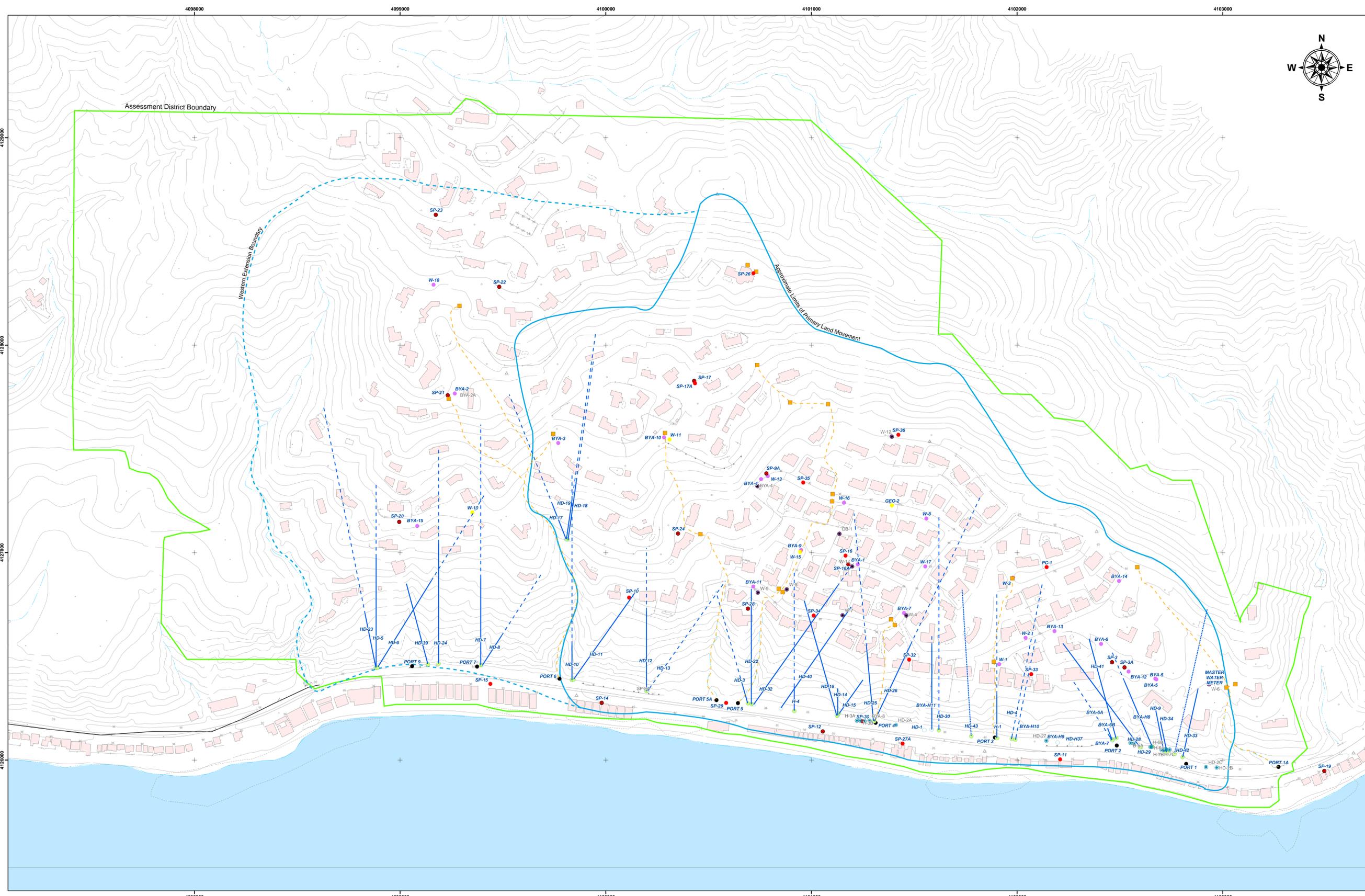
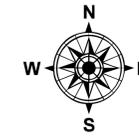
**BIG ROCK MESA LANDSLIDE  
ASSESSMENT DISTRICT  
MALIBU, CALIFORNIA**

**ASSESSMENT DISTRICT MAP**

February 2007

Plate 7

**FUGRO WEST, INC.**  
4820 McGrath St., Suite 100, Ventura, California 93003  
Tel: (805) 650-7000, Fax: (805) 650-7010



**LEGEND**

**Current Facilities**

- Active Dewatering Well
- Slope Inclometer  
Does not penetrate rupture surface.
- Slope Inclometer  
Does penetrate rupture surface.
- Standpipe
- GPS Monument
- Producing Hydrauger
- Nonproducing Hydrauger
- Storm Drain Outfall
- Destroyed Hydrauger
- Storm Drain Catch Basin
- +

Coordinate Grid: California State Plane, Zone 7, NAD 27, Feet

— Big Rock Mesa Landslide District Boundary

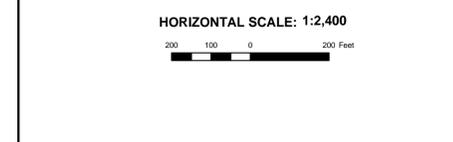
- - - Storm Drain

— Hydrauger

— Building

**Inactive Facilities**

- Dewatering Well
- Slope Inclometer  
Does not penetrate rupture surface.
- Slope Inclometer  
Does penetrate rupture surface.
- Standpipe
- GPS Monument
- Producing Hydrauger
- Nonproducing Hydrauger
- Storm Drain Outfall
- Destroyed Hydrauger
- Storm Drain Catch Basin



REVISIONS			
No.	DATE	DESCRIPTION	BY
1	08/11/04	GPS Field Results	KRS
2	08/18/04	GPS Field Results	KRS
3	09/19/06	Hydraugers	CAB

DATE: 8/14/2007	WORK ORDER: 3399.006	PLATE NO.: 7
DRAWN BY: CBD	CHECKED BY: AS	APPROVED BY: SM

**APPENDIX A**  
**GROUNDWATER LEVEL DATA**



**Big Rock Mesa: Piezometer Information**

Piezometer ID	Surface Elev. (ft)	Tip No.	TIP DEPTH (ft.)	INSTALL BY	STATUS
W-10	432	230	230	BYA	Functioning
W-11	507	214	214	BYA	Functioning
W-15	295	164	164	BYA	Functioning
PC-1	250	TIP-1 TIP-2 TIP-3 TIP-4 TIP-5	120 90 70 40 20	BYA	Functioning Functioning Functioning Functioning Malfunctioning
SP-5A	NA	TIP-1 TIP-2 TIP-3	NA	BYA	Non-functioning - Covered by asphalt pavement
SP-8A	NA	TIP-1 TIP-2 TIP-3	NA	BYA	Non-functioning - Covered by landslide
SP-17A	540	TIP-1 TIP-2 TIP-3 TIP-4 TIP-5	Unknown Unknown Unknown Unknown Unknown	BYA	Functioning, results questionable, data not presented
SP-34	270	TIP-1 TIP-2 TIP-3 TIP-4	381 282 182 82	BYA	Functioning
SP-35	345	TIP-1 TIP-2 TIP-3 TIP-4	393 293 193 98	BYA	Functioning Functioning Functioning Malfunctioning
SP-36	380	TIP-1 TIP-2 TIP-3	255 195 95	BYA	Functioning
BYA-2A	665	TIP-1 TIP-2 TIP-3	Unknown Unknown Unknown	BYA	Functioning
BYA-3A	NA	TIP-1 TIP-2 TIP-3 TIP-4	NA	BYA	Malfunctioning
BYA-4A	NA	TIP-1 TIP-2 TIP-3 TIP-4 TIP-5 TIP-6	NA	BYA	Malfunctioning
BYA-5A	NA	TIP-1 TIP-2 TIP-3 TIP-4	NA	BYA	Malfunctioning Malfunctioning Malfunctioning Functioning
GEO-2 (OB-2)	305	TIP-1 TIP-2 TIP-3	NA	GS	Malfunctioning Functioning (Black Tip) Functioning (Clear Tip)
GEO-1	NA	TIP-1 TIP-2 TIP-3	NA	GS	Restricted Access (possibly malfunctioning)

NOTE: ADDITIONAL DATA FOR STANDPIPE PIEZOMETERS IS PRESENTED IN APPENDIX D, PLATE D-1



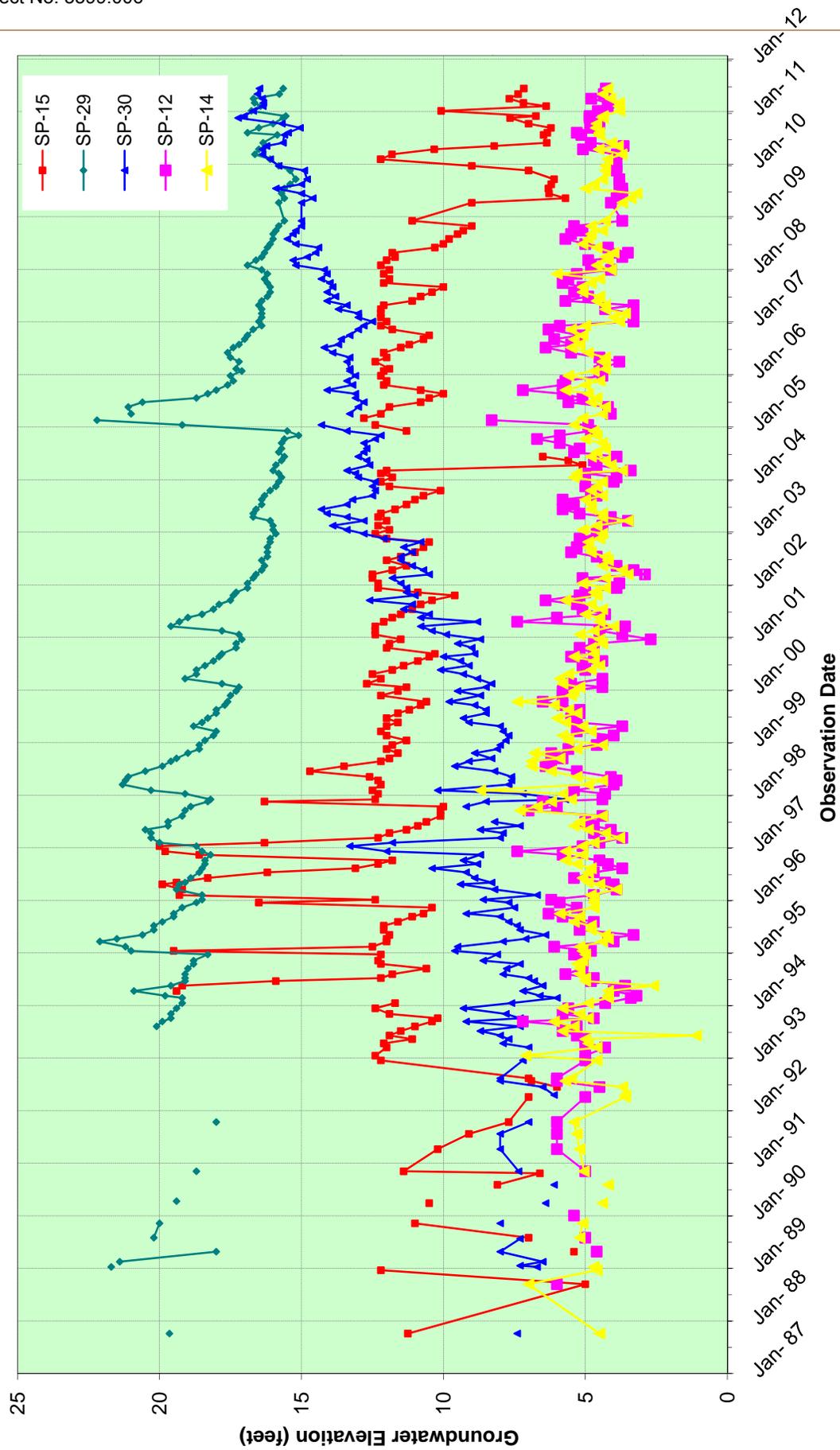
**GROUNDWATER ELEVATION DATA ANALYSIS**

Piezometer I.D.	1983-84	1984-85	1985-86	1986-87	1987-88	1988-89	1989-90	1990-91	1991-92	1992-93	1993-94	1994-95	1995-96	1996-97	1997-98	1998-99	1999-00	2000-01	2001-02	2002-03	2003-04	2004-05	2005-06	2006-07	2007-08	2008-2009	2009-2010	2010-2011	Highest Recorded	Mean '91-'11	Stand Dev.	10-11 vs 97-98	10-11 vs 09-10	10-11 vs mean	
<b>PCH REGION</b>																																			
SP-11	Mean El.					5.7	5.3	4.7	4.5	5.7	5.7	5.5	5.8	5.5	5.8	6.3	5.5	4.8	5.4	5.4	5.2	5.3	5.1	5.4	4.9	4.6	5.1	8.4	Feb-11	5.5	0.8	2.6	3.3	2.9	
	Highest El.					6.4	5.8	5.5	5.0	6.0	7.4	6.9	7.5	6.7	7.3	8.1	6.5	5.5	8.3	7.0	5.7	5.8	5.9	7.6	5.9	5.2	5.6	11.8	11.8	6.8	1.5	4.5	6.2	5.0	
SP-12	Mean El.					4.6	5.4	5.5	5.4	5.2	4.8	4.9	5.1	4.8	5.0	5.3	5.3	4.7	4.5	4.8	4.6	5.5	5.2	4.9	4.8	4.7	4.0	4.7	Feb-05	4.9	0.4	-0.4	0.6	-0.3	
	Highest El.					4.6	5.4	6.0	6.0	6.0	7.2	6.1	6.3	7.4	7.0	6.4	6.5	7.4	6.4	6.4	6.4	8.3	7.2	6.4	5.8	5.7	5.1	5.3	8.30	6.5	0.8	-1.7	0.2	-1.2	
SP-14	Mean El.				4.5	4.7	4.4	4.8	4.3	4.8	4.9	4.9	4.9	5.0	5.9	5.8	5.6	4.7	4.5	4.6	4.6	4.7	4.8	4.7	4.7	4.3	4.3	4.3	Feb-98	4.8	0.5	-1.6	-0.1	-0.5	
	Highest El.				4.5	4.7	4.4	5.2	5.4	7.1	6.1	5.3	5.9	5.7	8.7	6.9	7.4	5.4	5.7	5.1	5.4	5.4	5.7	5.5	6.0	5.1	5.0	4.6	8.7	5.9	1.0	-4.1	-0.4	-1.2	
SP-15	Mean El.				11.3	8.8	10.5	9.1	7.5	10.7	13.4	12.6	15.1	14.5	12.2	12.0	11.7	11.6	11.5	11.7	10.0	11.9	11.6	11.6	11.4	8.9	8.4	7.2	Jan-97	11.3	2.1	-5.0	-1.2	-4.1	
	Highest El.				11.3	12.2	10.5	11.4	9.1	12.4	19.4	19.5	19.9	20.0	16.3	13.5	12.7	12.4	12.5	12.4	12.2	12.8	12.4	12.2	12.2	11.1	12.2	10.1	20.0	13.8	3.3	-6.2	-2.1	-3.7	
SP-19	Mean El.					3.6	3.6	3.1	4.5	4.4	4.7	4.6	4.3	4.4	4.5	3.8	3.4	3.7	3.5	3.4	3.9	3.6	3.6	3.5	3.1	3.6	3.7	Mar-95	3.9	0.5	-0.7	0.0	-0.2		
	Highest El.					4.1	4.0	3.4	5.0	5.0	5.9	5.4	4.9	5.2	4.0	4.5	3.9	4.3	4.1	4.0	4.2	4.5	4.4	4.1	3.6	4.6	4.0	5.9	4.5	0.6	-1.2	-0.6	-0.5		
SP-27A	Mean El.				7.1	9.1	8.8	8.7	9.3	9.4	9.7	9.5	9.5	9.7	9.6	10.1	9.2	9.0	9.5	9.3	10.2	9.7	9.5	10.0	9.5	10.0	10.0	Ap-00/Fe-08	9.6	0.4	0.3	0.0	0.4		
	Highest El.				7.1	10.1	9.2	10.2	10.0	10.2	10.8	10.3	10.4	10.7	10.4	13.7	9.6	9.7	9.9	9.8	13.5	12.5	10.2	13.7	10.1	10.6	10.5	13.7	10.8	1.3	-0.3	-0.2	-0.4		
SP-29	Mean El.				19.7	20.4	19.4	18.7	18.0	19.7	20.0	19.2	19.2	19.7	18.8	18.0	18.1	17.0	16.2	16.0	18.0	17.7	16.7	16.3	15.8	15.9	16.2	Feb-05	17.7	1.4	-3.5	0.3	-1.5		
	Highest El.				19.7	21.7	19.4	18.7	18.0	20.9	22.1	20.2	20.5	21.3	19.9	19.1	19.6	18.1	16.7	16.4	22.2	18.7	17.4	16.9	16.1	16.6	16.9	22.2	18.8	2.0	-4.4	0.3	-1.9		
SP-30	Mean El.				7.4	7.1	6.4	7.2	6.9	7.7	7.3	7.9	8.1	9.6	8.0	8.5	9.0	9.7	11.3	12.6	12.9	13.0	13.4	13.4	14.4	15.1	15.7	16.2	Nov-10	11.0	3.1	8.2	0.5	5.2	
	Highest El.				7.4	8.0	6.4	8.0	8.0	8.0	9.3	9.6	9.4	13.3	10.2	9.6	10.1	10.8	12.6	14.3	13.4	14.3	14.1	14.2	15.3	15.5	16.4	17.2	17.2	12.3	2.9	7.0	0.8	4.9	
Area Average	Mean El.				10.7	8.3	8.0	7.8	7.3	6.8	8.7	8.8	9.1	9.1	8.8	8.8	8.6	8.3	8.4	8.5	8.2	9.1	8.9	8.7	8.7	8.2	8.4	8.8		8.5	0.6	0.0	0.4	0.3	
	Highest El.				10.7	9.2	8.3	8.5	8.1	7.8	10.7	10.8	10.6	11.1	10.8	10.0	10.1	9.3	9.7	9.5	9.2	10.8	10.1	9.7	10.0	9.1	9.5	10.1		9.8	0.9	-0.8	0.5	0.2	
Change vs Prior	Mean El.				-2.4	-0.3	-0.2	-0.5	-0.4	1.8	0.1	0.3	0.0	-0.2	0.0	-0.2	-0.3	0.1	0.2	-0.3	0.8	-0.2	-0.2	0.0	-0.5	0.2	0.4								
	Highest El.				-1.5	-1.0	0.2	-0.4	-0.4	2.9	0.1	-0.2	0.5	-0.3	-0.9	0.1	-0.7	0.4	-0.2	-0.3	1.7	-0.7	-0.4	0.3	-0.9	0.5	0.5								
<b>BLUFF REGION</b>																																			
SP-10	Mean El.	144.7	76.0	50.0	50.5	49.2	47.4	45.9	48.8	55.3	44.6	42.9	41.6	42.0	41.6	41.3	42.4	42.8	42.9	43.3	43.7	44.3	45.5	45.2	45.2	44.8	43.7	44.0	43.9	Dec-83	44.0	2.9	2.6	0.0	-0.1
	Highest El.	174.2	130.0	50.0	50.5	50.0	52.0	46.0	55.5	74.0	45.9	44.4	42.2	42.6	41.9	41.6	44.8	43.4	43.3	43.6	44.1	44.4	47.2	45.4	45.4	45.2	44.9	44.6	46.0	174.2	45.7	6.8	4.4	1.4	0.3
SP-28	Mean El.					36.4	33.7	37.5	33.7	33.6	33.7	33.0	32.7	32.2	31.9	32.6	33.2	33.1	33.0	32.9	32.9	34.9	34.7	33.3	33.1	32.8	33.1	32.8	Sep-88	33.2	0.7	0.9	-0.3	-0.4	
	Highest El.					40.5	33.8	40.0	36.0	35.2	35.2	33.1	33.1	32.4	32.2	34.9	33.6	33.2	33.3	33.0	32.9	36.1	36.0	33.6	33.1	33.1	33.4	33.8	40.5	33.9	1.2	1.6	0.4	-0.1	
SP-32	Mean El.					75.3	79.1	72.6	76.1	90.1	85.9	92.5	92.5	94.9	76.5	84.2	79.7	88.2	70.1	89.9	91.1	99.9	100.2	102.3	102.4	104.4	105.1	102.3	Apr-96	91.4	10.3	25.7	-2.8	10.9	
	Highest El.					78.2	82.3	72.8	83.2	101.0	96.2	110.2	110.2	130.9	107.4	95.3	88.4	97.0	83.6	106.0	105.8	106.7	105.9	105.9	105.8	105.8	105.8	105.9	130.9	102.8	10.5	-1.5	0.1	3.0	
SP-34	Mean El.															74.4	77.6	76.2	76.4	73.5	73.8	80.0	79.7	82.8	84.5	86.0	88.6	53.2	Nov-09	77.4	8.7	53.2	-35.4	-24.3	
	Highest El.															85.9	79.5	77.3	77.7	74.4	74.5	82.1	81.4	83.8	86.1	88.0	94.5	64.5	94.5	80.7	7.5	64.5	-30.0	-16.2	
Area Average	Mean El.	144.7	76.0	50.0	50.5	49.2	53.0	52.9	53.0	55.0	56.1	54.2	55.7	55.7	56.2	49.9	58.4	58.3	60.1	55.7	60.0	60.5	65.1	64.9	65.9	66.2	66.7	67.7	58.0		59.5	5.0	8.1	-9.6	-1.5
	Highest El.	174.2	130.0	50.0	50.5	50.0	56.9	54.0	56.1	64.4	60.7	58.6	61.8	62.0	68.4	60.4	65.2	61.2	62.7	59.6	64.4	64.4	68.0	67.2	67.2	67.6	68.0	69.6	62.5		64.2	3.3	2.1	-7.0	-1.6
Change vs Prior	Mean El.		-68.7	-26.0	0.5	-1.3	3.8	-0.2	0.1	2.0	1.1	-1.9	1.5	0.1	0.5	-6.3	8.5	-0.1	1.8	-4.4	4.3	0.5	4.6	-0.1	0.9	0.3	0.5	0.9	-9.6						
	Highest El.		-44.2	-80.0	0.5	-0.5	6.9	-2.9	2.1	8.3	-3.7	-2.1	3.2	0.1	6.4	-8.0	4.8	-4.0	1.5	-3.2	4.8	0.0	3.6	-0.8	0.0	0.4	0.4	1.6	-7.0						
<b>HEADSCARP REGION</b>																																			
SP-26	Mean El.				541.9	540.2	538.9	535.8	532.4	527.0	532.6	543.6	543.3	547.8	547.1	549.9	551.9	549.8	550.7	550.6	549.1	550.7	553.1	554.7	553.8	552.9	551.4	551.2	552.5	Apr-01	548.2	7.0	2.7	1.4	4.3
	Highest El.				542.0	540.2	540.0	539.0	534.0	530.0	543.2	544.9	549.6	549.9	550.9	554.7	554.2	550.8	557.9	552.3	550.8	551.4	557.5	556.5	554.4	554.3	552.6	552.2	555.6	557.9	551.2	6.2	0.9	3.4	4.5
Change vs Prior	Mean El.		0.0	0.0	541.9	-1.6	-1.4	-3.1	-3.3	-5.4	5.6	11.0	-0.3	4.4	-0.7	2.8	2.1	-2.1	0.9	-0.1	-1.5	1.6	2.5	1.5	-0.9	-0.9	-1.5	-0.2	1.4						
	Highest El.		0.0	0.0	542.0	-1.8	-0.2	-1.0	-5.0	-4.0	13.2	1.7	4.7	0.3	1.0	3.8	-0.5	-3.4	7.1	-5.6	-1.5	0.6	6.1	-1.0	-2.1	-0.1	-1.7	-0.4	3.4						

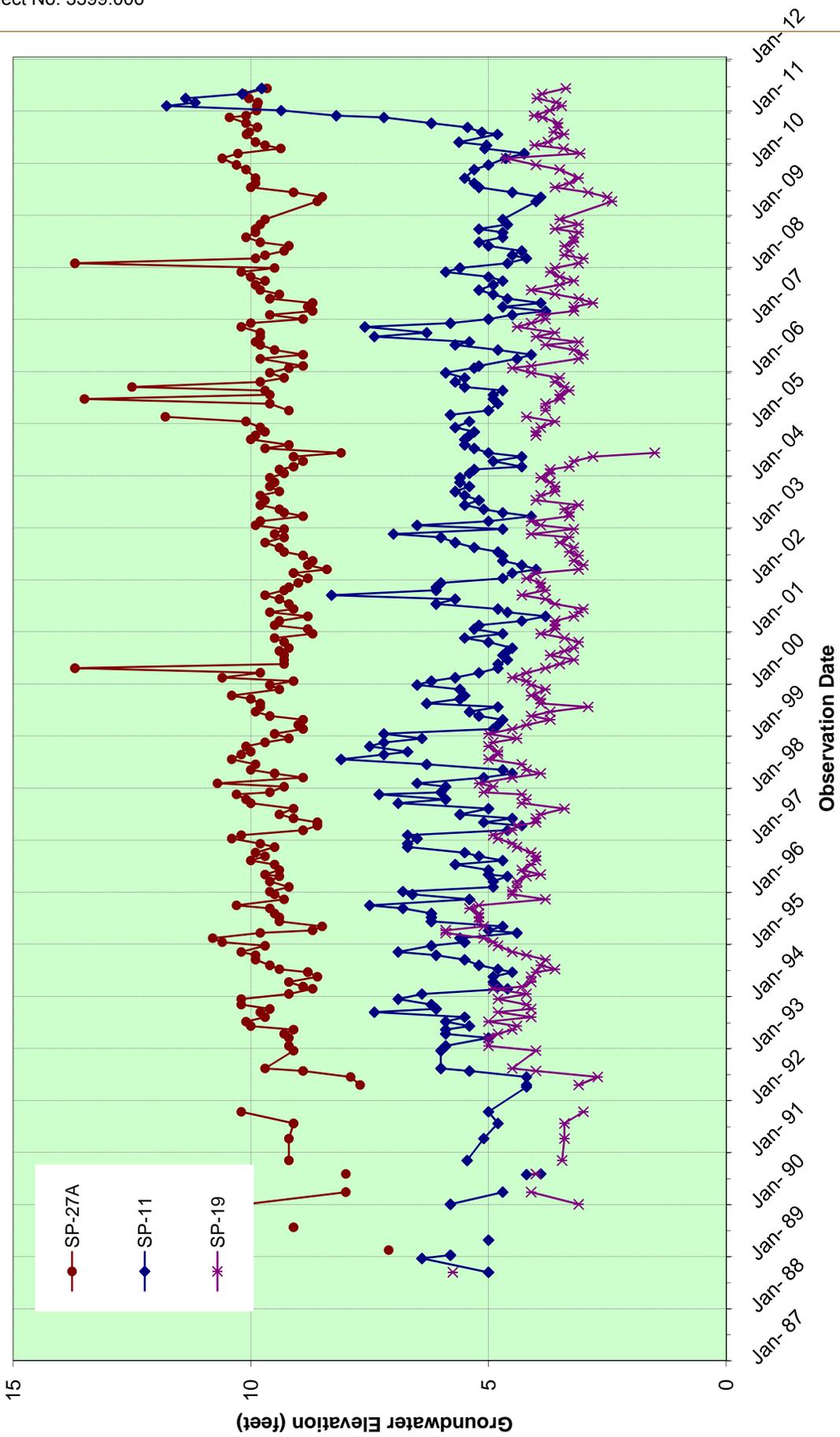


**GROUNDWATER ELEVATION DATA ANALYSIS**

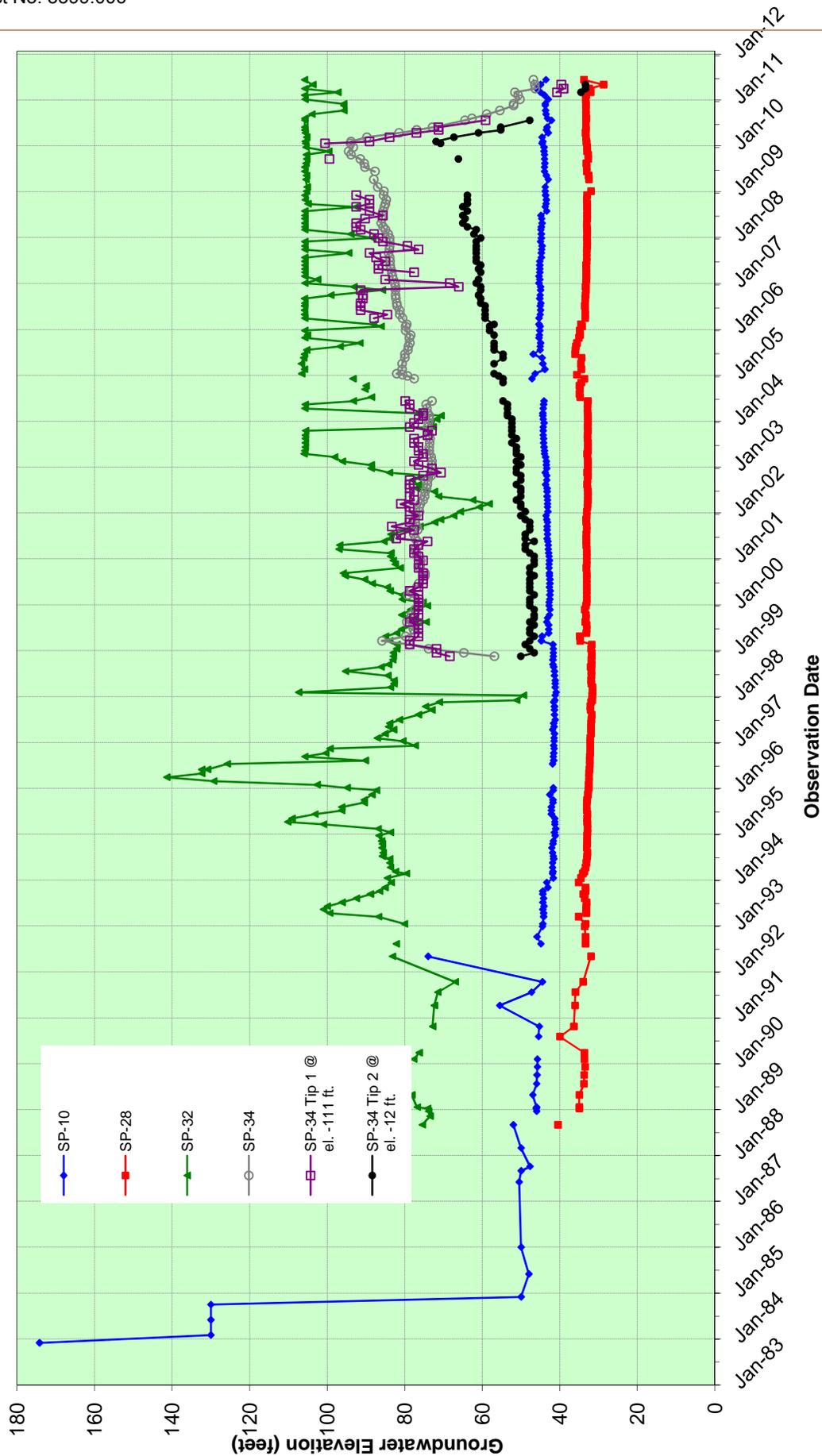
Piezometer I.D.	1983-84	1984-85	1985-86	1986-87	1987-88	1988-89	1989-90	1990-91	1991-92	1992-93	1993-94	1994-95	1995-96	1996-97	1997-98	1998-99	1999-00	2000-01	2001-02	2002-03	2003-04	2004-05	2005-06	2006-07	2007-08	2008-2009	2009-2010	2010-2011	Highest Recorded	Mean '91-'11	Stand Dev.	10-11 vs 97-98	10-11 vs 09-10	10-11 vs mean			
<b>CENTRAL MESA</b>																																					
SP-9A	Mean El.	254.7	232.0	232.0	227.5	236.3	222.2	220.0	233.3	215.1	221.9	226.8	220.8	222.0	222.0	224.6	226.8	226.4	228.0	229.3	229.5	230.0	229.7	229.9	228.3	227.5	227.1	227.7	226.6	Dec-83	226.0	3.8	2.0	-1.2	0.6		
	Highest El.	270.0	232.0	232.0	232.0	236.3	224.0	222.2	235.2	222.9	228.5	228.5	225.5	223.8	223.7	231.1	229.0	226.9	231.0	230.6	232.3	231.5	232.5	231.9	229.7	229.7	228.4	229.2	227.5	270.0	228.7	2.9	-3.6	-1.7	-1.2		
SP-16	Mean El.	226.5	195.4	174.3	171.9	171.5	161.8	113.0	86.5	95.7				68.2	47.9	48.0	46.5	48.4	53.1	47.9	46.0	46.6	87.0	51.6	50.1	50.1	53.7	107.8	117.4	Mar-84	62.7	23.7	69.5	9.6	54.7		
	Highest El.	226.5	214.7	180.3	174.2	177.1	182.5	147.8	89.5	121.0				117.8	61.3	66.5	53.5	78.7	89.7	64.4	46.6	49.2	124.0	57.7	50.9	61.8	79.4	121.3	121.1	226.5	80.3	29.3	54.6	-0.2	40.8		
SP-16A	Mean El.				181.2	153.3	122.0	108.4	108.3	122.2	125.7	147.9	127.6	113.4	126.0	126.8	149.2	180.8	146.0	105.0	133.0	185.1	182.1	180.1	165.8	173.7	166.3	136.0	Jan-05	145.0	26.5	10.0	-30.4	-9.1			
	Highest El.				181.2	180.3	148.8	124.5	124.5	184.5	169.1	186.3	182.3	154.9	185.5	182.4	189.4	184.5	183.9	170.0	183.0	196.2	183.8	182.8	184.4	181.8	183.1	153.7	196.2	177.3	16.3	-31.8	-29.4	-23.6			
SP-17	Mean El.	406.0	401.8	395.3	399.1	398.3	393.3	392.0	385.1	382.7				385.5	390.1	389.3	388.3	393.6	390.0	385.6	389.1	386.9	387.9	388.6	393.8	393.6	391.9	388.4	386.8	386.1	387.5	Jan-84	388.7	3.0	-6.1	1.4	-1.2
	Highest El.	410.0	403.0	395.3	400.1	400.0	401.0	394.1	386.0	383.2				389.8	404.3	396.5	396.5	408.8	395.5	386.9	399.2	389.1	396.4	392.0	406.5	398.1	401.5	392.5	394.8	397.0	393.0	410.0	395.9	6.5	-15.8	-4.0	-2.9
SP-17A	Mean El.					360.1	377.4	376.6	374.5	379.2	379.8	377.8	379.3	377.2	379.1	379.1	375.3	376.6	375.6	374.9	376.0	378.0	379.4	378.4	375.3	374.2	372.8	373.4	Feb-94	376.8	2.2	-5.7	0.6	-3.4			
	Highest El.					372.4	378.5	377.7	375.7	385.0	389.8	384.4	381.6	380.5	386.7	382.9	376.4	381.1	377.3	376.5	377.2	385.2	383.4	380.7	376.3	376.3	373.7	375.0	389.8	380.3	4.5	-11.7	1.3	-5.3			
SP-24	Mean El.	195.3	102.1	49.0	49.2	49.0			35.1	38.6	38.5	38.9	37.2	39.0	39.1	40.0	41.6	41.4	41.7	42.3	41.4	43.3	46.3	47.6	46.1	45.3	45.6	47.0	46.7	Mar-84	42.4	3.4	6.7	-0.3	4.3		
	Highest El.	220.6	170.0	50.0	52.0	52.0			39.6	40.0	38.9	41.0	39.6	39.6	39.8	42.0	43.3	42.2	43.0	43.7	41.8	44.0	51.0	50.2	48.2	46.0	46.0	49.0	47.5	220.6	43.8	3.8	5.5	-1.5	3.6		
SP-35	Mean El.															92.2	88.3	93.6	97.4	90.5	89.4	90.8	88.2	86.8	85.9	86.0	89.4	88.1	Apr-01	89.7	3.3		-1.3	-1.7			
	Highest El.															101.3	91.0	104.0	102.9	92.7	90.6	95.2	89.0	87.2	86.4	90.2	95.8	94.1	104.0	93.9	5.8		-1.7	0.3			
SP-36	Mean El.															193.3	193.0	192.8	192.3	191.4	191.0	191.4	191.3	191.0	190.7	190.1	190.4	190.6	Mar-99	191.5	1.0		0.2	-0.9			
	Highest El.															195.2	193.4	193.0	192.7	191.9	191.2	192.2	191.8	191.3	190.9	190.5	191.4	191.3	195.2	192.1	1.3		-0.1	-0.8			
Area Average	Mean El.	270.6	232.8	212.6	211.9	246.8	223.3	244.9	204.1	202.5	190.4	231.3	234.7	204.2	198.0	201.9	187.0	188.4	194.5	189.7	183.3	187.2	200.3	195.4	194.1	191.1	192.1	198.4	195.8		198.0	13.2	-6.1	-2.7	-2.2		
	Highest El.	281.8	254.9	214.4	214.6	248.7	235.4	258.3	208.8	211.2	209.2	243.6	248.0	223.6	209.5	220.1	197.9	198.1	203.2	198.1	193.5	194.8	210.4	198.2	196.5	196.0	198.4	205.1	200.4		207.8	15.4	-19.7	-4.7	-7.4		
Change vs Prior	Mean El.		-37.8	-20.2	-0.7	34.9	-23.5	21.6	-40.8	-1.7	-12.0	40.9	3.4	-30.5	-6.2	3.9	-14.8	1.4	6.0	-4.7	-6.4	3.9	13.0	-4.8	-1.4	-3.0	1.0	6.3	-2.7								
	Highest El.		-26.9	-40.5	0.2	34.1	-13.3	22.9	-49.5	2.5	-2.0	34.4	4.4	-24.4	-14.2	10.7	-22.2	0.2	5.1	-5.1	-4.6	1.3	15.5	-12.1	-1.7	-0.5	2.4	6.6	-4.7								
<b>WESTERN EXTENSION</b>																																					
SP-20	Mean El.	317.0	254.6	220.5	213.3	194.5	217.5	186.2	198.8	160.3	184.9	175.1	149.8	155.0	162.1	165.5	231.8	196.9	204.6	195.8	186.4	183.1	219.7	228.8	230.9	237.6	221.0	215.9	214.3	Feb-84	196.0	28.4	48.9	-1.6	18.4		
	Highest El.	350.0	277.0	224.0	216.7	194.5	231.0	214.5	202.4	165.5	233.0	223.3	159.4	158.6	211.6	224.7	290.1	202.4	221.4	247.1	187.6	196.3	248.2	234.7	235.8	245.6	237.3	234.4	226.0	350.0	219.2	33.0	1.3	-8.4	6.9		
SP-21	Mean El.		436.7	407.0		404.0	403.1	402.2	390.5	351.1	353.5	356.0	369.8	368.9	368.7	372.4	374.6	379.5	388.5	387.7	379.4	378.6	390.4	394.0	391.2	388.1	383.9	385.8	386.3	Apr-94	377.4	12.9	14.0	0.5	8.9		
	Highest El.		450.9	407.0		405.0	407.0	410.4	399.1	358.9	361.2	358.0	393.9	374.3	377.1	396.4	379.3	389.6	401.2	393.0	385.5	381.9	408.9	403.3	396.4	393.2	387.5	392.5	394.7	450.9	386.3	14.5	-1.7	2.2	8.4		
SP-22	Mean El.		461.1	450.5	451.9	447.5	450.5	451.4	451.0	454.3	457.5	455.3	463.9	462.1	468.9	466.0	468.6	468.8	469.2	470.8	473.0	471.2	471.9	470.2	469.9	469.1	467.9	470.0	470.7	Dec-96	467.0	5.5	4.7	0.6	3.7		
	Highest El.		493.5	450.5	454.1	450.9	455.7	451.4	451.3	468.0	471.3	464.5	477.0	469.6	501.5	470.4	470.7	471.0	474.2	471.1	476.6	475.1	475.1	471.0	470.9	470.9	469.7	470.9	472.8	501.5	473.1	7.3	2.4	1.9	-0.3		
SP-23	Mean El.				514.2	491.0	499.2	495.6	486.0	496.6	500.8	508.6	511.6	501.5	500.4	486.7	478.0	473.9	476.2	488.9	486.1	496.1	490.7	489.8	494.1	499.8	503.6	495.4	Feb-96	493.2	10.3	-5.0	-8.2	2.2			
	Highest El.				514.2	491.0	536.0	509.1	489.4	513.1	507.3	518.2	549.6	527.6	518.4	502.7	488.7	488.6	504.5	538.1	535.7	534.6	500.5	492.0	502.0	503.1	514.0	506.7	549.6	511.7	17.8	-11.7	-7.3	-5.1			
Area Average	Mean El.	317.0	384.2	359.3	332.6	390.0	390.5	384.7	384.0	362.9	373.1	371.8	373.0	374.4	375.3	376.1	390.4	380.8	384.0	382.6	381.9	379.8	394.5	395.9	395.5	397.2	393.1	393.9	391.7		383.4	10.1	15.6	-2.2	8.3		
	Highest El.	350.0	407.1	360.5	335.4	391.2	396.2	403.1	390.5	370.5	394.7	388.3	387.1	388.0	404.5	402.5	410.7	387.9	396.4	403.9	397.0	397.3	416.7	402.4	398.8	402.9	399.4	402.9	400.1		397.6	9.9	-2.4	-2.9	2.5		
Change vs Prior	Mean El.		67.2	-24.8	-26.7	57.4	0.5	-5.8	-0.8	-21.0	10.2	-1.4	1.2	1.4	0.9	0.8	14.4	-9.6	3.2	-1.4	-0.7	-2.2	14.8	1.4	-0.5	1.7	-4.1	0.7	-2.2								
	Highest El.		57.1	-46.6	-25.1	55.8	5.0	6.9	-12.6	-20.0	24.2	-6.4	-1.1	0.9	16.4	-2.0	8.2	-22.8	8.4	7.6	-7.0	0.3	19.4	-14.3	-3.6	4.1	-3.5	3.5	-2.9								
<b>EASTERN MESA</b>																																					
PC-1	Mean El.											148.0	142.4	148.1	139.4	138.4	136.6	137.6	138.4	138.3	139.1	140.2	141.9	139.8	136.2	136.7	138.9	139.1	Dec-96	139.9	3.5	-0.3	0.2	-0.8			
	Highest El.		</																																		



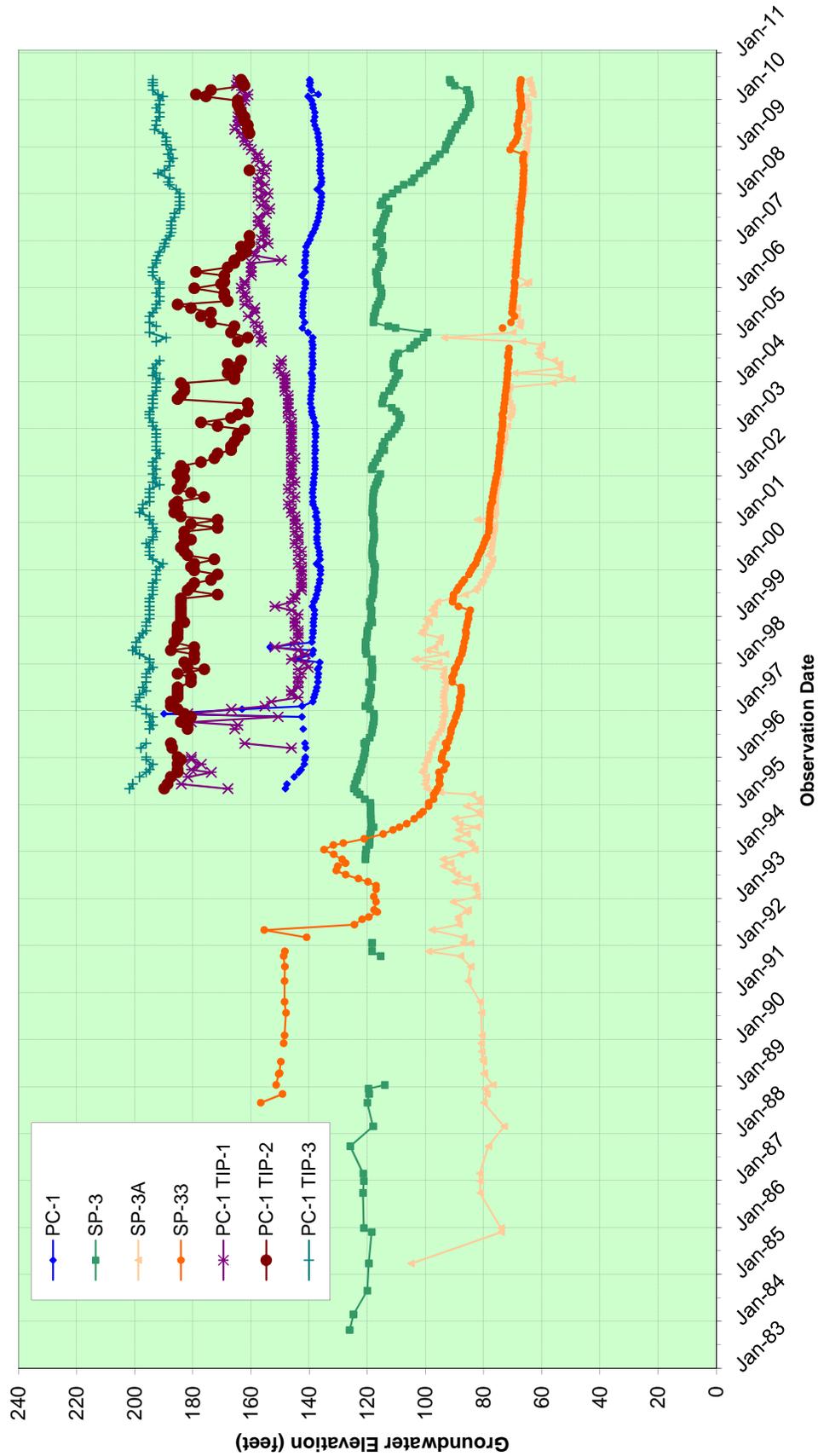
**Groundwater Hydrographs**  
PCH Region - West



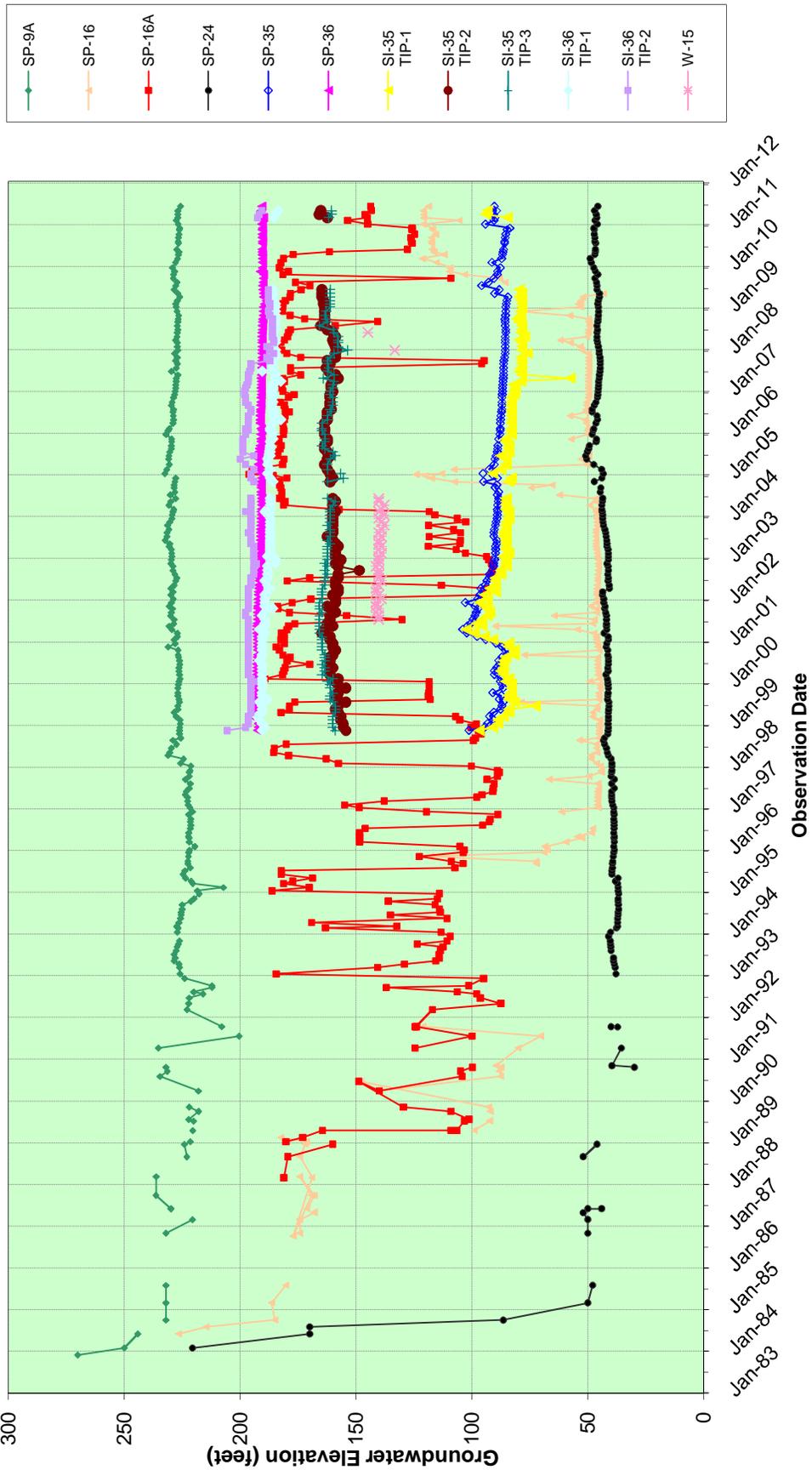
**Groundwater Hydrographs**  
PCH Region - East

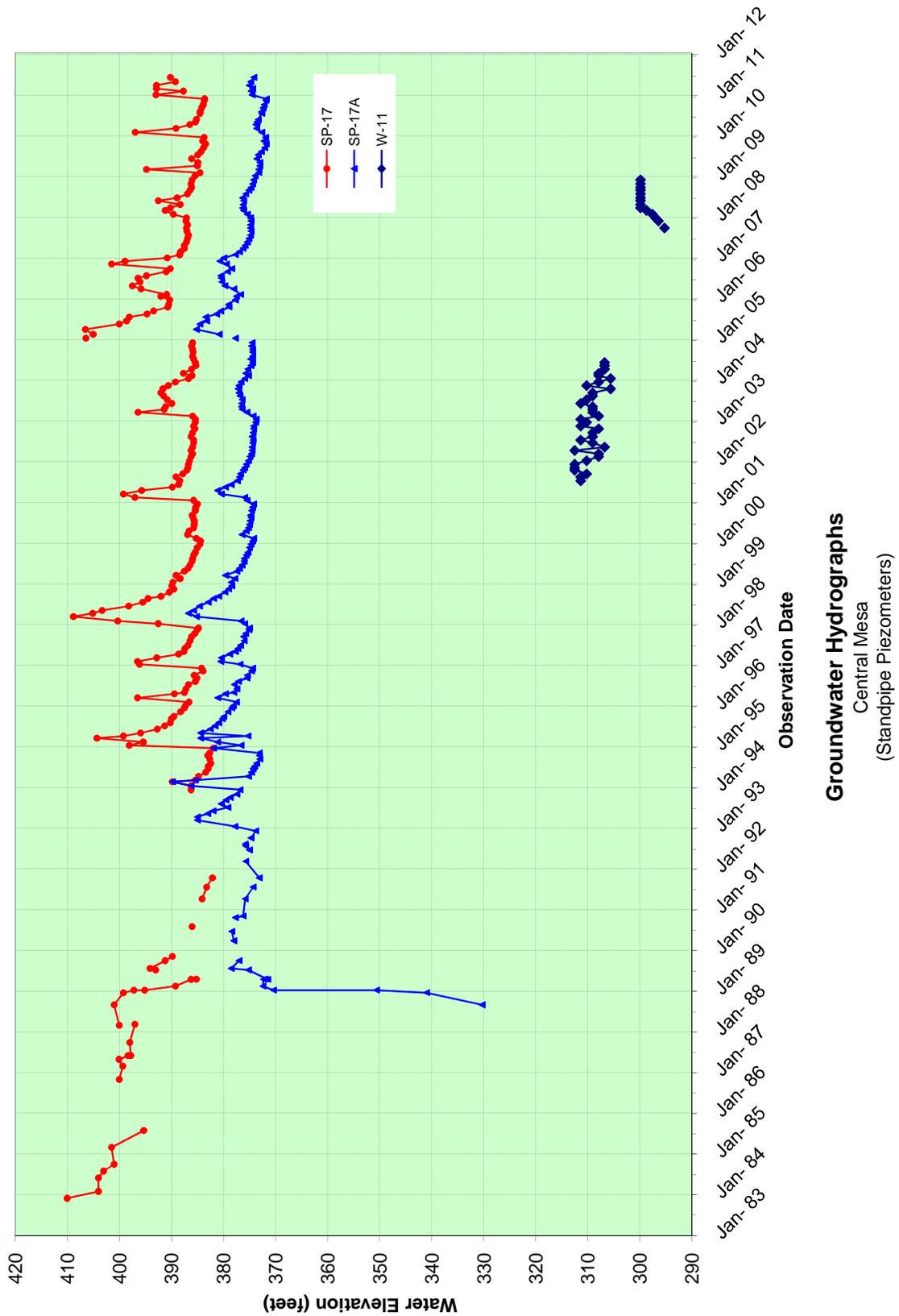


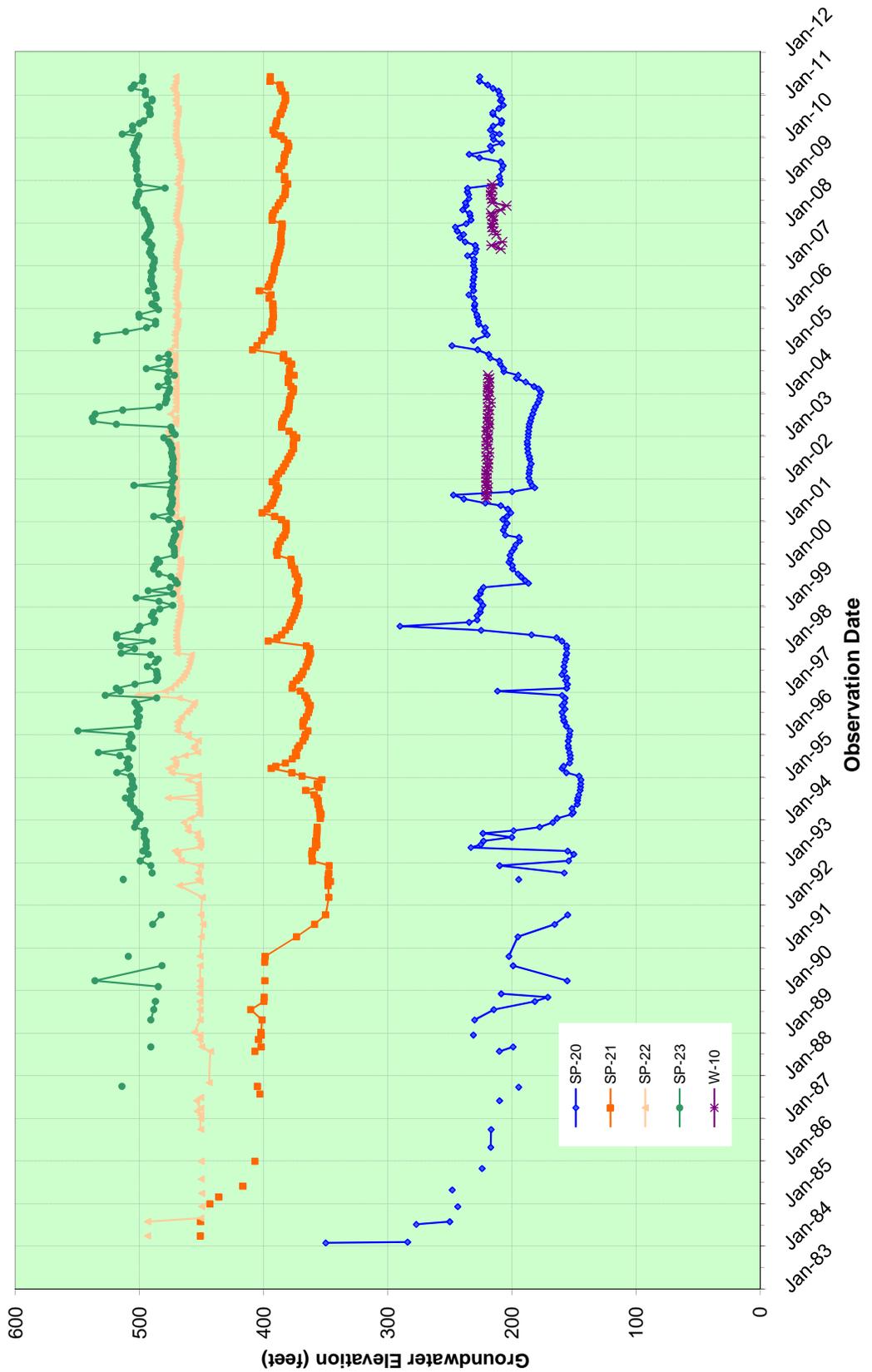
**Groundwater Hydrographs**  
Bluff Region



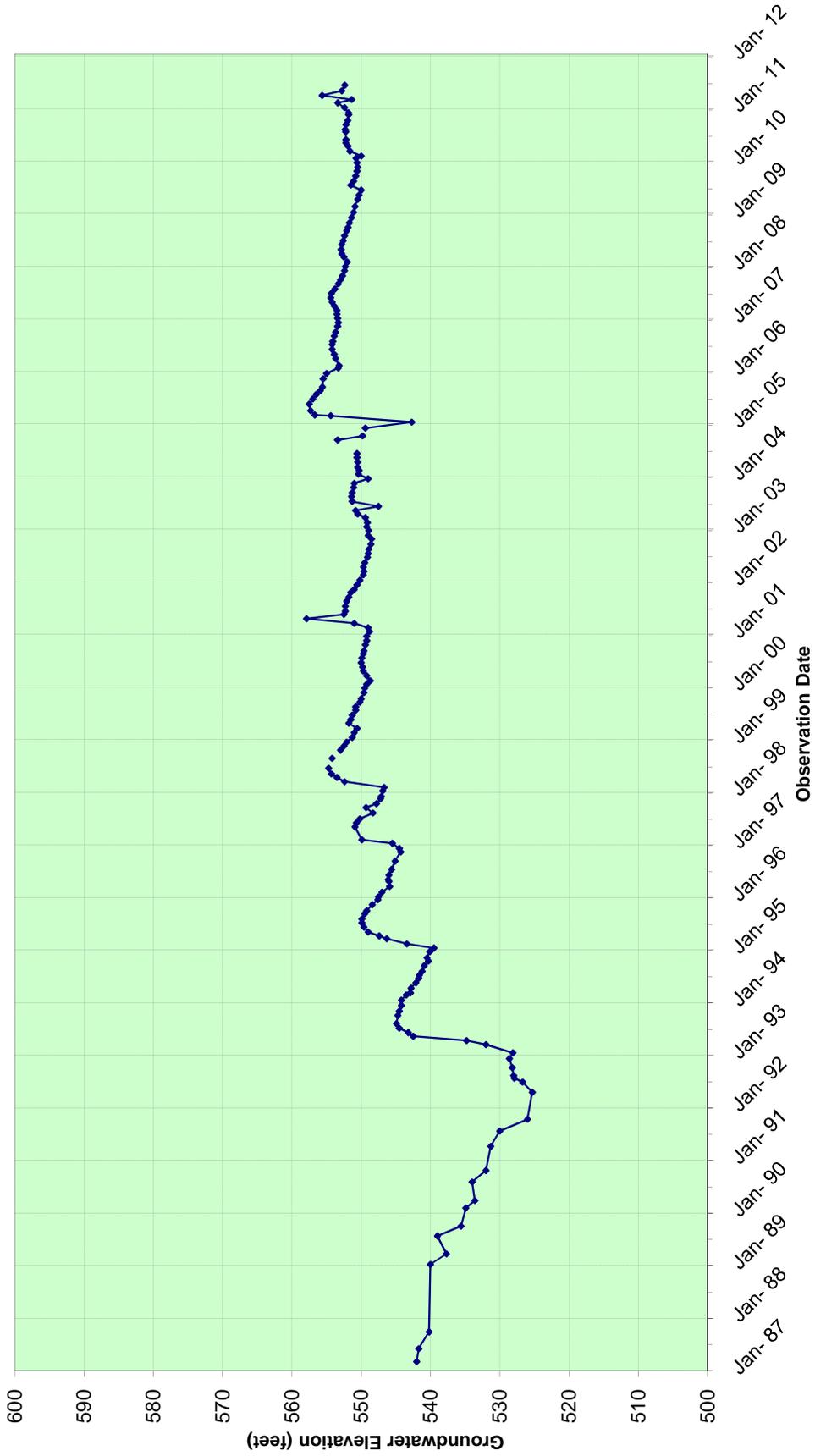
**Groundwater Hydrographs**  
Eastern Mesa







**Groundwater Hydrographs**  
Western Extension  
(Standpipe Piezometers)



**Groundwater Hydrographs**  
HeadScarp Region  
SP-26

**APPENDIX B  
DEWATERING WELL DATA**

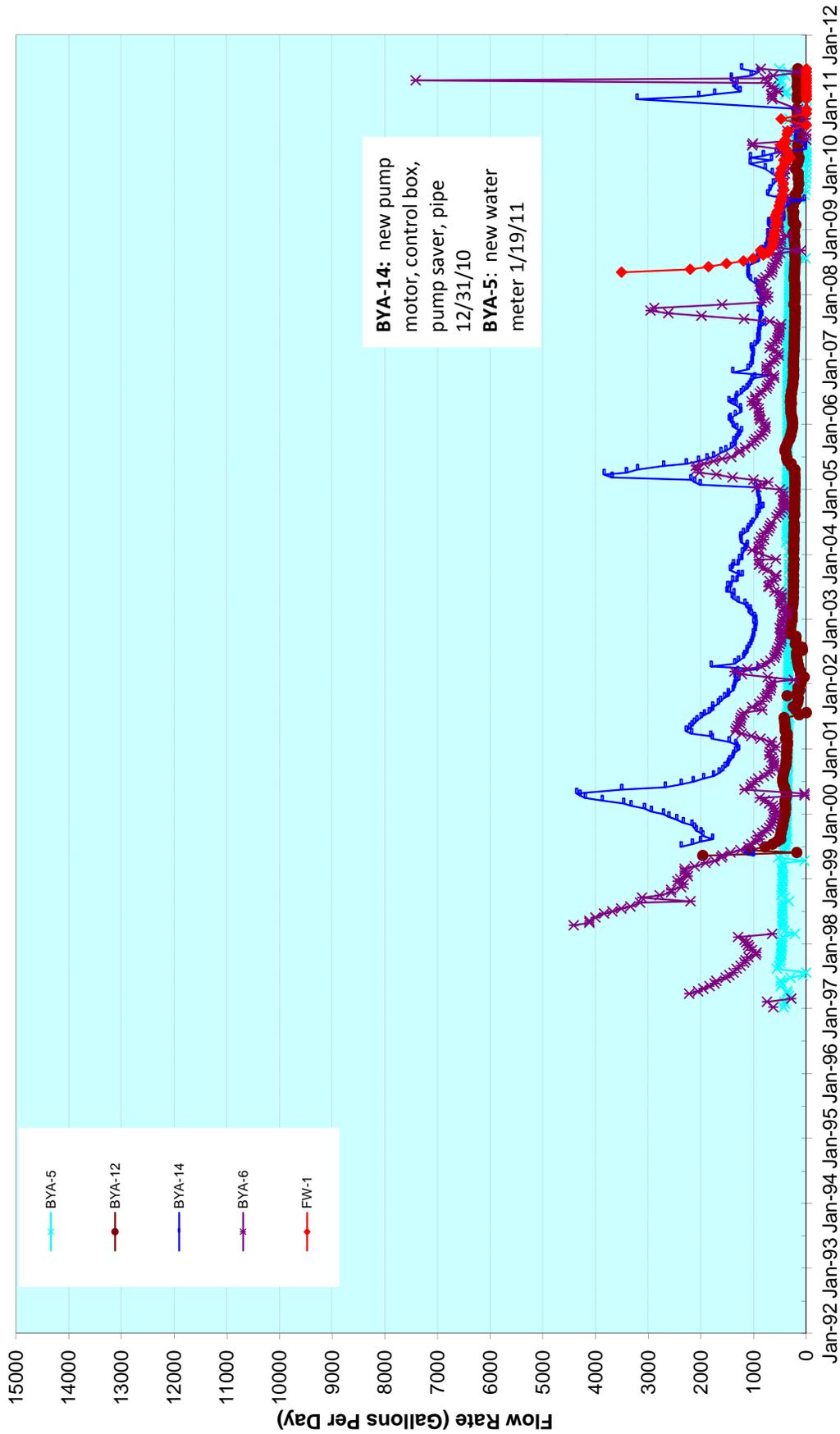


<b>Big Rock Mesa: Dewatering Well Information</b>								
Well I.D.	TOP ELEV. (ft.)	BOTTOM ELEV. (ft.)	PUMP ELEV. (ft.)	PUMP SIZE (HP)	2010-11 PUMPING RATE (GPD)	% of TOTAL PRODUCTION	Rank	COMMENT
W-1	210.5	-30	14.5	1.5	1,304	3%	14	
W-2	219	41	44	1.5	2,049	4%	8	
W-3	243.5	65.5	70.5	3/4	209	0%	21	
W-4	248	-10	N/A	N/A	0	0%	24	Casing Perforations closed due to siltation
W-5	280	252	N/A	N/A	0	0%	24	Capped 4/4/84
W-6	174	80	N/A	N/A	0	0%	24	Static water level at bottom of casing
W-7	257	171	N/A	N/A	0	0%	24	Static water level at bottom of casing
W-8	287	93	98	1	7,941	16%	1	
W-9	282	87	N/A	N/A	0	0%	24	Static water level at bottom of casing
W-10	432	192	194	3/4	0	0%	24	Static water level
W-11	507	285	292	3/4	0	0%	24	
W-12	375	195	N/A	N/A	0	0%	24	Casing sheared at static water level
W-13	361	184	193	1	1,321	3%	13	
W-14	283	131	N/A	N/A	0	0%	24	Static water level at bottom of casing
W-15	295	121	130	3/4	0	0%	24	Static water level at bottom of casing
W-16	325	107	113	3/4	5,950	12%	3	
W-17	270	41	50	3/4	2,456	5%	6	
W-18	750	179	225	3	7,155	14%	2	
BYA-1	281	-162	-128	3	2,361	5%	7	
BYA-2	665	215	242	1.5	689	1%	18	
BYA-3	510	-40	29	3	1,835	4%	9	
BYA-4	372	-68	-28	1.5	3,395	7%	5	
BYA-5	189	-231	-211	1.5	318	1%	20	
BYA-6	220	-280	-275	0.75	891	2%	16	
BYA-7	280	-120	-115	0.75	1,411	3%	12	
BYA-9	295	-105	-100	7.5(5)	5,122	10%	4	
BYA-10	510	210	215	1	813	2%	17	
BYA-11	275	-125	-120	0.75	1,506	3%	11	
BYA-12	207	-140	-137	0.5	160	0%	22	Installed 4/99
BYA-13	329	-14	-18	0.5	570	1%	19	Installed 4/99
BYA-14	340	38	40	0.5	1,088	2%	15	Installed 4/99
BYA-15					0	0%	24	
FW-1					49	0%	23	Installed 5/08
FW-2	270	-130			1,814	4%	10	Installed 2/10

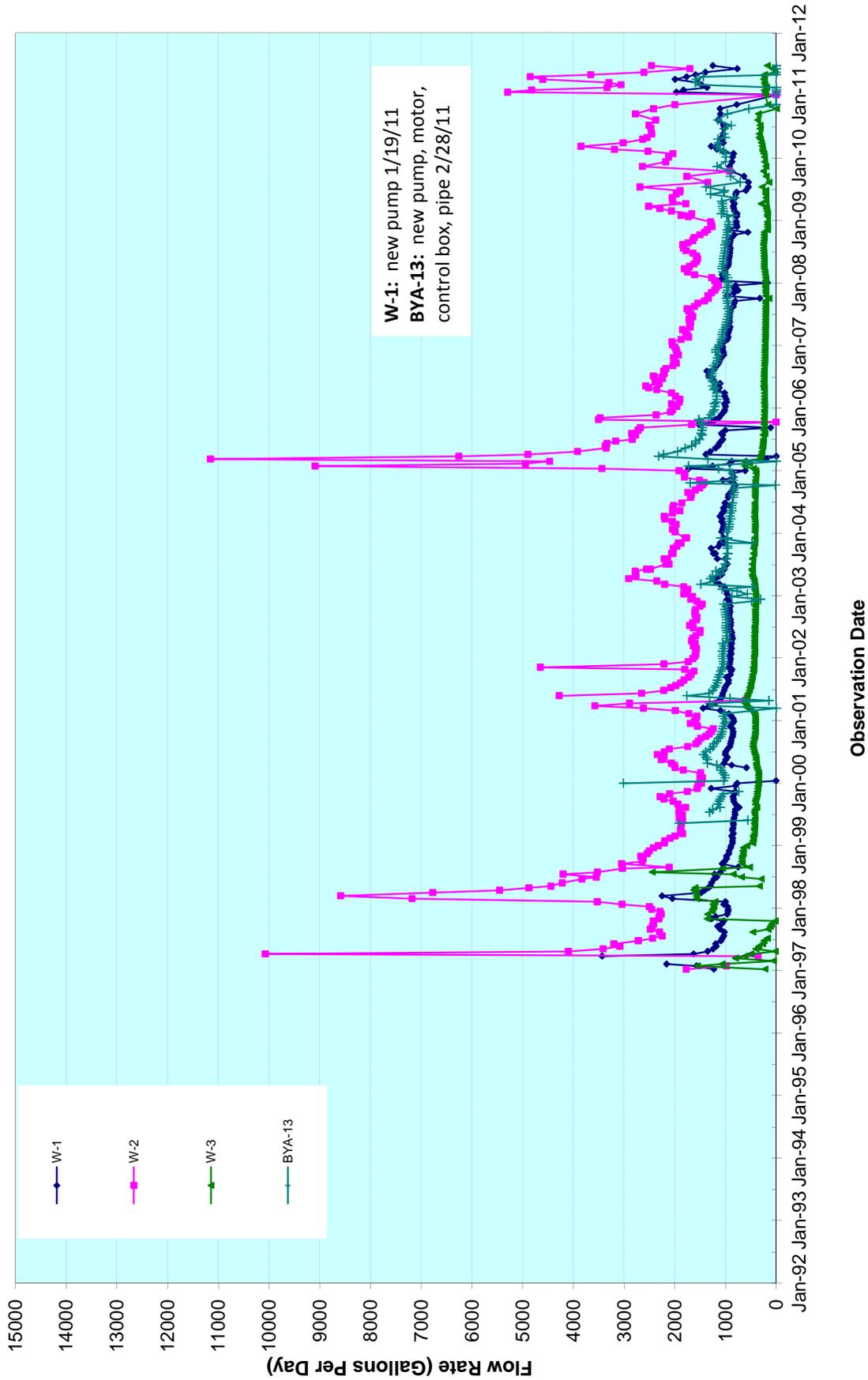
2010-11 Pumping Rate is the Average Rate of the Monitoring period:(July 10 - June 11)

**SUMMARY OF DEWATERING WELL INFORMATION**

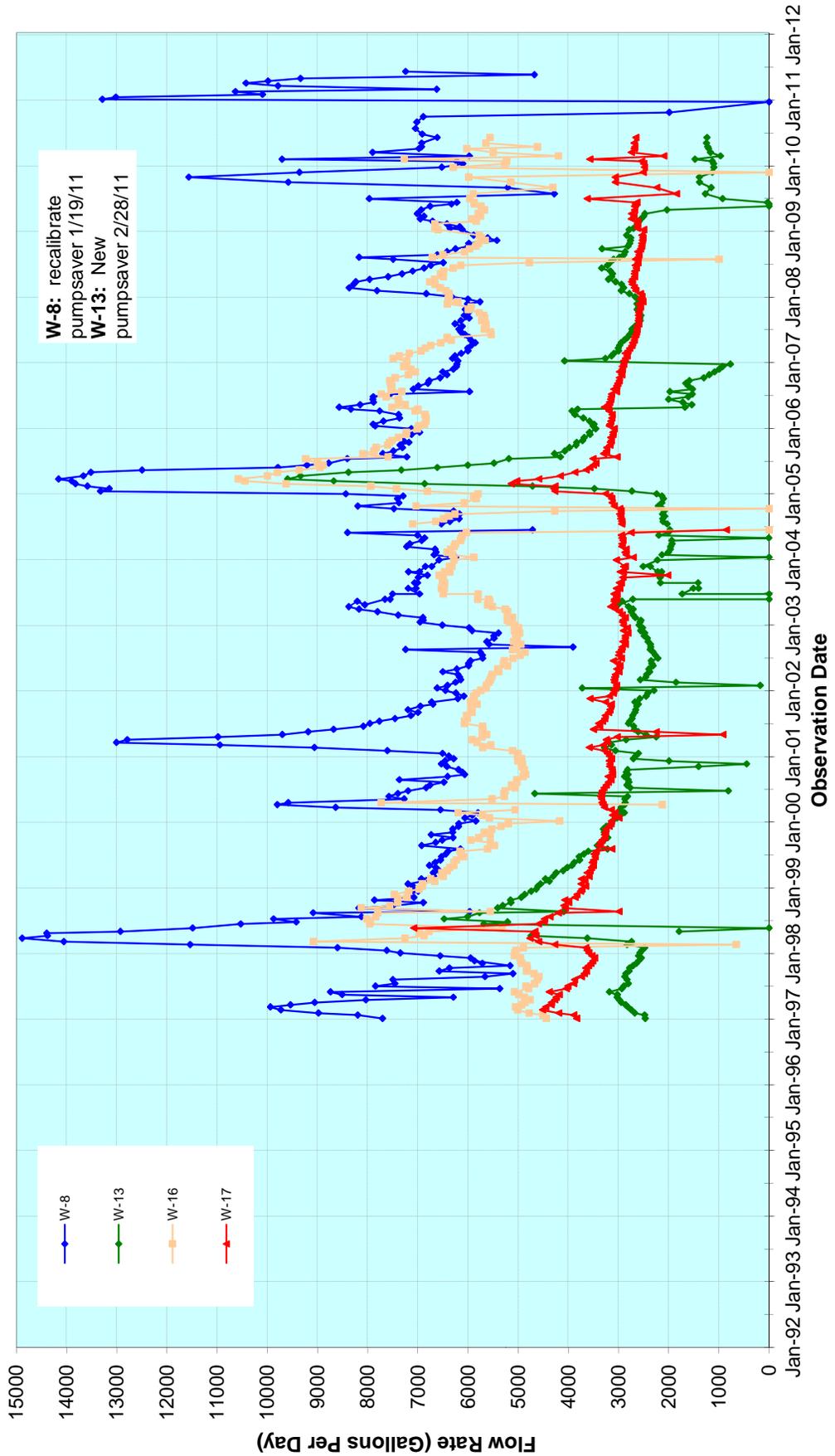
Annual Report, July 2010 through June 2011  
 Big Rock Mesa Landslide Assessment District  
 Malibu, California



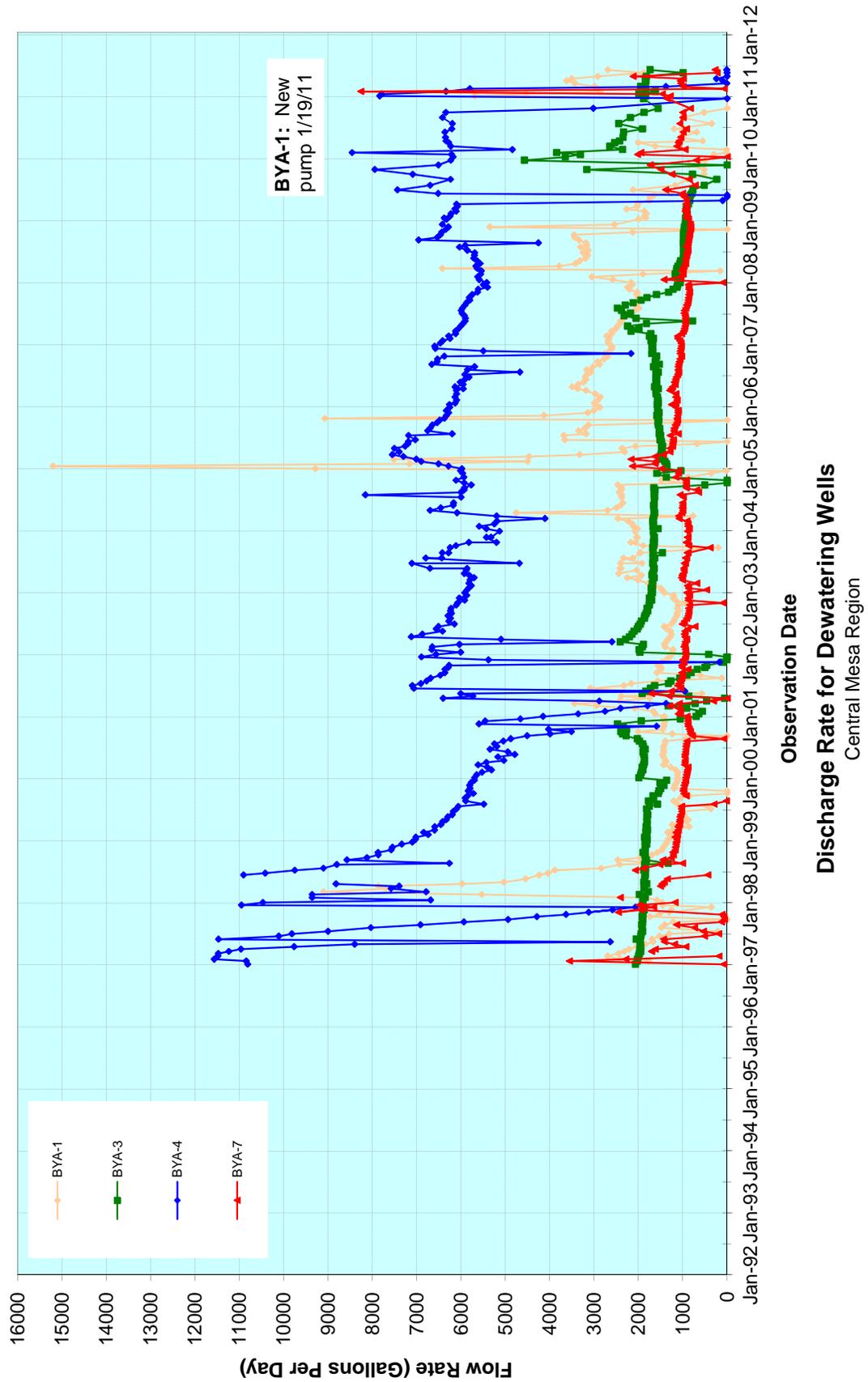
Observation Date  
**Discharge Rate for Dewatering Wells**  
 Eastern Mesa



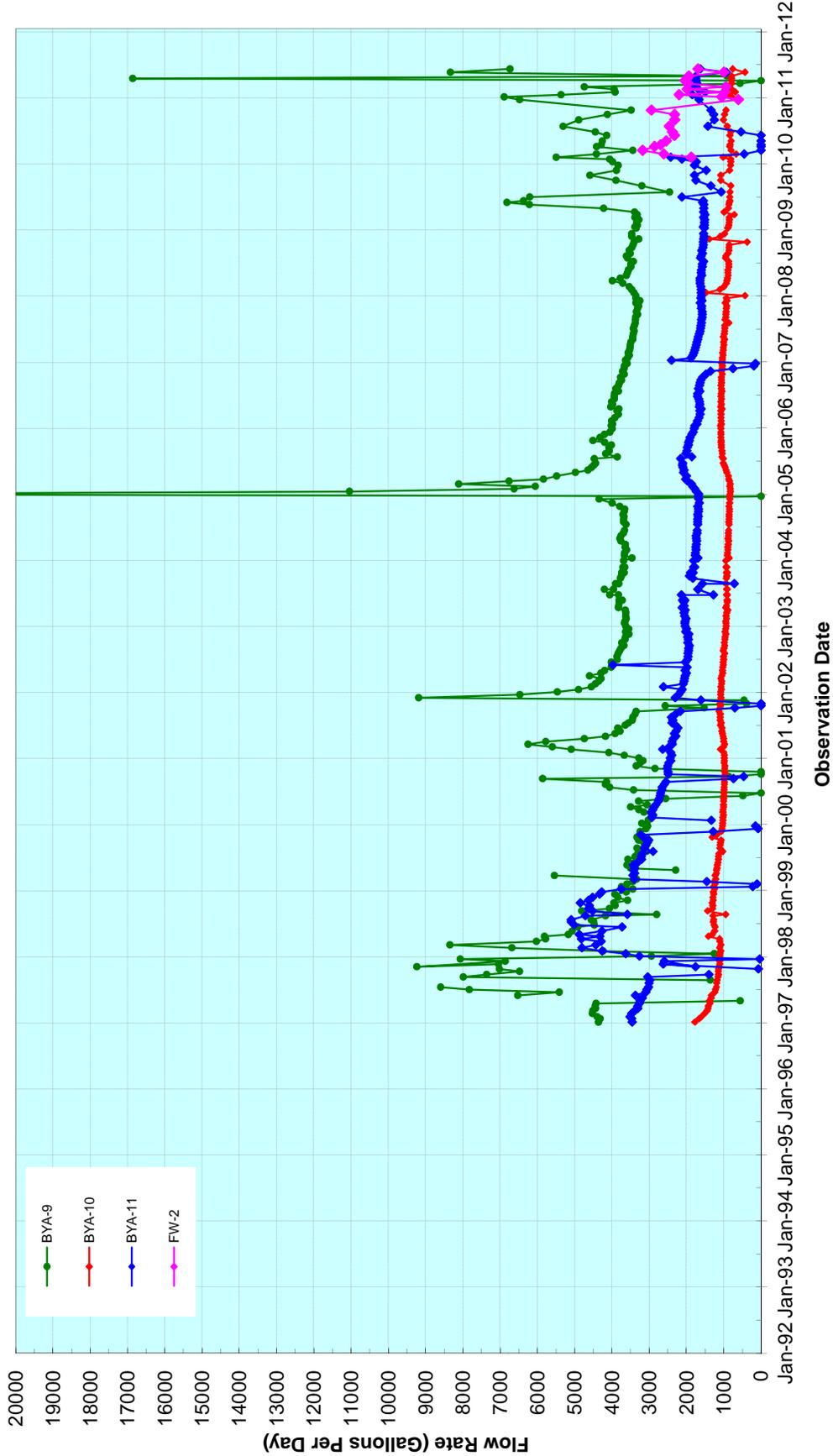
Discharge Rate for Dewatering Wells  
Eastern Mesa



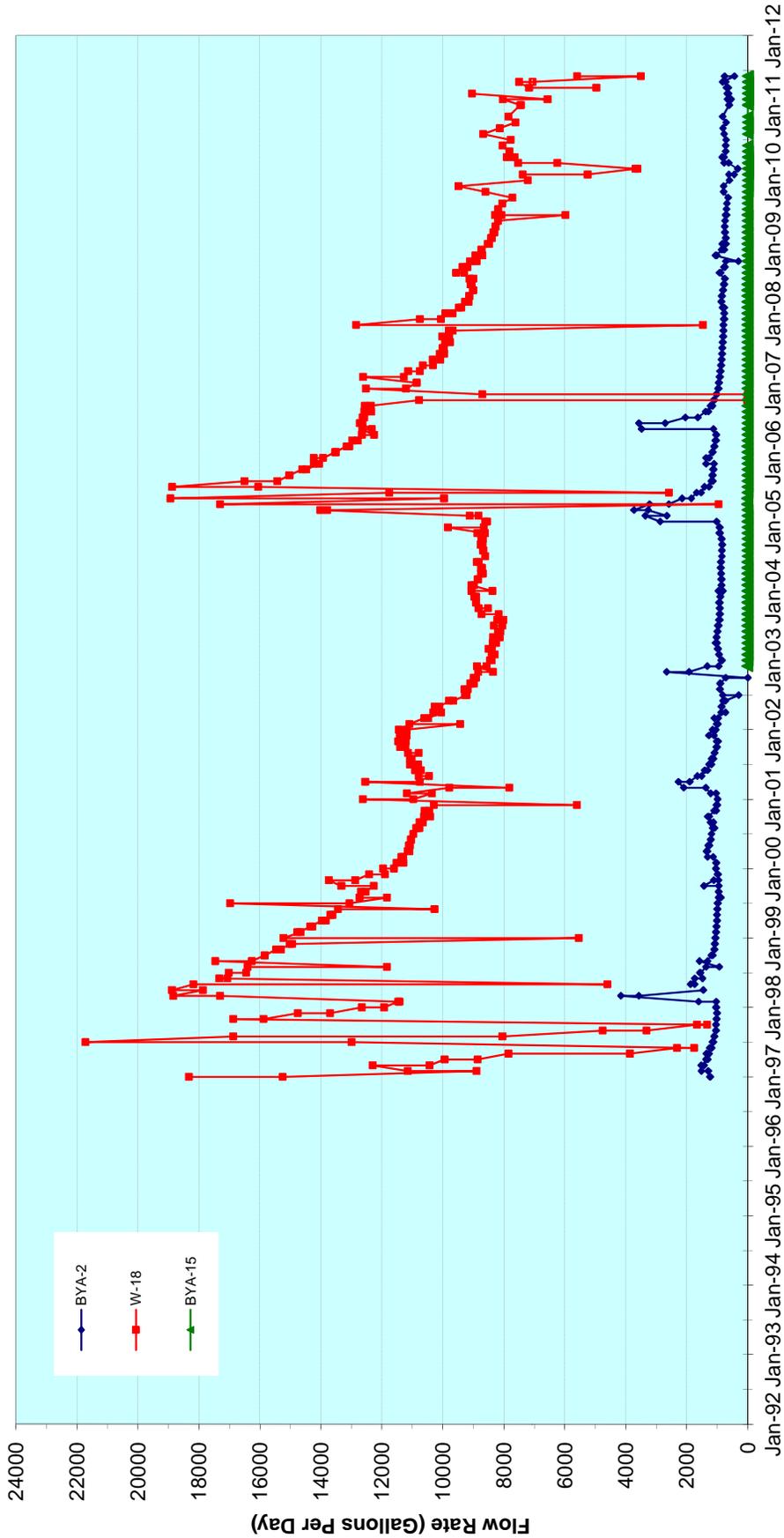
**Discharge Rate for Dewatering Wells**  
Central Mesa Region



**Discharge Rate for Dewatering Wells**  
Central Mesa Region



**Discharge Rate for Dewatering Wells**  
Central Mesa Region



Observation Date  
**Discharge Rate for Dewatering Wells**  
Western Extension

**APPENDIX C  
HYDRAUGER DATA**

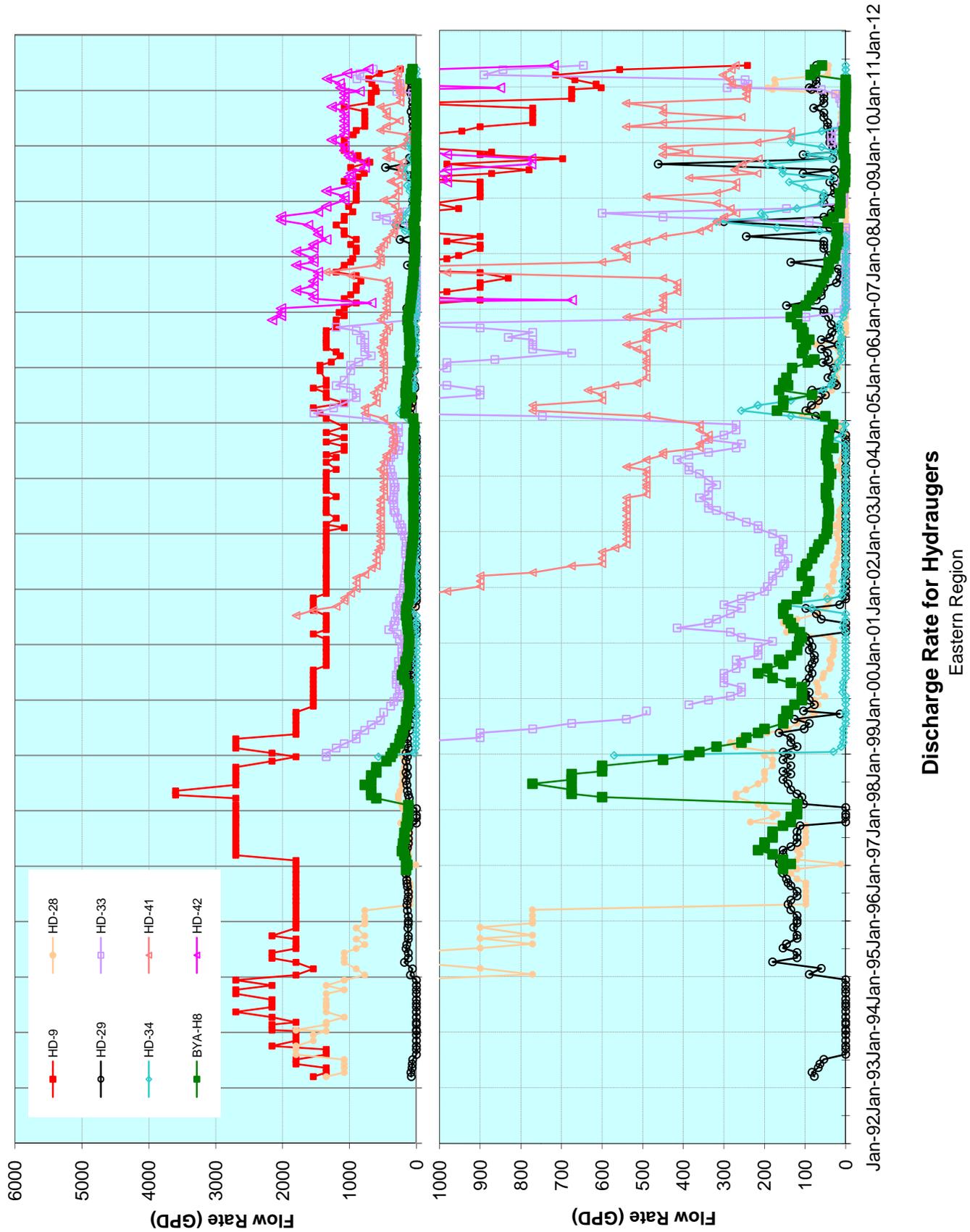


Big Rock Mesa: Hydrauger Data							
HYDRAUGER ID	INSTALLED LENGTH (ft.)	OPEN LENGTH (ft.)**	Orientation/ Slope	2010-2011 Average Flow (GPD)	% OF TOTAL PRODUCTION	Rank	INSTALLED BY
H-1	700	210*	S115W / 3	129	0.7%	19	MT
H-2	Unknown	0	-	0	--	30	MT
H-3a	Unknown	0	-	0	--	30	MT
H-3b	Unknown	0	-	0	--	30	MT
H-3c	Unknown	0	-	0	--	30	MT
H-4	680	115*	-	5	0.0%	25	MT
H-5a	Unknown	0	-	0	--	30	MT
H-5b	Unknown	0	-	0	--	30	MT
H-6a	100	96	-	0	--	30	CT
H-6b	100	96	-	0	--	30	CT
H-7a	100	100	-	0	--	30	CT
H-7b	100	96	-	0	--	30	CT
H-7c	50	0	-	0	--	30	CT
H-8	Unknown	0	-	0	--	30	CT
HD-1	350	340*	-	0	--	30	D.E.
HD-2a	70	33	-	0	--	30	D.E.
HD-2b	Unknown	0	-	0	--	30	D.E.
HD-2c	460	0	-	0	--	30	D.E.
HD-3	560	90*	-	0	--	30	D.E.
HD-4	760	10	-	1	0.0%	27	D.E.
HD-5	890	530*	-	1506	7.7%	5	D.E.
HD-6	980	490*	-	753	3.9%	10	D.E.
HD-7	1160	420*	-	859	4.4%	7	D.E.
HD-8	530	170*	-	125	0.6%	20	D.E.
HD-9	205	205*	-	0	--	30	D.E.
HD-10	990	170*	-	670	3.4%	12	D.E.
HD-11	540	540*	-	266	1.4%	17	D.E.
HD-12	690	385*	-	296	1.5%	15	D.E.
HD-13	650	14	-	1916	9.8%	3	D.E.
HD-14	130	130*	-	0	--	30	D.E.
HD-15	200	200*	-	615	3.2%	13	D.E.
HD-16	575	575*	-	0	0.0%	29	D.E.
HD-17	750	176	-	0	--	30	D.E.
HD-18	870	285	-	3	0.0%	26	D.E.
HD-19	1000	182	-	0	--	30	D.E.
HD-20	1000	446	-	0	--	30	D.E.
HD-21	1560	147	-	0	--	30	D.E.
HD-22	568	540*	-	1659	8.5%	4	D.E.
HD-23	1280	260*	-	3266	16.8%	1	D.E.
HD-24	1030	580*	-	0	--	30	D.E.
HD-25	1005	360*	-	140	0.7%	18	D.E.
HD-26	1200	410*	S37W / 1	702	3.6%	11	D.E.
HD-27	700	327	-	0	--	30	D.E.
HD-28	1420	595*	-	76	0.4%	21	D.E.
HD-29	1150	450*	-	70	0.4%	22	D.E.
HD-30	1040	10*	S13W / 7	3072	15.8%	2	D.E.
HD-31	140	113	-	0	--	30	D.E.
HD-32	835	700*	-	0	--	30	D.E.
HD-33	340	340	S23W / 5	274	1.4%	16	BYA
HD-34	150	150	S40W / 10	0	--	30	BYA
HD-35	40	40	-	0	--	30	BYA
HD-36	150	150	-	0	--	30	BYA
HD-37	430	50	-	0	--	30	BYA
HD-38A	140	140	S23W / 5	0	--	30	BYA
HD-38B	140	140	S18W / 6	0	--	30	BYA
HD-39	400	400	S15E / 5	0	--	30	BYA
HD-40	595	595	S25W / 6	0	--	30	BYA
HD-41	500	500	S18E / 3	320	1.6%	14	BYA
BYA-6a	350	20*	-	0	--	30	BYA
BYA-6b	60	60	-	19	0.1%	23	BYA
BYA-7	400	375*	-	0	0.0%	28	BYA
BYA-H8	500	345*	-	19	0.1%	24	BYA
BYA-H9	550	550*	-	0	--	30	BYA
BYA-H10	500	10*	-	811	4.2%	9	BYA
BYA-H11	450	400*	S7E / 3	0	--	30	BYA
HD-42	700	700	-	1076	5.5%	6	FWI
HD-43	700	700	-	835	4.3%	8	FWI

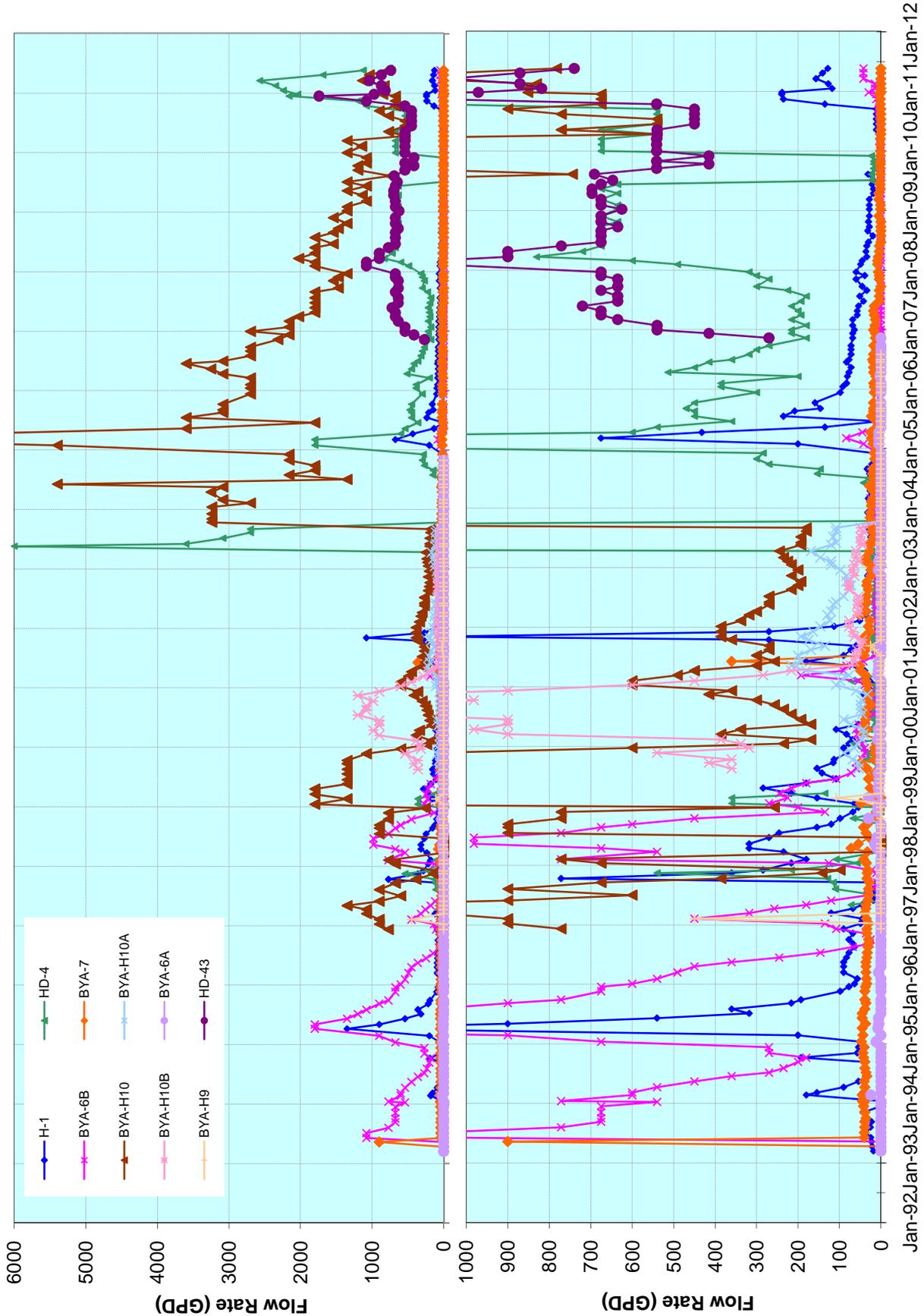
\* Open Length is Measured on 10-1997 by BYA

Installed by: MT = Moore & Taber; CT = Caltrans; D.E. = D.A. Evans; BYA = Bing Yen & Associates; FWI = Fugro West, Inc.

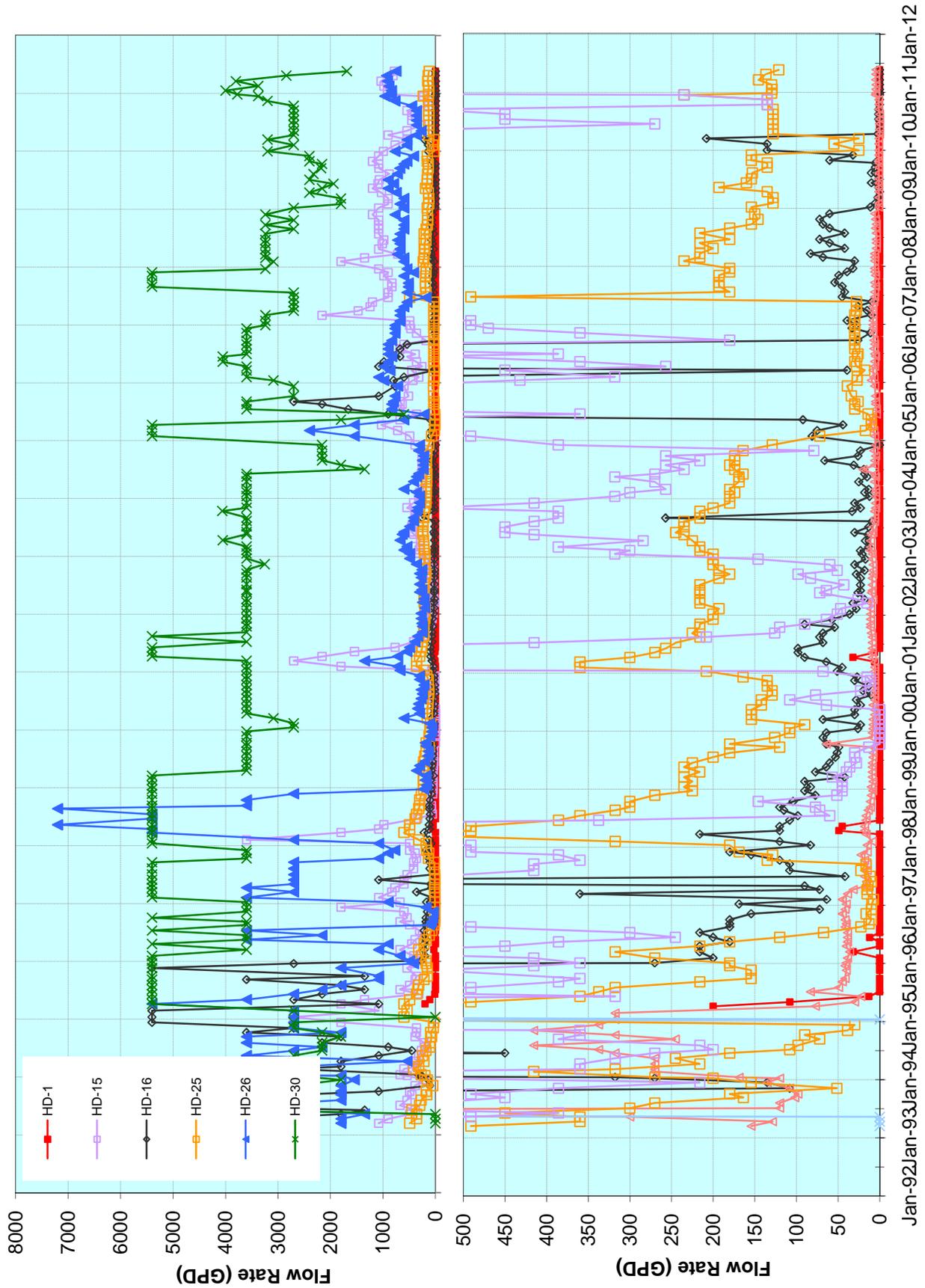
**SUMMARY OF HYDRAUGERS**  
 Annual Report, July 2010 through June 2011  
 Big Rock Mesa Landslide Assessment District  
 Malibu, California



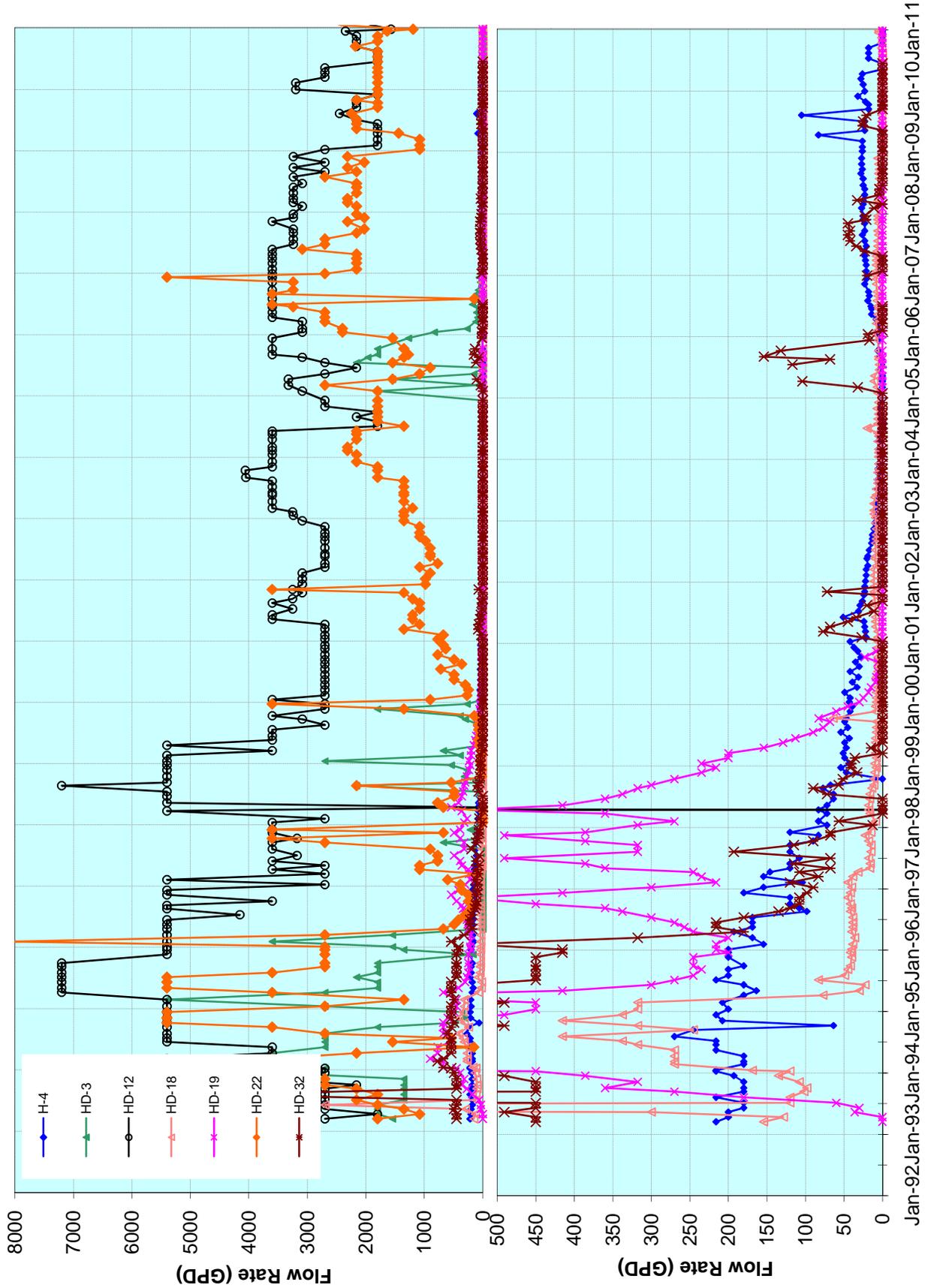
**Discharge Rate for Hydraugers**  
Eastern Region



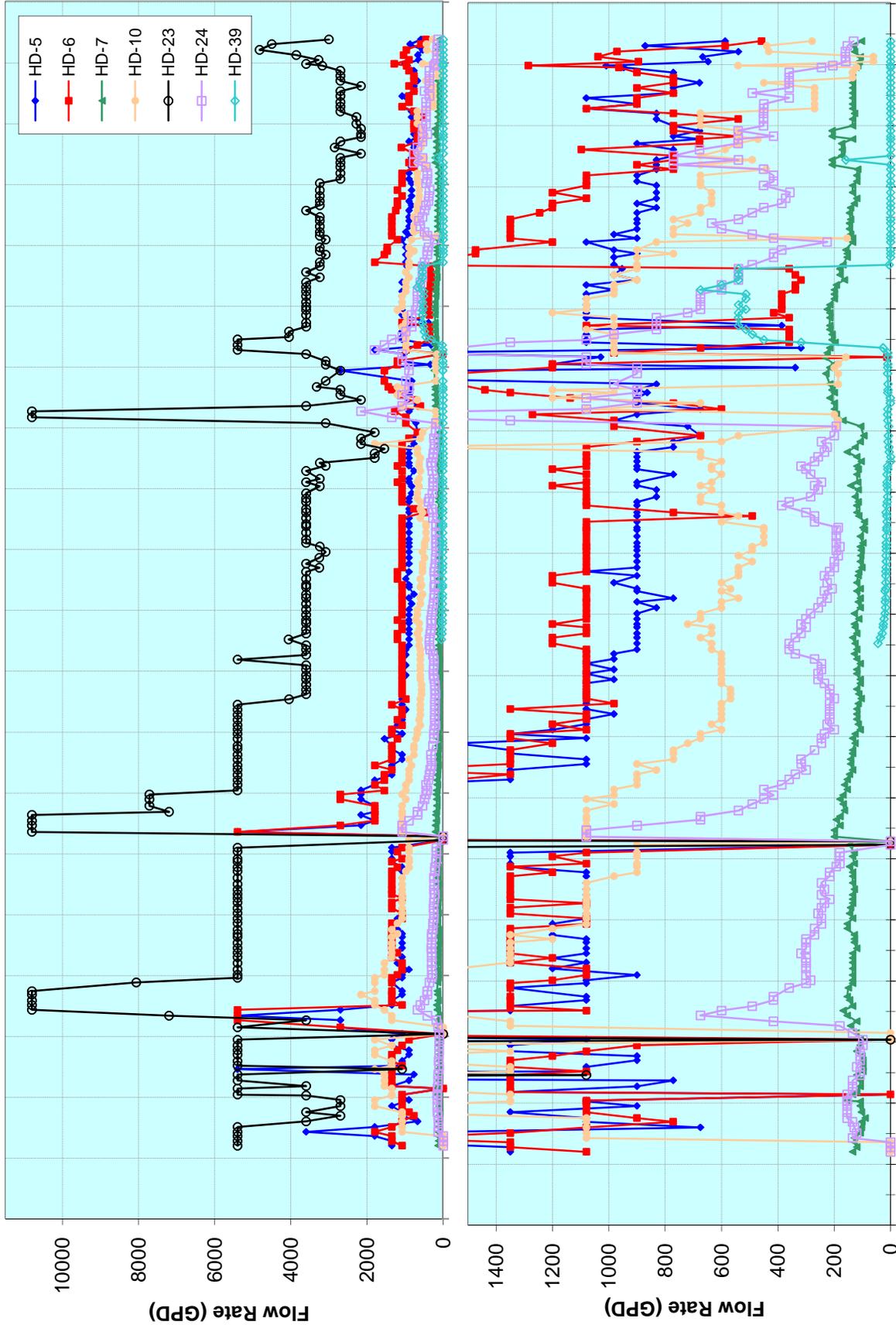
**Discharge Rate for Hydraulics**  
Eastern Region



**Discharge Rate for Hydrometers**  
Central Region



**Discharge Rate for Hydraugers**  
Central Region



Jan-92 Jan-93 Jan-94 Jan-95 Jan-96 Jan-97 Jan-98 Jan-99 Jan-00 Jan-01 Jan-02 Jan-03 Jan-04 Jan-05 Jan-06 Jan-07 Jan-08 Jan-09 Jan-10 Jan-11 Jan-12

**Discharge Rate for Hydraugers**  
Western Extension

**APPENDIX D**  
**SLOPE INCLINOMETER PLOT/DATA**



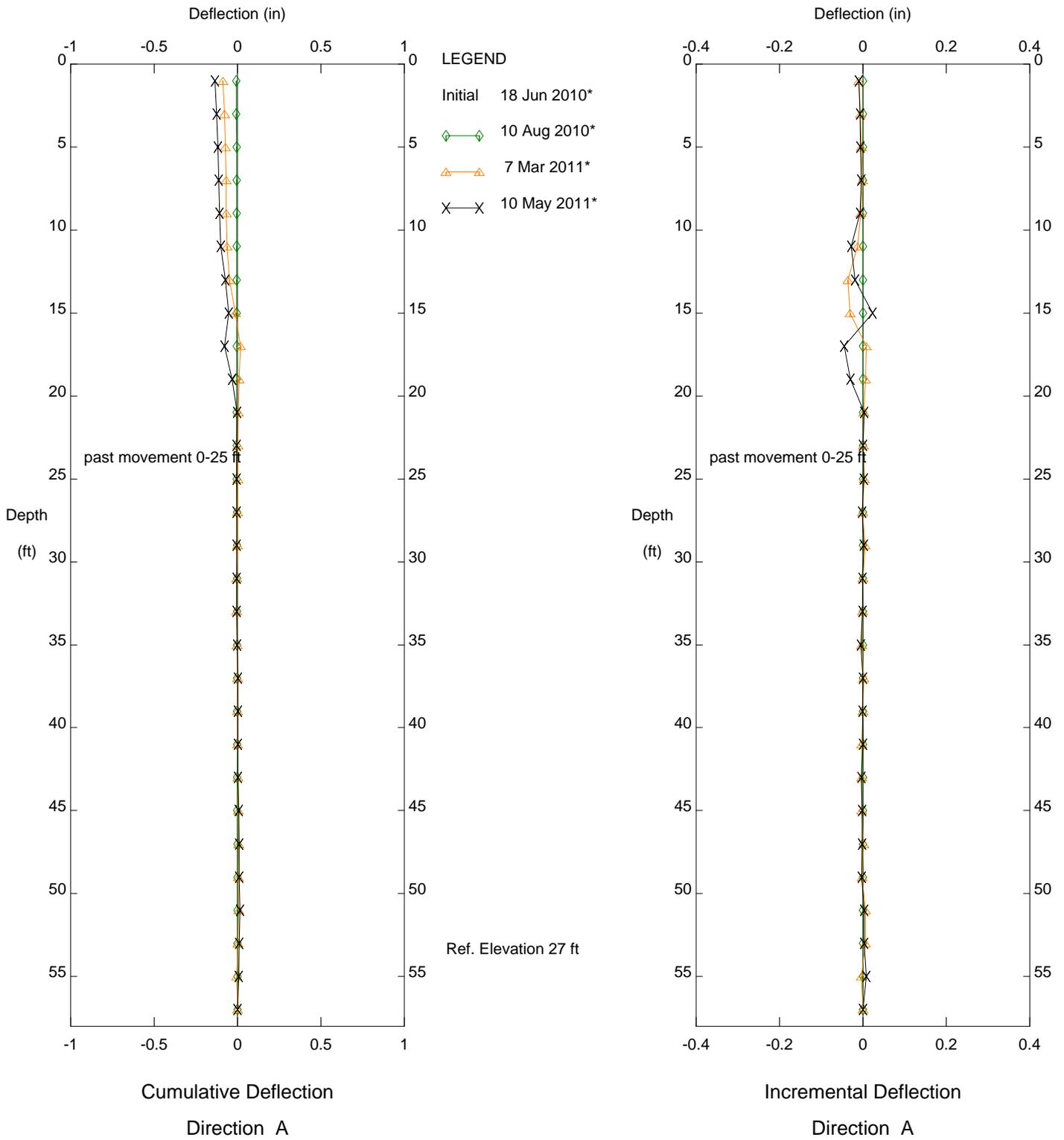
Big Rock Mesa: Slope Inclinometer Interpretation Summary																																														
PCH																	BLUFF			EAST					CENTRAL								WESTERN				HEAD									
SP-1	SP-11	SP-12	SP-14	SP-15	SP-19	SP-27A	SP-29	SP-30	SP-2	SP-5	SP-5A	SP-6	SP-7	SP-8	SP-8A	SP-31	SP-37	SP-10	SP-28	SP-32	PC-1	SP-3	SP-3A	SP-33	BYA-5A	SP-18	SP-9A	SP-16A	SP-17	SP-17A	SP-24	SP-34	SP-35	SP-36	SP-4	SP-16	SP-20	SP-21	SP-22	SP-23	SP-26	SP-38				
<b>Installation Details</b>																																														
Surface Elev.	NA	27	26	25	20	25	29	27	29	NA	NA	NA	NA	NA	NA	NA	NA	295	270	233	250	212	203	318	NA	NA	365	285	540	540	370	270	345	380	NA	285	430	660	780	860	745	NA				
Original Depth (ft)	43	59	95	32	88	95	100	140	155	32	98	146	102	Unknown	Unknown	106	140	336	330	365	360	160	240	295	375	300	78	378	390	192	325	390	360	360	200	245	380	330	380	335	390	350	Unknown			
Measured Depth (ft)	N/A	56	38	30	80	82	92	138	126	N/A	N/A	146	N/A	N/A	N/A	106	N/A	N/A	332	250	350	158	132	244	374	186	N/A	298	392	190	238	384	380	394	254	96	240	322	280	330	396	342	N/A			
Casing Diameter	NA	2.75	2.75	2.75	2.75	2.75	2.75	2.75	2.75	NA	NA	2.75	NA	NA	NA	2.75	NA	NA	2.75	2.75	2.75	2.75	2.75	2.75	2.75	NA	NA	2.75	2.75	2.75	2.75	2.75	2.75	2.75	2.75	NA	NA	3.5	2.75	2.75	3.5	3.5	NA			
Casing Type		SI/cc	Alum/cc	SI/cc	Alum/cc	Alum/cc	Alum/cc	SI	SI									Alum/cc	Alum	lum/cc/mq	SI/1.5"	Alum/cc	Alum/cc	lum/cc/mod			Alum	Alum/cc	SI/cc	SI	Alum	SI	SI	SI			Alum/3.5"	Alum/cc	Alum	Alum/3.5"	Alum/3.5"					
Perforated interval	NA	-31 to -26	-14 to -9	-5 to 0	-62 to -57	-57 to -52	-65 to -60	-111 to -106	-99 to -94	NA	NA	bottom	NA	NA	NA	bottom	NA	NA	-37 to -32	-88 to -83	-121 to -116	92 to 97	80 to 85	-43 to -38	-56 to -51	na	na	65 to 70	-107 to -102	348 to 353	302 to 307	NA	-112 to -107	-51 to -46	126 to 131	NA	45 to 50	104 to 204	380 to 385	448 to 453	462 to 562	NA	NA			
Backfill	NA	Sand	NA	NA	NA	NA	NA	NA	NA	NA	Grout	NA	NA	NA	Grout	NA	NA	NA	NA	NA	Grout	Sand	Sand	NA	NA	NA	NA	NA	NA	NA	Grout	NA	Grout	Grout	Grout	Grout	NA	NA	Filter	NA	NA	NA	Sand	NA		
Installed By	KB	EVANS	EVANS	EVANS	EVANS	EVANS	EVANS	EVANS	EVANS	KB	CT	BYA	CT	CT	BYA	EVANS	CT	EVANS	EVANS	EVANS	BYA	EVANS	EVANS	EVANS	BYA	LS	EVANS	EVANS	EVANS	BYA	CONV	BYA	BYA	BYA	BYA	EVANS	EVANS	CONV	EVANS	CONV	CONV	CONV	CONV	EVANS		
Reading Interval	N.R.	Quart	Quart	Quart	Semi.	Semi.	Quart	Quart	Quart	N.R.	N.R.	N.R.	N.R.	N.R.	N.R.	Dest.	Dest.	Quart	Quart	Quart	Quart	Quart	Semi.	Quart	Semi.	Quart	Dest.	Dest.	Semi.	Semi.	Semi.	Quart	Quart	Quart	Quart	Quart	N.R.	N.R.	Semi.	Semi.	CONV	CONV	CONV	CONV	CONV	Dest.
Date 1st Base Reading	#####	9/13/88	9/13/88	9/13/88	3/10/88	9/3/89	12/10/87	10/19/88										11/5/87	9/8/88	9/7/88	6/8/95	9/7/88						3/10/88	3/10/88		2/10/89	9/8/88	2/19/99	11/24/98	11/20/98	#####			11/5/87	7/2/87	7/2/87	9/8/88	9/13/88			
Displacement Depth		0 to 25	23.43		58	60	25-30	48-54	39									>330	245	162.250	143.50	2.170.21	247.200	210.50			305	380	184	196								251					45			
A+ axis direction	NA	34	44	35	20	30	350	64	10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	39	204	18	190	32	60	20	NA	NA	340	330	10	60	326	210	184	164	NA	NA	1	300	345	5	45	NA				
Region	PCH	PCH	PCH	PCH	PCH	PCH	PCH	PCH	PCH	PCH	PCH	PCH	PCH	PCH	PCH	PCH	PCH	BLUFF	BLUFF	BLUFF	EAST	EAST	EAST	EAST	EAST	EAST	EAST	EAST	EAST	EAST	EAST	EAST	EAST	EAST	EAST	EAST	EAST	EAST	EAST	EAST	EAST	EAST	EAST	EAST	EAST	
Basal Surf. Penetrated		YES	NO	NO	NO	NO	YES	YES	YES									NO	NO	YES	YES	NO	NO	YES				NO	NO	NO	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
<b>Interpretation Movement (inches)</b>																																														
2010-2011	NA	<0.05	--	--	--	--	<0.05	--	--	NA	NA	NA	NA	NA	NA	NA	NA	--	--	--	--	--	0.2	--	NA	NA	--	--	0.5	--	--	--	--	--	NA	NA	--	--	--	--	--	NA				
2009-2010	NA	--	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA	--	--	--	--	--	--	--	NA	NA	--	--	--	--	--	--	--	--	--	--	NA	NA	--	--	--	--	<0.05	NA		
2008-2009	NA	--	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA	--	--	--	--	--	--	--	NA	NA	--	--	--	--	--	--	--	--	--	--	NA	NA	--	--	--	--	--	--	NA	
2007-2008	NA	--	--	--	--	--	0.05	--	--	NA	NA	NA	NA	NA	NA	NA	NA	--	--	--	--	--	--	--	NA	NA	--	--	--	--	--	--	--	--	--	--	NA	NA	--	--	--	--	--	--	NA	
2006-2007	NA	--	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA	--	--	--	--	--	--	--	NA	NA	--	--	--	--	--	--	--	--	--	--	NA	NA	--	--	--	--	--	--	NA	
2005-2006	NA	--	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA	--	NA	--	--	--	--	NA	NA	--	--	--	--	0.1	--	--	--	--	--	--	NA	NA	--	--	--	--	0.22	NA		
2004-2005	NA	0.09	0.03	--	0.03	0.01	0.04	0.04	--	NA	NA	NA	NA	NA	NA	NA	NA	--	0.05	0.02	--	--	0.10	0.06	NA	NA	?	0.06	0.09	0.09	0.15	--	--	--	--	NA	NA	--	--	--	--	0.35	NA			
2003-2004	NA	--	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA	--	--	--	--	--	--	NA	NA	--	--	--	--	--	--	--	--	--	--	NA	NA	--	--	--	--	--	--	NA		
2002-2003	NA	--	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA	--	--	--	--	--	--	NA	NA	--	--	--	--	--	--	--	--	--	--	NA	NA	--	--	--	--	--	--	NA		
2001-2002	NA	--	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA	--	--	--	--	--	--	NA	NA	--	--	--	--	--	--	--	--	--	--	NA	NA	--	--	--	--	--	--	NA		
2000-2001	NA	--	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA	--	0.02-0.04	--	--	--	--	--	NA	NA	--	--	--	0.02-0.04	--	--	--	--	NA	NA	--	--	--	--	0.2	NA				
1999-2000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		
1998-1999	NA	-0.1	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA	--	--	--	--	--	--	NA	NA	--	--	--	--	--	--	--	--	--	--	NA	NA	--	--	--	--	--	1.9	NA		
1997-1998	NA	0.3	--	--	--	--	0.08	0.04	--	NA	NA	NA	NA	NA	NA	NA	NA	--	--	--	0.08	--	0.02	0.08	NA	NA	--	--	--	0.03	--					NA	NA	--	--	--	--	1	NA			
1996-1997	NA	<0.1	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA	--	--	--	<0.1	--	0.5	--	NA	NA	--	--	--	--	--	--	--	--	NA	NA	--	--	--	--	0.7	NA				
1995-1996	NA	0.08	<0.1	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA	--	--	--	0.07	--	--	--	NA	NA	--	--	--	0.04	--					NA	NA	--	--	--	--	3.5	NA			
1994-1995	NA	0.1	0.08	--	--	--	0.15	--	--	NA	NA	NA	NA	NA	NA	NA	NA	--	--	--	0.04, 0.05	--	--	0.1, 0.2	NA	NA	--	--	--	--	--	--	--	NA	NA	--	--	--	--	5	NA					
1993-1994	NA									NA	NA	NA	NA	NA	NA	NA	NA	--	--	--					NA	NA	--	--	--	--	--	--	--	--	NA	NA	--	--	--	--	--	--	NA			
1/1993-7/1993	NA	0.08	--	--	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA	--	--	--					NA	NA	--	--	--	--	--	--	--	--	NA	NA	--	--	--	--	1.1	NA				
7/1992-12/1992	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA			
1988-1991	NA	0.2	0.05	--	0.08	--	0.15	0.1	0.14	NA	NA	NA	NA	NA	NA	NA	NA	--	--	--					NA	NA	--	--	--	--	--	--	--	--	NA	NA	--	--	--	--	0.3	NA				
1983-1984	2.28	3.4					1.4																																							

N.R. Not Read      -- No quantifiable measurement      Installation Designations:      KB Kovacs-Byer, Inc.      GS GeoSoils  
 Semi Semi-Annually      NA Data not available      EVANS D.A. Evans      BYA Bing Yen & Associates  
 Dest. Destroyed      CT Caltrans      LS Lockwood-Singh  
 Quart Quarterly      CONV Converse Consultants

-- Shaded Blue to indicate inclinometer does NOT penetrate the basal rupture  
 -- Shaded yellow to indicated inclinometer does penetrate basal rupture



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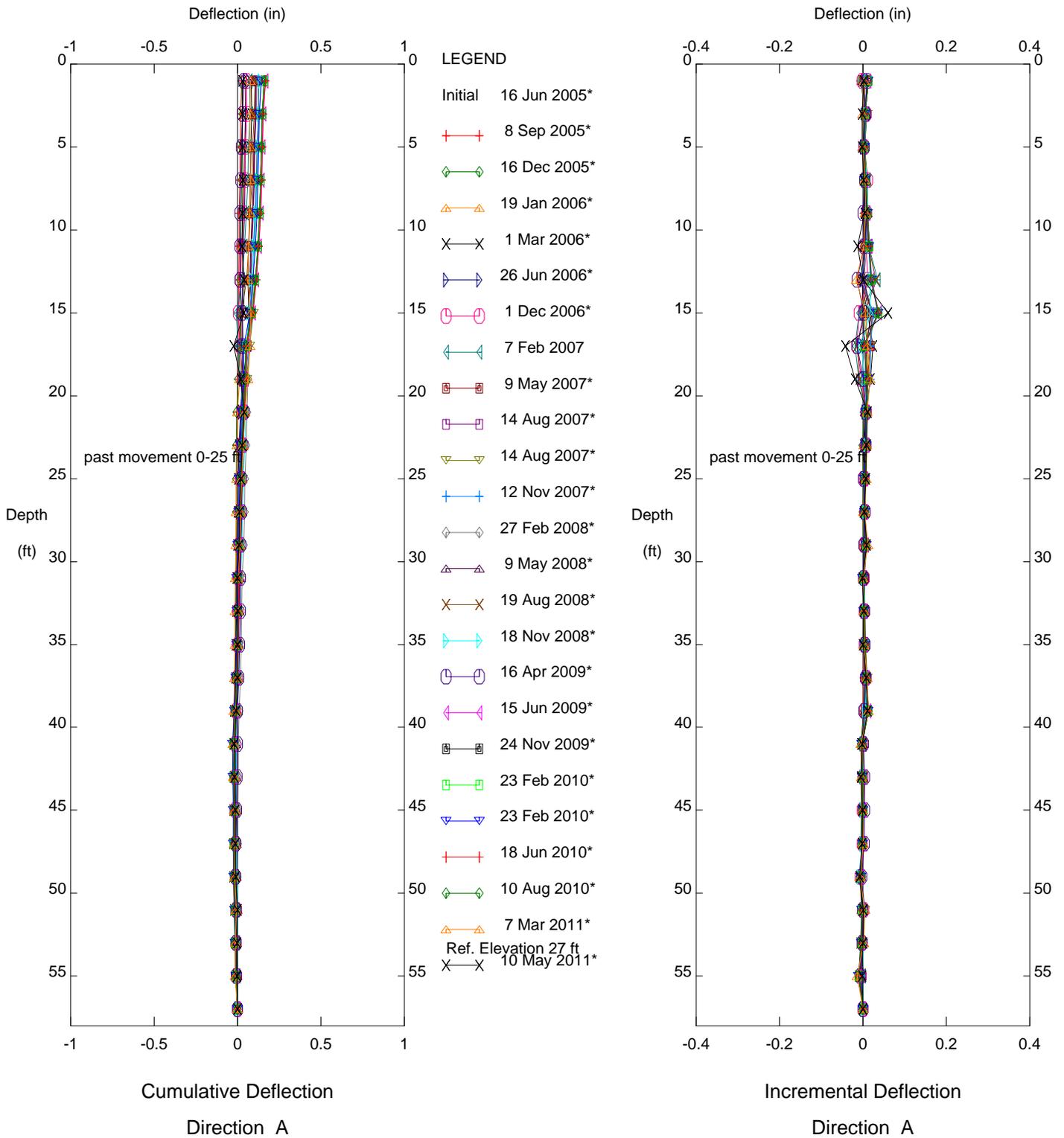
BRM, Inclinator SP-11

PCH REGION

Sets marked \* include zero shift and/or rotation corrections.



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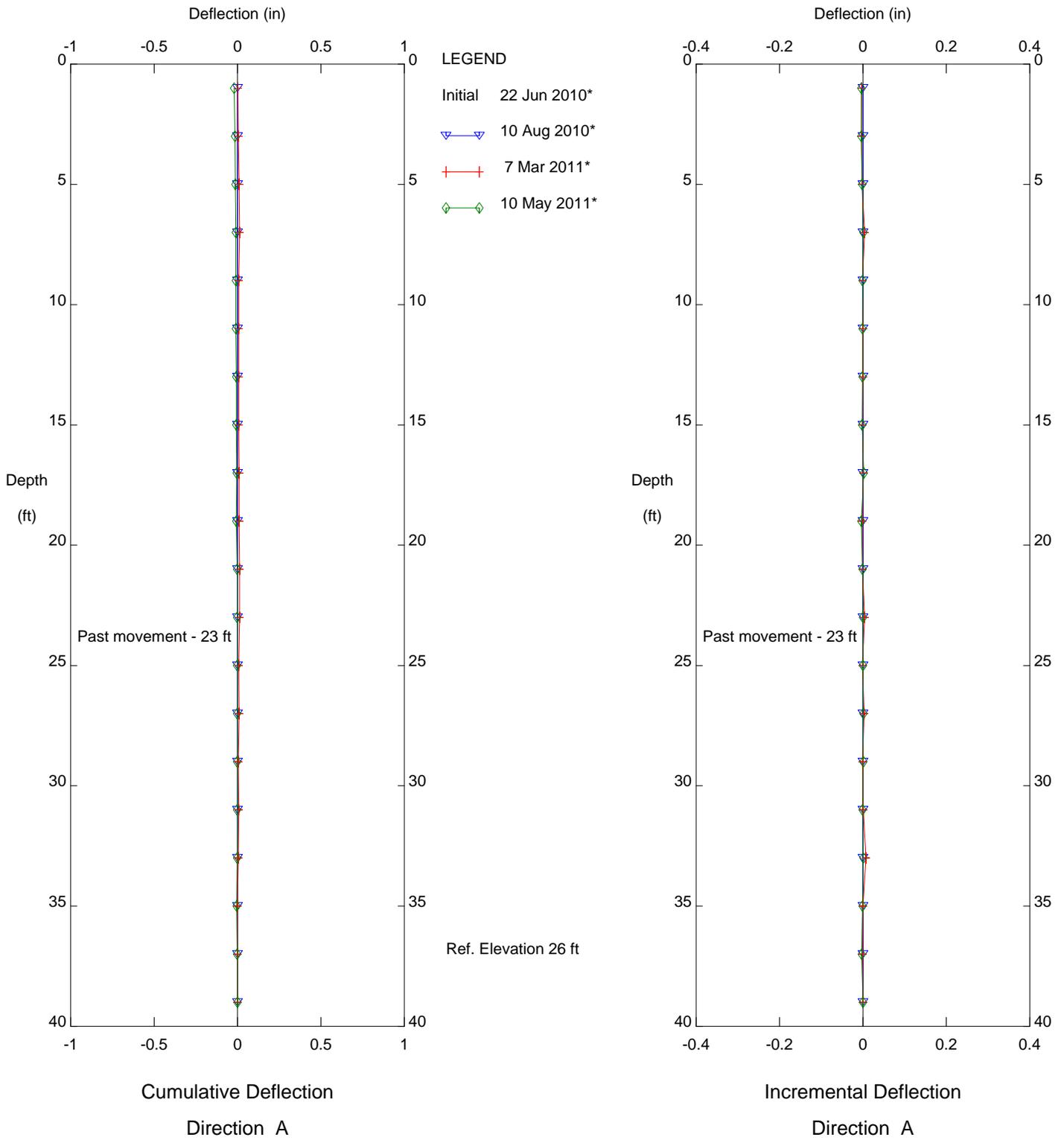
BRM, Inclinometer SP-11

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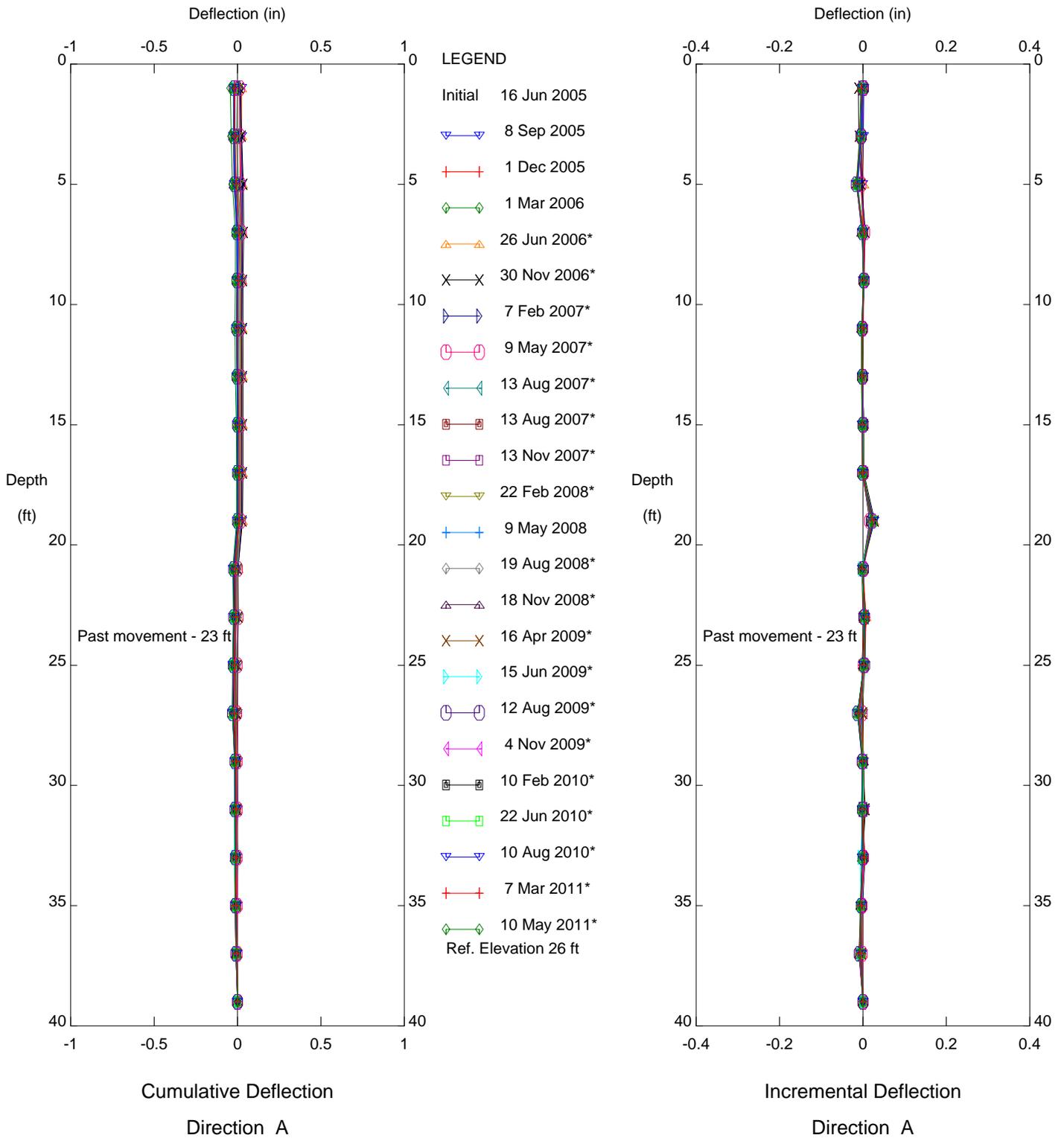
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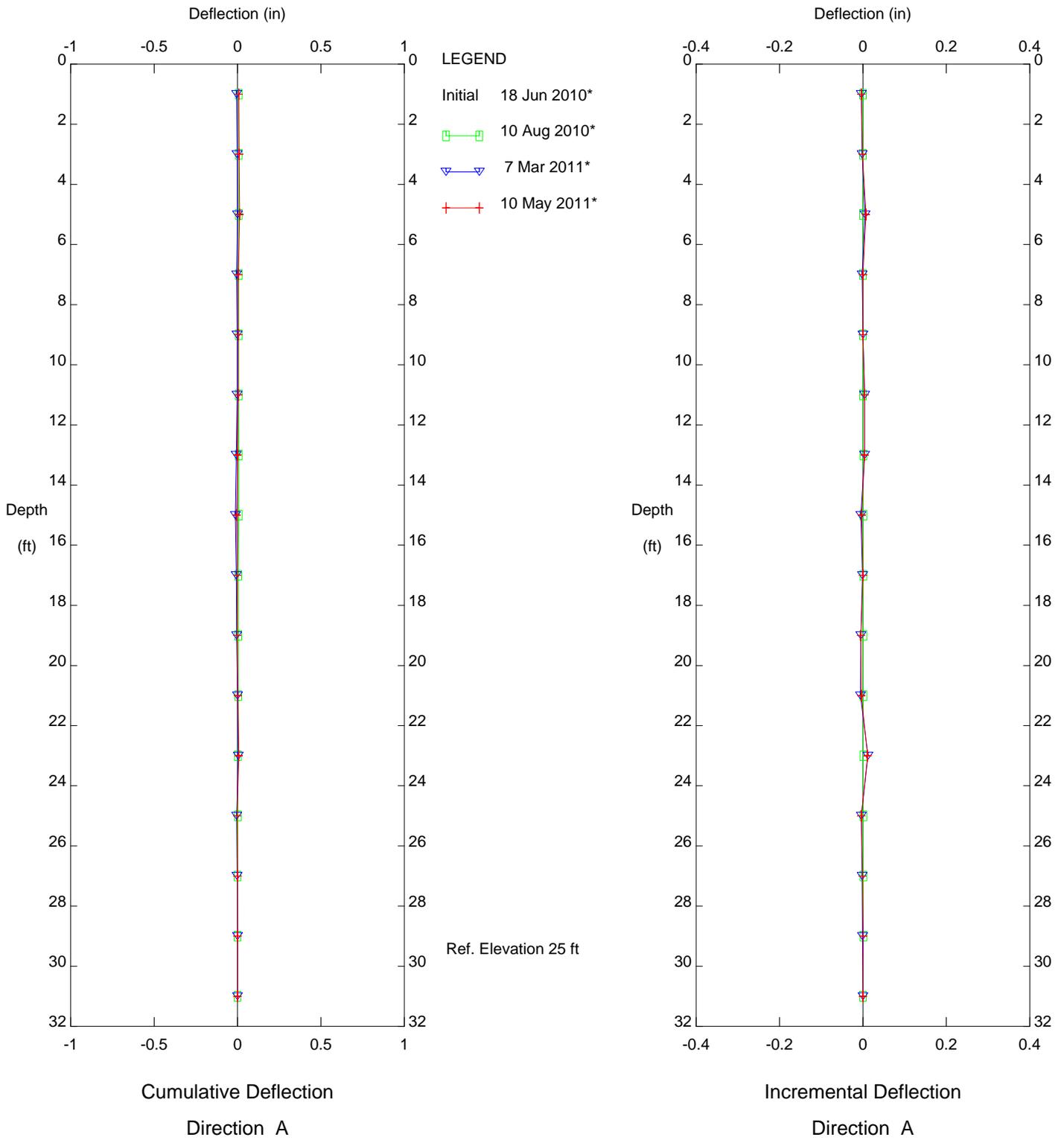
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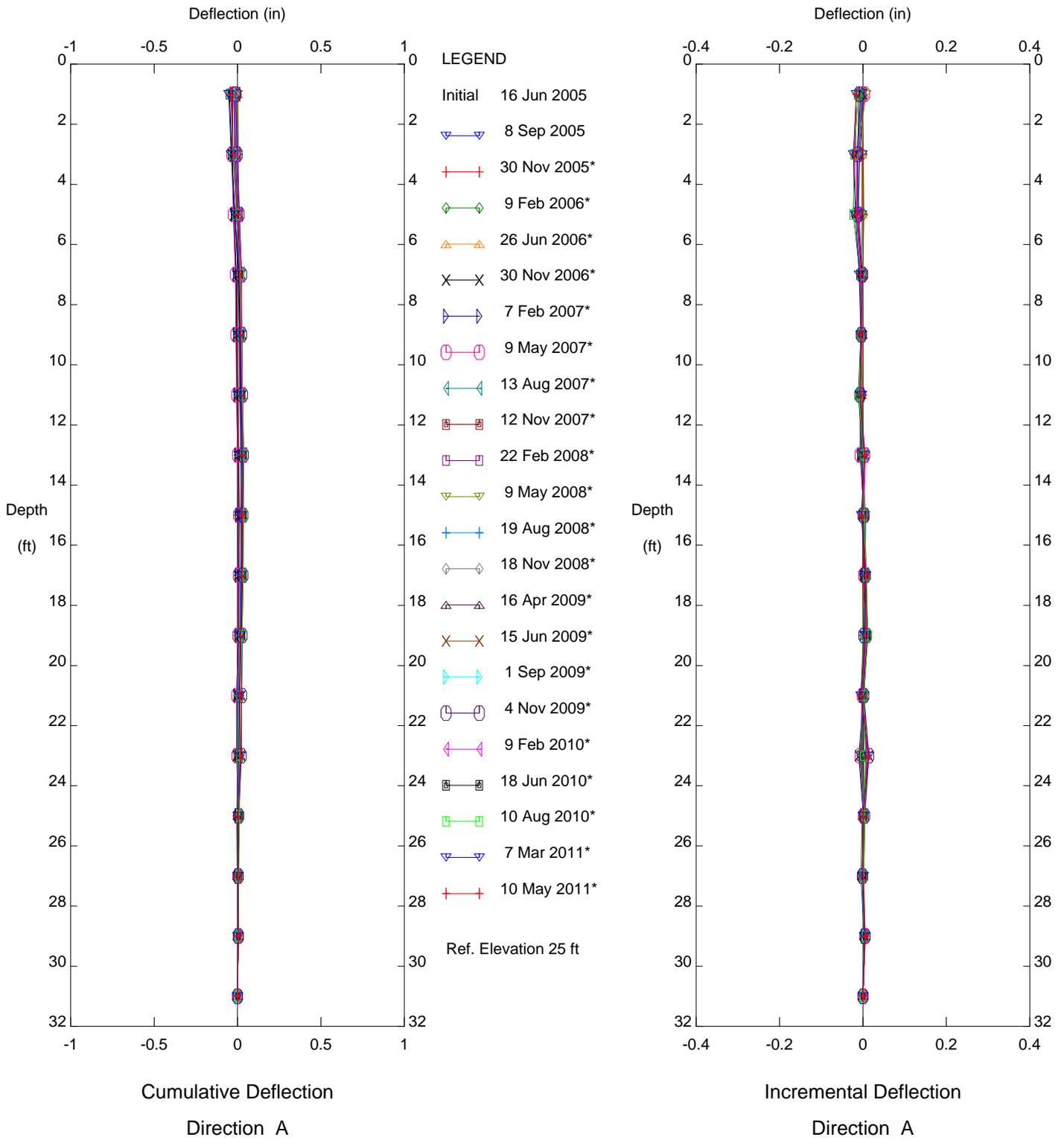
BRM, Inclinator SP14

PCH REGION

Sets marked \* include zero shift and/or rotation corrections.



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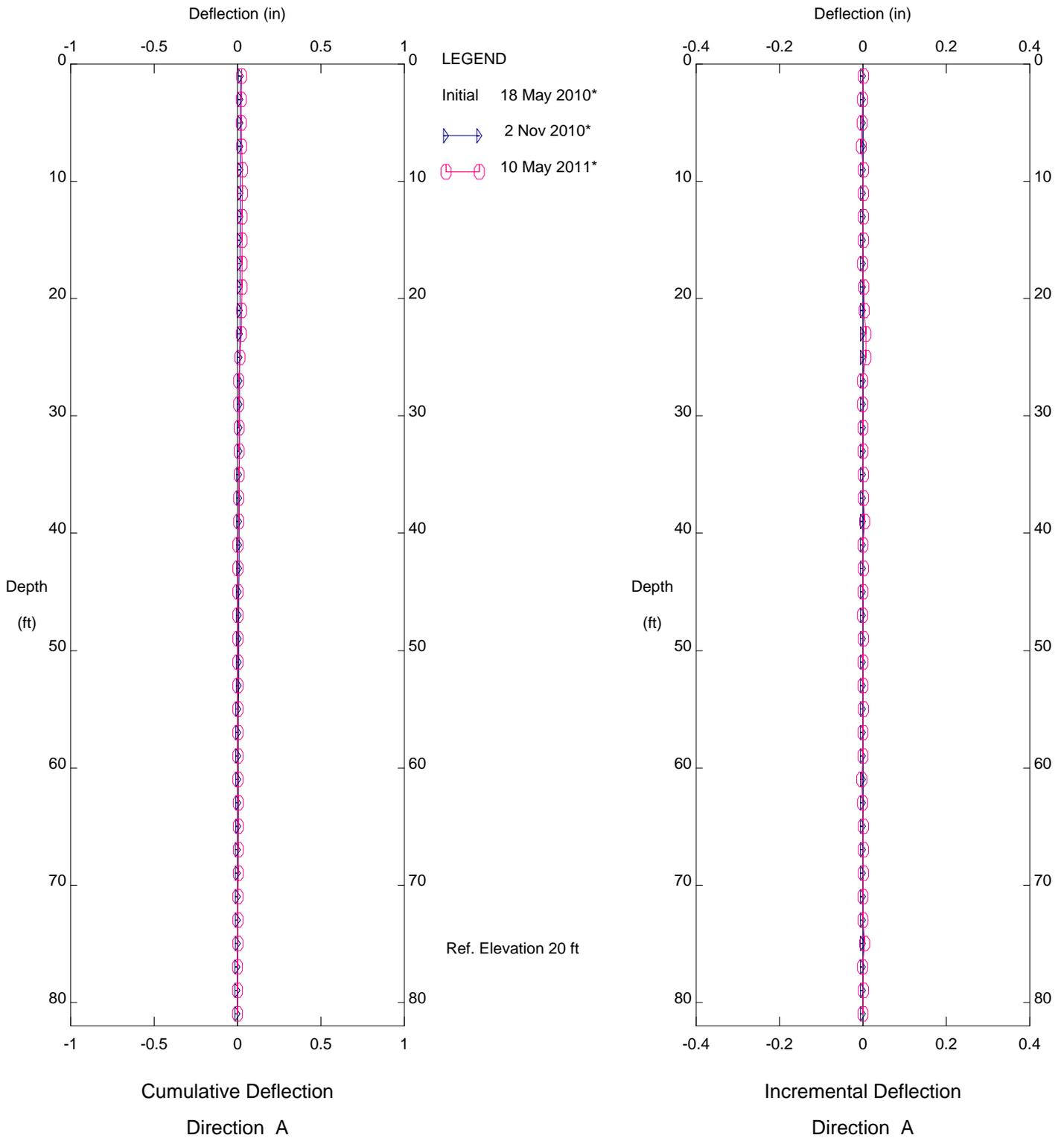
BRM, Inclinator SP14

PCH REGION

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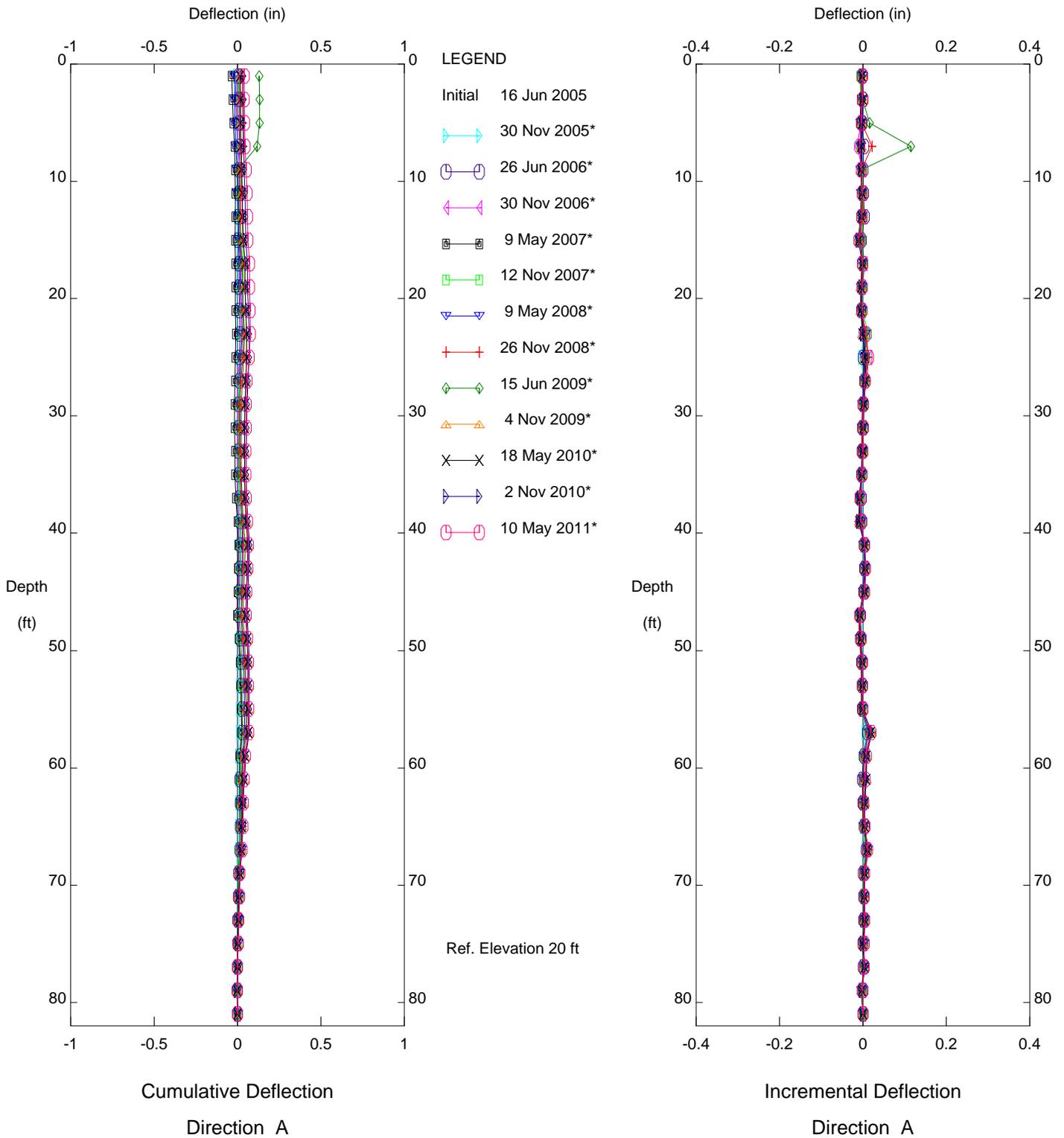
BRM, Inclinometer SP15

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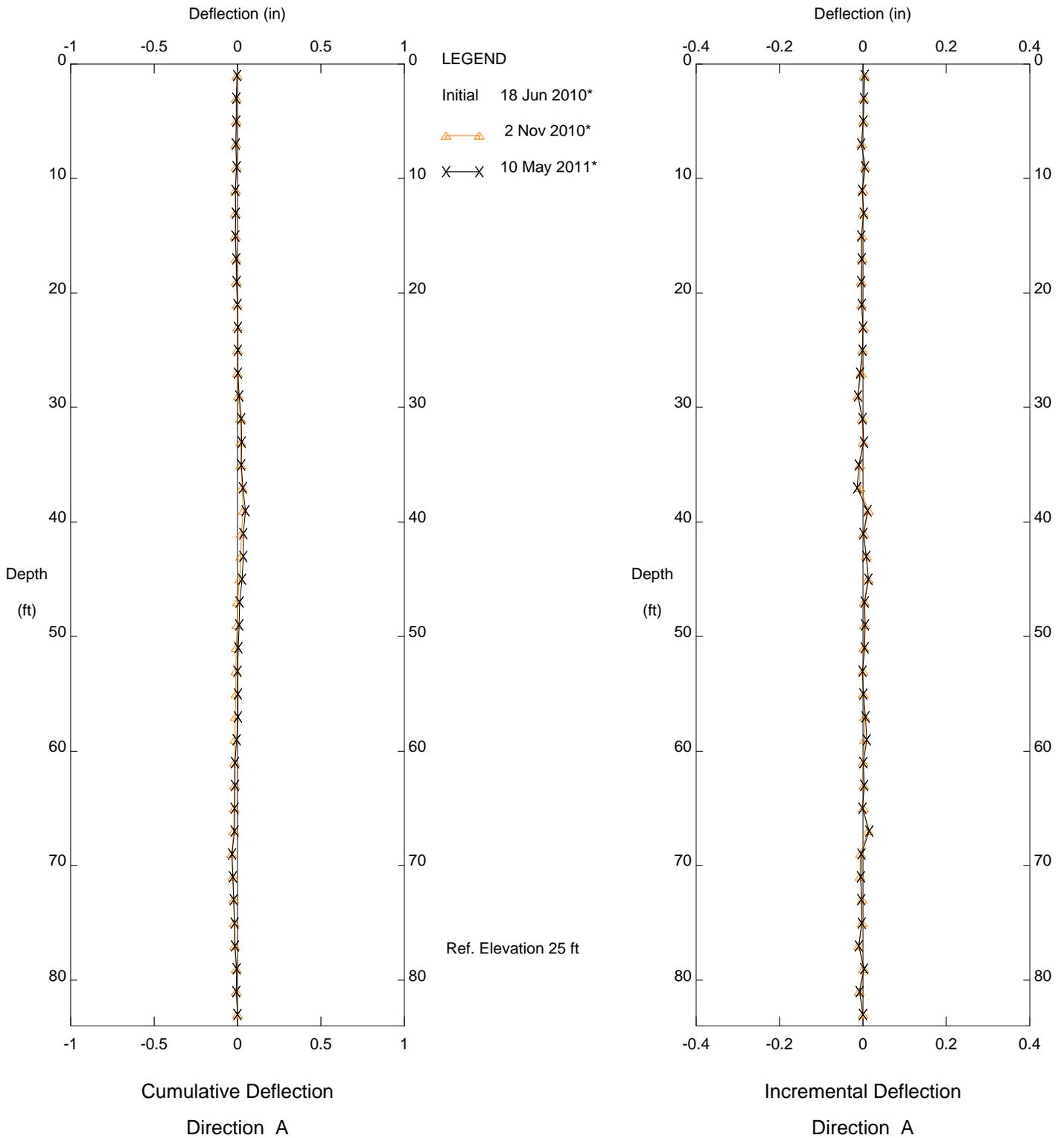
BRM, Inclinometer SP15

PCH REGION

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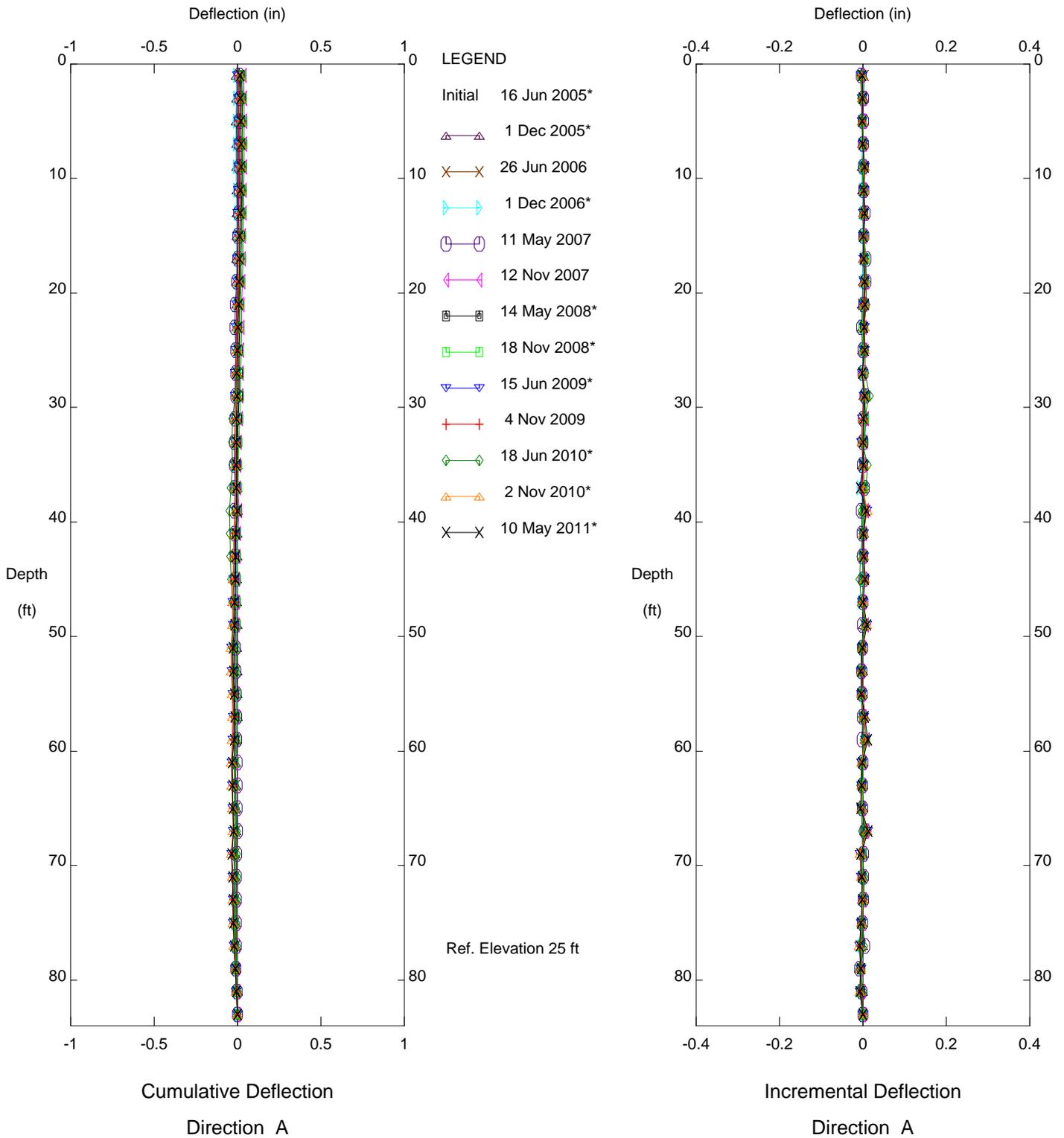
BRM, Inclinator SP19

PCH REGION

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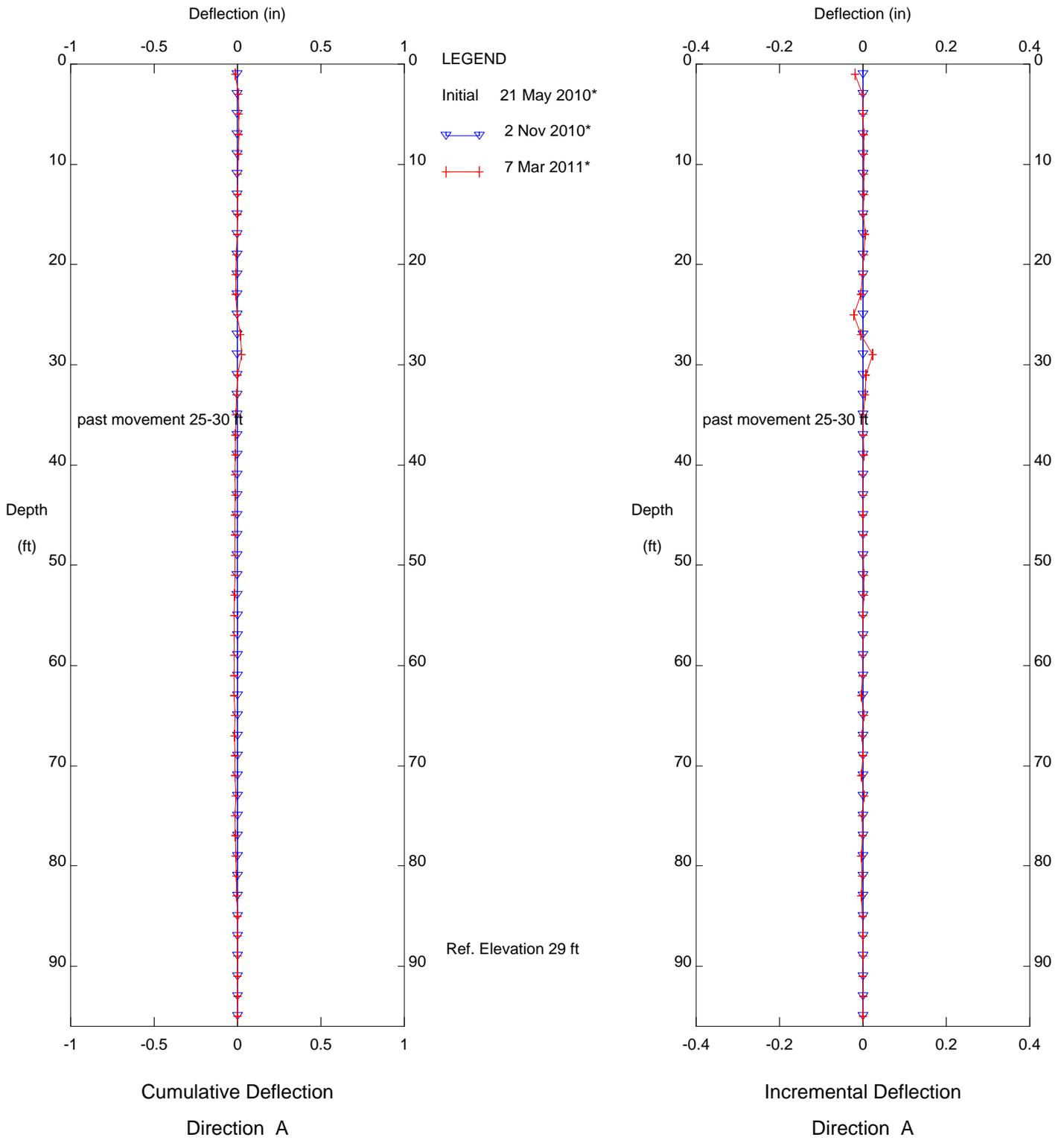
BRM, Inclinator SP19

PCH REGION

Sets marked \* include zero shift and/or rotation corrections.



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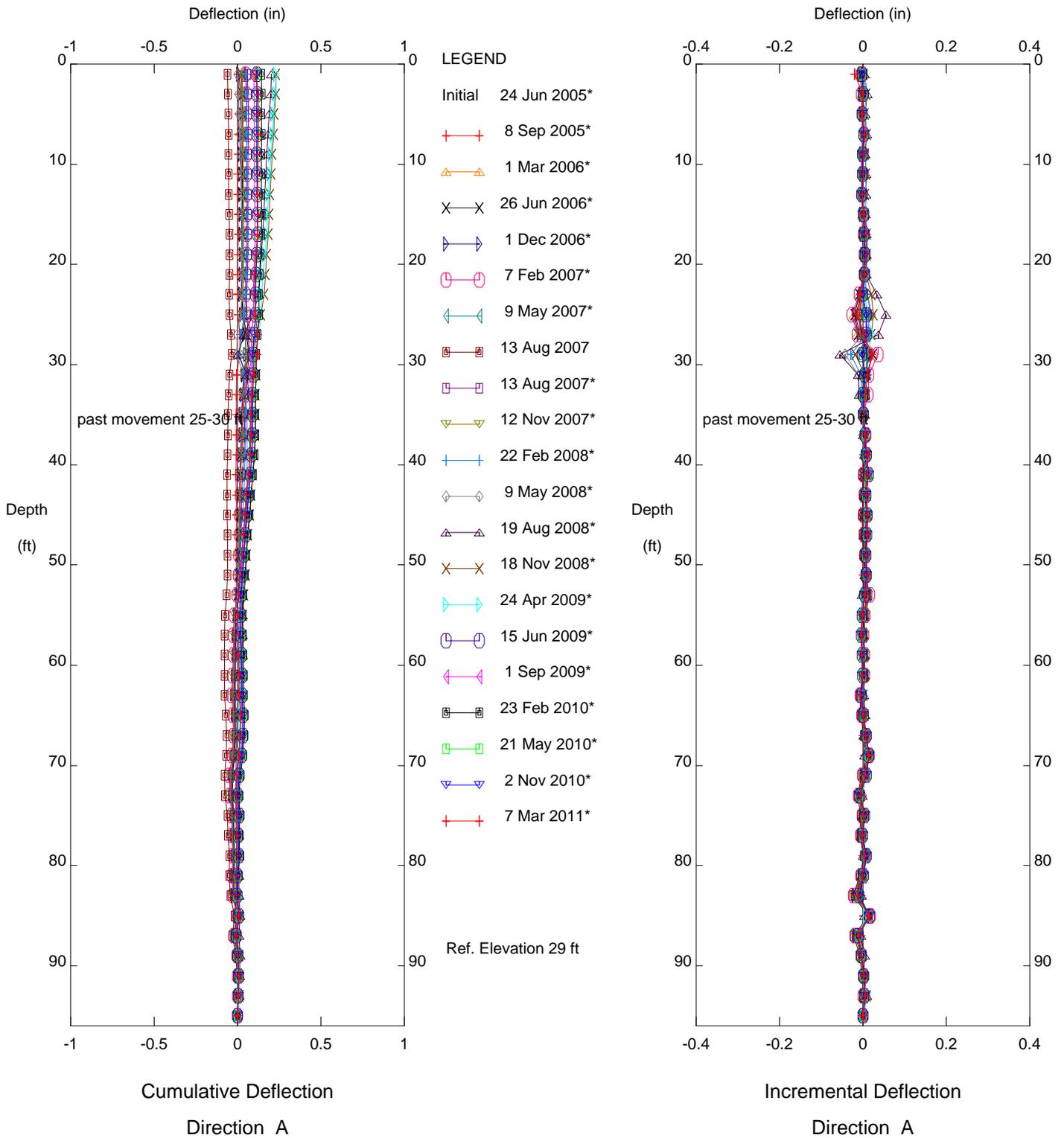
BRM, Inclinometer SP27A

PCH REGION

Sets marked \* include zero shift and/or rotation corrections.



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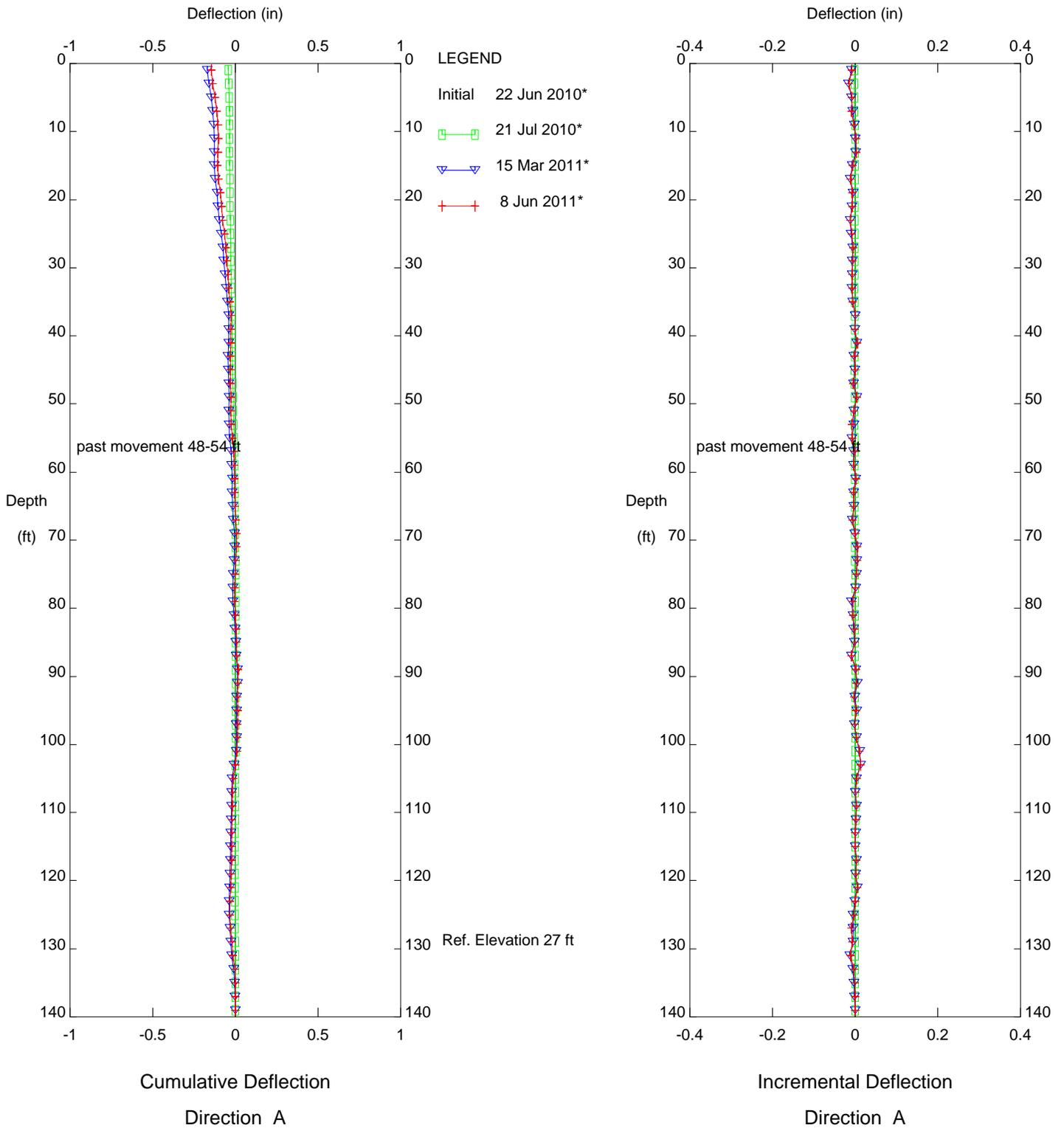
BRM, Inclinometer SP27A

PCH REGION

Sets marked \* include zero shift and/or rotation corrections.



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BRM, Inclinator SP29

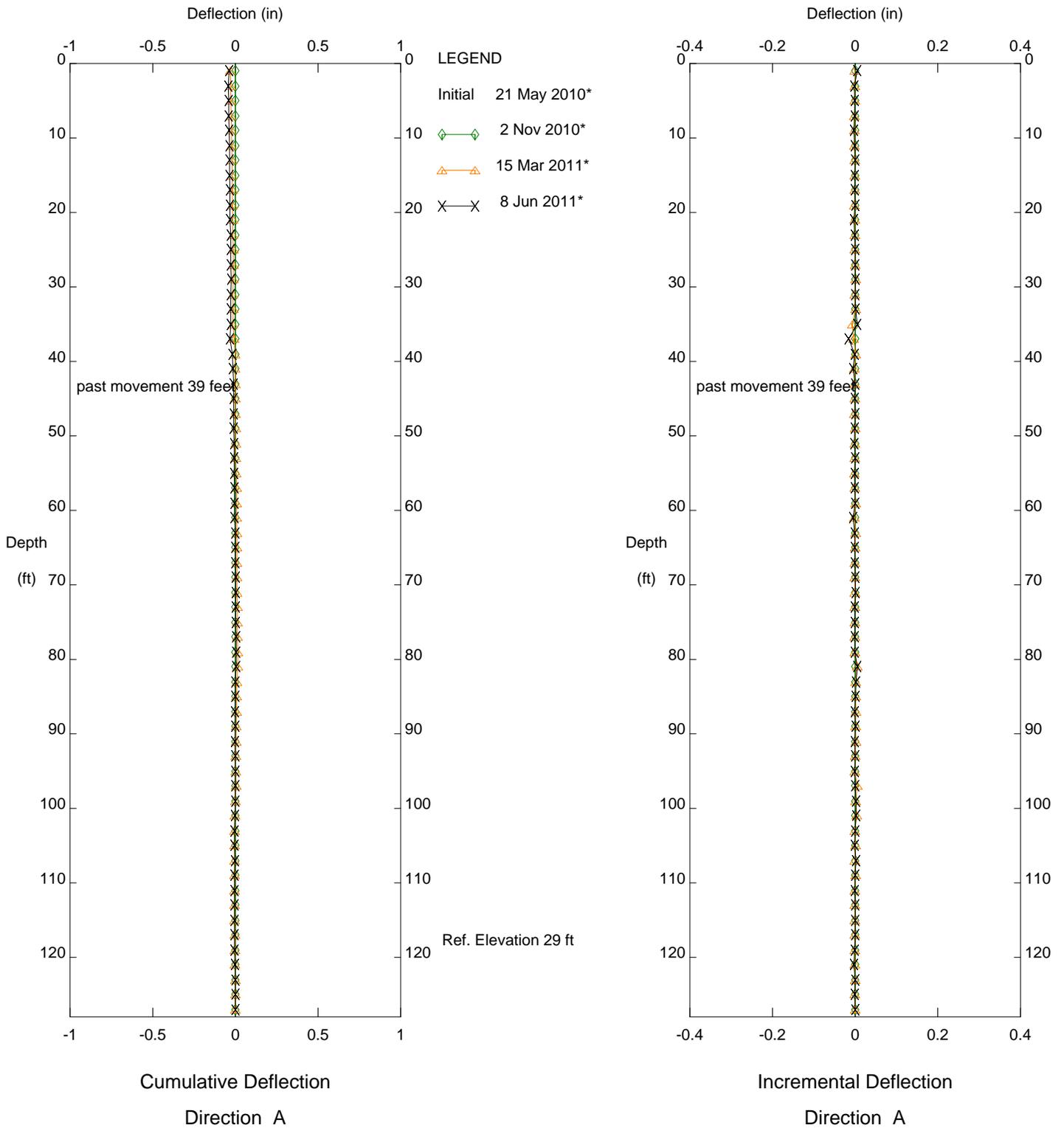
PCH REGION

Sets marked \* include zero shift and/or rotation corrections.





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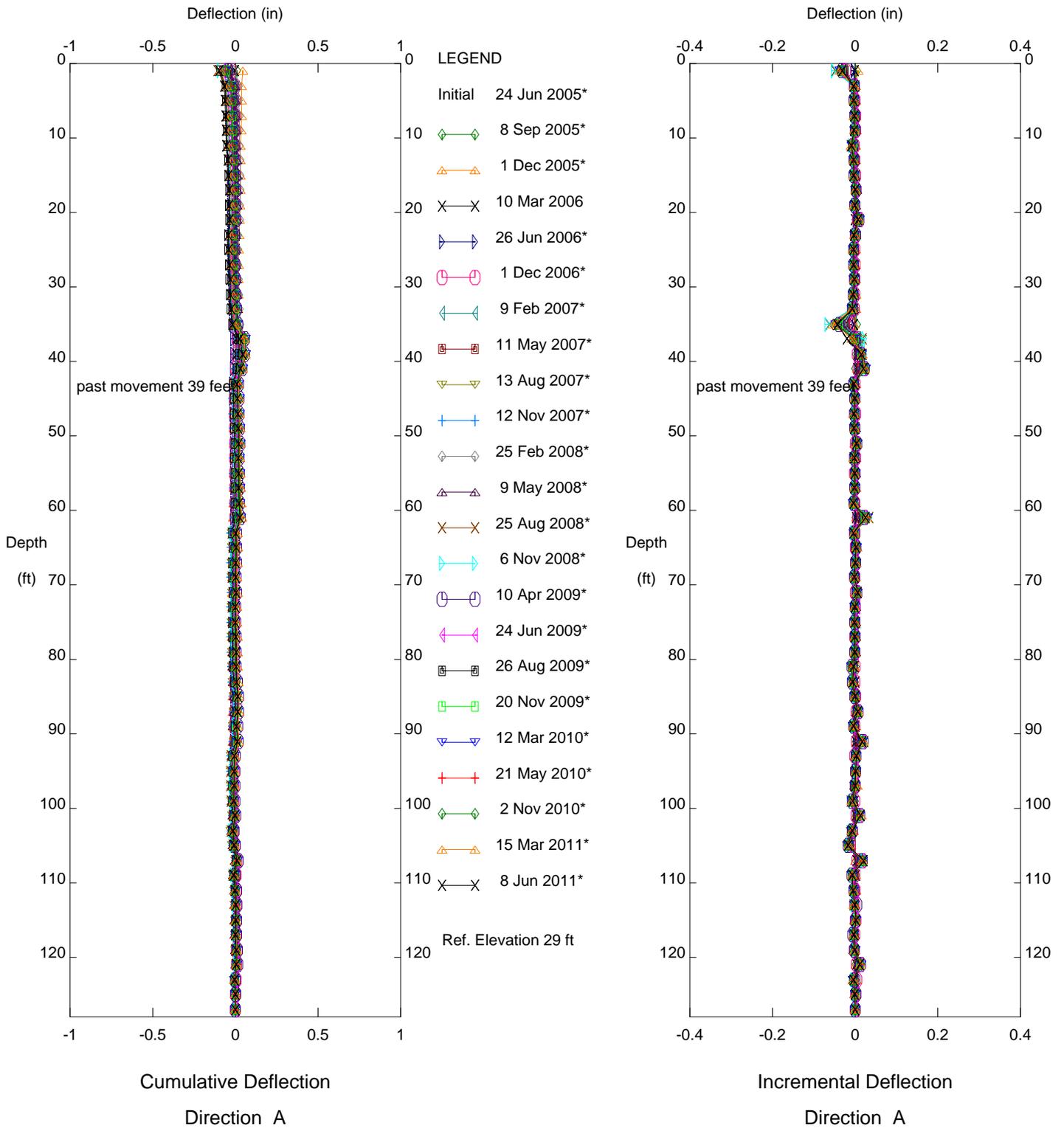
BRM, Inclinometer SP30

PCH REGION

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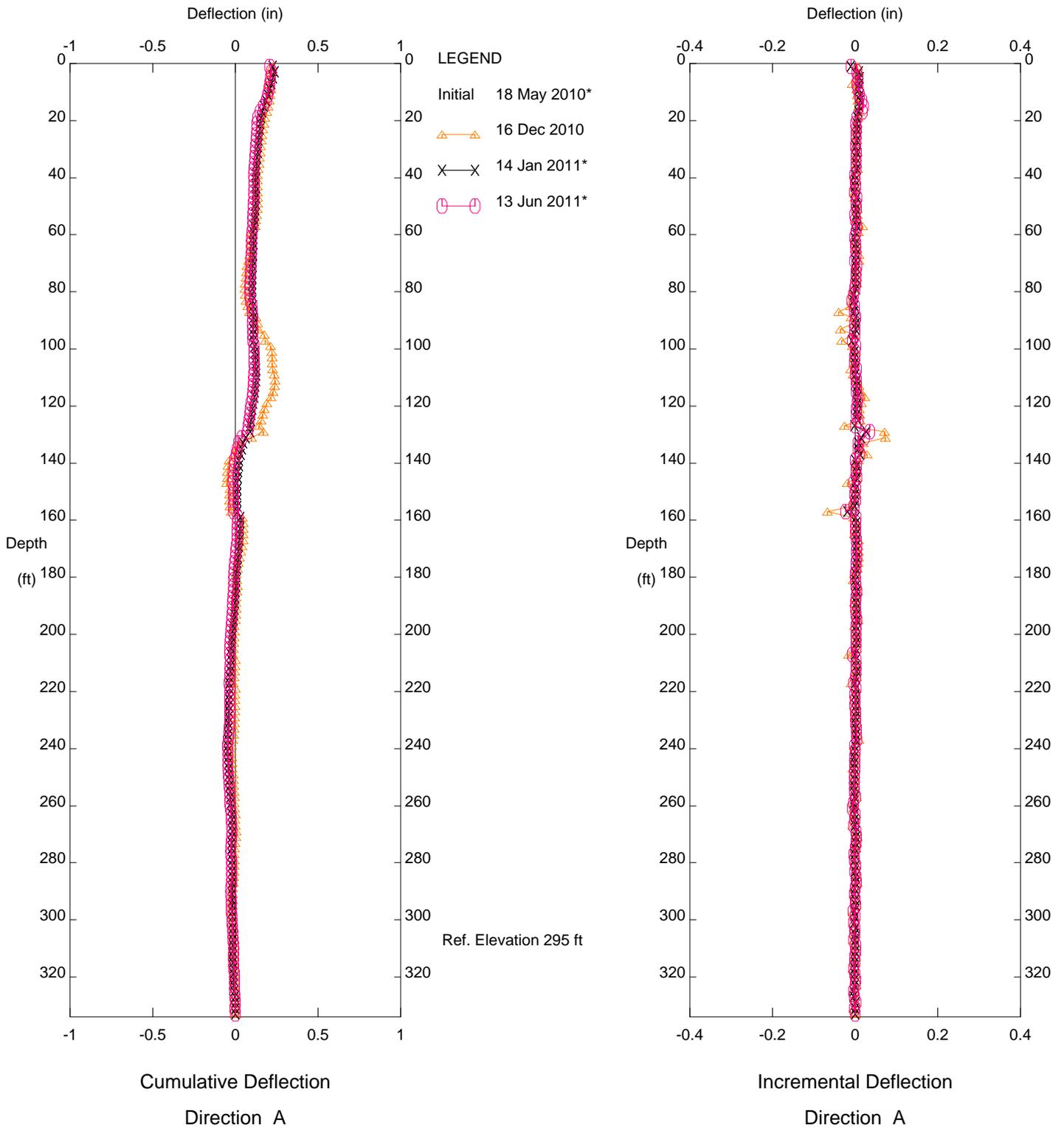
BRM, Inclinator SP30

PCH REGION

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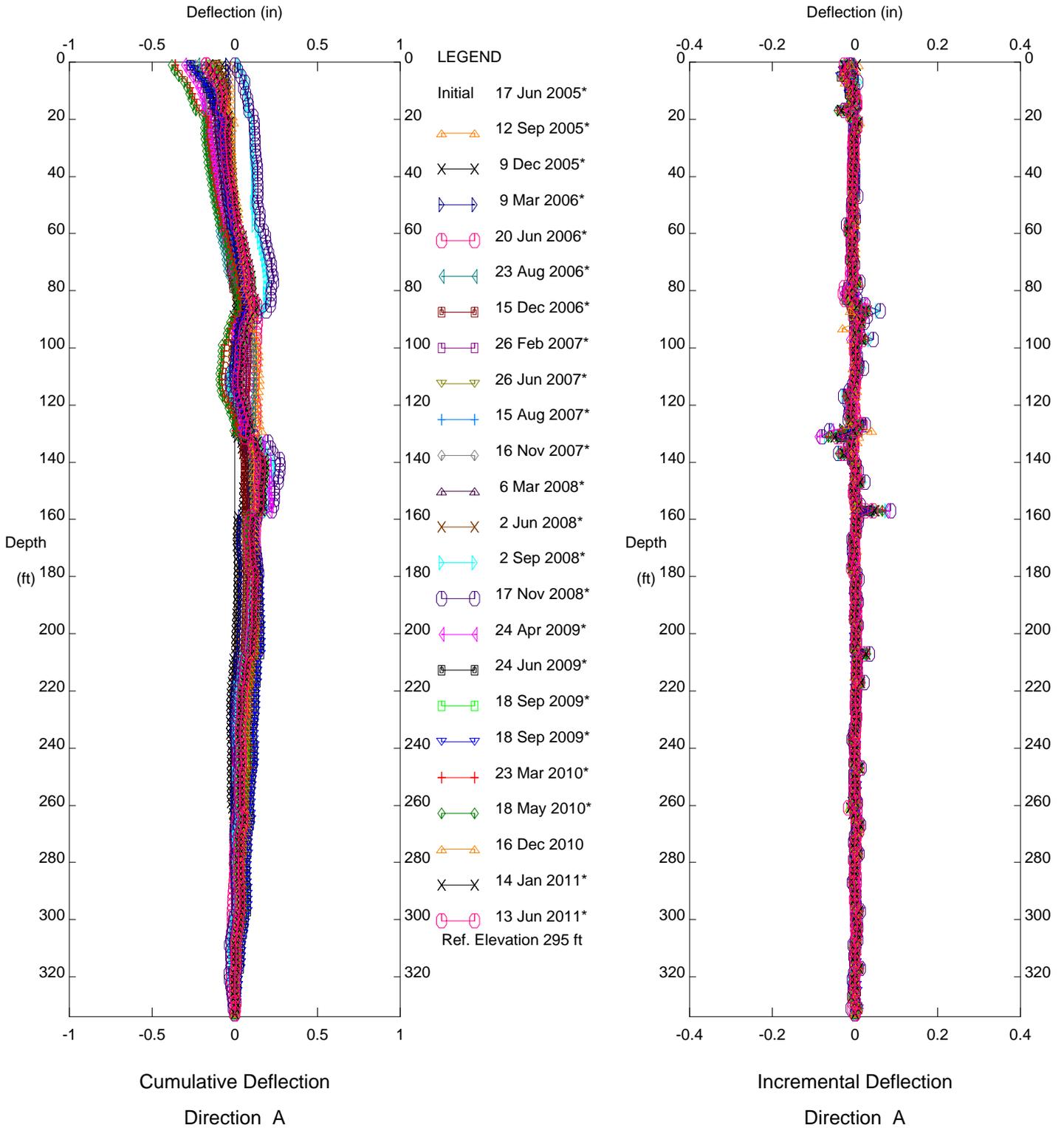
BRM, Inclinometer SP-10

BLUFF REGION

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Fugro West, Inc. - Ventura, CA



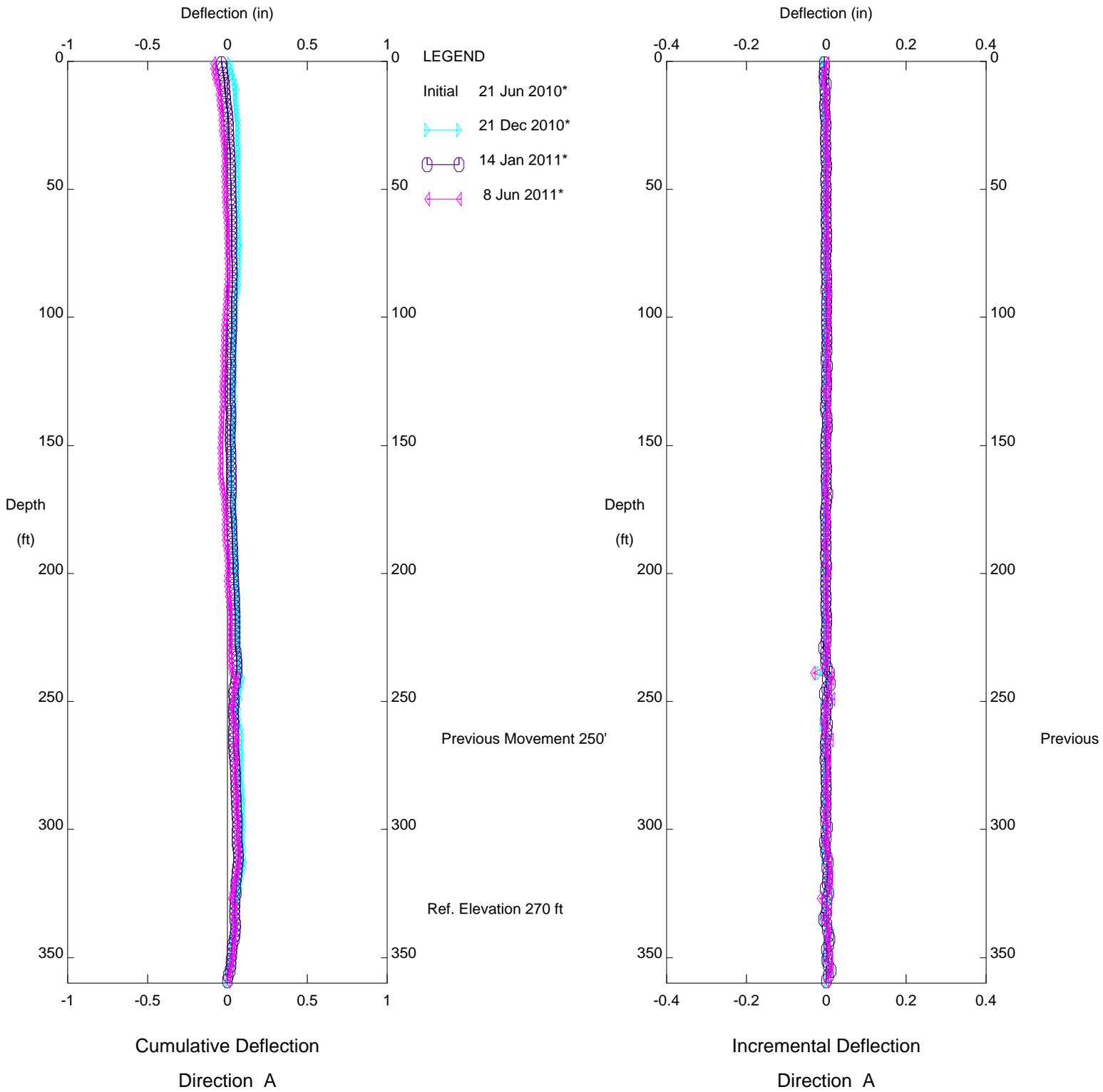
BRM, Inclinator SP-10

BLUFF REGION

Sets marked \* include zero shift and/or rotation corrections.



Fugro West, Inc. - Ventura, CA



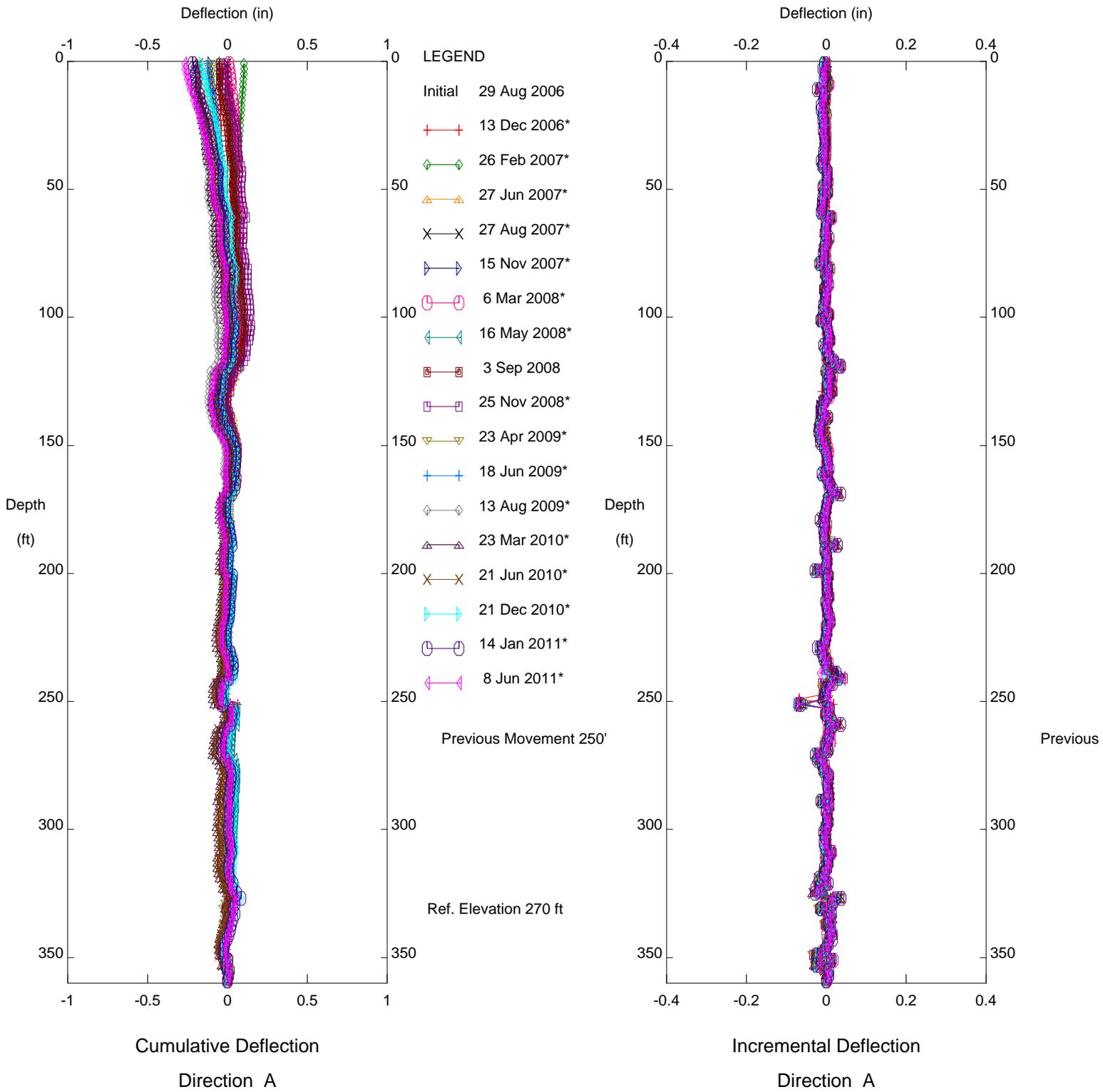
BRM, Inclinator SP28

BLUFF REGION

Sets marked \* include zero shift and/or rotation corrections.



Fugro West, Inc. - Ventura, CA



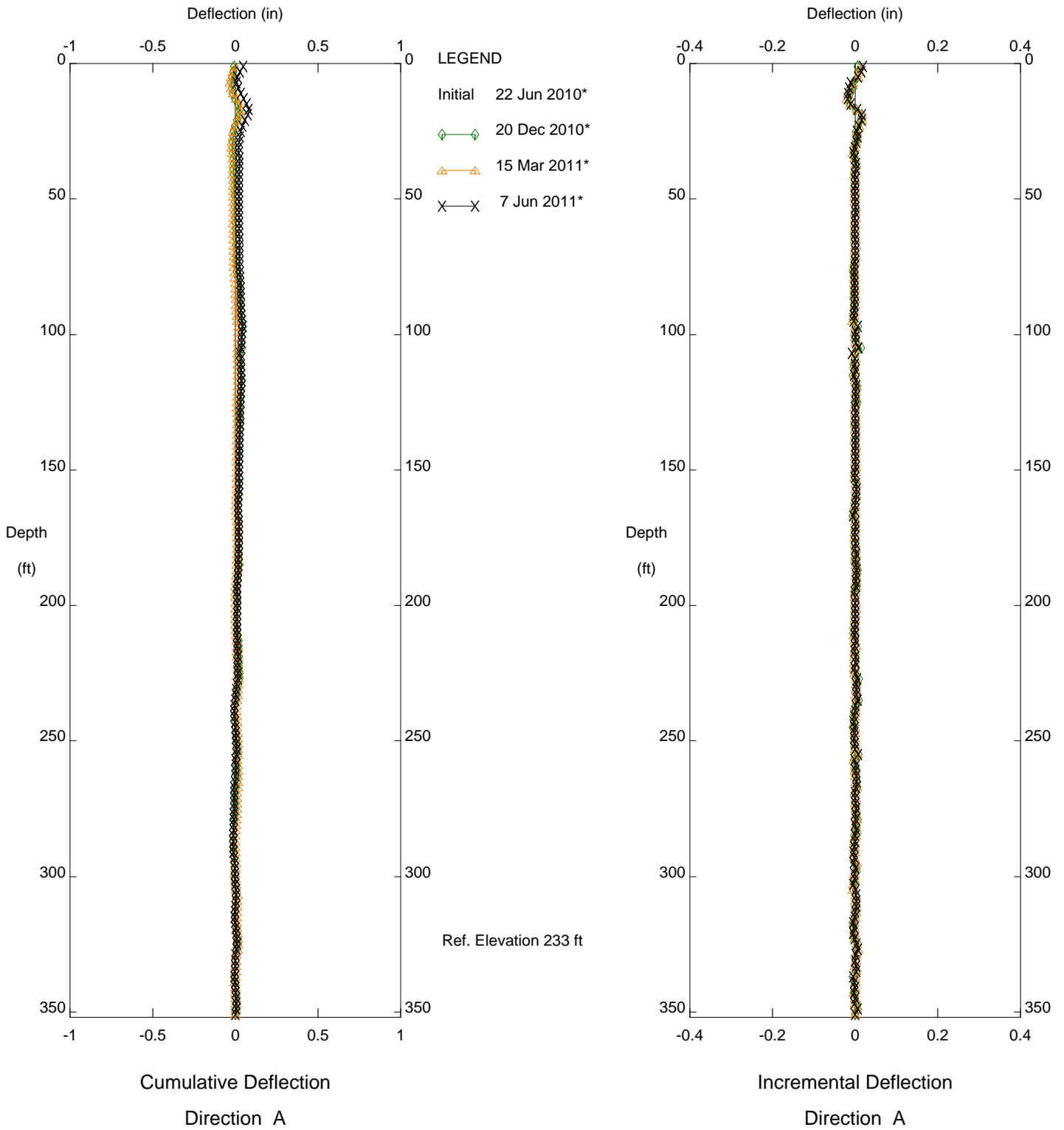
BRM, Inclinator SP28

BLUFF REGION

Sets marked \* include zero shift and/or rotation corrections.



Fugro West, Inc. - Ventura, CA



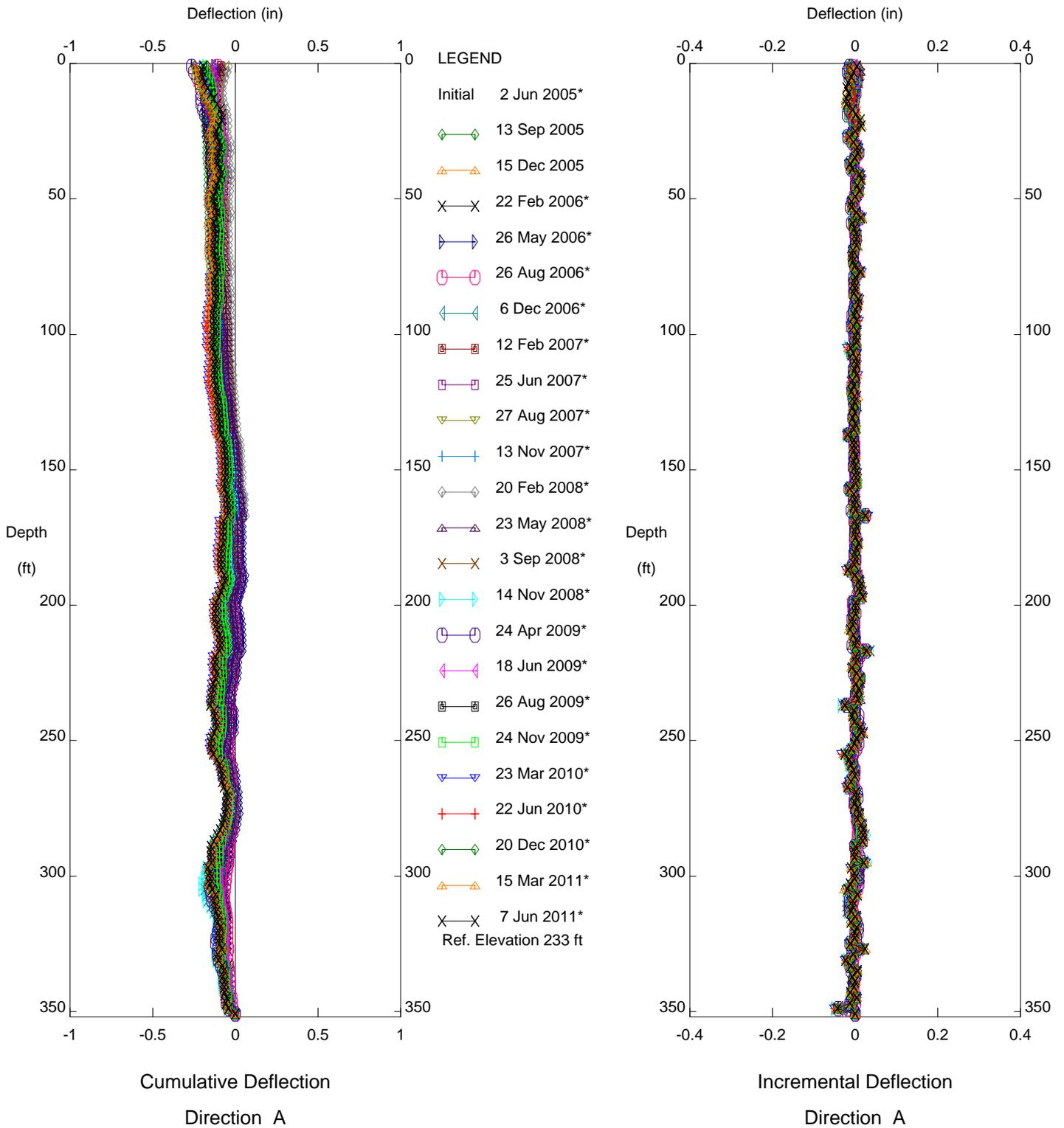
BRM, Inclinometer SP32

BLUFF REGION

Sets marked \* include zero shift and/or rotation corrections.



Fugro West, Inc. - Ventura, CA



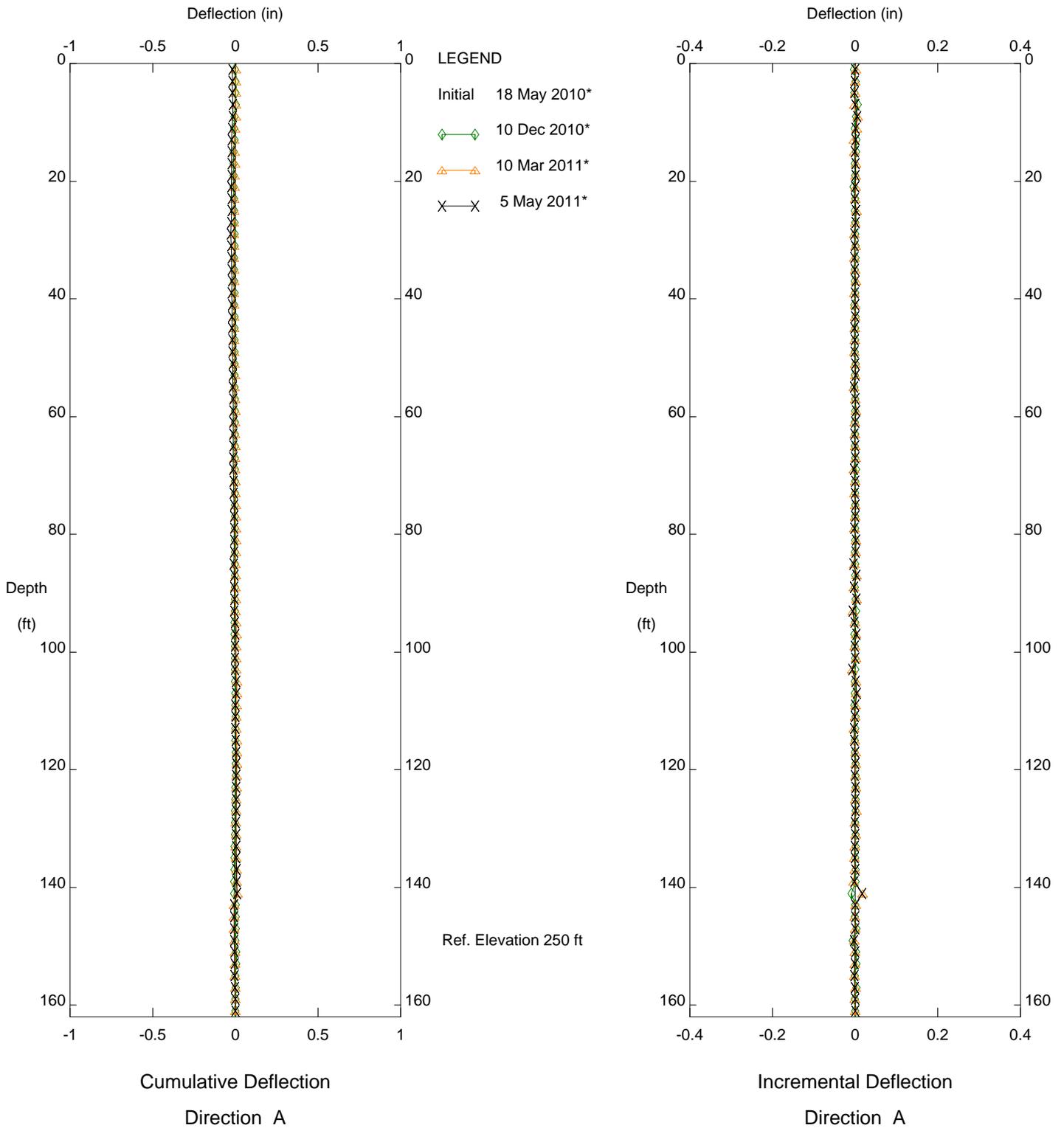
BRM, Inclinometer SP32

BLUFF REGION

Sets marked \* include zero shift and/or rotation corrections.



Fugro West, Inc. - Ventura, CA



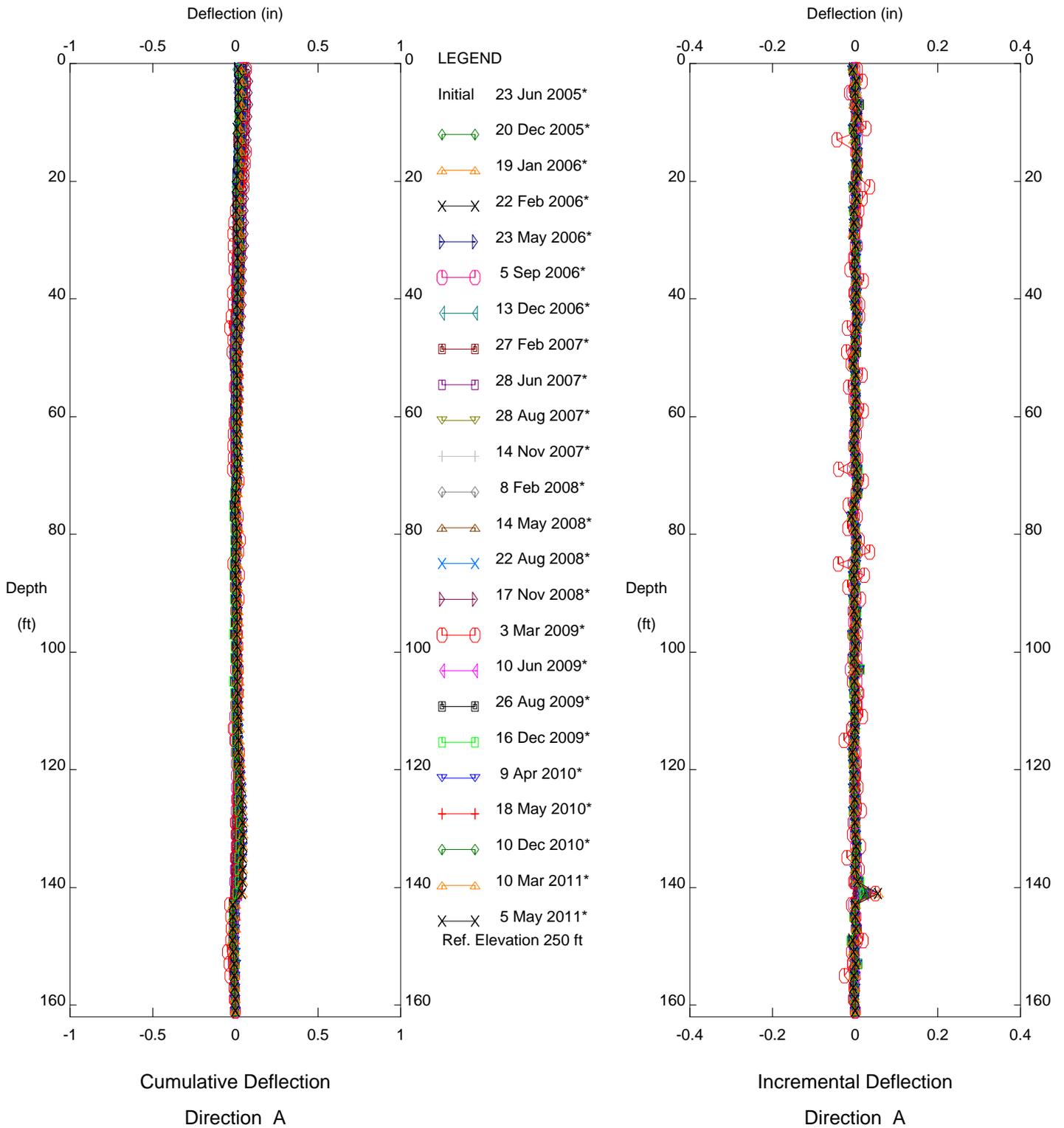
BIG ROCK MESA, Inclinometer PC-1

EASTERN REGION

Sets marked \* include zero shift and/or rotation corrections.



Fugro West, Inc. - Ventura, CA

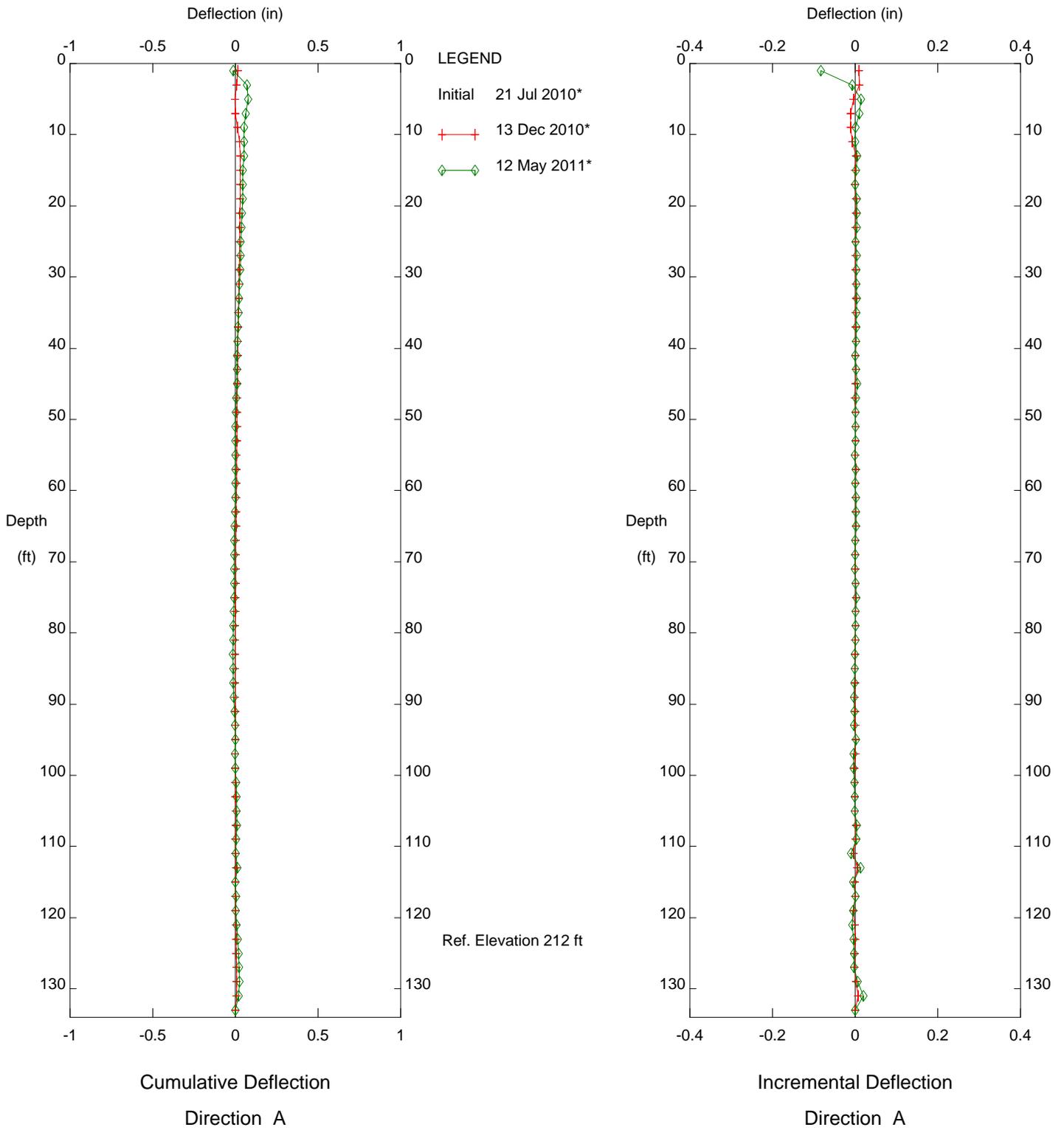


BIG ROCK MESA, Inclinometer PC-1  
 EASTERN REGION

Sets marked \* include zero shift and/or rotation corrections.



Fugro West, Inc. - Ventura, CA



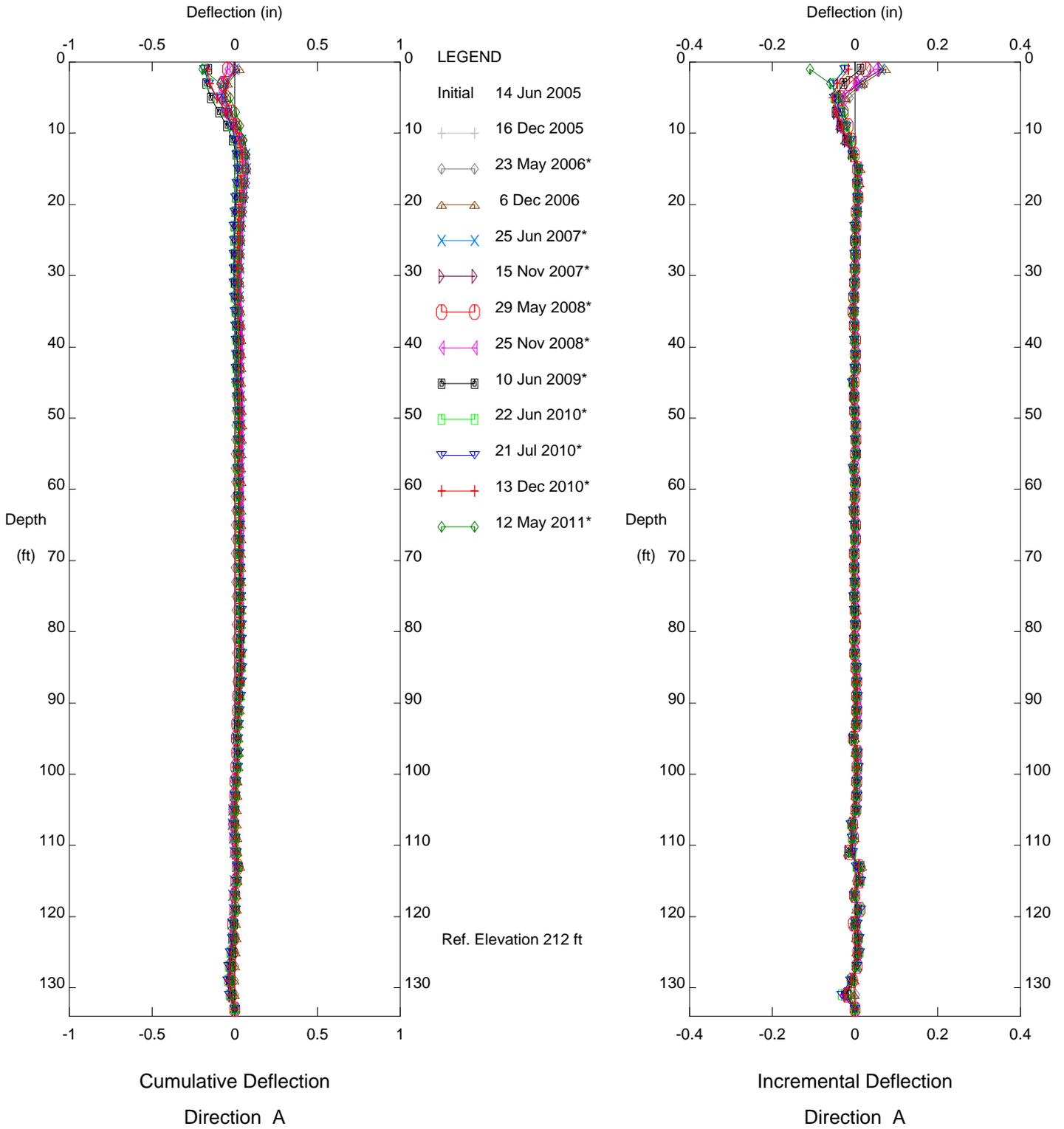
BRM, Inclinometer SP3

East Region

Sets marked \* include zero shift and/or rotation corrections.



Fugro West, Inc. - Ventura, CA



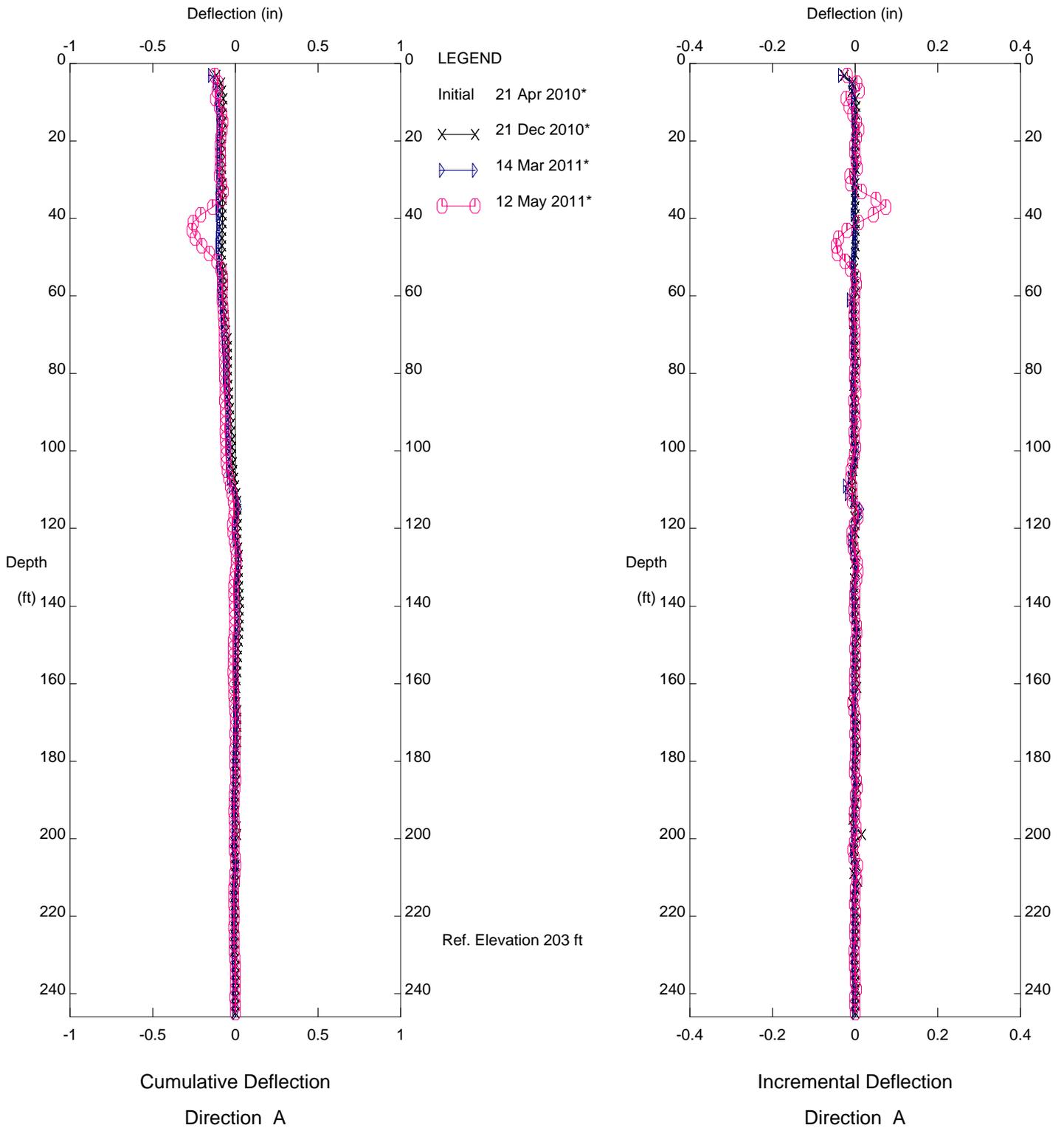
BRM, Inclinometer SP3

East Region

Sets marked \* include zero shift and/or rotation corrections.



Fugro West, Inc. - Ventura, CA



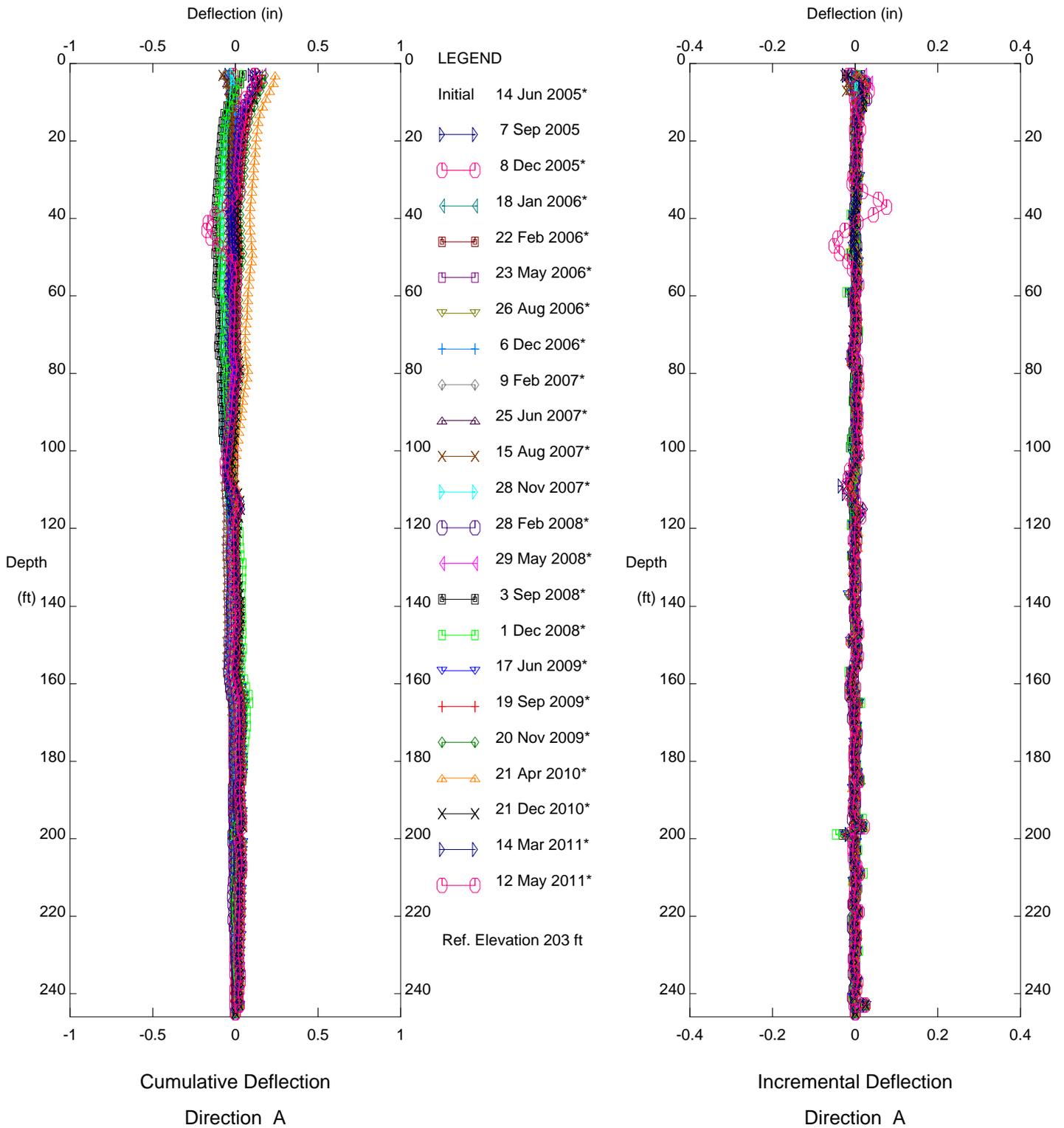
BRM, Inclinometer SP3A

EASTERN REGION

Sets marked \* include zero shift and/or rotation corrections.



Fugro West, Inc. - Ventura, CA

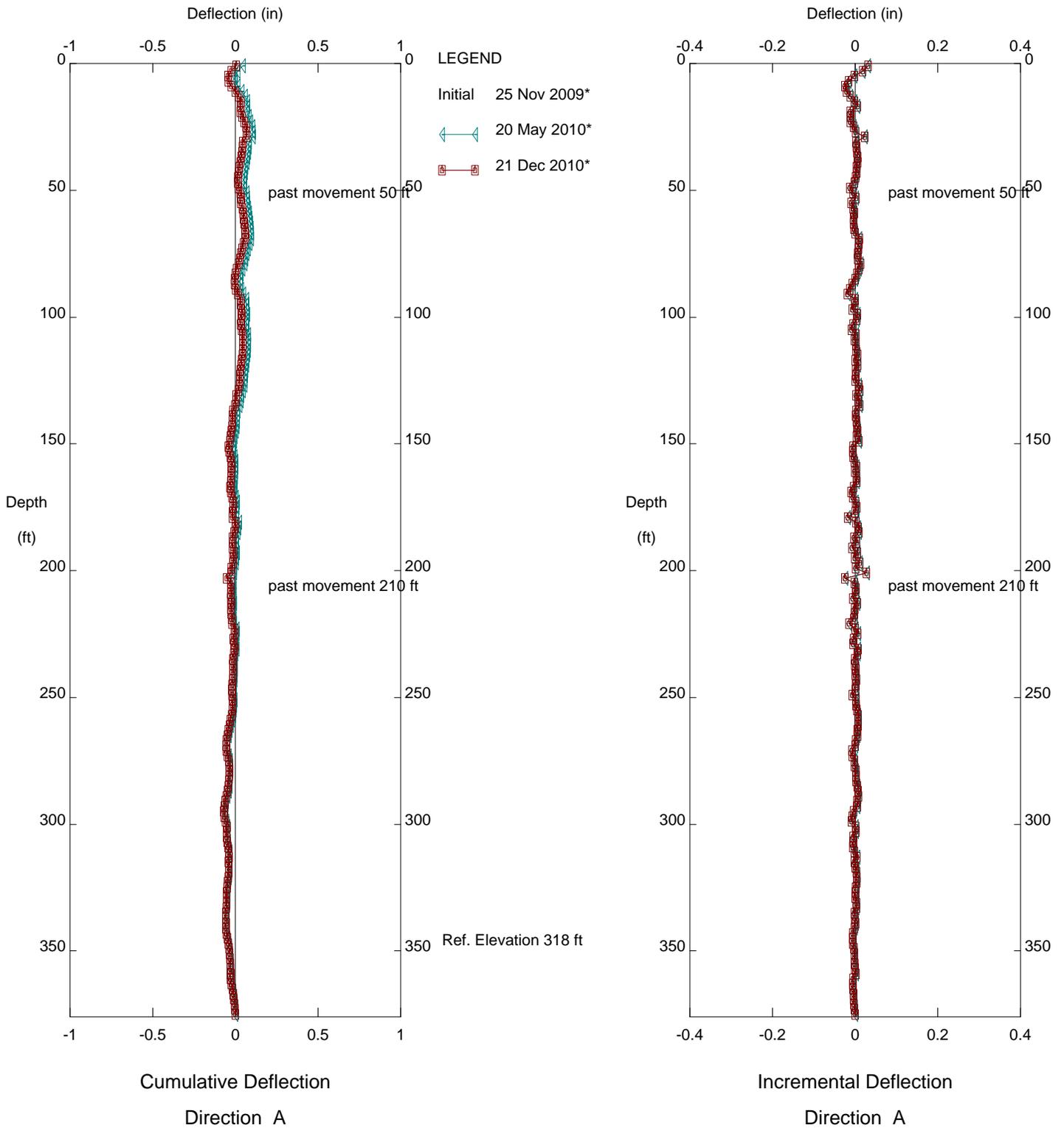


BRM, Inclinator SP3A  
 EASTERN REGION

Sets marked \* include zero shift and/or rotation corrections.



Fugro West, Inc. - Ventura, CA



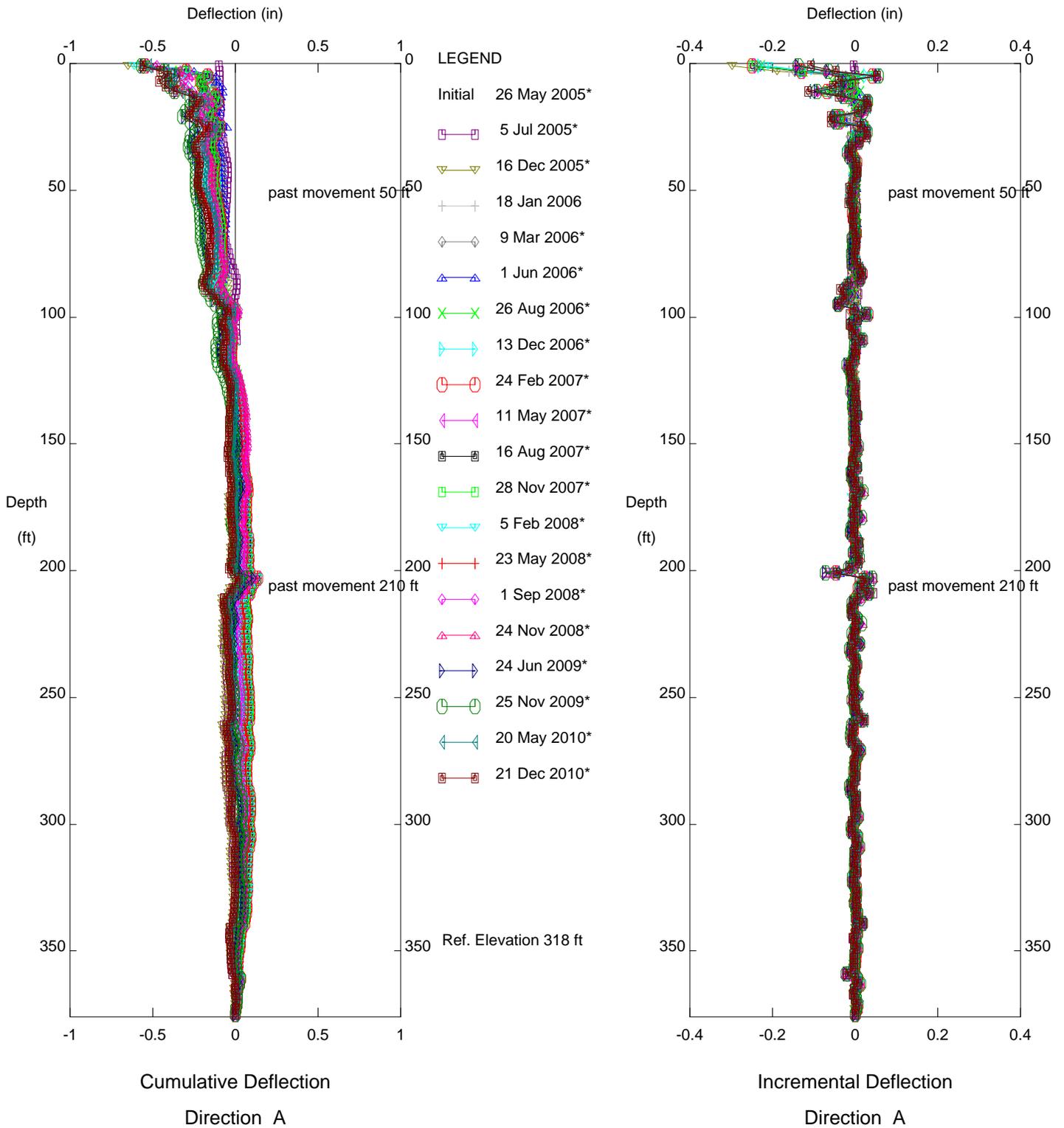
BRM, Inclinometer SP33

EASTERN REGION

Sets marked \* include zero shift and/or rotation corrections.



Fugro West, Inc. - Ventura, CA



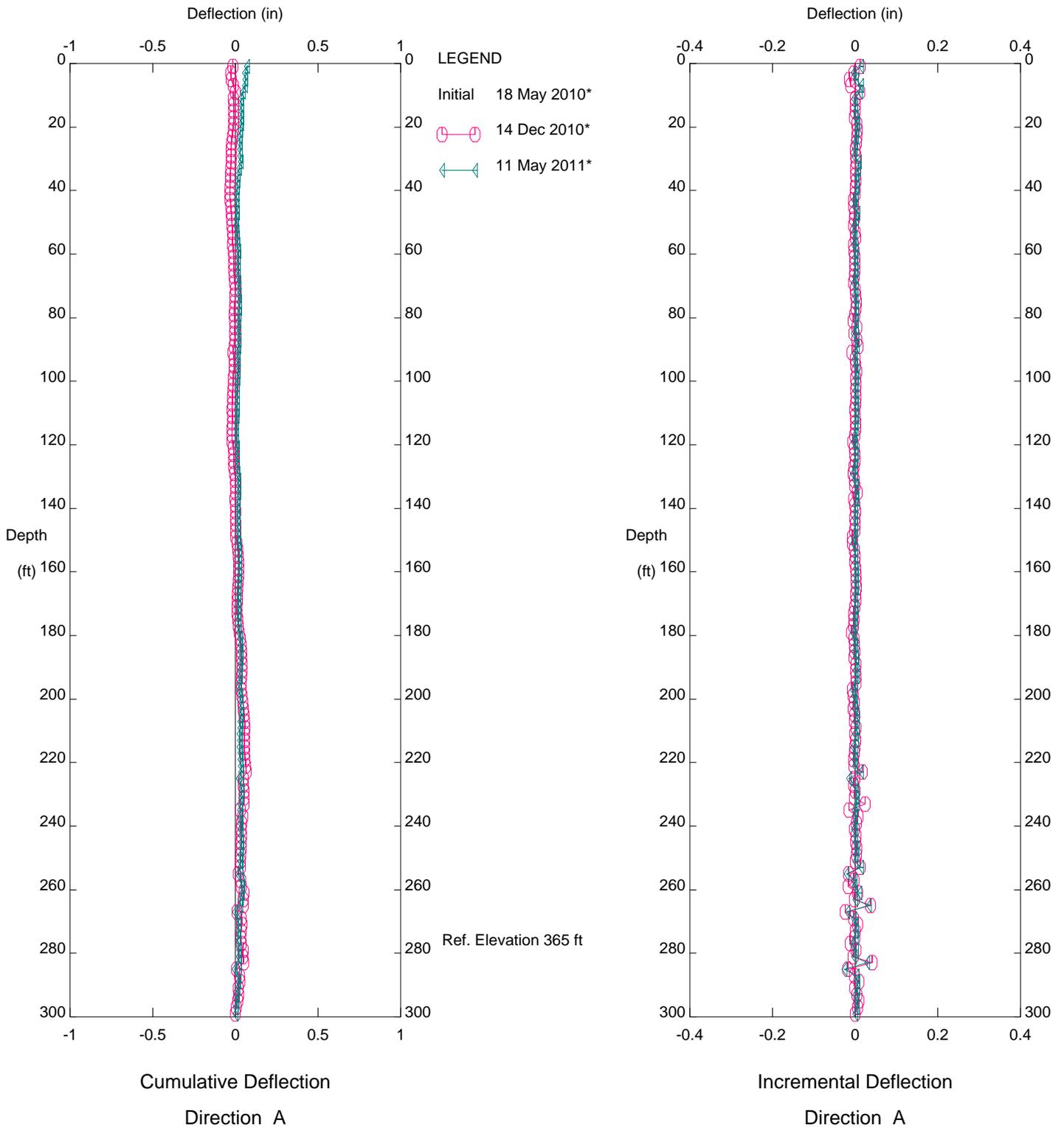
BRM, Inclinator SP33

EASTERN REGION

Sets marked \* include zero shift and/or rotation corrections.



Fugro West, Inc. - Ventura, CA



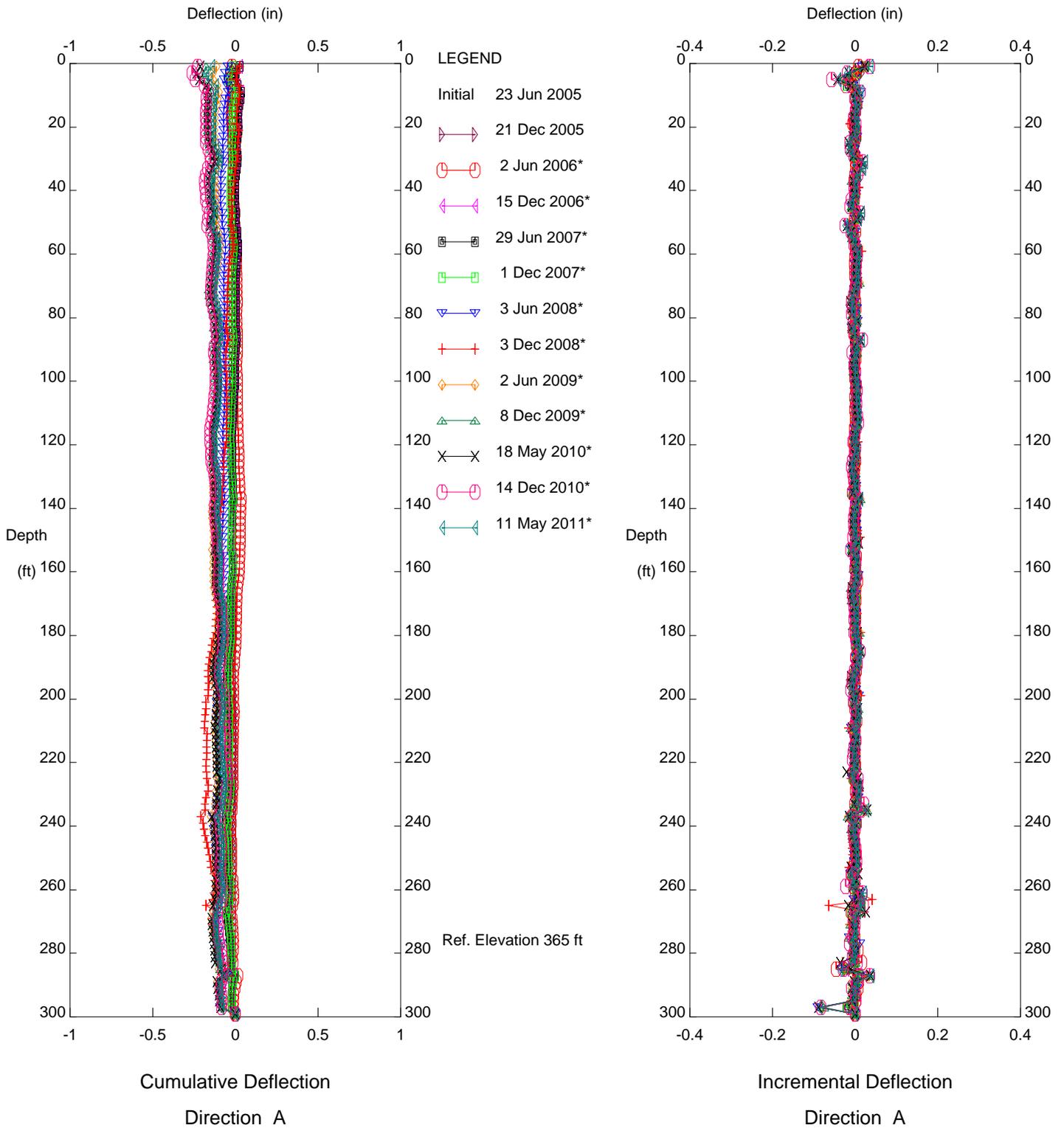
BRM, Inclinator SP9A

CENTRAL REGION

Sets marked \* include zero shift and/or rotation corrections.



Fugro West, Inc. - Ventura, CA

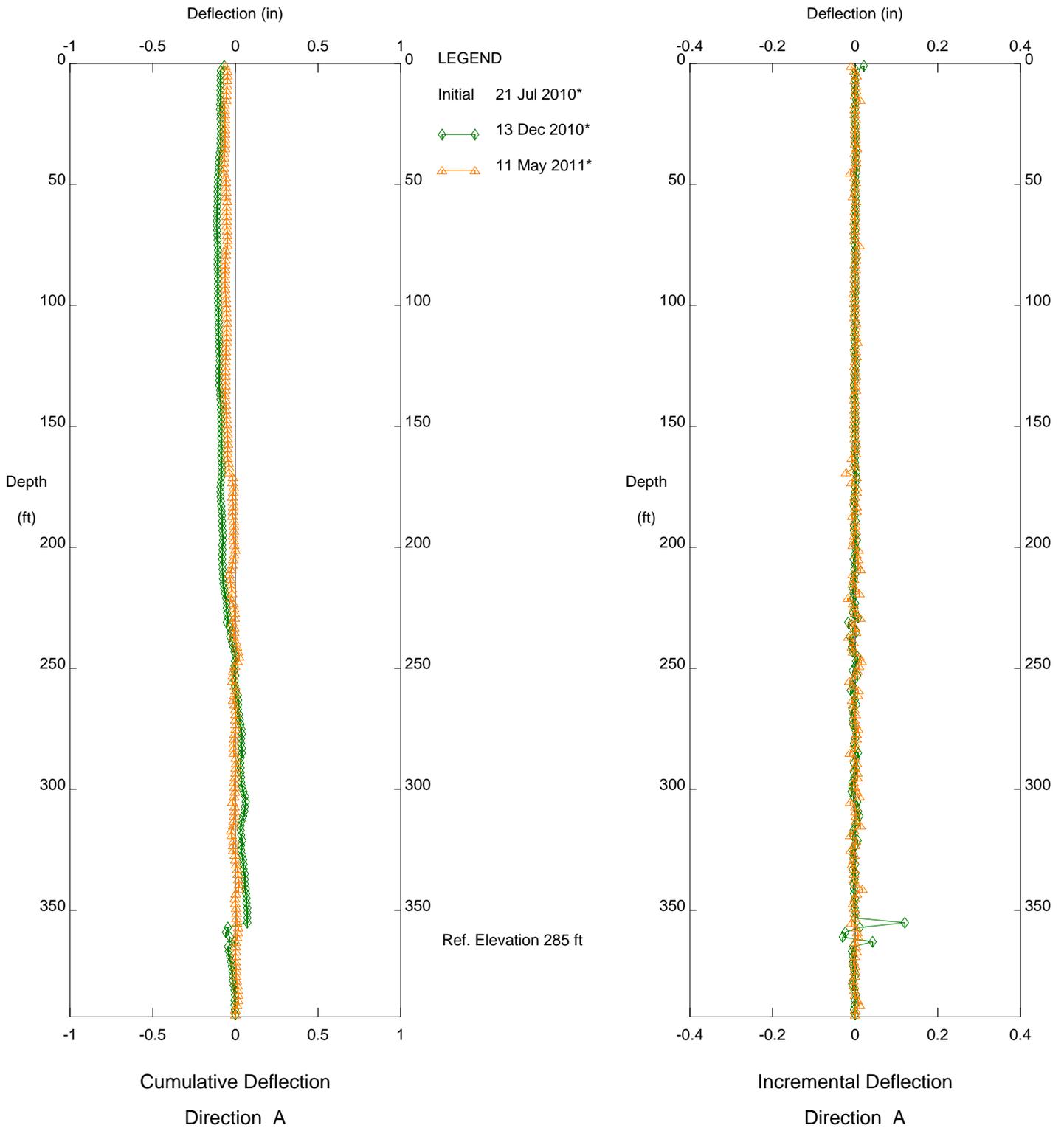


BRM, Inclinometer SP9A

CENTRAL REGION

Sets marked \* include zero shift and/or rotation corrections.

Fugro West, Inc. - Ventura, CA



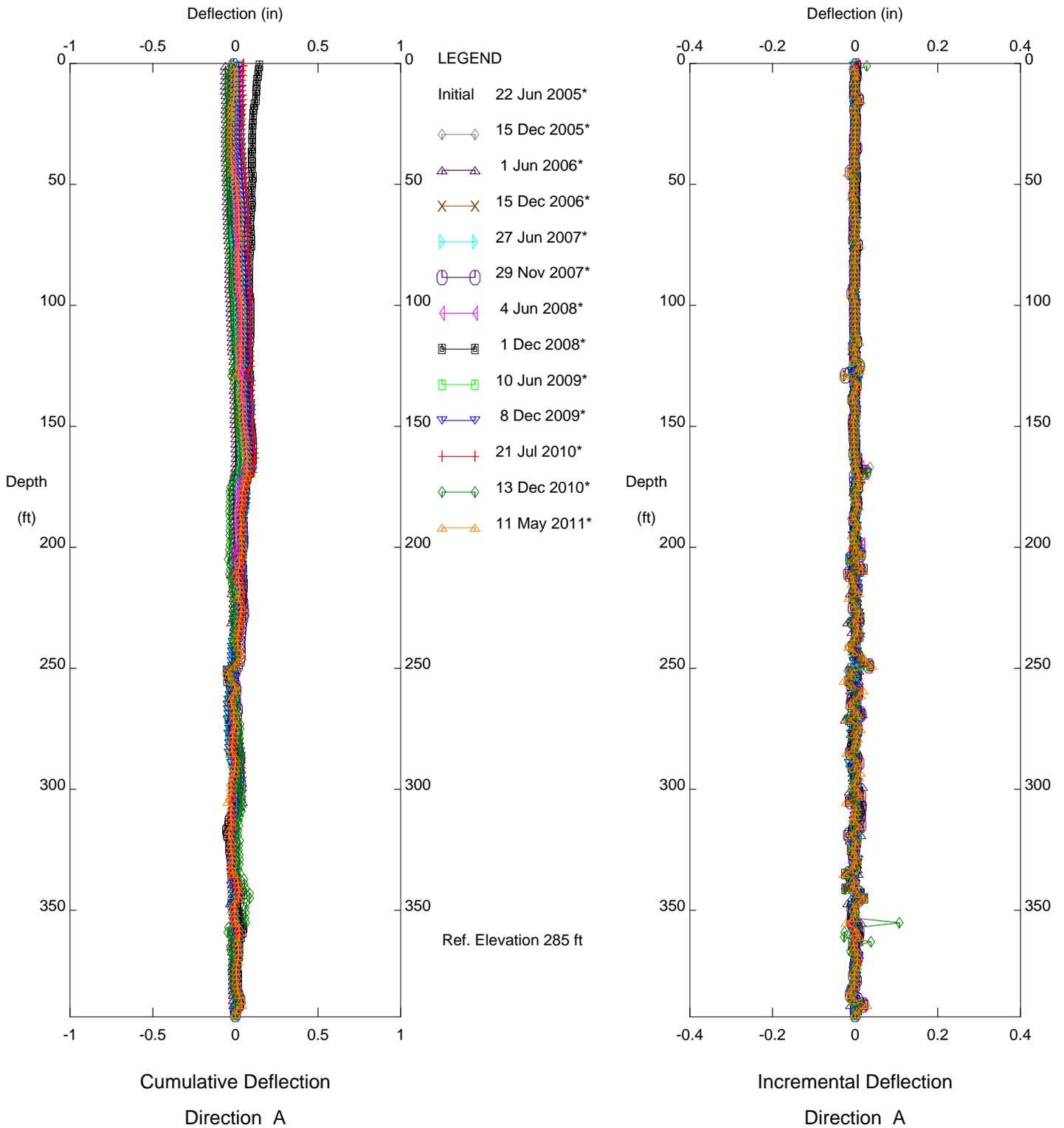
BRM, Inclinator SP16A

CENTRAL REGION

Sets marked \* include zero shift and/or rotation corrections.



Fugro West, Inc. - Ventura, CA



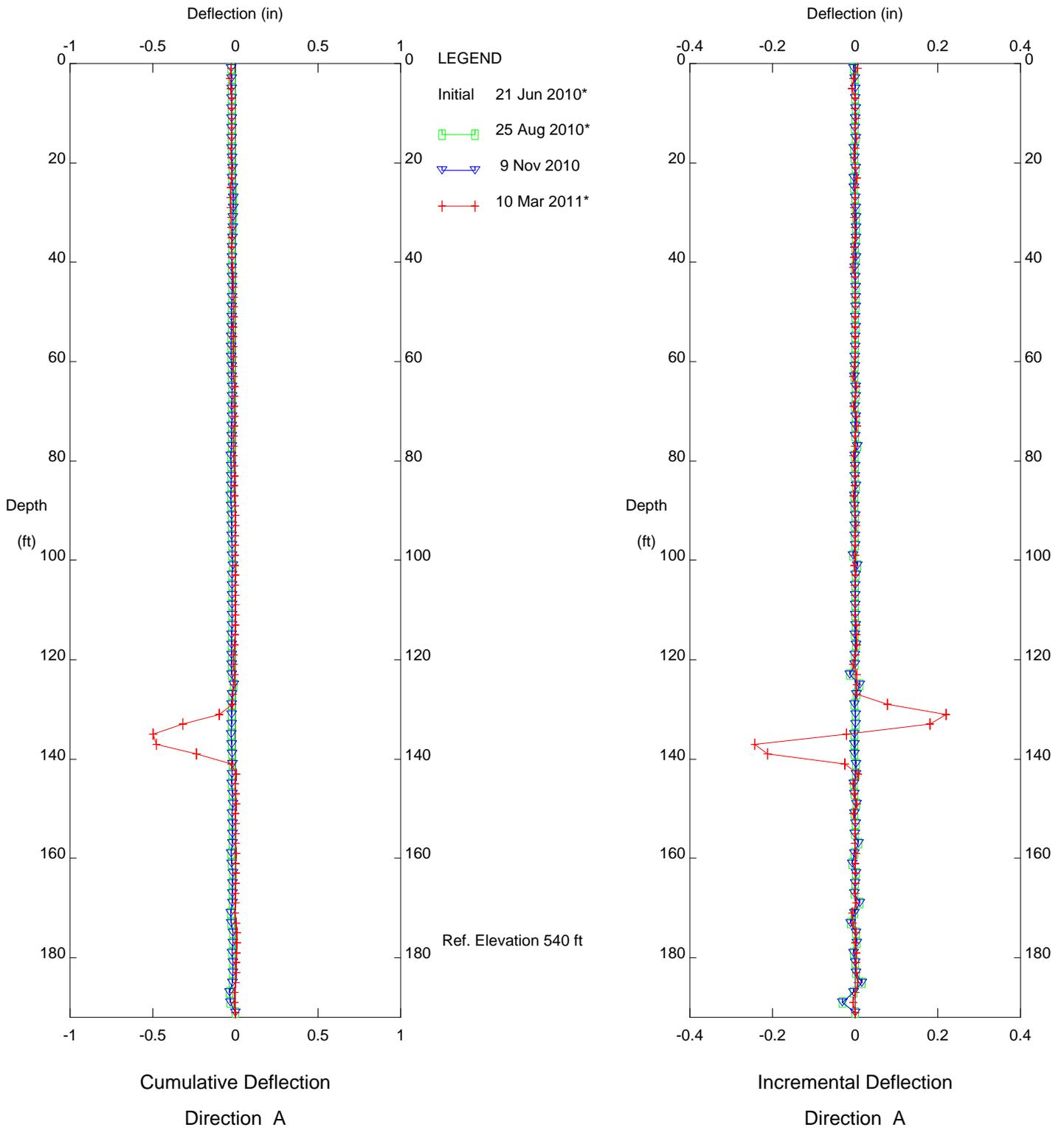
BRM, Inclinometer SP16A

CENTRAL REGION

Sets marked \* include zero shift and/or rotation corrections.



Fugro West, Inc. - Ventura, CA

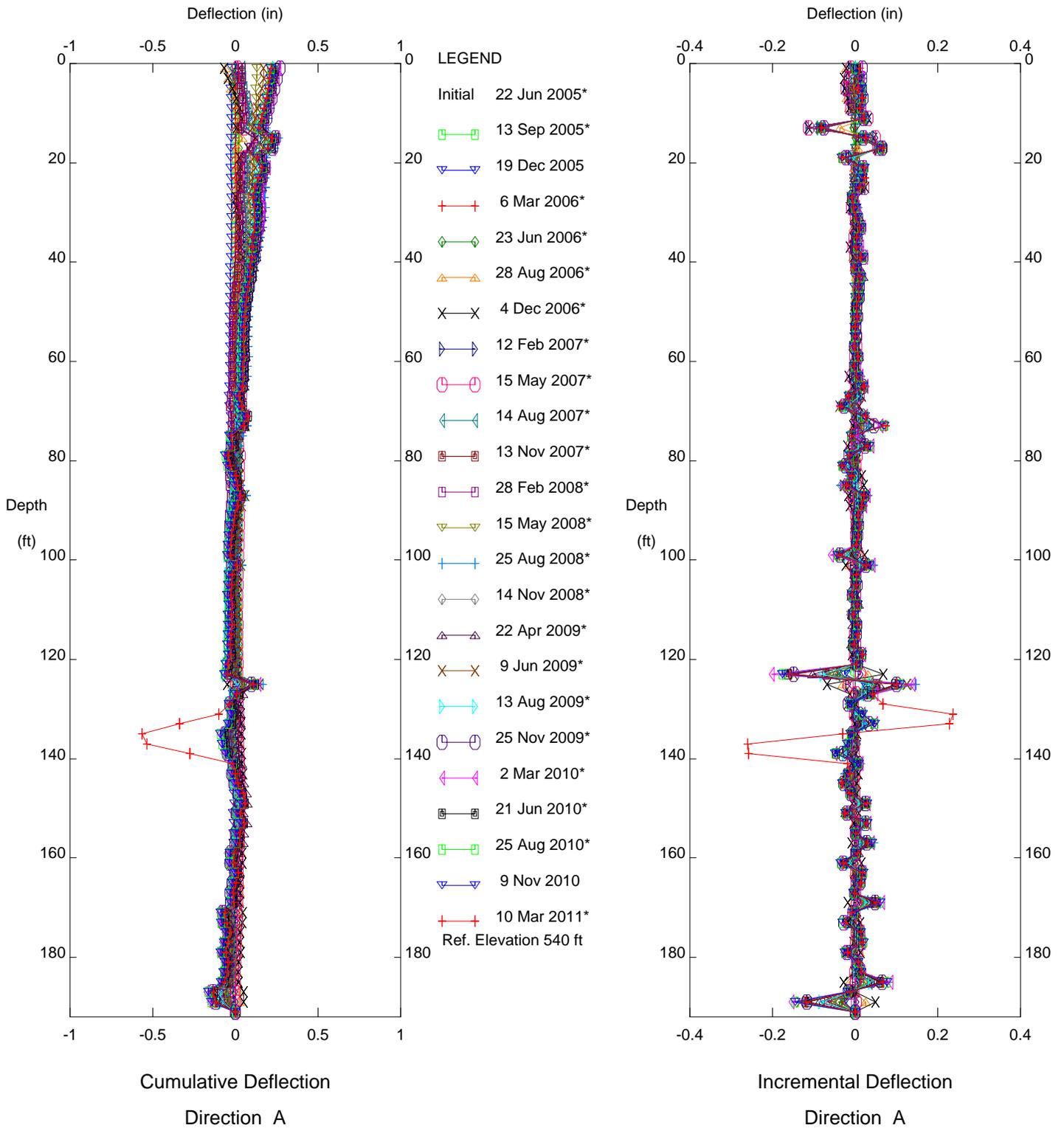


BRM, Inclinator SP17

CENTRAL REGION

Sets marked \* include zero shift and/or rotation corrections.

Fugro West, Inc. - Ventura, CA



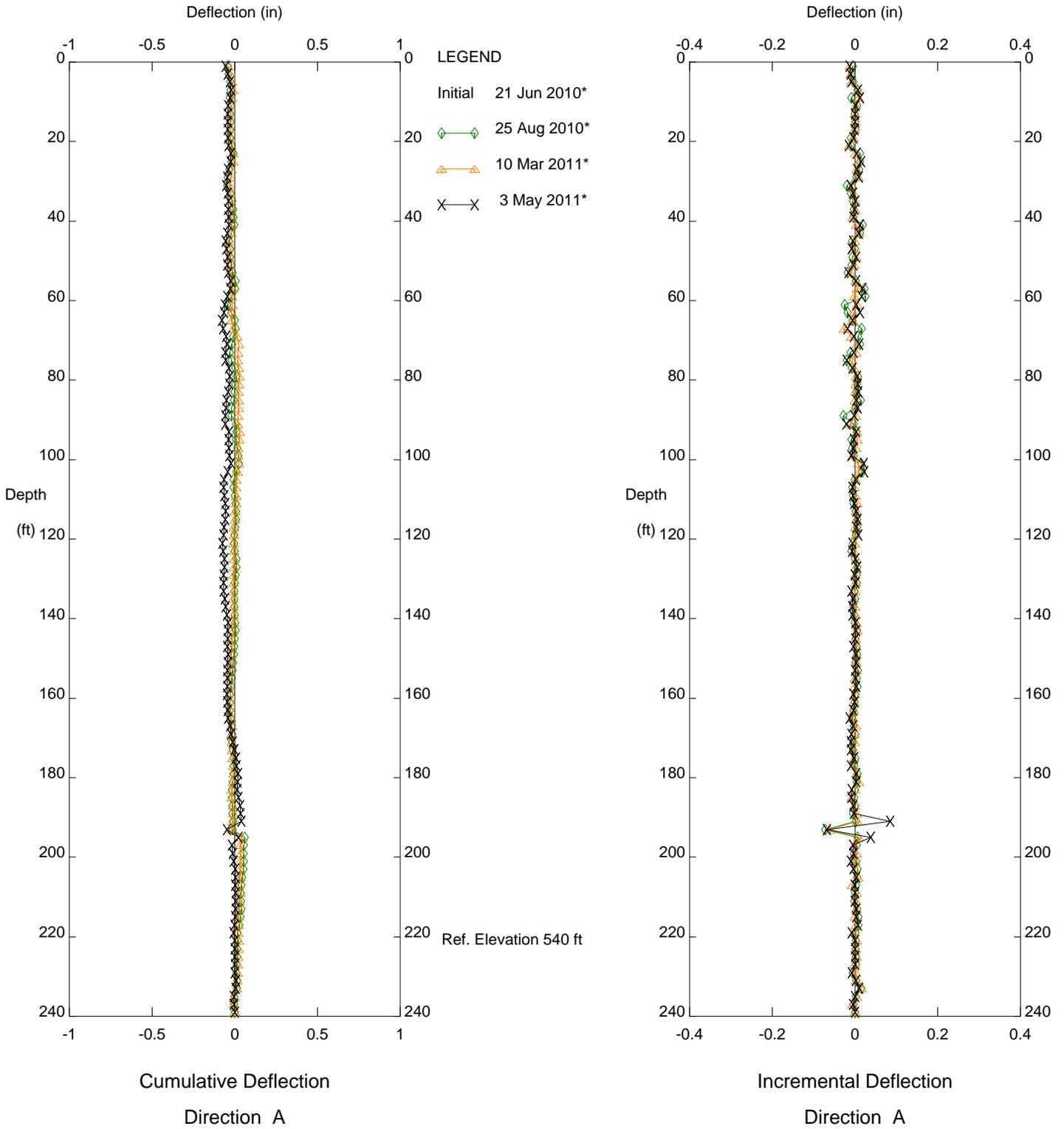
BRM, Inclinometer SP17

CENTRAL REGION

Sets marked \* include zero shift and/or rotation corrections.



Fugro West, Inc. - Ventura, CA



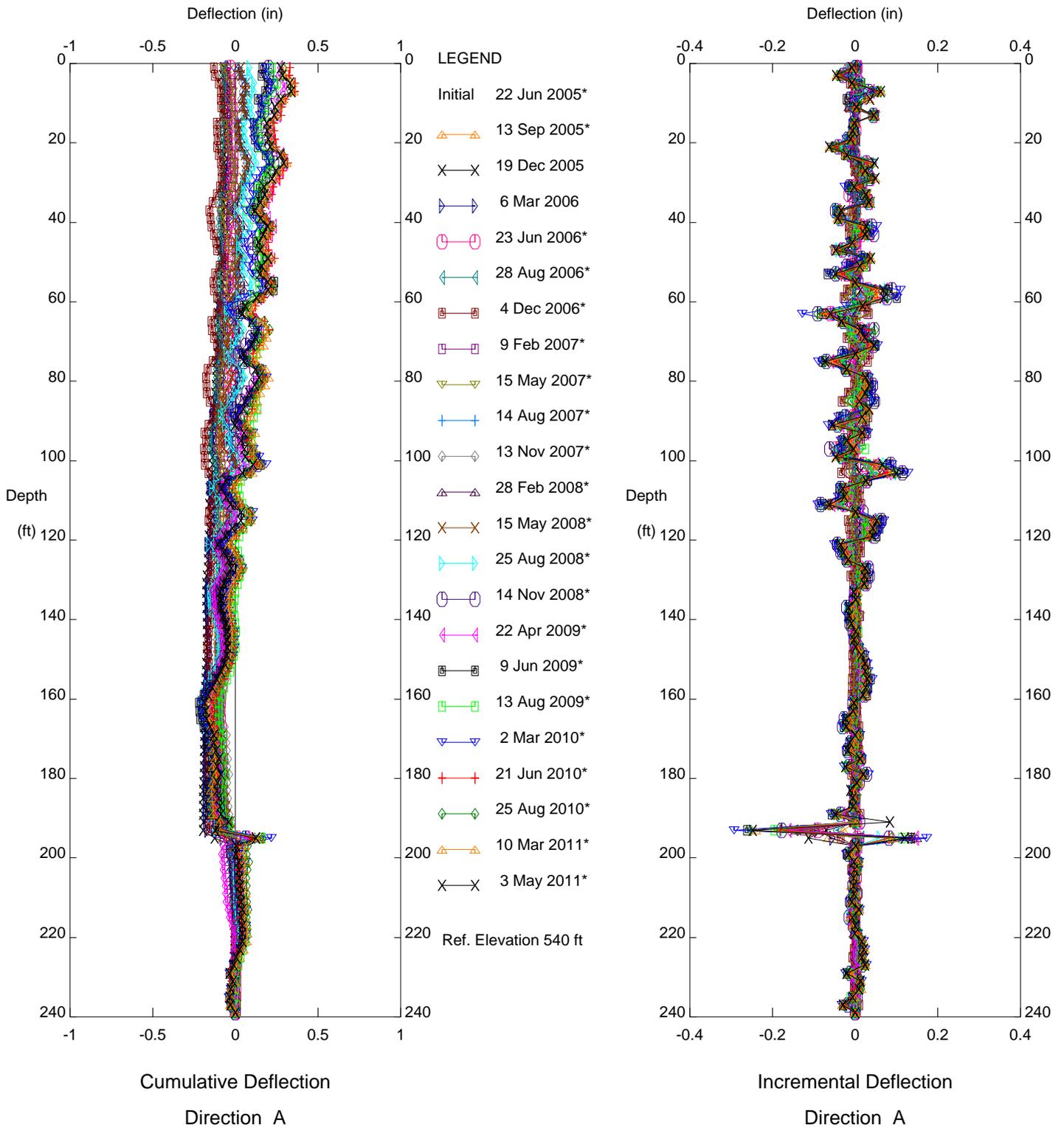
BRM, Inclinometer SP17A

CENTRAL REGION

Sets marked \* include zero shift and/or rotation corrections.



Fugro West, Inc. - Ventura, CA



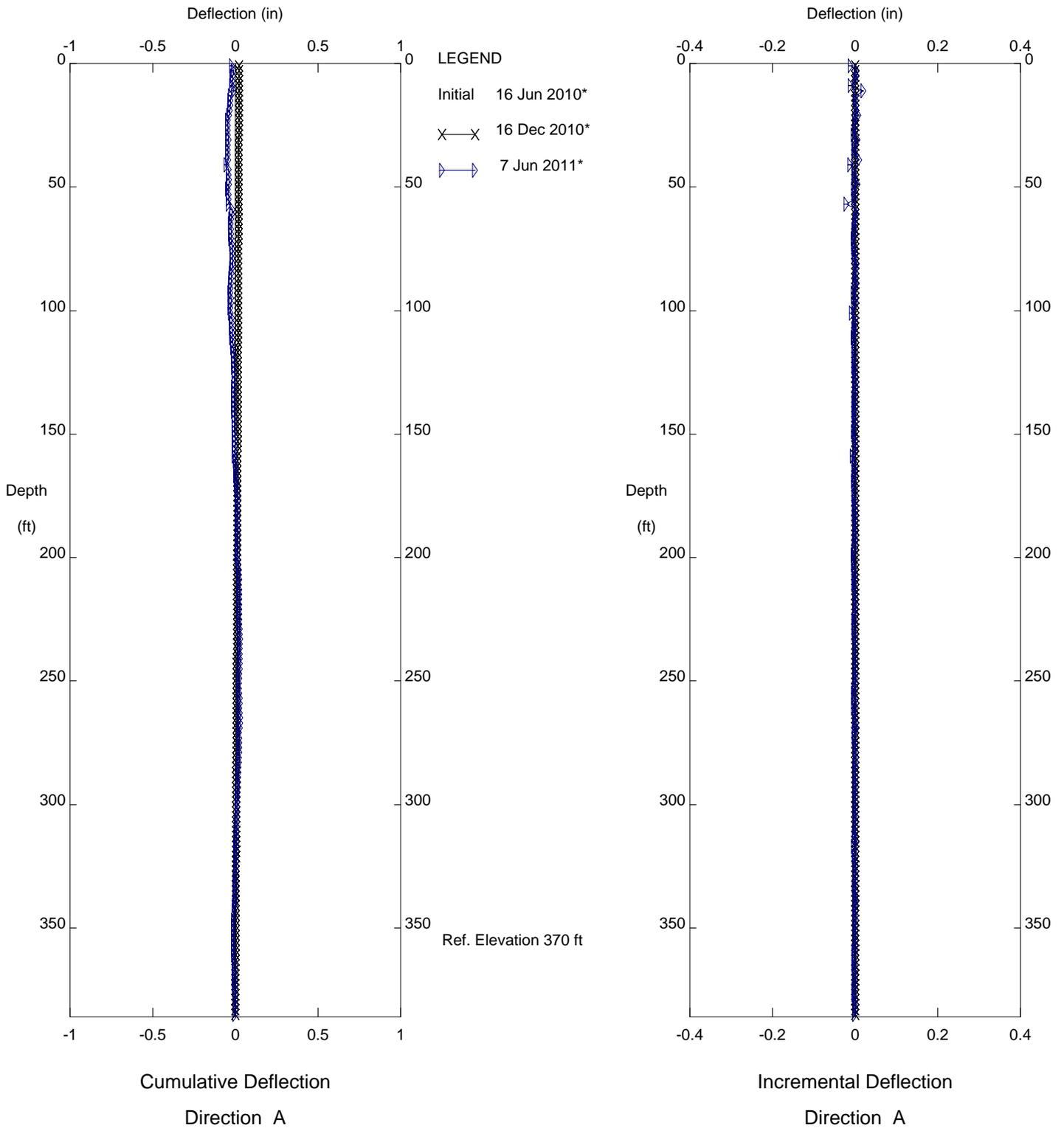
BRM, Inclinometer SP17A

CENTRAL REGION

Sets marked \* include zero shift and/or rotation corrections.



Fugro West, Inc. - Ventura, CA



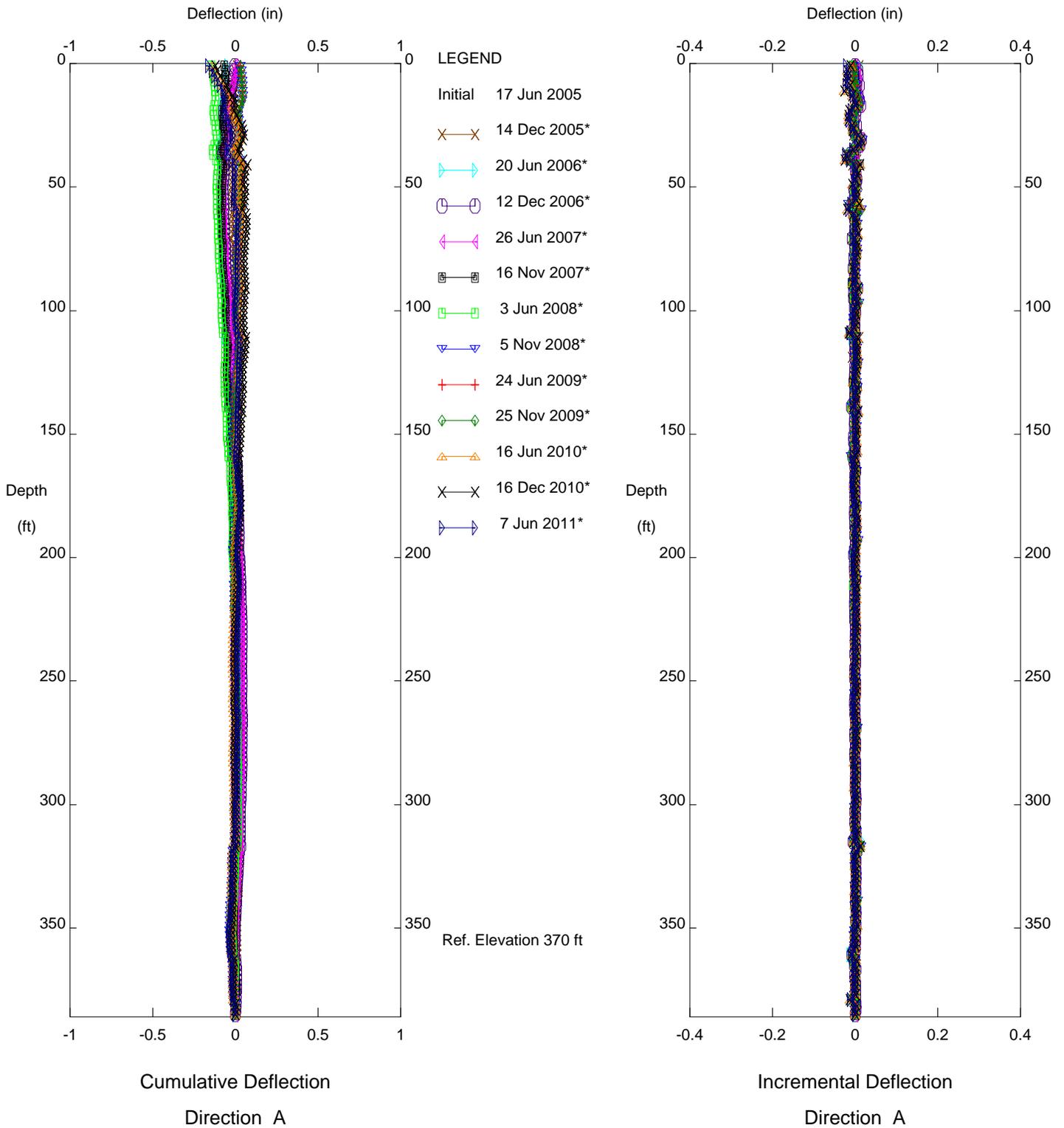
BRM, Inclinometer SP24

CENTRAL REGION

Sets marked \* include zero shift and/or rotation corrections.



Fugro West, Inc. - Ventura, CA



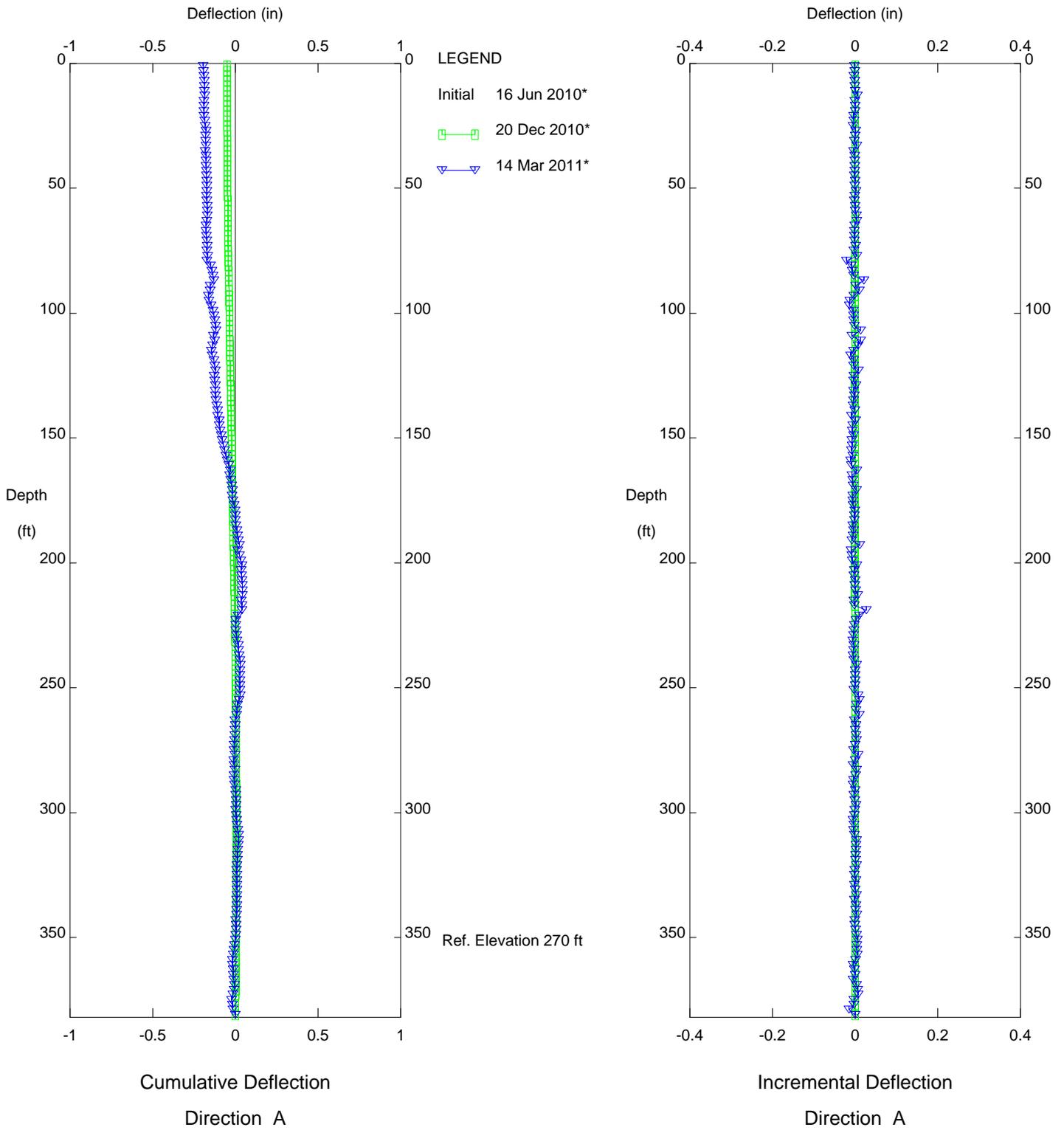
BRM, Inclinometer SP24

CENTRAL REGION

Sets marked \* include zero shift and/or rotation corrections.



Fugro West, Inc. - Ventura, CA



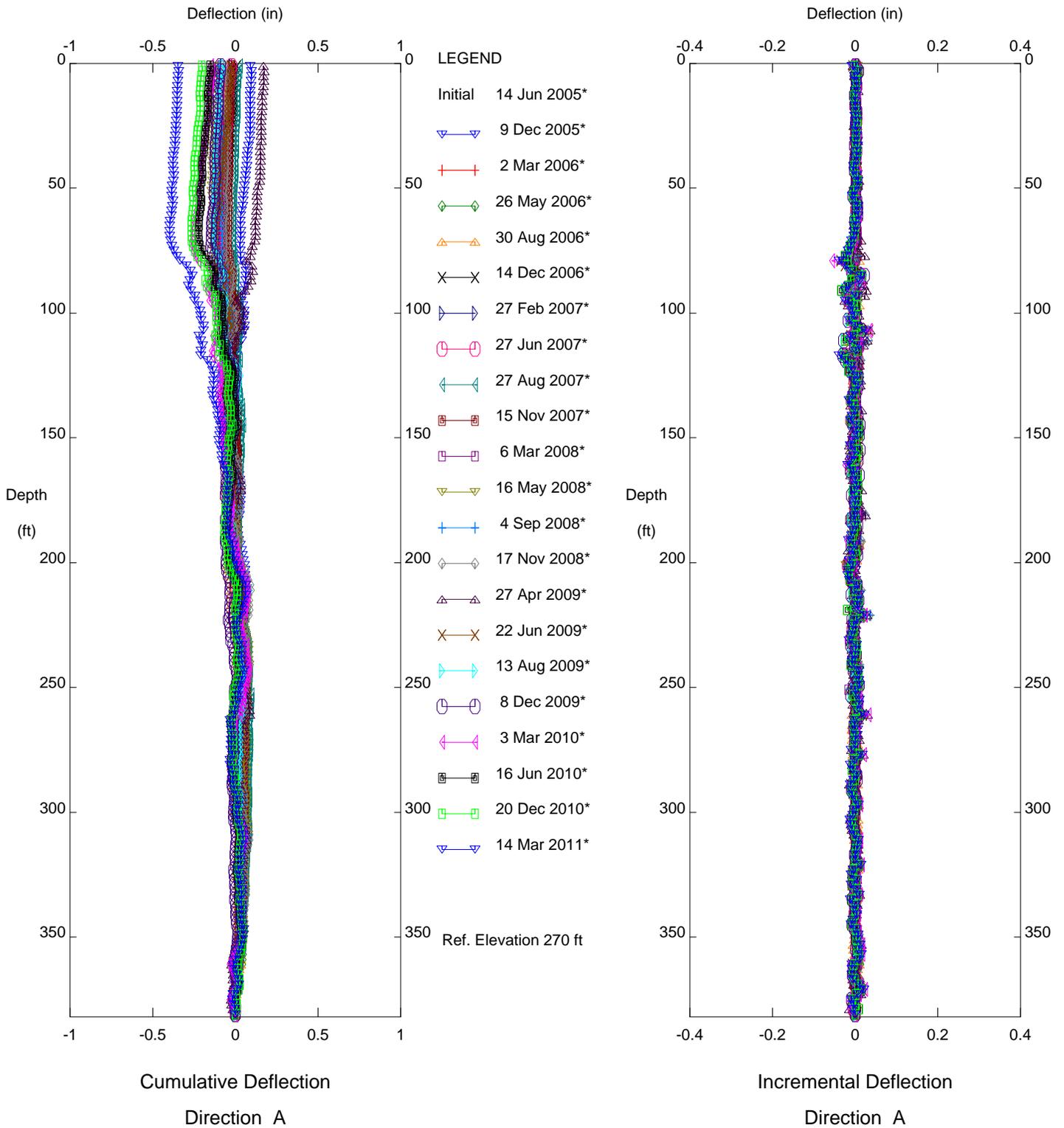
BRM, Inclinometer SP34

CENTRAL REGION

Sets marked \* include zero shift and/or rotation corrections.



Fugro West, Inc. - Ventura, CA

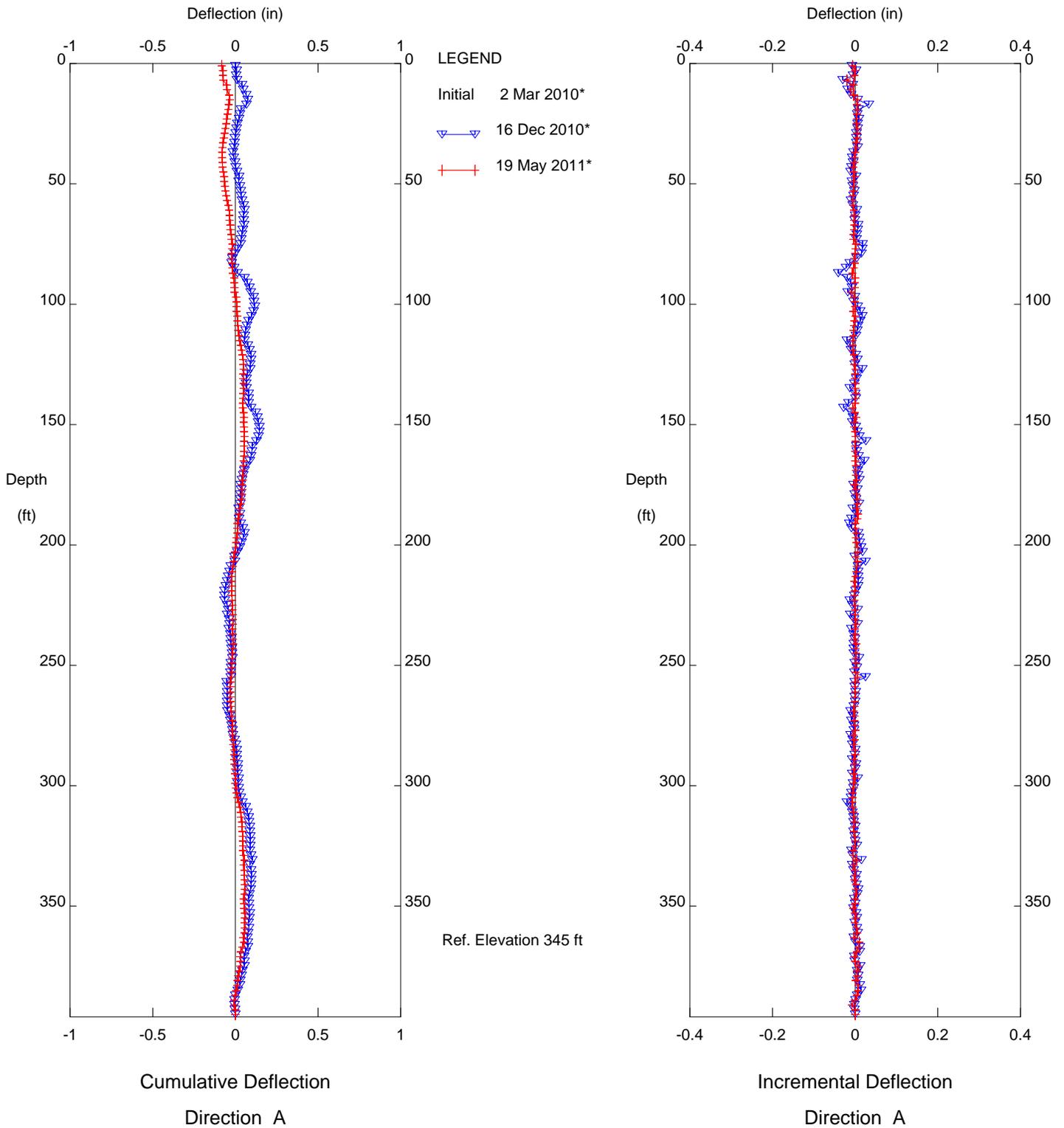


BRM, Inclinometer SP34  
 CENTRAL REGION

Sets marked \* include zero shift and/or rotation corrections.



Fugro West, Inc. - Ventura, CA



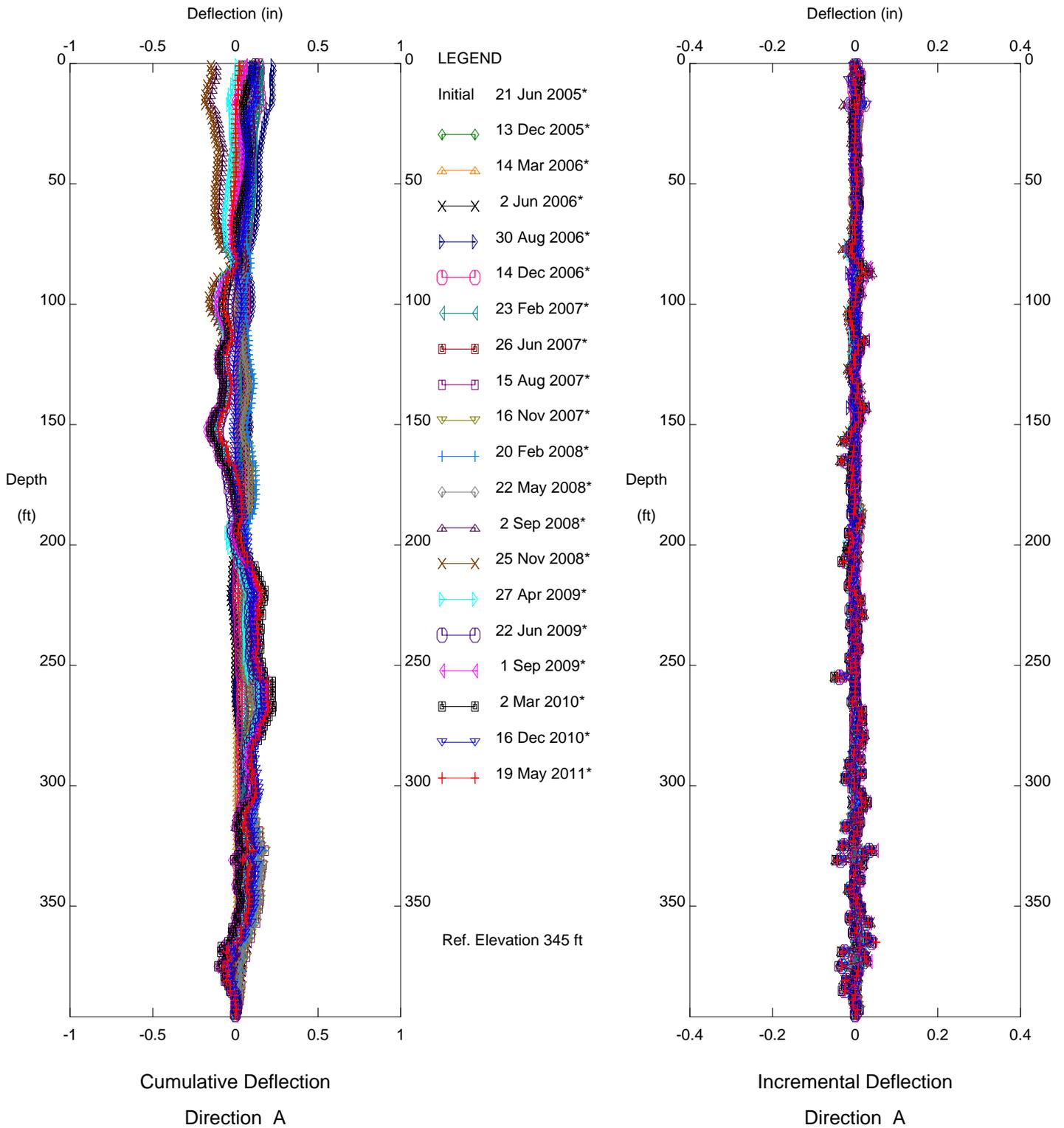
BRM, Inclinometer SP35

CENTRAL REGION

Sets marked \* include zero shift and/or rotation corrections.



Fugro West, Inc. - Ventura, CA



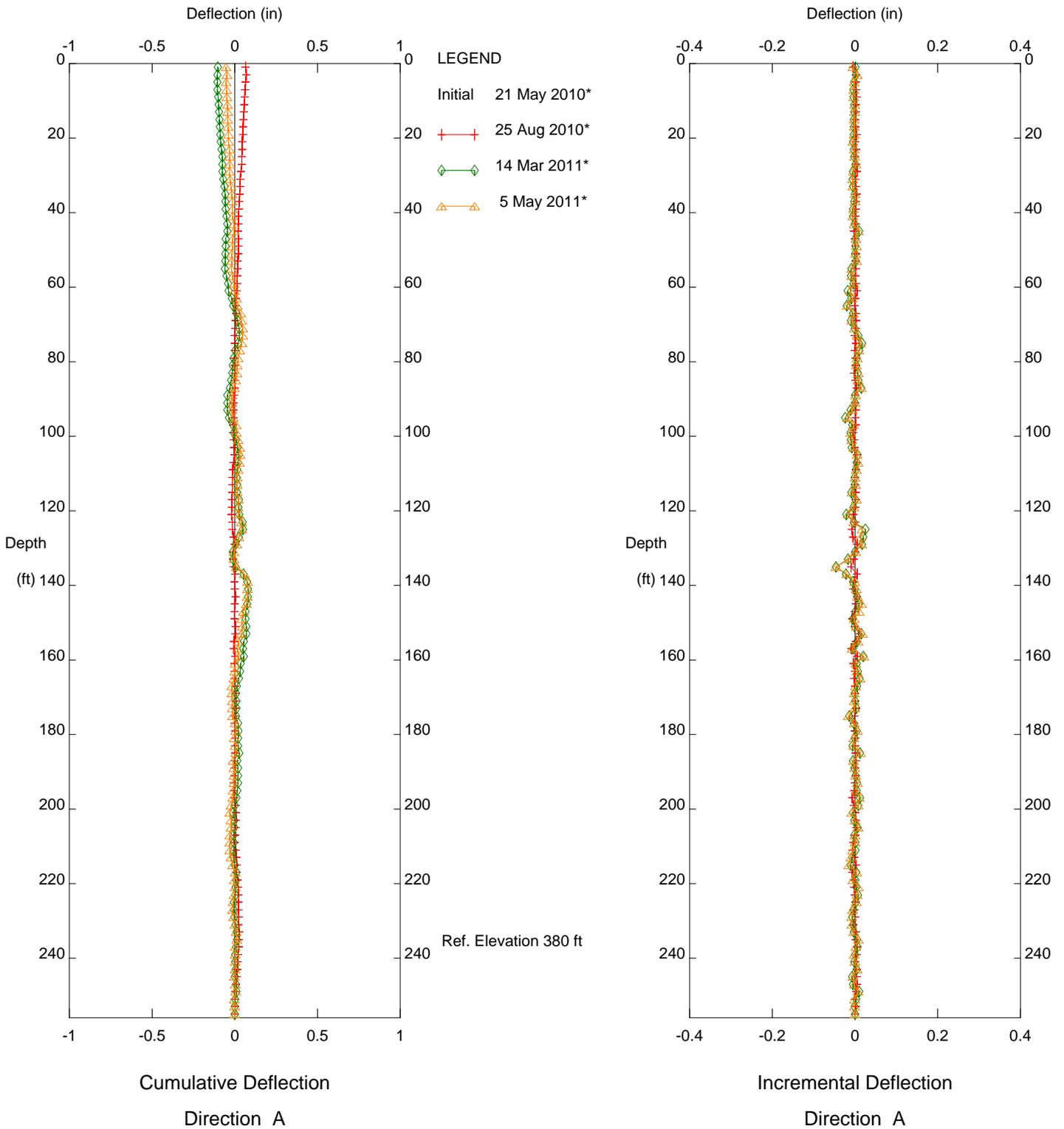
BRM, Inclinometer SP35

CENTRAL REGION

Sets marked \* include zero shift and/or rotation corrections.



Fugro West, Inc. - Ventura, CA



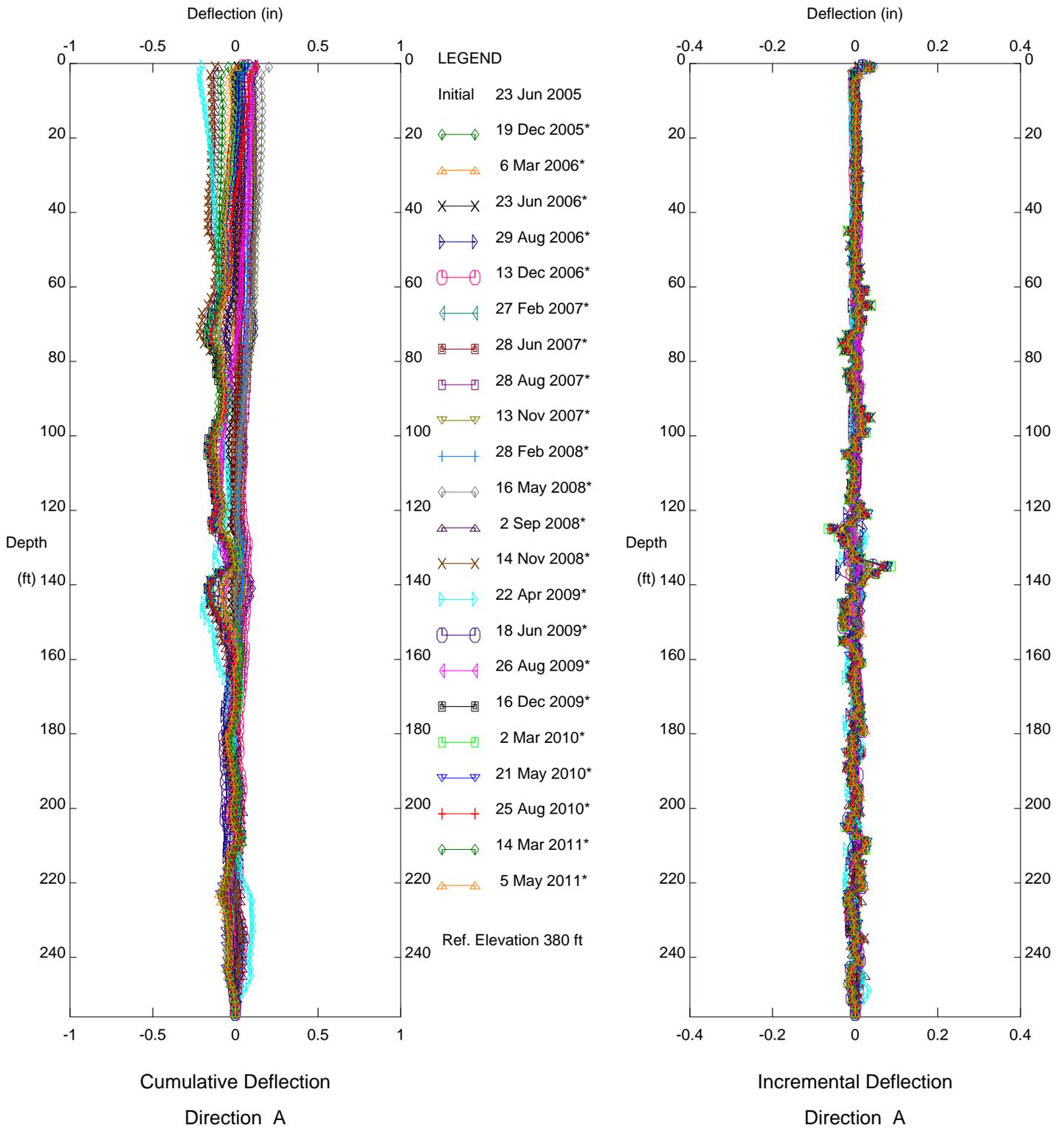
BRM, Inclinometer SP36

CENTRAL REGION

Sets marked \* include zero shift and/or rotation corrections.



Fugro West, Inc. - Ventura, CA



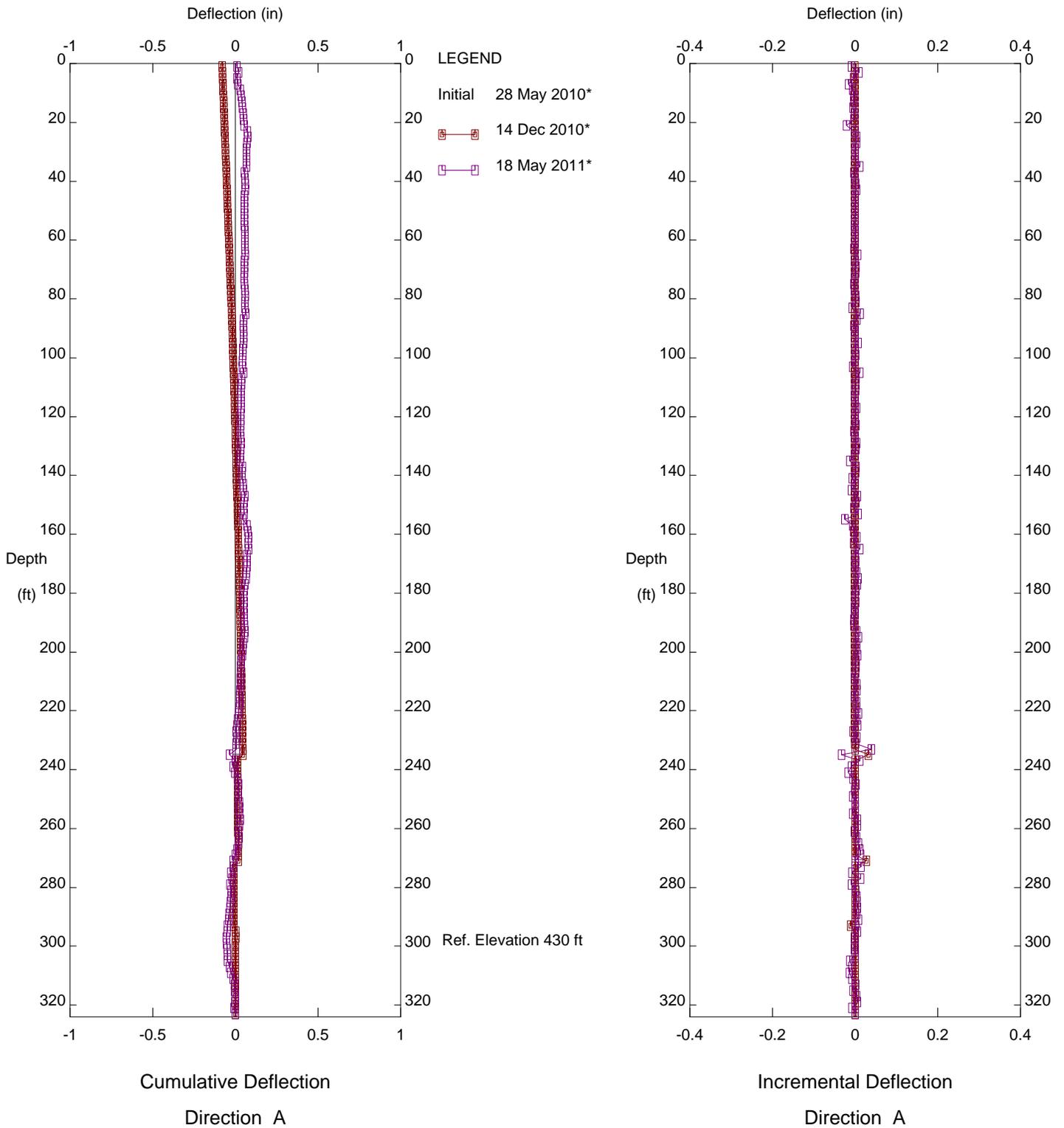
BRM, Inclinometer SP36

CENTRAL REGION

Sets marked \* include zero shift and/or rotation corrections.



Fugro West, Inc. - Ventura, CA



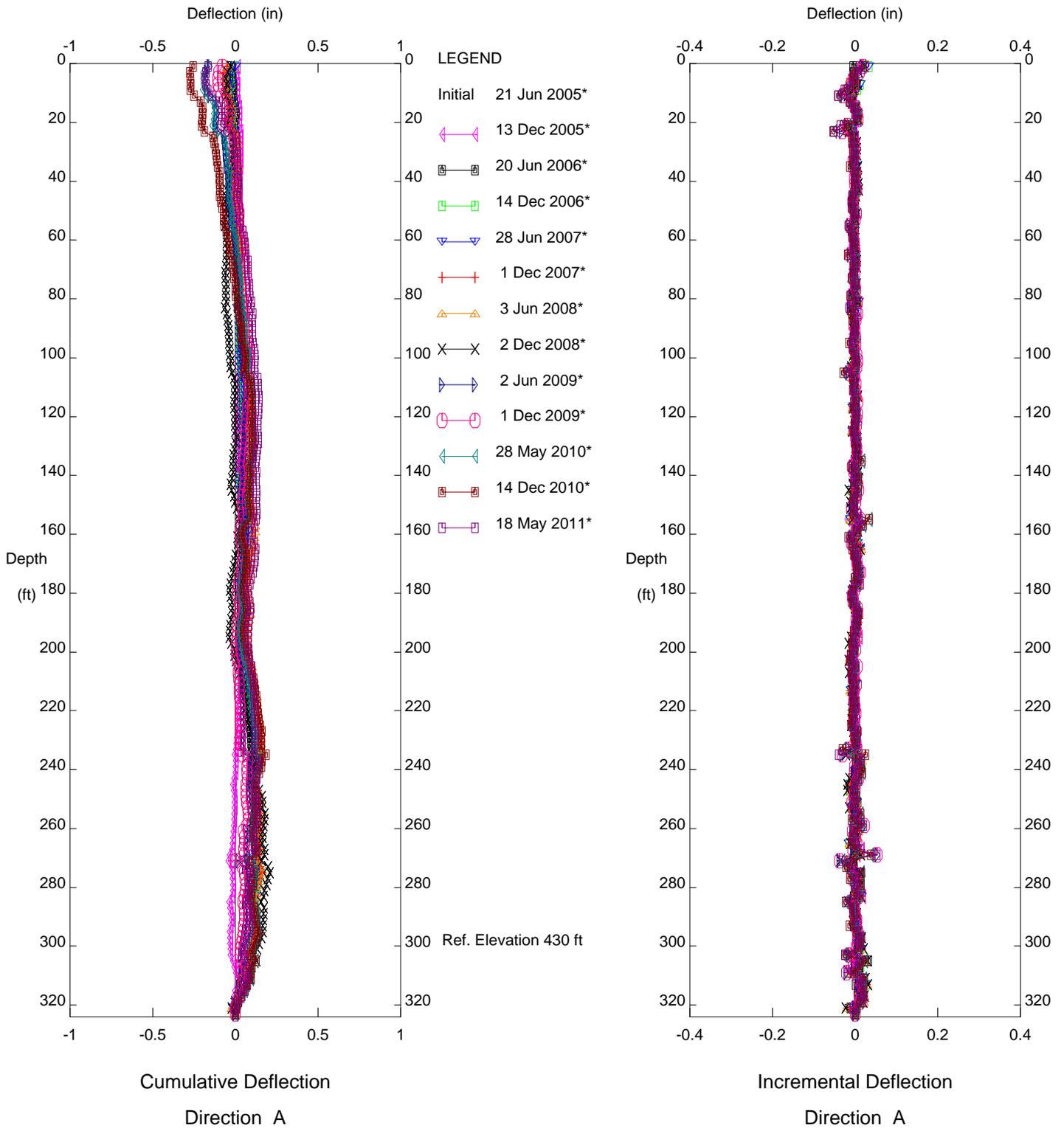
BRM, Inclinometer SP20

WESTERN REGION

Sets marked \* include zero shift and/or rotation corrections.



Fugro West, Inc. - Ventura, CA



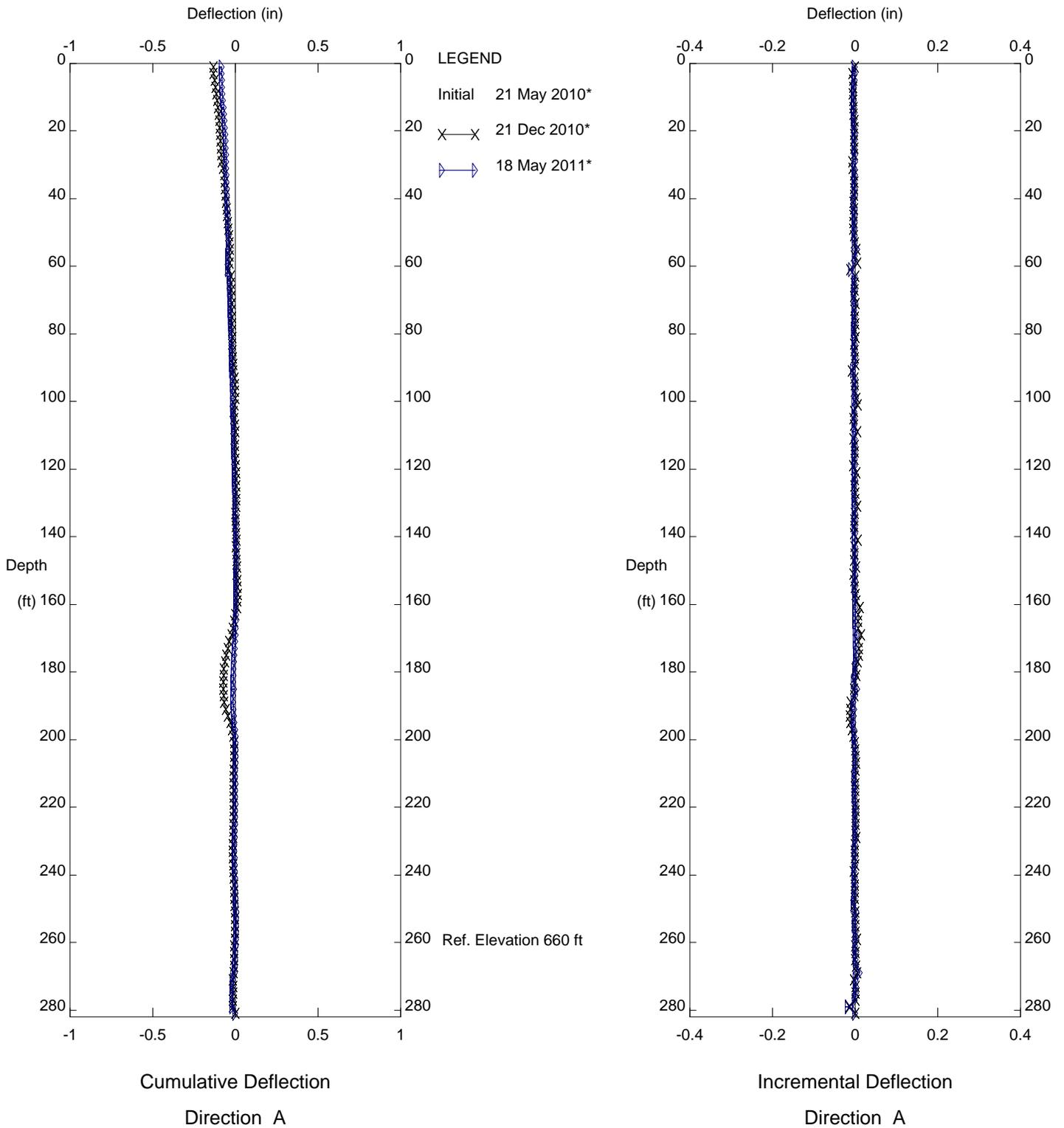
BRM, Inclinometer SP20

WESTERN REGION

Sets marked \* include zero shift and/or rotation corrections.



Fugro West, Inc. - Ventura, CA



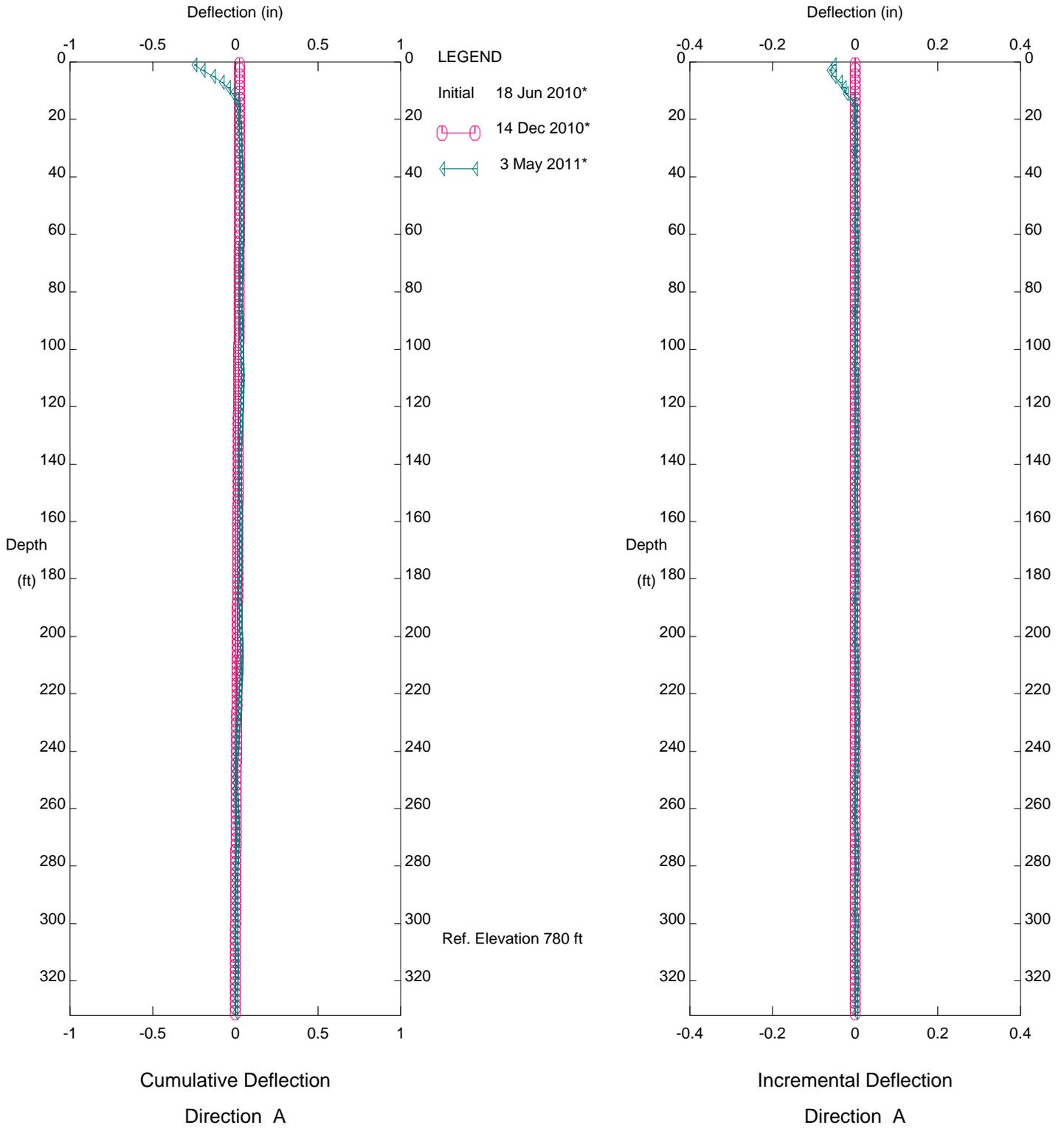
BRM, Inclinator SP21  
 WESTERN REGION

Sets marked \* include zero shift and/or rotation corrections.





Fugro West, Inc. - Ventura, CA



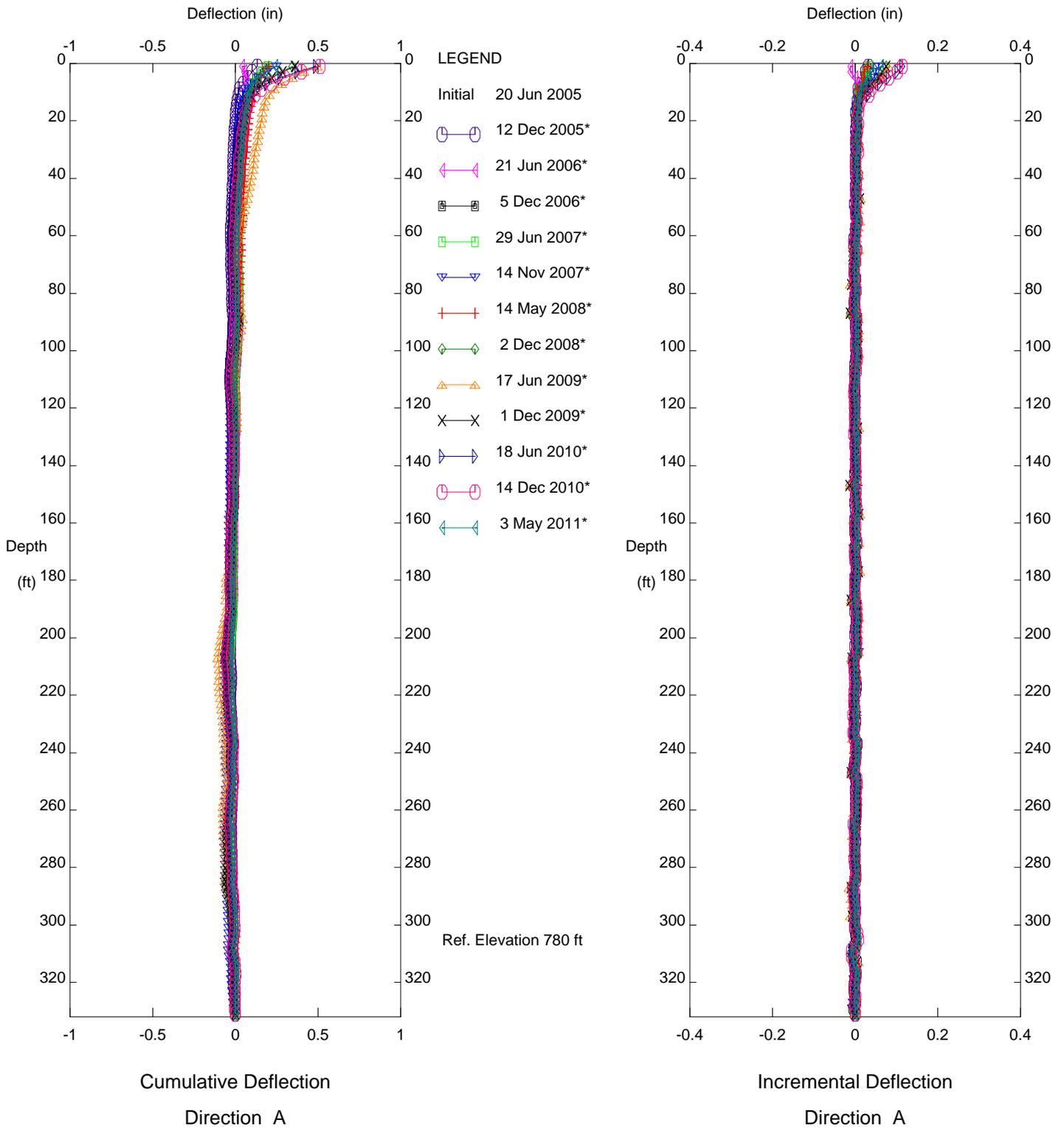
BRM, Inclinator SP22

WESTERN REGION

Sets marked \* include zero shift and/or rotation corrections.



Fugro West, Inc. - Ventura, CA



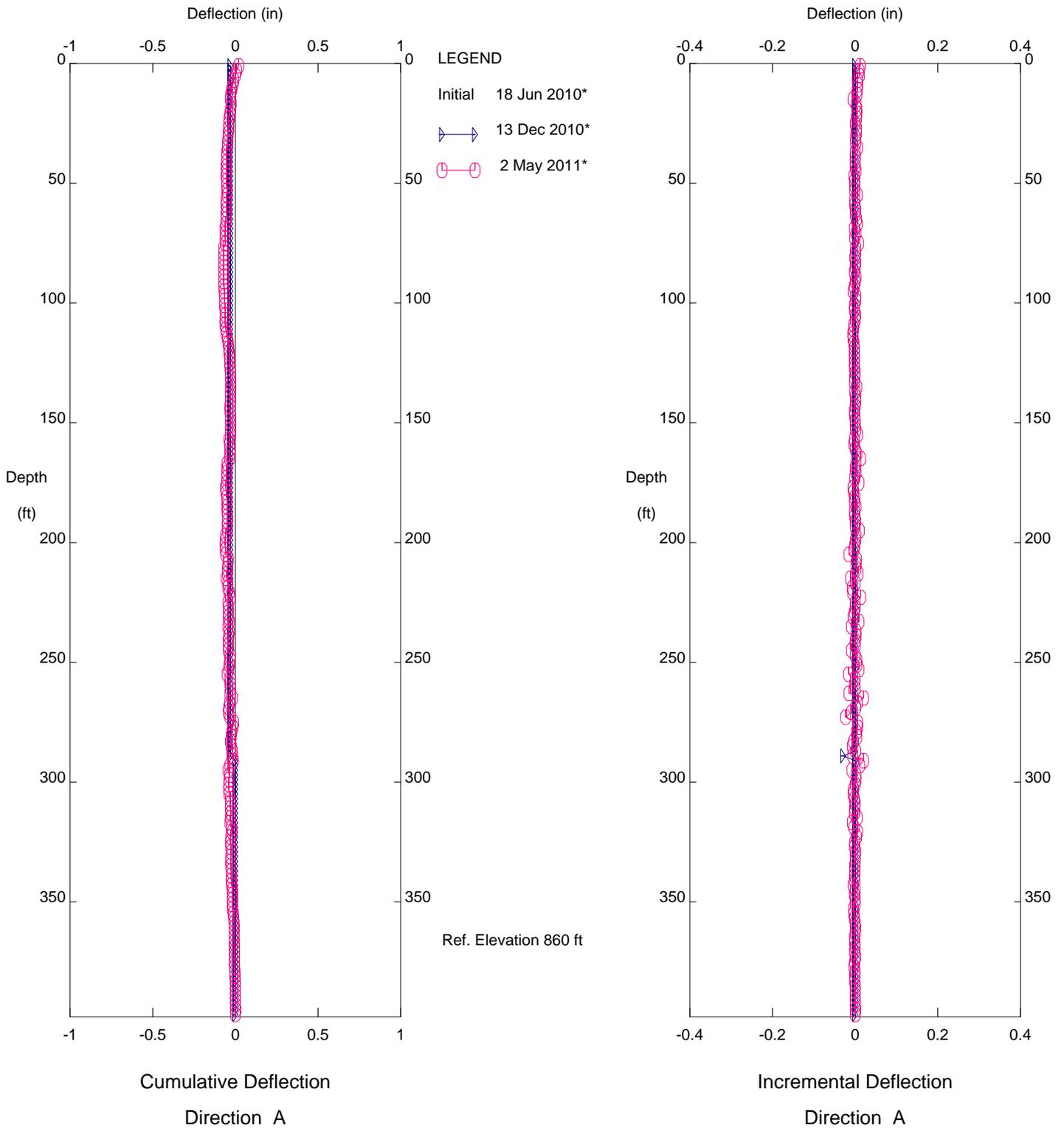
BRM, Inclinator SP22

WESTERN REGION

Sets marked \* include zero shift and/or rotation corrections.



Fugro West, Inc. - Ventura, CA

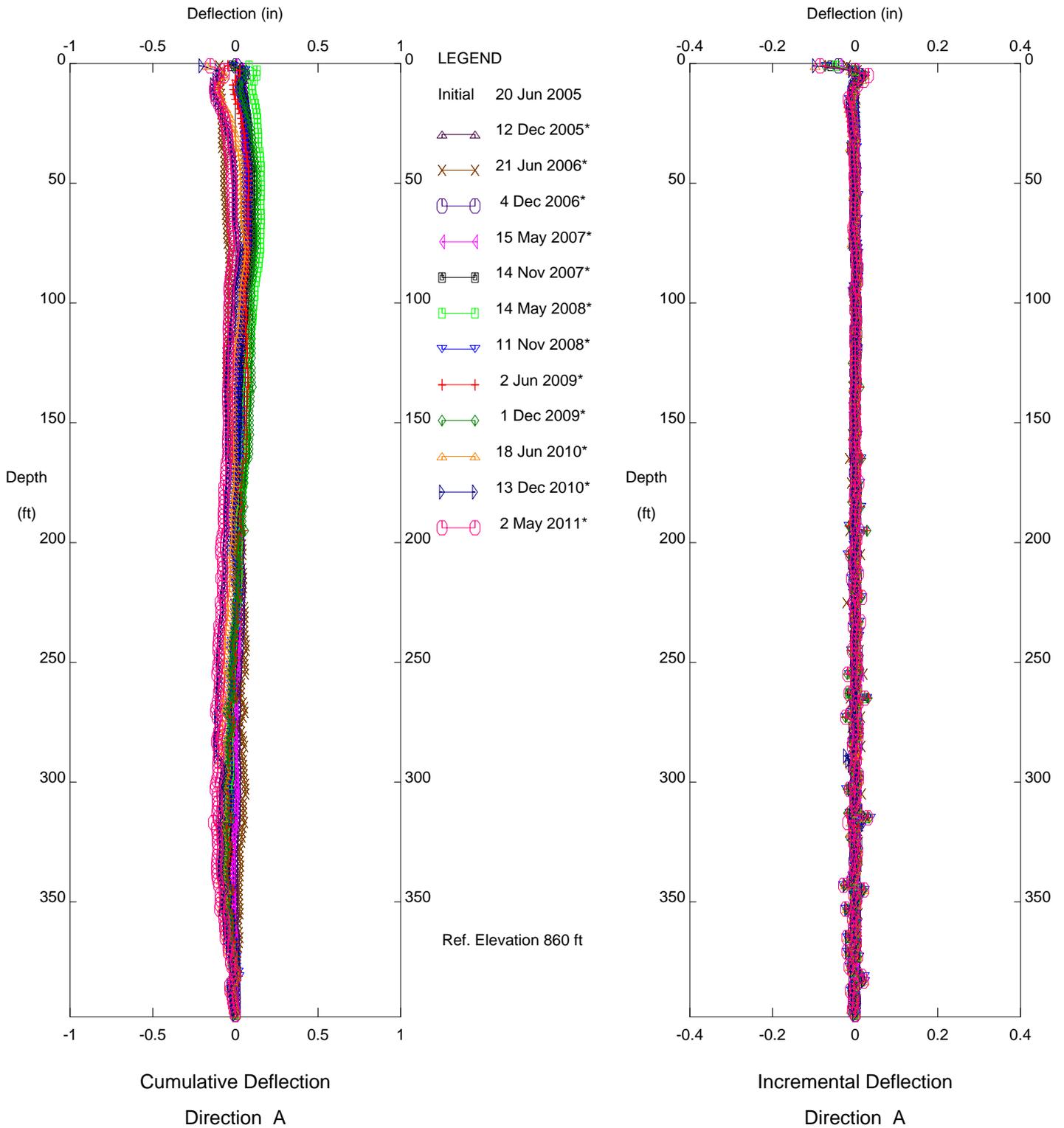


BRM, Inclinator SP23  
 WESTERN REGION

Sets marked \* include zero shift and/or rotation corrections.



Fugro West, Inc. - Ventura, CA



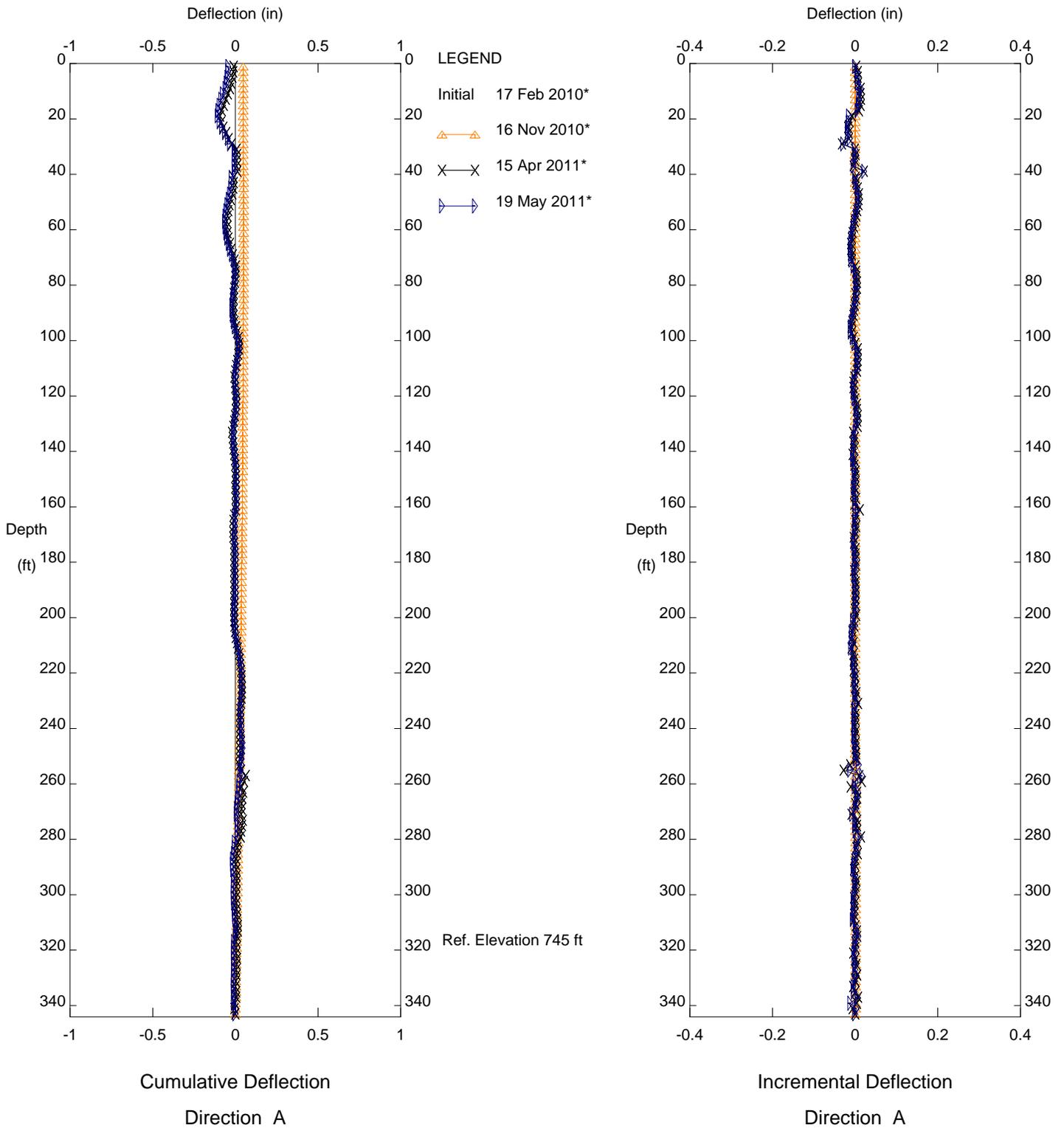
BRM, Inclinometer SP23

WESTERN REGION

Sets marked \* include zero shift and/or rotation corrections.



Fugro West, Inc. - Ventura, CA



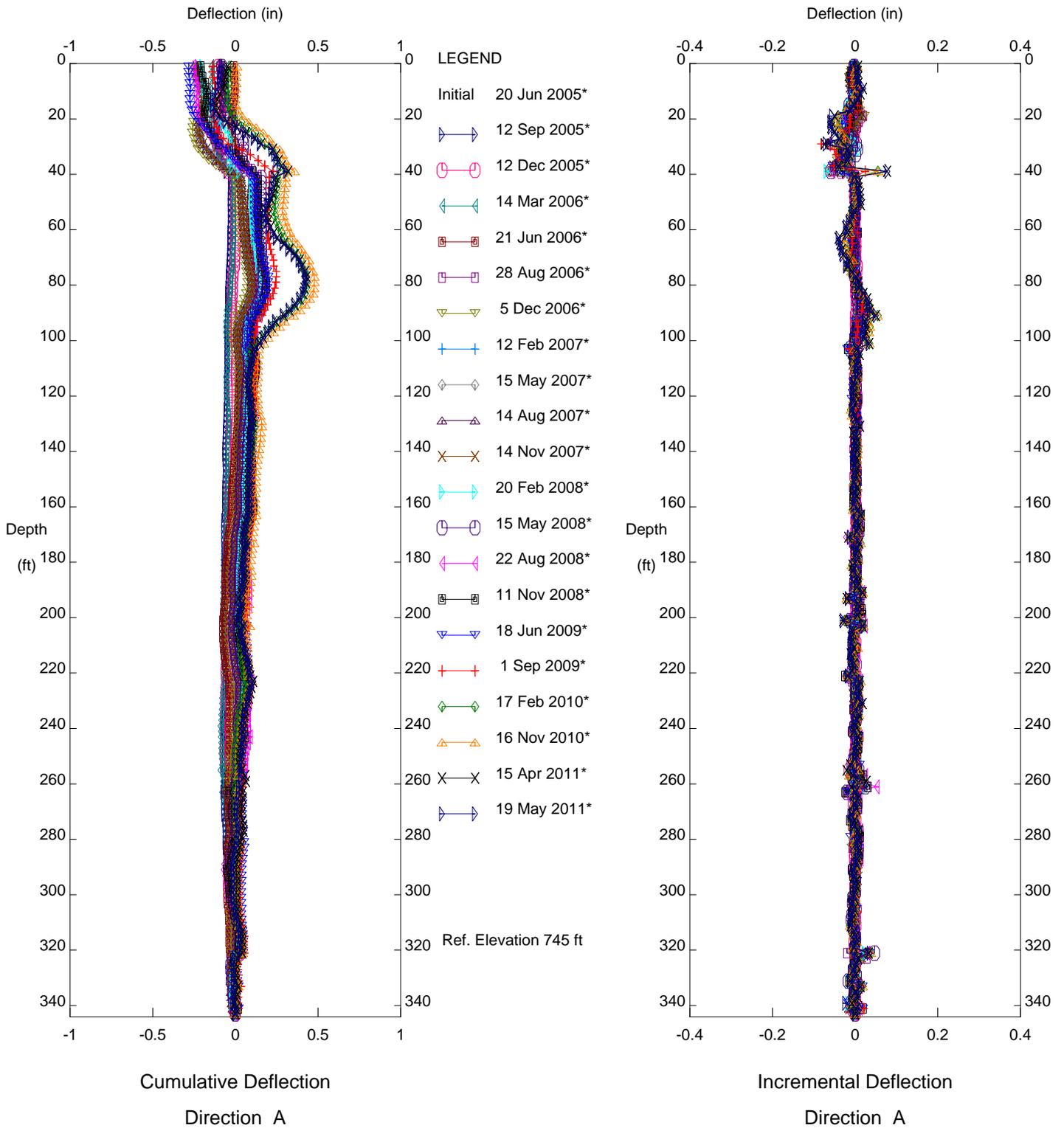
BRM, Inclinometer SP26

HEADSCARP REGION

Sets marked \* include zero shift and/or rotation corrections.



Fugro West, Inc. - Ventura, CA



BRM, Inclinometer SP26

HEADSCARP REGION

Sets marked \* include zero shift and/or rotation corrections.

**APPENDIX E**  
**WATER QUALITY TESTING**

TABLE 1 - SUMMARY OF ANALYTICAL DATA

Date Sampled	INORGANIC NON-METALS (Aqueous Matrix)												
	Well/Hydranger Identification	pH	Temperature	Biochemical Oxygen Demand	Surfactants (MBAS)	Oil & Grease	Settleable Solids	Phenols	Sulfides	Residual Chlorine	Total Suspended Solids	Turbidity	Acute Toxicity
	Units:	pH units	°F	mg/L	mg/L	mg/L	mL/L			mg/L	mg/L	NTU	% Survival
<b>PORT 1</b>													
06/15/11	HD-42	7.0	69.8	ND	ND	ND	BQL	ND	ND	BQL	ND	0.34	--
05/25/11	HD-42	7.2	69.8	ND	ND	1.3	BQL	ND	ND	BQL	3.20	2.20	--
04/19/11	HD-42	7.2	82.8	ND	ND	ND	BQL	ND	ND	ND	2.00	0.36	--
03/16/11	BYA-12	7.1	68.0	ND	ND	ND	BQL	ND	ND	ND	ND	1.20	--
02/10/11	BYA-12	7.1	65.3	0.42	ND	ND	BQL	ND	ND	ND	ND	0.22	--
01/19/11	BYA-12	6.5	66.6	0.63	ND	ND	BQL	ND	ND	ND	ND	0.31	--
12/15/10	HD-42	7.1	67.3	ND	ND	ND	BQL	ND	ND	ND	ND	0.30	--
11/16/10	HD-42	7.1	68.4	ND	ND	ND	BQL	ND	ND	ND	ND	0.70	95
10/29/10	HD-33	7.0	68.4	ND	ND	ND	BQL	ND	ND	ND	ND	0.90	--
06/30/10	HD-42	7.2	71.1	ND	--	ND	BQL	--	--		ND	BQL	--
05/25/10	HD-42	7.1	70.3	0.86	ND	ND	BQL	ND	ND		ND	0.32	--
04/29/10	HD-42	7.2	69.3	0.44	--	ND	BQL	--	--		ND	0.20	--
03/30/10	BYA-6	7.1	71.1	0.42	--	ND	BQL	--	--		2.40	0.41	--
02/24/10	BYA-6	7.9	69.3	ND	ND	2.7	BQL	ND	ND		ND	0.19	--
01/26/10	BYA-6	7.0	71.1	ND	--	ND	BQL	--	--		ND	BQL	--
09/30/09	HD-34	7.3	74.8	ND	--	ND	BQL	--	--		ND	0.40	--
08/19/09	HD-34	7.1	72.1	0.68	ND	ND	BQL	ND	ND		ND	0.60	--
07/22/09	HD-34	7.3	73.0	0.43	--	ND	BQL	--	--		4.40	0.80	--
06/18/09	BYA-5	7.0	77.9	0.42	--	ND	BQL	--	--		ND	0.57	--
06/18/09	HD-42	7.0	70.7	0.52	--	ND	BQL	--	--		ND	0.59	--
05/26/09	BYA-5	7.0	73.6	2.40	ND	ND	BQL	ND	0.010		2.00	1.50	--
05/20/09	HD-42	6.9	70.5	2.00	ND	ND	BQL	ND	0.006		ND	1.40	--
04/30/09	BYA-5	6.9	74.5	ND	--	ND	BQL	--	--		ND	2.20	--
04/29/09	HD-42	7.2	70.5	ND	--	1.6	BQL	--	--		ND	1.20	--
09/10/08	BYA-6	6.8	71.8	--	--	--	--				--	--	--
08/26/08	BYA-6	6.8	71.8	BQL	BQL	BQL	0.10			BQL	28.00	1.90	--
07/03/08	BYA-6	6.6	73.0	--	--	--	--			--	--	--	--
06/10/08	HD-42	6.9	68.7	--	--	--	--			--	--	--	--
05/19/08	HD-42	7.0	70.5	BQL	BQL	BQL	BQL			BQL	BQL	1.50	--
04/04/08	HD-42	6.8	68.5	--	--	--	--			--	--	--	--
03/12/08	BYA-12	7.4	71.1	--	--	--	--			--	--	--	--
02/21/08	BYA-12	7.6	70.9	BQL	BQL	BQL	BQL			BQL	BQL	0.20	--
01/03/08	BYA-12	7.2	69.3	--	--	--	--			--	--	--	--
06/05/07	HD-42	6.8	70.0	--	--	--	--			--	--	--	--
05/16/07	HD-42	6.9	69.6	BQL	BQL	BQL	BQL			BQL	BQL	0.20	--
03/15/07	BYA-6	6.5	69.8	--	--	--	--			--	--	--	--
02/28/07	BYA-6	6.8	68.7	BQL	BQL	BQL	BQL			BQL	BQL	0.40	--
01/11/07	BYA-6	7.0	70.9	--	--	--	--			--	--	--	--
12/21/06	HD-33	7.6	69.1	--	--	--	--			--	--	--	--
12/21/06	BYA-5	7.7	72.9	--	--	--	--			--	--	--	--
11/28/06	HD-33	7.6	72.9	BQL	BQL	BQL	BQL			BQL	BQL	0.10	95
11/28/06	BYA-5	6.7	72.3	BQL	BQL	BQL	BQL			BQL	12.00	6.40	95
10/20/06	HD-33	7.7	72.1	--	--	--	--			--	--	--	--
10/20/06	BYA-5	8.1	74.1	--	--	--	--			--	--	--	--
12/22/05	BYA-12	7.3	66.2	--	--	--	--			--	--	--	--
12/22/05	HD-33	7.3	69.6	--	--	--	--			--	--	--	--
11/28/05	BYA-12	7.8	71.1	BQL	BQL	6.5	BQL			BQL	BQL	0.36	100
11/28/05	HD-33	7.0	71.1	BQL	0.13	11.0	BQL			BQL	BQL	0.22	95
10/20/05	BYA-12	7.3	66.2	--	--	--	--			--	--	--	--
10/20/05	HD-33	7.3	69.6	--	--	--	--			--	--	--	--
09/01/05	BYA-6B	7.7	76.5	--	--	--	--			--	--	--	--
08/24/05	BYA-6B	7.7	75.6	BQL	BQL	BQL	BQL			BQL	BQL	0.80	--
07/29/05	BYA-6B	7.6	74.8	--	--	--	--			--	--	--	--

TABLE 1 - SUMMARY OF ANALYTICAL DATA

Date Sampled	INORGANIC NON-METALS (Aqueous Matrix)												
	Well/Hydrager Identification	pH	Temperature	Biochemical Oxygen Demand	Surfactants (MBAS)	Oil & Grease	Settleable Solids	Phenols	Sulfides	Residual Chlorine	Total Suspended Solids	Turbidity	Acute Toxicity
	Units:	pH units	° F	mg/L	mg/L	mg/L	mL/L			mg/L	mg/L	NTU	% Survival
03/21/05	BYA-6	7.1	70.2	--	--	--	--			--	--	--	--
02/28/05	BYA-6	7.1	68.2	BQL	BQL	BQL	BQL			BQL	BQL	0.11	--
01/27/05	BYA-6	7.1	65.7	--	--	--	--			--	--	--	--
12/17/04	HD-33	7.5	69.8	--	--	--	--			--	--	--	--
11/17/04	HD-33	7.5	--	BQL	BQL	3.9	BQL			BQL	BQL	0.10	100
10/21/04	HD-33	7.9	72.5	--	--	--	--			--	--	--	--
09/21/04		7.3	80.1	--	--	--	--			--	--	--	--
08/25/04		7.1	78.1	BQL	BQL	BQL	BQL			BQL	BQL	0.43	--
07/30/04		7.0	77.0	--	--	--	--			--	--	--	--
06/30/04		8.0	73.9	--	--	--	--			--	--	--	--
05/27/04		7.5	72.0	BQL	BQL	BQL	BQL			BQL	BQL	BQL	--
<b>PORT 1A</b>													
03/16/11	BYA-14	7.1	70.9	ND	ND	ND	BQL	ND	ND	ND	ND	0.38	--
02/10/11	BYA-14	7.1	68.4	ND	ND	ND	BQL	ND	ND	ND	ND	0.23	--
01/19/11	BYA-14	6.5	70.9	ND	ND	ND	BQL	ND	ND	ND	ND	1.00	--
06/30/10	FW-1	7.2	71.8	0.90	--	ND	BQL	--	--		ND	BQL	--
05/25/10	FW-1	7.1	72.5	ND	ND	ND	BQL	ND	ND		ND	0.11	--
04/29/10	FW-1	7.1	68.7	ND	--	ND	BQL	--	--		1.60	0.16	--
12/16/09	BYA-14	7.1	70.9	0.75	--	ND	BQL	--	--		ND	0.41	--
11/18/09	BYA-14	6.9	70.3	ND	ND	ND	BQL	ND	ND		ND	0.18	100
10/29/09	BYA-14	6.9	71.8	0.53	--	ND	BQL				ND	0.42	--
12/17/08	BYA-14	6.8	66.9	BQL	--	BQL	BQL	--	--		6.00	4.50	--
11/19/08	BYA-14	6.9	73.4	BQL	BQL	BQL	BQL	BQL	BQL		1.20	0.75	95
10/06/08	BYA-14	6.9	73.2	--	--	--	--			--	--	--	--
09/10/08	FW-1	7.3	76.8	--	--	--	--			--	--	--	--
08/26/08	FW-1	7.5	81.5	BQL	BQL	BQL	BQL			BQL	BQL	0.50	--
07/03/08	FW-1	7.5	73.8	--	--	--	--			--	--	--	--
12/11/07	BYA-14	6.7	69.6	--	--	--	--			--	--	--	--
11/26/07	BYA-14	7.2	71.4	BQL	BQL	BQL	BQL			BQL	BQL	1.30	100
10/05/07	BYA-14	6.8	73.0	--	--	--	--			--	--	--	--
12/21/06	BYA-14	7.0	69.1	--	--	--	--			--	--	--	--
11/28/06	BYA-14	6.8	72.3	BQL	BQL	BQL	BQL			BQL	BQL	0.10	100
10/20/06	BYA-14	7.6	79.2	--	--	--	--			--	--	--	--
12/17/04	BYA-14	7.1	70.2	--	--	--	--			--	--	--	--
11/17/04	BYA-14	7.1	--	BQL	BQL	BQL	BQL			BQL	BQL	0.25	100
10/21/04	BYA-14	7.2	71.1	--	--	--	--			--	--	--	--
09/21/04		7.6	79.0	--	--	--	--			--	--	--	--
08/25/04		8.2	75.9	BQL	BQL	BQL	BQL			BQL	BQL	0.16	--
07/30/04		8.0	75.0	--	--	--	--			--	--	--	--
06/30/04		<b>9.0</b>	70.0	--	--	--	--			--	--	--	--
05/27/04		8.2	66.0	BQL	BQL	BQL	BQL			BQL	10.00	0.30	--
<b>PORT 2</b>													
12/16/09	HD-41	7.0	69.4	0.67	--	ND	BQL	--	--		ND	BQL	--
11/18/09	HD-41	6.7	70.0	ND	ND	ND	BQL	ND	ND		ND	0.11	95
10/27/09	HD-41	7.2	71.8	ND	--	ND	BQL	--	--		ND	0.53	--
06/18/09	HD-9	7.0	71.2	0.48	--	ND	BQL	--	--		ND	0.84	--
05/20/09	HD-9	7.2	71.2	ND	ND	ND	BQL	ND	0.005		2.00	2.10	--
04/29/09	HD-9	7.3	72.0	ND	--	ND	BQL	--	--		4.00	6.40	--
06/10/08	HD-41	6.7	68.5	--	--	--	--			--	--	--	--
06/10/08	HD-29	7.3	69.1	--	--	--	--			--	--	--	--
05/19/08	HD-41	7.0	70.5	BQL	BQL	BQL	BQL			BQL	BQL	0.40	--
05/19/08	HD-29	7.4	72.3	BQL	BQL	BQL	BQL			BQL	BQL	23.00	--
04/04/08	HD-41	6.7	68.5	--	--	--	--			--	--	--	--

TABLE 1 - SUMMARY OF ANALYTICAL DATA

Date Sampled	INORGANIC NON-METALS (Aqueous Matrix)												
	Well/Hydrager Identification	pH	Temperature	Biochemical Oxygen Demand	Surfactants (MBAS)	Oil & Grease	Settleable Solids	Phenols	Sulfides	Residual Chlorine	Total Suspended Solids	Turbidity	Acute Toxicity
Units:		pH units	° F	mg/L	mg/L	mg/L	mL/L			mg/L	mg/L	NTU	% Survival
04/04/08	HD-29	7.0	68.7	--	--	--	--			--	--	--	--
09/11/07	BYA-H8	7.0	74.5	--	--	--	--			--	--	--	--
08/22/07	BYA-H8	7.5	74.3	BQL	BQL	BQL	BQL			BQL	BQL	0.30	--
07/06/07	BYA-H8	7.0	74.5	--	--	--	--			--	--	--	--
03/15/07	HD-9	6.8	69.4	--	--	--	--			--	--	--	--
02/28/07	HD-9	7.2	69.8	BQL	BQL	BQL	BQL			BQL	BQL	0.40	--
01/11/07	HD-9	7.4	69.3	--	--	--	--			--	--	--	--
09/20/06	HD-41	7.4	71.1	--	--	--	--			--	--	--	--
08/24/06	HD-41	7.0	70.2	BQL	BQL	BQL	BQL			BQL	BQL	0.20	--
07/25/06	HD-41	7.3	70.0	--	--	--	--			--	--	--	--
06/22/06	BYA-7	7.5	76.1	--	--	--	--			--	--	--	--
05/18/06	BYA-7	7.6	65.8	BQL	BQL	BQL	BQL			BQL	BQL	0.70	--
04/25/06	HD-41	7.3	68.5	--	--	--	--			--	--	--	--
03/16/06	HD-9	7.4	70.0	--	--	--	--			--	--	--	--
02/21/06	HD-9	7.3	70.2	BQL	BQL	BQL	BQL			BQL	BQL	0.25	--
01/27/06	HD-9	7.4	69.8	--	--	--	--			--	--	--	--
09/01/05	BYA-H8	7.7	73.2	--	--	--	--			--	--	--	--
08/24/05	BYA-H8	7.9	74.1	BQL	BQL	1.1	BQL			BQL	BQL	0.90	--
07/29/05	BYA-H8	9.0	74.1	--	--	--	--			--	--	--	--
06/29/05	HD-41	7.1	69.1	--	--	--	--			--	--	--	--
05/17/05	HD-41	7.1	69.8	BQL	BQL	BQL	BQL			BQL	10.00	0.80	--
04/19/05	HD-41	7.2	69.4	--	--	--	--			--	--	--	--
03/21/05	HD-9	7.5	70.3	--	--	--	--			--	--	--	--
02/28/05	HD-9	7.4	70.3	BQL	BQL	BQL	BQL			BQL	BQL	0.56	--
01/27/05	HD-9	7.5	69.4	--	--	--	--			--	--	--	--
12/17/04	W-17	7.5	70.9	--	--	--	--			--	--	--	--
11/17/04	W-17	7.2	--	BQL	BQL	BQL	BQL			BQL	BQL	BQL	100
10/21/04	HD-9	7.5	72.3	--	--	--	--			--	--	--	--
09/21/04		7.5	75.9	--	--	--	--			--	--	--	--
08/25/04		7.3	75.9	BQL	BQL	BQL	BQL			BQL	BQL	0.14	--
07/30/04		8.0	71.1	--	--	--	--			--	--	--	--
06/30/04		9.0	72.0	--	--	--	--			--	--	--	--
05/27/04		7.3	69.1	BQL	BQL	BQL	BQL			BQL	BQL	BQL	--
<b>PORT 3</b>													
06/15/11	W-3	7.2	70.9	ND	ND	ND	BQL	ND	ND	BQL	ND	0.47	--
06/15/11	BYA-H10	7.2	70.3	1.90	ND	ND	BQL	ND	ND	BQL	12.00	6.20	--
05/25/11	W-3	7.2	44.9	ND	ND	ND	BQL	ND	ND	BQL	5.20	18.00	--
05/25/11	BYA-H10	7.3	72.1	ND	0.03	1.2	BQL	ND	ND	BQL	2.80	0.67	--
04/19/11	W-3	7.0	71.1	ND	ND	ND	BQL	ND	ND	ND	ND	0.62	--
04/19/11	BYA-H10	7.2	70.5	ND	ND	ND	BQL	ND	ND	ND	4.0	1.40	--
03/16/11	W-1	--	--	--	--	--	--	--	--	ND	--	--	--
03/16/11	HD-30	7.4	69.1	ND	ND	ND	BQL	ND	ND	ND	2.00	0.21	--
02/10/11	W-1	7.1	68.4	--	--	--	--	--	--	ND	--	--	--
02/10/11	HD-30	7.3	68.7	ND	ND	ND	BQL	ND	ND	ND	ND	0.17	--
01/19/11	W-1	6.8	70.2	ND	ND	ND	BQL	ND	ND	ND	1.20	1.80	--
01/19/11	HD-30	6.7	70.3	ND	ND	ND	BQL	ND	ND	ND	ND	0.34	--
12/15/10	W-1	6.9	72.3	ND	ND	ND	BQL	ND	ND	ND	3.20	6.40	--
12/15/10	W-2	7.0	65.3	ND	ND	ND	BQL	ND	ND	ND	ND	6.40	--
12/15/10	BYA-H10	7.2	68.2	ND	ND	ND	BQL	ND	ND	ND	8.40	3.30	--
11/16/10	W-1	--	--	ND	ND	ND	BQL	ND	ND	0.11	2.24	2.90	100
11/16/10	W-2	7.0	68.4	ND	ND	ND	BQL	ND	ND	ND	ND	0.30	100
11/16/10	BYA-H10	7.3	68.5	ND	ND	ND	BQL	ND	ND	ND	ND	BQL	100
10/29/10	W-2	6.8	68.7	ND	ND	ND	BQL	ND	ND	BQL	ND	0.40	--
10/29/10	BYA-H10	7.1	69.4	ND	ND	ND	BQL	ND	ND	BQL	1.60	1.40	--

TABLE 1 - SUMMARY OF ANALYTICAL DATA

Date Sampled	INORGANIC NON-METALS (Aqueous Matrix)												
	Well/Hydranger Identification	pH	Temperature	Biochemical Oxygen Demand	Surfactants (MBAS)	Oil & Grease	Settleable Solids	Phenols	Sulfides	Residual Chlorine	Total Suspended Solids	Turbidity	Acute Toxicity
Units:		pH units	° F	mg/L	mg/L	mg/L	mL/L			mg/L	mg/L	NTU	% Survival
09/17/10	HD-43	7.9	69.3	ND	--	ND	BQL	--	--		ND	0.21	--
09/17/10	HD-30	7.5	70.5	ND	--	1.5	BQL	--	--		ND	0.14	--
08/30/10	HD-43	7.7	79.9	0.74	ND	ND	BQL	ND	ND	ND	0.72	BQL	--
08/30/10	HD-30	7.4	72.3	0.9	ND	ND	BQL	ND	ND	ND	BQL	BQL	--
07/29/10	HD-43	7.8	78.6	ND	--	ND	BQL	--	--		2.80	0.68	--
07/29/10	HD-30	7.3	71.8	ND	--	ND	BQL	--	--		ND	0.11	--
06/30/10	BYA-H10	7.1	70.5	0.74	--	ND	BQL	--	--		ND	BQL	--
05/25/10	BYA-H10	7.3	71.1	1.10	ND	ND	BQL	ND	ND		9.20	13.30	--
04/29/10	BYA-H10	7.3	71.4	0.94	--	ND	BQL	--	--		ND	0.34	--
03/30/10	BYA-13	7.2	69.4	ND	--	ND	BQL	--	--		ND	BQL	--
03/30/10	HD-30	7.4	71.6	ND	--	ND	BQL	--	--		ND	BQL	--
02/24/10	BYA-13	6.6	70.3	ND	ND	3.0	BQL	ND	ND		ND	0.13	--
02/24/10	HD-30	6.9	69.3	ND	ND	4.5	BQL	ND	ND		ND	0.19	--
01/26/10	BYA-13	6.9	70.0	ND	--	ND	BQL	--	--		ND	0.12	--
01/26/10	HD-30	7.1	73.0	ND	--	ND	BQL	--	--		ND	BQL	--
12/16/09	BYA-H10	7.2	71.1	0.67		ND	BQL	--	--		5.60	2.60	--
12/16/09	W-2	6.9	70.3	1.30	--	ND	BQL	--	--		ND	0.60	--
11/18/09	BYA-H10	7.5	70.5	ND	ND	ND	BQL	ND	ND		ND	0.18	100
11/18/09	W-2	6.6	69.6	ND	ND	ND	BQL	ND	ND		ND	BQL	95
10/27/09	BYA-H10	7.2	71.1	ND	--	ND	BQL	--	--		1.2	0.53	--
10/27/09	W-2	6.9	70.3	ND	--	ND	BQL	--	--		ND	0.60	--
09/30/09	HD-30	7.2	72.1	0.70	--	ND	BQL	--	--		ND	0.50	--
08/19/09	HD-30	7.3	70.9	0.56	ND	ND	BQL	ND	ND		ND	0.50	--
07/22/09	HD-30	7.2	72.3	ND	--	ND	BQL	--	--		ND	0.40	--
06/18/09	BYA-H10	7.0	71.8	0.54	--	ND	BQL	--	--		ND	0.47	--
05/26/09	BYA-H10	7.2	72.0	ND	ND	ND	BQL	ND	0.010		3.60	1.50	--
04/29/09	BYA-H10	7.3	72.5	ND	--	ND	BQL	--	--		3.60	2.50	--
04/30/09	W-2	--	--	--	--	--	--	--	--		--	--	95
03/24/09	W-1	7.1	73.6	0.68	--	ND	BQL	--	--		ND	1.20	--
03/26/09	W-2	--	--	--	--	--	--	--	--		--	--	100
03/24/09	HD-30	7.2	71.8	0.55	--	ND	BQL	--	--		ND	0.80	--
02/25/09	W-1	6.3	72.9	0.86	0.07	1.4	BQL	ND	ND		ND	1.20	--
02/25/09	W-2	--	--	--	--	--	--	--	--		--	--	100
02/25/09	HD-30	6.8	72.5	ND	0.04	ND	BQL	ND	ND		ND	0.62	--
01/30/09	W-1	6.9	72.0	ND	--	ND	BQL	--	--		ND	0.75	--
01/30/09	W-2	--	--	--	--	--	--	--	--		--	--	70
01/29/09	HD-30	7.1	72.1	ND	--	ND	BQL	--	--		ND	0.51	--
12/29/08	W-2	--	--	--	--	--	--	--	--		--	--	95
12/17/08	W-2	6.6	68.0	BQL	--	BQL	BQL	--	--		BQL	2.40	--
12/17/08	BYA-H10	6.9	67.5	BQL	--	BQL	BQL	--	--		BQL	2.40	--
11/19/08	W-2	6.7	70.0	BQL	BQL	BQL	BQL	BQL	BQL		1.20	5.00	85
11/19/08	BYA-H10	7.1	71.2	BQL	BQL	BQL	BQL	BQL	BQL		1.20	0.50	100
10/06/08	W-2	6.7	70.3	--	--	--	--				--	--	--
10/06/08	BYA-H10	7.0	71.8	--	--	--	--				--	--	--
09/10/08	BYA-13	6.6	73.0	--	--	--	--				--	--	--
09/10/08	HD-4	6.9	73.2	--	--	--	--				--	--	--
09/10/08	HD-30	6.9	71.6	--	--	--	--				--	--	--
08/26/08	BYA-13	6.7	72.3	BQL	BQL	BQL	BQL			BQL	15.00	2.40	--
08/26/08	HD-4	7.2	72.1	BQL	BQL	BQL	BQL			BQL	BQL	0.20	--
08/26/08	HD-30	7.2	72.1	BQL	BQL	BQL	BQL			BQL	BQL	0.10	--
07/03/08	BYA-13	6.6	73.0	--	--	--	--				--	--	--
07/03/08	HD-4	6.9	73.6	--	--	--	--				--	--	--
07/03/08	HD-30	6.9	72.5	--	--	--	--				--	--	--
06/10/08	BYA-H10	7.0	71.4	--	--	--	--				--	--	--

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Date Sampled	INORGANIC NON-METALS (Aqueous Matrix)												
	Well/Hydranger Identification	pH	Temperature	Biochemical Oxygen Demand	Surfactants (MBAS)	Oil & Grease	Settleable Solids	Phenols	Sulfides	Residual Chlorine	Total Suspended Solids	Turbidity	Acute Toxicity
Units:		pH units	° F	mg/L	mg/L	mg/L	mL/L			mg/L	mg/L	NTU	% Survival
06/10/08	W-3	6.8	69.6	--	--	--	--			--	--	--	--
05/19/08	BYA-H10	7.2	72.0	BQL	BQL	BQL	BQL			BQL	BQL	0.30	--
05/19/08	W-3	6.9	71.2	BQL	BQL	BQL	BQL			BQL	BQL	0.50	--
04/04/08	BYA-H10	6.9	70.2	--	--	--	--			--	--	--	--
04/04/08	W-3	6.6	70.2	--	--	--	--			--	--	--	--
03/12/08	HD-30	7.1	70.5	--	--	--	--			--	--	--	--
02/21/08	HD-30	7.4	70.3	BQL	BQL	BQL	BQL			BQL	BQL	0.10	--
01/03/08	HD-30	6.9	68.5	--	--	--	--			--	--	--	--
12/11/07	W-2	6.5	68.7	--	--	--	--			--	--	--	--
12/11/07	BYA-H10	6.7	69.8	--	--	--	--			--	--	--	--
11/26/07	W-2	7.1	69.6	BQL	BQL	BQL	BQL			BQL	BQL	0.50	100
11/26/07	BYA-H10	7.6	71.1	BQL	BQL	BQL	BQL			BQL	BQL	0.20	100
10/05/07	W-2	6.6	69.8	--	--	--	--			--	--	--	--
10/05/07	BYA-H10	6.8	70.9	--	--	--	--			--	--	--	--
09/27/07	W-2	--	--	--	--	--	--			--	BQL	--	--
09/27/07	W-3	--	--	--	--	--	--			--	BQL	--	--
09/25/07	BYA-13	--	--	--	--	--	--			--	BQL	--	--
09/24/07	HD-30	--	--	--	--	--	--			--	BQL	--	--
09/24/07	HD-43	--	--	--	--	--	--			--	BQL	--	--
09/24/07	HD-4	--	--	--	--	--	--			--	BQL	--	--
09/24/07	H-1	--	--	--	--	--	--			--	BQL	--	--
09/24/07	BYA-H10	--	--	--	--	--	--			--	BQL	--	--
08/22/07	HD-30	7.2	72.7	BQL	BQL	BQL	BQL			BQL	BQL	0.20	--
08/22/07	W-1	--	--	--	--	--	--			<b>0.20</b>	--	--	--
08/22/07	W-2	--	--	--	--	--	--			<b>0.35</b>	--	--	--
08/22/07	W-3	--	--	--	--	--	--			<b>0.50</b>	--	--	--
08/22/07	BYA-13	--	--	--	--	--	--			BQL	--	--	--
08/22/07	HD-43	--	--	--	--	--	--			BQL	--	--	--
08/22/07	HD-4	--	--	--	--	--	--			BQL	--	--	--
08/22/07	BYA-H10	--	--	--	--	--	--			BQL	--	--	--
07/16/07	W-1	--	--	--	--	--	--			BQL	--	--	--
07/06/07	HD-30	6.8	72.5	--	--	--	--			--	--	--	--
06/25/07	W-1	--	--	--	--	--	--			BQL	--	--	--
06/05/07	BYAH-10	6.9	70.7	--	--	--	--			--	--	--	--
06/05/07	W-1	6.6	70.9	--	--	--	--			--	--	--	--
05/16/07	HD-43	7.7	72.3	BQL	BQL	BQL	BQL			BQL	BQL	0.15	--
05/16/07	BYAH-10	7.1	70.5	BQL	BQL	BQL	BQL			BQL	BQL	0.20	--
05/16/07	W-1	6.8	69.8	BQL	BQL	BQL	BQL			<b>0.40</b>	BQL	2.10	--
04/12/07	HD-4	7.4	71.1	--	--	--	--			--	--	--	--
04/12/07	BYAH-10	6.9	70.5	--	--	--	--			--	--	--	--
04/12/07	W-1	6.5	69.3	--	--	--	--			--	--	--	--
03/15/07	BYA-13	<b>6.4</b>	70.7	--	--	--	--			--	--	--	--
03/15/07	HD-30	7.0	69.6	--	--	--	--			--	--	--	--
02/28/07	BYA-13	6.8	69.6	BQL	BQL	BQL	BQL			BQL	BQL	0.60	--
02/28/07	HD-30	7.4	70.0	BQL	BQL	BQL	BQL			BQL	BQL	0.40	--
01/11/07	BYA-13	6.8	69.3	--	--	--	--			--	--	--	--
01/11/07	HD-30	7.5	68.5	--	--	--	--			--	--	--	--
12/21/06	W-2	6.7	68.5	--	--	--	--			--	--	--	--
12/01/06	H-1	--	--	--	--	--	--			--	--	0.37	--
11/28/06	W-2	6.6	70.5	BQL	BQL	BQL	BQL			BQL	BQL	0.10	95
11/22/06	Port 3	--	--	--	--	--	--			--	--	0.31	--
11/22/06	H-1	--	--	--	--	--	--			--	--	2.40	--
11/10/06	H-1	--	--	--	--	--	--			--	--	<b>57.00</b>	--
11/03/06	H-1	--	--	--	--	--	--			--	--	<b>55.00</b>	--

TABLE 1 - SUMMARY OF ANALYTICAL DATA

Date Sampled	INORGANIC NON-METALS (Aqueous Matrix)												
	Well/Hydrager Identification	pH	Temperature	Biochemical Oxygen Demand	Surfactants (MBAS)	Oil & Grease	Settleable Solids	Phenols	Sulfides	Residual Chlorine	Total Suspended Solids	Turbidity	Acute Toxicity
Units:		pH units	° F	mg/L	mg/L	mg/L	mL/L			mg/L	mg/L	NTU	% Survival
10/20/06	W-2	8.0	71.8	--	--	--	--			--	--	--	--
09/20/06	W-1	8.3	72.0	--	--	--	--			--	--	--	--
09/20/06	BYA-H10	7.8	71.8	--	--	--	--			--	--	--	--
09/20/06	H-1	7.7	74.7	--	--	--	--			--	--	--	--
08/24/06	W-1	7.1	71.8	BQL	BQL	BQL	BQL			BQL	7.20	4.90	--
08/24/06	BYA-H10	7.4	73.2	BQL	BQL	BQL	BQL			BQL	BQL	0.20	--
08/24/06	H-1	7.5	74.5	BQL	BQL	BQL	BQL			BQL	BQL	60.00	--
07/25/06	W-1	7.3	75.2	--	--	--	--			--	--	--	--
07/25/06	BYA-H10	7.6	72.5	--	--	--	--			--	--	--	--
07/25/06	H-1	7.6	73.4	--	--	--	--			--	--	--	--
06/22/06	HD-30	7.4	70.5	--	--	--	--			--	--	--	--
05/18/06	HD-30	7.4	72.0	BQL	BQL	BQL	BQL			BQL	BQL	0.40	--
04/25/06	H-1	7.6	67.5	--	--	--	--			--	--	--	--
04/25/06	BYA-H10	7.6	70.3	--	--	--	--			--	--	--	--
04/25/06	W-1	7.3	70.5	--	--	--	--			--	--	--	--
03/16/06	HD-30	7.5	70.5	--	--	--	--			--	--	--	--
03/16/06	W-3	7.4	69.3	--	--	--	--			--	--	--	--
02/21/06	HD-30	7.3	70.5	BQL	BQL	BQL	BQL			BQL	BQL	0.30	--
02/21/06	W-3	7.0	71.8	BQL	BQL	BQL	BQL			BQL	BQL	0.95	--
01/27/06	HD-30	7.4	70.2	--	--	--	--			--	--	--	--
01/27/06	W-3	7.4	69.3	--	--	--	--			--	--	--	--
12/22/05	W-2	7.0	70.2	--	--	--	--			--	--	--	--
12/22/05	BYA-H10	7.5	70.3	--	--	--	--			--	--	--	--
11/28/05	W-2	6.7	73.4	BQL	BQL	3.5	BQL			BQL	BQL	0.21	100
11/28/05	BYA-H10	7.1	71.6	BQL	BQL	5.1	BQL			BQL	BQL	0.24	100
10/20/05	W-1	7.0	71.8	--	--	--	--			--	--	--	--
10/20/05	BYA-H10	7.3	70.2	--	--	--	--			--	--	--	--
09/01/05	BYA-H10	7.2	71.1	--	--	--	--			--	--	--	--
09/01/05	HD-30	7.1	71.1	--	--	--	--			--	--	--	--
09/01/05	HD-4	7.3	72.0	--	--	--	--			--	--	--	--
08/24/05	BYA-H10	7.5	71.6	BQL	BQL	BQL	BQL			BQL	BQL	0.50	--
08/24/05	HD-30	7.3	71.6	BQL	BQL	1.7	BQL			BQL	BQL	1.00	--
08/24/05	HD-4	7.6	72.7	BQL	BQL	BQL	BQL			BQL	BQL	0.60	--
07/29/05	BYA-H10	7.5	71.8	--	--	--	--			--	--	--	--
07/29/05	HD-30	7.3	71.8	--	--	--	--			--	--	--	--
07/29/05	HD-4	8.4	81.1	--	--	--	--			--	--	--	--
06/29/05	BYA-H10	7.5	71.1	--	--	--	--			--	--	--	--
06/29/05	W-1	7.4	73.8	--	--	--	--			--	--	--	--
05/17/05	BYA-H10	7.4	71.4	BQL	BQL	BQL	BQL			BQL	BQL	0.30	--
05/17/05	HD-4	7.2	69.3	BQL	BQL	1.1	BQL			BQL	BQL	0.20	--
04/19/05	BYAH-10	7.5	70.9	--	--	--	--			--	--	--	--
04/19/05	W-1	7.2	74.3	--	--	--	--			--	--	--	--
03/21/05	BYA-13	8.3	66.6	--	--	--	--			--	--	--	--
03/21/05	HD-30	7.3	70.7	--	--	--	--			--	--	--	--
02/28/05	BYA-13	8.2	67.1	BQL	BQL	BQL	BQL			BQL	BQL	0.33	--
02/28/05	H-1	7.3	70.5	BQL	BQL	BQL	BQL			BQL	BQL	3.20	--
01/27/05	BYA-13	7.3	67.8	--	--	--	--			--	--	--	--
01/27/05	HD-30	7.5	70.2	--	--	--	--			--	--	--	--
12/17/04	W-2	7.6	68.2	--	--	--	--			--	--	--	--
11/17/04	BYA-H10	7.4	--	BQL	BQL	BQL	BQL			BQL	BQL	BQL	100
10/21/04	HD-30	7.7	72.7	--	--	--	--			--	--	--	--
09/21/04		8.2	77.0	--	--	--	--			--	--	--	--
08/25/04		8.2	75.9	BQL	BQL	BQL	BQL			BQL	6.00	4.20	--
07/30/04		8.0	79.0	--	--	--	--			--	--	--	--

TABLE 1 - SUMMARY OF ANALYTICAL DATA

Date Sampled	INORGANIC NON-METALS (Aqueous Matrix)												
	Well/Hydranger Identification	pH	Temperature	Biochemical Oxygen Demand	Surfactants (MBAS)	Oil & Grease	Settleable Solids	Phenols	Sulfides	Residual Chlorine	Total Suspended Solids	Turbidity	Acute Toxicity
	Units:	pH units	° F	mg/L	mg/L	mg/L	mL/L			mg/L	mg/L	NTU	% Survival
06/30/04		9.0	71.1	--	--	--	--			--	--	--	--
05/27/04		7.5	70.0	BQL	0.20	BQL	BQL			BQL	10.00	0.70	--
<b>PORT 4</b>													
06/15/11	BYA-1	7.0	72.0	0.78	ND	ND	BQL	ND	ND	BQL	5.60	6.40	--
05/25/11	BYA-1	7.0	72.0	ND	ND	ND	BQL	ND	ND	BQL	3.20	6.60	--
04/19/11	BYA-1	7.0	71.2	ND	ND	ND	BQL	ND	ND	ND	4.40	8.90	--
03/16/11	W-8	7.0	69.8	ND	ND	ND	BQL	ND	ND	BN	ND	2.15	--
03/16/11	HD-15	7.3	69.8	ND	ND	ND	BQL	ND	ND	ND	ND	0.62	--
02/10/11	W-8	7.0	69.8	ND	ND	ND	BQL	ND	ND	ND	ND	0.17	--
02/10/11	HD-15	7.3	69.1	ND	ND	ND	BQL	ND	ND	ND	4.40	1.30	--
01/19/11	W-8	6.5	71.4	ND	ND	ND	BQL	ND	ND	ND	ND	0.29	--
01/19/11	HD-15	6.5	71.1	ND	ND	ND	BQL	ND	ND	ND	1.20	1.40	--
12/16/10	W-17	7.3	70.9	ND	ND	ND	BQL	ND	ND	ND	ND	0.10	--
11/16/10	W-17	7.3	69.8	ND	ND	ND	BQL	ND	ND	ND	ND	BQL	100
10/29/10	W-17	7.2	70.2	ND	ND	ND	BQL	ND	ND	BQL	ND	0.40	--
09/17/10	W-8	6.8	70.3	ND	--	ND	BQL	--	--		ND	0.17	--
09/17/10	W-17	7.3	71.4	ND	--	ND	BQL	--	--		ND	0.22	--
08/30/10	W-8	6.9	72.1	0.94	ND	ND	BQL	ND	ND	ND	0.17	BQL	--
08/30/10	W-17	7.0	72.1	0.75	ND	ND	BQL	ND	ND	ND	BQL	0.14	--
07/29/10	W-8	7.0	72.1	0.77	--	ND	BQL	--	--		4.00	2.30	--
07/29/10	W-17	7.3	72.3	ND	--	ND	BQL	--	--		3.50	0.54	--
06/30/10	HD-26	7.3	69.6	ND	--	ND	BQL	--	--		ND	BQL	--
06/30/10	FW-2	7.3	73.6	ND	--	ND	BQL	--	--		ND	0.29	--
05/25/10	HD-26	7.2	71.2	ND	ND	ND	BQL	ND	ND		9.20	13.30	--
05/25/10	FW-2	6.9	71.8	1.40	ND	ND	BQL	ND	ND		2.00	0.75	--
04/29/10	HD-26	7.2	70.3	ND	--	ND	BQL	--	--		ND	BQL	--
04/29/10	FW-2	7.3	71.8	0.65	--	ND	BQL	--	--		2.80	4.50	--
03/30/10	W-8	7.0	71.6	1.30	--	ND	BQL	--	--		ND	0.48	--
03/30/10	HD-15	7.2	70.7	1.80	--	ND	BQL	--	--		2.00	0.43	--
02/24/10	W-17	7.3	70.2	ND	ND	1.6	BQL	ND	ND		ND	BQL	--
02/24/10	HD-15	7.2	71.1	0.85	ND	2.5	BQL	ND	ND		1.20	0.81	--
01/26/10	W-8	7.0	70.0	ND	--	ND	BQL	--	--		ND	0.23	--
01/26/10	HD-15	7.1	71.1	1.70	--	ND	BQL	--	--		2.40	1.60	--
09/30/09	BYA-1	7.1	73.9	0.70	--	ND	BQL	--	--		1.40	0.60	--
09/30/09	W-8	6.9	71.8	0.81	--	ND	BQL	--	--		ND	0.40	--
08/19/09	BYA-1	7.2	76.1	ND	ND	ND	BQL	ND	ND		ND	0.50	--
08/19/09	W-8	6.9	71.6	0.47	ND	ND	BQL	ND	ND		ND	0.60	--
07/22/09	BYA-1	7.0	73.6	ND	--	ND	<b>0.15</b>	--	--		30.00	<b>53.00</b>	--
07/22/09	W-8	6.8	72.5	0.91	--	ND	BQL	--	--		ND	0.40	--
06/18/09	W-17	7.0	72.0	0.42	--	ND	BQL	--	--		ND	0.62	--
05/26/09	W-17	7.2	72.0	ND	ND	ND	BQL	ND	0.010		ND	1.40	--
04/29/09	W-17	7.2	72.0	0.40		1.4	BQL	--	--		ND	1.40	--
03/24/09	HD-15	7.0	73.0	1.50	--	ND	BQL	--	--		1.60	2.10	--
03/24/09	W-8	6.9	72.9	0.52	--	ND	BQL	--	--		ND	1.10	--
02/25/09	HD-15	<b>6.4</b>	73.6	1.20	0.03	1.3	BQL	ND	ND		ND	0.66	--
02/25/09	W-8	<b>6.3</b>	72.3	0.73	0.11	1.2	BQL	ND	ND		ND	0.64	--
01/29/09	HD-15	6.9	73.2	ND	--	ND	BQL	--	--		2.00	2.20	--
01/30/09	W-8	6.7	71.8	11.00	--	ND	BQL	--	--		ND	0.48	--
12/17/08	BYA-7	7.2	67.5	BQL	--	BQL	BQL	--	--		2.00	21.00	--
12/17/08	HD-26	6.9	68.7	BQL	--	BQL	BQL	--	--		BQL	0.70	--
11/19/08	BYA-7	7.3	70.5	BQL	BQL	BQL	BQL	BQL	BQL		2.40	7.20	100
11/19/08	HD-26	7.0	71.4	BQL	BQL	BQL	BQL	BQL	BQL		2.00	0.50	95
10/06/08	BYA-7	7.2	71.6	--	--	--	--				--	--	--
10/06/08	HD-26	6.9	72.3	--	--	--	--				--	--	--
09/10/08	BYA-1	6.6	75.4	--	--	--	--				--	--	--
08/26/08	BYA-1	6.7	72.1	BQL	BQL	BQL	BQL			BQL	BQL	4.00	--
07/03/08	BYA-1	6.6	76.6	--	--	--	--				--	--	--

TABLE 1 - SUMMARY OF ANALYTICAL DATA

Date Sampled	INORGANIC NON-METALS (Aqueous Matrix)												
	Well/Hydrauger Identification	pH	Temperature	Biochemical Oxygen Demand	Surfactants (MBAS)	Oil & Grease	Settleable Solids	Phenols	Sulfides	Residual Chlorine	Total Suspended Solids	Turbidity	Acute Toxicity
Units:		pH units	° F	mg/L	mg/L	mg/L	mL/L			mg/L	mg/L	NTU	% Survival
06/10/08	W-17	6.9	72.0	--	--	--	--			--	--	--	--
05/19/08	W-17	7.1	72.5	BQL	BQL	BQL	BQL			BQL	BQL	0.20	--
04/04/08	W-17	6.9	72.0	--	--	--	--			--	--	--	--
03/12/08	HD-16	7.1	71.1	--	--	--	--			--	--	--	--
03/12/08	W-8	6.5	70.7	--	--	--	--			--	--	--	--
02/21/08	HD-16	7.3	67.3	BQL	BQL	BQL	BQL			BQL	BQL	3.00	--
02/21/08	W-8	6.7	70.5	BQL	BQL	BQL	BQL			BQL	BQL	0.30	--
01/03/08	HD-16	7.0	66.6	--	--	--	--			--	--	--	--
01/03/08	W-8	6.5	68.9	--	--	--	--			--	--	--	--
09/11/07	W-8	6.6	71.5	--	--	--	--			--	--	--	--
09/11/07	BYA-1	6.6	73.6	--	--	--	--			--	--	--	--
08/22/07	W-8	6.8	72.0	BQL	BQL	BQL	BQL			BQL	BQL	0.30	--
08/22/07	BYA-1	6.8	72.5	BQL	BQL	BQL	BQL			BQL	BQL	6.30	--
07/06/07	W-8	6.6	71.4	--	--	--	--			--	--	--	--
07/06/07	BYA-1	6.6	72.3	--	--	--	--			--	--	--	--
06/05/07	BYA-7	6.9	70.0	--	--	--	--			--	--	--	--
05/16/07	BYA-7	7.1	69.8	BQL	BQL	BQL	BQL			BQL	BQL	0.40	--
04/12/07	BYA-7	7.0	71.1	--	--	--	--			--	--	--	--
03/15/07	W-8	6.4	71.1	--	--	--	--			--	--	--	--
03/15/07	HD-15	6.6	71.2	--	--	--	--			--	--	--	--
02/28/07	W-8	6.7	69.4	BQL	BQL	BQL	BQL			BQL	BQL	0.40	--
02/28/07	HD-15	6.9	71.8	BQL	BQL	BQL	BQL			BQL	BQL	3.80	--
01/11/07	W-8	6.8	71.1	--	--	--	--			--	--	--	--
01/11/07	HD-15	7.1	69.8	--	--	--	--			--	--	--	--
12/21/06	W-17	7.1	70.2	--	--	--	--			--	--	--	--
11/28/06	W-17	6.9	72.0	BQL	BQL	BQL	BQL			BQL	BQL	0.30	100
10/20/06	W-17	7.4	72.3	--	--	--	--			--	--	--	--
09/20/06	HD-26	7.9	72.1	--	--	--	--			--	--	--	--
08/24/06	HD-26	7.1	72.7	BQL	BQL	BQL	BQL			BQL	BQL	0.20	--
07/25/06	HD-26	7.5	72.3	--	--	--	--			--	--	--	--
06/22/06	BYA-1	7.0	76.6	--	--	--	--			--	--	--	--
06/22/06	W-8	7.1	73.0	--	--	--	--			--	--	--	--
05/18/06	BYA-1	7.1	70.3	BQL	BQL	BQL	BQL			BQL	BQL	8.50	--
05/18/06	W-8	7.2	70.0	BQL	BQL	BQL	BQL			BQL	BQL	0.69	--
04/25/06	HD-26	7.5	70.3	--	--	--	--			--	--	--	--
03/16/06	HD-15	7.4	71.6	--	--	--	--			--	--	--	--
03/16/06	W-8	7.1	70.5	--	--	--	--			--	--	--	--
02/21/06	HD-15	7.2	70.9	BQL	BQL	BQL	BQL			BQL	BQL	1.30	--
02/21/06	W-8	7.3	69.8	BQL	BQL	BQL	BQL			BQL	BQL	0.45	--
01/27/06	HD-15	7.3	71.4	--	--	--	--			--	--	--	--
01/27/06	W-8	7.0	71.2	--	--	--	--			--	--	--	--
12/22/05	W-17	7.4	70.7	--	--	--	--			--	--	--	--
11/28/05	W-17	7.0	71.1	BQL	BQL	6.8	BQL			BQL	BQL	0.26	100
10/20/05	W-17	7.3	70.2	--	--	--	--			--	--	--	--
09/01/05	W-8	6.6	71.8	--	--	--	--			--	--	--	--
09/01/05	HD-16	7.3	71.4	--	--	--	--			--	--	--	--
08/24/05	W-8	7.2	73.0	BQL	BQL	1.5	BQL			BQL	BQL	0.60	--
08/24/05	HD-16	7.5	72.1	BQL	BQL	1.2	BQL			BQL	BQL	3.00	--
07/29/05	W-8	6.9	72.7	--	--	--	--			--	--	--	--
07/29/05	HD-16	7.6	71.8	--	--	--	--			--	--	--	--
06/29/05	BYA-1	7.6	74.3	--	--	--	--			--	--	--	--
05/17/05	BYA-1	6.8	73.0	BQL	BQL	BQL	BQL			BQL	BQL	0.80	--
04/19/05	BYA-1	7.2	72.0	--	--	--	--			--	--	--	--
03/21/05	W-8	7.1	71.4	--	--	--	--			--	--	--	--
03/21/05	HD-15	7.2	71.8	--	--	--	--			--	--	--	--
02/28/05	W-8	7.1	70.9	BQL	BQL	BQL	BQL			BQL	BQL	0.34	--
02/28/05	HD-15	7.1	71.1	BQL	BQL	1.1	BQL			BQL	BQL	2.10	--

TABLE 1 - SUMMARY OF ANALYTICAL DATA

Date Sampled	INORGANIC NON-METALS (Aqueous Matrix)												
	Well/Hydranger Identification	pH	Temperature	Biochemical Oxygen Demand	Surfactants (MBAS)	Oil & Grease	Settleable Solids	Phenols	Sulfides	Residual Chlorine	Total Suspended Solids	Turbidity	Acute Toxicity
Units:		pH units	° F	mg/L	mg/L	mg/L	mL/L			mg/L	mg/L	NTU	% Survival
01/27/05	W-8	7.1	70.2	--	--	--	--			--	--	--	--
01/27/05	HD-15	7.3	70.9	--	--	--	--			--	--	--	--
12/17/04	HD-25	7.4	70.2	--	--	--	--			--	--	--	--
11/17/04	HD-25	7.5	--	BQL	BQL	BQL	BQL			BQL	BQL	n.d	95
10/21/04	HD-15	7.5	73.6	--	--	--	--			--	--	--	--
09/21/04		8.2	77.0	--	--	--	--			--	--	--	--
08/26/04		8.0	78.1	BQL	0.21	2.0	BQL			BQL	31.00	7.10	--
07/30/04		9.0	79.0	--	--	--	--			--	--	--	--
06/30/04		9.0	73.9	--	--	--	--			--	--	--	--
05/27/04		8.1	73.0	BQL	BQL	BQL	BQL			BQL	BQL	1.00	--
<b>PORT 5</b>													
06/15/11	W-16	6.8	73.8	ND	ND	ND	BQL	ND	ND	BQL	ND	0.16	--
06/15/11	HD-22	7.2	70.5	0.9	ND	ND	BQL	ND	ND	BQL	15.0	15.00	--
05/25/11	W-16	7.0	72.0	ND	0.0	ND	BQL	ND	ND	BQL	ND	0.16	--
05/25/11	HD-22	7.4	70.9	ND	ND	ND	BQL	ND	ND	BQL	8.40	13.00	--
04/19/11	W-16	6.9	73.6	ND	ND	ND	BQL	ND	ND	ND	ND	0.12	--
04/19/11	HD-22	7.3	70.3	0.4	ND	ND	BQL	ND	ND	ND	ND	0.44	--
03/16/11	BYA-4	6.9	70.9	ND	ND	ND	BQL	ND	ND	ND	ND	0.21	--
03/16/11	W-13	6.9	69.3	ND	ND	ND	BQL	ND	ND	ND	1.20	0.14	--
02/10/11	BYA-4	6.9	68.9	ND	ND	ND	BQL	ND	ND	ND	ND	0.15	--
02/10/11	W-13	7.1	69.8	ND	ND	4.5	BQL	ND	ND	ND	4.00	0.40	--
01/19/11	BYA-4	6.5	72.5	ND	ND	ND	BQL	ND	ND	ND	ND	0.34	--
01/19/11	BYA-11	7.1	70.5	ND	ND	ND	BQL	ND	ND	ND	ND	0.17	--
12/15/10	HD-22	7.3	67.6	0.74	ND	ND	BQL	ND	ND	ND	5.60	1.50	--
12/15/10	W-16	7.3	69.3	ND	ND	ND	BQL	ND	ND	ND	ND	0.30	--
12/15/10	BYA-9	6.7	70.3	ND	ND	ND	BQL	ND	ND	ND	6.4	2.90	--
11/16/10	HD-22	7.3	68.5	ND	ND	ND	BQL	ND	ND	ND	ND	5.00	100
11/16/10	W-16	7.0	70.7	ND	ND	ND	BQL	ND	ND	ND	ND	0.20	100
11/16/10	BYA-9	6.8	71.6	ND	ND	ND	BQL	ND	ND	ND	ND	4.40	95
10/29/10	HD-22	7.2	68.9	ND	ND	ND	BQL	ND	ND	BQL	4.80	12.10	--
10/29/10	W-16	6.9	70.9	ND	ND	ND	BQL	ND	ND	BQL	ND	0.40	--
10/29/10	BYA-9	6.8	72.0	ND	ND	ND	BQL	ND	ND	BQL	1.60	5.90	--
09/17/10	BYA-4	7.0	72.5	ND	--	1.2	BQL	--	--		ND	0.34	--
09/17/10	BYA-11	7.4	73.2	0.5	--	ND	BQL	--	--		ND	0.17	--
08/30/10	BYA-4	7.2	73.4	0.6	ND	ND	BQL	ND	ND	ND	5.00	0.18	--
08/30/10	BYA-11	7.1	73.4	0.65	ND	ND	BQL	ND	ND	ND	0.15	0.16	--
07/29/10	BYA-4	7.1	72.1	0.59	--	ND	BQL	--	--		4.00	2.90	--
07/29/10	BYA-11	7.4	74.1	ND	--	ND	BQL	--	--		10.00	4.00	--
06/30/10	W-16	7.0	72.5	ND	--	ND	BQL	--	--		ND	0.14	--
06/30/10	HD-22	7.2	68.5	0.50	--	ND	BQL	--	--		4.00	6.90	--
05/25/10	W-16	6.8	72.3	0.88	ND	ND	BQL	ND	ND		ND	0.13	--
05/25/10	HD-22	7.2	72.9	0.75	ND	ND	BQL	ND	ND		4.40	4.70	--
04/29/10	W-16	7.0	72.9	0.78	--	ND	BQL	--	--		ND	0.15	--
04/29/10	HD-22	7.5	71.4	1.20	--	ND	BQL	--	--		4.00	5.90	--
03/30/10	BYA-4	7.1	74.3	0.50	--	ND	BQL	--	--		ND	0.38	--
03/30/10	W-13	7.1	72.5	ND	--	ND	BQL	--	--		ND	BQL	--
02/24/10	BYA-4	7.0	72.1	ND	ND	2.3	BQL	ND	ND		ND	0.26	--
02/24/10	W-13	7.3	70.3	ND	ND	ND	BQL	ND	ND		ND	BQL	--
01/26/10	BYA-4	7.1	72.0	ND	--	ND	BQL	--	--		ND	0.31	--
01/26/10	W-13	7.0	69.4	ND	--	ND	BQL	--	--		ND	0.19	--
12/16/09	W-16	6.9	72.5	0.84	--	ND	BQL	--	--		ND	0.13	--
12/16/09	BYA-9	7.0	72.7	0.52	--	1.0	BQL	--	--		ND	0.34	--
11/18/09	BYA-4	6.7	71.8	ND	ND	ND	BQL	ND	ND		ND	0.32	95
11/18/09	BYA-9	7.1	72.3	ND	ND	ND	BQL	ND	ND		ND	BQL	100

TABLE 1 - SUMMARY OF ANALYTICAL DATA

Date Sampled	INORGANIC NON-METALS (Aqueous Matrix)												
	Well/Hydranger Identification	pH	Temperature	Biochemical Oxygen Demand	Surfactants (MBAS)	Oil & Grease	Settleable Solids	Phenols	Sulfides	Residual Chlorine	Total Suspended Solids	Turbidity	Acute Toxicity
Units:		pH units	° F	mg/L	mg/L	mg/L	mL/L			mg/L	mg/L	NTU	% Survival
10/29/09	W-16	6.9	72.3	0.47	--	ND	BQL	--	--		ND	0.70	--
10/29/09	BYA-9	7.1	72.9	ND	--	ND	BQL	--	--		ND	0.61	--
09/30/09	BYA-11	7.3	74.3	ND	--	ND	BQL	--	--		2.80	3.50	--
09/30/09	BYA-4	6.9	74.3	ND	--	ND	BQL	--	--		ND	0.50	--
08/19/09	BYA-11	7.1	70.2	ND	ND	ND	BQL	ND	ND		3.60	6.20	--
08/19/09	BYA-4	6.9	73.9	ND	ND	ND	BQL	ND	ND		ND	0.50	--
07/23/09	BYA-11	6.9	72.9	ND	--	ND	BQL	--	--		4.00	4.20	--
07/22/09	BYA-4	6.9	74.7	ND	--	ND	BQL	--	--		ND	0.40	--
06/18/09	HD-22	7.1	71.2	ND	--	ND	BQL	--	--		2.00	2.70	--
06/18/09	W-16	6.9	73.0	ND	--	ND	BQL	--	--		ND	0.62	--
05/26/09	HD-22	7.3	71.8	ND	ND	ND	BQL	ND	0.010		0.52	0.69	--
05/20/09	W-16	7.0	74.5	ND	ND	ND	BQL	ND	ND		ND	1.40	--
04/29/09	HD-22	7.4	71.6	ND	--	ND	BQL	--	--		4.80	8.40	--
04/29/09	W-16	6.8	72.5	ND	--	ND	BQL	--	--		ND	1.50	--
04/30/09	BYA-9	--	--	--	--	--	--	--	--		--	--	100
03/26/09	BYA-9	--	--	--	--	--	--	--	--		--	--	100
03/26/09	W-13	6.9	72.1	1.10	--	ND	BQL	--	--		3.00	0.81	--
03/24/09	BYA-4	6.8	71.8	0.70	--	ND	BQL	--	--		2.00	1.20	--
03/26/09	W-16	--	--	--	--	--	BQL	--	--		--	--	--
03/24/09	HD-22	7.1	71.1	ND	--	ND	BQL	--	--		3.60	10.00	--
02/25/09	BYA-9	--	--	--	--	--	--	--	--		--	--	100
02/25/09	W-13	6.2	70.2	ND	0.04	1.1	BQL	ND	ND		ND	0.65	--
02/25/09	BYA-4	6.4	71.4	0.56	ND	ND	BQL	ND	ND		1.60	0.74	--
02/25/09	W-16	--	--	--	--	--	--	--	--		--	--	--
02/25/09	HD-22	6.6	72.0	0.59	0.04	ND	BQL	ND	ND		2.40	6.30	--
01/30/09	BYA-9	--	--	--	--	--	--	--	--		--	--	85
01/29/09	W-13	6.7	70.9	ND	--	ND	BQL	--	--		ND	0.68	--
01/29/09	BYA-4	6.9	72.5	ND	--	ND	BQL	--	--		ND	0.70	--
01/30/09	W-16	--	--	--	--	--	--	--	--		--	--	--
01/29/09	HD-22	6.9	71.8	0.57	--	ND	0.20	--	--		11.00	21.00	--
12/29/08	W-16	--	--	--	--	--	--	--	--		--	--	100
12/17/08	W-16	6.6	69.1	BQL	--	BQL	BQL	--	--		BQL	1.10	--
12/17/08	BYA-9	6.6	67.5	BQL	--	BQL	BQL	--	--		BQL	0.80	--
11/19/08	W-16	7.1	70.2	0.42	BQL	BQL	BQL	BQL	BQL		2.00	0.50	90
11/19/08	BYA-9	6.6	72.7	BQL	BQL	BQL	BQL	BQL	BQL		2.40	1.60	75
10/06/08	W-16	6.8	72.5	--	--	--	--	--	--		--	--	--
10/06/08	BYA-9	6.7	73.6	--	--	--	--	--	--		--	--	--
09/10/08	BYA-4	6.8	73.8	--	--	--	--	--	--		--	--	--
09/10/08	BYA-11	7.1	74.1	--	--	--	--	--	--		--	--	--
08/26/08	BYA-4	6.8	72.5	BQL	BQL	BQL	BQL	--	--		BQL	BQL	2.20
08/26/08	BYA-11	7.3	72.5	BQL	BQL	BQL	BQL	--	--		BQL	BQL	0.40
07/03/08	BYA-4	6.7	74.5	--	--	--	--	--	--		--	--	--
07/03/08	BYA-11	7.0	79.7	--	--	--	--	--	--		--	--	--
06/10/08	W-16	6.6	74.1	--	--	--	--	--	--		--	--	--
05/19/08	W-16	6.8	74.1	BQL	BQL	BQL	BQL	--	--		BQL	BQL	0.20
04/04/08	W-16	6.6	73.0	--	--	--	--	--	--		--	--	--
03/12/08	W-13	6.5	70.7	--	--	--	--	--	--		--	--	--
03/12/08	BYA-4	6.7	73.2	--	--	--	--	--	--		--	--	--
03/12/08	HD-22	7.0	71.4	--	--	--	--	--	--		--	--	--
02/21/08	W-13	6.7	70.0	BQL	BQL	BQL	BQL	--	--		BQL	BQL	0.10
02/21/08	BYA-4	7.0	70.9	BQL	BQL	BQL	BQL	--	--		BQL	BQL	0.30
02/21/08	HD-22	7.2	69.3	BQL	BQL	BQL	BQL	--	--		BQL	BQL	3.40
01/03/08	W-13	6.5	69.8	--	--	--	--	--	--		--	--	--
01/03/08	BYA-4	6.7	71.4	--	--	--	--	--	--		--	--	--

TABLE 1 - SUMMARY OF ANALYTICAL DATA

Date Sampled	INORGANIC NON-METALS (Aqueous Matrix)												
	Well/Hydranger Identification	pH	Temperature	Biochemical Oxygen Demand	Surfactants (MBAS)	Oil & Grease	Settleable Solids	Phenols	Sulfides	Residual Chlorine	Total Suspended Solids	Turbidity	Acute Toxicity
	Units:	pH units	° F	mg/L	mg/L	mg/L	mL/L			mg/L	mg/L	NTU	% Survival
01/03/08	HD-22	6.9	67.6	--	--	--	--			--	--	--	--
12/11/07	W-16	6.6	70.9	--	--	--	--			--	--	--	--
12/11/07	BYA-9	6.5	71.6	--	--	--	--			--	--	--	--
12/11/07	HD-32	6.8	71.2	--	--	--	--			--	--	--	--
11/26/07	W-16	7.1	71.1	BQL	BQL	BQL	BQL			BQL	BQL	0.20	100
11/26/07	BYA-9	6.9	72.9	BQL	BQL	BQL	BQL			BQL	BQL	0.60	100
11/26/07	HD-32	7.8	75.6	BQL	BQL	BQL	BQL			BQL	BQL	0.20	100
10/05/07	W-16	6.6	72.9	--	--	--	--			--	--	--	--
10/05/07	BYA-9	6.5	72.3	--	--	--	--			--	--	--	--
10/05/07	HD-32	7.0	74.5	--	--	--	--			--	--	--	--
09/11/07	BYA-4	6.7	74.3	--	--	--	--			--	--	--	--
09/11/07	BYA-11	6.9	73.8	--	--	--	--			--	--	--	--
08/22/07	BYA-4	6.9	73.0	BQL	BQL	BQL	BQL			BQL	BQL	3.00	--
08/22/07	BYA-11	7.3	73.2	BQL	BQL	BQL	BQL			BQL	BQL	0.24	--
08/22/07	W-16	--	--	--	--	--	BQL			BQL	--	--	--
08/22/07	W-13	--	--	--	--	--	BQL			BQL	--	--	--
08/22/07	BYA-9	--	--	--	--	--	BQL			BQL	--	--	--
08/22/07	HD-22	--	--	--	--	--	BQL			BQL	--	--	--
07/27/07	HD-22	--	--	--	--	--	BQL			--	--	--	--
07/16/07	W-16	--	--	--	--	--	--			BQL	--	--	--
07/16/07	HD-22	--	--	--	--	--	BQL			--	--	--	--
07/12/07	HD-22	--	--	--	--	--	BQL			--	--	--	--
07/06/07	BYA-4	6.7	72.1	--	--	--	--			--	--	--	--
07/06/07	BYA-11	6.9	74.3	--	--	--	--			--	--	--	--
06/25/07	HD-22	--	--	--	--	--	BQL			--	--	--	--
06/25/07	W-16	--	--	--	--	--	--			BQL	--	--	--
06/05/07	W-16	6.6	73.0	--	--	--	--			--	--	--	--
05/16/07	W-16	6.7	72.0	BQL	BQL	BQL	BQL			0.15	BQL	0.20	--
05/02/07	HD-22	--	--	--	--	--	0.10			--	--	--	--
04/12/07	HD-22	--	--	--	--	--	0.40			--	--	--	--
04/12/07	W-16	6.5	72.9	--	--	--	--			--	--	--	--
03/15/07	W-13	6.4	69.3	--	--	--	--			--	--	--	--
03/15/07	BYA-4	6.5	71.8	--	--	--	--			--	--	--	--
03/15/07	HD-22	6.9	70.7	--	--	--	--			--	--	--	--
02/28/07	W-13	6.6	70.3	BQL	BQL	BQL	BQL			BQL	BQL	0.40	--
02/28/07	BYA-4	7.0	71.6	BQL	BQL	BQL	BQL			BQL	BQL	2.30	--
02/28/07	HD-22	7.1	70.3	BQL	BQL	BQL	0.50			BQL	11.00	10.00	--
01/11/07	W-13	6.7	68.5	--	--	--	--			--	--	--	--
01/11/07	BYA-4	6.9	70.9	--	--	--	--			--	--	--	--
01/11/07	HD-22	7.4	68.5	--	--	--	--			--	--	--	--
12/21/06	W-16	6.8	71.1	--	--	--	--			--	--	--	--
12/21/06	BYA-9	6.7	70.9	--	--	--	--			--	--	--	--
11/28/06	W-16	6.6	71.6	BQL	BQL	BQL	BQL			BQL	BQL	0.40	100
11/28/06	BYA-9	6.5	72.7	BQL	BQL	BQL	BQL			BQL	BQL	0.60	100
10/20/06	W-16	7.3	73.0	--	--	--	--			--	--	--	--
10/20/06	BYA-9	7.1	72.3	--	--	--	--			--	--	--	--
09/20/06	W-16	8.3	73.0	--	--	--	--			--	--	--	--
08/24/06	W-16	6.9	74.3	BQL	BQL	BQL	BQL			BQL	BQL	0.40	--
07/25/06	W-16	7.2	74.1	--	--	--	--			--	--	--	--
06/22/06	BYA-11	7.6	73.4	--	--	--	--			--	--	--	--
06/22/06	BYA-4	7.4	75.7	--	--	--	--			--	--	--	--
05/18/06	BYA-11	7.4	71.1	BQL	BQL	BQL	BQL			BQL	BQL	1.50	--
05/18/06	BYA-4	7.2	70.2	BQL	BQL	BQL	BQL			BQL	BQL	0.80	--
04/25/06	W-16	7.3	70.9	--	--	--	--			--	--	--	--

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	Well/Hydrager Identification	pH	Temperature	Biochemical Oxygen Demand	Surfactants (MBAS)	Oil & Grease	Settleable Solids	Phenols	Sulfides	Residual Chlorine	Total Suspended Solids	Turbidity	Acute Toxicity
Units:		pH units	° F	mg/L	mg/L	mg/L	mL/L			mg/L	mg/L	NTU	% Survival
03/16/06	HD-22	7.4	70.2	--	--	--	--			--	--	--	--
03/16/06	W-13	7.3	70.5	--	--	--	--			--	--	--	--
03/16/06	BYA-4	7.3	72.5	--	--	--	--			--	--	--	--
02/21/06	HD-22	7.3	70.0	BQL	BQL	BQL	BQL			BQL	BQL	4.00	--
02/21/06	W-13	6.9	70.5	BQL	BQL	BQL	BQL			BQL	BQL	0.25	--
02/21/06	BYA-4	7.0	72.1	BQL	BQL	BQL	BQL			BQL	BQL	0.80	--
01/27/06	HD-22	7.3	69.4	--	--	--	--			--	--	--	--
01/27/06	W-13	7.2	70.7	--	--	--	--			--	--	--	--
01/27/06	BYA-4	7.3	73.4	--	--	--	--			--	--	--	--
12/22/05	W-16	7.2	71.6	--	--	--	--			--	--	--	--
12/22/05	BYA-9	7.0	72.7	--	--	--	--			--	--	--	--
11/28/05	W-16	6.8	72.1	BQL	BQL	3.2	BQL			BQL	BQL	0.32	90
11/28/05	BYA-9	7.3	72.3	BQL	BQL	4.9	BQL			BQL	BQL	0.28	100
10/20/05	W-16	6.8	72.1	--	--	--	--			--	--	--	--
10/20/05	BYA-9	6.8	72.5	--	--	--	--			--	--	--	--
09/01/05	BYA-4	7.0	74.1	--	--	--	--			--	--	--	--
08/24/05	BYA-4	7.1	72.0	BQL	BQL	BQL	BQL			BQL	BQL	0.70	--
07/29/05	BYA-4	7.5	73.8	--	--	--	--			--	--	--	--
06/29/05	W-16	7.1	73.0	--	--	--	--			--	--	--	--
06/29/05	BYA-11	7.8	75.7	--	--	--	--			--	--	--	--
05/17/05	W-16	6.6	72.7	BQL	BQL	BQL	BQL			BQL	BQL	0.10	--
05/17/05	BYA-11	7.1	73.4	BQL	0.13	1.7	BQL			BQL	BQL	0.60	--
04/19/05	W-16	7.0	72.5	--	--	--	--			--	--	--	--
04/19/05	BYA-11	7.4	73.0	--	--	--	--			--	--	--	--
03/21/05	W-13	7.2	72.1	--	--	--	--			--	--	--	--
03/21/05	BYA-4	7.1	71.1	--	--	--	--			--	--	--	--
03/21/05	HD-22	7.4	70.5	--	--	--	--			--	--	--	--
02/28/05	BYA-4	7.1	71.4	BQL	BQL	BQL	BQL			BQL	BQL	0.37	--
02/28/05	W-13	7.1	70.3	BQL	BQL	BQL	BQL			BQL	BQL	0.16	--
02/28/05	HD-22	7.3	70.5	BQL	BQL	BQL	BQL			BQL	BQL	0.72	--
01/27/05	BYA-4	7.2	71.1	--	--	--	--			--	--	--	--
01/27/05	W-13	7.1	70.0	--	--	--	--			--	--	--	--
01/27/05	HD-22	7.5	69.4	--	--	--	--			--	--	--	--
12/17/04	W-16	7.3	69.4	--	--	--	--			--	--	--	--
11/17/04	W-16	7.0	--	BQL	BQL	3.1	BQL			BQL	BQL	0.22	100
11/03/04	W-16	--	--	--	--	--	--			BQL	--	--	--
10/21/04	HD-22	7.5	72.0	--	--	--	--			--	--	--	--
09/29/04	W-16	--	--	--	--	--	--			BQL	--	--	--
09/21/04		7.4	75.0	--	--	--	--			--	--	--	--
08/26/04		7.2	75.9	BQL	BQL	BQL	BQL			0.25	BQL	2.70	--
07/30/04		7.0	78.1	--	--	--	--			--	--	--	--
06/30/04		9.0	73.0	--	--	--	--			--	--	--	--
05/27/04		7.7	70.0	BQL	BQL	BQL	BQL			BQL	10.00	0.70	--
<b>PORT 5A</b>													
06/15/11	BYA-10	7.2	72.5	ND	ND	1.2	BQL	ND	ND	BQL	ND	0.62	--
05/25/11	BYA-10	7.4	72.1	0.56	ND	ND	BQL	ND	ND	BQL	4.40	1.80	--
04/19/11	BYA-10	7.4	71.1	ND	ND	ND	BQL	ND	ND	ND	ND	0.44	--
12/16/09	BYA-10	7.4	70.7	0.63	--	ND	BQL	--	--		6.40	9.10	--
11/18/09	BYA-10	7.0	70.5	0.93	ND	ND	BQL	ND	ND		ND	BQL	100
10/29/09	BYA-10	7.1	71.4	ND	--	ND	BQL	--	--		ND	0.50	--
12/11/07	BYA-10	6.7	69.8	--	--	--	--			--	--	--	--
11/26/07	BYA-10	7.4	71.2	BQL	BQL	BQL	BQL			BQL	BQL	0.20	95
10/05/07	BYA-10	6.7	69.8	--	--	--	--			--	--	--	--
06/22/06	BYA-10	7.5	73.6	--	--	--	--			--	--	--	--

TABLE 1 - SUMMARY OF ANALYTICAL DATA

Date Sampled	INORGANIC NON-METALS (Aqueous Matrix)												
	Well/Hydrager Identification	pH	Temperature	Biochemical Oxygen Demand	Surfactants (MBAS)	Oil & Grease	Settleable Solids	Phenols	Sulfides	Residual Chlorine	Total Suspended Solids	Turbidity	Acute Toxicity
Units:		pH units	° F	mg/L	mg/L	mg/L	mL/L			mg/L	mg/L	NTU	% Survival
05/18/06	BYA-10	7.3	72.1	BQL	BQL	BQL	BQL			BQL	BQL	0.70	--
09/01/05	BYA-10	7.1	73.0	--	--	--	--			--	--	--	--
08/24/05	BYA-10	7.2	73.0	BQL	BQL	2.8	BQL			BQL	BQL	0.60	--
07/29/05	BYA-10	7.5	74.3	--	--	--	--			--	--	--	--
12/17/04	BYA-11	7.5	71.1	--	--	--	--			--	--	--	--
11/17/04	BYA-9	6.9	--	BQL	BQL	3.8	BQL			BQL	BQL	3.00	100
11/03/04	BYA-10	--	--	--	--	--	--			BQL	--	--	--
10/21/04	BYA-10	7.5	73.9	--	--	--	--			--	--	--	--
09/29/04	BYA-10	--	--	--	--	--	--			BQL	--	--	--
09/21/04		7.4	75.9	--	--	--	--			--	--	--	--
08/26/04		7.2	78.1	BQL	BQL	BQL	BQL			0.25	BQL	0.10	--
07/30/04		7.0	80.1	--	--	--	--			--	--	--	--
06/30/04		8.0	73.9	--	--	--	--			--	--	--	--
05/27/04		7.5	73.9	BQL	BQL	BQL	BQL			BQL	BQL	BQL	--
<b>PORT 6</b>													
06/15/11	W-18	7.1	70.7	ND	ND	0.1	BQL	ND	ND	BQL	5.20	7.70	--
06/15/11	HD-11	7.2	70.3	ND	ND	ND	BQL	ND	ND	BQL	ND	0.33	--
05/25/11	W-18	7.4	72.7	ND	ND	1.0	BQL	ND	ND	BQL	1.2	4.24	--
05/25/11	HD-11	7.5	70.7	ND	0.0	1.2	BQL	ND	ND	BQL	ND	0.26	--
04/19/11	W-18	7.2	71.4	ND	ND	ND	BQL	ND	ND	ND	1.6	0.69	--
04/19/11	HD-11	7.6	69.3	ND	ND	ND	BQL	ND	ND	ND	2.0	0.63	--
03/16/11	BYA-3	7.4	71.4	ND	ND	ND	BQL	ND	ND	ND	1.60	0.62	--
03/16/11	HD-12	7.3	70.0	2.00	ND	ND	BQL	ND	ND	ND	2.40	0.21	--
02/10/11	BYA-3	7.4	72.0	ND	ND	ND	BQL	ND	ND	ND	ND	0.35	--
02/10/11	HD-12	7.3	69.4	1.20	ND	ND	BQL	ND	ND	ND	ND	0.15	--
01/19/11	BYA-3	6.6	72.9	ND	ND	ND	BQL	ND	ND	ND	ND	0.79	--
01/19/11	HD-12	6.7	71.1	1.30	ND	ND	BQL	ND	ND	ND	ND	0.67	--
12/15/10	W-18	7.2	71.6	0.55	ND	ND	BQL	ND	ND	ND	ND	3.10	--
11/16/10	W-18	7.1	71.4	ND	ND	ND	BQL	ND	ND	ND	8.40	11.10	100
10/29/10	W-18	7.0	72.5	ND	ND	ND	BQL	ND	ND	BQL	ND	4.60	--
09/17/10	HD-12	7.3	71.6	ND	--	ND	BQL	--	--	--	ND	0.11	--
09/17/10	HD-10	7.3	70.3	ND	--	ND	BQL	--	--	--	ND	0.24	--
08/30/10	HD-12	7.3	72.3	1.1	ND	ND	BQL	ND	ND	ND	4.4	0.10	--
08/30/10	HD-10	7.4	72.3	0.80	ND	ND	BQL	8.400	ND	ND	11.10	BQL	--
07/29/10	HD-12	7.3	72.5	0.90	--	ND	BQL	--	--		4.00	1.00	--
07/29/10	HD-10	7.4	71.8	ND	--	ND	BQL	--	--		ND	0.12	--
06/30/10	W-18	7.2	72.9	1.50	--	ND	BQL	--	--		4.00	5.40	--
05/25/10	W-18	7.3	71.4	0.82	ND	ND	BQL	ND	ND		ND	0.12	--
04/29/10	W-18	7.2	73.0	0.97	--	ND	BQL	--	--		7.20	12.00	--
03/30/10	BYA-3	7.3	70.3	0.76	--	ND	BQL	--	--		ND	0.11	--
03/30/10	HD-12	7.2	71.4	1.10	--	ND	BQL	--	--		1.60	0.24	--
02/24/10	BYA-3	7.3	72.9	ND	ND	1.0	BQL	ND	ND		ND	0.12	--
02/24/10	HD-12	7.1	69.6	ND	ND	1.0	BQL	ND	ND		ND	0.25	--
01/26/10	BYA-3	7.4	73.0	0.68	--	ND	BQL	--	--		2.00	0.57	--
01/26/10	HD-12	7.3	70.5	1.30	--	ND	BQL	--	--		ND	0.14	--
12/16/09	W-18	7.2	73.2	0.82	--	ND	BQL	--	--		ND	1.80	--
12/16/09	HD-11	7.2	70.0	ND	--	BQL	ND	--	--		ND	0.84	--
11/18/09	W-18	6.9	72.1	ND	ND	ND	BQL	ND	ND		1.2	1.90	100
11/18/09	HD-11	7.0	69.8	ND	ND	ND	BQL	ND	ND		ND	BQL	100
10/27/09	W-18	7.1	73.9	ND	--	ND	BQL	--	--		2.0	2.80	--
10/27/09	HD-11	7.1	71.1	ND	--	ND	BQL	--	--		ND	0.57	--
09/30/09	BYA-2	7.1	74.1	ND	--	ND	BQL	--	--		2.00	0.90	--
09/30/09	HD-12	7.1	74.1	0.42	--	ND	BQL	--	--		ND	0.40	--
09/30/09	HD-10	7.1	73.4	ND	--	ND	BQL	--	--		ND	0.40	--

TABLE 1 - SUMMARY OF ANALYTICAL DATA

Date Sampled	INORGANIC NON-METALS (Aqueous Matrix)												
	Well/Hydranger Identification	pH	Temperature	Biochemical Oxygen Demand	Surfactants (MBAS)	Oil & Grease	Settleable Solids	Phenols	Sulfides	Residual Chlorine	Total Suspended Solids	Turbidity	Acute Toxicity
Units:		pH units	°F	mg/L	mg/L	mg/L	mL/L			mg/L	mg/L	NTU	% Survival
08/19/09	BYA-2	7.1	73.8	ND	ND	ND	BQL	ND	ND		1.20	2.80	--
08/19/09	HD-12	7.1	72.1	1.60	ND	ND	BQL	ND	ND		ND	0.60	--
08/19/09	HD-10	7.2	70.9	0.56	ND	ND	BQL	ND	ND		ND	0.50	--
07/22/09	BYA-2	7.1	73.2	ND	--	ND	BQL	--	--		2.80	0.80	--
07/22/09	HD-12	7.1	73.0	1.70	--	ND	BQL	--	--		1.20	0.50	--
07/22/09	HD-10	7.1	72.1	ND	--	ND	BQL	--	--		ND	0.40	--
06/18/09	W-18	6.9	74.3	0.50	--	ND	BQL	--	--		ND	1.40	--
05/20/09	W-18	6.9	73.6	0.65	ND	ND	BQL	ND	0.006		4.80	6.60	--
04/29/09	W-18	7.1	73.9	0.51	--	ND	BQL	--	--		2.00	3.40	90
03/24/09	HD-12	7.1	72.3	0.86	--	ND	BQL	--	--		1.20	0.85	--
03/24/09	BYA-3	6.9	79.0	0.44	--	ND	BQL	--	--		2.40	2.20	--
03/26/09	W-18	--	--	--	--	--	--	--	--		--	--	100
02/25/09	HD-12	6.3	71.8	0.69	0.04	ND	BQL	ND	ND		ND	0.61	--
02/25/09	BYA-3	6.6	80.4	0.59	0.04	1.2	BQL	ND	ND		ND	0.68	--
02/25/09	W-18	--	--	--	--	--	--	--	--		--	--	100
01/29/09	HD-12	7.0	72.5	0.52	--	ND	BQL	--	--		ND	0.45	--
01/29/09	BYA-3	6.9	81.3	0.67	--	ND	BQL	--	--		ND	0.67	--
01/30/09	W-18	--	--	--	--	--	--	--	--		--	--	85
12/29/08	W-18	--	--	--	--	--	--	--	--		--	--	100
06/10/08	HD-11	7.3	71.8	--	--	--	--				--	--	--
06/10/08	W-18	6.8	74.8	--	--	--	--				--	--	--
05/19/08	HD-11	7.6	73.0	BQL	BQL	BQL	BQL				BQL	BQL	0.80
05/19/08	W-18	7.0	74.3	BQL	BQL	BQL	BQL				BQL	BQL	1.60
04/04/08	HD-11	7.4	68.9	--	--	--	--				--	--	--
04/04/08	W-18	6.8	73.2	--	--	--	--				--	--	--
03/12/08	HD-12	6.9	71.4	--	--	--	--				--	--	--
03/12/08	BYA-3	7.0	82.0	--	--	--	--				--	--	--
02/21/08	HD-12	7.1	70.3	BQL	BQL	BQL	BQL				BQL	BQL	0.10
02/21/08	BYA-3	7.2	78.1	BQL	BQL	BQL	BQL				BQL	8.00	0.30
01/03/08	HD-12	6.8	70.2	--	--	--	--				--	--	--
01/03/08	BYA-3	6.8	81.9	--	--	--	--				--	--	--
12/11/07	W-18	6.7	70.7	--	--	--	--				--	--	--
12/11/07	HD-10	7.0	68.5	--	--	--	--				--	--	--
11/26/07	W-18	7.4	72.9	BQL	BQL	BQL	BQL				BQL	BQL	2.50
11/26/07	HD-10	7.7	69.8	BQL	BQL	BQL	BQL				BQL	BQL	0.20
10/05/07	W-18	6.8	72.5	--	--	--	--				--	--	--
10/05/07	HD-10	6.8	70.2	--	--	--	--				--	--	--
09/11/07	BYA-2	6.6	72.7	--	--	--	--				--	--	--
09/11/07	BYA-15	7.1	69.4	--	--	--	--				--	--	--
09/11/07	HD-12	6.8	72.9	--	--	--	--				--	--	--
08/22/07	BYA-2	6.7	73.4	BQL	BQL	BQL	BQL				BQL	BQL	0.80
08/22/07	BYA-15	7.4	69.1	BQL	BQL	BQL	BQL				BQL	5.20	4.00
08/22/07	HD-12	7.2	74.1	BQL	BQL	BQL	BQL				BQL	BQL	0.19
07/06/07	BYA-2	6.7	72.9	--	--	--	--				--	--	--
07/06/07	BYA-15	6.5	74.1	--	--	--	--				--	--	--
07/06/07	HD-12	6.8	73.6	--	--	--	--				--	--	--
06/05/07	W-18	6.6	73.2	--	--	--	--				--	--	--
06/05/07	HD-11	7.4	69.6	--	--	--	--				--	--	--
06/05/07	HD-43	7.4	71.1	--	--	--	--				--	--	--
05/16/07	W-18	6.9	72.0	BQL	BQL	BQL	BQL				BQL	BQL	1.50
05/16/07	HD-11	7.4	70.9	BQL	BQL	BQL	BQL				BQL	BQL	0.20
05/16/07	HD-43	7.7	72.3	BQL	BQL	BQL	BQL				BQL	BQL	0.20
04/12/07	W-18	6.7	73.8	--	--	--	--				--	--	--
04/12/07	HD-11	7.2	71.6	--	--	--	--				--	--	--

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Date Sampled	INORGANIC NON-METALS (Aqueous Matrix)												
	Well/Hydrager Identification	pH	Temperature	Biochemical Oxygen Demand	Surfactants (MBAS)	Oil & Grease	Settleable Solids	Phenols	Sulfides	Residual Chlorine	Total Suspended Solids	Turbidity	Acute Toxicity
	Units:	pH units	° F	mg/L	mg/L	mg/L	mL/L			mg/L	mg/L	NTU	% Survival
04/12/07	HD-12	6.8	72.0	--	--	--	--			--	--	--	--
03/15/07	BYA-3	6.7	70.5	--	--	--	--			--	--	--	--
02/28/07	BYA-3	7.1	71.2	BQL	BQL	BQL	BQL			BQL	BQL	0.40	--
01/11/07	BYA-3	6.7	70.5	--	--	--	--			--	--	--	--
12/21/06	W-18	7.0	72.1	--	--	--	--			--	--	--	--
12/21/06	HD-12	7.1	70.5	--	--	--	--			--	--	--	--
11/28/06	W-18	6.9	73.9	BQL	BQL	BQL	BQL			BQL	9.00	15.00	100
11/28/06	HD-12	7.0	72.3	BQL	BQL	BQL	BQL			BQL	BQL	0.10	100
10/20/06	W-18	7.3	72.9	--	--	--	--			--	--	--	--
10/20/06	HD-12	8.0	73.9	--	--	--	--			--	--	--	--
09/20/06	W-18	8.2	74.8	--	--	--	--			--	--	--	--
09/20/06	HD-12	8.0	72.5	--	--	--	--			--	--	--	--
08/24/06	W-18	7.0	74.7	BQL	BQL	BQL	BQL			BQL	BQL	4.40	--
08/24/06	HD-12	7.2	75.4	BQL	BQL	BQL	BQL			BQL	BQL	0.40	--
07/25/06	W-18	7.4	77.5	--	--	--	--			--	--	--	--
07/25/06	HD-12	7.7	74.3	--	--	--	--			--	--	--	--
06/22/06	HD-10	7.6	72.3	--	--	--	--			--	--	--	--
06/22/06	BYA-2	7.2	75.0	--	--	--	--			--	--	--	--
05/18/06	HD-10	7.3	69.8	BQL	BQL	BQL	BQL			BQL	BQL	0.30	--
05/18/06	BYA-2	7.0	71.8	5.30	BQL	BQL	BQL			BQL	8.00	6.70	--
04/25/06	HD-12	7.5	72.0	--	--	--	--			--	--	--	--
04/25/06	W-18	7.5	73.6	--	--	--	--			--	--	--	--
03/16/06	BYA-3	7.4	75.4	--	--	--	--			--	--	--	--
02/21/06	BYA-3	7.3	73.2	BQL	BQL	BQL	BQL			BQL	BQL	0.30	--
01/27/06	BYA-3	7.4	73.6	--	--	--	--			--	--	--	--
12/22/05	W-18	7.3	73.8	--	--	--	--			--	--	--	--
12/22/05	HD-12	7.3	70.3	--	--	--	--			--	--	--	--
11/28/05	W-18	7.1	72.7	BQL	BQL	4.1	BQL			BQL	BQL	0.66	95
11/28/05	HD-12	7.0	73.0	BQL	BQL	6.1	BQL			BQL	BQL	0.32	100
10/20/05	W-18	7.0	73.9	--	--	--	--			--	--	--	--
10/20/05	HD-12	7.1	70.9	--	--	--	--			--	--	--	--
09/01/05	BYA-2	6.9	72.9	--	--	--	--			--	--	--	--
08/24/05	BYA-2	7.0	72.9	BQL	BQL	BQL	BQL			BQL	BQL	0.19	--
07/29/05	BYA-2	7.0	73.9	--	--	--	--			--	--	--	--
06/29/05	HD-12	7.3	73.0	--	--	--	--			--	--	--	--
06/29/05	W-18	7.3	74.5	--	--	--	--			--	--	--	--
05/17/05	HD-12	7.6	72.9	BQL	BQL	1.2	BQL			BQL	BQL	0.30	--
05/17/05	BYA-2	7.3	72.7	BQL	BQL	BQL	BQL			BQL	BQL	2.10	--
04/19/05	HD-12	7.3	72.1	--	--	--	--			--	--	--	--
04/19/05	W-18	7.3	73.8	--	--	--	--			--	--	--	--
03/21/05	BYA-3	7.4	73.6	--	--	--	--			--	--	--	--
02/28/05	BYA-3	7.6	70.9	BQL	BQL	BQL	BQL			BQL	BQL	0.19	--
01/27/05	BYA-3	7.5	67.1	--	--	--	--			--	--	--	--
12/17/04	W-18	7.3	70.2	--	--	--	--			--	--	--	--
11/17/04	W-18	7.0	--	BQL	BQL	BQL	BQL			BQL	6.00	8.10	95
11/03/04	W-18	--	--	--	--	--	--			BQL	--	--	--
10/21/04	W-18	7.0	74.8	--	--	--	--			--	--	--	--
09/29/04	W-18	--	--	--	--	--	--			BQL	--	--	--
09/21/04		8.5	73.9	--	--	--	--			--	--	--	--
08/26/04		8.3	77.0	BQL	BQL	BQL	BQL			0.30	7.00	0.26	--
07/30/04		8.0	81.0	--	--	--	--			--	--	--	--
06/30/04		8.0	71.1	--	--	--	--			--	--	--	--
05/27/04		7.7	71.1	BQL	BQL	BQL	BQL			BQL	BQL	BQL	--

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Date Sampled	INORGANIC NON-METALS (Aqueous Matrix)												
	Well/Hydrager Identification	pH	Temperature	Biochemical Oxygen Demand	Surfactants (MBAS)	Oil & Grease	Settleable Solids	Phenols	Sulfides	Residual Chlorine	Total Suspended Solids	Turbidity	Acute Toxicity
Units:		pH units	°F	mg/L	mg/L	mg/L	mL/L			mg/L	mg/L	NTU	% Survival
<b>PORT 7</b>													
06/30/10	HD-7	7.2	70.2	1.20		ND	BQL	--	--		2.40	4.40	--
05/25/10	HD-7	7.2	72.5	0.85	ND	ND	BQL	ND	ND		ND	BQL	--
04/29/10	HD-7	7.3	70.5	1.80		ND	BQL	--	--		44.00	11.00	--
12/11/07	HD-7	7.5	69.4	--	--	--	--			--	--	--	--
11/26/07	HD-7	8.2	72.1	BQL	BQL	BQL	BQL			BQL	BQL	0.30	95
10/05/07	HD-7	7.1	71.8	--	--	--	--			--	--	--	--
06/29/05	HD-7	7.7	72.3	--	--	--	--			--	--	--	--
05/17/05	HD-7	7.6	71.6	BQL	0.09	BQL	BQL			BQL	BQL	0.10	--
04/19/05	HD-7	7.8	70.7	--	--	--	--			--	--	--	--
12/17/04	HD-12	7.3	70.9	--	--	--	--			--	--	--	--
11/17/04	HD-12	7.2	--	BQL	BQL	1.1	BQL			BQL	BQL	BQL	95
10/21/04	HD-7	7.9	72.5	--	--	--	--			--	--	--	--
09/21/04		8.1	78.1	--	--	--	--			--	--	--	--
08/25/04		7.8	77.0	BQL	BQL	BQL	BQL			BQL	BQL	0.17	--
07/30/04		8.0	84.0	--	--	--	--			--	--	--	--
06/30/04		8.0	73.9	--	--	--	--			--	--	--	--
05/27/04		8.0	72.0	BQL	BQL	BQL	BQL			BQL	BQL	BQL	--
<b>PORT 8</b>													
Discharge to port 8 diverted to port 9.													
<b>PORT 9</b>													
06/15/11	HD-23	7.1	71.1	0.51	ND	1.30	BQL	ND	ND	BQL	2.00	2.50	--
05/25/11	HD-23	7.4	71.4	ND	0.03	ND	BQL	ND	ND	BQL	ND	0.22	--
04/19/11	HD-23	7.2	70.3	0.88	ND	ND	BQL	ND	ND	ND	2.40	0.32	--
03/16/11	HD-6	7.3	68.5	ND	ND	ND	BQL	ND	ND	ND	ND	0.10	--
02/10/11	HD-6	7.3	68.0	ND	ND	ND	BQL	ND	ND	ND	ND	BQL	--
01/19/11	HD-6	6.7	69.4	ND	ND	ND	BQL	ND	ND	ND	ND	0.71	--
12/15/10	HD-23	7.3	68.5	2.00	ND	ND	BQL	ND	ND	ND	ND	0.30	--
11/16/10	HD-23	7.2	69.1	0.60	ND	ND	BQL	ND	ND	ND	ND	BQL	100
10/29/10	HD-23	7.0	69.3	0.45	ND	ND	BQL	ND	ND	BQL	ND	0.50	--
09/17/10	HD-24	8.0	68.9	ND	--	ND	BQL	--	--		5.20	2.00	--
09/17/10	HD-5	7.5	70.9	ND	--	ND	BQL	--	--		2.80	0.43	--
08/30/10	HD-24	7.9	73.0	0.72	ND	ND	BQL	ND	ND	ND	BQL	0.18	--
08/30/10	HD-5	7.5	72.7	3.50	ND	ND	BQL	ND	ND	ND	8.00	4.90	--
07/29/10	HD-24	7.7	71.1	ND	--	ND	BQL	--	--		4.00	1.40	--
07/29/10	HD-5	8.0	71.2	3.90	--	ND	BQL	--	--		3.50	5.90	--
06/30/10	HD-23	7.2	70.2	1.20	--	ND	BQL	--	--		2.40	4.40	--
05/25/10	HD-23	7.2	72.5	0.85	ND	ND	BQL	ND	ND		ND	BQL	--
04/29/10	HD-23	7.3	70.5	1.80	--	ND	BQL	--	--		44.00	11.00	--
03/31/10	HD-6	7.3	71.8	ND	--	ND	BQL	--	--		ND	ND	--
02/24/10	HD-6	7.3	68.2	ND	ND	1.90	BQL	ND	ND		ND	0.14	--
01/26/10	HD-6	7.4	66.7	ND	--	ND	BQL	--	--		ND	0.13	--
12/16/09	HD-23	7.3	70.5	ND	--	ND	BQL	--	--		ND	0.12	--
11/18/09	HD-23	7.0	69.6	ND	ND	ND	BQL	ND	ND		ND	BQL	100
10/27/09	HD-23	7.0	72.5	ND	--	ND	BQL	--	--		ND	0.50	--
09/30/09	HD-24	7.2	73.6	ND	--	ND	BQL	--	--		ND	0.30	--
08/19/09	HD-24	7.9	73.6	0.84	ND	ND	BQL	ND	ND		ND	0.50	--
07/22/09	HD-24	7.2	72.9	0.62	--	ND	BQL	--	--		ND	0.40	--
06/18/09	HD-5	7.1	72.1	0.57	--	ND	BQL	--	--		ND	0.67	--
06/18/09	HD-23	7.1	72.1	0.60	--	ND	BQL	--	--		ND	0.66	--
05/26/09	HD-5	7.3	72.9	2.50	ND	ND	BQL	ND	0.010		2.80	1.30	--
05/26/09	HD-23	7.2	72.3	0.43	ND	ND	BQL	ND	ND		3.20	1.50	--

TABLE 1 - SUMMARY OF ANALYTICAL DATA

Date Sampled	INORGANIC NON-METALS (Aqueous Matrix)													
	Well/Hydrager Identification	pH	Temperature	Biochemical Oxygen Demand	Surfactants (MBAS)	Oil & Grease	Settleable Solids	Phenols	Sulfides	Residual Chlorine	Total Suspended Solids	Turbidity	Acute Toxicity	
Units:		pH units	° F	mg/L	mg/L	mg/L	mL/L			mg/L	mg/L	NTU	% Survival	
04/30/09	HD-5	7.2	72.3	ND	--	ND	BQL	--	--		ND	1.30	--	
04/30/09	HD-23	7.2	72.5	ND	--	ND	BQL	--	--		ND	1.20	--	
03/24/09	HD-6	7.0	70.2	0.67	--	ND	BQL	--	--		1.60	1.10	--	
02/25/09	HD-6	6.6	71.2	ND	ND	ND	BQL	ND	ND		1.60	0.73	--	
01/29/09	HD-6	7.0	71.4	ND	--	ND	BQL	--	--		ND	0.47	--	
06/10/08	HD-23	7.0	71.2	--	--	--	--				--	--	--	
05/19/08	HD-23	7.2	71.4	2.00	BQL	BQL	BQL				BQL	BQL	0.30	--
04/04/08	HD-23	6.9	70.5	--	--	--	--				--	--	--	--
03/12/08	HD-24	7.4	70.7	--	--	--	--				--	--	--	--
02/21/08	HD-24	7.7	68.9	BQL	BQL	BQL	BQL				BQL	BQL	1.00	--
01/03/08	HD-24	7.3	68.9	--	--	--	--				--	--	--	--
09/20/07	Port 9 east	--	--	--	--	--	BQL				--	--	--	--
09/20/07	port 9 west	--	--	--	--	--	BQL				--	--	--	--
09/11/07	HD-5	7.3	71.6	--	--	--	--				--	--	--	--
08/22/07	HD-5	7.8	73.2	2.80	BQL	BQL	0.20				BQL	10.00	2.50	--
07/06/07	HD-5	7.3	71.4	--	--	--	--				--	--	--	--
06/05/07	HD-6	6.9	69.6	--	--	--	--				--	--	--	--
06/05/07	HD-23	6.8	70.3	--	--	--	--				--	--	--	--
05/16/07	HD-6	7.1	70.5	BQL	BQL	BQL	BQL				BQL	BQL	0.20	--
05/16/07	HD-23	6.9	71.1	BQL	BQL	BQL	BQL				BQL	BQL	0.20	--
04/12/07	HD-6	6.9	70.5	--	--	--	--				--	--	--	--
04/12/07	HD-23	6.8	71.2	--	--	--	--				--	--	--	--
12/21/06	HD-23	7.1	66.4	--	--	--	--				--	--	--	--
11/28/06	HD-23	7.0	71.2	BQL	BQL	BQL	BQL				BQL	BQL	0.10	100
10/20/06	HD-23	8.2	71.8	--	--	--	--				--	--	--	--
09/20/06	HD-23	8.1	71.6	--	--	--	--				--	--	--	--
09/20/06	HD-6	7.9	73.0	--	--	--	--				--	--	--	--
08/24/06	HD-23	7.1	73.4	BQL	BQL	BQL	BQL				BQL	BQL	0.20	--
08/24/06	HD-6	7.2	72.0	BQL	BQL	BQL	BQL				BQL	BQL	0.20	--
07/25/06	HD-23	7.6	72.1	--	--	--	--				--	--	--	--
07/25/06	HD-6	7.6	74.8	--	--	--	--				--	--	--	--
06/22/06	HD-24	7.7	72.1	--	--	--	--				--	--	--	--
05/18/06	HD-24	7.8	69.4	BQL	BQL	BQL	BQL				BQL	9.00	4.00	--
04/25/06	HD-6	7.5	69.8	--	--	--	--				--	--	--	--
04/25/06	HD-23	7.5	70.9	--	--	--	--				--	--	--	--
03/16/06	HD-5	7.5	70.5	--	--	--	--				--	--	--	--
02/21/06	HD-5	7.8	70.2	5.80	BQL	BQL	BQL				BQL	BQL	0.75	--
01/27/06	HD-5	7.5	69.3	--	--	--	--				--	--	--	--
12/22/05	HD-23	7.3	68.7	--	--	--	--				--	--	--	--
11/28/05	HD-23	7.8	73.4	BQL	BQL	5.8	BQL				BQL	BQL	0.52	100
10/20/05	HD-23	7.1	68.7	--	--	--	--				--	--	--	--
06/29/05	HD-23	7.7	73.6	--	--	--	--				--	--	--	--
05/17/05	HD-6	7.1	71.2	BQL	BQL	BQL	BQL				BQL	BQL	0.20	--
04/19/05	HD-23	7.3	70.3	--	--	--	--				--	--	--	--
12/17/04	HD-23	7.3	70.2	--	--	--	--				--	--	--	--
11/17/04	HD-23	7.2	--	BQL	BQL	7.1	BQL				BQL	36.00	2.60	95
10/21/04	HD-24	8.1	73.0	--	--	--	--				--	--	--	--
09/21/04		8.1	77.0	--	--	--	--				--	--	--	--
08/25/04		8.0	79.0	BQL	BQL	BQL	BQL				BQL	BQL	0.16	--
07/30/04		7.0	77.0	--	--	--	--				--	--	--	--
06/30/04		8.0	73.0	--	--	--	--				--	--	--	--
05/27/04		7.7	72.0	BQL	BQL	BQL	BQL				BQL	20.00	0.60	--
Effluent Limit. (Daily Max.)		6.5-8.5	100 F	30.00	0.50	15.0	0.30	0.100	1.00	0.10	150.00	150.00	--	--

**TABLE 1 - SUMMARY OF ANALYTICAL DATA**

Date Sampled	INORGANIC NON-METALS (Aqueous Matrix)												
	Well/Hydrager Identification	pH	Temperature	Biochemical Oxygen Demand	Surfactants (MBAS)	Oil & Grease	Settleable Solids	Phenols	Sulfides	Residual Chlorine	Total Suspended Solids	Turbidity	Acute Toxicity
<i>Units:</i>		<i>pH units</i>	<i>°F</i>	<i>mg/L</i>	<i>mg/L</i>	<i>mg/L</i>	<i>mL/L</i>			<i>mg/L</i>	<i>mg/L</i>	<i>NTU</i>	<i>% Survival</i>
<i>Effluent Limit. (Monthly Avg.)</i>		6.5-8.5	---	20.00	---	10.0	0.10	---	---	---	50.00	50.00	--
<i>Quantification Limit</i>		<i>See laboratory report for detection limits</i>											

BQL: below practical quantification limit

--: not tested



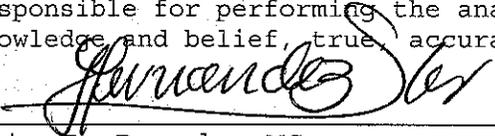
**Prepared for:** Fugro West, Inc.  
4820 McGrath St. Suite 100  
Ventura, CA 93003  
Attn: Tim Nicely

**Report Date:** January 26, 2011  
**Laboratory Number:** 110188  
**Project Name:** Big Rock Mesa NPDES Sampling  
**Project No:** 3399.006  
**Sampled by:** Client

On January 19, 2011, Capco Analytical Services, Inc. (CAS), received ten(10) samples to be analyzed. The samples were identified and assigned the laboratory ID numbers listed below:

<u>SAMPLE DESCRIPTION</u>	<u>CAS LAB NUMBER ID</u>
W-1	110188-01
W-8	110188-02
BYA-4	110188-03
BYA-3	110188-04
BYA-14	110188-05
BYA-12	110188-06
HD-30	110188-07
HD-15	110188-08
HD-12	110188-09
HD-6	110188-10

By my signature below, I certify that the results contained in this laboratory report comply with applicable standards for certification by the California Department of Public Health's Environmental Laboratories Accreditation Program (ELAP), both technically and for completeness, and that, based on my inquiry of the person or persons directly responsible for performing the analyses, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete.

  
Alin E. Repede, MS  
Director - Analytical Operations

If you have any further questions or concerns, please contact me at your convenience. This report consists of 10 pages excluding the cover letter and the Chain of Custody.

This report shall not be reproduced except in full without the written approval of CAS. The test results reported represent only the item being tested and may not represent the entire material from which the sample was taken.

**CERTIFICATE OF ANALYSIS**

Client: Fugro West, Inc.  
CAS LAB NO: 110188  
Analyst: AN

Date Sampled: 01/19/11  
Date Received: 01/19/11  
Date Analyzed: 01/20/11  
Sample Matrix: Water

**BIOCHEMICAL OXYGEN DEMAND  
SM 5210 B**

CAS Lab #	Sample ID	RESULTS (mg/L)	Dilution Factor	MDL (mg/l)	PQL (mg/L)
11018801	W-1	ND	1	0.4	2
11018802	W-8	ND	1	0.4	2
11018803	BYA-4	ND	1	0.4	2
11018804	BYA-3	ND	1	0.4	2
11018805	BYA-14	0.68	1	0.4	2
11018806	BYA-12	0.63	1	0.4	2
11018807	HD-30	ND	1	0.4	2
11018808	HD-15	ND	1	0.4	2
11018809	HD-12	1.3	1	0.4	2
11018810	HD-6	ND	1	0.4	2

MDL: Method Detection Limit  
PQL: Practical Quantitation Limit  
ND: Not Detected



Analytical Services, Inc.

Environmental and Analytical Services-Since 1994

Client: Fugro West, Inc.  
CAS LAB NO: 110188  
Analyst: GM

Date Sampled: 01/19/11  
Date Received: 01/19/11  
Date Analyzed: 01/21/11  
Sample Matrix: Water

**MBAS ANALYSIS**  
**SM 5540 C**

CAS Lab #	Sample ID	RESULTS (mg/L)	Dilution Factor	MDL (mg/l)	PQL (mg/L)
11018801	W-1	ND	1	0.02	0.1
11018802	W-8	ND	1	0.02	0.1
11018803	BYA-4	ND	1	0.02	0.1
11018804	BYA-3	ND	1	0.02	0.1
11018805	BYA-14	ND	1	0.02	0.1
11018806	BYA-12	ND	1	0.02	0.1
11018807	HD-30	ND	1	0.02	0.1
11018808	HD-15	ND	1	0.02	0.1
11018809	HD-12	ND	1	0.02	0.1
11018810	HD-6	ND	1	0.02	0.1

MDL: Method Detection Limit  
PQL: Practical Quantitation Limit  
ND: Not Detected

Client: Fugro West, Inc.  
CAS LAB NO: 110188  
Analyst: AN

Date Sampled: 01/19/11  
Date Received: 01/19/11  
Date Analyzed: 01/21/11  
Sample Matrix: Water

**TOTAL SULFIDE ANALYSIS**  
**SM 4500-S<sup>-2</sup>D**

CAS LAB #	Sample ID	RESULTS (mg/L)	Dilution Factor	MDL (mg/L)	PQL (mg/L)
11018801	W-1	ND	1	0.004	0.02
11018802	W-8	ND	1	0.004	0.02
11018803	BYA-4	ND	1	0.004	0.02
11018804	BYA-3	ND	1	0.004	0.02
11018805	BYA-14	ND	1	0.004	0.02
11018806	BYA-12	ND	1	0.004	0.02
11018807	HD-30	ND	1	0.004	0.02
11018808	HD-15	ND	1	0.004	0.02
11018809	HD-12	ND	1	0.004	0.02
11018810	HD-6	ND	1	0.004	0.02

ND: Not Detected

MDL: Method Detection Limit

BQL: Below Practical Quantitation Limit



Analytical Services, Inc.

Environmental and Analytical Services-Since 1994

Client: Fugro West, Inc.  
CAS LAB NO: 110188  
Analyst: GM

Date Sampled: 01/19/11  
Date Received: 01/19/11  
Date Analyzed: 01/20/11  
Sample Matrix: Water

**OIL & GREASE ANALYSIS**  
**EPA Method 1664**

CAS Lab #	Sample ID	RESULTS (mg/L)	Dilution Factor	MDL (mg/l)	PQL (mg/L)
11018801	W-1	ND	1	1	5
11018802	W-8	ND	1	1	5
11018803	BYA-4	ND	1	1	5
11018804	BYA-3	ND	1	1	5
11018805	BYA-14	ND	1	1	5
11018806	BYA-12	ND	1	1	5
11018807	HD-30	ND	1	1	5
11018808	HD-15	ND	1	1	5
11018809	HD-12	ND	1	1	5
11018810	HD-6	ND	1	1	5

MDL: Method Detection Limit  
PQL: Practical Quantitation Limit  
ND: Not Detected

Client: Fugro West, Inc.  
CAS LAB NO: 110188  
Analyst: AN

Date Sampled: 01/19/11  
Date Received: 01/19/11  
Date Analyzed: 01/20/11  
Sample Matrix: Water

**SETTLEABLE SOLIDS ANALYSIS**  
**SM 2540 F**

CAS Lab #	Sample ID	RESULTS (ml/L)	Dilution Factor	PQL (ml/L)
11018801	W-1	BQL	1	0.1
11018802	W-8	BQL	1	0.1
11018803	BYA-4	BQL	1	0.1
11018804	BYA-3	BQL	1	0.1
11018805	BYA-14	BQL	1	0.1
11018806	BYA-12	BQL	1	0.1
11018807	HD-30	BQL	1	0.1
11018808	HD-15	BQL	1	0.1
11018809	HD-12	BQL	1	0.1
11018810	HD-6	BQL	1	0.1

PQL: Practical Quantitation Limit  
BQL: Below Practical Quantitation Limit

Client: Fugro West, Inc.  
CAS LAB NO: 110188  
Analyst: AN

Date Sampled: 01/19/11  
Date Received: 01/19/11  
Date Analyzed: 01/19/11  
Sample Matrix: Water

**TOTAL RESIDUAL CHLORINE ANALYSIS**  
**SM 4500CL G**

CAS Lab #	Sample ID	RESULTS (mg/L)	Dilution Factor	PQL (mg/L)	MDL (mg/L)
11018801	W-1	ND	1	0.1	0.02
11018802	W-8	ND	1	0.1	0.02
11018803	BYA-4	ND	1	0.1	0.02
11018804	BYA-3	ND	1	0.1	0.02
11018805	BYA-14	ND	1	0.1	0.02
11018806	BYA-12	ND	1	0.1	0.02
11018807	HD-30	ND	1	0.1	0.02
11018808	HD-15	ND	1	0.1	0.02
11018809	HD-12	ND	1	0.1	0.02
11018810	HD-6	ND	1	0.1	0.02

PQL: Practical Quantitation Limit  
MDL: Method Detection Limit  
ND: Not Detected

Client: Fugro West, Inc.  
CAS LAB NO: 110188  
Analyst: LM

Date Sampled: 01/19/11  
Date Received: 01/19/11  
Date Analyzed: 01/20/11  
Sample Matrix: Water

**TOTAL SUSPENDED SOLIDS ANALYSIS**  
**SM 2540 D**

CAS Lab #	Sample ID	RESULTS (mg/L)	Dilution Factor	MDL (mg/l)	PQL (mg/L)
11018801	W-1	1.2	1	1	5
11018802	W-8	ND	1	1	5
11018803	BYA-4	ND	1	1	5
11018804	BYA-3	ND	1	1	5
11018805	BYA-14	ND	1	1	5
11018806	BYA-12	ND	1	1	5
11018807	HD-30	ND	1	1	5
11018808	HD-15	1.2	1	1	5
11018809	HD-12	ND	1	1	5
11018810	HD-6	ND	1	1	5

MDL: Method Detection Limit  
PQL: Practical Quantitation Limit  
ND: Not Detected

Client: Fugro West, Inc.  
CAS LAB NO: 110188  
Analyst: LM

Date Sampled: 01/19/11  
Date Received: 01/19/11  
Date Analyzed: 01/20/11  
Sample Matrix: Water

**TURBIDITY ANALYSIS**  
**EPA Method 180.1**

CAS Lab #	Sample ID	RESULTS (NTU)	Dilution Factor	PQL (NTU)
11018801	W-1	1.8	1	0.1
11018802	W-8	0.29	1	0.1
11018803	BYA-4	0.34	1	0.1
11018804	BYA-3	0.79	1	0.1
11018805	BYA-14	1.0	1	0.1
11018806	BYA-12	0.31	1	0.1
11018807	HD-30	0.34	1	0.1
11018808	HD-15	1.4	1	0.1
11018809	HD-12	0.67	1	0.1
11018810	HD-6	0.71	1	0.1

PQL: Practical Quantitation Limit



Analytical Services, Inc.

Environmental and Analytical Services-Since 1994

Client: Fugro West, Inc.  
CAS LAB NO: 110188  
Analyst: AN

Date Sampled: 01/19/11  
Date Received: 01/19/11  
Date Analyzed: 01/24/11  
Sample Matrix: Water

**TOTAL PHENOL ANALYSIS  
EPA METHOD 420.1**

CAS Lab #	Sample ID	RESULTS (mg/L)	Dilution Factor	MDL (mg/L)	PQL (mg/L)
11018801	W-1	ND	1	0.02	0.1
11018802	W-8	ND	1	0.02	0.1
11018803	BYA-4	ND	1	0.02	0.1
11018804	BYA-3	ND	1	0.02	0.1
11018805	BYA-14	ND	1	0.02	0.1
11018806	BYA-12	ND	1	0.02	0.1
11018807	HD-30	ND	1	0.02	0.1
11018808	HD-15	ND	1	0.02	0.1
11018809	HD-12	ND	1	0.02	0.1
11018810	HD-6	ND	1	0.02	0.1

MDL: Method Detection Limit

PQL: Practical Quantitation Limit

ND: Not Detected

Quality Control Section

Client: Fugro West, Inc.  
CAS LAB NO: 110188  
Analyst: AN/GM/LM

Date Received: 01/19/11  
Sample Matrix: Water

COMPOUND	RESULT	UNITS	DF	MDL	PQL	METHOD	ANALYZED
B.O.D.	ND	mg/L	1	0.4	2	5210 B	01/20/11
Oil and Grease	ND	mg/L	1	1	5	1664	01/20/11
MBAS	ND	mg/L	1	0.02	0.1	5540 C	01/21/11
Phenol (Total)	ND	mg/L	1	0.02	0.1	420.1	01/24/11
Residual Chlorine	ND	mg/L	1	0.02	0.1	4500CL G	01/19/11
Settleable Solid	BQL	ml/L	1	--	0.1	2540 F	01/20/11
Sulfide (Total)	ND	mg/L	1	0.004	0.02	4500S <sup>2</sup> -D	01/21/11
T.S.S.	ND	mg/L	1	1	5	2540 D	01/20/11

BQL: Below Practical Quantitation Limit  
MDL: Method Detection Limit  
PQL: Practical Quantitation Limit  
ND: Not Detected

# CAPCO ANALYTICAL SERVICES

1536 Eastman Avenue, Suite B  
 Ventura, CA 93003  
 (805) 644-1095 Fax 644-9947  
 www.capcoenv.com

## CHAIN OF CUSTODY RECORD

### REPORT

Company Lucas Fax \_\_\_\_\_  
 Address 4180000 Gork St. Ste. 100  
Ventura CA Email fridolf@capco.com  
 Phone 289-3836 Contact Jim Nieldy City \_\_\_\_\_

### BILL TO:

Company \_\_\_\_\_  
 Address \_\_\_\_\_  
 Phone \_\_\_\_\_  
 Contact \_\_\_\_\_

PO.#

PROJ NO 3399.006 PROJECT NAME Bj. Rock Mass NPPDES Sampling

SAMPLERS: (Signature) [Signature]  
 CONTAINER TYPES  
 A = AMBER B = BRASS G = GLASS  
 P = PLASTIC V = VOA VIAL O = OTHER

ANALYSIS  
 TSS, Turb, BOD  
 Oil & Grease  
 Sett. Solids, Sulfide  
 Phenols, MBAS  
 Residual Chlorine  
 PH  
 Temp EC  
 110188

SAMPLE NO.	DATE SAMPLED	TIME SAMPLED	COMP	GRAB	SAMPLE IDENTIFICATION	MATRIX			CONTAINER #	TYPE	REMARKS
						WATER	SOIL	SLUDGE OTHER			
1	1/9/11	8:15			W-1				5		PH 21.2
2		8:25			W-8						Temp 21.9
3		9:30			BYA-4						Temp 22.5
4		11:50			BYA-3						Temp 22.7
5		12:15			BYA-14						Temp 21.6
6		12:25			BYA-12						Temp 19.2
7		12:45			HD-30						Temp 21.3
8		13:00			HD-15						Temp 21.7
9		13:15			HD-12						Temp 21.7
10		13:30			HD-6						Temp 20.8

The undersigned hereby acknowledges having received a copy of the Fee Schedule/General Information and Conditions, the provisions of which are a part of this agreement.

Relinquished by: (Signature) [Signature] Date/Time 1/9/11 1:50  
 Received by: (Signature) [Signature]  
 Relinquished by: (Signature) \_\_\_\_\_ Date/Time \_\_\_\_\_  
 Received by: (Signature) \_\_\_\_\_

TURN AROUND TIME  
 STANDARD  24 HOURS  
 OTHER  \_\_\_\_\_  
 48 HOURS  
 72 HOURS

CHECK ONE BOX:  
 DISPOSE SAMPLES   
 RETURN SAMPLES



Analytical Services, Inc.

Environmental and Analytical Services-Since 1994  
California State Accredited Laboratory in Accordance with ELAP Certificate # 2332

**Prepared for:** Fugro West, Inc.  
4820 McGrath St. Suite 100  
Ventura, CA 93003  
Attn: Tim Nicely

**Report Date:** January 26, 2011  
**Laboratory Number:** 110202  
**Project Name:** Big Rock Mesa NPDES Sampling  
**Project No:** 3399.006  
**Sampled by:** Client

On January 20, 2011, Capco Analytical Services, Inc. (CAS), received one(1) sample to be analyzed. The sample was identified and assigned the laboratory ID number listed below:

<u>SAMPLE DESCRIPTION</u>	<u>CAS LAB NUMBER ID</u>
BYA-11	110202-01

By my signature below, I certify that the results contained in this laboratory report comply with applicable standards for certification by the California Department of Public Health's Environmental Laboratories Accreditation Program (ELAP), both technically and for completeness, and that, based on my inquiry of the person or persons directly responsible for performing the analyses, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete.

Alin E. Repede, MS  
Director - Analytical Operations

If you have any further questions or concerns, please contact me at your convenience. This report consists of 2 pages excluding the cover letter and the Chain of Custody.

This report shall not be reproduced except in full without the written approval of CAS. The test results reported represent only the item being tested and may not represent the entire material from which the sample was taken.



Analytical Services, Inc.

Environmental and Analytical Services-Since 1994

Certificate of Analysis

Client: Fugro West, Inc.
CAS LAB NO: 110202-01
Sample ID: BYA-11
Analyst: AN/GM

Date Sampled: 01/20/11
Date Received: 01/20/11
Sample Matrix: Water

WET CHEMISTRY SUMMARY

Table with 8 columns: COMPOUND, RESULT, UNITS, DF, MDL, PQL, METHOD, ANALYZED. Rows include B.O.D., Chlorine Residual, MBAS, Oil & Grease, Phenol (total), Settleable Solids, Sulfide, T.S.S., and Turbidity.

T.S.S.: Total Suspended Solids
B.O.D.: Biochemical Oxygen Demand
PQL: Practical Quantitation Limit
BQL: Below Practical Quantitation Limit
DF: Dilution Factor

Quality Control section

Client: Fugro West, Inc.  
CAS LAB NO: 110202-MB  
Sample ID: Method Blank

Sample Matrix: Water  
Analyst: AN/GM

WET CHEMISTRY ANALYSIS SUMMARY

COMPOUND	RESULT	UNITS	DF	MDL	PQL	METHOD	ANALYZED
B.O.D.	ND	mg/L	1	0.4	2	5210 B	01/20/11
Chlorine Residual	BQL	mg/L	1	0.02	0.1	4500CL B	01/20/11
MBAS	ND	mg/L	1	0.02	0.1	5540 C	01/21/11
Oil & Grease	ND	mg/L	1	1	5	1664	01/24/11
Phenol (total)	ND	mg/L	1	0.02	0.1	420.1	01/24/11
Settleable Solids	BQL	mg/L	1	0.02	0.1	2540 F	01/21/11
Sulfide	ND	mg/L	1	0.004	0.02	4500S <sup>-2</sup> D	01/21/11
T.S.S.	ND	mg/L	1	1	5	2540 D	01/21/11

B.O.D.: Biochemical Oxygen Demand  
T.S.S.: Total Suspended Solids  
PQL: Practical Quantitation Limit  
BQL: Below Practical Quantitation Limit  
DF: Dilution Factor





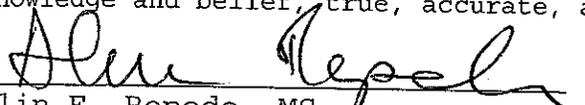
**Prepared for:** Fugro West, Inc.  
4820 McGrath St. Suite 100  
Ventura, CA 93003  
Attn: Tim Nicely

**Report Date:** February 17, 2011  
**Laboratory Number:** 110418  
**Project Name:** Big Rock Mesa NPDES Sampling  
**Project No:** 3399.006  
**Sampled by:** Client

On February 10, 2011, Capco Analytical Services, Inc. (CAS), received ten(10) samples to be analyzed. The samples were identified and assigned the laboratory ID numbers listed below:

<u>SAMPLE DESCRIPTION</u>	<u>CAS LAB NUMBER ID</u>
W-8	110418-01
BYA-12	110418-02
W-1	110418-03
BYA-14	110418-04
BYA-4	110418-05
BYA-3	110418-06
HD-30	110418-07
HD-15	110418-08
HD-12	110418-09
HD-6	110418-10

By my signature below, I certify that the results contained in this laboratory report comply with applicable standards for certification by the California Department of Public Health's Environmental Laboratories Accreditation Program (ELAP), both technically and for completeness, and that, based on my inquiry of the person or persons directly responsible for performing the analyses, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete.

  
Alin E. Repede, MS  
Director - Analytical Operations

If you have any further questions or concerns, please contact me at your convenience. This report consists of 10 pages excluding the cover letter and the Chain of Custody.

This report shall not be reproduced except in full without the written approval of CAS. The test results reported represent only the item being tested and may not represent the entire material from which the sample was taken.

**CERTIFICATE OF ANALYSIS**

Client: Fugro West, Inc.  
CAS LAB NO: 110418  
Analyst: AN

Date Sampled: 02/10/11  
Date Received: 02/10/11  
Date Analyzed: 02/11/11  
Sample Matrix: Water

**SETTLABLE SOLIDS**  
**SM 2540 F**

CAS Lab #	Sample ID	RESULTS (ml/L)	Dilution Factor	PQL (ml/L)
11041801	W-8	BQL	1	0.1
11041802	BYA-12	BQL	1	0.1
11041804	BYA-14	BQL	1	0.1
11041805	BYA-4	BQL	1	0.1
11041806	BYA-3	BQL	1	0.1
11041807	HD-30	BQL	1	0.1
11041808	HD-15	BQL	1	0.1
11041809	HD-12	BQL	1	0.1
11041810	HD-6	BQL	1	0.1

PQL: Practical Quantitation Limit  
BQL: Below Practical Quantitation Limit

**CERTIFICATE OF ANALYSIS**

Client: Fugro West, Inc.  
CAS LAB NO: 110418  
Analyst: AN/LM

Date Sampled: 02/10/11  
Date Received: 02/10/11  
Date Analyzed: 02/15/11  
Sample Matrix: Water

**TOTAL PHENOL  
EPA METHOD 420.1**

CAS Lab #	Sample ID	RESULTS (mg/L)	Dilution Factor	MDL (mg/L)	PQL (mg/L)
11041801	W-8	ND	1	0.02	0.1
11041802	BYA-12	ND	1	0.02	0.1
11041804	BYA-14	ND	1	0.02	0.1
11041805	BYA-4	ND	1	0.02	0.1
11041806	BYA-3	ND	1	0.02	0.1
11041807	HD-30	ND	1	0.02	0.1
11041808	HD-15	ND	1	0.02	0.1
11041809	HD-12	ND	1	0.02	0.1
11041810	HD-6	ND	1	0.02	0.1

MDL: Method Detection Limit  
PQL: Practical Quantitation Limit  
ND: Not Detected

**CERTIFICATE OF ANALYSIS**

Client: Fugro West, Inc.  
CAS LAB NO: 110418  
Analyst: AN

Date Sampled: 02/10/11  
Date Received: 02/10/11  
Date Analyzed: 02/15/11  
Sample Matrix: Water

**TOTAL SULFIDE  
SM 4500-S<sup>-2</sup>D**

CAS LAB #	Sample ID	RESULTS (mg/L)	Dilution Factor	MDL (mg/L)	PQL (mg/L)
11041801	W-8	ND	1	0.004	0.02
11041802	BYA-12	ND	1	0.004	0.02
11041804	BYA-14	ND	1	0.004	0.02
11041805	BYA-4	ND	1	0.004	0.02
11041806	BYA-3	ND	1	0.004	0.02
11041807	HD-30	ND	1	0.004	0.02
11041808	HD-15	ND	1	0.004	0.02
11041809	HD-12	ND	1	0.004	0.02
11041810	HD-6	ND	1	0.004	0.02

ND: Not Detected  
MDL: Method Detection Limit  
BQL: Below Practical Quantitation Limit

**CERTIFICATE OF ANALYSIS**

Client: Fugro West, Inc.  
CAS LAB NO: 110418  
Analyst: AN

Date Sampled: 02/10/11  
Date Received: 02/10/11  
Date Analyzed: 02/11/11  
Sample Matrix: Water

**BIOCHEMICAL OXYGEN DEMAND  
SM 5210 B**

CAS Lab #	Sample ID	RESULTS (mg/L)	Dilution Factor	MDL (mg/l)	PQL (mg/L)
11041801	W-8	ND	1	0.4	2
11041802	BYA-12	0.42	1	0.4	2
11041804	BYA-14	ND	1	0.4	2
11041805	BYA-4	ND	1	0.4	2
11041806	BYA-3	ND	1	0.4	2
11041807	HD-30	ND	1	0.4	2
11041808	HD-15	ND	1	0.4	2
11041809	HD-12	1.3	1	0.4	2
11041810	HD-6	ND	1	0.4	2

MDL: Method Detection Limit  
PQL: Practical Quantitation Limit  
ND: Not Detected

**CERTIFICATE OF ANALYSIS**

Client: Fugro West, Inc.  
 CAS LAB NO: 110418  
 Analyst: AN

Date Sampled: 02/10/11  
 Date Received: 02/10/11  
 Date Analyzed: 02/11/11  
 Sample Matrix: Water

**TURBIDITY  
 EPA Method 180.1**

CAS Lab #	Sample ID	RESULTS (NTU)	Dilution Factor	PQL (NTU)
11041801	W-8	0.17	1	0.1
11041802	BYA-12	0.22	1	0.1
11041804	BYA-14	0.23	1	0.1
11041805	BYA-4	0.15	1	0.1
11041806	BYA-3	0.35	1	0.1
11041807	HD-30	0.17	1	0.1
11041808	HD-15	1.3	1	0.1
11041809	HD-12	0.15	1	0.1
11041810	HD-6	BQL	1	0.1

PQL: Practical Quantitation Limit

**CERTIFICATE OF ANALYSIS**

Client: Fugro West, Inc.  
CAS LAB NO: 110418  
Analyst: AN

Date Sampled: 02/10/11  
Date Received: 02/10/11  
Date Analyzed: 02/11/11  
Sample Matrix: Water

**TOTAL SUSPENDED SOLIDS  
SM 2540 D**

CAS Lab #	Sample ID	RESULTS (mg/L)	Dilution Factor	MDL (mg/l)	PQL (mg/L)
11041801	W-8	ND	1	1	5
11041802	BYA-12	ND	1	1	5
11041804	BYA-14	ND	1	1	5
11041805	BYA-4	ND	1	1	5
11041806	BYA-3	ND	1	1	5
11041807	HD-30	ND	1	1	5
11041808	HD-15	4.4	1	1	5
11041809	HD-12	ND	1	1	5
11041810	HD-6	ND	1	1	5

MDL: Method Detection Limit  
PQL: Practical Quantitation Limit  
ND: Not Detected

**CERTIFICATE OF ANALYSIS**

Client: Fugro West, Inc.  
CAS LAB NO: 110418  
Analyst: GM

Date Sampled: 02/10/11  
Date Received: 02/10/11  
Date Analyzed: 02/10/11  
Sample Matrix: Water

**TOTAL RESIDUAL CHLORINE  
SM 4500CL G**

CAS Lab #	Sample ID	RESULTS (mg/L)	Dilution Factor	PQL (mg/L)	MDL (mg/L)
11041801	W-8	ND	1	0.1	0.02
11041802	BYA-12	ND	1	0.1	0.02
11041803	W-1	ND	1	0.1	0.02
11041804	BYA-14	ND	1	0.1	0.02
11041805	BYA-4	ND	1	0.1	0.02
11041806	BYA-3	ND	1	0.1	0.02
11041807	HD-30	ND	1	0.1	0.02
11041808	HD-15	ND	1	0.1	0.02
11041809	HD-12	ND	1	0.1	0.02
11041810	HD-6	ND	1	0.1	0.02

PQL: Practical Quantitation Limit  
MDL: Method Detection Limit  
ND: Not Detected

**CERTIFICATE OF ANALYSIS**

Client: Fugro West, Inc.  
CAS LAB NO: 110418  
Analyst: GM

Date Sampled: 02/10/11  
Date Received: 02/10/11  
Date Analyzed: 02/14/11  
Sample Matrix: Water

**OIL & GREASE**  
**EPA Method 1664**

CAS Lab #	Sample ID	RESULTS (mg/L)	Dilution Factor	MDL (mg/l)	PQL (mg/L)
11041801	W-8	ND	1	1	5
11041802	BYA-12	ND	1	1	5
11041804	BYA-14	ND	1	1	5
11041805	BYA-4	ND	1	1	5
11041806	BYA-3	ND	1	1	5
11041807	HD-30	ND	1	1	5
11041808	HD-15	ND	1	1	5
11041809	HD-12	ND	1	1	5
11041810	HD-6	ND	1	1	5

MDL: Method Detection Limit  
PQL: Practical Quantitation Limit  
ND: Not Detected

**CERTIFICATE OF ANALYSIS**

Client: Fugro West, Inc.  
CAS LAB NO: 110418  
Analyst: GM

Date Sampled: 02/10/11  
Date Received: 02/10/11  
Date Analyzed: 02/11/11  
Sample Matrix: Water

**MBAS  
SM 5540 C**

CAS Lab #	Sample ID	RESULTS (mg/L)	Dilution Factor	MDL (mg/l)	PQL (mg/L)
11041801	W-8	ND	1	0.02	0.1
11041802	BYA-12	ND	1	0.02	0.1
11041804	BYA-14	ND	1	0.02	0.1
11041805	BYA-4	ND	1	0.02	0.1
11041806	BYA-3	ND	1	0.02	0.1
11041807	HD-30	ND	1	0.02	0.1
11041808	HD-15	ND	1	0.02	0.1
11041809	HD-12	ND	1	0.02	0.1
11041810	HD-6	ND	1	0.02	0.1

MDL: Method Detection Limit  
PQL: Practical Quantitation Limit  
ND: Not Detected

**QUALITY CONTROL SECTION**

Client: Fugro West, Inc.  
 CAS LAB NO: 110418  
 Analyst: AN/GM/LM

Date Received: 02/10/11  
 Sample Matrix: Water

COMPOUND	RESULT	UNITS	DF	MDL	PQL	METHOD	ANALYZED
B.O.D.	ND	mg/L	1	0.4	2	5210 B	02/11/11
Oil and Grease	ND	mg/L	1	1	5	1664	02/14/11
MBAS	ND	mg/L	1	0.02	0.1	5540 C	02/11/11
Phenol (Total)	ND	mg/L	1	0.02	0.1	420.1	02/15/11
Residual Chlorine	ND	mg/L	1	0.02	0.1	4500CL G	02/10/11
Settleable Solid	BQL	ml/L	1	--	0.1	2540 F	02/11/11
Sulfide (Total)	ND	mg/L	1	0.004	0.02	4500S <sup>2-</sup> D	02/15/11
T.S.S.	ND	mg/L	1	1	5	2540 D	02/11/11

BQL: Below Practical Quantitation Limit  
 MDL: Method Detection Limit  
 PQL: Practical Quantitation Limit  
 ND: Not Detected

# CAPCO ANALYTICAL SERVICES

1536 Eastman Avenue, Suite B  
 Ventura, CA 93003  
 (805) 644-1095 Fax 644-9947  
 www.capcoenv.com

## CHAIN OF CUSTODY RECORD

### REPORT

Company Egure Fax \_\_\_\_\_  
 Address 4820 N. Gault St., Ste. 100  
Ventura, CA Email fnicely@egure.com  
 Phone 289-3836 Contact Tim Nicely, CH

### BILL TO:

Company \_\_\_\_\_ P.O.# \_\_\_\_\_  
 Address \_\_\_\_\_  
 Phone \_\_\_\_\_ Contact \_\_\_\_\_

PROJ. NO. 3399.006 PROJECT NAME Big Rock Mass., NPDES Sampling

SAMPLERS: (Signature) [Signature]

CONTAINER TYPES  
 A = AMBER B = BRASS G = GLASS  
 P = PLASTIC V = VOA VIAL O = OTHER

SAMPLE NO.	DATE SAMPLED	TIME SAMPLED	COMP	RB	ID	SAMPLE IDENTIFICATION	MATRIX				CONTAINER #	CONTAINER TYPE	PH	°C	REMARKS	
							WATER	SOIL	SLUDGE	OTHER						
1	2/10/11	8:40				W-8						5		7.0	21.0	
2		9:15				BYA-12								7.1	18.5	
3		9:40				VA-1								7.1	20.2	
4		9:50				BYA-14								7.1	20.2	
5		10:25				BYA-4								6.9	20.5	
6		11:10				BYA-3								7.4	22.2	
7		13:00				HD-30								7.3	20.4	
8		13:15				HD-15								7.3	20.6	
9		13:30				HD-12								7.3	20.8	
10		14:00				HD-6								7.3	20.0	

ANALYSIS  
 Residual Chlorine  
 TSS  
 Oil Turbidity  
 Oil & Grease  
 Sett. Solids, Sulfide  
 Phenols, MBAS  
 Residual

110418

The undersigned hereby acknowledges having received a copy of the Fee Schedule/General Information and Conditions, the provisions of which are a part of this agreement.

Reinquished by: (Signature) [Signature] Date/Time 2/10/11 15:30 Received by: (Signature) [Signature]

Reinquished by: (Signature) \_\_\_\_\_ Date/Time \_\_\_\_\_ Received by: (Signature) \_\_\_\_\_

TURN AROUND TIME

STANDARD  OTHER \_\_\_\_\_

24 HOURS   
 48 HOURS   
 72 HOURS

CHECK ONE BOX:

DISPOSE SAMPLES   
 RETURN SAMPLES



Analytical Services, Inc.

Environmental and Analytical Services-Since 1994  
California State Accredited Laboratory in Accordance with ELAP Certificate # 2332

**Prepared for:** Fugro West, Inc.  
4820 McGrath St. Suite 100  
Ventura, CA 93003  
Attn: Tim Nicely

**Report Date:** March 7, 2011  
**Laboratory Number:** 110583  
**Project Name:** Big Rock Mesa, Malibu  
**Sampled by:** Client

On February 28, 2011, Capco Analytical Services, Inc. (CAS), received one(1) sample to be analyzed. The sample was identified and assigned the laboratory ID number listed below:

<u>SAMPLE DESCRIPTION</u>	<u>CAS LAB NUMBER ID</u>
W-13	110583-01

By my signature below, I certify that the results contained in this laboratory report comply with applicable standards for certification by the California Department of Public Health's Environmental Laboratories Accreditation Program (ELAP), both technically and for completeness, and that, based on my inquiry of the person or persons directly responsible for performing the analyses, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete.

Alin E. Repede, MS  
Director - Analytical Operations

If you have any further questions or concerns, please contact me at your convenience. This report consists of 2 pages excluding the cover letter and the Chain of Custody.

This report shall not be reproduced except in full without the written approval of CAS. The test results reported represent only the item being tested and may not represent the entire material from which the sample was taken.

**CERTIFICATE OF ANALYSIS**

Client: Fugro West, Inc.  
CAS LAB NO: 110583-01  
Sample ID: W-13  
Analyst: AN/GM

Date Sampled: 02/28/11  
Date Received: 02/28/11  
Sample Matrix: Water

**WET CHEMISTRY SUMMARY**

COMPOUND	RESULT	UNITS	DF	MDL	PQL	METHOD	ANALYZED
B.O.D.	ND	mg/L	1	0.4	2	5210 B	03/01/11
Chlorine Residual	BQL	mg/L	1	0.02	0.1	4500CL B	02/28/11
MBAS	ND	mg/L	1	0.02	0.1	5540 C	03/02/11
Oil & Grease	4.5	mg/L	1	1	5	1664	03/02/11
Phenol (total)	ND	mg/L	1	0.02	0.1	420.1	03/04/11
Settleable Solids	BQL	mg/L	1	0.02	0.1	2540 F	02/28/11
Sulfide	ND	mg/L	1	0.004	0.02	4500S <sup>-2</sup> D	03/02/11
T.S.S.	4.0	mg/L	1	1	5	2540 D	03/31/11
Turbidity	0.40	N.T.U.	1	0.02	0.1	180.1	02/28/11

T.S.S.: Total Suspended Solids  
B.O.D.: Biochemical Oxygen Demand  
PQL: Practical Quantitation Limit  
BQL: Below Practical Quantitation Limit  
DF: Dilution Factor

**QUALITY CONTROL SECTION**

Client: Fugro West, Inc.  
CAS LAB NO: 110583-MB  
Sample ID: Method Blank

Sample Matrix: Water  
Analyst: AN/GM

**WET CHEMISTRY ANALYSIS SUMMARY**

COMPOUND	RESULT	UNITS	DF	MDL	PQL	METHOD	ANALYZED
B.O.D.	ND	mg/L	1	0.4	2	5210 B	03/01/11
Chlorine Residual	BQL	mg/L	1	0.02	0.1	4500CL B	02/28/11
MBAS	ND	mg/L	1	0.02	0.1	5540 C	03/02/11
Oil & Grease	ND	mg/L	1	1	5	1664	03/02/11
Phenol (total)	ND	mg/L	1	0.02	0.1	420.1	03/04/11
Settleable Solids	BQL	mg/L	1	0.02	0.1	2540 F	02/28/11
Sulfide	ND	mg/L	1	0.004	0.02	4500S <sup>-2</sup> D	03/02/11
T.S.S.	ND	mg/L	1	1	5	2540 D	03/31/11

B.O.D.: Biochemical Oxygen Demand  
T.S.S.: Total Suspended Solids  
PQL: Practical Quantitation Limit  
BQL: Below Practical Quantitation Limit  
DF: Dilution Factor

# CAPCO ANALYTICAL SERVICES

1536 Eastman Avenue, Suite B  
 Ventura, CA 93003  
 (805) 644-1095 Fax 644-9947  
 www.capcoenv.com

## CHAIN OF CUSTODY RECORD

**REPORT**

Company: EVERKO Fax: \_\_\_\_\_  
 Address: \_\_\_\_\_ Email: \_\_\_\_\_  
 Phone: 340-0265 Contact: DALE

**BILL TO:**

Company: SEME P.O.# \_\_\_\_\_  
 Address: \_\_\_\_\_  
 Phone: \_\_\_\_\_ Contact: \_\_\_\_\_

PROJ. NO. \_\_\_\_\_ PROJECT NAME: BIG ROCK MESA, MALIBU

SAMPLERS: (Signature) \_\_\_\_\_

CONTAINER TYPES  
 A = AMBER B = BRASS G = GLASS  
 P = PLASTIC V = VOA VIAL O = OTHER

SAMPLE NO.	DATE SAMPLED	TIME SAMPLED	COMP	GRAB	SAMPLE IDENTIFICATION	MATRIX				CONTAINER #	CONTAINER TYPE	ANALYSIS	REMARKS	
						WATER	SOIL	SLUDGE	OTHER					
1	2/28/11	12:30			W-13	X						X	X	
2						X						X		
3						X						X		
4						X						X		
5						X						X		

110583

110583

ANALYSIS  
 NaOH Sulfides  
 ZnAL  
 BOD  
 H<sub>2</sub>SO<sub>4</sub> Phenols  
 MBAS Res. Glass  
 TSS, Turb  
 HCL 10 & 6

The undersigned hereby acknowledges having received a copy of the Fee Schedule/General Information and Conditions, the provisions of which are a part of this agreement.

Relinquished by: (Signature) \_\_\_\_\_ Date/Time: 2/28/11 1:55

Received by: (Signature) \_\_\_\_\_ Date/Time: \_\_\_\_\_

**TURN AROUND TIME**

STANDARD  OTHER \_\_\_\_\_  
 24 HOURS   
 48 HOURS   
 72 HOURS

**CHECK ONE BOX:**

DISPOSE SAMPLES   
 RETURN SAMPLES



Analytical Services, Inc.

Environmental and Analytical Services-Since 1994  
California State Accredited Laboratory in Accordance with ELAP Certificate # 2332

**Prepared for:** Fugro West, Inc.  
4820 McGrath St. Suite 100  
Ventura, CA 93003  
Attn: Alexis Spencer

**Report Date:** March 23, 2011  
**Laboratory Number:** 110763  
**Project Name:** Big Rock Mesa NPDES Sampling  
**Project No:** 3399.006  
**Sampled by:** Client

On March 16, 2011, Capco Analytical Services, Inc. (CAS), received eleven(11) samples to be analyzed. The samples were identified and assigned the laboratory ID numbers listed below:

<u>SAMPLE DESCRIPTION</u>	<u>CAS LAB NUMBER ID</u>
BYA-3	110763-01
BYA-14	110763-02
BYA-4	110763-03
W-8	110763-04
W-1	110763-05
BYA-12	110763-06
W-13	110763-07
HD-30	110763-08
HD-15	110763-09
HD-12	110763-10
HD-6	110763-11

By my signature below, I certify that the results contained in this laboratory report comply with applicable standards for certification by the California Department of Public Health's Environmental Laboratories Accreditation Program (ELAP), both technically and for completeness, and that, based on my inquiry of the person or persons directly responsible for performing the analyses, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete.

  
Alim E. Repede, MS  
Director - Analytical Operations

If you have any further questions or concerns, please contact me at your convenience. This report consists of 9 pages excluding the cover letter and the Chain of Custody.

This report shall not be reproduced except in full without the written approval of CAS. The test results reported represent only the item being tested and may not represent the entire material from which the sample was taken.

**CERTIFICATE OF ANALYSIS**

Client: Fugro West, Inc.  
CAS LAB NO: 110763  
Analyst: LM

Date Sampled: 03/16/11  
Date Received: 03/16/11  
Date Analyzed: 03/16/11  
Sample Matrix: Water

**TOTAL SUSPENDED SOLIDS  
SM 2540 D**

CAS Lab #	Sample ID	RESULTS (mg/L)	Dilution Factor	MDL (mg/l)	PQL (mg/L)
11076301	BYA-3	1.6	1	1	5
11076302	BYA-14	ND	1	1	5
11076303	BYA-4	ND	1	1	5
11076304	W-8	ND	1	1	5
11076306	BYA-12	1.2	1	1	5
11076307	W-13	1.2	1	1	5
11076308	HD-30	2.0	1	1	5
11076309	HD-15	ND	1	1	5
11076310	HD-12	2.4	1	1	5
11076311	HD-6	ND	1	1	5

MDL: Method Detection Limit  
PQL: Practical Quantitation Limit  
ND: Not Detected

**CERTIFICATE OF ANALYSIS**

Client: Fugro West, Inc.  
CAS LAB NO: 110763  
Analyst: AN

Date Sampled: 03/16/11  
Date Received: 03/16/11  
Date Analyzed: 03/17/11  
Sample Matrix: Water

**SETTLEABLE SOLIDS**  
**SM 2540 F**

CAS Lab #	Sample ID	RESULTS (ml/L)	Dilution Factor	PQL (ml/L)
11076301	BYA-3	BQL	1	0.1
11076302	BYA-14	BQL	1	0.1
11076303	BYA-4	BQL	1	0.1
11076304	W-8	BQL	1	0.1
11076306	BYA-12	BQL	1	0.1
11076307	W-13	BQL	1	0.1
11076308	HD-30	BQL	1	0.1
11076309	HD-15	BQL	1	0.1
11076310	HD-12	BQL	1	0.1
11076311	HD-6	BQL	1	0.1

PQL: Practical Quantitation Limit  
BQL: Below Practical Quantitation Limit

**CERTIFICATE OF ANALYSIS**

Client: Fugro West, Inc.  
 CAS LAB NO: 110763  
 Analyst: AN

Date Sampled: 03/16/11  
 Date Received: 03/16/11  
 Date Analyzed: 03/21/11  
 Sample Matrix: Water

**TOTAL PHENOL  
 EPA METHOD 420.1**

CAS Lab #	Sample ID	RESULTS (mg/L)	Dilution Factor	MDL (mg/L)	PQL (mg/L)
11076301	BYA-3	ND	1	0.02	0.1
11076302	BYA-14	ND	1	0.02	0.1
11076303	BYA-4	ND	1	0.02	0.1
11076304	W-8	ND	1	0.02	0.1
11076306	BYA-12	ND	1	0.02	0.1
11076307	W-13	ND	1	0.02	0.1
11076308	HD-30	ND	1	0.02	0.1
11076309	HD-15	ND	1	0.02	0.1
11076310	HD-12	ND	1	0.02	0.1
11076311	HD-6	ND	1	0.02	0.1

MDL: Method Detection Limit  
 PQL: Practical Quantitation Limit  
 ND: Not Detected

**CERTIFICATE OF ANALYSIS**

Client: Fugro West, Inc.  
CAS LAB NO: 110763  
Analyst: GM

Date Sampled: 03/16/11  
Date Received: 03/16/11  
Date Analyzed: 03/18/11  
Sample Matrix: Water

**MBAS  
SM 5540 C**

CAS Lab #	Sample ID	RESULTS (mg/L)	Dilution Factor	MDL (mg/l)	PQL (mg/L)
11076301	BYA-3	ND	1	0.02	0.1
11076302	BYA-14	ND	1	0.02	0.1
11076303	BYA-4	ND	1	0.02	0.1
11076304	W-8	ND	1	0.02	0.1
11076306	BYA-12	ND	1	0.02	0.1
11076307	W-13	ND	1	0.02	0.1
11076308	HD-30	ND	1	0.02	0.1
11076309	HD-15	ND	1	0.02	0.1
11076310	HD-12	ND	1	0.02	0.1
11076311	HD-6	ND	1	0.02	0.1

MDL: Method Detection Limit  
PQL: Practical Quantitation Limit  
ND: Not Detected

**CERTIFICATE OF ANALYSIS**

Client: Fugro West, Inc.  
CAS LAB NO: 110763  
Analyst: LM

Date Sampled: 03/16/11  
Date Received: 03/16/11  
Date Analyzed: 03/17/11  
Sample Matrix: Water

**TURBIDITY**  
**EPA Method 180.1**

CAS Lab #	Sample ID	RESULTS (NTU)	Dilution Factor	PQL (NTU)
11076301	BYA-3	0.62	1	0.1
11076302	BYA-14	0.38	1	0.1
11076303	BYA-4	0.21	1	0.1
11076304	W-8	2.15	1	0.1
11076306	BYA-12	0.23	1	0.1
11076307	W-13	0.14	1	0.1
11076308	HD-30	0.21	1	0.1
11076309	HD-15	0.62	1	0.1
11076310	HD-12	0.21	1	0.1
11076311	HD-6	0.10	1	0.1

PQL: Practical Quantitation Limit

**CERTIFICATE OF ANALYSIS**

Client: Fugro West, Inc.  
CAS LAB NO: 110763  
Analyst: GM

Date Sampled: 03/16/11  
Date Received: 03/16/11  
Date Analyzed: 03/16/11  
Sample Matrix: Water

**TOTAL RESIDUAL CHLORINE  
SM 4500CL G**

CAS Lab #	Sample ID	RESULTS (mg/L)	Dilution Factor	PQL (mg/L)	MDL (mg/L)
11076301	BYA-3	ND	1	0.1	0.02
11076302	BYA-14	ND	1	0.1	0.02
11076303	BYA-4	ND	1	0.1	0.02
11076304	W-8	ND	1	0.1	0.02
11076305	W-1	ND	1	0.1	0.02
11076306	BYA-12	ND	1	0.1	0.02
11076307	W-13	ND	1	0.1	0.02
11076308	HD-30	ND	1	0.1	0.02
11076309	HD-15	ND	1	0.1	0.02
11076310	HD-12	ND	1	0.1	0.02
11076311	HD-6	ND	1	0.1	0.02

PQL: Practical Quantitation Limit  
MDL: Method Detection Limit  
ND: Not Detected

**CERTIFICATE OF ANALYSIS**

Client: Fugro West, Inc.  
CAS LAB NO: 110763  
Analyst: AN

Date Sampled: 03/16/11  
Date Received: 03/16/11  
Date Analyzed: 03/17/11  
Sample Matrix: Water

**BIOCHEMICAL OXYGEN DEMAND  
SM 5210 B**

CAS Lab #	Sample ID	RESULTS (mg/L)	Dilution Factor	MDL (mg/l)	PQL (mg/L)
11076301	BYA-3	ND	1	0.4	2
11076302	BYA-14	ND	1	0.4	2
11076303	BYA-4	ND	1	0.4	2
11076304	W-8	ND	1	0.4	2
11076306	BYA-12	ND	1	0.4	2
11076307	W-13	ND	1	0.4	2
11076308	HD-30	ND	1	0.4	2
11076309	HD-15	ND	1	0.4	2
11076310	HD-12	2.0	1	0.4	2
11076311	HD-6	ND	1	0.4	2

MDL: Method Detection Limit  
PQL: Practical Quantitation Limit  
ND: Not Detected

**CERTIFICATE OF ANALYSIS**

Client: Fugro West, Inc.  
CAS LAB NO: 110763  
Analyst: GM

Date Sampled: 03/16/11  
Date Received: 03/16/11  
Date Analyzed: 03/18/11  
Sample Matrix: Water

**OIL & GREASE**  
**EPA Method 1664**

CAS Lab #	Sample ID	RESULTS (mg/L)	Dilution Factor	MDL (mg/l)	PQL (mg/L)
11076301	BYA-3	ND	1	1	5
11076302	BYA-14	ND	1	1	5
11076303	BYA-4	ND	1	1	5
11076304	W-8	ND	1	1	5
11076306	BYA-12	ND	1	1	5
11076307	W-13	ND	1	1	5
11076308	HD-30	ND	1	1	5
11076309	HD-15	ND	1	1	5
11076310	HD-12	ND	1	1	5
11076311	HD-6	ND	1	1	5

MDL: Method Detection Limit  
PQL: Practical Quantitation Limit  
ND: Not Detected

**CERTIFICATE OF ANALYSIS**

Client: Fugro West, Inc.  
CAS LAB NO: 110763  
Analyst: AN

Date Sampled: 03/16/11  
Date Received: 03/16/11  
Date Analyzed: 03/16/11  
Sample Matrix: Water

**TOTAL SULFIDE**  
**SM 4500-S<sup>2</sup>D**

CAS LAB #	Sample ID	RESULTS (mg/L)	Dilution Factor	MDL (mg/L)	PQL (mg/L)
11076301	BYA-3	ND	1	0.004	0.02
11076302	BYA-14	ND	1	0.004	0.02
11076303	BYA-4	ND	1	0.004	0.02
11076304	W-8	ND	1	0.004	0.02
11076306	BYA-12	ND	1	0.004	0.02
11076307	W-13	ND	1	0.004	0.02
11076308	HD-30	ND	1	0.004	0.02
11076309	HD-15	ND	1	0.004	0.02
11076310	HD-12	ND	1	0.004	0.02
11076311	HD-6	ND	1	0.004	0.02

ND: Not Detected

MDL: Method Detection Limit

BQL: Below Practical Quantitation Limit

# CAPCO ANALYTICAL SERVICES

1536 Eastman Avenue, Suite B  
 Ventura, CA 93003  
 (805) 644-1095 Fax 644-9947  
 www.capcoenv.com

## CHAIN OF CUSTODY RECORD

PROJ. NO: 3399.006 PROJECT NAME: Big Rock Mass MPDES Sampling  
 SAMPLERS: (Signature) *Li Z...*

CONTAINER TYPES:  
 A = AMBER B = BRASS G = GLASS  
 P = PLASTIC V = VOA VIAL O = OTHER

**REPORT**  
 Company: Fuervo  
 Address: 4820 McGuffey St. Ste 100  
 Email: thredg@fuervo.com  
 Phone: 289-5886 Contact: Jim Nizely

**BILL TO:**  
 Company: \_\_\_\_\_  
 Address: \_\_\_\_\_  
 Phone: \_\_\_\_\_  
 Contact: \_\_\_\_\_  
 P.O.#: \_\_\_\_\_

SAMPLE NO.	DATE SAMPLED	TIME SAMPLED	COM. GRAB	SAMPLE IDENTIFICATION	MATRIX			CONTAINER #	CONTAINER TYPE	REMARKS
					WATER	SOIL	SLUDGE/OTHER			
1	3/16/11	1035	/	BYA-3			5		PH 7.9 H <sub>2</sub> O 21.9	
2		1050	/	BYA-14					7.1 21.6	
3		1200	/	BYA-4					6.9 21.6	
4		1215	/	W-8					7.0 21.6	
5		1225	/	W-1					7.0 26.9	
6		1235	/	BYA-12			5		7.1 20.0	
7		1405	/	W-13					6.9 20.7	
8		1405	/	HD-30					7.4 20.6	
9		1410	/	HD-15					7.3 21.0	
10		1420	/	HD-12					7.3 21.1	
11		1435	/	HD-6					7.3 20.3	

ANALYSIS  
 TSS, Turb, BOD  
 Oil + Grease  
 Sett. Sol. Su 16. de  
 Phenols, MBAS  
 Res. Chlorine

7110763

The undersigned hereby acknowledges having received a copy of the Fee Schedule/General Information and Conditions, the provisions of which are a part of this agreement.

Relinquished by: (Signature) *Li Z...* Date/Time: 3/16/11 1615  
 Received by: (Signature) *[Signature]*

**TURN AROUND TIME**  
 STANDARD  24 HOURS  
 OTHER  48 HOURS  
 72 HOURS

**CHECK ONE BOX:**  
 DISPOSE SAMPLES   
 RETURN SAMPLES



Environmental and Analytical Services-Since 1994  
California State Accredited Laboratory in Accordance with ELAP Certificate # 2332

**Prepared for:** Fugro West, Inc.  
4820 McGrath St. Suite 100  
Ventura, CA 93003  
Attn: Alexis Spencer

**Report Date:** April 25, 2011  
**Laboratory Number:** 111117  
**Project Name:** Big Rock Mesa NPDES Sampling  
**Project No:** 3399.006  
**Sampled by:** Client

On April 19, 2011, Capco Analytical Services, Inc. (CAS), received ten(10) samples to be analyzed. The samples were identified and assigned the laboratory ID numbers listed below:

<u>SAMPLE DESCRIPTION</u>	<u>CAS LAB NUMBER ID</u>
HD-42	111117-01
BYA-H10	111117-02
HD-22	111117-03
HD-11	111117-04
HD-23	111117-05
W-18	111117-06
W-16	111117-07
BYA-10	111117-08
BYA-1	111117-09
W-3	111117-10

By my signature below, I certify that the results contained in this laboratory report comply with applicable standards for certification by the California Department of Public Health's Environmental Laboratories Accreditation Program (ELAP), both technically and for completeness, and that, based on my inquiry of the person or persons directly responsible for performing the analyses, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete.

Alin E. Repede, MS  
Director - Analytical Operations

If you have any further questions or concerns, please contact me at your convenience. This report consists of 10 pages excluding the cover letter and the Chain of Custody.

This report shall not be reproduced except in full without the written approval of CAS. The test results reported represent only the item being tested and may not represent the entire material from which the sample was taken.

**CERTIFICATE OF ANALYSIS**

Client: Fugro West, Inc.  
CAS LAB NO: 111117  
Analyst: AN

Date Sampled: 04/19/11  
Date Received: 04/19/11  
Date Analyzed: 04/19/11  
Sample Matrix: Water

**BIOCHEMICAL OXYGEN DEMAND  
SM 5210 B**

CAS Lab #	Sample ID	RESULTS (mg/L)	Dilution Factor	MDL (mg/l)	PQL (mg/L)
11111701	HD-42	ND	1	0.4	2
11111702	BYA-H10	ND	1	0.4	2
11111703	HD-22	0.44	1	0.4	2
11111704	HD-11	ND	1	0.4	2
11111705	HD-23	0.88	1	0.4	2
11111706	W-18	ND	1	0.4	2
11111707	W-16	ND	1	0.4	2
11111708	BYA-10	ND	1	0.4	2
11111709	BYA-1	ND	1	0.4	2
11111710	W-3	ND	1	0.4	2

MDL: Method Detection Limit  
PQL: Practical Quantitation Limit  
ND: Not Detected

**CERTIFICATE OF ANALYSIS**

Client: Fugro West, Inc.  
CAS LAB NO: 111117  
Analyst: GM

Date Sampled: 04/19/11  
Date Received: 04/19/11  
Date Analyzed: 04/21/11  
Sample Matrix: Water

**MBAS  
SM 5540 C**

CAS Lab #	Sample ID	RESULTS (mg/L)	Dilution Factor	MDL (mg/l)	PQL (mg/L)
11111701	HD-22	ND	1	0.02	0.1
11111702	BYA-10	ND	1	0.02	0.1
11111703	HD-22	ND	1	0.02	0.1
11111704	HD-11	ND	1	0.02	0.1
11111705	HD-23	ND	1	0.02	0.1
11111706	W-18	ND	1	0.02	0.1
11111707	W-16	ND	1	0.02	0.1
11111708	BYA-10	ND	1	0.02	0.1
11111709	BYA-1	ND	1	0.02	0.1
11111710	W-3	ND	1	0.02	0.1

MDL: Method Detection Limit  
PQL: Practical Quantitation Limit  
ND: Not Detected



CERTIFICATE OF ANALYSIS

Client: Fugro West, Inc.  
CAS LAB NO: 111117  
Analyst: AN

Date Sampled: 04/19/11  
Date Received: 04/19/11  
Date Analyzed: 04/22/11  
Sample Matrix: Water

TOTAL PHENOL  
EPA METHOD 420.1

CAS Lab #	Sample ID	RESULTS (mg/L)	Dilution Factor	MDL (mg/L)	PQL (mg/L)
11111701	HD-22	ND	1	0.02	0.1
11111702	BYA-10	ND	1	0.02	0.1
11111703	HD-22	ND	1	0.02	0.1
11111704	HD-11	ND	1	0.02	0.1
11111705	HD-23	ND	1	0.02	0.1
11111706	W-18	ND	1	0.02	0.1
11111707	W-16	ND	1	0.02	0.1
11111708	BYA-10	ND	1	0.02	0.1
11111709	BYA-1	ND	1	0.02	0.1
11111710	W-3	ND	1	0.02	0.1

MDL: Method Detection Limit  
PQL: Practical Quantitation Limit  
ND: Not Detected



**CERTIFICATE OF ANALYSIS**

Client: Fugro West, Inc.  
CAS LAB NO: 111117  
Analyst: AN

Date Sampled: 04/19/11  
Date Received: 04/19/11  
Date Analyzed: 04/21/11  
Sample Matrix: Water

**TOTAL SULFIDE  
SM 4500-S<sup>2</sup>D**

CAS LAB #	Sample ID	RESULTS (mg/L)	Dilution Factor	MDL (mg/L)	PQL (mg/L)
11111701	HD-42	ND	1	0.004	0.02
11111702	BYA-H10	ND	1	0.004	0.02
11111703	HD-22	ND	1	0.004	0.02
11111704	HD-11	ND	1	0.004	0.02
11111705	HD-23	ND	1	0.004	0.02
11111706	W-18	ND	1	0.004	0.02
11111707	W-16	ND	1	0.004	0.02
11111708	BYA-10	ND	1	0.004	0.02
11111709	BYA-1	ND	1	0.004	0.02
11111710	W-3	ND	1	0.004	0.02

ND: Not Detected  
MDL: Method Detection Limit  
BQL: Below Practical Quantitation Limit

**CERTIFICATE OF ANALYSIS**

Client: Fugro West, Inc.  
CAS LAB NO: 111117  
Analyst: GM

Date Sampled: 04/19/11  
Date Received: 04/19/11  
Date Analyzed: 04/20/11  
Sample Matrix: Water

**OIL & GREASE  
EPA Method 1664**

CAS Lab #	Sample ID	RESULTS (mg/L)	Dilution Factor	MDL (mg/l)	PQL (mg/L)
11111701	HD-42	ND	1	1	5
11111702	BYA-H10	ND	1	1	5
11111703	HD-22	ND	1	1	5
11111704	HD-11	ND	1	1	5
11111705	HD-23	ND	1	1	5
11111706	W-18	ND	1	1	5
11111707	W-16	ND	1	1	5
11111708	BYA-10	ND	1	1	5
11111709	BYA-1	ND	1	1	5
11111710	W-3	ND	1	1	5

MDL: Method Detection Limit  
PQL: Practical Quantitation Limit  
ND: Not Detected

**CERTIFICATE OF ANALYSIS**

Client: Fugro West, Inc.  
CAS LAB NO: 111117  
Analyst: GM

Date Sampled: 04/19/11  
Date Received: 04/19/11  
Date Analyzed: 04/19/11  
Sample Matrix: Water

**TOTAL RESIDUAL CHLORINE  
SM 4500CL G**

CAS Lab #	Sample ID	RESULTS (mg/L)	Dilution Factor	PQL (mg/L)	MDL (mg/L)
11111701	HD-42	ND	1	0.1	0.02
11111702	BYA-H10	ND	1	0.1	0.02
11111703	HD-22	ND	1	0.1	0.02
11111704	HD-11	ND	1	0.1	0.02
11111705	HD-23	ND	1	0.1	0.02
11111706	W-18	ND	1	0.1	0.02
11111707	W-16	ND	1	0.1	0.02
11111708	BYA-10	ND	1	0.1	0.02
11111709	BYA-1	ND	1	0.1	0.02
11111710	W-3	ND	1	0.1	0.02

PQL: Practical Quantitation Limit  
MDL: Method Detection Limit  
ND: Not Detected

**CERTIFICATE OF ANALYSIS**

Client: Fugro West, Inc.  
CAS LAB NO: 111117  
Analyst: AN

Date Sampled: 04/19/11  
Date Received: 04/19/11  
Date Analyzed: 04/20/11  
Sample Matrix: Water

**TOTAL SUSPENDED SOLIDS  
SM 2540 D**

CAS Lab #	Sample ID	RESULTS (mg/L)	Dilution Factor	MDL (mg/l)	PQL (mg/L)
11111701	HD-42	2.0	1	1	5
11111702	BYA-H10	4.0	1	1	5
11111703	HD-22	4.0	1	1	5
11111704	HD-11	2.0	1	1	5
11111705	HD-23	2.4	1	1	5
11111706	W-18	1.6	1	1	5
11111707	W-16	ND	1	1	5
11111708	BYA-10	ND	1	1	5
11111709	BYA-1	4.4	1	1	5
11111710	W-3	ND	1	1	5

MDL: Method Detection Limit  
PQL: Practical Quantitation Limit  
ND: Not Detected

**CERTIFICATE OF ANALYSIS**

Client: Fugro West, Inc.  
CAS LAB NO: 111117  
Analyst: AN

Date Sampled: 04/19/11  
Date Received: 04/19/11  
Date Analyzed: 04/20/11  
Sample Matrix: Water

**TURBIDITY**  
**EPA Method 180.1**

CAS Lab #	Sample ID	RESULTS (NTU)	Dilution Factor	PQL (NTU)
11076301	HD-42	0.36	1	0.1
11076302	BYA-H10	1.4	1	0.1
11076303	HD-22	5.4	1	0.1
11076304	HD-11	0.63	1	0.1
11111705	HD-23	0.32	1	0.1
11076306	W-18	0.69	1	0.1
11076307	W-16	0.12	1	0.1
11076308	BYA-10	0.44	1	0.1
11076309	BYA-1	8.9	1	0.1
11076310	W-3	0.62	1	0.1

PQL: Practical Quantitation Limit



**CERTIFICATE OF ANALYSIS**

Client: Fugro West, Inc.  
CAS LAB NO: 111117  
Analyst: AN

Date Sampled: 04/19/11  
Date Received: 04/19/11  
Date Analyzed: 04/20/11  
Sample Matrix: Water

**TOTAL SUSPENDED SOLIDS  
SM 2540 D**

CAS Lab #	Sample ID	RESULTS (mg/L)	Dilution Factor	MDL (mg/l)	PQL (mg/L)
11111701	BYA-3	2.0	1	1	5
11111702	BYA-14	4.0	1	1	5
11111703	BYA-4	4.0	1	1	5
11111704	W-8	2.0	1	1	5
11111705	HD-23	2.4	1	1	5
11111706	BYA-12	1.6	1	1	5
11111707	W-13	ND	1	1	5
11111708	HD-30	ND	1	1	5
11111709	HD-15	4.4	1	1	5
11111710	HD-12	ND	1	1	5

MDL: Method Detection Limit  
PQL: Practical Quantitation Limit  
ND: Not Detected

**QUALITY CONTROL SECTION**

Client: Fugro West, Inc.  
CAS LAB NO: 111117  
Analyst: AN/GM

Date Received: 04/19/11  
Sample Matrix: Water

COMPOUND	RESULT	UNITS	DF	MDL	PQL	METHOD	ANALYZED
B.O.D.	ND	mg/L	1	0.4	2	5210 B	04/19/11
Oil and Grease	ND	mg/L	1	1	5	1664	04/20/11
MBAS	ND	mg/L	1	0.02	0.1	5540 C	04/21/11
Phenol (Total)	ND	mg/L	1	0.02	0.1	420.1	04/22/11
Residual Chlorine	ND	mg/L	1	0.02	0.1	4500CL G	04/19/11
Settleable Solid	BQL	ml/L	1	--	0.1	2540 F	04/20/11
Sulfide (Total)	ND	mg/L	1	0.004	0.02	4500S <sup>2</sup> -D	04/21/11
T.S.S.	ND	mg/L	1	1	5	2540 D	04/20/11

BQL: Below Practical Quantitation Limit  
MDL: Method Detection Limit  
PQL: Practical Quantitation Limit  
ND: Not Detected

# CAPCO ANALYTICAL SERVICES

1536 Eastman Avenue, Suite B  
 Ventura, CA 93003  
 (805) 644-1095 Fax 644-9947  
 www.capcoenv.com

## CHAIN OF CUSTODY RECORD

**REPORT**  
 Company: FURRO Fax: \_\_\_\_\_  
 Address: 4820 McBRANN ST. STE. 100  
VENTURA CA Email: A.SHEWEN@CAPCOENV.COM  
 Phone: \_\_\_\_\_ Contact: ALEXIS

**BILL TO:**  
 Company: \_\_\_\_\_  
 Address: \_\_\_\_\_  
 Phone: \_\_\_\_\_  
 Contact: \_\_\_\_\_

PROJ. NO. 3399006

PROJECT NAME BIG ROCK

SAMPLERS: (Signature) \_\_\_\_\_

CONTAINER TYPES  
 A = AMBER B = BRASS G = GLASS  
 P = PLASTIC V = VOAVIAL O = OTHER

SAMPLE NO.	DATE SAMPLED	TIME SAMPLED	COMP	GRAB	SAMPLE IDENTIFICATION	MATRIX				CONTAINER #	TYPE	ANALYSIS	REMARKS
						WATER	SOIL	SLUDGE	OTHER				
1	4/4/11				HD-42	X						2.17 Pt 25.8c	
2					BYA-H10							7.20 21.4	
3					HD-22							7.34 21.3	
4					HD-11							7.55 20.7	
5					HD-23							7.19 21.3	
6					W-15							7.21 21.9	
7					W-16							6.84 23.1	
8					BYA-10							7.35 21.7	
9					BYA-1							7.01 21.5	
10					W-3							7.04 21.7	

Relinquished by: (Signature) \_\_\_\_\_

Date/Time 4/4/11 3:07

Received by: (Signature) Michael St. Andrew

**TURN AROUND TIME**  
 STANDARD  OTHER \_\_\_\_\_  
 24 HOURS   
 48 HOURS   
 72 HOURS

**CHECK ONE BOX:**  
 DISPOSE SAMPLES   
 RETURN SAMPLES

The undersigned hereby acknowledges having received a copy of the Fee Schedule/General Information and Conditions, the provisions of which are a part of this agreement.



Analytical Services, Inc.

Environmental and Analytical Services-Since 1994  
California State Accredited Laboratory in Accordance with ELAP Certificate # 2332

**Prepared for:** Fugro West, Inc.  
4820 McGrath St. Suite 100  
Ventura, CA 93003  
Attn: Alexis Spencer

**Report Date:** June 8, 2011  
**Laboratory Number:** 111478  
**Project Name:** Malibu-NPDES  
**Sampled by:** Client

On May 25, 2011, Capco Analytical Services, Inc. (CAS), received ten(10) samples to be analyzed. The samples were identified and assigned the laboratory ID numbers listed below:

<u>SAMPLE DESCRIPTION</u>	<u>CAS LAB NUMBER ID</u>
HD-42	111478-01
BYA-H10	111478-02
HD-22	111478-03
HD-11	111478-04
HD-23	111478-05
W-18	111478-06
BYA-10	111478-07
BYA-1	111478-08
W-3	111478-09
W-16	111478-10

By my signature below, I certify that the results contained in this laboratory report comply with applicable standards for certification by the California Department of Public Health's Environmental Laboratories Accreditation Program (ELAP), both technically and for completeness, and that, based on my inquiry of the person or persons directly responsible for performing the analyses, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete.

Alin E. Repede, MS  
Director - Analytical Operations

If you have any further questions or concerns, please contact me at your convenience. This report consists of 10 pages excluding the cover letter and the Chain of Custody.

This report shall not be reproduced except in full without the written approval of CAS. The test results reported represent only the item being tested and may not represent the entire material from which the sample was taken.

**CERTIFICATE OF ANALYSIS**

Client: Fugro West, Inc.  
CAS LAB NO: 111478  
Analyst: AN

Date Sampled: 05/25/11  
Date Received: 05/25/11  
Date Analyzed: 05/26/11  
Sample Matrix: Water

**BIOCHEMICAL OXYGEN DEMAND  
SM 5210 B**

CAS Lab #	Sample ID	RESULTS (mg/L)	Dilution Factor	MDL (mg/l)	PQL (mg/L)
111478-01	HD-42	ND	1	0.40	2
111478-02	BYA-H10	ND	1	0.40	2
111478-03	HD-22	ND	1	0.40	2
111478-04	HD-11	ND	1	0.40	2
111478-05	HD-23	ND	1	0.40	2
111478-06	W-18	ND	1	0.40	2
111478-07	BYA-10	0.56	1	0.40	2
111478-08	BYA-1	ND	1	0.40	2
111478-09	W-3	ND	1	0.40	2
111478-10	W-16	ND	1	0.40	2

MDL: Method Detection Limit  
PQL: Practical Quantitation Limit  
BQL: Below Quantitation Limit  
ND: Not Detected

**CERTIFICATE OF ANALYSIS**

Client: Fugro West, Inc.  
CAS LAB NO: 111478  
Analyst: GM

Date Sampled: 05/25/11  
Date Received: 05/25/11  
Date Analyzed: 05/31/11  
Sample Matrix: Water

**OIL & GREASE**  
**EPA Method 1664**

CAS Lab #	Sample ID	RESULTS (mg/L)	Dilution Factor	MDL (mg/l)	PQL (mg/L)
111478-01	HD-42	1.3	1	1	5
111478-02	BYA-H10	1.2	1	1	5
111478-03	HD-22	ND	1	1	5
111478-04	HD-11	1.2	1	1	5
111478-05	HD-23	ND	1	1	5
111478-06	W-18	1.0	1	1	5
111478-07	BYA-10	ND	1	1	5
111478-08	BYA-1	ND	1	1	5
111478-09	W-3	ND	1	1	5
111478-10	W-16	ND	1	1	5

MDL: Method Detection Limit  
PQL: Practical Quantitation Limit  
ND: Not Detected

**CERTIFICATE OF ANALYSIS**

Client: Fugro West, Inc.  
CAS LAB NO: 111478  
Analyst: AN

Date Sampled: 05/25/11  
Date Received: 05/25/11  
Date Analyzed: 05/27/11  
Sample Matrix: Water

**TOTAL SUSPENDED SOLIDS  
SM 2540 D**

CAS Lab #	Sample ID	RESULTS (mg/L)	Dilution Factor	MDL (mg/l)	PQL (mg/L)
111478-01	HD-42	3.2	1	1	5
111478-02	BYA-H10	2.8	1	1	5
111478-03	HD-22	8.4	1	1	5
111478-04	HD-11	ND	1	1	5
111478-05	HD-23	ND	1	1	5
111478-06	W-18	1.2	1	1	5
111478-07	BYA-10	4.4	1	1	5
111478-08	BYA-1	3.2	1	1	5
111478-09	W-3	5.2	1	1	5
111478-10	W-16	ND	1	1	5

MDL: Method Detection Limit  
PQL: Practical Quantitation Limit  
ND: Not Detected

**CERTIFICATE OF ANALYSIS**

Client: Fugro West, Inc.  
CAS LAB NO: 111478  
Analyst: AN

Date Sampled: 05/25/11  
Date Received: 05/25/11  
Date Analyzed: 06/01/11  
Sample Matrix: Water

**TOTAL PHENOL  
EPA METHOD 420.1**

CAS Lab #	Sample ID	RESULTS (mg/L)	Dilution Factor	MDL (mg/L)	PQL (mg/L)
11147801	HD-42	ND	1	0.02	0.1
11147802	BYA-H10	ND	1	0.02	0.1
11147803	HD-22	ND	1	0.02	0.1
11147804	HD-11	ND	1	0.02	0.1
11147805	HD-23	ND	1	0.02	0.1
11147806	W-18	ND	1	0.02	0.1
11147807	BYA-10	ND	1	0.02	0.1
11147808	BYA-1	ND	1	0.02	0.1
11147809	W-3	ND	1	0.02	0.1
11147810	W-16	ND	1	0.02	0.1

MDL: Method Detection Limit  
PQL: Practical Quantitation Limit  
ND: Not Detected

**CERTIFICATE OF ANALYSIS**

Client: Fugro West, Inc.  
CAS LAB NO: 111478  
Analyst: AN

Date Sampled: 05/25/11  
Date Received: 05/25/11  
Date Analyzed: 05/27/11  
Sample Matrix: Water

**SETTLEABLE SOLIDS  
SM 2540 F**

CAS Lab #	Sample ID	RESULTS (ml/L)	Dilution Factor	PQL (ml/L)
11147801	HD-42	BQL	1	0.1
11147802	BYA-H10	BQL	1	0.1
11147803	HD-22	BQL	1	0.1
11147804	HD-11	BQL	1	0.1
11147805	HD-23	BQL	1	0.1
11147806	W-18	BQL	1	0.1
11147807	BYA-10	BQL	1	0.1
11147808	BYA-1	BQL	1	0.1
11147809	W-3	BQL	1	0.1
11147810	W-16	BQL	1	0.1

PQL: Practical Quantitation Limit  
BQL: Below Practical Quantitation Limit

**CERTIFICATE OF ANALYSIS**

Client: Fugro West, Inc.  
CAS LAB NO: 111478  
Analyst: GM

Date Sampled: 05/25/11  
Date Received: 05/25/11  
Date Analyzed: 05/25/11  
Sample Matrix: Water

**TOTAL RESIDUAL CHLORINE  
SM 4500CL G**

CAS Lab #	Sample ID	RESULTS (mg/L)	Dilution Factor	PQL (mg/L)	MDL (mg/L)
111478-01	HD-42	BQL	1	0.1	0.02
111478-02	BYA-H10	BQL	1	0.1	0.02
111478-03	HD-22	BQL	1	0.1	0.02
111478-04	HD-11	BQL	1	0.1	0.02
111478-05	HD-23	BQL	1	0.1	0.02
111478-06	W-18	BQL	1	0.1	0.02
111478-07	BYA-10	BQL	1	0.1	0.02
111478-08	BYA-1	BQL	1	0.1	0.02
111478-09	W-3	BQL	1	0.1	0.02
111478-10	W-16	BQL	1	0.1	0.02

PQL: Practical Quantitation Limit  
BQL: Below Quantitation Limit  
MDL: Method Detection Limit  
ND: Not Detected

**CERTIFICATE OF ANALYSIS**

Client: Fugro West, Inc.  
CAS LAB NO: 111478  
Analyst: GM

Date Sampled: 05/25/11  
Date Received: 05/25/11  
Date Analyzed: 05/26/11  
Sample Matrix: Water

**MBAS  
SM 5540 C**

CAS Lab #	Sample ID	RESULTS (mg/L)	Dilution Factor	MDL (mg/l)	PQL (mg/L)
11147801	HD-42	ND	1	0.02	0.1
11147802	BYA-H10	0.03	1	0.02	0.1
11147803	HD-22	ND	1	0.02	0.1
11147804	HD-11	0.02	1	0.02	0.1
11147805	HD-23	0.03	1	0.02	0.1
11147806	W-18	ND	1	0.02	0.1
11147807	BYA-10	ND	1	0.02	0.1
11147808	BYA-1	ND	1	0.02	0.1
11147809	W-3	ND	1	0.02	0.1
11147810	W-16	0.02	1	0.02	0.1

MDL: Method Detection Limit  
PQL: Practical Quantitation Limit  
ND: Not Detected

**CERTIFICATE OF ANALYSIS**

Client: Fugro West, Inc.  
CAS LAB NO: 111478  
Analyst: AN

Date Sampled: 05/25/11  
Date Received: 05/25/11  
Date Analyzed: 05/31/11  
Sample Matrix: Water

**TOTAL SULFIDE  
SM 4500-S<sup>2</sup>D**

CAS LAB #	Sample ID	RESULTS (mg/L)	Dilution Factor	MDL (mg/L)	PQL (mg/L)
11147801	HD-42	ND	1	0.004	0.02
11147802	BYA-H10	ND	1	0.004	0.02
11147803	HD-22	ND	1	0.004	0.02
11147804	HD-11	ND	1	0.004	0.02
11147805	HD-23	ND	1	0.004	0.02
11147806	W-18	ND	1	0.004	0.02
11147807	BYA-10	ND	1	0.004	0.02
11147808	BYA-1	ND	1	0.004	0.02
11147809	W-3	ND	1	0.004	0.02
11147810	W-16	ND	1	0.004	0.02

ND: Not Detected

MDL: Method Detection Limit

BQL: Below Practical Quantitation Limit

**CERTIFICATE OF ANALYSIS**

Client: Fugro West, Inc.  
CAS LAB NO: 111478  
Analyst: AN

Date Sampled: 05/25/11  
Date Received: 05/25/11  
Date Analyzed: 05/26/11  
Sample Matrix: Water

**TURBIDITY**  
**EPA Method 180.1**

CAS Lab #	Sample ID	RESULTS (NTU)	Dilution Factor	PQL (NTU)
11147801	HD-42	2.2	1	0.1
11147802	BYA-H10	0.67	1	0.1
11147803	HD-22	13	1	0.1
11147804	HD-11	0.26	1	0.1
11147805	HD-23	0.22	1	0.1
11147806	W-18	4.24	1	0.1
11147807	BYA-10	1.8	1	0.1
11147808	BYA-1	6.6	1	0.1
11147809	W-3	18	1	0.1
11147810	W-16	0.16	1	0.1

PQL: Practical Quantitation Limit

**QUALITY CONTROL SECTION**

Client: Fugro West, Inc.  
CAS LAB NO: 111478  
Analyst: AN/GM

Date Received: 05/25/11  
Sample Matrix: Water

COMPOUND	RESULT	UNITS	DF	MDL	PQL	METHOD	ANALYZED
B.O.D.	ND	mg/L	1	0.4	2	5210 B	05/26/11
Oil and Grease	ND	mg/L	1	1	5	1664	05/31/11
MBAS	ND	mg/L	1	0.02	0.1	5540 C	05/26/11
Phenol (Total)	ND	mg/L	1	0.02	0.1	420.1	06/01/11
Residual Chlorine	ND	mg/L	1	0.02	0.1	4500CL G	05/25/11
Settleable Solid	BQL	ml/L	1	--	0.1	2540 F	05/27/11
Sulfide (Total)	ND	mg/L	1	0.004	0.02	4500S <sup>2</sup> -D	05/31/11
T.S.S.	ND	mg/L	1	1	5	2540 D	05/27/11

BQL: Below Practical Quantitation Limit  
MDL: Method Detection Limit  
PQL: Practical Quantitation Limit  
ND: Not Detected





Analytical Services, Inc.

Environmental and Analytical Services-Since 1994  
California State Accredited Laboratory in Accordance with ELAP Certificate # 2332

**Prepared for:** Fugro West, Inc.  
4820 McGrath St. Suite 100  
Ventura, CA 93003  
Attn: Alexis Spencer

**Report Date:** June 22, 2011  
**Laboratory Number:** 111700  
**Project Name:** Big Rock Mesa NPDES  
**Project No:** 3399.006  
**Sampled by:** Client

On June 15, 2011, Capco Analytical Services, Inc. (CAS), received ten(10) samples to be analyzed. The samples were identified and assigned the laboratory ID numbers listed below:

<u>SAMPLE DESCRIPTION</u>	<u>CAS LAB NUMBER ID</u>
HD-42	111700-01
BYA-H10	111700-02
HD-22	111700-03
HD-11	111700-04
HD-23	111700-05
W-18	111700-06
BYA-10	111700-07
W-3	111700-08
BYA-1	111700-09
W-16	111700-10

By my signature below, I certify that the results contained in this laboratory report comply with applicable standards for certification by the California Department of Public Health's Environmental Laboratories Accreditation Program (ELAP), both technically and for completeness, and that, based on my inquiry of the person or persons directly responsible for performing the analyses, the information submitted is, to the best of my knowledge and belief true, accurate, and complete.

Alin E. Repede, MS  
Director - Analytical Operations

If you have any further questions or concerns, please contact me at your convenience. This report consists of 10 pages excluding the cover letter and the Chain of Custody.

This report shall not be reproduced except in full without the written approval of CAS. The test results reported represent only the item being tested and may not represent the entire material from which the sample was taken.

**CERTIFICATE OF ANALYSIS**

Client: Fugro West, Inc.  
CAS LAB NO: 111700  
Analyst: AN

Date Sampled: 06/15/11  
Date Received: 06/15/11  
Date Analyzed: 06/21/11  
Sample Matrix: Water

**TOTAL PHENOL  
EPA METHOD 420.1**

CAS Lab #	Sample ID	RESULTS (mg/L)	Dilution Factor	MDL (mg/L)	PQL (mg/L)
11170001	HD-42	ND	1	0.02	0.1
11170002	BYA-H10	ND	1	0.02	0.1
11170003	HD-22	ND	1	0.02	0.1
11170004	HD-11	ND	1	0.02	0.1
11170005	HD-23	ND	1	0.02	0.1
11170006	W-18	ND	1	0.02	0.1
11170007	BYA-10	ND	1	0.02	0.1
11170008	W-3	ND	1	0.02	0.1
11170009	BYA-1	ND	1	0.02	0.1
11170010	W-16	ND	1	0.02	0.1

mg/L: Milligrams/Liter (ppm)  
MDL: Method Detection Limit  
PQL: Practical Quantitation Limit  
ND: Not Detected

**CERTIFICATE OF ANALYSIS**

Client: Fugro West, Inc.  
CAS LAB NO: 111700  
Analyst: AN

Date Sampled: 06/15/11  
Date Received: 06/15/11  
Date Analyzed: 06/16/11  
Sample Matrix: Water

**BIOCHEMICAL OXYGEN DEMAND  
SM 5210 B**

CAS Lab #	Sample ID	RESULTS (mg/L)	Dilution Factor	MDL (mg/l)	PQL (mg/L)
111700-01	HD-42	ND	1	0.40	2
111700-02	BYA-H10	1.9	1	0.40	2
111700-03	HD-22	0.89	1	0.40	2
111700-04	HD-11	ND	1	0.40	2
111700-05	HD-23	0.51	1	0.40	2
111700-06	W-18	ND	1	0.40	2
111700-07	BYA-10	ND	1	0.40	2
111700-08	W-3	ND	1	0.40	2
111700-09	BYA-1	0.78	1	0.40	2
111700-10	W-16	ND	1	0.40	2

mg/L: Milligrams/Liter (ppm)  
MDL: Method Detection Limit  
PQL: Practical Quantitation Limit  
BQL: Below Quantitation Limit  
ND: Not Detected

**CERTIFICATE OF ANALYSIS**

Client: Fugro West, Inc.  
CAS LAB NO: 111700  
Analyst: GM

Date Sampled: 06/15/11  
Date Received: 06/15/11  
Date Analyzed: 06/16/11  
Sample Matrix: Water

**OIL & GREASE**  
**EPA Method 1664**

CAS Lab #	Sample ID	RESULTS (mg/L)	Dilution Factor	MDL (mg/l)	PQL (mg/L)
111700-01	HD-42	ND	1	1	5
111700-02	BYA-H10	ND	1	1	5
111700-03	HD-22	ND	1	1	5
111700-04	HD-11	ND	1	1	5
111700-05	HD-23	1.3	1	1	5
111700-06	W-18	1.4	1	1	5
111700-07	BYA-10	1.2	1	1	5
111700-08	W-3	ND	1	1	5
111700-09	BYA-1	ND	1	1	5
111700-10	W-16	ND	1	1	5

mg/L: Milligrams/Liter (ppm)  
MDL: Method Detection Limit  
PQL: Practical Quantitation Limit  
ND: Not Detected

**CERTIFICATE OF ANALYSIS**

Client: Fugro West, Inc.  
CAS LAB NO: 111700  
Analyst: GM

Date Sampled: 06/15/11  
Date Received: 06/15/11  
Date Analyzed: 06/17/11  
Sample Matrix: Water

**MBAS  
SM 5540 C**

CAS Lab #	Sample ID	RESULTS (mg/L)	Dilution Factor	MDL (mg/l)	PQL (mg/L)
111700-01	HD-42	ND	1	0.02	0.1
111700-02	BYA-H10	ND	1	0.02	0.1
111700-03	HD-22	ND	1	0.02	0.1
111700-04	HD-11	ND	1	0.02	0.1
111700-05	HD-23	ND	1	0.02	0.1
111700-06	W-18	ND	1	0.02	0.1
111700-07	BYA-10	ND	1	0.02	0.1
111700-08	W-3	ND	1	0.02	0.1
111700-09	BYA-1	ND	1	0.02	0.1
111700-10	W-16	ND	1	0.02	0.1

mg/L: Milligrams/Liter(ppm)  
MDL: Method Detection Limit  
PQL: Practical Quantitation Limit  
ND: Not Detected



Analytical Services, Inc.

Environmental and Analytical Services-Since 1994

CERTIFICATE OF ANALYSIS

Client: Fugro West, Inc.  
CAS LAB NO: 111700  
Analyst: AN

Date Sampled: 06/15/11  
Date Received: 06/15/11  
Date Analyzed: 06/17/11  
Sample Matrix: Water

TOTAL SULFIDE  
SM 4500-S<sup>2</sup>D

CAS LAB #	Sample ID	RESULTS (mg/L)	Dilution Factor	MDL (mg/L)	PQL (mg/L)
111700-01	HD-42	ND	1	0.004	0.02
111700-02	BYA-H10	ND	1	0.004	0.02
111700-03	HD-22	ND	1	0.004	0.02
111700-04	HD-11	ND	1	0.004	0.02
111700-05	HD-23	ND	1	0.004	0.02
111700-06	W-18	ND	1	0.004	0.02
111700-07	BYA-10	ND	1	0.004	0.02
111700-08	W-3	ND	1	0.004	0.02
111700-09	BYA-1	ND	1	0.004	0.02
111700-10	W-16	ND	1	0.004	0.02

ND: Not Detected

MDL: Method Detection Limit

BQL: Below Practical Quantitation Limit

mg/L: Milligrams/Liter (ppm)

**CERTIFICATE OF ANALYSIS**

Client: Fugro West, Inc.  
CAS LAB NO: 111700  
Analyst: AN

Date Sampled: 06/15/11  
Date Received: 06/15/11  
Date Analyzed: 06/15/11  
Sample Matrix: Water

**TURBIDITY**  
**EPA Method 180.1**

CAS Lab #	Sample ID	RESULTS (NTU)	Dilution Factor	PQL (NTU)
111700-01	HD-42	0.34	1	0.1
111700-02	BYA-H10	6.2	1	0.1
111700-03	HD-22	15	1	0.1
111700-04	HD-11	0.33	1	0.1
111700-05	HD-23	2.5	1	0.1
111700-06	W-18	7.7	1	0.1
111700-07	YA-10	0.62	1	0.1
111700-08	W-3	0.47	1	0.1
111700-09	BYA-1	6.4	1	0.1
111700-10	W-16	0.16	1	0.1

PQL: Practical Quantitation Limit

**CERTIFICATE OF ANALYSIS**

Client: Fugro West, Inc.  
CAS LAB NO: 111700  
Analyst: AN

Date Sampled: 06/15/11  
Date Received: 06/15/11  
Date Analyzed: 06/16/11  
Sample Matrix: Water

**TOTAL SUSPENDED SOLIDS  
SM 2540 D**

CAS Lab #	Sample ID	RESULTS (mg/L)	Dilution Factor	MDL (mg/l)	PQL (mg/L)
111700-01	HD-42	ND	1	1	5
111700-02	BYA-H10	12	1	1	5
111700-03	HD-22	15	1	1	5
111700-04	HD-11	ND	1	1	5
111700-05	HD-23	2.0	1	1	5
111700-06	W-18	5.2	1	1	5
111700-07	BYA-10	ND	1	1	5
111700-08	W-3	ND	1	1	5
111700-09	BYA-1	5.6	1	1	5
111700-10	W-16	ND	1	1	5

mg/L: Milligrams/Liter (ppm)  
MDL: Method Detection Limit  
PQL: Practical Quantitation Limit  
ND: Not Detected

**CERTIFICATE OF ANALYSIS**

Client: Fugro West, Inc.  
CAS LAB NO: 111700  
Analyst: GM

Date Sampled: 06/15/11  
Date Received: 06/15/11  
Date Analyzed: 06/15/11  
Sample Matrix: Water

**TOTAL RESIDUAL CHLORINE  
SM 4500CL G**

CAS Lab #	Sample ID	RESULTS (mg/L)	Dilution Factor	PQL (mg/L)	MDL (mg/L)
111700-01	HD-42	BQL	1	0.1	0.02
111700-02	BYA-H10	BQL	1	0.1	0.02
111700-03	HD-22	BQL	1	0.1	0.02
111700-04	HD-11	BQL	1	0.1	0.02
111700-05	HD-23	BQL	1	0.1	0.02
111700-06	W-18	BQL	1	0.1	0.02
111700-07	BYA-10	BQL	1	0.1	0.02
111700-08	W-3	BQL	1	0.1	0.02
111700-09	BYA-1	BQL	1	0.1	0.02
111700-10	W-16	BQL	1	0.1	0.02

mg/L: Milligrams/Liter (ppm)  
PQL: Practical Quantitation Limit  
BQL: Below Quantitation Limit  
MDL: Method Detection Limit  
ND: Not Detected

**CERTIFICATE OF ANALYSIS**

Client: Fugro West, Inc.  
CAS LAB NO: 111700  
Analyst: AN

Date Sampled: 06/15/11  
Date Received: 06/15/11  
Date Analyzed: 06/15/11  
Sample Matrix: Water

**SETTLABLE SOLIDS  
SM 2540 F**

CAS Lab #	Sample ID	RESULTS (ml/L)	Dilution Factor	PQL (ml/L)
111700-01	HD-42	BQL	1	0.1
111700-02	BYA-H10	BQL	1	0.1
111700-03	HD-22	BQL	1	0.1
111700-04	HD-11	BQL	1	0.1
111700-05	HD-23	BQL	1	0.1
111700-06	W-18	BQL	1	0.1
111700-07	BYA-10	BQL	1	0.1
111700-08	W-3	BQL	1	0.1
111700-09	BYA-1	BQL	1	0.1
111700-10	W-16	BQL	1	0.1

PQL: Practical Quantitation Limit  
BQL: Below Practical Quantitation Limit

**QUALITY CONTROL SECTION**

Client: Fugro West, Inc.  
CAS LAB NO: 111700  
Analyst: AN/GM

Date Received: 06/15/11  
Sample Matrix: Water

COMPOUND	RESULT	UNITS	DF	MDL	PQL	METHOD	ANALYZED
B.O.D.	ND	mg/L	1	0.4	2	5210 B	06/16/11
Oil and Grease	ND	mg/L	1	1	5	1664	06/16/11
MBAS	ND	mg/L	1	0.02	0.1	5540 C	06/17/11
Phenol (Total)	ND	mg/L	1	0.02	0.1	420.1	06/21/11
Residual Chlorine	ND	mg/L	1	0.02	0.1	4500CL G	06/15/11
Settleable Solid	BQL	ml/L	1	--	0.1	2540 F	06/15/11
Sulfide (Total)	ND	mg/L	1	0.004	0.02	4500S <sup>2</sup> -D	06/17/11
T.S.S.	ND	mg/L	1	1	5	2540 D	06/16/11

mg/L: Milligrams/Liter (ppm)  
BQL: Below Practical Quantitation Limit  
MDL: Method Detection Limit  
PQL: Practical Quantitation Limit  
ND: Not Detected

# CAPCO ANALYTICAL SERVICES

1536 Eastman Avenue, Suite B  
 Ventura, CA 93003  
 (805) 644-1095 Fax 644-9947  
 www.capcoenv.com

## CHAIN OF CUSTODY RECORD

### REPORT

Company TERRA CONSULTANTS Fax 805 650-7010  
 Address 4620 McBRATT ST, SUITE 100  
VENTURA, CA Email ASPER@TERRACON.COM  
 Phone                      Contact ALEXIS SWEENEY

### BILL TO:

Company                      PO #                       
 Address                       
 Phone                      Contact                     

PROJ. NO  
3399006

PROJECT NAME  
BILL BARK MESA

SAMPLERS: (Signature)  
*[Signature]*

CONTAINER TYPES  
 A = AMBER B = BRASS G = GLASS  
 P = PLASTIC V = VOA VIAL O = OTHER

SAMPLE NO.	DATE SAMPLED	TIME SAMPLED	COMP	GRAB	SAMPLE IDENTIFICATION	MATRIX				CONTAINER #   TYPE	REMARKS
						WATER	SOIL	SLUDGE	OTHER		
1	6-15-11	9:35			HD-42					P/A	7.697 Temp 21.0
2		9:55			BYA-H10						7.20 21.3
3		10:15			HD-22						7.20 21.4
4		10:35			HD-11						7.19 21.3
5		11:15			HD-23						7.11 21.7
6		12:15			M-18						7.07 21.5
7		12:45			BYA-10						7.22 22.5
8		1:15			W-3						7.18 21.6
9		1:39			BYA-1						6.96 22.2
10		1:45			W-16						6.83 23.2

The undersigned hereby acknowledges having received a copy of the Fee Schedule/General Information and Conditions, the provisions of which are a part of this agreement.

Relinquished by: (Signature)  
*[Signature]*

Date/Time  
6/15/11 2:48 pm

Received by: (Signature)  
*[Signature]*

Relinquished by: (Signature)  
*[Signature]*

Date/Time  
                    

Received by: (Signature)  
                    

TURN AROUND TIME

STANDARD  OTHER   
 24 HOURS   
 48 HOURS   
 72 HOURS

CHECK ONE BOX:

DISPOSE SAMPLES   
 RETURN SAMPLES

WHITE COPY

CANARY COPY

PINK COPY

---

Prepared For: Fugro West, Inc. August 5, 2010  
4820 McGrath Street, Suite #100  
Ventura, CA 93003-7778

**ATTENTION:** Alexis Spencer

---

Laboratory No: 101858 Sampled By: Client  
Date Received: 29-JUL-10 ID: See Below  
Project: Big Rock Mesa Landslide Assessment District  
Project No: 3399.006

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**RESULTS**

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On July 29, 2010, ten (10) samples were received for analysis by Capco Analytical Services, Inc. The samples were identified and assigned the lab numbers listed below. This report consists of 6 pages excluding the cover letter and the Chain of Custody.

<u>SAMPLE DESCRIPTION</u>	<u>CAS LAB NUMBER</u>
W-17	10185801
BYA-11	10185802
W-8	10185803
BYA-4	10185804
HD-43	10185805
HD-30	10185806
HD-12	10185807
HD-10	10185808
HD-24	10185809
HD-5	10185810

  
\_\_\_\_\_  
Alin E. Repede, MS  
Director - Analytical Operations

This report shall not be reproduced except in full without the written approval of Capco Analytical Services, Inc.  
The test results reported represent only the items being tested and may not represent the entire material from which the sample was taken.

Client: Fugro West, Inc.  
CAS LAB NO: 101858  
Analyst: GM

Date Sampled: 07/29/10  
Date Received: 07/29/10  
Date Analyzed: 08/02/10  
Sample Matrix: Water

**OIL & GREASE ANALYSIS**  
**EPA Method 1664**

CAS Lab #	Sample ID	RESULTS (mg/L)	Dilution Factor	MDL (mg/l)	PQL (mg/L)
10185801	W-17	ND	1	1	5
10185802	BYA-11	ND	1	1	5
10185803	W-8	ND	1	1	5
10185804	BYA-4	ND	1	1	5
10185805	HD-43	ND	1	1	5
10185806	HD-30	ND	1	1	5
10185807	HD-12	ND	1	1	5
10185808	HD-10	ND	1	1	5
10185809	HD-24	ND	1	1	5
10185810	HD-5	ND	1	1	5

MDL: Method Detection Limit  
PQL: Practical Quantitation Limit  
ND: Not Detected

Client: Fugro West, Inc.  
CAS LAB NO: 101858  
Analyst: GM

Date Sampled: 07/29/10  
Date Received: 07/29/10  
Date Analyzed: 07/30/10  
Sample Matrix: Water

**TOTAL SUSPENDED SOLIDS ANALYSIS**  
**SM 2540 D**

CAS Lab #	Sample ID	RESULTS (mg/L)	Dilution Factor	MDL (mg/l)	PQL (mg/L)
10185801	W-17	3.5	1	1	5
10185802	BYA-11	10	1	1	5
10185803	W-8	4.0	1	1	5
10185804	BYA-4	4.0	1	1	5
10185805	HD-43	2.8	1	1	5
10185806	HD-30	ND	1	1	5
10185807	HD-12	4.0	1	1	5
10185808	HD-10	ND	1	1	5
10185809	HD-24	4.0	1	1	5
10185810	HD-5	3.5	1	1	5

MDL: Method Detection Limit  
PQL: Practical Quantitation Limit  
ND: Not Detected

Client: Fugro West, Inc.  
CAS LAB NO: 101858  
Analyst: AN

Date Sampled: 07/29/10  
Date Received: 07/29/10  
Date Analyzed: 07/30/10  
Sample Matrix: Water

**TURBIDITY ANALYSIS**  
**EPA Method 180.1**

CAS Lab #	Sample ID	RESULTS (NTU)	Dilution Factor	PQL (NTU)
10185801	W-17	0.54	1	0.1
10185802	BYA-11	4.0	1	0.1
10185803	W-8	2.3	1	0.1
10185804	BYA-4	2.9	1	0.1
10185805	HD-43	0.68	1	0.1
10185806	HD-30	0.11	1	0.1
10185807	HD-12	1.0	1	0.1
10185808	HD-10	0.12	1	0.1
10185809	HD-24	1.4	1	0.1
10185810	HD-5	5.9	1	0.1

PQL: Practical Quantitation Limit

Client: Fugro West, Inc.  
CAS LAB NO: 101858  
Analyst: AN

Date Sampled: 07/29/10  
Date Received: 07/29/10  
Date Analyzed: 07/30/10  
Sample Matrix: Water

**BIOCHEMICAL OXYGEN DEMAND ANALYSIS**  
**SM 5210 B**

CAS Lab #	Sample ID	RESULTS (mg/L)	Dilution Factor	MDL (mg/l)	PQL (mg/L)
10185801	W-17	ND	1	0.4	2
10185802	BYA-11	ND	1	0.4	2
10185803	W-8	0.77	1	0.4	2
10185804	BYA-4	0.59	1	0.4	2
10185805	HD-43	ND	1	0.4	2
10185806	HD-30	ND	1	0.4	2
10185807	HD-12	0.90	1	0.4	2
10185808	HD-10	ND	1	0.4	2
10185809	HD-24	ND	1	0.4	2
10185810	HD-5	3.9	1	0.4	2

MDL: Method Detection Limit  
PQL: Practical Quantitation Limit  
ND: Not Detected

Client: Fugro West, Inc.  
CAS LAB NO: 101858  
Analyst: AN

Date Sampled: 07/29/10  
Date Received: 07/29/10  
Date Analyzed: 07/30/10  
Sample Matrix: Water

**SETTLEABLE SOLIDS ANALYSIS**  
**SM 2540 F**

CAS Lab #	Sample ID	RESULTS (ml/L)	Dilution Factor	PQL (ml/L)
10185801	W-17	BQL	1	0.1
10185802	BYA-11	BQL	1	0.1
10185803	W-8	BQL	1	0.1
10185804	BYA-4	BQL	1	0.1
10185805	HD-43	BQL	1	0.1
10185806	HD-30	BQL	1	0.1
10185807	HD-12	BQL	1	0.1
10185808	HD-10	BQL	1	0.1
10185809	HD-24	BQL	1	0.1
10185810	HD-5	0.15	1	0.1

PQL: Practical Quantitation Limit  
BQL: Below Practical Quantitation Limit

Client: Fugro West, Inc.  
CAS LAB NO: 101858  
Analyst: AN/GM

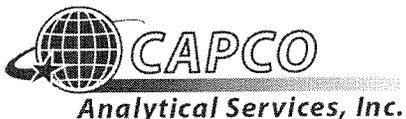
Date Received: 07/29/10  
Sample Matrix: Water

**QUALITY CONTROL DATA**

COMPOUND	RESULT	UNITS	DF	MDL	PQL	METHOD	ANALYZED
B.O.D.	ND	mg/L	1	0.4	2	5210 B	07/30/10
Oil and Grease	ND	mg/L	1	1	5	1664	08/02/10
Settleable Solid	BQL	ml/L	1	--	0.1	2540 F	07/30/10
T.S.S.	ND	mg/L	1	1	5	2540 D	07/30/10

T.S.S.: Total Suspended Solids  
BQL: Below Practical Quantitation Limit  
MDL: Method Detection Limit  
PQL: Practical Quantitation Limit  
ND: Not Detected





**Prepared for:** Fugro West, Inc.  
4820 McGrath St. Suite 100  
Ventura, CA 93003  
Attn: Alexis Spencer

**Report Date:** September 10, 2010  
**Laboratory Number:** 102179  
**Project Name:** Big Rock Mesa NPDES Sampling  
**Sampled by:** Client

On August 30, 2010, Capco Analytical Services, Inc.(CAS), received ten(10) samples to be analyzed. The samples were identified and assigned the laboratory ID numbers listed below:

<u>SAMPLE DESCRIPTION</u>	<u>CAS LAB NUMBER ID</u>
W-8	102179-01
BYA-4	102179-02
BYA-11	102179-03
W-17	102179-04
HD-43	102179-05
HD-30	102179-06
HD-12	102179-07
HD-10	102179-08
HD-24	102179-09
HD-5	102179-10

By my signature below, I certify that the results contained in this laboratory report comply with applicable standards for certification by the California Department of Public Health's Environmental Laboratories Accreditation Program (ELAP), both technically and for completeness, and that, based on my inquiry of the person or persons directly responsible for performing the analyses, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete.

Alin E. Repede, MS  
Director - Analytical Operations

If you have any further questions or concerns, please contact me at your convenience. This report consists of 11 pages excluding the cover letter and the Chain of Custody.

This report shall not be reproduced except in full without the written approval of CAS. The test results reported represent only the item being tested and may not represent the entire material from which the sample was taken.

Client: Fugro West, Inc.  
CAS LAB NO: 102179  
Analyst: GM

Date Sampled: 08/30/10  
Date Received: 08/30/10  
Date Analyzed: 09/02/10  
Sample Matrix: Water

**OIL & GREASE ANALYSIS**  
**EPA Method 1664**

CAS Lab #	Sample ID	RESULTS (mg/L)	Dilution Factor	MDL (mg/l)	PQL (mg/L)
10217901	W-17	ND	1	1	5
10217902	BYA-4	ND	1	1	5
10217903	BYA-11	ND	1	1	5
10217904	W-17	ND	1	1	5
10217905	HD-43	ND	1	1	5
10217906	HD-30	ND	1	1	5
10217907	HD-12	ND	1	1	5
10217908	HD-10	ND	1	1	5
10217909	HD-24	ND	1	1	5
10217910	HD-5	ND	1	1	5

MDL: Method Detection Limit  
PQL: Practical Quantitation Limit  
ND: Not Detected

Client: Fugro West, Inc.  
CAS LAB NO: 102179  
Analyst: AN

Date Sampled: 08/30/10  
Date Received: 08/30/10  
Date Analyzed: 08/31/10  
Sample Matrix: Water

**BIOCHEMICAL OXYGEN DEMAND ANALYSIS**  
**SM 5210 B**

CAS Lab #	Sample ID	RESULTS (mg/L)	Dilution Factor	MDL (mg/l)	PQL (mg/L)
10217901	W-8	0.94	1	0.4	2
10217902	BYA-4	0.62	1	0.4	2
10217903	BYA-11	0.65	1	0.4	2
10217904	W-17	0.75	1	0.4	2
10217905	HD-43	0.74	1	0.4	2
10217906	HD-30	0.91	1	0.4	2
10217907	HD-12	1.1	1	0.4	2
10217908	HD-10	0.80	1	0.4	2
10217909	HD-24	0.72	1	0.4	2
10217910	HD-5	3.5	1	0.4	2

MDL: Method Detection Limit  
PQL: Practical Quantitation Limit  
ND: Not Detected

Client: Fugro West, Inc.  
CAS LAB NO: 102179  
Analyst: AN

Date Sampled: 08/30/10  
Date Received: 08/30/10  
Date Analyzed: 09/02/10  
Sample Matrix: Water

**TOTAL SULFIDE ANALYSIS**  
**SM 4500-S<sup>2</sup>D**

CAS LAB #	Sample ID	RESULTS (mg/L)	Dilution Factor	MDL (mg/L)	PQL (mg/L)
10217901	W-8	ND	1	0.004	0.02
10217902	BYA-4	ND	1	0.004	0.02
10217903	BYA-11	ND	1	0.004	0.02
10217904	W-17	ND	1	0.004	0.02
10217905	HD-43	ND	1	0.004	0.02
10217906	HD-30	ND	1	0.004	0.02
10217907	HD-12	ND	1	0.004	0.02
10217908	HD-10	ND	1	0.004	0.02
10217909	HD-24	ND	1	0.004	0.02
10217910	HD-5	ND	1	0.004	0.02

ND: Not Detected  
MDL: Method Detection Limit  
BQL: Below Practical Quantitation Limit

Client: Fugro West, Inc.  
CAS LAB NO: 102179  
Analyst: GM

Date Sampled: 08/30/10  
Date Received: 08/30/10  
Date Analyzed: 09/01/10  
Sample Matrix: Water

**TOTAL SUSPENDED SOLIDS ANALYSIS**  
**SM 2540 D**

CAS Lab #	Sample ID	RESULTS (mg/L)	Dilution Factor	MDL (mg/l)	PQL (mg/L)
10217901	W-17	ND	1	1	5
10217902	BYA-4	ND	1	1	5
10217903	BYA-11	ND	1	1	5
10217904	W-17	ND	1	1	5
10217905	HD-43	ND	1	1	5
10217906	HD-30	ND	1	1	5
10217907	HD-12	ND	1	1	5
10217908	HD-10	ND	1	1	5
10217909	HD-24	ND	1	1	5
10217910	HD-5	8.0	1	1	5

MDL: Method Detection Limit  
PQL: Practical Quantitation Limit  
ND: Not Detected

Client: Fugro West, Inc.  
CAS LAB NO: 102179  
Analyst: GM

Date Sampled: 08/30/10  
Date Received: 08/30/10  
Date Analyzed: 08/30/10  
Sample Matrix: Water

**pH ANALYSIS**  
**SM 4500-<sup>H+</sup> B**

CAS Lab #	Sample ID	RESULTS (S.U.)
10217901	W-8	6.9
10217902	BYA-4	7.2
10217903	BYA-11	7.1
10217904	W-17	7.0
10217905	HD-43	7.7
10217906	HD-30	7.4
10217907	HD-12	7.3
10217908	HD-10	7.4
10217909	HD-24	7.9
10217910	HD-5	7.5

Client: Fugro West, Inc.  
CAS LAB NO: 102179  
Analyst: AN

Date Sampled: 08/30/10  
Date Received: 08/30/10  
Date Analyzed: 09/07/10  
Sample Matrix: Water

**TOTAL PHENOL ANALYSIS**  
**EPA METHOD 420.1**

CAS Lab #	Sample ID	RESULTS (mg/L)	Dilution Factor	MDL (mg/L)	PQL (mg/L)
10217901	W-8	ND	1	0.02	0.1
10217902	BYA-4	ND	1	0.02	0.1
10217903	BYA-11	ND	1	0.02	0.1
10217904	W-17	ND	1	0.02	0.1
10217905	HD-43	ND	1	0.02	0.1
10217906	HD-30	ND	1	0.02	0.1
10217907	HD-12	ND	1	0.02	0.1
10217908	HD-10	ND	1	0.02	0.1
10217909	HD-24	ND	1	0.02	0.1
10217910	HD-5	ND	1	0.02	0.1

MDL: Method Detection Limit  
PQL: Practical Quantitation Limit  
ND: Not Detected

Client: Fugro West, Inc.  
CAS LAB NO: 102179  
Analyst: GM

Date Sampled: 08/30/10  
Date Received: 08/30/10  
Date Analyzed: 09/01/10  
Sample Matrix: Water

**MBAS ANALYSIS**  
**SM 5540 C**

CAS Lab #	Sample ID	RESULTS (mg/L)	Dilution Factor	MDL (mg/l)	PQL (mg/L)
10217901	W-8	ND	1	0.02	0.1
10217902	BYA-4	ND	1	0.02	0.1
10217903	BYA-11	ND	1	0.02	0.1
10217904	W-17	ND	1	0.02	0.1
10217905	HD-43	ND	1	0.02	0.1
10217906	HD-30	ND	1	0.02	0.1
10217907	HD-12	ND	1	0.02	0.1
10217908	HD-10	ND	1	0.02	0.1
10217909	HD-24	ND	1	0.02	0.1
10217910	HD-5	ND	1	0.02	0.1

MDL: Method Detection Limit  
PQL: Practical Quantitation Limit  
ND: Not Detected

Client: Fugro West, Inc.  
CAS LAB NO: 102179  
Analyst: AN

Date Sampled: 08/30/10  
Date Received: 08/30/10  
Date Analyzed: 08/31/10  
Sample Matrix: Water

**SETTLEABLE SOLIDS ANALYSIS**  
**SM 2540 F**

CAS Lab #	Sample ID	RESULTS (ml/L)	Dilution Factor	PQL (ml/L)
10217901	W-8	BQL	1	0.1
10217902	BYA-4	BQL	1	0.1
10217903	BYA-11	BQL	1	0.1
10217904	W-17	BQL	1	0.1
10217905	HD-43	BQL	1	0.1
10217906	HD-30	BQL	1	0.1
10217907	HD-12	BQL	1	0.1
10217908	HD-10	BQL	1	0.1
10217909	HD-24	BQL	1	0.1
10217910	HD-5	BQL	1	0.1

PQL: Practical Quantitation Limit  
BQL: Below Practical Quantitation Limit

Client: Fugro West, Inc.  
CAS LAB NO: 102179  
Analyst: AN

Date Sampled: 08/30/10  
Date Received: 08/30/10  
Date Analyzed: 08/31/10  
Sample Matrix: Water

**TOTAL RESIDUAL CHLORINE ANALYSIS**  
**SM 4500CL B**

CAS Lab #	Sample ID	RESULTS (mg/L)	Dilution Factor	PQL (mg/L)
10217901	W-8	BQL	1	0.1
10217902	BYA-4	BQL	1	0.1
10217903	BYA-11	BQL	1	0.1
10217904	W-17	BQL	1	0.1
10217905	HD-43	BQL	1	0.1
10217906	HD-30	BQL	1	0.1
10217907	HD-12	BQL	1	0.1
10217908	HD-10	BQL	1	0.1
10217909	HD-24	BQL	1	0.1
10217910	HD-5	BQL	1	0.1

PQL: Practical Quantitation Limit  
BQL: Below Practical Quantitation Limit

Client: Fugro West, Inc.  
CAS LAB NO: 102179  
Analyst: AN

Date Sampled: 08/30/10  
Date Received: 08/30/10  
Date Analyzed: 08/31/10  
Sample Matrix: Water

**TURBIDITY ANALYSIS**  
**EPA Method 180.1**

CAS Lab #	Sample ID	RESULTS (NTU)	Dilution Factor	PQL (NTU)
10217901	W-8	BQL	1	0.1
10217902	BYA-4	0.18	1	0.1
10217903	BYA-11	0.16	1	0.1
10217904	W-17	0.14	1	0.1
10217905	HD-43	BQL	1	0.1
10217906	HD-30	BQL	1	0.1
10217907	HD-12	0.10	1	0.1
10217908	HD-10	BQL	1	0.1
10217909	HD-24	0.18	1	0.1
10217910	HD-5	4.9	1	0.1

PQL: Practical Quantitation Limit

Client: Fugro West, Inc.  
CAS LAB NO: 102179  
Analyst: AN/GM

Date Received: 08/30/10  
Sample Matrix: Water

**QUALITY CONTROL REPORT**

COMPOUND	RESULT	UNITS	DF	MDL	PQL	METHOD	ANALYZED
B.O.D.	ND	mg/L	1	0.4	2	5210 B	08/31/10
Oil and Grease	ND	mg/L	1	1	5	1664	09/02/10
MBAS	ND	mg/L	1	0.02	0.1	5540 C	09/01/10
Phenol (Total)	ND	mg/L	1	0.02	0.1	420.1	09/07/10
Residual Chlorine	BQL	mg/L	1	--	0.1	4500CL B	08/31/10
Settleable Solid	BQL	ml/L	1	--	0.1	2540 F	08/31/10
Sulfide (Total)	ND	mg/L	1	0.004	0.02	4500S <sup>2</sup> -D	09/02/10
T.S.S.	ND	mg/L	1	1	5	2540 D	09/01/10

BQL: Below Practical Quantitation Limit  
MDL: Method Detection Limit  
PQL: Practical Quantitation Limit  
ND: Not Detected

# CAPCO ANALYTICAL SERVICES

1536 Eastman Avenue, Suite B  
 Ventura, CA 93003  
 (805) 644-1095 Fax 644-9947  
 www.capcoenv.com

## CHAIN OF CUSTODY RECORD

### REPORT

Company Fugro West  
 Address 4820 McOntk St., Ste. 100  
Ventura, CA Email tnicely@fugro.com  
 Phone 805-650-7000 Contact \_\_\_\_\_

Fax \_\_\_\_\_

### BILL TO:

Company \_\_\_\_\_  
 Address \_\_\_\_\_  
 Phone \_\_\_\_\_ Contact \_\_\_\_\_

P.O.# \_\_\_\_\_

PROJ. NO. \_\_\_\_\_ PROJECT NAME Big Rock Mesa NPDES Sampling

SAMPLERS: (Signature) \_\_\_\_\_  
 CONTAINER TYPES  
 A = AMBER B = BRASS G = GLASS  
 P = PLASTIC V = VOA VIAL O = OTHER

SAMPLE NO.	DATE SAMPLED	TIME SAMPLED	GPS	SAMPLE IDENTIFICATION	MATRIX			CONTAINER #	TYPE	REMARKS
					WATER	SOIL	SLUDGE/OTHER			
1	8/30/10	1155		W-8						PH: 7.04 T <sub>sp</sub> : 22.38
2		1230		BYA-4						7.24 22.4
3		1315		BYA-11						7.38 23.0
4		1340		W-17						7.45 22.5
5		1400		HD-43						7.76 26.6
6		1415		HD-30						7.33 22.4
7		1430		HD-12						7.40 22.4
8		1445		HD-10						7.45 22.4
9		1500		HD-24						7.77 22.8
10		1530		HD-5						8.06 22.6

ANALYSIS  
 MBAS, PH, S, S.I.  
 TSS, CL, T, C, P, I, T, H  
 BOD, C, O, G  
 S.I.C.T.S.  
 P, M, S, L.S.  
 102179

The undersigned hereby acknowledges having received a copy of the Fee Schedule/General Information and Conditions, the provisions of which are a part of this agreement.

Relinquished by: (Signature) _____	Date/Time 8/30/2010 1700	Received by: (Signature) <u>[Signature]</u>
Relinquished by: (Signature) _____	Date/Time	Received by: (Signature) _____

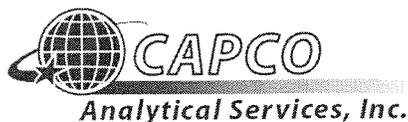
TURN AROUND TIME  
 STANDARD  OTHER \_\_\_\_\_  
 24 HOURS   
 48 HOURS   
 72 HOURS

CHECK ONE BOX:  
 DISPOSE SAMPLES   
 RETURN SAMPLES

WHITE COPY

CANARY COPY

PINK COPY



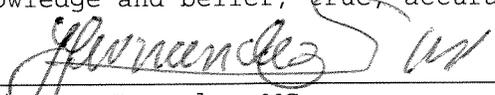
**Prepared for:** Fugro West, Inc.  
4820 McGrath St. Suite 100  
Ventura, CA 93003  
Attn: Tim Nicely

**Report Date:** September 27, 2010  
**Laboratory Number:** 102375  
**Project Name:** Big Rock Mesa NPDES Sampling  
**Project No:** 3399.  
**Sampled by:** Client

On September 17, 2010, Capco Analytical Services, Inc.(CAS), received ten(10) samples to be analyzed. The samples were identified and assigned the laboratory ID numbers listed below:

<u>SAMPLE DESCRIPTION</u>	<u>CAS LAB NUMBER ID</u>
BYA-4	102375-01
W-8	102375-02
W-17	102375-03
BYA-11	102375-04
HD-43	102375-05
HD-30	102375-06
HD-12	102375-07
HD-10	102375-08
HD-24	102375-09
HD-5	102375-10

By my signature below, I certify that the results contained in this laboratory report comply with applicable standards for certification by the California Department of Public Health's Environmental Laboratories Accreditation Program (ELAP), both technically and for completeness, and that, based on my inquiry of the person or persons directly responsible for performing the analyses, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete.

  
\_\_\_\_\_  
Alim E. Repede, MS  
Director - Analytical Operations

If you have any further questions or concerns, please contact me at your convenience. This report consists of 6 pages excluding the cover letter and the Chain of Custody.

This report shall not be reproduced except in full without the written approval of CAS. The test results reported represent only the item being tested and may not represent the entire material from which the sample was taken.

Client: Fugro West, Inc.  
CAS LAB NO: 102375  
Analyst: LM

Date Sampled: 09/17/10  
Date Received: 09/17/10  
Date Analyzed: 09/19/10  
Sample Matrix: Water

**TOTAL SUSPENDED SOLIDS ANALYSIS**  
**SM 2540 D**

CAS Lab #	Sample ID	RESULTS (mg/L)	Dilution Factor	MDL (mg/l)	PQL (mg/L)
10237501	BYA-4	ND	1	1	5
10237502	W-8	ND	1	1	5
10237503	W-17	ND	1	1	5
10237504	BYA-11	ND	1	1	5
10237505	HD-43	ND	1	1	5
10237506	HD-30	ND	1	1	5
10237507	HD-12	ND	1	1	5
10237508	HD-10	ND	1	1	5
10237509	HD-24	5.2	1	1	5
10237510	HD-5	2.8	1	1	5

MDL: Method Detection Limit  
PQL: Practical Quantitation Limit  
ND: Not Detected

Client: Fugro West, Inc.  
CAS LAB NO: 102375  
Analyst: AN

Date Sampled: 09/17/10  
Date Received: 09/17/10  
Date Analyzed: 09/17/10  
Sample Matrix: Water

**BIOCHEMICAL OXYGEN DEMAND ANALYSIS**  
**SM 5210 B**

CAS Lab #	Sample ID	RESULTS (mg/L)	Dilution Factor	MDL (mg/l)	PQL (mg/L)
10237501	BYA-4	ND	1	0.4	2
10237502	W-8	ND	1	0.4	2
10237503	W-17	ND	1	0.4	2
10237504	BYA-11	0.51	1	0.4	2
10237505	HD-43	ND	1	0.4	2
10237506	HD-30	ND	1	0.4	2
10237507	HD-12	ND	1	0.4	2
10237508	HD-10	ND	1	0.4	2
10237509	HD-24	ND	1	0.4	2
10237510	HD-5	ND	1	0.4	2

MDL: Method Detection Limit  
PQL: Practical Quantitation Limit  
ND: Not Detected

Client: Fugro West, Inc.  
CAS LAB NO: 102375  
Analyst: HK

Date Sampled: 09/17/10  
Date Received: 09/17/10  
Date Analyzed: 09/20/10  
Sample Matrix: Water

**OIL & GREASE ANALYSIS**  
**EPA Method 1664**

CAS Lab #	Sample ID	RESULTS (mg/L)	Dilution Factor	MDL (mg/l)	PQL (mg/L)
10237501	BYA-4	1.2	1	1	5
10237502	W-8	ND	1	1	5
10237503	W-17	ND	1	1	5
10237504	BYA-11	ND	1	1	5
10237505	HD-43	ND	1	1	5
10237506	HD-30	1.5	1	1	5
10237507	HD-12	ND	1	1	5
10237508	HD-10	ND	1	1	5
10237509	HD-24	ND	1	1	5
10237510	HD-5	ND	1	1	5

MDL: Method Detection Limit  
PQL: Practical Quantitation Limit  
ND: Not Detected

Client: Fugro West, Inc.  
CAS LAB NO: 102375  
Analyst: LM

Date Sampled: 09/17/10  
Date Received: 09/17/10  
Date Analyzed: 09/17/10  
Sample Matrix: Water

**TURBIDITY ANALYSIS**  
**EPA Method 180.1**

CAS Lab #	Sample ID	RESULTS (NTU)	Dilution Factor	PQL (NTU)
10237501	BYA-4	0.34	1	0.1
10237502	W-8	0.17	1	0.1
10237503	W-17	0.22	1	0.1
10237504	BYA-11	0.17	1	0.1
10237505	HD-43	0.21	1	0.1
10237506	HD-30	0.14	1	0.1
10237507	HD-12	0.11	1	0.1
10237508	HD-10	0.24	1	0.1
10237509	HD-24	2.0	1	0.1
10237510	HD-5	0.43	1	0.1

PQL: Practical Quantitation Limit

Client: Fugro West, Inc.  
CAS LAB NO: 102375  
Analyst: AN

Date Sampled: 09/17/10  
Date Received: 09/17/10  
Date Analyzed: 09/17/10  
Sample Matrix: Water

**SETTLEABLE SOLIDS ANALYSIS**  
**SM 2540 F**

CAS Lab #	Sample ID	RESULTS (ml/L)	Dilution Factor	PQL (ml/L)
10237501	BYA-4	BQL	1	0.1
10237502	W-8	BQL	1	0.1
10237503	W-17	BQL	1	0.1
10237504	BYA-11	BQL	1	0.1
10237505	HD-43	BQL	1	0.1
10237506	HD-30	BQL	1	0.1
10237507	HD-12	BQL	1	0.1
10237508	HD-10	BQL	1	0.1
10237509	HD-24	BQL	1	0.1
10237510	HD-5	BQL	1	0.1

PQL: Practical Quantitation Limit  
BQL: Below Practical Quantitation Limit

Client: Fugro West, Inc.  
 CAS LAB NO: 102375  
 Analyst: AN/HK/LM

Date Received: 09/17/10  
 Sample Matrix: Water

**QUALITY CONTROL DATA**

COMPOUND	RESULT	UNITS	DF	MDL	PQL	METHOD	ANALYZED
B.O.D.	ND	mg/L	1	0.4	2	5210 B	09/17/10
Oil and Grease	ND	mg/L	1	1	5	1664	09/17/10
Settleable Solid	BQL	ml/L	1	--	0.1	2540 F	09/17/10
T.S.S.	ND	mg/L	1	1	5	2540 D	09/17/10

BQL: Below Practical Quantitation Limit  
 MDL: Method Detection Limit  
 PQL: Practical Quantitation Limit  
 ND: Not Detected





Analytical Services, Inc.

Environmental and Analytical Services-Since 1994  
California State Accredited Laboratory in Accordance with ELAP Certificate # 2332

**Prepared for:** Fugro West, Inc.  
4820 McGrath St. Suite 100  
Ventura, CA 93003  
Attn: Tim Nicely

**Report Date:** November 10, 2010  
**Laboratory Number:** 102971  
**Project Name:** Big Rock Mesa NPDES Sampling  
**Project No:** 3399.006  
**Sampled by:** Client

On October 29, 2010, Capco Analytical Services, Inc. (CAS), received nine(9) samples to be analyzed. The samples were identified and assigned the laboratory ID numbers listed below:

<u>SAMPLE DESCRIPTION</u>	<u>CAS LAB NUMBER ID</u>
W-2	102971-01
W-16	102971-02
W-17	102971-03
BYA-9	102971-04
W-18	102971-05
HD-33	102971-06
BYA-H10	102971-07
HD-22	102971-08
HD-23	102971-09
BYA-7	

By my signature below, I certify that the results contained in this laboratory report comply with applicable standards for certification by the California Department of Public Health's Environmental Laboratories Accreditation Program (ELAP), both technically and for completeness, and that, based on my inquiry of the person or persons directly responsible for performing the analyses, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete.

Alin E. Repede, MS  
Director - Analytical Operations

If you have any further questions or concerns, please contact me at your convenience. This report consists of 11 pages, excluding the cover letter and the Chain of Custody.

This report shall not be reproduced except in full without the written approval of CAS. The test results reported represent only the item being tested and may not represent the entire material from which the sample was taken.

Client: Fugro West, Inc.  
CAS LAB NO: 102971  
Analyst: AN

Date Sampled: 10/29/10  
Date Received: 10/29/10  
Date Analyzed: 11/05/10  
Sample Matrix: Water

**TOTAL PHENOL ANALYSIS**  
**EPA METHOD 420.1**

CAS Lab #	Sample ID	RESULTS (mg/L)	Dilution Factor	MDL (mg/L)	PQL (mg/L)
10297101	W-2	ND	1	0.02	0.1
10297102	W-16	ND	1	0.02	0.1
10297103	W-17	ND	1	0.02	0.1
10297104	BYA-9	ND	1	0.02	0.1
10297105	W-18	ND	1	0.02	0.1
10297106	HD-33	ND	1	0.02	0.1
10297107	BYA-H10	ND	1	0.02	0.1
10297108	HD-22	ND	1	0.02	0.1
10297109	HD-23	ND	1	0.02	0.1

MDL: Method Detection Limit  
PQL: Practical Quantitation Limit  
ND: Not Detected

Client: Fugro West, Inc.  
CAS LAB NO: 102971  
Analyst: LM

Date Sampled: 10/29/10  
Date Received: 10/29/10  
Date Analyzed: 11/03/10  
Sample Matrix: Water

**TURBIDITY ANALYSIS**  
**EPA Method 180.1**

CAS Lab #	Sample ID	RESULTS (NTU)	Dilution Factor	PQL (NTU)
10297101	W-2	0.44	1	0.1
10297102	W-16	0.40	1	0.1
10297103	W-17	0.39	1	0.1
10297104	BYA-9	5.86	1	0.1
10297105	W-18	4.56	1	0.1
10297106	HD-33	0.94	1	0.1
10297107	BYA-H10	1.42	1	0.1
10297108	HD-22	12.1	1	0.1
10297109	HD-23	0.46	1	0.1

PQL: Practical Quantitation Limit

Client: Fugro West, Inc.  
CAS LAB NO: 102971  
Analyst: LM

Date Sampled: 10/29/10  
Date Received: 10/29/10  
Date Analyzed: 11/01/10  
Sample Matrix: Water

**TOTAL SUSPENDED SOLIDS ANALYSIS**  
**SM 2540 D**

CAS Lab #	Sample ID	RESULTS (mg/L)	Dilution Factor	MDL (mg/l)	PQL (mg/L)
10297101	W-2	ND	1	1	5
10297102	W-16	ND	1	1	5
10297103	W-17	ND	1	1	5
10297104	BYA-9	1.6	1	1	5
10297105	W-18	ND	1	1	5
10297106	HD-33	1.2	1	1	5
10297107	BYA-H10	1.6	1	1	5
10297108	HD-22	4.8	1	1	5
10297109	HD-23	ND	1	1	5

MDL: Method Detection Limit  
PQL: Practical Quantitation Limit  
ND: Not Detected

Client: Fugro West, Inc.  
CAS LAB NO: 102971  
Analyst: GM

Date Sampled: 10/29/10  
Date Received: 10/29/10  
Date Analyzed: 11/02/10  
Sample Matrix: Water

**OIL & GREASE ANALYSIS**  
**EPA Method 1664**

CAS Lab #	Sample ID	RESULTS (mg/L)	Dilution Factor	MDL (mg/l)	PQL (mg/L)
10297101	W-2	ND	1	1	5
10297102	W-16	ND	1	1	5
10297103	W-17	ND	1	1	5
10297104	BYA-9	ND	1	1	5
10297105	W-18	ND	1	1	5
10297106	HD-33	ND	1	1	5
10297107	BYA-H10	ND	1	1	5
10297108	HD-22	ND	1	1	5
10297109	HD-23	ND	1	1	5

MDL: Method Detection Limit  
PQL: Practical Quantitation Limit  
ND: Not Detected

Client: Fugro West, Inc.  
CAS LAB NO: 102971  
Analyst: AN

Date Sampled: 10/29/10  
Date Received: 10/29/10  
Date Analyzed: 10/29/10  
Sample Matrix: Water

**BIOCHEMICAL OXYGEN DEMAND ANALYSIS**  
**SM 5210 B**

CAS Lab #	Sample ID	RESULTS (mg/L)	Dilution Factor	MDL (mg/l)	PQL (mg/L)
10297101	W-2	ND	1	0.4	2
10297102	W-16	ND	1	0.4	2
10297103	W-17	ND	1	0.4	2
10297104	BYA-9	ND	1	0.4	2
10297105	W-18	ND	1	0.4	2
10297106	HD-33	ND	1	0.4	2
10297107	BYA-H10	ND	1	0.4	2
10297108	HD-22	ND	1	0.4	2
10297109	HD-23	0.45	1	0.4	2

MDL: Method Detection Limit  
PQL: Practical Quantitation Limit  
ND: Not Detected

Client: Fugro West, Inc.  
CAS LAB NO: 102971  
Analyst: AN

Date Sampled: 10/29/10  
Date Received: 10/29/10  
Date Analyzed: 11/01/10  
Sample Matrix: Water

**TOTAL SULFIDE ANALYSIS**  
**SM 4500-S<sup>-2</sup>D**

CAS LAB #	Sample ID	RESULTS (mg/L)	Dilution Factor	MDL (mg/L)	PQL (mg/L)
10297101	W-2	ND	1	0.004	0.02
10297102	W-16	ND	1	0.004	0.02
10297103	W-17	ND	1	0.004	0.02
10297104	BYA-9	ND	1	0.004	0.02
10297105	W-18	ND	1	0.004	0.02
10297106	HD-33	ND	1	0.004	0.02
10297107	BYA-H10	ND	1	0.004	0.02
10297108	HD-22	ND	1	0.004	0.02
10297109	HD-23	ND	1	0.004	0.02

ND: Not Detected  
MDL: Method Detection Limit  
BQL: Below Practical Quantitation Limit

Client: Fugro West, Inc.  
CAS LAB NO: 102971  
Analyst: GM

Date Sampled: 10/29/10  
Date Received: 10/29/10  
Date Analyzed: 11/01/10  
Sample Matrix: Water

**MBAS ANALYSIS**  
**SM 5540 C**

CAS Lab #	Sample ID	RESULTS (mg/L)	Dilution Factor	MDL (mg/l)	PQL (mg/L)
10297101	W-2	ND	1	0.02	0.1
10297102	W-16	ND	1	0.02	0.1
10297103	W-17	ND	1	0.02	0.1
10297104	BYA-9	ND	1	0.02	0.1
10297105	W-18	ND	1	0.02	0.1
10297106	HD-33	ND	1	0.02	0.1
10297107	BYA-H10	ND	1	0.02	0.1
10297108	HD-22	ND	1	0.02	0.1
10297109	HD-23	ND	1	0.02	0.1

MDL: Method Detection Limit  
PQL: Practical Quantitation Limit  
ND: Not Detected

Client: Fugro West, Inc.  
CAS LAB NO: 102971  
Analyst: AN

Date Sampled: 10/29/10  
Date Received: 10/29/10  
Date Analyzed: 10/29/10  
Sample Matrix: Water

**TOTAL RESIDUAL CHLORINE ANALYSIS**  
**SM 4500CL C (COLORIMETRIC)**

CAS Lab #	Sample ID	RESULTS (mg/L)	Dilution Factor	PQL (mg/L)
10297101	W-2	BQL	1	0.05
10297102	W-16	BQL	1	0.05
10297103	W-17	BQL	1	0.05
10297104	BYA-9	BQL	1	0.05
10297105	W-18	BQL	1	0.05
10297106	HD-33	BQL	1	0.05
10297107	BYA-H10	BQL	1	0.05
10297108	HD-22	BQL	1	0.05
10297109	HD-23	BQL	1	0.05

PQL: Practical Quantitation Limit  
BQL: Below Practical Quantitation Limit

Client: Fugro West, Inc.  
CAS LAB NO: 102971  
Analyst: AN

Date Sampled: 10/29/10  
Date Received: 10/29/10  
Date Analyzed: 11/01/10  
Sample Matrix: Water

**SETTLEABLE SOLIDS ANALYSIS**

**SM 2540 F**

CAS Lab #	Sample ID	RESULTS (ml/L)	Dilution Factor	PQL (ml/L)
10297101	W-2	BQL	1	0.1
10297102	W-16	BQL	1	0.1
10297103	W-17	BQL	1	0.1
10297104	BYA-9	BQL	1	0.1
10297105	W-18	BQL	1	0.1
10297106	HD-33	BQL	1	0.1
10297107	BYA-H10	BQL	1	0.1
10297108	HD-22	BQL	1	0.1
10297109	HD-23	BQL	1	0.1

PQL: Practical Quantitation Limit  
BQL: Below Practical Quantitation Limit

Client: Fugro West, Inc.  
CAS LAB NO: 102971  
Analyst: CR

Date Sampled: 10/29/10  
Date Received: 10/29/10  
Date Analyzed: 11/01/10  
Sample Matrix: Water

**TOTAL CHLORIDE ANALYSIS**  
**EPA Method 300.0**

CAS Lab #	Sample ID	RESULTS (mg/L)	Dilution Factor	MDL (mg/L)	PQL (mg/L)
10297101	W-2	190	1	0.06	0.3
10297102	W-16	220	1	0.06	0.3
10297103	W-17	130	1	0.06	0.3
10297104	BYA-9	190	2	0.12	0.6
10297105	W-18	230	2	0.12	0.6
10297106	HD-33	390	5	0.3	1.5
10297107	BYA-H10	200	1	0.06	0.3
10297108	HD-22	380	4	0.24	1.2
10297109	HD-23	440	4	0.24	1.2

PQL: Practical Quantitation Limit  
MDL: Method Detection Limit  
ND: Not Detected

Client: Fugro West, Inc.  
CAS LAB NO: 102971  
Analyst: AN/GM/LM/CR

Date Received: 10/29/10  
Sample Matrix: Water

QUALITY CONTROL DATA

COMPOUND	RESULT	UNITS	DF	MDL	PQL	METHOD	ANALYZED
B.O.D.	ND	mg/L	1	0.4	2	5210 B	10/29/10
Chloride (Total)	ND	mg/L	1	0.06	0.3	300.0	11/01/10
Oil and Grease	ND	mg/L	1	1	5	1664	11/02/10
MBAS	ND	mg/L	1	0.02	0.1	5540 C	11/01/10
Phenol (Total)	ND	mg/L	1	0.02	0.1	420.1	11/05/10
Residual Chlorine	BQL	mg/L	1	--	0.054500	CL C	10/29/10
Settleable Solid	BQL	ml/L	1	--	0.1	2540 F	11/01/10
Sulfide (Total)	ND	mg/L	1	0.004	0.02	4500S <sup>2</sup> -D	11/01/10
T.S.S.	ND	mg/L	1	1	5	2540 D	11/01/10

BQL: Below Practical Quantitation Limit  
MDL: Method Detection Limit  
PQL: Practical Quantitation Limit  
ND: Not Detected

# CAPCO ANALYTICAL SERVICES

1536 Eastman Avenue, Suite B  
 Ventura, CA 93003  
 (805) 644-1095 Fax 644-9947  
 www.capcoenv.com

## CHAIN OF CUSTODY RECORD

PROJ. NO. 3399.006 PROJECT NAME Big Rock Mesa MPDES Sampling

SAMPLERS: (Signature) L. J. [Signature]

### CONTAINER TYPES

A = AMBER B = BRASS G = GLASS  
 P = PLASTIC V = VOA VIAL O = OTHER

SAMPLE NO.	DATE SAMPLED	TIME SAMPLED	GROSS WEIGHT	NET WEIGHT	SAMPLE IDENTIFICATION	MATRIX			CONTAINER #	TYPE	REMARKS
						WATER	SOIL	SLUDGE/OTHER			
1	10/29/10	11:00	✓		V1-Z				5		PH = 6.80 1808 EC(=5/L)
2		11:20			W-16						6.85 1812
3		11:45			V1-17						7.15 1240
4		12:45			BYA-9						6.81 2840
5		13:40			W-18						7.01 2840
6		14:20			HID-33						7.02 4050
7		14:50			BYA-H10						7.10 1649
8		15:15			HD-22						7.21 3160
9		15:30			HID-23						7.03 3550

**REPORT** Company Fuava Fax \_\_\_\_\_  
 Address 4820 McGrath St., Ste. 100  
Ventura Email l.j.nicely@fuava.com  
 Phone 289-3836 Contact Jim Nicely

**BILL TO:** Company \_\_\_\_\_  
 Address \_\_\_\_\_  
 Phone \_\_\_\_\_ Contact \_\_\_\_\_

**P.O.#** \_\_\_\_\_

102971

ANALYSIS

TSS, TOC, BOD  
 G.I.F. Grease  
 Seth S.I., S.G.  
 Phelps MBAS  
 Chlo. Deq. Res. Chlo. Deq.

The undersigned hereby acknowledges having received a copy of the Fee Schedule/General Information and Conditions, the provisions of which are a part of this agreement.

Relinquished by: (Signature) L. J. [Signature] Date/Time 10/29/2010 17:00 Received by: (Signature) [Signature]

Relinquished by: (Signature) \_\_\_\_\_ Date/Time \_\_\_\_\_ Received by: (Signature) \_\_\_\_\_

TURN AROUND TIME  
 STANDARD  
 24 HOURS  
 48 HOURS  
 72 HOURS  
 OTHER \_\_\_\_\_

CHECK ONE BOX:  
 DISPOSE SAMPLES  
 RETURN SAMPLES

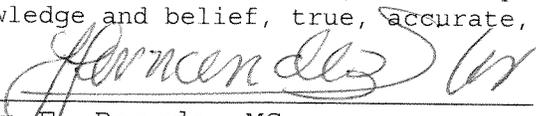
**Prepared for:** Fugro West, Inc.  
4820 McGrath St. Suite 100  
Ventura, CA 93003  
Attn: Tim Nicely

**Report Date:** December 6, 2010  
**Laboratory Number:** 103140  
**Project Name:** Big Rock Mesa NPDES Sampling  
**Project No:** 3399.006  
**Sampled by:** Client

On November 16, 2010, Capco Analytical Services, Inc. (CAS), received nine(9) samples to be analyzed. The samples were identified and assigned the laboratory ID numbers listed below:

<u>SAMPLE DESCRIPTION</u>	<u>CAS LAB NUMBER ID</u>
W-2	103140-01
W-16	103140-02
BYA-9	103140-03
W-18	103140-04
W-17	103140-05
HD-42	103140-06
BYA-H10	103140-07
HD-22	103140-08
HD-23	103140-09

By my signature below, I certify that the results contained in this laboratory report comply with applicable standards for certification by the California Department of Public Health's Environmental Laboratories Accreditation Program (ELAP), both technically and for completeness, and that, based on my inquiry of the person or persons directly responsible for performing the analyses, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete.

  
Alin E. Repede, MS  
Director - Analytical Operations

If you have any further questions or concerns, please contact me at your convenience. This report consists of 11 pages, excluding the cover letter, Chain of Custody and the Sub-Contractor's reports.

This report shall not be reproduced except in full without the written approval of CAS. The test results reported represent only the item being tested and may not represent the entire material from which the sample was taken.

Client: Fugro West, Inc.  
CAS LAB NO: 103140  
Analyst: AN/LM

Date Sampled: 11/16/10  
Date Received: 11/16/10  
Date Analyzed: 11/23/10  
Sample Matrix: Water

**TOTAL PHENOL ANALYSIS**  
**EPA METHOD 420.1**

CAS Lab #	Sample ID	RESULTS (mg/L)	Dilution Factor	MDL (mg/L)	PQL (mg/L)
10314001	W-2	ND	1	0.02	0.1
10314002	W-16	ND	1	0.02	0.1
10314003	BYA-9	ND	1	0.02	0.1
10314004	W-18	ND	1	0.02	0.1
10314005	W-17	ND	1	0.02	0.1
10314006	HD-42	ND	1	0.02	0.1
10314007	BYA-H10	ND	1	0.02	0.1
10314008	HD-22	ND	1	0.02	0.1
10314009	HD-23	ND	1	0.02	0.1

MDL: Method Detection Limit  
PQL: Practical Quantitation Limit  
ND: Not Detected

Client: Fugro West, Inc.  
CAS LAB NO: 103140  
Analyst: AN

Date Sampled: 11/16/10  
Date Received: 11/16/10  
Date Analyzed: 11/17/10  
Sample Matrix: Water

**BIOCHEMICAL OXYGEN DEMAND ANALYSIS**  
**SM 5210 B**

CAS Lab #	Sample ID	RESULTS (mg/L)	Dilution Factor	MDL (mg/l)	PQL (mg/L)
10314001	W-2	ND	1	0.4	2
10314002	W-16	ND	1	0.4	2
10314003	BYA-9	ND	1	0.4	2
10314004	W-18	ND	1	0.4	2
10314005	W-17	ND	1	0.4	2
10314006	HD-42	ND	1	0.4	2
10314007	BYA-H10	ND	1	0.4	2
10314008	HD-22	ND	1	0.4	2
10314009	HD-23	0.60	1	0.4	2

MDL: Method Detection Limit  
PQL: Practical Quantitation Limit  
ND: Not Detected



Analytical Services, Inc.

Environmental and Analytical Services-Since 1994

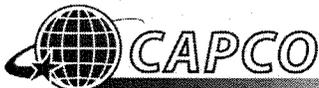
Client: Fugro West, Inc.  
CAS LAB NO: 103140  
Analyst: AN

Date Sampled: 11/16/10  
Date Received: 11/16/10  
Date Analyzed: 11/22/10  
Sample Matrix: Water

**TOTAL SULFIDE ANALYSIS**  
**SM 4500-S<sup>-2</sup>D**

CAS LAB #	Sample ID	RESULTS (mg/L)	Dilution Factor	MDL (mg/L)	PQL (mg/L)
10314001	W-2	ND	1	0.004	0.02
10314002	W-16	ND	1	0.004	0.02
10314003	BYA-9	ND	1	0.004	0.02
10314004	W-18	ND	1	0.004	0.02
10314005	W-17	ND	1	0.004	0.02
10314006	HD-42	ND	1	0.004	0.02
10314007	BYA-H10	ND	1	0.004	0.02
10314008	HD-22	ND	1	0.004	0.02
10314009	HD-23	ND	1	0.004	0.02

ND: Not Detected  
MDL: Method Detection Limit  
BQL: Below Practical Quantitation Limit



Analytical Services, Inc.

Environmental and Analytical Services-Since 1994

Client: Fugro West, Inc.  
CAS LAB NO: 103140  
Analyst: AN

Date Sampled: 11/16/10  
Date Received: 11/16/10  
Date Analyzed: 11/17/10  
Sample Matrix: Water

**SETTLEABLE SOLIDS ANALYSIS**  
**SM 2540 F**

CAS Lab #	Sample ID	RESULTS (ml/L)	Dilution Factor	PQL (ml/L)
10314001	W-2	BQL	1	0.1
10314002	W-16	BQL	1	0.1
10314003	BYA-9	BQL	1	0.1
10314004	W-18	BQL	1	0.1
10314005	W-17	BQL	1	0.1
10314006	HD-42	BQL	1	0.1
10314007	BYA-H10	BQL	1	0.1
10314008	HD-22	BQL	1	0.1
10314009	HD-23	BQL	1	0.1

PQL: Practical Quantitation Limit  
BQL: Below Practical Quantitation Limit

Client: Fugro West, Inc.  
 CAS LAB NO: 103140  
 Analyst: AN

Date Sampled: 11/16/10  
 Date Received: 11/16/10  
 Date Analyzed: 11/16/10  
 Sample Matrix: Water

**TOTAL RESIDUAL CHLORINE ANALYSIS**  
**SM 4500CL G**

CAS Lab #	Sample ID	RESULTS (mg/L)	Dilution Factor	PQL (mg/L)	MDL (mg/L)
10314001	W-2	ND	1	0.1	0.02
10314002	W-16	ND	1	0.1	0.02
10314003	BYA-9	ND	1	0.1	0.02
10314004	W-18	ND	1	0.1	0.02
10314005	W-17	ND	1	0.1	0.02
10314006	HD-42	ND	1	0.1	0.02
10314007	BYA-H10	ND	1	0.1	0.02
10314008	HD-22	ND	1	0.1	0.02
10314009	HD-23	ND	1	0.1	0.02

PQL: Practical Quantitation Limit  
 MDL: Method Detection Limit  
 ND: Not Detected

Client: Fugro West, Inc.  
CAS LAB NO: 103140  
Analyst: LM

Date Sampled: 11/16/10  
Date Received: 11/16/10  
Date Analyzed: 11/18/10  
Sample Matrix: Water

**TOTAL SUSPENDED SOLIDS ANALYSIS**  
**SM 2540 D**

CAS Lab #	Sample ID	RESULTS (mg/L)	Dilution Factor	MDL (mg/l)	PQL (mg/L)
10314001	W-2	ND	1	1	5
10314002	W-16	ND	1	1	5
10314003	BYA-9	ND	1	1	5
10314004	W-18	8.4	1	1	5
10314005	W-17	ND	1	1	5
10314006	HD-42	ND	1	1	5
10314007	BYA-H10	ND	1	1	5
10314008	HD-22	ND	1	1	5
10314009	HD-23	ND	1	1	5

MDL: Method Detection Limit  
PQL: Practical Quantitation Limit  
ND: Not Detected

Client: Fugro West, Inc.  
CAS LAB NO: 103140  
Analyst: AN

Date Sampled: 11/16/10  
Date Received: 11/16/10  
Date Analyzed: 11/17/10  
Sample Matrix: Water

**TURBIDITY ANALYSIS**  
**EPA Method 180.1**

CAS Lab #	Sample ID	RESULTS (NTU)	Dilution Factor	PQL (NTU)
10314001	W-2	0.17	1	0.1
10314002	W-16	0.15	1	0.1
10314003	BYA-9	4.4	1	0.1
10314004	W-18	11.1	1	0.1
10314005	W-17	BQL	1	0.1
10314006	HD-42	0.72	1	0.1
10314007	BYA-H10	BQL	1	0.1
10314008	HD-22	5.0	1	0.1
10314009	HD-23	BQL	1	0.1

PQL: Practical Quantitation Limit



Analytical Services, Inc.

Environmental and Analytical Services-Since 1994

Client: Fugro West, Inc.  
CAS LAB NO: 103140  
Analyst: CR

Date Sampled: 11/16/10  
Date Received: 11/16/10  
Date Analyzed: 11/18/10  
Sample Matrix: Water

**TOTAL CHLORIDE ANALYSIS**  
**EPA Method 300.0**

CAS Lab #	Sample ID	RESULTS (mg/L)	Dilution Factor	MDL (mg/L)	PQL (mg/L)
10314001	W-2	190	1	0.06	0.3
10314002	W-16	220	1	0.06	0.3
10314003	BYA-9	200	1	0.06	0.3
10314004	W-18	230	1	0.06	0.3
10314005	W-17	130	1	0.06	0.3
10314006	HD-42	390	2	0.12	0.6
10314007	BYA-H10	200	1	0.06	0.3
10314008	HD-22	380	2	0.12	0.6
10314009	HD-23	440	2	0.12	0.6

PQL: Practical Quantitation Limit  
MDL: Method Detection Limit  
ND: Not Detected

Client: Fugro West, Inc.  
CAS LAB NO: 103140  
Analyst: GM

Date Sampled: 11/16/10  
Date Received: 11/16/10  
Date Analyzed: 11/18/10  
Sample Matrix: Water

**MBAS ANALYSIS**  
**SM 5540 C**

CAS Lab #	Sample ID	RESULTS (mg/L)	Dilution Factor	MDL (mg/l)	PQL (mg/L)
10314001	W-2	ND	1	0.02	0.1
10314002	W-16	ND	1	0.02	0.1
10314003	BYA-9	ND	1	0.02	0.1
10314004	W-18	ND	1	0.02	0.1
10314005	W-17	ND	1	0.02	0.1
10314006	HD-42	ND	1	0.02	0.1
10314007	BYA-H10	ND	1	0.02	0.1
10314008	HD-22	ND	1	0.02	0.1
10314009	HD-23	ND	1	0.02	0.1

MDL: Method Detection Limit  
PQL: Practical Quantitation Limit  
ND: Not Detected



Analytical Services, Inc.

Environmental and Analytical Services-Since 1994

Client: Fugro West, Inc.  
CAS LAB NO: 103140  
Analyst: GM

Date Sampled: 11/16/10  
Date Received: 11/16/10  
Date Analyzed: 11/17/10  
Sample Matrix: Water

**OIL & GREASE ANALYSIS**  
**EPA Method 1664**

CAS Lab #	Sample ID	RESULTS (mg/L)	Dilution Factor	MDL (mg/l)	PQL (mg/L)
10314001	W-2	ND	1	1	5
10314002	W-16	ND	1	1	5
10314003	BYA-9	ND	1	1	5
10314004	W-18	ND	1	1	5
10314005	W-17	ND	1	1	5
10314006	HD-42	ND	1	1	5
10314007	BYA-H10	ND	1	1	5
10314008	HD-22	ND	1	1	5
10314009	HD-23	ND	1	1	5

MDL: Method Detection Limit  
PQL: Practical Quantitation Limit  
ND: Not Detected

Client: Fugro West, Inc.  
CAS LAB NO: 103140  
Analyst: AN/GM/LM/CR

Date Received: 11/16/10  
Sample Matrix: Water

**QUALITY CONTROL DATA**

COMPOUND	RESULT	UNITS	DF	MDL	PQL	METHOD	ANALYZED
B.O.D.	ND	mg/L	1	0.4	2	5210 B	11/17/10
Chloride (Total)	ND	mg/L	1	0.06	0.3	300.0	11/18/10
Oil and Grease	ND	mg/L	1	1	5	1664	11/17/10
MBAS	ND	mg/L	1	0.02	0.1	5540 C	11/18/10
Phenol (Total)	ND	mg/L	1	0.02	0.1	420.1	11/23/10
Residual Chlorine	ND	mg/L	1	0.02	0.1	4500CL G	11/16/10
Settleable Solid	BQL	ml/L	1	--	0.1	2540 F	11/17/10
Sulfide (Total)	ND	mg/L	1	0.004	0.02	4500S <sup>2</sup> -D	11/22/10
T.S.S.	ND	mg/L	1	1	5	2540 D	11/18/10

BQL: Below Practical Quantitation Limit  
MDL: Method Detection Limit  
PQL: Practical Quantitation Limit  
ND: Not Detected



TOXICITY TESTING • OCEANOGRAPHIC RESEARCH

November 30, 2010

Ms. Rosa Hernandez  
CAPCO Analytical  
1536 Eastman Ave., Suite B  
Ventura, CA 93003

Dear Ms. Hernandez:

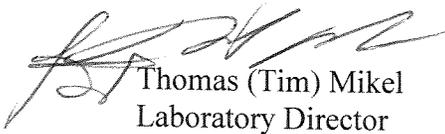
We are pleased to present the enclosed bioassay report. The test was conducted under guidelines prescribed in *Methods for Measuring the Acute Toxicity of Effluents and Receiving Waters to Freshwater and Marine Organisms EPA-821-R-02-012*. Results were as follows:

CLIENT:	CAPCO Analytical
SAMPLE I.D.:	103140-01
DATE RECEIVED:	17 Nov - 10
ABC LAB. NO.:	CAP1110.190

**96 HOUR ACUTE FATHEAD MINNOW SURVIVAL BIOASSAY**

LC50 = 100 % Survival in 100% Sample  
TU(a) = 0.00

Yours very truly,

  
Thomas (Tim) Mikel  
Laboratory Director

**Larval Fish Growth and Survival Test-96 Hr Survival**

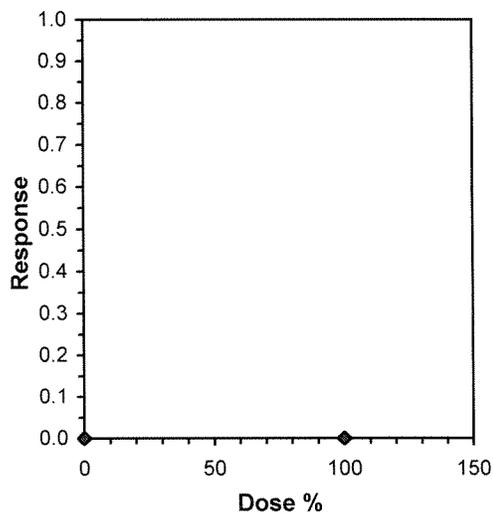
Start Date: 11/17/2010	Test ID: CAP1110190	Sample ID: CA000000
End Date: 11/21/2010	Lab ID: CAABC	Sample Type: EFF1-POTW
Sample Date: 11/16/2010	Protocol: EPA-821-R-02-012	Test Species: PP-Pimephales promelas
Comments: 103140-01		

Conc-%	1	2	3	4
N Control	1.0000	1.0000	1.0000	1.0000
100	1.0000	1.0000		

Conc-%	Mean	N-Mean	Transform: Arcsin Square Root					Isotonic	
			Mean	Min	Max	CV%	N	Mean	N-Mean
N Control	1.0000	1.0000	1.4120	1.4120	1.4120	0.000	4	1.0000	1.0000
100	1.0000	1.0000	1.4120	1.4120	1.4120	0.000	2	1.0000	1.0000

Auxiliary Tests	Statistic	Critical	Skew	Kurt
Shapiro-Wilk's Test indicates normal distribution (p > 0.01)	1	0.713		
Equality of variance cannot be confirmed				

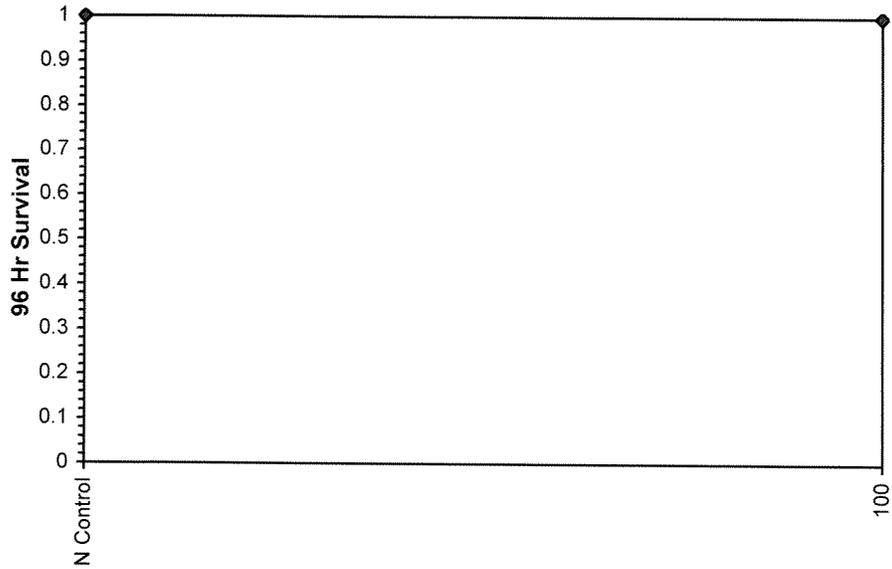
Linear Interpolation (200 Resamples)				
Point	%	SD	95% CL(Exp)	Skew
IC05	>100			
IC10	>100			
IC15	>100			
IC20	>100			
IC25	>100			
IC40	>100			
IC50	>100			



Larval Fish Growth and Survival Test-96 Hr Survival

Start Date: 11/17/2010	Test ID: CAP1110190	Sample ID: CA000000
End Date: 11/21/2010	Lab ID: CAABC	Sample Type: EFF1-POTW
Sample Date: 11/16/2010	Protocol: EPA-821-R-02-012	Test Species: PP-Pimephales promelas
Comments: 103140-01		

Dose-Response Plot



**Larval Fish Growth and Survival Test-96 Hr Survival**

Start Date: 11/17/2010	Test ID: CAP1110190	Sample ID: CA000000
End Date: 11/21/2010	Lab ID: CAABC	Sample Type: EFF1-POTW
Sample Date: 11/16/2010	Protocol: EPA-821-R-02-012	Test Species: PP-Pimephales promelas
Comments: 103140-01		

**Auxiliary Data Summary**

Conc-%	Parameter	Mean	Min	Max	SD	CV%	N
N Control	Temp C	24.37	24.10	24.80	0.38	2.53	3
100		24.20	24.00	24.50	0.26	2.13	3
N Control	pH	8.13	8.00	8.20	0.12	4.18	3
100		7.57	7.30	8.00	0.38	8.13	3
N Control	DO mg/L	6.90	5.90	7.60	0.89	13.66	3
100		6.20	5.10	7.40	1.15	17.32	3
N Control	Hardness mg/L	93.00	93.00	93.00	0.00	0.00	3
100		250.00	250.00	250.00	0.00	0.00	3
N Control	Alkalinitymg/L	67.00	67.00	67.00	0.00	0.00	3
100		250.00	250.00	250.00	0.00	0.00	3
N Control	Conductivity	333.33	322.00	345.00	11.50	1.02	3
100		2144.33	2116.00	2175.00	29.57	0.25	3



TOXICITY TESTING • OCEANOGRAPHIC RESEARCH

November 30, 2010

Ms. Rosa Hernandez  
CAPCO Analytical  
1536 Eastman Ave., Suite B  
Ventura, CA 93003

Dear Ms. Hernandez:

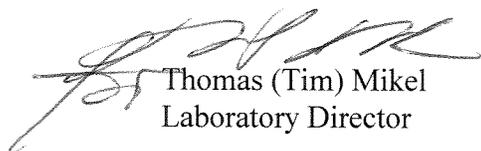
We are pleased to present the enclosed bioassay report. The test was conducted under guidelines prescribed in *Methods for Measuring the Acute Toxicity of Effluents and Receiving Waters to Freshwater and Marine Organisms EPA-821-R-02-012*. Results were as follows:

CLIENT:	CAPCO Analytical
SAMPLE I.D.:	103140-02
DATE RECEIVED:	17 Nov - 10
ABC LAB. NO.:	CAP1110.191

#### **96 HOUR ACUTE FATHEAD MINNOW SURVIVAL BIOASSAY**

LC50 =	100 % Survival in 100% Sample
TU(a) =	0.00

Yours very truly,



Thomas (Tim) Mikel  
Laboratory Director

**Larval Fish Growth and Survival Test-96 Hr Survival**

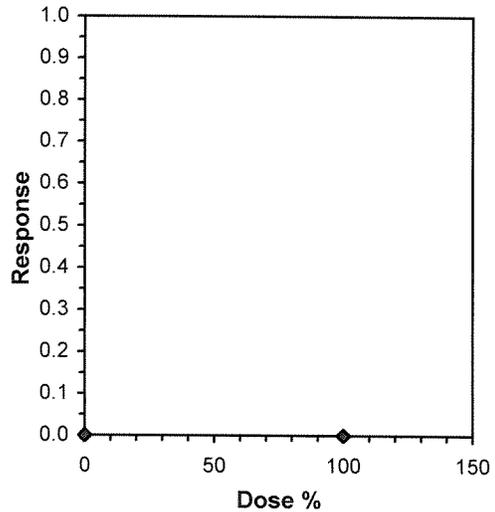
Start Date: 11/17/2010	Test ID: CAP1110191	Sample ID: CA000000
End Date: 11/21/2010	Lab ID: CAABC	Sample Type: EFF1-POTW
Sample Date: 11/16/2010	Protocol: EPA-821-R-02-012	Test Species: PP-Pimephales promelas
Comments: 103140-02		

Conc-%	1	2	3	4
N Control	1.0000	1.0000	1.0000	1.0000
100	1.0000	1.0000		

Conc-%	Mean	N-Mean	Transform: Arcsin Square Root					Isotonic	
			Mean	Min	Max	CV%	N	Mean	N-Mean
N Control	1.0000	1.0000	1.4120	1.4120	1.4120	0.000	4	1.0000	1.0000
100	1.0000	1.0000	1.4120	1.4120	1.4120	0.000	2	1.0000	1.0000

Auxiliary Tests	Statistic	Critical	Skew	Kurt
Shapiro-Wilk's Test indicates normal distribution ( $p > 0.01$ )	1	0.713		
Equality of variance cannot be confirmed				

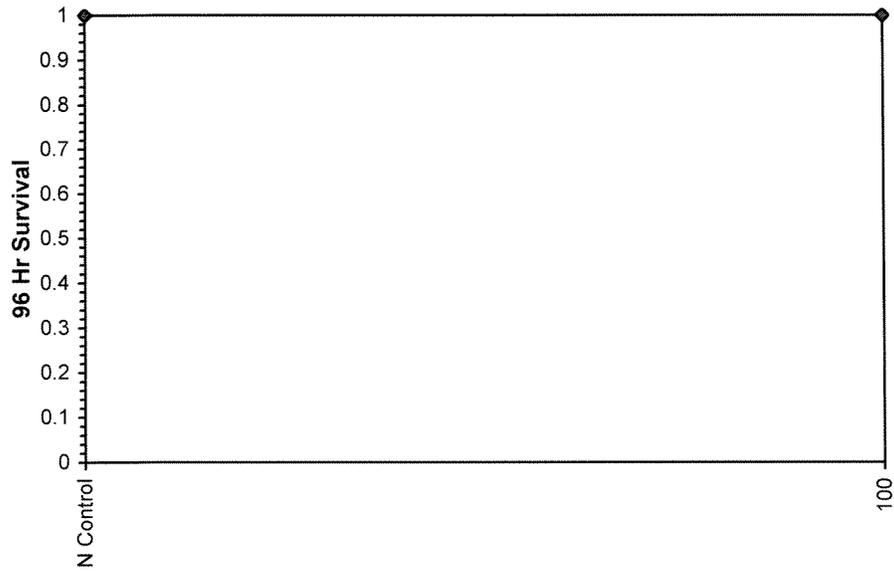
Point	%	SD	Linear Interpolation (200 Resamples)	
			95% CL(Exp)	Skew
IC05	>100			
IC10	>100			
IC15	>100			
IC20	>100			
IC25	>100			
IC40	>100			
IC50	>100			



Larval Fish Growth and Survival Test-96 Hr Survival

Start Date: 11/17/2010	Test ID: CAP1110191	Sample ID: CA000000
End Date: 11/21/2010	Lab ID: CAABC	Sample Type: EFF1-POTW
Sample Date: 11/16/2010	Protocol: EPA-821-R-02-012	Test Species: PP-Pimephales promelas
Comments: 103140-02		

Dose-Response Plot



**Larval Fish Growth and Survival Test-96 Hr Survival**

Start Date: 11/17/2010	Test ID: CAP1110191	Sample ID: CA000000
End Date: 11/21/2010	Lab ID: CAABC	Sample Type: EFF1-POTW
Sample Date: 11/16/2010	Protocol: EPA-821-R-02-012	Test Species: PP-Pimephales promelas
Comments: 103140-02		

**Auxiliary Data Summary**

Conc-%	Parameter	Mean	Min	Max	SD	CV%	N
N Control	Temp C	24.37	24.10	24.80	0.38	2.53	3
100		24.23	24.10	24.50	0.23	1.98	3
N Control	pH	8.13	8.00	8.20	0.12	4.18	3
100		7.50	7.30	7.90	0.35	7.85	3
N Control	DO mg/L	6.90	5.90	7.60	0.89	13.66	3
100		6.17	5.10	7.30	1.10	17.02	3
N Control	Hardness mg/L	93.00	93.00	93.00	0.00	0.00	3
100		250.00	250.00	250.00	0.00	0.00	3
N Control	Alkalinitymg/L	67.00	67.00	67.00	0.00	0.00	3
100		250.00	250.00	250.00	0.00	0.00	3
N Control	Conductivity	333.33	322.00	345.00	11.50	1.02	3
100		2179.00	2123.00	2248.00	63.51	0.37	3



TOXICITY TESTING • OCEANOGRAPHIC RESEARCH

November 30, 2010

Ms. Rosa Hernandez  
CAPCO Analytical  
1536 Eastman Ave., Suite B  
Ventura, CA 93003

Dear Ms. Hernandez:

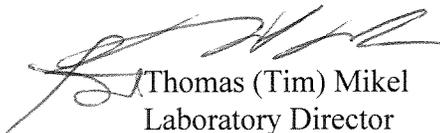
We are pleased to present the enclosed bioassay report. The test was conducted under guidelines prescribed in *Methods for Measuring the Acute Toxicity of Effluents and Receiving Waters to Freshwater and Marine Organisms EPA-821-R-02-012*. Results were as follows:

CLIENT:	CAPCO Analytical
SAMPLE I.D.:	103140-03
DATE RECEIVED:	17 Nov - 10
ABC LAB. NO.:	CAP1110.192

**96 HOUR ACUTE FATHEAD MINNOW SURVIVAL BIOASSAY**

LC50 = 95 % Survival in 100% Sample  
TU(a) = 0.41

Yours very truly,

  
Thomas (Tim) Mikel  
Laboratory Director

**Larval Fish Growth and Survival Test-96 Hr Survival**

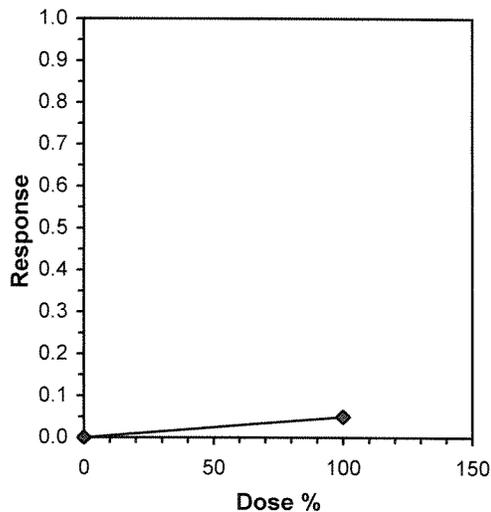
Start Date: 11/17/2010	Test ID: CAP1110192	Sample ID: CA000000
End Date: 11/21/2010	Lab ID: CAABC	Sample Type: EFF1-POTW
Sample Date: 11/16/2010	Protocol: EPA-821-R-02-012	Test Species: PP-Pimephales promelas
Comments: 103140-03		

Conc-%	1	2	3	4
N Control	1.0000	1.0000	1.0000	1.0000
	100	0.9000	1.0000	

Conc-%	Mean	N-Mean	Transform: Arcsin Square Root				N	t-Stat	1-Tailed Critical	MSD	Isotonic	
			Mean	Min	Max	CV%					Mean	N-Mean
N Control	1.0000	1.0000	1.4120	1.4120	1.4120	0.000	4				1.0000	1.0000
100	0.9500	0.9500	1.3305	1.2490	1.4120	8.661	2	1.633	2.132	0.1064	0.9500	0.9500

Auxiliary Tests	Statistic	Critical	Skew	Kurt		
Shapiro-Wilk's Test indicates normal distribution ( $p > 0.01$ )	0.82716	0.713	0	2.5		
Equality of variance cannot be confirmed						
Hypothesis Test (1-tail, 0.05)	MSDu	MSDp	MSB	MSE	F-Prob	df
Homoscedastic t Test indicates no significant differences	0.04368	0.0448	0.00885	0.00332	0.17781	1, 4
Treatments vs N Control						

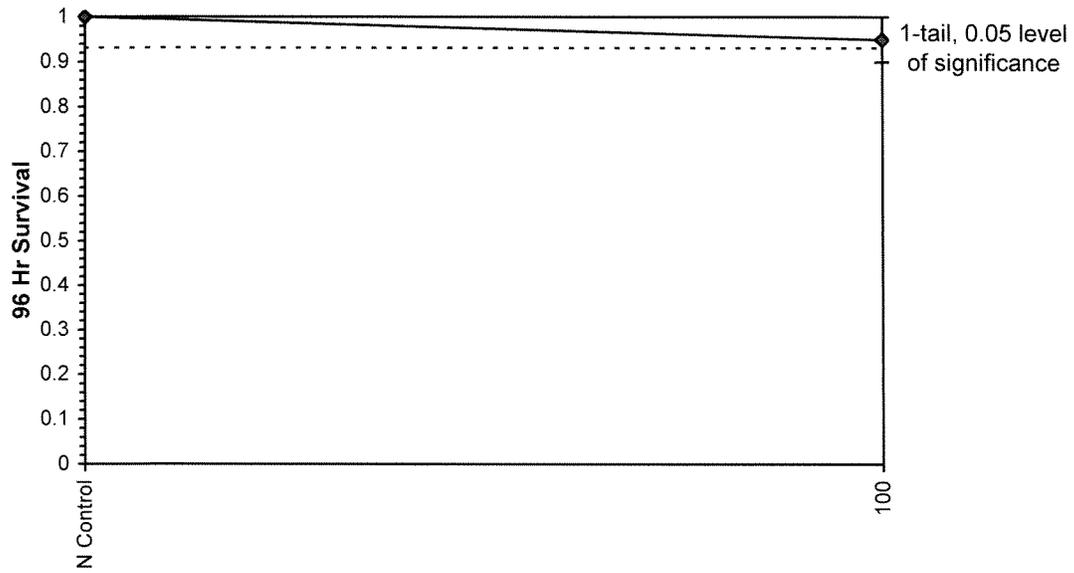
Linear Interpolation (200 Resamples)				
Point	%	SD	95% CL(Exp)	Skew
IC05	>100			
IC10	>100			
IC15	>100			
IC20	>100			
IC25	>100			
IC40	>100			
IC50	>100			



Larval Fish Growth and Survival Test-96 Hr Survival

Start Date: 11/17/2010      Test ID: CAP1110192      Sample ID: CA000000  
End Date: 11/21/2010      Lab ID: CAABC      Sample Type: EFF1-POTW  
Sample Date: 11/16/2010      Protocol: EPA-821-R-02-012      Test Species: PP-Pimephales promelas  
Comments: 103140-03

Dose-Response Plot



**Larval Fish Growth and Survival Test-96 Hr Survival**

Start Date: 11/17/2010	Test ID: CAP1110192	Sample ID: CA000000
End Date: 11/21/2010	Lab ID: CAABC	Sample Type: EFF1-POTW
Sample Date: 11/16/2010	Protocol: EPA-821-R-02-012	Test Species: PP-Pimephales promelas
Comments: 103140-03		

**Auxiliary Data Summary**

Conc-%	Parameter	Mean	Min	Max	SD	CV%	N
N Control	Temp C	24.37	24.10	24.80	0.38	2.53	3
100		24.23	24.10	24.50	0.23	1.98	3
N Control	pH	8.13	8.00	8.20	0.12	4.18	3
100		7.27	7.20	7.30	0.06	3.31	3
N Control	DO mg/L	6.90	5.90	7.60	0.89	13.66	3
100		6.17	5.10	7.30	1.10	17.02	3
N Control	Hardness mg/L	93.00	93.00	93.00	0.00	0.00	3
100		250.00	250.00	250.00	0.00	0.00	3
N Control	Alkalinitymg/L	67.00	67.00	67.00	0.00	0.00	3
100		250.00	250.00	250.00	0.00	0.00	3
N Control	Conductivity	333.33	322.00	345.00	11.50	1.02	3
100		2355.67	2334.00	2375.00	20.60	0.19	3



TOXICITY TESTING • OCEANOGRAPHIC RESEARCH

November 30, 2010

Ms. Rosa Hernandez  
CAPCO Analytical  
1536 Eastman Ave., Suite B  
Ventura, CA 93003

Dear Ms. Hernandez:

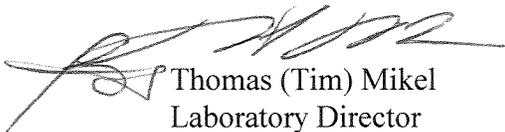
We are pleased to present the enclosed bioassay report. The test was conducted under guidelines prescribed in *Methods for Measuring the Acute Toxicity of Effluents and Receiving Waters to Freshwater and Marine Organisms EPA-821-R-02-012*. Results were as follows:

CLIENT:	CAPCO Analytical
SAMPLE I.D.:	103140-04
DATE RECEIVED:	17 Nov - 10
ABC LAB. NO.:	CAP1110.193

**96 HOUR ACUTE FATHEAD MINNOW SURVIVAL BIOASSAY**

LC50 = 100 % Survival in 100% Sample  
TU(a) = 0.00

Yours very truly,



Thomas (Tim) Mikel  
Laboratory Director

**Larval Fish Growth and Survival Test-96 Hr Survival**

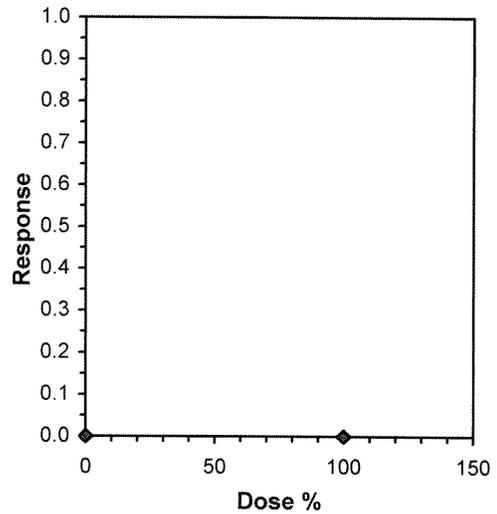
Start Date: 11/17/2010	Test ID: CAP1110193	Sample ID: CA000000
End Date: 11/21/2010	Lab ID: CAABC	Sample Type: EFF1-POTW
Sample Date: 11/16/2010	Protocol: EPA-821-R-02-012	Test Species: PP-Pimephales promelas
Comments: 103140-04		

Conc-%	1	2	3	4
N Control	1.0000	1.0000	1.0000	1.0000
	100	1.0000	1.0000	

Conc-%	Mean	N-Mean	Transform: Arcsin Square Root					Isotonic	
			Mean	Min	Max	CV%	N	Mean	N-Mean
N Control	1.0000	1.0000	1.4120	1.4120	1.4120	0.000	4	1.0000	1.0000
100	1.0000	1.0000	1.4120	1.4120	1.4120	0.000	2	1.0000	1.0000

Auxiliary Tests	Statistic	Critical	Skew	Kurt
Shapiro-Wilk's Test indicates normal distribution ( $p > 0.01$ )	1	0.713		
Equality of variance cannot be confirmed				

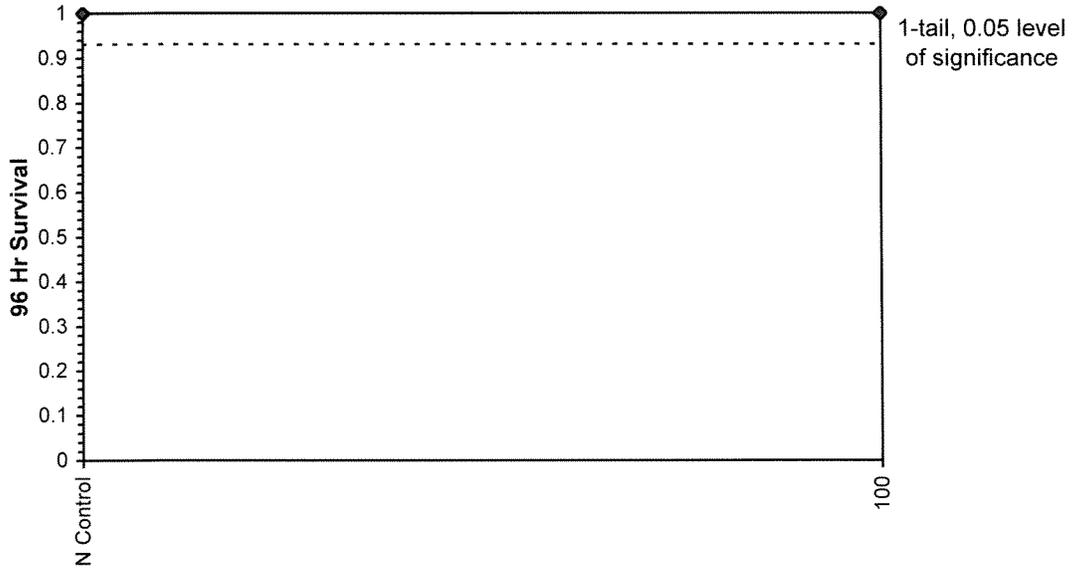
Point	%	SD	Linear Interpolation (200 Resamples)	
			95% CL(Exp)	Skew
IC05	>100			
IC10	>100			
IC15	>100			
IC20	>100			
IC25	>100			
IC40	>100			
IC50	>100			



Larval Fish Growth and Survival Test-96 Hr Survival

Start Date: 11/17/2010	Test ID: CAP1110193	Sample ID: CA000000
End Date: 11/21/2010	Lab ID: CAABC	Sample Type: EFF1-POTW
Sample Date: 11/16/2010	Protocol: EPA-821-R-02-012	Test Species: PP-Pimephales promelas
Comments: 103140-04		

Dose-Response Plot



**Larval Fish Growth and Survival Test-96 Hr Survival**

Start Date: 11/17/2010	Test ID: CAP1110193	Sample ID: CA000000
End Date: 11/21/2010	Lab ID: CAABC	Sample Type: EFF1-POTW
Sample Date: 11/16/2010	Protocol: EPA-821-R-02-012	Test Species: PP-Pimephales promelas
Comments: 103140-04		

**Auxiliary Data Summary**

Conc-%	Parameter	Mean	Min	Max	SD	CV%	N
N Control	Temp C	24.37	24.10	24.80	0.38	2.53	3
100		24.23	24.10	24.50	0.23	1.98	3
N Control	pH	8.13	8.00	8.20	0.12	4.18	3
100		7.67	7.50	8.00	0.29	7.01	3
N Control	DO mg/L	6.90	5.90	7.60	0.89	13.66	3
100		6.43	5.10	7.50	1.22	17.18	3
N Control	Hardness mg/L	93.00	93.00	93.00	0.00	0.00	3
100		250.00	250.00	250.00	0.00	0.00	3
N Control	Alkalinitymg/L	67.00	67.00	67.00	0.00	0.00	3
100		250.00	250.00	250.00	0.00	0.00	3
N Control	Conductivity	333.33	322.00	345.00	11.50	1.02	3
100		2383.67	2370.00	2406.00	19.50	0.19	3



TOXICITY TESTING • OCEANOGRAPHIC RESEARCH

November 30, 2010

Ms. Rosa Hernandez  
CAPCO Analytical  
1536 Eastman Ave., Suite B  
Ventura, CA 93003

Dear Ms. Hernandez:

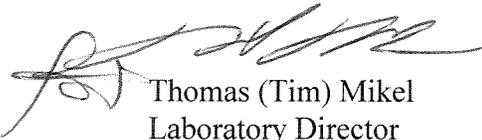
We are pleased to present the enclosed bioassay report. The test was conducted under guidelines prescribed in *Methods for Measuring the Acute Toxicity of Effluents and Receiving Waters to Freshwater and Marine Organisms EPA-821-R-02-012*. Results were as follows:

CLIENT:	CAPCO Analytical
SAMPLE I.D.:	103140-05
DATE RECEIVED:	17 Nov - 10
ABC LAB. NO.:	CAP1110.194

**96 HOUR ACUTE FATHEAD MINNOW SURVIVAL BIOASSAY**

LC50 =	100 % Survival in 100% Sample
TU(a) =	0.00

Yours very truly,



Thomas (Tim) Mikel  
Laboratory Director

**Larval Fish Growth and Survival Test-96 Hr Survival**

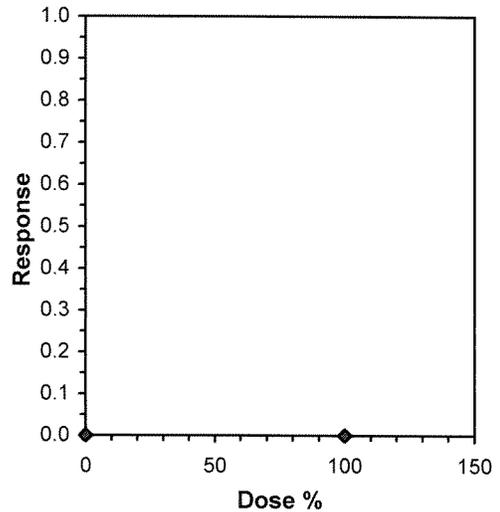
Start Date: 11/17/2010	Test ID: CAP1110194	Sample ID: CA000000
End Date: 11/21/2010	Lab ID: CAABC	Sample Type: EFF1-POTW
Sample Date: 11/16/2010	Protocol: EPA-821-R-02-012	Test Species: PP-Pimephales promelas
Comments: 103140-05		

Conc-%	1	2	3	4
N Control	1.0000	1.0000	1.0000	1.0000
100	1.0000	1.0000		

Conc-%	Mean	N-Mean	Transform: Arcsin Square Root					Isotonic	
			Mean	Min	Max	CV%	N	Mean	N-Mean
N Control	1.0000	1.0000	1.4120	1.4120	1.4120	0.000	4	1.0000	1.0000
100	1.0000	1.0000	1.4120	1.4120	1.4120	0.000	2	1.0000	1.0000

Auxiliary Tests	Statistic	Critical	Skew	Kurt
Shapiro-Wilk's Test indicates normal distribution ( $p > 0.01$ )	1	0.713		
Equality of variance cannot be confirmed				

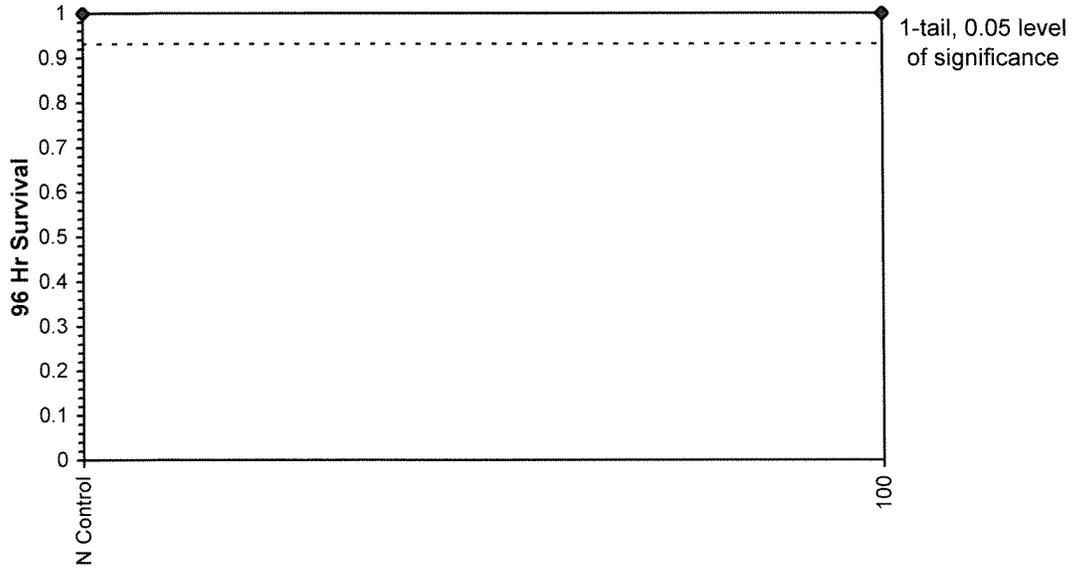
Linear Interpolation (200 Resamples)				
Point	%	SD	95% CL(Exp)	Skew
IC05	>100			
IC10	>100			
IC15	>100			
IC20	>100			
IC25	>100			
IC40	>100			
IC50	>100			



Larval Fish Growth and Survival Test-96 Hr Survival

Start Date: 11/17/2010	Test ID: CAP1110194	Sample ID: CA000000
End Date: 11/21/2010	Lab ID: CAABC	Sample Type: EFF1-POTW
Sample Date: 11/16/2010	Protocol: EPA-821-R-02-012	Test Species: PP-Pimephales promelas
Comments: 103140-05		

Dose-Response Plot



**Larval Fish Growth and Survival Test-96 Hr Survival**

Start Date: 11/17/2010	Test ID: CAP1110194	Sample ID: CA000000
End Date: 11/21/2010	Lab ID: CAABC	Sample Type: EFF1-POTW
Sample Date: 11/16/2010	Protocol: EPA-821-R-02-012	Test Species: PP-Pimephales promelas
Comments: 103140-05		

**Auxiliary Data Summary**

Conc-%	Parameter	Mean	Min	Max	SD	CV%	N
N Control	Temp C	24.37	24.10	24.80	0.38	2.53	3
100		24.23	24.00	24.50	0.25	2.07	3
N Control	pH	8.13	8.00	8.20	0.12	4.18	3
100		7.57	7.50	7.60	0.06	3.18	3
N Control	DO mg/L	6.90	5.90	7.60	0.89	13.66	3
100		6.43	5.10	7.50	1.22	17.18	3
N Control	Hardness mg/L	93.00	93.00	93.00	0.00	0.00	3
100		250.00	250.00	250.00	0.00	0.00	3
N Control	Alkalinitymg/L	67.00	67.00	67.00	0.00	0.00	3
100		250.00	250.00	250.00	0.00	0.00	3
N Control	Conductivity	333.33	322.00	345.00	11.50	1.02	3
100		1531.67	1516.00	1554.00	19.86	0.29	3



TOXICITY TESTING • OCEANOGRAPHIC RESEARCH

November 30, 2010

Ms. Rosa Hernandez  
CAPCO Analytical  
1536 Eastman Ave., Suite B  
Ventura, CA 93003

Dear Ms. Hernandez:

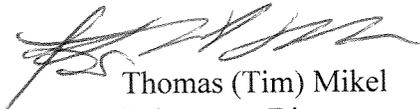
We are pleased to present the enclosed bioassay report. The test was conducted under guidelines prescribed in *Methods for Measuring the Acute Toxicity of Effluents and Receiving Waters to Freshwater and Marine Organisms EPA-821-R-02-012*. Results were as follows:

CLIENT:	CAPCO Analytical
SAMPLE I.D.:	103140-06
DATE RECEIVED:	17 Nov - 10
ABC LAB. NO.:	CAP1110.195

**96 HOUR ACUTE FATHEAD MINNOW SURVIVAL BIOASSAY**

LC50 = 95 % Survival in 100% Sample  
TU(a) = 0.41

Yours very truly,



Thomas (Tim) Mikel  
Laboratory Director

**Larval Fish Growth and Survival Test-96 Hr Survival**

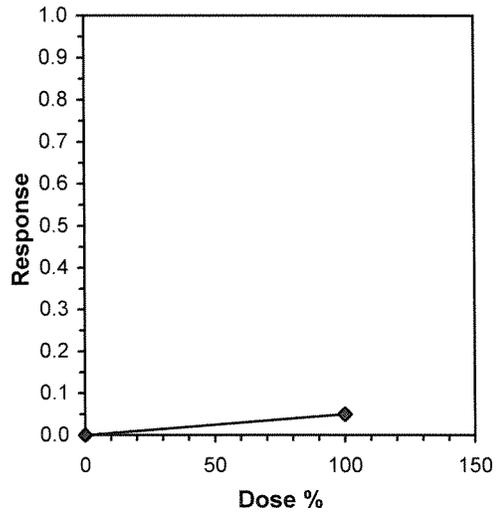
Start Date: 11/17/2010	Test ID: CAP1110195	Sample ID: CA000000
End Date: 11/21/2010	Lab ID: CAABC	Sample Type: EFF1-POTW
Sample Date: 11/16/2010	Protocol: EPA-821-R-02-012	Test Species: PP-Pimephales promelas
Comments: 103140-06		

Conc-%	1	2	3	4
N Control	1.0000	1.0000	1.0000	1.0000
100	1.0000	0.9000		

Conc-%	Mean	N-Mean	Transform: Arcsin Square Root					N	t-Stat	1-Tailed Critical	MSD	Isotonic	
			Mean	Min	Max	CV%	Mean					N-Mean	
N Control	1.0000	1.0000	1.4120	1.4120	1.4120	0.000	4				1.0000	1.0000	
100	0.9500	0.9500	1.3305	1.2490	1.4120	8.661	2	1.633	2.132	0.1064	0.9500	0.9500	

Auxiliary Tests	Statistic	Critical	Skew	Kurt		
Shapiro-Wilk's Test indicates normal distribution (p > 0.01)	0.82716	0.713	0	2.5		
Equality of variance cannot be confirmed						
Hypothesis Test (1-tail, 0.05)	MSDu	MSDp	MSB	MSE	F-Prob	df
Homoscedastic t Test indicates no significant differences	0.04368	0.0448	0.00885	0.00332	0.17781	1, 4
Treatments vs N Control						

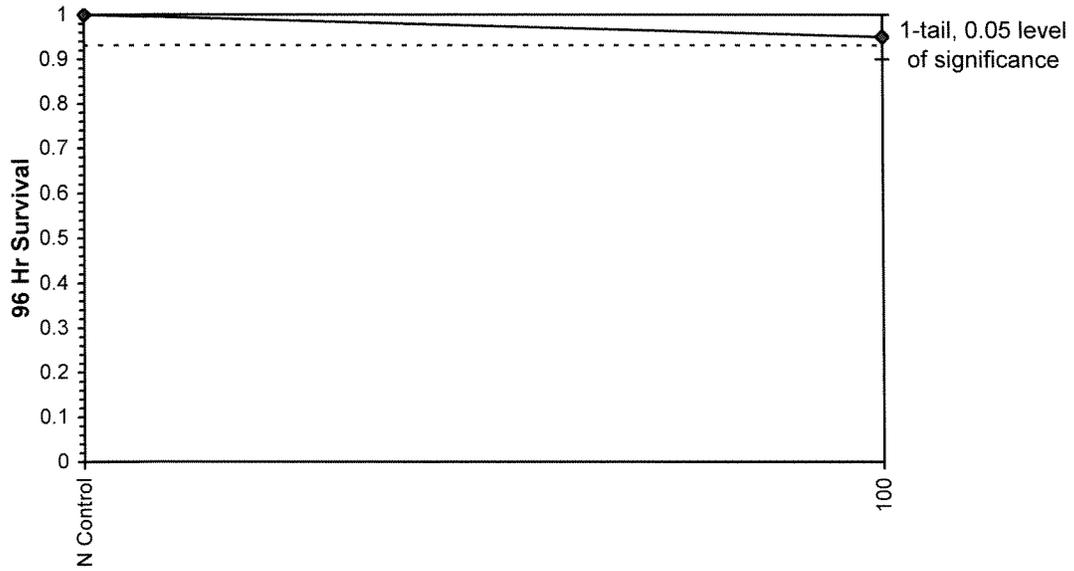
Linear Interpolation (200 Resamples)				
Point	%	SD	95% CL(Exp)	Skew
IC05	>100			
IC10	>100			
IC15	>100			
IC20	>100			
IC25	>100			
IC40	>100			
IC50	>100			



Larval Fish Growth and Survival Test-96 Hr Survival

Start Date: 11/17/2010	Test ID: CAP1110195	Sample ID: CA000000
End Date: 11/21/2010	Lab ID: CAABC	Sample Type: EFF1-POTW
Sample Date: 11/16/2010	Protocol: EPA-821-R-02-012	Test Species: PP-Pimephales promelas
Comments: 103140-06		

Dose-Response Plot



**Larval Fish Growth and Survival Test-96 Hr Survival**

Start Date: 11/17/2010	Test ID: CAP1110195	Sample ID: CA000000
End Date: 11/21/2010	Lab ID: CAABC	Sample Type: EFF1-POTW
Sample Date: 11/16/2010	Protocol: EPA-821-R-02-012	Test Species: PP-Pimephales promelas
Comments: 103140-06		

**Auxiliary Data Summary**

Conc-%	Parameter	Mean	Min	Max	SD	CV%	N
N Control	Temp C	24.37	24.10	24.80	0.38	2.53	3
100		24.23	24.10	24.50	0.23	1.98	3
N Control	pH	8.13	8.00	8.20	0.12	4.18	3
100		7.70	7.50	8.10	0.35	7.64	3
N Control	DO mg/L	6.87	5.80	7.60	0.95	14.16	3
100		6.27	5.50	7.40	1.00	15.97	3
N Control	Hardness mg/L	93.00	93.00	93.00	0.00	0.00	3
100		139.00	139.00	139.00	0.00	0.00	3
N Control	Alkalinitymg/L	67.00	67.00	67.00	0.00	0.00	3
100		250.00	250.00	250.00	0.00	0.00	3
N Control	Conductivity	334.33	322.00	348.00	13.05	1.08	3
100		3369.67	3351.00	3403.00	28.94	0.16	3



TOXICITY TESTING • OCEANOGRAPHIC RESEARCH

November 30, 2010

Ms. Rosa Hernandez  
CAPCO Analytical  
1536 Eastman Ave., Suite B  
Ventura, CA 93003

Dear Ms. Hernandez:

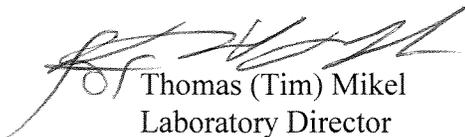
We are pleased to present the enclosed bioassay report. The test was conducted under guidelines prescribed in *Methods for Measuring the Acute Toxicity of Effluents and Receiving Waters to Freshwater and Marine Organisms EPA-821-R-02-012*. Results were as follows:

CLIENT:	CAPCO Analytical
SAMPLE I.D.:	103140-07
DATE RECEIVED:	17 Nov - 10
ABC LAB. NO.:	CAP1110.196

**96 HOUR ACUTE FATHEAD MINNOW SURVIVAL BIOASSAY**

LC50 =	100 % Survival in 100% Sample
TU(a) =	0.00

Yours very truly,



Thomas (Tim) Mikel  
Laboratory Director

**Larval Fish Growth and Survival Test-96 Hr Survival**

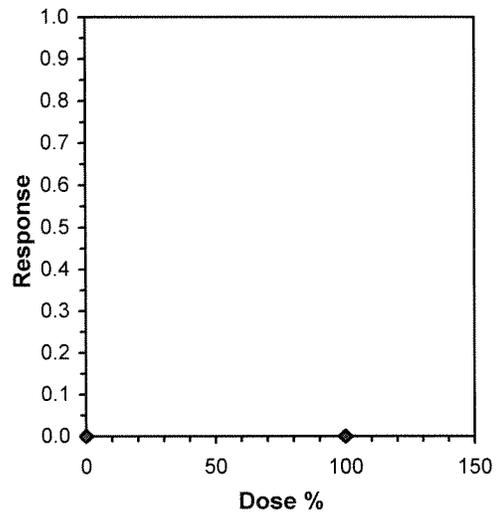
Start Date: 11/17/2010	Test ID: CAP1110196	Sample ID: CA000000
End Date: 11/21/2010	Lab ID: CAABC	Sample Type: EFF1-POTW
Sample Date: 11/16/2010	Protocol: EPA-821-R-02-012	Test Species: PP-Pimephales promelas
Comments: 103140-07		

Conc-%	1	2	3	4
N Control	1.0000	1.0000	1.0000	1.0000
100	1.0000	1.0000		

Conc-%	Mean	N-Mean	Transform: Arcsin Square Root					Isotonic	
			Mean	Min	Max	CV%	N	Mean	N-Mean
N Control	1.0000	1.0000	1.4120	1.4120	1.4120	0.000	4	1.0000	1.0000
100	1.0000	1.0000	1.4120	1.4120	1.4120	0.000	2	1.0000	1.0000

Auxiliary Tests	Statistic	Critical	Skew	Kurt
Shapiro-Wilk's Test indicates normal distribution (p > 0.01)	1	0.713		
Equality of variance cannot be confirmed				

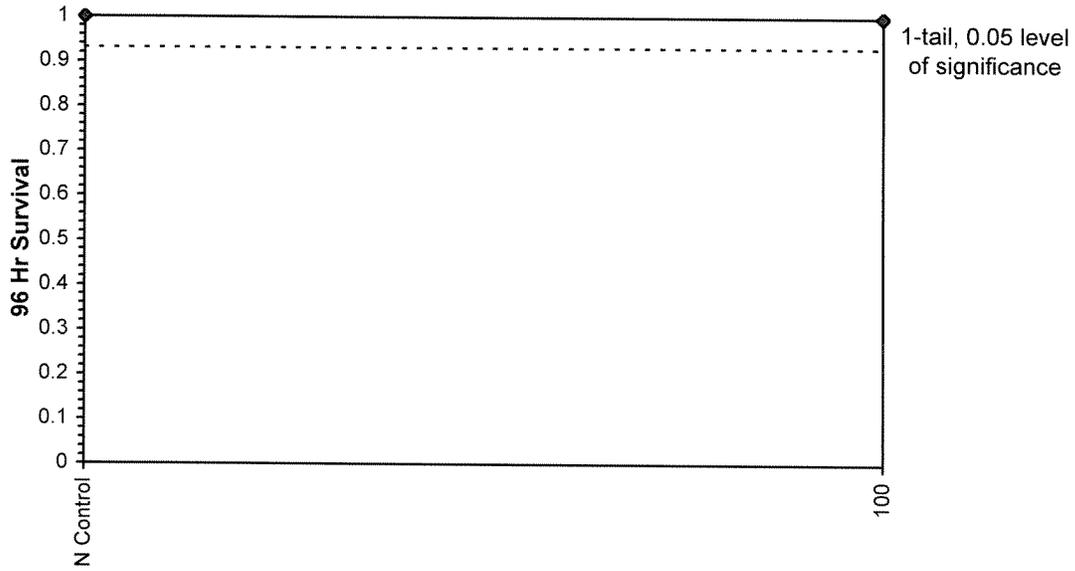
Linear Interpolation (200 Resamples)				
Point	%	SD	95% CL(Exp)	Skew
IC05	>100			
IC10	>100			
IC15	>100			
IC20	>100			
IC25	>100			
IC40	>100			
IC50	>100			



Larval Fish Growth and Survival Test-96 Hr Survival

Start Date: 11/17/2010	Test ID: CAP1110196	Sample ID: CA000000
End Date: 11/21/2010	Lab ID: CAABC	Sample Type: EFF1-POTW
Sample Date: 11/16/2010	Protocol: EPA-821-R-02-012	Test Species: PP-Pimephales promelas
Comments: 103140-07		

Dose-Response Plot



**Larval Fish Growth and Survival Test-96 Hr Survival**

Start Date: 11/17/2010	Test ID: CAP1110196	Sample ID: CA000000
End Date: 11/21/2010	Lab ID: CAABC	Sample Type: EFF1-POTW
Sample Date: 11/16/2010	Protocol: EPA-821-R-02-012	Test Species: PP-Pimephales promelas
Comments: 103140-07		

**Auxiliary Data Summary**

Conc-%	Parameter	Mean	Min	Max	SD	CV%	N
N Control	Temp C	24.37	24.10	24.80	0.38	2.53	3
100		24.23	24.10	24.50	0.23	1.98	3
N Control	pH	8.13	8.00	8.20	0.12	4.18	3
100		7.73	7.60	8.00	0.23	6.21	3
N Control	DO mg/L	6.87	5.80	7.60	0.95	14.16	3
100		6.37	5.10	7.50	1.21	17.25	3
N Control	Hardness mg/L	93.00	93.00	93.00	0.00	0.00	3
100		180.00	180.00	180.00	0.00	0.00	3
N Control	Alkalinitymg/L	67.00	67.00	67.00	0.00	0.00	3
100		250.00	250.00	250.00	0.00	0.00	3
N Control	Conductivity	334.33	322.00	348.00	13.05	1.08	3
100		1975.00	1960.00	1990.00	15.00	0.20	3



TOXICITY TESTING • OCEANOGRAPHIC RESEARCH

November 30, 2010

Ms. Rosa Hernandez  
CAPCO Analytical  
1536 Eastman Ave., Suite B  
Ventura, CA 93003

Dear Ms. Hernandez:

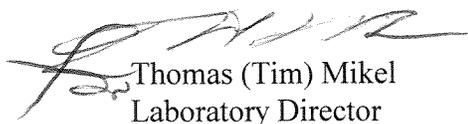
We are pleased to present the enclosed bioassay report. The test was conducted under guidelines prescribed in *Methods for Measuring the Acute Toxicity of Effluents and Receiving Waters to Freshwater and Marine Organisms EPA-821-R-02-012*. Results were as follows:

CLIENT:	CAPCO Analytical
SAMPLE I.D.:	103140-08
DATE RECEIVED:	17 Nov - 10
ABC LAB. NO.:	CAP1110.197

**96 HOUR ACUTE FATHEAD MINNOW SURVIVAL BIOASSAY**

LC50 = 100 % Survival in 100% Sample  
TU(a) = 0.00

Yours very truly,

  
Thomas (Tim) Mikel  
Laboratory Director

**Larval Fish Growth and Survival Test-96 Hr Survival**

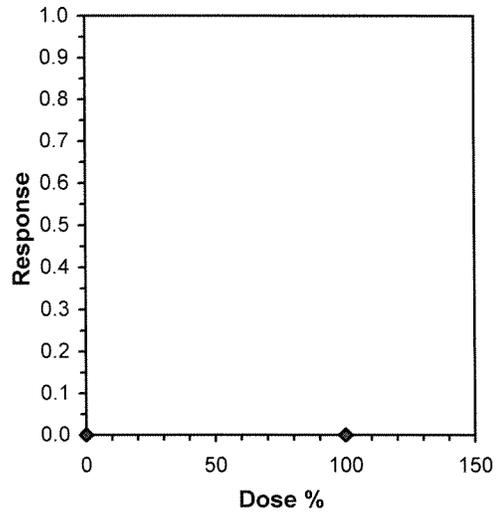
Start Date: 11/17/2010	Test ID: CAP1110197	Sample ID: CA000000
End Date: 11/21/2010	Lab ID: CAABC	Sample Type: EFF1-POTW
Sample Date: 11/16/2010	Protocol: EPA-821-R-02-012	Test Species: PP-Pimephales promelas
Comments: 103140-08		

Conc-%	1	2	3	4
N Control	1.0000	1.0000	1.0000	1.0000
100	1.0000	1.0000		

Conc-%	Transform: Arcsin Square Root							Isotonic	
	Mean	N-Mean	Mean	Min	Max	CV%	N	Mean	N-Mean
N Control	1.0000	1.0000	1.4120	1.4120	1.4120	0.000	4	1.0000	1.0000
100	1.0000	1.0000	1.4120	1.4120	1.4120	0.000	2	1.0000	1.0000

Auxiliary Tests	Statistic	Critical	Skew	Kurt
Shapiro-Wilk's Test indicates normal distribution (p > 0.01)	1	0.713		
Equality of variance cannot be confirmed				

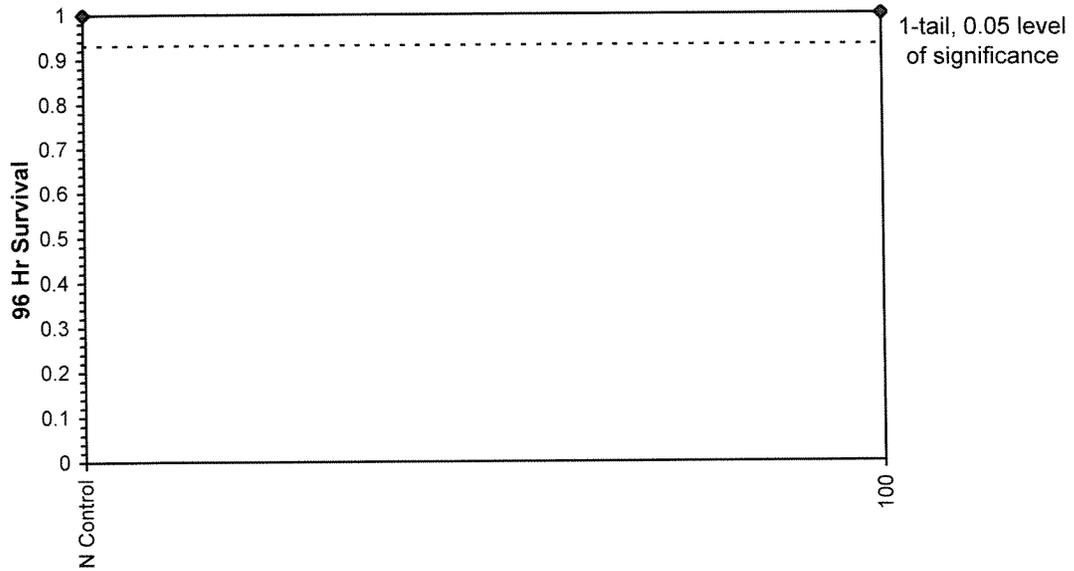
Linear Interpolation (200 Resamples)				
Point	%	SD	95% CL(Exp)	Skew
IC05	>100			
IC10	>100			
IC15	>100			
IC20	>100			
IC25	>100			
IC40	>100			
IC50	>100			



Larval Fish Growth and Survival Test-96 Hr Survival

Start Date: 11/17/2010	Test ID: CAP1110197	Sample ID: CA000000
End Date: 11/21/2010	Lab ID: CAABC	Sample Type: EFF1-POTW
Sample Date: 11/16/2010	Protocol: EPA-821-R-02-012	Test Species: PP-Pimephales promelas
Comments: 103140-08		

Dose-Response Plot



**Larval Fish Growth and Survival Test-96 Hr Survival**

Start Date: 11/17/2010	Test ID: CAP1110197	Sample ID: CA000000
End Date: 11/21/2010	Lab ID: CAABC	Sample Type: EFF1-POTW
Sample Date: 11/16/2010	Protocol: EPA-821-R-02-012	Test Species: PP-Pimephales promelas
Comments: 103140-08		

**Auxiliary Data Summary**

Conc-%	Parameter	Mean	Min	Max	SD	CV%	N
N Control	Temp C	24.37	24.10	24.80	0.38	2.53	3
100		24.30	24.10	24.50	0.20	1.84	3
N Control	pH	8.13	8.00	8.20	0.12	4.18	3
100		7.80	7.60	8.20	0.35	7.55	3
N Control	DO mg/L	6.87	5.80	7.60	0.95	14.16	3
100		6.23	5.10	7.40	1.15	17.21	3
N Control	Hardness mg/L	93.00	93.00	93.00	0.00	0.00	3
100		200.00	200.00	200.00	0.00	0.00	3
N Control	Alkalinitymg/L	67.00	67.00	67.00	0.00	0.00	3
100		250.00	250.00	250.00	0.00	0.00	3
N Control	Conductivity	334.33	322.00	348.00	13.05	1.08	3
100		2642.33	2611.00	2661.00	27.30	0.20	3



TOXICITY TESTING • OCEANOGRAPHIC RESEARCH

November 30, 2010

Ms. Rosa Hernandez  
CAPCO Analytical  
1536 Eastman Ave., Suite B  
Ventura, CA 93003

Dear Ms. Hernandez:

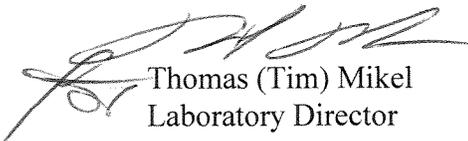
We are pleased to present the enclosed bioassay report. The test was conducted under guidelines prescribed in *Methods for Measuring the Acute Toxicity of Effluents and Receiving Waters to Freshwater and Marine Organisms EPA-821-R-02-012*. Results were as follows:

CLIENT:	CAPCO Analytical
SAMPLE I.D.:	103140-09
DATE RECEIVED:	17 Nov - 10
ABC LAB. NO.:	CAP1110.198

**96 HOUR ACUTE FATHEAD MINNOW SURVIVAL BIOASSAY**

LC50 =	100 % Survival in 100% Sample
TU(a) =	0.00

Yours very truly,



Thomas (Tim) Mikel  
Laboratory Director

**Larval Fish Growth and Survival Test-96 Hr Survival**

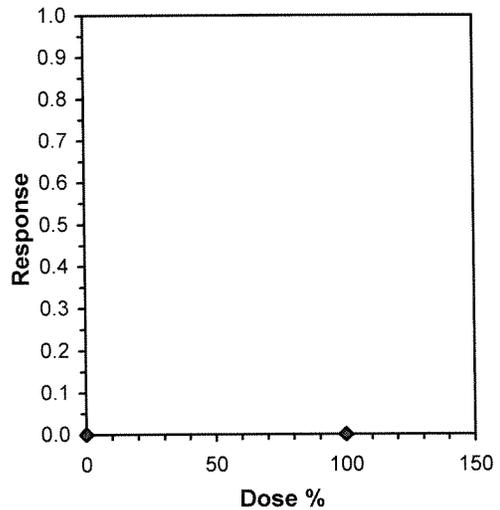
Start Date: 11/17/2010	Test ID: CAP1110198	Sample ID: CA000000
End Date: 11/21/2010	Lab ID: CAABC	Sample Type: EFF1-POTW
Sample Date: 11/16/2010	Protocol: EPA-821-R-02-012	Test Species: PP-Pimephales promelas
Comments: 103140-09		

Conc-%	1	2	3	4
N Control	1.0000	1.0000	1.0000	1.0000
100	1.0000	1.0000		

Conc-%	Mean	N-Mean	Transform: Arcsin Square Root					Isotonic	
			Mean	Min	Max	CV%	N	Mean	N-Mean
N Control	1.0000	1.0000	1.4120	1.4120	1.4120	0.000	4	1.0000	1.0000
100	1.0000	1.0000	1.4120	1.4120	1.4120	0.000	2	1.0000	1.0000

Auxiliary Tests	Statistic	Critical	Skew	Kurt
Shapiro-Wilk's Test indicates normal distribution (p > 0.01)	1	0.713		
Equality of variance cannot be confirmed				

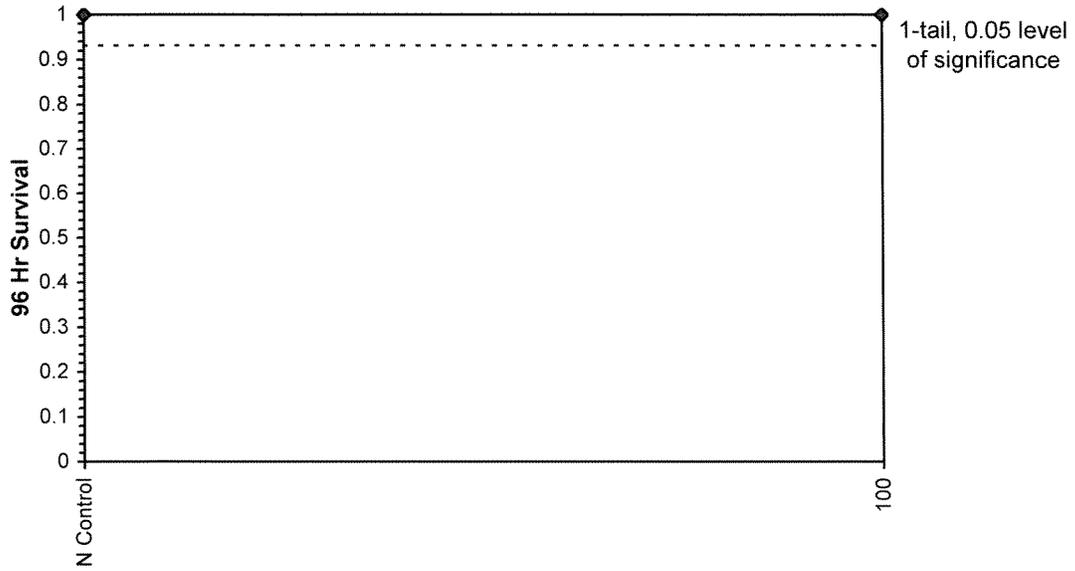
Linear Interpolation (200 Resamples)				
Point	%	SD	95% CL(Exp)	Skew
IC05	>100			
IC10	>100			
IC15	>100			
IC20	>100			
IC25	>100			
IC40	>100			
IC50	>100			



Larval Fish Growth and Survival Test-96 Hr Survival

Start Date: 11/17/2010	Test ID: CAP1110198	Sample ID: CA000000
End Date: 11/21/2010	Lab ID: CAABC	Sample Type: EFF1-POTW
Sample Date: 11/16/2010	Protocol: EPA-821-R-02-012	Test Species: PP-Pimephales promelas
Comments: 103140-09		

Dose-Response Plot



**Larval Fish Growth and Survival Test-96 Hr Survival**

Start Date: 11/17/2010	Test ID: CAP1110198	Sample ID: CA000000
End Date: 11/21/2010	Lab ID: CAABC	Sample Type: EFF1-POTW
Sample Date: 11/16/2010	Protocol: EPA-821-R-02-012	Test Species: PP-Pimephales promelas
Comments: 103140-09		

**Auxiliary Data Summary**

Conc-%	Parameter	Mean	Min	Max	SD	CV%	N
N Control	Temp C	24.37	24.10	24.80	0.38	2.53	3
100		24.30	24.10	24.50	0.20	1.84	3
N Control	pH	8.13	8.00	8.20	0.12	4.18	3
100		7.77	7.60	8.10	0.29	6.92	3
N Control	DO mg/L	6.87	5.80	7.60	0.95	14.16	3
100		6.37	5.20	7.40	1.11	16.52	3
N Control	Hardness mg/L	93.00	93.00	93.00	0.00	0.00	3
100		250.00	250.00	250.00	0.00	0.00	3
N Control	Alkalinitymg/L	67.00	67.00	67.00	0.00	0.00	3
100		250.00	250.00	250.00	0.00	0.00	3
N Control	Conductivity	334.33	322.00	348.00	13.05	1.08	3
100		2981.33	2958.00	3012.00	27.74	0.18	3

# CAPCO ANALYTICAL SERVICES

1536 Eastman Avenue, Suite B  
 Ventura, CA 93003  
 (805) 644-1095 Fax 644-9947  
 www.capcoenv.com

## CHAIN OF CUSTODY RECORD

### REPORT

Company Fugro Fax \_\_\_\_\_  
 Address 4820m Grath St., Ste. 100  
Ventura Email tnice@cfugro.com  
 Phone 289-3836 Contact Tim Niece

### BILL TO:

Company \_\_\_\_\_ P.O.# \_\_\_\_\_  
 Address \_\_\_\_\_  
 Phone \_\_\_\_\_ Contact \_\_\_\_\_

PROJ. NO PROJECT NAME

3399.006 Big Rock Mesa NPDES Sampling

SAMPLERS: (Signature) [Signature]

#### CONTAINER TYPES

A = AMBER B = BRASS G = GLASS  
 P = PLASTIC V = VOA VIAL O = OTHER

MATRIX  
 WATER SOIL SLUDGE OTHER # TYPE

SAMPLE IDENTIFICATION

DATE SAMPLED

TIME SAMPLED

SAMPLE NO.

DATE SAMPLED	TIME SAMPLED	SAMPLE IDENTIFICATION	WATER	SOIL	SLUDGE	OTHER	CONTAINER #	TYPE	PH	REMARKS
11/16/10	9:20	W-2					8		6.99	1800
	10:00	W-16							7.00	1803
	11:00	BYA-9							6.82	1978
	12:30	W-18							7.06	2840
	13:00	W-17							7.25	1285
	13:50	HD-42							7.07	4030
	14:20	BYA-1110							7.32	1657
	15:00	HD-22							7.32	3150
	15:15	HD-23							7.18	3510

ANALYSIS  
 TSS Turb. BOD  
 Oil Grease  
 Sed. S. / S. / P.  
 Metals MBAs  
 Chloride Res. CH.  
 103140

The undersigned hereby acknowledges having received a copy of the Fee Schedule/General Information and Conditions, the provisions of which are a part of this agreement.

Relinquished by: (Signature) <u>[Signature]</u>	Date/Time <u>11/16/2010 16:45</u>	Received by: (Signature) <u>[Signature]</u>
Relinquished by: (Signature)	Date/Time	Received by: (Signature)

TURN AROUND TIME  
 STANDARD  OTHER   
 24 HOURS   
 48 HOURS   
 72 HOURS

CHECK ONE BOX:  
 DISPOSE SAMPLES   
 RETURN SAMPLES



**Prepared for:** Fugro West, Inc.  
4820 McGrath St. Suite 100  
Ventura, CA 93003  
Attn: Tim Nicely

**Report Date:** December 13, 2010  
**Laboratory Number:** 103239  
**Project Name:** N/A  
**Sampled by:** Client

On November 29, 2010, Capco Analytical Services, Inc.(CAS), received one(1) composite sample to be analyzed. The sample was identified and assigned the laboratory ID number listed below:

<u>SAMPLE DESCRIPTION</u>	<u>CAS LAB NUMBER ID</u>
W-1	103239-01

By my signature below, I certify that the results contained in this laboratory report comply with applicable standards for certification by the California Department of Public Health's Environmental Laboratories Accreditation Program (ELAP), both technically and for completeness, and that, based on my inquiry of the person or persons directly responsible for performing the analyses, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete.

Alin E. Repede, MS  
Director - Analytical Operations

If you have any further questions or concerns, please contact me at your convenience.

This report consists of 2 pages excluding the cover letter, Chain of Custody and the Sub-Contractor's Report.

This report shall not be reproduced except in full without the written approval of CAS. The test results reported represent only the item being tested and may not represent the entire material from which the sample was taken.

Client: Fugro West, Inc.  
 Sample ID: W-1  
 CAS LAB NO: 103239-01  
 Analyst: AN/GM/KC

Date Sampled: 11/29/10  
 Date Received: 11/29/10  
 Sample Matrix: Water

**WET CHEMISTRY ANALYSIS SUMMARY**

COMPOUND	RESULT	UNITS	DF	PQL	MDL	METHOD	ANALYZED
B.O.D.	ND	mg/L	1	2	0.4	5210 B	11/30/10
Chloride	250	mg/L	2	0.5	0.18	300.0	11/30/10
Chlorine (Residual)	ND	mg/L	1	0.1	0.02	4500ClC	11/29/10
MBAS	ND	mg/L	1	0.1	0.02	5540 C	12/01/10
Oil & Grease	ND	mg/L	1	5	1	1664	11/30/10
Phenol (total)	ND	mg/L	1	0.1	0.02	420.1	12/02/10
Settleable Solids	BQL	mg/L	1	0.1	---	2540 F	11/30/10
Sulfide	ND	mg/L	1	0.02	0.004	4500S2D	12/03/10
T.S.S	2.4	mg/L	1	5	1	2540 D	11/30/10
Turbidity	2.9	N.T.U.	1	0.1	---	180.1	11/30/10

B.O.D.: Biochemical Oxygen Demand  
 T.S.S.: Total Suspended Solids  
 PQL: Practical Quantitation Limit  
 BQL: Below Practical Quantitation Limit  
 ND: Not Detected

Client: Fugro West, Inc.  
Sample ID: Method Blank  
CAS LAB NO: 103239-MB

Sample Matrix: Water  
Analyst: AN/GM/KC

**WET CHEMISTRY ANALYSIS SUMMARY**

**QUALITY CONTROL DATA**

COMPOUND	RESULT	UNITS	DF	PQL	METHOD	DATE ANALYZED
B.O.D.	ND	mg/L	1	2	0.4 5210 B	11/30/10
Chloride	ND	mg/L	1	0.3	0.06 300.0	11/30/10
Chlorine (Residual)	ND	mg/L	1	0.1	0.02 4500ClC	11/29/10
MBAS	ND	mg/L	1	0.1	0.02 5540 C	12/01/10
Oil & Grease	ND	mg/L	1	5	1 1664	11/30/10
Phenol (total)	ND	mg/L	1	0.1	0.02 420.1	12/02/10
Settleable Solids	BQL	mg/L	1	0.1	--- 2540 F	11/30/10
Sulfide	ND	mg/L	1	0.02	0.004 4500S2D	12/03/10
T.S.S	ND	mg/L	1	5	1 2540 D	11/30/10

B.O.D.: Biochemical Oxygen Demand  
T.S.S.: Total Suspended Solids  
PQL: Practical Quantitation Limit  
BQL: Below Practical Quantitation Limit  
ND: Not Detected



TOXICITY TESTING • OCEANOGRAPHIC RESEARCH

December 7, 2010

Ms. Rosa Hernandez  
CAPCO Analytical  
1536 Eastman Ave., Suite B  
Ventura, CA 93003

Dear Ms. Hernandez:

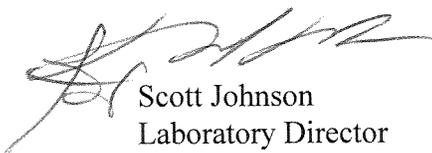
We are pleased to present the enclosed bioassay report. The test was conducted under guidelines prescribed in *Methods for Measuring the Acute Toxicity of Effluents and Receiving Waters to Freshwater and Marine Organisms EPA-821-R-02-012*. Results were as follows:

CLIENT:	CAPCO Analytical
SAMPLE I.D.:	103239-01
DATE RECEIVED:	30 Nov - 10
ABC LAB. NO.:	CAP1110.325

**96 HOUR ACUTE FATHEAD MINNOW SURVIVAL BIOASSAY**

LC50 = 100 % Survival in 100% Sample  
TU(a) = 0.00

Yours very truly,



Scott Johnson  
Laboratory Director

**Larval Fish Growth and Survival Test-96 Hr Survival**

Start Date: 11/30/2010	Test ID: CAP1110325	Sample ID: CA000000
End Date: 12/4/2010	Lab ID: CAABC	Sample Type: EFF1-POTW
Sample Date: 11/29/2010	Protocol: EPA-821-R-02-012	Test Species: PP-Pimephales promelas
Comments: 103239-01		

Conc-%	1	2	3	4
N Control	1.0000	1.0000	1.0000	1.0000
100	1.0000	1.0000		

Conc-%	Mean	N-Mean	Transform: Arcsin Square Root				Isotonic		
			Mean	Min	Max	CV%	N	Mean	N-Mean
N Control	1.0000	1.0000	1.4120	1.4120	1.4120	0.000	4	1.0000	1.0000
100	1.0000	1.0000	1.4120	1.4120	1.4120	0.000	2	1.0000	1.0000

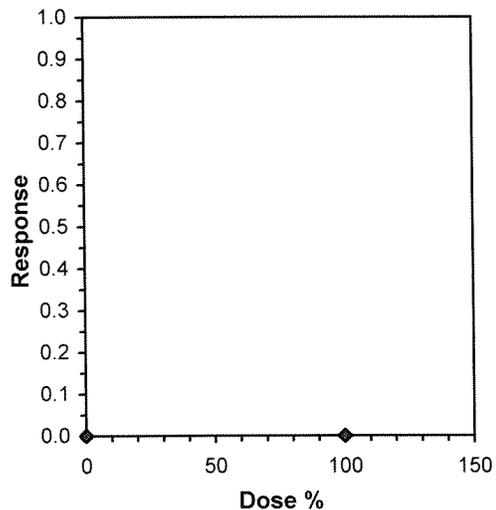
**Auxiliary Tests**

Shapiro-Wilk's Test indicates normal distribution ( $p > 0.01$ )  
 Equality of variance cannot be confirmed

<b>Statistic</b>	<b>Critical</b>	<b>Skew</b>	<b>Kurt</b>
1	0.713		

**Linear Interpolation (200 Resamples)**

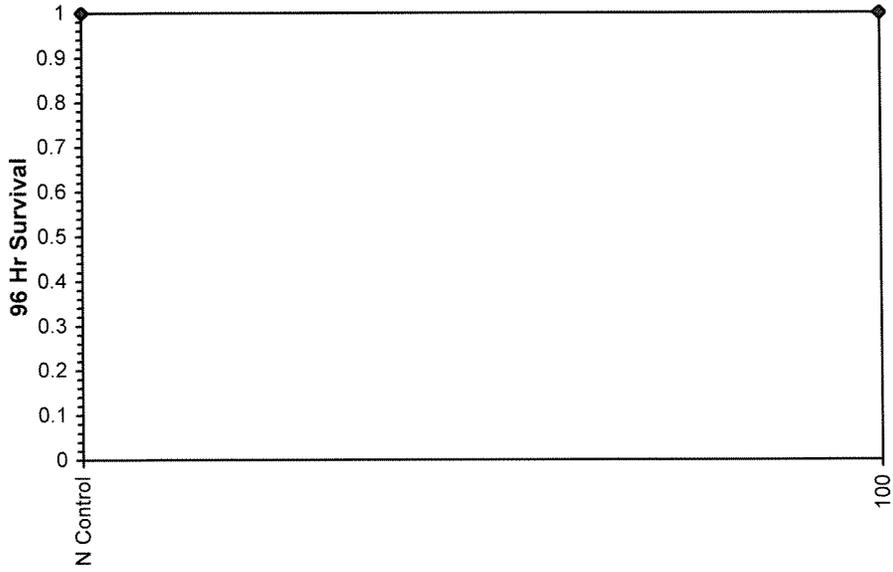
Point	%	SD	95% CL(Exp)	Skew
IC05	>100			
IC10	>100			
IC15	>100			
IC20	>100			
IC25	>100			
IC40	>100			
IC50	>100			



Larval Fish Growth and Survival Test-96 Hr Survival

Start Date: 11/30/2010	Test ID: CAP1110325	Sample ID: CA000000
End Date: 12/4/2010	Lab ID: CAABC	Sample Type: EFF1-POTW
Sample Date: 11/29/2010	Protocol: EPA-821-R-02-012	Test Species: PP-Pimephales promelas
Comments: 103239-01		

Dose-Response Plot



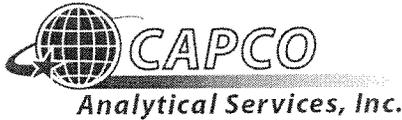
**Larval Fish Growth and Survival Test-96 Hr Survival**

Start Date: 11/30/2010	Test ID: CAP1110325	Sample ID: CA000000
End Date: 12/4/2010	Lab ID: CAABC	Sample Type: EFF1-POTW
Sample Date: 11/29/2010	Protocol: EPA-821-R-02-012	Test Species: PP-Pimephales promelas
Comments: 103239-01		

**Auxiliary Data Summary**

Conc-%	Parameter	Mean	Min	Max	SD	CV%	N
N Control	Temp C	24.10	24.00	24.20	0.10	1.31	3
100		24.07	24.00	24.10	0.06	1.00	3
N Control	pH	8.13	8.00	8.30	0.15	4.81	3
100		7.67	7.40	8.00	0.31	7.21	3
N Control	DO mg/L	7.87	7.20	8.50	0.65	10.25	3
100		7.70	6.90	8.40	0.75	11.28	3
N Control	Hardness mg/L	93.00	93.00	93.00	0.00	0.00	3
100		250.00	250.00	250.00	0.00	0.00	3
N Control	Alkalinitymg/L	62.00	62.00	62.00	0.00	0.00	3
100		250.00	250.00	250.00	0.00	0.00	3
N Control	Conductivity	317.00	306.00	328.00	11.00	1.05	3
100		2241.33	2055.00	2584.00	297.14	0.77	3





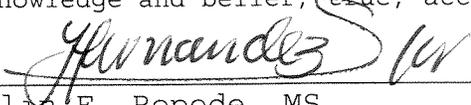
**Prepared for:** Fugro West, Inc.  
4820 McGrath St. Suite 100  
Ventura, CA 93003  
Attn: Tim Nicely

**Report Date:** December 23, 2010  
**Laboratory Number:** 103441.  
**Project Name:** Big Rock Mesa NPDES Sampling  
**Project No:** 3399.006  
**Sampled by:** Client

On November 16, 2010, Capco Analytical Services, Inc.(CAS), received ten(10) samples to be analyzed. The samples were identified and assigned the laboratory ID numbers listed below:

<u>SAMPLE DESCRIPTION</u>	<u>CAS LAB NUMBER ID</u>
W-2	103441-01
BYA-9	103441-02
W-17	103441-03
W-16	103441-04
W-18	103441-05
W-1	103441-06
BYA-H10	103441-07
HD-22	103441-08
HD-42	103441-09
HD-23	103441-10

By my signature below, I certify that the results contained in this laboratory report comply with applicable standards for certification by the California Department of Public Health's Environmental Laboratories Accreditation Program (ELAP), both technically and for completeness, and that, based on my inquiry of the person or persons directly responsible for performing the analyses, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete.

  
Alim E. Repede, MS  
Director - Analytical Operations

If you have any further questions or concerns, please contact me at your convenience. This report consists of 10 pages excluding the cover letter and the Chain of Custody.

This report shall not be reproduced except in full without the written approval of CAS. The test results reported represent only the item being tested and may not represent the entire material from which the sample was taken.

Client: Fugro West, Inc.  
CAS LAB NO: 103441  
Analyst: AN

Date Sampled: 12/15/10  
Date Received: 12/15/10  
Date Analyzed: 12/21/10  
Sample Matrix: Water

**TOTAL PHENOL ANALYSIS**  
**EPA METHOD 420.1**

CAS Lab #	Sample ID	RESULTS (mg/L)	Dilution Factor	MDL (mg/L)	PQL (mg/L)
10344101	W-2	ND	1	0.02	0.1
10344102	BYA-9	ND	1	0.02	0.1
10344103	W-17	ND	1	0.02	0.1
10344104	W-16	ND	1	0.02	0.1
10344105	W-18	ND	1	0.02	0.1
10344106	W-1	ND	1	0.02	0.1
10344107	BYA-H10	ND	1	0.02	0.1
10344108	HD-22	ND	1	0.02	0.1
10344109	HD-42	ND	1	0.02	0.1
10344110	HD-23	ND	1	0.02	0.1

MDL: Method Detection Limit  
PQL: Practical Quantitation Limit  
ND: Not Detected

Client: Fugro West, Inc.  
CAS LAB NO: 103441  
Analyst: AN

Date Sampled: 12/15/10  
Date Received: 12/15/10  
Date Analyzed: 12/16/10  
Sample Matrix: Water

**SETTLEABLE SOLIDS ANALYSIS**  
**SM 2540 F**

CAS Lab #	Sample ID	RESULTS (ml/L)	Dilution Factor	PQL (ml/L)
10344101	W-2	BQL	1	0.1
10344102	BYA-9	BQL	1	0.1
10344103	W-17	BQL	1	0.1
10344104	W-16	BQL	1	0.1
10344105	W-18	BQL	1	0.1
10344106	W-1	BQL	1	0.1
10344107	BYA-H10	BQL	1	0.1
10344108	HD-22	BQL	1	0.1
10344109	HD-42	BQL	1	0.1
10344110	HD-23	BQL	1	0.1

PQL: Practical Quantitation Limit  
BQL: Below Practical Quantitation Limit

Client: Fugro West, Inc.  
CAS LAB NO: 103441  
Analyst: GM

Date Sampled: 12/15/10  
Date Received: 12/15/10  
Date Analyzed: 12/20/10  
Sample Matrix: Water

**OIL & GREASE ANALYSIS**  
**EPA Method 1664**

CAS Lab #	Sample ID	RESULTS (mg/L)	Dilution Factor	MDL (mg/l)	PQL (mg/L)
10344101	W-2	ND	1	1	5
10344102	BYA-9	ND	1	1	5
10344103	W-17	ND	1	1	5
10344104	W-16	ND	1	1	5
10344105	W-18	ND	1	1	5
10344106	W-1	ND	1	1	5
10344107	BYA-H10	ND	1	1	5
10344108	HD-22	ND	1	1	5
10344109	HD-42	ND	1	1	5
10344110	HD-23	ND	1	1	5

MDL: Method Detection Limit  
PQL: Practical Quantitation Limit  
ND: Not Detected

Client: Fugro West, Inc.  
CAS LAB NO: 103441  
Analyst: AN

Date Sampled: 12/15/10  
Date Received: 12/15/10  
Date Analyzed: 12/20/10  
Sample Matrix: Water

**TOTAL SULFIDE ANALYSIS**  
**SM 4500-S<sup>2</sup>D**

CAS LAB #	Sample ID	RESULTS (mg/L)	Dilution Factor	MDL (mg/L)	PQL (mg/L)
10344101	W-2	ND	1	0.004	0.02
10344102	BYA-9	ND	1	0.004	0.02
10344103	W-17	ND	1	0.004	0.02
10344104	W-16	ND	1	0.004	0.02
10344105	W-18	ND	1	0.004	0.02
10344106	W-1	ND	1	0.004	0.02
10344107	BYA-H10	ND	1	0.004	0.02
10344108	HD-22	ND	1	0.004	0.02
10344109	HD-42	ND	1	0.004	0.02
10344110	HD-23	ND	1	0.004	0.02

ND: Not Detected  
MDL: Method Detection Limit  
BQL: Below Practical Quantitation Limit

Client: Fugro West, Inc.  
CAS LAB NO: 103441  
Analyst: GM

Date Sampled: 12/15/10  
Date Received: 12/15/10  
Date Analyzed: 12/17/10  
Sample Matrix: Water

**MBAS ANALYSIS**  
**SM 5540 C**

CAS Lab #	Sample ID	RESULTS (mg/L)	Dilution Factor	MDL (mg/l)	PQL (mg/L)
10344101	W-2	ND	1	0.02	0.1
10344102	BYA-9	ND	1	0.02	0.1
10344103	W-17	ND	1	0.02	0.1
10344104	W-16	ND	1	0.02	0.1
10344105	W-18	ND	1	0.02	0.1
10344106	W-1	ND	1	0.02	0.1
10344107	BYA-H10	ND	1	0.02	0.1
10344108	HD-22	ND	1	0.02	0.1
10344109	HD-42	ND	1	0.02	0.1
10344110	HD-23	ND	1	0.02	0.1

MDL: Method Detection Limit  
PQL: Practical Quantitation Limit  
ND: Not Detected

Client: Fugro West, Inc.  
CAS LAB NO: 103441  
Analyst: AN

Date Sampled: 12/15/10  
Date Received: 12/15/10  
Date Analyzed: 12/16/10  
Sample Matrix: Water

**BIOCHEMICAL OXYGEN DEMAND ANALYSIS**  
**SM 5210 B**

CAS Lab #	Sample ID	RESULTS (mg/L)	Dilution Factor	MDL (mg/l)	PQL (mg/L)
10344101	W-2	ND	1	0.4	2
10344102	BYA-9	ND	1	0.4	2
10344103	W-17	ND	1	0.4	2
10344104	W-16	ND	1	0.4	2
10344105	W-18	0.55	1	0.4	2
10344106	W-1	ND	1	0.4	2
10344107	BYA-H10	ND	1	0.4	2
10344108	HD-22	0.74	1	0.4	2
10344109	HD-42	ND	1	0.4	2
10344110	HD-23	2.0	1	0.4	2

MDL: Method Detection Limit  
PQL: Practical Quantitation Limit  
ND: Not Detected

Client: Fugro West, Inc.  
CAS LAB NO: 103441  
Analyst: LM

Date Sampled: 12/15/10  
Date Received: 12/15/10  
Date Analyzed: 12/16/10  
Sample Matrix: Water

**TOTAL SUSPENDED SOLIDS ANALYSIS**  
**SM 2540 D**

CAS Lab #	Sample ID	RESULTS (mg/L)	Dilution Factor	MDL (mg/l)	PQL (mg/L)
10344101	W-2	ND	1	1	5
10344102	BYA-9	6.4	1	1	5
10344103	W-17	ND	1	1	5
10341104	W-16	ND	1	1	5
10344105	W-18	ND	1	1	5
10344106	W-1	3.2	1	1	5
10344107	BYA-H10	8.4	1	1	5
10344108	HD-22	5.6	1	1	5
10344109	HD-42	ND	1	1	5
10344110	HD-23	ND	1	1	5

MDL: Method Detection Limit  
PQL: Practical Quantitation Limit  
ND: Not Detected

Client: Fugro West, Inc.  
CAS LAB NO: 103441  
Analyst: AN

Date Sampled: 12/15/10  
Date Received: 12/15/10  
Date Analyzed: 12/15/10  
Sample Matrix: Water

**TOTAL RESIDUAL CHLORINE ANALYSIS**  
**SM 4500CL G**

CAS Lab #	Sample ID	RESULTS (mg/L)	Dilution Factor	PQL (mg/L)	MDL (mg/L)
10344101	W-2	ND	1	0.1	0.02
10344102	BYA-9	ND	1	0.1	0.02
10344103	W-17	ND	1	0.1	0.02
10344104	W-16	ND	1	0.1	0.02
10344105	W-18	ND	1	0.1	0.02
10344106	W-1	0.11	1	0.1	0.02
10344107	BYA-H10	ND	1	0.1	0.02
10344108	HD-22	ND	1	0.1	0.02
10344109	HD-42	ND	1	0.1	0.02
10344110	HD-23	ND	1	0.1	0.02

PQL: Practical Quantitation Limit  
MDL: Method Detection Limit  
ND: Not Detected

Client: Fugro West, Inc.  
CAS LAB NO: 103441  
Analyst: LM

Date Sampled: 12/15/10  
Date Received: 12/15/10  
Date Analyzed: 12/16/10  
Sample Matrix: Water

**TURBIDITY ANALYSIS**  
**EPA Method 180.1**

CAS Lab #	Sample ID	RESULTS (NTU)	Dilution Factor	PQL (NTU)
10344101	W-2	0.32	1	0.1
10344102	BYA-9	2.9	1	0.1
10344103	W-17	0.12	1	0.1
10344104	W-16	0.33	1	0.1
10344105	W-18	3.1	1	0.1
10344106	W-1	6.4	1	0.1
10344107	BYA-H10	3.3	1	0.1
10344108	HD-22	1.5	1	0.1
10344109	HD-42	0.32	1	0.1
10344110	HD-23	0.30	1	0.1

PQL: Practical Quantitation Limit

Client: Fugro West, Inc.  
CAS LAB NO: 103441  
Analyst: AN/GM/LM

Date Received: 12/15/10  
Sample Matrix: Water

QUALITY CONTROL DATA

COMPOUND	RESULT	UNITS	DF	MDL	PQL	METHOD	ANALYZED
B.O.D.	ND	mg/L	1	0.4	2	5210 B	12/16/10
Oil and Grease	ND	mg/L	1	1	5	1664	12/20/10
MBAS	ND	mg/L	1	0.02	0.1	5540 C	12/17/10
Phenol (Total)	ND	mg/L	1	0.02	0.1	420.1	12/21/10
Residual Chlorine	ND	mg/L	1	0.02	0.1	4500CL G	12/15/10
Settleable Solid	BQL	ml/L	1	--	0.1	2540 F	12/16/10
Sulfide (Total)	ND	mg/L	1	0.004	0.02	4500S <sup>2</sup> -D	12/20/10
T.S.S.	ND	mg/L	1	1	5	2540 D	12/16/10

BQL: Below Practical Quantitation Limit  
MDL: Method Detection Limit  
PQL: Practical Quantitation Limit  
ND: Not Detected

# CAPCO ANALYTICAL SERVICES

1536 Eastman Avenue, Suite B  
 Ventura, CA 93003  
 (805) 644-1095 Fax 644-9947  
 www.capcoenv.com

## CHAIN OF CUSTODY RECORD

**REPORT** Company Fugro Fax \_\_\_\_\_  
 Address 48200 Granta St. Ste. 100  
Ventura, CA Email \_\_\_\_\_  
 Phone 289-3836 Contact \_\_\_\_\_

**BILL TO:** Company \_\_\_\_\_  
 Address \_\_\_\_\_  
 Phone \_\_\_\_\_ Contact \_\_\_\_\_

P.O.# \_\_\_\_\_

PROJECT NAME Big Rock Mesa NPDES Study

SAMPLERS: (Signature) [Signature]

CONTAINER TYPES  
 A = AMBER B = BRASS G = GLASS  
 P = PLASTIC V = VOA VIAL O = OTHER

SAMPLE NO.	DATE SAMPLED	TIME SAMPLED	GPS	SAMPLE IDENTIFICATION	MATRIX			CONTAINER #	TYPE	REMARKS
					WATER	SOIL	SLUDGE/OTHER			
1	12/15/10	9:30		W-2			5		1814	pH 6.947.0
2		10:30		BYA-9					1933	6.7
3		11:20		W-17					1260	7.3
4		11:50		W-16					1773	7.3
5		13:15		W-18					1926	7.2
6		13:20		W-1					1756	6.9
7		13:45		BYA-H10					1595	7.2
8		14:00		HD-22					3130	7.3
9		14:20		HD-42					3946	7.1
10		14:45		HD-23					3500	7.3

ANALYSIS  
 TSS, Sub, Bod  
 Oil & Grease  
 Seth Solids, S.L.L.L.  
 Metals, MBAS  
 Chloride, Res. Chloride

103441

The undersigned hereby acknowledges having received a copy of the Fee Schedule/General Information and Conditions, the provisions of which are a part of this agreement.

Relinquished by: (Signature) [Signature] Date/Time 12/15/2010 Received by: (Signature) [Signature]

Relinquished by: (Signature) \_\_\_\_\_ Date/Time \_\_\_\_\_ Received by: (Signature) \_\_\_\_\_

TURN AROUND TIME  
 STANDARD  OTHER \_\_\_\_\_  
 24 HOURS   
 48 HOURS   
 72 HOURS

CHECK ONE BOX:  
 DISPOSE SAMPLES   
 RETURN SAMPLES