STATE OF CALIFORNIA
CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
LOS ANGELES REGION

TIME SCHEDULE ORDER NO. R4-2018-YYYY

REQUIRING SENTINEL PEAK RESOURCES CALIFORNIA, LLC.
(INGLEWOOD OIL FIELD)
TO COMPLY WITH REQUIREMENTS PRESCRIBED IN
ORDER NO. R4-2018-XXXX
(NPDES PERMIT NO. CA0057827)

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The California Regional Water Quality Control Board, Los Angeles Region (hereinafter Regional Water Board) finds:

1. Sentinel Peak Resources California, LLC. (hereinafter Discharger or Permittee) owns and operates the Inglewood Oil Field (hereinafter Facility or Field), an actively producing oil and gas field located in the Baldwin Hills area of Los Angeles, California. The Field was formerly owned and operated by Freeport-McMoRan Oil & Gas (FM O&G). Sentinel Peak Resources California, LLC. acquired the Field from FM O&G on January 1, 2017.

2. The Facility discharges storm water under waste discharge requirements (WDRs) contained in Order No. R4-2013-0021, issued to Plains Exploration & Production Company, and adopted by the Regional Water Board on February 7, 2013. Order No. R4-2013-0021 serves as a National Pollutant Discharge Elimination System (NPDES) permit (NPDES No. CA0057827) and it expired on January 10, 2018. Plains Exploration & Production Company merged with and into FM O&G on May 31, 2013.

3. Order No. R4-2013-0021 authorizes the Field to discharge up to 7.55 million gallons per day (MGD) of storm water runoff. Storm water runoff including storm water from construction sites within the Field flows to six retention basins via natural drainage areas. The retention basin names and their corresponding discharge points are as follows:

Discharge Point	Discharge Point Latitude	Discharge Point Longitude	Retention Basin Name	Maximum Rainfall Runoff Flow (mgd)
001	33.9894°	-118.3692°	LAI Last Chance Basin	0.666
002	34.0144°	-118.3747°	Dabney-Lloyd Basin	3.06
003	34.9908°	-118.3611°	Stocker Basin	0.634
004	34.0008°	-118.3842°	Vickers – I Basin	1.58
005	34.0081°	-118.3867°	Lower Vickers- II Basin	1.01
006	34.0100°	-118.3867°	Upper Vickers- II Basin	0.60

Storm water runoff from these basins is discharged to the Los Angeles County Department of Public Works storm drain system. Two of the basins, LAI Last Chance and Stocker, discharge through the storm drain system into Centinela Creek that drains directly to Ballona Creek Estuary

just below the boundary with Ballona Creek Reach 2. The other four basins, Dabney-Lloyd, Vickers - I, Lower Vickers - II and Upper Vickers - II, discharge through the storm drain system to Ballona Creek Reach 2.

4. On July 7, 2005, the Regional Water Board adopted the Total Maximum Daily Load (TMDL) for metals in Ballona Creek (Ballona Creek Metals TMDL) by Resolution No. R05-007. The State Water Board approved the TMDL on October 20, 2005; Office of Administrative Law (OAL) and U.S. EPA approvals were received on December 9, 2005 and December 22, 2005, respectively. The Ballona Creek Metals TMDL was subsequently amended by Resolution No. 2007-015 (effective October 29, 2009) and Resolution No. R13-010 (effective October 26, 2015). The Ballona Creek metals TMDL designates Waste Load Allocations (WLAs) for point sources discharging into Ballona Creek, including those regulated through minor NPDES permits.

5. The discharge from the Inglewood Oil Field has been classified as a major discharge and the permitted discharge flow is 7.55 MGD. The Ballona Creek Metals TMDL includes specific WLAs for some of the major dischargers, including the Phase I and Phase II MS4 permittees and CalTrans , but no specific WLA has been designated for the Inglewood Oil Field. Since the Inglewood Oil Field is a point source to Ballona Creek, concentration-based WLAs for copper, lead, selenium and zinc both dry-weather and wet-weather included in the TMDL for minor point sources were used for developing effluent limitations for discharges from the Inglewood Oil Field. The Ballona Creek Metals TMDL is not applicable to the discharges from Discharge Points 001 and 003 to Centinela Creek because Centinela Creek is not listed as impaired for metals and it drains to Ballona Creek Estuary, not Ballona Creek Reach 2.

6. Order No. R4-2013-0021 established effluent limitations for copper, lead, selenium and zinc for each of six basins, respectively, based on WLAs in the Ballona Creek Metals TMDL (Resolution No. 2007-015) or the criteria in California Toxics Rule. The effluent limitations contained in Order No. R4-2013-0021 are as follows:

Table 1. Final Effluent Limitations for Copper, Lead, Selenium and Zinc in Order No. R4-2013-0021

Parameter	Units	Maximum Daily Effluent Limitation (MDEL)				Rationale[2]
		Discharge Point 002	Discharge Point 004	Discharge Point 005	Discharge Point 006	
Copper, (Dry-weather)[3]	µg/L	39	39	39	39	TMDL
	lbs/day[1]	1.0	0.51	0.33	0.20	
Lead, (Dry-weather)[3]	µg/L	21	21	21	21	TMDL
	lbs/day[1]	0.54	0.28	0.18	0.11	
Selenium, (Dry-weather)[3]	µg/L	8.2	8.2	8.2	8.2	TMDL
	lbs/day[1]	0.21	0.11	0.069	0.041	
Zinc, (Dry-weather)[3]	µg/L	498	498	498	498	TMDL
	lbs/day[1]	12.7	6.56	4.19	2.49	
Copper,	µg/L	18	18	18	18	TMDL

Parameter	Units	Maximum Daily Effluent Limitation (MDEL)				Rationale[2]
		Discharge Point 002	Discharge Point 004	Discharge Point 005	Discharge Point 006	
(Wet-weather)[3]	lbs/day[1]	0.46	0.24	0.15	0.090	
Lead, (Wet-weather)[3]	µg/L	59	59	59	59	TMDL
	lbs/day[1]	1.5	0.78	0.50	0.30	
Selenium, (Wet-weather)[3]	µg/L	5.0	5.0	5.0	5.0	TMDL
	lbs/day[1]	0.13	0.066	0.042	0.025	
Zinc, (Wet-weather)[3]	µg/L	119	119	119	119	TMDL
	lbs/day[1]	3.04	1.57	1.00	0.60	
		Discharge Point 001		**Discharge Point 003**		
Copper, (All-weather)	µg/L	23		23		CTR
	lbs/day[1]	0.13		0.12		
Lead, (All-weather)	µg/L	9.9		9.9		CTR
	lbs/day[1]	0.055		0.052		
Selenium, (All-weather)	µg/L	8.2		8.2		CTR
	lbs/day[1]	0.046		0.043		
Zinc, (All-weather)	µg/L	184		--		CTR
	lbs/day[1]	1.02		--		

1. The mass emission rates are based on the maximum permitted flow rate of each basin and are calculated using the following formula: Mass (lbs/day) = flow rate (MGD) x effluent limitation (mg/L) x 8.34
2. TMDL – Total Maximum Daily Load for Metals in Ballona Creek (Resolution No. 2007-015).
CTR – California Toxics Rule.
3. According to Resolution No. 2007-015, dry-weather effluent limitations are applicable when the maximum daily flow in Ballona Creek as measured at Stream Gage No. F38C-R is less than 40 cubic feet per second (cfs) and wet-weather effluent limitations are applicable when the maximum daily flow in Ballona Creek is equal to or greater than 40 cfs.

For Discharge Points 002, 004, 005, and 006, the final effluent limitations for copper, lead, selenium and zinc were based on WLAs in the Ballona Creek Metals TMDL. The final effluent limitations for copper, lead, selenium and zinc for Discharge Points 001 and 003 were based on California Toxics Rule (CTR) criteria to protect the beneficial uses of the receiving water using a hardness value of 166 mg/L as $CaCO_3$. Since the discharge from the Facility is storm water only and it is not continuous as defined in 40 C.F.R. section 122.2, only maximum daily effluent limitations (MDELs) were established in Order No. R4-2013-0021.

7. On August 20, 2012, the Discharger requested that the Regional Water Board issue a Time Schedule Order (TSO) with interim effluent limitations for copper, lead, selenium and zinc because the discharge from the Facility could not consistently meet the final effluent limitations for these metals in Order No. R4-2013-0021. With the request letter, the Discharger also included a Work Plan that indicated the actions to be taken to achieve full compliance with the final effluent limitations. The tasks in Phase 1 included improving the storm water sampling and analysis, assessing modifications

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to the discharge infrastructure to minimize sediment release, improving water management by conducting releases during non-rainfall events, and evaluation of areas of potential metals accumulation. The Discharger indicated that if compliance could not be achieved by the Phase 1 measures, Phase 2 efforts would be implemented. The Phase 2 activities included redesign of the basins including the intakes and the outlet works as well as evaluation of the best management practices to further reduce entrained sediments which affects the metals concentrations in the discharge from basins.

8. Due to the infrequent discharges (ranging from 1.0 to 3.3 per year on average) from the basins at that time and the need to collect a representative suite of samples to demonstrate the ability to reliably comply with the final effluent limitations, the Discharger requested a four-year period for the Phase 1 activities and a total of nine years for the full implementation of Phase 1 and Phase 2 measures in the August 20, 2012, request letter.

9. On February 7, 2013, the Regional Water Board issued Time Schedule Order No. R4-2013-0022 concurrently with Order No. R4-2013-0021 to the Discharger. This TSO allowed the Discharger a three-and-a-half year period rather than the requested 9-year period, until September 15, 2016, for the implementation of Phase 1 activities to achieve compliance with the final effluent limitations for copper, lead, selenium, and zinc included in Order No. R4-2013-0021. The Regional Water Board indicated that the Discharger could request an extension of this TSO if sufficient justification was provided.

10. Since the issuance of TSO No. R4-2013-0022, the Discharger has met or improved upon the established schedule and tasks. The Discharger completed all Phase 1 improvements as required and the additional erosion control measures originally proposed as the Phase 2 activities. Although the improvements included in the TSO (Phase 1) and the additional erosion control measures completed in Phase 2 likely reduced metals concentrations in the storm water discharge, during an intense rainfall event in February 2014, the Discharger discovered that the implemented activities were not sufficient to achieve compliance with the final effluent limitations for copper, lead, selenium, and zinc in Order No. R4-2013-0021.

11. The Discharger believed that a change in focus from source control and erosion control to the implementation of storm water treatment systems was required. The first rented storm water treatment systems including a self-priming pump, two 18,000-gallon weir tanks, a booster pump, a bag filter unit, and a flow meter were in place for discharges that occurred in December 2014 and January 2015. In October 2015, this system, as well as a rental system provided by Baker Corp. with a different set of treatment agents and filter polish technology, were installed and used to treat discharges occurred in January and March 2016. Initial indications during that limited testing period (over 1.5 years with less than 4 discharges) have provided evidence the treatment systems utilizing the appropriate treatment technologies will likely result in full compliance. Therefore, the Discharger proposed to conduct field testing to finalize the design parameters that would lead to the installation of permanent storm water treatment systems for each of six basins as the Phase 3 activities.

12. Since the issuance of TSO No. R4-2013-0022 on February 7, 2013, the average number of discharges per year between 2013 and 2016 is slightly less than two (2) per year at each basin. Due to the infrequent discharges from the basins, in order to complete the design, collect a sufficient

number of samples to validate the reliability of the selected treatment system during storm conditions, and complete final installation, the Discharger requested a five-year extension of the TSO (expired on September 15, 2016) on June 13, 2016. The Discharger indicated that the additional time would ideally provide approximately 10 discharge events from each basin for the determination and testing of the selected treatment system and the optimization of the operation parameters for each treatment unit.

13. In September 2016, a TSO amendment (R4-2013-0022-A01) was issued by the Executive Officer. The TSO amendment provides an additional one-and-a-half years rather than the requested five years for the initial implementation of the design, installation and testing of the storm water treatment systems. The limited one-and-a-half year extension in the TSO amendment sets forth a compliance schedule which terminates on February 7, 2018, and together with the time limits set forth in the original TSO (R4-2013-0022), does not exceed the time period for TSOs set forth in Water Code section 13385. At that time, however, the Discharger indicated that additional time may be required beyond February 7, 2018, in order to test and select an appropriate treatment system for each of six basins.

14. On February 8, 2018, Order No. R4-2013-0021 was renewed by Order No. R4-2018-XXXX, which became effective on April 1, 2018. Order No. R4-2018-XXXX modified final effluent limitations for copper, lead and zinc for both dry-weather and wet-weather at Discharge Points 002, 004, 005 and 006 pursuant to the most recent amendment of the Ballona Creek Metals TMDL through Resolution No. R13-010, which became effective on October 26, 2015. In the amended Ballona Creek Metals TMDL, the WLAs for copper, lead and zinc had been revised and the selenium WLAs were removed. Order No. R4-2018-XXX also modified final effluent limitations for copper, lead and zinc using the new coefficient of variations (CVs) derived from the monitoring data at each discharge point and a new receiving water hardness value (50 percentile value of the reported data). In addition, Order No. R4-2018-XXXX established technology-based effluent limitation for total petroleum hydrocarbons (TPH) based on best professional judgment (BPJ) as authorized under Clean Water Act (CWA) section 402(a)(1) and 40 C.F.R. section 125.3 because the monitoring data demonstrated reasonable potential for TPH. The final effluent limitations for copper, lead, zinc and TPH in Order No. R4-2018-XXXX are as follows:

Table 1. Final Effluent Limitations for Copper, Lead, Selenium and Zinc in Order No. R4-2018-XXXX

Parameter	Units	Maximum Daily Effluent Limitation (MDEL)				Rationale[2]
		Discharge Point 002	Discharge Point 004	Discharge Point 005	Discharge Point 006	
Copper, (Dry-weather)[3]	µg/L	58	58	58	58	TMDL
	lbs/day[1]	1.48	0.76	0.49	0.29	
Lead, (Dry-weather)[3]	µg/L	32	32	32	32	TMDL
	lbs/day[1]	0.82	0.42	0.27	0.16	
Zinc, (Dry-weather)[3]	µg/L	733	733	733	733	TMDL
	lbs/day[1]	18.7	9.66	6.17	3.67	
Copper,	µg/L	14	14	14	14	TMDL

Parameter	Units	Maximum Daily Effluent Limitation (MDEL)				Rationale[2]
		Discharge Point 002	Discharge Point 004	Discharge Point 005	Discharge Point 006	
(Wet-weather)[3]	lbs/day[1]	0.36	0.18	0.12	0.070	
Lead, (Wet-weather)[3]	µg/L	77	77	77	77	TMDL
	lbs/day[1]	1.97	1.01	0.65	0.39	
Zinc, (Wet-weather)[3]	µg/L	105	105	105	105	TMDL
	lbs/day[1]	2.68	1.38	0.88	0.53	
Total Petroleum Hydrocarbons (TPHs)[4]	µg/L	100	100	100	100	BPJ
	lbs/day[1]	2.55	1.32	0.84	0.50	
		Discharge Point 001		Discharge Point 003		
Copper [5] (All-weather)	µg/L	23		23		CTR
	lbs/day[1]	0.13		0.12		
Lead [5] (All-weather)	µg/L	10.8		10		CTR
	lbs/day[1]	0.060		0.053		
Zinc [5] (All-weather)	µg/L	185		185		CTR
	lbs/day[1]	1.03		0.98		
Total Petroleum Hydrocarbons (TPHs)[4]	µg/L	100		100		BPJ
	lbs/day[1]	0.56		0.53		

1. The mass emission rates are based on the maximum permitted flow rate of each basin and are calculated using the following formula: Mass (lbs/day) = flow rate (MGD) x effluent limitation (mg/L) x 8.34
2. TMDL – Total Maximum Daily Load for Metals in Ballona Creek (Resolution No. R13-010). CTR – California Toxics Rule. BPJ – Best Professional judgement.
3. According to Resolution No. R13-010, dry-weather effluent limitations are applicable when the maximum daily flow in Ballona Creek as measured at Stream Gage No. F38C-R is less than 64 cubic feet per second (cfs) and wet-weather effluent limitations are applicable when the maximum daily flow in Ballona Creek is equal to or greater than 64 cfs.
4. TPH equals the sum of TPH gasoline (C_4-C_{12}), TPH diesel (C_{13}-C_{22}), and TPH waste oil (C_{23+}).
5. For these metals, the CTR criteria used for establishing the effluent limitations are based on a hardness value (as CaCO3) of 166.5 mg/L.

For Discharge Points 002, 004, 005, and 006, the final MDELs for copper, lead and zinc were based on WLAs in the Ballona Creek Metals TMDL (Resolution No. R13-010). The final MDELs for copper, lead, and zinc for Discharge Points 001 and 003 were based on California Toxics Rule criteria to protect the beneficial uses of the receiving water using a hardness value of 166.5 mg/L as $CaCO_3$. Since the discharge from the Facility is storm water only and it is not continuous as defined in 40 C.F.R. section 122.2, only maximum daily effluent limitations were established.

15. The Discharger indicated that, during the periods in which TSO No. R4-2013-0022 and its amendment were valid, several rainfall events within the 2015-2016 and 2016-2017 seasons allowed evaluation of different technologies to remove lead, zinc, copper and selenium from storm water. The results indicated that flocculation, settling, in-line clarification, and filtration are required to achieve compliance with final effluent limitations. The study also showed that the majority of the

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metals were in fact colloidal and could be filtered out if particle size could be increased. Because of the nature of the sediment (i.e., very fine grained), only field trials during or immediately after rainfall events can provide the necessary data such as the required system residence time during extended storm events and the proper dosage of applied chemicals that could be required for the optimization of the treatment system. However, the number of rainfall events fell short of what is required to conduct comprehensive treatment system testing and specification of a final system design that would provide repeatable results. Therefore, additional time is required for additional performance tests during actual rainfall events in the 2017-2018 season in order to finalize the design parameters of the treatment system.

16. On July 14, 2017, the Discharger submitted a written request to the Regional Water Board to extend the TSO for an additional one-and-a-half years, to August 2019 in order to select and install the treatment system for each basin and to optimize the operation parameters for each treatment system. With the request letter, the Discharger also included proposed interim effluent limitations for copper, lead and zinc and a work plan that outlined the actions to be taken to achieve full compliance with the final effluent limitations in Order No. R4- 2018-XXXX. The proposed interim effluent limitations only applied to those metals and basins that have had exceedances between 2014 and 2017. The changes in the proposed interim effluent limitations reflected substantial progress made during the previous TSO periods. In the work plan, the milestone date for each action to be taken was specified. During a later discussion with Regional Water Board staff, the Discharger was informed that a new TPH effluent limitation of 100 µg/L would be established for each basin in Order No. R4-2018-XXXX. Since monitoring results indicated that the storm water discharges from the Facility could not consistently comply with the new TPH limitation, the Discharger submitted another request to the Regional Water Board on October 19, 2017 to include an interim effluent limitation of 1000 µg/L for TPH in the new TSO. Additional time is required for the Discharger to consider the need for and the type of treatment for TPH.

17. California Water Code (Water Code) section 13300 states:

    "Whenever a regional board finds that a discharge of waste is taking place or threatening to take place that violates or will violate requirements prescribed by the regional board, or the state board, or that the waste collection, treatment, or disposal facilities of a discharger are approaching capacity, the board may require the discharger to submit for approval of the board, with such modifications as it may deem necessary, a detailed time schedule of specific actions the discharger shall take in order to correct or prevent a violation of requirements."

18. The monitoring data from 2014 to 2017 indicated that the Facility's discharge would likely exceed the effluent limitations of copper, lead, zinc and TPH in Order No. R4-2018-XXXX. As such, the Facility may not be able to consistently comply with the final effluent limitations for copper, lead, zinc and TPH in Order No. R4-2018-XXXX during the period of final design and optimization of the treatment system. Accordingly, pursuant to the Water Code section 13300, a discharge of waste is taking place and/or threatens to take place that violates requirements prescribed by the Regional Water Board.

19. Water Code section 13385, subdivisions (h) and (i), require the Regional Water Board to impose mandatory minimum penalties upon dischargers that violate certain effluent limitations. Subsection 13385(j)(3) exempts violations of an effluent limitation from mandatory minimum penalties "where

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the waste discharge is in compliance with either a cease and desist order issued pursuant to Section 13301 or a time schedule order issued pursuant to Section 13300, *if all of the [specified] requirements are met."* (emphasis added). Applicable requirements are set forth below.

20. Water Code section 13385, subsection (j)(3)(B)(i), allows a TSO to issue for a period of time not to exceed five years for a particular constituent if the "regional board finds that… the discharger is not able to consistently comply with one or more of the effluent limitations established in the waste discharge requirements" if the "effluent limitation is a *new*, more stringent, or modified regulatory requirement that has become applicable to the waste discharge after the effective date of the waste discharge requirements and after July 1, 2000, new or modified control measures are necessary in order to comply with the effluent limitation, and the new or modified control measures cannot be designed, installed, and put into operation within 30 calendar days." (emphasis added). Similarly, Water Code section 13385, subsection (j)(3)(B)(ii) allows a TSO to issue if "[n]ew methods for detecting or measuring a pollutant in the waste discharge demonstrate that new or modified control measures are necessary in order to comply with the effluent limitation and the new or modified control measures cannot be designed, installed, and put into operation within 30 calendar days."

21. Because effluent limitations for copper, lead and zinc have already been subject to a TSO for over four years, prerequisites to issuing a TSO again for these constituents also include those set forth in Water Code section 13385 subdivisions (j)(3)(C)(i) and (j)(3)(C)(ii)(II):

    The TSO must establish "a time schedule for bringing the waste discharge into compliance with the effluent limitation that is as short as possible, taking into account the technological, operational, and economic factors that affect design, development and implementation of the control measures that are necessary to comply with the effluent limitation," (Water Code section 13385(j)(3)(C)(i)); and the TSO must issue "following a public hearing, and upon a showing that the discharger is making diligent progress toward bringing the waste discharge into compliance with the effluent limitation," and if the "discharger demonstrates that the additional time is necessary to comply with the effluent limitation." (Water Code section (j)(3)(C)(ii)(II).)

22. The Regional Water Board issues this TSO with interim effluent limitations for TPH based on all of the findings set forth herein, and the following:

    (a) The effluent limit for TPH is a new regulatory requirement that has become applicable to the Facility's waste discharge.

    (b) The interim effluent limitation for TPH is proposed by the Discharger.

    (c) New control measures are necessary in order to comply with the effluent limitation, and the new control measures cannot be designed, installed or put into operation within 30 calendar days. Indeed, the Discharger needs time to complete final design, installation and optimization of the storm water treatment system for each of six basins.

    (d) The TSO for TPH set forth herein does not exceed five years in length.

23. With respect to copper, lead and zinc, the Regional Water Board issues this TSO after a public hearing on the matter, held on February 8, 2018. The limits in the TSO for copper, lead and zinc are based on all of the findings set forth herein, and the following:

    (a) The interim effluent limitations for copper, lead and zinc are based on new monitoring data sets not previously available, collected between January 2008 and February 2017.

    (b) The compliance schedule and interim effluent limitations are only for those pollutants and basins that showed exceedances over the final effluent limitations contained in Order No. R4-2018-XXXX.

    (c) The Discharger is making diligent progress toward bringing the lead, copper and zinc discharges into compliance with the applicable effluent limitations in Order No. R4-2018-XXXX. The Discharger has demonstrated that the additional time in this TSO is necessary to comply with the effluent limitations for copper, lead and zinc. Specifically, this TSO provides the required time for the Discharger to investigate and implement any required upgrades to bring the Inglewood Oil Field into compliance with the final effluent limitations for copper, lead, zinc and TPH.

    (d) The prior TSO, Order No. R4-2013-0022, as amended by Order No. R4-2013-022-A01, for copper, zinc and lead did not exceed five years. The time limits set forth in this TSO for copper, zinc and lead, combined with those in the prior TSO, together exceed five (5) years but do not exceed ten (10) years.

24. Since the time schedule for completion of the actions necessary to bring the waste discharge into compliance exceeds one year from the effective date of this TSO, this TSO includes interim requirements and dates for their achievement. The interim requirements include both interim effluent limitations for copper, lead, zinc and TPH and actions and milestones leading to compliance with the final effluent limitations for these pollutants.

25. Additionally, the Regional Board finds that the temporary exceedances of copper, lead, zinc and TPH allowed by this TSO are in the public interest given the significant environmental benefits associated with promptly achieving compliance with the final effluent limitations for these pollutants and the associated net decrease in the mass of the pollutant discharged from the Facility. A TSO is appropriate in these circumstances to allow time for the Permittee to complete necessary studies and facility modifications that will bring the Facility into compliance with the final effluent limitations for copper, lead, zinc and TPH included in Order No. R4-2018-XXXX.

26. This TSO establishes interim effluent limitations for copper, lead, zinc and TPH based on performance. The established time schedule is as short as possible, taking into account the technological, operational, and economic factors that affect the design, development, and implementation of the control measures that are necessary to comply with the final effluent limitations for these constituents.

27. Pursuant to the Water Code section 13385(j)(3), full compliance with the requirements of this TSO exempts the Permittee from mandatory minimum penalties (MMPs) only for violations of the final effluent limitations for copper and lead at Discharge Points 001 and 003, for copper and zinc at

Discharge Points 002 and 006 and for TPHs at all Discharge Points in Order No. R4-2018-XXXX that occur after the effective date of this TSO, and until the expiration date of this TSO. If an interim effluent limitation contained in this TSO is exceeded, the Discharger is subject to MMP for that particular exceedance as the waste discharge is not in compliance with a TSO pursuant to Water Code section 13385, subdivision (j)(3). It is the intent of the Regional Water Board that a violation of an interim effluent limitation subjects the Discharger to one MMP for the day in which the sample was collected for that constituent.

28. The issuance of this TSO is categorically exempt from the provisions of the California Environmental Quality Act (CEQA) pursuant to California Code of Regulations, title 14, section 15301 because the TSO pertains to an existing facility and involves negligible or no expansion of an existing use. In addition, the issuance of this TSO is categorically exempt from CEQA pursuant to California Code of Regulations, title 14, sections 15307, 15308, and 15321, subdivision (a)(2). The issuance of this TSO is an action to assure the maintenance, restoration, enhancement and protection of the environment and a natural resource and is also an enforcement order issued by the Los Angeles Regional Water Quality Control Board.

29. The Regional Water Board has notified the Discharger, interested agencies, and interested persons of its intent to issue this TSO concerning compliance with waste discharge requirements. The Regional Water Board heard and considered all testimony pertinent to this matter in a public hearing.

30. Any person aggrieved by this action of the Regional Water Board may petition the State Water Board to review the action in accordance with the Water Code section 13320 and the California Code of Regulations, title 23, sections 2050 and following. The State Water Board must receive the petition by 5:00 p.m., 30 days after the Regional Water Board action, except that if the thirtieth day following the action falls on a Saturday, Sunday, or state holiday, the petition must be received by the State Water Board by 5:00 p.m. on the next business day. Copies of the law and regulations applicable to filing petitions may be found on the Internet at http://www.waterboards.ca.gov/public_notices/petitions/water_quality or will be provided upon request.

IT IS HEREBY ORDERED that, pursuant to the California Water Code section 13300, the Sentinel Peak Resources California, LLC. as owner and operator of the Inglewood Oil Field, shall comply with the requirements listed below to ensure compliance with the final effluent limitations for copper, lead and zinc contained in Order No. R4-2018-XXXX:

1. Comply immediately with the following interim effluent limitations:

Constituent	Units	Interim Effluent Limitations Daily Maximum[1]
Discharge Point No. 001 (LAI Last Chance Basin)		
Copper, Total Recoverable (All-weather)	µg/L	41[4]
	lbs/day[2]	0.23
Lead, Total Recoverable (All-weather)	µg/L	26[1]
	lbs/day[2]	0.14

Constituent	Units	Interim Effluent Limitations Daily Maximum[1]
Total Petroleum Hydrocarbons (TPHs)[5]	µg/L	1000[6]
	lbs/day[2]	4.2
Discharge Point No. 002 (Dabney-Lloyd Basin)		
Copper, Total Recoverable (Wet-weather)[3]	µg/L	30[1]
	lbs/day[2]	0.77
Zinc, Total Recoverable (Wet-weather)[3]	µg/L	149[1]
	lbs/day[2]	3.80
Total Petroleum Hydrocarbons (TPHs)[5]	µg/L	1000[6]
	lbs/day[2]	19.3
Discharge Point No. 003 (Stocker Basin)		
Copper, Total Recoverable (All-weather)	µg/L	30[1]
	lbs/day[2]	0.16
Lead, Total Recoverable (All-weather)	µg/L	23[1]
	lbs/day[2]	0.12
Total Petroleum Hydrocarbons (TPHs)[5]	µg/L	1000[6]
	lbs/day[2]	4.0
Discharge Point No. 004 (Vickers - I Basin)		
Total Petroleum Hydrocarbons (TPHs)[5]	µg/L	1000[6]
	lbs/day[2]	10
Discharge Point No. 005 (Lower Vickers - II Basin)		
Total Petroleum Hydrocarbons (TPHs)[5]	µg/L	1000[6]
	lbs/day[2]	6.4
Discharge Point No. 006 (Upper Vickers II Basin)		
Copper, Total Recoverable (Wet-weather)[3]	µg/L	44[1]
	lbs/day[2]	0.22
Zinc, Total Recoverable (Wet-weather)[3]	µg/L	119[1]
	lbs/day[2]	0.60
Total Petroleum Hydrocarbons (TPHs)[5]	µg/L	1000[6]
	lbs/day[2]	3.8

[1] Interim effluent limitations were established as the 99 percentile of the individual basin's monitoring data obtained between January 2008 and February 2017. Monitoring data from the February 24, 2014, storm event were excluded because the high level of TSS may cause the very high concentrations of metals in the effluent during this severe storm event.

[2] The mass limitations in lbs/day were calculated using the concentration limits and the maximum flow rate of the individual basin as shown in Finding 3.

[3] According to Resolution No. R13-010, dry-weather effluent limitations are applicable when the maximum daily flow in Ballona Creek as measured at Stream Gage No. F38C-R is less than 64 cubic feet per second (cfs) and wet-weather effluent limitations are applicable when the maximum daily flow in Ballona Creek is equal to or greater than 64 cfs.

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[4] Since the interim effluent limitation based on the 99 percentile of the monitoring data is greater than the interim effluent limitation included in the previous TSO (R4-2013-0022A01). Pursuant to antibacksliding requirements, the previous interim effluent limitation is prescribed.

[5] TPH equals the sum of TPH gasoline (C_4-C_{12}), TPH diesel (C_{13}-C_{22}), and TPH waste oil (C_{23+}).

[6] The interim effluent limitation for TPH was proposed by the Discharger, which is less than the 99 percentile value derived from all TPH data reported during the last permit term.

The foregoing interim effluent limitations for copper, lead, zinc and TPH are in effect from February 8, 2018 through August 7, 2019. During this time, the Discharger shall investigate and implement any required upgrades to ensure compliance with the final effluent limitations contained in NPDES Order No. R4-2018-XXXX

2. Comply with the following schedule that is based on the Discharger's proposed Work Plan:

Task	Deadline
Prepare site plans, piping and instrument diagrams for proposed storm water treatment process systems based on lessons learned from previous years. Systems may vary by location depending on typical sediment loading in each basin, basin residence time, and baseline level of contaminants to be removed.	Annually by August 15 of each year (include system design for upcoming season in the previous season's August 15 semiannual report)
Installation of updated storm water treatment process systems at each basin, if applicable.	Annually by October 1 of each year
Verification sampling during rain events. Submit monitoring results in semiannual report.	September 16, 2016 – August 7, 2019 during discharge events as appropriate (include monitoring results in semiannual reports).
Development of chemical products using most efficacious chemistries identified during bench scale testing specific to flocculation of Inglewood Oil Field sediment. Emphasis on flocculation density and porosity as a function of product concentration. Submit summary of efforts in semiannual report.	9/2017 – 08/2019 and by August 7, 2019, if needed (include summary of efforts in semiannual reports).
Parametric evaluation of various chemistries and chemical products investigating floc development rate, floc size, and floc settling rate as a function of chemical application point and feed concentration. Submit summary of efforts in semiannual reports.	Annually during/after rain events when storm water is available with sufficient turbidity to conduct meaningful tests (include summary of efforts in semiannual reports).
Study and determination of sand filter design required for typical loadings, floc size and porosity from the basins. Submit summary of efforts.	Annually during/after rain events when storm water is available with sufficient turbidity to conduct meaningful tests

Task	Deadline
	(Include results of efforts in semiannual reports).
Evaluation and optimization of treatment system design (e.g., residence time required for adequate floc development, filter sizing and media sizing, pump sizing, etc.) will be ongoing with rain events. Submit summary of efforts.	Annually (include in semiannual report).
Submit Semiannual Report	February 15 and August 15 of each year.

3. Achieve full compliance with the final effluent limitations for copper, lead, zinc and TPH in Order No. R4-2018-XXXX no later than August 7, 2019.

4. Submit semiannual progress reports of efforts taken towards compliance with the final effluent limitations. The reports shall summarize the progress to date, activities conducted during the reporting period, and the activities planned for the upcoming period. Each report shall be submitted to this Regional Water Board by February 15th and August 15th for the second half of the previous reporting year and the first half of the reporting year, respectively, and include milestones completed and any new pertinent updates. The first semiannual progress report is due on August 15, 2018.

5. Submit a Pollution Prevention Plan (PPP) workplan, with the time schedule for implementation, for approval of the Executive Officer within 90 days after the adoption of this TSO, pursuant to California Water Code section 13263.3.

6. Submit a final report on the results of the implementation of the selected treatment system at each of six basins by December 15, 2019. The report shall include: a) a description of the selected treatment system, b) the monitoring data collected after the implementation of the selected treatment system, and c) an evaluation of the effectiveness of the selected treatment system.

7. All technical and monitoring reports required under this TSO are required pursuant to California Water Code sections 13267 and 13383. The Regional Water Board needs the required information in order to determine compliance with this TSO and Order No. R4-2018-XXXX. The Regional Water Board believes that the burdens, including costs, of these reports bear a reasonable relationship to the needs for the reports and the benefits to be obtained from the reports.

8. Any person signing a document submitted under this TSO shall make the following certification:

   "I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the

information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

9. If the Discharger fails to comply with any provisions of this TSO, the Regional Water Board may take any further action authorized by law. The Executive Officer, or his/her delegee, is authorized to take appropriate administrative enforcement action pursuant, but not limited to, Water Code sections 13350 and 13385. The Regional Water Board may also refer any violations to the Attorney General for judicial enforcement, including injunction and civil monetary remedies.

10. All other provisions of NPDES Order No. R4-2018-XXXX not in conflict with this TSO are in full force and effect.

11. This Time Schedule Order is effective on April 1, 2018 and expires on August 7, 2019.

I, Samuel Unger, Executive Officer, do hereby certify that the foregoing is a full, true, and correct copy of an order adopted by the California Regional Water Quality Control Board, Los Angeles Region, on February 8, 2018.

_____
Samuel Unger, P.E.
Executive Officer

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